Sample Name	10607799017_B70203Dx1
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	308SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:36:06
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	5.998898	1.0	3202.607
Be	9	2	H2	0.016862	84.0	12.000
B	11	2	H2	13.625797	7.1	8472.097
Na	23	1	He	9475.504893	0.9	12983410.640
Mg	24	1	He	85189.61930	0.9	64779839.033
Al	27	1	He	39.353865	0.4	16384.557
Si	28	2	H2	6001.054001	6.8	18347872.667
K	39	1	He	2620.826065	0.5	3060359.533
Ca	43	1	He	240239.9256	0.4	835459.723
Ca	44	1	He	246085.7723	1.4	14331024.530
Ti	47	1	He	1.631279	11.4	611.347
V	51	1	He	3.847156	1.2	32720.837
Cr	52	1	He	1.066463	1.9	11661.107
Mn	55	1	He	2266.766473	0.6	18081498.667
Fe	56	1	He	1473.772924	0.6	14238109.000
Co	59	1	He	2.547298	1.4	37995.840
Ni	60	1	He	72.928167	0.8	266357.980
Cu	63	1	He	1.052955	1.3	10109.520
Zn	66	1	He	113.169310	1.3	219197.797
As	75	1	He	17.739353	1.3	28313.197
Se	78	2	H2	76.788085	1.4	60368.620
Sr	88	1	He	421.393054	1.2	6068245.117
Mo	95	1	He	1.038763	2.1	6112.797
Pd	105	1	He	0.070764	13.0	676.697
Ag	107	1	He	1.324143	73.1	24953.503
Cd	111	1	He	1.114929	7.7	3890.313
Sn	118	1	He	0.137058	1.1	1383.403
Sb	121	1	He	0.220575	7.5	2705.240
Ba	138	1	He	37.922816	0.9	1179403.107
Pt	195	1	He	0.009922	53.3	186.673
Hg	202	1	He	0.004877	71.4	90.000
Tl	205	1	He	0.226718	2.6	10191.633
Pb	206	1	He	0.150865	3.8	2241.837
Pb	207	1	He	0.132870	11.0	2363.533
Pb	208	1	He	0.144988	2.1	9222.757
Bi	209	1	He	0.008112	53.8	1626.790
Th	232	1	He	0.020975	18.0	1353.403
U	238	1	He	1.620758	1.5	103617.273

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	69.10236366	755722.107
Sc	45	2	H2	65.95656557	4420522.250
Ge	72	1	He	66.22404160	448430.440
Ge	72	2	H2	66.94657699	1214312.830
In	115	1	He	71.46106071	5209077.893
Tb	159	1	He	76.99005233	12466398.147
Ir	193	1	He	74.94965843	5858981.163

Sample Name	10607799017_B70203Dx20
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	309SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:39:40
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	0.306980	9.1	231.833
Be	9	2	H2	0.011123	107.0	10.333
B	11	2	H2	-1.179290		1650.117
Na	23	1	He	479.109232	0.8	704764.363
Mg	24	1	He	4363.582975	1.2	3501545.260
Al	27	1	He	3.438181	5.6	1680.080
Si	28	2	H2	320.953541	4.6	1104679.667
K	39	1	He	149.220926	1.0	275680.647
Ca	43	1	He	12088.83749	1.1	44339.450
Ca	44	1	He	12477.59069	1.0	766405.880
Ti	47	1	He	0.107337	36.4	44.667
V	51	1	He	0.189048	54.0	434.363
Cr	52	1	He	0.082076	4.7	1337.387
Mn	55	1	He	113.124803	0.4	952255.047
Fe	56	1	He	76.998272	1.3	796724.167
Co	59	1	He	0.124470	4.3	2101.463
Ni	60	1	He	3.611258	1.6	15026.970
Cu	63	1	He	0.268803	2.7	2997.593
Zn	66	1	He	6.267138	1.4	13413.720
As	75	1	He	0.856730	3.9	1688.083
Se	78	2	H2	3.472432	3.8	3062.600
Sr	88	1	He	20.440073	0.9	318106.917
Mo	95	1	He	0.057541	9.1	386.677
Pd	105	1	He	0.008212	41.5	110.000
Ag	107	1	He	1.191168	79.2	24234.960
Cd	111	1	He	0.052840	7.9	201.550
Sn	118	1	He	0.144228	11.0	1565.090
Sb	121	1	He	0.012982	15.6	243.337
Ba	138	1	He	1.896876	0.3	62294.360
Pt	195	1	He	0.007445	21.9	166.667
Hg	202	1	He	0.001362	415.5	73.333
Tl	205	1	He	0.004221	28.4	826.693
Pb	206	1	He	0.036793	6.9	636.687
Pb	207	1	He	0.032305	22.6	1220.060
Pb	208	1	He	0.037146	10.9	3283.490
Bi	209	1	He	-0.001210		1276.740
Th	232	1	He	0.002296	20.5	201.667
U	238	1	He	0.078682	2.7	5491.007

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	72.87063474	796932.937
Sc	45	2	H2	73.77163819	4944301.833
Ge	72	1	He	72.29128791	489514.280
Ge	72	2	H2	74.77426300	1356295.587
In	115	1	He	77.18709304	5626470.920
Tb	159	1	He	81.13986687	13138345.220
Ir	193	1	He	80.76272086	6313401.157

Sample Name	10607799018_B70203Dx1
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	310SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:43:14
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	7.113009	2.1	3863.563
Be	9	2	H2	0.214127	11.1	102.667
B	11	2	H2	95.213395	3.5	47881.600
Na	23	1	He	11404.84231	1.2	16107095.177
Mg	24	1	He	153523.4697	1.2	120346944.873
Al	27	1	He	2976.946690	0.9	1264056.040
Si	28	2	H2	10518.36404	5.6	32753536.000
K	39	1	He	2834.699295	1.1	3404569.427
Ca	43	1	He	313836.0210	0.8	1125116.110
Ca	44	1	He	317894.3829	1.3	19084752.780
Ti	47	1	He	71.909338	1.4	27678.963
V	51	1	He	93.563839	0.9	850659.673
Cr	52	1	He	29.589887	1.4	322470.377
Mn	55	1	He	1067.668251	1.3	8779935.667
Fe	56	1	He	14148.92305	0.7	140808650.667
Co	59	1	He	10.402779	1.0	157484.630
Ni	60	1	He	757.022419	1.1	2804317.167
Cu	63	1	He	132.488258	0.1	1264804.543
Zn	66	1	He	7832.181665	0.7	15408306.000
As	75	1	He	21.300378	0.2	34516.537
Se	78	2	H2	551.589097	0.7	444834.137
Sr	88	1	He	595.911650	1.6	8574599.873
Mo	95	1	He	2.827339	1.9	16879.930
Pd	105	1	He	0.190788	17.3	1776.803
Ag	107	1	He	1.610917	67.0	30268.693
Cd	111	1	He	32.211004	1.0	112233.737
Sn	118	1	He	0.554640	2.8	5202.500
Sb	121	1	He	1.950249	2.6	23349.367
Ba	138	1	He	118.971577	1.6	3760827.443
Pt	195	1	He	0.009649	12.8	186.673
Hg	202	1	He	0.066362	21.0	456.683
Tl	205	1	He	6.773838	3.0	291757.573
Pb	206	1	He	18.886836	1.6	275767.147
Pb	207	1	He	17.232080	1.7	210810.220
Pb	208	1	He	17.624255	1.5	1015683.700
Bi	209	1	He	0.092517	4.9	5477.730
Th	232	1	He	1.012092	0.8	63375.530
U	238	1	He	3.941441	0.8	252345.743

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	71.23853532	779083.857
Sc	45	2	H2	67.23077818	4505922.167
Ge	72	1	He	67.30549314	455753.397
Ge	72	2	H2	68.69474997	1246022.127
In	115	1	He	71.41020115	5205370.540
Tb	159	1	He	78.27119232	12673843.143
Ir	193	1	He	75.08672226	5869695.747

Sample Name	10607799018_B70203Dx20
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	311SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:46:52
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	0.394979	6.6	284.500
Be	9	2	H2	0.009893	76.8	9.833
B	11	2	H2	3.757778	9.4	4270.570
Na	23	1	He	588.967853	1.2	862662.880
Mg	24	1	He	8063.657297	1.8	6463326.360
Al	27	1	He	153.834963	1.5	66941.283
Si	28	2	H2	584.208075	6.5	2010260.667
K	39	1	He	164.409197	1.0	293578.847
Ca	43	1	He	16024.45988	0.9	58724.950
Ca	44	1	He	16431.13930	0.8	1008391.237
Ti	47	1	He	3.695046	3.9	1456.067
V	51	1	He	4.674015	1.0	42172.327
Cr	52	1	He	1.533659	2.0	17484.430
Mn	55	1	He	55.207427	1.0	464710.540
Fe	56	1	He	747.837348	1.4	7619111.000
Co	59	1	He	0.517733	0.6	8488.680
Ni	60	1	He	38.536869	1.0	153884.000
Cu	63	1	He	7.047939	1.5	72460.430
Zn	66	1	He	406.529035	1.0	858740.293
As	75	1	He	0.997337	1.1	1930.440
Se	78	2	H2	23.952410	2.2	21189.587
Sr	88	1	He	28.854762	0.4	445191.943
Mo	95	1	He	0.134393	7.9	878.363
Pd	105	1	He	0.014745	37.7	173.340
Ag	107	1	He	1.185580	81.1	23944.900
Cd	111	1	He	1.719798	6.0	6424.320
Sn	118	1	He	0.159541	11.9	1701.770
Sb	121	1	He	0.096650	3.4	1311.730
Ba	138	1	He	5.963354	0.9	194624.887
Pt	195	1	He	0.003678	78.4	120.000
Hg	202	1	He	0.015039	32.8	156.673
Tl	205	1	He	0.354992	1.1	16378.517
Pb	206	1	He	0.981086	2.0	14856.983
Pb	207	1	He	0.899564	2.6	12121.350
Pb	208	1	He	0.913182	1.4	55303.553
Bi	209	1	He	0.002415	116.9	1440.097
Th	232	1	He	0.046420	3.5	3160.360
U	238	1	He	0.185163	2.4	12776.977

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	72.81107940	796281.623
Sc	45	2	H2	74.05021208	4962972.333
Ge	72	1	He	72.25358234	489258.960
Ge	72	2	H2	75.33131810	1366399.750
In	115	1	He	76.53252756	5578757.067
Tb	159	1	He	80.75420840	13075898.553
Ir	193	1	He	80.48506468	6291696.157

Sample Name	10607799019_B70203Dx1
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	312SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:50:25
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	5.508697	2.9	2976.907
Be	9	2	H2	0.014410	77.0	11.000
B	11	2	H2	20.015382	8.1	11610.523
Na	23	1	He	11726.64038	1.7	16250219.760
Mg	24	1	He	64992.86330	1.9	49991815.923
Al	27	1	He	13.231585	3.9	5690.547
Si	28	2	H2	6227.380575	5.9	19222984.000
K	39	1	He	3086.509480	1.2	3629236.193
Ca	43	1	He	231977.9954	1.4	816045.560
Ca	44	1	He	234476.2496	2.1	13812082.497
Ti	47	1	He	0.476494	39.4	182.007
V	51	1	He	0.784415	13.4	5735.653
Cr	52	1	He	0.770711	1.7	8637.423
Mn	55	1	He	863.410581	1.9	6966956.833
Fe	56	1	He	217.531076	1.5	2136429.333
Co	59	1	He	1.305591	0.7	19722.773
Ni	60	1	He	134.549233	1.4	496236.230
Cu	63	1	He	0.660326	3.1	6491.857
Zn	66	1	He	474.404197	0.4	928450.647
As	75	1	He	1.192069	4.2	2100.293
Se	78	2	H2	187.440852	1.7	149641.103
Sr	88	1	He	521.561303	1.0	7501966.137
Mo	95	1	He	0.811636	2.8	4830.717
Pd	105	1	He	0.098894	21.2	933.387
Ag	107	1	He	1.010513	77.6	19188.863
Cd	111	1	He	3.003494	0.7	10463.500
Sn	118	1	He	0.043209	14.6	523.347
Sb	121	1	He	0.179503	3.4	2211.830
Ba	138	1	He	32.507368	0.5	1017202.850
Pt	195	1	He	0.020966	29.0	316.677
Hg	202	1	He	0.006481	69.7	100.000
Tl	205	1	He	0.891234	3.1	38524.563
Pb	206	1	He	0.056111	6.6	886.703
Pb	207	1	He	0.050200	18.2	1380.070
Pb	208	1	He	0.054942	11.4	4146.907
Bi	209	1	He	0.001593	414.6	1343.417
Th	232	1	He	0.007776	6.7	533.347
U	238	1	He	2.259512	0.4	145432.693

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	69.90830176	764536.063
Sc	45	2	H2	66.63978566	4466312.833
Ge	72	1	He	66.94419394	453306.890
Ge	72	2	H2	67.99954020	1233412.040
In	115	1	He	71.37953116	5203134.883
Tb	159	1	He	77.46511844	12543321.893
Ir	193	1	He	75.47306739	5899897.203

Sample Name	10607799019_B70203Dx20
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	313SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:53:59
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	0.271857	7.1	209.667
Be	9	2	H2	0.006140	44.1	7.833
B	11	2	H2	-0.803534		1843.463
Na	23	1	He	599.256816	0.6	876208.710
Mg	24	1	He	3377.575361	1.4	2704832.253
Al	27	1	He	1.967209	1.2	1039.030
Si	28	2	H2	334.737980	5.8	1145722.837
K	39	1	He	176.174248	1.7	307159.707
Ca	43	1	He	11806.17094	1.1	43205.460
Ca	44	1	He	12119.49933	1.4	742752.060
Ti	47	1	He	0.027731	55.4	13.333
V	51	1	He	-0.095899		-2216.313
Cr	52	1	He	0.064759	2.8	1142.040
Mn	55	1	He	44.031837	1.3	370235.897
Fe	56	1	He	11.749217	1.1	132269.647
Co	59	1	He	0.062521	1.0	1092.040
Ni	60	1	He	6.885044	2.1	27978.303
Cu	63	1	He	0.042769	1.5	678.683
Zn	66	1	He	25.020015	1.5	52904.187
As	75	1	He	0.063466	26.5	314.167
Se	78	2	H2	8.595368	0.8	7496.257
Sr	88	1	He	25.282034	1.1	395121.283
Mo	95	1	He	0.035331	37.7	243.337
Pd	105	1	He	0.004512	47.4	73.333
Ag	107	1	He	0.880624	83.2	18323.080
Cd	111	1	He	0.143349	4.0	544.940
Sn	118	1	He	0.114898	8.1	1280.063
Sb	121	1	He	0.009821	17.3	203.337
Ba	138	1	He	1.632882	1.2	53822.133
Pt	195	1	He	0.004421	116.4	130.003
Hg	202	1	He	0.011057	9.1	133.333
Tl	205	1	He	0.041036	6.5	2475.217
Pb	206	1	He	0.003293	66.4	130.000
Pb	207	1	He	-0.001240		798.363
Pb	208	1	He	0.002075	68.0	1193.370
Bi	209	1	He	-0.002698		1210.073
Th	232	1	He	0.000384	11.5	73.333
U	238	1	He	0.108600	2.7	7583.587

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	72.70546752	795126.623
Sc	45	2	H2	73.35597939	4916443.667
Ge	72	1	He	72.11250005	488303.633
Ge	72	2	H2	74.15830679	1345123.043
In	115	1	He	77.52551246	5651139.643
Tb	159	1	He	81.40881290	13181893.550
Ir	193	1	He	81.11988901	6341321.783

Sample Name	10607799020_B70203Dx1
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	314SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 04:57:34
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	3.449306	4.0	1903.430
Be	9	2	H2	0.012468	65.5	10.000
B	11	2	H2	2.927600	10.0	3490.407
Na	23	1	He	8492.982955	1.3	11463866.080
Mg	24	1	He	48641.17108	1.6	36432422.793
Al	27	1	He	13.188602	3.3	5523.497
Si	28	2	H2	62.885623	6.6	204866.923
K	39	1	He	1454.148243	0.8	1713232.840
Ca	43	1	He	165540.4828	0.9	567070.753
Ca	44	1	He	168553.6028	1.2	9668723.980
Ti	47	1	He	0.363099	25.2	136.000
V	51	1	He	0.162660	79.9	185.997
Cr	52	1	He	0.659474	2.0	7253.470
Mn	55	1	He	3203.014639	0.9	25167238.667
Fe	56	1	He	8485.630810	1.6	80689349.333
Co	59	1	He	0.072307	4.5	1138.040
Ni	60	1	He	0.599426	2.2	2764.890
Cu	63	1	He	0.281341	4.5	2837.570
Zn	66	1	He	2.304511	3.4	4575.937
As	75	1	He	0.269891	2.7	610.510
Se	78	2	H2	0.114708	9.8	104.000
Sr	88	1	He	493.375459	0.9	7075653.433
Mo	95	1	He	0.424878	3.7	2486.870
Pd	105	1	He	0.076140	6.4	723.367
Ag	107	1	He	0.906509	66.1	17319.937
Cd	111	1	He	0.032165	26.1	114.253
Sn	118	1	He	0.088422	8.5	935.037
Sb	121	1	He	0.027163	12.1	393.343
Ba	138	1	He	17.148523	0.6	539905.083
Pt	195	1	He	0.007686	94.7	163.337
Hg	202	1	He	0.008089	111.8	110.000
Tl	205	1	He	0.002077	47.8	701.690
Pb	206	1	He	0.123006	6.1	1865.130
Pb	207	1	He	0.115080	7.9	2175.167
Pb	208	1	He	0.117101	2.1	7735.760
Bi	209	1	He	0.001687	86.7	1356.750
Th	232	1	He	0.007772	7.1	533.343
U	238	1	He	0.015411	6.8	1061.713

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	68.07445164	744480.583
Sc	45	2	H2	67.41688452	4518395.333
Ge	72	1	He	65.63356577	444432.083
Ge	72	2	H2	68.11418121	1235491.460
In	115	1	He	71.17405247	5188156.733
Tb	159	1	He	77.93365108	12619187.727
Ir	193	1	He	75.52029751	5903589.287

Sample Name	10607799020_B70203Dx20
Sample Type	Sample
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	315SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 05:01:09
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	0.142496	22.5	135.833
Be	9	2	H2	0.008268	37.8	9.000
B	11	2	H2	-1.749403		1360.080
Na	23	1	He	426.121472	1.6	626220.643
Mg	24	1	He	2481.524221	2.4	1985854.290
Al	27	1	He	1.751474	3.8	944.693
Si	28	2	H2	4.089993	7.4	23498.337
K	39	1	He	91.425788	3.0	205980.187
Ca	43	1	He	8260.834345	1.2	30202.740
Ca	44	1	He	8558.635739	1.3	524020.477
Ti	47	1	He	0.036355	22.4	16.667
V	51	1	He	0.006684	471.4	-1263.417
Cr	52	1	He	0.054234	3.8	1024.030
Mn	55	1	He	164.137347	1.9	1376800.420
Fe	56	1	He	437.117313	2.0	4447707.500
Co	59	1	He	0.001095	141.8	95.333
Ni	60	1	He	-0.101195		256.000
Cu	63	1	He	0.033717	15.2	581.343
Zn	66	1	He	0.246214	13.1	684.017
As	75	1	He	-0.002929		198.000
Se	78	2	H2	0.011581	42.2	23.333
Sr	88	1	He	23.613341	2.6	368663.733
Mo	95	1	He	0.025576	19.2	180.000
Pd	105	1	He	0.005852	40.2	86.667
Ag	107	1	He	2.232251	80.0	45206.517
Cd	111	1	He	0.001075	73.3	6.613
Sn	118	1	He	0.119003	2.2	1320.060
Sb	121	1	He	0.001340	122.6	93.333
Ba	138	1	He	0.859861	0.5	28627.697
Pt	195	1	He	0.004320	85.4	130.003
Hg	202	1	He	0.006589	85.2	106.667
Tl	205	1	He	-0.007262		318.340
Pb	206	1	He	0.009653	28.7	228.333
Pb	207	1	He	0.007643	56.7	918.367
Pb	208	1	He	0.009260	15.6	1636.710
Bi	209	1	He	-0.000660		1316.753
Th	232	1	He	0.000562	48.7	85.000
U	238	1	He	0.001468	79.9	175.003

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	72.63570943	794363.730
Sc	45	2	H2	74.22705277	4974824.500
Ge	72	1	He	71.52409863	484319.323
Ge	72	2	H2	73.78996117	1338441.793
In	115	1	He	77.45181218	5645767.340
Tb	159	1	He	82.05259947	13286136.883
Ir	193	1	He	80.83740106	6319239.073

Sample Name	CCV
Sample Type	CCV
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	316_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 05:04:45
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	73.406492	5.9	42035.043
Be	9	2	H2	73.719153	5.2	35959.373
B	11	2	H2	69.176353	4.8	37655.103
Na	23	1	He	2002.011213	2.2	2812183.083
Mg	24	1	He	1976.240115	2.9	1537465.913
Al	27	1	He	1919.111012	1.6	807565.937
Si	28	2	H2	946.607135	6.0	3146172.000
K	39	1	He	2049.555684	1.5	2465469.753
Ca	43	1	He	1927.917079	2.2	6856.570
Ca	44	1	He	1967.383083	1.0	117183.573
Ti	47	1	He	75.899432	2.5	28946.977
V	51	1	He	80.532811	1.5	725367.563
Cr	52	1	He	80.627726	1.7	870000.290
Mn	55	1	He	82.109539	1.2	669781.250
Fe	56	1	He	1021.943706	2.2	10089031.333
Co	59	1	He	80.956582	1.2	1289605.163
Ni	60	1	He	81.579120	1.5	318691.323
Cu	63	1	He	83.395361	1.3	838120.980
Zn	66	1	He	79.670290	1.0	165165.327
As	75	1	He	77.378656	1.2	131460.393
Se	78	2	H2	76.259763	1.8	64761.860
Sr	88	1	He	73.537413	1.1	1105014.800
Mo	95	1	He	80.766531	1.9	507014.407
Pd	105	1	He	75.473615	0.3	723836.993
Ag	107	1	He	40.048039	5.7	766345.923
Cd	111	1	He	75.935074	0.8	276274.097
Sn	118	1	He	75.388068	1.4	720199.183
Sb	121	1	He	72.377788	0.6	902126.157
Ba	138	1	He	77.847073	1.7	2504804.023
Pt	195	1	He	76.158316	1.3	912054.543
Hg	202	1	He	3.469894	1.0	21017.393
Tl	205	1	He	40.001547	1.9	1750482.370
Pb	206	1	He	79.007844	1.6	1173981.780
Pb	207	1	He	82.520795	2.0	1024499.827
Pb	208	1	He	80.882744	2.4	4740132.507
Bi	209	1	He	83.943055	2.4	3871539.217
Th	232	1	He	77.595963	0.3	5138633.047
U	238	1	He	75.375619	0.5	5105661.483

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	70.60180451	772120.397
Sc	45	2	H2	71.64818468	4801984.333
Ge	72	1	He	70.85862024	479813.093
Ge	72	2	H2	72.33296661	1312014.047
In	115	1	He	74.56274031	5435171.523
Tb	159	1	He	79.67531318	12901201.473
Ir	193	1	He	79.46385527	6211865.950

Sample Name	CCB
Sample Type	CCB
Operator	P Wilkins
Instrument	10ICM8 - 200.8 6020 A/B
Batch Name	051722.b
Data File Name	317_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	5/18/2022 05:08:19
Comment	

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD	Intensity
Li	7	2	H2	0.003682	221.7	46.833
Be	9	2	H2	0.022116	6.6	14.167
B	11	2	H2	-1.379362		1363.417
Na	23	1	He	0.478528	25.5	13391.583
Mg	24	1	He	-1.400080		1455.070
Al	27	1	He	1.106462	4.5	645.677
Si	28	2	H2	0.822843	112.0	10715.033
K	39	1	He	21.811038	13.8	119455.580
Ca	43	1	He	3.439263	33.1	19.780
Ca	44	1	He	2.546835	28.9	284.513
Ti	47	1	He	0.013050	44.2	7.333
V	51	1	He	-0.049193		-1733.967
Cr	52	1	He	-0.003659		370.010
Mn	55	1	He	-0.009913		604.680
Fe	56	1	He	0.216202	21.8	14670.640
Co	59	1	He	0.002785	61.3	120.000
Ni	60	1	He	-0.138358		107.333
Cu	63	1	He	0.003249	147.3	266.000
Zn	66	1	He	0.060410	14.4	289.333
As	75	1	He	0.008787	66.1	213.333
Se	78	2	H2	0.028987	42.4	34.000
Sr	88	1	He	0.010952	27.4	343.340
Mo	95	1	He	0.045881	20.5	301.673
Pd	105	1	He	0.005072	13.6	76.667
Ag	107	1	He	1.278798	63.3	25215.293
Cd	111	1	He	0.003828	19.2	16.577
Sn	118	1	He	0.031527	21.0	440.010
Sb	121	1	He	0.011311	39.4	216.670
Ba	138	1	He	0.006613	29.2	335.010
Pt	195	1	He	0.002808	60.7	106.667
Hg	202	1	He	0.022588	44.1	196.670
Tl	205	1	He	0.042118	17.8	2440.213
Pb	206	1	He	0.008735	46.5	205.000
Pb	207	1	He	-0.000573		778.367
Pb	208	1	He	0.006298	28.1	1395.043
Bi	209	1	He	0.005115	16.8	1523.443
Th	232	1	He	0.009794	21.2	690.023
U	238	1	He	0.006297	10.1	496.680

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec	Intensity
Sc	45	1	He	70.48551715	770848.647
Sc	45	2	H2	65.63562730	4399012.417
Ge	72	1	He	70.00689668	474045.720
Ge	72	2	H2	65.73052674	1192255.460
In	115	1	He	75.25817567	5485864.543
Tb	159	1	He	78.59088032	12725607.727
Ir	193	1	He	79.03035992	6177978.657

Prep Log Report

Batch Information: MPRP 812968 6020BS

Template Version: ENV-EPL-MIN4-0015-Rev.00 (13Dec2020)

Prep Method	EPA 3050B	Analysis Method	EPA 6020B	Prepared By	NJ1	Instrument	10BALU
Block ID	10MET04	Thermometer ID	210354350	Correction Factor (C)	0.6	Block Temp (C)	91.4
Corrected Temp. (C)	92.00	Digestion Start Date/Time	05/04/2022 14:05:20:345	Digestion End Date/Time	05/04/2022 16:09:33:772	Block End Temp (C)	96.5
Corrected End Temp. (C)	97.10	Digestion Vessel	360406	Resin Pellets Solid Matrix	344615	Metals Pipette 1	Q765
Metals Pipette 2		Bottle Disp. 1	Q791	Bottle Disp. 2	Q814	Bottle Disp. 3	Q452
Reviewed By	HTV	Reviewed By Date	05/04/2022 17:57	Batch Notes	Weighed by DJM.		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	Initial Weight (g)	Conc. HNO3 (mL)	H2O2 (mL)	Conc. HCL (mL)	Final Volume (mL)	Sample Notes	Hg-SPK (mL)	METALS-STK1 (mL)	METALS-STK2 (mL)
6020BS_P	BLANK	**4310659**	Solid	1.01	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	LCS	**4310660**	Solid	1.02	364107 (7.5)	332176 (2.5)	363604 (5)	50		363145 (.25)	343315 (.5)	343316 (.5)
6020BS_P	PS	**10606560001**	Solid	1.05	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606560002**	Solid	1.05	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	RQS	**10606560003**	Solid	1	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	MS	**4310661**	Solid	1.01	364107 (7.5)	332176 (2.5)	363604 (5)	50		363145 (.25)	343315 (.5)	343316 (.5)
6020BS_P	MSD	**4310662**	Solid	1.04	364107 (7.5)	332176 (2.5)	363604 (5)	50		363145 (.25)	343315 (.5)	343316 (.5)
6020BS_P	PS	**10606565001**	Solid	1.03	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606565002**	Solid	1.08	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606565003**	Solid	1.09	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606565004**	Solid	1.05	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606565005**	Solid	1.1	364107 (7.5)	332176 (2.5)	363604 (5)	50				
6020BS_P	PS	**10606565006**	Solid	1.01	364107 (7.5)	332176 (2.5)	363604 (5)	50				

Standard Notes:

343315: ZPACEMN-116 (MIX 1)

343316: ZPACEMN-106

363145: Intermediate Spike for ICPMS Soil

SAMPLE NO.

BNSF-SG11-042822-0-5

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565001 Percent Moisture: 25.5

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.013	J	mg/kg	1	05/19/2022 12:01

SAMPLE NO.

BNSF-E380-042822-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565002 Percent Moisture: 28.5

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.016	J	mg/kg	1	05/19/2022 12:05

SAMPLE NO.

BNSF-E320-042822-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565003 Percent Moisture: 26.9

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.024	J	mg/kg	1	05/19/2022 12:07

SAMPLE NO.

BNSF-D160-042822-0-5

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565004 Percent Moisture: 28.8

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.027		mg/kg	1	05/19/2022 12:09

SAMPLE NO.

BNSF-E460-042922-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565005 Percent Moisture: 37.7

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.021	J	mg/kg	1	05/19/2022 12:10

SAMPLE NO.

BNSF-H360-042922-0-8

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565006 Percent Moisture: 31.7

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	0.017	J	mg/kg	1	05/19/2022 12:12

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Initial Calibration Verification Source: 366885

Continuing Calibration Verification Source: 366885

Concentration Units: ug/L Instrument ID: 10HG09

	Initial Calibration Verification				Continuing Calibration Verification						
	05/19/2022 10:06				05/19/2022 10:23			05/19/2022 11:30			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	5.0	4.9	97.6	90-110	5.0	4.9	97.6	5.0	4.8	95.2	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 366885

Concentration Units: ug/L Instrument ID: 10HG09

	Continuing Calibration Verification									
	05/19/2022 11:46			05/19/2022 12:02			05/19/2022 12:15			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Mercury	5.0	4.9	97.8	5.0	4.9	97.2	5.0	4.9	98.8	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

CRDL Check Standard Source: 366880 Analysis Date/Time: 05/19/2022 10:09

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.18	90.0	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

CRDL Check Standard Source: 366880 Analysis Date/Time: 05/19/2022 10:22

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.18	90.0	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

CRDL Check Standard Source: 366489,366880 Analysis Date/Time: 05/19/2022 11:44

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.21	105.0	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

CRDL Check Standard Source: 366489,366880 Analysis Date/Time: 05/19/2022 12:14

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.19	95.0	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract : D3593500

Method Blank Matrix: Solid Instrument ID: 10HG09

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	05/19/2022 10:07	C	05/19/2022 10:25	C	05/19/2022 11:31	C	05/19/2022 11:48	C	4310667	C
Mercury	0.087	U	0.087	U	0.087	U	0.087	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract : D3593500

Method Blank Matrix: Instrument ID: 10HG09

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)					
		C	05/19/2022 12:04	C	05/19/2022 12:17	C		C
Mercury			0.087	U	0.087	U		

SAMPLE NO.

4310669MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid Basis: Dry Parent Sample ID: 10606560003

Percent Moisture: 32.6

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	mg/kg	80-120	0.66	0.012J	0.65	100

SAMPLE NO.

4310670MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid Basis: Dry Parent Sample ID: 10606560003

Percent Moisture: 32.6

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	mg/kg	80-120	0.67	0.012J	0.65	102

SAMPLE NO.

4310670MSD

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 32.6 Basis: Dry

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Mercury	20	0.66	0.67	2

SAMPLE NO.

4310668LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Mercury	mg/kg	0.46	0.48	104	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Preparation Method: None Instrument ID: 10HG09

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.087	03/30/2021

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Preparation Method: EPA 7471B Instrument ID: 10HG09

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Mercury	0.020	0.0087	03/30/2021

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Preparation Method: EPA 7471B Batch: MERP 37107

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
4310667	4310667	05/04/2022	0.357	30
4310668	4310668	05/04/2022	0.327	30
4310669	4310669	05/04/2022	0.341	30
4310670	4310670	05/04/2022	0.343	30
10606565001	BNSF-SG11-042822-0-5	05/04/2022	0.332	30
10606565002	BNSF-E380-042822-0-4	05/04/2022	0.351	30
10606565003	BNSF-E320-042822-0-4	05/04/2022	0.325	30
10606565004	BNSF-D160-042822-0-5	05/04/2022	0.355	30
10606565005	BNSF-E460-042922-0-4	05/04/2022	0.317	30
10606565006	BNSF-H360-042922-0-8	05/04/2022	0.333	30

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Instrument ID: 10HG09 Analysis Method: EPA 7471B

Start Date: 05/19/2022 09:52 End Date: 05/19/2022 12:17

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
30015984CAL0	30015984CAL0	1	05/19/2022	09:52	X
30015985CAL1	30015985CAL1	1	05/19/2022	09:54	X
30015986CAL2	30015986CAL2	1	05/19/2022	09:55	X
30015987CAL3	30015987CAL3	1	05/19/2022	09:57	X
30015988CAL4	30015988CAL4	1	05/19/2022	09:59	X
30015989CAL5	30015989CAL5	1	05/19/2022	10:00	X
30015990ICV	30015990ICV	1	05/19/2022	10:06	X
30015991ICB	30015991ICB	1	05/19/2022	10:07	X
30015992CRDL	30015992CRDL	1	05/19/2022	10:09	X
30015994CRDL	30015994CRDL	1	05/19/2022	10:22	X
30015995CCV	30015995CCV	1	05/19/2022	10:23	X
30015996CCB	30015996CCB	1	05/19/2022	10:25	X
30019872CCV	30019872CCV	1	05/19/2022	11:30	X
30019873CCB	30019873CCB	1	05/19/2022	11:31	X
30019874CRDL	30019874CRDL	1	05/19/2022	11:44	X
30019875CCV	30019875CCV	1	05/19/2022	11:46	X
30019876CCB	30019876CCB	1	05/19/2022	11:48	X
4310667BLANK	4310667	1	05/19/2022	11:49	X
4310668LCS	4310668	1	05/19/2022	11:51	X
10606560003	10606560003	1	05/19/2022	11:56	X
4310669MS	4310669	1	05/19/2022	11:57	X
4310670MSD	4310670	1	05/19/2022	11:59	X
BNSF-SG11-042822-0-5	10606565001	1	05/19/2022	12:01	X
30019877CCV	30019877CCV	1	05/19/2022	12:02	X
30019878CCB	30019878CCB	1	05/19/2022	12:04	X
BNSF-E380-042822-0-4	10606565002	1	05/19/2022	12:05	X
BNSF-E320-042822-0-4	10606565003	1	05/19/2022	12:07	X
BNSF-D160-042822-0-5	10606565004	1	05/19/2022	12:09	X
BNSF-E460-042922-0-4	10606565005	1	05/19/2022	12:10	X
BNSF-H360-042922-0-8	10606565006	1	05/19/2022	12:12	X
30019879CRDL	30019879CRDL	1	05/19/2022	12:14	X
30019880CCV	30019880CCV	1	05/19/2022	12:15	X
30019881CCB	30019881CCB	1	05/19/2022	12:17	X

Report Generated By Teledyne Leeman QuickTrace

Analyst: 10metalsuser,LENA WIGER

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\19MAY22SOLIDS10HG09.wszf

Creation Date: 5/19/2022 9:42:53 AM

Comment: EPA 7471/7471B

Results

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
Calibration Blank	STD	05/19/22 09:52:31 am	0.00	360	4.97			1.0000	N/A
Replicates	355.7	359.1	383.4	340.1					
Standard #1 (0.2 ug/L)	STD	05/19/22 09:54:08 am	0.20	1876	0.36	-3.33%		1.0000	N/A
Replicates	1883.2	1877.0	1866.8	1877.5					
Standard #2 (1 ug/L)	STD	05/19/22 09:55:45 am	1.00	8160	0.20	-1.38%		1.0000	N/A
Replicates	8141.7	8152.1	8165.6	8179.4					
Standard #3 (3 ug/L)	STD	05/19/22 09:57:22 am	3.00	24631	0.25	2.15%		1.0000	N/A
Replicates	24550.2	24626.2	24698.2	24648.5					
Standard #4 (5 ug/L)	STD	05/19/22 09:59:00 am	5.00	39522	0.17	-1.13%		1.0000	N/A
Replicates	39421.2	39553.3	39550.8	39562.6					
Standard #5 (10 ug/L)	STD	05/19/22 10:00:38 am	10.00	79678	0.41	0.10%		1.0000	N/A
Replicates	79236.2	79655.2	79812.5	80007.2					

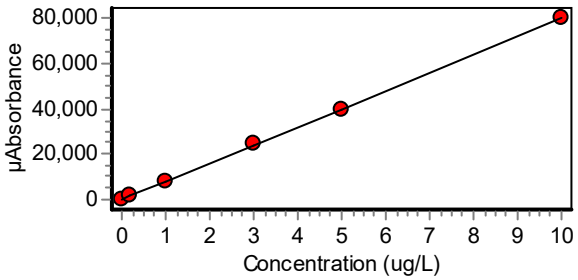
Calibration

Equation: Abs = 7925.164x + 343.805

R2: 0.99990 RSE: 2.51%

SEE: 347.7650

Flags:



ICV	ICV	05/19/22 10:06:19 am	4.88	39030	0.28			1.0000	97.63
Replicates	38892.9	39021.6	39048.6	39158.1					
ICB	ICB	05/19/22 10:07:58 am	0.00	337	321.80			1.0000	N/A
Replicates	356.0	317.8	321.3	354.5					
CRDL	CRDL	05/19/22 10:09:35 am	0.18	1755	1.50			1.0000	89.03
Replicates	1727.6	1748.8	1771.8	1771.3					
4322608_43684	UNK	05/19/22 10:12:30 am	0.02	463	14.06			1.0000	N/A
Replicates	475.4	449.3	448.3	480.1					
4322609_43684	UNK	05/19/22 10:14:07 am	5.19	41457	0.10			1.0000	N/A
Replicates	41401.0	41483.6	41447.9	41493.9					
92604256001_43684	UNK	05/19/22 10:15:43 am	0.16	1639	0.67			1.0000	N/A
Replicates	1649.4	1632.4	1643.4	1631.7					
4322610_43684	UNK	05/19/22 10:17:20 am	5.31	42418	0.21			1.0000	N/A
Replicates	42294.3	42496.7	42466.0	42415.2					

Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
4322611_43684					UNK	05/19/22 10:18:57 am	5.27	42075	0.16			1.0000	N/A
	Replicates	41975.9	42103.0	42099.2	42122.2								
92604256002_43684					UNK	05/19/22 10:20:34 am	0.45	3874	0.25			1.0000	N/A
	Replicates	3869.6	3863.1	3880.3	3881.8								
CRDL					CRDL	05/19/22 10:22:11 am	0.18	1789	1.98			1.0000	91.19
	Replicates	1755.8	1808.6	1816.9	1775.6								
CCV					CCV	05/19/22 10:23:50 am	4.88	39008	0.48			1.0000	97.57
	Replicates	38753.8	38988.8	39121.3	39168.0								
CCB					CCB	05/19/22 10:25:28 am	0.00	339	281.65			1.0000	N/A
	Replicates	319.2	340.2	344.7	351.4								
4322612_43705					UNK	05/19/22 10:27:06 am	0.03	615	5.51			1.0000	N/A
	Replicates	604.0	623.0	600.8	631.8								
4322613_43705					UNK	05/19/22 10:28:43 am	5.05	40362	0.15			1.0000	N/A
	Replicates	40273.7	40392.7	40370.7	40409.7								
10608219001_43705					UNK	05/19/22 10:30:20 am	0.11	1201	2.92			1.0000	N/A
	Replicates	1223.1	1165.7	1201.2	1212.9								
4322614_43705					UNK	05/19/22 10:31:58 am	5.30	42382	0.89			1.0000	N/A
	Replicates	42869.7	42476.0	42125.5	42056.8								
4322615_43705					UNK	05/19/22 10:33:36 am	5.09	40717	0.61			1.0000	N/A
	Replicates	40377.5	40686.0	40889.8	40913.0								
10608219002_43705					UNK	05/19/22 10:35:14 am	0.13	1355	1.04			1.0000	N/A
	Replicates	1341.5	1359.7	1353.5	1366.2								
10608219003_43705					UNK	05/19/22 10:36:50 am	0.12	1296	2.61			1.0000	N/A
	Replicates	1270.0	1283.5	1327.2	1302.7								
10608219004_43705					UNK	05/19/22 10:38:54 am	0.26	2382	1.11			1.0000	N/A
	Replicates	2411.1	2371.7	2387.7	2358.7								
CCV					CCV	05/19/22 10:40:32 am	4.88	38991	2.37			1.0000	97.53
	Replicates	40278.0	38986.2	38193.9	38507.7								
CCB					CCB	05/19/22 10:42:11 am	0.01	409	18.31			1.0000	N/A
	Replicates	416.3	408.4	418.9	392.4								
10608319001_43705					UNK	05/19/22 10:43:48 am	0.15	1539	1.96			1.0000	N/A
	Replicates	1517.5	1527.8	1571.6	1538.3								
10608319002_43705					UNK	05/19/22 10:45:25 am	0.09	1063	1.35			1.0000	N/A
	Replicates	1068.2	1048.6	1069.1	1066.1								
10608319003_43705					UNK	05/19/22 10:47:02 am	0.40	3484	1.12			1.0000	N/A
	Replicates	3448.3	3458.5	3514.3	3513.8								
10608319004_43705					UNK	05/19/22 10:48:39 am	0.30	2738	0.48			1.0000	N/A
	Replicates	2736.6	2740.5	2723.3	2751.0								

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
10608319005_43705	UNK	05/19/22 10:50:16 am	1.81	14673	0.10		1.0000	N/A
Replicates	14659.8	14671.4	14668.4	14693.7				
10608319006_43705	UNK	05/19/22 10:51:53 am	0.49	4264	0.74		1.0000	N/A
Replicates	4250.8	4229.7	4285.2	4290.7				
10608319007_43705	UNK	05/19/22 10:53:31 am	0.30	2706	0.67		1.0000	N/A
Replicates	2693.0	2691.8	2715.3	2723.0				
10608319008_43705	UNK	05/19/22 10:55:08 am	0.61	5139	0.22		1.0000	N/A
Replicates	5126.6	5145.1	5134.1	5149.8				
CCV	CCV	05/19/22 10:56:47 am	4.75	37995	1.66		1.0000	95.02
Replicates	38924.0	37745.1	37581.1	37727.9				
CCB	CCB	05/19/22 10:58:26 am	0.01	423	17.00		1.0000	N/A
Replicates	414.9	438.1	409.3	431.3				
10608319009_43705	UNK	05/19/22 11:00:04 am	0.12	1279	1.20		1.0000	N/A
Replicates	1280.7	1284.4	1288.7	1263.2				
10608319010_43705	UNK	05/19/22 11:01:42 am	0.09	1071	1.63		1.0000	N/A
Replicates	1081.3	1055.0	1078.5	1069.2				
10608319011_43705	UNK	05/19/22 11:03:18 am	0.20	1930	1.67		1.0000	N/A
Replicates	1909.7	1965.4	1933.9	1909.2				
10608319012_43705	UNK	05/19/22 11:04:55 am	0.12	1286	1.44		1.0000	N/A
Replicates	1295.3	1289.0	1293.0	1265.8				
10608319013_43705	UNK	05/19/22 11:06:31 am	0.08	1001	1.32		1.0000	N/A
Replicates	997.4	1009.3	990.3	1006.3				
10608319014_43705	UNK	05/19/22 11:08:08 am	0.10	1168	1.41		1.0000	N/A
Replicates	1164.2	1159.2	1185.5	1164.7				
CRDL	CRDL	05/19/22 11:09:45 am	0.21	2023	0.68		1.0000	105.92
Replicates	2024.6	2006.8	2025.1	2034.1				
CCV	CCV	05/19/22 11:11:24 am	4.91	39278	0.33		1.0000	98.26
Replicates	39093.9	39327.0	39381.5	39310.5				
CCB	CCB	05/19/22 11:13:02 am	0.01	400	27.39		1.0000	N/A
Replicates	378.4	401.6	408.3	413.6				
4322620_43706	UNK	05/19/22 11:14:39 am	0.04	696	4.94		1.0000	N/A
Replicates	703.2	672.1	694.6	712.9				
4322621_43706	UNK	05/19/22 11:16:16 am	5.11	40844	1.88		1.0000	N/A
Replicates	39791.7	40772.3	41443.0	41367.3				
10608062001Dx20_43706	UNK	05/19/22 11:17:54 am	0.18	1740	0.49		1.0000	N/A
Replicates	1729.9	1742.5	1745.8	1739.8				
10608062001_43706	UNK	05/19/22 11:20:24 am	4.05	32409	0.22		1.0000	N/A
Replicates	32334.8	32364.7	32455.9	32482.4				

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
4322622_43706	UNK	05/19/22 11:22:02 am	6.90	55013	0.56		1.0000	N/A
Replicates	54604.5	55006.0	55340.5	55102.0				
4322623_43706	UNK	05/19/22 11:23:39 am	8.31	66200	0.22		1.0000	N/A
Replicates	66019.1	66215.7	66197.9	66367.2				
10608092001Dx20_43706	UNK	05/19/22 11:25:17 am	-0.03	91	5.34		1.0000	N/A
Replicates	80.7	102.0	77.8	103.0				
10608092002Dx20_43706	UNK	05/19/22 11:26:54 am	-0.03	120	3.55		1.0000	N/A
Replicates	110.9	127.0	126.3	115.8				
CRDL	CRDL	05/19/22 11:28:32 am	0.20	1960	0.99		1.0000	101.94
Replicates	1944.6	1960.4	1951.6	1981.4				
CCV	CCV	05/19/22 11:30:10 am	4.76	38102	0.56		1.0000	95.29
Replicates	37805.3	38100.4	38242.6	38261.6				
CCB	CCB	05/19/22 11:31:49 am	0.01	417	8.72		1.0000	N/A
Replicates	423.1	414.6	409.6	422.1				
4322628_43686	UNK	05/19/22 11:33:27 am	0.03	554	4.28		1.0000	N/A
Replicates	552.4	557.0	564.5	543.0				
4322629_43686	UNK	05/19/22 11:35:04 am	5.23	41766	0.39		1.0000	N/A
Replicates	41675.6	41645.1	41744.1	41999.3				
10608351001_43686	UNK	05/19/22 11:36:40 am	0.17	1675	0.95		1.0000	N/A
Replicates	1659.6	1678.9	1670.7	1689.4				
4322630_43686	UNK	05/19/22 11:38:17 am	5.37	42888	0.17		1.0000	N/A
Replicates	42797.6	42940.3	42956.1	42857.6				
4322631_43686	UNK	05/19/22 11:39:54 am	5.33	42606	0.18		1.0000	N/A
Replicates	42492.8	42623.1	42655.4	42654.6				
10608351002_43686	UNK	05/19/22 11:41:31 am	0.23	2165	0.78		1.0000	N/A
Replicates	2162.9	2148.4	2166.1	2183.1				
10608351003_43686	UNK	05/19/22 11:43:08 am	0.23	2190	0.80		1.0000	N/A
Replicates	2204.0	2186.3	2170.3	2197.8				
CRDL	CRDL	05/19/22 11:44:45 am	0.21	1971	0.87		1.0000	102.66
Replicates	1950.7	1979.8	1981.5	1971.8				
CCV	CCV	05/19/22 11:46:24 am	4.89	39076	0.34		1.0000	97.74
Replicates	38892.4	39072.6	39147.1	39190.1				
CCB	CCB	05/19/22 11:48:03 am	0.01	393	15.65		1.0000	N/A
Replicates	393.8	395.9	382.2	400.2				
4310667_43574	UNK	05/19/22 11:49:40 am	0.03	601	9.53		1.0000	N/A
Replicates	571.4	595.4	629.9	609.1				
4310668_43574	UNK	05/19/22 11:51:18 am	5.22	41746	0.23		1.0000	N/A
Replicates	41634.9	41841.9	41807.4	41699.7				

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
10606560001_43574	UNK	05/19/22 11:52:55 am	0.14	1480	1.31		1.0000	N/A
Replicates	1482.7	1494.1	1459.1	1484.6				
10606560002_43574	UNK	05/19/22 11:54:33 am	0.12	1310	1.08		1.0000	N/A
Replicates	1312.5	1320.5	1311.0	1295.5				
10606560003_43574	UNK	05/19/22 11:56:11 am	0.09	1073	3.00		1.0000	N/A
Replicates	1051.8	1096.4	1057.6	1087.1				
4310669_43574	UNK	05/19/22 11:57:49 am	5.07	40530	0.29		1.0000	N/A
Replicates	40394.8	40660.5	40581.2	40484.7				
4310670_43574	UNK	05/19/22 11:59:26 am	5.20	41587	0.09		1.0000	N/A
Replicates	41554.3	41594.7	41560.7	41638.9				
10606565001_43574	UNK	05/19/22 12:01:03 pm	0.11	1242	3.05		1.0000	N/A
Replicates	1201.3	1255.0	1251.3	1260.5				
CCV	CCV	05/19/22 12:02:41 pm	4.86	38845	0.35		1.0000	97.16
Replicates	38647.1	38936.6	38873.4	38923.6				
CCB	CCB	05/19/22 12:04:20 pm	0.00	336	102.44		1.0000	N/A
Replicates	337.8	324.9	342.7	339.4				
10606565002_43574	UNK	05/19/22 12:05:57 pm	0.13	1379	1.66		1.0000	N/A
Replicates	1377.2	1403.8	1371.1	1364.6				
10606565003_43574	UNK	05/19/22 12:07:34 pm	0.19	1824	1.08		1.0000	N/A
Replicates	1812.7	1830.3	1844.0	1810.0				
10606565004_43574	UNK	05/19/22 12:09:11 pm	0.23	2168	0.97		1.0000	N/A
Replicates	2166.1	2173.1	2187.3	2144.8				
10606565005_43574	UNK	05/19/22 12:10:48 pm	0.14	1441	1.06		1.0000	N/A
Replicates	1431.7	1450.4	1429.9	1451.4				
10606565006_43574	UNK	05/19/22 12:12:25 pm	0.13	1401	0.84		1.0000	N/A
Replicates	1396.8	1397.1	1396.9	1414.6				
CRDL	CRDL	05/19/22 12:14:03 pm	0.19	1871	1.73		1.0000	96.36
Replicates	1870.7	1871.3	1903.8	1839.0				
CCV	CCV	05/19/22 12:15:41 pm	4.94	39493	0.47		1.0000	98.80
Replicates	39220.6	39546.9	39609.9	39595.9				
CCB	CCB	05/19/22 12:17:20 pm	0.00	313	78.49		1.0000	N/A
Replicates	306.8	329.6	334.4	282.1				
4316296_43657	UNK	05/19/22 12:18:58 pm	-0.04	17	1.28		1.0000	N/A
Replicates	11.8	21.3	19.5	16.0				
10608092001_43706	UNK	05/19/22 12:21:07 pm	0.04	697	2.96		1.0000	N/A
Replicates	708.5	684.2	701.5	693.5				
10608092002_43706	UNK	05/19/22 12:22:45 pm	0.05	735	4.11		1.0000	N/A
Replicates	719.4	722.5	750.5	746.7				

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
4316297_43657				UNK	05/19/22 12:24:23 pm	5.02	40126	0.16			1.0000	N/A
Replicates	40034.9	40153.8	40185.3	40129.5								
10606637001_43657				UNK	05/19/22 12:26:00 pm	-0.03	72	9.94			1.0000	N/A
Replicates	66.1	92.0	93.5	36.0								
4316298_43657				UNK	05/19/22 12:27:38 pm	4.38	35090	1.17			1.0000	N/A
Replicates	34671.8	34815.1	35380.3	35491.6								
4316299_43657				UNK	05/19/22 12:29:16 pm	4.48	35880	1.49			1.0000	N/A
Replicates	35199.2	35719.3	36310.8	36290.8								
10606842001_43657				UNK	05/19/22 12:30:54 pm	-0.05	-69	2.97			1.0000	N/A
Replicates	-60.7	-58.8	-72.5	-85.3								
CRDL				CRDL	05/19/22 12:32:31 pm	0.19	1821	0.69			1.0000	93.20
Replicates	1822.0	1807.8	1822.3	1832.5								
CCV				CCV	05/19/22 12:34:09 pm	4.81	38465	0.48			1.0000	96.20
Replicates	38207.0	38556.6	38628.1	38470.1								
CCB				CCB	05/19/22 12:35:48 pm	0.00	363	111.56			1.0000	N/A
Replicates	341.0	384.5	348.7	376.2								
4323775_43718				UNK	05/19/22 12:37:26 pm	0.04	661	3.31			1.0000	N/A
Replicates	657.1	667.3	648.8	672.3								
4323776_43718				UNK	05/19/22 12:39:04 pm	4.99	39873	0.44			1.0000	N/A
Replicates	39700.7	39772.6	39926.3	40092.1								
10608532001_43718				UNK	05/19/22 12:40:43 pm	0.21	1987	1.18			1.0000	N/A
Replicates	1989.0	2013.2	1977.9	1967.9								
4323777_43718				UNK	05/19/22 12:42:21 pm	5.05	40370	0.28			1.0000	N/A
Replicates	40322.9	40276.3	40350.6	40531.6								
4323778_43718				UNK	05/19/22 12:43:59 pm	5.18	41357	0.27			1.0000	N/A
Replicates	41301.2	41286.6	41316.4	41523.6								
10608532002_43718				UNK	05/19/22 12:45:37 pm	0.28	2536	0.50			1.0000	N/A
Replicates	2528.4	2552.2	2529.7	2533.9								
10608532003_43718				UNK	05/19/22 12:47:15 pm	0.14	1419	2.64			1.0000	N/A
Replicates	1447.5	1416.4	1432.2	1381.2								
10608532004_43718				UNK	05/19/22 12:48:53 pm	0.31	2811	1.07			1.0000	N/A
Replicates	2779.0	2808.5	2812.3	2843.8								
CCV				CCV	05/19/22 12:50:32 pm	4.81	38487	0.35			1.0000	96.26
Replicates	38302.2	38479.3	38577.0	38588.8								
CCB				CCB	05/19/22 12:52:11 pm	0.01	406	59.29			1.0000	N/A
Replicates	380.4	397.6	385.1	459.6								
10608536001_43718				UNK	05/19/22 12:53:49 pm	0.25	2308	1.96			1.0000	N/A
Replicates	2257.8	2299.7	2347.2	2325.4								

Sample Name			Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
10608536002_43718			UNK	05/19/22 12:55:27 pm	0.06	800	4.17		1.0000	N/A
Replicates	813.5	813.5	773.2	798.0						
10608536003_43718			UNK	05/19/22 12:57:05 pm	0.06	812	4.72		1.0000	N/A
Replicates	783.6	811.0	837.5	815.2						
10608536004_43718			UNK	05/19/22 12:58:43 pm	0.12	1291	0.89		1.0000	N/A
Replicates	1290.2	1281.1	1301.6	1291.8						
10608536005_43718			UNK	05/19/22 01:00:21 pm	0.07	868	1.45		1.0000	N/A
Replicates	869.3	862.0	862.0	878.0						
10608536006_43718			UNK	05/19/22 01:02:00 pm	0.18	1802	0.61		1.0000	N/A
Replicates	1800.4	1790.0	1811.3	1804.5						
10608536007_43718			UNK	05/19/22 01:03:38 pm	0.10	1123	1.70		1.0000	N/A
Replicates	1104.4	1124.4	1127.9	1135.4						
10608536008_43718			UNK	05/19/22 01:05:16 pm	0.24	2217	1.11		1.0000	N/A
Replicates	2192.8	2228.0	2206.3	2239.0						
CRDL			CRDL	05/19/22 01:06:53 pm	0.20	1928	0.91		1.0000	99.97
Replicates	1937.0	1923.9	1942.7	1910.2						
CCV			CCV	05/19/22 01:08:32 pm	4.83	38632	0.40		1.0000	96.62
Replicates	38409.9	38676.0	38749.0	38694.0						
CCB			CCB	05/19/22 01:10:11 pm	0.00	378	53.02		1.0000	N/A
Replicates	399.7	368.3	358.8	386.0						
4323779_43715			UNK	05/19/22 01:11:49 pm	-0.03	100	4.71		1.0000	N/A
Replicates	113.8	95.3	87.3	104.5						
4323780_43715			UNK	05/19/22 01:13:27 pm	4.99	39902	0.21		1.0000	N/A
Replicates	39802.0	39952.4	39988.6	39864.9						
92604347011_43715			UNK	05/19/22 01:15:05 pm	0.02	490	9.23		1.0000	N/A
Replicates	505.5	496.8	476.1	481.8						
4323781_43715			UNK	05/19/22 01:16:43 pm	4.98	39836	0.35		1.0000	N/A
Replicates	39725.5	39746.0	39841.0	40029.7						
4323782_43715			UNK	05/19/22 01:18:22 pm	5.01	40026	0.18		1.0000	N/A
Replicates	39938.8	40074.7	40093.9	39994.9						
92604347012_43715			UNK	05/19/22 01:20:00 pm	-0.01	293	49.37		1.0000	N/A
Replicates	308.1	305.6	256.1	303.6						
CRDL			CRDL	05/19/22 01:21:37 pm	0.19	1859	0.92		1.0000	95.57
Replicates	1858.6	1866.9	1838.9	1869.9						
CCV			CCV	05/19/22 01:23:15 pm	4.71	37676	0.33		1.0000	94.21
Replicates	37500.4	37681.6	37739.6	37780.6						
CCB			CCB	05/19/22 01:24:54 pm	-0.01	301	26.30		1.0000	N/A
Replicates	298.9	296.1	292.6	317.6						

Sample Name		Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
4323787_43716		UNK	05/19/22 01:26:32 pm	0.04	638	4.45		1.0000	N/A
Replicates	621.9	634.5	644.3	652.3					
4323788_43716		UNK	05/19/22 01:28:10 pm	4.92	39359	0.37		1.0000	N/A
Replicates	39294.1	39224.1	39357.1	39560.4					
10608548002_43716		UNK	05/19/22 01:29:49 pm	0.08	997	0.85		1.0000	N/A
Replicates	998.9	995.7	1003.5	990.2					
4323789_43716		UNK	05/19/22 01:31:27 pm	5.05	40403	0.63		1.0000	N/A
Replicates	40065.1	40367.8	40636.6	40542.8					
4323790_43716		UNK	05/19/22 01:33:05 pm	5.02	40167	0.30		1.0000	N/A
Replicates	39988.5	40200.5	40255.0	40223.0					
10608548004_43716		UNK	05/19/22 01:34:44 pm	0.08	976	2.07		1.0000	N/A
Replicates	987.7	984.5	958.5	974.7					
10608548006_43716		UNK	05/19/22 01:36:22 pm	0.09	1057	1.57		1.0000	N/A
Replicates	1055.0	1051.7	1047.2	1072.7					
10608548008_43716		UNK	05/19/22 01:38:00 pm	0.13	1383	1.43		1.0000	N/A
Replicates	1383.8	1372.4	1373.2	1404.4					
CCV		CCV	05/19/22 01:39:39 pm	4.75	38016	0.46		1.0000	95.07
Replicates	37782.1	37994.3	38121.1	38165.3					
CCB		CCB	05/19/22 01:41:18 pm	0.00	329	14.69		1.0000	N/A
Replicates	325.3	330.1	328.9	329.9					
10608548010_43716		UNK	05/19/22 01:42:56 pm	0.12	1260	1.64		1.0000	N/A
Replicates	1242.4	1274.5	1252.8	1270.0					
10608548012_43716		UNK	05/19/22 01:44:34 pm	0.14	1456	0.66		1.0000	N/A
Replicates	1450.3	1456.4	1450.4	1465.9					
10608548014_43716		UNK	05/19/22 01:46:12 pm	0.01	442	20.08		1.0000	N/A
Replicates	444.8	418.8	466.6	437.8					
CRDL		CRDL	05/19/22 01:47:49 pm	0.21	1973	0.28		1.0000	102.78
Replicates	1968.3	1971.1	1972.9	1979.1					
CCV		CCV	05/19/22 01:49:28 pm	4.91	39229	0.62		1.0000	98.13
Replicates	38874.9	39302.2	39421.2	39318.7					
CCB		CCB	05/19/22 01:51:48 pm	0.00	360	132.46		1.0000	N/A
Replicates	345.7	338.7	383.2	370.7					
4326253_43743		UNK	05/19/22 01:53:24 pm	0.02	536	7.14		1.0000	N/A
Replicates	521.8	538.6	554.1	530.3					
4326254_43743		UNK	05/19/22 01:55:01 pm	5.04	40296	0.30		1.0000	N/A
Replicates	40210.5	40406.5	40389.3	40177.0					
4326255_43743		UNK	05/19/22 01:56:38 pm	4.96	39646	0.34		1.0000	N/A
Replicates	39461.7	39702.7	39771.7	39647.7					

Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
10608606001_43743					UNK	05/19/22 01:58:15 pm	0.01	461	6.91			1.0000	N/A
	Replicates	472.9	457.8	454.8	458.3								
BLANK					UNK	05/19/22 01:59:51 pm	0.02	486	4.61			1.0000	N/A
	Replicates	486.4	488.8	492.8	477.3								
CRDL					CRDL	05/19/22 02:01:28 pm	0.19	1841	0.50			1.0000	94.43
	Replicates	1848.5	1832.1	1845.1	1836.6								
CCV					CCV	05/19/22 02:03:07 pm	4.83	38615	0.22			1.0000	96.58
	Replicates	38489.7	38668.5	38651.5	38651.5								
CCB					CCB	05/19/22 02:04:45 pm	0.00	316	40.36			1.0000	N/A
	Replicates	310.8	323.8	301.8	326.0								

Prep Log Report

Batch Information: MERP 812970 7471BS

Template Version: ENV-EPL-MIN4-0028-Rev.00 (13Dec2020)

Prep Method	EPA 7471B	Analysis Method	EPA 7471B	Prepared By	HTV	Instrument	10BALT
Block ID	10MET54	Thermometer ID	210354363	Correction Factor (C)	0.8	Block Temp (C)	93.9
Corrected Temp. (C)	94.70	Digestion Start Date/Time	05/04/2022 16:12:32:014	Digestion End Date/Time	05/04/2022 16:07:02:163	Block End Temp (C)	97.3
Corrected End Temp. (C)	98.10	Digestion Vessel	360406	Resin Pellets Solid Matrix	344615	Metals Pipette 1	Q473
Metals Pipette 2	Q778	Bottle Disp. 1	Q791	Bottle Disp. 2	Q452	Bottle Disp. 3	Q814
Bottle Disp. 4	Q671	Bottle Disp. 5		Reviewed By	NJ1	Reviewed By Date	05/04/2022 17:52
Batch Notes	Weighed by DJM.						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	Initial Weight (g)	Aqua Regia (mL)	5% KMnO4 (mL)	12% NH2OH*HCL (mL)	Final Volume (mL)	Sample Notes	MERCURY-SPK (mL)
7471B S_P	BLANK	**4310667**	Solid	0.357	364253 (3)	362590 (9)	363339 (3.6)	30		
7471B S_P	LCS	**4310668**	Solid	0.327	364253 (3)	364250 (9)	363339 (3.6)	30		350870 (.15)
7471B S_P	PS	**10606560001**	Solid	0.339	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606560002**	Solid	0.36	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	RQS	**10606560003**	Solid	0.326	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	MS	**4310669**	Solid	0.341	364253 (3)	364250 (9)	363339 (3.6)	30		350870 (.15)
7471B S_P	MSD	**4310670**	Solid	0.343	364253 (3)	364250 (9)	363339 (3.6)	30		350870 (.15)
7471B S_P	PS	**10606565001**	Solid	0.332	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606565002**	Solid	0.351	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606565003**	Solid	0.325	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606565004**	Solid	0.355	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606565005**	Solid	0.317	364253 (3)	364250 (9)	363339 (3.6)	30		
7471B S_P	PS	**10606565006**	Solid	0.333	364253 (3)	364250 (9)	363339 (3.6)	30		

Standard Notes:

350870: LCS, MS, MSD Spike Solution

SAMPLE NO.

BNSF-SG11-042822-0-5

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	25.5		%	1	05/24/2022 11:01

SAMPLE NO.

BNSF-E380-042822-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	28.5		%	1	05/24/2022 11:01

SAMPLE NO.

BNSF-E320-042822-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	26.9		%	1	05/24/2022 11:01

SAMPLE NO.

BNSF-D160-042822-0-5

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	28.8		%	1	05/24/2022 11:02

SAMPLE NO.

BNSF-E460-042922-0-4

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	37.7		%	1	05/24/2022 11:02

SAMPLE NO.

BNSF-H360-042922-0-8

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Lab Sample ID: 10606565006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	31.7		%	1	05/24/2022 11:02

SAMPLE NO.

4330955DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	25.5	23.2	9

SAMPLE NO.

4331539DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	22.2	17.0	26

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Preparation Method: ASTM D2974 Batch: MPRP 124597

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4330955	4330955	05/24/2022	1	1
4331539	4331539	05/24/2022	1	1
10606565001	BNSF-SG11-042822-0-5	05/24/2022	1	1
10606565002	BNSF-E380-042822-0-4	05/24/2022	1	1
10606565003	BNSF-E320-042822-0-4	05/24/2022	1	1
10606565004	BNSF-D160-042822-0-5	05/24/2022	1	1
10606565005	BNSF-E460-042922-0-4	05/24/2022	1	1
10606565006	BNSF-H360-042922-0-8	05/24/2022	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10606565 Contract: D3593500

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 05/24/2022 11:01 End Date: 05/24/2022 11:04

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BNSF-SG11-042822-0-5	10606565001	1	05/24/2022	11:01	X
4330955DUP	4330955	1	05/24/2022	11:01	X
BNSF-E380-042822-0-4	10606565002	1	05/24/2022	11:01	X
BNSF-E320-042822-0-4	10606565003	1	05/24/2022	11:01	X
BNSF-D160-042822-0-5	10606565004	1	05/24/2022	11:02	X
BNSF-E460-042922-0-4	10606565005	1	05/24/2022	11:02	X
BNSF-H360-042922-0-8	10606565006	1	05/24/2022	11:02	X
10608933001	10608933001	1	05/24/2022	11:03	X
4331539DUP	4331539	1	05/24/2022	11:04	X

Prep Log Report

Batch Information: 817130 124597 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 05/24/2022 11:25 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 05/25/2022 08:00 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 05/25/2022 08:00 | JDL	Desic. Out 1 Date/Time | Init	05/25/2022 08:30 | JDL	Reviewed By	CR2
Reviewed By Date	05/25/2022 09:30	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10606565001**	Y		74.48	25.52	05/24/2022 11:01:13	7.7254	1.2631	9.9396	7.7254	M	
DRY WEIGHT	DUP	**4330955**	Y		76.76	23.24	05/24/2022 11:01:25	7.9583	1.2713	9.9828	7.9583	M	
DRY WEIGHT	PS	**10606565002**	Y		71.46	28.54	05/24/2022 11:01:40	7.0059	1.2621	9.3004	7.0059	M	
DRY WEIGHT	PS	**10606565003**	Y		73.12	26.88	05/24/2022 11:01:51	7.3065	1.2731	9.5242	7.3065	M	
DRY WEIGHT	PS	**10606565004**	Y		71.19	28.81	05/24/2022 11:02:04	7.2115	1.2676	9.6166	7.2115	M	
DRY WEIGHT	PS	**10606565005**	Y		62.32	37.68	05/24/2022 11:02:16	6.2866	1.2737	9.3178	6.2866	M	
DRY WEIGHT	PS	**10606565006**	Y		68.32	31.68	05/24/2022 11:02:27	6.6614	1.2775	9.1577	6.6614	M	
DRY WEIGHT	PS	**10608865001**	Y		95.23	4.769	05/24/2022 11:02:38	9.1802	1.2753	9.5761	9.1802	M	
DRY WEIGHT	PS	**10609518001**	Y		99.07	0.9275	05/24/2022 11:02:50	9.3677	1.2712	9.4435	9.3677	M	
DRY WEIGHT	PS	**10609518002**	Y		97.79	2.212	05/24/2022 11:03:02	9.5094	1.2737	9.6957	9.5094	M	
DRY WEIGHT	PS	**10609518003**	Y		99.02	0.9833	05/24/2022 11:03:14	9.1335	1.2792	9.2115	9.1335	M	
DRY WEIGHT	PS	**10609549001**	Y		92.66	7.342	05/24/2022 11:03:30	9.0783	1.2689	9.6971	9.0783	M	
DRY WEIGHT	PS	**10608775001**	Y		92.19	7.815	05/24/2022 11:03:41	8.7868	1.2771	9.4234	8.7868	M	
DRY WEIGHT	PS	**10608933001**	Y		77.84	22.16	05/24/2022 11:03:53	7.8974	1.2797	9.7815	7.8974	M	
DRY WEIGHT	DUP	**4331539**	Y		83.00	17.00	05/24/2022 11:04:04	8.4172	1.2762	9.8799	8.4172	M	
DRY WEIGHT	PS	**10608933002**	Y		80.30	19.70	05/24/2022 11:04:16	7.7657	1.2803	9.3571	7.7657	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10609538001**	Y		87.13	12.87	05/24/2022 11:04:27	8.5295	1.2836	9.6001	8.5295	M	
DRY WEIGHT	PS	**10609538002**	Y		89.68	10.32	05/24/2022 11:04:40	8.7032	1.2792	9.5574	8.7032	M	
DRY WEIGHT	PS	**10609568001**	Y		95.79	4.211	05/24/2022 11:04:51	8.8117	1.2886	9.1424	8.8117	M	
DRY WEIGHT	PS	**10609568002**	Y		93.73	6.266	05/24/2022 11:05:03	8.8846	1.2765	9.3932	8.8846	M	
DRY WEIGHT	PS	**10609291001**	Y		87.22	12.78	05/24/2022 11:05:13	8.4602	1.2831	9.5121	8.4602	M	
DRY WEIGHT	PS	**10609291002**	Y		93.66	6.336	05/24/2022 11:05:31	8.9362	1.2734	9.4546	8.9362	M	

ANALYTICAL REPORT

June 02, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1488802
Samples Received:	05/03/2022
Project Number:	10606565
Description:	D3593500
Site:	001
Report To:	Kongmeng Vang 1700 Elm Street Suite 200 Minneapolis, MN 55414

Entire Report Reviewed By:

Nancy McLain
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BNSF-SG11-042822-0-5 L1488802-01 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 08:05	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1858339	1	05/05/22 06:22	05/05/22 06:27	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861595	1	05/11/22 03:07	05/13/22 18:06	ADF	Mt. Juliet, TN

BNSF-E380-042822-0-4 L1488802-02 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 08:35	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1858339	1	05/05/22 06:22	05/05/22 06:27	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861595	1	05/11/22 03:07	05/13/22 18:28	AMG	Mt. Juliet, TN

BNSF-E320-042822-0-4 L1488802-03 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 09:05	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1859076	1	05/05/22 20:46	05/05/22 20:58	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861596	10	05/12/22 14:39	05/13/22 14:59	AMG	Mt. Juliet, TN

BNSF-D160-042822-0-5 L1488802-04 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 09:50	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1859076	1	05/05/22 20:46	05/05/22 20:58	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861596	10	05/12/22 14:39	05/13/22 14:38	AMG	Mt. Juliet, TN

BNSF-E460-042922-0-4 L1488802-05 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 08:50	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1859077	1	05/05/22 20:04	05/05/22 20:17	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861596	10	05/12/22 14:39	05/13/22 14:17	AMG	Mt. Juliet, TN

BNSF-H360-042922-0-8 L1488802-06 Solid

Collected by	Collected date/time	Received date/time
	04/28/22 09:25	05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1859077	1	05/05/22 20:04	05/05/22 20:17	CMK	Mt. Juliet, TN
Wet Chemistry by Method 9034/9030B	WG1857987	1	05/03/22 12:51	05/05/22 18:00	BMD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1861596	1	05/12/22 14:39	05/13/22 13:36	AMG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 05/16/22 15:17

2540 G-2011 Total Solids

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-SG11-042822-0-5

Lab Sample ID:	L1488802-01	**SDG:**	L1488802
Client Sample ID:	BNSF-SG11-042822-0-5	**Collected Date/Time:**	04/28/22 08:05
Lab File ID:	12	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL4	**Preparation Date/Time:**	05/05/22 06:22
Analytical Batch:	WG1858339	**Analysis Date/Time:**	05/05/22 06:27
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	7.922 g
Total Solids (%):	77.0	**Final Wt/Vol:**	6.389 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	77.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E380-042822-0-4

Lab Sample ID:	L1488802-02	**SDG:**	L1488802
Client Sample ID:	BNSF-E380-042822-0-4	**Collected Date/Time:**	04/28/22 08:35
Lab File ID:	13	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL4	**Preparation Date/Time:**	05/05/22 06:22
Analytical Batch:	WG1858339	**Analysis Date/Time:**	05/05/22 06:27
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	10.999 g
Total Solids (%):	75.4	**Final Wt/Vol:**	8.604 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	75.4	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E320-042822-0-4

Lab Sample ID:	L1488802-03	**SDG:**	L1488802
Client Sample ID:	BNSF-E320-042822-0-4	**Collected Date/Time:**	04/28/22 09:05
Lab File ID:	12	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:46
Analytical Batch:	WG1859076	**Analysis Date/Time:**	05/05/22 20:58
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	10.759 g
Total Solids (%):	72.2	**Final Wt/Vol:**	8.115 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	72.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-D160-042822-0-5

Lab Sample ID:	L1488802-04	**SDG:**	L1488802
Client Sample ID:	BNSF-D160-042822-0-5	**Collected Date/Time:**	04/28/22 09:50
Lab File ID:	13	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:46
Analytical Batch:	WG1859076	**Analysis Date/Time:**	05/05/22 20:58
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.545 g
Total Solids (%):	70.7	**Final Wt/Vol:**	6.407 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	70.7	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E460-042922-0-4

Lab Sample ID:	L1488802-05	**SDG:**	L1488802
Client Sample ID:	BNSF-E460-042922-0-4	**Collected Date/Time:**	04/28/22 08:50
Lab File ID:	04	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:04
Analytical Batch:	WG1859077	**Analysis Date/Time:**	05/05/22 20:17
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.808 g
Total Solids (%):	71.1	**Final Wt/Vol:**	6.63 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	71.1	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-H360-042922-0-8

Lab Sample ID:	L1488802-06	**SDG:**	L1488802
Client Sample ID:	BNSF-H360-042922-0-8	**Collected Date/Time:**	04/28/22 09:25
Lab File ID:	05	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:04
Analytical Batch:	WG1859077	**Analysis Date/Time:**	05/05/22 20:17
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	13.18 g
Total Solids (%):	77.7	**Final Wt/Vol:**	10.516 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	77.7	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788778-1	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	01	**Received Date/Time:**	_____
Instrument ID:	LOGBAL4	**Preparation Date/Time:**	05/05/22 06:21
Analytical Batch:	WG1858339	**Analysis Date/Time:**	05/05/22 06:27
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	1.27 g
Total Solids (%):	_____	**Final Wt/Vol:**	1.271 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00100	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789049-1	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:03
Analytical Batch:	WG1859077	**Analysis Date/Time:**	05/05/22 20:17
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.254 g
Total Solids (%):		**Final Wt/Vol:**	1.253 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00100	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789056-1	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	01	**Received Date/Time:**	_____
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:39
Analytical Batch:	WG1859076	**Analysis Date/Time:**	05/05/22 20:58
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	1.265 g
Total Solids (%):	_____	**Final Wt/Vol:**	1.265 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.000	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788778-3	**SDG:**	L1488802
Client Sample ID:	DUP	**Collected Date/Time:**	04/29/22 14:00
Lab File ID:	02	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL4	**Preparation Date/Time:**	05/05/22 06:21
Analytical Batch:	WG1858339	**Analysis Date/Time:**	05/05/22 06:27
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	12.712 g
Total Solids (%):	77.9	**Final Wt/Vol:**	10.345 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	79.3	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789049-3	**SDG:**	L1488802
Client Sample ID:	DUP	**Collected Date/Time:**	04/28/22 09:25
Lab File ID:	02	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:03
Analytical Batch:	WG1859077	**Analysis Date/Time:**	05/05/22 20:17
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	6.54 g
Total Solids (%):	77.7	**Final Wt/Vol:**	5.359 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	77.6	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788778-2	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	03	**Received Date/Time:**	_____
Instrument ID:	LOGBAL4	**Preparation Date/Time:**	05/05/22 06:21
Analytical Batch:	WG1858339	**Analysis Date/Time:**	05/05/22 06:27
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.274 g
Total Solids (%):	_____	**Final Wt/Vol:**	6.273 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789049-2	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	03	**Received Date/Time:**	_____
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:03
Analytical Batch:	WG1859077	**Analysis Date/Time:**	05/05/22 20:17
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.28 g
Total Solids (%):	_____	**Final Wt/Vol:**	6.278 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789056-3	**SDG:**	L1488802
Client Sample ID:	DUP	**Collected Date/Time:**	04/27/22 12:35
Lab File ID:	02	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:39
Analytical Batch:	WG1859076	**Analysis Date/Time:**	05/05/22 20:58
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	12.75 g
Total Solids (%):	91.7	**Final Wt/Vol:**	12.239 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	95.6	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3789056-2	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	03	**Received Date/Time:**	_____
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	05/05/22 20:39
Analytical Batch:	WG1859076	**Analysis Date/Time:**	05/05/22 20:58
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.276 g
Total Solids (%):	_____	**Final Wt/Vol:**	6.276 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SDG:	L1488802	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1859077

	Sample ID:	**BLANK Result**	**BLANK Qual**
	File ID:	01	
Analyte		%	
TOTAL SOLIDS		0.00100	

SDG:	L1488802	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1859076

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.000	

SDG:	L1488802	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL4	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1858339

	Sample ID:	**BLANK Result**	**BLANK Qual**
	File ID:	01	
Analyte		%	
TOTAL SOLIDS		0.00100	

DUP Sample / File ID:	R3788778-3 / 02	**SDG:**	L1488802
OS Sample / File ID:	L1488686-01 / 07	**Analytical Batch:**	WG1858339
Instrument ID:	LOGBAL4	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	77.9	79.3	1.81	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DUP Sample / File ID:	R3789049-3 / 02	**SDG:**	L1488802
OS Sample / File ID:	L1488802-06 / 05	**Analytical Batch:**	WG1859077
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	77.7	77.6	0.0183	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DUP Sample / File ID:	R3789056-3 / 02	**SDG:**	L1488802
OS Sample / File ID:	L1488622-05 / 06	**Analytical Batch:**	WG1859076
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	91.7	95.6	4.06	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1488802-01,02

SAMPLE NO.:
R3788778-2

LCS Sample / File ID:	R3788778-2 / 03	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1858339
Instrument ID:	LOGBAL4	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1488802-05,06

SAMPLE NO.:
R3789049-2

LCS Sample / File ID:	R3789049-2 / 03	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1859077
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1488802-03,04

SAMPLE NO.:
R3789056-2

LCS Sample / File ID:	R3789056-2 / 03	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1859076
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1488802-01,02,03,04,05,06 **Analytical Method:** 2540 G-2011

Matrix: Solid **Prep Method:** SM 2540 G

Analyte	CAS	Wavelength	Mass	MDL	RDL
				%	%
Total Solids	TSOLIDS				

ANALYSIS LOG

SDG:	L1488802	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	_____
Analytical Run:	WG1859077	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3789049-1	01	05/05/22 20:17	1	WG1859077
DUP	R3789049-3	02	05/05/22 20:17	1	WG1859077
LCS	R3789049-2	03	05/05/22 20:17	1	WG1859077
BNSF-H360-042922-0-8	L1488802-06	05	05/05/22 20:17	1	WG1859077
BNSF-E460-042922-0-4	L1488802-05	04	05/05/22 20:17	1	WG1859077

ANALYSIS LOG

SDG:	L1488802	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	
Analytical Run:	WG1859076	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3789056-1	01	05/05/22 20:58	1	WG1859076
DUP	R3789056-3	02	05/05/22 20:58	1	WG1859076
LCS	R3789056-2	03	05/05/22 20:58	1	WG1859076
OS	L1488622-05	06	05/05/22 20:58		
BNSF-D160-042822-0-5	L1488802-04	13	05/05/22 20:58	1	WG1859076
BNSF-E320-042822-0-4	L1488802-03	12	05/05/22 20:58	1	WG1859076

ANALYSIS LOG

SDG:	L1488802	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL4	**Calibration Start Date:**	_____
Analytical Run:	WG1858339	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3788778-1	01	05/05/22 06:27	1	WG1858339
DUP	R3788778-3	02	05/05/22 06:27	1	WG1858339
LCS	R3788778-2	03	05/05/22 06:27	1	WG1858339
OS	L1488686-01	07	05/05/22 06:27		
BNSF-SG11-042822-0-5	L1488802-01	12	05/05/22 06:27	1	WG1858339
BNSF-E380-042822-0-4	L1488802-02	13	05/05/22 06:27	1	WG1858339

Total Solids WetChem Prep Benchsheet

Batch: WG1858339

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1488371	WG1858269	BJM688	PREPREPBAL3	03-MAY-22
L1488378	WG1858269	BJM688	PREPREPBAL3	03-MAY-22
L1488552	WG1858269	BJM688	PREPREPBAL3	03-MAY-22
L1488686	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488723	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488800	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22

Analyst: KDW475 **Prep Start Date/Time:** 05/05/22 06:21-06:22 **Prep End Date/Time:** 05/06/22 08:54 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL4 **LCS True Value:** 50

LCS: 22D11416 Amt. Used: 50 Exp. Date:10/11/22

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				C1	1.270	1.270	1.269	1.271	0.002	0.001	99.999						CMK3616	05/06/22 08:54:43
LCS				C2	1.274	11.274	6.273	6.273	0	49.99	50.01	99.98	100.02				CMK3616	05/06/22 08:54:43
DUP(L1488686-01)				C3	1.250	12.712	10.379	10.345	0.034	79.3492	20.6508			1.81	6.67	PP4 0503	CMK3616	05/06/22 08:54:43
1. L1488371-09	SS	TX	04/29/22 13:15	C4	1.267	9.924	8.697	8.647	0.05	85.2489	14.7511					5/3 PP3 TUES 7	CMK3616	05/06/22 08:54:43
2. L1488378-01	SS	WV	04/29/22 09:30	C5	1.272	7.035	5.788	5.770	0.018	78.0496	21.9504					5/3 PP3 TUES 7	CMK3616	05/06/22 08:54:43
3. L1488552-01	SS	OK	04/29/22 14:00	C6	1.255	7.122	7.135	7.120	0.015	99.9659	0.0341					5/3 PP3 TUES 7	CMK3616	05/06/22 08:54:43
4. L1488686-01	SS	PA	04/29/22 14:00	C7	1.267	9.502	7.710	7.684	0.026	77.9235	22.0765						CMK3616	05/06/22 08:54:43
5. L1488723-01	SS	MD	04/29/22 13:00	C8	1.284	12.562	9.136	9.105	0.031	69.3474	30.6526					PP4 0503	CMK3616	05/06/22 08:54:43
6. L1488800-01	SS	WA	04/29/22 10:00	C9	1.285	11.298	9.338	9.315	0.023	80.1957	19.8043					PP4 0503	CMK3616	05/06/22 08:54:43
7. L1488800-02	SS	WA	04/29/22 10:45	C10	1.266	14.269	11.024	10.985	0.039	74.7443	25.2557					PP4 0503	CMK3616	05/06/22 08:54:43
8. L1488800-03	SS	WA	04/29/22 11:25	C11	1.274	9.713	7.240	7.211	0.029	70.3519	29.6481					PP4 0503	CMK3616	05/06/22 08:54:43
9. L1488802-01	SS	WA	04/28/22 08:05	C12	1.255	7.922	6.409	6.389	0.02	77.0061	22.9939					PP4 0503	CMK3616	05/06/22 08:54:43
10. L1488802-02	SS	WA	04/28/22 08:35	C13	1.264	10.999	8.634	8.604	0.03	75.398	24.602					PP4 0503	CMK3616	05/06/22 08:54:43

Comments:

Reviewed By:CMK3616 on 05/06/22 08:54:43

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	05/05/22 06:27:48	104	104	05/06/22 05:20:58	104	104	BLANK, LCS, DUP(L1488686-01), L1488371-09, L1488802-02, L1488802-01, L1488800-03, L1488800-02, L1488800-01, L1488723-01, L1488686-01, L1488552-01, L1488378-01
2	Oven-1hr	05/06/22 06:02:51	104	104	05/06/22 08:52:13	104	104	BLANK, LCS, DUP(L1488686-01), L1488371-09, L1488378-01, L1488552-01, L1488686-01, L1488723-01, L1488800-01, L1488800-02, L1488800-03, L1488802-01, L1488802-02

Total Solids WetChem Prep Benchsheet

Batch: WG1859076

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1488622	WG1858551	BJM688	PREPREPBAL1	04-MAY-22
L1488798	WG1858911	BJM688	PREPREPBAL3	04-MAY-22
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22

Analyst: MT3521 **Prep Start Date/Time:** 05/05/22 20:39-20:46 **Prep End Date/Time:** 05/06/22 14:57 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22B23211 Amt. Used: 50 Exp. Date:08/23/22

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				WW1	1.265	1.265	1.264	1.265	0.001	0	100						CMK3616	05/06/22 14:57:35
LCS				WW2	1.274	11.276	6.275	6.276	0.001	50.01	49.99	100.02	99.98				CMK3616	05/06/22 14:57:35
DUP(L1488622-05)				WW3	1.266	12.750	12.236	12.239	0.003	95.5503	4.4497			4.06	59.88	0504 PP1	CMK3616	05/06/22 14:57:35
1. L1488622-03	SS	MT	04/26/22 11:23	WW4	1.251	9.491	9.072	9.072	0	94.915	5.085					0504 PP1	CMK3616	05/06/22 14:57:35
2. L1488622-04	SS	MT	04/26/22 16:15	WW5	1.269	10.938	10.366	10.349	0.017	93.9084	6.0916					0504 PP1	CMK3616	05/06/22 14:57:35
3. L1488622-05	SS	MT	04/27/22 12:35	WW6	1.268	9.399	8.724	8.728	0.004	91.7476	8.2524						CMK3616	05/06/22 14:57:35
4. L1488622-06	SS	MT	04/28/22 13:45	WW7	1.274	10.471	9.714	9.722	0.008	91.856	8.144					0504 PP1	CMK3616	05/06/22 14:57:35
5. L1488798-01	SS	TX	04/30/22 10:15	WW8	1.251	7.270	5.800	5.805	0.005	75.6604	24.3396					5/4 PP3 WED 5	CMK3616	05/06/22 14:57:35
6. L1488798-02	SS	TX	04/30/22 10:30	WW9	1.265	9.261	7.600	7.607	0.007	79.3147	20.6853					5/4 PP3 WED 5	CMK3616	05/06/22 14:57:35
7. L1488798-03	SS	TX	04/30/22 10:50	WW10	1.277	7.253	6.304	6.312	0.008	84.2537	15.7463					5/4 PP3 WED 5	CMK3616	05/06/22 14:57:35
8. L1488798-04	SS	TX	04/30/22 11:05	WW11	1.268	12.962	10.436	10.448	0.012	78.5018	21.4982					5/4 PP3 WED 5	CMK3616	05/06/22 14:57:35
9. L1488802-03	SS	WA	04/28/22 09:05	WW12	1.255	10.759	8.109	8.115	0.006	72.1801	27.8199					PP4 0503	CMK3616	05/06/22 14:57:35
10. L1488802-04	SS	WA	04/28/22 09:50	WW13	1.248	8.545	6.401	6.407	0.006	70.7003	29.2997					PP4 0503	CMK3616	05/06/22 14:57:35

Comments:

Reviewed By: CMK3616 on 05/06/22 14:57:35

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	05/05/22 20:58:15	104	104	05/06/22 09:13:50	104	104	BLANK, LCS, DUP(L1488622-05), L1488622-03, L1488802-04, L1488802-03, L1488798-04, L1488798-03, L1488798-02, L1488798-01, L1488622-06, L1488622-05, L1488622-04
2	Oven-1hr	05/06/22 09:16:54	104	104	05/06/22 14:55:04	104	104	BLANK, LCS, DUP(L1488622-05), L1488622-03, L1488622-04, L1488622-05, L1488622-06, L1488798-01, L1488798-02, L1488798-03, L1488798-04, L1488802-03, L1488802-04

Total Solids WetChem Prep Benchsheet

Batch: WG1859077

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488892	WG1858957	BJM688	PREPREPBAL4	04-MAY-22

Analyst: MT3521 **Prep Start Date/Time:** 05/05/22 20:03-20:04 **Prep End Date/Time:** 05/06/22 14:49 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22B23211 Amt. Used: 50 Exp. Date:08/23/22

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				UU1	1.254	1.254	1.254	1.253	0.001	0.001	99.999						CMK3616	05/06/22 14:49:23
LCS				UU2	1.280	11.280	6.279	6.278	0.001	49.98	50.02	99.96	100.04				CMK3616	05/06/22 14:49:23
DUP(L1488802-06)				UU3	1.259	6.540	5.365	5.359	0.006	77.6368	22.3632			0.02	0.06	PP4 0503	CMK3616	05/06/22 14:49:23
1. L1488802-05	SS	WA	04/28/22 08:50	UU4	1.266	8.808	6.640	6.630	0.01	71.1217	28.8783					PP4 0503	CMK3616	05/06/22 14:49:23
2. L1488802-06	SS	WA	04/28/22 09:25	UU5	1.260	13.180	10.526	10.516	0.01	77.651	22.349						CMK3616	05/06/22 14:49:23
3. L1488892-01	SS	CA	04/30/22 12:20	UU6	1.256	12.483	11.741	11.735	0.006	93.3375	6.6625					PP4 0504	CMK3616	05/06/22 14:49:23
4. L1488892-02	SS	CA	04/30/22 12:30	UU7	1.261	6.775	6.466	6.461	0.005	94.3054	5.6946					PP4 0504	CMK3616	05/06/22 14:49:23
5. L1488892-03	SS	CA	04/30/22 12:35	UU8	1.268	14.623	13.648	13.637	0.011	92.617	7.383					PP4 0504	CMK3616	05/06/22 14:49:23
6. L1488892-04	SS	CA	04/30/22 12:25	UU9	1.275	11.357	9.750	9.745	0.005	84.0111	15.9889					PP4 0504	CMK3616	05/06/22 14:49:23
7. L1488892-05	SS	CA	04/30/22 12:45	UU10	1.253	6.863	6.333	6.329	0.004	90.4813	9.5187					PP4 0504	CMK3616	05/06/22 14:49:23
8. L1488892-06	SS	CA	04/30/22 12:51	UU11	1.268	12.409	11.323	11.314	0.009	90.1714	9.8286					PP4 0504	CMK3616	05/06/22 14:49:23
9. L1488892-07	SS	CA	04/30/22 12:56	UU12	1.249	14.316	13.081	13.070	0.011	90.4645	9.5355					PP4 0504	CMK3616	05/06/22 14:49:23
10. L1488892-08	SS	CA	04/30/22 13:04	UU13	1.276	13.430	12.417	12.408	0.009	91.5912	8.4088					PP4 0504	CMK3616	05/06/22 14:49:23

Comments:

Reviewed By:CMK3616 on 05/06/22 14:49:23

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	05/05/22 20:17:24	104	104	05/06/22 09:04:56	104	104	BLANK, LCS, DUP(L1488802-06), L1488802-05, L1488892-08, L1488892-07, L1488892-06, L1488892-05, L1488892-04, L1488892-03, L1488892-02, L1488892-01, L1488802-06
2	Oven-1hr	05/06/22 09:07:34	104	104	05/06/22 14:46:03	104	104	BLANK, LCS, DUP(L1488802-06), L1488802-05, L1488802-06, L1488892-01, L1488892-02, L1488892-03, L1488892-04, L1488892-05, L1488892-06, L1488892-07, L1488892-08

8270E Semi Volatile Organic Compounds (GC/MS)

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1488802
Matrix: Solid

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	% Rec.	% Rec.	% Rec.	% Rec.	% Rec.	
BNSF-SG11-042822-0-5	L1488802-01	BNAMS24	0513_31	47.9	45.0	45.7	46.6	63.0	58.5	0
BNSF-E380-042822-0-4	L1488802-02	BNAMS24	0513_32	54.4	48.9	53.2	51.4	64.4	65.0	0
BNSF-E320-042822-0-4	L1488802-03	BNAMS2	0513_23	86.9	78.4	80.7	78.9	74.5	78.3	0
BNSF-D160-042822-0-5	L1488802-04	BNAMS2	0513_22	79.8	69.6	72.8	74.3	66.7	74.3	0
BNSF-E460-042922-0-4	L1488802-05	BNAMS2	0513_21	78.9	71.0	70.2	74.2	67.2	74.5	0
BNSF-H360-042922-0-8	L1488802-06	BNAMS2	0513_19	68.2	60.9	61.8	66.1	69.7	70.3	0
OS	L1488414-03	BNAMS4	0512_25	49.4	46.8	50.2	44.3	49.5	53.2	0
MS	R3791359-3	BNAMS4	0512_26	52.4	54.4	43.4	48.0	64.2	56.3	0
MSD	R3791359-4	BNAMS4	0512_27	55.8	56.2	47.4	51.7	60.8	66.9	0
MS	R3791942-3	BNAMS2	0513_25	88.3	77.0	72.4	82.0	73.0	82.3	0
MSD	R3791942-4	BNAMS2	0513_26	84.7	76.1	71.5	77.8	72.2	76.6	0
BLANK	R3791942-2	BNAMS2	0513_06	73.6	65.0	67.9	70.6	68.9	80.2	0
BLANK	R3791359-2	BNAMS4	0512_08	64.0	61.1	64.0	58.3	58.6	66.7	0
LCS	R3791942-1	BNAMS2	0513_05	77.2	69.7	55.9	70.9	75.8	78.4	0
LCS	R3791359-1	BNAMS4	0512_07	53.9	54.5	49.5	52.6	59.8	57.1	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	12.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 122
DMC-4	2-Fluorobiphenyl	15.0 - 120
DMC-5	2,4,6-Tribromophenol	10.0 - 127
DMC-6	p-Terphenyl-d14	10.0 - 120

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1488802-01,02

SAMPLE NO.:
R3791359-3
R3791359-4

MS Sample / File ID: R3791359-3 / 0512_26
MSD Sample / File ID: R3791359-4 / 0512_27
OS Sample / File ID: L1488414-03 / 0512_25
Instrument ID: BNAMS4
Analytical Method: 8270E

SDG: L1488802
Analytical Batch: WG1861595
Matrix: Solid

Analyte	Spike Amount (dry)	OS Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*	*%*	*%*		*%*	*%*	*%*
Acenaphthene	0.829	0.0262	0.475	0.502	54.2	57.0	1	18.0 - 120	5.45	32
Acenaphthylene	0.829	U	0.482	0.502	58.1	60.2	1	25.0 - 120	4.12	32
Anthracene	0.829	0.00809	0.492	0.491	58.4	57.8	1	22.0 - 120	0.258	29
Benzoic Acid	1.66	U	U	U	0.000*	0.000*	1	10.0 - 152	17.2	40
Benzo(a)anthracene	0.829	U	0.464	0.557	56.0	66.7	1	25.0 - 120	18.1	29
Benzo(b)fluoranthene	0.829	U	0.483	0.493	58.3	59.1	1	19.0 - 122	2.08	31
Benzo(k)fluoranthene	0.829	U	0.493	0.533	59.5	63.8	1	23.0 - 120	7.66	30
Benzo(g,h,i)perylene	0.829	U	0.482	0.507	58.1	60.8	1	10.0 - 120	5.13	33
Benzo(a)pyrene	0.829	U	0.553	0.555	66.7	66.6	1	24.0 - 120	0.458	30
Carbazole	0.829	U	0.474	0.473	57.2	56.7	1	31.0 - 120	0.268	24
Chrysene	0.829	U	0.455	0.543	54.9	65.0	1	21.0 - 120	17.5	29
Dibenz(a,h)anthracene	0.829	U	0.484	0.506	58.4	60.6	1	10.0 - 120	4.35	32
Dibenzofuran	0.829	U	0.467	0.488	56.3	58.5	1	24.0 - 120	4.52	30
Fluoranthene	0.829	U	0.502	0.502	60.6	60.2	1	18.0 - 126	0.000	32
Fluorene	0.829	0.0287	0.493	0.514	56.0	58.1	1	25.0 - 120	4.03	30
Indeno(1,2,3-cd)pyrene	0.829	U	0.483	0.515	58.3	61.7	1	10.0 - 120	6.35	32
1-Methylnaphthalene	0.829	0.346	0.662	0.669	38.1	38.8	1	10.0 - 120	1.14	36
2-Methylnaphthalene	0.829	0.709	0.909	0.915	24.2	24.8	1	10.0 - 120	0.695	37
Naphthalene	0.829	0.217	0.503	0.520	34.6	36.3	1	10.0 - 120	3.22	35
Phenanthrene	0.829	0.108	0.626	0.628	62.5	62.2	1	17.0 - 120	0.202	31
Bis(2-ethylhexyl)phthalate	0.829	U	0.539	0.643	65.0	77.1	1	17.0 - 126	17.6	30
Di-n-butyl phthalate	0.829	U	0.582	0.569	70.2	68.2	1	30.0 - 120	2.20	29
Di-n-octyl phthalate	0.829	U	0.531	0.617	64.1	74.0	1	21.0 - 123	15.0	29
Pyrene	0.829	U	0.463	0.544	55.8	65.2	1	16.0 - 121	16.1	32
3&4-Methyl Phenol	0.829	U	0.572	0.585	69.0	70.1	1	12.0 - 123	2.19	38
Pentachlorophenol	0.829	U	0.473	0.494	57.0	59.3	1	10.0 - 160	4.46	31
Phenol	0.829	U	0.436	0.444	52.6	53.2	1	12.0 - 120	1.73	38

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1488802-03,04,05,06

SAMPLE NO.:
R3791942-3
R3791942-4

MS Sample / File ID: R3791942-3 / 0513_25
MSD Sample / File ID: R3791942-4 / 0513_26
OS Sample / File ID: L1488912-11 / 0513_24
Instrument ID: BNAMS2
Analytical Method: 8270E

SDG: L1488802
Analytical Batch: WG1861596
Matrix: Solid

Analyte	Spike Amount (dry)	OS Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/kg				%	%		%	%	%
Acenaphthene	0.666	0.588	1.26	1.38	90.4	107	10	18.0 - 120	9.28	32
Acenaphthylene	0.666	0.584	1.38	1.49	108	123*	10	25.0 - 120	7.75	32
Anthracene	0.666	2.07	3.28	3.92	162*	249*	10	22.0 - 120	18.0	29
Benzoic Acid	1.33	U	U	U	57.0	55.0	10	10.0 - 152	3.37	40
Benzo(a)anthracene	0.666	3.34	5.38	6.11	275*	372*	10	25.0 - 120	12.6	29
Benzo(b)fluoranthene	0.666	3.58	6.04	7.00	332*	461*	10	19.0 - 122	14.7	31
Benzo(k)fluoranthene	0.666	1.30	2.44	2.80	153*	201*	10	23.0 - 120	13.6	30
Benzo(g,h,i)perylene	0.666	0.987	1.53	1.80	72.7	110	10	10.0 - 120	16.7	33
Benzo(a)pyrene	0.666	3.09	5.15	5.87	278*	375*	10	24.0 - 120	13.1	30
Carbazole	0.666	0.135	0.762	0.813	84.5	91.4	10	31.0 - 120	6.51	24
Chrysene	0.666	2.79	5.04	5.85	303*	413*	10	21.0 - 120	14.9	29
Dibenz(a,h)anthracene	0.666	0.304	0.732	0.829	57.7	70.7	10	10.0 - 120	12.4	32
Dibenzofuran	0.666	1.26	2.06	2.37	108	150*	10	24.0 - 120	14.1	30
Fluoranthene	0.666	8.14	11.9	14.3	509*	824*	10	18.0 - 126	17.9	32
Fluorene	0.666	1.64	2.57	3.01	126*	185*	10	25.0 - 120	15.6	30
Indeno(1,2,3-cd)pyrene	0.666	1.37	2.16	2.53	107	156*	10	10.0 - 120	15.7	32
1-Methylnaphthalene	0.666	U	0.626	0.627	84.4	84.5	10	10.0 - 120	0.178	36
2-Methylnaphthalene	0.666	U	0.593	0.595	79.9	80.2	10	10.0 - 120	0.375	37
Naphthalene	0.666	U	0.623	0.619	83.9	83.5	10	10.0 - 120	0.538	35
Phenanthrene	0.666	3.87	5.58	6.31	231*	329*	10	17.0 - 120	12.2	31
Bis(2-ethylhexyl)phthalate	0.666	U	0.686	0.675	92.5	91.0	10	17.0 - 126	1.64	30
Di-n-butyl phthalate	0.666	U	0.575	0.574	77.5	77.3	10	30.0 - 120	0.194	29
Di-n-octyl phthalate	0.666	U	0.695	0.694	93.7	93.5	10	21.0 - 123	0.160	29
Pyrene	0.666	6.33	9.37	11.1	410*	637*	10	16.0 - 121	16.5	32
3&4-Methyl Phenol	0.666	U	0.626	0.640	84.4	86.2	10	12.0 - 123	2.11	38
Pentachlorophenol	0.666	U	0.287	0.313	38.7	42.2	10	10.0 - 160	8.53	31
Phenol	0.666	U	0.580	0.583	78.2	78.5	10	12.0 - 120	0.383	38

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1488802-01,02

SAMPLE NO.:
R3791359-1

LCS Sample / File ID:	R3791359-1 / 0512_07	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1861595
Instrument ID:	BNAMS4	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.369		55.4		38.0 - 120		
Acenaphthylene	0.666	0.388		58.3		40.0 - 120		
Anthracene	0.666	0.390		58.6		42.0 - 120		
Benzoic Acid	1.33	0.163		12.3		10.0 - 120		
Benzo(a)anthracene	0.666	0.388		58.3		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.392		58.9		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.411		61.7		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.433		65.0		43.0 - 120		
Benzo(a)pyrene	0.666	0.436		65.5		45.0 - 120		
Carbazole	0.666	0.370		55.6		48.0 - 120		
Chrysene	0.666	0.393		59.0		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.425		63.8		44.0 - 120		
Dibenzofuran	0.666	0.366		55.0		44.0 - 120		
Fluoranthene	0.666	0.383		57.5		44.0 - 120		
Fluorene	0.666	0.381		57.2		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.411		61.7		45.0 - 120		
1-Methylnaphthalene	0.666	0.308		46.2		34.0 - 120		
2-Methylnaphthalene	0.666	0.299		44.9		34.0 - 120		
Naphthalene	0.666	0.301		45.2		18.0 - 120		
Phenanthrene	0.666	0.382		57.4		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.454		68.2		41.0 - 120		
Di-n-butyl phthalate	0.666	0.444		66.7		43.0 - 120		
Di-n-octyl phthalate	0.666	0.423		63.5		40.0 - 120		
Pyrene	0.666	0.374		56.2		41.0 - 120		
3&4-Methyl Phenol	0.666	0.447		67.1		42.0 - 120		
Pentachlorophenol	0.666	0.343		51.5		29.0 - 120		
Phenol	0.666	0.361		54.2		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1488802-03,04,05,06

SAMPLE NO.:
R3791942-1

LCS Sample / File ID:	R3791942-1 / 0513_05	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1861596
Instrument ID:	BNAMS2	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.492		73.9		38.0 - 120		
Acenaphthylene	0.666	0.544		81.7		40.0 - 120		
Anthracene	0.666	0.535		80.3		42.0 - 120		
Benzoic Acid	1.33	0.542		40.8		10.0 - 120		
Benzo(a)anthracene	0.666	0.568		85.3		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.568		85.3		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.554		83.2		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.572		85.9		43.0 - 120		
Benzo(a)pyrene	0.666	0.627		94.1		45.0 - 120		
Carbazole	0.666	0.527		79.1		48.0 - 120		
Chrysene	0.666	0.549		82.4		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.570		85.6		44.0 - 120		
Dibenzofuran	0.666	0.512		76.9		44.0 - 120		
Fluoranthene	0.666	0.539		80.9		44.0 - 120		
Fluorene	0.666	0.519		77.9		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.624		93.7		45.0 - 120		
1-Methylnaphthalene	0.666	0.410		61.6		34.0 - 120		
2-Methylnaphthalene	0.666	0.404		60.7		34.0 - 120		
Naphthalene	0.666	0.390		58.6		18.0 - 120		
Phenanthrene	0.666	0.521		78.2		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.584		87.7		41.0 - 120		
Di-n-butyl phthalate	0.666	0.545		81.8		43.0 - 120		
Di-n-octyl phthalate	0.666	0.625		93.8		40.0 - 120		
Pyrene	0.666	0.551		82.7		41.0 - 120		
3&4-Methyl Phenol	0.666	0.498		74.8		42.0 - 120		
Pentachlorophenol	0.666	0.573		86.0		29.0 - 120		
Phenol	0.666	0.475		71.3		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3791942-2	**SDG:**	L1488802
Lab File ID:	0513_06	**Preparation Date/Time:**	05/12/22 14:39
Instrument ID:	BNAMS2	**Analysis Date/Time:**	05/13/22 09:05
Analytical Batch:	WG1861596	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3791942-1	BNAMS2	0513_05	05/13/22 08:45
BNSF-H360-042922-0-8	L1488802-06	BNAMS2	0513_19	05/13/22 13:36
BNSF-E460-042922-0-4	L1488802-05	BNAMS2	0513_21	05/13/22 14:17
BNSF-D160-042822-0-5	L1488802-04	BNAMS2	0513_22	05/13/22 14:38
BNSF-E320-042822-0-4	L1488802-03	BNAMS2	0513_23	05/13/22 14:59
OS	L1488912-11	BNAMS2	0513_24	05/13/22 15:20
MS	R3791942-3	BNAMS2	0513_25	05/13/22 15:41
MSD	R3791942-4	BNAMS2	0513_26	05/13/22 16:02

Sample Narrative:
Dilution due to matrix impact during extraction procedure

Lab Sample ID:	R3791359-2	**SDG:**	L1488802
Lab File ID:	0512_08	**Preparation Date/Time:**	05/11/22 03:06
Instrument ID:	BNAMS4	**Analysis Date/Time:**	05/12/22 07:11
Analytical Batch:	WG1861595	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3791359-1	BNAMS4	0512_07	05/12/22 06:50
OS	L1488414-03	BNAMS4	0512_25	05/12/22 13:06
MS	R3791359-3	BNAMS4	0512_26	05/12/22 13:27
MSD	R3791359-4	BNAMS4	0512_27	05/12/22 13:47
BNSF-SG11-042822-0-5	L1488802-01	BNAMS24	0513_31	05/13/22 18:06
BNSF-E380-042822-0-4	L1488802-02	BNAMS24	0513_32	05/13/22 18:28

Sample Narrative:

Dilution due to matrix impact during extraction procedure

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0423_05	**SDG:**	L1488802
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	04/23/22 10:21		

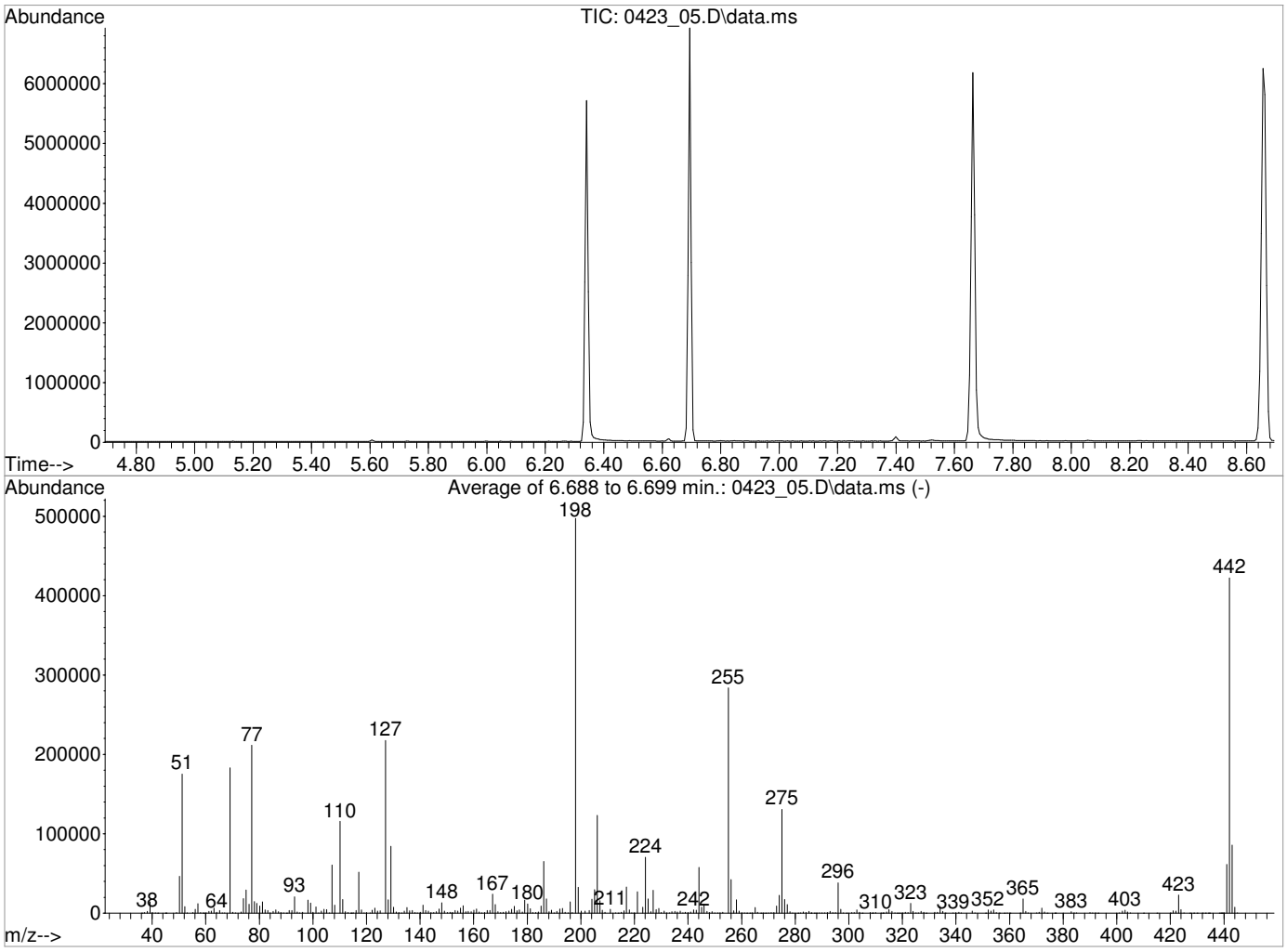
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	35
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	198	10	80	44
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	26
365	198	1	100	4
441	442	0.0001	24	15
442	198	50	100	85
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	0423_06	04/23/22 10:42
STD-1000	1000	0423_07	04/23/22 11:03
STD-4000	4000	0423_08	04/23/22 11:24
STD-10000	10000	0423_09	04/23/22 11:44
STD-20000	20000	0423_10	04/23/22 12:05
STD-30000	30000	0423_11	04/23/22 12:26
STD-40000	40000	0423_12	04/23/22 12:47
STD-50000	50000	0423_13	04/23/22 13:08
SSCV	BNAMS20423220423_21577629	0423_21	04/23/22 15:54

DFTPP

Data File : C:\msdchem\1\data\042322\0423_05.D Vial: 2
Acq On : 23 Apr 2022 10:21 am Operator: 3545
Sample : TUNE 50 PPM 22D19602 exp 5/16/22 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.688 to 6.699 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.3	175381	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	183025	PASS
70	69	0.00	2	0.5	962	PASS
127	198	10	80	43.8	217709	PASS
197	198	0.00	2	0.1	674	PASS
198	198	50	100	100.0	497109	PASS
199	198	5	9	6.6	32611	PASS
275	198	10	60	26.3	130816	PASS
365	198	1	100	3.6	17908	PASS
441	442	0.01	24	14.6	61523	PASS
442	198	50	100	84.9	422195	PASS
443	442	15	24	20.3	85624	PASS

0423_05.D TUNED.M Mon May 02 10:38:39 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0423_27	**SDG:**	L1488802
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	05/03/22 08:39		

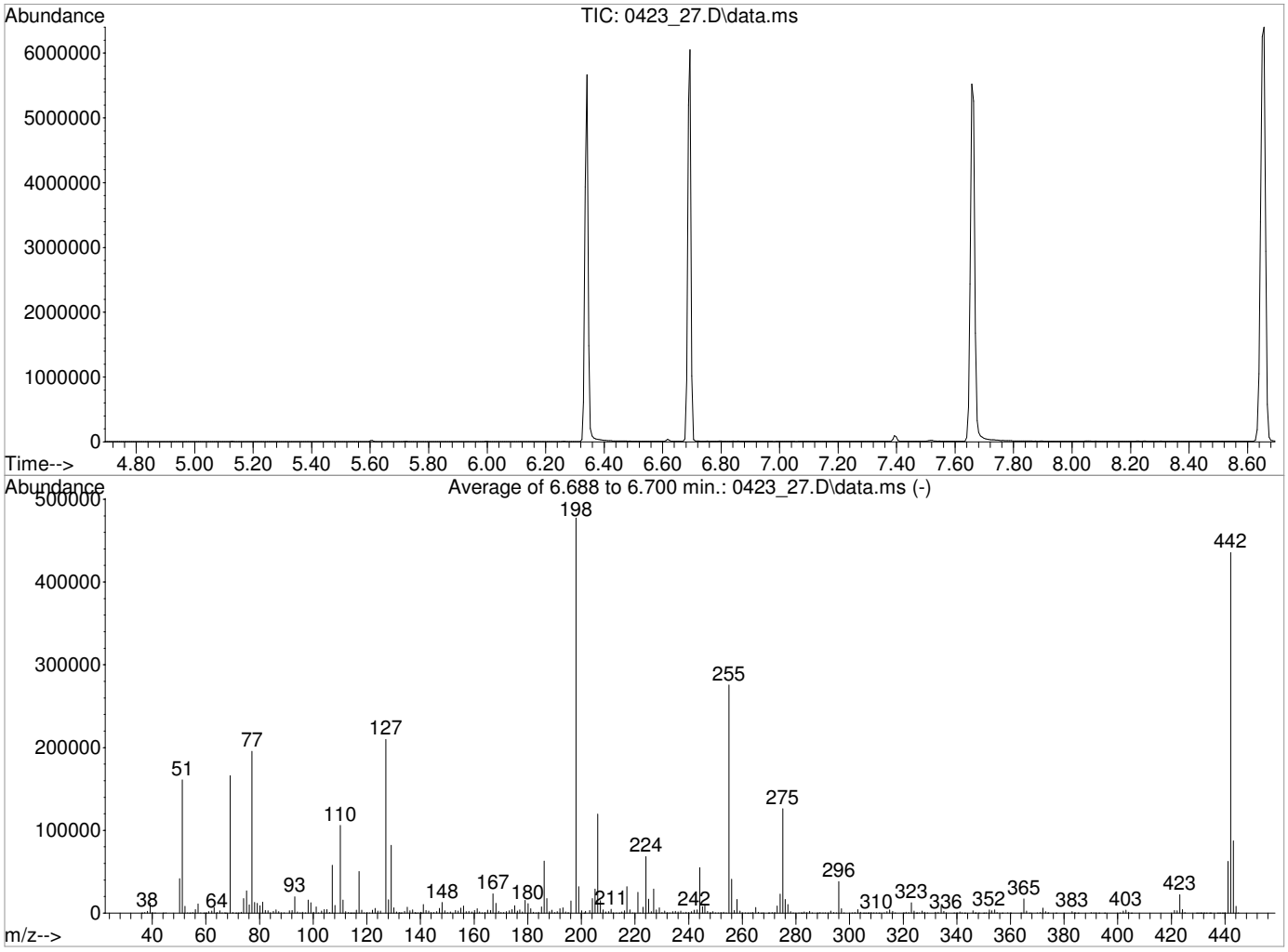
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	34
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	198	10	80	44
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	26
365	198	1	100	4
441	442	0.0001	24	14
442	198	50	100	91
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-1K1	1K1	0423_28	05/03/22 08:59
STD-4K1	4K1	0423_29	05/03/22 09:20
STD-10K1	10K1	0423_30	05/03/22 09:41
STD-20K1	20K1	0423_31	05/03/22 10:02
STD-30K1	30K1	0423_32	05/03/22 10:23
STD-40K1	40K1	0423_33	05/03/22 10:44
STD-50K1	50K1	0423_34	05/03/22 11:05

DFTPP

Data File : C:\msdchem\1\data\042322\0423_27.D Vial: 2
Acq On : 3 May 2022 8:39 am Operator: 3545
Sample : TUNE 50 PPM 22D19602 exp 5/16/22 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.688 to 6.700 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.7	160889	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	166175	PASS
70	69	0.00	2	0.4	699	PASS
127	198	10	80	44.0	210088	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	477168	PASS
199	198	5	9	6.7	32101	PASS
275	198	10	60	26.4	126176	PASS
365	198	1	100	3.7	17444	PASS
441	442	0.01	24	14.4	62621	PASS
442	198	50	100	91.3	435627	PASS
443	442	15	24	20.0	87301	PASS

0423_27.D TUNED.M Tue May 03 16:19:20 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0423_37	**SDG:**	L1488802
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	05/04/22 12:29		

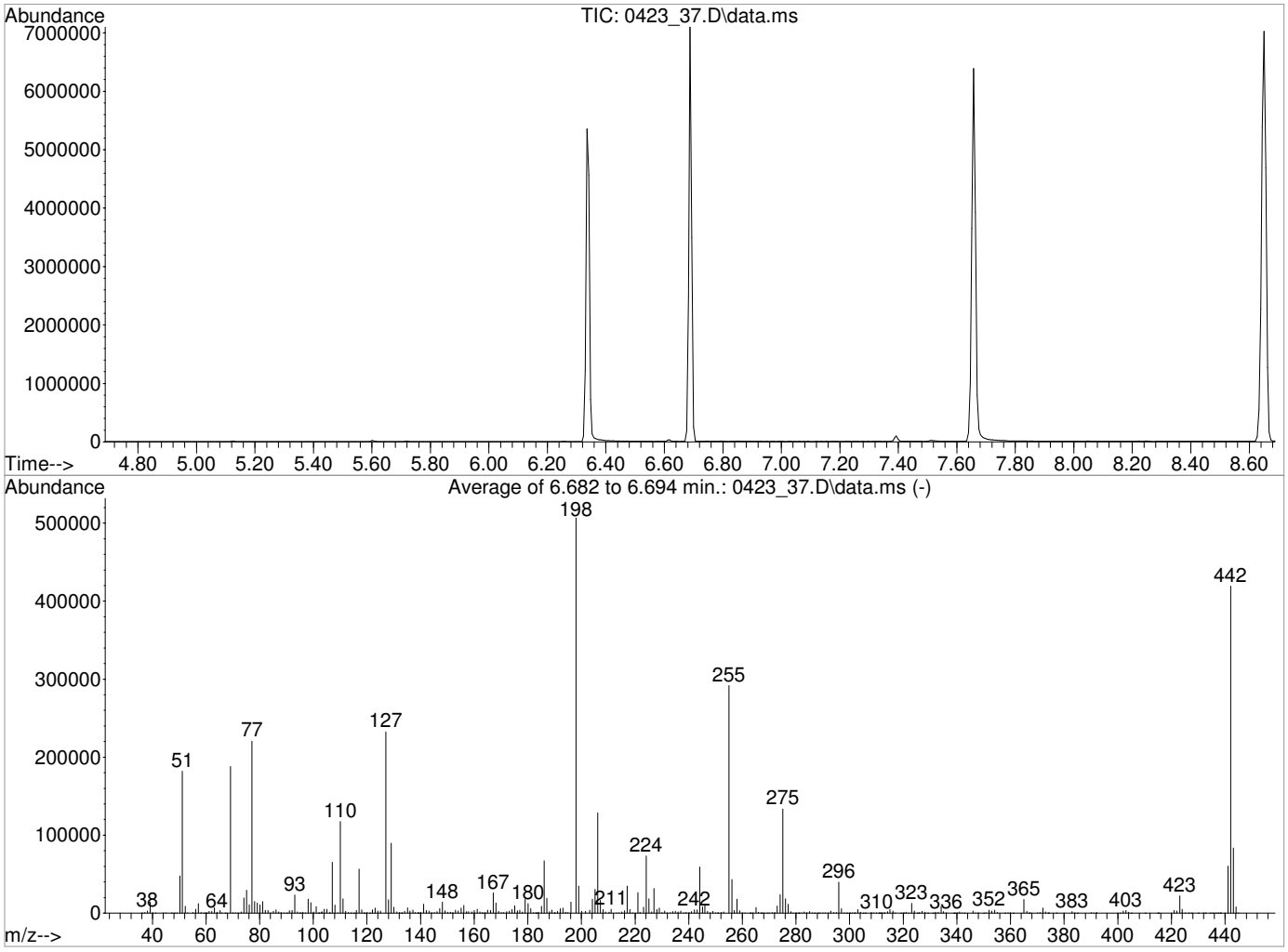
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	36
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	198	10	80	46
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	26
365	198	1	100	4
441	442	0.0001	24	14
442	198	50	100	83
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
SSCV	BNAMS20423220423_40577629	0423_40	05/04/22 14:52

DFTPP

Data File : C:\msdchem\1\data\042322\0423_37.D Vial: 2
Acq On : 4 May 2022 12:29 pm Operator: 3545
Sample : TUNE 50 PPM 22D19602 exp 5/16/22 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.682 to 6.694 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.9	181847	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	188112	PASS
70	69	0.00	2	0.5	960	PASS
127	198	10	80	45.9	232344	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	506432	PASS
199	198	5	9	6.9	34731	PASS
275	198	10	60	26.3	133363	PASS
365	198	1	100	3.5	17473	PASS
441	442	0.01	24	14.4	60445	PASS
442	198	50	100	82.7	419069	PASS
443	442	15	24	19.9	83395	PASS

0423_37.D TUNED.M Wed May 04 13:23:19 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0513_02T-1
Instrument ID: BNAMS2
Analysis Date/Time: 05/13/22 06:55

SDG: L1488802
Analytical Method: 8270E

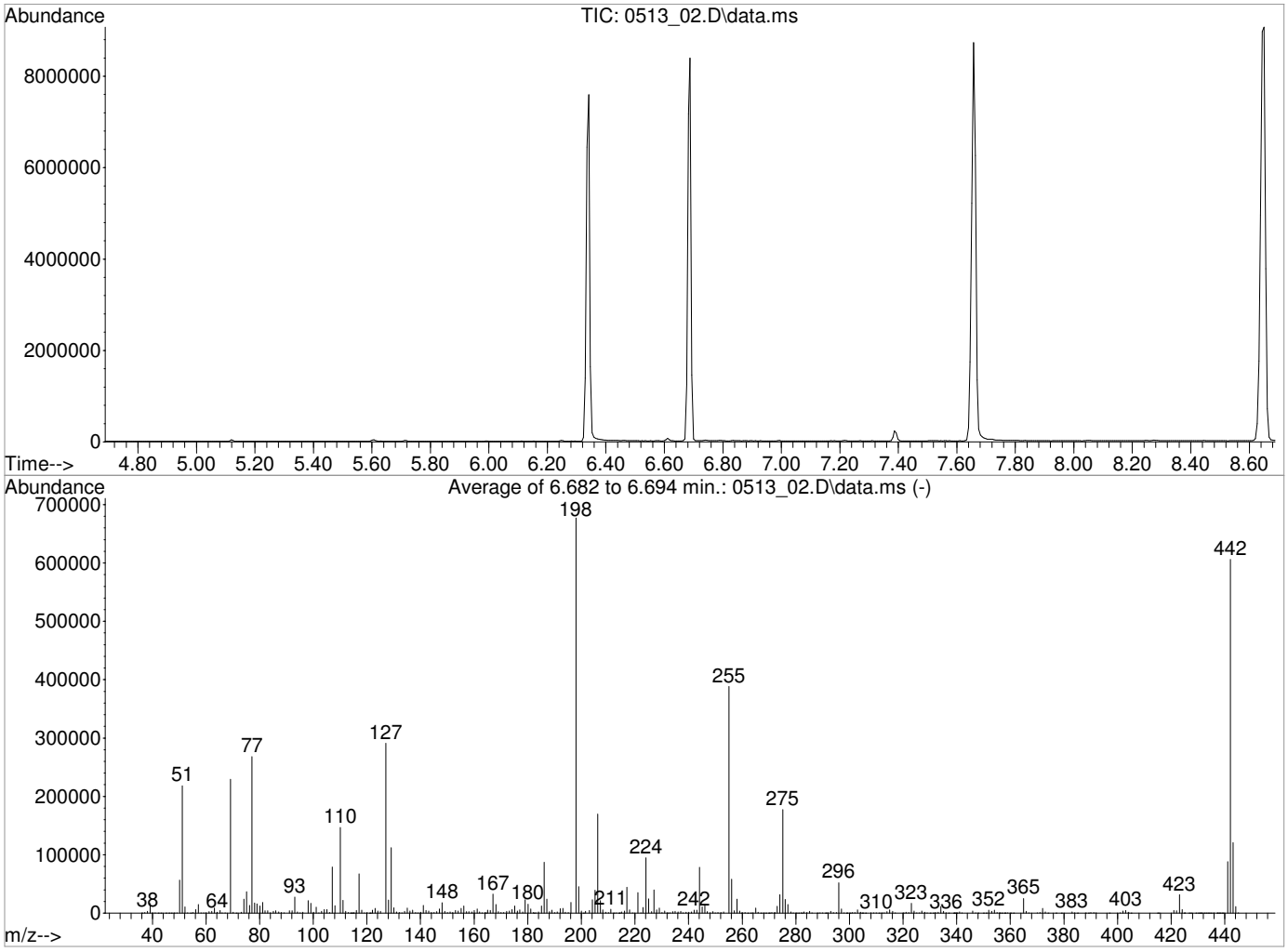
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	198	10	80	43
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	26
365	198	1	100	4
441	442	0.0001	24	14
442	198	50	100	90
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS20513220513_03577629	0513_03	05/13/22 07:16
ICV	BNAMS20513220513_04577629	0513_04	05/13/22 07:37
LCS	R3791942-1	0513_05	05/13/22 08:45
BLANK	R3791942-2	0513_06	05/13/22 09:05
BNSF-H360-042922-0-8	L1488802-06	0513_19	05/13/22 13:36
BNSF-E460-042922-0-4	L1488802-05	0513_21	05/13/22 14:17
BNSF-D160-042822-0-5	L1488802-04	0513_22	05/13/22 14:38
BNSF-E320-042822-0-4	L1488802-03	0513_23	05/13/22 14:59
OS	L1488912-11	0513_24	05/13/22 15:20
MS	R3791942-3	0513_25	05/13/22 15:41
MSD	R3791942-4	0513_26	05/13/22 16:02

DFTPP

Data File : C:\msdchem\1\data\051322\0513_02.D Vial: 2
Acq On : 13 May 2022 6:55 am Operator: 3545
Sample : TUNE 50 PPM 22D19602 exp 5/16/22 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.682 to 6.694 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	32.2	218155	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	229671	PASS
70	69	0.00	2	0.6	1342	PASS
127	198	10	80	43.0	290869	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	676787	PASS
199	198	5	9	6.7	45311	PASS
275	198	10	60	26.2	177528	PASS
365	198	1	100	3.7	25096	PASS
441	442	0.01	24	14.5	88045	PASS
442	198	50	100	89.5	605931	PASS
443	442	15	24	19.9	120795	PASS

0513_02.D TUNED.M Fri May 13 08:32:19 2022

5A-OR

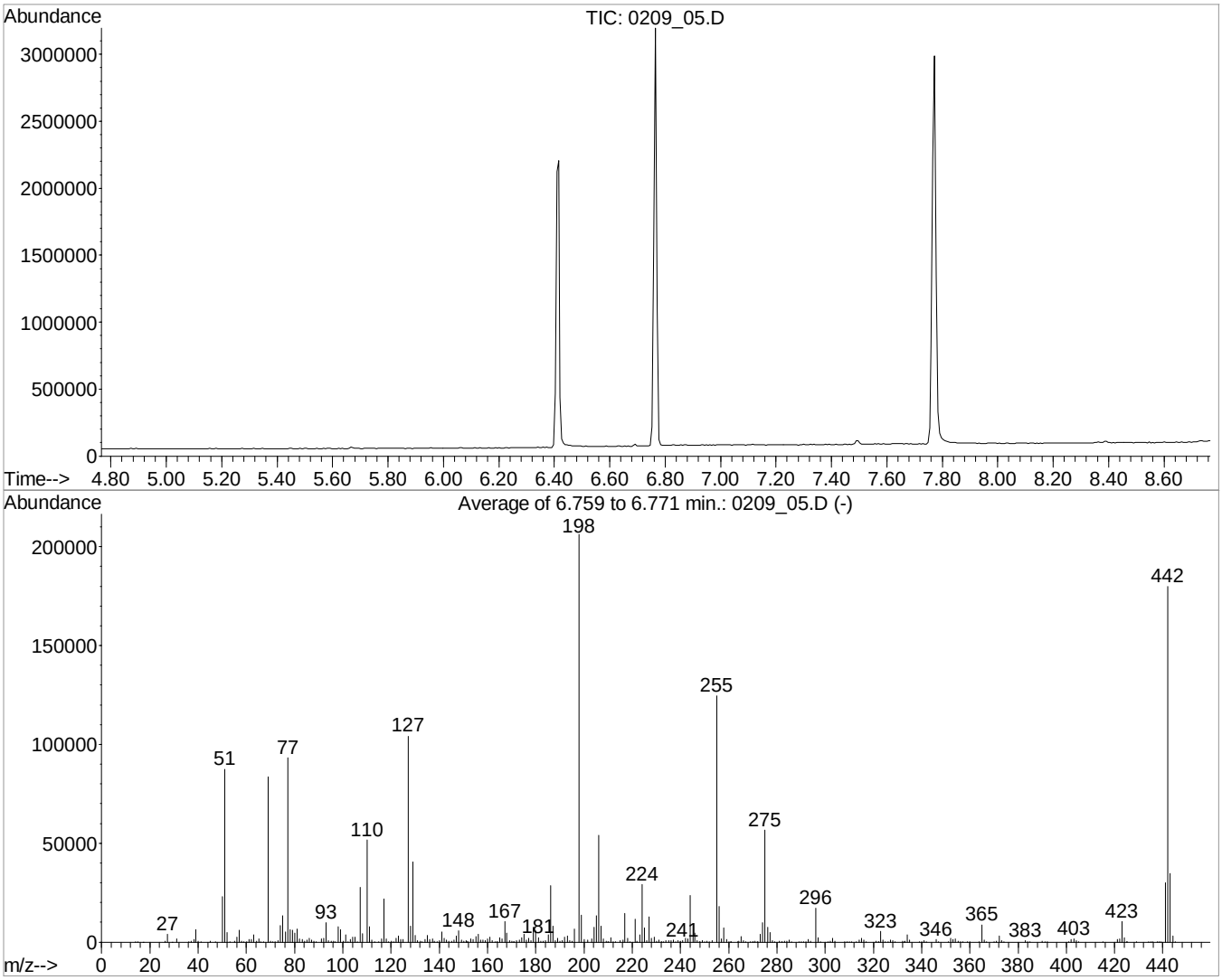
GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0209_05	**SDG:**	L1488802
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	02/09/22 10:23		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	42
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	198	10	80	50
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	28
365	198	1	100	4
441	442	0.0001	24	17
442	198	50	100	87
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	0209_06	02/09/22 10:43
STD-1000	1000	0209_07	02/09/22 11:04
STD-4000	4000	0209_08	02/09/22 11:25
STD-10000	10000	0209_09	02/09/22 11:46
STD-20000	20000	0209_10	02/09/22 12:07
STD-30000	30000	0209_11	02/09/22 12:27
STD-40000	40000	0209_12	02/09/22 12:48
STD-50000	50000	0209_13	02/09/22 13:09
STD-1K1	1K1	0209_14	02/09/22 13:30
STD-4K1	4K1	0209_15	02/09/22 13:51
STD-10K1	10K1	0209_16	02/09/22 14:11
STD-20K1	20K1	0209_17	02/09/22 14:32
STD-30K1	30K1	0209_18	02/09/22 14:53
STD-40K1	40K1	0209_19	02/09/22 15:14
STD-50K1	50K1	0209_20	02/09/22 15:35
SSCV	BNAMS40209220209_21577847	0209_21	02/09/22 15:56
SSCV	BNAMS40209220209_22577847	0209_22	02/09/22 16:16

Data File : C:\MSDCHEM\1\DATA\020922\0209 05.D Vial: 2
Acq On : 9 Feb 2022 10:23 am Operator: 917
Sample : TUNE 50 PPM Inst : BNAMS4
Misc : DFTTP TUNE 22B07163 exp. 05/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.759 to 6.771 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	42.4	87399	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	83556	PASS
70	69	0.00	2	0.7	564	PASS
127	198	10	80	50.5	104194	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	206269	PASS
199	198	5	9	6.6	13692	PASS
275	198	10	60	27.5	56626	PASS
365	198	1	100	4.3	8784	PASS
441	442	0.01	24	16.7	30103	PASS
442	198	50	100	87.1	179744	PASS
443	442	15	24	19.4	34822	PASS

0209_05.D TUNED.M Mon Feb 14 10:17:16 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

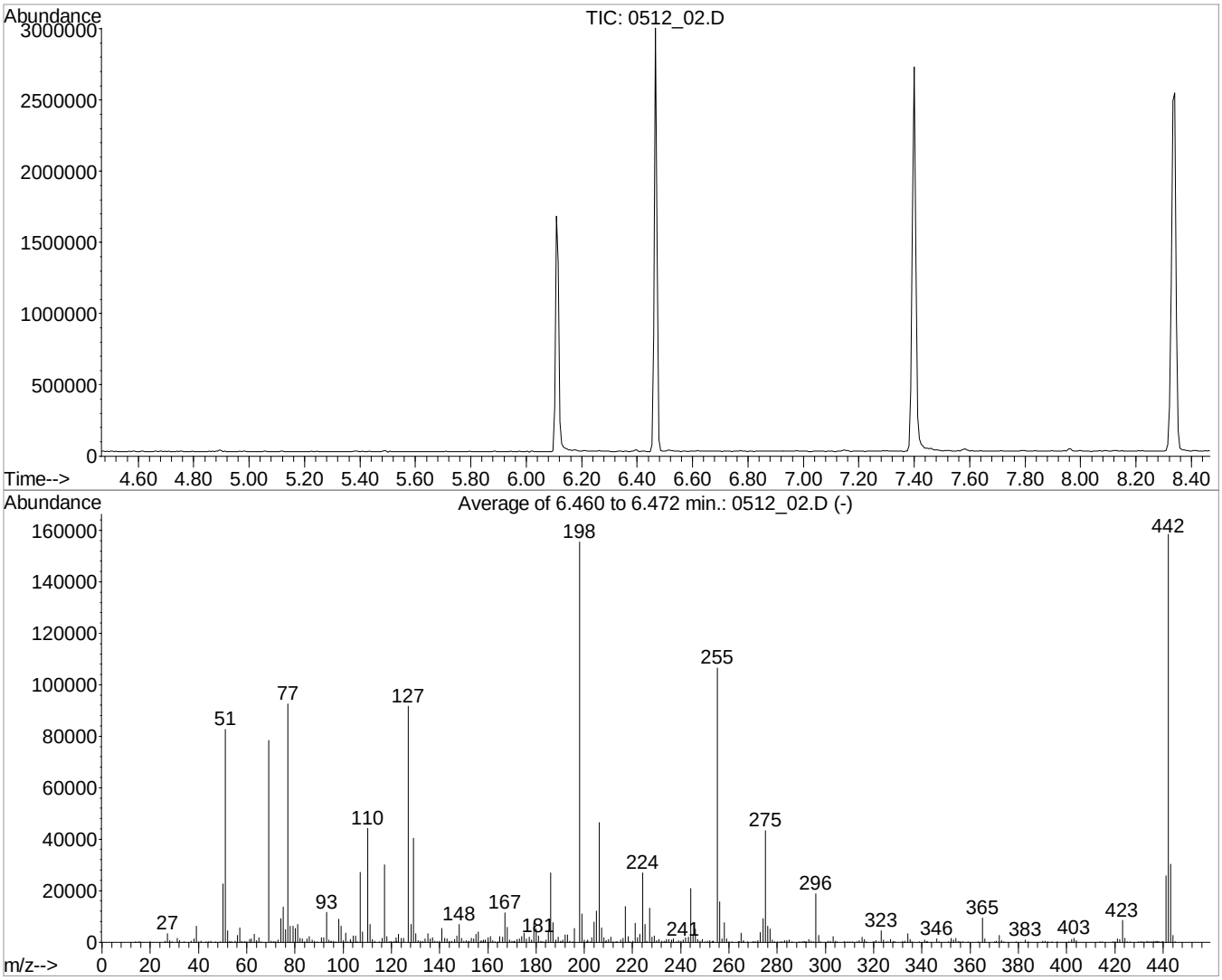
Lab File ID: 0512_02T-1
Instrument ID: BNAMS4
Analysis Date/Time: 05/12/22 04:55

SDG: L1488802
Analytical Method: 8270E

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	52
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	58
197	198	0	2	0
198	442	50	100	98
199	198	5	9	7
275	442	10	60	27
365	198	1	100	6
441	442	0.0001	24	16
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS40512220512_03577847	0512_03	05/12/22 05:16
ICV	BNAMS40512220512_04577847	0512_04	05/12/22 05:37
LCS	R3791359-1	0512_07	05/12/22 06:50
BLANK	R3791359-2	0512_08	05/12/22 07:11
OS	L1488414-03	0512_25	05/12/22 13:06
MS	R3791359-3	0512_26	05/12/22 13:27
MSD	R3791359-4	0512_27	05/12/22 13:47

Data File : C:\MSDCHEM\1\DATA\051222\0512 02.D Vial: 2
Acq On : 12 May 2022 4:55 am Operator: 3545
Sample : TUNE 50 PPM 22D18771 exp 08/11/22 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.460 to 6.472 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	52.1	82546	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	78288	PASS
70	69	0.00	2	0.5	426	PASS
127	442	10	80	57.8	91682	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	98.1	155440	PASS
199	198	5	9	7.0	10902	PASS
275	442	10	60	27.4	43408	PASS
365	198	1	100	6.0	9330	PASS
441	442	0.01	24	16.3	25779	PASS
442	442	50	100	100.0	158498	PASS
443	442	15	24	19.1	30244	PASS

0512_02.D TUNED.M Thu May 12 05:49:00 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0331_02	**SDG:**	L1488802
Instrument ID:	BNAMS24	**Analytical Method:**	8270E
Analysis Date/Time:	03/31/22 17:02		

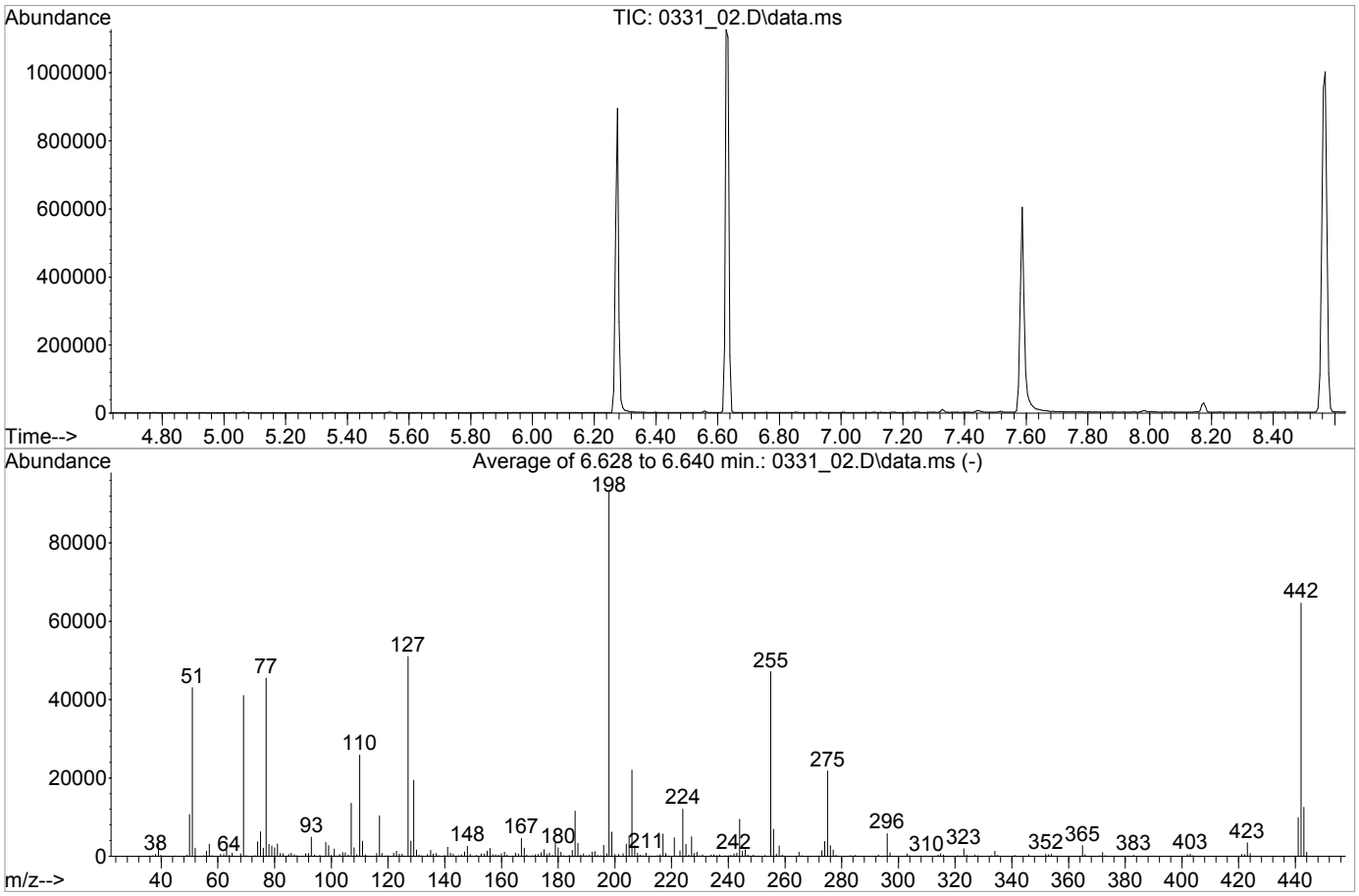
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	46
68	69	0	2	2
69	69	100	100	100
70	69	0	2	0
127	198	10	80	55
197	198	0	2	1
198	198	50	100	100
199	198	5	9	7
275	198	10	60	23
365	198	1	100	3
441	442	0.0001	24	15
442	198	50	100	69
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	0331_03	03/31/22 17:24
STD-1000	1000	0331_04	03/31/22 17:45
STD-4000	4000	0331_05	03/31/22 18:07
STD-10000	10000	0331_06	03/31/22 18:28
STD-20000	20000	0331_07	03/31/22 18:49
STD-30000	30000	0331_08	03/31/22 19:11
STD-40000	40000	0331_09	03/31/22 19:32
STD-50000	50000	0331_10	03/31/22 19:53
STD-1K1	1K1	0331_11	03/31/22 20:15
STD-4K1	4K1	0331_12	03/31/22 20:36
STD-10K1	10K1	0331_13	03/31/22 20:58
STD-20K1	20K1	0331_14	03/31/22 21:19
STD-30K1	30K1	0331_15	03/31/22 21:40
STD-40K1	40K1	0331_16	03/31/22 22:02
STD-50K1	50K1	0331_17	03/31/22 22:23
SSCV	BNAMS240331220331_18576947	0331_18	03/31/22 22:44
SSCV	BNAMS240331220331_19576947	0331_19	03/31/22 23:06

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_02.D
Acq On : 31 Mar 2022 5:02 pm
Operator : 3545
Sample : TUNE 50 PPM 22C25374 exp 8/11/22
Misc : DFTPP Tune
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : C:\msdchem\1\methods\TUNED.M
Title :
Last Update : Mon Mar 28 16:39:56 2022



Spectrum Information: Average of 6.628 to 6.640 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.2	43070	PASS
68	69	0.00	2	1.5	616	PASS
69	69	100	100	100.0	41045	PASS
70	69	0.00	2	0.5	194	PASS
127	198	10	80	54.7	51035	PASS
197	198	0.00	2	0.7	627	PASS
198	198	50	100	100.0	93259	PASS
199	198	5	9	6.6	6186	PASS
275	198	10	60	23.4	21794	PASS
365	198	1	100	3.0	2770	PASS
441	442	0.01	24	15.3	9884	PASS
442	198	50	100	69.4	64677	PASS
443	442	15	24	19.3	12480	PASS

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0513_02T-1	**SDG:**	L1488802
Instrument ID:	BNAMS24	**Analytical Method:**	8270E
Analysis Date/Time:	05/13/22 06:41		

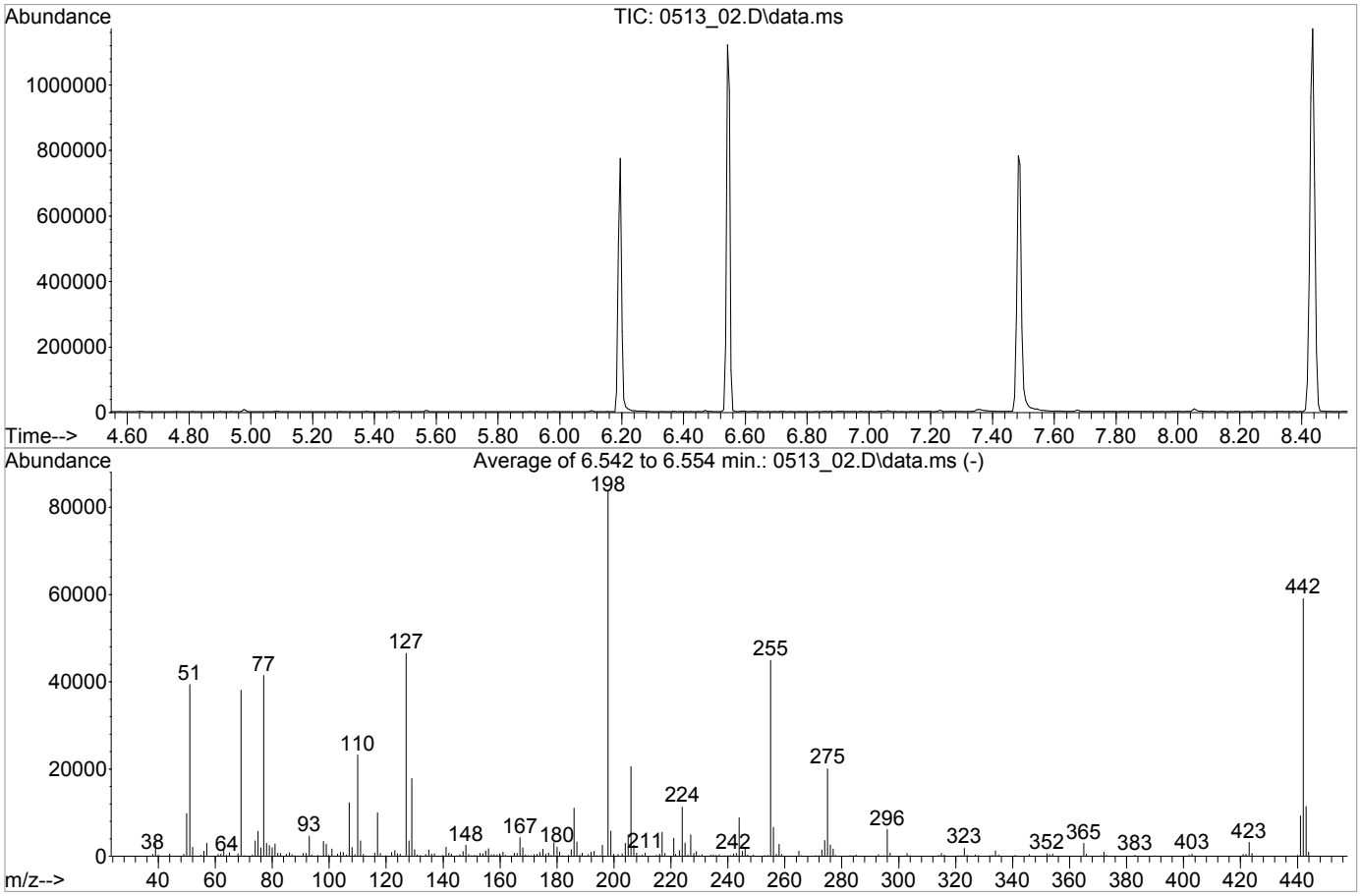
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	47
68	69	0	2	2
69	69	100	100	100
70	69	0	2	0
127	198	10	80	55
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	24
365	198	1	100	4
441	442	0.0001	24	16
442	198	50	100	70
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS240513220513_03576947	0513_03	05/13/22 07:03
ICV	BNAMS240513220513_04576947	0513_04	05/13/22 07:24
BNSF-SG11-042822-0-5	L1488802-01	0513_31	05/13/22 18:06
BNSF-E380-042822-0-4	L1488802-02	0513_32	05/13/22 18:28

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_02.D
Acq On : 13 May 2022 6:41 am
Operator : 3545
Sample : TUNE 50 PPM 22D25444 exp 10/15/22
Misc : DFTPP Tune
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : C:\msdchem\1\methods\TUNED.M
Title :
Last Update : Mon Mar 28 16:39:56 2022



Spectrum Information: Average of 6.542 to 6.554 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.9	39347	PASS
68	69	0.00	2	1.5	576	PASS
69	69	100	100	100.0	38053	PASS
70	69	0.00	2	0.4	167	PASS
127	198	10	80	55.4	46469	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	83838	PASS
199	198	5	9	6.9	5781	PASS
275	198	10	60	24.0	20081	PASS
365	198	1	100	3.5	2943	PASS
441	442	0.01	24	15.6	9241	PASS
442	198	50	100	70.5	59077	PASS
443	442	15	24	19.3	11412	PASS

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	04/23/22 10:42
Std File:	0513_03	**Calibration End Date:**	05/03/22 11:05
		Std Analysis Date:	05/13/22 07:16

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		205905	3.48	416167	5.38	835795	9.35	818465	4.21
UPPER LIMIT		411810		832334		1671590		1636930	
LOWER LIMIT		102953		208084		417898		409233	
LCS R3791942-1 WG1861596 1x	0513_05	219183	3.48	451496	5.38	896973	9.36	1030592	4.21
BLANK R3791942-2 WG1861596 1x	0513_06	222648	3.48	441978	5.38	830535	9.34	870462	4.21
L1488802-06 WG1861596 1x	0513_19	249625	3.48	508455	5.38	1017720	9.35	986342	4.21
L1488802-05 WG1861596 10x	0513_21	215959	3.48	435897	5.38	870801	9.35	851196	4.21
L1488802-04 WG1861596 10x	0513_22	225798	3.48	444477	5.38	909328	9.35	894639	4.21
L1488802-03 WG1861596 10x	0513_23	216991	3.48	457489	5.38	922266	9.35	863205	4.21
OS L1488912-11 WG1861596 10x	0513_24	220534	3.48	451831	5.38	929667	9.35	884461	4.21
MS R3791942-3 WG1861596 10x	0513_25	223092	3.48	460569	5.38	955839	9.36	905247	4.21
MSD R3791942-4 WG1861596 10x	0513_26	224006	3.48	464154	5.38	962417	9.36	906930	4.21

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	04/23/22 10:42
Std File:	0513_03	**Calibration End Date:**	05/03/22 11:05
		Std Analysis Date:	05/13/22 07:16

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		820707	12.09	851016	6.49
UPPER LIMIT		1641414		1702032	
LOWER LIMIT		410354		425508	
LCS R3791942-1 WG1861596 1x	0513_05	892854	12.10	897630	6.50
BLANK R3791942-2 WG1861596 1x	0513_06	854091	12.09	879383	6.49
L1488802-06 WG1861596 1x	0513_19	1095821	12.10	1031758	6.49
L1488802-05 WG1861596 10x	0513_21	944090	12.09	886117	6.49
L1488802-04 WG1861596 10x	0513_22	984096	12.09	922674	6.49
L1488802-03 WG1861596 10x	0513_23	943585	12.10	903482	6.49
OS L1488912-11 WG1861596 10x	0513_24	923275	12.10	928914	6.49
MS R3791942-3 WG1861596 10x	0513_25	889303	12.11	940110	6.49
MSD R3791942-4 WG1861596 10x	0513_26	887920	12.11	934466	6.49

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	02/09/22 10:43
Std File:	0512_03	**Calibration End Date:**	02/09/22 15:35
		Std Analysis Date:	05/12/22 05:16

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		58440	3.25	121507	5.15	215510	9.01	243744	3.98
UPPER LIMIT		116880		243014		431020		487488	
LOWER LIMIT		29220		60754		107755		121872	
LCS R3791359-1 WG1861595 1x	0512_07	46267	3.25	99352	5.15	171143	9	218892	3.98
BLANK R3791359-2 WG1861595 1x	0512_08	47283	3.25	90401	5.14	143679	9	185022	3.98
OS L1488414-03 WG1861595 1x	0512_25	44965	3.25	101749	5.15	166024	9	194284	3.98
MS R3791359-3 WG1861595 1x	0512_26	44022	3.25	107173	5.15	194821	9.01	218114	3.98
MSD R3791359-4 WG1861595 1x	0512_27	45130	3.25	104616	5.15	170709	9.01	219856	3.98

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	02/09/22 10:43
Std File:	0512_03	**Calibration End Date:**	02/09/22 15:35
		Std Analysis Date:	05/12/22 05:16

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		203511	11.66	225435	6.26
UPPER LIMIT		407022		450870	
LOWER LIMIT		101756		112718	
LCS R3791359-1 WG1861595 1x	0512_07	165992	11.66	186948	6.26
BLANK R3791359-2 WG1861595 1x	0512_08	148068	11.67	167092	6.26
OS L1488414-03 WG1861595 1x	0512_25	181637	11.66	203109	6.26
MS R3791359-3 WG1861595 1x	0512_26	188706	11.66	199692	6.26
MSD R3791359-4 WG1861595 1x	0512_27	184122	11.66	206133	6.26

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS24	**Calibration Start Date:**	03/31/22 17:24
Std File:	0513_03	**Calibration End Date:**	03/31/22 22:23
		Std Analysis Date:	05/13/22 07:03

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		27019	3.34	57621	5.23	68297	9.11	109138	4.07
UPPER LIMIT		54038		115242		136594		218276	
LOWER LIMIT		13510		28811		34149		54569	
L1488802-01 WG1861595 1x	0513_31	25662	3.34	59017	5.23	73143	9.11	108226	4.07
L1488802-02 WG1861595 1x	0513_32	24888	3.34	56441	5.23	67358	9.11	103501	4.07

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS24	**Calibration Start Date:**	03/31/22 17:24
Std File:	0513_03	**Calibration End Date:**	03/31/22 22:23
		Std Analysis Date:	05/13/22 07:03

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		60843	11.77	96421	6.35
UPPER LIMIT		121686		192842	
LOWER LIMIT		30422		48211	
L1488802-01 WG1861595 1x	0513_31	56138	11.77	97771	6.35
L1488802-02 WG1861595 1x	0513_32	52097	11.77	94429	6.35

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-SG11-042822-0-5

Lab Sample ID:	L1488802-01	**SDG:**	L1488802
Client Sample ID:	BNSF-SG11-042822-0-5	**Collected Date/Time:**	04/28/22 08:05
Lab File ID:	0513_31	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS24	**Preparation Date/Time:**	05/11/22 03:07
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/13/22 18:06
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.24 g
Total Solids (%):	77.0	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00700	0.0432
Acenaphthylene	208-96-8	0	U		0.00609	0.0432
Anthracene	120-12-7	6.25	U		0.00770	0.0432
Benzoic Acid	65-85-0	3.86	0.238	C3 J	0.153	2.17
Benzo(a)anthracene	56-55-3	9.09	U		0.00762	0.0432
Benzo(b)fluoranthene	205-99-2	11.01	U		0.00806	0.0432
Benzo(k)fluoranthene	207-08-9	11.01	U		0.00769	0.0432
Benzo(g,h,i)perylene	191-24-2	0	U		0.00791	0.0432
Benzo(a)pyrene	50-32-8	0	U		0.00804	0.0432
Carbazole	86-74-8	6.41	U		0.0134	0.432
Chrysene	218-01-9	9.14	0.0101	J	0.00860	0.0432
Dibenz(a,h)anthracene	53-70-3	0	U		0.0120	0.0432
Dibenzofuran	132-64-9	0	U		0.0142	0.432
Fluoranthene	206-44-0	7.36	U		0.00780	0.0432
Fluorene	86-73-7	0	U		0.00704	0.0432
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.0122	0.0432
1-Methylnaphthalene	90-12-0	4.58	0.00623	J	0.00553	0.0432
2-Methylnaphthalene	91-57-6	4.51	0.00945	J	0.00561	0.0432
Naphthalene	91-20-3	4.08	U		0.0109	0.0432
Phenanthrene	85-01-8	6.25	U		0.00858	0.0432
Bis(2-ethylhexyl)phthalate	117-81-7	9.17	U		0.0548	0.432
Di-n-butyl phthalate	84-74-2	6.79	U		0.0148	0.432
Di-n-octyl phthalate	117-84-0	0	U		0.0292	0.432
Pyrene	129-00-0	7.58	0.0142	J	0.00841	0.0432
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0135	0.432
Pentachlorophenol	87-86-5	0	U		0.0116	0.432
Phenol	108-95-2	0	U		0.0174	0.432

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

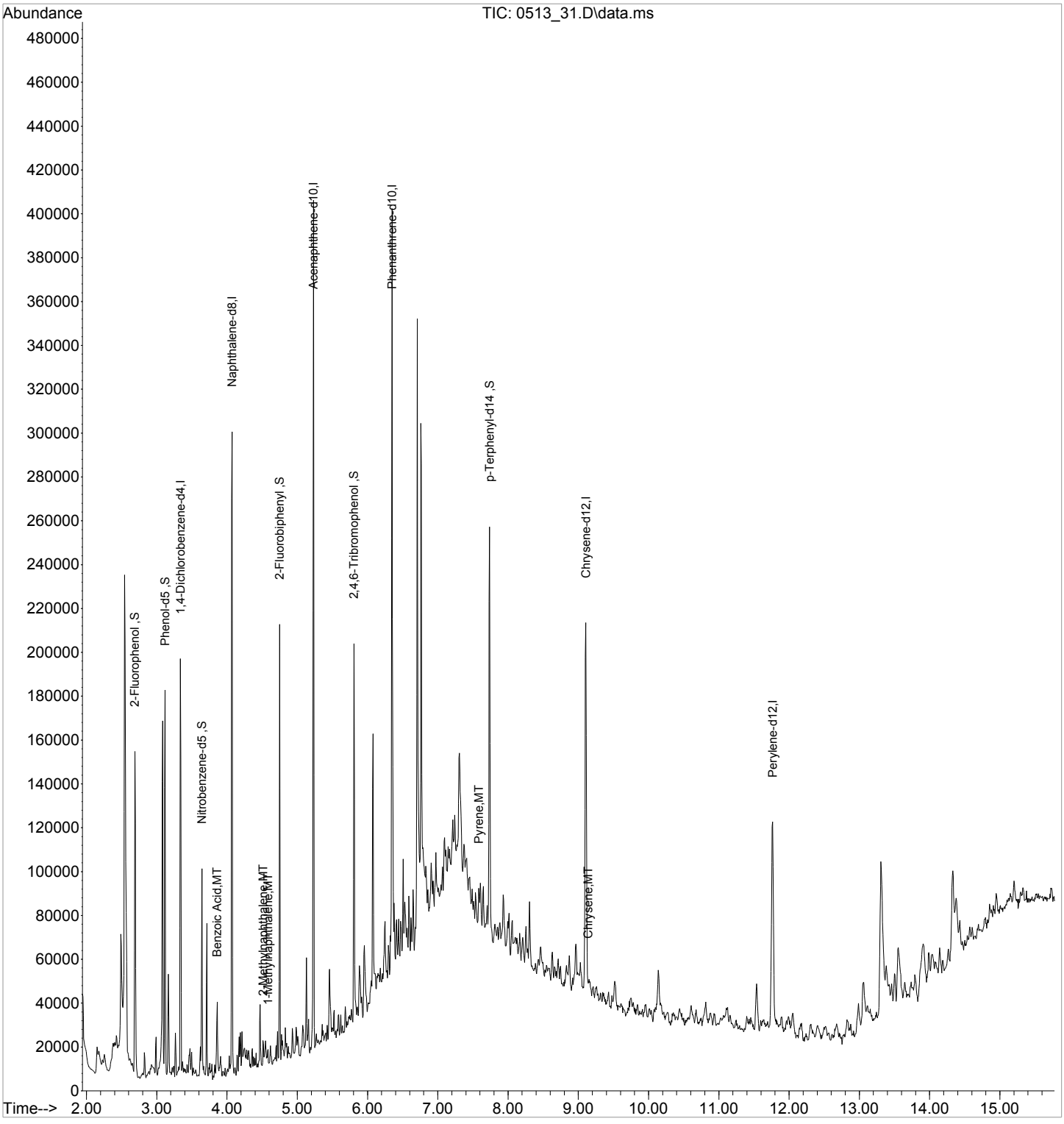
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.337	152	25662	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.072	136	108226	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.231	164	59017	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.348	188	97771	8000.0000000	ppb		0.00
84) Chrysene-d12	9.107	240	73143	8000.0000000	ppb		0.00
94) Perylene-d12	11.766	264	56138	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.690	112	38505	9583.7089628	ppb		0.01
Spiked Amount 20000.000	Range 20 - 120			Recovery = 47.92%			
7) Phenol-d5	3.119	99	42861	8991.1936987	ppb		0.00
Spiked Amount 20000.000	Range 20 - 120			Recovery = 44.96%			
24) Nitrobenzene-d5	3.643	82	18845	4578.6652205	ppb		0.00
Spiked Amount 10000.000	Range 18 - 125			Recovery = 45.79%			
50) 2-Fluorobiphenyl	4.748	172	43816	4675.2860095	ppb		0.00
Spiked Amount 10000.000	Range 28 - 120			Recovery = 46.75%			
73) 2,4,6-Tribromophenol	5.807	330	12894	12587.8096412	ppb		0.00
Spiked Amount 20000.000	Range 17 - 137			Recovery = 62.94%			
87) p-Terphenyl-d14	7.736	244	59142	5843.0599873	ppb		0.00
Spiked Amount 10000.000	Range 13 - 131			Recovery = 58.43%			
Target Compounds							Qvalue
31) Benzoic Acid	3.860	105	4532	5579.4198723	ppb		97
41) 2-Methylnaphthalene	4.513	142	1885	222.0883296	ppb	#	79
42) 1-Methylnaphthalene	4.584	142	1210	146.4460880	ppb	#	79
86) Pyrene	7.583	202	4555m	332.4690787	ppb		
91) Chrysene	9.142	228	2561m	237.4837696	ppb		

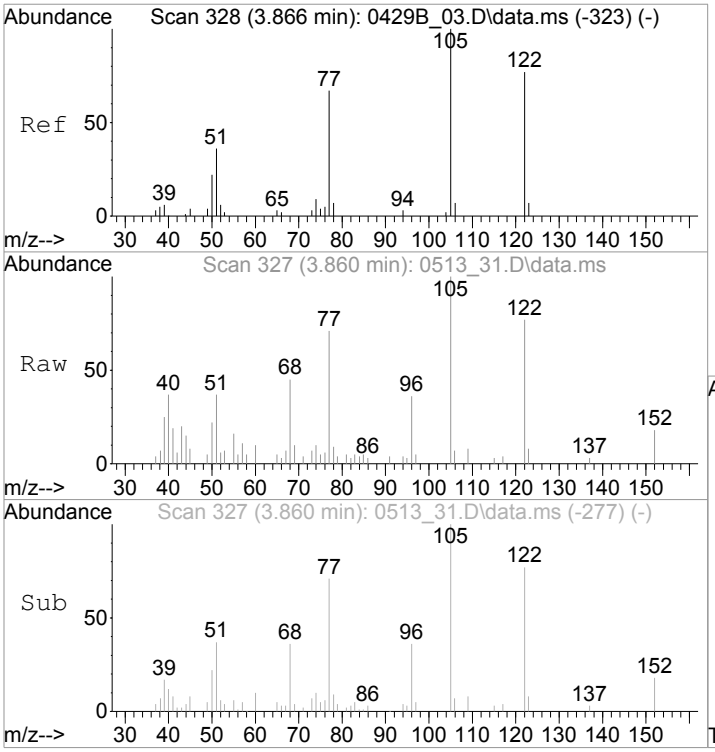
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 16 13:09:16 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

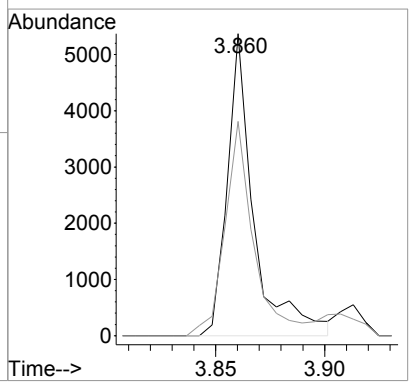


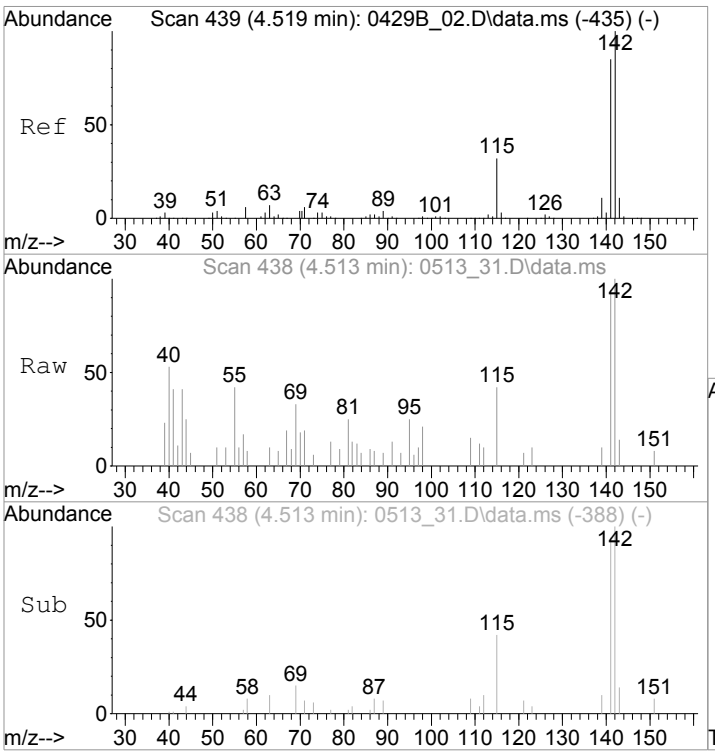


#31
Benzoic Acid
Concen: 5579.4198723 ppb
RT: 3.860 min Scan# 327
Delta R.T. -0.006 min
Lab File: 0513_31.D
Acq: 13 May 2022 6:06 pm

Tgt Ion:105 Resp: 4532

Ion	Ratio	Lower	Upper
105	100		
77	75.9	53.1	93.1

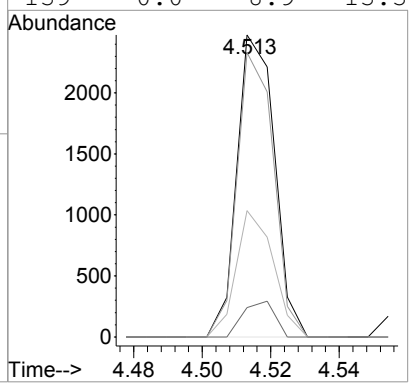


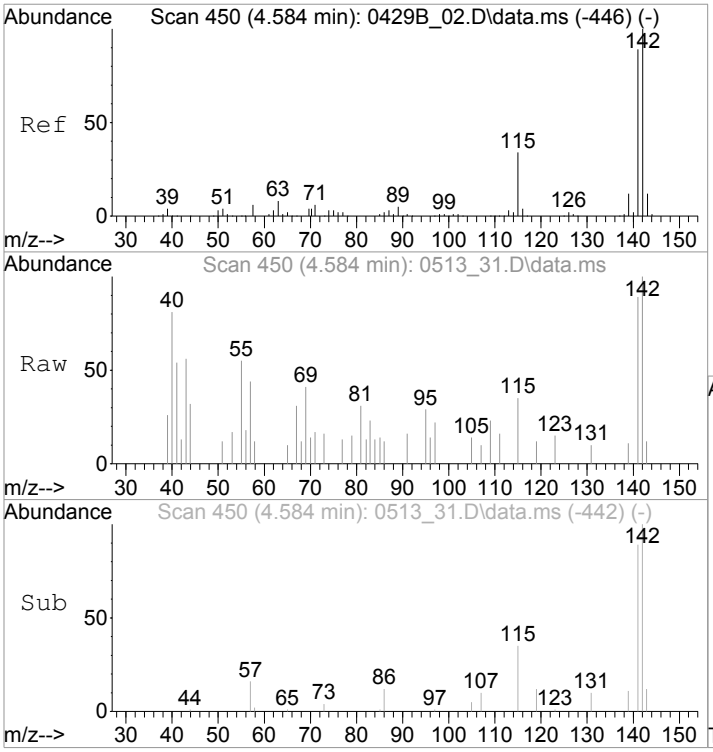


#41
2-Methylnaphthalene
Concen: 222.0883296 ppb
RT: 4.513 min Scan# 438
Delta R.T. -0.006 min
Lab File: 0513_31.D
Acq: 13 May 2022 6:06 pm

Tgt Ion:142 Resp: 1885

Ion	Ratio	Lower	Upper
142	100		
141	91.6	68.6	102.8
115	0.0	25.5	38.3#
139	0.0	8.9	13.3#

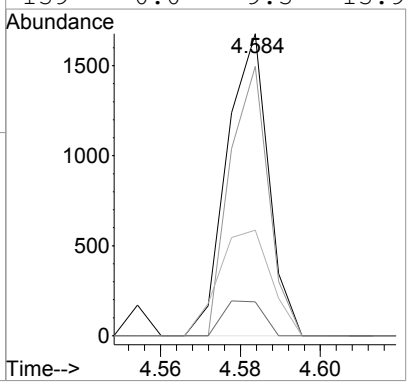


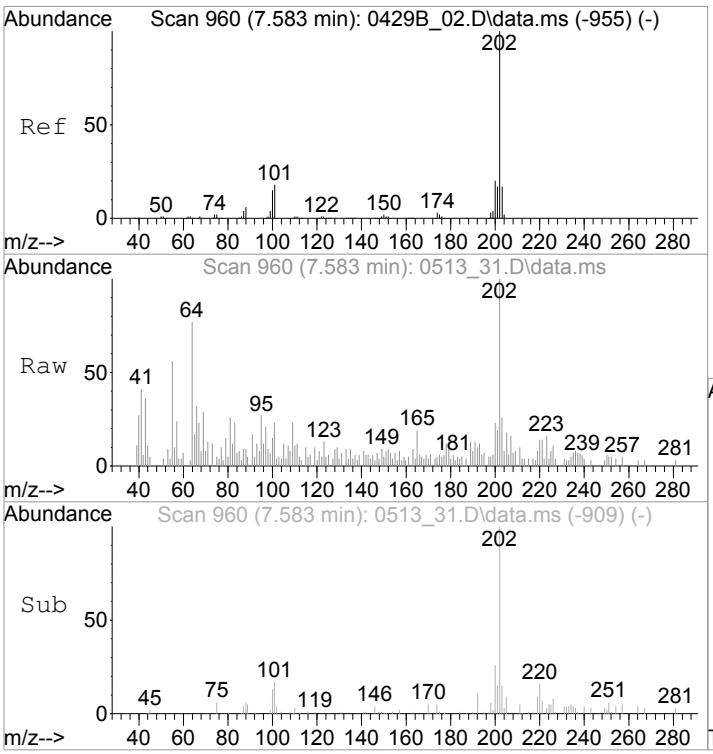


#42
1-Methylnaphthalene
Concen: 146.4460880 ppb
RT: 4.584 min Scan# 450
Delta R.T. 0.000 min
Lab File: 0513_31.D
Acq: 13 May 2022 6:06 pm

Tgt Ion:142 Resp: 1210

Ion	Ratio	Lower	Upper
142	100		
141	82.7	70.6	105.8
115	0.0	26.9	40.3#
139	0.0	9.3	13.9#

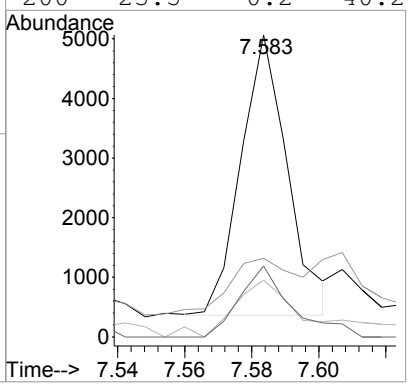


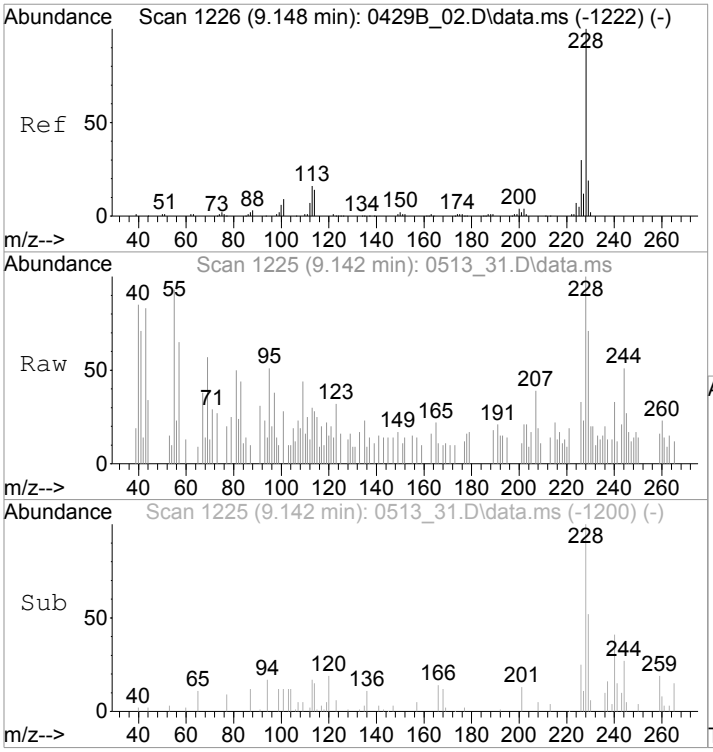


#86
Pyrene
Concen: 332.4690787 ppb m
RT: 7.583 min Scan# 960
Delta R.T. 0.000 min
Lab File: 0513_31.D
Acq: 13 May 2022 6:06 pm

Tgt Ion:202 Resp: 4555

Ion	Ratio	Lower	Upper
202	100		
203	26.0	0.0	37.5
201	18.8	0.0	37.5
200	23.5	0.2	40.2

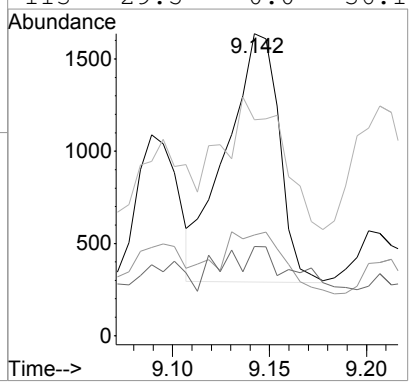




#91
Chrysene
Concen: 237.4837696 ppb m
RT: 9.142 min Scan# 1225
Delta R.T. -0.006 min
Lab File: 0513_31.D
Acq: 13 May 2022 6:06 pm

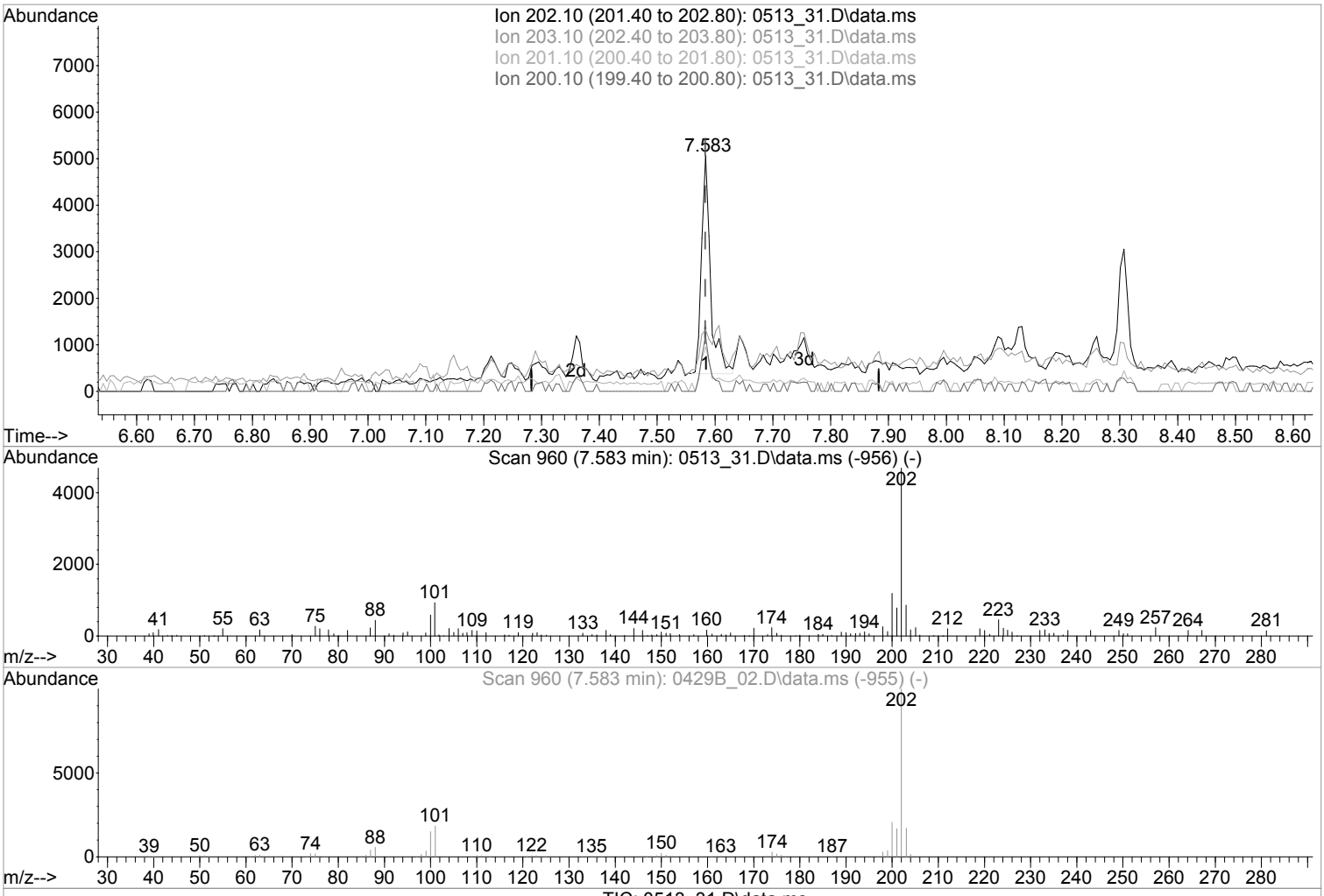
Tgt Ion:228 Resp: 2561

Ion	Ratio	Lower	Upper
228	100		
226	33.4	9.1	49.1
229	71.5	0.1	40.1#
113	29.5	0.0	36.1



Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 15 14:04:13 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_31.D\data.ms

(86) Pyrene (MT)

7.583min (+0.000) 368.6720783 ppb

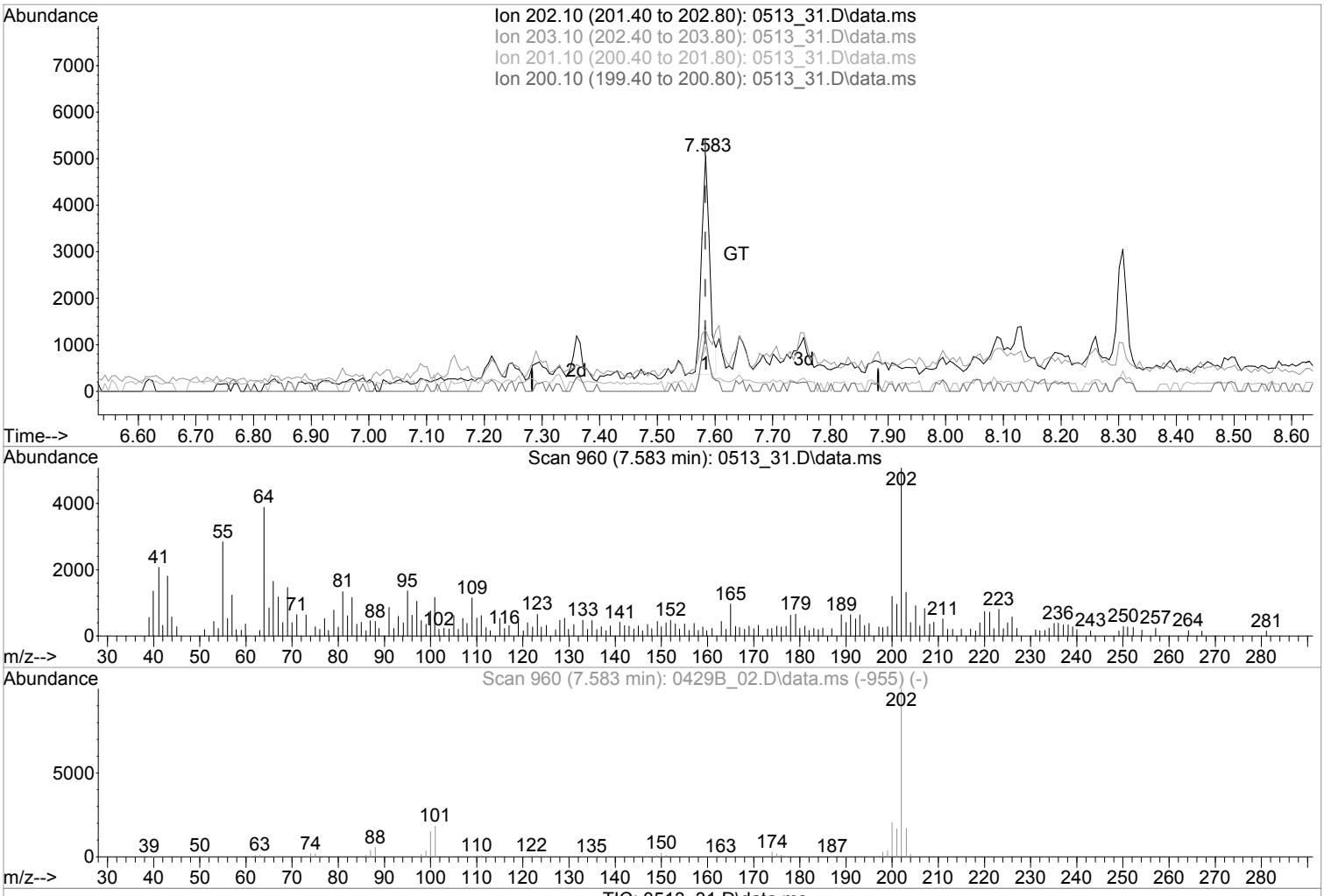
Qvalue = 95

response 5051 Limit = 194.0000000

Ion	Exp%	Act%
202.10	100	100
203.10	17.50	18.31
201.10	17.50	16.69
200.10	20.20	25.37

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 15 14:04:13 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_31.D\data.ms

(86) Pyrene (MT)

7.583min (+0.000) 332.4690787 ppb m

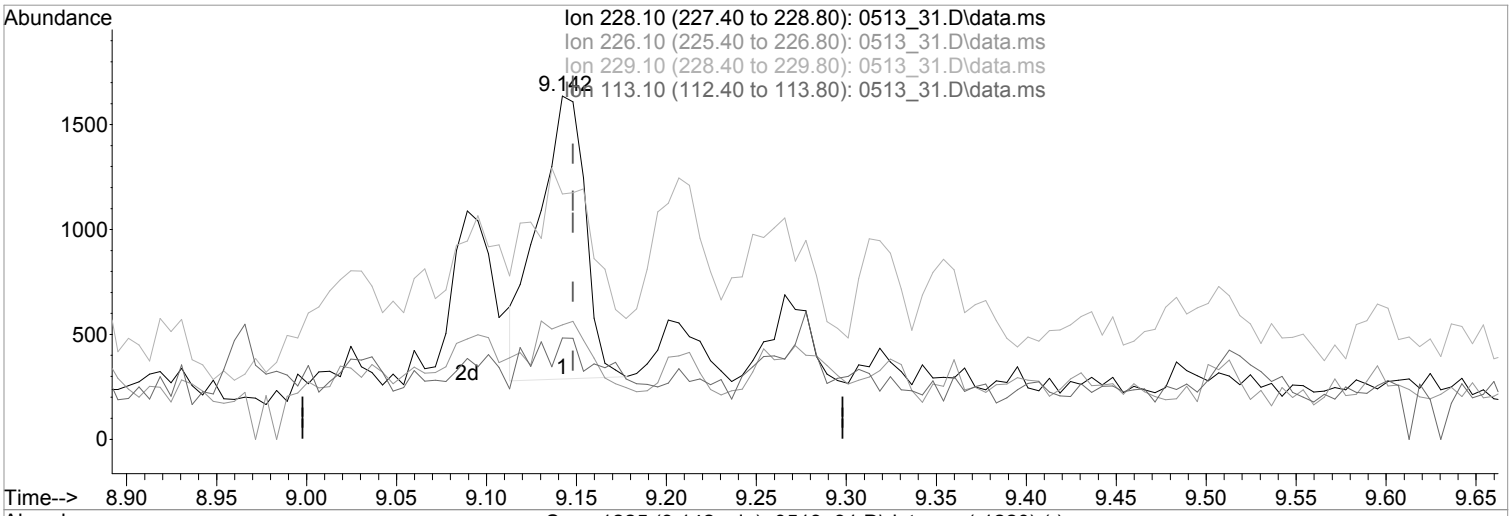
response 4555 Limit = 194.0000000

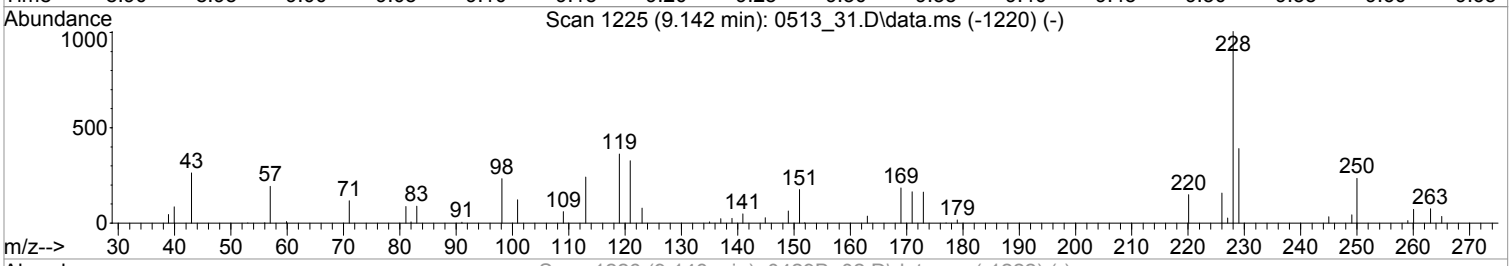
Ion	Exp%	Act%
202.10	100	100
203.10	17.50	26.04
201.10	17.50	18.83
200.10	20.20	23.47

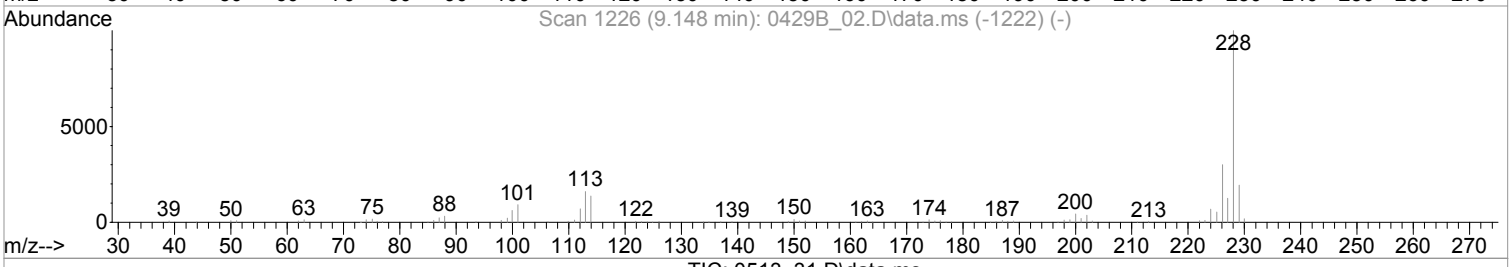
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 15 14:34:57 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0513_31.D\data.ms

(91) Chrysene (MT)

9.142min (-0.006) 227.1906426 ppb

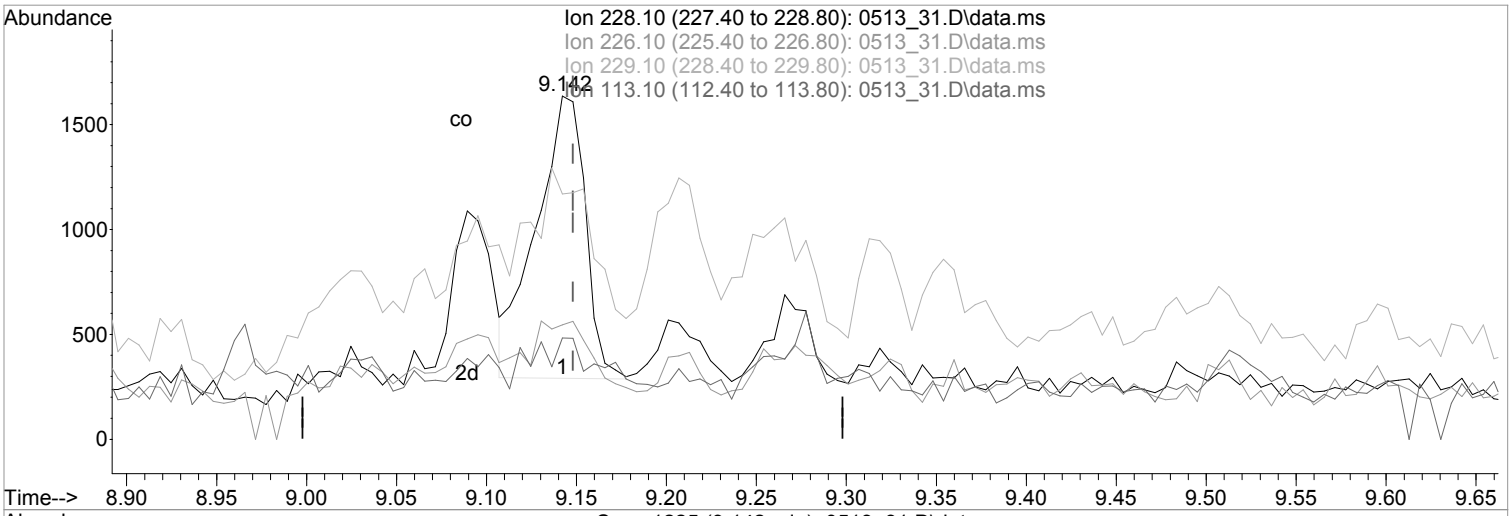
Qvalue = 77

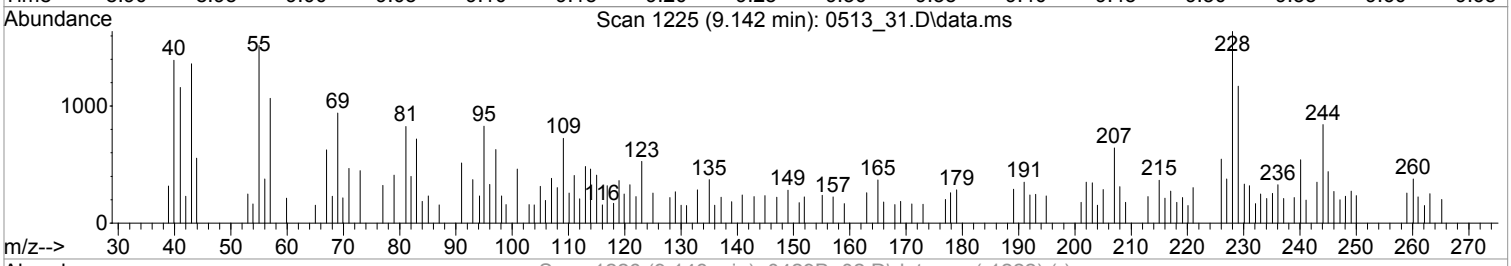
response 2450 Limit = 199.0000000

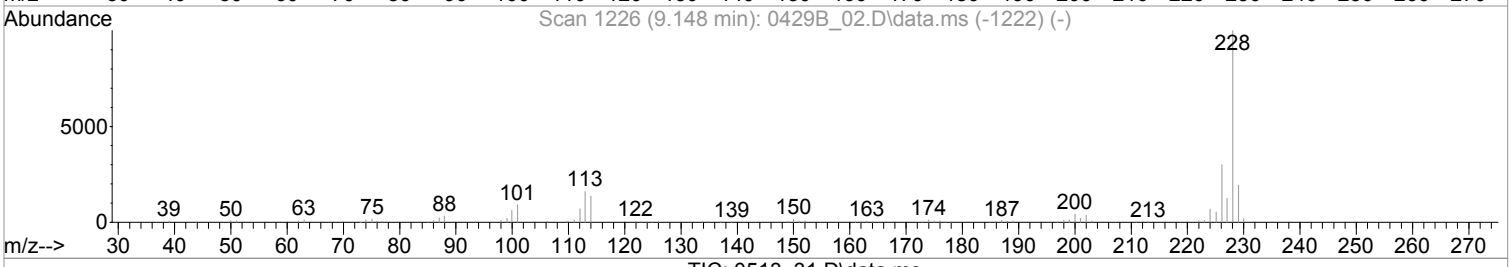
Ion	Exp%	Act%
228.10	100	100
226.10	29.10	22.33
229.10	20.10	44.36#
113.10	16.10	18.07

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_31.D
Acq On : 13 May 2022 6:06 pm
Operator : 974
Sample : L1488802-01 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 15 14:34:57 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0513_31.D\data.ms

(91) Chrysene (MT)

9.142min (-0.006) 237.4837696 ppb m

response 2561 Limit = 199.0000000

Ion	Exp%	Act%
228.10	100	100
226.10	29.10	33.35
229.10	20.10	71.47#
113.10	16.10	29.51

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E380-042822-0-4

Lab Sample ID:	L1488802-02	**SDG:**	L1488802
Client Sample ID:	BNSF-E380-042822-0-4	**Collected Date/Time:**	04/28/22 08:35
Lab File ID:	0513_32	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS24	**Preparation Date/Time:**	05/11/22 03:07
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/13/22 18:28
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.21 g
Total Solids (%):	75.4	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00715	0.0442
Acenaphthylene	208-96-8	0	U		0.00622	0.0442
Anthracene	120-12-7	6.24	U		0.00786	0.0442
Benzoic Acid	65-85-0	3.86	U	C3	0.157	2.21
Benzo(a)anthracene	56-55-3	0	U		0.00779	0.0442
Benzo(b)fluoranthene	205-99-2	0	U		0.00824	0.0442
Benzo(k)fluoranthene	207-08-9	0	U		0.00785	0.0442
Benzo(g,h,i)perylene	191-24-2	0	U		0.00808	0.0442
Benzo(a)pyrene	50-32-8	0	U		0.00821	0.0442
Carbazole	86-74-8	0	U		0.0137	0.442
Chrysene	218-01-9	0	U		0.00878	0.0442
Dibenz(a,h)anthracene	53-70-3	0	U		0.0122	0.0442
Dibenzofuran	132-64-9	0	U		0.0145	0.442
Fluoranthene	206-44-0	0	U		0.00797	0.0442
Fluorene	86-73-7	0	U		0.00719	0.0442
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.0125	0.0442
1-Methylnaphthalene	90-12-0	0	U		0.00565	0.0442
2-Methylnaphthalene	91-57-6	4.51	0.00894	J	0.00573	0.0442
Naphthalene	91-20-3	4.08	U		0.0111	0.0442
Phenanthrene	85-01-8	6.24	U		0.00877	0.0442
Bis(2-ethylhexyl)phthalate	117-81-7	9.17	U		0.0560	0.442
Di-n-butyl phthalate	84-74-2	6.79	U		0.0151	0.442
Di-n-octyl phthalate	117-84-0	0	U		0.0298	0.442
Pyrene	129-00-0	0	U		0.00859	0.0442
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0138	0.442
Pentachlorophenol	87-86-5	0	U		0.0119	0.442
Phenol	108-95-2	0	U		0.0178	0.442

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_32.D
Acq On : 13 May 2022 6:28 pm
Operator : 974
Sample : L1488802-02 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 34 Sample Multiplier: 1

Quant Time: May 15 14:35:26 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

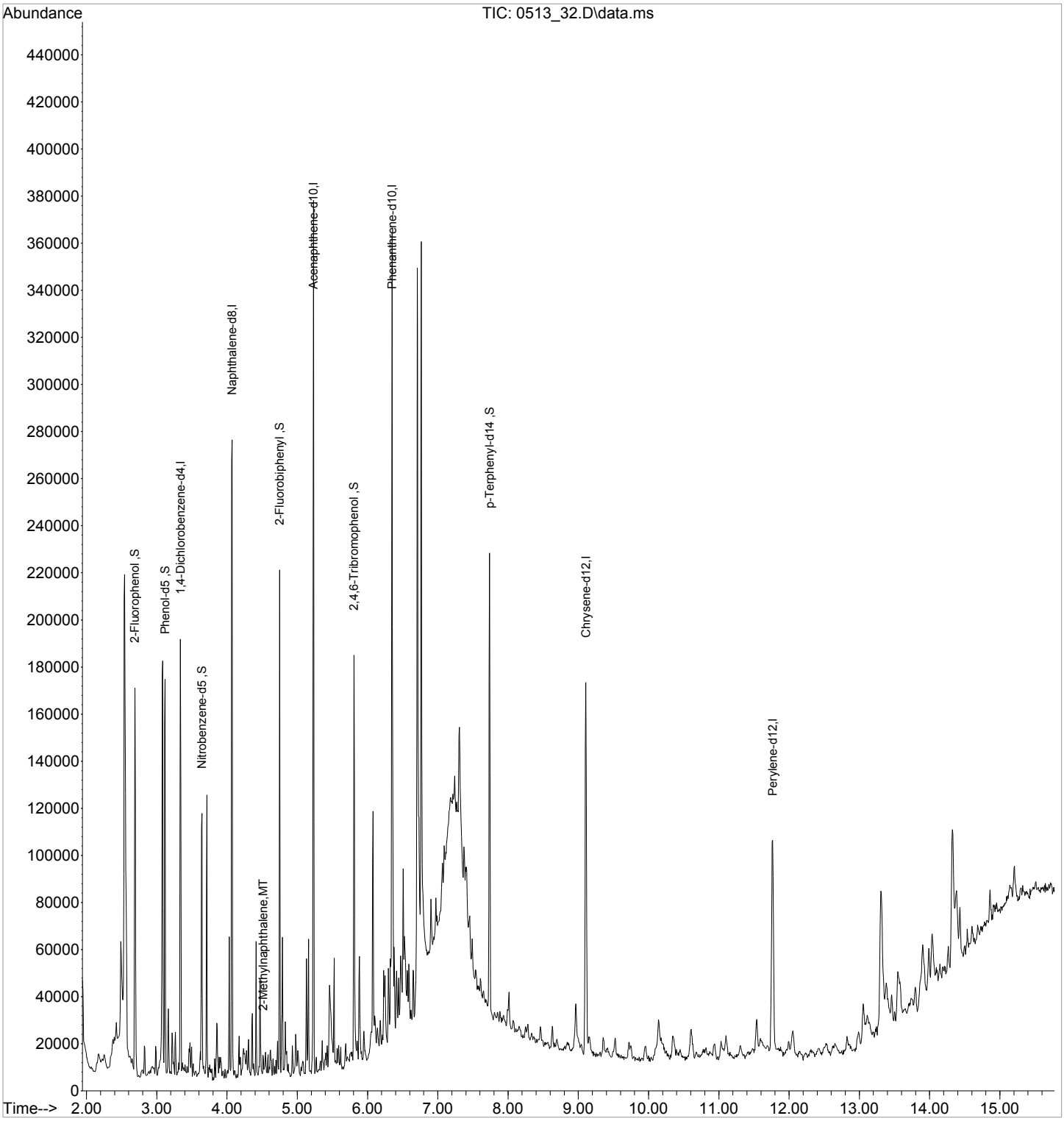
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.337	152	24888	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.072	136	103501	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.231	164	56441	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.348	188	94429	8000.0000000	ppb	0.00
84) Chrysene-d12	9.107	240	67358	8000.0000000	ppb	0.00
94) Perylene-d12	11.766	264	52097	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.690	112	42380	10876.2190001	ppb	0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 54.38%			
7) Phenol-d5	3.119	99	45217	9780.4154240	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 48.90%			
24) Nitrobenzene-d5	3.643	82	20941	5320.1910318	ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 53.20%			
50) 2-Fluorobiphenyl	4.748	172	45952	5126.9880323	ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 51.27%			
73) 2,4,6-Tribromophenol	5.807	330	12743	12880.6817654	ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 64.40%			
87) p-Terphenyl-d14	7.737	244	60767	6519.2212422	ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 65.19%			
Target Compounds						Qvalue
41) 2-Methylnaphthalene	4.513	142	1664	205.0004275	ppb	# 83

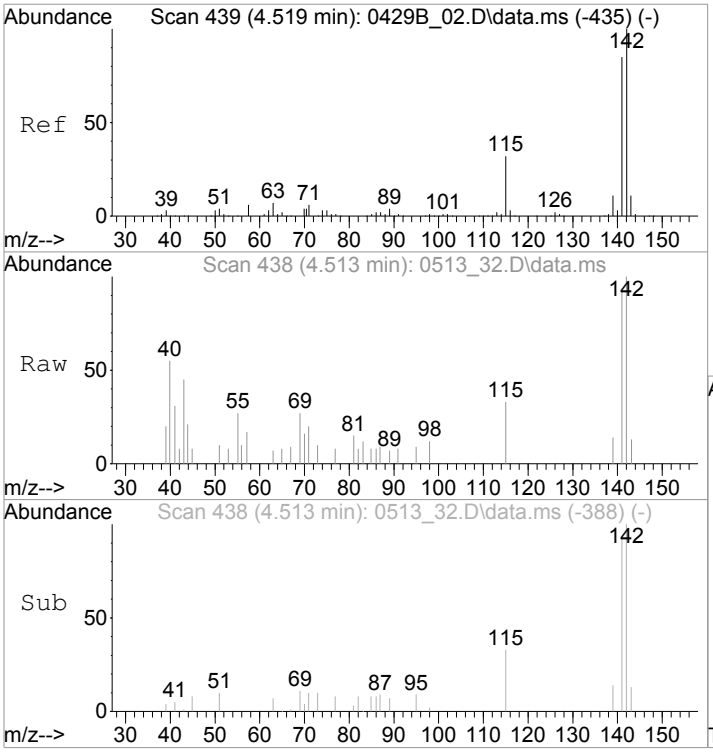
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_32.D
Acq On : 13 May 2022 6:28 pm
Operator : 974
Sample : L1488802-02 1X WG1861595
Misc : SOIL ISTD 22E11662 exp. 11/11/22
ALS Vial : 34 Sample Multiplier: 1

Quant Time: May 15 14:35:26 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

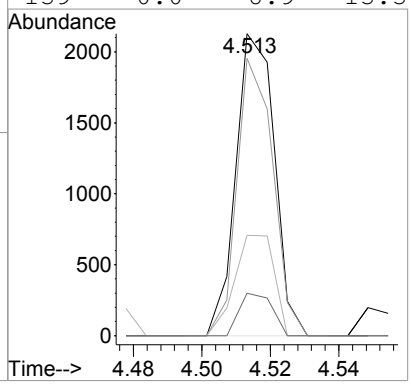




#41
2-Methylnaphthalene
Concen: 205.0004275 ppb
RT: 4.513 min Scan# 438
Delta R.T. -0.006 min
Lab File: 0513_32.D
Acq: 13 May 2022 6:28 pm

Tgt Ion:142 Resp: 1664

Ion	Ratio	Lower	Upper
142	100		
141	85.6	68.6	102.8
115	0.0	25.5	38.3#
139	0.0	8.9	13.3#



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E320-042822-0-4

Lab Sample ID:	L1488802-03	**SDG:**	L1488802
Client Sample ID:	BNSF-E320-042822-0-4	**Collected Date/Time:**	04/28/22 09:05
Lab File ID:	0513_23	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 14:59
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.27 g
Total Solids (%):	72.2	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.0747	0.461
Acenaphthylene	208-96-8	5.28	U		0.0650	0.461
Anthracene	120-12-7	6.55	U		0.0822	0.461
Benzoic Acid	65-85-0	4.08	U		1.63	23.1
Benzo(a)anthracene	56-55-3	9.33	U		0.0813	0.461
Benzo(b)fluoranthene	205-99-2	11.31	U		0.0860	0.461
Benzo(k)fluoranthene	207-08-9	11.37	U		0.0820	0.461
Benzo(g,h,i)perylene	191-24-2	14.32	U		0.0844	0.461
Benzo(a)pyrene	50-32-8	11.98	0.103	J	0.0858	0.461
Carbazole	86-74-8	6.68	U		0.143	4.61
Chrysene	218-01-9	9.39	U		0.0917	0.461
Dibenz(a,h)anthracene	53-70-3	14.20	U		0.128	0.461
Dibenzofuran	132-64-9	5.52	U		0.151	4.61
Fluoranthene	206-44-0	7.53	U		0.0833	0.461
Fluorene	86-73-7	5.78	U		0.0751	0.461
Indeno(1,2,3-cd)pyrene	193-39-5	13.99	U		0.130	0.461
1-Methylnaphthalene	90-12-0	4.86	U		0.0590	0.461
2-Methylnaphthalene	91-57-6	4.65	U		0.0599	0.461
Naphthalene	91-20-3	4.23	U		0.116	0.461
Phenanthrene	85-01-8	6.51	U		0.0916	0.461
Bis(2-ethylhexyl)phthalate	117-81-7	9.42	U		0.585	4.61
Di-n-butyl phthalate	84-74-2	6.94	U		0.158	4.61
Di-n-octyl phthalate	117-84-0	10.68	U		0.312	4.61
Pyrene	129-00-0	7.76	0.184	J	0.0898	0.461
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.144	4.61
Pentachlorophenol	87-86-5	0	U		0.124	4.61
Phenol	108-95-2	0	U		0.186	4.61

Sample Narrative:
Dilution due to matrix impact during extraction procedure

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:42:22 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

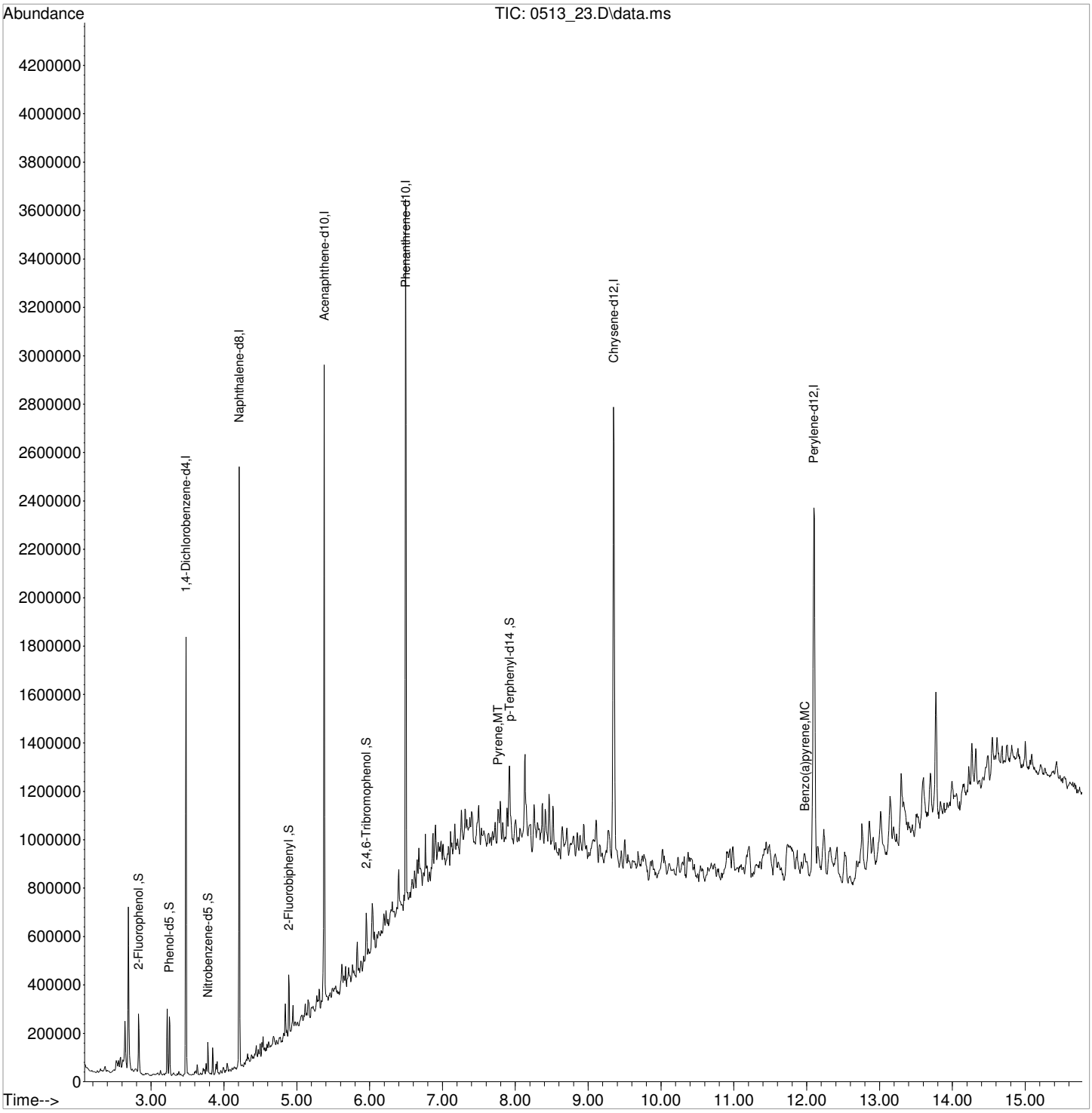
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	216991	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.208	136	863205	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	457489	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	903482	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	922266	8000.0000000	ppb	0.00
94) Perylene-d12	12.099	264	943585	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.828	112	62407	1736.1119207	ppb	0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery =	8.68%#		
7) Phenol-d5	3.251	99	68814	1568.8169715	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery =	7.84%#		
24) Nitrobenzene-d5	3.779	82	31018	806.1999691	ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery =	8.06%#		
50) 2-Fluorobiphenyl	4.890	172	61141	789.2948928	ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery =	7.89%#		
73) 2,4,6-Tribromophenol	5.953	330	17759	1490.2319387	ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery =	7.45%#		
87) p-Terphenyl-d14	7.922	244	94705	784.2009162	ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery =	7.84%#		
Target Compounds						Qvalue
86) Pyrene	7.763	202	57068m	407.9877470	ppb	
97) Benzo(a)pyrene	11.976	252	26557	227.0785539	ppb	83

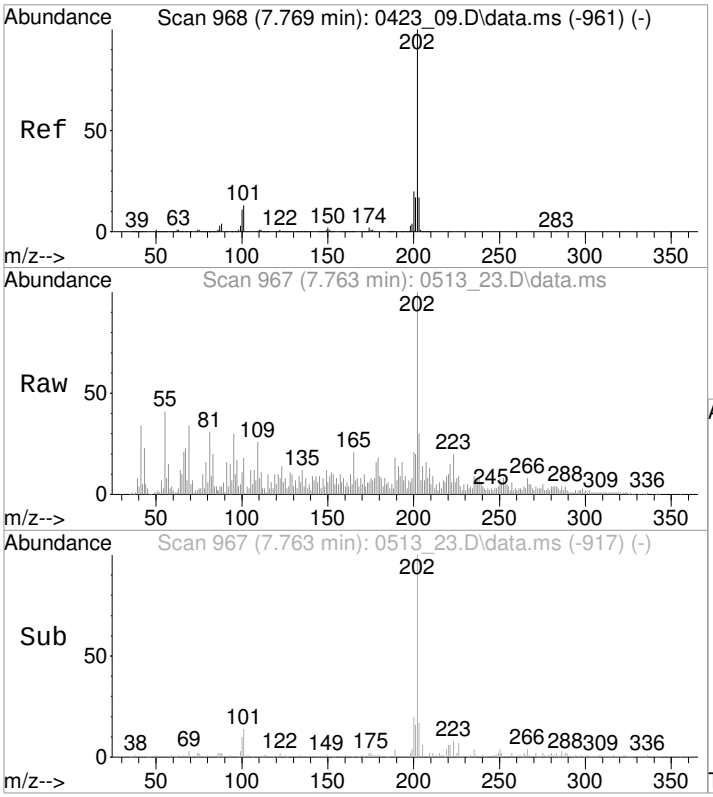
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:42:22 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

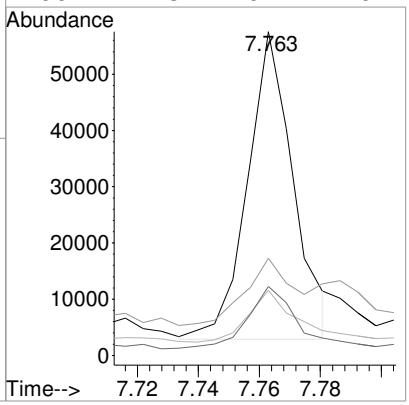


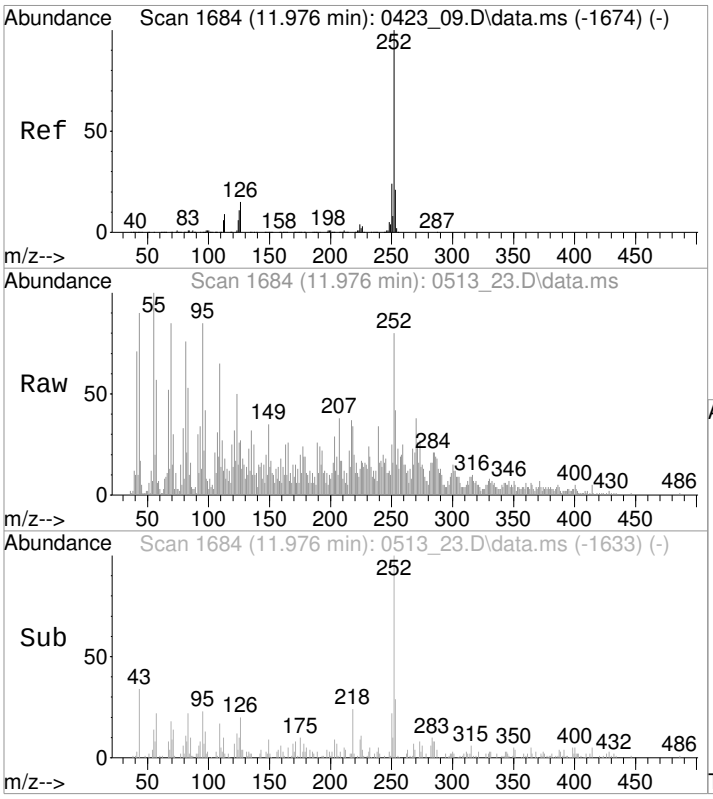


#86
Pyrene
Concen: 407.9877470 ppb m
RT: 7.763 min Scan# 967
Delta R.T. -0.006 min
Lab File: 0513_23.D
Acq: 13 May 2022 2:59 pm

Tgt Ion:202 Resp: 57068

Ion	Ratio	Lower	Upper
202	100		
203	30.1	0.0	36.9
201	20.2	0.0	36.7
200	21.3	0.1	40.1

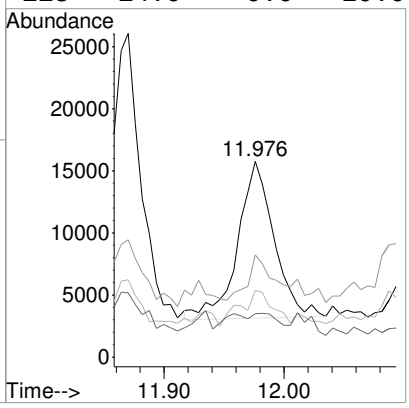




#97
Benzo(a)pyrene
Concen: 227.0785539 ppb
RT: 11.976 min Scan# 1684
Delta R.T. -0.000 min
Lab File: 0513_23.D
Acq: 13 May 2022 2:59 pm

Tgt Ion:252 Resp: 26557

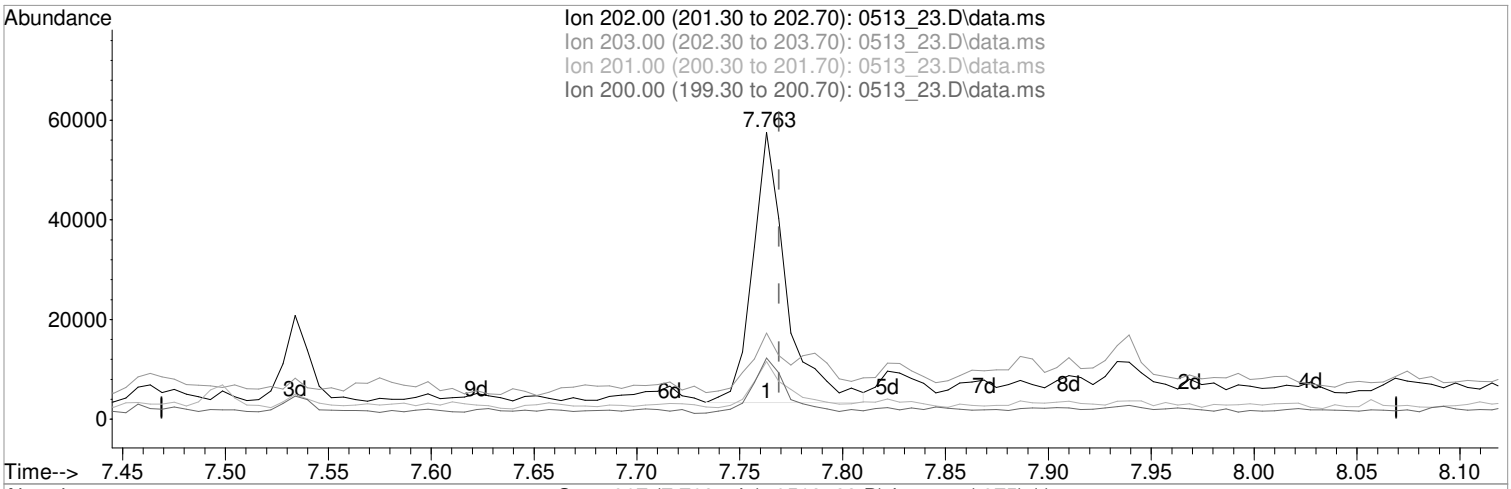
Ion	Ratio	Lower	Upper
252	100		
253	30.7	1.3	41.3
126	21.3	0.0	35.4
113	14.0	0.0	29.0

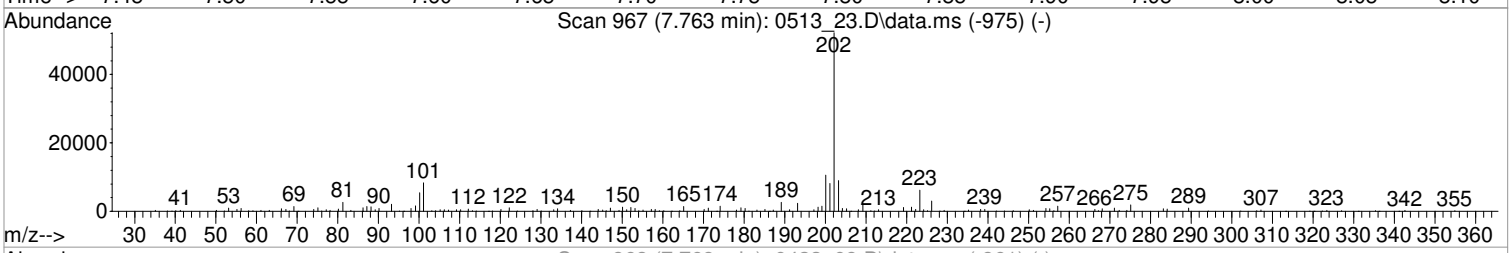


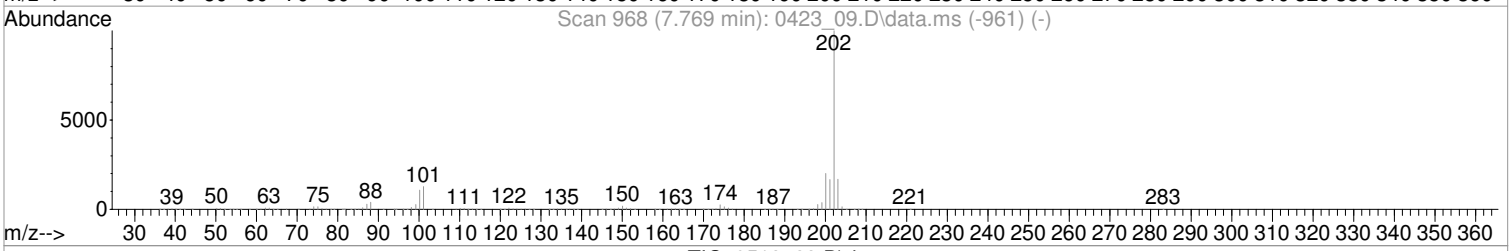
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:15 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_23.D\data.ms

(86) Pyrene (MT)

7.763min (-0.006) 443.9122305 ppb

Qvalue = 96

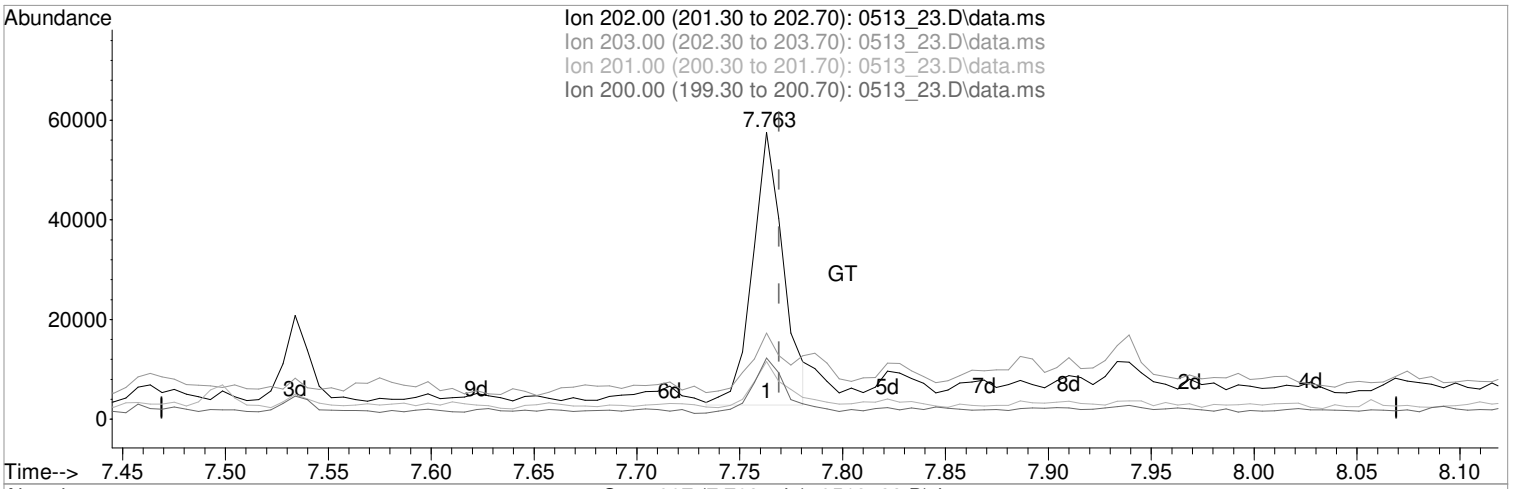
response 62093 Limit = 194.0000000

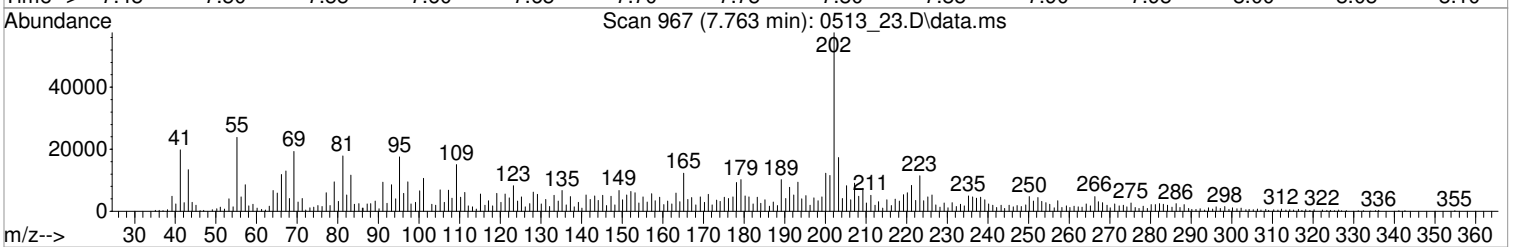
Ion	Exp%	Act%
202.00	100	100
203.00	16.90	22.03
201.00	16.70	16.81
200.00	20.10	20.30

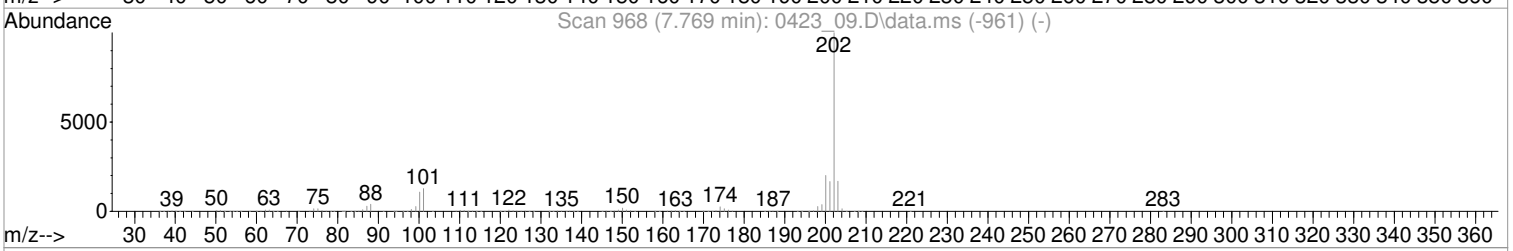
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:15 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_23.D\data.ms

(86) Pyrene (MT)

7.763min (-0.006) 407.9877470 ppb m

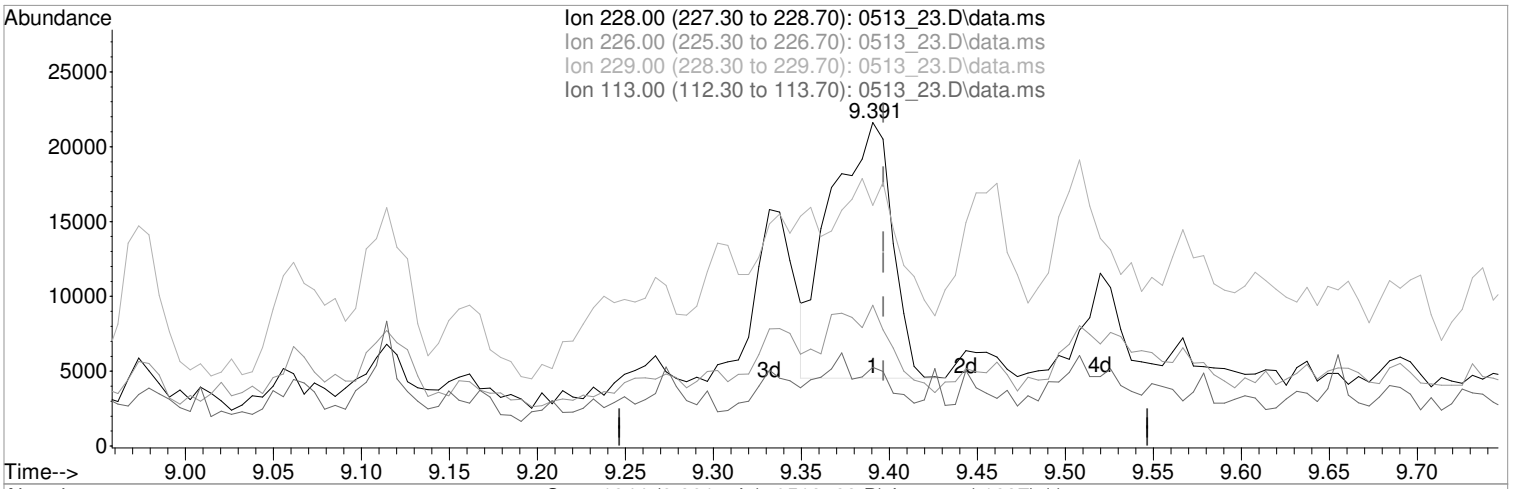
response 57068 Limit = 194.0000000

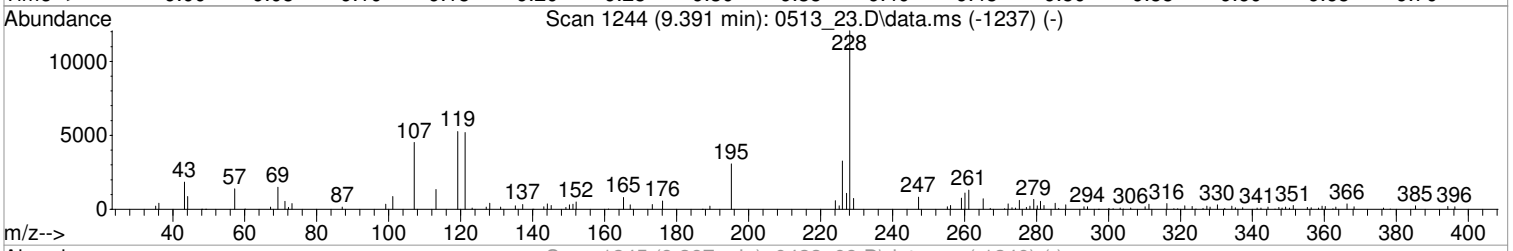
Ion	Exp%	Act%
202.00	100	100
203.00	16.90	30.06
201.00	16.70	20.16
200.00	20.10	21.33

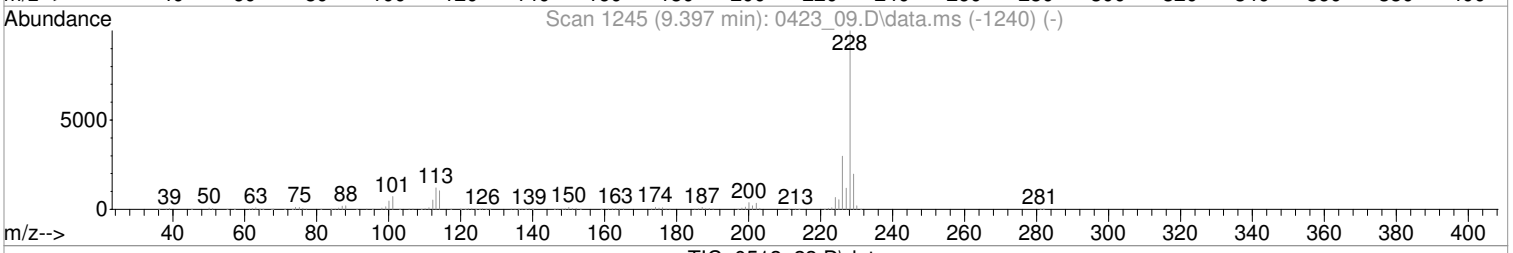
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:15 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_23.D\data.ms

(91) Chrysene (MT)

9.391min (-0.006) 313.8943384 ppb

Qvalue = 89

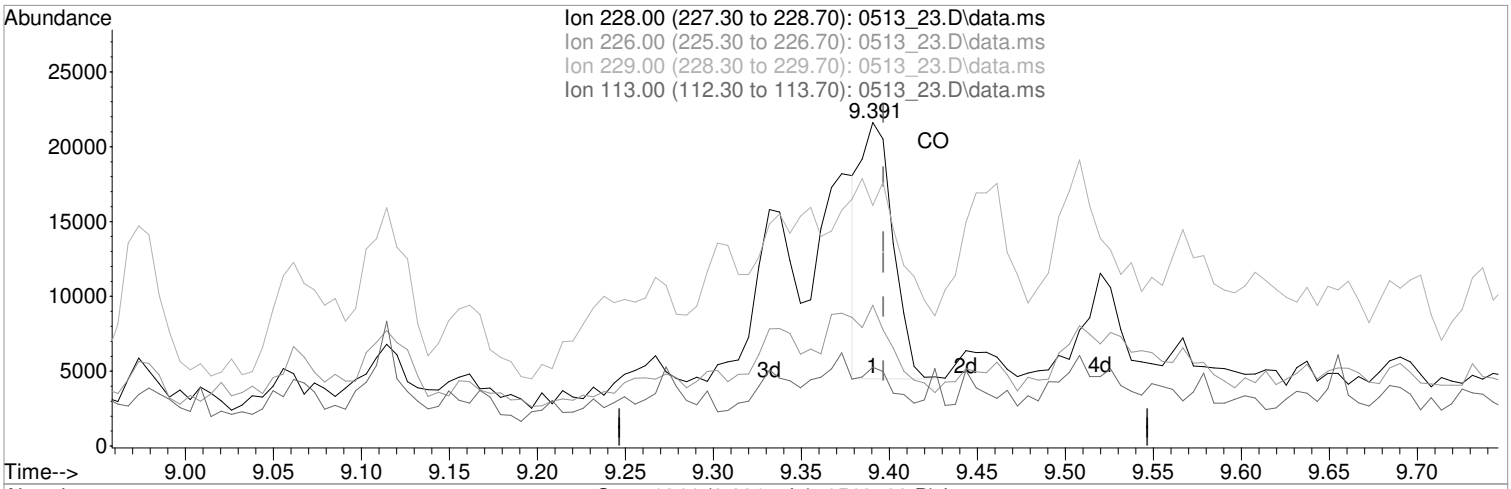
response 41266 Limit = 199.0000000

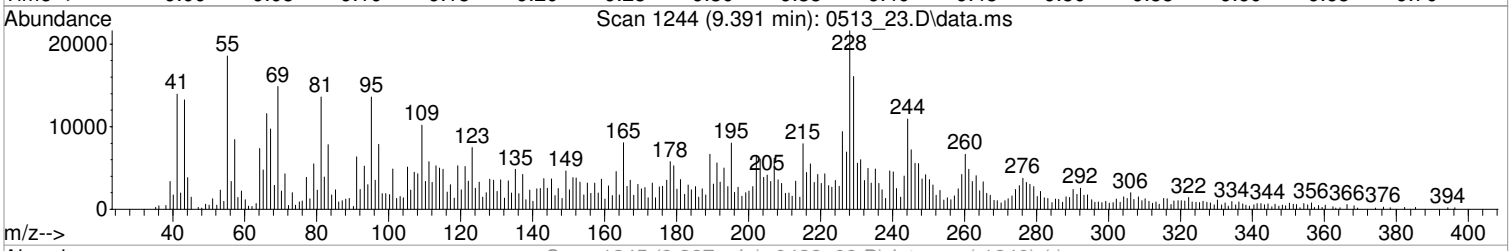
Ion	Exp%	Act%
228.00	100	100
226.00	29.80	29.97
229.00	19.70	33.07
113.00	11.90	14.83

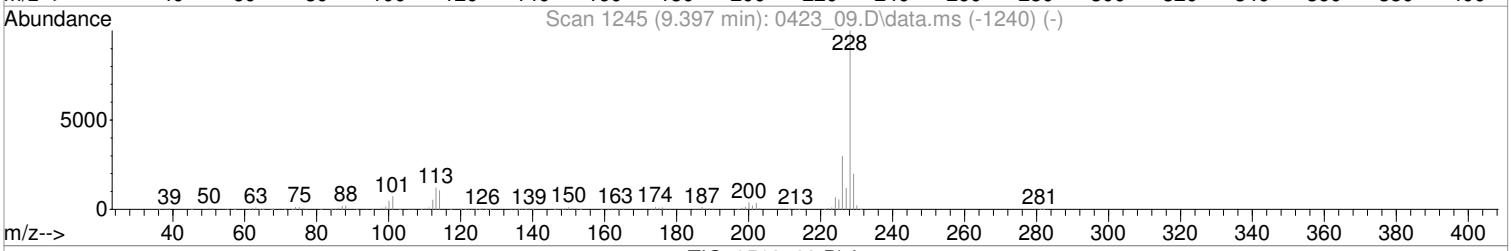
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_23.D
Acq On : 13 May 2022 2:59 pm
Operator : 974
Sample : L1488802-03 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 79 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:15 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_23.D\data.ms

(91) Chrysene (MT)

9.391min (-0.006) 166.8737943 ppb m

response 21938 Limit = 199.0000000

Ion	Exp%	Act%
228.00	100	100
226.00	29.80	43.52
229.00	19.70	74.40#
113.00	11.90	24.32

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-D160-042822-0-5

Lab Sample ID:	L1488802-04	**SDG:**	L1488802
Client Sample ID:	BNSF-D160-042822-0-5	**Collected Date/Time:**	04/28/22 09:50
Lab File ID:	0513_22	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 14:38
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.29 g
Total Solids (%):	70.7	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.0762	0.471
Acenaphthylene	208-96-8	0	U		0.0663	0.471
Anthracene	120-12-7	6.55	U		0.0839	0.471
Benzoic Acid	65-85-0	3.99	U		1.67	23.6
Benzo(a)anthracene	56-55-3	9.37	U		0.0830	0.471
Benzo(b)fluoranthene	205-99-2	11.30	U		0.0878	0.471
Benzo(k)fluoranthene	207-08-9	11.30	U		0.0837	0.471
Benzo(g,h,i)perylene	191-24-2	14.48	U		0.0861	0.471
Benzo(a)pyrene	50-32-8	11.86	U		0.0876	0.471
Carbazole	86-74-8	6.68	U		0.146	4.71
Chrysene	218-01-9	9.37	U		0.0936	0.471
Dibenz(a,h)anthracene	53-70-3	14.03	U		0.131	0.471
Dibenzofuran	132-64-9	0	U		0.154	4.71
Fluoranthene	206-44-0	7.53	U		0.0850	0.471
Fluorene	86-73-7	0	U		0.0767	0.471
Indeno(1,2,3-cd)pyrene	193-39-5	13.98	U		0.133	0.471
1-Methylnaphthalene	90-12-0	0	U		0.0603	0.471
2-Methylnaphthalene	91-57-6	0	U		0.0611	0.471
Naphthalene	91-20-3	4.22	U		0.118	0.471
Phenanthrene	85-01-8	6.52	U		0.0935	0.471
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	U		0.597	4.71
Di-n-butyl phthalate	84-74-2	6.93	U		0.161	4.71
Di-n-octyl phthalate	117-84-0	10.69	U		0.318	4.71
Pyrene	129-00-0	7.76	U		0.0917	0.471
3&4-Methyl Phenol	3&4-Methyl Phenol	3.67	U		0.147	4.71
Pentachlorophenol	87-86-5	0	U		0.127	4.71
Phenol	108-95-2	0	U		0.190	4.71

Sample Narrative:
Dilution due to matrix impact during extraction procedure

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_22.D
Acq On : 13 May 2022 2:38 pm
Operator : 974
Sample : L1488802-04 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 78 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:41:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

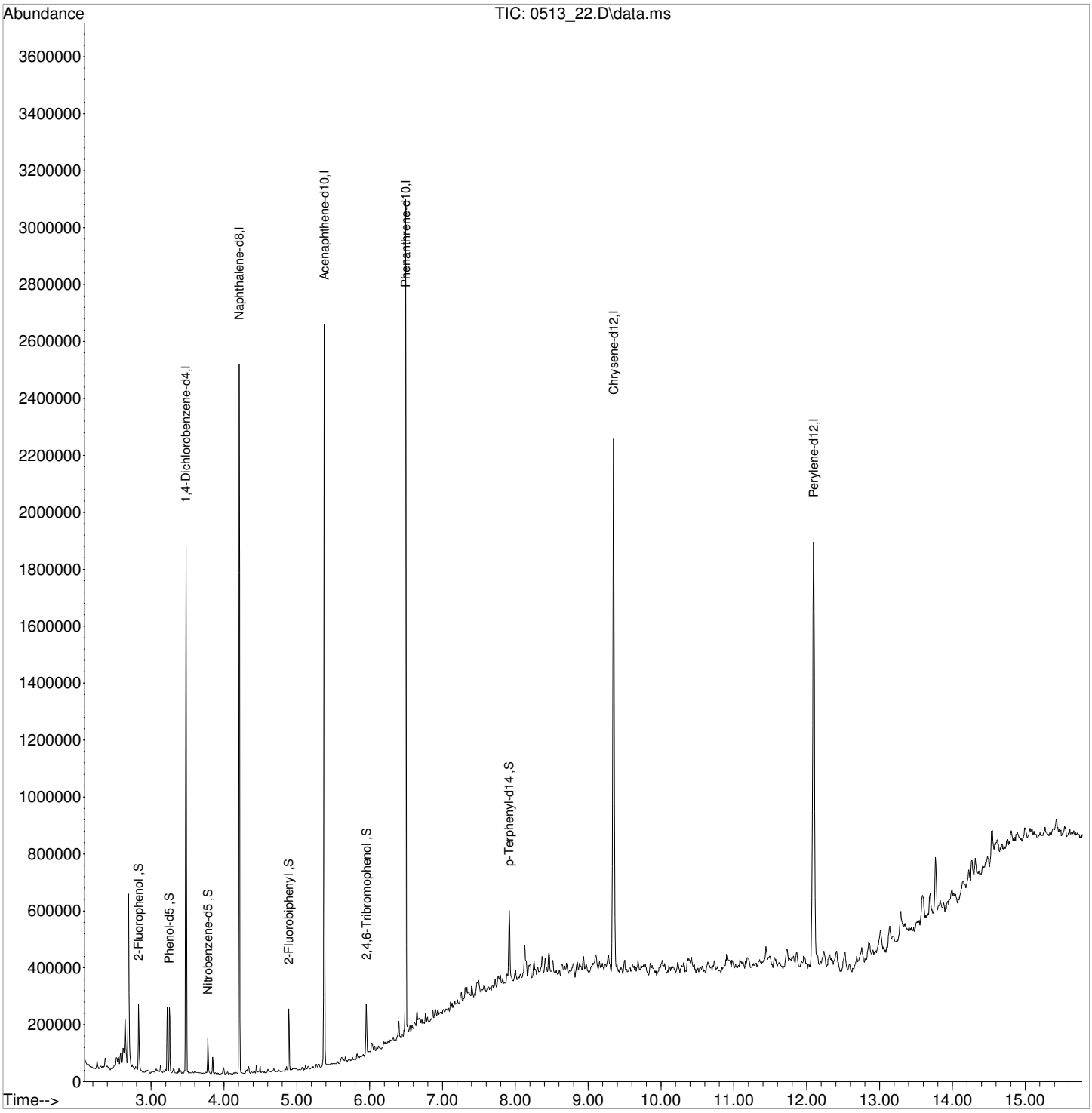
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	225798	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.208	136	894639	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	444477	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	922674	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	909328	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	984096	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.828	112	59714	1596.4017949	ppb	0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery =	7.98%#		
7) Phenol-d5	3.251	99	63517	1391.5764925	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery =	6.96%#		
24) Nitrobenzene-d5	3.779	82	29020	727.7672606	ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery =	7.28%#		
50) 2-Fluorobiphenyl	4.890	172	56010	744.2240342	ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery =	7.44%#		
73) 2,4,6-Tribromophenol	5.953	330	16223	1333.0233280	ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery =	6.67%#		
87) p-Terphenyl-d14	7.916	244	88445	742.7853978	ppb	-0.01
Spiked Amount 10000.000	Range 13 - 131		Recovery =	7.43%#		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_22.D
Acq On : 13 May 2022 2:38 pm
Operator : 974
Sample : L1488802-04 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 78 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:41:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



S802D23V.M Sun May 15 13:41:45 2022 Page: 2

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E460-042922-0-4

Lab Sample ID:	L1488802-05	**SDG:**	L1488802
Client Sample ID:	BNSF-E460-042922-0-4	**Collected Date/Time:**	04/28/22 08:50
Lab File ID:	0513_21	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 14:17
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.53 g
Total Solids (%):	71.1	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.44	U		0.0758	0.468
Acenaphthylene	208-96-8	0	U		0.0659	0.468
Anthracene	120-12-7	6.54	U		0.0834	0.468
Benzoic Acid	65-85-0	3.99	U		1.66	23.5
Benzo(a)anthracene	56-55-3	9.39	U		0.0825	0.468
Benzo(b)fluoranthene	205-99-2	11.30	U		0.0873	0.468
Benzo(k)fluoranthene	207-08-9	11.30	U		0.0832	0.468
Benzo(g,h,i)perylene	191-24-2	14.31	U		0.0856	0.468
Benzo(a)pyrene	50-32-8	11.97	U		0.0870	0.468
Carbazole	86-74-8	6.71	U		0.145	4.68
Chrysene	218-01-9	9.39	U		0.0931	0.468
Dibenz(a,h)anthracene	53-70-3	14.02	U		0.130	0.468
Dibenzofuran	132-64-9	0	U		0.153	4.68
Fluoranthene	206-44-0	7.53	U		0.0845	0.468
Fluorene	86-73-7	5.83	U		0.0762	0.468
Indeno(1,2,3-cd)pyrene	193-39-5	13.99	U		0.132	0.468
1-Methylnaphthalene	90-12-0	0	U		0.0599	0.468
2-Methylnaphthalene	91-57-6	0	U		0.0607	0.468
Naphthalene	91-20-3	4.23	U		0.118	0.468
Phenanthrene	85-01-8	6.51	U		0.0929	0.468
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	U		0.593	4.68
Di-n-butyl phthalate	84-74-2	6.93	U		0.160	4.68
Di-n-octyl phthalate	117-84-0	10.57	U		0.316	4.68
Pyrene	129-00-0	7.76	0.0973	J	0.0911	0.468
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.146	4.68
Pentachlorophenol	87-86-5	0	U		0.126	4.68
Phenol	108-95-2	0	U		0.188	4.68

Sample Narrative:
Dilution due to matrix impact during extraction procedure

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_21.D
Acq On : 13 May 2022 2:17 pm
Operator : 974
Sample : L1488802-05 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 77 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:41:18 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

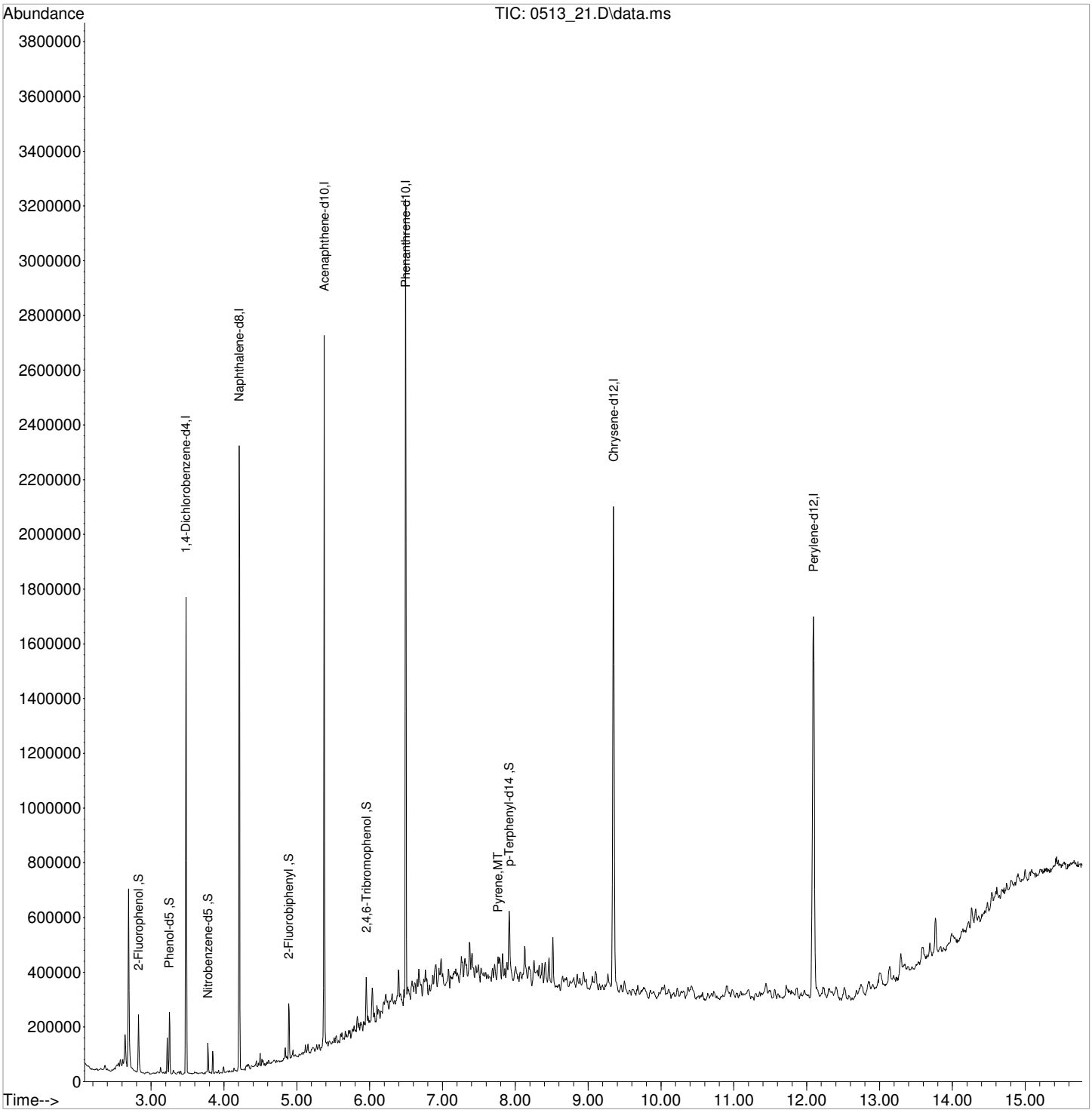
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	215959	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.208	136	851196	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	435897	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	886117	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	870801	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	944090	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.828	112	56490	1579.0155300	ppb	0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery =	7.90%#		
7) Phenol-d5	3.251	99	61967	1419.4704646	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery =	7.10%#		
24) Nitrobenzene-d5	3.779	82	26593	700.9397548	ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery =	7.01%#		
50) 2-Fluorobiphenyl	4.890	172	54770	742.0723881	ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery =	7.42%#		
73) 2,4,6-Tribromophenol	5.953	330	15718	1344.8104657	ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery =	6.72%#		
87) p-Terphenyl-d14	7.916	244	84927	744.7962809	ppb	-0.01
Spiked Amount 10000.000	Range 13 - 131		Recovery =	7.45%#		
Target Compounds						Qvalue
86) Pyrene	7.763	202	28389m	214.9521739	ppb	

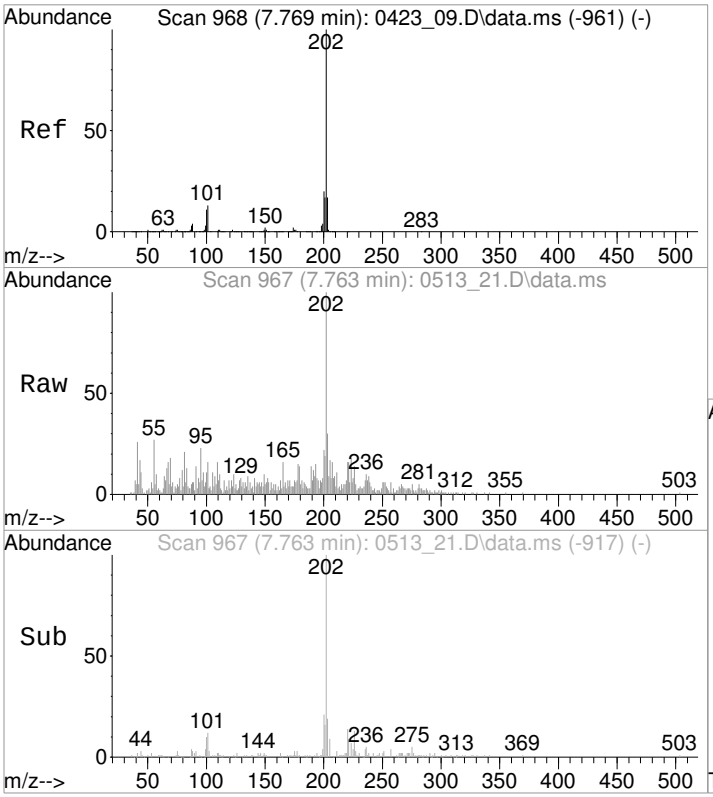
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_21.D
Acq On : 13 May 2022 2:17 pm
Operator : 974
Sample : L1488802-05 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 77 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:41:18 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

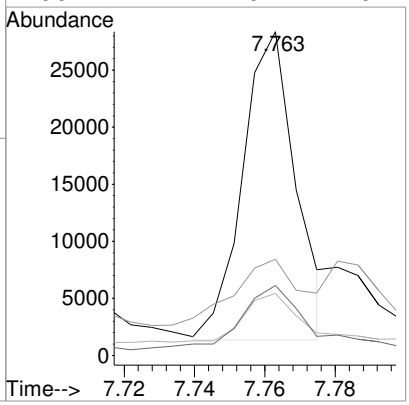




#86
Pyrene
Concen: 214.9521739 ppb m
RT: 7.763 min Scan# 967
Delta R.T. -0.006 min
Lab File: 0513_21.D
Acq: 13 May 2022 2:17 pm

Tgt Ion:202 Resp: 28389

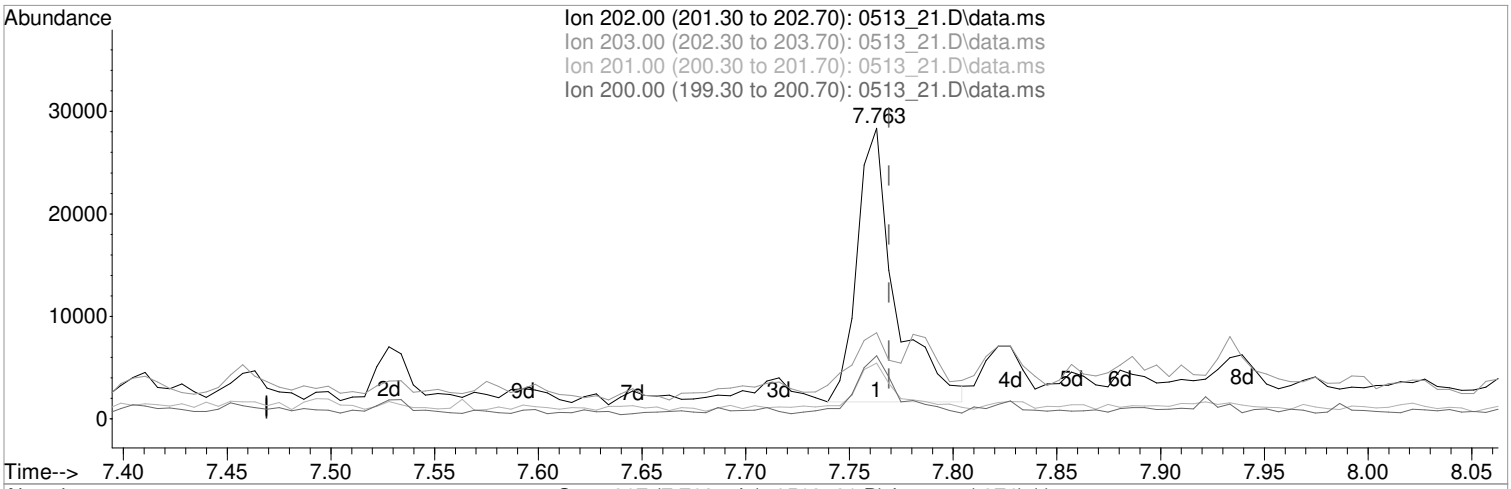
Ion	Ratio	Lower	Upper
202	100		
203	29.7	0.0	36.9
201	19.1	0.0	36.7
200	21.7	0.1	40.1

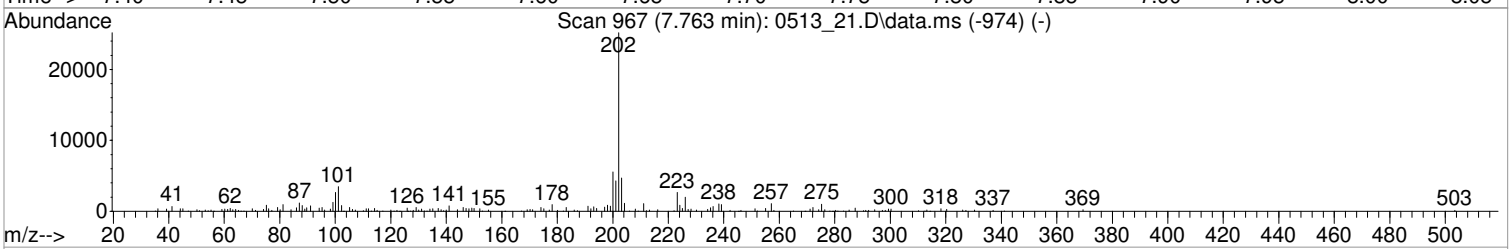


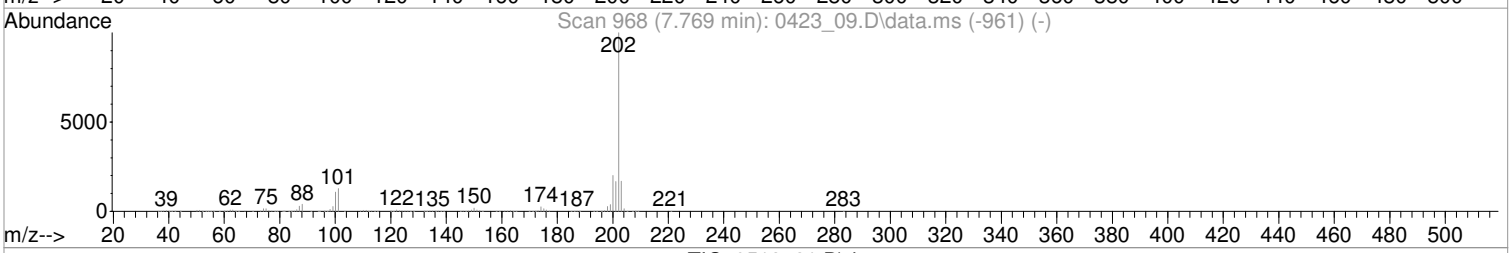
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_21.D
Acq On : 13 May 2022 2:17 pm
Operator : 974
Sample : L1488802-05 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 77 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:05 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_21.D\data.ms

(86) Pyrene (MT)

7.763min (-0.006) 256.7023689 ppb

Qvalue = 97

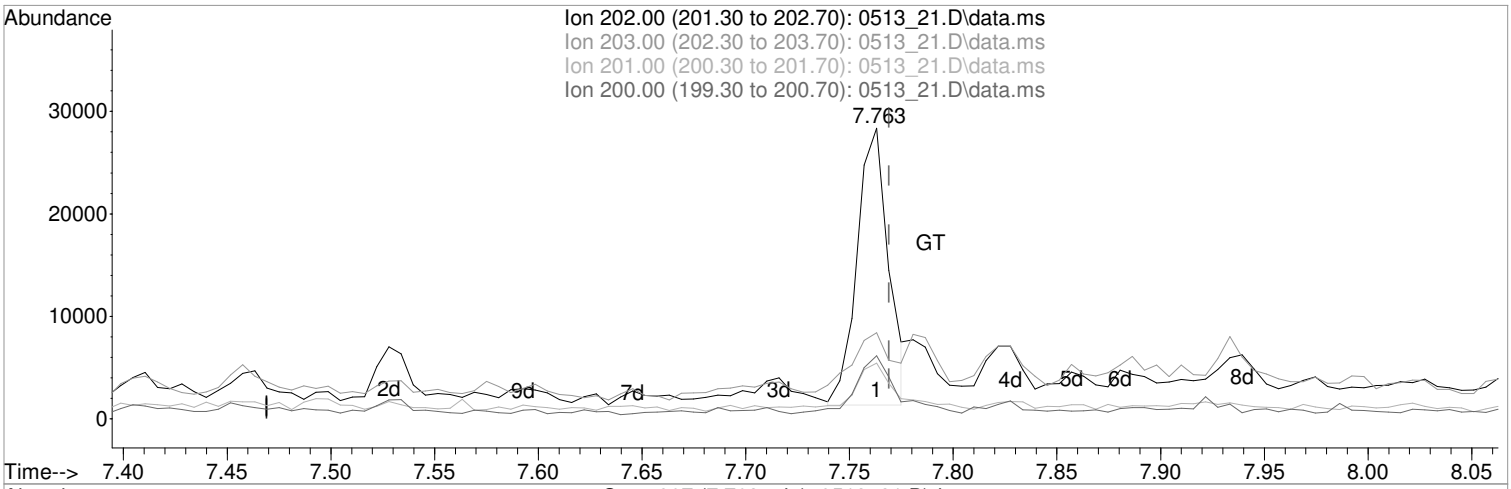
response 33903 Limit = 194.0000000

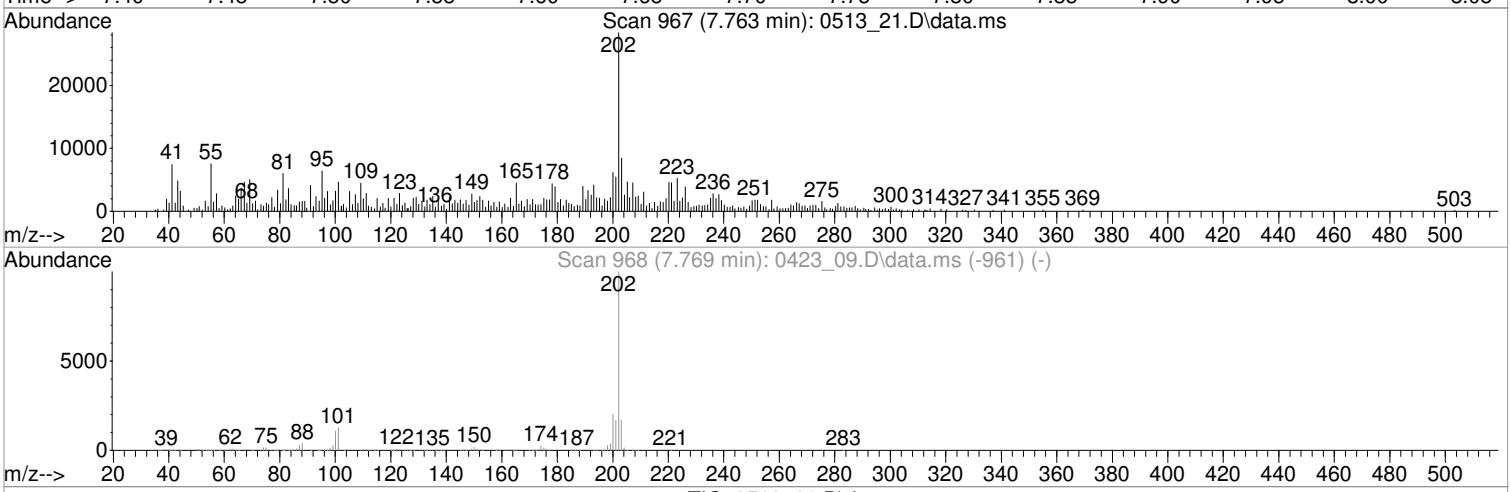
Ion	Exp%	Act%
202.00	100	100
203.00	16.90	19.25
201.00	16.70	16.11
200.00	20.10	20.82

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_21.D
Acq On : 13 May 2022 2:17 pm
Operator : 974
Sample : L1488802-05 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 77 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:05 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration





TIC: 0513_21.D\data.ms

(86) Pyrene (MT)

7.763min (-0.006) 214.9521739 ppb m

response 28389 Limit = 194.0000000

Ion	Exp%	Act%
202.00	100	100
203.00	16.90	29.68
201.00	16.70	19.15
200.00	20.10	21.66

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-H360-042922-0-8

Lab Sample ID:	L1488802-06	**SDG:**	L1488802
Client Sample ID:	BNSF-H360-042922-0-8	**Collected Date/Time:**	04/28/22 09:25
Lab File ID:	0513_19	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 13:36
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.30 g
Total Solids (%):	77.7	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.28	U		0.00694	0.0429
Acenaphthylene	208-96-8	5.37	U		0.00604	0.0429
Anthracene	120-12-7	6.55	U		0.00764	0.0429
Benzoic Acid	65-85-0	4	0.158	J	0.152	2.15
Benzo(a)anthracene	56-55-3	9.39	U		0.00756	0.0429
Benzo(b)fluoranthene	205-99-2	11.31	U		0.00800	0.0429
Benzo(k)fluoranthene	207-08-9	11.35	U		0.00762	0.0429
Benzo(g,h,i)perylene	191-24-2	14.53	U		0.00784	0.0429
Benzo(a)pyrene	50-32-8	11.96	U		0.00797	0.0429
Carbazole	86-74-8	6.68	U		0.0133	0.429
Chrysene	218-01-9	9.39	U		0.00853	0.0429
Dibenz(a,h)anthracene	53-70-3	14.02	U		0.0119	0.0429
Dibenzofuran	132-64-9	0	U		0.0140	0.429
Fluoranthene	206-44-0	7.53	U		0.00774	0.0429
Fluorene	86-73-7	5.76	U		0.00698	0.0429
Indeno(1,2,3-cd)pyrene	193-39-5	13.99	U		0.0121	0.0429
1-Methylnaphthalene	90-12-0	4.73	U		0.00549	0.0429
2-Methylnaphthalene	91-57-6	4.65	U		0.00556	0.0429
Naphthalene	91-20-3	4.22	U		0.0108	0.0429
Phenanthrene	85-01-8	6.51	U		0.00851	0.0429
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	U		0.0543	0.429
Di-n-butyl phthalate	84-74-2	6.93	U		0.0147	0.429
Di-n-octyl phthalate	117-84-0	10.68	U		0.0290	0.429
Pyrene	129-00-0	7.76	U		0.00835	0.0429
3&4-Methyl Phenol	3&4-Methyl Phenol	3.66	U		0.0134	0.429
Pentachlorophenol	87-86-5	0	U		0.0115	0.429
Phenol	108-95-2	3.26	U		0.0173	0.429

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_19.D
Acq On : 13 May 2022 1:36 pm
Operator : 974
Sample : L1488802-06 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 75 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:39:47 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

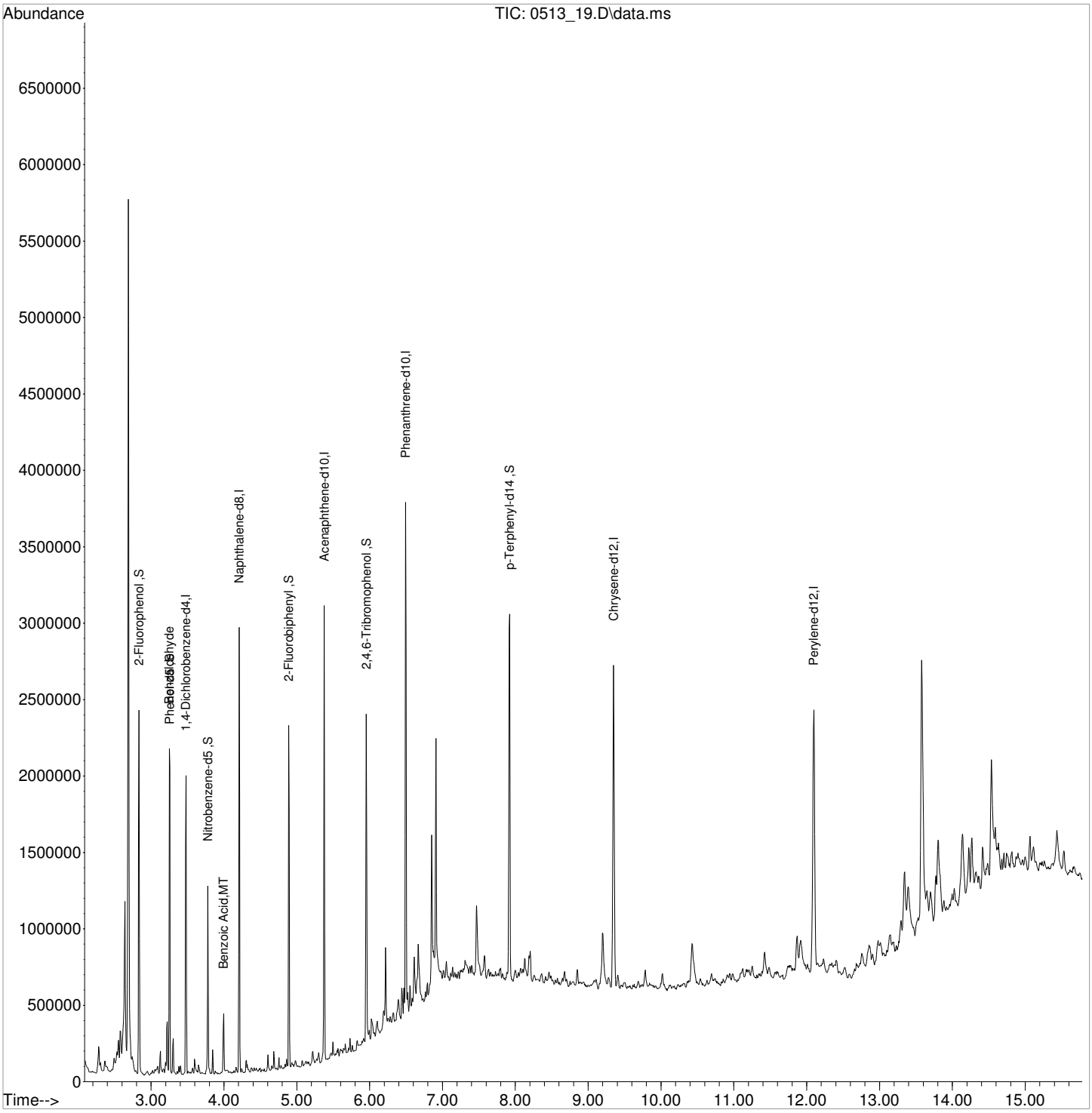
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.480	152	249625	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.208	136	986342	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.378	164	508455	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.494	188	1031758	8000.0000000 ppb	0.00
84) Chrysene-d12	9.349	240	1017720	8000.0000000 ppb	0.00
94) Perylene-d12	12.099	264	1095821	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.833	112	563872	13635.7360565 ppb	0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 68.18%		
7) Phenol-d5	3.256	99	613751	12163.0175083 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 60.82%		
24) Nitrobenzene-d5	3.779	82	271663	6179.3941688 ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 61.79%		
50) 2-Fluorobiphenyl	4.890	172	568431	6602.5643631 ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 66.03%		
73) 2,4,6-Tribromophenol	5.953	330	190024	13963.2166044 ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 69.82%		
87) p-Terphenyl-d14	7.922	244	935711	7021.4055956 ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 70.21%		
Target Compounds					Qvalue
9) Benzaldehyde	3.251	105	15435m	1098.7270485 ppb	
31) Benzoic Acid	3.997	105	56725	3760.9066062 ppb	96

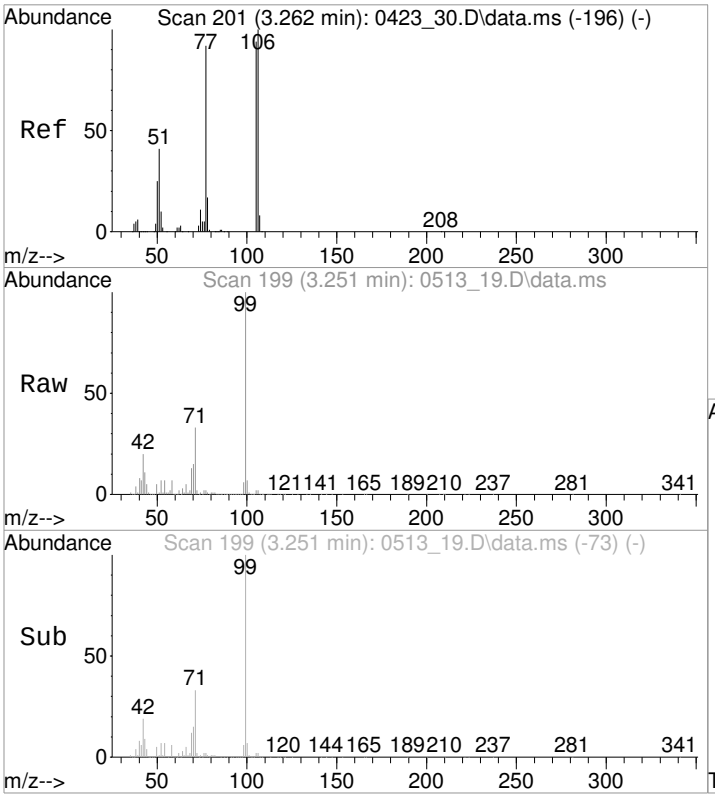
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_19.D
Acq On : 13 May 2022 1:36 pm
Operator : 974
Sample : L1488802-06 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 75 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:39:47 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

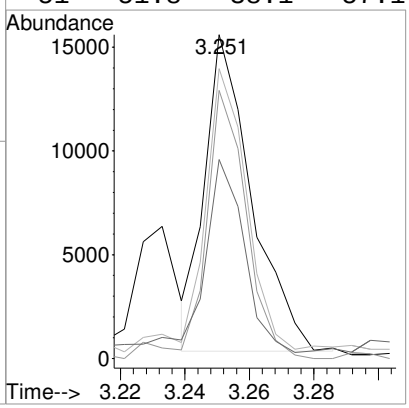


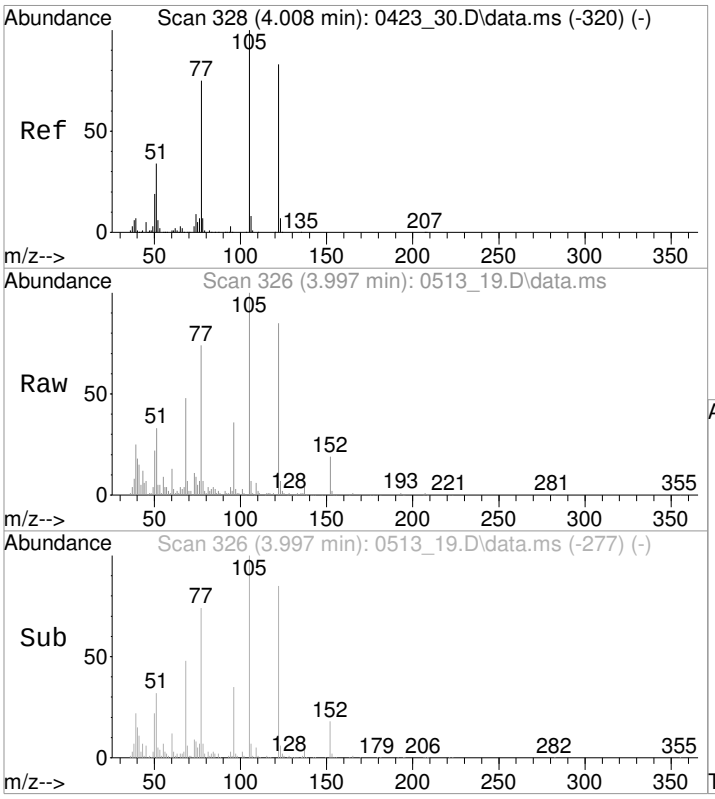


#9
Benzaldehyde
Concen: 1098.7270485 ppb m
RT: 3.251 min Scan# 199
Delta R.T. -0.012 min
Lab File: 0513_19.D
Acq: 13 May 2022 1:36 pm

Tgt Ion:105 Resp: 15435

Ion	Ratio	Lower	Upper
105	100		
106	75.0	83.3	124.9#
77	83.6	82.8	124.2
51	51.8	38.1	57.1

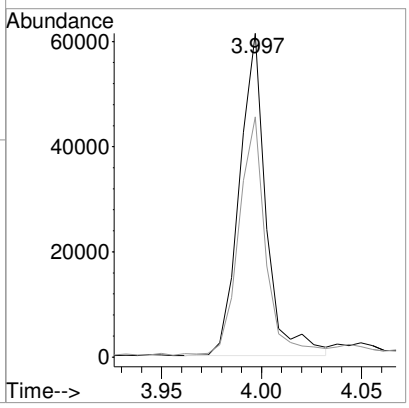




#31
Benzoic Acid
Concen: 3760.9066062 ppb
RT: 3.997 min Scan# 326
Delta R.T. -0.011 min
Lab File: 0513_19.D
Acq: 13 May 2022 1:36 pm

Tgt Ion:105 Resp: 56725

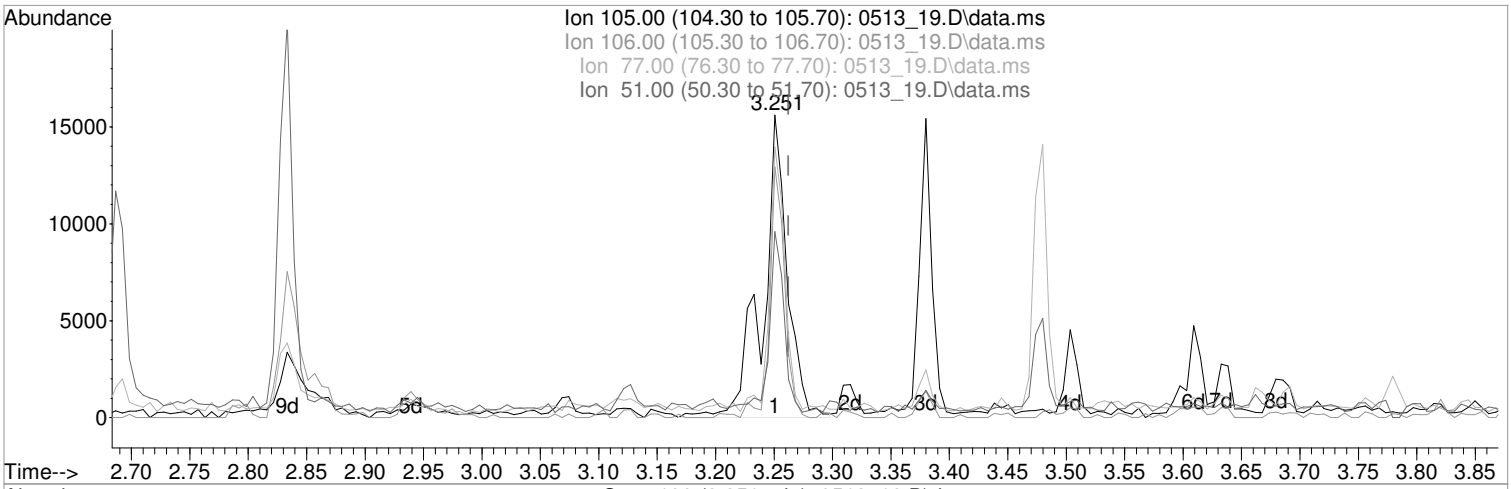
Ion	Ratio	Lower	Upper
105	100		
77	74.9	51.7	91.7

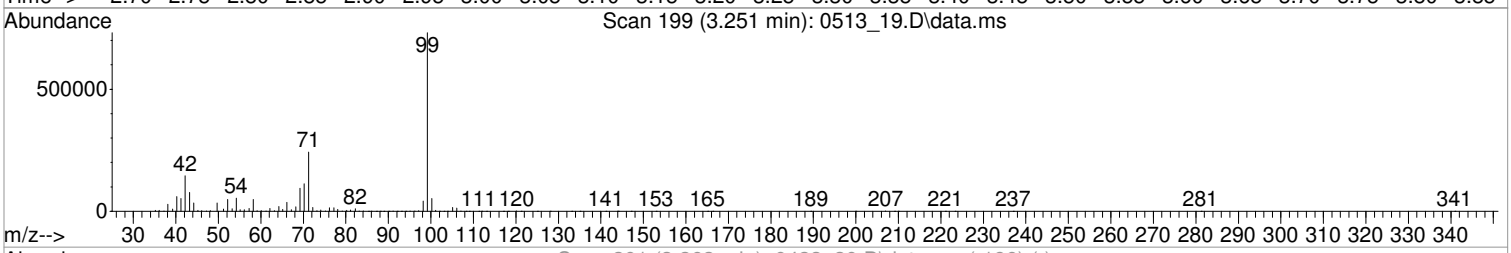


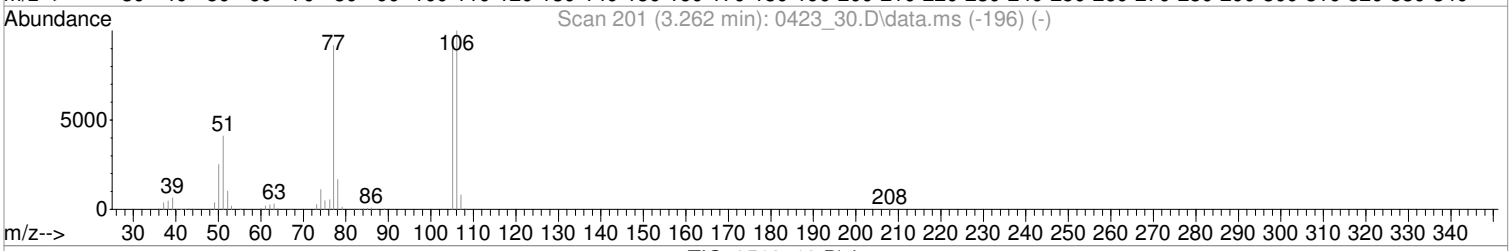
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_19.D
Acq On : 13 May 2022 1:36 pm
Operator : 974
Sample : L1488802-06 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 75 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:46:55 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_19.D\data.ms

(9) Benzaldehyde

3.251min (-0.012) 1651.5430031 ppb

Qvalue = 56

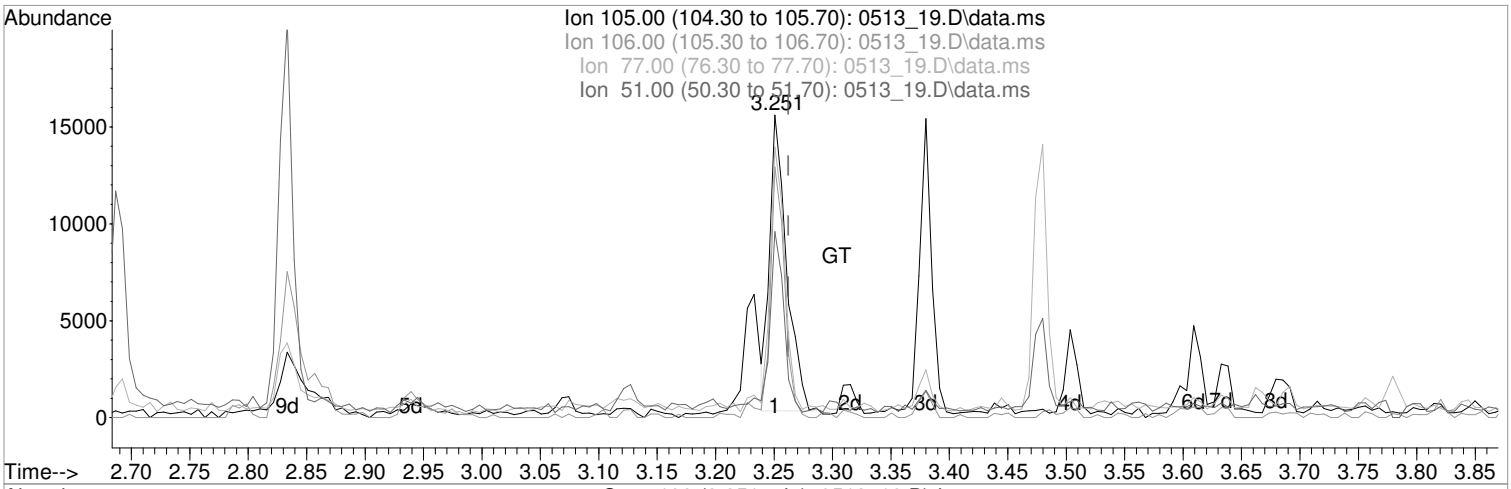
response 23201 Limit = 531.0000000

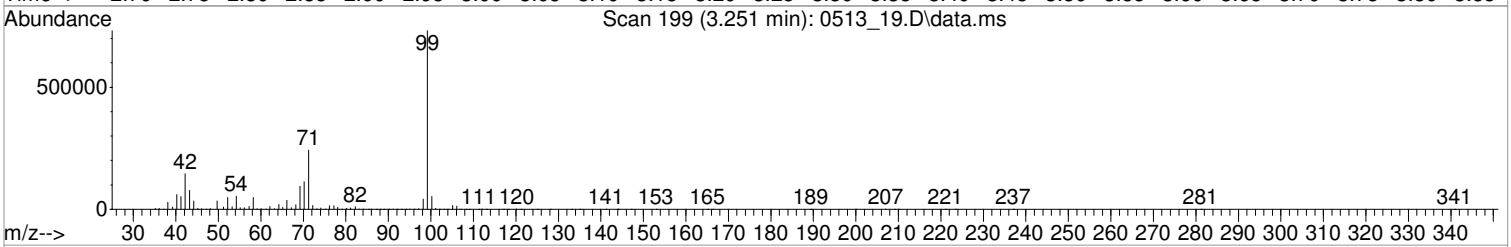
Ion	Exp%	Act%
105.00	100	100
106.00	104.10	49.90#
77.00	103.50	55.64#
51.00	47.60	34.49#

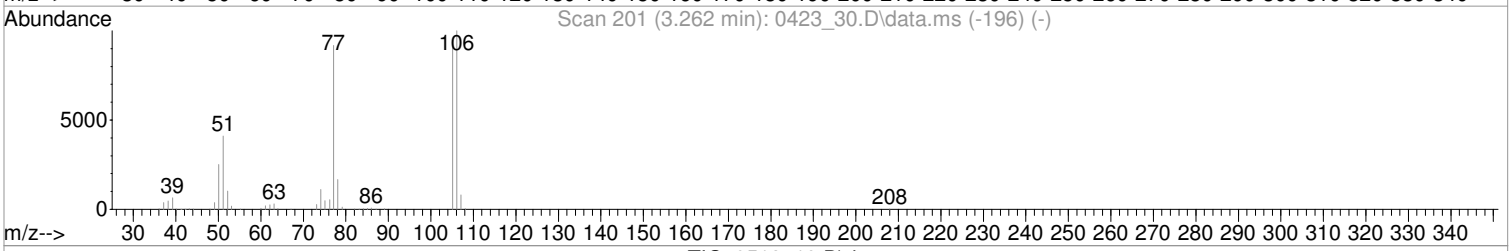
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_19.D
Acq On : 13 May 2022 1:36 pm
Operator : 974
Sample : L1488802-06 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 75 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:46:55 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_19.D\data.ms

(9) Benzaldehyde

3.251min (-0.012) 1098.7270485 ppb m

response 15435 Limit = 531.0000000

Ion	Exp%	Act%
105.00	100	100
106.00	104.10	75.00#
77.00	103.50	83.64
51.00	47.60	51.84

GC/MS INITIAL CALIBRATION DATA

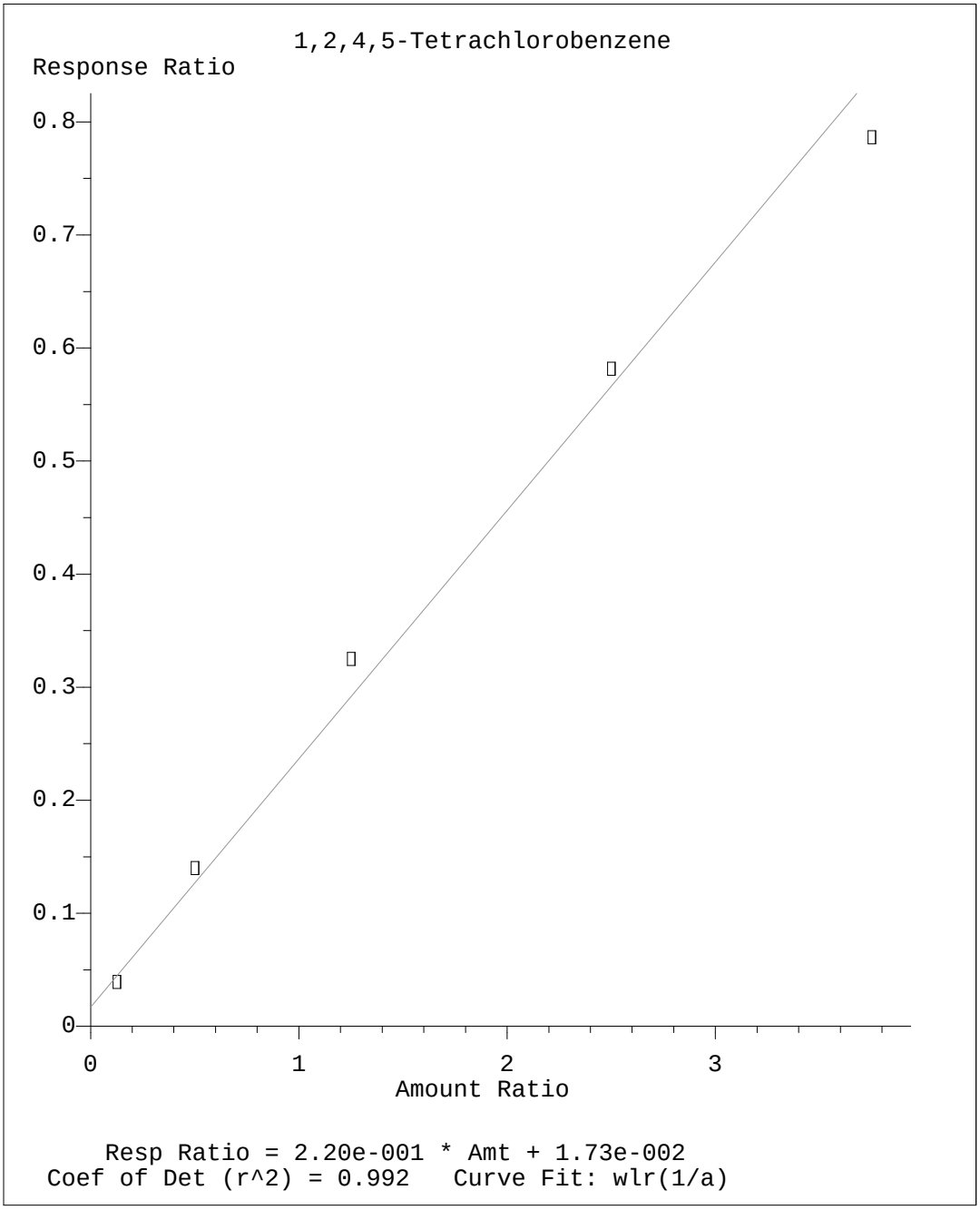
SDG: L1488802 **Analytical Method:** 8270E

Instrument ID: BNAMS2

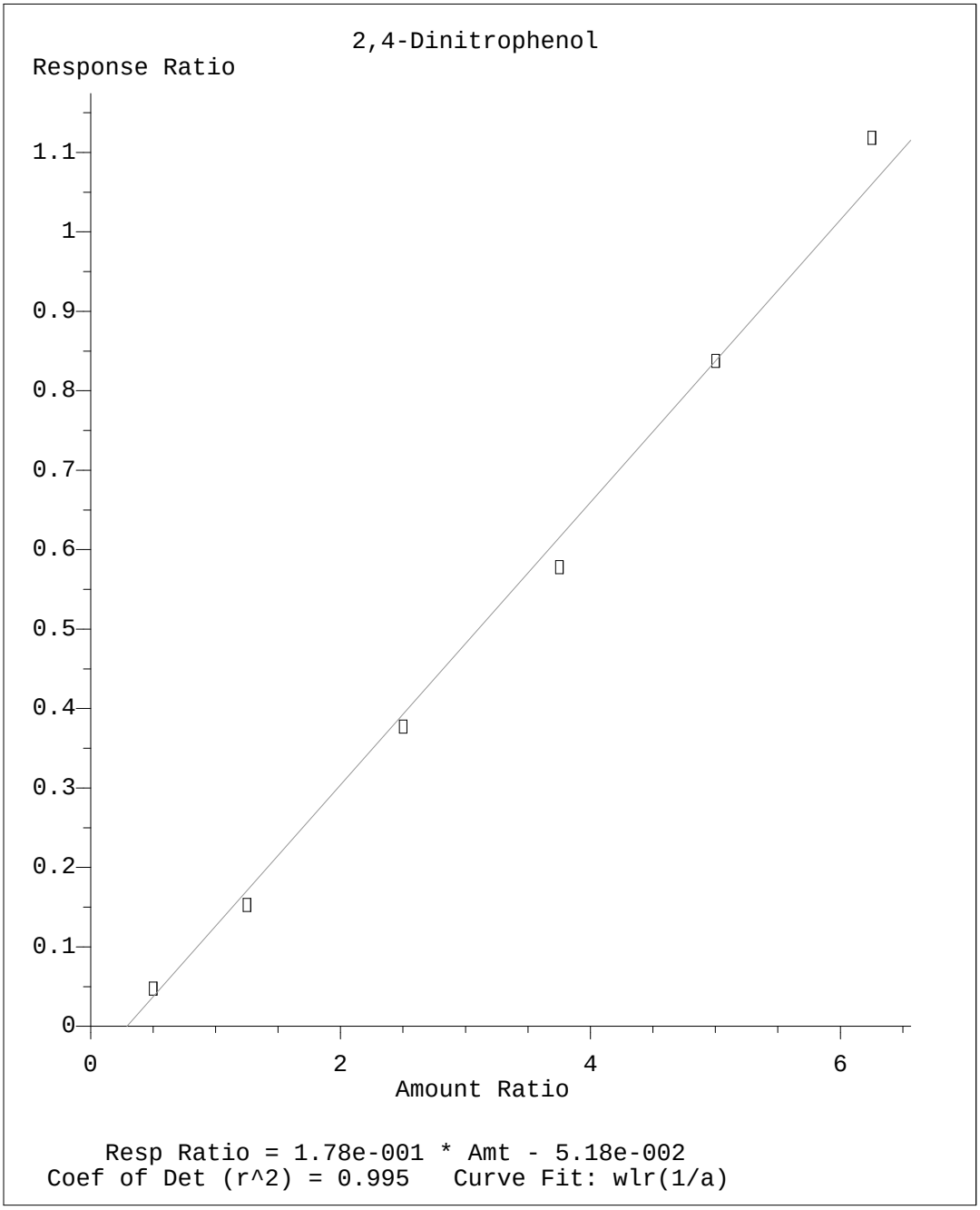
Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 4K1**	**RRF: 10K1**
Analysis date/time	04/23/22 10:42	04/23/22 11:03	04/23/22 11:24	04/23/22 11:44	04/23/22 12:05	04/23/22 12:26	04/23/22 12:47	04/23/22 13:08	05/03/22 09:20	05/03/22 09:41
PHENOL	1.7980	1.6690	1.6250	1.6460	1.6560	1.6040	1.62	1.6290		
3&4-METHYL PHENOL	1.5140	1.3770	1.3430	1.38	1.38	1.3720	1.3640	1.3480		
NAPHTHALENE	1.1440	1.0460	0.9770	1.0050	0.9780	0.9650	0.9550	0.9350		
2-METHYLNAPHTHALENE	0.7040	0.6450	0.6220	0.6430	0.6330	0.6410	0.6450	0.6430		
1-METHYLNAPHTHALENE	0.6710	0.6210	0.5850	0.61	0.6060	0.6040	0.6040	0.6070		
ACENAPHTHYLENE	1.8580	1.7020	1.7110	1.7450	1.7570	1.7360	1.7140	1.70		
ACENAPHTHENE	1.2760	1.2720	1.1610	1.1610	1.1530	1.1420	1.1330	1.1470		
DIBENZOFURAN	1.8190	1.6970	1.6180	1.6280	1.6040	1.5680	1.5480	1.56		
FLUORENE	1.4640	1.38	1.3060	1.3240	1.3140	1.26	1.2710	1.2740		
PHENANTHRENE	1.1810	1.1140	1.0270	1.0280	1.0220	1.0310	1.0310	1.0040		
ANTHRACENE	1.1390	1.09	1.0360	1.0660	1.0460	1.0730	1.0750	1.0460		
CARBAZOLE	1.0350	0.9540	0.9350	0.9540	0.9260	0.9370	0.9560	0.9650		
DI-N-BUTYL PHTHALATE	1.1510	1.0560	1.0710	1.14	1.1530	1.2170	1.2620	1.2360		
FLUORANTHENE	1.2140	1.1090	1.1080	1.1490	1.1590	1.2320	1.2790	1.2630		
PYRENE	1.31	1.2480	1.1740	1.2350	1.1970	1.1940	1.1770	1.1710		
BENZO(A)ANTHRACENE	1.26	1.1830	1.0850	1.1560	1.1430	1.1480	1.1710	1.1690		
CHRYSENE	1.2790	1.1620	1.1150	1.1410	1.1120	1.1060	1.1080	1.10		
BIS(2-ETHYLHEXYL)PHTHALATE	0.6610	0.6220	0.6470	0.7060	0.7130	0.7080	0.7150	0.71		
DI-N-OCTYL PHTHALATE	0.9810	0.9450	1.0090	1.1430	1.1640	1.1830	1.2040	1.2070		
BENZO(B)FLUORANTHENE	1.1650	1.11	1.0660	1.1460	1.1670	1.1490	1.1680	1.1770		
BENZO(K)FLUORANTHENE	1.1430	1.1470	1.0950	1.1670	1.1720	1.1760	1.17	1.16		
BENZO(A)PYRENE	0.9830	0.9380	0.9210	1.0080	1.01	1.0210	1.0230	1.03		
INDENO(1,2,3-CD)PYRENE	0.9610	0.9250	0.90	0.9640	0.9340	0.9120	0.8910	0.8710		
DIBENZ(A,H)ANTHRACENE	1.1130	1.0470	1.0260	1.0910	1.0610	1.04	1.0450	1.0290		
BENZO(G,H,I)PERYLENE	1.1640	1.0960	1.0480	1.1030	1.0420	0.9850	0.9280	0.8870		
2-FLUOROPHENOL	1.43	1.3510	1.3010	1.3230	1.32	1.2650	1.3060	1.3060		
PHENOL-D5	1.7980	1.5960	1.5670	1.6050	1.6080	1.5640	1.6010	1.5980		
NITROBENZENE-D5	0.4050	0.3610	0.3420	0.3510	0.3530	0.3460	0.3470	0.3490		
2-FLUOROBIPHENYL	1.5290	1.4070	1.3530	1.3550	1.3370	1.2960	1.2860	1.2730		
2,4,6-TRIBROMOPHENOL	0.1030	0.0880	0.0920	0.1010	0.1040	0.1120	0.1210	0.1240		
P-TERPHENYL-D14	1.0610	1.0620	0.9850	1.0570	1.0530	1.0540	1.0510	1.0580		
PENTACHLOROPHENOL			0.1120	0.1310	0.1370	0.1460	0.1520	0.1580		
BENZOIC ACID									0.0990	0.1160
File ID:	0423_06	0423_07	0423_08	0423_09	0423_10	0423_11	0423_12	0423_13	0423_29	0423_30

SDG: L1488802 **Analytical Method:** 8270E
Instrument ID: BNAMS2

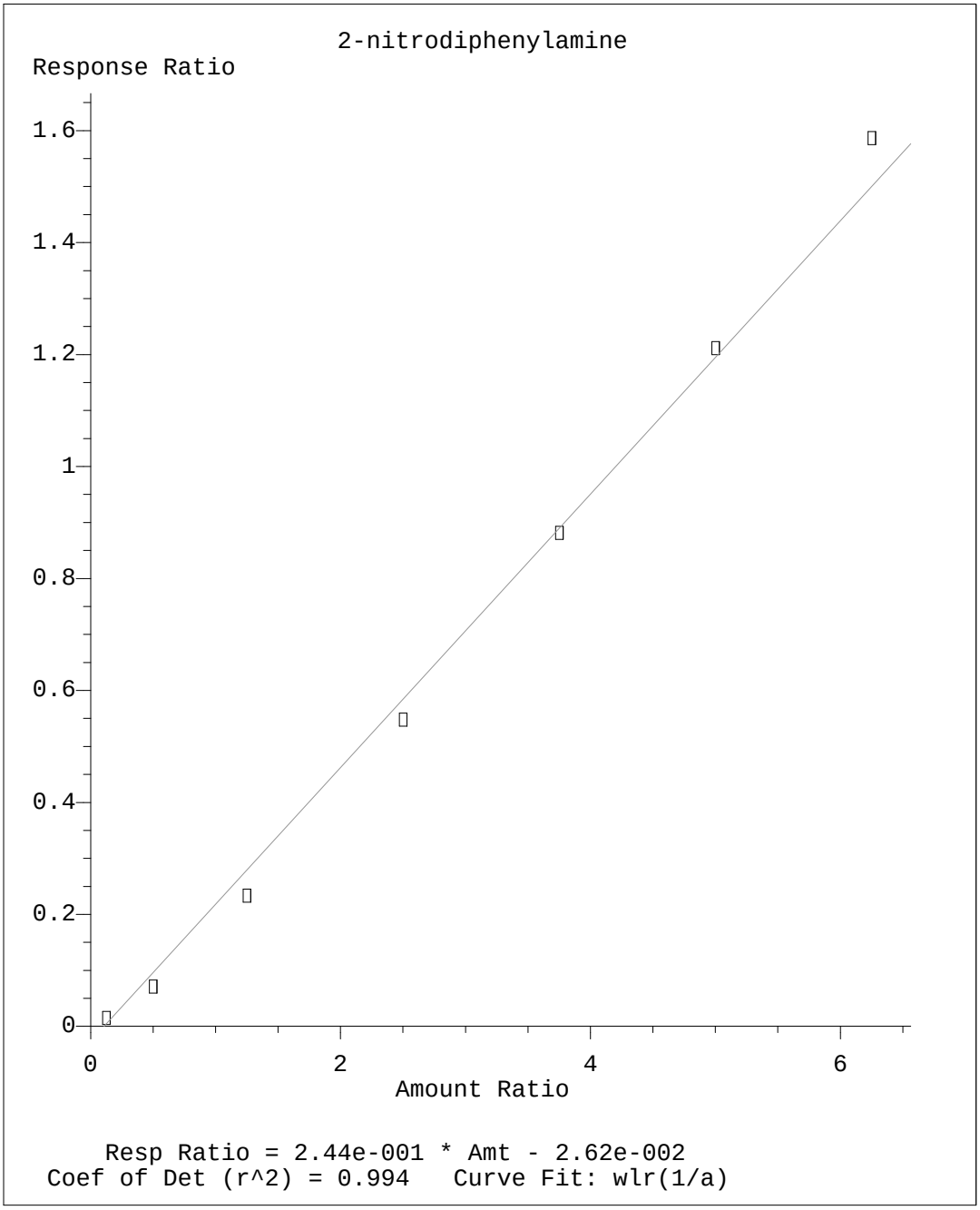
Analyte	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	05/03/22 10:02	05/03/22 10:23	05/03/22 10:44	05/03/22 11:05			
PHENOL					1.655782	3.69	
3&4-METHYL PHENOL					1.384817	3.92	
NAPHTHALENE					1.000885	6.7	
2-METHYLNAPHTHALENE					0.647025	3.79	
1-METHYLNAPHTHALENE					0.61337	4.09	
ACENAPHTHYLENE					1.740609	2.97	
ACENAPHTHENE					1.180559	4.95	
DIBENZOFURAN					1.630142	5.51	
FLUORENE					1.324234	5.16	
PHENANTHRENE					1.054765	5.75	
ANTHRACENE					1.071316	3.07	
CARBAZOLE					0.957953	3.53	
DI-N-BUTYL PHTHALATE					1.160721	6.41	
FLUORANTHENE					1.189282	5.64	
PYRENE					1.213331	3.96	
BENZO(A)ANTHRACENE					1.164451	4.2	
CHRYSENE					1.140362	5.24	
BIS(2-ETHYLHEXYL)PHTHALATE					0.685061	5.29	
DI-N-OCTYL PHTHALATE					1.104365	9.77	
BENZO(B)FLUORANTHENE					1.143658	3.28	
BENZO(K)FLUORANTHENE					1.153719	2.31	
BENZO(A)PYRENE					0.991544	4.17	
INDENO(1,2,3-CD)PYRENE					0.919898	3.57	
DIBENZ(A,H)ANTHRACENE					1.056465	2.91	
BENZO(G,H,I)PERYLENE					1.031578	9.04	
2-FLUOROPHENOL					1.325268	3.69	
PHENOL-D5					1.617159	4.64	
NITROBENZENE-D5					0.356572	5.66	
2-FLUOROBIPHENYL					1.354574	6.14	
2,4,6-TRIBROMOPHENOL					0.10552	12.28	
P-TERPHENYL-D14					1.047561	2.45	
PENTACHLOROPHENOL					0.139273	11.78	
BENZOIC ACID	0.13	0.1350	0.1290	0.1240	0.122333	10.82	
File ID:	0423_31	0423_32	0423_33	0423_34			



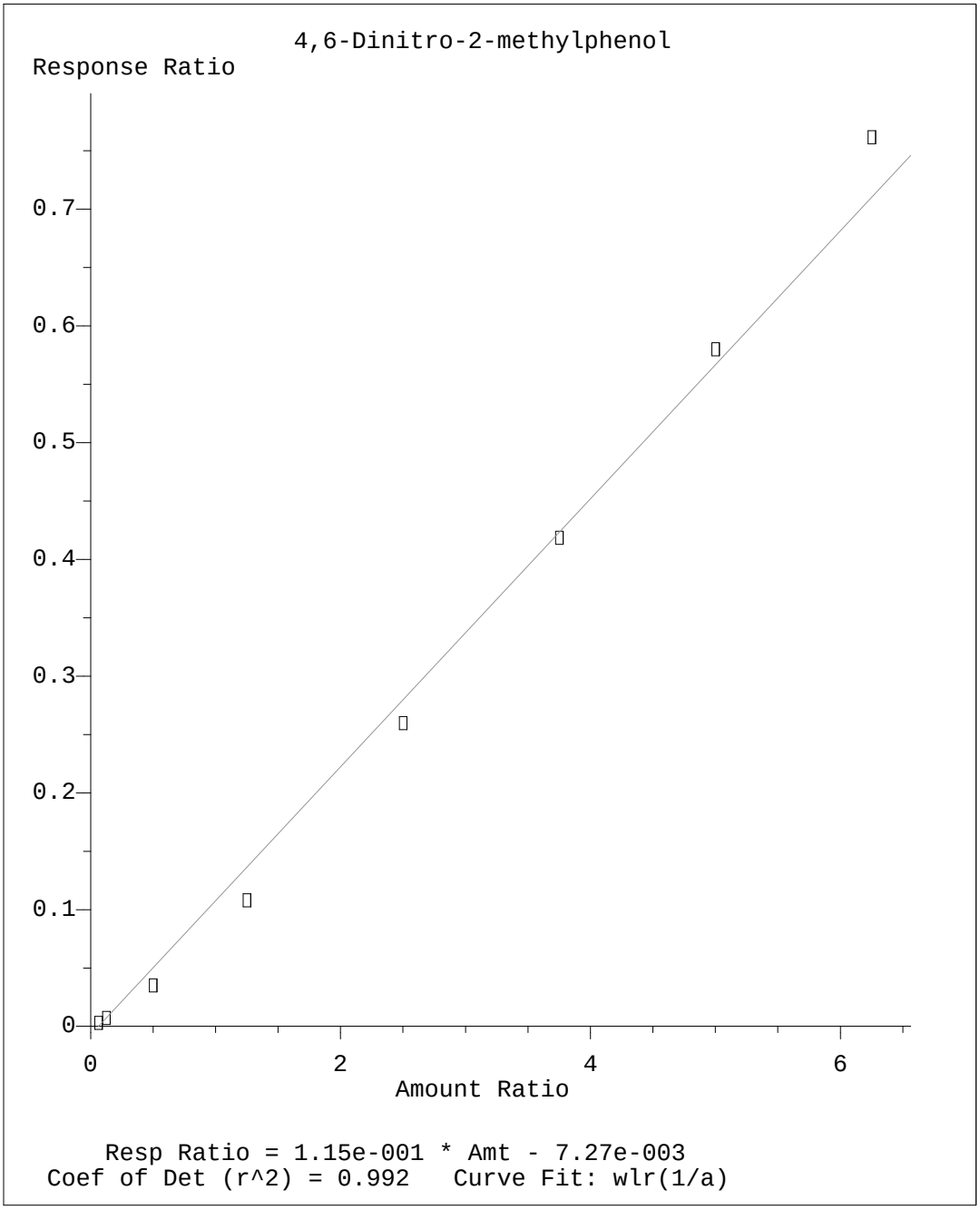
Method Name: C:\msdchem\1\methods\S802D23V.M



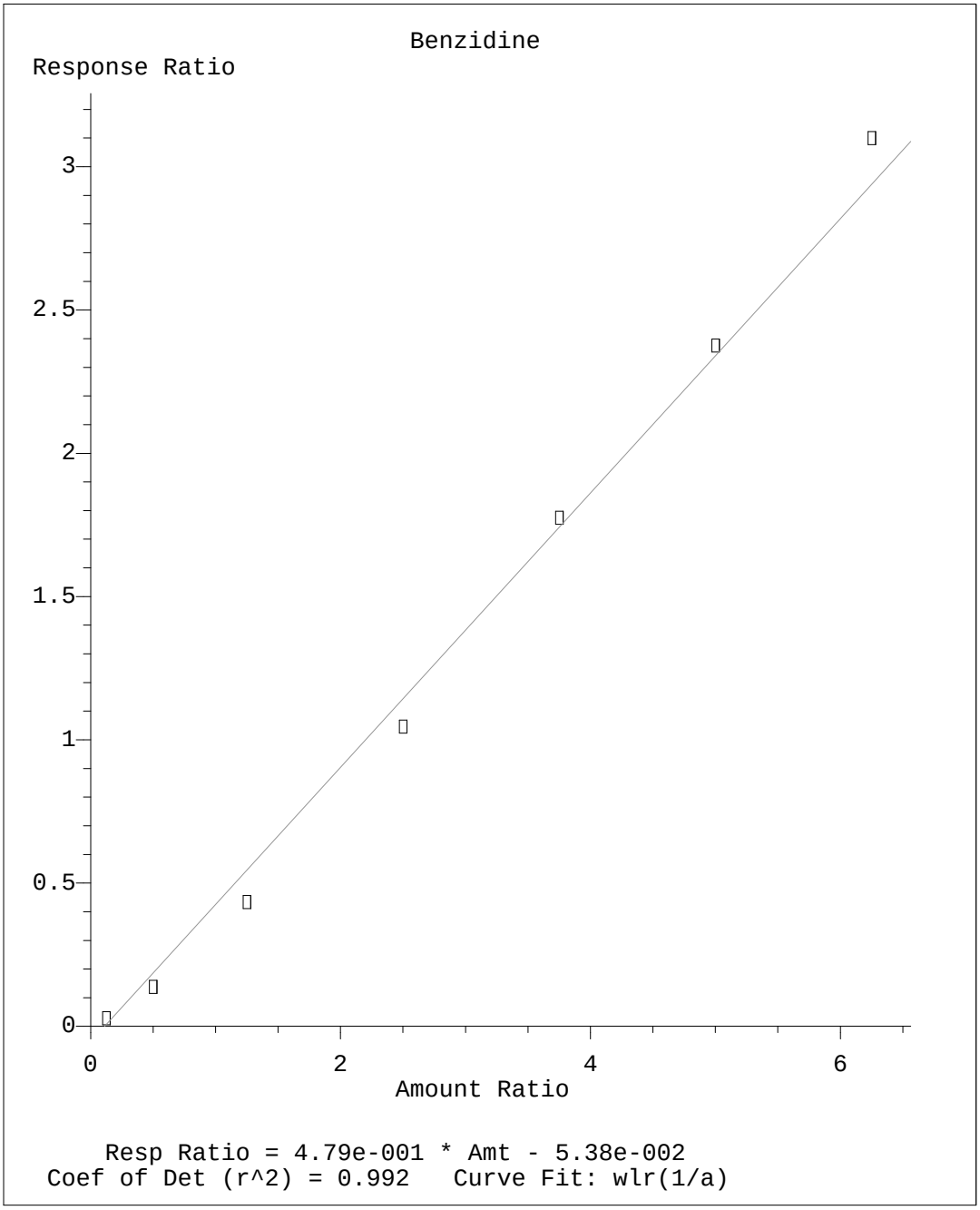
Method Name: C:\msdchem\1\methods\S802D23V.M



Method Name: C:\msdchem\1\methods\S802D23V.M



Method Name: C:\msdchem\1\methods\S802D23V.M



Method Name: C:\msdchem\1\methods\S802D23V.M

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802D23V.M
Title : 8270 BNA
Last Update : Tue May 03 16:40:12 2022
Response Via : Initial Calibration

Calibration Files
500 =0423_06.D 1K =0423_07.D 4K =0423_08.D 10K =0423_09.D 20K =0423_10.D 30K =0423_11.D 40K =0423_12.D
50K =0423_13.D 1K1 =0423_28.D 4K1 =0423_29.D 10K1=0423_30.D 20K1=0423_31.D 30K1=0423_32.D 40K1=0423_33.D
50K1=0423_34.D

		Compound	500	1K	4K	10K	20K	30K	40K	50K	1K1	4K1	10K1	20K1	30K1	40K1	50K1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------																
2)	TM	Pyridine	1.892	1.488	1.522	1.498	1.482	1.391	1.474	1.469								1.527	9.97
3)	MT	N-Nitrosodimet...	0.704	0.758	0.648	0.690	0.700	0.649	0.687	0.687								0.690	5.00
4)	S	2-Fluorophenol	1.430	1.351	1.301	1.323	1.320	1.265	1.306	1.306								1.325	3.69
5)	MT	Aniline	0.816	0.772	0.733	0.756	0.761	0.737	0.747	0.750								0.759	3.48
6)	MT	bis(2-Chloroet...	1.456	1.354	1.308	1.324	1.362	0.923										1.288	14.44
7)	S	Phenol-d5	1.798	1.596	1.567	1.605	1.608	1.564	1.601	1.598								1.617	4.64
8)	MC	Phenol	1.798	1.669	1.625	1.646	1.656	1.604	1.620	1.629								1.656	3.69
9)		Benzaldehyde									0.458	0.429	0.446	0.452	0.455	0.454	0.459	0.450	2.32
10)	MT	2-Chlorophenol	1.456	1.377	1.320	1.345	1.355	1.318	1.315	1.301								1.348	3.70
11)	T	n-Decane	0.863	0.841	0.766	0.787	0.759	0.734	0.728	0.713								0.774	6.95
12)	MT	1,3-Dichlorobe...	1.619	1.573	1.501	1.498	1.486	1.472	1.461	1.450								1.507	3.88
13)	MTC	1,4-Dichlorobe...	1.656	1.590	1.528	1.519	1.507	1.481	1.473	1.467								1.528	4.26
14)	MT	Benzyl Alcohol	1.248	1.107	1.093	1.102	1.111	1.108	1.107	1.104								1.123	4.53
15)	MT	1,2-Dichlorobe...	1.561	1.503	1.435	1.436	1.424	1.412	1.393	1.372								1.442	4.28
16)	MT	bis(2-Chlorois...	0.534	0.508	0.453	0.460	0.471	0.458	0.456	0.443								0.473	6.65
17)	MT	2,2-oxybis(1-c...	0.534	0.508	0.453	0.460	0.471	0.458	0.456	0.443								0.473	6.65
18)	MT	2-Methylphenol	1.290	1.239	1.218	1.215	1.218	1.209	1.195	1.191								1.222	2

.56

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802D23V.M
Title : 8270 BNA
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19)	MT	Hexachloroethane	0.620	0.585	0.557	0.568	0.558	0.563	0.562	0.561						0.572	3
79																	
20)	MP	N-Nitrosodi-n-...	1.095	1.002	0.972	0.950	0.964	0.961	0.959	0.941						0.981	5
.07																	
21)	MT	3&4-Methyl phenol	1.514	1.377	1.343	1.380	1.380	1.372	1.364	1.348						1.385	3
.92																	
22)	MT	Acetophenone									1.750	1.745	1.802	1.845	1.872	1.823	3
.19																	
23)	I	Naphthalene-d8	----------ISTD----------														
24)	S	Nitrobenzene-d5	0.405	0.361	0.342	0.351	0.353	0.346	0.347	0.349						0.357	5
.66																	
25)	MT	Nitrobenzene	0.398	0.374	0.345	0.354	0.350	0.342	0.341	0.339						0.355	5
.73																	
26)	MT	Isophorone	0.696	0.649	0.625	0.643	0.642	0.640	0.637	0.617						0.644	3
.65																	
27)	MCT	2-Nitrophenol	0.164	0.158	0.160	0.172	0.177	0.179	0.179	0.180						0.171	5
.49																	
28)	MT	2,4-Dimethylph...	0.339	0.328	0.317	0.324	0.320	0.319	0.311	0.306						0.321	3
.11																	
29)	MT	bis(2-Chloreth...	0.418	0.392	0.385	0.389	0.379	0.377	0.376	0.371						0.386	3
.84																	
30)	MCT	2,4-Dichloroph...	0.287	0.272	0.275	0.277	0.278	0.275	0.274	0.274						0.276	1
.61																	
31)	MT	Benzoic Acid										0.099	0.116	0.130	0.135	0.122	10
.82																	
32)	MT	1,2,4-Trichlor...	0.340	0.332	0.312	0.312	0.304	0.304	0.303	0.300						0.314	4
.71																	
33)	MT	alpha-terpineol									0.264	0.240	0.231	0.210	0.193	0.228	12
.07																	
34)	MT	Naphthalene	1.144	1.046	0.977	1.005	0.978	0.965	0.955	0.935						1.001	6
.70																	
35)	MT	4-Chloroaniline	0.134	0.126	0.116	0.117	0.119	0.118	0.118	0.117						0.121	5
.30																	
36)	MCT	Hexachloro-1,3...	0.214	0.188	0.183	0.193	0.185	0.186	0.183	0.183						0.189	5
.52																	
37)		Hydroquinone									0.265	0.183	0.189	0.229	0.223	0.209	0.190	0.213	13
.79																	
38)	MT	Quinoline									0.599	0.554	0.517	0.472	0.434			0.515	12
.66																	
39)	MT	Caprolactam									0.064	0.052	0.060	0.064	0.064	0.060	0.056	0.060	7
.73																	
40)	MCT	4-Chloro-3-met...	0.279	0.255	0.255	0.270	0.276	0.280	0.278	0.278						0.271	3
.85																	
41)	MT	2-Methylnaphth...	0.704	0.645	0.622	0.643	0.633	0.641	0.645	0.643						0.647	3

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Method Path : C:\msdchem\1\methods\
Method File : S802D23V.M
Title : 8270 BNA
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42)	MT	1-Methylnaphth...	0.671	0.621	0.585	0.610	0.606	0.604	0.604	0.607					0.613	4
43)	MT	1,2,4,5-Tetrac...									0.315	0.280	0.260	0.233	0.210	0.260	15
44)		Diphenyl Ether									0.375	0.363	0.340	0.302	0.277	0.331	12
45)		Diphenyl Oxide									0.375	0.363	0.340	0.302	0.277	0.331	12
46)	I	Acenaphthene-d10	----------ISTD----------														
47)	MPT	Hexachlorocycl...	0.439	0.425	0.415	0.434	0.431	0.429	0.422	0.430					0.428	1
48)	MCT	2,4,6-Trichlor...	0.385	0.345	0.359	0.372	0.371	0.371	0.368	0.394					0.371	3
49)	MT	2,4,5-Trichlor...	0.407	0.380	0.383	0.401	0.411	0.405	0.401	0.384					0.397	3
50)	S	2-Fluorobiphenyl	1.529	1.407	1.353	1.355	1.337	1.296	1.286	1.273					1.355	6
51)	MT	Biphenyl	1.702	1.540	1.482	1.517	1.488	1.451	1.440	1.425					1.506	5
52)	MT	2-Chloronaphth...	1.246	1.228	1.205	1.182	1.151	1.131	1.116	1.110					1.171	4
53)	MT	2-Nitroaniline	0.321	0.319	0.337	0.386	0.407	0.395	0.391	0.396					0.369	9
54)	MT	Acenaphthylene	1.858	1.702	1.711	1.745	1.757	1.736	1.714	1.700					1.741	2
55)	MT	Dimethyl phtha...	1.346	1.253	1.194	1.239	1.268	1.217	1.215	1.232					1.246	3
56)	MT	2,6-Dinitrotol...	0.268	0.253	0.282	0.299	0.305	0.294	0.296	0.295					0.287	6
57)	MT	3-Nitroaniline	0.296	0.287	0.289	0.327	0.330	0.315	0.313	0.318					0.309	5
58)	MCT	Acenaphthene	1.276	1.272	1.161	1.161	1.153	1.142	1.133	1.147					1.181	4
59)	MPT	2,4-Dinitrophenol		0.095	0.122	0.151	0.154	0.168	0.179						0.145	21
60)	MT	Dibenzofuran	1.819	1.697	1.618	1.628	1.604	1.568	1.548	1.560					1.630	5
61)	MT	2,4-Dinitrotol...	0.310	0.296	0.343	0.382	0.397	0.386	0.393	0.401					0.364	11
62)	T	2,3,4,6-Tetrac...									0.239	0.254	0.284	0.297	0.308	0.305	0.323	0.287	10
63)	MPT	4-Nitrophenol	0.222	0.218	0.236	0.253	0.275	0.266	0.258	0.250					0.247	8
64)	MT	Fluorene	1.464	1.380	1.306	1.324	1.314	1.260	1.271	1.274					1.324	5

.16

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Method Path : C:\msdchem\1\methods\
Method File : S802D23V.M
Title : 8270 BNA
Last Update : Tue May 03 16:40:12 2022

65)	MT	4-Chlorophenyl...	0.719	0.702	0.655	0.669	0.664	0.640	0.632	0.647					0.666	4
.34																
66)	MT	Diethyl phthalate	1.407	1.260	1.240	1.210	1.252	1.195	1.167	1.127					1.232	6
.80																
67)	MT	4-Nitroaniline	0.324	0.309	0.303	0.291	0.294	0.238	0.214	0.251					0.278	13
.95																
68)	MT	Azobenzene	1.369	1.352	1.301	1.298	1.308	1.234	1.245	1.246					1.294	3
.87																
69)	MT	Atrazine									0.337	0.345	0.367	0.376	0.376	0.361	0.379	0.363	4
.55																
70)	I	Phenanthrene-d10	----------ISTD----------													
71)	MT	4,6-Dinitro-2-...	0.048	0.058	0.070	0.086	0.104	0.112	0.116	0.122					0.090	31
.42																
72)	MCT	N-Nitrosodiphe...	0.624	0.567	0.563	0.556	0.563	0.595	0.629	0.644					0.593	5
.98																
73)	S	2,4,6-Tribromo...	0.103	0.088	0.092	0.101	0.104	0.112	0.121	0.124					0.106	12
.28																
74)	MT	4-Bromophenyl-...	0.227	0.201	0.202	0.204	0.205	0.218	0.228	0.232					0.215	6
.18																
75)	MT	Hexachlorobenzene	0.250	0.237	0.227	0.229	0.231	0.247	0.260	0.264					0.243	5
.81																
76)	T	n-octadecane	0.127	0.104	0.099	0.102	0.099	0.105	0.109	0.108					0.107	8
.51																
77)	MCT	Pentachlorophenol		0.112	0.131	0.137	0.146	0.152	0.158						0.139	11
.78																
78)	MT	Phenanthrene	1.181	1.114	1.027	1.028	1.022	1.031	1.031	1.004					1.055	5
.75																
79)	MT	Anthracene	1.139	1.090	1.036	1.066	1.046	1.073	1.075	1.046					1.071	3
.07																
80)	MT	Carbazole	1.035	0.954	0.935	0.954	0.926	0.937	0.956	0.965					0.958	3
.53																
81)	MT	Di-n-butyl pht...	1.151	1.056	1.071	1.140	1.153	1.217	1.262	1.236					1.161	6
.41																
82)	MT	2-nitrodipheny...									0.120	0.143	0.187	0.219	0.235	0.242	0.254	0.200	26
.01																
83)	MCT	Fluoranthene	1.214	1.109	1.108	1.149	1.159	1.232	1.279	1.263					1.189	5
.64																
84)	I	Chrysene-d12	----------ISTD----------													
85)	MT	Benzidine									0.229	0.275	0.347	0.418	0.473	0.475	0.496	0.388	27
.21																
86)	MT	Pyrene	1.310	1.248	1.174	1.235	1.197	1.194	1.177	1.171					1.213	3
.96																
87)	S	p-Terphenyl-d14	1.061	1.062	0.985	1.057	1.053	1.054	1.051	1.058					1.048	2

.45

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802D23V.M
Title : 8270 BNA
Last Update : Tue May 03 16:40:12 2022

88)	MT	Benzylbutyl ph...	0.491	0.445	0.451	0.497	0.496	0.497	0.499	0.501							0.485	4.56
89)	MT	3,3-Dichlorobe...									0.352	0.383	0.418	0.443	0.454	0.448	0.459	0.423	9.60
90)	MT	Benzo(a)anthra...	1.260	1.183	1.085	1.156	1.143	1.148	1.171	1.169							1.164	4.20
91)	MT	Chrysene	1.279	1.162	1.115	1.141	1.112	1.106	1.108	1.100							1.140	5.24
92)	MT	bis(2-Ethylhex...	0.661	0.622	0.647	0.706	0.713	0.708	0.715	0.710							0.685	5.29
93)	MC	Di-n-octyl pht...	0.981	0.945	1.009	1.143	1.164	1.183	1.204	1.207							1.104	9.77
94)	I	Perylene-d12	----------ISTD----------															
95)	MT	Benzo(b)fluora...	1.165	1.110	1.066	1.146	1.167	1.149	1.168	1.177							1.144	3.28
96)	MT	Benzo(k)fluora...	1.143	1.147	1.095	1.167	1.172	1.176	1.170	1.160							1.154	2.31
97)	MC	Benzo(a)pyrene	0.983	0.938	0.921	1.008	1.010	1.021	1.023	1.030							0.992	4.17
98)	MT	Indeno(1,2,3-c...	0.961	0.925	0.900	0.964	0.934	0.912	0.891	0.871							0.920	3.57
99)	MT	Dibenz(a,h)ant...	1.113	1.047	1.026	1.091	1.061	1.040	1.045	1.029							1.056	2.91
100)	MT	Benzo(g,h,i)pe...	1.164	1.096	1.048	1.103	1.042	0.985	0.928	0.887							1.032	9.04

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:17:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.486	152	141618	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.214	136	553781	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	278106	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.500	188	555222	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	526462	8000.0000000	ppb		0.00
94) Perylene-d12	12.099	264	545900	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.822	112	12661	540.5067414	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.70%			
7) Phenol-d5	3.251	99	15915	560.0762651	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.80%			
24) Nitrobenzene-d5	3.785	82	14002m	576.0764535	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.76%			
50) 2-Fluorobiphenyl	4.896	172	26585	564.2827455	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.64%			
73) 2,4,6-Tribromophenol	5.959	330	3580	512.7828571	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.56%			
87) p-Terphenyl-d14	7.927	244	34908	501.6631628	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.02%			
Target Compounds							Qvalue
2) Pyridine	2.275	79	16746m	631.7053656	ppb		
3) N-Nitrosodimethylamine	2.263	42	6233	510.4958767	ppb		96
5) Aniline	3.309	66	7224	539.4765058	ppb		97
6) bis(2-Chloroethyl)ether	3.327	93	12885m	549.8509309	ppb		
8) Phenol	3.256	94	15914	546.1938662	ppb		97
10) 2-Chlorophenol	3.374	128	12883	540.9011388	ppb		91
11) n-Decane	3.368	41	7636	548.1095708	ppb	#	88
12) 1,3-Dichlorobenzene	3.456	146	14329	540.2750860	ppb		98
13) 1,4-Dichlorobenzene	3.491	146	14655	545.1690792	ppb	#	81
14) Benzyl Alcohol	3.538	79	11044	565.9297631	ppb		94
15) 1,2-Dichlorobenzene	3.580	146	13819	543.7409019	ppb		95
16) bis(2-Chloroisopropyl)...	3.609	121	4729	580.1293145	ppb		87
17) 2,2-oxybis(1-chloropro...	3.609	121	4729	580.1293145	ppb		87
18) 2-Methylphenol	3.585	108	11421	530.8471769	ppb		95
19) Hexachloroethane	3.768	117	5492	546.4106348	ppb		88
20) N-Nitrosodi-n-propylamine	3.685	70	9695m	576.3802097	ppb		
21) 3&4-Methyl phenol	3.668	107	13405	548.8247622	ppb		96
25) Nitrobenzene	3.797	77	13759	561.1255749	ppb		96
26) Isophorone	3.926	82	24088	541.2969183	ppb		96
27) 2-Nitrophenol	3.979	139	5667	475.4594873	ppb		92
28) 2,4-Dimethylphenol	3.979	107	11718	522.3555814	ppb		96
29) bis(2-Chlorethoxy)methane	4.038	93	14476	538.1919444	ppb		97
30) 2,4-Dichlorophenol	4.114	162	9920	517.2014430	ppb		97
32) 1,2,4-Trichlorobenzene	4.173	180	11781	545.5374424	ppb		97
34) Naphthalene	4.226	128	39611m	569.1230320	ppb		
35) 4-Chloroaniline	4.244	65	4653	573.1623837	ppb		95
36) Hexachloro-1,3-butadiene	4.291	225	7398	554.7978562	ppb		98

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:17:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration

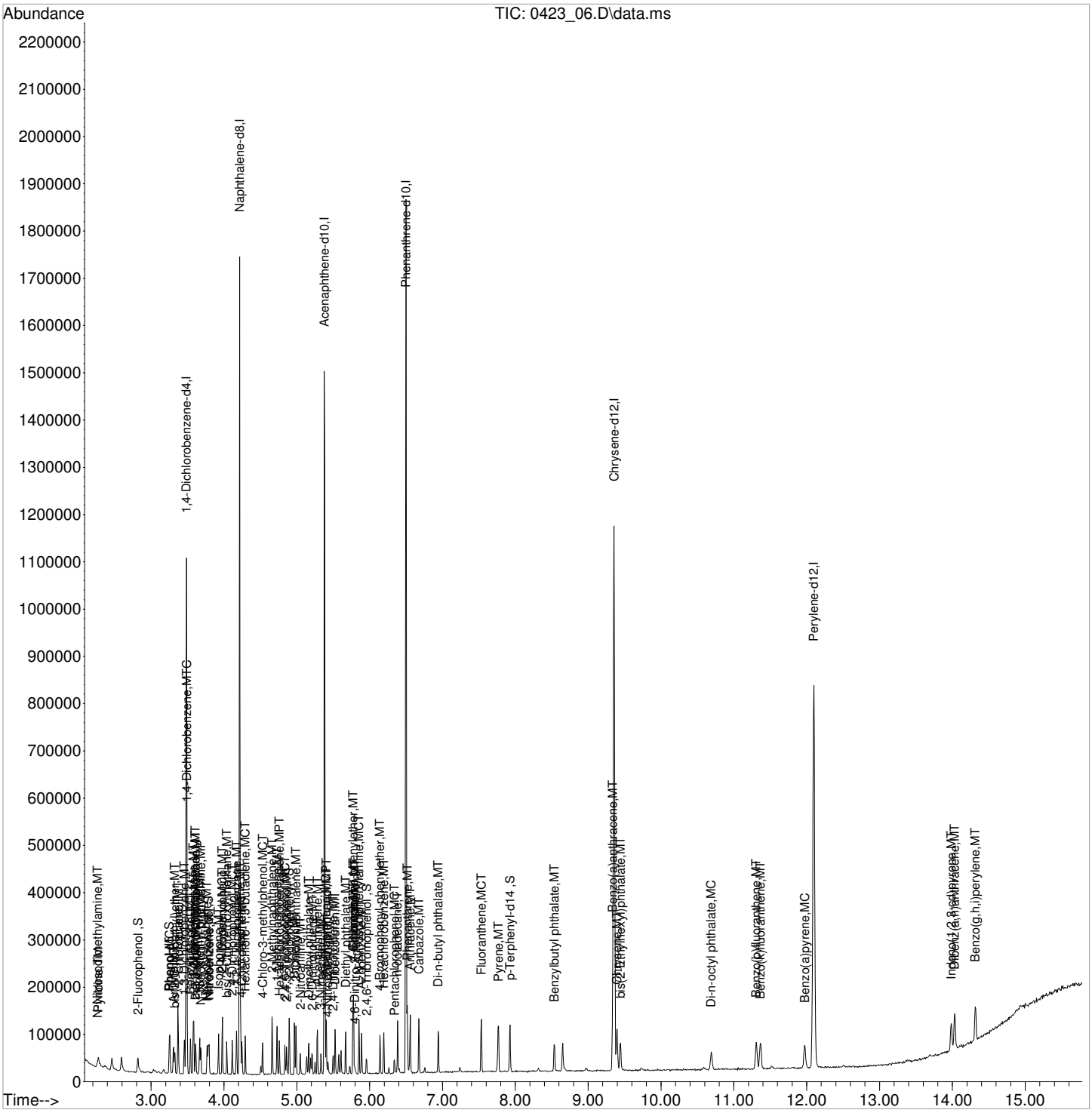
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.531	107	9649	516.2653115	ppb		94
41)	2-Methylnaphthalene	4.661	142	24382	548.1141185	ppb		97
42)	1-Methylnaphthalene	4.731	142	23215	550.1256577	ppb		98
47)	Hexachlorocyclopentadiene	4.761	237	7635	506.4389538	ppb		97
48)	2,4,6-Trichlorophenol	4.837	196	6694	517.2954755	ppb		95
49)	2,4,5-Trichlorophenol	4.860	196	7070	506.7110022	ppb		94
51)	Biphenyl	4.966	154	29578	560.7233946	ppb		98
52)	2-Chloronaphthalene	4.990	162	21656	527.0038819	ppb		98
53)	2-Nitroaniline	5.048	138	5585	416.3073425	ppb	#	86
54)	Acenaphthylene	5.283	152	32291	532.1851395	ppb		98
55)	Dimethyl phthalate	5.166	163	23395	543.1194924	ppb		93
56)	2,6-Dinitrotoluene	5.213	165	4661	448.2967711	ppb		96
57)	3-Nitroaniline	5.330	138	5153	453.2505773	ppb		90
58)	Acenaphthene	5.401	153	22173	549.4385347	ppb		98
59)	2,4-Dinitrophenol	5.407	184	1359	319.6653544	ppb	#	1
60)	Dibenzofuran	5.524	168	31614	558.5994770	ppb		99
61)	2,4-Dinitrotoluene	5.501	165	5394	406.6303186	ppb		85
63)	4-Nitrophenol	5.425	139	3855	439.0348848	ppb		94
64)	Fluorene	5.777	166	25454	553.0741044	ppb		97
65)	4-Chlorophenyl-phenyle...	5.771	204	12503	537.2610676	ppb		98
66)	Diethyl phthalate	5.671	149	24463	581.3855300	ppb		98
67)	4-Nitroaniline	5.777	138	5637	557.0004432	ppb		91
68)	Azobenzene	5.889	77	23792	527.3822165	ppb		98
71)	4,6-Dinitro-2-methylph...	5.801	198	1664	277.5327875	ppb		86
72)	N-Nitrosodiphenylamine	5.853	169	21669	562.0185681	ppb		99
74)	4-Bromophenyl-phenylether	6.141	248	7886	556.9078024	ppb		98
75)	Hexachlorobenzene	6.194	284	8682	545.2092563	ppb		97
76)	n-octadecane	6.382	55	4416	626.0019646	ppb	#	83
77)	Pentachlorophenol	6.341	266	3533	388.4489585	ppb		91
78)	Phenanthrene	6.517	178	40976	574.2094411	ppb		98
79)	Anthracene	6.558	178	39539	534.6048039	ppb		99
80)	Carbazole	6.676	167	35923	542.5021909	ppb		98
81)	Di-n-butyl phthalate	6.940	149	39954	504.9613246	ppb		99
83)	Fluoranthene	7.534	202	42142	528.6737897	ppb		98
86)	Pyrene	7.769	202	43095	530.0805453	ppb		98
88)	Benzylbutyl phthalate	8.539	149	16161	494.5558234	ppb		95
90)	Benzo(a)anthracene	9.338	228	41472	545.3712662	ppb		97
91)	Chrysene	9.396	228	42081	560.2470492	ppb		97
92)	bis(2-Ethylhexyl)phtha...	9.443	149	21734	468.0410430	ppb		97
93)	Di-n-octyl phthalate	10.689	149	32271	429.1644128	ppb		100
95)	Benzo(b)fluoranthene	11.306	252	39751	508.2370634	ppb		96
96)	Benzo(k)fluoranthene	11.365	252	38989	489.4302309	ppb		96
97)	Benzo(a)pyrene	11.976	252	33522	487.3459951	ppb		97
98)	Indeno(1,2,3-cd)pyrene	13.985	276	32801	498.7437664	ppb		96
99)	Dibenz(a,h)anthracene	14.032	278	37991	510.4626824	ppb		97
100)	Benzo(g,h,i)perylene	14.314	276	39705	527.5681083	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

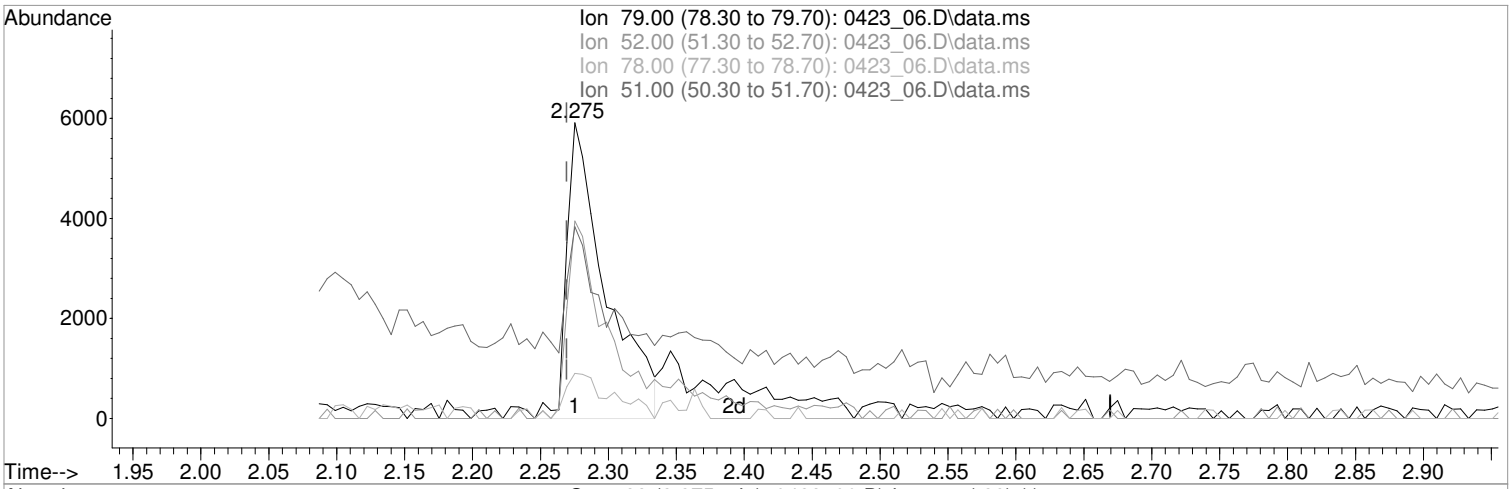
Quant Time: May 02 12:17:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration

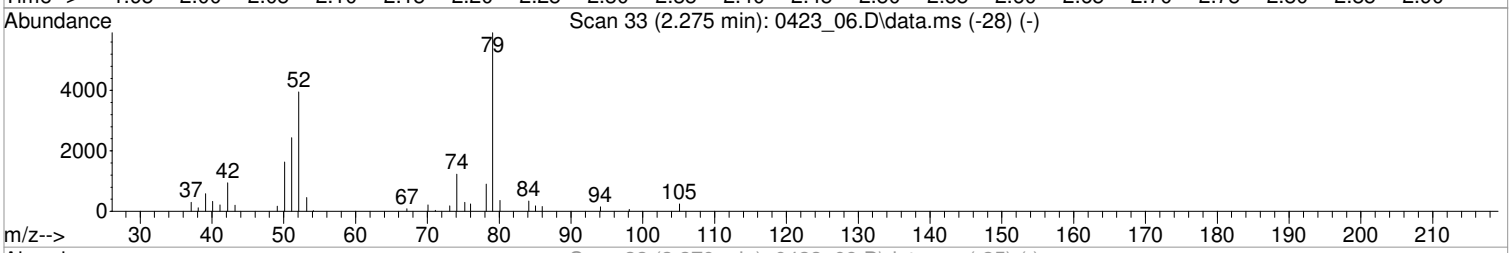


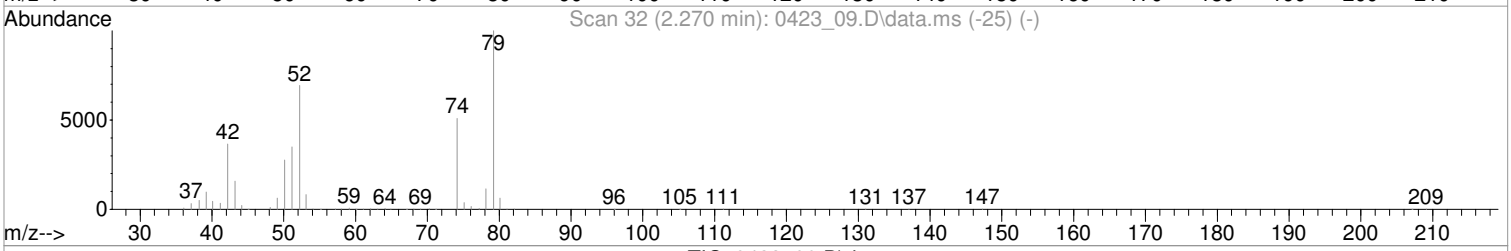
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(2) Pyridine (TM)

2.275min (+0.006) 446.7129427 ppb

Qvalue = 94

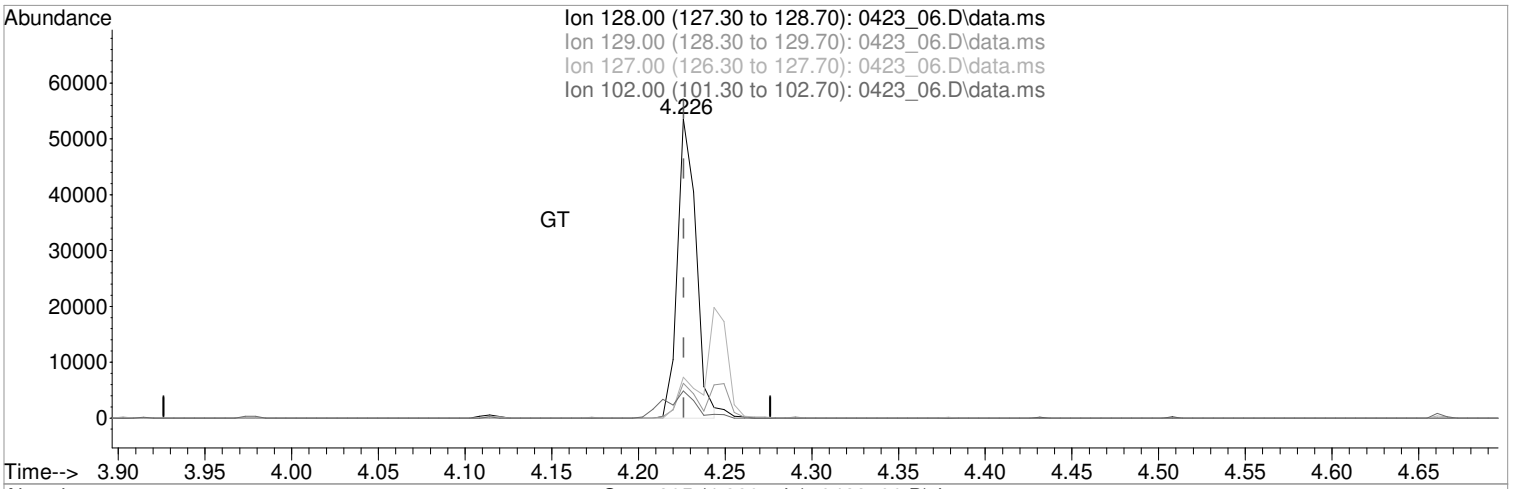
response 11842

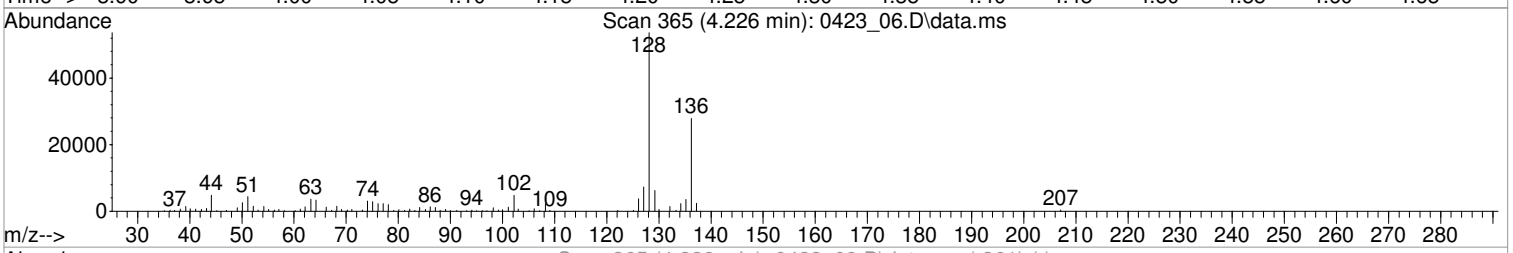
Ion	Exp%	Act%
79.00	100	100
52.00	69.40	66.82
78.00	11.60	15.24#
51.00	35.70	41.23

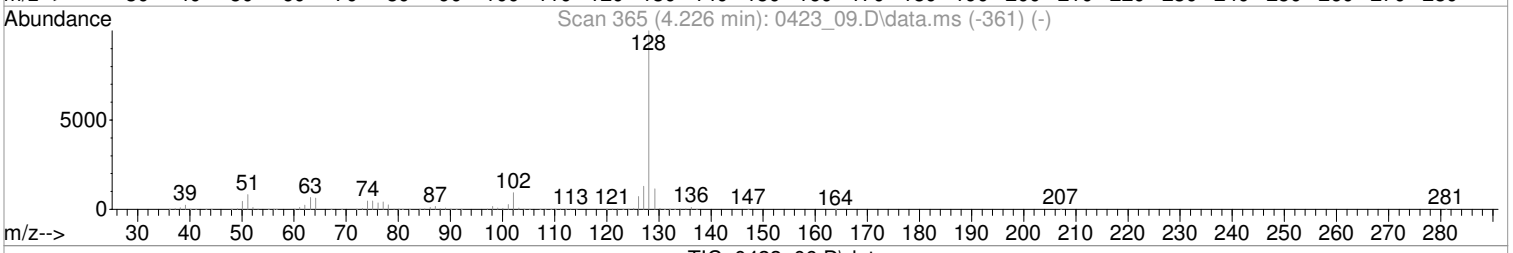
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 569.1230320 ppb m

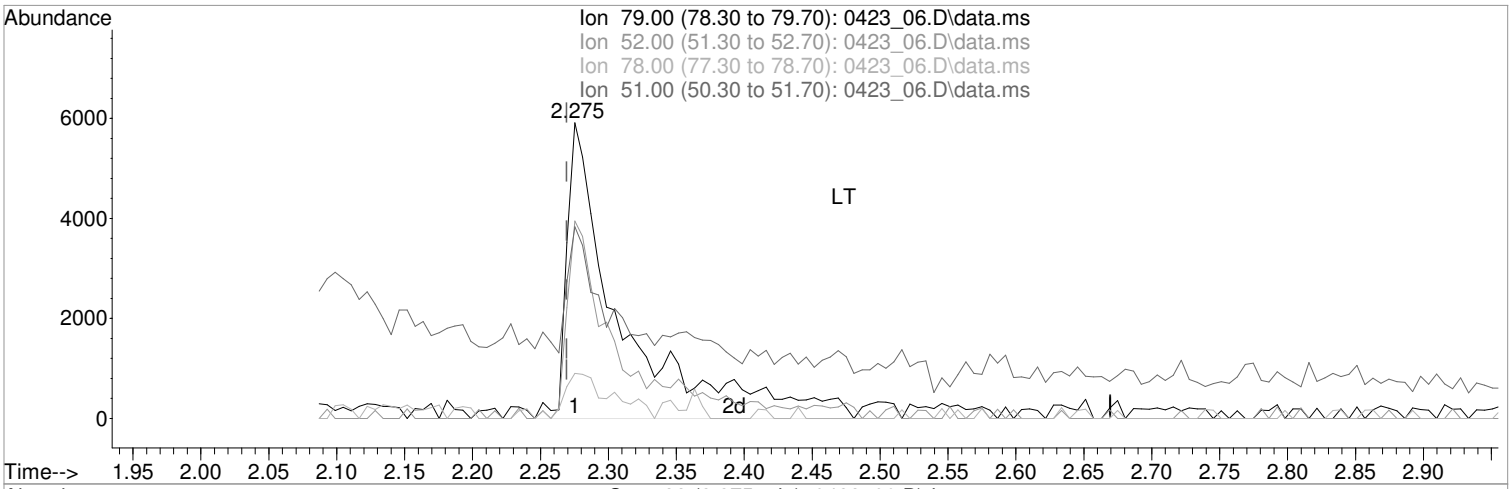
response 39611

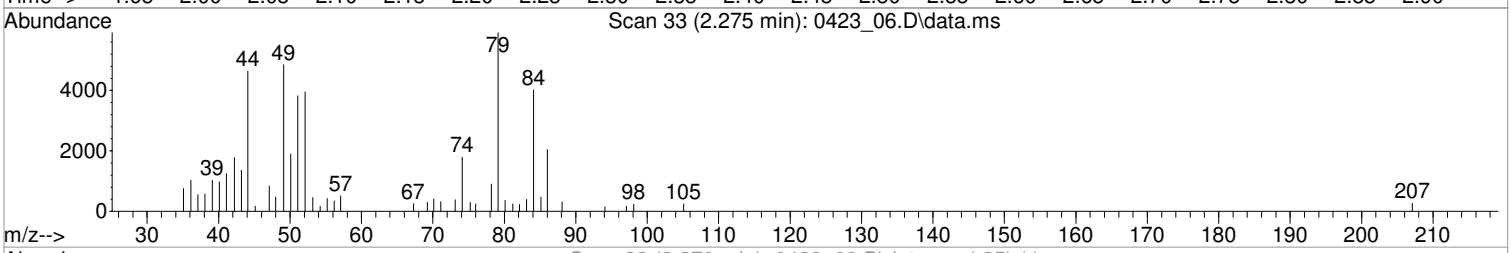
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.58
127.00	12.90	13.62
102.00	9.20	9.02

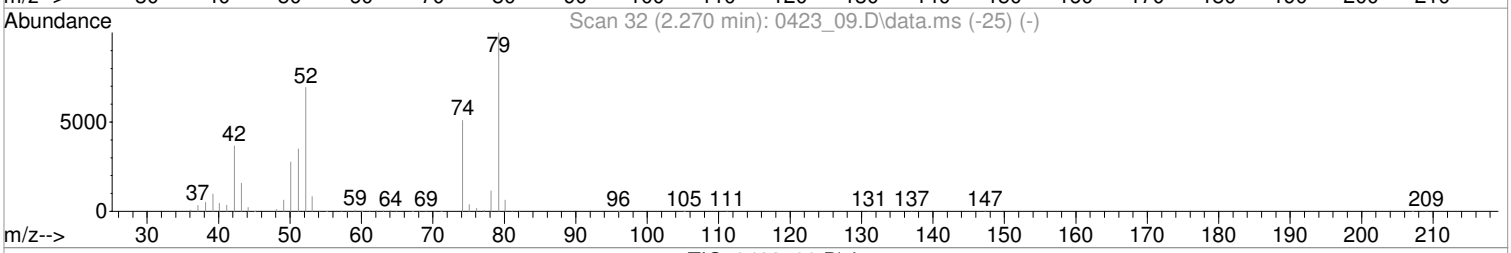
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(2) Pyridine (TM)

2.275min (+0.006) 631.7053656 ppb m

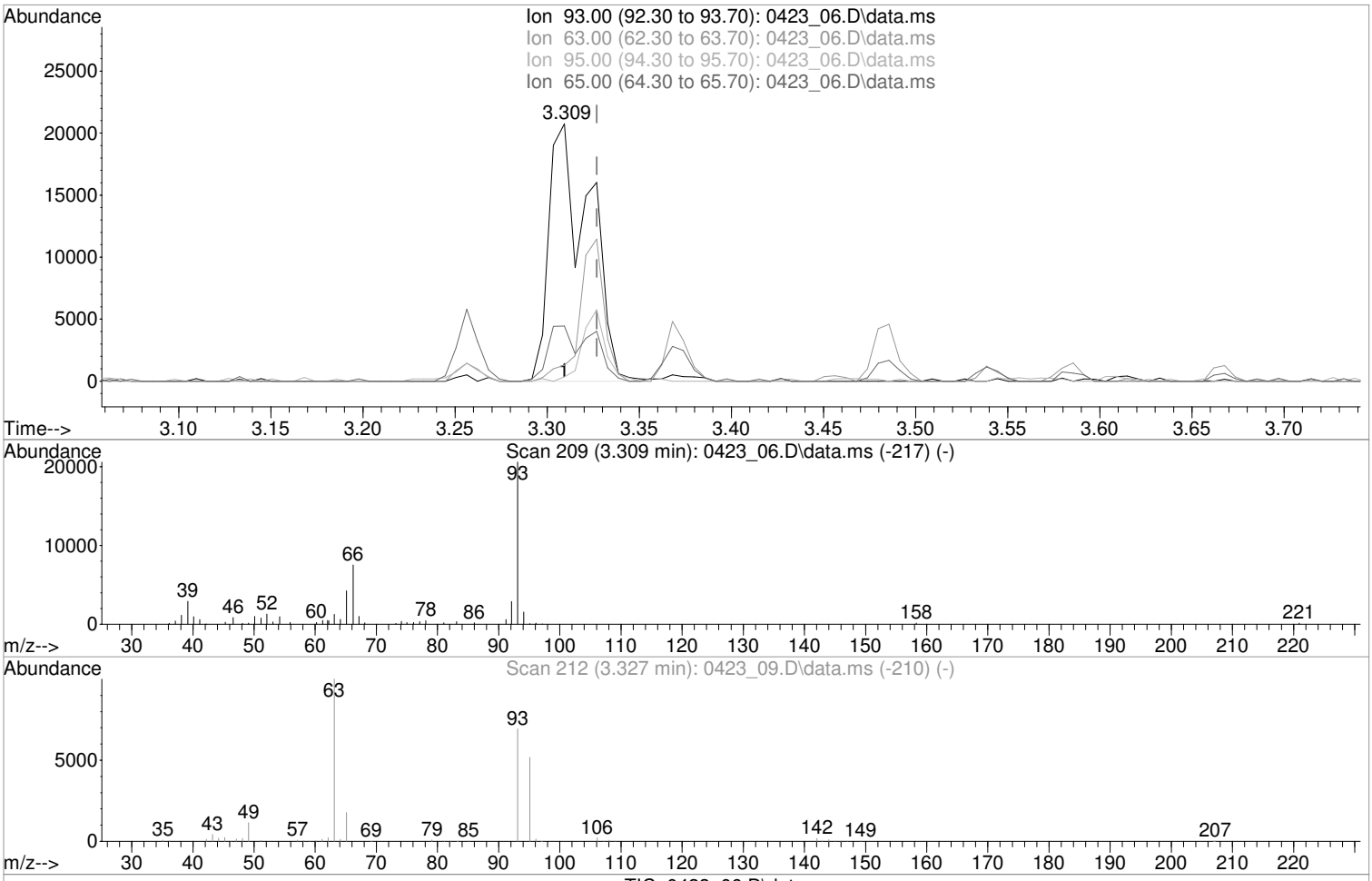
response 16746

Ion	Exp%	Act%
79.00	100	100
52.00	69.40	66.82
78.00	11.60	15.24#
51.00	35.70	64.78#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration



TIC: 0423_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 1349.5991882 ppb

Qvalue = 43

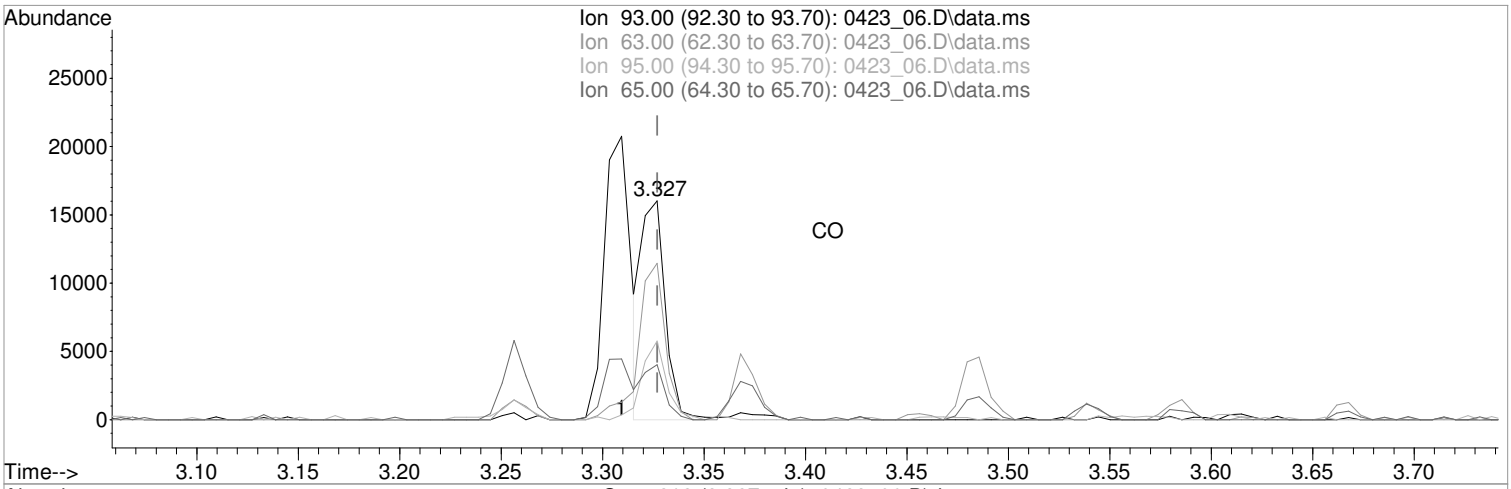
response 31626

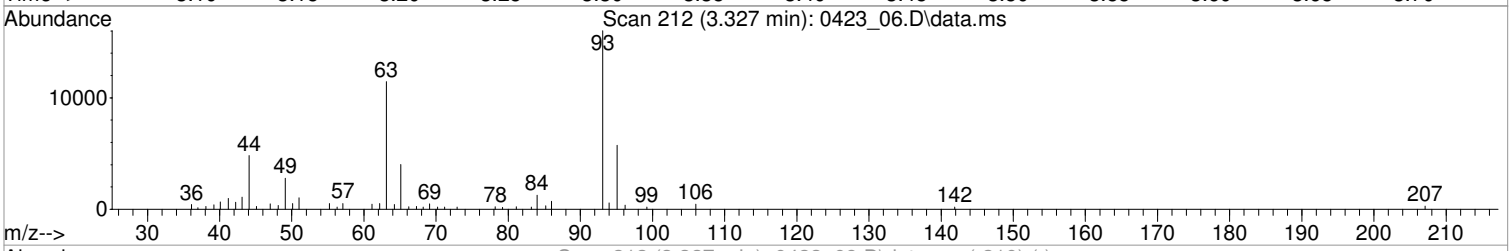
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	6.12#
95.00	32.50	1.62#
65.00	22.20	21.41

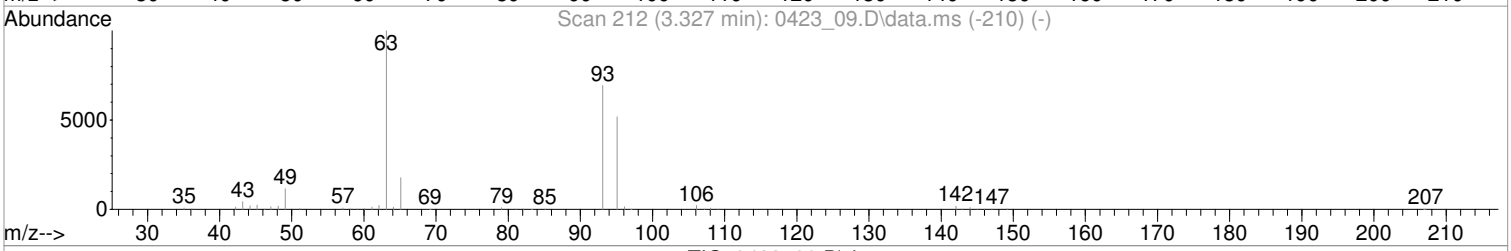
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

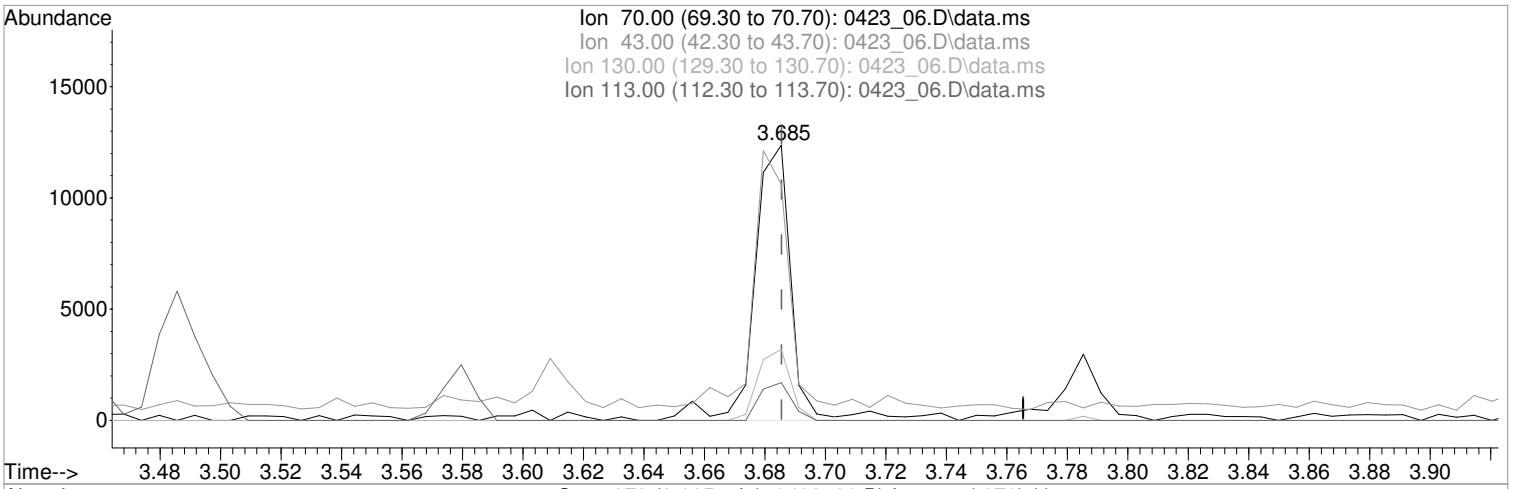
3.327min (-0.000) 549.8509309 ppb m

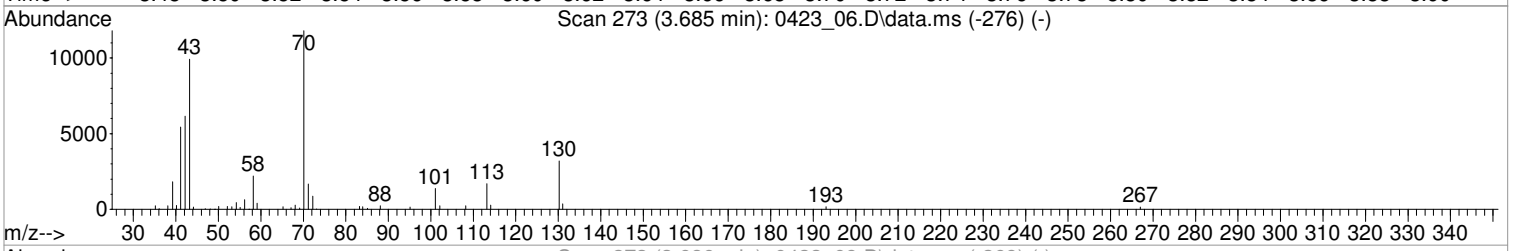
response 12885

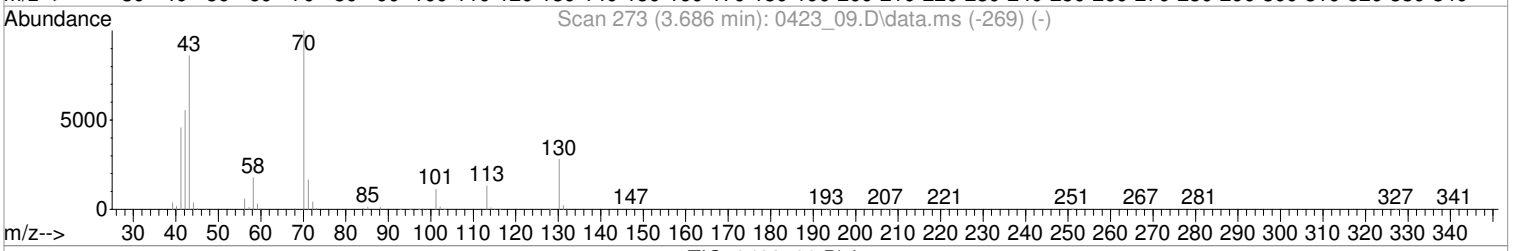
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.42
95.00	32.50	35.93
65.00	22.20	25.11

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(20) N-Nitrosodi-n-propylamine (MP)

3.685min (-0.000) 602.8954829 ppb

Qvalue = 94

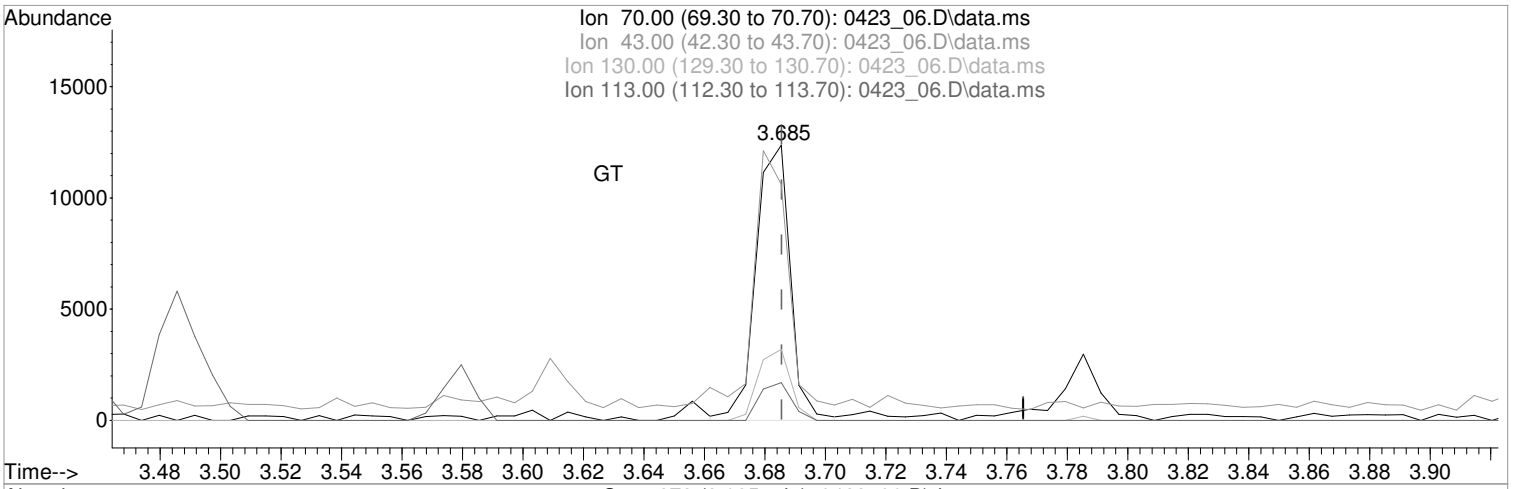
response 10141

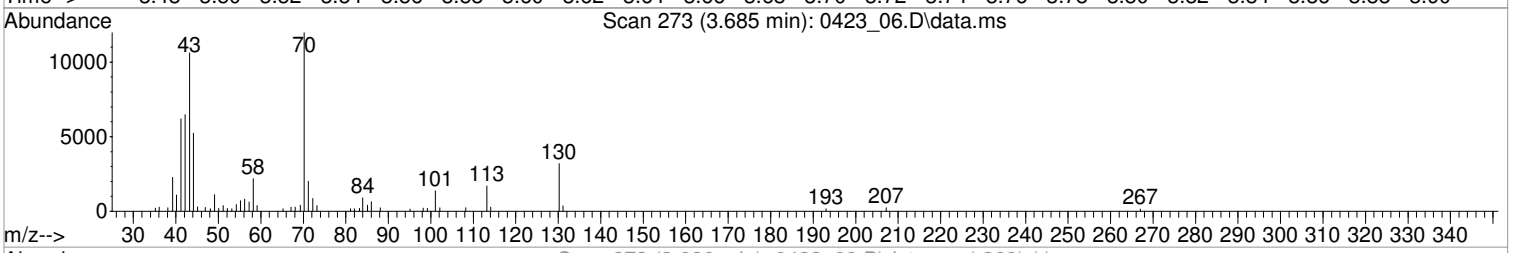
Ion	Exp%	Act%
70.00	100	100
43.00	86.90	80.24
130.00	27.90	25.82
113.00	13.00	13.68

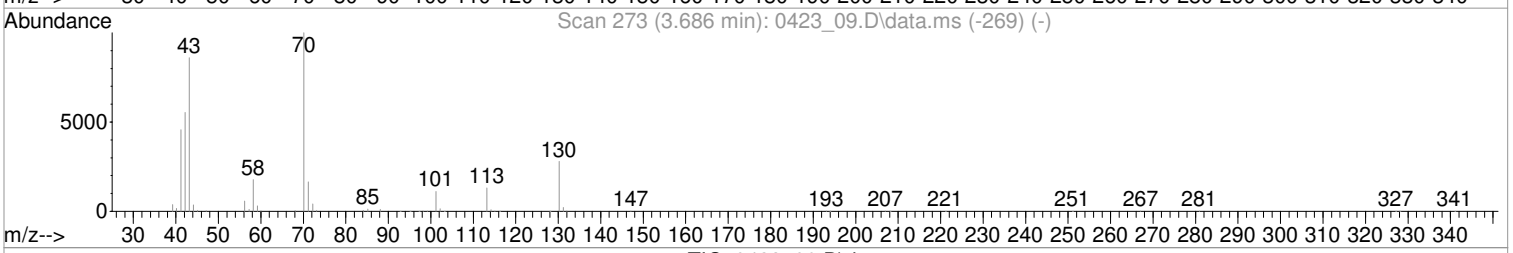
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(20) N-Nitrosodi-n-propylamine (MP)

3.685min (-0.000) 576.3802097 ppb m

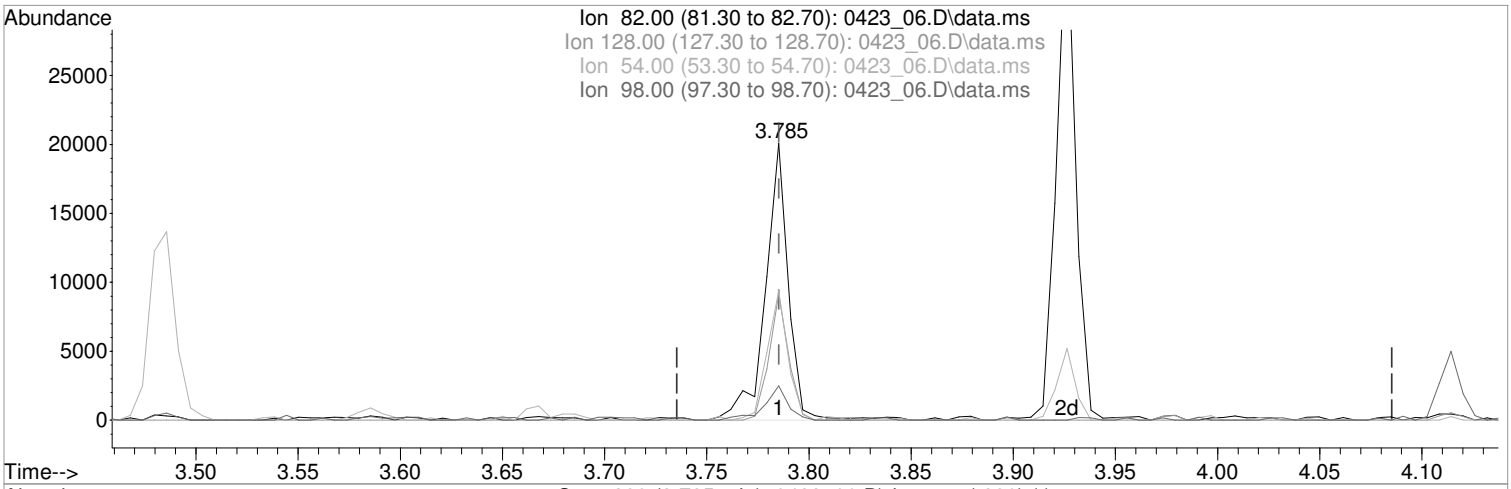
response 9695

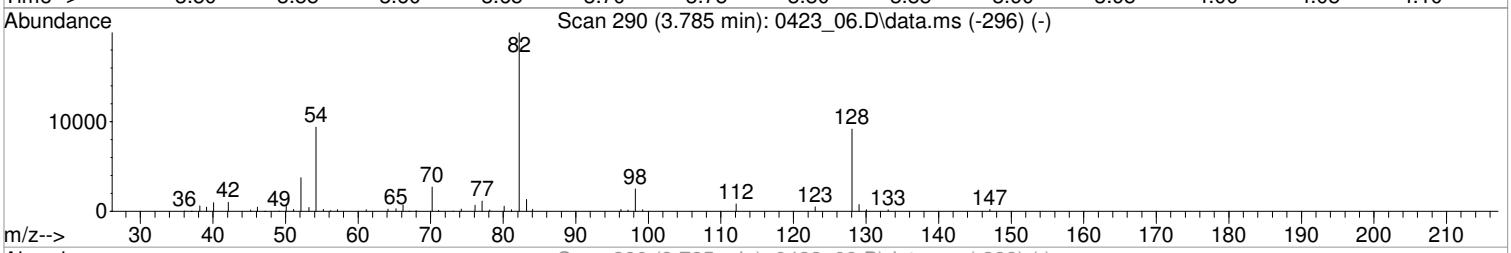
Ion	Exp%	Act%
70.00	100	100
43.00	86.90	88.76
130.00	27.90	26.70
113.00	13.00	14.15

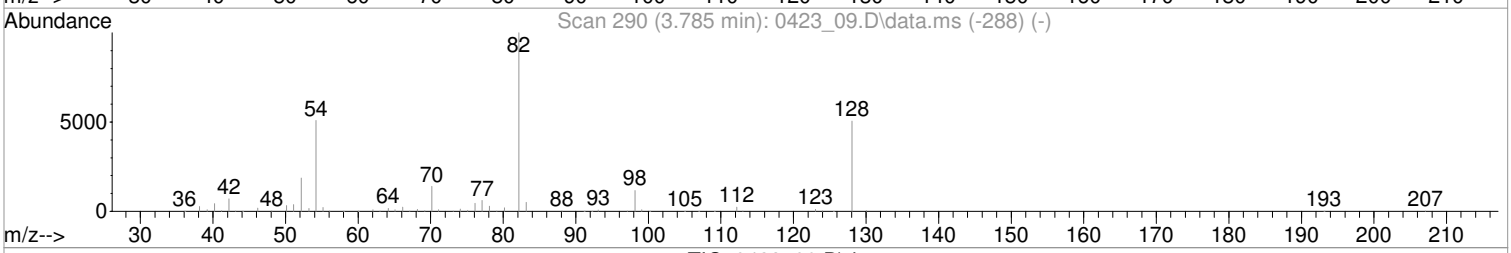
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 641.9866434 ppb

Qvalue = 98

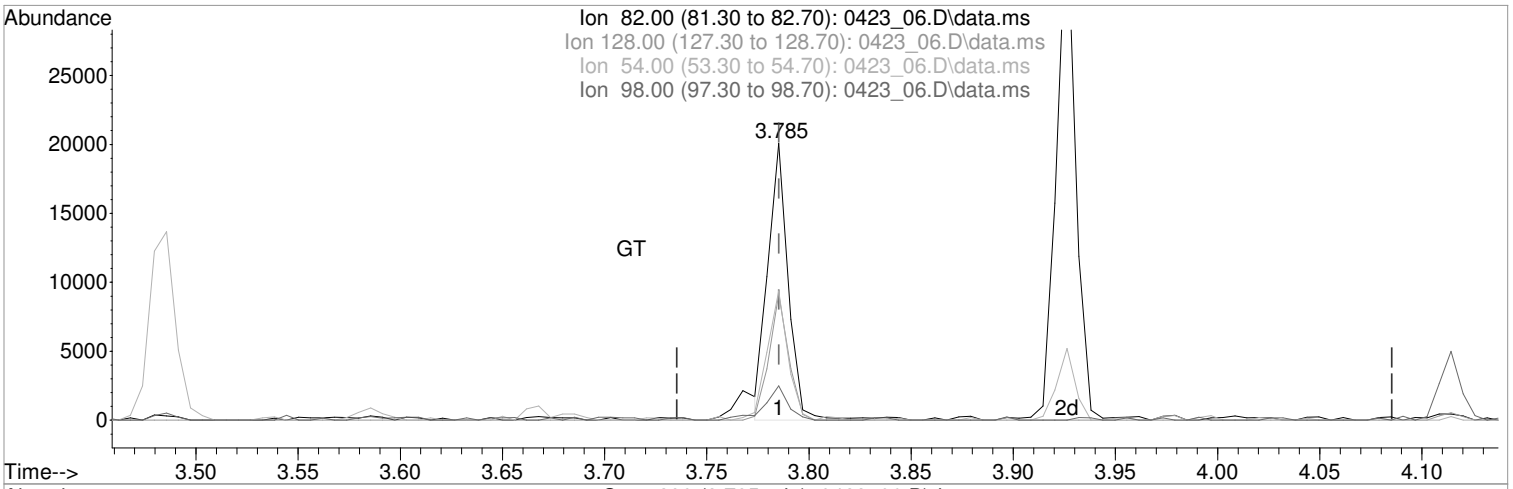
response 15604

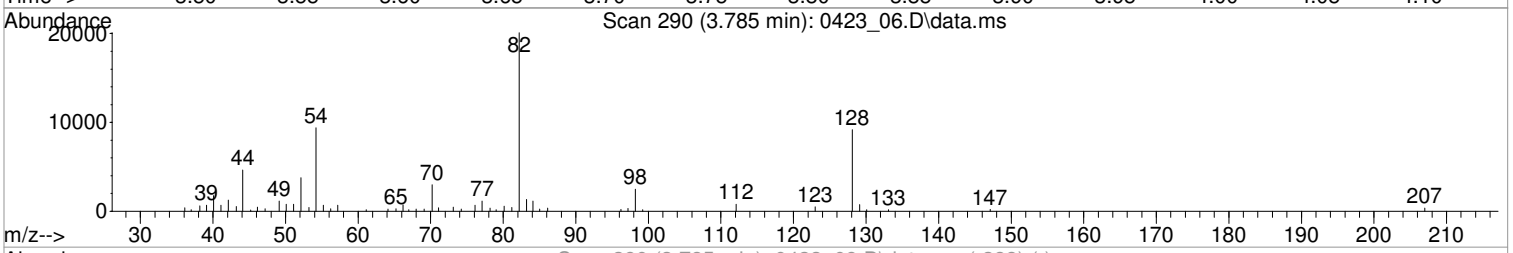
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	45.71
54.00	48.70	46.74
98.00	12.00	12.46

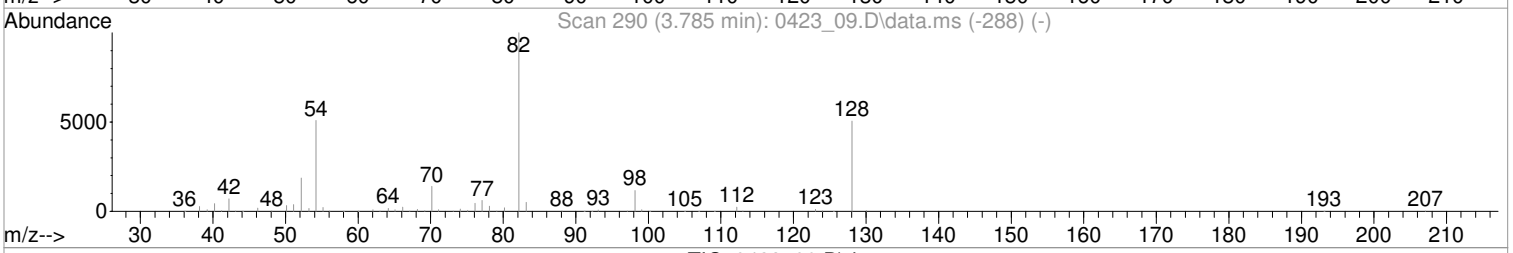
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration







TIC: 0423_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 576.0764535 ppb m

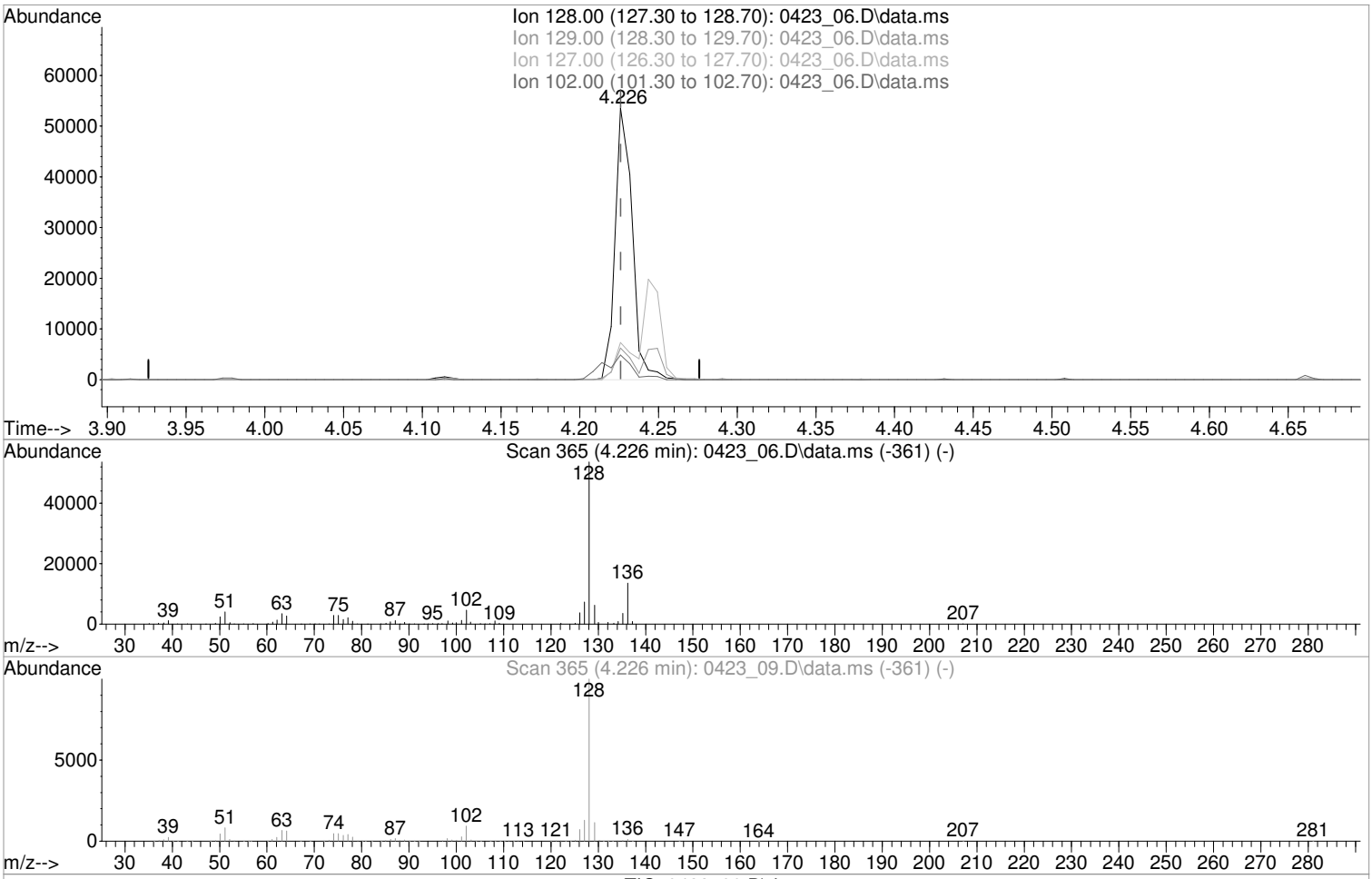
response 14002

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	45.71
54.00	48.70	46.74
98.00	12.00	12.46

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_06.D
Acq On : 23 Apr 2022 10:42 am
Operator : 3545
Sample : STD SVMS 500 PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:16:03 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 11:09:40 2022
Response via : Initial Calibration



TIC: 0423_06.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 578.4908394 ppb

Qvalue = 99

response 40263

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.58
127.00	12.90	13.62
102.00	9.20	9.02

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:26:09 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.486	152	139103	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.214	136	538794	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	269088	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.500	188	540207	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	506452	8000.0000000	ppb		0.00
94) Perylene-d12	12.099	264	518825	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.816	112	23493	981.3154735	ppb		0.00
Spiked Amount 20000.000			Recovery =	4.91%			
7) Phenol-d5	3.251	99	27757	938.1189321	ppb		0.00
Spiked Amount 20000.000			Recovery =	4.69%			
24) Nitrobenzene-d5	3.785	82	24288m	954.4517471	ppb		0.00
Spiked Amount 10000.000			Recovery =	9.54%			
50) 2-Fluorobiphenyl	4.896	172	47327	975.5018304	ppb		0.00
Spiked Amount 10000.000			Recovery =	9.76%			
73) 2,4,6-Tribromophenol	5.959	330	5915	859.7958354	ppb		0.00
Spiked Amount 20000.000			Recovery =	4.30%			
87) p-Terphenyl-d14	7.928	244	67257	1003.0712264	ppb		0.00
Spiked Amount 10000.000			Recovery =	10.03%			
Target Compounds							Qvalue
2) Pyridine	2.275	79	25871	877.9408971	ppb		97
3) N-Nitrosodimethylamine	2.258	42	13178	1087.4067626	ppb		95
5) Aniline	3.304	66	13431	982.3594565	ppb	#	93
6) bis(2-Chloroethyl)ether	3.327	93	23536m	973.9743503	ppb		
8) Phenol	3.257	94	29025	969.4144395	ppb		99
10) 2-Chlorophenol	3.368	128	23947	983.3870387	ppb		96
11) n-Decane	3.368	41	14629	1019.9793500	ppb	#	93
12) 1,3-Dichlorobenzene	3.456	146	27345	1009.0454979	ppb		98
13) 1,4-Dichlorobenzene	3.492	146	27651	1001.9629034	ppb		92
14) Benzyl Alcohol	3.539	79	19242	941.7588685	ppb		97
15) 1,2-Dichlorobenzene	3.580	146	26132	1002.9454060	ppb		99
16) bis(2-Chloroisopropyl)...	3.609	121	8828	1020.7609073	ppb		96
17) 2,2-oxybis(1-chloropro...	3.609	121	8828	1020.7609073	ppb		96
18) 2-Methylphenol	3.586	108	21544	988.9615238	ppb		96
19) Hexachloroethane	3.768	117	10180	985.4082829	ppb		98
20) N-Nitrosodi-n-propylamine	3.680	70	17418	979.4353838	ppb		85
21) 3&4-Methyl phenol	3.668	107	23940	951.4151304	ppb		98
25) Nitrobenzene	3.797	77	25176	994.5083667	ppb		98
26) Isophorone	3.926	82	43725	969.8517361	ppb		99
27) 2-Nitrophenol	3.979	139	10613	938.2196676	ppb		95
28) 2,4-Dimethylphenol	3.979	107	22117	991.1794560	ppb		97
29) bis(2-Chlorethoxy)methane	4.038	93	26407	971.9531457	ppb		98
30) 2,4-Dichlorophenol	4.114	162	18346	966.4909189	ppb		98
32) 1,2,4-Trichlorobenzene	4.173	180	22360	1017.8643804	ppb		99
34) Naphthalene	4.226	128	70470m	973.3796028	ppb		
35) 4-Chloroaniline	4.244	65	8488	1001.3821772	ppb		91
36) Hexachloro-1,3-butadiene	4.291	225	12673	926.0745390	ppb		95

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:26:09 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration

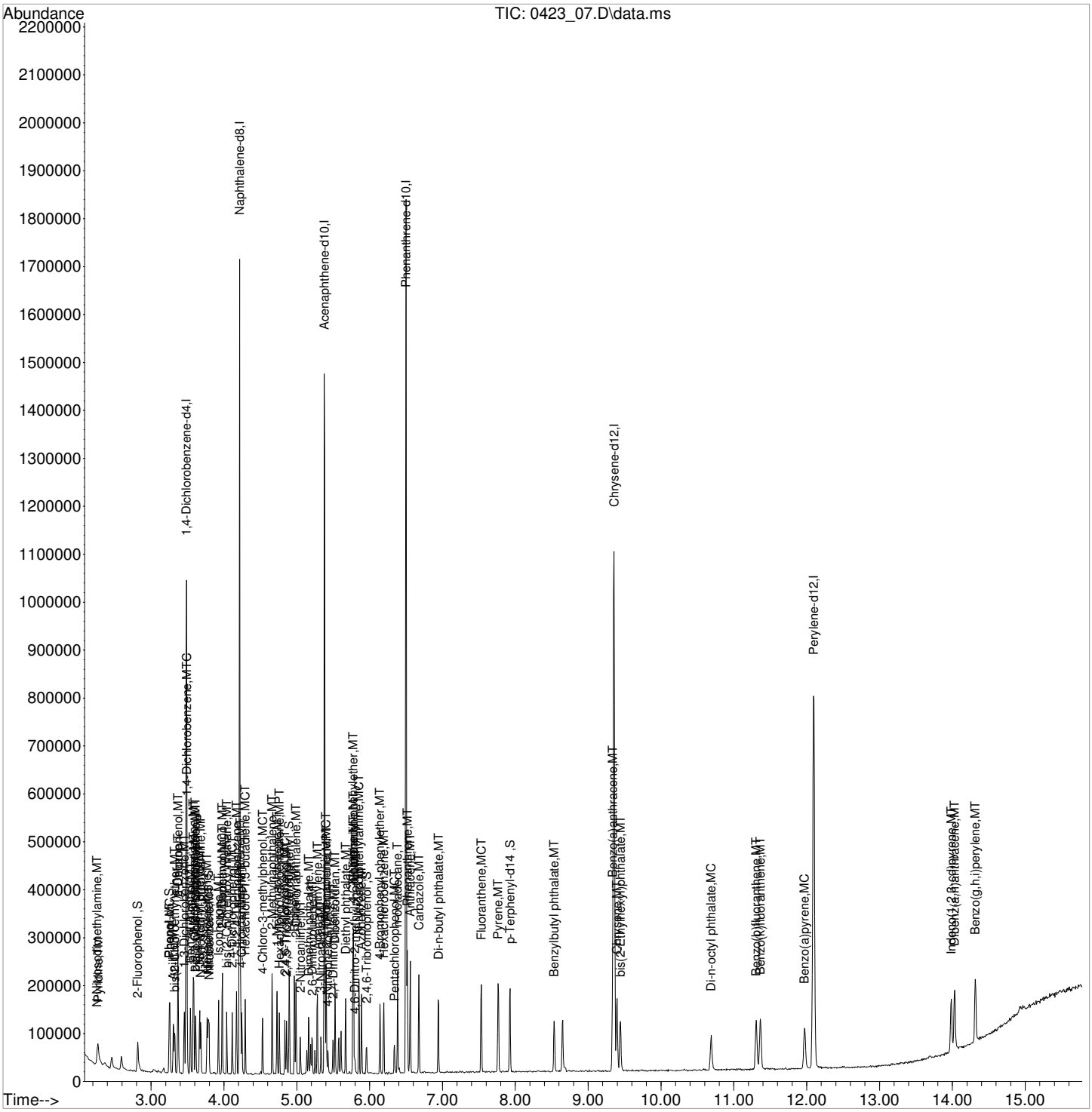
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.532	107	17181	929.7095138	ppb		94
41) 2-Methylnaphthalene	4.661	142	43465	958.1821481	ppb		100
42) 1-Methylnaphthalene	4.731	142	41797	969.4208467	ppb		99
47) Hexachlorocyclopentadiene	4.761	237	14291	973.4401861	ppb		99
48) 2,4,6-Trichlorophenol	4.837	196	11621	912.3582174	ppb		96
49) 2,4,5-Trichlorophenol	4.861	196	12795	941.4395162	ppb		93
51) Biphenyl	4.966	154	51800	956.8051665	ppb		98
52) 2-Chloronaphthalene	4.990	162	41308	1011.6113247	ppb		98
53) 2-Nitroaniline	5.049	138	10745	903.3835421	ppb		92
54) Acenaphthylene	5.284	152	57247	944.6967189	ppb		97
55) Dimethyl phthalate	5.166	163	42154	969.6010973	ppb		93
56) 2,6-Dinitrotoluene	5.213	165	8523	893.4098830	ppb		96
57) 3-Nitroaniline	5.331	138	9647	919.9822599	ppb	#	80
58) Acenaphthene	5.401	153	42792	1044.2783249	ppb		92
59) 2,4-Dinitrophenol	5.407	184	2366	701.7304179	ppb	#	2
60) Dibenzofuran	5.525	168	57086	984.7705260	ppb		98
61) 2,4-Dinitrotoluene	5.501	165	9955	855.4918345	ppb		94
63) 4-Nitrophenol	5.425	139	7319	917.4041406	ppb		91
64) Fluorene	5.777	166	46426	990.0238260	ppb		98
65) 4-Chlorophenyl-phenyle...	5.771	204	23602	1010.5269399	ppb		98
66) Diethyl phthalate	5.671	149	42379	962.5885283	ppb		99
67) 4-Nitroaniline	5.777	138	10382	1003.0657208	ppb		96
68) Azobenzene	5.889	77	45483	1014.2093646	ppb		99
71) 4,6-Dinitro-2-methylph...	5.795	198	3917	863.5794404	ppb		87
72) N-Nitrosodiphenylamine	5.854	169	38311	961.6336046	ppb		98
74) 4-Bromophenyl-phenylether	6.141	248	13547	930.3342620	ppb		94
75) Hexachlorobenzene	6.194	284	15990	987.4045275	ppb		98
76) n-octadecane	6.382	55	7016	907.8278929	ppb	#	96
77) Pentachlorophenol	6.341	266	6736	856.7741968	ppb		93
78) Phenanthrene	6.518	178	75252	1008.9654809	ppb		99
79) Anthracene	6.559	178	73583	988.3633531	ppb		99
80) Carbazole	6.676	167	64419	959.1187017	ppb		99
81) Di-n-butyl phthalate	6.946	149	71282	921.3716344	ppb		98
83) Fluoranthene	7.534	202	74893	938.7342184	ppb		99
86) Pyrene	7.763	202	78981	980.3816238	ppb		99
88) Benzylbutyl phthalate	8.533	149	28140	900.0585401	ppb		96
90) Benzo(a)anthracene	9.338	228	74906	979.5171837	ppb		96
91) Chrysene	9.397	228	73586	960.5287945	ppb		96
92) bis(2-Ethylhexyl)phtha...	9.444	149	39405	911.2353841	ppb		93
93) Di-n-octyl phthalate	10.689	149	59805	889.7847221	ppb		100
95) Benzo(b)fluoranthene	11.306	252	72012	960.8435708	ppb		97
96) Benzo(k)fluoranthene	11.365	252	74369	992.7677495	ppb		98
97) Benzo(a)pyrene	11.970	252	60806	942.0560555	ppb		99
98) Indeno(1,2,3-cd)pyrene	13.985	276	60019	961.4291144	ppb		99
99) Dibenz(a,h)anthracene	14.032	278	67880	949.7231563	ppb		98
100) Benzo(g,h,i)perylene	14.314	276	71097	967.3111465	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

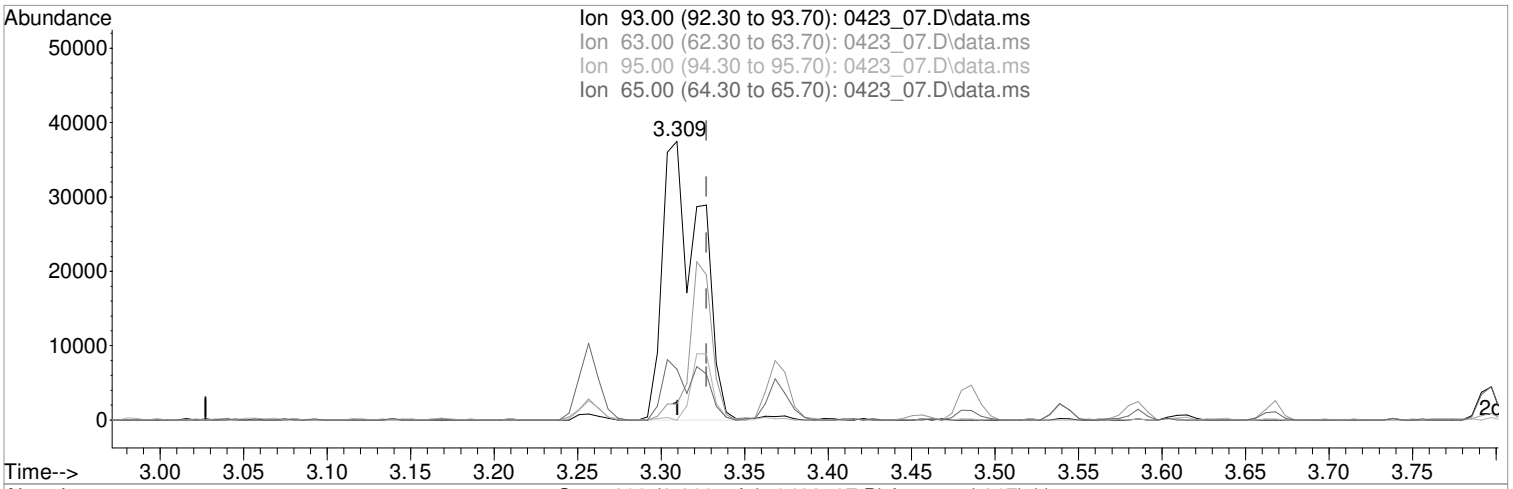
Quant Time: May 02 12:26:09 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration

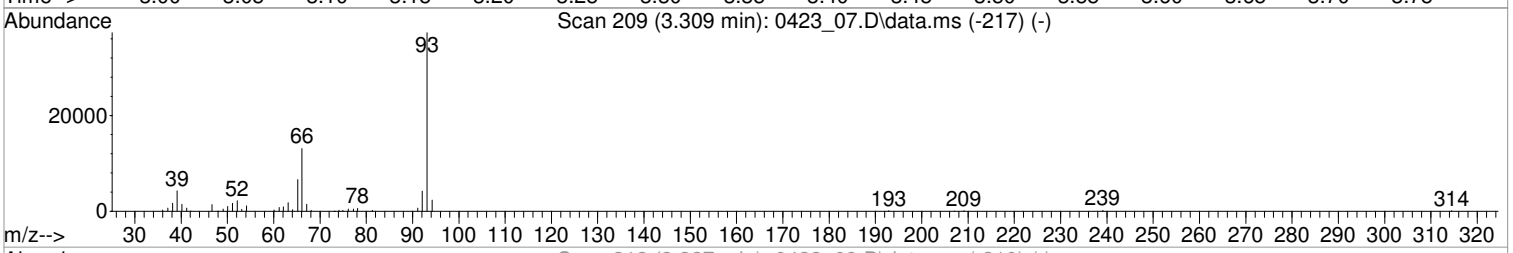


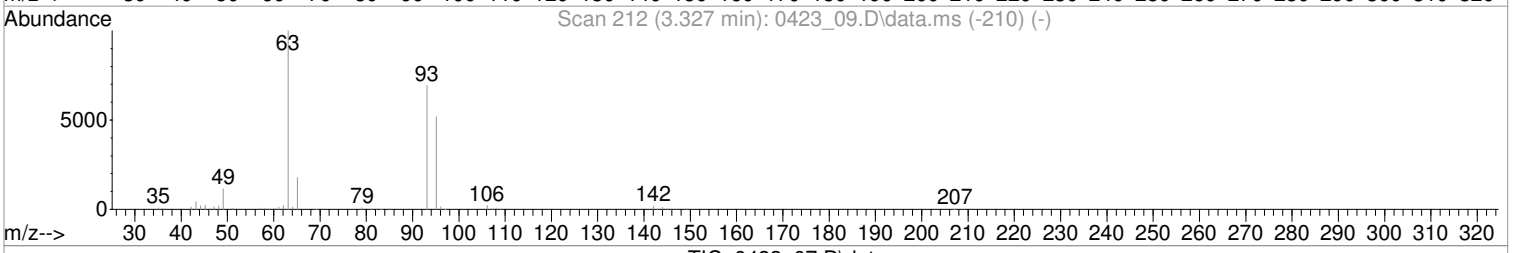
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration







TIC: 0423_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 2437.5429620 ppb

Qvalue = 40

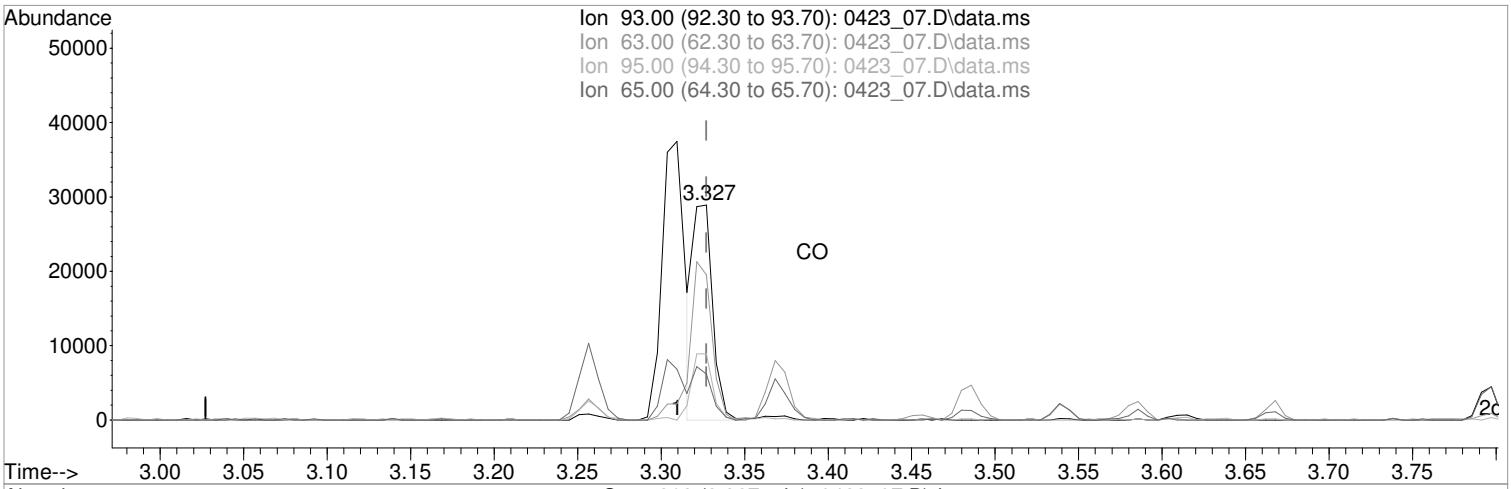
response 58903

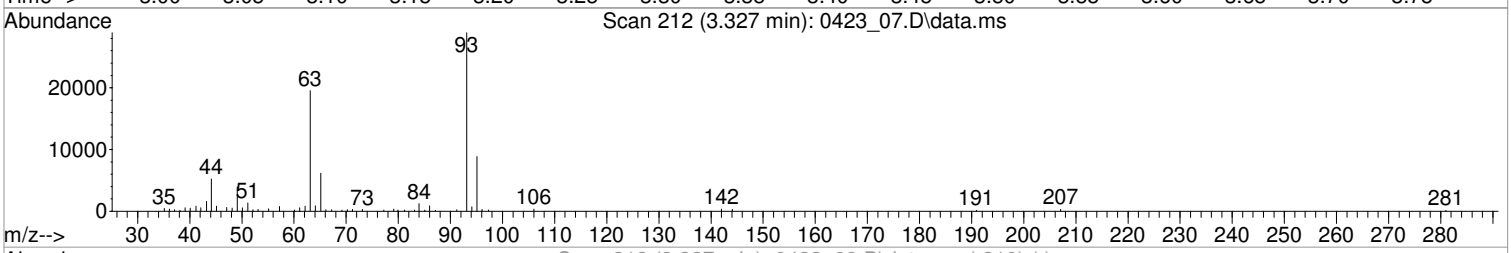
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.81#
95.00	32.50	0.00#
65.00	22.20	18.26

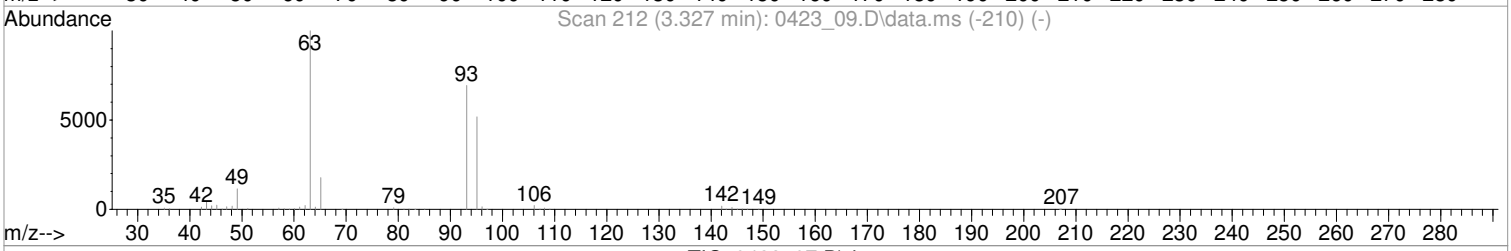
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration







TIC: 0423_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 973.9743503 ppb m

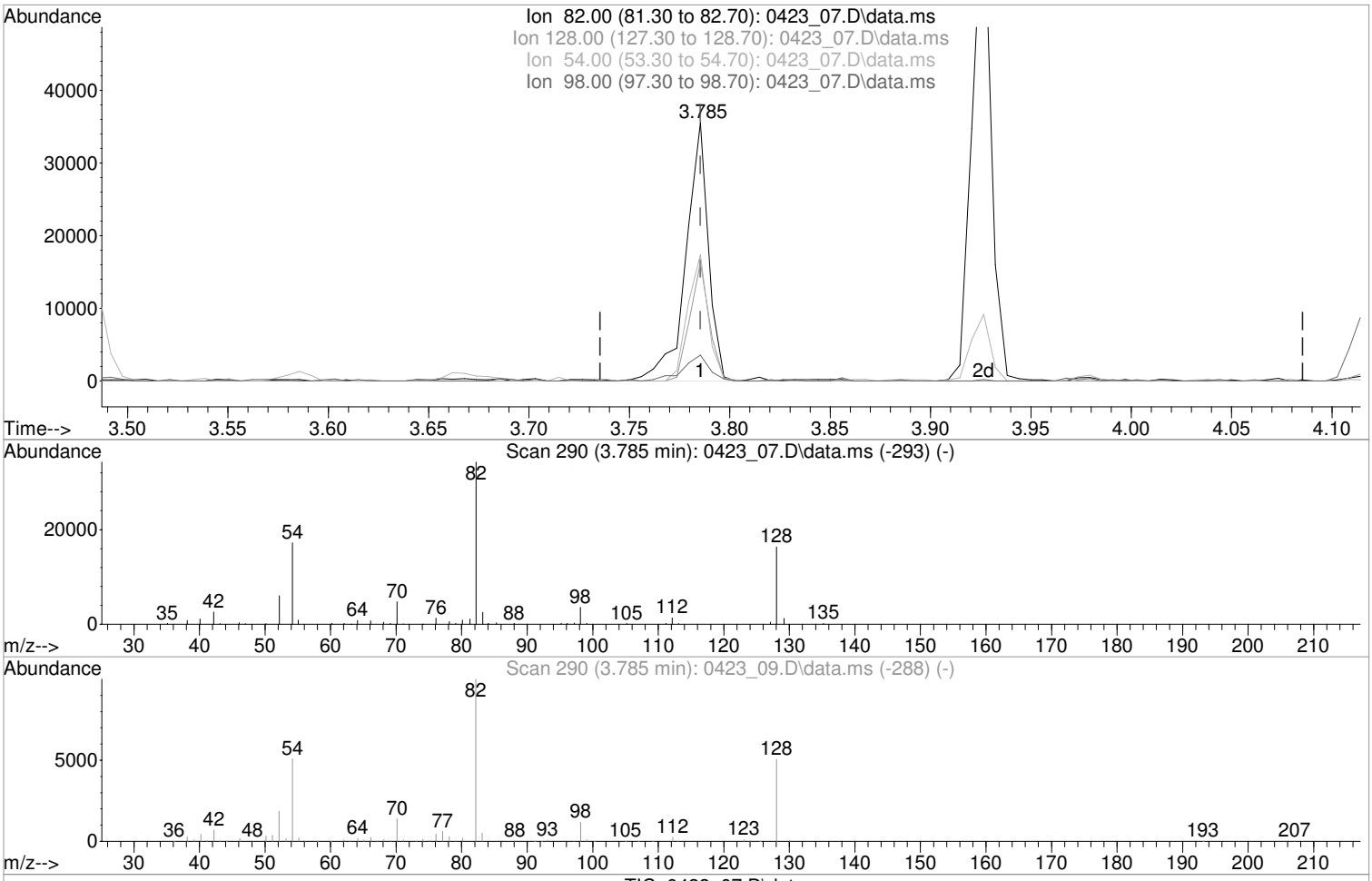
response 23536

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	67.55
95.00	32.50	30.72
65.00	22.20	21.37

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration



TIC: 0423_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 1088.2196055 ppb

Qvalue = 98

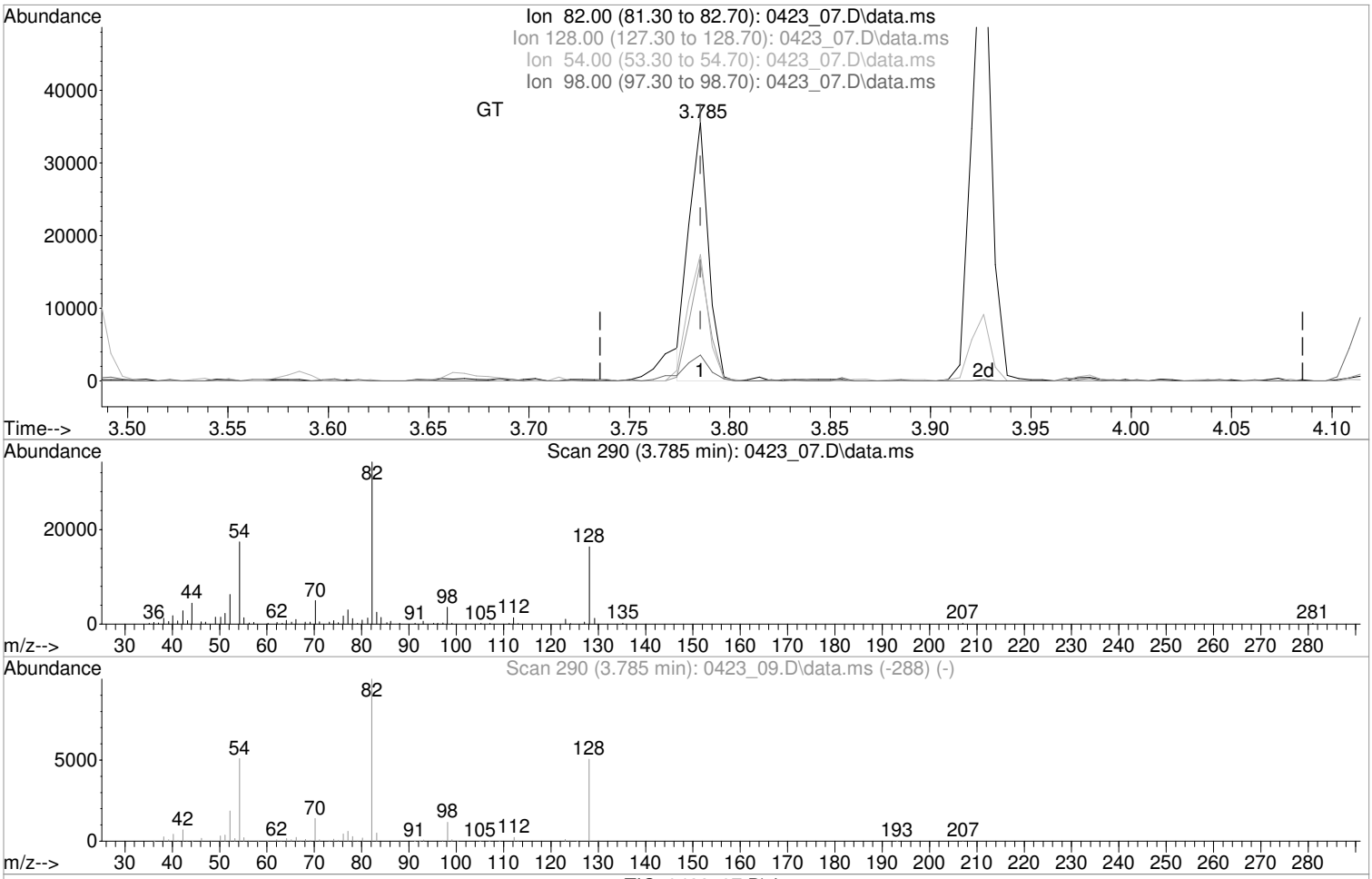
response 27692

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	45.96
54.00	48.70	48.91
98.00	12.00	10.01

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration



TIC: 0423_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 954.4517471 ppb m

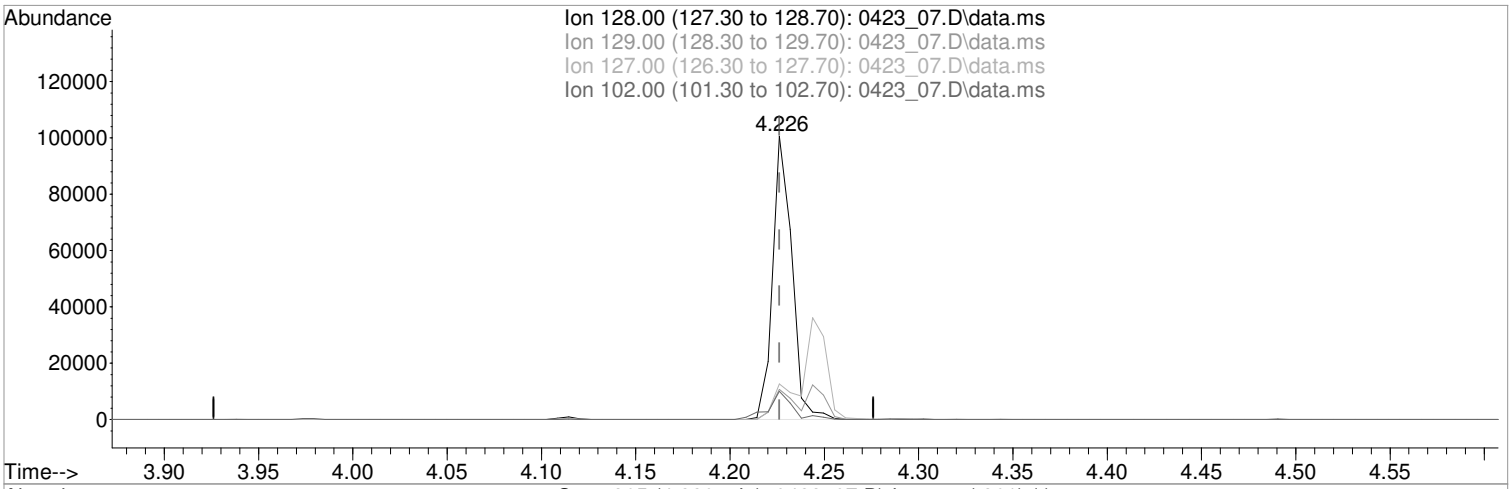
response 24288

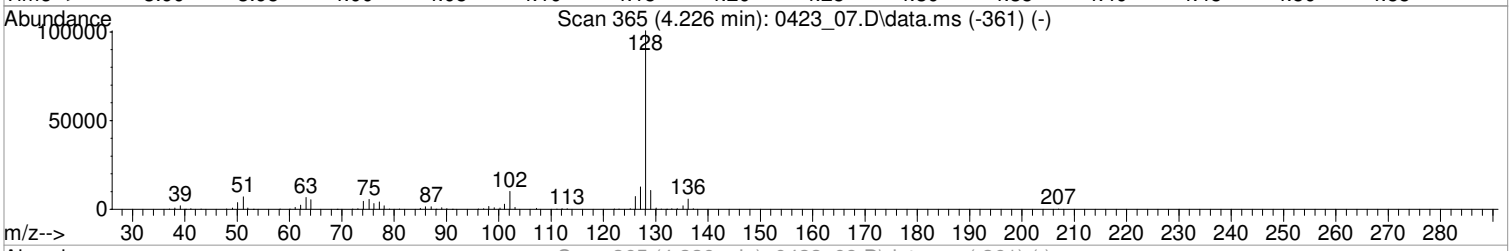
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.66
54.00	48.70	50.72
98.00	12.00	10.39

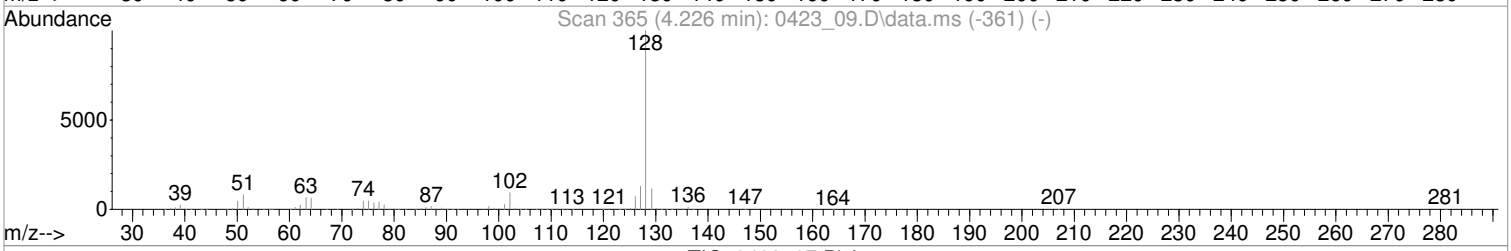
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration







TIC: 0423_07.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 986.9850932 ppb

Qvalue = 98

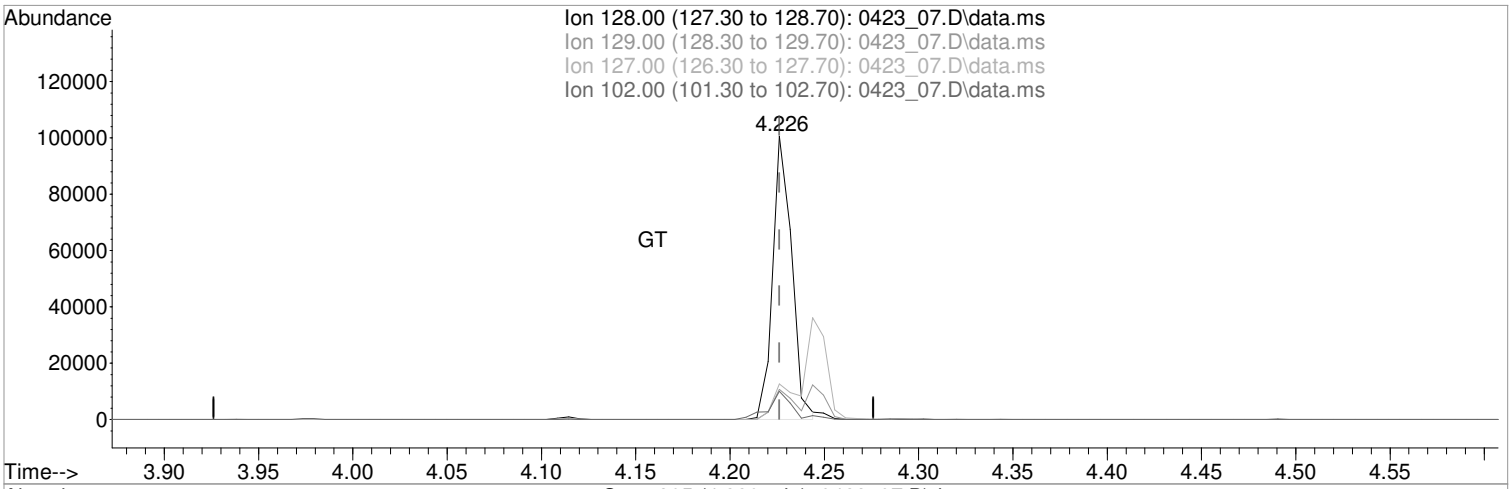
response 71455

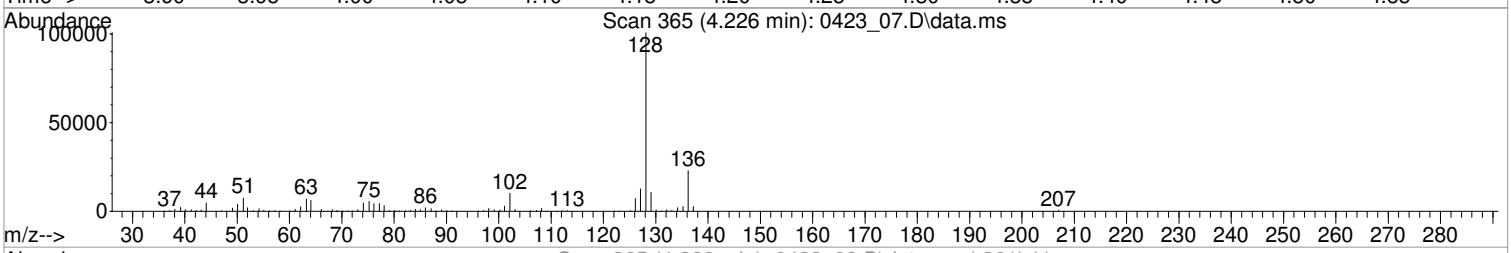
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.63
127.00	12.90	12.54
102.00	9.20	9.97

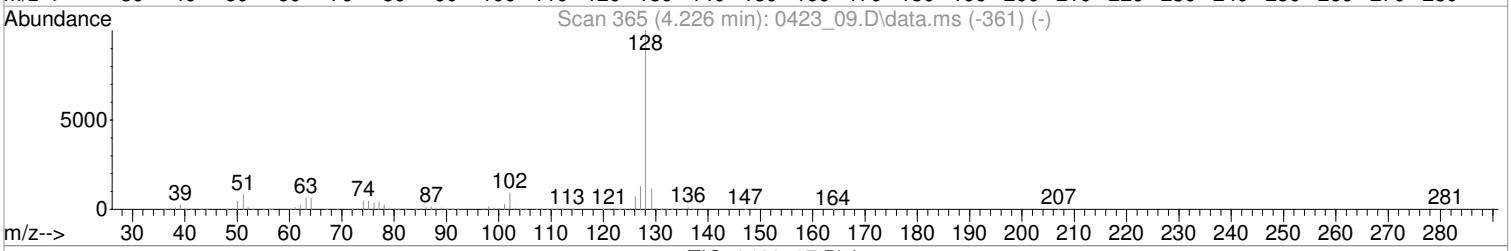
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_07.D
Acq On : 23 Apr 2022 11:03 am
Operator : 3545
Sample : STD SVMS 1K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:24:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:24:30 2022
Response via : Initial Calibration







TIC: 0423_07.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 973.3796028 ppb m

response 70470

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.63
127.00	12.90	12.54
102.00	9.20	9.97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:28:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.486	152	134568	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.214	136	527643	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.383	164	264943	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.500	188	537000	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	528222	8000.0000000	ppb		0.00
94) Perylene-d12	12.093	264	540029	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.816	112	87562	3804.4673393	ppb		0.00
Spiked Amount 20000.000				Recovery = 19.02%			
7) Phenol-d5	3.251	99	105459	3761.9724060	ppb		0.00
Spiked Amount 20000.000				Recovery = 18.81%			
24) Nitrobenzene-d5	3.785	82	90251m	3677.4025165	ppb		0.00
Spiked Amount 10000.000				Recovery = 36.77%			
50) 2-Fluorobiphenyl	4.896	172	179177	3781.8498979	ppb		0.00
Spiked Amount 10000.000				Recovery = 37.82%			
73) 2,4,6-Tribromophenol	5.959	330	24620	3776.5982185	ppb		0.00
Spiked Amount 20000.000				Recovery = 18.88%			
87) p-Terphenyl-d14	7.928	244	260111	3715.6125989	ppb		0.00
Spiked Amount 10000.000				Recovery = 37.16%			
Target Compounds							Qvalue
2) Pyridine	2.269	79	102425	3745.3475077	ppb		97
3) N-Nitrosodimethylamine	2.264	42	43628	3616.0125828	ppb		95
5) Aniline	3.309	66	49290	3748.6670237	ppb		99
6) bis(2-Chloroethyl)ether	3.327	93	87995m	3797.0961535	ppb		
8) Phenol	3.256	94	109324	3813.2730720	ppb		99
10) 2-Chlorophenol	3.368	128	88848	3792.5156056	ppb		98
11) n-Decane	3.368	41	51562	3691.6326123	ppb	#	97
12) 1,3-Dichlorobenzene	3.456	146	101001	3841.0122642	ppb		98
13) 1,4-Dichlorobenzene	3.491	146	102785	3847.5225396	ppb		96
14) Benzyl Alcohol	3.539	79	73564	3795.4539450	ppb		100
15) 1,2-Dichlorobenzene	3.580	146	96577	3827.7791381	ppb		99
16) bis(2-Chloroisopropyl)...	3.609	121	30502	3620.6756605	ppb		99
17) 2,2-oxybis(1-chloropro...	3.609	121	30502	3620.6756605	ppb		99
18) 2-Methylphenol	3.586	108	81922	3901.6582839	ppb		98
19) Hexachloroethane	3.768	117	37473	3767.8977903	ppb		97
20) N-Nitrosodi-n-propylamine	3.685	70	65423	3829.0403294	ppb		98
21) 3&4-Methyl phenol	3.668	107	90355	3772.9734738	ppb		99
25) Nitrobenzene	3.797	77	91023	3678.3339041	ppb		98
26) Isophorone	3.926	82	164980	3774.6430145	ppb		98
27) 2-Nitrophenol	3.979	139	42088	3879.2183044	ppb		97
28) 2,4-Dimethylphenol	3.979	107	83660	3839.7706922	ppb		99
29) bis(2-Chlorethoxy)methane	4.038	93	101460	3849.3108914	ppb		100
30) 2,4-Dichlorophenol	4.114	162	72557	3947.2670353	ppb		98
32) 1,2,4-Trichlorobenzene	4.173	180	82375	3806.4282732	ppb		98
34) Naphthalene	4.226	128	257883m	3669.8993231	ppb		
35) 4-Chloroaniline	4.244	65	30531	3676.3600755	ppb		99
36) Hexachloro-1,3-butadiene	4.291	225	48226	3689.4887500	ppb		96

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:28:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration

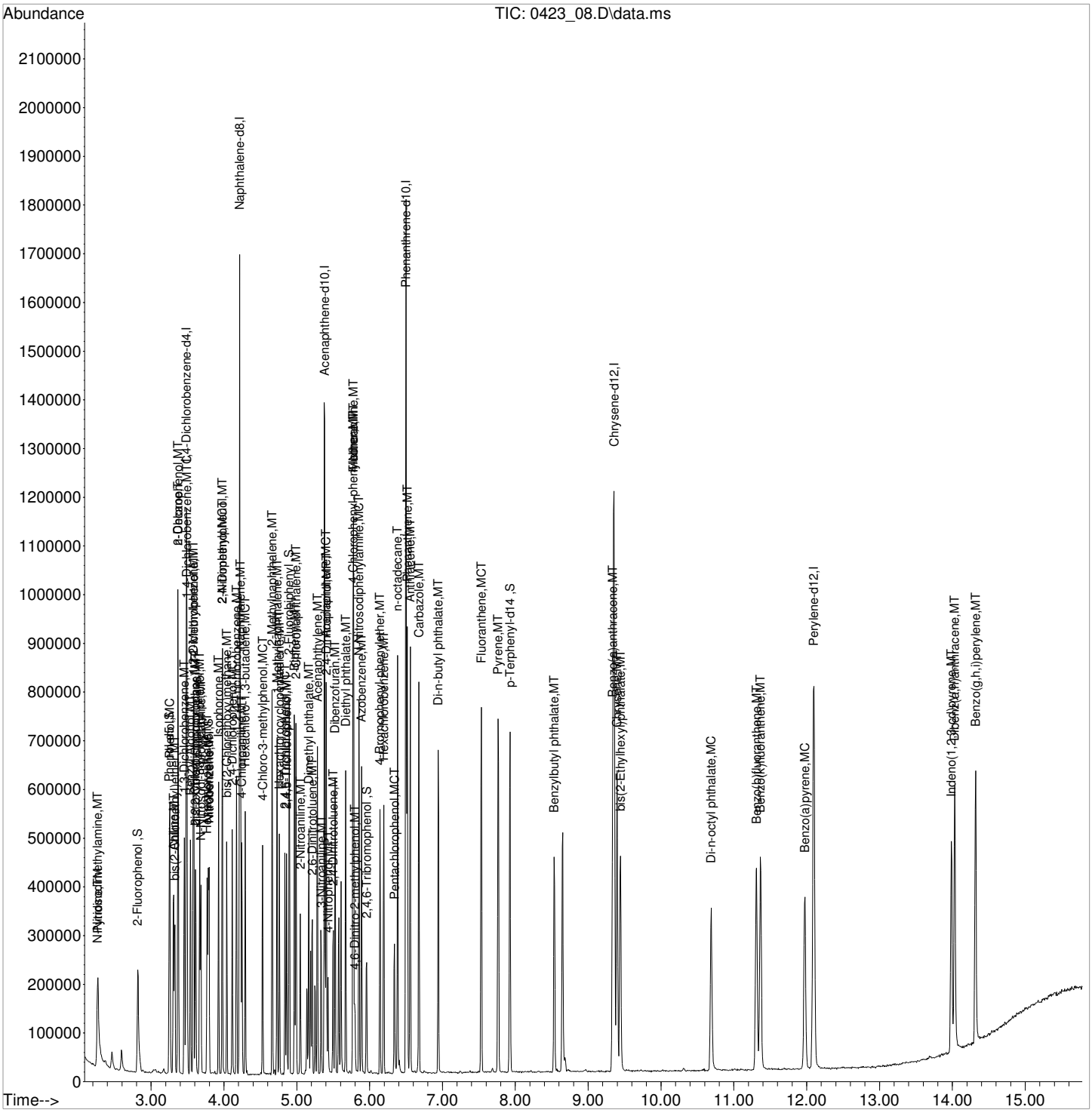
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.531	107	67293	3807.5708266	ppb		99
41)	2-Methylnaphthalene	4.661	142	164089	3745.9913681	ppb		100
42)	1-Methylnaphthalene	4.731	142	154451	3695.6432364	ppb		100
47)	Hexachlorocyclopentadiene	4.761	237	54991	3838.3290101	ppb		98
48)	2,4,6-Trichlorophenol	4.837	196	47604	3910.0623028	ppb		98
49)	2,4,5-Trichlorophenol	4.861	196	50688	3863.3183973	ppb		98
51)	Biphenyl	4.966	154	196365	3737.6468205	ppb		99
52)	2-Chloronaphthalene	4.990	162	159596	3954.2646364	ppb		98
53)	2-Nitroaniline	5.049	138	44678	3942.0143735	ppb		96
54)	Acenaphthylene	5.284	152	226718	3871.2234479	ppb		100
55)	Dimethyl phthalate	5.166	163	158207	3733.7481750	ppb		97
56)	2,6-Dinitrotoluene	5.213	165	37375	4125.6524591	ppb		89
57)	3-Nitroaniline	5.336	138	38266	3807.8792176	ppb		96
58)	Acenaphthene	5.401	153	153764	3755.6674269	ppb		97
59)	2,4-Dinitrophenol	5.407	184	12548	4197.1181566	ppb	#	56
60)	Dibenzofuran	5.524	168	214275	3773.3676410	ppb		99
61)	2,4-Dinitrotoluene	5.501	165	45488	4171.1293699	ppb		96
63)	4-Nitrophenol	5.430	139	31262	4092.5335504	ppb		96
64)	Fluorene	5.777	166	172979	3758.9473991	ppb		96
65)	4-Chlorophenyl-phenyle...	5.771	204	86784	3760.6193081	ppb		100
66)	Diethyl phthalate	5.671	149	164291	3837.9167425	ppb		98
67)	4-Nitroaniline	5.777	138	40168	3937.5571661	ppb		97
68)	Azobenzene	5.889	77	172365	3885.2352346	ppb		99
71)	4,6-Dinitro-2-methylph...	5.801	198	18904	4392.3847219	ppb		98
72)	N-Nitrosodiphenylamine	5.853	169	151202	3867.4038601	ppb		100
74)	4-Bromophenyl-phenylether	6.141	248	54148	3829.7314233	ppb		98
75)	Hexachlorobenzene	6.194	284	61045	3808.1135549	ppb		97
76)	n-octadecane	6.382	55	26655	3579.5720397	ppb		97
77)	Pentachlorophenol	6.341	266	30124	4047.6989201	ppb		95
78)	Phenanthrene	6.517	178	275691	3707.4117421	ppb		99
79)	Anthracene	6.559	178	278167	3773.2755825	ppb		100
80)	Carbazole	6.676	167	251132	3813.3373359	ppb		99
81)	Di-n-butyl phthalate	6.940	149	287542	3839.5172131	ppb		99
83)	Fluoranthene	7.534	202	297584	3830.5211539	ppb		100
86)	Pyrene	7.763	202	310128	3715.2213649	ppb		99
88)	Benzylbutyl phthalate	8.533	149	118996	3774.9858000	ppb		96
90)	Benzo(a)anthracene	9.338	228	286562	3617.5223092	ppb		99
91)	Chrysene	9.396	228	294448	3734.1999756	ppb		98
92)	bis(2-Ethylhexyl)phtha...	9.443	149	170817	3902.7979901	ppb		98
93)	Di-n-octyl phthalate	10.689	149	266496	3946.5327752	ppb		99
95)	Benzo(b)fluoranthene	11.312	252	287944	3739.9470463	ppb		99
96)	Benzo(k)fluoranthene	11.365	252	295571	3799.8774594	ppb		99
97)	Benzo(a)pyrene	11.976	252	248572	3772.7379522	ppb		98
98)	Indeno(1,2,3-cd)pyrene	13.985	276	243109	3790.1227581	ppb		97
99)	Dibenz(a,h)anthracene	14.032	278	277022	3787.1565974	ppb		99
100)	Benzo(g,h,i)perylene	14.320	276	282896	3738.5543825	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

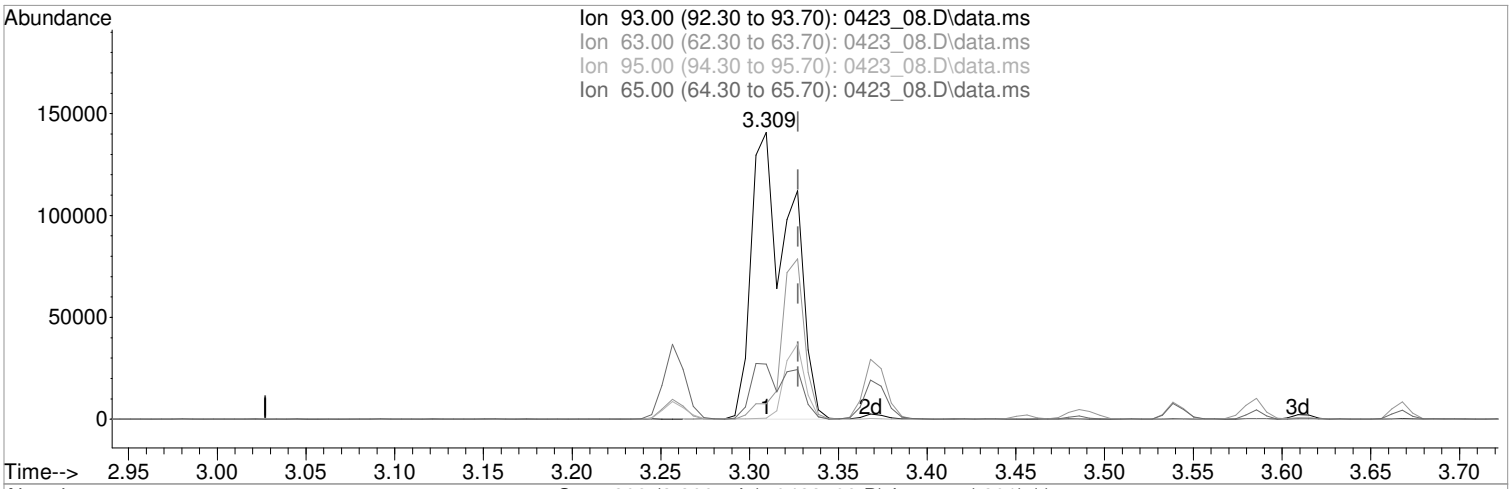
Quant Time: May 02 12:28:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration

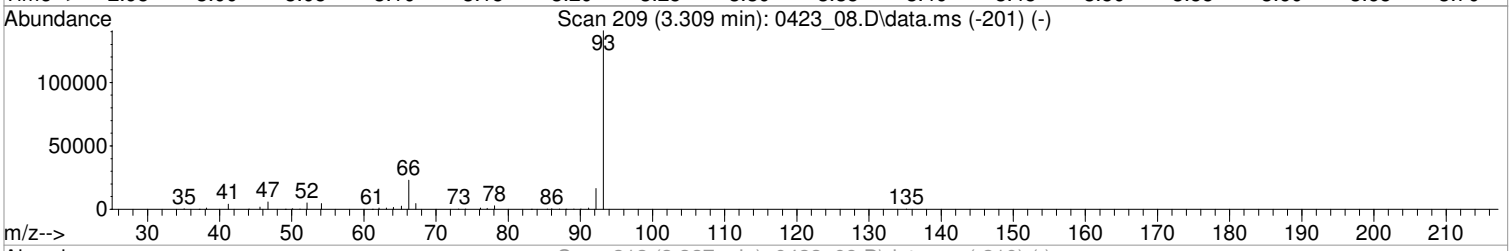


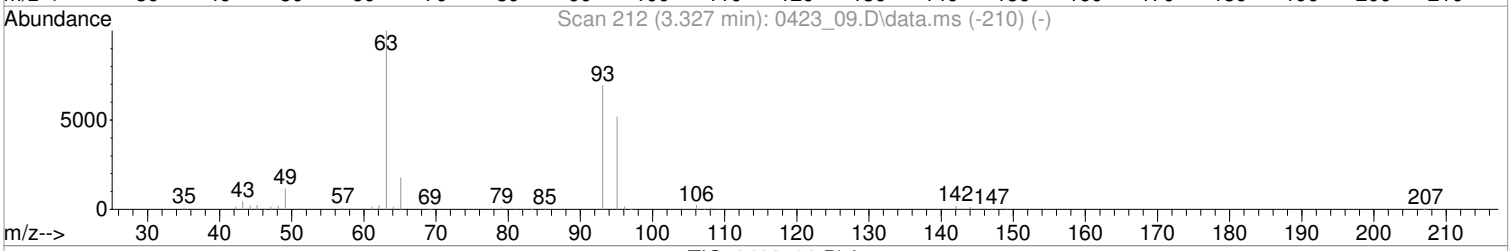
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration







TIC: 0423_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 9376.1240719 ppb

Qvalue = 40

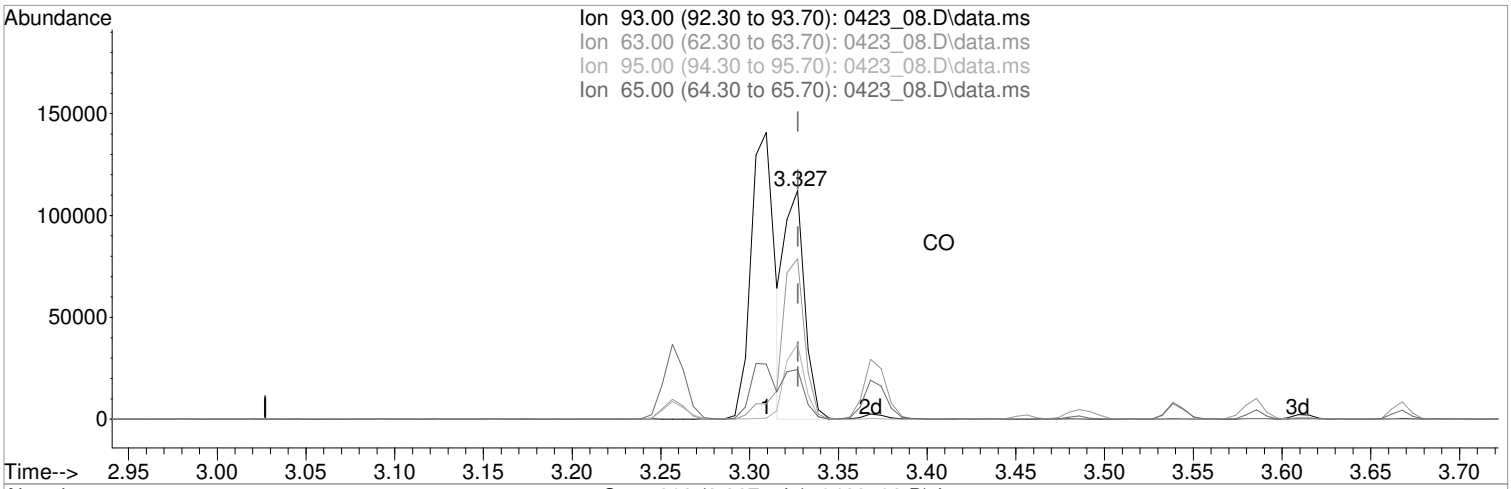
response 217285

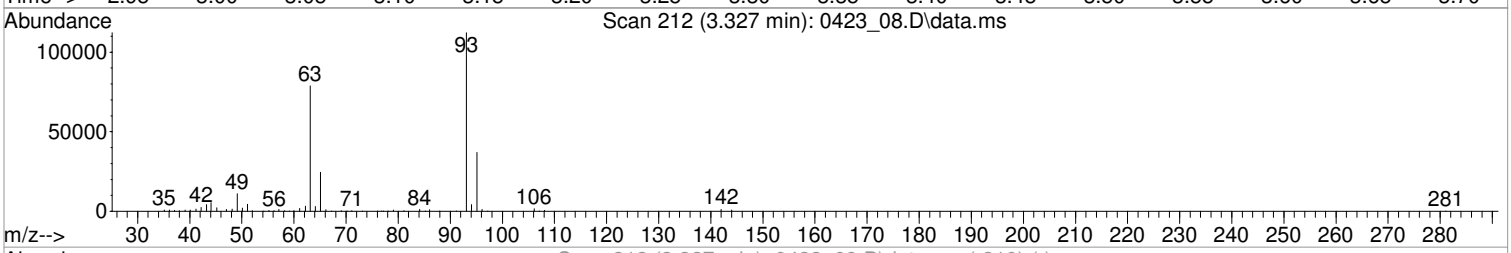
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	4.73#
95.00	32.50	0.40#
65.00	22.20	18.70

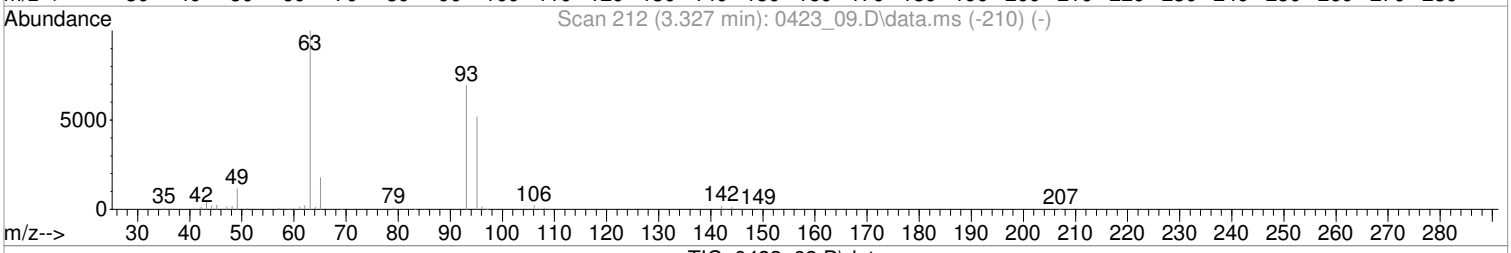
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration







TIC: 0423_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 3797.0961535 ppb m

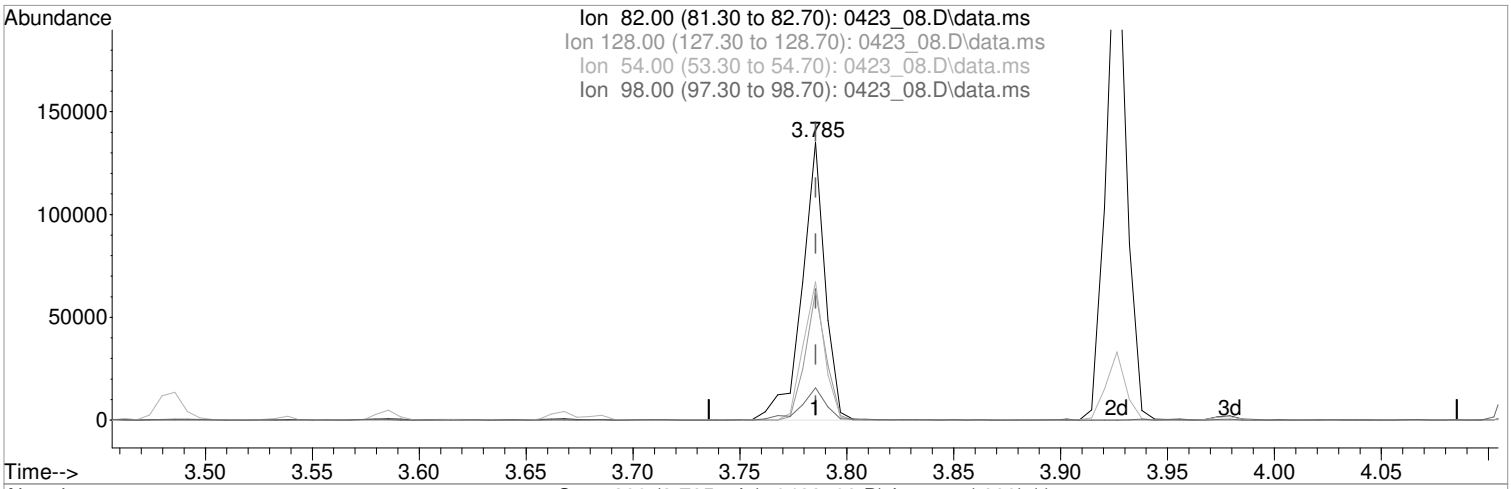
response 87995

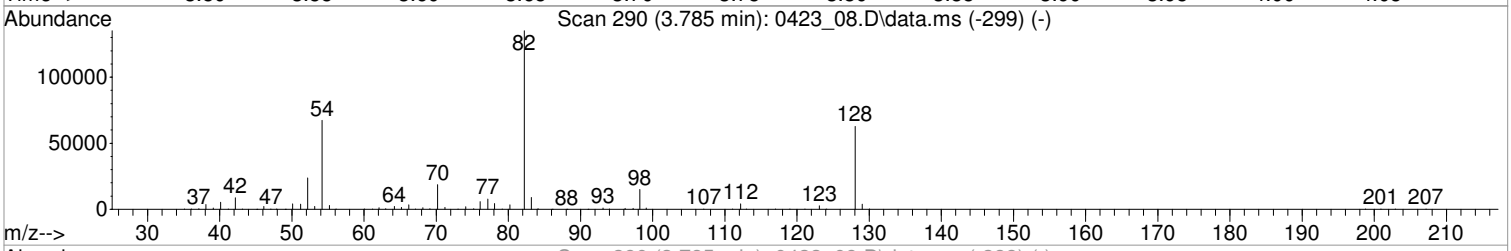
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	70.26
95.00	32.50	32.98
65.00	22.20	21.79

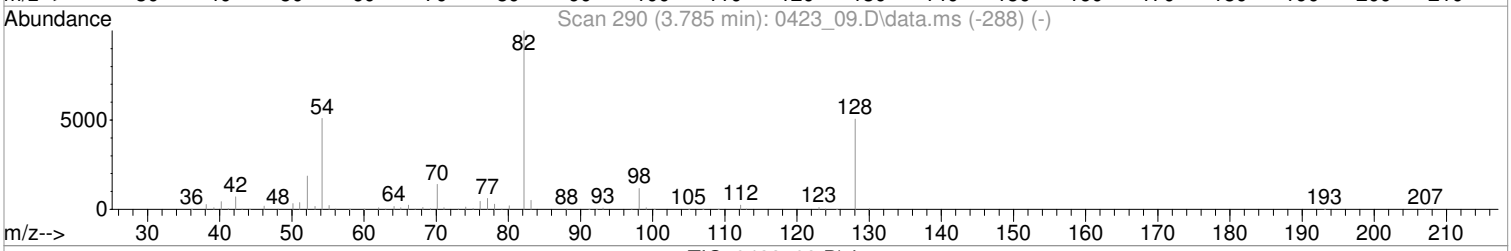
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration







TIC: 0423_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 4106.4620116 ppb

Qvalue = 99

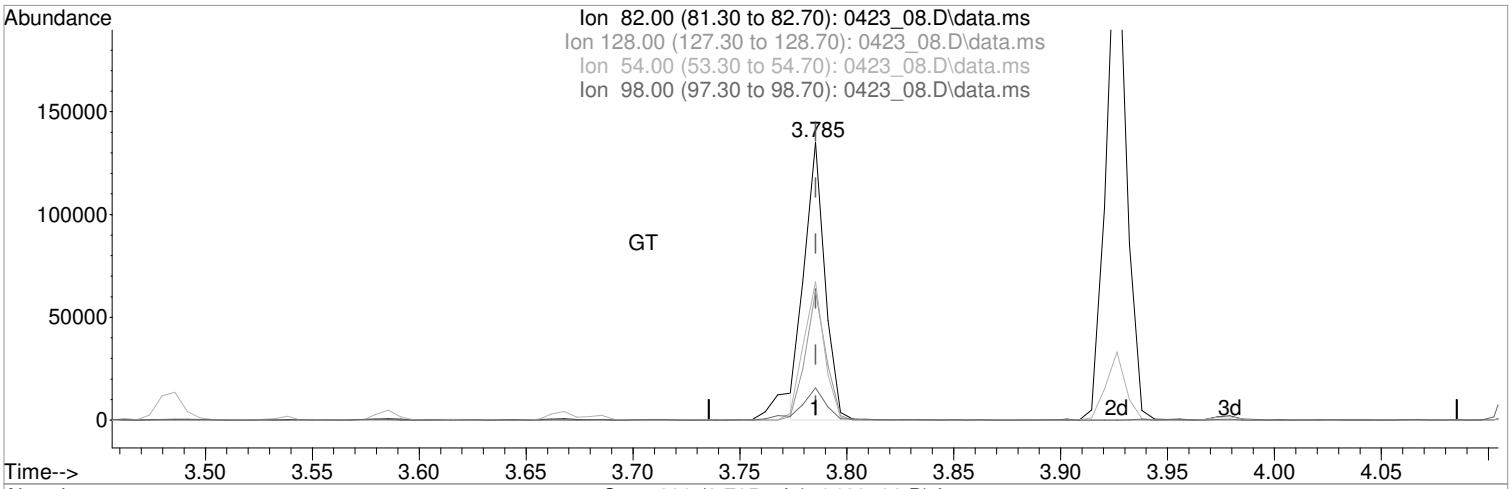
response 100781

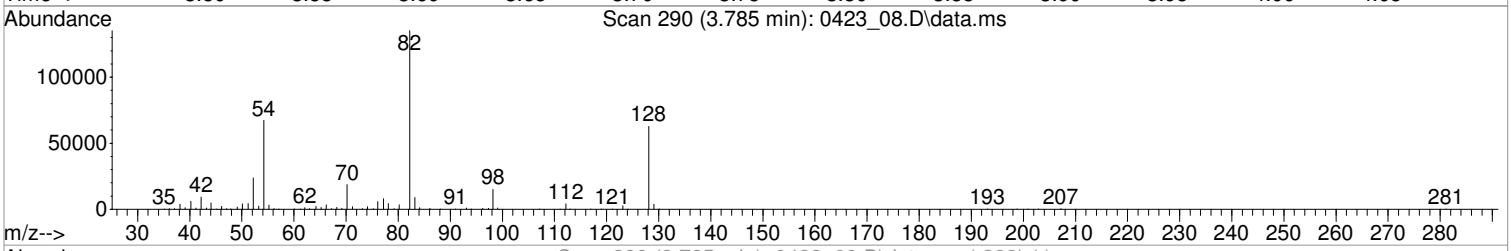
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	46.48
54.00	48.70	49.75
98.00	12.00	11.57

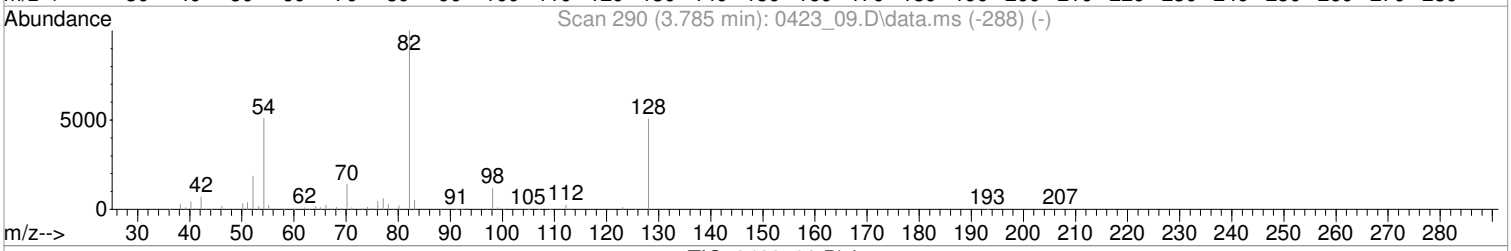
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration







TIC: 0423_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 3677.4025165 ppb m

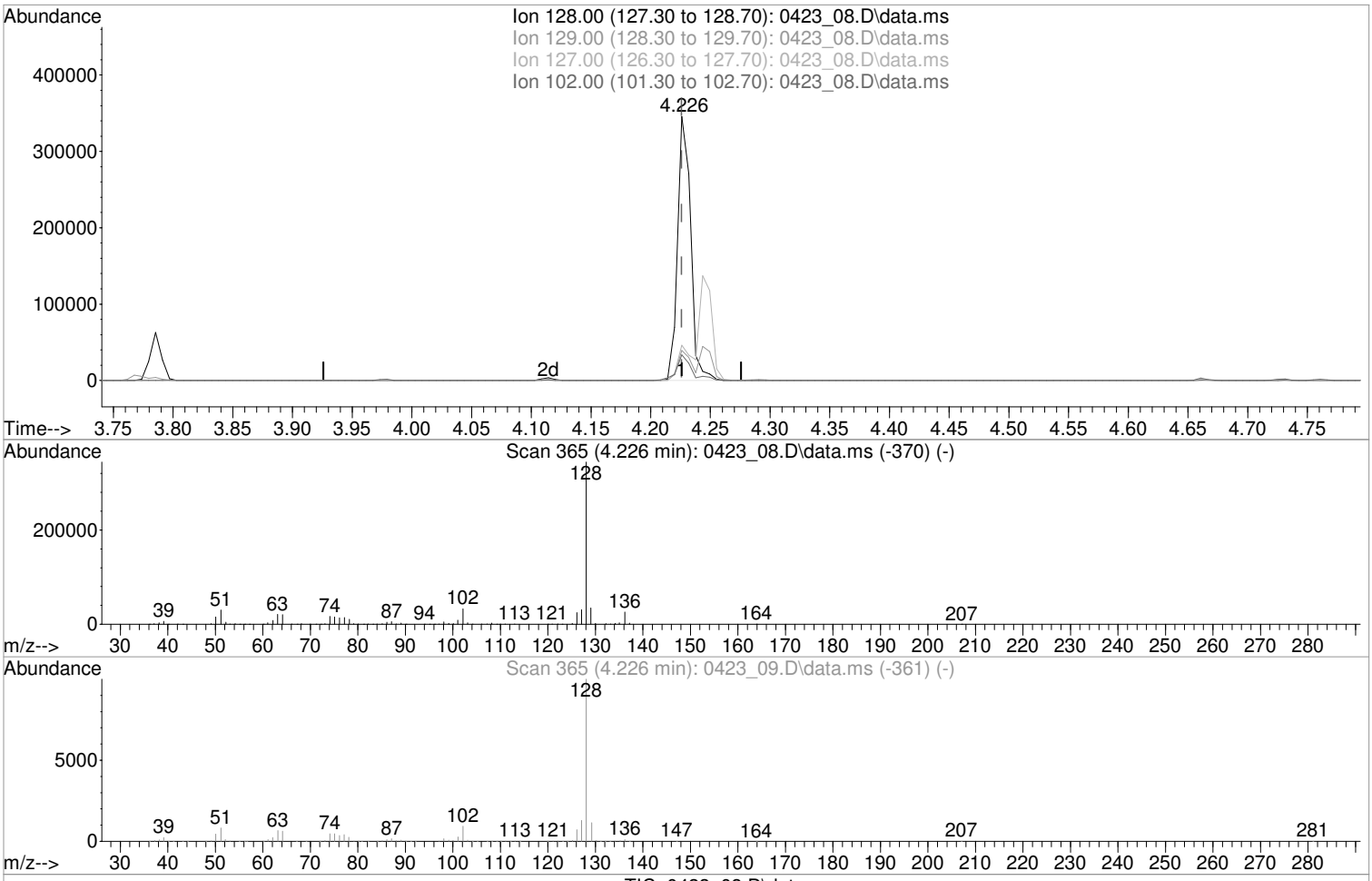
response 90251

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	46.48
54.00	48.70	49.75
98.00	12.00	11.19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration



TIC: 0423_08.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 3718.9958229 ppb

Qvalue = 99

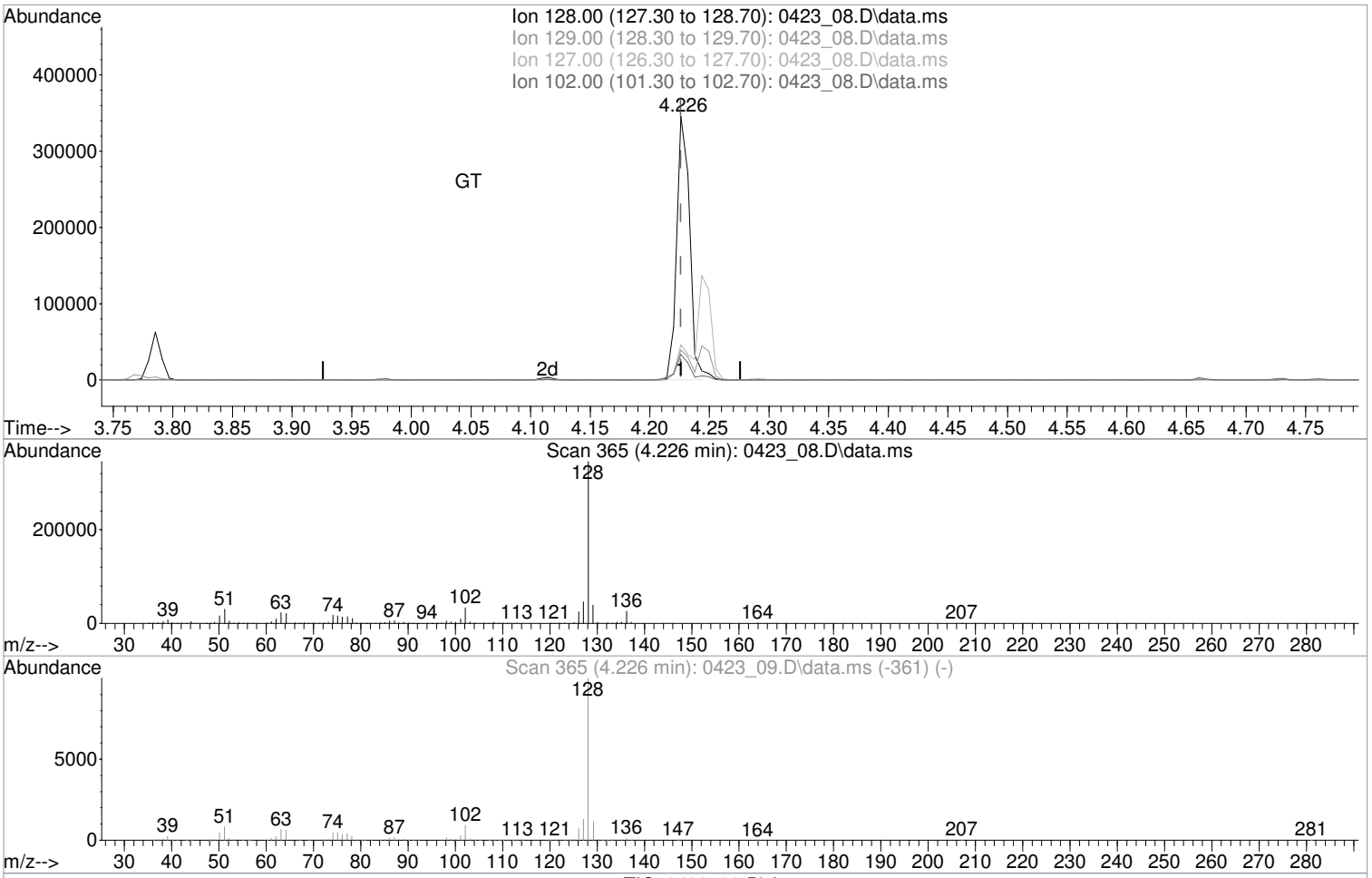
response 261333

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.36
127.00	12.90	13.31
102.00	9.20	9.66

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_08.D
Acq On : 23 Apr 2022 11:24 am
Operator : 3545
Sample : STD SVMS 4K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:27:17 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:27:13 2022
Response via : Initial Calibration



TIC: 0423_08.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 3669.8993231 ppb m

response 257883

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.36
127.00	12.90	13.31
102.00	9.20	9.66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:58:13 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	138433	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	528083	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.384	164	270621	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	543944	8000.0000000	ppb	0.00
84) Chrysene-d12	9.356	240	532447	8000.0000000	ppb	0.00
94) Perylene-d12	12.099	264	542577	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.816	112	228975	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
7) Phenol-d5	3.251	99	277767	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
24) Nitrobenzene-d5	3.785	82	231779m	9989.5268552	ppb	0.00
Spiked Amount 10000.000				Recovery = 99.90%		
50) 2-Fluorobiphenyl	4.896	172	458449	10000.0000000	ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%		
73) 2,4,6-Tribromophenol	5.959	330	68397	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
87) p-Terphenyl-d14	7.928	244	703756	10000.0000000	ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%		
Target Compounds						Qvalue
2) Pyridine	2.270	79	259130	10000.0000000	ppb	100
3) N-Nitrosodimethylamine	2.264	42	119351	10000.0000000	ppb	100
5) Aniline	3.310	66	130896	10000.0000000	ppb	100
6) bis(2-Chloroethyl)ether	3.327	93	229066m	9988.5753157	ppb	
8) Phenol	3.257	94	284809	10000.0000000	ppb	100
10) 2-Chlorophenol	3.368	128	232820	10000.0000000	ppb	100
11) n-Decane	3.368	41	136182	10000.0000000	ppb	100
12) 1,3-Dichlorobenzene	3.456	146	259252	10000.0000000	ppb	100
13) 1,4-Dichlorobenzene	3.492	146	262770	10000.0000000	ppb	100
14) Benzyl Alcohol	3.539	79	190759	10000.0000000	ppb	100
15) 1,2-Dichlorobenzene	3.580	146	248431	10000.0000000	ppb	100
16) bis(2-Chloroisopropyl)...	3.609	121	79683	10000.0000000	ppb	100
17) 2,2-oxybis(1-chloropro...	3.609	121	79683	10000.0000000	ppb	100
18) 2-Methylphenol	3.586	108	210308	10000.0000000	ppb	100
19) Hexachloroethane	3.768	117	98250	10000.0000000	ppb	100
20) N-Nitrosodi-n-propylamine	3.686	70	164422	10000.0000000	ppb	100
21) 3&4-Methyl phenol	3.668	107	238756	10000.0000000	ppb	100
25) Nitrobenzene	3.797	77	233825	9925.4608818	ppb	100
26) Isophorone	3.926	82	424355	10000.0000000	ppb	100
27) 2-Nitrophenol	3.979	139	113659	10000.0000000	ppb	100
28) 2,4-Dimethylphenol	3.979	107	213920	10000.0000000	ppb	100
29) bis(2-Chlorethoxy)methane	4.038	93	256493	10000.0000000	ppb	100
30) 2,4-Dichlorophenol	4.114	162	182901	10000.0000000	ppb	100
32) 1,2,4-Trichlorobenzene	4.173	180	205931	10000.0000000	ppb	100
34) Naphthalene	4.226	128	663703m	10000.0000000	ppb	
35) 4-Chloroaniline	4.244	65	77414	10000.0000000	ppb	100
36) Hexachloro-1,3-butadiene	4.291	225	127158	10000.0000000	ppb	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:58:13 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration

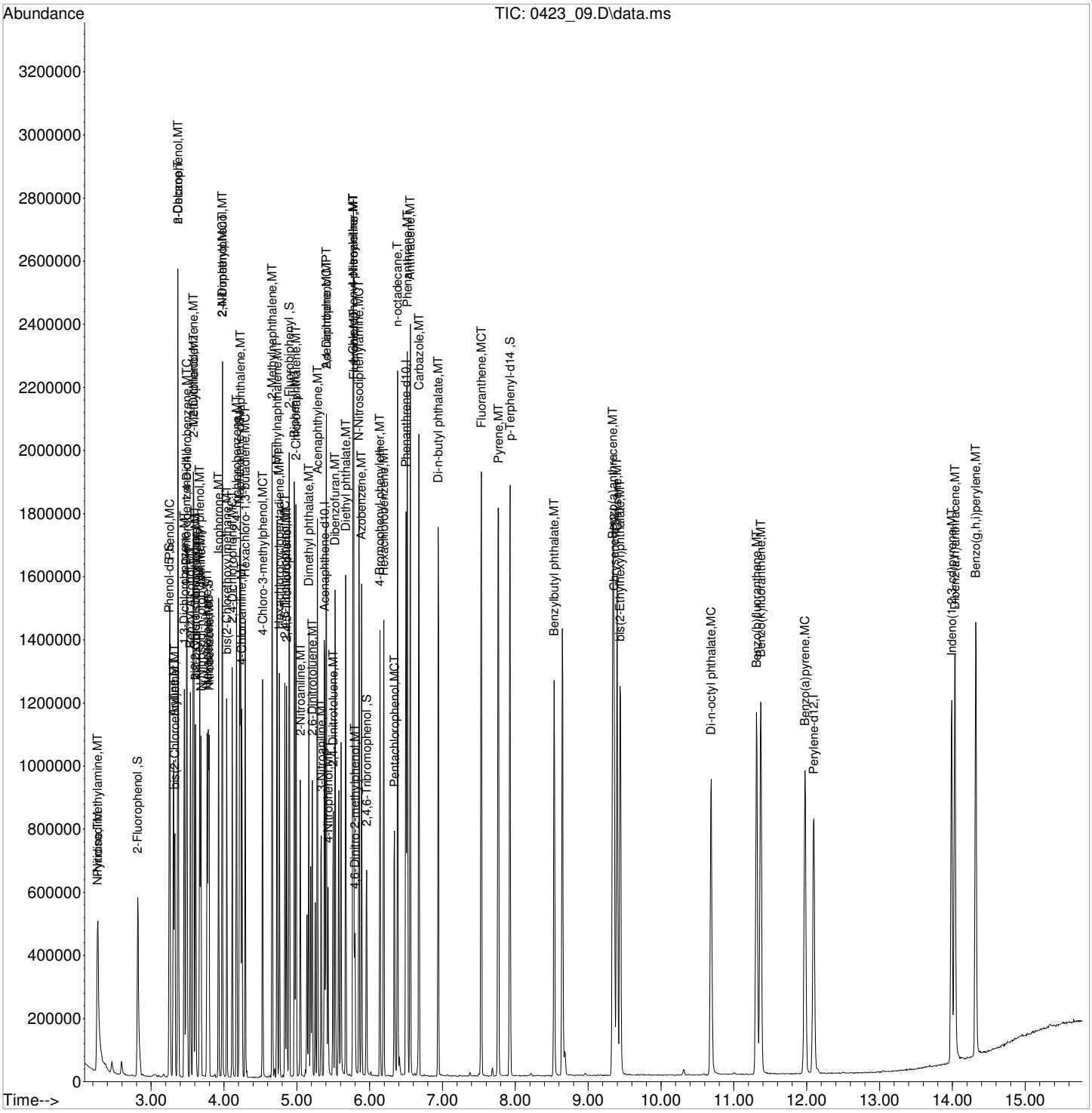
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 4-Chloro-3-methylphenol	4.532	107	178227	10000.0000000	ppb	100
41) 2-Methylnaphthalene	4.661	142	424192	10000.0000000	ppb	100
42) 1-Methylnaphthalene	4.731	142	402412	10000.0000000	ppb	100
47) Hexachlorocyclopentadiene	4.761	237	146701	10000.0000000	ppb	100
48) 2,4,6-Trichlorophenol	4.837	196	125921	10000.0000000	ppb	100
49) 2,4,5-Trichlorophenol	4.861	196	135772	10000.0000000	ppb	100
51) Biphenyl	4.966	154	513300	10000.0000000	ppb	100
52) 2-Chloronaphthalene	4.990	162	399867	10000.0000000	ppb	100
53) 2-Nitroaniline	5.049	138	130545	10000.0000000	ppb	100
54) Acenaphthylene	5.284	152	590432	10000.0000000	ppb	100
55) Dimethyl phthalate	5.166	163	419159	10000.0000000	ppb	100
56) 2,6-Dinitrotoluene	5.213	165	101173	10000.0000000	ppb	100
57) 3-Nitroaniline	5.337	138	110630	10000.0000000	ppb	100
58) Acenaphthene	5.407	153	392696	10000.0000000	ppb	100
59) 2,4-Dinitrophenol	5.407	184	41369	10000.0000000	ppb	100
60) Dibenzofuran	5.525	168	550719	10000.0000000	ppb	100
61) 2,4-Dinitrotoluene	5.501	165	129081	10000.0000000	ppb	100
63) 4-Nitrophenol	5.431	139	85443	10000.0000000	ppb	100
64) Fluorene	5.783	166	447841	10000.0000000	ppb	100
65) 4-Chlorophenyl-phenyle...	5.771	204	226454	10000.0000000	ppb	100
66) Diethyl phthalate	5.672	149	409446	10000.0000000	ppb	100
67) 4-Nitroaniline	5.777	138	98479	10000.0000000	ppb	100
68) Azobenzene	5.889	77	438992	10000.0000000	ppb	100
71) 4,6-Dinitro-2-methylph...	5.801	198	58739	10000.0000000	ppb	100
72) N-Nitrosodiphenylamine	5.854	169	377725	10000.0000000	ppb	100
74) 4-Bromophenyl-phenylether	6.142	248	138727	10000.0000000	ppb	100
75) Hexachlorobenzene	6.194	284	156007	10000.0000000	ppb	100
76) n-octadecane	6.382	55	69110	10000.0000000	ppb	100
77) Pentachlorophenol	6.341	266	89104	10000.0000000	ppb	100
78) Phenanthrene	6.518	178	699112	10000.0000000	ppb	100
79) Anthracene	6.559	178	724570	10000.0000000	ppb	100
80) Carbazole	6.676	167	648722	10000.0000000	ppb	100
81) Di-n-butyl phthalate	6.941	149	775157	10000.0000000	ppb	100
83) Fluoranthene	7.534	202	780935	10000.0000000	ppb	100
86) Pyrene	7.769	202	822232	10000.0000000	ppb	100
88) Benzylbutyl phthalate	8.533	149	330493	10000.0000000	ppb	100
90) Benzo(a)anthracene	9.338	228	769081	10000.0000000	ppb	100
91) Chrysene	9.397	228	759654	10000.0000000	ppb	100
92) bis(2-Ethylhexyl)phtha...	9.438	149	469640	10000.0000000	ppb	100
93) Di-n-octyl phthalate	10.689	149	760498	10000.0000000	ppb	100
95) Benzo(b)fluoranthene	11.312	252	777374	10000.0000000	ppb	100
96) Benzo(k)fluoranthene	11.371	252	791771	10000.0000000	ppb	100
97) Benzo(a)pyrene	11.976	252	683661	10000.0000000	ppb	100
98) Indeno(1,2,3-cd)pyrene	13.991	276	653669	10000.0000000	ppb	100
99) Dibenz(a,h)anthracene	14.038	278	739716	10000.0000000	ppb	100
100) Benzo(g,h,i)perylene	14.320	276	748023	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

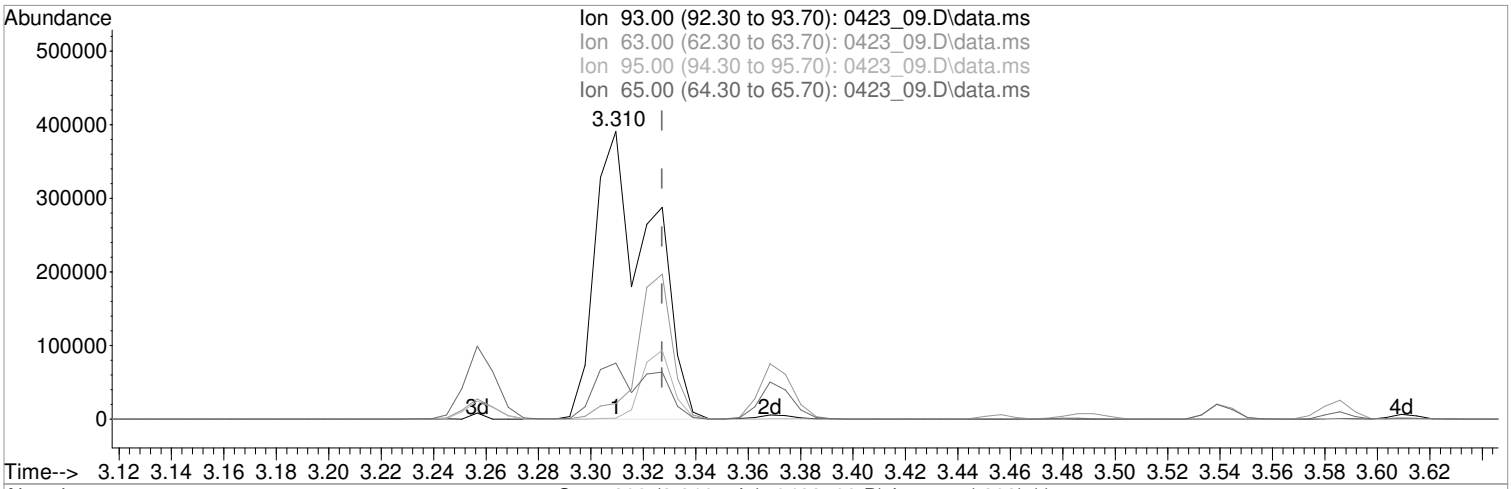
Quant Time: May 02 10:58:13 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration

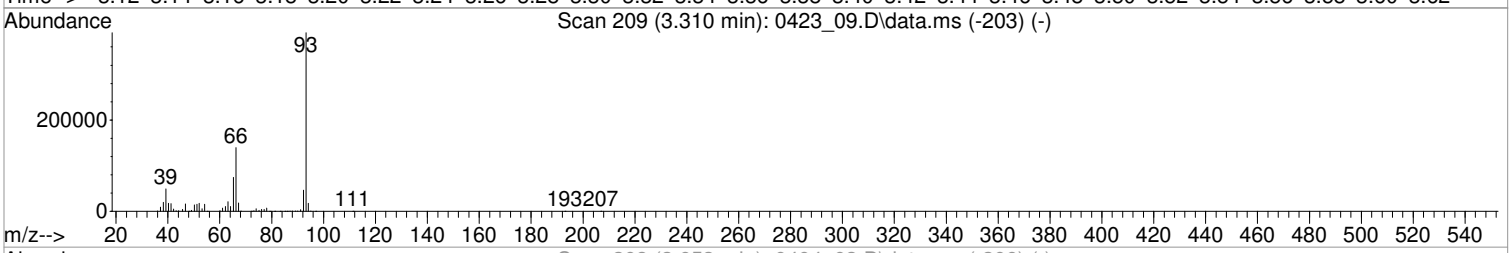


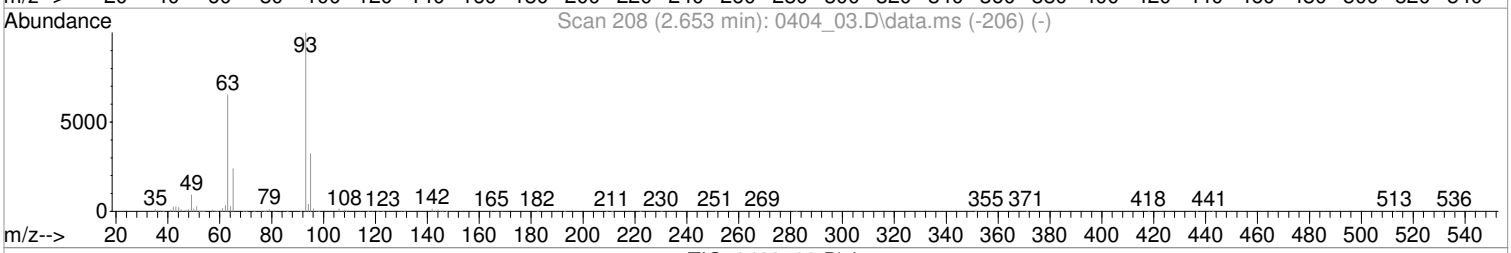
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration







TIC: 0423_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.310min (-0.018) 25023.1982139 ppb

Qvalue = 41

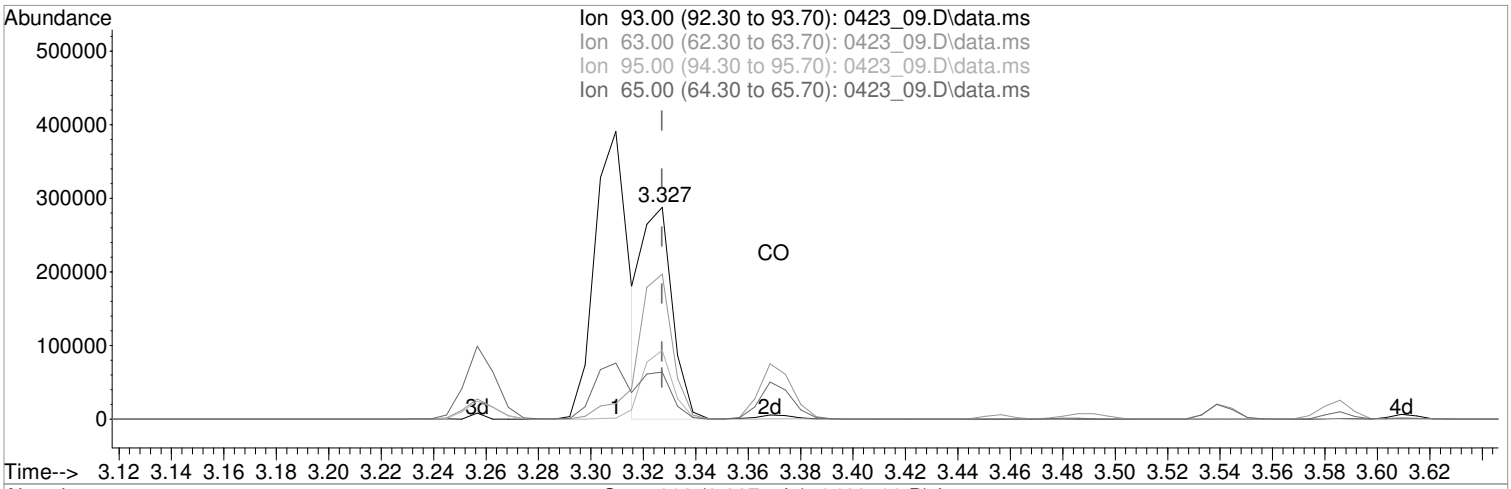
response 573852

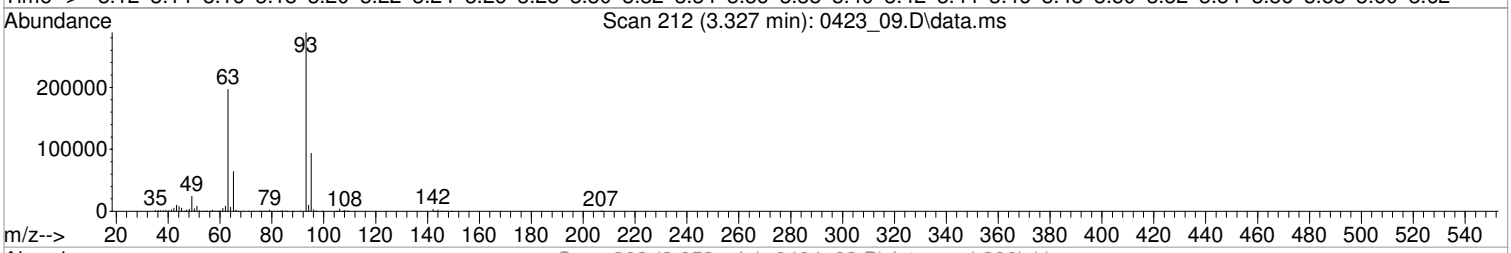
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.37#
95.00	32.50	0.30#
65.00	22.20	19.40

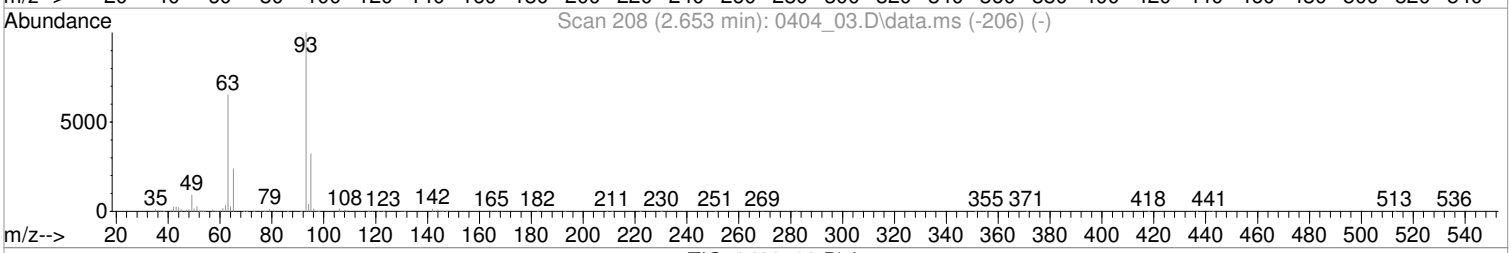
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration







TIC: 0423_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (0.000) 9988.5753157 ppb m

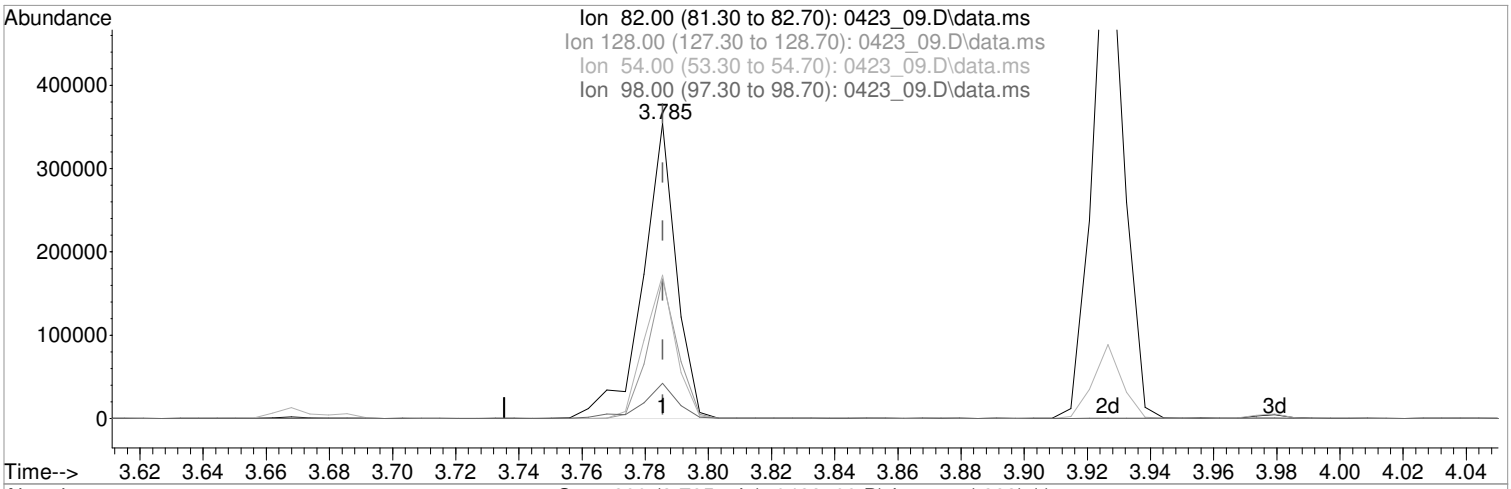
response 229066

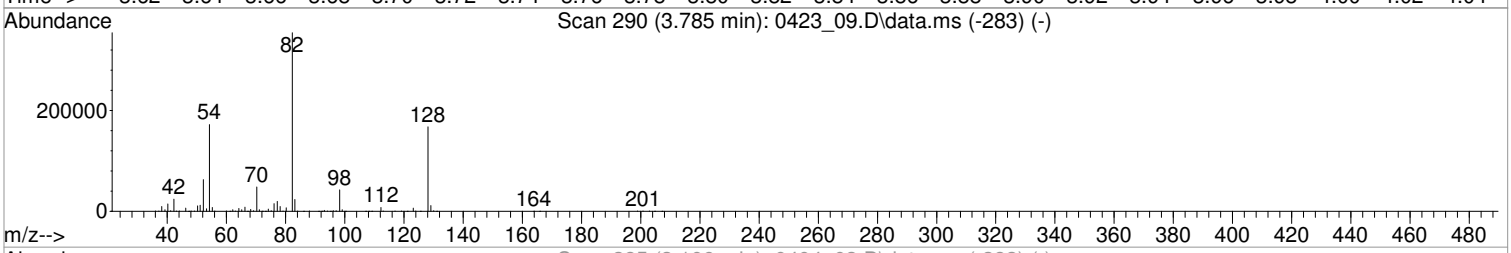
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	68.33
95.00	32.50	32.48
65.00	22.20	22.16

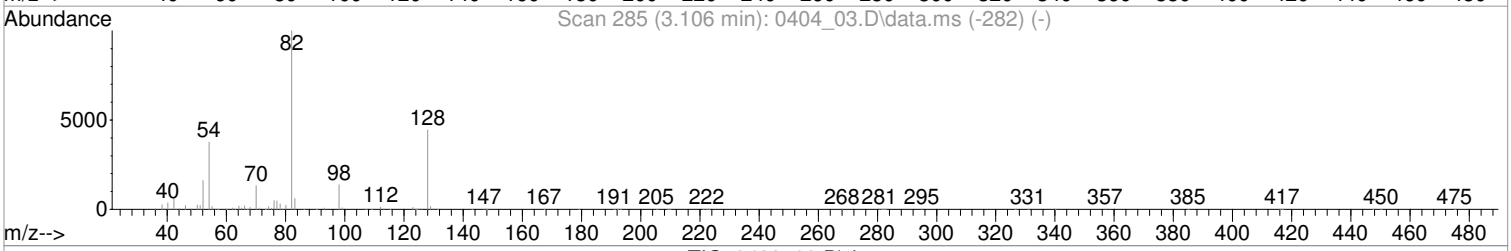
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration







TIC: 0423_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (0.000) 11209.4542759 ppb

Qvalue = 100

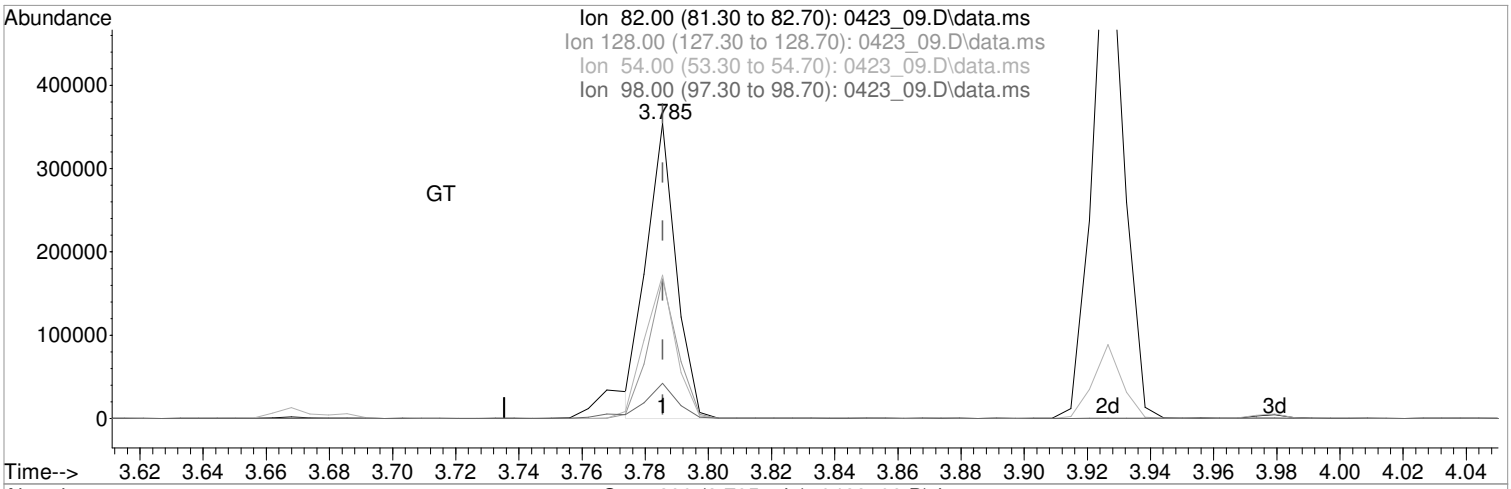
response 260084

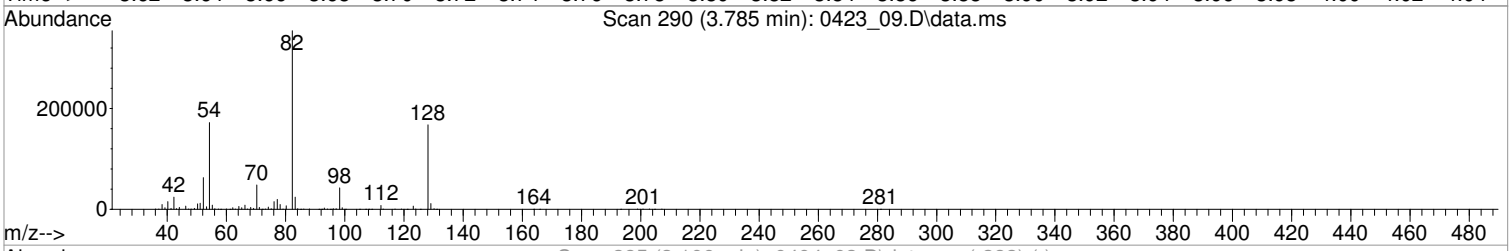
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.30
54.00	48.70	48.65
98.00	12.00	11.98

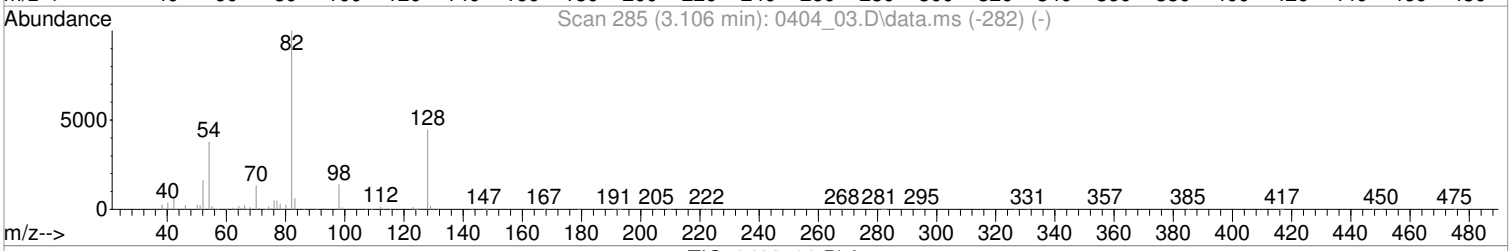
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration







TIC: 0423_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (0.000) 9989.5268552 ppb m

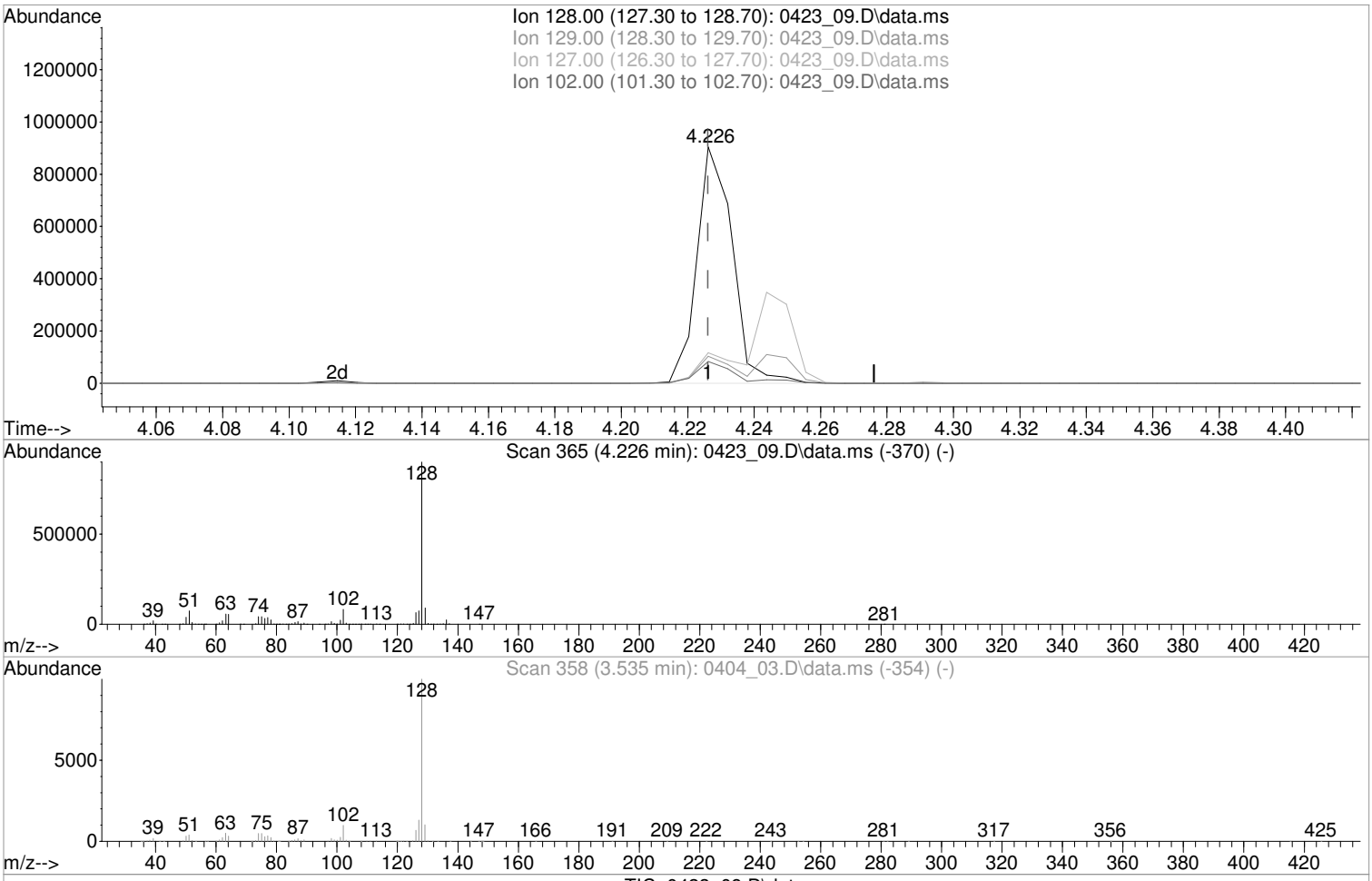
response 231779

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.30
54.00	48.70	48.65
98.00	12.00	11.98

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration



TIC: 0423_09.D\data.ms

(34) Naphthalene (MT)

4.226min (0.000) 10143.4075181 ppb

Qvalue = 100

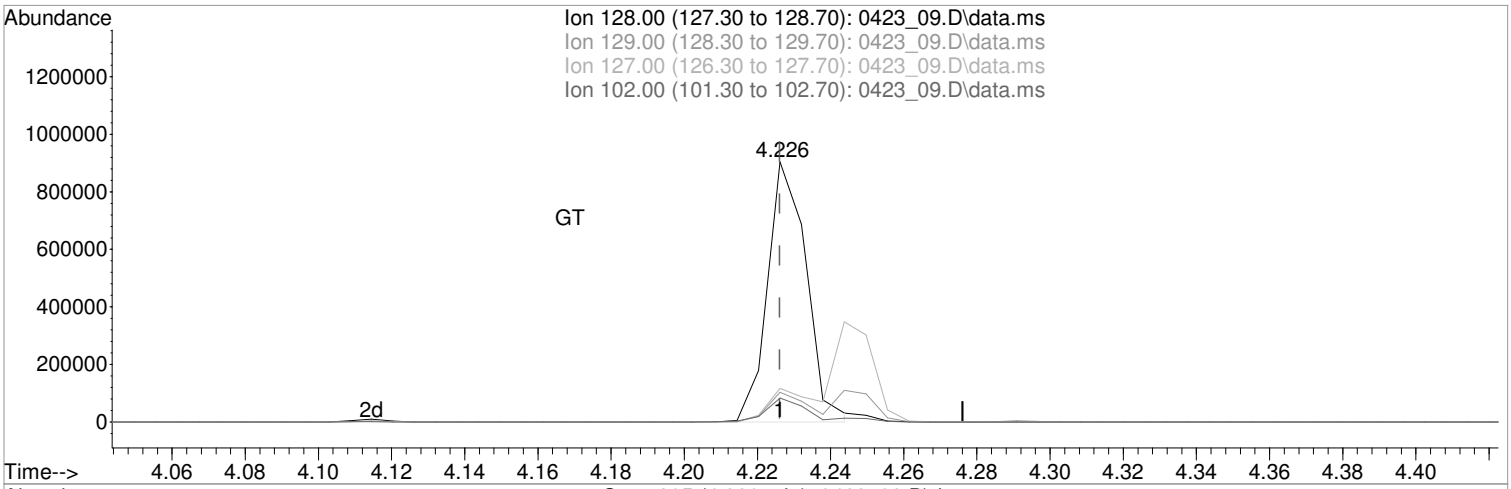
response 673221

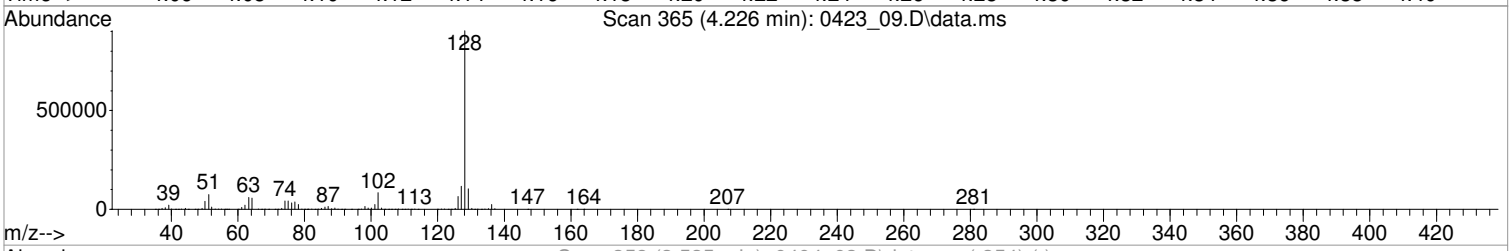
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.44
127.00	12.90	12.92
102.00	9.20	9.24

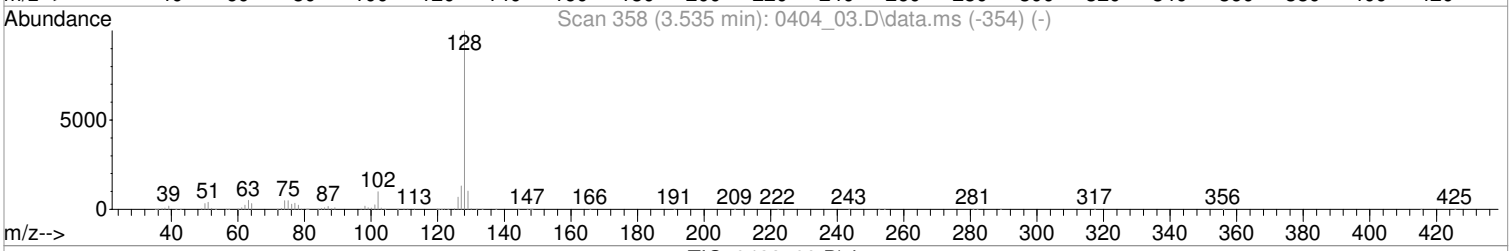
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration







TIC: 0423_09.D\data.ms

(34) Naphthalene (MT)

4.226min (0.000) 10000.0000000 ppb m

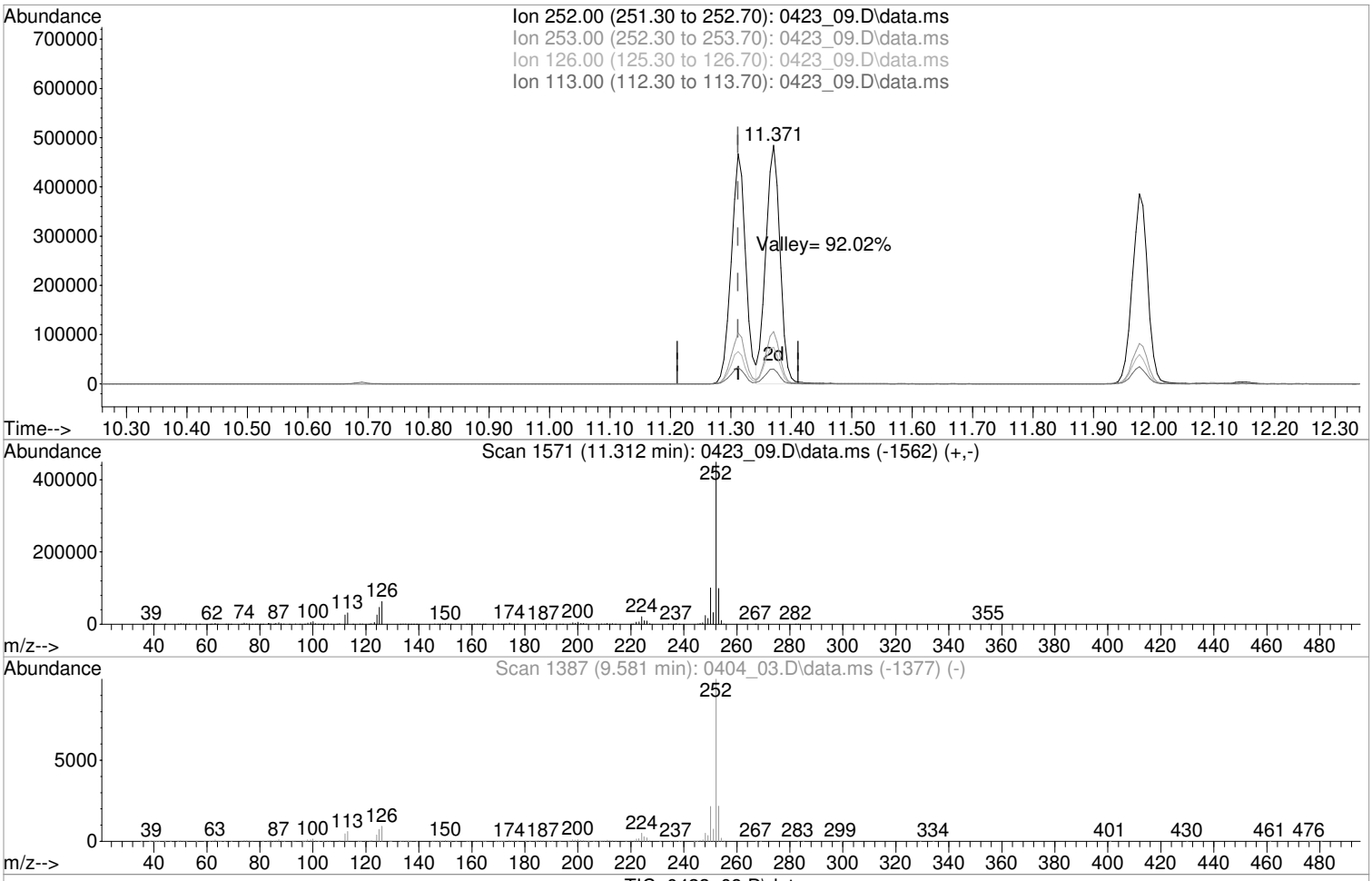
response 663703

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.44
127.00	12.90	12.92
102.00	9.20	9.24

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_09.D
Acq On : 23 Apr 2022 11:44 am
Operator : 3545
Sample : MSTD SVMS 10K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 10:56:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 10:56:39 2022
Response via : Initial Calibration



TIC: 0423_09.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.312min (0.000) 10000.0000000 ppb

Qvalue = 100

response 777374

Ion	Exp%	Act%
252.00	100	100
253.00	22.10	22.09
126.00	14.00	14.01
113.00	7.00	6.99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:31:41 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	141002	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	551140	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.383	164	287211	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	576977	8000.0000000	ppb	0.00
84) Chrysene-d12	9.361	240	576829	8000.0000000	ppb	0.00
94) Perylene-d12	12.099	264	571955	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.822	112	465237	19530.3073702	ppb	0.00
Spiked Amount 20000.000				Recovery = 97.65%		
7) Phenol-d5	3.251	99	566677	19583.6431849	ppb	0.00
Spiked Amount 20000.000				Recovery = 97.92%		
24) Nitrobenzene-d5	3.785	82	486326m	19361.5783264	ppb	0.00
Spiked Amount 10000.000				Recovery = 193.62%		
50) 2-Fluorobiphenyl	4.896	172	960240	18954.6283993	ppb	0.00
Spiked Amount 10000.000				Recovery = 189.55%		
73) 2,4,6-Tribromophenol	5.959	330	150214	21749.3132264	ppb	0.00
Spiked Amount 20000.000				Recovery = 108.75%		
87) p-Terphenyl-d14	7.928	244	1518335	20220.7555185	ppb	0.00
Spiked Amount 10000.000				Recovery = 202.21%		
Target Compounds						Qvalue
2) Pyridine	2.269	79	522472	18528.2083287	ppb	98
3) N-Nitrosodimethylamine	2.264	42	246677	19992.1565551	ppb	98
5) Aniline	3.309	66	268373	19790.1723084	ppb	99
6) bis(2-Chloroethyl)ether	3.327	93	480134m	20026.9727219	ppb	
8) Phenol	3.257	94	583647	19658.3646955	ppb	98
10) 2-Chlorophenol	3.374	128	477578	19711.0257725	ppb	94
11) n-Decane	3.368	41	267465	18634.7707651	ppb	97
12) 1,3-Dichlorobenzene	3.456	146	523807	19201.9305903	ppb	99
13) 1,4-Dichlorobenzene	3.492	146	531352	19165.0025598	ppb	99
14) Benzyl Alcohol	3.544	79	391472	19525.5596615	ppb	99
15) 1,2-Dichlorobenzene	3.580	146	502068	19197.8338444	ppb	98
16) bis(2-Chloroisopropyl)...	3.609	121	166043	19267.1984176	ppb	95
17) 2,2-oxybis(1-chloropro...	3.609	121	166043	19267.1984176	ppb	95
18) 2-Methylphenol	3.586	108	429382	19637.5186049	ppb	98
19) Hexachloroethane	3.768	117	196555	19139.3620483	ppb	97
20) N-Nitrosodi-n-propylamine	3.685	70	339754	19182.5344184	ppb	94
21) 3&4-Methyl phenol	3.668	107	486366	19661.5478150	ppb	98
25) Nitrobenzene	3.797	77	482276	19041.1852134	ppb	98
26) Isophorone	3.926	82	884903	19659.7931789	ppb	98
27) 2-Nitrophenol	3.979	139	243878	21683.4143429	ppb	96
28) 2,4-Dimethylphenol	3.979	107	440321	19543.6721797	ppb	99
29) bis(2-Chlorethoxy)methane	4.038	93	522357	19153.2905491	ppb	98
30) 2,4-Dichlorophenol	4.114	162	382520	19988.6425749	ppb	97
32) 1,2,4-Trichlorobenzene	4.173	180	419515	18785.9950515	ppb	98
34) Naphthalene	4.232	128	1347319m	18742.7752010	ppb	
35) 4-Chloroaniline	4.244	65	163426	19228.7549247	ppb	98
36) Hexachloro-1,3-butadiene	4.291	225	254591	19015.9240932	ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:31:41 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration

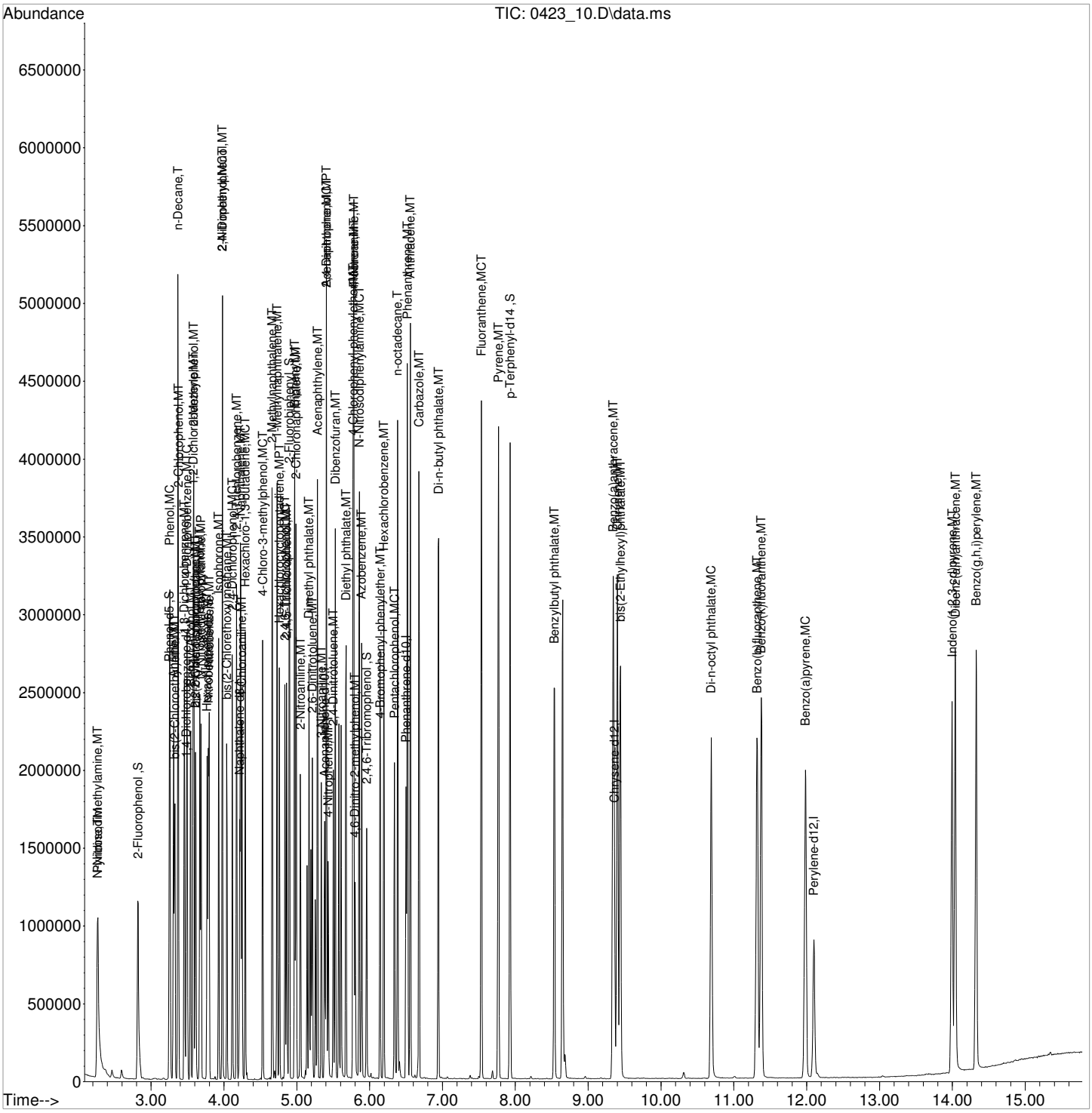
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.532	107	379885	20828.7564280	ppb		99
41)	2-Methylnaphthalene	4.661	142	871705	19359.0955649	ppb		99
42)	1-Methylnaphthalene	4.731	142	834635	19490.1427807	ppb		99
47)	Hexachlorocyclopentadiene	4.761	237	309490	20130.7152117	ppb		99
48)	2,4,6-Trichlorophenol	4.837	196	266715	20322.9690057	ppb		97
49)	2,4,5-Trichlorophenol	4.861	196	294898	20912.4297856	ppb		98
51)	Biphenyl	4.972	154	1068342	19071.1134705	ppb		99
52)	2-Chloronaphthalene	4.990	162	826523	18944.9404087	ppb		99
53)	2-Nitroaniline	5.049	138	291932	23847.0328032	ppb		99
54)	Acenaphthylene	5.284	152	1261827	20036.5530674	ppb		100
55)	Dimethyl phthalate	5.166	163	910290	20152.9333309	ppb		98
56)	2,6-Dinitrotoluene	5.213	165	218817	22107.8529069	ppb		95
57)	3-Nitroaniline	5.336	138	237144	22033.3225667	ppb		86
58)	Acenaphthene	5.407	153	828048	18946.2179948	ppb		99
59)	2,4-Dinitrophenol	5.407	184	108375	33032.3452326	ppb	#	90
60)	Dibenzofuran	5.530	168	1151609	18976.2155403	ppb		100
61)	2,4-Dinitrotoluene	5.501	165	284818	23837.2011750	ppb		89
63)	4-Nitrophenol	5.430	139	197341	23694.0747488	ppb		91
64)	Fluorene	5.783	166	943642	19205.4410885	ppb		98
65)	4-Chlorophenyl-phenyle...	5.771	204	476967	19355.5771023	ppb		97
66)	Diethyl phthalate	5.677	149	898863	19568.0967757	ppb		99
67)	4-Nitroaniline	5.783	138	210827	19139.1435670	ppb		99
68)	Azobenzene	5.889	77	939118	19668.2677754	ppb		99
71)	4,6-Dinitro-2-methylph...	5.801	198	149955	31652.0063149	ppb		88
72)	N-Nitrosodiphenylamine	5.859	169	811525	19480.2167770	ppb		99
74)	4-Bromophenyl-phenylether	6.147	248	296290	19713.5624346	ppb	#	85
75)	Hexachlorobenzene	6.194	284	332767	19554.9074004	ppb		99
76)	n-octadecane	6.382	55	143276	18391.0325041	ppb		99
77)	Pentachlorophenol	6.341	266	197770	24659.1995416	ppb		98
78)	Phenanthrene	6.517	178	1473615	18787.2582377	ppb		99
79)	Anthracene	6.559	178	1508633	19320.1457210	ppb		100
80)	Carbazole	6.676	167	1336070	19104.8932012	ppb		100
81)	Di-n-butyl phthalate	6.946	149	1663131	20878.3231576	ppb		99
83)	Fluoranthene	7.534	202	1672465	20250.9723467	ppb		100
86)	Pyrene	7.769	202	1726286	19280.8130765	ppb		99
88)	Benzylbutyl phthalate	8.539	149	714597	21055.4512046	ppb		97
90)	Benzo(a)anthracene	9.344	228	1647848	19515.8294568	ppb		99
91)	Chrysene	9.402	228	1603099	18931.8921685	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.443	149	1027582	21631.0354937	ppb		99
93)	Di-n-octyl phthalate	10.689	149	1677856	22829.8372808	ppb		99
95)	Benzo(b)fluoranthene	11.318	252	1669206	20808.4290508	ppb		99
96)	Benzo(k)fluoranthene	11.377	252	1675654	20597.4569390	ppb		99
97)	Benzo(a)pyrene	11.982	252	1444226	20994.6050737	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.997	276	1335520	19920.1375785	ppb		99
99)	Dibenz(a,h)anthracene	14.044	278	1516842	19843.1509276	ppb		99
100)	Benzo(g,h,i)perylene	14.326	276	1489533	18894.5864138	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

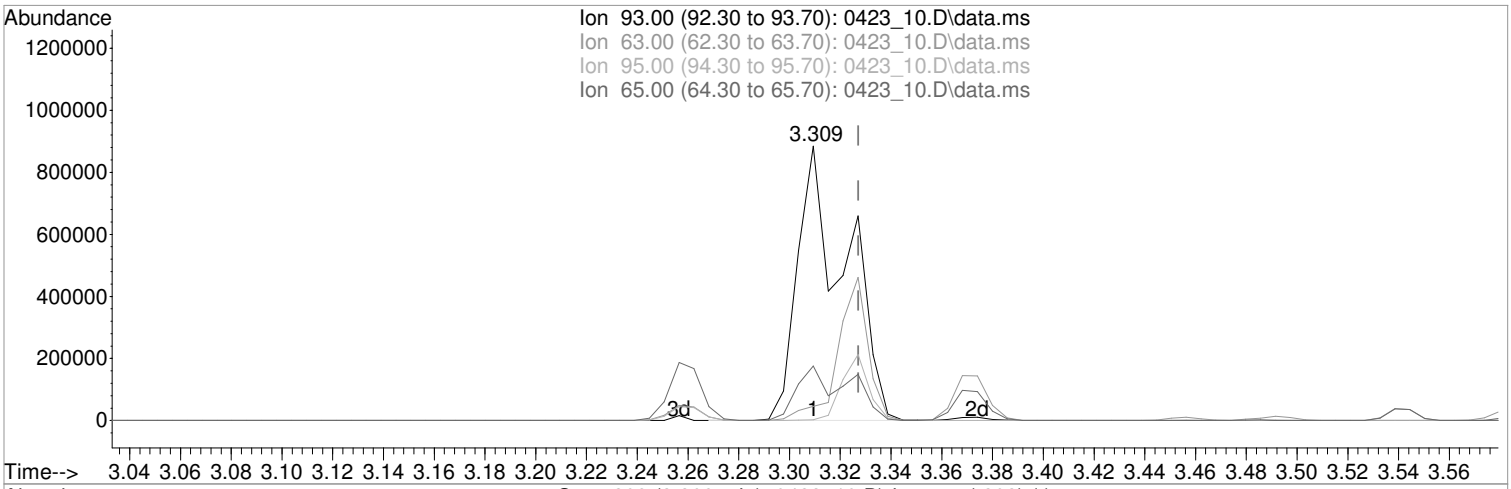
Quant Time: May 02 12:31:41 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration

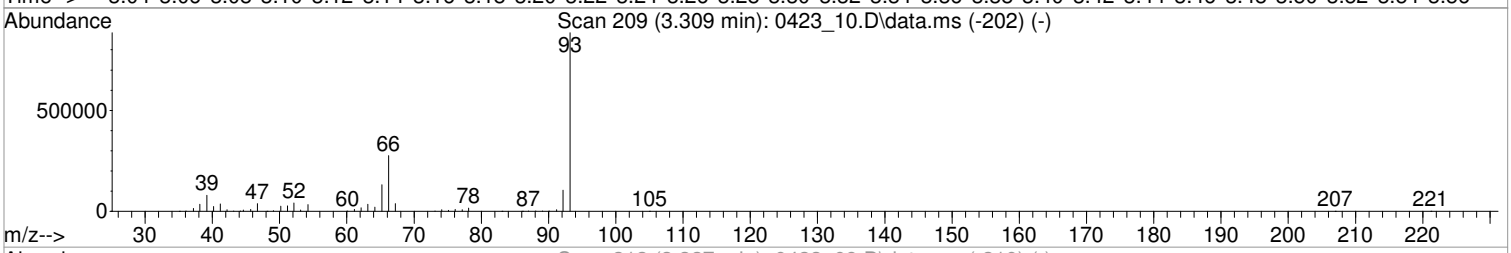


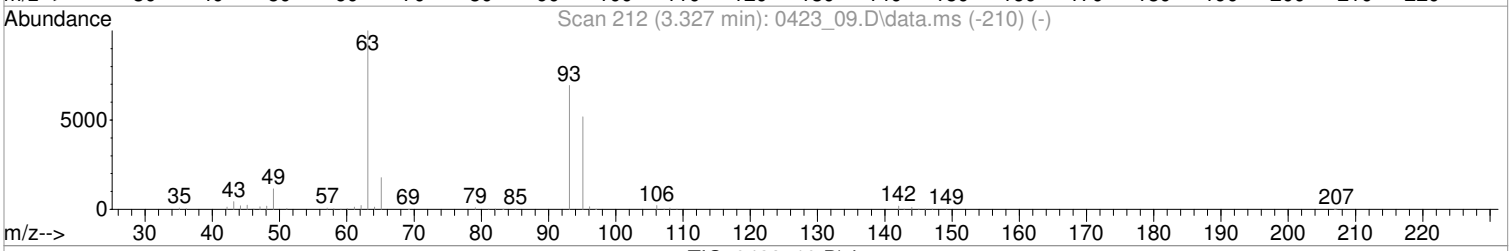
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration







TIC: 0423_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 48747.1049908 ppb

Qvalue = 40

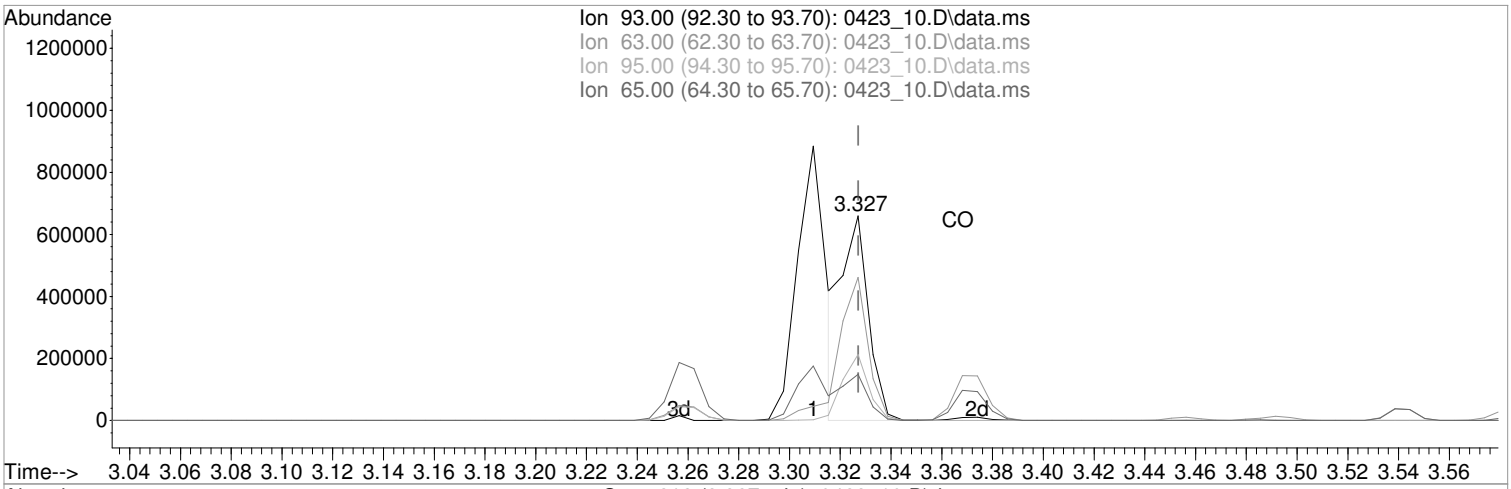
response 1168681

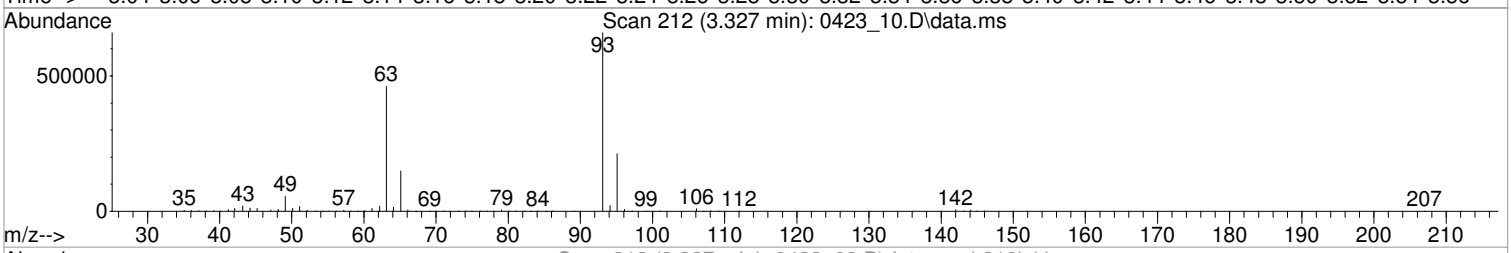
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	4.89#
95.00	32.50	0.18#
65.00	22.20	19.66

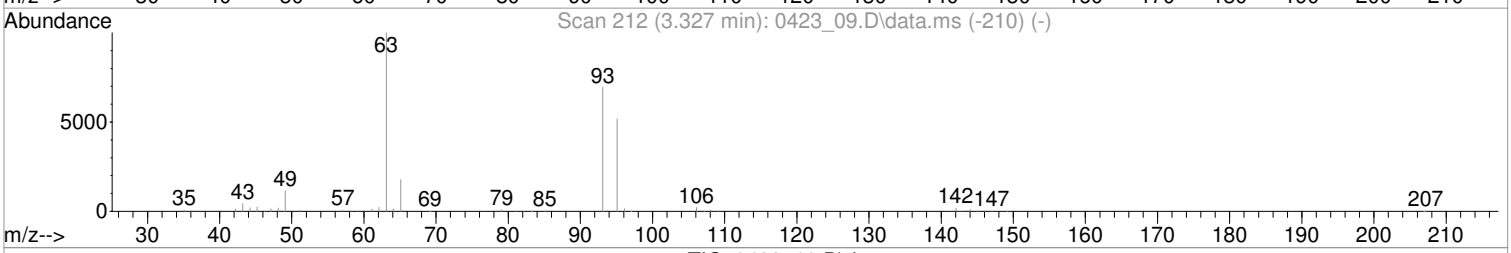
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration







TIC: 0423_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 20026.9727219 ppb m

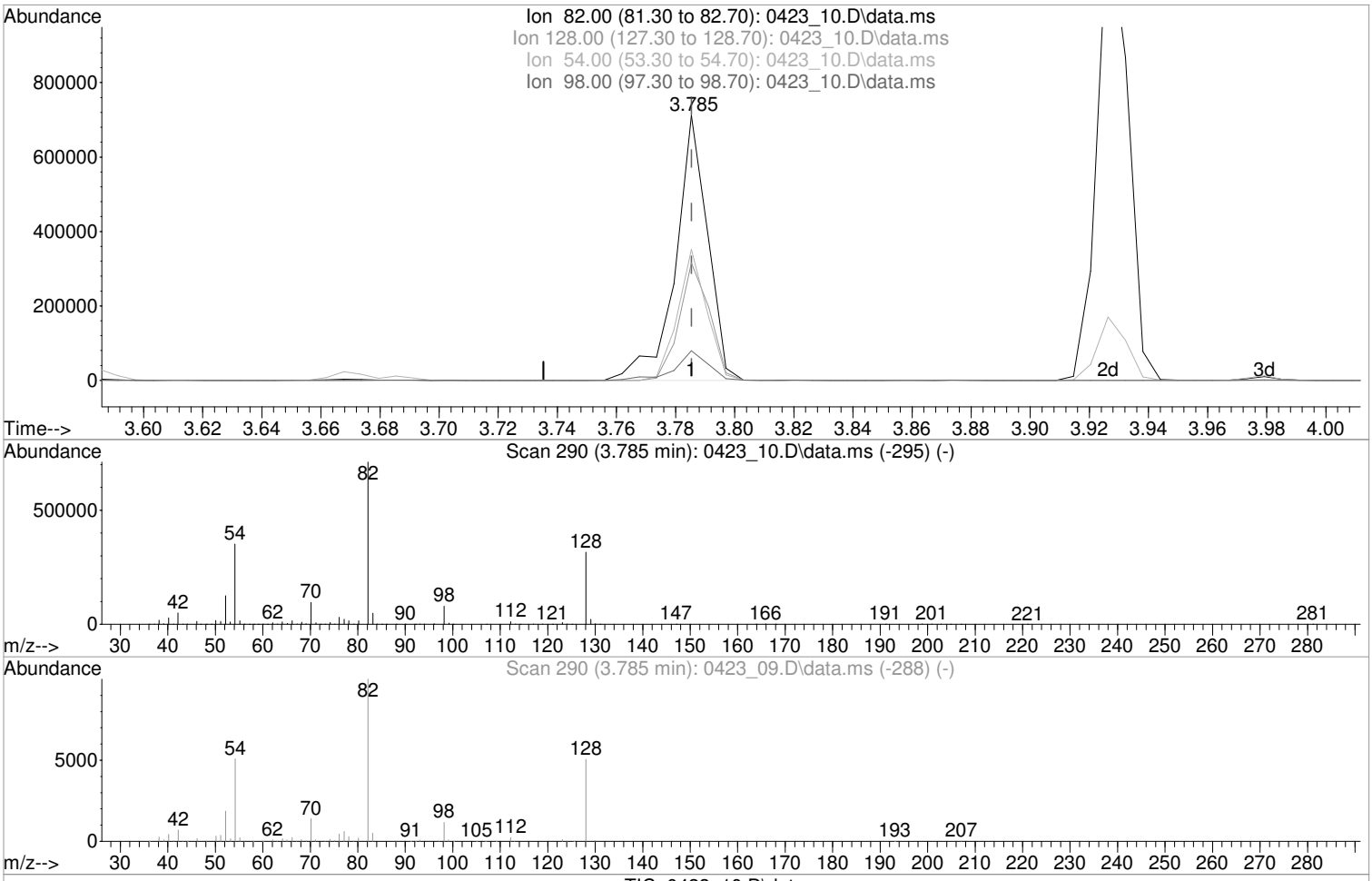
response 480134

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	69.94
95.00	32.50	32.25
65.00	22.20	22.52

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration



TIC: 0423_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 21389.2399068 ppb

Qvalue = 97

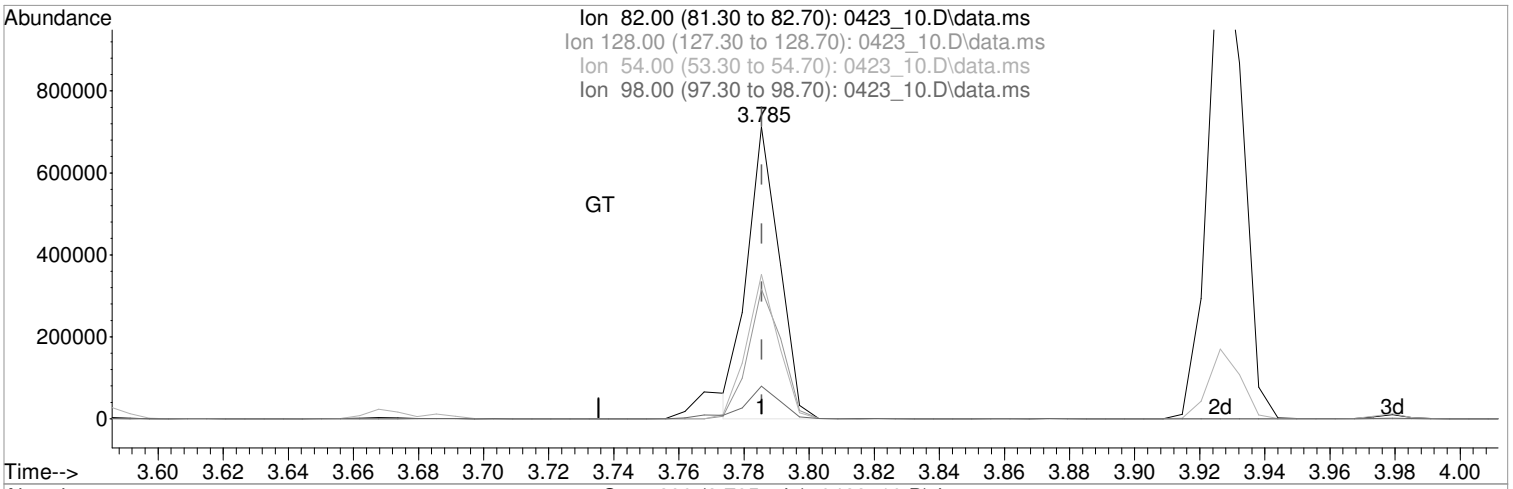
response 537257

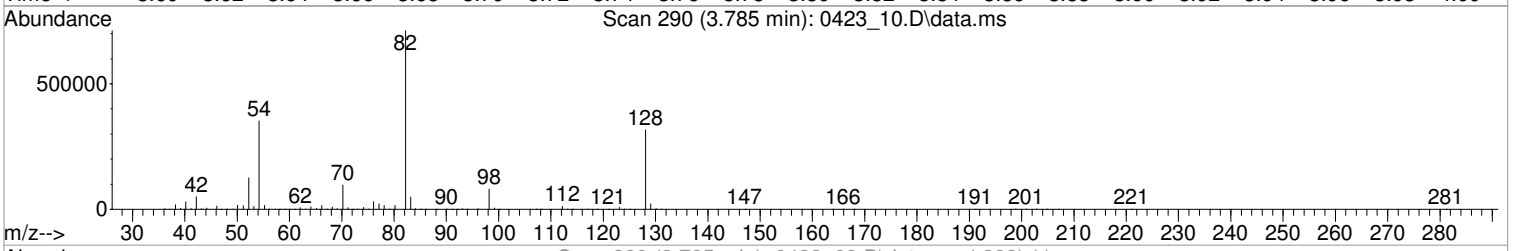
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.48
54.00	48.70	49.47
98.00	12.00	11.23

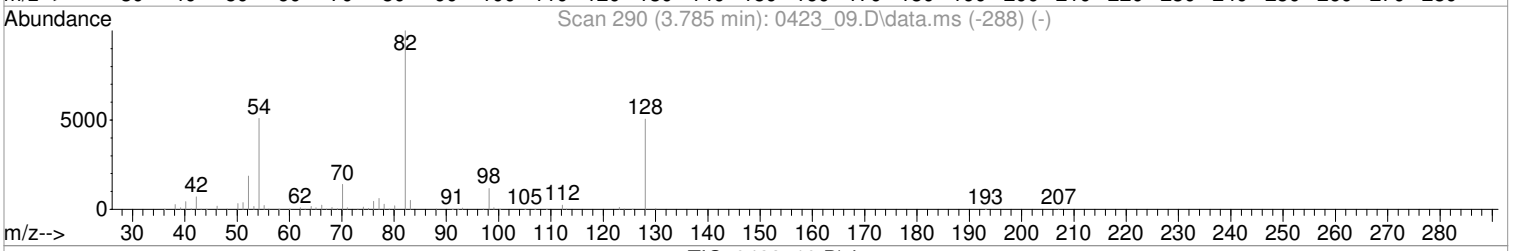
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration







TIC: 0423_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 19361.5783264 ppb m

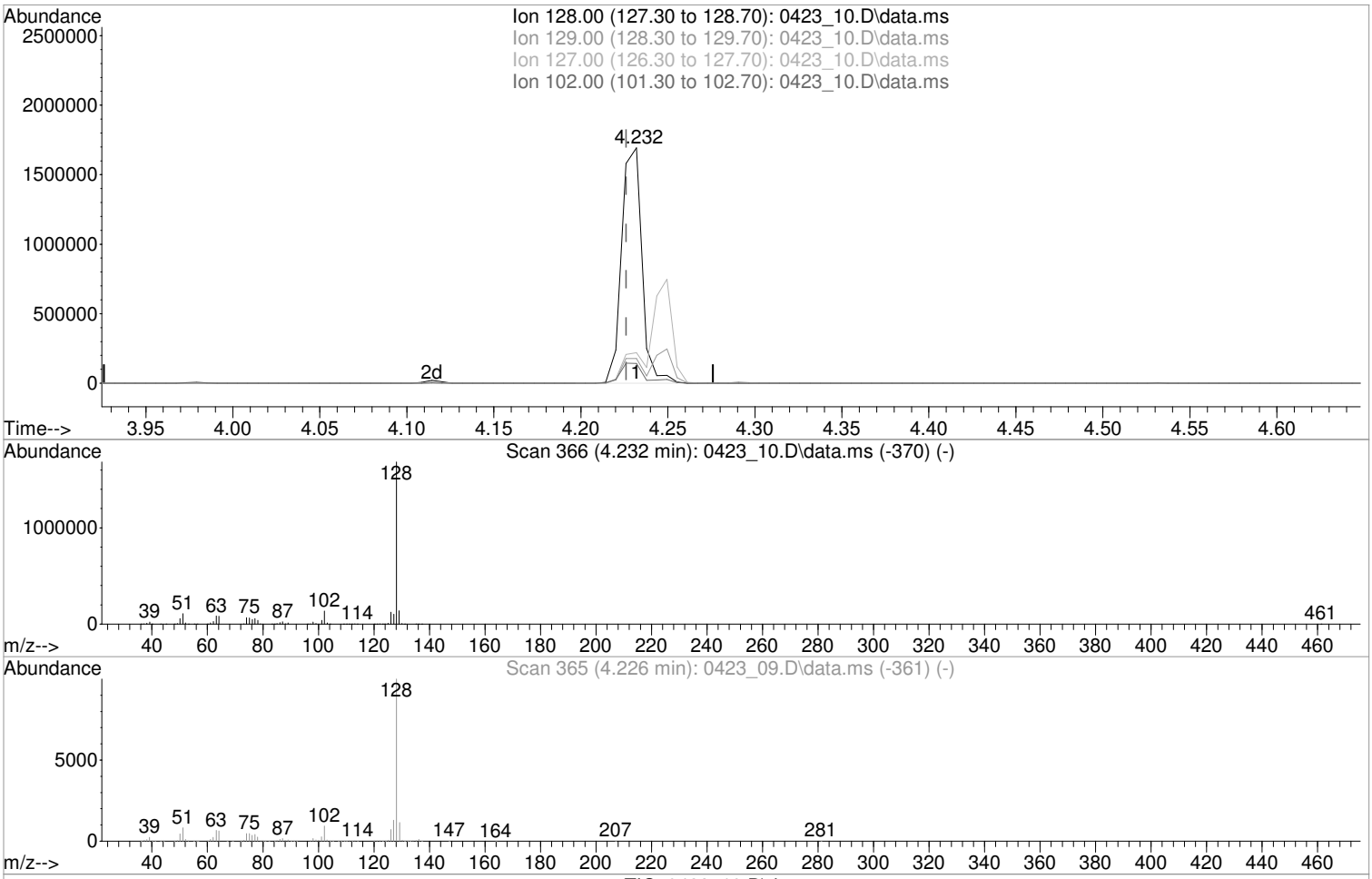
response 486326

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.47
54.00	48.70	49.46
98.00	12.00	11.23

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration



TIC: 0423_10.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 19078.1733584 ppb

Qvalue = 98

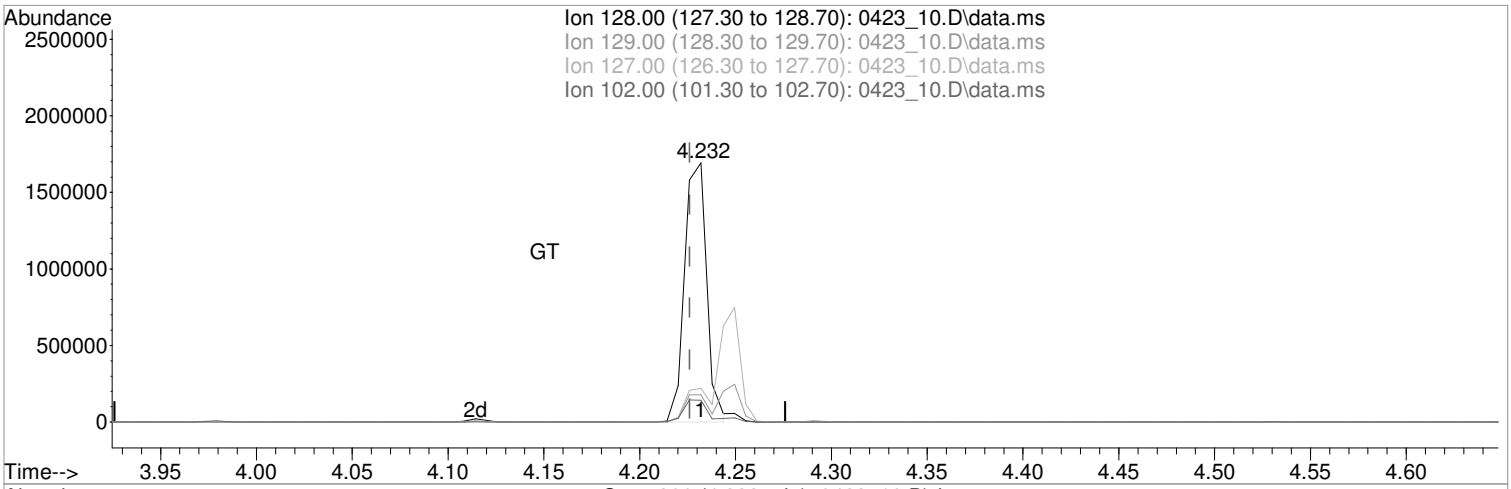
response 1371429

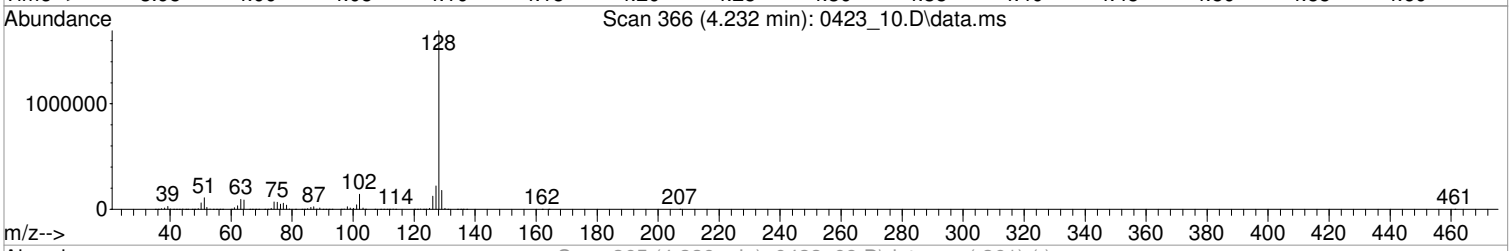
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.50
127.00	12.90	13.03
102.00	9.20	8.36

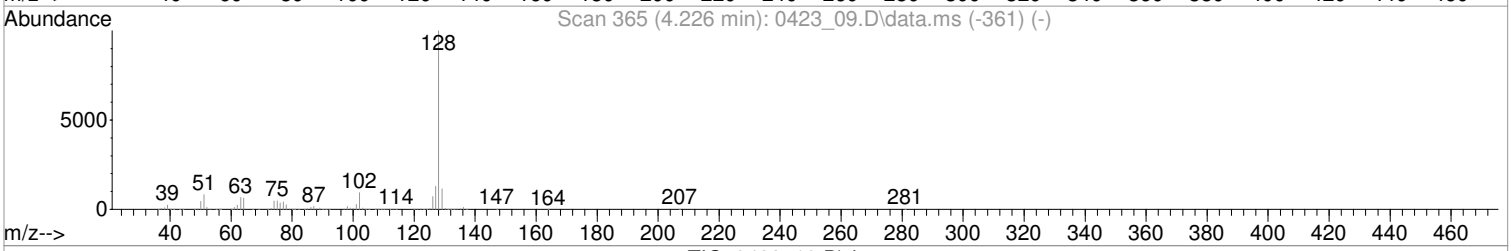
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_10.D
Acq On : 23 Apr 2022 12:05 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:30:39 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:29:25 2022
Response via : Initial Calibration







TIC: 0423_10.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 18742.7752010 ppb m

response 1347319

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.50
127.00	12.90	13.03
102.00	9.20	8.36

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:33:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	135510	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	540723	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.384	164	290263	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	529221	8000.0000000	ppb	0.00
84) Chrysene-d12	9.361	240	568686	8000.0000000	ppb	0.00
94) Perylene-d12	12.099	264	566409	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.822	112	642600	28201.6251158	ppb	0.00
Spiked Amount 20000.000				Recovery = 141.01%		
7) Phenol-d5	3.251	99	794764	28698.6855323	ppb	0.00
Spiked Amount 20000.000				Recovery = 143.49%		
24) Nitrobenzene-d5	3.785	82	700712m	28616.8239285	ppb	0.00
Spiked Amount 10000.000				Recovery = 286.17%		
50) 2-Fluorobiphenyl	4.902	172	1410437	27839.5653873	ppb	0.00
Spiked Amount 10000.000				Recovery = 278.40%		
73) 2,4,6-Tribromophenol	5.959	330	221433	34353.2180883	ppb	0.00
Spiked Amount 20000.000				Recovery = 171.77%		
87) p-Terphenyl-d14	7.928	244	2247247	30289.8736321	ppb	0.00
Spiked Amount 10000.000				Recovery = 302.90%		
Target Compounds						Qvalue
2) Pyridine	2.269	79	707078	26480.7981635	ppb	99
3) N-Nitrosodimethylamine	2.264	42	329786	27813.2150418	ppb	99
5) Aniline	3.309	66	374586	28802.3850038	ppb	99
6) bis(2-Chloroethyl)ether	3.327	93	469001m	20349.9532702	ppb	
8) Phenol	3.262	94	814920	28658.4222797	ppb	95
10) 2-Chlorophenol	3.374	128	669701	28844.0742083	ppb	94
11) n-Decane	3.368	41	372992	27414.5108094	ppb	97
12) 1,3-Dichlorobenzene	3.456	146	747769	28752.4500596	ppb	98
13) 1,4-Dichlorobenzene	3.492	146	752832	28491.8161380	ppb	99
14) Benzyl Alcohol	3.544	79	563282	29372.9765606	ppb	100
15) 1,2-Dichlorobenzene	3.580	146	717603	28782.3116385	ppb	99
16) bis(2-Chloroisopropyl)...	3.609	121	232870	28324.3338096	ppb	96
17) 2,2-oxybis(1-chloropro...	3.609	121	232870	28324.3338096	ppb	96
18) 2-Methylphenol	3.586	108	614142	29332.0622652	ppb	99
19) Hexachloroethane	3.768	117	286210	29250.6804315	ppb	97
20) N-Nitrosodi-n-propylamine	3.685	70	488443	28931.7046878	ppb	93
21) 3&4-Methyl phenol	3.674	107	697331	29431.9995627	ppb	99
25) Nitrobenzene	3.797	77	694137	28204.2646900	ppb	97
26) Isophorone	3.932	82	1297723	29487.1219916	ppb	95
27) 2-Nitrophenol	3.979	139	362819	32335.6826731	ppb	95
28) 2,4-Dimethylphenol	3.979	107	646290	29372.2785367	ppb	98
29) bis(2-Chlorethoxy)methane	4.038	93	764271	28807.3504537	ppb	98
30) 2,4-Dichlorophenol	4.114	162	557959	29721.3039275	ppb	96
32) 1,2,4-Trichlorobenzene	4.173	180	616676	28492.8221072	ppb	97
34) Naphthalene	4.232	128	1957608m	28110.6542194	ppb	
35) 4-Chloroaniline	4.250	65	238900	28873.2525648	ppb	99
36) Hexachloro-1,3-butadiene	4.291	225	376200	28925.1235957	ppb	99

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:33:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration

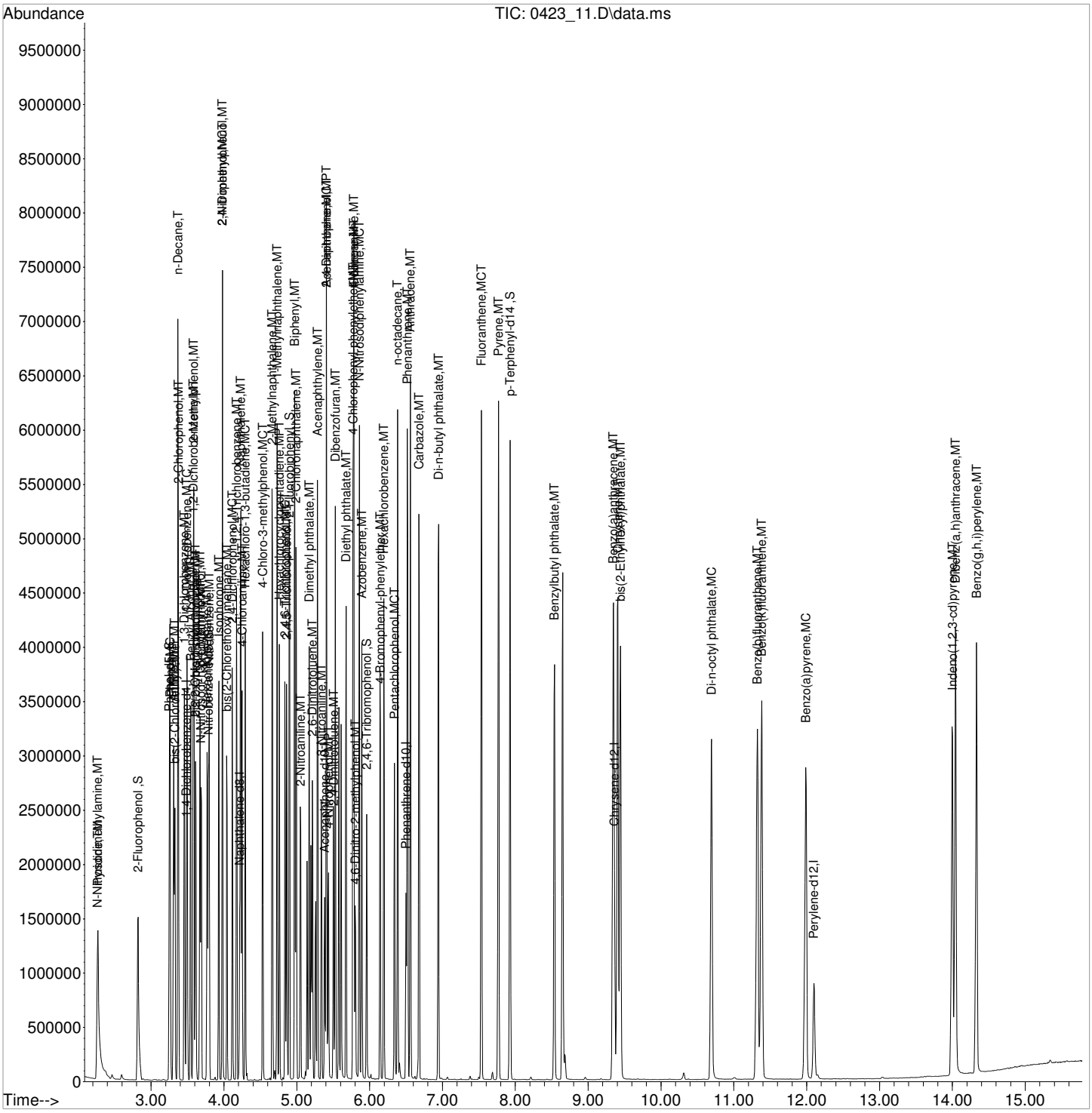
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.532	107	568289	31498.0105196	ppb		98
41) 2-Methylnaphthalene	4.661	142	1300293	29623.4892004	ppb		100
42) 1-Methylnaphthalene	4.731	142	1224227	29287.8449225	ppb		100
47) Hexachlorocyclopentadiene	4.761	237	466420	29980.0132067	ppb		99
48) 2,4,6-Trichlorophenol	4.837	196	403878	30352.8114359	ppb		97
49) 2,4,5-Trichlorophenol	4.861	196	441326	30687.1749151	ppb		97
51) Biphenyl	4.972	154	1579333	28157.9999166	ppb		99
52) 2-Chloronaphthalene	4.990	162	1230977	28216.5581115	ppb		99
53) 2-Nitroaniline	5.054	138	429537	33432.4746171	ppb		99
54) Acenaphthylene	5.284	152	1890121	29686.8058936	ppb		100
55) Dimethyl phthalate	5.172	163	1324665	28974.1212933	ppb		97
56) 2,6-Dinitrotoluene	5.213	165	320396	31369.1562728	ppb		91
57) 3-Nitroaniline	5.337	138	343029	30907.6545294	ppb	#	79
58) Acenaphthene	5.407	153	1242892	28438.7563684	ppb		98
59) 2,4-Dinitrophenol	5.407	184	167760	44761.5757589	ppb	#	79
60) Dibenzofuran	5.530	168	1706422	28110.5628440	ppb		99
61) 2,4-Dinitrotoluene	5.507	165	420090	33503.2230463	ppb		96
63) 4-Nitrophenol	5.436	139	289243	33139.1019923	ppb		94
64) Fluorene	5.783	166	1371111	27833.2253437	ppb		99
65) 4-Chlorophenyl-phenyle...	5.771	204	696430	28145.7225564	ppb		99
66) Diethyl phthalate	5.677	149	1300349	28132.2323340	ppb		99
67) 4-Nitroaniline	5.783	138	259108	23476.9308099	ppb		98
68) Azobenzene	5.895	77	1342734	27918.2642055	ppb		100
71) 4,6-Dinitro-2-methylph...	5.807	198	221496	45652.1337450	ppb		96
72) N-Nitrosodiphenylamine	5.859	169	1181459	31081.0188162	ppb		98
74) 4-Bromophenyl-phenylether	6.147	248	432905	31492.5567257	ppb	#	85
75) Hexachlorobenzene	6.194	284	489207	31482.3348935	ppb		98
76) n-octadecane	6.382	55	208474	29651.7600534	ppb		100
77) Pentachlorophenol	6.341	266	289444	37594.7443631	ppb		98
78) Phenanthrene	6.518	178	2046695	28797.3815121	ppb		99
79) Anthracene	6.559	178	2129542	29936.2287297	ppb		99
80) Carbazole	6.676	167	1860533	29267.0610528	ppb		100
81) Di-n-butyl phthalate	6.946	149	2414508	32758.3020434	ppb		99
83) Fluoranthene	7.534	202	2445328	32200.2172599	ppb		100
86) Pyrene	7.769	202	2546833	29061.7852031	ppb		99
88) Benzylbutyl phthalate	8.539	149	1060158	31353.6974145	ppb		97
90) Benzo(a)anthracene	9.344	228	2448528	29556.7938226	ppb		99
91) Chrysene	9.408	228	2358562	28557.4358651	ppb		99
92) bis(2-Ethylhexyl)phtha...	9.444	149	1509259	31708.2880651	ppb		99
93) Di-n-octyl phthalate	10.695	149	2522920	33861.5638310	ppb		99
95) Benzo(b)fluoranthene	11.324	252	2440418	30473.9285515	ppb		99
96) Benzo(k)fluoranthene	11.382	252	2497445	30815.5484839	ppb		99
97) Benzo(a)pyrene	11.988	252	2167653	31506.1873868	ppb		99
98) Indeno(1,2,3-cd)pyrene	14.003	276	1937964	29212.3391945	ppb		99
99) Dibenz(a,h)anthracene	14.044	278	2209456	29232.7104301	ppb		99
100) Benzo(g,h,i)perylene	14.332	276	2092598	27103.9297830	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

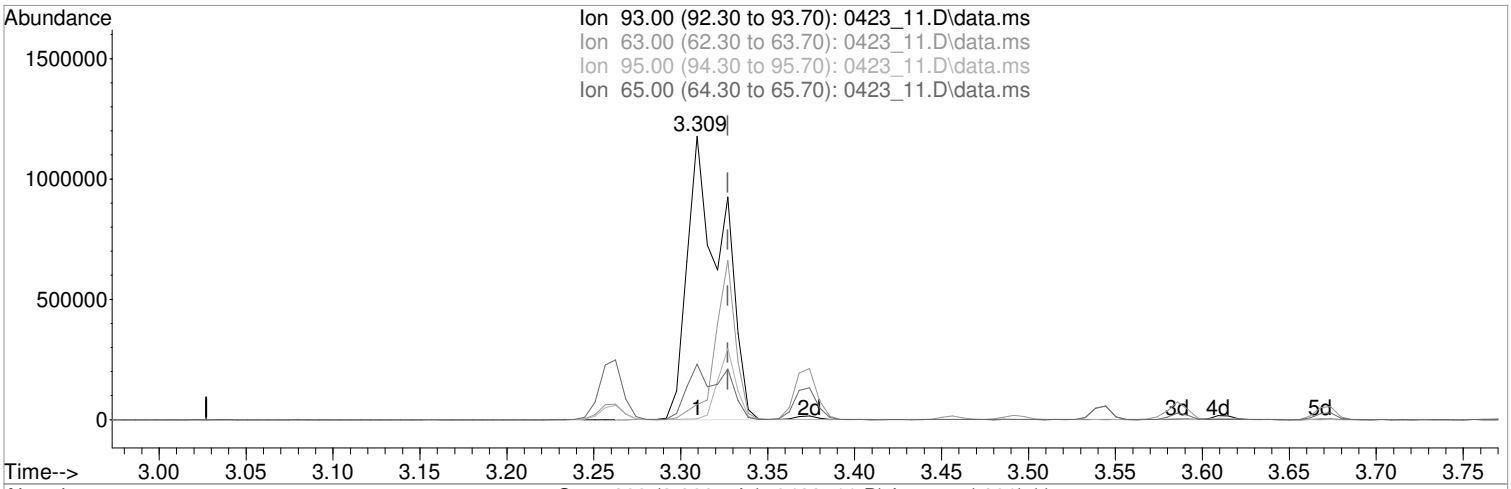
Quant Time: May 02 12:33:27 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration

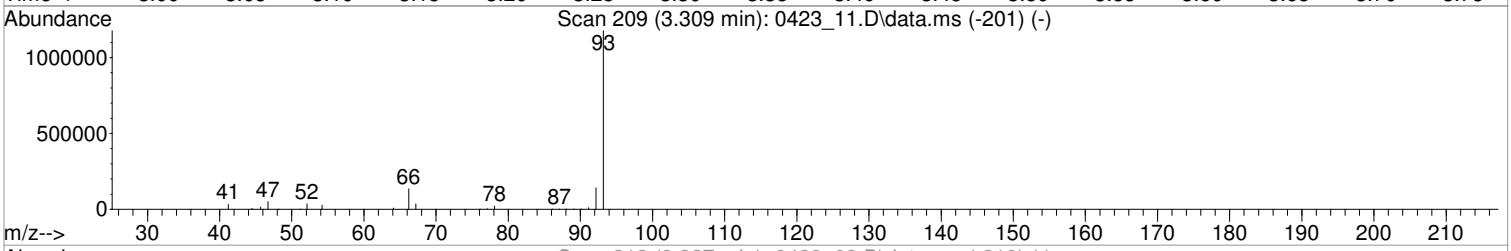


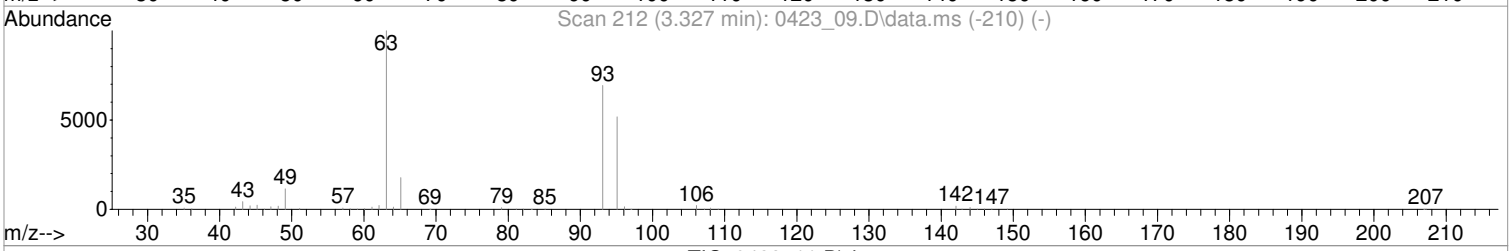
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration







TIC: 0423_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 70965.7330621 ppb

Qvalue = 40

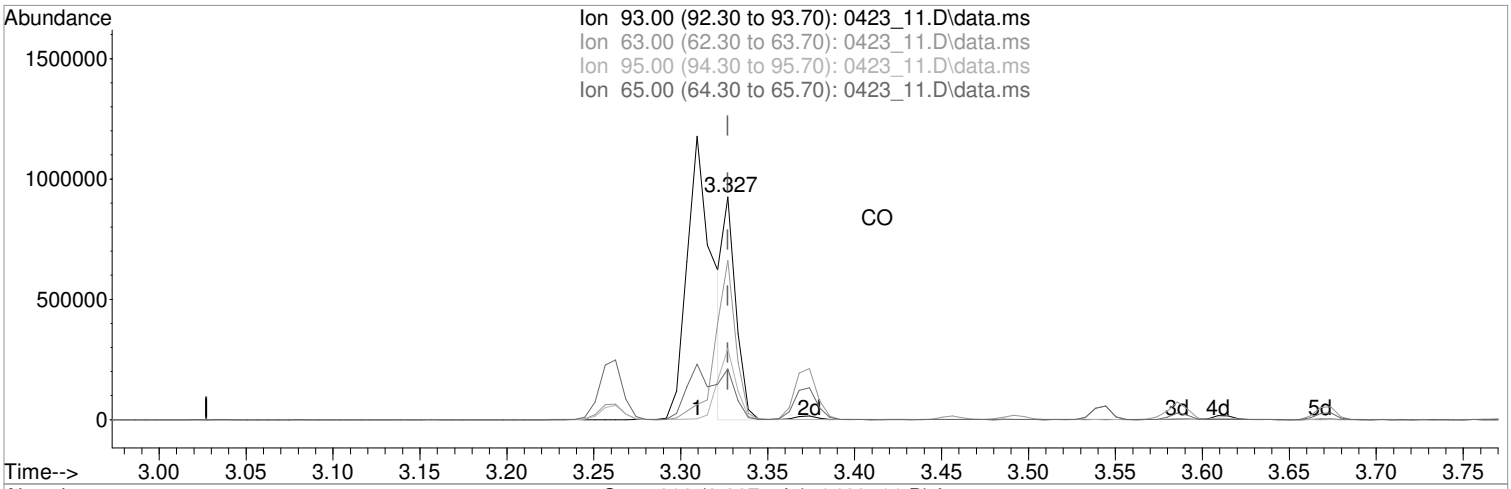
response 1635532

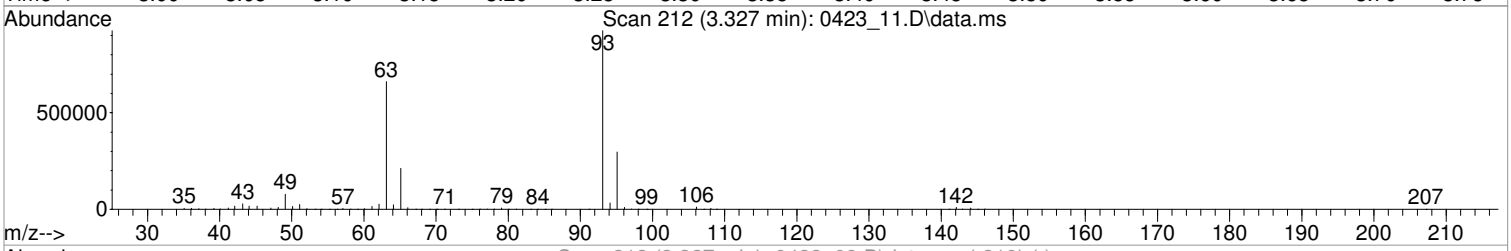
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.00#
95.00	32.50	0.25#
65.00	22.20	19.36

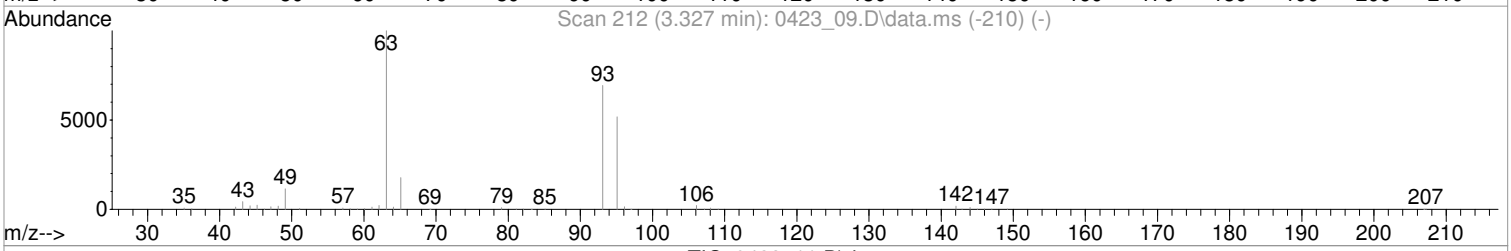
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration







TIC: 0423_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 20349.9532702 ppb m

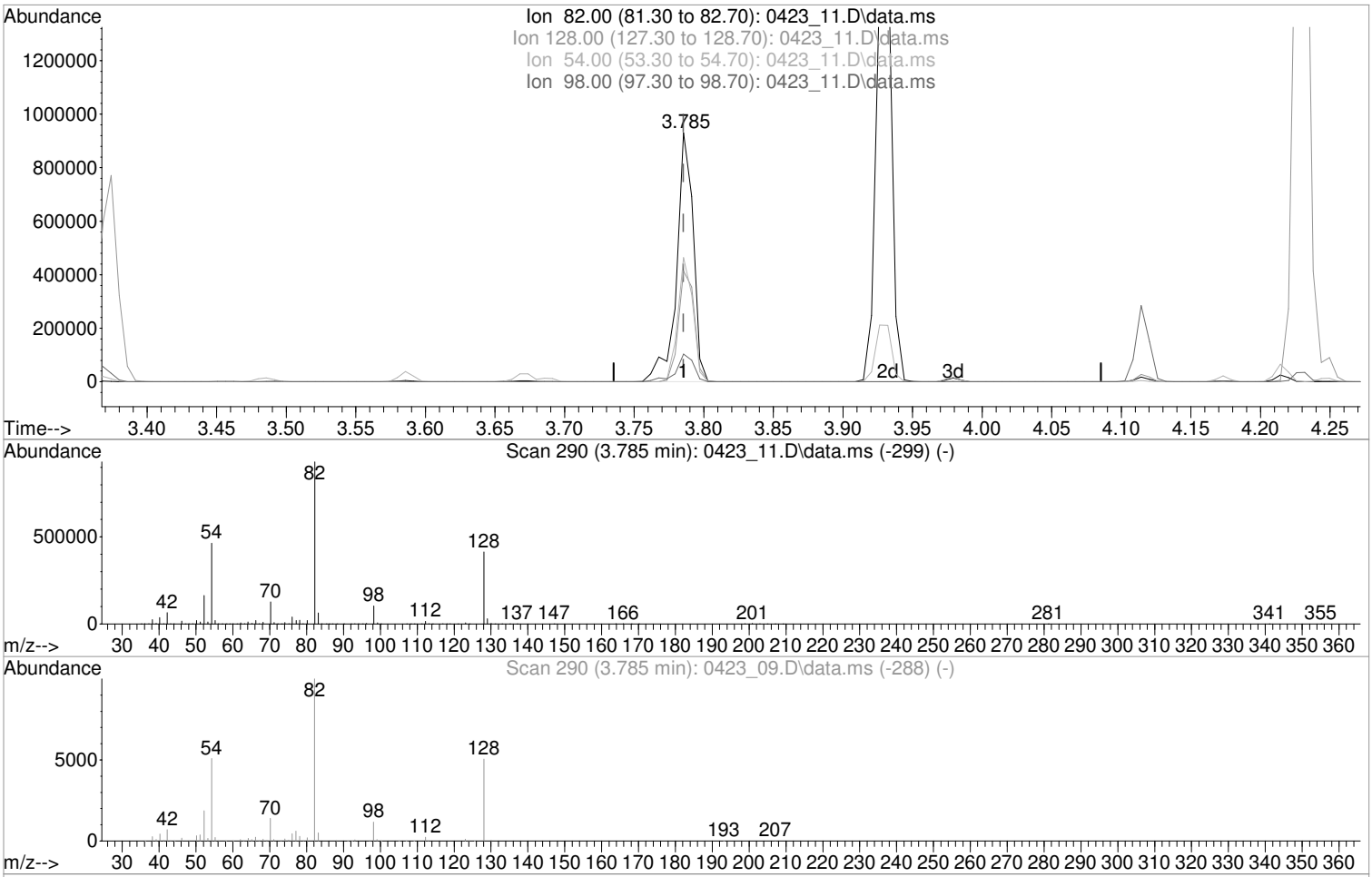
response 469001

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.59
95.00	32.50	32.02
65.00	22.20	22.86

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration



TIC: 0423_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 31469.3092350 ppb

Qvalue = 97

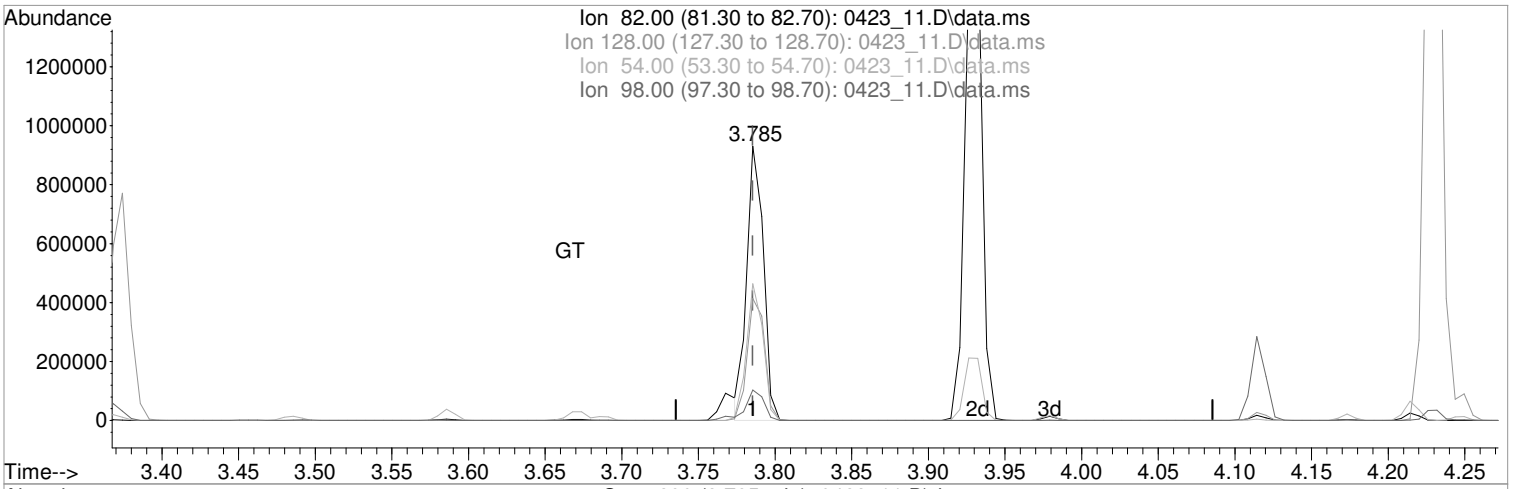
response 770558

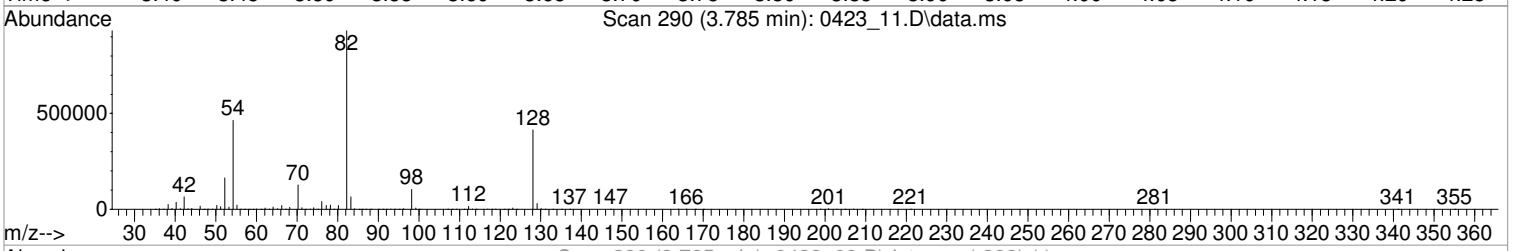
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.44
54.00	48.70	49.88
98.00	12.00	11.15

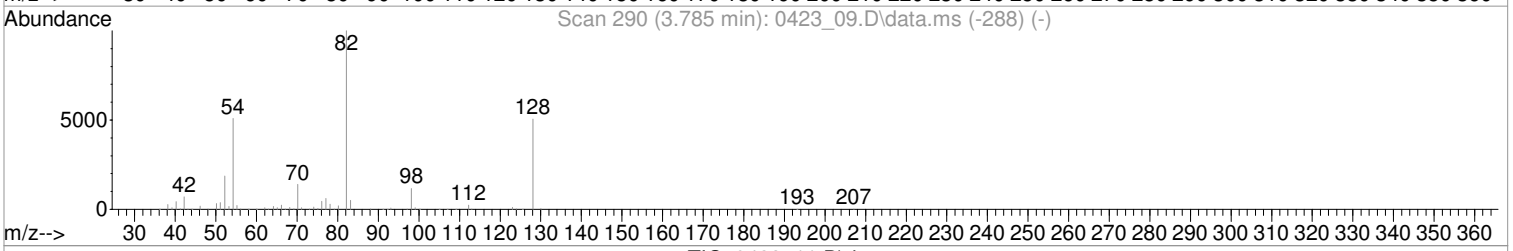
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration







TIC: 0423_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 28616.8239285 ppb m

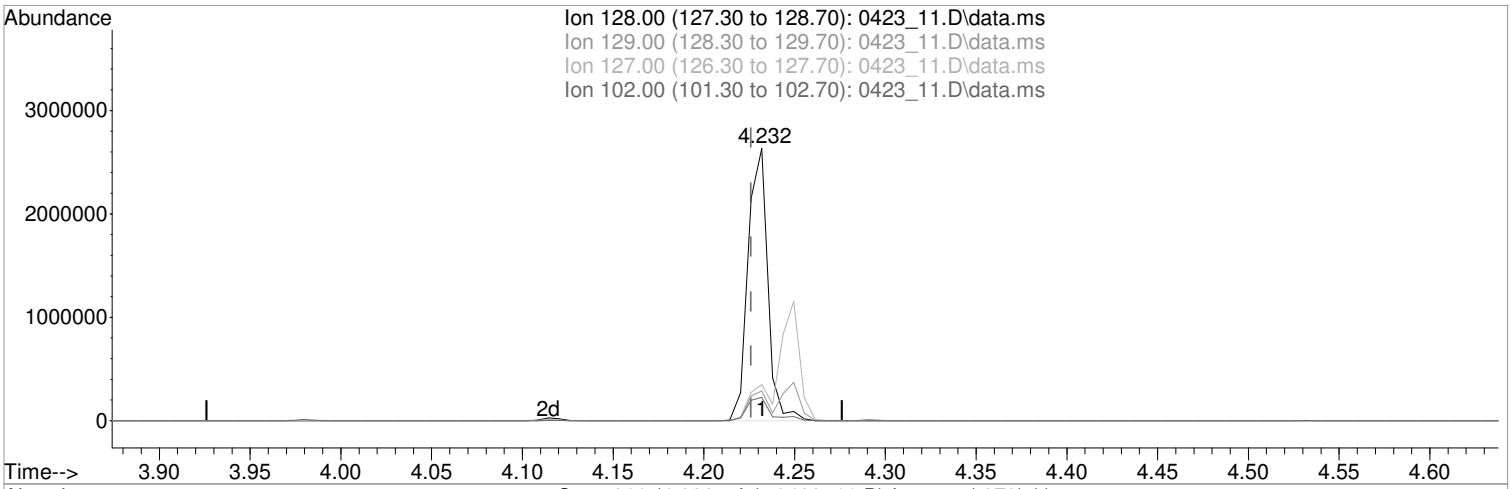
response 700712

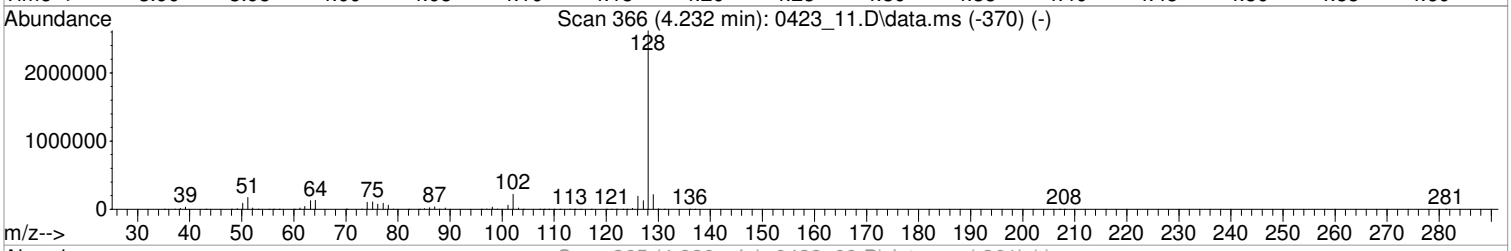
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.43
54.00	48.70	49.87
98.00	12.00	11.15

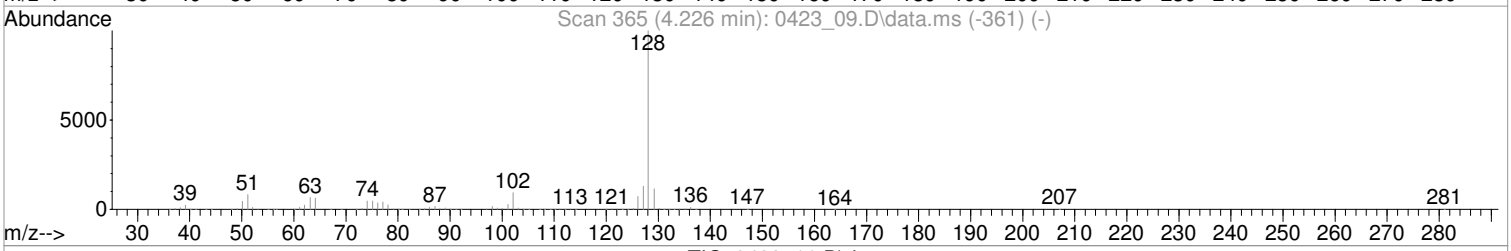
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration







TIC: 0423_11.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 28656.5093134 ppb

Qvalue = 99

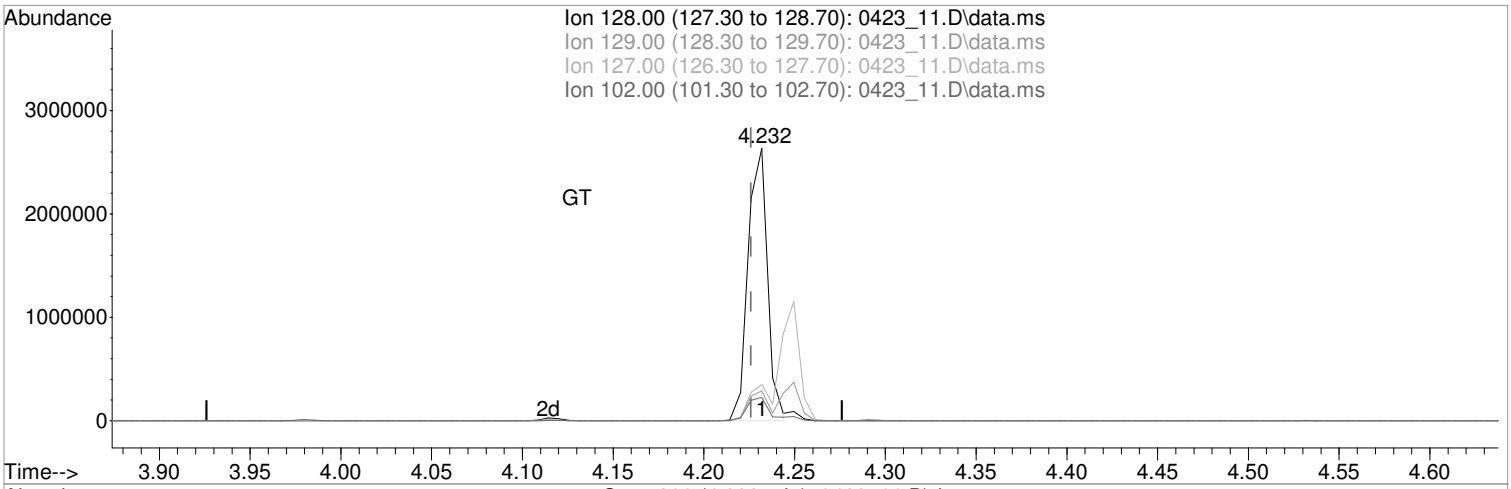
response 1995621

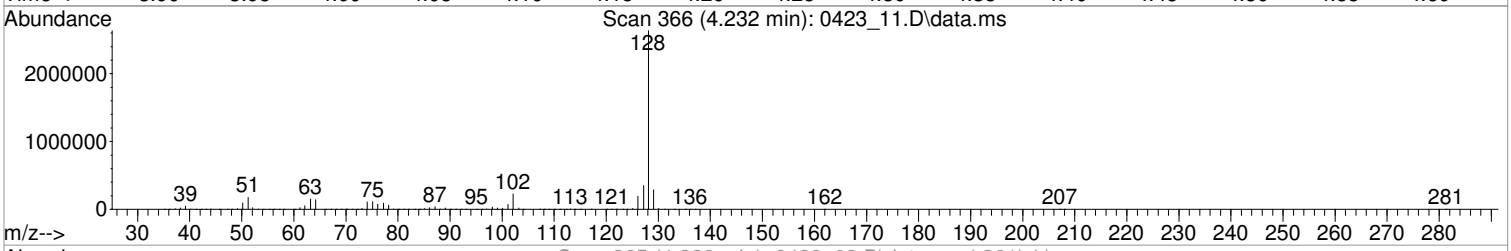
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.97
127.00	12.90	13.25
102.00	9.20	8.58

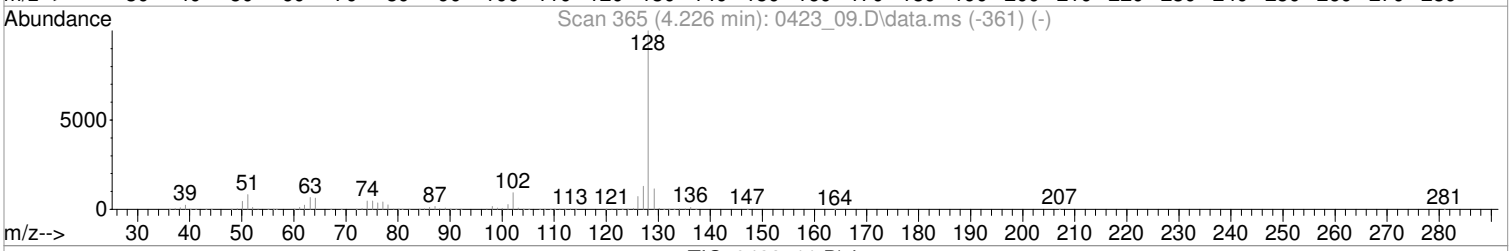
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_11.D
Acq On : 23 Apr 2022 12:26 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:32:23 2022
Response via : Initial Calibration







TIC: 0423_11.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 28110.6542194 ppb m

response 1957608

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.97
127.00	12.90	13.25
102.00	9.20	8.58

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:35:04 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	143078	8000.0000000	ppb	# 0.00
23) Naphthalene-d8	4.214	136	570159	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.383	164	308561	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	535980	8000.0000000	ppb	0.00
84) Chrysene-d12	9.361	240	600595	8000.0000000	ppb	0.00
94) Perylene-d12	12.105	264	592393	8000.0000000	ppb	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.822	112	934272	39225.2821897	ppb	0.00
Spiked Amount 20000.000				Recovery = 196.13%		
7) Phenol-d5	3.256	99	1145054	39445.6773877	ppb	0.00
Spiked Amount 20000.000				Recovery = 197.23%		
24) Nitrobenzene-d5	3.785	82	989171m	38608.4399202	ppb	0.00
Spiked Amount 10000.000				Recovery = 386.08%		
50) 2-Fluorobiphenyl	4.902	172	1983714	37280.5731139	ppb	0.00
Spiked Amount 10000.000				Recovery = 372.81%		
73) 2,4,6-Tribromophenol	5.959	330	324500	48534.4430573	ppb	0.00
Spiked Amount 20000.000				Recovery = 242.67%		
87) p-Terphenyl-d14	7.928	244	3154771	40198.1889636	ppb	0.00
Spiked Amount 10000.000				Recovery = 401.98%		
Target Compounds						Qvalue
2) Pyridine	2.275	79	1054427	38146.4207528	ppb	98
3) N-Nitrosodimethylamine	2.263	42	491456	39738.4181324	ppb	99
5) Aniline	3.309	66	534059	39152.8905148	ppb	99
6) bis(2-Chloroethyl)ether	3.327	93	729525m	31678.0760925	ppb	
8) Phenol	3.262	94	1159241	38900.7996808	ppb	98
10) 2-Chlorophenol	3.374	128	940623	38617.8139027	ppb	95
11) n-Decane	3.368	41	520704	36775.0904001	ppb	97
12) 1,3-Dichlorobenzene	3.456	146	1045421	38336.9543074	ppb	99
13) 1,4-Dichlorobenzene	3.497	146	1053916	38096.1195591	ppb	95
14) Benzyl Alcohol	3.544	79	792190	39261.3669223	ppb	99
15) 1,2-Dichlorobenzene	3.580	146	996299	38104.6135256	ppb	99
16) bis(2-Chloroisopropyl)...	3.615	121	326181	37928.4591735	ppb	90
17) 2,2-oxybis(1-chloropro...	3.615	121	326181	37928.4591735	ppb	90
18) 2-Methylphenol	3.585	108	855216	38829.5773572	ppb	97
19) Hexachloroethane	3.768	117	402068	39080.5669744	ppb	97
20) N-Nitrosodi-n-propylamine	3.691	70	686047	38716.6429321	ppb	98
21) 3&4-Methyl phenol	3.674	107	976136	39143.7310420	ppb	100
25) Nitrobenzene	3.797	77	971721	37821.9961927	ppb	96
26) Isophorone	3.932	82	1815595	39236.2445603	ppb	98
27) 2-Nitrophenol	3.979	139	510797	42620.6478370	ppb	95
28) 2,4-Dimethylphenol	3.979	107	887724	38395.8425603	ppb	97
29) bis(2-Chlorethoxy)methane	4.044	93	1070593	38525.3267475	ppb	96
30) 2,4-Dichlorophenol	4.114	162	781425	39537.0877053	ppb	94
32) 1,2,4-Trichlorobenzene	4.173	180	862865	38128.6897065	ppb	97
34) Naphthalene	4.232	128	2723481m	37482.7146628	ppb	
35) 4-Chloroaniline	4.249	65	335178	38659.9265997	ppb	99
36) Hexachloro-1,3-butadiene	4.291	225	522097	38299.0205857	ppb	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:35:04 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration

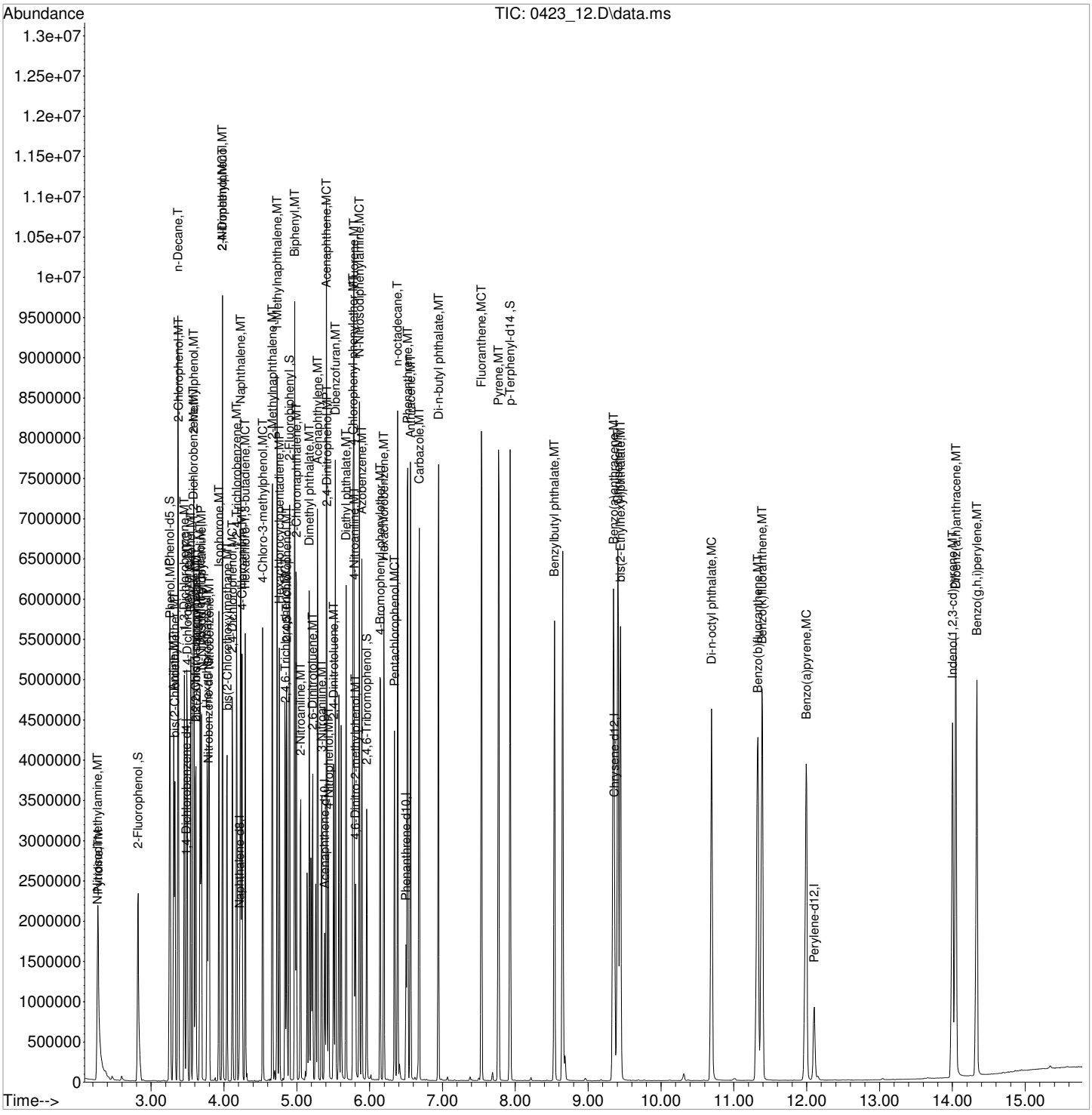
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.531	107	792098	41292.6053750	ppb		97
41) 2-Methylnaphthalene	4.667	142	1837875	39792.3137167	ppb		100
42) 1-Methylnaphthalene	4.731	142	1723220	39252.4443295	ppb		100
47) Hexachlorocyclopentadiene	4.761	237	651582	39402.3936566	ppb		99
48) 2,4,6-Trichlorophenol	4.843	196	568306	40098.7839971	ppb		93
49) 2,4,5-Trichlorophenol	4.860	196	619238	40350.6762707	ppb		97
51) Biphenyl	4.972	154	2222192	37655.4199977	ppb		99
52) 2-Chloronaphthalene	4.996	162	1722499	37513.5510223	ppb		98
53) 2-Nitroaniline	5.054	138	603531	43362.5139515	ppb		99
54) Acenaphthylene	5.284	152	2644783	39144.5110609	ppb		99
55) Dimethyl phthalate	5.172	163	1874273	38785.5517261	ppb		99
56) 2,6-Dinitrotoluene	5.219	165	456081	41688.6134799	ppb		89
57) 3-Nitroaniline	5.342	138	482755	40712.5402440	ppb		91
58) Acenaphthene	5.407	153	1747892	37951.2221628	ppb		97
59) 2,4-Dinitrophenol	5.413	184	258503	59965.6310807	ppb	#	1
60) Dibenzofuran	5.530	168	2388939	37412.9226022	ppb		100
61) 2,4-Dinitrotoluene	5.507	165	606203	44610.9817831	ppb		96
63) 4-Nitrophenol	5.436	139	398516	42214.8948532	ppb		96
64) Fluorene	5.783	166	1961330	37909.8300912	ppb		100
65) 4-Chlorophenyl-phenyle...	5.771	204	975755	37482.0615234	ppb		95
66) Diethyl phthalate	5.677	149	1800537	37027.7189434	ppb		100
67) 4-Nitroaniline	5.789	138	330244	29206.3210770	ppb		97
68) Azobenzene	5.895	77	1921422	38021.0235633	ppb		99
71) 4,6-Dinitro-2-methylph...	5.806	198	310845	58198.9943741	ppb		97
72) N-Nitrosodiphenylamine	5.859	169	1685472	43519.7301680	ppb		99
74) 4-Bromophenyl-phenylether	6.147	248	611400	43555.4920059	ppb		87
75) Hexachlorobenzene	6.194	284	697197	43939.6317775	ppb		98
76) n-octadecane	6.382	55	292854	41207.7831560	ppb		99
77) Pentachlorophenol	6.341	266	406355	50004.4339441	ppb		96
78) Phenanthrene	6.523	178	2763740	38654.2179586	ppb		99
79) Anthracene	6.564	178	2880293	39993.5470258	ppb		100
80) Carbazole	6.682	167	2563044	39972.2218482	ppb		100
81) Di-n-butyl phthalate	6.946	149	3382412	44627.5572694	ppb		100
83) Fluoranthene	7.534	202	3428054	44033.3203673	ppb		99
86) Pyrene	7.769	202	3534243	38386.5115183	ppb		99
88) Benzylbutyl phthalate	8.539	149	1499797	41685.7446325	ppb		99
90) Benzo(a)anthracene	9.349	228	3517902	40308.5774872	ppb		99
91) Chrysene	9.408	228	3325889	38438.3779445	ppb		99
92) bis(2-Ethylhexyl)phtha...	9.443	149	2146469	42298.2338787	ppb		99
93) Di-n-octyl phthalate	10.695	149	3616886	44999.8153984	ppb		99
95) Benzo(b)fluoranthene	11.329	252	3460658	41209.8627388	ppb		100
96) Benzo(k)fluoranthene	11.388	252	3466210	40708.5655770	ppb		99
97) Benzo(a)pyrene	11.993	252	3028928	41744.2188573	ppb		99
98) Indeno(1,2,3-cd)pyrene	14.003	276	2639117	38203.5831497	ppb		98
99) Dibenz(a,h)anthracene	14.050	278	3096398	39338.3342153	ppb		99
100) Benzo(g,h,i)perylene	14.338	276	2748150	34590.0688167	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

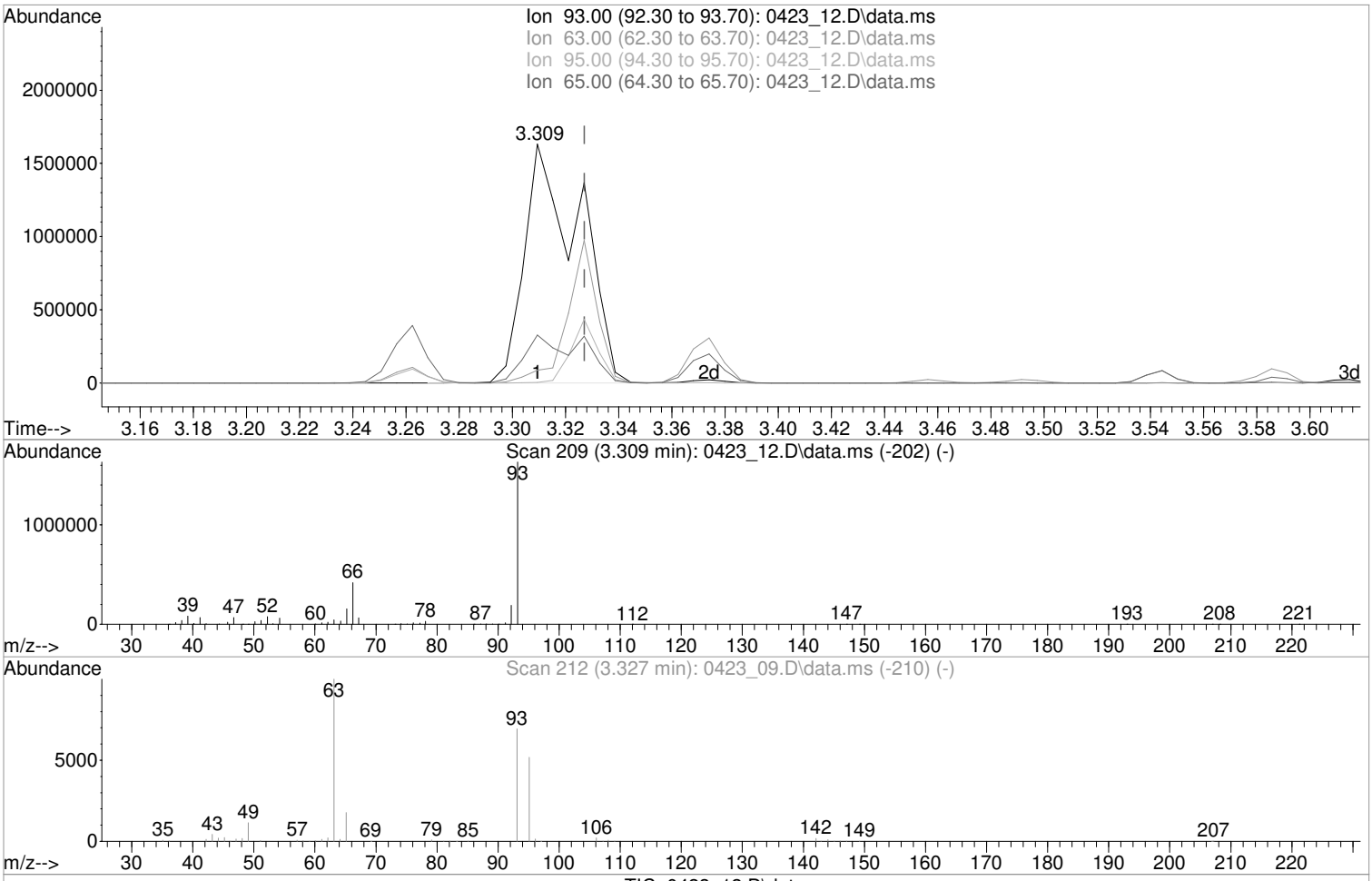
Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:35:04 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration



TIC: 0423_12.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 101517.5681317 ppb

Qvalue = 41

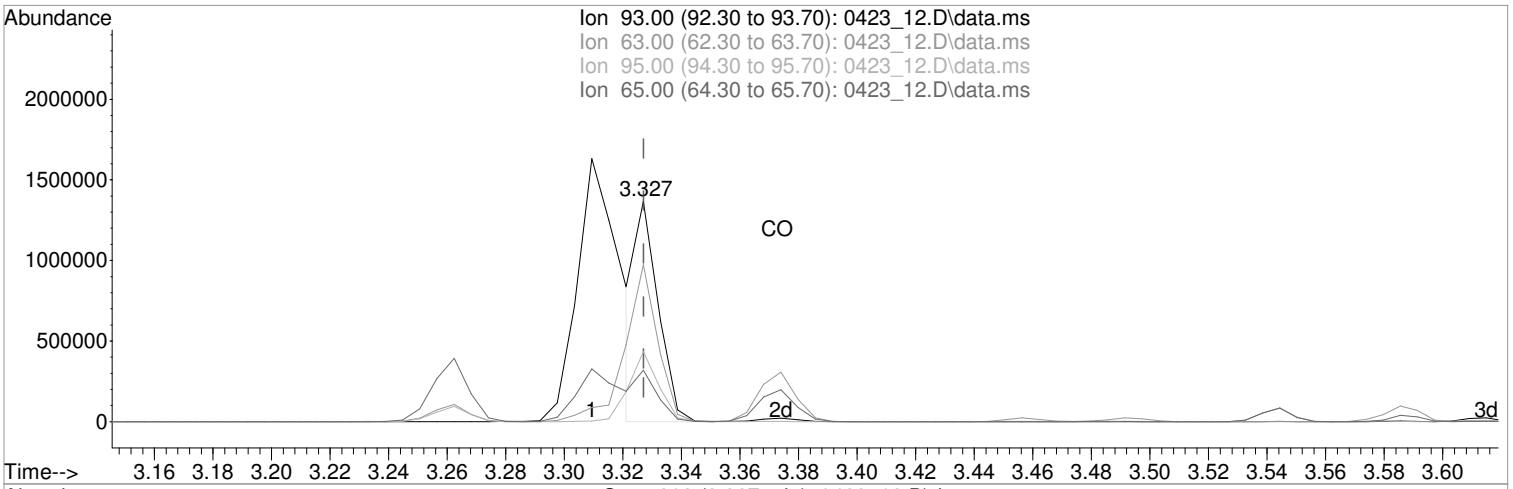
response 2337882

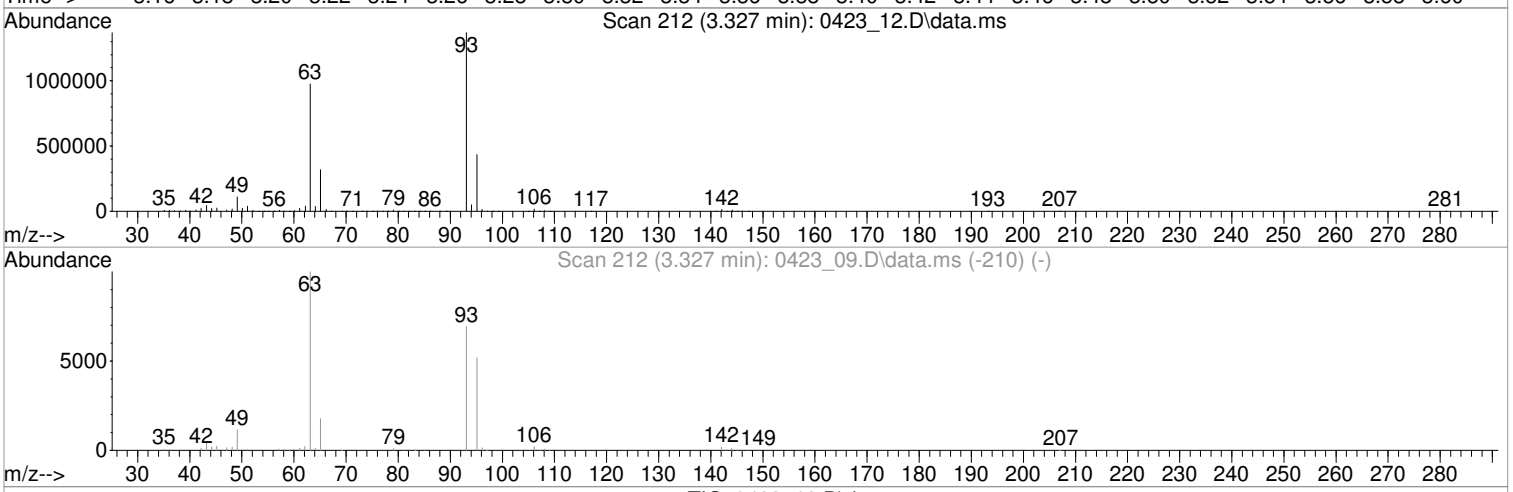
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.12#
95.00	32.50	0.22#
65.00	22.20	19.85

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration





TIC: 0423_12.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 31678.0760925 ppb m

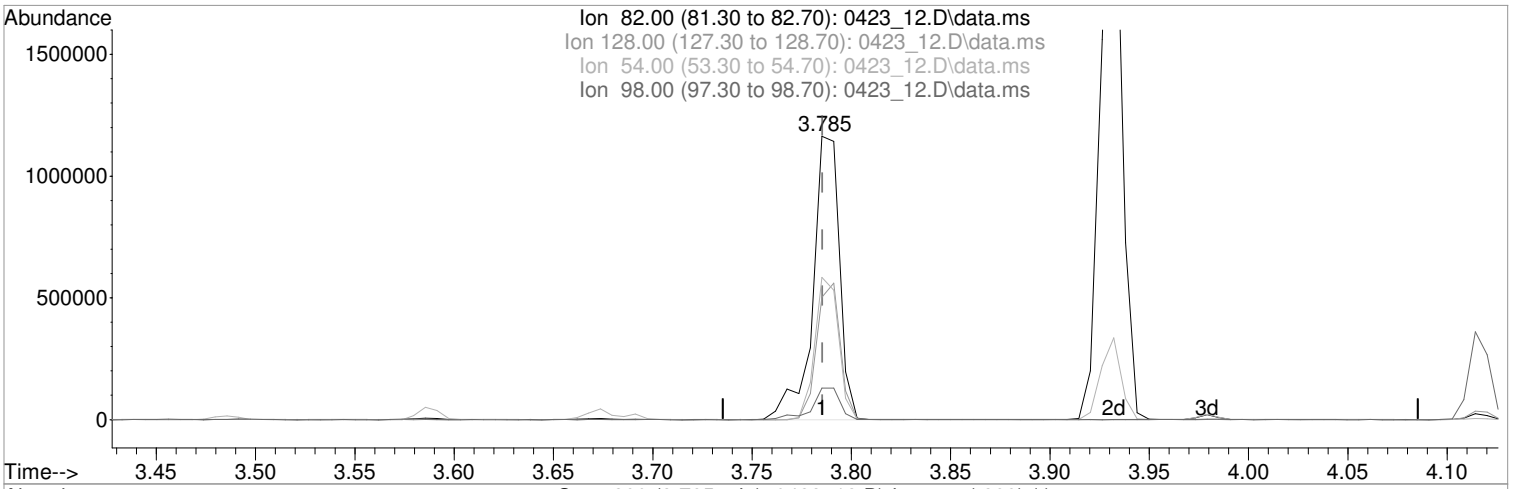
response 729525

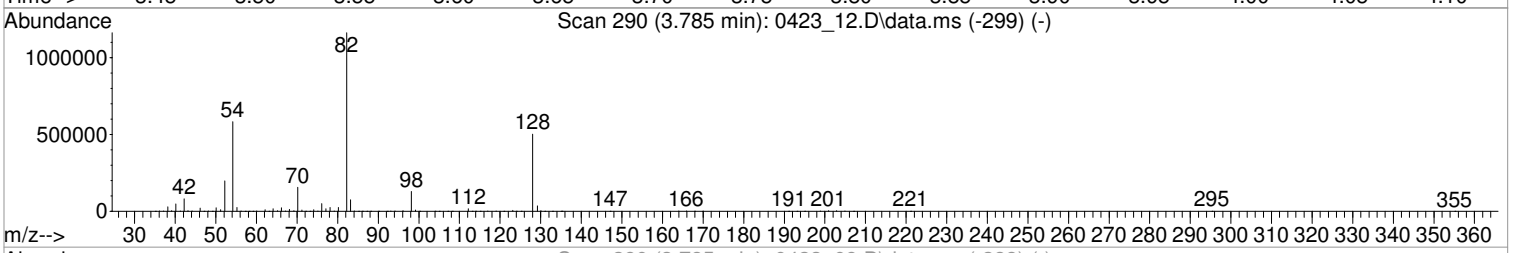
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.28
95.00	32.50	31.69
65.00	22.20	23.39

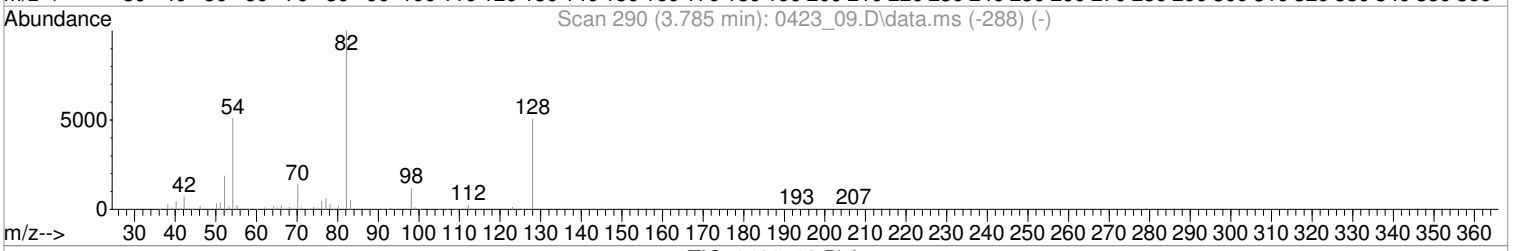
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration







TIC: 0423_12.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 42318.8150885 ppb

Qvalue = 96

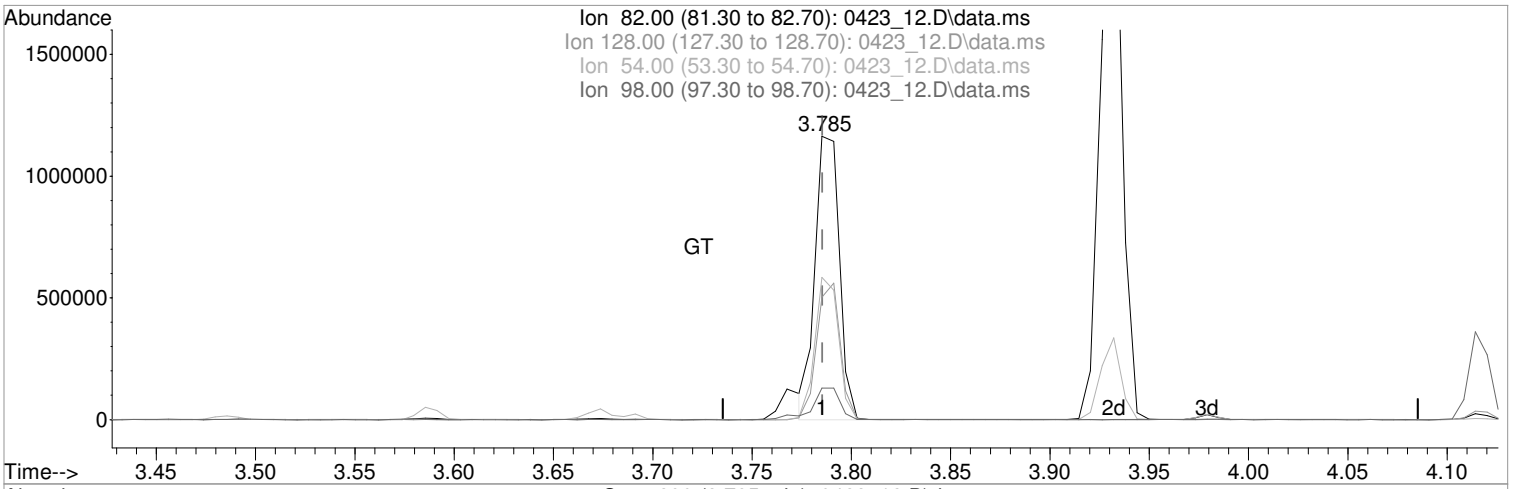
response 1084233

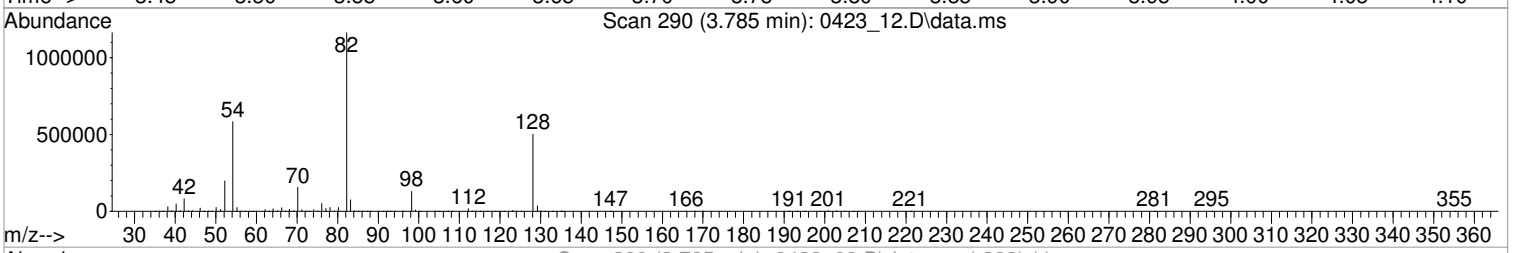
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	43.25
54.00	48.70	50.27
98.00	12.00	11.12

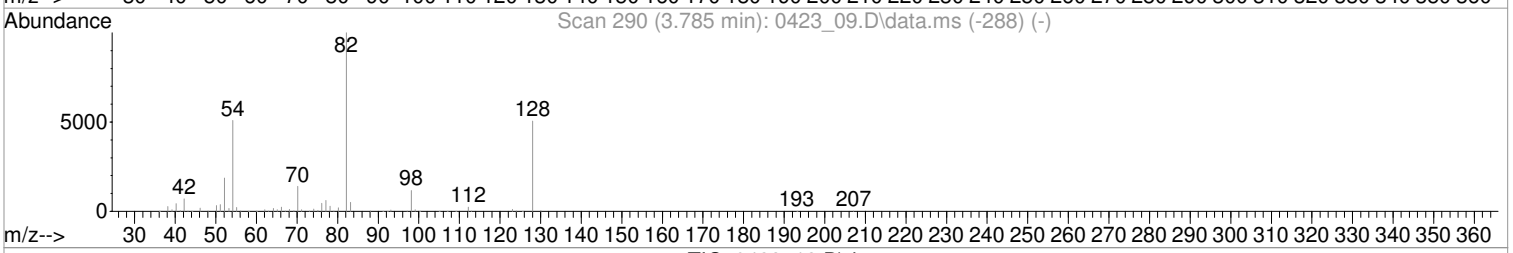
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration







TIC: 0423_12.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 38608.4399202 ppb m

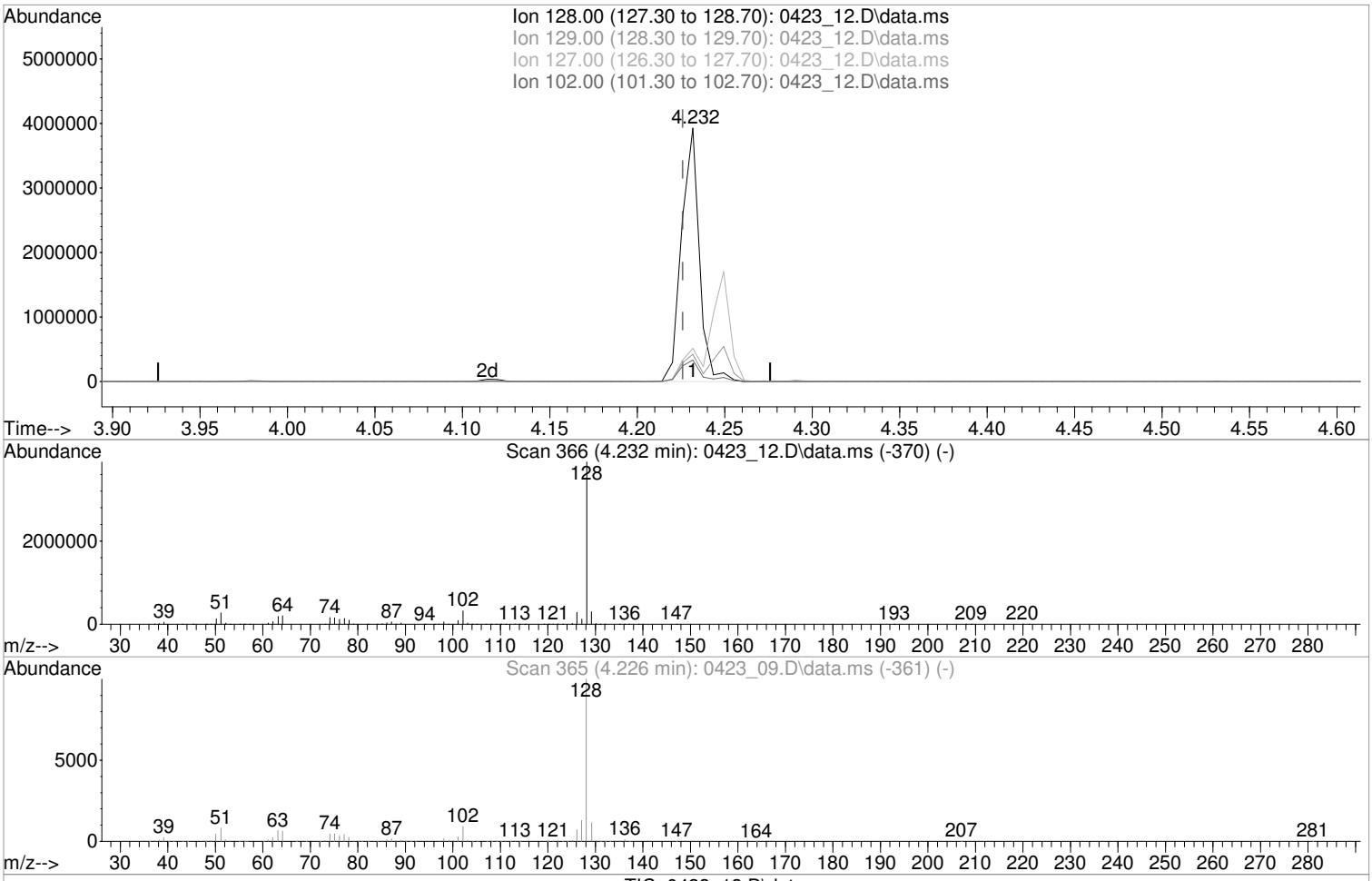
response 989171

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	43.25
54.00	48.70	50.27
98.00	12.00	11.13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration



TIC: 0423_12.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 38256.6655216 ppb

Qvalue = 99

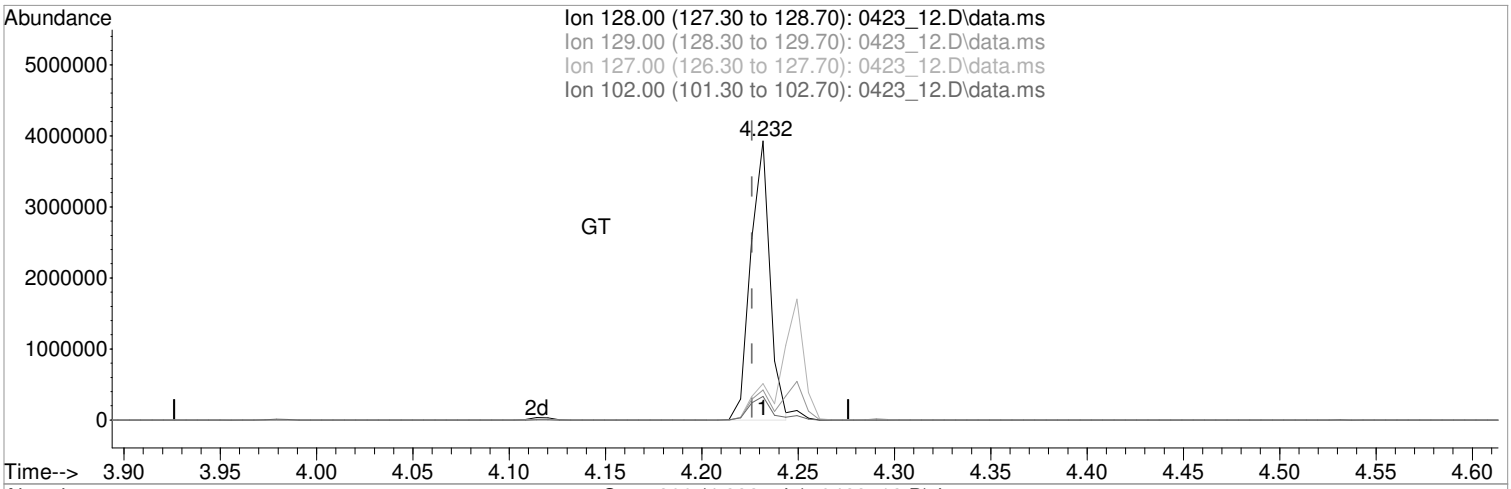
response 2779716

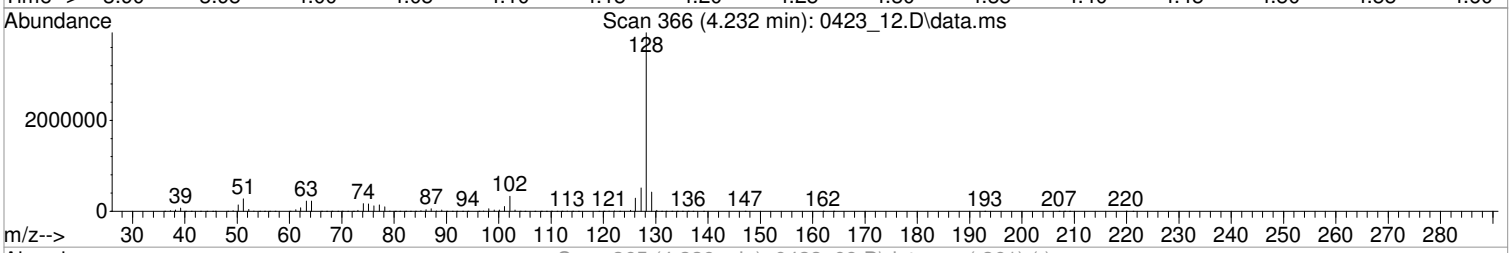
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.80
127.00	12.90	13.09
102.00	9.20	8.51

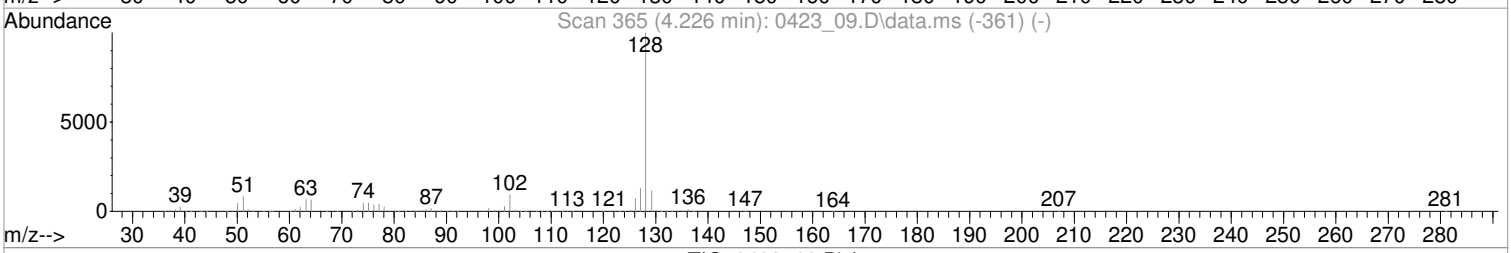
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_12.D
Acq On : 23 Apr 2022 12:47 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:34:11 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:34:07 2022
Response via : Initial Calibration







TIC: 0423_12.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 37482.7146628 ppb m

response 2723481

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.81
127.00	12.90	13.09
102.00	9.20	8.51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:38:48 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.485	152	145183	8000.0000000	ppb	# 0.00
23) Naphthalene-d8	4.214	136	576996	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.383	164	312072	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	536736	8000.0000000	ppb	0.00
84) Chrysene-d12	9.367	240	603253	8000.0000000	ppb	0.01
94) Perylene-d12	12.105	264	594903	8000.0000000	ppb	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.822	112	1184743	49156.0844943	ppb	0.00
Spiked Amount 20000.000				Recovery = 245.78%		
7) Phenol-d5	3.256	99	1450114	49327.9793365	ppb	0.00
Spiked Amount 20000.000				Recovery = 246.64%		
24) Nitrobenzene-d5	3.791	82	1257391m	48738.0523065	ppb	0.00
Spiked Amount 10000.000				Recovery = 487.38%		
50) 2-Fluorobiphenyl	4.901	172	2483609	46602.7520653	ppb	0.00
Spiked Amount 10000.000				Recovery = 466.03%		
73) 2,4,6-Tribromophenol	5.965	330	417003	60439.7634135	ppb	0.00
Spiked Amount 20000.000				Recovery = 302.20%		
87) p-Terphenyl-d14	7.933	244	3987977	50555.2452754	ppb	0.00
Spiked Amount 10000.000				Recovery = 505.55%		
Target Compounds						Qvalue
2) Pyridine	2.269	79	1333059	47844.0899403	ppb	100
3) N-Nitrosodimethylamine	2.263	42	622958	49687.5647743	ppb	99
5) Aniline	3.309	66	680236	49295.4914604	ppb	98
6) bis(2-Chloroethyl)ether	3.327	93	969108m	42741.6545494	ppb	
8) Phenol	3.262	94	1477698	49060.9381102	ppb	99
10) 2-Chlorophenol	3.374	128	1180858	48014.8982909	ppb	96
11) n-Decane	3.368	41	647247	45574.4048351	ppb	97
12) 1,3-Dichlorobenzene	3.456	146	1315927	47841.2414144	ppb	98
13) 1,4-Dichlorobenzene	3.497	146	1330938	47736.7408697	ppb	95
14) Benzyl Alcohol	3.544	79	1001789	49058.7620601	ppb	99
15) 1,2-Dichlorobenzene	3.579	146	1244615	47231.2924509	ppb	99
16) bis(2-Chloroisopropyl)...	3.615	121	401942	46403.6385747	ppb	93
17) 2,2-oxybis(1-chloropro...	3.615	121	401942	46403.6385747	ppb	93
18) 2-Methylphenol	3.591	108	1080860	48566.0269469	ppb	99
19) Hexachloroethane	3.767	117	508603	48879.3917505	ppb	96
20) N-Nitrosodi-n-propylamine	3.691	70	853557	47690.1375936	ppb	95
21) 3&4-Methyl phenol	3.673	107	1223241	48489.8861945	ppb	99
25) Nitrobenzene	3.803	77	1222991	47406.8069521	ppb	97
26) Isophorone	3.932	82	2225764	47660.3242808	ppb	100
27) 2-Nitrophenol	3.979	139	650137	53107.2626921	ppb	95
28) 2,4-Dimethylphenol	3.979	107	1105027	47500.4362222	ppb	98
29) bis(2-Chlorethoxy)methane	4.044	93	1339255	47874.2218969	ppb	97
30) 2,4-Dichlorophenol	4.120	162	986627	49409.6921030	ppb	95
32) 1,2,4-Trichlorobenzene	4.173	180	1083148	47613.7352810	ppb	98
34) Naphthalene	4.232	128	3370864m	46258.6757828	ppb	
35) 4-Chloroaniline	4.249	65	423564	48507.7639494	ppb	98
36) Hexachloro-1,3-butadiene	4.296	225	660223	48150.0402991	ppb	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:38:48 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration

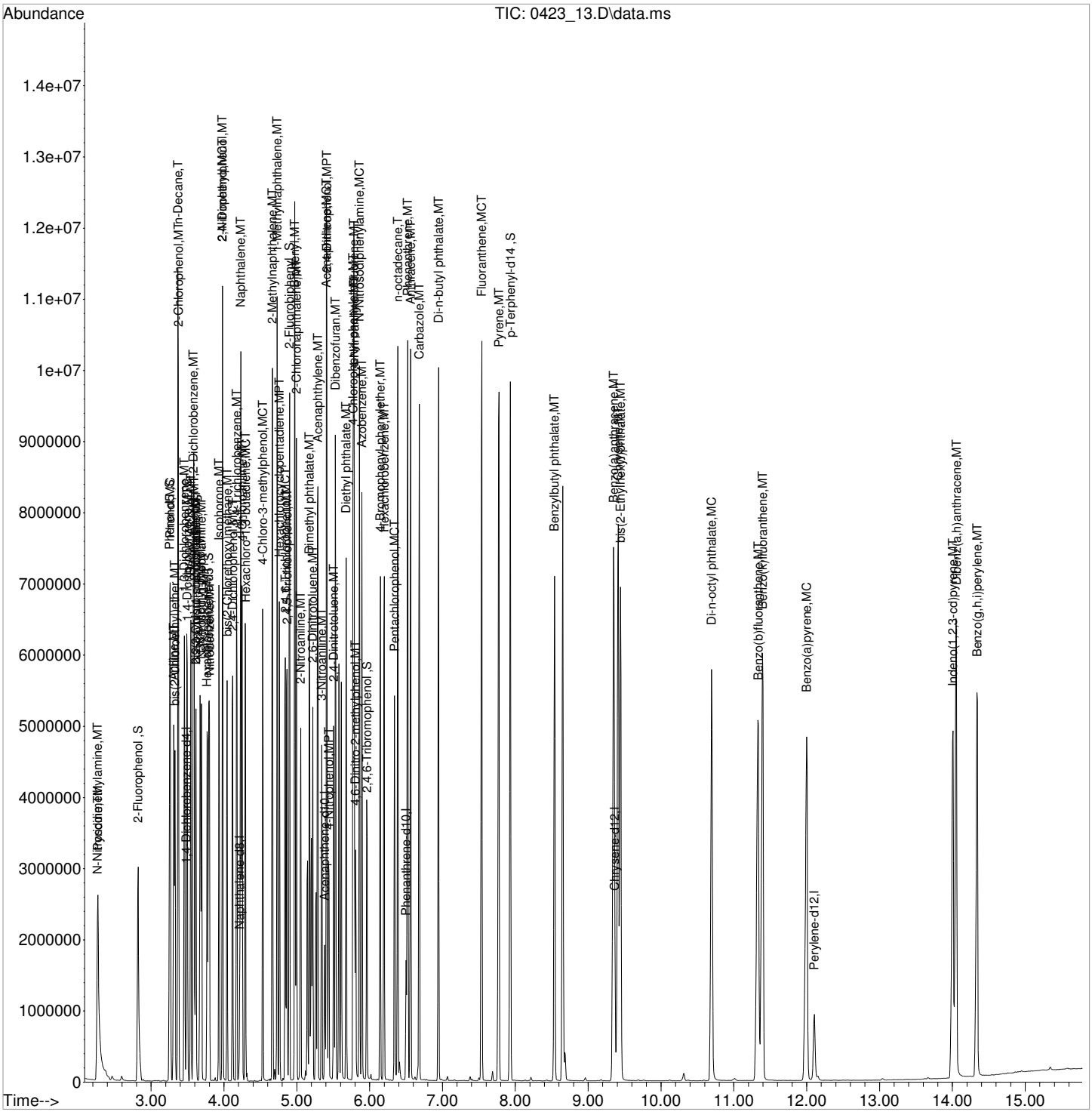
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.531	107	1000935	51324.1944912	ppb		96
41)	2-Methylnaphthalene	4.666	142	2319491	49661.6730823	ppb		99
42)	1-Methylnaphthalene	4.731	142	2187524	49369.9896406	ppb		99
47)	Hexachlorocyclopentadiene	4.760	237	839290	50289.7774602	ppb		99
48)	2,4,6-Trichlorophenol	4.843	196	768054	53564.0928078	ppb		94
49)	2,4,5-Trichlorophenol	4.866	196	748339	48154.2086438	ppb		96
51)	Biphenyl	4.972	154	2779985	46970.6395576	ppb		99
52)	2-Chloronaphthalene	4.995	162	2164610	47029.3443426	ppb		99
53)	2-Nitroaniline	5.054	138	772221	54207.3705852	ppb		100
54)	Acenaphthylene	5.289	152	3316162	48677.8888163	ppb		99
55)	Dimethyl phthalate	5.172	163	2403497	49391.7833492	ppb		97
56)	2,6-Dinitrotoluene	5.219	165	575077	51662.6212713	ppb		95
57)	3-Nitroaniline	5.342	138	621144	51662.5883442	ppb		85
58)	Acenaphthene	5.407	153	2237143	48381.6404335	ppb		97
59)	2,4-Dinitrophenol	5.413	184	349030	74726.1041586	ppb	#	15
60)	Dibenzofuran	5.530	168	3041970	47543.2727879	ppb		100
61)	2,4-Dinitrotoluene	5.507	165	783101	56057.5464436	ppb		91
63)	4-Nitrophenol	5.442	139	486907	50597.6441761	ppb		91
64)	Fluorene	5.783	166	2485633	47860.6425102	ppb		99
65)	4-Chlorophenyl-phenyle...	5.771	204	1262736	48395.4568597	ppb		94
66)	Diethyl phthalate	5.677	149	2198395	45180.5663174	ppb		99
67)	4-Nitroaniline	5.789	138	490355	44597.6047993	ppb		96
68)	Azobenzene	5.894	77	2429789	47878.0252520	ppb		99
71)	4,6-Dinitro-2-methylph...	5.806	198	408812	71768.6778619	ppb		86
72)	N-Nitrosodiphenylamine	5.859	169	2161172	55032.1636043	ppb		98
74)	4-Bromophenyl-phenylether	6.147	248	779668	54769.0271175	ppb		90
75)	Hexachlorobenzene	6.200	284	884021	54863.4811853	ppb		99
76)	n-octadecane	6.388	55	362794	50758.2617361	ppb		99
77)	Pentachlorophenol	6.341	266	529395	62809.3060470	ppb		97
78)	Phenanthrene	6.523	178	3366992	47252.2029482	ppb		99
79)	Anthracene	6.564	178	3509086	48656.9782613	ppb		99
80)	Carbazole	6.682	167	3236760	50413.1311566	ppb		100
81)	Di-n-butyl phthalate	6.946	149	4146399	53742.3490719	ppb		99
83)	Fluoranthene	7.540	202	4237058	53576.5555388	ppb		99
86)	Pyrene	7.775	202	4416710	48036.7026409	ppb		98
88)	Benzylbutyl phthalate	8.538	149	1889842	51982.3565765	ppb		98
90)	Benzo(a)anthracene	9.349	228	4407921	50228.6381464	ppb		99
91)	Chrysene	9.414	228	4148132	47997.7664302	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.443	149	2677094	52094.6742248	ppb		99
93)	Di-n-octyl phthalate	10.695	149	4550062	55371.8330458	ppb		99
95)	Benzo(b)fluoranthene	11.335	252	4374434	51648.2482503	ppb		98
96)	Benzo(k)fluoranthene	11.394	252	4314117	50325.6013838	ppb		99
97)	Benzo(a)pyrene	11.999	252	3831416	52255.6764658	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.009	276	3237713	46972.4133195	ppb		99
99)	Dibenz(a,h)anthracene	14.056	278	3824181	48494.0971644	ppb		98
100)	Benzo(g,h,i)perylene	14.344	276	3298970	42162.4969643	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

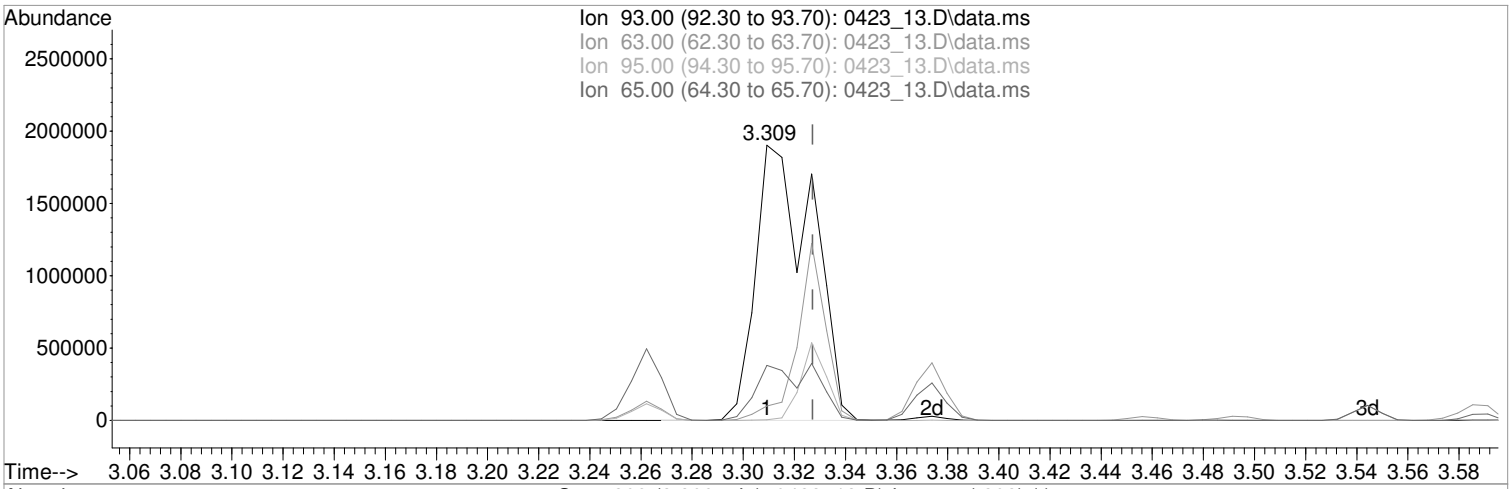
Quant Time: May 02 12:38:48 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration

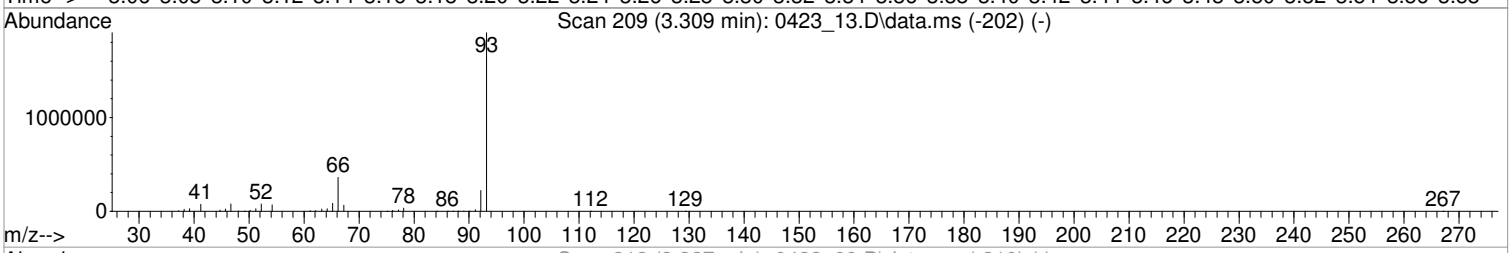


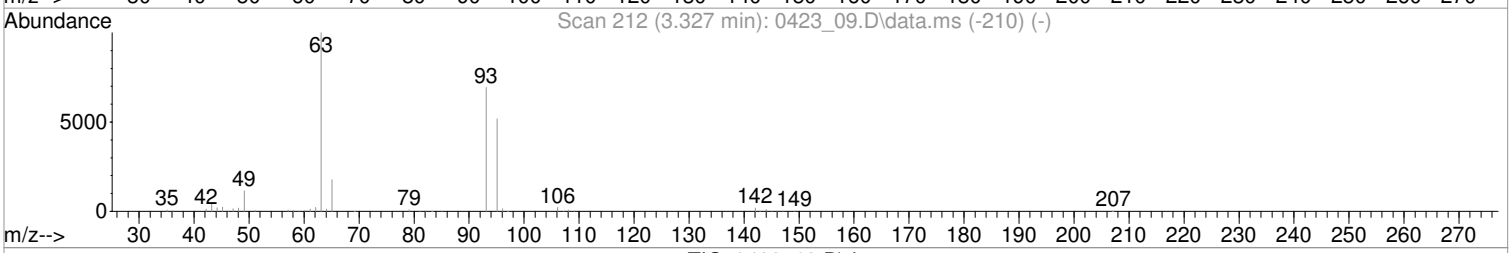
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration







TIC: 0423_13.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.018) 129935.6742158 ppb

Qvalue = 41

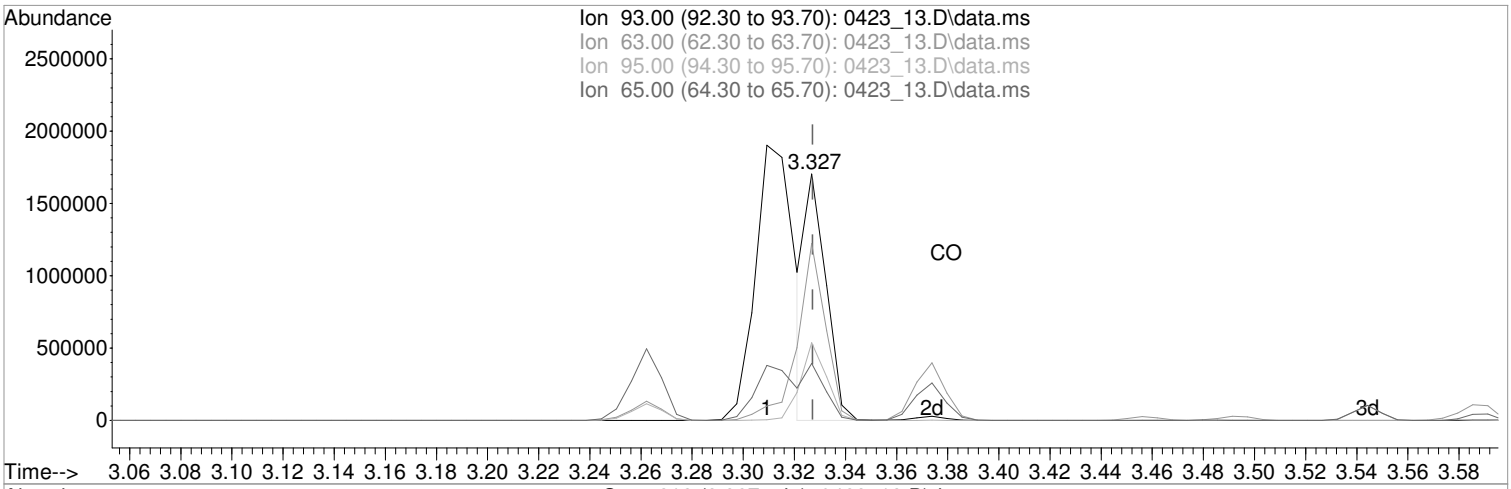
response 2946112

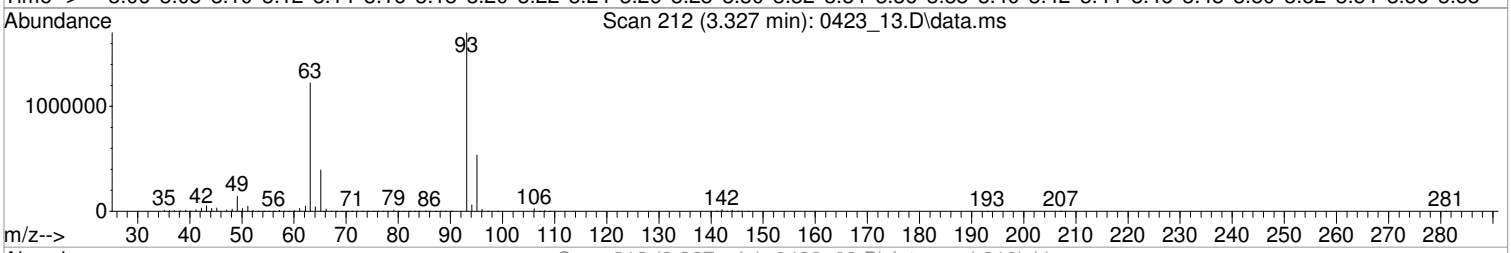
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.25#
95.00	32.50	0.21#
65.00	22.20	19.96

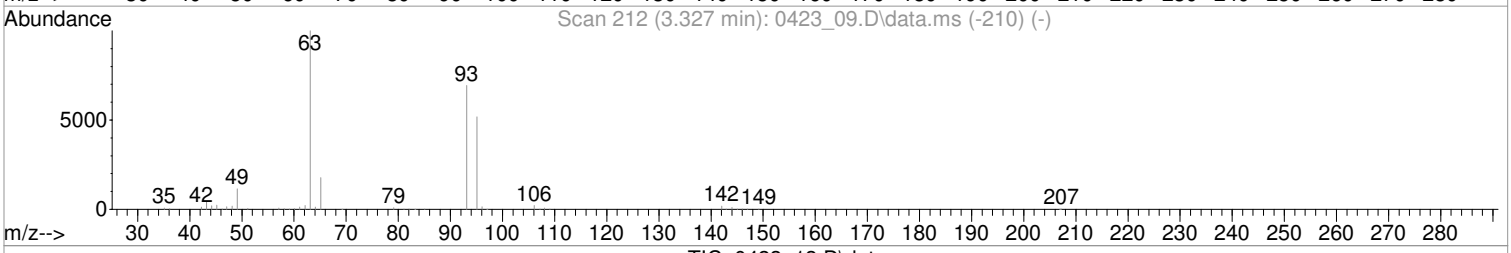
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration







TIC: 0423_13.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.327min (-0.000) 42741.6545494 ppb m

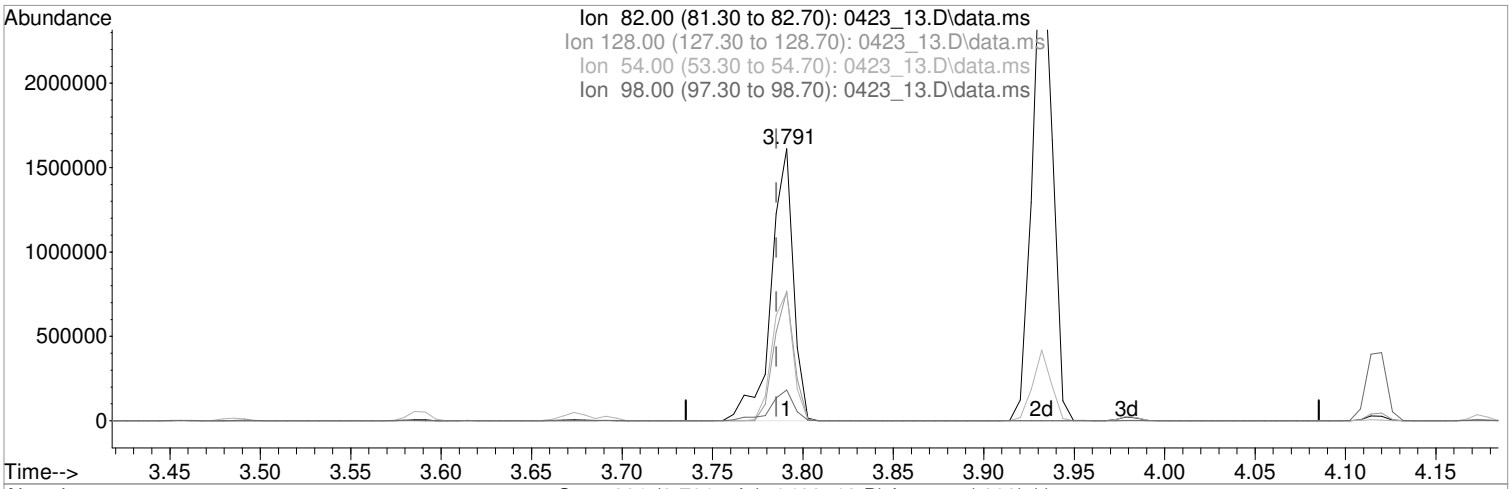
response 969108

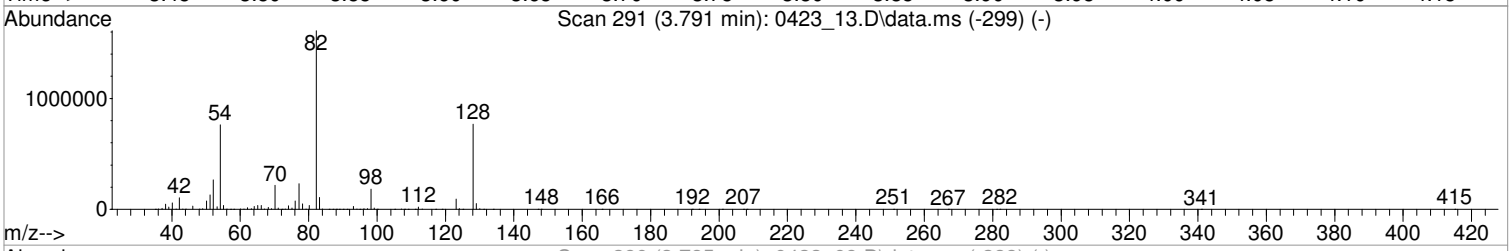
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.89
95.00	32.50	31.62
65.00	22.20	23.14

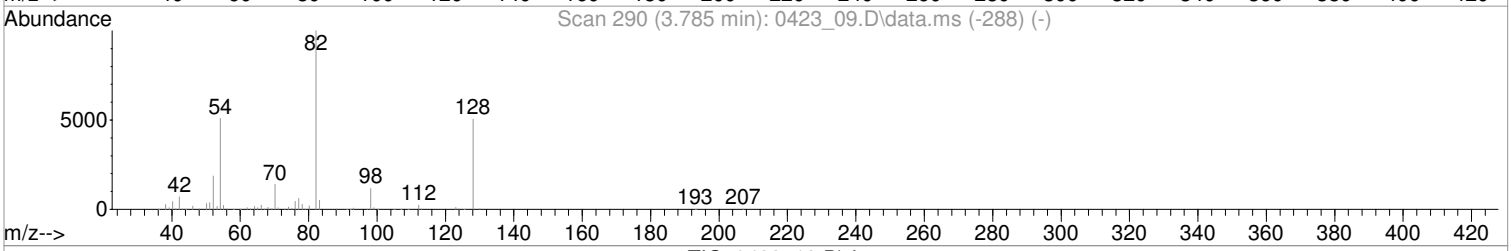
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration







TIC: 0423_13.D\data.ms

(24) Nitrobenzene-d5 (S)

3.791min (+0.006) 53257.7308417 ppb

Qvalue = 99

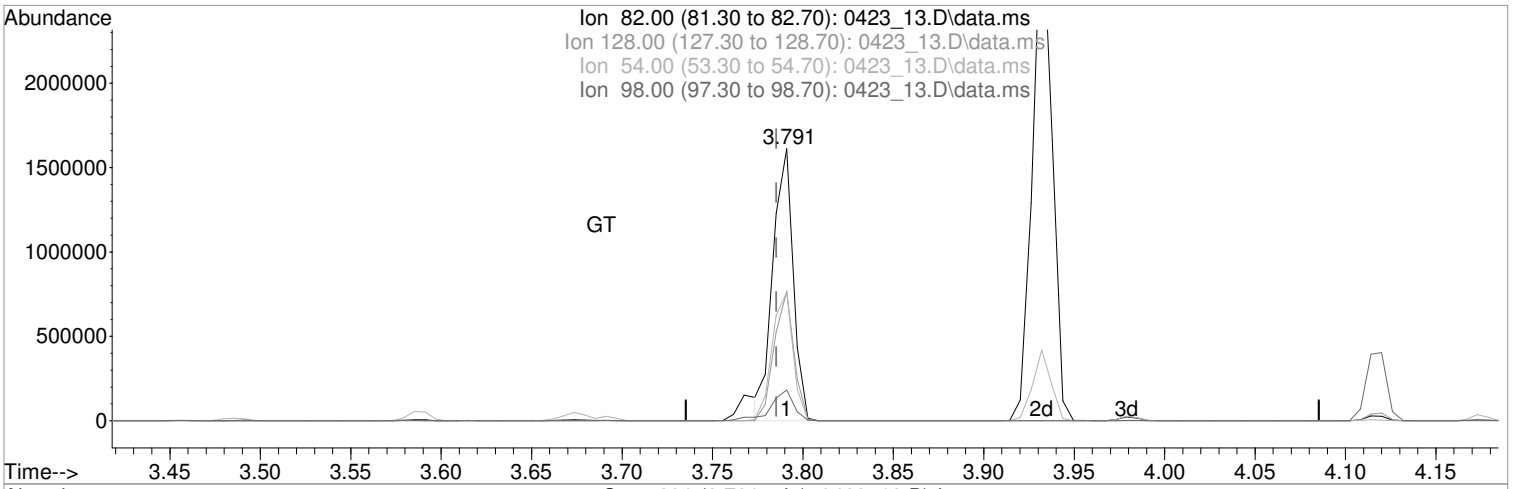
response 1373994

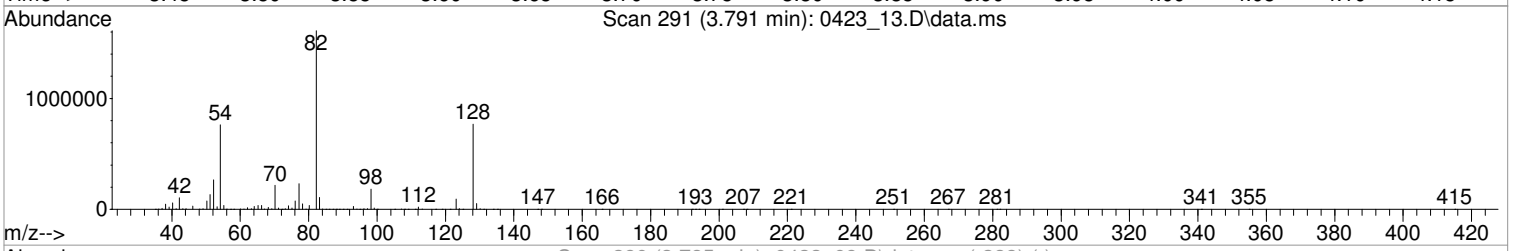
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.71
54.00	48.70	47.25
98.00	12.00	11.36

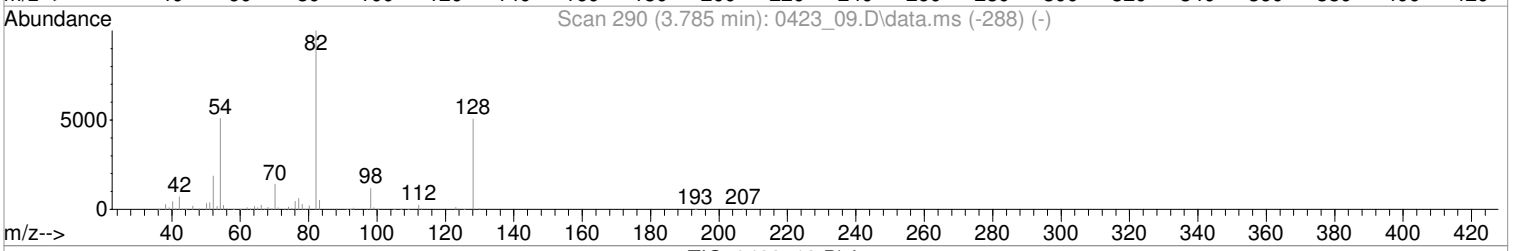
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration







TIC: 0423_13.D\data.ms

(24) Nitrobenzene-d5 (S)

3.791min (+0.006) 48738.0523065 ppb m

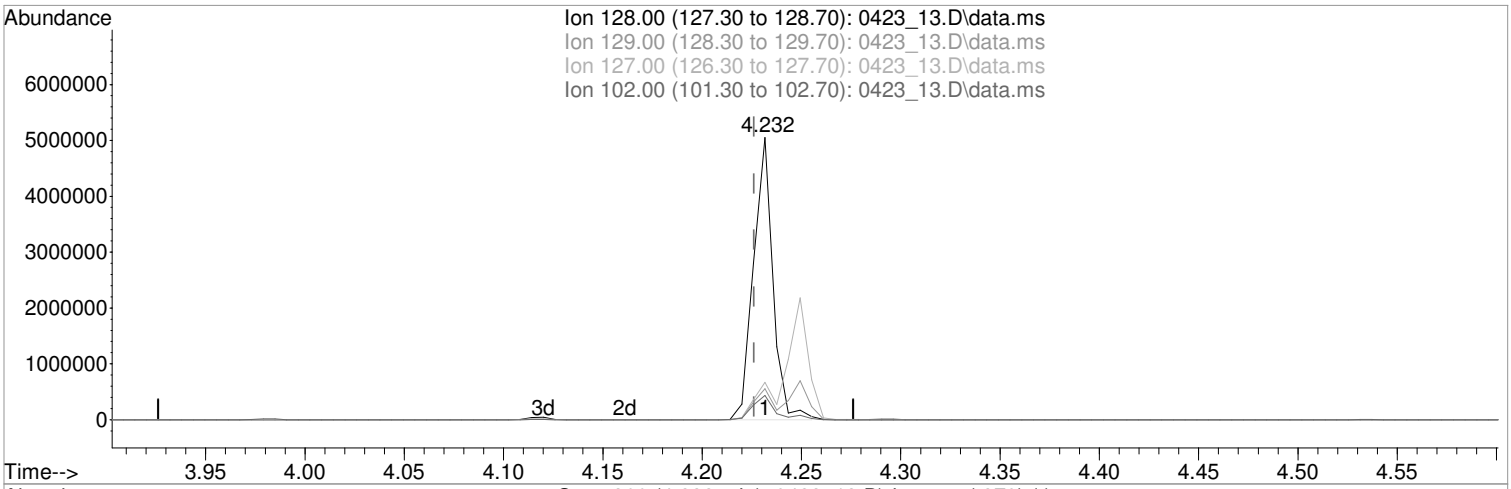
response 1257391

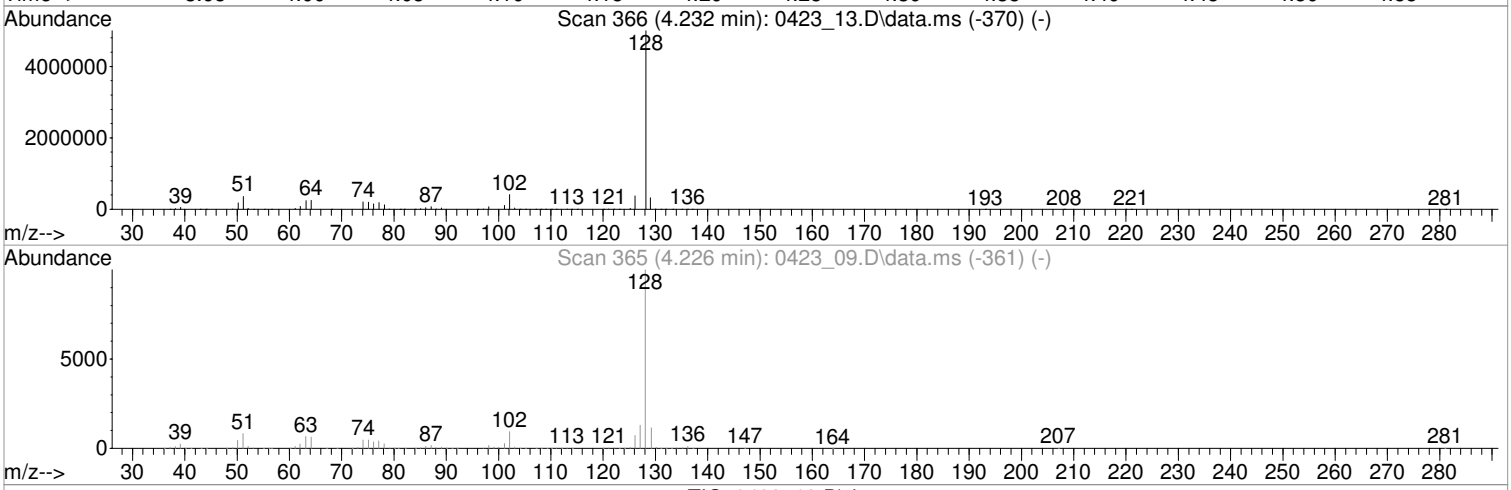
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.71
54.00	48.70	47.27
98.00	12.00	11.36

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration





TIC: 0423_13.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 47325.8382858 ppb

Qvalue = 99

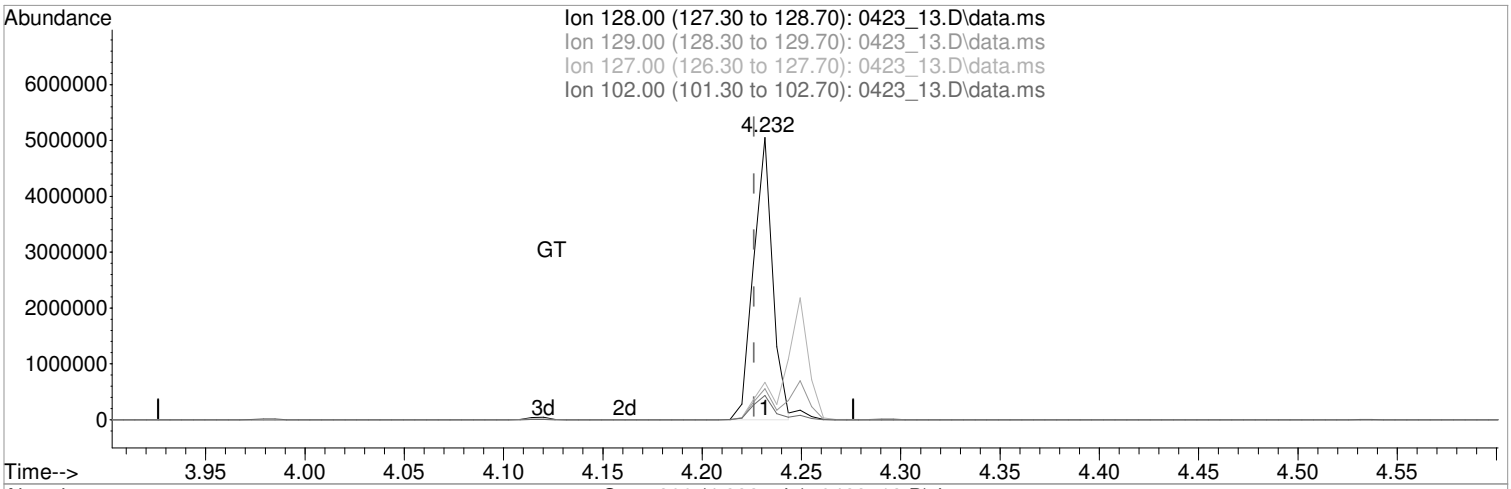
response 3448628

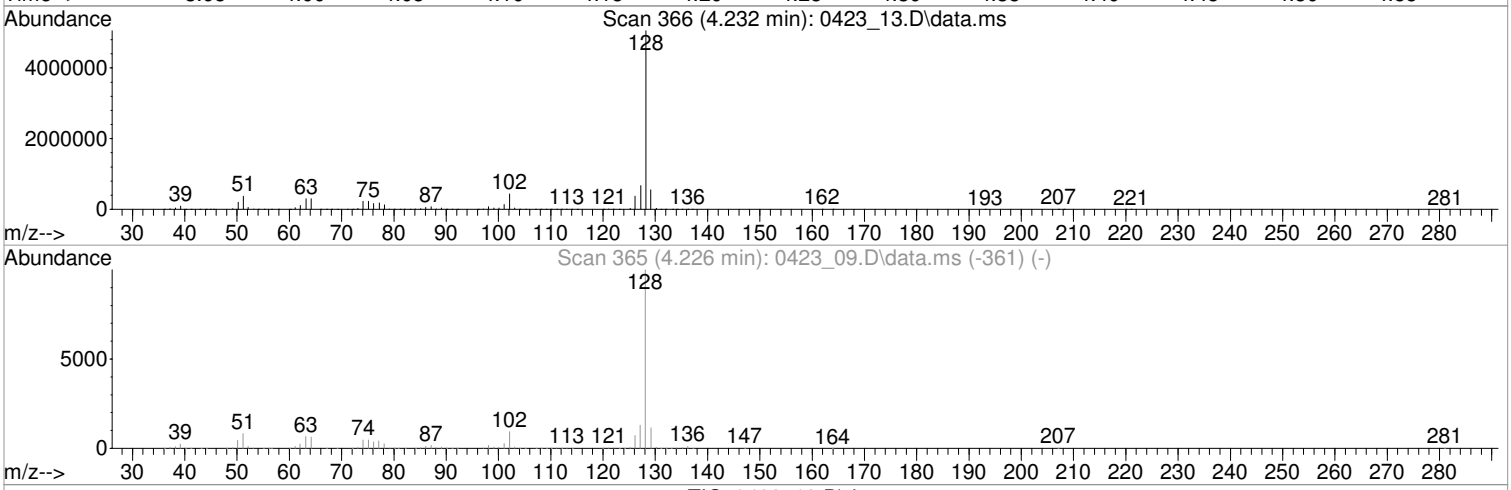
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.99
127.00	12.90	13.29
102.00	9.20	8.64

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_13.D
Acq On : 23 Apr 2022 1:08 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22D19627 exp 10/1/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 02 12:36:37 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Mon May 02 12:36:33 2022
Response via : Initial Calibration





TIC: 0423_13.D\data.ms

(34) Naphthalene (MT)

4.232min (+0.006) 46258.6757828 ppb m

response 3370864

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.99
127.00	12.90	13.29
102.00	9.20	8.64

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_29.D
Acq On : 3 May 2022 9:20 am
Operator : 3545
Sample : STD TCL 4K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 22 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:28:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:27:31 2022
Response via : Initial Calibration

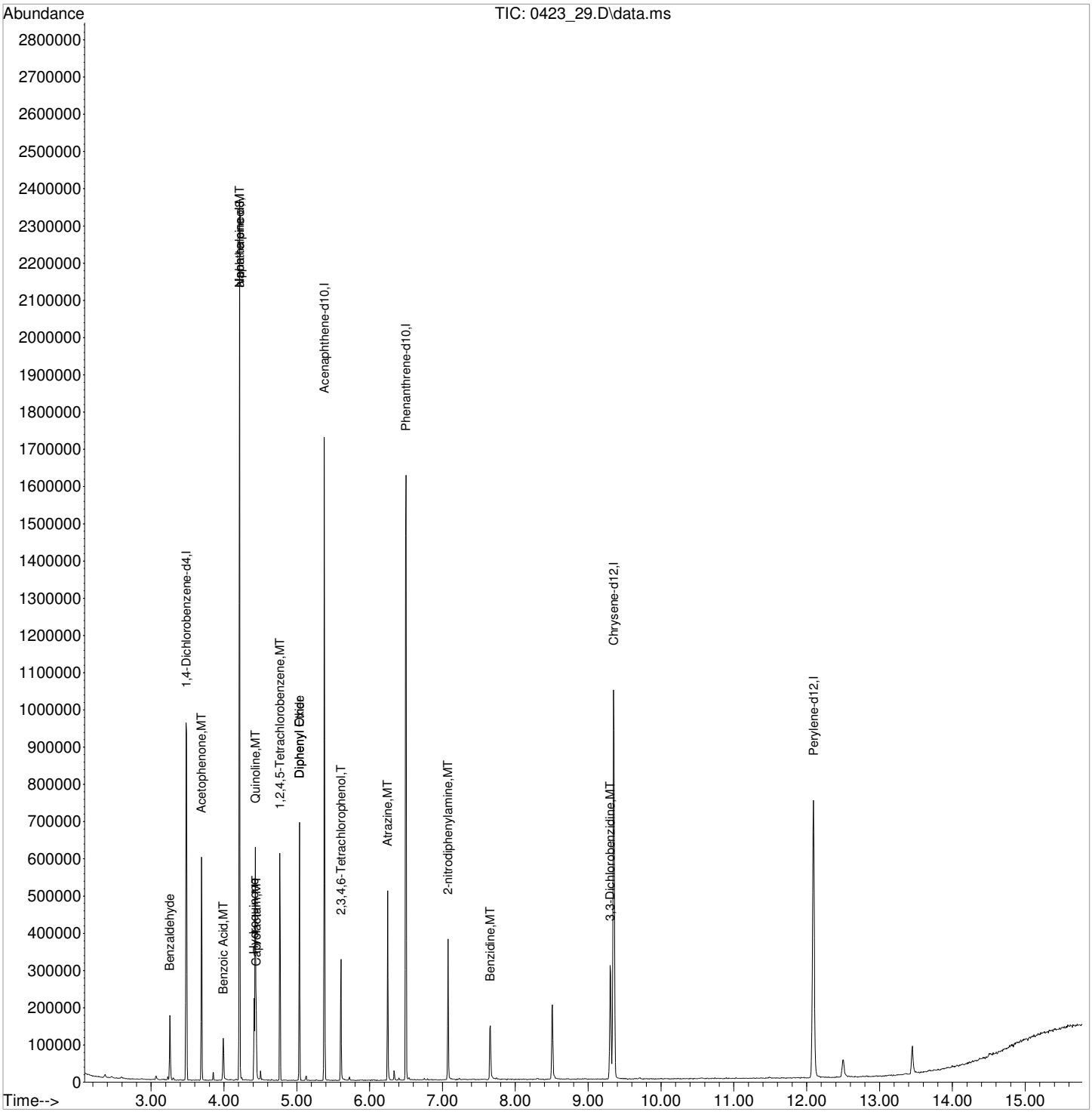
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	142348	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	583661	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	270863	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	552800	8000.0000000	ppb	0.00
84) Chrysene-d12	9.350	240	505356	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	481731	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.257	105	30501	3889.0032831	ppb	99
22) Acetophenone	3.691	105	124206	3868.5251001	ppb	100
31) Benzoic Acid	3.991	105	28859	3293.5607888	ppb	98
33) alpha-terpineol	4.214	59	70081	4500.6637936	ppb	98
37) Hydroquinone	4.414	110	53276	3354.2583000	ppb	98
38) Quinoline	4.432	129	161744	4318.2098137	ppb	99
39) Caprolactam	4.443	113	15079	3404.3406017	ppb	96
43) 1,2,4,5-Tetrachloroben...	4.767	216	81727	4697.2316128	ppb	99
44) Diphenyl Ether	5.037	170	106059	4780.1291367	ppb	99
45) Diphenyl Oxide	5.037	170	106059	4780.1291367	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.607	232	34443	3462.2015655	ppb	98
69) Atrazine	6.247	200	46674	3722.6710662	ppb	99
82) 2-nitrodiphenylamine	7.076	167	39425	2901.2045587	ppb	97
85) Benzidine	7.657	184	69427	3227.7438488	ppb	98
89) 3,3-Dichlorobenzidine	9.303	252	96794	3561.6530480	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_29.D
Acq On : 3 May 2022 9:20 am
Operator : 3545
Sample : STD TCL 4K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 22 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:28:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:27:31 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_30.D
Acq On : 3 May 2022 9:41 am
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 23 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:24:38 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:23:44 2022
Response via : Initial Calibration

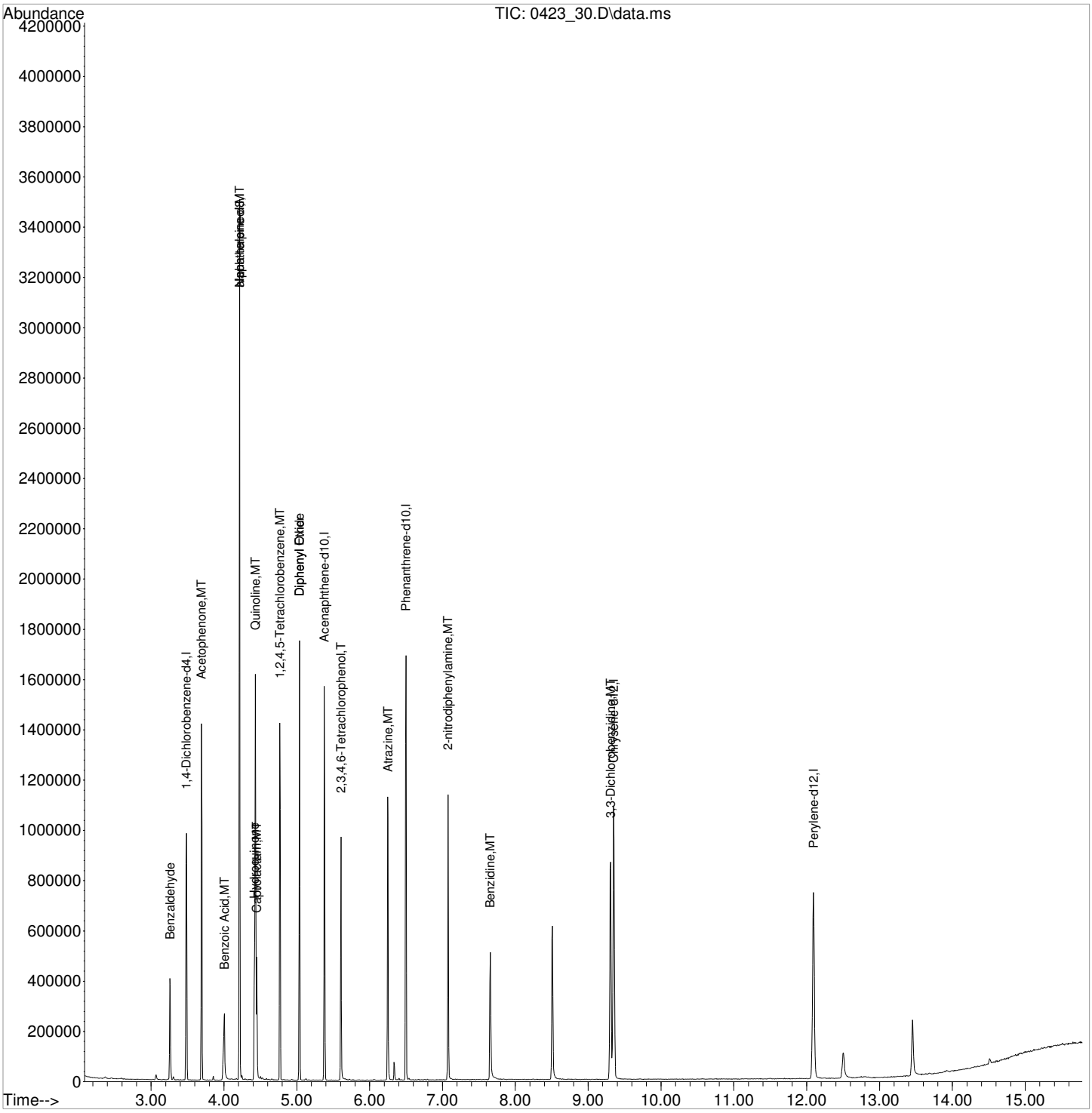
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	137100	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	623211	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.377	164	265688	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	540585	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	505541	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	470899	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.262	105	76428	10203.9570738	ppb	100
22) Acetophenone	3.691	105	308880	9916.4945423	ppb	100
31) Benzoic Acid	4.008	105	90271	8993.8021114	ppb	100
33) alpha-terpineol	4.214	59	180242	10672.9407498	ppb	100
37) Hydroquinone	4.420	110	147467m	8716.5997382	ppb	
38) Quinoline	4.432	129	403013	10135.2128875	ppb	100
39) Caprolactam	4.449	113	46437	9772.0259564	ppb	100
43) 1,2,4,5-Tetrachloroben...	4.766	216	202619	10940.0608899	ppb	100
44) Diphenyl Ether	5.037	170	264531	11072.0056771	ppb	100
45) Diphenyl Oxide	5.037	170	264531	11072.0056771	ppb	100
62) 2,3,4,6-Tetrachlorophenol	5.607	232	94307	9457.8683712	ppb	100
69) Atrazine	6.253	200	121741	9731.9214302	ppb	100
82) 2-nitrodiphenylamine	7.076	167	126193	8807.0273625	ppb	100
85) Benzidine	7.657	184	219590	9253.5273302	ppb	100
89) 3,3-Dichlorobenzidine	9.308	252	264414	9638.3719018	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_30.D
Acq On : 3 May 2022 9:41 am
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 23 Sample Multiplier: 1
InstName : BNAMS2

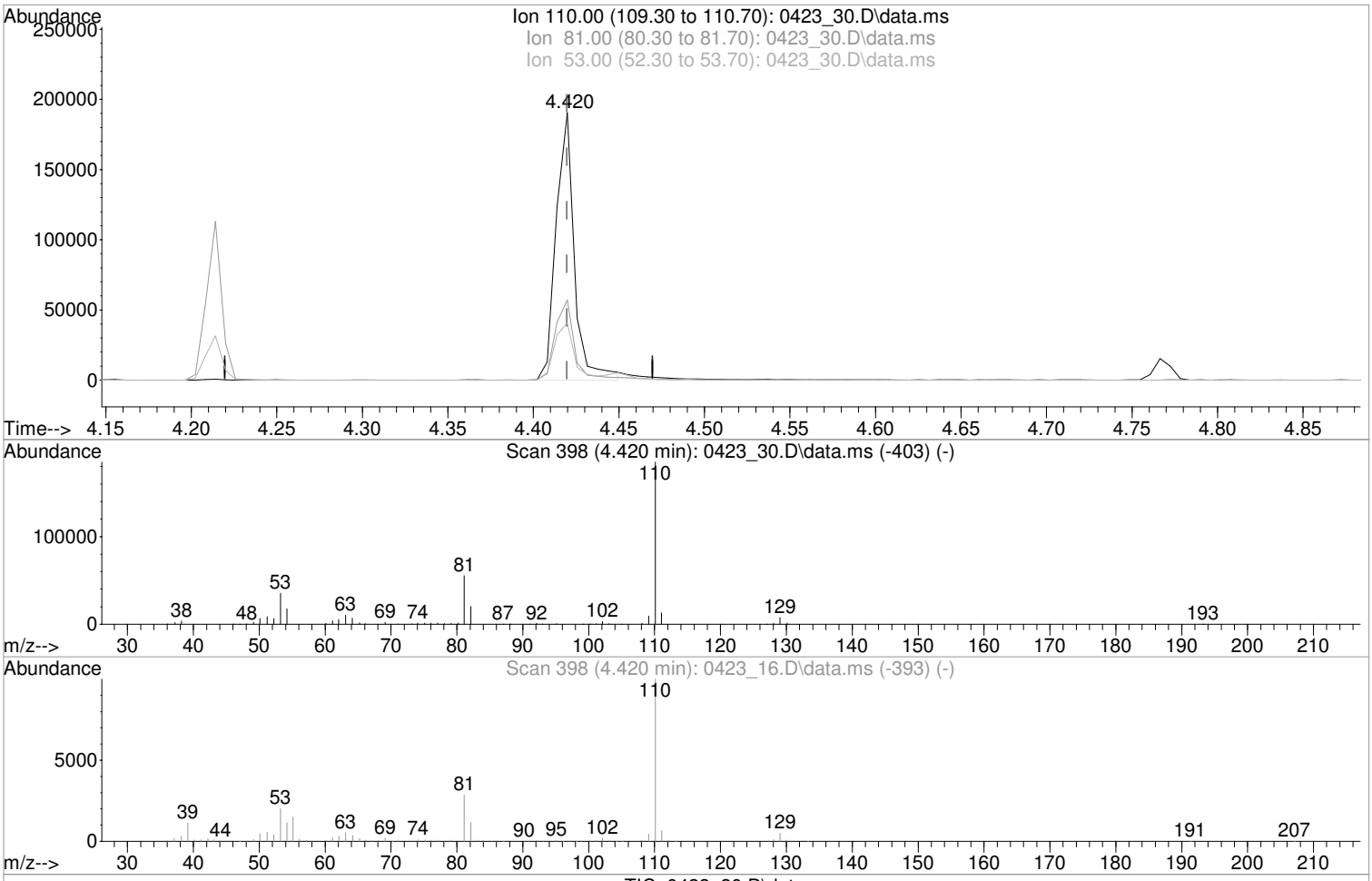
Quant Time: May 03 16:24:38 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:23:44 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_30.D
Acq On : 3 May 2022 9:41 am
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 23 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:23:56 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:23:44 2022
Response via : Initial Calibration



TIC: 0423_30.D\data.ms

(37) Hydroquinone

4.420min (0.000) 8373.7686066 ppb

Qvalue = 100

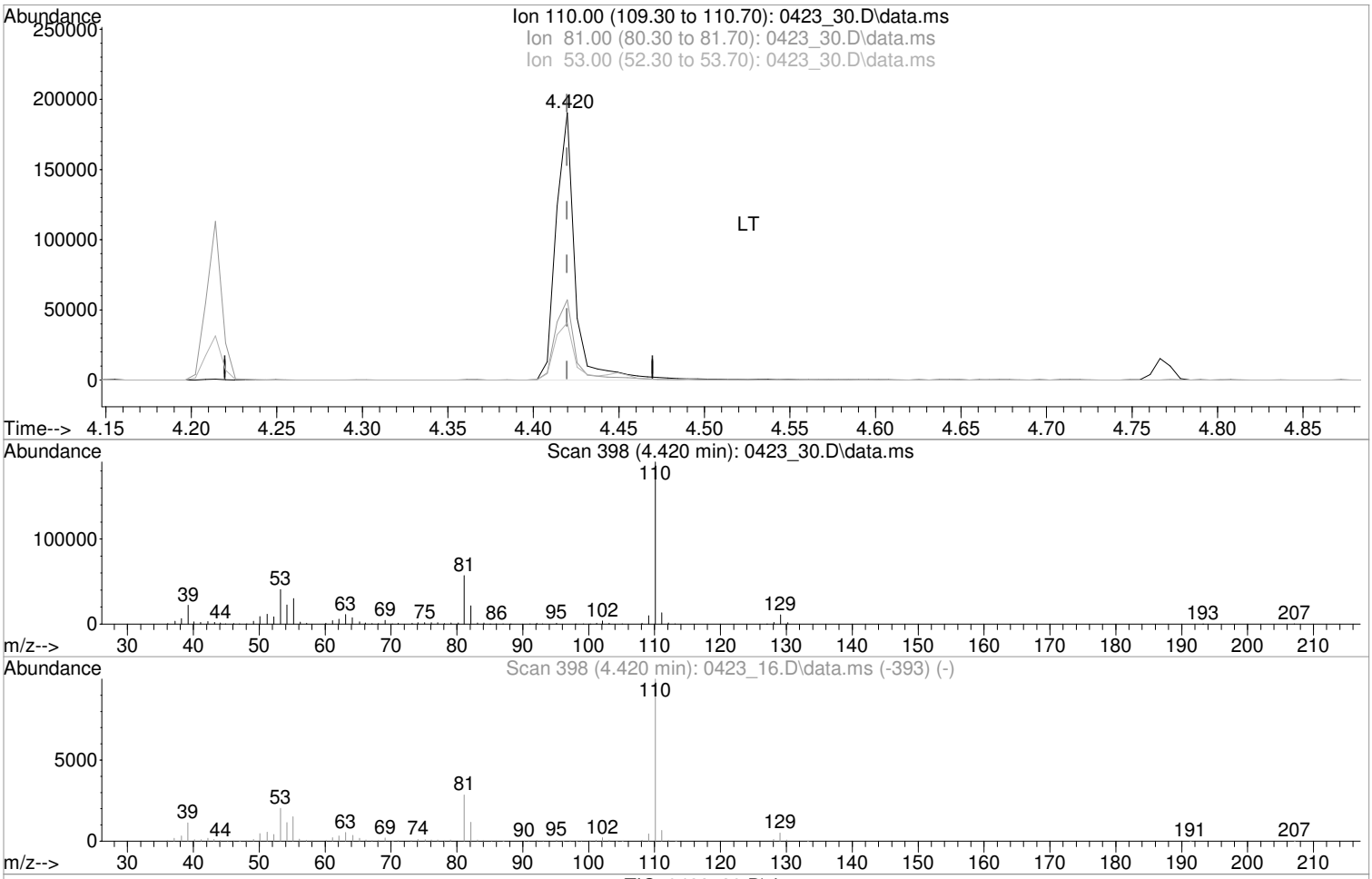
response 141667

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.99
53.00	21.40	21.39
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_30.D
Acq On : 3 May 2022 9:41 am
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 23 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:23:56 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:23:44 2022
Response via : Initial Calibration



TIC: 0423_30.D\data.ms

(37) Hydroquinone

4.420min (0.000) 8716.5997382 ppb m

response 147467

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.99
53.00	21.40	21.39
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_31.D
Acq On : 3 May 2022 10:02 am
Operator : 3545
Sample : STD TCL 20K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 24 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:29:32 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:28:40 2022
Response via : Initial Calibration

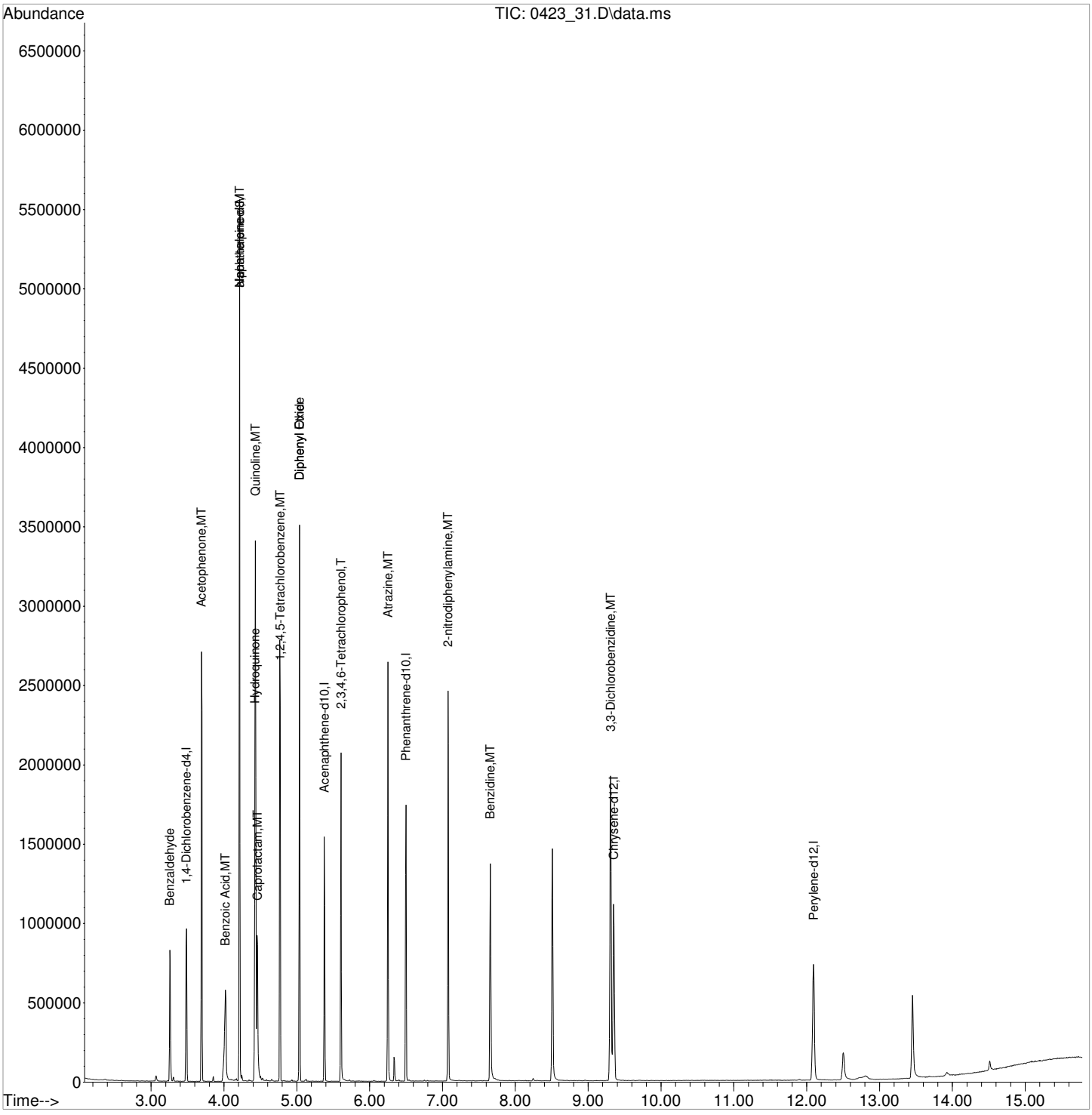
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	137987	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	714967	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	266500	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	547969	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	523839	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	484160	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.256	105	155864	20527.9559946	ppb	98
22) Acetophenone	3.691	105	636551	20640.4128477	ppb	99
31) Benzoic Acid	4.020	105	232598	21847.4132595	ppb	100
33) alpha-terpineol	4.214	59	375462	19972.2379724	ppb	100
37) Hydroquinone	4.426	110	410210m	21305.4616396	ppb	
38) Quinoline	4.432	129	844405	18421.9658380	ppb	99
39) Caprolactam	4.461	113	114317	21224.1104602	ppb	93
43) 1,2,4,5-Tetrachloroben...	4.772	216	415916	19654.2824596	ppb	99
44) Diphenyl Ether	5.037	170	539108	19912.6575165	ppb	100
45) Diphenyl Oxide	5.037	170	539108	19912.6575165	ppb	100
62) 2,3,4,6-Tetrachlorophenol	5.607	232	198170	20583.8458927	ppb	98
69) Atrazine	6.253	200	250356	20573.6419092	ppb	99
82) 2-nitrodiphenylamine	7.076	167	300312	22863.1503411	ppb	98
85) Benzidine	7.657	184	547892	18506.9900777	ppb	99
89) 3,3-Dichlorobenzidine	9.308	252	580430	20887.1658394	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_31.D
Acq On : 3 May 2022 10:02 am
Operator : 3545
Sample : STD TCL 20K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 24 Sample Multiplier: 1
InstName : BNAMS2

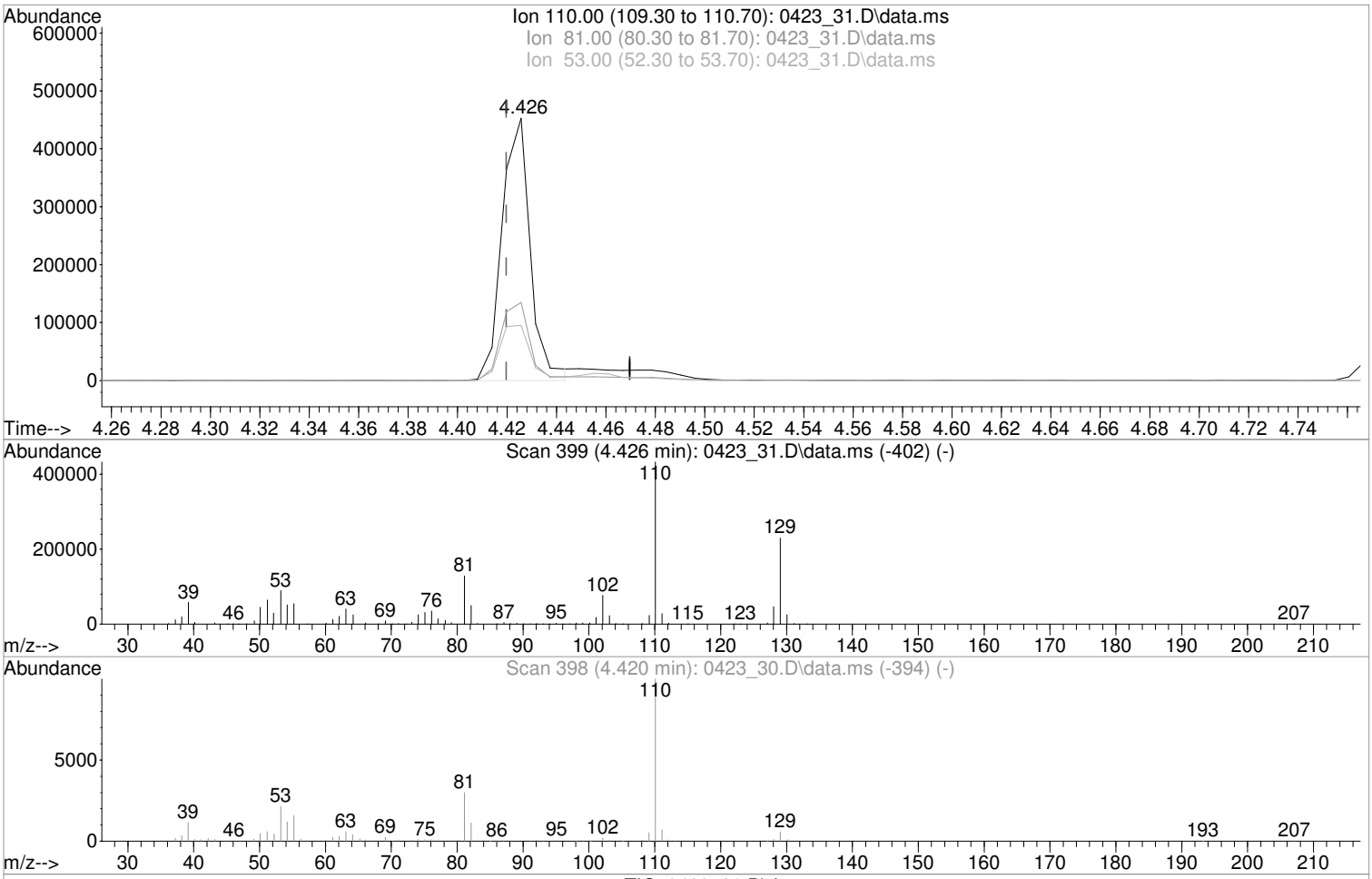
Quant Time: May 03 16:29:32 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:28:40 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_31.D
Acq On : 3 May 2022 10:02 am
Operator : 3545
Sample : STD TCL 20K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 24 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:28:44 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:28:40 2022
Response via : Initial Calibration



TIC: 0423_31.D\data.ms

(37) Hydroquinone

4.426min (+0.006) 18611.2849700 ppb

Qvalue = 99

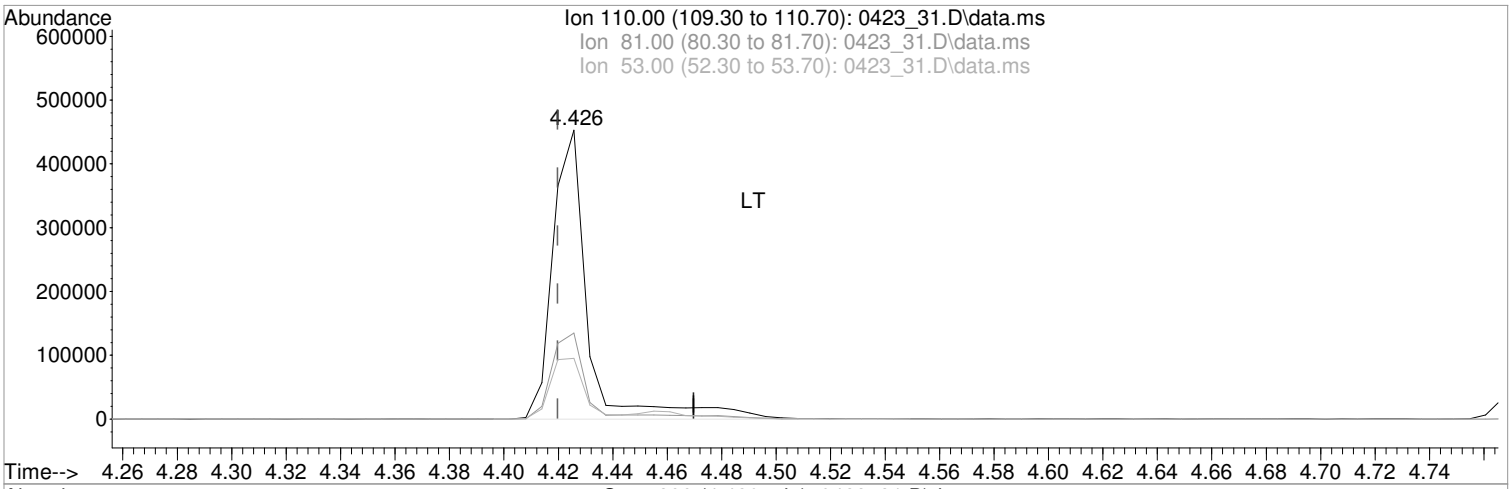
response 358337

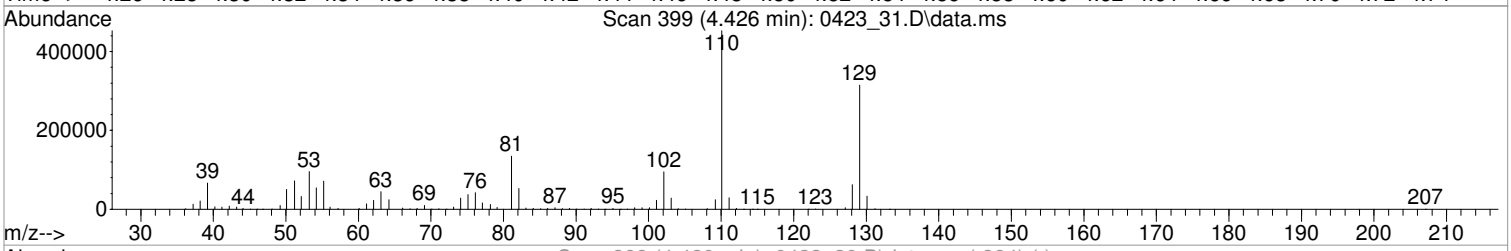
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.80
53.00	21.40	21.07
0.00	0.00	0.00

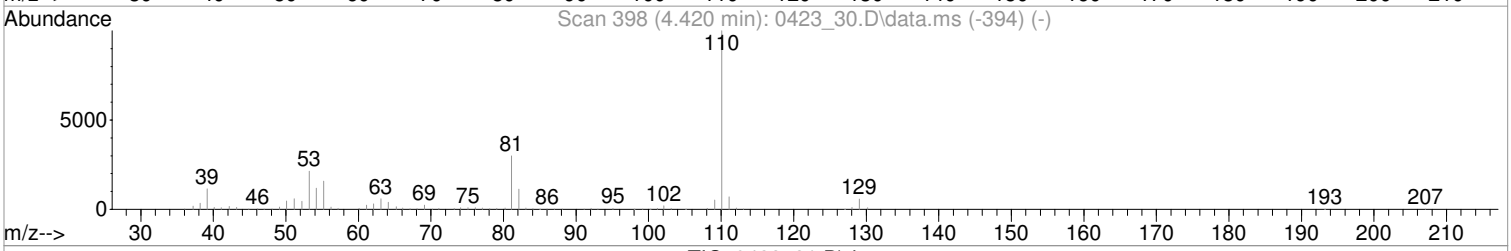
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_31.D
Acq On : 3 May 2022 10:02 am
Operator : 3545
Sample : STD TCL 20K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 24 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:28:44 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:28:40 2022
Response via : Initial Calibration







TIC: 0423_31.D\data.ms

(37) Hydroquinone

4.426min (+0.006) 21305.4616396 ppb m

response 410210

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.80
53.00	21.40	21.07
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_32.D
Acq On : 3 May 2022 10:23 am
Operator : 3545
Sample : STD TCL 30K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:30:49 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:29:53 2022
Response via : Initial Calibration

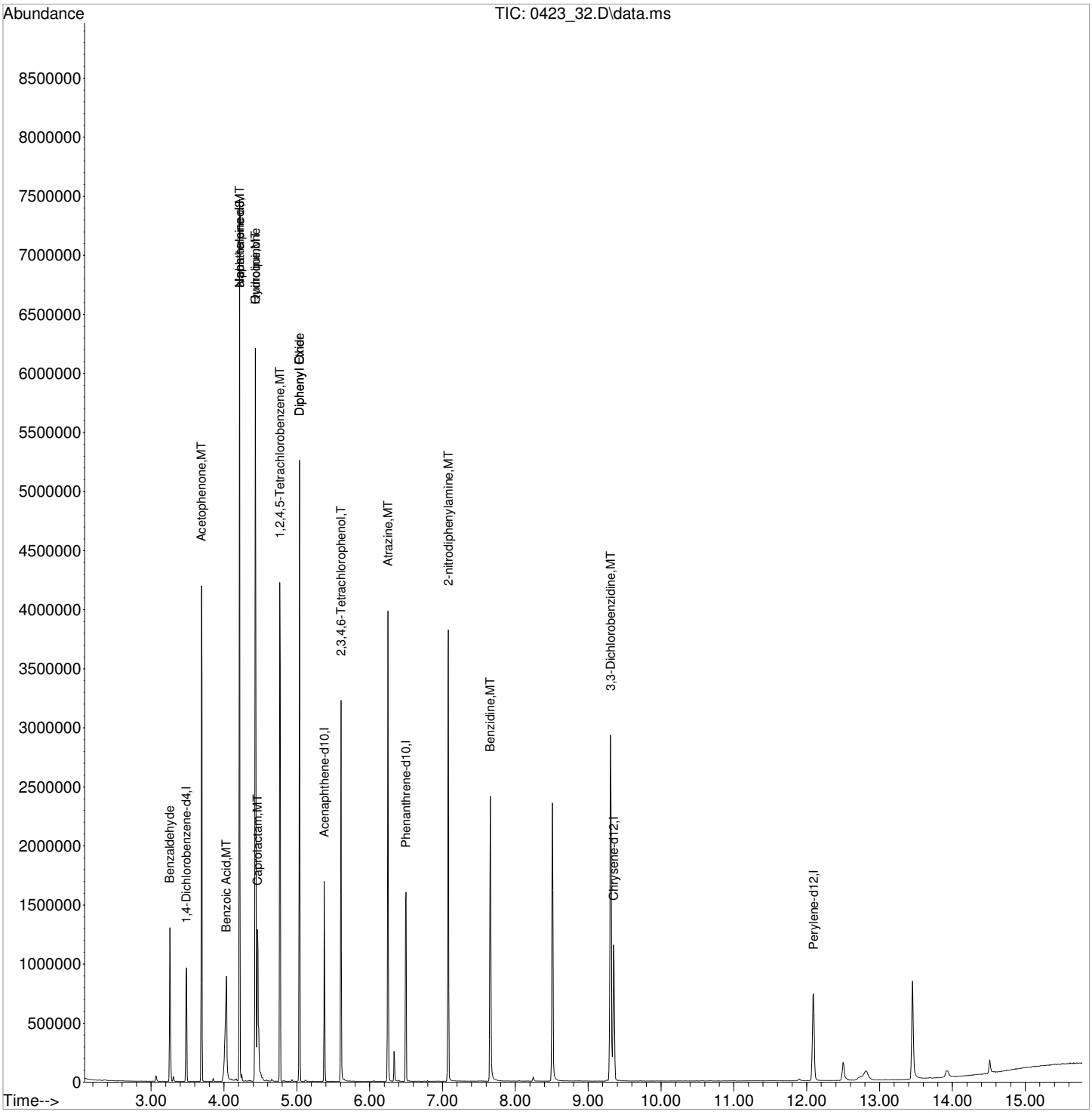
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	137573	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	788915	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	268479	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	552667	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	537161	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	494891	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.257	105	234767	30655.6699988	ppb	99
22) Acetophenone	3.691	105	965616	31305.5542658	ppb	99
31) Benzoic Acid	4.032	105	400352	34582.7715792	ppb	97
33) alpha-terpineol	4.214	59	569563	27566.2863017	ppb	98
37) Hydroquinone	4.432	110	660184m	31092.1434359	ppb	
38) Quinoline	4.432	129	1283789	25337.1829699	ppb	99
39) Caprolactam	4.461	113	188034	31682.1444606	ppb	95
43) 1,2,4,5-Tetrachloroben...	4.767	216	620398	26605.2848685	ppb	99
44) Diphenyl Ether	5.037	170	818075	27369.8599351	ppb	99
45) Diphenyl Oxide	5.037	170	818075	27369.8599351	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.607	232	309944	32062.9377138	ppb	98
69) Atrazine	6.253	200	378940	30992.1076560	ppb	98
82) 2-nitrodiphenylamine	7.081	167	487045	37074.3638484	ppb	97
85) Benzidine	7.657	184	953534	30668.5466009	ppb	100
89) 3,3-Dichlorobenzidine	9.308	252	914118	32205.6221337	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_32.D
Acq On : 3 May 2022 10:23 am
Operator : 3545
Sample : STD TCL 30K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

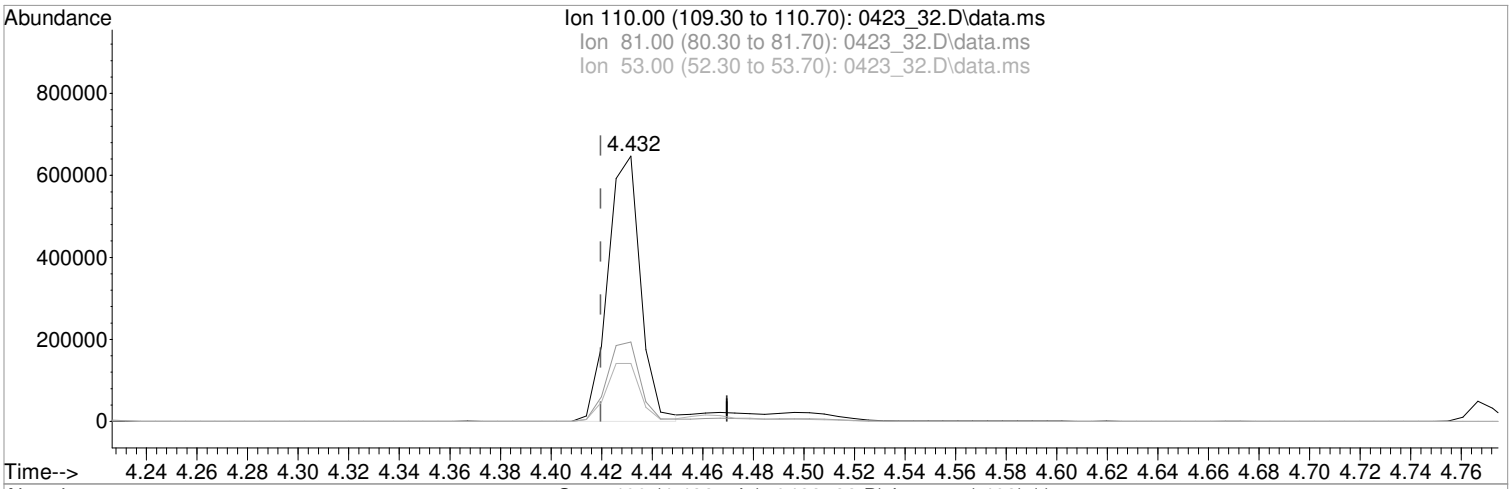
Quant Time: May 03 16:30:49 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:29:53 2022
Response via : Initial Calibration

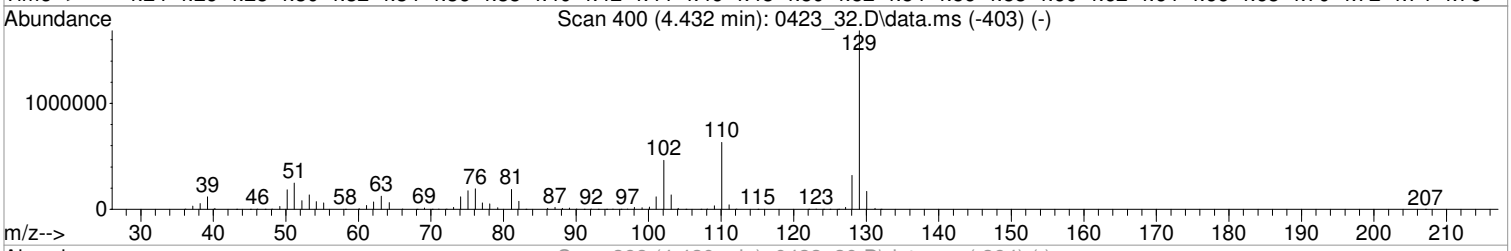


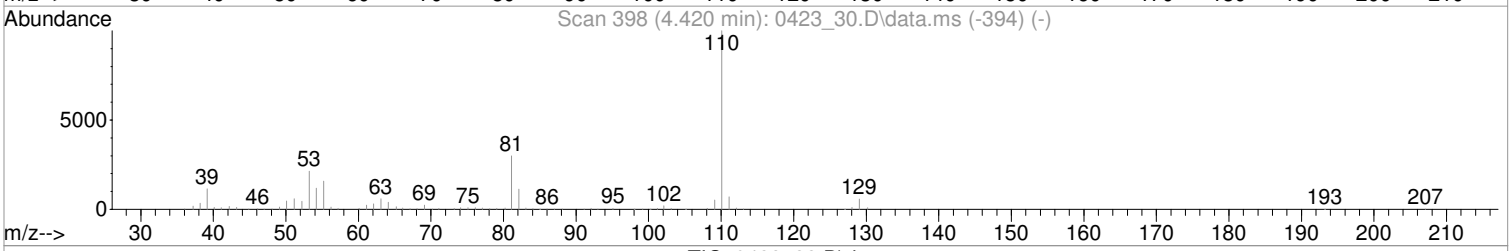
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_32.D
Acq On : 3 May 2022 10:23 am
Operator : 3545
Sample : STD TCL 30K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:29:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:29:53 2022
Response via : Initial Calibration







TIC: 0423_32.D\data.ms

(37) Hydroquinone

4.432min (+0.012) 27395.8469710 ppb

Qvalue = 100

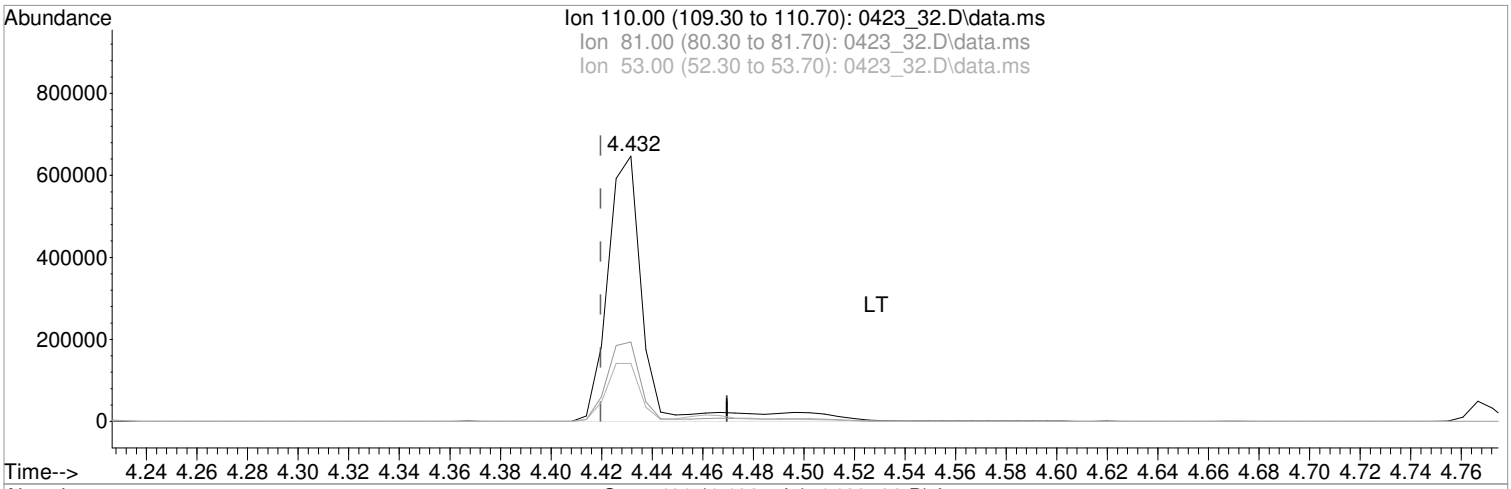
response 581700

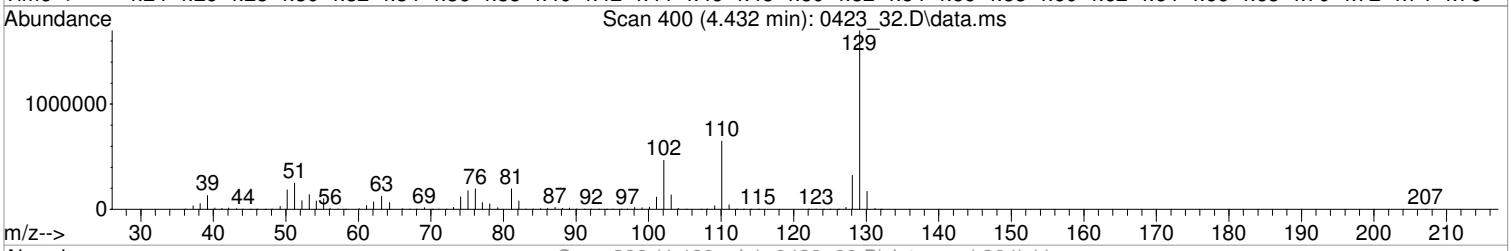
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.89
53.00	21.40	21.83
0.00	0.00	0.00

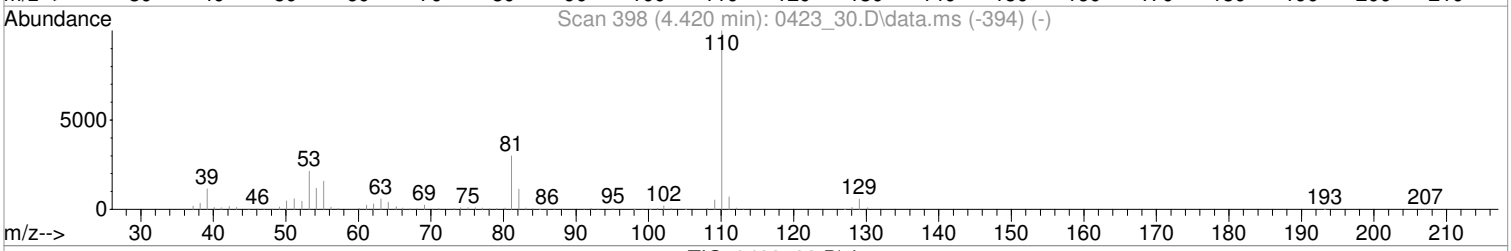
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_32.D
Acq On : 3 May 2022 10:23 am
Operator : 3545
Sample : STD TCL 30K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:29:57 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:29:53 2022
Response via : Initial Calibration







TIC: 0423_32.D\data.ms

(37) Hydroquinone

4.432min (+0.012) 31092.1434359 ppb m

response 660184

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.89
53.00	21.40	21.83
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_33.D
Acq On : 3 May 2022 10:44 am
Operator : 3545
Sample : STD TCL 40K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 26 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:32:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:31:11 2022
Response via : Initial Calibration

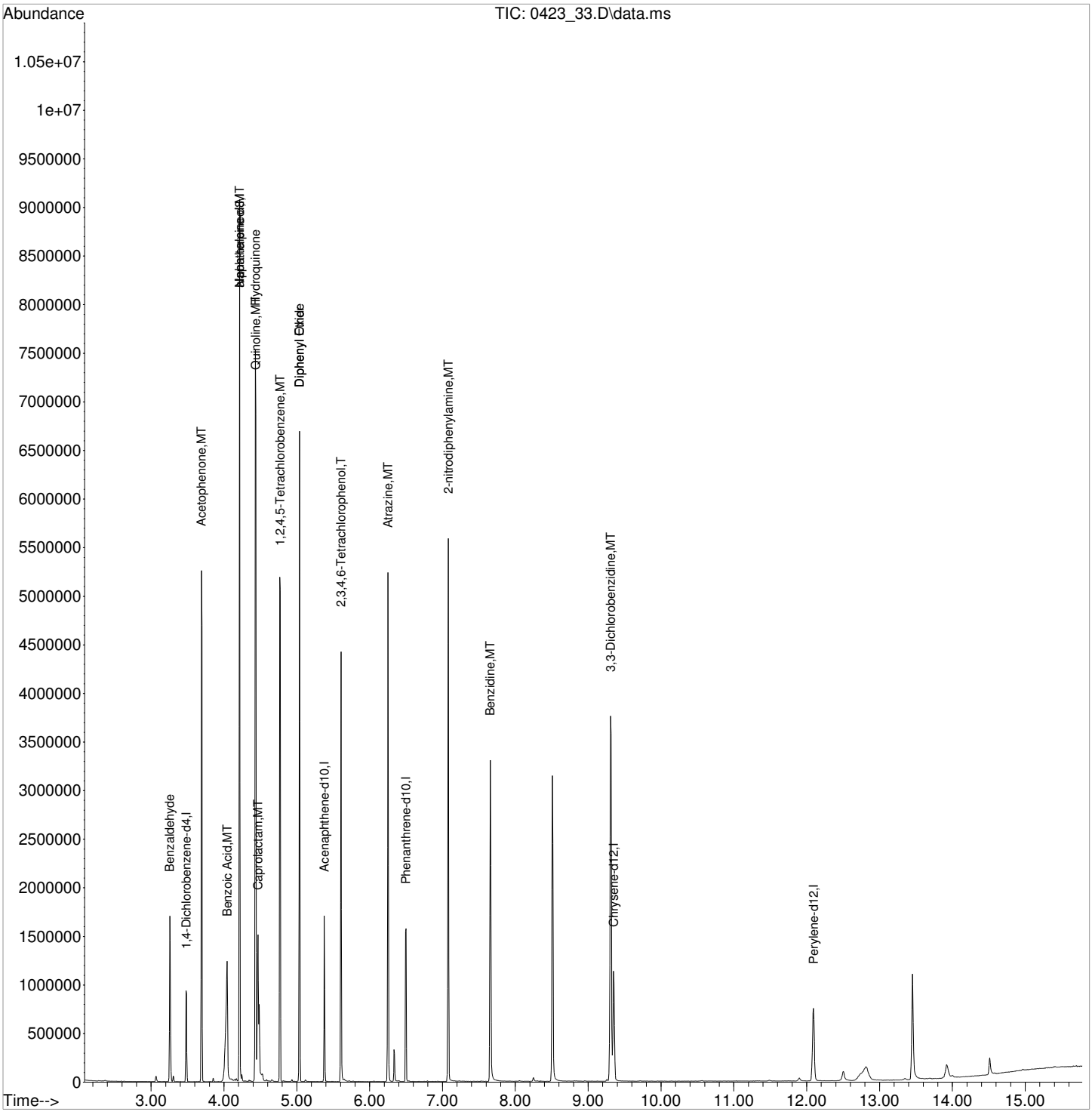
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	137253	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	869755	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	274341	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.500	188	555441	8000.0000000	ppb	0.00
84) Chrysene-d12	9.350	240	534426	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	503299	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.257	105	311410	40621.6746295	ppb	100
22) Acetophenone	3.691	105	1270678	41056.5340668	ppb	100
31) Benzoic Acid	4.044	105	563041	44496.7225926	ppb	98
33) alpha-terpineol	4.214	59	746794	32692.8348190	ppb	97
37) Hydroquinone	4.432	110	906837m	38923.0951568	ppb	
38) Quinoline	4.438	129	1686579	30097.3468496	ppb	98
39) Caprolactam	4.467	113	261153	40074.5075946	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.773	216	829373	32234.7483867	ppb	100
44) Diphenyl Ether	5.037	170	1070839	32428.1115490	ppb	99
45) Diphenyl Oxide	5.037	170	1070839	32428.1115490	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.607	232	418564	42608.5120111	ppb	96
69) Atrazine	6.253	200	495430	39648.0965079	ppb	99
82) 2-nitrodiphenylamine	7.082	167	672872	51013.2030542	ppb	96
85) Benzidine	7.657	184	1270016	40672.2834543	ppb	99
89) 3,3-Dichlorobenzidine	9.308	252	1196783	42281.2922103	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_33.D
Acq On : 3 May 2022 10:44 am
Operator : 3545
Sample : STD TCL 40K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 26 Sample Multiplier: 1
InstName : BNAMS2

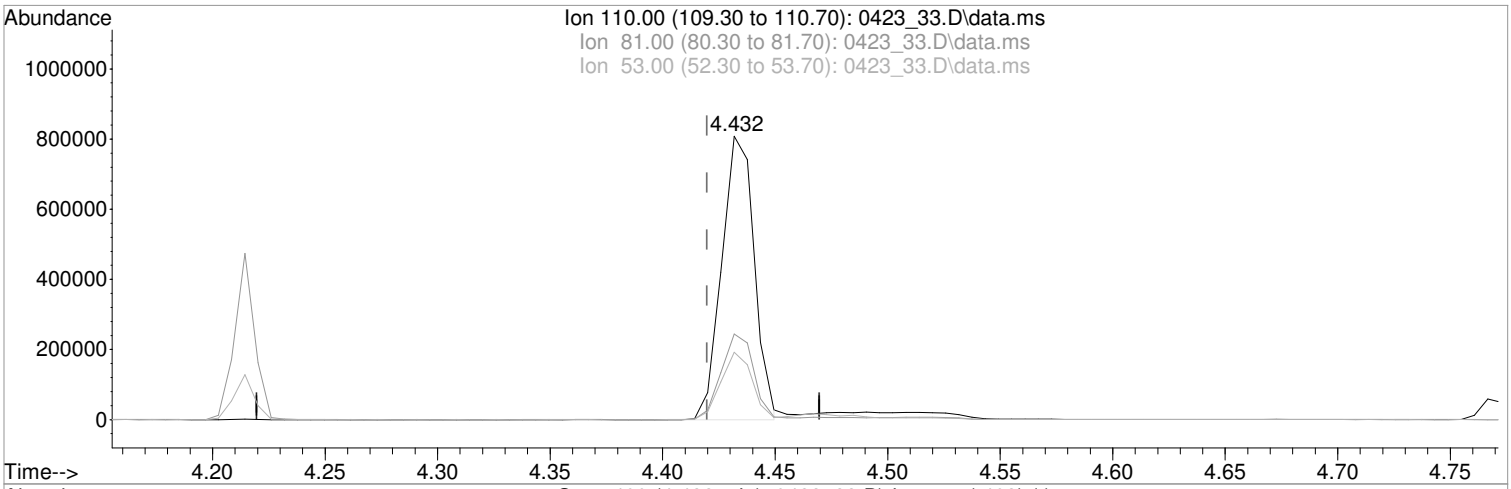
Quant Time: May 03 16:32:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:31:11 2022
Response via : Initial Calibration

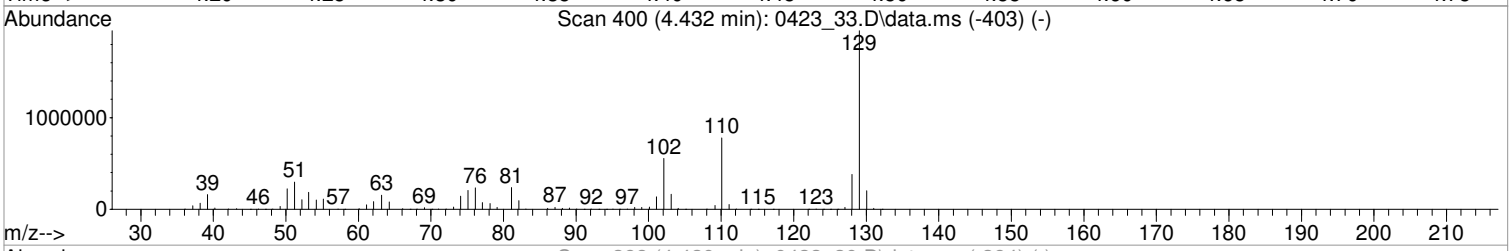


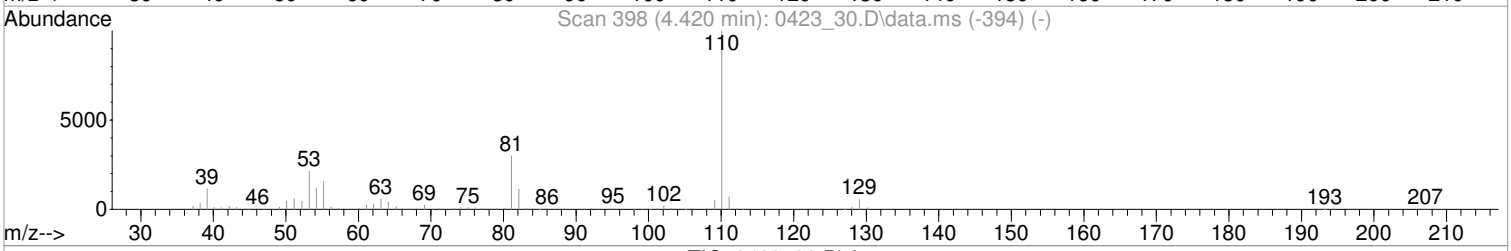
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_33.D
Acq On : 3 May 2022 10:44 am
Operator : 3545
Sample : STD TCL 40K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 26 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:31:18 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:31:11 2022
Response via : Initial Calibration







TIC: 0423_33.D\data.ms

(37) Hydroquinone

4.432min (+0.012) 34749.9352914 ppb

Qvalue = 98

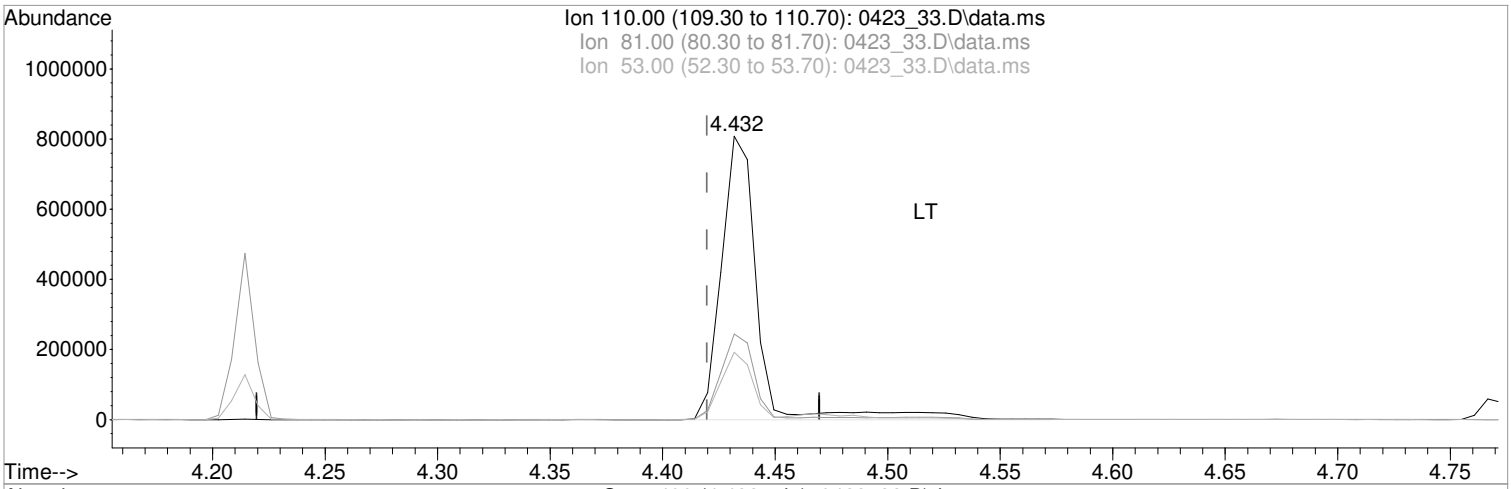
response 809610

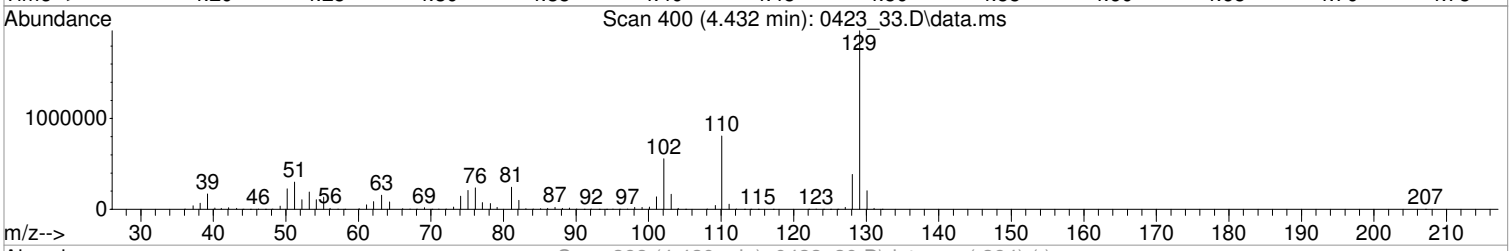
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.28
53.00	21.40	23.75
0.00	0.00	0.00

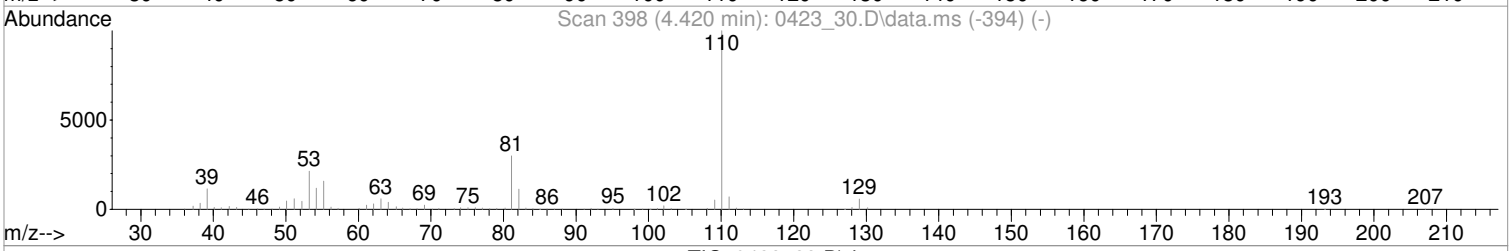
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_33.D
Acq On : 3 May 2022 10:44 am
Operator : 3545
Sample : STD TCL 40K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 26 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:31:18 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:31:11 2022
Response via : Initial Calibration







TIC: 0423_33.D\data.ms

(37) Hydroquinone

4.432min (+0.012) 38923.0951568 ppb m

response 906837

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.28
53.00	21.40	23.77
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_34.D
Acq On : 3 May 2022 11:05 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 27 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:33:41 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:32:31 2022
Response via : Initial Calibration

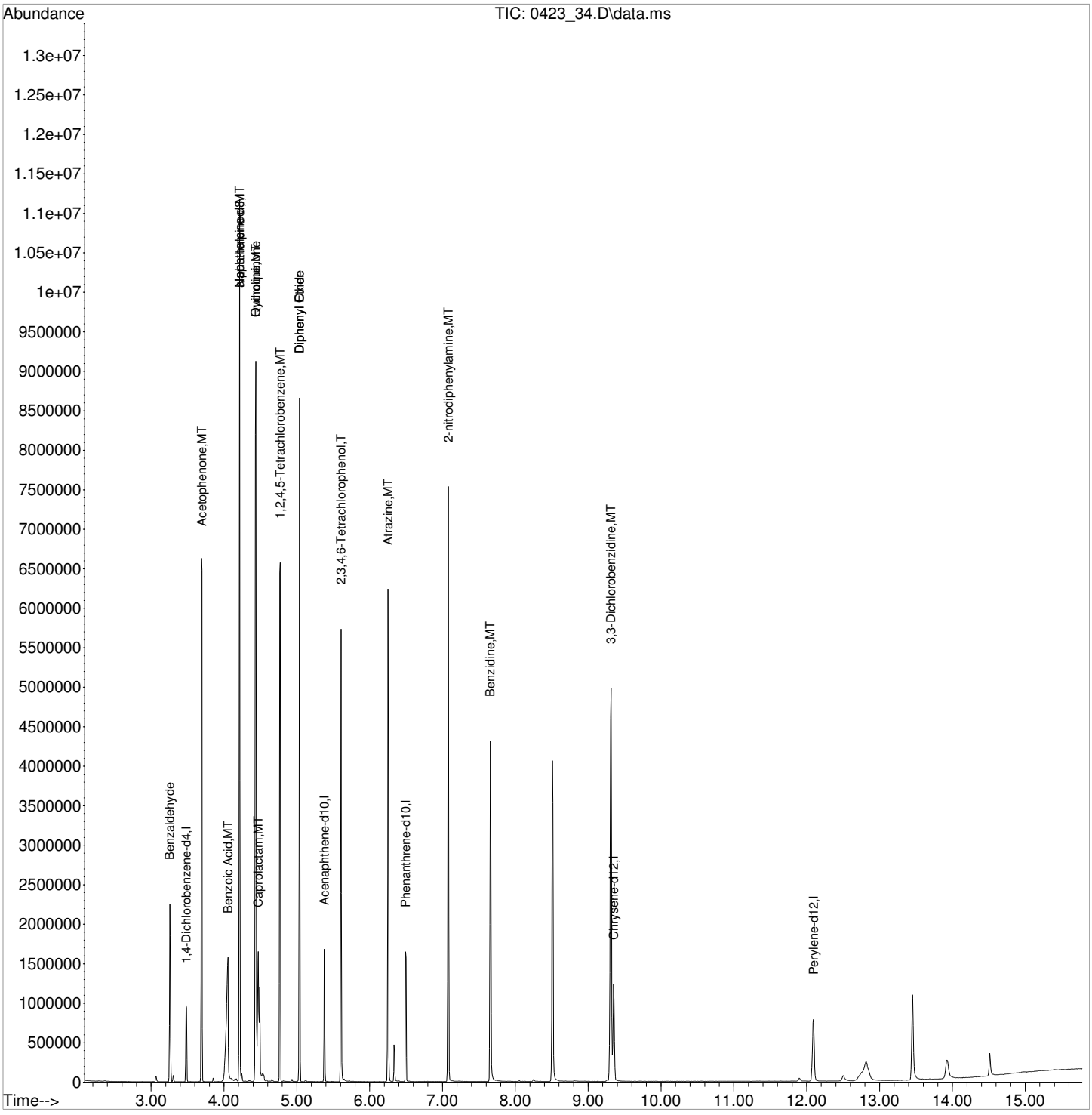
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.486	152	140170	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	978143	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	272036	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	568154	8000.0000000	ppb	0.00
84) Chrysene-d12	9.350	240	547595	8000.0000000	ppb	0.00
94) Perylene-d12	12.093	264	514599	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.257	105	401838	50959.3134120	ppb	99
22) Acetophenone	3.697	105	1657681	52181.2477602	ppb	100
31) Benzoic Acid	4.056	105	759916	53681.9249668	ppb	99
33) alpha-terpineol	4.214	59	966497	37599.3991132	ppb	98
37) Hydroquinone	4.438	110	1160650m	44384.9882326	ppb	
38) Quinoline	4.438	129	2173910	35979.6801675	ppb	98
39) Caprolactam	4.473	113	342057	46644.6459102	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.773	216	1044268	35946.9313857	ppb	99
44) Diphenyl Ether	5.037	170	1347919	36220.2932186	ppb	99
45) Diphenyl Oxide	5.037	170	1347919	36220.2932186	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.607	232	548653	56371.4694074	ppb	97
69) Atrazine	6.253	200	644208	52203.3653720	ppb	99
82) 2-nitrodiphenylamine	7.082	167	901493	66490.1919605	ppb	96
85) Benzidine	7.657	184	1697667	52478.1767945	ppb	99
89) 3,3-Dichlorobenzidine	9.314	252	1570648	54227.0453862	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_34.D
Acq On : 3 May 2022 11:05 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 27 Sample Multiplier: 1
InstName : BNAMS2

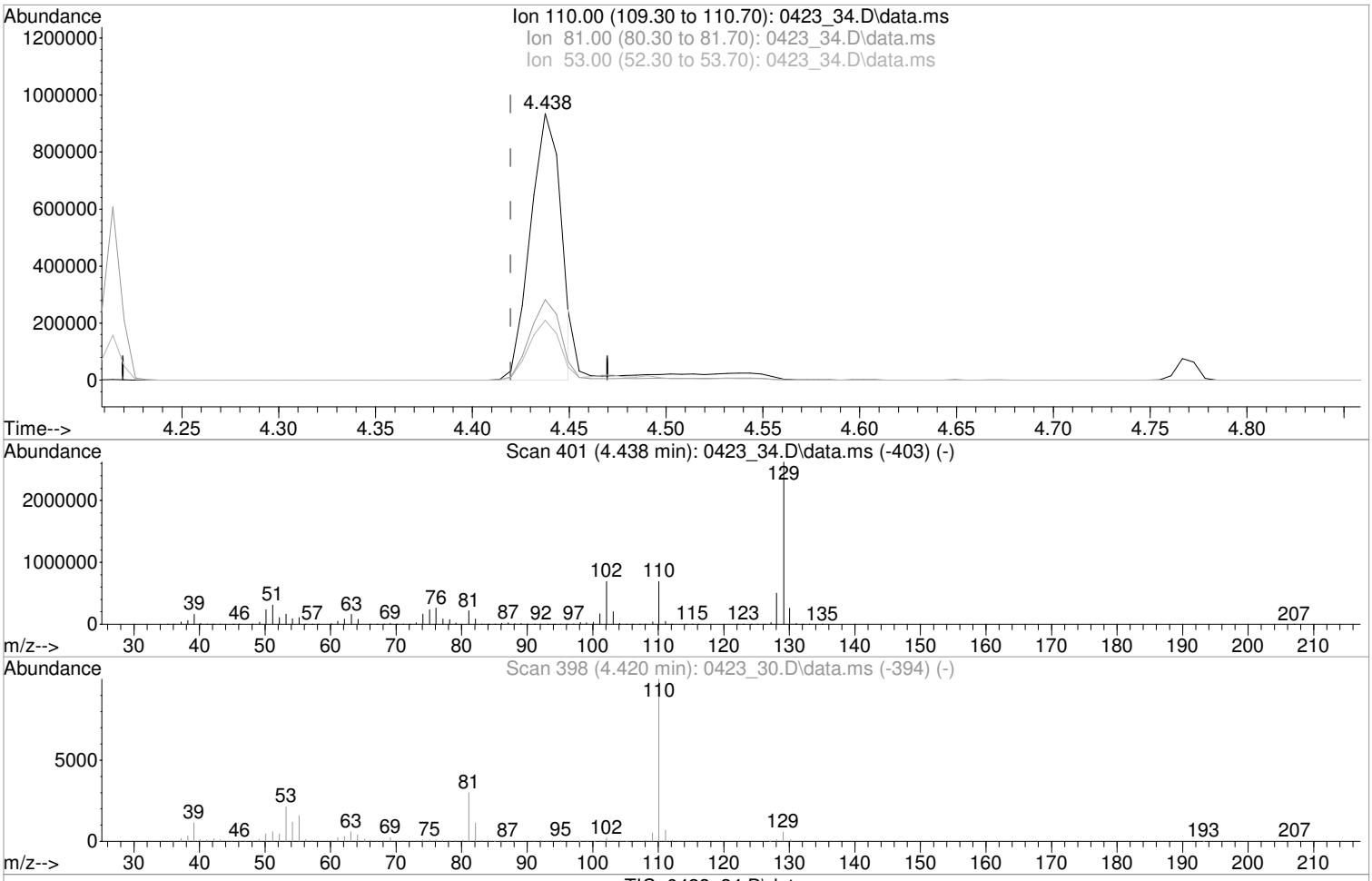
Quant Time: May 03 16:33:41 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:32:31 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_34.D
Acq On : 3 May 2022 11:05 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 27 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:32:31 2022
Response via : Initial Calibration



TIC: 0423_34.D\data.ms

(37) Hydroquinone

4.438min (+0.018) 39368.3162847 ppb

Qvalue = 99

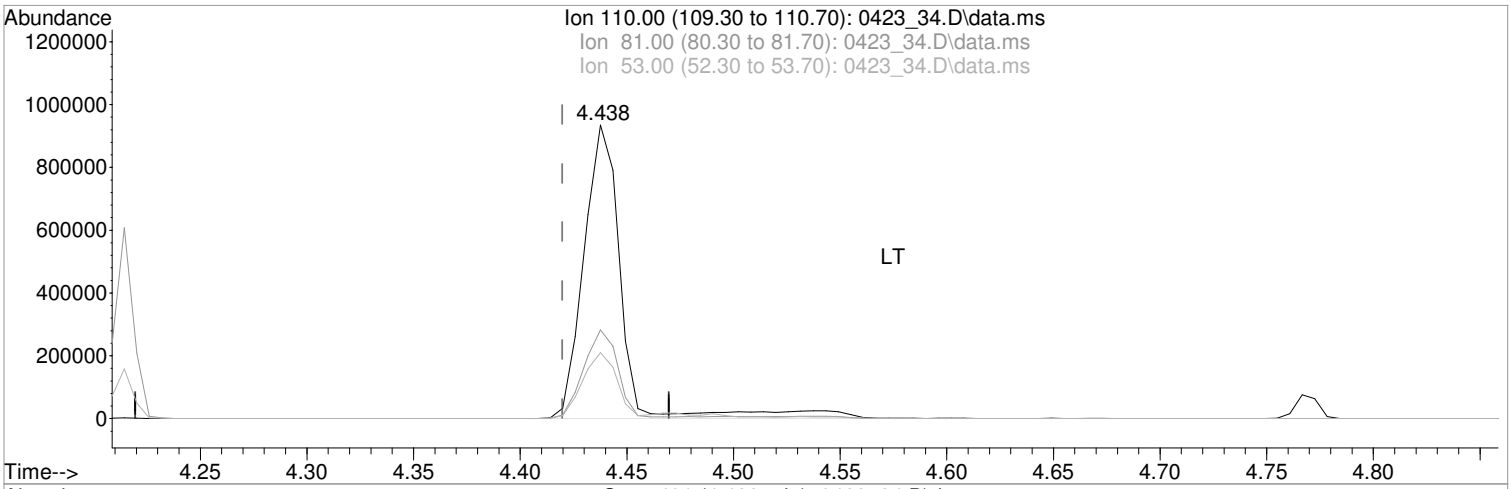
response 1029466

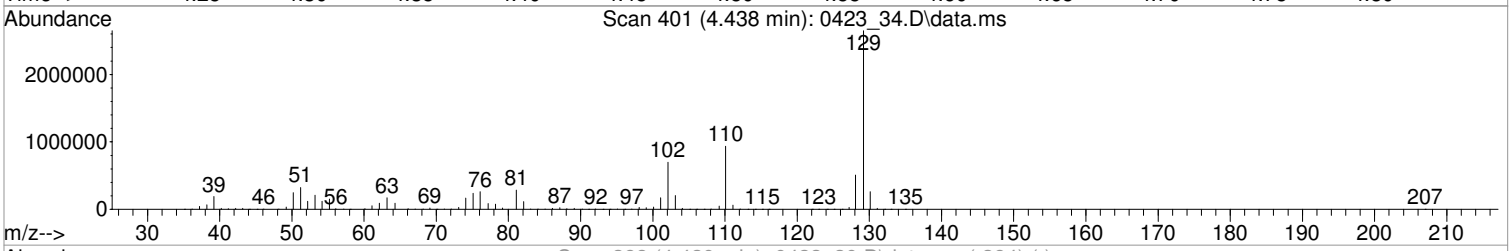
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.25
53.00	21.40	22.50
0.00	0.00	0.00

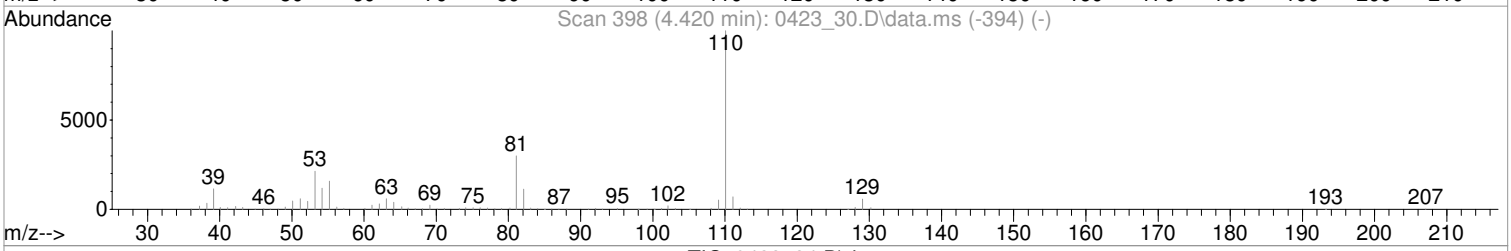
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_34.D
Acq On : 3 May 2022 11:05 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22E03502 exp 09/10/22
Misc : TCL CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 27 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:32:35 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:32:31 2022
Response via : Initial Calibration







TIC: 0423_34.D\data.ms

(37) Hydroquinone

4.438min (+0.018) 44384.9882326 ppb m

response 1160650

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.25
53.00	21.40	22.53
0.00	0.00	0.00

6A-OR

GC/MS INITIAL CALIBRATION DATA

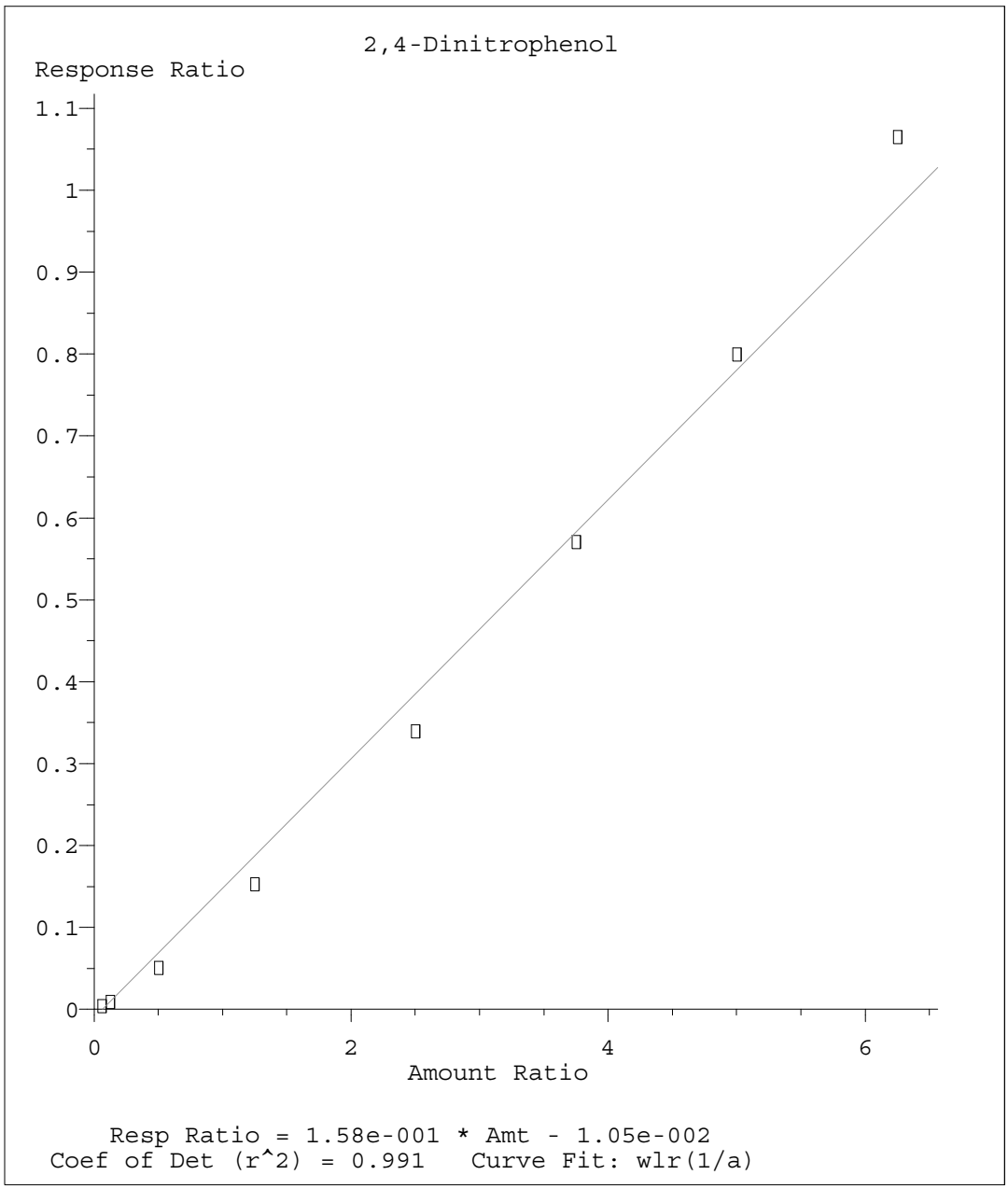
SDG: L1488802 **Analytical Method:** 8270E

Instrument ID: BNAMS4

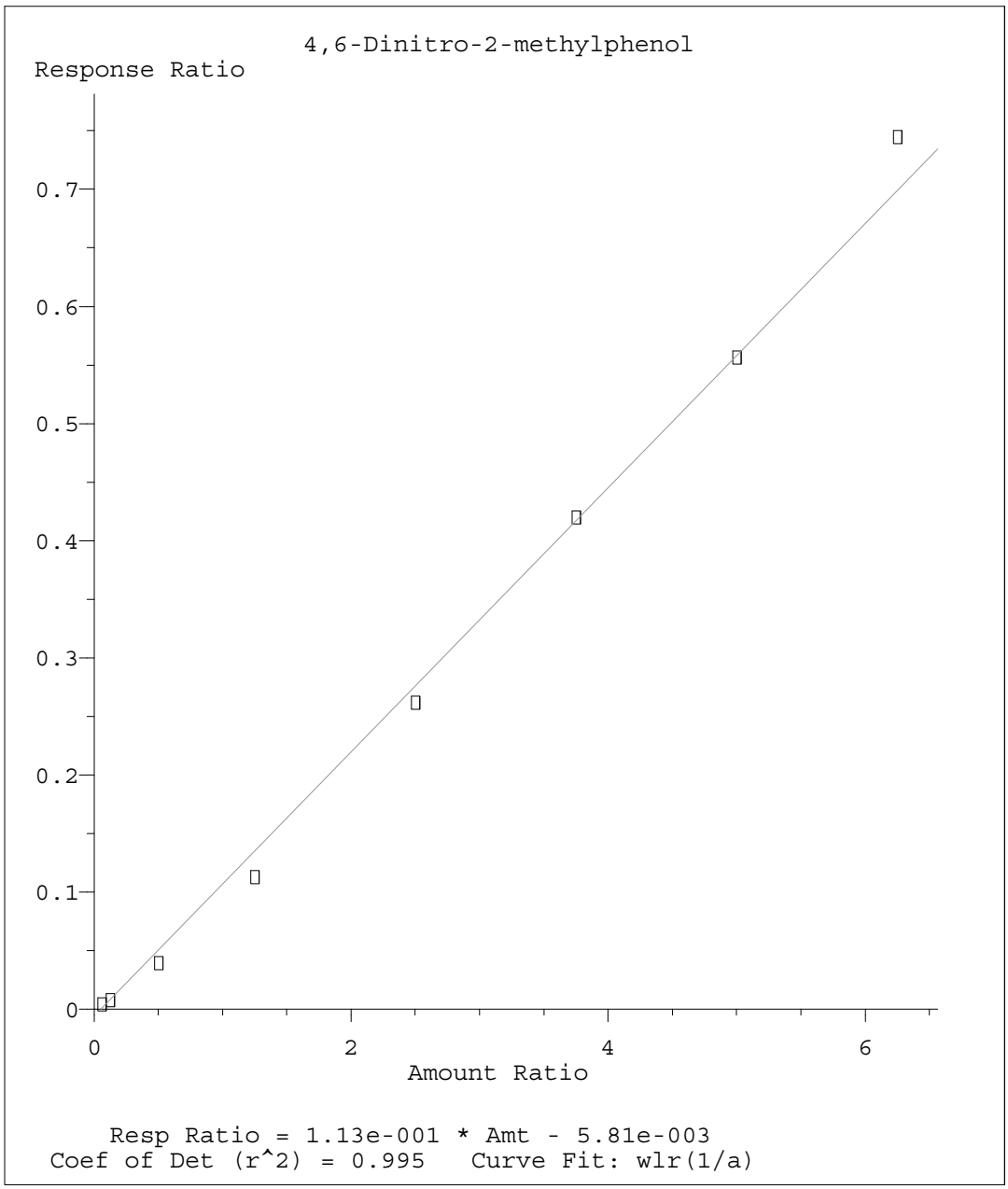
Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 4K1**	**RRF: 10K1**
Analysis date/time	02/09/22 10:43	02/09/22 11:04	02/09/22 11:25	02/09/22 11:46	02/09/22 12:07	02/09/22 12:27	02/09/22 12:48	02/09/22 13:09	02/09/22 13:51	02/09/22 14:11
PHENOL	1.86	1.7610	1.6110	1.6190	1.5890	1.5540	1.5380	1.6160		
3&4-METHYL PHENOL	1.5470	1.4040	1.3310	1.3490	1.31	1.2870	1.2680	1.31		
NAPHTHALENE	1.1570	1.1090	0.9970	1.0020	0.9730	0.9690	0.9590	0.9840		
2-METHYLNAPHTHALENE	0.7650	0.7160	0.6390	0.6560	0.6250	0.6280	0.6270	0.6560		
1-METHYLNAPHTHALENE	0.7270	0.6540	0.6070	0.61	0.5920	0.59	0.5960	0.6150		
ACENAPHTHYLENE	1.9170	1.8280	1.7420	1.7820	1.7190	1.7290	1.74	1.7750		
ACENAPHTHENE	1.33	1.2470	1.1440	1.17	1.1090	1.1180	1.11	1.1350		
DIBENZOFURAN	1.8720	1.7490	1.5850	1.6110	1.5540	1.5280	1.5350	1.55		
FLUORENE	1.4190	1.3880	1.3130	1.3260	1.2610	1.2670	1.27	1.2890		
PHENANTHRENE	1.1840	1.1520	1.0180	1.0260	1.0090	1.0070	0.9990	1.0250		
ANTHRACENE	1.1850	1.1120	1.0030	1.0530	1.0410	1.0380	1.0290	1.0620		
CARBAZOLE	1.0770	1.0220	0.94	0.9840	0.9550	0.9160	0.9280	0.9550		
DI-N-BUTYL PHTHALATE	1.1590	1.0630	1.0420	1.1170	1.1170	1.1430	1.2090	1.2550		
FLUORANTHENE	1.2040	1.1390	1.0510	1.0870	1.0630	1.0850	1.1220	1.1950		
PYRENE	1.3430	1.3720	1.2060	1.2780	1.2960	1.2780	1.2720	1.2520		
BENZO(A)ANTHRACENE	1.27	1.23	1.0720	1.1390	1.1430	1.1290	1.1310	1.1030		
CHRYSENE	1.2320	1.2020	1.0740	1.1040	1.0990	1.0820	1.0840	1.0520		
BIS(2-ETHYLHEXYL)PHTHALATE	0.7150	0.6660	0.6360	0.7410	0.7620	0.7650	0.7620	0.7520		
DI-N-OCTYL PHTHALATE	1.1290	1.0730	1.0570	1.2150	1.2870	1.2960	1.3010	1.2770		
BENZO(B)FLUORANTHENE	1.3280	1.1770	1.0640	1.1090	1.1020	1.1070	1.0910	1.1410		
BENZO(K)FLUORANTHENE	1.2610	1.1670	1.0410	1.1050	1.1010	1.1030	1.0950	1.1080		
BENZO(A)PYRENE	1.0460	1.0160	0.9140	0.97	0.9830	0.9890	0.9780	1		
INDENO(1,2,3-CD)PYRENE	1.0370	1.0050	0.9320	0.9830	0.9830	0.9540	0.9270	0.9370		
DIBENZ(A,H)ANTHRACENE	1.0930	1.1170	0.99	1.0520	1.0270	1.0160	0.9840	0.9890		
BENZO(G,H,I)PERYLENE	1.15	1.0620	0.9870	1.04	1.0060	0.9740	0.93	0.9250		
2-FLUOROPHENOL	1.4680	1.4030	1.2730	1.2720	1.2630	1.2240	1.2140	1.2830		
PHENOL-D5	1.8550	1.5980	1.5240	1.5320	1.5050	1.4770	1.4580	1.5320		
NITROBENZENE-D5	0.39	0.3210	0.3390	0.3160	0.34	0.3450	0.3410	0.3230		
2-FLUOROBIPHENYL	1.5680	1.4650	1.3320	1.3440	1.2780	1.2630	1.2610	1.2850		
2,4,6-TRIBROMOPHENOL	0.0790	0.0770	0.0830	0.0910	0.0930	0.0940	0.1010	0.1070		
P-TERPHENYL-D14	1.1760	1.1190	0.9890	1.0850	1.1070	1.0910	1.1020	1.0760		
PENTACHLOROPHENOL		0.0960	0.1020	0.12	0.1250	0.1290	0.1350	0.1420		
BENZOIC ACID									0.1110	0.1390
File ID:	0209_06	0209_07	0209_08	0209_09	0209_10	0209_11	0209_12	0209_13	0209_15	0209_16

SDG: L1488802 **Analytical Method:** 8270E
Instrument ID: BNAMS4

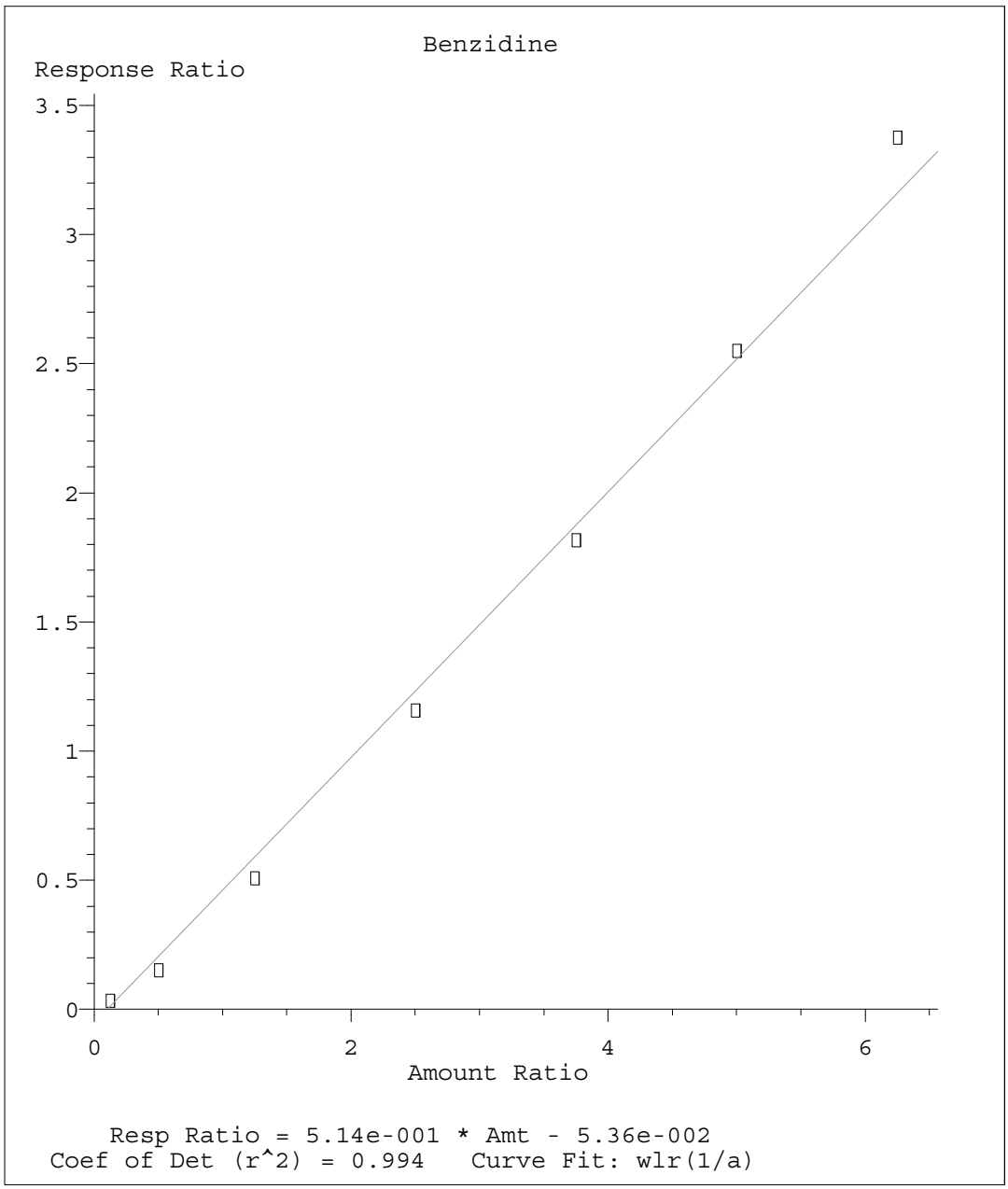
Analyte	RRF: 20K1	RRF: 30K1	RRF: 40K1	RRF: 50K1	RRF. Avg	%RSD	COD
Analysis date/time	02/09/22 14:32	02/09/22 14:53	02/09/22 15:14	02/09/22 15:35			
PHENOL					1.643512	6.71	
3&4-METHYL PHENOL					1.350649	6.63	
NAPHTHALENE					1.018747	7.18	
2-METHYLNAPHTHALENE					0.663826	7.61	
1-METHYLNAPHTHALENE					0.623837	7.43	
ACENAPHTHYLENE					1.779211	3.71	
ACENAPHTHENE					1.170435	6.73	
DIBENZOFURAN					1.623192	7.59	
FLUORENE					1.316666	4.46	
PHENANTHRENE					1.052577	6.87	
ANTHRACENE					1.065424	5.42	
CARBAZOLE					0.972084	5.54	
DI-N-BUTYL PHTHALATE					1.138017	6.21	
FLUORANTHENE					1.1182	5.15	
PYRENE					1.28723	3.99	
BENZO(A)ANTHRACENE					1.151953	5.68	
CHRYSENE					1.116357	5.8	
BIS(2-ETHYLHEXYL)PHTHALATE					0.724997	6.75	
DI-N-OCTYL PHTHALATE					1.204403	8.59	
BENZO(B)FLUORANTHENE					1.139642	7.29	
BENZO(K)FLUORANTHENE					1.122546	5.83	
BENZO(A)PYRENE					0.987052	3.86	
INDENO(1,2,3-CD)PYRENE					0.969769	4.03	
DIBENZ(A,H)ANTHRACENE					1.033545	4.86	
BENZO(G,H,I)PERYLENE					1.009366	7.35	
2-FLUOROPHENOL					1.299982	6.82	
PHENOL-D5					1.560263	8.09	
NITROBENZENE-D5					0.339442	6.83	
2-FLUOROBIPHENYL					1.349543	8.23	
2,4,6-TRIBROMOPHENOL					0.090561	11.74	
P-TERPHENYL-D14					1.093292	4.78	
PENTACHLOROPHENOL					0.121187	13.94	
BENZOIC ACID	0.1430	0.1360	0.1310	0.1260	0.13089	8.56	
File ID:	0209_17	0209_18	0209_19	0209_20			



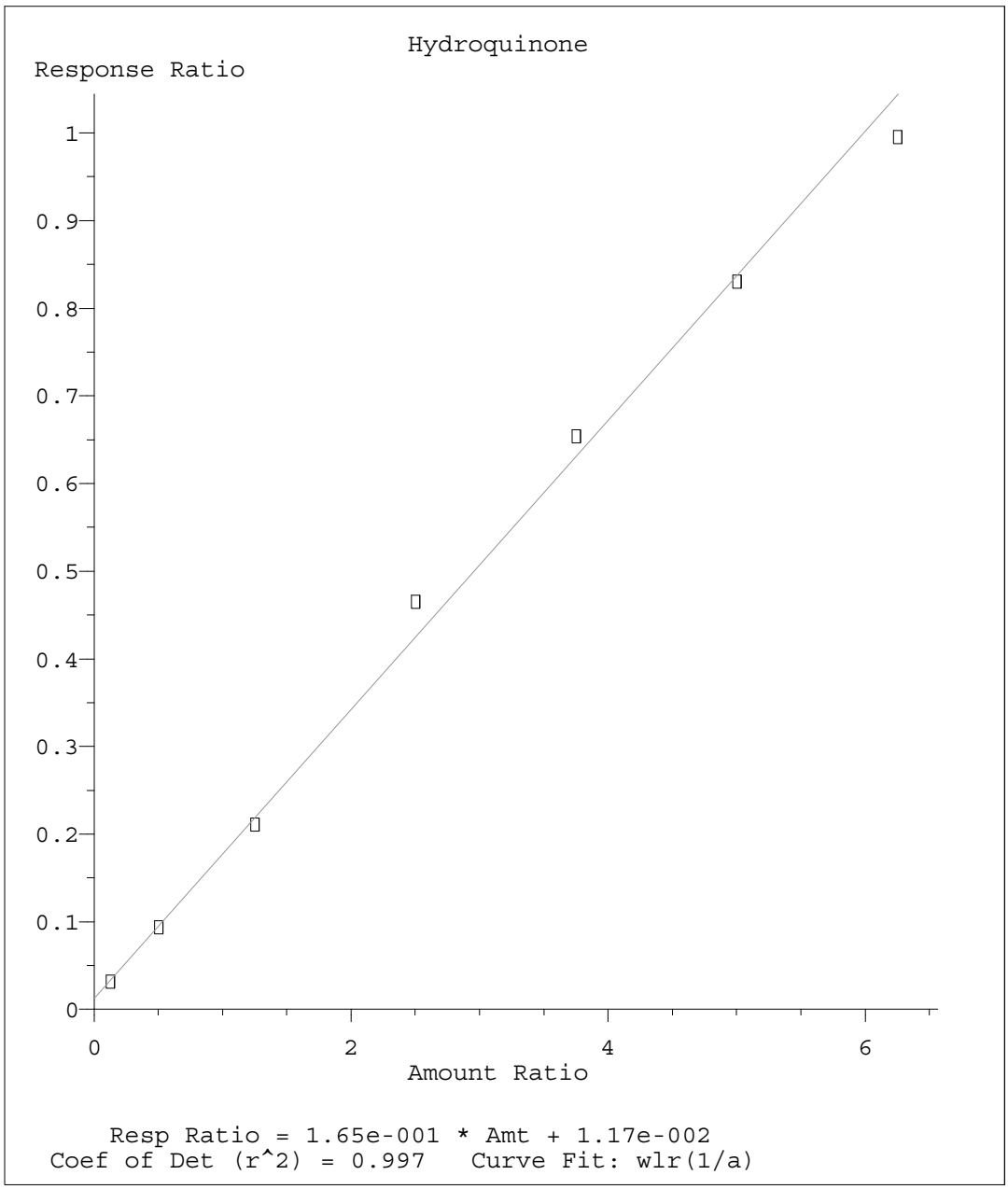
Method Name: C:\MSDCHEM\1\METHODS\S804B09V.M



Method Name: C:\MSDCHEM\1\METHODS\S804B09V.M



Method Name: C:\MSDCHEM\1\METHODS\S804B09V.M



Method Name: C:\MSDCHEM\1\METHODS\S804B09V.M

Response Factor Report BNAMS4

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration

Calibration Files
500 =0209 06.D 1K =0209 07.D 4K =0209 08.D
10K =0209_09.D 20K =0209_10.D 30K =0209_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	TM	Pyridine	1.278	1.248	1.226	1.224	1.215	1.222	1.238	2.11
3)	MT	N-Nitrosodimeth	0.791	0.721	0.658	0.658	0.631	0.611	0.664	9.34
4)	S	2-Fluorophenol	1.468	1.403	1.273	1.272	1.263	1.224	1.300	6.82
5)	MT	Aniline	0.809	0.804	0.729	0.745	0.717	0.697	0.740	6.02
6)	MT	bis(2-Chloroeth	1.328	1.237	1.062	1.037	1.077	1.116	1.150	8.78
7)	S	Phenol-d5	1.855	1.598	1.524	1.532	1.505	1.477	1.560	8.09
8)	MC	Phenol	1.860	1.761	1.611	1.619	1.589	1.554	1.644	6.71
9)		Benzaldehyde							0.356	4.92
10)	MT	2-Chlorophenol	1.477	1.400	1.305	1.295	1.266	1.249	1.316	6.22
11)	T	n-Decane	0.972	0.830	0.789	0.770	0.731	0.709	0.775	11.94
12)	MT	1,3-Dichloroben	1.717	1.603	1.455	1.474	1.421	1.398	1.488	7.66
13)	MTC	1,4-Dichloroben	1.747	1.661	1.518	1.503	1.485	1.442	1.531	7.38
14)	MT	Benzyl Alcohol	1.106	1.048	0.989	1.007	1.002	0.992	1.018	4.06
15)	MT	1,2-Dichloroben	1.627	1.513	1.396	1.385	1.360	1.324	1.408	7.72
16)	MT	bis(2-Chloroiso	0.614	0.531	0.483	0.469	0.447	0.442	0.482	13.00
17)	MT	2,2-oxybis(1-ch	0.614	0.531	0.483	0.469	0.447	0.442	0.482	13.00
18)	MT	2-Methylphenol	1.336	1.276	1.157	1.194	1.153	1.132	1.189	6.54
19)	MT	Hexachloroethan	0.600	0.593	0.549	0.559	0.545	0.530	0.556	4.83
20)	MP	N-Nitrosodi-n-p	0.979	0.933	0.849	0.875	0.841	0.818	0.869	6.73
21)	MT	3&4-Methyl phen	1.547	1.404	1.331	1.349	1.310	1.287	1.351	6.63
22)	MT	Acetophenone							1.654	2.40
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.390	0.321	0.339	0.316	0.340	0.345	0.339	6.83
25)	MT	Nitrobenzene	0.370	0.342	0.326	0.333	0.320	0.320	0.332	5.25
26)	MT	Isophorone	0.663	0.613	0.559	0.595	0.580	0.586	0.595	5.24
27)	MCT	2-Nitrophenol	0.172	0.163	0.155	0.163	0.165	0.169	0.167	4.46
28)	MT	2,4-Dimethylphe	0.342	0.334	0.302	0.302	0.297	0.303	0.311	5.62
29)	MT	bis(2-Chloretho	0.449	0.419	0.366	0.371	0.360	0.359	0.381	9.03
30)	MCT	2,4-Dichlorophe	0.284	0.271	0.247	0.260	0.255	0.257	0.262	4.42
31)	MT	Benzoic Acid							0.131	8.56
32)	MT	1,2,4-Trichloro	0.335	0.317	0.288	0.289	0.278	0.274	0.293	7.40
33)	MT	alpha-terpineol							0.251	14.78
34)	MT	Naphthalene	1.157	1.109	0.997	1.002	0.973	0.969	1.019	7.18
35)	MT	4-Chloroaniline	0.127	0.128	0.116	0.119	0.113	0.115	0.118	5.02
36)	MCT	Hexachloro-1,3-	0.188	0.166	0.153	0.158	0.152	0.151	0.160	7.77
37)		Hydroquinone							0.185	16.97
38)	MT	Quinoline							0.533	14.37
39)	MT	Caprolactam							0.055	10.67
40)	MCT	4-Chloro-3-meth	0.283	0.267	0.250	0.262	0.259	0.262	0.264	3.75
41)	MT	2-Methylnaphtha	0.765	0.716	0.639	0.656	0.625	0.628	0.664	7.61
42)	MT	1-Methylnaphtha	0.727	0.654	0.607	0.610	0.592	0.590	0.624	7.43
43)	MT	1,2,4,5-Tetrach							0.214	14.86
44)		Diphenyl Ether							0.342	14.08
45)		Diphenyl Oxide							0.342	14.08
46)	I	Acenaphthene-d10	----------ISTD----------							
47)	MPT	Hexachlorocyclo	0.392	0.376	0.366	0.371	0.367	0.370	0.375	2.29
48)	MCT	2,4,6-Trichloro	0.395	0.343	0.318	0.333	0.327	0.352	0.347	6.74
49)	MT	2,4,5-Trichloro	0.362	0.375	0.352	0.375	0.364	0.343	0.361	3.07
50)	S	2-Fluorobipheny	1.568	1.465	1.332	1.344	1.278	1.263	1.350	8.23
51)	MT	Biphenyl	1.711	1.622	1.487	1.490	1.411	1.401	1.499	7.42
52)	MT	2-Chloronaphtha	1.276	1.255	1.149	1.153	1.091	1.072	1.144	7.16
53)	MT	2-Nitroaniline	0.334	0.327	0.326	0.364	0.362	0.370	0.355	6.12
54)	MT	Acenaphthylene	1.917	1.828	1.742	1.782	1.719	1.729	1.779	3.71

(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration

Calibration Files
500 =0209 06.D 1K =0209 07.D 4K =0209 08.D
10K =0209_09.D 20K =0209_10.D 30K =0209_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
55)	MT	Dimethyl phthal	1.249	1.203	1.131	1.200	1.165	1.172	1.185	3.02
56)	MT	2,6-Dinitrotolu	0.255	0.251	0.256	0.286	0.283	0.287	0.275	6.29
57)	MT	3-Nitroaniline	0.267	0.255	0.278	0.308	0.306	0.315	0.296	8.64
58)	MCT	Acenaphthene	1.330	1.247	1.144	1.170	1.109	1.118	1.170	6.73
59)	MPT	2,4-Dinitrophen	0.062	0.072	0.100	0.122	0.136	0.152	0.122	33.30
60)	MT	Dibenzofuran	1.872	1.749	1.585	1.611	1.554	1.528	1.623	7.59
61)	MT	2,4-Dinitrotolu	0.292	0.296	0.313	0.350	0.366	0.367	0.344	11.15
62)	T	2,3,4,6-Tetrach							0.228	3.11
63)	MPT	4-Nitrophenol	0.235	0.200	0.222	0.250	0.253	0.263	0.244	9.73
64)	MT	Fluorene	1.419	1.388	1.313	1.326	1.261	1.267	1.317	4.46
65)	MT	4-Chlorophenyl-	0.726	0.679	0.607	0.624	0.592	0.580	0.624	8.28
66)	MT	Diethyl phthala	1.293	1.255	1.186	1.217	1.177	1.194	1.214	3.32
67)	MT	4-Nitroaniline	0.274	0.262	0.287	0.298	0.303	0.298	0.277	8.67
68)	MT	Azobenzene	1.317	1.240	1.192	1.245	1.172	1.163	1.211	4.41
69)	MT	Atrazine							0.327	2.53
70)	I	Phenanthrene-d10	----------ISTD----------							
71)	MT	4,6-Dinitro-2-m	0.062	0.063	0.079	0.090	0.105	0.112	0.093	24.46
72)	MCT	N-Nitrosodiphen	0.639	0.604	0.572	0.592	0.585	0.597	0.608	4.74
73)	S	2,4,6-Tribromop	0.079	0.077	0.083	0.091	0.093	0.094	0.091	11.74
74)	MT	4-Bromophenyl-p	0.199	0.199	0.191	0.194	0.192	0.193	0.197	3.66
75)	MT	Hexachlorobenze	0.243	0.233	0.202	0.209	0.207	0.212	0.220	6.70
76)	T	n-octadecane	0.153	0.127	0.114	0.120	0.113	0.113	0.122	10.82
77)	MCT	Pentachlorophen		0.096	0.102	0.120	0.125	0.129	0.121	13.94
78)	MT	Phenanthrene	1.184	1.152	1.018	1.026	1.009	1.007	1.053	6.87
79)	MT	Anthracene	1.185	1.112	1.003	1.053	1.041	1.038	1.065	5.42
80)	MT	Carbazole	1.077	1.022	0.940	0.984	0.955	0.916	0.972	5.54
81)	MT	Di-n-butyl phth	1.159	1.063	1.042	1.117	1.117	1.143	1.138	6.21
82)	MT	2-nitrodiphenyl							0.202	14.20
83)	MCT	Fluoranthene	1.204	1.139	1.051	1.087	1.063	1.085	1.118	5.15
84)	I	Chrysene-d12	----------ISTD----------							
85)	MT	Benzidine							0.423	25.01
86)	MT	Pyrene	1.343	1.372	1.206	1.278	1.296	1.278	1.287	3.99
87)	S	p-Terphenyl-d14	1.176	1.119	0.989	1.085	1.107	1.091	1.093	4.78
88)	MT	Benzylbutyl pht	0.532	0.484	0.472	0.528	0.551	0.549	0.526	5.91
89)	MT	3,3-Dichloroben							0.412	4.48
90)	MT	Benzo(a)anthrac	1.270	1.230	1.072	1.139	1.143	1.129	1.152	5.68
91)	MT	Chrysene	1.232	1.202	1.074	1.104	1.099	1.082	1.116	5.80
92)	MT	bis(2-Ethylhexy	0.715	0.666	0.636	0.741	0.762	0.765	0.725	6.75
93)	MC	Di-n-octyl phth	1.129	1.073	1.057	1.215	1.287	1.296	1.204	8.59
94)	I	Perylene-d12	----------ISTD----------							
95)	MT	Benzo(b)fluoran	1.328	1.177	1.064	1.109	1.102	1.107	1.140	7.29
96)	MT	Benzo(k)fluoran	1.261	1.167	1.041	1.105	1.101	1.103	1.123	5.83
97)	MC	Benzo(a)pyrene	1.046	1.016	0.914	0.970	0.983	0.989	0.987	3.86
98)	MT	Indeno(1,2,3-cd	1.037	1.005	0.932	0.983	0.983	0.954	0.970	4.03
99)	MT	Dibenz(a,h)anth	1.093	1.117	0.990	1.052	1.027	1.016	1.034	4.86
100)	MT	Benzo(g,h,i)per	1.150	1.062	0.987	1.040	1.006	0.974	1.009	7.35

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:40 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	73198m	8000.00 ppb	0.00
23) Naphthalene-d8	4.26	136	291221	8000.00 ppb	0.00
46) Acenaphthene-d10	5.44	164	151021	8000.00 ppb	0.00
70) Phenanthrene-d10	6.57	188	282418	8000.00 ppb	0.00
84) Chrysene-d12	9.54	240	254847	8000.00 ppb	0.00
94) Perylene-d12	12.39	264	266366	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.85	112	6716	564.7582426 ppb	0.00
Spiked Amount 666.000			Recovery = 84.80%		
7) Phenol-d5	3.28	99	8487	594.6294949 ppb	0.00
Spiked Amount 666.000			Recovery = 89.28%		
24) Nitrobenzene-d5	3.82	82	7103	566.4718290 ppb	0.00
Spiked Amount 333.000			Recovery = 170.11%		
50) 2-Fluorobiphenyl	4.95	172	14804	581.0921036 ppb	0.00
Spiked Amount 333.000			Recovery = 174.50%		
73) 2,4,6-Tribromophenol	6.02	330	1390	434.7822532 ppb	0.00
Spiked Amount 666.000			Recovery = 65.28%		
87) p-Terphenyl-d14	8.04	244	18732	537.8468042 ppb	0.00
Spiked Amount 333.000			Recovery = 161.52%		
Target Compounds					Qvalue
2) Pyridine	2.31	79	5846	516.2841543 ppb #	85
3) N-Nitrosodimethylamine	2.29	42	3617	595.1420623 ppb	89
5) Aniline	3.34	66	3700	546.4526374 ppb	87
6) bis(2-Chloroethyl)ether	3.36	93	6074m	280.2271058 ppb	
8) Phenol	3.29	94	8510	566.0388074 ppb	95
10) 2-Chlorophenol	3.41	128	6755	561.1658820 ppb	97
11) n-Decane	3.40	41	4449	627.4781303 ppb #	89
12) 1,3-Dichlorobenzene	3.49	146	7856	577.2009286 ppb	95
13) 1,4-Dichlorobenzene	3.53	146	7993	570.5643647 ppb	92
14) Benzyl Alcohol	3.58	79	5058	543.2830139 ppb	94
15) 1,2-Dichlorobenzene	3.61	146	7444	578.0573187 ppb	94
16) bis(2-Chloroisopropyl)ethe	3.65	121	2809	637.4442809 ppb #	55
17) 2,2-oxybis(1-chloropropane	3.65	121	2809	637.4442809 ppb #	55
18) 2-Methylphenol	3.62	108	6113	561.9967038 ppb	97
19) Hexachloroethane	3.80	117	2744	539.6006744 ppb	98
20) N-Nitrosodi-n-propylamine	3.72	70	4481	563.7205314 ppb	99
21) 3&4-Methyl phenol	3.70	107	7078	572.8724821 ppb	95
25) Nitrobenzene	3.84	77	6737	557.6116506 ppb	91
26) Isophorone	3.96	82	12066	556.7216060 ppb	99
27) 2-Nitrophenol	4.02	139	3136	514.9782790 ppb	93
28) 2,4-Dimethylphenol	4.01	107	6231	550.9528074 ppb	95
29) bis(2-Chlorethoxy)methane	4.08	93	8179	590.2143618 ppb	94
30) 2,4-Dichlorophenol	4.15	162	5177	543.3798696 ppb	95
32) 1,2,4-Trichlorobenzene	4.22	180	6095	571.5118181 ppb	98
34) Naphthalene	4.27	128	21058	567.8297386 ppb	99
35) 4-Chloroaniline	4.29	65	2308	535.6261108 ppb	97
36) Hexachloro-1,3-butadiene	4.33	225	3425	588.6986796 ppb #	84
40) 4-Chloro-3-methylphenol	4.57	107	5149	536.1373266 ppb	88
41) 2-Methylnaphthalene	4.71	142	13922	576.1219160 ppb	99
42) 1-Methylnaphthalene	4.78	142	13232	582.6684229 ppb	99
47) Hexachlorocyclopentadiene	4.81	237	3703	523.3554859 ppb	94
48) 2,4,6-Trichlorophenol	4.89	196	3726	568.8364160 ppb	87
49) 2,4,5-Trichlorophenol	4.91	196	3416	501.1076239 ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:40 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

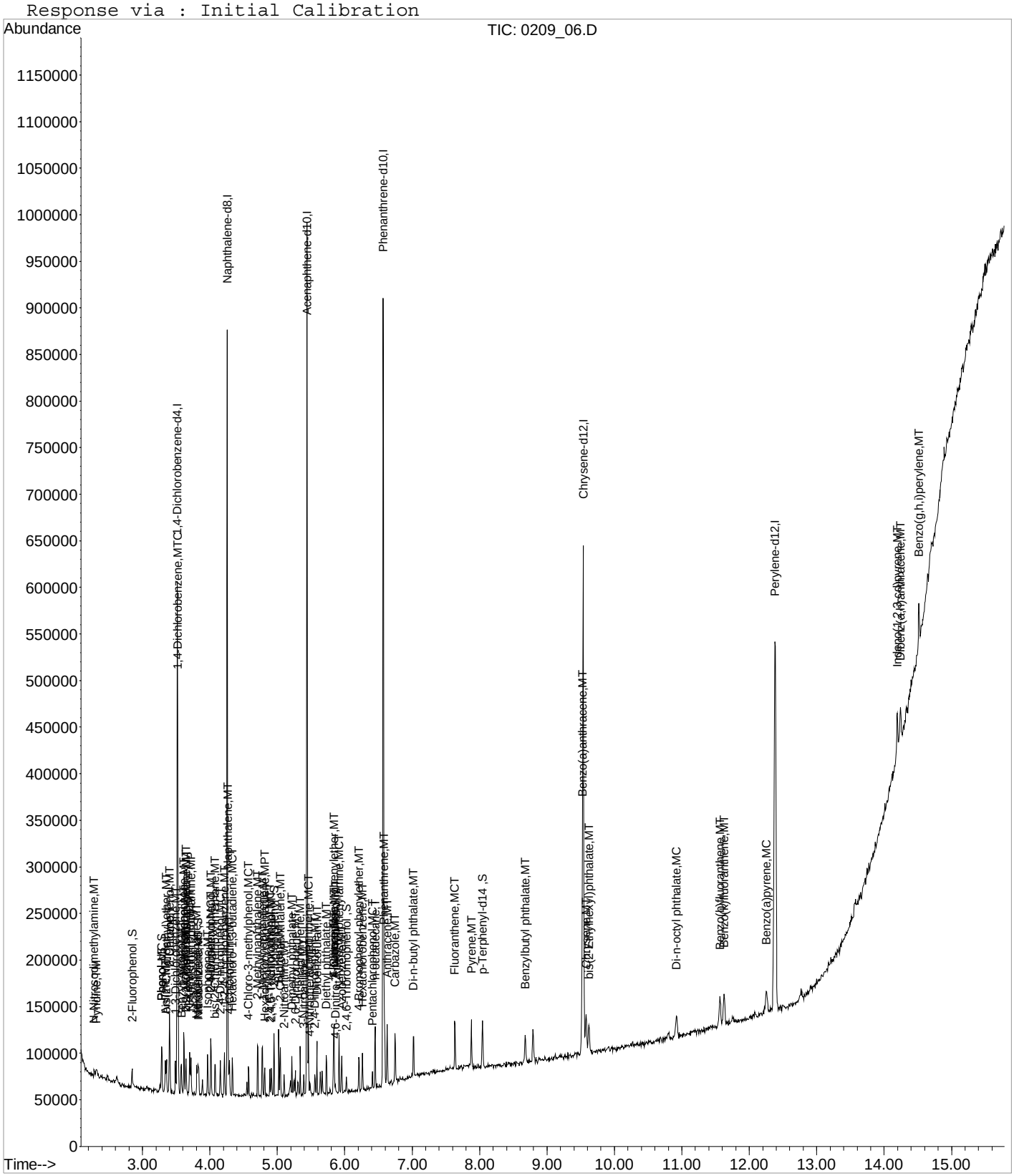
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.02	154	16154	571.0219592	ppb		98
52)	2-Chloronaphthalene	5.05	162	12048	558.0401136	ppb		95
53)	2-Nitroaniline	5.10	138	3154	471.2803774	ppb	#	93
54)	Acenaphthylene	5.34	152	18097	538.8052071	ppb		98
55)	Dimethyl phthalate	5.22	163	11792	527.1899145	ppb		93
56)	2,6-Dinitrotoluene	5.27	165	2406	463.9446622	ppb		92
57)	3-Nitroaniline	5.39	138	2518	450.9660011	ppb		89
58)	Acenaphthene	5.46	153	12554	568.1820999	ppb		96
60)	Dibenzofuran	5.59	168	17674	576.7899184	ppb	#	97
61)	2,4-Dinitrotoluene	5.56	165	2753	423.9069814	ppb	#	80
63)	4-Nitrophenol	5.49	139	2219	481.1339126	ppb		93
64)	Fluorene	5.84	166	13394	538.8741946	ppb		99
65)	4-Chlorophenyl-phenylether	5.83	204	6853	581.3973883	ppb		96
66)	Diethyl phthalate	5.73	149	12208	532.7351724	ppb		97
67)	4-Nitroaniline	5.84	138	2583	493.9183878	ppb		98
68)	Azobenzene	5.95	77	12432	543.8645129	ppb		96
71)	4,6-Dinitro-2-methylphenol	5.86	198	1098	335.9892172	ppb		80
72)	N-Nitrosodiphenylamine	5.92	169	11278	525.5181216	ppb		95
74)	4-Bromophenyl-phenylether	6.21	248	3507	503.5169622	ppb		90
75)	Hexachlorobenzene	6.26	284	4283	552.6506620	ppb		97
76)	n-octadecane	6.45	55	2700	624.8296052	ppb	#	88
77)	Pentachlorophenol	6.41	266	1641	395.0735832	ppb		87
78)	Phenanthrene	6.59	178	20891	562.2158818	ppb		93
79)	Anthracene	6.63	178	20925	556.3404017	ppb		99
80)	Carbazole	6.75	167	19009	553.9274983	ppb		99
81)	Di-n-butyl phthalate	7.02	149	20464	509.3768613	ppb		99
83)	Fluoranthene	7.64	202	21245	538.1889960	ppb		98
86)	Pyrene	7.88	202	21399	521.8526444	ppb		98
88)	Benzylbutyl phthalate	8.68	149	8466	504.9149051	ppb		93
90)	Benzo(a)anthracene	9.52	228	20222	551.0613246	ppb		94
91)	Chrysene	9.58	228	19627	551.9009123	ppb		97
92)	bis(2-Ethylhexyl)phthalate	9.62	149	11394	493.3450222	ppb		98
93)	Di-n-octyl phthalate	10.92	149	17985	468.7583125	ppb		99
95)	Benzo(b)fluoranthene	11.57	252	22101	582.4447660	ppb		95
96)	Benzo(k)fluoranthene	11.62	252	20993	561.6702641	ppb		98
97)	Benzo(a)pyrene	12.25	252	17410	529.7489985	ppb		97
98)	Indeno(1,2,3-cd)pyrene	14.20	276	17264	534.6681369	ppb		98
99)	Dibenz(a,h)anthracene	14.24	278	18203	528.7141684	ppb		95
100)	Benzo(g,h,i)perylene	14.52	276	19143	569.6031683	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:40 2022 Quant Results File: S804B09V.RES

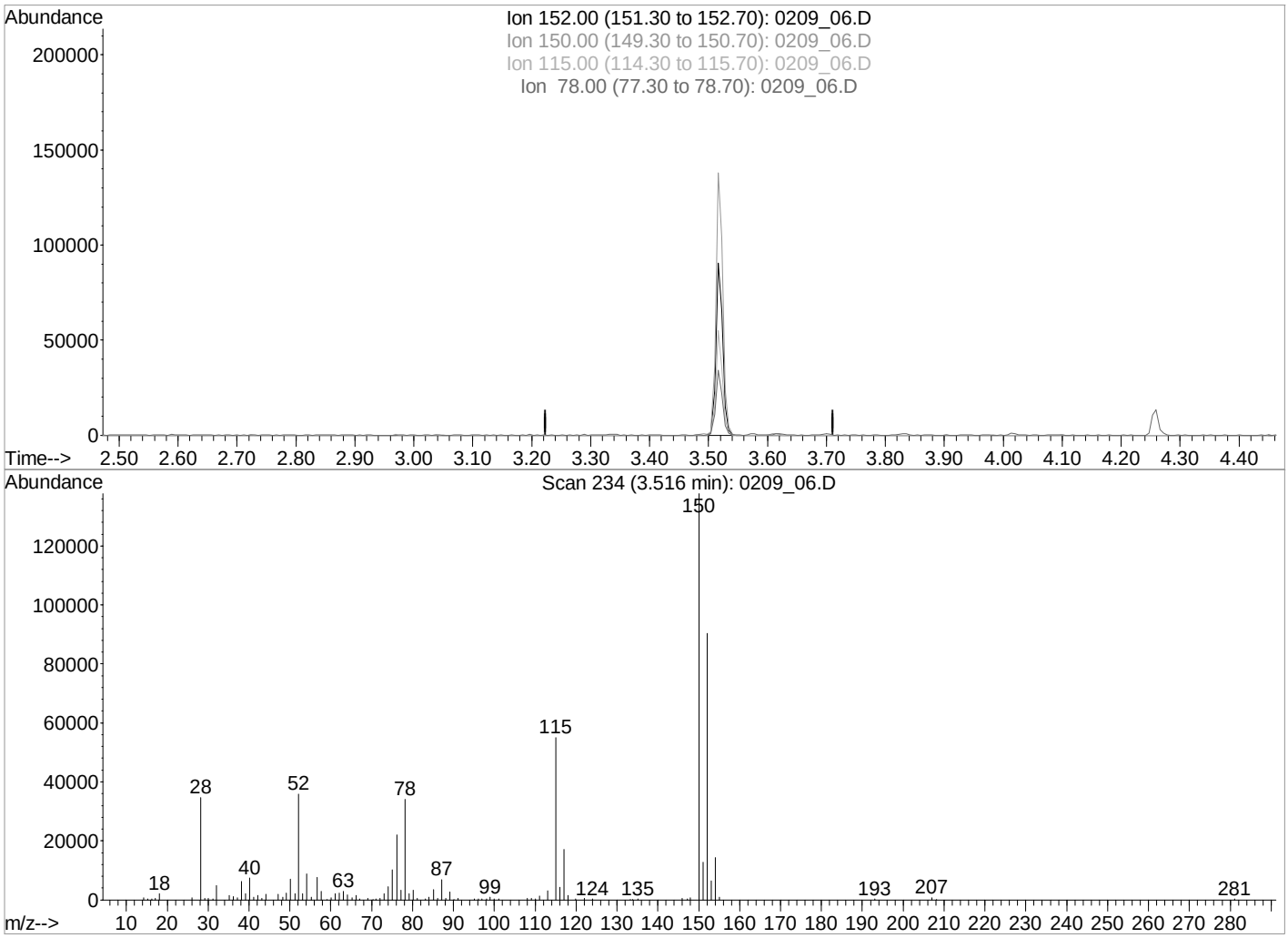
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Multiple Level Calibration



TIC: 0209_06.D

(1) 1,4-Dichlorobenzene-d4 (I)

3.52min (-3.516) 0.0000000 ppb d

response 0

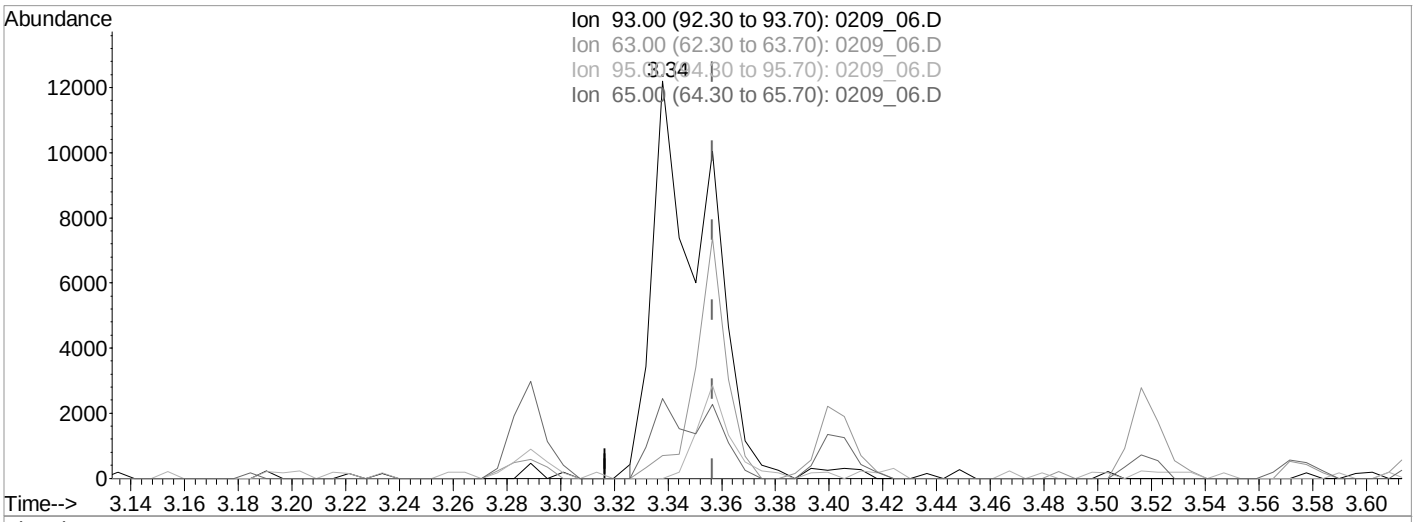
Ion	Exp%	Act%
152.00	100	0.00
150.00	155.20	0.00
115.00	59.30	0.00
78.00	35.00	0.00

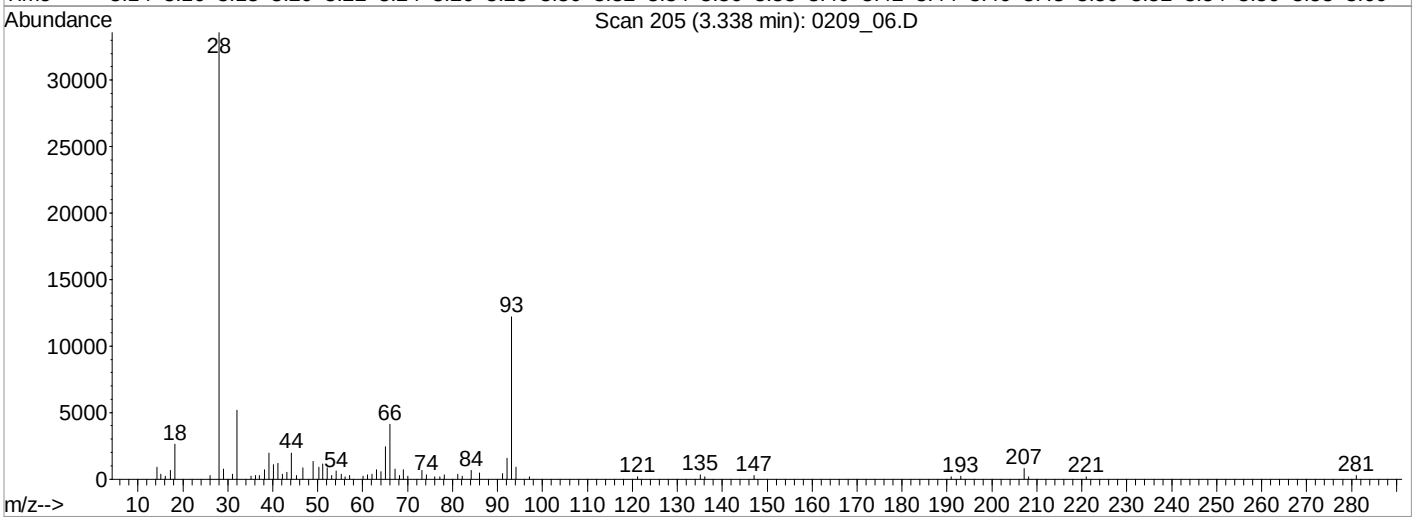
0209_06.D S804B09V.M Mon Feb 14 15:38:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:38 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Multiple Level Calibration





TIC: 0209_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.018) 773.8770947 ppb

response 16774

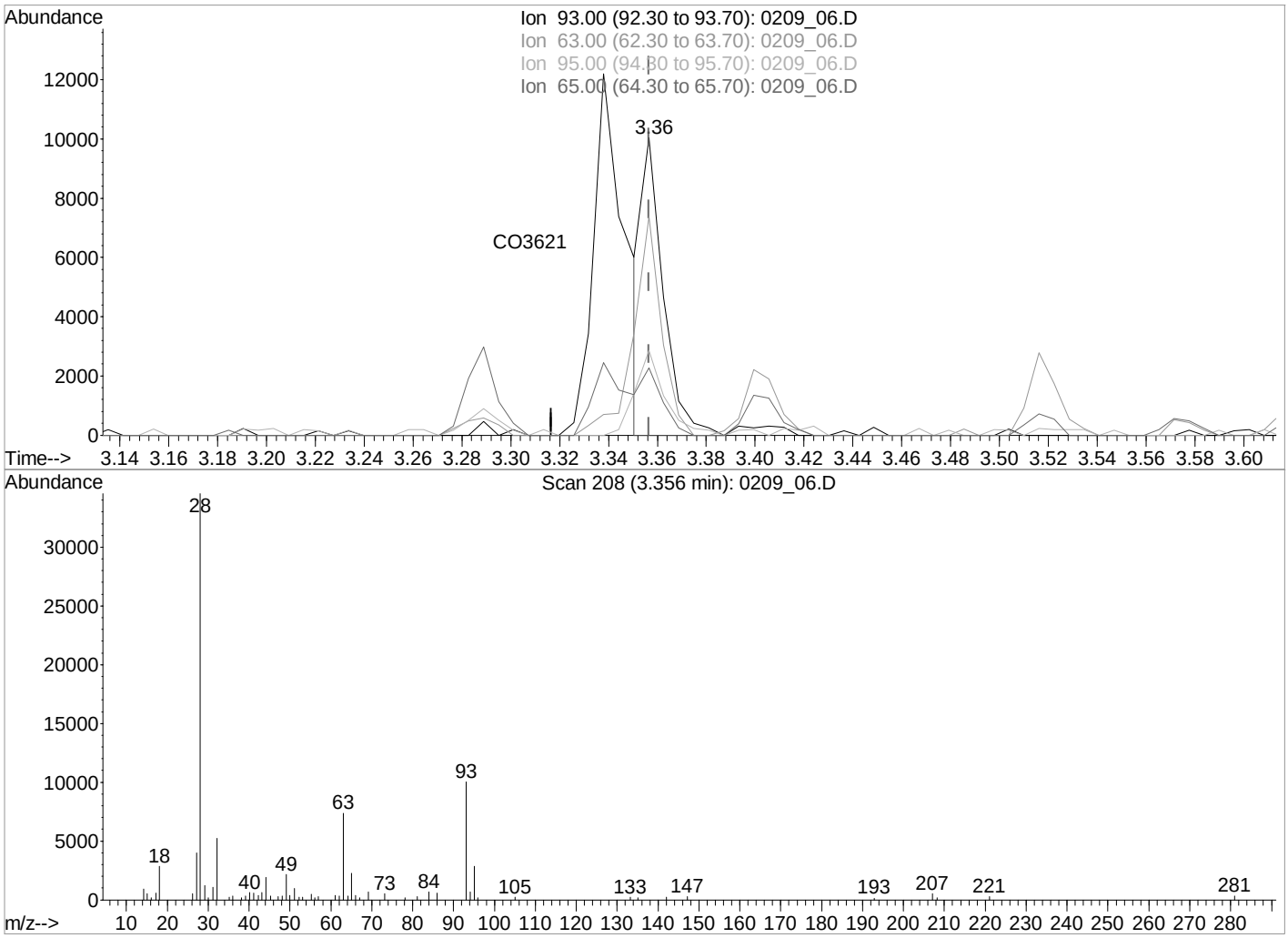
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.71#
95.00	30.20	0.00#
65.00	24.00	20.09

0209_06.D S804B09V.M Mon Feb 14 15:39:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 06.D Vial: 3
Acq On : 9 Feb 2022 10:43 am Operator: 917
Sample : STD SVMS 500 PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:18:21 2022
Response via : Multiple Level Calibration



TIC: 0209_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (0.000) 280.2271058 ppb m

response 6074

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	73.44
95.00	30.20	28.46
65.00	24.00	22.56

0209_06.D S804B09V.M Mon Feb 14 15:40:10 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 07.D Vial: 4
Acq On : 9 Feb 2022 11:04 am Operator: 917
Sample : STD SVMS 1K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:47 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:19:47 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	76270	8000.00	ppb		0.00
23) Naphthalene-d8	4.26	136	301288	8000.00	ppb		0.00
46) Acenaphthene-d10	5.44	164	154859	8000.00	ppb		0.00
70) Phenanthrene-d10	6.57	188	290690	8000.00	ppb		0.00
84) Chrysene-d12	9.54	240	252819	8000.00	ppb		0.00
94) Perylene-d12	12.38	264	273649	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.85	112	13374	1024.1746086	ppb		0.00
Spiked Amount 666.000			Recovery = 153.78%				
7) Phenol-d5	3.28	99	15234	943.4936610	ppb		0.00
Spiked Amount 666.000			Recovery = 141.67%				
24) Nitrobenzene-d5	3.82	82	12081m	907.8777697	ppb		0.00
Spiked Amount 333.000			Recovery = 272.64%				
50) 2-Fluorobiphenyl	4.95	172	28365	1006.2816806	ppb		0.00
Spiked Amount 333.000			Recovery = 302.19%				
73) 2,4,6-Tribromophenol	6.02	330	2781	902.8887466	ppb		0.00
Spiked Amount 666.000			Recovery = 135.57%				
87) p-Terphenyl-d14	8.04	244	35378	990.0403797	ppb		0.00
Spiked Amount 333.000			Recovery = 297.31%				
Target Compounds							Qvalue
2) Pyridine	2.31	79	11901	998.1129452	ppb		94
3) N-Nitrosodimethylamine	2.29	42	6873	995.7330245	ppb		90
5) Aniline	3.34	66	7669	1035.6691945	ppb	#	95
6) bis(2-Chloroethyl)ether	3.36	93	11795m	558.9513471	ppb		
8) Phenol	3.29	94	16788	1012.5031366	ppb		99
10) 2-Chlorophenol	3.41	128	13345	1010.2445624	ppb		99
11) n-Decane	3.40	41	7909	952.1233752	ppb	#	90
12) 1,3-Dichlorobenzene	3.49	146	15281	1004.7592285	ppb		96
13) 1,4-Dichlorobenzene	3.53	146	15836	1022.2006471	ppb		96
14) Benzyl Alcohol	3.58	79	9993	992.2878509	ppb		94
15) 1,2-Dichlorobenzene	3.61	146	14424	1004.8210774	ppb		99
16) bis(2-Chloroisopropyl)ethe	3.65	121	5060	980.4227239	ppb		68
17) 2,2-oxybis(1-chloropropane	3.65	121	5060	980.4227239	ppb		68
18) 2-Methylphenol	3.62	108	12162	1008.5121853	ppb		98
19) Hexachloroethane	3.80	117	5649	1022.8026899	ppb		95
20) N-Nitrosodi-n-propylamine	3.72	70	8897	1006.4466665	ppb		95
21) 3&4-Methyl phenol	3.70	107	13385	969.5977105	ppb		96
25) Nitrobenzene	3.84	77	12867	971.7918627	ppb		97
26) Isophorone	3.96	82	23074	973.7600763	ppb		99
27) 2-Nitrophenol	4.02	139	6136	971.3209513	ppb		95
28) 2,4-Dimethylphenol	4.01	107	12562	1035.6727790	ppb		99
29) bis(2-Chlorethoxy)methane	4.08	93	15787	1022.5280775	ppb		95
30) 2,4-Dichlorophenol	4.15	162	10201	995.5789595	ppb		97
32) 1,2,4-Trichlorobenzene	4.22	180	11941	1016.2429131	ppb		99
34) Naphthalene	4.27	128	41782	1027.7434603	ppb		99
35) 4-Chloroaniline	4.29	65	4826	1042.1949294	ppb		96
36) Hexachloro-1,3-butadiene	4.33	225	6244	957.7274149	ppb		92
40) 4-Chloro-3-methylphenol	4.57	107	10067	981.5027088	ppb		86
41) 2-Methylnaphthalene	4.71	142	26958	1007.7179044	ppb		99
42) 1-Methylnaphthalene	4.78	142	24628	978.4163804	ppb		99
47) Hexachlorocyclopentadiene	4.81	237	7287	986.5856772	ppb		97
48) 2,4,6-Trichlorophenol	4.89	196	6640	943.0418676	ppb		95
49) 2,4,5-Trichlorophenol	4.91	196	7255	1017.6821826	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 07.D Vial: 4
Acq On : 9 Feb 2022 11:04 am Operator: 917
Sample : STD SVMS 1K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:47 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:19:47 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

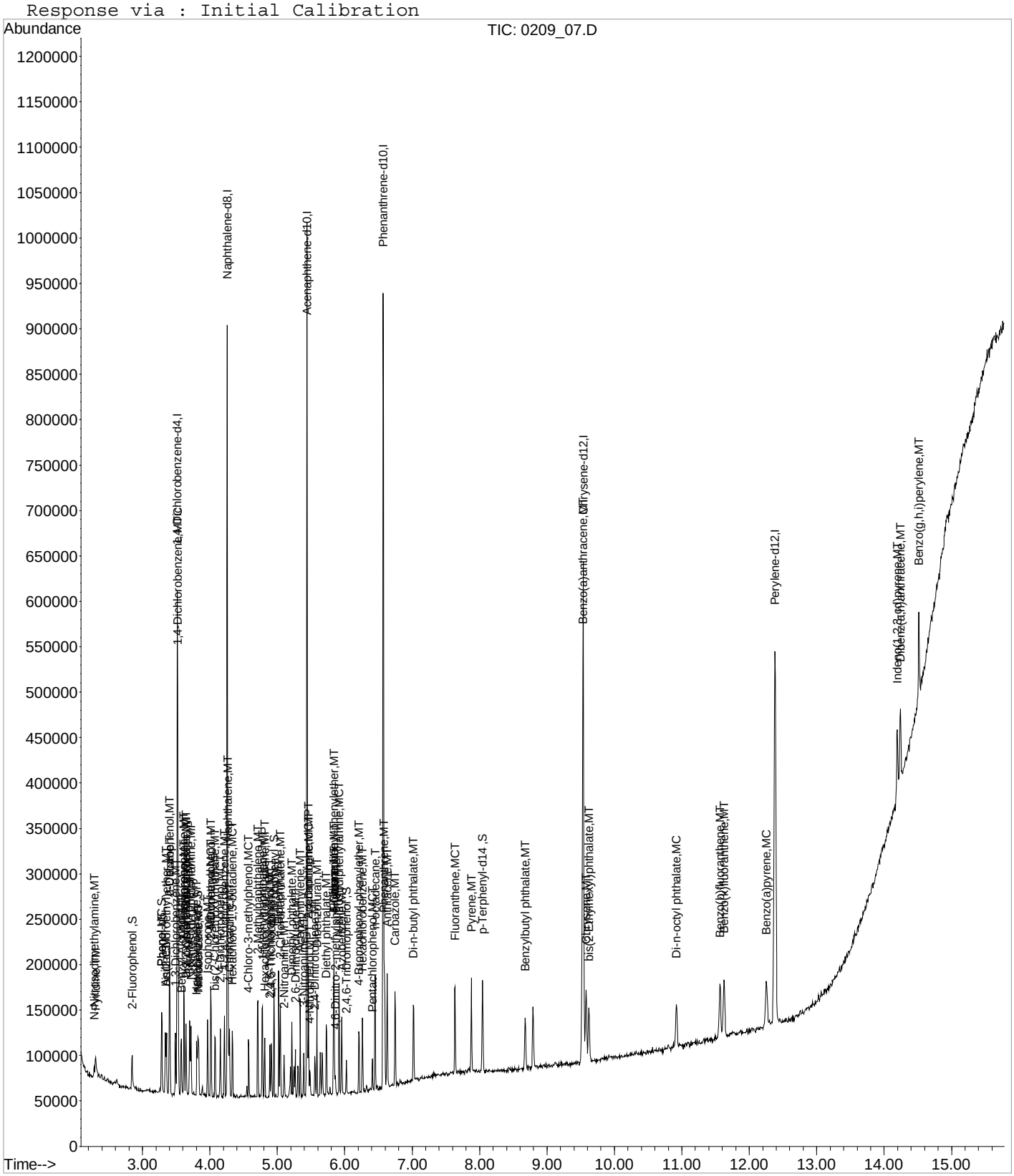
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.02	154	31396	1013.2193660	ppb		98
52)	2-Chloronaphthalene	5.05	162	24285	1032.7965655	ppb		97
53)	2-Nitroaniline	5.10	138	6335	936.9430644	ppb	#	96
54)	Acenaphthylene	5.34	152	35382	988.1131522	ppb		99
55)	Dimethyl phthalate	5.22	163	23291	982.3490986	ppb		96
56)	2,6-Dinitrotoluene	5.27	165	4865	928.8368997	ppb		99
57)	3-Nitroaniline	5.39	138	4936	887.3217022	ppb		91
58)	Acenaphthene	5.46	153	24135	997.3544259	ppb		99
59)	2,4-Dinitrophenol	5.46	184	1390	781.2926895	ppb	#	1
60)	Dibenzofuran	5.59	168	33852	1004.0506798	ppb		100
61)	2,4-Dinitrotoluene	5.56	165	5734	923.6569672	ppb	#	77
63)	4-Nitrophenol	5.49	139	3863	823.0078370	ppb		97
64)	Fluorene	5.84	166	26866	1011.0676989	ppb		98
65)	4-Chlorophenyl-phenylether	5.83	204	13151	1006.1449282	ppb		94
66)	Diethyl phthalate	5.73	149	24302	1000.2320751	ppb		99
67)	4-Nitroaniline	5.84	138	5080	917.9528314	ppb		96
68)	Azobenzene	5.95	77	23996	967.7887017	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.86	198	2275	821.1747835	ppb		91
72)	N-Nitrosodiphenylamine	5.92	169	21933	980.5621274	ppb		94
74)	4-Bromophenyl-phenylether	6.21	248	7249	1016.9661888	ppb		94
75)	Hexachlorobenzene	6.26	284	8451	1030.4154727	ppb		97
76)	n-octadecane	6.45	55	4622	932.7469322	ppb	#	89
77)	Pentachlorophenol	6.41	266	3482	901.2827855	ppb		97
78)	Phenanthrene	6.59	178	41877	1043.2531380	ppb		98
79)	Anthracene	6.63	178	40406	993.3957930	ppb		99
80)	Carbazole	6.75	167	37131	991.6965643	ppb		98
81)	Di-n-butyl phthalate	7.02	149	38609	933.6214592	ppb		99
83)	Fluoranthene	7.64	202	41394	994.6744483	ppb		99
86)	Pyrene	7.88	202	43345	1046.3115430	ppb		97
88)	Benzylbutyl phthalate	8.68	149	15306	914.0065001	ppb		96
90)	Benzo(a)anthracene	9.52	228	38865	1021.2752983	ppb		91
91)	Chrysene	9.58	228	37999	1029.2590925	ppb		96
92)	bis(2-Ethylhexyl)phthalate	9.62	149	21050	914.9946856	ppb		99
93)	Di-n-octyl phthalate	10.92	149	33904	915.3989320	ppb		97
95)	Benzo(b)fluoranthene	11.56	252	40261	966.1548100	ppb		98
96)	Benzo(k)fluoranthene	11.62	252	39928	986.7291781	ppb		93
97)	Benzo(a)pyrene	12.26	252	34757	1008.2775726	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.20	276	34378	995.1350728	ppb		98
99)	Dibenz(a,h)anthracene	14.24	278	38216	1041.3233414	ppb		97
100)	Benzo(g,h,i)perylene	14.52	276	36328	970.1482120	ppb		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 07.D Vial: 4
Acq On : 9 Feb 2022 11:04 am Operator: 917
Sample : STD SVMS 1K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:47 2022 Quant Results File: S804B09V.RES

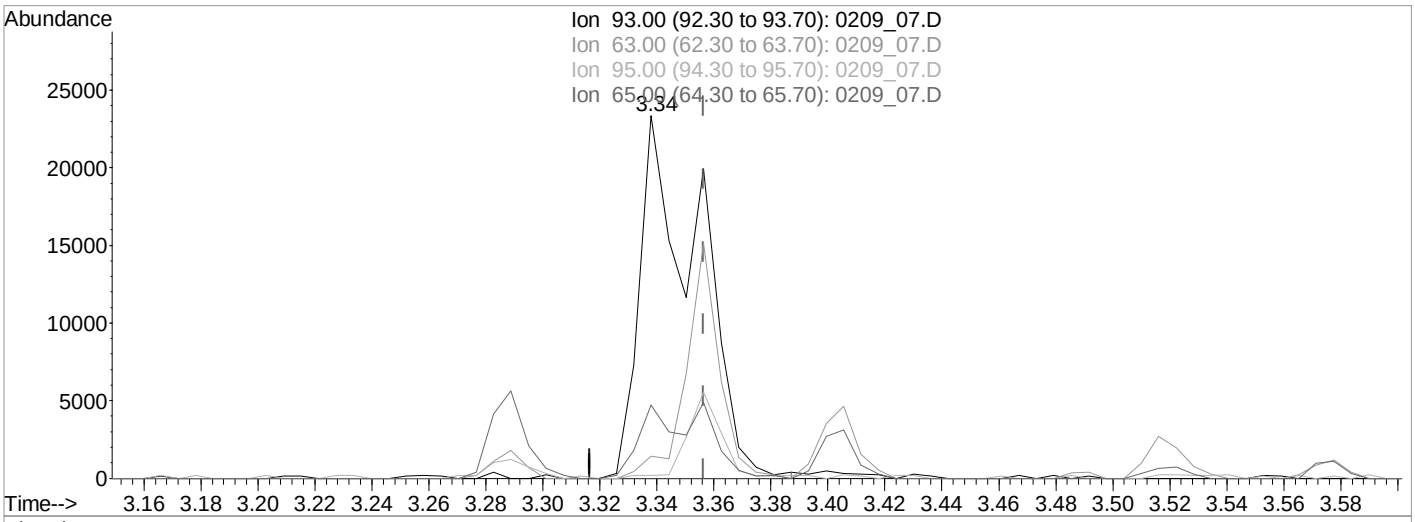
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:44:48 2022
Response via : Initial Calibration

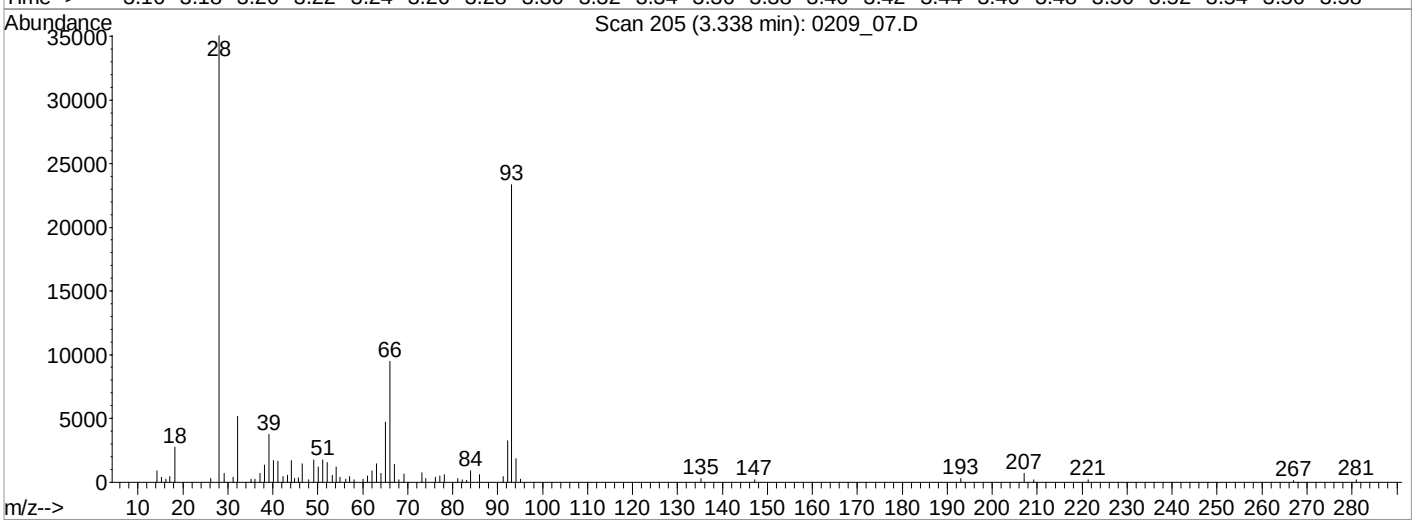


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 07.D Vial: 4
Acq On : 9 Feb 2022 11:04 am Operator: 917
Sample : STD SVMS 1K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:44:48 2022
Response via : Multiple Level Calibration





TIC: 0209_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.018) 1569.5183226 ppb m

response 33120

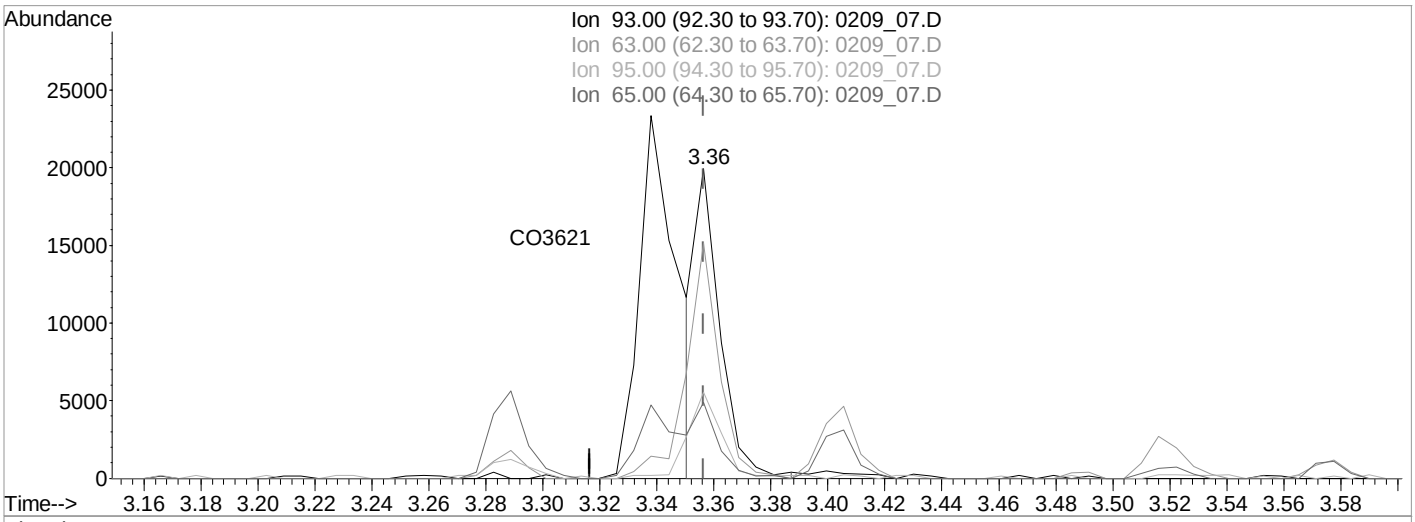
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	6.09#
95.00	30.20	0.87#
65.00	24.00	20.20

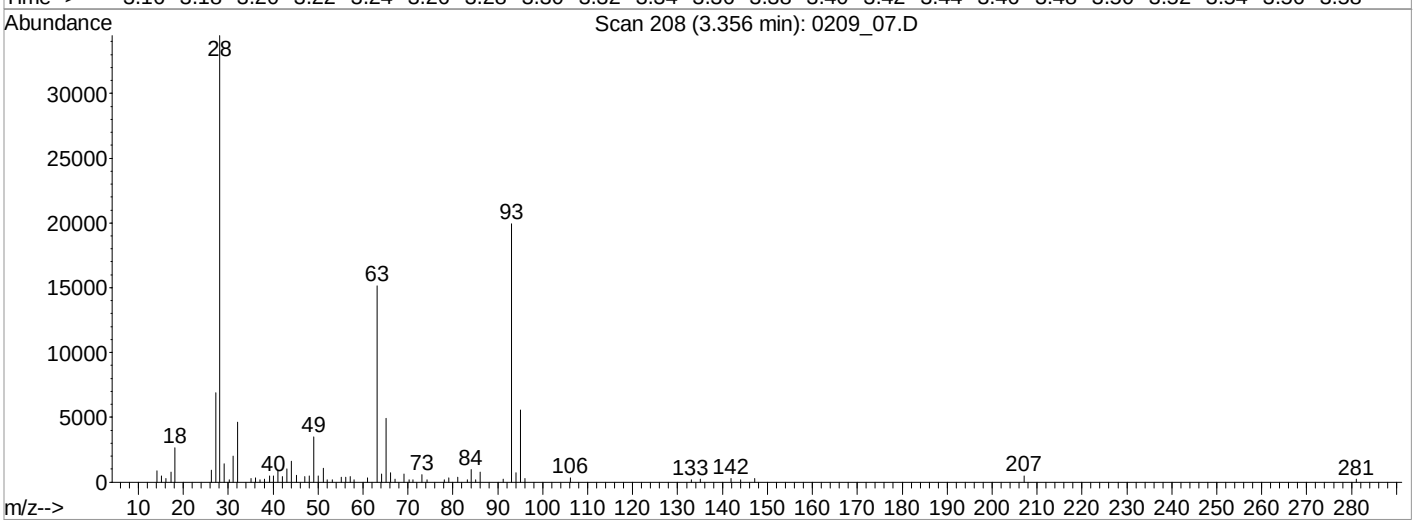
0209_07.D S804B09V.M Mon Feb 14 15:46:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 07.D Vial: 4
Acq On : 9 Feb 2022 11:04 am Operator: 917
Sample : STD SVMS 1K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:47 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:44:48 2022
Response via : Multiple Level Calibration





TIC: 0209_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (-0.000) 558.9513471 ppb m

response 11795

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	75.97
95.00	30.20	27.78
65.00	24.00	24.57

0209_07.D S804B09V.M Mon Feb 14 15:47:20 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 08.D Vial: 5
Acq On : 9 Feb 2022 11:25 am Operator: 917
Sample : STD SVMS 4K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:16 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:27:29 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	76560	8000.00	ppb		0.00
23) Naphthalene-d8	4.26	136	308834	8000.00	ppb		0.00
46) Acenaphthene-d10	5.44	164	158910	8000.00	ppb		0.00
70) Phenanthrene-d10	6.57	188	298649	8000.00	ppb		0.00
84) Chrysene-d12	9.54	240	273094	8000.00	ppb		0.00
94) Perylene-d12	12.39	264	293434	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.85	112	48725	3687.4891163	ppb		0.00
Spiked Amount 666.000			Recovery = 553.68%				
7) Phenol-d5	3.28	99	58350	3669.2378705	ppb		0.00
Spiked Amount 666.000			Recovery = 550.94%				
24) Nitrobenzene-d5	3.82	82	52297	3806.9552688	ppb		0.00
Spiked Amount 333.000			Recovery = 1143.23%				
50) 2-Fluorobiphenyl	4.95	172	105816	3650.6056885	ppb		0.00
Spiked Amount 333.000			Recovery = 1096.28%				
73) 2,4,6-Tribromophenol	6.02	330	12407	4051.9112414	ppb		0.00
Spiked Amount 666.000			Recovery = 608.40%				
87) p-Terphenyl-d14	8.04	244	135025	3509.7450349	ppb		0.00
Spiked Amount 333.000			Recovery = 1053.98%				
Target Compounds							Qvalue
2) Pyridine	2.30	79	46914	3922.1462465	ppb		92
3) N-Nitrosodimethylamine	2.29	42	25194	3641.3603720	ppb		92
5) Aniline	3.34	66	27896	3708.8809048	ppb		97
6) bis(2-Chloroethyl)ether	3.36	93	40648m	2249.7087184	ppb		
8) Phenol	3.29	94	61675	3690.2190244	ppb		98
10) 2-Chlorophenol	3.41	128	49941	3753.5004602	ppb		98
11) n-Decane	3.40	41	30186	3678.8814437	ppb	#	100
12) 1,3-Dichlorobenzene	3.49	146	55691	3642.1568344	ppb		98
13) 1,4-Dichlorobenzene	3.53	146	58102	3708.7838455	ppb		99
14) Benzyl Alcohol	3.58	79	37857	3754.5482410	ppb		99
15) 1,2-Dichlorobenzene	3.61	146	53437	3702.5382219	ppb		98
16) bis(2-Chloroisopropyl)ethe	3.65	121	18481	3590.7364409	ppb		70
17) 2,2-oxybis(1-chloropropane	3.65	121	18481	3590.7364409	ppb		70
18) 2-Methylphenol	3.62	108	44297	3648.9823869	ppb		97
19) Hexachloroethane	3.80	117	21006	3760.3383531	ppb		98
20) N-Nitrosodi-n-propylamine	3.72	70	32491	3653.6742608	ppb		97
21) 3&4-Methyl phenol	3.70	107	50954	3714.7273657	ppb		98
25) Nitrobenzene	3.84	77	50279	3739.7466534	ppb		97
26) Isophorone	3.96	82	86386	3587.9344294	ppb		100
27) 2-Nitrophenol	4.02	139	23882	3723.7157111	ppb		97
28) 2,4-Dimethylphenol	4.01	107	46618	3705.4455563	ppb		99
29) bis(2-Chlorethoxy)methane	4.08	93	56471	3541.6753632	ppb		94
30) 2,4-Dichlorophenol	4.15	162	38182	3640.7331375	ppb		98
32) 1,2,4-Trichlorobenzene	4.22	180	44416	3667.8194095	ppb		98
34) Naphthalene	4.27	128	153901	3659.2817273	ppb		100
35) 4-Chloroaniline	4.29	65	17865	3711.5524610	ppb		100
36) Hexachloro-1,3-butadiene	4.33	225	23634	3587.0389463	ppb		99
40) 4-Chloro-3-methylphenol	4.57	107	38533	3687.7972059	ppb		91
41) 2-Methylnaphthalene	4.71	142	98637	3587.8315328	ppb		99
42) 1-Methylnaphthalene	4.78	142	93691	3657.5057324	ppb		99
47) Hexachlorocyclopentadiene	4.81	237	29092	3855.5923968	ppb		97
48) 2,4,6-Trichlorophenol	4.89	196	25288	3567.6924956	ppb		87
49) 2,4,5-Trichlorophenol	4.91	196	27944	3797.4870871	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 08.D Vial: 5
Acq On : 9 Feb 2022 11:25 am Operator: 917
Sample : STD SVMS 4K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:16 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:27:29 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

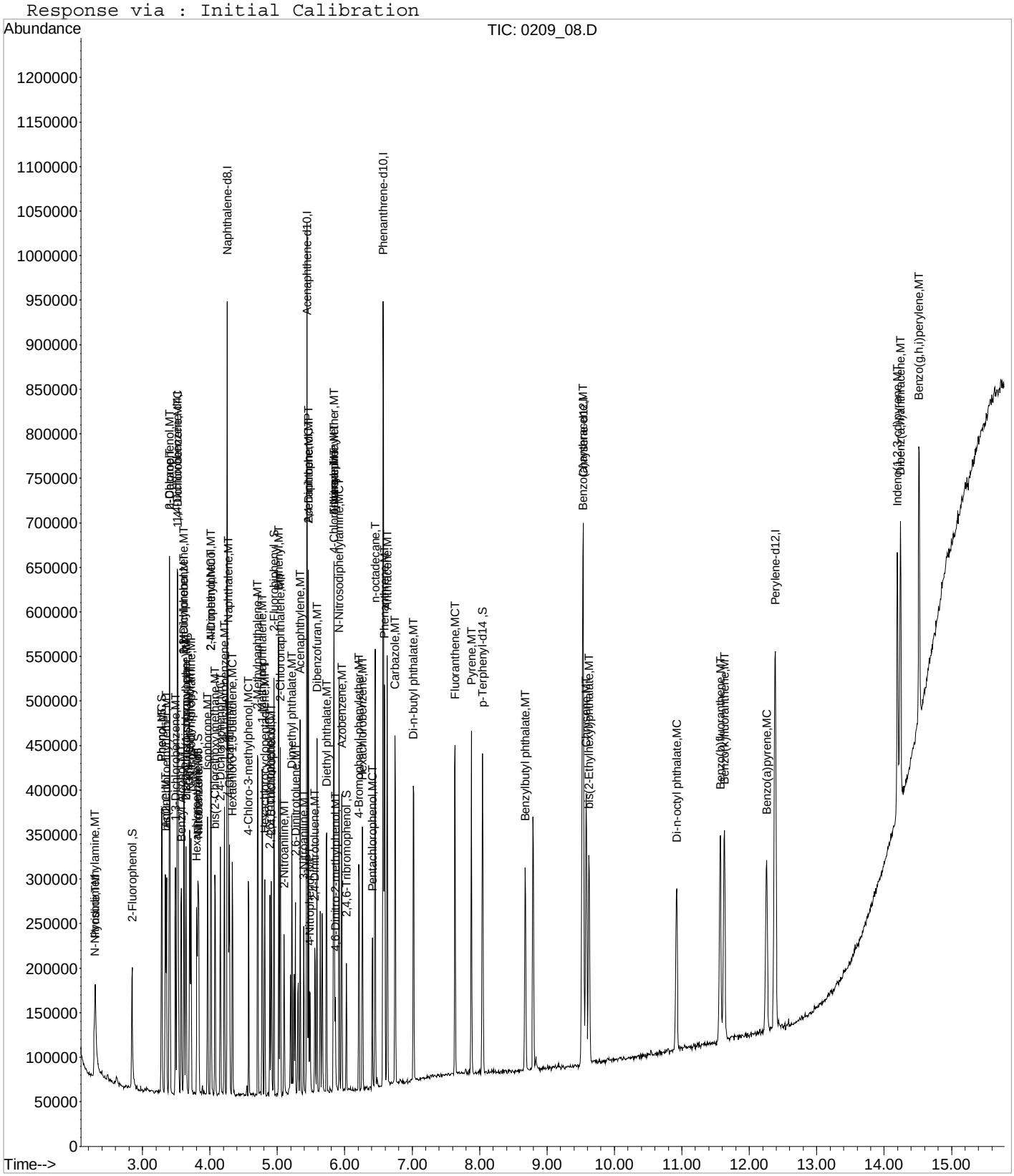
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.02	154	118174	3700.2138562	ppb		99
52)	2-Chloronaphthalene	5.05	162	91273	3741.8140427	ppb		98
53)	2-Nitroaniline	5.10	138	25895	3812.3559871	ppb		97
54)	Acenaphthylene	5.34	152	138397	3781.4678851	ppb		98
55)	Dimethyl phthalate	5.22	163	89878	3716.0291707	ppb		100
56)	2,6-Dinitrotoluene	5.27	165	20369	3881.8398479	ppb		95
57)	3-Nitroaniline	5.39	138	22058	4014.9800104	ppb		98
58)	Acenaphthene	5.46	153	90926	3664.8708952	ppb		99
59)	2,4-Dinitrophenol	5.46	184	7954	4699.4207519	ppb	#	65
60)	Dibenzofuran	5.59	168	125970	3636.1153668	ppb		99
61)	2,4-Dinitrotoluene	5.56	165	24897	4010.3299275	ppb		99
63)	4-Nitrophenol	5.49	139	17661	3896.6279998	ppb		97
64)	Fluorene	5.84	166	104287	3810.5999505	ppb		98
65)	4-Chlorophenyl-phenylether	5.83	204	48245	3589.6378717	ppb		99
66)	Diethyl phthalate	5.73	149	94239	3779.5583767	ppb		99
67)	4-Nitroaniline	5.84	138	22766	4121.6546071	ppb		99
68)	Azobenzene	5.95	77	94745	3764.1896388	ppb		100
71)	4,6-Dinitro-2-methylphenol	5.86	198	11741	4386.5146094	ppb		93
72)	N-Nitrosodiphenylamine	5.92	169	85367	3739.0321479	ppb		100
74)	4-Bromophenyl-phenylether	6.21	248	28452	3863.3232975	ppb		96
75)	Hexachlorobenzene	6.26	284	30100	3536.3795647	ppb		97
76)	n-octadecane	6.45	55	17047	3425.2915399	ppb		93
77)	Pentachlorophenol	6.41	266	15204	3960.8681961	ppb		97
78)	Phenanthrene	6.59	178	152049	3634.5438187	ppb		98
79)	Anthracene	6.63	178	149791	3592.4300031	ppb		99
80)	Carbazole	6.75	167	140338	3658.3915478	ppb		98
81)	Di-n-butyl phthalate	7.02	149	155562	3744.3117272	ppb		100
83)	Fluoranthene	7.64	202	156913	3676.5726891	ppb		99
86)	Pyrene	7.88	202	164730	3625.2603146	ppb		99
88)	Benzylbutyl phthalate	8.68	149	64453	3668.2506321	ppb		98
90)	Benzo(a)anthracene	9.52	228	146345	3535.0092132	ppb		100
91)	Chrysene	9.58	228	146632	3641.3605935	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.62	149	86899	3598.8379231	ppb		99
93)	Di-n-octyl phthalate	10.92	149	144282	3711.0126159	ppb		98
95)	Benzo(b)fluoranthene	11.57	252	156039	3531.8820648	ppb		99
96)	Benzo(k)fluoranthene	11.63	252	152687	3534.5271144	ppb		98
97)	Benzo(a)pyrene	12.26	252	134154	3619.3303945	ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.20	276	136698	3696.1693366	ppb		97
99)	Dibenz(a,h)anthracene	14.24	278	145241	3640.5893699	ppb		98
100)	Benzo(g,h,i)perylene	14.52	276	144798	3642.3839778	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 08.D Vial: 5
Acq On : 9 Feb 2022 11:25 am Operator: 917
Sample : STD SVMS 4K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:16 2022 Quant Results File: S804B09V.RES

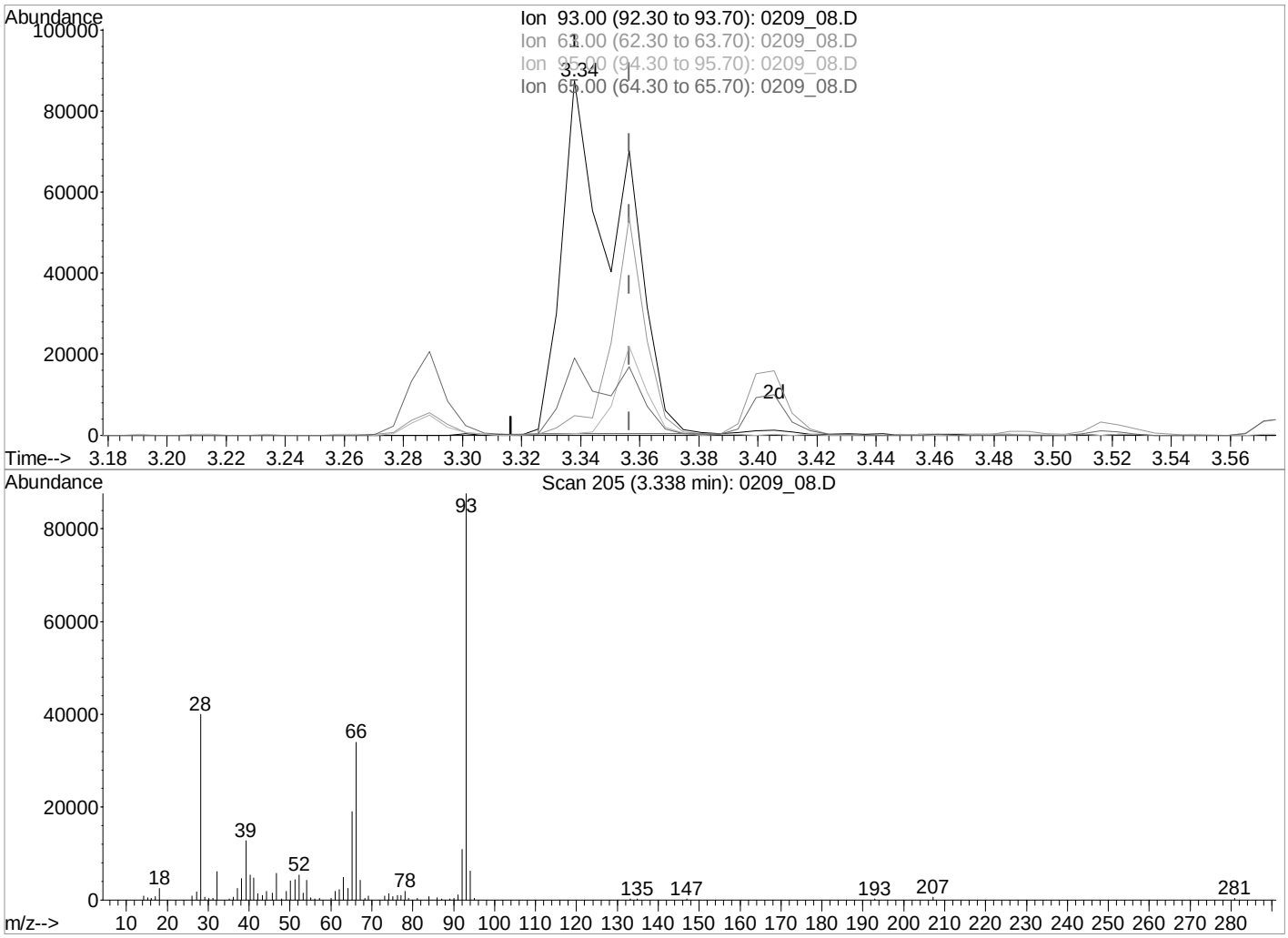
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:47:45 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 08.D Vial: 5
Acq On : 9 Feb 2022 11:25 am Operator: 917
Sample : STD SVMS 4K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:29 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:27:29 2022
Response via : Multiple Level Calibration



TIC: 0209_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.018) 6535.1580902 ppb

Qvalue = 38

response 118078

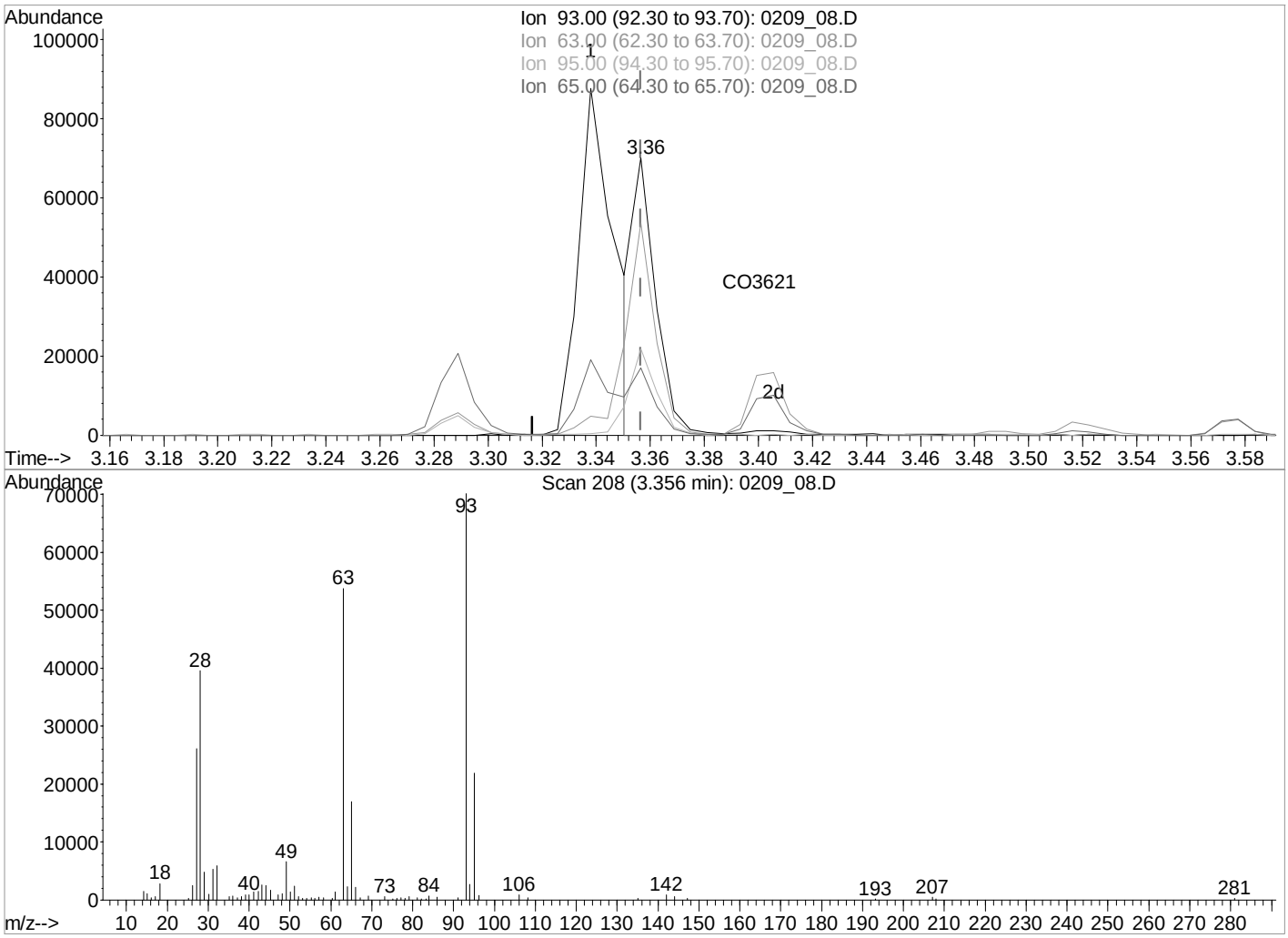
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.23#
95.00	30.20	0.18#
65.00	24.00	21.53

0209_08.D S804B09V.M Mon Feb 14 12:30:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 08.D Vial: 5
Acq On : 9 Feb 2022 11:25 am Operator: 917
Sample : STD SVMS 4K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 14:25:02 2022
Response via : Multiple Level Calibration



TIC: 0209_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (-0.000) 2249.7087184 ppb m

response 40648

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	76.56
95.00	30.20	31.18
65.00	24.00	24.14

0209_08.D S804B09V.M Mon Feb 14 15:16:38 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:51 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 11:39:40 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	79698	8000.00	ppb	0.00
23) Naphthalene-d8	4.26	136	318573	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	166698	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	313275	8000.00	ppb	0.00
84) Chrysene-d12	9.54	240	276256	8000.00	ppb	0.00
94) Perylene-d12	12.38	264	294444	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.85	112	126685	10000.0000000	ppb	0.00
Spiked Amount 666.000			Recovery = 1501.50%			
7) Phenol-d5	3.28	99	152664	10000.0000000	ppb	0.00
Spiked Amount 666.000			Recovery = 1501.50%			
24) Nitrobenzene-d5	3.82	82	126003m	9983.3614604	ppb	0.00
Spiked Amount 333.000			Recovery = 2998.01%			
50) 2-Fluorobiphenyl	4.95	172	280043	10000.0000000	ppb	0.00
Spiked Amount 333.000			Recovery = 3003.00%			
73) 2,4,6-Tribromophenol	6.02	330	35551	10000.0000000	ppb	0.00
Spiked Amount 666.000			Recovery = 1501.50%			
87) p-Terphenyl-d14	8.04	244	374818	10000.0000000	ppb	0.00
Spiked Amount 333.000			Recovery = 3003.00%			
Target Compounds						Qvalue
2) Pyridine	2.29	79	121910	9699.8002912	ppb	99
3) N-Nitrosodimethylamine	2.28	42	65505	10000.0000000	ppb	100
5) Aniline	3.34	66	74198	10000.0000000	ppb	100
6) bis(2-Chloroethyl)ether	3.36	93	103260m	10000.0000000	ppb	
8) Phenol	3.29	94	161240	10000.0000000	ppb	100
10) 2-Chlorophenol	3.41	128	128999	10000.0000000	ppb	100
11) n-Decane	3.40	41	76738	10000.0000000	ppb	100
12) 1,3-Dichlorobenzene	3.49	146	146804	10000.0000000	ppb	100
13) 1,4-Dichlorobenzene	3.53	146	149745	10000.0000000	ppb	100
14) Benzyl Alcohol	3.58	79	100344	10000.0000000	ppb	100
15) 1,2-Dichlorobenzene	3.61	146	137930	10000.0000000	ppb	100
16) bis(2-Chloroisopropyl)ethe	3.65	121	46703	10000.0000000	ppb	100
17) 2,2-oxybis(1-chloropropane	3.65	121	46703	10000.0000000	ppb	100
18) 2-Methylphenol	3.62	108	118936	10000.0000000	ppb	100
19) Hexachloroethane	3.80	117	55684	10000.0000000	ppb	100
20) N-Nitrosodi-n-propylamine	3.72	70	87187	10000.0000000	ppb	100
21) 3&4-Methyl phenol	3.70	107	134402	10000.0000000	ppb	100
25) Nitrobenzene	3.84	77	132607	10000.0000000	ppb	100
26) Isophorone	3.96	82	237119	10000.0000000	ppb	100
27) 2-Nitrophenol	4.02	139	64981	10000.0000000	ppb	100
28) 2,4-Dimethylphenol	4.01	107	120179	10000.0000000	ppb	100
29) bis(2-Chlorethoxy)methane	4.08	93	147555	10000.0000000	ppb	100
30) 2,4-Dichlorophenol	4.15	162	103418	10000.0000000	ppb	100
32) 1,2,4-Trichlorobenzene	4.22	180	115136	10000.0000000	ppb	100
34) Naphthalene	4.27	128	399013	10000.0000000	ppb	100
35) 4-Chloroaniline	4.29	65	47430	10000.0000000	ppb	100
36) Hexachloro-1,3-butadiene	4.33	225	62939	10000.0000000	ppb	100
40) 4-Chloro-3-methylphenol	4.58	107	104251	10000.0000000	ppb	100
41) 2-Methylnaphthalene	4.71	142	261134	10000.0000000	ppb	100
42) 1-Methylnaphthalene	4.78	142	242812	10000.0000000	ppb	100
47) Hexachlorocyclopentadiene	4.81	237	77267	10000.0000000	ppb	100
48) 2,4,6-Trichlorophenol	4.89	196	69331	10000.0000000	ppb	100
49) 2,4,5-Trichlorophenol	4.91	196	78067	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration
0209_09.D S804B09V.M Mon Feb 14 15:53:06 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:51 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 11:39:40 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

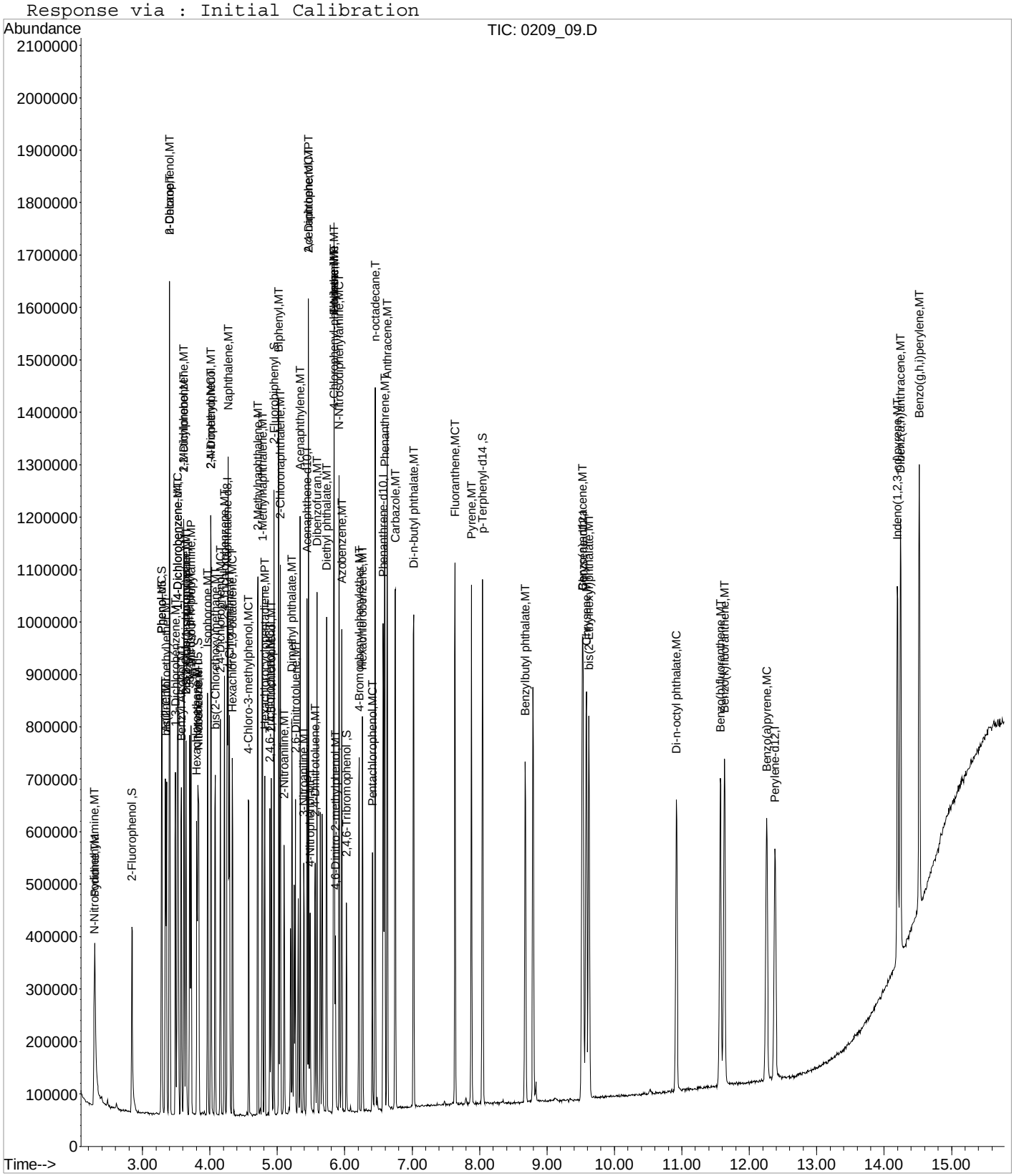
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	Biphenyl	5.02	154	310488	10000.0000000	ppb	100
52)	2-Chloronaphthalene	5.05	162	240256	10000.0000000	ppb	100
53)	2-Nitroaniline	5.10	138	75937	10000.0000000	ppb	100
54)	Acenaphthylene	5.34	152	371391	10000.0000000	ppb	100
55)	Dimethyl phthalate	5.22	163	250120	10000.0000000	ppb	100
56)	2,6-Dinitrotoluene	5.27	165	59648	10000.0000000	ppb	100
57)	3-Nitroaniline	5.39	138	64174	10000.0000000	ppb	100
58)	Acenaphthene	5.46	153	243837	10000.0000000	ppb	100
59)	2,4-Dinitrophenol	5.46	184	25454	10000.0000000	ppb	100
60)	Dibenzofuran	5.59	168	335686	10000.0000000	ppb	100
61)	2,4-Dinitrotoluene	5.56	165	72875	10000.0000000	ppb	100
63)	4-Nitrophenol	5.49	139	52065	10000.0000000	ppb	100
64)	Fluorene	5.84	166	276379	10000.0000000	ppb	100
65)	4-Chlorophenyl-phenylether	5.83	204	130111	10000.0000000	ppb	100
66)	Diethyl phthalate	5.73	149	253571	10000.0000000	ppb	100
67)	4-Nitroaniline	5.84	138	62120	10000.0000000	ppb	100
68)	Azobenzene	5.95	77	259354	10000.0000000	ppb	100
71)	4,6-Dinitro-2-methylphenol	5.86	198	35354	10000.0000000	ppb	100
72)	N-Nitrosodiphenylamine	5.92	169	231908	10000.0000000	ppb	100
74)	4-Bromophenyl-phenylether	6.21	248	75834	10000.0000000	ppb	100
75)	Hexachlorobenzene	6.26	284	81756	10000.0000000	ppb	100
76)	n-octadecane	6.45	55	46905	10000.0000000	ppb	100
77)	Pentachlorophenol	6.41	266	46865	10000.0000000	ppb	100
78)	Phenanthrene	6.59	178	401719	10000.0000000	ppb	100
79)	Anthracene	6.63	178	412471	10000.0000000	ppb	100
80)	Carbazole	6.75	167	385300	10000.0000000	ppb	100
81)	Di-n-butyl phthalate	7.02	149	437342	10000.0000000	ppb	100
83)	Fluoranthene	7.64	202	425654	10000.0000000	ppb	100
86)	Pyrene	7.88	202	441403	10000.0000000	ppb	100
88)	Benzylbutyl phthalate	8.68	149	182425	10000.0000000	ppb	100
90)	Benzo(a)anthracene	9.52	228	393248	10000.0000000	ppb	100
91)	Chrysene	9.58	228	381309	10000.0000000	ppb	100
92)	bis(2-Ethylhexyl)phthalate	9.62	149	255742	10000.0000000	ppb	100
93)	Di-n-octyl phthalate	10.92	149	419500	10000.0000000	ppb	100
95)	Benzo(b)fluoranthene	11.57	252	408147	10000.0000000	ppb	100
96)	Benzo(k)fluoranthene	11.63	252	406682	10000.0000000	ppb	100
97)	Benzo(a)pyrene	12.26	252	356920	10000.0000000	ppb	100
98)	Indeno(1,2,3-cd)pyrene	14.20	276	361749	10000.0000000	ppb	100
99)	Dibenz(a,h)anthracene	14.24	278	387330	10000.0000000	ppb	100
100)	Benzo(g,h,i)perylene	14.52	276	382610	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:51 2022 Quant Results File: S804B09V.RES

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:49:28 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\050422B\0504B 03.D Vial: 3
Acq On : 4 May 2022 8:09 pm Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 5 16:03 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	72810	8000.00	ppb		0.00
23) Naphthalene-d8	3.98	136	308811	8000.00	ppb		0.00
46) Acenaphthene-d10	5.15	164	153956	8000.00	ppb		0.00
70) Phenanthrene-d10	6.26	188	290793	8000.00	ppb		0.00
84) Chrysene-d12	9.01	240	239869	8000.00	ppb		0.00
94) Perylene-d12	11.67	264	248833	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.58	112	125991	10648.8093607	ppb		0.00
Spiked Amount 20000.000			Recovery = 53.24%				
7) Phenol-d5	3.03	99	154852	10904.8081827	ppb		0.00
Spiked Amount 20000.000			Recovery = 54.52%				
24) Nitrobenzene-d5	3.56	82	148958m	11368.3042392	ppb		0.00
Spiked Amount 10000.000			Recovery = 113.68%				
50) 2-Fluorobiphenyl	4.67	172	266294	10253.4023911	ppb		0.00
Spiked Amount 10000.000			Recovery = 102.53%				
73) 2,4,6-Tribromophenol	5.72	330	38217	11609.7274995	ppb		0.00
Spiked Amount 20000.000			Recovery = 58.05%				
87) p-Terphenyl-d14	7.65	244	342371	10444.2393420	ppb		0.00
Spiked Amount 10000.000			Recovery = 104.44%				
Target Compounds							Qvalue
2) Pyridine	1.99	79	148014	13138.2970554	ppb		91
3) N-Nitrosodimethylamine	1.98	42	78031	12904.7576433	ppb		92
5) Aniline	3.08	66	77309	11476.0102541	ppb	#	36
6) bis(2-Chloroethyl)ether	3.09	93	134334	12837.6695153	ppb		98
8) Phenol	3.04	94	159489	10662.4454340	ppb		91
10) 2-Chlorophenol	3.14	128	126641	10574.2456665	ppb		95
11) n-Decane	3.14	41	83245	11800.6717158	ppb		97
12) 1,3-Dichlorobenzene	3.22	146	137383	10145.3675510	ppb		93
13) 1,4-Dichlorobenzene	3.27	146	142112	10196.1300433	ppb		97
14) Benzyl Alcohol	3.32	79	102792	11097.2164608	ppb		96
15) 1,2-Dichlorobenzene	3.35	146	135933	10609.6074912	ppb		95
16) bis(2-Chloroisopropyl)ethe	3.38	121	46434	10591.0535705	ppb	#	39
17) 2,2-oxybis(1-chloropropane	3.38	121	46434	10591.0535705	ppb	#	39
18) 2-Methylphenol	3.37	108	122831	11350.0352901	ppb		95
19) Hexachloroethane	3.54	117	58879	11637.4411130	ppb		95
20) N-Nitrosodi-n-propylamine	3.46	70	100110	12658.3109219	ppb		93
21) 3&4-Methyl phenol	3.45	107	139627	11358.6276700	ppb		95
25) Nitrobenzene	3.57	77	149196	11645.3460556	ppb		93
26) Isophorone	3.70	82	273139	11884.7047612	ppb		96
27) 2-Nitrophenol	3.76	139	67830	10504.2391718	ppb		81
28) 2,4-Dimethylphenol	3.76	107	131358	10953.2526094	ppb		95
29) bis(2-Chlorethoxy)methane	3.82	93	162553	11062.0210610	ppb		98
30) 2,4-Dichlorophenol	3.89	162	100259	9923.8153739	ppb		95
32) 1,2,4-Trichlorobenzene	3.95	180	112134	9915.5942513	ppb		97
34) Naphthalene	4.00	128	374919m	9533.8516433	ppb		
35) 4-Chloroaniline	4.02	65	50343	11017.8017774	ppb	#	49
36) Hexachloro-1,3-butadiene	4.06	225	66952	10852.4043763	ppb		96
40) 4-Chloro-3-methylphenol	4.32	107	102521	10066.9036815	ppb		91
41) 2-Methylnaphthalene	4.43	142	242446	9461.4504064	ppb		96
42) 1-Methylnaphthalene	4.49	142	232320	9647.4495585	ppb		98
47) Hexachlorocyclopentadiene	4.53	237	49301	6835.0157549	ppb		95
48) 2,4,6-Trichlorophenol	4.61	196	68606	10274.1845518	ppb		90
49) 2,4,5-Trichlorophenol	4.64	196	71338	10265.3745585	ppb		91

(#) = qualifier out of range (m) = manual integration
0504B_03.D S804E04BV.M Thu May 05 16:04:03 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\050422B\0504B 03.D Vial: 3
Acq On : 4 May 2022 8:09 pm Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 5 16:03 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

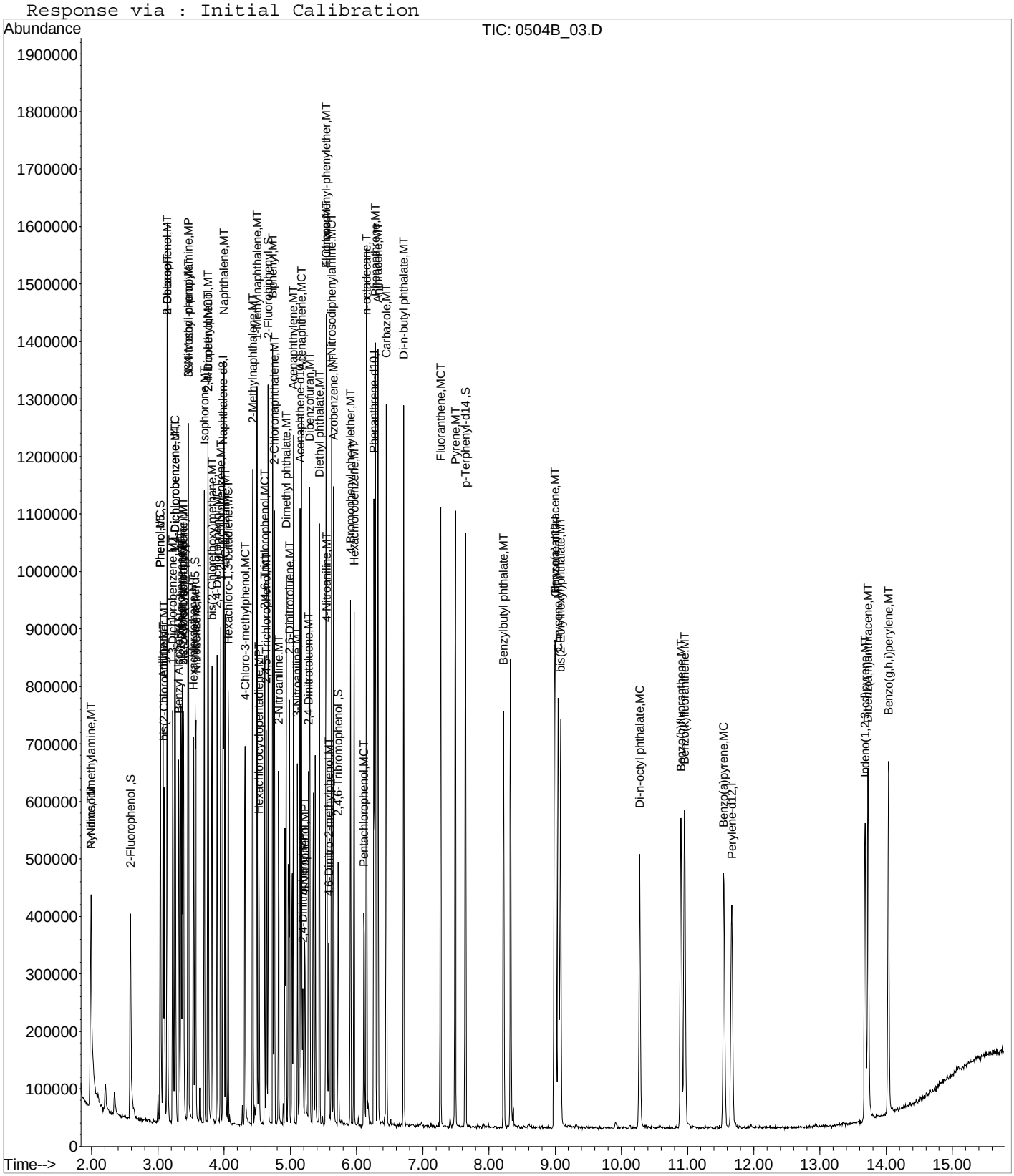
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.73	154	301118	10441.1941443 ppb		99
52)	2-Chloronaphthalene	4.76	162	225125	10228.5696808 ppb		97
53)	2-Nitroaniline	4.82	138	77356	11338.4162347 ppb		92
54)	Acenaphthylene	5.05	152	349630	10211.1489350 ppb		99
55)	Dimethyl phthalate	4.94	163	241288	10581.7152130 ppb		99
56)	2,6-Dinitrotoluene	4.99	165	57670	10908.4044924 ppb	#	77
57)	3-Nitroaniline	5.11	138	60805	10682.3816714 ppb		93
58)	Acenaphthene	5.17	153	225966	10032.0397375 ppb		98
59)	2,4-Dinitrophenol	5.19	184	25739	8991.4846740 ppb	#	1
60)	Dibenzofuran	5.29	168	313173	10025.5416474 ppb		96
61)	2,4-Dinitrotoluene	5.27	165	75641	11425.1613528 ppb	#	70
63)	4-Nitrophenol	5.22	139	45267	9627.8896252 ppb	#	76
64)	Fluorene	5.54	166	256925	10139.6783842 ppb		97
65)	4-Chlorophenyl-phenylether	5.54	204	121190	10085.5561793 ppb		97
66)	Diethyl phthalate	5.44	149	247489	10594.0855044 ppb		99
67)	4-Nitroaniline	5.56	138	65508	12287.5656579 ppb	#	84
68)	Azobenzene	5.66	77	297244	12755.6777858 ppb		93
71)	4,6-Dinitro-2-methylphenol	5.58	198	37511	9563.0231518 ppb		99
72)	N-Nitrosodiphenylamine	5.62	169	211635	9577.4859602 ppb		97
74)	4-Bromophenyl-phenylether	5.91	248	72523	10112.5929308 ppb	#	81
75)	Hexachlorobenzene	5.96	284	77452	9706.0758801 ppb		98
76)	n-octadecane	6.15	55	48116	10814.2343337 ppb	#	96
77)	Pentachlorophenol	6.12	266	38231	8678.9089734 ppb		98
78)	Phenanthrene	6.28	178	384570	10051.4266576 ppb		96
79)	Anthracene	6.32	178	388432	10029.9451799 ppb		100
80)	Carbazole	6.45	167	353123	9993.7408883 ppb		98
81)	Di-n-butyl phthalate	6.71	149	434009	10491.9411679 ppb		98
83)	Fluoranthene	7.27	202	378397	9309.6678860 ppb		99
86)	Pyrene	7.49	202	390486	10117.3151564 ppb		98
88)	Benzylbutyl phthalate	8.22	149	171356	10857.8701556 ppb		93
90)	Benzo(a)anthracene	8.99	228	347193	10051.9932243 ppb		98
91)	Chrysene	9.05	228	348883	10422.9918589 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.08	149	240106	11045.4381754 ppb		98
93)	Di-n-octyl phthalate	10.28	149	361907	10021.6890694 ppb		99
95)	Benzo(b)fluoranthene	10.90	252	334061	9424.0897312 ppb		99
96)	Benzo(k)fluoranthene	10.96	252	351862	10077.4373458 ppb		96
97)	Benzo(a)pyrene	11.55	252	295004	9608.8207390 ppb		94
98)	Indeno(1,2,3-cd)pyrene	13.68	276	275571	9135.8130051 ppb		97
99)	Dibenz(a,h)anthracene	13.73	278	313847	9762.7192535 ppb		97
100)	Benzo(g,h,i)perylene	14.03	276	325162	10356.9766358 ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\050422B\0504B 03.D Vial: 3
Acq On : 4 May 2022 8:09 pm Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 5 16:03 2022 Quant Results File: S804E04BV.RES

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration

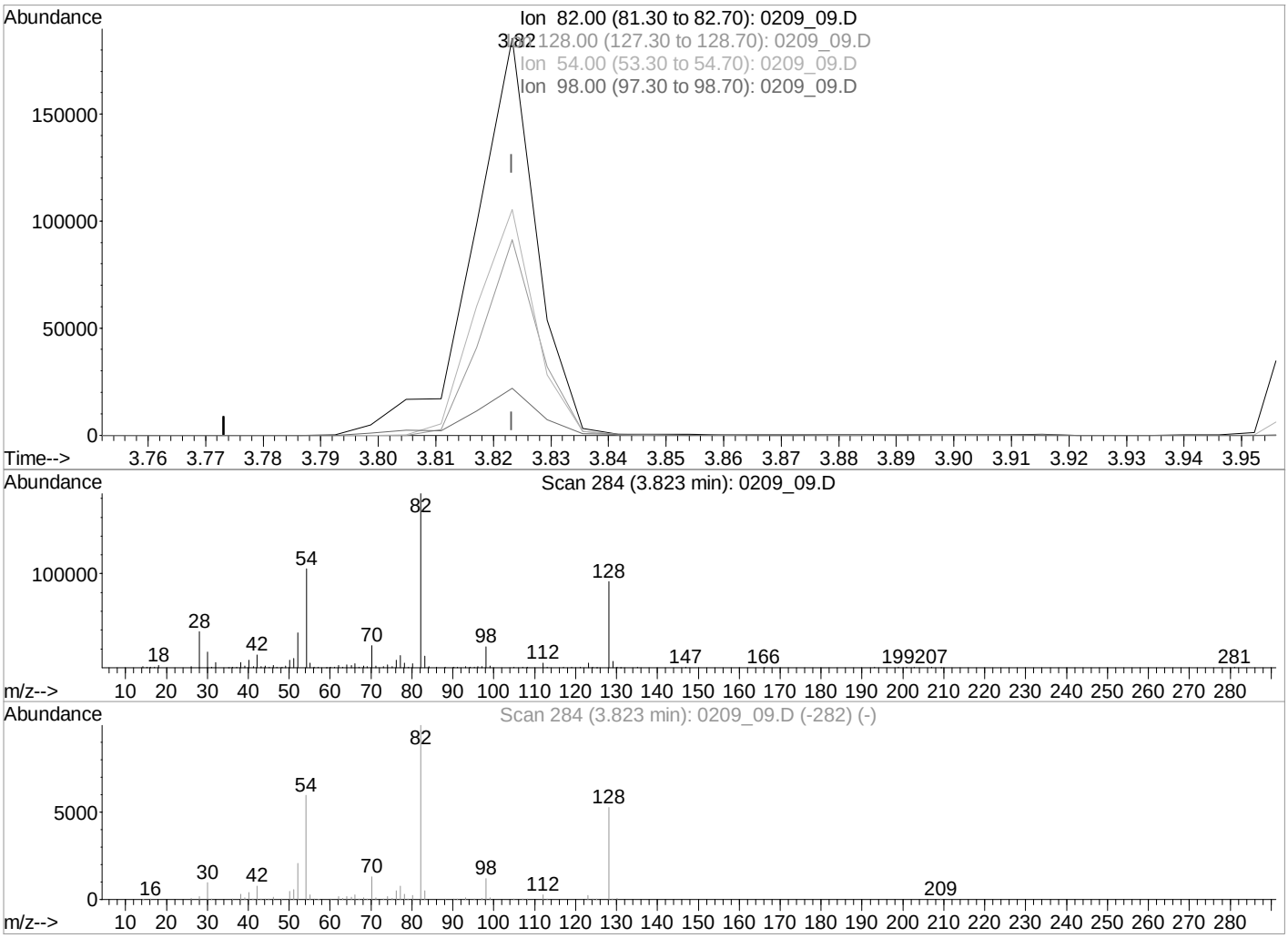


0504B_03.D S804E04BV.M Thu May 05 16:04:03 2022 Page 3

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 11:39:40 2022
Response via : Multiple Level Calibration



TIC: 0209_09.D

(24) Nitrobenzene-d5 (S)

3.82min (0.000) 11153.2092574 ppb

Qvalue = 100

response 140768

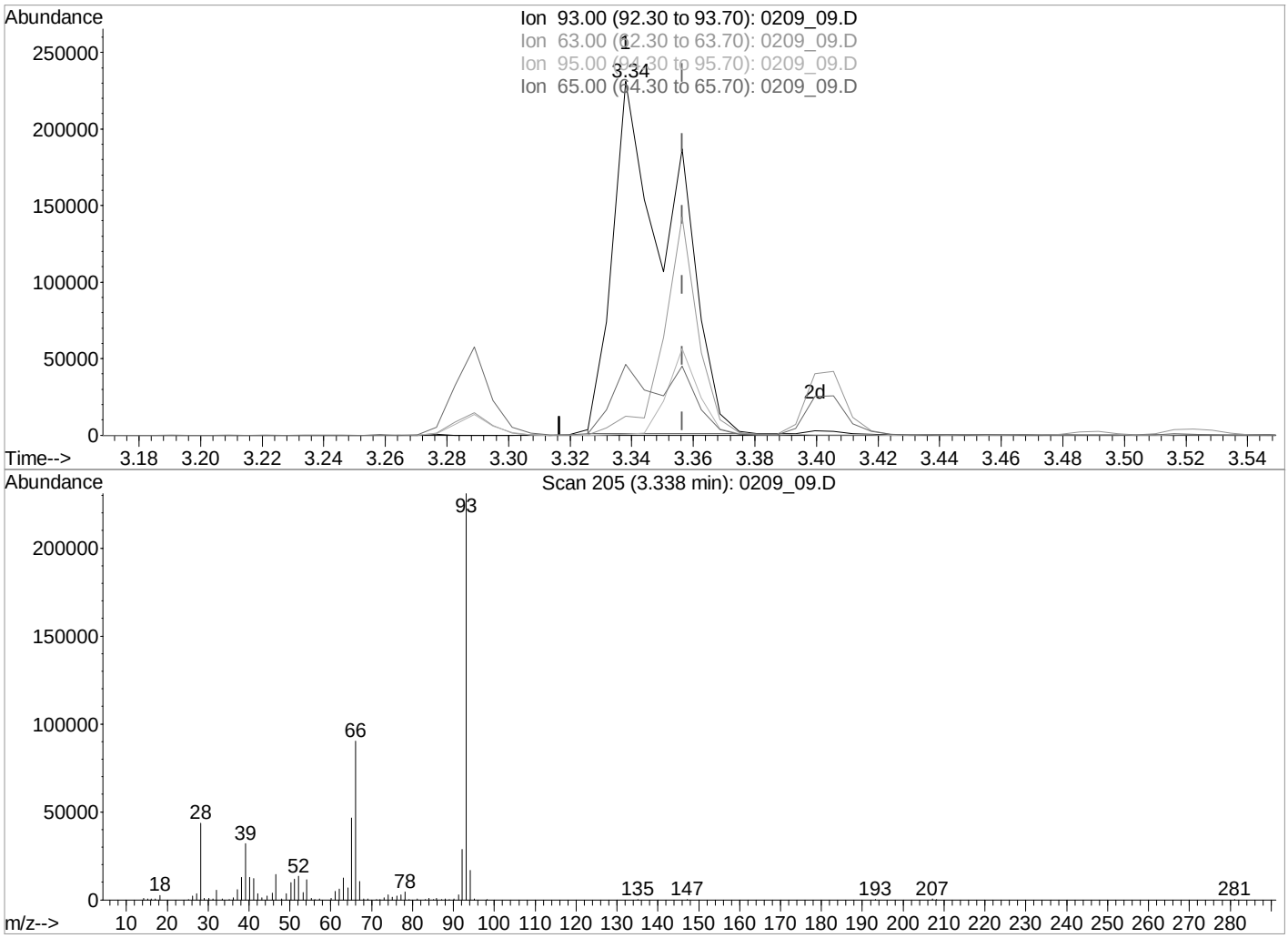
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	49.28
54.00	56.90	56.86
98.00	11.80	11.80

0209_09.D S804B09V.M Mon Feb 14 11:48:43 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:48 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:49:28 2022
Response via : Multiple Level Calibration



TIC: 0209_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.018) 29901.8981212 ppb

Qvalue = 37

response 308767

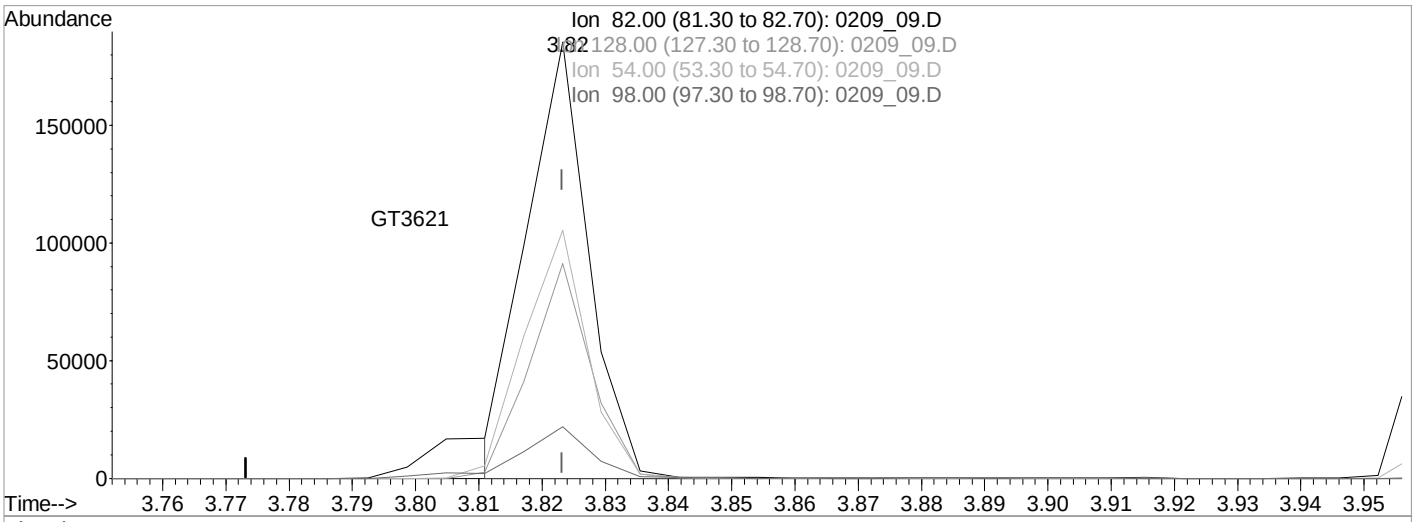
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.25#
95.00	30.20	0.25#
65.00	24.00	19.97

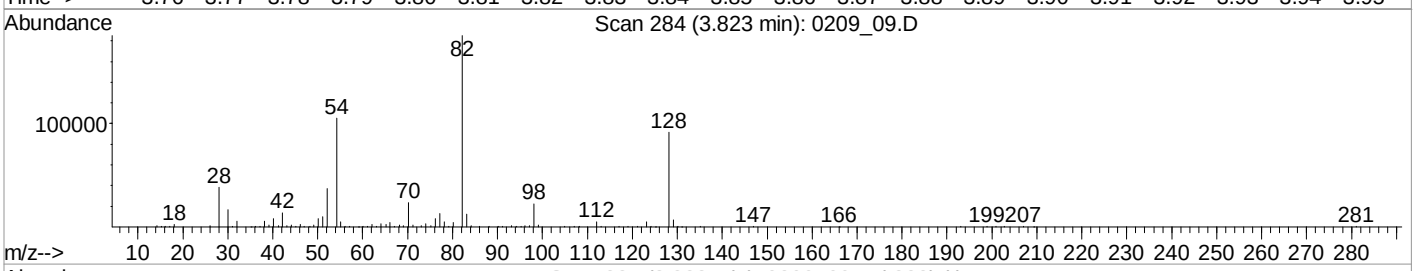
0209_09.D S804B09V.M Mon Feb 14 15:50:53 2022

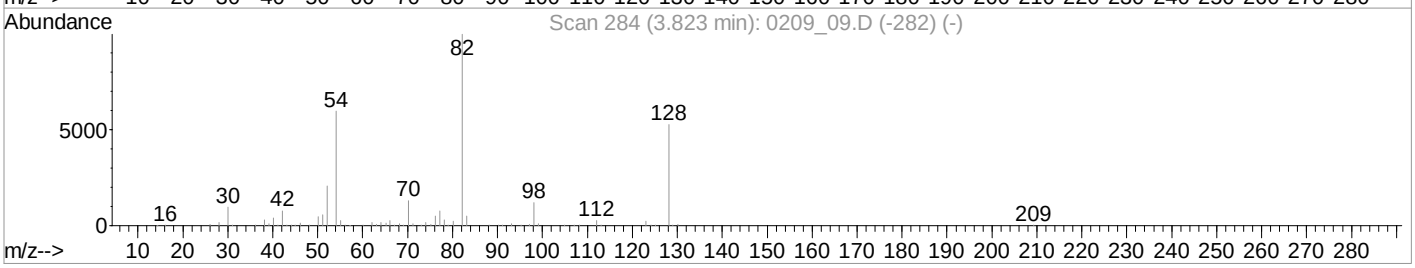
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:48 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 11:39:40 2022
Response via : Multiple Level Calibration







TIC: 0209_09.D

(24) Nitrobenzene-d5 (S)

3.82min (0.000) 9983.3614604 ppb m

response 126003

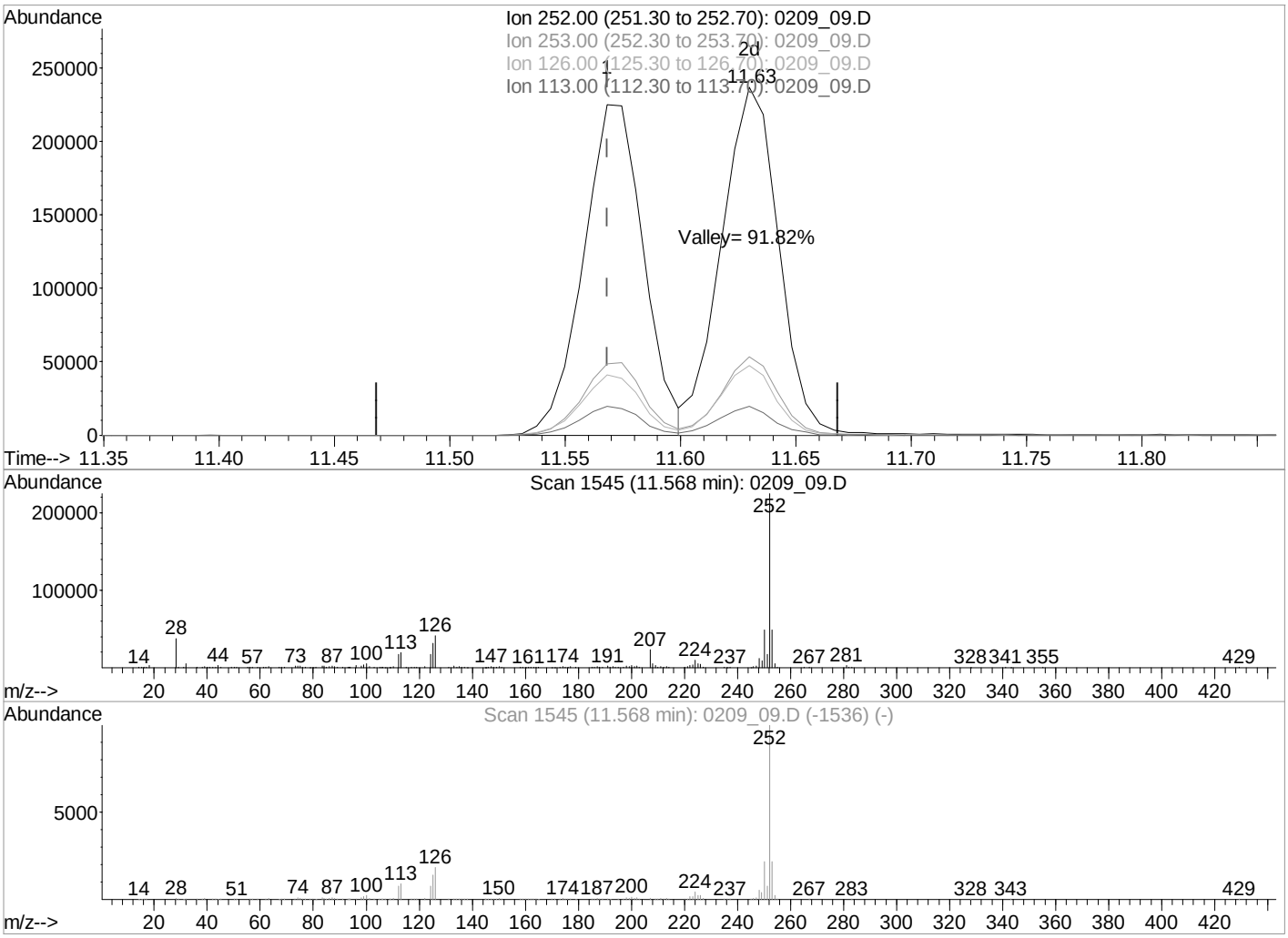
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	49.28
54.00	56.90	56.86
98.00	11.80	11.80

0209_09.D S804B09V.M Mon Feb 14 11:48:56 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:48 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 11:39:40 2022
Response via : Multiple Level Calibration



TIC: 0209_09.D

(95) Benzo(b)fluoranthene (MT)

11.57min (0.000) 10000.0000000 ppb

Qvalue = 100

response 408147

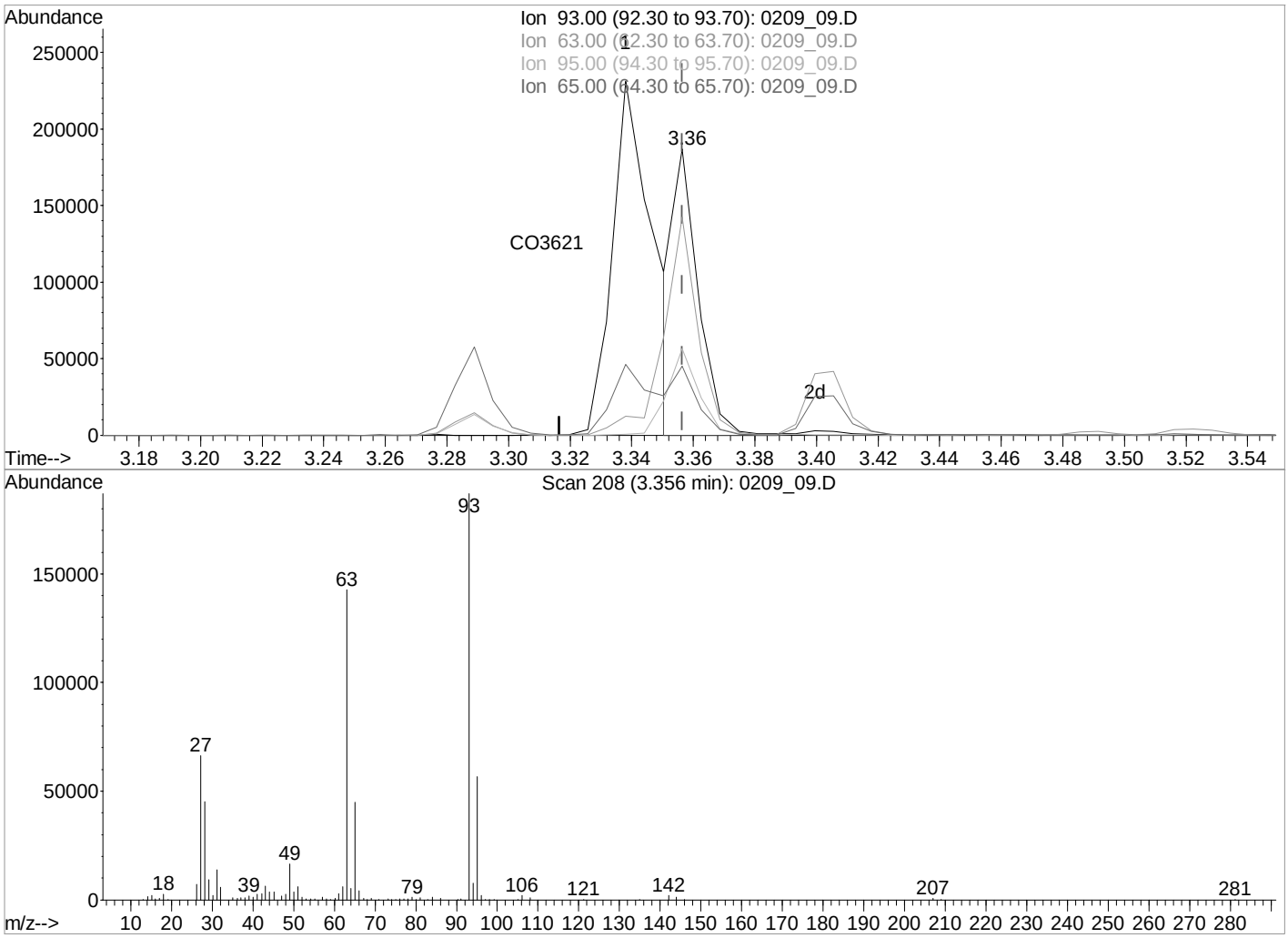
Ion	Exp%	Act%
252.00	100	100
253.00	21.60	21.58
126.00	18.30	18.28
113.00	8.80	8.83

0209_09.D S804B09V.M Mon Feb 14 11:53:36 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 09.D Vial: 6
Acq On : 9 Feb 2022 11:46 am Operator: 917
Sample : MSTD SVMS 10K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:51 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:49:28 2022
Response via : Multiple Level Calibration



TIC: 0209_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (0.000) 10000.0000000 ppb m

response 103260

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	76.22
95.00	30.20	30.24
65.00	24.00	24.04

0209_09.D S804B09V.M Mon Feb 14 15:51:08 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 10.D Vial: 7
Acq On : 9 Feb 2022 12:07 pm Operator: 917
Sample : STD SVMS 20K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:56 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:33:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	86208	8000.00 ppb	0.00
23) Naphthalene-d8	4.26	136	347138	8000.00 ppb	0.00
46) Acenaphthene-d10	5.44	164	183569	8000.00 ppb	0.00
70) Phenanthrene-d10	6.57	188	330840	8000.00 ppb	0.00
84) Chrysene-d12	9.54	240	285073	8000.00 ppb	0.01
94) Perylene-d12	12.39	264	302743	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.85	112	272239	18661.6543157 ppb	0.00
Spiked Amount 666.000			Recovery = 2802.05%		
7) Phenol-d5	3.28	99	324364	18496.6942819 ppb	0.00
Spiked Amount 666.000			Recovery = 2777.28%		
24) Nitrobenzene-d5	3.82	82	295460	19368.4291281 ppb	0.00
Spiked Amount 333.000			Recovery = 5816.35%		
50) 2-Fluorobiphenyl	4.95	172	586401	17903.9561881 ppb	0.00
Spiked Amount 333.000			Recovery = 5376.56%		
73) 2,4,6-Tribromophenol	6.03	330	77136	22666.6083724 ppb	0.00
Spiked Amount 666.000			Recovery = 3403.39%		
87) p-Terphenyl-d14	8.04	244	789163	20272.1352079 ppb	0.00
Spiked Amount 333.000			Recovery = 6087.73%		
Target Compounds					Qvalue
2) Pyridine	2.30	79	261928	19542.3134867 ppb	96
3) N-Nitrosodimethylamine	2.29	42	136057	17864.3509858 ppb	95
5) Aniline	3.34	66	154541	18585.4791613 ppb	96
6) bis(2-Chloroethyl)ether	3.36	93	232095m	9847.6121887 ppb	
8) Phenol	3.29	94	342395	18553.0677715 ppb	100
10) 2-Chlorophenol	3.41	128	272840	18496.2866686 ppb	99
11) n-Decane	3.40	41	157445	17389.9510473 ppb	99
12) 1,3-Dichlorobenzene	3.49	146	306344	18199.5524043 ppb	98
13) 1,4-Dichlorobenzene	3.53	146	320047	18479.3195352 ppb	99
14) Benzyl Alcohol	3.58	79	215987	19320.0163386 ppb	100
15) 1,2-Dichlorobenzene	3.61	146	293093	18376.6949746 ppb	98
16) bis(2-Chloroisopropyl)ethe	3.65	121	96264	17046.2821911 ppb #	60
17) 2,2-oxybis(1-chloropropane	3.65	121	96264	17046.2821911 ppb #	60
18) 2-Methylphenol	3.62	108	248477	18585.3987464 ppb	98
19) Hexachloroethane	3.80	117	117446	18955.2970174 ppb	99
20) N-Nitrosodi-n-propylamine	3.72	70	181180	18494.1786409 ppb	94
21) 3&4-Methyl phenol	3.71	107	282323	18610.6871902 ppb	98
25) Nitrobenzene	3.84	77	277783	18685.5725230 ppb	99
26) Isophorone	3.97	82	502937	19075.1991737 ppb	92
27) 2-Nitrophenol	4.02	139	143139	20204.6602031 ppb	98
28) 2,4-Dimethylphenol	4.01	107	257480	18549.1054427 ppb	100
29) bis(2-Chlorethoxy)methane	4.08	93	312005	17922.1424470 ppb	99
30) 2,4-Dichlorophenol	4.15	162	221280	19202.5171699 ppb	97
32) 1,2,4-Trichlorobenzene	4.22	180	241090	18087.6469240 ppb	98
34) Naphthalene	4.27	128	844829	18259.7283814 ppb	100
35) 4-Chloroaniline	4.29	65	98492	18538.6186811 ppb	96
36) Hexachloro-1,3-butadiene	4.34	225	131833	18272.6824704 ppb	96
40) 4-Chloro-3-methylphenol	4.58	107	224609	19504.8371308 ppb	97
41) 2-Methylnaphthalene	4.71	142	542000	18003.1584047 ppb	100
42) 1-Methylnaphthalene	4.78	142	513619	18228.4010365 ppb	100
47) Hexachlorocyclopentadiene	4.81	237	168652	19525.3320136 ppb	98
48) 2,4,6-Trichlorophenol	4.89	196	150293	18865.1085833 ppb	99
49) 2,4,5-Trichlorophenol	4.91	196	167246	19927.2482835 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 10.D Vial: 7
Acq On : 9 Feb 2022 12:07 pm Operator: 917
Sample : STD SVMS 20K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:56 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:33:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

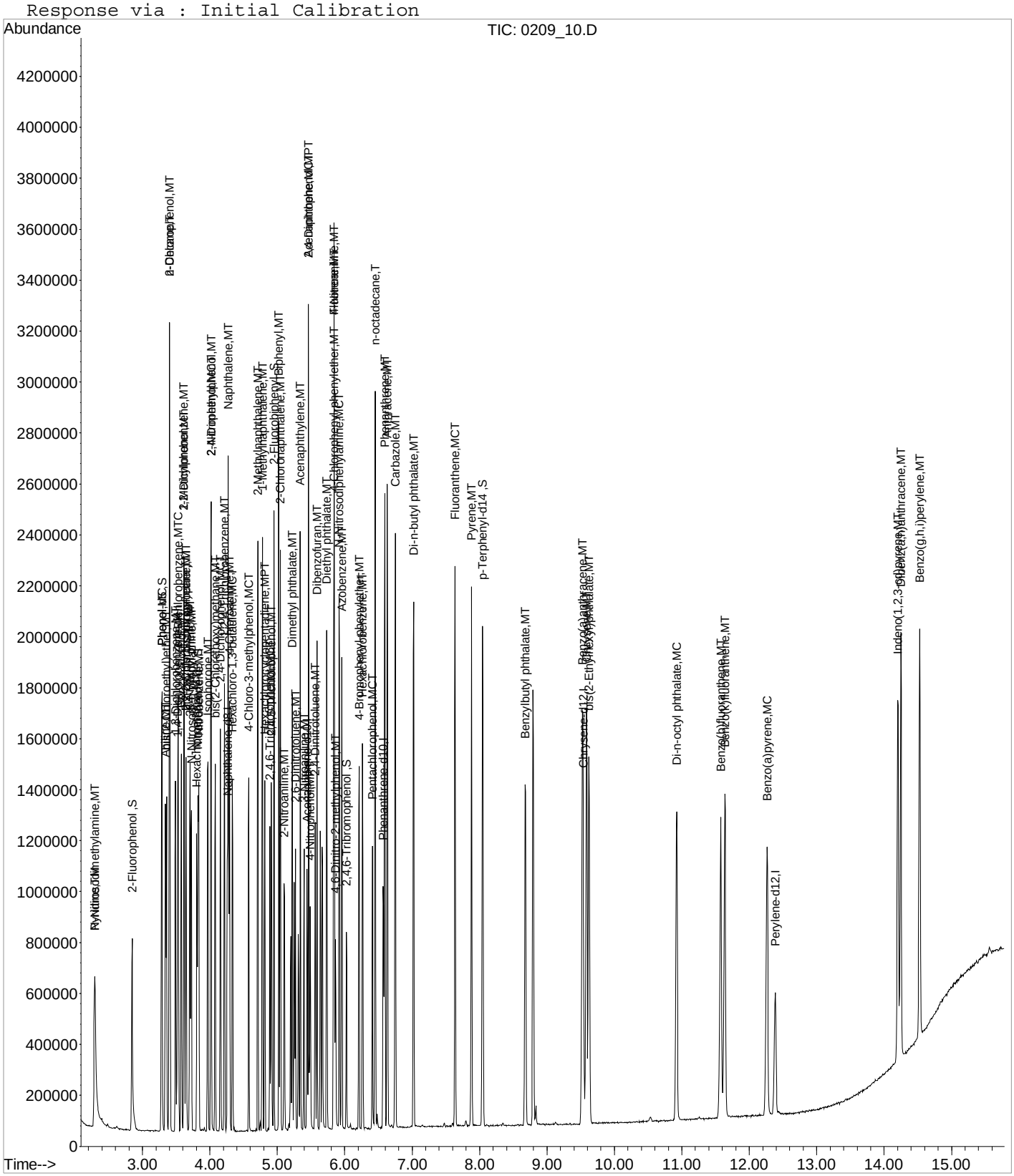
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.02	154	647595	17888.5309328	ppb		100
52)	2-Chloronaphthalene	5.05	162	500906	18068.1297005	ppb		99
53)	2-Nitroaniline	5.11	138	166348	21452.1290308	ppb		100
54)	Acenaphthylene	5.34	152	788960	18919.6543485	ppb		100
55)	Dimethyl phthalate	5.22	163	534597	19479.6555890	ppb		95
56)	2,6-Dinitrotoluene	5.27	165	129766	21567.5036117	ppb	#	79
57)	3-Nitroaniline	5.40	138	140498	22117.3384802	ppb	#	85
58)	Acenaphthene	5.46	153	508839	18134.1011029	ppb		99
59)	2,4-Dinitrophenol	5.47	184	62248	30503.8465152	ppb	#	8
60)	Dibenzofuran	5.59	168	713375	18240.2762900	ppb		99
61)	2,4-Dinitrotoluene	5.56	165	167911	23398.2738002	ppb		94
63)	4-Nitrophenol	5.49	139	116283	22354.0769151	ppb		90
64)	Fluorene	5.84	166	578867	18529.5764942	ppb		98
65)	4-Chlorophenyl-phenylether	5.83	204	271726	17962.4414075	ppb		98
66)	Diethyl phthalate	5.73	149	540003	19010.0642596	ppb		100
67)	4-Nitroaniline	5.84	138	139219	21654.3738027	ppb		98
68)	Azobenzene	5.95	77	538003	18780.1955363	ppb		100
71)	4,6-Dinitro-2-methylphenol	5.86	198	86560	28504.1559685	ppb		91
72)	N-Nitrosodiphenylamine	5.92	169	483553	19435.6144222	ppb		99
74)	4-Bromophenyl-phenylether	6.21	248	158468	19591.0940675	ppb		99
75)	Hexachlorobenzene	6.26	284	171080	18685.5046189	ppb		98
76)	n-octadecane	6.45	55	93724	17633.1560311	ppb		98
77)	Pentachlorophenol	6.41	266	103486	24396.1140361	ppb		98
78)	Phenanthrene	6.59	178	834889	18436.2632779	ppb		99
79)	Anthracene	6.63	178	861133	19130.3122795	ppb		100
80)	Carbazole	6.75	167	789748	18989.7533321	ppb		100
81)	Di-n-butyl phthalate	7.02	149	923993	20402.1772648	ppb		100
83)	Fluoranthene	7.64	202	879416	18984.1216772	ppb		100
86)	Pyrene	7.88	202	923400	19934.4915246	ppb		99
88)	Benzylbutyl phthalate	8.68	149	392900	21875.2708207	ppb		95
90)	Benzo(a)anthracene	9.52	228	814305	19407.2635003	ppb		99
91)	Chrysene	9.58	228	783536	19067.5727386	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.62	149	543287	22108.5689402	ppb		99
93)	Di-n-octyl phthalate	10.92	149	917409	23020.5211479	ppb		99
95)	Benzo(b)fluoranthene	11.57	252	833715	18841.8209418	ppb		100
96)	Benzo(k)fluoranthene	11.64	252	832949	19248.9008472	ppb		99
97)	Benzo(a)pyrene	12.26	252	744155	19933.4238986	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.20	276	743921	19873.7191700	ppb		97
99)	Dibenz(a,h)anthracene	14.25	278	777012m	19311.3833174	ppb		
100)	Benzo(g,h,i)perylene	14.53	276	761773	18997.7471488	ppb		99

(#) = qualifier out of range (m) = manual integration
0209_10.D S804B09V.M Mon Feb 14 15:57:34 2022 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 10.D Vial: 7
Acq On : 9 Feb 2022 12:07 pm Operator: 917
Sample : STD SVMS 20K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:56 2022 Quant Results File: S804B09V.RES

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:53:30 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:00 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	86467	8000.00 ppb		0.00
23) Naphthalene-d8	4.26	136	338831	8000.00 ppb		0.00
46) Acenaphthene-d10	5.44	164	181617	8000.00 ppb		0.00
70) Phenanthrene-d10	6.57	188	323775	8000.00 ppb		0.00
84) Chrysene-d12	9.54	240	286155	8000.00 ppb		0.01
94) Perylene-d12	12.39	264	297513	8000.00 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.85	112	396904	27493.7551409 ppb		0.00
Spiked Amount 666.000			Recovery	= 4128.19%		
7) Phenol-d5	3.28	99	479003	27648.7325708 ppb		0.00
Spiked Amount 666.000			Recovery	= 4151.46%		
24) Nitrobenzene-d5	3.82	82	437748	29586.2873557 ppb		0.00
Spiked Amount 333.000			Recovery	= 8884.77%		
50) 2-Fluorobiphenyl	4.95	172	859895	27104.5580823 ppb		0.00
Spiked Amount 333.000			Recovery	= 8139.51%		
73) 2,4,6-Tribromophenol	6.03	330	114484	33482.6410351 ppb		0.00
Spiked Amount 666.000			Recovery	= 5027.42%		
87) p-Terphenyl-d14	8.05	244	1170779	29880.1096870 ppb		0.00
Spiked Amount 333.000			Recovery	= 8973.01%		
Target Compounds						Qvalue
2) Pyridine	2.30	79	396351	29618.5269538 ppb		94
3) N-Nitrosodimethylamine	2.29	42	198133	26503.0481554 ppb		92
5) Aniline	3.34	66	225992	27485.7338400 ppb		95
6) bis(2-Chloroethyl)ether	3.36	93	361980m	14180.1077032 ppb		
8) Phenol	3.29	94	503929	27623.8813249 ppb		98
10) 2-Chlorophenol	3.41	128	404850	27781.0061873 ppb		99
11) n-Decane	3.40	41	230021	26008.7813892 ppb		100
12) 1,3-Dichlorobenzene	3.49	146	453285	27340.7451256 ppb		97
13) 1,4-Dichlorobenzene	3.53	146	467492	27327.4140627 ppb		99
14) Benzyl Alcohol	3.58	79	321645	28881.3226194 ppb		100
15) 1,2-Dichlorobenzene	3.61	146	429368	27283.2803134 ppb		98
16) bis(2-Chloroisopropyl)ethe	3.65	121	143314	26071.8989188 ppb	#	61
17) 2,2-oxybis(1-chloropropane	3.65	121	143314	26071.8989188 ppb	#	61
18) 2-Methylphenol	3.62	108	367051	27764.9362732 ppb		99
19) Hexachloroethane	3.80	117	171733	27925.7118393 ppb		97
20) N-Nitrosodi-n-propylamine	3.72	70	265139	27395.8653183 ppb		97
21) 3&4-Methyl phenol	3.71	107	417216	27806.7541719 ppb		98
25) Nitrobenzene	3.84	77	406583	28393.2636833 ppb		99
26) Isophorone	3.97	82	744063	29182.2832651 ppb		95
27) 2-Nitrophenol	4.02	139	215234	31062.4386869 ppb		97
28) 2,4-Dimethylphenol	4.02	107	384614	28805.1997458 ppb		95
29) bis(2-Chlorethoxy)methane	4.08	93	456276	27421.6832015 ppb		98
30) 2,4-Dichlorophenol	4.15	162	325979	29214.7349032 ppb		95
32) 1,2,4-Trichlorobenzene	4.22	180	348647	27320.8062112 ppb		98
34) Naphthalene	4.27	128	1231112	27743.8370133 ppb		100
35) 4-Chloroaniline	4.29	65	145575	28488.9054183 ppb		98
36) Hexachloro-1,3-butadiene	4.34	225	192487	27814.1495195 ppb		96
40) 4-Chloro-3-methylphenol	4.58	107	332331	29713.9819067 ppb		96
41) 2-Methylnaphthalene	4.71	142	798214	27717.0946035 ppb		99
42) 1-Methylnaphthalene	4.78	142	749807	27754.8528533 ppb		99
47) Hexachlorocyclopentadiene	4.81	237	252254	29658.8428408 ppb		97
48) 2,4,6-Trichlorophenol	4.89	196	239963	30793.8957639 ppb		99
49) 2,4,5-Trichlorophenol	4.92	196	233799	28176.8965672 ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:00 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

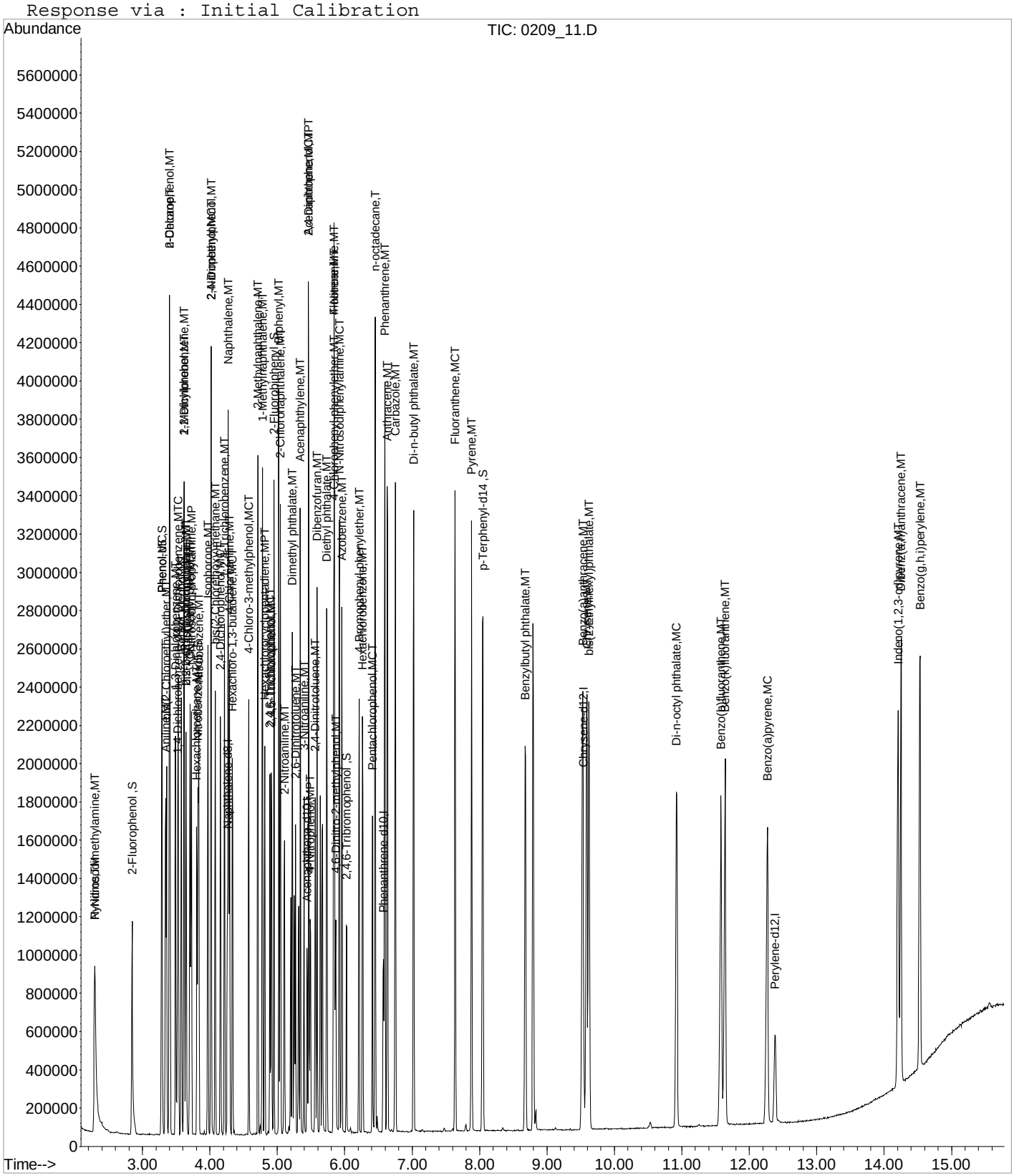
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.02	154	954298	27218.6284076	ppb		100
52)	2-Chloronaphthalene	5.05	162	729917	27135.9728440	ppb		99
53)	2-Nitroaniline	5.11	138	252000	32376.8830601	ppb		99
54)	Acenaphthylene	5.34	152	1177864	28861.1488889	ppb		100
55)	Dimethyl phthalate	5.22	163	798035	29545.0865909	ppb		98
56)	2,6-Dinitrotoluene	5.27	165	195650	32359.8783339	ppb		87
57)	3-Nitroaniline	5.40	138	214569	33432.8235967	ppb		92
58)	Acenaphthene	5.46	153	761361	27946.6119578	ppb		100
59)	2,4-Dinitrophenol	5.47	184	103583	46428.3381283	ppb	#	5
60)	Dibenzofuran	5.59	168	1040729	27378.1723117	ppb		100
61)	2,4-Dinitrotoluene	5.56	165	250004	34055.0234732	ppb		91
63)	4-Nitrophenol	5.49	139	179386	34053.8922654	ppb		94
64)	Fluorene	5.84	166	862949	28336.6208660	ppb		98
65)	4-Chlorophenyl-phenylether	5.83	204	395130	26949.9161147	ppb		98
66)	Diethyl phthalate	5.73	149	813472	29234.3554715	ppb		99
67)	4-Nitroaniline	5.85	138	203025	31398.8262569	ppb		98
68)	Azobenzene	5.95	77	792154	28294.2375148	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.87	198	135786	42108.9352390	ppb		92
72)	N-Nitrosodiphenylamine	5.92	169	724399	29920.2193573	ppb		99
74)	4-Bromophenyl-phenylether	6.21	248	234282	29717.3604968	ppb		98
75)	Hexachlorobenzene	6.27	284	257996	29176.9503169	ppb		98
76)	n-octadecane	6.45	55	136953	26966.7219366	ppb		98
77)	Pentachlorophenol	6.41	266	156898	36203.1890934	ppb		96
78)	Phenanthrene	6.59	178	1222718	28027.8670594	ppb		99
79)	Anthracene	6.64	178	1260001	28852.9977991	ppb		100
80)	Carbazole	6.75	167	1111930	27598.9585677	ppb		99
81)	Di-n-butyl phthalate	7.02	149	1387515	31180.0704196	ppb		100
83)	Fluoranthene	7.64	202	1317288	29355.2678784	ppb		100
86)	Pyrene	7.88	202	1371296	29511.1301678	ppb		99
88)	Benzylbutyl phthalate	8.68	149	589200	32078.9480949	ppb		96
90)	Benzo(a)anthracene	9.53	228	1211731	28941.4341701	ppb		99
91)	Chrysene	9.59	228	1161595	28425.9125421	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.62	149	821035	32597.5941135	ppb		99
93)	Di-n-octyl phthalate	10.92	149	1390793	33747.8146961	ppb		99
95)	Benzo(b)fluoranthene	11.58	252	1234766	28728.7906567	ppb		99
96)	Benzo(k)fluoranthene	11.64	252	1230724	29160.2102659	ppb		98
97)	Benzo(a)pyrene	12.27	252	1103829	30107.7078810	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.21	276	1064818	28983.0879255	ppb		98
99)	Dibenz(a,h)anthracene	14.25	278	1133383m	28860.8413210	ppb		
100)	Benzo(g,h,i)perylene	14.53	276	1087164	27868.5544106	ppb		94

(#) = qualifier out of range (m) = manual integration
0209_11.D S804B09V.M Mon Feb 14 16:00:15 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:00 2022 Quant Results File: S804B09V.RES

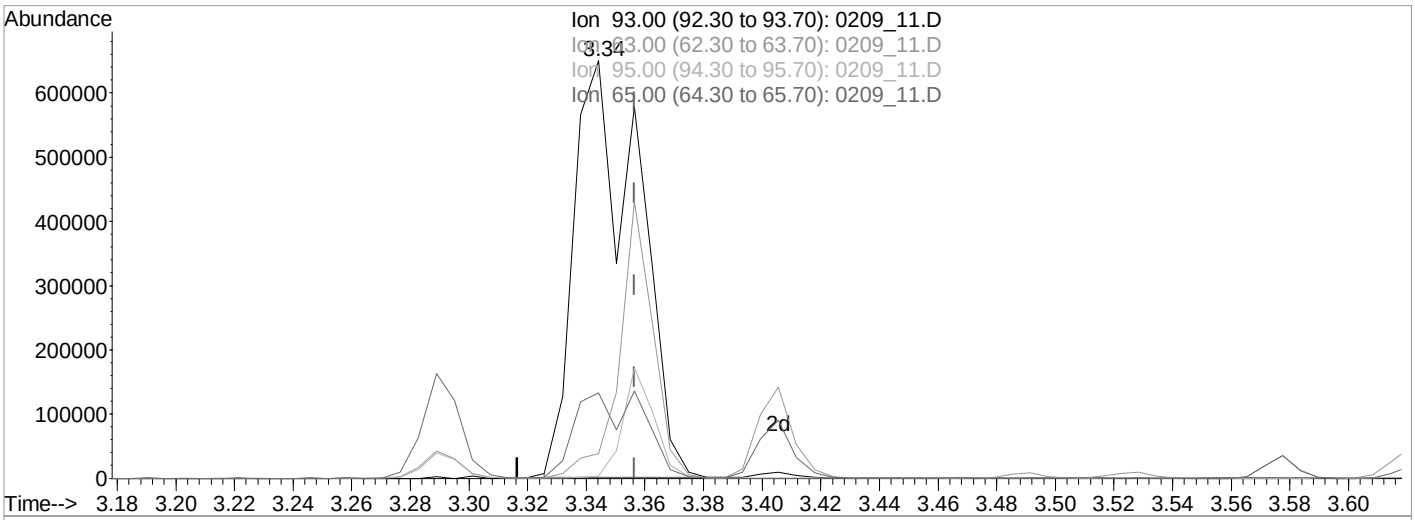
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:58:05 2022
Response via : Initial Calibration

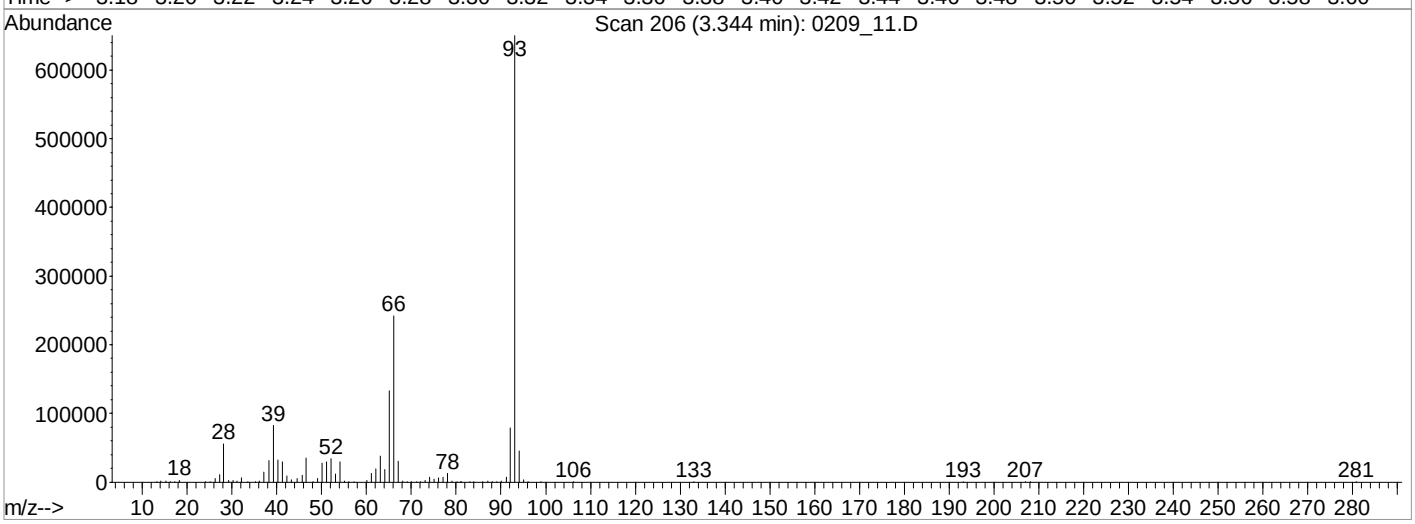


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Multiple Level Calibration





TIC: 0209_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 38212.7225291 ppb

Qvalue = 38

response 975468

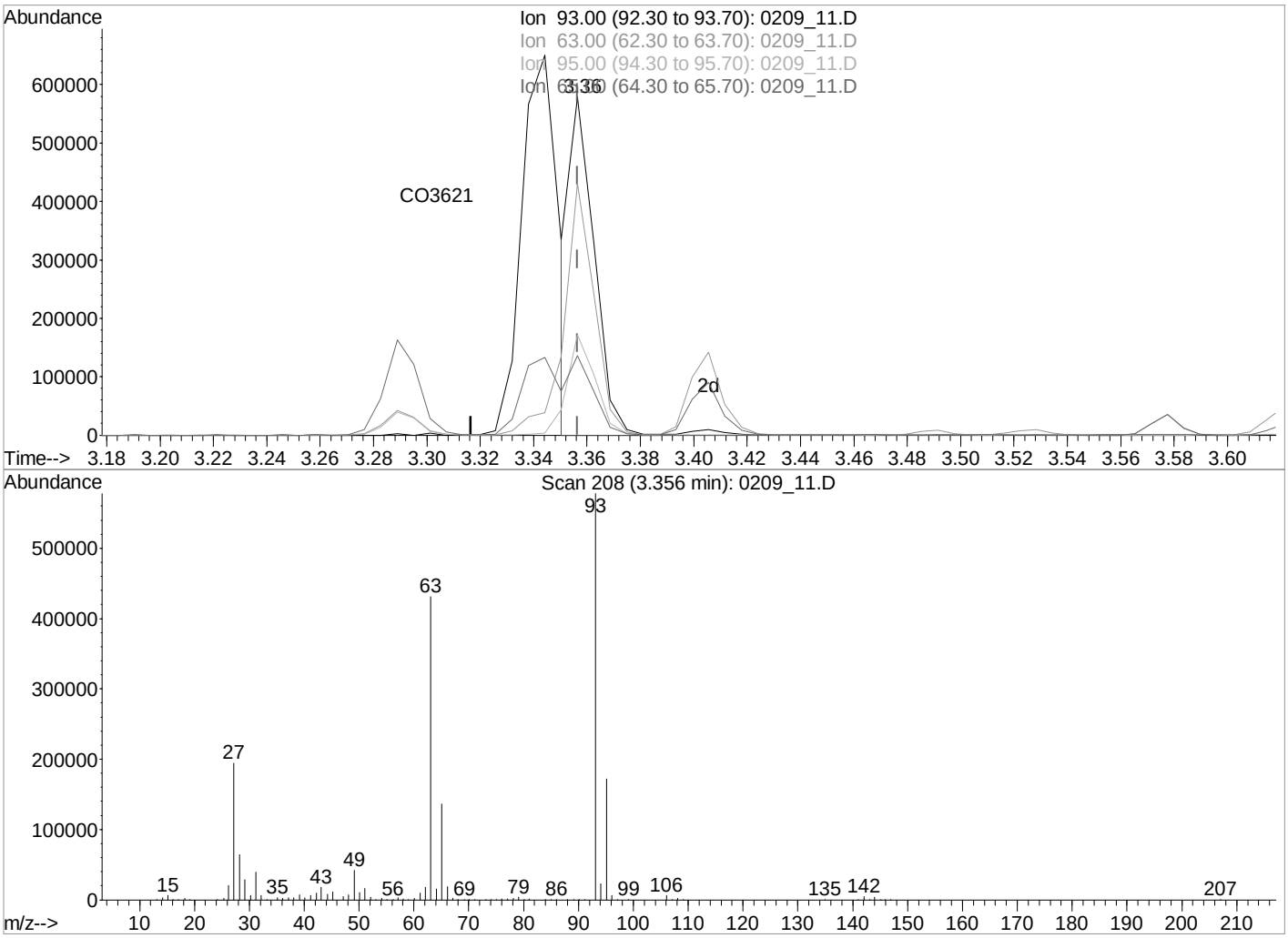
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.77#
95.00	30.20	0.50#
65.00	24.00	20.39

0209_11.D S804B09V.M Mon Feb 14 12:41:54 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Multiple Level Calibration



TIC: 0209_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 38212.7225291 ppb

Qvalue = 38

response 975468

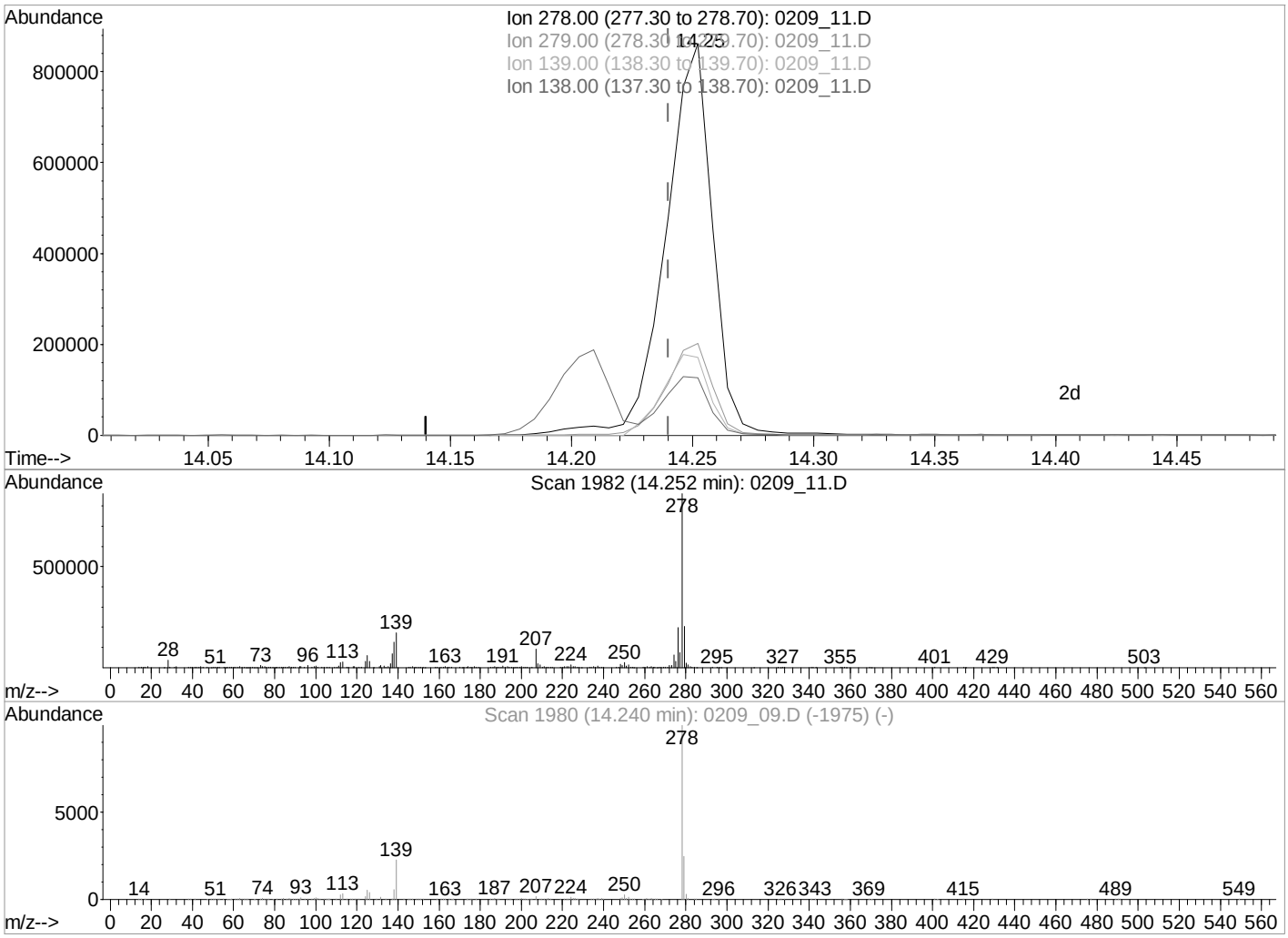
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.77#
95.00	30.20	0.50#
65.00	24.00	20.39

0209_11.D S804B09V.M Mon Feb 14 12:42:08 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Multiple Level Calibration



TIC: 0209_11.D

(99) Dibenz(a,h)anthracene (MT)

14.25min (+0.012) 29724.9225085 ppb

Qvalue = 96

response 1167316

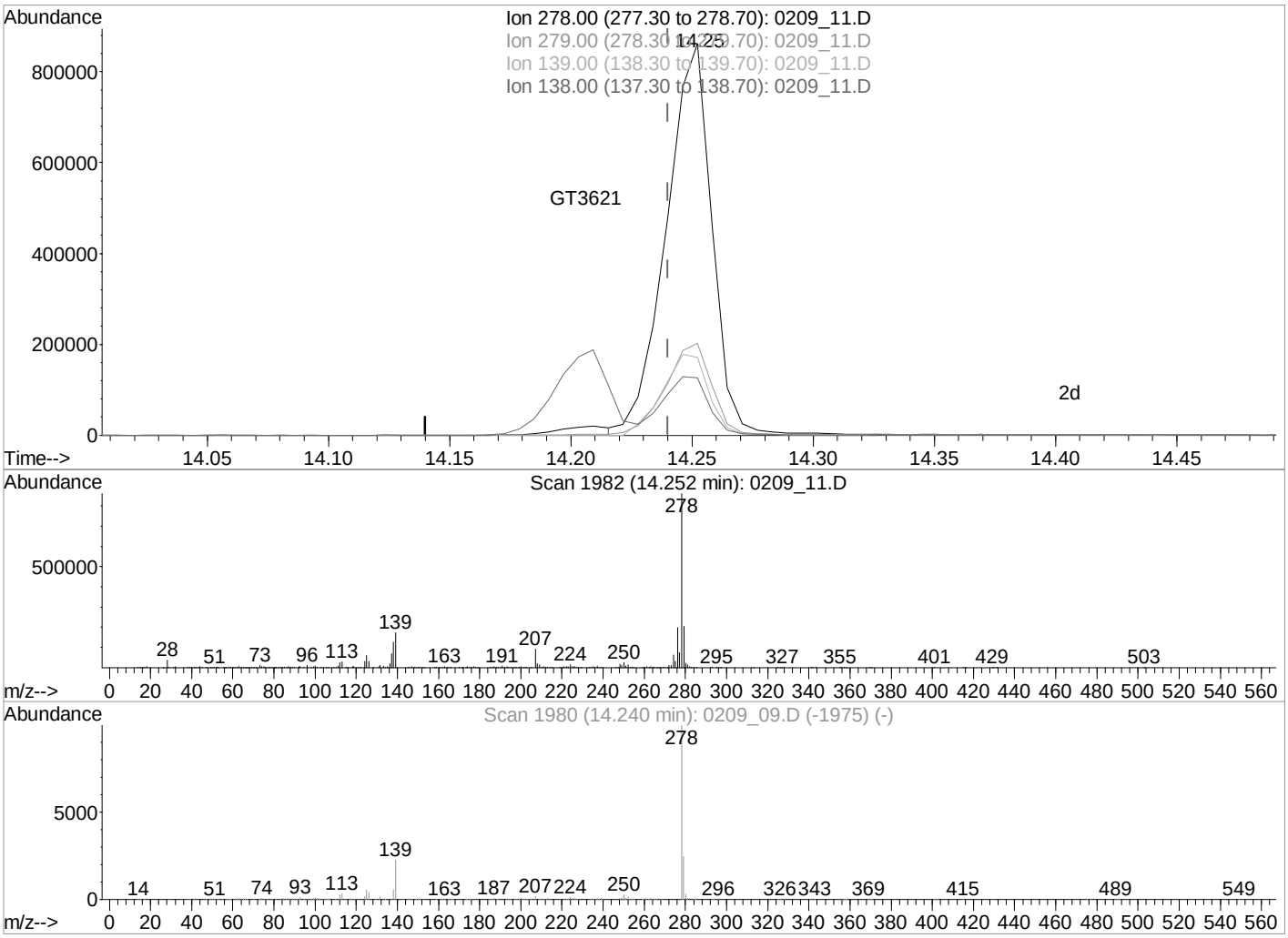
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.43
139.00	22.10	19.81
138.00	16.70	14.55

0209_11.D S804B09V.M Mon Feb 14 12:45:49 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:40:00 2022
Response via : Multiple Level Calibration



TIC: 0209_11.D

(99) Dibenz(a,h)anthracene (MT)

14.25min (+0.012) 28882.0021811 ppb m

response 1134214

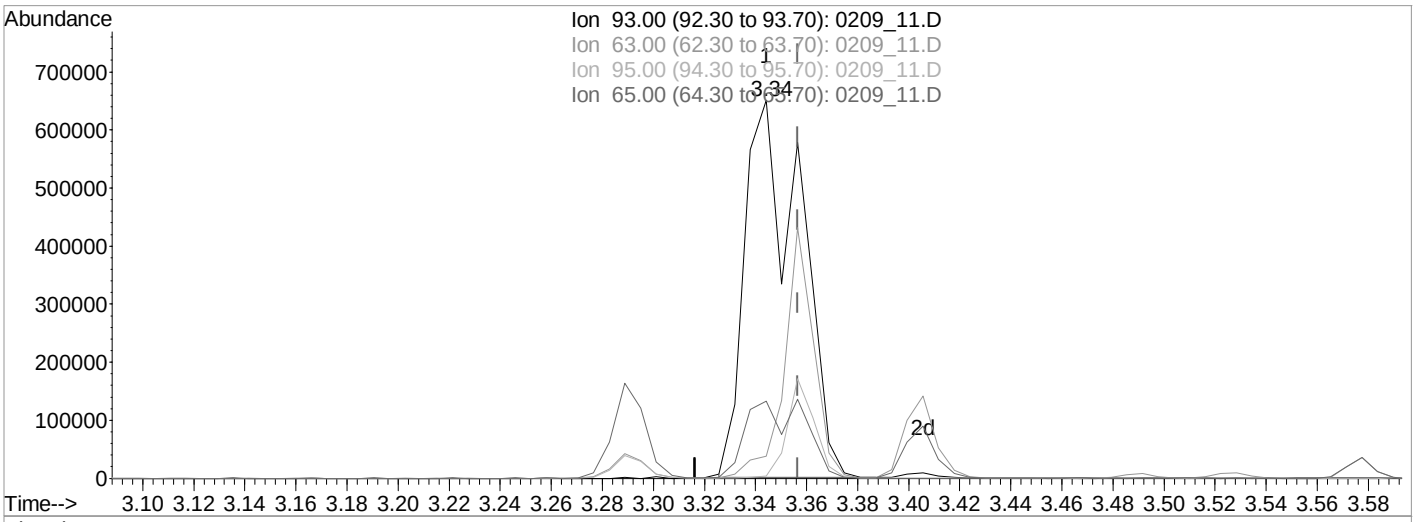
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.46
139.00	22.10	19.84
138.00	16.70	14.59

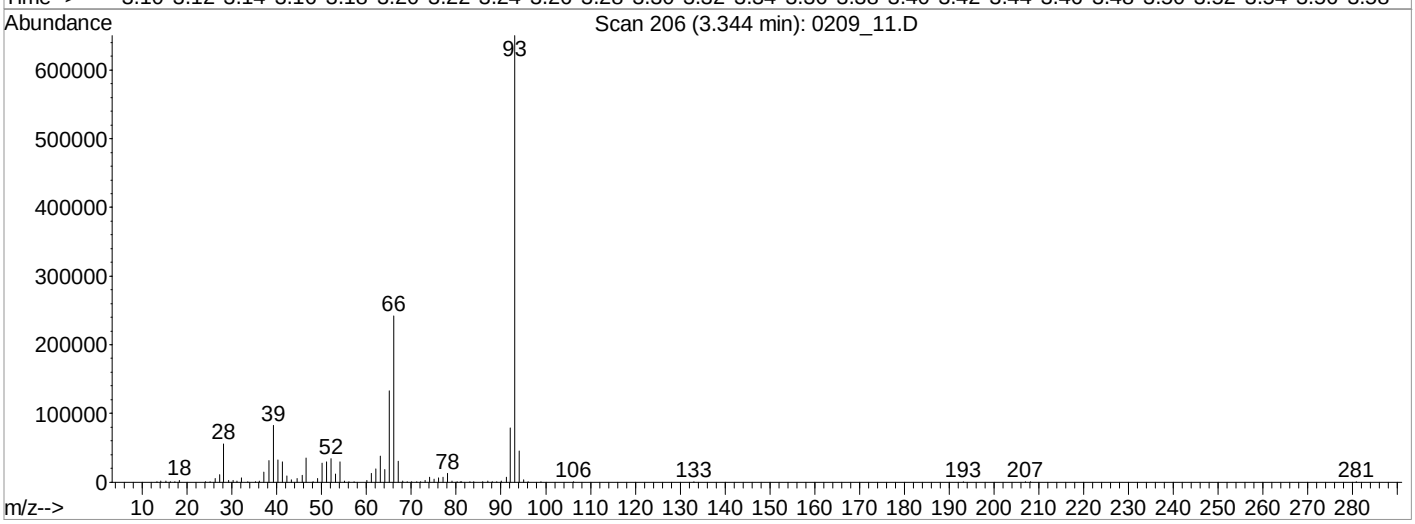
0209_11.D S804B09V.M Mon Feb 14 12:46:05 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:58:05 2022
Response via : Multiple Level Calibration





TIC: 0209_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 38212.7225291 ppb

Qvalue = 38

response 975468

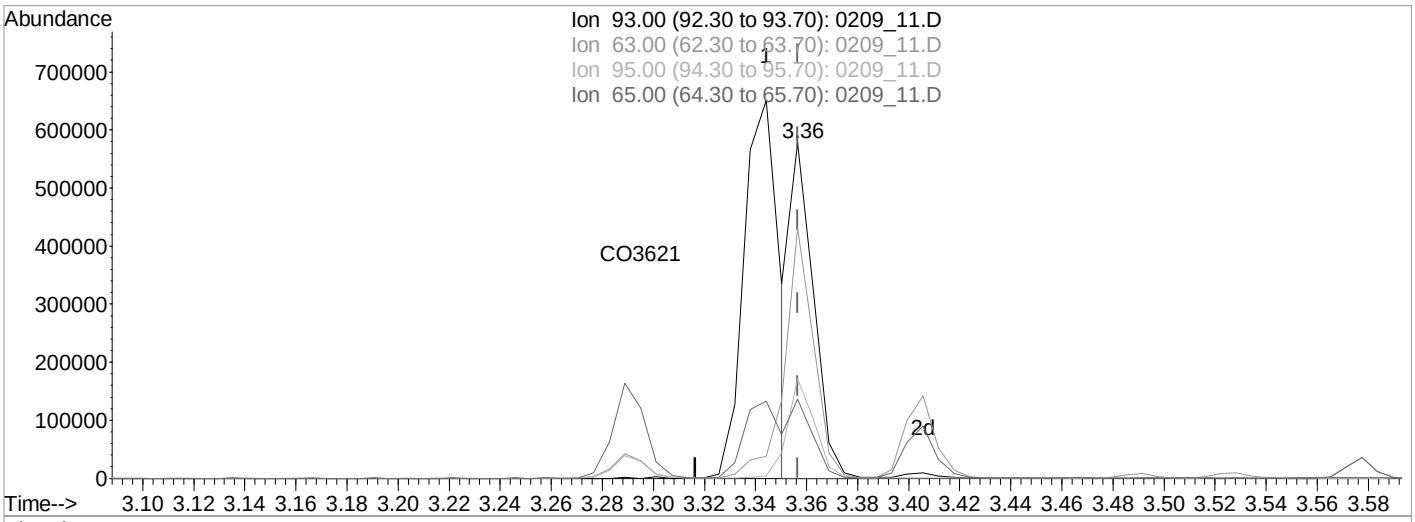
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.77#
95.00	30.20	0.50#
65.00	24.00	20.39

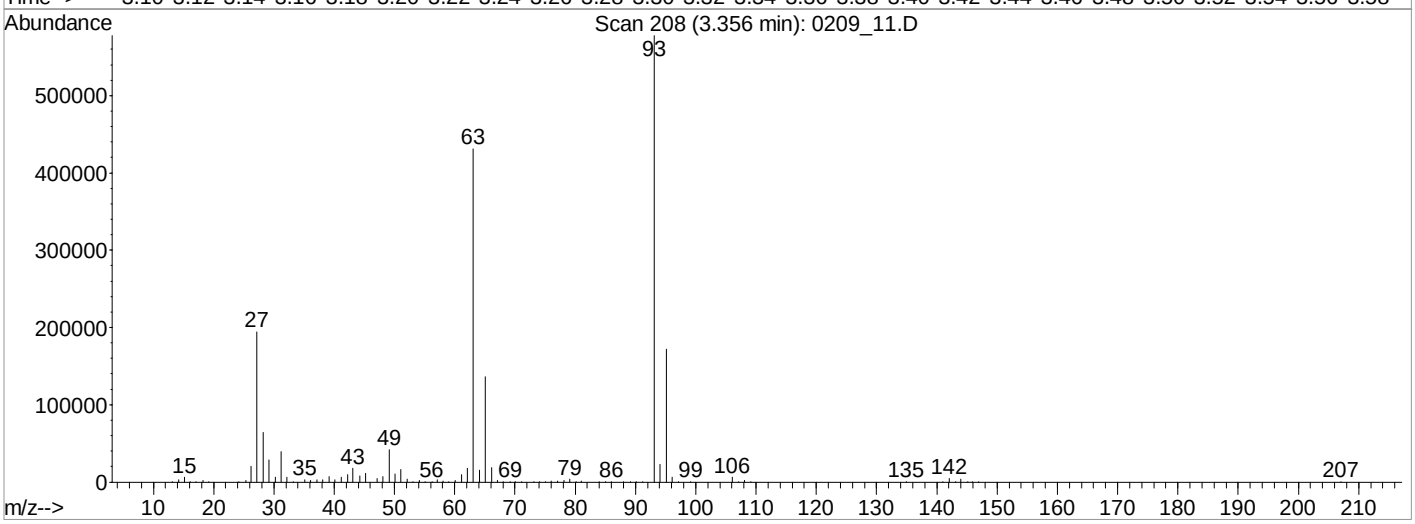
0209_11.D S804B09V.M Mon Feb 14 15:59:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:59 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:58:05 2022
Response via : Multiple Level Calibration





TIC: 0209_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (-0.000) 14180.1077032 ppb m

response 361980

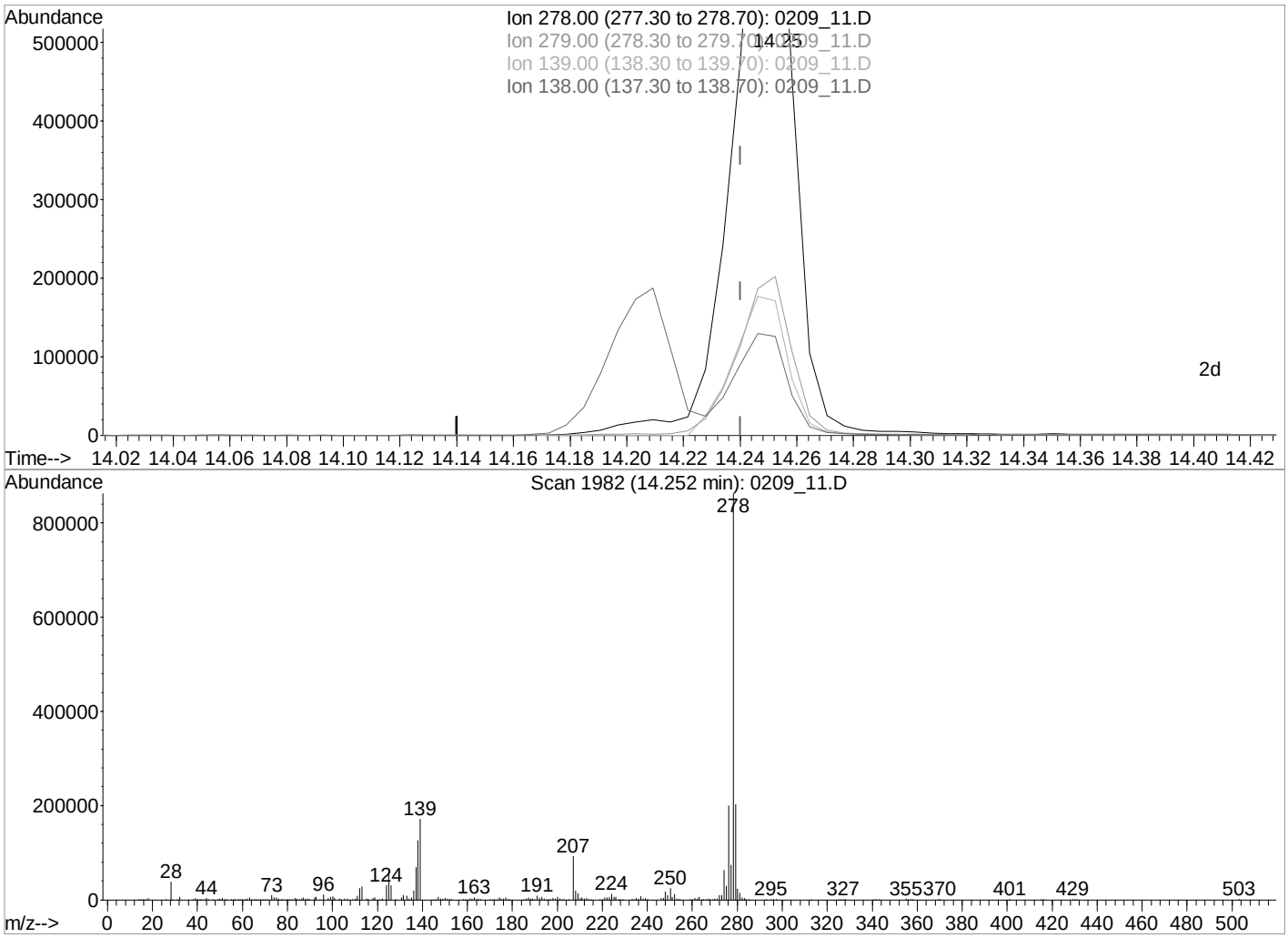
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	74.57
95.00	30.20	29.67
65.00	24.00	23.57

0209_11.D S804B09V.M Mon Feb 14 15:59:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 15:59 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:58:05 2022
Response via : Multiple Level Calibration



TIC: 0209_11.D

(99) Dibenz(a,h)anthracene (MT)

14.25min (+0.012) 29577.4840246 ppb m

response 1161526

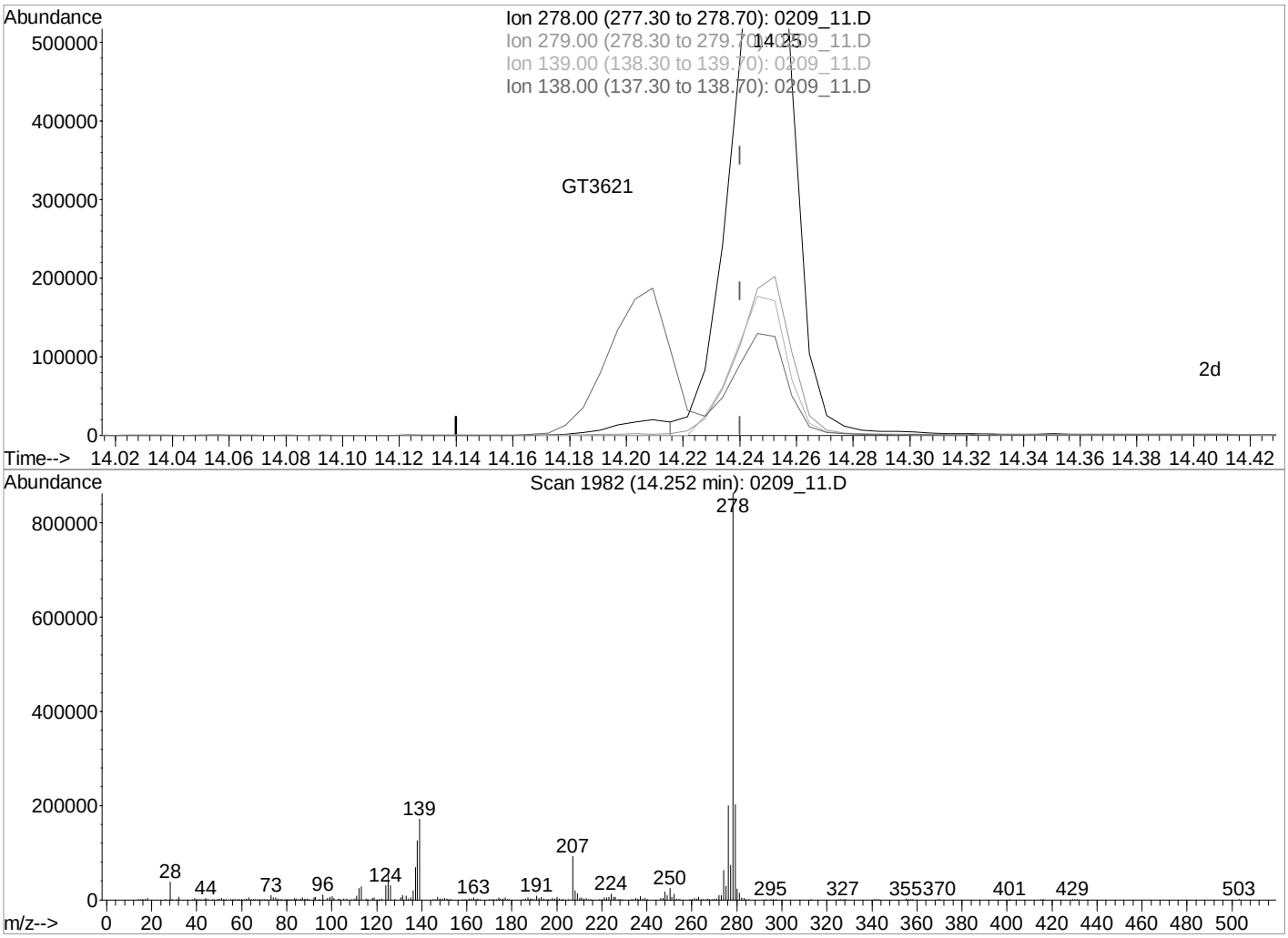
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.46
139.00	22.10	19.84
138.00	16.70	14.59

0209_11.D S804B09V.M Mon Feb 14 15:59:56 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 11.D Vial: 8
Acq On : 9 Feb 2022 12:27 pm Operator: 917
Sample : STD SVMS 30K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:00 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 15:58:05 2022
Response via : Multiple Level Calibration



TIC: 0209_11.D

(99) Dibenz(a,h)anthracene (MT)

14.25min (+0.012) 28860.8413210 ppb m

response 1133383

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.46
139.00	22.10	19.84
138.00	16.70	14.59

0209_11.D S804B09V.M Mon Feb 14 16:00:07 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:10 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	87467m	8000.00 ppb	0.00
23) Naphthalene-d8	4.26	136	341732	8000.00 ppb	0.00
46) Acenaphthene-d10	5.44	164	182560	8000.00 ppb	0.00
70) Phenanthrene-d10	6.57	188	318126	8000.00 ppb	0.00
84) Chrysene-d12	9.55	240	292226	8000.00 ppb	0.02
94) Perylene-d12	12.39	264	304548	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.85	112	531044	37370.2200771 ppb	0.00
Spiked Amount 666.000			Recovery	= 5611.14%	
7) Phenol-d5	3.28	99	637749	37392.5144194 ppb	0.00
Spiked Amount 666.000			Recovery	= 5614.49%	
24) Nitrobenzene-d5	3.82	82	583502	40242.1631535 ppb	0.00
Spiked Amount 333.000			Recovery	= 12084.73%	
50) 2-Fluorobiphenyl	4.95	172	1151371	37386.3354702 ppb	0.00
Spiked Amount 333.000			Recovery	= 11227.13%	
73) 2,4,6-Tribromophenol	6.03	330	159920	44407.1598699 ppb	0.00
Spiked Amount 666.000			Recovery	= 6667.74%	
87) p-Terphenyl-d14	8.05	244	1610324	40322.5863908 ppb	0.00
Spiked Amount 333.000			Recovery	= 12108.88%	
Target Compounds					Qvalue
2) Pyridine	2.29	79	530979	39242.0417090 ppb	94
3) N-Nitrosodimethylamine	2.28	42	266600	36709.1991107 ppb	92
5) Aniline	3.34	66	302187	37348.2466300 ppb	94
6) bis(2-Chloroethyl)ether	3.36	93	492159m	27672.6256004 ppb	
8) Phenol	3.29	94	672710	37444.4764522 ppb	97
10) 2-Chlorophenol	3.41	128	540976	37608.6060560 ppb	99
11) n-Decane	3.40	41	301867	35628.1919174 ppb	98
12) 1,3-Dichlorobenzene	3.49	146	608753	37429.1238340 ppb	99
13) 1,4-Dichlorobenzene	3.53	146	623673	37255.8873494 ppb	99
14) Benzyl Alcohol	3.58	79	428419	38508.7772803 ppb	100
15) 1,2-Dichlorobenzene	3.61	146	571666	37149.2358810 ppb	98
16) bis(2-Chloroisopropyl)ethe	3.65	121	186702	35455.3036766 ppb #	59
17) 2,2-oxybis(1-chloropropane	3.65	121	186702	35455.3036766 ppb #	59
18) 2-Methylphenol	3.62	108	484867	37303.1335811 ppb	98
19) Hexachloroethane	3.80	117	230924	38001.5428483 ppb	98
20) N-Nitrosodi-n-propylamine	3.72	70	356081	37487.0261982 ppb	99
21) 3&4-Methyl phenol	3.71	107	554387	37549.4457488 ppb	98
25) Nitrobenzene	3.84	77	541148	38169.6686673 ppb	97
26) Isophorone	3.97	82	988961	38885.7931128 ppb	97
27) 2-Nitrophenol	4.02	139	293528	41077.0676710 ppb	94
28) 2,4-Dimethylphenol	4.02	107	507150	38214.6705164 ppb	96
29) bis(2-Chlorethoxy)methane	4.08	93	608273	37406.3337815 ppb	97
30) 2,4-Dichlorophenol	4.15	162	436215	39017.8213772 ppb	94
32) 1,2,4-Trichlorobenzene	4.22	180	470672	37610.3096616 ppb	98
34) Naphthalene	4.27	128	1638066	37641.7190686 ppb	100
35) 4-Chloroaniline	4.29	65	192978	38165.4842430 ppb	98
36) Hexachloro-1,3-butadiene	4.34	225	260451	38150.0890158 ppb	96
40) 4-Chloro-3-methylphenol	4.58	107	441649	39189.2944371 ppb	95
41) 2-Methylnaphthalene	4.71	142	1071294	37779.6978255 ppb	99
42) 1-Methylnaphthalene	4.78	142	1018387	38216.0571488 ppb	99
47) Hexachlorocyclopentadiene	4.81	237	340960	39863.7559909 ppb	97
48) 2,4,6-Trichlorophenol	4.89	196	320804	40515.0174392 ppb	97
49) 2,4,5-Trichlorophenol	4.92	196	322612	39149.4243208 ppb	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:10 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

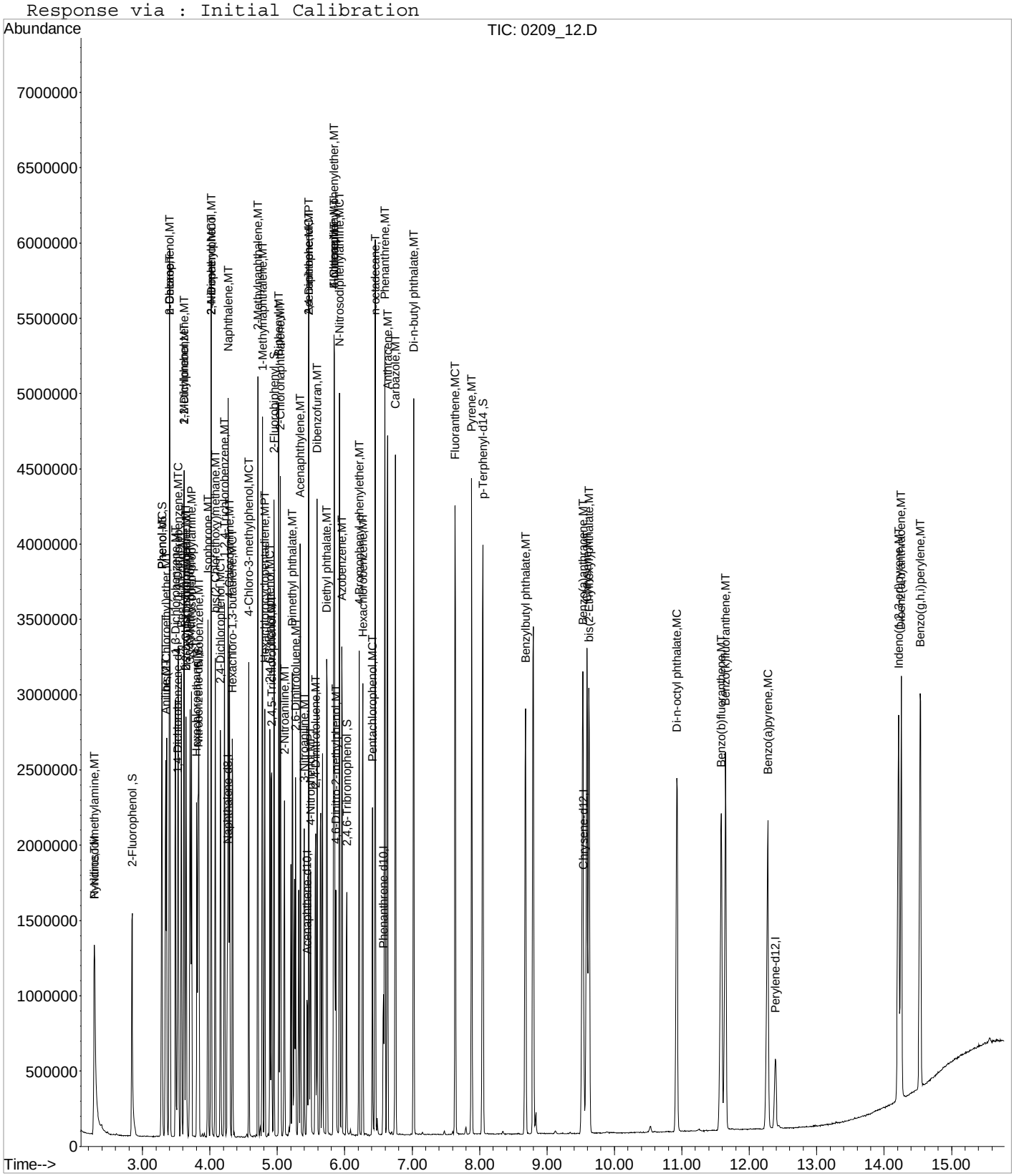
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	5.02	154	1303316	38111.3359445 ppb		99
52)	2-Chloronaphthalene	5.05	162	979007	37511.8057862 ppb		98
53)	2-Nitroaniline	5.11	138	342351	42317.5955894 ppb		98
54)	Acenaphthylene	5.34	152	1588608	39126.7393856 ppb		99
55)	Dimethyl phthalate	5.22	163	1058778	39157.6162617 ppb		100
56)	2,6-Dinitrotoluene	5.27	165	260810	41603.1785962 ppb		95
57)	3-Nitroaniline	5.40	138	286828	42495.3425702 ppb		96
58)	Acenaphthene	5.47	153	1013503	37945.6657033 ppb		96
59)	2,4-Dinitrophenol	5.47	184	145907	52538.8415132 ppb	#	17
60)	Dibenzofuran	5.59	168	1401121	37825.9781253 ppb		100
61)	2,4-Dinitrotoluene	5.57	165	344829	43923.7949054 ppb		97
63)	4-Nitrophenol	5.49	139	240093	43064.5466551 ppb		95
64)	Fluorene	5.84	166	1159234	38581.5718380 ppb		99
65)	4-Chlorophenyl-phenylether	5.84	204	535116	37555.3657476 ppb		88
66)	Diethyl phthalate	5.73	149	1089772	39339.9868130 ppb		99
67)	4-Nitroaniline	5.85	138	213656	33796.9567868 ppb		96
68)	Azobenzene	5.95	77	1061155	38402.5673874 ppb		100
71)	4,6-Dinitro-2-methylphenol	5.87	198	176996	48081.6828813 ppb		99
72)	N-Nitrosodiphenylamine	5.92	169	982230	40631.4208105 ppb		99
74)	4-Bromophenyl-phenylether	6.21	248	315621	40228.8334657 ppb		94
75)	Hexachlorobenzene	6.27	284	348572	39928.9901746 ppb		99
76)	n-octadecane	6.45	55	187466	38513.5503620 ppb		98
77)	Pentachlorophenol	6.41	266	214451	45834.3096376 ppb		97
78)	Phenanthrene	6.59	178	1588877	37960.1017014 ppb		99
79)	Anthracene	6.64	178	1636676	38630.5645907 ppb		100
80)	Carbazole	6.75	167	1476577	38198.2056116 ppb		99
81)	Di-n-butyl phthalate	7.02	149	1922913	42491.4478801 ppb		100
83)	Fluoranthene	7.64	202	1784764	40137.6631631 ppb		99
86)	Pyrene	7.88	202	1858834	39532.6283317 ppb		99
88)	Benzylbutyl phthalate	8.68	149	805471	41893.8726269 ppb		98
90)	Benzo(a)anthracene	9.53	228	1652877	39280.5024417 ppb		99
91)	Chrysene	9.59	228	1584261	38850.3193263 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.62	149	1113109	42031.3076523 ppb		99
93)	Di-n-octyl phthalate	10.92	149	1901374	43218.2087672 ppb		99
95)	Benzo(b)fluoranthene	11.59	252	1661740	38302.6598317 ppb		99
96)	Benzo(k)fluoranthene	11.65	252	1666940	39007.6629727 ppb		98
97)	Benzo(a)pyrene	12.27	252	1488575	39615.4990577 ppb		100
98)	Indeno(1,2,3-cd)pyrene	14.22	276	1411209	38225.8587590 ppb		98
99)	Dibenz(a,h)anthracene	14.26	278	1497799m	38054.6751967 ppb		
100)	Benzo(g,h,i)perylene	14.54	276	1416806	36871.9258324 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:10 2022 Quant Results File: S804B09V.RES

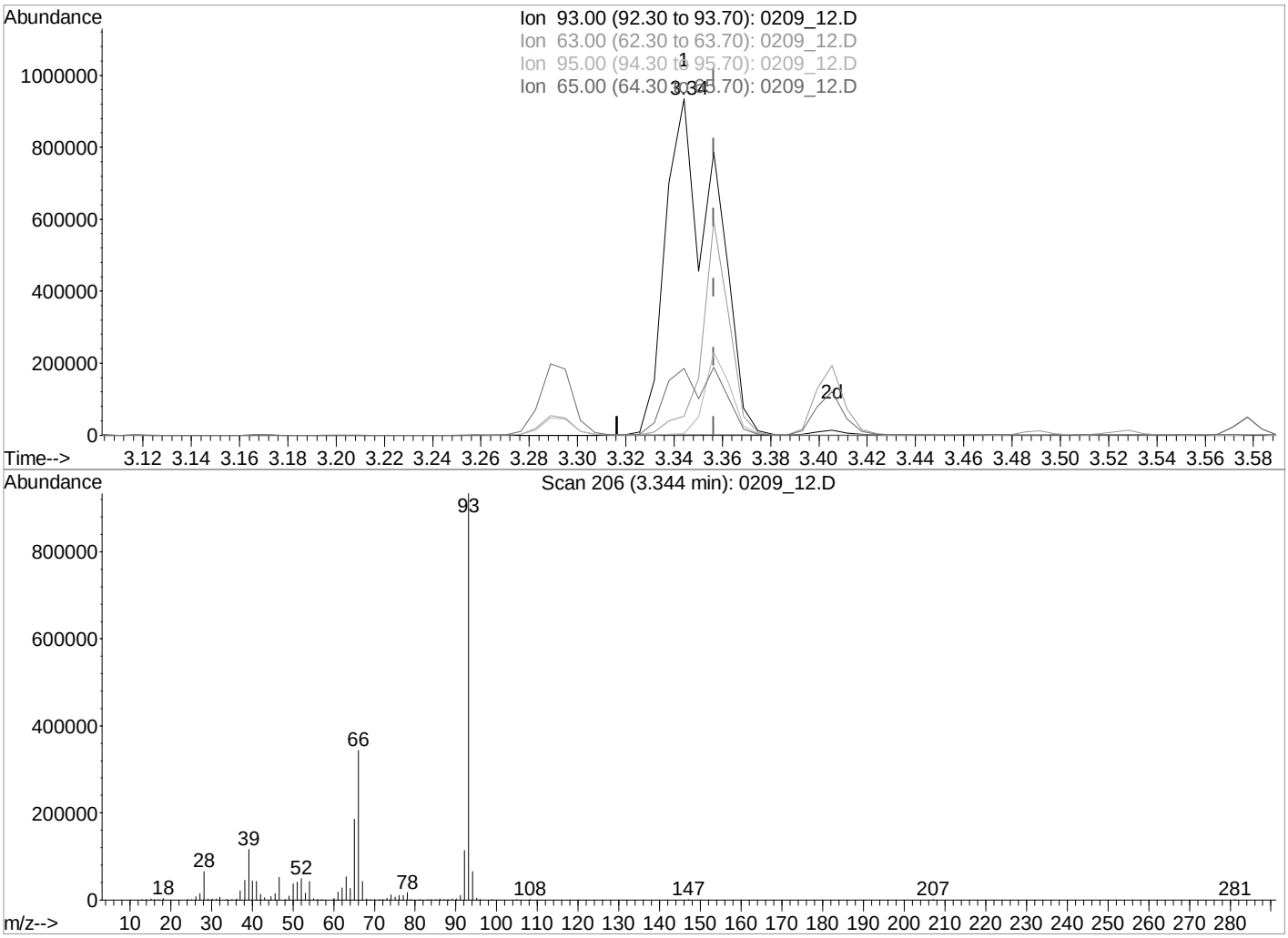
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:02 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration



TIC: 0209_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 0.0000000 ppb

response 1313644

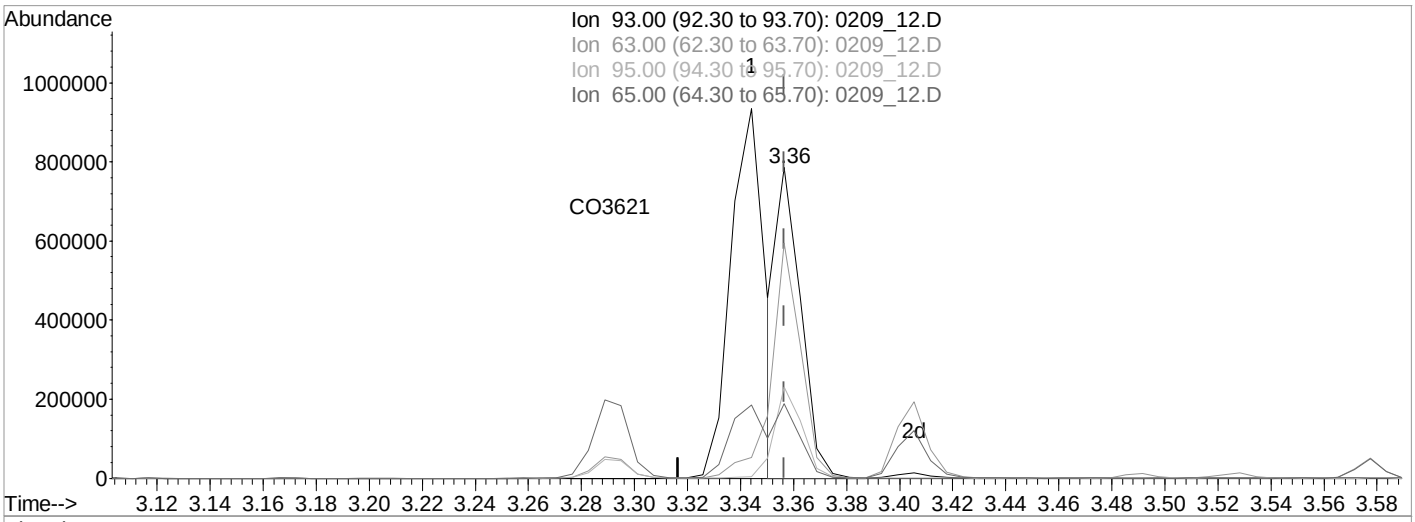
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.62#
95.00	30.20	0.39#
65.00	24.00	19.74

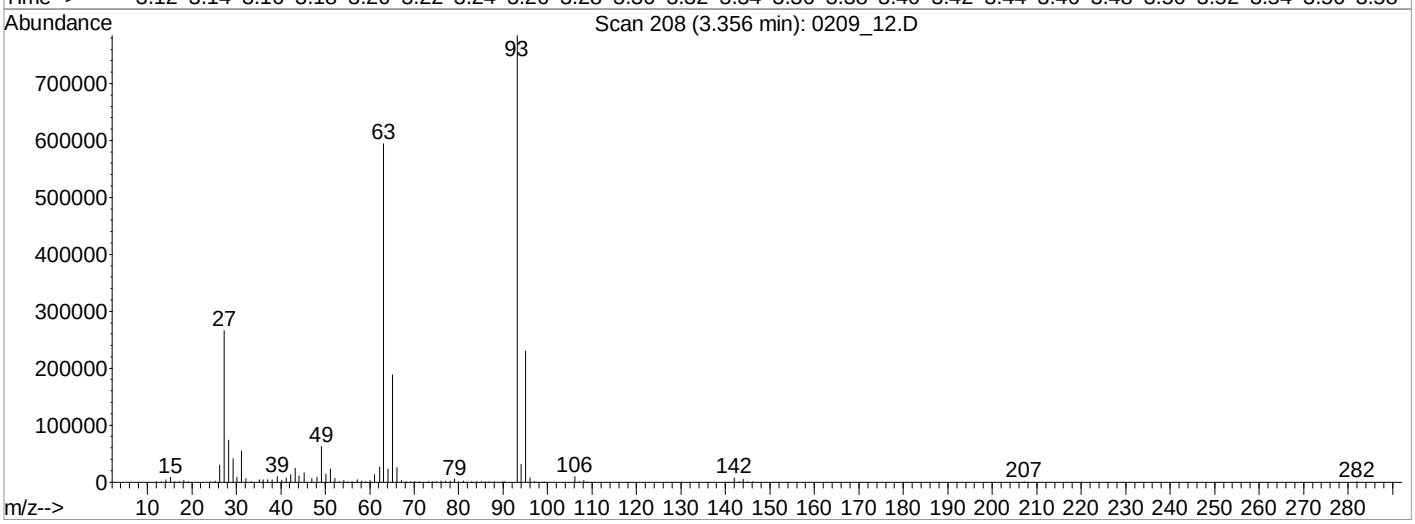
0209_12.D S804B09V.M Mon Feb 14 16:03:04 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:02 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration





TIC: 0209_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 0.0000000 ppb

response 1313644

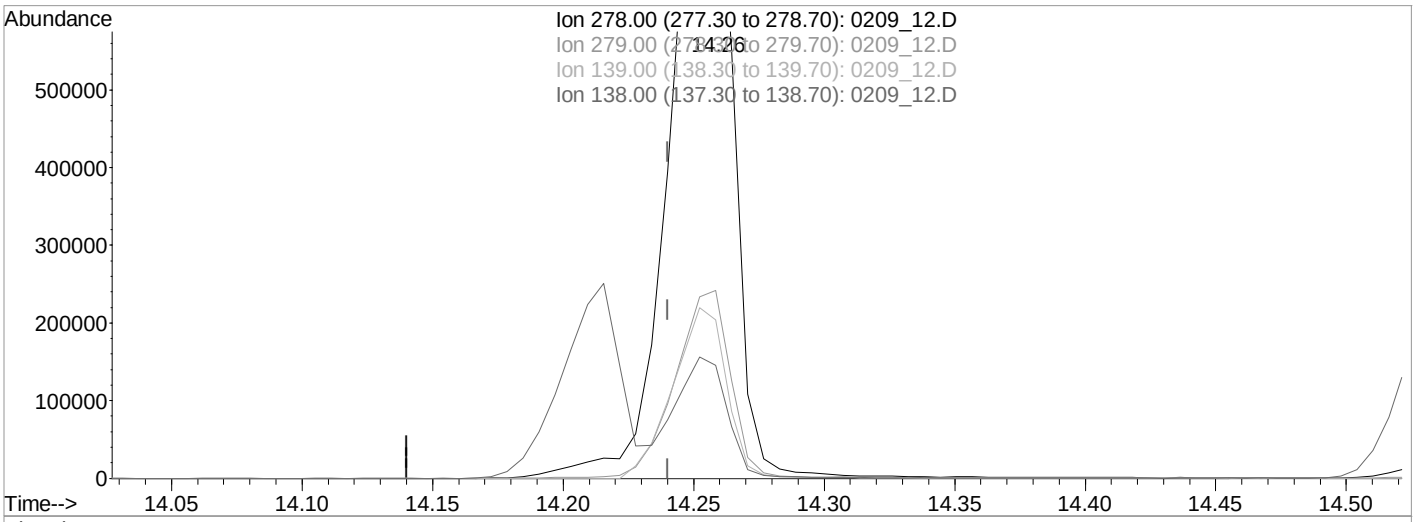
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.62#
95.00	30.20	0.39#
65.00	24.00	19.74

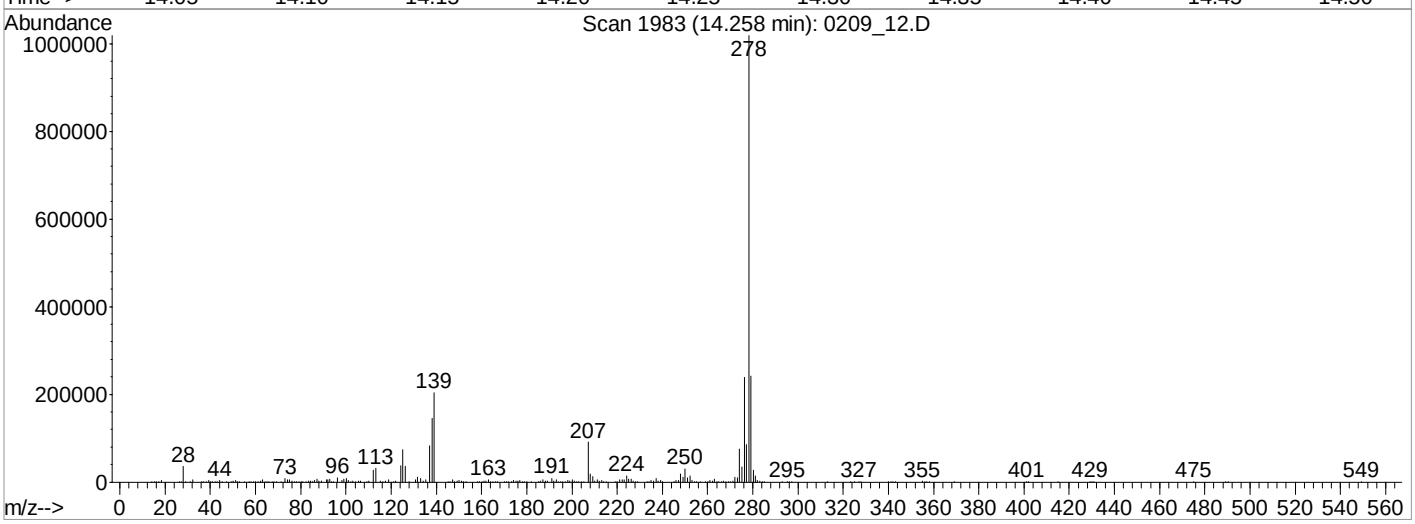
0209_12.D S804B09V.M Mon Feb 14 16:03:19 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:02 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration





TIC: 0209_12.D

(99) Dibenz(a,h)anthracene (MT)

14.26min (+0.018) 39213.5930184 ppb

Qvalue = 96

response 1543413

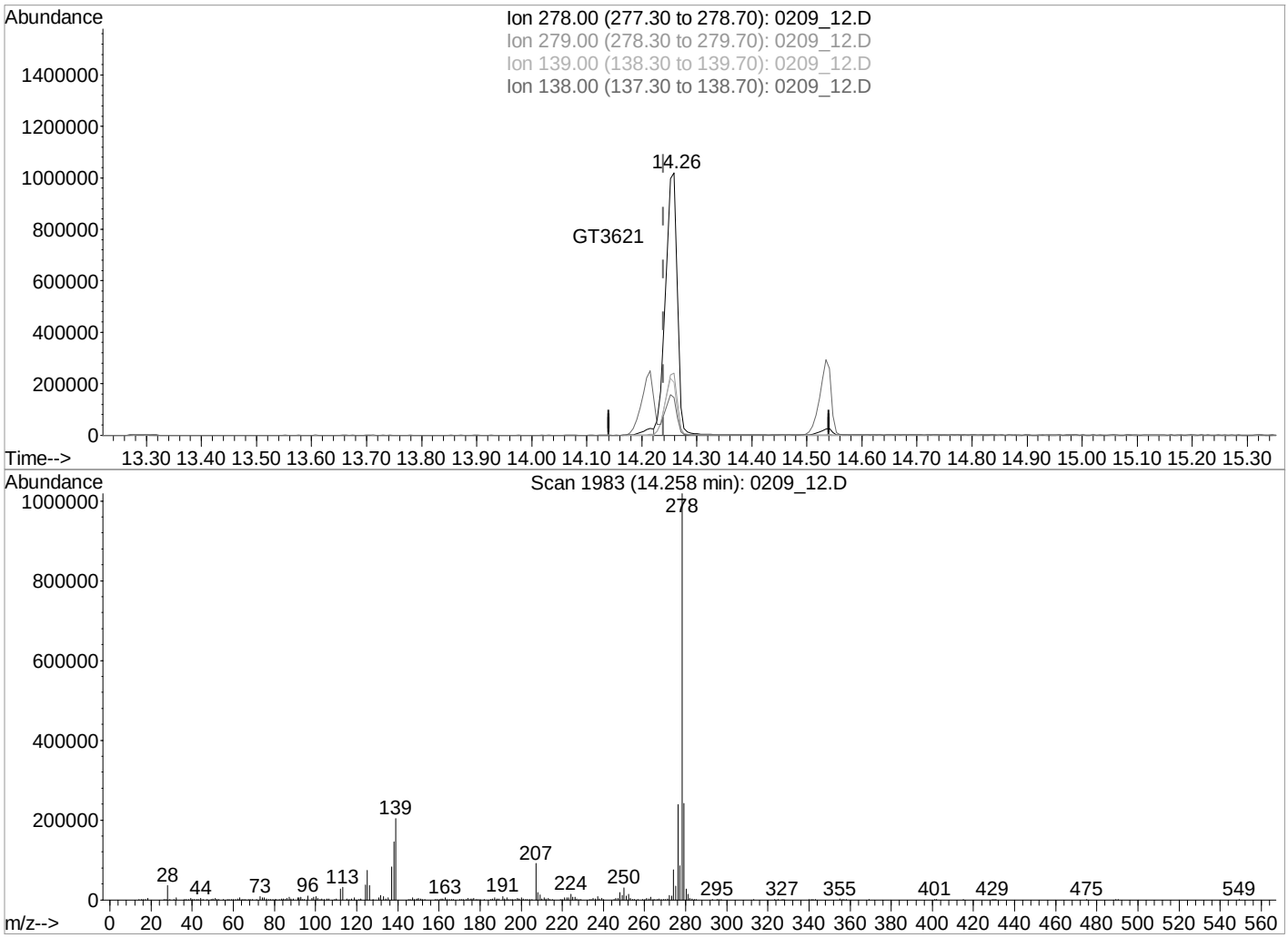
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.68
139.00	22.10	20.02
138.00	16.70	14.26

0209_12.D S804B09V.M Mon Feb 14 16:03:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:03 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration



TIC: 0209_12.D

(99) Dibenz(a,h)anthracene (MT)

14.26min (+0.018) 38054.6751967 ppb m

response 1497799

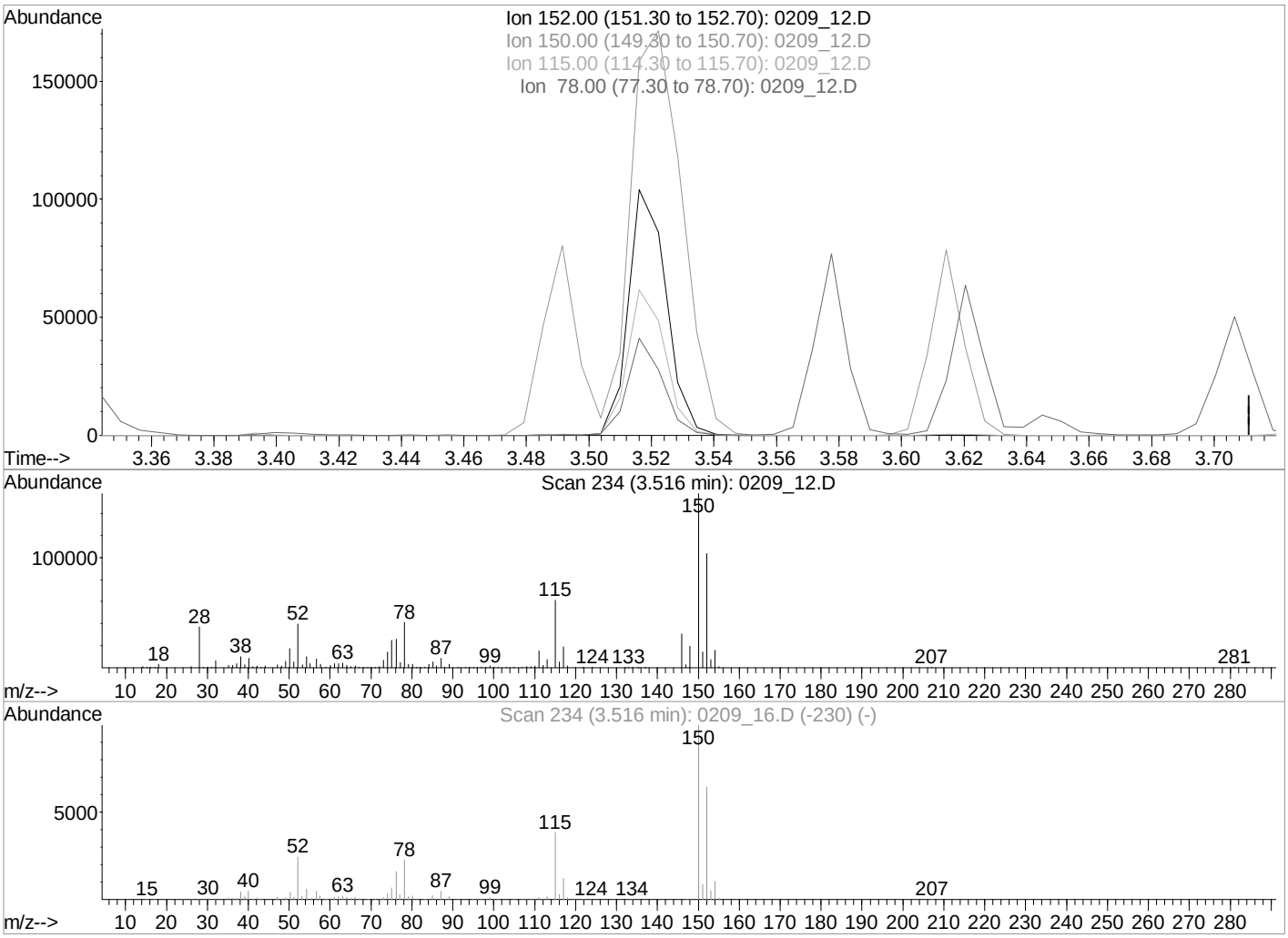
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.71
139.00	22.10	20.02
138.00	16.70	14.29

0209_12.D S804B09V.M Mon Feb 14 16:05:30 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration



TIC: 0209_12.D

(1) 1,4-Dichlorobenzene-d4 (I)

3.52min (-3.516) 0.0000000 ppb d

response 0

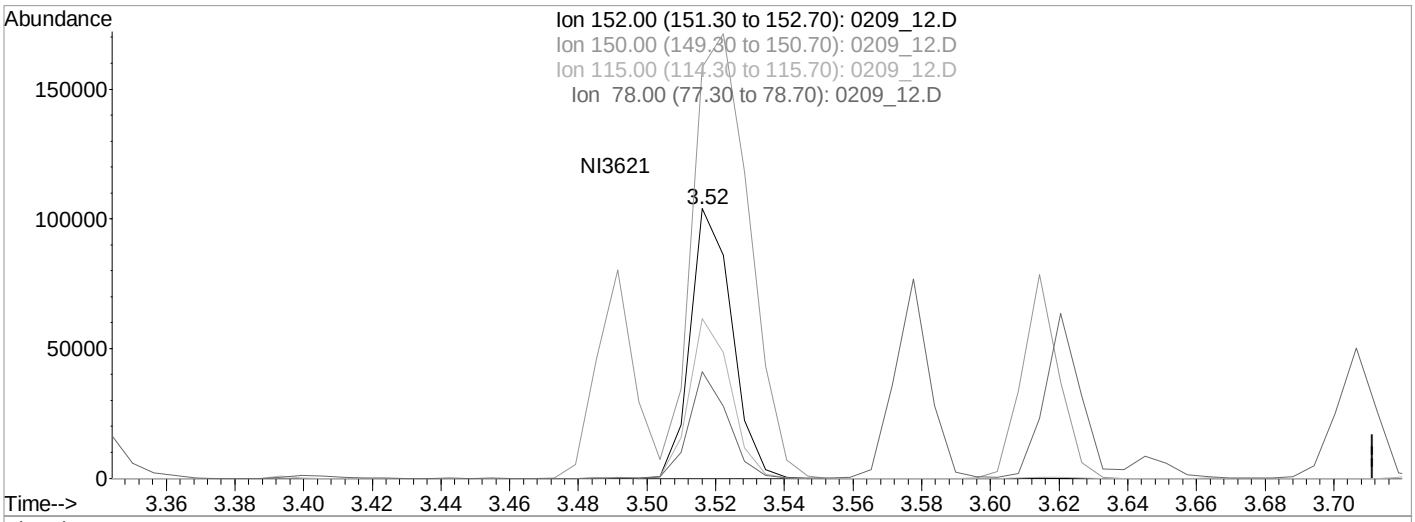
Ion	Exp%	Act%
152.00	100	0.00
150.00	155.20	0.00
115.00	59.30	0.00
78.00	35.00	0.00

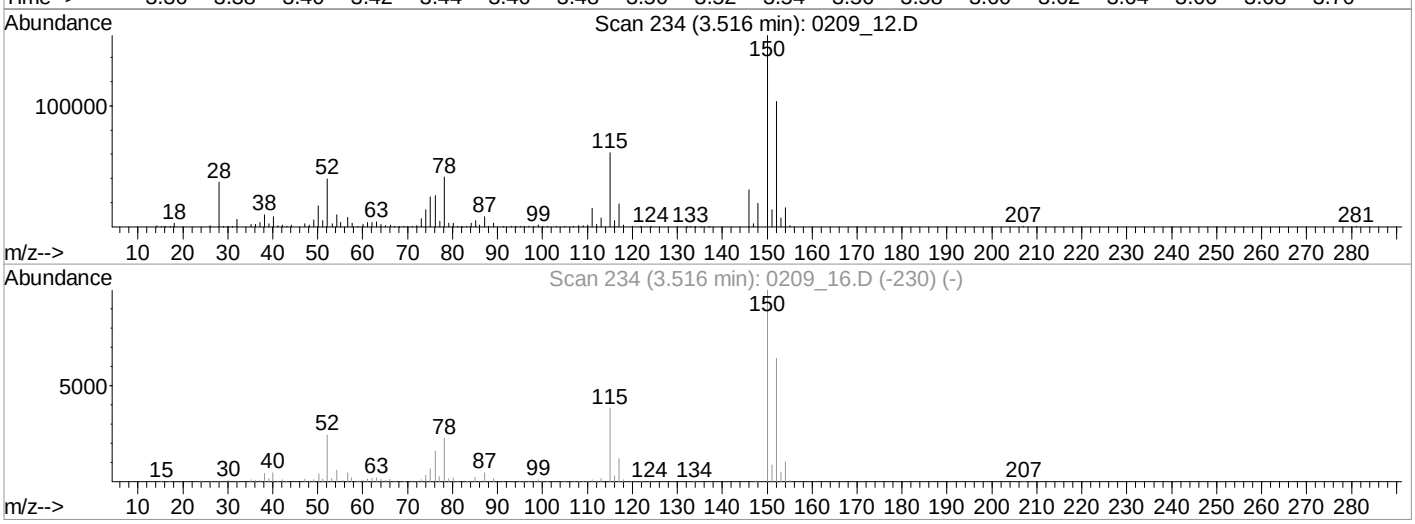
0209_12.D S804B09V.M Mon Feb 14 16:10:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 12.D Vial: 9
Acq On : 9 Feb 2022 12:48 pm Operator: 917
Sample : STD SVMS 40K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:00:35 2022
Response via : Multiple Level Calibration





TIC: 0209_12.D

(1) 1,4-Dichlorobenzene-d4 (I)

3.52min (-0.000) 8000.0000000 ppb m

response 87467

Ion	Exp%	Act%
152.00	100	100
150.00	155.20	152.53
115.00	59.30	59.26
78.00	35.00	39.45

0209_12.D S804B09V.M Mon Feb 14 16:10:29 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:18 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:51:32 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	85491	8000.00	ppb		0.00
23) Naphthalene-d8	4.26	136	336033	8000.00	ppb		0.00
46) Acenaphthene-d10	5.44	164	182036	8000.00	ppb		0.00
70) Phenanthrene-d10	6.57	188	303150	8000.00	ppb		0.00
84) Chrysene-d12	9.55	240	299422	8000.00	ppb		0.02
94) Perylene-d12	12.39	264	295920	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.85	112	685540	49268.3997408	ppb		0.00
Spiked Amount 666.000			Recovery = 7397.66%				
7) Phenol-d5	3.28	99	818468	48972.9451566	ppb		0.00
Spiked Amount 666.000			Recovery = 7353.30%				
24) Nitrobenzene-d5	3.82	82	678256m	46463.7671389	ppb		0.00
Spiked Amount 333.000			Recovery = 13953.08%				
50) 2-Fluorobiphenyl	4.95	172	1462149	47291.9672001	ppb		0.00
Spiked Amount 333.000			Recovery = 14201.79%				
73) 2,4,6-Tribromophenol	6.03	330	203186	60808.6198147	ppb		0.00
Spiked Amount 666.000			Recovery = 9130.42%				
87) p-Terphenyl-d14	8.05	244	2013746	49101.9592081	ppb		0.00
Spiked Amount 333.000			Recovery = 14745.33%				
Target Compounds							Qvalue
2) Pyridine	2.29	79	681495	51757.7992292	ppb		97
3) N-Nitrosodimethylamine	2.29	42	339759	47575.2742185	ppb		91
5) Aniline	3.34	66	389920	49209.1195109	ppb		95
6) bis(2-Chloroethyl)ether	3.36	93	649750m	23889.2924070	ppb		
8) Phenol	3.30	94	863642	49070.2900117	ppb		97
10) 2-Chlorophenol	3.41	128	694562	49319.1896257	ppb		99
11) n-Decane	3.40	41	379161	45241.9961601	ppb		99
12) 1,3-Dichlorobenzene	3.49	146	771098	48302.1674606	ppb		98
13) 1,4-Dichlorobenzene	3.53	146	785122	47710.9860129	ppb		99
14) Benzyl Alcohol	3.58	79	544123	50046.4969320	ppb		99
15) 1,2-Dichlorobenzene	3.61	146	721401	47687.1870177	ppb		98
16) bis(2-Chloroisopropyl)ethe	3.65	121	236106	45340.6582642	ppb	#	62
17) 2,2-oxybis(1-chloropropane	3.65	121	236106	45340.6582642	ppb	#	62
18) 2-Methylphenol	3.62	108	617710	48432.5889244	ppb		97
19) Hexachloroethane	3.80	117	291009	48857.5187075	ppb		98
20) N-Nitrosodi-n-propylamine	3.73	70	450158	48279.2340149	ppb		100
21) 3&4-Methyl phenol	3.71	107	699728	48282.1151226	ppb		99
25) Nitrobenzene	3.84	77	688841	49328.1690268	ppb		96
26) Isophorone	3.97	82	1236245	49353.4494025	ppb		98
27) 2-Nitrophenol	4.02	139	376131	54074.7423875	ppb		93
28) 2,4-Dimethylphenol	4.02	107	650314	49809.6897293	ppb		97
29) bis(2-Chlorethoxy)methane	4.08	93	768717	47811.7231221	ppb		97
30) 2,4-Dichlorophenol	4.16	162	555918	50650.3447239	ppb		92
32) 1,2,4-Trichlorobenzene	4.22	180	603526	48910.7083770	ppb		98
34) Naphthalene	4.27	128	2066329	48053.2072182	ppb		100
35) 4-Chloroaniline	4.29	65	244067	48960.4771090	ppb		97
36) Hexachloro-1,3-butadiene	4.34	225	331135	49231.5094775	ppb		96
40) 4-Chloro-3-methylphenol	4.58	107	567518	51390.2025153	ppb		94
41) 2-Methylnaphthalene	4.71	142	1377022	49298.2911741	ppb		100
42) 1-Methylnaphthalene	4.78	142	1292317	49222.1326390	ppb		99
47) Hexachlorocyclopentadiene	4.81	237	433861	50998.3780748	ppb		97
48) 2,4,6-Trichlorophenol	4.89	196	404822	51460.1647062	ppb		97
49) 2,4,5-Trichlorophenol	4.92	196	414908	50566.0675110	ppb		92

(#) = qualifier out of range (m) = manual integration
0209_13.D S804B09V.M Mon Feb 14 16:18:47 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:18 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 12:51:32 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

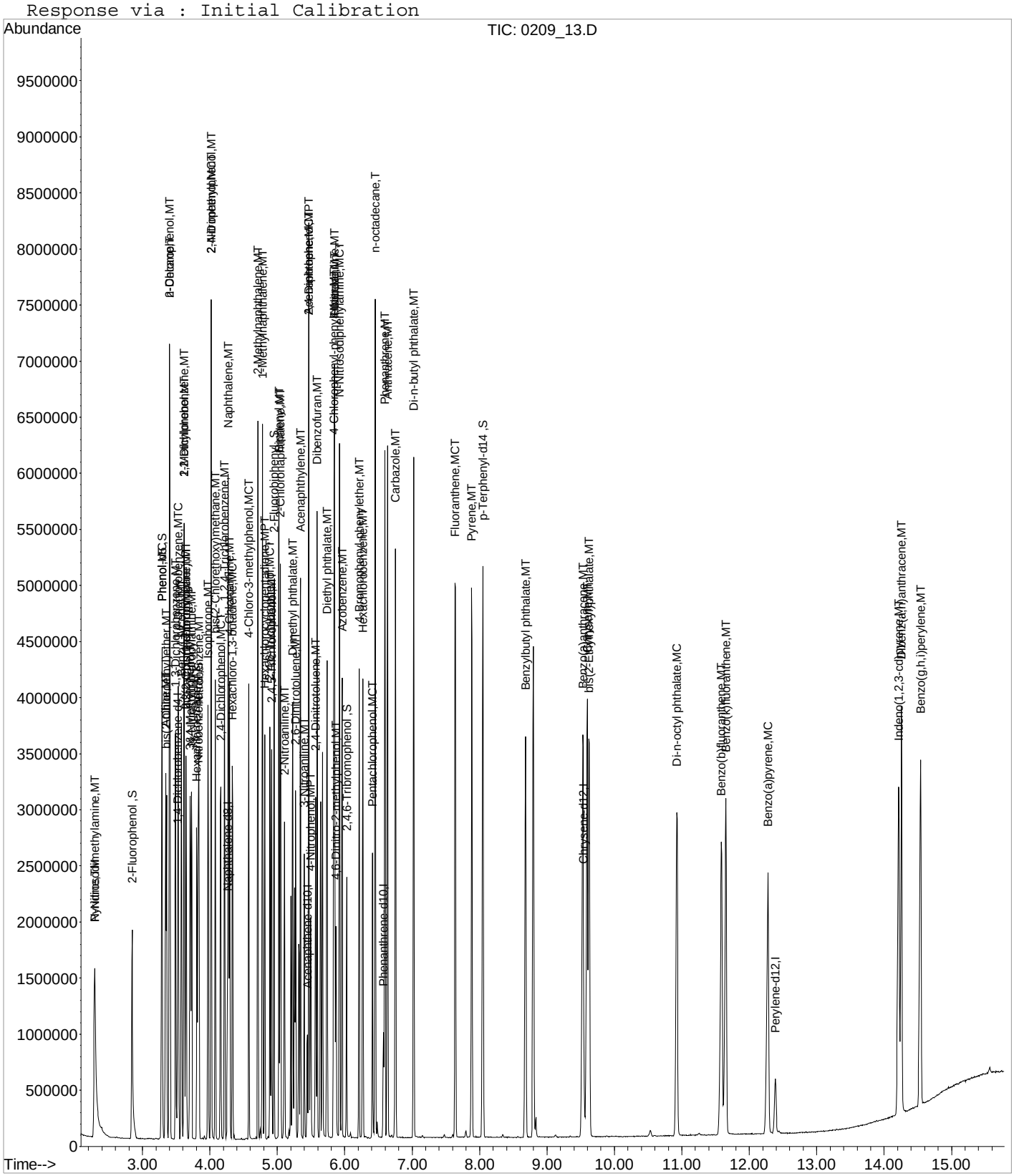
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	5.03	154	1635800	47695.0348514	ppb		100
52)	2-Chloronaphthalene	5.05	162	1229770	46888.0832571	ppb		98
53)	2-Nitroaniline	5.11	138	428726	53629.0313312	ppb		98
54)	Acenaphthylene	5.35	152	2019937	49878.2058817	ppb		99
55)	Dimethyl phthalate	5.23	163	1363440	50652.8594150	ppb		93
56)	2,6-Dinitrotoluene	5.27	165	333483	53864.1240120	ppb		99
57)	3-Nitroaniline	5.40	138	367978	55415.3653662	ppb	#	84
58)	Acenaphthene	5.47	153	1291393	48280.6520842	ppb		97
59)	2,4-Dinitrophenol	5.47	184	193721	74186.7854642	ppb	#	30
60)	Dibenzofuran	5.59	168	1763845	47451.1885412	ppb		100
61)	2,4-Dinitrotoluene	5.57	165	444272	57870.2558482	ppb		95
63)	4-Nitrophenol	5.49	139	304788	55592.5457447	ppb		88
64)	Fluorene	5.85	166	1466642	48807.2477794	ppb		99
65)	4-Chlorophenyl-phenylether	5.84	204	682219	47746.6307713	ppb		90
66)	Diethyl phthalate	5.74	149	1359007	49088.2502660	ppb		99
67)	4-Nitroaniline	5.86	138	295753	46508.5221381	ppb		98
68)	Azobenzene	5.96	77	1359895	49264.7305857	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.87	198	225615	67060.1415206	ppb		91
72)	N-Nitrosodiphenylamine	5.92	169	1246858	54771.8942299	ppb		98
74)	4-Bromophenyl-phenylether	6.21	248	403603	54605.9256471	ppb		91
75)	Hexachlorobenzene	6.27	284	439934	53323.4768919	ppb		99
76)	n-octadecane	6.45	55	229571	49422.1734343	ppb		98
77)	Pentachlorophenol	6.42	266	268709	62089.4694687	ppb		95
78)	Phenanthrene	6.59	178	1942260	48514.3249917	ppb		98
79)	Anthracene	6.64	178	2011440	49796.1324302	ppb		100
80)	Carbazole	6.75	167	1809779	49009.1104903	ppb		99
81)	Di-n-butyl phthalate	7.02	149	2377465	55951.5065493	ppb		99
83)	Fluoranthene	7.64	202	2263702	53951.1908184	ppb		100
86)	Pyrene	7.88	202	2343672	48458.5250985	ppb		99
88)	Benzylbutyl phthalate	8.68	149	1016118	51813.7045194	ppb		98
90)	Benzo(a)anthracene	9.53	228	2063460	47568.5271200	ppb		100
91)	Chrysene	9.60	228	1968627	46730.6970697	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.63	149	1407831	52163.0604523	ppb		99
93)	Di-n-octyl phthalate	10.93	149	2390033	53481.2603710	ppb		99
95)	Benzo(b)fluoranthene	11.59	252	2109399	50044.2348538	ppb		99
96)	Benzo(k)fluoranthene	11.65	252	2049426	49265.8283619	ppb		98
97)	Benzo(a)pyrene	12.28	252	1849955	50765.3229273	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.22	276	1733830m	48105.1614875	ppb		
99)	Dibenz(a,h)anthracene	14.26	278	1829680m	47566.6475034	ppb		
100)	Benzo(g,h,i)perylene	14.54	276	1711126	45290.2795709	ppb		98

(#) = qualifier out of range (m) = manual integration
0209_13.D S804B09V.M Mon Feb 14 16:18:48 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:18 2022 Quant Results File: S804B09V.RES

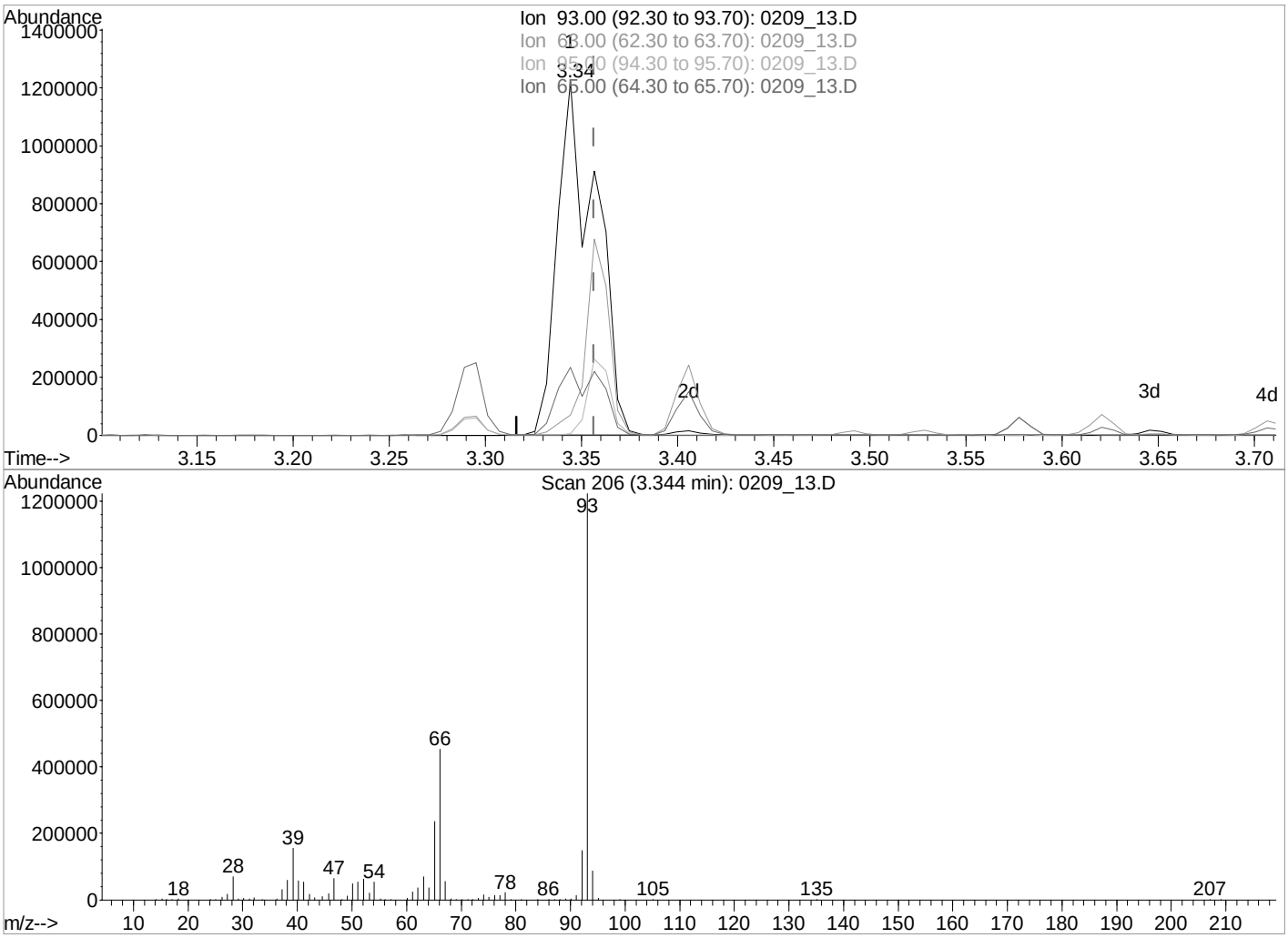
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 12:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.012) 62045.3548033 ppb

Qvalue = 37

response 1687533

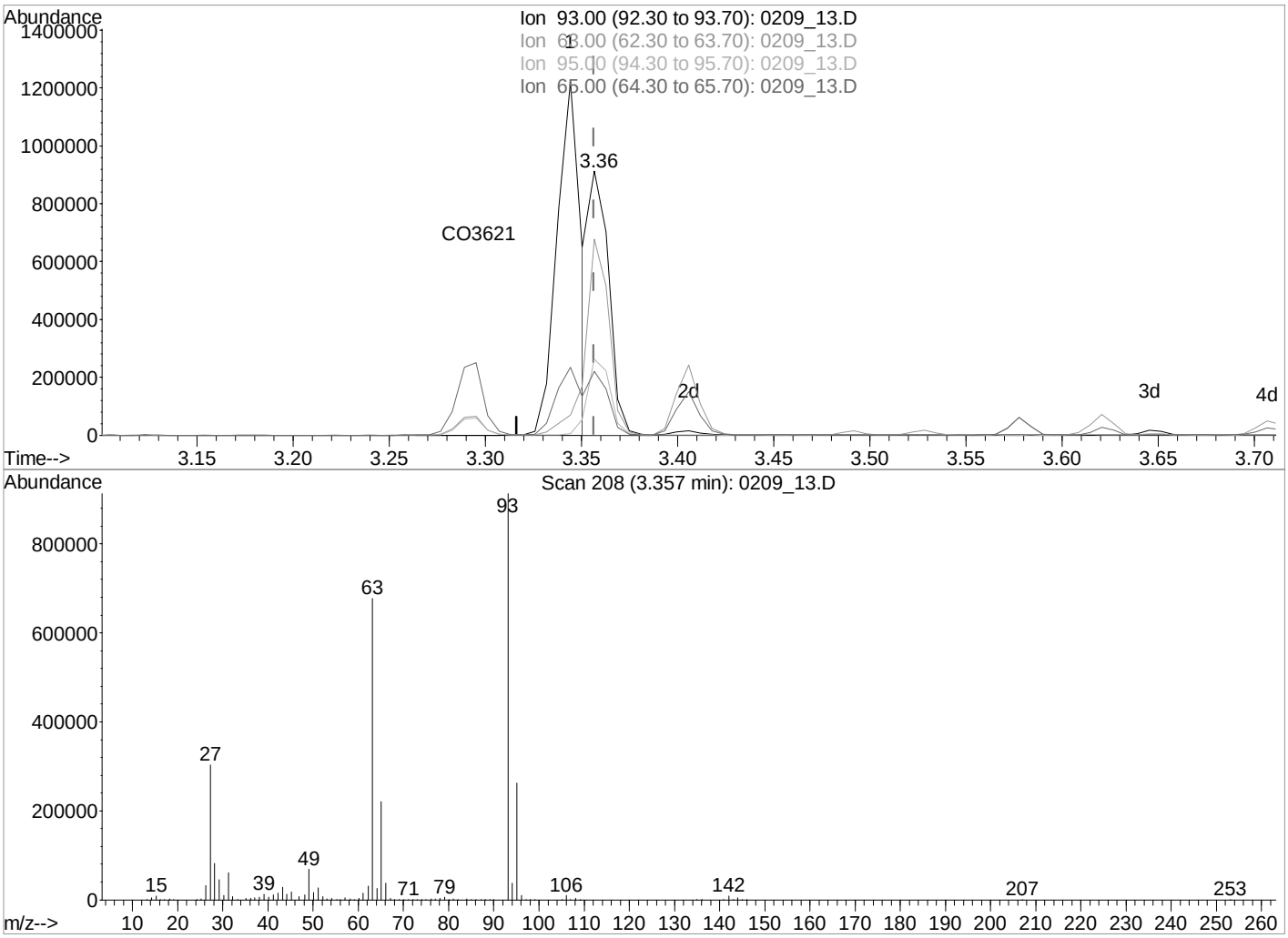
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.65#
95.00	30.20	0.34#
65.00	24.00	19.20

0209_13.D S804B09V.M Mon Feb 14 16:16:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (+0.000) 23889.2924070 ppb m

response 649750

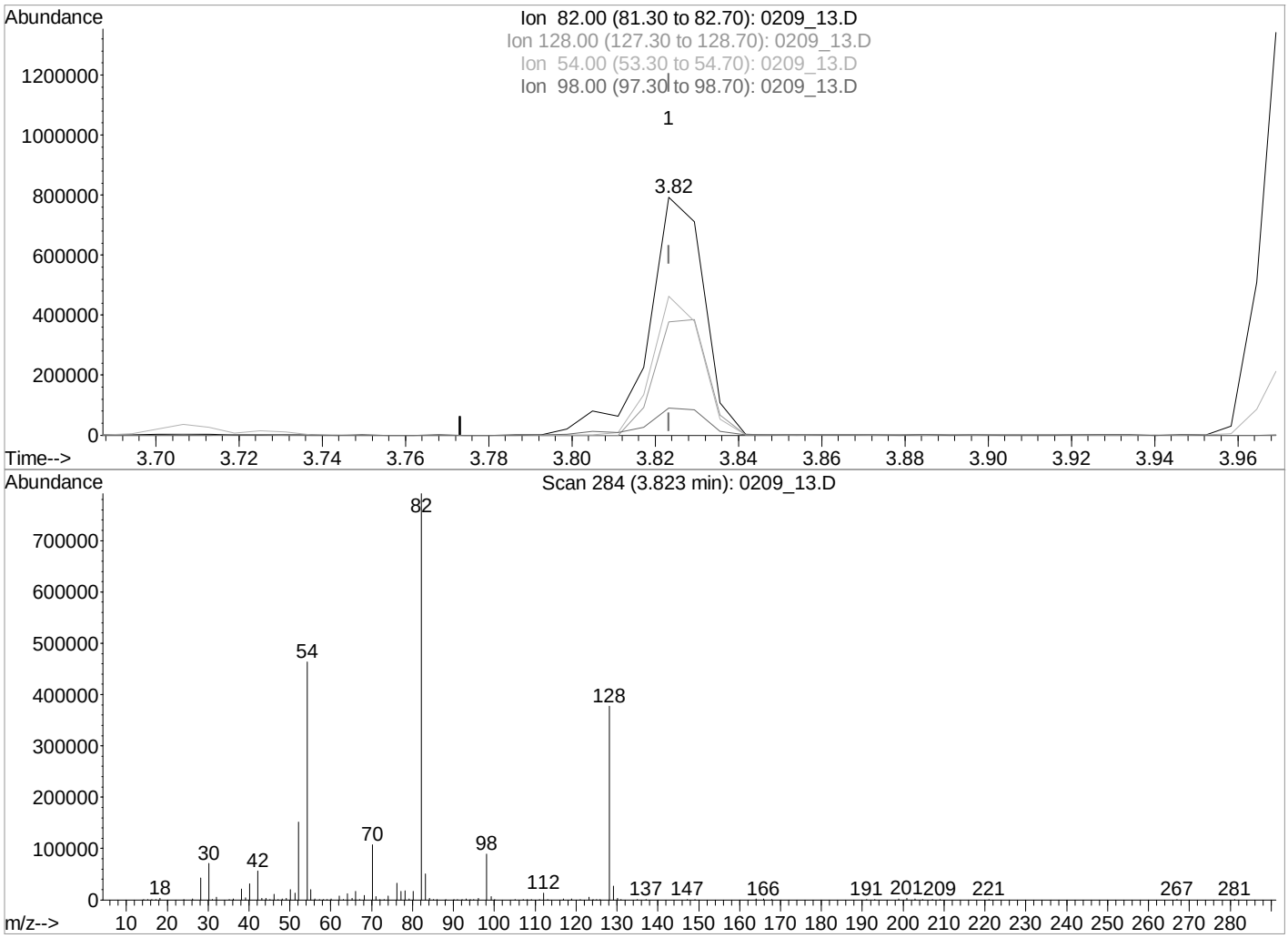
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	74.11
95.00	30.20	28.75
65.00	24.00	24.19

0209_13.D S804B09V.M Mon Feb 14 16:16:36 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(24) Nitrobenzene-d5 (S)

3.82min (+0.000) 50604.5375924 ppb m

response 738701

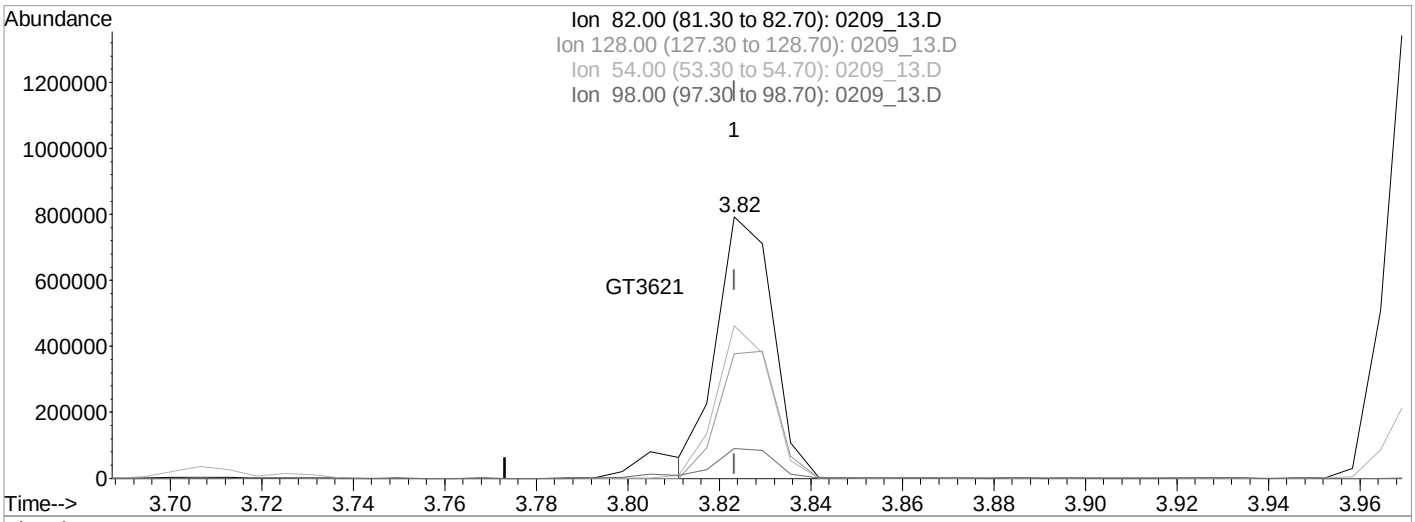
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	47.68
54.00	56.90	58.54
98.00	11.80	11.31

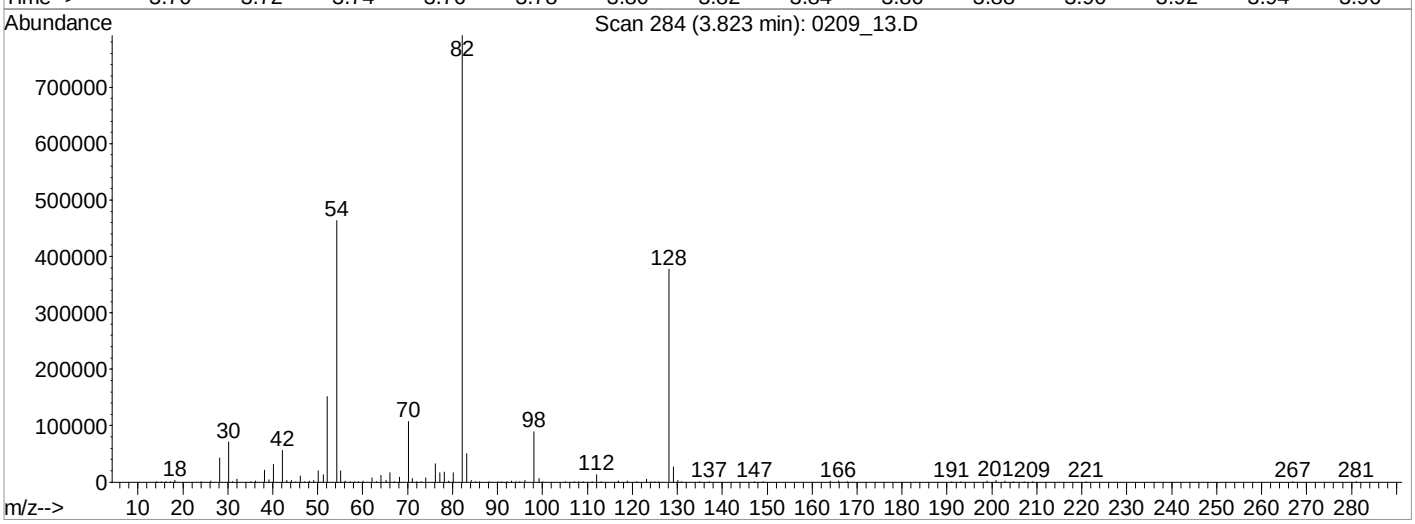
0209_13.D S804B09V.M Mon Feb 14 16:16:58 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:17 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration





TIC: 0209_13.D

(24) Nitrobenzene-d5 (S)

3.82min (+0.000) 46463.7671389 ppb m

response 678256

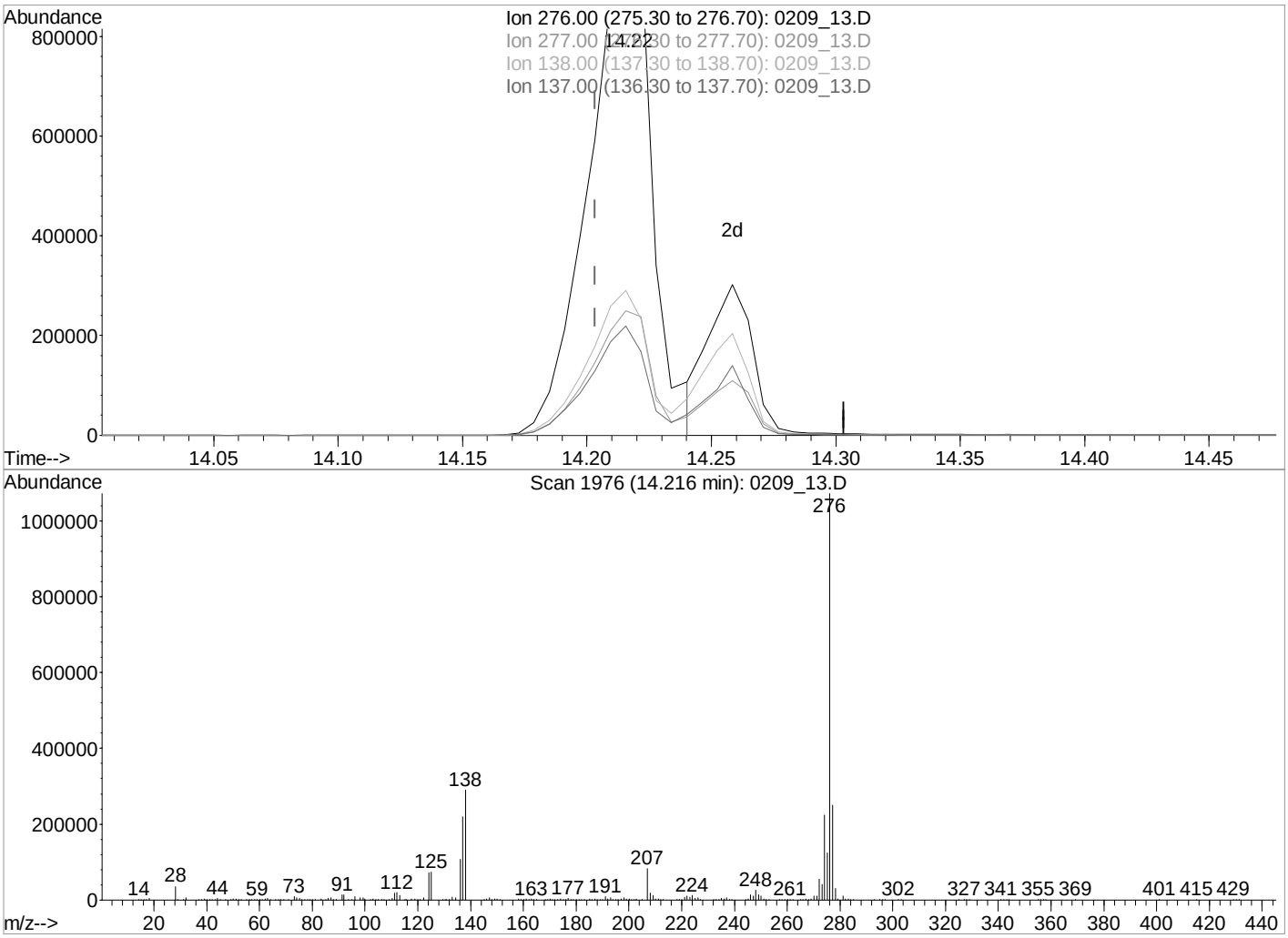
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	47.68
54.00	56.90	58.54
98.00	11.80	11.31

0209_13.D S804B09V.M Mon Feb 14 16:17:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:17 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.22min (+0.012) 49190.5747186 ppb m

response 1772951

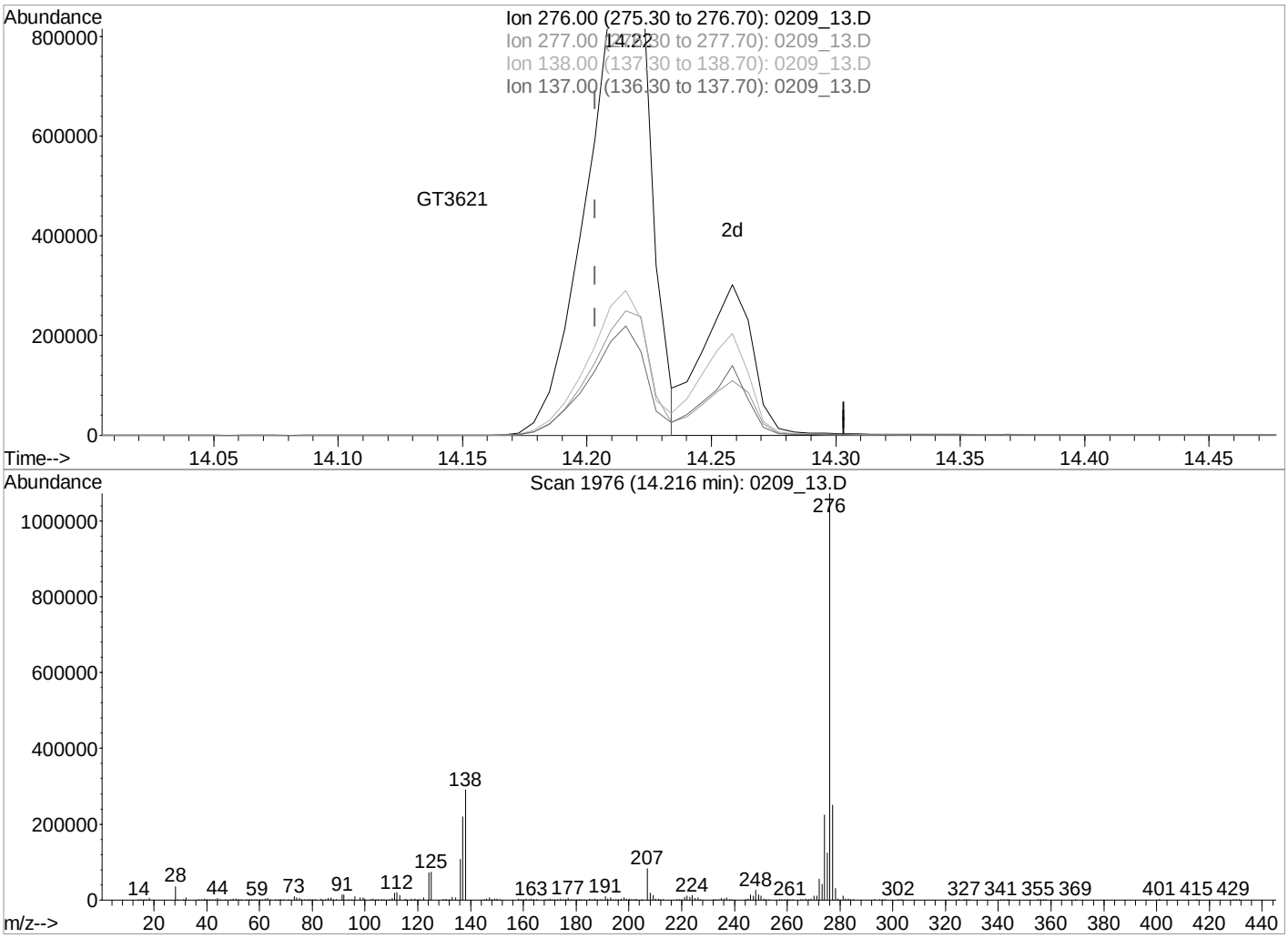
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.27
138.00	25.30	27.03
137.00	18.00	20.45

0209_13.D S804B09V.M Mon Feb 14 16:17:30 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:17 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.22min (+0.012) 48105.1614875 ppb m

response 1733830

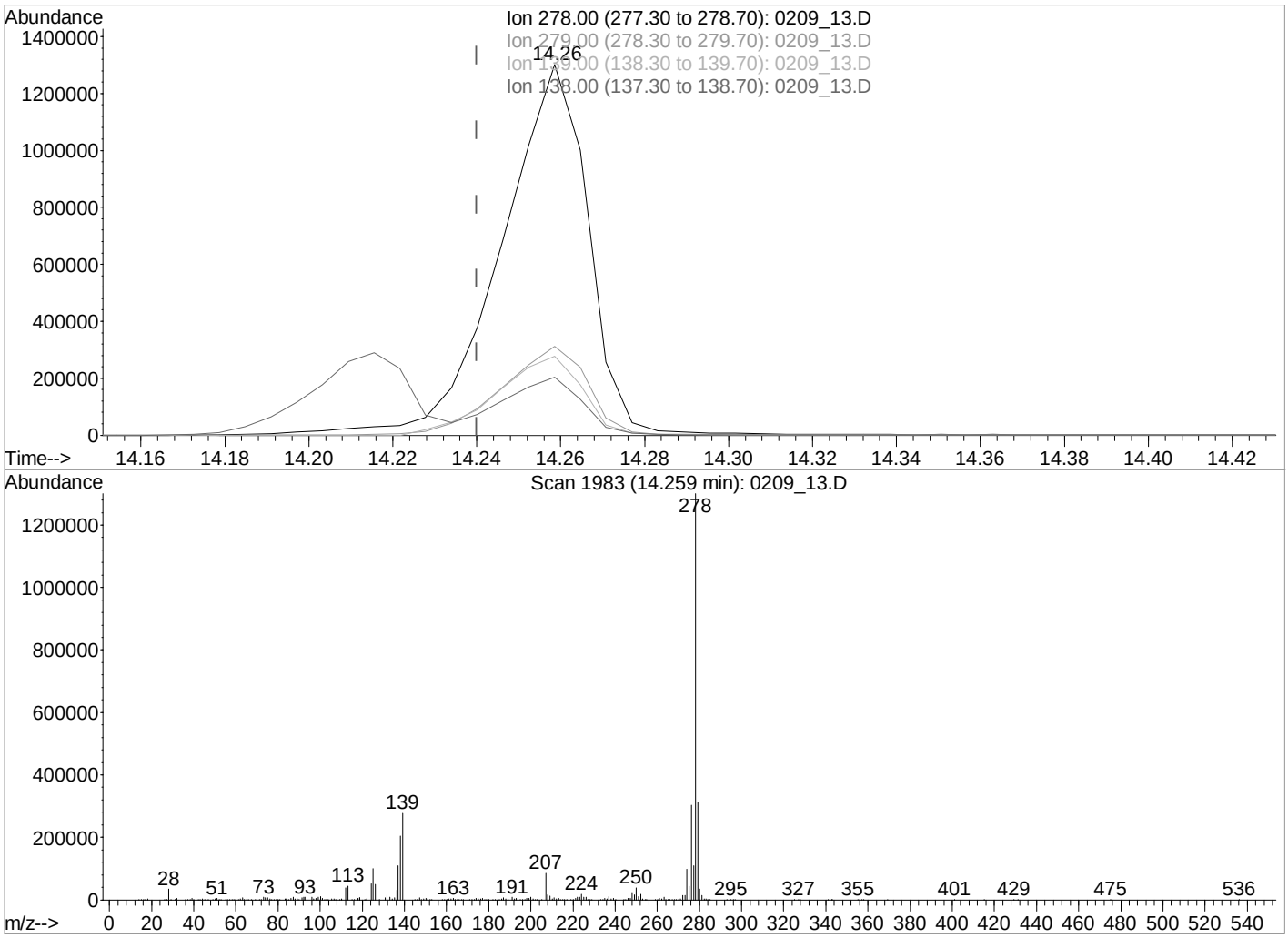
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.27
138.00	25.30	27.03
137.00	18.00	20.45

0209_13.D S804B09V.M Mon Feb 14 16:17:41 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:18 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(99) Dibenz(a,h)anthracene (MT)

14.26min (+0.019) 48815.3733897 ppb m

response 1877713

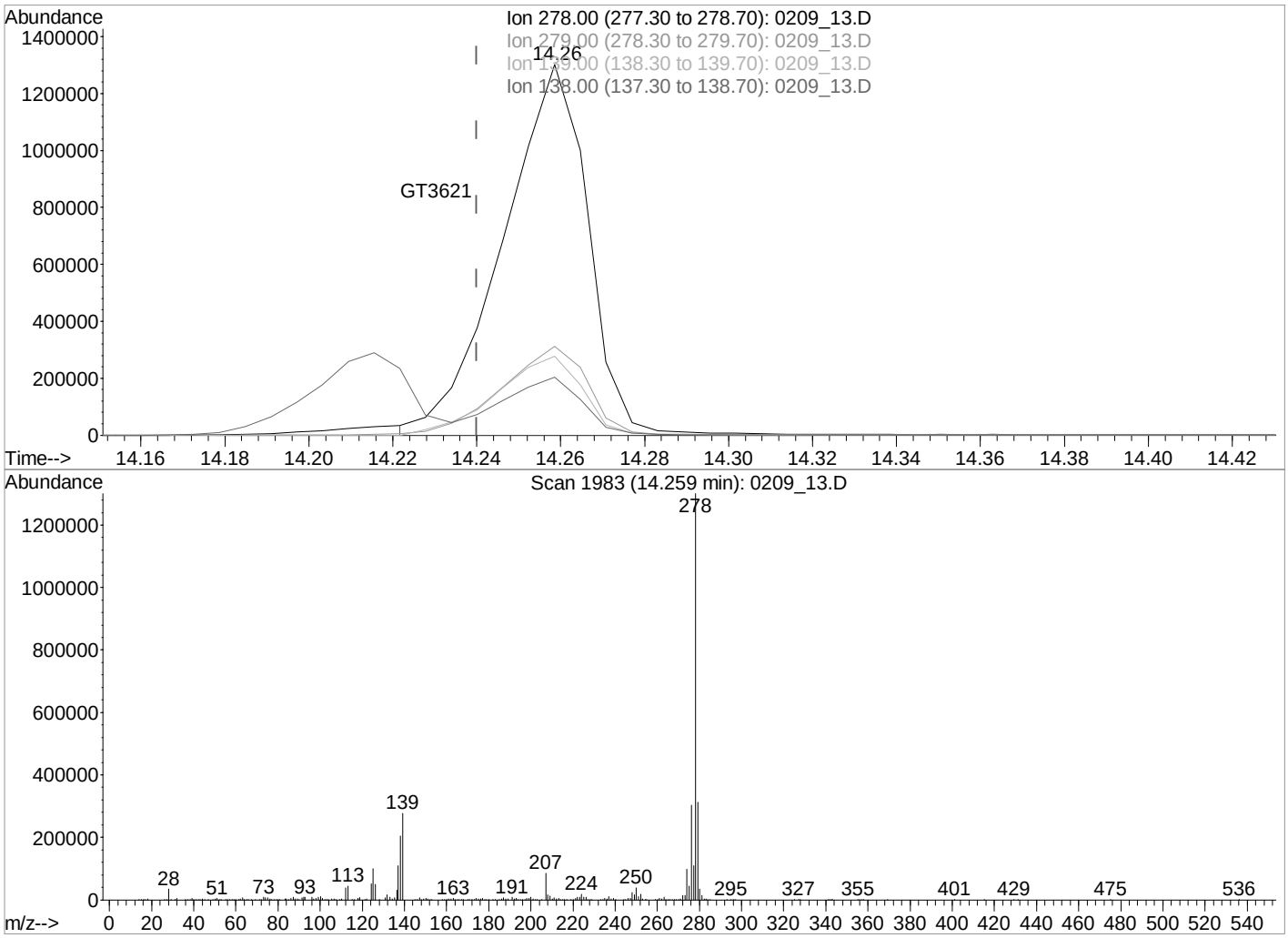
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	24.02
139.00	22.10	21.24
138.00	16.70	15.70

0209_13.D S804B09V.M Mon Feb 14 16:18:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 13.D Vial: 10
Acq On : 9 Feb 2022 1:09 pm Operator: 917
Sample : STD SVMS 50K PPB 22B06090 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:18 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:14:29 2022
Response via : Multiple Level Calibration



TIC: 0209_13.D

(99) Dibenz(a,h)anthracene (MT)

14.26min (+0.019) 47566.6475034 ppb m

response 1829680

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	24.02
139.00	22.10	21.24
138.00	16.70	15.70

0209_13.D S804B09V.M Mon Feb 14 16:18:35 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 15.D Vial: 12
Acq On : 9 Feb 2022 1:51 pm Operator: 917
Sample : STD TCL 4K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:24 2022 Quant Results File: S804B09V.RES

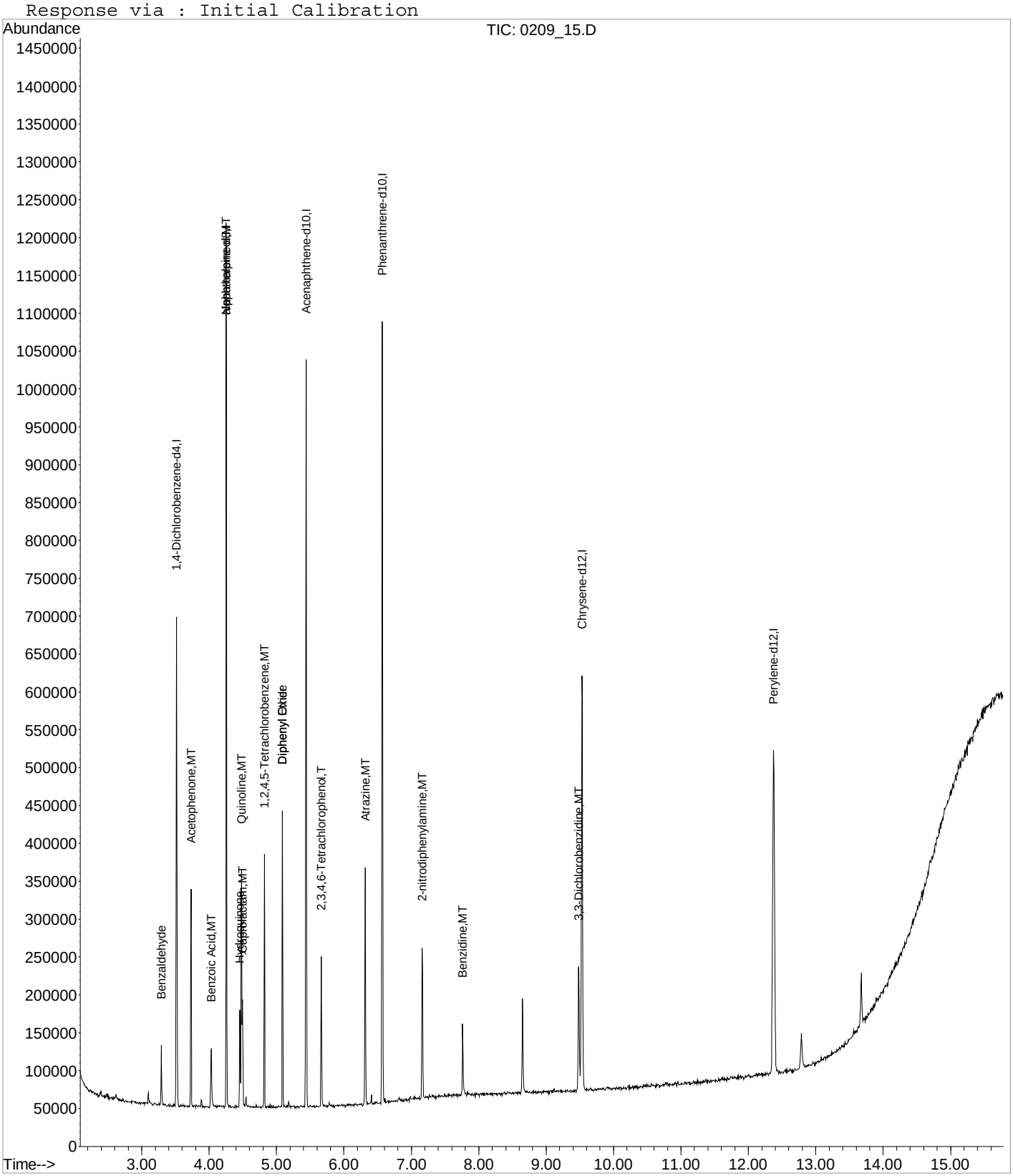
Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:23:05 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	81654	8000.00	ppb	0.00
23) Naphthalene-d8	4.26	136	334983	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	163201	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	305950	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	267428	8000.00	ppb	0.00
94) Perylene-d12	12.37	264	282139	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	14487	3988.9621728	ppb	93
22) Acetophenone	3.73	105	65150	3858.1826323	ppb	99
31) Benzoic Acid	4.03	105	18644	3581.9887151	ppb	99
33) alpha-terpineol	4.25	59	44003	4561.5078513	ppb	98
37) Hydroquinone	4.46	110	31357	3954.3453573	ppb	98
38) Quinoline	4.48	129	94131	4566.3745617	ppb	98
39) Caprolactam	4.49	113	8784	3805.5673121	ppb	95
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	42391	4650.8872010	ppb	100
44) Diphenyl Ether	5.09	170	60249	4582.2445482	ug/ml	97
45) Diphenyl Oxide	5.09	170	60249	4582.2445482	ug/ml	97
62) 2,3,4,6-Tetrachlorophenol	5.67	232	18117	3892.8021929	ppb	95
69) Atrazine	6.32	200	26177	3922.3101062	ppb	95
82) 2-nitrodiphenylamine	7.16	167	24613	3523.7990565	ppb #	100
85) Benzidine	7.76	184	40054	2829.4094773	ppb	99
89) 3,3-Dichlorobenzidine	9.49	252	52096	3783.8744076	ppb	98

(#) = qualifier out of range (m) = manual integration
0209_15.D S804B09V.M Fri Feb 18 15:25:33 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\020922\0209 15.D Vial: 12
Acq On : 9 Feb 2022 1:51 pm Operator: 917
Sample : STD TCL 4K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:24 2022 Quant Results File: S804B09V.RES

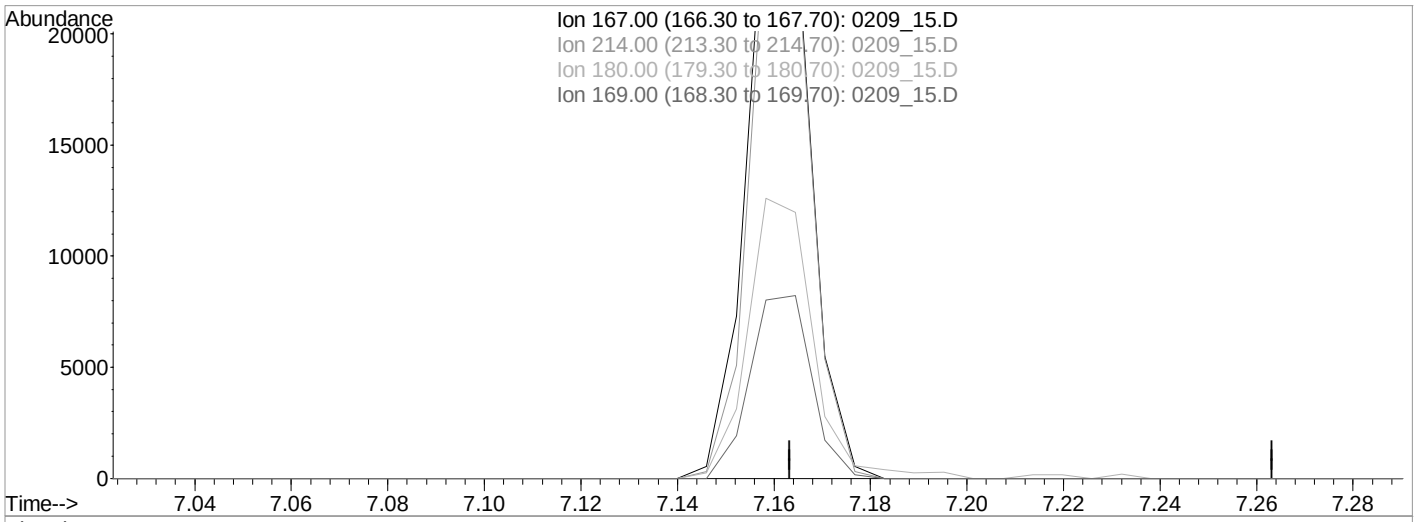
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:23:05 2022
Response via : Initial Calibration

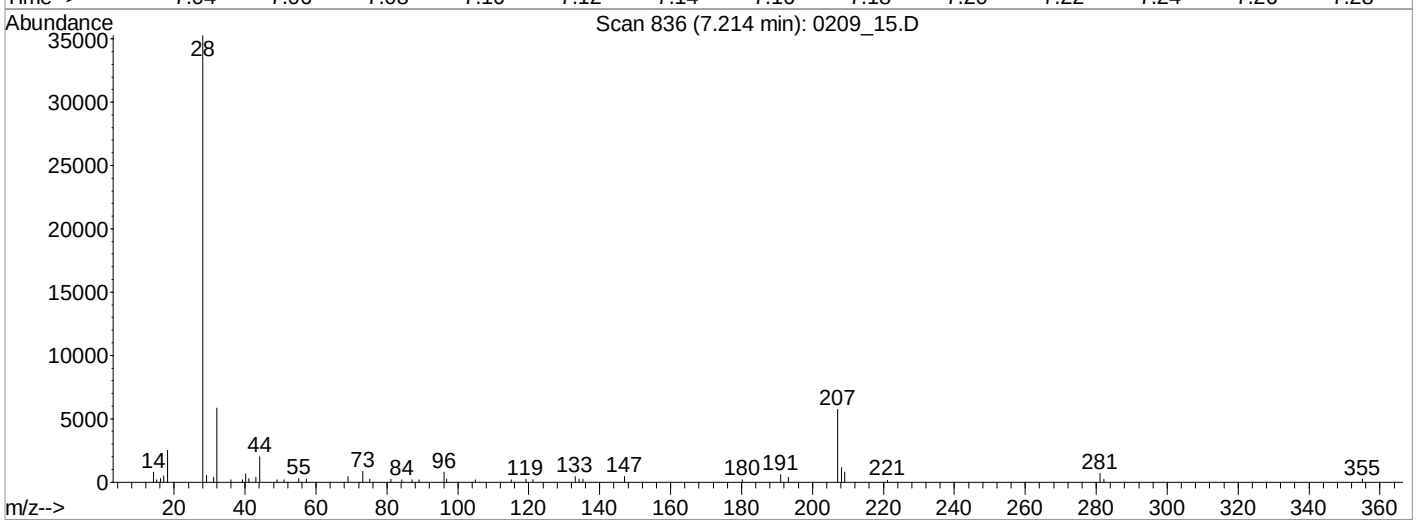


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 15.D Vial: 12
Acq On : 9 Feb 2022 1:51 pm Operator: 917
Sample : STD TCL 4K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 13:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:26:53 2022
Response via : Single Level Calibration





TIC: 0209_15.D

(82) 2-nitrodiphenylamine (MT)

7.21min (-7.213) 0.0000000 ppb

Qvalue = 0

response 0

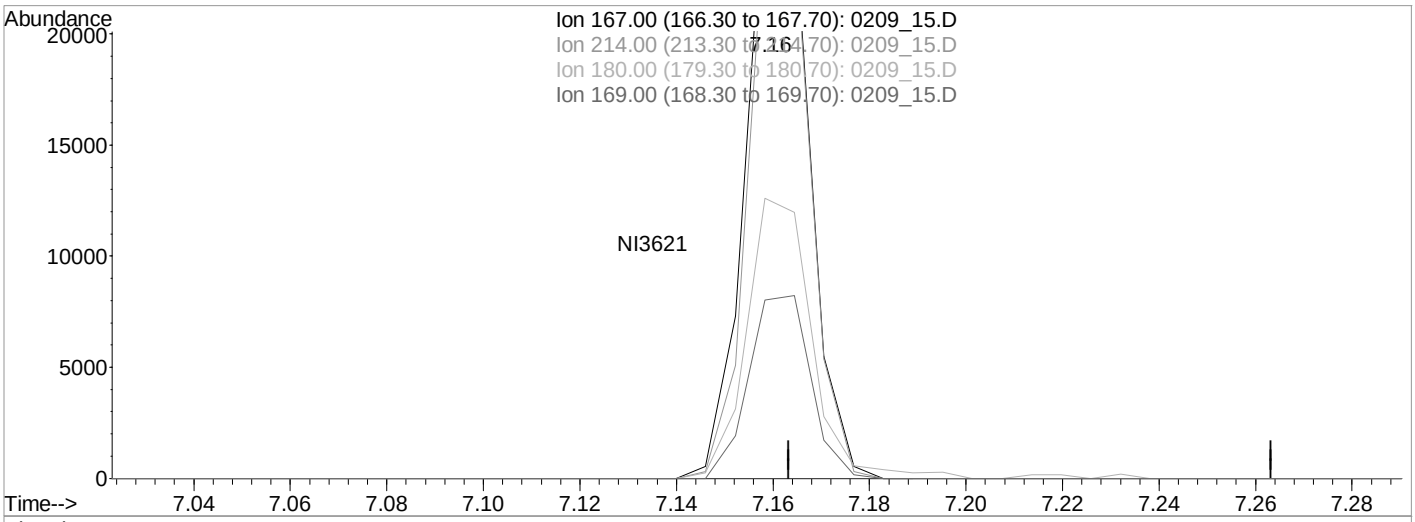
Ion	Exp%	Act%
167.00	100	0.00
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

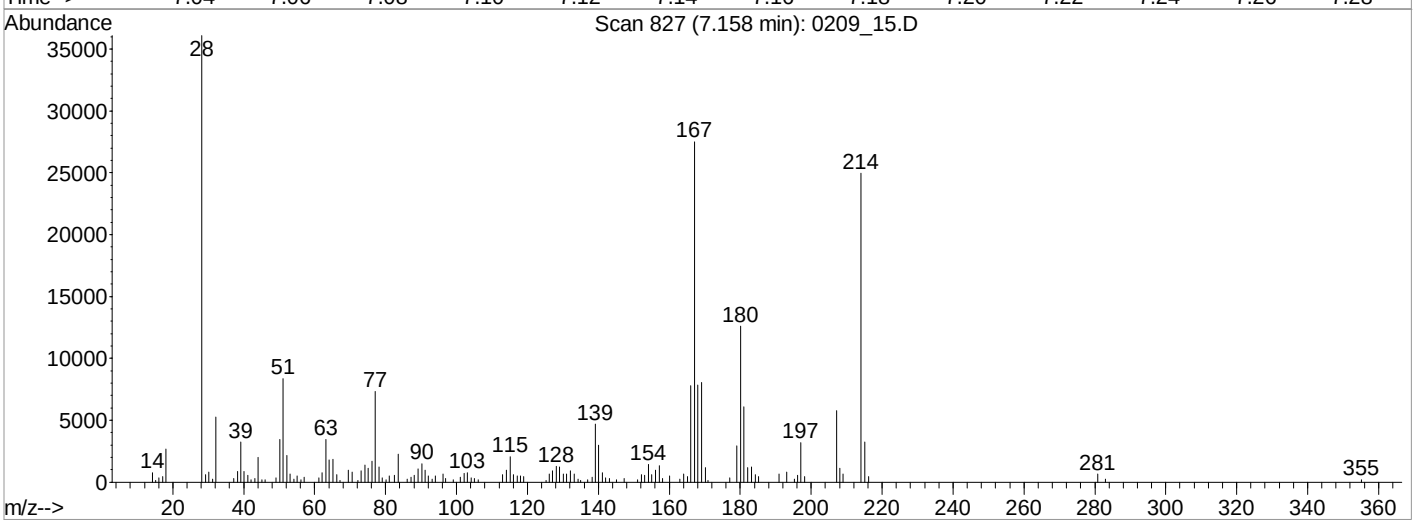
0209_15.D S804B09V.M Mon Feb 14 16:28:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 15.D Vial: 12
Acq On : 9 Feb 2022 1:51 pm Operator: 917
Sample : STD TCL 4K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:26:53 2022
Response via : Single Level Calibration





TIC: 0209_15.D

(82) 2-nitrodiphenylamine (MT)

7.16min (-0.055) 0.0000000 ppb m

response 24613

Ion	Exp%	Act%
167.00	100	100
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_15.D S804B09V.M Mon Feb 14 16:29:01 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 16.D Vial: 13
Acq On : 9 Feb 2022 2:11 pm Operator: 917
Sample : MSTD TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:12 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:11:22 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

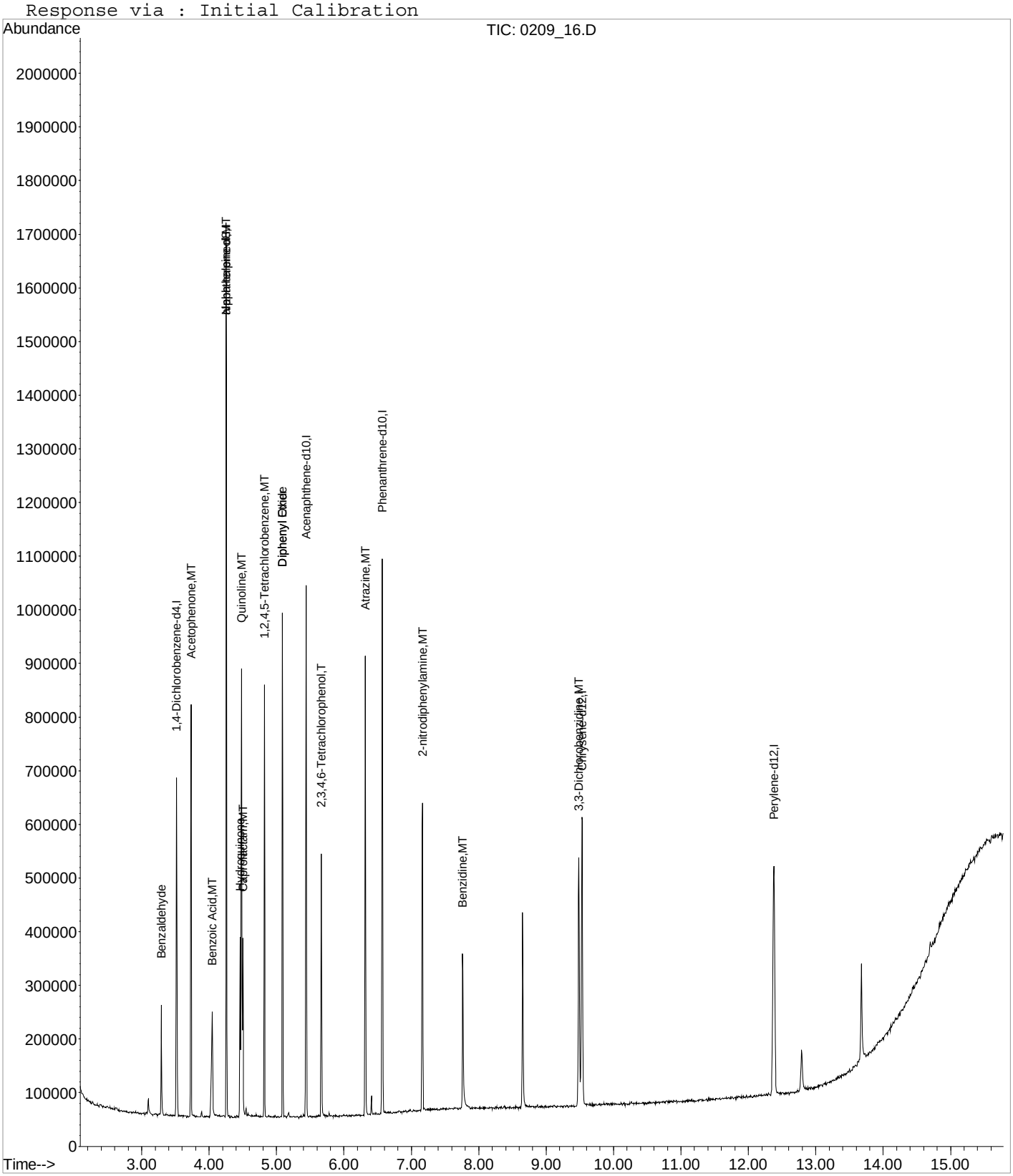
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	80802	8000.00	ppb	0.00
23) Naphthalene-d8	4.26	136	355632	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	160695	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	305525	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	266241	8000.00	ppb	0.00
94) Perylene-d12	12.38	264	277583	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	34568	9618.5822945	ppb	100
22) Acetophenone	3.73	105	164650	9853.3849640	ppb	100
31) Benzoic Acid	4.04	105	61639	11154.8218541	ppb	100
33) alpha-terpineol	4.25	59	113780	11109.9986247	ppb	100
37) Hydroquinone	4.46	110	74981	8906.6267747	ppb	100
38) Quinoline	4.48	129	235712	10770.6642496	ppb	100
39) Caprolactam	4.50	113	23969	9781.3529859	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	105301	10882.1968071	ppb	100
44) Diphenyl Ether	5.09	170	155858	11165.5328771	ug/ml	100
45) Diphenyl Oxide	5.09	170	155858	11165.5328771	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.67	232	45074	9836.0924902	ppb	100
69) Atrazine	6.32	200	67082	10208.1844301	ppb	100
82) 2-nitrodiphenylamine	7.16	167	72572	10161.7203217	ppb #	100
85) Benzidine	7.76	184	134678	9556.0521113	ppb	100
89) 3,3-Dichlorobenzidine	9.49	252	138838	10164.4628275	ppb	100

(#) = qualifier out of range (m) = manual integration
0209_16.D S804B09V.M Fri Feb 18 15:13:48 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 16.D Vial: 13
Acq On : 9 Feb 2022 2:11 pm Operator: 917
Sample : MSTD TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:12 2022 Quant Results File: S804B09V.RES

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:11:22 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\050422B\0504B 04.D Vial: 4
Acq On : 4 May 2022 8:30 pm Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 5 16:01 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

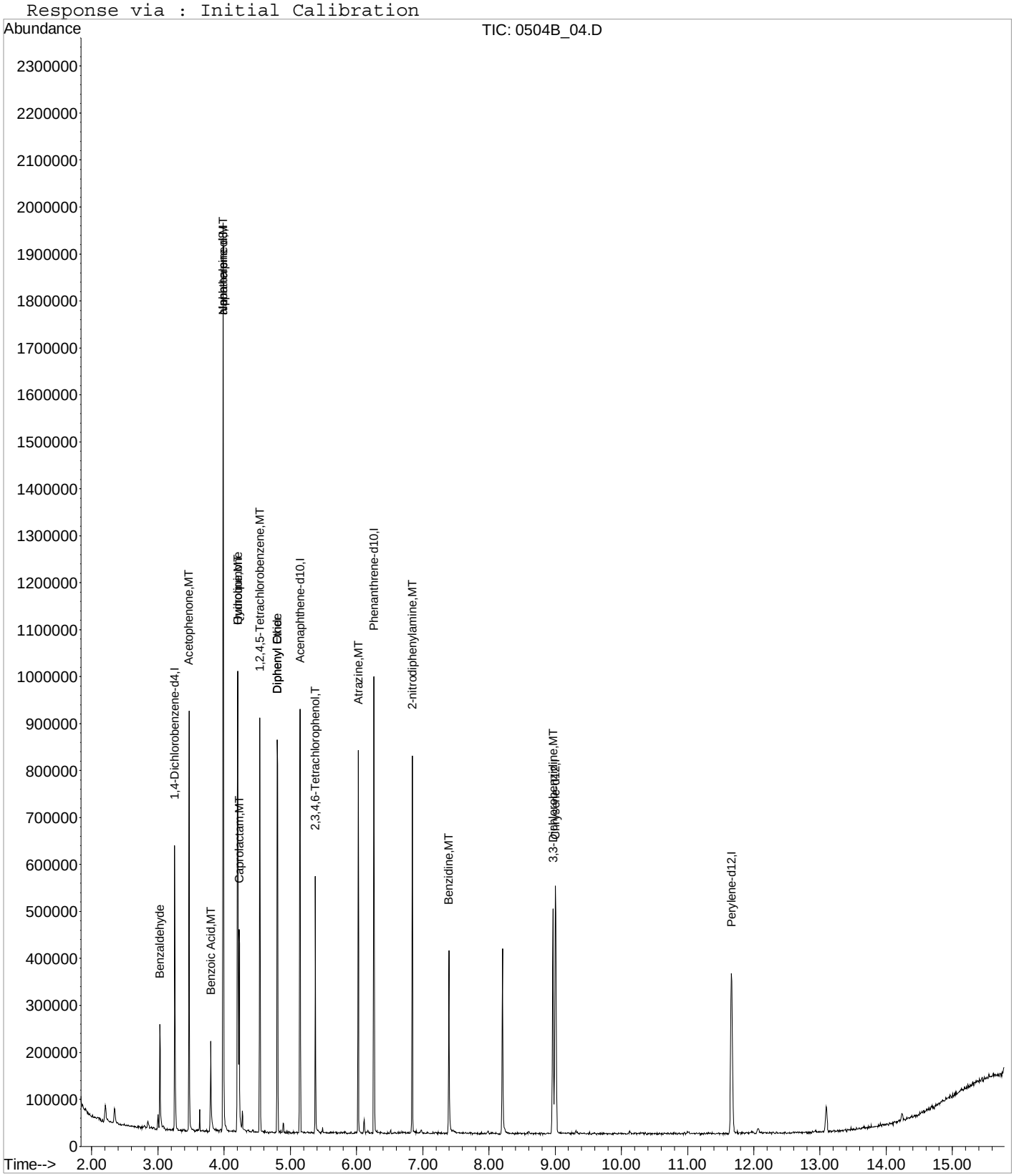
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	73015	8000.00	ppb	0.00
23) Naphthalene-d8	3.98	136	326671	8000.00	ppb	0.00
46) Acenaphthene-d10	5.15	164	140220	8000.00	ppb	0.00
70) Phenanthrene-d10	6.26	188	265524	8000.00	ppb	0.00
84) Chrysene-d12	9.00	240	228051	8000.00	ppb	0.00
94) Perylene-d12	11.66	264	216467	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.03	105	37553	11563.5576519	ppb #	88
22) Acetophenone	3.47	105	174657	11566.9732918	ppb	96
31) Benzoic Acid	3.80	105	51228	9584.7085299	ppb	94
33) alpha-terpineol	3.98	59	120439	11752.9375562	ppb	96
37) Hydroquinone	4.21	110	72844m	10246.0904601	ppb	
38) Quinoline	4.21	129	226702	10414.3753050	ppb	100
39) Caprolactam	4.23	113	30661	13621.5202940	ppb #	81
43) 1,2,4,5-Tetrachlorobenzene	4.54	216	102104	11677.3256633	ppb	99
44) Diphenyl Ether	4.81	170	138570	9934.7053971	ug/ml#	87
45) Diphenyl Oxide	4.81	170	138570	9934.7053971	ug/ml#	87
62) 2,3,4,6-Tetrachlorophenol	5.38	232	46425	11610.2298348	ppb	99
69) Atrazine	6.02	200	60218	10501.7393261	ppb	98
82) 2-nitrodiphenylamine	6.84	167	76767	11463.4210047	ppb #	100
85) Benzidine	7.39	184	138285	10272.0957612	ppb	99
89) 3,3-Dichlorobenzidine	8.97	252	124301	10587.2179159	ppb	99

(#) = qualifier out of range (m) = manual integration
0504B_04.D S804E04BV.M Thu May 05 16:01:48 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\050422B\0504B 04.D Vial: 4
Acq On : 4 May 2022 8:30 pm Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 5 16:01 2022 Quant Results File: S804E04BV.RES

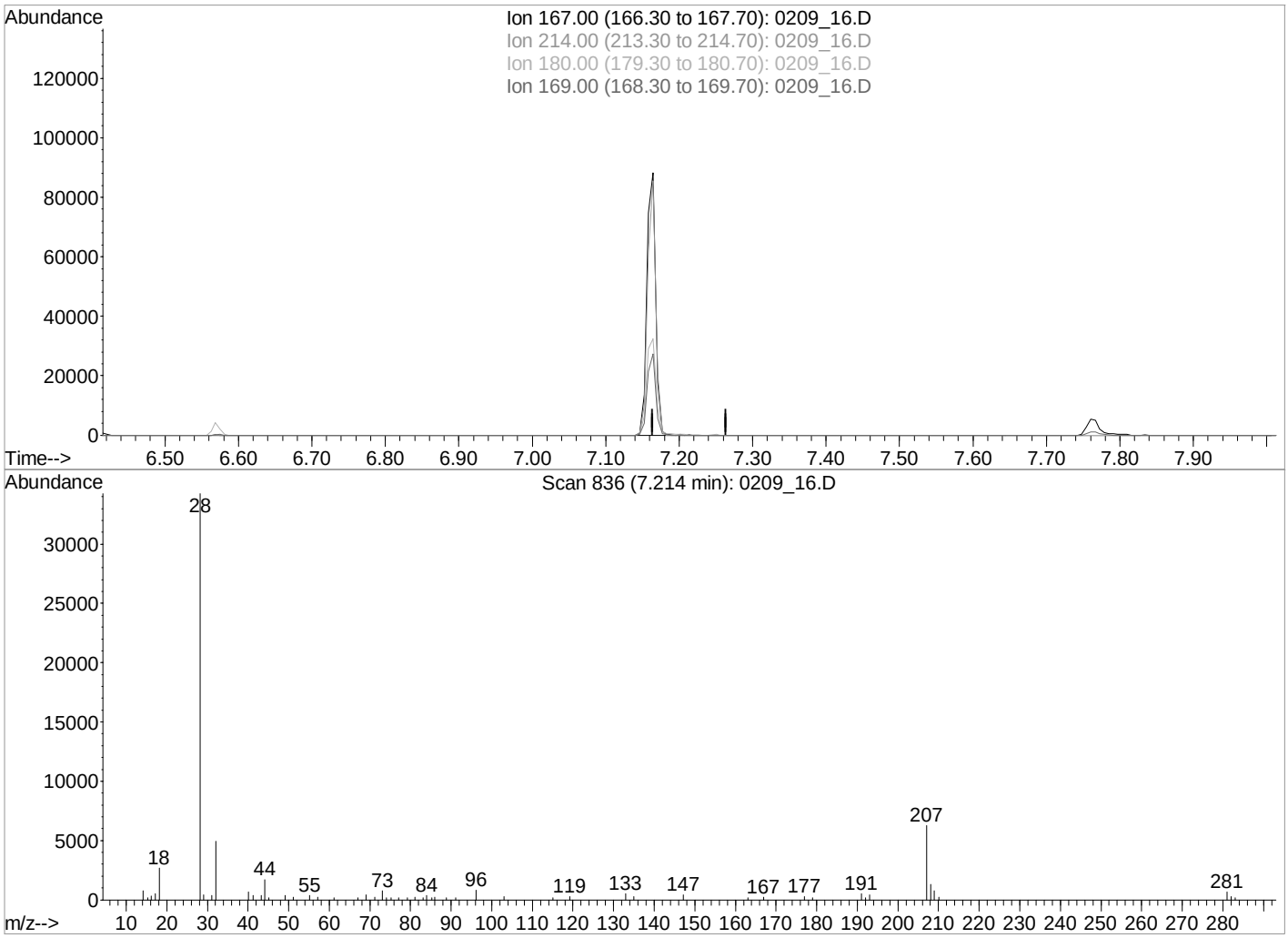
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 16.D Vial: 13
Acq On : 9 Feb 2022 2:11 pm Operator: 917
Sample : MSTD TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:56 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:30:22 2022
Response via : Single Level Calibration



TIC: 0209_16.D

(82) 2-nitrodiphenylamine (MT)

7.21min (-7.213) 0.0000000 ppb

Qvalue = 0

response 0

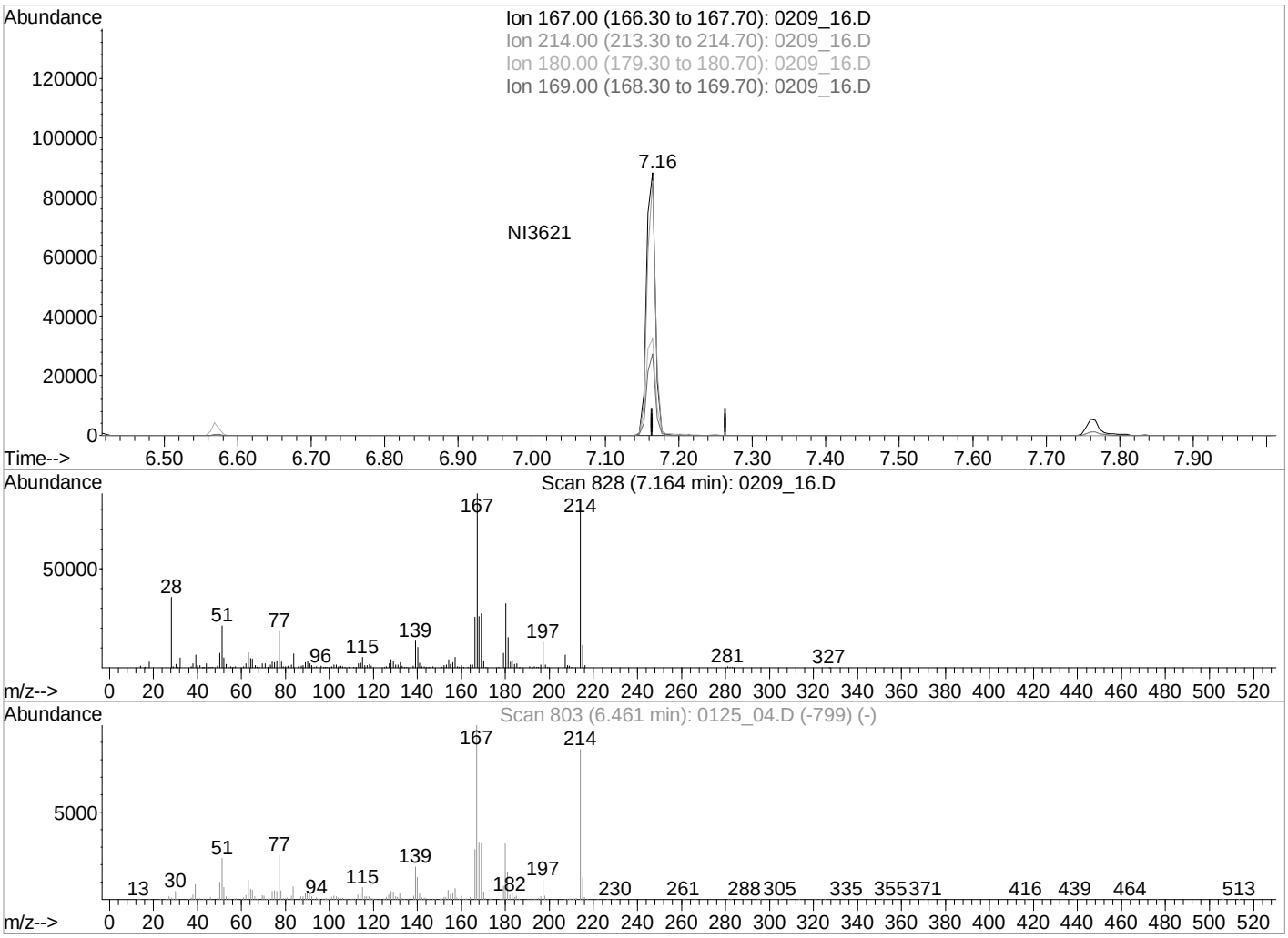
Ion	Exp%	Act%
167.00	100	0.00
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_16.D S804B09V.M Mon Feb 14 16:33:10 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 16.D Vial: 13
Acq On : 9 Feb 2022 2:11 pm Operator: 917
Sample : MSTD TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 11:56 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:30:22 2022
Response via : Single Level Calibration



TIC: 0209_16.D

(82) 2-nitrodiphenylamine (MT)

7.21min (-7.213) 0.0000000 ppb

Qvalue = 0

response 0

Ion	Exp%	Act%
167.00	100	0.00
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_16.D S804B09V.M Mon Feb 14 16:33:40 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:27 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:25:47 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

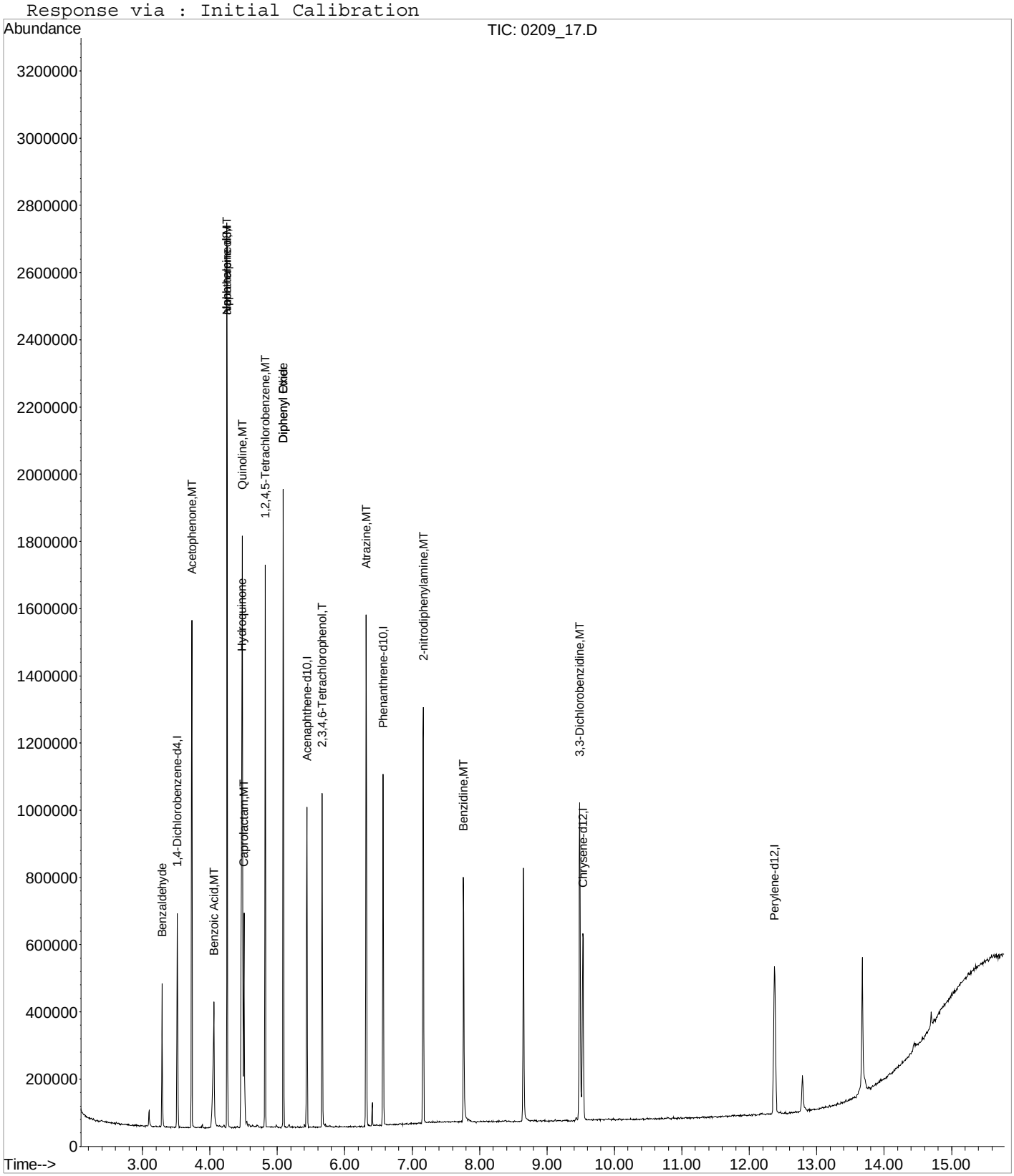
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	80706	8000.00	ppb	0.00
23) Naphthalene-d8	4.25	136	399771	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	165153	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	310543	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	267602	8000.00	ppb	0.00
94) Perylene-d12	12.37	264	278906	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	70662	19685.1634252	ppb	97
22) Acetophenone	3.73	105	331215	19844.9495807	ppb	100
31) Benzoic Acid	4.06	105	142776	22985.3864980	ppb	97
33) alpha-terpineol	4.25	59	228650	19861.3528537	ppb	100
37) Hydroquinone	4.47	110	185756	19628.8303703	ppb	97
38) Quinoline	4.48	129	490490	19937.9498035	ppb	99
39) Caprolactam	4.50	113	57125	20737.8999620	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	213585	19635.6089839	ppb	99
44) Diphenyl Ether	5.09	170	314838	20064.4401459	ug/ml	100
45) Diphenyl Oxide	5.09	170	314838	20064.4401459	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.67	232	91641	19458.1801546	ppb	98
69) Atrazine	6.32	200	137477	20355.8128288	ppb	99
82) 2-nitrodiphenylamine	7.16	167	162587	22933.0128430	ppb #	100
85) Benzidine	7.76	184	309145	21823.7641043	ppb	99
89) 3,3-Dichlorobenzidine	9.49	252	286959	20829.0616750	ppb	99

(#) = qualifier out of range (m) = manual integration
0209_17.D S804B09V.M Fri Feb 18 15:28:47 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:27 2022 Quant Results File: S804B09V.RES

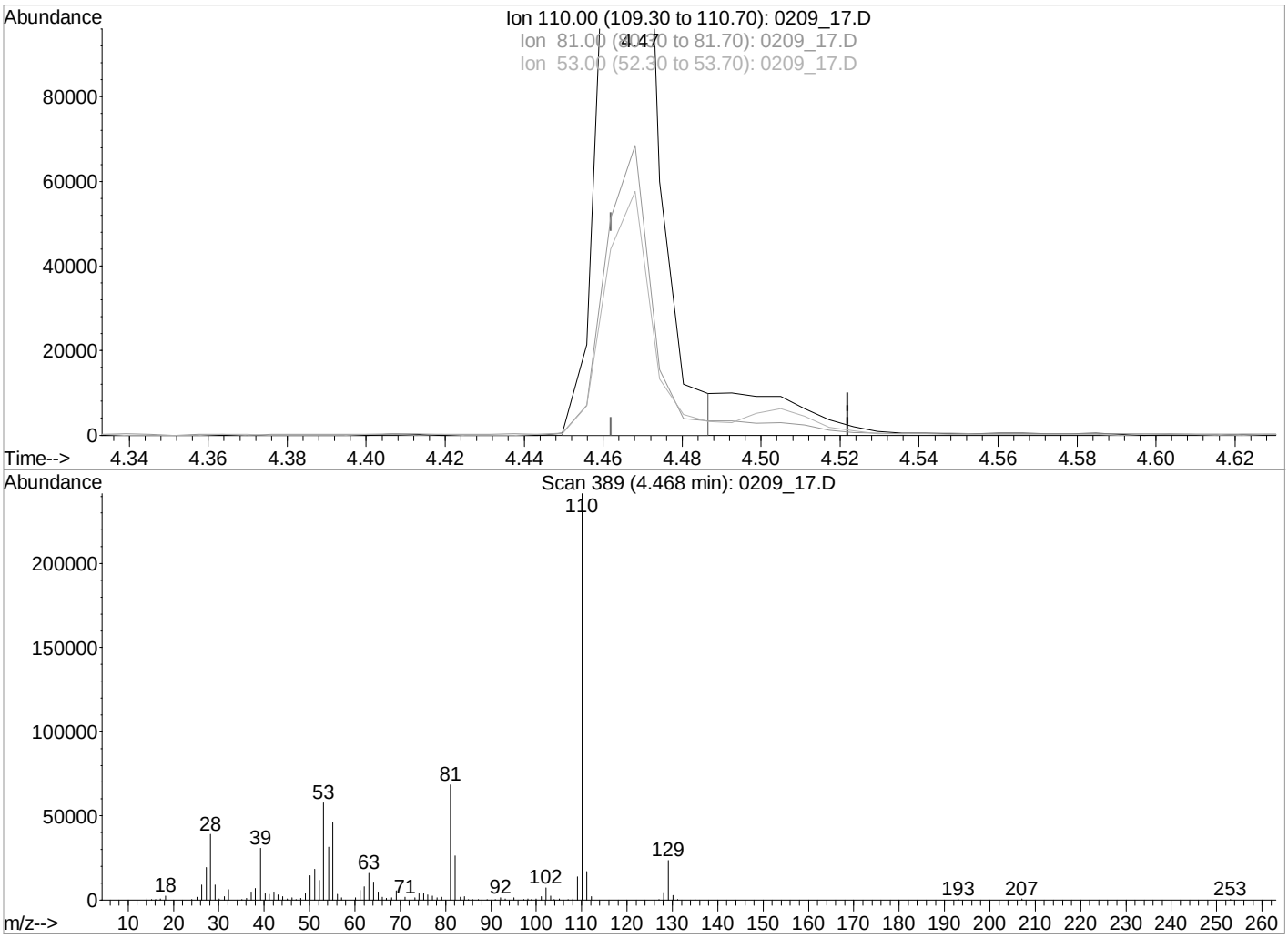
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:25:47 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:34:51 2022
Response via : Single Level Calibration



TIC: 0209_17.D

(37) Hydroquinone

4.47min (+0.006) 18327.5298072 ppb m

response 185555

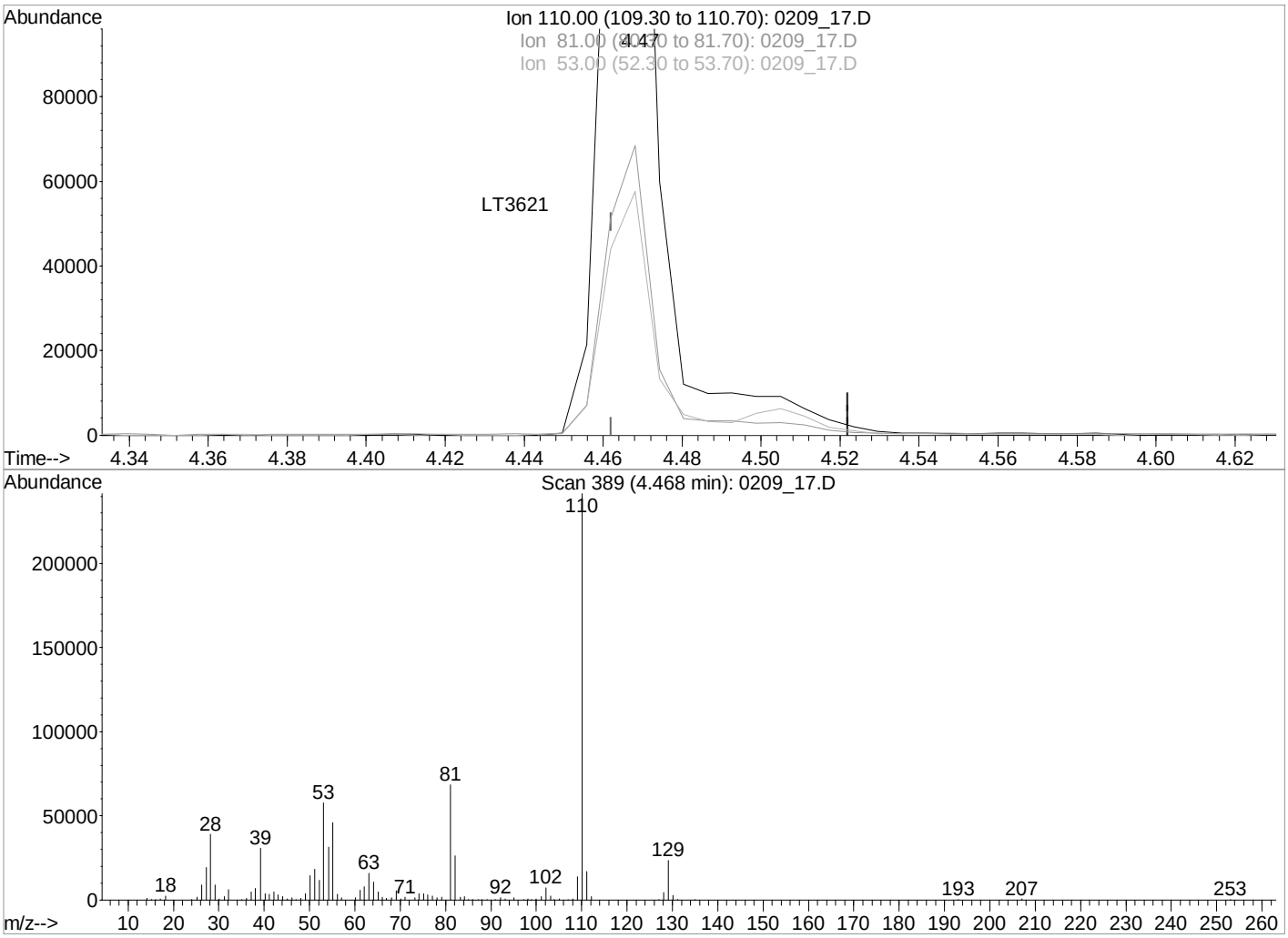
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.35
53.00	25.90	23.82
0.00	0.00	0.00

0209_17.D S804B09V.M Mon Feb 14 16:36:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:34:51 2022
Response via : Single Level Calibration



TIC: 0209_17.D

(37) Hydroquinone

4.47min (+0.006) 19899.5756395 ppb m

response 201471

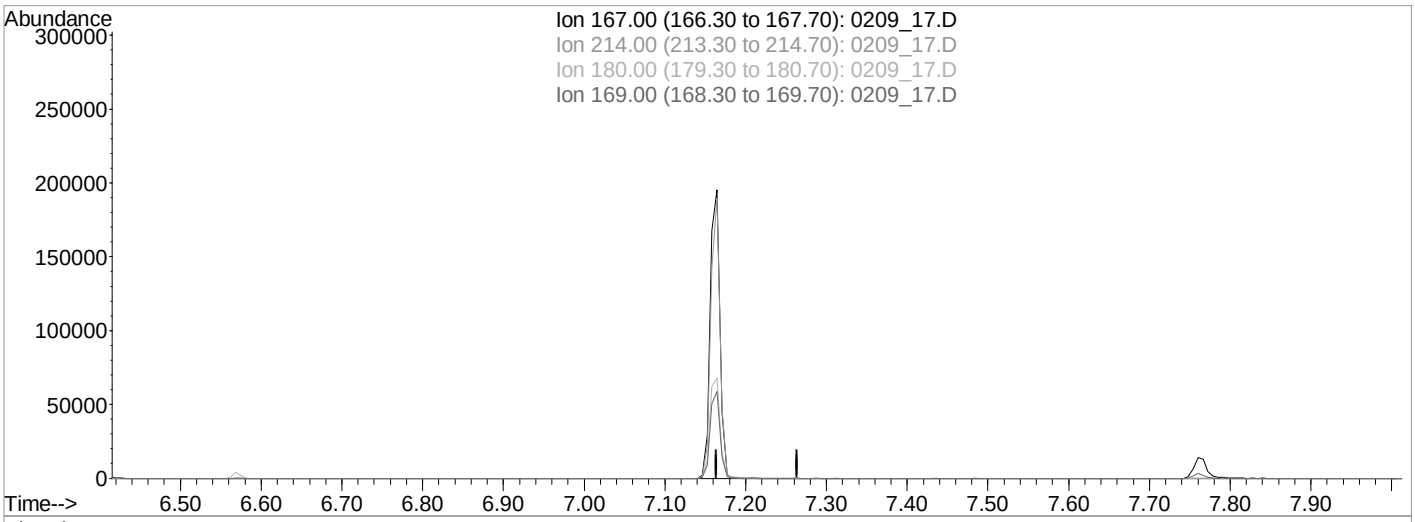
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.35
53.00	25.90	23.82
0.00	0.00	0.00

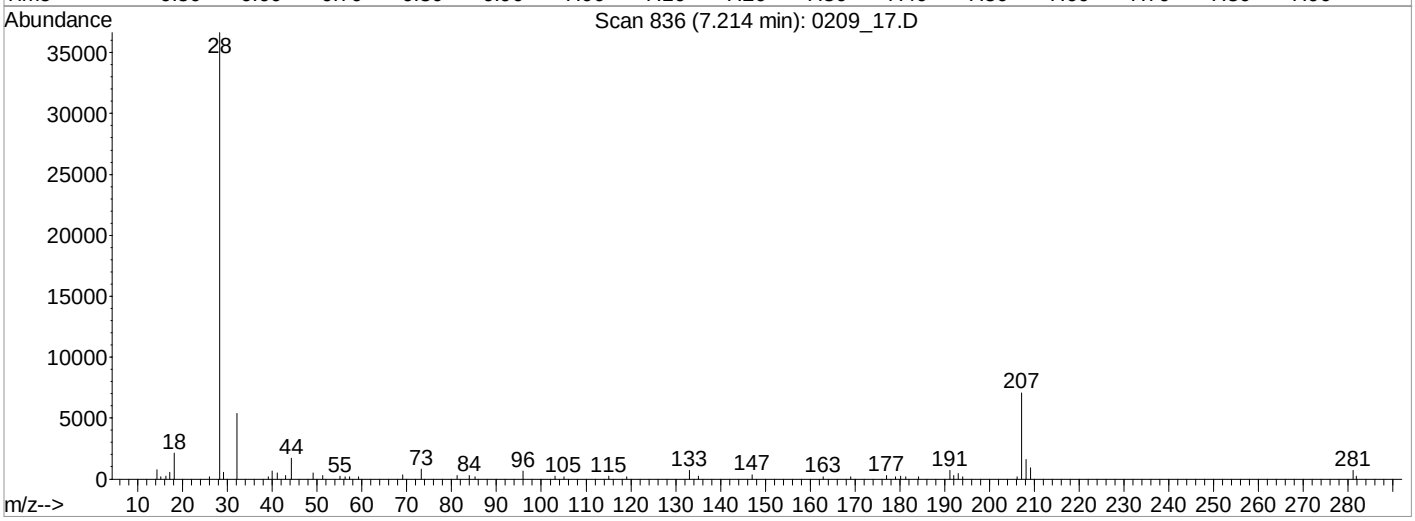
0209_17.D S804B09V.M Mon Feb 14 16:36:27 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:34:51 2022
Response via : Single Level Calibration





TIC: 0209_17.D

(82) 2-nitrodiphenylamine (MT)

7.21min (-7.213) 0.0000000 ppb

Qvalue = 0

response 0

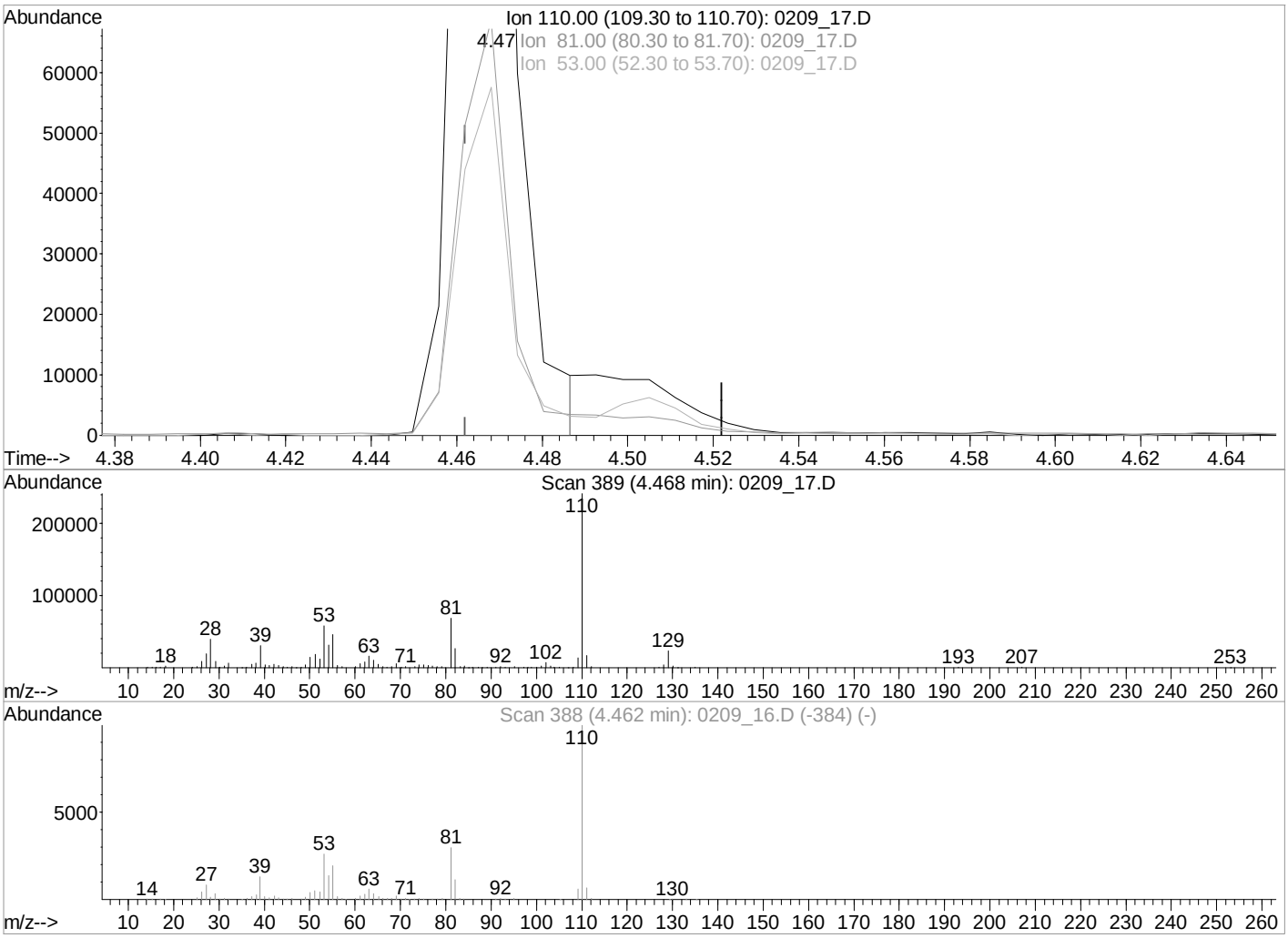
Ion	Exp%	Act%
167.00	100	0.00
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_17.D S804B09V.M Mon Feb 14 16:36:39 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:27 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:25:47 2022
Response via : Single Level Calibration



TIC: 0209_17.D

(37) Hydroquinone

4.47min (+0.006) 19628.8303703 ppb

Qvalue = 97

response 185756

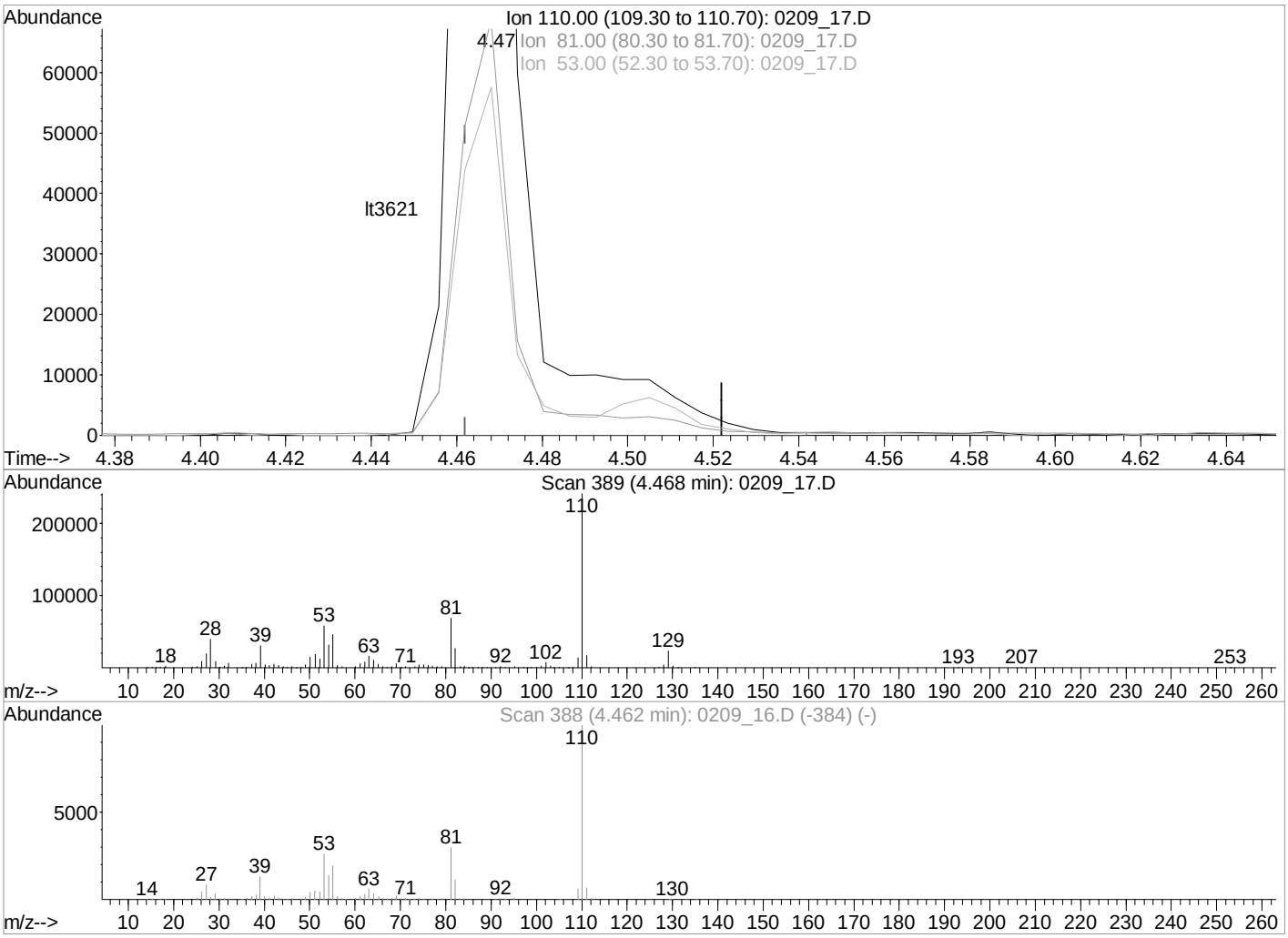
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.22
53.00	25.90	23.82
0.00	0.00	0.00

0209_17.D S804B09V.M Fri Feb 18 15:27:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 17.D Vial: 14
Acq On : 9 Feb 2022 2:32 pm Operator: 917
Sample : STD TCL 20K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:27 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:25:47 2022
Response via : Single Level Calibration



TIC: 0209_17.D

(37) Hydroquinone

4.47min (+0.006) 19628.8303703 ppb

Qvalue = 97

response 185756

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.22
53.00	25.90	23.82
0.00	0.00	0.00

0209_17.D S804B09V.M Fri Feb 18 15:28:07 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:30 2022 Quant Results File: S804B09V.RES

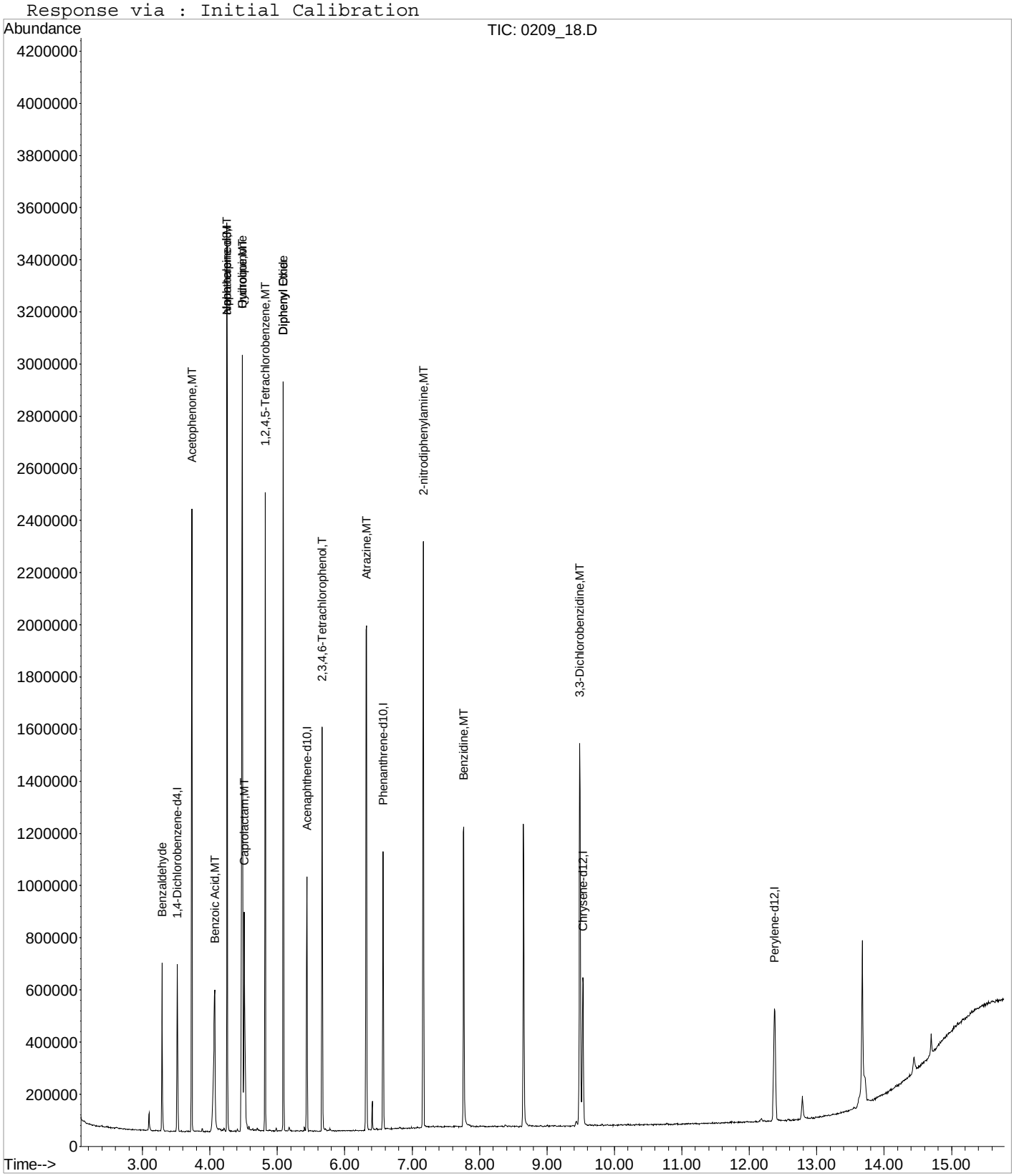
Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:28:57 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	82108	8000.00	ppb	0.00
23) Naphthalene-d8	4.25	136	454114	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	168401	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	315216	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	275976	8000.00	ppb	0.00
94) Perylene-d12	12.37	264	284329	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	106225	29087.0842194	ppb	99
22) Acetophenone	3.73	105	505456	29767.5922833	ppb	99
31) Benzoic Acid	4.08	105	230790	32708.4514047	ppb	98
33) alpha-terpineol	4.25	59	348279	26632.4613626	ppb	100
37) Hydroquinone	4.47	110	296671	27928.9894085	ppb	96
38) Quinoline	4.48	129	748414	26781.7307239	ppb	99
39) Caprolactam	4.51	113	91827	29346.4351921	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	326532	26426.8725297	ppb	100
44) Diphenyl Ether	5.09	170	472571	26512.6637447	ug/ml	99
45) Diphenyl Oxide	5.09	170	472571	26512.6637447	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.67	232	141749	29517.1352371	ppb	99
69) Atrazine	6.32	200	207850	30182.1541051	ppb	99
82) 2-nitrodiphenylamine	7.16	167	262818	36543.3967385	ppb #	100
85) Benzidine	7.77	184	501082	34300.0121056	ppb	100
89) 3,3-Dichlorobenzidine	9.49	252	434215	30561.3628394	ppb	99

(#) = qualifier out of range (m) = manual integration
0209_18.D S804B09V.M Fri Feb 18 15:31:52 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:30 2022 Quant Results File: S804B09V.RES

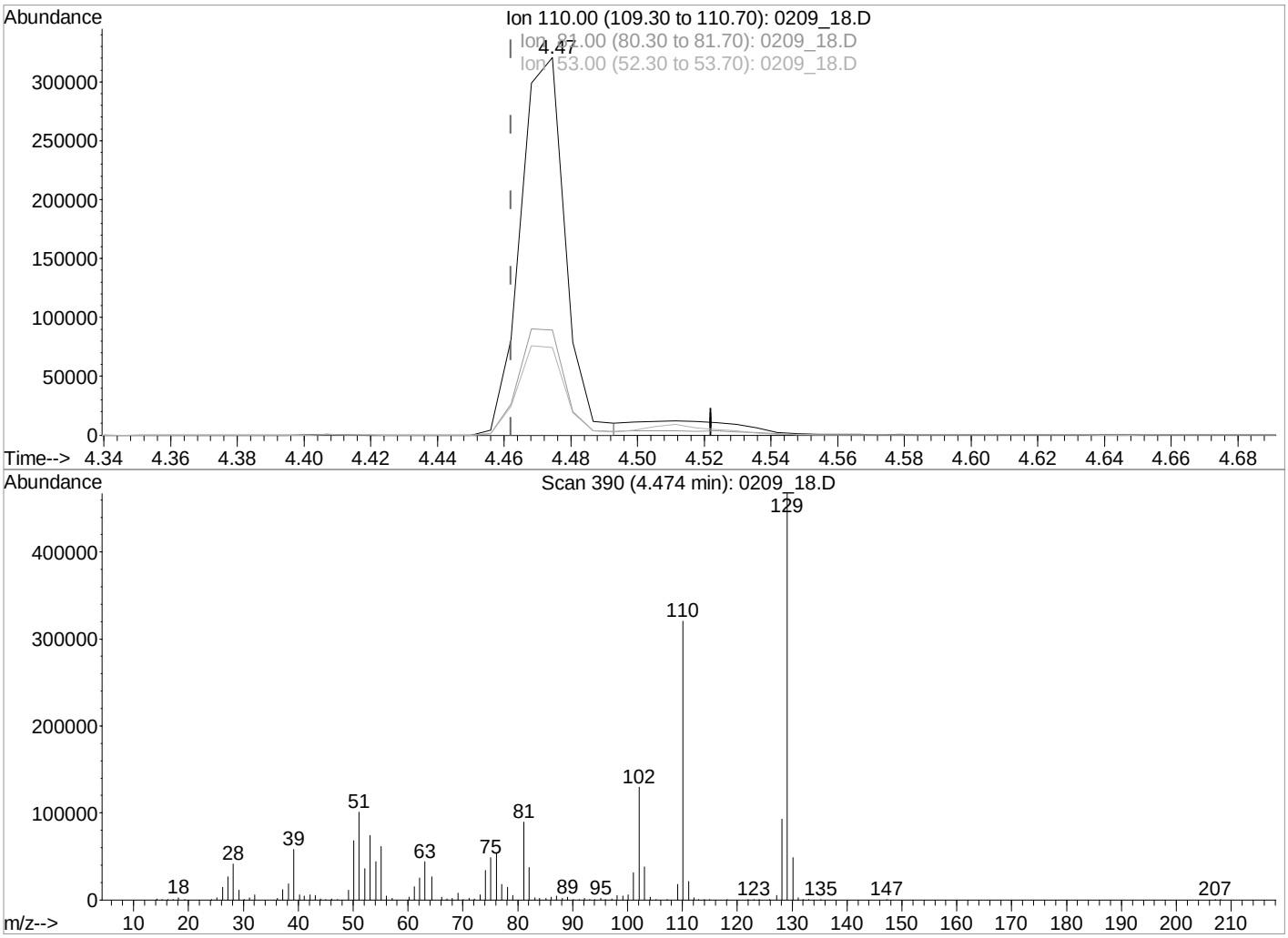
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:28:57 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:37:26 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(37) Hydroquinone

4.47min (+0.012) 26335.0012438 ppb m

response 296613

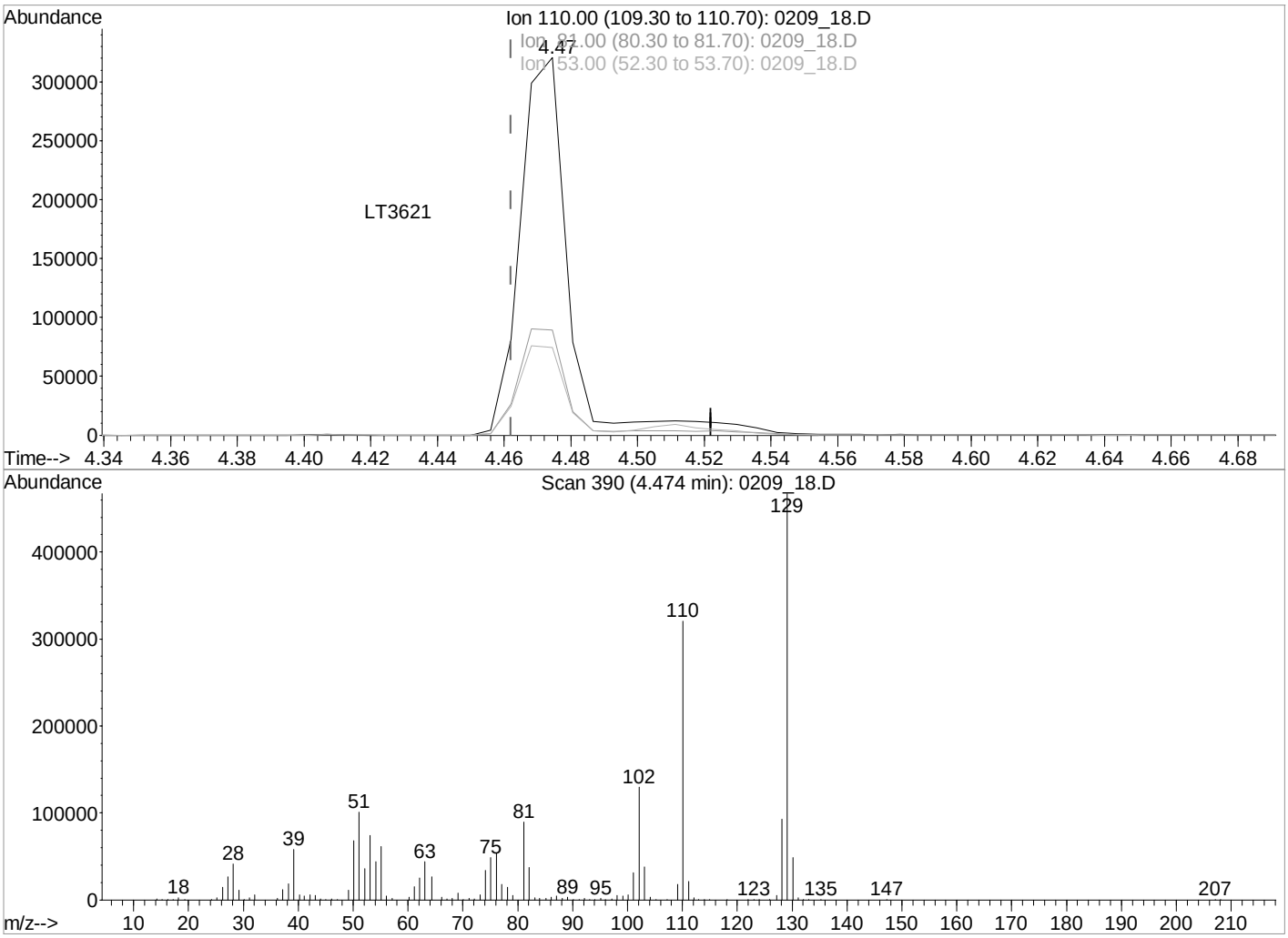
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	27.93
53.00	25.90	23.20
0.00	0.00	0.00

0209_18.D S804B09V.M Mon Feb 14 16:39:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:37:26 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(37) Hydroquinone

4.47min (+0.012) 28839.3802835 ppb m

response 324820

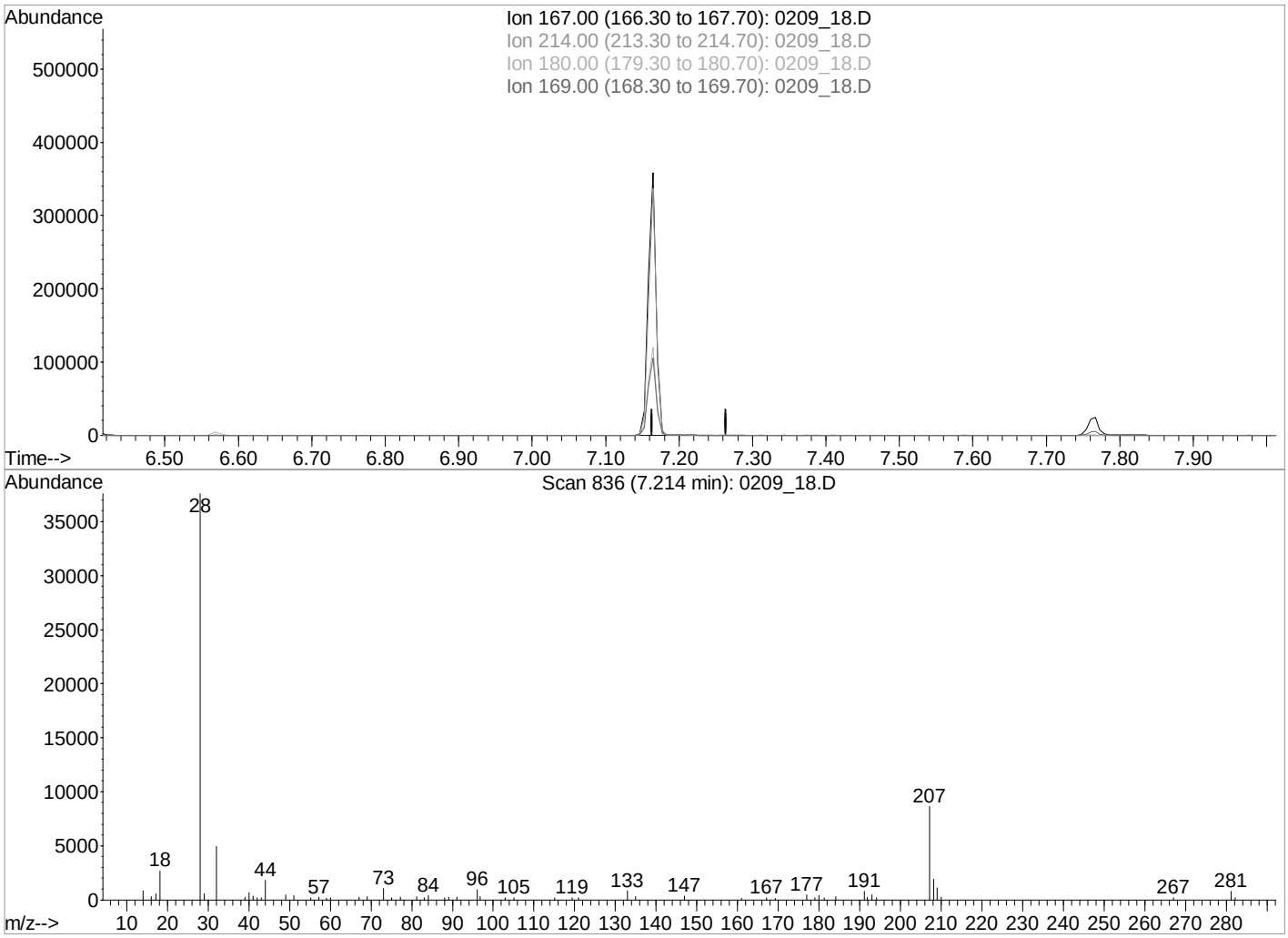
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	27.93
53.00	25.90	23.20
0.00	0.00	0.00

0209_18.D S804B09V.M Mon Feb 14 16:40:05 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:37:26 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(82) 2-nitrodiphenylamine (MT)

7.21min (-7.213) 0.0000000 ppb

Qvalue = 0

response 0

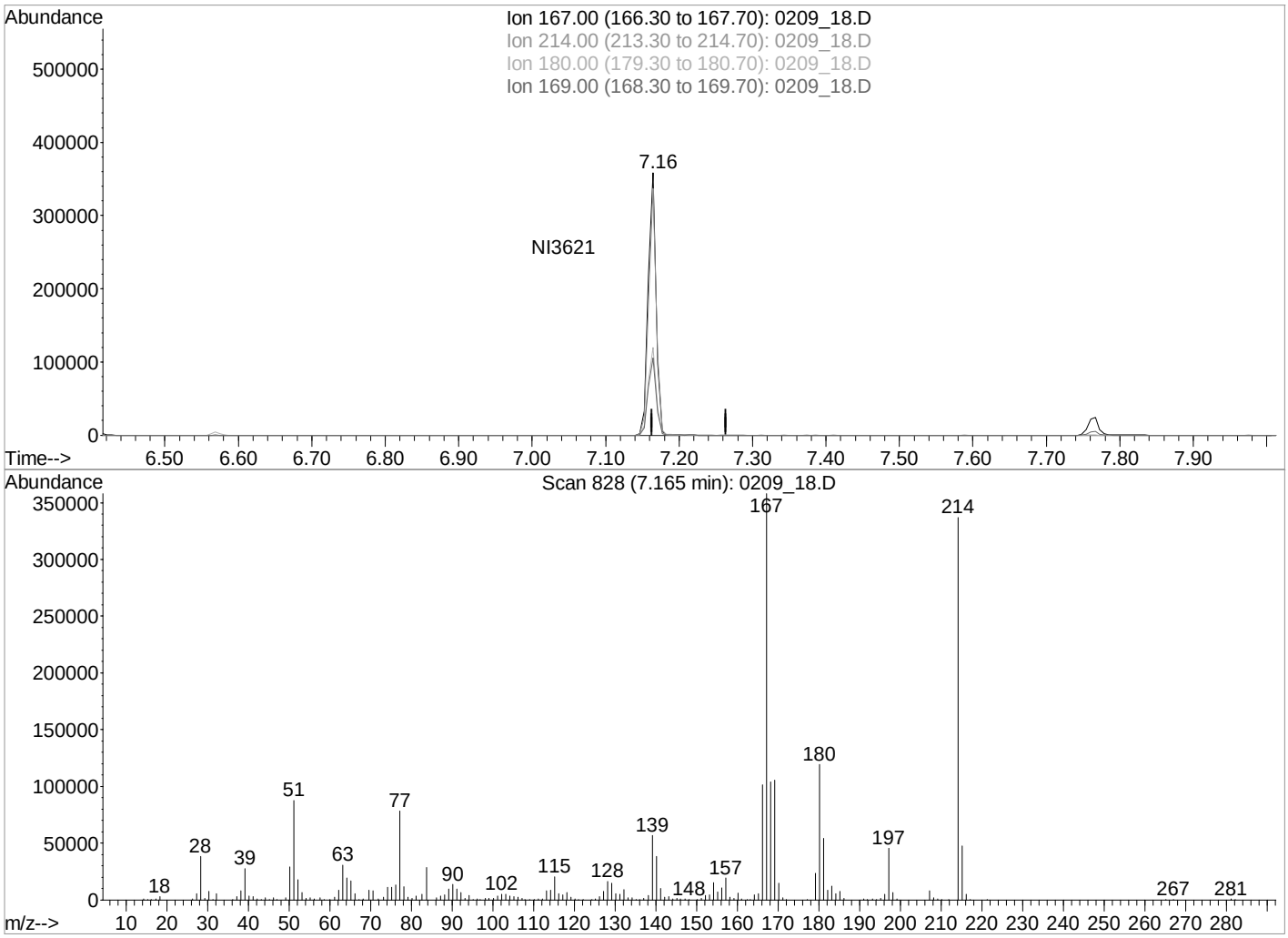
Ion	Exp%	Act%
167.00	100	0.00
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_18.D S804B09V.M Mon Feb 14 16:40:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:37:26 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(82) 2-nitrodiphenylamine (MT)

7.16min (-0.049) 0.0000000 ppb m

response 263020

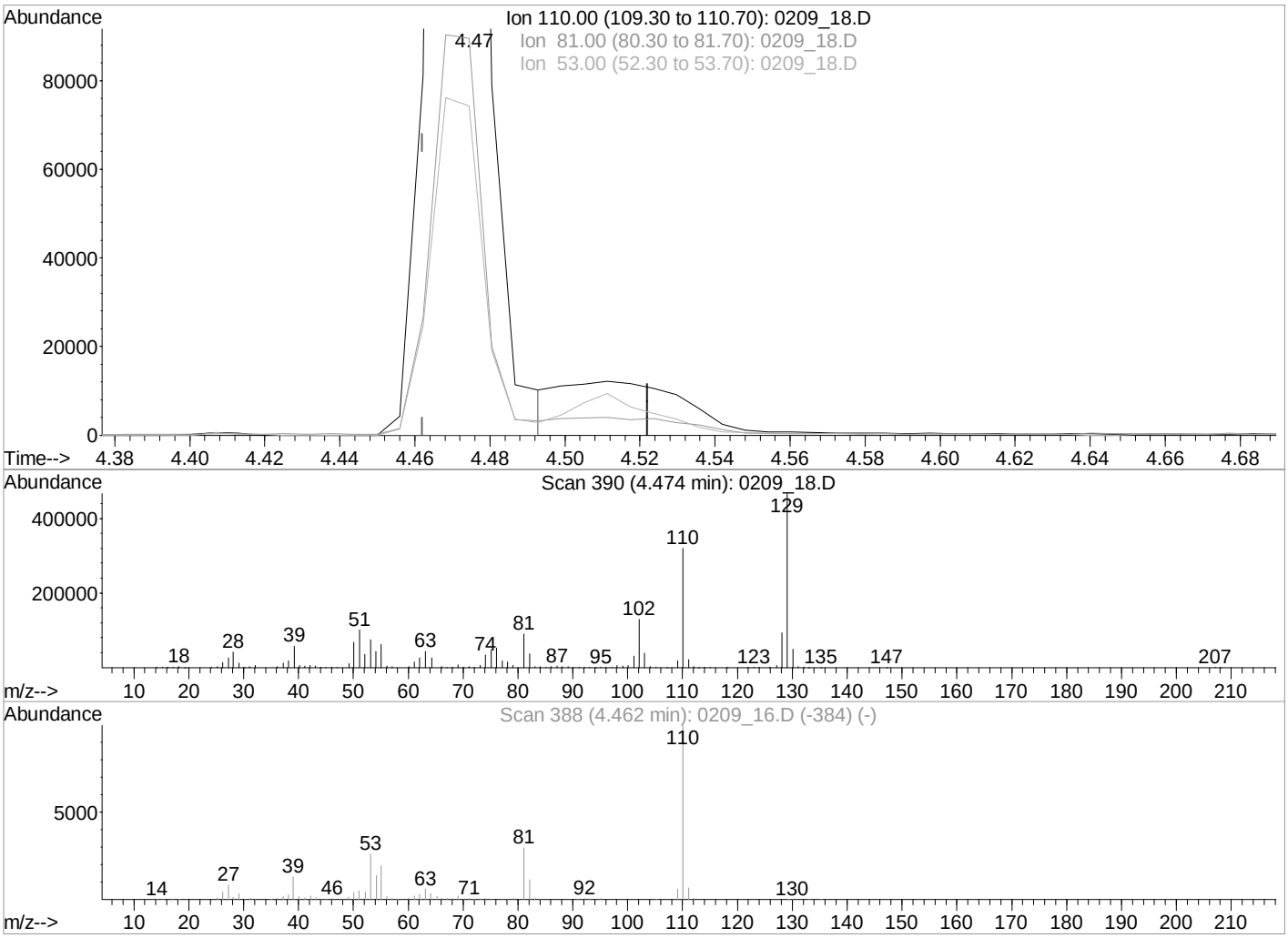
Ion	Exp%	Act%
167.00	100	100
214.00	0.00	0.00
180.00	0.00	0.00
169.00	0.00	0.00

0209_18.D S804B09V.M Mon Feb 14 16:40:41 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:28:57 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(37) Hydroquinone

4.47min (+0.012) 27928.9894085 ppb

Qvalue = 96

response 296671

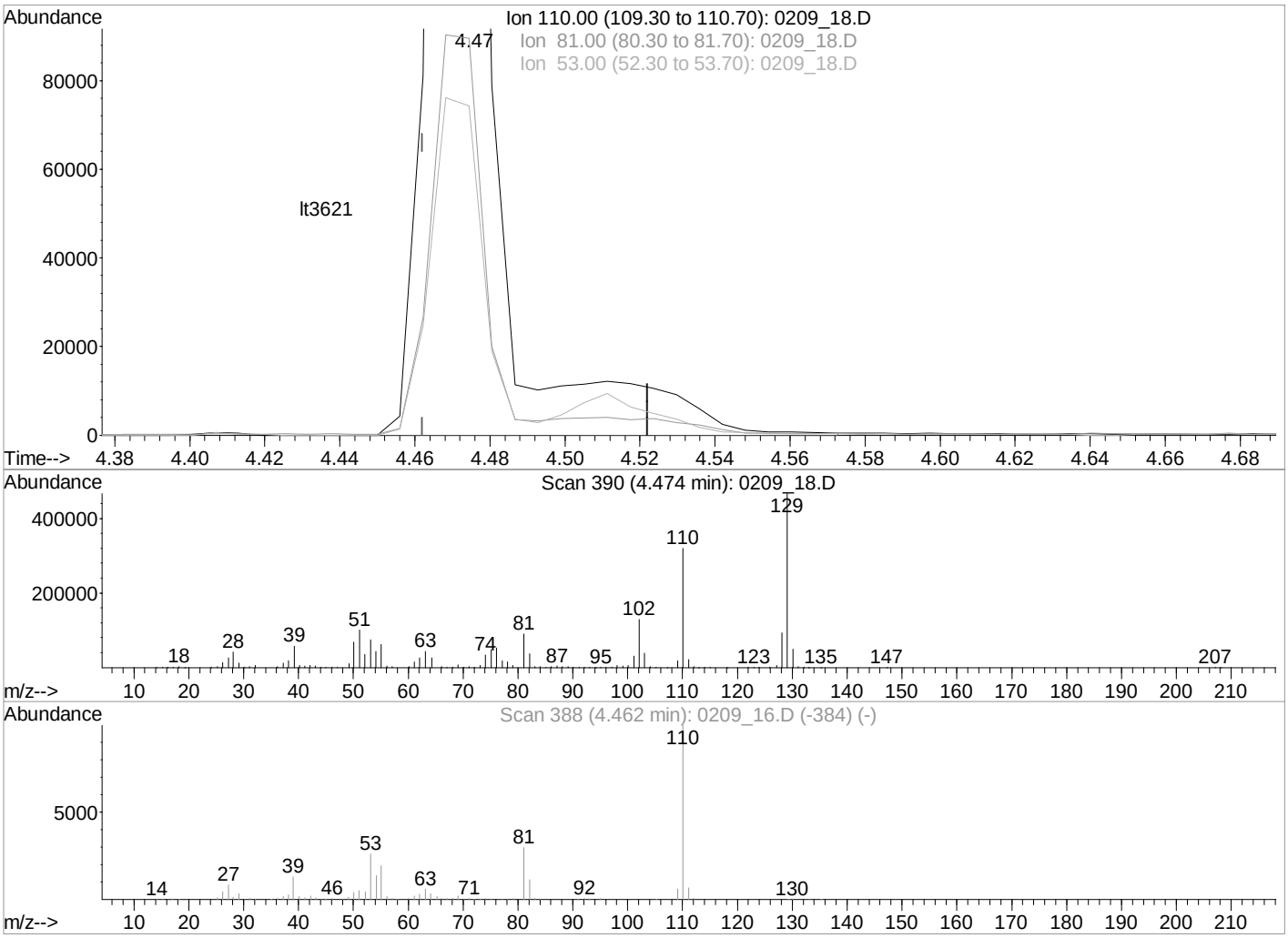
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	27.88
53.00	25.90	23.20
0.00	0.00	0.00

0209_18.D S804B09V.M Fri Feb 18 15:31:00 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 18.D Vial: 15
Acq On : 9 Feb 2022 2:53 pm Operator: 917
Sample : STD TCL 30K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:28:57 2022
Response via : Single Level Calibration



TIC: 0209_18.D

(37) Hydroquinone

4.47min (+0.012) 27928.9894085 ppb

Qvalue = 96

response 296671

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	27.88
53.00	25.90	23.20
0.00	0.00	0.00

0209_18.D S804B09V.M Fri Feb 18 15:31:10 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:33 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:32:01 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

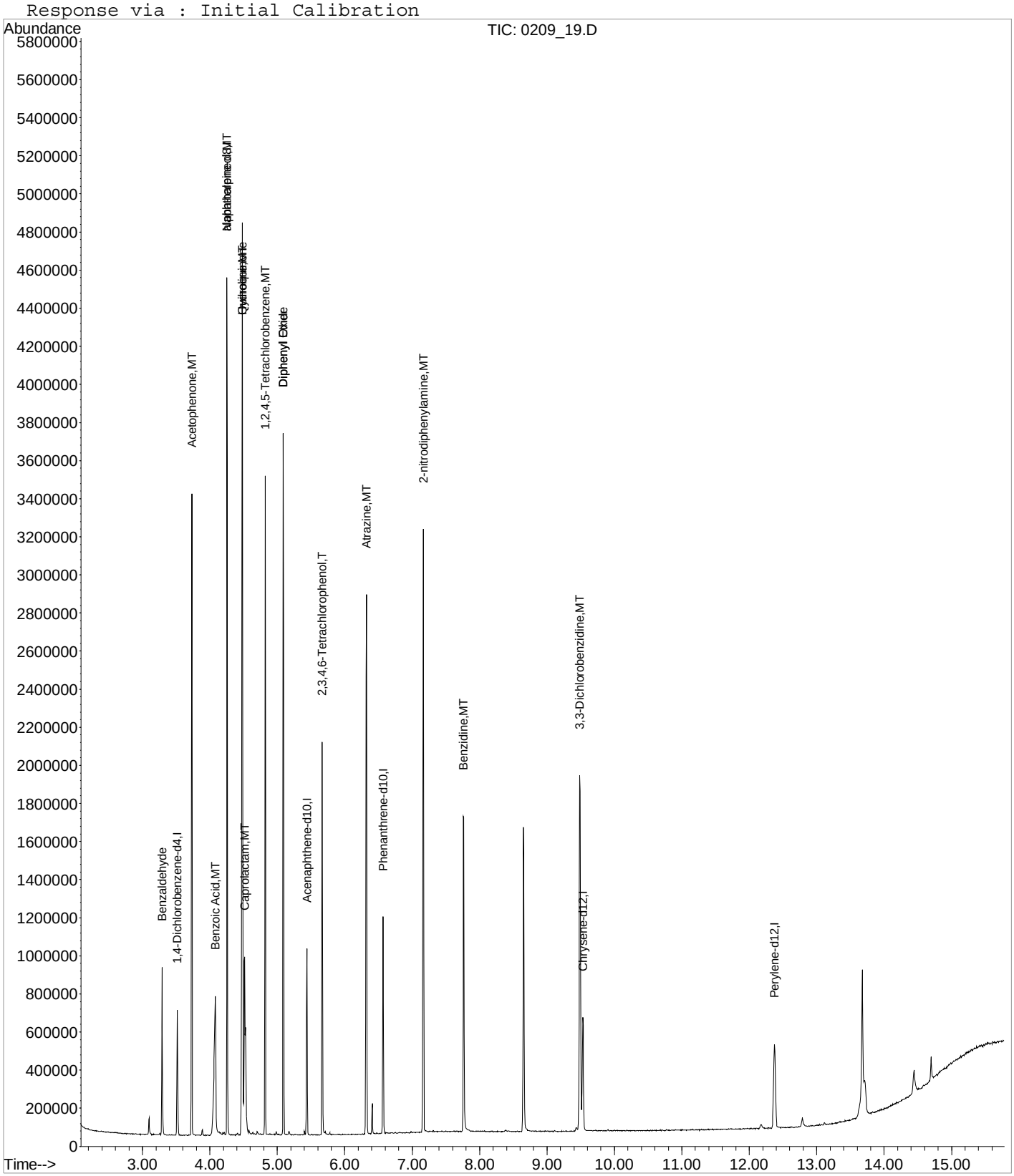
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	83834	8000.00	ppb	0.00
23) Naphthalene-d8	4.25	136	509998	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	170524	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	328342	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	284281	8000.00	ppb	0.00
94) Perylene-d12	12.37	264	291842	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	146822	39375.8434486	ppb	99
22) Acetophenone	3.73	105	707524	40810.0206029	ppb	99
31) Benzoic Acid	4.08	105	332830	42001.2174148	ppb	98
33) alpha-terpineol	4.25	59	473632	32249.3875896	ppb	100
37) Hydroquinone	4.47	110	423227	35941.1634228	ppb	98
38) Quinoline	4.48	129	1027793	32749.0578074	ppb	99
39) Caprolactam	4.52	113	131001	37278.2903404	ppb	96
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	446831	32200.2864656	ppb	99
44) Diphenyl Ether	5.09	170	646081	32275.2551573	ug/ml	99
45) Diphenyl Oxide	5.09	170	646081	32275.2551573	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.67	232	194914	40082.6466467	ppb	98
69) Atrazine	6.32	200	283883	40709.7789465	ppb	98
82) 2-nitrodiphenylamine	7.16	167	372323	47622.4782969	ppb #	100
85) Benzidine	7.77	184	724521	48145.9688179	ppb	99
89) 3,3-Dichlorobenzidine	9.49	252	596043	40725.7384781	ppb	99

(#) = qualifier out of range (m) = manual integration
0209_19.D S804B09V.M Fri Feb 18 15:34:19 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:33 2022 Quant Results File: S804B09V.RES

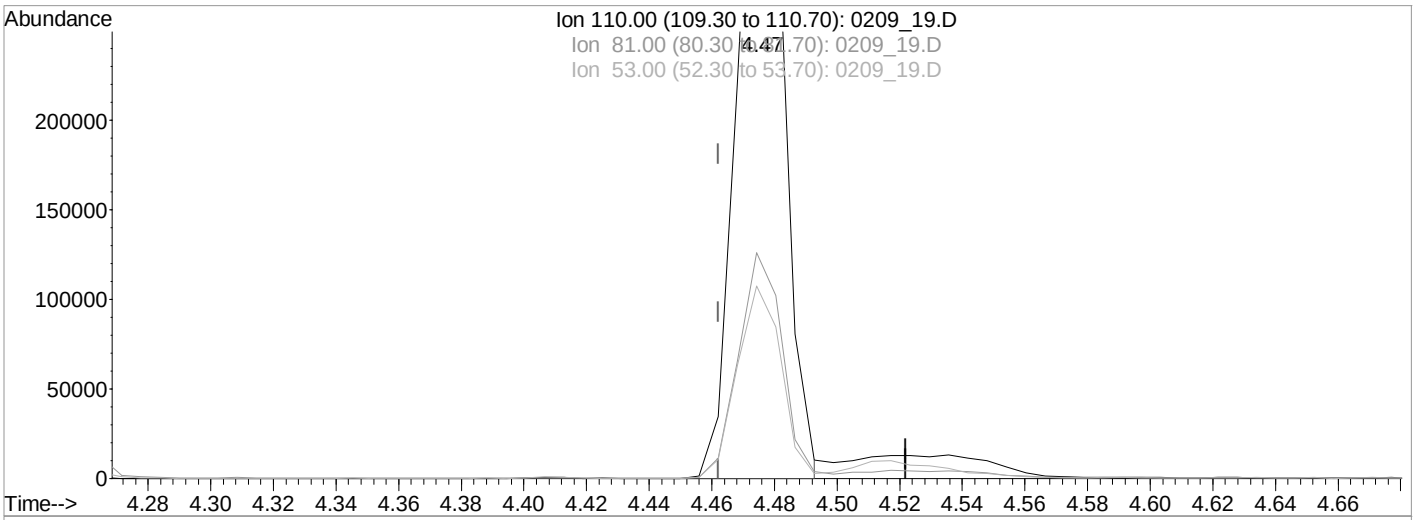
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:32:01 2022
Response via : Initial Calibration

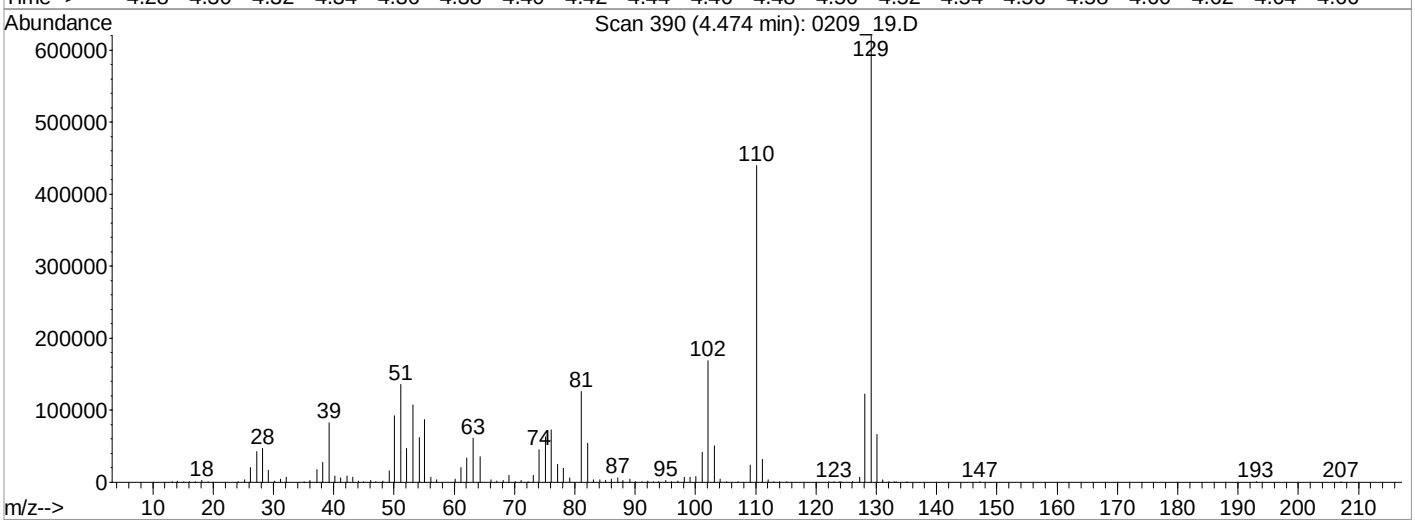


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 14:12 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:41:34 2022
Response via : Single Level Calibration





TIC: 0209_19.D

(37) Hydroquinone

4.47min (+0.012) 34295.7817388 ppb

Qvalue = 98

response 423227

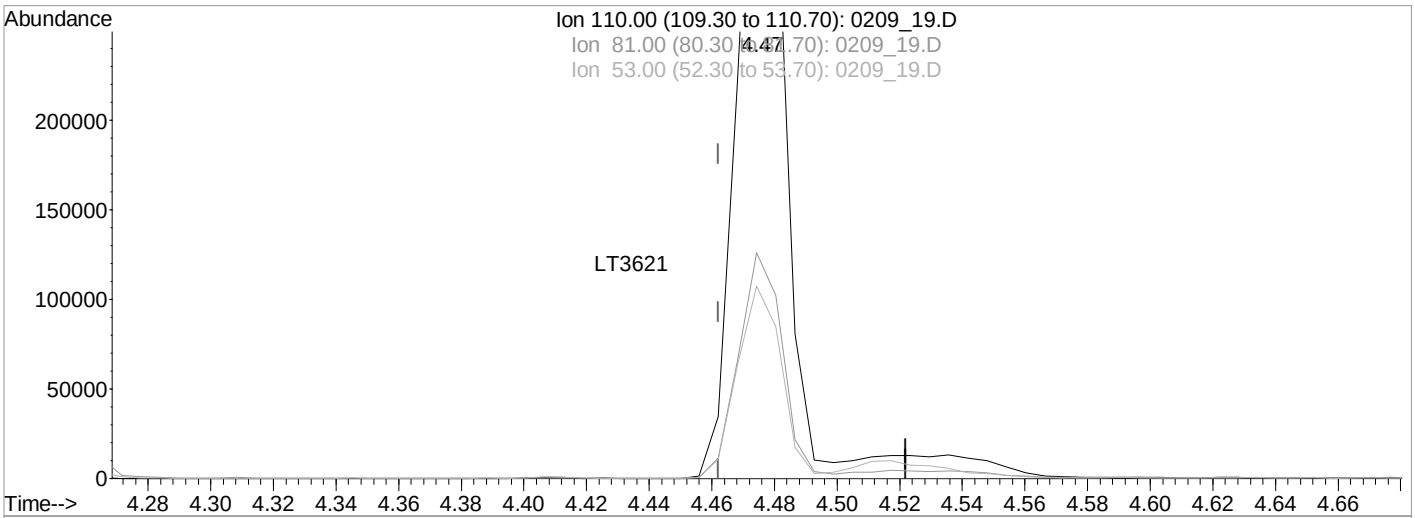
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.68
53.00	25.90	24.49
0.00	0.00	0.00

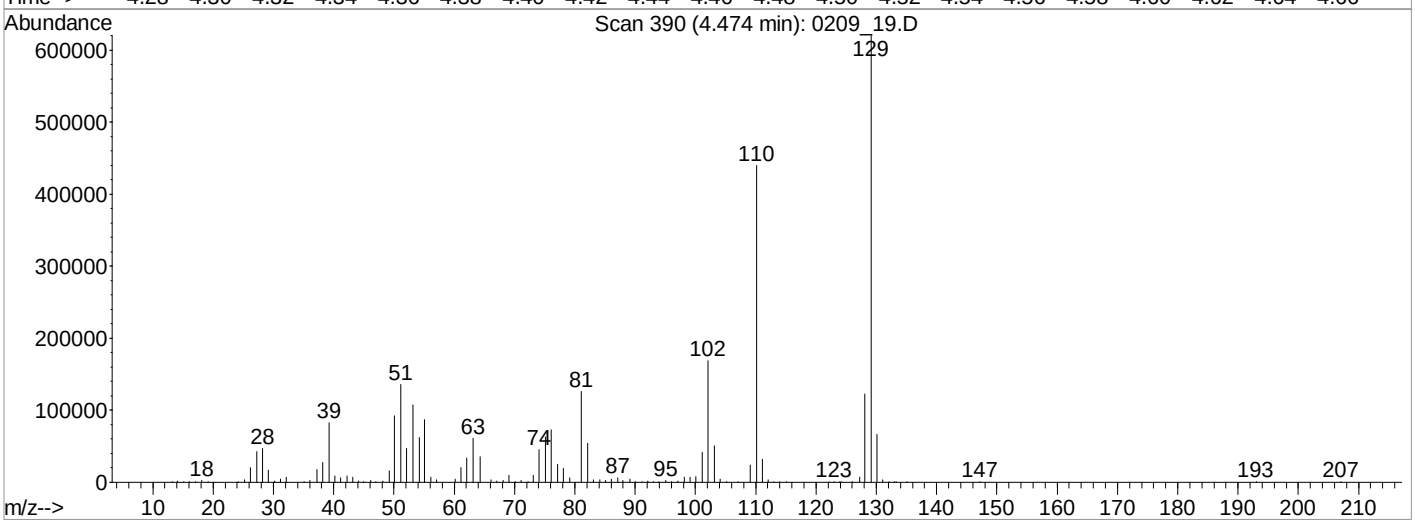
0209_19.D S804B09V.M Mon Feb 14 16:42:24 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 16:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 16:41:34 2022
Response via : Single Level Calibration





TIC: 0209_19.D

(37) Hydroquinone

4.47min (+0.012) 37693.9430263 ppb m

response 465162

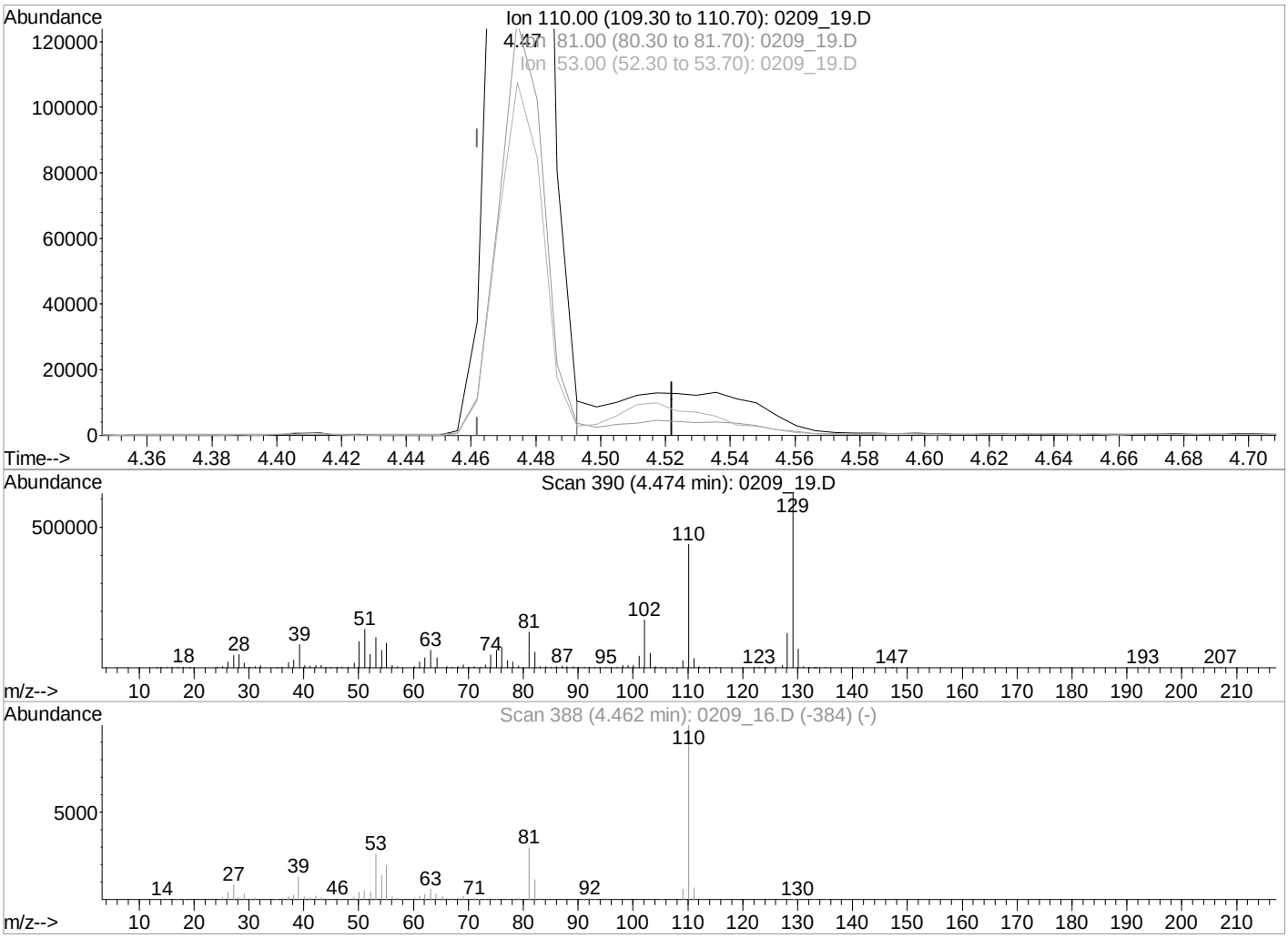
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.73
53.00	25.90	24.49
0.00	0.00	0.00

0209_19.D S804B09V.M Mon Feb 14 16:42:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:32:01 2022
Response via : Single Level Calibration



TIC: 0209_19.D

(37) Hydroquinone

4.47min (+0.012) 35941.1634228 ppb

Qvalue = 98

response 423227

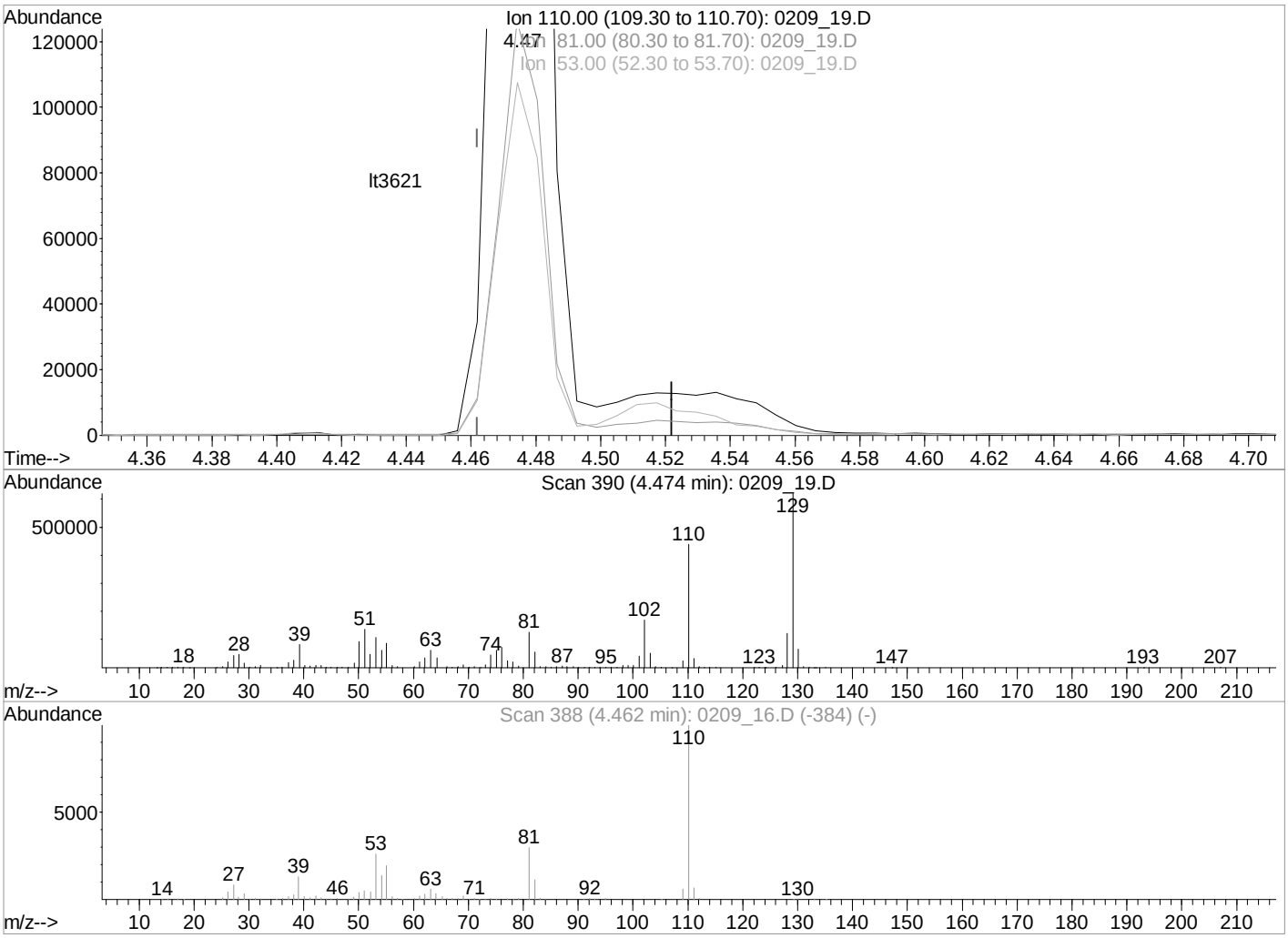
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.68
53.00	25.90	24.49
0.00	0.00	0.00

0209_19.D S804B09V.M Fri Feb 18 15:33:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 19.D Vial: 16
Acq On : 9 Feb 2022 3:14 pm Operator: 917
Sample : STD TCL 40K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:32:01 2022
Response via : Single Level Calibration



TIC: 0209_19.D

(37) Hydroquinone

4.47min (+0.012) 35941.1634228 ppb

Qvalue = 98

response 423227

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	28.68
53.00	25.90	24.49
0.00	0.00	0.00

0209_19.D S804B09V.M Fri Feb 18 15:33:46 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:35 2022 Quant Results File: S804B09V.RES

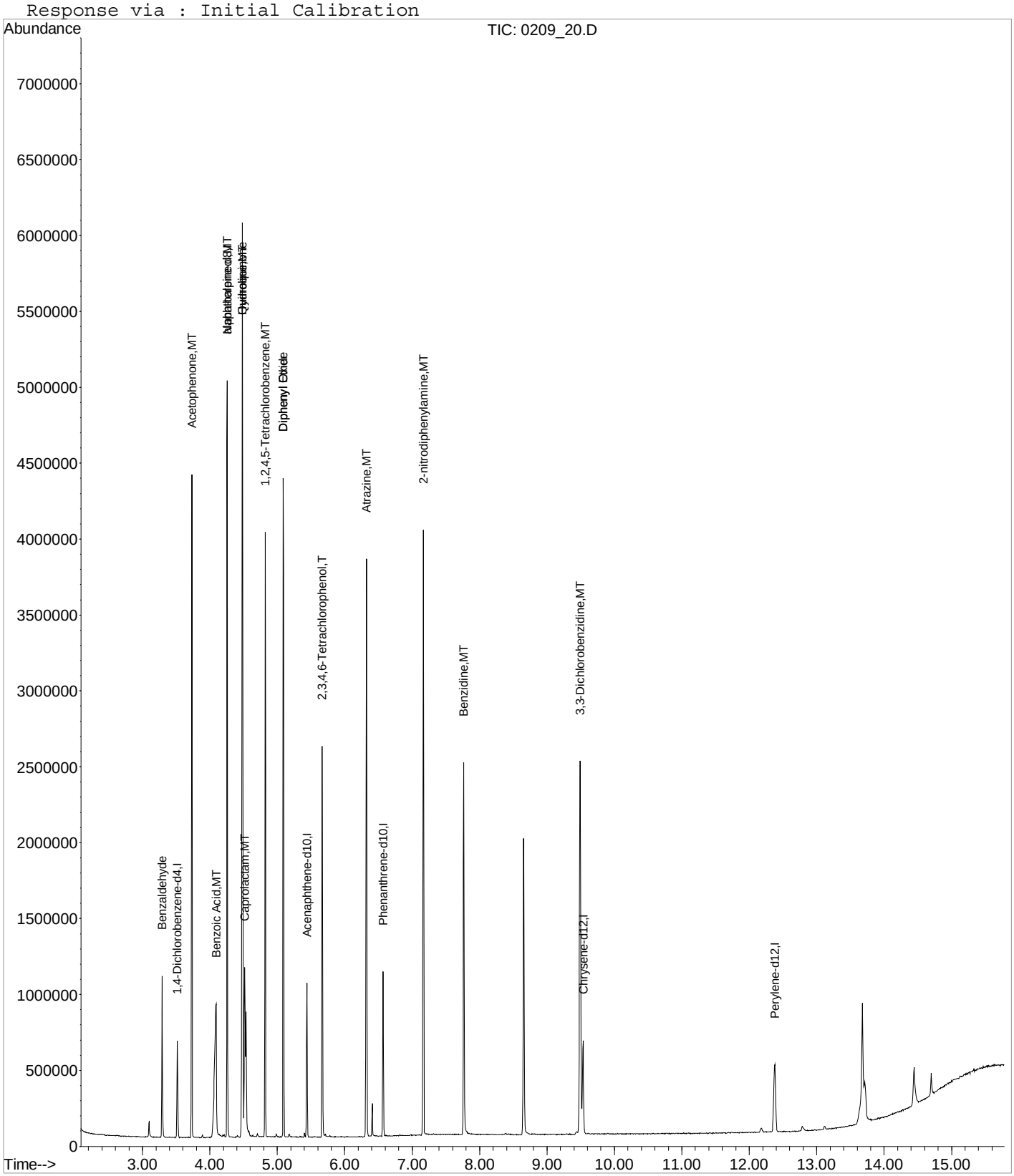
Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:34:26 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	83009	8000.00	ppb	0.00
23) Naphthalene-d8	4.26	136	544163	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	169785	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	322067	8000.00	ppb	0.00
84) Chrysene-d12	9.54	240	282788	8000.00	ppb	0.00
94) Perylene-d12	12.38	264	287879	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	183661	49745.1431448	ppb	99
22) Acetophenone	3.73	105	865298	50406.4769034	ppb	99
31) Benzoic Acid	4.09	105	430114	50870.0842217	ppb	99
33) alpha-terpineol	4.26	59	585384	37356.0327033	ppb	88
37) Hydroquinone	4.48	110	541268	43079.4928047	ppb	99
38) Quinoline	4.48	129	1284138	38348.1410544	ppb	98
39) Caprolactam	4.52	113	168983	45067.5402951	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	553375	37374.5040763	ppb	99
44) Diphenyl Ether	5.09	170	805278	37702.3146356	ug/ml	99
45) Diphenyl Oxide	5.09	170	805278	37702.3146356	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.67	232	249561	51543.7801154	ppb	98
69) Atrazine	6.32	200	349005	50266.3324683	ppb	97
82) 2-nitrodiphenylamine	7.16	167	469250	59305.8856301	ppb #	100
85) Benzidine	7.77	184	954392	63756.2258960	ppb	100
89) 3,3-Dichlorobenzidine	9.49	252	753855	51780.4778435	ppb	99

(#) = qualifier out of range (m) = manual integration
0209_20.D S804B09V.M Fri Feb 18 15:37:53 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:35 2022 Quant Results File: S804B09V.RES

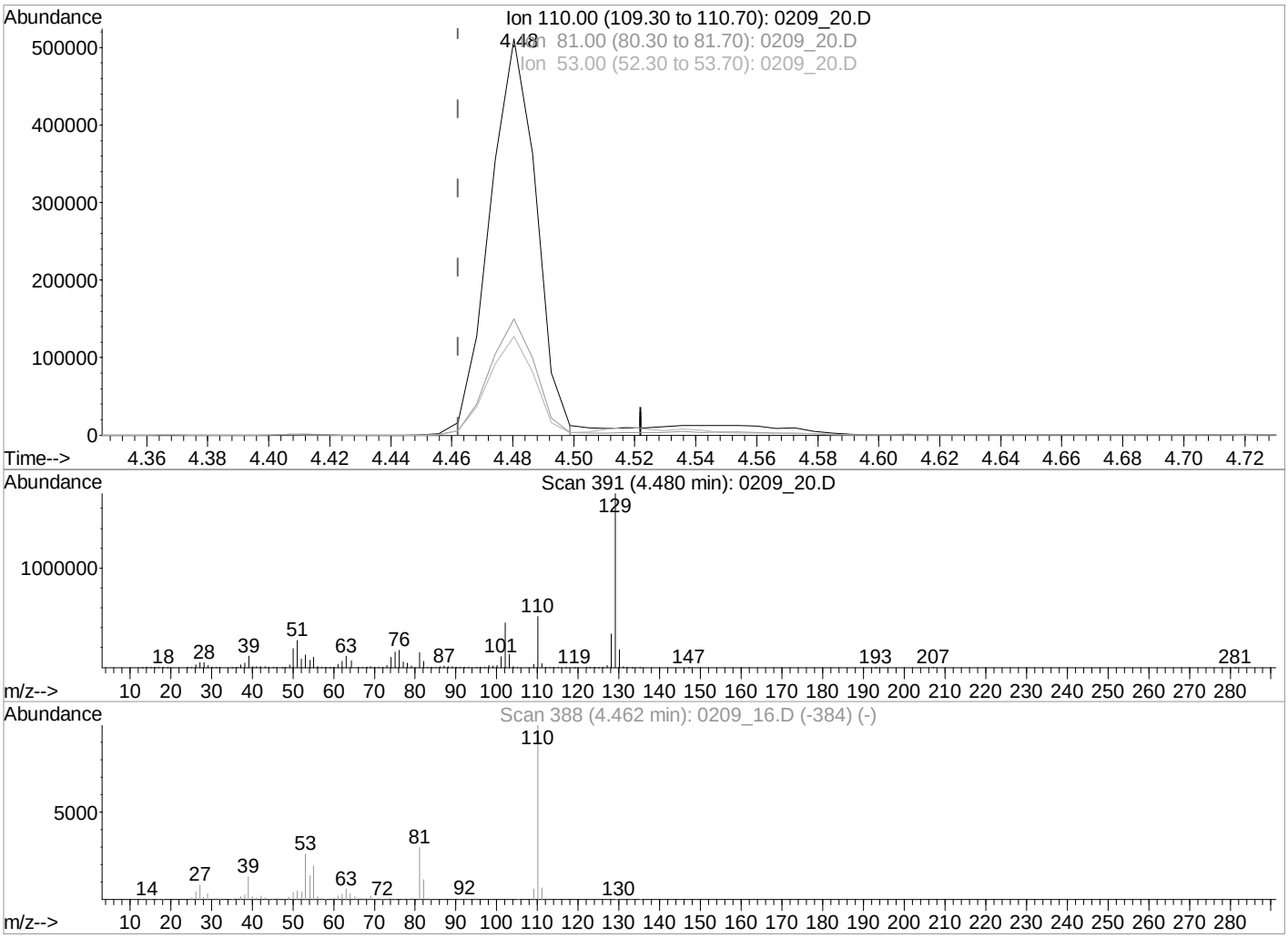
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:34:26 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 14:22 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 14:20:22 2022
Response via : Single Level Calibration



TIC: 0209_20.D

(37) Hydroquinone

4.48min (+0.018) 40935.8278868 ppb

Qvalue = 99

response 541268

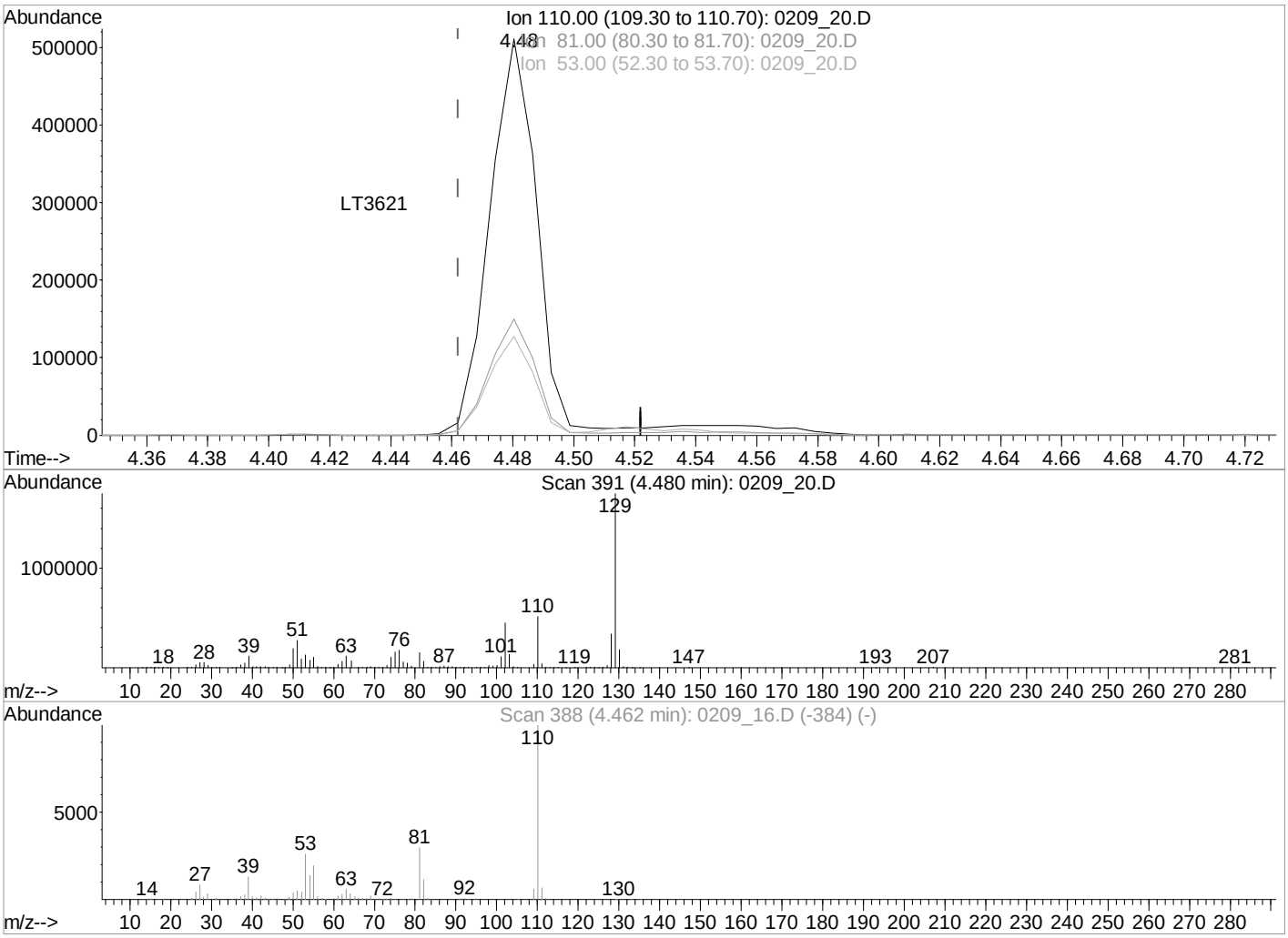
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	29.30
53.00	25.90	24.86
0.00	0.00	0.00

0209_20.D S804B09V.M Mon Feb 14 14:22:59 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 14 14:22 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Mon Feb 14 14:20:22 2022
Response via : Single Level Calibration



TIC: 0209_20.D

(37) Hydroquinone

4.48min (+0.018) 40935.8278868 ppb

Qvalue = 99

response 541268

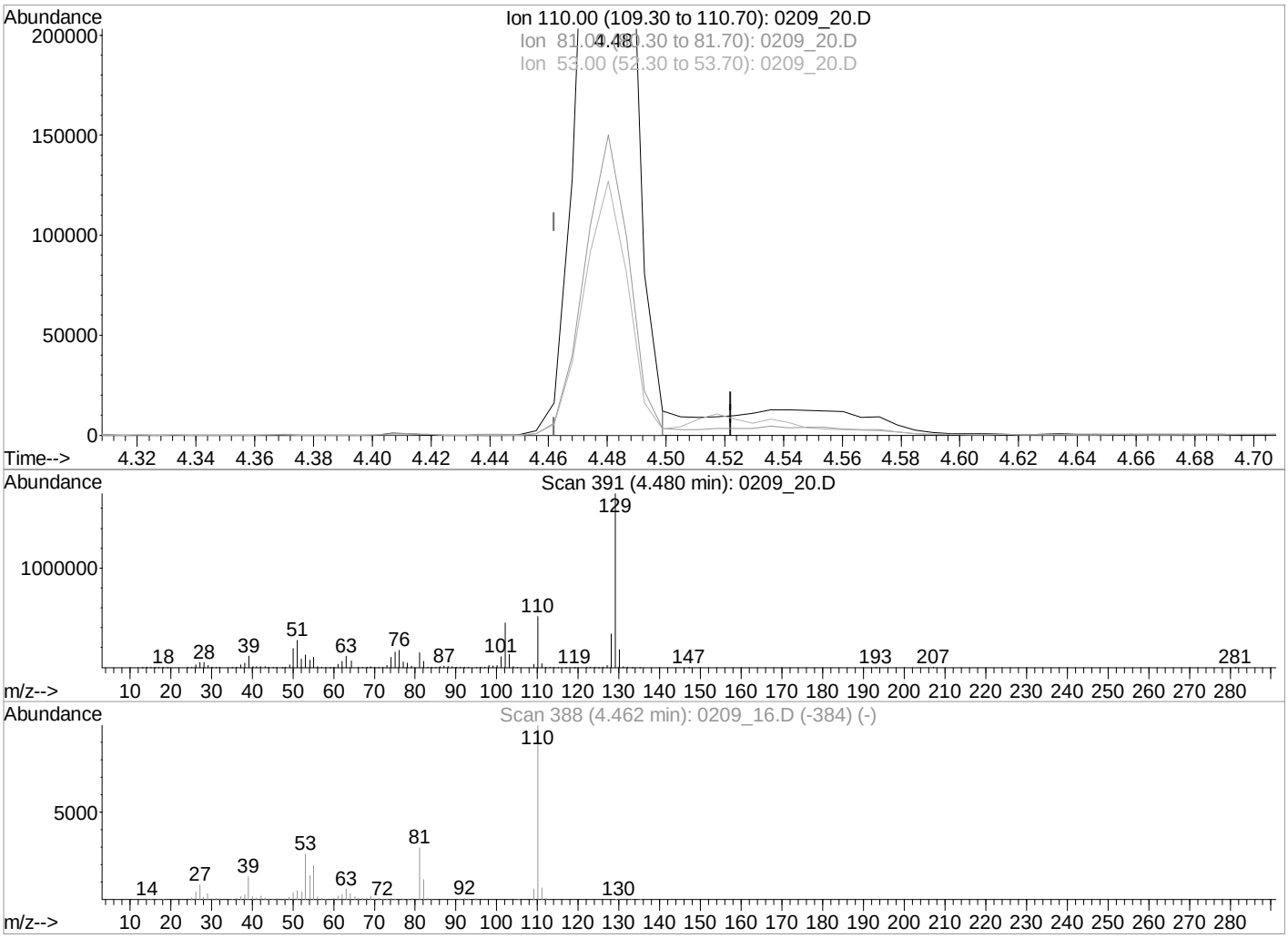
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	29.30
53.00	25.90	24.86
0.00	0.00	0.00

0209_20.D S804B09V.M Mon Feb 14 14:24:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:34:26 2022
Response via : Single Level Calibration



TIC: 0209_20.D

(37) Hydroquinone

4.48min (+0.018) 43079.4928047 ppb

Qvalue = 99

response 541268

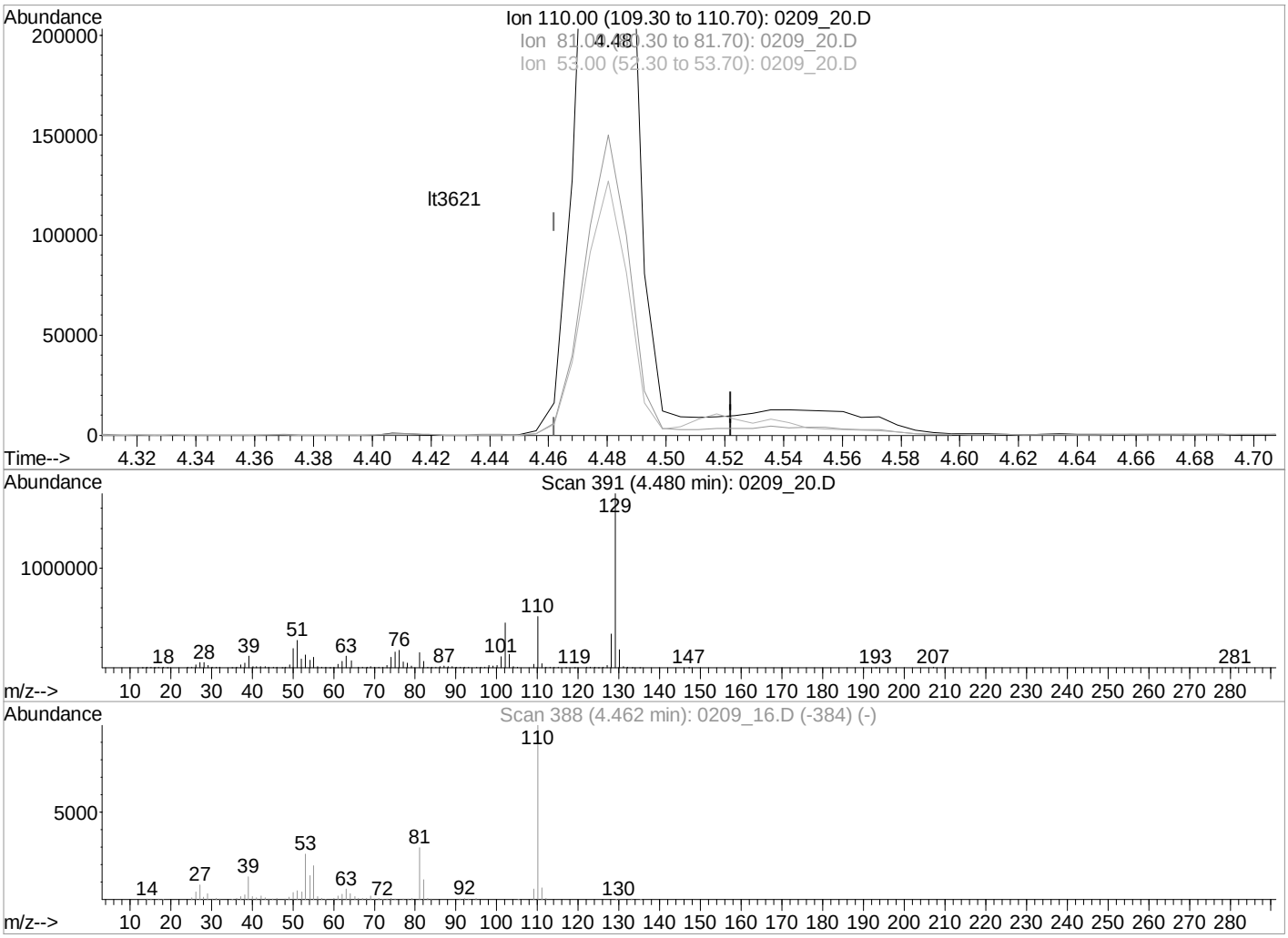
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	29.30
53.00	25.90	24.86
0.00	0.00	0.00

0209_20.D S804B09V.M Fri Feb 18 15:36:13 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 20.D Vial: 17
Acq On : 9 Feb 2022 3:35 pm Operator: 917
Sample : STD TCL 50K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 18 15:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 15:34:26 2022
Response via : Single Level Calibration



TIC: 0209_20.D

(37) Hydroquinone

4.48min (+0.018) 43079.4928047 ppb

Qvalue = 99

response 541268

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	29.30
53.00	25.90	24.86
0.00	0.00	0.00

0209_20.D S804B09V.M Fri Feb 18 15:37:16 2022

GC/MS INITIAL CALIBRATION DATA

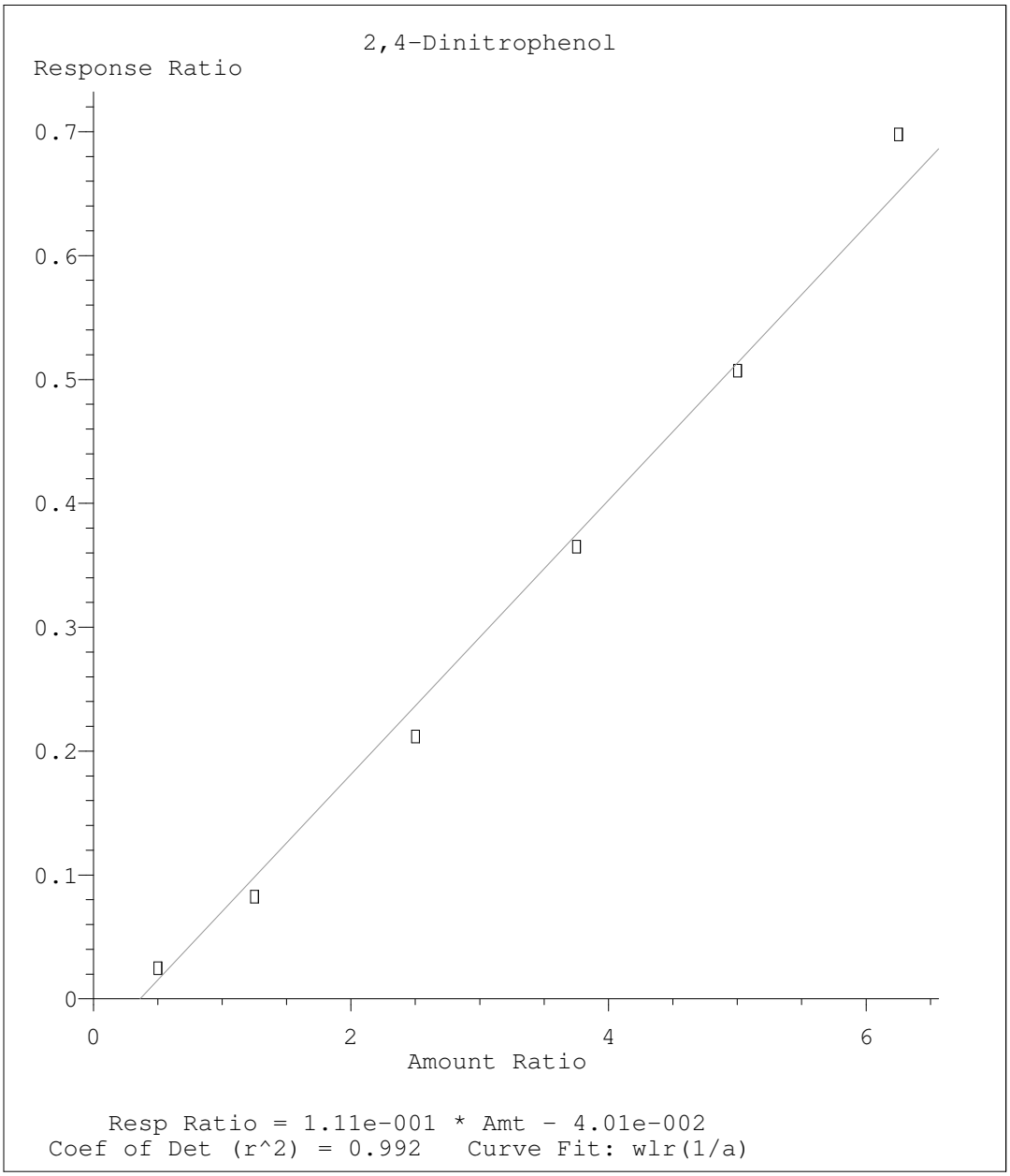
SDG: L1488802 **Analytical Method:** 8270E

Instrument ID: BNAMS24

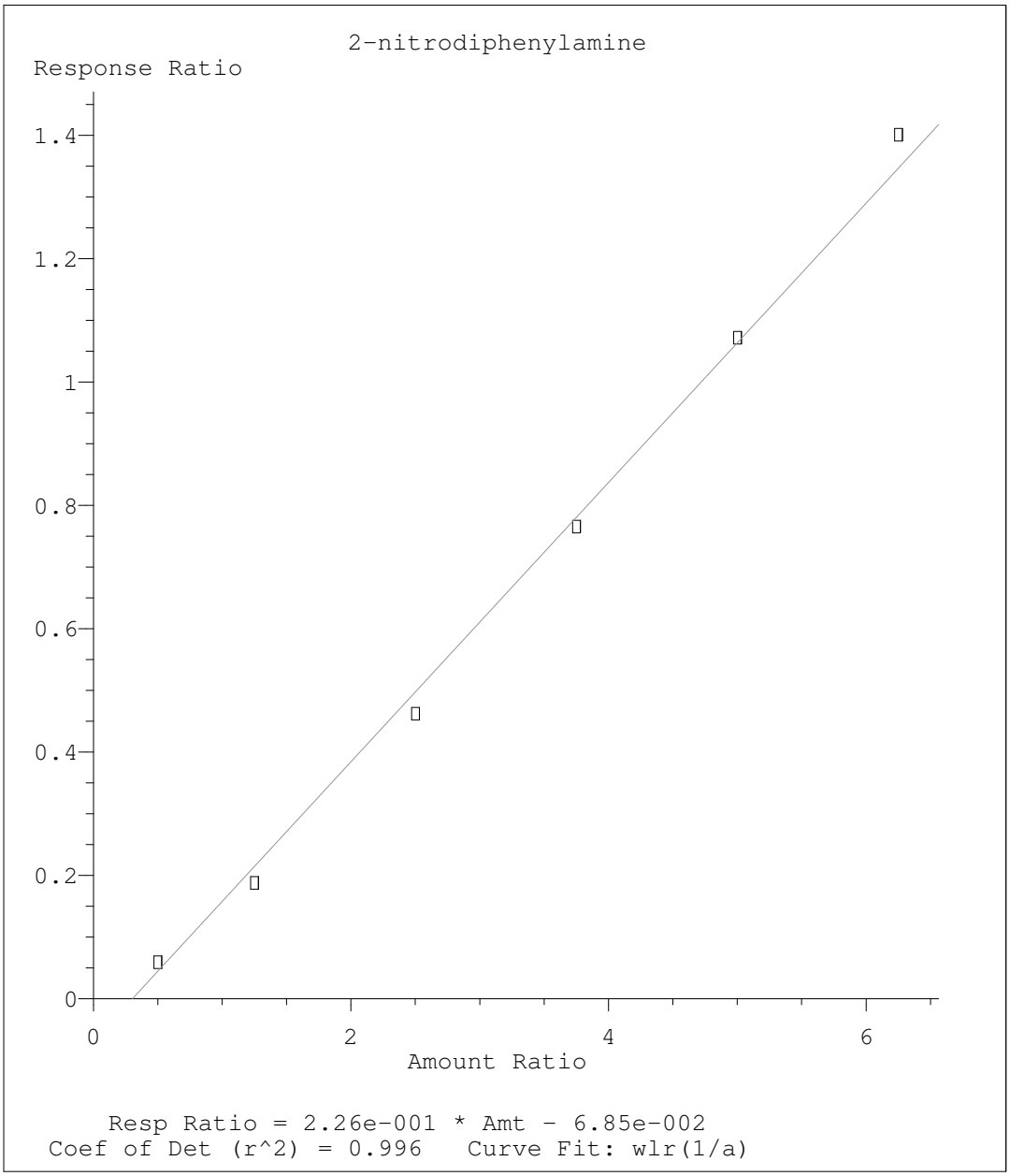
Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 4K1**	**RRF: 10K1**
Analysis date/time	03/31/22 17:24	03/31/22 17:45	03/31/22 18:07	03/31/22 18:28	03/31/22 18:49	03/31/22 19:11	03/31/22 19:32	03/31/22 19:53	03/31/22 20:36	03/31/22 20:58
PHENOL	1.6010	1.4820	1.57	1.5980	1.6240	1.5830	1.5520	1.5950		
3&4-METHYL PHENOL	1.2840	1.2150	1.25	1.3490	1.3650	1.3210	1.3020	1.3260		
NAPHTHALENE	1.1320	1.0560	0.9950	1.0120	0.9840	0.9710	0.92	0.9180		
2-METHYLNAPHTHALENE	0.6570	0.6280	0.6150	0.6330	0.6320	0.6340	0.61	0.61		
1-METHYLNAPHTHALENE	0.6470	0.6310	0.5970	0.61	0.6130	0.6110	0.5890	0.5870		
ACENAPHTHYLENE	1.7480	1.6720	1.6690	1.7240	1.7160	1.7160	1.66	1.6580		
ACENAPHTHENE	1.2270	1.2160	1.14	1.1450	1.1430	1.1340	1.0890	1.0960		
DIBENZOFURAN	1.67	1.5920	1.5340	1.5580	1.5120	1.5070	1.4530	1.4390		
FLUORENE	1.33	1.2780	1.2650	1.3060	1.2780	1.2680	1.2160	1.21		
PHENANTHRENE	1.2170	1.0870	1.0560	1.0550	1.0490	1.0380	0.99	0.9910		
ANTHRACENE	1.0170	0.9560	0.9850	1.0270	1.0410	1.03	0.9950	1.0030		
CARBAZOLE	0.8390	0.7930	0.8460	0.8840	0.8890	0.9070	0.8560	0.8770		
DI-N-BUTYL PHTHALATE	1.1240	1.0760	1.2080	1.3430	1.4080	1.4320	1.3520	1.3760		
FLUORANTHENE	1.0230	0.9560	0.9940	1.0520	1.0770	1.0860	1.0510	1.06		
PYRENE	1.7080	1.5380	1.5110	1.5060	1.48	1.4410	1.4010	1.4030		
BENZO(A)ANTHRACENE	1.0880	1.0760	1.0630	1.1220	1.1430	1.1580	1.1270	1.1560		
CHRYSENE	1.2550	1.2220	1.1770	1.1820	1.1810	1.1590	1.1150	1.1450		
BENZO(B)FLUORANTHENE	1.0580	1.0570	1.1180	1.2060	1.2260	1.2690	1.2170	1.2290		
BENZO(K)FLUORANTHENE	1.0520	1.0420	1.1760	1.2870	1.2760	1.2720	1.2350	1.2510		
BENZO(A)PYRENE	0.8090	0.7610	0.88	0.9960	1.0210	1.0590	1.0250	1.0520		
INDENO(1,2,3-CD)PYRENE	0.7840	0.7330	0.8210	0.9050	0.9080	0.9490	0.9110	0.9090		
DIBENZ(A,H)ANTHRACENE	0.8410	0.8770	0.9470	1.0240	1.0220	1.0470	1.0010	0.9960		
BENZO(G,H,I)PERYLENE	0.9080	0.9740	1.0220	1.1050	1.0720	1.0840	1.0350	1.0150		
2-FLUOROPHENOL	1.2870	1.1960	1.2160	1.2670	1.2950	1.2550	1.2340	1.2710		
PHENOL-D5	1.48	1.4190	1.4560	1.5090	1.54	1.4980	1.4750	1.5120		
NITROBENZENE-D5	0.3150	0.2930	0.2820	0.30	0.3090	0.3140	0.3110	0.3090		
2-FLUOROBIPHENYL	1.3980	1.3490	1.2660	1.2910	1.2610	1.2260	1.18	1.1910		
P-TERPHENYL-D14	1.1680	1.1310	1.1060	1.1160	1.1180	1.0990	1.0520	1.0660		
DI-N-OCTYL PHTHALATE		0.9020	1.0920	1.3640	1.5790	1.6750	1.6490	1.7180		
2,4,6-TRIBROMOPHENOL		0.0630	0.0730	0.0820	0.0890	0.0940	0.0910	0.0940		
PENTACHLOROPHENOL			0.0760	0.0930	0.1090	0.1160	0.1160	0.1220		
BIS(2-ETHYLHEXYL)PHTHALATE			0.8310	0.9730	1.0620	1.0810	1.0540	1.0880		
BENZOIC ACID									0.0530	0.07
File ID:	0331_03	0331_04	0331_05	0331_06	0331_07	0331_08	0331_09	0331_10	0331_12	0331_13

SDG: L1488802 **Analytical Method:** 8270E
Instrument ID: BNAMS24

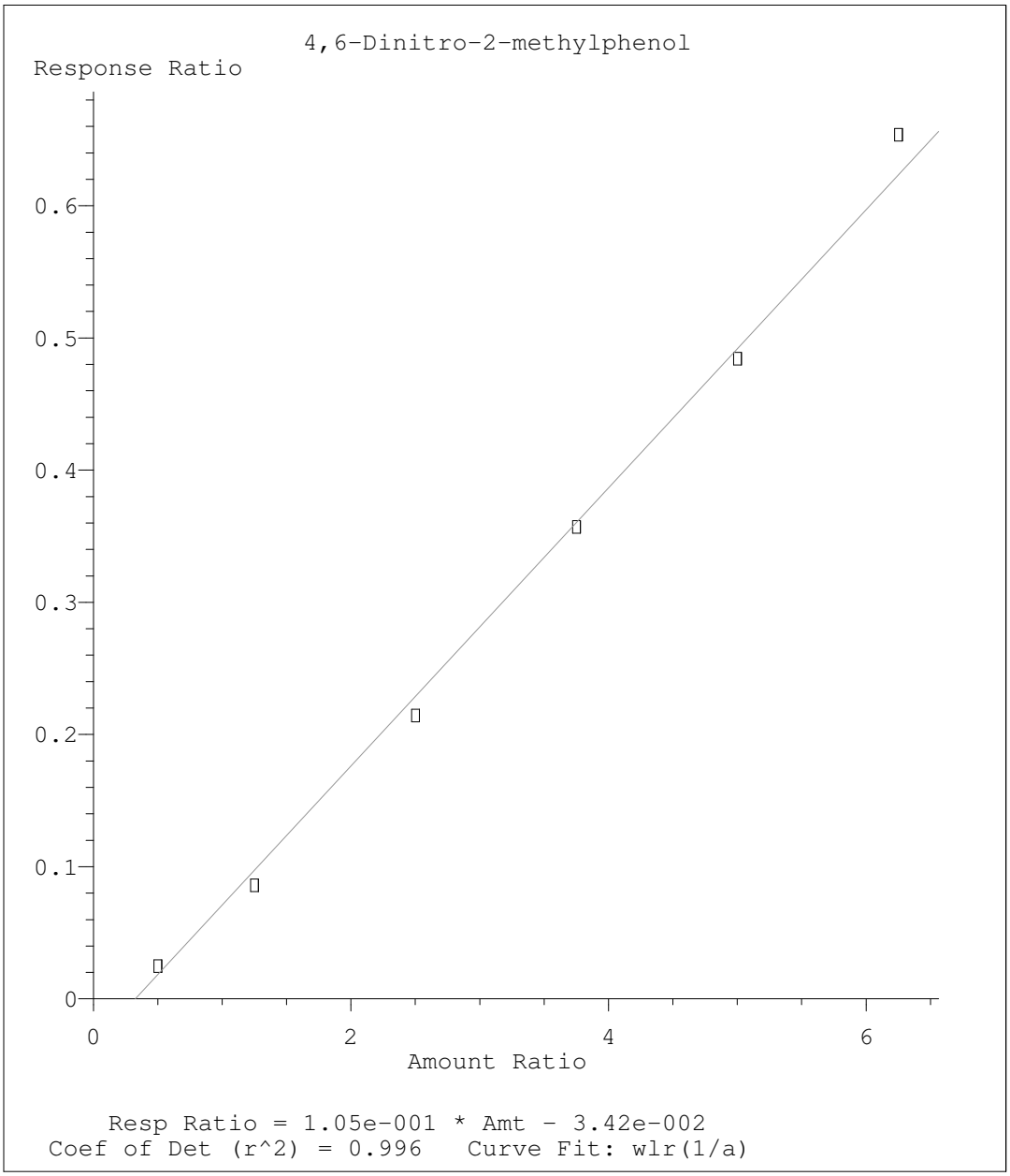
Analyte	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	03/31/22 21:19	03/31/22 21:40	03/31/22 22:02	03/31/22 22:23			
PHENOL					1.575372	2.77	
3&4-METHYL PHENOL					1.301686	3.86	
NAPHTHALENE					0.998617	7.08	
2-METHYLNAPHTHALENE					0.627399	2.53	
1-METHYLNAPHTHALENE					0.610754	3.34	
ACENAPHTHYLENE					1.695228	2.03	
ACENAPHTHENE					1.148837	4.33	
DIBENZOFURAN					1.532971	4.89	
FLUORENE					1.268965	3.21	
PHENANTHRENE					1.060304	6.75	
ANTHRACENE					1.006737	2.77	
CARBAZOLE					0.861194	4.17	
DI-N-BUTYL PHTHALATE					1.289953	10.48	
FLUORANTHENE					1.03753	4.25	
PYRENE					1.498492	6.58	
BENZO(A)ANTHRACENE					1.116712	3.28	
CHRYSENE					1.179486	3.71	
BENZO(B)FLUORANTHENE					1.172442	7.06	
BENZO(K)FLUORANTHENE					1.198822	8.32	
BENZO(A)PYRENE					0.950358	12.31	
INDENO(1,2,3-CD)PYRENE					0.86497	8.78	
DIBENZ(A,H)ANTHRACENE					0.969471	7.71	
BENZO(G,H,I)PERYLENE					1.02699	6.23	
2-FLUOROPHENOL					1.252515	2.77	
PHENOL-D5					1.486088	2.5	
NITROBENZENE-D5					0.30424	3.85	
2-FLUOROBIPHENYL					1.270391	5.89	
P-TERPHENYL-D14					1.107064	3.26	
DI-N-OCTYL PHTHALATE					1.425428	22.38	0.997
2,4,6-TRIBROMOPHENOL					0.083814	14.11	
PENTACHLOROPHENOL					0.105171	16.65	0.999
BIS(2-ETHYLHEXYL)PHTHALATE					1.014597	9.75	
BENZOIC ACID	0.0820	0.0890	0.09	0.0920	0.07914	19.21	0.999
File ID:	0331_14	0331_15	0331_16	0331_17			



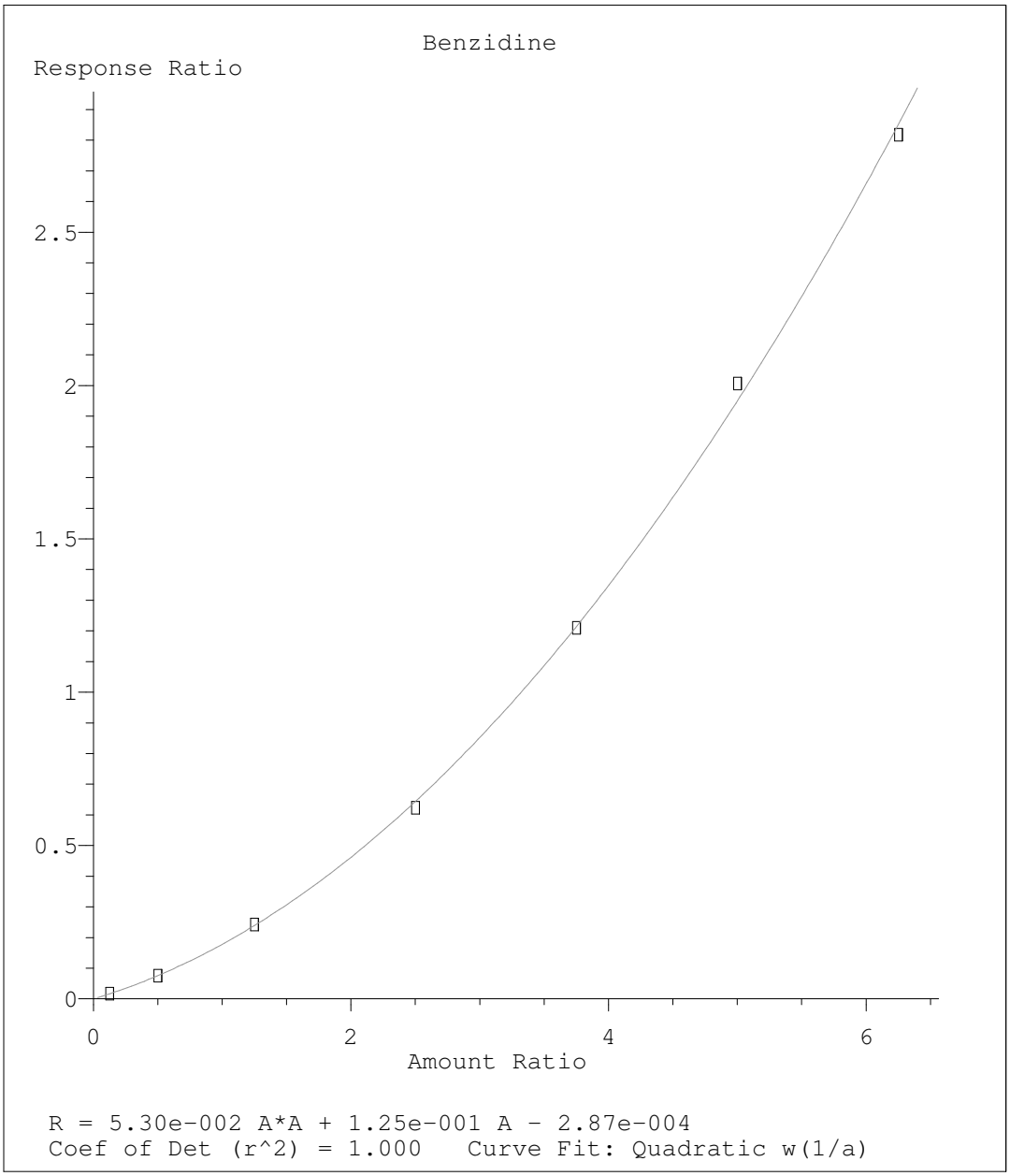
Method Name: C:\msdchem\1\methods\S824C31V.M



Method Name: C:\msdchem\1\methods\S824C31V.M



Method Name: C:\msdchem\1\methods\S824C31V.M



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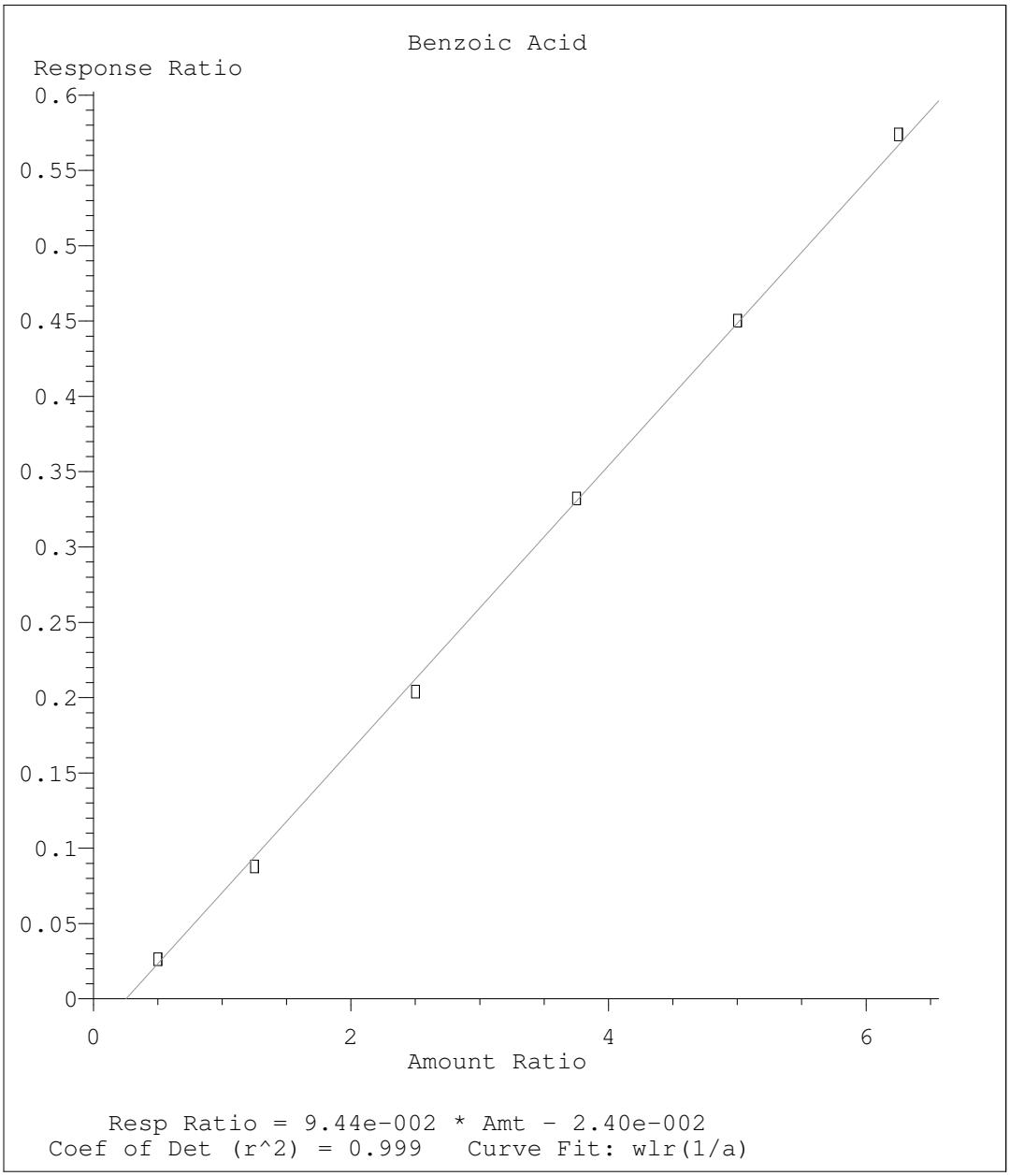
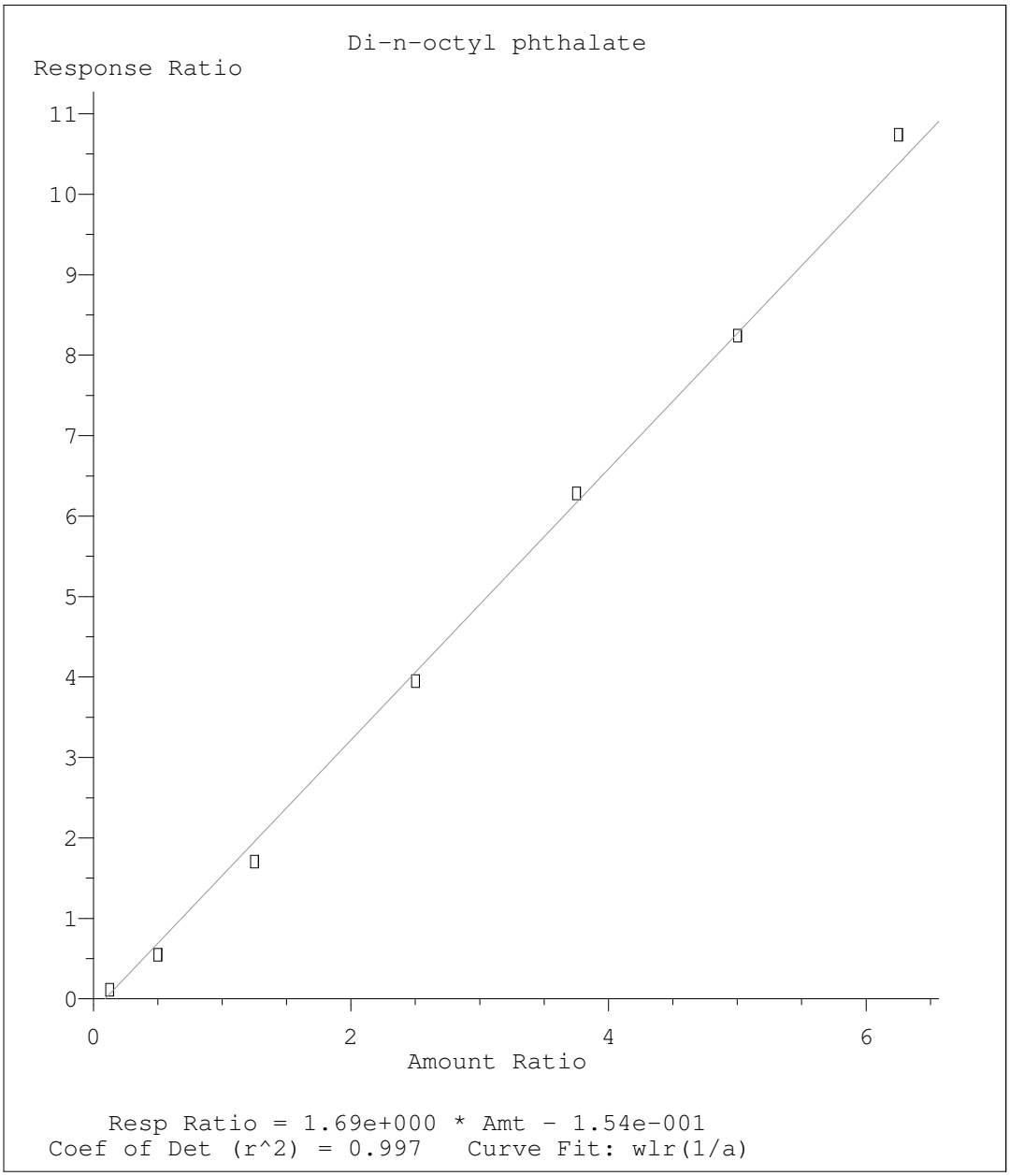
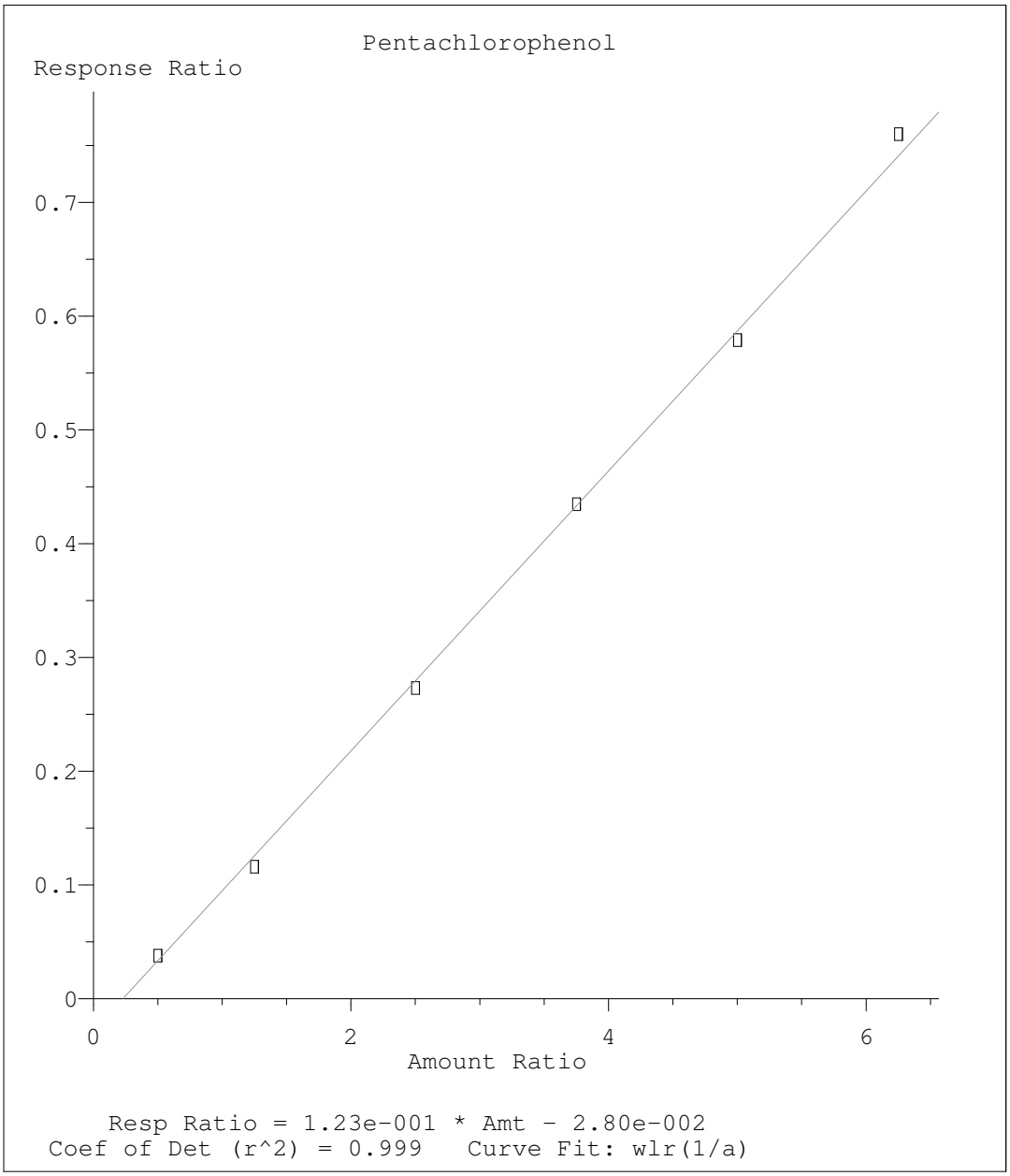


Method Name: C:\msdchem\1\methods\S824C31V.M



Method Name: C:\msdchem\1\methods\S824C31V.M



Method Name: C:\msdchem\1\methods\S824C31V.M

Response Factor Report BNAMS24

Method Path : C:\msdchem\1\methods\
Method File : S824C31V.M
Title : 8270 BNA
Last Update : Mon Apr 04 16:54:30 2022
Response Via : Initial Calibration

Calibration Files
500 =0331_03.D 1K =0331_04.D 4K =0331_05.D 10K =0331_06.D 20K =0331_07.D 30K =0331_08.D 40K =0331_09.D
50K =0331_10.D 1K1 =0331_11.D 4K1 =0331_12.D 10K1=0331_13.D 20K1=0331_14.D 30K1=0331_15.D 40K1=0331_16.D
50K1=0331_17.D

		Compound	500	1K	4K	10K	20K	30K	40K	50K	1K1	4K1	10K1	20K1	30K1	40K1	50K1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------																
2)	TM	Pyridine	1.368	1.258	1.308	1.360	1.358	1.325	1.303	1.336								1.327	2.78
3)	MT	N-Nitrosodimet...	0.884	0.802	0.684	0.678	0.667	0.627	0.616	0.628								0.698	13.64
4)	S	2-Fluorophenol	1.287	1.196	1.216	1.267	1.295	1.255	1.234	1.271								1.253	2.77
5)	MT	Aniline	0.699	0.608	0.690	0.711	0.706	0.698	0.689	0.700								0.688	4.77
6)	MT	bis(2-Chloroet...	1.410	1.346	1.328	1.368	1.353	1.334	1.326	1.358								1.353	2.03
7)	S	Phenol-d5	1.480	1.419	1.456	1.509	1.540	1.498	1.475	1.512								1.486	2.50
8)	MC	Phenol	1.601	1.482	1.570	1.598	1.624	1.583	1.552	1.595								1.575	2.77
9)		Benzaldehyde									0.316	0.313	0.324	0.339	0.380			0.335	8.27
10)	MT	2-Chlorophenol	1.250	1.255	1.285	1.345	1.373	1.332	1.318	1.338								1.312	3.37
11)	T	n-Decane	0.981	0.866	0.859	0.852	0.842	0.800	0.768	0.779								0.843	7.94
12)	MT	1,3-Dichlorobe...	1.581	1.584	1.528	1.528	1.507	1.445	1.417	1.437								1.504	4.28
13)	MTC	1,4-Dichlorobe...	1.578	1.562	1.514	1.534	1.522	1.461	1.426	1.442								1.505	3.71
14)	MT	Benzyl Alcohol	0.936	0.879	0.900	0.977	1.007	0.992	0.983	1.014								0.961	5.22
15)	MT	1,2-Dichlorobe...	1.624	1.492	1.457	1.469	1.449	1.392	1.355	1.370								1.451	5.88
16)	MT	bis(2-Chlorois...	0.540	0.503	0.500	0.507	0.504	0.490	0.476	0.487								0.501	3.79
17)	MT	2,2-oxybis(1-c...	0.540	0.503	0.500	0.507	0.504	0.490	0.476	0.487								0.501	3.79
18)	MT	2-Methylphenol	1.141	1.074	1.178	1.234	1.242	1.197	1.183	1.191								1.180	4.52
19)	MT	Hexachloroethane	0.665	0.625	0.628	0.635	0.635	0.613	0.601	0.619								0.628	3.24

Method Path : C:\msdchem\1\methods\
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20)	MP	N-Nitrosodi-n-...	0.798	0.775	0.805	0.849	0.881	0.863	0.857	0.887							0.839	4.03
21)	MT	3&4-Methyl phenol	1.284	1.215	1.250	1.349	1.365	1.321	1.302	1.326							1.302	3.66
22)	MT	Acetophenone									1.735	1.675	1.724	1.710	1.742	1.749	1.722	1.42
23)	I	Naphthalene-d8	----------ISTD----------															
24)	S	Nitrobenzene-d5	0.315	0.293	0.282	0.300	0.309	0.314	0.311	0.309							0.304	3.85
25)	MT	Nitrobenzene	0.297	0.295	0.296	0.315	0.314	0.320	0.313	0.311							0.307	3.22
26)	MT	Isophorone	0.585	0.546	0.560	0.609	0.628	0.641	0.623	0.622							0.602	5.69
27)	MCT	2-Nitrophenol		0.114	0.122	0.144	0.156	0.161	0.160	0.161							0.145	13.62
28)	MT	2,4-Dimethylph...	0.291	0.282	0.288	0.310	0.308	0.314	0.303	0.299							0.299	3.76
29)	MT	bis(2-Chloreth...	0.421	0.400	0.398	0.410	0.408	0.411	0.395	0.393							0.404	2.36
30)	MCT	2,4-Dichloroph...	0.225	0.212	0.222	0.243	0.249	0.252	0.243	0.246							0.237	6.17
31)	MT	Benzoic Acid										0.053	0.070	0.082	0.089	0.090	0.092	0.079	19.21
32)	MT	1,2,4-Trichlor...	0.309	0.301	0.278	0.283	0.281	0.279	0.267	0.265							0.283	5.40
33)	MT	alpha-terpineol									0.300	0.269	0.254	0.238	0.220	0.198	0.246	14.71
34)	MT	Naphthalene	1.132	1.056	0.995	1.012	0.984	0.971	0.920	0.918							0.999	7.08
35)	MT	4-Chloroaniline		0.094	0.099	0.103	0.108	0.110	0.109	0.111							0.105	6.04
36)	MCT	Hexachloro-1,3...	0.169	0.156	0.151	0.153	0.152	0.152	0.145	0.142							0.153	5.35
37)		Hydroquinone									0.190	0.191	0.172	0.180	0.173	0.162	0.153	0.175	7.89
38)	MT	Quinoline									0.547	0.506	0.492	0.448	0.409	0.368		0.462	14.35
39)	MT	Caprolactam										0.056	0.061	0.065	0.063	0.061	0.059	0.061	5.39
40)	MCT	4-Chloro-3-met...	0.227	0.216	0.220	0.247	0.262	0.271	0.268	0.269							0.247	9.40
41)	MT	2-Methylnaphth...	0.657	0.628	0.615	0.633	0.632	0.634	0.610	0.610							0.627	2.53
42)	MT	1-Methylnaphth...	0.647	0.631	0.597	0.610	0.613	0.611	0.589	0.587							0.611	3.04
43)	MT	1,2,4,5-Tetrac...									0.249	0.230	0.223	0.198	0.176		0.215	13.75
44)		Diphenyl Ether									0.372	0.348	0.331	0.295	0.266		0.322	13.74

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45)		Diphenyl Oxide								0.372	0.348	0.331	0.295	0.266	0.322	13.00
46)	I	Acenaphthene-d10	----------ISTD----------													
47)	MPT	Hexachlorocycl...	0.237	0.225	0.246	0.261	0.273	0.282	0.278	0.285					0.261	8.71
48)	MCT	2,4,6-Trichlor...	0.254	0.252	0.277	0.307	0.320	0.326	0.324	0.330					0.299	11.07
49)	MT	2,4,5-Trichlor...	0.255	0.244	0.276	0.318	0.335	0.336	0.334	0.344					0.305	13.27
50)	S	2-Fluorobiphenyl	1.398	1.349	1.266	1.291	1.261	1.226	1.180	1.191					1.270	5.89
51)	MT	Biphenyl	1.595	1.471	1.421	1.442	1.421	1.389	1.345	1.367					1.431	5.41
52)	MT	2-Chloronaphth...	1.156	1.154	1.117	1.125	1.093	1.087	1.047	1.059					1.105	3.67
53)	MT	2-Nitroaniline			0.247	0.301	0.338	0.357	0.358	0.364					0.328	13.91
54)	MT	Acenaphthylene	1.748	1.672	1.669	1.724	1.716	1.716	1.660	1.658					1.695	2.03
55)	MT	Dimethyl phtha...	1.195	1.180	1.209	1.272	1.284	1.286	1.244	1.233					1.238	3.30
56)	MT	2,6-Dinitrotol...		0.206	0.241	0.269	0.293	0.298	0.291	0.294					0.270	12.94
57)	MT	3-Nitroaniline			0.211	0.247	0.271	0.279	0.271	0.270					0.258	9.97
58)	MCT	Acenaphthene	1.227	1.216	1.140	1.145	1.143	1.134	1.089	1.096					1.149	4.33
59)	MPT	2,4-Dinitrophenol			0.049	0.066	0.085	0.097	0.101	0.112					0.085	27.73
60)	MT	Dibenzofuran	1.670	1.592	1.534	1.558	1.512	1.507	1.453	1.439					1.533	4.89
61)	MT	2,4-Dinitrotol...			0.268	0.322	0.348	0.365	0.358	0.368					0.338	11.31
62)	T	2,3,4,6-Tetrac...									0.169	0.200	0.219	0.231	0.241	0.241	0.217	12.88
63)	MPT	4-Nitrophenol			0.139	0.174	0.191	0.206	0.203	0.209					0.187	14.32
64)	MT	Fluorene	1.330	1.278	1.265	1.306	1.278	1.268	1.216	1.210					1.269	3.21
65)	MT	4-Chlorophenyl...	0.650	0.571	0.598	0.583	0.574	0.567	0.540	0.540					0.578	6.07
66)	MT	Diethyl phthalate	1.276	1.231	1.264	1.346	1.329	1.330	1.270	1.256					1.288	3.13
67)	MT	4-Nitroaniline		0.168	0.192	0.148	0.137	0.146	0.149	0.153					0.156	11.81
68)	MT	Azobenzene	1.230	1.233	1.287	1.356	1.347	1.335	1.280	1.287					1.294	3.16

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69)	MT	Atrazine								0.229	0.256	0.277	0.309	0.308	0.318	0.319	0.288	12.7
70)	I	Phenanthrene-d10	----------ISTD----------															
71)	MT	4,6-Dinitro-2-...			0.049	0.069	0.086	0.095	0.097	0.105							0.083	24.93
72)	MCT	N-Nitrosodiphe...	0.625	0.589	0.613	0.637	0.650	0.639	0.609	0.615							0.622	3.12
73)	S	2,4,6-Tribromo...		0.063	0.073	0.082	0.089	0.094	0.091	0.094							0.084	14.11
74)	MT	4-Bromophenyl-...	0.195	0.193	0.190	0.191	0.192	0.194	0.184	0.187							0.191	1.93
75)	MT	Hexachlorobenzene	0.253	0.236	0.221	0.221	0.221	0.219	0.207	0.208							0.223	6.72
76)	T	n-octadecane	0.162	0.138	0.146	0.148	0.155	0.153	0.146	0.145							0.149	4.99
77)	MCT	Pentachlorophenol			0.076	0.093	0.109	0.116	0.116	0.122							0.105	16.65#
78)	MT	Phenanthrene	1.217	1.087	1.056	1.055	1.049	1.038	0.990	0.991							1.060	6.75
79)	MT	Anthracene	1.017	0.956	0.985	1.027	1.041	1.030	0.995	1.003							1.007	2.77
80)	MT	Carbazole	0.839	0.793	0.846	0.884	0.889	0.907	0.856	0.877							0.861	4.17
81)	MT	Di-n-butyl pht...	1.124	1.076	1.208	1.343	1.408	1.432	1.352	1.376							1.290	10.48
82)	MT	2-nitrodipheny...									0.119	0.150	0.185	0.204	0.214	0.224	0.183	22.37
83)	MCT	Fluoranthene	1.023	0.956	0.994	1.052	1.077	1.086	1.051	1.060							1.038	4.25
84)	I	Chrysene-d12	----------ISTD----------															
85)	MT	Benzidine								0.131	0.151	0.194	0.249	0.323	0.401	0.451	0.271	45.78
86)	MT	Pyrene	1.708	1.538	1.511	1.506	1.480	1.441	1.401	1.403							1.498	6.58
87)	S	p-Terphenyl-d14	1.168	1.131	1.106	1.116	1.118	1.099	1.052	1.066							1.107	3.26
88)	MT	Benzylbutyl ph...			0.562	0.651	0.709	0.733	0.724	0.748							0.688	10.16
89)	MT	3,3-Dichlorobe...									0.272	0.322	0.358	0.368	0.380	0.379	0.346	12.20
90)	MT	Benzo(a)anthra...	1.088	1.076	1.063	1.122	1.143	1.158	1.127	1.156							1.117	3.28
91)	MT	Chrysene	1.255	1.222	1.177	1.182	1.181	1.159	1.115	1.145							1.179	3.21
92)	MT	bis(2-Ethylhex...			0.831	0.973	1.062	1.081	1.054	1.088							1.015	9.75
93)	MC	Di-n-octyl pht...		0.902	1.092	1.364	1.579	1.675	1.649	1.718							1.425	22.51

.38

Response Factor Report BNAMS24

Method Path : C:\msdchem\1\methods\
Method File : S824C31V.M
Title : 8270 BNA
Last Update : Mon Apr 04 16:54:30 2022

94)	I	Perylene-d12	----------ISTD----------									
95)	MT	Benzo(b)fluora...	1.058	1.057	1.118	1.206	1.226	1.269	1.217	1.229	1.172	7.06
96)	MT	Benzo(k)fluora...	1.052	1.042	1.176	1.287	1.276	1.272	1.235	1.251	1.199	8.32
97)	MC	Benzo(a)pyrene	0.809	0.761	0.880	0.996	1.021	1.059	1.025	1.052	0.950	12.31
98)	MT	Indeno(1,2,3-c...	0.784	0.733	0.821	0.905	0.908	0.949	0.911	0.909	0.865	8.78
99)	MT	Dibenz(a,h)ant...	0.841	0.877	0.947	1.024	1.022	1.047	1.001	0.996	0.969	7.71
100)	MT	Benzo(g,h,i)pe...	0.908	0.974	1.022	1.105	1.072	1.084	1.035	1.015	1.027	6.23

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:01:33 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	31379	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.145	136	126523	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	63425	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.433	188	100259	8000.0000000	ppb		0.00
84) Chrysene-d12	9.251	240	65923	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	60338	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	2524	507.9989337	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.54%			
7) Phenol-d5	3.175	99	2902	490.2811940	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.45%			
24) Nitrobenzene-d5	3.710	82	2493m	524.6305136	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.25%			
50) 2-Fluorobiphenyl	4.828	172	5540	541.1485688	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.41%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
87) p-Terphenyl-d14	7.845	244	4811	523.3093824	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.23%			
Target Compounds							Qvalue
2) Pyridine	2.263	79	2682m	502.9288558	ppb		
3) N-Nitrosodimethylamine	2.204	42	1734m	651.9362692	ppb		
5) Aniline	3.228	66	1370	491.5376500	ppb	#	79
6) bis(2-Chloroethyl)ether	3.245	93	2765m	515.1374508	ppb		
8) Phenol	3.181	94	3140	501.1068373	ppb		93
10) 2-Chlorophenol	3.292	128	2452	464.8748538	ppb		95
11) n-Decane	3.292	41	1924	575.6723728	ppb	#	36
12) 1,3-Dichlorobenzene	3.381	146	3101	517.2524205	ppb		96
13) 1,4-Dichlorobenzene	3.416	146	3094	514.0708349	ppb	#	68
14) Benzyl Alcohol	3.469	79	1836	479.0055036	ppb		99
15) 1,2-Dichlorobenzene	3.504	146	3184	552.5060104	ppb		97
16) bis(2-Chloroisopropyl)...	3.539	121	1060	532.7713266	ppb		87
17) 2,2-oxybis(1-chloropro...	3.539	121	1060	532.7713266	ppb		87
18) 2-Methylphenol	3.510	108	2237	462.2064517	ppb		86
19) Hexachloroethane	3.698	117	1305	524.0277072	ppb		97
20) N-Nitrosodi-n-propylamine	3.610	70	1565	469.7971863	ppb		98
21) 3&4-Methyl phenol	3.592	107	2518	475.7854675	ppb		95
25) Nitrobenzene	3.722	77	2349	471.8104374	ppb		92
26) Isophorone	3.851	82	4629	480.4591456	ppb		99
28) 2,4-Dimethylphenol	3.904	107	2304	469.9159942	ppb		92
29) bis(2-Chlorethoxy)methane	3.969	93	3329	513.4626234	ppb		98
30) 2,4-Dichlorophenol	4.039	162	1782	464.4492046	ppb		84
32) 1,2,4-Trichlorobenzene	4.104	180	2444	545.7286958	ppb		94
34) Naphthalene	4.157	128	8954m	559.6849764	ppb		
36) Hexachloro-1,3-butadiene	4.222	225	1339	554.5918131	ppb		91
40) 4-Chloro-3-methylphenol	4.463	107	1795	460.1058487	ppb		92
41) 2-Methylnaphthalene	4.592	142	5197	519.2282987	ppb	#	95
42) 1-Methylnaphthalene	4.657	142	5117	530.1816916	ppb	#	96
47) Hexachlorocyclopentadiene	4.692	237	939m	453.4144396	ppb		
48) 2,4,6-Trichlorophenol	4.769	196	1005	412.4968894	ppb		93
49) 2,4,5-Trichlorophenol	4.792	196	1011	400.6238575	ppb		94
51) Biphenyl	4.898	154	6324	553.1433075	ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:01:33 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

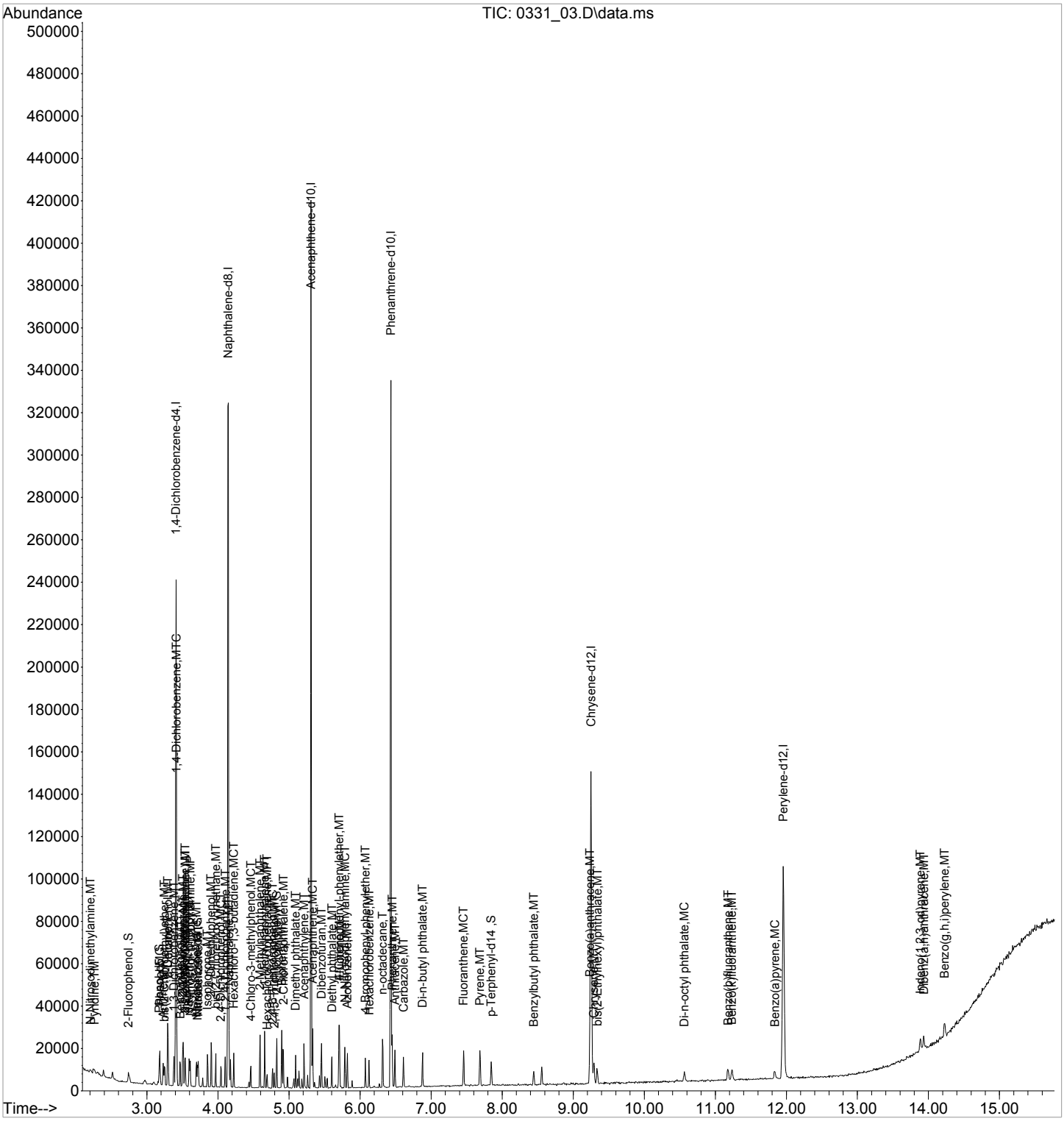
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52)	2-Chloronaphthalene	4.922	162	4581	513.4164333 ppb		95
54)	Acenaphthylene	5.210	152	6929	506.9901865 ppb		99
55)	Dimethyl phthalate	5.092	163	4737	469.5927938 ppb		91
58)	Acenaphthene	5.333	153	4864	535.9579409 ppb		98
60)	Dibenzofuran	5.457	168	6619	535.9944213 ppb	#	89
64)	Fluorene	5.710	166	5272	509.1051045 ppb		96
65)	4-Chlorophenyl-phenyle...	5.704	204	2576	557.7817146 ppb		99
66)	Diethyl phthalate	5.604	149	5060	474.0047284 ppb		98
68)	Azobenzene	5.822	77	4874	453.2199158 ppb	#	86
72)	N-Nitrosodiphenylamine	5.786	169	3919	491.1822538 ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	1225	512.3795821 ppb		96
75)	Hexachlorobenzene	6.128	284	1585	573.4533593 ppb		94
76)	n-octadecane	6.316	55	1016	548.9786212 ppb	#	29
78)	Phenanthrene	6.451	178	7629	577.0254334 ppb		98
79)	Anthracene	6.492	178	6370	494.8391331 ppb		97
80)	Carbazole	6.610	167	5256	474.4175216 ppb	#	62
81)	Di-n-butyl phthalate	6.880	149	7044	418.5148193 ppb		99
83)	Fluoranthene	7.457	202	6410	485.9650062 ppb		99
86)	Pyrene	7.686	202	7038	567.1001911 ppb		97
88)	Benzylbutyl phthalate	8.445	149	2045	380.9486504 ppb		99
90)	Benzo(a)anthracene	9.233	228	4484	484.9718122 ppb		93
91)	Chrysene	9.292	228	5171	530.7402982 ppb		97
92)	bis(2-Ethylhexyl)phtha...	9.339	149	2721	339.4590534 ppb		94
93)	Di-n-octyl phthalate	10.563	149	3967	353.0003114 ppb		96
95)	Benzo(b)fluoranthene	11.180	252	3990	438.5119188 ppb		99
96)	Benzo(k)fluoranthene	11.233	252	3967	408.5899278 ppb		99
97)	Benzo(a)pyrene	11.839	252	3050	406.0798426 ppb		95
98)	Indeno(1,2,3-cd)pyrene	13.886	276	2955	433.0546037 ppb		93
99)	Dibenz(a,h)anthracene	13.939	278	3172	410.5654286 ppb		98
100)	Benzo(g,h,i)perylene	14.227	276	3424	410.7757987 ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

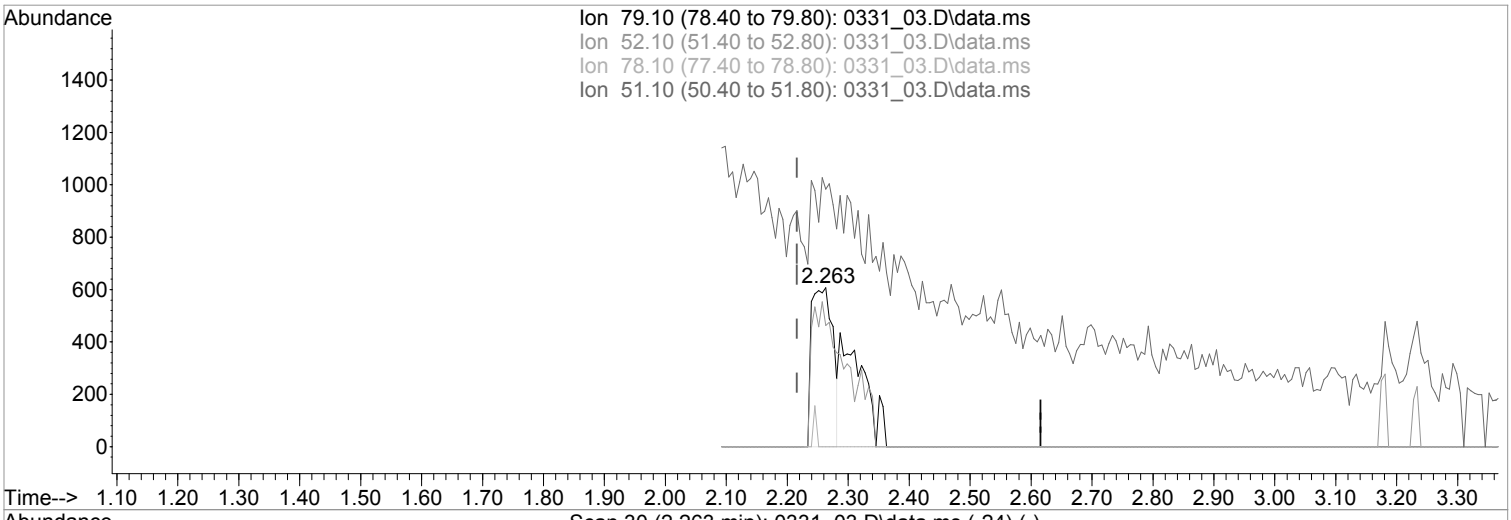
Quant Time: Apr 04 16:01:33 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

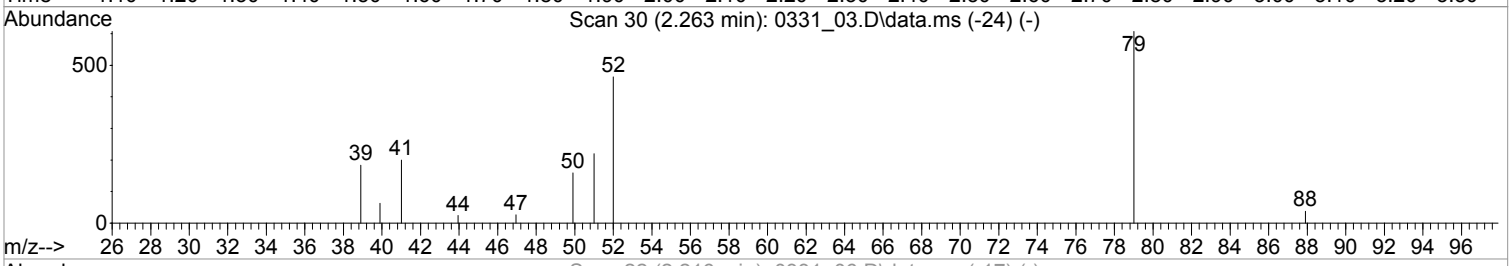


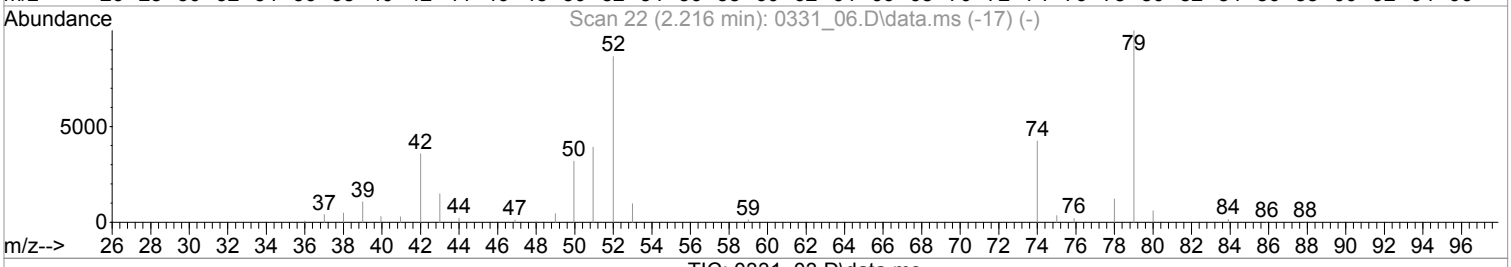
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_03.D\data.ms

(2) Pyridine (TM)

2.263min (+0.047) 273.5917974 ppb

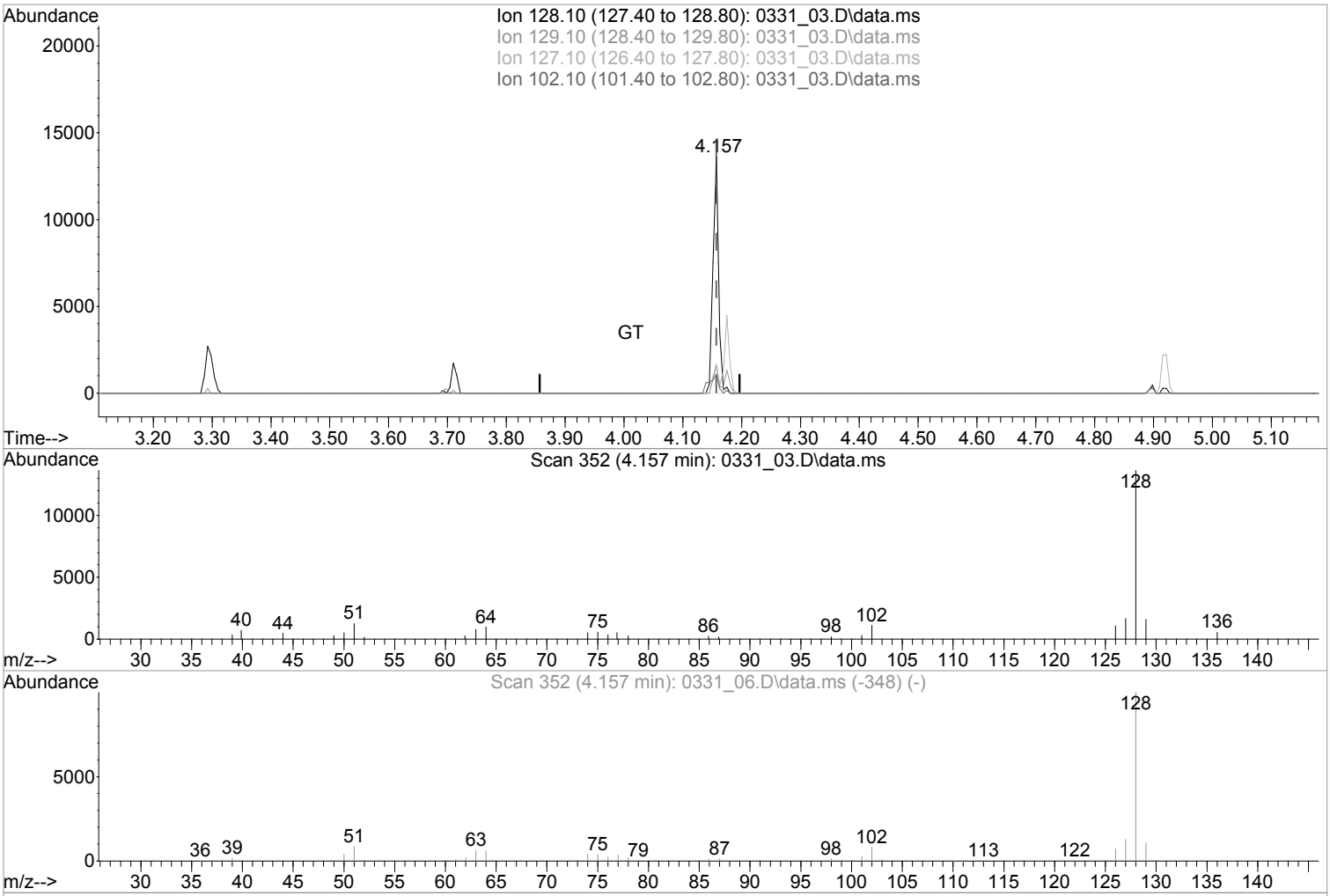
Qvalue = 88

response 1459

Ion	Exp%	Act%
79.10	100	100
52.10	86.50	76.28
78.10	12.30	0.00#
51.10	40.80	36.24

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(34) Naphthalene (MT)

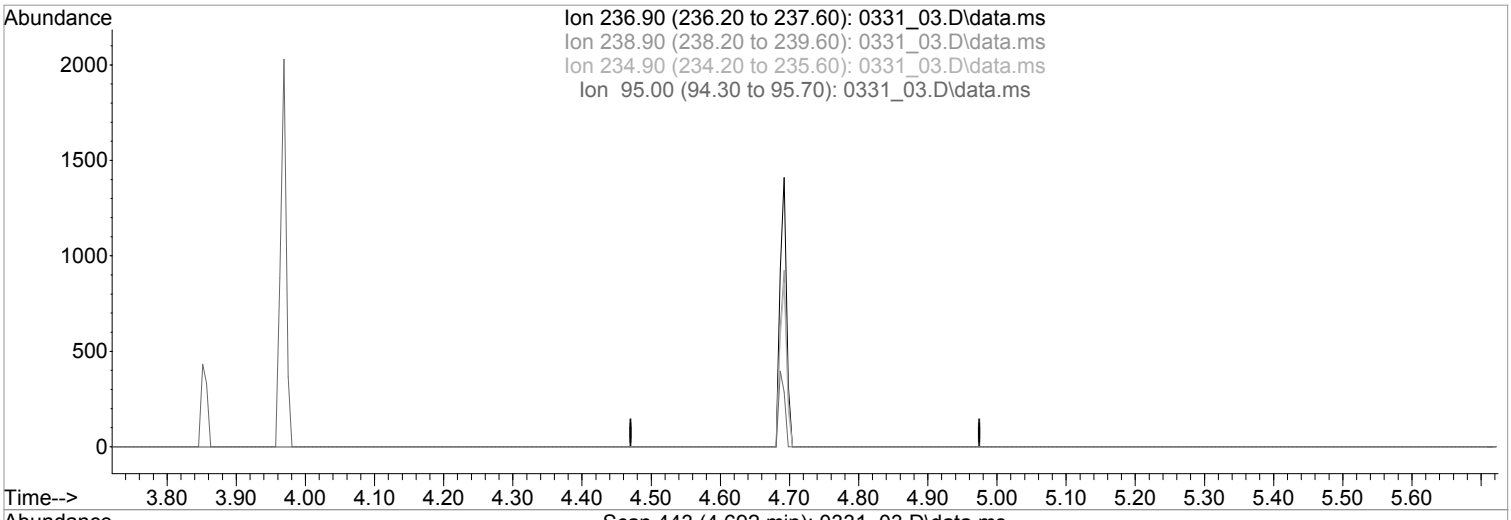
4.157min (-0.000) 559.6849764 ppb m

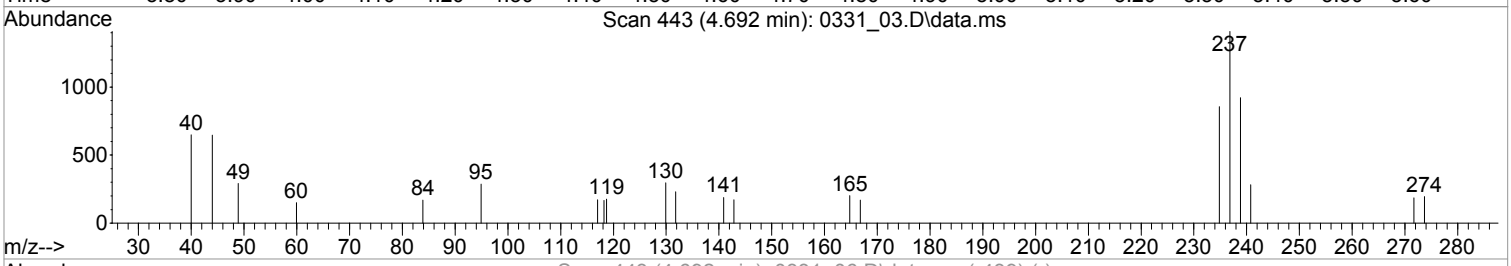
response 8954

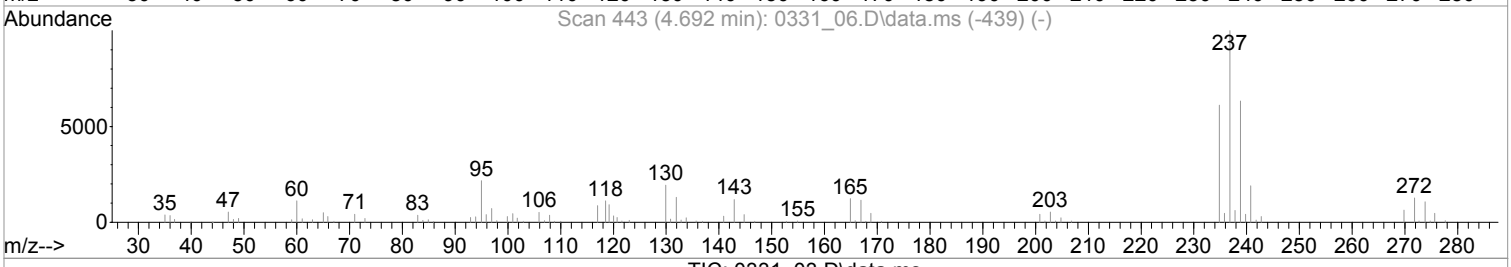
Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.62
127.10	12.80	12.25
102.10	8.30	8.14

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_03.D\data.ms

(47) Hexachlorocyclopentadiene (MPT)

4.692min (-4.692) 0.0000000 ppb

Qvalue = 0

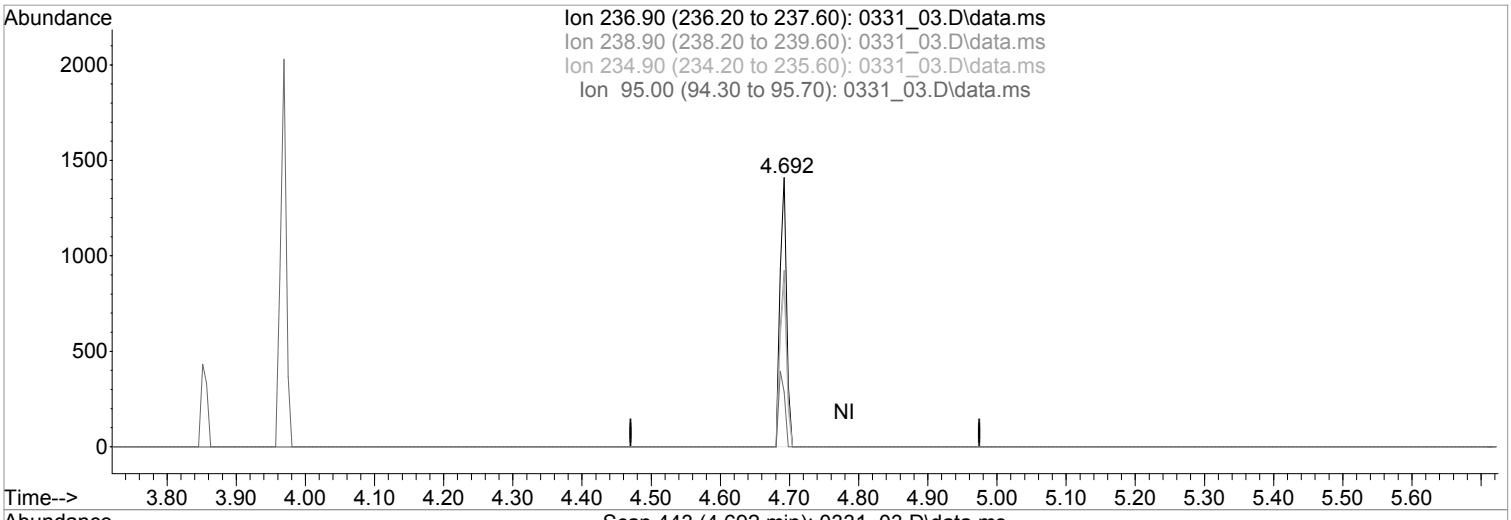
response 0

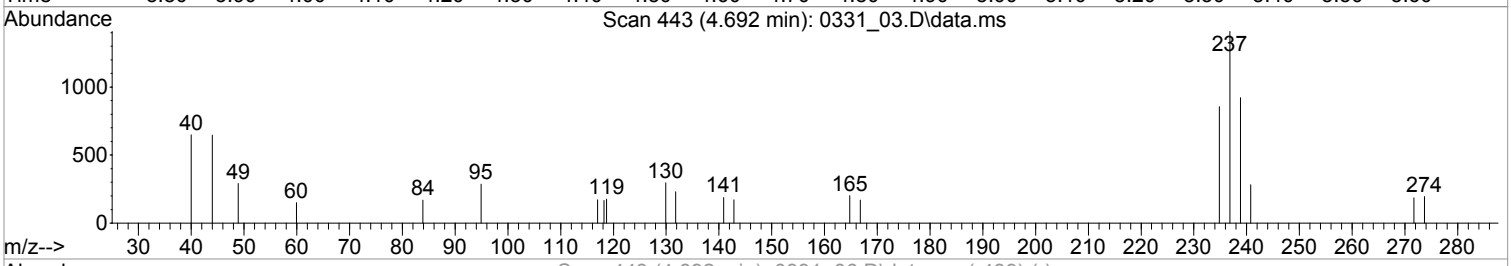
Ion	Exp%	Act%
236.90	100	0.00
238.90	63.30	0.00#
234.90	61.10	0.00#
95.00	21.70	0.00#

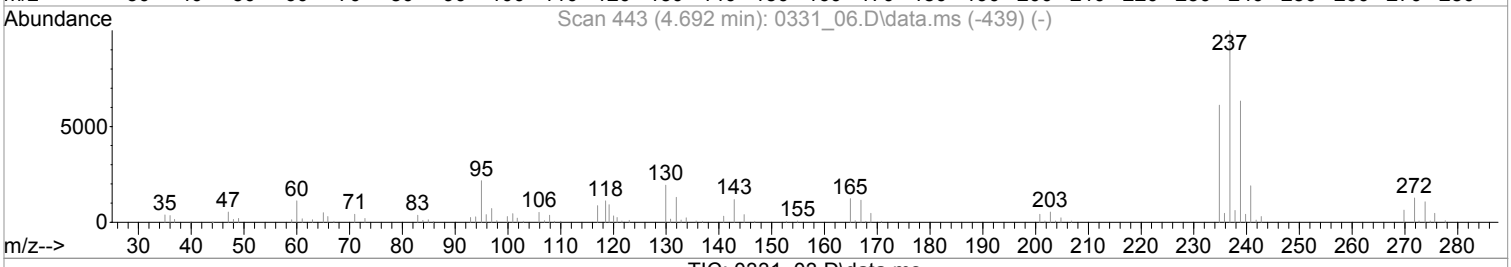
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_03.D\data.ms

(47) Hexachlorocyclopentadiene (MPT)

4.692min (-0.000) 453.4144396 ppb m

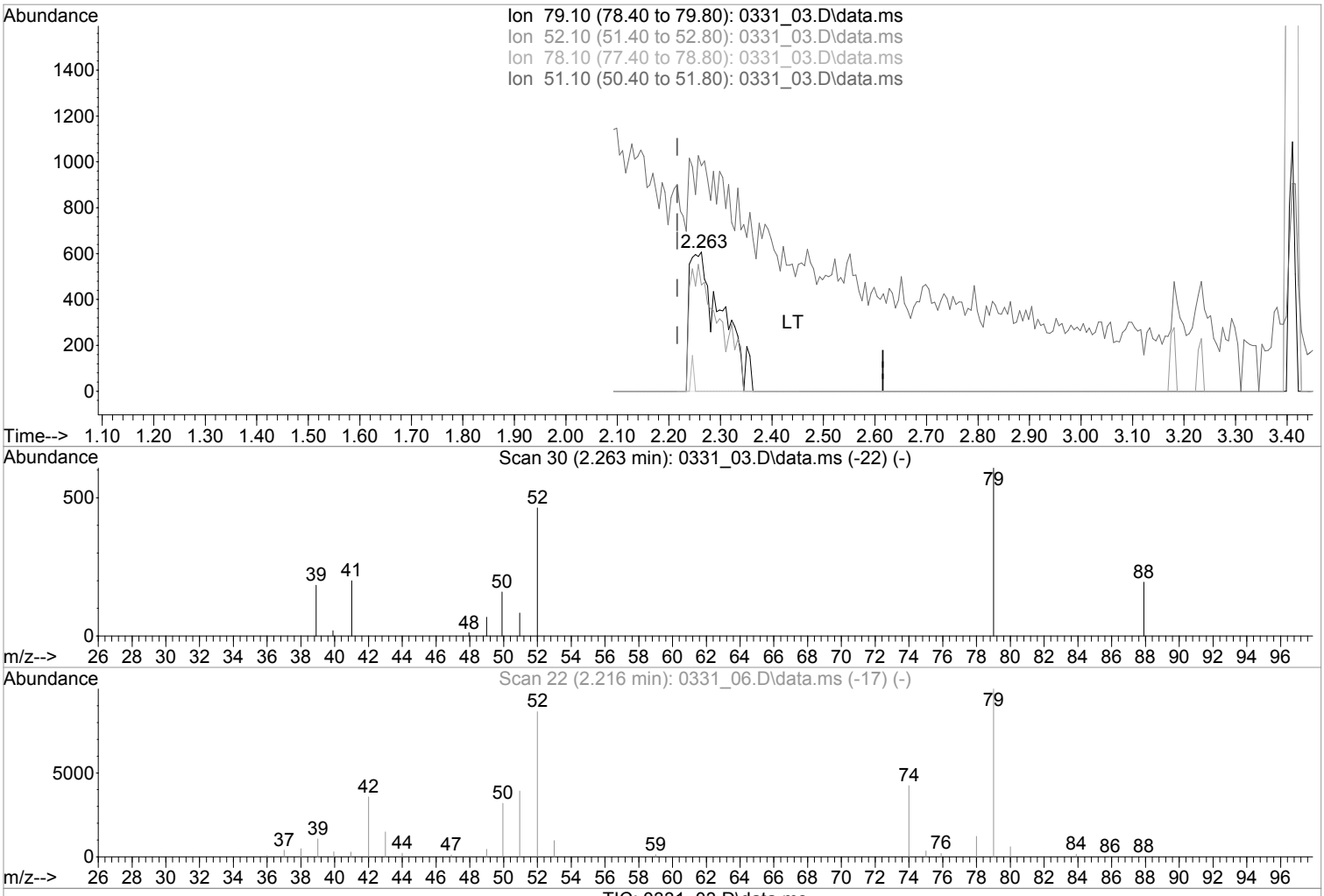
response 939

Ion	Exp%	Act%
236.90	100	100
238.90	63.30	65.51
234.90	61.10	60.75
95.00	21.70	20.37

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(2) Pyridine (TM)

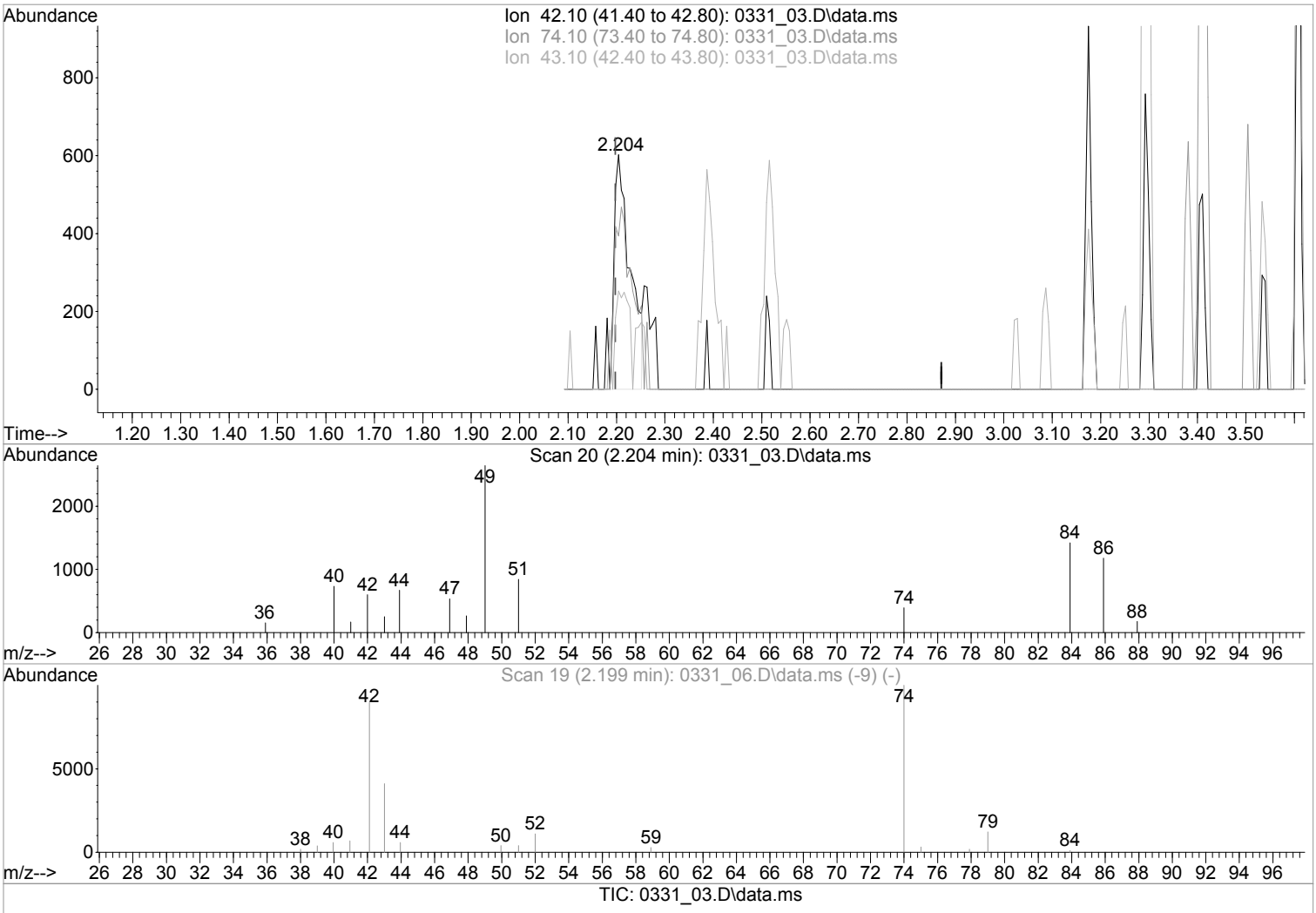
2.263min (+0.047) 502.9288558 ppb m

response 2682

Ion	Exp%	Act%
79.10	100	100
52.10	86.50	76.28
78.10	12.30	0.00#
51.10	40.80	162.11#

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(3) N-Nitrosodimethylamine (MT)

2.204min (+0.006) 539.1445272 ppb

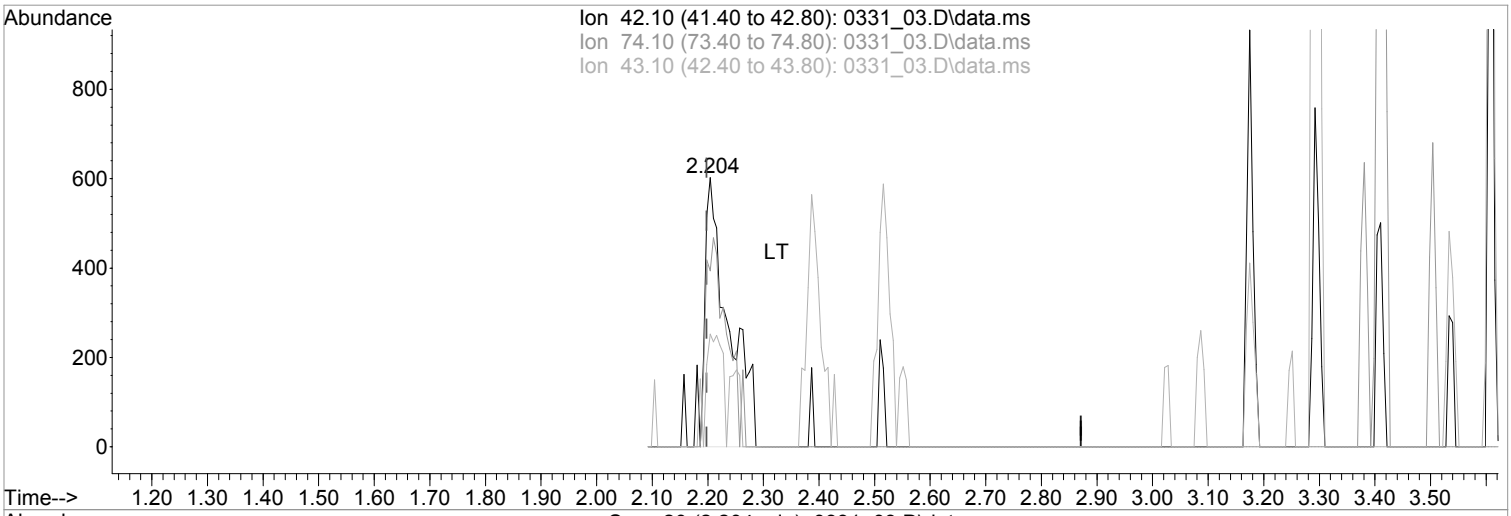
Qvalue = 64

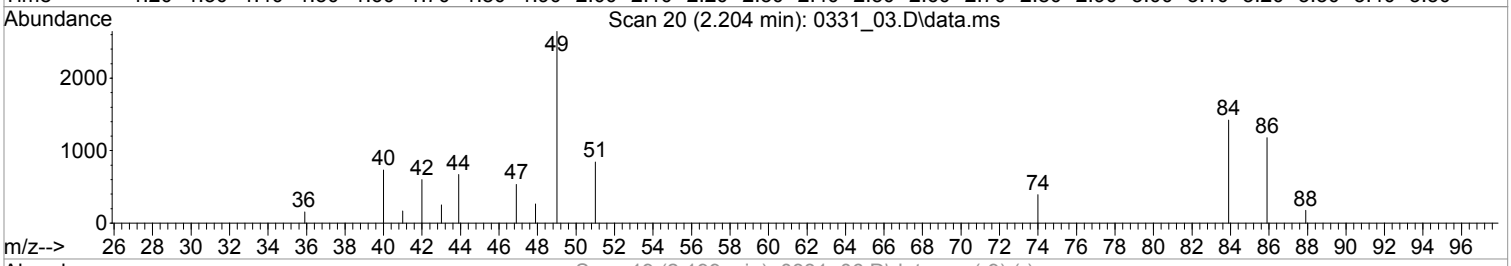
response 1434

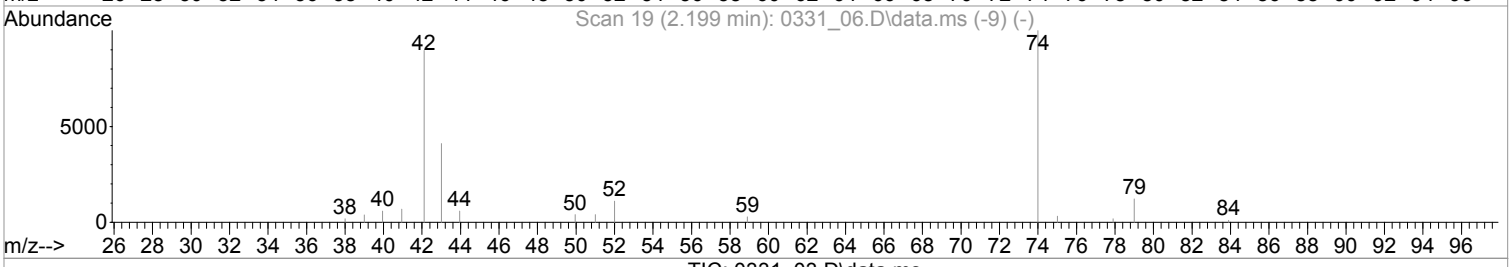
Ion	Exp%	Act%
42.10	100	100
74.10	109.30	86.75#
43.10	46.50	0.00#
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_03.D\data.ms

(3) N-Nitrosodimethylamine (MT)

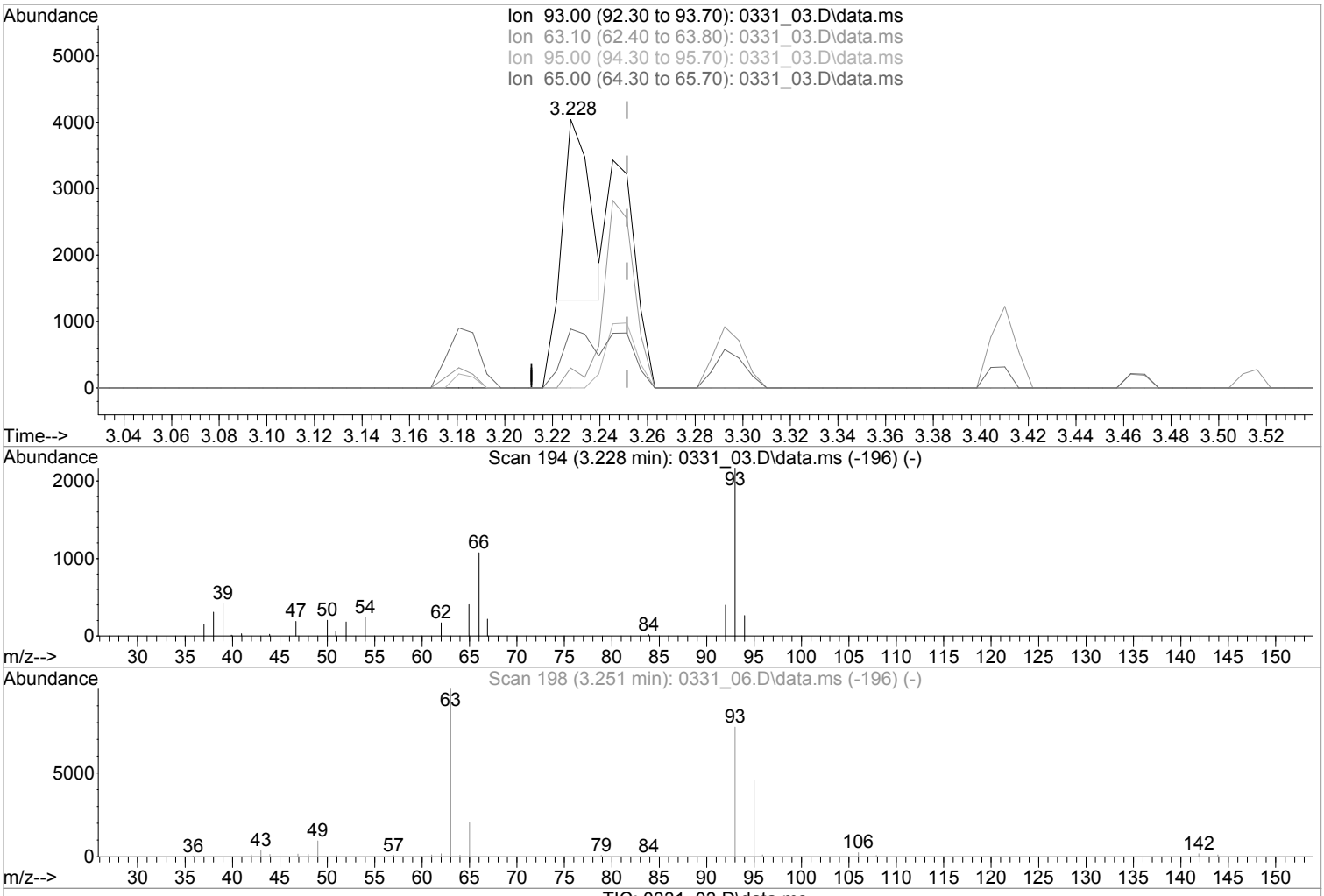
2.204min (+0.006) 651.9362692 ppb m

response 1734

Ion	Exp%	Act%
42.10	100	100
74.10	109.30	71.74#
43.10	46.50	0.00#
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.024) 356.9632390 ppb

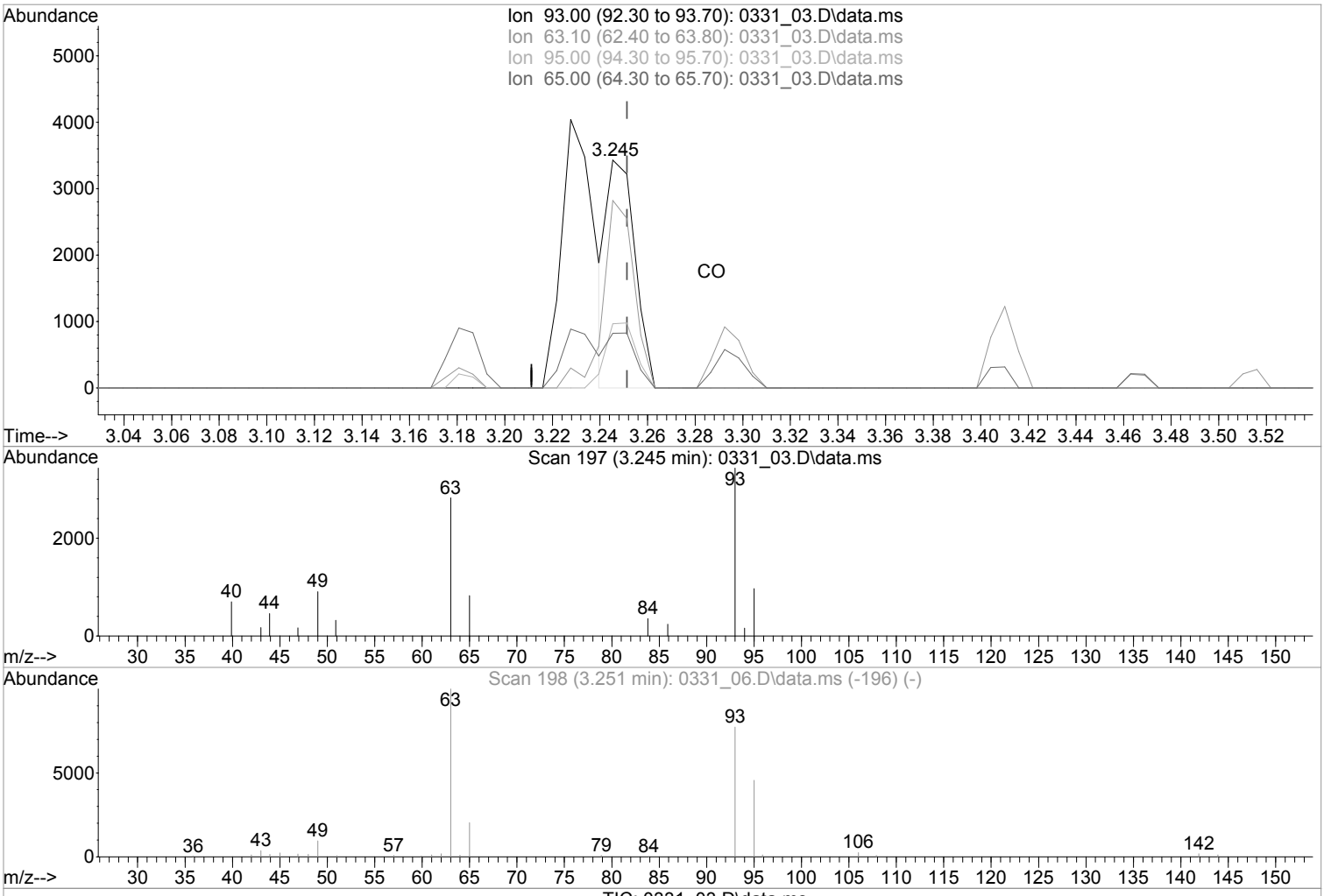
Qvalue = 42

response 1916

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	11.06#
95.00	31.90	0.00#
65.00	23.10	22.97

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

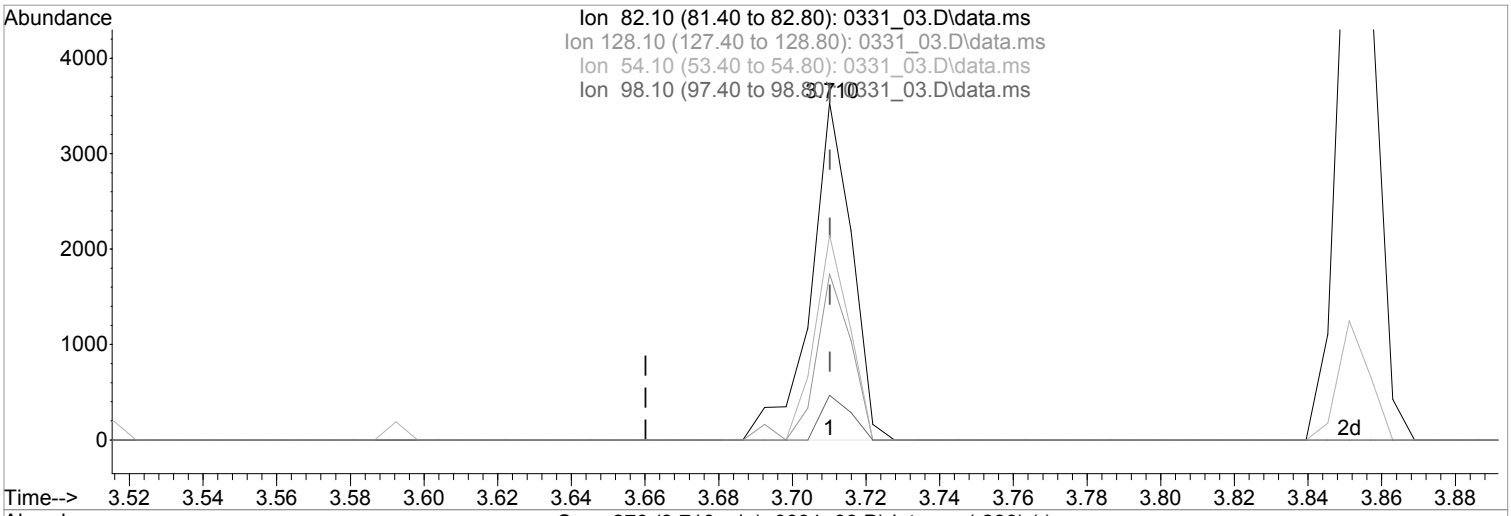
3.245min (-0.006) 515.1374508 ppb m

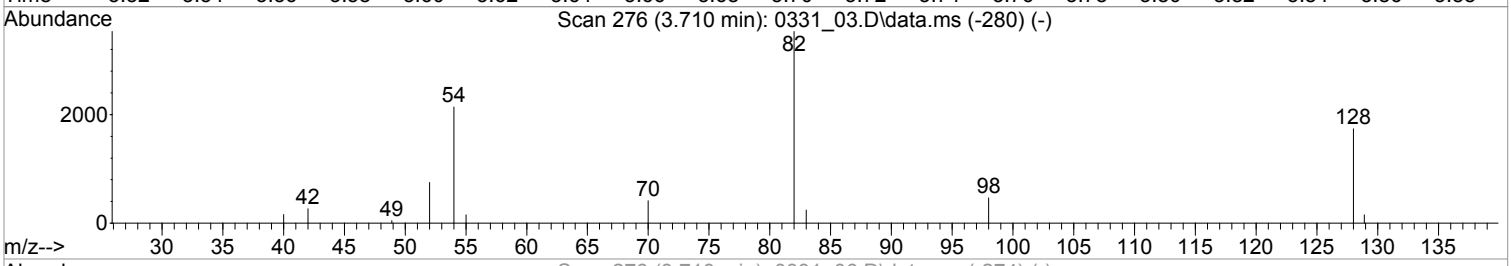
response 2765

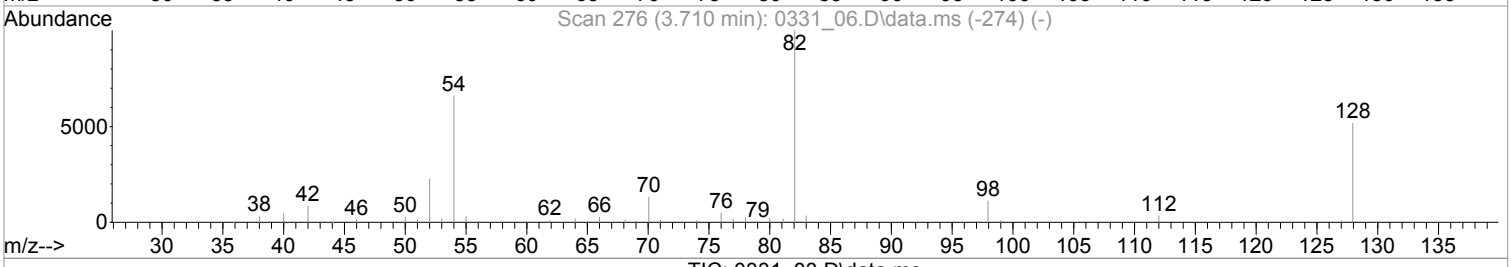
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	82.25
95.00	31.90	28.18
65.00	23.10	24.05

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 575.7677839 ppb

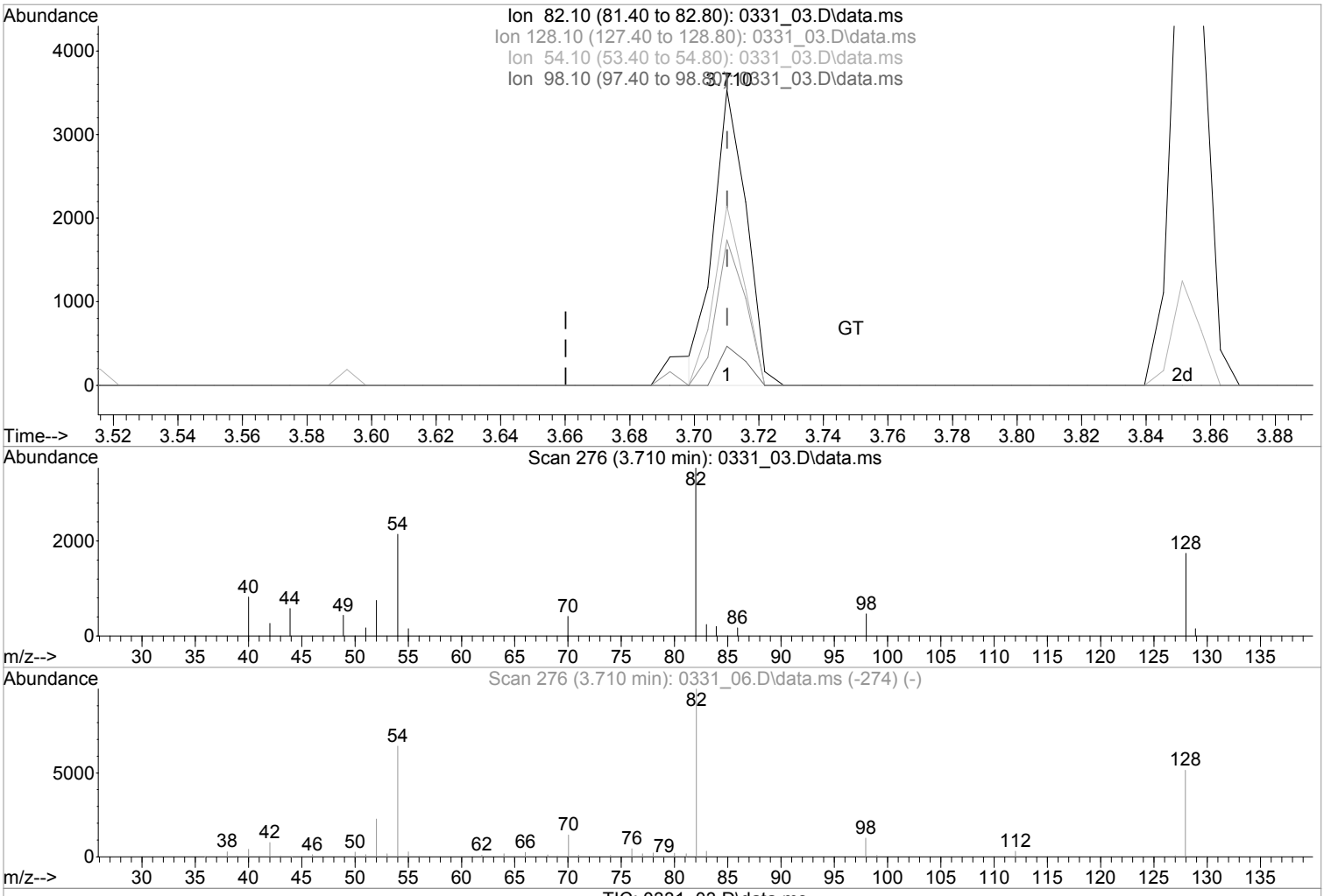
Qvalue = 98

response 2736

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	49.19
54.10	60.00	60.68
98.10	11.40	13.25

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 524.6305136 ppb m

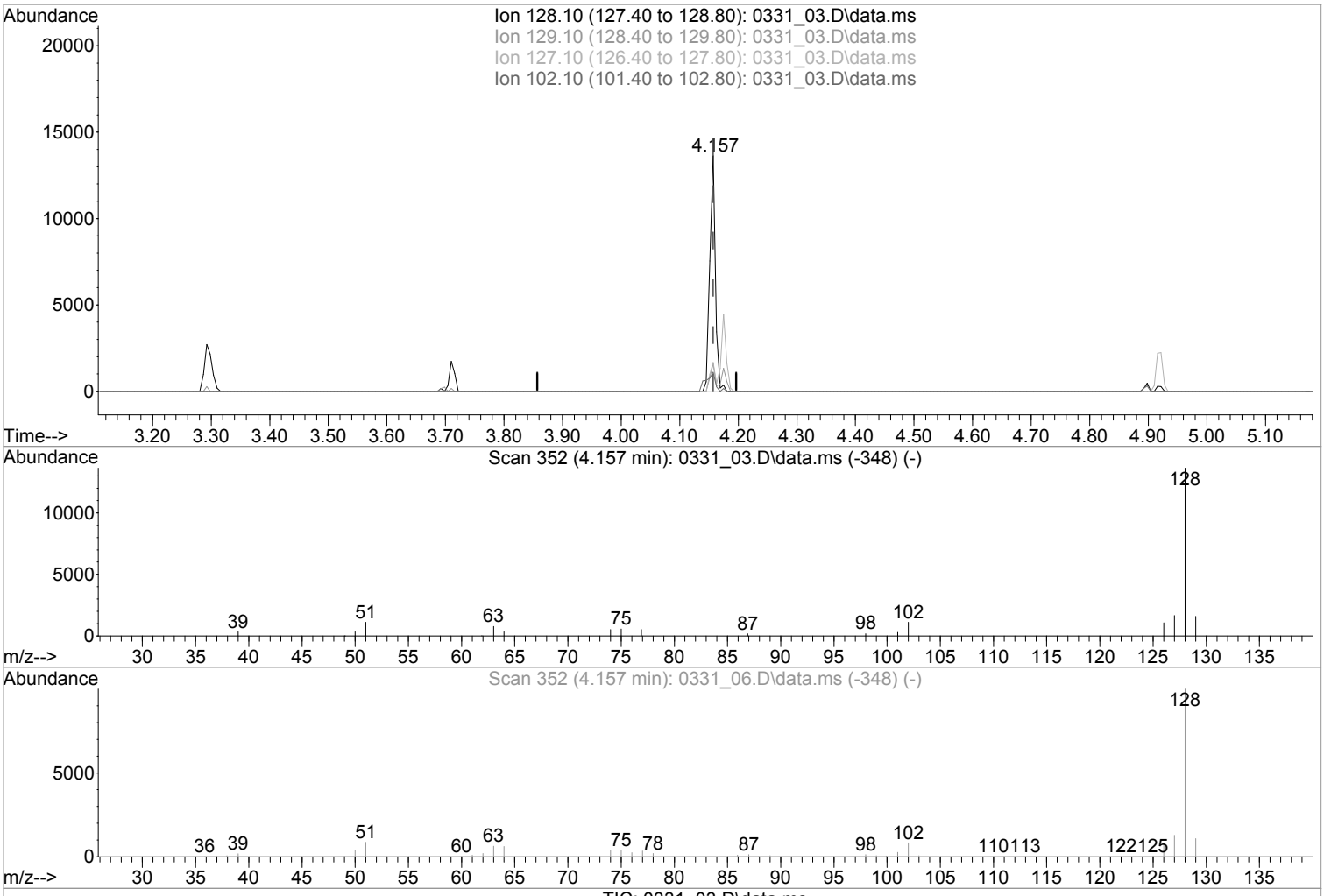
response 2493

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	49.19
54.10	60.00	60.68
98.10	11.40	13.25

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_03.D
Acq On : 31 Mar 2022 5:24 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:00:09 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_03.D\data.ms

(34) Naphthalene (MT)

4.157min (-0.000) 567.6233271 ppb

Qvalue = 99

response 9081

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.62
127.10	12.80	12.25
102.10	8.30	8.14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:03:57 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	32256	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.145	136	127295	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	64408	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.434	188	102417	8000.0000000	ppb		0.00
84) Chrysene-d12	9.251	240	66477	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	60703	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	4822	936.6323900	ppb		0.00
Spiked Amount 20000.000			Recovery =	4.68%			
7) Phenol-d5	3.175	99	5723	949.8206996	ppb		0.00
Spiked Amount 20000.000			Recovery =	4.75%			
24) Nitrobenzene-d5	3.710	82	4668m	952.9123725	ppb		0.00
Spiked Amount 10000.000			Recovery =	9.53%			
50) 2-Fluorobiphenyl	4.828	172	10861	1003.4240800	ppb		0.00
Spiked Amount 10000.000			Recovery =	10.03%			
73) 2,4,6-Tribromophenol	5.887	330	805m	762.4927132	ppb		0.00
Spiked Amount 20000.000			Recovery =	3.81%			
87) p-Terphenyl-d14	7.845	244	9398	990.6430560	ppb		0.00
Spiked Amount 10000.000			Recovery =	9.91%			
Target Compounds							Qvalue
2) Pyridine	2.240	79	5071	922.3587099	ppb	#	95
3) N-Nitrosodimethylamine	2.199	42	3234	1026.8244509	ppb		87
5) Aniline	3.228	66	2453	863.4817222	ppb	#	87
6) bis(2-Chloroethyl)ether	3.246	93	5429m	969.2851721	ppb		
8) Phenol	3.181	94	5974	926.4330927	ppb		95
10) 2-Chlorophenol	3.293	128	5060	967.2165217	ppb		98
11) n-Decane	3.293	41	3492	944.9158398	ppb	#	99
12) 1,3-Dichlorobenzene	3.381	146	6386	1018.6606650	ppb		98
13) 1,4-Dichlorobenzene	3.416	146	6299	1004.0019603	ppb	#	88
14) Benzyl Alcohol	3.463	79	3546	919.2846602	ppb		99
15) 1,2-Dichlorobenzene	3.504	146	6014	964.5647258	ppb		96
16) bis(2-Chloroisopropyl)...	3.540	121	2029	960.5974778	ppb		92
17) 2,2-oxybis(1-chloropro...	3.540	121	2029	960.5974778	ppb		92
18) 2-Methylphenol	3.510	108	4331	904.7290329	ppb		93
19) Hexachloroethane	3.698	117	2518	960.5419697	ppb		92
20) N-Nitrosodi-n-propylamine	3.610	70	3124	940.7078404	ppb		99
21) 3&4-Methyl phenol	3.593	107	4900	923.0511547	ppb		97
25) Nitrobenzene	3.722	77	4690	963.4605718	ppb		95
26) Isophorone	3.851	82	8692	914.5714399	ppb		99
27) 2-Nitrophenol	3.904	139	1821	795.4129864	ppb		93
28) 2,4-Dimethylphenol	3.904	107	4491	938.6524583	ppb		93
29) bis(2-Chlorethoxy)methane	3.969	93	6359	961.9096115	ppb		97
30) 2,4-Dichlorophenol	4.045	162	3374	906.2632690	ppb		98
32) 1,2,4-Trichlorobenzene	4.104	180	4786	1015.7513152	ppb		92
34) Naphthalene	4.157	128	16810m	985.5431213	ppb		
35) 4-Chloroaniline	4.175	65	1501	912.0664575	ppb	#	88
36) Hexachloro-1,3-butadiene	4.222	225	2489	971.6089660	ppb		97
40) 4-Chloro-3-methylphenol	4.463	107	3435	911.5050154	ppb		94
41) 2-Methylnaphthalene	4.593	142	9991	973.4222268	ppb		99
42) 1-Methylnaphthalene	4.657	142	10035	1003.1618197	ppb		97
47) Hexachlorocyclopentadiene	4.693	237	1808	901.7104811	ppb		98
48) 2,4,6-Trichlorophenol	4.769	196	2025	896.9514026	ppb		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:03:57 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

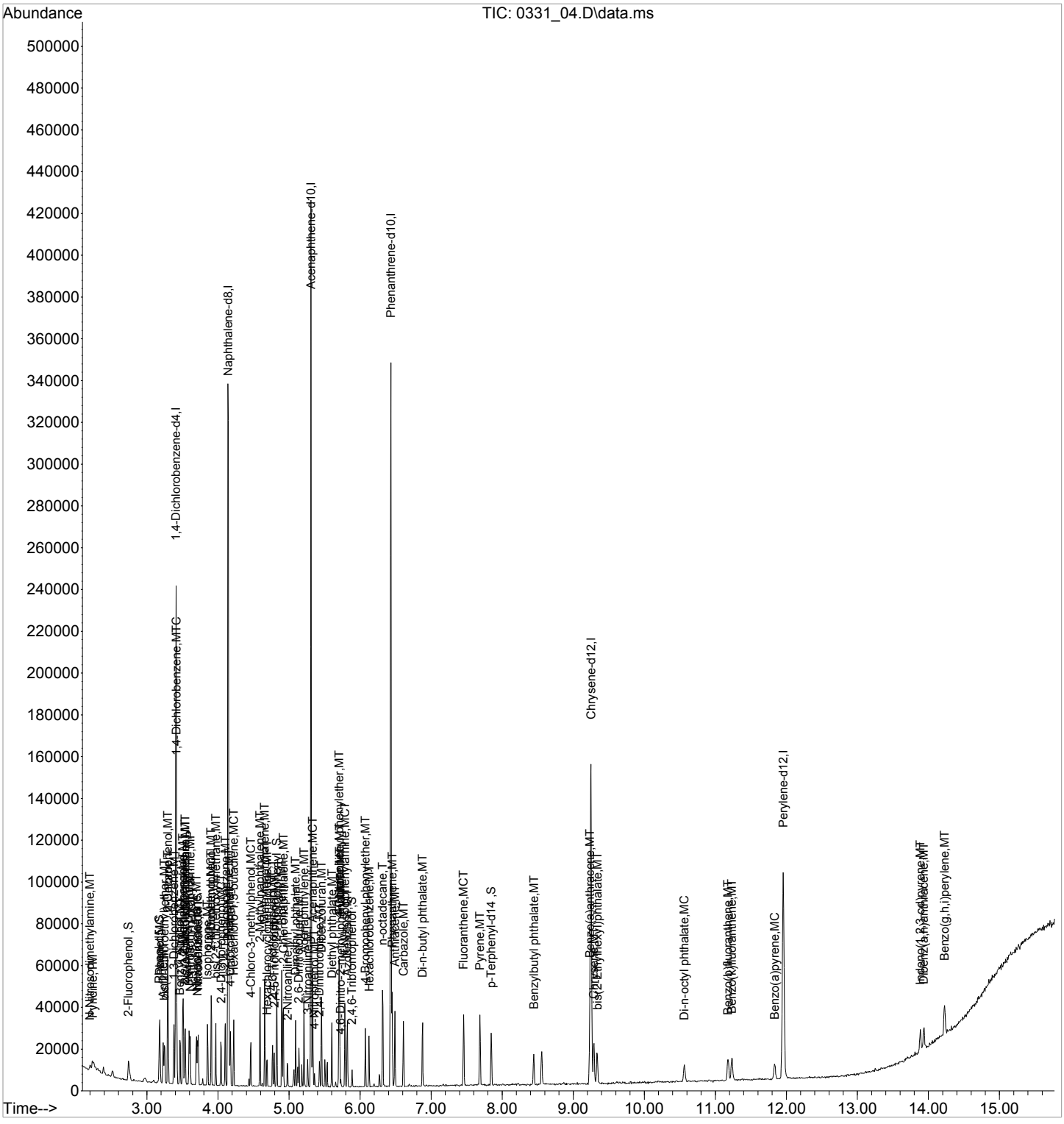
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.793	196	1963	850.5173304	ppb		91
51)	Biphenyl	4.898	154	11839	968.2645048	ppb		98
52)	2-Chloronaphthalene	4.922	162	9292	1011.9321511	ppb		98
53)	2-Nitroaniline	4.981	138	1866	769.8225109	ppb	#	93
54)	Acenaphthylene	5.210	152	13458	962.9526656	ppb		99
55)	Dimethyl phthalate	5.092	163	9503	956.7755123	ppb		93
56)	2,6-Dinitrotoluene	5.140	165	1655	763.6081461	ppb		92
57)	3-Nitroaniline	5.263	138	1426	717.7969135	ppb		98
58)	Acenaphthene	5.334	153	9791	1025.5166899	ppb		99
60)	Dibenzofuran	5.457	168	12817	986.5464047	ppb	#	98
61)	2,4-Dinitrotoluene	5.428	165	1767	681.0093031	ppb	#	73
63)	4-Nitrophenol	5.357	139	902m	644.5700639	ppb		
64)	Fluorene	5.710	166	10290	969.6872468	ppb		98
65)	4-Chlorophenyl-phenyle...	5.704	204	4599	927.0569857	ppb		97
66)	Diethyl phthalate	5.604	149	9914	938.9461138	ppb		98
67)	4-Nitroaniline	5.710	138	1350	1129.6086293	ppb	#	26
68)	Azobenzene	5.822	77	9927	953.6061374	ppb		97
71)	4,6-Dinitro-2-methylph...	5.728	198	471m	535.7640762	ppb		
72)	N-Nitrosodiphenylamine	5.787	169	7540	933.3328472	ppb		98
74)	4-Bromophenyl-phenylether	6.075	248	2477	1001.8199448	ppb		98
75)	Hexachlorobenzene	6.128	284	3015	994.7736888	ppb		95
76)	n-octadecane	6.316	55	1765	890.0022714	ppb	#	72
78)	Phenanthrene	6.451	178	13916	956.6809370	ppb		99
79)	Anthracene	6.492	178	12234	935.1720946	ppb		99
80)	Carbazole	6.610	167	10150	920.4021822	ppb		98
81)	Di-n-butyl phthalate	6.881	149	13780	872.5812197	ppb		99
83)	Fluoranthene	7.457	202	12239	921.2610703	ppb		99
86)	Pyrene	7.686	202	12779	956.9026432	ppb		99
88)	Benzylbutyl phthalate	8.445	149	3894	816.5523448	ppb		98
90)	Benzo(a)anthracene	9.233	228	8944	973.9225740	ppb		98
91)	Chrysene	9.292	228	10158	1003.0718203	ppb		98
92)	bis(2-Ethylhexyl)phtha...	9.339	149	5877	866.1250077	ppb		97
93)	Di-n-octyl phthalate	10.563	149	7493	775.1486260	ppb		98
95)	Benzo(b)fluoranthene	11.174	252	8017	933.1712569	ppb		97
96)	Benzo(k)fluoranthene	11.233	252	7909	891.1685866	ppb		97
97)	Benzo(a)pyrene	11.833	252	5772	843.0478053	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.886	276	5564	868.6523357	ppb		93
99)	Dibenz(a,h)anthracene	13.933	278	6652	939.8770333	ppb		97
100)	Benzo(g,h,i)perylene	14.227	276	7392	967.8372314	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

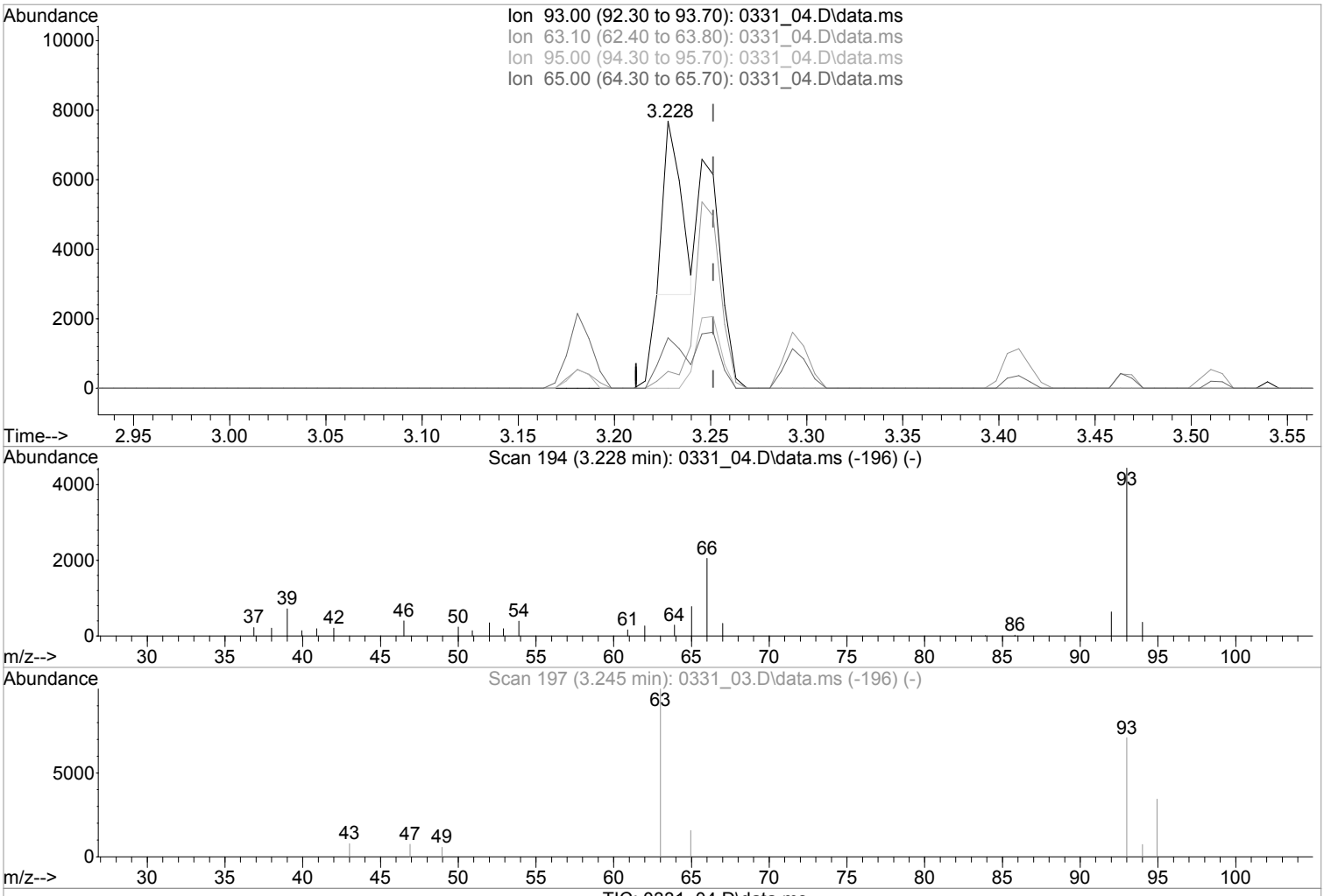
Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:03:57 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.023) 555.9686915 ppb

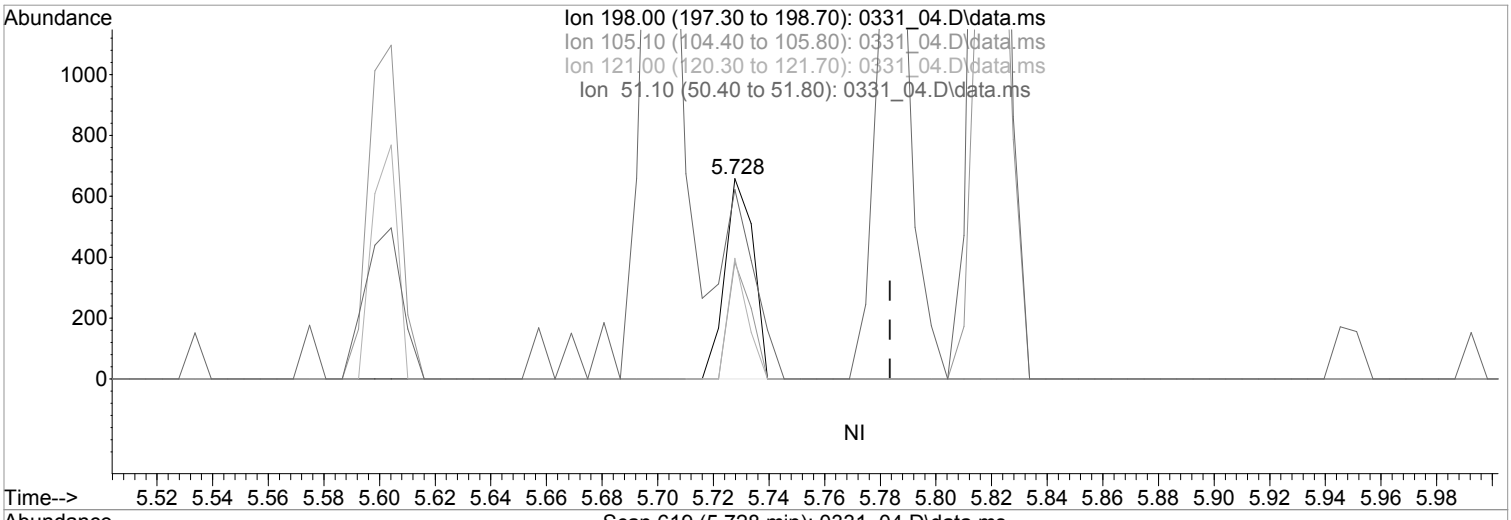
Qvalue = 36

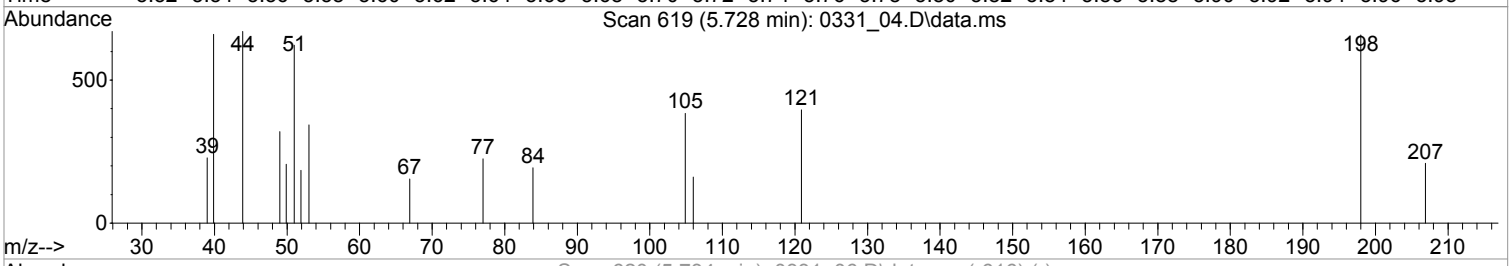
response 3114

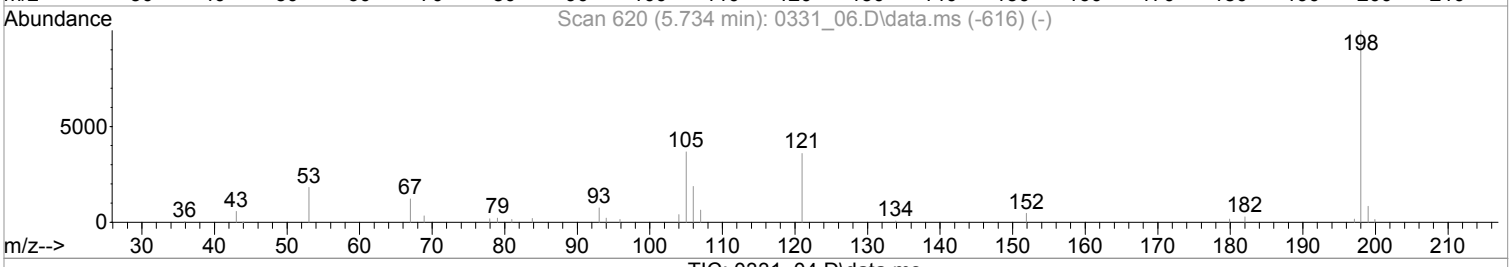
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	5.69#
95.00	31.90	0.00#
65.00	23.10	15.98

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_04.D\data.ms

(71) 4,6-Dinitro-2-methylphenol (MT)

5.728min (-0.006) 535.7640762 ppb m

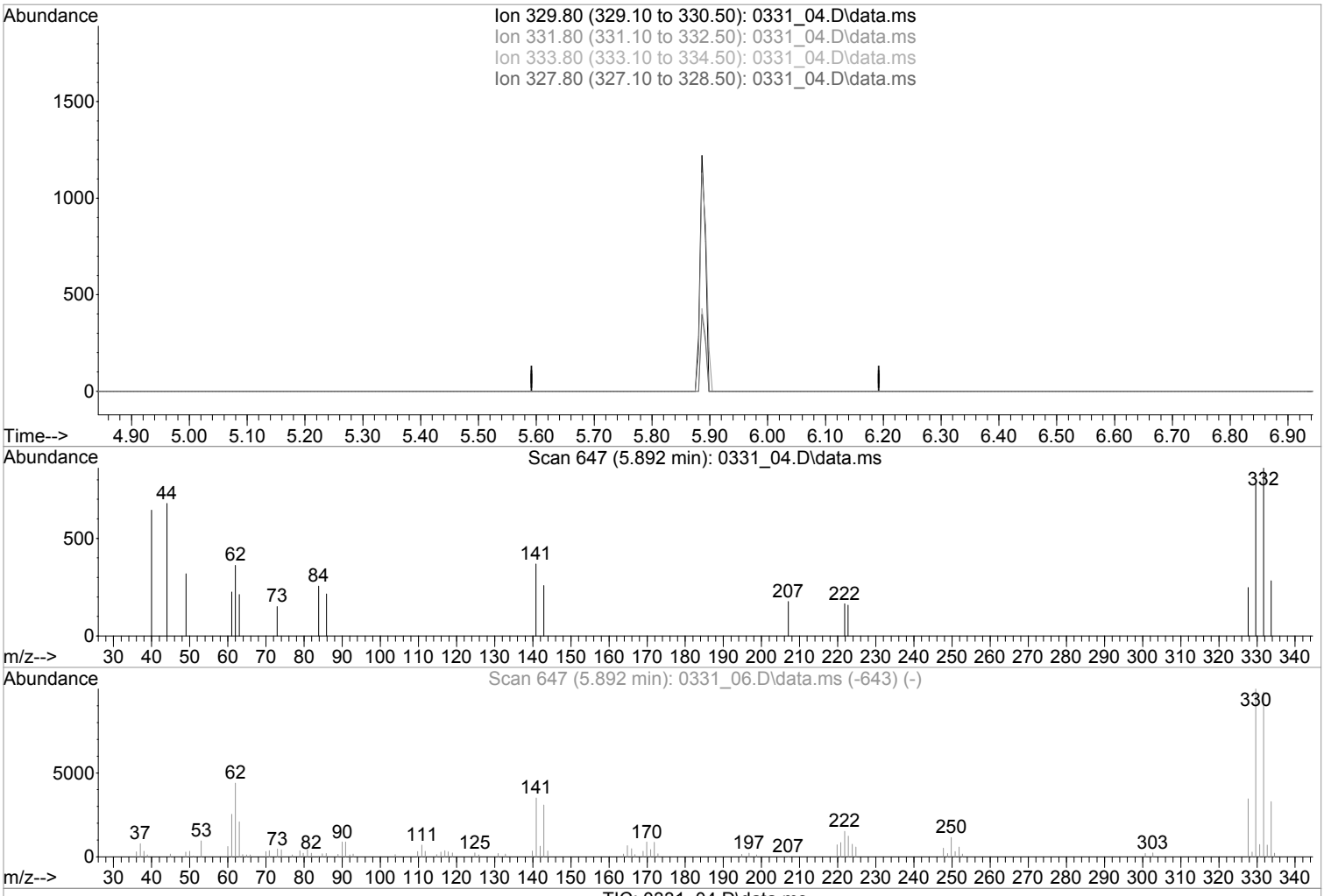
response 471

Ion	Exp%	Act%
198.00	100	100
105.10	38.30	58.36#
121.00	35.90	60.18#
51.10	39.60	94.53#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(73) 2,4,6-Tribromophenol (S)

5.892min (-5.892) 0.0000000 ppb

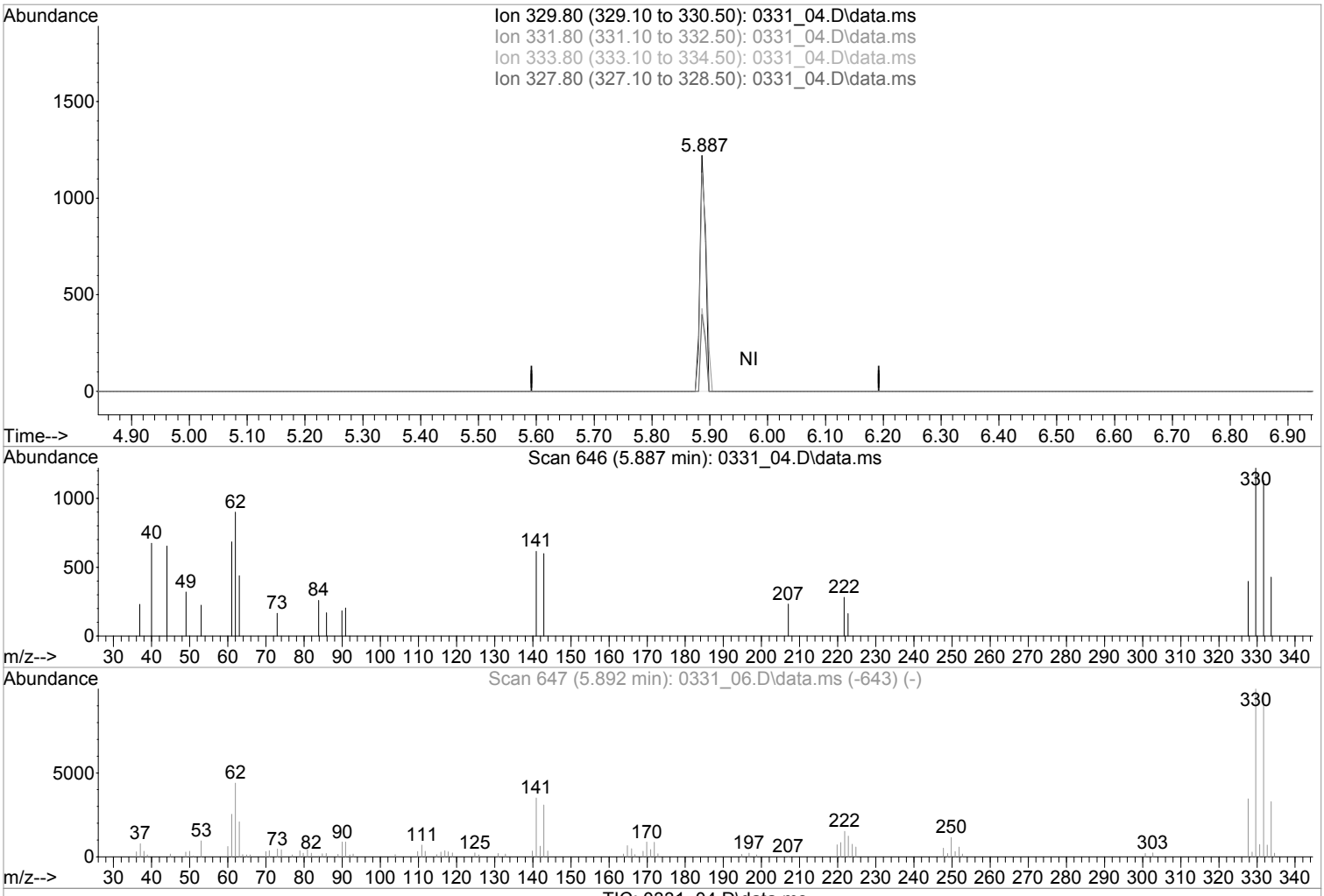
Qvalue = 0

response 0

Ion	Exp%	Act%
329.80	100	0.00
331.80	98.20	0.00#
333.80	33.00	0.00#
327.80	34.60	0.00#

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(73) 2,4,6-Tribromophenol (S)

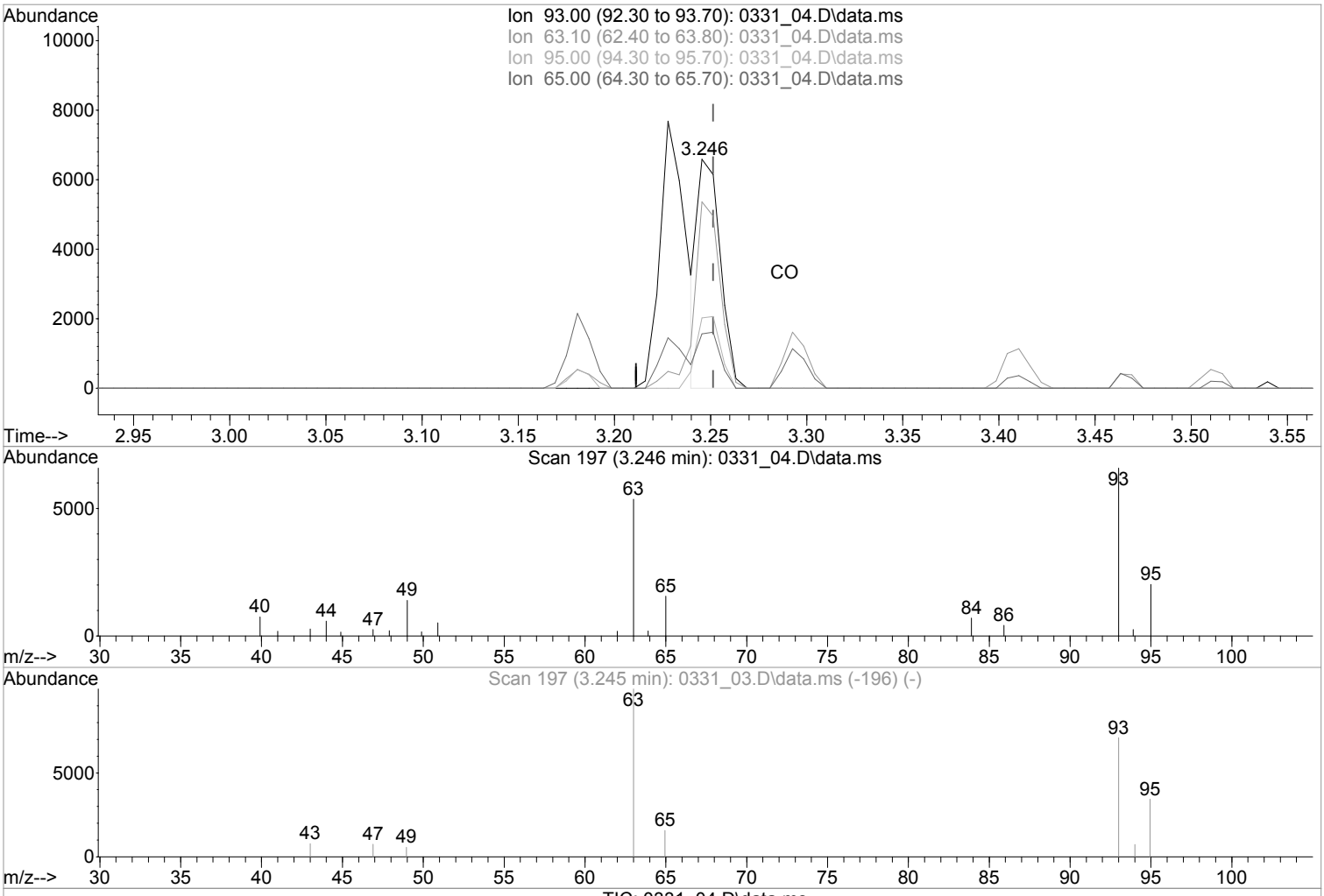
5.887min (-0.006) 762.4927132 ppb m

response 805

Ion	Exp%	Act%
329.80	100	100
331.80	98.20	92.62
333.80	33.00	35.08
327.80	34.60	32.62

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

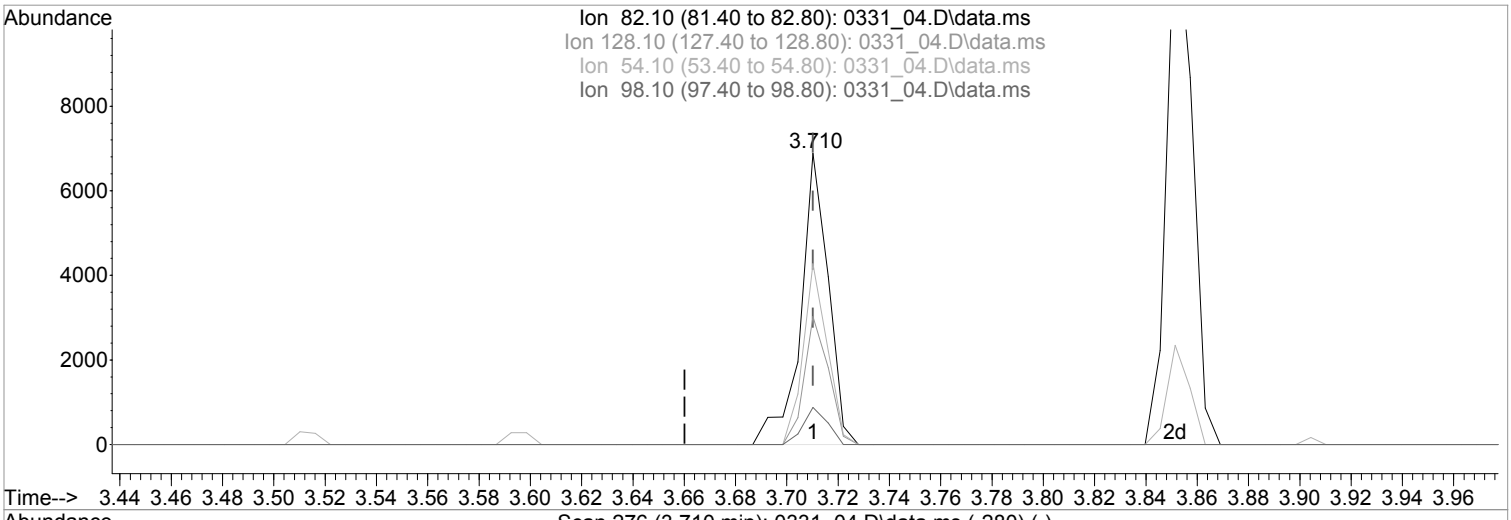
3.246min (-0.006) 969.2851721 ppb m

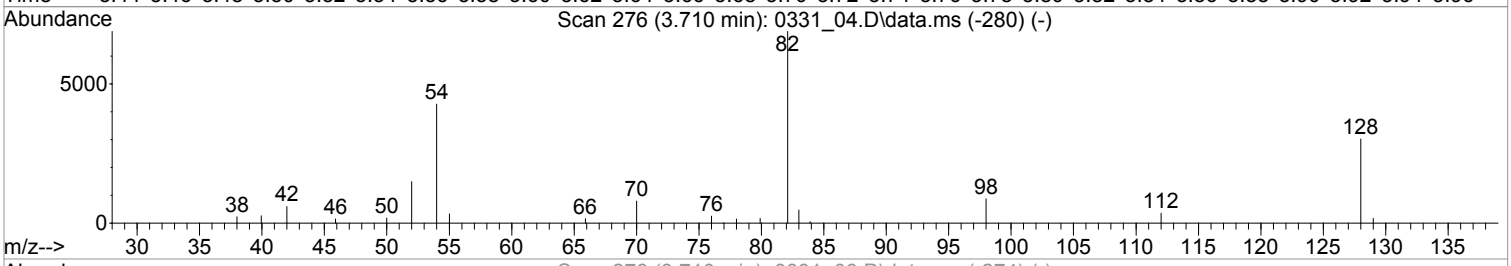
response 5429

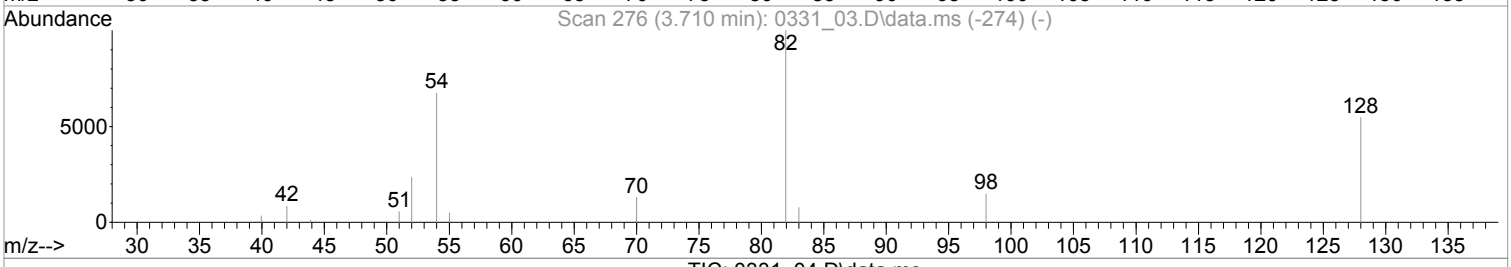
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	81.46
95.00	31.90	30.67
65.00	23.10	23.69

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 1046.2030654 ppb

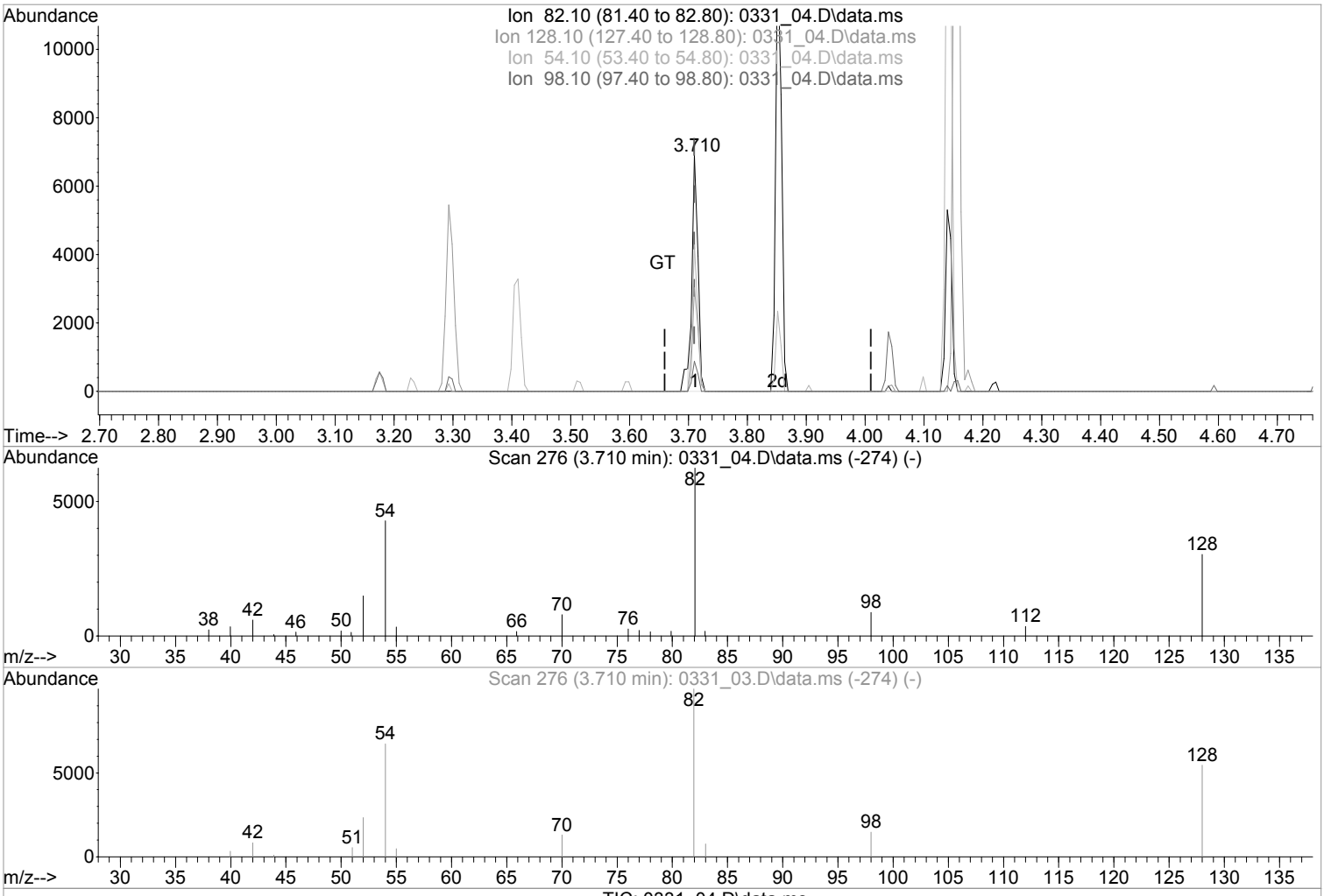
Qvalue = 97

response 5125

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	43.96
54.10	60.00	62.09
98.10	11.40	12.73

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 952.9123725 ppb m

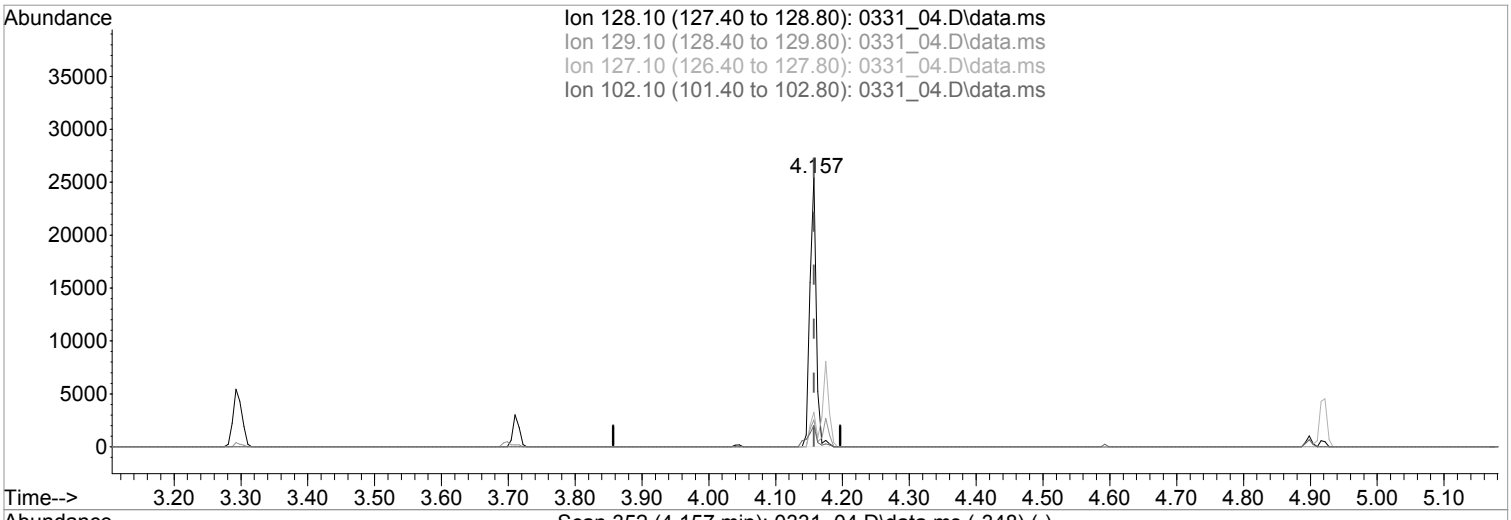
response 4668

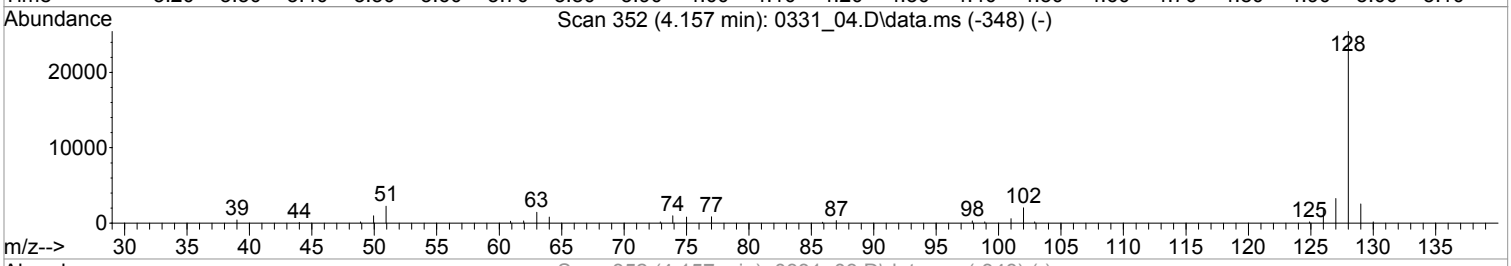
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	43.96
54.10	60.00	62.09
98.10	11.40	12.73

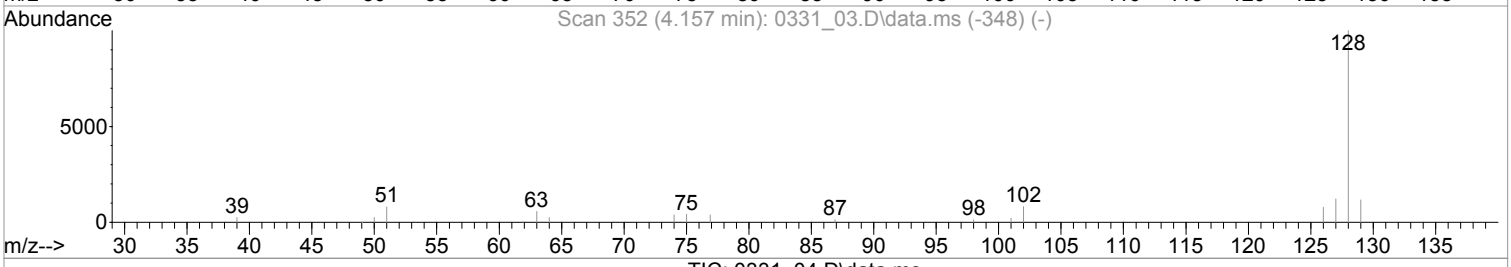
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_04.D\data.ms

(34) Naphthalene (MT)

4.157min (+0.000) 1004.1869471 ppb

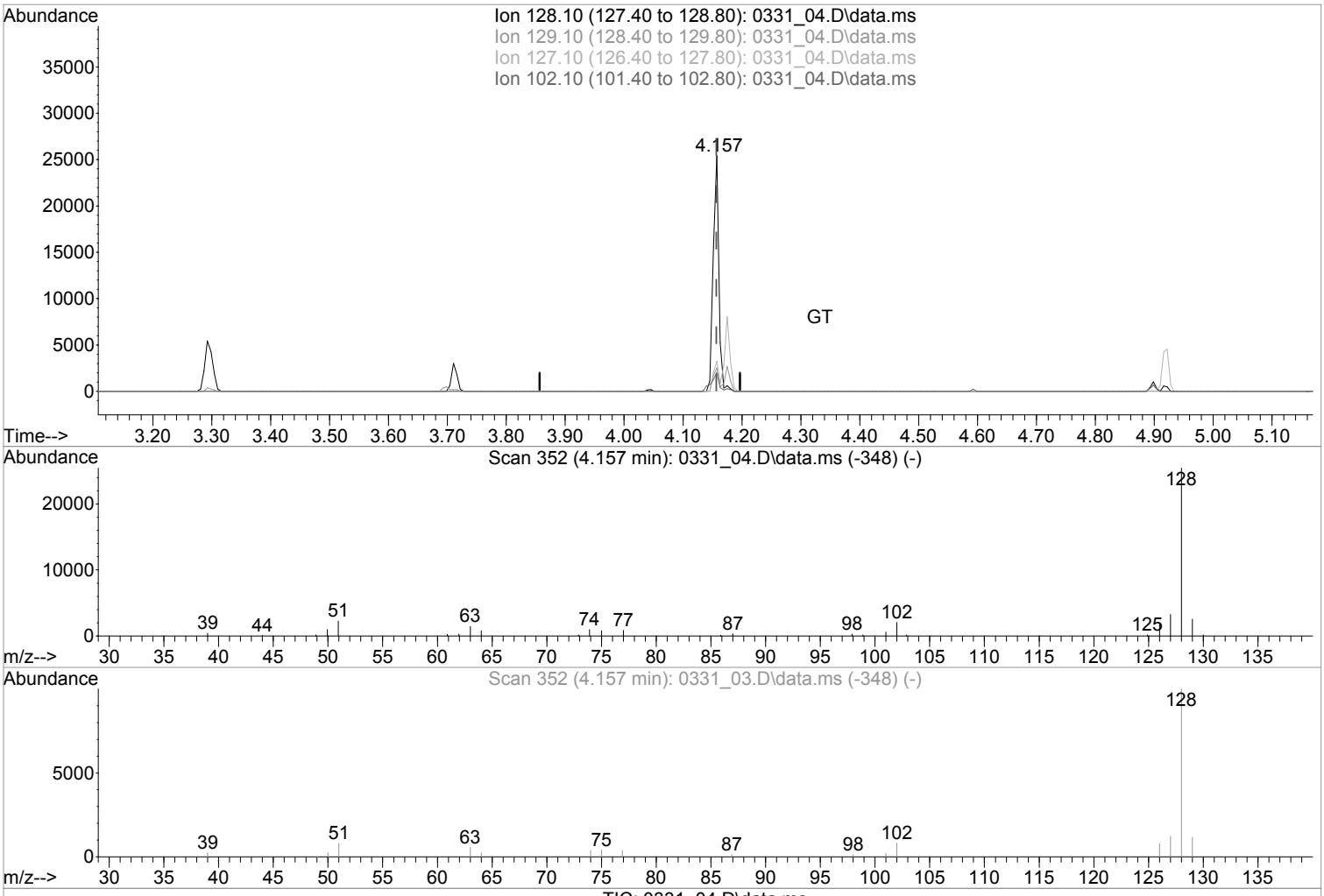
Qvalue = 99

response 17128

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	9.95
127.10	12.80	12.89
102.10	8.30	7.98

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(34) Naphthalene (MT)

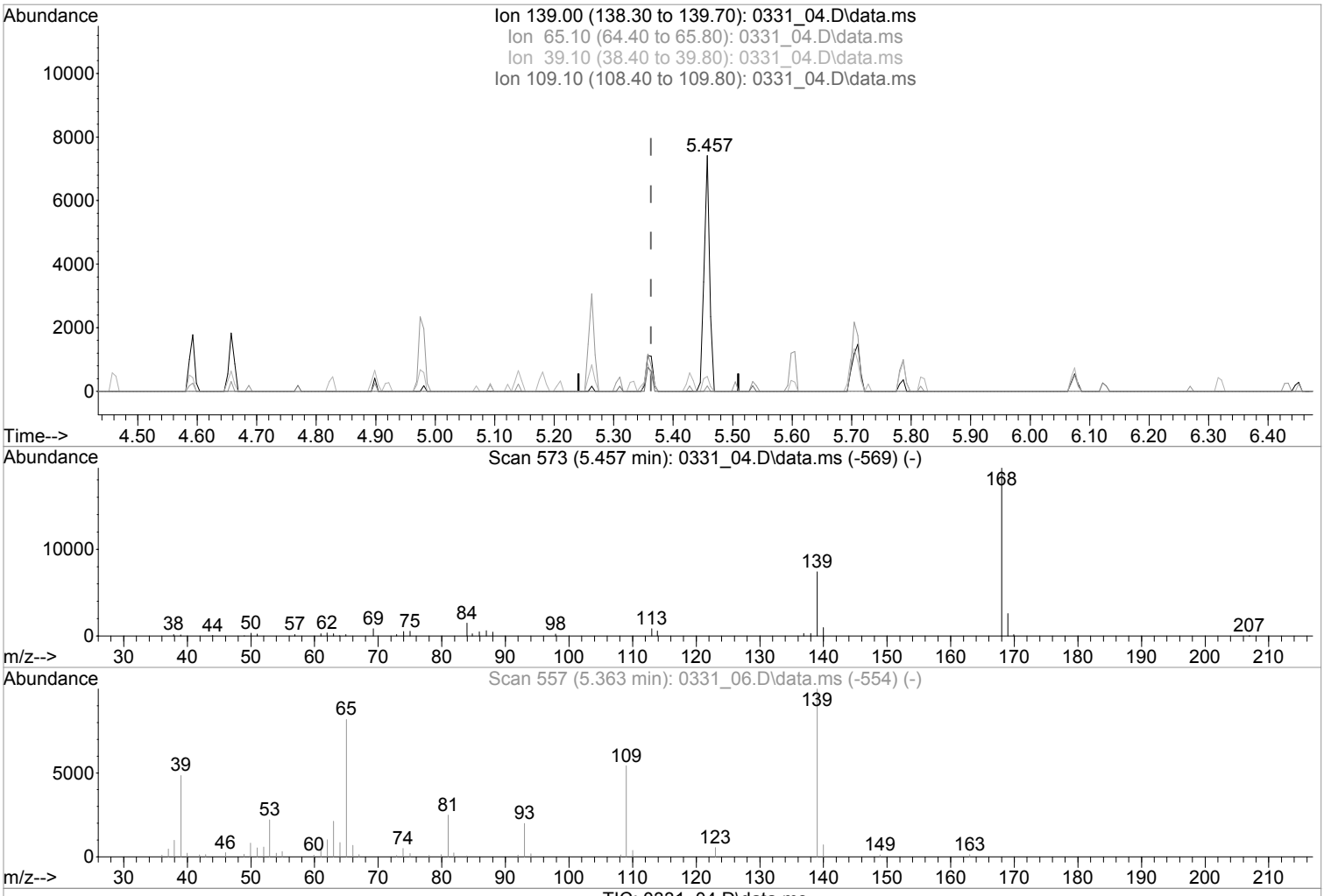
4.157min (+0.000) 985.5431213 ppb m

response 16810

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	9.95
127.10	12.80	12.89
102.10	8.30	7.98

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_04.D\data.ms

(63) 4-Nitrophenol (MPT)

5.457min (+0.094) 3396.4983522 ppb

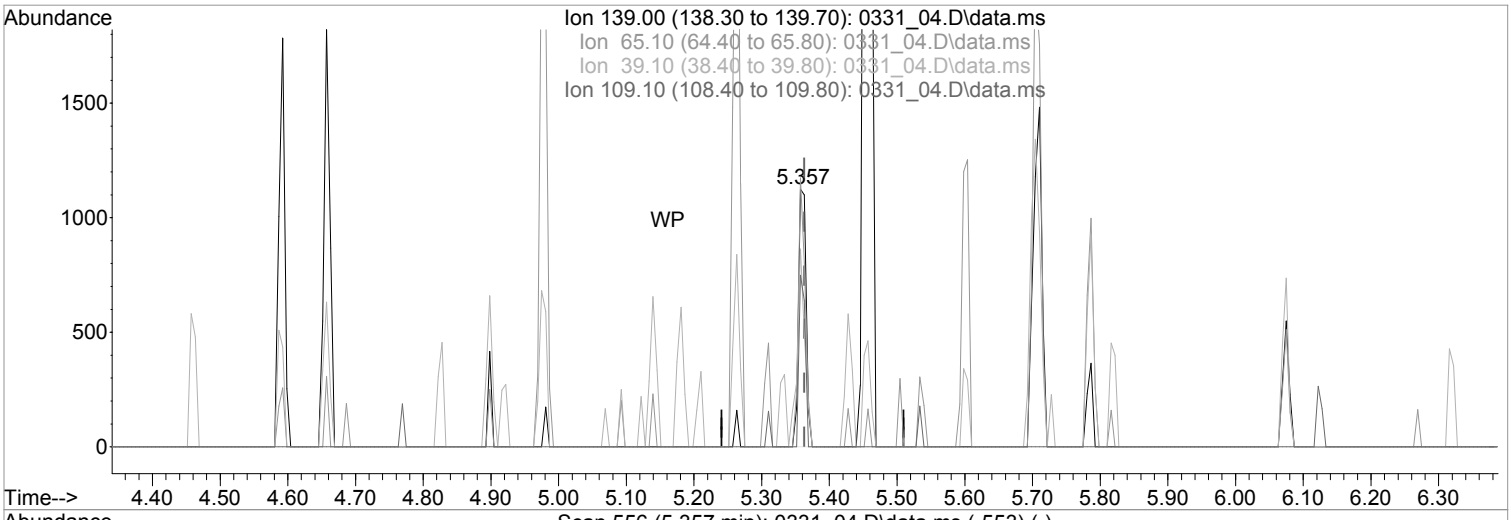
Qvalue = 22

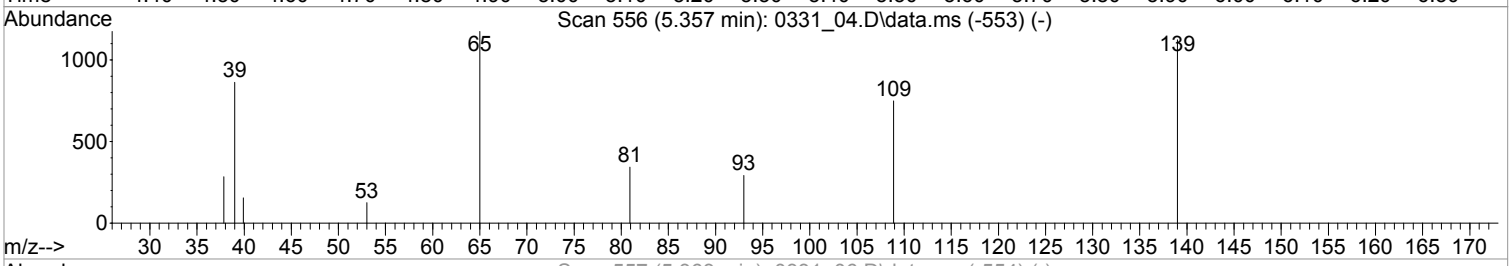
response 4753

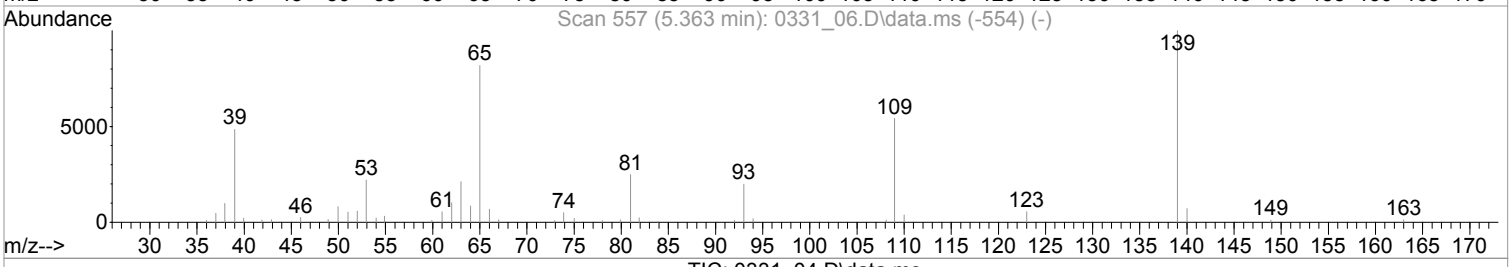
Ion	Exp%	Act%
139.00	100	100
65.10	82.10	2.23#
39.10	50.10	6.25#
109.10	54.20	0.00#

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_04.D\data.ms

(63) 4-Nitrophenol (MPT)

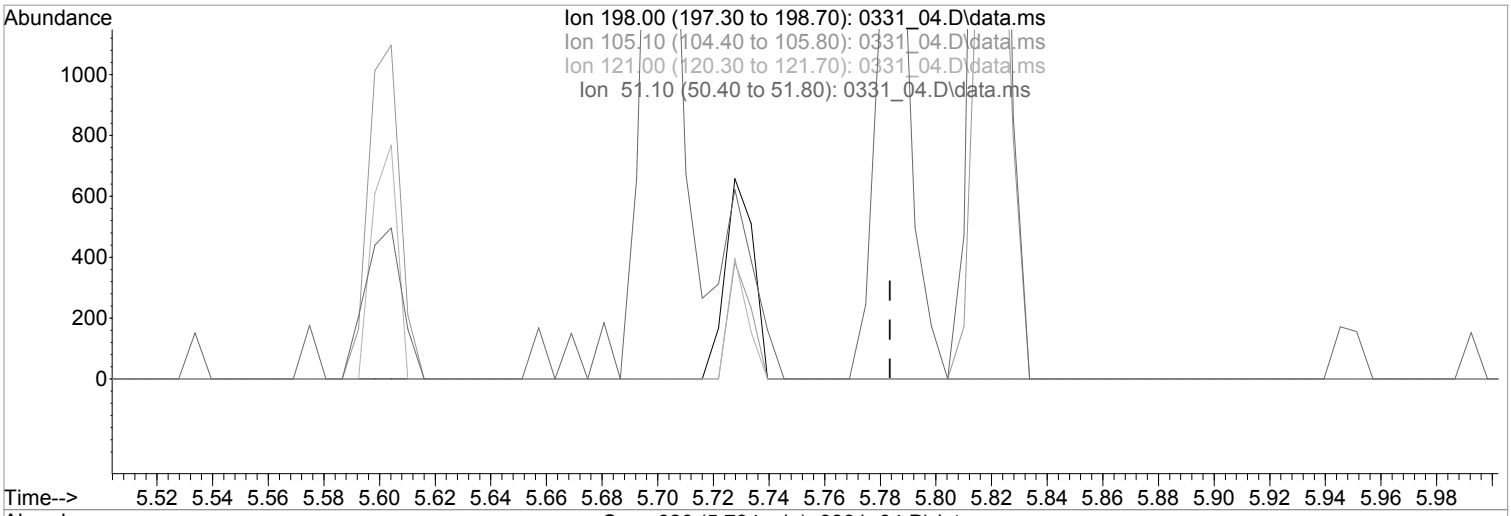
5.357min (-0.006) 644.5700639 ppb m

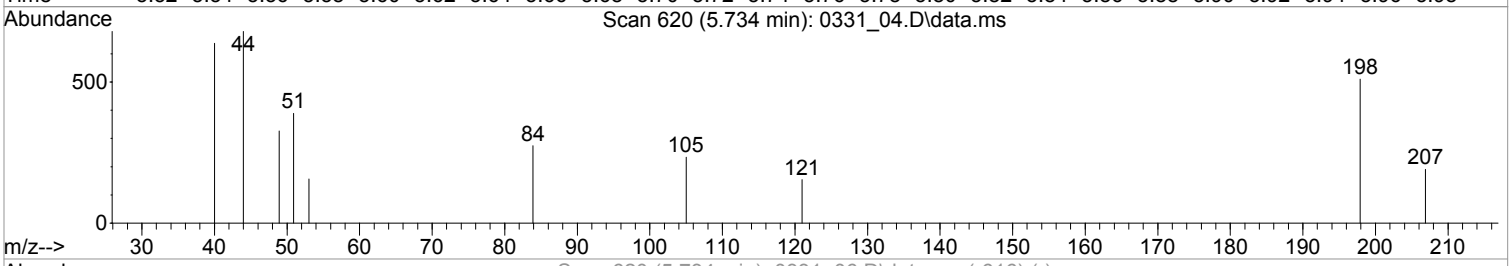
response 902

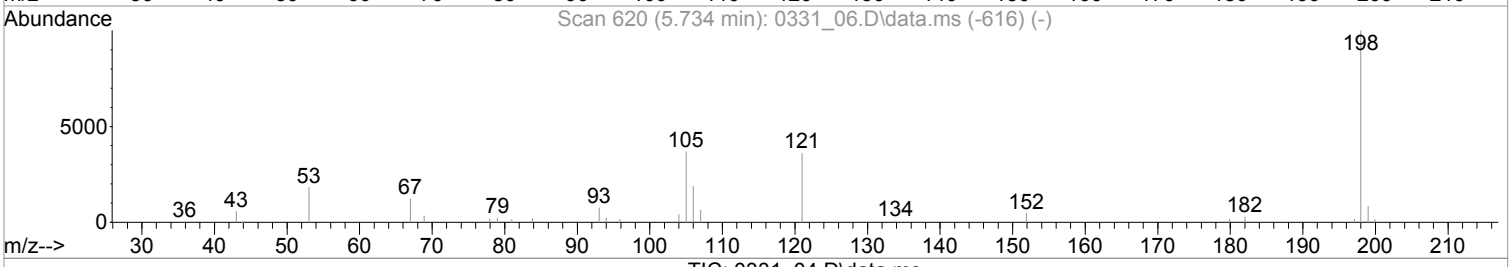
Ion	Exp%	Act%
139.00	100	100
65.10	82.10	104.45#
39.10	50.10	76.78#
109.10	54.20	66.64

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_04.D
Acq On : 31 Mar 2022 5:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:02:19 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:02:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_04.D\data.ms

(71) 4,6-Dinitro-2-methylphenol (MT)

5.734min (-5.734) 0.0000000 ppb

Qvalue = 0

response 0

Ion	Exp%	Act%
198.00	100	0.00
105.10	38.30	0.00#
121.00	35.90	0.00#
51.10	39.60	0.00#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:56 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	32931	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.140	136	134192	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	68434	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.434	188	110035	8000.0000000	ppb	0.00
84) Chrysene-d12	9.251	240	75687	8000.0000000	ppb	0.00
94) Perylene-d12	11.957	264	68115	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.740	112	20022	3891.5864703	ppb	0.00
Spiked Amount 20000.000			Recovery = 19.46%			
7) Phenol-d5	3.175	99	23979	3964.4247535	ppb	0.00
Spiked Amount 20000.000			Recovery = 19.82%			
24) Nitrobenzene-d5	3.710	82	18889m	3716.0923649	ppb	0.00
Spiked Amount 10000.000			Recovery = 37.16%			
50) 2-Fluorobiphenyl	4.828	172	43311	3761.7107736	ppb	0.00
Spiked Amount 10000.000			Recovery = 37.62%			
73) 2,4,6-Tribromophenol	5.887	330	4029	4030.7044309	ppb	0.00
Spiked Amount 20000.000			Recovery = 20.15%			
87) p-Terphenyl-d14	7.845	244	41873	3888.8628771	ppb	0.00
Spiked Amount 10000.000			Recovery = 38.89%			
Target Compounds						Qvalue
2) Pyridine	2.216	79	21534	3938.4403708	ppb	94
3) N-Nitrosodimethylamine	2.199	42	11264	3472.0697452	ppb	95
5) Aniline	3.228	66	11366	4105.7800811	ppb	98
6) bis(2-Chloroethyl)ether	3.246	93	21863m	3862.9262686	ppb	
8) Phenol	3.181	94	25852	4025.6057139	ppb	98
10) 2-Chlorophenol	3.293	128	21155	4004.6431903	ppb	98
11) n-Decane	3.293	41	14144	3818.9599168	ppb #	99
12) 1,3-Dichlorobenzene	3.381	146	25164	3907.4447803	ppb	98
13) 1,4-Dichlorobenzene	3.416	146	24933	3887.4438033	ppb	94
14) Benzyl Alcohol	3.463	79	14813	3865.4913504	ppb	98
15) 1,2-Dichlorobenzene	3.504	146	23998	3815.1262164	ppb	98
16) bis(2-Chloroisopropyl)...	3.540	121	8233	3868.6994504	ppb	96
17) 2,2-oxybis(1-chloropro...	3.540	121	8233	3868.6994504	ppb	96
18) 2-Methylphenol	3.510	108	19393	4098.2322025	ppb	93
19) Hexachloroethane	3.699	117	10345	3916.9383750	ppb	97
20) N-Nitrosodi-n-propylamine	3.610	70	13250	3986.8930302	ppb	99
21) 3&4-Methyl phenol	3.593	107	20590	3899.2085753	ppb	99
25) Nitrobenzene	3.722	77	19872	3920.2115447	ppb	99
26) Isophorone	3.851	82	37595	3862.4180344	ppb	99
27) 2-Nitrophenol	3.904	139	8158	3765.4491378	ppb	97
28) 2,4-Dimethylphenol	3.904	107	19338	3914.0923671	ppb	99
29) bis(2-Chlorethoxy)methane	3.969	93	26704	3881.1098229	ppb	99
30) 2,4-Dichlorophenol	4.046	162	14915	3922.8669546	ppb	97
32) 1,2,4-Trichlorobenzene	4.104	180	18671	3739.3208108	ppb	99
34) Naphthalene	4.157	128	66762	3730.9538948	ppb	99
35) 4-Chloroaniline	4.175	65	6627	3995.5309124	ppb	99
36) Hexachloro-1,3-butadiene	4.222	225	10146	3792.9384009	ppb	97
40) 4-Chloro-3-methylphenol	4.463	107	14789	3835.8318603	ppb	97
41) 2-Methylnaphthalene	4.593	142	41264	3847.8046515	ppb	99
42) 1-Methylnaphthalene	4.657	142	40069	3795.6779953	ppb	99
47) Hexachlorocyclopentadiene	4.693	237	8420	4086.1645114	ppb	98
48) 2,4,6-Trichlorophenol	4.769	196	9486	4095.1983274	ppb	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:56 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

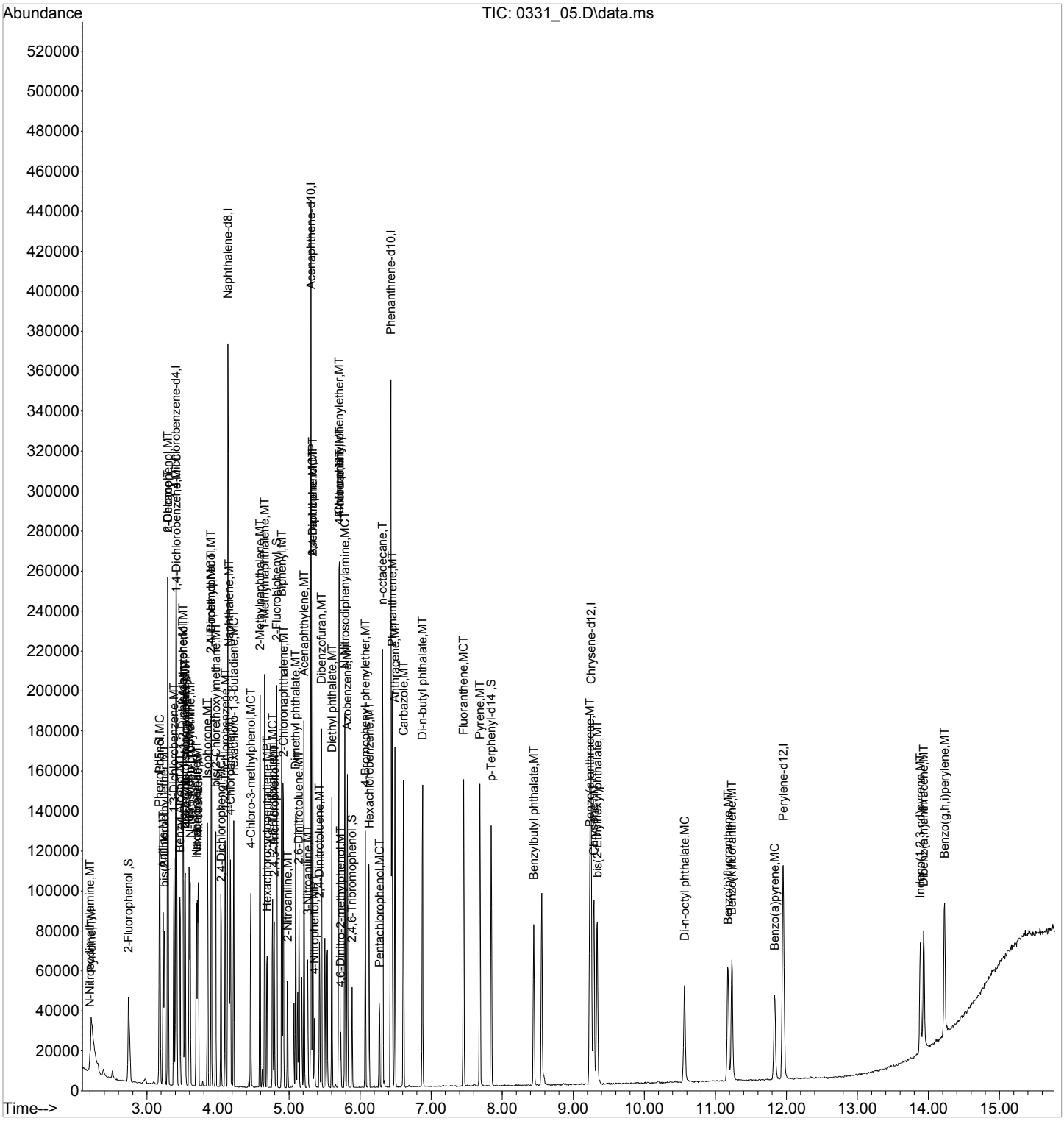
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.793	196	9443	4052.6426870 ppb		98
51)	Biphenyl	4.898	154	48637	3783.8360827 ppb		99
52)	2-Chloronaphthalene	4.922	162	38216	3901.4979240 ppb		99
53)	2-Nitroaniline	4.981	138	8468	3715.5917121 ppb		98
54)	Acenaphthylene	5.210	152	57104	3893.6362427 ppb		99
55)	Dimethyl phthalate	5.093	163	41358	3976.3045598 ppb		94
56)	2,6-Dinitrotoluene	5.140	165	8241	4058.3383916 ppb		93
57)	3-Nitroaniline	5.263	138	7203	3973.0272299 ppb		97
58)	Acenaphthene	5.334	153	39005	3812.6378437 ppb		99
59)	2,4-Dinitrophenol	5.334	184	1680	2974.9807456 ppb	#	1
60)	Dibenzofuran	5.457	168	52497	3820.1946803 ppb		99
61)	2,4-Dinitrotoluene	5.428	165	9165	3955.2754297 ppb	#	77
63)	4-Nitrophenol	5.357	139	4753	3887.5582689 ppb	#	79
64)	Fluorene	5.710	166	43283	3878.0382895 ppb		97
65)	4-Chlorophenyl-phenyle...	5.704	204	20472	3980.7165957 ppb		94
66)	Diethyl phthalate	5.604	149	43240	3934.3678190 ppb		99
67)	4-Nitroaniline	5.710	138	6586	4870.9541902 ppb		96
68)	Azobenzene	5.822	77	44023	4042.6599452 ppb		99
71)	4,6-Dinitro-2-methylph...	5.728	198	2707	3732.3952874 ppb	#	74
72)	N-Nitrosodiphenylamine	5.787	169	33745	3976.2689220 ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	10458	3934.5051940 ppb		94
75)	Hexachlorobenzene	6.128	284	12174	3745.1457104 ppb		98
76)	n-octadecane	6.316	55	8008	3901.5281337 ppb	#	96
77)	Pentachlorophenol	6.275	266	4167	3264.5837369 ppb		98
78)	Phenanthrene	6.451	178	58086	3771.2225902 ppb		99
79)	Anthracene	6.492	178	54209	3942.0610534 ppb		99
80)	Carbazole	6.610	167	46540	4035.1322148 ppb		99
81)	Di-n-butyl phthalate	6.881	149	66469	4091.3433685 ppb		100
83)	Fluoranthene	7.457	202	54696	3935.3597347 ppb		100
86)	Pyrene	7.687	202	57163	3814.3474206 ppb		99
88)	Benzylbutyl phthalate	8.445	149	21276	4173.7997939 ppb		99
90)	Benzo(a)anthracene	9.233	228	40230	3881.3641678 ppb		98
91)	Chrysene	9.292	228	44552	3860.0833542 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.339	149	31447	4260.6941032 ppb		98
93)	Di-n-octyl phthalate	10.569	149	41318	4058.3889660 ppb		98
95)	Benzo(b)fluoranthene	11.180	252	38068	4038.8782196 ppb		98
96)	Benzo(k)fluoranthene	11.233	252	40040	4172.0316530 ppb		99
97)	Benzo(a)pyrene	11.833	252	29980	4117.7691399 ppb		98
98)	Indeno(1,2,3-cd)pyrene	13.886	276	27978	4070.8609426 ppb		97
99)	Dibenz(a,h)anthracene	13.933	278	32250	4143.8879049 ppb		98
100)	Benzo(g,h,i)perylene	14.227	276	34820	4106.9338075 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

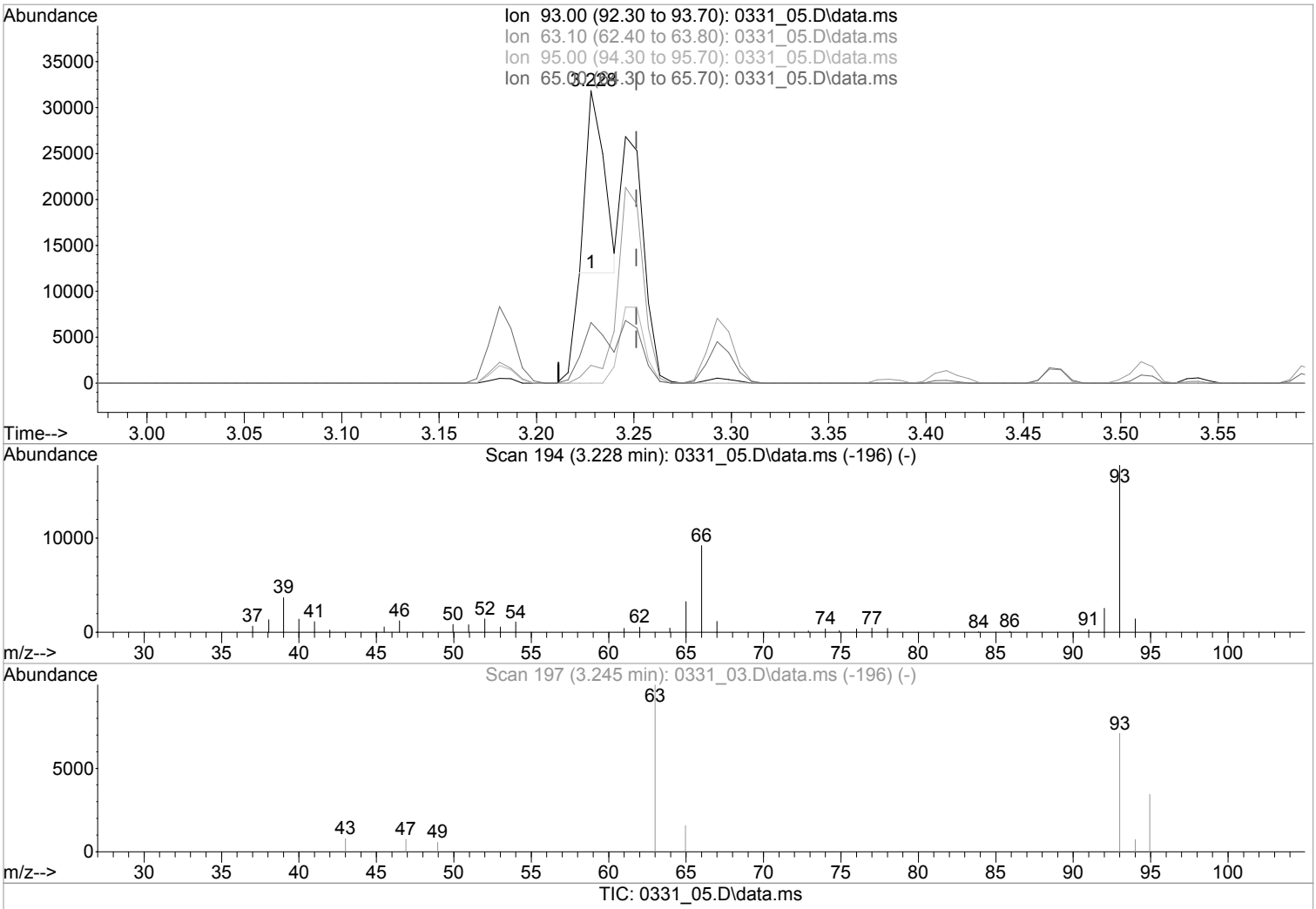
Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:56 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:18 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.023) 2176.4408259 ppb

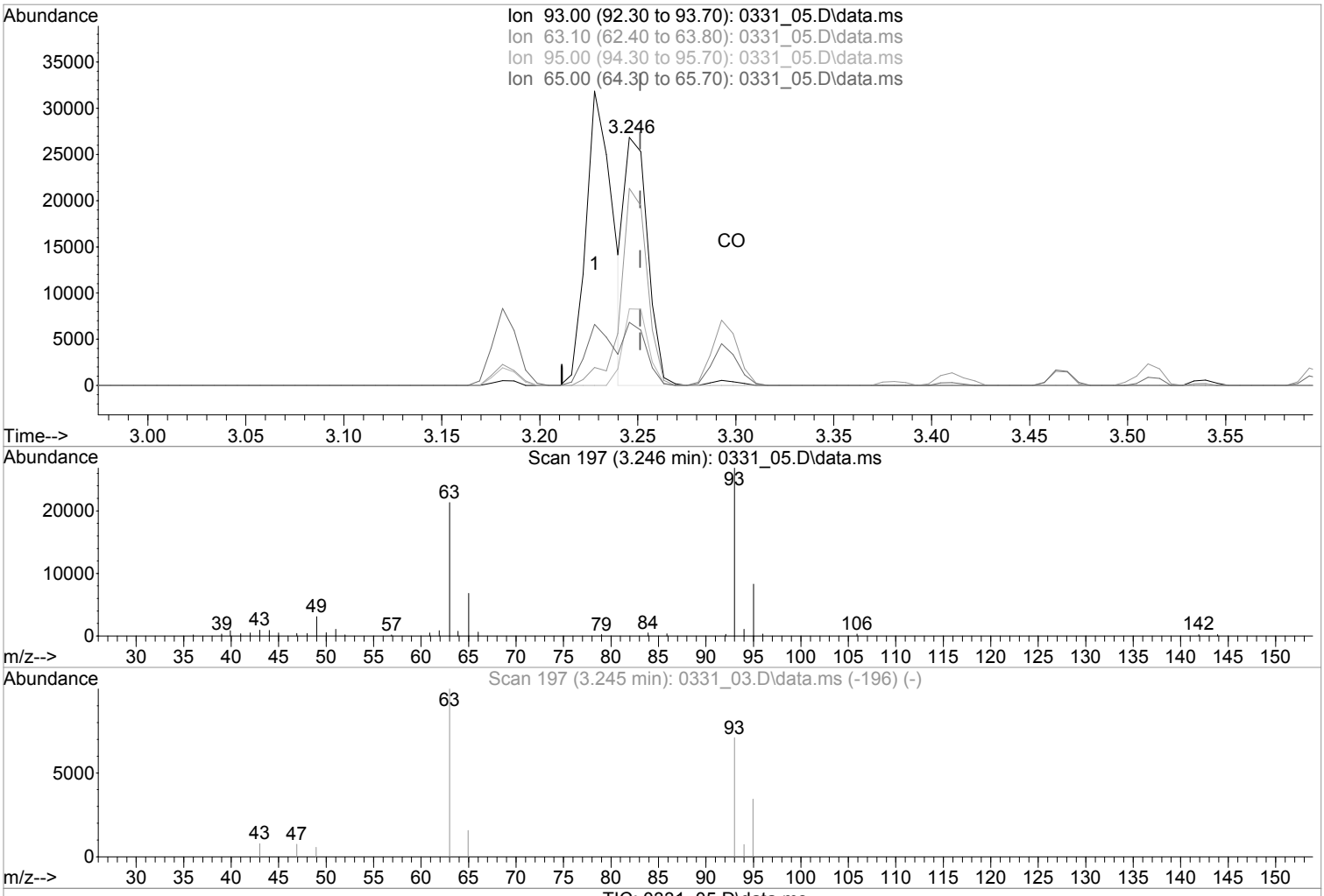
Qvalue = 37

response 12318

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	6.47#
95.00	31.90	0.00#
65.00	23.10	18.86

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:18 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

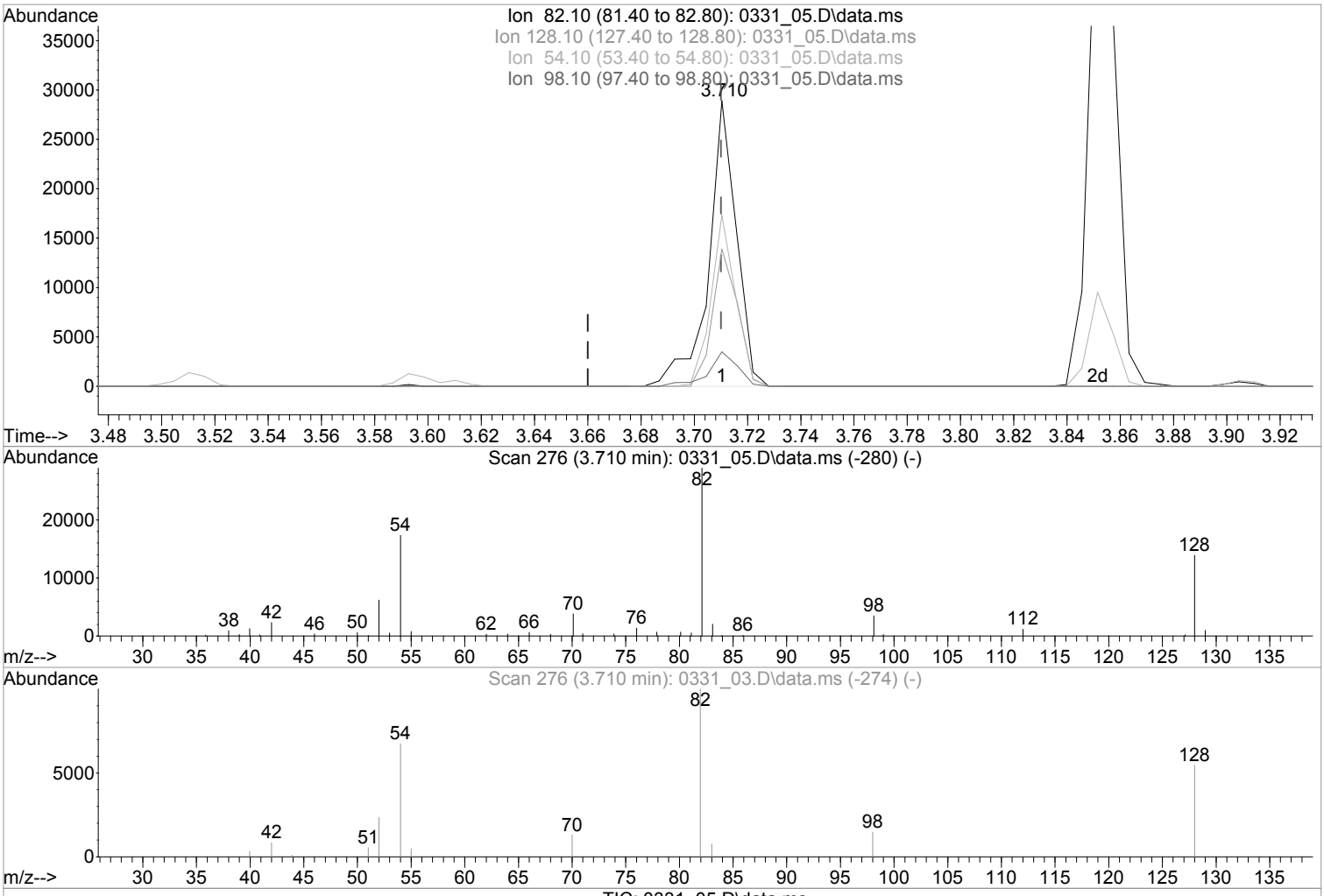
3.246min (-0.006) 3862.9262686 ppb m

response 21863

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	79.43
95.00	31.90	30.91
65.00	23.10	25.46

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:18 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 4137.4947602 ppb

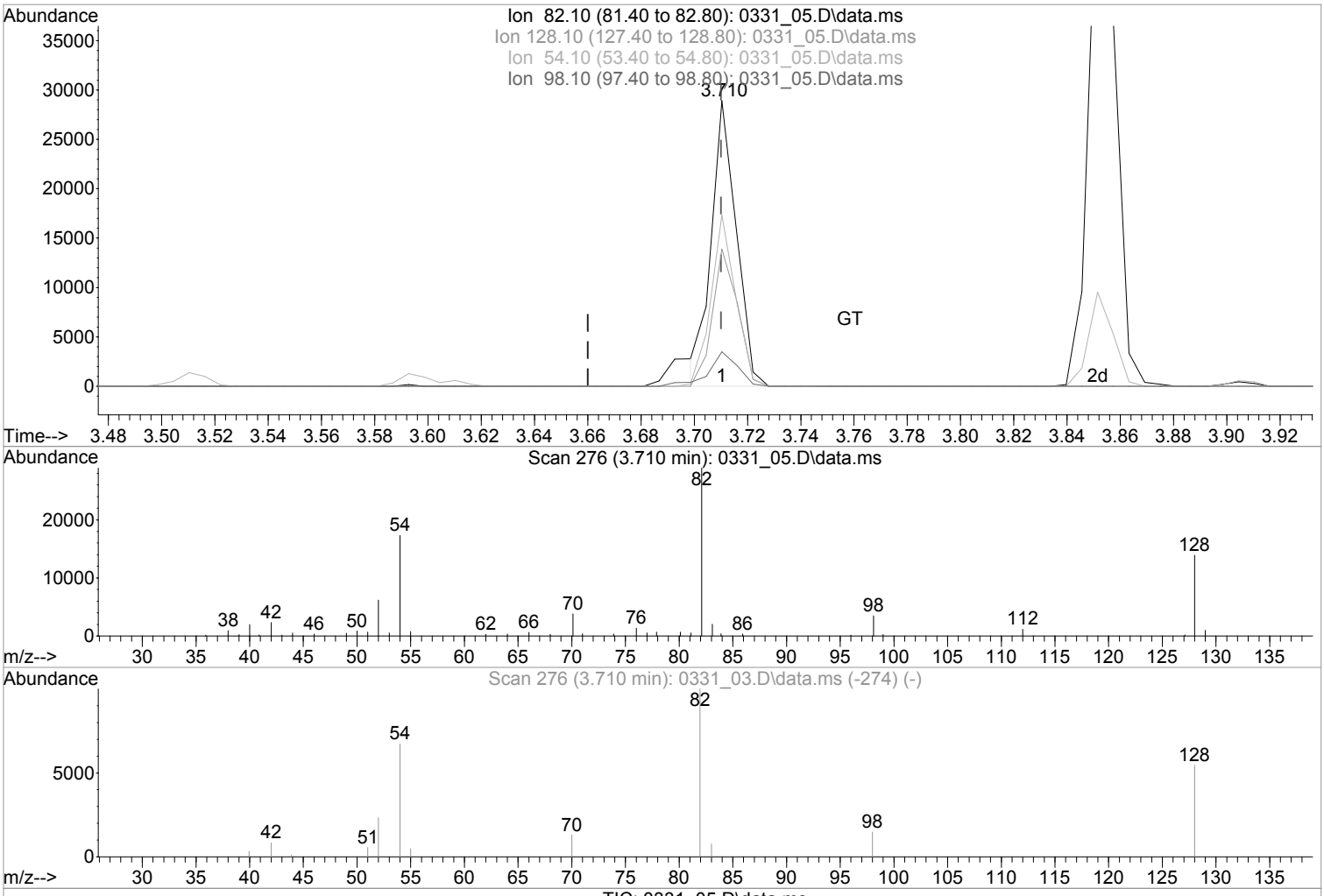
Qvalue = 99

response 21031

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	48.14
54.10	60.00	60.01
98.10	11.40	12.09

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_05.D
Acq On : 31 Mar 2022 6:07 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 16:04:18 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:04:13 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 3716.0923649 ppb m

response 18889

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	48.14
54.10	60.00	60.01
98.10	11.40	12.09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:57:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	31797	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.145	136	129715	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	67221	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.434	188	109300	8000.0000000	ppb		0.00
84) Chrysene-d12	9.251	240	79132	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	68335	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	50347	10000.0000000	ppb		0.00
Spiked Amount 20000.000			Recovery = 50.00%				
7) Phenol-d5	3.175	99	59979	10000.0000000	ppb		0.00
Spiked Amount 20000.000			Recovery = 50.00%				
24) Nitrobenzene-d5	3.710	82	48718m	10000.0000000	ppb		0.00
Spiked Amount 10000.000			Recovery = 100.00%				
50) 2-Fluorobiphenyl	4.828	172	108502	10000.0000000	ppb		0.00
Spiked Amount 10000.000			Recovery = 100.00%				
73) 2,4,6-Tribromophenol	5.892	330	11267	10000.0000000	ppb		0.00
Spiked Amount 20000.000			Recovery = 50.00%				
87) p-Terphenyl-d14	7.845	244	110355	10000.0000000	ppb		0.00
Spiked Amount 10000.000			Recovery = 100.00%				
Target Compounds							Qvalue
2) Pyridine	2.216	79	54038	10000.0000000	ppb		100
3) N-Nitrosodimethylamine	2.199	42	26952	10000.0000000	ppb		100
5) Aniline	3.228	66	28243	10000.0000000	ppb		100
6) bis(2-Chloroethyl)ether	3.251	93	54390m	10000.0000000	ppb		
8) Phenol	3.181	94	63496	10000.0000000	ppb		100
10) 2-Chlorophenol	3.293	128	53448	10000.0000000	ppb		100
11) n-Decane	3.293	41	33867	10000.0000000	ppb	#	100
12) 1,3-Dichlorobenzene	3.381	146	60750	10000.0000000	ppb		100
13) 1,4-Dichlorobenzene	3.422	146	60988	10000.0000000	ppb		100
14) Benzyl Alcohol	3.469	79	38840	10000.0000000	ppb		100
15) 1,2-Dichlorobenzene	3.504	146	58396	10000.0000000	ppb		100
16) bis(2-Chloroisopropyl)...	3.540	121	20161	10000.0000000	ppb		100
17) 2,2-oxybis(1-chloropro...	3.540	121	20161	10000.0000000	ppb		100
18) 2-Methylphenol	3.516	108	49043	10000.0000000	ppb		100
19) Hexachloroethane	3.698	117	25235	10000.0000000	ppb		100
20) N-Nitrosodi-n-propylamine	3.610	70	33756	10000.0000000	ppb		100
21) 3&4-Methyl phenol	3.593	107	53628	10000.0000000	ppb		100
25) Nitrobenzene	3.722	77	51043	10000.0000000	ppb		100
26) Isophorone	3.851	82	98776	10000.0000000	ppb		100
27) 2-Nitrophenol	3.904	139	23329	10000.0000000	ppb		100
28) 2,4-Dimethylphenol	3.904	107	50267	10000.0000000	ppb		100
29) bis(2-Chlorethoxy)methane	3.969	93	66470	10000.0000000	ppb		100
30) 2,4-Dichlorophenol	4.045	162	39336	10000.0000000	ppb		100
32) 1,2,4-Trichlorobenzene	4.104	180	45914	10000.0000000	ppb		100
34) Naphthalene	4.157	128	164019	10000.0000000	ppb		100
35) 4-Chloroaniline	4.175	65	16770	10000.0000000	ppb		100
36) Hexachloro-1,3-butadiene	4.222	225	24753	10000.0000000	ppb		100
40) 4-Chloro-3-methylphenol	4.463	107	39997	10000.0000000	ppb		100
41) 2-Methylnaphthalene	4.593	142	102616	10000.0000000	ppb		100
42) 1-Methylnaphthalene	4.657	142	98949	10000.0000000	ppb		100
47) Hexachlorocyclopentadiene	4.692	237	21949	10000.0000000	ppb		100
48) 2,4,6-Trichlorophenol	4.769	196	25822	10000.0000000	ppb		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:57:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

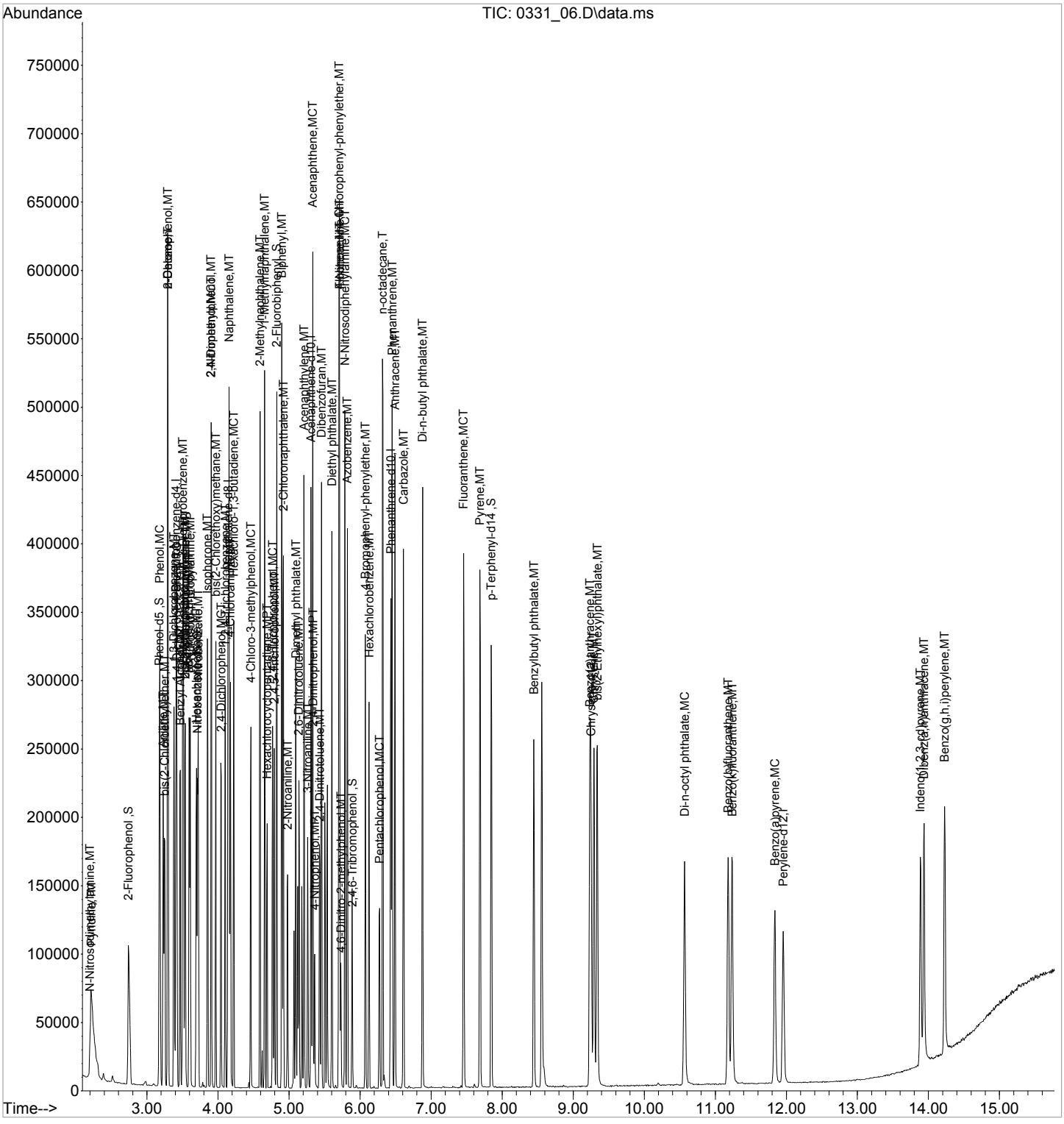
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	2,4,5-Trichlorophenol	4.792	196	26746	10000.0000000	ppb	100
51)	Biphenyl	4.898	154	121171	10000.0000000	ppb	100
52)	2-Chloronaphthalene	4.922	162	94566	10000.0000000	ppb	100
53)	2-Nitroaniline	4.981	138	25298	10000.0000000	ppb	100
54)	Acenaphthylene	5.210	152	144849	10000.0000000	ppb	100
55)	Dimethyl phthalate	5.098	163	106912	10000.0000000	ppb	100
56)	2,6-Dinitrotoluene	5.140	165	22620	10000.0000000	ppb	100
57)	3-Nitroaniline	5.263	138	20734	10000.0000000	ppb	100
58)	Acenaphthene	5.334	153	96185	10000.0000000	ppb	100
59)	2,4-Dinitrophenol	5.340	184	5547	10000.0000000	ppb	100
60)	Dibenzofuran	5.457	168	130881	10000.0000000	ppb	100
61)	2,4-Dinitrotoluene	5.434	165	27080	10000.0000000	ppb	100
63)	4-Nitrophenol	5.363	139	14605	10000.0000000	ppb	100
64)	Fluorene	5.710	166	109752	10000.0000000	ppb	100
65)	4-Chlorophenyl-phenyle...	5.704	204	48947	10000.0000000	ppb	100
66)	Diethyl phthalate	5.604	149	113139	10000.0000000	ppb	100
67)	4-Nitroaniline	5.710	138	12473	10000.0000000	ppb	100
68)	Azobenzene	5.822	77	113978	10000.0000000	ppb	100
71)	4,6-Dinitro-2-methylph...	5.734	198	9382	10000.0000000	ppb	100
72)	N-Nitrosodiphenylamine	5.787	169	86982	10000.0000000	ppb	100
74)	4-Bromophenyl-phenylether	6.075	248	26064	10000.0000000	ppb	100
75)	Hexachlorobenzene	6.128	284	30132	10000.0000000	ppb	100
76)	n-octadecane	6.316	55	20176	10000.0000000	ppb	100
77)	Pentachlorophenol	6.275	266	12679	10000.0000000	ppb	100
78)	Phenanthrene	6.451	178	144135	10000.0000000	ppb	100
79)	Anthracene	6.492	178	140337	10000.0000000	ppb	100
80)	Carbazole	6.610	167	120779	10000.0000000	ppb	100
81)	Di-n-butyl phthalate	6.881	149	183487	10000.0000000	ppb	100
83)	Fluoranthene	7.457	202	143797	10000.0000000	ppb	100
86)	Pyrene	7.686	202	148972	10000.0000000	ppb	100
88)	Benzylbutyl phthalate	8.445	149	64438	10000.0000000	ppb	100
90)	Benzo(a)anthracene	9.233	228	110985	10000.0000000	ppb	100
91)	Chrysene	9.292	228	116952	9997.5209649	ppb	100
92)	bis(2-Ethylhexyl)phtha...	9.339	149	96218	10000.0000000	ppb	100
93)	Di-n-octyl phthalate	10.569	149	134897	10000.0000000	ppb	100
95)	Benzo(b)fluoranthene	11.180	252	103049	10000.0000000	ppb	100
96)	Benzo(k)fluoranthene	11.239	252	109958	10000.0000000	ppb	100
97)	Benzo(a)pyrene	11.839	252	85063	10000.0000000	ppb	100
98)	Indeno(1,2,3-cd)pyrene	13.886	276	77280	10000.0000000	ppb	100
99)	Dibenz(a,h)anthracene	13.939	278	87499	10000.0000000	ppb	100
100)	Benzo(g,h,i)perylene	14.227	276	94402	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:57:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\060122A\
Data File : 0601A_02.D
Acq On : 1 Jun 2022 3:18 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22E17335 exp 10/01/22
Misc : SVMS CAL ISTD 22E12872 exp. 11/12/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 16:30:06 2022
Quant Method : C:\msdchem\1\methods\S824F01AV.M
Quant Title : 8270 BNA
QLast Update : Wed Jun 01 16:02:49 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.266	152	23490	8000.0000000	ppb		0.00
23) Naphthalene-d8	3.996	136	91148	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.154	164	49907	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.266	188	82089	8000.0000000	ppb		0.00
84) Chrysene-d12	8.972	240	60034	8000.0000000	ppb		0.00
94) Perylene-d12	11.577	264	57491	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.607	112	35550	9666.3736326	ppb		0.00
Spiked Amount 20000.000			Recovery = 48.33%				
7) Phenol-d5	3.043	99	43980	10079.0073818	ppb		0.00
Spiked Amount 20000.000			Recovery = 50.40%				
24) Nitrobenzene-d5	3.572	82	39007m	11253.0374056	ppb		0.00
Spiked Amount 10000.000			Recovery = 112.53%				
50) 2-Fluorobiphenyl	4.678	172	87521	11043.4149806	ppb		0.00
Spiked Amount 10000.000			Recovery = 110.43%				
73) 2,4,6-Tribromophenol	5.731	330	10757	12507.7375953	ppb		0.00
Spiked Amount 20000.000			Recovery = 62.54%				
87) p-Terphenyl-d14	7.636	244	88003	10592.9593022	ppb		0.00
Spiked Amount 10000.000			Recovery = 105.93%				
Target Compounds							Qvalue
2) Pyridine	2.078	79	34396	8828.8386240	ppb		91
3) N-Nitrosodimethylamine	2.060	42	20484	9987.4671943	ppb		92
5) Aniline	3.090	66	20042	9926.2712945	ppb		91
6) bis(2-Chloroethyl)ether	3.113	93	40956m	10310.6319625	ppb		
8) Phenol	3.054	94	45262	9784.9254453	ppb		98
10) 2-Chlorophenol	3.154	128	38315	9946.2372937	ppb		97
11) n-Decane	3.154	41	26183	10573.0705173	ppb	#	99
12) 1,3-Dichlorobenzene	3.237	146	45345	10271.0506315	ppb		98
13) 1,4-Dichlorobenzene	3.278	146	45787	10361.2241910	ppb		99
14) Benzyl Alcohol	3.331	79	29134	10324.8068048	ppb		98
15) 1,2-Dichlorobenzene	3.360	146	44454	10433.1882761	ppb		99
16) bis(2-Chloroisopropyl)...	3.401	121	14214	9660.5135054	ppb		95
17) 2,2-oxybis(1-chloropro...	3.401	121	14214	9660.5135054	ppb		95
18) 2-Methylphenol	3.378	108	35578	10268.4320559	ppb		90
19) Hexachloroethane	3.549	117	19194	10416.0764836	ppb		95
20) N-Nitrosodi-n-propylamine	3.472	70	26865	10901.6309317	ppb		94
21) 3&4-Methyl phenol	3.466	107	39846	10425.2229594	ppb		97
25) Nitrobenzene	3.584	77	38424	10967.3539124	ppb		95
26) Isophorone	3.713	82	76392	11139.5422893	ppb		99
27) 2-Nitrophenol	3.766	139	20075	12111.0640934	ppb	#	81
28) 2,4-Dimethylphenol	3.772	107	38264	11218.2059516	ppb		97
29) bis(2-Chlorethoxy)methane	3.831	93	47029	10206.6974387	ppb		99
30) 2,4-Dichlorophenol	3.907	162	31915	11843.3538023	ppb		99
32) 1,2,4-Trichlorobenzene	3.960	180	34506	10707.5438048	ppb		99
34) Naphthalene	4.013	128	115844	10181.6279371	ppb		100
35) 4-Chloroaniline	4.037	65	12238	10235.2764633	ppb	#	54
36) Hexachloro-1,3-butadiene	4.072	225	21489	12362.5479599	ppb		98
40) 4-Chloro-3-methylphenol	4.325	107	31946	11331.0327188	ppb		95
41) 2-Methylnaphthalene	4.443	142	76564	10710.8382653	ppb		99
42) 1-Methylnaphthalene	4.507	142	75388	10833.7570004	ppb		99
47) Hexachlorocyclopentadiene	4.537	237	20635	12675.8511077	ppb		96
48) 2,4,6-Trichlorophenol	4.619	196	22671	12162.7080394	ppb		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\060122A\
Data File : 0601A_02.D
Acq On : 1 Jun 2022 3:18 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22E17335 exp 10/01/22
Misc : SVMS CAL ISTD 22E12872 exp. 11/12/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 16:30:06 2022
Quant Method : C:\msdchem\1\methods\S824F01AV.M
Quant Title : 8270 BNA
QLast Update : Wed Jun 01 16:02:49 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

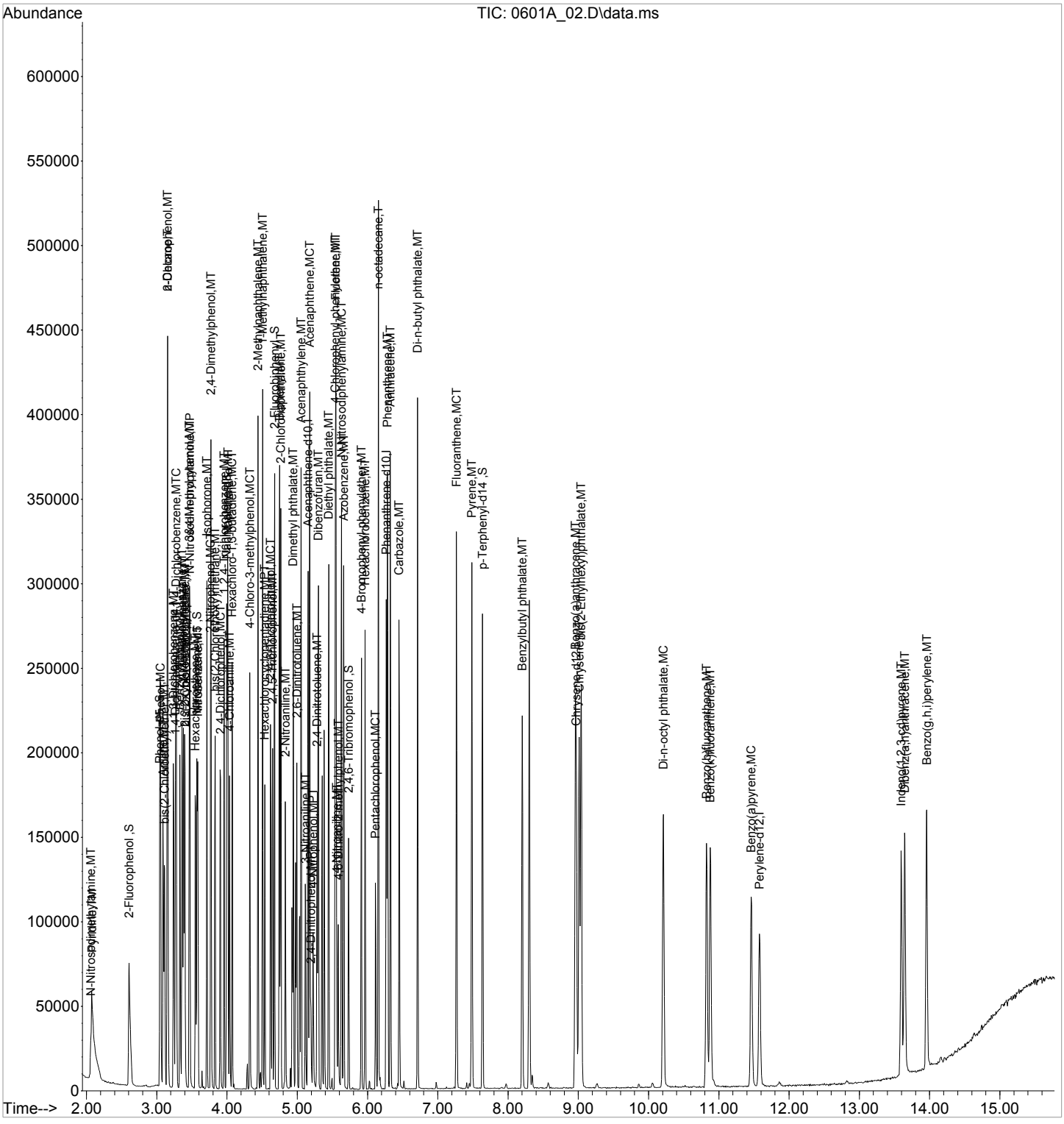
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.648	196	23374	12273.2169467 ppb		95
51)	Biphenyl	4.748	154	93708	10493.4667136 ppb		99
52)	2-Chloronaphthalene	4.766	162	70389	10213.1592424 ppb		97
53)	2-Nitroaniline	4.831	138	21630	10580.3240662 ppb		95
54)	Acenaphthylene	5.054	152	113712	10752.4345108 ppb		99
55)	Dimethyl phthalate	4.943	163	83062	10756.3376626 ppb		92
56)	2,6-Dinitrotoluene	4.995	165	20154	11955.6562708 ppb		82
57)	3-Nitroaniline	5.119	138	16489	10242.9691175 ppb	#	82
58)	Acenaphthene	5.178	153	75570	10544.3416002 ppb		96
59)	2,4-Dinitrophenol	5.195	184	7141	13250.3254863 ppb	#	1
60)	Dibenzofuran	5.301	168	100039	10460.7779528 ppb		99
61)	2,4-Dinitrotoluene	5.284	165	23507	11138.3252495 ppb		95
63)	4-Nitrophenol	5.225	139	12178	10449.6801873 ppb		84
64)	Fluorene	5.548	166	83916	10600.4308120 ppb		97
65)	4-Chlorophenyl-phenyle...	5.543	204	38711	10736.8616780 ppb		99
66)	Diethyl phthalate	5.448	149	86265	10737.4671603 ppb		98
67)	4-Nitroaniline	5.560	138	12783m	13114.4630330 ppb		
68)	Azobenzene	5.660	77	82620	10233.1834596 ppb		95
71)	4,6-Dinitro-2-methylph...	5.584	198	11114	12898.1810990 ppb		95
72)	N-Nitrosodiphenylamine	5.631	169	68783	10773.2090522 ppb		96
74)	4-Bromophenyl-phenylether	5.913	248	21548	10995.6699315 ppb		91
75)	Hexachlorobenzene	5.966	284	26039	11374.8615345 ppb		97
76)	n-octadecane	6.154	55	17248	11275.3404993 ppb		96
77)	Pentachlorophenol	6.113	266	11593	11003.9692749 ppb		96
78)	Phenanthrene	6.284	178	113383	10421.3131644 ppb		99
79)	Anthracene	6.325	178	112545	10894.7016935 ppb		99
80)	Carbazole	6.448	167	95148	10767.2287320 ppb		99
81)	Di-n-butyl phthalate	6.713	149	146530	11070.2565772 ppb		99
83)	Fluoranthene	7.266	202	116037	10899.3563563 ppb		100
86)	Pyrene	7.484	202	118628	10549.3469417 ppb		99
88)	Benzylbutyl phthalate	8.201	149	56437	10935.8626850 ppb		99
90)	Benzo(a)anthracene	8.960	228	94442	11269.8102310 ppb		97
91)	Chrysene	9.013	228	97688	11036.7463617 ppb		97
92)	bis(2-Ethylhexyl)phtha...	9.042	149	85251	11196.9184387 ppb		99
93)	Di-n-octyl phthalate	10.213	149	124475	10573.3573448 ppb		100
95)	Benzo(b)fluoranthene	10.825	252	93426	11088.3402612 ppb		96
96)	Benzo(k)fluoranthene	10.877	252	93858	10894.4875172 ppb		95
97)	Benzo(a)pyrene	11.460	252	79505	11641.1862126 ppb		95
98)	Indeno(1,2,3-cd)pyrene	13.595	276	72657	11688.7071015 ppb		94
99)	Dibenz(a,h)anthracene	13.648	278	81310	11670.7686216 ppb		96
100)	Benzo(g,h,i)perylene	13.960	276	85112	11532.2684709 ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

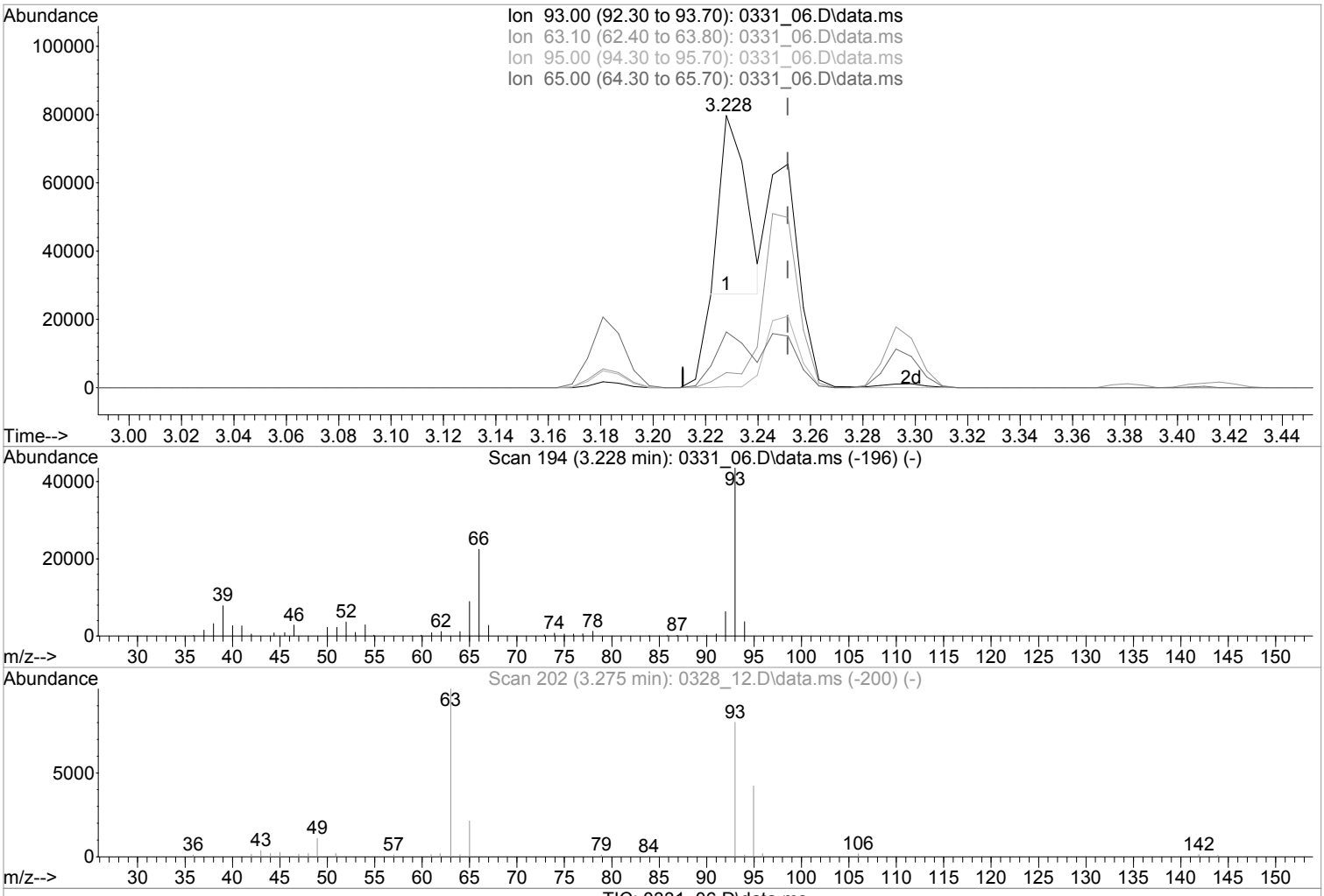
Data Path : C:\msdchem\1\data\060122A\
Data File : 0601A_02.D
Acq On : 1 Jun 2022 3:18 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22E17335 exp 10/01/22
Misc : SVMS CAL ISTD 22E12872 exp. 11/12/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 01 16:30:06 2022
Quant Method : C:\msdchem\1\methods\S824F01AV.M
Quant Title : 8270 BNA
QLast Update : Wed Jun 01 16:02:49 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:56:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.024) 6479.8676227 ppb

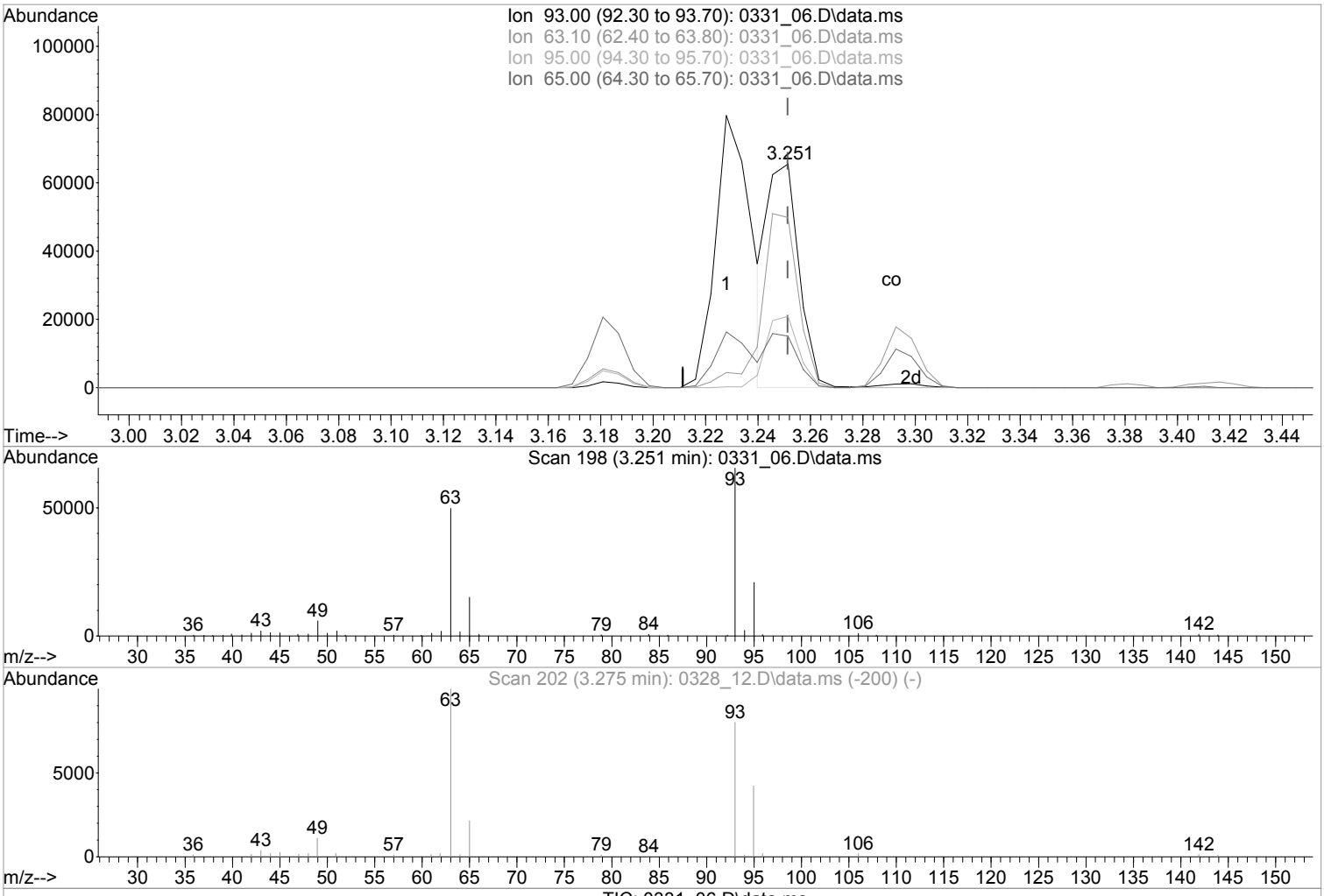
Qvalue = 37

response 35244

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	5.09#
95.00	31.90	0.47#
65.00	23.10	19.00

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:56:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.251min (0.000) 10000.0000000 ppb m

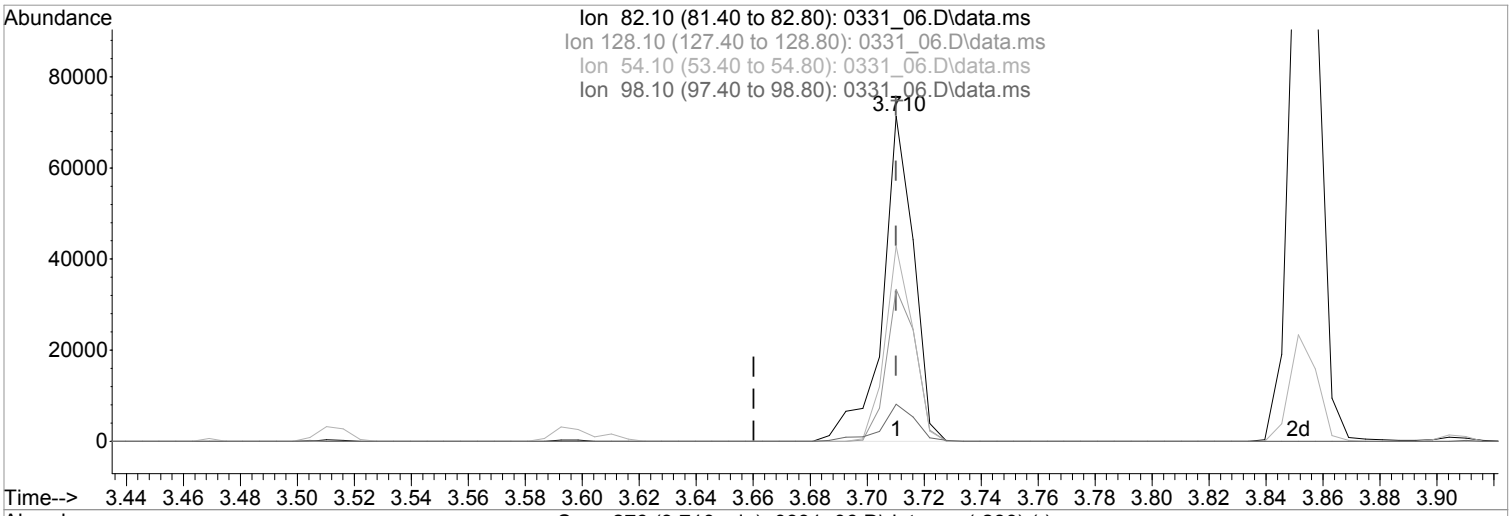
response 54390

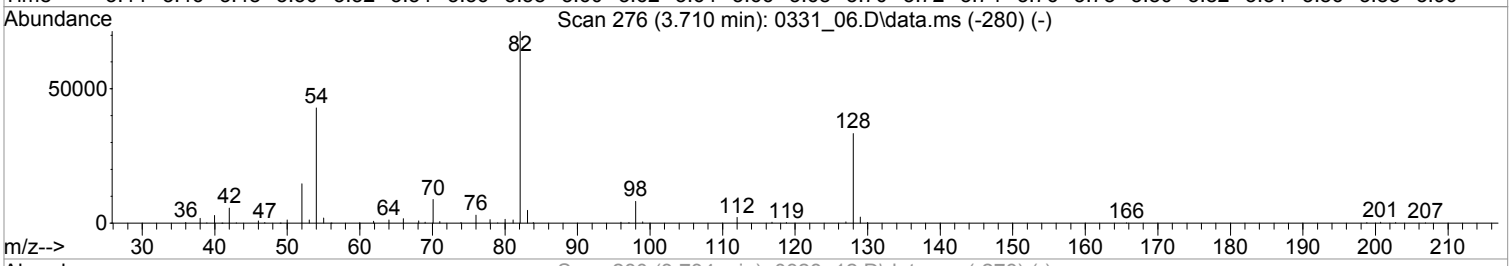
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	76.04
95.00	31.90	31.89
65.00	23.10	23.09

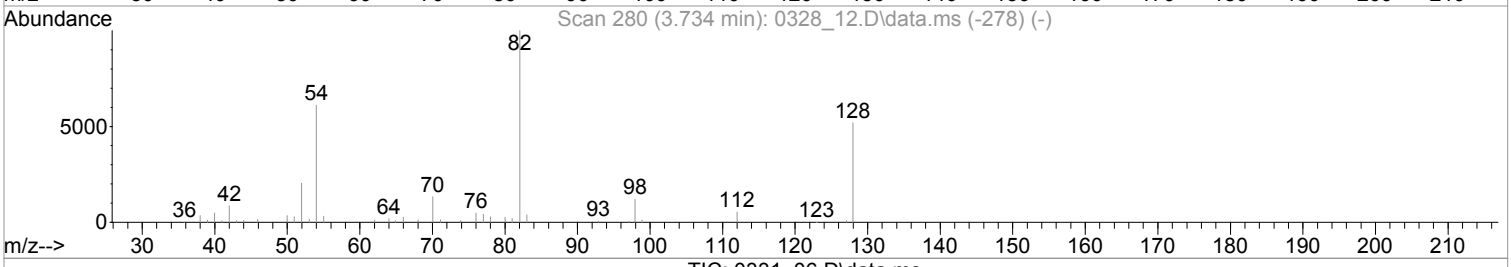
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:56:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (0.000) 11089.1251693 ppb

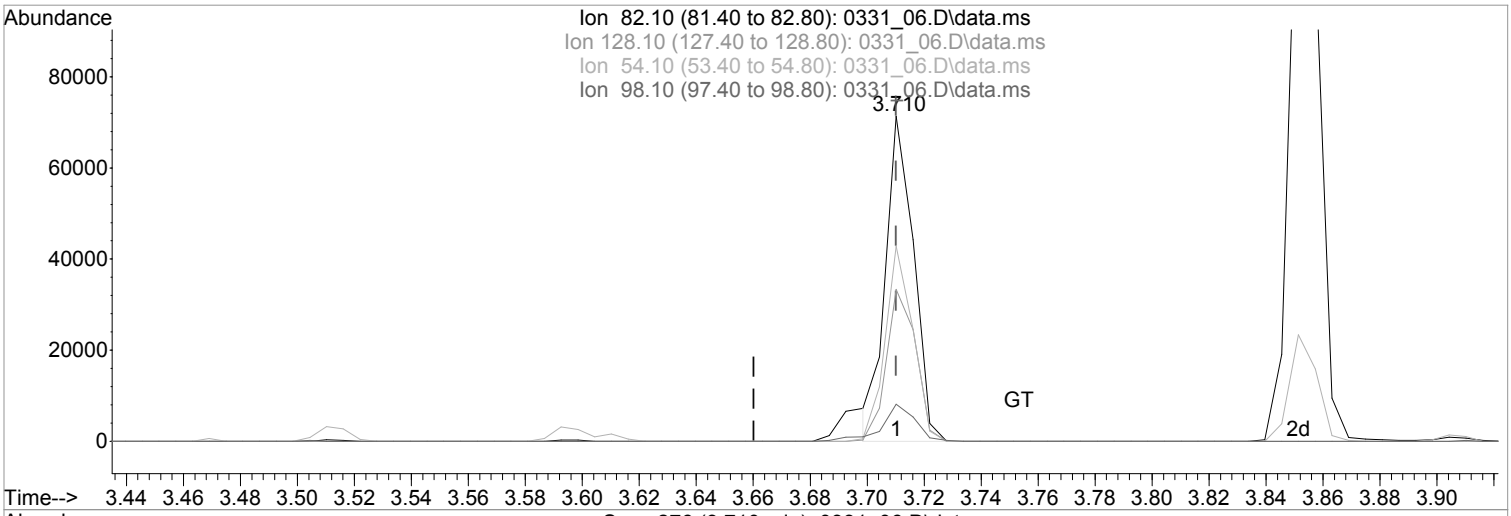
Qvalue = 100

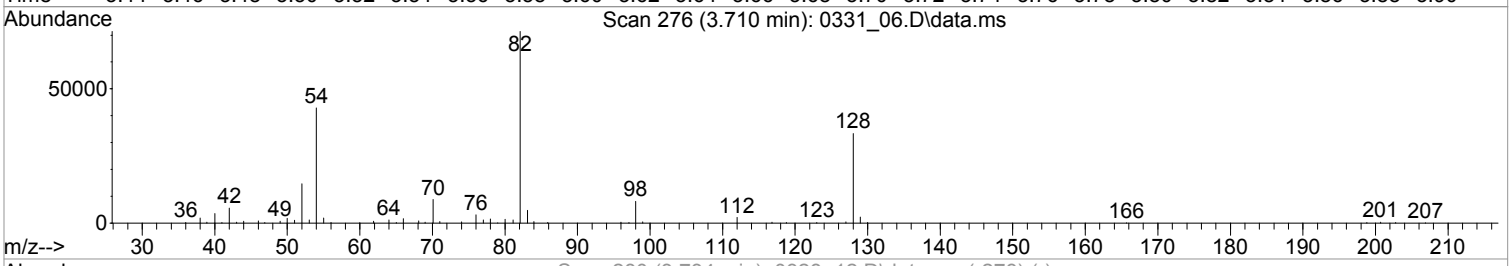
response 54024

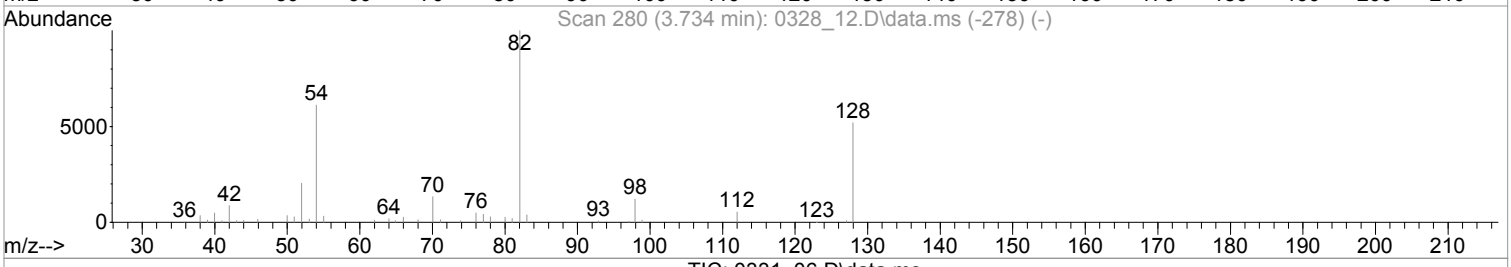
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	46.75
54.10	60.00	60.04
98.10	11.40	11.42

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:56:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (0.000) 10000.0000000 ppb m

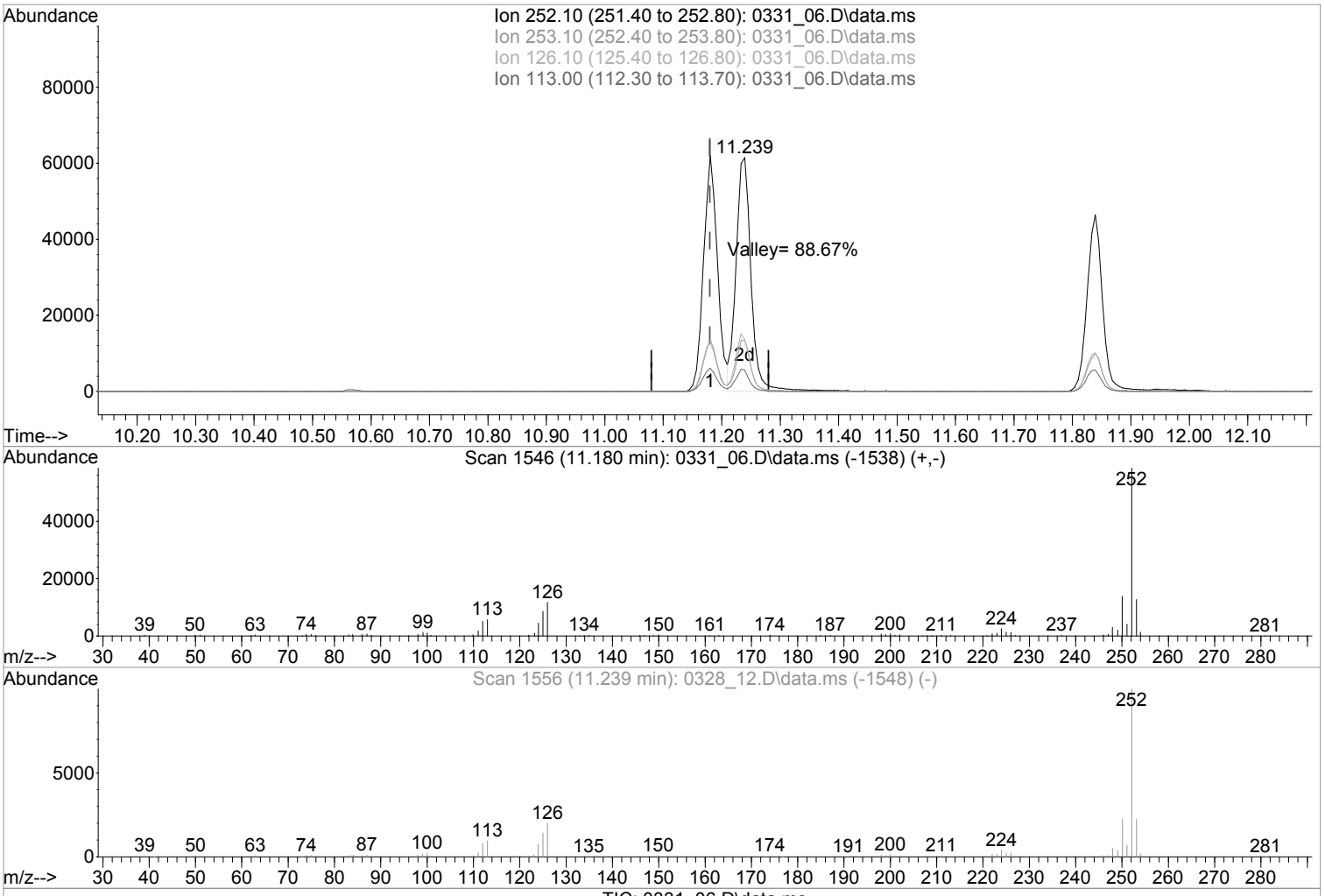
response 48718

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	46.75
54.10	60.00	60.04
98.10	11.40	11.42

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_06.D
Acq On : 31 Mar 2022 6:28 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 15:56:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:56:28 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_06.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.180min (0.000) 10000.0000000 ppb

Qvalue = 100

response 103049

Ion	Exp%	Act%
252.10	100	100
253.10	21.80	21.75
126.10	20.00	20.04
113.00	9.70	9.74

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:06:30 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	32792	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.140	136	134078	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	70723	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.434	188	112936	8000.0000000	ppb		0.00
84) Chrysene-d12	9.251	240	84930	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	75119	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	106152	20861.0973521	ppb		0.00
Spiked Amount 20000.000				Recovery = 104.31%			
7) Phenol-d5	3.175	99	126213	21001.8195808	ppb		0.00
Spiked Amount 20000.000				Recovery = 105.01%			
24) Nitrobenzene-d5	3.710	82	103619m	20771.1930820	ppb		0.00
Spiked Amount 10000.000				Recovery = 207.71%			
50) 2-Fluorobiphenyl	4.828	172	223030	19027.3520423	ppb		0.00
Spiked Amount 10000.000				Recovery = 190.27%			
73) 2,4,6-Tribromophenol	5.892	330	25243	24542.1885073	ppb		0.00
Spiked Amount 20000.000				Recovery = 122.71%			
87) p-Terphenyl-d14	7.845	244	237308	19778.2683501	ppb		0.00
Spiked Amount 10000.000				Recovery = 197.78%			
Target Compounds							Qvalue
2) Pyridine	2.210	79	111293	20520.0582576	ppb		98
3) N-Nitrosodimethylamine	2.199	42	54707	17512.4649974	ppb		97
5) Aniline	3.228	66	57894	20863.9637808	ppb	#	16
6) bis(2-Chloroethyl)ether	3.251	93	110886m	19845.2727506	ppb		
8) Phenol	3.181	94	133099	20780.4249322	ppb		98
10) 2-Chlorophenol	3.293	128	112522	21384.5068803	ppb		98
11) n-Decane	3.293	41	68989	18920.4635757	ppb	#	100
12) 1,3-Dichlorobenzene	3.381	146	123575	19382.0792001	ppb		99
13) 1,4-Dichlorobenzene	3.416	146	124782	19676.3481368	ppb		97
14) Benzyl Alcohol	3.469	79	82542	21814.2426793	ppb		99
15) 1,2-Dichlorobenzene	3.504	146	118829	19192.9016445	ppb		98
16) bis(2-Chloroisopropyl)...	3.540	121	41324	19661.8731881	ppb		99
17) 2,2-oxybis(1-chloropro...	3.540	121	41324	19661.8731881	ppb		99
18) 2-Methylphenol	3.516	108	101827	21477.9744707	ppb		99
19) Hexachloroethane	3.698	117	52039	19890.3601889	ppb		98
20) N-Nitrosodi-n-propylamine	3.610	70	72194	21832.9659564	ppb		98
21) 3&4-Methyl phenol	3.598	107	111931	21421.6043465	ppb		96
25) Nitrobenzene	3.722	77	105247	20884.2027666	ppb		98
26) Isophorone	3.857	82	210585	21841.1908819	ppb		91
27) 2-Nitrophenol	3.904	139	52249	24618.0078291	ppb		95
28) 2,4-Dimethylphenol	3.910	107	103310	21041.1313099	ppb		96
29) bis(2-Chlorethoxy)methane	3.969	93	136801	20048.2800815	ppb		100
30) 2,4-Dichlorophenol	4.045	162	83454	22074.7247902	ppb		99
32) 1,2,4-Trichlorobenzene	4.104	180	94214	19197.4563184	ppb		97
34) Naphthalene	4.157	128	329834	18763.7653181	ppb		100
35) 4-Chloroaniline	4.175	65	36268	21893.3392059	ppb		96
36) Hexachloro-1,3-butadiene	4.222	225	50893	19291.4613634	ppb		97
40) 4-Chloro-3-methylphenol	4.463	107	87785	23024.4502760	ppb		100
41) 2-Methylnaphthalene	4.593	142	211946	19970.4058612	ppb		100
42) 1-Methylnaphthalene	4.657	142	205339	19719.8276242	ppb		99
47) Hexachlorocyclopentadiene	4.692	237	48263	22542.2258944	ppb		99
48) 2,4,6-Trichlorophenol	4.769	196	56577	23494.5231526	ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

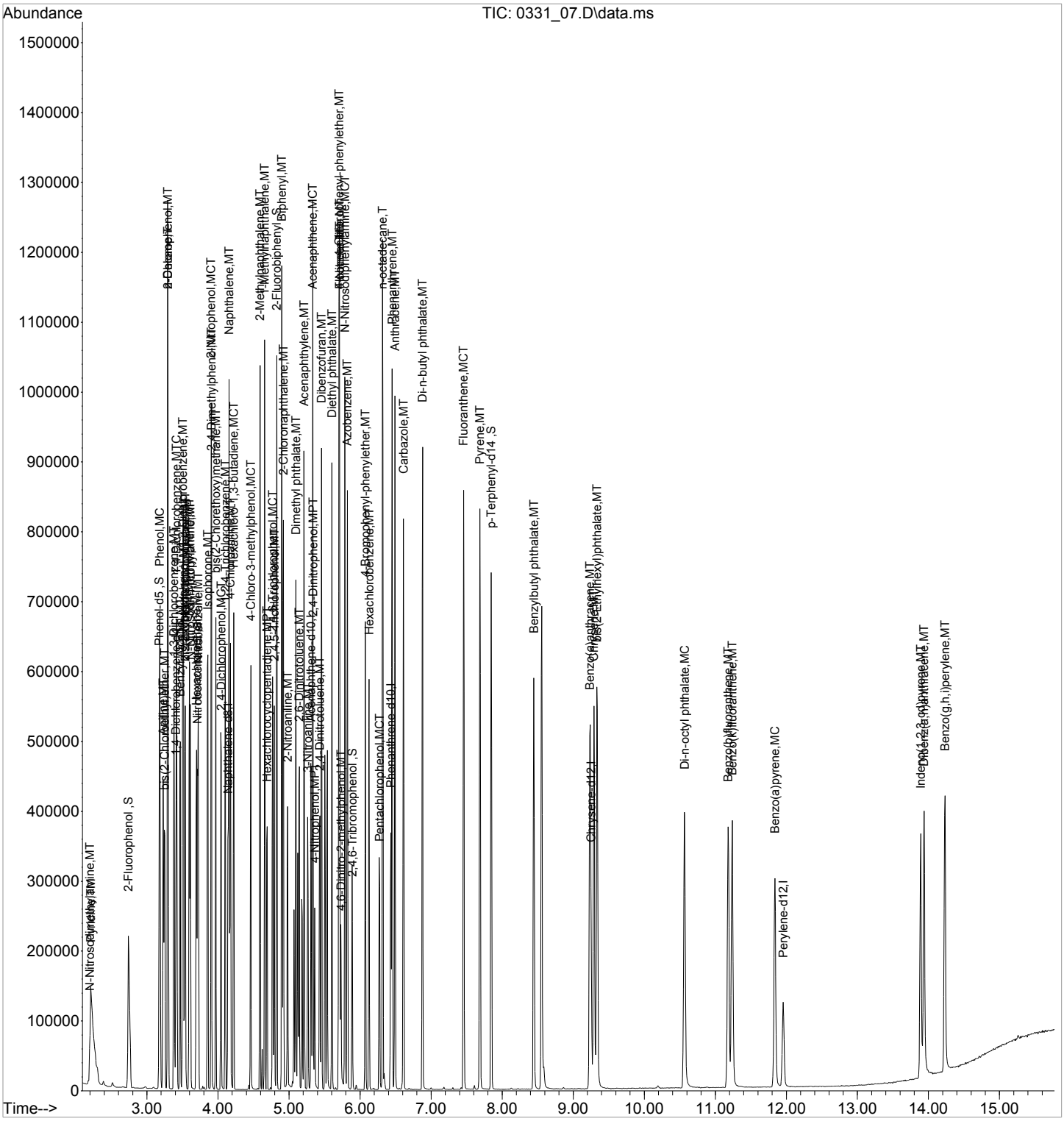
Quant Time: Apr 04 16:06:30 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.792	196	59315	24551.4730430	ppb		98
51)	Biphenyl	4.898	154	251259	19173.6958276	ppb		100
52)	2-Chloronaphthalene	4.922	162	193285	19212.2177403	ppb		99
53)	2-Nitroaniline	4.981	138	59759	25988.3511479	ppb		98
54)	Acenaphthylene	5.210	152	303372	20149.8725762	ppb		100
55)	Dimethyl phthalate	5.098	163	227095	21158.3884957	ppb		97
56)	2,6-Dinitrotoluene	5.145	165	51741	24536.2501075	ppb	#	80
57)	3-Nitroaniline	5.263	138	47887	25616.1751347	ppb		99
58)	Acenaphthene	5.334	153	202163	19347.9009194	ppb		98
59)	2,4-Dinitrophenol	5.340	184	14976	29432.6206918	ppb	#	70
60)	Dibenzofuran	5.457	168	267370	19040.7081128	ppb		99
61)	2,4-Dinitrotoluene	5.434	165	61558	25802.4933154	ppb		99
63)	4-Nitrophenol	5.363	139	33738	26954.3131233	ppb		97
64)	Fluorene	5.710	166	226042	19747.7794311	ppb		98
65)	4-Chlorophenyl-phenyle...	5.704	204	101491	19118.9264213	ppb		99
66)	Diethyl phthalate	5.604	149	234955	20771.6196118	ppb		100
67)	4-Nitroaniline	5.710	138	24185	16136.9020443	ppb		95
68)	Azobenzene	5.822	77	238153	21105.6381926	ppb		99
71)	4,6-Dinitro-2-methylph...	5.734	198	24209	33263.5986863	ppb		96
72)	N-Nitrosodiphenylamine	5.787	169	183408	21087.6244155	ppb		100
74)	4-Bromophenyl-phenylether	6.075	248	54290	19982.1021032	ppb		95
75)	Hexachlorobenzene	6.128	284	62307	18977.7188118	ppb		100
76)	n-octadecane	6.316	55	43712	20878.0975737	ppb		99
77)	Pentachlorophenol	6.275	266	30833	25917.7797076	ppb		99
78)	Phenanthrene	6.451	178	296157	19005.7829735	ppb		100
79)	Anthracene	6.492	178	293833	20894.2352570	ppb		98
80)	Carbazole	6.610	167	250897	21148.1675444	ppb		99
81)	Di-n-butyl phthalate	6.881	149	397421	23698.6563151	ppb		100
83)	Fluoranthene	7.457	202	304212	21412.2235528	ppb		100
86)	Pyrene	7.686	202	314336	18911.5981484	ppb		99
88)	Benzylbutyl phthalate	8.445	149	150478	26024.5200637	ppb		97
90)	Benzo(a)anthracene	9.233	228	242646	21018.4091374	ppb		99
91)	Chrysene	9.292	228	250717	19529.3570288	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.333	149	225383	26777.0888674	ppb		98
93)	Di-n-octyl phthalate	10.569	149	335350	29247.6424441	ppb		99
95)	Benzo(b)fluoranthene	11.180	252	230240	22096.3443995	ppb		98
96)	Benzo(k)fluoranthene	11.239	252	239541	22391.4257258	ppb		99
97)	Benzo(a)pyrene	11.839	252	191805	23713.6445070	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.892	276	170517	22398.0952594	ppb		98
99)	Dibenz(a,h)anthracene	13.939	278	192016	22172.7985225	ppb		98
100)	Benzo(g,h,i)perylene	14.233	276	201342	21390.6206879	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

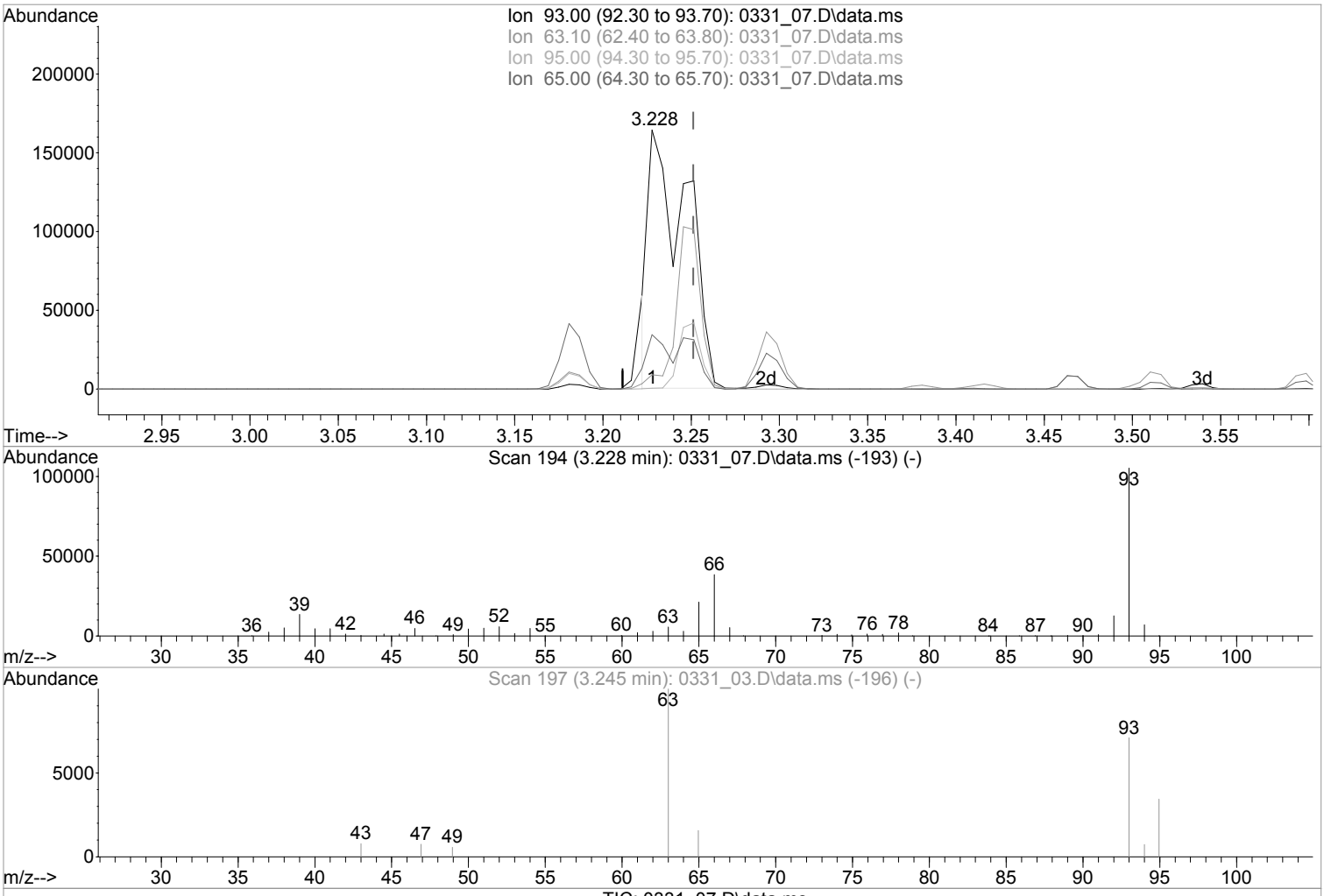
Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:06:30 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:05:48 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.024) 43763.3668852 ppb

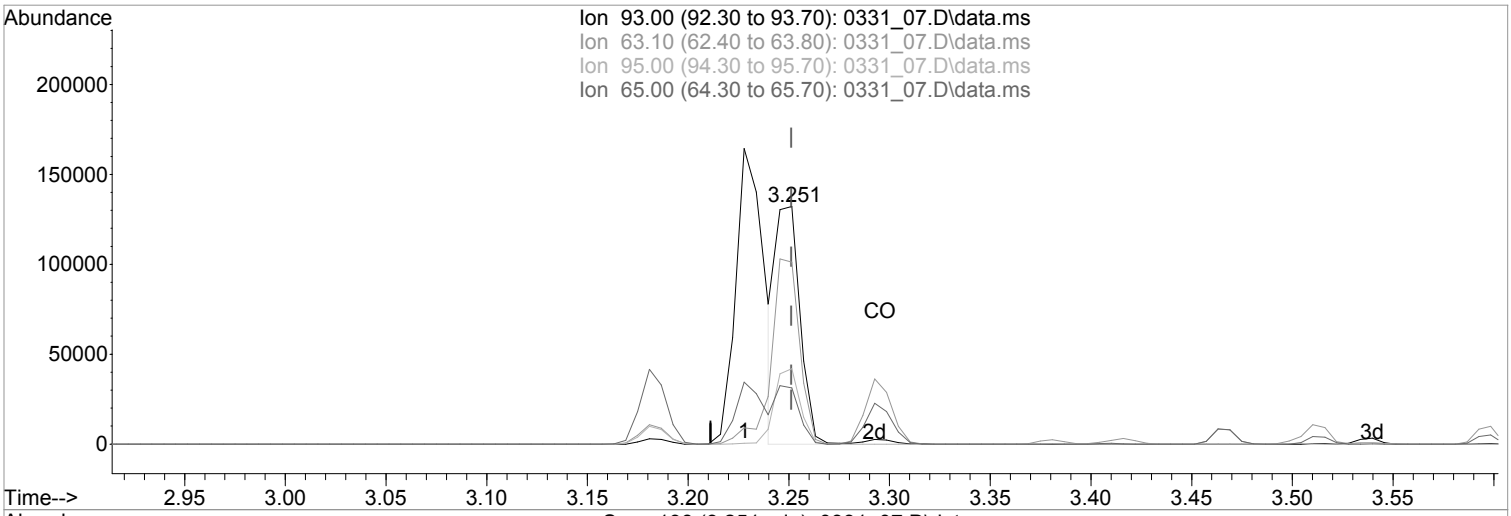
Qvalue = 38

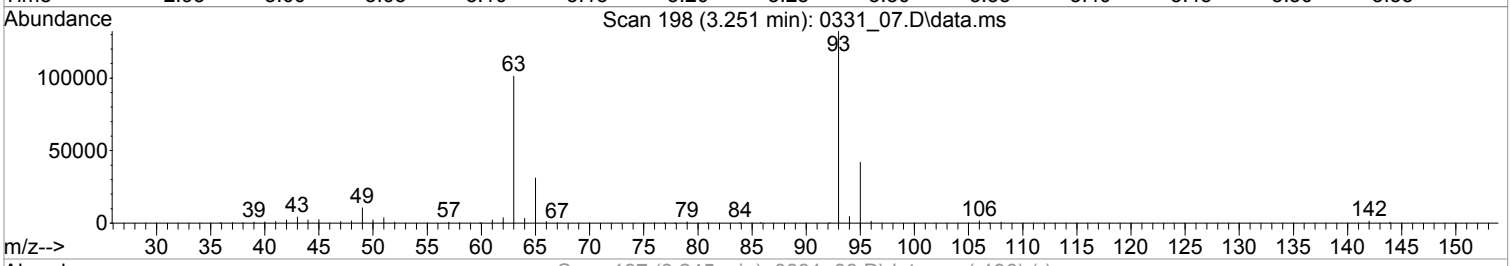
response 244529

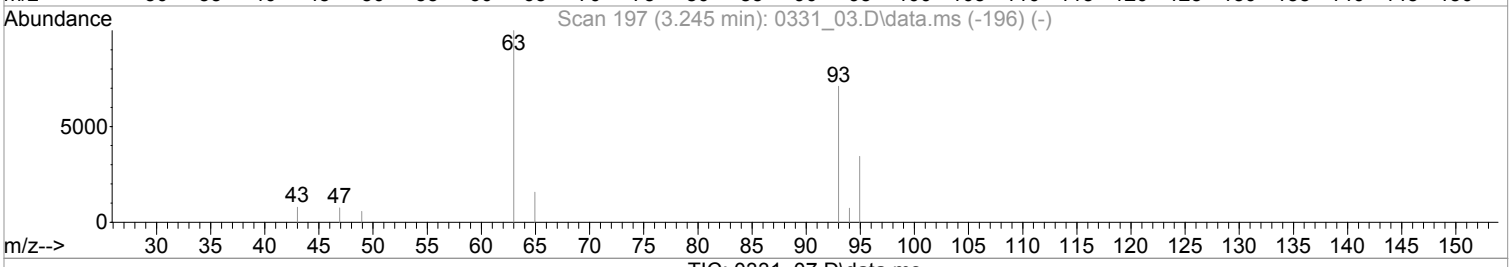
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	5.53#
95.00	31.90	0.24#
65.00	23.10	20.89

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:05:48 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

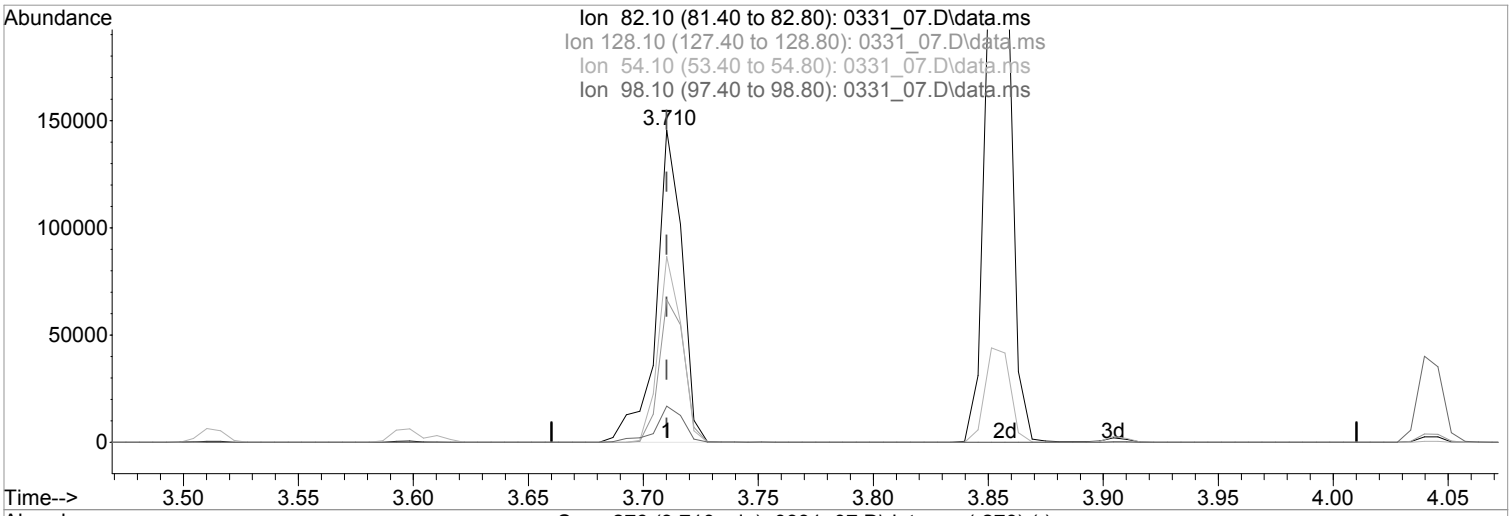
3.251min (+0.000) 19845.2727506 ppb m

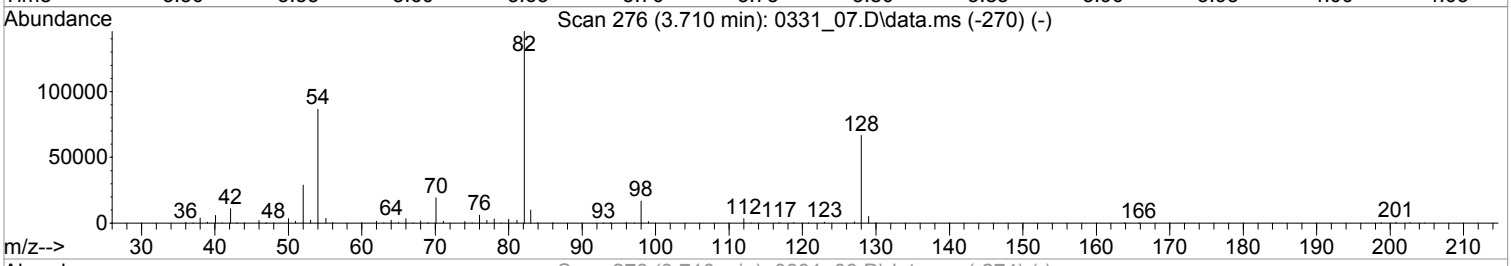
response 110886

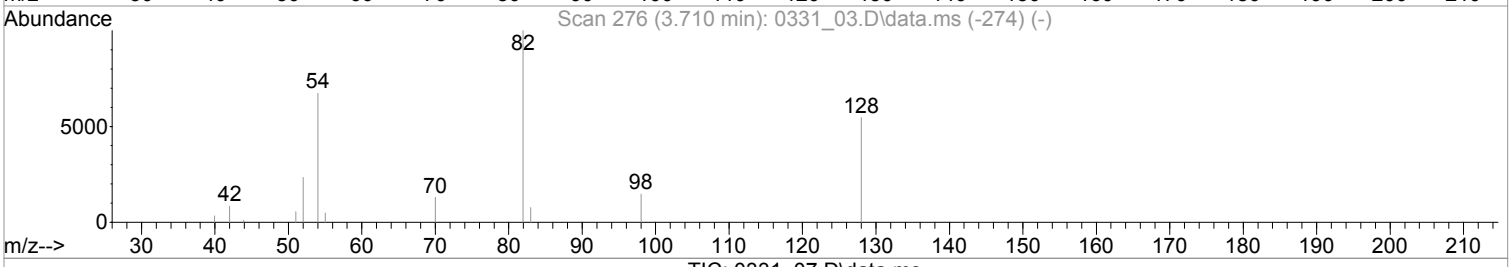
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	76.56
95.00	31.90	31.70
65.00	23.10	23.63

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:05:48 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (0.000) 22875.1937247 ppb

Qvalue = 99

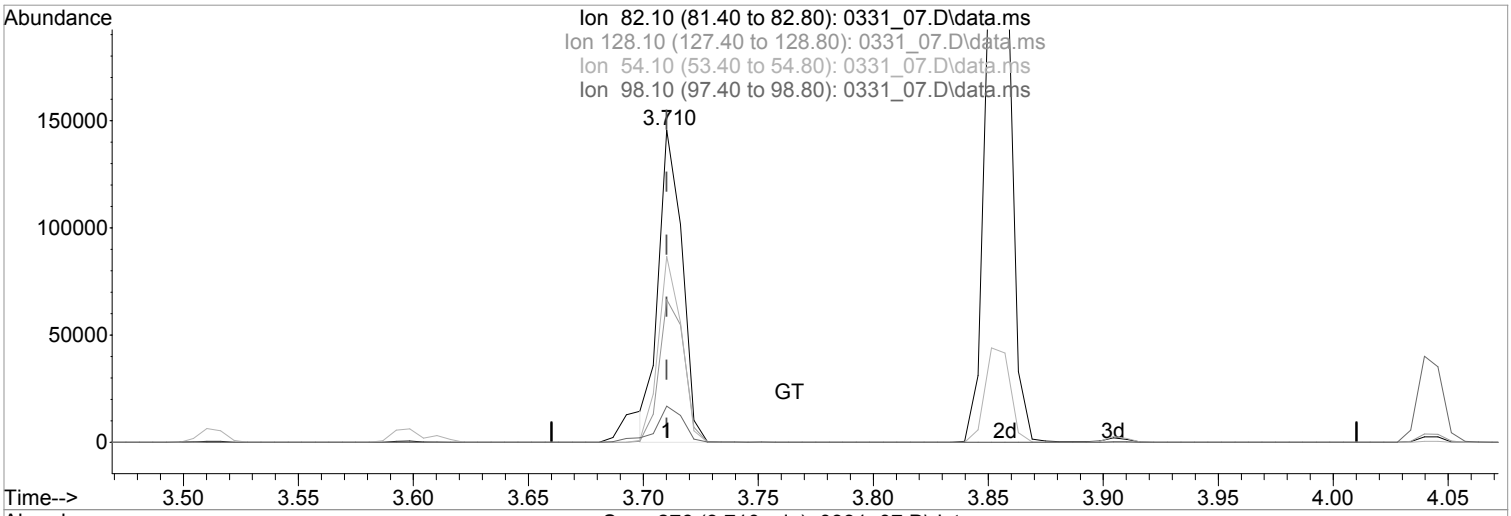
response 114115

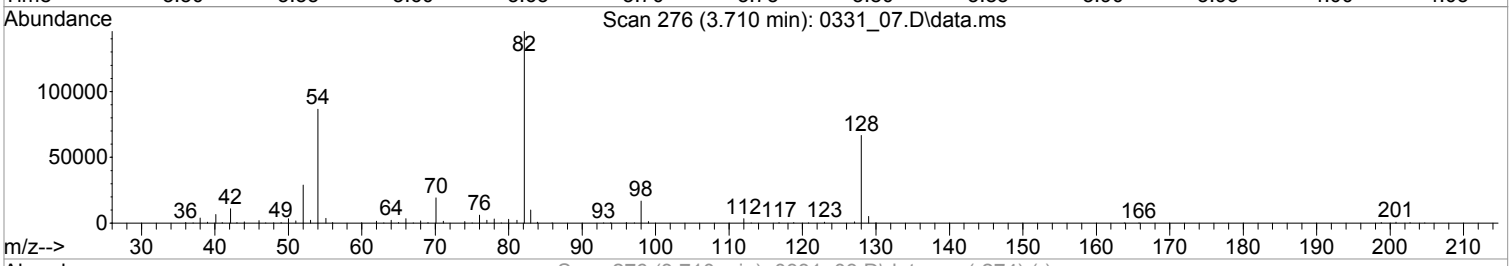
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.73
54.10	60.00	59.51
98.10	11.40	11.59

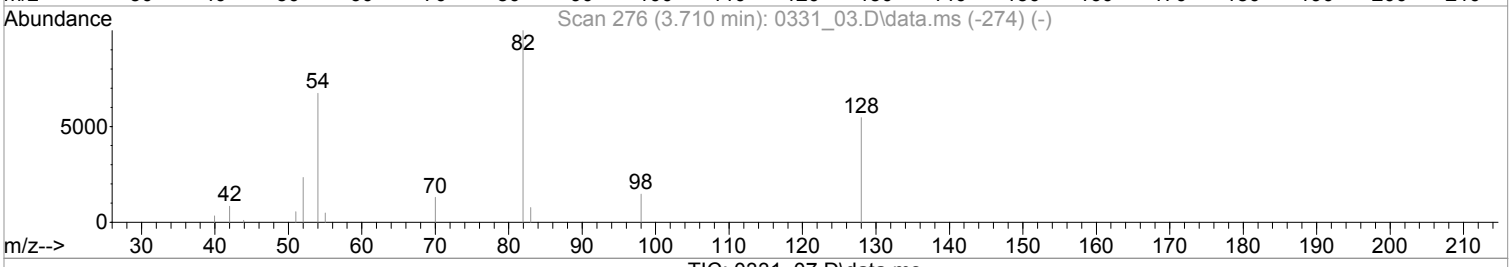
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_07.D
Acq On : 31 Mar 2022 6:49 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 16:05:48 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:05:43 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (0.000) 20771.1930820 ppb m

response 103619

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.73
54.10	60.00	59.51
98.10	11.40	11.59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	33533	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.140	136	132888	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	71209	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.434	188	113292	8000.0000000	ppb		0.00
84) Chrysene-d12	9.251	240	87467	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	76329	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	157758	30058.8366266	ppb		0.00
Spiked Amount 20000.000				Recovery = 150.29%			
7) Phenol-d5	3.175	99	188380	30349.6666052	ppb		0.00
Spiked Amount 20000.000				Recovery = 151.75%			
24) Nitrobenzene-d5	3.710	82	156535m	31417.3001484	ppb		0.00
Spiked Amount 10000.000				Recovery = 314.17%			
50) 2-Fluorobiphenyl	4.828	172	327473	28019.5521228	ppb		0.00
Spiked Amount 10000.000				Recovery = 280.20%			
73) 2,4,6-Tribromophenol	5.893	330	40030	36711.9598208	ppb		0.00
Spiked Amount 20000.000				Recovery = 183.56%			
87) p-Terphenyl-d14	7.845	244	360600	29247.0817353	ppb		0.00
Spiked Amount 10000.000				Recovery = 292.47%			
Target Compounds							Qvalue
2) Pyridine	2.210	79	166662	29894.4173979	ppb		100
3) N-Nitrosodimethylamine	2.199	42	78907	25331.1714229	ppb		95
5) Aniline	3.228	66	87768	30666.1270466	ppb	#	21
6) bis(2-Chloroethyl)ether	3.252	93	167703m	29396.0633812	ppb		
8) Phenol	3.181	94	199062	30156.9423564	ppb		98
10) 2-Chlorophenol	3.293	128	167459	30696.8769867	ppb		98
11) n-Decane	3.293	41	100554	27262.1829473	ppb	#	100
12) 1,3-Dichlorobenzene	3.381	146	181714	28044.3611384	ppb		99
13) 1,4-Dichlorobenzene	3.416	146	183675	28414.8902144	ppb		96
14) Benzyl Alcohol	3.469	79	124720	31658.3456118	ppb		99
15) 1,2-Dichlorobenzene	3.505	146	175099	27881.5403292	ppb		98
16) bis(2-Chloroisopropyl)...	3.540	121	61647	28780.6723560	ppb		98
17) 2,2-oxybis(1-chloropro...	3.540	121	61647	28780.6723560	ppb		98
18) 2-Methylphenol	3.516	108	150526	30596.0667961	ppb		98
19) Hexachloroethane	3.699	117	77143	28865.7035157	ppb		98
20) N-Nitrosodi-n-propylamine	3.610	70	108538	31521.0408970	ppb		98
21) 3&4-Methyl phenol	3.599	107	166101	30650.5927115	ppb		97
25) Nitrobenzene	3.722	77	159382	31629.7704116	ppb		99
26) Isophorone	3.857	82	319221	32801.1162840	ppb		91
27) 2-Nitrophenol	3.904	139	80408	36138.7503562	ppb		94
28) 2,4-Dimethylphenol	3.910	107	156274	31782.4235741	ppb		96
29) bis(2-Chlorethoxy)methane	3.969	93	204569	30233.5957475	ppb		100
30) 2,4-Dichlorophenol	4.046	162	125694	32863.6826156	ppb		98
32) 1,2,4-Trichlorobenzene	4.104	180	138967	28801.2375631	ppb		97
34) Naphthalene	4.157	128	484005	28128.6272547	ppb		99
35) 4-Chloroaniline	4.175	65	54919	32675.6461647	ppb		96
36) Hexachloro-1,3-butadiene	4.222	225	75737	29172.5927324	ppb		97
40) 4-Chloro-3-methylphenol	4.463	107	134853	34638.6550486	ppb		98
41) 2-Methylnaphthalene	4.593	142	316159	30065.4368411	ppb		100
42) 1-Methylnaphthalene	4.657	142	304694	29606.4143326	ppb		100
47) Hexachlorocyclopentadiene	4.693	237	75322	34074.3338440	ppb		99
48) 2,4,6-Trichlorophenol	4.769	196	87140	34725.8348305	ppb		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

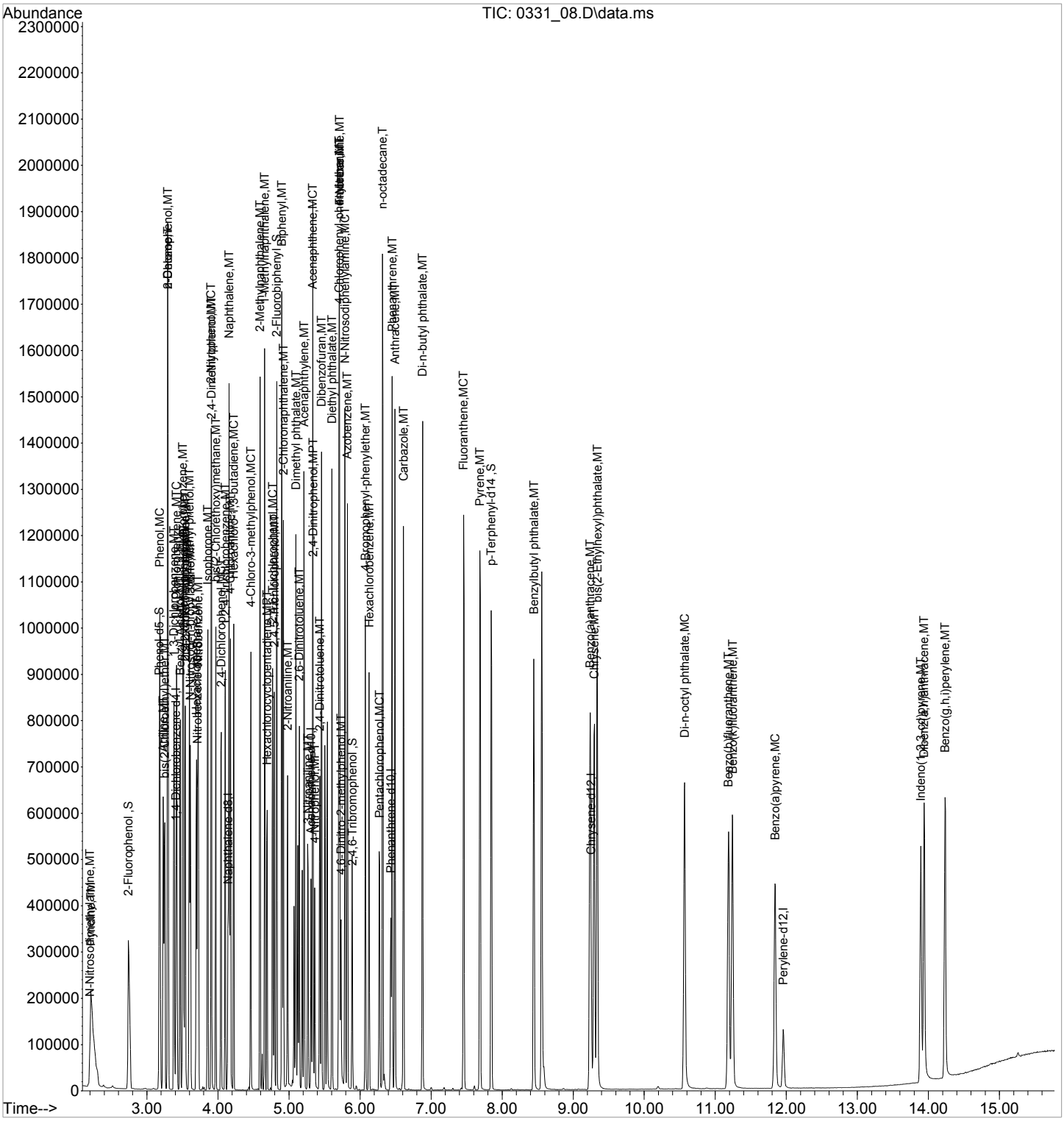
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.793	196	89614	35235.8306483	ppb		99
51)	Biphenyl	4.899	154	370899	28344.5233795	ppb		99
52)	2-Chloronaphthalene	4.922	162	290244	28880.4016682	ppb		99
53)	2-Nitroaniline	4.981	138	95458	38358.7007923	ppb		99
54)	Acenaphthylene	5.210	152	458154	30177.5291948	ppb		99
55)	Dimethyl phthalate	5.099	163	343325	31405.3999860	ppb		94
56)	2,6-Dinitrotoluene	5.146	165	79641	35496.2824813	ppb		83
57)	3-Nitroaniline	5.269	138	74618	37042.4932595	ppb	#	82
58)	Acenaphthene	5.334	153	302900	28980.0110439	ppb		98
59)	2,4-Dinitrophenol	5.340	184	25983	43826.4078457	ppb	#	52
60)	Dibenzofuran	5.457	168	402364	28734.3638947	ppb		99
61)	2,4-Dinitrotoluene	5.434	165	97371	37793.9835615	ppb		95
63)	4-Nitrophenol	5.363	139	54940	40107.1900866	ppb		98
64)	Fluorene	5.710	166	338730	29464.9250158	ppb		98
65)	4-Chlorophenyl-phenyle...	5.704	204	151460	28589.2736068	ppb		98
66)	Diethyl phthalate	5.604	149	355063	30937.0312942	ppb		99
67)	4-Nitroaniline	5.710	138	39081	27211.9905793	ppb		94
68)	Azobenzene	5.822	77	356467	31032.1721850	ppb		100
71)	4,6-Dinitro-2-methylph...	5.734	198	40447	47521.4488194	ppb		96
72)	N-Nitrosodiphenylamine	5.787	169	271452	30777.8016182	ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	82403	30239.5448272	ppb		95
75)	Hexachlorobenzene	6.128	284	93062	28547.9722569	ppb		99
76)	n-octadecane	6.316	55	65192	30769.5273176	ppb		98
77)	Pentachlorophenol	6.275	266	49246	37560.7979317	ppb		99
78)	Phenanthrene	6.451	178	440824	28484.0401965	ppb		99
79)	Anthracene	6.493	178	437751	30755.2925924	ppb		98
80)	Carbazole	6.610	167	385203	31999.4175581	ppb		99
81)	Di-n-butyl phthalate	6.881	149	608371	34873.9743472	ppb		100
83)	Fluoranthene	7.457	202	461554	31933.8146061	ppb		100
86)	Pyrene	7.687	202	472544	27909.1131163	ppb		99
88)	Benzylbutyl phthalate	8.445	149	240272	38056.0281756	ppb		98
90)	Benzo(a)anthracene	9.239	228	379776	31620.6351628	ppb		99
91)	Chrysene	9.298	228	380085	28883.5511661	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.339	149	354516	38301.5951884	ppb		98
93)	Di-n-octyl phthalate	10.569	149	549350	42584.0048156	ppb		100
95)	Benzo(b)fluoranthene	11.186	252	363170	33596.9345021	ppb		98
96)	Benzo(k)fluoranthene	11.245	252	363957	32700.0638399	ppb		99
97)	Benzo(a)pyrene	11.845	252	303156	35565.4967114	ppb		100
98)	Indeno(1,2,3-cd)pyrene	13.892	276	271655	34294.8931437	ppb		99
99)	Dibenz(a,h)anthracene	13.939	278	299709	33335.5644575	ppb		97
100)	Benzo(g,h,i)perylene	14.233	276	310410	32010.1091947	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

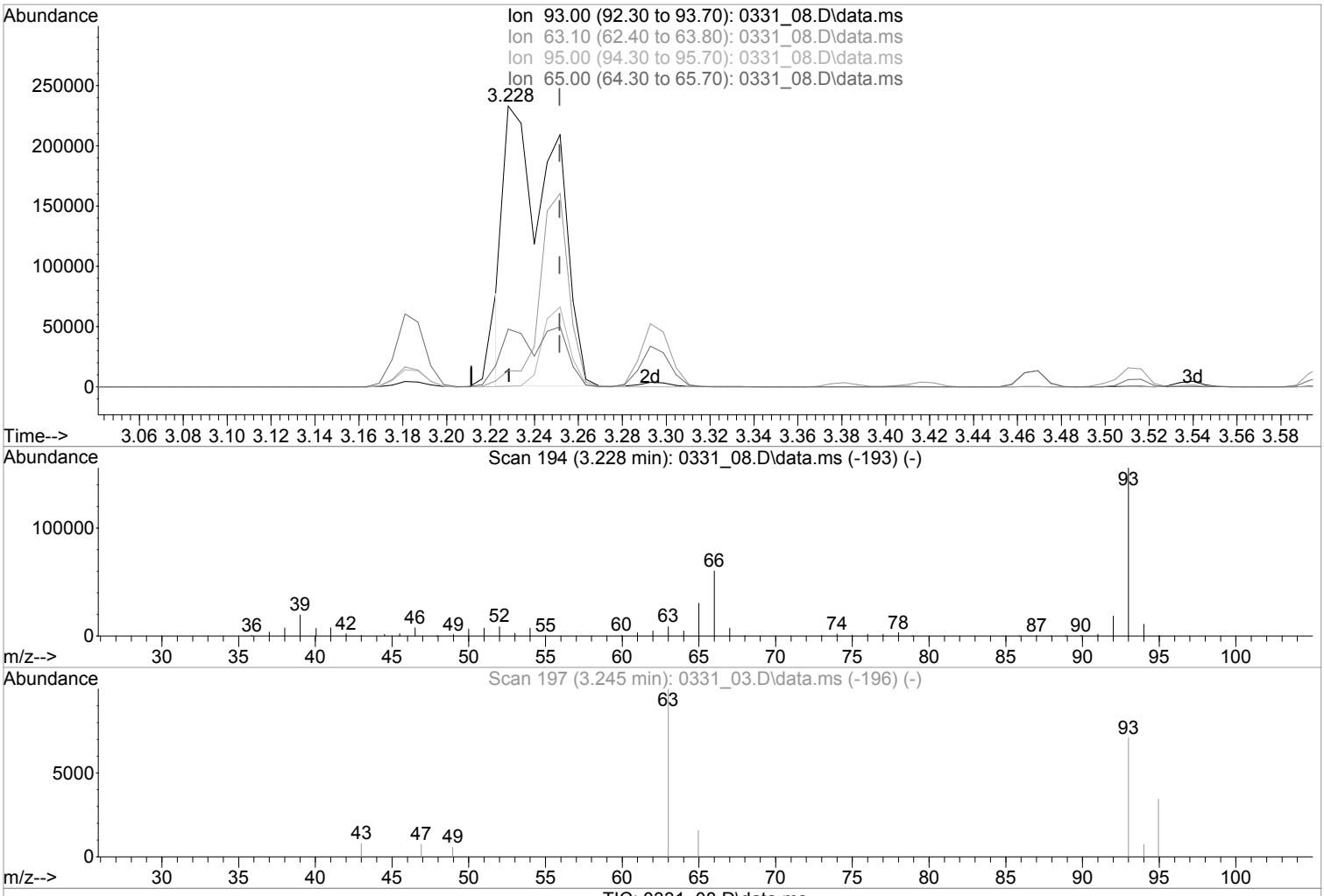
Quant Time: Apr 04 16:07:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:13 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.023) 64297.1729842 ppb

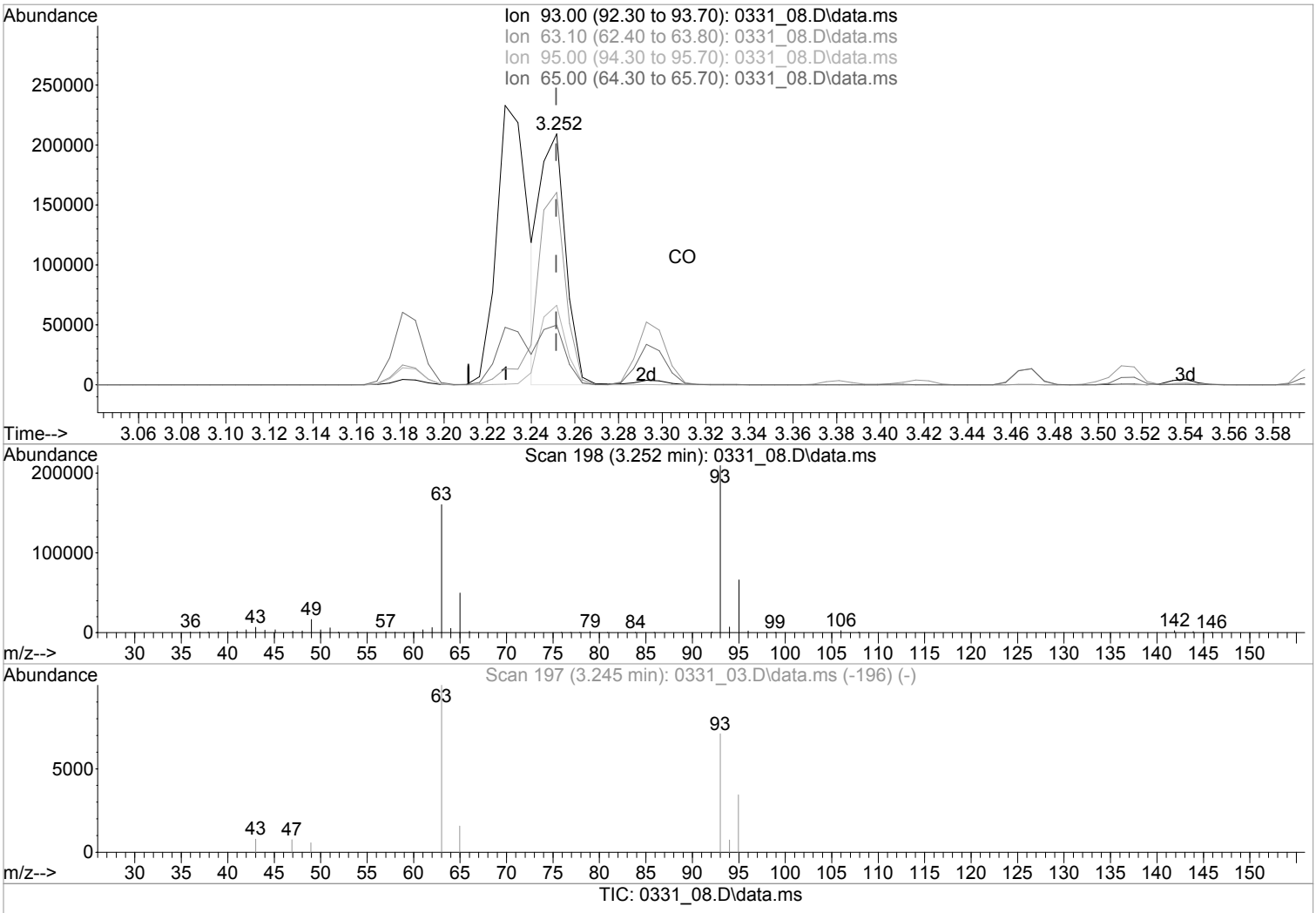
Qvalue = 37

response 366812

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	4.74#
95.00	31.90	0.23#
65.00	23.10	20.00

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:13 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.252min (+0.000) 29396.0633812 ppb m

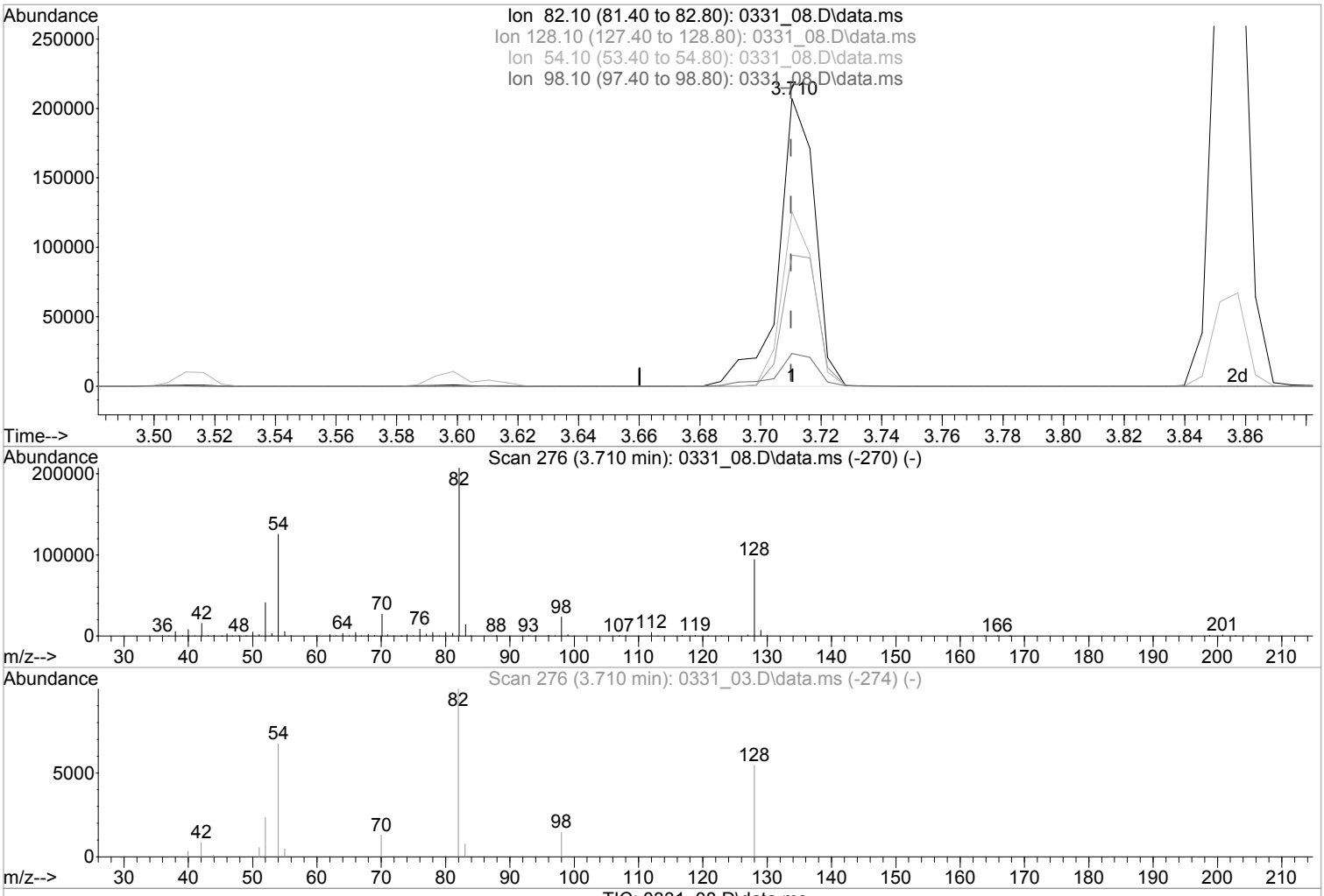
response 167703

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	76.64
95.00	31.90	31.63
65.00	23.10	23.78

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:13 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 34452.1549448 ppb

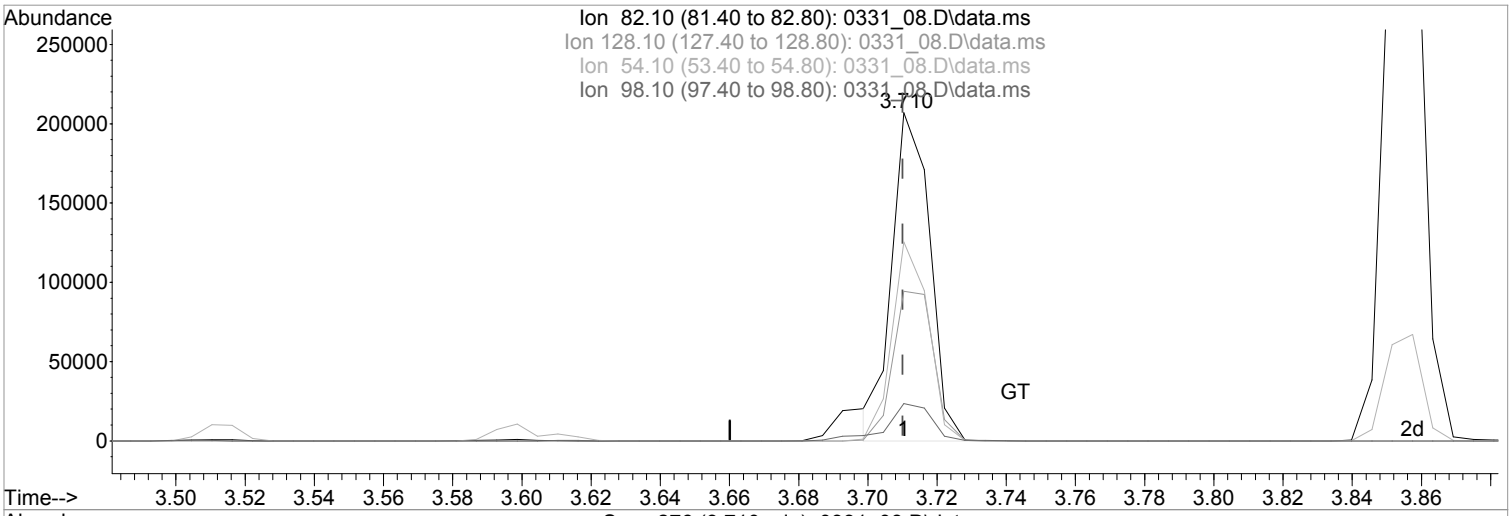
Qvalue = 99

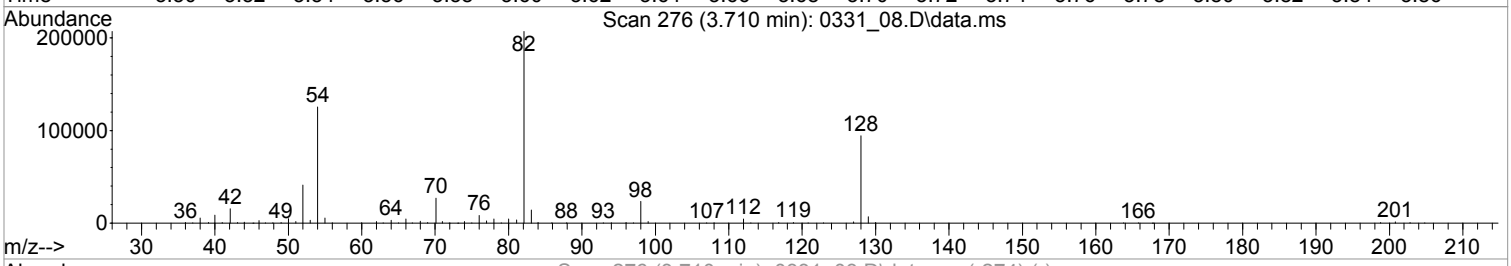
response 171656

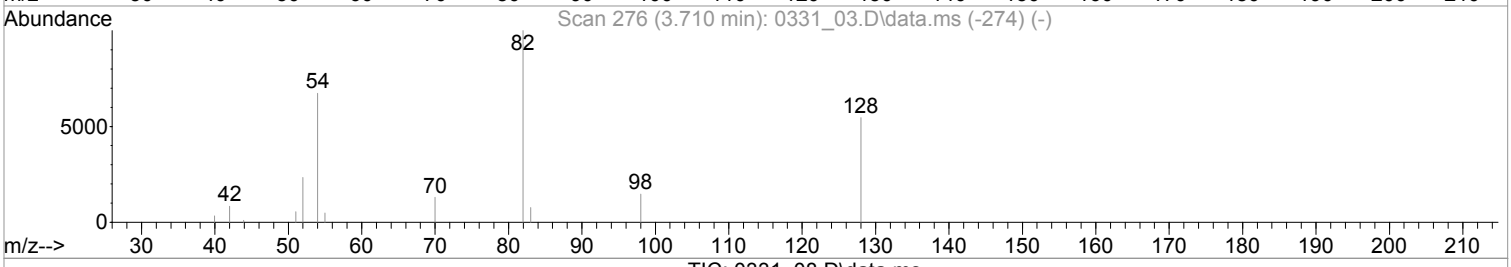
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.54
54.10	60.00	60.63
98.10	11.40	11.35

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_08.D
Acq On : 31 Mar 2022 7:11 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 16:07:13 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:07:10 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (+0.000) 31417.3001484 ppb m

response 156535

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.54
54.10	60.00	60.63
98.10	11.40	11.35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:09:21 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	33061	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.145	136	133057	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.310	164	71412	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.434	188	114930	8000.0000000 ppb		0.00
84) Chrysene-d12	9.251	240	88961	8000.0000000 ppb		0.00
94) Perylene-d12	11.957	264	77968	8000.0000000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.740	112	203931	39398.3935171 ppb		0.00
Spiked Amount 20000.000				Recovery = 196.99%		
7) Phenol-d5	3.175	99	243776	39757.9207209 ppb		0.00
Spiked Amount 20000.000				Recovery = 198.79%		
24) Nitrobenzene-d5	3.710	82	206939m	41156.7993172 ppb		0.00
Spiked Amount 10000.000				Recovery = 411.57%		
50) 2-Fluorobiphenyl	4.828	172	421450	36358.0213610 ppb		0.00
Spiked Amount 10000.000				Recovery = 363.58%		
73) 2,4,6-Tribromophenol	5.892	330	52112	45093.5757565 ppb		0.00
Spiked Amount 20000.000				Recovery = 225.47%		
87) p-Terphenyl-d14	7.845	244	468126	37487.3348476 ppb		0.00
Spiked Amount 10000.000				Recovery = 374.87%		
Target Compounds						Qvalue
2) Pyridine	2.210	79	215337	39199.7597546 ppb		99
3) N-Nitrosodimethylamine	2.199	42	101884	34057.7162643 ppb		95
5) Aniline	3.228	66	113937	40229.0431035 ppb	#	20
6) bis(2-Chloroethyl)ether	3.251	93	219184m	39099.6807544 ppb		
8) Phenol	3.187	94	256473	39374.8144871 ppb		94
10) 2-Chlorophenol	3.293	128	217896	40356.4763866 ppb		98
11) n-Decane	3.293	41	127032	35472.1283692 ppb	#	98
12) 1,3-Dichlorobenzene	3.381	146	234296	37078.5499497 ppb		99
13) 1,4-Dichlorobenzene	3.422	146	235807	37329.3526295 ppb		99
14) Benzyl Alcohol	3.469	79	162508	41457.2445089 ppb		100
15) 1,2-Dichlorobenzene	3.504	146	223975	36604.1805905 ppb		98
16) bis(2-Chloroisopropyl)...	3.540	121	78759	37548.9281211 ppb		99
17) 2,2-oxybis(1-chloropro...	3.540	121	78759	37548.9281211 ppb		99
18) 2-Methylphenol	3.516	108	195561	40184.3520115 ppb		99
19) Hexachloroethane	3.698	117	99275	37916.4240494 ppb		97
20) N-Nitrosodi-n-propylamine	3.616	70	141625	41367.6274712 ppb		94
21) 3&4-Methyl phenol	3.598	107	215277	40147.0649295 ppb		97
25) Nitrobenzene	3.722	77	207934	40842.8260253 ppb		99
26) Isophorone	3.857	82	414425	41877.8923137 ppb		93
27) 2-Nitrophenol	3.904	139	106429	45894.6910183 ppb		93
28) 2,4-Dimethylphenol	3.910	107	201269	40480.4960184 ppb		97
29) bis(2-Chlorethoxy)methane	3.969	93	263088	38782.5012305 ppb		99
30) 2,4-Dichlorophenol	4.045	162	161714	41566.3970266 ppb		95
32) 1,2,4-Trichlorobenzene	4.104	180	177380	36961.8874658 ppb		97
34) Naphthalene	4.157	128	612175m	35905.5101669 ppb		
35) 4-Chloroaniline	4.175	65	72463	42304.5815986 ppb		93
36) Hexachloro-1,3-butadiene	4.222	225	96557	37316.3930938 ppb		98
40) 4-Chloro-3-methylphenol	4.463	107	178473	44634.5178058 ppb		95
41) 2-Methylnaphthalene	4.592	142	405791	38526.0570869 ppb		99
42) 1-Methylnaphthalene	4.657	142	392103	38134.7387840 ppb		100
47) Hexachlorocyclopentadiene	4.692	237	99377	43836.3485368 ppb		100
48) 2,4,6-Trichlorophenol	4.769	196	115768	44826.2313232 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:09:21 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

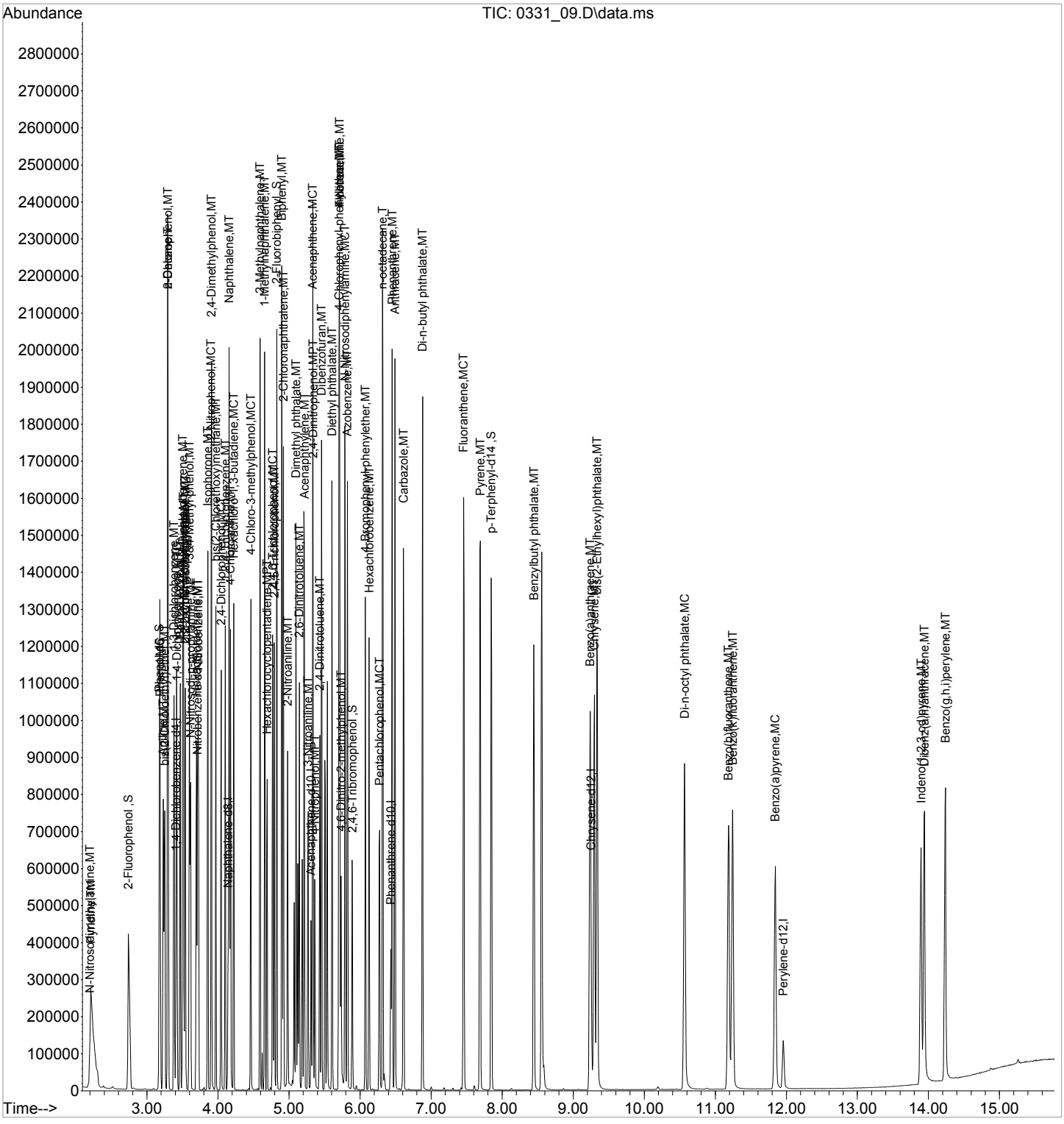
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.792	196	119302	45453.5255064	ppb		96
51)	Biphenyl	4.898	154	480393	36947.6299186	ppb		99
52)	2-Chloronaphthalene	4.922	162	373851	37326.0436365	ppb		98
53)	2-Nitroaniline	4.981	138	127833	48518.5215917	ppb		99
54)	Acenaphthylene	5.216	152	592569	38881.8295975	ppb		99
55)	Dimethyl phthalate	5.098	163	444091	40193.5954557	ppb		92
56)	2,6-Dinitrotoluene	5.145	165	103807	44504.8915003	ppb		87
57)	3-Nitroaniline	5.269	138	96588	45668.5841609	ppb		87
58)	Acenaphthene	5.334	153	388931	37316.7229950	ppb		99
59)	2,4-Dinitrophenol	5.339	184	36205	54603.2195077	ppb	#	61
60)	Dibenzofuran	5.457	168	518647	37194.8213715	ppb		99
61)	2,4-Dinitrotoluene	5.434	165	127967	47082.0688130	ppb		92
63)	4-Nitrophenol	5.363	139	72385	49365.8107588	ppb		89
64)	Fluorene	5.710	166	434013	37758.1780561	ppb		99
65)	4-Chlorophenyl-phenyle...	5.704	204	192964	36606.8438369	ppb		98
66)	Diethyl phthalate	5.604	149	453615	39207.5189475	ppb		99
67)	4-Nitroaniline	5.710	138	53281	37694.5684669	ppb		94
68)	Azobenzene	5.822	77	456869	39433.4676522	ppb		99
71)	4,6-Dinitro-2-methylph...	5.734	198	55654	57714.6966225	ppb		89
72)	N-Nitrosodiphenylamine	5.787	169	350165	38968.2162355	ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	105898	38256.7651444	ppb		98
75)	Hexachlorobenzene	6.128	284	118963	36265.8792912	ppb		99
76)	n-octadecane	6.316	55	83858	38849.3842584	ppb		99
77)	Pentachlorophenol	6.275	266	66534	47058.4196872	ppb		99
78)	Phenanthrene	6.451	178	568662	36528.3050546	ppb		99
79)	Anthracene	6.492	178	571694	39427.9021495	ppb		98
80)	Carbazole	6.610	167	491734	39824.5607550	ppb		99
81)	Di-n-butyl phthalate	6.881	149	777001	42748.1261335	ppb		100
83)	Fluoranthene	7.457	202	603883	40747.9721884	ppb		100
86)	Pyrene	7.692	202	623307	36620.5339470	ppb		100
88)	Benzylbutyl phthalate	8.445	149	321842	47972.5534686	ppb		99
90)	Benzo(a)anthracene	9.239	228	501256	40668.1622367	ppb		99
91)	Chrysene	9.298	228	495769	37273.1327916	ppb		100
92)	bis(2-Ethylhexyl)phtha...	9.333	149	468790	47601.6976177	ppb		99
93)	Di-n-octyl phthalate	10.569	149	733280	52235.2983621	ppb		100
95)	Benzo(b)fluoranthene	11.186	252	474283	42112.1585885	ppb		98
96)	Benzo(k)fluoranthene	11.245	252	481495	41725.0907736	ppb		99
97)	Benzo(a)pyrene	11.845	252	399588	44516.7656301	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.898	276	354988	42850.6886914	ppb		96
99)	Dibenz(a,h)anthracene	13.945	278	390368	41733.1534265	ppb		100
100)	Benzo(g,h,i)perylene	14.239	276	403531	40288.2616536	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

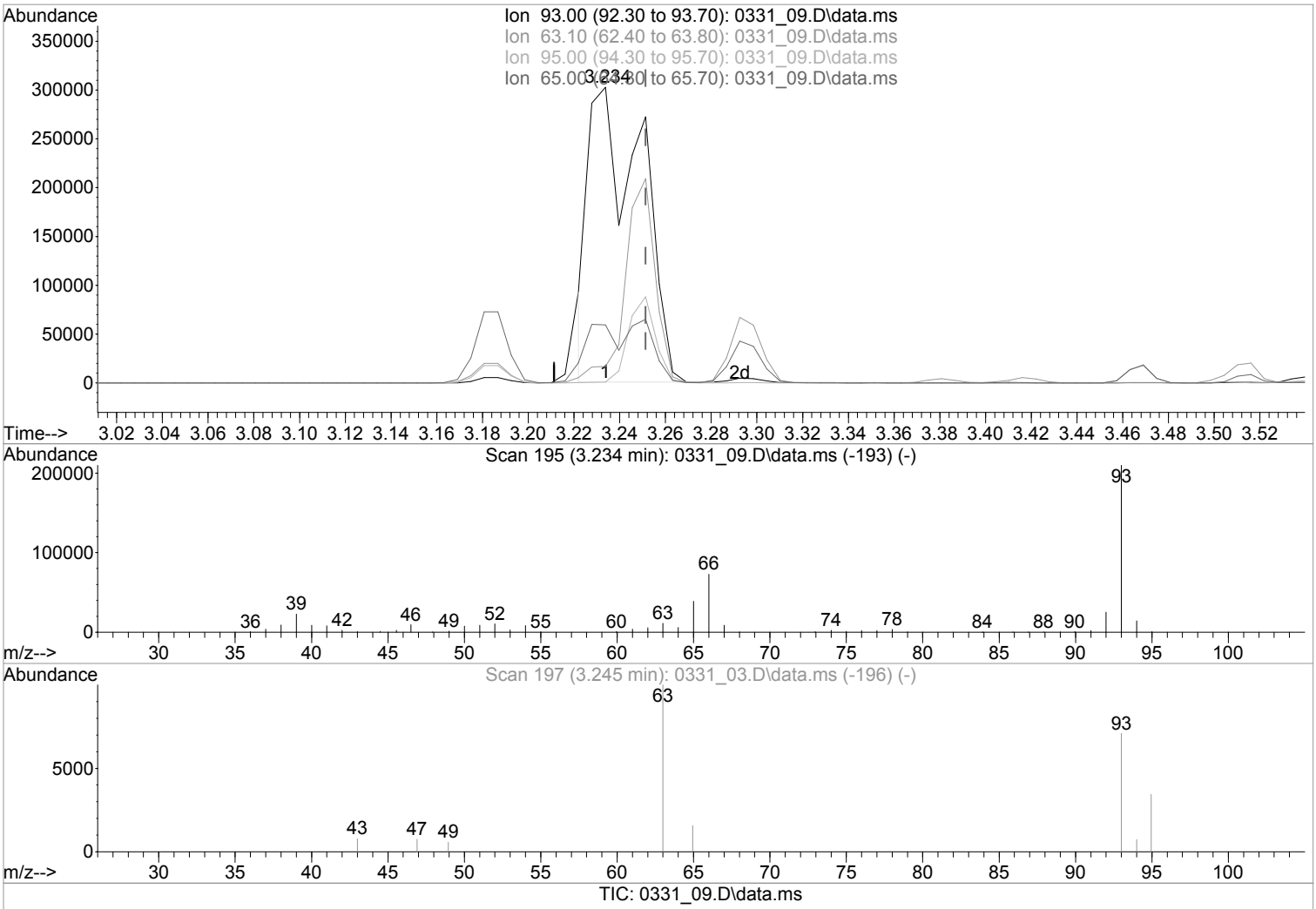
Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:09:21 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.234min (-0.018) 85884.8291794 ppb

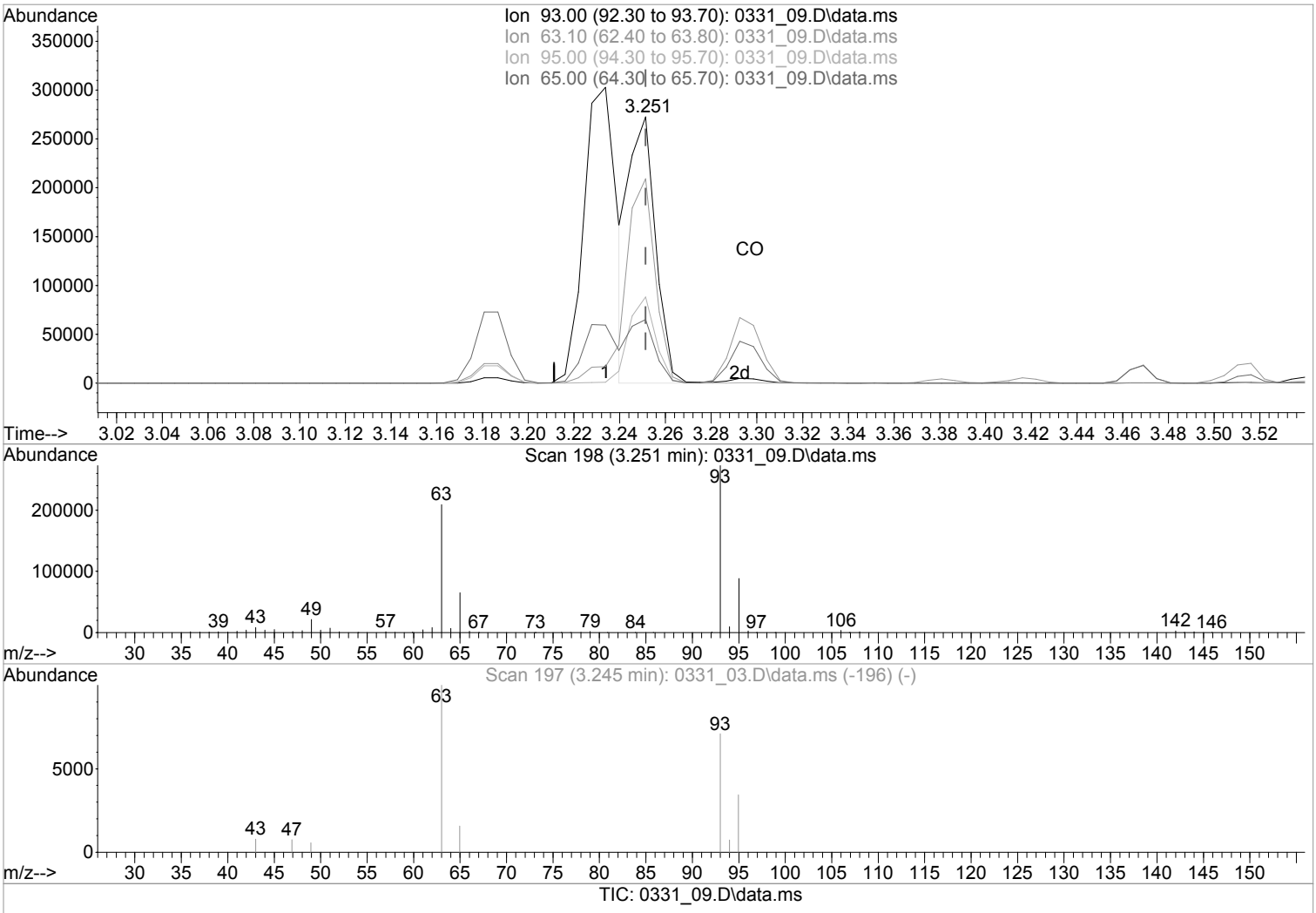
Qvalue = 36

response 481451

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	4.59#
95.00	31.90	0.31#
65.00	23.10	19.03

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

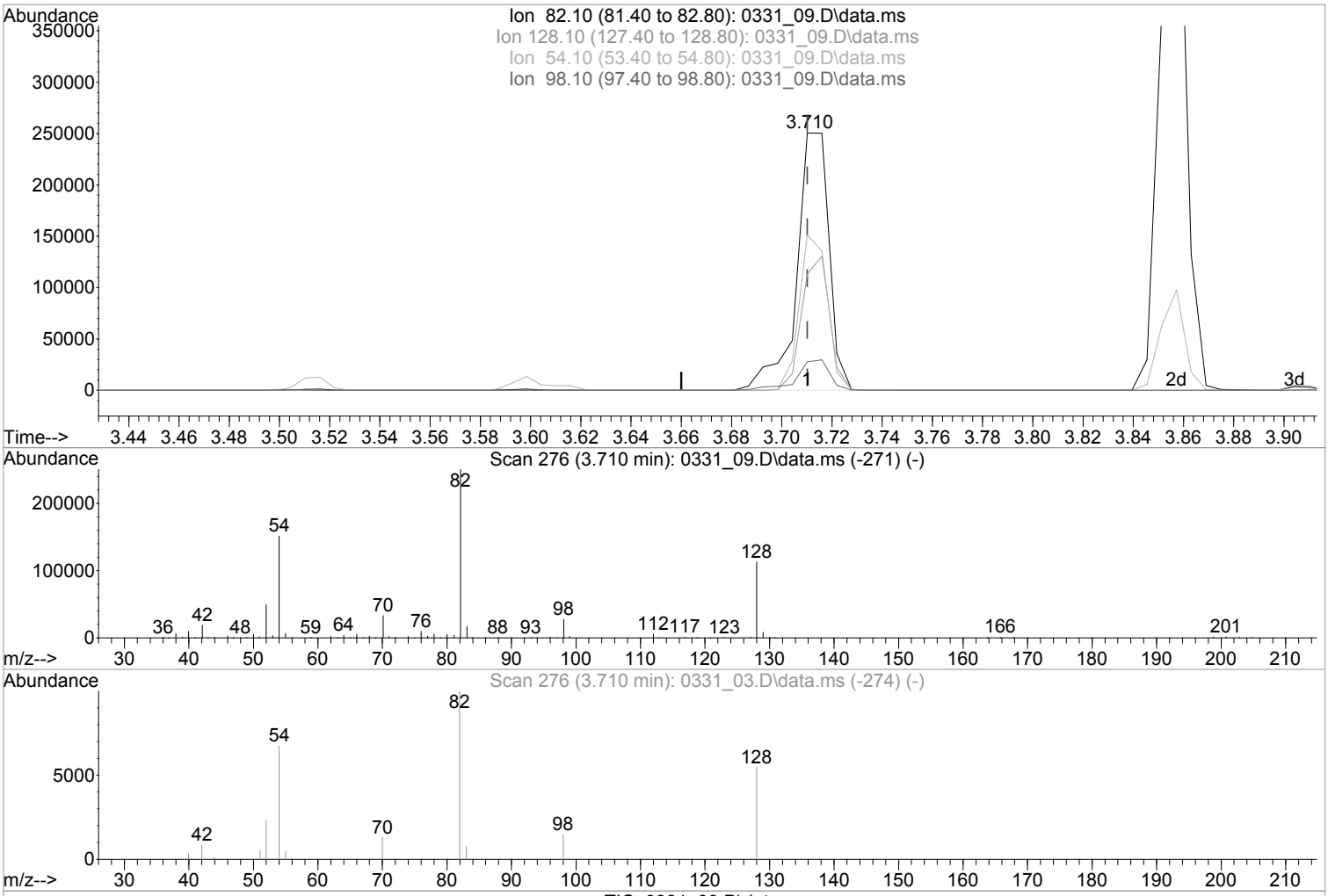
3.251min (-0.000) 39099.6807544 ppb m

response 219184

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	76.70
95.00	31.90	32.33
65.00	23.10	23.85

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 44885.2725233 ppb

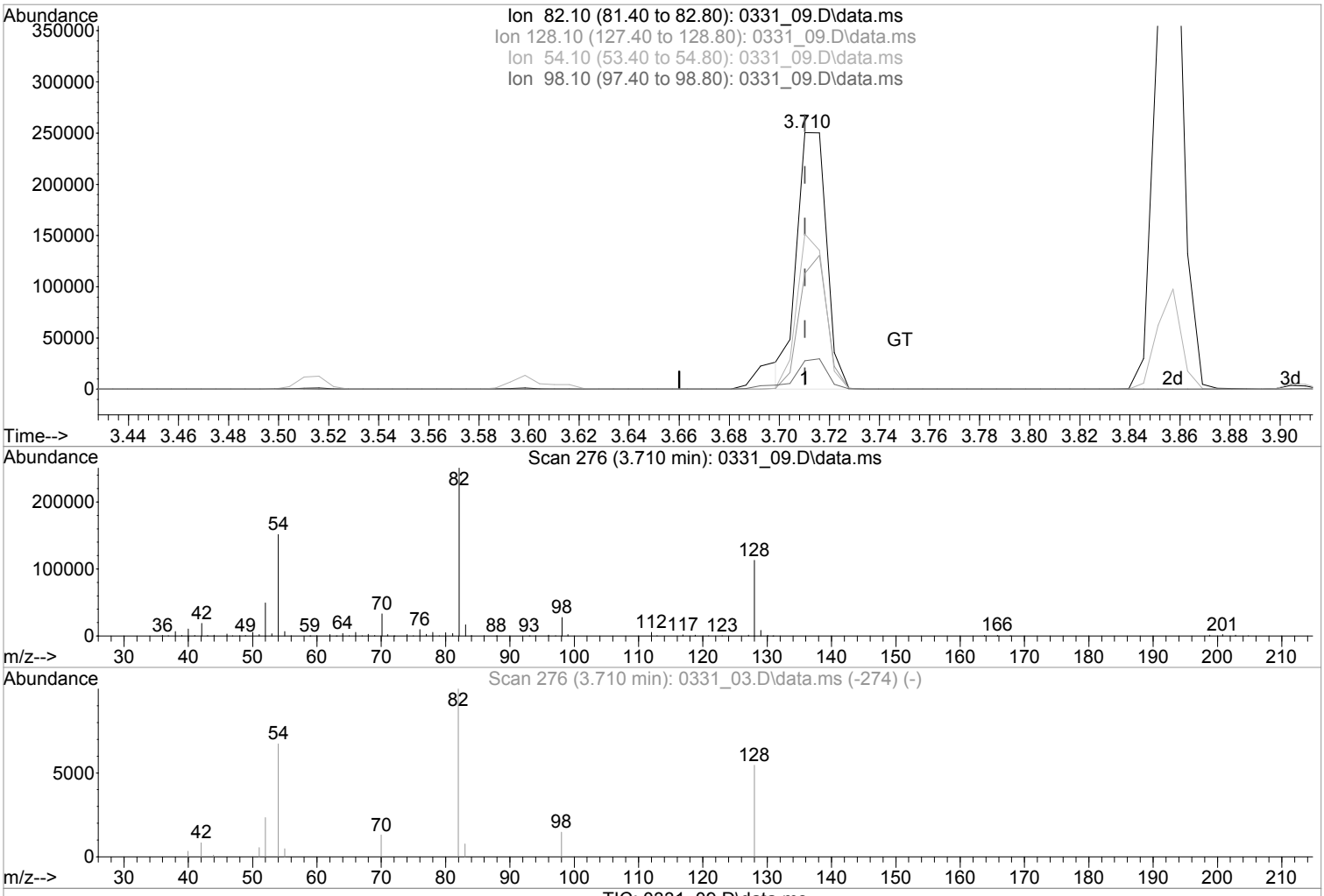
Qvalue = 99

response 225686

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.16
54.10	60.00	60.49
98.10	11.40	11.07

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 41156.7993172 ppb m

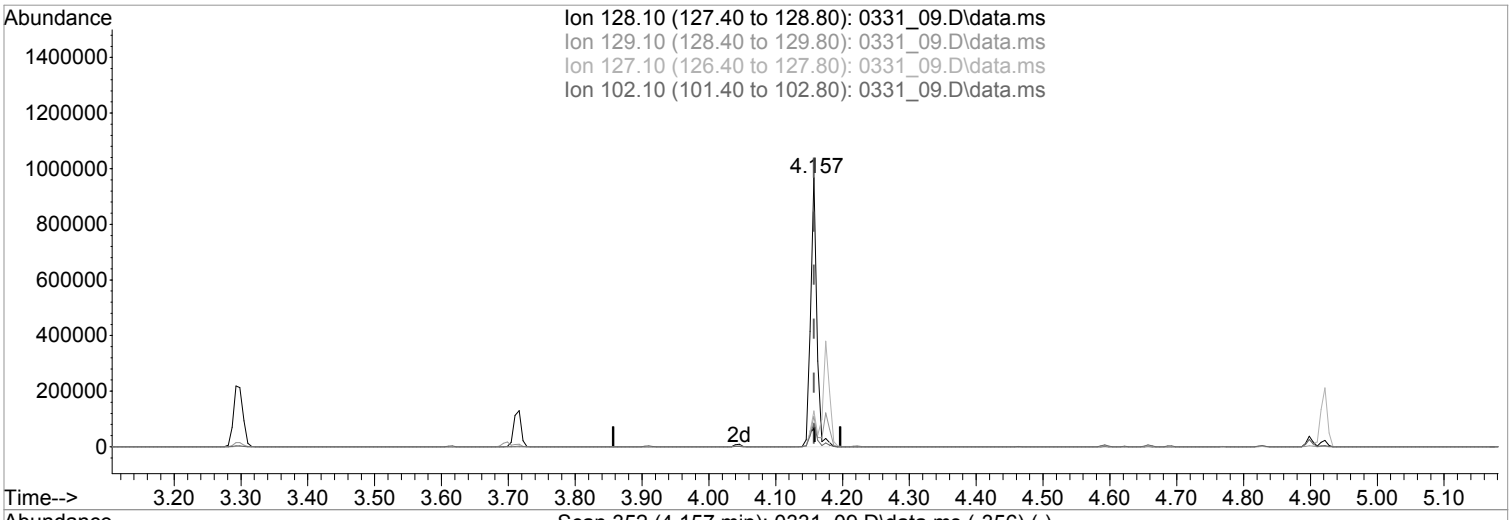
response 206939

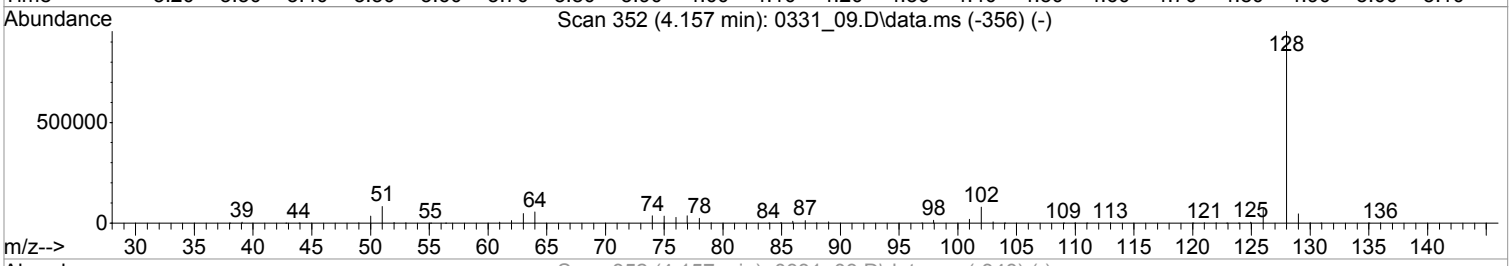
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	45.16
54.10	60.00	60.49
98.10	11.40	11.07

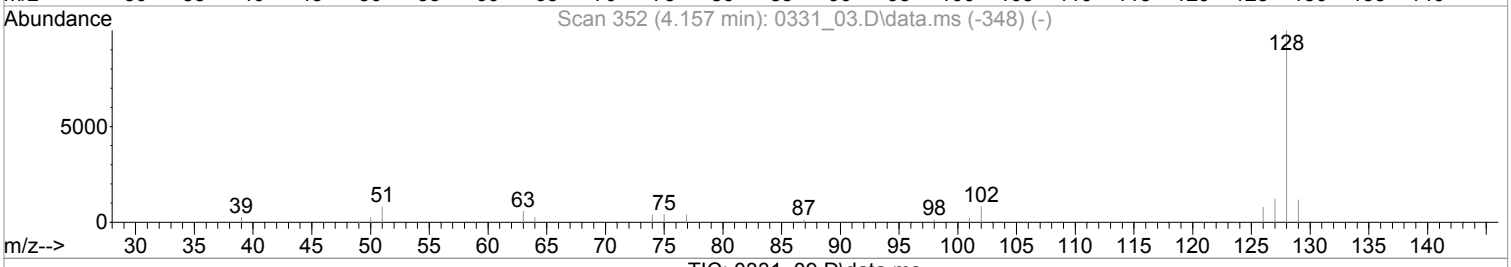
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_09.D\data.ms

(34) Naphthalene (MT)

4.157min (-0.000) 36849.7545549 ppb

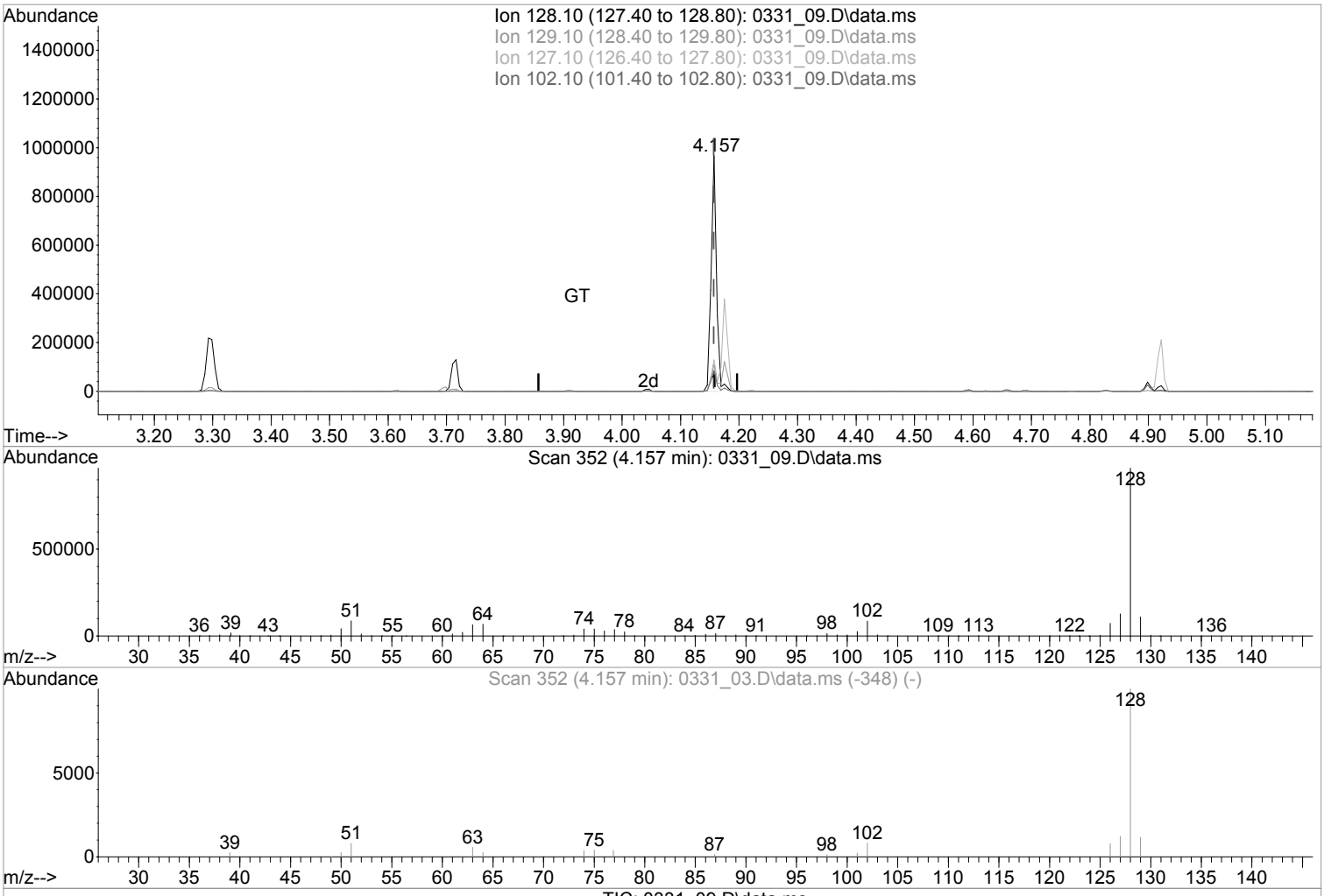
Qvalue = 99

response 628274

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.30
127.10	12.80	13.27
102.10	8.30	8.84

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_09.D
Acq On : 31 Mar 2022 7:32 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 16:08:34 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:08:32 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_09.D\data.ms

(34) Naphthalene (MT)

4.157min (-0.000) 35905.5101669 ppb m

response 612175

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.30
127.10	12.80	13.27
102.10	8.30	8.84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	33286	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.145	136	137379	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	72853	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.434	188	116755	8000.0000000	ppb		0.00
84) Chrysene-d12	9.257	240	89872	8000.0000000	ppb		0.01
94) Perylene-d12	11.957	264	80041	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	264507	50865.2212692	ppb		0.00
Spiked Amount 20000.000				Recovery = 254.33%			
7) Phenol-d5	3.175	99	314531	50994.8347848	ppb		0.00
Spiked Amount 20000.000				Recovery = 254.97%			
24) Nitrobenzene-d5	3.716	82	265314m	50896.3023359	ppb		0.00
Spiked Amount 10000.000				Recovery = 508.96%			
50) 2-Fluorobiphenyl	4.828	172	542476	46477.6781496	ppb		0.00
Spiked Amount 10000.000				Recovery = 464.78%			
73) 2,4,6-Tribromophenol	5.892	330	68453	57096.1272770	ppb		0.00
Spiked Amount 20000.000				Recovery = 285.48%			
87) p-Terphenyl-d14	7.851	244	598918	47904.8278187	ppb		0.00
Spiked Amount 10000.000				Recovery = 479.05%			
Target Compounds							Qvalue
2) Pyridine	2.210	79	278007	50410.1333313	ppb		99
3) N-Nitrosodimethylamine	2.199	42	130731	44346.4125409	ppb		94
5) Aniline	3.234	66	145606	51021.5276676	ppb	#	20
6) bis(2-Chloroethyl)ether	3.251	93	282472m	50210.3023281	ppb		
8) Phenol	3.187	94	331731	50697.6796332	ppb		94
10) 2-Chlorophenol	3.293	128	278445	51157.0179990	ppb		99
11) n-Decane	3.293	41	162108	45699.6951523	ppb	#	99
12) 1,3-Dichlorobenzene	3.381	146	298942	47484.7663177	ppb		98
13) 1,4-Dichlorobenzene	3.416	146	300039	47630.8185250	ppb		96
14) Benzyl Alcohol	3.469	79	210910	53164.6348947	ppb		100
15) 1,2-Dichlorobenzene	3.504	146	285067	46841.6039443	ppb		98
16) bis(2-Chloroisopropyl)...	3.540	121	101326	48405.0979156	ppb		97
17) 2,2-oxybis(1-chloropro...	3.540	121	101326	48405.0979156	ppb		97
18) 2-Methylphenol	3.516	108	247855	50552.3018914	ppb		97
19) Hexachloroethane	3.698	117	128718	49195.4518813	ppb		97
20) N-Nitrosodi-n-propylamine	3.616	70	184502	53267.2220924	ppb		96
21) 3&4-Methyl phenol	3.598	107	275858	51070.2615719	ppb		97
25) Nitrobenzene	3.728	77	266900	50623.3549262	ppb		92
26) Isophorone	3.857	82	534310	51945.3365587	ppb		94
27) 2-Nitrophenol	3.910	139	138474	56448.2096839	ppb		83
28) 2,4-Dimethylphenol	3.910	107	256556	49891.1889295	ppb		97
29) bis(2-Chlorethoxy)methane	3.969	93	337131	48344.0868992	ppb		98
30) 2,4-Dichlorophenol	4.045	162	210856	52200.5777632	ppb		95
32) 1,2,4-Trichlorobenzene	4.104	180	227453	46408.3958517	ppb		98
34) Naphthalene	4.157	128	788352m	45448.6219591	ppb		
35) 4-Chloroaniline	4.175	65	95090	53256.5383024	ppb		92
36) Hexachloro-1,3-butadiene	4.222	225	121864	46056.5273806	ppb		98
40) 4-Chloro-3-methylphenol	4.463	107	230866	55010.5698340	ppb		96
41) 2-Methylnaphthalene	4.592	142	523350	48378.6737429	ppb		99
42) 1-Methylnaphthalene	4.657	142	504378	47829.6186952	ppb		100
47) Hexachlorocyclopentadiene	4.692	237	129995	55448.3866010	ppb		98
48) 2,4,6-Trichlorophenol	4.769	196	150352	56098.9471818	ppb		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

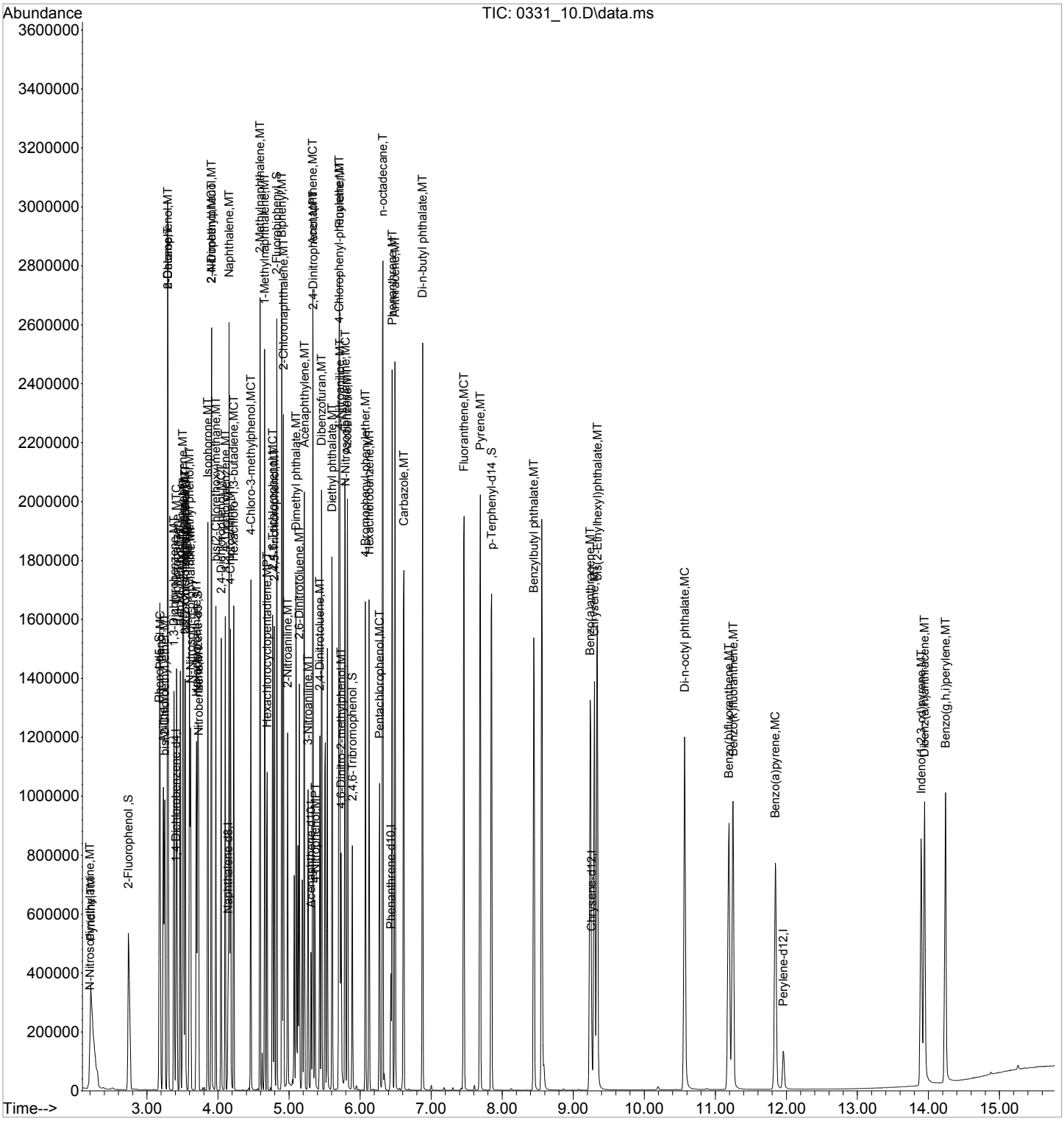
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.792	196	156604	57367.9164041	ppb		96
51)	Biphenyl	4.898	154	622475	47445.6021582	ppb		99
52)	2-Chloronaphthalene	4.922	162	482181	47644.7044791	ppb		98
53)	2-Nitroaniline	4.981	138	165837	59582.9836669	ppb		98
54)	Acenaphthylene	5.216	152	755128	48762.9428449	ppb		100
55)	Dimethyl phthalate	5.098	163	561198	49753.6083527	ppb		90
56)	2,6-Dinitrotoluene	5.145	165	134010	55279.7104365	ppb		90
57)	3-Nitroaniline	5.269	138	123042	55709.9964627	ppb		92
58)	Acenaphthene	5.334	153	499015	47386.0236386	ppb		99
59)	2,4-Dinitrophenol	5.339	184	50832	70033.2715714	ppb	#	80
60)	Dibenzofuran	5.457	168	655054	46514.0746116	ppb		99
61)	2,4-Dinitrotoluene	5.434	165	167787	58777.2992537	ppb		88
63)	4-Nitrophenol	5.369	139	95099	61185.9537290	ppb		93
64)	Fluorene	5.710	166	550987	47365.7672850	ppb		98
65)	4-Chlorophenyl-phenyle...	5.704	204	245888	46285.2052677	ppb		97
66)	Diethyl phthalate	5.604	149	571768	48579.8844394	ppb		98
67)	4-Nitroaniline	5.716	138	69559	48705.2165231	ppb		94
68)	Azobenzene	5.822	77	585843	49665.8520799	ppb		99
71)	4,6-Dinitro-2-methylph...	5.734	198	76313	72546.8457901	ppb		83
72)	N-Nitrosodiphenylamine	5.792	169	449103	49379.3048872	ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	136813	48957.3690334	ppb		98
75)	Hexachlorobenzene	6.128	284	151571	46098.9591670	ppb		98
76)	n-octadecane	6.322	55	105949	48515.7513457	ppb		99
77)	Pentachlorophenol	6.275	266	88723	59665.7277510	ppb		97
78)	Phenanthrene	6.451	178	723203	46303.2942577	ppb		98
79)	Anthracene	6.492	178	732119	49804.4207366	ppb		98
80)	Carbazole	6.616	167	639932	51048.7019619	ppb		100
81)	Di-n-butyl phthalate	6.881	149	1004284	53860.2373075	ppb		99
83)	Fluoranthene	7.463	202	773416	51234.8738508	ppb		99
86)	Pyrene	7.692	202	788011	46387.8040121	ppb		99
88)	Benzylbutyl phthalate	8.445	149	420027	60257.2779756	ppb		100
90)	Benzo(a)anthracene	9.239	228	649552	52041.4055443	ppb		98
91)	Chrysene	9.298	228	642927	48317.4143460	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.339	149	610913	59781.2931036	ppb		99
93)	Di-n-octyl phthalate	10.569	149	964940	65192.1281284	ppb		100
95)	Benzo(b)fluoranthene	11.192	252	615009	52794.8465110	ppb		99
96)	Benzo(k)fluoranthene	11.251	252	625919	52512.1784771	ppb		98
97)	Benzo(a)pyrene	11.845	252	526182	56195.4572647	ppb		98
98)	Indeno(1,2,3-cd)pyrene	13.898	276	454752	52932.6248519	ppb		99
99)	Dibenz(a,h)anthracene	13.945	278	498154	51557.8237309	ppb		98
100)	Benzo(g,h,i)perylene	14.239	276	507520	49307.3651933	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

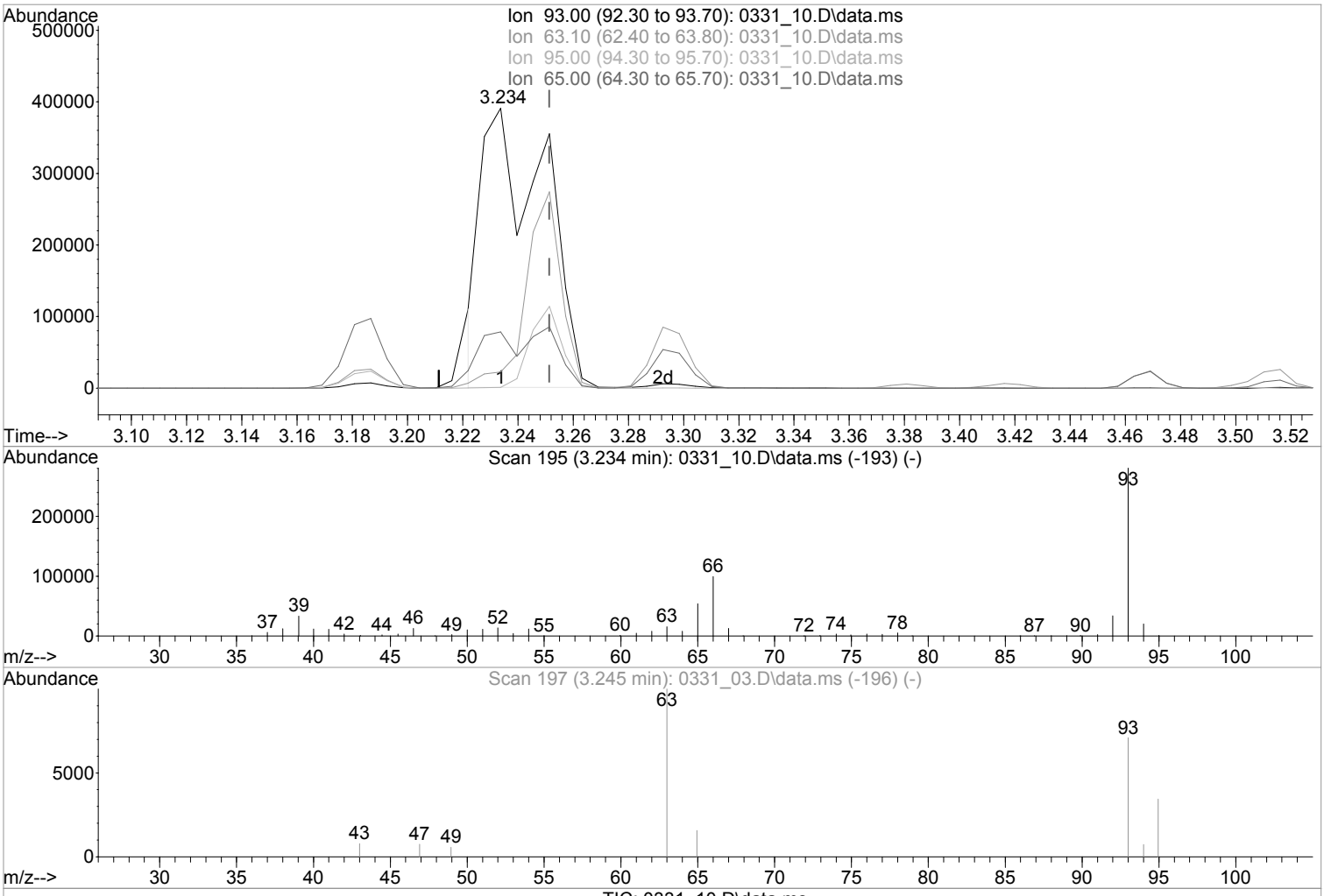
Quant Time: Apr 04 16:10:49 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.234min (-0.018) 109615.2445090 ppb

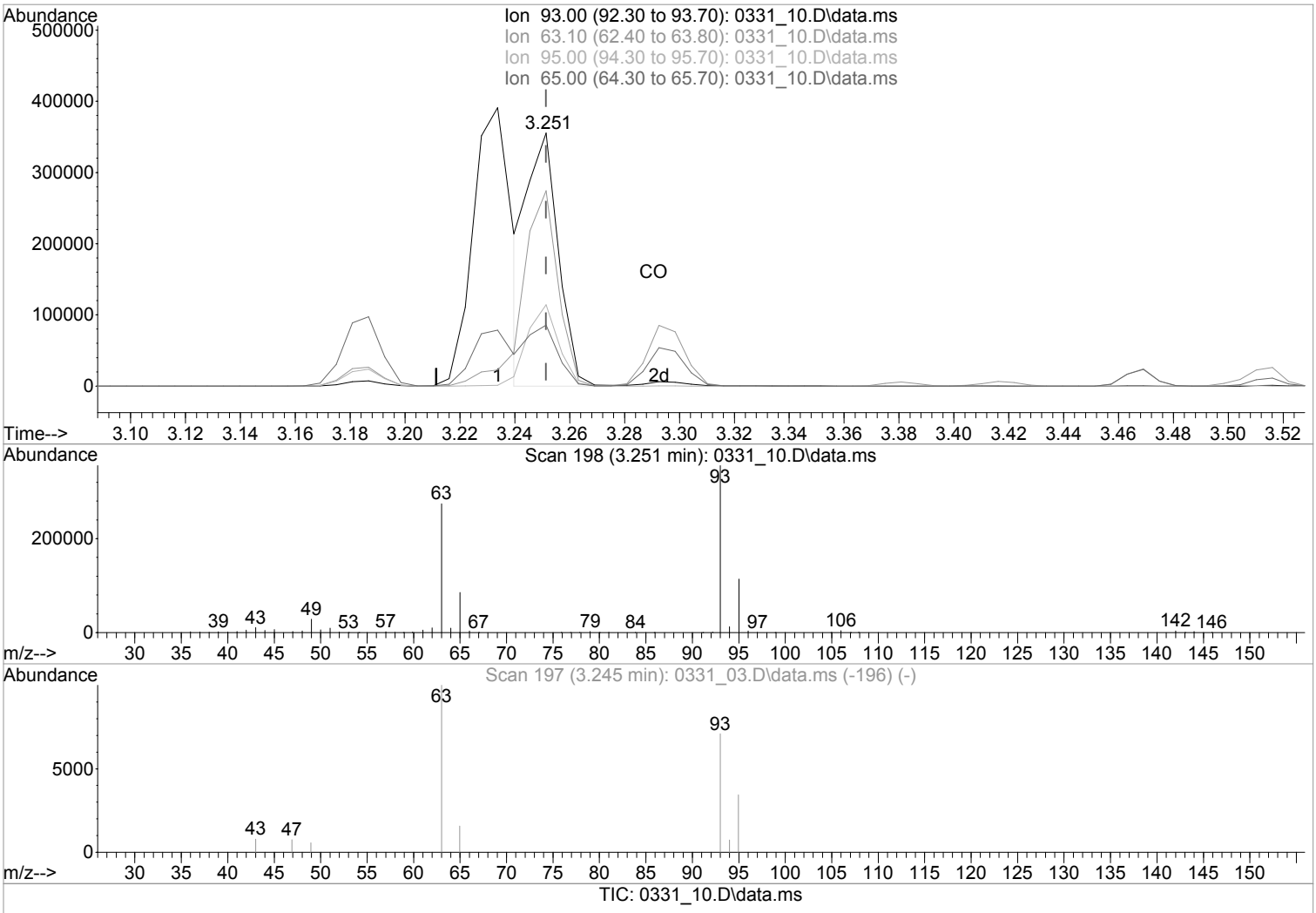
Qvalue = 37

response 616671

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	4.88#
95.00	31.90	0.29#
65.00	23.10	19.61

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

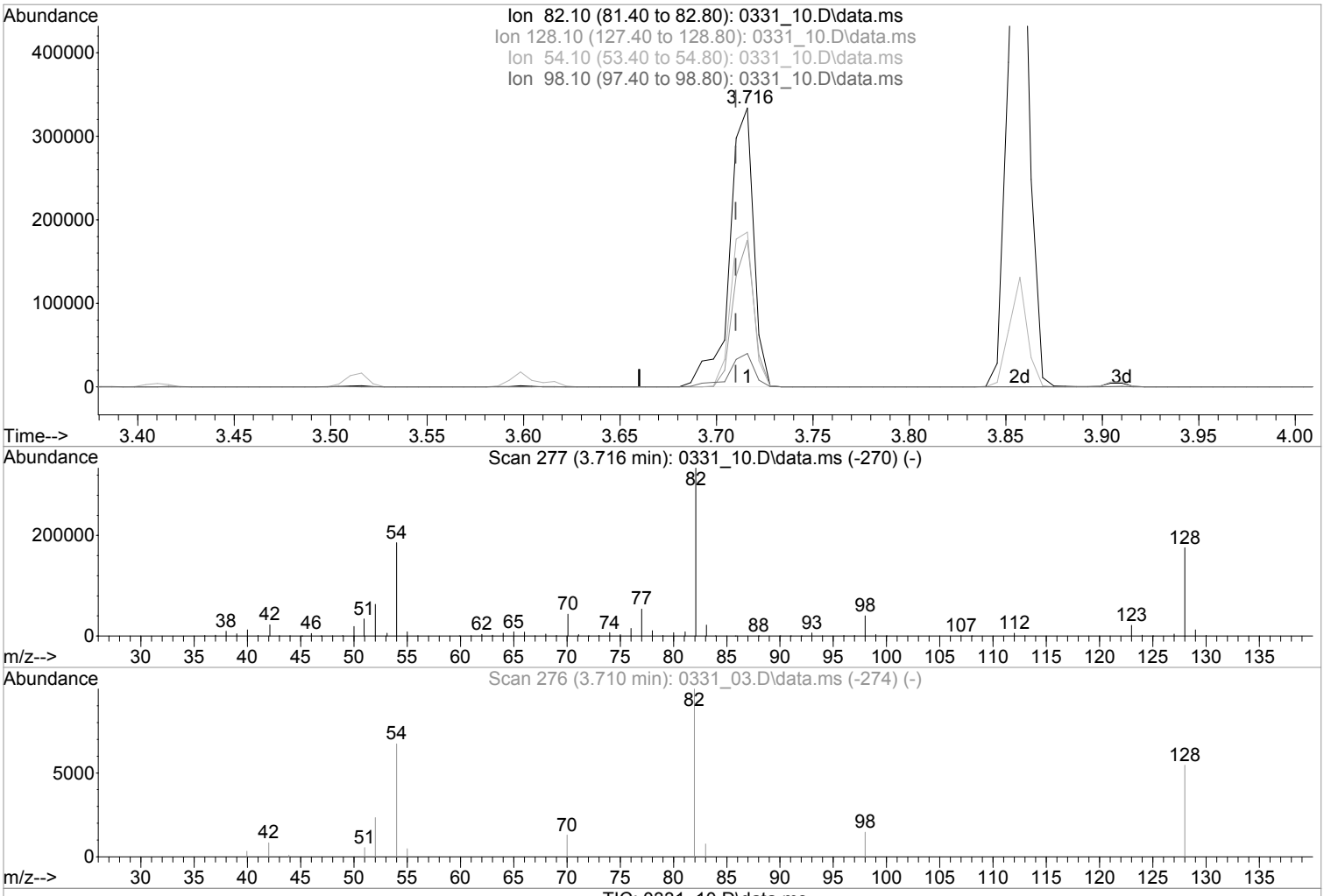
3.251min (-0.000) 50210.3023281 ppb m

response 282472

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	77.21
95.00	31.90	32.08
65.00	23.10	24.05

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.716min (+0.006) 55620.7953288 ppb

Qvalue = 93

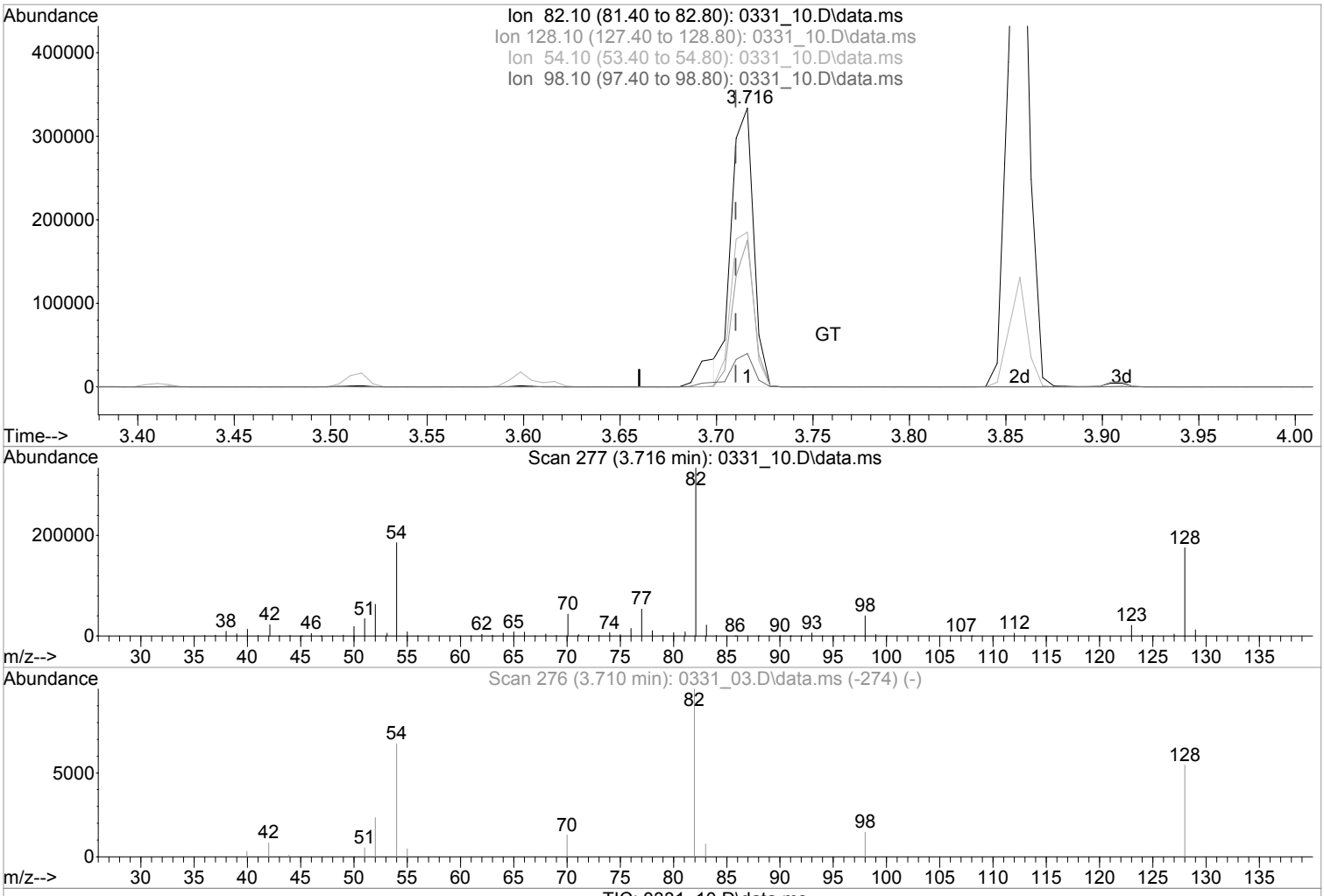
response 289942

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	52.57
54.10	60.00	55.54
98.10	11.40	12.01

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(24) Nitrobenzene-d5 (S)

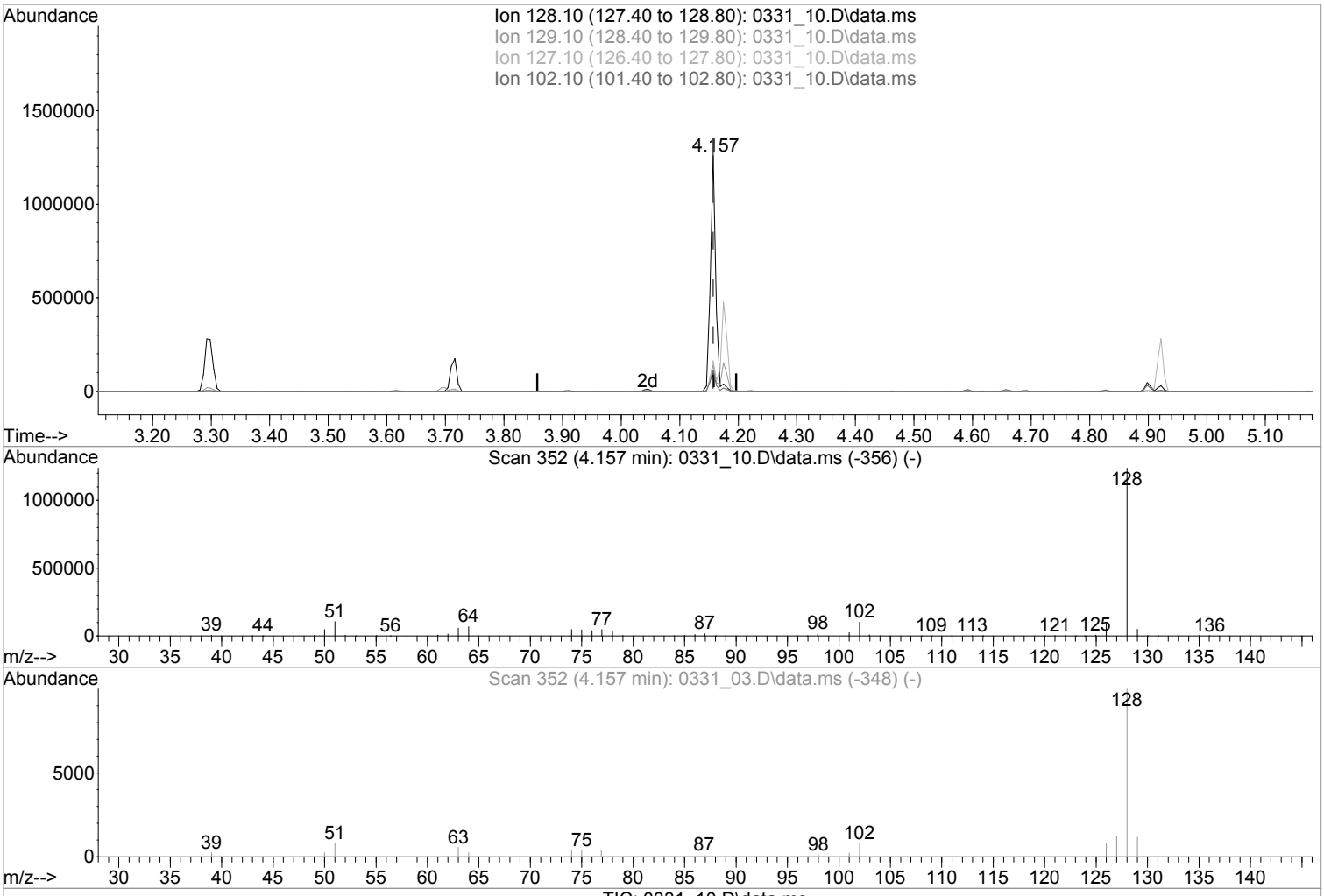
3.716min (+0.006) 50896.3023359 ppb m

response 265314

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	52.57
54.10	60.00	55.54
98.10	11.40	12.01

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(34) Naphthalene (MT)

4.157min (-0.000) 46677.1469504 ppb

Qvalue = 99

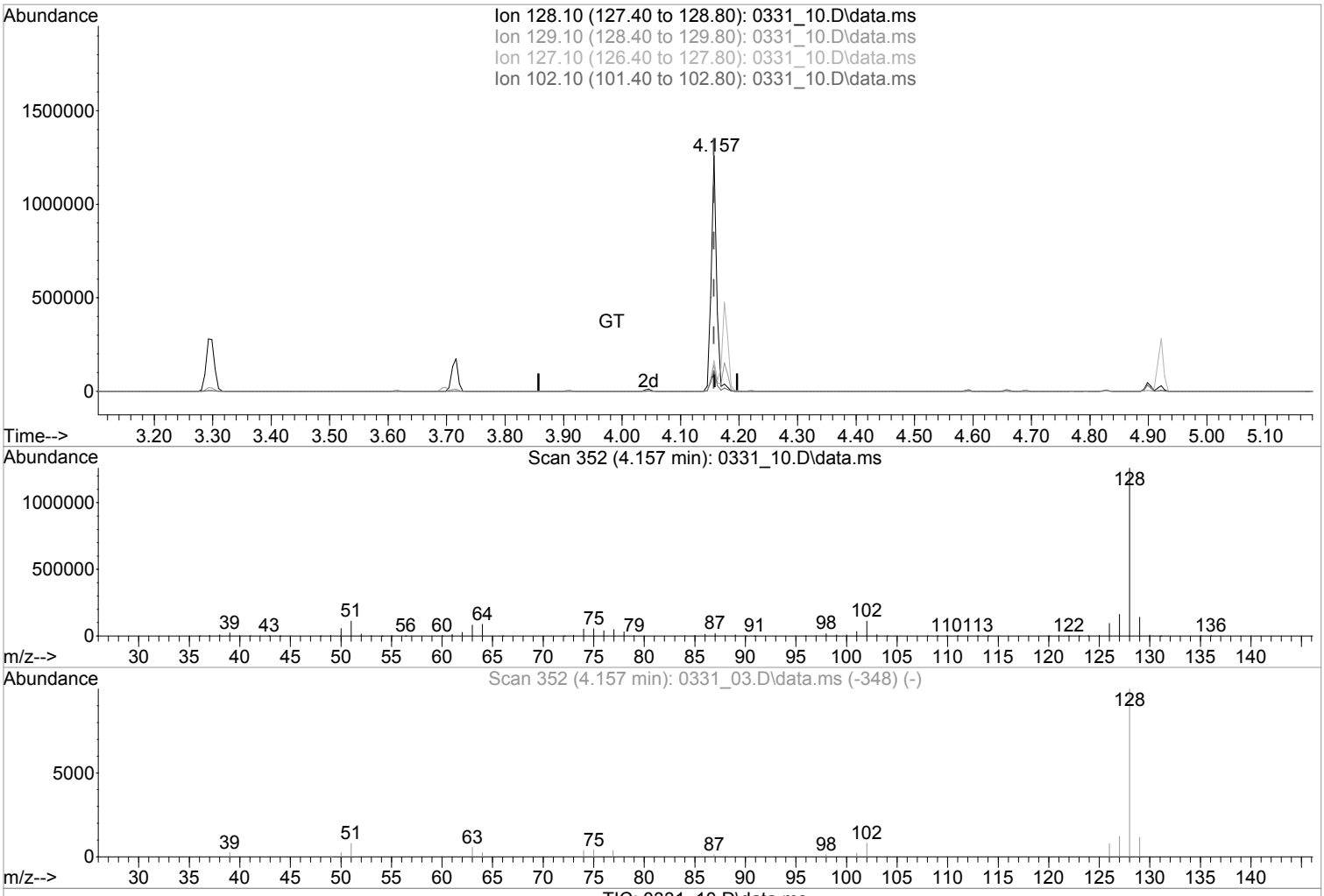
response 809662

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.15
127.10	12.80	12.91
102.10	8.30	8.85

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_10.D
Acq On : 31 Mar 2022 7:53 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22C23059 exp 8/25/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 16:10:03 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:10:00 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_10.D\data.ms

(34) Naphthalene (MT)

4.157min (-0.000) 45448.6219591 ppb m

response 788352

Ion	Exp%	Act%
128.10	100	100
129.10	10.90	11.15
127.10	12.80	12.91
102.10	8.30	8.85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_12.D
Acq On : 31 Mar 2022 8:36 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 04 16:53:59 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:34:56 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

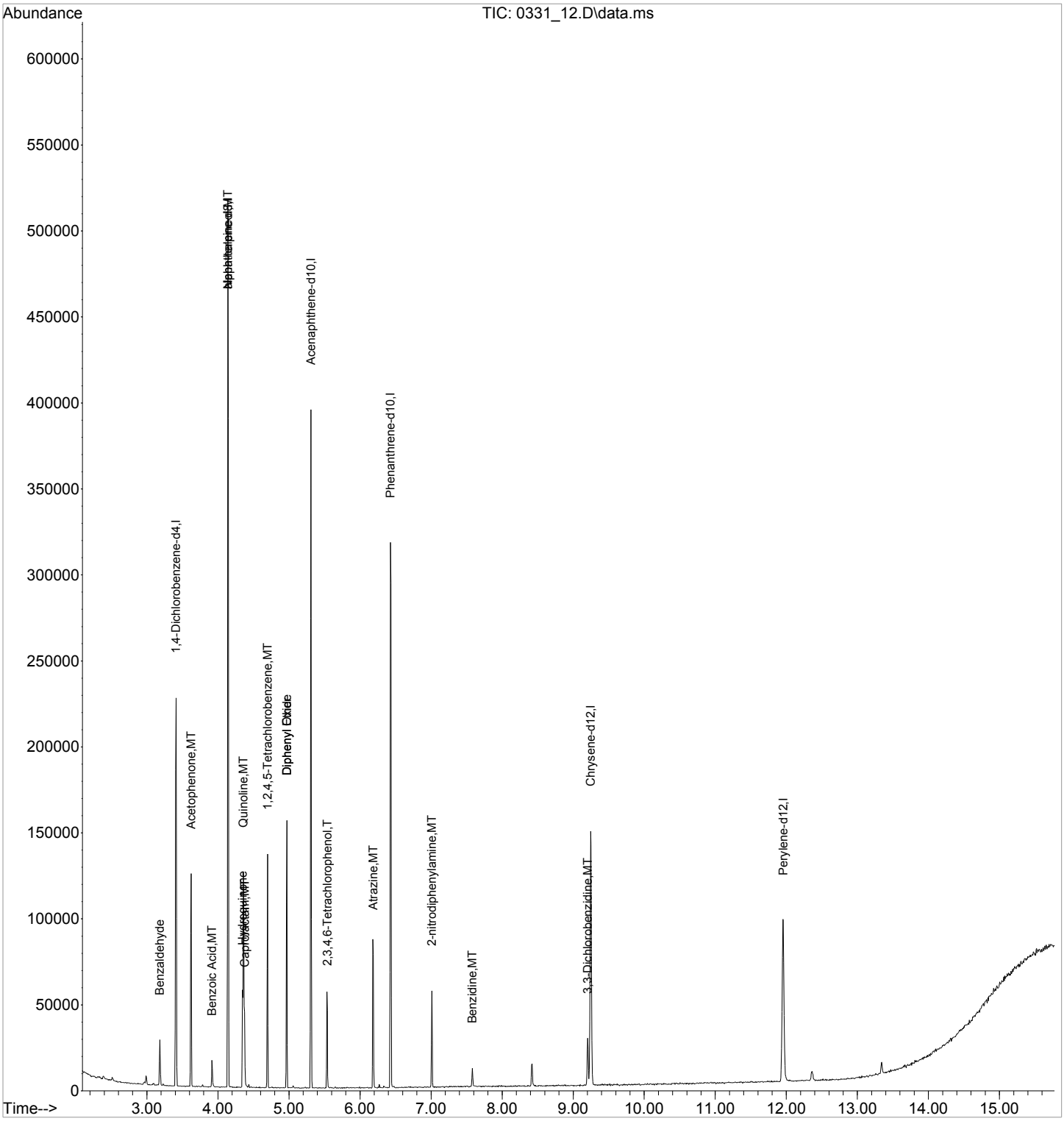
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.410	152	32210	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.140	136	136220	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.310	164	65230	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.428	188	103120	8000.0000000	ppb		0.00
84) Chrysene-d12	9.245	240	67182	8000.0000000	ppb		0.00
94) Perylene-d12	11.957	264	58564	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
7) Phenol-d5	0.000	99	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
Target Compounds							Qvalue
9) Benzaldehyde	3.181	105	5045	3745.7880779	ppb		98
22) Acetophenone	3.622	105	26979	3891.1883832	ppb		98
31) Benzoic Acid	3.916	105	3581	4259.0418639	ppb		99
33) alpha-terpineol	4.140	59	18311	4364.0779192	ppb		98
37) Hydroquinone	4.346	110	12976	4367.0078087	ppb		93
38) Quinoline	4.357	129	34471	4382.7379345	ppb		99
39) Caprolactam	4.375	113	3806	3675.2281435	ppb		92
43) 1,2,4,5-Tetrachloroben...	4.699	216	15681	4281.5578499	ppb		96
44) Diphenyl Ether	4.969	170	23710	4319.7401334	ug/ml		99
45) Diphenyl Oxide	4.969	170	23710	4319.7401334	ug/ml		99
62) 2,3,4,6-Tetrachlorophenol	5.540	232	5528	3126.3602471	ppb		95
69) Atrazine	6.187	200	8336	3551.1011360	ppb		97
82) 2-nitrodiphenylamine	7.010	167	6112	4515.3978890	ppb		95
85) Benzidine	7.581	184	5065	3995.7989172	ppb	#	70
89) 3,3-Dichlorobenzidine	9.204	252	9134	3139.1498939	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_12.D
Acq On : 31 Mar 2022 8:36 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 04 16:53:59 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:34:56 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_13.D
Acq On : 31 Mar 2022 8:58 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 15:59:35 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:06 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

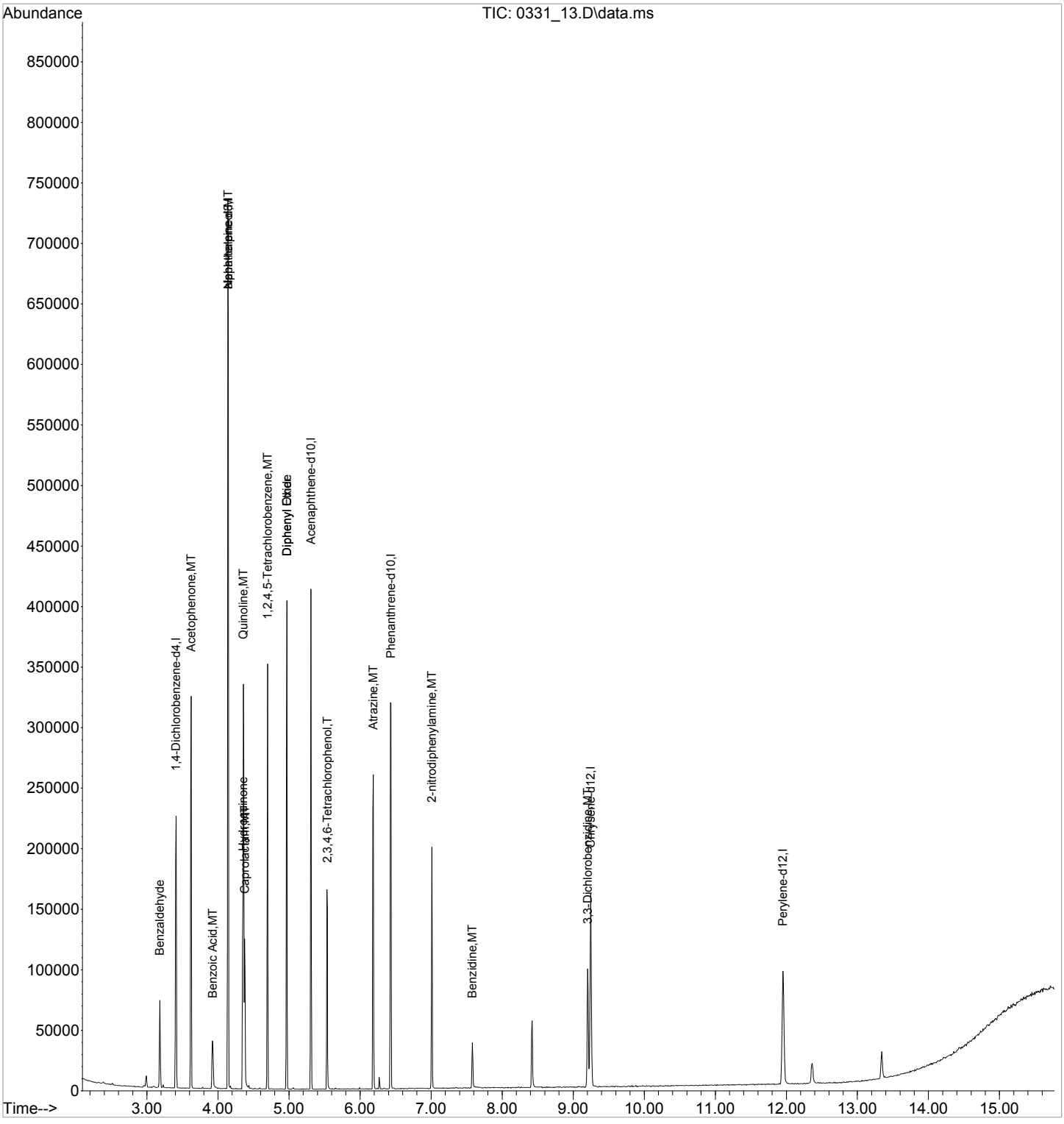
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	32646	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.140	136	151075	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	66741	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.434	188	106483	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	70148	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	60010	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	13218	10000.0000000	ppb	100
22) Acetophenone	3.622	105	70363	10000.0000000	ppb	100
31) Benzoic Acid	3.928	105	13285	10000.0000000	ppb	100
33) alpha-terpineol	4.140	59	47885	10000.0000000	ppb	100
37) Hydroquinone	4.351	110	32456	10000.0000000	ppb	100
38) Quinoline	4.357	129	92947	10000.0000000	ppb	100
39) Caprolactam	4.375	113	11523	10000.0000000	ppb	100
43) 1,2,4,5-Tetrachloroben...	4.698	216	42102	10000.0000000	ppb	100
44) Diphenyl Ether	4.969	170	62422	10000.0000000	ug/ml	100
45) Diphenyl Oxide	4.969	170	62422	10000.0000000	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.540	232	16672	10000.0000000	ppb	100
69) Atrazine	6.187	200	23085	10000.0000000	ppb	100
82) 2-nitrodiphenylamine	7.010	167	19997	10000.0000000	ppb	100
85) Benzidine	7.581	184	16992	10045.5217263	ppb	100
89) 3,3-Dichlorobenzidine	9.204	252	28248	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_13.D
Acq On : 31 Mar 2022 8:58 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 15:59:35 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 15:59:06 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\060122A\
Data File : 0601A_03.D
Acq On : 1 Jun 2022 3:40 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 01 16:03:24 2022
Quant Method : C:\msdchem\1\methods\S824F01AV.M
Quant Title : 8270 BNA
QLast Update : Wed Jun 01 16:02:49 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

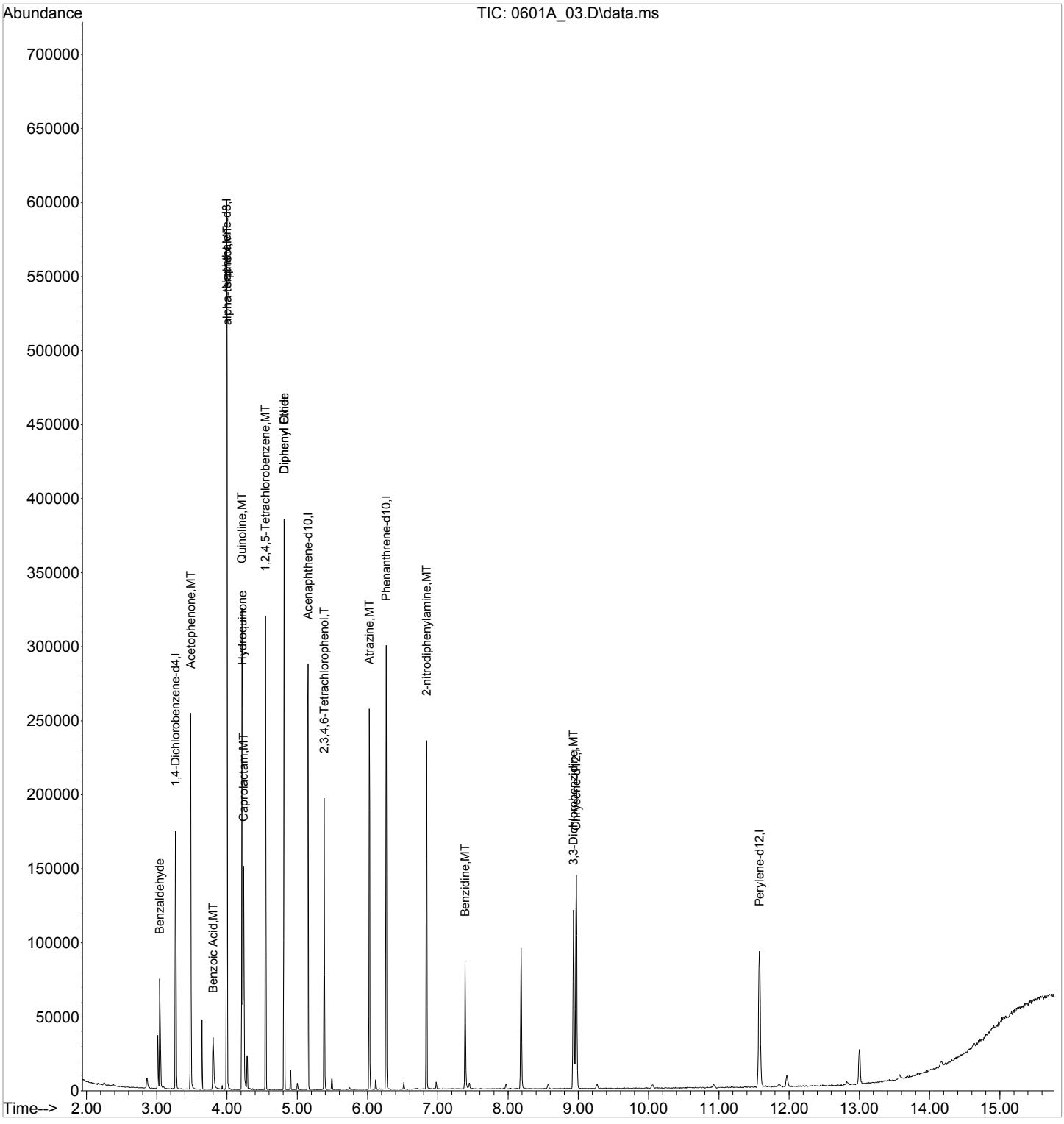
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.266	152	25204	8000.0000000	ppb		0.00
23) Naphthalene-d8	3.996	136	111807	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.154	164	52641	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.266	188	86129	8000.0000000	ppb		0.00
84) Chrysene-d12	8.972	240	61795	8000.0000000	ppb		0.00
94) Perylene-d12	11.577	264	59365	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
7) Phenol-d5	0.000	99	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
Target Compounds							Qvalue
9) Benzaldehyde	3.043	105	13897	13186.3422575	ppb	#	95
22) Acetophenone	3.484	105	56586	10430.0564201	ppb		98
31) Benzoic Acid	3.801	105	11748	10932.9929121	ppb		97
33) alpha-terpineol	4.001	59	44707	12981.5886353	ppb		91
37) Hydroquinone	4.219	110	26541	10882.5906865	ppb		91
38) Quinoline	4.213	129	69099	10703.7329193	ppb		99
39) Caprolactam	4.237	113	10768	12668.4198398	ppb	#	65
43) 1,2,4,5-Tetrachloroben...	4.548	216	37197	12373.9357742	ppb		97
44) Diphenyl Ether	4.813	170	53729	11926.3268197	ug/ml		97
45) Diphenyl Oxide	4.813	170	53729	11926.3268197	ug/ml		97
62) 2,3,4,6-Tetrachlorophenol	5.384	232	17404	12196.7271328	ppb		97
69) Atrazine	6.025	200	21655	11431.0670220	ppb		97
82) 2-nitrodiphenylamine	6.842	167	24729	12566.9979719	ppb		92
85) Benzidine	7.389	184	31970	17285.5686766	ppb		98
89) 3,3-Dichlorobenzidine	8.931	252	33997	12702.5593779	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\060122A\
Data File : 0601A_03.D
Acq On : 1 Jun 2022 3:40 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 01 16:03:24 2022
Quant Method : C:\msdchem\1\methods\S824F01AV.M
Quant Title : 8270 BNA
QLast Update : Wed Jun 01 16:02:49 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_14.D
Acq On : 31 Mar 2022 9:19 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 16:18:05 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:17:36 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

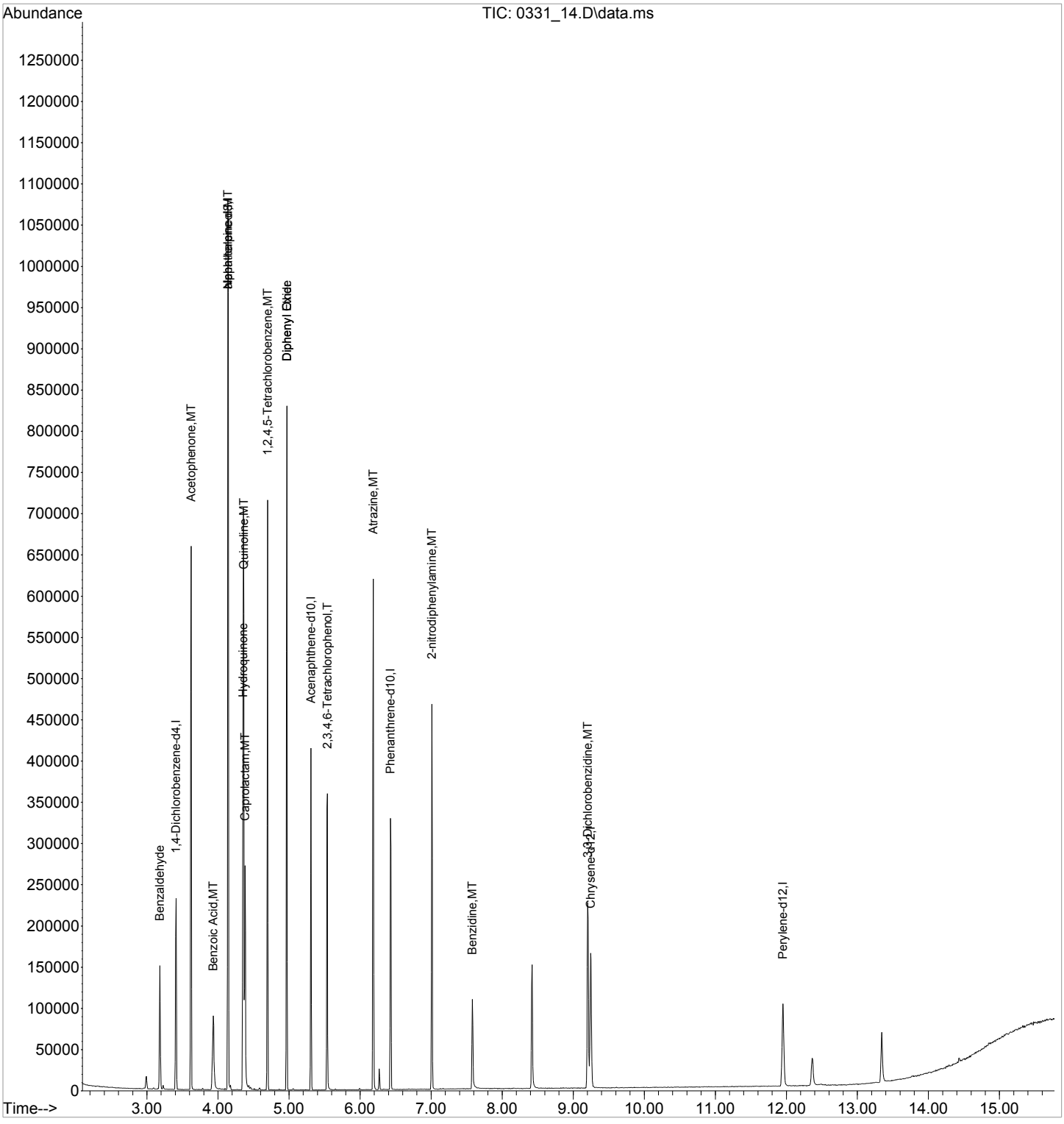
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	32976	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.140	136	166588	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	65899	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.428	188	106386	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	74217	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	60508	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	27985	21379.1641942	ppb	99
22) Acetophenone	3.622	105	140981	19984.9142749	ppb	99
31) Benzoic Acid	3.934	105	33954	31589.3324189	ppb	99
33) alpha-terpineol	4.140	59	99072	17348.5751577	ppb	99
37) Hydroquinone	4.351	110	75121	19593.8858186	ppb	97
38) Quinoline	4.363	129	186747	17405.5577263	ppb	97
39) Caprolactam	4.381	113	27181	22332.1892729	ppb	99
43) 1,2,4,5-Tetrachloroben...	4.698	216	82323	16891.5493678	ppb	98
44) Diphenyl Ether	4.969	170	122968	16869.4038963	ug/ml	99
45) Diphenyl Oxide	4.969	170	122968	16869.4038963	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.540	232	36060	24550.3580536	ppb	100
69) Atrazine	6.187	200	50889	24345.8931400	ppb	99
82) 2-nitrodiphenylamine	7.010	167	49155	28494.9593074	ppb	96
85) Benzidine	7.581	184	46245	31477.4601229	ppb	97
89) 3,3-Dichlorobenzidine	9.204	252	66399	26100.6280685	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_14.D
Acq On : 31 Mar 2022 9:19 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 16:18:05 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:17:36 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_15.D
Acq On : 31 Mar 2022 9:40 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 16:18:53 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:18:23 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

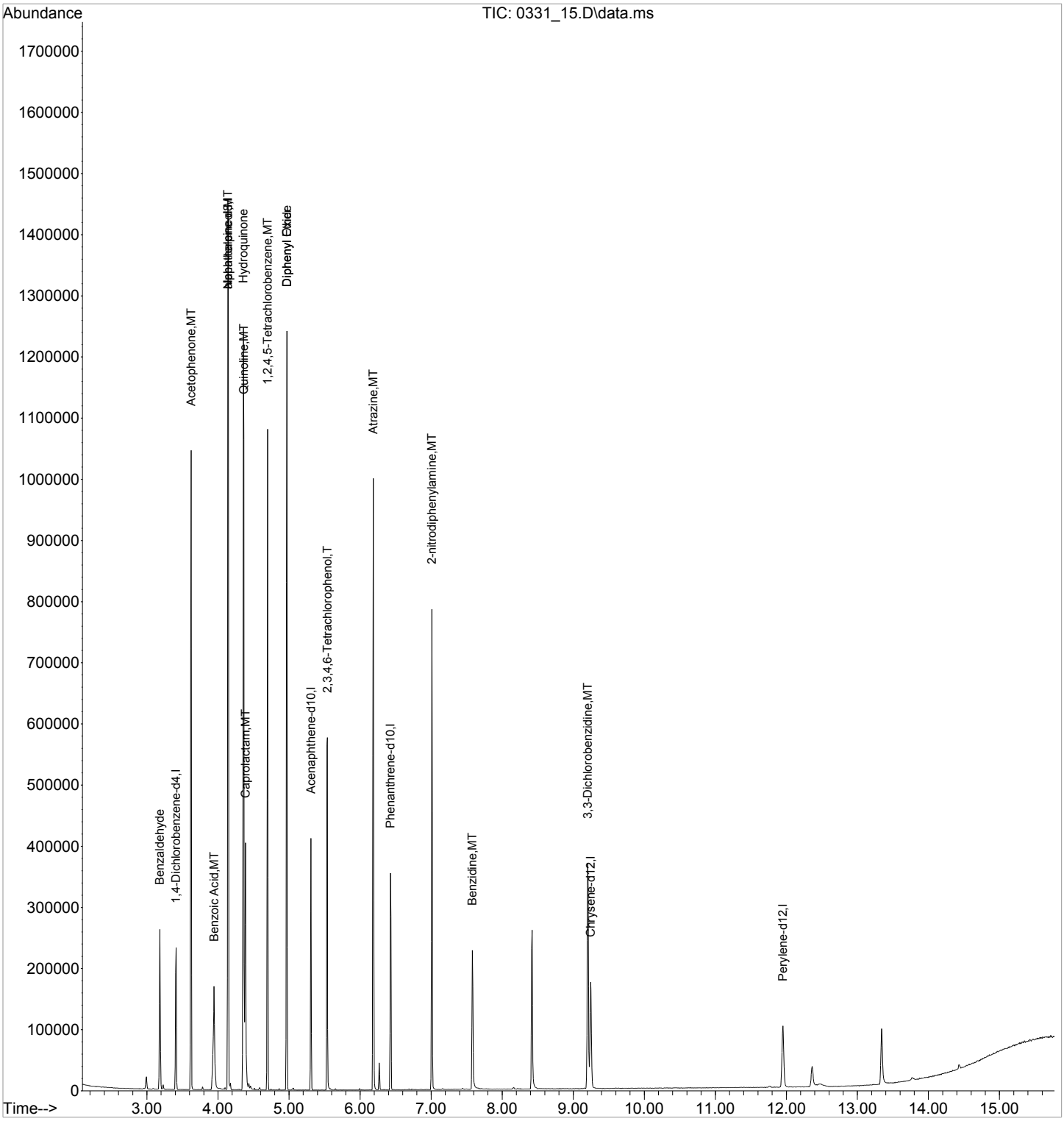
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	33491	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.140	136	188855	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	68194	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.428	188	108406	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	76700	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	62471	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	47780	35331.1828973	ppb	99
22) Acetophenone	3.622	105	218733	30535.6925993	ppb	99
31) Benzoic Acid	3.946	105	62710	44951.7521731	ppb	98
33) alpha-terpineol	4.140	59	155586	24856.2891851	ppb	99
37) Hydroquinone	4.357	110	122674	28368.5569619	ppb	99
38) Quinoline	4.363	129	289912	24633.9225551	ppb	99
39) Caprolactam	4.387	113	44595	31110.4386175	ppb	95
43) 1,2,4,5-Tetrachloroben...	4.698	216	124397	23425.2808780	ppb	98
44) Diphenyl Ether	4.969	170	188595	23751.4157709	ug/ml	99
45) Diphenyl Oxide	4.969	170	188595	23751.4157709	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.540	232	59018	36738.7005414	ppb	100
69) Atrazine	6.187	200	78865	34581.5780215	ppb	100
82) 2-nitrodiphenylamine	7.010	167	82992	42681.4519179	ppb	95
85) Benzidine	7.581	184	92797	53450.6210134	ppb	98
89) 3,3-Dichlorobenzidine	9.204	252	105817	37396.9826583	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_15.D
Acq On : 31 Mar 2022 9:40 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 16:18:53 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:18:23 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_16.D
Acq On : 31 Mar 2022 10:02 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 16:19:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:19:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

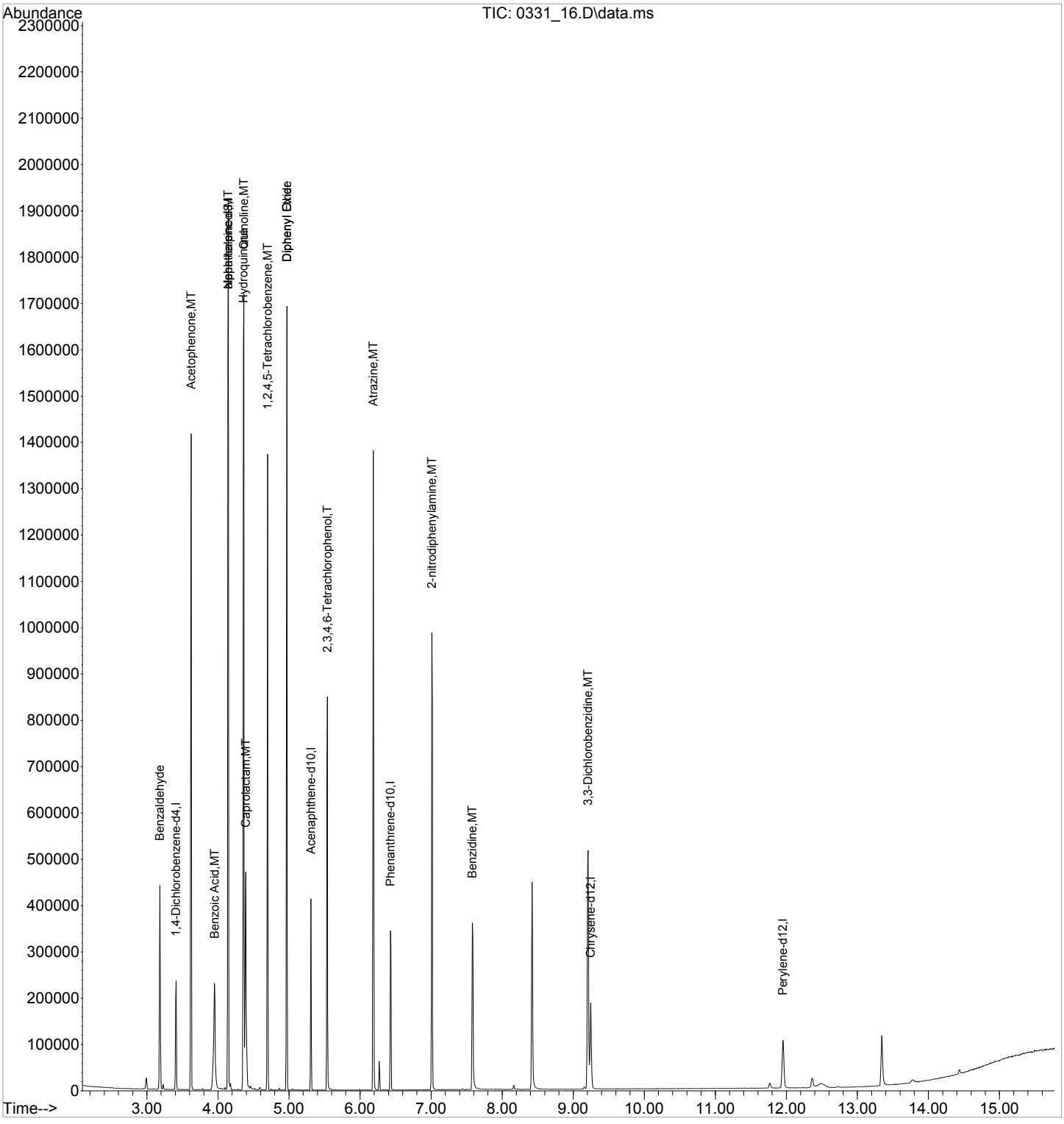
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	32750	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.145	136	205762	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	66340	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.428	188	109489	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	77049	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	63298	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	80706	58934.1841835	ppb	99
22) Acetophenone	3.622	105	286364	40736.1958980	ppb	99
31) Benzoic Acid	3.951	105	92634	55421.4497707	ppb	99
33) alpha-terpineol	4.145	59	203905	30960.7071165	ppb	87
37) Hydroquinone	4.357	110	166918	35817.9389554	ppb	95
38) Quinoline	4.363	129	378568	30619.3304379	ppb	98
39) Caprolactam	4.392	113	62917	39916.3623369	ppb	96
43) 1,2,4,5-Tetrachloroben...	4.698	216	161130	29125.9548510	ppb	98
44) Diphenyl Ether	4.969	170	243421	29360.2543064	ug/ml	99
45) Diphenyl Oxide	4.969	170	243421	29360.2543064	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.539	232	79933	48949.8236216	ppb	97
69) Atrazine	6.186	200	105331	46070.2880297	ppb	99
82) 2-nitrodiphenylamine	7.010	167	117319	55081.7026593	ppb	94
85) Benzidine	7.580	184	154562	76641.7310555	ppb	97
89) 3,3-Dichlorobenzidine	9.210	252	146578	49144.2966400	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_16.D
Acq On : 31 Mar 2022 10:02 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 16:19:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:19:11 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_17.D
Acq On : 31 Mar 2022 10:23 pm
Operator : 3545
Sample : STD TCL 50K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 04 16:20:23 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:19:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

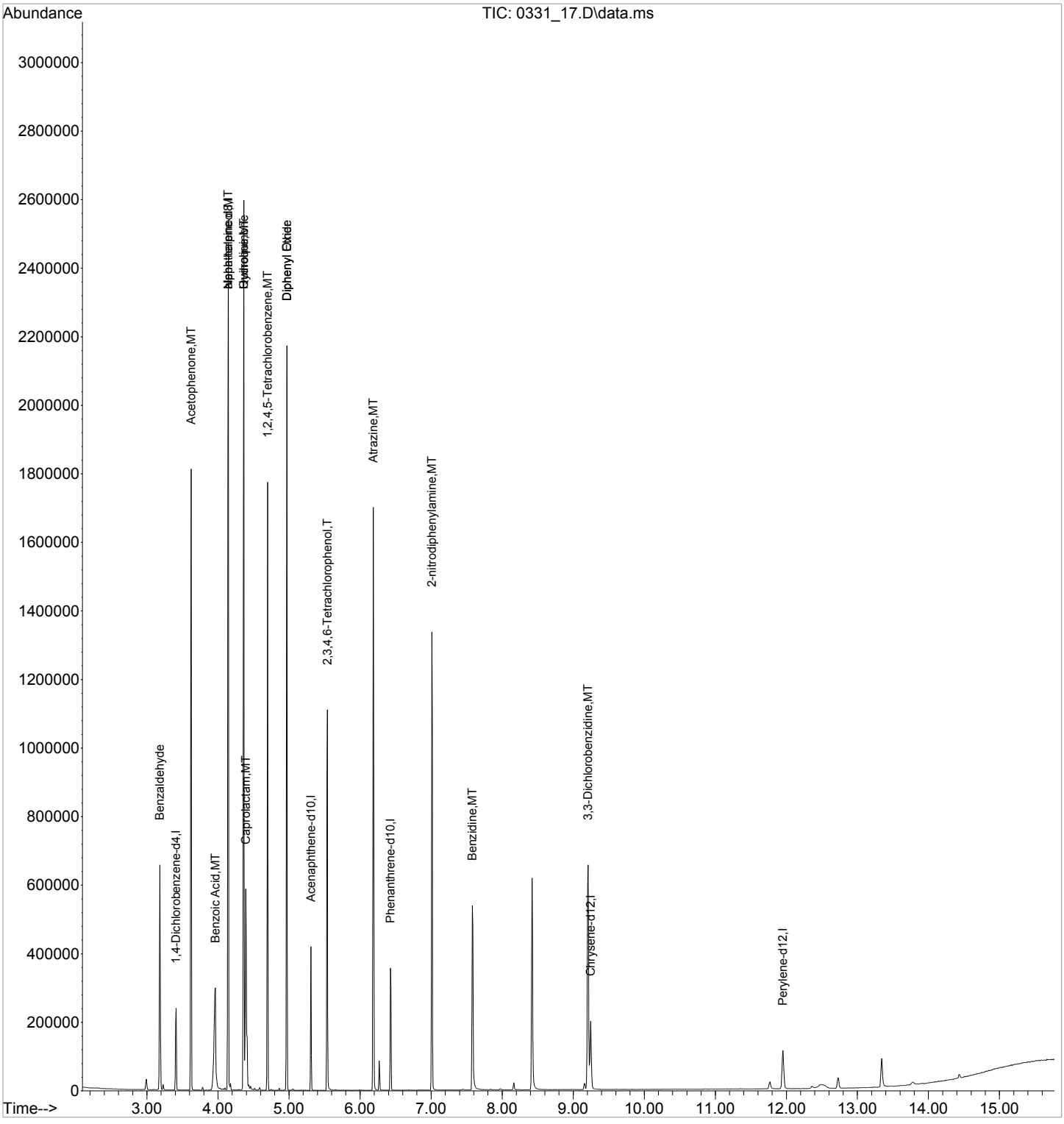
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	34438	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.145	136	228625	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	68678	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.428	188	112052	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	79417	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	67284	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	118679	76388.9545388	ppb	99
22) Acetophenone	3.622	105	370115	49916.2518975	ppb	99
31) Benzoic Acid	3.963	105	131168	66363.7153033	ppb	98
33) alpha-terpineol	4.145	59	264407	37546.5934006	ppb	88
37) Hydroquinone	4.363	110	219123	43068.6482517	ppb	98
38) Quinoline	4.363	129	481916	36507.3343524	ppb	99
39) Caprolactam	4.393	113	83764	47847.9644639	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.698	216	204315	34816.2846862	ppb	97
44) Diphenyl Ether	4.969	170	310150	35229.6306939	ug/ml	99
45) Diphenyl Oxide	4.969	170	310150	35229.6306939	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.540	232	103514	59031.1652154	ppb	96
69) Atrazine	6.187	200	137008	56457.3564133	ppb	100
82) 2-nitrodiphenylamine	7.010	167	156949	67745.4868336	ppb	93
85) Benzidine	7.581	184	223719	93371.1103111	ppb	97
89) 3,3-Dichlorobenzidine	9.210	252	187922	58883.7932200	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_17.D
Acq On : 31 Mar 2022 10:23 pm
Operator : 3545
Sample : STD TCL 50K1 PPB 22C23060 exp 9/10/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 04 16:20:23 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:19:57 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	04/23/22 10:42
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	05/03/22 11:05
Lab File ID:	0423_21	**Analysis date/time:**	04/23/22 15:54
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.613370	0.63857890		4.11		10	10.41	104	70 - 130
2-METHYLNAPHTHALENE	0.647025	0.66246220		2.39		10	10.24	102	70 - 130
3&4-METHYL PHENOL	1.384817	1.399945		1.09		10	10.11	101	70 - 130
ACENAPHTHENE	1.180559	1.194143		1.15		10	10.12	101	70 - 130
ACENAPHTHYLENE	1.740609	1.871771		7.54		10	10.75	108	70 - 130
ANTHRACENE	1.071316	1.073921		0.2430		10	10.02	100	70 - 130
BENZO(A)ANTHRACENE	1.164451	1.163715		0.0632		10	9.994	99.90	70 - 130
BENZO(A)PYRENE	0.991544	1.100820		11		10	11.10	111	70 - 130
BENZO(B)FLUORANTHENE	1.143658	1.156847		1.15		10	10.12	101	70 - 130
BENZO(G,H,I)PERYLENE	1.031578	1.121145		8.68		10	10.87	109	70 - 130
BENZO(K)FLUORANTHENE	1.153719	1.198368		3.87		10	10.39	104	70 - 130
BIS(2-ETHYLHEXYL)PHTHALATE	0.685061	0.74007890		8.03		10	10.80	108	70 - 130
CARBAZOLE	0.957953	1.045220		9.11		10	10.91	109	70 - 130
CHRYSENE	1.140362	1.192902		4.61		10	10.46	105	70 - 130
DI-N-BUTYL PHTHALATE	1.160721	1.218045		4.94		10	10.49	105	70 - 130
DI-N-OCTYL PHTHALATE	1.104365	1.174928		6.39		10	10.64	106	70 - 130
DIBENZ(A,H)ANTHRACENE	1.056465	1.143394		8.23		10	10.82	108	70 - 130
DIBENZOFURAN	1.630142	1.684007		3.30		10	10.33	103	70 - 130
FLUORANTHENE	1.189282	1.189087		0.0164		10	9.998	100	70 - 130
FLUORENE	1.324234	1.394079		5.27		10	10.53	105	70 - 130
INDENO(1,2,3-CD)PYRENE	0.919898	1.091601		18.70		10	11.87	119	70 - 130
NAPHTHALENE	1.000885	1.037735		3.68		10	10.37	104	70 - 130
PENTACHLOROPHENOL	0.139273	0.16557530		18.90		10	11.89	119	70 - 130
PHENANTHRENE	1.054765	1.085452		2.91		10	10.29	103	70 - 130
PHENOL	1.655782	1.691829		2.18		10	10.22	102	70 - 130
PYRENE	1.213331	1.276097		5.17		10	10.52	105	70 - 130
2,4,6-TRIBROMOPHENOL	0.105520	0.09965287		5.56		10	9.444	94.40	70 - 130
2-FLUOROBIPHENYL	1.354574	1.349452		0.3780		10	9.962	99.60	70 - 130
2-FLUOROPHENOL	1.325268	1.271746		4.04		10	9.596	96	70 - 130
NITROBENZENE-D5	0.356572	0.34125480		4.30		10	9.570	95.70	70 - 130
P-TERPHENYL-D14	1.047561	0.98985880		5.51		10	9.449	94.50	70 - 130
PHENOL-D5	1.617159	1.544366		4.50		10	9.550	95.50	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 17:33:51 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.486	152	146228	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.214	136	558316	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	287092	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.500	188	579323	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	574115	8000.0000000	ppb		0.00
94) Perylene-d12	12.093	264	581793	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.816	112	232456	9596.1351265	ppb		0.00
Spiked Amount 20000.000				Recovery = 47.98%			
7) Phenol-d5	3.251	99	282287	9549.8716619	ppb		0.00
Spiked Amount 20000.000				Recovery = 47.75%			
24) Nitrobenzene-d5	3.785	82	238160m	9570.4350576	ppb		0.00
Spiked Amount 10000.000				Recovery = 95.70%			
50) 2-Fluorobiphenyl	4.896	172	484271	9962.1891452	ppb		0.00
Spiked Amount 10000.000				Recovery = 99.62%			
73) 2,4,6-Tribromophenol	5.959	330	72164	9443.9720079	ppb		0.00
Spiked Amount 20000.000				Recovery = 47.22%			
87) p-Terphenyl-d14	7.922	244	710366	9449.1753469	ppb		0.00
Spiked Amount 10000.000				Recovery = 94.49%			
Target Compounds							Qvalue
2) Pyridine	2.264	79	289950	10388.0575382	ppb		99
3) N-Nitrosodimethylamine	2.258	42	123200	9763.9204755	ppb		98
5) Aniline	3.304	66	140153	10101.8472626	ppb		99
6) bis(2-Chloroethyl)ether	3.321	93	234791m	9975.6771347	ppb		
8) Phenol	3.257	94	309241	10217.7019468	ppb		99
10) 2-Chlorophenol	3.368	128	253669	10291.8067481	ppb		99
11) n-Decane	3.368	41	136090	9620.4238856	ppb	#	98
12) 1,3-Dichlorobenzene	3.456	146	284670	10331.1284222	ppb		99
13) 1,4-Dichlorobenzene	3.492	146	284810	10199.9884682	ppb		98
14) Benzyl Alcohol	3.539	79	208178	10145.7352381	ppb		98
15) 1,2-Dichlorobenzene	3.580	146	270713	10270.8331696	ppb		99
16) bis(2-Chloroisopropyl)...	3.609	121	88322	10215.6293338	ppb		96
17) 2,2-oxybis(1-chloropro...	3.609	121	88322	10215.6293338	ppb		96
18) 2-Methylphenol	3.586	108	227167	10170.7578435	ppb		99
19) Hexachloroethane	3.768	117	104711	10019.4250564	ppb		96
20) N-Nitrosodi-n-propylamine	3.685	70	179527	10016.7357597	ppb		99
21) 3&4-Methyl phenol	3.668	107	255889	10109.2437213	ppb		99
25) Nitrobenzene	3.797	77	257044	10364.3562603	ppb		97
26) Isophorone	3.926	82	453654	10098.1793855	ppb		98
27) 2-Nitrophenol	3.979	139	126290	10579.1334263	ppb		98
28) 2,4-Dimethylphenol	3.979	107	237813	10631.0316290	ppb		100
29) bis(2-Chlorethoxy)methane	4.038	93	289622	10756.6470288	ppb		99
30) 2,4-Dichlorophenol	4.114	162	204454	10597.1451677	ppb		97
32) 1,2,4-Trichlorobenzene	4.173	180	230925	10553.7486017	ppb		97
34) Naphthalene	4.226	128	724230m	10368.1772281	ppb		
35) 4-Chloroaniline	4.244	65	82051	9747.4726625	ppb		96
36) Hexachloro-1,3-butadiene	4.291	225	149372	11310.4831515	ppb		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 17:33:51 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

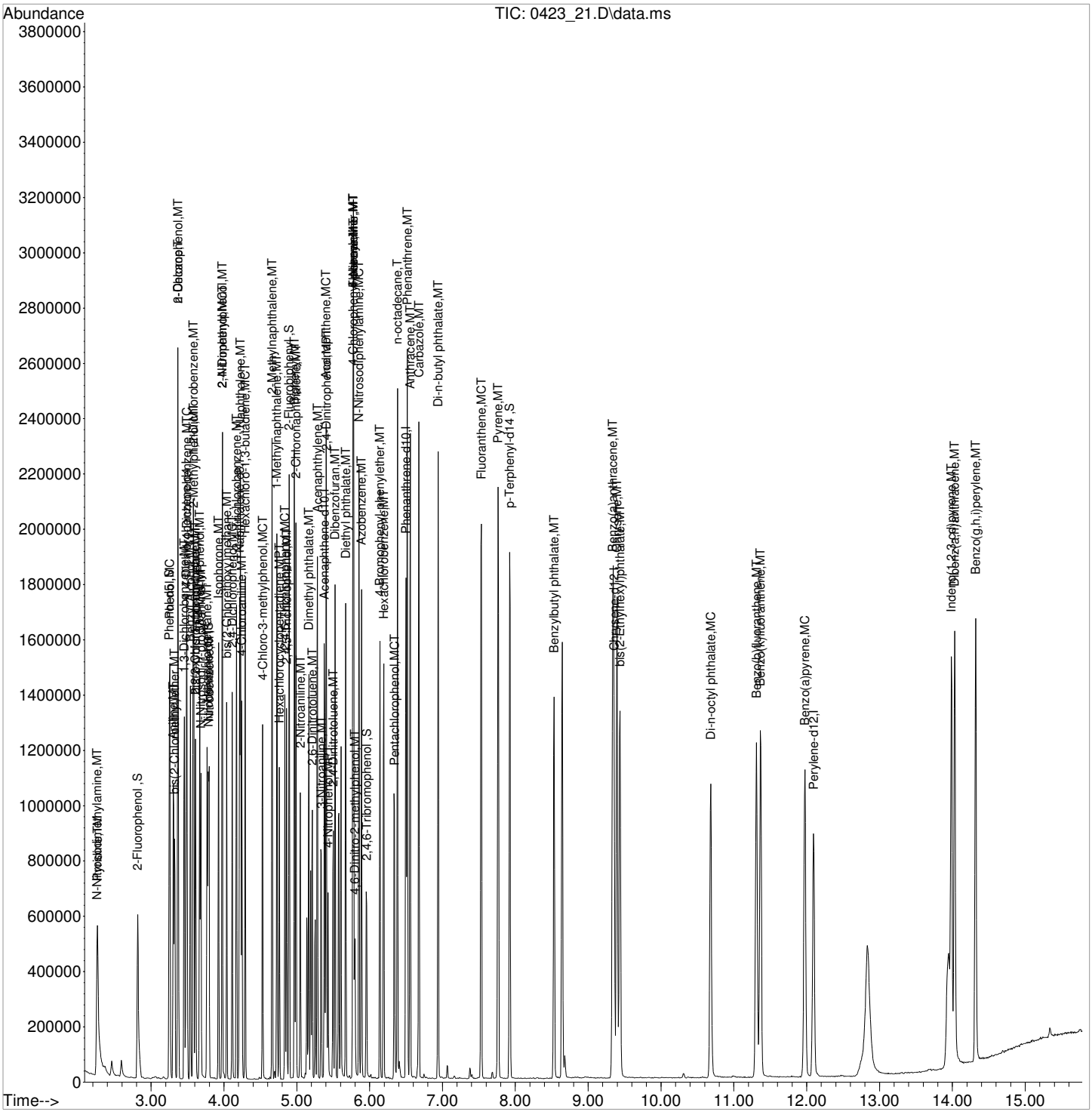
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.532	107	196372	10371.7778690 ppb		97
41)	2-Methylnaphthalene	4.661	142	462329	10238.5866131 ppb		99
42)	1-Methylnaphthalene	4.725	142	445661	10410.9924829 ppb		100
47)	Hexachlorocyclopentadiene	4.761	237	127066	8270.2041339 ppb		99
48)	2,4,6-Trichlorophenol	4.837	196	141578	10637.9748320 ppb		99
49)	2,4,5-Trichlorophenol	4.861	196	147233	10346.2609124 ppb		98
51)	Biphenyl	4.966	154	537801	9952.7007050 ppb		100
52)	2-Chloronaphthalene	4.990	162	440811	10488.4855754 ppb		100
53)	2-Nitroaniline	5.049	138	145330	10973.9122656 ppb		98
54)	Acenaphthylene	5.284	152	671713	10753.5362764 ppb		99
55)	Dimethyl phthalate	5.166	163	463473	10368.8392289 ppb		98
56)	2,6-Dinitrotoluene	5.213	165	111071	10801.4835319 ppb		96
57)	3-Nitroaniline	5.336	138	122400	11020.4063043 ppb		98
58)	Acenaphthene	5.401	153	428536	10115.0619005 ppb		98
59)	2,4-Dinitrophenol	5.407	184	47694	9805.3827541 ppb	#	78
60)	Dibenzofuran	5.524	168	604331	10330.4280283 ppb		99
61)	2,4-Dinitrotoluene	5.501	165	143905	11030.5790007 ppb		99
63)	4-Nitrophenol	5.430	139	97113	10953.3499367 ppb		94
64)	Fluorene	5.777	166	500286	10527.4356000 ppb		99
65)	4-Chlorophenyl-phenyle...	5.771	204	250625	10483.2453309 ppb		97
66)	Diethyl phthalate	5.671	149	457262	10339.7295606 ppb		99
67)	4-Nitroaniline	5.777	138	110184	11042.2791311 ppb		99
68)	Azobenzene	5.889	77	489849	10548.0855790 ppb		99
71)	4,6-Dinitro-2-methylph...	5.801	198	69766	8897.8608107 ppb		98
72)	N-Nitrosodiphenylamine	5.854	169	419509	9774.1493663 ppb		99
74)	4-Bromophenyl-phenylether	6.141	248	152448	9804.8221525 ppb		93
75)	Hexachlorobenzene	6.194	284	170801	9702.9217438 ppb		99
76)	n-octadecane	6.382	55	69957	9050.9732944 ppb		97
77)	Pentachlorophenol	6.341	266	119902	11888.5301190 ppb		98
78)	Phenanthrene	6.517	178	786034	10290.9374710 ppb		99
79)	Anthracene	6.559	178	777684	10024.3186059 ppb		99
80)	Carbazole	6.676	167	756900	10910.9687877 ppb		100
81)	Di-n-butyl phthalate	6.941	149	882052	10493.8628419 ppb		100
83)	Fluoranthene	7.534	202	861082	9998.3631644 ppb		99
86)	Pyrene	7.763	202	915783	10517.3021138 ppb		99
88)	Benzylbutyl phthalate	8.533	149	369327	10621.7266744 ppb		98
90)	Benzo(a)anthracene	9.338	228	835133	9993.6853720 ppb		99
91)	Chrysene	9.396	228	856079	10460.7363615 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.438	149	531113	10803.1126422 ppb		99
93)	Di-n-octyl phthalate	10.683	149	843180	10638.9532848 ppb		99
95)	Benzo(b)fluoranthene	11.312	252	841307	10115.3289770 ppb		100
96)	Benzo(k)fluoranthene	11.365	252	871503	10387.0024645 ppb		100
97)	Benzo(a)pyrene	11.976	252	800562	11102.0867046 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.985	276	793857	11866.5407365 ppb		97
99)	Dibenz(a,h)anthracene	14.032	278	831523	10822.8208916 ppb		99
100)	Benzo(g,h,i)perylene	14.320	276	815343	10868.2570935 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

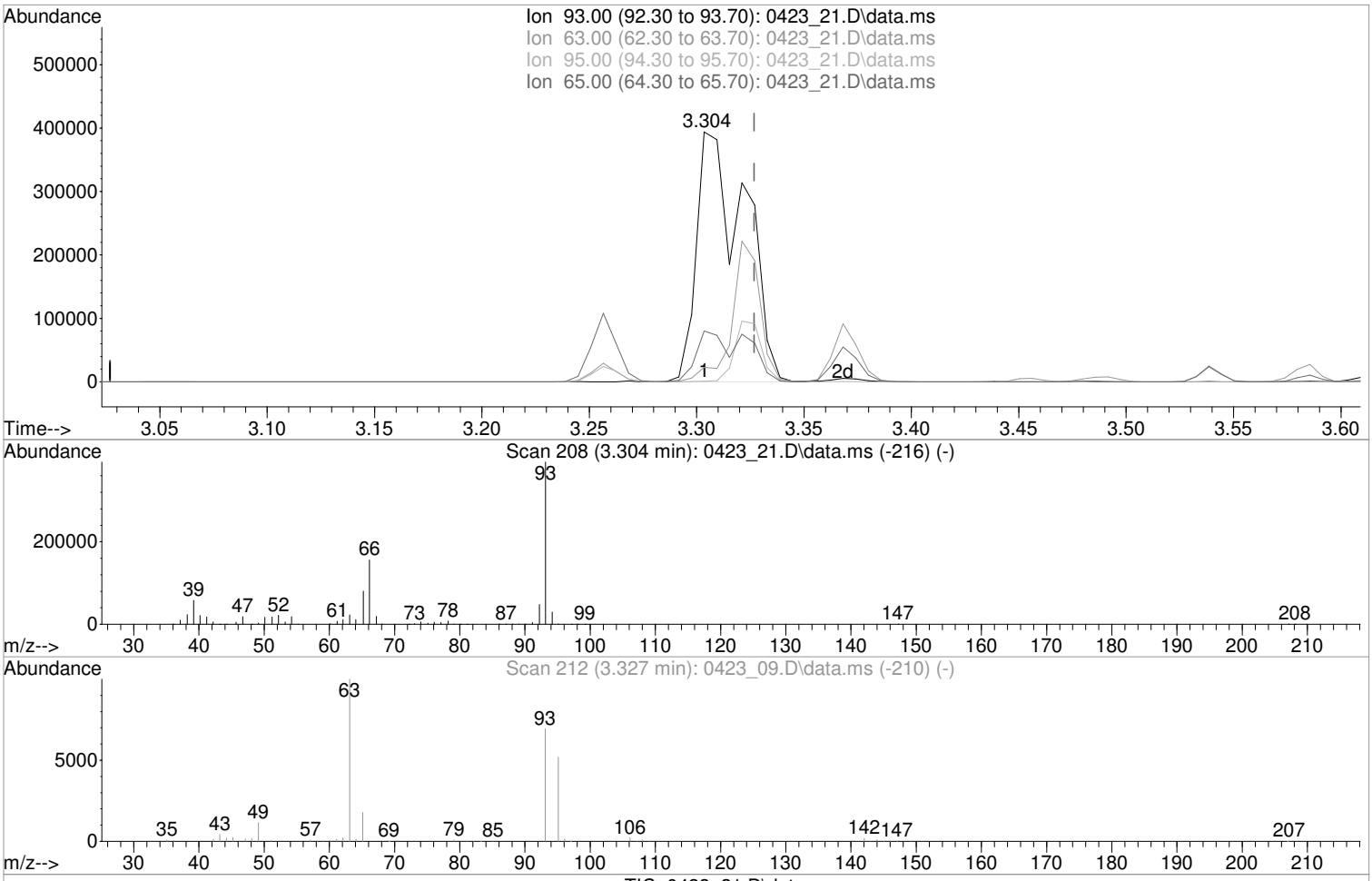
Quant Time: May 03 17:33:51 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0423_21.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.304min (-0.023) 26061.0959020 ppb

Qvalue = 41

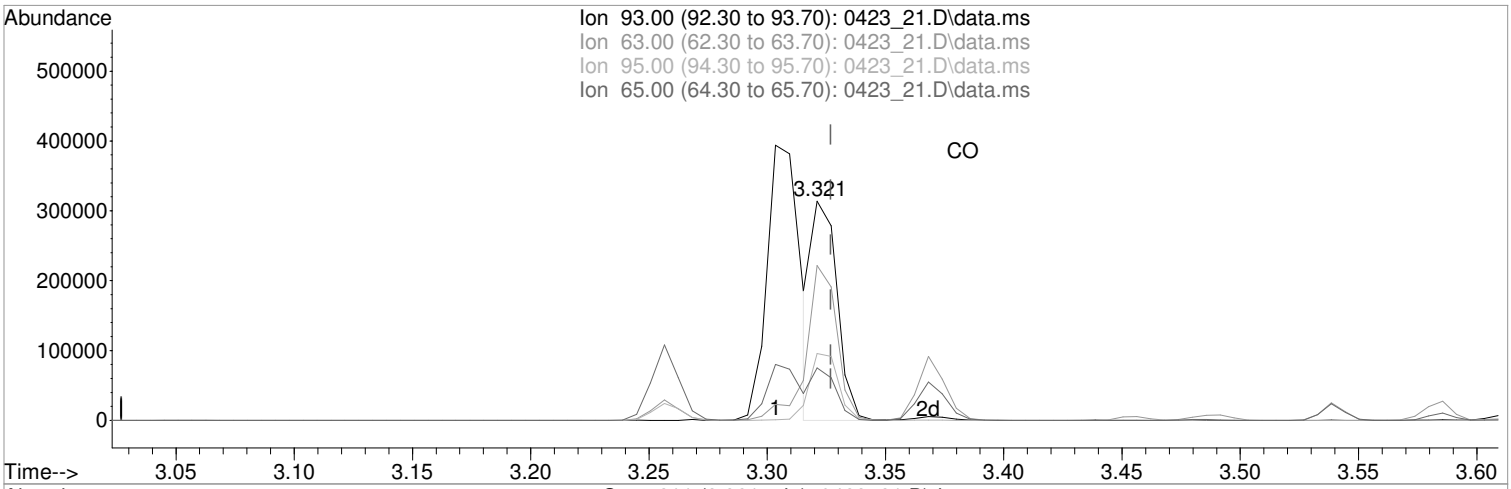
response 613383

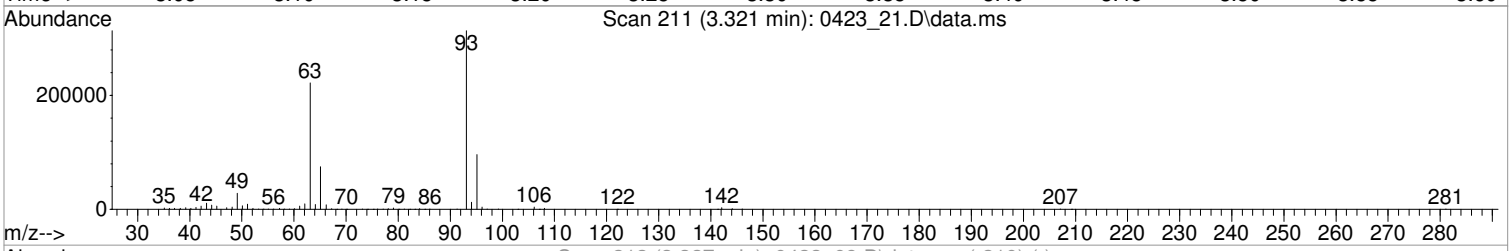
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.81#
95.00	32.50	0.25#
65.00	22.20	20.34

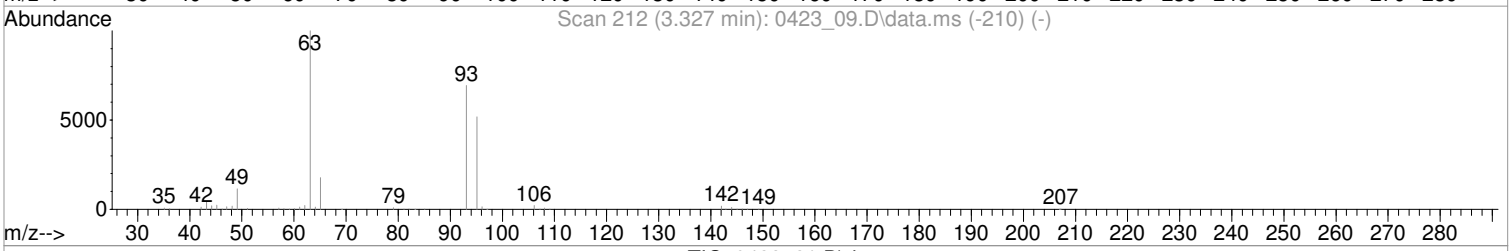
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0423_21.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.321min (-0.006) 9975.6771347 ppb m

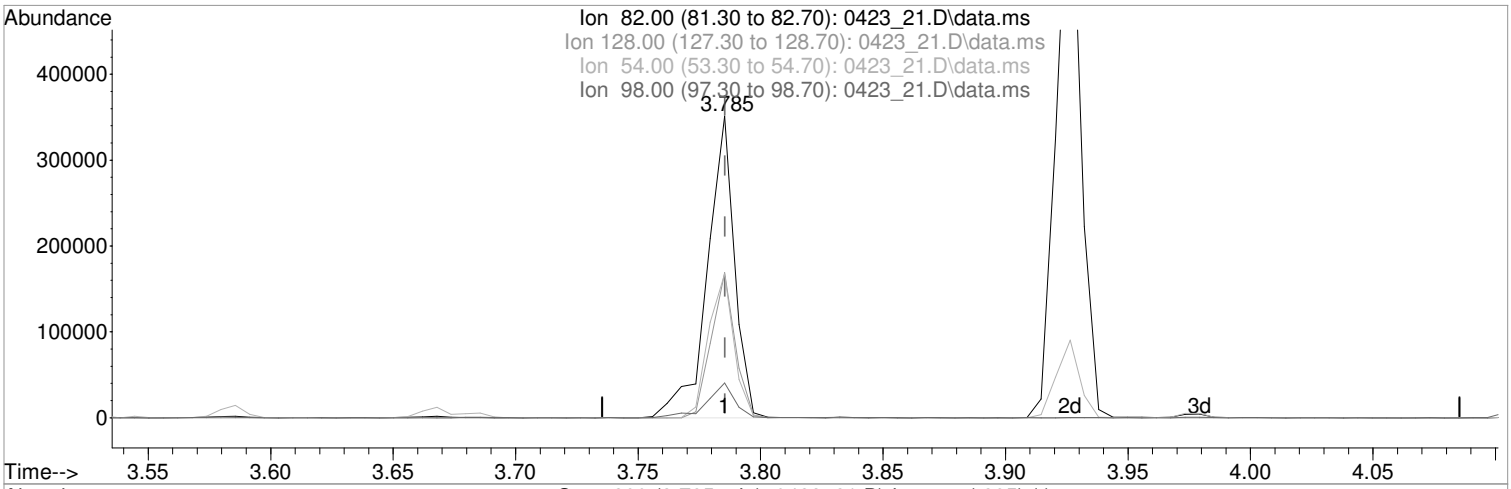
response 234791

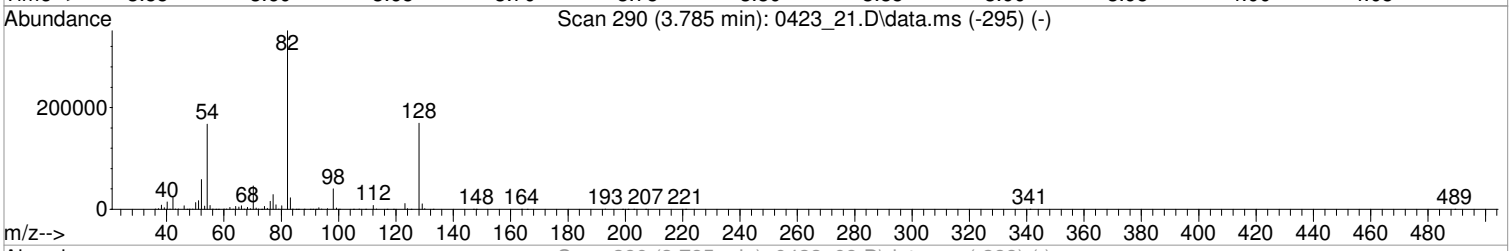
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	70.71
95.00	32.50	30.57
65.00	22.20	23.89

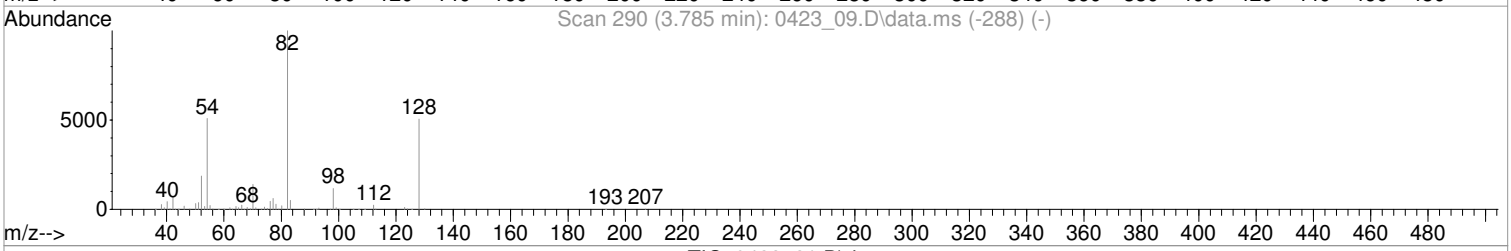
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0423_21.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 10900.9168107 ppb

Qvalue = 99

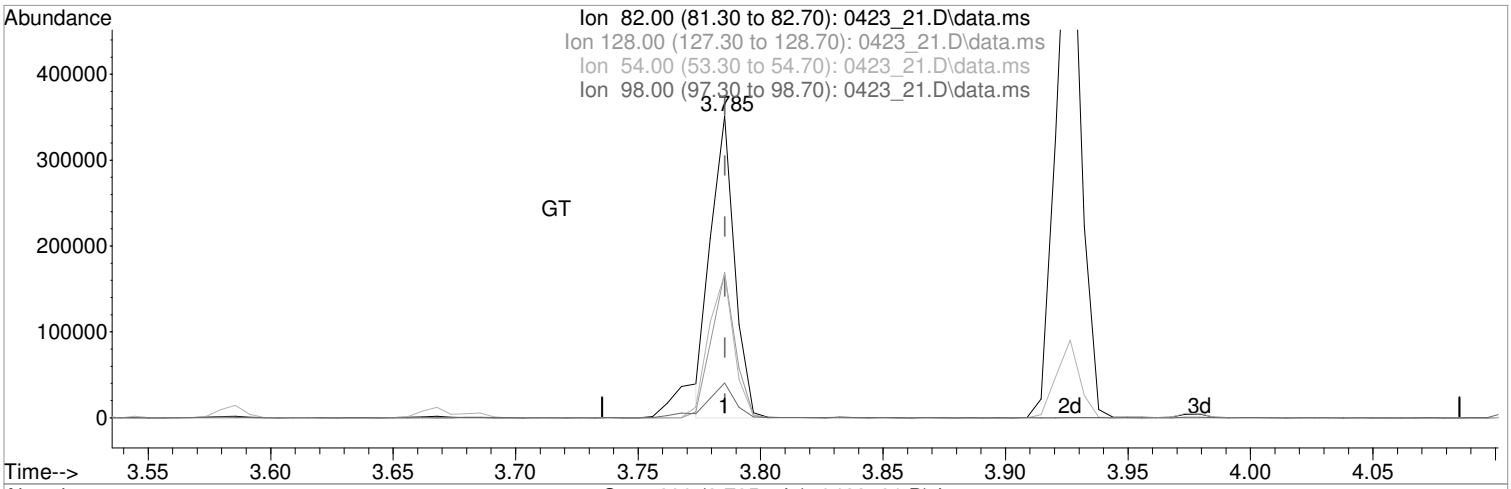
response 271269

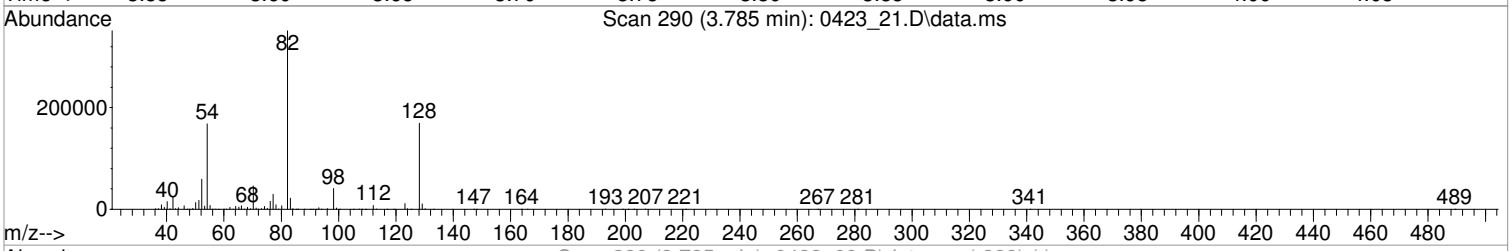
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	48.17
54.00	48.70	47.77
98.00	12.00	11.58

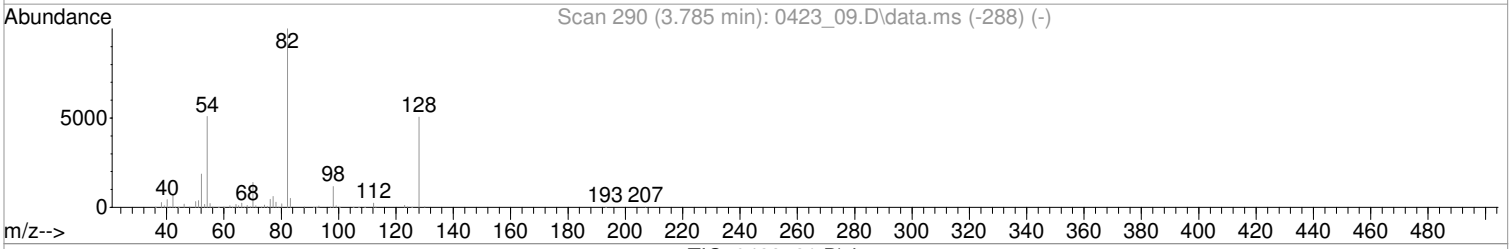
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0423_21.D\data.ms

(24) Nitrobenzene-d5 (S)

3.785min (-0.000) 9570.4350576 ppb m

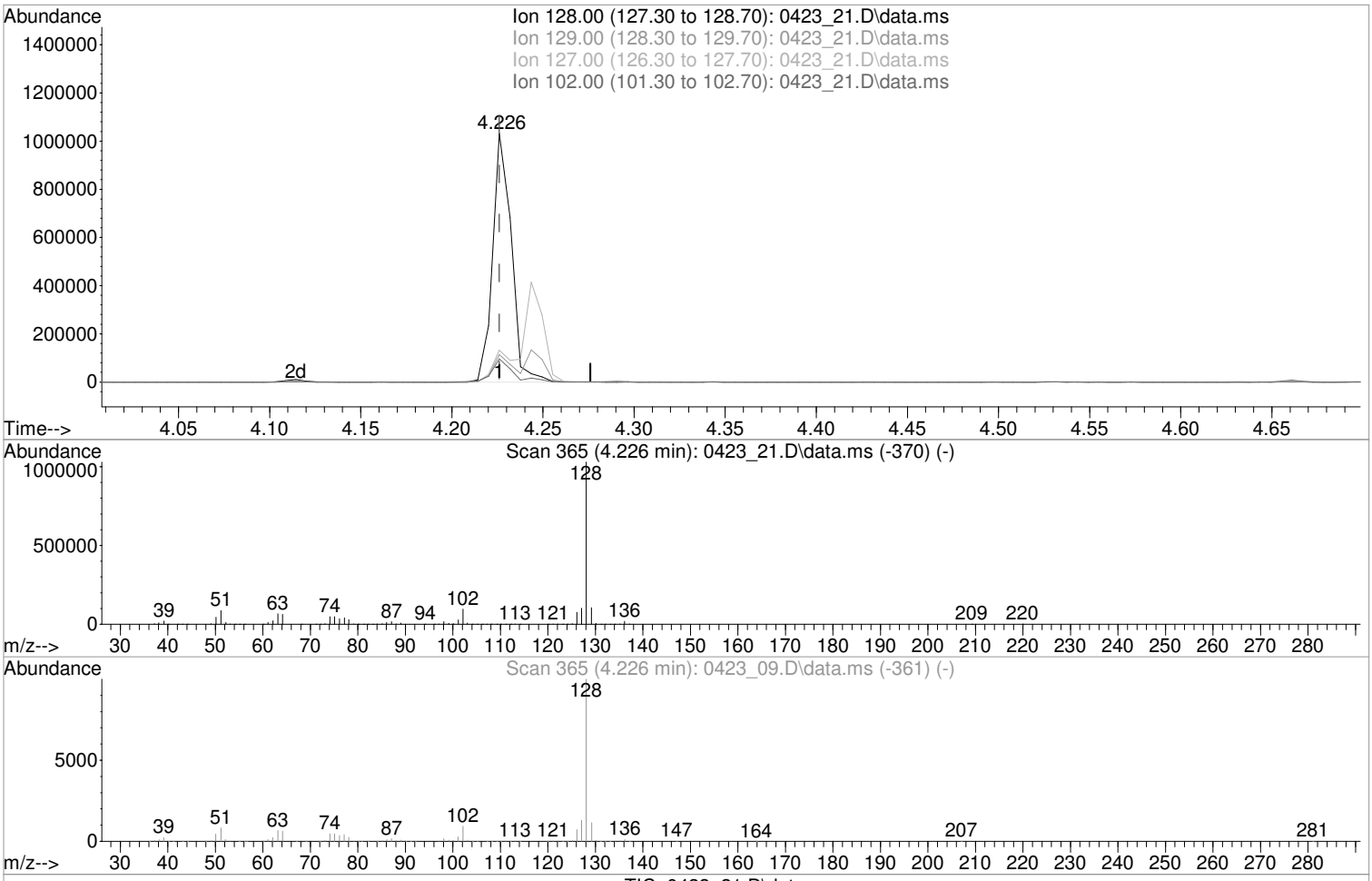
response 238160

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	48.17
54.00	48.70	47.77
98.00	12.00	11.58

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0423_21.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 10489.6353500 ppb

Qvalue = 100

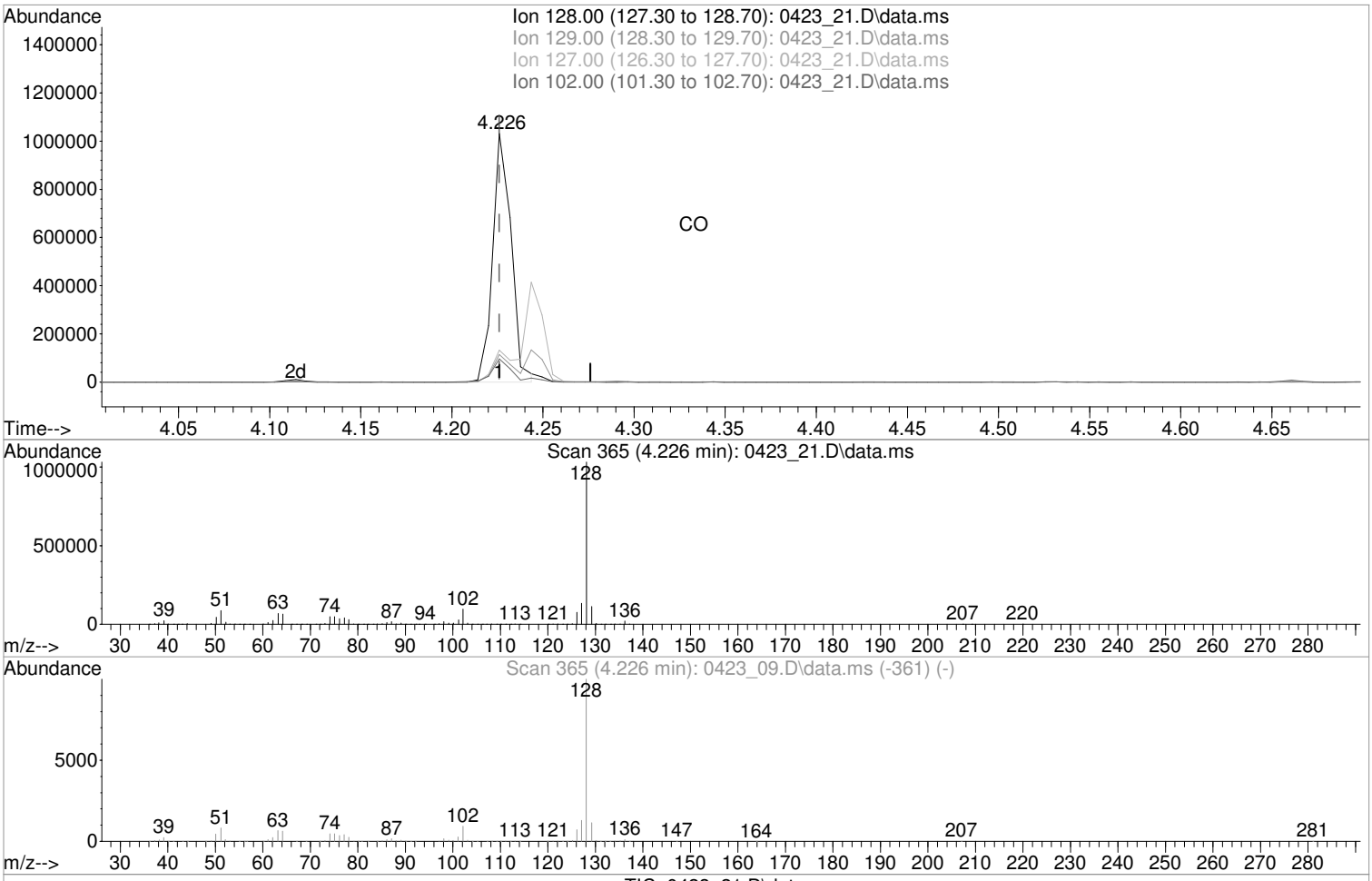
response 732714

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.02
127.00	12.90	12.87
102.00	9.20	9.31

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0423_21.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 10368.1772281 ppb m

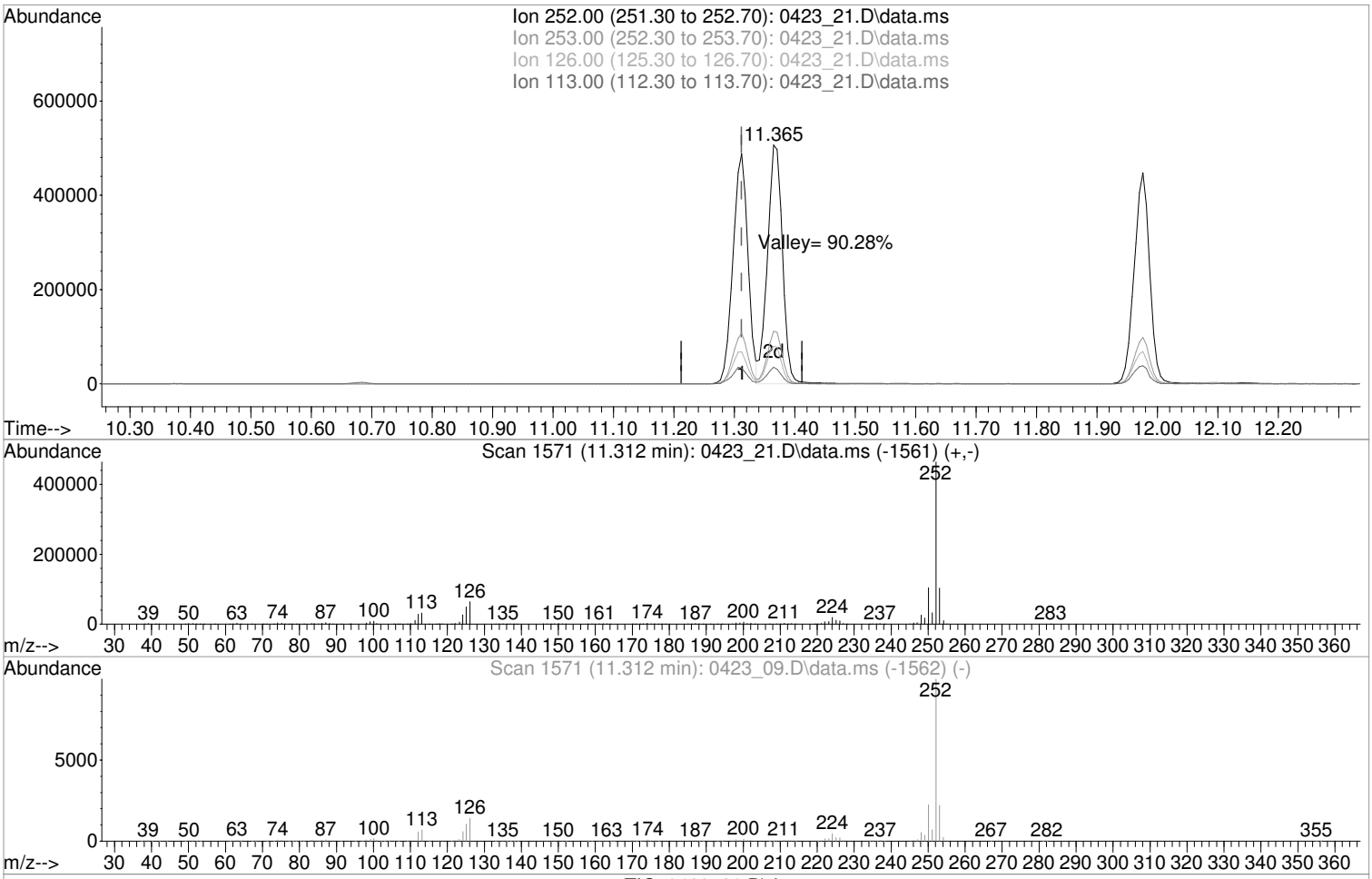
response 724230

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.02
127.00	12.90	12.87
102.00	9.20	9.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_21.D
Acq On : 23 Apr 2022 3:54 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22D19629 exp 6/30/22
Misc : SVMS CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 03 16:45:31 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0423_21.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.312min (-0.000) 10115.3289770 ppb

Qvalue = 100

response 841307

Ion	Exp%	Act%
252.00	100	100
253.00	22.10	22.14
126.00	14.00	13.88
113.00	7.00	6.77

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	04/23/22 10:42
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	05/03/22 11:05
Lab File ID:	0423_40	**Analysis date/time:**	05/04/22 14:52
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122333	0.09339744		23.70		10	7.635	76.40	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_40.D
Acq On : 4 May 2022 2:52 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22E04817 exp 10/15/22
Misc : TCL CAL ISTD 22E03675 exp 11/03/22
ALS Vial : 21 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 04 15:27:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

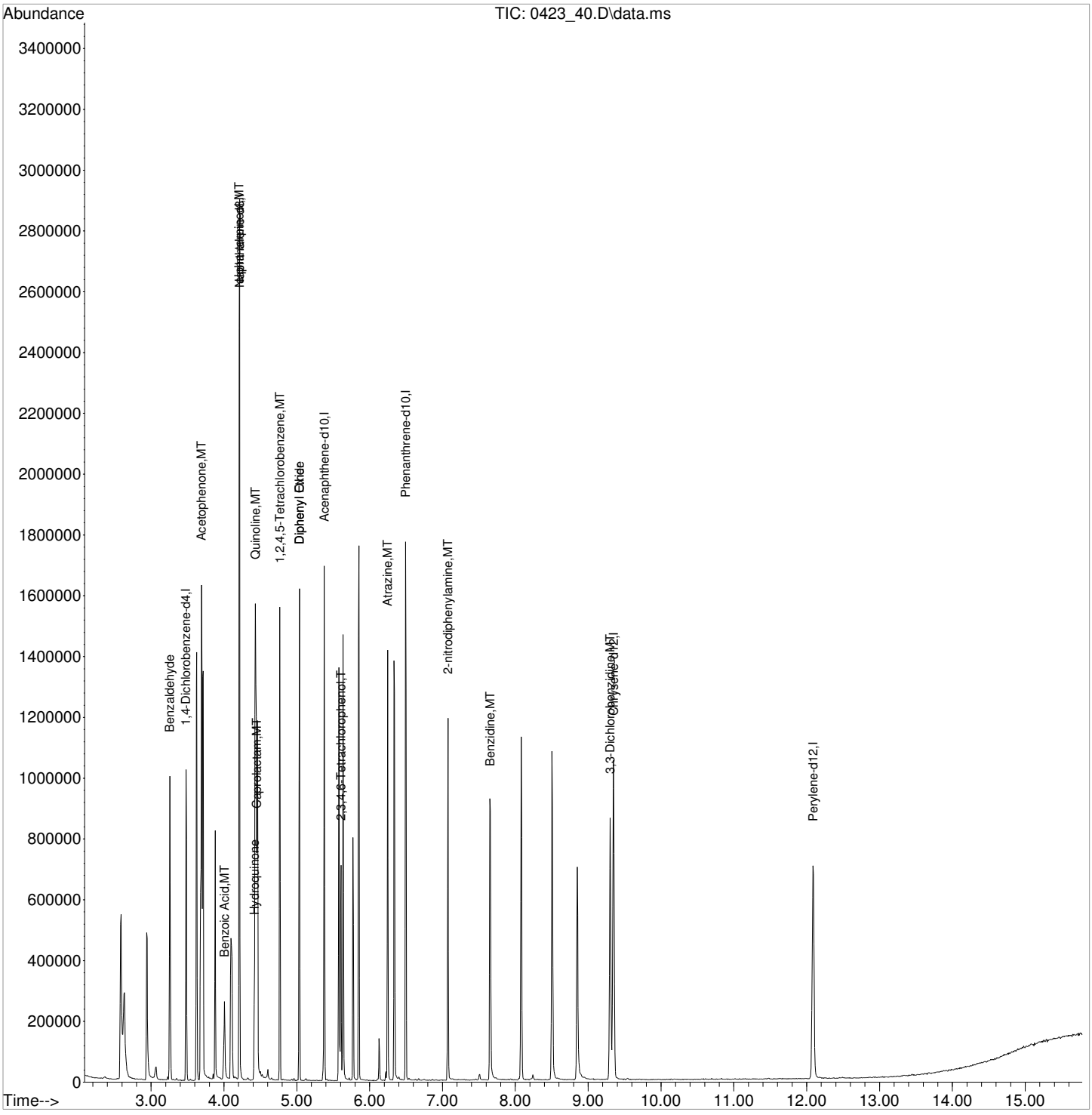
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	136166	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	618775	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	265920	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	548910	8000.0000000	ppb	0.00
84) Chrysene-d12	9.349	240	513249	8000.0000000	ppb	0.00
94) Perylene-d12	12.087	264	474507	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.256	105	167047	21799.2353860	ppb	99
22) Acetophenone	3.691	105	298287	9615.2933571	ppb #	83
31) Benzoic Acid	4.009	105	72240	7634.6749096	ppb	96
33) alpha-terpineol	4.208	59	172833	9819.0986483	ppb	89
37) Hydroquinone	4.420	110	81176m	4936.3212879	ppb	
38) Quinoline	4.432	129	414091	10386.7933551	ppb	97
39) Caprolactam	4.449	113	59651	12897.1593011	ppb #	48
43) 1,2,4,5-Tetrachloroben...	4.766	216	194119	10786.6991128	ppb	98
44) Diphenyl Ether	5.037	170	256509	10014.0856435	ppb	100
45) Diphenyl Oxide	5.037	170	256509	10014.0856435	ppb	100
62) 2,3,4,6-Tetrachlorophenol	5.607	232	77279	8096.5670742	ppb	97
69) Atrazine	6.247	200	128057	10616.0833781	ppb	99
82) 2-nitrodiphenylamine	7.076	167	125544	8352.3001830	ppb	99
85) Benzidine	7.657	184	408913	14214.2533747	ppb	99
89) 3,3-Dichlorobenzidine	9.302	252	259878	9586.9276363	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_40.D
Acq On : 4 May 2022 2:52 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22E04817 exp 10/15/22
Misc : TCL CAL ISTD 22E03675 exp 11/03/22
ALS Vial : 21 Sample Multiplier: 1
InstName : BNAMS2

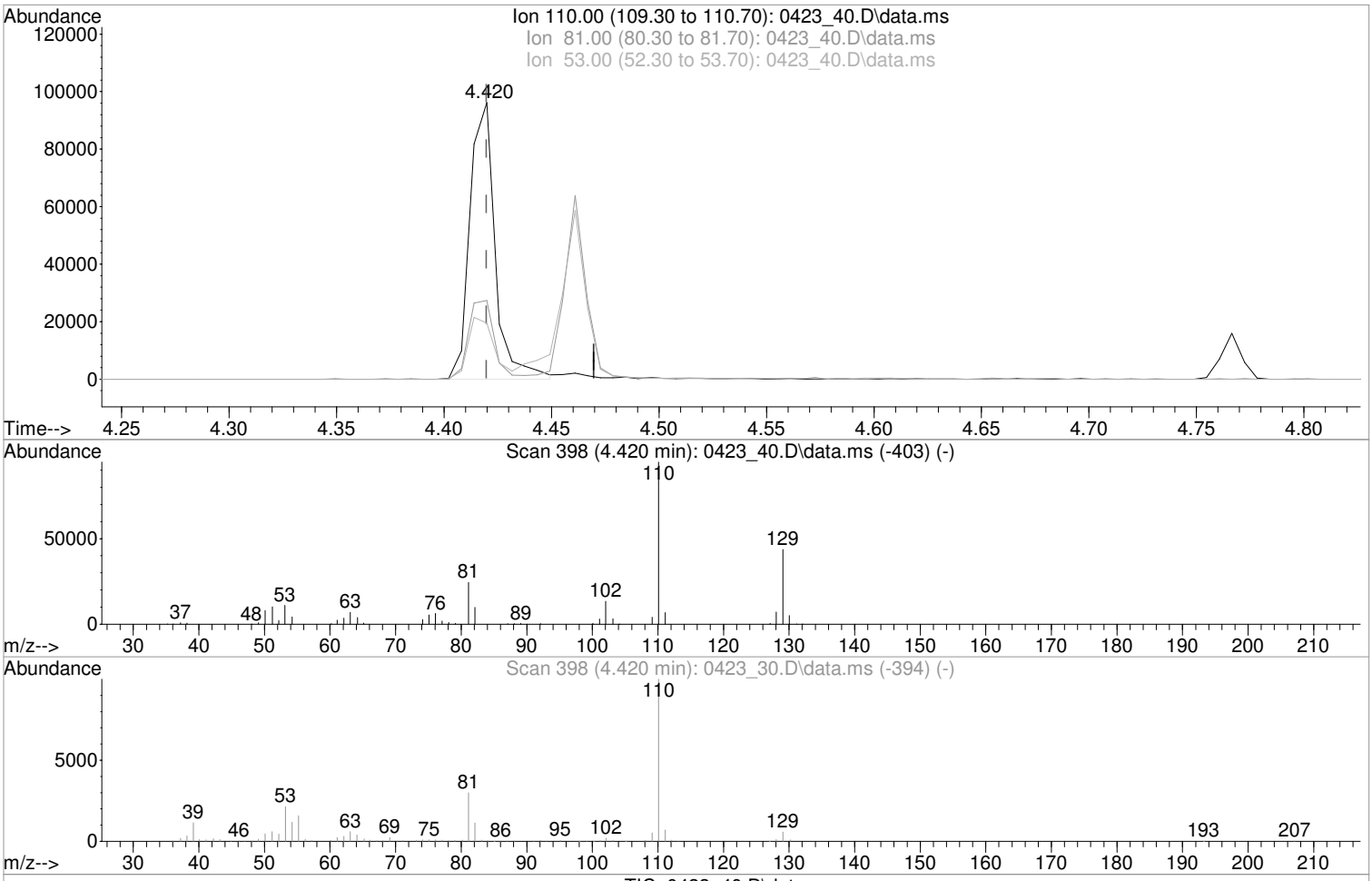
Quant Time: May 04 15:27:08 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_40.D
Acq On : 4 May 2022 2:52 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22E04817 exp 10/15/22
Misc : TCL CAL ISTD 22E03675 exp 11/03/22
ALS Vial : 21 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 04 15:26:06 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0423_40.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 4770.7961753 ppb

Qvalue = 97

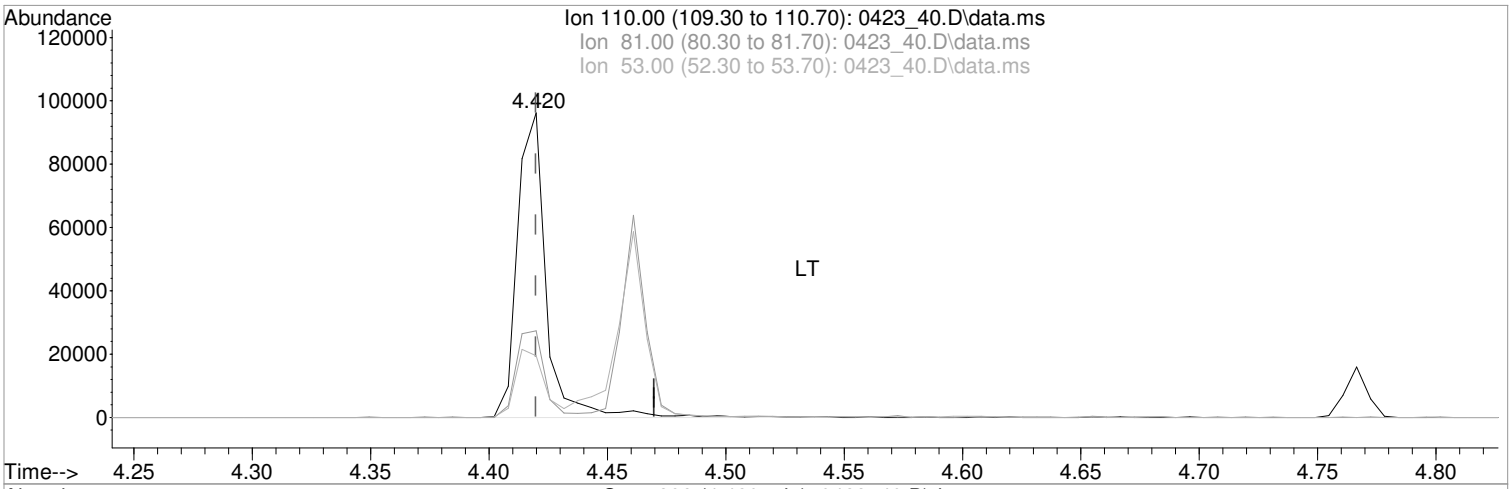
response 78454

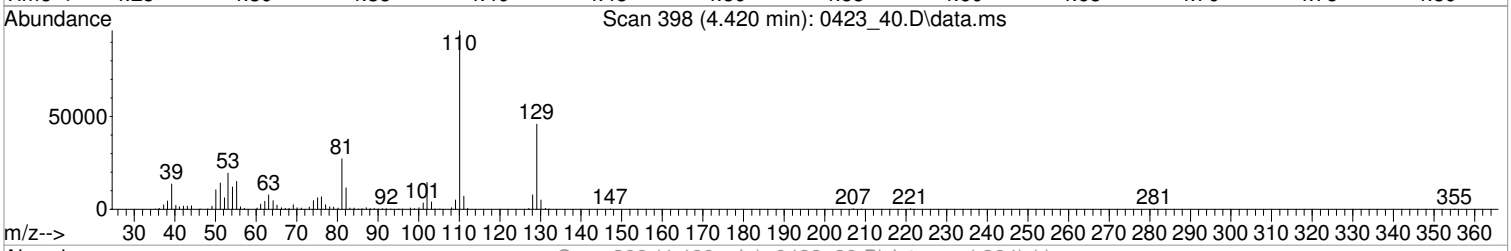
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	28.40
53.00	21.40	20.30
0.00	0.00	0.00

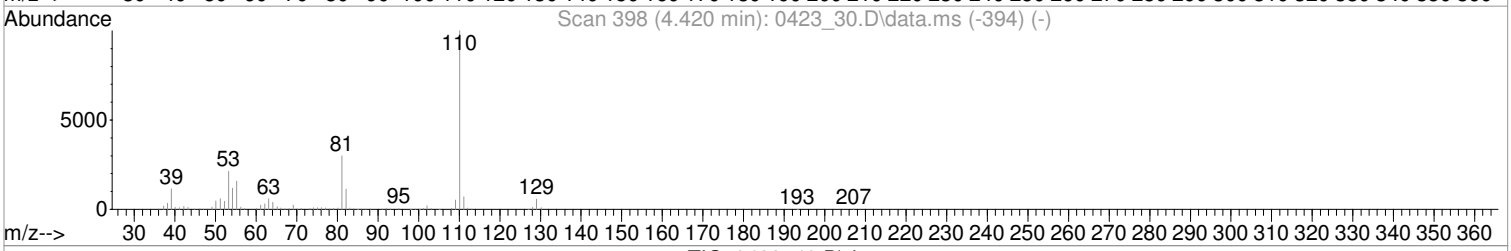
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\042322\
Data File : 0423_40.D
Acq On : 4 May 2022 2:52 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22E04817 exp 10/15/22
Misc : TCL CAL ISTD 22E03675 exp 11/03/22
ALS Vial : 21 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 04 15:26:06 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0423_40.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 4936.3212879 ppb m

response 81176

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	28.40
53.00	21.40	20.30
0.00	0.00	0.00

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	04/23/22 10:42
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	05/03/22 11:05
Lab File ID:	0513_03	**Analysis date/time:**	05/13/22 07:16
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.613370	0.59015350		3.79	20	10	9.621	96.20	
2-METHYLNAPHTHALENE	0.647025	0.62197310	0.40	3.87	20	10	9.613	96.10	
3&4-METHYL PHENOL	1.384817	1.367578	0.60	1.24	20	10	9.876	98.80	
ACENAPHTHENE	1.180559	1.135873	0.90	3.79	20	10	9.621	96.20	
ACENAPHTHYLENE	1.740609	1.725136	0.90	0.8890	20	10	9.911	99.10	
ANTHRACENE	1.071316	1.021132	0.70	4.68	20	10	9.532	95.30	
BENZO(A)ANTHRACENE	1.164451	1.120906	0.80	3.74	20	10	9.626	96.30	
BENZO(A)PYRENE	0.991544	1.003039	0.70	1.16	20	10	10.12	101	
BENZO(B)FLUORANTHENE	1.143658	1.153808	0.70	0.8870	20	10	10.09	101	
BENZO(G,H,I)PERYLENE	1.031578	1.107471	0.50	7.36	20	10	10.74	107	
BENZO(K)FLUORANTHENE	1.153719	1.163297	0.70	0.83	20	10	10.08	101	
BIS(2-ETHYLHEXYL)PHTHALATE	0.685061	0.694757	0.01	1.42	20	10	10.14	101	
CARBAZOLE	0.957953	0.93908180	0.01	1.97	20	10	9.803	98	
CHRYSENE	1.140362	1.102221	0.70	3.34	20	10	9.666	96.70	
DI-N-BUTYL PHTHALATE	1.160721	1.097711	0.01	5.43	20	10	9.457	94.60	
DI-N-OCTYL PHTHALATE	1.104365	1.134287	0.01	2.71	20	10	10.27	103	
DIBENZ(A,H)ANTHRACENE	1.056465	1.108276	0.40	4.90	20	10	10.49	105	
DIBENZOFURAN	1.630142	1.595907	0.80	2.10	20	10	9.790	97.90	
FLUORANTHENE	1.189282	1.126910	0.60	5.24	20	10	9.476	94.80	
FLUORENE	1.324234	1.293746	0.90	2.30	20	10	9.770	97.70	
INDENO(1,2,3-CD)PYRENE	0.919898	0.98205670	0.50	6.76	20	10	10.68	107	
NAPHTHALENE	1.000885	0.98307250	0.70	1.78	20	10	9.822	98.20	
PENTACHLOROPHENOL	0.139273	0.12764230	0.05	8.35	20	10	9.165	91.60	
PHENANTHRENE	1.054765	1.012092	0.70	4.05	20	10	9.595	96	
PHENOL	1.655782	1.636137	0.80	1.19	20	10	9.881	98.80	
PYRENE	1.213331	1.183789	0.60	2.43	20	10	9.757	97.60	
2,4,6-TRIBROMOPHENOL	0.105520	0.10256350		2.80	20	10	9.720	97.20	70 - 130
2-FLUOROBIPHENYL	1.354574	1.342853		0.8650	20	10	9.913	99.10	70 - 130
2-FLUOROPHENOL	1.325268	1.296167		2.20	20	10	9.780	97.80	70 - 130
NITROBENZENE-D5	0.356572	0.383821		7.64	20	10	10.76	108	70 - 130
P-TERPHENYL-D14	1.047561	1.025374		2.12	20	10	9.788	97.90	70 - 130
PHENOL-D5	1.617159	1.579431		2.33	20	10	9.767	97.70	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:45:58 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	205905	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	818465	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	416167	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	851016	8000.0000000	ppb	0.00
84) Chrysene-d12	9.350	240	835795	8000.0000000	ppb	0.00
94) Perylene-d12	12.094	264	820707	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.816	112	333609	9780.4086285	ppb	0.00
Spiked Amount 20000.000				Recovery = 48.90%		
7) Phenol-d5	3.251	99	406516	9766.7022495	ppb	0.00
Spiked Amount 20000.000				Recovery = 48.83%		
24) Nitrobenzene-d5	3.785	82	392680	10764.1961416	ppb	0.00
Spiked Amount 10000.000				Recovery = 107.64%		
50) 2-Fluorobiphenyl	4.896	172	698564	9913.4762913	ppb	0.00
Spiked Amount 10000.000				Recovery = 99.13%		
73) 2,4,6-Tribromophenol	5.954	330	109104	9719.8108168	ppb	0.00
Spiked Amount 20000.000				Recovery = 48.60%		
87) p-Terphenyl-d14	7.922	244	1071253	9788.2018739	ppb	0.00
Spiked Amount 10000.000				Recovery = 97.88%		
Target Compounds						Qvalue
2) Pyridine	2.270	79	367183	9342.3782442	ppb	98
3) N-Nitrosodimethylamine	2.258	42	174061	9796.6737941	ppb	98
5) Aniline	3.304	66	190165	9734.0289724	ppb	99
6) bis(2-Chloroethyl)ether	3.321	93	289141m	8724.3738058	ppb	
8) Phenol	3.257	94	421111	9881.3525467	ppb	99
10) 2-Chlorophenol	3.368	128	343218	9889.1264350	ppb	98
11) n-Decane	3.362	41	186231	9349.3973231	ppb	97
12) 1,3-Dichlorobenzene	3.456	146	380357	9803.0477806	ppb	98
13) 1,4-Dichlorobenzene	3.492	146	387302	9850.4899885	ppb	98
14) Benzyl Alcohol	3.539	79	261927	9065.5176760	ppb	100
15) 1,2-Dichlorobenzene	3.574	146	362745	9773.7594392	ppb	97
16) bis(2-Chloroisopropyl)...	3.609	121	117141	9622.0765161	ppb	95
17) 2,2-oxybis(1-chloropro...	3.609	121	117141	9622.0765161	ppb	95
18) 2-Methylphenol	3.586	108	318312	10121.0304212	ppb	98
19) Hexachloroethane	3.768	117	144644	9829.1183575	ppb	95
20) N-Nitrosodi-n-propylamine	3.680	70	240158	9516.0595071	ppb	95
21) 3&4-Methyl phenol	3.668	107	351989	9875.5158135	ppb	99
25) Nitrobenzene	3.797	77	350869	9650.7223787	ppb	96
26) Isophorone	3.926	82	642426	9754.8682337	ppb	96
27) 2-Nitrophenol	3.979	139	186766	10672.3217596	ppb	89
28) 2,4-Dimethylphenol	3.973	107	300339	9158.6510100	ppb	96
29) bis(2-Chlorethoxy)methane	4.038	93	377939	9575.1820677	ppb	96
30) 2,4-Dichlorophenol	4.114	162	280390	9913.6995797	ppb	97
32) 1,2,4-Trichlorobenzene	4.173	180	312504	9742.5206393	ppb	98
34) Naphthalene	4.226	128	1005763	9822.0359105	ppb	99
35) 4-Chloroaniline	4.244	65	114924	9313.1981318	ppb	98
36) Hexachloro-1,3-butadiene	4.291	225	184148	9511.7171906	ppb	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:45:58 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

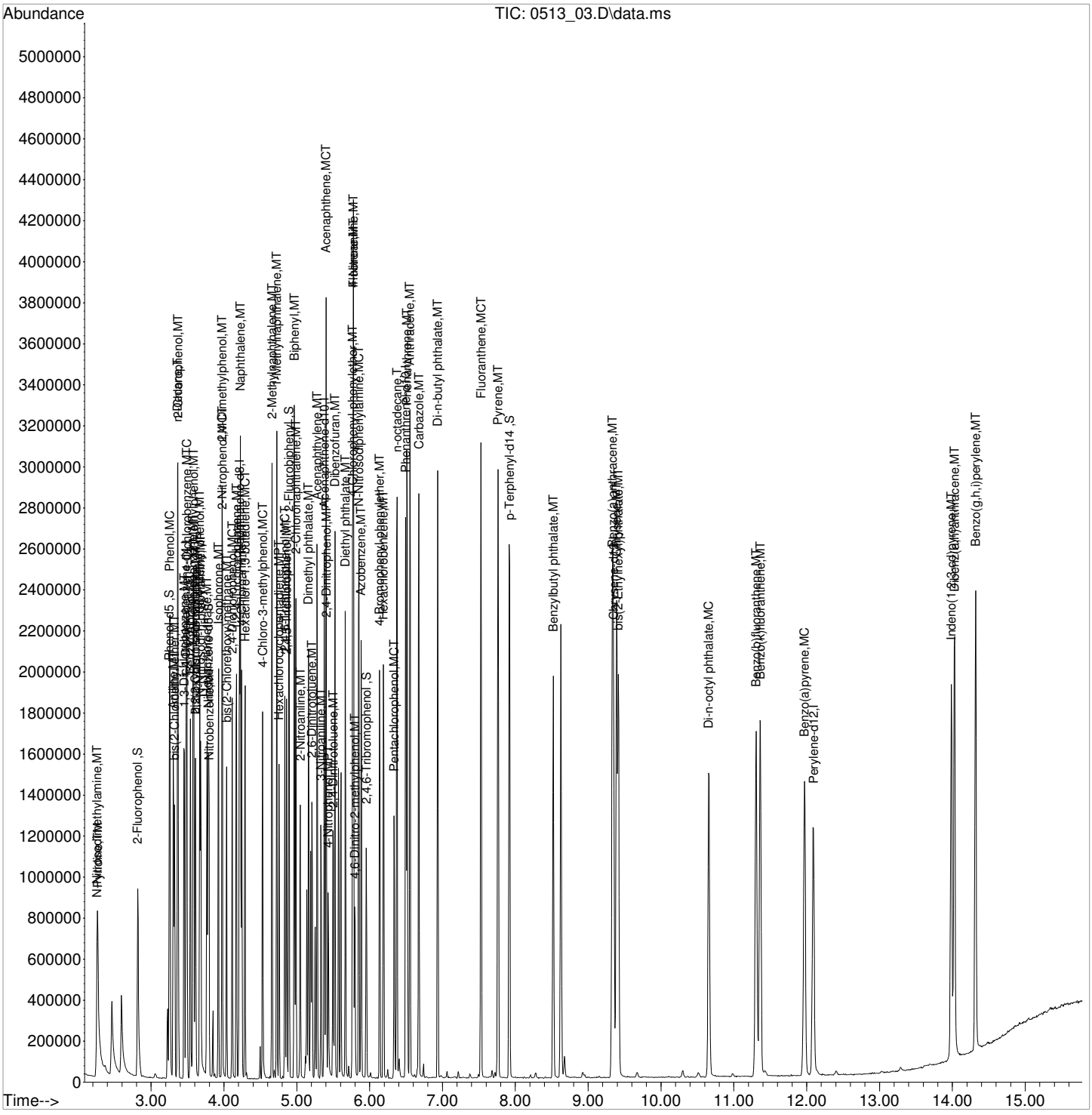
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.532	107	277246	9988.9282615 ppb		98
41)	2-Methylnaphthalene	4.661	142	636329	9612.8142483 ppb		99
42)	1-Methylnaphthalene	4.726	142	603775	9621.4957090 ppb		99
47)	Hexachlorocyclopentadiene	4.755	237	201974	9068.5069095 ppb		98
48)	2,4,6-Trichlorophenol	4.837	196	198068	10266.7019136 ppb		97
49)	2,4,5-Trichlorophenol	4.861	196	206802	10025.0477636 ppb		98
51)	Biphenyl	4.966	154	784743	10018.4431991 ppb		99
52)	2-Chloronaphthalene	4.990	162	601049	9865.6042874 ppb		98
53)	2-Nitroaniline	5.049	138	209093	10891.7873831 ppb		99
54)	Acenaphthylene	5.278	152	897431	9911.1048202 ppb		100
55)	Dimethyl phthalate	5.160	163	641133	9894.8060017 ppb		99
56)	2,6-Dinitrotoluene	5.207	165	155519	10433.2504298 ppb		91
57)	3-Nitroaniline	5.331	138	174234	10821.8758363 ppb	#	83
58)	Acenaphthene	5.401	153	590891	9621.4839436 ppb		97
59)	2,4-Dinitrophenol	5.407	184	87475	11788.1614342 ppb	#	1
60)	Dibenzofuran	5.525	168	830205	9789.9898011 ppb		100
61)	2,4-Dinitrotoluene	5.501	165	205819	10883.3185332 ppb		97
63)	4-Nitrophenol	5.431	139	141019	10972.3758052 ppb		95
64)	Fluorene	5.777	166	673018	9769.7707775 ppb		99
65)	4-Chlorophenyl-phenyle...	5.766	204	337119	9727.6523301 ppb		98
66)	Diethyl phthalate	5.666	149	630156	9829.8206708 ppb		99
67)	4-Nitroaniline	5.777	138	174037m	12031.9280478 ppb		
68)	Azobenzene	5.883	77	660132	9806.0850485 ppb		100
71)	4,6-Dinitro-2-methylph...	5.801	198	116162	10017.6948480 ppb		95
72)	N-Nitrosodiphenylamine	5.854	169	574957	9119.1865583 ppb		98
74)	4-Bromophenyl-phenylether	6.136	248	211751	9270.9983756 ppb		95
75)	Hexachlorobenzene	6.189	284	232532	8992.4471125 ppb		98
76)	n-octadecane	6.377	55	98984	8717.9053961 ppb		99
77)	Pentachlorophenol	6.335	266	135782	9164.8842017 ppb		95
78)	Phenanthrene	6.512	178	1076633m	9595.4277652 ppb		
79)	Anthracene	6.553	178	1086250	9531.5719974 ppb		99
80)	Carbazole	6.676	167	998967	9802.9998443 ppb		100
81)	Di-n-butyl phthalate	6.935	149	1167712	9457.1435967 ppb		99
83)	Fluoranthene	7.528	202	1198773	9475.5492849 ppb		100
86)	Pyrene	7.763	202	1236756	9756.5196424 ppb		99
88)	Benzylbutyl phthalate	8.521	149	508441	10044.3942957 ppb		99
90)	Benzo(a)anthracene	9.332	228	1171059	9626.0459147 ppb		99
91)	Chrysene	9.391	228	1151538	9665.5330963 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.414	149	725843	10141.5372635 ppb		100
93)	Di-n-octyl phthalate	10.654	149	1185039	10270.9442950 ppb		100
95)	Benzo(b)fluoranthene	11.306	252	1183673	10088.7556745 ppb		99
96)	Benzo(k)fluoranthene	11.365	252	1193407	10083.0119779 ppb		99
97)	Benzo(a)pyrene	11.970	252	1029001	10115.9294951 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.985	276	1007476	10675.7137149 ppb		98
99)	Dibenz(a,h)anthracene	14.032	278	1136962	10490.4111234 ppb		99
100)	Benzo(g,h,i)perylene	14.320	276	1136137	10735.7061009 ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

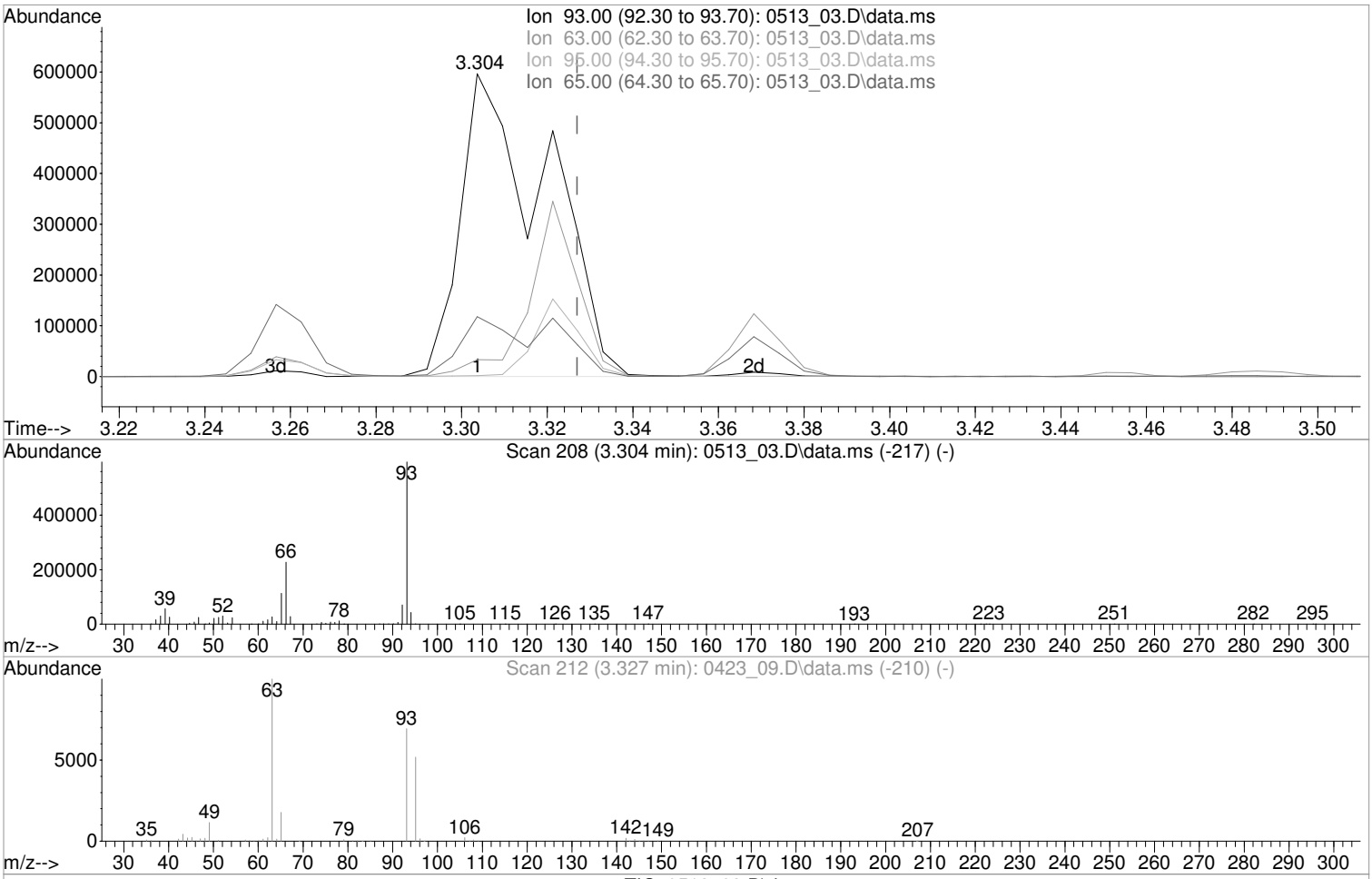
Quant Time: May 13 10:45:58 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:42:00 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.304min (-0.023) 25317.6143448 ppb

Qvalue = 41

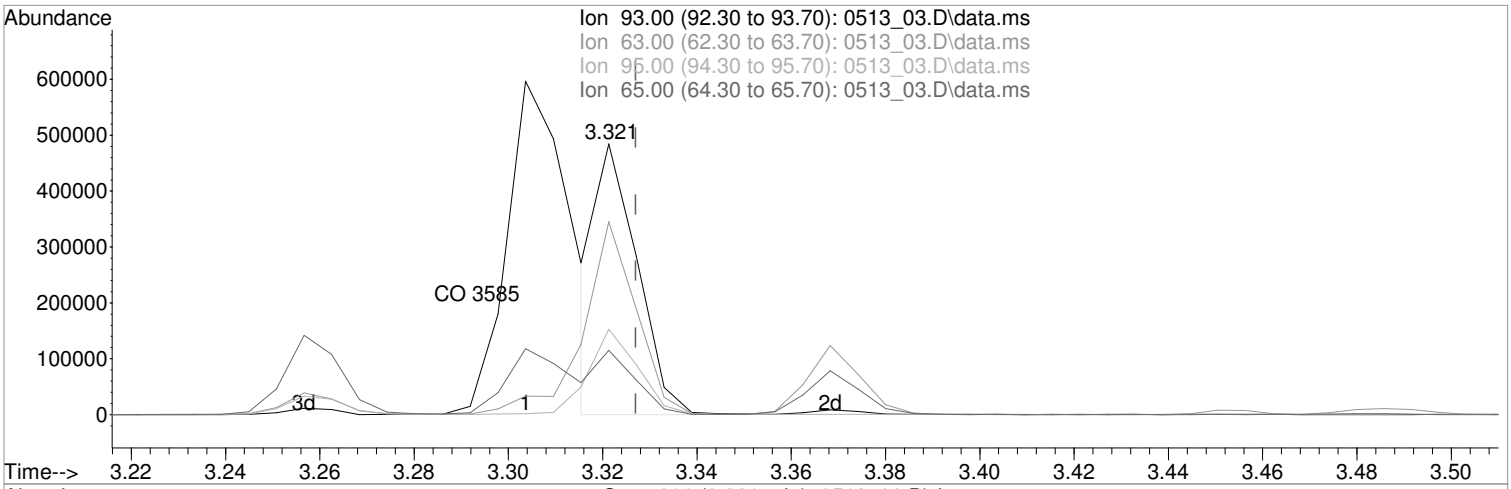
response 839070

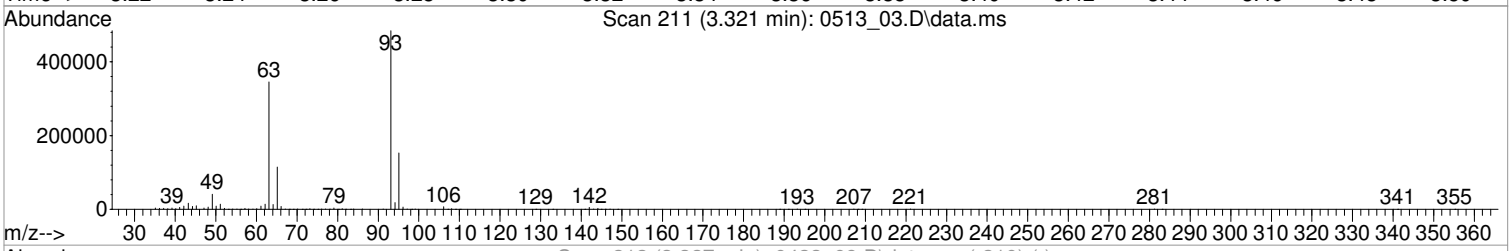
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.47#
95.00	32.50	0.26#
65.00	22.20	19.52

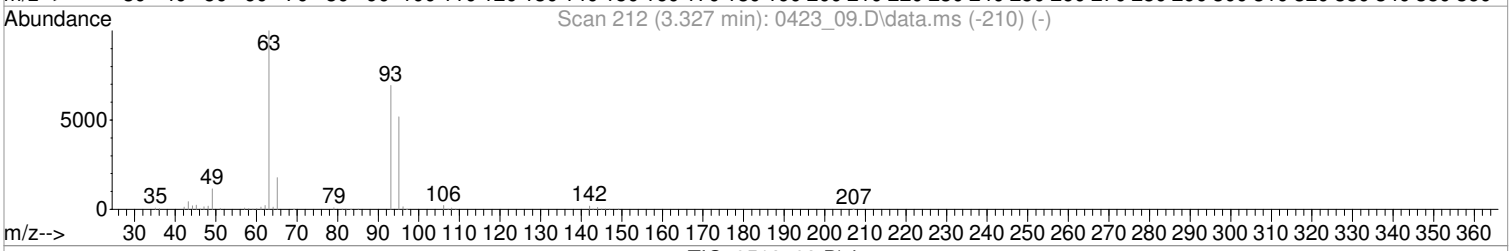
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:42:00 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.321min (-0.006) 8724.3738058 ppb m

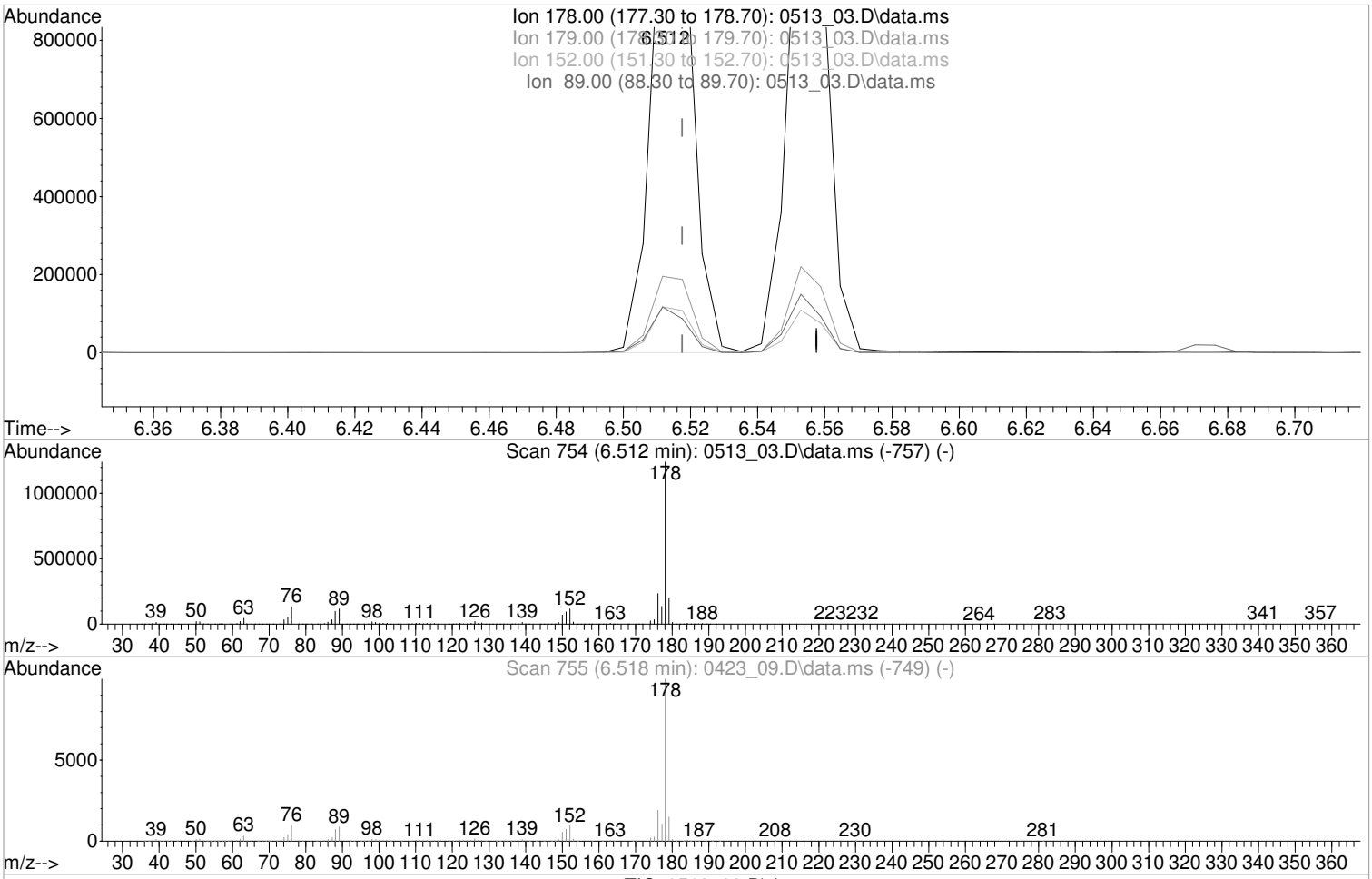
response 289141

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.25
95.00	32.50	31.56
65.00	22.20	23.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:42:00 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_03.D\data.ms

(78) Phenanthrene (MT)

6.512min (-0.006) 9589.1801443 ppb

Qvalue = 99

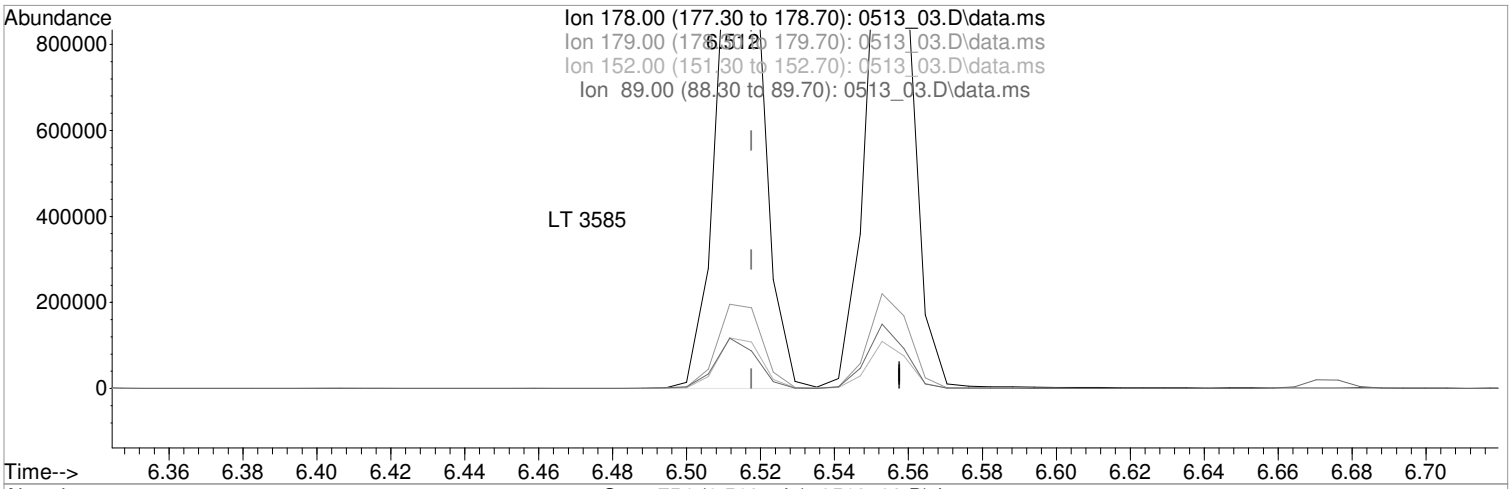
response 1075932

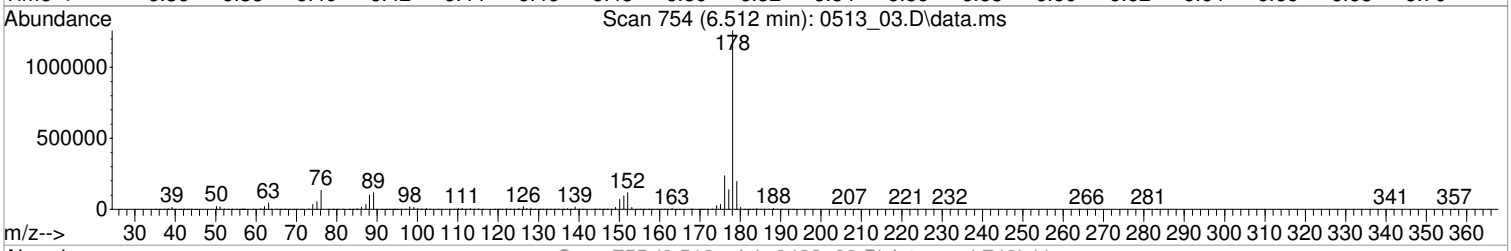
Ion	Exp%	Act%
178.00	100	100
179.00	14.90	15.56
152.00	9.40	9.38
89.00	8.80	9.30

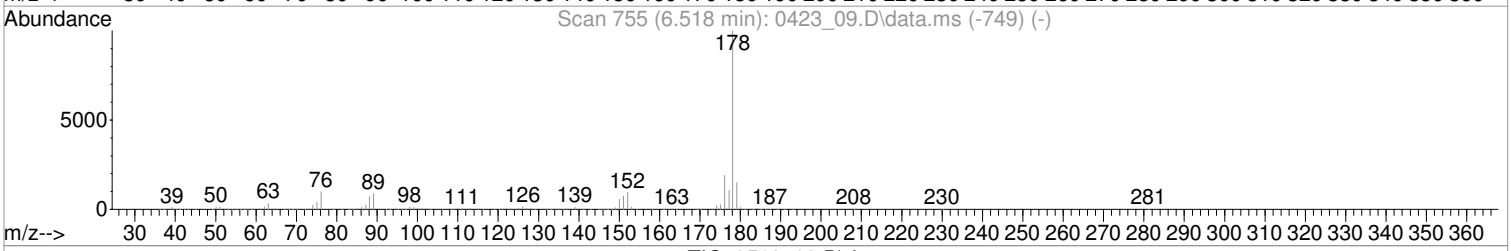
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:42:00 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_03.D\data.ms

(78) Phenanthrene (MT)

6.512min (-0.006) 9595.4277652 ppb m

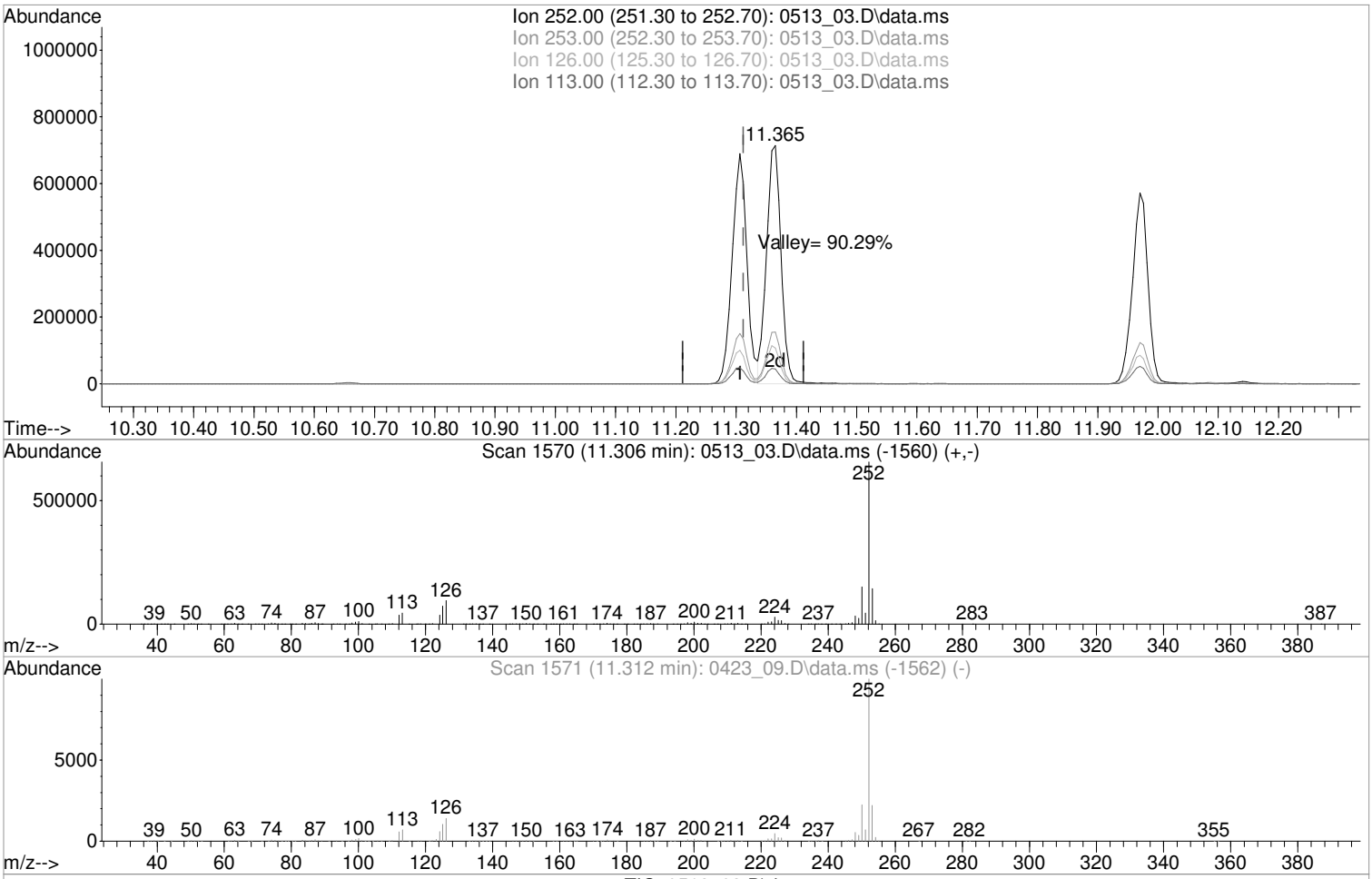
response 1076633

Ion	Exp%	Act%
178.00	100	100
179.00	14.90	15.57
152.00	9.40	9.38
89.00	8.80	9.30

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:16 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/1/22
Misc : SVMS CAL ISTD 22D28021 exp 10/28/22
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:42:00 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_03.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.306min (-0.006) 10088.7556745 ppb

Qvalue = 99

response 1183673

Ion	Exp%	Act%
252.00	100	100
253.00	22.10	21.79
126.00	14.00	14.47
113.00	7.00	6.90

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	04/23/22 10:42
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	05/03/22 11:05
Lab File ID:	0513_04	**Analysis date/time:**	05/13/22 07:37
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122333	0.12562060		2.69	20	10	10.27	103	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 10:49:13 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

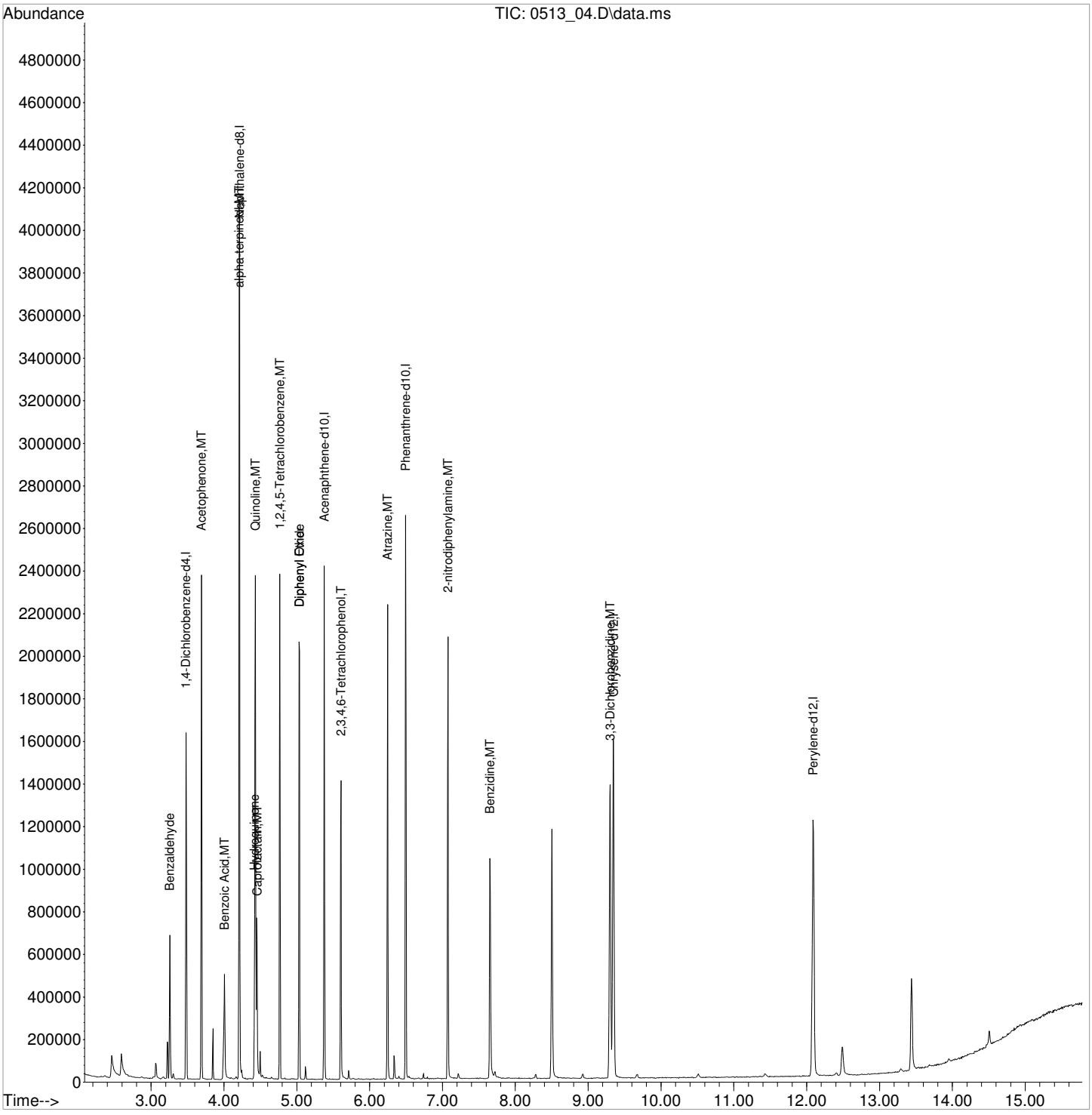
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.480	152	203720	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.214	136	926186	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.378	164	397174	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.494	188	818667	8000.0000000	ppb	0.00
84) Chrysene-d12	9.350	240	800943	8000.0000000	ppb	0.00
94) Perylene-d12	12.088	264	803466	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.257	105	111960	9765.6348741	ppb	100
22) Acetophenone	3.691	105	472304	10176.1816000	ppb	99
31) Benzoic Acid	4.009	105	145435	10268.7195736	ppb	98
33) alpha-terpineol	4.208	59	273234	10370.8473447	ppb	92
37) Hydroquinone	4.420	110	210515m	8552.5055469	ppb	
38) Quinoline	4.432	129	613034	10273.1778974	ppb	99
39) Caprolactam	4.455	113	79033m	11416.1416772	ppb	
43) 1,2,4,5-Tetrachloroben...	4.767	216	307858	11466.4510149	ppb	99
44) Diphenyl Ether	5.037	170	397205	10359.9568674	ppb	99
45) Diphenyl Oxide	5.037	170	397205	10359.9568674	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.607	232	160577	11264.0081406	ppb	96
69) Atrazine	6.247	200	200029	11102.5861713	ppb	100
82) 2-nitrodiphenylamine	7.076	167	242831	10577.2151708	ppb	97
85) Benzidine	7.652	184	452206	10335.0902748	ppb	99
89) 3,3-Dichlorobenzidine	9.303	252	449975	10637.1386677	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

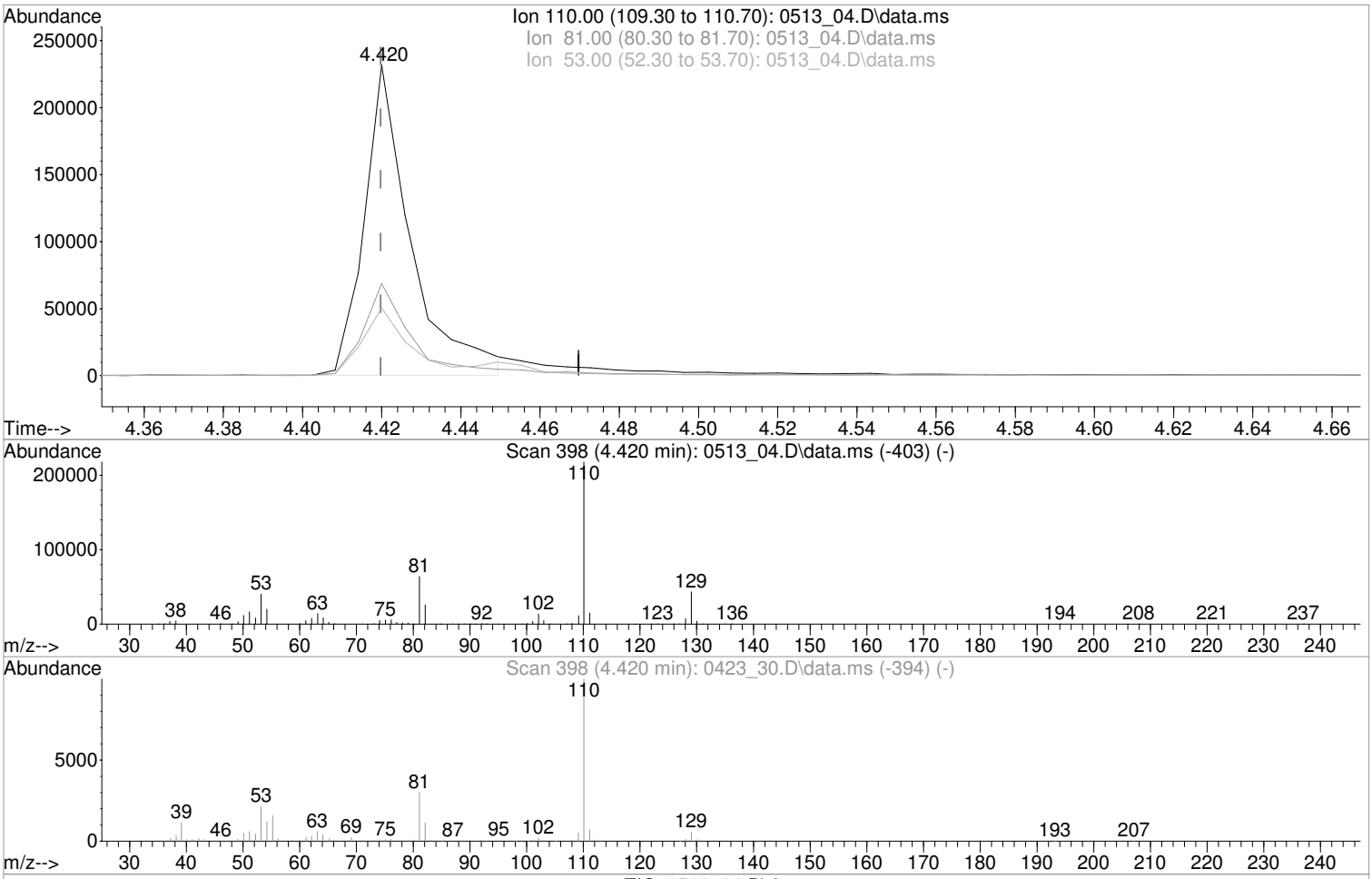
Quant Time: May 13 10:49:13 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 08:32:42 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_04.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 7679.6839942 ppb

Qvalue = 99

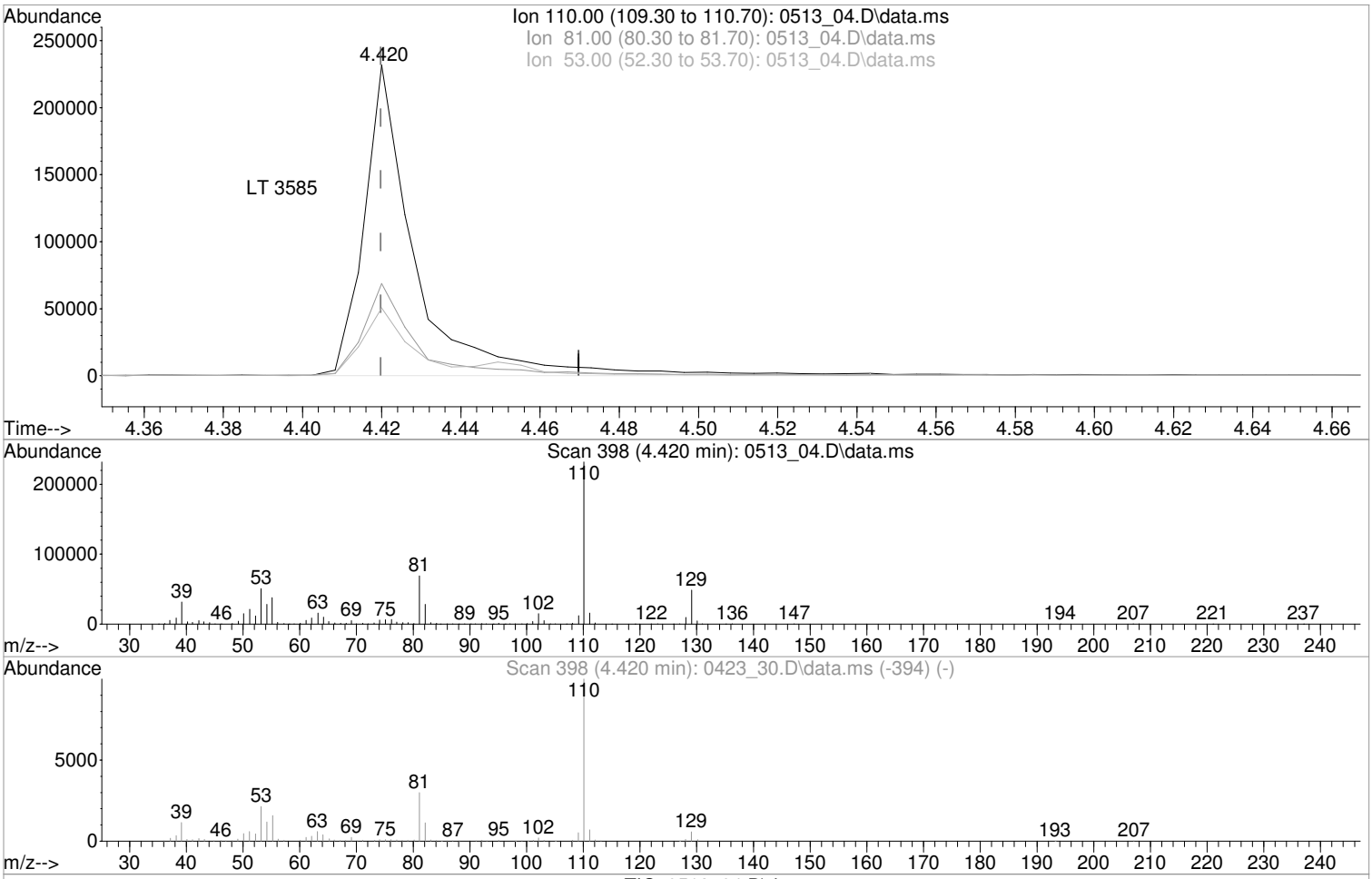
response 189031

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.57
53.00	21.40	21.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 08:32:42 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_04.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 8552.5055469 ppb m

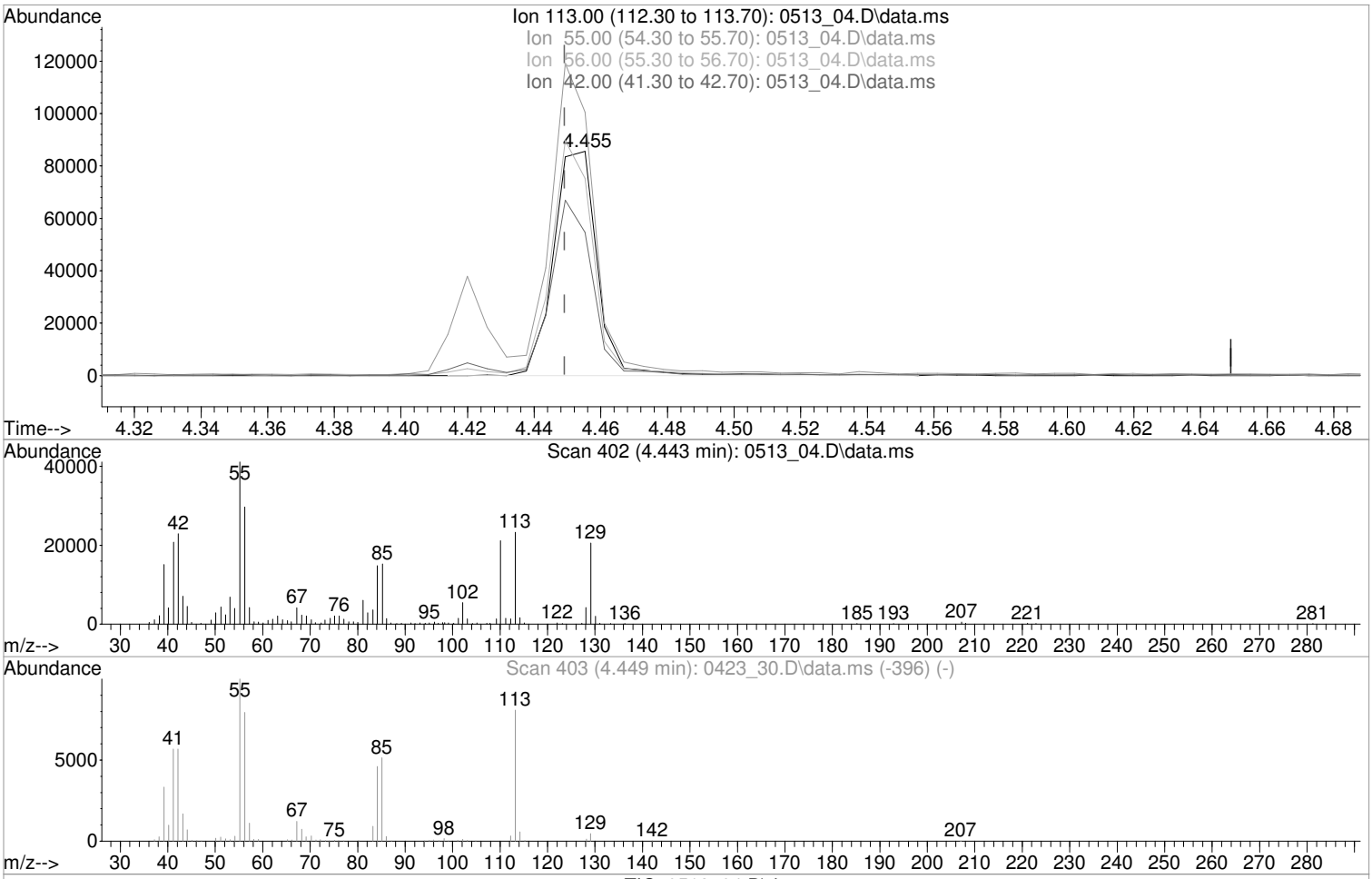
response 210515

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	29.68
53.00	21.40	21.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 08:32:42 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_04.D\data.ms

(39) Caprolactam (MT)

4.455min (+0.006) 11391.2966584 ppb

Qvalue = 96

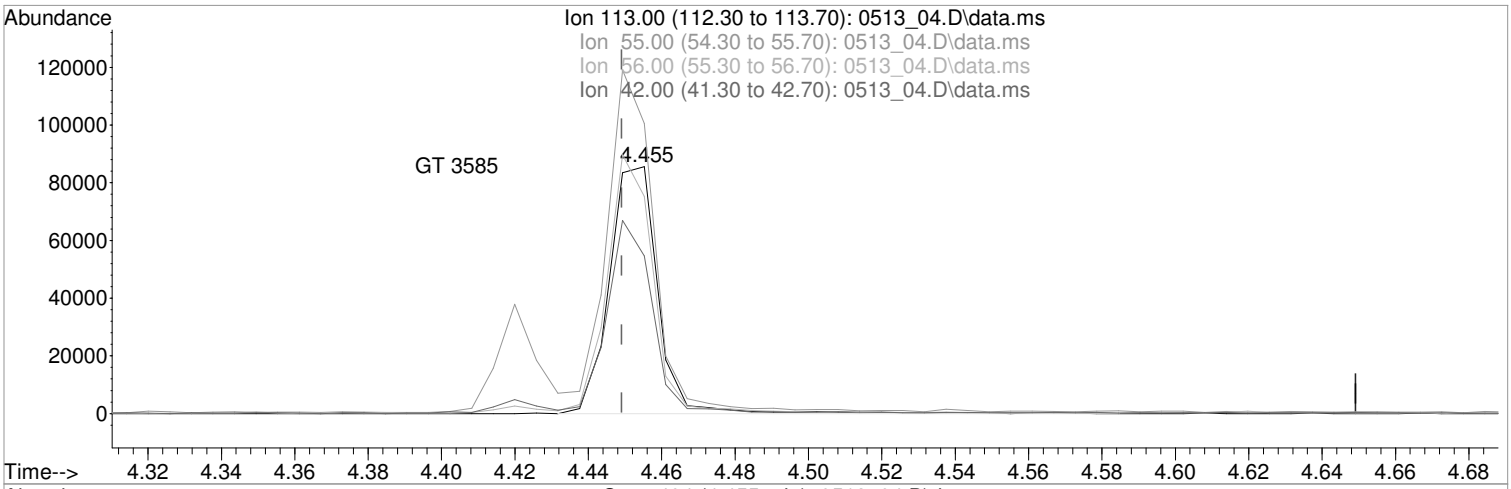
response 78861

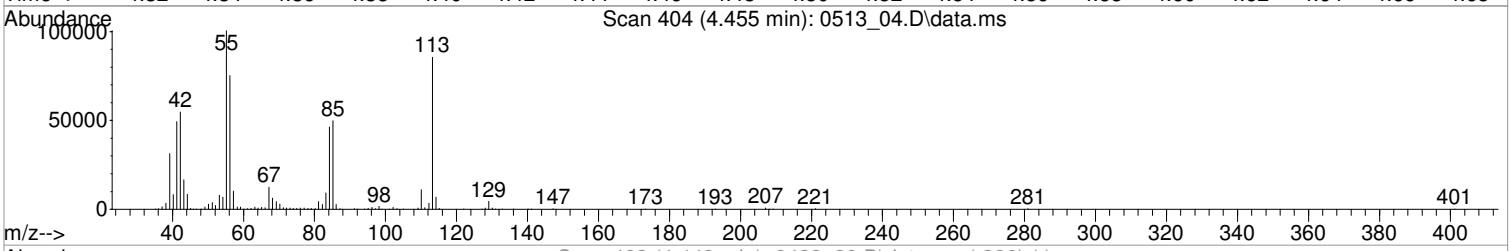
Ion	Exp%	Act%
113.00	100	100
55.00	127.70	134.79
56.00	96.20	97.45
42.00	70.00	72.74

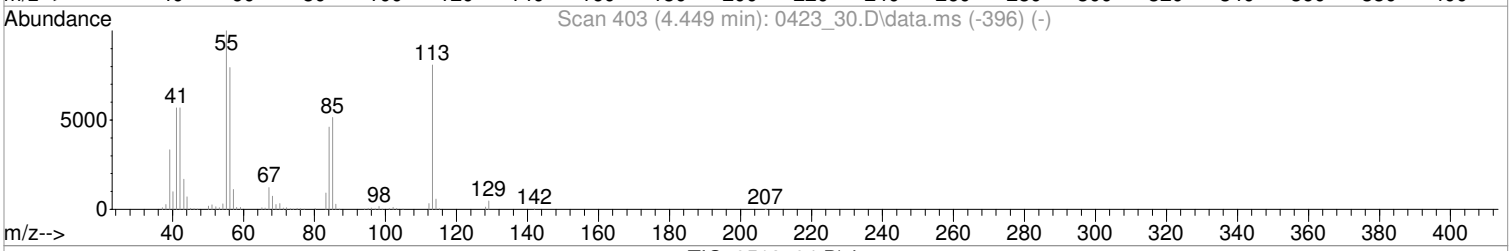
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:37 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22
Misc : TCL CAL ISTD 22D16229 exp 10/16/22
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 08:32:42 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_04.D\data.ms

(39) Caprolactam (MT)

4.455min (+0.006) 11416.1416772 ppb m

response 79033

Ion	Exp%	Act%
113.00	100	100
55.00	127.70	134.49
56.00	96.20	97.24
42.00	70.00	72.58

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	02/09/22 10:43
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	02/09/22 15:35
Lab File ID:	0209_21	**Analysis date/time:**	02/09/22 15:56
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.623837	0.62111570		0.4360		10	9.956	99.60	70 - 130
2-METHYLNAPHTHALENE	0.663826	0.63308330		4.63		10	9.537	95.40	70 - 130
3&4-METHYL PHENOL	1.350649	1.338996		0.8630		10	9.914	99.10	70 - 130
ACENAPHTHENE	1.170435	1.121669		4.17		10	9.583	95.80	70 - 130
ACENAPHTHYLENE	1.779211	1.817918		2.18		10	10.22	102	70 - 130
ANTHRACENE	1.065424	1.034061		2.94		10	9.706	97.10	70 - 130
BENZO(A)ANTHRACENE	1.151953	1.120667		2.72		10	9.728	97.30	70 - 130
BENZO(A)PYRENE	0.987052	1.048235		6.20		10	10.62	106	70 - 130
BENZO(B)FLUORANTHENE	1.139642	1.101573		3.34		10	9.666	96.70	70 - 130
BENZO(G,H,I)PERYLENE	1.009366	1.078476		6.85		10	10.68	107	70 - 130
BENZO(K)FLUORANTHENE	1.122546	1.114238		0.74		10	9.926	99.30	70 - 130
BIS(2-ETHYLHEXYL)PHTHALATE	0.724997	0.79033960		9.01		10	10.90	109	70 - 130
CARBAZOLE	0.972084	1.021167		5.05		10	10.50	105	70 - 130
CHRYSENE	1.116357	1.141252		2.23		10	10.22	102	70 - 130
DI-N-BUTYL PHTHALATE	1.138017	1.178124		3.52		10	10.35	104	70 - 130
DI-N-OCTYL PHTHALATE	1.204403	1.241811		3.11		10	10.31	103	70 - 130
DIBENZ(A,H)ANTHRACENE	1.033545	1.082655		4.75		10	10.48	105	70 - 130
DIBENZOFURAN	1.623192	1.575663		2.93		10	9.707	97.10	70 - 130
FLUORANTHENE	1.1182	1.053931		5.75		10	9.425	94.30	70 - 130
FLUORENE	1.316666	1.307861		0.6690		10	9.933	99.30	70 - 130
INDENO(1,2,3-CD)PYRENE	0.969769	1.039433		7.18		10	10.72	107	70 - 130
NAPHTHALENE	1.018747	1.008173		1.04		10	9.896	99	70 - 130
PENTACHLOROPHENOL	0.121187	0.14212140		17.30		10	11.73	117	70 - 130
PHENANTHRENE	1.052577	1.027167		2.41		10	9.759	97.60	70 - 130
PHENOL	1.643512	1.610572		2		10	9.800	98	70 - 130
PYRENE	1.287230	1.281216		0.4670		10	9.953	99.50	70 - 130
2,4,6-TRIBROMOPHENOL	0.090561	0.08983042		0.8070		10	9.919	99.20	70 - 130
2-FLUOROBIPHENYL	1.349543	1.323445		1.93		10	9.807	98.10	70 - 130
2-FLUOROPHENOL	1.299982	1.279613		1.57		10	9.843	98.40	70 - 130
NITROBENZENE-D5	0.339442	0.35322840		4.06		10	10.41	104	70 - 130
P-TERPHENYL-D14	1.093292	1.098755		0.50		10	10.05	101	70 - 130
PHENOL-D5	1.560263	1.524287		2.31		10	9.769	97.70	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	88915	8000.00 ppb	0.00
23) Naphthalene-d8	4.26	136	355224	8000.00 ppb	0.00
46) Acenaphthene-d10	5.44	164	184704	8000.00 ppb	0.00
70) Phenanthrene-d10	6.57	188	340250	8000.00 ppb	0.00
84) Chrysene-d12	9.54	240	293653	8000.00 ppb	0.00
94) Perylene-d12	12.38	264	310728	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.84	112	142221	9843.3121001 ppb	0.00
Spiked Amount 666.000			Recovery	= 1477.97%	
7) Phenol-d5	3.28	99	169415	9769.4265067 ppb	0.00
Spiked Amount 666.000			Recovery	= 1466.88%	
24) Nitrobenzene-d5	3.82	82	156844	10406.1534584 ppb	0.00
Spiked Amount 333.000			Recovery	= 3124.97%	
50) 2-Fluorobiphenyl	4.95	172	305557	9806.6161349 ppb	0.00
Spiked Amount 333.000			Recovery	= 2944.93%	
73) 2,4,6-Tribromophenol	6.02	330	38206	9919.3409749 ppb	0.00
Spiked Amount 666.000			Recovery	= 1489.39%	
87) p-Terphenyl-d14	8.04	244	403316	10049.9749250 ppb	0.00
Spiked Amount 333.000			Recovery	= 3018.01%	
Target Compounds					Qvalue
2) Pyridine	2.29	79	157472	11446.0495914 ppb	90
3) N-Nitrosodimethylamine	2.28	42	68975	9340.9358063 ppb	87
5) Aniline	3.34	66	79389	9650.2197215 ppb	92
6) bis(2-Chloroethyl)ether	3.36	93	152062m	11899.7254383 ppb	
8) Phenol	3.29	94	179005	9799.5751289 ppb	98
10) 2-Chlorophenol	3.40	128	146262	10000.5197227 ppb	95
11) n-Decane	3.40	41	82952	9629.2271328 ppb	98
12) 1,3-Dichlorobenzene	3.49	146	164692	9959.1733450 ppb	95
13) 1,4-Dichlorobenzene	3.53	146	167144	9819.9981031 ppb	97
14) Benzyl Alcohol	3.57	79	113873	10066.8014240 ppb	99
15) 1,2-Dichlorobenzene	3.61	146	157389	10059.2311925 ppb	100
16) bis(2-Chloroisopropyl)ethe	3.65	121	53196	9935.6902402 ppb	64
17) 2,2-oxybis(1-chloropropane	3.65	121	53196	9935.6902402 ppb	64
18) 2-Methylphenol	3.62	108	133745	10120.0527818 ppb	98
19) Hexachloroethane	3.80	117	62812	10166.1307570 ppb	99
20) N-Nitrosodi-n-propylamine	3.72	70	98111	10158.5564450 ppb	96
21) 3&4-Methyl phenol	3.70	107	148821	9913.7205681 ppb	99
25) Nitrobenzene	3.83	77	149817	10165.9220817 ppb	94
26) Isophorone	3.96	82	260097	9838.5361753 ppb	95
27) 2-Nitrophenol	4.01	139	75876	10214.9836033 ppb #	76
28) 2,4-Dimethylphenol	4.01	107	139227	10092.5405476 ppb	98
29) bis(2-Chlorethoxy)methane	4.08	93	172239	10189.7011915 ppb	95
30) 2,4-Dichlorophenol	4.15	162	116228	10001.3018153 ppb	94
32) 1,2,4-Trichlorobenzene	4.22	180	126978	9761.1362823 ppb	99
34) Naphthalene	4.27	128	447659	9896.2058674 ppb	99
35) 4-Chloroaniline	4.28	65	50393	9587.7463840 ppb	95
36) Hexachloro-1,3-butadiene	4.33	225	78373	11043.8206612 ppb	98
40) 4-Chloro-3-methylphenol	4.57	107	115951	9898.0134487 ppb	92
41) 2-Methylnaphthalene	4.71	142	281108	9536.8809357 ppb	100
42) 1-Methylnaphthalene	4.78	142	275794	9956.3737843 ppb	100
47) Hexachlorocyclopentadiene	4.81	237	69461	8026.8498870 ppb	97
48) 2,4,6-Trichlorophenol	4.89	196	77627	9689.8796793 ppb	95
49) 2,4,5-Trichlorophenol	4.91	196	82579	9904.7566201 ppb	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: S804B09V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

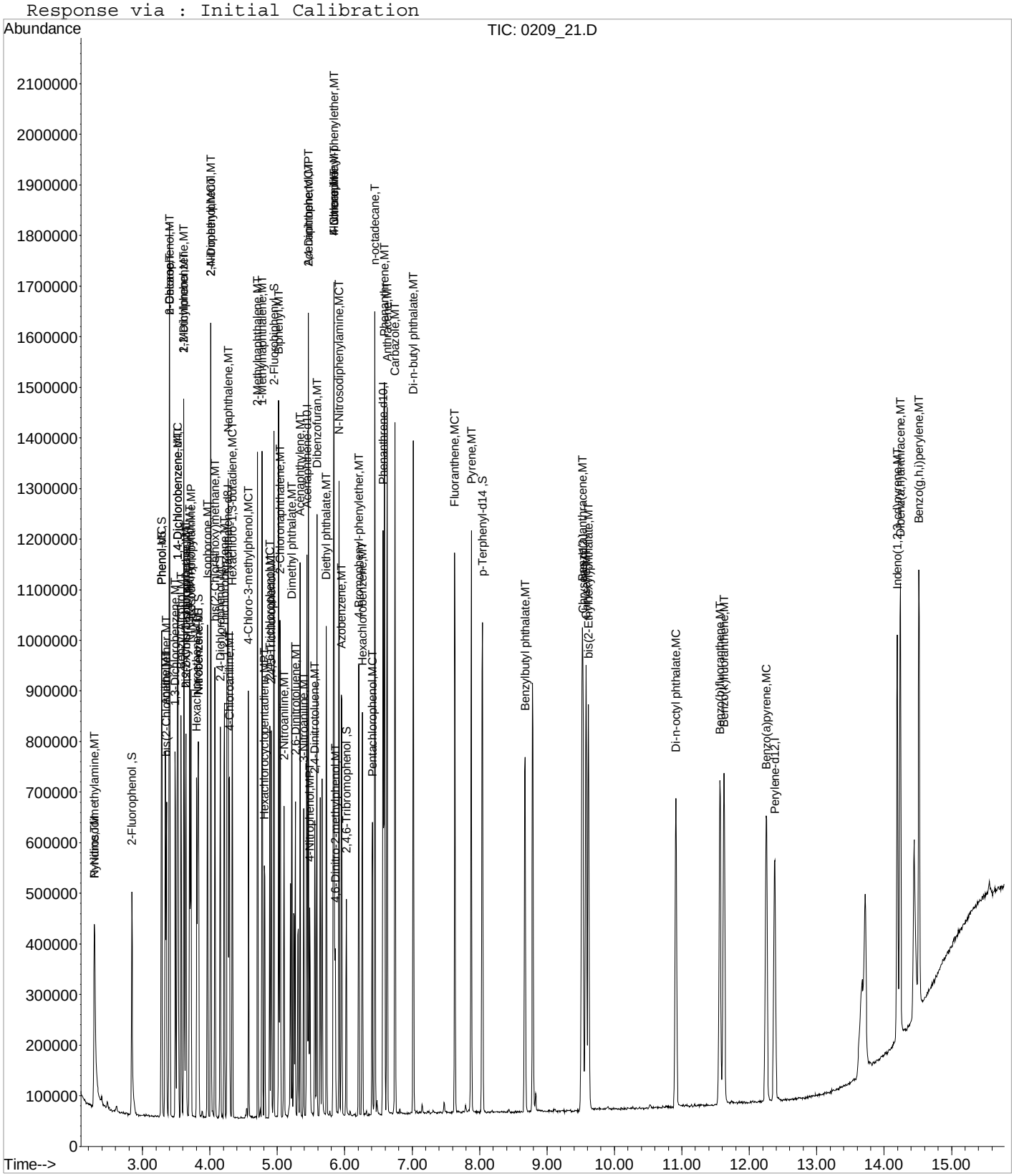
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	5.02	154	339927	9824.7030690 ppb		100
52)	2-Chloronaphthalene	5.05	162	263674	9985.7067521 ppb		97
53)	2-Nitroaniline	5.10	138	85461	10441.1102055 ppb		99
54)	Acenaphthylene	5.34	152	419721	10217.5539048 ppb		99
55)	Dimethyl phthalate	5.22	163	271177	9912.7354425 ppb		96
56)	2,6-Dinitrotoluene	5.27	165	66568	10495.3544301 ppb		96
57)	3-Nitroaniline	5.39	138	71255	10434.3274272 ppb		94
58)	Acenaphthene	5.46	153	258971	9583.3554787 ppb		98
59)	2,4-Dinitrophenol	5.46	184	32249	9366.7731553 ppb	#	41
60)	Dibenzofuran	5.59	168	363789	9707.1874050 ppb		99
61)	2,4-Dinitrotoluene	5.56	165	83714	10539.5845559 ppb		88
63)	4-Nitrophenol	5.48	139	57927	10269.5341891 ppb		86
64)	Fluorene	5.84	166	301959	9933.1298206 ppb		99
65)	4-Chlorophenyl-phenylether	5.83	204	140076	9716.6624786 ppb		96
66)	Diethyl phthalate	5.73	149	278249	9927.9939388 ppb		99
67)	4-Nitroaniline	5.84	138	71180	11128.8378074 ppb		100
68)	Azobenzene	5.95	77	286668	10253.9212561 ppb		99
71)	4,6-Dinitro-2-methylphenol	5.86	198	41701	9106.4716264 ppb		91
72)	N-Nitrosodiphenylamine	5.92	169	255428	9879.1219938 ppb		99
74)	4-Bromophenyl-phenylether	6.21	248	81712	9737.7454867 ppb		90
75)	Hexachlorobenzene	6.26	284	87977	9422.4970036 ppb		97
76)	n-octadecane	6.45	55	48997	9411.5588818 ppb		98
77)	Pentachlorophenol	6.41	266	60446	11727.4301888 ppb		97
78)	Phenanthrene	6.59	178	436867	9758.5964787 ppb		98
79)	Anthracene	6.63	178	439799	9705.6272941 ppb		99
80)	Carbazole	6.75	167	434315	10504.9193533 ppb		99
81)	Di-n-butyl phthalate	7.02	149	501071	10352.4273975 ppb		99
83)	Fluoranthene	7.63	202	448250	9425.2443016 ppb		99
86)	Pyrene	7.88	202	470291	9953.2786119 ppb		99
88)	Benzylbutyl phthalate	8.68	149	199983	10350.8994468 ppb		96
90)	Benzo(a)anthracene	9.52	228	411359	9728.4110603 ppb		99
91)	Chrysene	9.58	228	418915	10222.9958461 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.62	149	290107	10901.2883412 ppb		99
93)	Di-n-octyl phthalate	10.91	149	455827	10310.5936140 ppb		100
95)	Benzo(b)fluoranthene	11.56	252	427862	9665.9587742 ppb		99
96)	Benzo(k)fluoranthene	11.62	252	432781	9925.9826493 ppb		98
97)	Benzo(a)pyrene	12.26	252	407145	10619.8621200 ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.20	276	403726	10718.3514750 ppb		98
99)	Dibenz(a,h)anthracene	14.24	278	420514	10475.1647908 ppb		98
100)	Benzo(g,h,i)perylene	14.52	276	418891	10684.6875266 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: S804B09V.RES

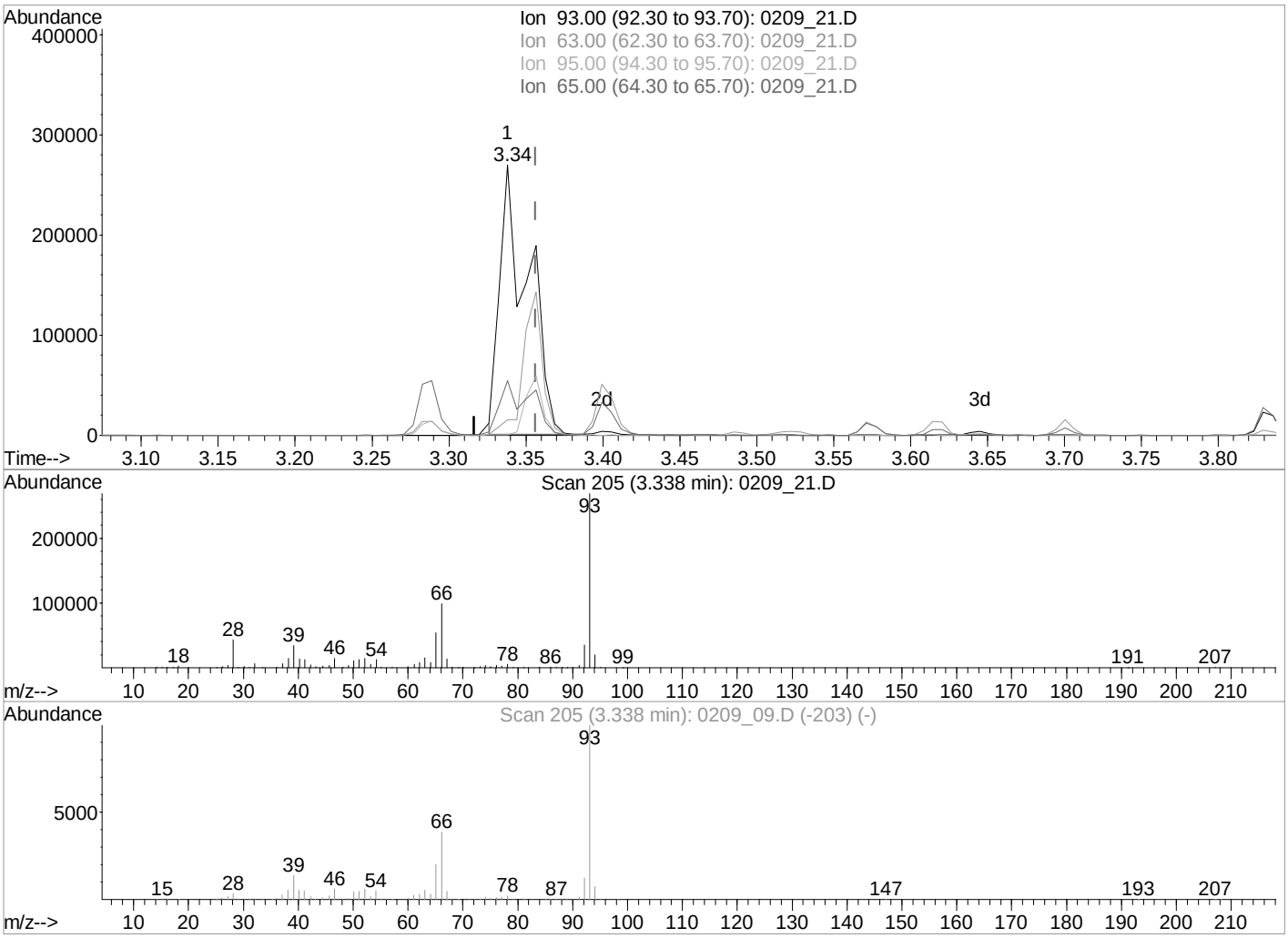
Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Multiple Level Calibration



TIC: 0209_21.D

(6) bis(2-Chloroethyl)ether (MT)

3.34min (-0.018) 26968.5738731 ppb

Qvalue = 37

response 344621

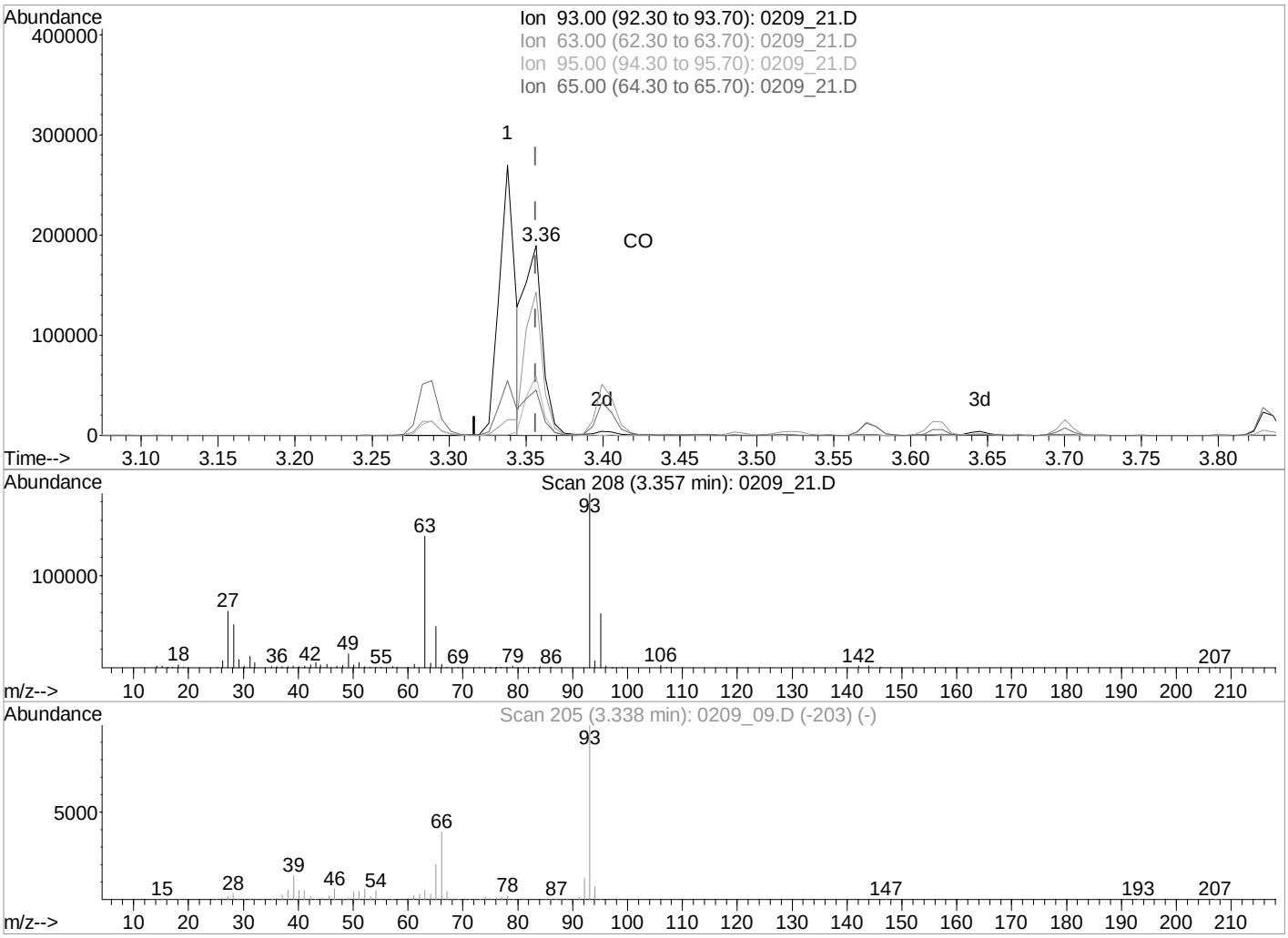
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.32#
95.00	30.20	0.19#
65.00	24.00	19.88

0209_21.D S804B09V.M Sat Feb 19 13:13:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Multiple Level Calibration



TIC: 0209_21.D

(6) bis(2-Chloroethyl)ether (MT)

3.36min (+0.000) 11899.7254383 ppb m

response 152062

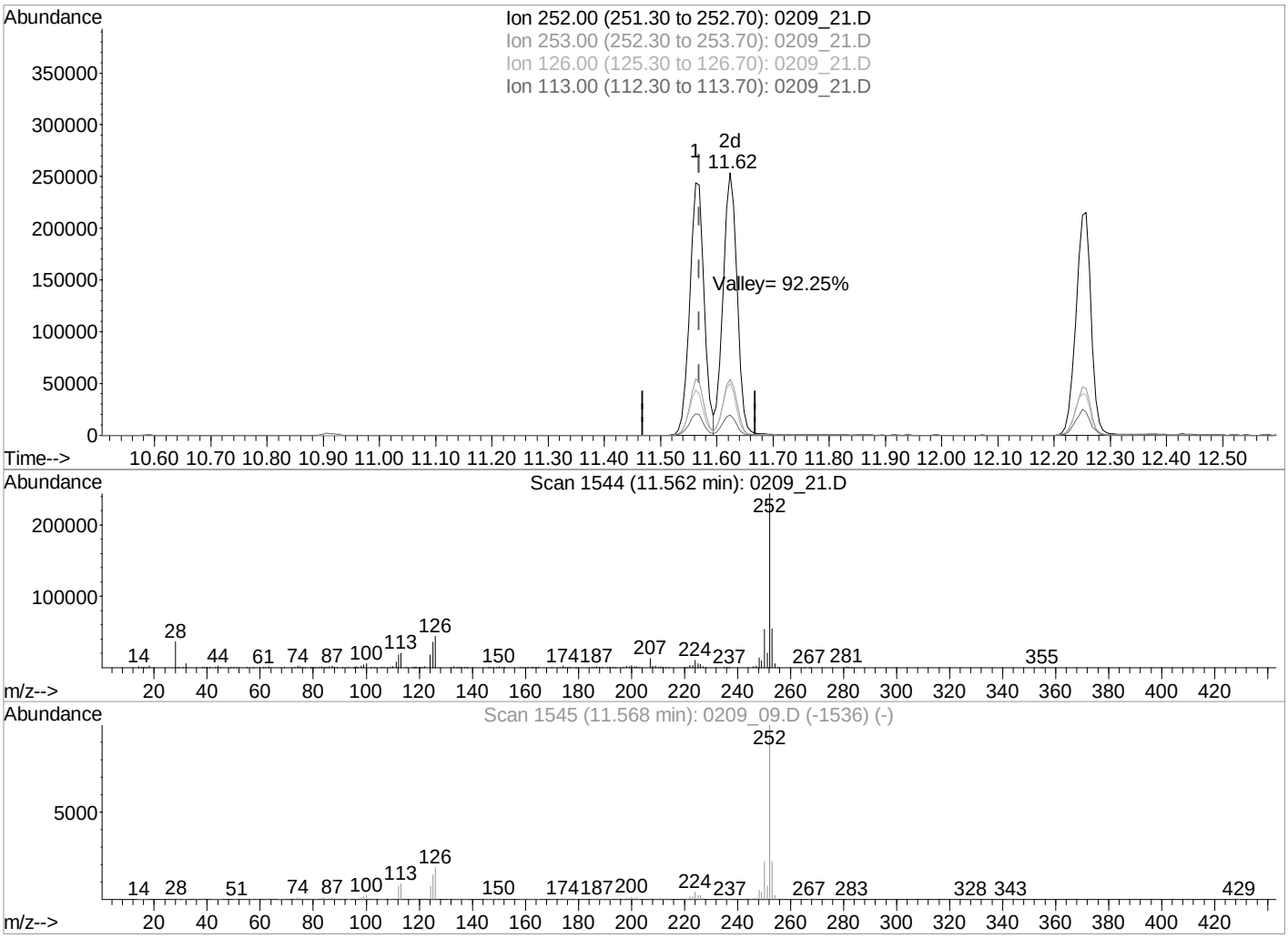
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	75.41
95.00	30.20	31.11
65.00	24.00	23.78

0209_21.D S804B09V.M Sat Feb 19 13:13:49 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\020922\0209 21.D Vial: 18
Acq On : 9 Feb 2022 3:56 pm Operator: 917
Sample : SSCV SVMS 10K PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:13 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Multiple Level Calibration



TIC: 0209_21.D

(95) Benzo(b)fluoranthene (MT)

11.56min (-0.006) 9665.9587742 ppb

Qvalue = 99

response 427862

Ion	Exp%	Act%
252.00	100	100
253.00	21.60	22.19
126.00	18.30	17.93
113.00	8.80	8.37

0209_21.D S804B09V.M Sat Feb 19 13:14:45 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	02/09/22 10:43
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	02/09/22 15:35
Lab File ID:	0209_22	**Analysis date/time:**	02/09/22 16:16
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.130890	0.11422550		12.70		10	8.727	87.30	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\020922\0209 22.D Vial: 19
Acq On : 9 Feb 2022 4:16 pm Operator: 917
Sample : SSCV TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:15 2022 Quant Results File: S804B09V.RES

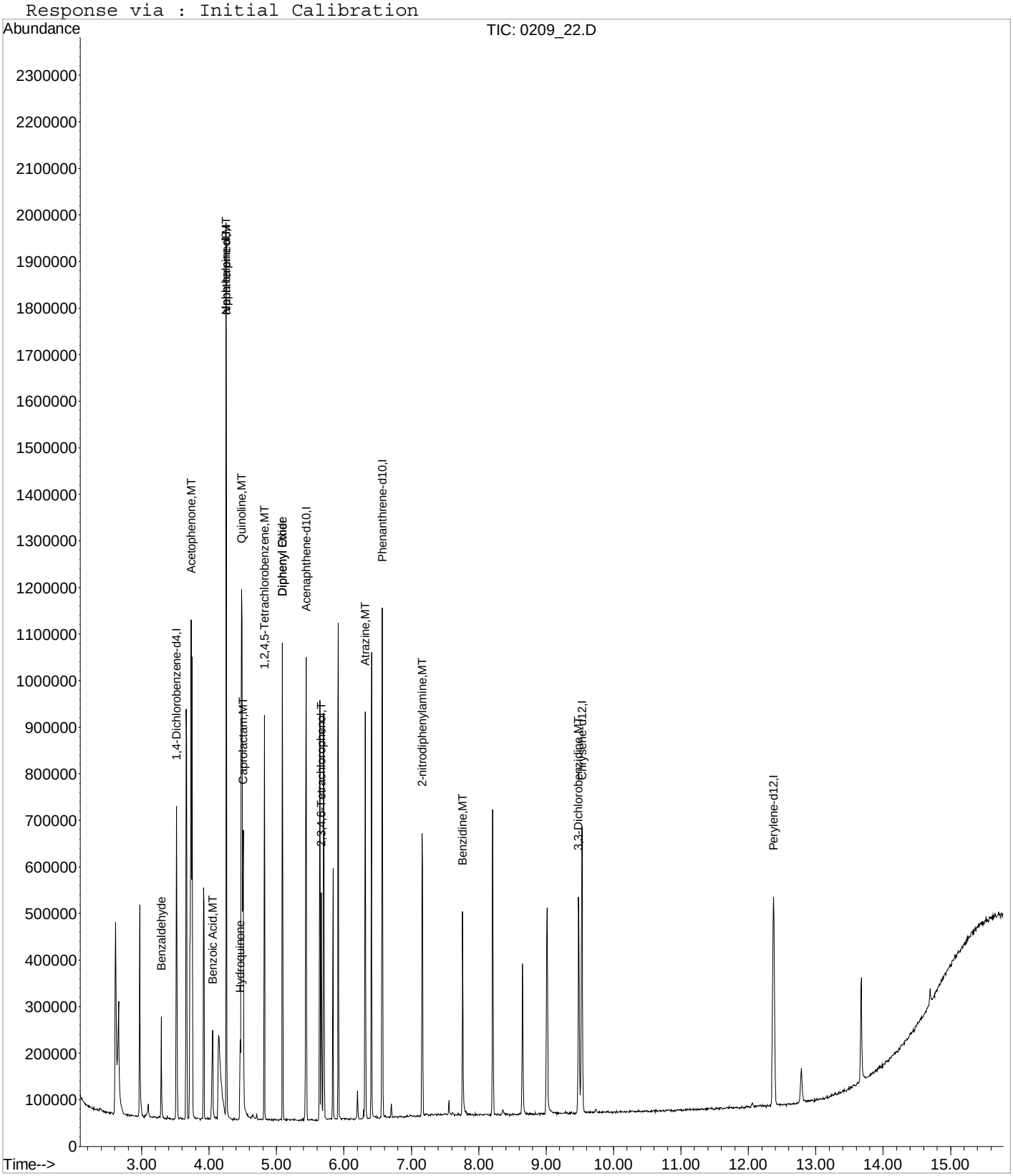
Quant Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.52	152	85079	8000.00	ppb	0.00
23) Naphthalene-d8	4.25	136	383109	8000.00	ppb	0.00
46) Acenaphthene-d10	5.44	164	171657	8000.00	ppb	0.00
70) Phenanthrene-d10	6.57	188	322325	8000.00	ppb	0.00
84) Chrysene-d12	9.53	240	279649	8000.00	ppb	0.00
94) Perylene-d12	12.37	264	289195	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 666.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 333.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.29	105	37078	9798.3476806	ppb	95
22) Acetophenone	3.73	105	170064	9665.7562550	ppb #	83
31) Benzoic Acid	4.05	105	54701	8726.7995983	ppb	99
33) alpha-terpineol	4.25	59	122109	10160.5025665	ppb	99
37) Hydroquinone	4.46	110	38203	4269.0301296	ppb	96
38) Quinoline	4.48	129	266786	10450.3090905	ppb	100
39) Caprolactam	4.50	113	34287	12988.4396711	ppb #	51
43) 1,2,4,5-Tetrachlorobenzene	4.82	216	109368	10665.4487633	ppb	98
44) Diphenyl Ether	5.09	170	160063	9785.0929631	ug/ml	99
45) Diphenyl Oxide	5.09	170	160063	9785.0929631	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.67	232	44534	9097.6464207	ppb	97
69) Atrazine	6.32	200	72810	10372.2835887	ppb	98
82) 2-nitrodiphenylamine	7.16	167	77558	9540.6082926	ppb #	100
85) Benzidine	7.76	184	172118	10413.7591707	ppb	99
89) 3,3-Dichlorobenzidine	9.48	252	141066	9798.2449383	ppb	99

(#) = qualifier out of range (m) = manual integration
0209_22.D S804B09V.M Sat Feb 19 13:16:13 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\020922\0209 22.D Vial: 19
Acq On : 9 Feb 2022 4:16 pm Operator: 917
Sample : SSCV TCL 10K1 PPB 22B06091 exp. 07/15/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22A26810 exp. 07/26/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 19 13:15 2022 Quant Results File: S804B09V.RES

Method : C:\MSDCHEM\1\METHODS\S804B09V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Fri Feb 18 17:49:17 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	02/09/22 10:43
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	02/09/22 15:35
Lab File ID:	0512_03	**Analysis date/time:**	05/12/22 05:16
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.623837	0.59078380		5.30	20	10	9.470	94.70	
2-METHYLNAPHTHALENE	0.663826	0.61807470	0.40	6.89	20	10	9.311	93.10	
3&4-METHYL PHENOL	1.350649	1.455086	0.60	7.73	20	10	10.77	108	
ACENAPHTHENE	1.170435	1.184399	0.90	1.19	20	10	10.12	101	
ACENAPHTHYLENE	1.779211	1.743090	0.90	2.03	20	10	9.797	98	
ANTHRACENE	1.065424	1.038110	0.70	2.56	20	10	9.744	97.40	
BENZO(A)ANTHRACENE	1.151953	1.054229	0.80	8.48	20	10	9.152	91.50	
BENZO(A)PYRENE	0.987052	0.94596170	0.70	4.16	20	10	9.584	95.80	
BENZO(B)FLUORANTHENE	1.139642	1.075083	0.70	5.66	20	10	9.434	94.30	
BENZO(G,H,I)PERYLENE	1.009366	1.059084	0.50	4.93	20	10	10.49	105	
BENZO(K)FLUORANTHENE	1.122546	1.121056	0.70	0.1330	20	10	9.987	99.90	
BIS(2-ETHYLHEXYL)PHTHALATE	0.724997	0.77686980	0.01	7.15	20	10	10.72	107	
CARBAZOLE	0.972084	0.92941380	0.01	4.39	20	10	9.561	95.60	
CHRYSENE	1.116357	1.022902	0.70	8.37	20	10	9.163	91.60	
DI-N-BUTYL PHTHALATE	1.138017	1.276980	0.01	12.20	20	10	11.22	112	
DI-N-OCTYL PHTHALATE	1.204403	1.152355	0.01	4.32	20	10	9.568	95.70	
DIBENZ(A,H)ANTHRACENE	1.033545	1.047535	0.40	1.35	20	10	10.14	101	
DIBENZOFURAN	1.623192	1.548079	0.80	4.63	20	10	9.537	95.40	
FLUORANTHENE	1.1182	1.080620	0.60	3.36	20	10	9.664	96.60	
FLUORENE	1.316666	1.284528	0.90	2.44	20	10	9.756	97.60	
INDENO(1,2,3-CD)PYRENE	0.969769	0.93817440	0.50	3.26	20	10	9.674	96.70	
NAPHTHALENE	1.018747	0.955386	0.70	6.22	20	10	9.378	93.80	
PENTACHLOROPHENOL	0.121187	0.10241530	0.05	15.50	20	10	8.451	84.50	
PHENANTHRENE	1.052577	1.045431	0.70	0.6790	20	10	9.932	99.30	
PHENOL	1.643512	1.6564	0.80	0.7840	20	10	10.08	101	
PYRENE	1.287230	1.154415	0.60	10.30	20	10	8.968	89.70	
2,4,6-TRIBROMOPHENOL	0.090561	0.09682968		6.92	20	10	10.69	107	70 - 130
2-FLUOROBIPHENYL	1.349543	1.351784		0.1660	20	10	10.02	100	70 - 130
2-FLUOROPHENOL	1.299982	1.294497		0.4220	20	10	9.958	99.60	70 - 130
NITROBENZENE-D5	0.339442	0.366194		7.88	20	10	10.79	108	70 - 130
P-TERPHENYL-D14	1.093292	1.035612		5.28	20	10	9.472	94.70	70 - 130
PHENOL-D5	1.560263	1.618398		3.73	20	10	10.37	104	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICVMSC SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 8:49 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	58440	8000.00 ppb	0.00
23) Naphthalene-d8	3.98	136	243744	8000.00 ppb	0.00
46) Acenaphthene-d10	5.15	164	121507	8000.00 ppb	0.00
70) Phenanthrene-d10	6.26	188	225435	8000.00 ppb	0.00
84) Chrysene-d12	9.01	240	215510	8000.00 ppb	0.00
94) Perylene-d12	11.66	264	203511	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.58	112	94563	9957.8044797 ppb	0.00
Spiked Amount 20000.000			Recovery = 49.79%		
7) Phenol-d5	3.03	99	118224	10372.6012977 ppb	0.00
Spiked Amount 20000.000			Recovery = 51.86%		
24) Nitrobenzene-d5	3.56	82	111572m	10788.1232904 ppb	0.00
Spiked Amount 10000.000			Recovery = 107.88%		
50) 2-Fluorobiphenyl	4.67	172	205314	10016.6040107 ppb	0.00
Spiked Amount 10000.000			Recovery = 100.17%		
73) 2,4,6-Tribromophenol	5.72	330	27286	10692.2206649 ppb	0.00
Spiked Amount 20000.000			Recovery = 53.46%		
87) p-Terphenyl-d14	7.65	244	278981	9472.4248540 ppb	0.00
Spiked Amount 10000.000			Recovery = 94.72%		
Target Compounds					Qvalue
2) Pyridine	2.00	79	112656	12458.6628230 ppb	89
3) N-Nitrosodimethylamine	1.99	42	64148	13217.4179903 ppb	97
5) Aniline	3.08	66	59561	11015.4863458 ppb #	35
6) bis(2-Chloroethyl)ether	3.09	93	103931m	12374.4576688 ppb	
8) Phenol	3.04	94	121000	10078.4160060 ppb	89
10) 2-Chlorophenol	3.14	128	99230	10322.8324863 ppb	94
11) n-Decane	3.14	41	73336	12952.2916011 ppb	95
12) 1,3-Dichlorobenzene	3.22	146	107568	9896.8891833 ppb	92
13) 1,4-Dichlorobenzene	3.26	146	110595	9886.0073988 ppb	94
14) Benzyl Alcohol	3.32	79	75509	10156.2710746 ppb	98
15) 1,2-Dichlorobenzene	3.35	146	103736	10087.5276257 ppb	93
16) bis(2-Chloroisopropyl)ethe	3.38	121	34548	9817.6332039 ppb #	34
17) 2,2-oxybis(1-chloropropane	3.38	121	34548	9817.6332039 ppb #	34
18) 2-Methylphenol	3.36	108	94295	10855.7219953 ppb	93
19) Hexachloroethane	3.54	117	48015	11823.7388262 ppb	98
20) N-Nitrosodi-n-propylamine	3.46	70	75946	11964.2099710 ppb	96
21) 3&4-Methyl phenol	3.45	107	106294	10773.2324652 ppb	92
25) Nitrobenzene	3.57	77	109813	10859.4493247 ppb	97
26) Isophorone	3.70	82	211607	11665.2362936 ppb	98
27) 2-Nitrophenol	3.75	139	52628	10325.6756397 ppb	90
28) 2,4-Dimethylphenol	3.76	107	79579	8407.0548620 ppb	92
29) bis(2-Chlorethoxy)methane	3.81	93	120019	10347.8070880 ppb	91
30) 2,4-Dichlorophenol	3.89	162	78708	9870.3604360 ppb	96
32) 1,2,4-Trichlorobenzene	3.94	180	86187	9655.6613271 ppb	96
34) Naphthalene	4.00	128	291087	9378.0507276 ppb	98
35) 4-Chloroaniline	4.02	65	39223	10875.6569019 ppb #	44
36) Hexachloro-1,3-butadiene	4.06	225	54619	11216.6969230 ppb	98
40) 4-Chloro-3-methylphenol	4.31	107	79984	9950.5028150 ppb #	79
41) 2-Methylnaphthalene	4.43	142	188315	9310.7879615 ppb #	95
42) 1-Methylnaphthalene	4.49	142	180000	9470.1585585 ppb #	97
47) Hexachlorocyclopentadiene	4.53	237	38555	6772.6685134 ppb	96
48) 2,4,6-Trichlorophenol	4.61	196	51983	9863.7469879 ppb	94
49) 2,4,5-Trichlorophenol	4.64	196	55621	10141.1681604 ppb	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICVMSC SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 8:49 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

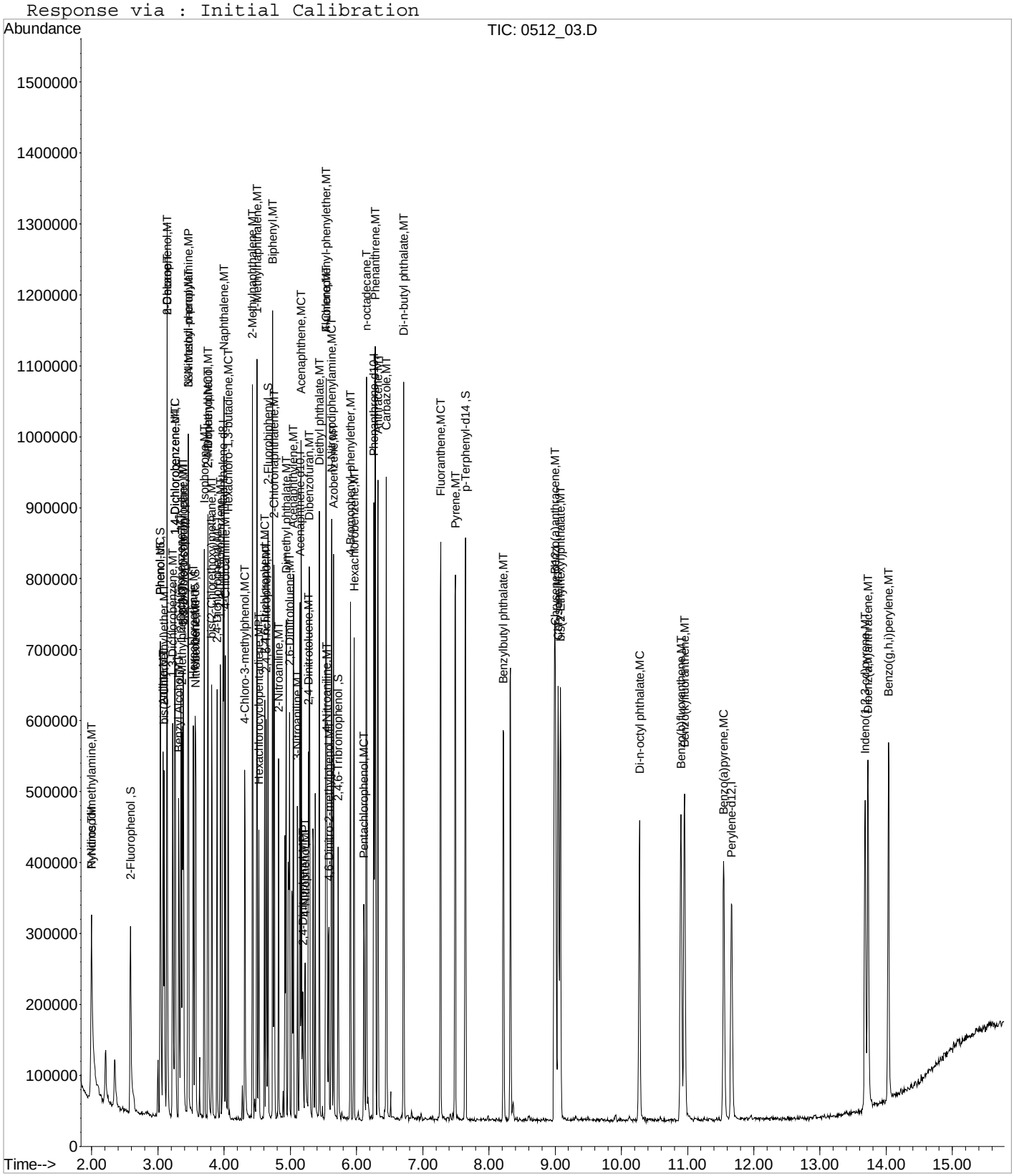
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.73	154	230803	10140.2864663 ppb		99
52)	2-Chloronaphthalene	4.75	162	174675	10055.8145360 ppb		95
53)	2-Nitroaniline	4.82	138	57279	10637.7343118 ppb	#	87
54)	Acenaphthylene	5.05	152	264747	9796.9815168 ppb		98
55)	Dimethyl phthalate	4.94	163	190221	10569.9790524 ppb		99
56)	2,6-Dinitrotoluene	4.99	165	45373	10874.3698051 ppb		82
57)	3-Nitroaniline	5.11	138	48008	10686.5551772 ppb		98
58)	Acenaphthene	5.16	153	179891	10119.3100475 ppb		95
59)	2,4-Dinitrophenol	5.19	184	20311	8990.2173629 ppb	#	1
60)	Dibenzofuran	5.29	168	235128	9537.2507980 ppb		93
61)	2,4-Dinitrotoluene	5.27	165	60529	11584.1427349 ppb	#	73
63)	4-Nitrophenol	5.23	139	32194	8676.0021304 ppb	#	82
64)	Fluorene	5.54	166	195099	9755.9188432 ppb		100
65)	4-Chlorophenyl-phenylether	5.53	204	92543	9758.2504916 ppb		90
66)	Diethyl phthalate	5.44	149	199803	10836.8958214 ppb		99
67)	4-Nitroaniline	5.56	138	48174	11449.3159492 ppb	#	75
68)	Azobenzene	5.66	77	223023	12126.4985004 ppb		92
71)	4,6-Dinitro-2-methylphenol	5.58	198	30268	9936.8340399 ppb		94
72)	N-Nitrosodiphenylamine	5.62	169	160343	9360.0170719 ppb		97
74)	4-Bromophenyl-phenylether	5.91	248	58451	10513.3546485 ppb		89
75)	Hexachlorobenzene	5.96	284	64943	10497.9861765 ppb		99
76)	n-octadecane	6.15	55	39229	11373.0278281 ppb		94
77)	Pentachlorophenol	6.12	266	28860	8451.0059343 ppb		96
78)	Phenanthrene	6.28	178	294596	9932.1153784 ppb		99
79)	Anthracene	6.32	178	292533	9743.6354709 ppb		98
80)	Carbazole	6.45	167	261903	9561.0404869 ppb		98
81)	Di-n-butyl phthalate	6.71	149	359845	11221.0936815 ppb		99
83)	Fluoranthene	7.27	202	304512	9663.9243083 ppb		99
86)	Pyrene	7.49	202	310985	8968.2137395 ppb		98
88)	Benzylbutyl phthalate	8.22	149	144575	10196.3615523 ppb		98
90)	Benzo(a)anthracene	8.99	228	283996	9151.6657023 ppb		96
91)	Chrysene	9.05	228	275557	9162.8533548 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.08	149	209279	10715.4961724 ppb		93
93)	Di-n-octyl phthalate	10.27	149	310430	9567.8492404 ppb		99
95)	Benzo(b)fluoranthene	10.90	252	273489	9433.5159110 ppb		96
96)	Benzo(k)fluoranthene	10.96	252	285184	9986.7225195 ppb		94
97)	Benzo(a)pyrene	11.55	252	240642	9583.7108531 ppb		96
98)	Indeno(1,2,3-cd)pyrene	13.68	276	238661	9674.2038139 ppb		95
99)	Dibenz(a,h)anthracene	13.73	278	266481m	10135.3594492 ppb		
100)	Benzo(g,h,i)perylene	14.03	276	269419	10492.5613567 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICVMSC SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 8:49 2022 Quant Results File: S804E04BV.RES

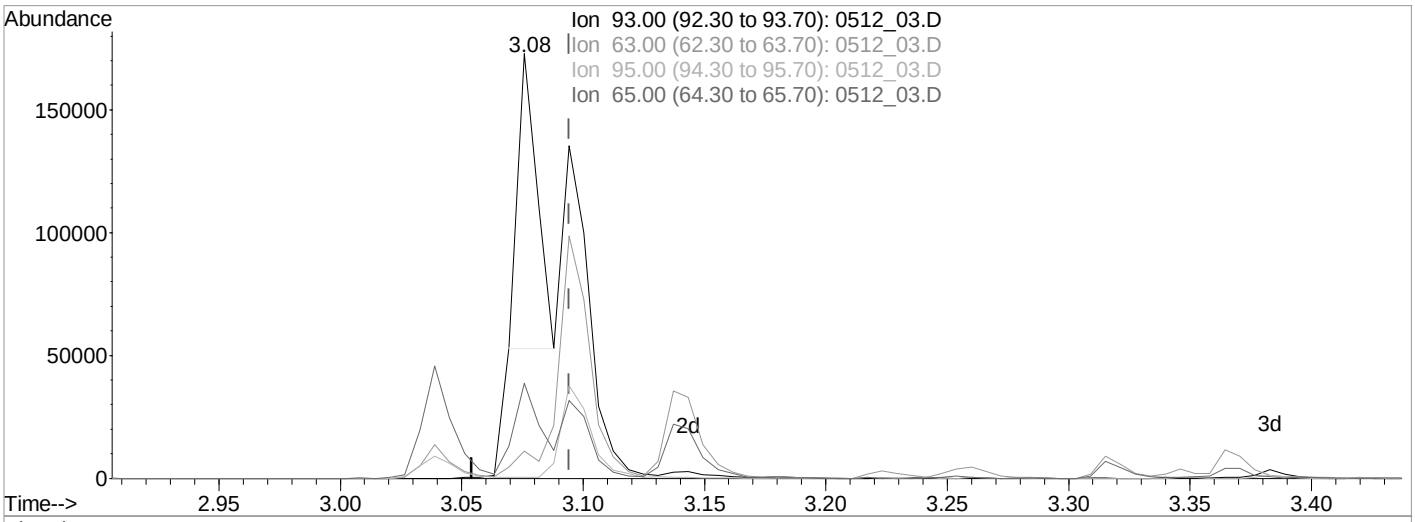
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration

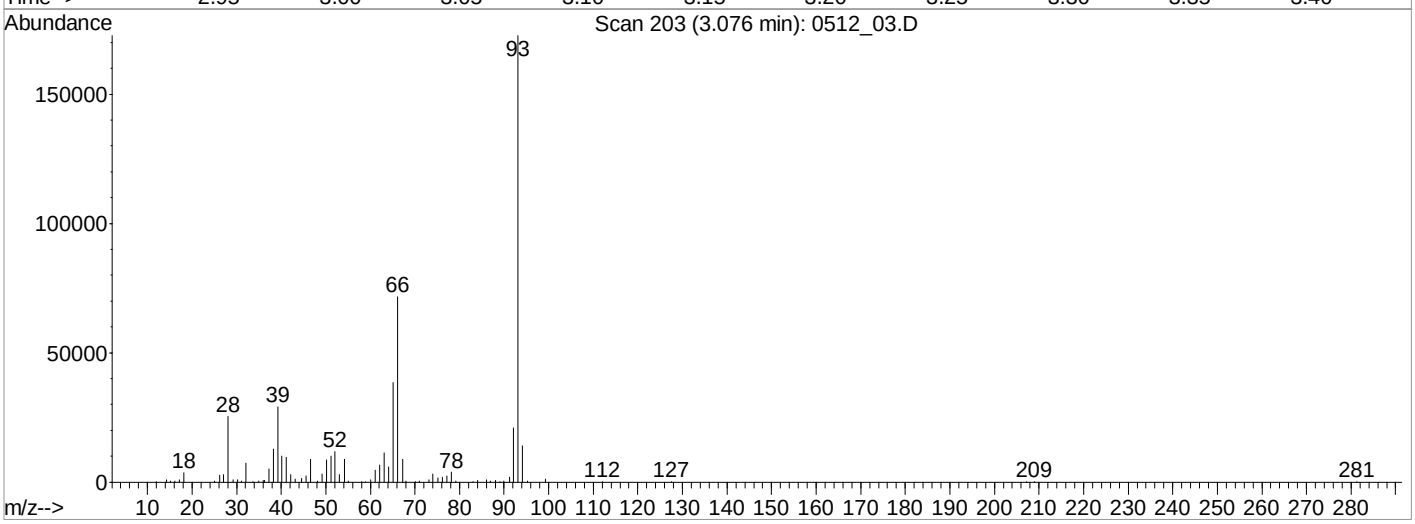


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.08min (-0.019) 7794.6545857 ppb

Qvalue = 39

response 65466

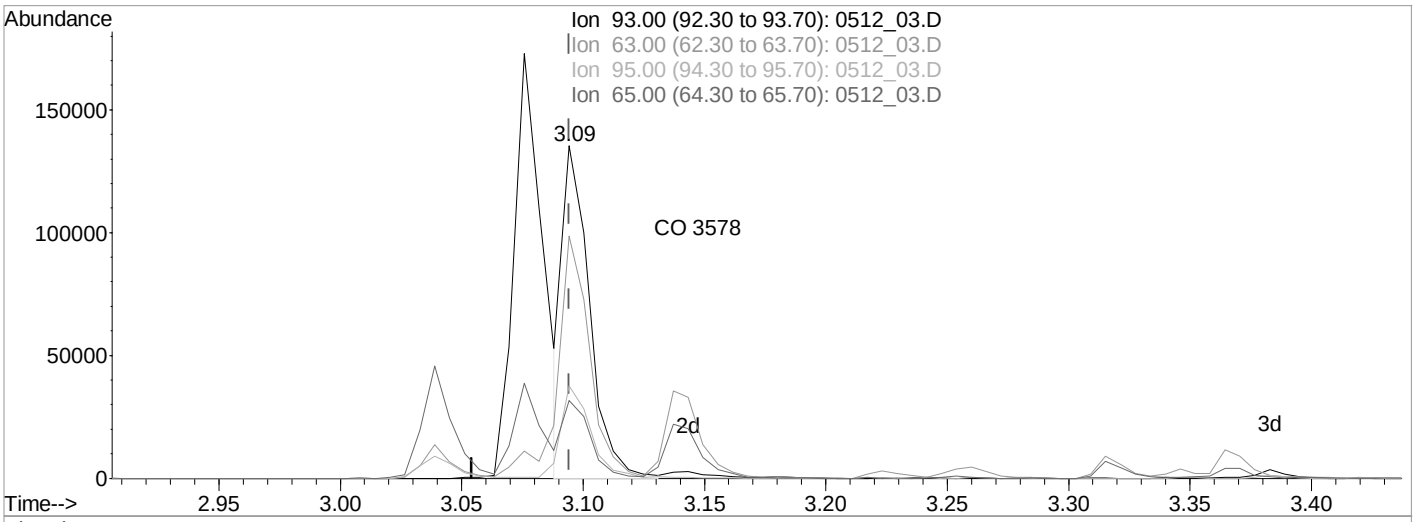
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.52#
95.00	30.20	0.12#
65.00	24.00	22.79

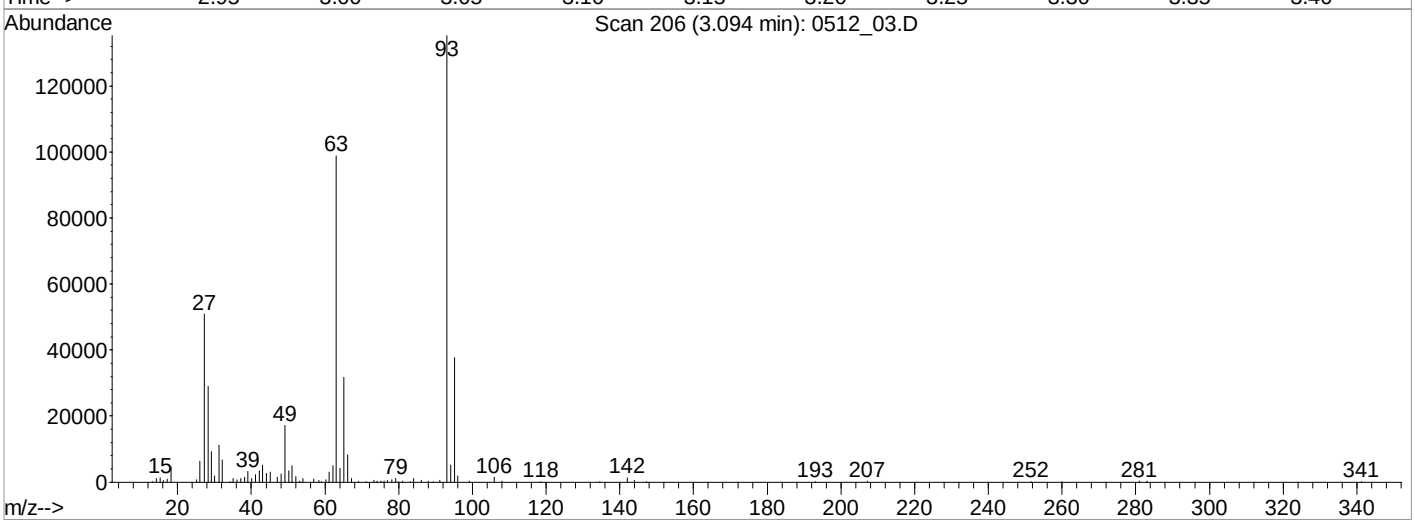
0512_03.D S804E04BV.M Thu May 12 09:11:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.08min (-0.019) 7794.6545857 ppb

Qvalue = 39

response 65466

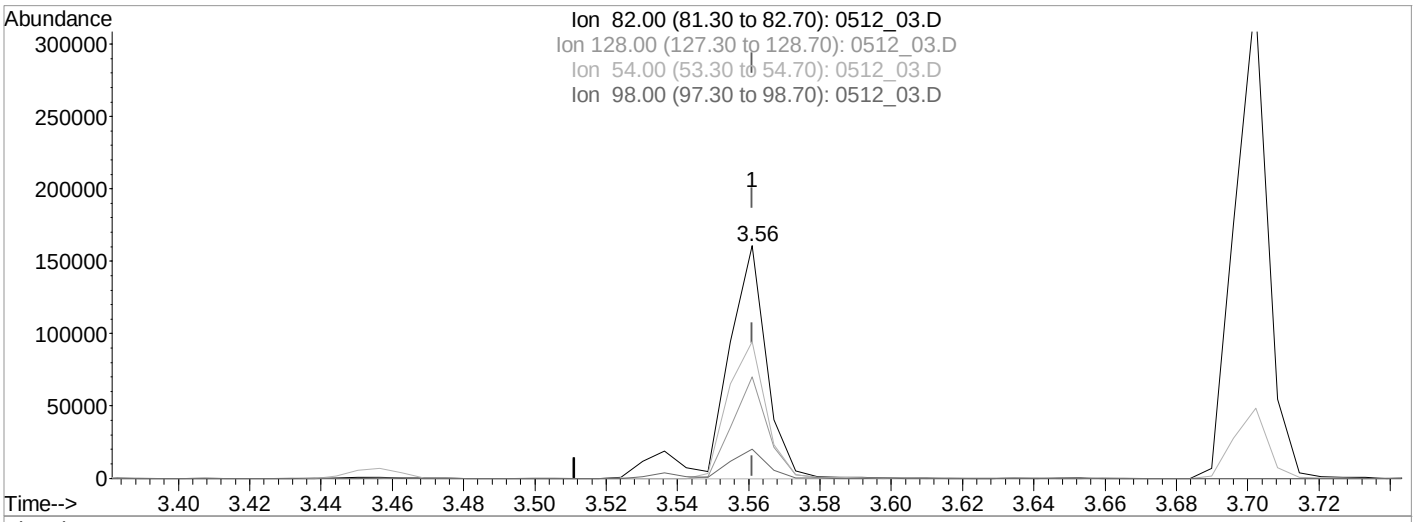
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	5.52#
95.00	30.20	0.12#
65.00	24.00	22.79

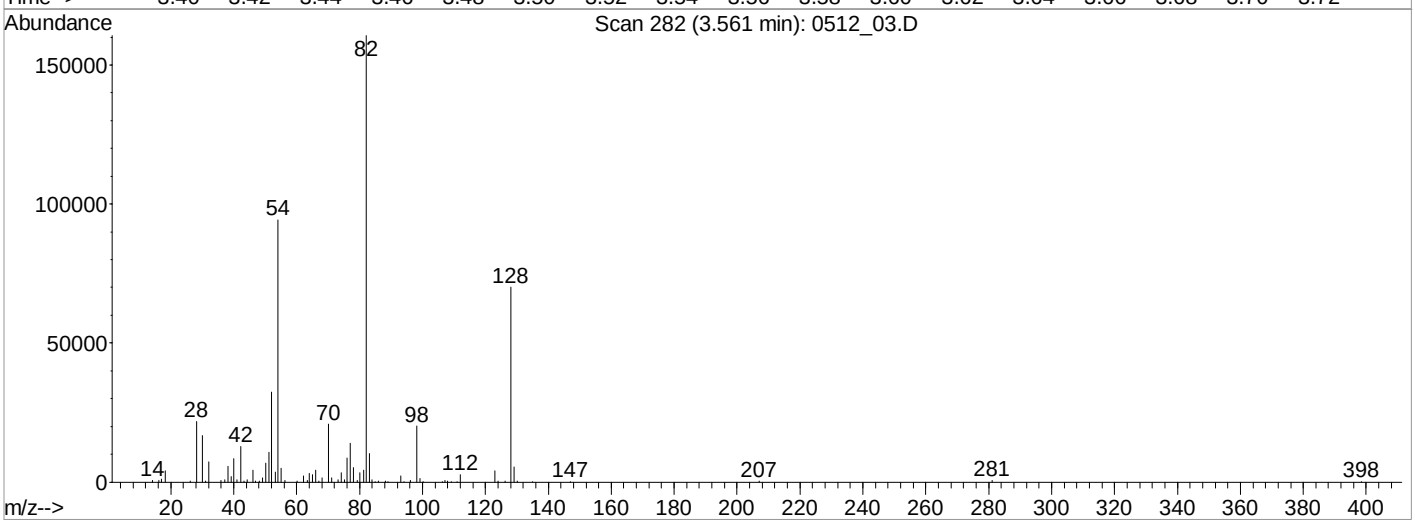
0512_03.D S804E04BV.M Thu May 12 09:11:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(24) Nitrobenzene-d5 (S)

3.56min (-0.000) 12351.8268169 ppb

Qvalue = 95

response 127744

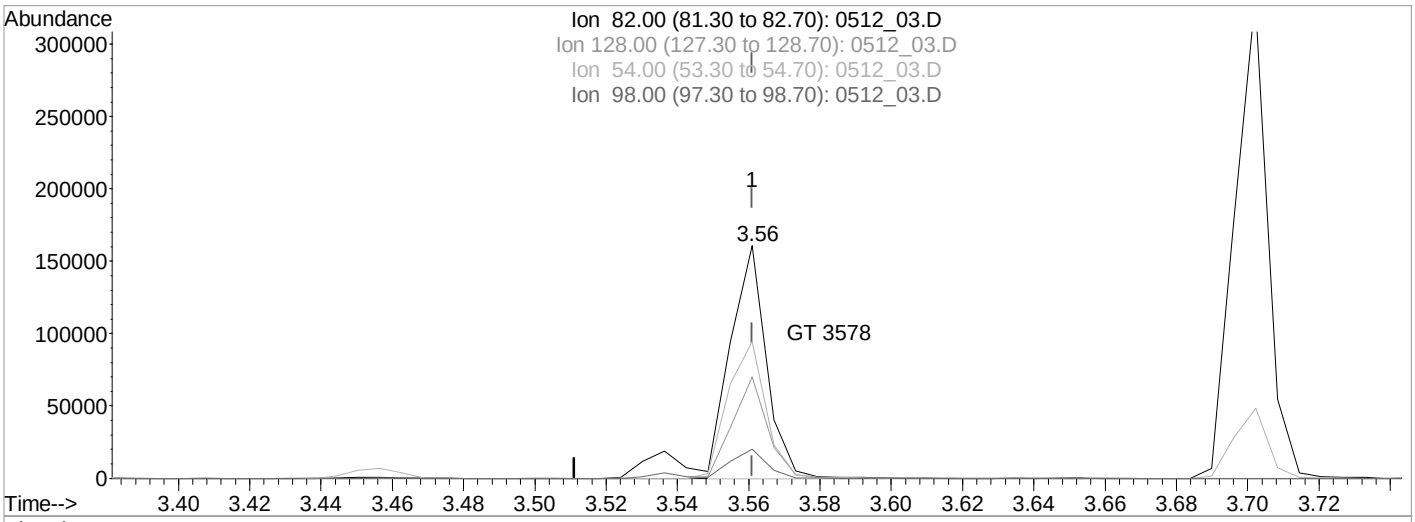
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	43.69
54.00	56.90	58.59
98.00	11.80	12.56

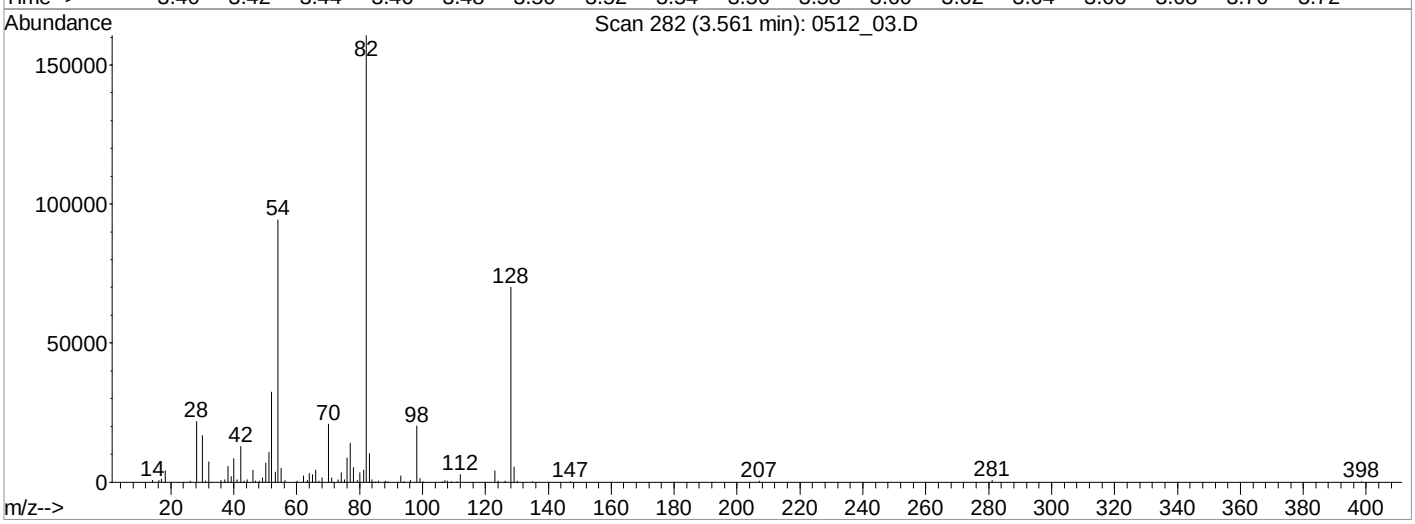
0512_03.D S804E04BV.M Thu May 12 09:11:57 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:12 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(24) Nitrobenzene-d5 (S)

3.56min (-0.000) 10788.1232904 ppb m

response 111572

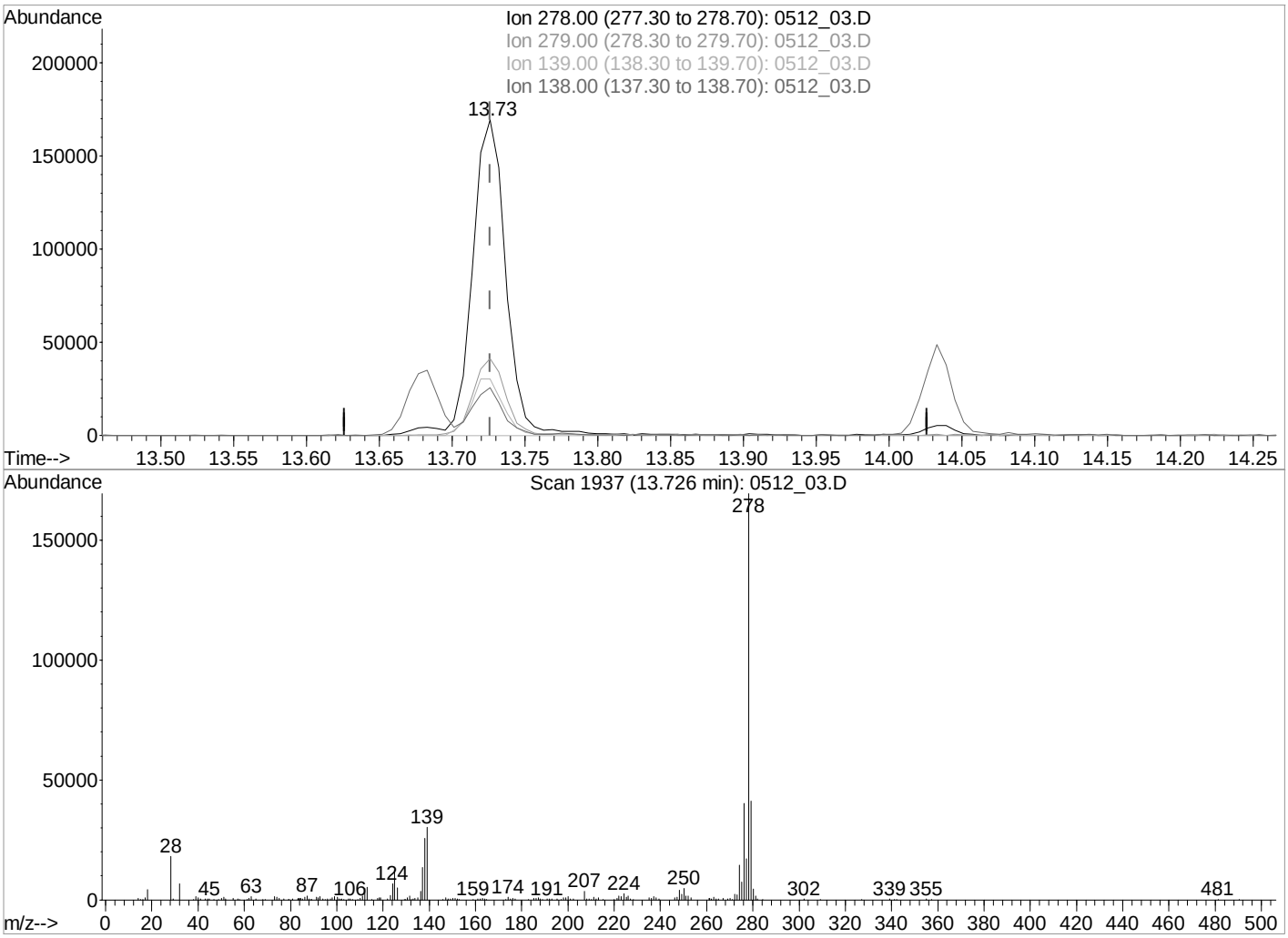
Ion	Exp%	Act%
82.00	100	100
128.00	49.30	43.69
54.00	56.90	58.69
98.00	11.80	12.56

0512_03.D S804E04BV.M Thu May 12 09:12:05 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:12 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_03.D

(99) Dibenz(a,h)anthracene (MT)

13.73min (-0.000) 10410.1937053 ppb

Qvalue = 96

response 273707

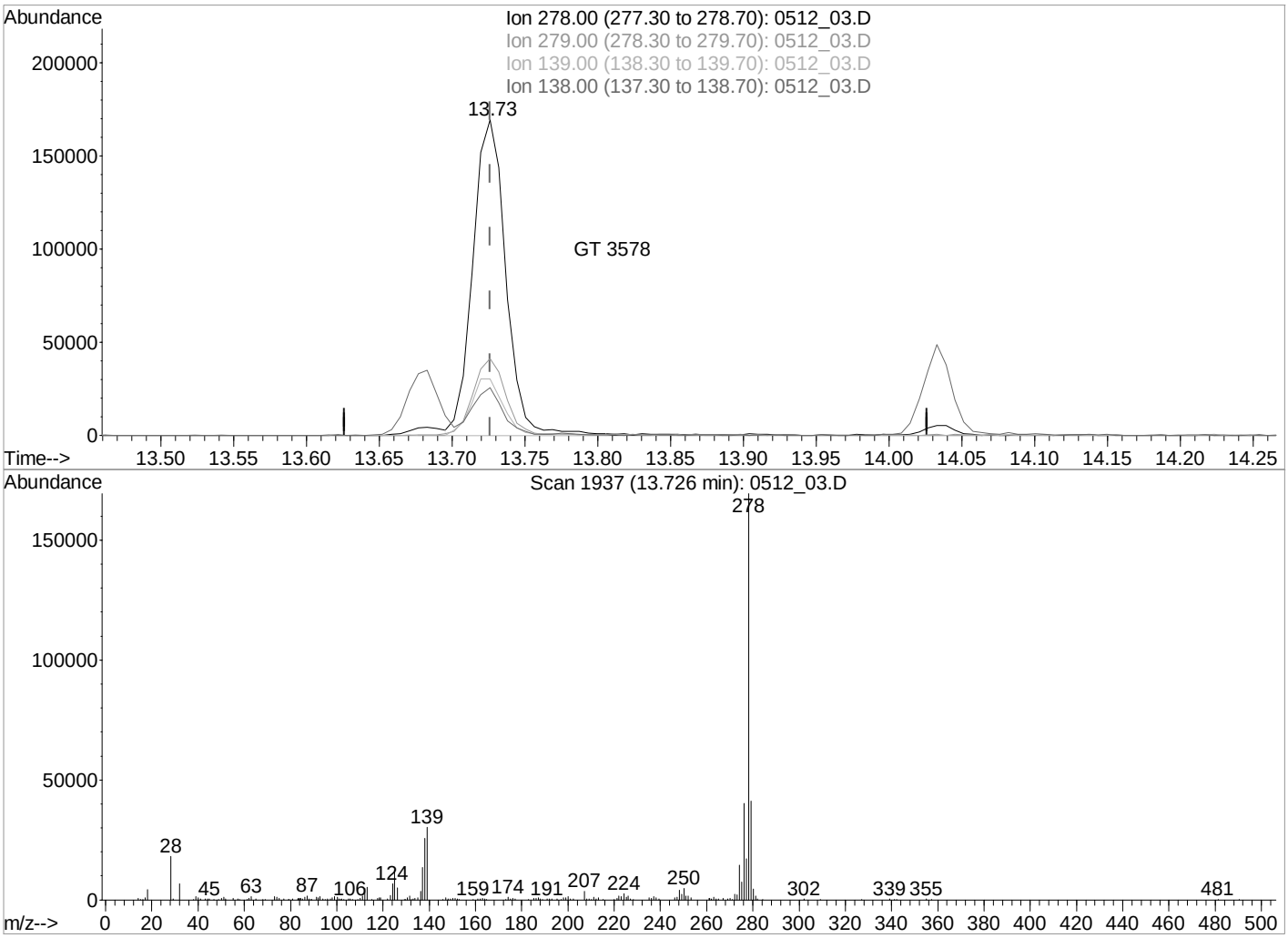
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	24.24
139.00	22.10	17.90
138.00	16.70	14.97

0512_03.D S804E04BV.M Thu May 12 09:13:08 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:13 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_03.D

(99) Dibenz(a,h)anthracene (MT)

13.73min (-0.000) 10135.3594492 ppb m

response 266481

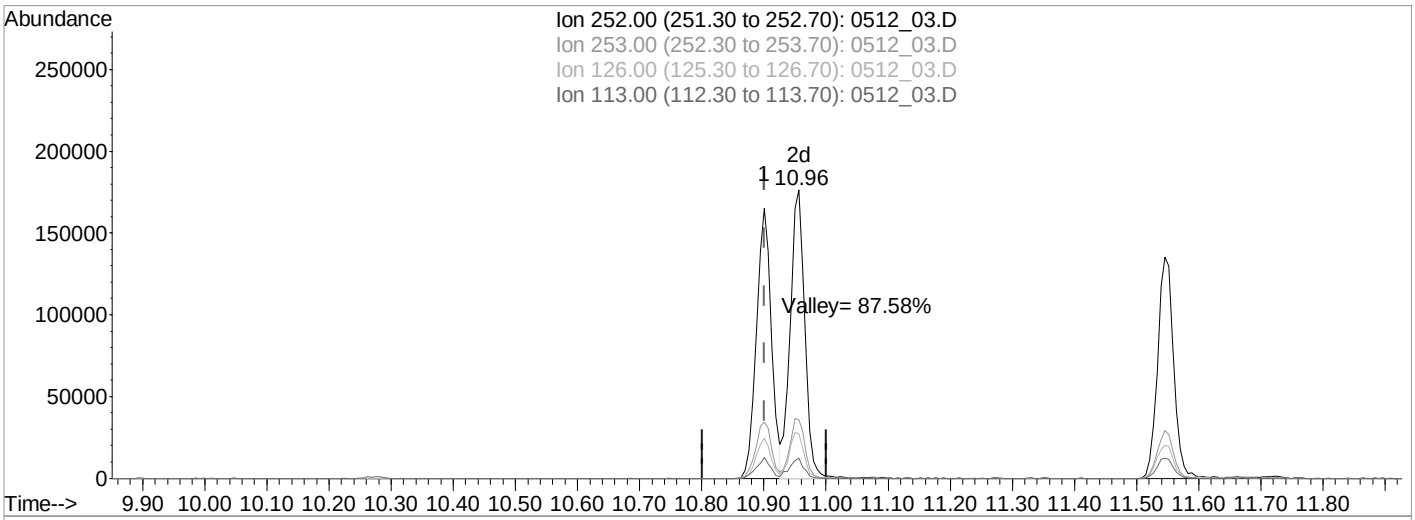
Ion	Exp%	Act%
278.00	100	100
279.00	24.40	24.24
139.00	22.10	17.90
138.00	16.70	15.06

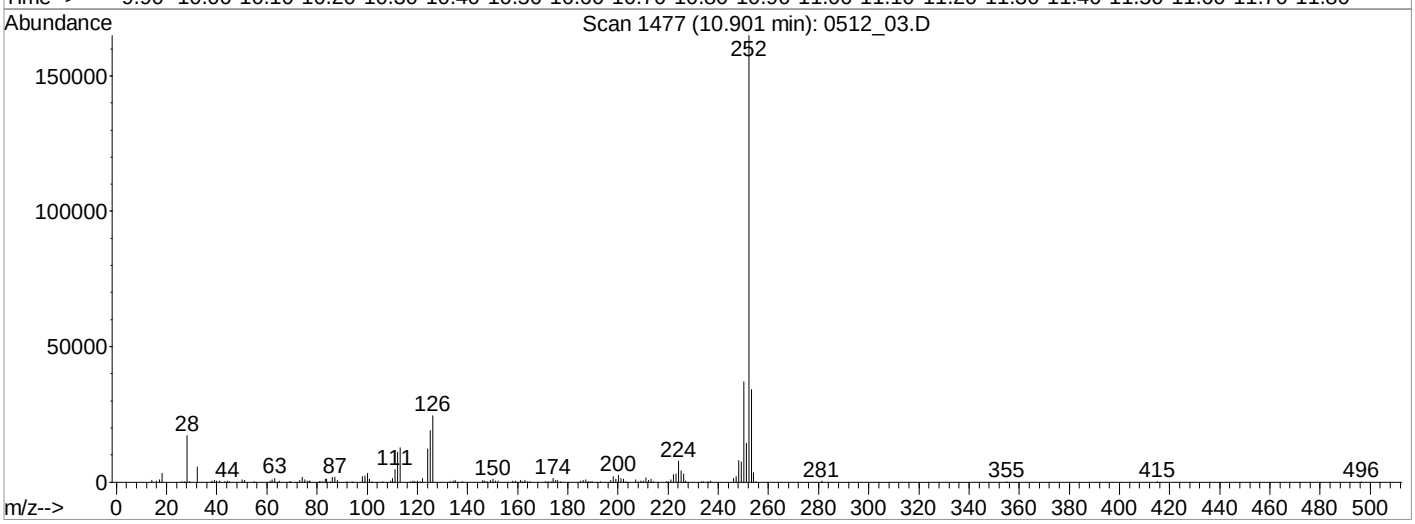
0512_03.D S804E04BV.M Thu May 12 09:13:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:13 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(95) Benzo(b)fluoranthene (MT)

10.90min (-0.000) 9433.5159110 ppb

Qvalue = 96

response 273489

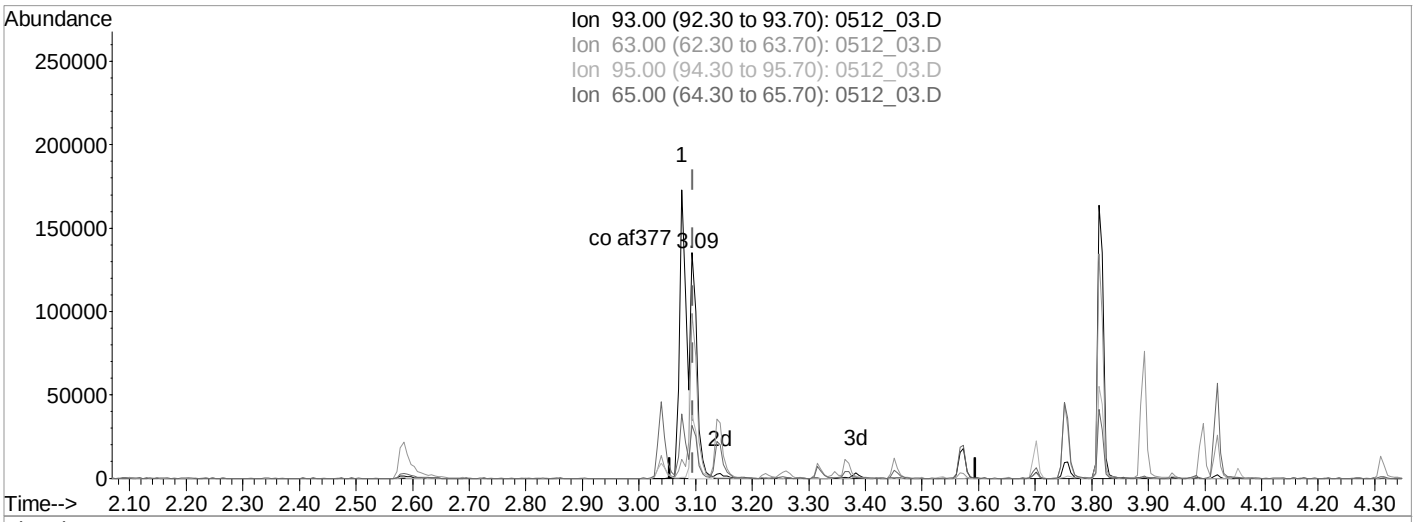
Ion	Exp%	Act%
252.00	100	100
253.00	21.60	20.95
126.00	18.30	14.92
113.00	8.80	7.84

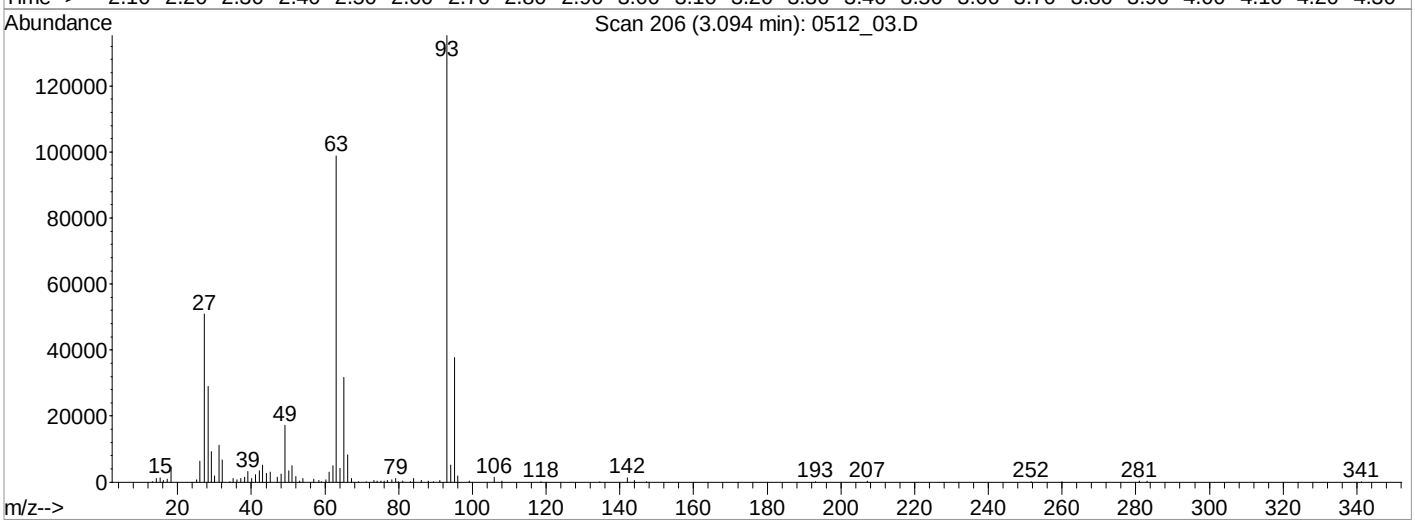
0512_03.D S804E04BV.M Thu May 12 09:13:29 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 03.D Vial: 3
Acq On : 12 May 2022 5:16 am Operator: 3545
Sample : ICV SVMS 10K PPB 22D1927 exp 10/01/22 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 8:49 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration





TIC: 0512_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (-0.000) 12374.4576688 ppb m

response 103931

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	72.94
95.00	30.20	27.88
65.00	24.00	23.40

0512_03.D S804E04BV.M Fri May 13 08:50:10 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	02/09/22 10:43
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	02/09/22 15:35
Lab File ID:	0512_04	**Analysis date/time:**	05/12/22 05:37
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.130890	0.12091910		7.62	20	10	9.238	92.40	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 04.D Vial: 4
Acq On : 12 May 2022 5:37 am Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:14 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

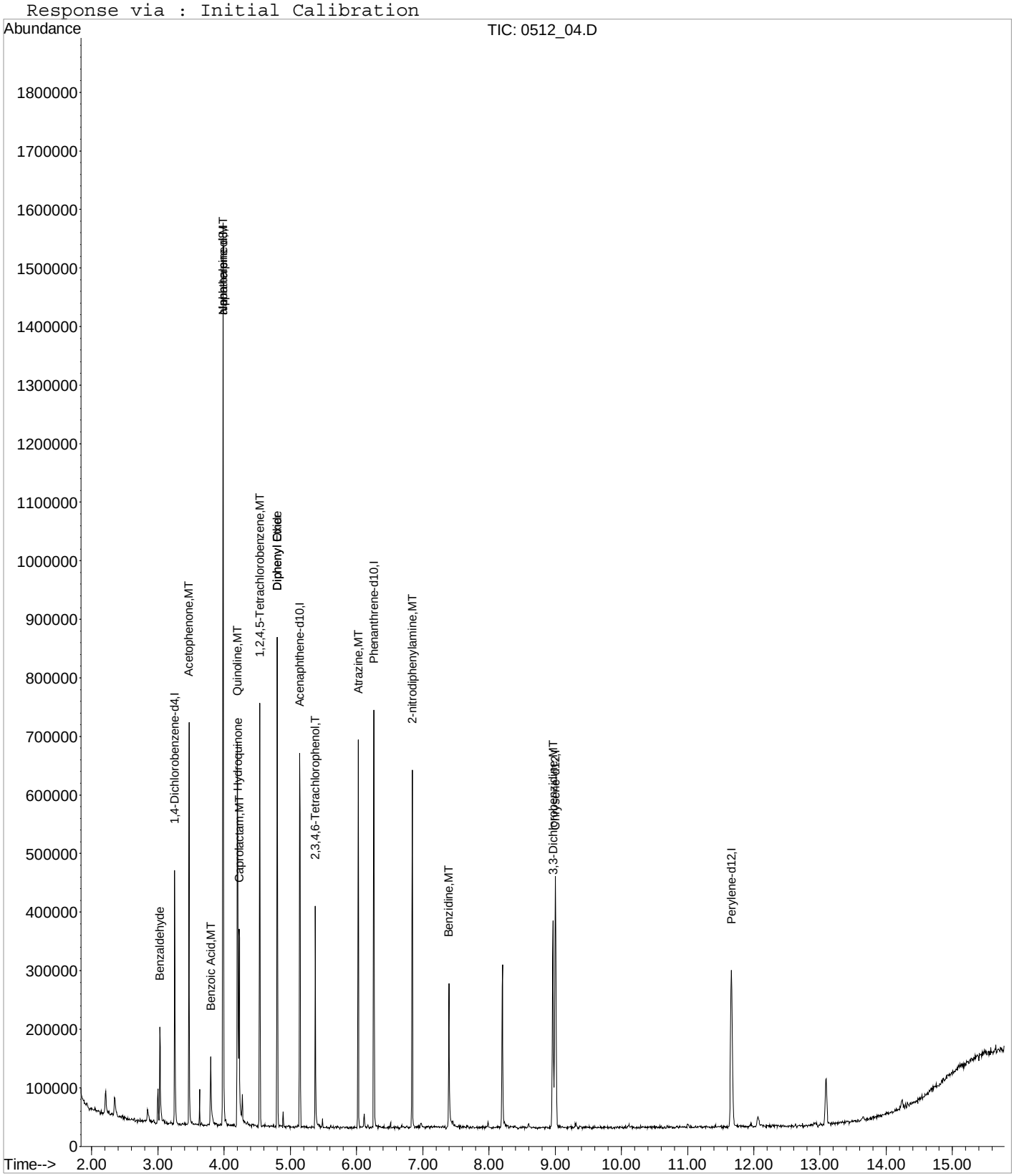
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	55679	8000.00	ppb	0.00
23) Naphthalene-d8	3.98	136	244944	8000.00	ppb	0.00
46) Acenaphthene-d10	5.14	164	109355	8000.00	ppb	0.00
70) Phenanthrene-d10	6.26	188	198337	8000.00	ppb	0.00
84) Chrysene-d12	9.00	240	194596	8000.00	ppb	0.00
94) Perylene-d12	11.66	264	174434	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.03	105	30895	12475.4349239	ppb	92
22) Acetophenone	3.47	105	129450	11242.3332371	ppb	92
31) Benzoic Acid	3.80	105	37023	9238.1900631	ppb	93
33) alpha-terpineol	3.98	59	93380	12152.8163126	ppb	98
37) Hydroquinone	4.21	110	39390	7231.3116452	ppb	95
38) Quinoline	4.20	129	161923	9920.4230019	ppb	94
39) Caprolactam	4.23	113	21369	12660.9776447	ppb #	71
43) 1,2,4,5-Tetrachlorobenzene	4.54	216	76665	11693.4200934	ppb	98
44) Diphenyl Ether	4.80	170	104410	9983.2431349	ug/ml#	83
45) Diphenyl Oxide	4.80	170	104410	9983.2431349	ug/ml#	83
62) 2,3,4,6-Tetrachlorophenol	5.38	232	37310	11964.2497868	ppb	98
69) Atrazine	6.02	200	47315	10580.4726519	ppb	98
82) 2-nitrodiphenylamine	6.84	167	63977	12789.7951003	ppb #	100
85) Benzidine	7.39	184	94451	8388.5593823	ppb	98
89) 3,3-Dichlorobenzidine	8.97	252	96461	9628.4651227	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 04.D Vial: 4
Acq On : 12 May 2022 5:37 am Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:14 2022 Quant Results File: S804E04BV.RES

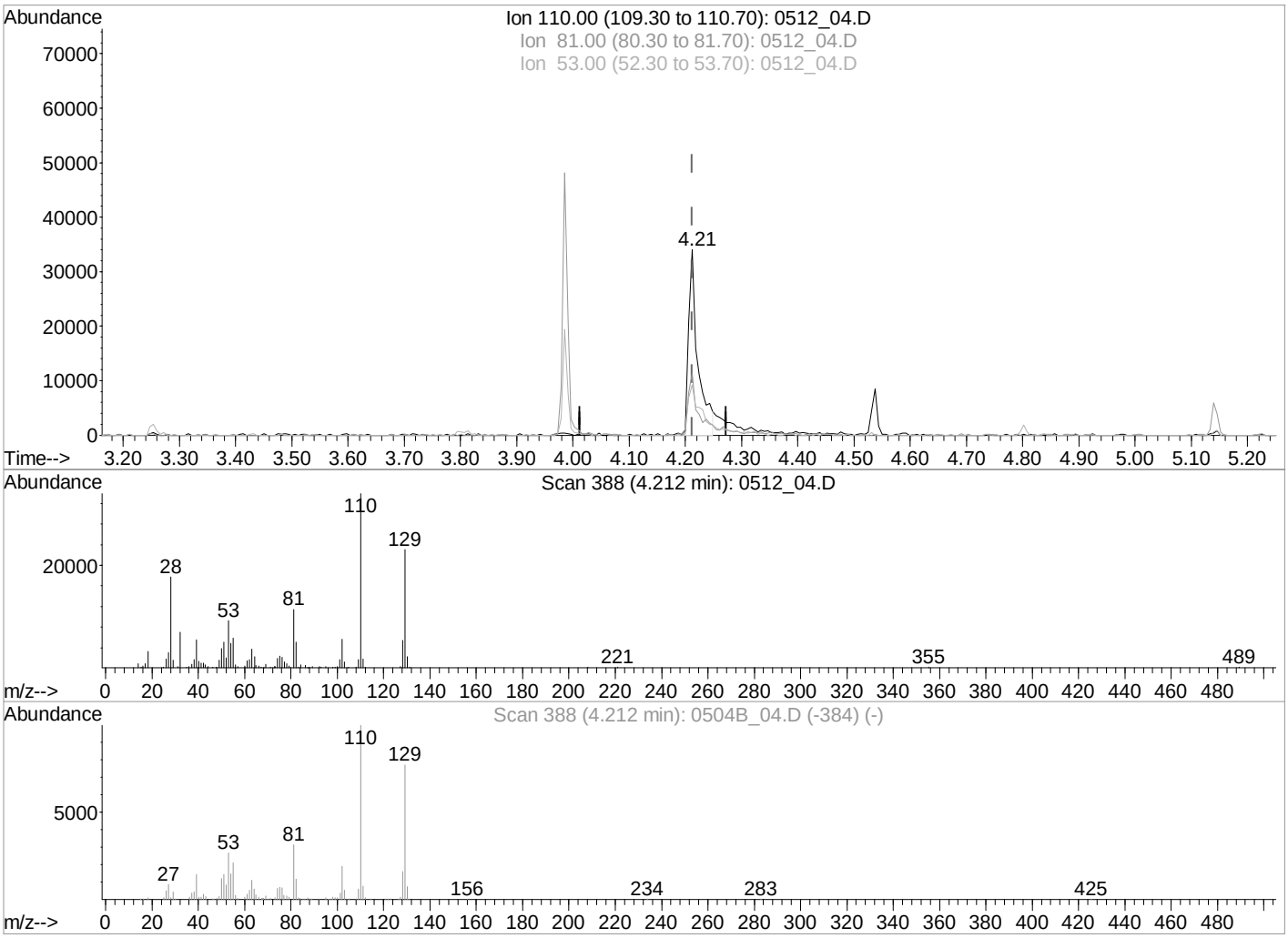
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 04.D Vial: 4
Acq On : 12 May 2022 5:37 am Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:14 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_04.D

(37) Hydroquinone

4.21min (+0.000) 7231.3116452 ppb

Qvalue = 95

response 39390

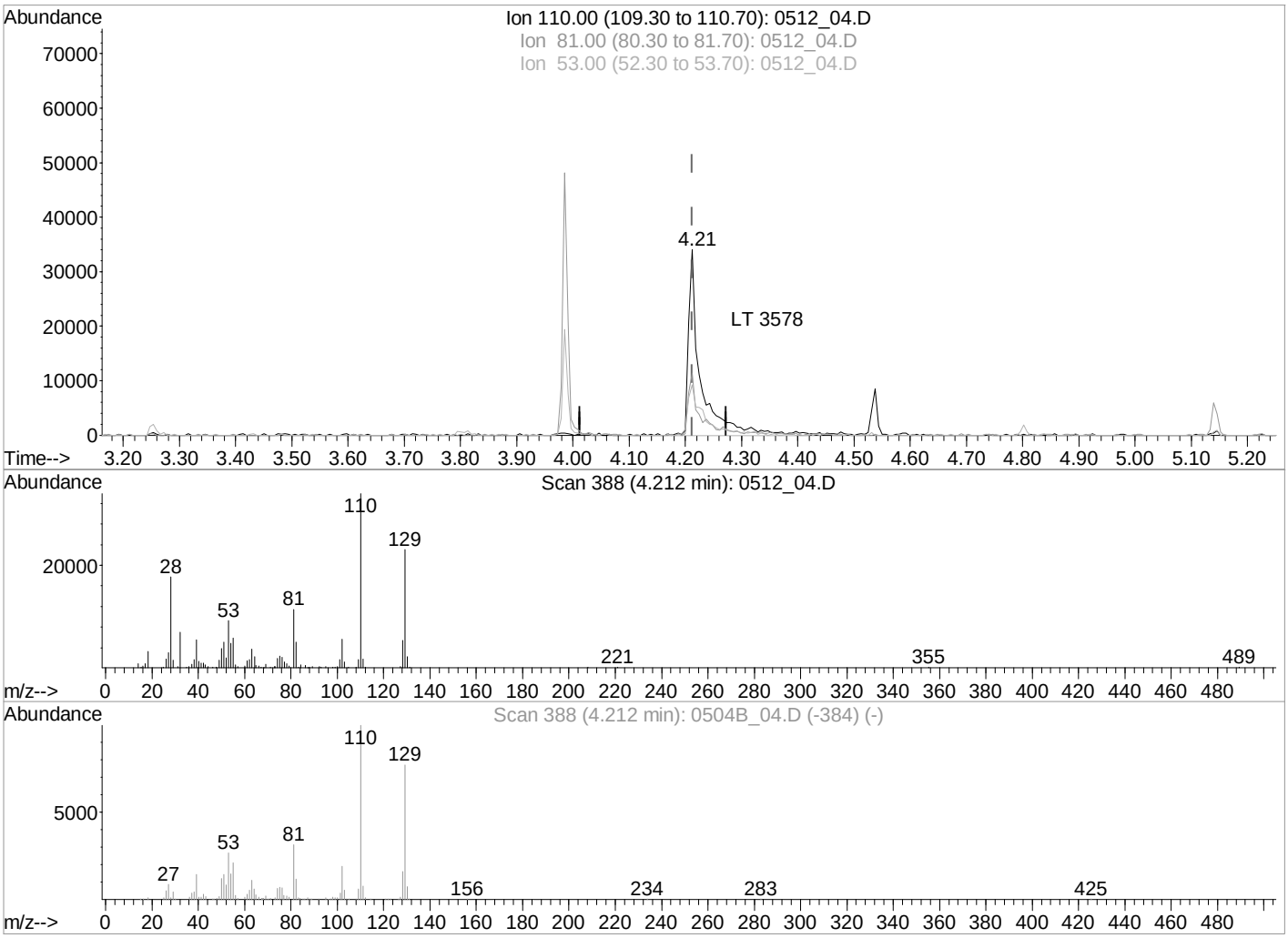
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	33.59
53.00	25.90	27.36
0.00	0.00	0.00

0512_04.D S804E04BV.M Thu May 12 09:15:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 04.D Vial: 4
Acq On : 12 May 2022 5:37 am Operator: 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 09/10/22 Inst : BNAMS4
Misc : TCL ICAL ISTD 22D16229 exp 10/16/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 9:14 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_04.D

(37) Hydroquinone

4.21min (+0.000) 7231.3116452 ppb

Qvalue = 95

response 39390

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	33.59
53.00	25.90	27.36
0.00	0.00	0.00

0512_04.D S804E04BV.M Thu May 12 09:15:12 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	03/31/22 17:24
Instrument ID:	BNAMS24	**Calibration (end) date/time:**	03/31/22 22:23
Lab File ID:	0331_18	**Analysis date/time:**	03/31/22 22:44
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.610754	0.64112010		4.97		10	10.50	105	70 - 130
2-METHYLNAPHTHALENE	0.627399	0.64607670		2.98		10	10.30	103	70 - 130
3&4-METHYL PHENOL	1.301686	1.329116		2.11		10	10.21	102	70 - 130
ACENAPHTHENE	1.148837	1.199481		4.41		10	10.44	104	70 - 130
ACENAPHTHYLENE	1.695228	1.857736		9.59		10	10.96	110	70 - 130
ANTHRACENE	1.006737	1.045115		3.81		10	10.38	104	70 - 130
BENZO(A)ANTHRACENE	1.116712	1.133629		1.51		10	10.15	102	70 - 130
BENZO(A)PYRENE	0.950358	1.085630		14.20		10	11.42	114	70 - 130
BENZO(B)FLUORANTHENE	1.172442	1.217118		3.81		10	10.38	104	70 - 130
BENZO(G,H,I)PERYLENE	1.026990	1.111795		8.26		10	10.83	108	70 - 130
BENZO(K)FLUORANTHENE	1.198822	1.286310		7.30		10	10.73	107	70 - 130
BIS(2-ETHYLHEXYL)PHTHALATE	1.014597	1.069942		5.45		10	10.55	106	70 - 130
CARBAZOLE	0.861194	0.95543070		10.90		10	11.09	111	70 - 130
CHRYSENE	1.179486	1.253499		6.28		10	10.63	106	70 - 130
DI-N-BUTYL PHTHALATE	1.289953	1.485565		15.20		10	11.52	115	70 - 130
DI-N-OCTYL PHTHALATE	1.425428	1.425258		0.0119		10	9.188	91.90	70 - 130
DIBENZ(A,H)ANTHRACENE	0.969471	1.067733		10.10		10	11.01	110	70 - 130
DIBENZOFURAN	1.532971	1.604143		4.64		10	10.46	105	70 - 130
FLUORANTHENE	1.037530	1.086566		4.73		10	10.47	105	70 - 130
FLUORENE	1.268965	1.347410		6.18		10	10.62	106	70 - 130
INDENO(1,2,3-CD)PYRENE	0.864970	0.96418880		11.50		10	11.15	112	70 - 130
NAPHTHALENE	0.998617	1.032092		3.35		10	10.34	103	70 - 130
PENTACHLOROPHENOL	0.105171	0.11822170		12.40		10	11.43	114	70 - 130
PHENANTHRENE	1.060304	1.114125		5.08		10	10.51	105	70 - 130
PHENOL	1.575372	1.630722		3.51		10	10.35	104	70 - 130
PYRENE	1.498492	1.578251		5.32		10	10.53	105	70 - 130
2,4,6-TRIBROMOPHENOL	0.083814	0.08113972		3.19		10	9.681	96.80	70 - 130
2-FLUOROBIPHENYL	1.270391	1.246534		1.88		10	9.812	98.10	70 - 130
2-FLUOROPHENOL	1.252515	1.217577		2.79		10	9.721	97.20	70 - 130
NITROBENZENE-D5	0.304240	0.29725250		2.30		10	9.770	97.70	70 - 130
P-TERPHENYL-D14	1.107064	1.061220		4.14		10	9.586	95.90	70 - 130
PHENOL-D5	1.486088	1.435091		3.43		10	9.657	96.60	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 17:01:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	32498	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.140	136	129280	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.310	164	67005	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.434	188	107114	8000.0000000 ppb		0.00
84) Chrysene-d12	9.245	240	77504	8000.0000000 ppb		0.00
94) Perylene-d12	11.951	264	68794	8000.0000000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.740	112	49461	9721.0515879 ppb		0.00
Spiked Amount 20000.000				Recovery = 48.61%		
7) Phenol-d5	3.175	99	58297	9656.8420263 ppb		0.00
Spiked Amount 20000.000				Recovery = 48.28%		
24) Nitrobenzene-d5	3.710	82	48036m	9770.3438575 ppb		0.00
Spiked Amount 10000.000				Recovery = 97.70%		
50) 2-Fluorobiphenyl	4.828	172	104405	9812.2063195 ppb		0.00
Spiked Amount 10000.000				Recovery = 98.12%		
73) 2,4,6-Tribromophenol	5.886	330	10864	9680.9076507 ppb		0.00
Spiked Amount 20000.000				Recovery = 48.40%		
87) p-Terphenyl-d14	7.845	244	102811	9585.8929227 ppb		0.00
Spiked Amount 10000.000				Recovery = 95.86%		
Target Compounds						Qvalue
2) Pyridine	2.216	79	56827	10543.3045205 ppb		99
3) N-Nitrosodimethylamine	2.199	42	26162	9220.1486386 ppb		99
5) Aniline	3.228	66	29495	10558.9289085 ppb		97
6) bis(2-Chloroethyl)ether	3.245	93	55703m	10136.1427628 ppb		
8) Phenol	3.181	94	66244	10351.3432882 ppb		96
10) 2-Chlorophenol	3.293	128	56605	10621.1407363 ppb		98
11) n-Decane	3.293	41	32743	9557.1097558 ppb	#	100
12) 1,3-Dichlorobenzene	3.381	146	62683	10262.6996716 ppb		100
13) 1,4-Dichlorobenzene	3.416	146	63047	10312.3985770 ppb		96
14) Benzyl Alcohol	3.463	79	40660	10415.3909180 ppb		100
15) 1,2-Dichlorobenzene	3.504	146	60642	10287.4111665 ppb		98
16) bis(2-Chloroisopropyl)...	3.540	121	21521	10572.3791808 ppb		98
17) 2,2-oxybis(1-chloropro...	3.540	121	21521	10572.3791808 ppb		98
18) 2-Methylphenol	3.510	108	50596	10555.1684687 ppb		96
19) Hexachloroethane	3.698	117	26205	10278.9609507 ppb		97
20) N-Nitrosodi-n-propylamine	3.610	70	35112	10298.7989609 ppb		99
21) 3&4-Methyl phenol	3.593	107	53992	10210.7212151 ppb		99
25) Nitrobenzene	3.722	77	53649	10796.3440550 ppb		98
26) Isophorone	3.851	82	101269	10411.4636677 ppb		100
27) 2-Nitrophenol	3.904	139	25159	10701.2848374 ppb		93
28) 2,4-Dimethylphenol	3.904	107	52280	10806.4841322 ppb		99
29) bis(2-Chlorethoxy)methane	3.969	93	71047	10871.2890055 ppb		97
30) 2,4-Dichlorophenol	4.040	162	40871	10693.2795032 ppb	#	86
32) 1,2,4-Trichlorobenzene	4.098	180	47514	10395.1948767 ppb		94
34) Naphthalene	4.157	128	166786	10335.2044265 ppb		100
35) 4-Chloroaniline	4.175	65	17354	10233.0364786 ppb		98
36) Hexachloro-1,3-butadiene	4.222	225	27825	11286.0704472 ppb		98
40) 4-Chloro-3-methylphenol	4.463	107	41378	10347.5683022 ppb		99
41) 2-Methylnaphthalene	4.592	142	104406	10297.6968942 ppb		99
42) 1-Methylnaphthalene	4.657	142	103605	10497.1978691 ppb		100
47) Hexachlorocyclopentadiene	4.692	237	19130	8752.6966899 ppb		98
48) 2,4,6-Trichlorophenol	4.769	196	27186	10863.2348945 ppb		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 17:01:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

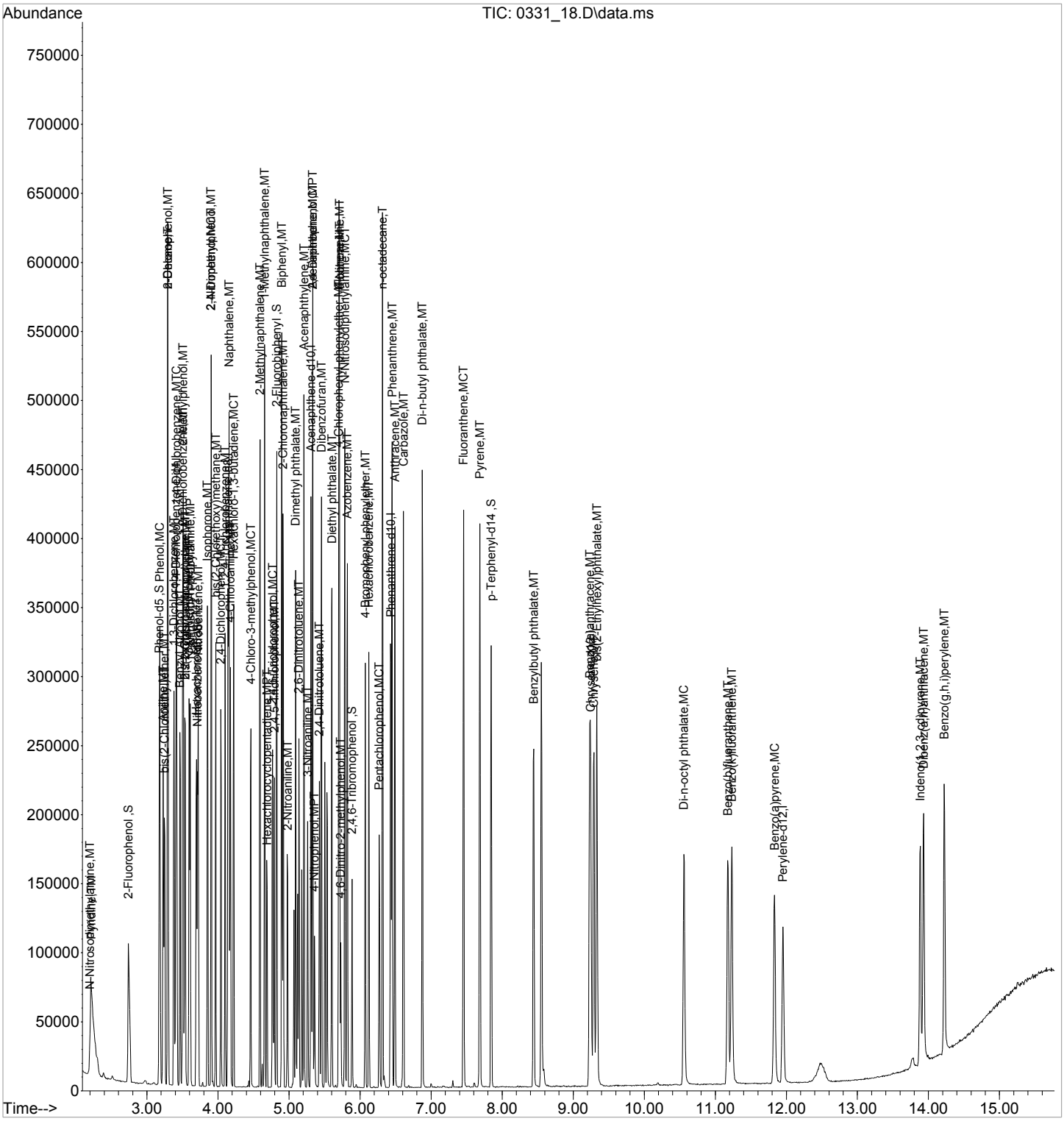
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.792	196	27202	10638.5015338 ppb		96
51)	Biphenyl	4.898	154	118579	9890.1836667 ppb		99
52)	2-Chloronaphthalene	4.916	162	97364	10522.2343151 ppb		97
53)	2-Nitroaniline	4.981	138	26879	9792.8659732 ppb		99
54)	Acenaphthylene	5.210	152	155597	10958.6228399 ppb		99
55)	Dimethyl phthalate	5.092	163	110449	10653.1510320 ppb		94
56)	2,6-Dinitrotoluene	5.139	165	24488	10819.8125221 ppb		94
57)	3-Nitroaniline	5.263	138	21957	10159.1833892 ppb		95
58)	Acenaphthene	5.334	153	100464	10440.8237247 ppb		99
59)	2,4-Dinitrophenol	5.334	184	6639	10067.3246842 ppb	#	1
60)	Dibenzofuran	5.457	168	134357	10464.2761664 ppb		99
61)	2,4-Dinitrotoluene	5.428	165	28361	10009.1795744 ppb		83
63)	4-Nitrophenol	5.357	139	15677	10019.4582644 ppb		84
64)	Fluorene	5.710	166	112854	10618.1767720 ppb		99
65)	4-Chlorophenyl-phenyle...	5.698	204	50559	10444.6934063 ppb		87
66)	Diethyl phthalate	5.604	149	118174	10955.7827258 ppb		100
67)	4-Nitroaniline	5.710	138	14373	10982.9600230 ppb		99
68)	Azobenzene	5.822	77	118542	10935.8381151 ppb		100
71)	4,6-Dinitro-2-methylph...	5.728	198	10278	9898.9697426 ppb	#	76
72)	N-Nitrosodiphenylamine	5.787	169	89933	10794.9785060 ppb		99
74)	4-Bromophenyl-phenylether	6.075	248	26731	10453.6669917 ppb		91
75)	Hexachlorobenzene	6.122	284	31578	10571.7081466 ppb		99
76)	n-octadecane	6.316	55	19875	9957.1898370 ppb		98
77)	Pentachlorophenol	6.269	266	15829	11430.0132536 ppb		91
78)	Phenanthrene	6.451	178	149173	10507.5981260 ppb		99
79)	Anthracene	6.492	178	139933	10381.2108124 ppb		99
80)	Carbazole	6.610	167	127925	11094.2622659 ppb		100
81)	Di-n-butyl phthalate	6.875	149	198906	11516.4267189 ppb		99
83)	Fluoranthene	7.457	202	145483	10472.6197639 ppb		99
86)	Pyrene	7.686	202	152901	10532.2669087 ppb		99
88)	Benzylbutyl phthalate	8.445	149	68827	10330.4950097 ppb		95
90)	Benzo(a)anthracene	9.233	228	109826	10151.4892180 ppb		99
91)	Chrysene	9.292	228	121439	10627.5018659 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.333	149	103656	10545.4870384 ppb		98
93)	Di-n-octyl phthalate	10.557	149	138079	9187.8214826 ppb		100
95)	Benzo(b)fluoranthene	11.174	252	104663	10381.0496709 ppb		98
96)	Benzo(k)fluoranthene	11.233	252	110613	10729.7840645 ppb		99
97)	Benzo(a)pyrene	11.833	252	93356	11423.3722820 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.886	276	82913	11147.0755413 ppb		95
99)	Dibenz(a,h)anthracene	13.933	278	91817	11013.5644462 ppb		99
100)	Benzo(g,h,i)perylene	14.221	276	95606	10825.7600661 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

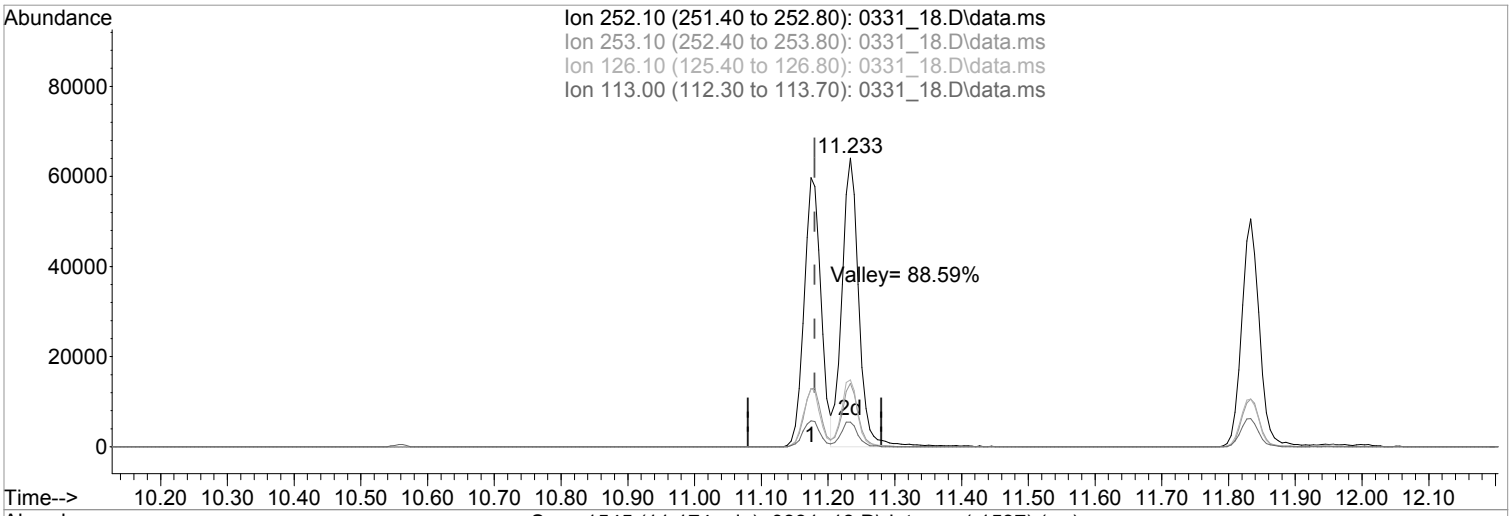
Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

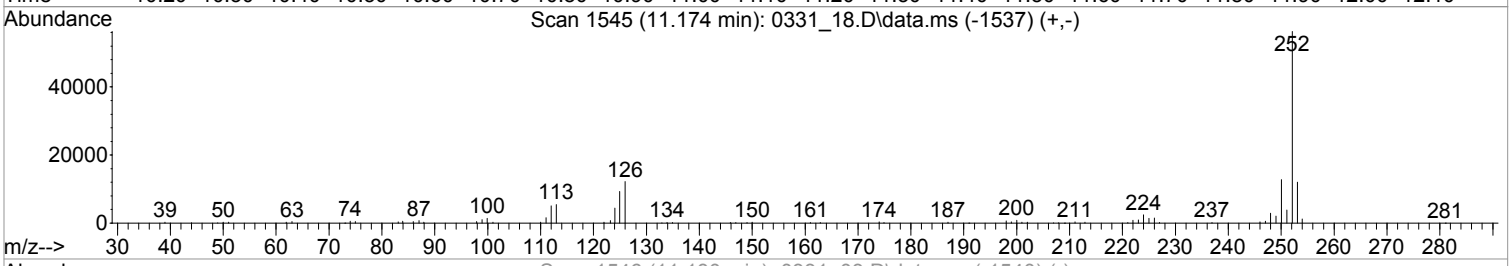
Quant Time: Apr 04 17:01:16 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

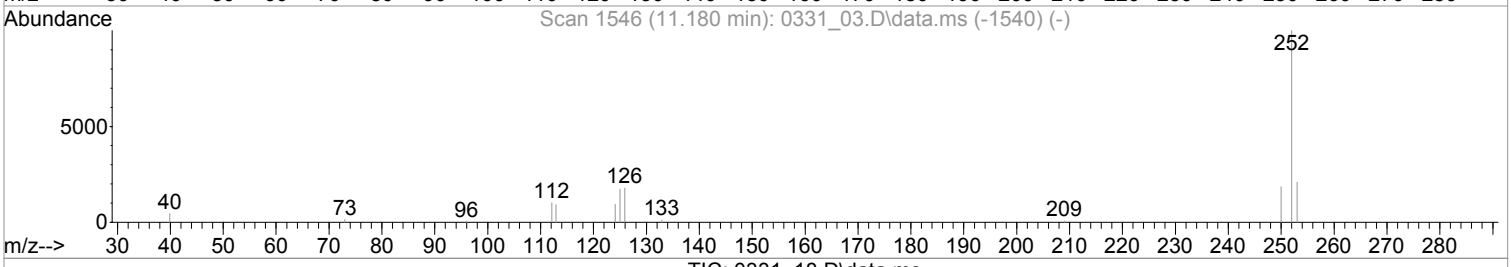


Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 16:39:37 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:39:09 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_18.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.174min (-0.006) 10381.0496709 ppb

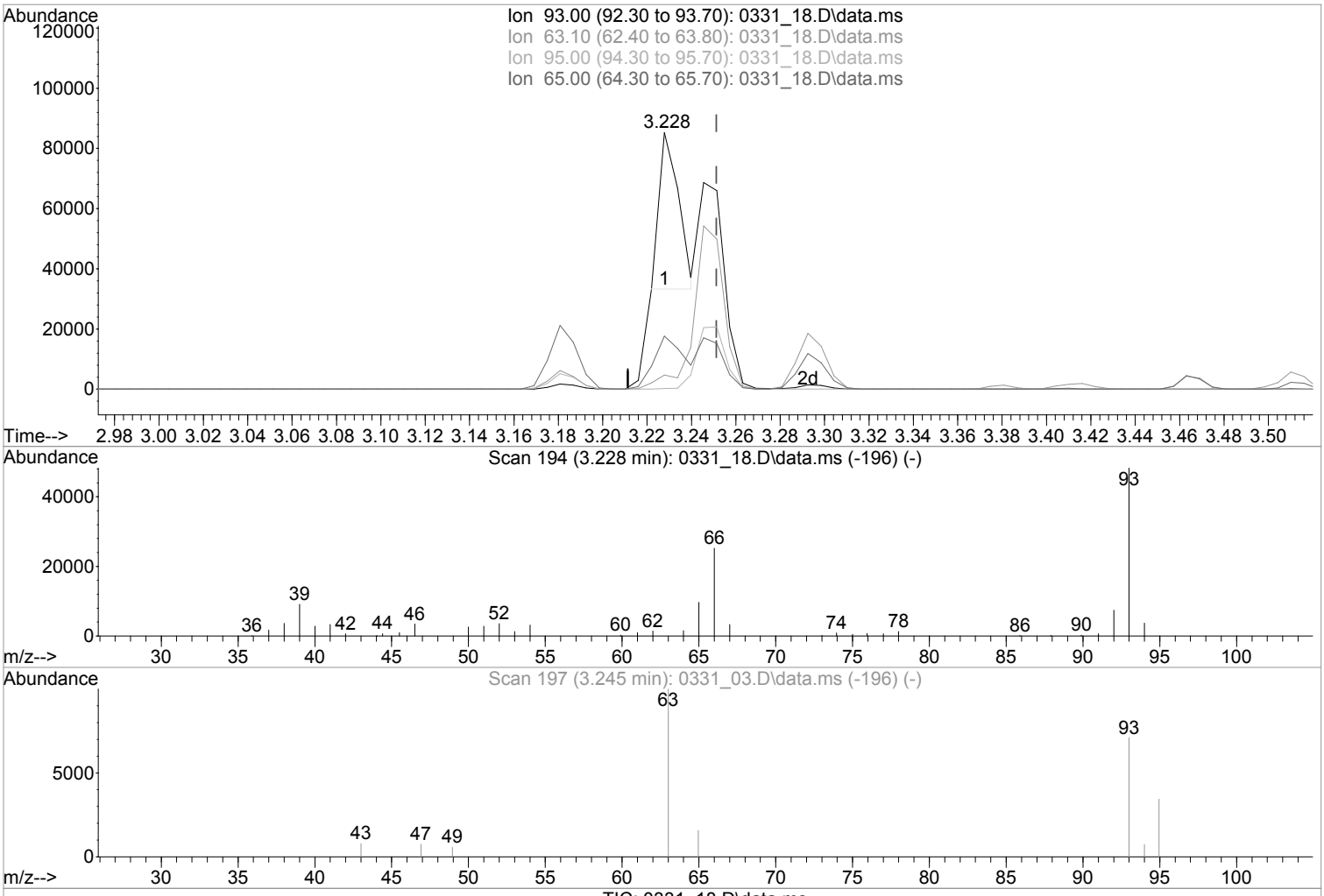
Qvalue = 98

response 104663

Ion	Exp%	Act%
252.10	100	100
253.10	21.80	21.38
126.10	20.00	21.67
113.00	9.70	9.69

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 16:56:43 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_18.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.228min (-0.024) 5741.0786522 ppb

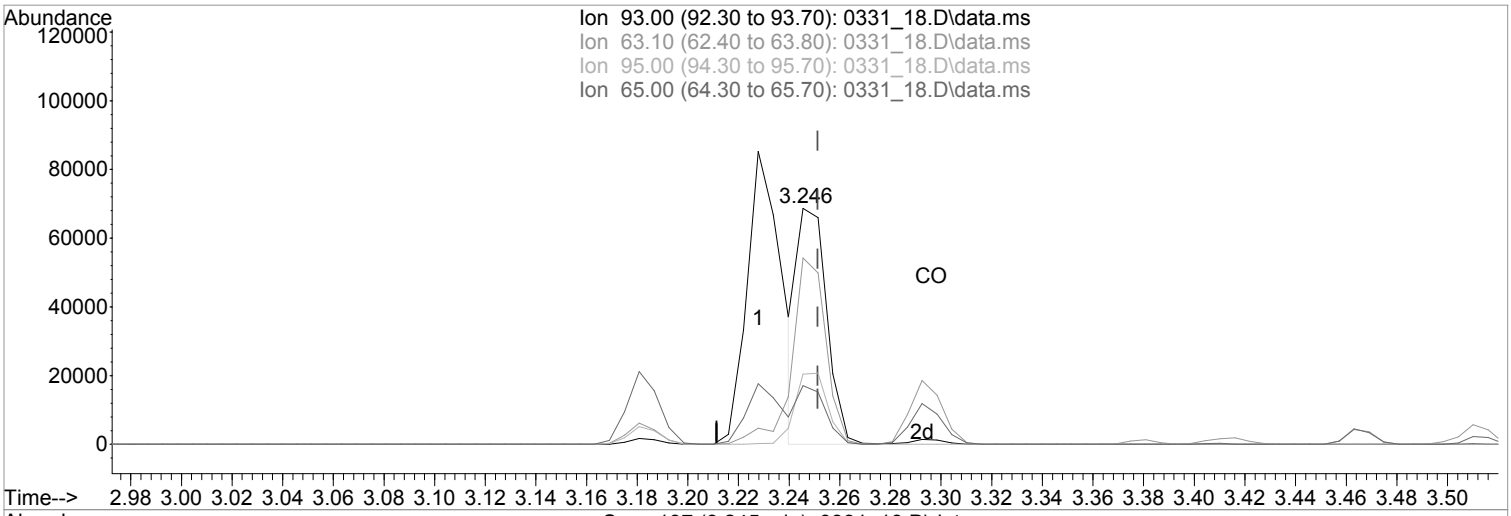
Qvalue = 37

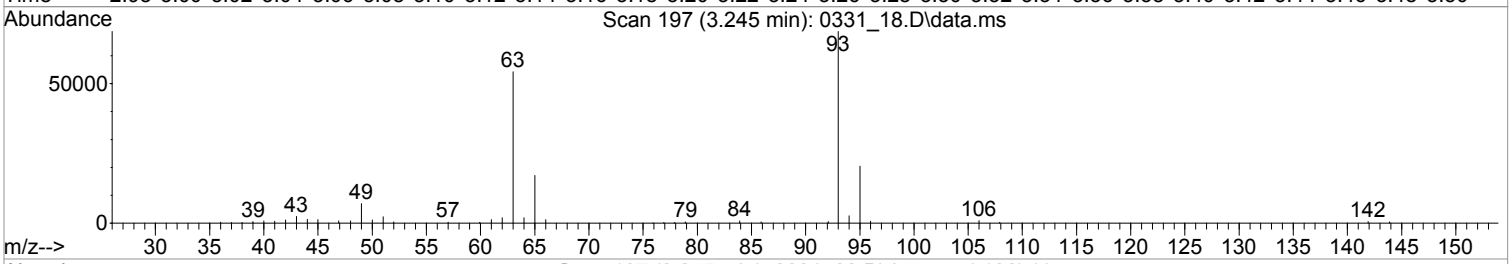
response 31550

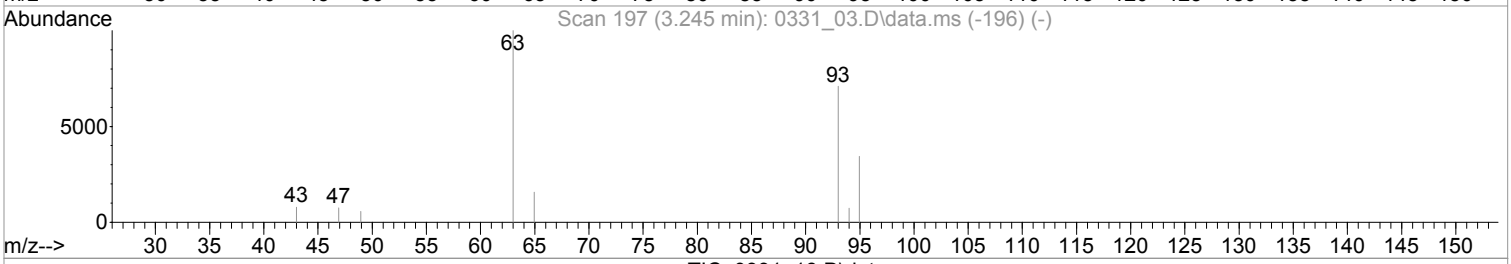
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	5.01#
95.00	31.90	0.36#
65.00	23.10	19.07

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 16:56:43 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_18.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

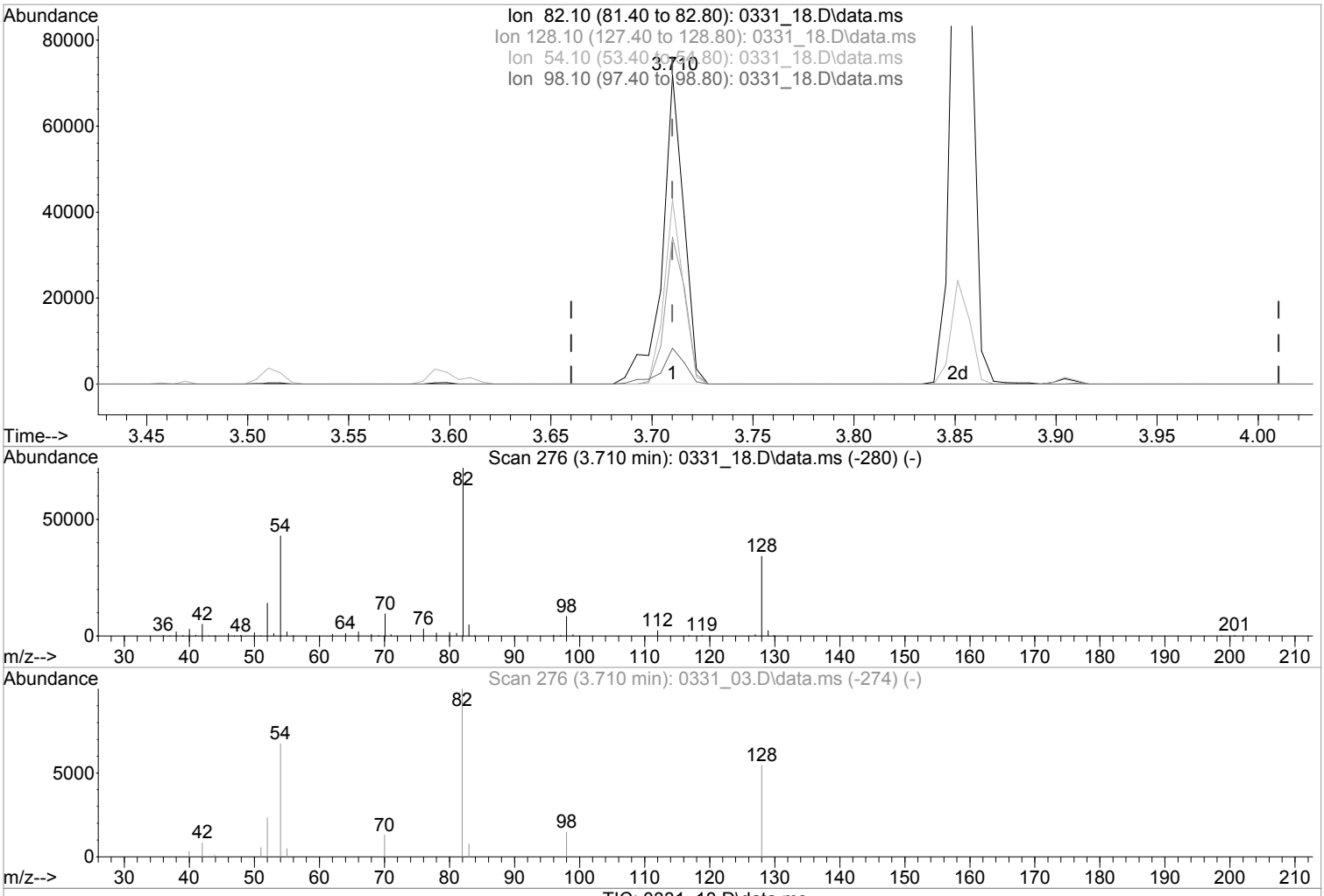
3.245min (-0.006) 10136.1427628 ppb m

response 55703

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	78.90
95.00	31.90	29.72
65.00	23.10	24.89

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 16:56:43 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0331_18.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 10838.3777403 ppb

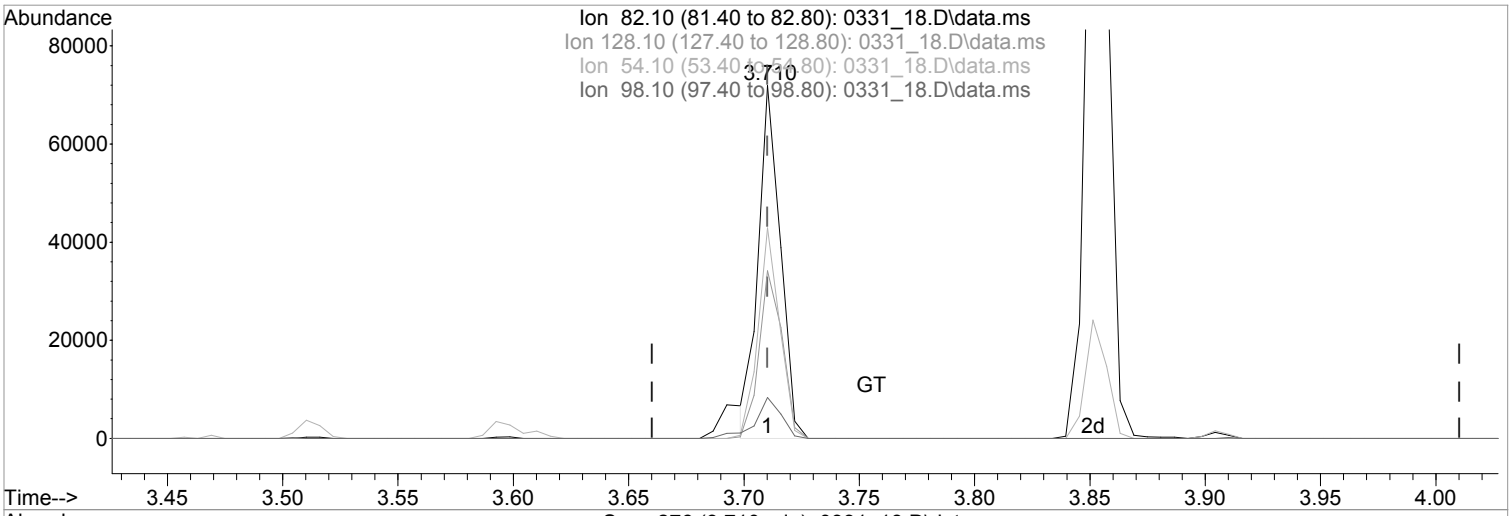
Qvalue = 99

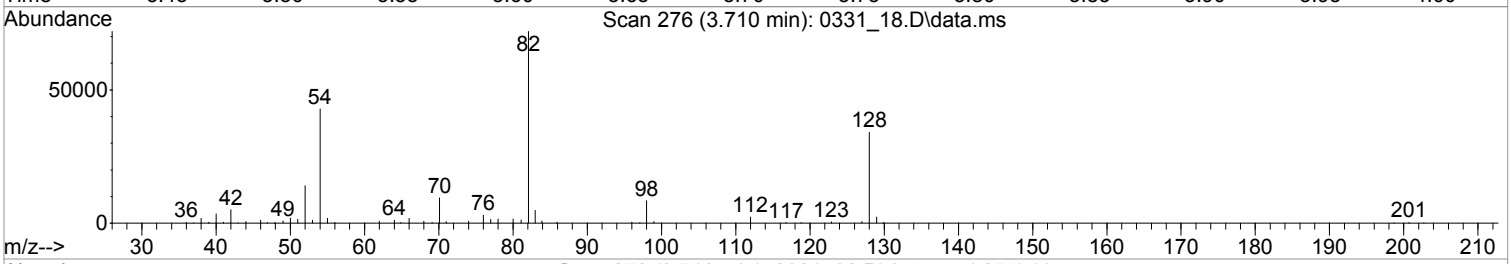
response 53287

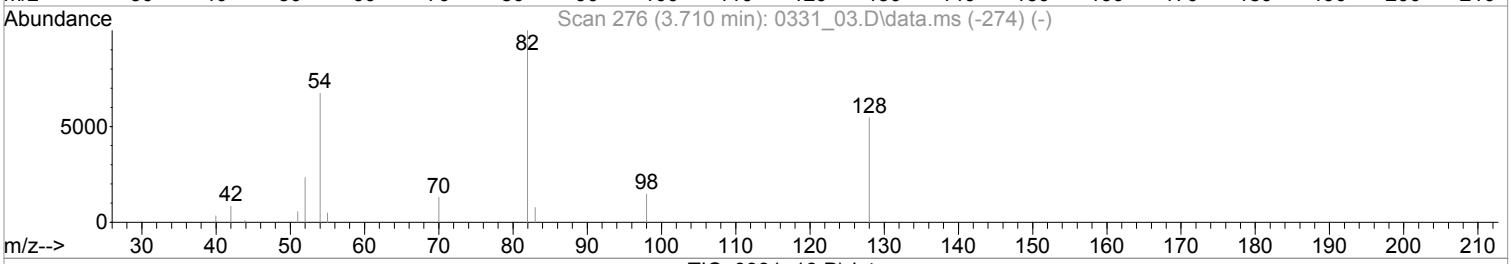
Ion	Exp%	Act%
82.10	100	100
128.10	46.80	47.47
54.10	60.00	59.60
98.10	11.40	11.62

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_18.D
Acq On : 31 Mar 2022 10:44 pm
Operator : 3545
Sample : SSCV SVMS 10K PPB 22C23061 exp 6/30/22
Misc : SVMS CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 16:56:43 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0331_18.D\data.ms

(24) Nitrobenzene-d5 (S)

3.710min (-0.000) 9770.3438575 ppb m

response 48036

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	47.47
54.10	60.00	59.60
98.10	11.40	11.62

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	03/31/22 17:24
Instrument ID:	BNAMS24	**Calibration (end) date/time:**	03/31/22 22:23
Lab File ID:	0331_19	**Analysis date/time:**	03/31/22 23:06
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.079140	0.06852319		13.40		10	9.288	92.90	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_19.D
Acq On : 31 Mar 2022 11:06 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22C25375 exp 5/31/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 04 17:01:57 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

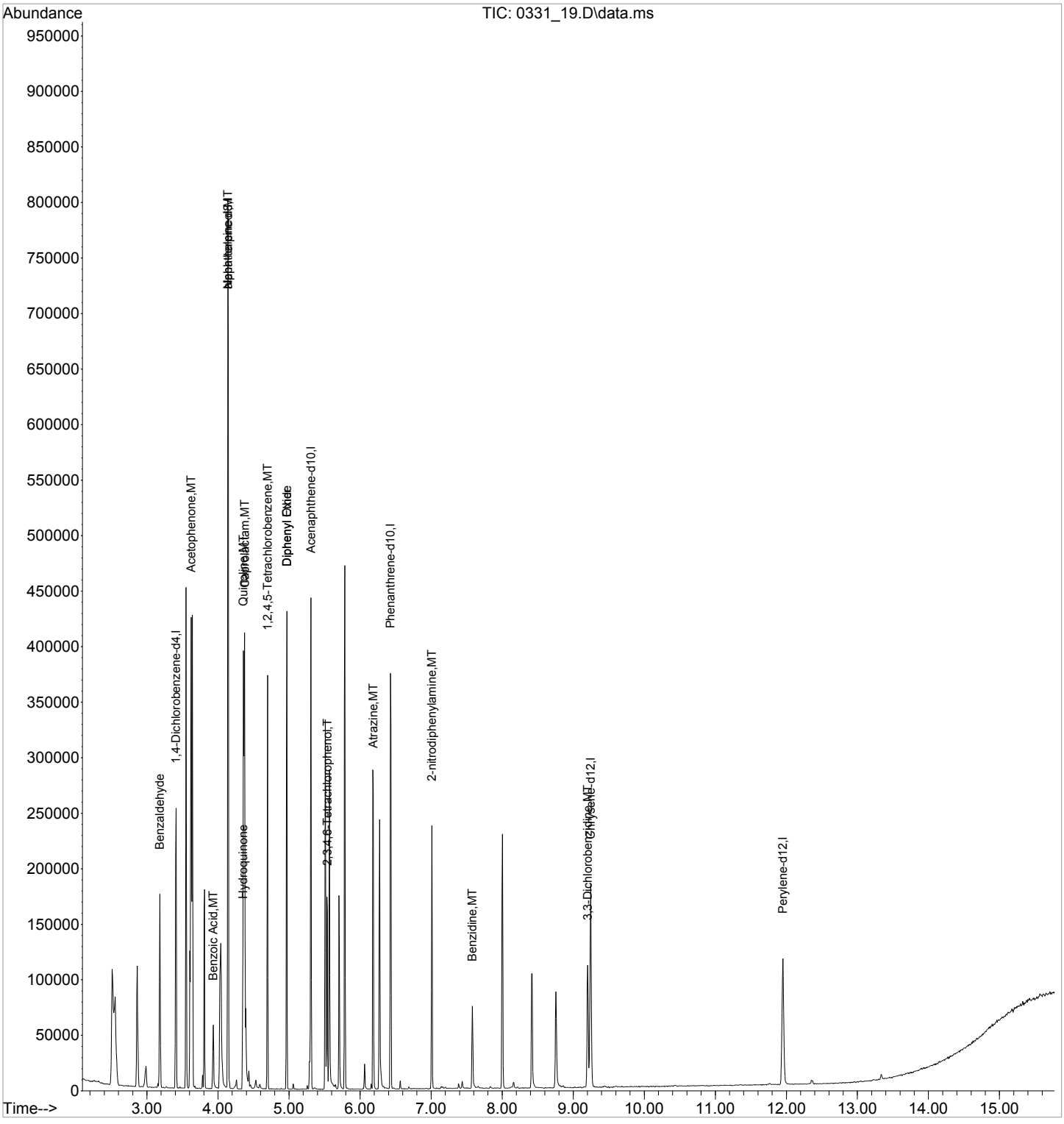
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.410	152	35583	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.140	136	162059	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.310	164	73711	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.428	188	118731	8000.0000000	ppb	0.00
84) Chrysene-d12	9.245	240	80072	8000.0000000	ppb	0.00
94) Perylene-d12	11.951	264	68064	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.181	105	31909	21445.8562524	ppb	98
22) Acetophenone	3.622	105	75382	9841.7477258	ppb	97
31) Benzoic Acid	3.934	105	13881	9287.9241188	ppb	100
33) alpha-terpineol	4.140	59	52858	10589.0958967	ppb	98
37) Hydroquinone	4.351	110	17084	4832.8177254	ppb	98
38) Quinoline	4.357	129	105645	11290.3729771	ppb	99
39) Caprolactam	4.375	113	15088	12246.5826042	ppb #	54
43) 1,2,4,5-Tetrachloroben...	4.698	216	44163	10135.7140612	ppb	98
44) Diphenyl Ether	4.969	170	66081	10119.7642454	ug/ml	99
45) Diphenyl Oxide	4.969	170	66081	10119.7642454	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.539	232	18260	9138.7507826	ppb	99
69) Atrazine	6.186	200	26464	9976.4469748	ppb	99
82) 2-nitrodiphenylamine	7.010	167	24172	9615.2258453	ppb	97
85) Benzidine	7.580	184	31867	14436.7066228	ppb	98
89) 3,3-Dichlorobenzidine	9.204	252	33453	9646.2468026	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\033122\
Data File : 0331_19.D
Acq On : 31 Mar 2022 11:06 pm
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22C25375 exp 5/31/22
Misc : TCL CAL ISTD 22C25289 exp. 09/25/22
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 04 17:01:57 2022
Quant Method : C:\msdchem\1\methods\S824C31V.M
Quant Title : 8270 BNA
QLast Update : Mon Apr 04 16:54:30 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	03/31/22 17:24
Instrument ID:	BNAMS24	**Calibration (end) date/time:**	03/31/22 22:23
Lab File ID:	0513_03	**Analysis date/time:**	05/13/22 07:03
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.610754	0.61573420		0.8150	20	10	10.08	101	
2-METHYLNAPHTHALENE	0.627399	0.63354650	0.40	0.98	20	10	10.10	101	
3&4-METHYL PHENOL	1.301686	1.334380	0.60	2.51	20	10	10.25	103	
ACENAPHTHENE	1.148837	1.134683	0.90	1.23	20	10	9.877	98.80	
ACENAPHTHYLENE	1.695228	1.740171	0.90	2.65	20	10	10.27	103	
ANTHRACENE	1.006737	1.011323	0.70	0.4560	20	10	10.05	101	
BENZO(A)ANTHRACENE	1.116712	1.170757	0.80	4.84	20	10	10.48	105	
BENZO(A)PYRENE	0.950358	1.024210	0.70	7.77	20	10	10.78	108	
BENZO(B)FLUORANTHENE	1.172442	1.191933	0.70	1.66	20	10	10.17	102	
BENZO(G,H,I)PERYLENE	1.026990	1.070480	0.50	4.23	20	10	10.42	104	
BENZO(K)FLUORANTHENE	1.198822	1.273573	0.70	6.24	20	10	10.62	106	
BIS(2-ETHYLHEXYL)PHTHALATE	1.014597	1.216627	0.01	19.90	20	10	11.99	120	
CARBAZOLE	0.861194	0.88660350	0.01	2.95	20	10	10.30	103	
CHRYSENE	1.179486	1.172444	0.70	0.5970	20	10	9.940	99.40	
DI-N-BUTYL PHTHALATE	1.289953	1.427457	0.01	10.70	20	10	11.07	111	
DI-N-OCTYL PHTHALATE	1.425428	1.862746	0.01	30.70	20	10	11.78	118	80 - 120
DIBENZ(A,H)ANTHRACENE	0.969471	1.024578	0.40	5.68	20	10	10.57	106	
DIBENZOFURAN	1.532971	1.550476	0.80	1.14	20	10	10.11	101	
FLUORANTHENE	1.037530	1.059678	0.60	2.13	20	10	10.21	102	
FLUORENE	1.268965	1.296333	0.90	2.16	20	10	10.22	102	
INDENO(1,2,3-CD)PYRENE	0.864970	0.90996170	0.50	5.20	20	10	10.52	105	
NAPHTHALENE	0.998617	0.98820210	0.70	1.04	20	10	9.896	99	
PENTACHLOROPHENOL	0.105171	0.09090136	0.05	13.60	20	10	9.210	92.10	80 - 120
PHENANTHRENE	1.060304	1.019396	0.70	3.86	20	10	9.614	96.10	
PHENOL	1.575372	1.562367	0.80	0.8260	20	10	9.917	99.20	
PYRENE	1.498492	1.527786	0.60	1.95	20	10	10.20	102	
2,4,6-TRIBROMOPHENOL	0.083814	0.08693542		3.72	20	10	10.37	104	70 - 130
2-FLUOROBIPHENYL	1.270391	1.268635		0.1380	20	10	9.986	99.90	70 - 130
2-FLUOROPHENOL	1.252515	1.254080		0.1250	20	10	10.01	100	70 - 130
NITROBENZENE-D5	0.304240	0.32590670		7.12	20	10	10.71	107	70 - 130
P-TERPHENYL-D14	1.107064	1.145151		3.44	20	10	10.34	103	70 - 130
PHENOL-D5	1.486088	1.514964		1.94	20	10	10.19	102	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 09:43:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.343	152	27019	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.072	136	109138	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.231	164	57621	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.348	188	96421	8000.0000000 ppb	0.00
84) Chrysene-d12	9.107	240	68297	8000.0000000 ppb	0.00
94) Perylene-d12	11.766	264	60843	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.678	112	42355	10012.4971232 ppb	0.00
Spiked Amount 20000.000			Recovery = 50.06%		
7) Phenol-d5	3.113	99	51166	10194.3079871 ppb	0.00
Spiked Amount 20000.000			Recovery = 50.97%		
24) Nitrobenzene-d5	3.643	82	44461m	10712.1733340 ppb	0.00
Spiked Amount 10000.000			Recovery = 107.12%		
50) 2-Fluorobiphenyl	4.754	172	91375	9986.1752687 ppb	0.00
Spiked Amount 10000.000			Recovery = 99.86%		
73) 2,4,6-Tribromophenol	5.813	330	10478	10372.4015349 ppb	0.00
Spiked Amount 20000.000			Recovery = 51.86%		
87) p-Terphenyl-d14	7.736	244	97763	10344.0354425 ppb	0.00
Spiked Amount 10000.000			Recovery = 103.44%		
Target Compounds					Qvalue
2) Pyridine	2.154	79	42532m	9491.2888188 ppb	
3) N-Nitrosodimethylamine	2.143	42	21653	9178.5149577 ppb	99
5) Aniline	3.166	66	23843	10266.4365440 ppb #	19
6) bis(2-Chloroethyl)ether	3.184	93	48776m	10675.4865610 ppb	
8) Phenol	3.119	94	52767	9917.4479485 ppb	99
10) 2-Chlorophenol	3.231	128	44848	10121.5450452 ppb	95
11) n-Decane	3.225	41	27978	9822.2760214 ppb #	98
12) 1,3-Dichlorobenzene	3.313	146	50025	9851.1358154 ppb	99
13) 1,4-Dichlorobenzene	3.348	146	50353	9906.2202085 ppb	96
14) Benzyl Alcohol	3.401	79	31384	9669.4964589 ppb	98
15) 1,2-Dichlorobenzene	3.437	146	48094	9813.2043804 ppb	99
16) bis(2-Chloroisopropyl)...	3.472	121	16332	9650.2156304 ppb	95
17) 2,2-oxybis(1-chloropro...	3.472	121	16332	9650.2156304 ppb	95
18) 2-Methylphenol	3.448	108	42230	10596.3776981 ppb	95
19) Hexachloroethane	3.625	117	21460	10124.6992798 ppb	96
20) N-Nitrosodi-n-propylamine	3.543	70	28918	10202.0307711 ppb	98
21) 3&4-Methyl phenol	3.531	107	45067	10251.1600878 ppb	98
25) Nitrobenzene	3.654	77	45183	10770.7389639 ppb	99
26) Isophorone	3.784	82	85712	10438.3594524 ppb	100
27) 2-Nitrophenol	3.837	139	23235	11706.8641343 ppb	87
28) 2,4-Dimethylphenol	3.843	107	42736	10464.0080337 ppb	97
29) bis(2-Chlorethoxy)methane	3.901	93	55006	9970.1275420 ppb	100
30) 2,4-Dichlorophenol	3.978	162	34228	10607.9760536 ppb	99
32) 1,2,4-Trichlorobenzene	4.031	180	36764	9527.7236496 ppb	97
34) Naphthalene	4.084	128	134813	9895.7018932 ppb	99
35) 4-Chloroaniline	4.107	65	14871	10387.2469149 ppb #	54
36) Hexachloro-1,3-butadiene	4.148	225	21094	10134.9562431 ppb	98
40) 4-Chloro-3-methylphenol	4.395	107	36212	10726.9602362 ppb	96
41) 2-Methylnaphthalene	4.519	142	86430	10097.9801500 ppb	99
42) 1-Methylnaphthalene	4.584	142	84000	10081.5499716 ppb	99
47) Hexachlorocyclopentadiene	4.613	237	21638	11512.5212766 ppb	97
48) 2,4,6-Trichlorophenol	4.695	196	23072	10720.7587027 ppb	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 09:43:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

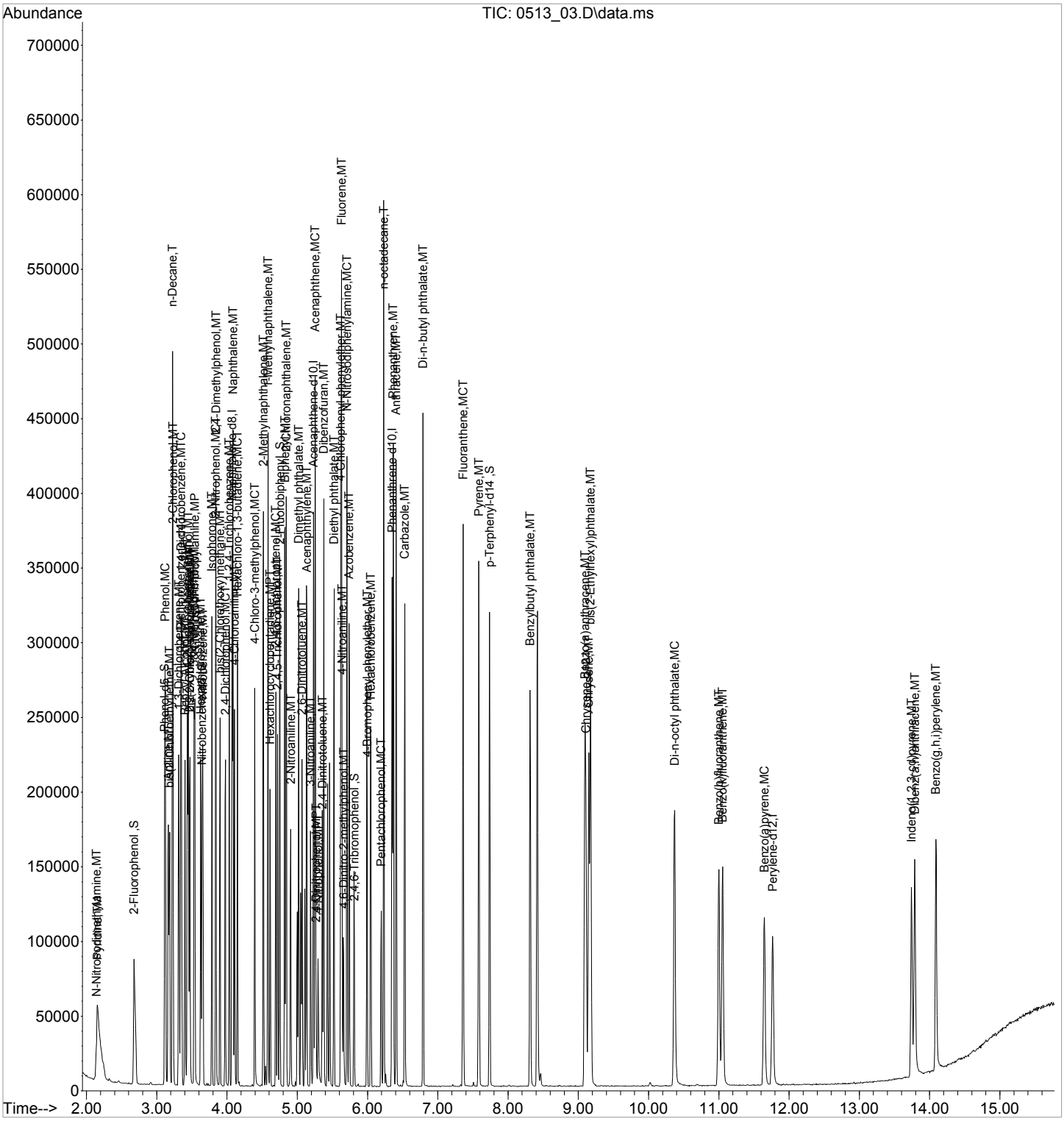
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49)	2,4,5-Trichlorophenol	4.719	196	24435	11112.6692387 ppb		93
51)	Biphenyl	4.825	154	102439	9935.4678863 ppb		100
52)	2-Chloronaphthalene	4.842	162	78748	9896.3606564 ppb		96
53)	2-Nitroaniline	4.907	138	25522	10812.7914875 ppb		96
54)	Acenaphthylene	5.137	152	125338	10265.1178989 ppb		99
55)	Dimethyl phthalate	5.019	163	93414	10477.4280092 ppb		94
56)	2,6-Dinitrotoluene	5.066	165	21957	11281.4738593 ppb		99
57)	3-Nitroaniline	5.190	138	20041	10782.8014081 ppb		99
58)	Acenaphthene	5.254	153	81727	9876.8003620 ppb		96
59)	2,4-Dinitrophenol	5.266	184	6854	11504.4301957 ppb	#	1
60)	Dibenzofuran	5.378	168	111675	10114.1939222 ppb		99
61)	2,4-Dinitrotoluene	5.360	165	27870	11437.7429028 ppb		98
63)	4-Nitrophenol	5.295	139	13511	10041.4214813 ppb		85
64)	Fluorene	5.631	166	93370	10215.6680782 ppb		96
65)	4-Chlorophenyl-phenyle...	5.619	204	42483	10205.6064888 ppb		88
66)	Diethyl phthalate	5.525	149	99654	10743.4218924 ppb		100
67)	4-Nitroaniline	5.637	138	17873	15881.6584923 ppb		95
68)	Azobenzene	5.737	77	100167	10745.6059287 ppb		100
71)	4,6-Dinitro-2-methylph...	5.660	198	11562	11721.0323776 ppb		96
72)	N-Nitrosodiphenylamine	5.707	169	75558	10075.2947713 ppb		99
74)	4-Bromophenyl-phenylether	5.995	248	23096	10033.7859621 ppb	#	82
75)	Hexachlorobenzene	6.048	284	25247	9389.5532880 ppb		99
76)	n-octadecane	6.231	55	18870	10502.1001704 ppb		98
77)	Pentachlorophenol	6.195	266	10956	9209.5044580 ppb		97
78)	Phenanthrene	6.366	178	122864	9614.1852735 ppb		99
79)	Anthracene	6.407	178	121891	10045.5590704 ppb		98
80)	Carbazole	6.531	167	106859	10295.0560319 ppb		99
81)	Di-n-butyl phthalate	6.789	149	172046	11065.9588486 ppb		100
83)	Fluoranthene	7.360	202	127719	10213.4673142 ppb		99
86)	Pyrene	7.583	202	130429	10195.4919245 ppb		99
88)	Benzylbutyl phthalate	8.313	149	70461	12001.4462485 ppb		98
90)	Benzo(a)anthracene	9.095	228	99949	10483.9643242 ppb		99
91)	Chrysene	9.148	228	100093	9940.2934038 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.172	149	103865	11991.2349297 ppb		98
93)	Di-n-octyl phthalate	10.372	149	159025	11784.1269342 ppb		99
95)	Benzo(b)fluoranthene	11.001	252	90651	10166.2464040 ppb		100
96)	Benzo(k)fluoranthene	11.054	252	96860	10623.5390277 ppb		99
97)	Benzo(a)pyrene	11.648	252	77895	10777.0927146 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.742	276	69206	10520.1517802 ppb		97
99)	Dibenz(a,h)anthracene	13.789	278	77923	10568.4283014 ppb		98
100)	Benzo(g,h,i)perylene	14.089	276	81414	10423.4691229 ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

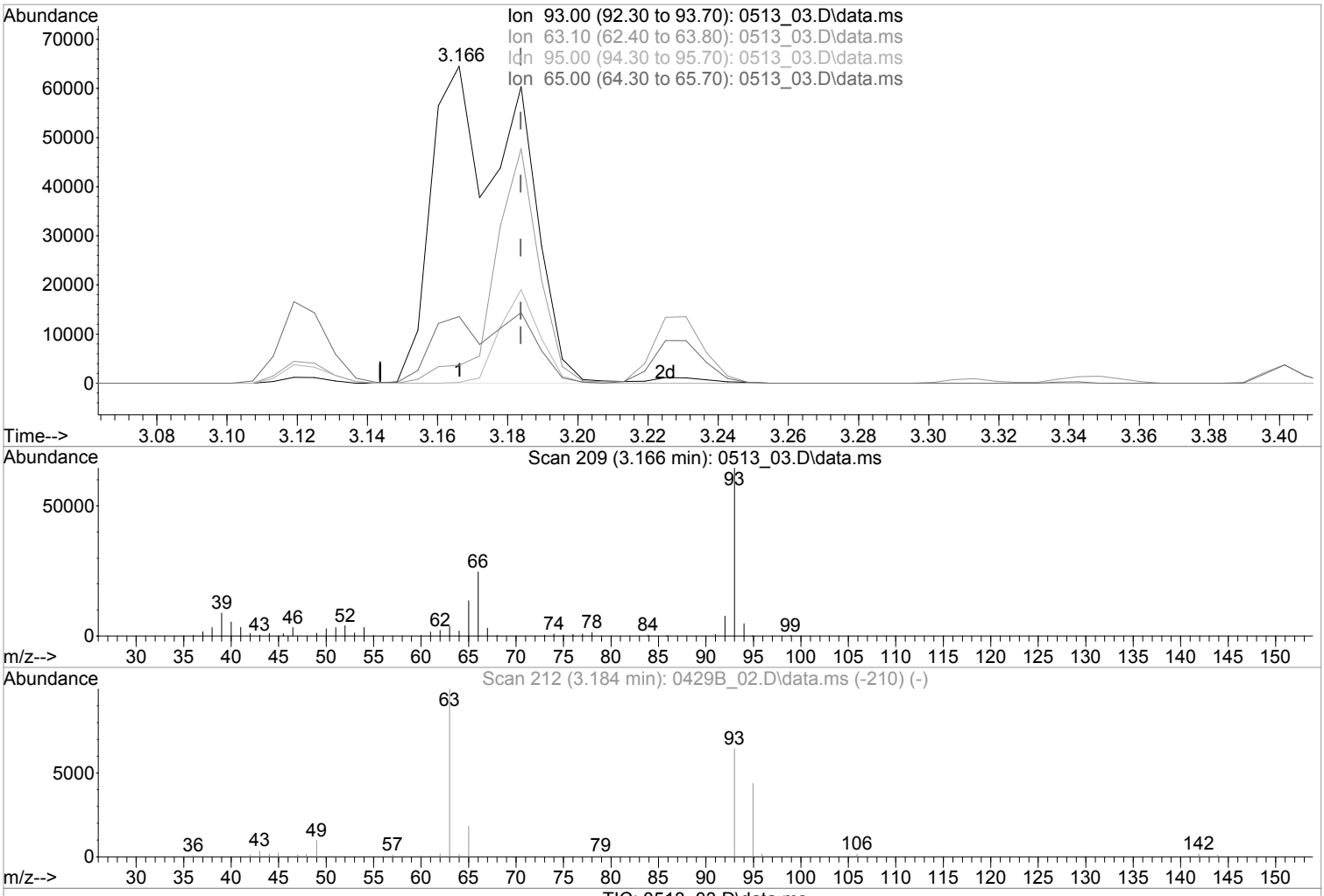
Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 09:43:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 08:22:21 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

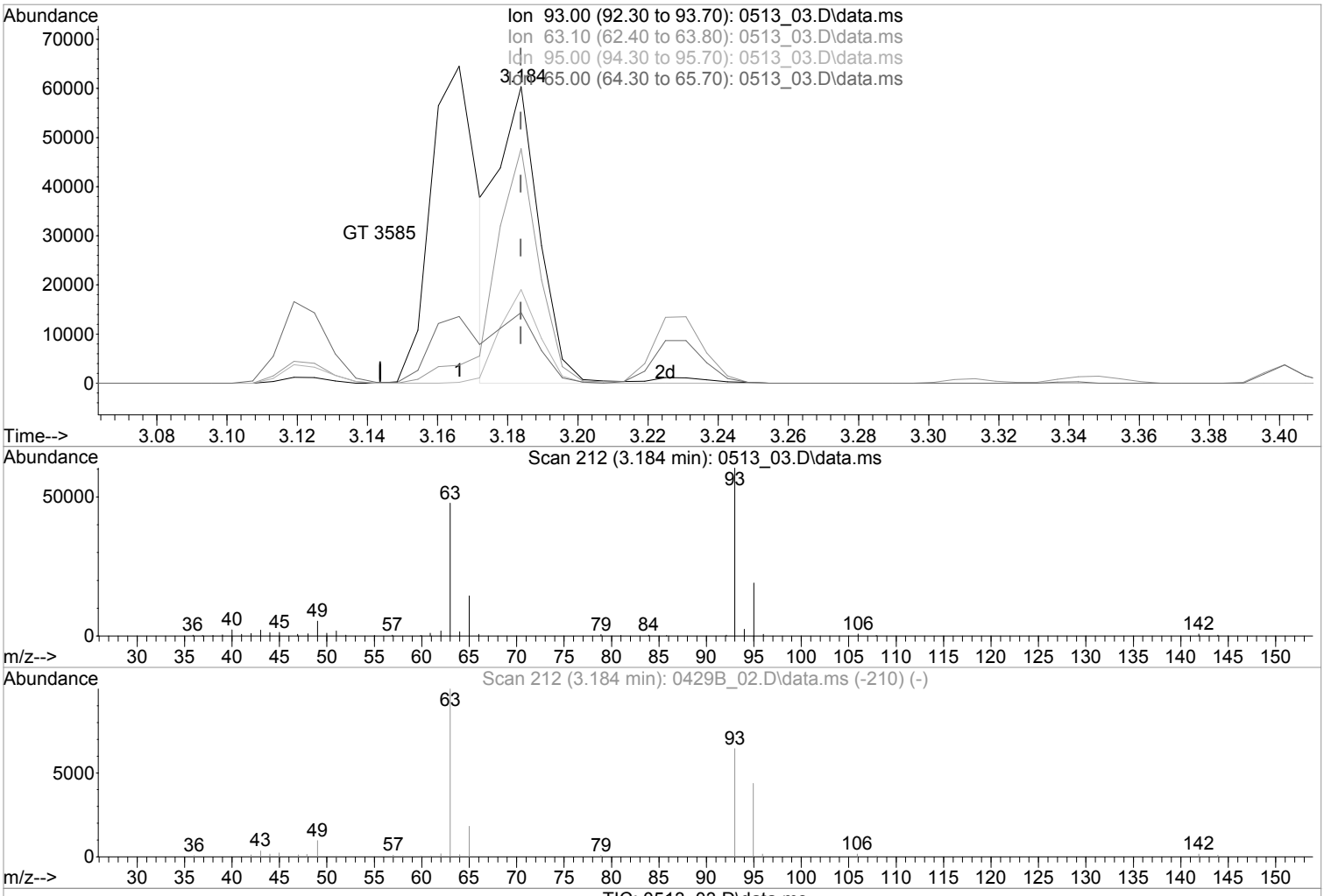
3.166min (-0.018) 23774.2753034 ppb m

response 108624

Ion	Exp%	Act%
93.00	100	100
63.10	76.00	5.69#
95.00	31.90	0.25#
65.00	23.10	21.07

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 08:22:21 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_03.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

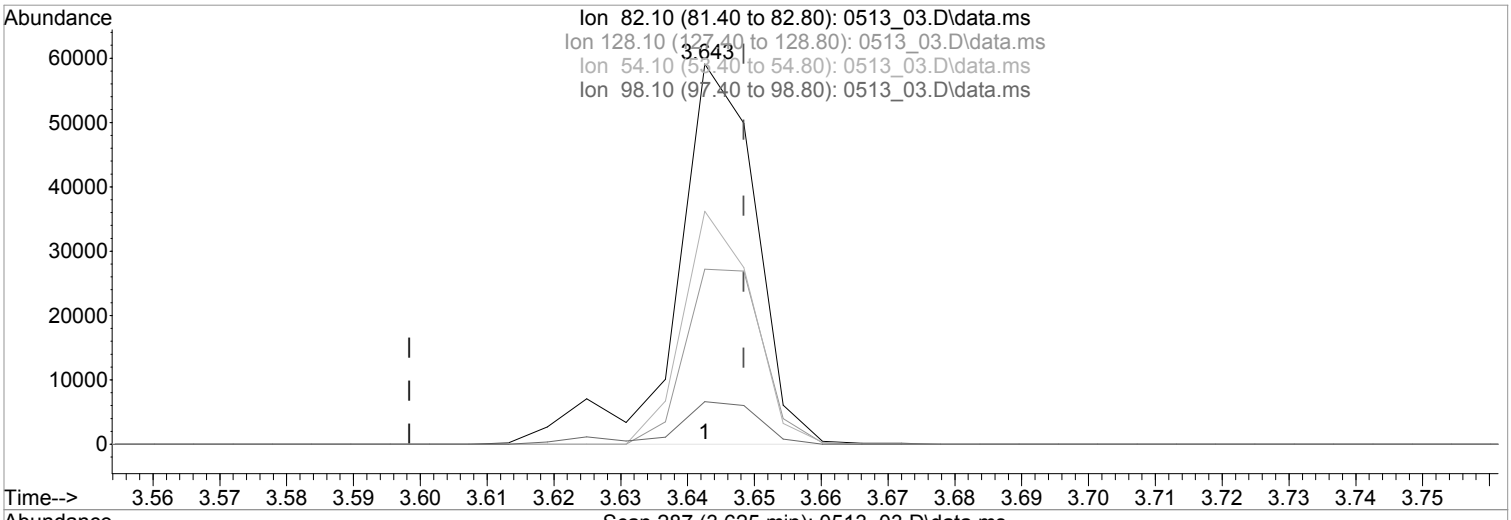
3.184min (+0.000) 10675.4865610 ppb m

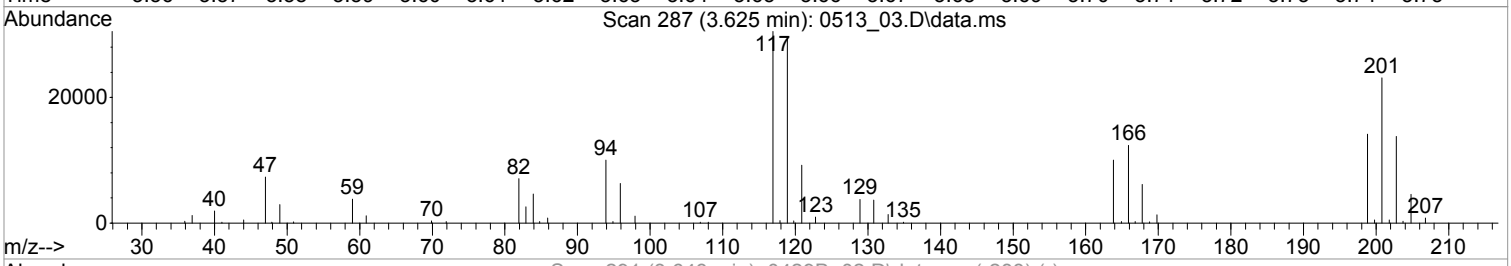
response 48776

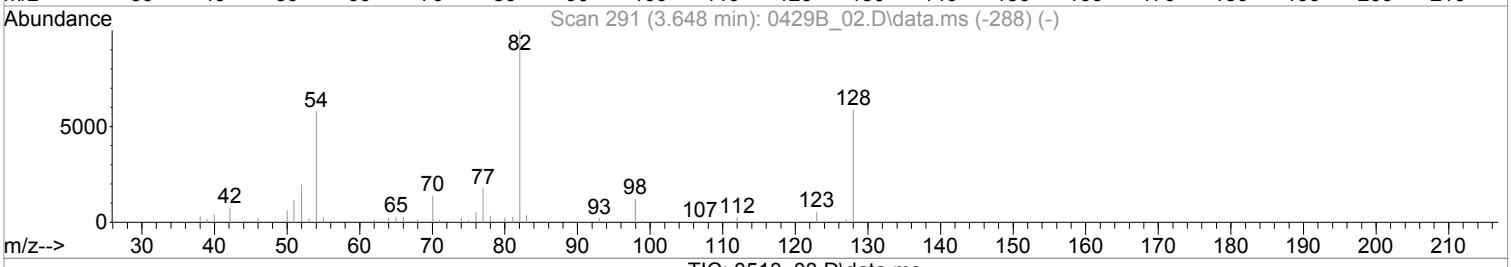
Ion	Exp%	Act%
93.00	100	100
63.10	76.00	79.09
95.00	31.90	31.59
65.00	23.10	23.83

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 08:22:21 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M







TIC: 0513_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.643min (-0.006) 11826.2528531 ppb

Qvalue = 99

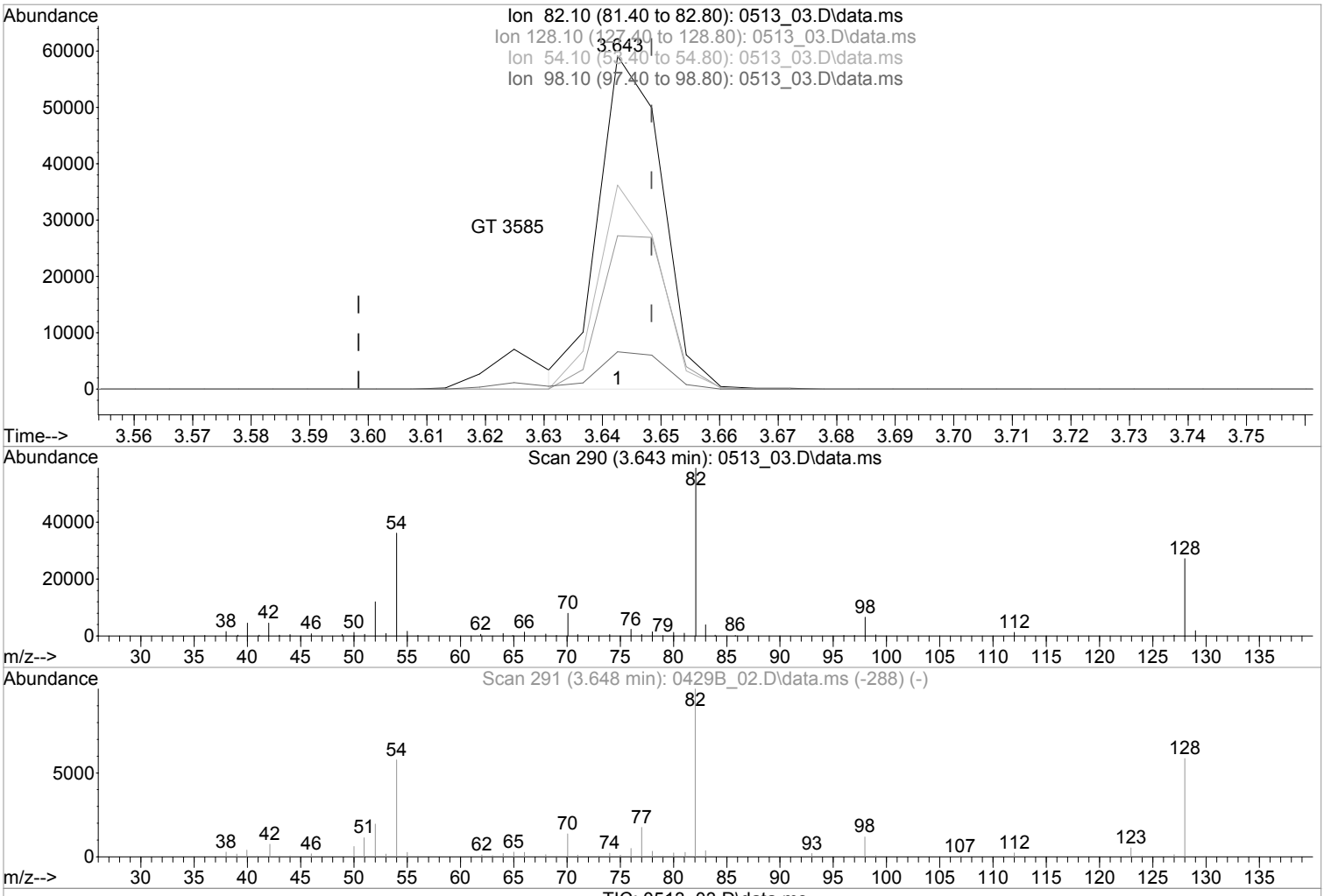
response 49085

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	46.04
54.10	60.00	61.29
98.10	11.40	11.20

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 08:22:21 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.643min (-0.006) 10712.1733340 ppb m

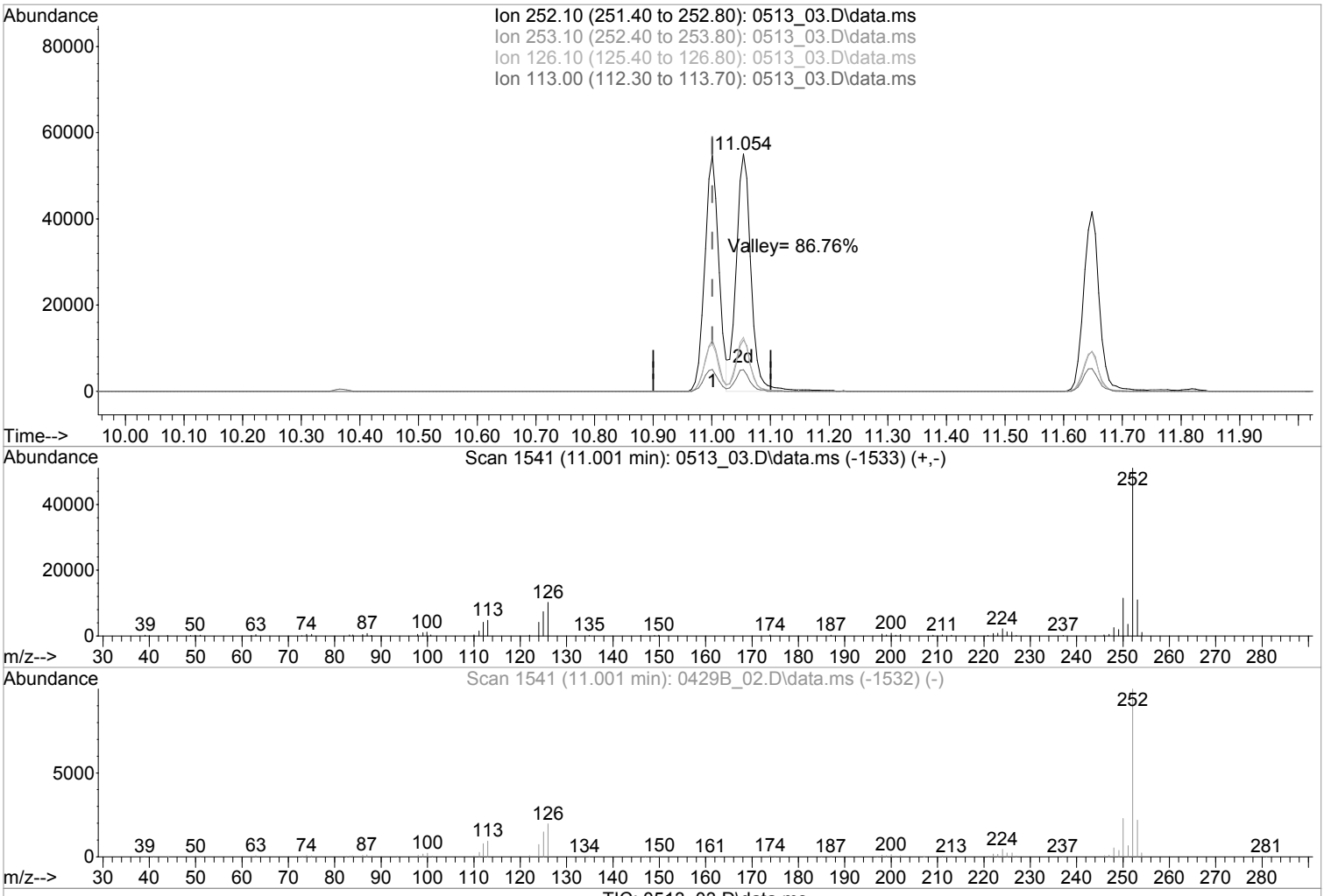
response 44461

Ion	Exp%	Act%
82.10	100	100
128.10	46.80	46.04
54.10	60.00	61.29
98.10	11.40	11.20

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_03.D
Acq On : 13 May 2022 7:03 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22E03609 exp 10/01/22
Misc : SVMS CAL ISTD 22D28021 exp. 10/28/22
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 13 08:22:21 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_03.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.001min (+0.000) 10166.2464040 ppb

Qvalue = 100

response 90651

Ion	Exp%	Act%
252.10	100	100
253.10	21.80	21.60
126.10	20.00	20.04
113.00	9.70	9.38

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1488802	**Calibration (begin) date/time:**	03/31/22 17:24
Instrument ID:	BNAMS24	**Calibration (end) date/time:**	03/31/22 22:23
Lab File ID:	0513_04	**Analysis date/time:**	05/13/22 07:24
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.079140	0.05619249		29	20	10	7.982	79.80	80 - 120

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICVMSC TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 09:49:56 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M

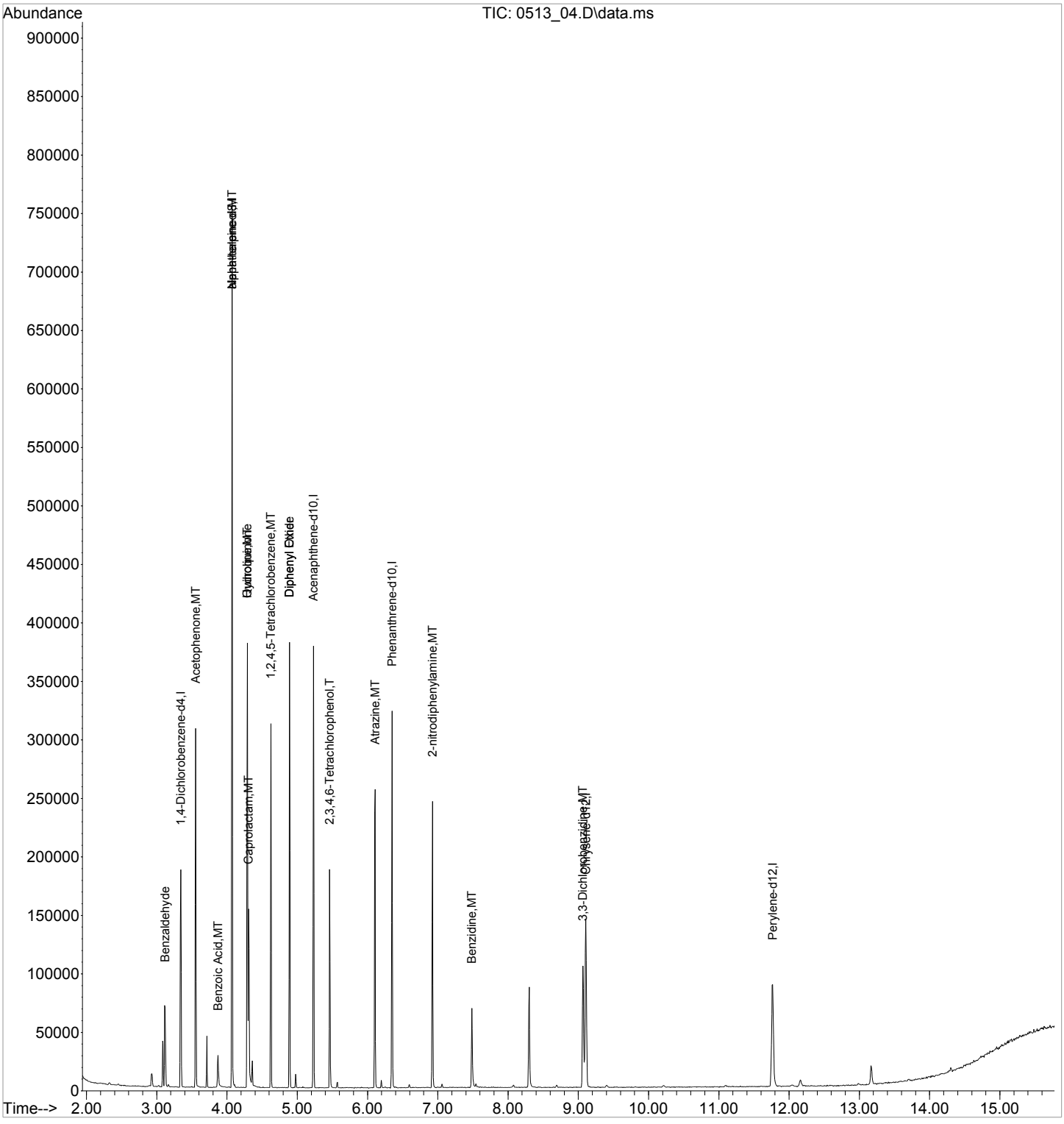
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.343	152	27025	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.072	136	124102	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.231	164	56599	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.348	188	91060	8000.0000000	ppb	0.00
84) Chrysene-d12	9.107	240	62166	8000.0000000	ppb	0.00
94) Perylene-d12	11.766	264	55620	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.119	105	14906	13190.7099744	ppb	99
22) Acetophenone	3.554	105	61611	10591.0663457	ppb	99
31) Benzoic Acid	3.872	105	8717m	7982.2515011	ppb	
33) alpha-terpineol	4.072	59	45598	11928.5683444	ppb	96
37) Hydroquinone	4.290	110	30635m	11316.7862140	ppb	
38) Quinoline	4.290	129	80266	11201.7360890	ppb	97
39) Caprolactam	4.307	113	12884m	13656.1516564	ppb	
43) 1,2,4,5-Tetrachloroben...	4.625	216	35708	10701.7717258	ppb	98
44) Diphenyl Ether	4.890	170	53889	10776.7618912	ug/ml	98
45) Diphenyl Oxide	4.890	170	53889	10776.7618912	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.460	232	16065	10471.0524697	ppb	82
69) Atrazine	6.107	200	23657	11614.5831002	ppb	98
82) 2-nitrodiphenylamine	6.925	167	27007	12901.6079768	ppb	94
85) Benzidine	7.484	184	29654	16358.0343904	ppb	99
89) 3,3-Dichlorobenzidine	9.066	252	30625	11374.3646799	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICVMSC TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

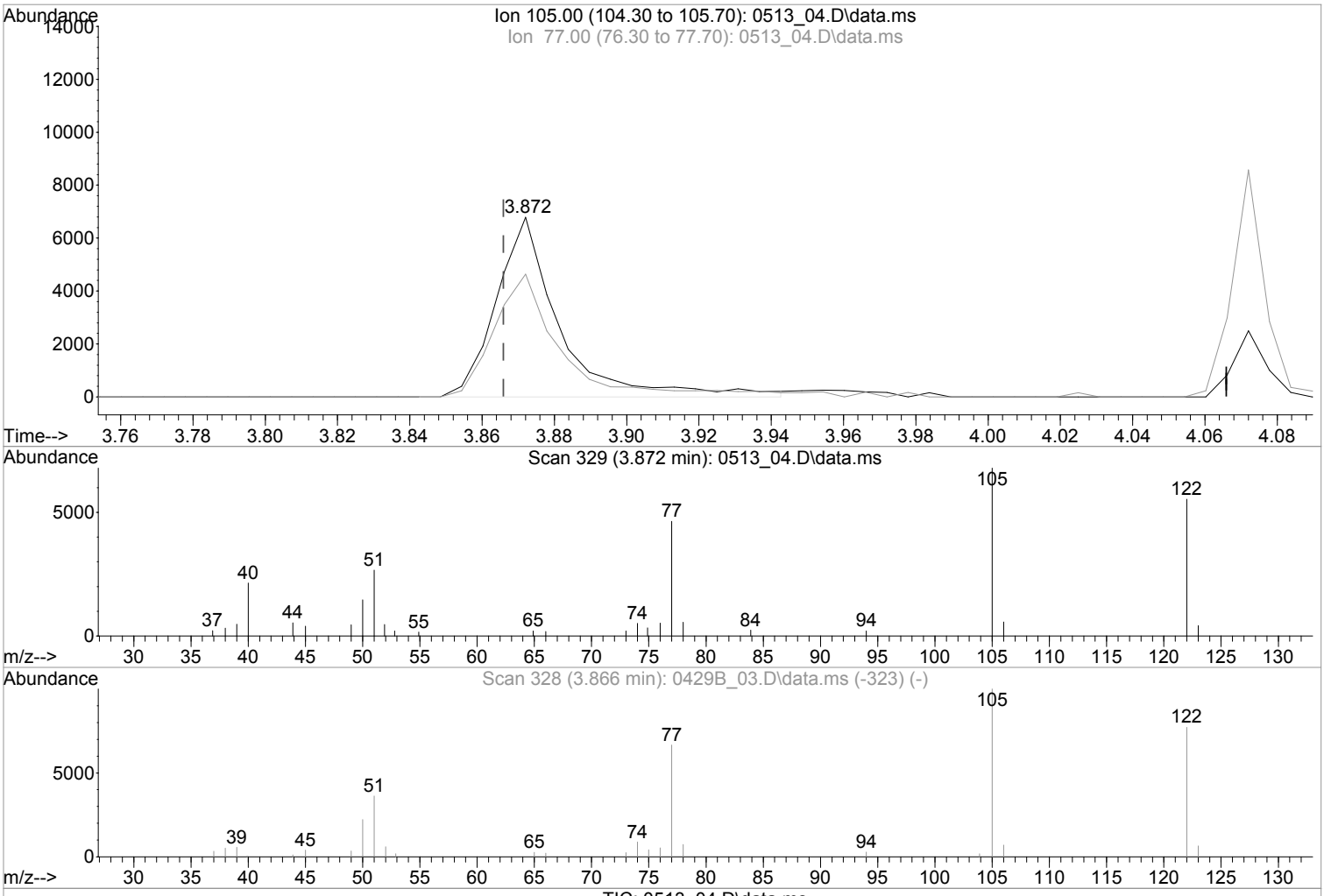
Quant Time: May 13 09:49:56 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(31) Benzoic Acid (MT)

3.872min (+0.006) 7683.9612775 ppb

Qvalue = 100

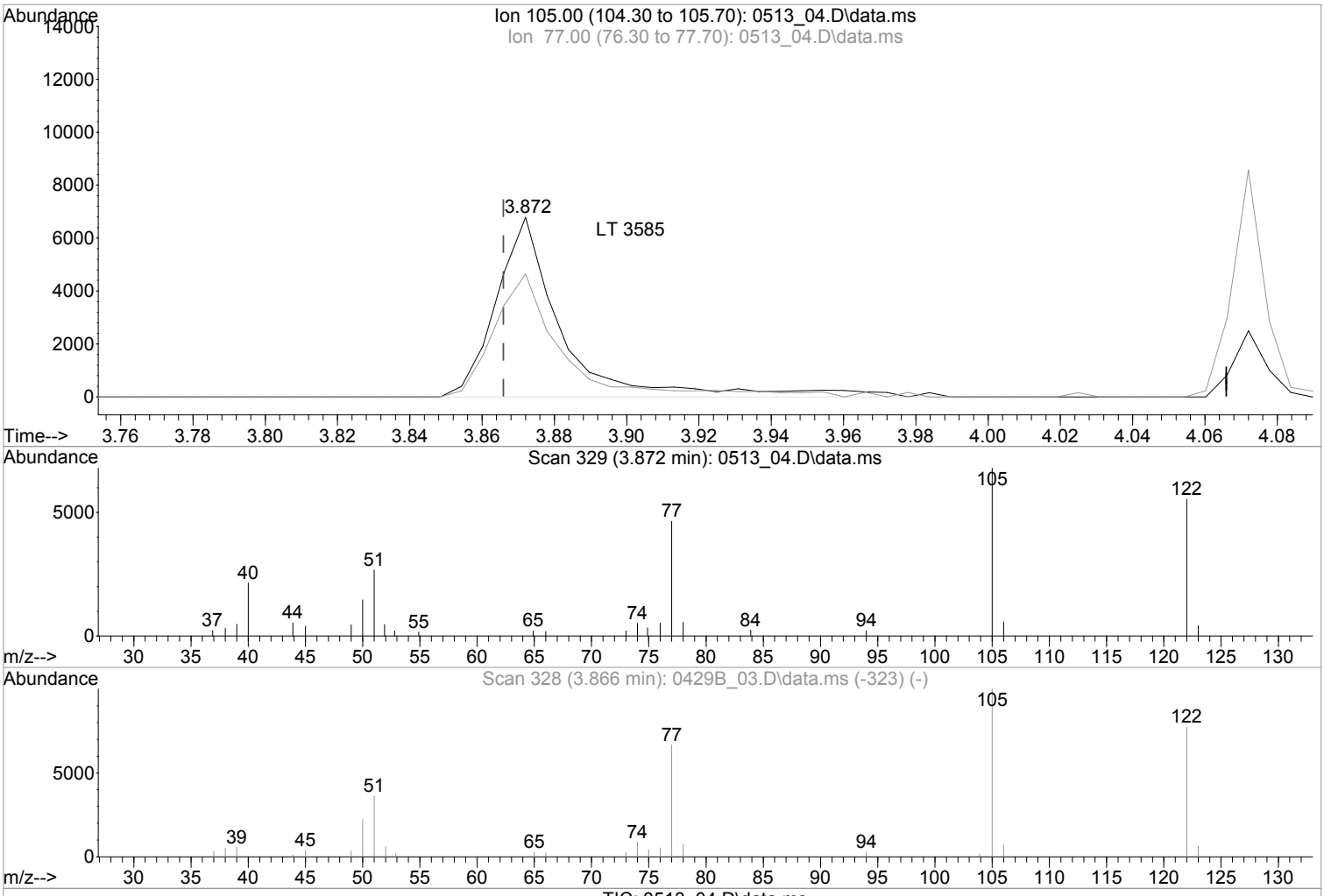
response 8280

Ion	Exp%	Act%
105.00	100	100
77.00	73.10	73.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(31) Benzoic Acid (MT)

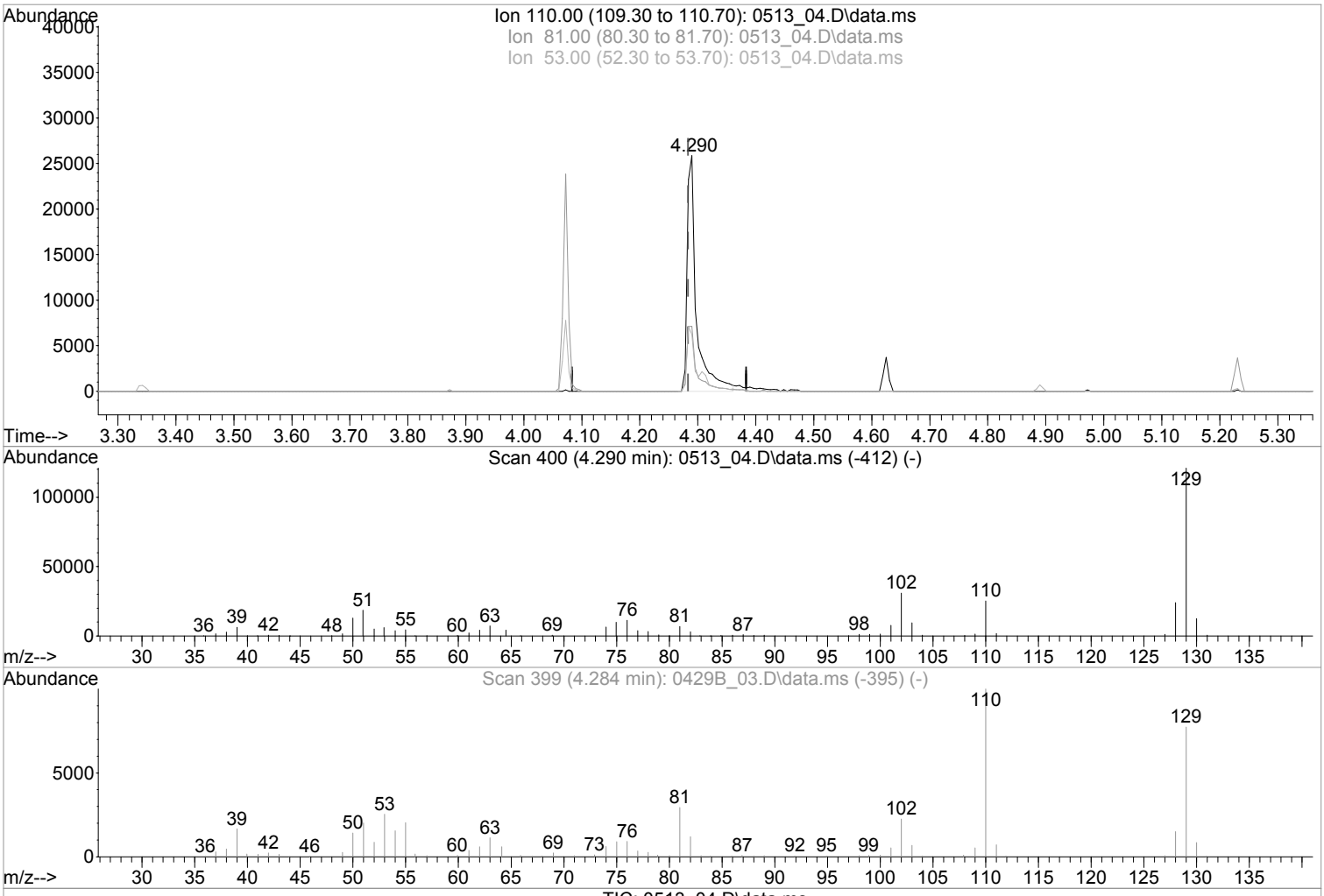
3.872min (+0.006) 7982.2515011 ppb m

response 8717

Ion	Exp%	Act%
105.00	100	100
77.00	73.10	69.39
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(37) Hydroquinone

4.290min (+0.006) 10636.3383535 ppb

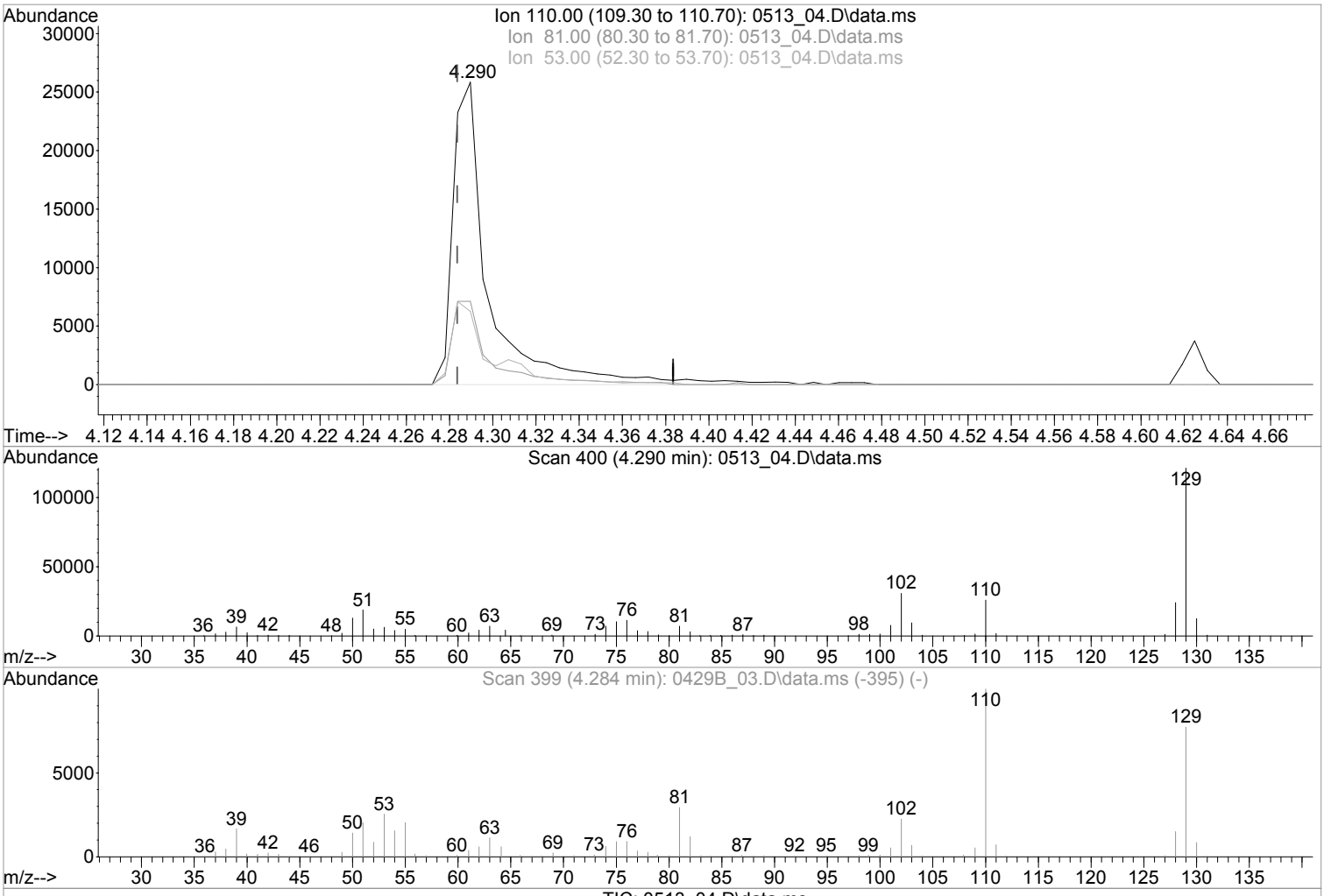
Qvalue = 98

response 28793

Ion	Exp%	Act%
110.00	100	100
81.00	27.40	27.55
53.00	22.10	24.15
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(37) Hydroquinone

4.290min (+0.006) 11316.7862140 ppb m

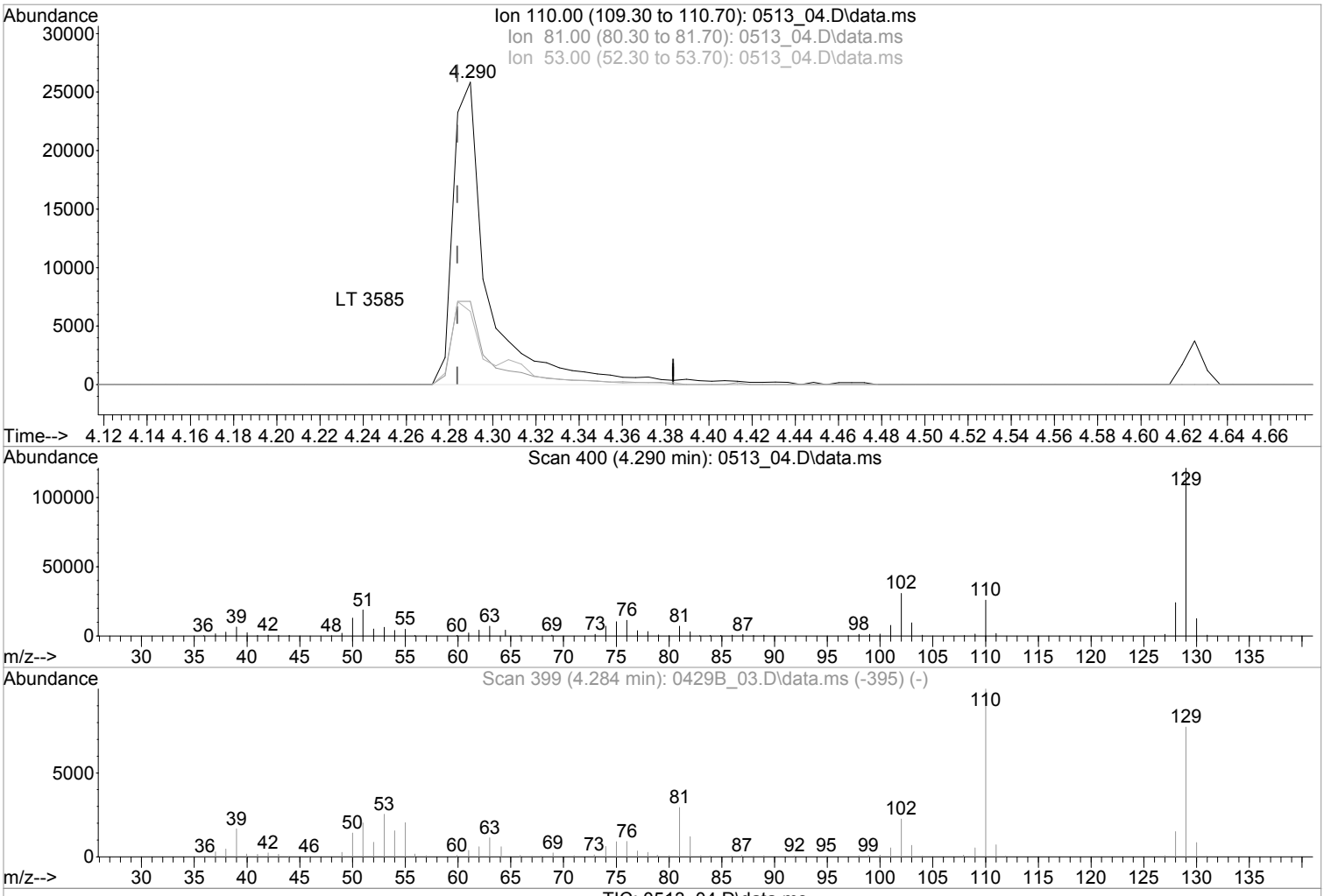
response 30635

Ion	Exp%	Act%
110.00	100	100
81.00	27.40	27.55
53.00	22.10	24.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(37) Hydroquinone

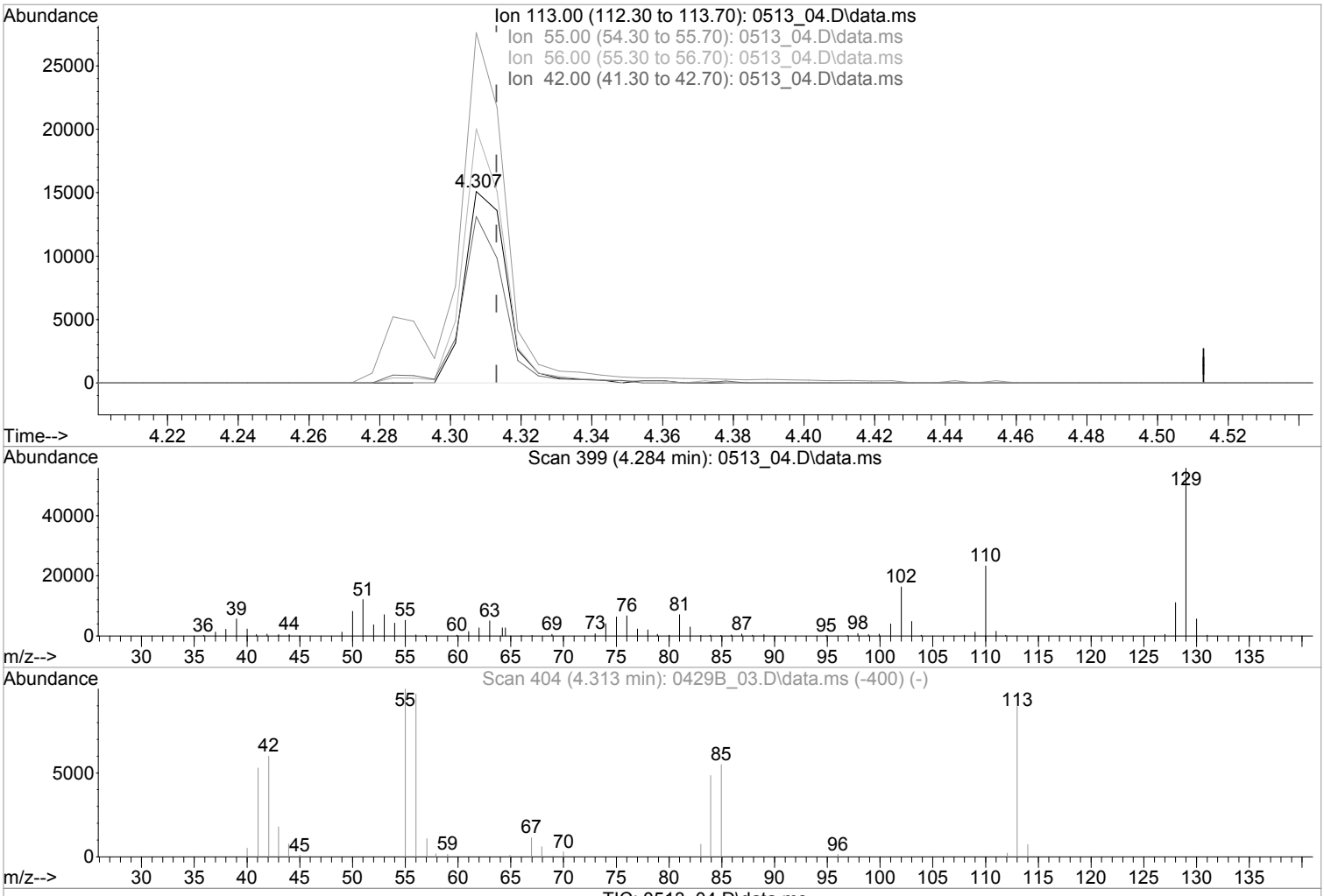
4.290min (+0.006) 11316.7862140 ppb m

response 30635

Ion	Exp%	Act%
110.00	100	100
81.00	27.40	27.55
53.00	22.10	24.15
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 08:22:28 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(39) Caprolactam (MT)

4.307min (-0.006) 13526.8400682 ppb

Qvalue = 76

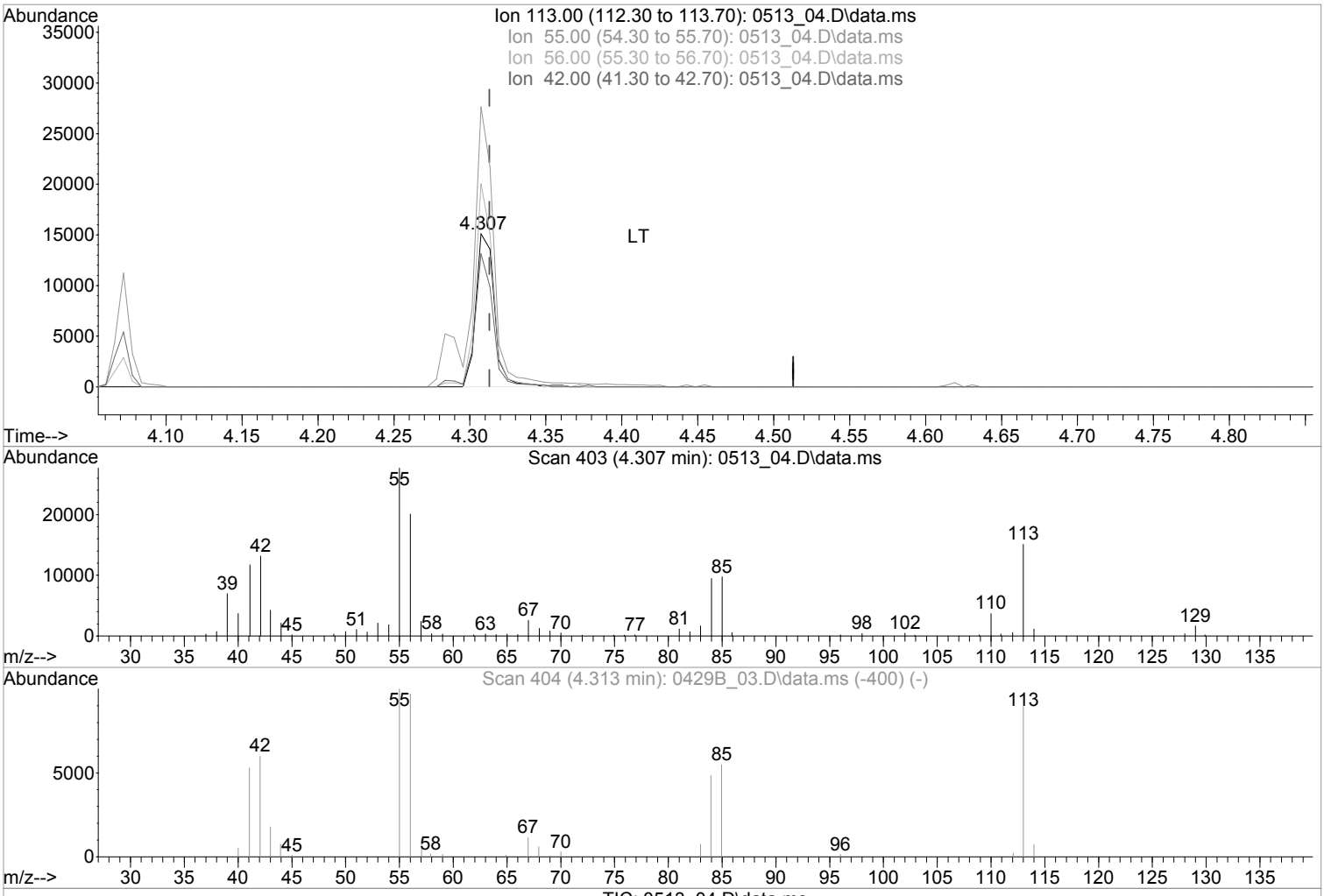
response 12762

Ion	Exp%	Act%
113.00	100	100
55.00	167.40	226.09#
56.00	118.50	127.81
42.00	79.00	86.55

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_04.D
Acq On : 13 May 2022 7:24 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22D19628 exp 9/10/22
Misc : TCL CAL ISTD 22D16229 exp. 10/16/22
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 09:49:56 2022
Quant Method : C:\msdchem\1\methods\S824D29BV.M
Quant Title : 8270 BNA
QLast Update : Fri Apr 29 19:28:33 2022
Response via : Initial Calibration
DataAcq Meth:BNA24PS.M



TIC: 0513_04.D\data.ms

(39) Caprolactam (MT)

4.307min (-0.006) 13656.1516564 ppb m

response 12884

Ion	Exp%	Act%
113.00	100	100
55.00	167.40	223.95#
56.00	118.50	126.60
42.00	79.00	85.73

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	04/23/22 10:42
		Calibration End Date:	05/03/22 11:05

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS20423220423_05577629	0423_05	04/23/22 10:21		
CAL	500	0423_06	04/23/22 10:42		
CAL	1000	0423_07	04/23/22 11:03		
CAL	4000	0423_08	04/23/22 11:24		
CAL	10000	0423_09	04/23/22 11:44		
CAL	20000	0423_10	04/23/22 12:05		
CAL	30000	0423_11	04/23/22 12:26		
CAL	40000	0423_12	04/23/22 12:47		
CAL	50000	0423_13	04/23/22 13:08		
SSCV	BNAMS20423220423_21577629	0423_21	04/23/22 15:54		
TUNE	BNAMS20423220423_27577629	0423_27	05/03/22 08:39		
CAL	1K1	0423_28	05/03/22 08:59		
CAL	4K1	0423_29	05/03/22 09:20		
CAL	10K1	0423_30	05/03/22 09:41		
CAL	20K1	0423_31	05/03/22 10:02		
CAL	30K1	0423_32	05/03/22 10:23		
CAL	40K1	0423_33	05/03/22 10:44		
CAL	50K1	0423_34	05/03/22 11:05		
TUNE	BNAMS20423220423_37577629	0423_37	05/04/22 12:29		
SSCV	BNAMS20423220423_40577629	0423_40	05/04/22 14:52		
TUNE	BNAMS20513220513_02T-1577629	0513_02T-1	05/13/22 06:55		
ICV	BNAMS20513220513_03577629	0513_03	05/13/22 07:16		
ICV	BNAMS20513220513_04577629	0513_04	05/13/22 07:37		
LCS	R3791942-1	0513_05	05/13/22 08:45	1	WG1861596
BLANK	R3791942-2	0513_06	05/13/22 09:05	1	WG1861596
L1488414-09	L1488414-09	0513_08	05/13/22 09:47	1	WG1861596
L1488414-18	L1488414-18	0513_09	05/13/22 10:07	1	WG1861596
L1488414-10	L1488414-10	0513_10	05/13/22 10:28	1	WG1861596
L1488414-15	L1488414-15	0513_11	05/13/22 10:49	1	WG1861596
L1488414-19	L1488414-19	0513_12	05/13/22 11:10	1	WG1861596
L1488414-13	L1488414-13	0513_13	05/13/22 11:31	1	WG1861596
L1488414-16	L1488414-16	0513_14	05/13/22 11:51	1	WG1861596
L1488414-14	L1488414-14	0513_15	05/13/22 12:12	1	WG1861596
L1488414-11	L1488414-11	0513_16	05/13/22 12:33	1	WG1861596
L1488414-12	L1488414-12	0513_17	05/13/22 12:54	1	WG1861596
L1488414-08	L1488414-08	0513_18	05/13/22 13:15	1	WG1861596
BNSF-H360-042922-0-8	L1488802-06	0513_19	05/13/22 13:36	1	WG1861596
L1488414-17	L1488414-17	0513_20	05/13/22 13:57	10	WG1861596
BNSF-E460-042922-0-4	L1488802-05	0513_21	05/13/22 14:17	10	WG1861596
BNSF-D160-042822-0-5	L1488802-04	0513_22	05/13/22 14:38	10	WG1861596
BNSF-E320-042822-0-4	L1488802-03	0513_23	05/13/22 14:59	10	WG1861596
OS	L1488912-11	0513_24	05/13/22 15:20		
MS	R3791942-3	0513_25	05/13/22 15:41	10	WG1861596
MSD	R3791942-4	0513_26	05/13/22 16:02	10	WG1861596
L1487950-04	L1487950-04	0513_30	05/13/22 17:25	10	WG1860625
L1487950-12	L1487950-12	0513_31	05/13/22 17:46	5	WG1860625
L1487950-05	L1487950-05	0513_32	05/13/22 18:07	5	WG1860625
L1487950-08	L1487950-08	0513_33	05/13/22 18:28	5	WG1860625

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	02/09/22 10:43
		Calibration End Date:	02/09/22 15:35

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS40209220209_05577847	0209_05	02/09/22 10:23		
CAL	500	0209_06	02/09/22 10:43		
CAL	1000	0209_07	02/09/22 11:04		
CAL	4000	0209_08	02/09/22 11:25		
CAL	10000	0209_09	02/09/22 11:46		
CAL	20000	0209_10	02/09/22 12:07		
CAL	30000	0209_11	02/09/22 12:27		
CAL	40000	0209_12	02/09/22 12:48		
CAL	50000	0209_13	02/09/22 13:09		
CAL	1K1	0209_14	02/09/22 13:30		
CAL	4K1	0209_15	02/09/22 13:51		
CAL	10K1	0209_16	02/09/22 14:11		
CAL	20K1	0209_17	02/09/22 14:32		
CAL	30K1	0209_18	02/09/22 14:53		
CAL	40K1	0209_19	02/09/22 15:14		
CAL	50K1	0209_20	02/09/22 15:35		
SSCV	BNAMS40209220209_21577847	0209_21	02/09/22 15:56		
SSCV	BNAMS40209220209_22577847	0209_22	02/09/22 16:16		
TUNE	BNAMS40512220512_02T-1577847	0512_02T-1	05/12/22 04:55		
ICV	BNAMS40512220512_03577847	0512_03	05/12/22 05:16		
ICV	BNAMS40512220512_04577847	0512_04	05/12/22 05:37		
LCS	R3791358-1	0512_05	05/12/22 06:09	1	WG1860981
BLANK	R3791358-2	0512_06	05/12/22 06:29	1	WG1860981
LCS	R3791359-1	0512_07	05/12/22 06:50	1	WG1861595
BLANK	R3791359-2	0512_08	05/12/22 07:11	1	WG1861595
L1487950-20	L1487950-20	0512_10	05/12/22 07:53	1	WG1860981
L1488414-01	L1488414-01	0512_11	05/12/22 08:14	1	WG1860981
L1487950-14	L1487950-14	0512_12	05/12/22 08:34	1	WG1860981
L1487950-15	L1487950-15	0512_13	05/12/22 08:55	1	WG1860981
L1487950-17	L1487950-17	0512_14	05/12/22 09:16	1	WG1860981
L1487950-18	L1487950-18	0512_15	05/12/22 09:37	1	WG1860981
L1487950-16	L1487950-16	0512_16	05/12/22 09:58	1	WG1860981
L1488171-03	L1488171-03	0512_17	05/12/22 10:18	1	WG1860981
L1488161-02	L1488161-02	0512_18	05/12/22 10:39	1	WG1860981
L1488171-01	L1488171-01	0512_19	05/12/22 11:00	1	WG1860981
L1488171-04	L1488171-04	0512_20	05/12/22 11:21	1	WG1860981
L1488161-04	L1488161-04	0512_21	05/12/22 11:42	1	WG1860981
L1487950-13	L1487950-13	0512_22	05/12/22 12:03	1	WG1860981
L1488414-07	L1488414-07	0512_23	05/12/22 12:24	1	WG1861595
L1488414-04	L1488414-04	0512_24	05/12/22 12:45	1	WG1861595
OS	L1488414-03	0512_25	05/12/22 13:06		
L1488414-03	L1488414-03	0512_25	05/12/22 13:06	1	WG1861595
MS	R3791359-3	0512_26	05/12/22 13:27	1	WG1861595
MSD	R3791359-4	0512_27	05/12/22 13:47	1	WG1861595
L1488414-05	L1488414-05	0512_32	05/12/22 15:32	1	WG1861595
OS	L1488161-03	0512_33	05/12/22 15:53		
L1488161-03	L1488161-03	0512_33	05/12/22 15:53	5	WG1860981
MS	R3791358-3	0512_34	05/12/22 16:14	5	WG1860981
MSD	R3791358-4	0512_35	05/12/22 16:35	5	WG1860981

ANALYTICAL SEQUENCE

SDG:	L1488802	**Analytical Method:**	8270E
Instrument ID:	BNAMS24	**Calibration Start Date:**	03/31/22 17:24
		Calibration End Date:	03/31/22 22:23

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS240331220331_02576947	0331_02	03/31/22 17:02		
CAL	500	0331_03	03/31/22 17:24		
CAL	1000	0331_04	03/31/22 17:45		
CAL	4000	0331_05	03/31/22 18:07		
CAL	10000	0331_06	03/31/22 18:28		
CAL	20000	0331_07	03/31/22 18:49		
CAL	30000	0331_08	03/31/22 19:11		
CAL	40000	0331_09	03/31/22 19:32		
CAL	50000	0331_10	03/31/22 19:53		
CAL	1K1	0331_11	03/31/22 20:15		
CAL	4K1	0331_12	03/31/22 20:36		
CAL	10K1	0331_13	03/31/22 20:58		
CAL	20K1	0331_14	03/31/22 21:19		
CAL	30K1	0331_15	03/31/22 21:40		
CAL	40K1	0331_16	03/31/22 22:02		
CAL	50K1	0331_17	03/31/22 22:23		
SSCV	BNAMS240331220331_18576947	0331_18	03/31/22 22:44		
SSCV	BNAMS240331220331_19576947	0331_19	03/31/22 23:06		
TUNE	BNAMS240513220513_02T-1576947	0513_02T-1	05/13/22 06:41		
ICV	BNAMS240513220513_03576947	0513_03	05/13/22 07:03		
ICV	BNAMS240513220513_04576947	0513_04	05/13/22 07:24		
LCS	R3791653-1	0513_05	05/13/22 08:37	1	WG1862916
BLANK	R3791653-2	0513_06	05/13/22 08:59	1	WG1862916
OS	L1492515-01	0513_07	05/13/22 09:20		
MS	R3791653-3	0513_08	05/13/22 09:42	1	WG1862916
MSD	R3791653-4	0513_09	05/13/22 10:04	1	WG1862916
L1489296-01	L1489296-01	0513_18	05/13/22 13:20	50	WG1862916
L1492103-05	L1492103-05	0513_22	05/13/22 14:48	5	WG1862916
L1492103-11	L1492103-11	0513_23	05/13/22 15:10	50	WG1862916
L1492103-03	L1492103-03	0513_24	05/13/22 15:32	50	WG1862916
L1492103-09	L1492103-09	0513_25	05/13/22 15:54	50	WG1862916
L1492103-01	L1492103-01	0513_26	05/13/22 16:16	100	WG1862916
L1492103-07	L1492103-07	0513_27	05/13/22 16:38	100	WG1862916
L1487950-19	L1487950-19	0513_30	05/13/22 17:44	10	WG1860981
BNSF-SG11-042822-0-5	L1488802-01	0513_31	05/13/22 18:06	1	WG1861595
BNSF-E380-042822-0-4	L1488802-02	0513_32	05/13/22 18:28	1	WG1861595

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1488802-01,02,03,04,05,06 **Analytical Method:** 8270E

Matrix: Solid **Prep Method:** 3546

Analyte	CAS	MDL	RDL
		mg/kg	*mg/kg*
Benzo(b)fluoranthene	205-99-2	0.006210	0.0333
Benzo(k)fluoranthene	207-08-9	0.005920	0.0333
Benzo(g,h,i)perylene	191-24-2	0.006090	0.0333
Benzo(a)pyrene	50-32-8	0.006190	0.0333
Acenaphthene	83-32-9	0.005390	0.0333
Carbazole	86-74-8	0.0103	0.3330
Chrysene	218-01-9	0.006620	0.0333
Dibenz(a,h)anthracene	53-70-3	0.009230	0.0333
Dibenzofuran	132-64-9	0.0109	0.3330
Acenaphthylene	208-96-8	0.004690	0.0333
Fluoranthene	206-44-0	0.006010	0.0333
Fluorene	86-73-7	0.005420	0.0333
Anthracene	120-12-7	0.005930	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0.009410	0.0333
1-Methylnaphthalene	90-12-0	0.004260	0.0333
2-Methylnaphthalene	91-57-6	0.004320	0.0333
Naphthalene	91-20-3	0.008360	0.0333
Phenanthrene	85-01-8	0.006610	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0.0422	0.3330
Di-n-butyl phthalate	84-74-2	0.0114	0.3330
Di-n-octyl phthalate	117-84-0	0.0225	0.3330
Pyrene	129-00-0	0.006480	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0104	0.3330
Pentachlorophenol	87-86-5	0.008960	0.3330
Phenol	108-95-2	0.0134	0.3330
Benzoic Acid	65-85-0	0.1180	1.67
Benzo(a)anthracene	56-55-3	0.005870	0.0333

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791359-2	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0512_08	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	05/11/22 03:06
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/12/22 07:11
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	0	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	0	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	0	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	0	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	0	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	0	U		0.0225	0.333
Pyrene	129-00-0	0	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 08.D Vial: 13
Acq On : 12 May 2022 7:11 am Operator: 3545
Sample : BLANK 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:32 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	47283	8000.00	ppb	0.00
23) Naphthalene-d8	3.98	136	185022	8000.00	ppb	0.00
46) Acenaphthene-d10	5.14	164	90401	8000.00	ppb	0.00
70) Phenanthrene-d10	6.26	188	167092	8000.00	ppb	0.00
84) Chrysene-d12	9.00	240	143679	8000.00	ppb	0.00
94) Perylene-d12	11.67	264	148068	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.60	112	98166	12776.4038662	ppb	0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 63.88%			
7) Phenol-d5	3.04	99	112586	12208.7614690	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 61.04%			
24) Nitrobenzene-d5	3.56	82	50175	6391.2915165	ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 63.91%			
50) 2-Fluorobiphenyl	4.67	172	88870	5827.5389474	ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 58.28%			
73) 2,4,6-Tribromophenol	5.72	330	22154	11712.3994591	ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 58.56%			
87) p-Terphenyl-d14	7.65	244	131082	6675.8063654	ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 66.76%			

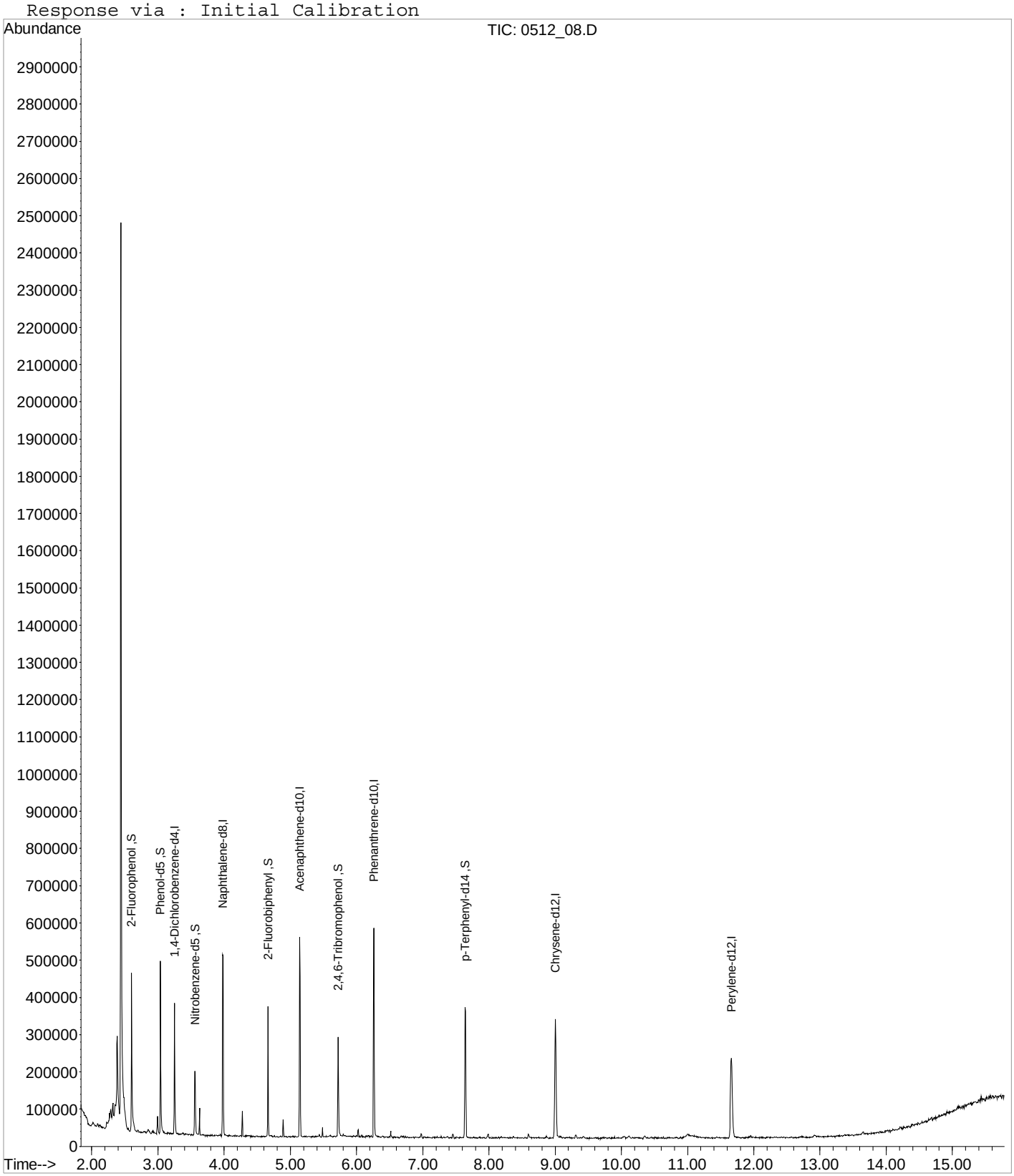
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 08.D Vial: 13
Acq On : 12 May 2022 7:11 am Operator: 3545
Sample : BLANK 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:32 2022 Quant Results File: S804E04BV.RES

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791942-2	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0513_06	**Received Date/Time:**	_____
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 09:05
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	3.99	U		0.118	1.67
Benzo(a)anthracene	56-55-3	9.34	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	12.09	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	9.34	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.66	U		0.00432	0.0333
Naphthalene	91-20-3	4.22	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.93	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.74	U		0.0225	0.333
Pyrene	129-00-0	7.92	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_06.D
Acq On : 13 May 2022 9:05 am
Operator : 974
Sample : BLANK 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 62 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:17:23 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

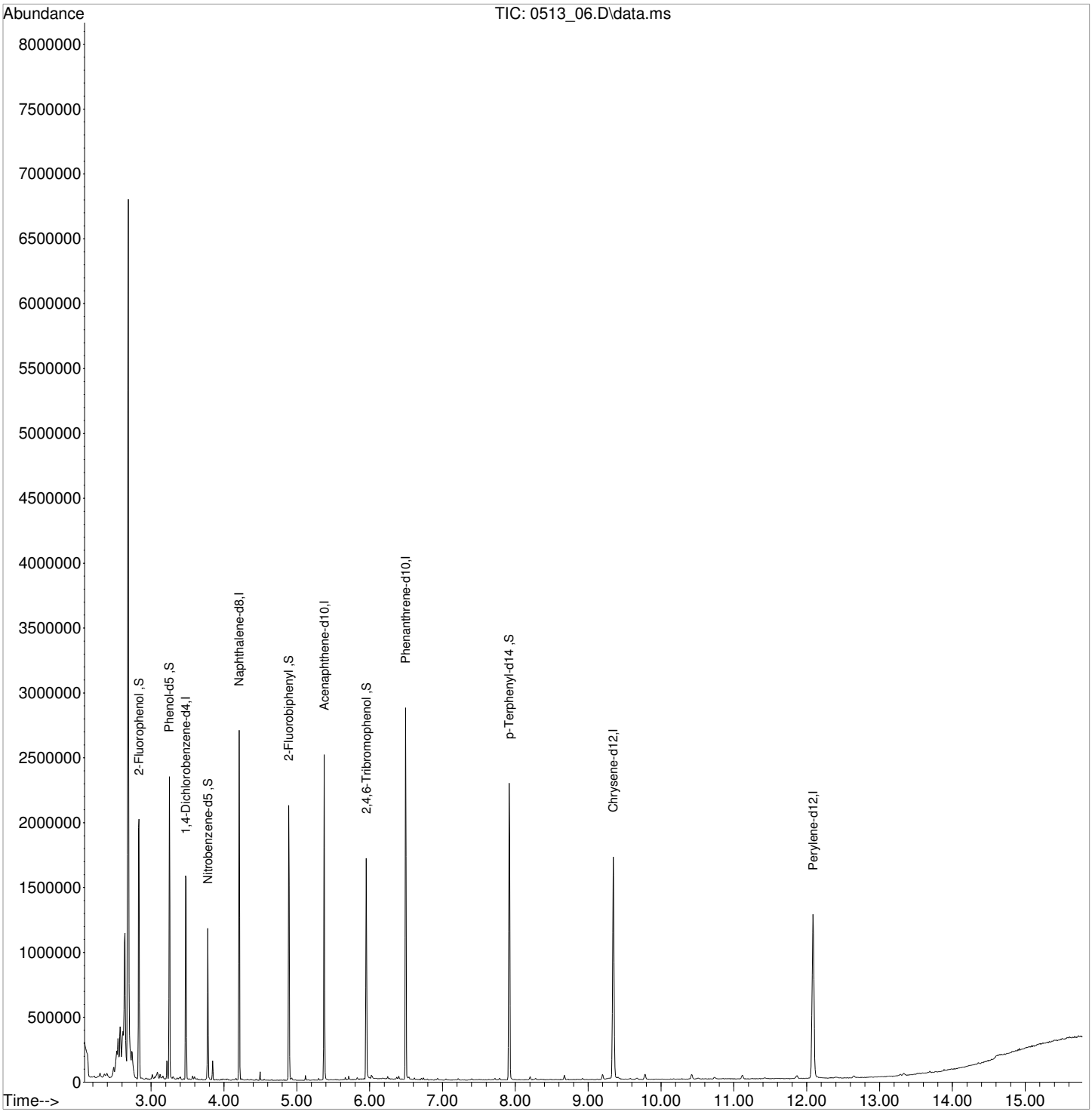
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.480	152	222648	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.208	136	870462	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.378	164	441978	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.494	188	879383	8000.0000000 ppb	0.00
84) Chrysene-d12	9.344	240	830535	8000.0000000 ppb	0.00
94) Perylene-d12	12.088	264	854091	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.834	112	542007	14695.0893702 ppb	0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 73.48%		
7) Phenol-d5	3.251	99	584960	12997.0433790 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 64.99%		
24) Nitrobenzene-d5	3.779	82	263371	6788.3006513 ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 67.88%		
50) 2-Fluorobiphenyl	4.890	172	529147	7070.7111696 ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 70.71%		
73) 2,4,6-Tribromophenol	5.953	330	159908	13786.2766771 ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 68.93%		
87) p-Terphenyl-d14	7.916	244	871998	8018.0393844 ppb	-0.01
Spiked Amount 10000.000	Range 13 - 131		Recovery = 80.18%		
Target Compounds					Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_06.D
Acq On : 13 May 2022 9:05 am
Operator : 974
Sample : BLANK 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 62 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:17:23 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791359-1	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0512_07	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	05/11/22 03:06
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/12/22 06:50
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.16	0.369		0.00539	0.0333
Acenaphthylene	208-96-8	5.05	0.388		0.00469	0.0333
Anthracene	120-12-7	6.32	0.390		0.00593	0.0333
Benzoic Acid	65-85-0	3.79	0.163		0.000	1.67
Benzo(a)anthracene	56-55-3	8.99	0.388		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	10.90	0.392		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	10.96	0.411		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.03	0.433		0.00609	0.0333
Benzo(a)pyrene	50-32-8	11.55	0.436		0.00619	0.0333
Carbazole	86-74-8	6.45	0.370		0.0103	0.333
Chrysene	218-01-9	9.05	0.393		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	13.73	0.425		0.00923	0.0333
Dibenzofuran	132-64-9	5.29	0.366		0.0109	0.333
Fluoranthene	206-44-0	7.27	0.383		0.00601	0.0333
Fluorene	86-73-7	5.54	0.381		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	13.68	0.411		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.49	0.308		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.43	0.299		0.00432	0.0333
Naphthalene	91-20-3	4	0.301		0.00836	0.0333
Phenanthrene	85-01-8	6.28	0.382		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.08	0.454		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.71	0.444		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.27	0.423		0.0225	0.333
Pyrene	129-00-0	7.49	0.374		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.45	0.447		0.0104	0.333
Pentachlorophenol	87-86-5	6.11	0.343		0.00896	0.333
Phenol	108-95-2	3.05	0.361		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:31 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	46267	8000.00 ppb	0.00
23) Naphthalene-d8	3.98	136	218892	8000.00 ppb	0.00
46) Acenaphthene-d10	5.15	164	99352	8000.00 ppb	0.00
70) Phenanthrene-d10	6.26	188	186948	8000.00 ppb	0.00
84) Chrysene-d12	9.00	240	171143	8000.00 ppb	0.00
94) Perylene-d12	11.66	264	165992	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.60	112	80968	10769.4774641 ppb	0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 53.85%		
7) Phenol-d5	3.04	99	98236	10886.5826229 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 54.43%		
24) Nitrobenzene-d5	3.56	82	46140	4967.8939646 ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 49.68%		
50) 2-Fluorobiphenyl	4.67	172	87969	5248.7547441 ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 52.49%		
73) 2,4,6-Tribromophenol	5.72	330	25309	11959.2389754 ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 59.80%		
87) p-Terphenyl-d14	7.65	244	133530	5709.1792324 ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 57.09%		
Target Compounds					Qvalue
2) Pyridine	1.98	79	51324	7169.2952922 ppb	93
3) N-Nitrosodimethylamine	1.97	42	48272	12563.1245014 ppb	97
5) Aniline	3.08	66	40032	9351.6415247 ppb #	46
6) bis(2-Chloroethyl)ether	3.09	93	98300m	14783.3702222 ppb	
8) Phenol	3.05	94	103074m	10844.1347979 ppb	
9) Benzaldehyde	3.03	105	44286	21520.5832640 ppb #	85
10) 2-Chlorophenol	3.14	128	83127	10922.8724645 ppb	90
11) n-Decane	3.13	41	48103	10731.0056727 ppb	94
12) 1,3-Dichlorobenzene	3.22	146	86618	10066.1322564 ppb	97
13) 1,4-Dichlorobenzene	3.26	146	86032	9713.6918984 ppb	96
14) Benzyl Alcohol	3.32	79	63382	10768.1320118 ppb	97
15) 1,2-Dichlorobenzene	3.35	146	83403	10244.1464538 ppb	95
16) bis(2-Chloroisopropyl)ethe	3.38	121	28830	10348.2616441 ppb #	27
17) 2,2-oxybis(1-chloropropane	3.38	121	28830	10348.2616441 ppb #	27
18) 2-Methylphenol	3.37	108	82169	11948.5970848 ppb	91
19) Hexachloroethane	3.54	117	36822	11453.1285553 ppb	95
20) N-Nitrosodi-n-propylamine	3.46	70	64371	12808.7940918 ppb	99
21) 3&4-Methyl phenol	3.45	107	104874	13425.9176910 ppb	89
22) Acetophenone	3.47	105	115439	12064.9920979 ppb #	69
25) Nitrobenzene	3.57	77	95010	10462.3057908 ppb	88
26) Isophorone	3.70	82	173319	10639.3165205 ppb	99
27) 2-Nitrophenol	3.75	139	44636	9751.9378732 ppb	91
28) 2,4-Dimethylphenol	3.76	107	92423	10872.5023438 ppb	92
29) bis(2-Chlorethoxy)methane	3.81	93	103530	9939.5924677 ppb	94
30) 2,4-Dichlorophenol	3.89	162	67133	9374.6321343 ppb	90
31) Benzoic Acid	3.79	105	17477	4879.9917583 ppb	95
32) 1,2,4-Trichlorobenzene	3.94	180	74850	9337.6181409 ppb	94
33) alpha-terpineol	3.98	59	82475	12011.0867762 ppb	100
34) Naphthalene	4.00	128	252351	9053.1317768 ppb	98
35) 4-Chloroaniline	4.02	65	30108	9296.0969043 ppb #	47
36) Hexachloro-1,3-butadiene	4.06	225	43779	10011.3149100 ppb	98
37) Hydroquinone	4.22	110	13924m	2518.2937639 ppb	
38) Quinoline	4.20	129	157956	10829.1580634 ppb	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:31 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Caprolactam	4.23	113	25430	16860.3396574 ppb		85
40)	4-Chloro-3-methylphenol	4.32	107	70726	9797.7205576 ppb		85
41)	2-Methylnaphthalene	4.43	142	163070	8978.0007537 ppb	#	96
42)	1-Methylnaphthalene	4.49	142	157978	9255.1913297 ppb	#	96
43)	1,2,4,5-Tetrachlorobenzene	4.54	216	74549	12723.9850678 ppb		97
44)	Diphenyl Ether	4.80	170	105425	11280.0254218 ug/ml	#	82
45)	Diphenyl Oxide	4.80	170	105425	11280.0254218 ug/ml	#	82
47)	Hexachlorocyclopentadiene	4.53	237	29752	6391.7526740 ppb		96
48)	2,4,6-Trichlorophenol	4.61	196	46532	10798.3397562 ppb		89
49)	2,4,5-Trichlorophenol	4.64	196	43215	9636.2574199 ppb		93
51)	Biphenyl	4.73	154	200830	10791.0088095 ppb		98
52)	2-Chloronaphthalene	4.75	162	155767	10966.9696809 ppb		94
53)	2-Nitroaniline	4.82	138	52594	11945.7823619 ppb	#	73
54)	Acenaphthylene	5.05	152	257572	11656.9403880 ppb		99
55)	Dimethyl phthalate	4.94	163	181484	12333.2828924 ppb		98
56)	2,6-Dinitrotoluene	4.99	165	42554	12473.0216533 ppb		87
57)	3-Nitroaniline	5.11	138	43188	11757.4162973 ppb		96
58)	Acenaphthene	5.16	153	160869	11067.2192288 ppb		94
59)	2,4-Dinitrophenol	5.19	184	8439	4828.4804574 ppb	#	1
60)	Dibenzofuran	5.29	168	221348	10980.4247491 ppb	#	90
61)	2,4-Dinitrotoluene	5.27	165	56964	13332.9288970 ppb	#	73
62)	2,3,4,6-Tetrachlorophenol	5.38	232	32889	11608.4149060 ppb		95
63)	4-Nitrophenol	5.23	139	31750	10464.3708926 ppb		87
64)	Fluorene	5.54	166	187177	11446.9636052 ppb		96
65)	4-Chlorophenyl-phenylether	5.53	204	86392	11141.0622402 ppb		89
66)	Diethyl phthalate	5.44	149	194830	12923.5970449 ppb		99
67)	4-Nitroaniline	5.56	138	45520	13231.0335110 ppb	#	72
68)	Azobenzene	5.66	77	217615	14471.0243983 ppb		92
69)	Atrazine	6.02	200	56001	13783.6436775 ppb		96
71)	4,6-Dinitro-2-methylphenol	5.58	198	23767	9430.7941513 ppb		97
72)	N-Nitrosodiphenylamine	5.62	169	154730	10891.8507496 ppb		98
74)	4-Bromophenyl-phenylether	5.91	248	53788	11666.3576298 ppb		90
75)	Hexachlorobenzene	5.96	284	60678	11827.8396353 ppb		97
76)	n-octadecane	6.15	55	36518	12766.6328451 ppb		97
77)	Pentachlorophenol	6.11	266	29150	10293.2177240 ppb		92
78)	Phenanthrene	6.28	178	282100	11468.8141873 ppb		98
79)	Anthracene	6.32	178	291349	11702.0032588 ppb		99
80)	Carbazole	6.45	167	252174	11101.0871354 ppb		98
81)	Di-n-butyl phthalate	6.71	149	354352	13324.6289479 ppb		98
82)	2-nitrodiphenylamine	6.84	167	70652	14984.6668677 ppb	#	100
83)	Fluoranthene	7.27	202	300378	11495.2322316 ppb		98
85)	Benzidine	7.39	184	110580	10890.8023651 ppb		99
86)	Pyrene	7.49	202	309027	11222.0247085 ppb		98
88)	Benzylbutyl phthalate	8.22	149	149760	13300.1378870 ppb		90
89)	3,3-Dichlorobenzidine	8.97	252	188411	21383.8709432 ppb		98
90)	Benzo(a)anthracene	8.99	228	287450	11664.2957768 ppb		97
91)	Chrysene	9.05	228	281860	11802.1470658 ppb		97
92)	bis(2-Ethylhexyl)phthalate	9.08	149	211507	13637.0259110 ppb		96
93)	Di-n-octyl phthalate	10.27	149	327190	12698.6907432 ppb		100
95)	Benzo(b)fluoranthene	10.90	252	278239	11766.6397564 ppb		92
96)	Benzo(k)fluoranthene	10.96	252	287534	12344.9053277 ppb		95
97)	Benzo(a)pyrene	11.55	252	267902	13080.9402018 ppb		94
98)	Indeno(1,2,3-cd)pyrene	13.68	276	248293	12339.5403730 ppb		96
99)	Dibenz(a,h)anthracene	13.73	278	273678	12761.8467209 ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:31 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

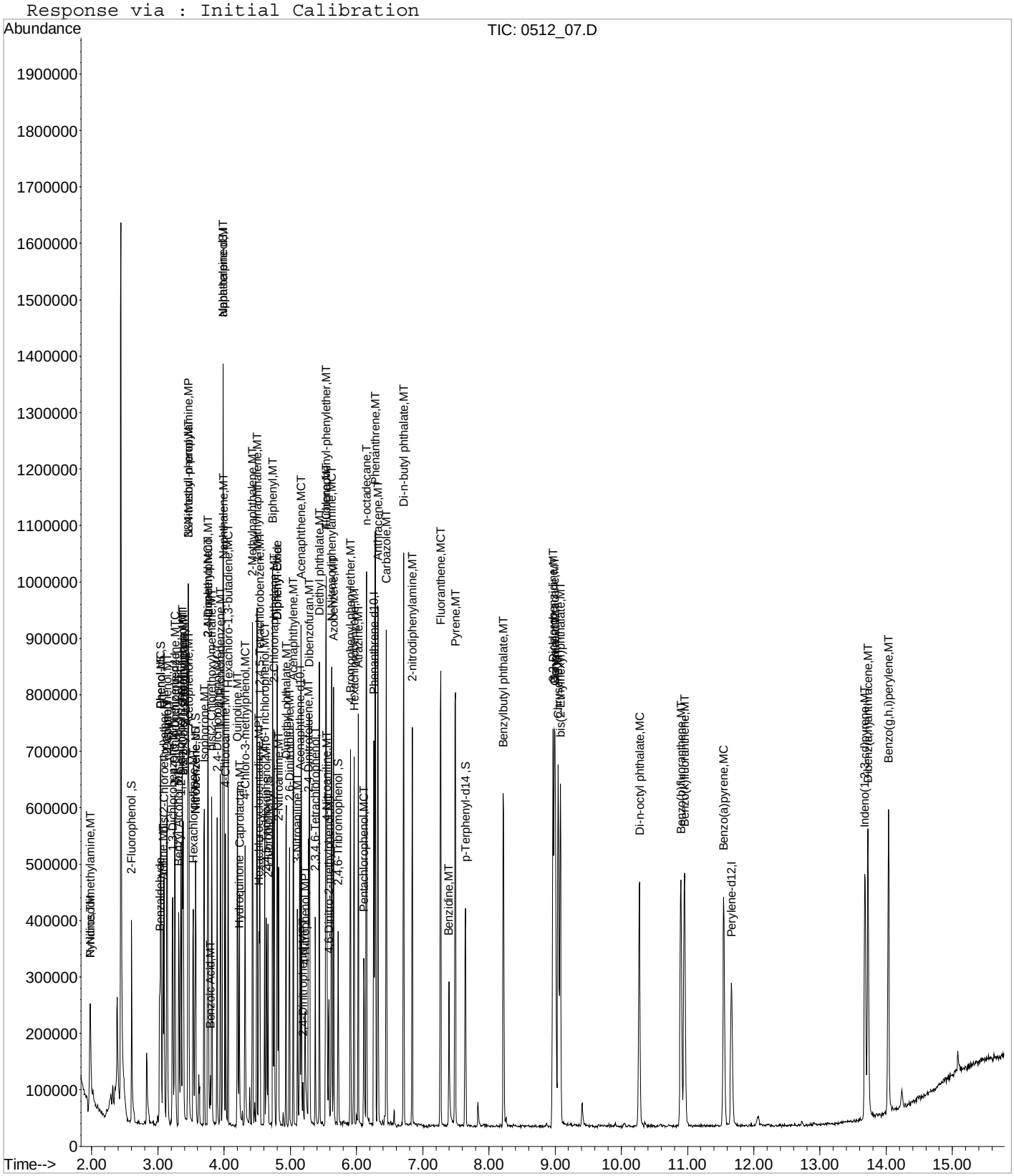
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100)	Benzo(g,h,i)perylene	14.03	276	272201	12997.0187251	ppb	98

(#) = qualifier out of range (m) = manual integration
0512_07.D S804E04BV.M Thu May 12 17:31:41 2022 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:31 2022 Quant Results File: S804E04BV.RES

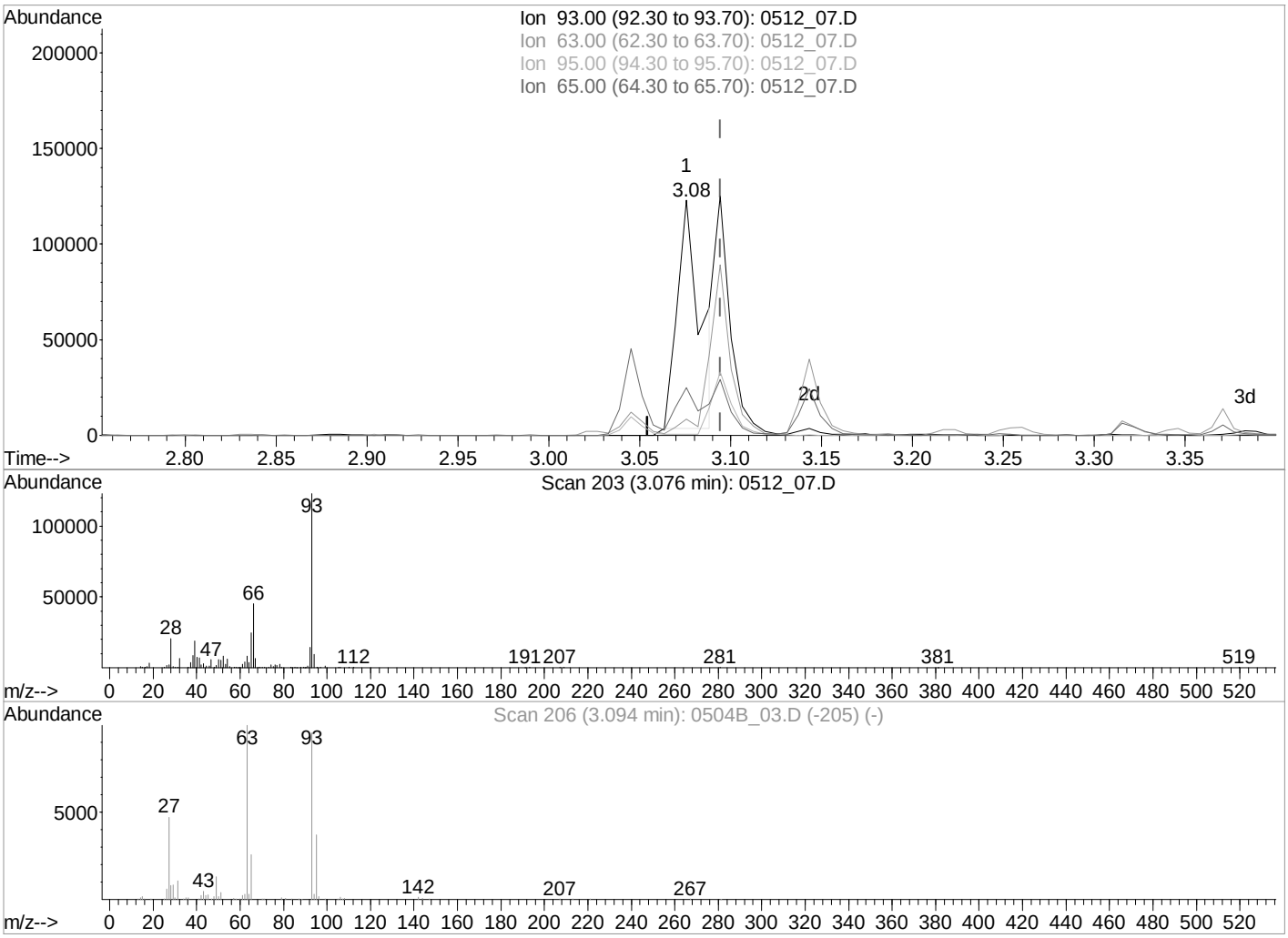
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 8:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.08min (-0.018) 15855.9541126 ppb

Qvalue = 37

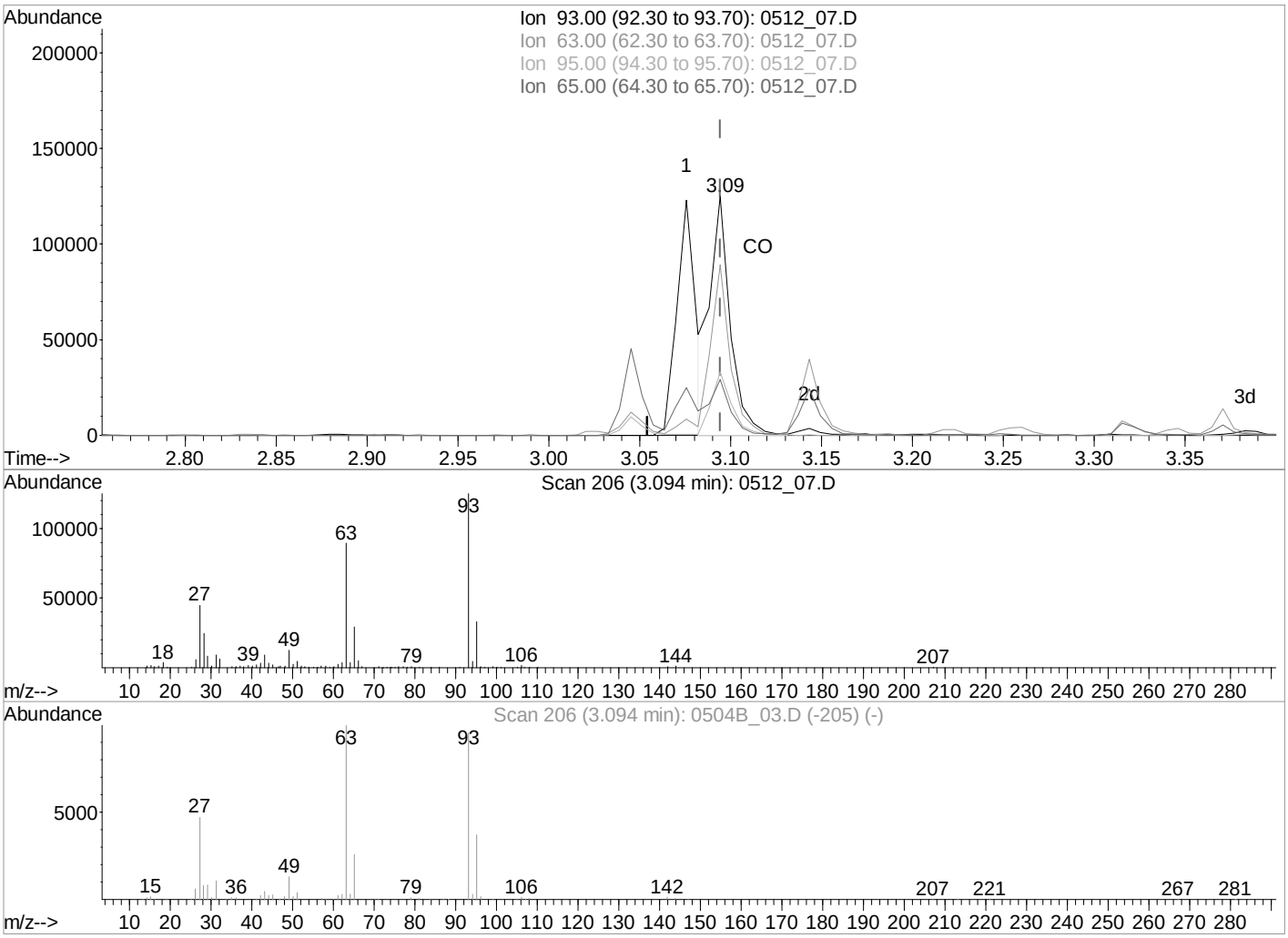
response 105432

Ion	Exp%	Act%
93.00	100	100
63.00	76.20	6.24#
95.00	30.20	0.00#
65.00	24.00	18.49

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (-0.000) 14783.3702222 ppb m

response 98300

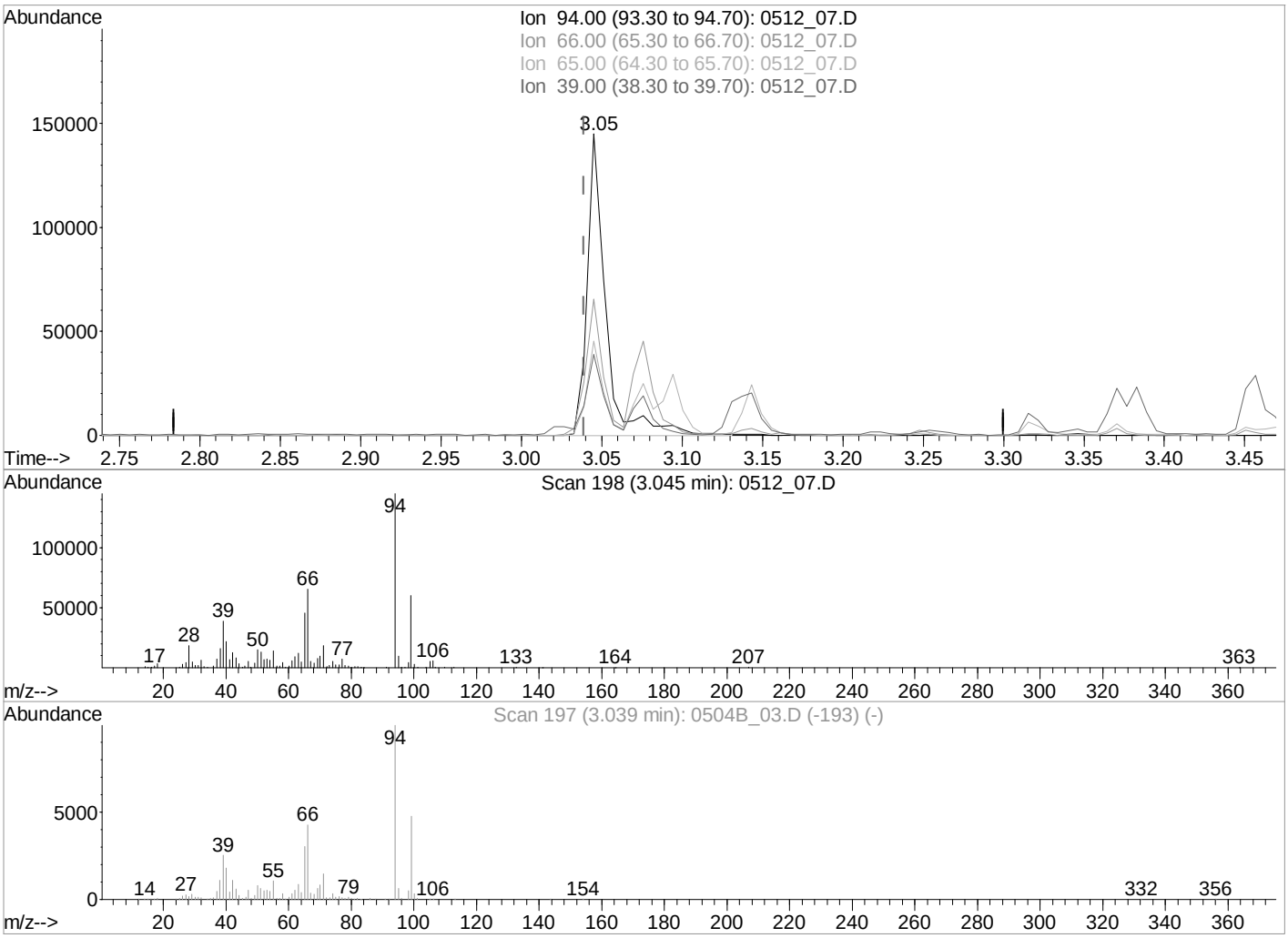
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	71.30
95.00	30.20	26.46
65.00	24.00	23.37

0512_07.D S804E04BV.M Thu May 12 17:30:42 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_07.D

(8) Phenol (MC)

3.05min (+0.006) 12199.2045167 ppb

Qvalue = 90

response 115954

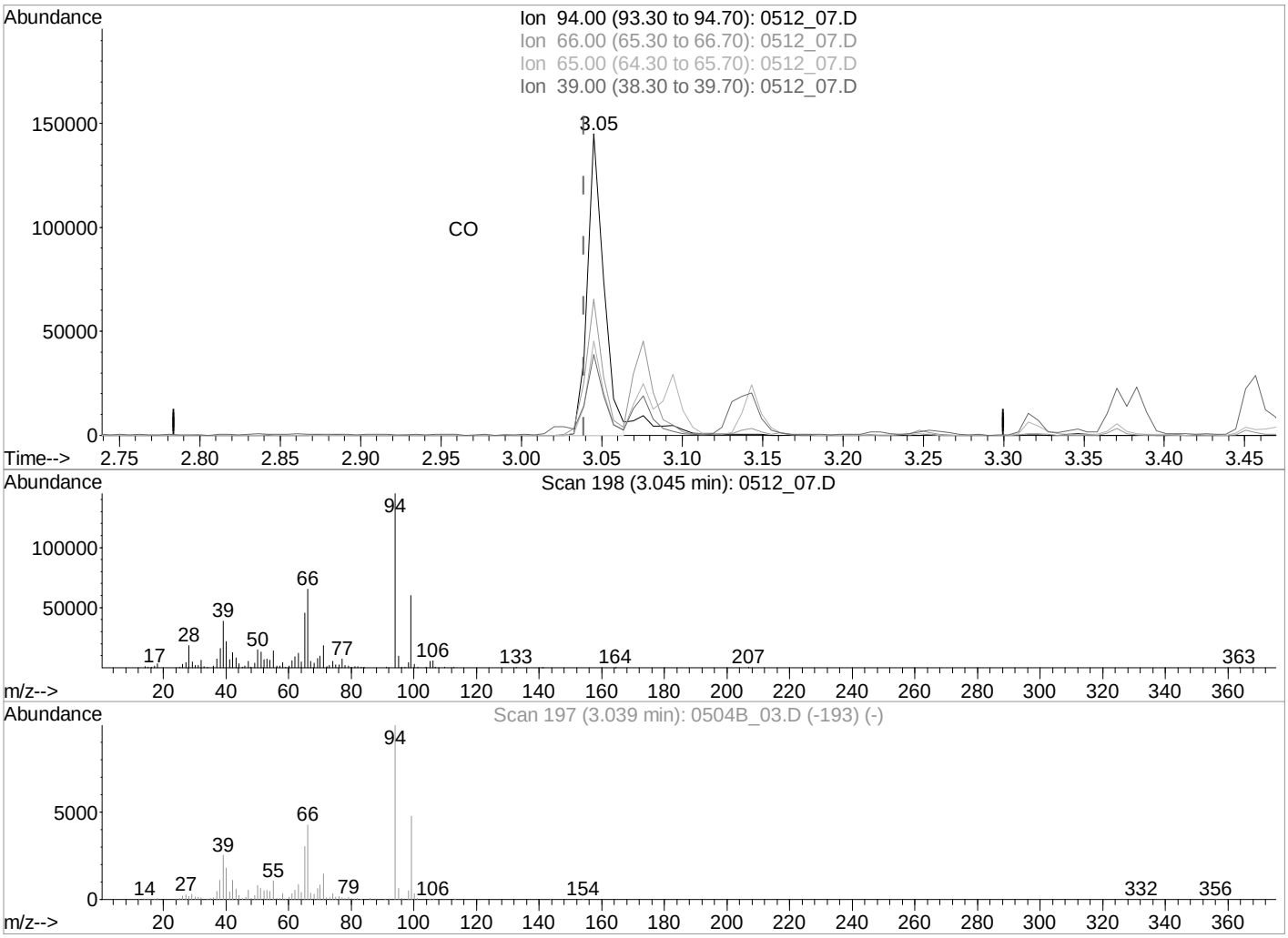
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	45.18
65.00	27.70	31.21
39.00	22.50	23.91

0512_07.D S804E04BV.M Thu May 12 17:30:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_07.D

(8) Phenol (MC)

3.05min (+0.006) 10844.1347979 ppb m

response 103074

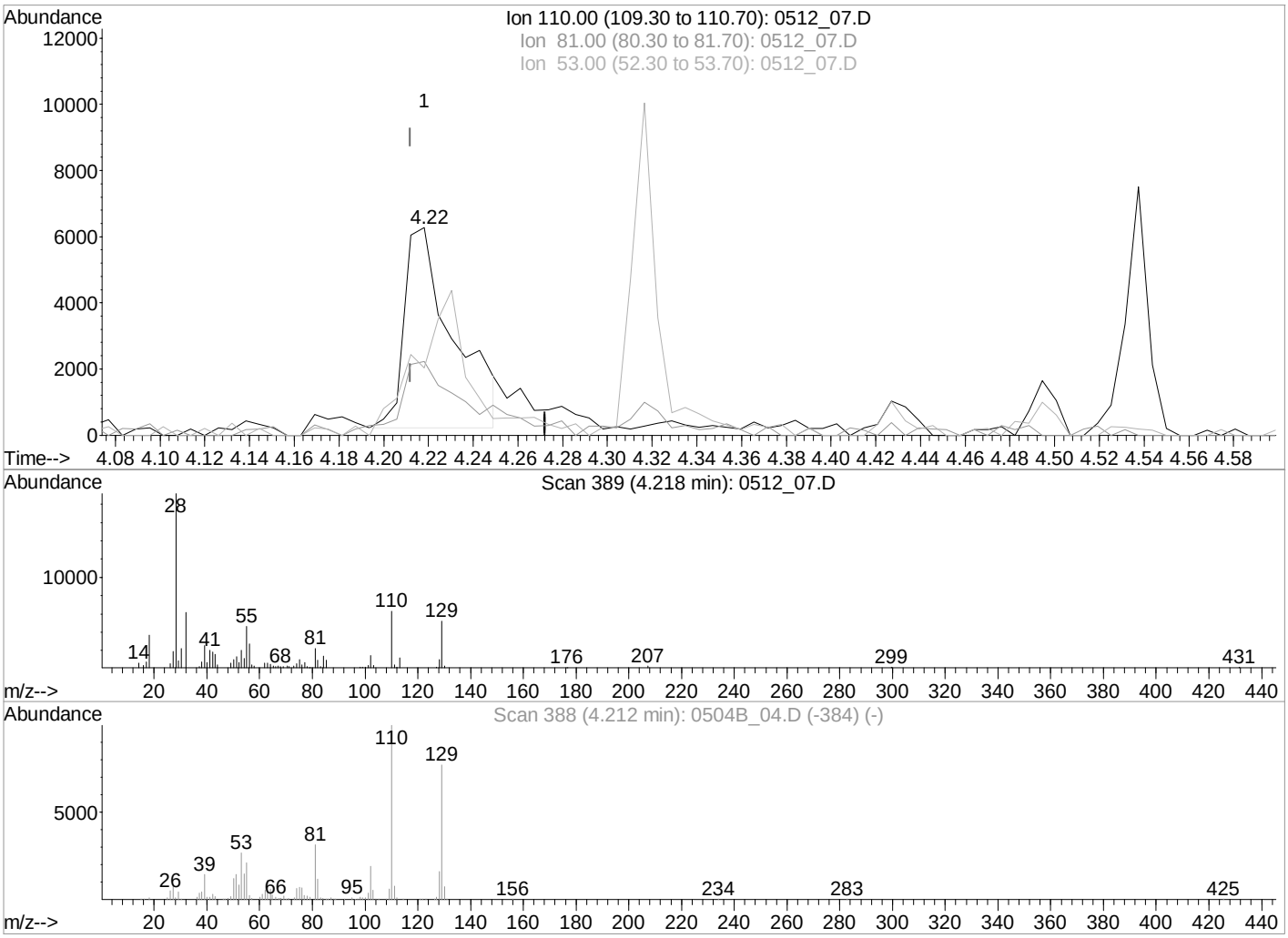
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	45.18
65.00	27.70	31.21
39.00	22.50	26.75

0512_07.D S804E04BV.M Thu May 12 17:30:51 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_07.D

(37) Hydroquinone

4.22min (+0.006) 1484.0512414 ppb

Qvalue = 91

response 9255

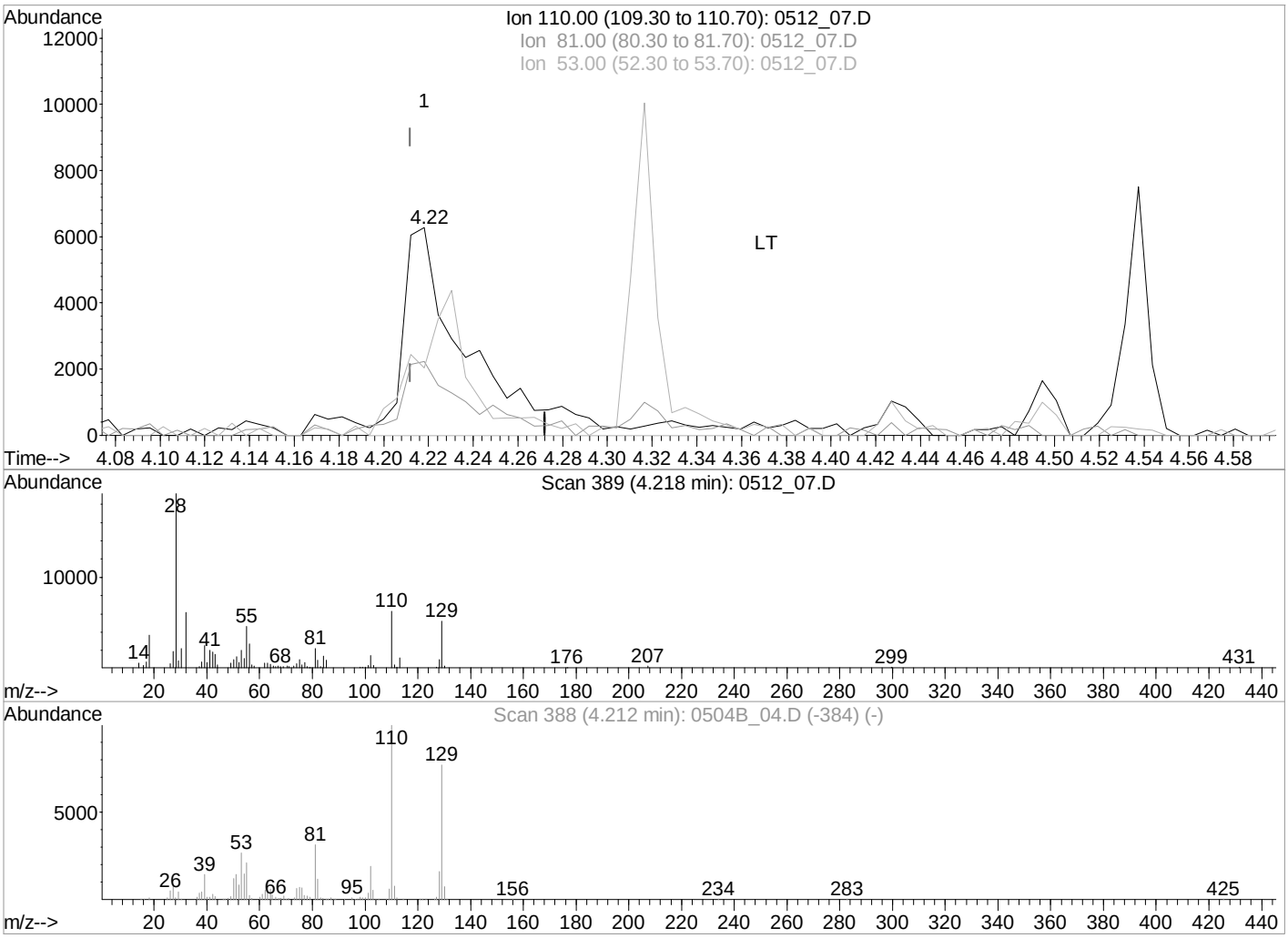
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	32.05
53.00	25.90	33.57
0.00	0.00	0.00

0512_07.D S804E04BV.M Thu May 12 17:31:10 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 07.D Vial: 12
Acq On : 12 May 2022 6:50 am Operator: 3545
Sample : LCS 1x WG1861595 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 12 17:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_07.D

(37) Hydroquinone

4.22min (+0.006) 2518.2937639 ppb m

response 13924

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	35.52
53.00	25.90	32.43
0.00	0.00	0.00

0512_07.D S804E04BV.M Thu May 12 17:31:15 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791942-1	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0513_05	**Received Date/Time:**	_____
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 08:45
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.492		0.00539	0.0333
Acenaphthylene	208-96-8	5.28	0.544		0.00469	0.0333
Anthracene	120-12-7	6.56	0.535		0.00593	0.0333
Benzoic Acid	65-85-0	4.01	0.542		0.000	1.67
Benzo(a)anthracene	56-55-3	9.34	0.568		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	11.32	0.568		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	11.38	0.554		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.33	0.572		0.00609	0.0333
Benzo(a)pyrene	50-32-8	11.99	0.627		0.00619	0.0333
Carbazole	86-74-8	6.68	0.527		0.0103	0.333
Chrysene	218-01-9	9.40	0.549		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	14.04	0.570		0.00923	0.0333
Dibenzofuran	132-64-9	5.52	0.512		0.0109	0.333
Fluoranthene	206-44-0	7.54	0.539		0.00601	0.0333
Fluorene	86-73-7	5.78	0.519		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	14	0.624		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.73	0.410		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.66	0.404		0.00432	0.0333
Naphthalene	91-20-3	4.23	0.390		0.00836	0.0333
Phenanthrene	85-01-8	6.52	0.521		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.43	0.584		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.94	0.545		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.67	0.625		0.0225	0.333
Pyrene	129-00-0	7.77	0.551		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.67	0.498		0.0104	0.333
Pentachlorophenol	87-86-5	6.34	0.573		0.00896	0.333
Phenol	108-95-2	3.26	0.475		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:16:56 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.480	152	219183	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.208	136	1030592	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	451496	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.500	188	897630	8000.0000000	ppb		0.00
84) Chrysene-d12	9.361	240	896973	8000.0000000	ppb		0.01
94) Perylene-d12	12.099	264	892854	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.828	112	561103	15453.3221501	ppb		0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 77.27%				
7) Phenol-d5	3.251	99	617181	13929.7357521	ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 69.65%				
24) Nitrobenzene-d5	3.779	82	256717m	5588.6999670	ppb		0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 55.89%				
50) 2-Fluorobiphenyl	4.896	172	542177	7092.0958162	ppb		0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 70.92%				
73) 2,4,6-Tribromophenol	5.959	330	179635	15172.1966746	ppb		0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 75.86%				
87) p-Terphenyl-d14	7.928	244	921376	7844.5522572	ppb		0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 78.45%				
Target Compounds							Qvalue
2) Pyridine	2.258	79	335730	8024.6307380	ppb		96
3) N-Nitrosodimethylamine	2.240	42	256941	13585.3430329	ppb		99
5) Aniline	3.298	66	250858	12062.8527951	ppb	#	84
6) bis(2-Chloroethyl)ether	3.315	93	468743m	13286.7697022	ppb		
8) Phenol	3.262	94	646411	14249.1373407	ppb		94
9) Benzaldehyde	3.251	105	440592	35719.1405396	ppb		95
10) 2-Chlorophenol	3.368	128	546490	14792.1096829	ppb		94
11) n-Decane	3.356	41	234319	11050.9387605	ppb	#	95
12) 1,3-Dichlorobenzene	3.450	146	550811	13336.2072722	ppb		98
13) 1,4-Dichlorobenzene	3.486	146	572081	13668.6506677	ppb		97
14) Benzyl Alcohol	3.538	79	421286	13697.7549715	ppb		99
15) 1,2-Dichlorobenzene	3.574	146	546075	13822.0522678	ppb		99
16) bis(2-Chloroisopropyl)...	3.603	121	176697	13634.8096982	ppb		96
17) 2,2-oxybis(1-chloropro...	3.603	121	176697	13634.8096982	ppb		96
18) 2-Methylphenol	3.585	108	475194	14193.9311131	ppb		98
19) Hexachloroethane	3.762	117	215060	13728.8388930	ppb		99
20) N-Nitrosodi-n-propylamine	3.679	70	384141	14299.1683533	ppb		98
21) 3&4-Methyl phenol	3.668	107	567008	14944.4490760	ppb		91
22) Acetophenone	3.691	105	697730	13972.6062930	ppb		99
25) Nitrobenzene	3.791	77	544787	11900.2176510	ppb		98
26) Isophorone	3.920	82	1019803	12297.8142471	ppb		99
27) 2-Nitrophenol	3.973	139	298656	13553.3196909	ppb		98
28) 2,4-Dimethylphenol	3.973	107	472958	11453.9610394	ppb		96
29) bis(2-Chlorethoxy)methane	4.032	93	596062	11993.0629210	ppb		99
30) 2,4-Dichlorophenol	4.114	162	400819	11254.7247753	ppb		95
31) Benzoic Acid	4.014	105	256432	16271.6286178	ppb		93
32) 1,2,4-Trichlorobenzene	4.167	180	486486	12044.7959249	ppb		98

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:16:56 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
33) alpha-terpineol	4.208	59	397060	13544.0043625 ppb		94
34) Naphthalene	4.226	128	1510413m	11714.2617329 ppb		
35) 4-Chloroaniline	4.244	65	153653	9888.7750682 ppb		93
36) Hexachloro-1,3-butadiene	4.285	225	278073	11406.8069202 ppb		98
37) Hydroquinone	4.426	110	195538m	7139.2556192 ppb		
38) Quinoline	4.432	129	1024752	15433.0039187 ppb		97
39) Caprolactam	4.461	113	178920	23226.3634083 ppb		95
40) 4-Chloro-3-methylphenol	4.531	107	431100	12335.1652923 ppb		96
41) 2-Methylnaphthalene	4.661	142	1012060	12141.9499996 ppb		99
42) 1-Methylnaphthalene	4.725	142	973717	12322.9180908 ppb		99
43) 1,2,4,5-Tetrachloroben...	4.766	216	468451	15911.8952793 ppb		100
44) Diphenyl Ether	5.037	170	645588	15132.4809161 ppb		99
45) Diphenyl Oxide	5.037	170	645588	15132.4809161 ppb		99
47) Hexachlorocyclopentadiene	4.755	237	261401	10818.3567575 ppb		98
48) 2,4,6-Trichlorophenol	4.837	196	306183	14628.8923214 ppb		97
49) 2,4,5-Trichlorophenol	4.860	196	317709	14196.2933934 ppb		98
51) Biphenyl	4.966	154	1225725	14423.7958426 ppb		100
52) 2-Chloronaphthalene	4.990	162	974769	14747.8684385 ppb		99
53) 2-Nitroaniline	5.048	138	362236	17392.6197988 ppb		90
54) Acenaphthylene	5.278	152	1604866	16337.0452180 ppb		99
55) Dimethyl phthalate	5.160	163	1154787	16427.6246622 ppb		98
56) 2,6-Dinitrotoluene	5.213	165	271601	16795.0489611 ppb		97
57) 3-Nitroaniline	5.336	138	284946	16313.4545483 ppb		97
58) Acenaphthene	5.401	153	984823	14781.0947104 ppb		96
59) 2,4-Dinitrophenol	5.407	184	121081	14397.3581992 ppb	#	6
60) Dibenzofuran	5.524	168	1416189	15393.3039282 ppb		100
61) 2,4-Dinitrotoluene	5.501	165	384739	18752.3552197 ppb		97
62) 2,3,4,6-Tetrachlorophenol	5.607	232	252583	15586.2140648 ppb		99
63) 4-Nitrophenol	5.436	139	249596	17900.8806505 ppb		98
64) Fluorene	5.777	166	1165444	15594.1905854 ppb		99
65) 4-Chlorophenyl-phenyle...	5.765	204	580893	15450.2206524 ppb		95
66) Diethyl phthalate	5.671	149	1157032	16636.2953644 ppb		98
67) 4-Nitroaniline	5.783	138	314314	20029.5455636 ppb		98
68) Azobenzene	5.889	77	1156512	15835.3893493 ppb		100
69) Atrazine	6.253	200	347428	16963.7908282 ppb		99
71) 4,6-Dinitro-2-methylph...	5.801	198	210943	16881.2447023 ppb		95
72) N-Nitrosodiphenylamine	5.853	169	999835	15034.5154841 ppb		99
74) 4-Bromophenyl-phenylether	6.141	248	371511	15421.0192302 ppb		88
75) Hexachlorobenzene	6.194	284	405482	14866.4444268 ppb		99
76) n-octadecane	6.376	55	168798	14094.6668490 ppb		99
77) Pentachlorophenol	6.341	266	268951	17210.6911277 ppb		98
78) Phenanthrene	6.517	178	1851797	15646.9752565 ppb		100
79) Anthracene	6.558	178	1931439	16067.7884914 ppb		100
80) Carbazole	6.682	167	1702495	15839.2300084 ppb		100
81) Di-n-butyl phthalate	6.940	149	2132137	16371.1698148 ppb		100
82) 2-nitrodiphenylamine	7.081	167	452207	17365.1320719 ppb		96
83) Fluoranthene	7.540	202	2159451	16182.7066850 ppb		99
85) Benzidine	7.663	184	1125309	21865.6724511 ppb		99
86) Pyrene	7.769	202	2250826	16545.2456172 ppb		99
88) Benzylbutyl phthalate	8.533	149	967708	17813.4450392 ppb		97

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:16:56 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
89) 3,3-Dichlorobenzidine	9.314	252	1509132	31855.6083285	ppb	99
90) Benzo(a)anthracene	9.344	228	2226578	17054.0473579	ppb	99
91) Chrysene	9.402	228	2110126	16503.5101748	ppb	99
92) bis(2-Ethylhexyl)phtha...	9.426	149	1347050	17537.4001912	ppb	99
93) Di-n-octyl phthalate	10.666	149	2325711	18782.5206818	ppb	99
95) Benzo(b)fluoranthene	11.318	252	2178495	17067.5081850	ppb	99
96) Benzo(k)fluoranthene	11.376	252	2143495	16646.8423254	ppb	100
97) Benzo(a)pyrene	11.988	252	2084742	18838.6597351	ppb	98
98) Indeno(1,2,3-cd)pyrene	13.997	276	1923859	18738.8587756	ppb	99
99) Dibenz(a,h)anthracene	14.038	278	2016949m	17106.0274603	ppb	
100) Benzo(g,h,i)perylene	14.326	276	1976670	17168.8722966	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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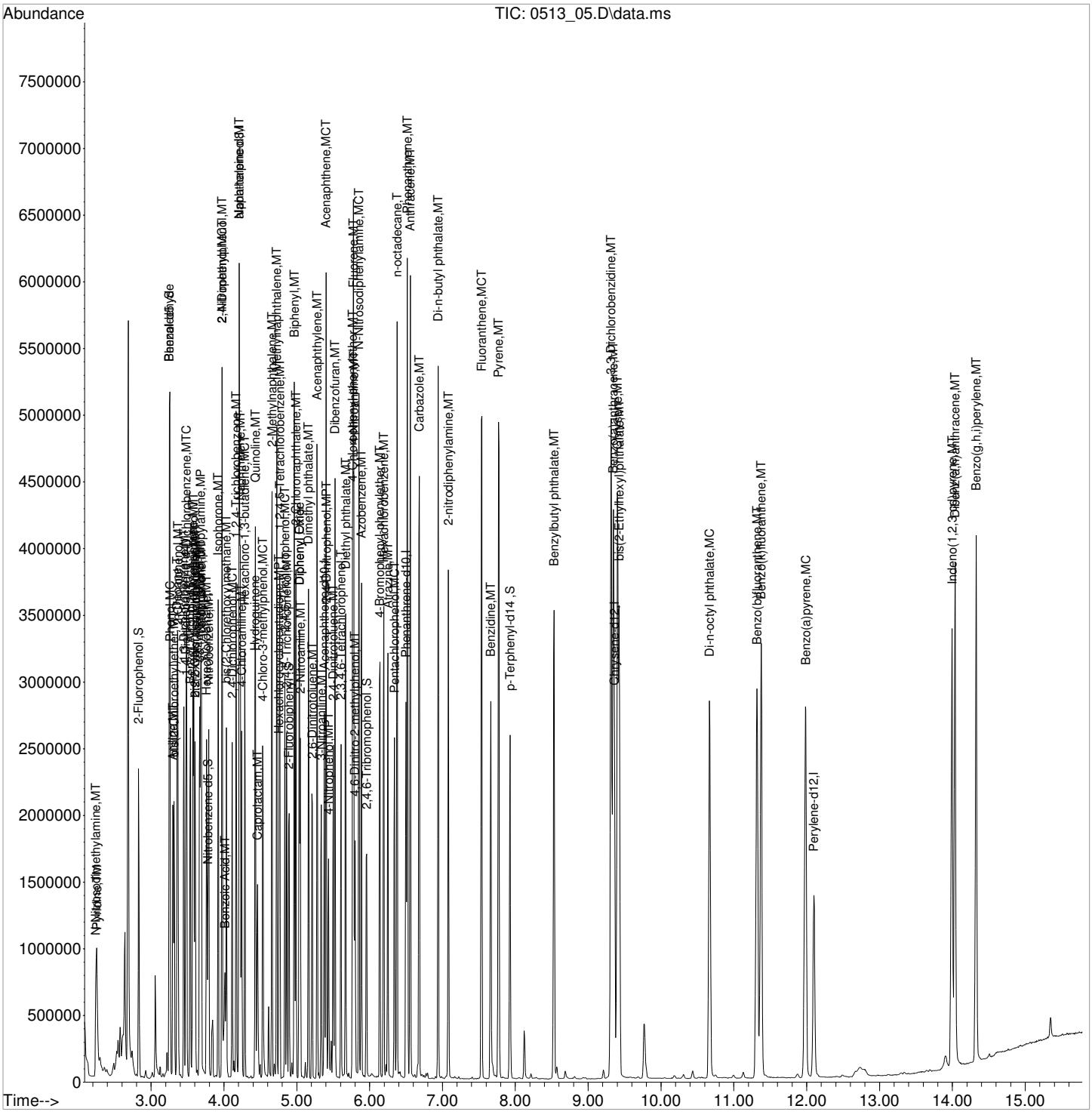

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
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InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
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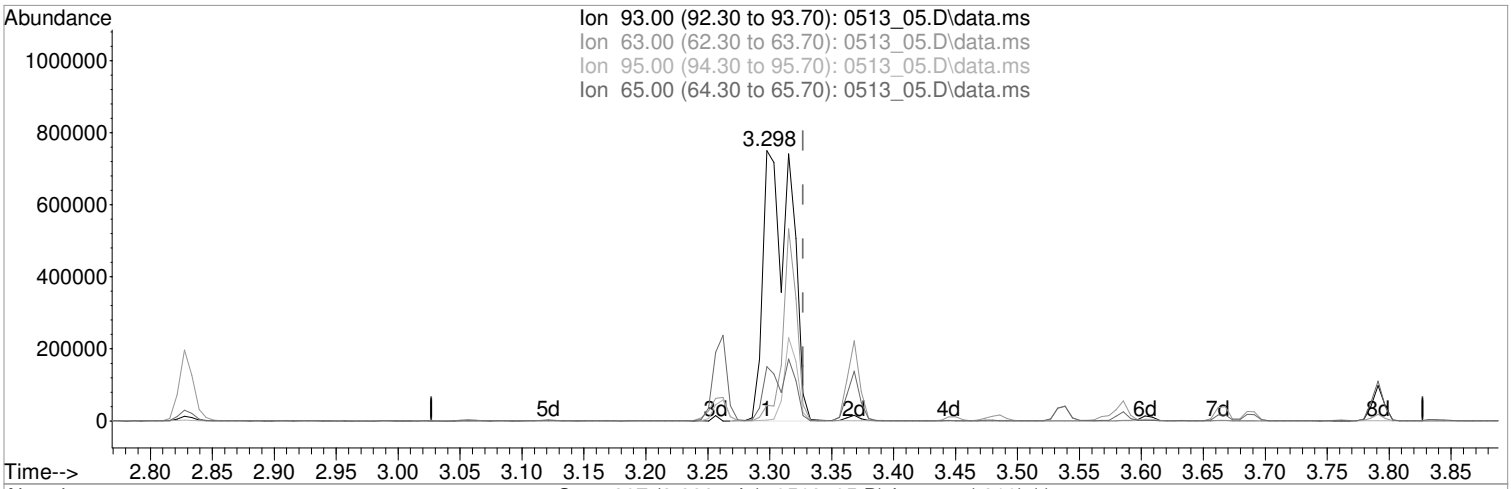

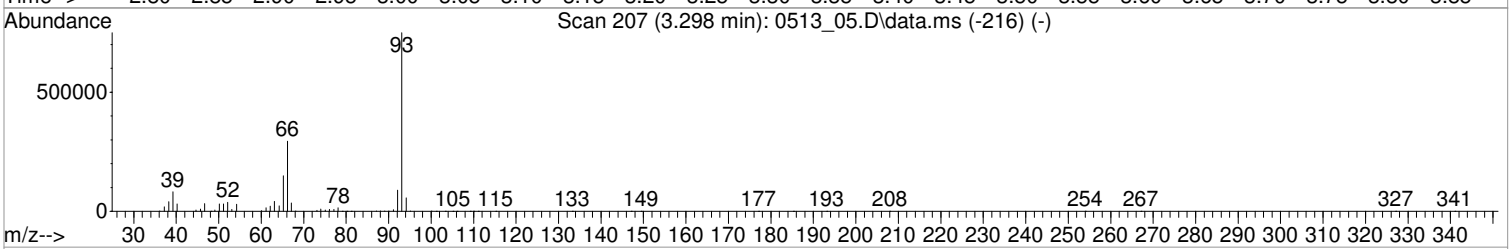

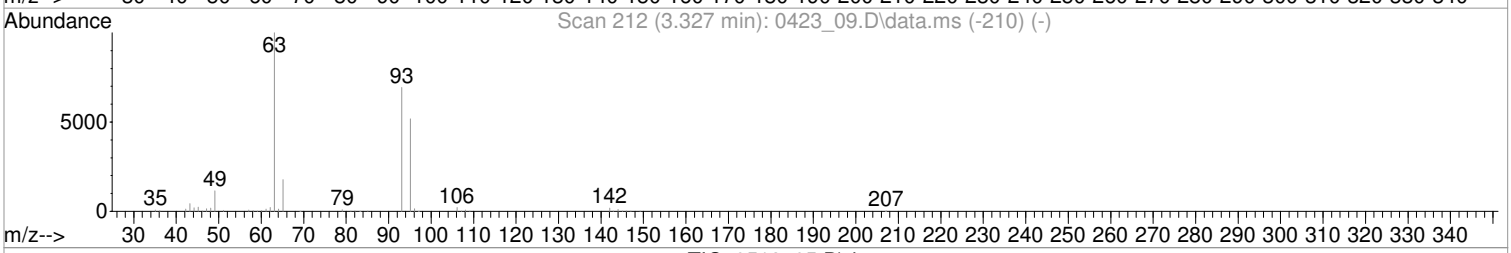

TIC: 0513_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.298min (-0.029) 33345.5137613 ppb

Qvalue = 41

response 1176394

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	5.62#
95.00	32.50	0.26#
65.00	22.20	19.90

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
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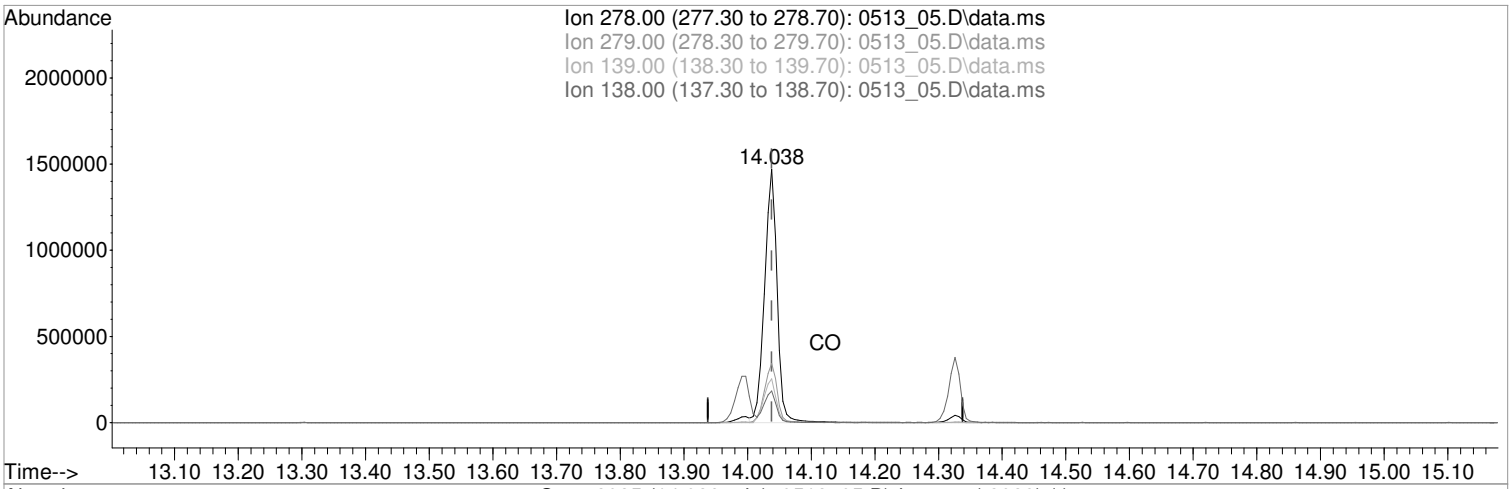

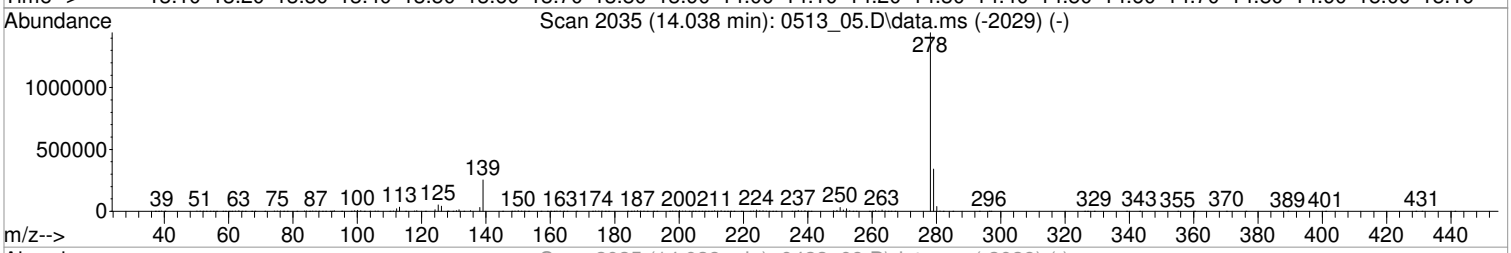

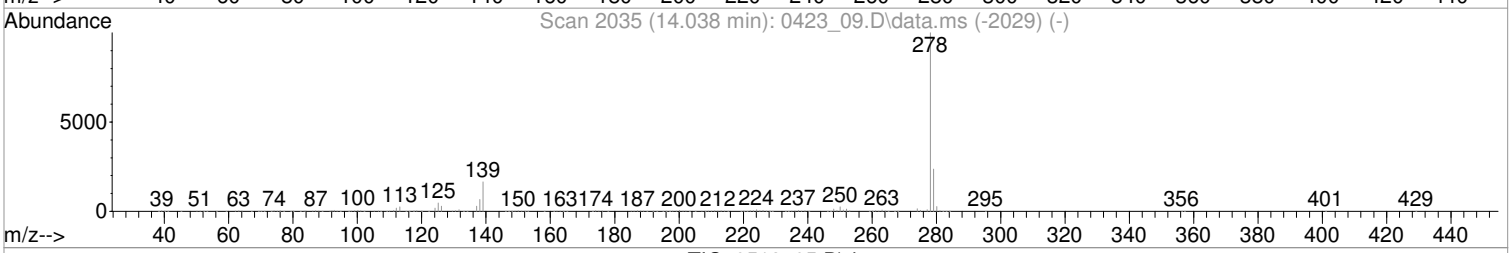

TIC: 0513_05.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.038min (-0.000) 17106.0274603 ppb m

response 2016949

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	23.40
139.00	16.40	17.28
138.00	12.10	12.54

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
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Sample : LCS 1X WG1861596
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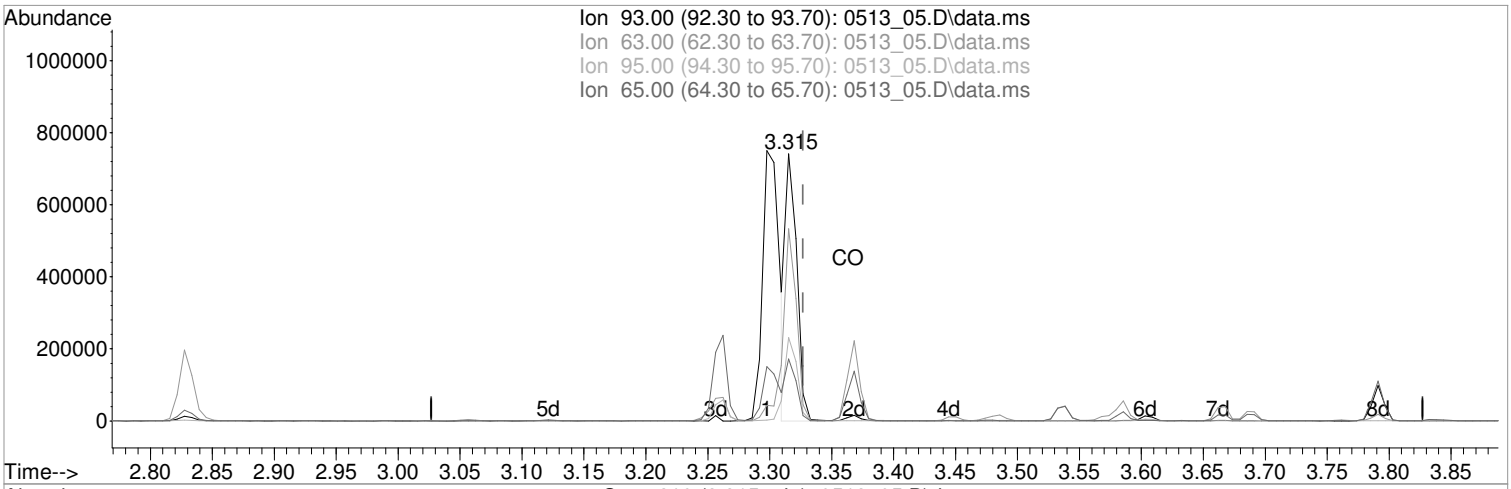

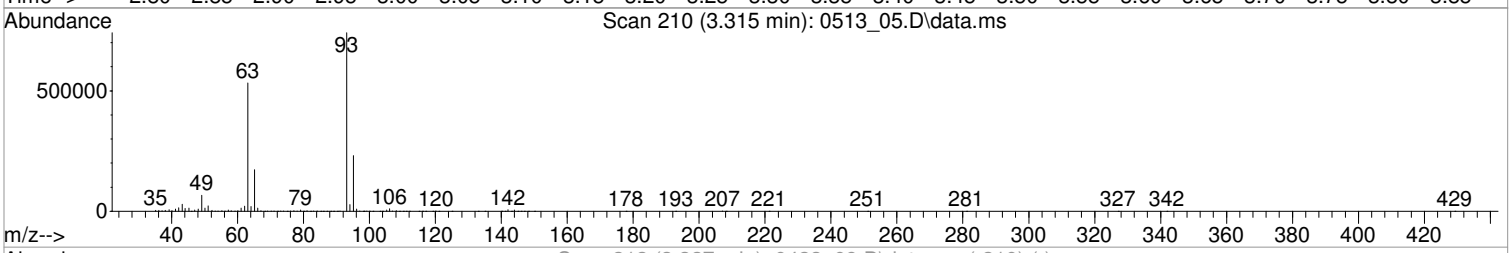

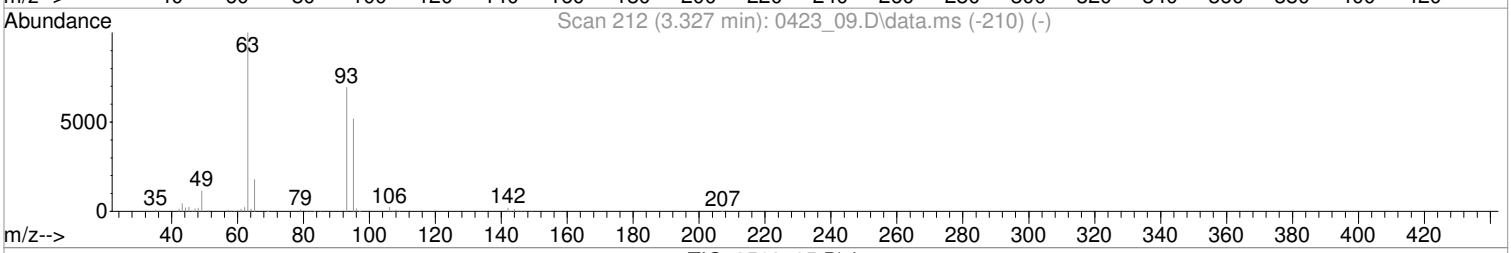

TIC: 0513_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.315min (-0.012) 13286.7697022 ppb m

response 468743

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.94
95.00	32.50	31.18
65.00	22.20	23.25

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
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Acq On : 13 May 2022 8:45 am
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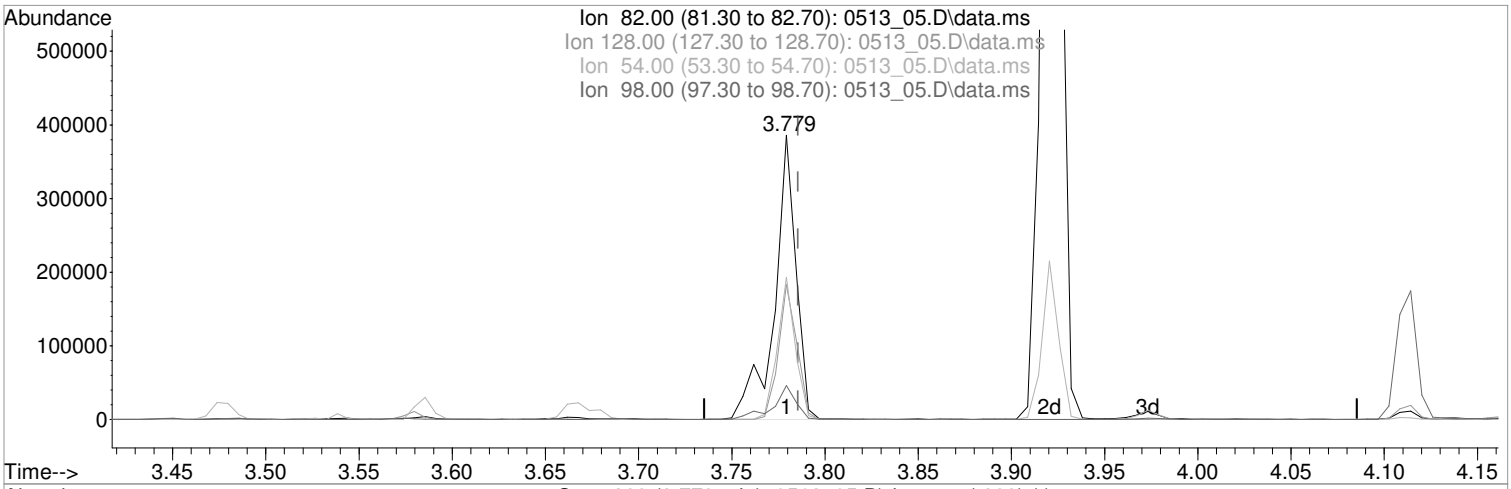

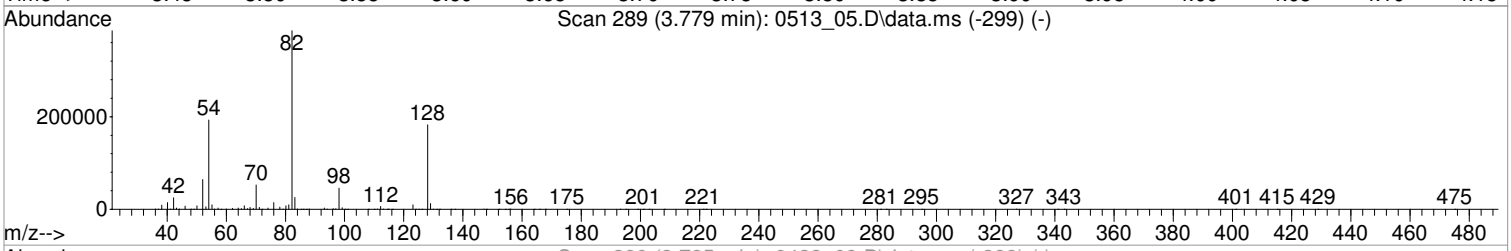

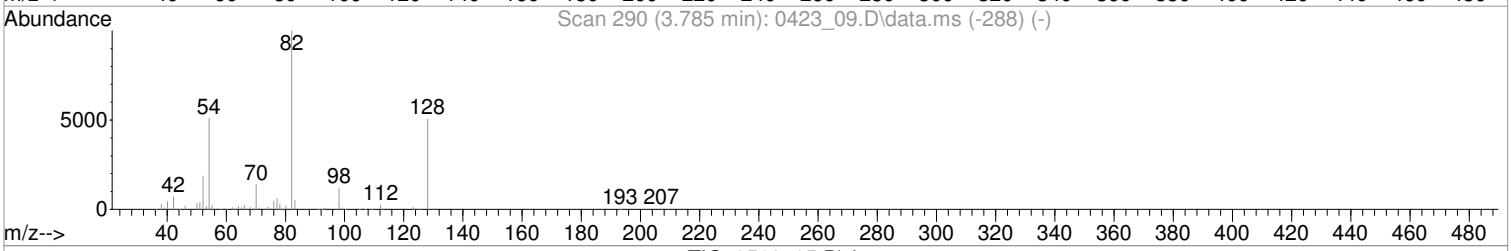

TIC: 0513_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.779min (-0.006) 6739.6303294 ppb

Qvalue = 99

response 309585

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.38
54.00	48.70	49.98
98.00	12.00	11.86

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
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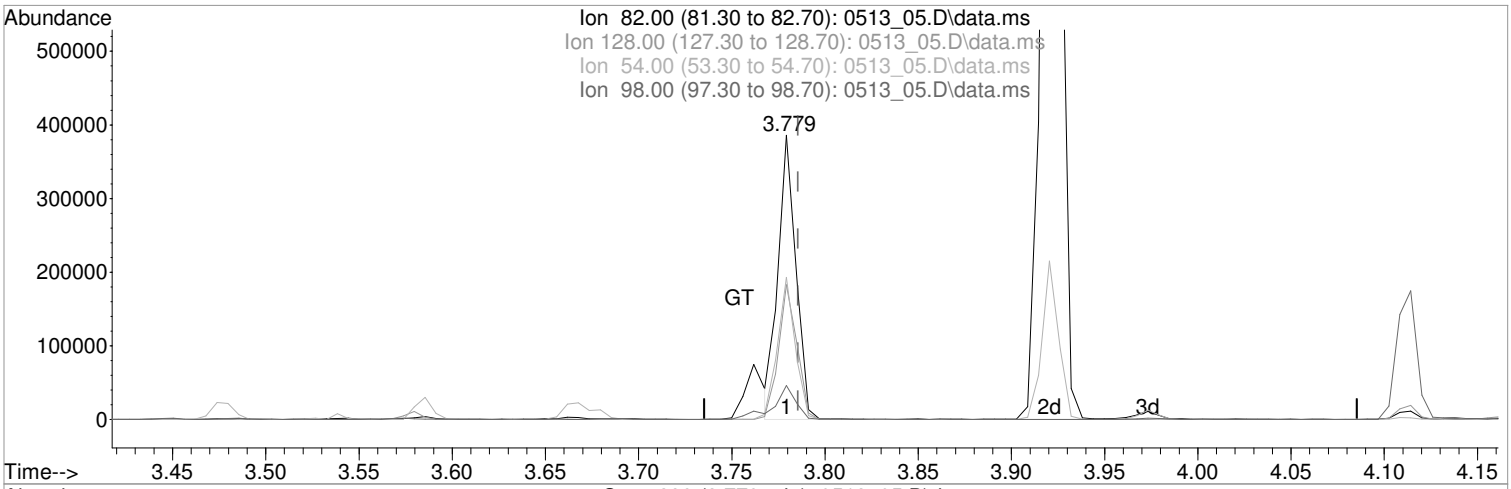
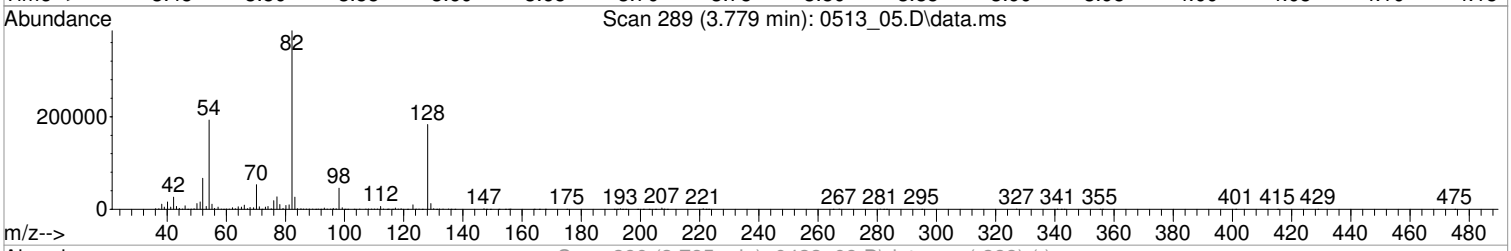
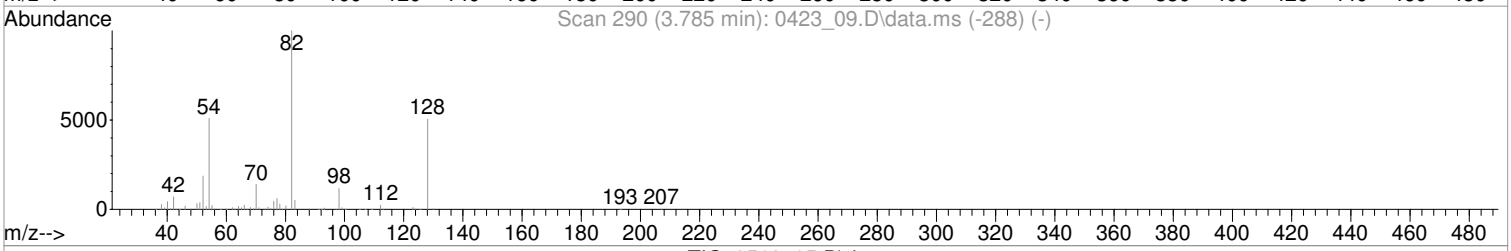






TIC: 0513_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.779min (-0.006) 5588.6999670 ppb m

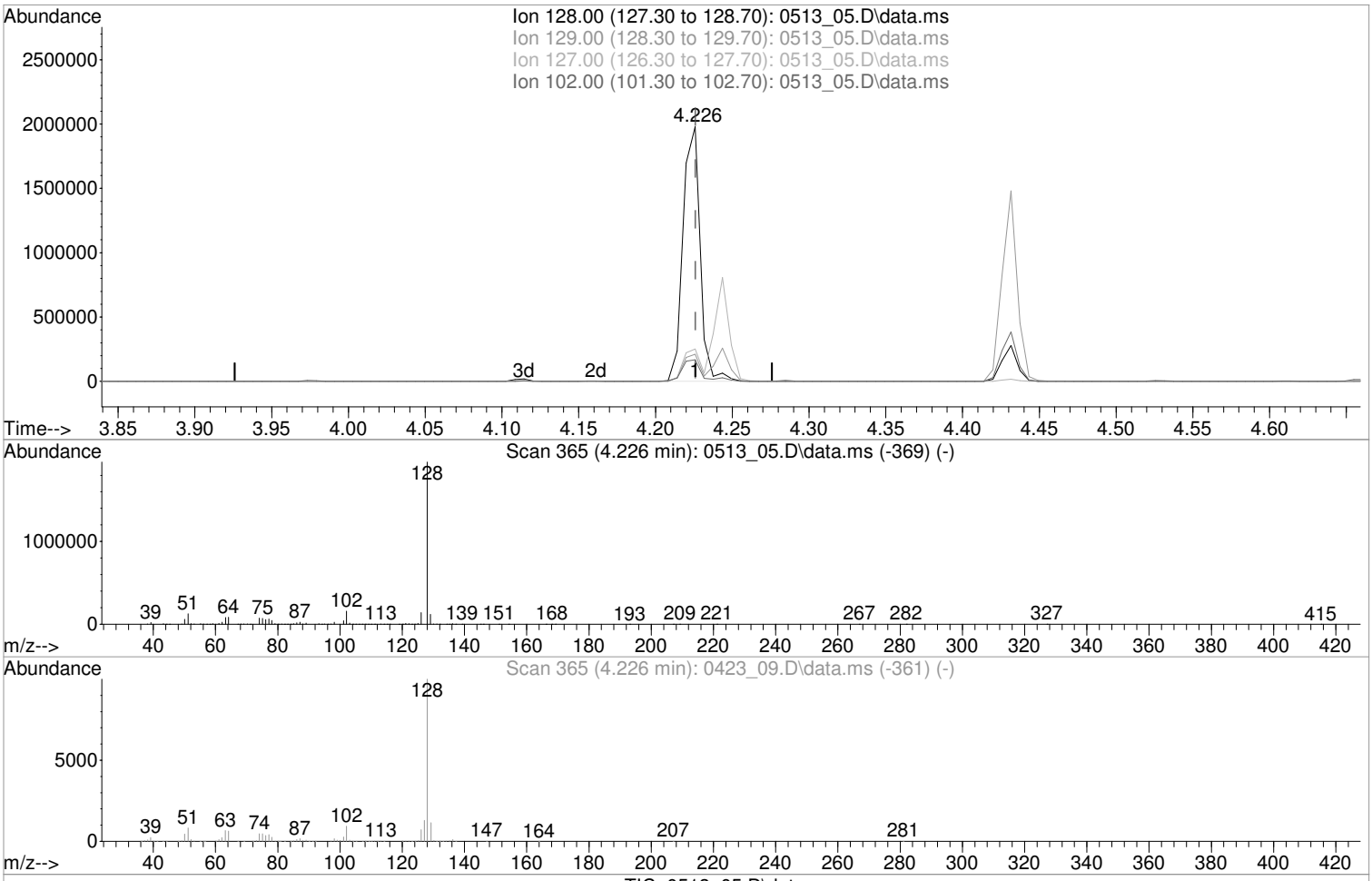
response 256717

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	47.41
54.00	48.70	50.07
98.00	12.00	11.92

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_05.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 11938.0747993 ppb

Qvalue = 99

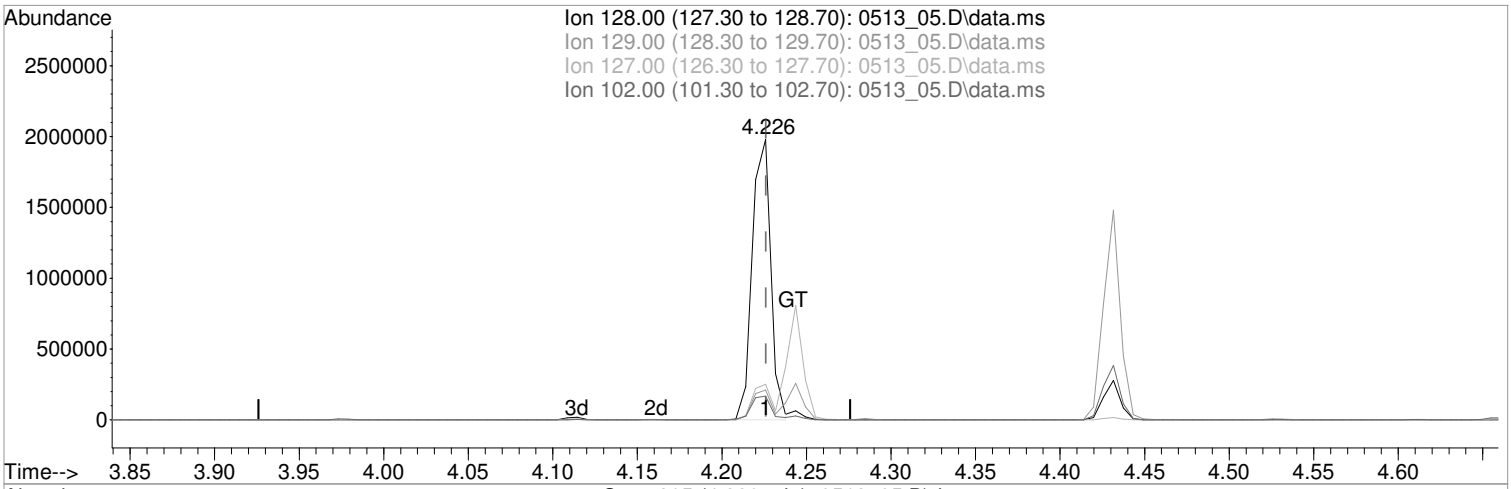
response 1539271

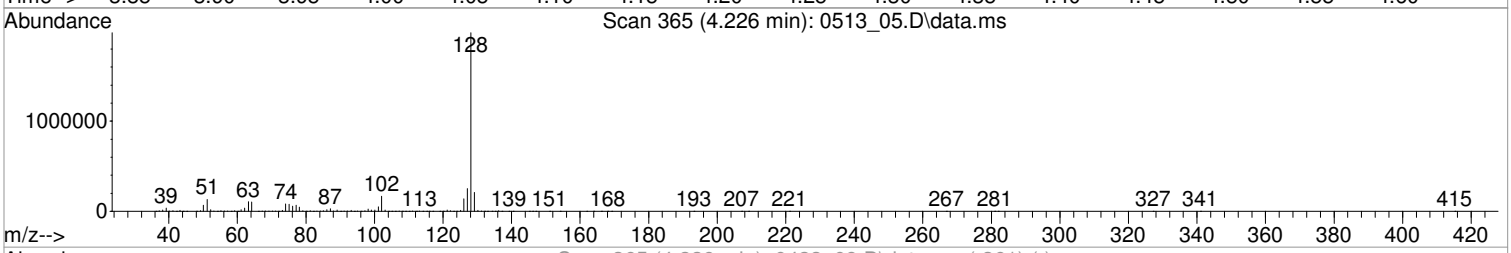
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.62
127.00	12.90	12.70
102.00	9.20	8.45

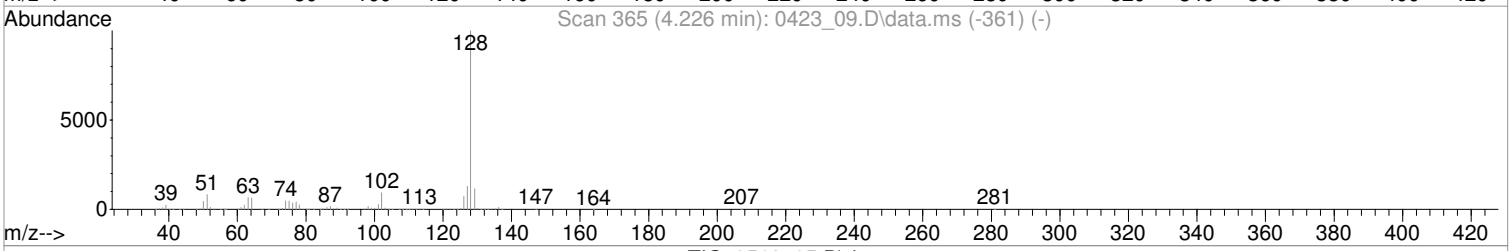
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_05.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 11714.2617329 ppb m

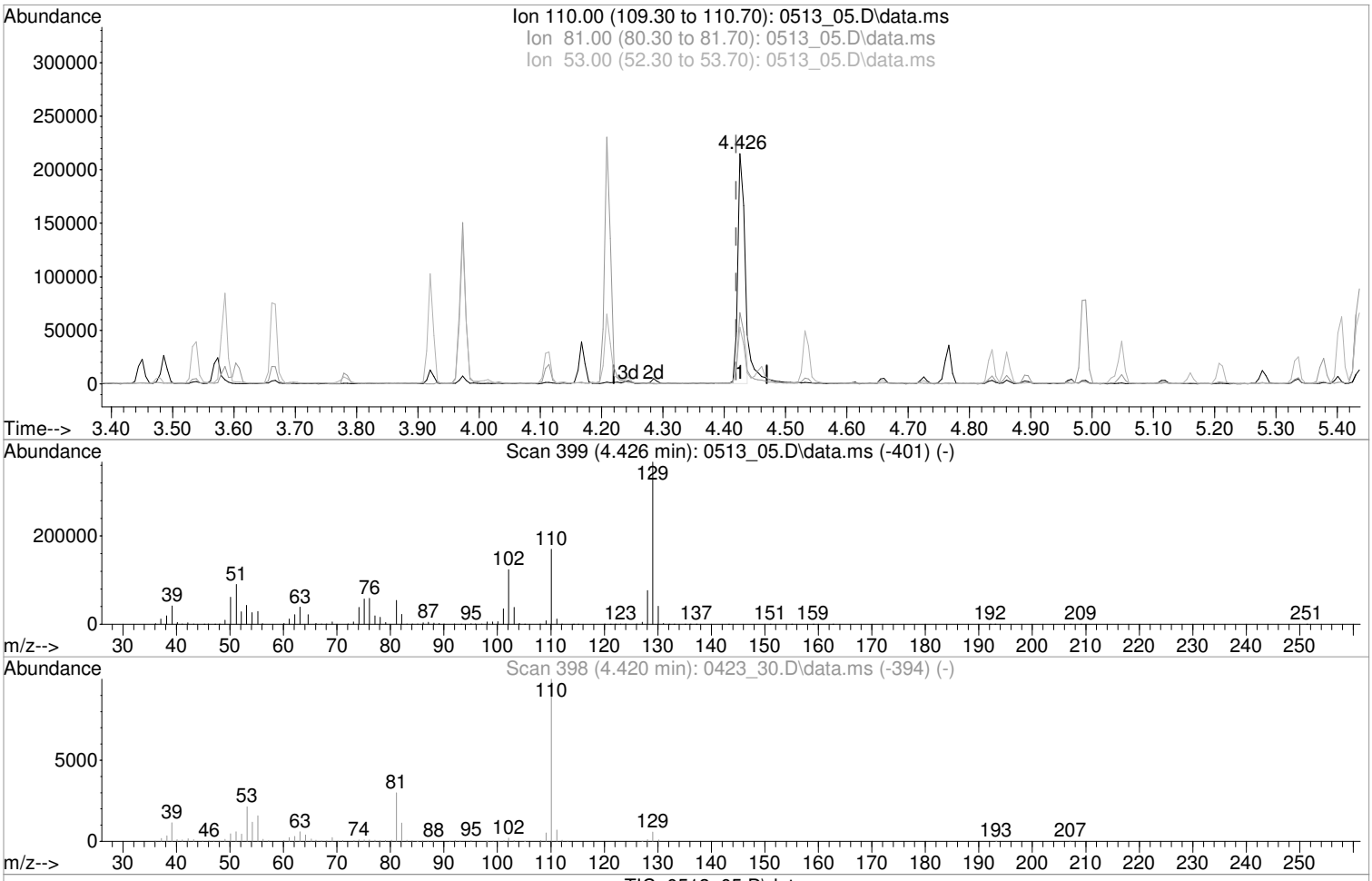
response 1510413

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.64
127.00	12.90	12.70
102.00	9.20	8.44

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_05.D\data.ms

(37) Hydroquinone

4.426min (+0.006) 6143.7511970 ppb

Qvalue = 97

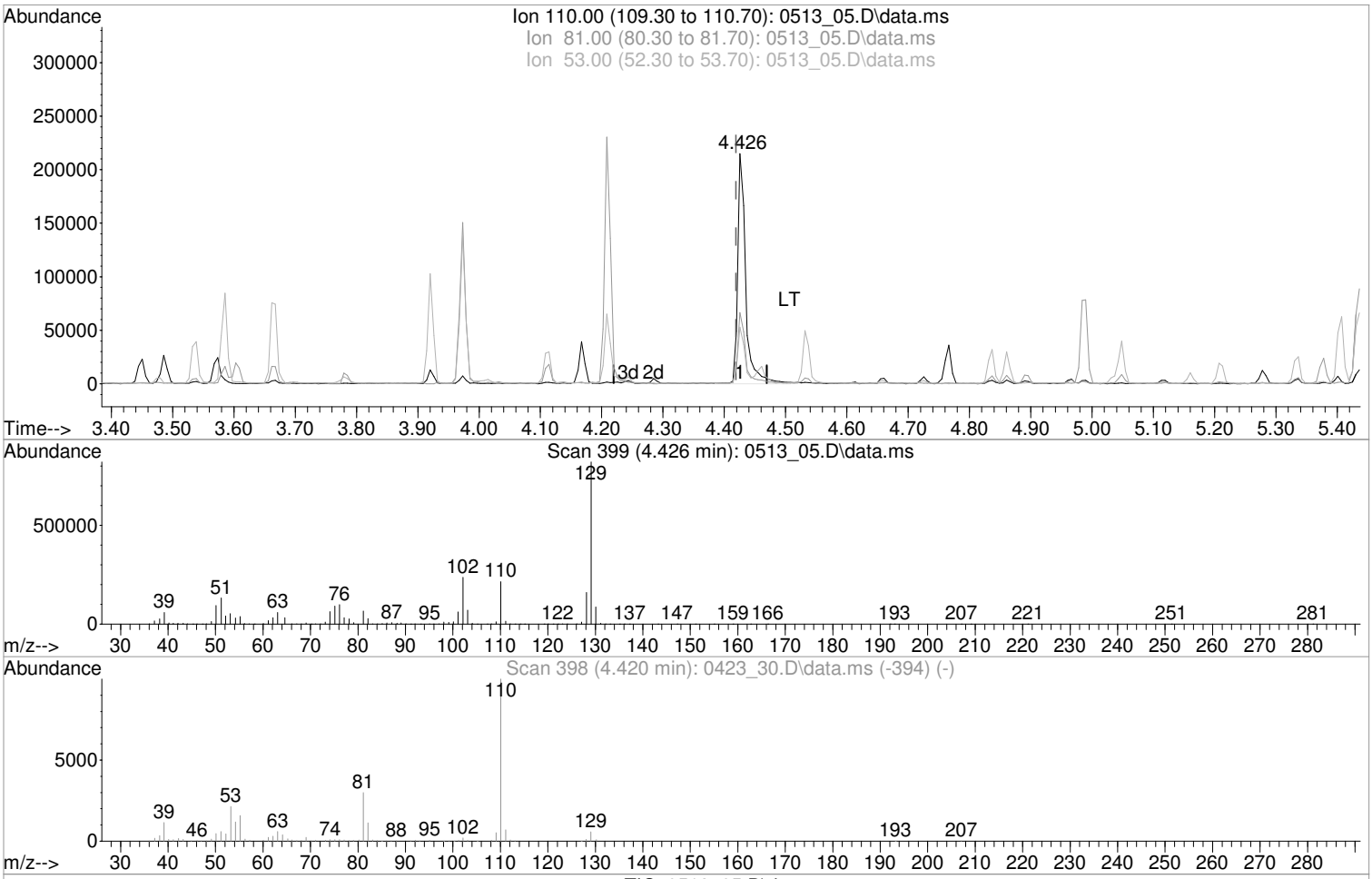
response 168272

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.49
53.00	21.40	24.42
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_05.D\data.ms

(37) Hydroquinone

4.426min (+0.006) 7139.2556192 ppb m

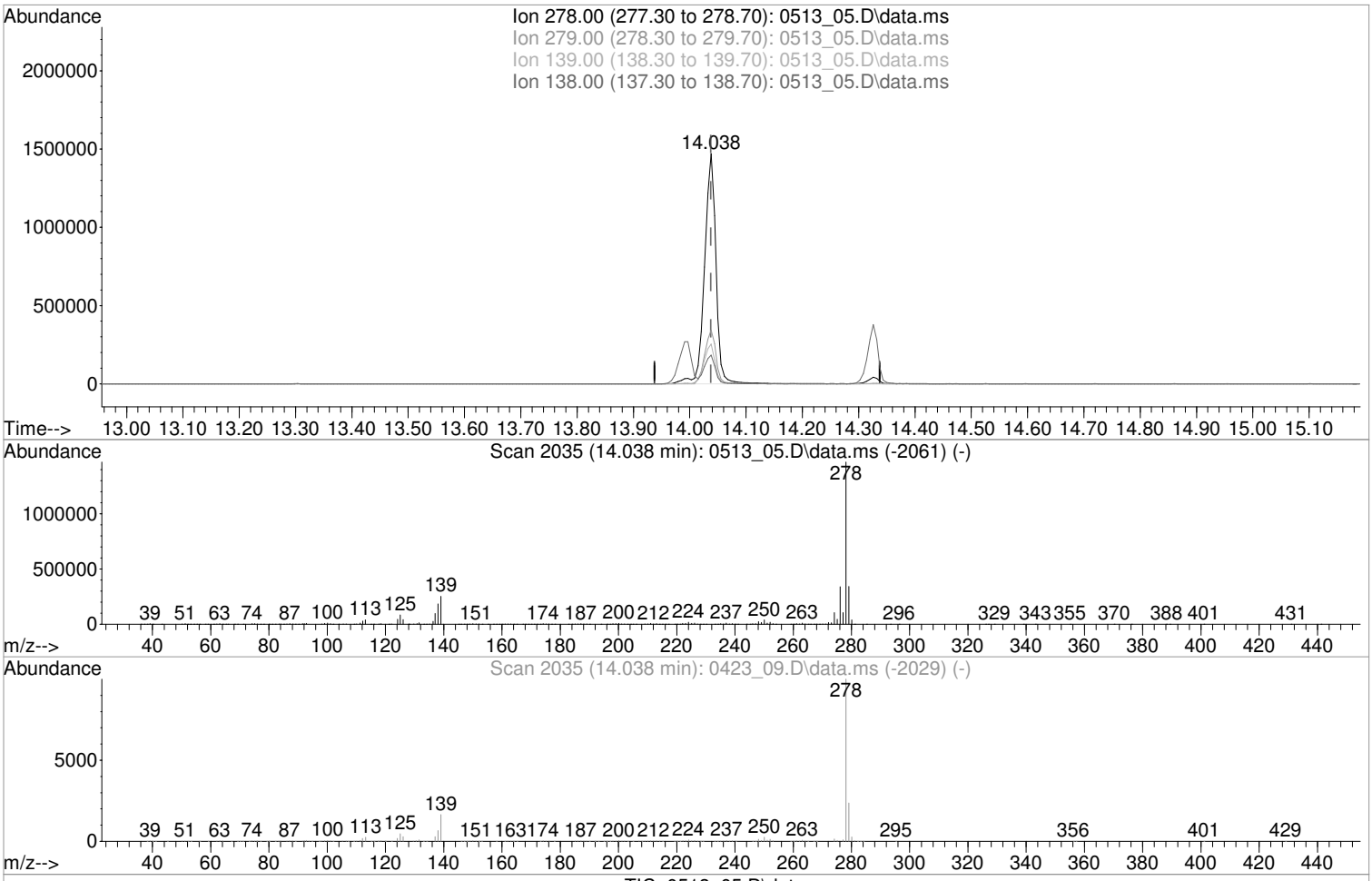
response 195538

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	30.88
53.00	21.40	24.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_05.D
Acq On : 13 May 2022 8:45 am
Operator : 974
Sample : LCS 1X WG1861596
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 13 09:57:16 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_05.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.038min (-0.000) 17506.4051319 ppb

Qvalue = 99

response 2064157

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	23.37
139.00	16.40	17.29
138.00	12.10	12.52

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791359-3	**SDG:**	L1488802
Client Sample ID:	MS	**Collected Date/Time:**	04/28/22 15:45
Lab File ID:	0512_26	**Received Date/Time:**	04/30/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	05/11/22 03:06
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/12/22 13:27
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.31 g
Total Solids (%):	78.9	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.16	0.475		0.00683	0.0422
Acenaphthylene	208-96-8	5.05	0.482		0.00595	0.0422
Anthracene	120-12-7	6.32	0.492		0.00752	0.0422
Benzoic Acid	65-85-0	3.73	U	J6	0.150	2.12
Benzo(a)anthracene	56-55-3	8.99	0.464		0.00744	0.0422
Benzo(b)fluoranthene	205-99-2	10.90	0.483		0.00787	0.0422
Benzo(k)fluoranthene	207-08-9	10.96	0.493		0.00751	0.0422
Benzo(g,h,i)perylene	191-24-2	14.03	0.482		0.00772	0.0422
Benzo(a)pyrene	50-32-8	11.55	0.553		0.00785	0.0422
Carbazole	86-74-8	6.45	0.474		0.0131	0.422
Chrysene	218-01-9	9.05	0.455		0.00839	0.0422
Dibenz(a,h)anthracene	53-70-3	13.73	0.484		0.0117	0.0422
Dibenzofuran	132-64-9	5.29	0.467		0.0138	0.422
Fluoranthene	206-44-0	7.27	0.502		0.00762	0.0422
Fluorene	86-73-7	5.54	0.493		0.00687	0.0422
Indeno(1,2,3-cd)pyrene	193-39-5	13.68	0.483		0.0119	0.0422
1-Methylnaphthalene	90-12-0	4.49	0.662		0.00540	0.0422
2-Methylnaphthalene	91-57-6	4.43	0.909		0.00548	0.0422
Naphthalene	91-20-3	4	0.503		0.0106	0.0422
Phenanthrene	85-01-8	6.28	0.626		0.00838	0.0422
Bis(2-ethylhexyl)phthalate	117-81-7	9.08	0.539		0.0535	0.422
Di-n-butyl phthalate	84-74-2	6.71	0.582		0.0145	0.422
Di-n-octyl phthalate	117-84-0	10.27	0.531		0.0285	0.422
Pyrene	129-00-0	7.49	0.463		0.00822	0.0422
3&4-Methyl Phenol	3&4-Methyl Phenol	3.45	0.572		0.0132	0.422
Pentachlorophenol	87-86-5	6.12	0.473		0.0114	0.422
Phenol	108-95-2	3.05	0.436		0.0170	0.422

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:09 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	44022	8000.00 ppb	0.00
23) Naphthalene-d8	3.98	136	218114	8000.00 ppb	0.00
46) Acenaphthene-d10	5.15	164	107173	8000.00 ppb	0.00
70) Phenanthrene-d10	6.26	188	199692	8000.00 ppb	0.00
84) Chrysene-d12	9.01	240	194821	8000.00 ppb	0.00
94) Perylene-d12	11.66	264	188706	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.60	112	74954	10477.9809663 ppb	0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 52.39%		
7) Phenol-d5	3.04	99	93609	10902.8510554 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 54.51%		
24) Nitrobenzene-d5	3.56	82	40313	4355.9831689 ppb	0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 43.56%		
50) 2-Fluorobiphenyl	4.67	172	86959	4809.8594763 ppb	0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 48.10%		
73) 2,4,6-Tribromophenol	5.72	330	29005	12831.0319078 ppb	0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 64.16%		
87) p-Terphenyl-d14	7.65	244	150223	5642.2799616 ppb	0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 56.42%		
Target Compounds					Qvalue
2) Pyridine	1.99	79	64408	9455.7799473 ppb	88
3) N-Nitrosodimethylamine	1.98	42	43913	12011.4945749 ppb	93
5) Aniline	3.08	66	35796	8788.5379614 ppb	87
6) bis(2-Chloroethyl)ether	3.09	93	68740m	10865.0326057 ppb	
8) Phenol	3.05	94	95170m	10523.1901385 ppb	
9) Benzaldehyde	3.03	105	55552	28371.9281901 ppb #	91
10) 2-Chlorophenol	3.14	128	76473	10560.9856868 ppb	89
11) n-Decane	3.13	41	38647	9061.1979894 ppb	99
12) 1,3-Dichlorobenzene	3.22	146	78086	9537.3830982 ppb	95
13) 1,4-Dichlorobenzene	3.26	146	78575	9324.1717741 ppb	92
14) Benzyl Alcohol	3.32	79	30649	5472.5824332 ppb	94
15) 1,2-Dichlorobenzene	3.35	146	80370	10375.0367896 ppb	94
16) bis(2-Chloroisopropyl)ethe	3.38	121	27100	10223.3592017 ppb #	19
17) 2,2-oxybis(1-chloropropane	3.38	121	27100	10223.3592017 ppb #	19
18) 2-Methylphenol	3.37	108	85942	13134.5724990 ppb	88
19) Hexachloroethane	3.54	117	42194	13793.3269682 ppb #	26
20) N-Nitrosodi-n-propylamine	3.46	70	60869	12729.6284000 ppb	95
21) 3&4-Methyl phenol	3.45	107	102526	13794.6832381 ppb	92
22) Acetophenone	3.47	105	126681	13915.1387026 ppb #	79
25) Nitrobenzene	3.57	77	87069	9622.0585415 ppb	88
26) Isophorone	3.70	82	167759	10334.7441709 ppb	99
27) 2-Nitrophenol	3.75	139	43484	9534.1392577 ppb	90
28) 2,4-Dimethylphenol	3.76	107	89458	10561.2416583 ppb	94
29) bis(2-Chlorethoxy)methane	3.81	93	98326	9473.6444906 ppb	91
30) 2,4-Dichlorophenol	3.89	162	66998	9389.1518988 ppb	92
32) 1,2,4-Trichlorobenzene	3.94	180	76415	9566.8567133 ppb	95
33) alpha-terpineol	3.98	59	83591	12217.0358464 ppb	97
34) Naphthalene	4.00	128	337380	12146.7332113 ppb	98
35) 4-Chloroaniline	4.02	65	22867	7085.5615288 ppb #	45
36) Hexachloro-1,3-butadiene	4.06	225	45283	10392.1839021 ppb	95
37) Hydroquinone	4.22	110	53669m	11364.7187933 ppb	
38) Quinoline	4.21	129	162537	11182.9697985 ppb	97
39) Caprolactam	4.23	113	36703	24421.2489001 ppb #	47

(#) = qualifier out of range (m) = manual integration
0512_26.D S804E04BV.M Fri May 13 14:10:07 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:09 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

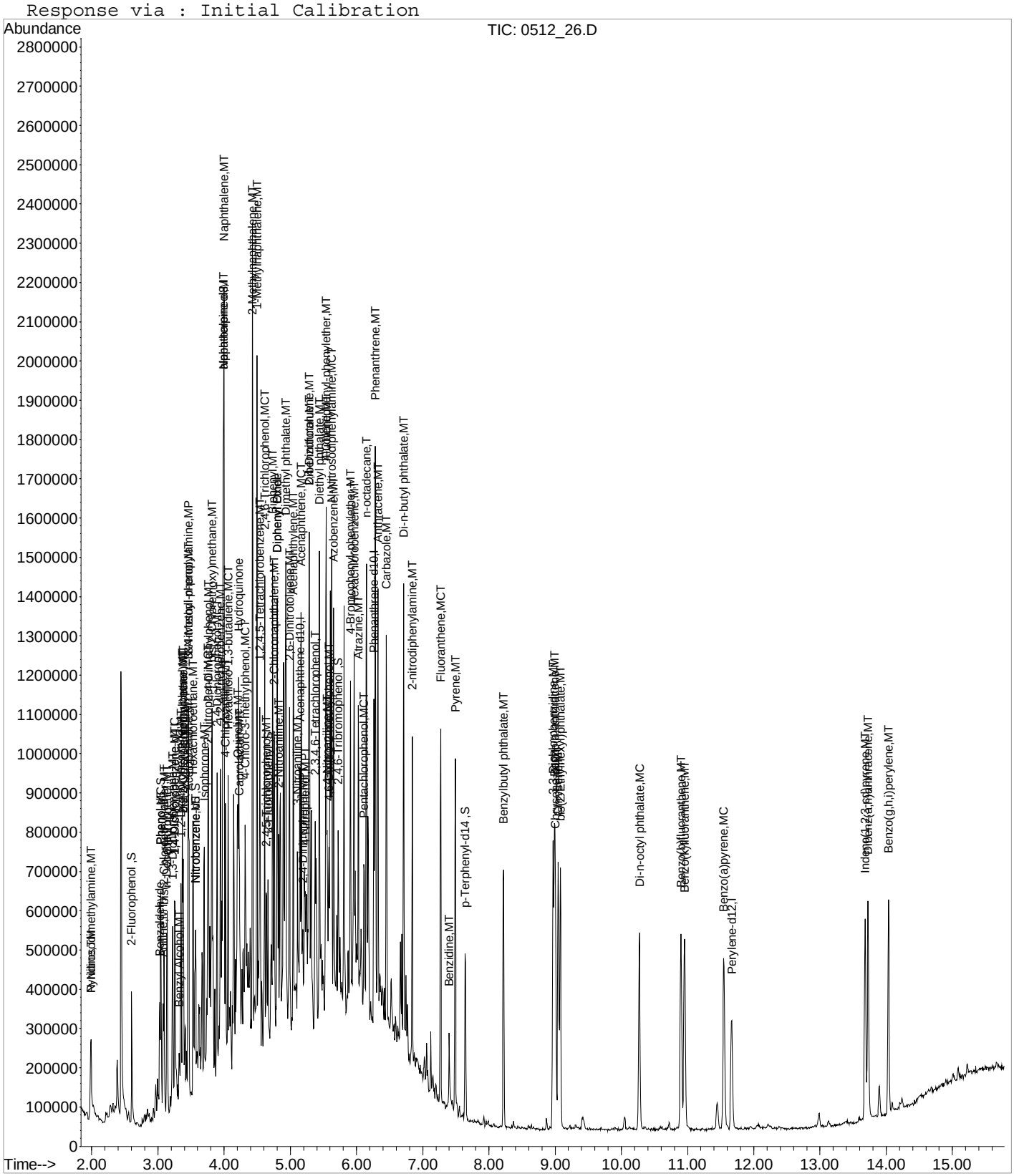
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	4-Chloro-3-methylphenol	4.32	107	73535	10223.1891403 ppb		83
41)	2-Methylnaphthalene	4.43	142	396708	21919.1077658 ppb	#	95
42)	1-Methylnaphthalene	4.49	142	271362	15954.5356340 ppb	#	94
43)	1,2,4,5-Tetrachlorobenzene	4.54	216	74243	12716.9565684 ppb		98
44)	Diphenyl Ether	4.80	170	109617	11770.3866091 ug/ml	#	40
45)	Diphenyl Oxide	4.80	170	109617	11770.3866091 ug/ml	#	40
48)	2,4,6-Trichlorophenol	4.61	196	50934	10957.3183278 ppb	#	89
49)	2,4,5-Trichlorophenol	4.64	196	47538	9826.6617783 ppb		92
51)	Biphenyl	4.73	154	207376	10329.5922485 ppb		99
52)	2-Chloronaphthalene	4.76	162	154363	10075.0132017 ppb		96
53)	2-Nitroaniline	4.82	138	58036	12219.8843159 ppb	#	71
54)	Acenaphthylene	5.05	152	277291	11633.5678119 ppb		99
55)	Dimethyl phthalate	4.94	163	193048	12161.7727304 ppb		98
56)	2,6-Dinitrotoluene	4.99	165	43734	11883.4273112 ppb	#	77
57)	3-Nitroaniline	5.11	138	33217	8383.0187163 ppb	#	86
58)	Acenaphthene	5.16	153	179944	11476.1111892 ppb		97
59)	2,4-Dinitrophenol	5.19	184	18426	9231.5907072 ppb	#	1
60)	Dibenzofuran	5.29	168	244469	11242.3877532 ppb	#	86
61)	2,4-Dinitrotoluene	5.28	165	63509	13780.0751544 ppb		87
62)	2,3,4,6-Tetrachlorophenol	5.38	232	37570	12292.9092287 ppb		99
63)	4-Nitrophenol	5.23	139	47549	14527.8721280 ppb	#	73
64)	Fluorene	5.54	166	210038	11907.6735615 ppb		98
65)	4-Chlorophenyl-phenylether	5.53	204	96193	11499.7332917 ppb		89
66)	Diethyl phthalate	5.44	149	215269	13237.3270073 ppb		99
67)	4-Nitroaniline	5.56	138	47106	12692.8448092 ppb	#	77
68)	Azobenzene	5.66	77	238146	14680.6392181 ppb		95
69)	Atrazine	6.03	200	65864	15028.2213854 ppb		91
71)	4,6-Dinitro-2-methylphenol	5.58	198	29549	10909.2932148 ppb		94
72)	N-Nitrosodiphenylamine	5.62	169	221652	14606.9306428 ppb		91
74)	4-Bromophenyl-phenylether	5.91	248	62626	12716.4157909 ppb		88
75)	Hexachlorobenzene	5.96	284	66906	12209.5425556 ppb		98
76)	n-octadecane	6.15	55	46870	15339.9694485 ppb		97
77)	Pentachlorophenol	6.12	266	34544	11419.4551133 ppb		94
78)	Phenanthrene	6.28	178	396686	15098.1056677 ppb		98
79)	Anthracene	6.32	178	315906	11878.5851216 ppb		98
80)	Carbazole	6.45	167	277314	11428.7085102 ppb		96
81)	Di-n-butyl phthalate	6.71	149	399171	14052.0399059 ppb		99
82)	2-nitrodiphenylamine	6.84	167	83571	16593.5148264 ppb	#	100
83)	Fluoranthene	7.27	202	337900	12105.9249353 ppb		98
85)	Benzidine	7.40	184	87077	7790.6813559 ppb		97
86)	Pyrene	7.49	202	350267	11173.7098510 ppb		99
88)	Benzylbutyl phthalate	8.22	149	169912	13255.8547389 ppb		97
89)	3,3-Dichlorobenzidine	8.97	252	214657	21401.7111305 ppb		97
90)	Benzo(a)anthracene	8.99	228	314220	11200.9125712 ppb		96
91)	Chrysene	9.05	228	298604	10983.6470277 ppb		97
92)	bis(2-Ethylhexyl)phthalate	9.08	149	229397	12992.8979306 ppb		96
93)	Di-n-octyl phthalate	10.27	149	375380	12798.3336320 ppb		99
95)	Benzo(b)fluoranthene	10.90	252	313287	11654.0875493 ppb		93
96)	Benzo(k)fluoranthene	10.96	252	315279	11906.7997790 ppb		92
97)	Benzo(a)pyrene	11.55	252	310346	13329.4001407 ppb		91
98)	Indeno(1,2,3-cd)pyrene	13.68	276	266229	11638.3474104 ppb		97
99)	Dibenz(a,h)anthracene	13.73	278	284679	11676.9794791 ppb		93
100)	Benzo(g,h,i)perylene	14.03	276	276729	11622.7835665 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:09 2022 Quant Results File: S804E04BV.RES

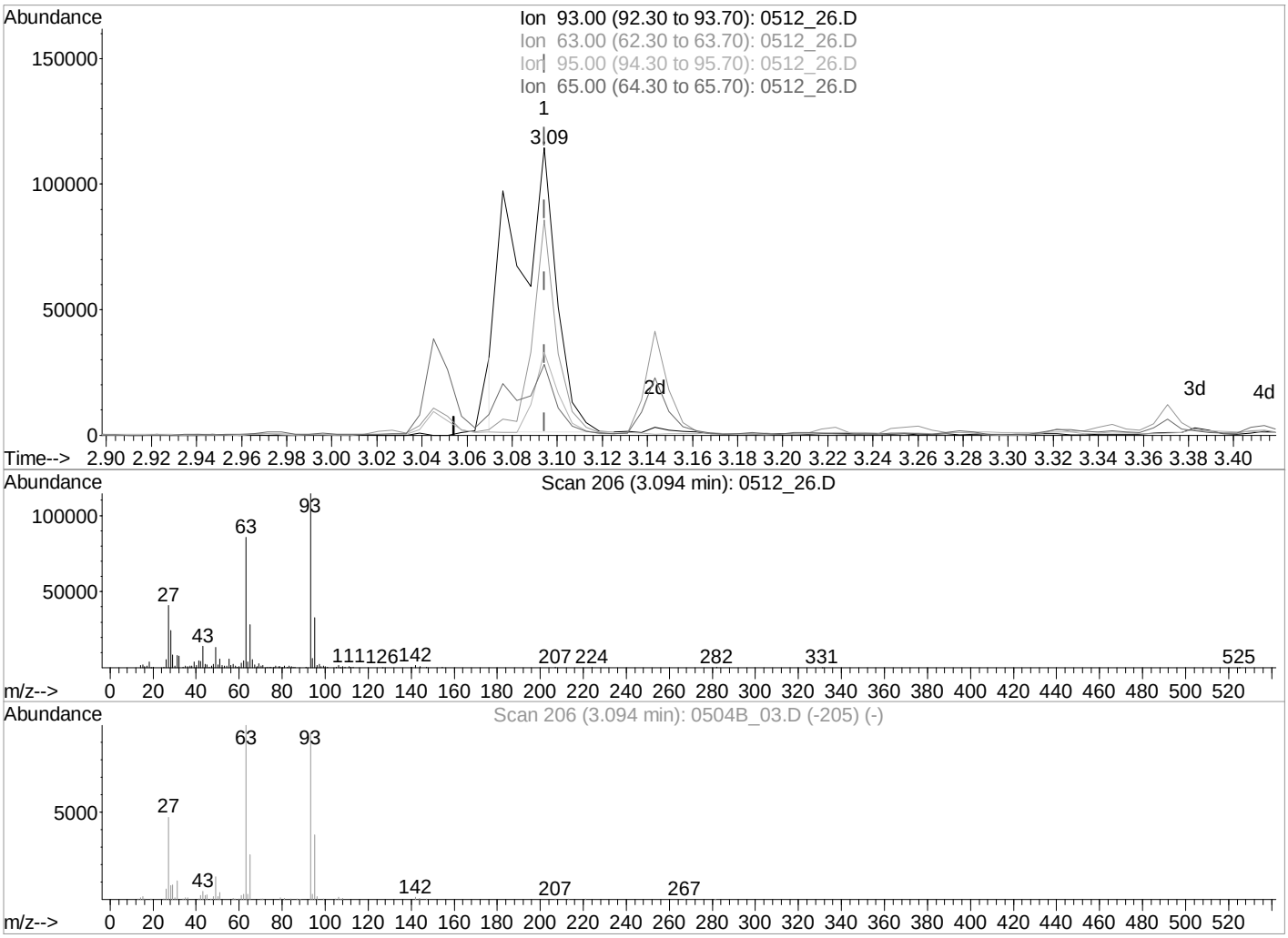
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_26.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (+0.000) 23177.2610003 ppb

Qvalue = 99

response 146636

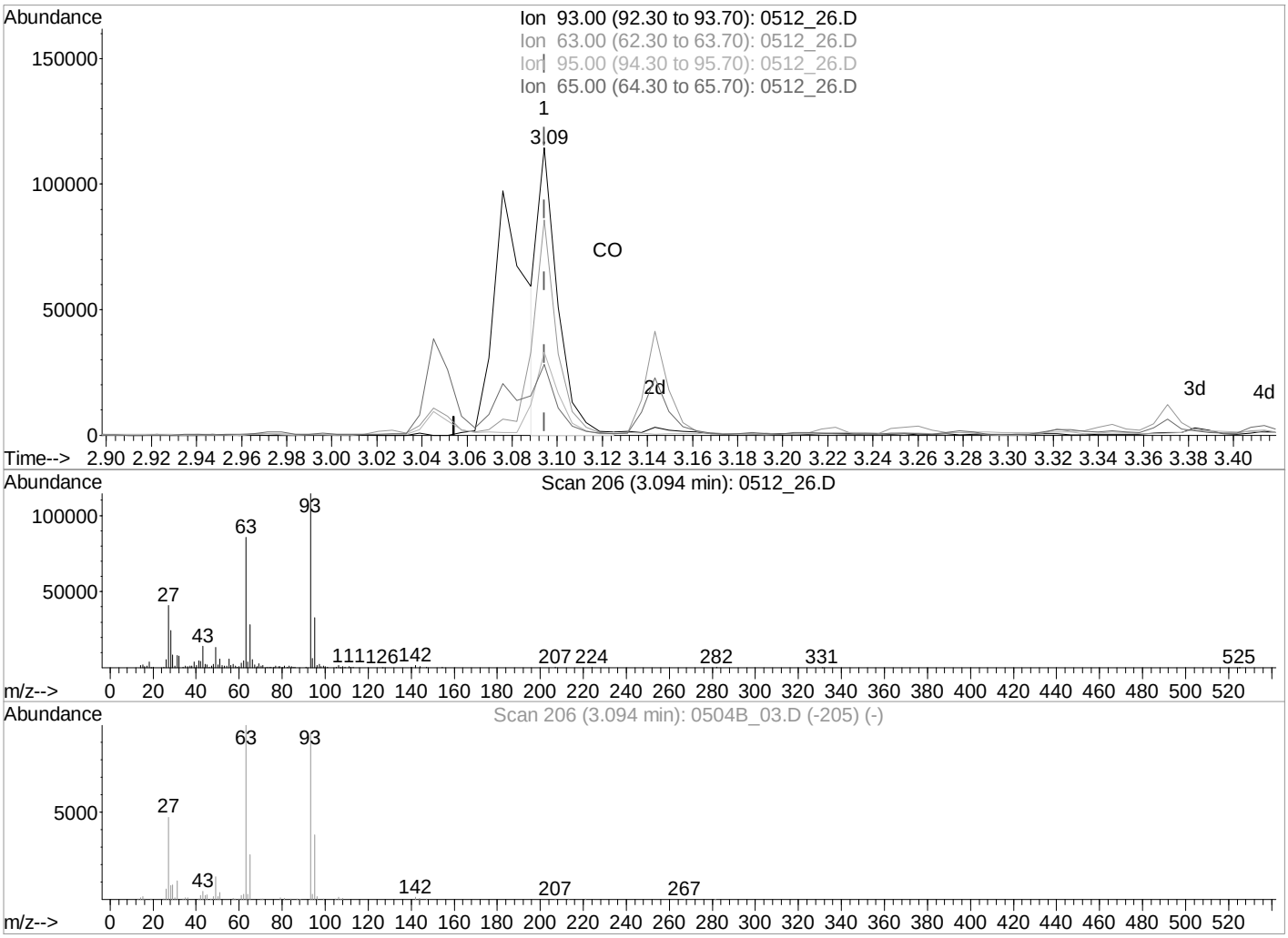
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	75.24
95.00	30.20	28.79
65.00	24.00	24.42

0512_26.D S804E04BV.M Fri May 13 14:08:38 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_26.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (+0.000) 10865.0326057 ppb m

response 68740

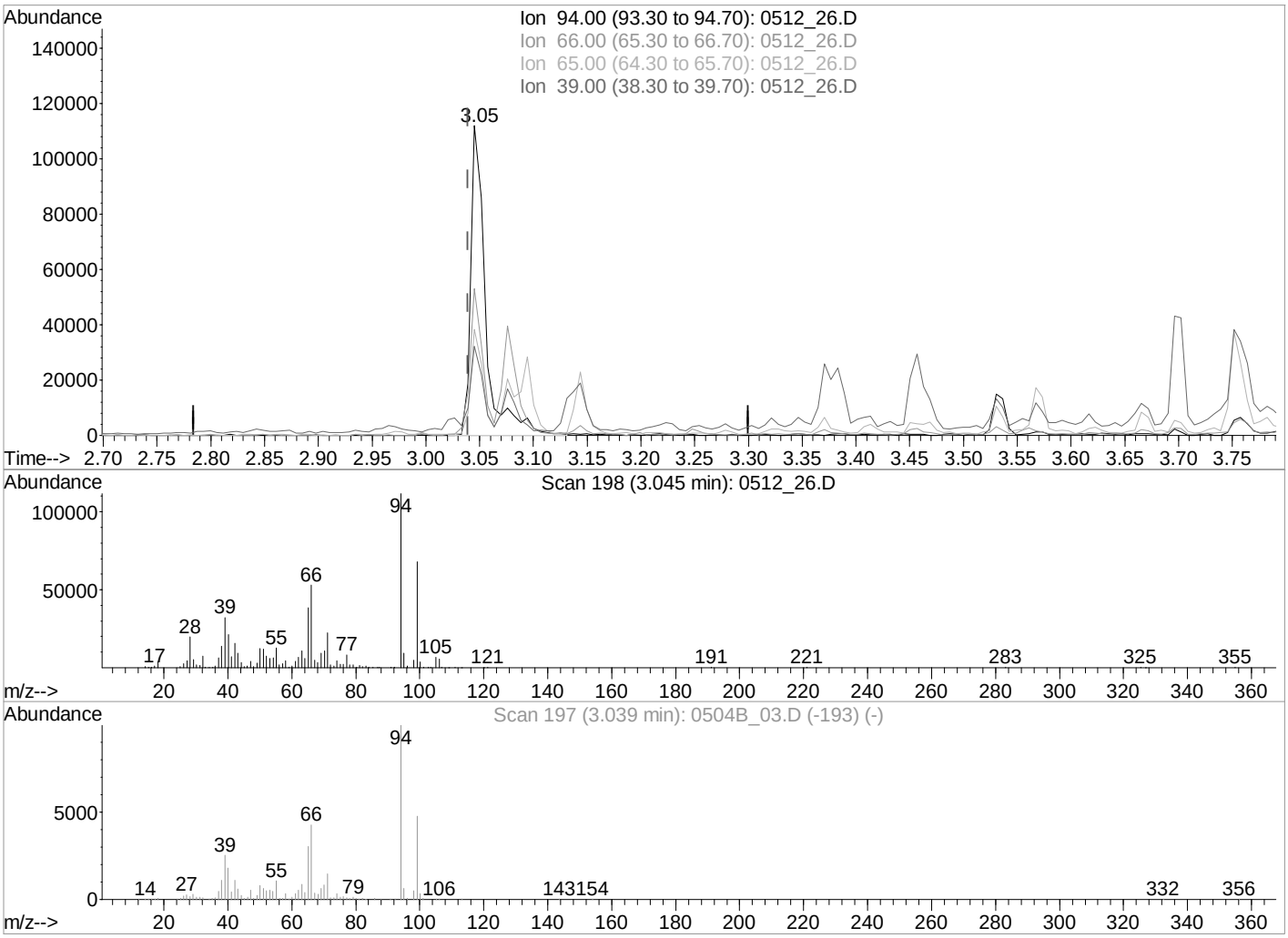
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	74.73
95.00	30.20	28.87
65.00	24.00	24.67

0512_26.D S804E04BV.M Fri May 13 14:08:42 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_26.D

(8) Phenol (MC)

3.05min (+0.006) 11883.4537204 ppb

Qvalue = 87

response 107472

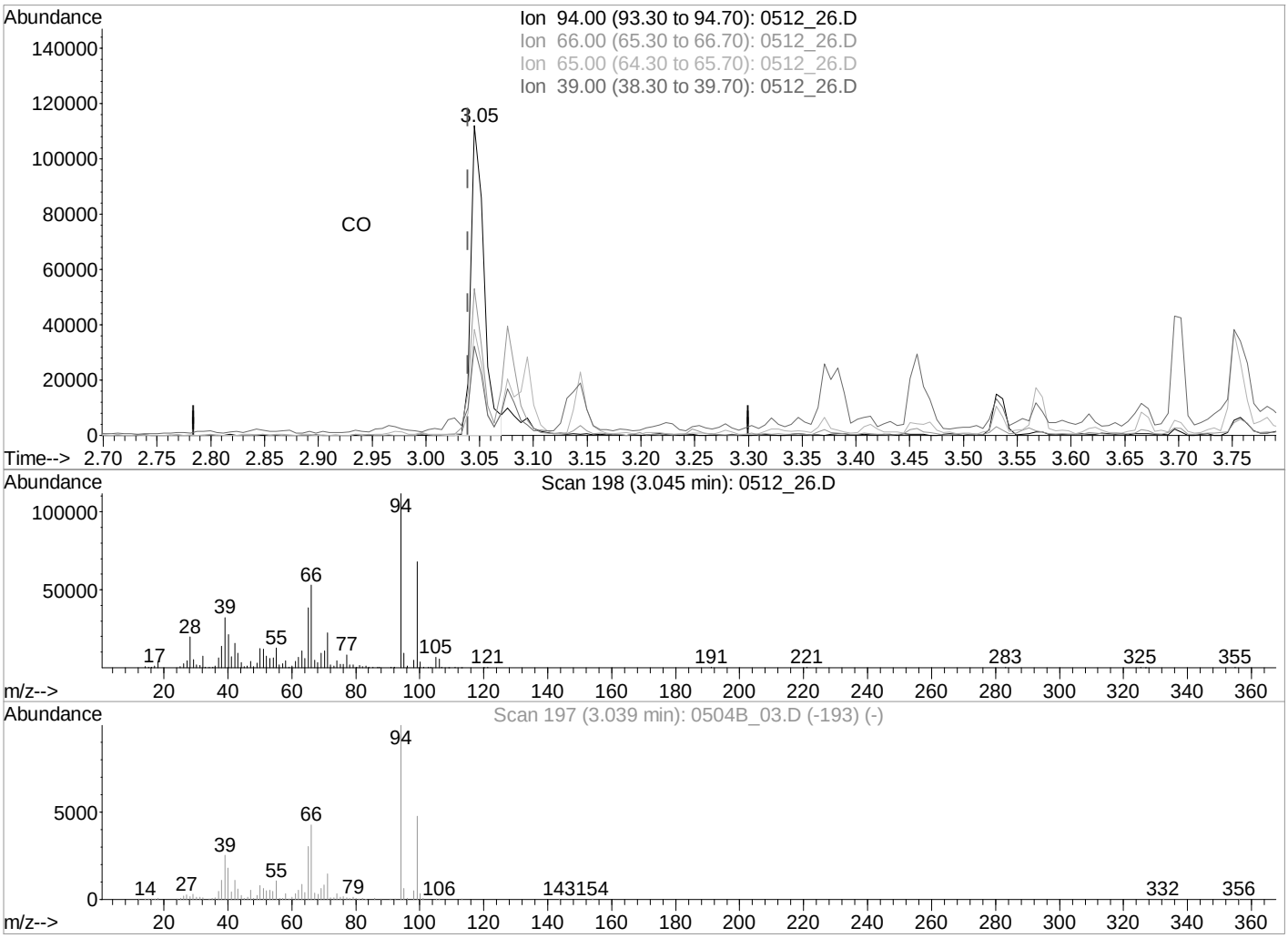
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	47.22
65.00	27.70	33.97
39.00	22.50	23.78

0512_26.D S804E04BV.M Fri May 13 14:08:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_26.D

(8) Phenol (MC)

3.05min (+0.006) 10523.1901385 ppb m

response 95170

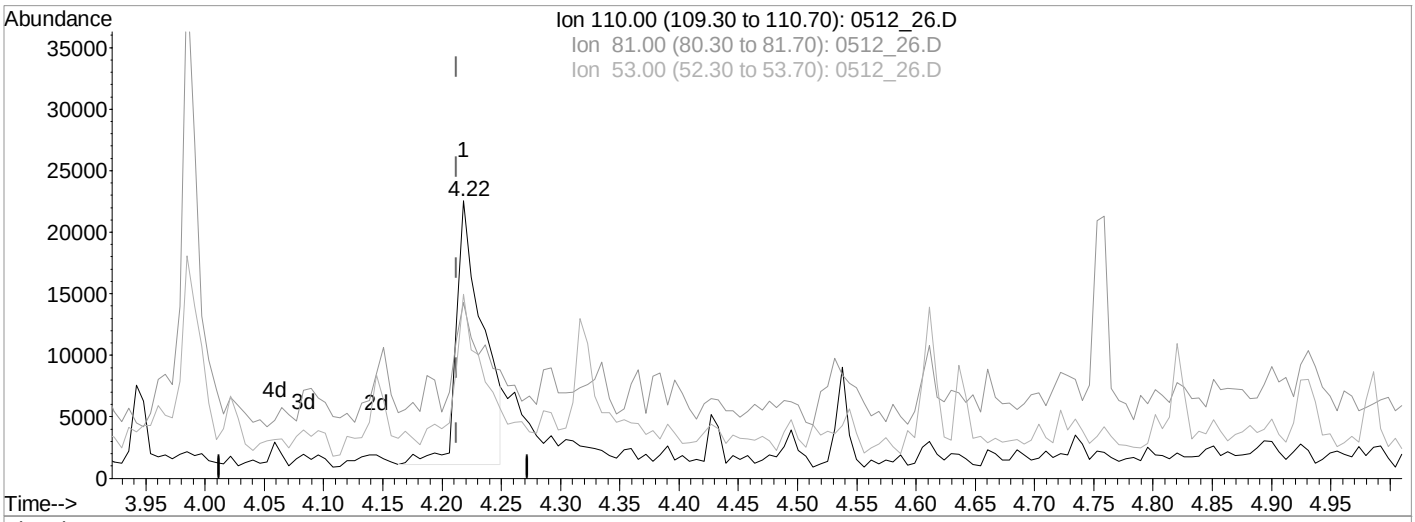
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	47.44
65.00	27.70	34.26
39.00	22.50	28.77

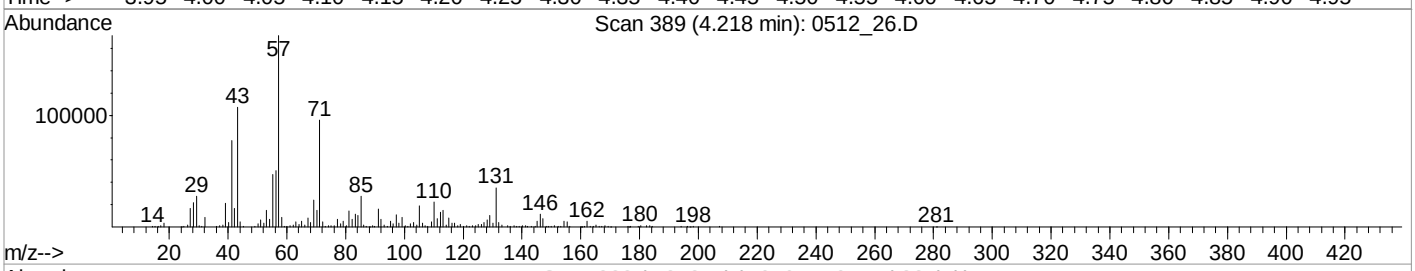
0512_26.D S804E04BV.M Fri May 13 14:08:51 2022

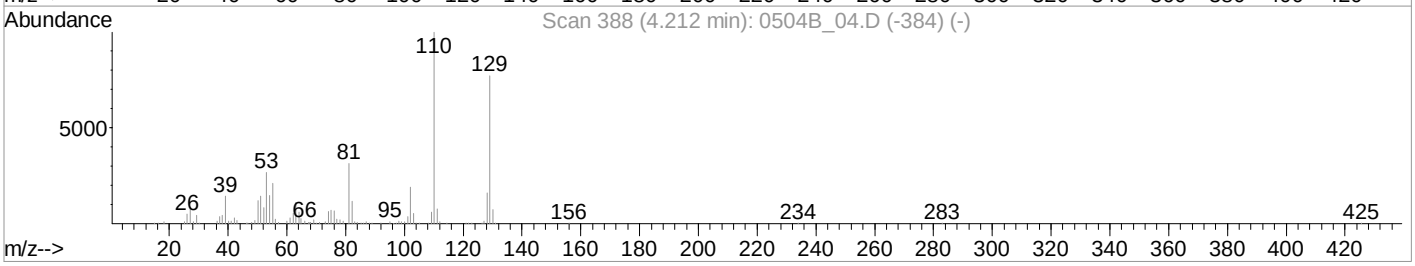
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration







TIC: 0512_26.D

(37) Hydroquinone

4.22min (+0.006) 6870.4238110 ppb

Qvalue = 62

response 33452

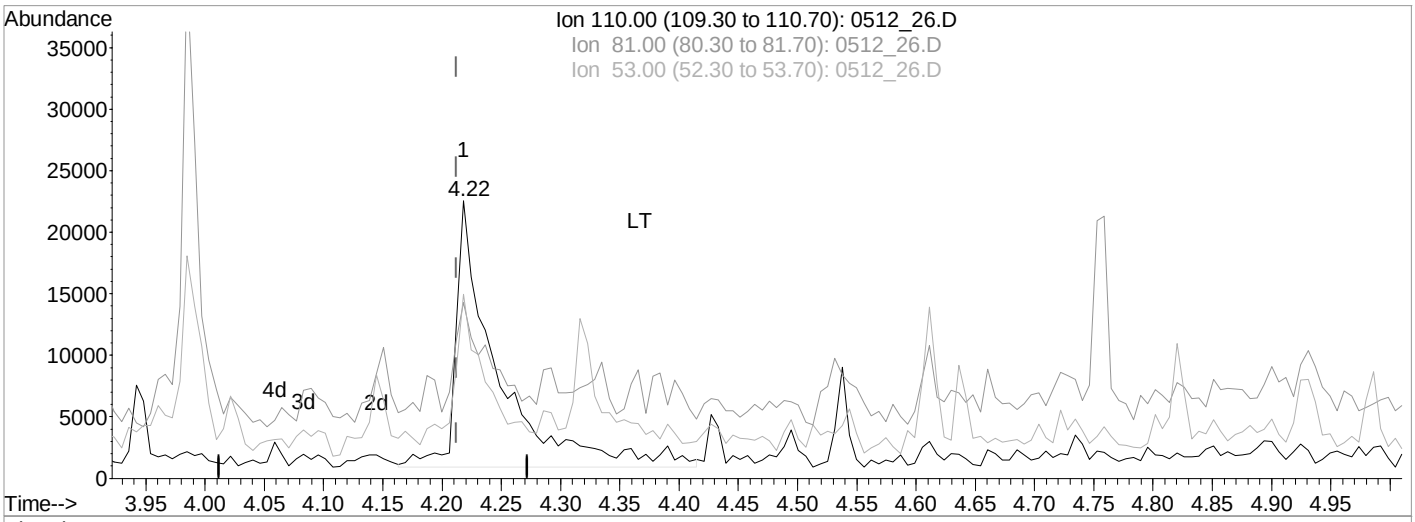
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	41.85
53.00	25.90	54.90#
0.00	0.00	0.00

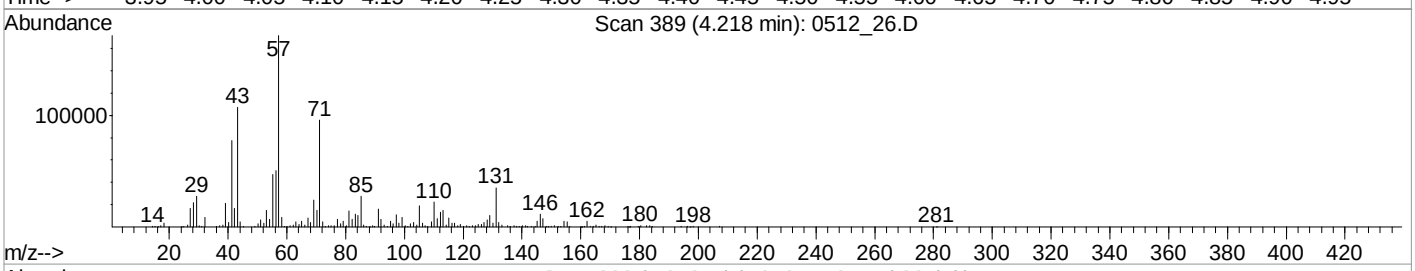
0512_26.D S804E04BV.M Fri May 13 14:09:08 2022

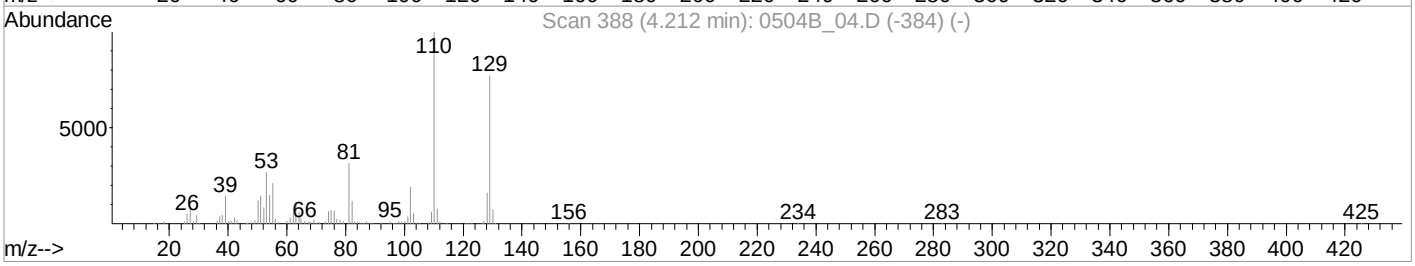
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 26.D Vial: 31
Acq On : 12 May 2022 1:27 pm Operator: 3545
Sample : MS 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration







TIC: 0512_26.D

(37) Hydroquinone

4.22min (+0.006) 11364.7187933 ppb m

response 53669

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	63.31#
53.00	25.90	66.50#
0.00	0.00	0.00

0512_26.D S804E04BV.M Fri May 13 14:09:19 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791942-3	**SDG:**	L1488802
Client Sample ID:	MS	**Collected Date/Time:**	04/28/22 13:50
Lab File ID:	0513_25	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 15:41
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	89.8	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
					mg/kg	*mg/kg*
Acenaphthene	83-32-9	5.40	1.26		0.0601	0.371
Acenaphthylene	208-96-8	5.28	1.38		0.0523	0.371
Anthracene	120-12-7	6.55	3.28	J5	0.0661	0.371
Benzoic Acid	65-85-0	3.99	U		1.31	18.6
Benzo(a)anthracene	56-55-3	9.34	5.38	V	0.0654	0.371
Benzo(b)fluoranthene	205-99-2	11.32	6.04	V	0.0692	0.371
Benzo(k)fluoranthene	207-08-9	11.37	2.44	J5	0.0660	0.371
Benzo(g,h,i)perylene	191-24-2	14.33	1.53		0.0679	0.371
Benzo(a)pyrene	50-32-8	11.99	5.15	V	0.0690	0.371
Carbazole	86-74-8	6.68	0.762		0.115	3.71
Chrysene	218-01-9	9.40	5.04	J5	0.0738	0.371
Dibenz(a,h)anthracene	53-70-3	14.03	0.732		0.103	0.371
Dibenzofuran	132-64-9	5.52	2.06		0.121	3.71
Fluoranthene	206-44-0	7.53	11.9	V	0.0670	0.371
Fluorene	86-73-7	5.78	2.57	J5	0.0604	0.371
Indeno(1,2,3-cd)pyrene	193-39-5	13.99	2.16		0.105	0.371
1-Methylnaphthalene	90-12-0	4.73	0.626		0.0475	0.371
2-Methylnaphthalene	91-57-6	4.66	0.593		0.0481	0.371
Naphthalene	91-20-3	4.23	0.623		0.0931	0.371
Phenanthrene	85-01-8	6.52	5.58	V	0.0736	0.371
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	0.686		0.470	3.71
Di-n-butyl phthalate	84-74-2	6.93	0.575		0.127	3.71
Di-n-octyl phthalate	117-84-0	10.66	0.695		0.251	3.71
Pyrene	129-00-0	7.77	9.37	V	0.0722	0.371
3&4-Methyl Phenol	3&4-Methyl Phenol	3.66	0.626		0.116	3.71
Pentachlorophenol	87-86-5	6.34	0.287		0.0998	3.71
Phenol	108-95-2	3.26	0.580		0.149	3.71

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:44:52 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.480	152	223092	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.208	136	905247	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	460569	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.494	188	940110	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	955839	8000.0000000	ppb		0.00
94) Perylene-d12	12.105	264	889303	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.828	112	65232	1765.0736503	ppb		0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 8.83%#				
7) Phenol-d5	3.251	99	69546	1542.1455192	ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 7.71%#				
24) Nitrobenzene-d5	3.780	82	29191m	723.4771374	ppb		0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 7.23%#				
50) 2-Fluorobiphenyl	4.890	172	63837	818.5876298	ppb		0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 8.19%#				
73) 2,4,6-Tribromophenol	5.954	330	18100	1459.6702844	ppb		0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 7.30%#				
87) p-Terphenyl-d14	7.922	244	102925	822.3311930	ppb		0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 8.22%#				
Target Compounds							Qvalue
2) Pyridine	2.264	79	54153	1271.6871927	ppb		97
3) N-Nitrosodimethylamine	2.252	42	29650	1540.2271217	ppb		99
5) Aniline	3.304	66	21321	1007.2853388	ppb	#	44
6) bis(2-Chloroethyl)ether	3.315	93	57053m	1588.8612304	ppb		
8) Phenol	3.262	94	72215	1563.9761278	ppb		94
9) Benzaldehyde	3.257	105	21128	1682.8509470	ppb	#	92
10) 2-Chlorophenol	3.368	128	60206	1601.0708232	ppb		97
12) 1,3-Dichlorobenzene	3.450	146	64884	1543.4416570	ppb		98
13) 1,4-Dichlorobenzene	3.486	146	63780	1497.1851299	ppb		92
14) Benzyl Alcohol	3.539	79	45716	1460.3718742	ppb		96
15) 1,2-Dichlorobenzene	3.574	146	62419	1552.2437259	ppb		97
16) bis(2-Chloroisopropyl)...	3.603	121	19732	1495.9389896	ppb		100
17) 2,2-oxybis(1-chloropro...	3.603	121	19732	1495.9389896	ppb		100
18) 2-Methylphenol	3.586	108	54302	1593.5674126	ppb		96
19) Hexachloroethane	3.762	117	17780	1115.1384583	ppb		95
20) N-Nitrosodi-n-propylamine	3.674	70	44778	1637.5994312	ppb		94
21) 3&4-Methyl phenol	3.662	107	65158	1687.2573876	ppb		86
22) Acetophenone	3.691	105	78752	1549.4390157	ppb		99
25) Nitrobenzene	3.791	77	62564	1555.8665681	ppb		96
26) Isophorone	3.921	82	111382	1529.1367585	ppb		100
27) 2-Nitrophenol	3.973	139	31111	1607.3412183	ppb		97
28) 2,4-Dimethylphenol	3.973	107	53602	1477.8616951	ppb		96
29) bis(2-Chlorethoxy)methane	4.032	93	66731	1528.5722893	ppb		99
30) 2,4-Dichlorophenol	4.114	162	43353	1385.8792980	ppb		97
32) 1,2,4-Trichlorobenzene	4.167	180	53940	1520.4064880	ppb		98
33) alpha-terpineol	4.208	59	44015	1709.2725794	ppb		97
34) Naphthalene	4.226	128	190254m	1679.8584080	ppb		

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:44:52 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
35) 4-Chloroaniline	4.244	65	15718	1151.6444302 ppb		92
36) Hexachloro-1,3-butadiene	4.285	225	32059	1497.1830865 ppb		99
37) Hydroquinone	4.420	110	25830m	1073.6576975 ppb		
38) Quinoline	4.426	129	105819	1814.3247192 ppb		99
39) Caprolactam	4.443	113	16919	2500.4414550 ppb	#	72
40) 4-Chloro-3-methylphenol	4.532	107	38185	1243.8826729 ppb		98
41) 2-Methylnaphthalene	4.655	142	117060	1598.8597592 ppb		98
42) 1-Methylnaphthalene	4.726	142	117235	1689.1093652 ppb		99
43) 1,2,4,5-Tetrachloroben...	4.767	216	52339	1473.9069355 ppb		99
44) Diphenyl Ether	5.031	170	70537	1882.3108392 ppb	#	86
45) Diphenyl Oxide	5.031	170	70537	1882.3108392 ppb	#	86
48) 2,4,6-Trichlorophenol	4.837	196	29868	1398.9291372 ppb		94
49) 2,4,5-Trichlorophenol	4.861	196	30611	1340.8560936 ppb		97
51) Biphenyl	4.966	154	141450	1631.7314279 ppb		99
52) 2-Chloronaphthalene	4.984	162	106257	1575.9567682 ppb		99
53) 2-Nitroaniline	5.049	138	32720	1540.0892622 ppb	#	84
54) Acenaphthylene	5.278	152	372245	3714.6920103 ppb		99
56) 2,6-Dinitrotoluene	5.207	165	26318	1595.3721123 ppb		88
57) 3-Nitroaniline	5.331	138	26677	1497.1991269 ppb		83
58) Acenaphthene	5.401	153	231066	3399.7240482 ppb		96
59) 2,4-Dinitrophenol	5.407	184	1152	2442.5804420 ppb	#	1
60) Dibenzofuran	5.525	168	520629	5547.5111898 ppb		98
61) 2,4-Dinitrotoluene	5.495	165	38172	1823.8693638 ppb		92
62) 2,3,4,6-Tetrachlorophenol	5.607	232	21819	1319.8682010 ppb		98
63) 4-Nitrophenol	5.436	139	23793	1672.8044860 ppb		91
64) Fluorene	5.777	166	529788	6949.1669955 ppb		98
65) 4-Chlorophenyl-phenyle...	5.765	204	62001	1616.5771702 ppb		99
66) Diethyl phthalate	5.666	149	115040	1621.5088709 ppb		99
67) 4-Nitroaniline	5.777	138	34295	2142.3843225 ppb		90
68) Azobenzene	5.883	77	129114m	1733.0501988 ppb		
69) Atrazine	6.247	200	39149	1873.8635764 ppb		98
72) N-Nitrosodiphenylamine	5.848	169	120728	1733.3561026 ppb		96
74) 4-Bromophenyl-phenylether	6.136	248	39705	1573.6396453 ppb		98
75) Hexachlorobenzene	6.189	284	42758	1496.8269753 ppb		98
76) n-octadecane	6.371	55	26641	2124.0108335 ppb	#	85
77) Pentachlorophenol	6.341	266	12668	774.0194757 ppb	#	66
78) Phenanthrene	6.518	178	1863881	15037.4393038 ppb		99
79) Anthracene	6.553	178	1111335	8827.5215888 ppb		99
80) Carbazole	6.676	167	231119	2053.0643252 ppb		98
81) Di-n-butyl phthalate	6.935	149	211241	1548.6793513 ppb		99
83) Fluoranthene	7.534	202	4500879	32205.0392506 ppb		99
86) Pyrene	7.769	202	3662211	25262.0902405 ppb		99
88) Benzylbutyl phthalate	8.521	149	99425	1717.4883915 ppb		98
89) 3,3-Dichlorobenzidine	9.303	252	151078	2992.6403390 ppb		97
90) Benzo(a)anthracene	9.338	228	2016303	14492.3886150 ppb		97
91) Chrysene	9.397	228	1850187	13579.3250932 ppb		98
92) bis(2-Ethylhexyl)phtha...	9.414	149	151475	1850.6192749 ppb		99
93) Di-n-octyl phthalate	10.660	149	247114	1872.7944051 ppb		100
95) Benzo(b)fluoranthene	11.318	252	2068213	16268.2001571 ppb		99
96) Benzo(k)fluoranthene	11.371	252	843525	6577.1544586 ppb		100

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:44:52 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

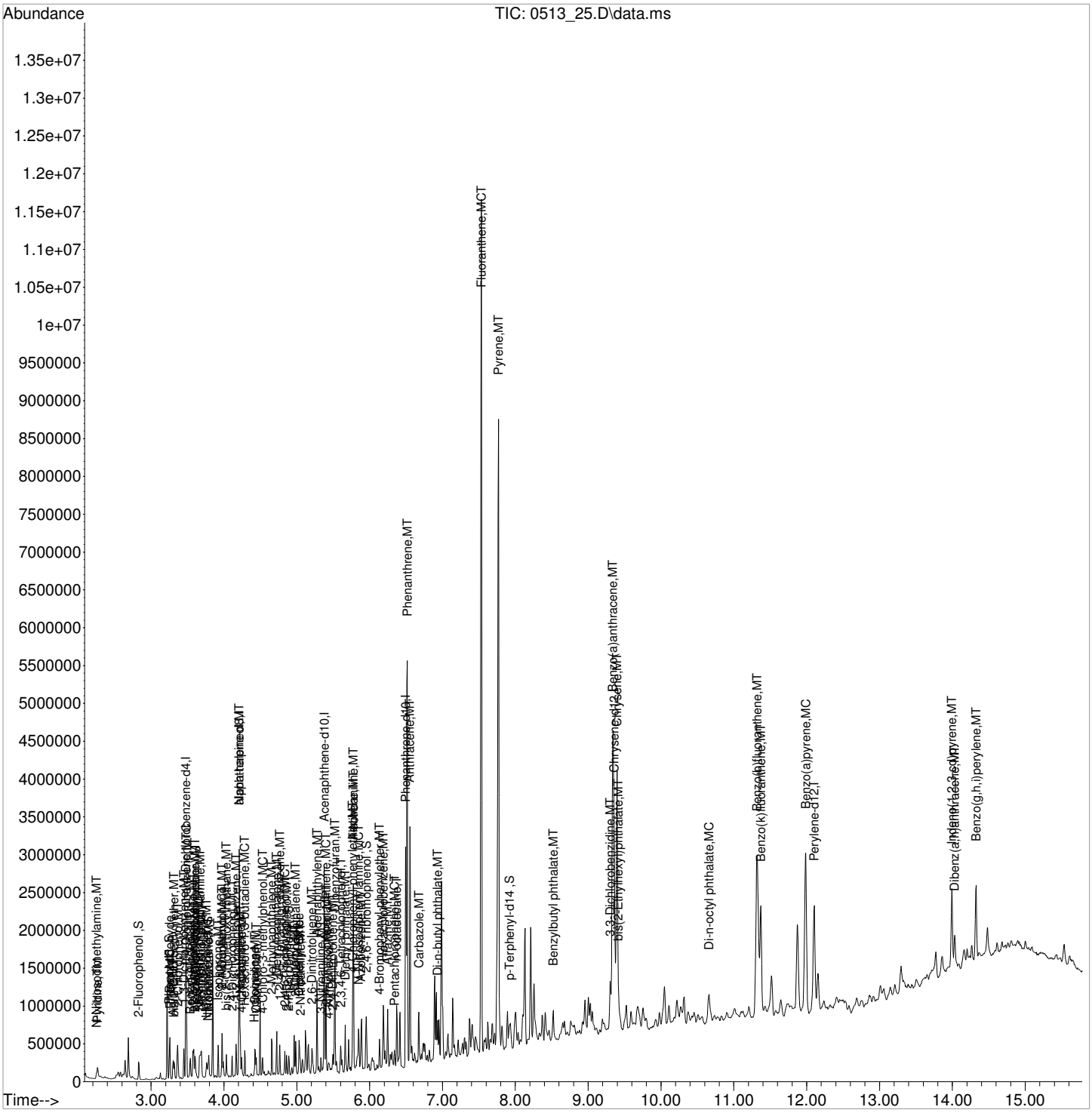
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) Benzo(a)pyrene	11.988	252	1529411	13875.6260384 ppb	98
98) Indeno(1,2,3-cd)pyrene	13.991	276	596910	5837.2654689 ppb	96
99) Dibenz(a,h)anthracene	14.032	278	231819	1973.9400890 ppb	92
100) Benzo(g,h,i)perylene	14.326	276	470406	4102.1462806 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

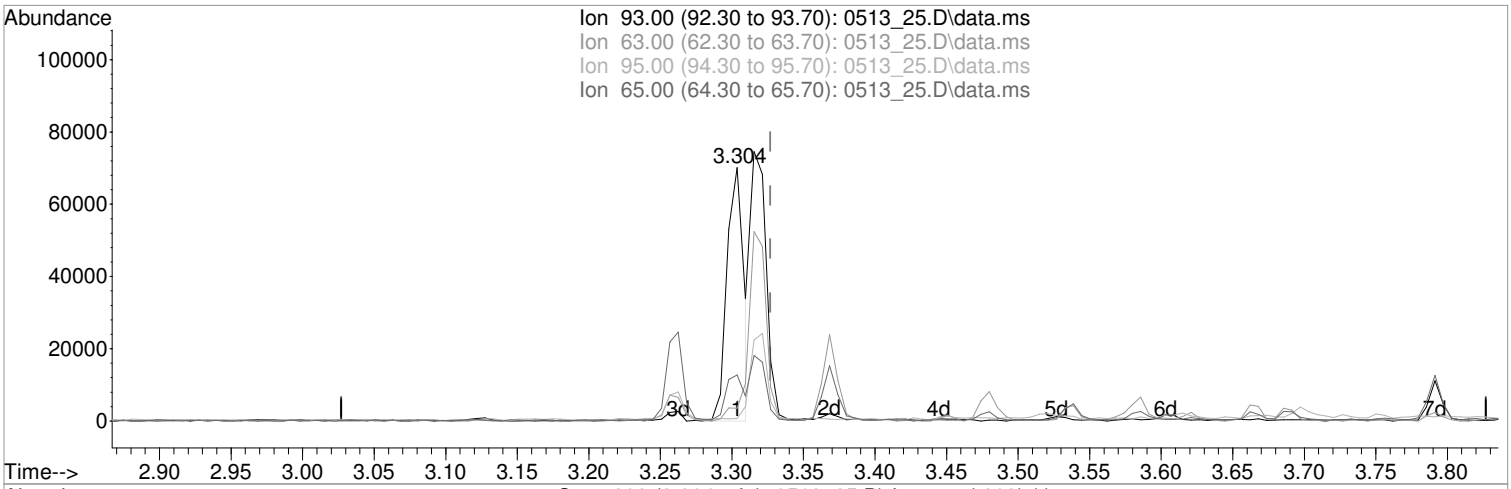
Quant Time: May 15 13:44:52 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

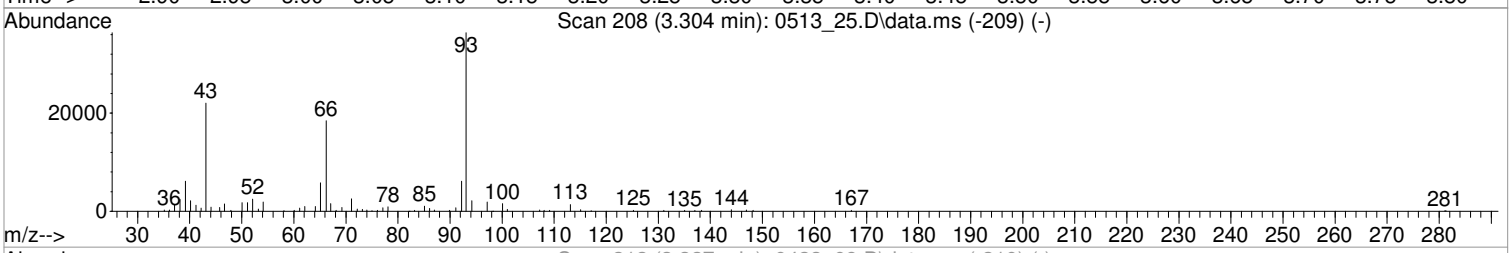


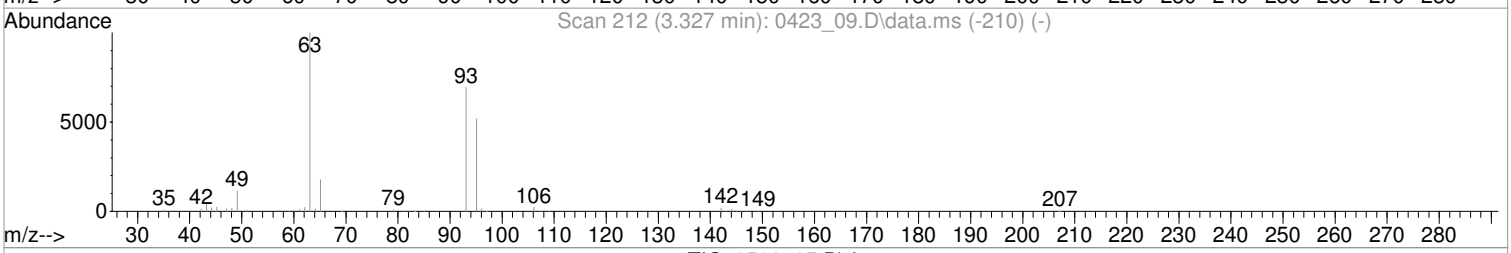
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.304min (-0.023) 1617.3506181 ppb

Qvalue = 39

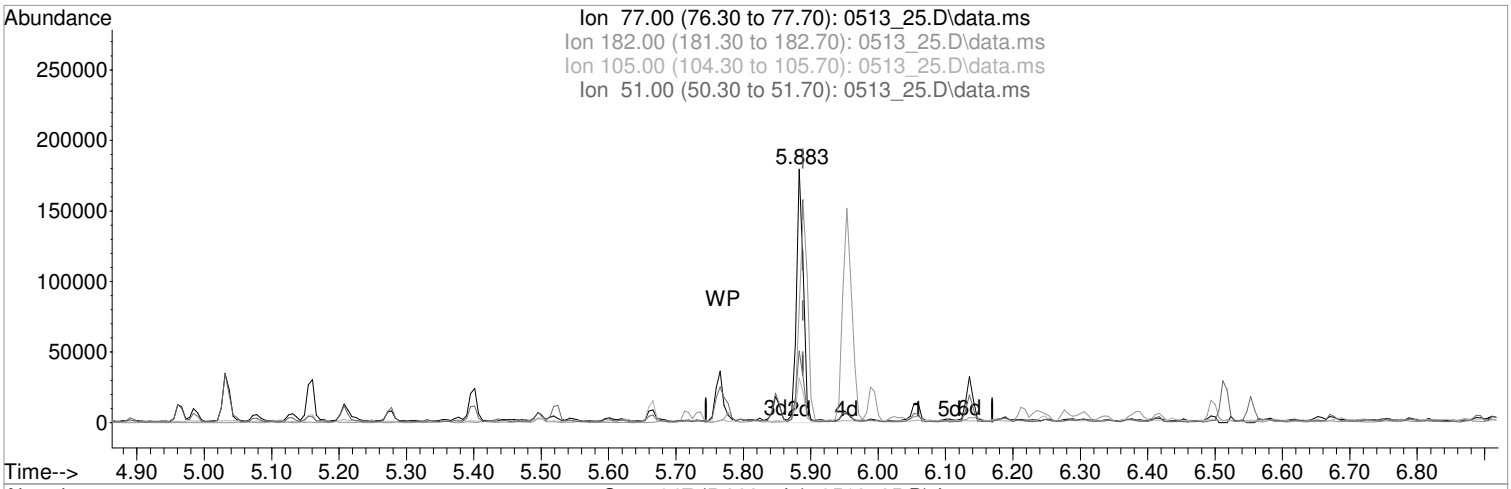
response 58076

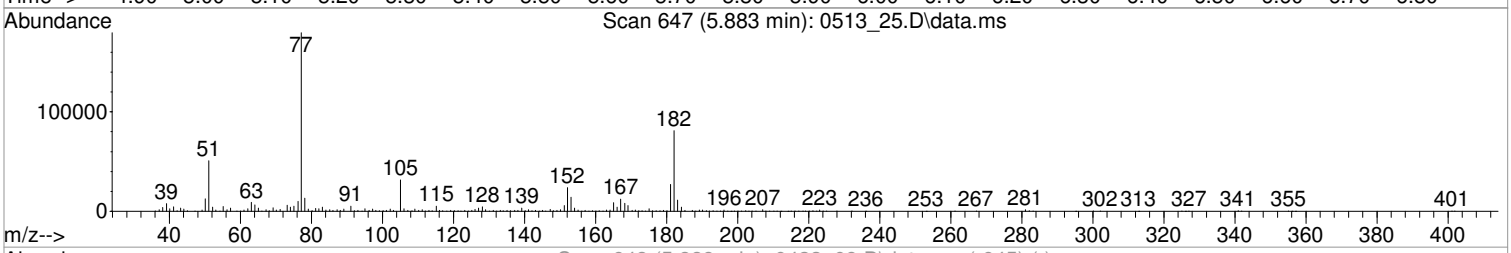
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	4.66#
95.00	32.50	0.25#
65.00	22.20	17.59

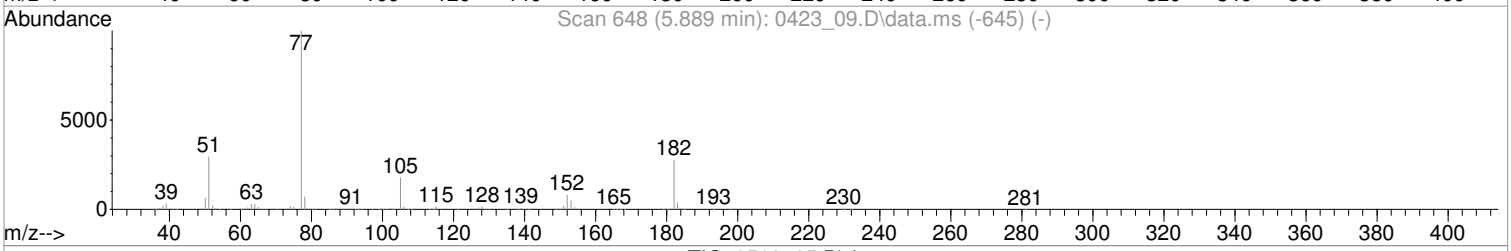
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(68) Azobenzene (MT)

5.883min (-0.006) 1733.0501988 ppb m

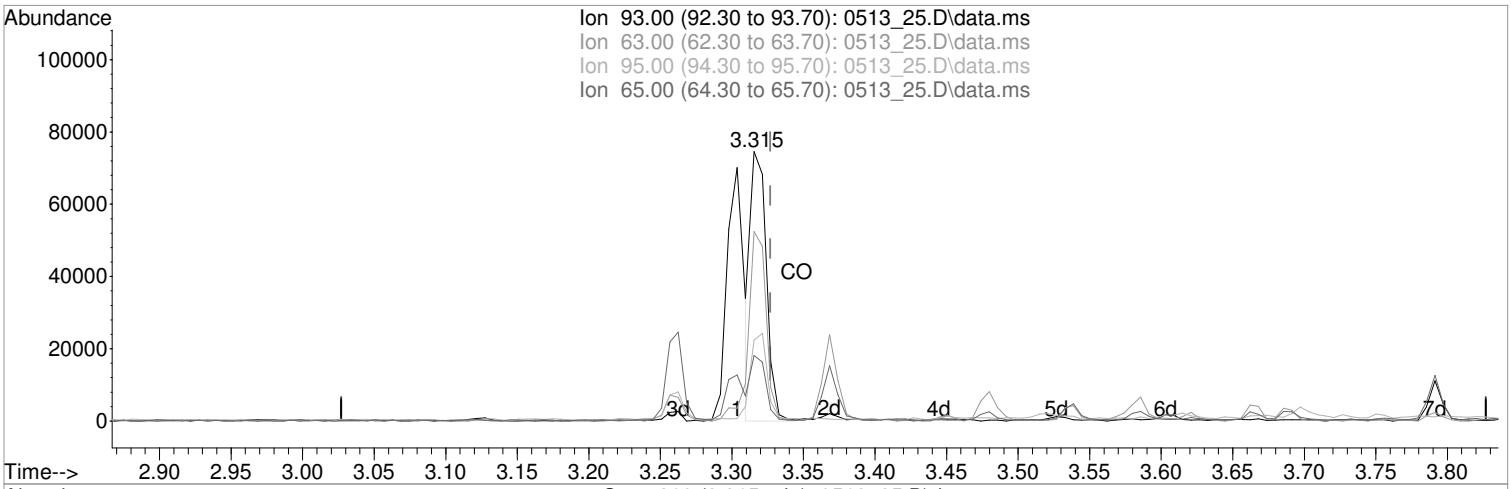
response 129114

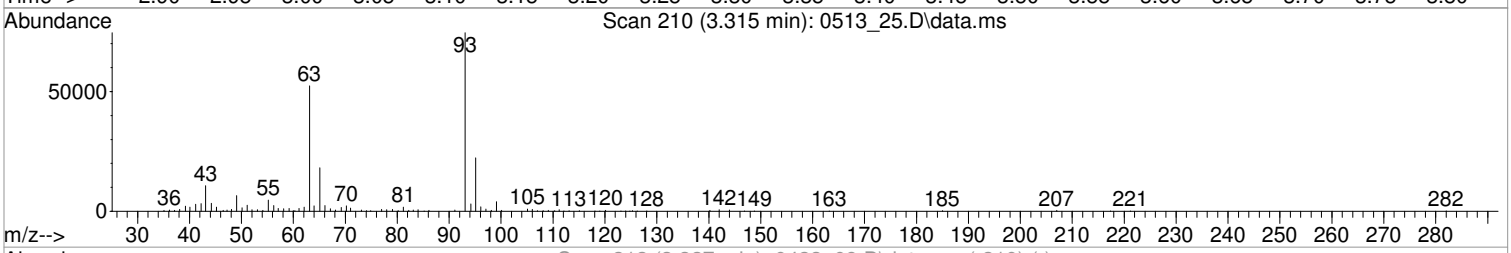
Ion	Exp%	Act%
77.00	100	100
182.00	29.80	3.68#
105.00	17.50	0.98
51.00	29.10	4.18#

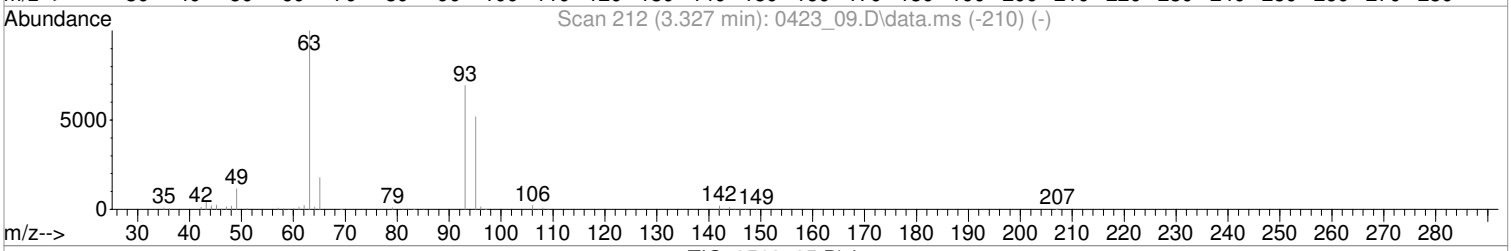
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.315min (-0.012) 1588.8612304 ppb m

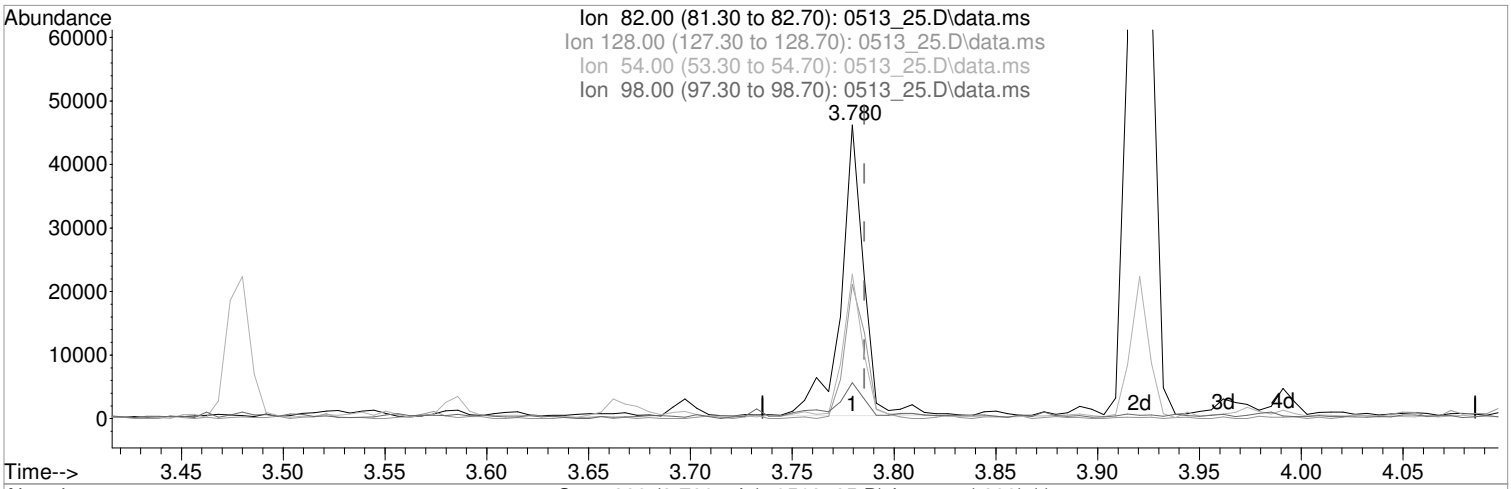
response 57053

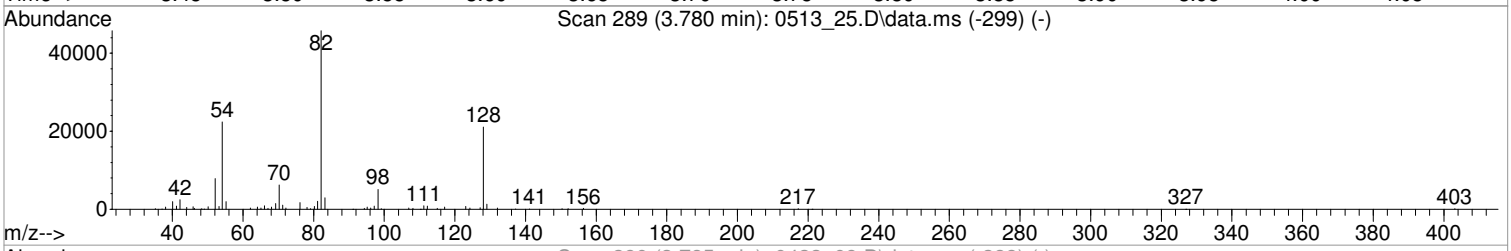
Ion	Exp%	Act%
93.00	100	100
63.00	68.30	70.32
95.00	32.50	29.98
65.00	22.20	24.36

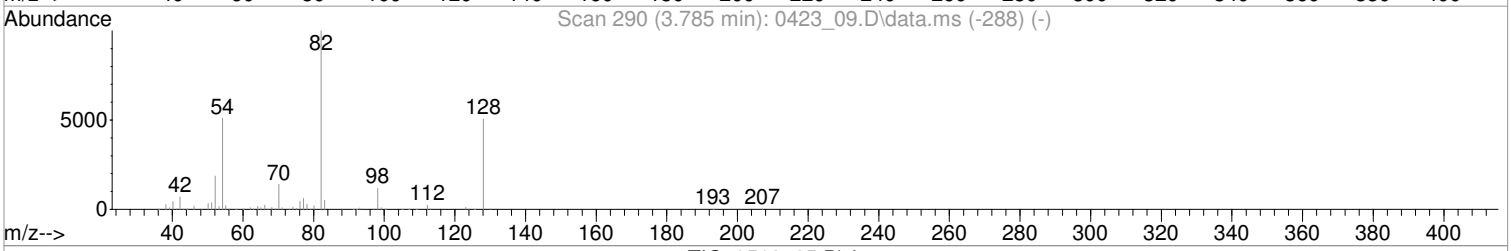
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(24) Nitrobenzene-d5 (S)

3.780min (-0.006) 896.9173418 ppb

Qvalue = 99

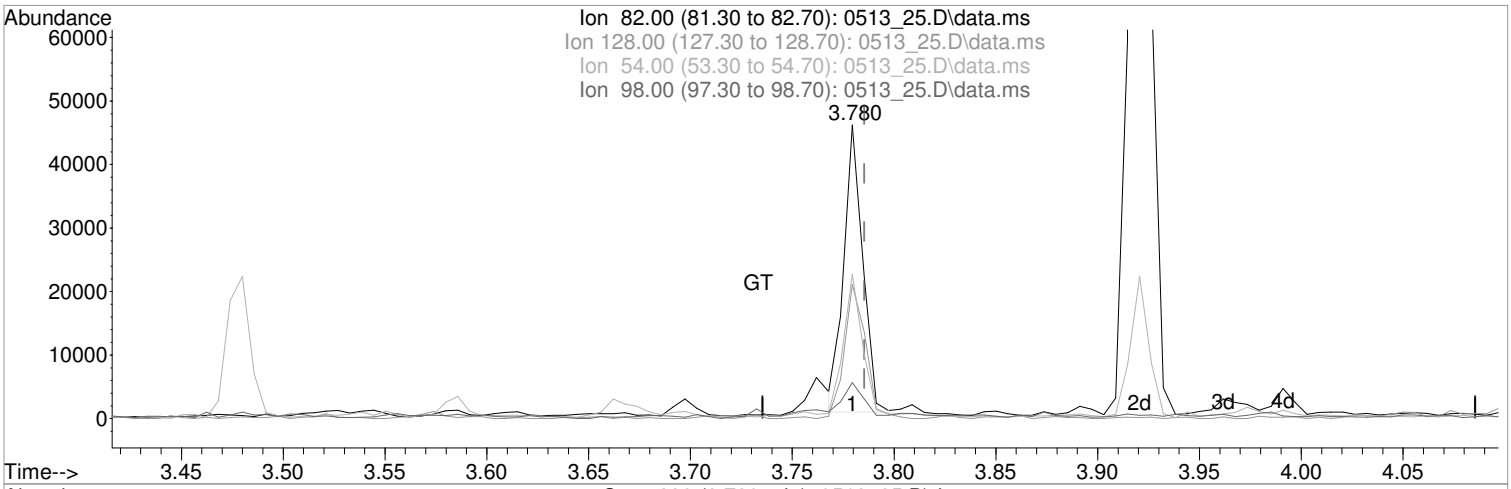
response 36189

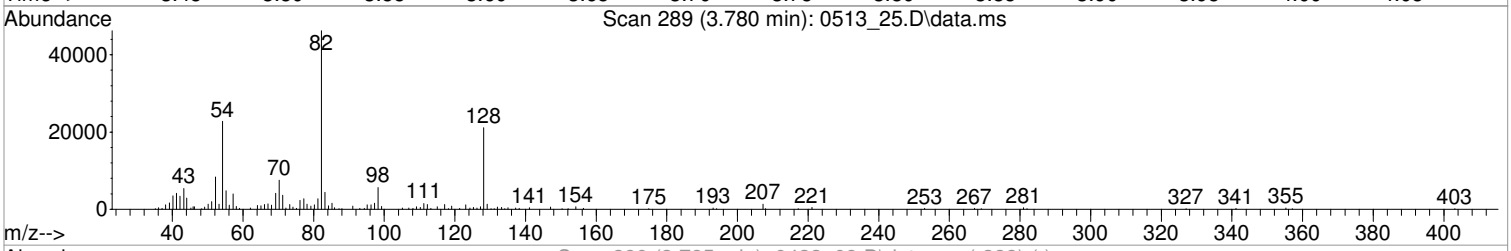
Ion	Exp%	Act%
82.00	100	100
128.00	47.30	46.13
54.00	48.70	49.01
98.00	12.00	11.42

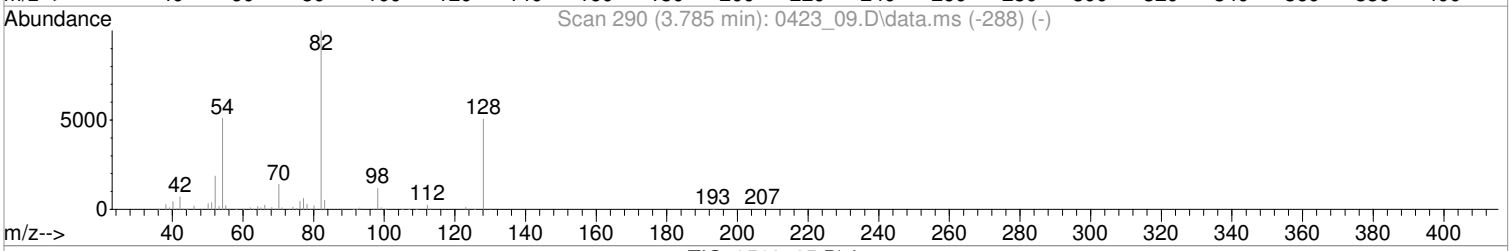
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(24) Nitrobenzene-d5 (S)

3.780min (-0.006) 723.4771374 ppb m

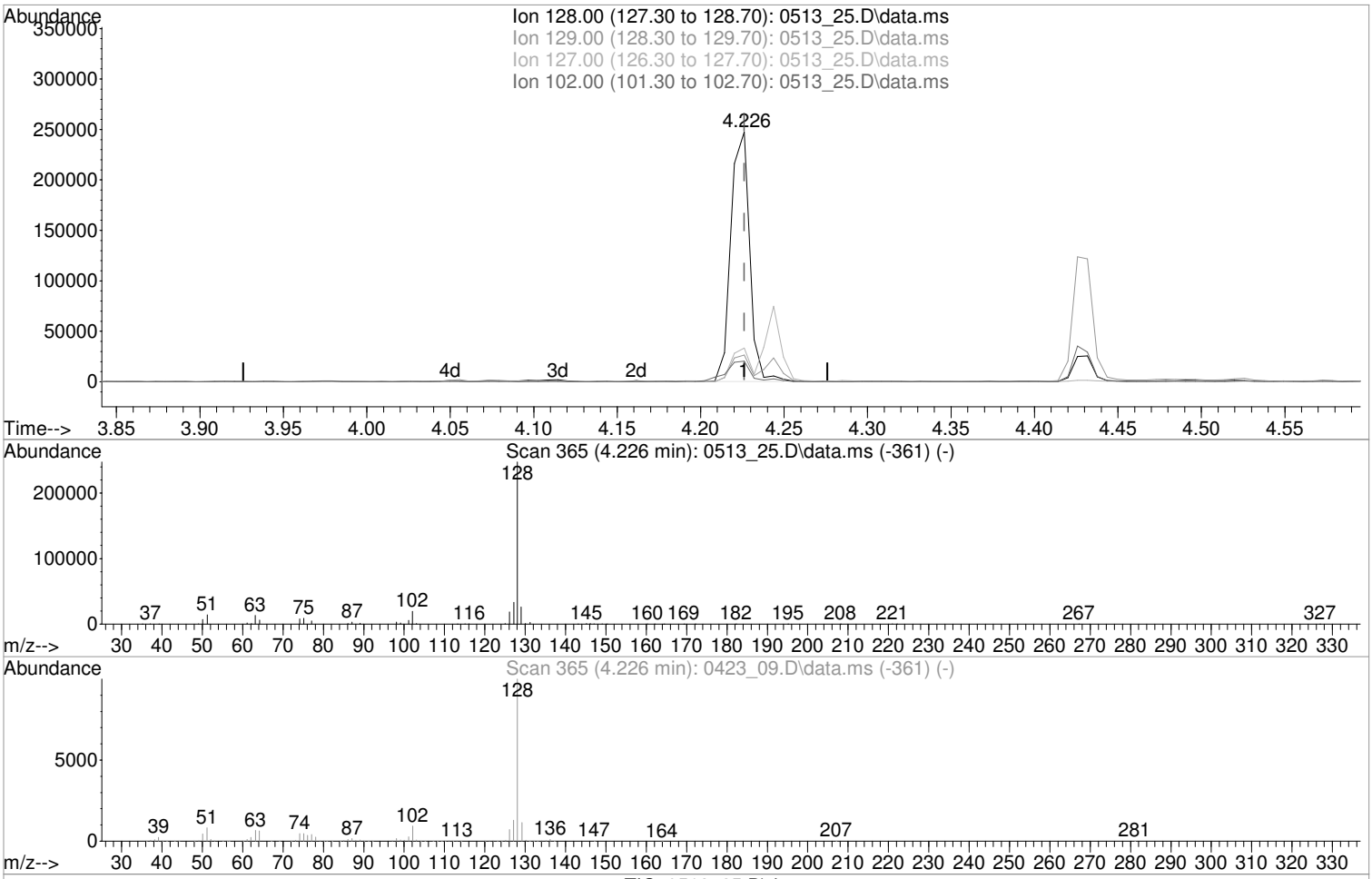
response 29191

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	45.68
54.00	48.70	49.23
98.00	12.00	12.20

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_25.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 1698.8066359 ppb

Qvalue = 98

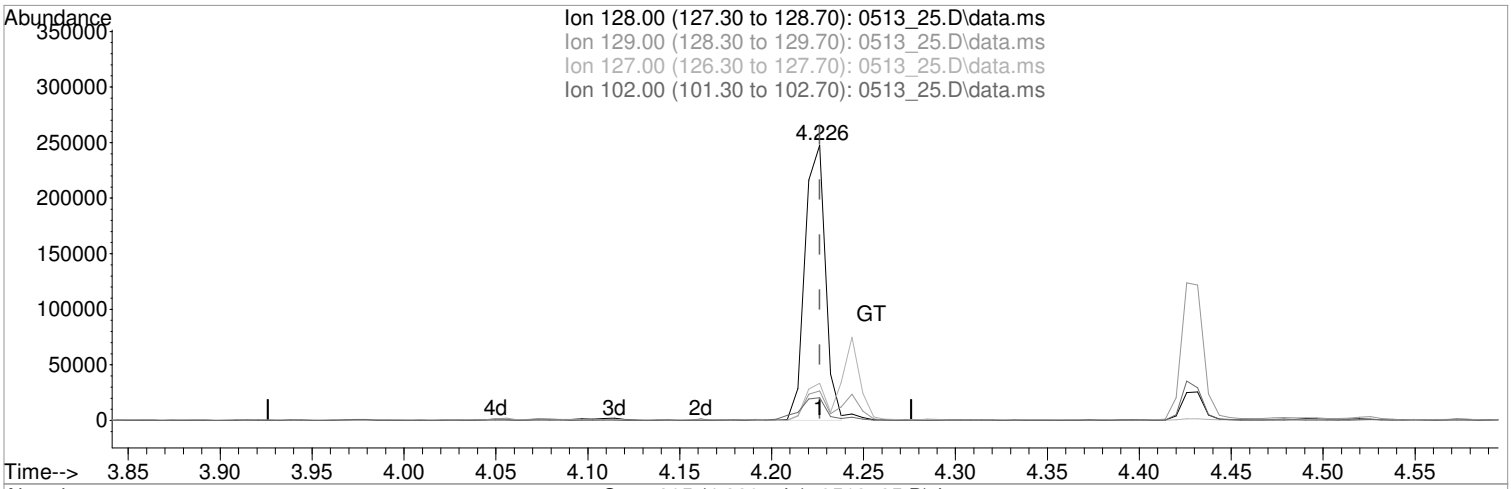
response 192400

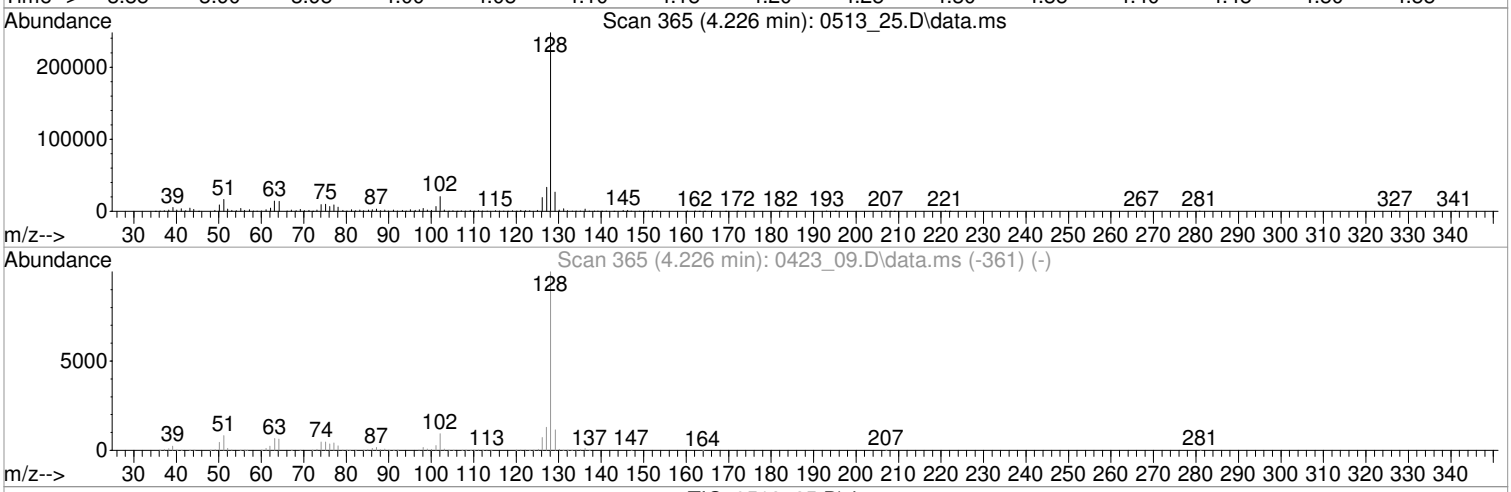
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.62
127.00	12.90	13.37
102.00	9.20	7.87

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration





TIC: 0513_25.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 1679.8584080 ppb m

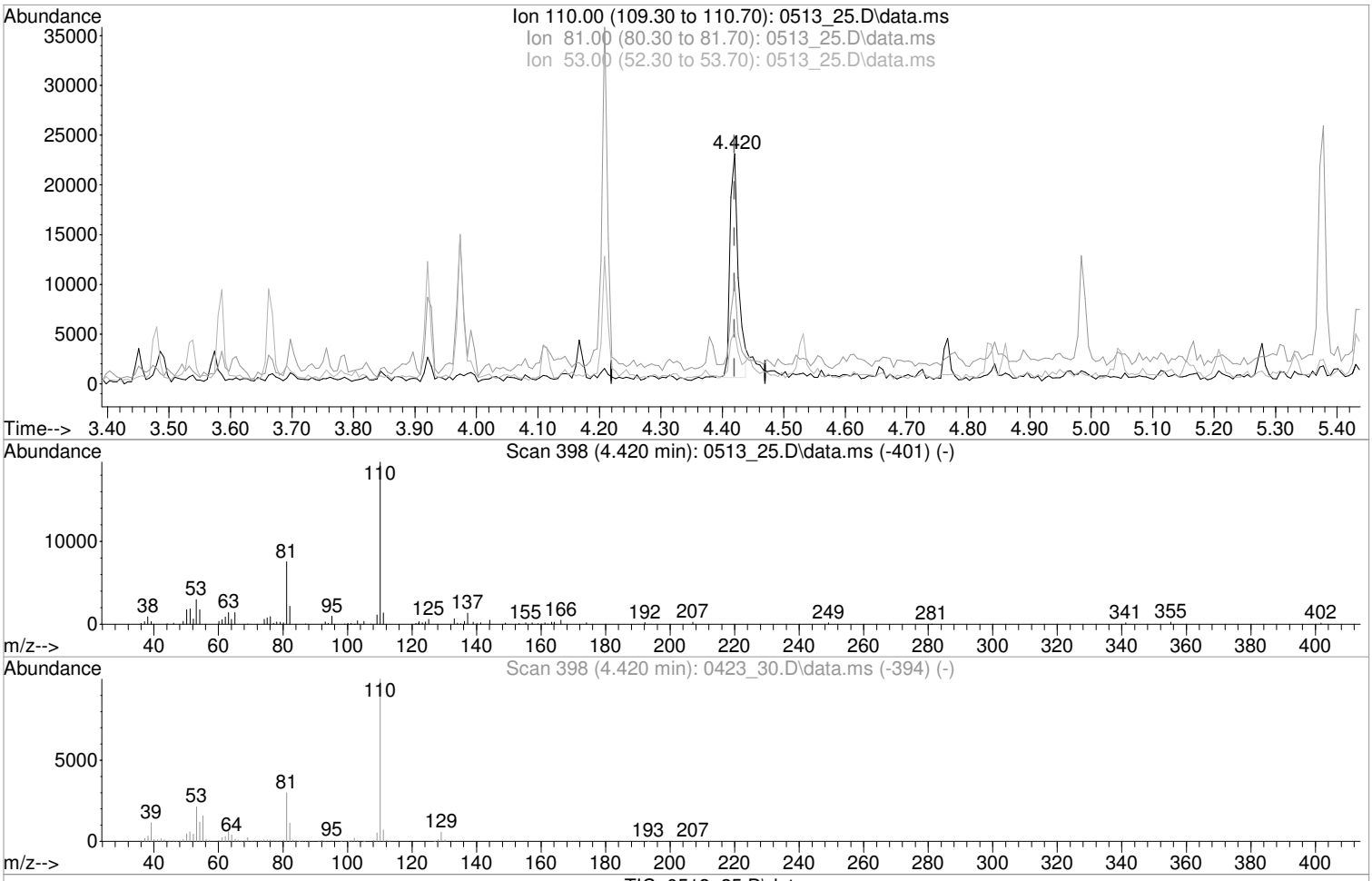
response 190254

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	10.73
127.00	12.90	13.45
102.00	9.20	8.28

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_25.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 891.9298053 ppb

Qvalue = 91

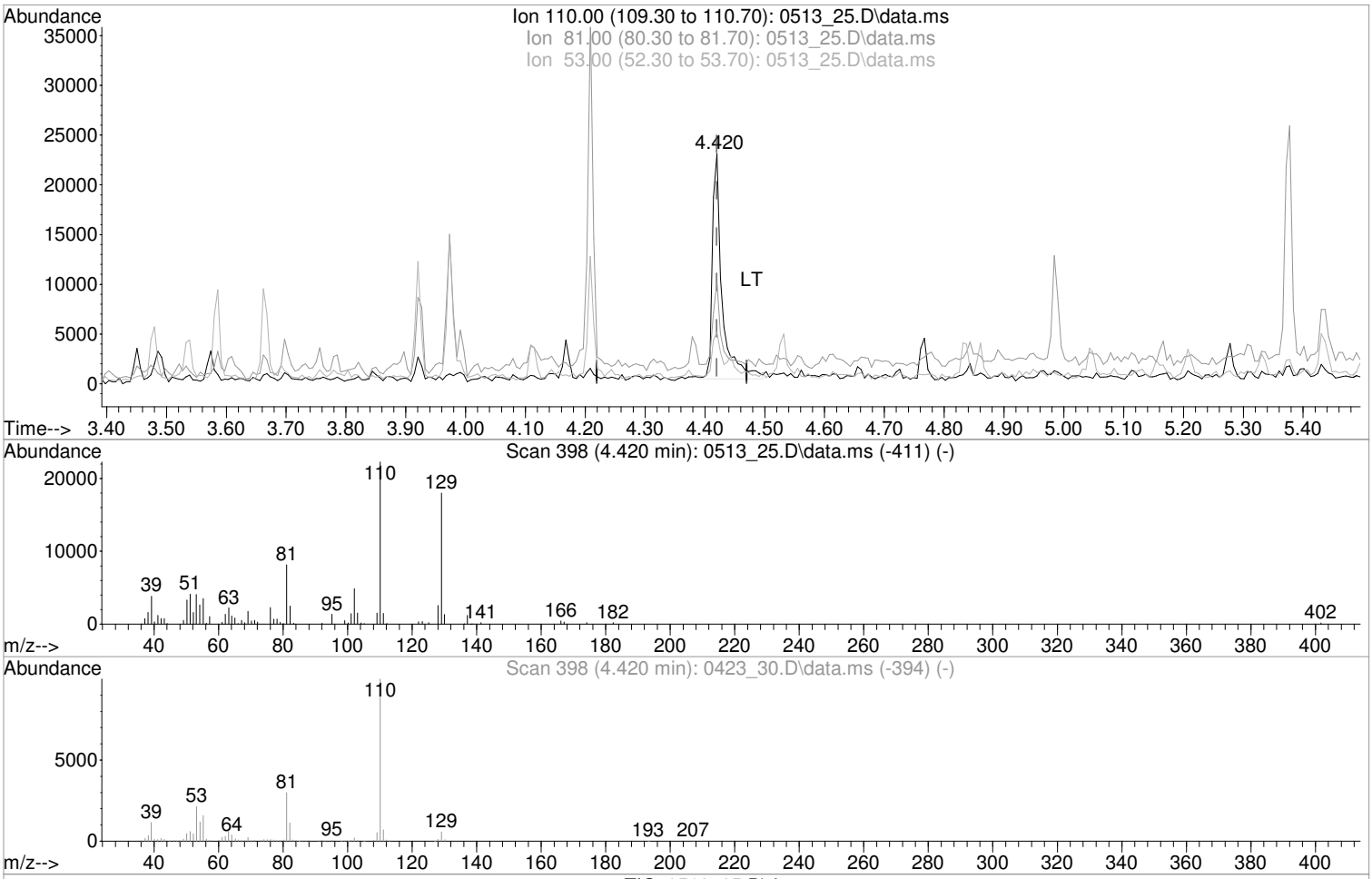
response 21458

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	36.79
53.00	21.40	19.63
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_25.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 1073.6576975 ppb m

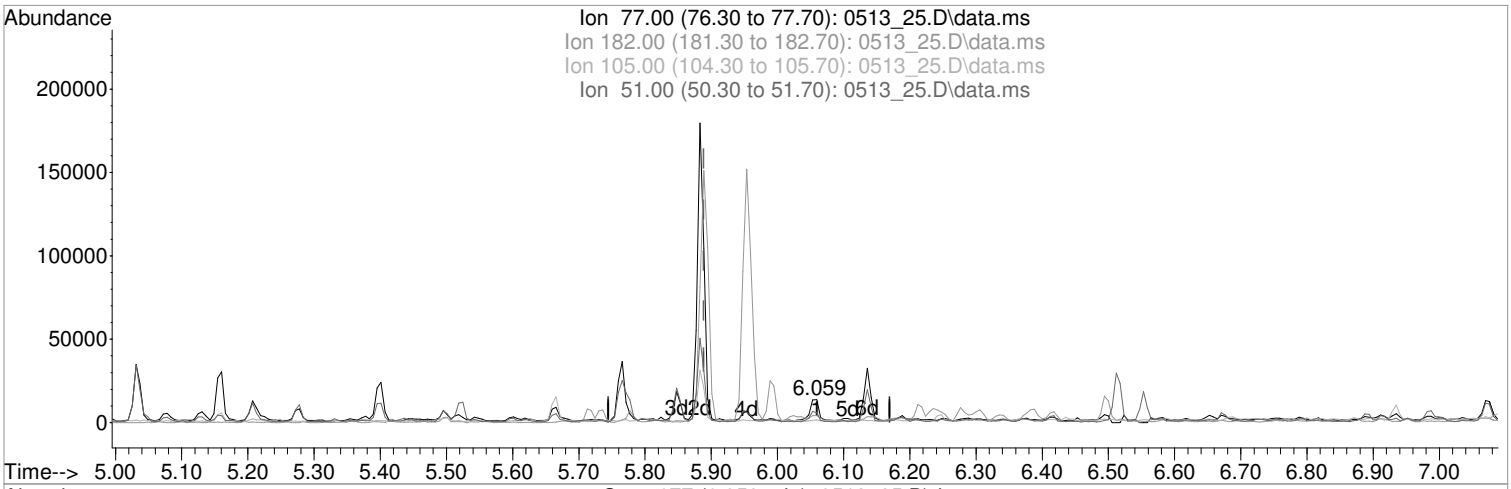
response 25830

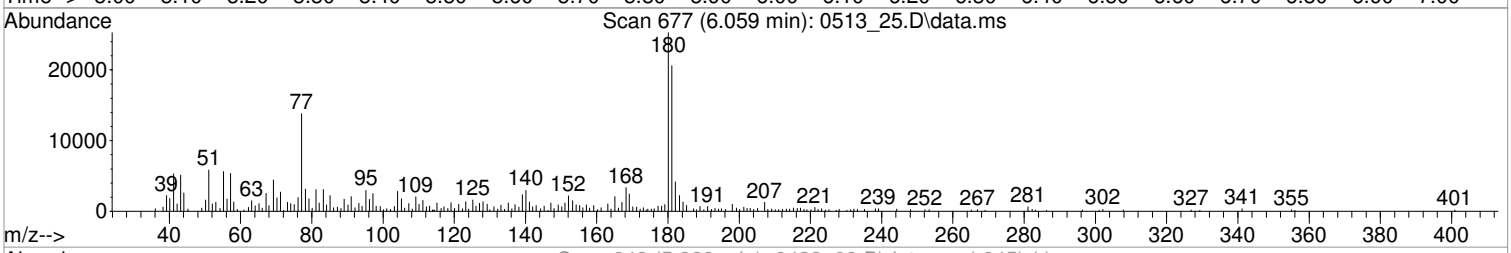
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	44.29
53.00	21.40	22.52
0.00	0.00	0.00

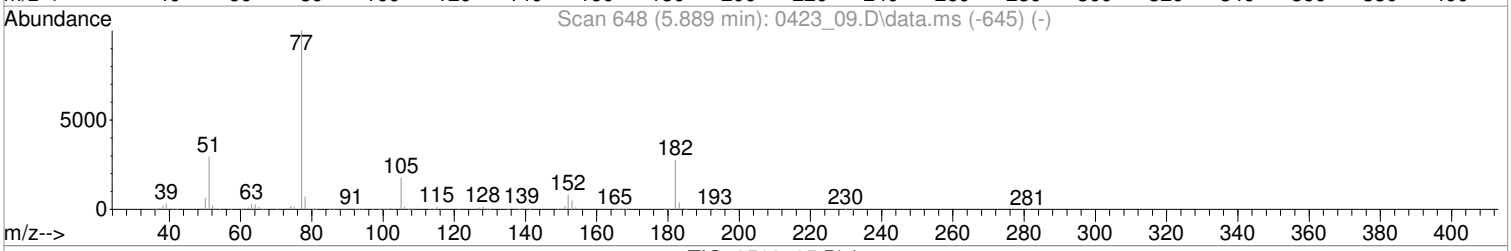
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_25.D
Acq On : 13 May 2022 3:41 pm
Operator : 974
Sample : MS 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 81 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:25 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_25.D\data.ms

(68) Azobenzene (MT)

6.059min (+0.170) 161.1924333 ppb

Qvalue = 78

response 12009

Ion	Exp%	Act%
77.00	100	100
182.00	29.80	39.55
105.00	17.50	10.53
51.00	29.10	44.97

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791359-4	**SDG:**	L1488802
Client Sample ID:	MSD	**Collected Date/Time:**	04/28/22 15:45
Lab File ID:	0512_27	**Received Date/Time:**	04/30/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	05/11/22 03:06
Analytical Batch:	WG1861595	**Analysis Date/Time:**	05/12/22 13:47
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.18 g
Total Solids (%):	78.9	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.16	0.502		0.00683	0.0422
Acenaphthylene	208-96-8	5.05	0.502		0.00595	0.0422
Anthracene	120-12-7	6.32	0.491		0.00752	0.0422
Benzoic Acid	65-85-0	3.73	U	J6	0.150	2.12
Benzo(a)anthracene	56-55-3	8.99	0.557		0.00744	0.0422
Benzo(b)fluoranthene	205-99-2	10.90	0.493		0.00787	0.0422
Benzo(k)fluoranthene	207-08-9	10.96	0.533		0.00751	0.0422
Benzo(g,h,i)perylene	191-24-2	14.03	0.507		0.00772	0.0422
Benzo(a)pyrene	50-32-8	11.55	0.555		0.00785	0.0422
Carbazole	86-74-8	6.45	0.473		0.0131	0.422
Chrysene	218-01-9	9.05	0.543		0.00839	0.0422
Dibenz(a,h)anthracene	53-70-3	13.73	0.506		0.0117	0.0422
Dibenzofuran	132-64-9	5.29	0.488		0.0138	0.422
Fluoranthene	206-44-0	7.27	0.502		0.00762	0.0422
Fluorene	86-73-7	5.54	0.514		0.00687	0.0422
Indeno(1,2,3-cd)pyrene	193-39-5	13.68	0.515		0.0119	0.0422
1-Methylnaphthalene	90-12-0	4.49	0.669		0.00540	0.0422
2-Methylnaphthalene	91-57-6	4.43	0.915		0.00548	0.0422
Naphthalene	91-20-3	4	0.520		0.0106	0.0422
Phenanthrene	85-01-8	6.28	0.628		0.00838	0.0422
Bis(2-ethylhexyl)phthalate	117-81-7	9.08	0.643		0.0535	0.422
Di-n-butyl phthalate	84-74-2	6.71	0.569		0.0145	0.422
Di-n-octyl phthalate	117-84-0	10.27	0.617		0.0285	0.422
Pyrene	129-00-0	7.49	0.544		0.00822	0.0422
3&4-Methyl Phenol	3&4-Methyl Phenol	3.46	0.585		0.0132	0.422
Pentachlorophenol	87-86-5	6.12	0.494		0.0114	0.422
Phenol	108-95-2	3.05	0.444		0.0170	0.422

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:11 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.25	152	45130	8000.00 ppb		0.00
23) Naphthalene-d8	3.98	136	219856	8000.00 ppb		0.00
46) Acenaphthene-d10	5.15	164	104616	8000.00 ppb		0.00
70) Phenanthrene-d10	6.26	188	206133	8000.00 ppb		0.00
84) Chrysene-d12	9.01	240	170709	8000.00 ppb		0.00
94) Perylene-d12	11.66	264	184122	8000.00 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.60	112	81891	11166.6627815 ppb		0.02
Spiked Amount 20000.000	Range 20 - 120		Recovery = 55.83%			
7) Phenol-d5	3.04	99	98968	11244.0224281 ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 56.22%			
24) Nitrobenzene-d5	3.56	82	44119	4729.4643344 ppb		0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 47.29%			
50) 2-Fluorobiphenyl	4.67	172	91379	5177.8746144 ppb		0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 51.78%			
73) 2,4,6-Tribromophenol	5.72	330	28389	12166.1159920 ppb		0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 60.83%			
87) p-Terphenyl-d14	7.65	244	156081	6690.3307650 ppb		0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 66.90%			
Target Compounds						Qvalue
2) Pyridine	1.98	79	57552	8241.8062273 ppb		99
3) N-Nitrosodimethylamine	1.98	42	46160	12316.1275453 ppb		86
5) Aniline	3.08	66	36338	8702.5712988 ppb		90
6) bis(2-Chloroethyl)ether	3.09	93	94937m	14637.3159079 ppb		
8) Phenol	3.05	94	98524m	10626.5874298 ppb		
9) Benzaldehyde	3.03	105	53850	26827.4439625 ppb	#	88
10) 2-Chlorophenol	3.14	128	80216	10805.9204037 ppb		90
11) n-Decane	3.13	41	42003	9606.2653555 ppb		97
12) 1,3-Dichlorobenzene	3.22	146	81376	9695.2011900 ppb		97
13) 1,4-Dichlorobenzene	3.26	146	81010	9377.1085641 ppb		93
14) Benzyl Alcohol	3.32	79	30646	5337.7009220 ppb	#	80
15) 1,2-Dichlorobenzene	3.35	146	82349	10369.5149651 ppb		95
16) bis(2-Chloroisopropyl)ethe	3.38	121	27679	10185.4251334 ppb	#	38
17) 2,2-oxybis(1-chloropropane	3.38	121	27679	10185.4251334 ppb	#	38
18) 2-Methylphenol	3.37	108	88219	13151.5533906 ppb		90
19) Hexachloroethane	3.54	117	41314	13174.0714273 ppb	#	31
20) N-Nitrosodi-n-propylamine	3.46	70	65808	13424.6412023 ppb		97
21) 3&4-Methyl phenol	3.46	107	106815	14018.9148939 ppb		94
22) Acetophenone	3.47	105	128325	13749.6538713 ppb	#	78
25) Nitrobenzene	3.57	77	94306	10339.2487247 ppb		89
26) Isophorone	3.70	82	169515	10360.1789232 ppb		98
27) 2-Nitrophenol	3.75	139	46816	10183.3701151 ppb		91
28) 2,4-Dimethylphenol	3.76	107	95058	11133.4480835 ppb		92
29) bis(2-Chlorethoxy)methane	3.81	93	108320	10353.8670183 ppb		95
30) 2,4-Dichlorophenol	3.89	162	74023	10291.4466956 ppb		88
32) 1,2,4-Trichlorobenzene	3.94	180	77952	9681.9566620 ppb		98
33) alpha-terpineol	3.98	59	82863	12014.6797746 ppb		98
34) Naphthalene	4.00	128	348596	12451.1016440 ppb		98
35) 4-Chloroaniline	4.02	65	22049	6777.9630891 ppb	#	50
36) Hexachloro-1,3-butadiene	4.06	225	44682	10173.0096546 ppb		98
37) Hydroquinone	4.22	110	41396m	8563.4826090 ppb		
38) Quinoline	4.21	129	172282	11759.5319751 ppb		97
39) Caprolactam	4.23	113	37627	24837.6852764 ppb	#	64

(#) = qualifier out of range (m) = manual integration
0512_27.D S804E04BV.M Fri May 13 14:11:51 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:11 2022 Quant Results File: S804E04BV.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

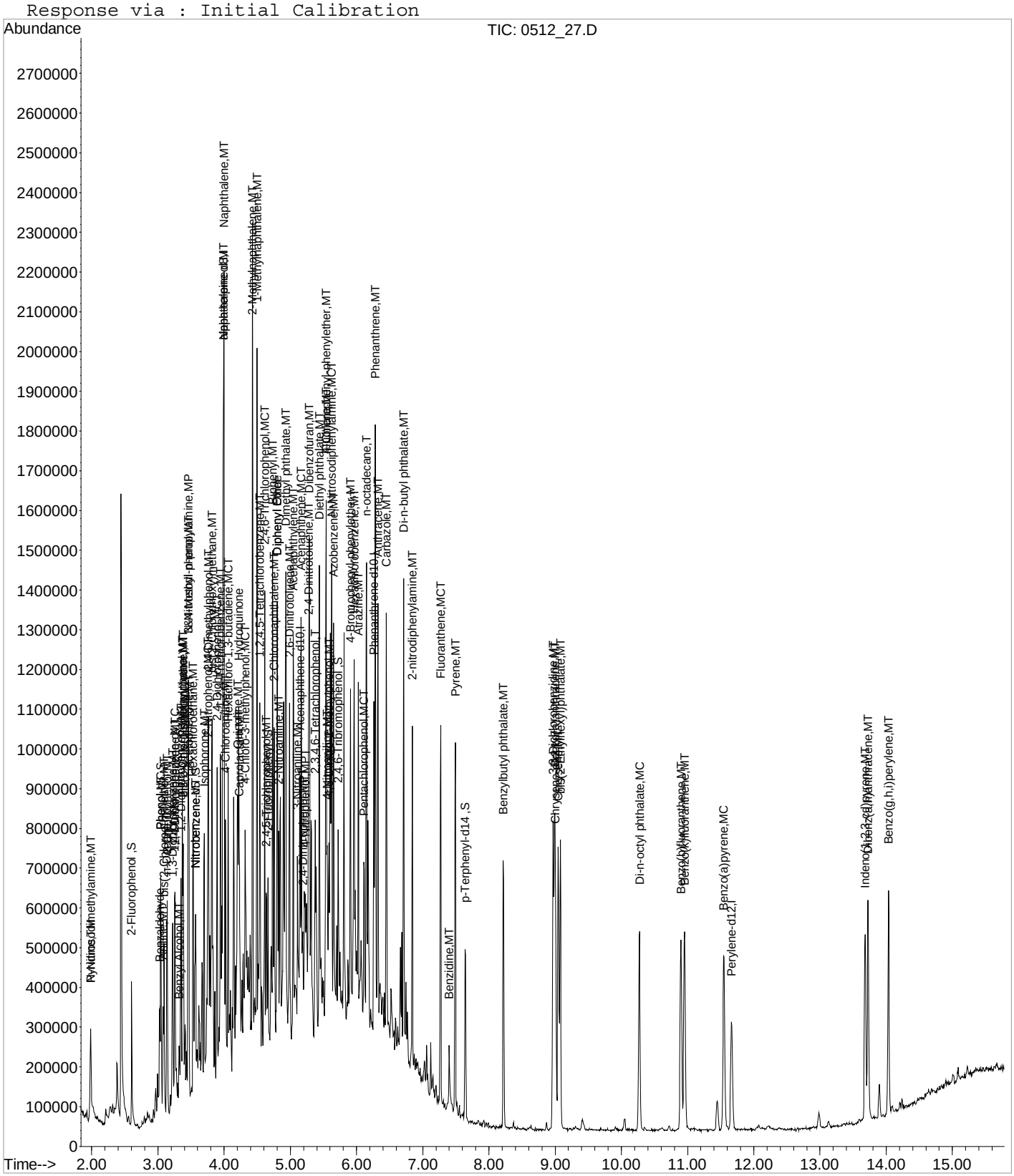
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	4-Chloro-3-methylphenol	4.32	107	75763	10449.4800775	ppb		83
41)	2-Methylnaphthalene	4.43	142	400657	21961.8979043	ppb	#	95
42)	1-Methylnaphthalene	4.49	142	275123	16047.4952372	ppb	#	94
43)	1,2,4,5-Tetrachlorobenzene	4.54	216	77115	13104.2375909	ppb		98
44)	Diphenyl Ether	4.80	170	111788	11908.3947368	ug/ml	#	41
45)	Diphenyl Oxide	4.80	170	111788	11908.3947368	ug/ml	#	41
48)	2,4,6-Trichlorophenol	4.61	196	51491	11347.8894970	ppb	#	86
49)	2,4,5-Trichlorophenol	4.64	196	48429	10255.5245971	ppb		94
51)	Biphenyl	4.73	154	218426	11145.9295799	ppb		99
52)	2-Chloronaphthalene	4.76	162	165040	11035.1668869	ppb		97
53)	2-Nitroaniline	4.82	138	62087	13392.3741831	ppb	#	75
54)	Acenaphthylene	5.05	152	280054	12036.6659752	ppb		98
55)	Dimethyl phthalate	4.94	163	197874	12770.4907491	ppb		98
56)	2,6-Dinitrotoluene	4.99	165	46152	12846.9583559	ppb	#	75
57)	3-Nitroaniline	5.11	138	44872	11601.1951745	ppb	#	83
58)	Acenaphthene	5.16	153	184372	12045.9101894	ppb		96
59)	2,4-Dinitrophenol	5.19	184	18513	9486.3925102	ppb	#	1
60)	Dibenzofuran	5.29	168	248656	11714.4252153	ppb	#	85
61)	2,4-Dinitrotoluene	5.27	165	67278	14954.6640482	ppb	#	65
62)	2,3,4,6-Tetrachlorophenol	5.38	232	40990	13739.7450766	ppb		96
63)	4-Nitrophenol	5.23	139	48195	15085.1586656	ppb		82
64)	Fluorene	5.54	166	212160	12321.9609974	ppb		99
65)	4-Chlorophenyl-phenylether	5.53	204	97107	11892.7451636	ppb		87
66)	Diethyl phthalate	5.44	149	220918	13916.7294386	ppb		98
67)	4-Nitroaniline	5.56	138	41185	11368.6550617	ppb	#	54
68)	Azobenzene	5.66	77	243279	15363.6205871	ppb		96
69)	Atrazine	6.02	200	65324	15269.3140986	ppb		94
71)	4,6-Dinitro-2-methylphenol	5.58	198	33115	11808.5283400	ppb		96
72)	N-Nitrosodiphenylamine	5.62	169	210317	13426.8715379	ppb		96
74)	4-Bromophenyl-phenylether	5.91	248	61276	12053.5117688	ppb		88
75)	Hexachlorobenzene	5.96	284	69130	12221.2049232	ppb		97
76)	n-octadecane	6.15	55	48421	15352.4056911	ppb		95
77)	Pentachlorophenol	6.12	266	37044	11863.2525253	ppb		96
78)	Phenanthrene	6.28	178	408079	15046.4129237	ppb		97
79)	Anthracene	6.32	178	322764	11757.2315503	ppb		99
80)	Carbazole	6.45	167	283953	11336.6559100	ppb		96
81)	Di-n-butyl phthalate	6.71	149	400665	13663.9083887	ppb		98
82)	2-nitrodiphenylamine	6.84	167	84571	16267.3719724	ppb	#	100
83)	Fluoranthene	7.27	202	346723	12033.8773090	ppb		98
85)	Benzidine	7.40	184	79247	8059.3985001	ppb		98
86)	Pyrene	7.49	202	358171	13039.7101076	ppb		98
88)	Benzylbutyl phthalate	8.22	149	167158	14882.9903660	ppb		90
89)	3,3-Dichlorobenzidine	8.97	252	221292	25179.5814208	ppb		98
90)	Benzo(a)anthracene	8.99	228	328138	13349.2067610	ppb		96
91)	Chrysene	9.05	228	310142	13019.3972931	ppb		97
92)	bis(2-Ethylhexyl)phthalate	9.08	149	238406	15410.4323682	ppb		95
93)	Di-n-octyl phthalate	10.27	149	379990	14785.4250791	ppb		98
95)	Benzo(b)fluoranthene	10.90	252	309936	11816.4752972	ppb		96
96)	Benzo(k)fluoranthene	10.96	252	329872	12768.0767685	ppb		93
97)	Benzo(a)pyrene	11.55	252	302188	13302.1454683	ppb		94
98)	Indeno(1,2,3-cd)pyrene	13.68	276	275600	12347.9594493	ppb		95
99)	Dibenz(a,h)anthracene	13.73	278	288647	12134.5076211	ppb		94
100)	Benzo(g,h,i)perylene	14.03	276	282489	12160.0971178	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:11 2022 Quant Results File: S804E04BV.RES

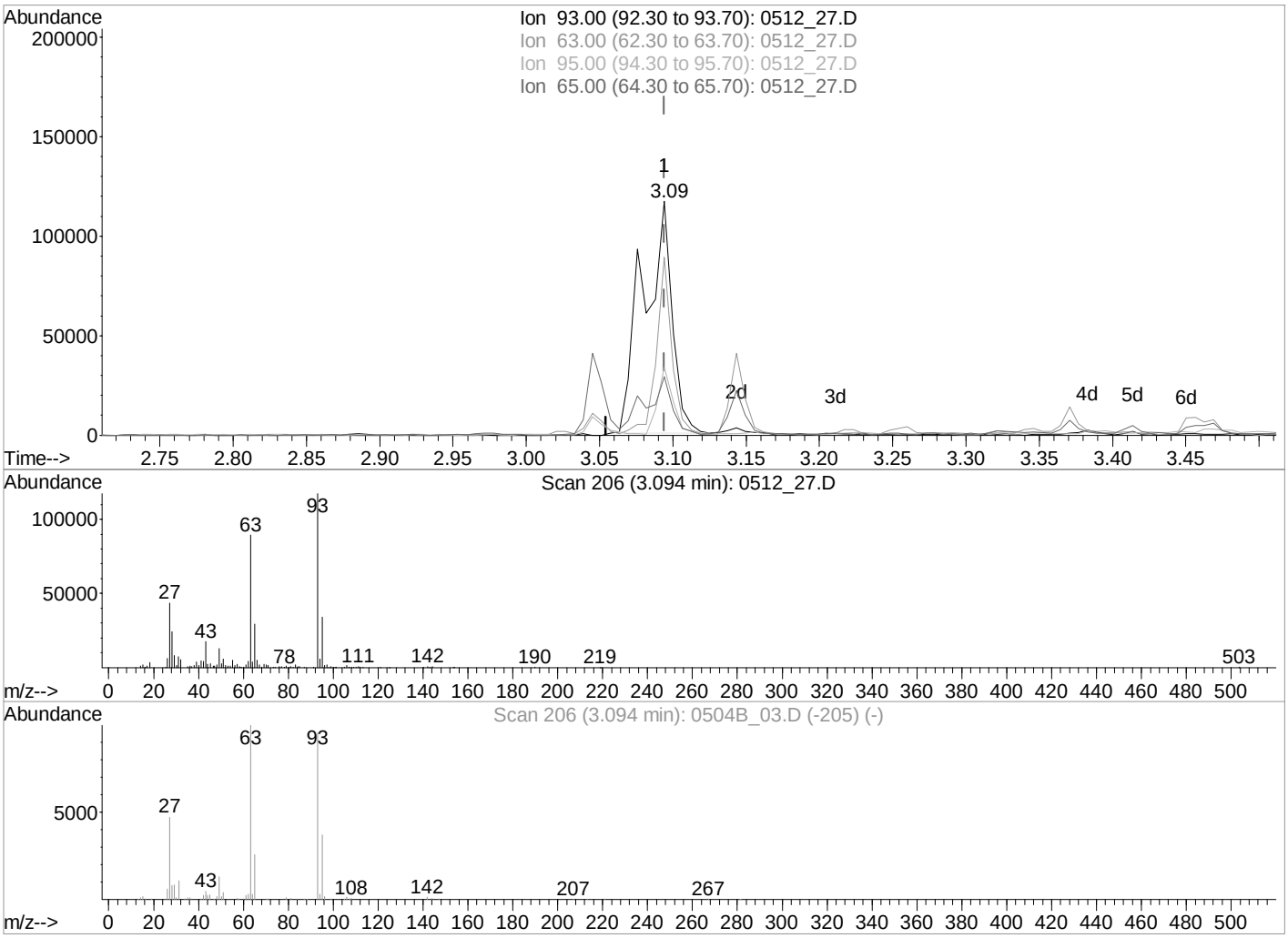
Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_27.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (-0.000) 24420.2979802 ppb

Qvalue = 99

response 158389

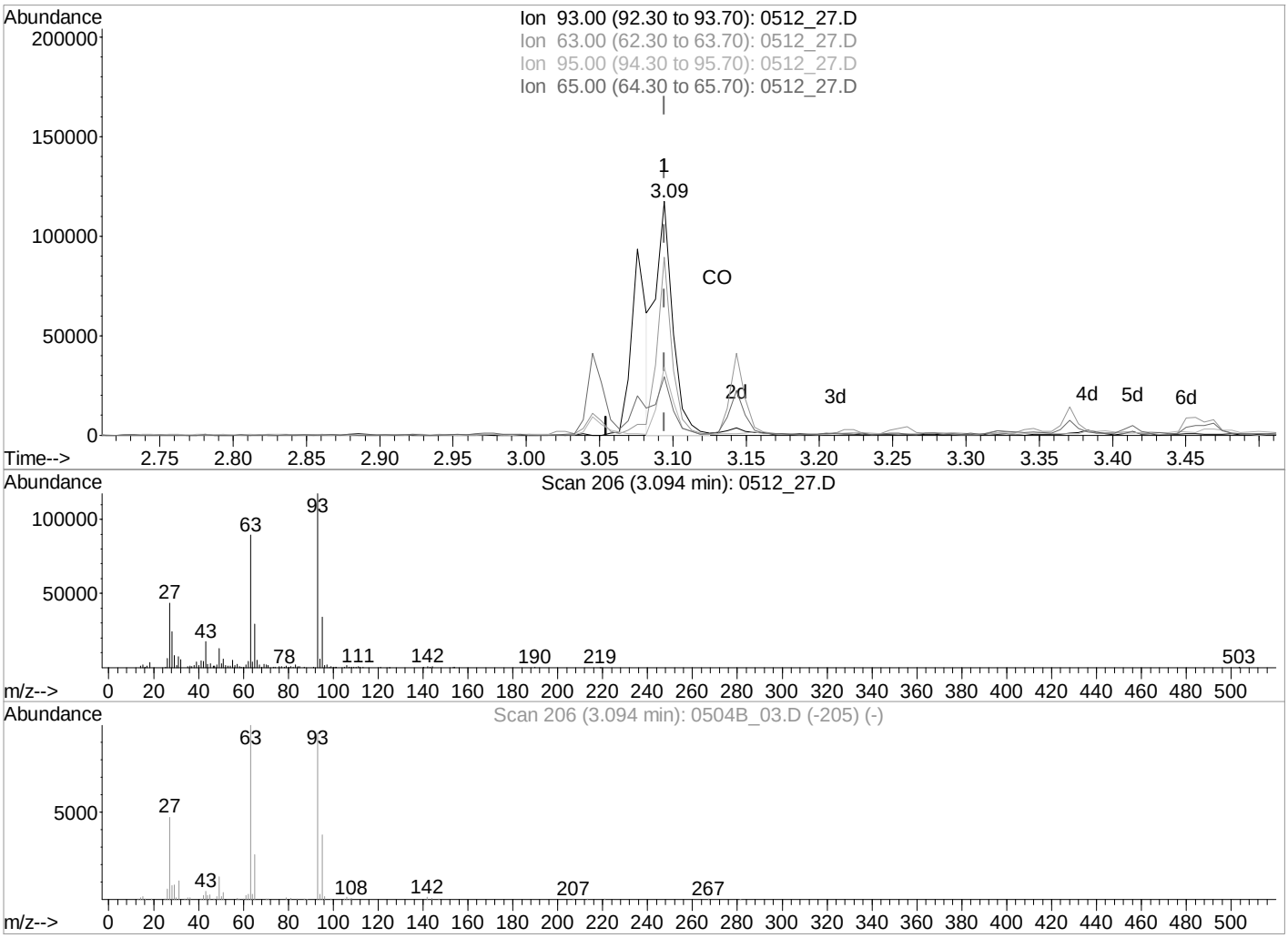
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	76.41
95.00	30.20	28.82
65.00	24.00	24.71

0512_27.D S804E04BV.M Fri May 13 14:10:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_27.D

(6) bis(2-Chloroethyl)ether (MT)

3.09min (-0.000) 14637.3159079 ppb m

response 94937

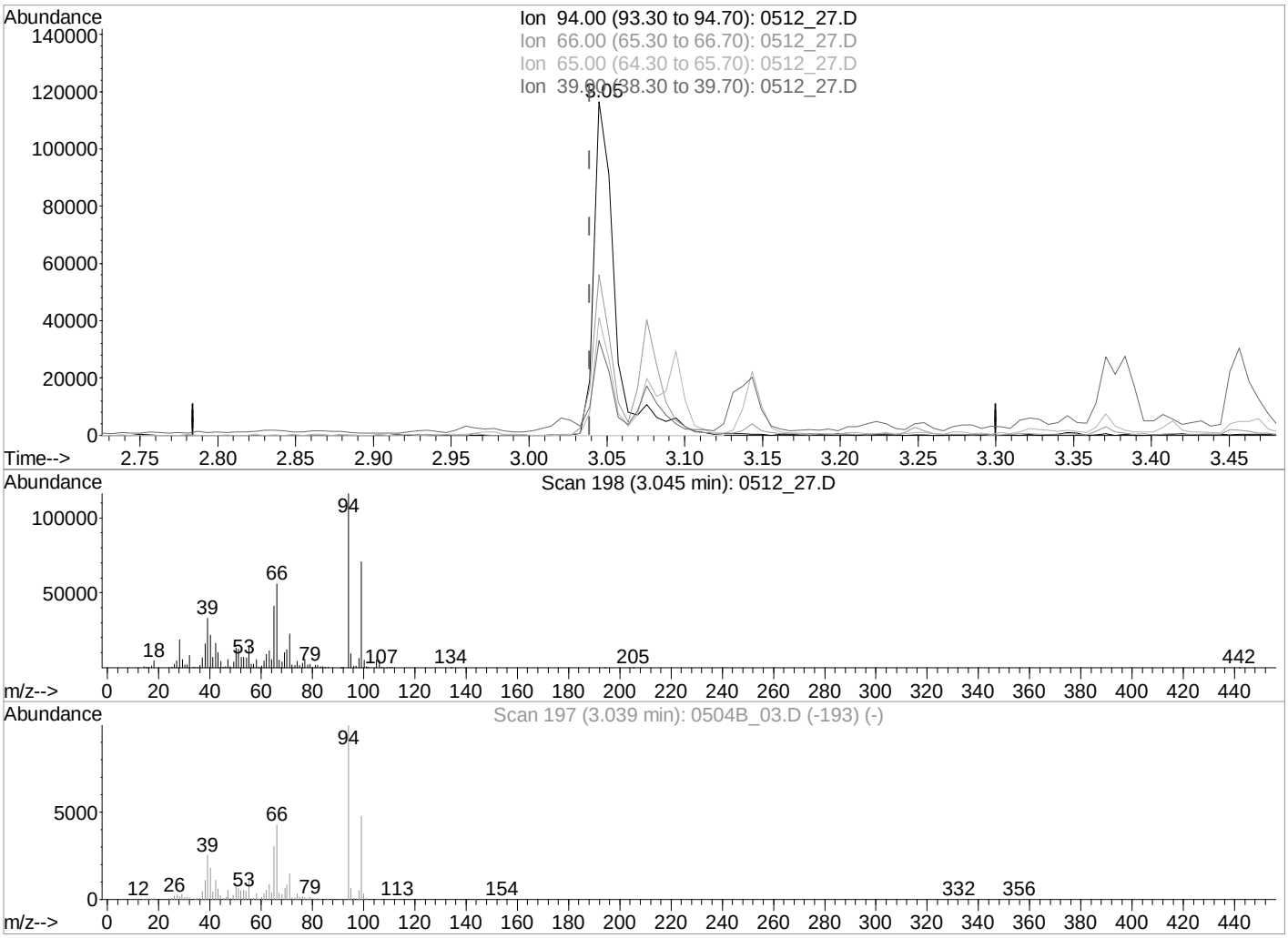
Ion	Exp%	Act%
93.00	100	100
63.00	76.20	76.14
95.00	30.20	29.00
65.00	24.00	25.03

0512_27.D S804E04BV.M Fri May 13 14:10:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_27.D

(8) Phenol (MC)

3.05min (+0.006) 11963.7012738 ppb

Qvalue = 84

response 110921

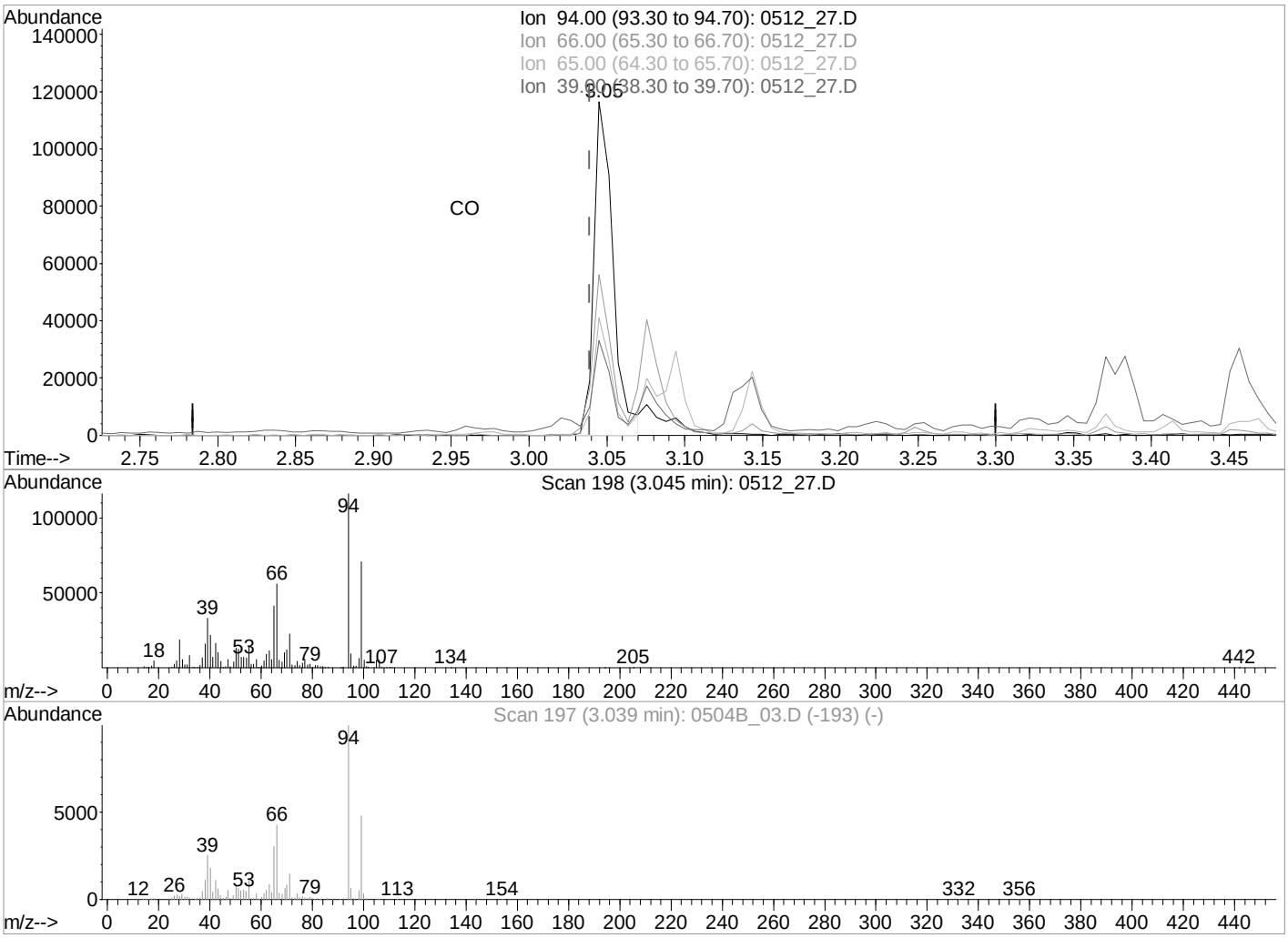
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	48.19
65.00	27.70	35.25
39.00	22.50	26.34

0512_27.D S804E04BV.M Fri May 13 14:10:30 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Multiple Level Calibration



TIC: 0512_27.D

(8) Phenol (MC)

3.05min (+0.006) 10626.5874298 ppb m

response 98524

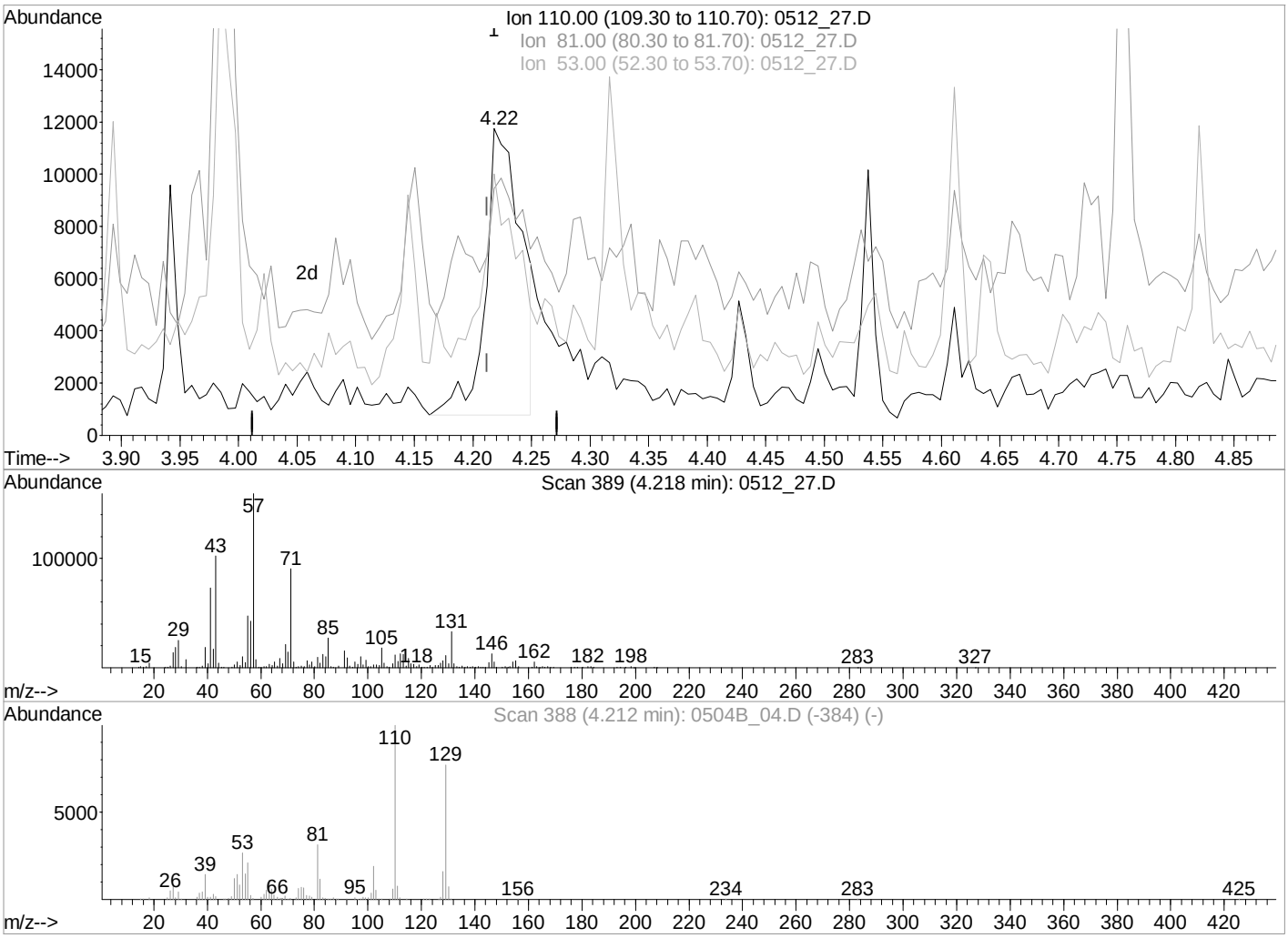
Ion	Exp%	Act%
94.00	100	100
66.00	34.70	48.19
65.00	27.70	35.25
39.00	22.50	28.32

0512_27.D S804E04BV.M Fri May 13 14:10:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_27.D

(37) Hydroquinone

4.22min (+0.006) 4569.6988037 ppb

Qvalue = 53

response 23287

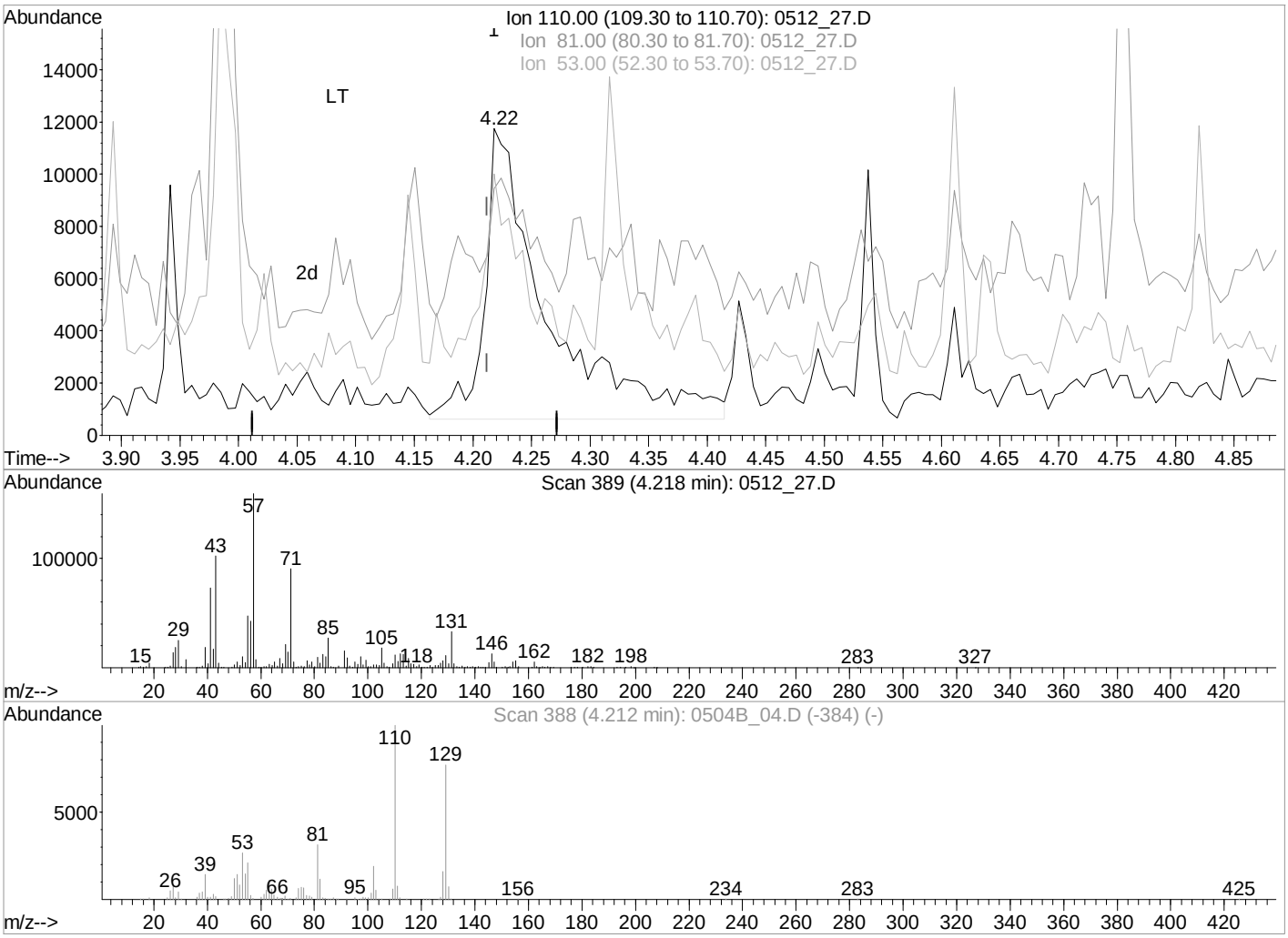
Ion	Exp%	Act%
110.00	100	100
81.00	29.80	40.27
53.00	25.90	65.91#
0.00	0.00	0.00

0512_27.D S804E04BV.M Fri May 13 14:10:54 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\051222\0512 27.D Vial: 32
Acq On : 12 May 2022 1:47 pm Operator: 3545
Sample : MSD 1x WG1861595 L1488414-03 Inst : BNAMS4
Misc : SOIL ISTD 22E03623 exp 11/03/22 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 13 14:11 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804E04BV.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu May 05 15:59:02 2022
Response via : Single Level Calibration



TIC: 0512_27.D

(37) Hydroquinone

4.22min (+0.006) 8563.4826090 ppb m

response 41396

Ion	Exp%	Act%
110.00	100	100
81.00	29.80	80.46#
53.00	25.90	85.08#
0.00	0.00	0.00

0512_27.D S804E04BV.M Fri May 13 14:11:17 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3791942-4	**SDG:**	L1488802
Client Sample ID:	MSD	**Collected Date/Time:**	04/28/22 13:50
Lab File ID:	0513_26	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	BNAMS2	**Preparation Date/Time:**	05/12/22 14:39
Analytical Batch:	WG1861596	**Analysis Date/Time:**	05/13/22 16:02
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	89.8	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
					mg/kg	*mg/kg*
Acenaphthene	83-32-9	5.40	1.38		0.0601	0.371
Acenaphthylene	208-96-8	5.28	1.49	J5	0.0523	0.371
Anthracene	120-12-7	6.55	3.92	J5	0.0661	0.371
Benzoic Acid	65-85-0	3.99	U		1.31	18.6
Benzo(a)anthracene	56-55-3	9.34	6.11	V	0.0654	0.371
Benzo(b)fluoranthene	205-99-2	11.32	7.00	V	0.0692	0.371
Benzo(k)fluoranthene	207-08-9	11.37	2.80	J5	0.0660	0.371
Benzo(g,h,i)perylene	191-24-2	14.33	1.80		0.0679	0.371
Benzo(a)pyrene	50-32-8	11.99	5.87	V	0.0690	0.371
Carbazole	86-74-8	6.68	0.813		0.115	3.71
Chrysene	218-01-9	9.40	5.85	J5	0.0738	0.371
Dibenz(a,h)anthracene	53-70-3	14.03	0.829		0.103	0.371
Dibenzofuran	132-64-9	5.52	2.37	J5	0.121	3.71
Fluoranthene	206-44-0	7.53	14.3	V	0.0670	0.371
Fluorene	86-73-7	5.78	3.01	J5	0.0604	0.371
Indeno(1,2,3-cd)pyrene	193-39-5	13.99	2.53	J5	0.105	0.371
1-Methylnaphthalene	90-12-0	4.73	0.627		0.0475	0.371
2-Methylnaphthalene	91-57-6	4.66	0.595		0.0481	0.371
Naphthalene	91-20-3	4.23	0.619		0.0931	0.371
Phenanthrene	85-01-8	6.52	6.31	V	0.0736	0.371
Bis(2-ethylhexyl)phthalate	117-81-7	9.41	0.675		0.470	3.71
Di-n-butyl phthalate	84-74-2	6.93	0.574		0.127	3.71
Di-n-octyl phthalate	117-84-0	10.66	0.694		0.251	3.71
Pyrene	129-00-0	7.77	11.1	V	0.0722	0.371
3&4-Methyl Phenol	3&4-Methyl Phenol	3.67	0.640		0.116	3.71
Pentachlorophenol	87-86-5	6.34	0.313		0.0998	3.71
Phenol	108-95-2	3.26	0.583		0.149	3.71

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_26.D
Acq On : 13 May 2022 4:02 pm
Operator : 974
Sample : MSD 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:46:05 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.480	152	224006	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.208	136	906930	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.378	164	464154	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.494	188	934466	8000.0000000	ppb		0.00
84) Chrysene-d12	9.355	240	962417	8000.0000000	ppb		0.00
94) Perylene-d12	12.105	264	887920	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.828	112	62853	1693.7624284	ppb		0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 8.47%#				
7) Phenol-d5	3.251	99	68999	1523.7732406	ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 7.62%#				
24) Nitrobenzene-d5	3.780	82	28870m	714.1935911	ppb		0.00
Spiked Amount 10000.000	Range 18 - 125		Recovery = 7.14%#				
50) 2-Fluorobiphenyl	4.890	172	61145	778.0119419	ppb		0.00
Spiked Amount 10000.000	Range 28 - 120		Recovery = 7.78%#				
73) 2,4,6-Tribromophenol	5.954	330	17806	1444.6336573	ppb		0.00
Spiked Amount 20000.000	Range 17 - 137		Recovery = 7.22%#				
87) p-Terphenyl-d14	7.922	244	96397	764.9109321	ppb		0.00
Spiked Amount 10000.000	Range 13 - 131		Recovery = 7.65%#				
Target Compounds							Qvalue
2) Pyridine	2.264	79	49807	1164.8567115	ppb		98
3) N-Nitrosodimethylamine	2.246	42	28574	1478.2757583	ppb		95
5) Aniline	3.304	66	23189	1091.0667200	ppb	#	37
6) bis(2-Chloroethyl)ether	3.321	93	57200m	1586.4553621	ppb		
8) Phenol	3.263	94	72828	1570.8164244	ppb		92
9) Benzaldehyde	3.257	105	21206	1682.1718698	ppb	#	87
10) 2-Chlorophenol	3.368	128	59333	1571.4169113	ppb		96
12) 1,3-Dichlorobenzene	3.451	146	63791	1511.2501538	ppb		99
13) 1,4-Dichlorobenzene	3.486	146	62802	1468.2121392	ppb		91
14) Benzyl Alcohol	3.539	79	44454	1414.2638064	ppb		98
15) 1,2-Dichlorobenzene	3.574	146	60821	1506.3330631	ppb		99
16) bis(2-Chloroisopropyl)...	3.609	121	19977	1508.3335468	ppb		93
17) 2,2-oxybis(1-chloropro...	3.609	121	19977	1508.3335468	ppb		93
18) 2-Methylphenol	3.586	108	53807	1572.5980734	ppb		97
19) Hexachloroethane	3.762	117	18023	1125.7668751	ppb		98
20) N-Nitrosodi-n-propylamine	3.680	70	44090	1605.8590792	ppb		99
21) 3&4-Methyl phenol	3.668	107	66848	1723.9567142	ppb		91
22) Acetophenone	3.691	105	77581	1520.1715996	ppb		99
25) Nitrobenzene	3.791	77	60269	1496.0122627	ppb		99
26) Isophorone	3.921	82	108576	1487.8477090	ppb		97
27) 2-Nitrophenol	3.973	139	29844	1539.0207260	ppb		97
28) 2,4-Dimethylphenol	3.973	107	54499	1499.8045198	ppb		96
29) bis(2-Chlorethoxy)methane	4.032	93	66476	1519.9053881	ppb		98
30) 2,4-Dichlorophenol	4.114	162	44616	1423.6073100	ppb		95
32) 1,2,4-Trichlorobenzene	4.167	180	54109	1522.3398152	ppb		96
33) alpha-terpineol	4.208	59	44816	1737.1488659	ppb		91
34) Naphthalene	4.226	128	189592m	1670.9067569	ppb		

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Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:46:05 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
35) 4-Chloroaniline	4.244	65	17028	1245.3117757 ppb		99
36) Hexachloro-1,3-butadiene	4.285	225	30261	1410.5924096 ppb		97
37) Hydroquinone	4.420	110	23010m	954.6658355 ppb		
38) Quinoline	4.432	129	107474	1839.2810809 ppb		96
39) Caprolactam	4.443	113	16964	2502.4395201 ppb	#	64
40) 4-Chloro-3-methylphenol	4.532	107	39499	1284.2987214 ppb		98
41) 2-Methylnaphthalene	4.661	142	117606	1603.3364197 ppb		100
42) 1-Methylnaphthalene	4.726	142	117563	1690.6918857 ppb		99
43) 1,2,4,5-Tetrachloroben...	4.767	216	52994	1496.2856613 ppb		98
44) Diphenyl Ether	5.031	170	70527	1878.5514551 ppb	#	85
45) Diphenyl Oxide	5.031	170	70527	1878.5514551 ppb	#	85
48) 2,4,6-Trichlorophenol	4.837	196	30629	1423.4918882 ppb		96
49) 2,4,5-Trichlorophenol	4.861	196	31085	1351.1019785 ppb		97
51) Biphenyl	4.966	154	144433	1653.2737268 ppb		98
52) 2-Chloronaphthalene	4.984	162	105010	1545.4324024 ppb		97
53) 2-Nitroaniline	5.049	138	32552	1520.3475562 ppb	#	87
54) Acenaphthylene	5.278	152	407442	4034.5243345 ppb		99
56) 2,6-Dinitrotoluene	5.207	165	25576	1538.4179639 ppb		83
57) 3-Nitroaniline	5.331	138	26262	1462.5239240 ppb		84
58) Acenaphthene	5.401	153	255271	3726.8482224 ppb		96
59) 2,4-Dinitrophenol	5.407	184	1281	2454.2170822 ppb	#	1
60) Dibenzofuran	5.525	168	603843	6384.4938538 ppb		98
61) 2,4-Dinitrotoluene	5.495	165	38039	1803.4765935 ppb		85
62) 2,3,4,6-Tetrachlorophenol	5.607	232	23303	1398.7502083 ppb		96
63) 4-Nitrophenol	5.436	139	22045	1537.9375073 ppb		91
64) Fluorene	5.777	166	622254	8098.9913280 ppb		98
65) 4-Chlorophenyl-phenyle...	5.766	204	62546	1618.1914166 ppb		98
66) Diethyl phthalate	5.666	149	115920	1621.2927251 ppb		99
67) 4-Nitroaniline	5.777	138	35741	2215.4700304 ppb		89
68) Azobenzene	5.883	77	123270	1641.8285679 ppb	#	28
69) Atrazine	6.247	200	39766	1888.6949114 ppb		95
72) N-Nitrosodiphenylamine	5.848	169	123150	1778.8092198 ppb		98
74) 4-Bromophenyl-phenylether	6.136	248	38065	1517.7529653 ppb		93
75) Hexachlorobenzene	6.189	284	42554	1498.6829808 ppb		97
76) n-octadecane	6.371	55	21374	1714.3803409 ppb	#	97
77) Pentachlorophenol	6.341	266	13721	843.4216910 ppb	#	72
78) Phenanthrene	6.518	178	2094527	17000.3098563 ppb		99
79) Anthracene	6.553	178	1322882	10571.3407382 ppb		99
80) Carbazole	6.676	167	245395	2193.0462174 ppb		97
81) Di-n-butyl phthalate	6.935	149	209786	1547.3015599 ppb		100
83) Fluoranthene	7.534	202	5327407	38349.3087368 ppb		98
85) Benzidine	7.657	184	75347	2208.1491695 ppb		98
86) Pyrene	7.769	202	4346701	29778.7968711 ppb		98
88) Benzylbutyl phthalate	8.521	149	98690	1693.1398073 ppb		97
89) 3,3-Dichlorobenzidine	9.303	252	158416	3116.5478754 ppb		98
90) Benzo(a)anthracene	9.338	228	2304395	16449.8734016 ppb		97
91) Chrysene	9.397	228	2162298	15761.5733682 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.414	149	150115	1821.4685269 ppb		97
93) Di-n-octyl phthalate	10.660	149	248693	1871.8790114 ppb		99
95) Benzo(b)fluoranthene	11.318	252	2393683	18857.6164368 ppb		99

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Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 13:46:05 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
96)	Benzo(k)fluoranthene	11.371	252	965617	7540.8604610 ppb	99
97)	Benzo(a)pyrene	11.988	252	1741026	15820.1119714 ppb	98
98)	Indeno(1,2,3-cd)pyrene	13.991	276	695869	6815.5985016 ppb	96
99)	Dibenz(a,h)anthracene	14.032	278	261846	2233.0929585 ppb	94
100)	Benzo(g,h,i)perylene	14.326	276	556579	4861.1724249 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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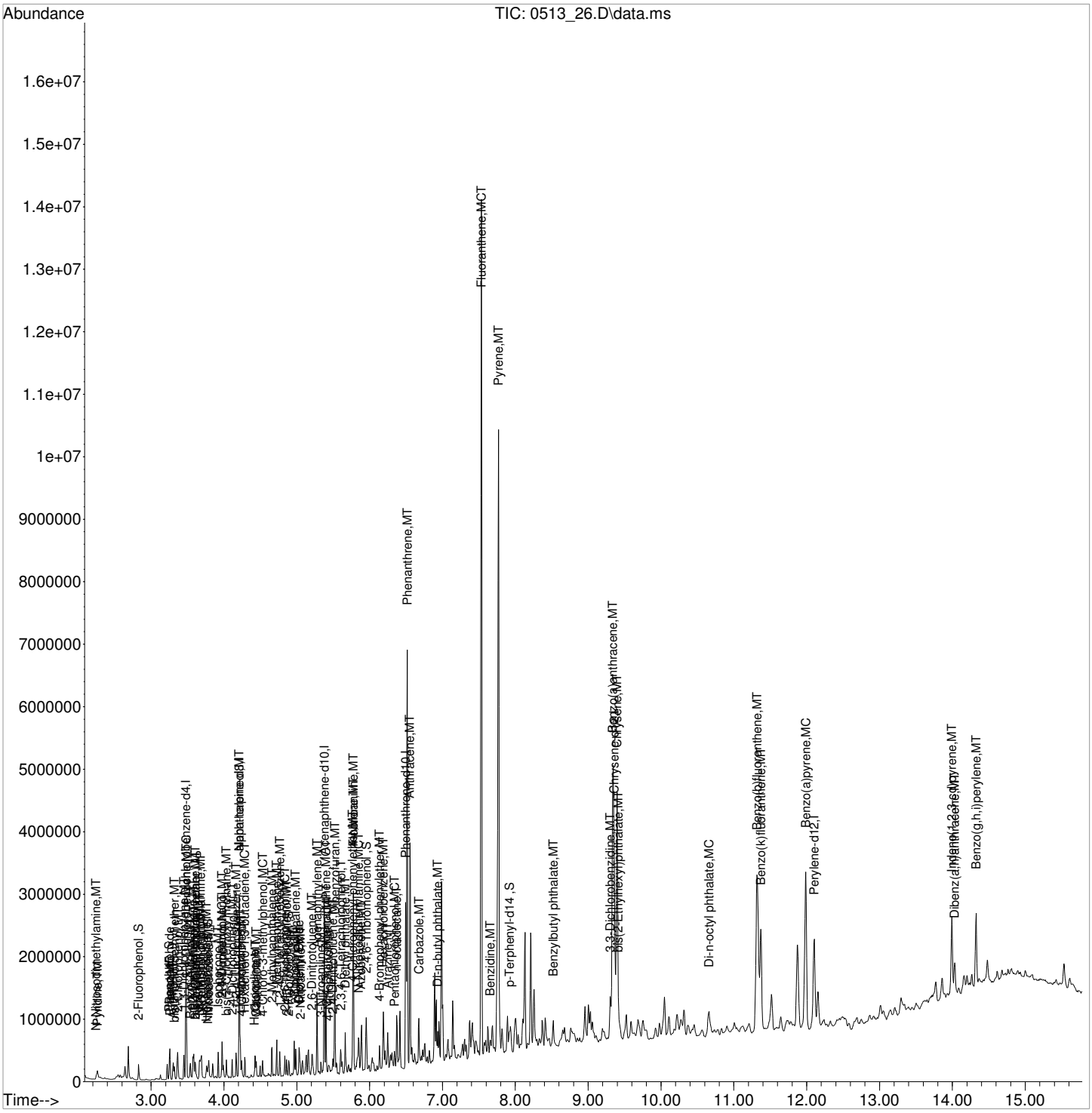

Quantitation Report (Qedit)

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Acq On : 13 May 2022 4:02 pm
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Quant Title : 8270 BNA
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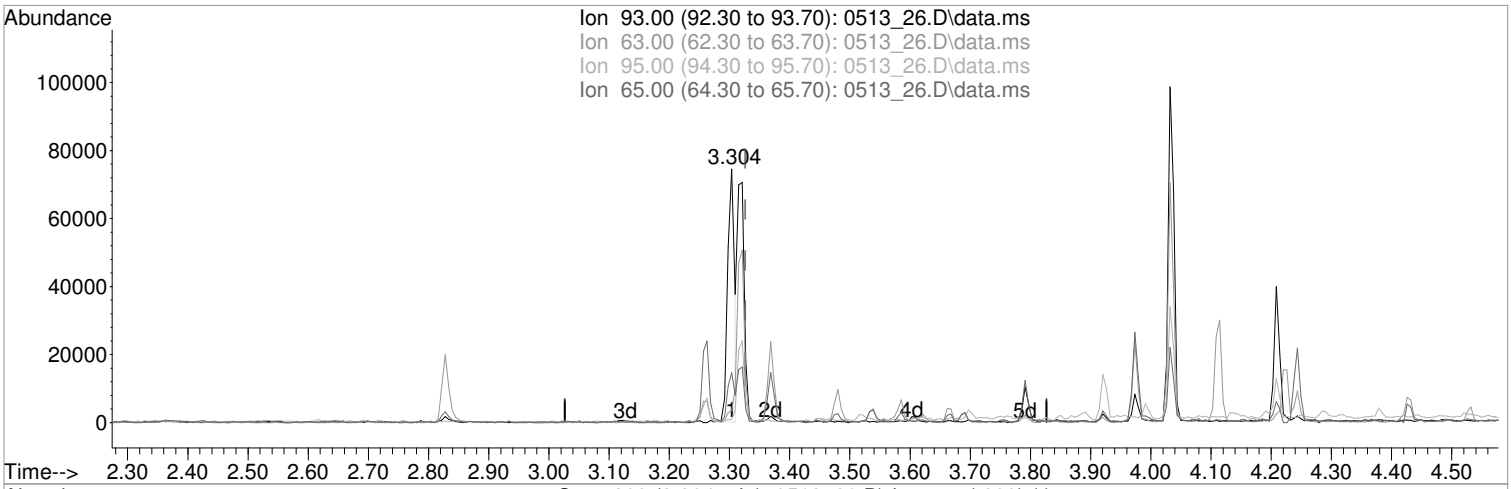

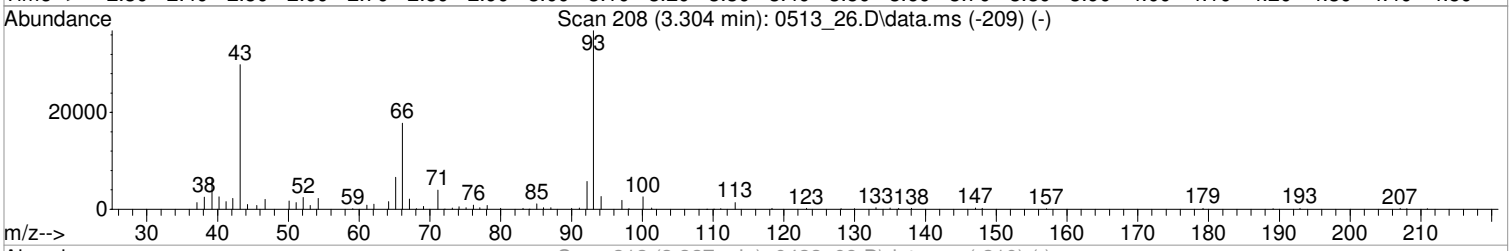

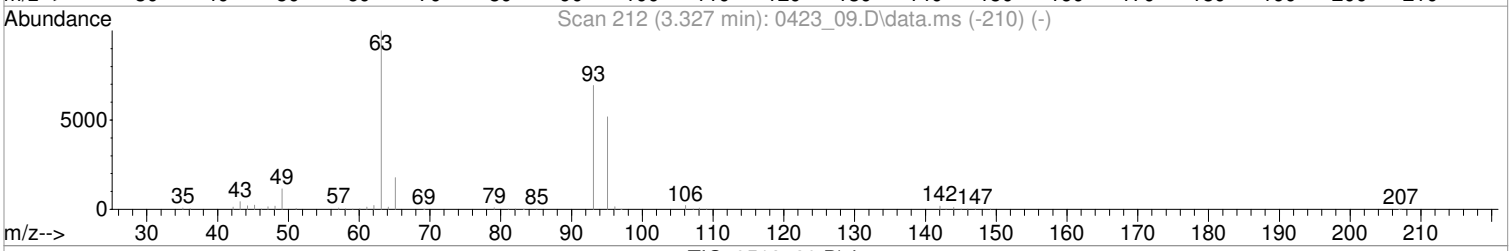

TIC: 0513_26.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.304min (-0.023) 1668.1633603 ppb

Qvalue = 40

response 60146

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	4.39#
95.00	32.50	0.46#
65.00	22.20	18.12

Quantitation Report (Qedit)

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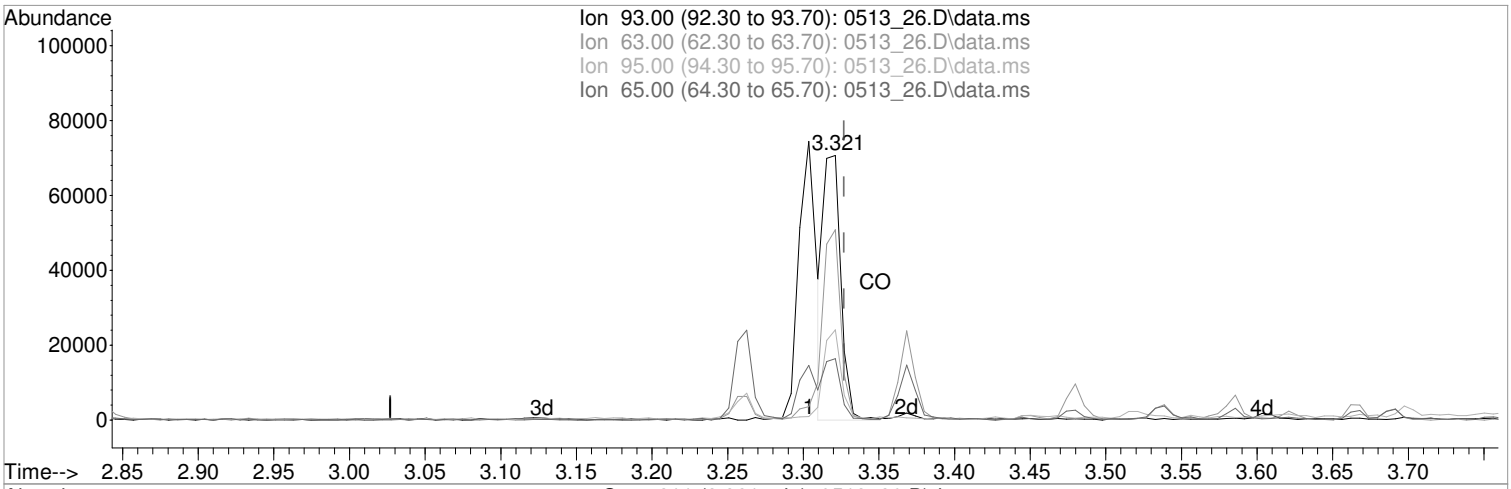

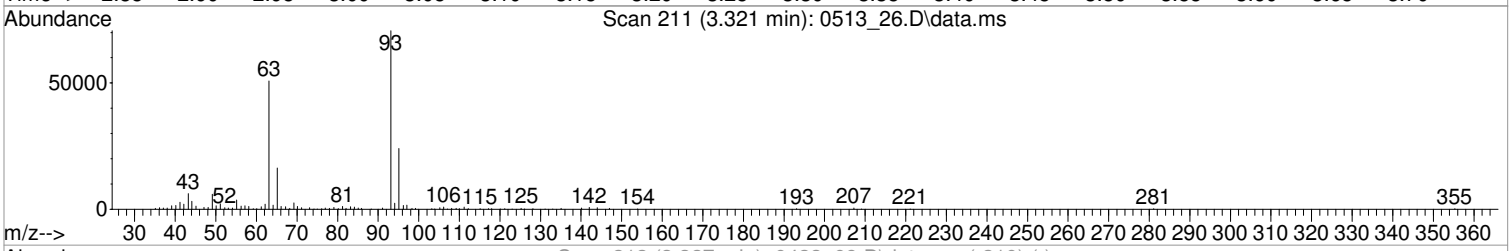

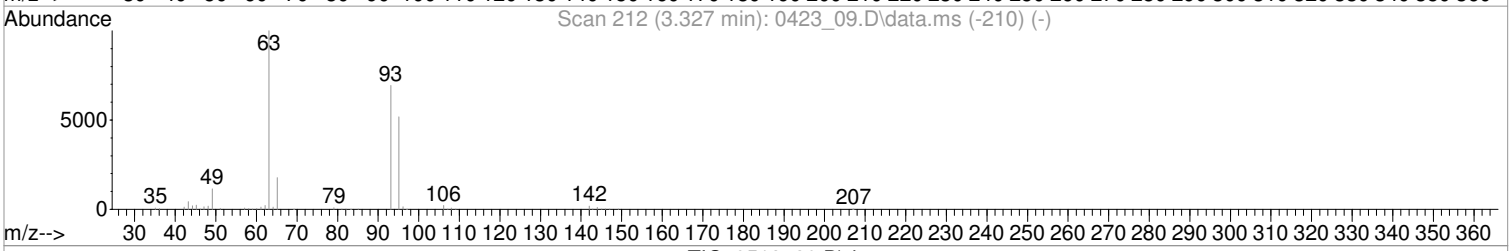

TIC: 0513_26.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.321min (-0.006) 1586.4553621 ppb m

response 57200

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	71.89
95.00	32.50	34.04
65.00	22.20	23.16

Quantitation Report (Qedit)

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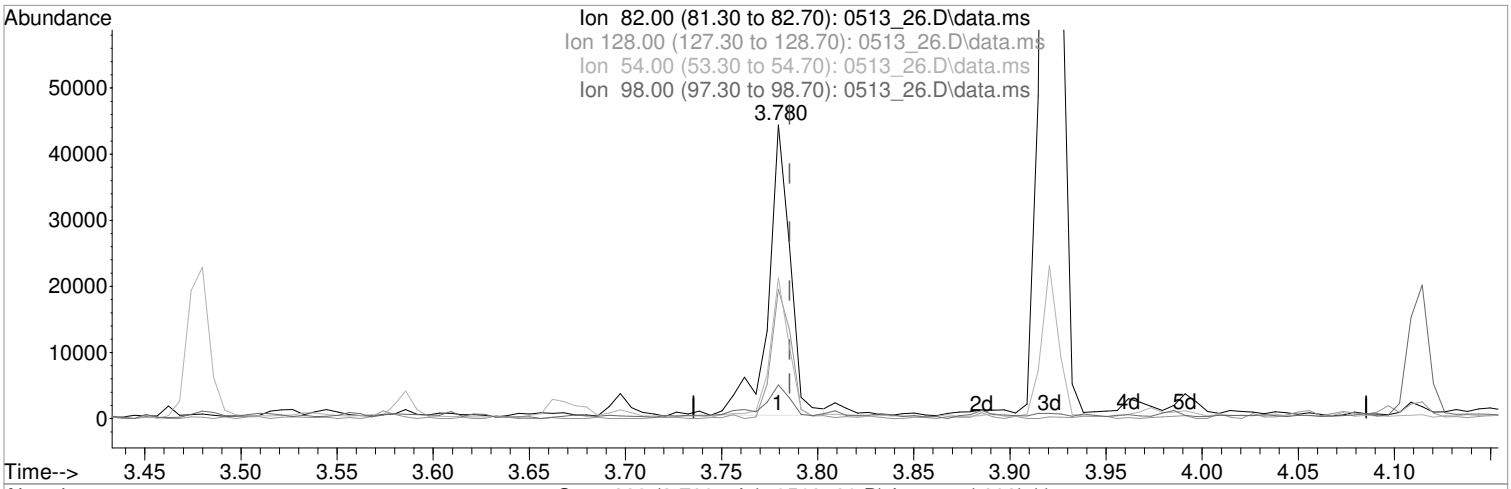

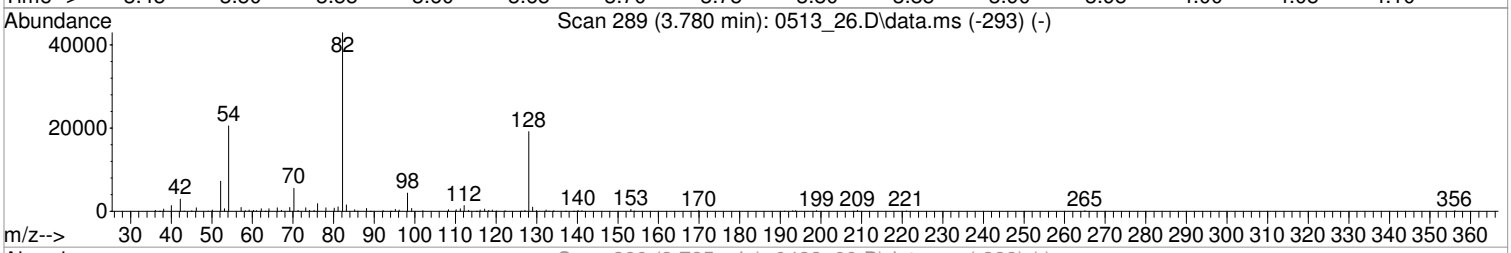

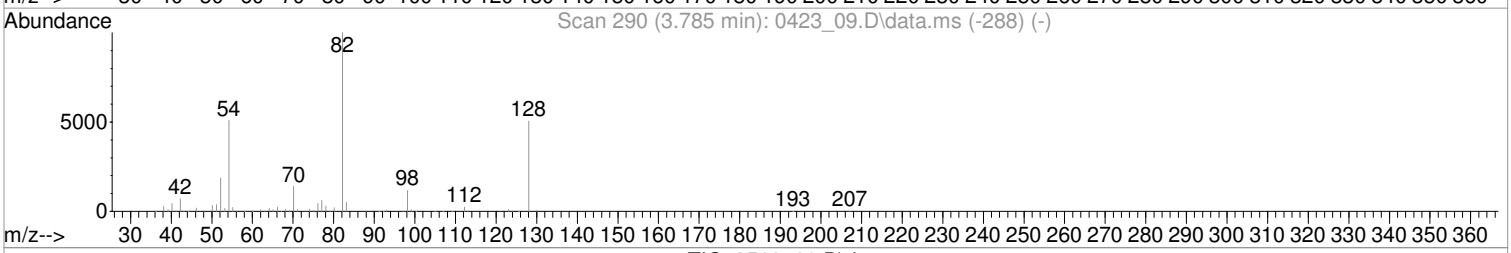

TIC: 0513_26.D\data.ms

(24) Nitrobenzene-d5 (S)

3.780min (-0.006) 868.0408355 ppb

Qvalue = 97

response 35089

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.21
54.00	48.70	47.88
98.00	12.00	10.49

Quantitation Report (Qedit)

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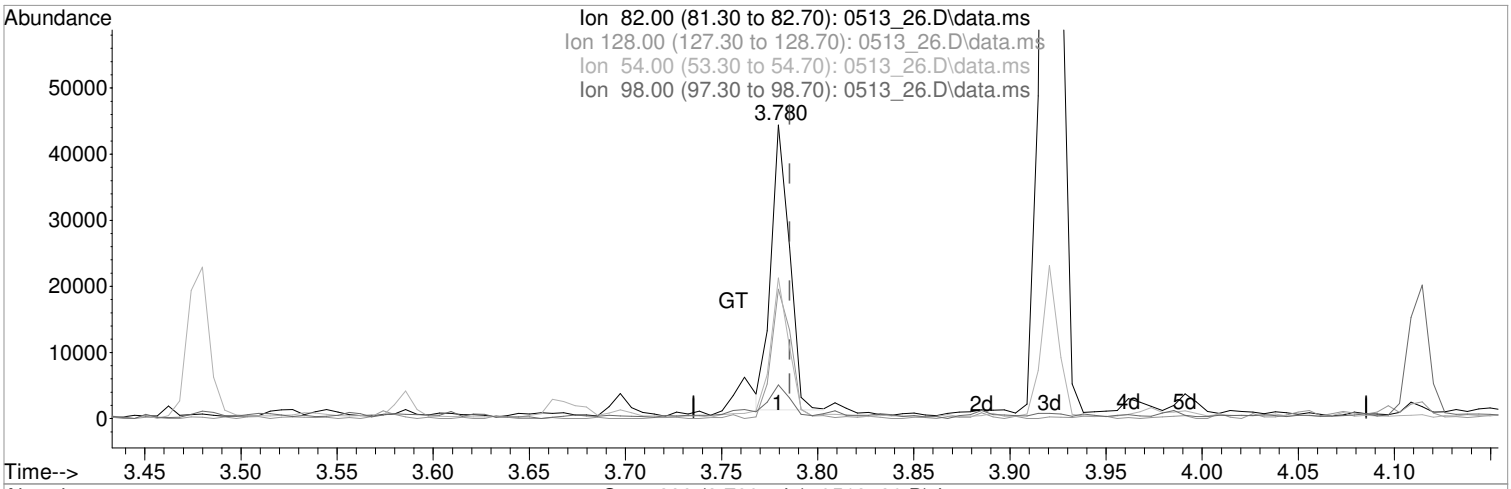

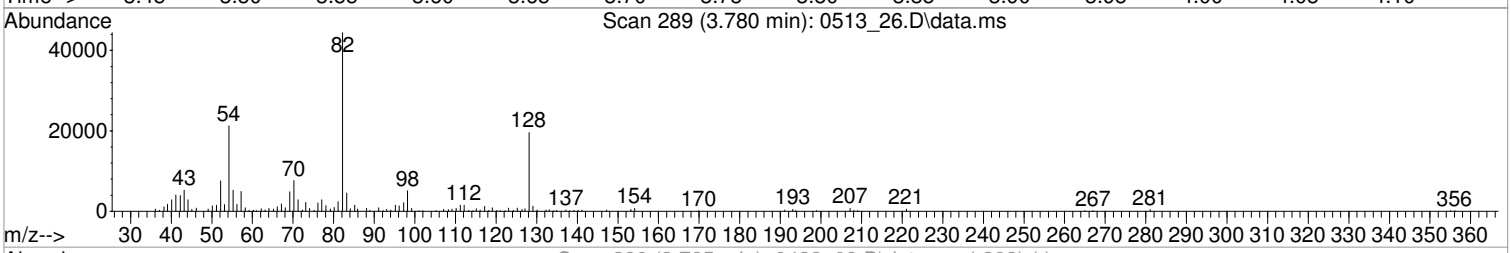

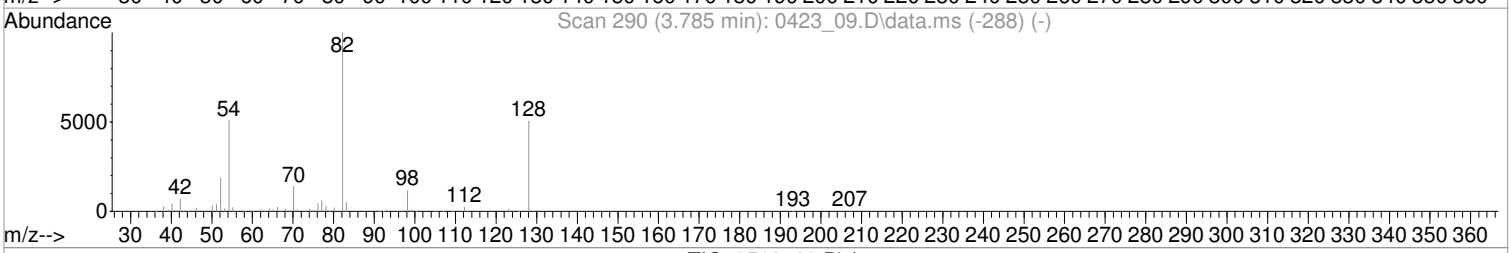

TIC: 0513_26.D\data.ms

(24) Nitrobenzene-d5 (S)

3.780min (-0.006) 714.1935911 ppb m

response 28870

Ion	Exp%	Act%
82.00	100	100
128.00	47.30	44.11
54.00	48.70	47.84
98.00	12.00	11.50

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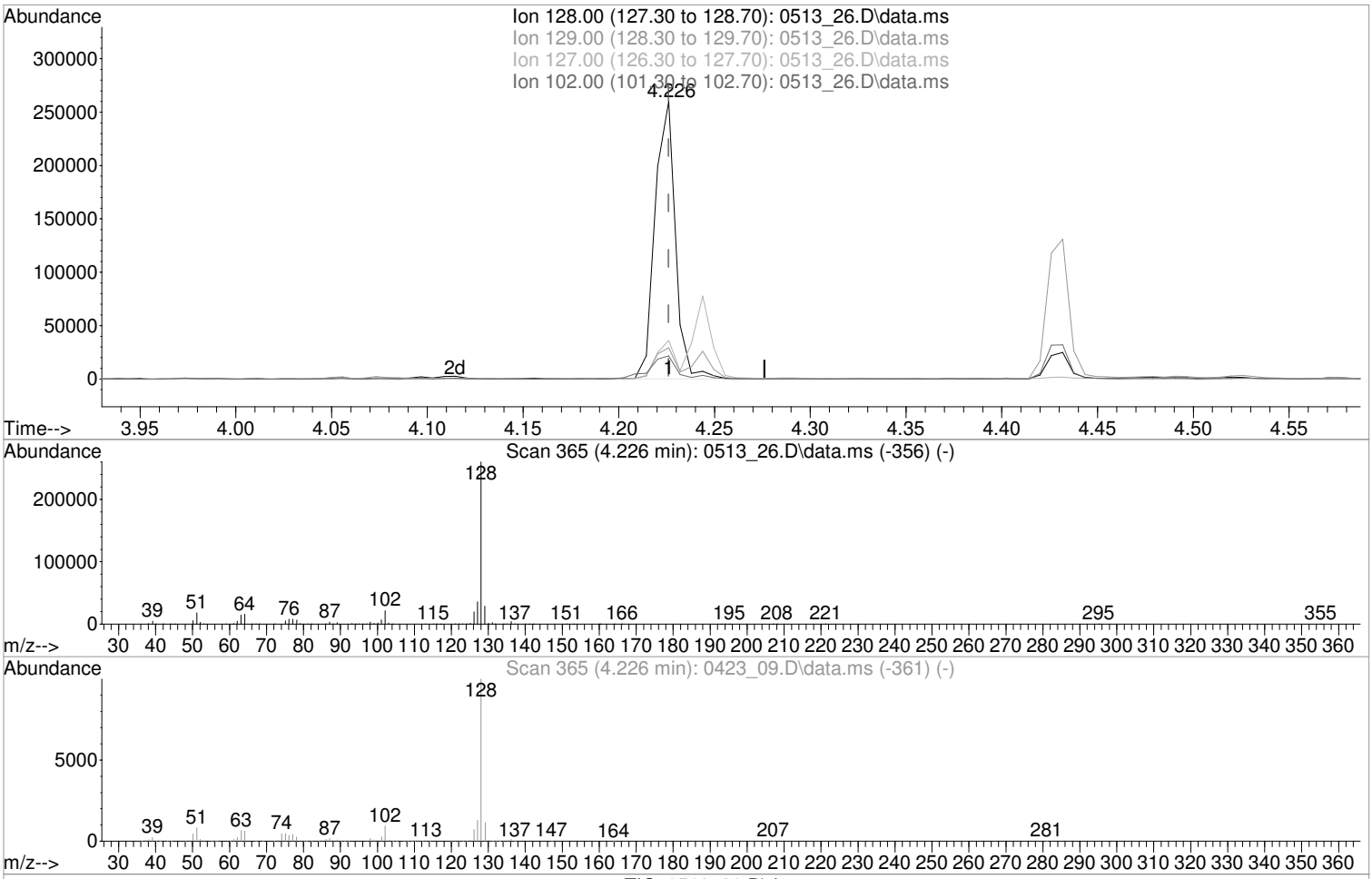
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_26.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 1705.7540359 ppb

Qvalue = 98

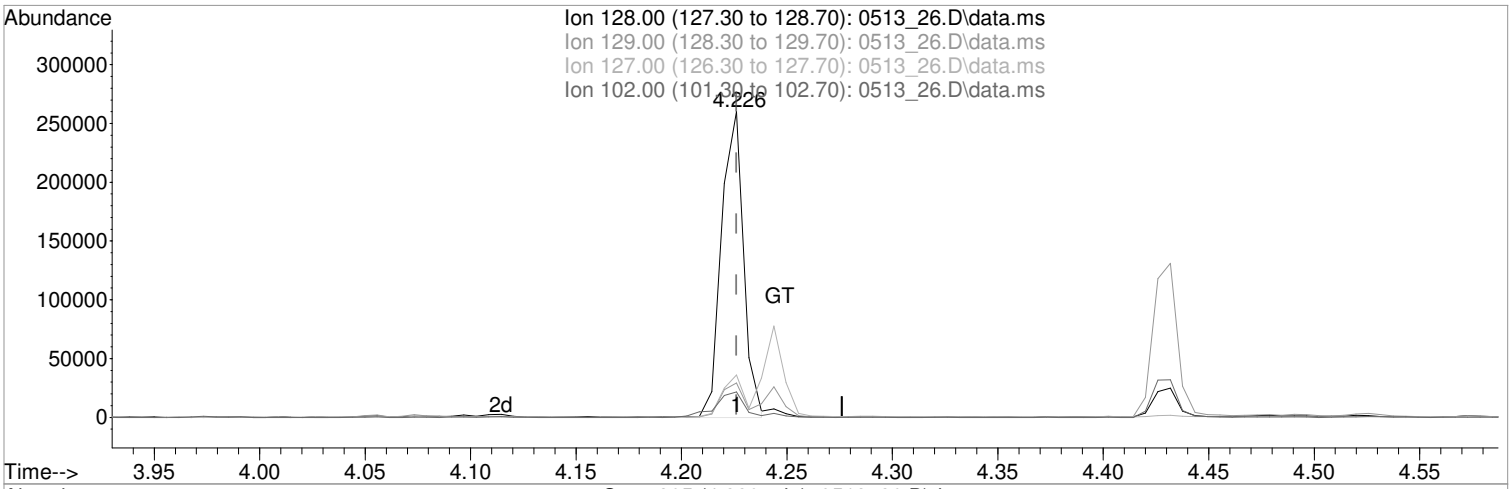
response 193546

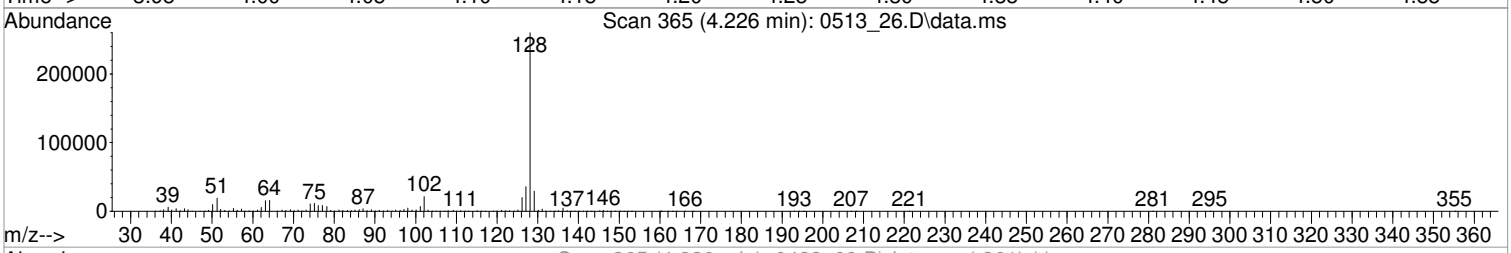
Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.03
127.00	12.90	13.83
102.00	9.20	8.31

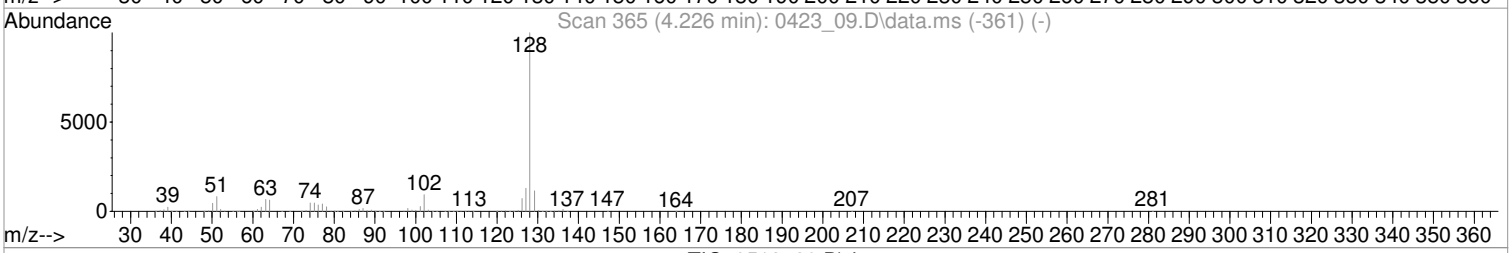
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_26.D
Acq On : 13 May 2022 4:02 pm
Operator : 974
Sample : MSD 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:30 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_26.D\data.ms

(34) Naphthalene (MT)

4.226min (-0.000) 1670.9067569 ppb m

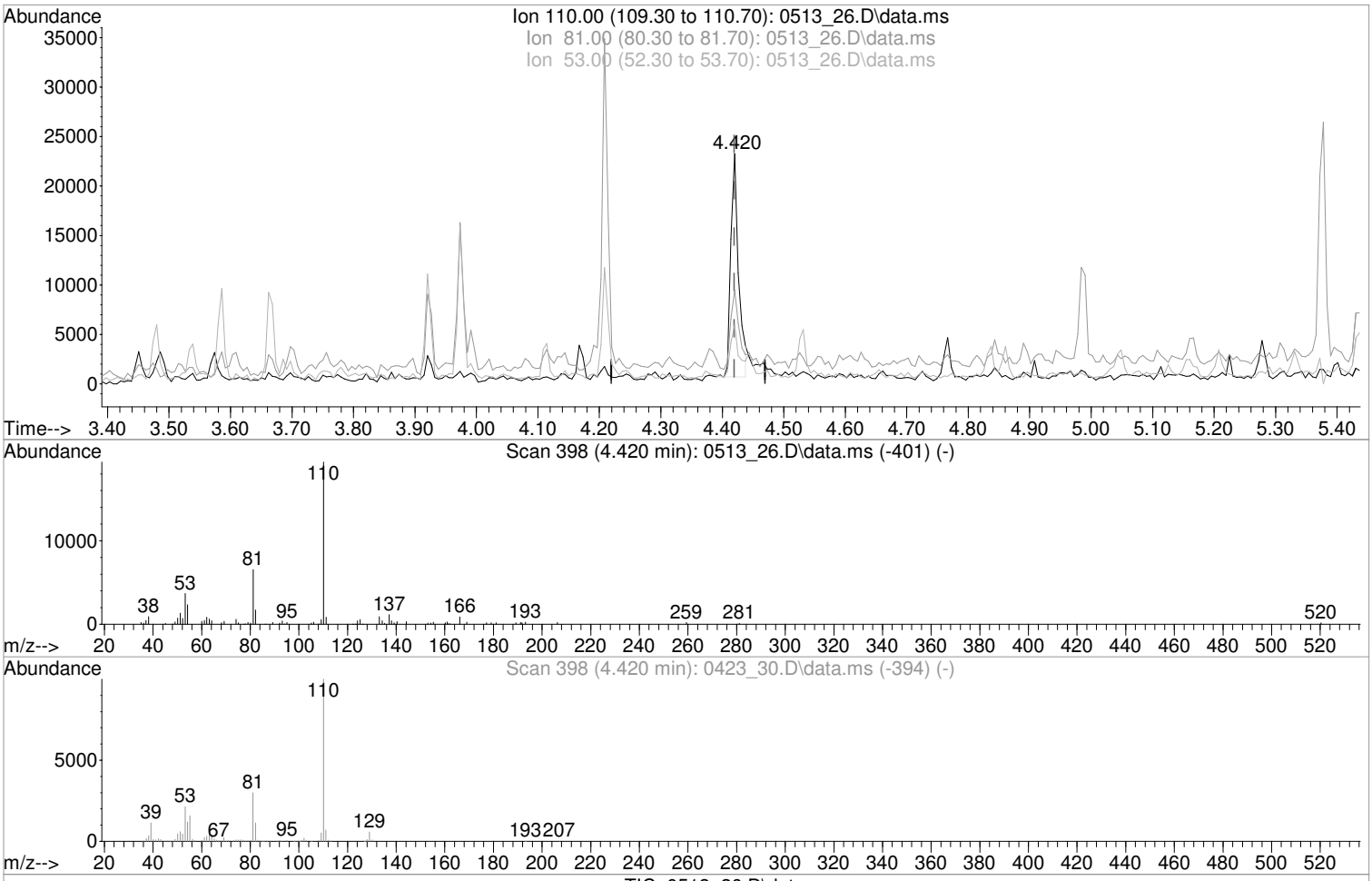
response 189592

Ion	Exp%	Act%
128.00	100	100
129.00	11.40	11.23
127.00	12.90	13.89
102.00	9.20	8.31

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_26.D
Acq On : 13 May 2022 4:02 pm
Operator : 974
Sample : MSD 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:30 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration



TIC: 0513_26.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 825.6345122 ppb

Qvalue = 98

response 19900

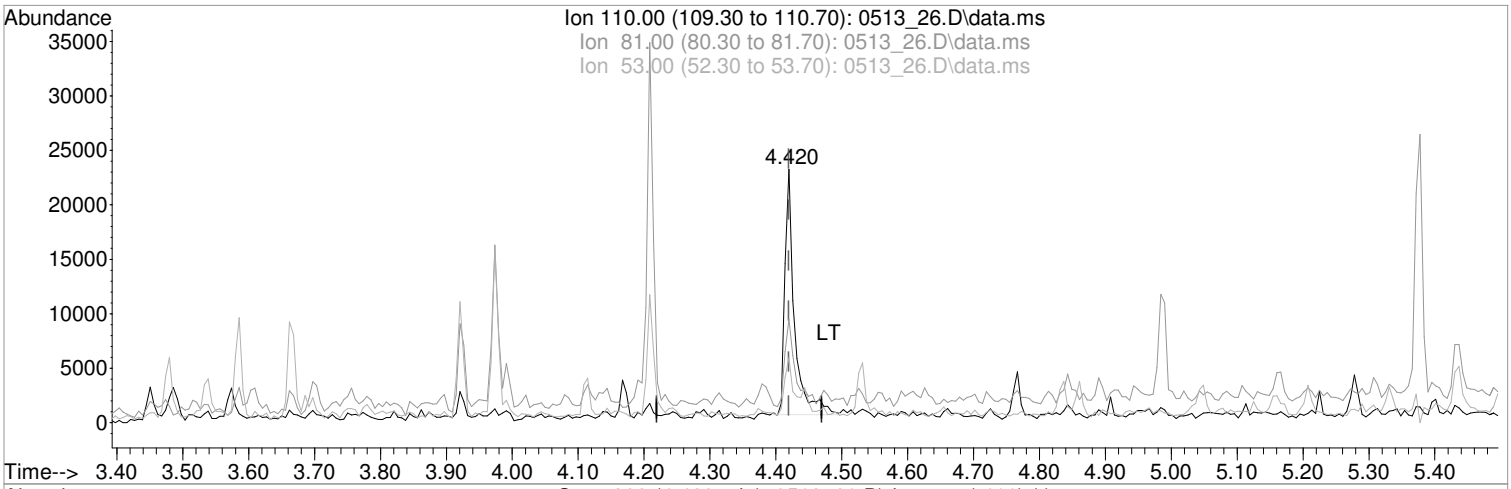
Ion	Exp%	Act%
110.00	100	100
81.00	30.00	31.17
53.00	21.40	22.45
0.00	0.00	0.00

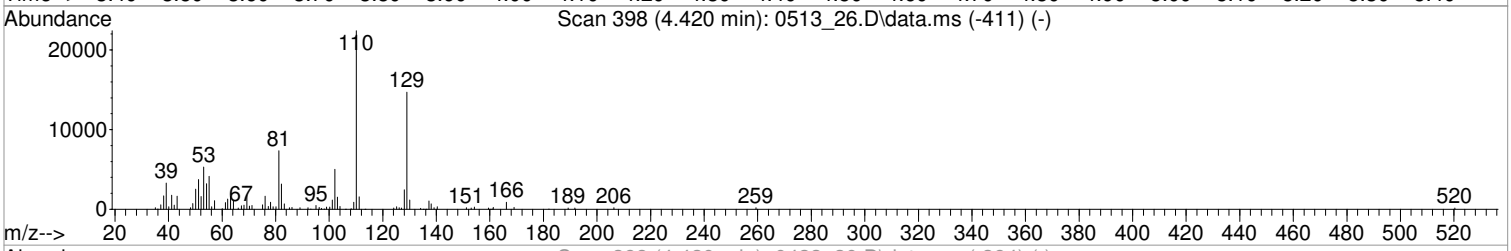
S802D23V.M Sun May 15 13:46:01 2022 Page: 1

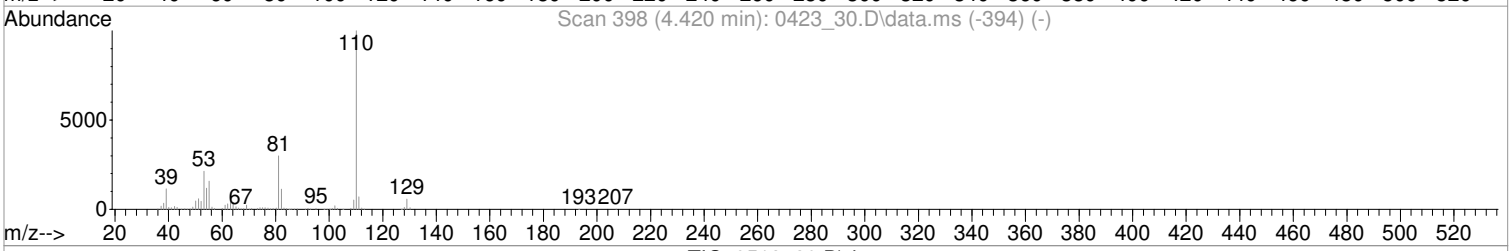
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\051322\
Data File : 0513_26.D
Acq On : 13 May 2022 4:02 pm
Operator : 974
Sample : MSD 1X WG1861596 L1488912-11
Misc : SOIL ISTD 22E11662 exp 10/28/22
ALS Vial : 82 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: May 15 12:47:30 2022
Quant Method : C:\msdchem\1\methods\S802D23V.M
Quant Title : 8270 BNA
QLast Update : Tue May 03 16:40:12 2022
Response via : Initial Calibration







TIC: 0513_26.D\data.ms

(37) Hydroquinone

4.420min (+0.000) 954.6658355 ppb m

response 23010

Ion	Exp%	Act%
110.00	100	100
81.00	30.00	40.84
53.00	21.40	25.66
0.00	0.00	0.00

BNA SS Extractions Benchsheet

Batch: WG1861595

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1488323	WG1858802	BJM688	PREPREPBAL4	04-MAY-22
L1488323	WG1858830	BJM688	PREPREPBAL3	04-MAY-22
L1488355	WG1858119	BJM688	PREPREPBAL2	03-MAY-22
L1488414	WG1858972	BJM688	PREPREPBAL2	06-MAY-22
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22

Process Analyst: MAB3514 **Transfer Analyst:** MAB3514 **Material Handler:** MAB3514 **Prep Start Date/Time:** 05/11/22 03:06-03:07
Prep End Date/Time: 05/11/22 11:03 **SOP:** MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17127444

Na2SO4: 22D27809 Amt. Used: 1 Exp. Date:10/27/22 **MeCL2:Acetone:** 22E06032 Amt. Used: 1 Exp. Date:10/28/22
Surrogate: 22E03640 Amt. Used: 0.50 mL Exp. Date:08/22/22 **LCS/MS Spike:** 22E02407 Amt. Used: 0.50 mL Exp. Date:05/16/22
MeCl2: 22E04829 Amt. Used: 1 Exp. Date:11/04/22 **Spike Syringe ID:** 22D27753 Amt. Used: 1 Exp. Date:10/27/22
Surrogate Syringe ID: 22D27754 Amt. Used: 1 Exp. Date:10/27/22

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	DSH3578	05/11/22 16:42:05
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	DSH3578	05/11/22 16:42:05
MS(L1488414-03)	15.31	25	0.5	Yellow	Fri03 / 0506PP02	0.0327	0.982	1	1	1	DSH3578	05/11/22 16:42:05
MSD(L1488414-03)	15.18	25	0.5	Yellow	Fri03 / 0506PP02	0.0329	0.988	1	1	1	DSH3578	05/11/22 16:42:05
1. L1488323-04	15.20	25	1.0	Dark-brown	Wed-5	0.0658	1.98	2	1	1	DSH3578	05/11/22 16:42:05
2. L1488323-05	15.14	25	0.5	Dark-brown	Wed-5	0.033	0.991	1	1	1	DSH3578	05/11/22 16:42:05
3. L1488323-06	15.75	25	0.5	Dark-brown	Wed-5	0.0317	0.952	1	1	1	DSH3578	05/11/22 16:42:05
4. L1488323-07	15.92	25	0.5	Dark-brown	Wed-5	0.0314	0.943	1	1	1	DSH3578	05/11/22 16:42:05
5. L1488323-08	15.08	25	1.0	Dark-brown	Wed-5	0.0663	1.99	2	1	1	DSH3578	05/11/22 16:42:05
6. L1488323-09	15.48	25	1.0	Dark-brown	Wed-5	0.0646	1.94	2	1	1	DSH3578	05/11/22 16:42:05
7. L1488323-10	15.36	25	0.5	Dark-brown	Wed-5	0.0326	0.979	1	1	1	DSH3578	05/11/22 16:42:05
8. L1488323-11	15.04	25	1.0	Dark-brown	5/4 PP3 WED 6	0.0665	2	2	1	1	DSH3578	05/11/22 16:42:05
9. L1488323-12	15.10	25	1.0	Dark-brown	5/4 PP3 WED 6	0.0662	1.99	2	1	1	DSH3578	05/11/22 16:42:05
10. L1488355-01	15.37	25	0.5	Yellow	Tues03 / 0503PP02	0.0325	0.976	1	1	1	DSH3578	05/11/22 16:42:05
11. L1488355-02	15.82	25	0.5	Orange	Tues03 / 0503PP02	0.0316	0.949	1	1	1	DSH3578	05/11/22 16:42:05
12. L1488355-03	15.25	25	0.5	Orange	Tues03 / 0503PP02	0.0328	0.985	1	1	1	DSH3578	05/11/22 16:42:05
13. L1488414-02	15.94	25	0.5	Dark-brown	Fri03 / 0506PP02	0.0314	0.943	1	1	1	DSH3578	05/11/22 16:42:05
14. L1488414-03	15.27	25	0.5	Yellow	Fri03 / 0506PP02	0.0327	0.982	1	1	1	DSH3578	05/11/22 16:42:05
15. L1488414-04	15.33	25	0.5	Colorless	Fri03 / 0506PP02	0.0326	0.979	1	1	1	DSH3578	05/11/22 16:42:05
16. L1488414-05	15.65	25	0.5	Dark-brown	Fri03 / 0506PP02	0.0319	0.958	1	1	1	DSH3578	05/11/22 16:42:05
17. L1488414-06	15.95	25	0.5	Orange	Fri03 / 0506PP02	0.0313	0.94	1	1	1	DSH3578	05/11/22 16:42:05
18. L1488414-07	15.33	25	0.5	Colorless	Fri03 / 0506PP02	0.0326	0.979	1	1	1	DSH3578	05/11/22 16:42:05
19. L1488802-01	15.24	25	0.5	Green	Tues-5	0.0328	0.985	1	1	1	DSH3578	05/11/22 16:42:05
20. L1488802-02	15.21	25	0.5	Green	Tues-5	0.0329	0.988	1	1	1	DSH3578	05/11/22 16:42:05

Comments:
#2, 3, 7, and 8 were Na2SO4 treated

Reviewed By:DSH3578 on 05/11/22 16:42:05

BNA SS Extractions Benchsheet

Batch: WG1861596

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1488057	WG1858234	BJM688	PREPREPBAL1	04-MAY-22
L1488414	WG1858972	BJM688	PREPREPBAL2	06-MAY-22
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488912	WG1858962	BJM688	PREPREPBAL1	05-MAY-22
L1488912	WG1860355	BJM688	PREPREPBAL3	07-MAY-22

Process Analyst: BLD3576 **Transfer Analyst:** BLD3576 **Material Handler:** BLD3576 **Prep Start Date/Time:** 05/12/22 14:39 **Prep End Date/Time:** 05/12/22 19:28
SOP: MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17398597

Na2SO4: 22E11660 Amt. Used: 1 Exp. Date:11/11/22 **MeCL2:Acetone:** 22E06032 Amt. Used: 1 Exp. Date:10/28/22
Surrogate: 22E03640 Amt. Used: 0.50 mL Exp. Date:08/22/22 **LCS/MS Spike:** 22E02407 Amt. Used: 0.50 mL Exp. Date:05/16/22
MeCl2: 22E04829 Amt. Used: 1 Exp. Date:11/04/22 **Spike Syringe ID:** 21K30871 Amt. Used: 1 Exp. Date:05/30/22
Surrogate Syringe ID: 22B04917 Amt. Used: 1 Exp. Date:08/04/22

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	AGW3545	05/13/22 06:49:36
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	AGW3545	05/13/22 06:49:36
MS(L1488912-11)	15	25	5	Dark-brown		0.333	10	10	1	1	AGW3545	05/13/22 06:49:36
MSD(L1488912-11)	15	25	5	Dark-brown		0.333	10	10	1	1	AGW3545	05/13/22 06:49:36
1. L1488057-10	15.69	25	0.5	Colorless	WED 1/0504-PP1	0.0319	0.958	1	1	1	AGW3545	05/13/22 06:49:36
2. L1488414-08	15.12	25	0.5	Dark-brown	Fri03 / 0506PP02	0.0331	0.994	1	1	1	AGW3545	05/13/22 06:49:36
3. L1488414-09	15.71	25	0.5	Yellow	Fri03 / 0506PP02	0.0318	0.955	1	1	1	AGW3545	05/13/22 06:49:36
4. L1488414-10	15.45	25	0.5	Yellow	Fri03 / 0506PP02	0.0324	0.973	1	1	1	AGW3545	05/13/22 06:49:36
5. L1488414-11	15.25	25	0.5	Dark-brown	Fri03 / 0506PP02	0.0328	0.985	1	1	1	AGW3545	05/13/22 06:49:36
6. L1488414-12	15.42	25	0.5	Dark-brown	Fri03 / 0506PP02	0.0324	0.973	1	1	1	AGW3545	05/13/22 06:49:36
7. L1488414-13	15.16	25	0.5	Yellow	Fri03 / 0506PP02	0.033	0.991	1	1	1	AGW3545	05/13/22 06:49:36
8. L1488414-14	15.39	25	0.5	Brown	Fri03 / 0506PP02	0.0325	0.976	1	1	1	AGW3545	05/13/22 06:49:36
9. L1488414-15	15.63	25	0.5	Yellow	Fri03 / 0506PP02	0.032	0.961	1	1	1	AGW3545	05/13/22 06:49:36
10. L1488414-16	15.29	25	0.5	Yellow	Fri03 / 0506PP02	0.0327	0.982	1	1	1	AGW3545	05/13/22 06:49:36
11. L1488414-17	15.53	25	5	Dark-brown	Fri03 / 0506PP02	0.322	9.67	10	1	1	AGW3545	05/13/22 06:49:36
12. L1488414-18	15.64	25	0.5	Yellow	Fri03 / 0506PP02	0.032	0.961	1	1	1	AGW3545	05/13/22 06:49:36
13. L1488414-19	15.41	25	0.5	Yellow	Fri03 / 0506PP02	0.0324	0.973	1	1	1	AGW3545	05/13/22 06:49:36
14. L1488802-03	15.27	25	5	Dark-brown	Tues-5	0.327	9.82	10	1	1	AGW3545	05/13/22 06:49:36
15. L1488802-04	15.29	25	5	Dark-brown	Tues-5	0.327	9.82	10	1	1	AGW3545	05/13/22 06:49:36
16. L1488802-05	15.53	25	5	Dark-brown	Tues-5	0.322	9.67	10	1	1	AGW3545	05/13/22 06:49:36
17. L1488802-06	15.30	25	0.5	Dark-brown	Tues-5	0.0327	0.982	1	1	1	AGW3545	05/13/22 06:49:36
18. L1488912-07	15.03	25	5	Dark-brown	THUR BOX 3, 0505 PP1	0.333	10	10	1	1	AGW3545	05/13/22 06:49:36
19. L1488912-09	15.07	25	5	Dark-brown	THUR BOX 3, 0505 PP1	0.332	9.97	10	1	1	AGW3545	05/13/22 06:49:36
20. L1488912-11	15.63	25	5	Dark-brown	5/7PP3 RUSH	0.32	9.61	10	1	1	AGW3545	05/13/22 06:49:36

Comments:

Reviewed By:AGW3545 on 05/13/22 06:49:36

9034/9030B Wet Chemistry

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-SG11-042822-0-5

Lab Sample ID:	L1488802-01	**SDG:**	L1488802
Client Sample ID:	BNSF-SG11-042822-0-5	**Collected Date/Time:**	04/28/22 08:05
Lab File ID:	18	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	14.01 g
Total Solids (%):	77.0	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	U		39.0	97.4

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E380-042822-0-4

Lab Sample ID:	L1488802-02	**SDG:**	L1488802
Client Sample ID:	BNSF-E380-042822-0-4	**Collected Date/Time:**	04/28/22 08:35
Lab File ID:	19	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	12.62 g
Total Solids (%):	75.4	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	U		39.8	99.5

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E320-042822-0-4

Lab Sample ID:	L1488802-03	**SDG:**	L1488802
Client Sample ID:	BNSF-E320-042822-0-4	**Collected Date/Time:**	04/28/22 09:05
Lab File ID:	20	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.30 g
Total Solids (%):	72.2	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	318		41.6	104

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-D160-042822-0-5

Lab Sample ID:	L1488802-04	**SDG:**	L1488802
Client Sample ID:	BNSF-D160-042822-0-5	**Collected Date/Time:**	04/28/22 09:50
Lab File ID:	21	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	9.27 g
Total Solids (%):	70.7	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	220		42.4	106

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-E460-042922-0-4

Lab Sample ID:	L1488802-05	**SDG:**	L1488802
Client Sample ID:	BNSF-E460-042922-0-4	**Collected Date/Time:**	04/28/22 08:50
Lab File ID:	22	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	7.79 g
Total Solids (%):	71.1	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	101	J	42.2	105

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-H360-042922-0-8

Lab Sample ID:	L1488802-06	**SDG:**	L1488802
Client Sample ID:	BNSF-H360-042922-0-8	**Collected Date/Time:**	04/28/22 09:25
Lab File ID:	23	**Received Date/Time:**	05/03/22 09:30
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.22 g
Total Solids (%):	77.7	**Final Wt/Vol:**	

Analyte	CAS	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	U		38.6	96.6

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3788703-1

Lab Sample ID:	R3788703-1	**SDG:**	L1488802
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.15 g
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	U		30.0	75.0

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788703-2	**SDG:**	L1488802
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	02	**Received Date/Time:**	
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.14 g
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	71.1		30.0	75.0

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788703-3	**SDG:**	L1488802
Client Sample ID:	MS	**Collected Date/Time:**	04/26/22 12:15
Lab File ID:	03	**Received Date/Time:**	05/02/22 09:00
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.38 g
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	69.5		30.0	75.0

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3788703-4	**SDG:**	L1488802
Client Sample ID:	MSD	**Collected Date/Time:**	04/26/22 12:15
Lab File ID:	04	**Received Date/Time:**	05/02/22 09:00
Instrument ID:	MAN TITR	**Preparation Date/Time:**	05/03/22 12:51
Analytical Batch:	WG1857987	**Analysis Date/Time:**	05/05/22 18:00
Dilution Factor:	1	**Prep Method:**	9030B
Analytical Method:	9034/9030B	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	10.81 g
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/kg		*mg/kg*	*mg/kg*
Sulfide	18496-25-8	66.7		30.0	75.0

SDG:	L1488802	**Calibration (begin) date/time:**	_____
Instrument ID:	MAN TITR	**Calibration (end) date/time:**	_____
Analytical Method:	9034/9030B	**Analytical Run:**	WG1857987

	Sample ID:	**BLANK Result**	**BLANK Qual**
	File ID:	01	
Analyte		mg/kg	
SULFIDE		U	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1488802-01,02,03,04,05,06

SAMPLE NO.:
R3788703-3
R3788703-4

MS Sample / File ID:	R3788703-3 / 03	**SDG:**	L1488802
MSD Sample / File ID:	R3788703-4 / 04	**Analytical Batch:**	WG1857987
OS Sample / File ID:	L1488556-01 / 14	**Matrix:**	Solid
Instrument ID:	MAN TITR		
Analytical Method:	9034/9030B		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*	*%*	*%*		*%*	*%*	*%*
Sulfide	100	U	69.5	66.7	69.5	66.7	1	10.0 - 136	4.06	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1488802-01,02,03,04,05,06

SAMPLE NO.:
R3788703-2

LCS Sample / File ID:	R3788703-2 / 02	**SDG:**	L1488802
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1857987
Instrument ID:	MAN TITR	**Dilution Factor:**	1
Analytical Method:	9034/9030B	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Sulfide	100	71.1		71.1		53.8 - 124		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1488802-01,02,03,04,05,06 **Analytical Method:** 9034/9030B

Matrix: Solid **Prep Method:** 9030B

Analyte	CAS	Wavelength	Mass	MDL	RDL
				mg/kg	*mg/kg*
Sulfide	18496-25-8			30	75

ANALYSIS LOG

SDG:	L1488802	**Analytical Method:**	9034/9030B
Instrument ID:	MAN TITR	**Calibration Start Date:**	
Analytical Run:	WG1857987	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3788703-1	01	05/05/22 18:00	1	WG1857987
LCS	R3788703-2	02	05/05/22 18:00	1	WG1857987
MS	R3788703-3	03	05/05/22 18:00	1	WG1857987
MSD	R3788703-4	04	05/05/22 18:00	1	WG1857987
OS	L1488556-01	14	05/05/22 18:00		
BNSF-SG11-042822-0-5	L1488802-01	18	05/05/22 18:00	1	WG1857987
BNSF-H360-042922-0-8	L1488802-06	23	05/05/22 18:00	1	WG1857987
BNSF-E460-042922-0-4	L1488802-05	22	05/05/22 18:00	1	WG1857987
BNSF-D160-042822-0-5	L1488802-04	21	05/05/22 18:00	1	WG1857987
BNSF-E380-042822-0-4	L1488802-02	19	05/05/22 18:00	1	WG1857987
BNSF-E320-042822-0-4	L1488802-03	20	05/05/22 18:00	1	WG1857987

SULFIDE SS WetChem Prep Benchsheet

Batch: WG1857987

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1487377	WG1856083	KMT967	PREPREPBAL3	28-APR-22
L1488057	WG1856887	BJM688	PREPREPBAL3	30-APR-22
L1488554	WG1857876	BJM688	PREPREPBAL1	03-MAY-22
L1488556	WG1857876	BJM688	PREPREPBAL1	03-MAY-22
L1488686	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488800	WG1858206	BJM688	PREPREPBAL4	03-MAY-22
L1488802	WG1858206	BJM688	PREPREPBAL4	03-MAY-22

Analyst: BMD3730 **Analyst 2:** NA___ **Analyst 3:** NA___ **Prep Start Date/Time:** 05/03/22 12:51 **Prep End Date/Time:** 05/05/22 18:02
Date/Time Analyzed: 05/05/22 18:00:04 **SOP:** 0172 **Method:** 9030B **LCS True Value:** 100 ppm **Balance ID:** WETBAL12 **5mL Pipette Lot#:** NA
10mL Pipette Lot#: NA **50mL Pipette Lot#:** NA **250mL Container Lot#:** NA

H2SO4: 22E02355 Amt. Used: 50 mL Exp. Date:11/02/22 **0.5M Zn Acetate:** 22D28915 Amt. Used: 10 mL Exp. Date:09/29/22
37% Formaldehyde: 22D07126 Amt. Used: 5 mL Exp. Date:10/07/22 **LCS/D Standard:** 22E05006 Amt. Used: 10 mL Exp. Date:05/06/22
Iodine Solution: 22E05007 Amt. Used: 15 mL Exp. Date:11/05/22 **Sodium Thiosulfate Titrant:** 22E05008 Amt. Used: 1 Exp. Date:11/05/22
6N HCL: 22C22767 Amt. Used: 1 Exp. Date:09/22/22 **MS/D Standard:** 22E05006 Amt. Used: 10 mL Exp. Date:05/06/22

Sample Number	Prep Flags	Normality of I2	Vol I2 for Std. (mL)	Vol Titr for Std. (mL)	Normality of Titrant	Initial Sample Wt (g)	Volume of I2 (mL)	Volume of Titrant (mL)	Sulfide Result (mg/L)	Review Analyst	Review Date
BLANK		0.025	15	15	0.025	10.15	15	15.0	0	BMD3730	05/05/22 19:04:55
LCS		0.025	15	15	0.025	10.14	15	13.2	71.139	BMD3730	05/05/22 19:04:55
1. L1487377-01	T8	0.025	15	15	0.025	9.15	15	14.5	21.899	BMD3730	05/05/22 19:04:55
2. L1487377-02	T8	0.025	15	15	0.025	9.37	15	14.7	12.831	BMD3730	05/05/22 19:04:55
3. L1487377-03	T8	0.025	15	15	0.025	8.57	15	14.6	18.705	BMD3730	05/05/22 19:04:55
4. L1488057-10		0.025	15	15	0.025	8.95	15	15.0	0	BMD3730	05/05/22 19:04:55
5. L1488146-03		0.025	15	15	0.025	11.30	15	12.3	95.754	BMD3730	05/05/22 19:04:55
6. L1488554-01		0.025	15	15	0.025	10.14	15	15.0	0	BMD3730	05/05/22 19:04:55
7. L1488554-02		0.025	15	15	0.025	10.11	15	15.0	0	BMD3730	05/05/22 19:04:55
8. L1488554-03		0.025	15	15	0.025	9.97	15	14.9	4.02	BMD3730	05/05/22 19:04:55
9. L1488554-04		0.025	15	15	0.025	10.66	15	14.9	3.759	BMD3730	05/05/22 19:04:55
10. L1488556-01	T8	0.025	15	15	0.025	10.63	15	14.8	7.54	BMD3730	05/05/22 19:04:55
11. L1488686-02		0.025	15	15	0.025	11.01	15	15.0	0	BMD3730	05/05/22 19:04:55
12. L1488800-01		0.025	15	15	0.025	10.68	15	15.0	0	BMD3730	05/05/22 19:04:55
13. L1488800-02		0.025	15	15	0.025	9.34	15	14.1	38.616	BMD3730	05/05/22 19:04:55
14. L1488802-01		0.025	15	15	0.025	14.01	15	15.0	0	BMD3730	05/05/22 19:04:55
15. L1488802-02		0.025	15	15	0.025	12.62	15	14.8	6.351	BMD3730	05/05/22 19:04:55
16. L1488802-03		0.025	15	15	0.025	10.30	15	9.1	229.556	BMD3730	05/05/22 19:04:55
17. L1488802-04		0.025	15	15	0.025	9.27	15	11.4	155.631	BMD3730	05/05/22 19:04:55
18. L1488802-05		0.025	15	15	0.025	7.79	15	13.6	72.022	BMD3730	05/05/22 19:04:55
19. L1488802-06		0.025	15	15	0.025	10.22	15	14.8	7.842	BMD3730	05/05/22 19:04:55
20. L1488911-01		0.025	15	15	0.025	9.48	15	15.0	0	BMD3730	05/05/22 19:04:55
MS(L1488556-01)		0.025	15	15	0.025	10.38	15	13.2	69.494	BMD3730	05/05/22 19:04:55
MSD(L1488556-01)		0.025	15	15	0.025	10.81	15	13.2	66.73	BMD3730	05/05/22 19:04:55

Comments:

Reviewed By:BMD3730 on 05/05/22 19:04:55

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Mass	Mass of parameter.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

GLOSSARY OF TERMS

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [x] Yes ☐ No

Workorder: 10606565 **Workorder Name:** D3593500

Owner Received Date: 5/2/2022 Results Requested By: 5/23/2022

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: 8270 SVOC - Pace National	Sulfides SW9030 - Pace National											LAB USE ONLY
1	BNSF-SG11-042822-0-5	PS	4/28/2022 08:05	10606565001	Solid	2						X	X											01
2	BNSF-E380-042822-0-4	PS	4/28/2022 08:35	10606565002	Solid	2						X	X											02
3	BNSF-E320-042822-0-4	PS	4/28/2022 09:05	10606565003	Solid	2						X	X											03
4	BNSF-D160-042822-0-5	PS	4/28/2022 09:50	10606565004	Solid	2						X	X											04
5	BNSF-E460-042922-0-4	PS	4/29/2022 08:50	10606565005	Solid	2						X	X											05
6	BNSF-H360-042922-0-8	PS	4/29/2022 09:25	10606565006	Solid	2						X	X											06

2148822

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/pace	5.2.22 15:55		5/3/22 0930
2				
3				

Comments

Cooler Temperature on Receipt _____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

5466 8884 5[illegible]

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

DRA7
3.0 + 0 = 3.0

10606565

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 10606565
(To be completed by sending lab)

Sending Project No:	10606565
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	05/02/22
REQUESTED COMPLETION DATE:	**5/23/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed yes

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
Sulfides SW9030 - Pace National	JGFU		Unpreserved	6	$22.00	$132.00
8270 SVOC - Pace National	JGFU		Unpreserved	6	$130.00	$780.00
					TOTAL	$912.00

Special Requirements: Report C, QC Limits (C),FR Only no EDD (0)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
Wet Chemistry	21	$132.00	$105.60	$26.40
GC/MS Semivolatiles	30	$780.00	$624.00	$156.00
	TOTAL	$912.00	$729.60	$182.40

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

1444 of 1506

8270 SVOC List

Semi-volatile Organic Compounds and Polycy
3&4-Methylphenol
Benzoic acid
Bis(2-ethylhexyl) phthalate
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Di-n-octyl phthalate
Pentachlorophenol
Phenol
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Benz(a)anthracene
Benzo(a)pyrene
Benzo(ghi)perylene
Chrysene
Dibenz(ah)anthracene
Fluoranthene
Fluorene
Indeno(123-cd)pyrene
Naphthalene
Phenanthrene
Pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene

ANALYTICAL REPORT

Job Number: 580-114139-1

Job Description: D593500 10606565 - Sample 3 only

For:
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414

Attention: Kongmeng Vang

Approved for release.
Pauline M Matlock
Project Manager
6/3/2022 6:03 PM

Pauline M Matlock, Project Manager
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
Pauline.Matlock@et.eurofinsus.com
06/03/2022

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Table of Contents

Definitions/Glossary

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
580-114139-1

Comments
This sample was meant to be sample #3 on job 580-113469. The two reports have been merged together.

Receipt
The sample was received on 5/25/2022 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.8º C.

Receipt Exceptions
The following sample was received outside of holding time for both analyses requested. BNSF-E320-042822-0-4 (580-114139-1).

General Chemistry
Method 350.1: The following sample was received the day before holding time expired for this method. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: BNSF-E320-042822-0-4 (580-114139-1).

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batches 580-392045 and 580-392084 and analytical batch 580-392085 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 9060A: The following sample was received the day before holding time expired for this method.. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: BNSF-E320-042822-0-4 (580-114139-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Client Sample ID: BNSF-E320-042822-0-4
Lab Sample ID: 580-114139-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	15000	H	2700	130	mg/Kg	1	☼	9060A	Total/NA
Ammonia as N	17	J H F1	34	12	mg/Kg	1	☼	350.1	Soluble

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Client Sample ID: BNSF-E320-042822-0-4
Lab Sample ID: 580-114139-1
Date Collected: 04/28/22 09:05
Matrix: Solid
Date Received: 05/25/22 09:30
Percent Solids: 72.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	15000	H	2700	130	mg/Kg	☼		06/03/22 14:32	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	17	J H F1	34	12	mg/Kg	☼	05/26/22 23:59	05/27/22 00:05	1

Default Detection Limits

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

General Chemistry

Analyte	RL	MDL	Units
Total Organic Carbon - Duplicates	2000	97	mg/Kg

General Chemistry - Soluble

Prep: Distill/Ammonia

Leach: DI Leach

Analyte	RL	MDL	Units
Ammonia as N	25	8.8	mg/Kg

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 580-392045/1-B
Matrix: Solid
Analysis Batch: 392085

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 392084

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		25	8.8	mg/Kg		05/26/22 23:59	05/27/22 00:05	1

Lab Sample ID: LCS 580-392045/2-B
Matrix: Solid
Analysis Batch: 392085

Client Sample ID: Lab Control Sample
Prep Type: Soluble
Prep Batch: 392084

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia as N			50.0	45.8		mg/Kg		92	90 - 110		

Lab Sample ID: 580-114139-1 MS
Matrix: Solid
Analysis Batch: 392085

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Soluble
Prep Batch: 392084

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia as N	17	J H F1	68.3	62.1	F1	mg/Kg	☼	66	90 - 110		

Lab Sample ID: 580-114139-1 MSD
Matrix: Solid
Analysis Batch: 392085

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Soluble
Prep Batch: 392084

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia as N	17	J H F1	67.9	61.8	F1	mg/Kg	☼	66	90 - 110	1	20

Lab Sample ID: 580-114139-1 DU
Matrix: Solid
Analysis Batch: 392085

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Soluble
Prep Batch: 392084

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ammonia as N	17	J H F1		16.0	J	mg/Kg	☼			5	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-392787/5
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			06/03/22 14:24	1

Lab Sample ID: LCS 580-392787/6
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	112000		mg/Kg		93	80 - 120		

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 580-392787/7
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	112000		mg/Kg		94	80 - 120	0	20

Lab Sample ID: 580-114139-1 MS
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	15000	H	165000	179000		mg/Kg	☼	99	75 - 125		

Lab Sample ID: 580-114139-1 MSD
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	15000	H	165000	173000		mg/Kg	☼	96	75 - 125	3	20

Lab Sample ID: 580-114139-1 DU
Matrix: Solid
Analysis Batch: 392787

Client Sample ID: BNSF-E320-042822-0-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	15000	H		16100		mg/Kg	☼			6	20

General Chemistry

Leach Batch: 392045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-114139-1	BNSF-E320-042822-0-4	Soluble	Solid	DI Leach	
MB 580-392045/1-B	Method Blank	Soluble	Solid	DI Leach	
LCS 580-392045/2-B	Lab Control Sample	Soluble	Solid	DI Leach	
580-114139-1 MS	BNSF-E320-042822-0-4	Soluble	Solid	DI Leach	
580-114139-1 MSD	BNSF-E320-042822-0-4	Soluble	Solid	DI Leach	
580-114139-1 DU	BNSF-E320-042822-0-4	Soluble	Solid	DI Leach	

Prep Batch: 392084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-114139-1	BNSF-E320-042822-0-4	Soluble	Solid	Distill/Ammonia	392045
MB 580-392045/1-B	Method Blank	Soluble	Solid	Distill/Ammonia	392045
LCS 580-392045/2-B	Lab Control Sample	Soluble	Solid	Distill/Ammonia	392045
580-114139-1 MS	BNSF-E320-042822-0-4	Soluble	Solid	Distill/Ammonia	392045
580-114139-1 MSD	BNSF-E320-042822-0-4	Soluble	Solid	Distill/Ammonia	392045
580-114139-1 DU	BNSF-E320-042822-0-4	Soluble	Solid	Distill/Ammonia	392045

Analysis Batch: 392085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-114139-1	BNSF-E320-042822-0-4	Soluble	Solid	350.1	392084
MB 580-392045/1-B	Method Blank	Soluble	Solid	350.1	392084
LCS 580-392045/2-B	Lab Control Sample	Soluble	Solid	350.1	392084
580-114139-1 MS	BNSF-E320-042822-0-4	Soluble	Solid	350.1	392084
580-114139-1 MSD	BNSF-E320-042822-0-4	Soluble	Solid	350.1	392084
580-114139-1 DU	BNSF-E320-042822-0-4	Soluble	Solid	350.1	392084

Analysis Batch: 392121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-114139-1	BNSF-E320-042822-0-4	Total/NA	Solid	2540G	

Analysis Batch: 392787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-114139-1	BNSF-E320-042822-0-4	Total/NA	Solid	9060A	
MB 580-392787/5	Method Blank	Total/NA	Solid	9060A	
LCS 580-392787/6	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-392787/7	Lab Control Sample Dup	Total/NA	Solid	9060A	
580-114139-1 MS	BNSF-E320-042822-0-4	Total/NA	Solid	9060A	
580-114139-1 MSD	BNSF-E320-042822-0-4	Total/NA	Solid	9060A	
580-114139-1 DU	BNSF-E320-042822-0-4	Total/NA	Solid	9060A	

Lab Chronicle

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Client Sample ID: BNSF-E320-042822-0-4
Lab Sample ID: 580-114139-1

Date Collected: 04/28/22 09:05
Matrix: Solid
Date Received: 05/25/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	392121	05/27/22 14:07	TMH	FGS SEA

Client Sample ID: BNSF-E320-042822-0-4
Lab Sample ID: 580-114139-1

Date Collected: 04/28/22 09:05
Matrix: Solid
Date Received: 05/25/22 09:30
Percent Solids: 72.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			392045	05/26/22 16:51	MLT	FGS SEA
Soluble	Prep	Distill/Ammonia			392084	05/26/22 23:59	MLT	FGS SEA
Soluble	Analysis	350.1		1	392085	05/27/22 00:05	MLT	FGS SEA
Total/NA	Analysis	9060A		1	392787	06/03/22 14:32	FCG	FGS SEA

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
350.1	Distill/Ammonia	Solid	Ammonia as N
9060A		Solid	Total Organic Carbon - Duplicates

Oregon	NELAP	4167	07-07-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

Method Summary

Client: Pace Analytical Services, LLC
Job ID: 580-114139-1
Project/Site: D593500 10606565 - Sample 3 only

Method	Method Description	Protocol	Laboratory
2540G	SM 2540G	SM22	FGS SEA
350.1	Nitrogen, Ammonia	MCAWW	FGS SEA
9060A	Organic Carbon, Total (TOC)	SW846	FGS SEA
DI Leach	Deionized Water Leaching Procedure	ASTM	FGS SEA
Distill/Ammonia	Distillation, Ammonia	None	FGS SEA

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D593500 10606565 - Sample 3 only

Job ID: 580-114139-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-114139-1	BNSF-E320-042822-0-4	Solid	04/28/22 09:05	05/25/22 09:30

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Ammonia Std_00019	06/14/23	LabChem, Lot L158-09			(Purchased Reagent)		Ammonia as N	1000 mg/L
CaCO3_00004_00009	07/16/25	LECO, Lot 1001			(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00012	03/31/23	Alfa Aesar, Lot X15E030			(Purchased Reagent)		Total Organic Carbon - Duplicates	120000 mg/Kg
TOCS_LCS_00012	07/26/23	ERA, Lot D108-542			(Purchased Reagent)		TOC Result 1	4300 mg/Kg
							Total Organic Carbon - Duplicates	4300 mg/Kg

Reagent

Ammonia Std_00019

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: AMMONIA (as NITROGEN) STANDARD, 1000ppm (1mL = 1mg N)

Mfg. Date: 06/14/2021

Catalog Number: LC17940

Exp. Date: 06/14/2023

Lot Number: L158-09

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm N	1000ppm +/- 10ppm	995 ppm
Concentration mg N/mL	1.000 +/- 0.010 mg N/mL	0.995 mg N/mL
Traceable to NIST	Potassium Chloride	999b

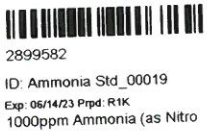
Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor



rcvd 6/30/21

An ISO9001:2015 certified company. Registration # 0306-01

06/30/2021 7:01 PM

Form #17.13 07/28/2016

Reagent

CaCO3_00004_00009

Version	00
Molecular weight	100.09
Quality Test / Release Date	07/31/2020
Molecular Formula	C Ca O3
CAS No	471-34-1
Linear Formula	CaCO3
Flash Point (°C)	

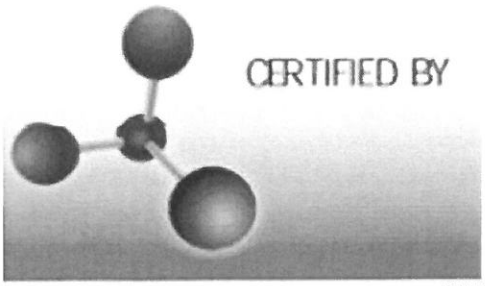
Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	42351	**Quality Test / Release Date**	07/31/2020
Lot Number	A0421160	**Suggested retest date**	07/31/2025
Description	Calcium carbonate,99+%,ACS reagent		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Crystalline powder	Crystalline powder
Titration Complexometric	>=99.0 % (on dried substance)	99.4 % (on dried substance)
Heavy metals (ICP-OES)	=<0.001 %	=<0.001 %
Insoluble matter	=<0.01 % (in dilute HCl)	0.008 % (in dilute HCl)
Chloride (Cl)	=<0.001 %	=<0.001 %
Fluoride (F)	=<0.0015 %	=<0.0015 %
Sulfate (SO4)	=<0.01 %	=<0.01 %
Ammonium (NH4)	=<0.003 %	=<0.003 %
Barium (Ba)	=<0.01 %	0.00164 %
Iron (Fe)	=<0.003 %	=<0.003 %
Magnesium (Mg)	=<0.02 %	0.010341 %
Potassium (K)	=<0.01 %	0.001048 %
Sodium (Na)	=<0.1 %	0.07061 %
Strontium (Sr)	=<0.1 %	0.007741 %



C. Wygaerts, QA Manager

Issued: 08-03-2020

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet:http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

3092515

ID: CaCO3_00004_00009

Exp 07/16/25 Prpd:R1K Opn:03/04/22

CaCO3-12%TC Second Source

FCG 3/4/22

Reagent

CaCO3_00012

Certificate of analysis

2450156
ID: CaCO3_00012
Exp:03/31/23 Prpd:JKM Opn:08/14/19
CaCO3-12%TC Second Source

Product No.: 36337

Product: Calcium carbonate, ACS, low in alkalies, 99.0% min

Lot No.: X15E030

Test	Limits	Results
Assay	99.5 % min	99.1 %
Insoluble in dilute HCl	0.01 % max	< 0.01 %
Chloride	0.001 % max	< 0.001 %
Fluoride	0.0015 % max	< 0.0008 %
Sulfate	0.005 % max	< 0.01 %
Ammonium	0.003 % max	< 0.003 %
Barium	0.01 %	< 0.01 %
Heavy metals (as Pb)	0.001 % max	< 0.001 %
Iron	0.002 % max	< 0.003 %
Magnesium	0.01 % max	0.003 %
Potassium	0.01 % max	< 0.01 %
Sodium	0.01 % max	< 0.1 %
Strontium	0.1 % max	< 0.1 %

This document has been electronically generated and does not require a signature.

Reagent

TOCS_LCS_00012

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D108-542
Certificate Issue Date: December 26, 2019
Expiration Date: July 26, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	853	795	5.50	523 - 1070	456 - 1130
Total Kjeldahl Nitrogen	1510	1500	12.3	976 - 2030	827 - 2180
Total Organic Carbon (TOC)	4300	4370	6.86	1580 - 7150	1530 - 7200
Total Phosphorus	911	815	10.8	422 - 1210	185 - 1440

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	853	795	93.3	39	-	-
Total Kjeldahl Nitrogen	1510	1500	99.7	33	-	-
Total Organic Carbon (TOC)	4300	4370	102	24	-	-
Total Phosphorus	911	815	89.4	55	-	-

2735864
ID: TOCS_LCS_00012
Exp: 01/31/22 Prpd: R1K
1540-7000 mg/kg TOC

Rev.1 10/21/20

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG No.:

Project: D593500 10606565 - Sample 3 only

Client Sample ID	Lab Sample ID
BNSF-E320-042822-0-4	580-114139-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-E320-042822-0-4 Lab Sample ID: 580-114139-1

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG ID.:

Matrix: Solid Date Sampled: 04/28/2022 09:05

Reporting Basis: DRY Date Received: 05/25/2022 09:30

% Solids: 72.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	15000	2700	130	mg/Kg		H	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: BNSF-E320-042822-0-4 Lab Sample ID: 580-114139-1

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG ID.:

Matrix: Solid Date Sampled: 04/28/2022 09:05

Reporting Basis: DRY Date Received: 05/25/2022 09:30

% Solids: 72.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia as N	17	34	12	mg/Kg	J	H F1	1	350.1

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Analyst: FCG Batch Start Date: 03/18/2022

Reporting Units: mg/Kg Analytical Batch No.: 392787

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	18:26	Total Organic Carbon - Duplicates	4350	4300	101	80-120		TOCS_LCS_00012
2	ICB	18:28	Total Organic Carbon - Duplicates	ND					
3	CCV	14:20	Total Organic Carbon - Duplicates	117000	120000	98	80-120		CaCO3_00004_00009
4	CCB	14:22	Total Organic Carbon - Duplicates	ND					
12	CCV	14:46	Total Organic Carbon - Duplicates	117000	120000	97	80-120		CaCO3_00004_00009
13	CCB	14:48	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 392085 Date: 05/27/2022 00:05 Prep Batch: 392084 Date: 05/26/2022 23:59							
350.1	MB 580-392045/1-B	Ammonia as N	ND		mg/Kg	25	1
Batch ID: 392787 Date: 06/03/2022 14:24							
9060A	MB 580-392787/5	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 392085	Date: 05/27/2022 00:05		Prep Batch: 392084		Date: 05/26/2022 23:59						
350.1	580-114139-1	Ammonia as N	17	J	mg/Kg						H F1
350.1	580-114139-1 MS	Ammonia as N	62.1		mg/Kg	68.3	66	90-110			F1
Batch ID: 392787	Date: 06/03/2022 14:40										
9060A	580-114139-1	Total Organic Carbon - Duplicates	15000		mg/Kg						H
9060A	580-114139-1 MS	Total Organic Carbon - Duplicates	179000		mg/Kg	165000	99	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 392085 Date: 05/27/2022 00:05			Prep Batch: 392084		Date: 05/26/2022 23:59						
350.1	580-114139-1 MSD	Ammonia as N	61.8		mg/Kg	67.9	66	90-110	1	20	F1
Batch ID: 392787 Date: 06/03/2022 14:43											
9060A	580-114139-1 MSD	Total Organic Carbon - Duplicates	173000		mg/Kg	165000	96	75-125	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 392085 Date: 05/27/2022 00:05			Prep Batch: 392084 Date: 05/26/2022 23:59					
350.1	BNSF-E320-042822-0-4	580-114139-1	Ammonia as N	17	mg/Kg			J
350.1	BNSF-E320-042822-0-4	580-114139-1 DU	Ammonia as N	16.0	mg/Kg	5	20	J
Batch ID: 392787 Date: 06/03/2022 14:36								
9060A	BNSF-E320-042822-0-4	580-114139-1	Total Organic Carbon - Duplicates	15000	mg/Kg			
9060A	BNSF-E320-042822-0-4	580-114139-1 DU	Total Organic Carbon - Duplicates	16100	mg/Kg	6	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 392085	Date: 05/27/2022 00:05		Prep Batch: 392084			Date: 05/26/2022 23:59					
						LCS Source: Ammonia Std_00019					
350.1	LCS 580-392045/2-B	Ammonia as N	45.8		mg/Kg	50.0	92	90-110			
Batch ID: 392787	Date: 06/03/2022 14:27										
						LCS Source: CaCO3_00012					
9060A	LCS 580-392787/6	Total Organic Carbon - Duplicates	112000		mg/Kg	120000	93	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 392787 Date: 06/03/2022 14:29											
						LCSD Source: CaCO3_00012					
9060A	LCSD 580-392787/7	Total Organic Carbon - Duplicates	112000		mg/Kg	120000	94	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG Number:

Matrix: Solid Instrument ID: TAC126

Method: 350.1 MDL Date: 04/21/2021 07:54

Prep Method: Distill/Ammonia

Leach Method: DI Leach

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Ammonia as N		25	8.78

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG Number:

Matrix: Solid Instrument ID: TAC126

Method: 350.1 XMDL Date: 10/08/2019 08:54

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		1	0.3512

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-114139-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Prep Method: Distill/Ammonia

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 580-392045/1-B	05/26/2022 23:59	392084		50	50
LCS 580-392045/2-B	05/26/2022 23:59	392084		50	50
580-114139-1	05/26/2022 23:59	392084		50	50
580-114139-1 DU	05/26/2022 23:59	392084		50	50
580-114139-1 MS	05/26/2022 23:59	392084		50	50
580-114139-1 MSD	05/26/2022 23:59	392084		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Instrument ID: TAC126 Analysis Method: 350.1

Start Date: 05/27/2022 00:05 End Date: 05/27/2022 00:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 580-392045/1-B	1	S	00:05	X																								
LCS 580-392045/2-B	1	S	00:05	X																								
580-114139-1	1	S	00:05	X																								
580-114139-1 DU	1	S	00:05	X																								
580-114139-1 MS	1	S	00:05	X																								
580-114139-1 MSD	1	S	00:05	X																								

Prep Types:
S = Soluble

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 05/27/2022 11:52 End Date: 05/27/2022 20:18

Lab Sample Id	D/F	Type	Time	Analytes: %Sol	Analytes: Moist
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
ZZZZZZ			11:52		
580-114139-1	1	T	14:07	X	X
ZZZZZZ			20:18		
ZZZZZZ			20:18		
ZZZZZZ			20:18		
ZZZZZZ			20:18		
ZZZZZZ			20:18		

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 03/18/2022 18:26 End Date: 06/03/2022 14:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCD																								
ICV 580-392787/1	1		18:26	X																								
ICB 580-392787/2	1		18:28	X																								
CCV 580-392787/3	1		14:20	X																								
CCB 580-392787/4	1		14:22	X																								
MB 580-392787/5	1	T	14:24	X																								
LCS 580-392787/6	1	T	14:27	X																								
LCSD 580-392787/7	1	T	14:29	X																								
580-114139-1	1	T	14:32	X																								
580-114139-1 DU	1	T	14:36	X																								
580-114139-1 MS	1	T	14:40	X																								
580-114139-1 MSD	1	T	14:43	X																								
CCV 580-392787/12	1		14:46	X																								
CCB 580-392787/13	1		14:48	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Batch Number: 392045 Batch Start Date: 05/26/22 16:51 Batch Analyst: Tanase, Michelle L

Batch Method: DI Leach Batch End Date: 05/26/22 23:56

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Ammonia Std 00019			
MB 580-392045/1		DI Leach, Distill/Ammonia, 350.1		10 g	250 mL				
LCS 580-392045/2		DI Leach, Distill/Ammonia, 350.1		10 g	250 mL	0.5 mL			
580-114139-A-1	BNSF-E320-042822-0-4	DI Leach, Distill/Ammonia, 350.1	S	10.0150 g	250 mL				
580-114139-A-1 DU	BNSF-E320-042822-0-4	DI Leach, Distill/Ammonia, 350.1	S	10.0504 g	250 mL				
580-114139-A-1 MS	BNSF-E320-042822-0-4	DI Leach, Distill/Ammonia, 350.1	S	10.0454 g	250 mL	0.5 mL			
580-114139-A-1 MSD	BNSF-E320-042822-0-4	DI Leach, Distill/Ammonia, 350.1	S	10.0981 g	250 mL	0.5 mL			

Batch Notes	
Balance ID	SEA236
Blank Matrix ID	DI water
Tumble Start Time	05/26/2022 17:20
Tumble End Time	05/26/2022 18:26
Pipette/Syringe/Dispenser ID	WC 2E

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Batch Number: 392084 Batch Start Date: 05/26/22 23:59 Batch Analyst: Tanase, Michelle L

Batch Method: Distill/Ammonia Batch End Date: 05/27/22 00:04

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 580-392045/1-A		Distill/Ammonia, 350.1		50 mL	50 mL				
LCS 580-392045/2-A		Distill/Ammonia, 350.1		50 mL	50 mL				
580-114139-A-1-A	BNSF-E320-042822-0-4	Distill/Ammonia, 350.1	S	50 mL	50 mL				
580-114139-A-1-B DU	BNSF-E320-042822-0-4	Distill/Ammonia, 350.1	S	50 mL	50 mL				
580-114139-A-1-C MS	BNSF-E320-042822-0-4	Distill/Ammonia, 350.1	S	50 mL	50 mL				
580-114139-A-1-D MSD	BNSF-E320-042822-0-4	Distill/Ammonia, 350.1	S	50 mL	50 mL				

Batch Notes	
Blank Matrix ID	DI water
pH Indicator ID	2839642
Acid used for pH adjustment	3154574
Base used for pH adjustment	3118259
Buffer Reagent ID	3139694
Boiling Chips ID	3093959
Anti Foam ID	3090171
Sulfuric Acid Reagent ID Number	3154574
Pipette/Syringe/Dispenser ID	WC 2E, WC 10E
Distilliation Unit ID	AMM Dist Block 1
Distillation Start Time	2133
Distillation End Time	2230
Uncorrected Temperature	In: 211 Out: 210 Celsius

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Batch Number: 392085 Batch Start Date: 05/27/22 00:05 Batch Analyst: Tanase, Michelle L

Batch Method: 350.1 Batch End Date: 05/27/22 19:47

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 580-392045/1-B		350.1		50 mL	50 mL				
LCS 580-392045/2-B		350.1		50 mL	50 mL				
580-114139-A-1-E	BNSF-E320-042822-0-4	350.1	S	50 mL	50 mL				
580-114139-A-1-F DU	BNSF-E320-042822-0-4	350.1	S	50 mL	50 mL				
580-114139-A-1-G MS	BNSF-E320-042822-0-4	350.1	S	50 mL	50 mL				
580-114139-A-1-H MSD	BNSF-E320-042822-0-4	350.1	S	50 mL	50 mL				

Batch Notes	
Sodium Nitroprusside ID	3169868
Hypochlorite ID	3173588
Sodium Phenolate ID	Phenol/nitroferricyanide:3169920
EDTA Buffer ID	3169862
Carrier Identification	DI water
Pipette/Syringe/Dispenser ID	WC 0.2D, WC 2E, WC 10E
Batch Comment	NH3: 3062042 (ICV), 3158234 (CCV)

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Batch Number: 392121 Batch Start Date: 05/27/22 11:52 Batch Analyst: Hua, Tammy M

Batch Method: 2540G Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	AnalysisComment
580-114139-A-1	BNSF-E320-042822-0-4	2540G	T	0.8209 g	22.3142 g	16.491 g	27.093094127007 %	72.906905872993 %	in at: 1400 out at:1820

Batch Notes	
Balance ID	SEA228/sea229
Oven ID	OVEN2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	05/27/2022
Time samples were place in the oven	13:25
Temperature - Start - Uncorrected	110 Degrees C
Oven Temp In	112 Degrees C
Date samples were removed from oven	05/27/2022
Time Samples were removed from oven	18:20
Temperature - End - Uncorrected	107.0 Degrees C
Oven Temp Out	109 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-114139-1

SDG No.:

Batch Number: 392787 Batch Start Date: 06/03/22 14:20 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 06/03/22 14:48

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00149	CaCO3 00012	CaCO3_00004 00009	TOCS_LCS 00012		
ICV 580-392787/1		9060A					# g		
ICB 580-392787/2		9060A		0.2002 g					
CCV 580-392787/3		9060A				# g			
CCB 580-392787/4		9060A		# g					
MB 580-392787/5		9060A		# g					
LCS 580-392787/6		9060A			# g				
LCSD 580-392787/7		9060A			# g				
580-114139-A-1 MS	BNSF-E320-042822-0-4	9060A	T			0.104 g			
580-114139-A-1 MSD	BNSF-E320-042822-0-4	9060A	T			0.1051 g			
CCV 580-392787/12		9060A				# g			
CCB 580-392787/13		9060A		# g					

Batch Notes	
Acid ID	2157753
Pipette/Syringe/Dispenser ID	sea224
Oven ID	oven 4
Temperature	70.0 Deg. C
Drying Time	12+ hours min
Batch Comment	alum dish: 20200416

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Batch: 392085 **Analyst Initials: MLT**

Method: 350.1 **Instrument: Astoria Pacific rAPID T**

Lab Sample ID: MB 580-392045/1-B **Analysis Date: May 27, 2022 00:05**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	0.22	mg/L	50 mL	50 mL

Lab Sample ID: LCS 580-392045/2-B **Analysis Date: May 27, 2022 00:05**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	1.83	mg/L	50 mL	50 mL

Lab Sample ID: 580-114139-A-1-E **Analysis Date: May 27, 2022 00:05**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	0.49	mg/L	50 mL	50 mL

Lab Sample ID: 580-114139-A-1-F DU **Analysis Date: May 27, 2022 00:05**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	0.47	mg/L	50 mL	50 mL

Lab Sample ID: 580-114139-A-1-G MS **Analysis Date: May 27, 2022 00:05**

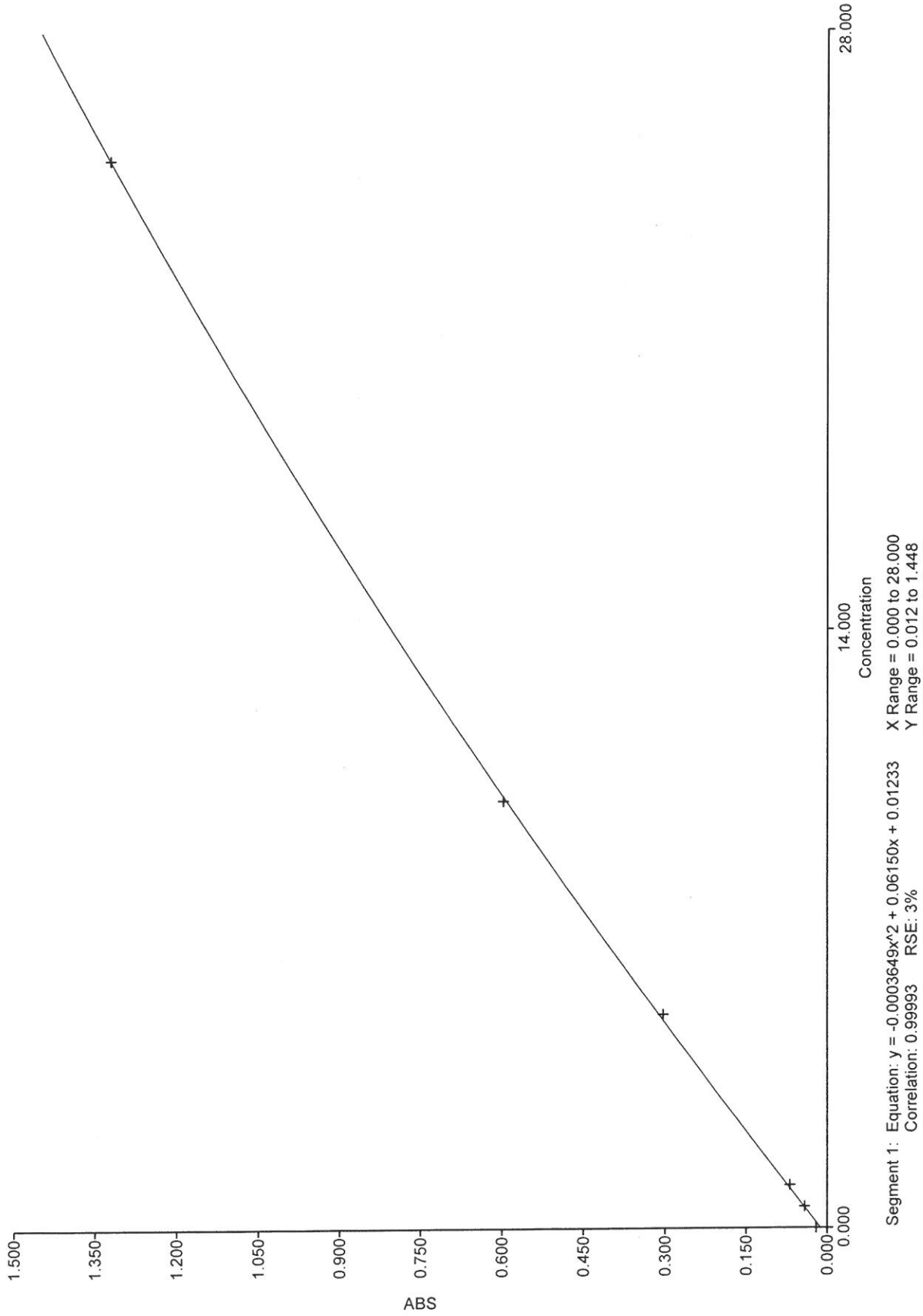
Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	1.82	mg/L	50 mL	50 mL

Lab Sample ID: 580-114139-A-1-H MSD **Analysis Date: May 27, 2022 00:05**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Ammonia as N	None	1	1.82	mg/L	50 mL	50 mL

Batch: 392085

	Sample Info			Ammonia, High Level (T023)					
Row	Cup	ID	Comment	Abs	ppm	Status	Well	Date	Time
1	C1	NH3 0.0		0.020	0.13	Crv	A02	5/26/2022	11:41:58 PM
2	C2	NH3 0.5		0.042	0.48		A03	5/26/2022	11:44:48 PM
3	C3	NH3 1.00		0.069	0.93		A04	5/26/2022	11:47:34 PM
4	C4	NH3 5.00		0.303	4.87		A05	5/26/2022	11:50:31 PM
5	C5	NH3 10.00		0.597	10.11		B02	5/26/2022	11:53:20 PM
6	C6	NH3 25.00		1.321	24.99		B03	5/26/2022	11:56:30 PM
7	CC1	CCV		0.302	4.85		B04	5/26/2022	11:59:39 PM
8	CC5	CCB		0.022	0.16		B05	5/27/2022	12:02:38 AM
9	11	ICV		0.144	2.17		C02	5/27/2022	12:05:39 AM
10	12	ICB		0.021	0.15		C03	5/27/2022	12:08:50 AM
11	13	MB		0.026	0.22		C04	5/27/2022	12:11:59 AM
12	14	LCS		0.121	1.79		C05	5/27/2022	12:14:58 AM
13	15	139-1		0.042	0.49		D02	5/27/2022	12:18:01 AM
14	16	139-1 DU		0.041	0.47		D03	5/27/2022	12:21:10 AM
15	17	139-1 MS		0.123	1.82		D04	5/27/2022	12:24:20 AM
16	18	139-1 MSD		0.123	1.82		D05	5/27/2022	12:27:18 AM
17	CC1	CCV		0.295	4.72		E02	5/27/2022	12:30:21 AM
18	CC5	CCB		0.025	0.20		E03	5/27/2022	12:33:32 AM
19	14	LCS	Rerun	0.124	1.83		E04	5/27/2022	12:36:39 AM
20	CC1	CCV		0.304	4.88		E05	5/27/2022	12:39:38 AM
21	CC5	CCB		0.029	0.27		F02	5/27/2022	12:42:40 AM


1.500
1.350
1.200
1.050
0.900
0.750
0.600
0.450
0.300
0.150
0.000
ABS
0.000
14.000
28.000
Concentration
Segment 1: Equation: y = -0.0003649x^2 + 0.06150x + 0.01233
Correlation: 0.99993 RSE: 3%
X Range = 0.000 to 28.000
Y Range = 0.012 to 1.448

General Chemistry Raw Data Report

Job ID: 580-114139-1

Batch: 392121 **Analyst Initials: TMH**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-114139-A-1 **Analysis Date: May 27, 2022 14:07**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	72.906905872993	%
Percent Moisture	None	1	27.093094127007	%

SC632 3/15/22 TOC SOIL CAL

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	1126.0		1.0000	TA SOIL LINNEAR	3/12/2022 12:11:17 PM	-0.00000004585	A07

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
2450155	1451030		0.2506	TA SOIL LINNEAR	3/12/2022 12:14:29 PM	11.72	A08
2450155	1177768		0.2010	TA SOIL LINNEAR	3/12/2022 12:16:59 PM	11.85	A09
2450155	888162		0.1495	TA SOIL LINNEAR	3/12/2022 12:19:25 PM	12.01	A10
2450155	615185		0.1009	TA SOIL LINNEAR	3/12/2022 12:21:59 PM	12.32	A01
2450155	457663		0.0742	TA SOIL LINNEAR	3/12/2022 12:24:31 PM	12.46	A02
2450155	163681		0.0253	TA SOIL LINNEAR	3/12/2022 12:26:45 PM	13.01	A03
Average			0.1336			12.23	
Std. Deviation			0.08			0.474	
RSD			62.46			3.874	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	54587		0.2001	TA SOIL LINNEAR	3/15/2022 4:03:45 PM	0.5153	A01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB	2280.0		0.2007	TA SOIL LINNEAR	3/15/2022 4:05:56 PM	0.007354	A02

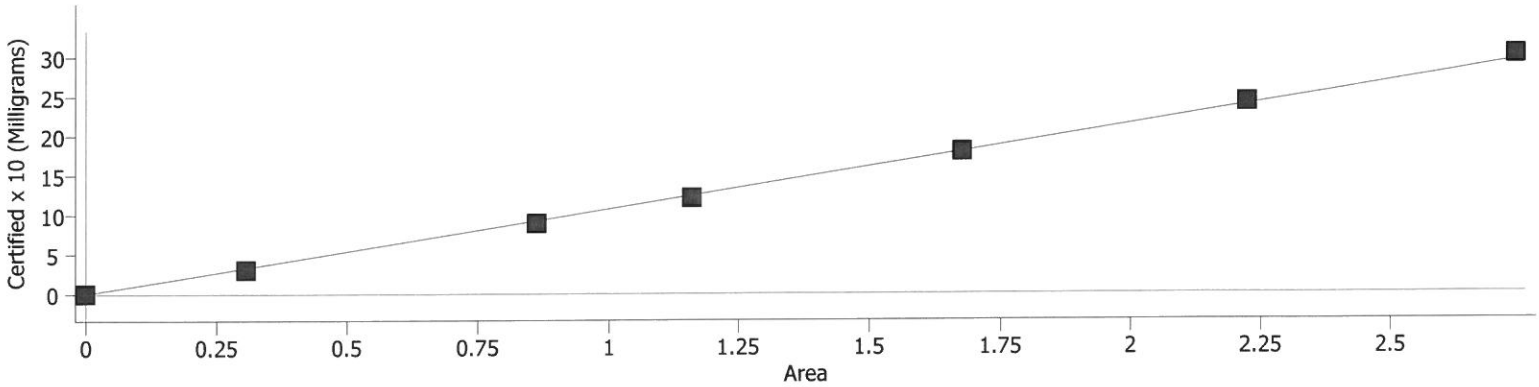
SC632

TA SOIL LINNEAR Calibration - Read Only

CO2 Low (range: 0.000000 to 30.072000 mg)

Previous Calibration:
y= +1.07104x + 0.000345869
Date: 3/12/2022 12:27:51 PM

New Calibration:
y= +1.07104x + 0.000345869
Curve Type: Linear
Weighting: 1 / Certified
RMS Error: 0.0012198



Row	Standard	Drift	Mass	Certified	Calculated	Error %	Prev Err %	Peak	Peak Area	Weighting	Date	Range	Saturated
1	Blank	0	1.0000	0.000	0000000045	100.00	100.00	6.1098	-0.00032297	2.5000E+6	03/12/22 12:11 PM	Low	No
2	2450155	0	0.25060	12.000	11.715	-2.3711	-2.3711	2707.6	2.7408	0.33254	03/12/22 12:14 PM	Low	No
3	2450155	1	0.20100	12.000	11.854	-1.2201	-1.2201	2408.8	2.2242	0.41459	03/12/22 12:16 PM	Low	No
4	2450155	0	0.14950	12.000	12.014	0.11992	0.11992	2103.5	1.6767	0.55741	03/12/22 12:19 PM	Low	No
5	2450155	0	0.10090	12.000	12.323	2.6926	2.6926	1478.2	1.1606	0.82590	03/12/22 12:21 PM	Low	No
6	2450155	0	0.074200	12.000	12.459	3.8227	3.8227	1115.8	0.86280	1.1231	03/12/22 12:24 PM	Low	No
7	2450155	0	0.025300	12.000	13.010	8.4179	8.4179	493.53	0.30700	3.2938	03/12/22 12:26 PM	Low	No

SC632 392787

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	46786		0.2021	TA SOIL LINNEAR	3/18/2022 6:26:29 PM	0.4352	A01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB	1514.5		0.2002	TA SOIL LINNEAR	3/18/2022 6:28:40 PM	-0.00005695	A02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV 3092515	1172089		0.2049	TA SOIL LINNEAR	6/3/2022 2:20:05 PM	11.74	A01
CCV 3092515	1167499		0.2056	TA SOIL LINNEAR	6/3/2022 2:46:12 PM	11.65	B02
Average			0.2053			11.69	
Std. Deviation			0.0005			0.061	
RSD			0.241			0.519	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3117971	1906.8		0.2008	TA SOIL LINNEAR	6/3/2022 2:22:18 PM	-0.008074	A02
CCB 3117971	1993.2		0.2010	TA SOIL LINNEAR	6/3/2022 2:48:24 PM	-0.007182	B03
Average			0.2009			-0.007628	
Std. Deviation			0.0001			0.0006306	
RSD			0.070			8.267	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB 3117971	2057.9		0.2069	TA SOIL LINNEAR	6/3/2022 2:24:29 PM	-0.006333	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS 2450156	1095461		0.2006	TA SOIL LINNEAR	6/3/2022 2:27:19 PM	11.20	A04

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD 2450156	1100075		0.2009	TA SOIL LINNEAR	6/3/2022 2:29:54 PM	11.23	A05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-114139-a-1	105980		0.2005	TA SOIL LINNEAR	6/3/2022 2:32:05 PM	1.059	A06
580-114139-a-1	114277		0.2006	TA SOIL LINNEAR	6/3/2022 2:34:16 PM	1.144	A07
Average			0.2006			1.102	
Std. Deviation			0.00007			0.0598	
RSD			0.035			5.426	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-114139-a-1	128116		0.2036	TA SOIL LINNEAR	6/3/2022 2:36:14 PM	1.267	A08
DU 580-114139-a-1	109520		0.2038	TA SOIL LINNEAR	6/3/2022 2:38:26 PM	1.078	A09
Average			0.2037			1.172	
Std. Deviation			0.0001			0.1335	
RSD			0.069			11.39	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-114139-a-1	646948	0.1040	0.1017	TA SOIL LINNEAR	6/3/2022 2:40:54 PM	13.03	A10

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-114139-a-1	646470	0.1052	0.1051	TA SOIL LINNEAR	6/3/2022 2:43:33 PM	12.60	B01

Shipping and Receiving Documents

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical
www.pacelabs.com

Workorder: 10606565 **Workorder Name:** D3593500 **Results Requested By:** 5/23/2022

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

State of Sample Origin: WA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: 350.1 Ammonia - Eurofins	SW9060A TOC - Eurofins											LAB USE ONLY
1																							
2																							
3	BNSF-E320-042822-0-4	4/28/2022 09:05	10606565003	Solid							X	X											
4																							
5																							
6																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	5.2.22 12:40		5/2/22 0930
2				
3				

Comments

Add to WO# 580-113469 RUSH

Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

580-114139 Chain of Custody

114139

Therm. ID: A3 Cor: 3.8 ° Unc: 4.0
Cooler Dsc: SB
Packing: ____ FedEx: PO
Cust. Seal: Yes No UPS: ____
Blue Ice, Wet, Dry, None Lab Cour: ____
Other: ____

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-114139-1

Login Number: 114139
List Number: 1
Creator: Grable, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 22, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10632545

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 04, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10632545

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10632545

Pace Analytical Services National

Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10632545

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	Solid	11/03/22 13:50	11/04/22 08:50
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	Solid	11/03/22 14:10	11/04/22 08:50

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10632545

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	ADF	33	PAN
		SM 2540G	CMK	1	PAN
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	ADF	33	PAN
		SM 2540G	CMK	1	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632545

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: November 22, 2022

General Information:
2 samples were analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632545

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: November 22, 2022

General Information:
2 samples were analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632545

Method: **SM 2540G**
Description: Total Solids 2540 G-2011
Client: BNSF_Jacobs_WA
Date: November 22, 2022

General Information:
2 samples were analyzed for SM 2540G by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632545

Sample: BNSF-G000-SC-1.5-2.5-110322 **Lab ID: 10632545001** Collected: 11/03/22 13:50 Received: 11/04/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	20.8	9.6	1	11/07/22 10:10	11/11/22 18:45	68334-30-5	
Motor Oil Range	**24.4**	mg/kg	13.9	6.9	1	11/07/22 10:10	11/11/22 18:45		
Surrogates									
n-Triacontane (S)	85	%.	50-150		1	11/07/22 10:10	11/11/22 18:45		
o-Terphenyl (S)	78	%.	50-150		1	11/07/22 10:10	11/11/22 18:45	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**28.8**	%	0.10	0.10	1		11/15/22 15:04		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0454	0.00735	1	11/10/22 04:20	11/10/22 13:53	83-32-9	
Acenaphthylene	ND	mg/kg	0.0454	0.00640	1	11/10/22 04:20	11/10/22 13:53	208-96-8	
Anthracene	ND	mg/kg	0.0454	0.00809	1	11/10/22 04:20	11/10/22 13:53	120-12-7	
Benzoic acid	ND	mg/kg	2.28	0.161	1	11/10/22 04:20	11/10/22 13:53	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0454	0.00800	1	11/10/22 04:20	11/10/22 13:53	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0454	0.00847	1	11/10/22 04:20	11/10/22 13:53	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0454	0.00807	1	11/10/22 04:20	11/10/22 13:53	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0454	0.00830	1	11/10/22 04:20	11/10/22 13:53	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0454	0.00844	1	11/10/22 04:20	11/10/22 13:53	50-32-8	
Carbazole	ND	mg/kg	0.454	0.0140	1	11/10/22 04:20	11/10/22 13:53	86-74-8	
Chrysene	ND	mg/kg	0.0454	0.00903	1	11/10/22 04:20	11/10/22 13:53	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0454	0.0126	1	11/10/22 04:20	11/10/22 13:53	53-70-3	
Dibenzofuran	ND	mg/kg	0.454	0.0149	1	11/10/22 04:20	11/10/22 13:53	132-64-9	
Fluoranthene	ND	mg/kg	0.0454	0.00820	1	11/10/22 04:20	11/10/22 13:53	206-44-0	
Fluorene	ND	mg/kg	0.0454	0.00739	1	11/10/22 04:20	11/10/22 13:53	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0454	0.0128	1	11/10/22 04:20	11/10/22 13:53	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0454	0.00581	1	11/10/22 04:20	11/10/22 13:53	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0454	0.00589	1	11/10/22 04:20	11/10/22 13:53	91-57-6	
Naphthalene	ND	mg/kg	0.0454	0.0114	1	11/10/22 04:20	11/10/22 13:53	91-20-3	
Phenanthrene	ND	mg/kg	0.0454	0.00901	1	11/10/22 04:20	11/10/22 13:53	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.454	0.0575	1	11/10/22 04:20	11/10/22 13:53	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.454	0.0155	1	11/10/22 04:20	11/10/22 13:53	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.454	0.0307	1	11/10/22 04:20	11/10/22 13:53	117-84-0	
Pyrene	ND	mg/kg	0.0454	0.00884	1	11/10/22 04:20	11/10/22 13:53	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.454	0.0142	1	11/10/22 04:20	11/10/22 13:53		
Pentachlorophenol	ND	mg/kg	0.454	0.0122	1	11/10/22 04:20	11/10/22 13:53	87-86-5	
Phenol	ND	mg/kg	0.454	0.0183	1	11/10/22 04:20	11/10/22 13:53	108-95-2	
Surrogates									
2-Fluorophenol (S)	53.2	%	12.0-120		1	11/10/22 04:20	11/10/22 13:53	367-12-4	
Phenol-d5 (S)	50.3	%	10.0-120		1	11/10/22 04:20	11/10/22 13:53	4165-62-2	
Nitrobenzene-d5 (S)	50.6	%	10.0-122		1	11/10/22 04:20	11/10/22 13:53	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632545

Sample: BNSF-G000-SC-1.5-2.5-110322 **Lab ID: 10632545001** Collected: 11/03/22 13:50 Received: 11/04/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	54.0	%	15.0-120		1	11/10/22 04:20	11/10/22 13:53	321-60-8	
2,4,6-Tribromophenol (S)	53.2	%	10.0-127		1	11/10/22 04:20	11/10/22 13:53	118-79-6	
p-Terphenyl-d14 (S)	57.6	%	10.0-120		1	11/10/22 04:20	11/10/22 13:53	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**73.3**	%			1	11/10/22 18:59	11/10/22 19:12		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632545

Sample: BNSF-G000-SC-4.0-5.0-110322 **Lab ID: 10632545002** Collected: 11/03/22 14:10 Received: 11/04/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**29.5**	mg/kg	21.5	9.9	1	11/07/22 10:10	11/11/22 19:20	68334-30-5	
Motor Oil Range	**55.7**	mg/kg	14.3	7.2	1	11/07/22 10:10	11/11/22 19:20		
Surrogates									
n-Triacontane (S)	83	%.	50-150		1	11/07/22 10:10	11/11/22 19:20		
o-Terphenyl (S)	79	%.	50-150		1	11/07/22 10:10	11/11/22 19:20	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**30.4**	%	0.10	0.10	1		11/07/22 15:26		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0475	0.00769	1	11/10/22 04:20	11/13/22 21:30	83-32-9	
Acenaphthylene	ND	mg/kg	0.0475	0.00669	1	11/10/22 04:20	11/13/22 21:30	208-96-8	
Anthracene	**0.0120J**	mg/kg	0.0475	0.00846	1	11/10/22 04:20	11/13/22 21:30	120-12-7	J
Benzoic acid	ND	mg/kg	2.38	0.168	1	11/10/22 04:20	11/13/22 21:30	65-85-0	
Benzo(a)anthracene	**0.0225J**	mg/kg	0.0475	0.00837	1	11/10/22 04:20	11/13/22 21:30	56-55-3	J
Benzo(b)fluoranthene	**0.0114J**	mg/kg	0.0475	0.00886	1	11/10/22 04:20	11/13/22 21:30	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0475	0.00844	1	11/10/22 04:20	11/13/22 21:30	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0475	0.00868	1	11/10/22 04:20	11/13/22 21:30	191-24-2	
Benzo(a)pyrene	**0.0165J**	mg/kg	0.0475	0.00883	1	11/10/22 04:20	11/13/22 21:30	50-32-8	J
Carbazole	ND	mg/kg	0.475	0.0147	1	11/10/22 04:20	11/13/22 21:30	86-74-8	
Chrysene	**0.0404J**	mg/kg	0.0475	0.00944	1	11/10/22 04:20	11/13/22 21:30	218-01-9	J
Dibenz(a,h)anthracene	ND	mg/kg	0.0475	0.0132	1	11/10/22 04:20	11/13/22 21:30	53-70-3	
Dibenzofuran	ND	mg/kg	0.475	0.0155	1	11/10/22 04:20	11/13/22 21:30	132-64-9	
Fluoranthene	**0.0168J**	mg/kg	0.0475	0.00857	1	11/10/22 04:20	11/13/22 21:30	206-44-0	J
Fluorene	ND	mg/kg	0.0475	0.00773	1	11/10/22 04:20	11/13/22 21:30	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0475	0.0134	1	11/10/22 04:20	11/13/22 21:30	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0475	0.00608	1	11/10/22 04:20	11/13/22 21:30	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0475	0.00616	1	11/10/22 04:20	11/13/22 21:30	91-57-6	
Naphthalene	ND	mg/kg	0.0475	0.0119	1	11/10/22 04:20	11/13/22 21:30	91-20-3	
Phenanthrene	**0.0302J**	mg/kg	0.0475	0.00943	1	11/10/22 04:20	11/13/22 21:30	85-01-8	J
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.475	0.0602	1	11/10/22 04:20	11/13/22 21:30	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.475	0.0163	1	11/10/22 04:20	11/13/22 21:30	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.475	0.0321	1	11/10/22 04:20	11/13/22 21:30	117-84-0	
Pyrene	**0.0486**	mg/kg	0.0475	0.00924	1	11/10/22 04:20	11/13/22 21:30	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.475	0.0148	1	11/10/22 04:20	11/13/22 21:30		
Pentachlorophenol	ND	mg/kg	0.475	0.0128	1	11/10/22 04:20	11/13/22 21:30	87-86-5	
Phenol	ND	mg/kg	0.475	0.0191	1	11/10/22 04:20	11/13/22 21:30	108-95-2	
Surrogates									
2-Fluorophenol (S)	56.2	%	12.0-120		1	11/10/22 04:20	11/13/22 21:30	367-12-4	
Phenol-d5 (S)	53.2	%	10.0-120		1	11/10/22 04:20	11/13/22 21:30	4165-62-2	
Nitrobenzene-d5 (S)	53.8	%	10.0-122		1	11/10/22 04:20	11/13/22 21:30	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632545

Sample: BNSF-G000-SC-4.0-5.0-110322 **Lab ID: 10632545002** Collected: 11/03/22 14:10 Received: 11/04/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	58.5	%	15.0-120		1	11/10/22 04:20	11/13/22 21:30	321-60-8	
2,4,6-Tribromophenol (S)	58.0	%	10.0-127		1	11/10/22 04:20	11/13/22 21:30	118-79-6	
p-Terphenyl-d14 (S)	56.6	%	10.0-120		1	11/10/22 04:20	11/13/22 21:30	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**70.1**	%			1	11/10/22 18:59	11/10/22 19:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

QC Batch: 851726
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10632545002

SAMPLE DUPLICATE: 4504175

Parameter	Units	10631230001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	80.1	80.7	1	30	N2

SAMPLE DUPLICATE: 4504176

Parameter	Units	10632300006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.1	5.1	0	30	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

QC Batch: 853434
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10632545001

SAMPLE DUPLICATE: 4512623

Parameter	Units	10632545001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	28.8	29.0	1	30	N2

SAMPLE DUPLICATE: 4512624

Parameter	Units	10633646003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	30.8	28.9	6	30	N2

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

QC Batch: 1957138
QC Batch Method: 3546
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10632545001, 10632545002

METHOD BLANK: R3860458-2 Matrix: Solid
Associated Lab Samples: 10632545001, 10632545002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/10/22 10:15	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/10/22 10:15	
Anthracene	mg/kg	ND	0.0333	0.00593	11/10/22 10:15	
Benzoic acid	mg/kg	ND	1.67	0.118	11/10/22 10:15	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/10/22 10:15	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/10/22 10:15	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/10/22 10:15	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/10/22 10:15	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/10/22 10:15	
Carbazole	mg/kg	ND	0.333	0.0103	11/10/22 10:15	
Chrysene	mg/kg	ND	0.0333	0.00662	11/10/22 10:15	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/10/22 10:15	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/10/22 10:15	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/10/22 10:15	
Fluorene	mg/kg	ND	0.0333	0.00542	11/10/22 10:15	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/10/22 10:15	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/10/22 10:15	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/10/22 10:15	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/10/22 10:15	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/10/22 10:15	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/10/22 10:15	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/10/22 10:15	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/10/22 10:15	
Pyrene	mg/kg	ND	0.0333	0.00648	11/10/22 10:15	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/10/22 10:15	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/10/22 10:15	
Phenol	mg/kg	ND	0.333	0.0134	11/10/22 10:15	
2-Fluorophenol (S)	%	59.6	12.0-120		11/10/22 10:15	
Phenol-d5 (S)	%	56.8	10.0-120		11/10/22 10:15	
Nitrobenzene-d5 (S)	%	55.9	10.0-122		11/10/22 10:15	
2-Fluorobiphenyl (S)	%	61.6	15.0-120		11/10/22 10:15	
2,4,6-Tribromophenol (S)	%	49.1	10.0-127		11/10/22 10:15	
p-Terphenyl-d14 (S)	%	69.1	10.0-120		11/10/22 10:15	

LABORATORY CONTROL SAMPLE: R3860458-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.666	0.459	68.9	38.0-120	
Acenaphthylene	mg/kg	0.666	0.495	74.3	40.0-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

LABORATORY CONTROL SAMPLE: R3860458-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	mg/kg	0.666	0.455	68.3	42.0-120	
Benzoic acid	mg/kg	1.33	0.515	38.7	10.0-120	
Benzo(a)anthracene	mg/kg	0.666	0.519	77.9	44.0-120	
Benzo(b)fluoranthene	mg/kg	0.666	0.501	75.2	43.0-120	
Benzo(k)fluoranthene	mg/kg	0.666	0.518	77.8	44.0-120	
Benzo(g,h,i)perylene	mg/kg	0.666	0.532	79.9	43.0-120	
Benzo(a)pyrene	mg/kg	0.666	0.550	82.6	45.0-120	
Carbazole	mg/kg	0.666	0.464	69.7	48.0-120	
Chrysene	mg/kg	0.666	0.526	79.0	43.0-120	
Dibenz(a,h)anthracene	mg/kg	0.666	0.526	79.0	44.0-120	
Dibenzofuran	mg/kg	0.666	0.460	69.1	44.0-120	
Fluoranthene	mg/kg	0.666	0.490	73.6	44.0-120	
Fluorene	mg/kg	0.666	0.464	69.7	41.0-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.666	0.476	71.5	45.0-120	
1-Methylnaphthalene	mg/kg	0.666	0.401	60.2	34.0-120	
2-Methylnaphthalene	mg/kg	0.666	0.389	58.4	34.0-120	
Naphthalene	mg/kg	0.666	0.373	56.0	18.0-120	
Phenanthrene	mg/kg	0.666	0.491	73.7	42.0-120	
bis(2-Ethylhexyl)phthalate	mg/kg	0.666	0.488	73.3	41.0-120	
Di-n-butylphthalate	mg/kg	0.666	0.465	69.8	43.0-120	
Di-n-octylphthalate	mg/kg	0.666	0.484	72.7	40.0-120	
Pyrene	mg/kg	0.666	0.530	79.6	41.0-120	
3&4-Methylphenol(m&p Cresol)	mg/kg	0.666	0.445	66.8	42.0-120	
Pentachlorophenol	mg/kg	0.666	0.521	78.2	29.0-120	
Phenol	mg/kg	0.666	0.427	64.1	28.0-120	
2-Fluorophenol (S)	%			68.2	12.0-120	
Phenol-d5 (S)	%			64.1	10.0-120	
Nitrobenzene-d5 (S)	%			53.5	10.0-122	
2-Fluorobiphenyl (S)	%			70.3	15.0-120	
2,4,6-Tribromophenol (S)	%			64.9	10.0-127	
p-Terphenyl-d14 (S)	%			76.9	10.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3860458-3 R3860458-4

Parameter	Units	10632545001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	mg/kg	ND	0.886	0.894	0.432	0.408	48.8	45.6	18.0-120	5.84	32	
Acenaphthylene	mg/kg	ND	0.886	0.894	0.461	0.434	52.0	48.5	25.0-120	6.10	32	
Anthracene	mg/kg	ND	0.886	0.894	0.419	0.393	47.2	43.9	22.0-120	6.39	29	
Benzoic acid	mg/kg	ND	1.77	1.79	1.19	1.12	67.3	62.5	10.0-152	6.61	40	
Benzo(a)anthracene	mg/kg	ND	0.886	0.894	0.462	0.439	52.2	49.1	25.0-120	5.14	29	
Benzo(b)fluoranthene	mg/kg	ND	0.886	0.894	0.436	0.420	49.2	47.0	19.0-122	3.82	31	
Benzo(k)fluoranthene	mg/kg	ND	0.886	0.894	0.430	0.412	48.5	46.0	23.0-120	4.21	30	
Benzo(g,h,i)perylene	mg/kg	ND	0.886	0.894	0.431	0.412	48.6	46.0	10.0-120	4.53	33	
Benzo(a)pyrene	mg/kg	ND	0.886	0.894	0.488	0.464	55.1	51.8	24.0-120	5.16	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3860458-3 R3860458-4

Parameter	Units	10632545001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Carbazole	mg/kg	ND	0.886	0.894	0.420	0.390	47.4	43.6	31.0-120	7.41	24	
Chrysene	mg/kg	ND	0.886	0.894	0.460	0.436	51.8	48.8	21.0-120	5.18	29	
Dibenz(a,h)anthracene	mg/kg	ND	0.886	0.894	0.438	0.410	49.4	45.9	10.0-120	6.43	32	
Dibenzofuran	mg/kg	ND	0.886	0.894	0.435	0.412	49.1	46.0	24.0-120	5.48	30	
Fluoranthene	mg/kg	ND	0.886	0.894	0.439	0.410	49.5	45.9	18.0-126	6.74	32	
Fluorene	mg/kg	ND	0.886	0.894	0.439	0.417	49.5	46.6	25.0-120	5.10	30	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.886	0.894	0.406	0.382	45.8	42.7	10.0-120	6.23	32	
1-Methylnaphthalene	mg/kg	ND	0.886	0.894	0.394	0.378	44.5	42.2	10.0-120	4.24	36	
2-Methylnaphthalene	mg/kg	ND	0.886	0.894	0.382	0.364	43.1	40.7	10.0-120	4.75	37	
Naphthalene	mg/kg	ND	0.886	0.894	0.365	0.353	41.2	39.5	10.0-120	3.42	35	
Phenanthrene	mg/kg	ND	0.886	0.894	0.439	0.417	49.5	46.6	17.0-120	5.10	31	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.886	0.894	0.443	0.424	50.0	47.4	17.0-126	4.40	30	
Di-n-butylphthalate	mg/kg	ND	0.886	0.894	0.408	0.386	46.0	43.1	30.0-120	5.50	29	
Di-n-octylphthalate	mg/kg	ND	0.886	0.894	0.461	0.436	52.0	48.8	21.0-123	5.47	29	
Pyrene	mg/kg	ND	0.886	0.894	0.455	0.439	51.4	49.1	16.0-121	3.66	32	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.886	0.894	0.421	0.400	47.5	44.7	12.0-123	5.32	38	
Pentachlorophenol	mg/kg	ND	0.886	0.894	0.520	0.491	58.6	54.9	10.0-160	5.67	31	
Phenol	mg/kg	ND	0.886	0.894	0.400	0.379	45.1	42.4	12.0-120	5.25	38	
2-Fluorophenol (S)	%						44.9	44.4	12.0-120			
Phenol-d5 (S)	%						42.6	42.1	10.0-120			
Nitrobenzene-d5 (S)	%						37.8	35.7	10.0-122			
2-Fluorobiphenyl (S)	%						45.5	45.1	15.0-120			
2,4,6-Tribromophenol (S)	%						45.1	43.1	10.0-127			
p-Terphenyl-d14 (S)	%						44.9	45.4	10.0-120			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

QC Batch: 851774
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10632545001, 10632545002

METHOD BLANK: 4504348 Matrix: Solid
Associated Lab Samples: 10632545001, 10632545002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/11/22 18:11	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/11/22 18:11	
n-Triacontane (S)	%.	99	50-150		11/11/22 18:11	
o-Terphenyl (S)	%.	90	50-150		11/11/22 18:11	

LABORATORY CONTROL SAMPLE: 4504349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	46.7	93	50-150	
Motor Oil Range	mg/kg	50	53.0	106	50-150	
n-Triacontane (S)	%.			102	50-150	
o-Terphenyl (S)	%.			94	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4504350 4504351

Parameter	Units	10632545001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	ND	69.9	70.1	71.9	66.3	93	85	50-150	8	30	
Motor Oil Range	mg/kg	24.4	69.9	70.1	99.2	94.7	107	101	50-150	5	30	
n-Triacontane (S)	%.						93	90	50-150			
o-Terphenyl (S)	%.						85	93	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632545

QC Batch: 1957213
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10632545001, 10632545002

METHOD BLANK: R3859834-1 Matrix: Solid
Associated Lab Samples: 10632545001, 10632545002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			11/10/22 19:12	

LABORATORY CONTROL SAMPLE: R3859834-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3859834-3

Parameter	Units	10632545001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	73.3	71.2	2.99	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10632545

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10632545

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	EPA 3550	851774	NWTPH-Dx	853260
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	EPA 3550	851774	NWTPH-Dx	853260
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	ASTM D2974	853434		
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	ASTM D2974	851726		
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	3546	1957138	EPA 8270E	1957138
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	3546	1957138	EPA 8270E	1957138
10632545001	**BNSF-G000-SC-1.5-2.5-110322**	SM 2540 G	1957213	SM 2540G	1957213
10632545002	**BNSF-G000-SC-4.0-5.0-110322**	SM 2540 G	1957213	SM 2540G	1957213

WO#: 10632545

10632545

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder

ALL SHADED

Company: JACOBS	Billing Information: ~~D3631600~~ (JLE) SEE CONTRACT
Address: 2020 SW 4th Ave Suite 300	
Report To: Bernice Kidd	Email To: Bernice.Kidd@JACOBS Kris.IVARSON@JACOBS
Copy To: Kris Ivarson	Site Collection Info/Address: WISHRAM, WA BNSF
Customer Project Name/Number: D3631600	State: / County/City: Time Zone Collected: [✓] PT [ ] MT [ ] CT [ ] ET

Phone: Email:	Site/Facility ID #: WISHRAM, WA	Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Jennifer Ul...1	Purchase Order #: Quote #: SEE CONTRACT	DW PWS ID #: DW Location Code:
Collected By (signature): [signature]	Turnaround Date Required: STNDRD	Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Field Filtered (if applicable): [ ] Yes [✓] No Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: U U U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	TOC SW9060A	TPH (DRO/RRO) NWTPH-Dx	GRAINSIZE ASTM ~~D6913/AST~~ D7928	SVOCs/PAHs SW8270E/SW8270E-SIM	Lab Sample # / Comments
BNSF-G000-SC-1.5-2.5_110322	SED	G	—	—	11/3/22	1350		4	X	X	X	X	001
BNSF-G000-SC-4.0-5.0_110322	SED	C	—	—	11/3/22	1410		4	X	X	X	X	002
BNSF_G000-SC-1.5-2.5_110322-MS/MSD		C	—	—	11/3/22	1350		3	X	X		X	003

Lab Profile/Line: 44461

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact Y N NA
- Custody Signatures Present Y N NA
- Collector Signature Present Y N NA
- Bottles Intact Y N NA
- Correct Bottles Y N NA
- Sufficient Volume Y N NA
- Samples Received on Ice Y N NA
- VOA - Headspace Acceptable Y N NA
- USDA Regulated Soils Y N NA
- Samples in Holding Time Y N NA
- Residual Chlorine Present Y N NA
- Cl Strips: ____
- Sample pH Acceptable Y N NA
- pH Strips: ____
- Sulfide Present Y N NA
- Lead Acetate Strips: ____

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: NAPL

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2855338

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: T3
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: 6.5 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature] / JACOBS	11/3/22 1600	[signature] / Pace	11/4/22 8:50	Table #:
				Acctnum:
				Template:
				Prelogin:
				PM:
				PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

DC#_Title: ENV-FRM-MIN4-0150 v10_Sample Condition Upon Receipt (SCUR)
Effective Date:

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: **WO# : 10632545**

PM: KV **Due Date: 11/29/22**
CLIENT: BNSF_Jacobs

Courier: ☒ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 3902 0693 9987 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☒ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☒ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C

Cooler temp Read w/Temp Blank: 6.5 °C

Correction Factor: true **Cooler Temp Corrected w/temp blank:** 6.5 °C

Average Corrected Temp (no temp blank only): ____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: ____) **Date/Initials of Person Examining Contents:** 11/4/22 ADC2

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other ____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☒ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: ____ Date/Time: ____

Comments/Resolution: ____

Project Manager Review: [signature] **Date:** 11/7/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: ADC2 **Line:** 3

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis Minnesota 55414

Generated 11/21/2022 4:57:15 PM

JOB DESCRIPTION

D3631600 10632545

JOB NUMBER

580-119826-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

Table of Contents

Job ID: 580-119826-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-119826-1

Comments
No additional comments.

Receipt
The samples were received on 11/8/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.1° C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Date Collected: 11/03/22 13:50
Date Received: 11/08/22 09:30

Lab Sample ID: 580-119826-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	66.5		0.1	0.1	%			11/11/22 13:58	1
Percent Solids (SM22 2540G)	66.1		0.1	0.1	%			11/14/22 09:46	1
Percent Moisture (SM22 2540G)	33.5		0.1	0.1	%			11/11/22 13:58	1
Percent Moisture (SM22 2540G)	33.9		0.1	0.1	%			11/14/22 09:46	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Date Collected: 11/03/22 13:50
Date Received: 11/08/22 09:30

Lab Sample ID: 580-119826-1
Matrix: Solid
Percent Solids: 66.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	12000		3000	150	mg/Kg	☼		11/17/22 21:51	1

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322
Lab Sample ID: 580-119826-2
Date Collected: 11/03/22 14:10
Matrix: Solid
Date Received: 11/08/22 09:30

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	69.6		0.1	0.1	%			11/11/22 13:58	1
Percent Solids (SM22 2540G)	69.0		0.1	0.1	%			11/14/22 09:46	1
Percent Moisture (SM22 2540G)	30.4		0.1	0.1	%			11/11/22 13:58	1
Percent Moisture (SM22 2540G)	31.0		0.1	0.1	%			11/14/22 09:46	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322
Date Collected: 11/03/22 14:10
Date Received: 11/08/22 09:30

Lab Sample ID: 580-119826-2
Matrix: Solid
Percent Solids: 69.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000		2900	140	mg/Kg	☼		11/17/22 22:06	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-410530/5
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			11/17/22 18:28	1

Lab Sample ID: LCS 580-410530/6
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	119000		mg/Kg		100	80 - 120		

Lab Sample ID: LCSD 580-410530/7
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	120000		mg/Kg		100	80 - 120	0	20

Lab Sample ID: 580-119826-1 MS
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	12000		180000	195000		mg/Kg	☼	102	75 - 125		

Lab Sample ID: 580-119826-1 MSD
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	12000		180000	201000		mg/Kg	☼	105	75 - 125	3	20

Lab Sample ID: 580-119826-1 DU
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	12000			12400		mg/Kg	☼			2	20

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322 — Lab Sample ID: 580-119826-1

Date Collected: 11/03/22 13:50 — **Matrix: Solid**
Date Received: 11/08/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409710	JHR	EET SEA	11/11/22 13:58
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322 — Lab Sample ID: 580-119826-1

Date Collected: 11/03/22 13:50 — **Matrix: Solid**
Date Received: 11/08/22 09:30 — **Percent Solids: 66.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	410530	FCG	EET SEA	11/17/22 21:51

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322 — Lab Sample ID: 580-119826-2

Date Collected: 11/03/22 14:10 — **Matrix: Solid**
Date Received: 11/08/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409710	JHR	EET SEA	11/11/22 13:58
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322 — Lab Sample ID: 580-119826-2

Date Collected: 11/03/22 14:10 — **Matrix: Solid**
Date Received: 11/08/22 09:30 — **Percent Solids: 69.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	410530	FCG	EET SEA	11/17/22 22:06

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-119826-1	BNSF-G000-SC-1.5-2.5-110322	Solid	11/03/22 13:50	11/08/22 09:30
580-119826-2	BNSF-G000-SC-4.0-5.0-110322	Solid	11/03/22 14:10	11/08/22 09:30

Pace Analytical®
www.pacelabs.com

Workorder: 10632545 **Workorder Name:** D3631600 **Results Requested By:** 11/18/2022

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	SW9060A TOC	SW9060A TOC - MS/MSD	LAB USE ONLY
1	BNSF-G000-SC-1.5-2.5-110322	11/3/2022 13:50	10632545001	Solid	3		X	
2	BNSF-G000-SC-4.0-5.0-110322	11/3/2022 14:10	10632545002	Solid	1	X		
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	FMC2/PACE	11/7/22 16:25		11/08/22 0930
2				
3				

Comments

Sample 10632545001 is MS/MSD
Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

580-119826 Chain of Custody

Therm. ID: IR10 Cor: 0.1 ° Unc: 0.1 °
Cooler Dsc: Bulk MR FedEx: PO
Packing: UPS:
Cust. Seal: Yes / No Lab Cour:
Blue Ice: Wet, Dry, None Other:

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-119826-1

Login Number: 119826
List Number: 1
Creator: Presley, Kim A

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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11/21/2022 4:57:15 PM

Authorized for release by
Pauline Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
(253)922-2310

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 11/15/2022

CLIENT: Pace Analytical - Minneapolis
Project: 10632545 D3631600
Lab Order: S2211118

CASE NARRATIVE

Report ID: S2211118001

Entire Report Reviewed by: John M. Jacobs
John Jacobs, Project Manager

This report contains:

Case Narrative - 2 pages
Sample Analysis Report - 9 pages
Original COC and Supporting Documentation - 1 pages
Data - 3 pages

Samples BNSF-G000-SC-1.5-2.5-110322 and BNSF-G000-SC-4.0-5.0-10322 were received on November 8, 2022.

All samples were received and analyzed within recommended holding times, except those noted below in this case narrative.
Samples were analyzed using methods outlined in the following references:

Standard Methods for the Examination of Water and Wastewater, approved method versions
EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, online versions
EPA methods 40 CFR Parts 136 and 141EPA 600/2-78-054 methods
NDEP Mining Methods
40 CFR Part 50, Appendices B, J, L, O and FEM EQL-0310-189
IO Compendium Methods
Clean Water Act Methods Update Rule for the Analysis of Effluent, current version.
ASTM approved and recognized standards
ISO approved and recognized standards
USDA Handbook 60
Soil Survey Laboratory Manual Ver 4.0
ASA/SSSA 9 Methods of Analysis Part 2, 1982
ASA/SSSA Methods of Analysis Book 5 Part 3, 1996
Other industry approved methods

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical except as indicated in this case narrative:

Date: 11/15/2022

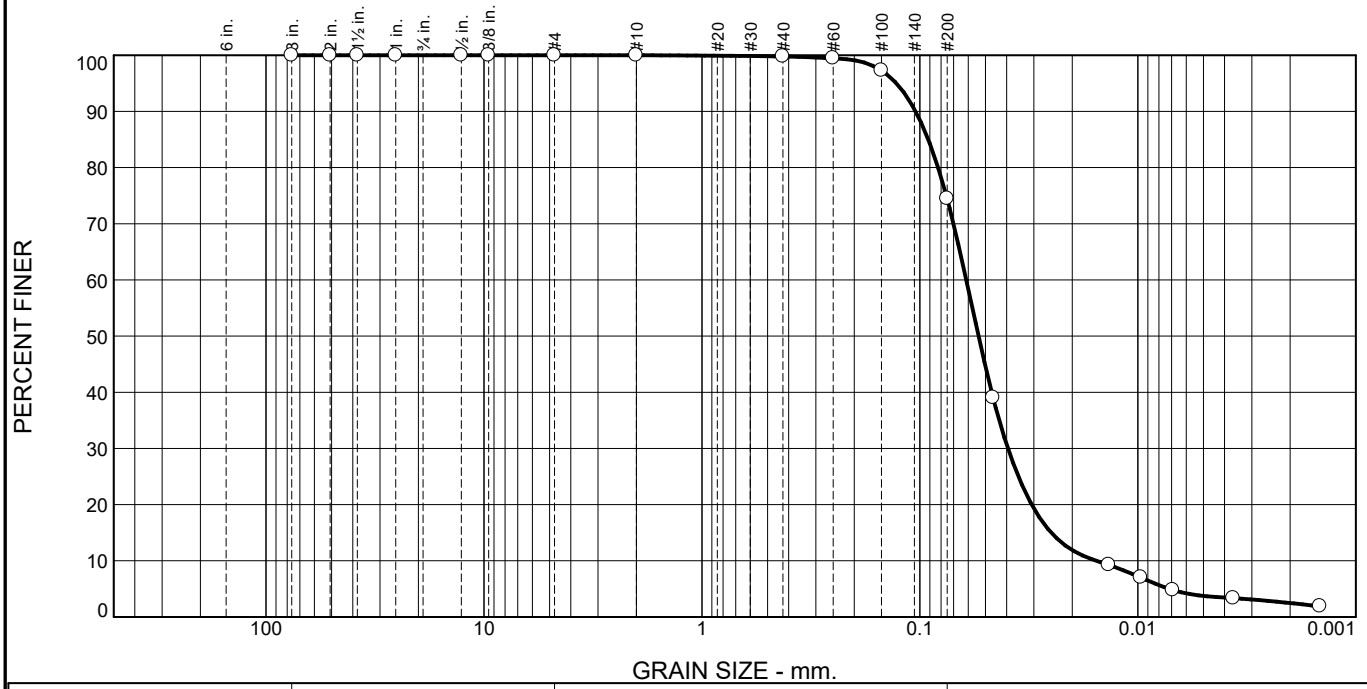
Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	25.3	70.8	3.7

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	99.8		
#60	99.5		
#100	97.3		
#200	74.5		
0.0462 mm.	39.0		
0.0136 mm.	9.3		
0.0097 mm.	7.0		
0.0069 mm.	4.8		
0.0036 mm.	3.4		
0.0015 mm.	1.9		

* (no specification provided)

Material Description

silt with sand

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.1047 D_{85}= 0.0915 D_{60}= 0.0613
D_{50}= 0.0538 D_{30}= 0.0394 D_{15}= 0.0250
D_{10}= 0.0155 C_u= 3.95 C_c= 1.64

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/8/2022 **Date Tested:** 11/14/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-G000-SC-1_5-2_5-110322
Sample Number: S2211118-001A

Date Sampled: 11/3/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10632545 D3631600

Project No: S2211118 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/14/2022

Client: Pace Analytical-Minneapolis
Project: 10632545 D3631600
Project Number: S2211118
Location: BNSF-G000-SC-1_5-2_5-110322
Sample Number: S2211118-001A
Material Description: silt with sand
Sample Date: 11/3/2022 1:50
Date Received: 11/8/2022 **PL:** NP **LL:** NV **PI:** NP
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/14/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
130.70	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
50.00	0.00	#40	0.10	0.00	99.8
		#60	0.17	0.00	99.5
		#100	1.09	0.00	97.3
		#200	11.40	0.00	74.5

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 74.5
Weight of hydrometer sample =50.0
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	33.0	26.2	0.0140	33.0	10.9	0.0462	39.0
15.00	18.0	13.0	6.2	0.0140	13.0	14.2	0.0136	9.3
30.00	18.0	11.5	4.7	0.0140	11.5	14.4	0.0097	7.0
60.00	18.0	10.0	3.2	0.0140	10.0	14.7	0.0069	4.8
240.00	14.0	10.0	2.3	0.0147	10.0	14.7	0.0036	3.4
1440.00	16.0	8.5	1.3	0.0144	8.5	14.9	0.0015	1.9

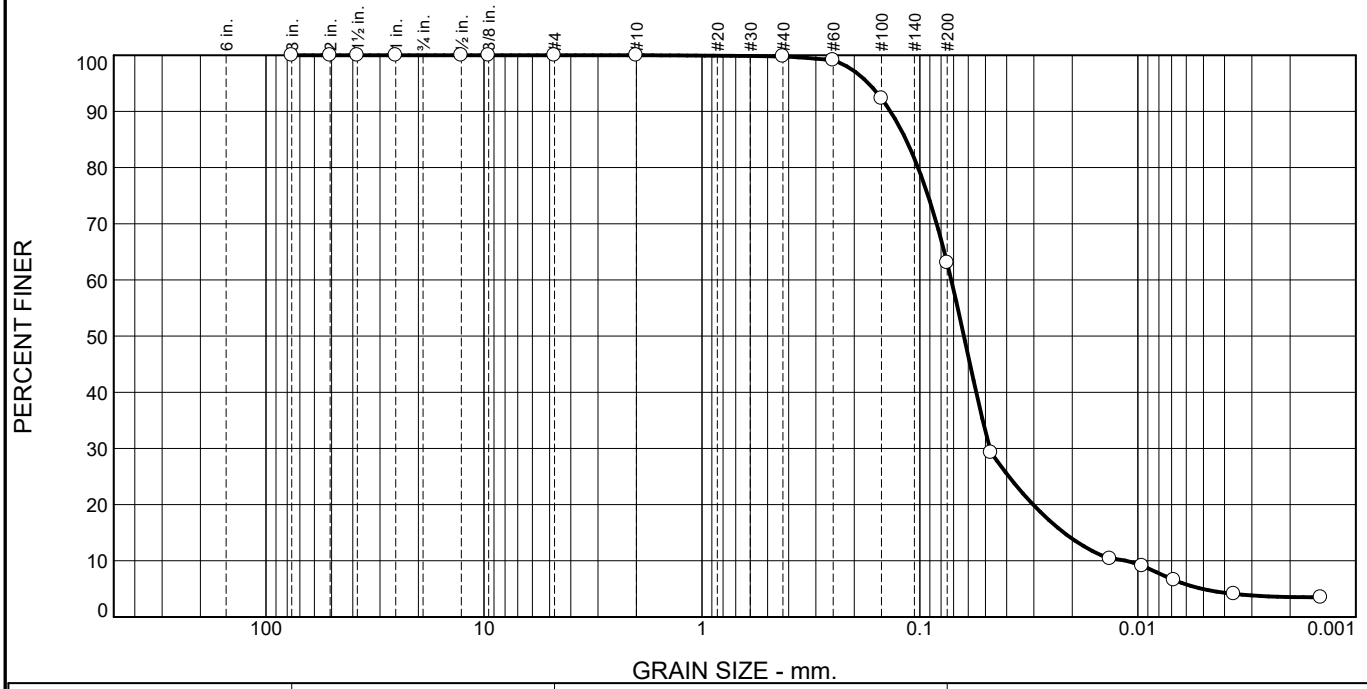
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	25.3	25.5	70.8	3.7	74.5

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0072	0.0155	0.0250	0.0307	0.0394	0.0468	0.0538	0.0613	0.0825	0.0915	0.1047	0.1281

Fineness Modulus	C_u	C_c
0.03	3.95	1.64

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	36.7	58.2	4.9

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	99.8		
#60	99.1		
#100	92.3		
#200	63.1		
0.0472 mm.	29.3		
0.0134 mm.	10.4		
0.0096 mm.	9.1		
0.0068 mm.	6.6		
0.0036 mm.	4.1		
0.0014 mm.	3.5		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.1364 D_{85}= 0.1159 D_{60}= 0.0718
D_{50}= 0.0628 D_{30}= 0.0478 D_{15}= 0.0218
D_{10}= 0.0113 C_u= 6.35 C_c= 2.81

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/8/2022 **Date Tested:** 11/14/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-G000-SC-4_0-5_0-10322
Sample Number: S2211118-002A

Date Sampled: 11/3/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10632545 D3631600

Project No: S2211118 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/15/2022

Client: Pace Analytical-Minneapolis
Project: 10632545 D3631600
Project Number: S2211118
Location: BNSF-G000-SC-4_0-5_0-10322
Sample Number: S2211118-002A
Material Description: sandy silt
Sample Date: 11/3/2022 2:10
Date Received: 11/8/2022 **PL:** NP **LL:** NV **PI:** NP
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/14/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
133.50	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
50.01	0.00	#40	0.10	0.00	99.8
		#60	0.34	0.00	99.1
		#100	3.41	0.00	92.3
		#200	14.62	0.00	63.1

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 63.1
Weight of hydrometer sample =50.01
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	30.0	23.2	0.0140	30.0	11.4	0.0472	29.3
15.00	18.0	15.0	8.2	0.0140	15.0	13.8	0.0134	10.4
30.00	18.0	14.0	7.2	0.0140	14.0	14.0	0.0096	9.1
60.00	18.0	12.0	5.2	0.0140	12.0	14.3	0.0068	6.6
240.00	14.0	11.0	3.3	0.0147	11.0	14.5	0.0036	4.1
1440.00	16.0	10.0	2.8	0.0144	10.0	14.7	0.0014	3.5

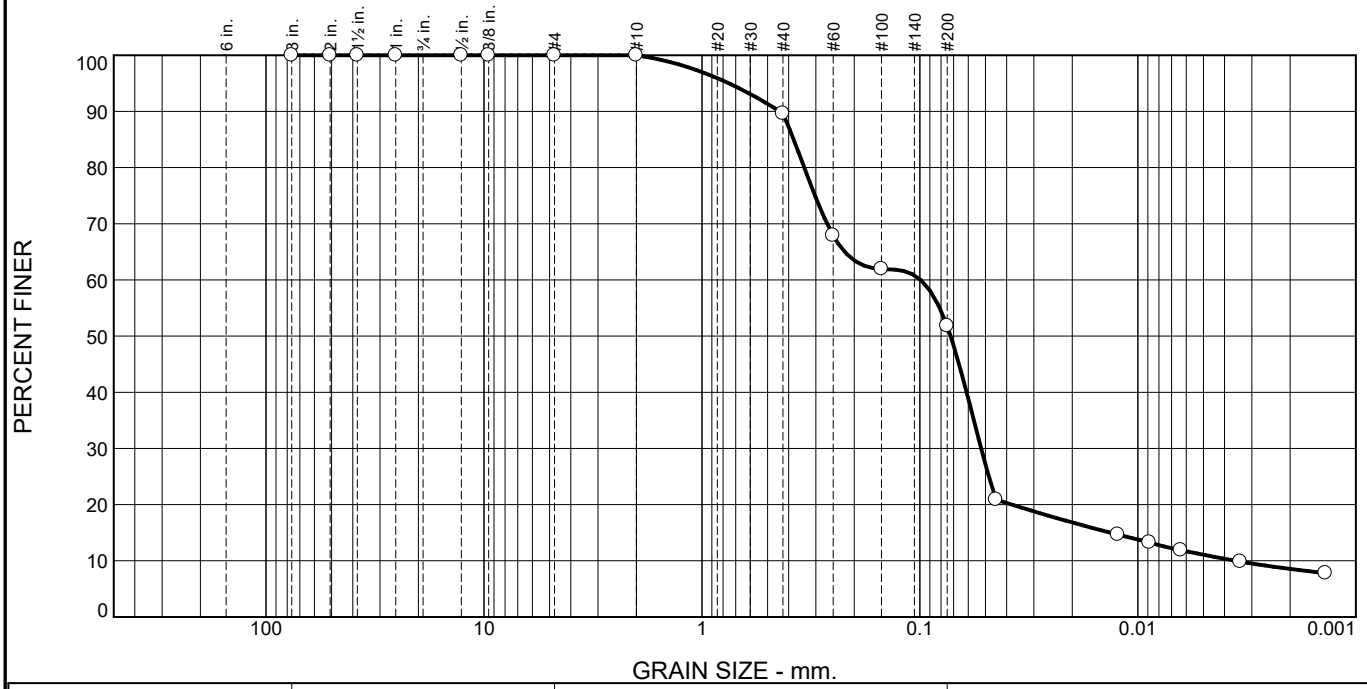
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	36.7	36.9	58.2	4.9	63.1

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0051	0.0113	0.0218	0.0302	0.0478	0.0552	0.0628	0.0718	0.1020	0.1159	0.1364	0.1721

Fineness Modulus	C_u	C_c
0.08	6.35	2.81

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	10.4	37.8	40.7	11.1

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	89.6		
#60	67.9		
#100	61.9		
#200	51.8		
0.0448 mm.	20.9		
0.0124 mm.	14.7		
0.0089 mm.	13.3		
0.0064 mm.	11.9		
0.0034 mm.	9.8		
0.0014 mm.	7.8		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.4398 D_{85}= 0.3795 D_{60}= 0.0993
D_{50}= 0.0723 D_{30}= 0.0524 D_{15}= 0.0134
D_{10}= 0.0036 C_u= 27.81 C_c= 7.74

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: **Date Tested:** 11/14/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: LCS
Sample Number: LCS

Date Sampled:

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client:
Project:

Project No: **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/14/2022

Location: LCS
Sample Number: LCS
Material Description: sandy silt
PL: NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/14/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.00	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
75.00	0.00	#40	7.78	0.00	89.6
		#60	16.29	0.00	67.9
		#100	4.47	0.00	61.9
		#200	7.59	0.00	51.8

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 51.8
Weight of hydrometer sample =75.0
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	37.0	30.2	0.0140	37.0	10.2	0.0448	20.9
15.00	18.0	28.0	21.2	0.0140	28.0	11.7	0.0124	14.7
30.00	18.0	26.0	19.2	0.0140	26.0	12.0	0.0089	13.3
60.00	18.0	24.0	17.2	0.0140	24.0	12.4	0.0064	11.9
240.00	14.0	22.0	14.3	0.0147	22.0	12.7	0.0034	9.8
1440.00	16.0	18.5	11.3	0.0144	18.5	13.3	0.0014	7.8

Pace Analytical Services, Inc.

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	10.4	37.8	48.2	40.7	11.1	51.8

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0036	0.0134	0.0379	0.0524	0.0610	0.0723	0.0993	0.3392	0.3795	0.4398	0.7522

Fineness Modulus	C_u	C_c
0.72	27.81	7.74

Internal Transfer Chain of Custody

Pace Analytical® www.pacelabs.com

10632545

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: ☒ Yes ☐ No

Workorder: 10632545 **Workorder Name:** D3631600

Owner Received Date: 11/4/2022 **Results Requested By:** 11/18/2022

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Sheridan WY 1673 Terra Avenue Sheridan, WY 82801 Phone (307) 672-8945

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: JGFU Unpreserved						Requested Analysis: D422 Grain Size - Hydrometer												LAB USE ONLY
1	BNSF-G000-SC-1.5-2.5-110322	RQS	11/3/2022 13:50	10632545001	Solid	1						X												
2	BNSF-G000-SC-4.0-5.0-110322	PS	11/3/2022 14:10	10632545002	Solid	1						X												
3																								
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature] PACE	11/7/22 1645	[signature]	11/8/22	Standard EDD formats 10:45
2					
3					

Cooler Temperature on Receipt 0.7 **°C** **Custody Seal** (Y) **or N** **Received on Ice** (Y) **or N** **Samples Intact Y or N**

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

LCS = 50g lab QC soil + 25g ASTM grade sand

11-9-22
Scale I.D # B1527 28832

Sieve/Hydrometer

	Sample #	S2211118-001	002	LCS				
	Starting Wt(g)	~~130~~ 130.7	133.5	75.0				
11-9-22	Sieve #	Weight Retained (g)	Weight Retained (g)	Weight Retained (g)	Weight Retained (g)	Weight Retained (g)	Weight Retained (g)	Weight Retained (g)
	4	0	0	0				
	10	0	0	0				
	40	.10	.10	7.78				
	60	.17	.34	16.29				
	100	1.09	3.41	4.47				
	200	11.40	14.62	7.59				
	Sample Wt	50.0	50.01	75.0				
11-10-22	Start Time	9:05	9:07	9:09				
	Minutes							
	1	33 18	30 18	37 18				
	15	13 18	15 18	28 18				
	30	11.5 18	14 18	26 18				
	60	10 18	12 18	24 18				
	240	10 14	11 14	22 14				
11-11-22	1440	8.5 16	10 16	18.5 16				
		(3)	(4)	(3)				

U:\Soil Worksheets\Sieve hydro bench sheet

Solution Preparation Log

Initials	Date	Solution	Preparation					Solution Lot #
			Chemical	Lot #	Amount	DI Volume	pH	
CH	Prep: 10/21/22	2M KCl	KCl	102340867	149.20	1L	—	2MKCl 102122
	Expire: 4/21/23							
RC	Prep: 10/21/22	AVA/CEC	Amm Acetate	210721	77.1g	1L	7.11	NH4ACE 102122
	Expire: 4/21/23							
RC	Prep: 10/24/22	CEC	Sodium Acetate	218349	1360g	10L	8.06	NaACE 102422
	Expire: 4/24/23							
RC	Prep: 10/24/22	CEC	Amm Acetate	210721	771g	10L	7.21	NH4ACE 10-24-22
	Expire: 4/24/23							
SEH	Prep: 10-27-22	AEC - Phos	Sodium Acetate	218349	100.9g	4L	4.67	AEC-102722
	Expire: —		potassium phosphate	007192	17.6g	4L		
			Glacial Acetic Acid	PB0038784116	46mL	4L		
SH	Prep: 10-28-22	MA	Sod. Carb	A04-23850	142.92g	18L	—	MA 102822
	Expire: 4-28-22		Sod. Hex	21L176102	642.60g	18L	—	
CH	Prep: 11/7/22	Mo	Amm Carbonate	212511	~~385.50g~~ 771.00g	5L 10L	6.80	Moly-110722
	Expire: 5/7/23				CH 11/7/22	CH 11/7/22		
NLG	Prep: 11-9-22	$SrNO_3$	$CaCl_2$	194811	20g	20L	—	$CaCl_2$ 110922
	Expire: 5-9-22							

1 Sod. Hex / Sod. carb See solution prep log copy
2 No. 10 Sieve (2.00 mm) W.S. Tyler Incorporated
3 Ameex Instruments Inc Gyromax 818 orbital shaker
SN: A114 1010 501-40
4 No. 200 sieve Fisher Brand SN: 2119 12174
5 VWR Scientific Inc Convection oven
6 Geosystem Soils Test Software version 5
7 Ro-Tap RX-29 SN: 16763
8. No. 4 Sieve Soil Test Inc. 4.75 mm
9 3/8" sieve Soil Test, Inc. 9.5 mm
10 1/2" Sieve Gilson Company 16.0 mm
11. Hydrometer: Fisher Brand / ERTCO No. 32982
ASTM 152 H
12. Thermometer: Fisher Brand / ERTCO SN: 05169100
13 ASTM Graded Sand conforms to ASTM Designation C778
Date Oct 05 2019
14 1" Sieve ASTM E-11 specification Gilson Company
15. Mettler Toledo PB3002-S Delta Range Balance SN: 1121330461
calibrated 10-6-22

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10632545

Table Of Contents

GC-FID DRO - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632545 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4504348	4504348BLANK	99	90
4504349	4504349LCS	102	94
4504350	4504350MS	93	85
4504351	4504351MSD	90	93
10632545001	BNSF-G000-SC-1.5-2.5-	85	78
10632545002	BNSF-G000-SC-4.0-5.0-	83	79

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4504349LCS
Date Extracted: 11/07/2022
Date Analyzed (1): 11/11/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 111122R.B\1111R0000041.D
SDG No.: 10632545

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	50.0	46.7	93	50-150
Motor Oil Range	50.0	53.0	106	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Minnesota

Date Extracted: 11/07/2022

Instrument: 10GCSF

Parent Sample ID: BNSF-G000-SC-1.5-2.5-

Matrix Spike - Sample No: 4504350MS

Date Analyzed (1): 11/11/2022

Lab File ID: 111122R.B\1111R0000044.D

SDG No.: 10632545

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Diesel Fuel Range	69.9	ND	71.9	93	50-150
Motor Oil Range	69.9	24.4	99.2	107	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 10GCSF Matrix Spike Duplicate - Sample No: 4504351MSD

Lab File ID (2): 111122R.B\1111R0000045.D Date Analyzed (2): 11/11/2022

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	70.1	66.3	85	8	0-30	50-150
Motor Oil Range	70.1	94.7	101	5	0-30	50-150

RPD: 0 out of 2 outside limits.

Spike Recovery: 0 out of 2 outside limits.

SAMPLE NO.

4504348BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632545 Contract: D3631600

Instrument ID: 10GCSF Matrix: Solid Lab Sample ID: 4504348

Lab File ID: 111122R.B\1111R0000040.D Date Analyzed: 11/11/2022 Time:18:11

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4504349LCS	4504349	111122R.B\1111R0000041.D	11/11/2022 18:23
BNSF-G000-SC-1.5-2.5-	10632545001	111122R.B\1111R0000043.D	11/11/2022 18:45
4504350MS	4504350	111122R.B\1111R0000044.D	11/11/2022 18:57
4504351MSD	4504351	111122R.B\1111R0000045.D	11/11/2022 19:08
BNSF-G000-SC-4.0-5.0-	10632545002	111122R.B\1111R0000046.D	11/11/2022 19:20

SAMPLE NO.

BNSF-G000-SC-1.5-2.5-110322

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/04/2022 08:50 Matrix: Solid SDG No.: 10632545

Date Extracted: 11/07/2022 10:10 Lab Sample ID: 10632545001

Date Analyzed: 11/11/2022 18:45 Lab File ID: 111122R.B\1111R0000043.D

Initial wt/vol: 10.12 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 28.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	24.4	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000043.d
Lab Smp Id: 10632545001 Client Smp ID: BNSF-G000-SC-1.5-2.
Inj Date : 11-NOV-2022 18:45
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10632545001
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.120	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		606602	45.1312	4.46	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	258047	39.1098	3.86	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.274	-0.002	223838	42.5980	4.21	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		784047	185.909	18.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		825511	64.7076	6.39	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		834999	186.695	18.4	(M)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		1399366	201.292	19.9	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		545262	49.6337	4.90	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		545262	49.6337	4.90	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		911697	175.577	17.3	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		911697	175.577	17.3	(M)	RNG

QC Flag Legend

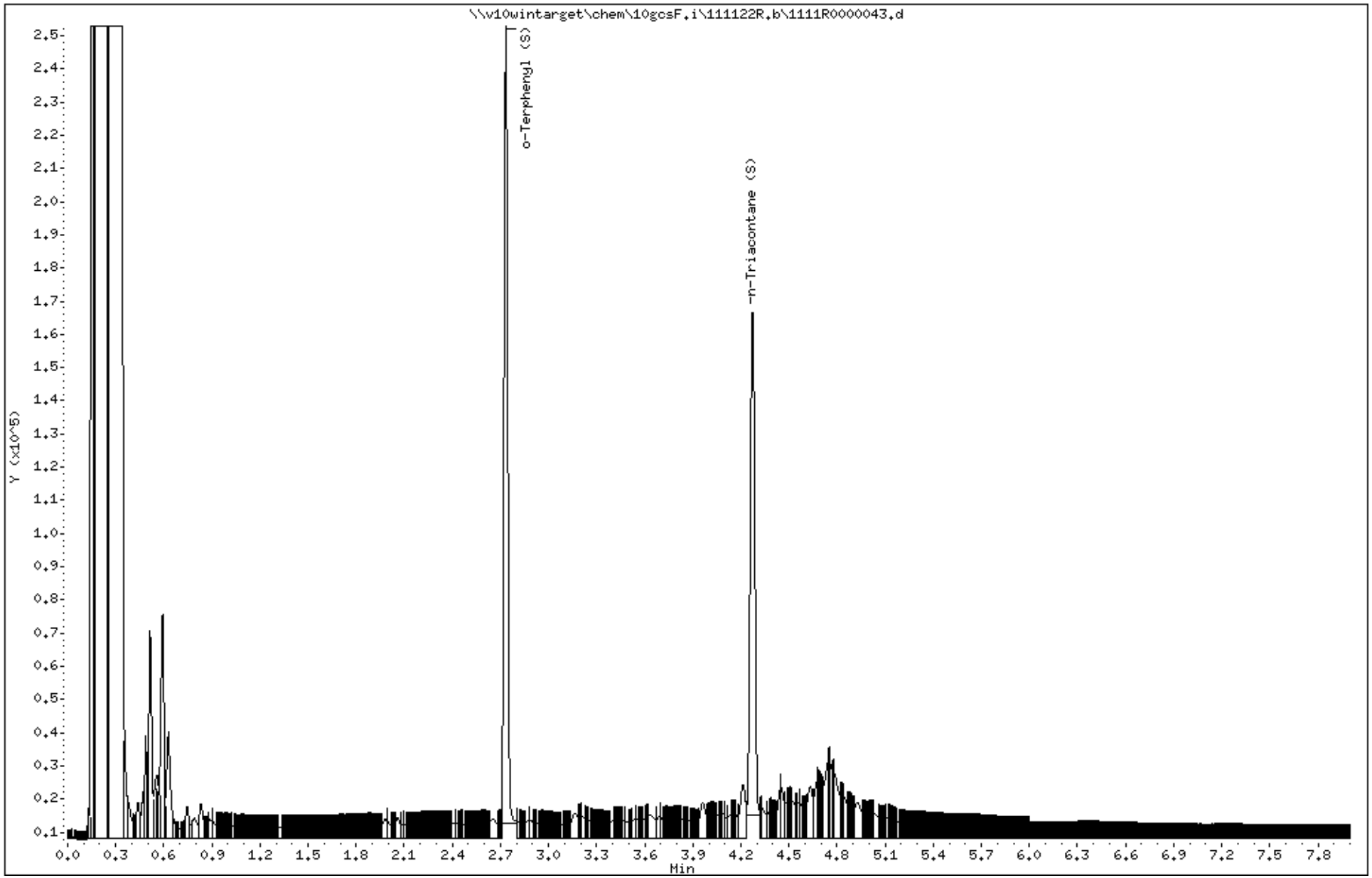
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

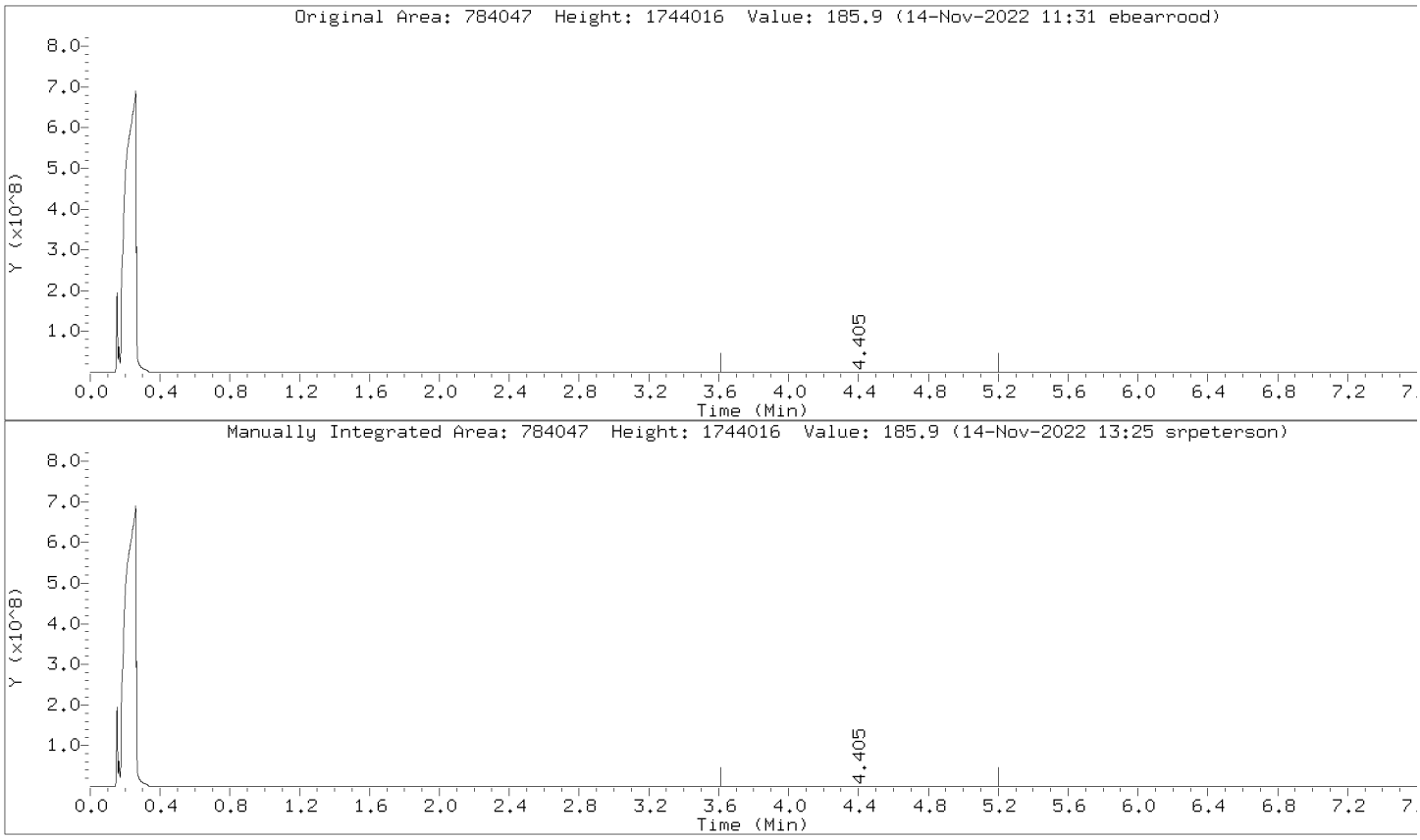
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000043.d
Date : 11-NOV-2022 18:45
Client ID: BNSF-G000-SC-1.5-2.
Sample Info: 10632545001
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



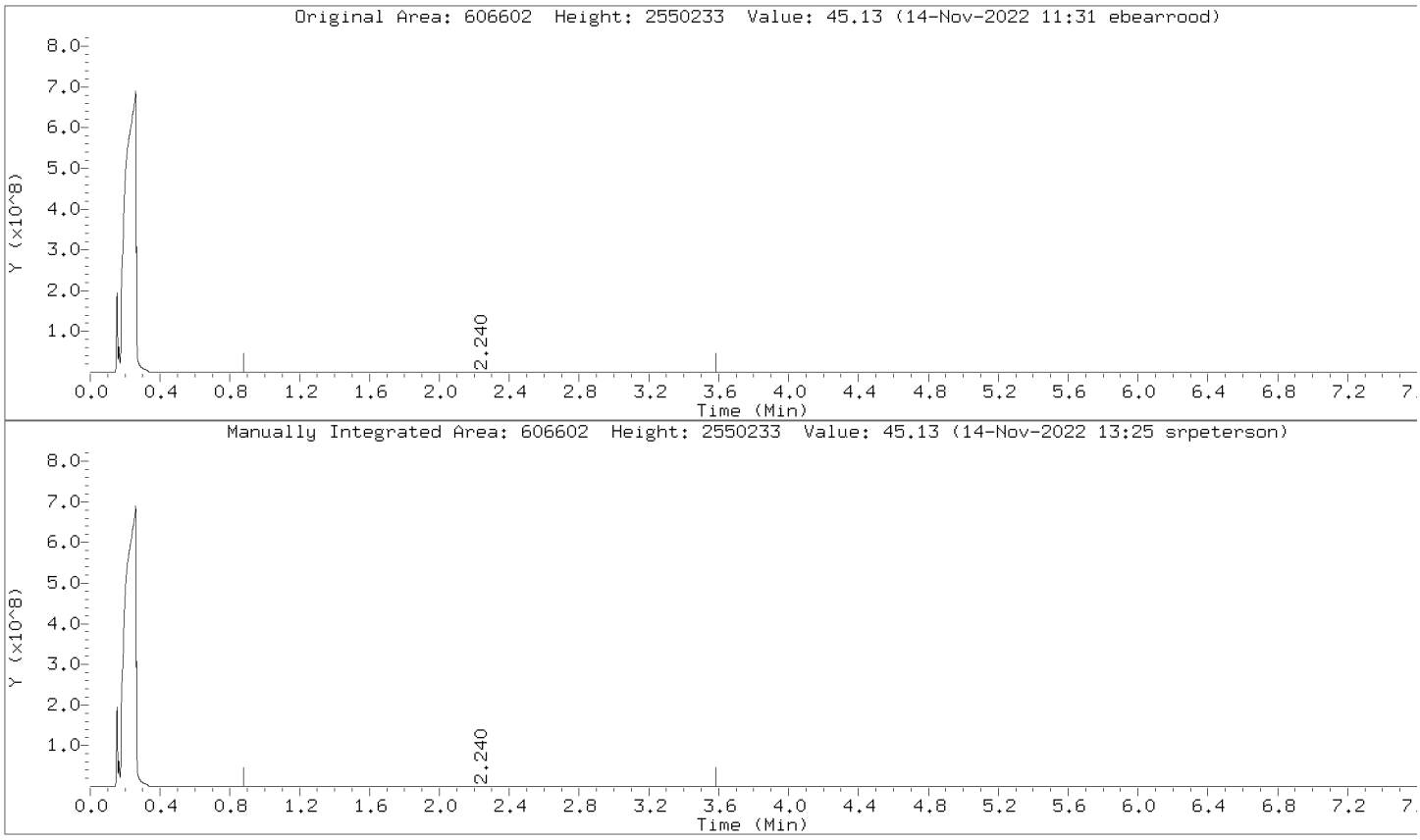
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



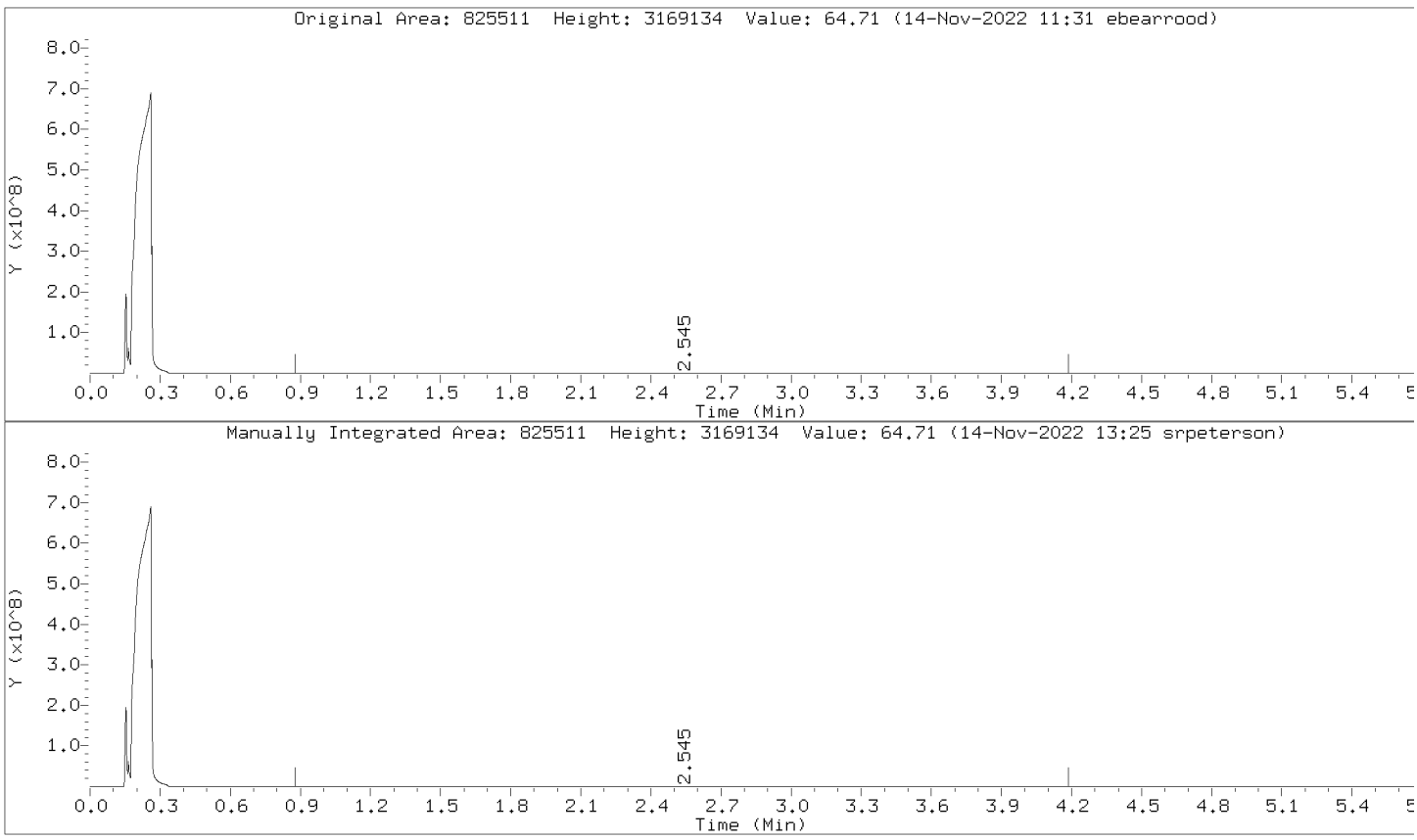
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



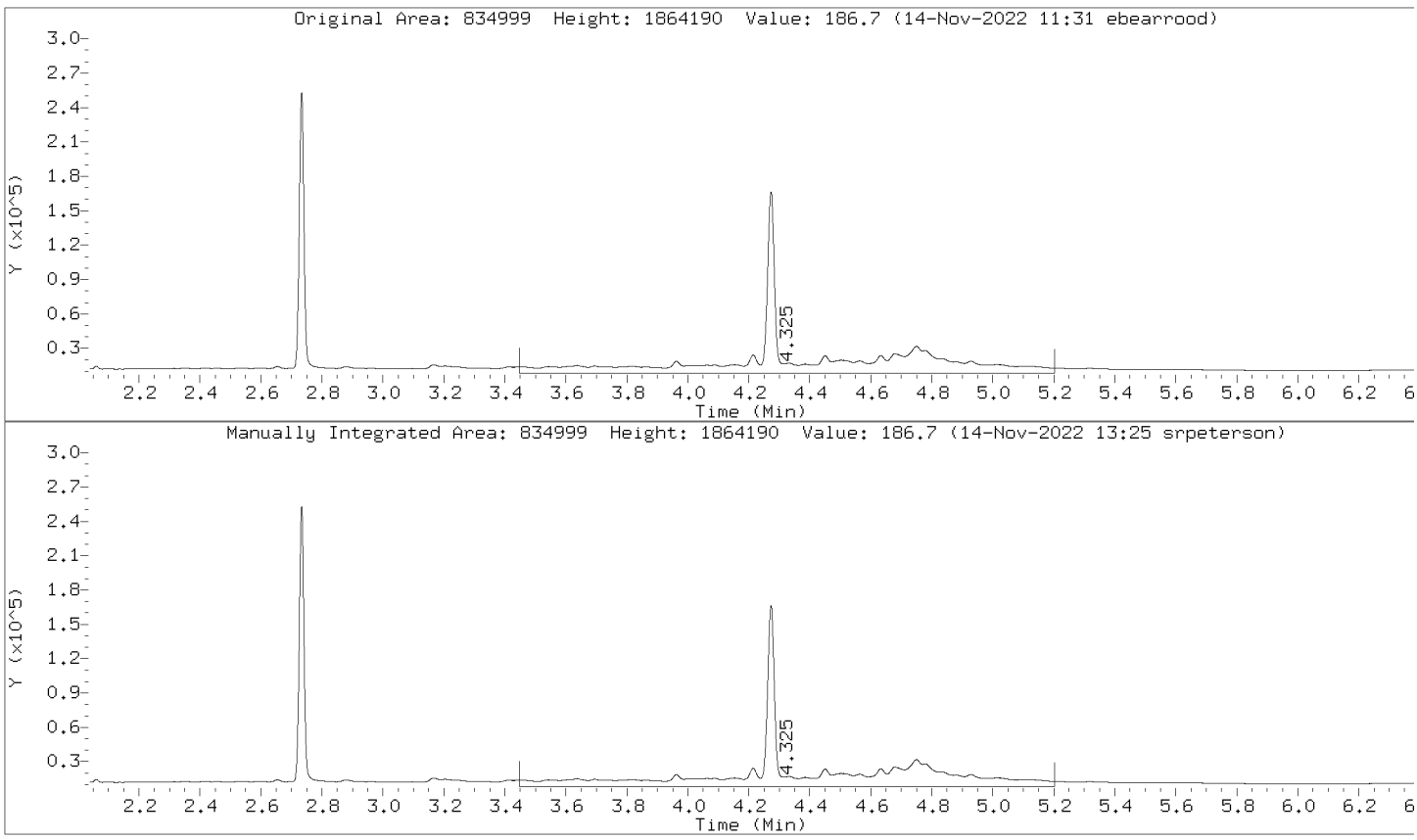
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



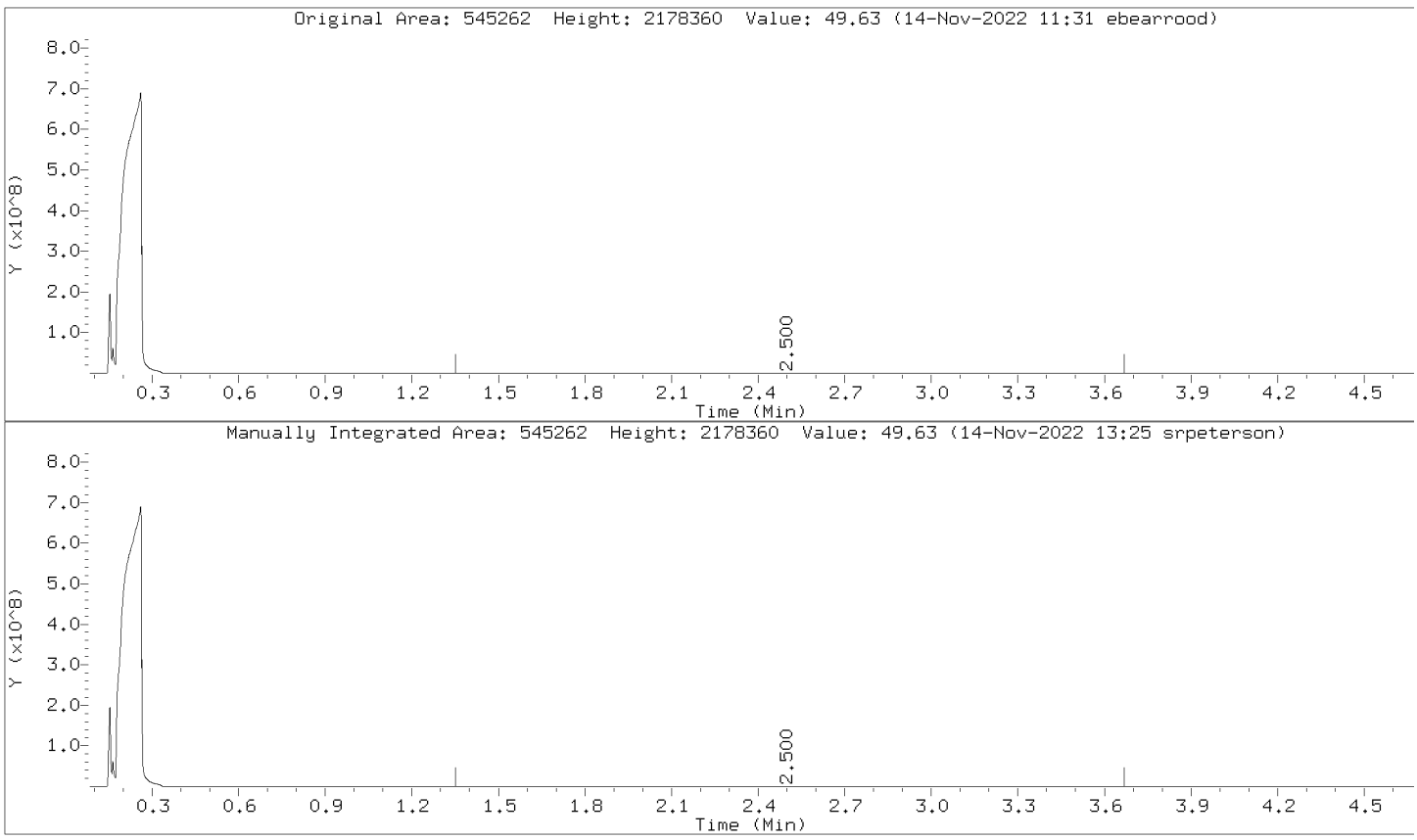
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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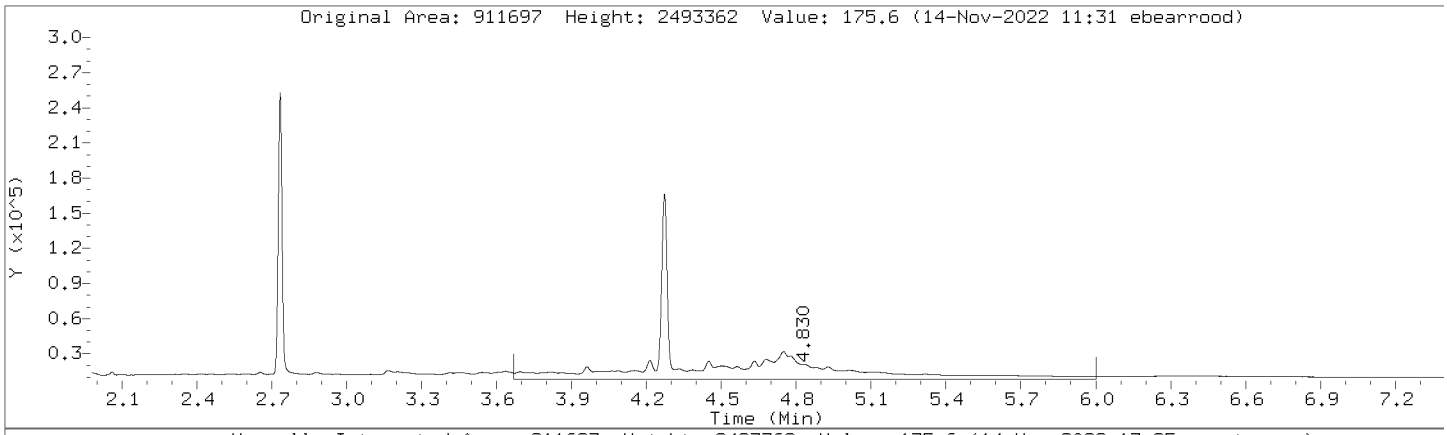
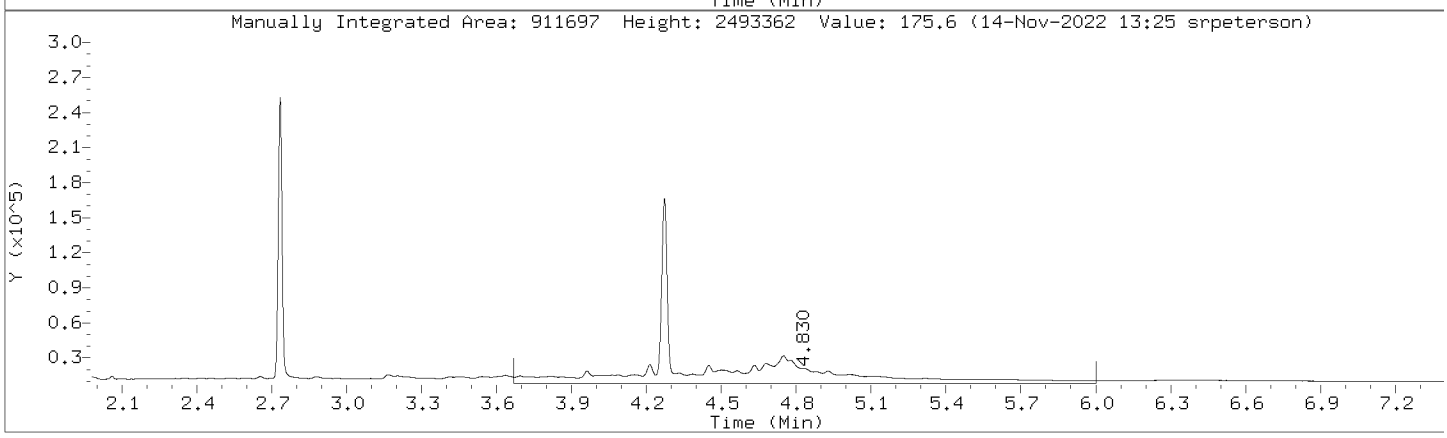
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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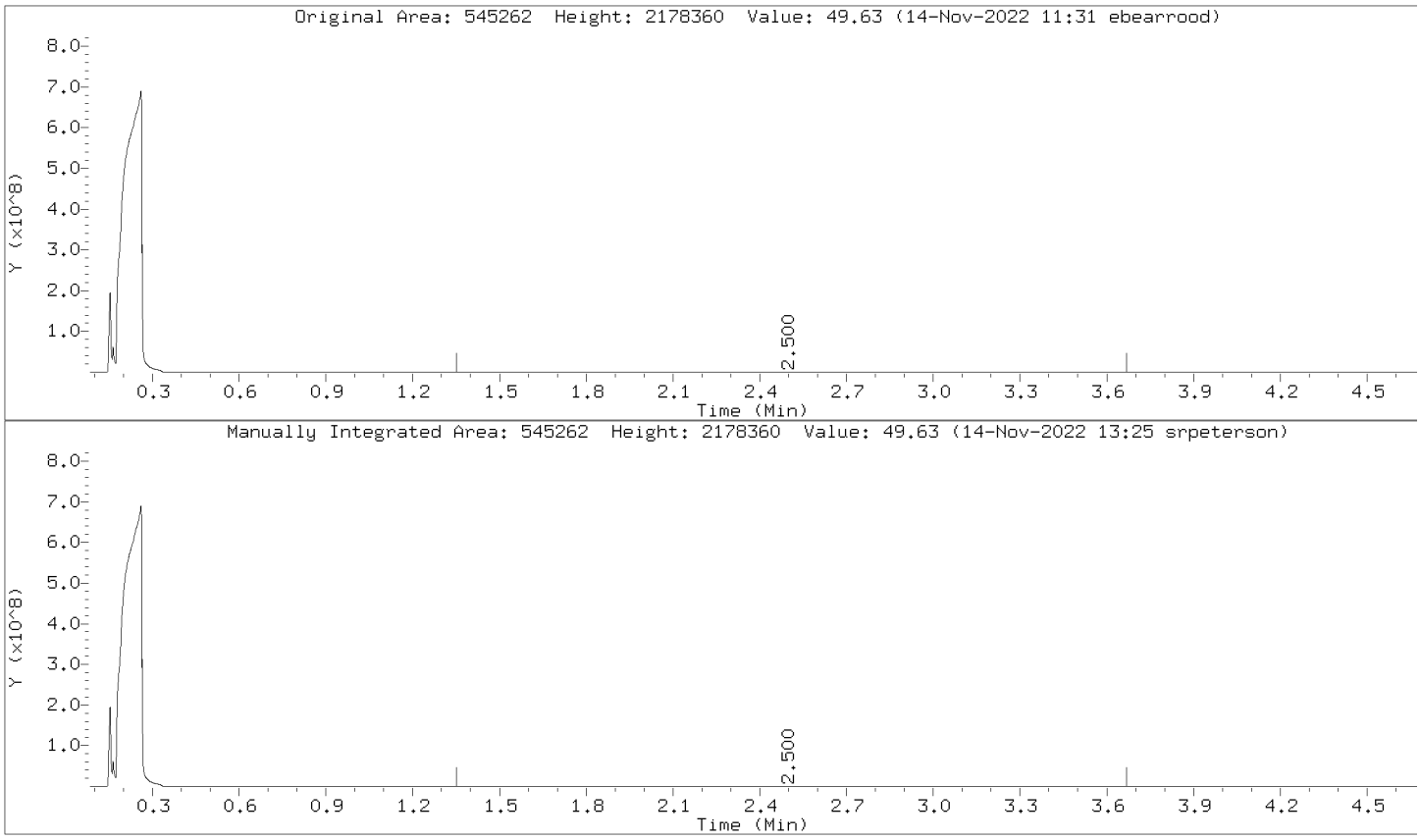
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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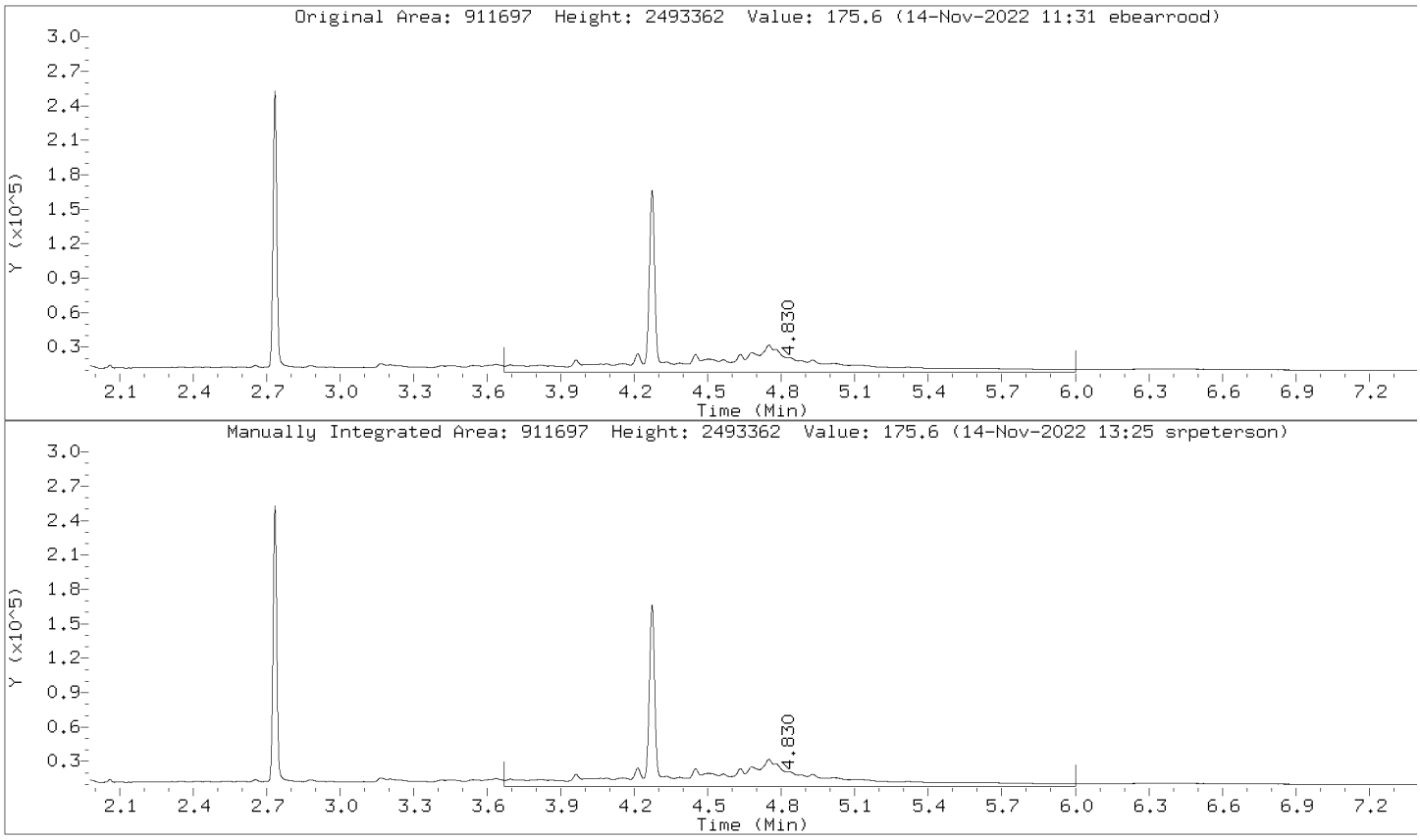
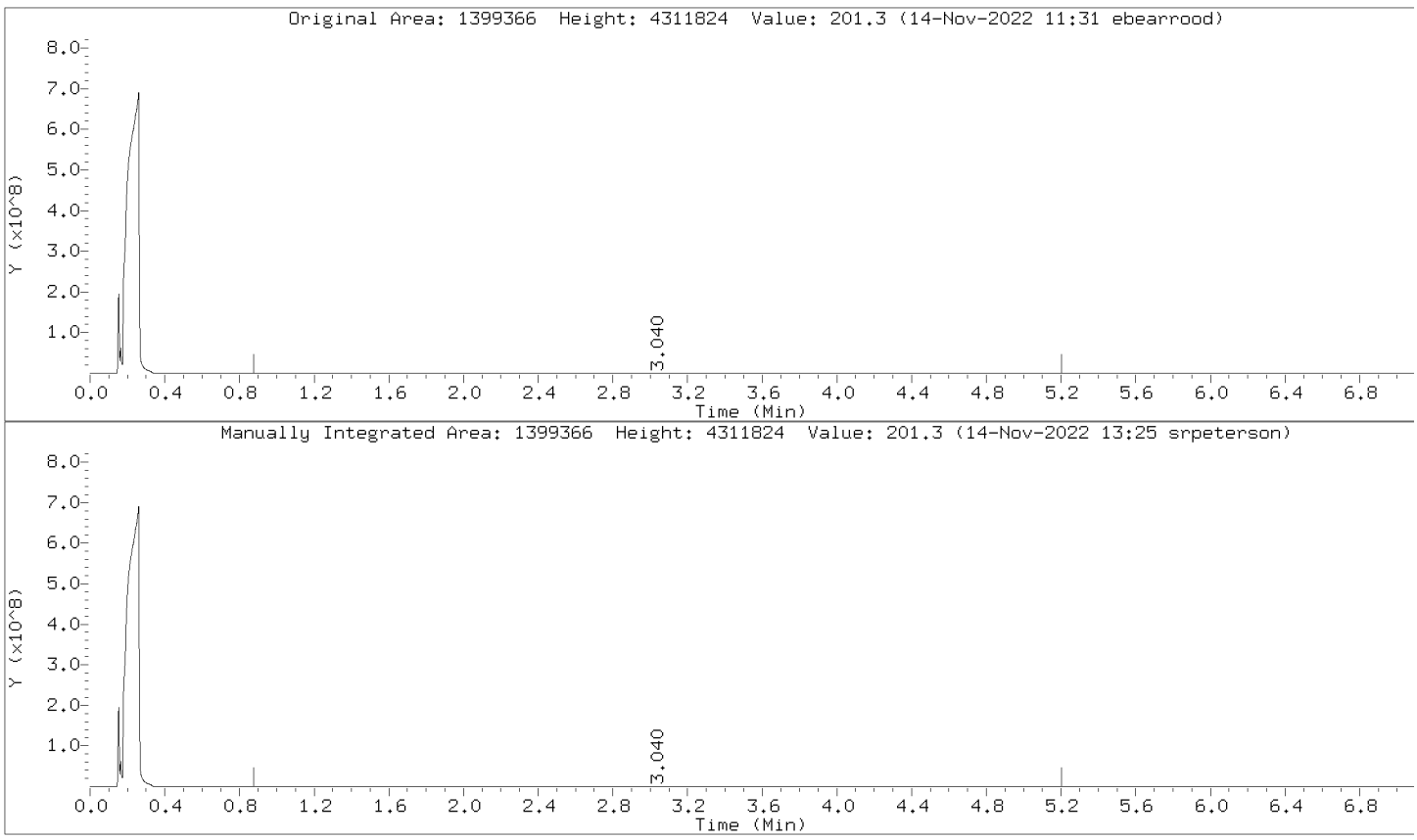
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000043.d
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: C10-C36 Review Code: RNG
CAS Number:



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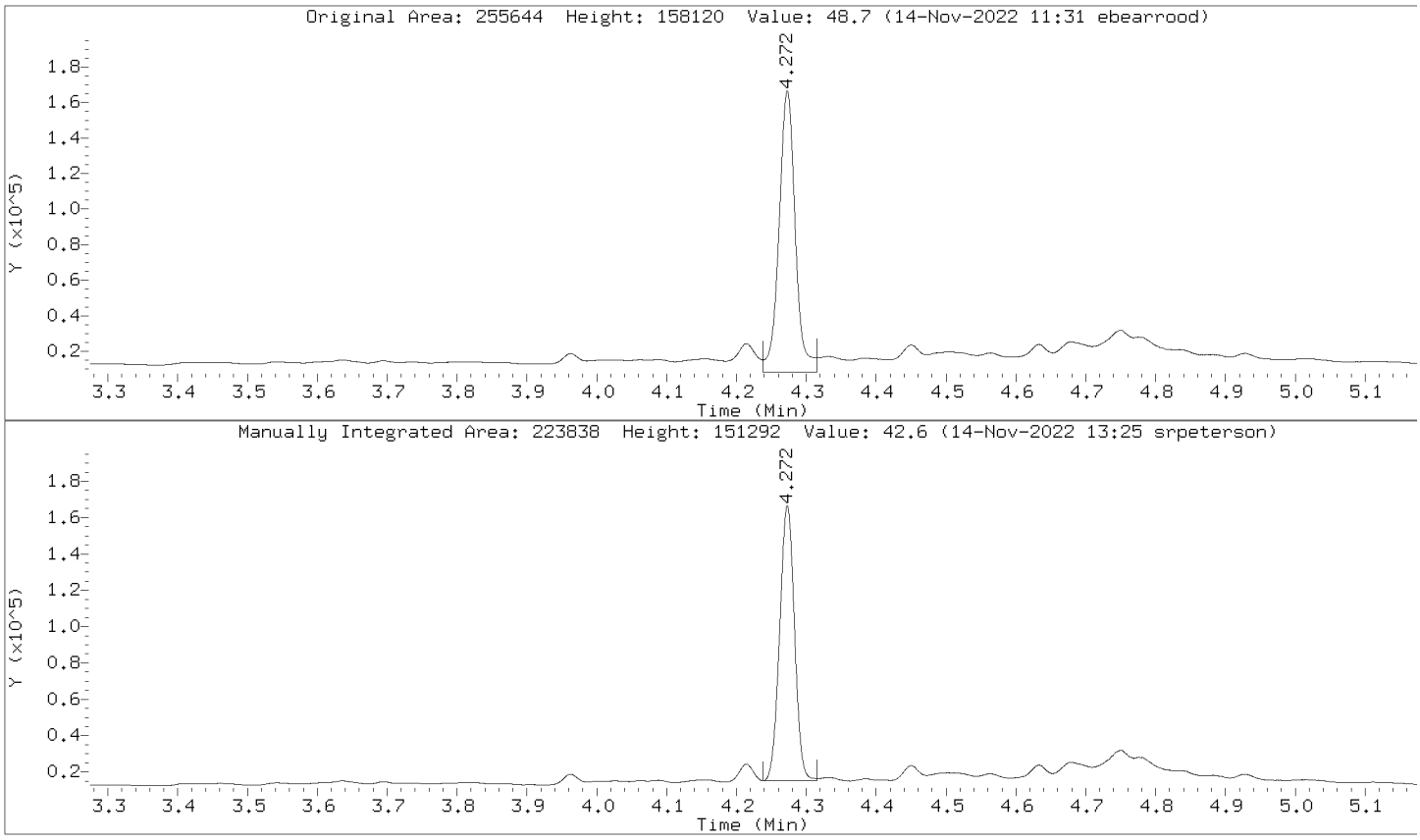
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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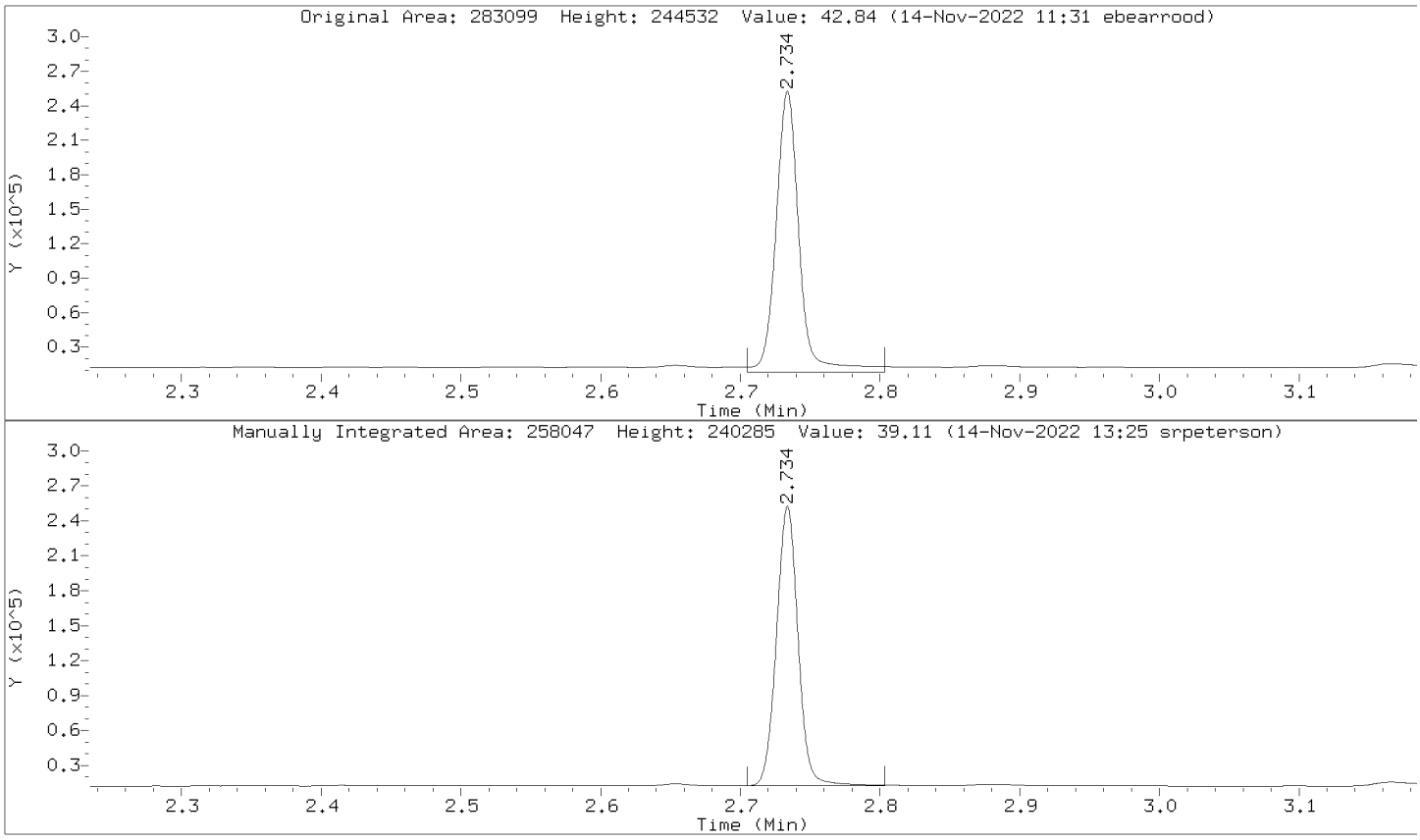
Injection Date: 11-NOV-2022 18:45
Instrument: 10gcsF.i
Lab Sample ID: 10632545001

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	784047	784047
DRO by AK 102	606602	606602
TPH-DRO (C10-C28)	825511	825511
Motor Oil Range (C24-C36)	834999	834999
Diesel Fuel Range	545262	545262
Motor Oil Range	911697	911697
Diesel Fuel Range SG	545262	545262
Motor Oil Range SG	911697	911697
C10-C36	1399366	1399366
n-Triacontane (S)	255644	223838
o-Terphenyl (S)	283099	258047

SAMPLE NO.

BNSF-G000-SC-4.0-5.0-110322

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/04/2022 08:50 Matrix: Solid SDG No.: 10632545

Date Extracted: 11/07/2022 10:10 Lab Sample ID: 10632545002

Date Analyzed: 11/11/2022 19:20 Lab File ID: 111122R.B\1111R0000046.D

Initial wt/vol: 10.02 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 30.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	29.5	
	Motor Oil Range	55.7	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000046.d
Lab Smp Id: 10632545002 Client Smp ID: BNSF-G000-SC-4.0-5.
Inj Date : 11-NOV-2022 19:20
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10632545002
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.020	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	30.384	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE
S	1 DRO by AK 102					CAS #:	
	0.880	- 3.600		1298800	167.435	24.0	(M) RNG
$	2 o-Terphenyl (S)					CAS #:	
	2.733	2.734	-0.001	260972	39.5459	5.67	(M) BA
$	3 n-Triacontane (S)					CAS #:	
	4.275	4.274	0.001	219289	41.7257	5.98	(M) BA
S	4 Residual Range Organics AK103					CAS #:	
	3.610	- 5.200		1604815	414.030	59.4	(M) RNG
S	5 TPH-DRO (C10-C28)					CAS #:	
	0.880	- 4.210		1881653	225.326	32.3	(M) RNG
S	6 Motor Oil Range (C24-C36)					CAS #:	
	3.450	- 5.200		1717027	420.598	60.3	(M) RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		2903615	525.484	75.3	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1287829	205.432	29.4	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1287829	205.432	29.4	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1847349	388.794	55.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1847349	388.794	55.7	(M)	RNG

QC Flag Legend

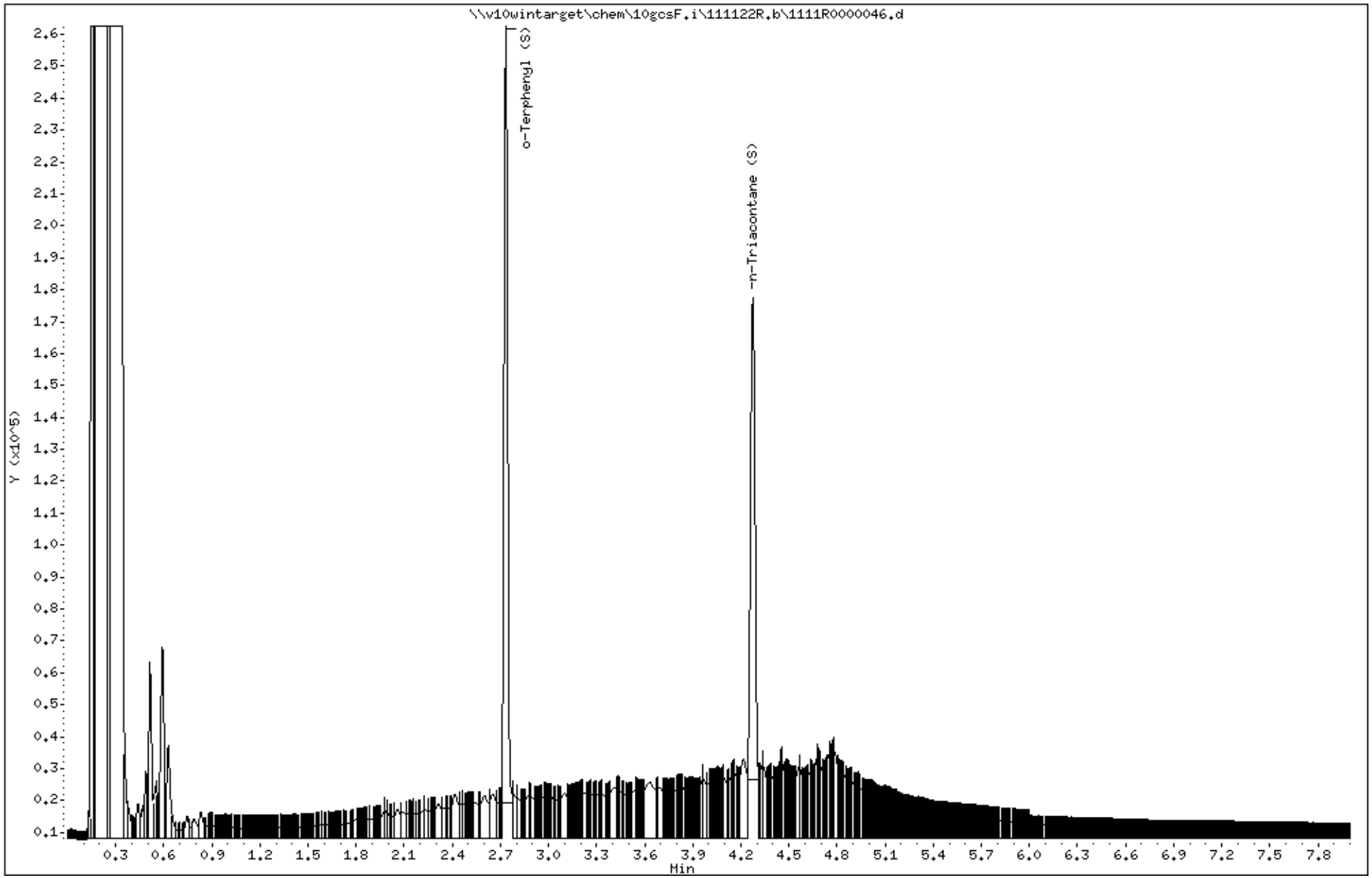
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

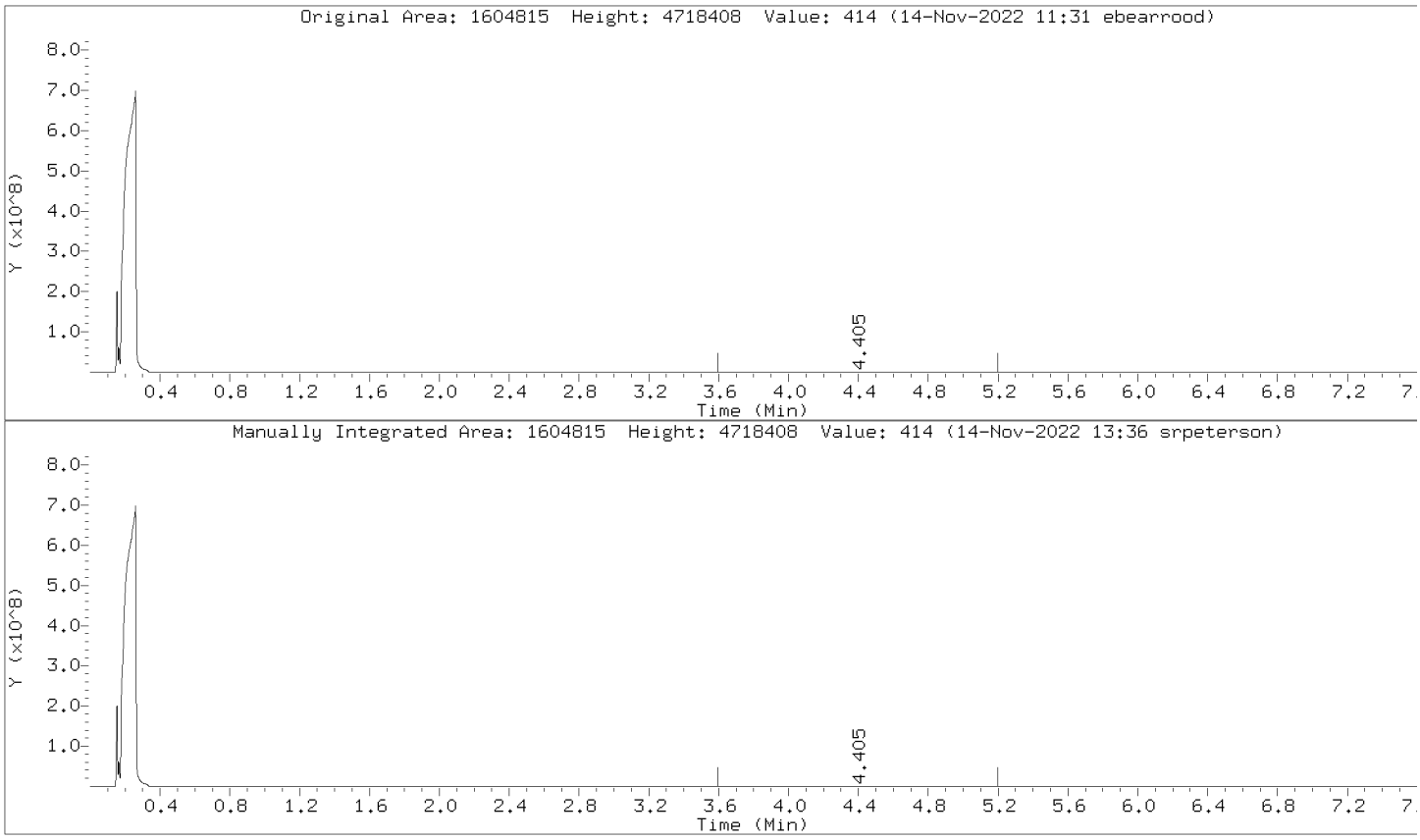
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000046.d
Date : 11-NOV-2022 19:20
Client ID: BNSF-G000-SC-4.0-5.
Sample Info: 10632545002
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000046.d
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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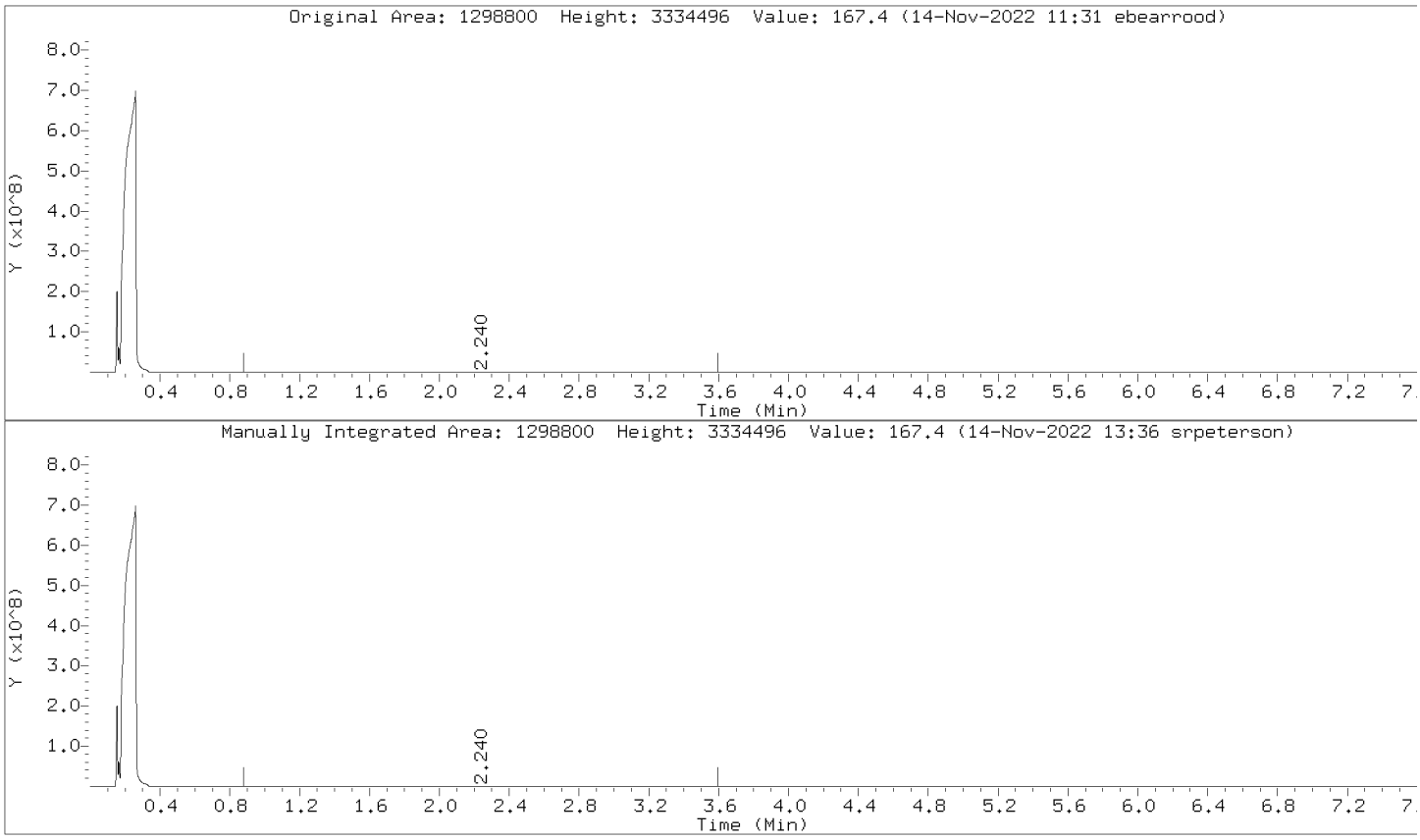
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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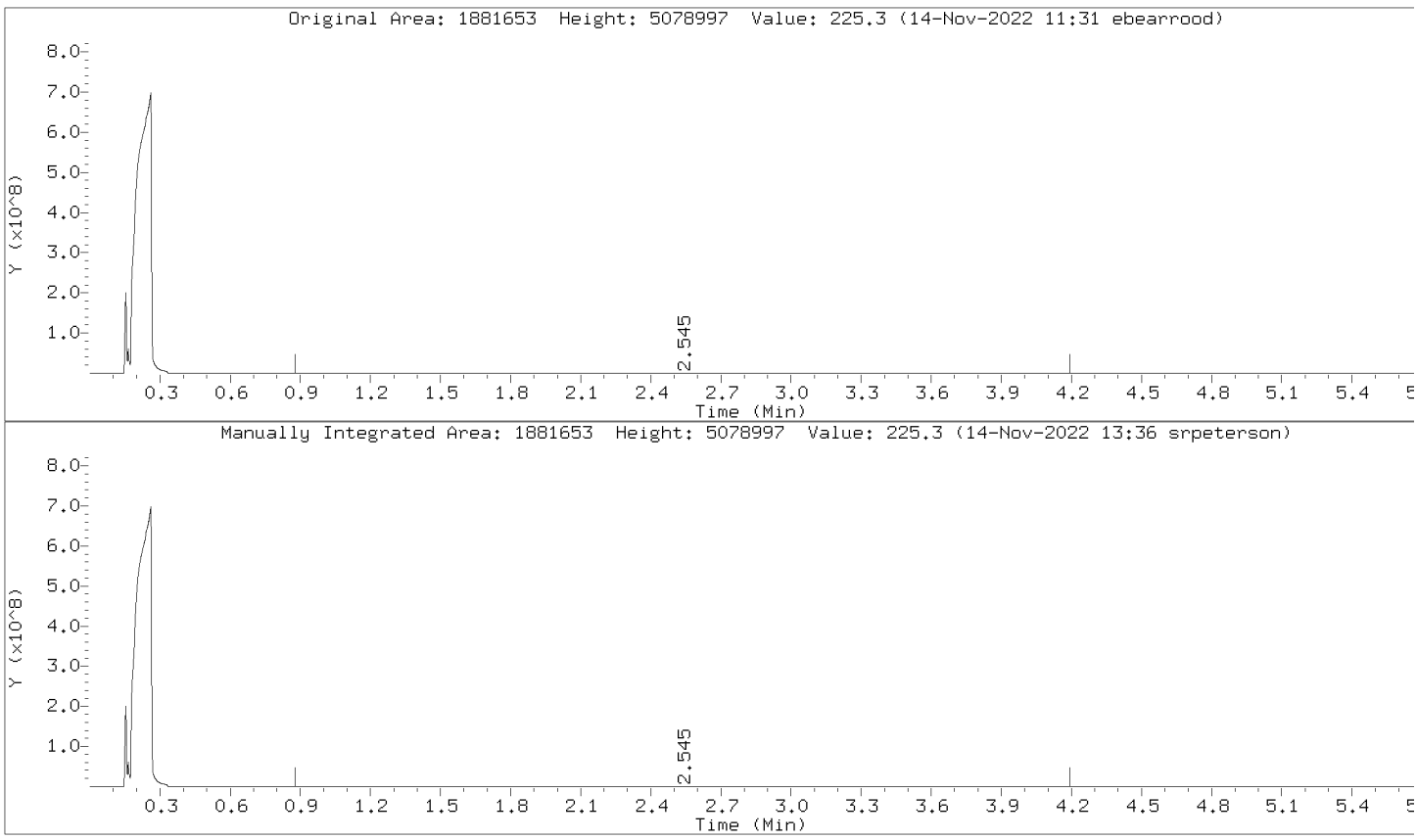
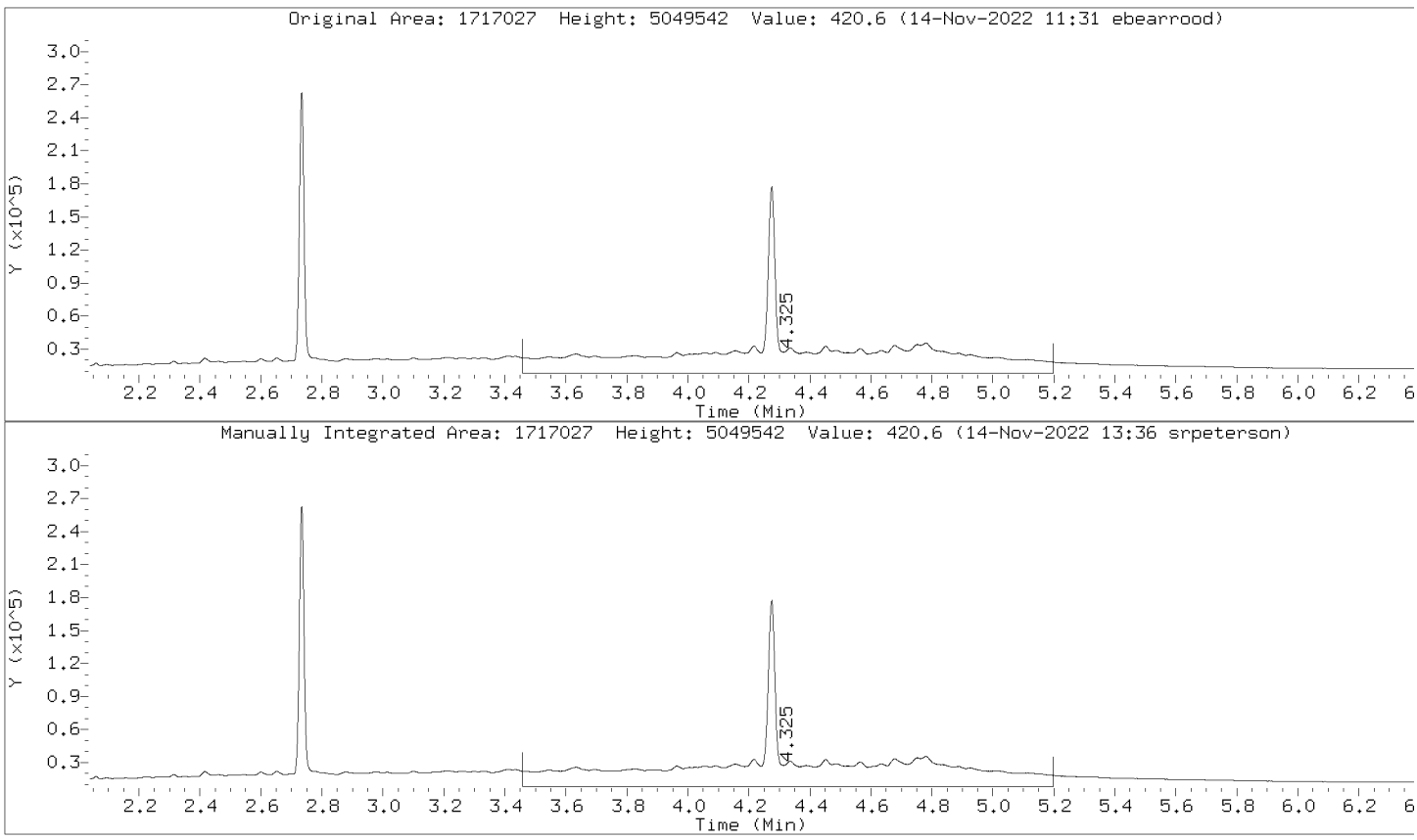
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000046.d
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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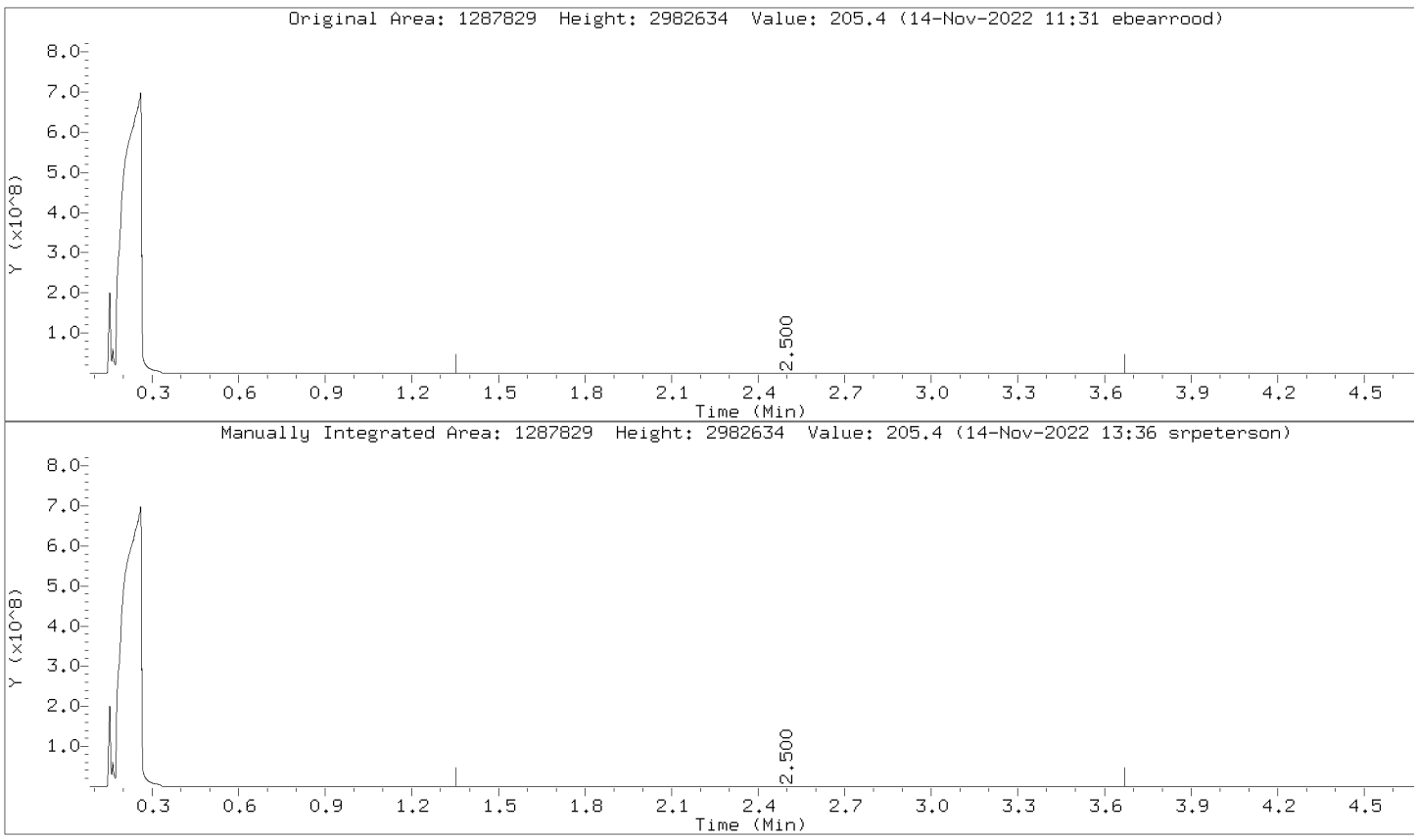
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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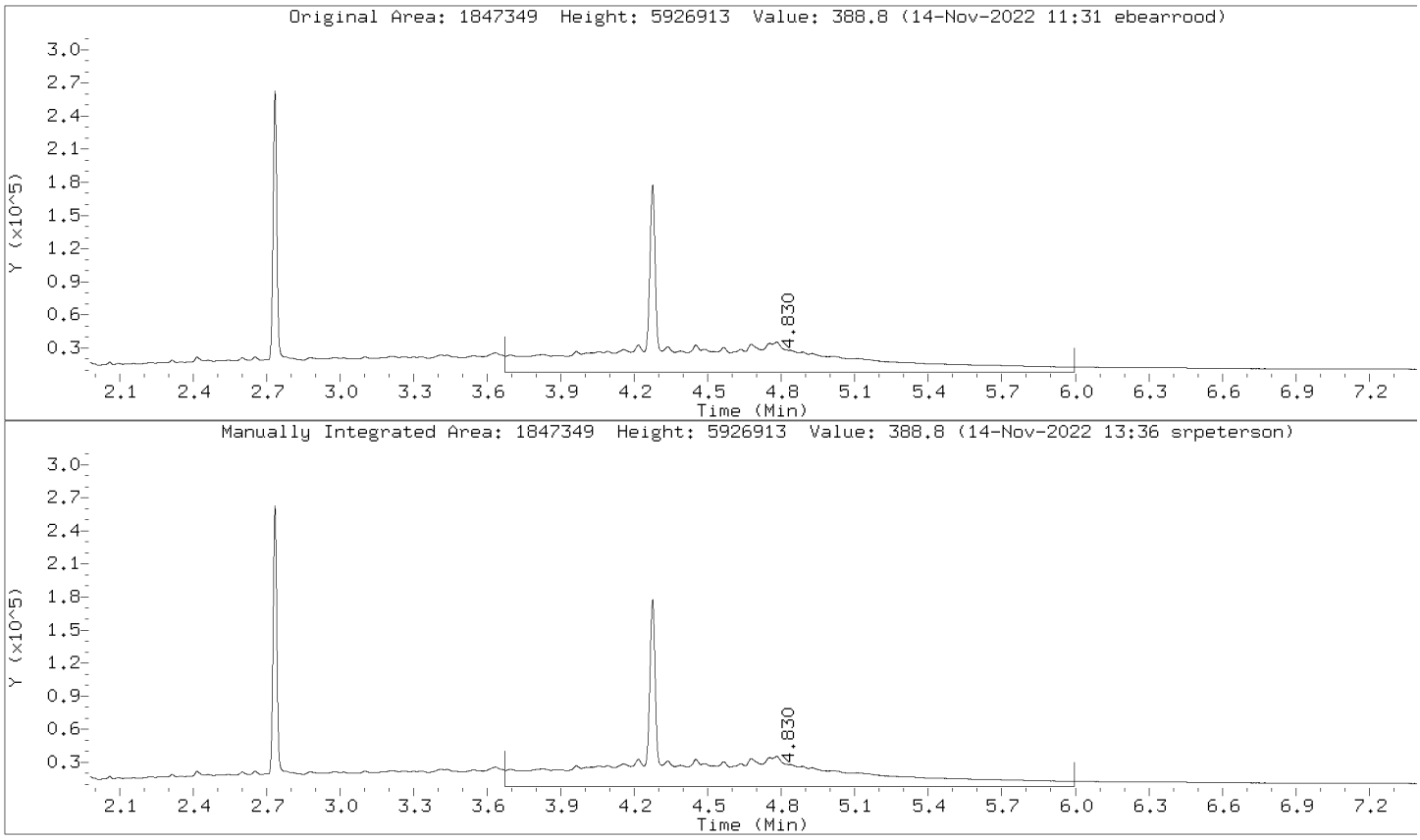
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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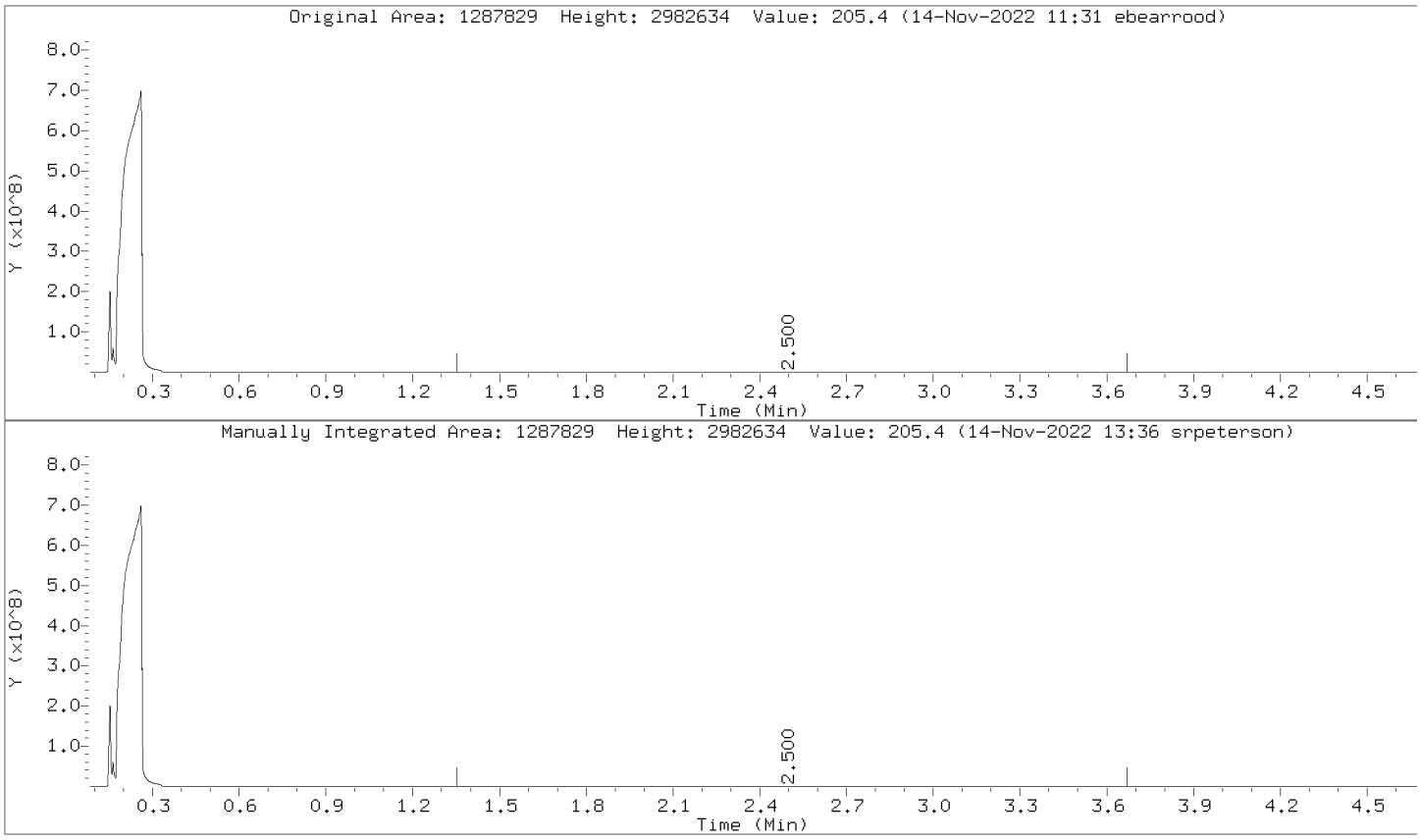
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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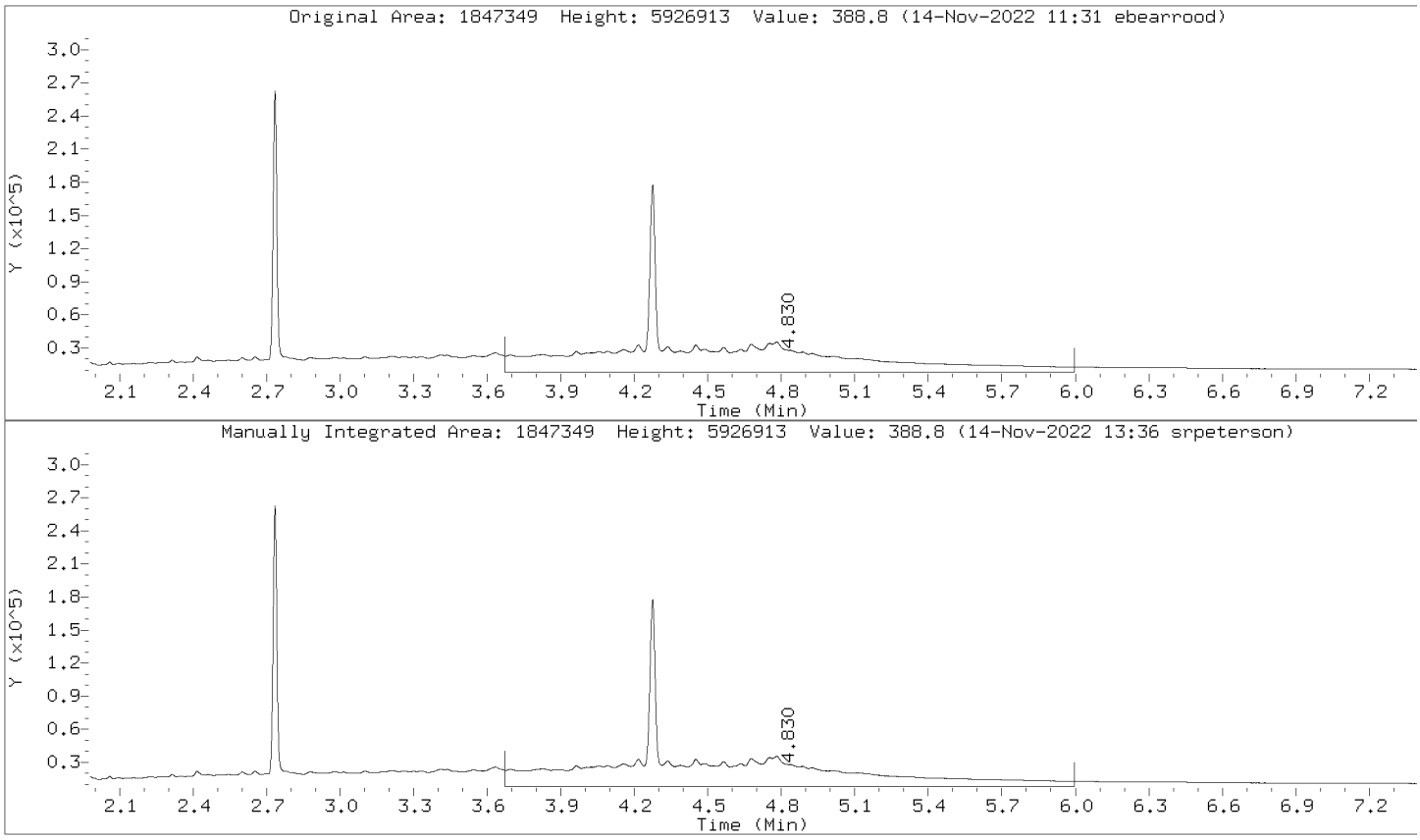
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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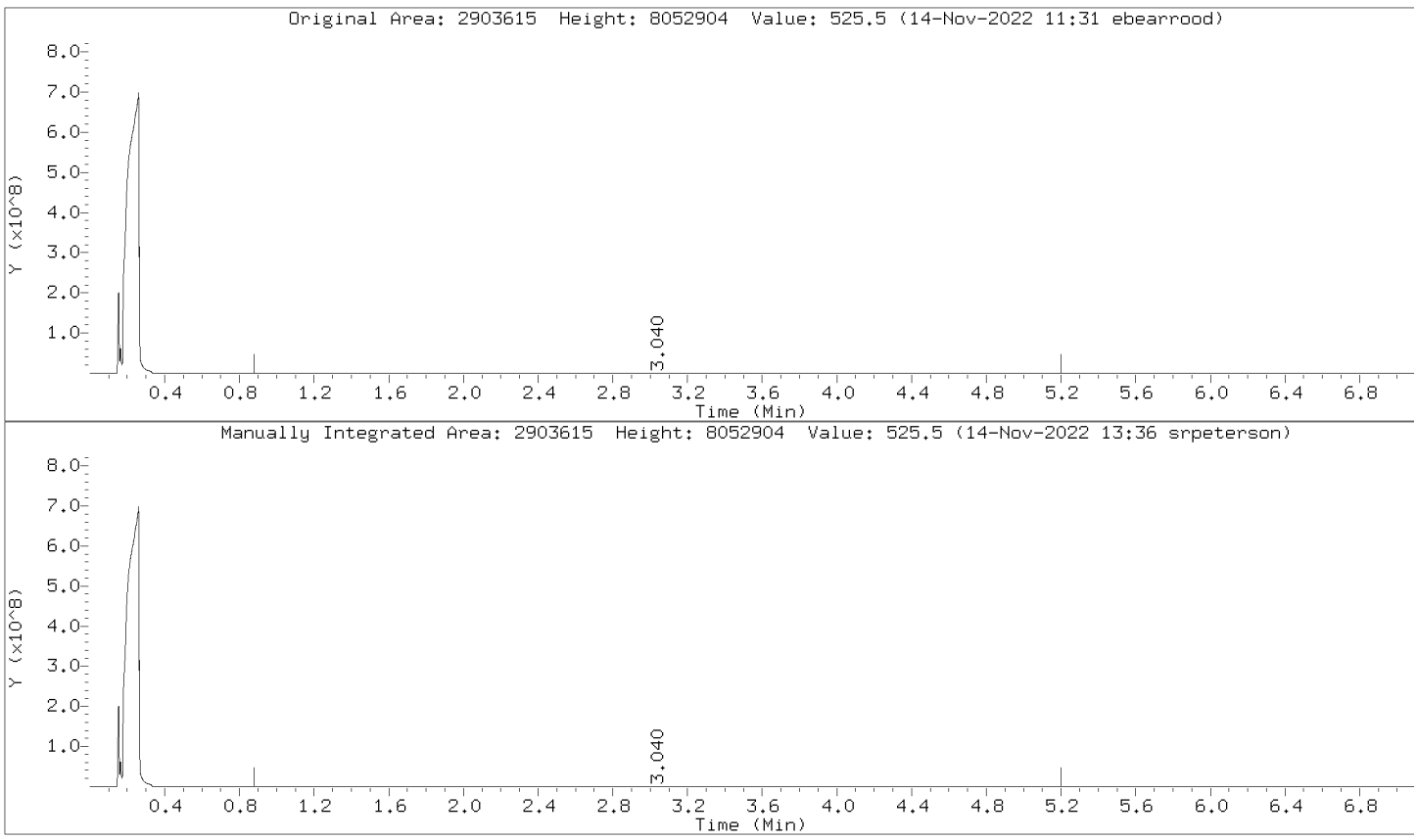
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: C10-C36 Review Code: RNG
CAS Number:



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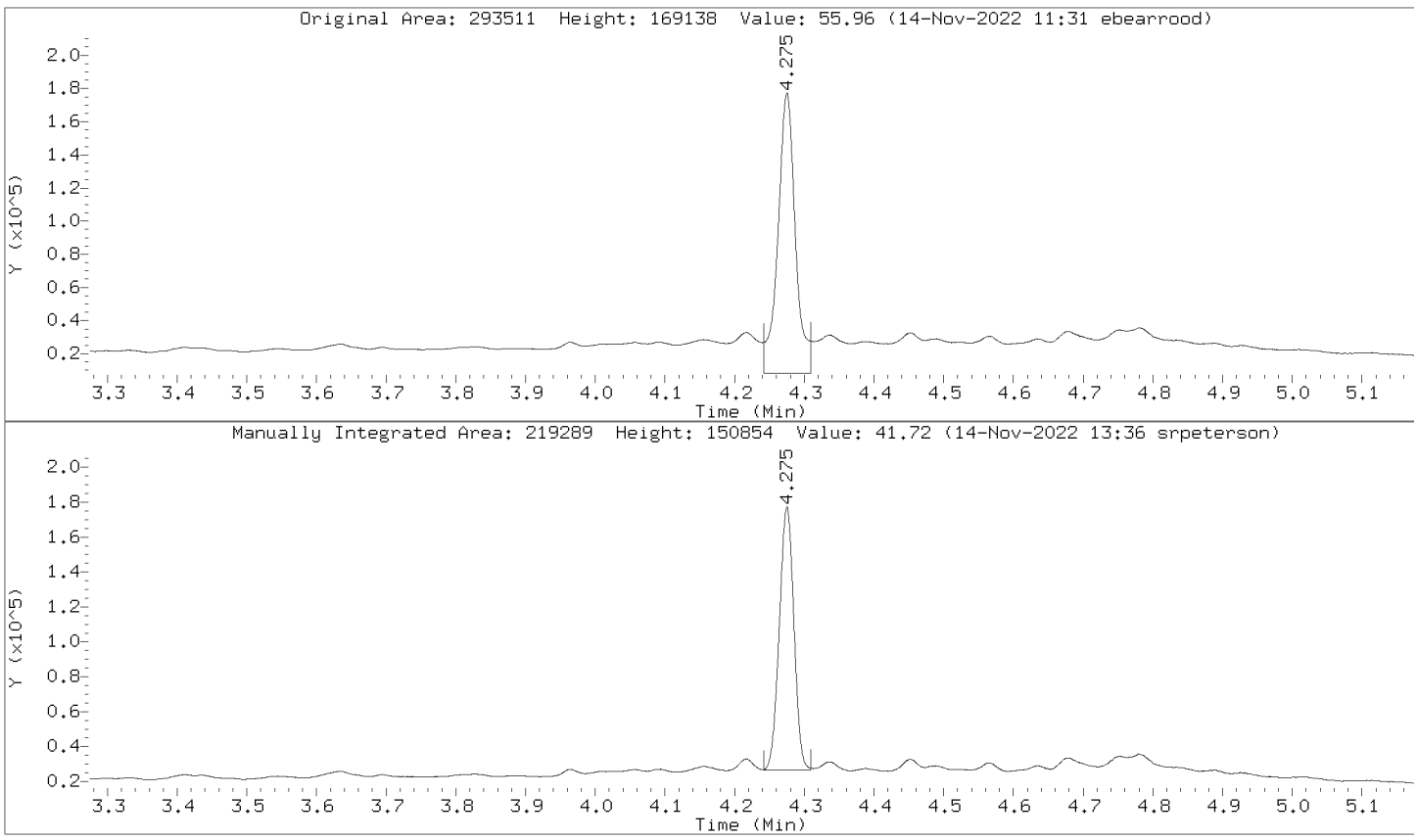
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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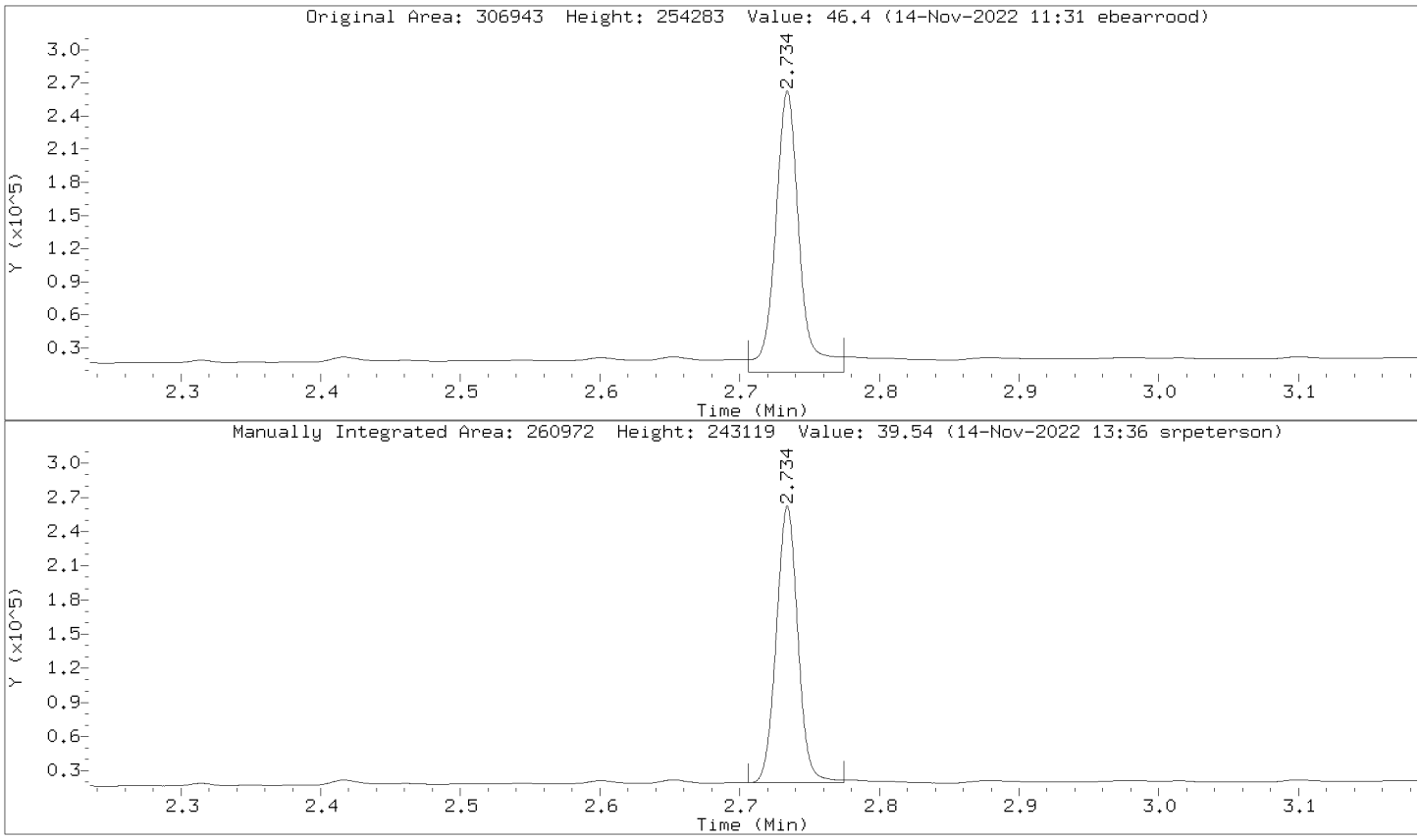
Injection Date: 11-NOV-2022 19:20
Instrument: 10gcsF.i
Lab Sample ID: 10632545002

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1604815	1604815
DRO by AK 102	1298800	1298800
TPH-DRO (C10-C28)	1881653	1881653
Motor Oil Range (C24-C36)	1717027	1717027
Diesel Fuel Range	1287829	1287829
Motor Oil Range	1847349	1847349
Diesel Fuel Range SG	1287829	1287829
Motor Oil Range SG	1847349	1847349
C10-C36	2903615	2903615
n-Triacontane (S)	293511	219289
o-Terphenyl (S)	306943	260972

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632545

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632545

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632545

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

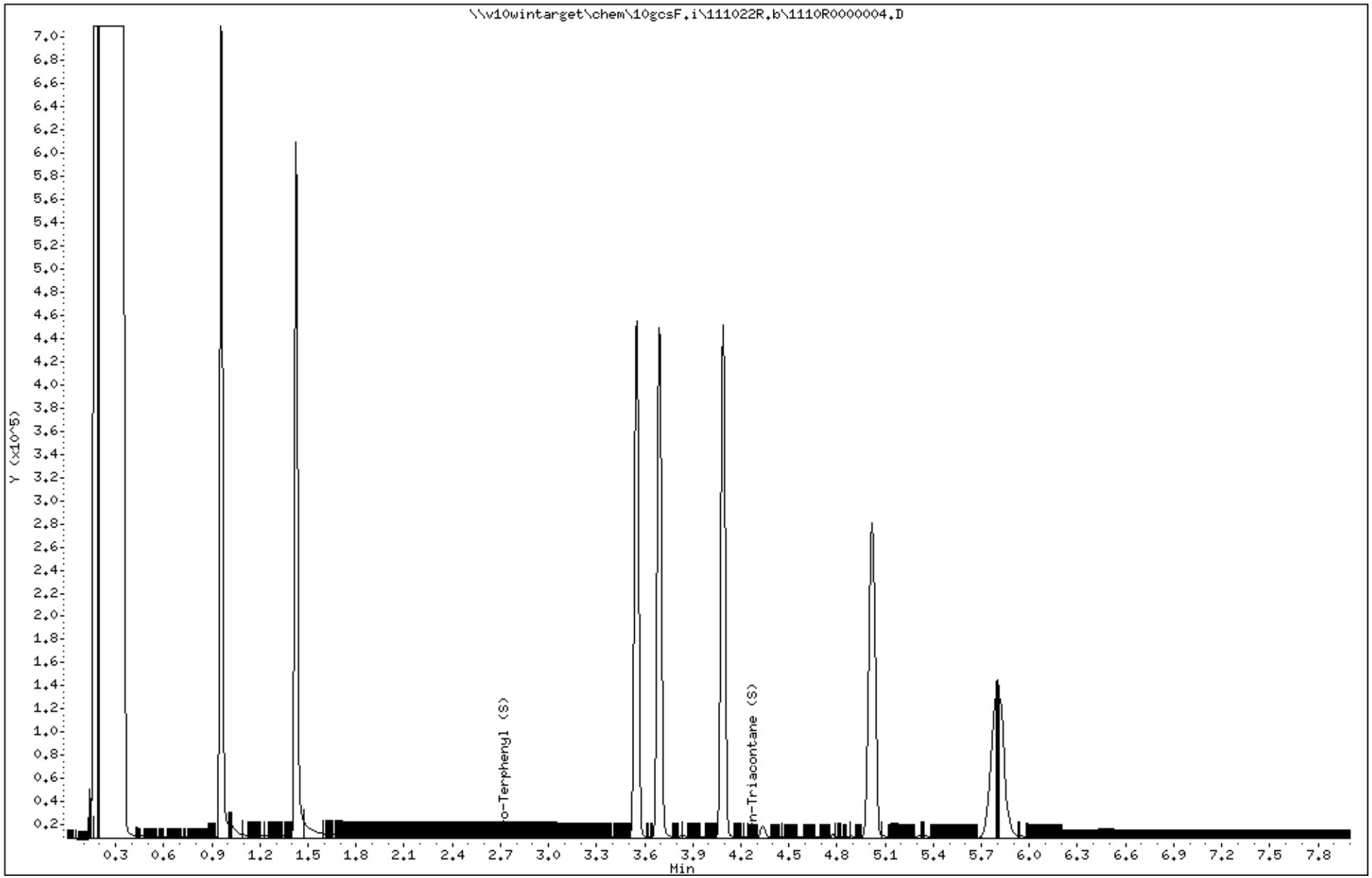
AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

				CONCENTRATIONS ON-COL	FINAL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.880 - 3.600			2108709			
$ 2 o-Terphenyl (S)					CAS #:	
2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)					CAS #:	
4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103					CAS #:	
3.610 - 5.200			2005315			
S 5 TPH-DRO (C10-C28)					CAS #:	
0.880 - 4.219			3399190			
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450 - 5.200			2635115			
S 7 C10-C36					CAS #:	
0.880 - 5.200			4114949			
S 8 Diesel Fuel Range					CAS #:	
1.350 - 3.650			1498770			
S 9 Diesel Fuel Range SG					CAS #:	
1.350 - 3.650			1498770			
S 10 Motor Oil Range					CAS #:	
3.660 - 6.000			2695751			
S 11 Motor Oil Range SG					CAS #:	
3.660 - 6.000			2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

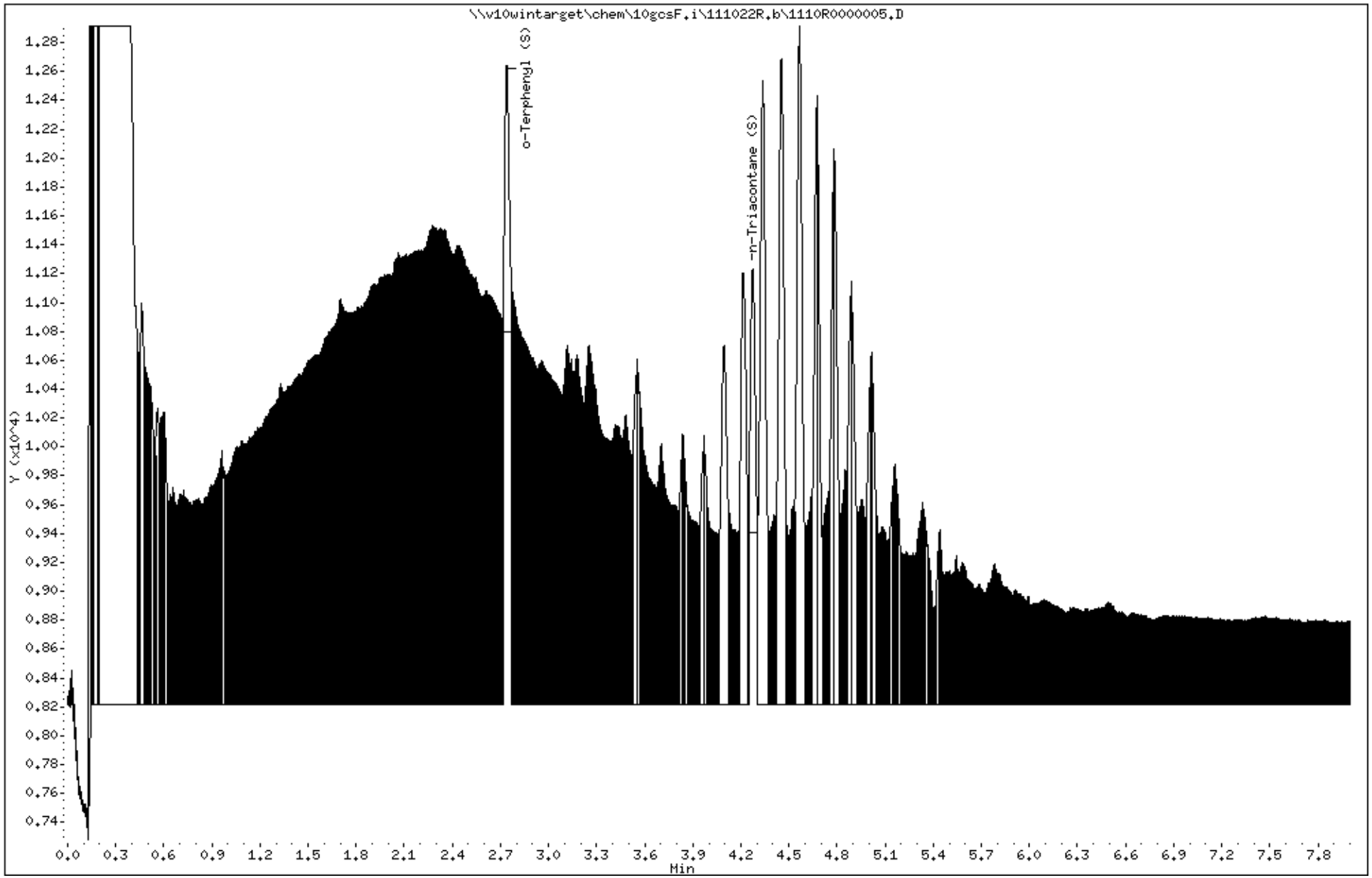
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

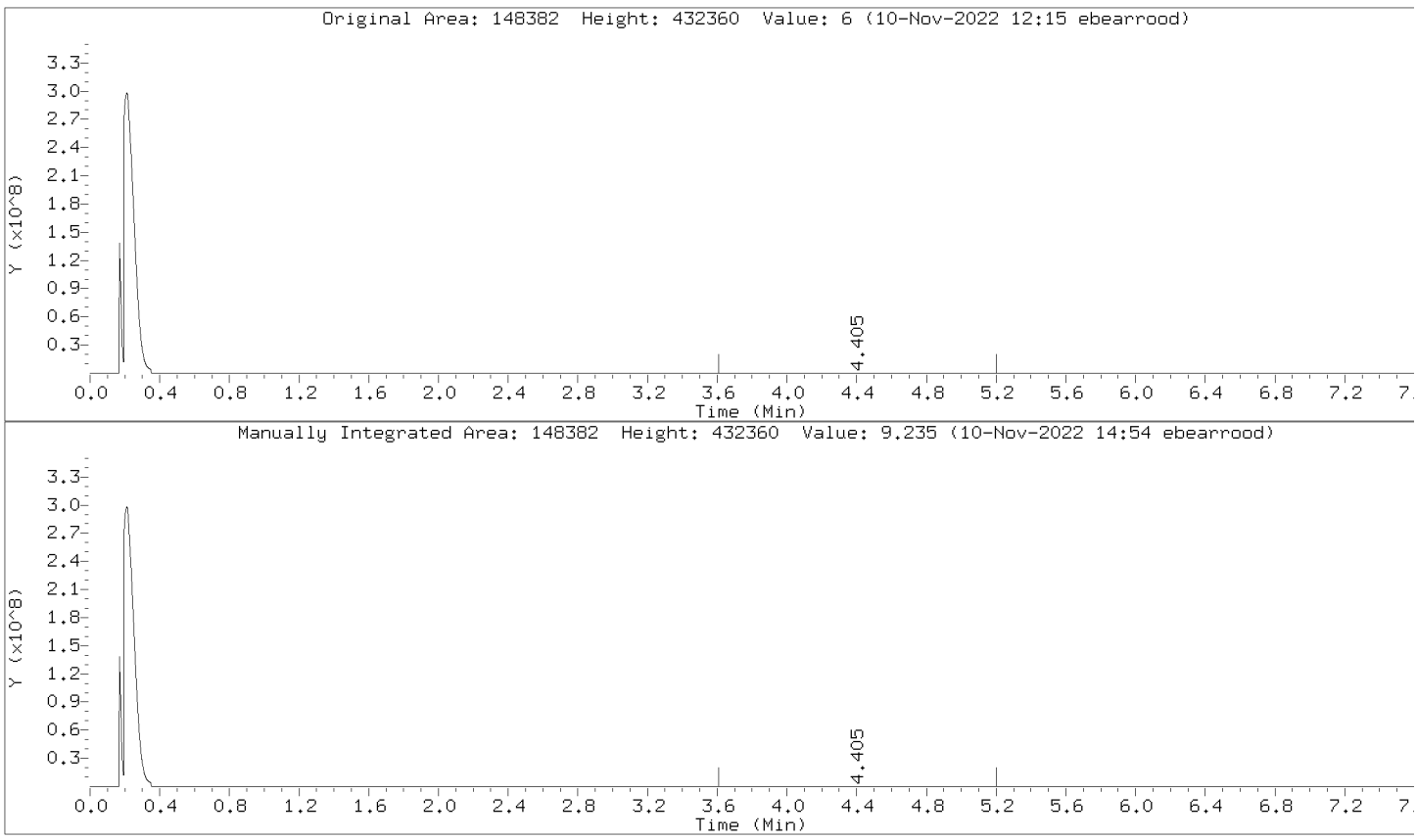
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



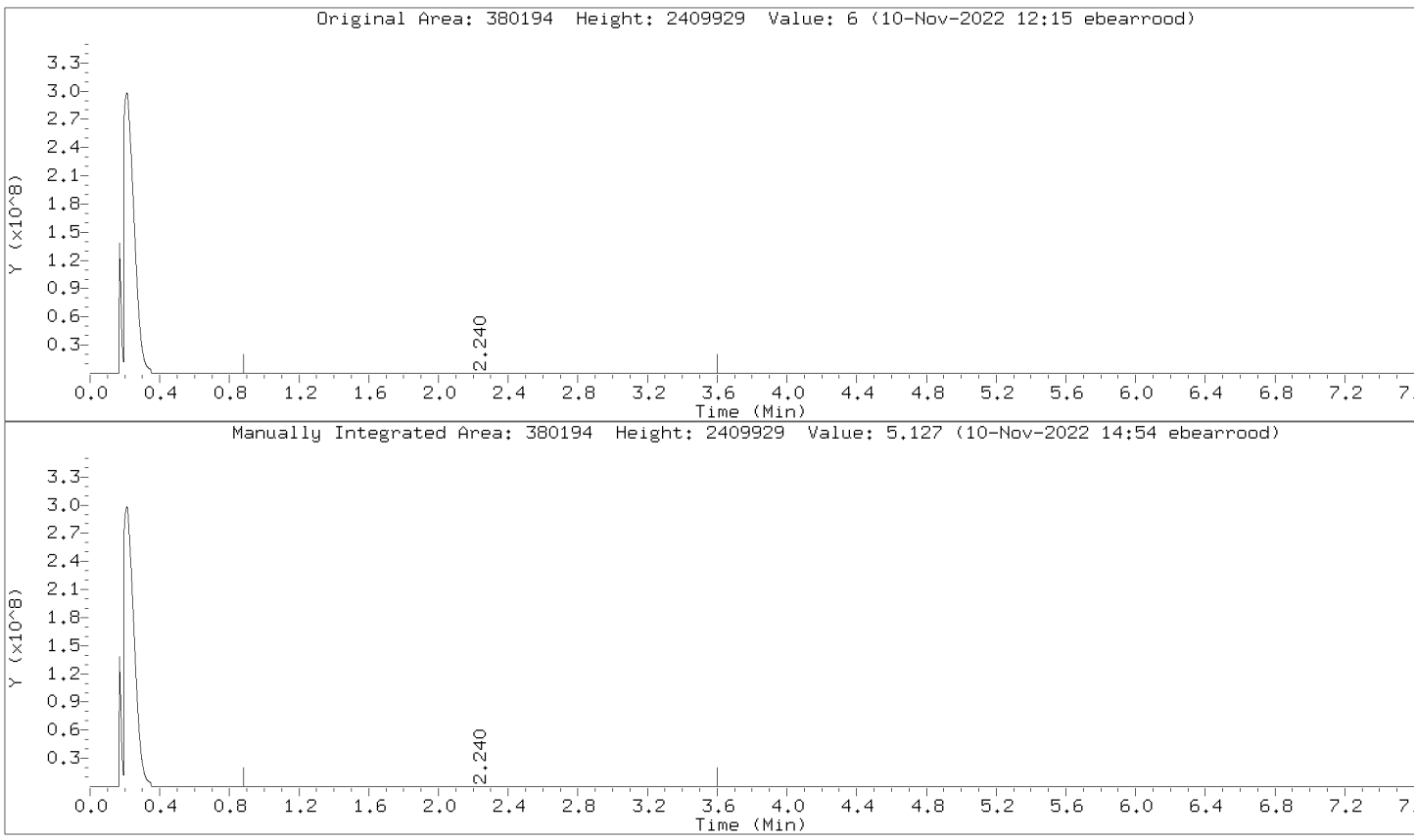
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



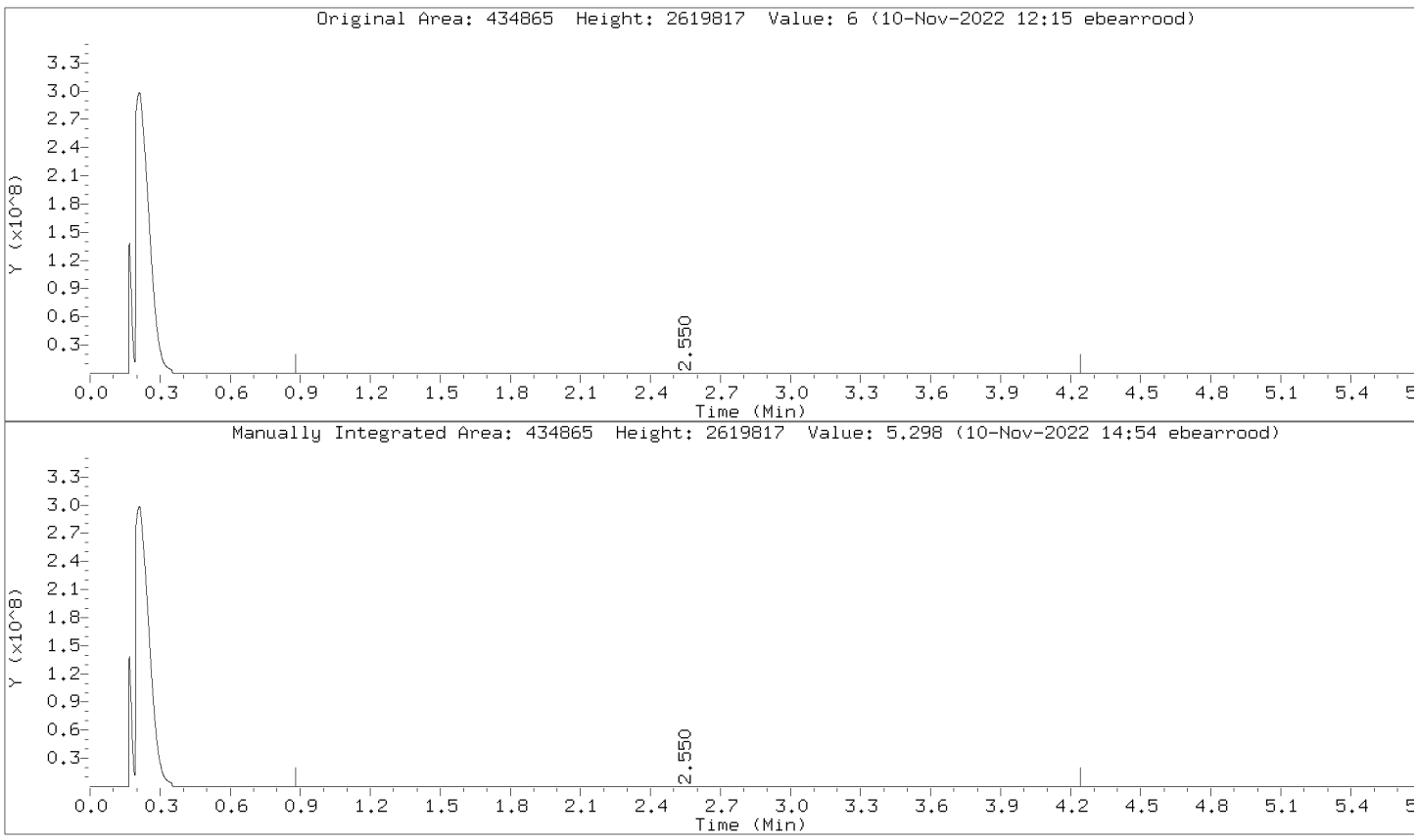
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



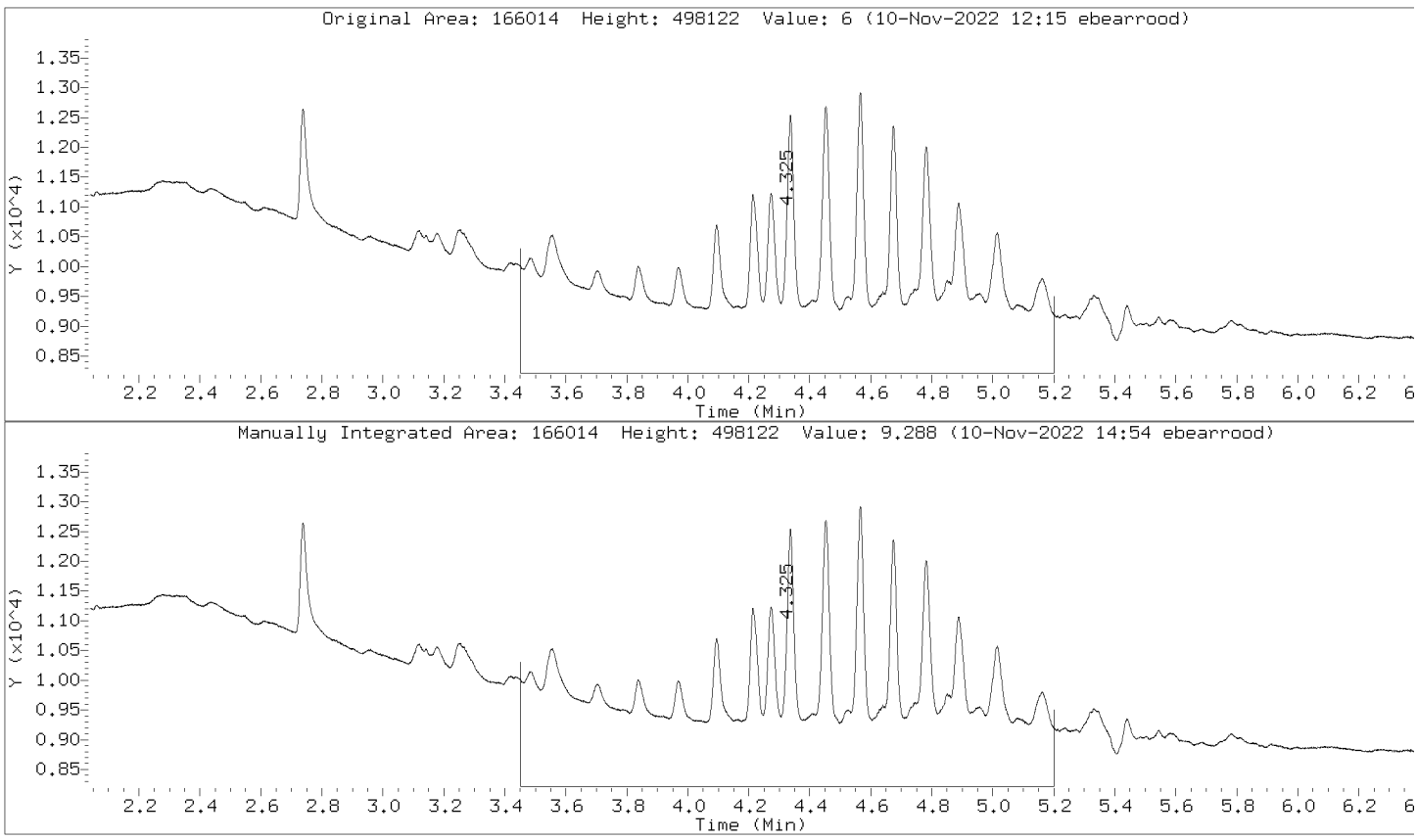
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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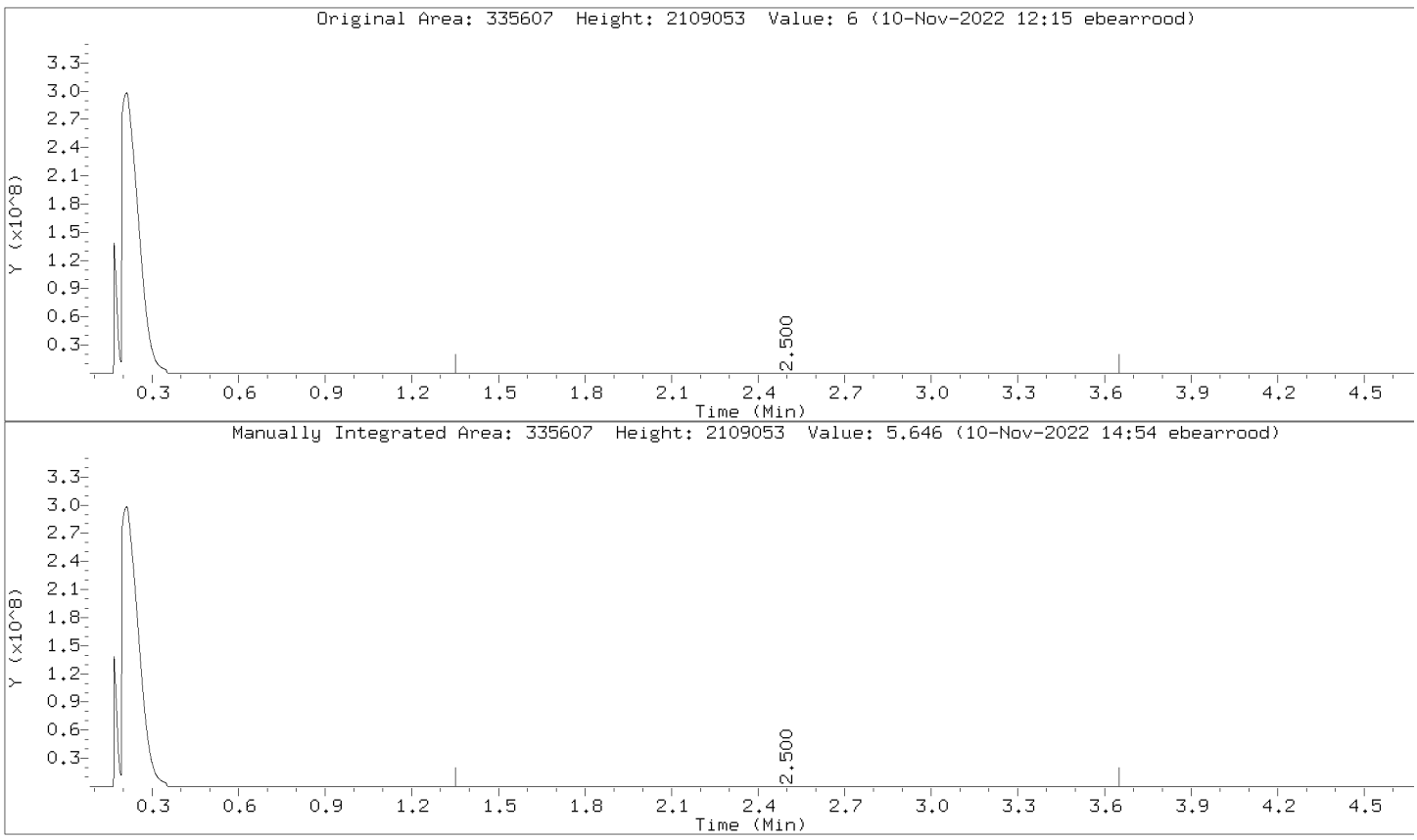
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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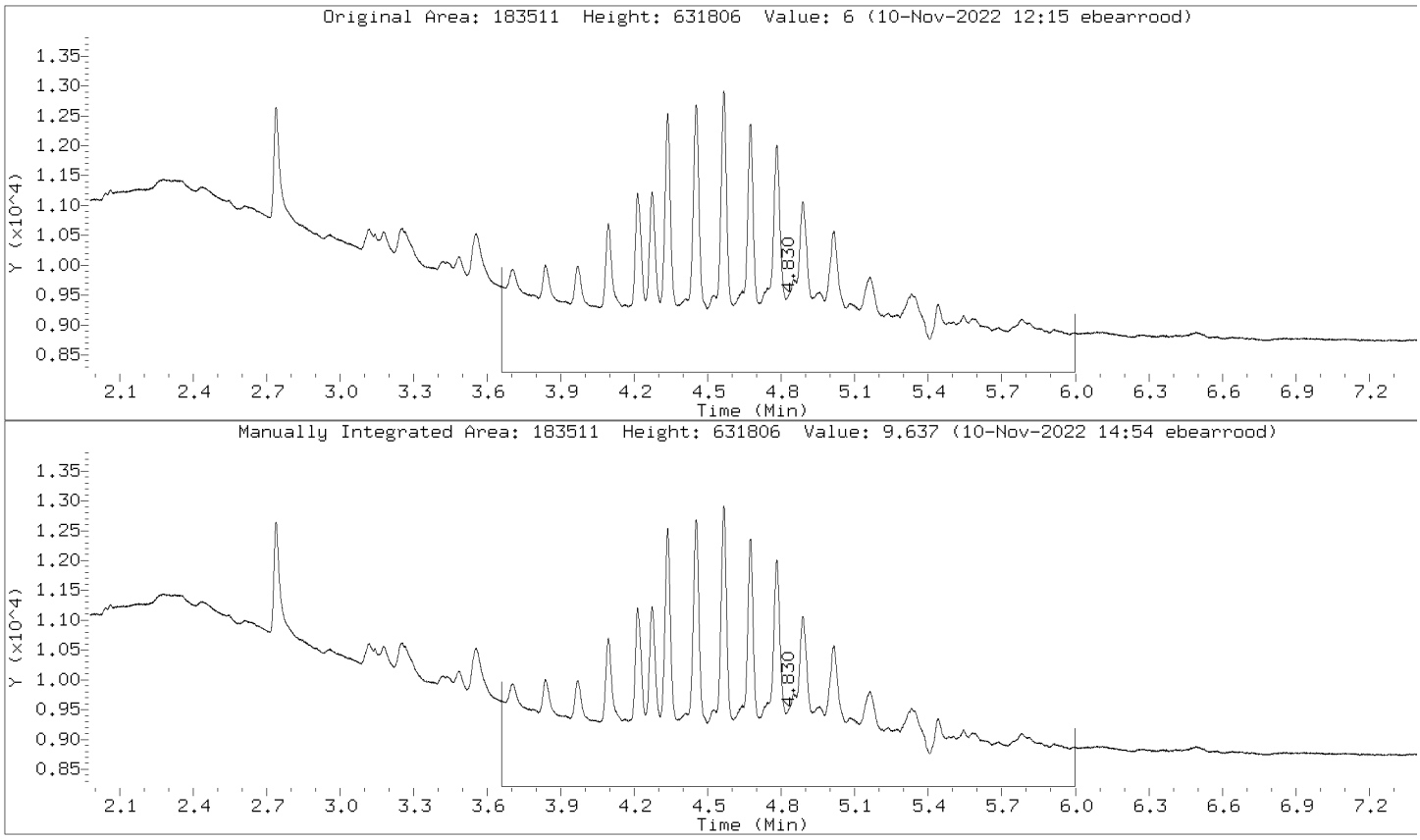
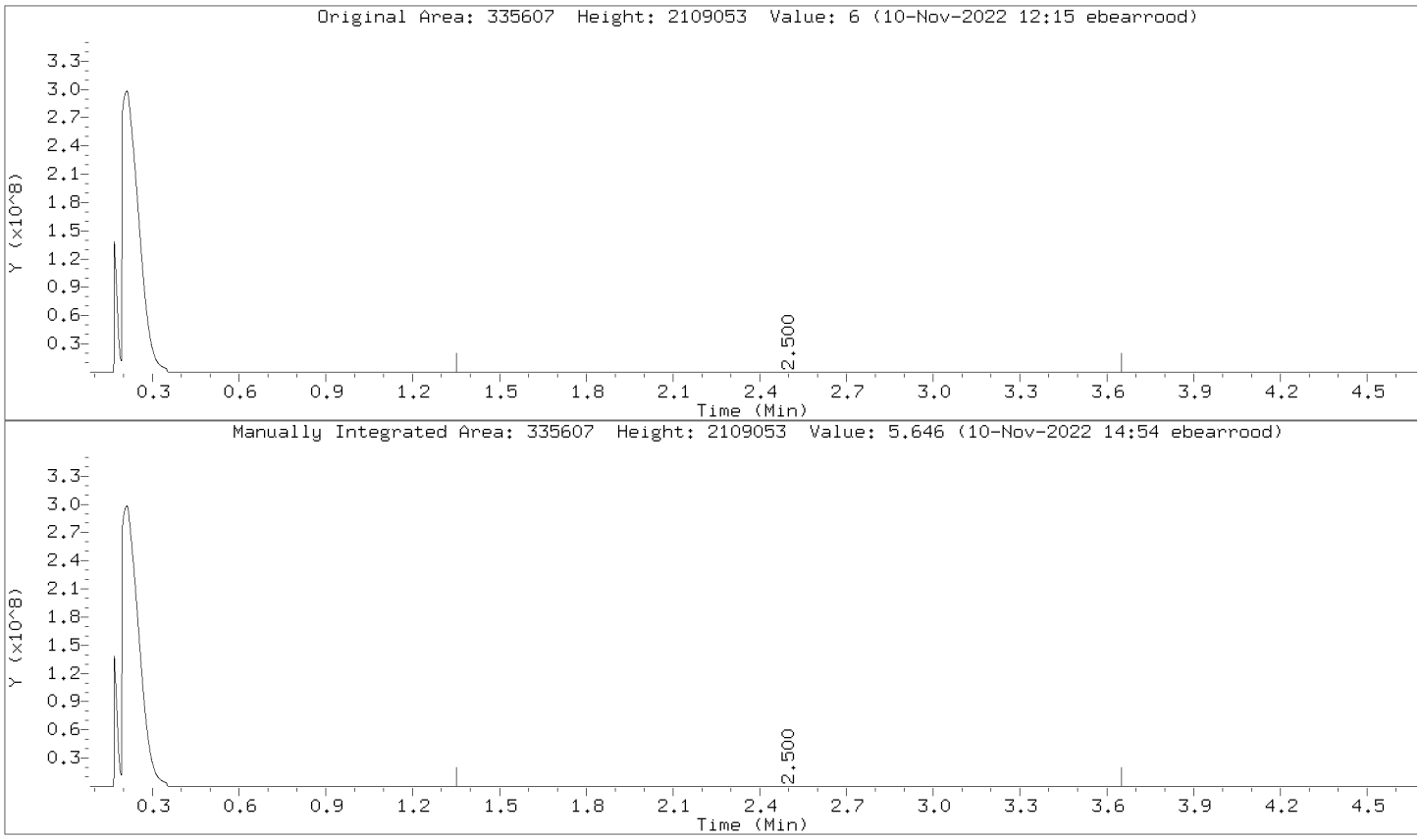
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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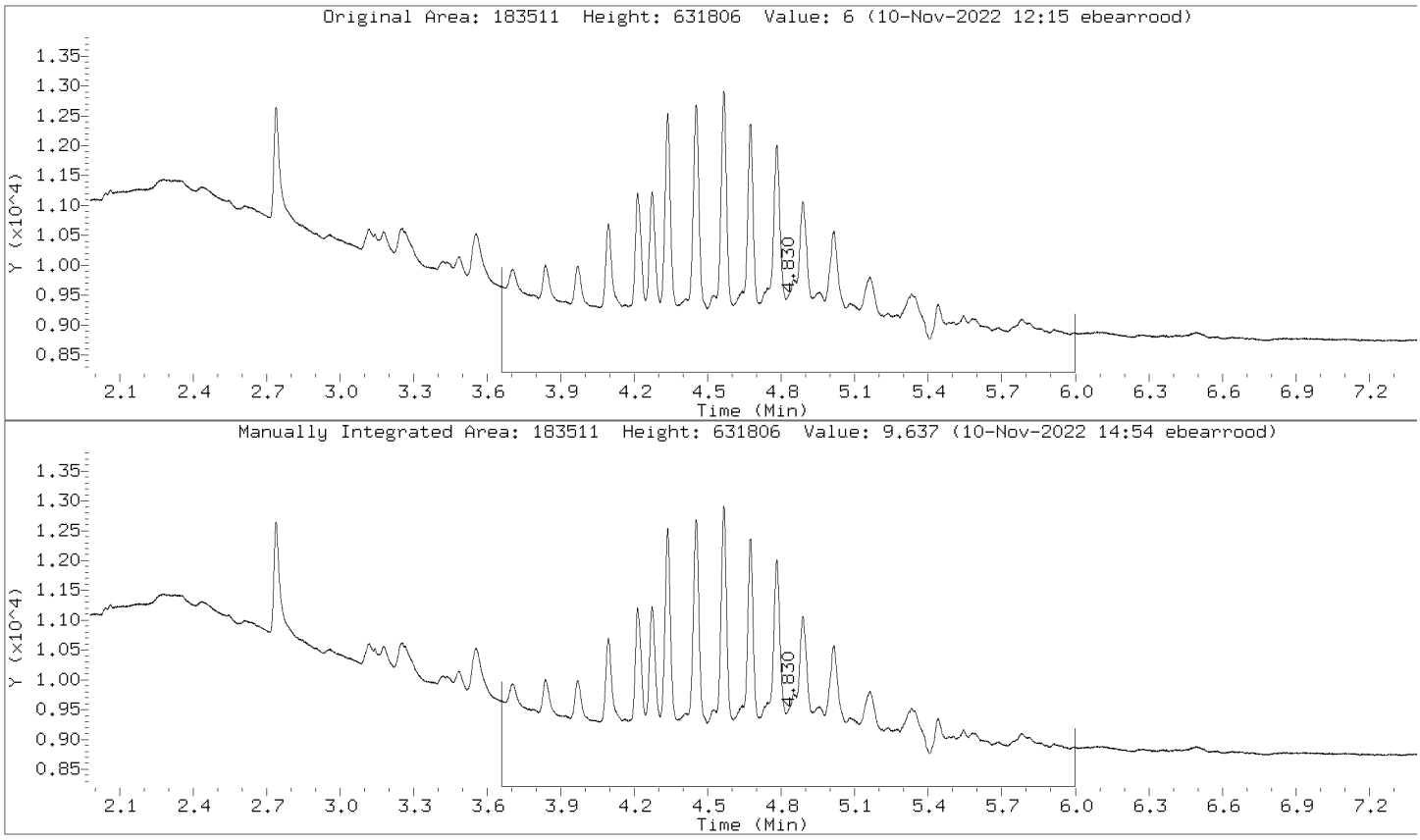
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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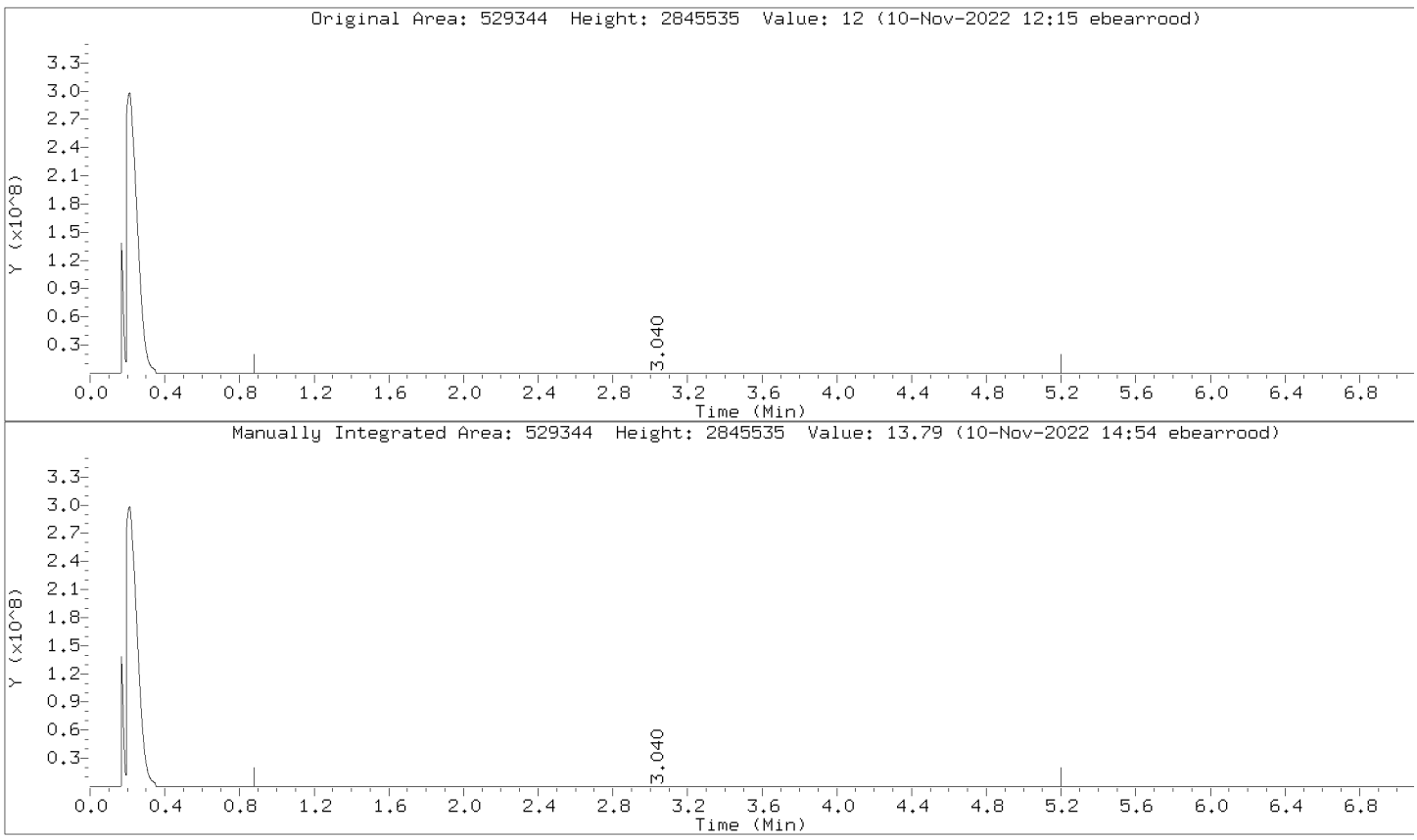
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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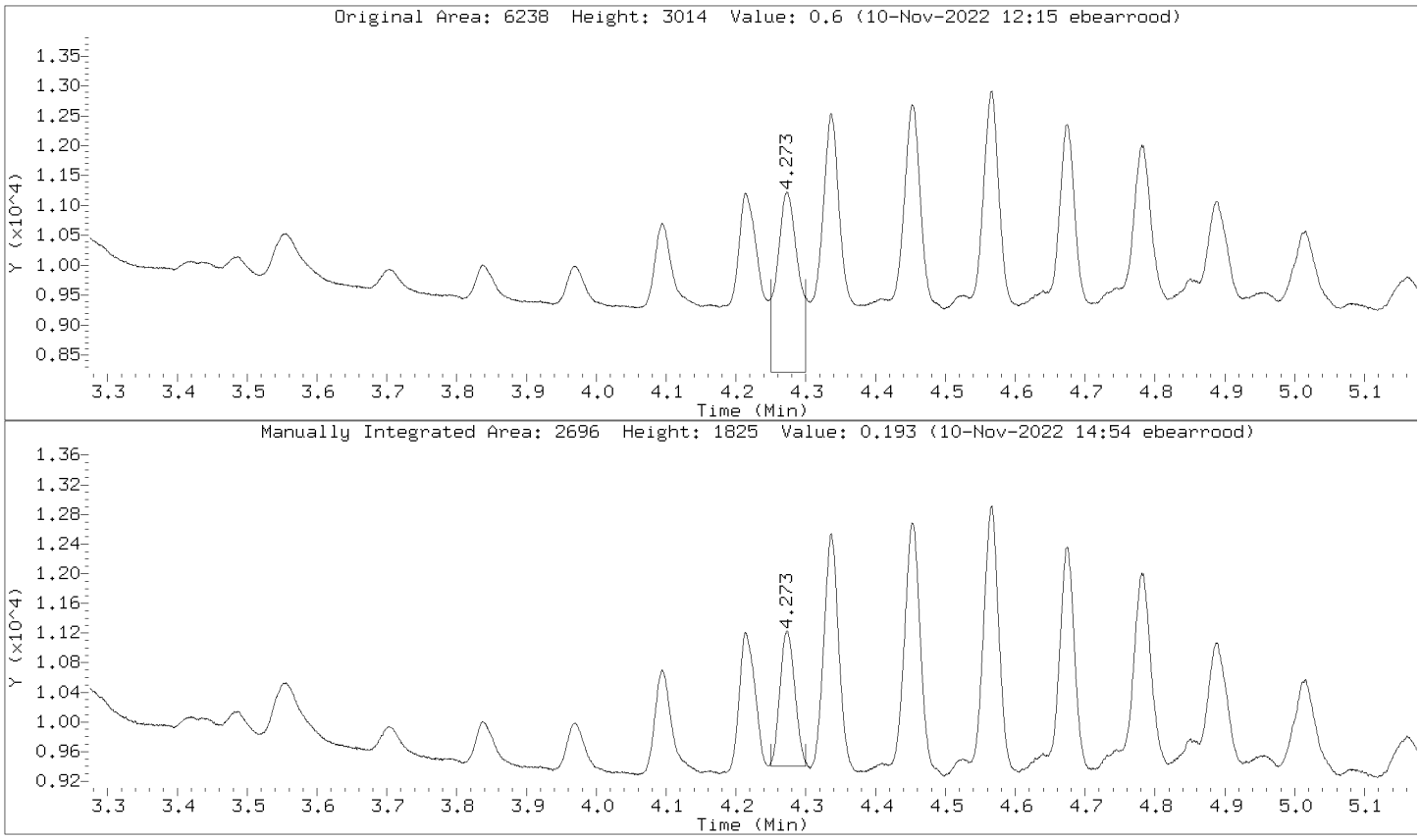
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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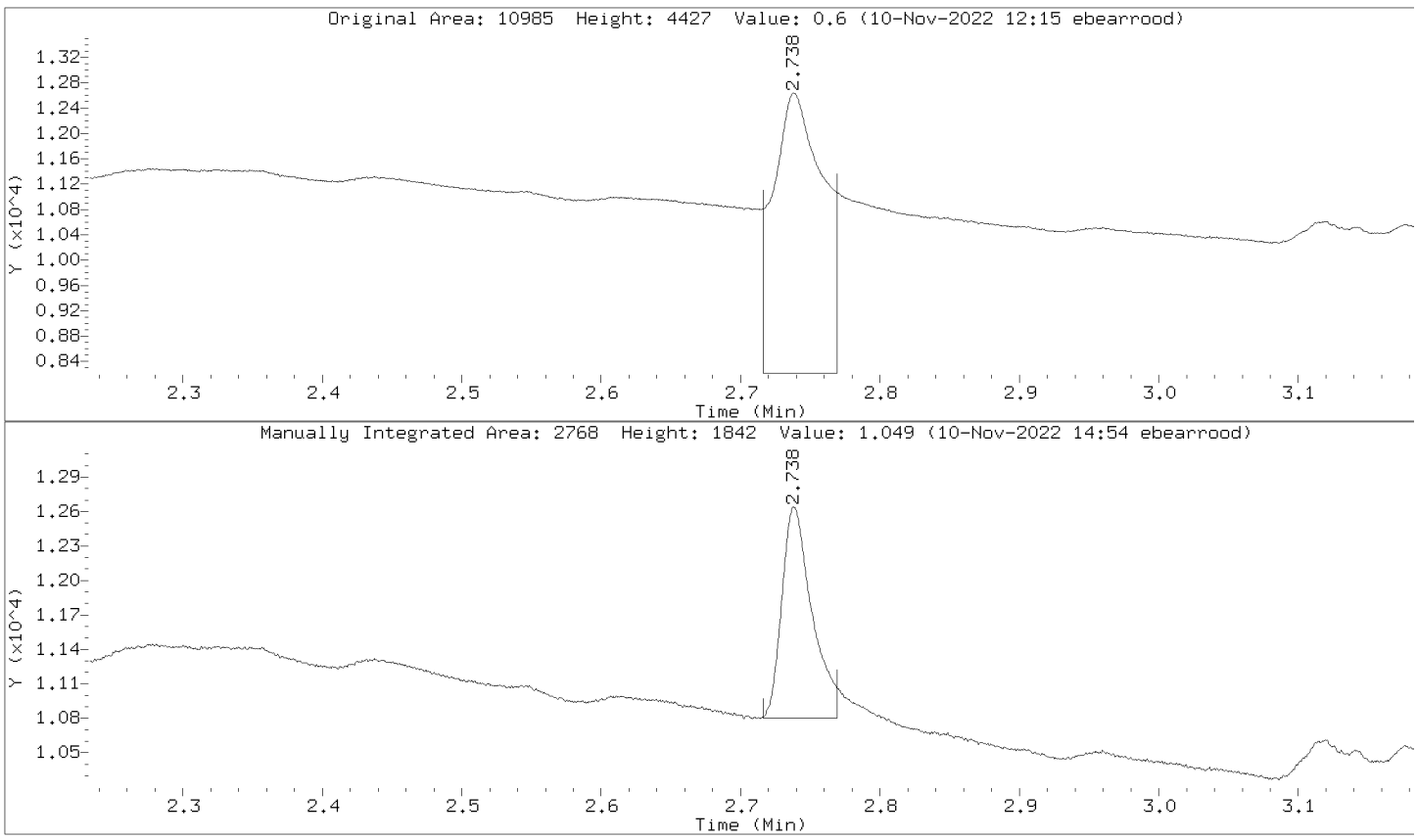
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		394088	10.0000	7.58	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		138206	10.0000	6.41	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		446339	10.0000	7.04	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		154886	10.0000	6.34	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		533232	20.0000	14.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

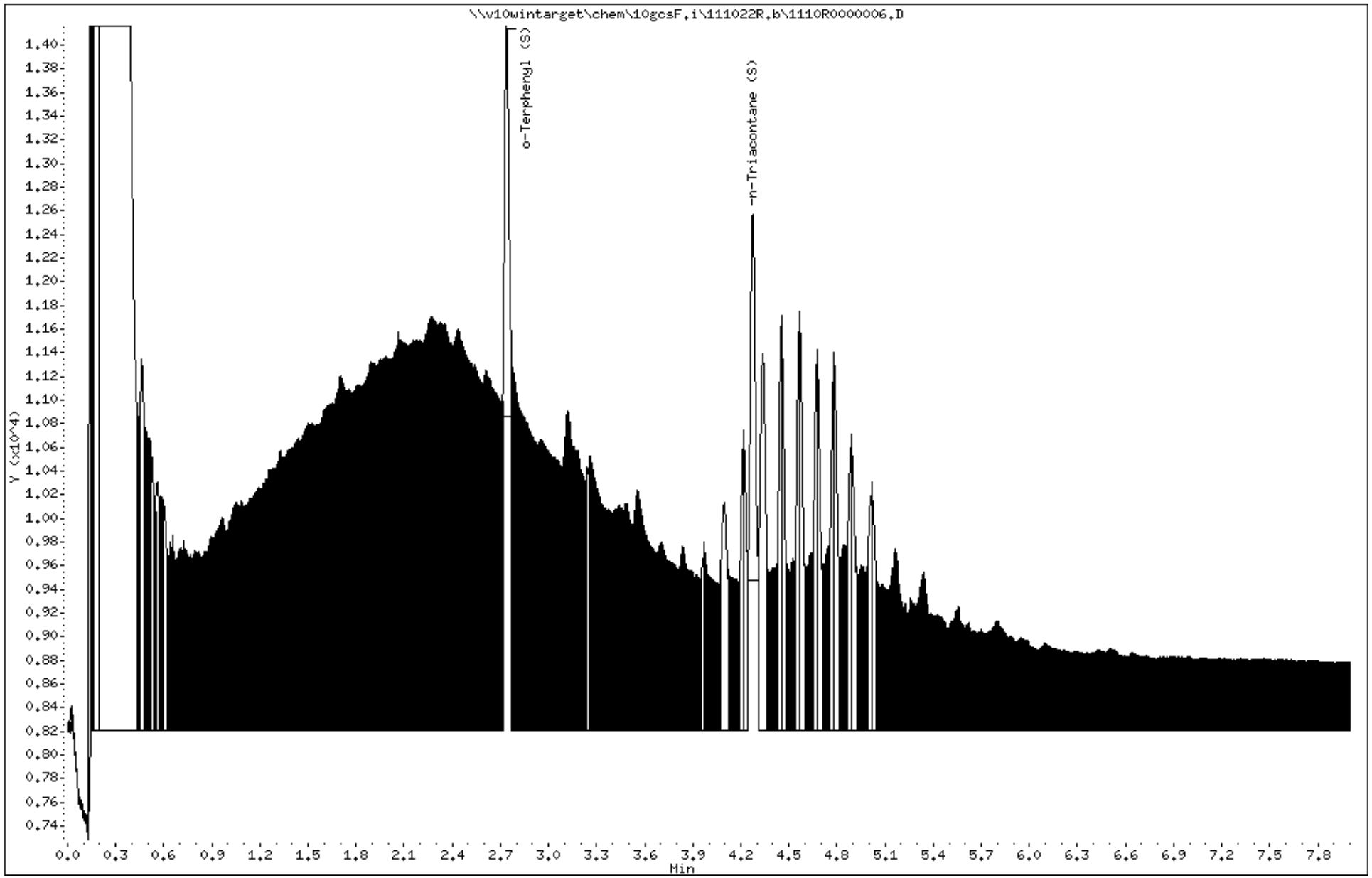
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

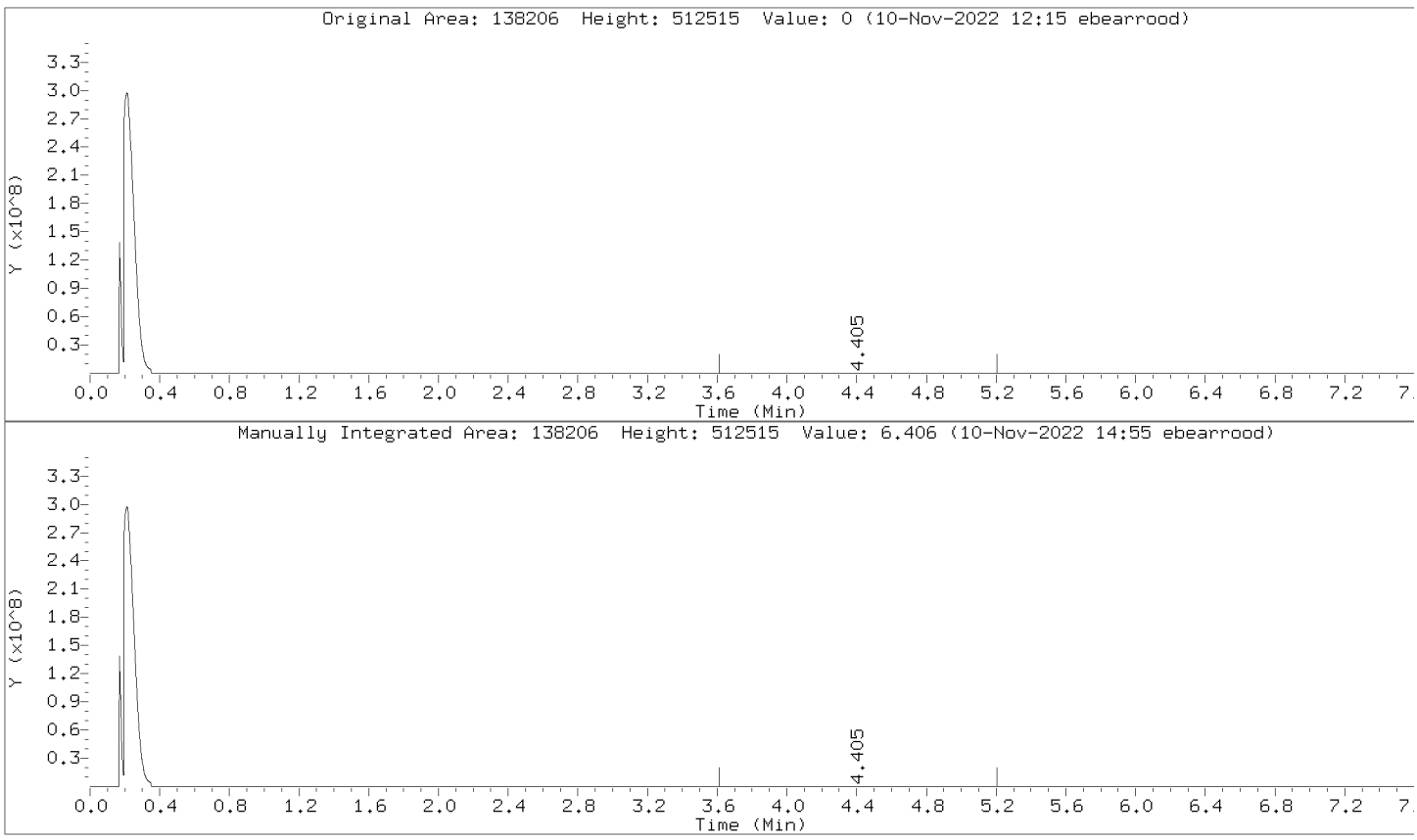
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



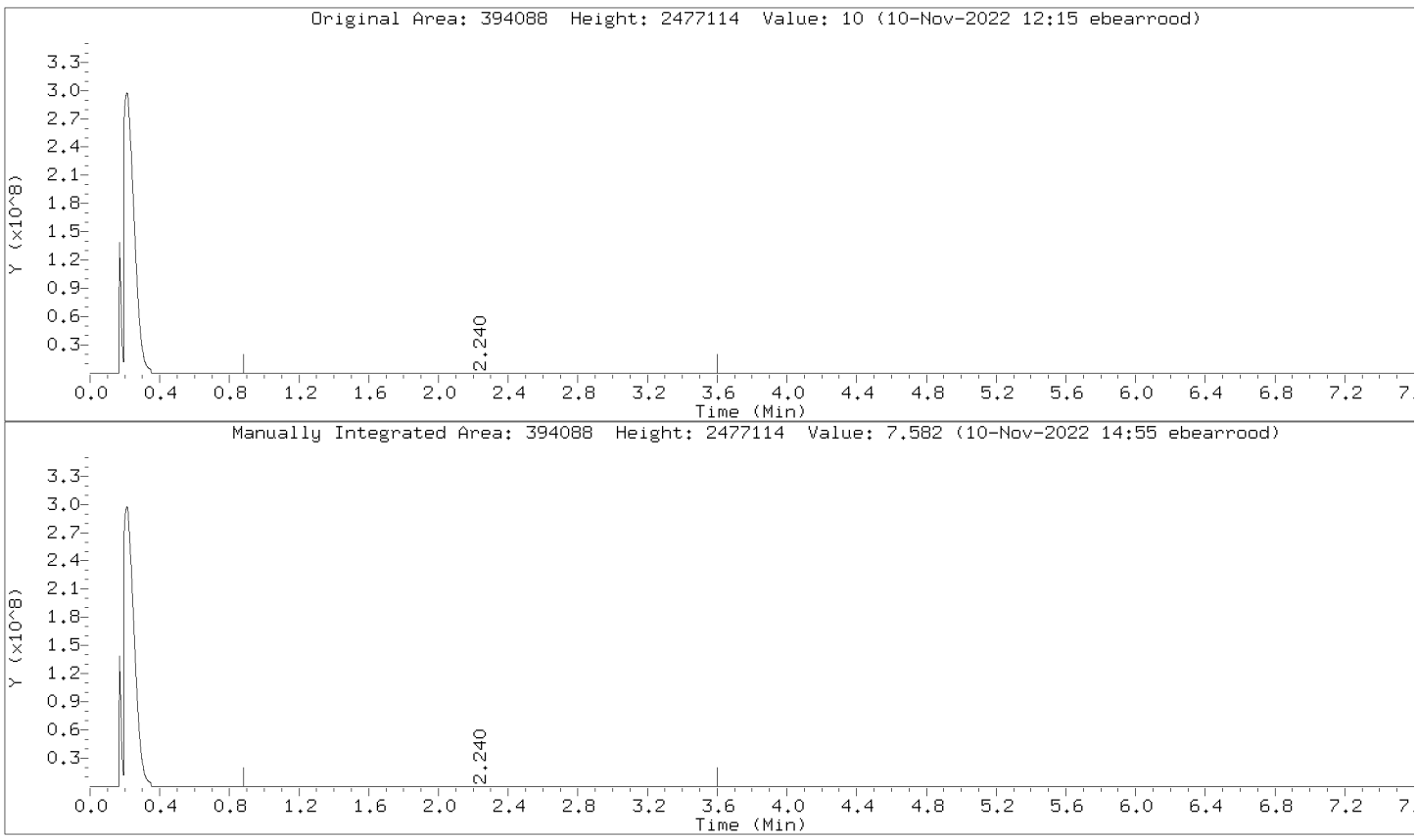
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



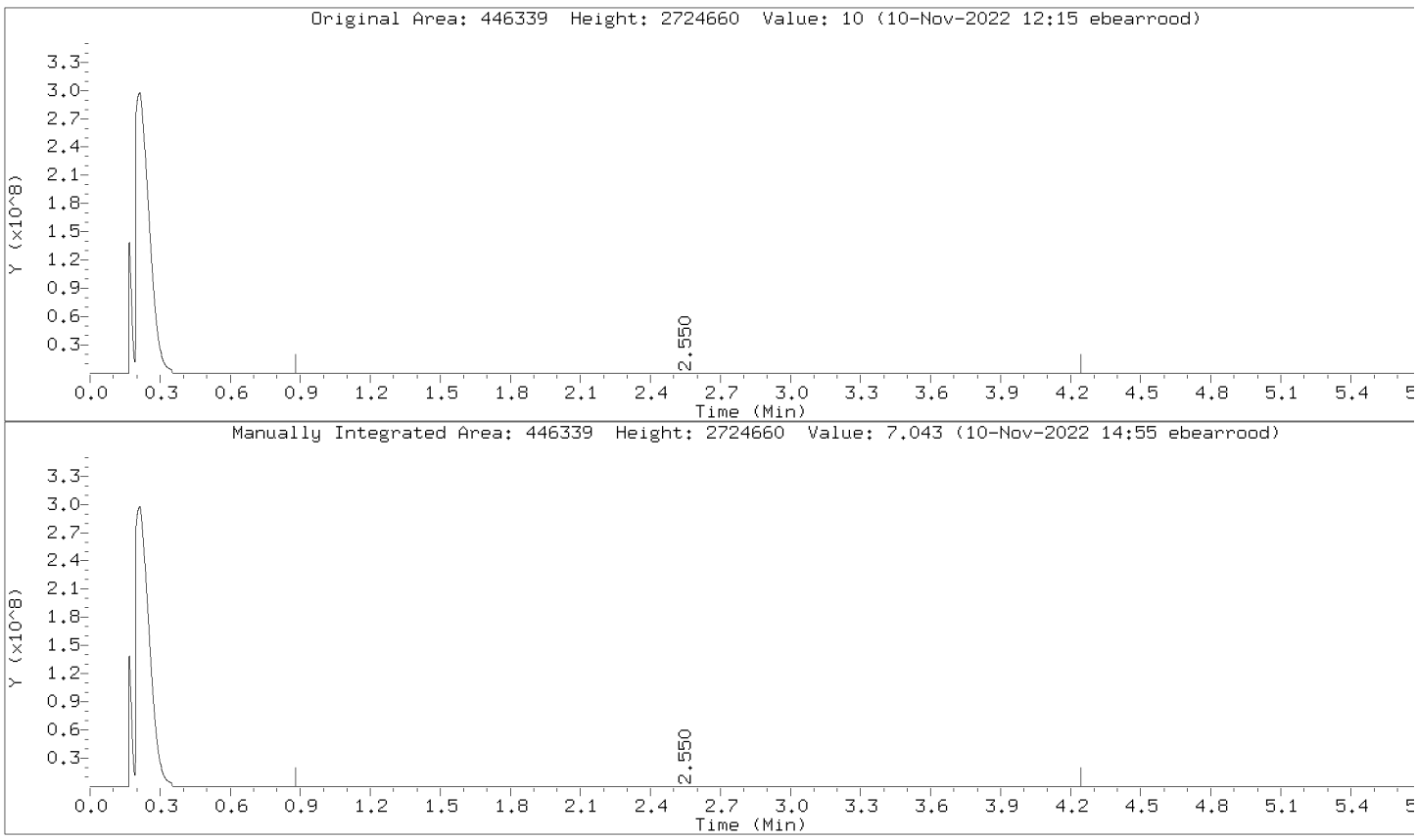
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



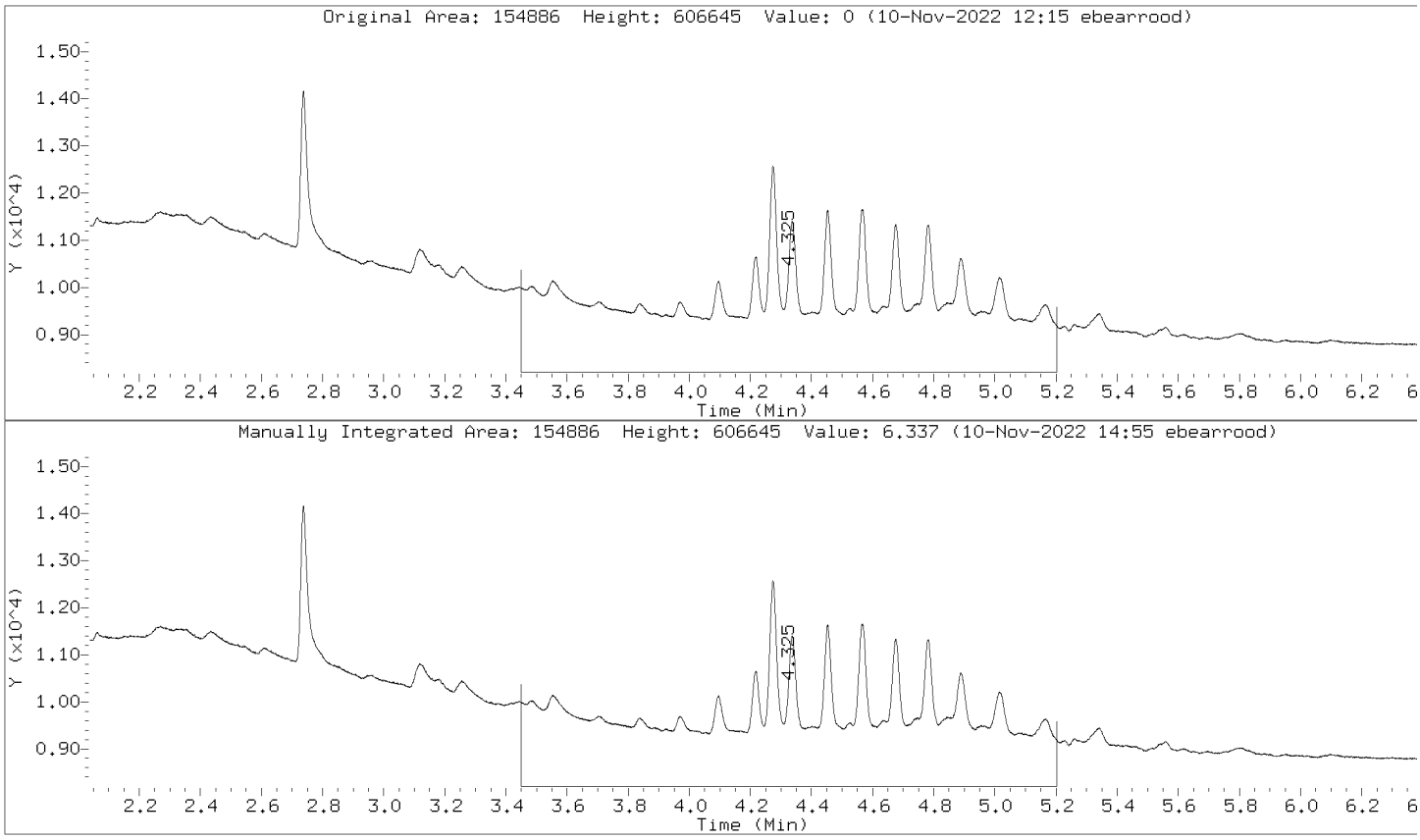
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



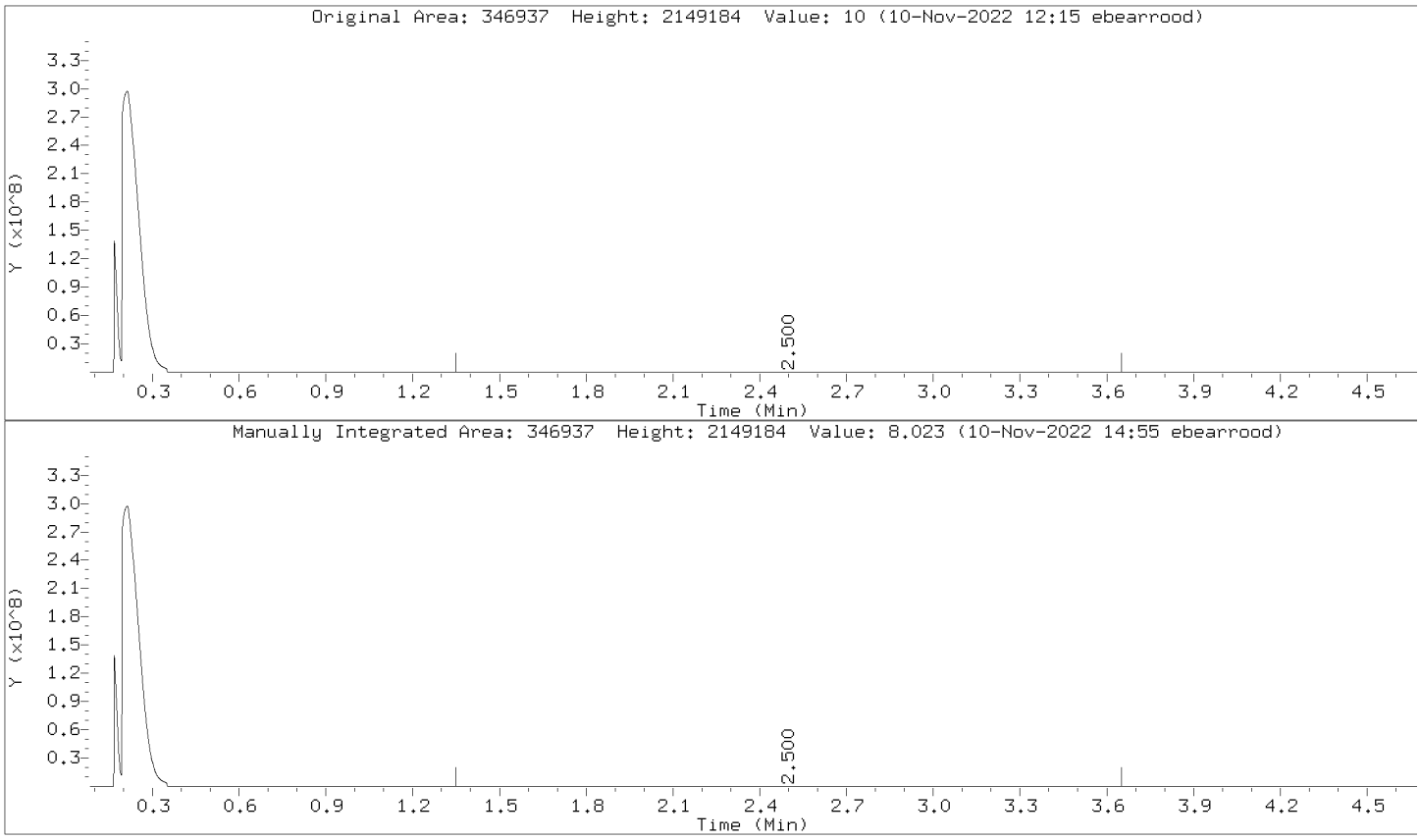
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



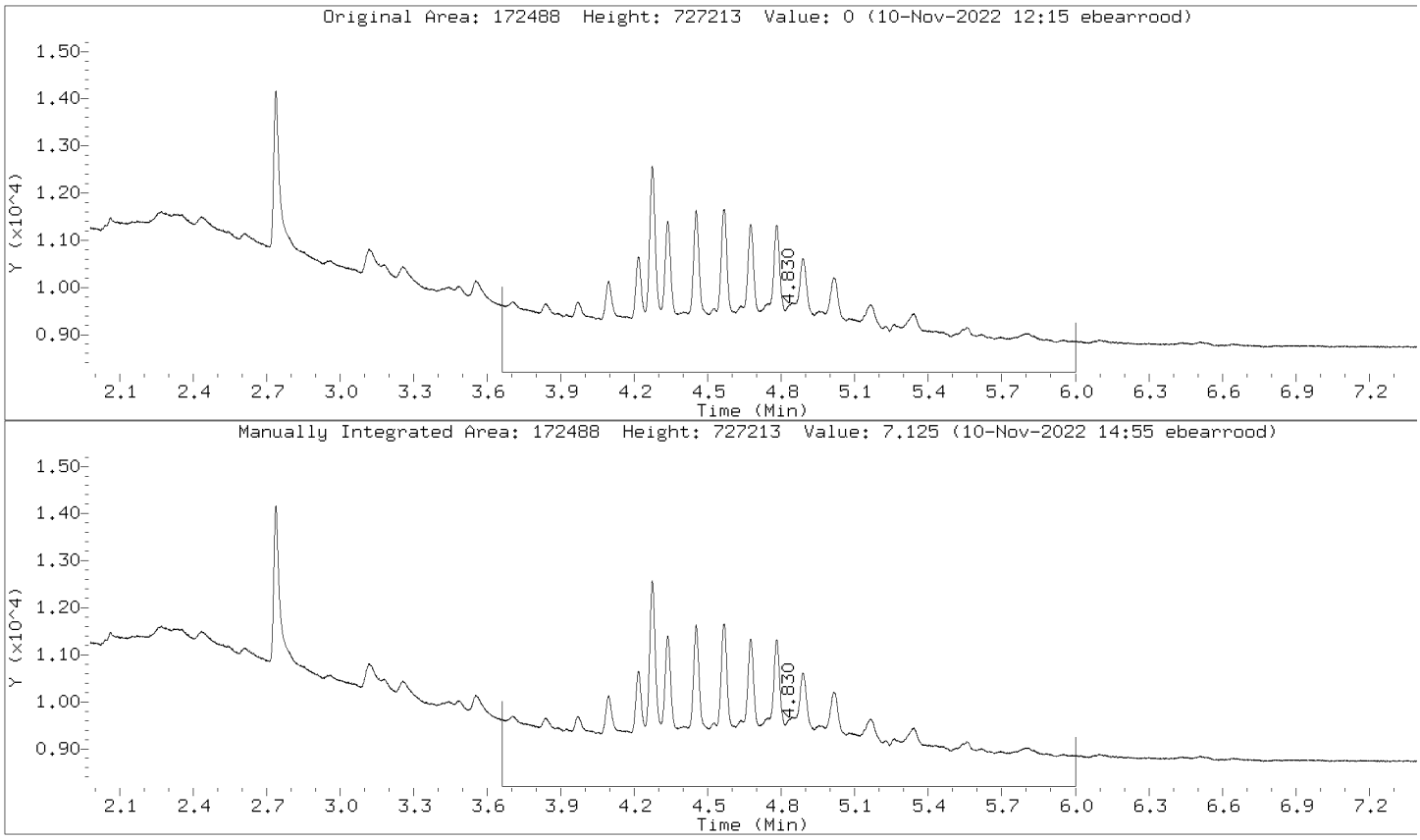
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



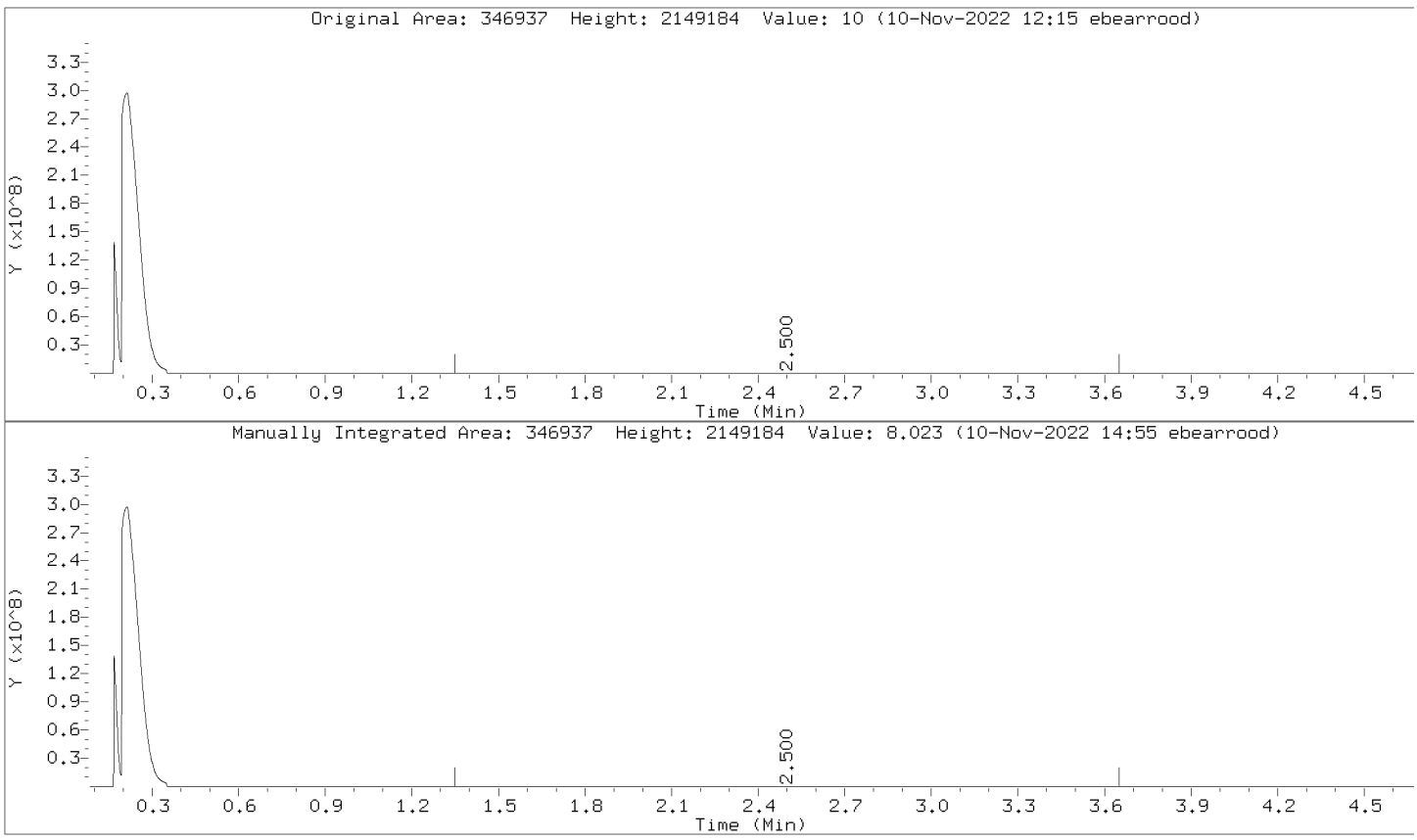
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



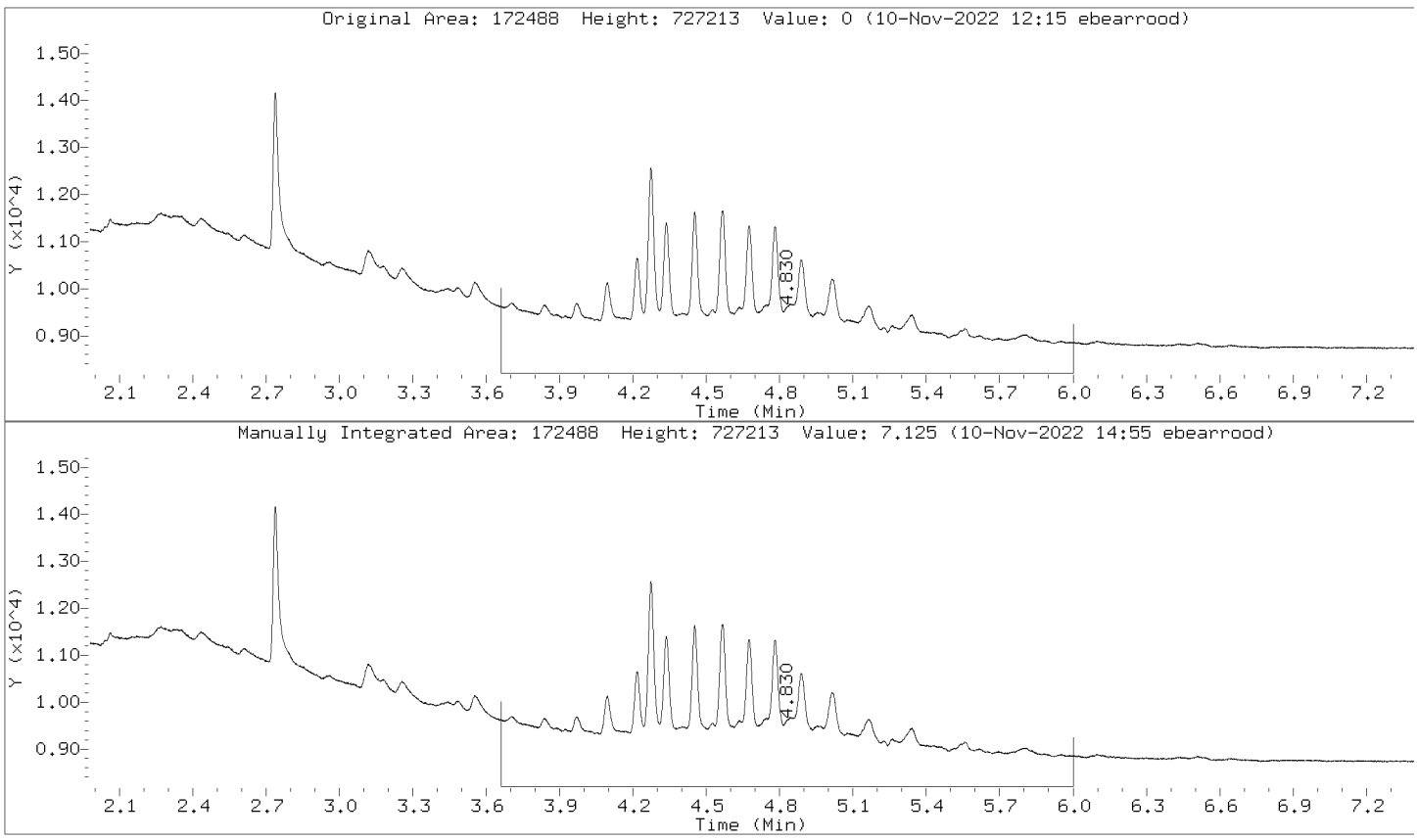
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



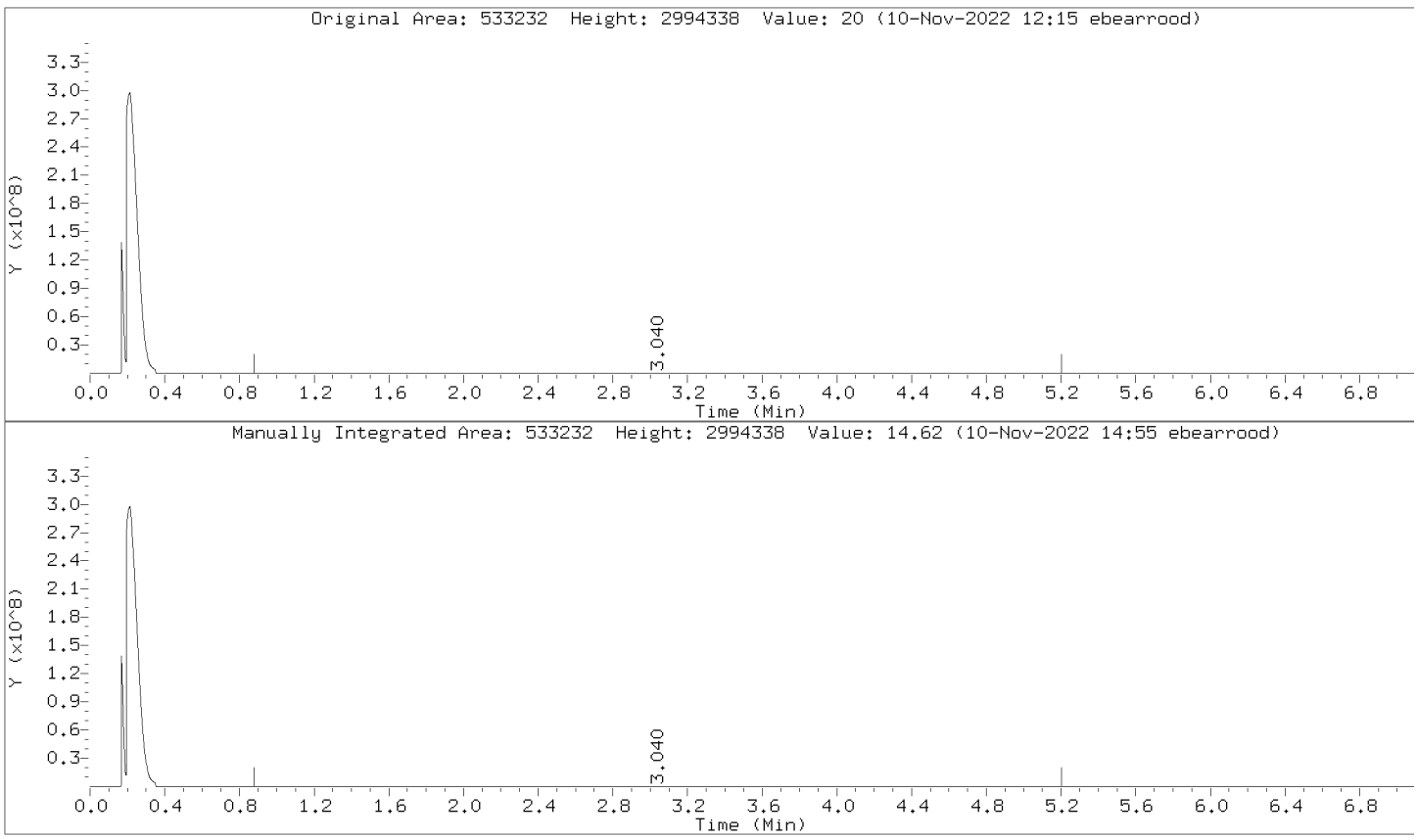
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



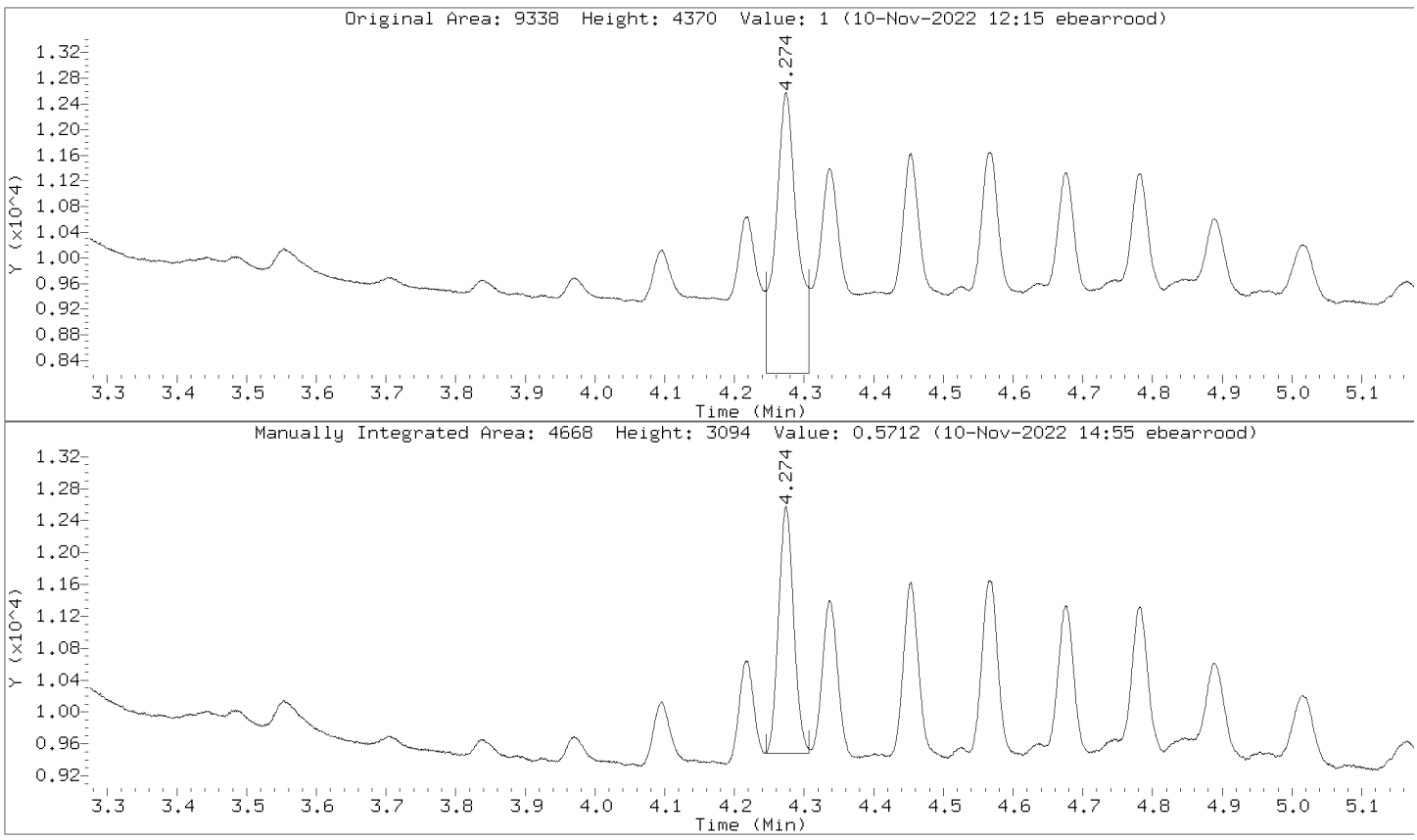
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



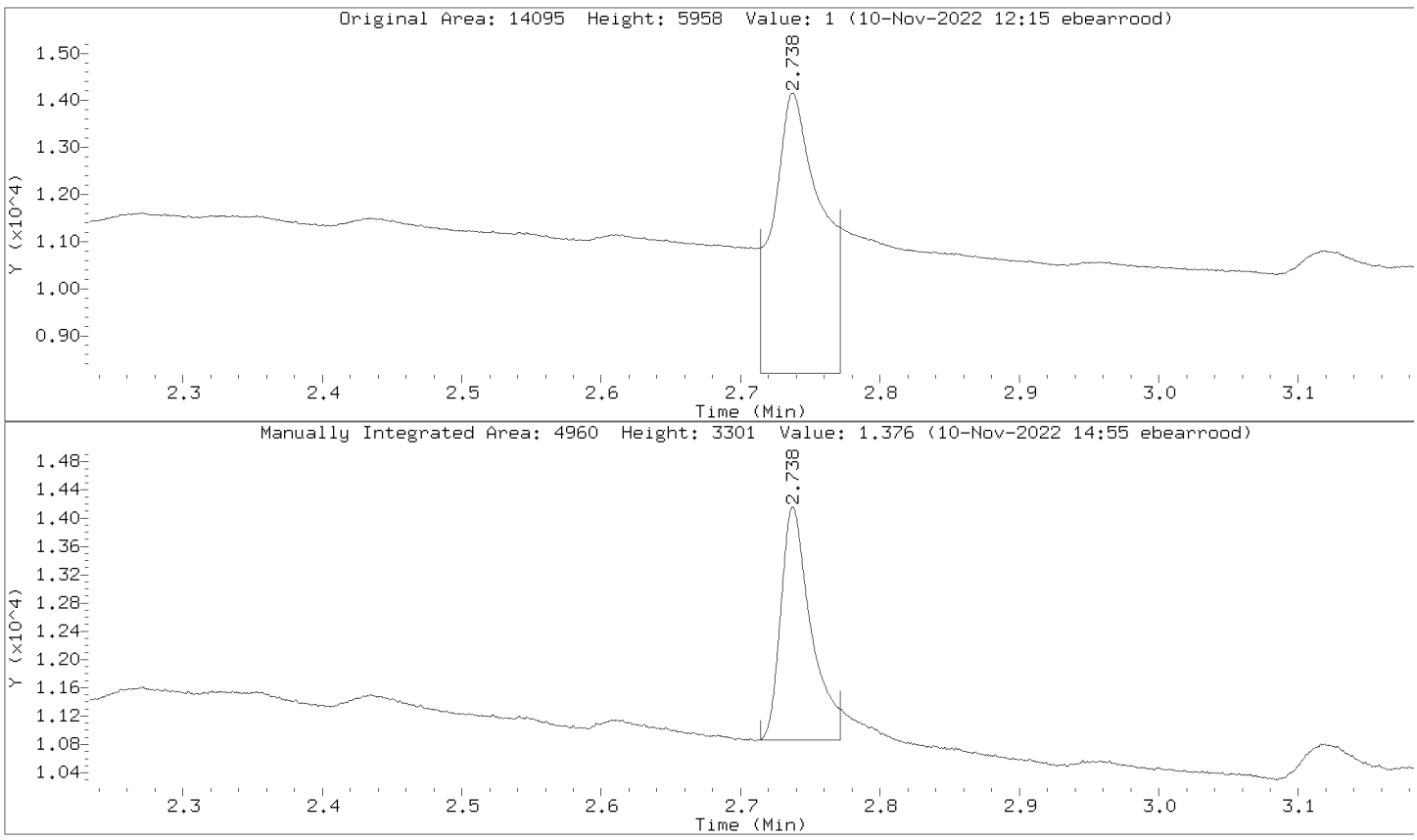
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880 - 3.600			475588	25.0000	22.0	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.733	0.001	14599	2.50000	2.81	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	12458	2.50000	2.06	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610 - 5.200			195791	25.0000	22.4	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880 - 4.219			541580	25.0000	21.5	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.200			213550	25.0000	21.9	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880 - 5.200			672394	50.0000	44.6	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG

QC Flag Legend

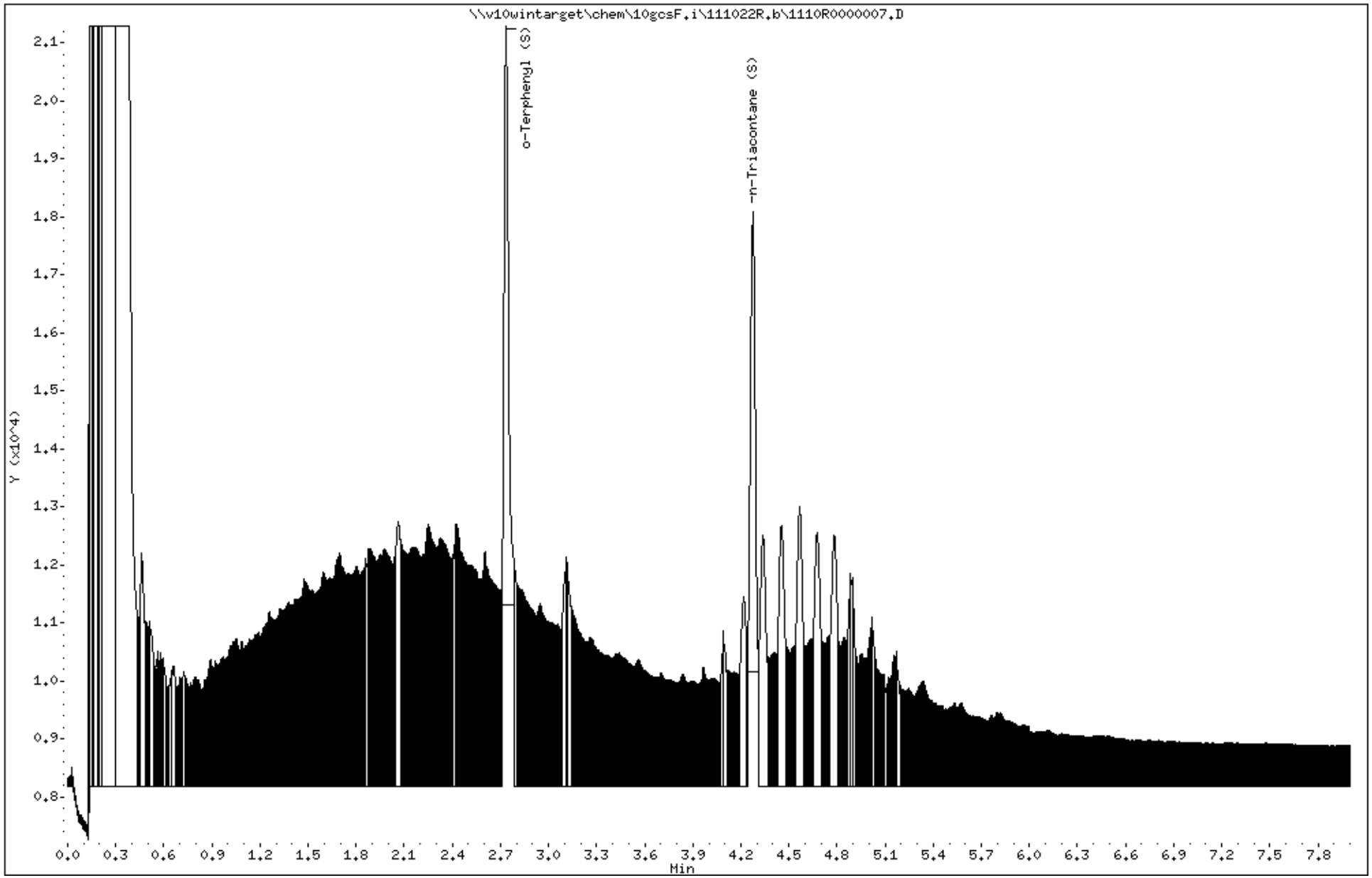
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

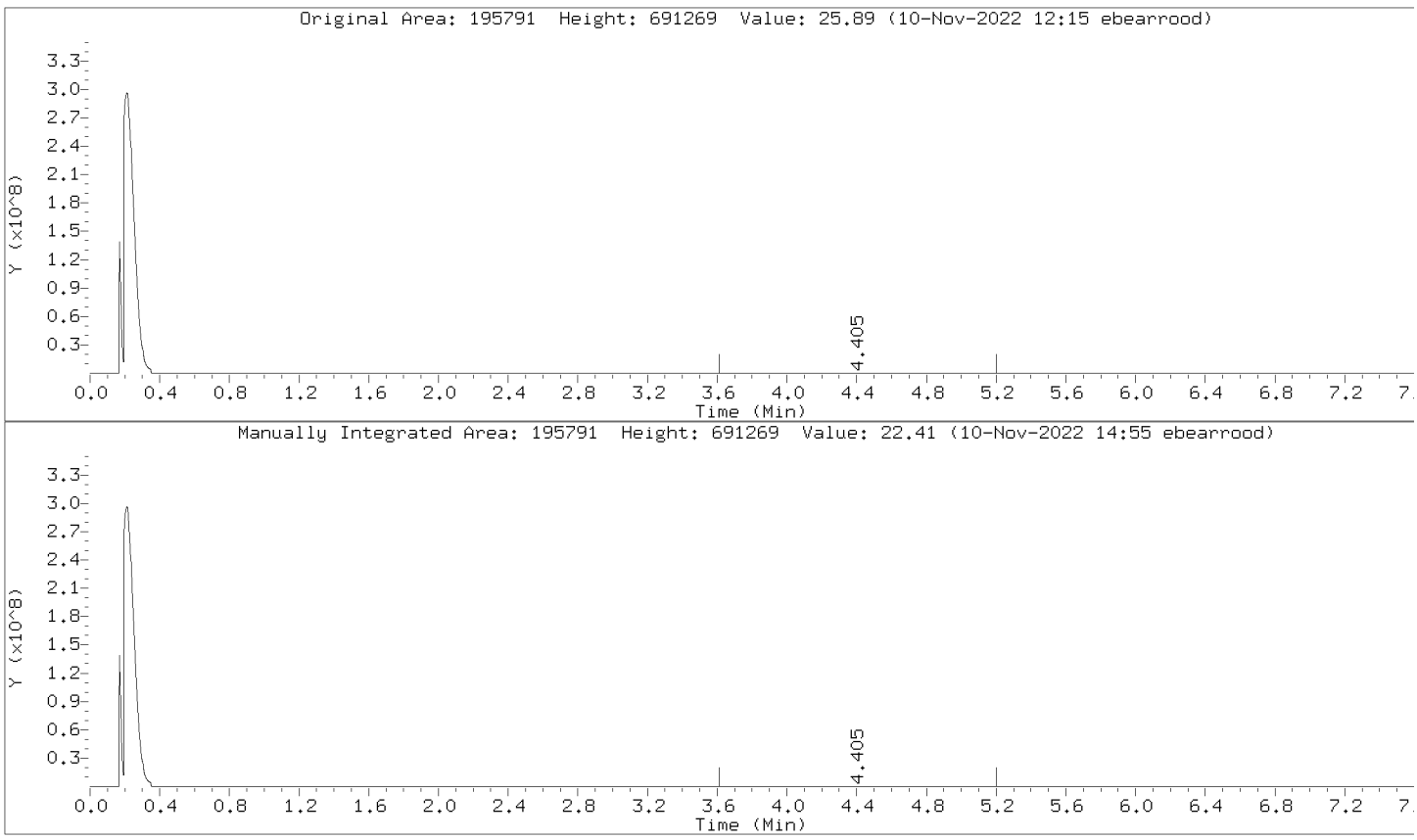
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



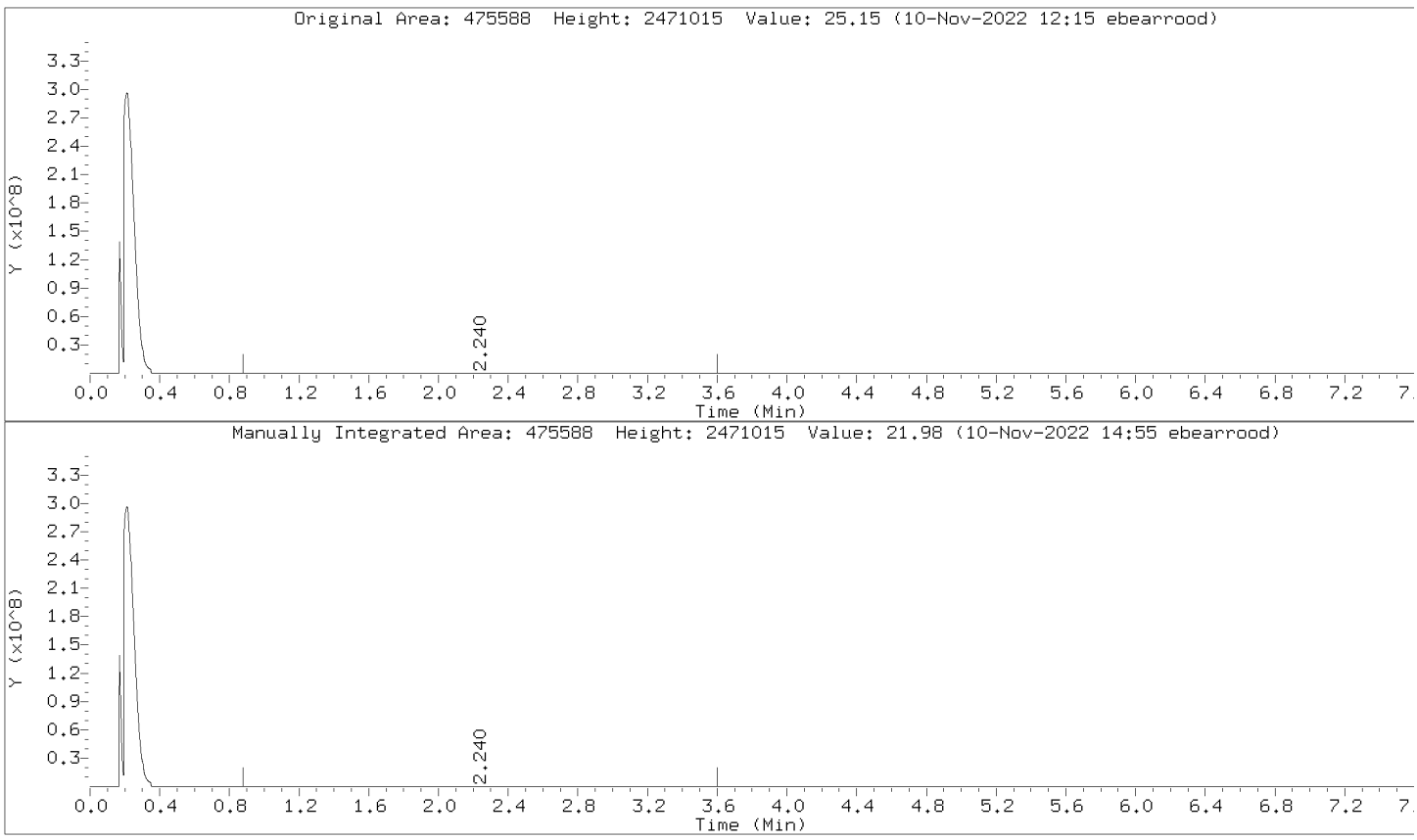
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



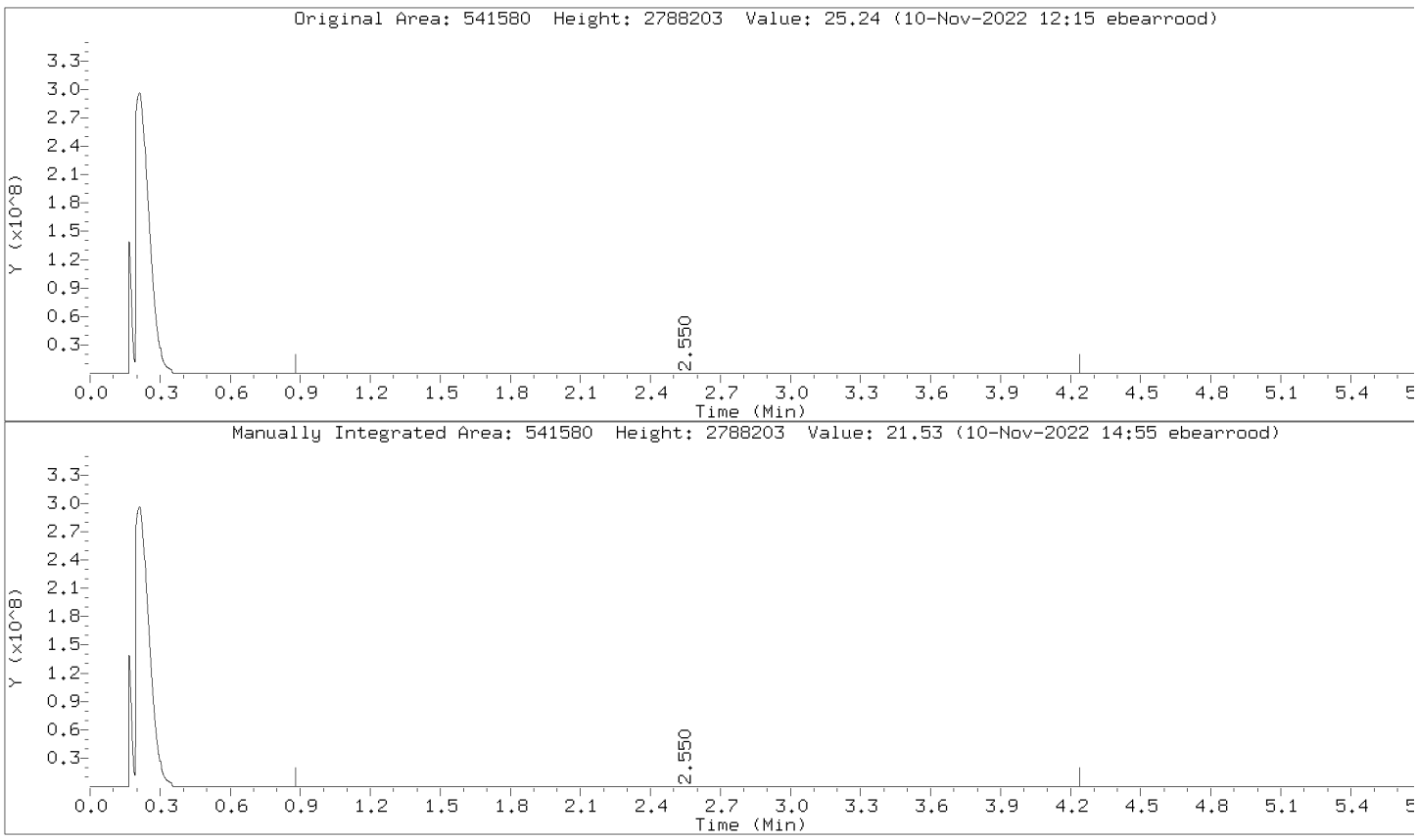
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



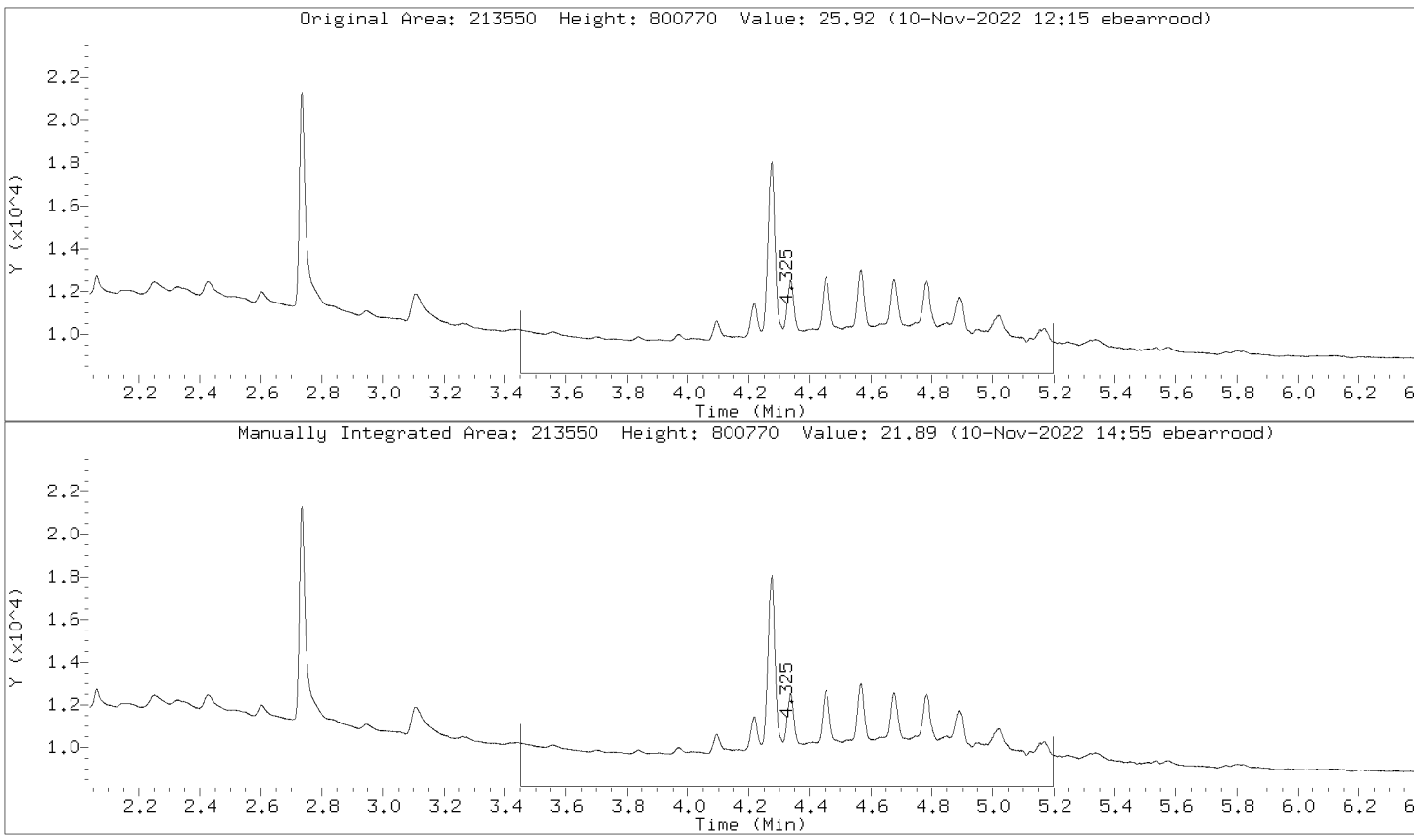
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



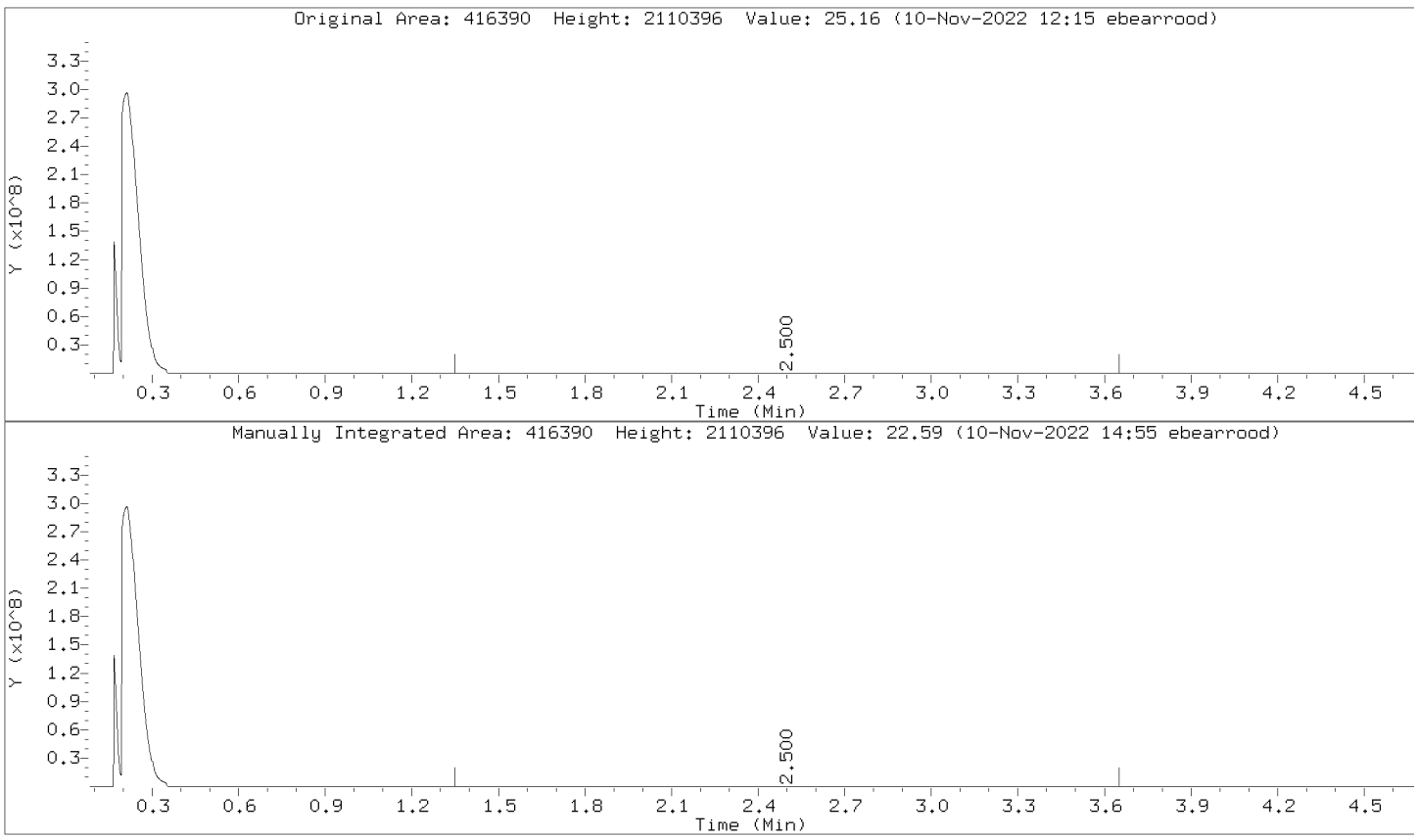
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



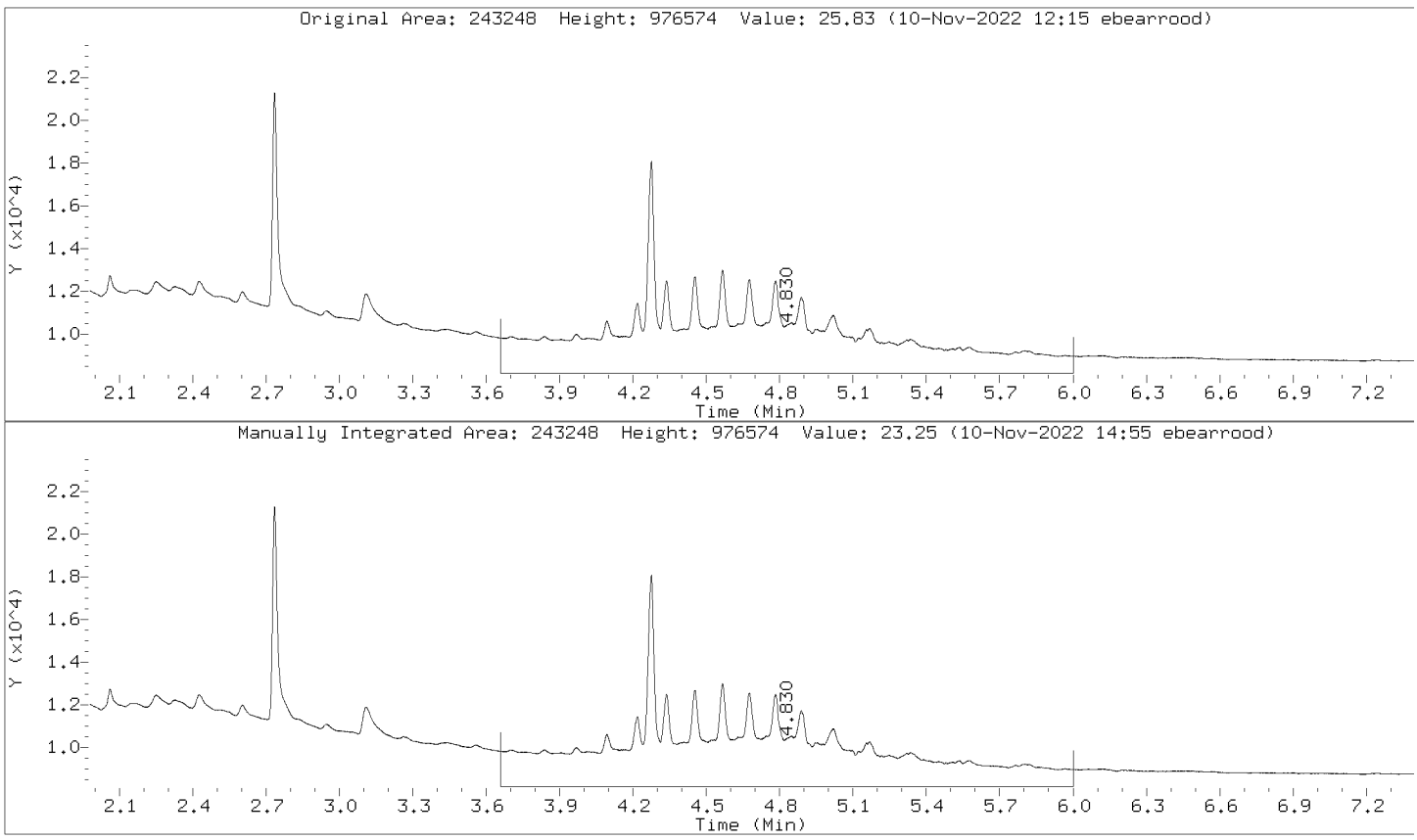
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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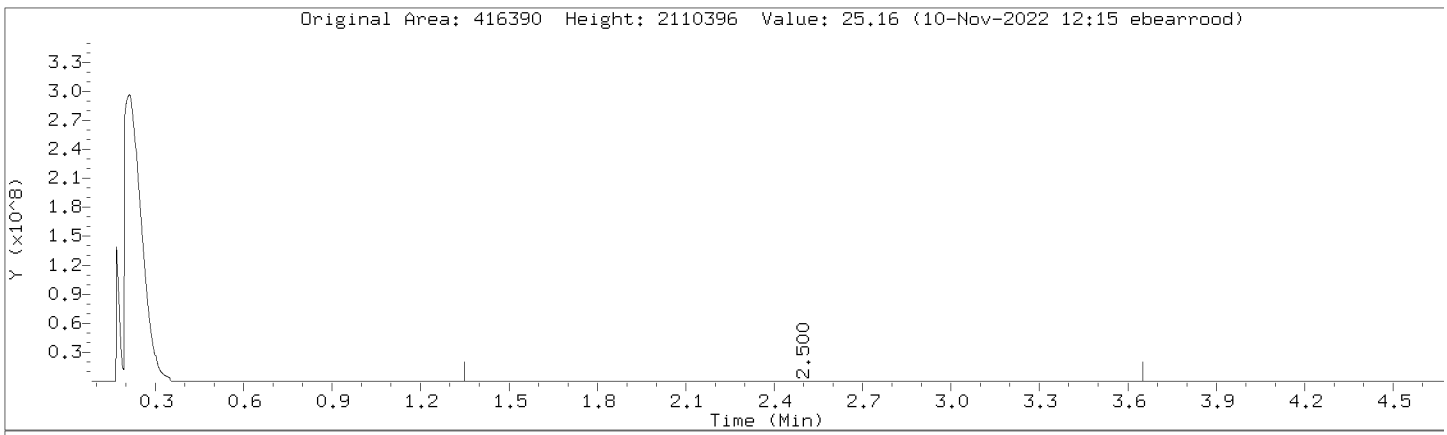
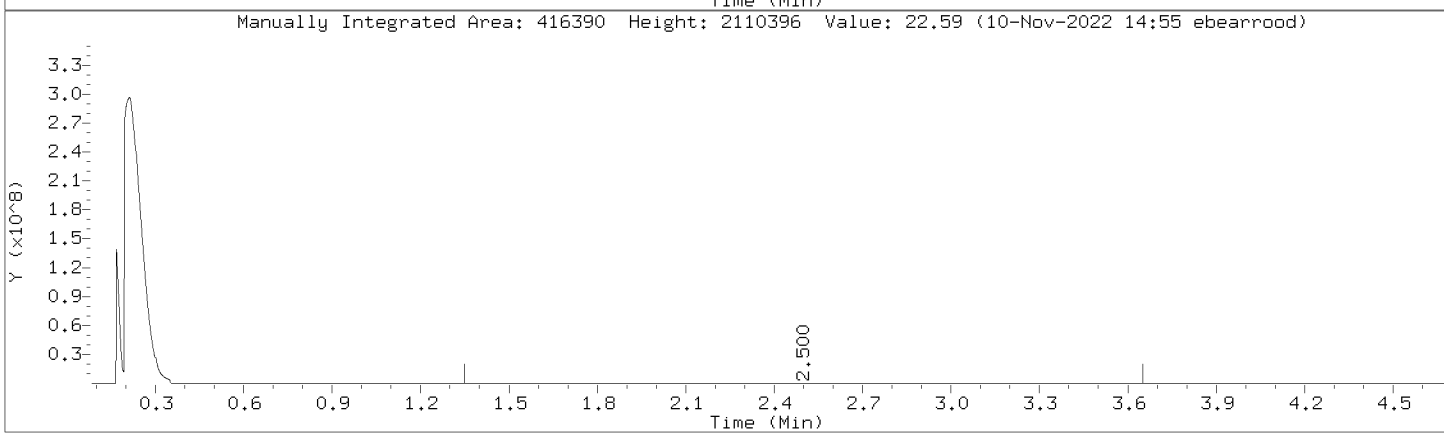
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

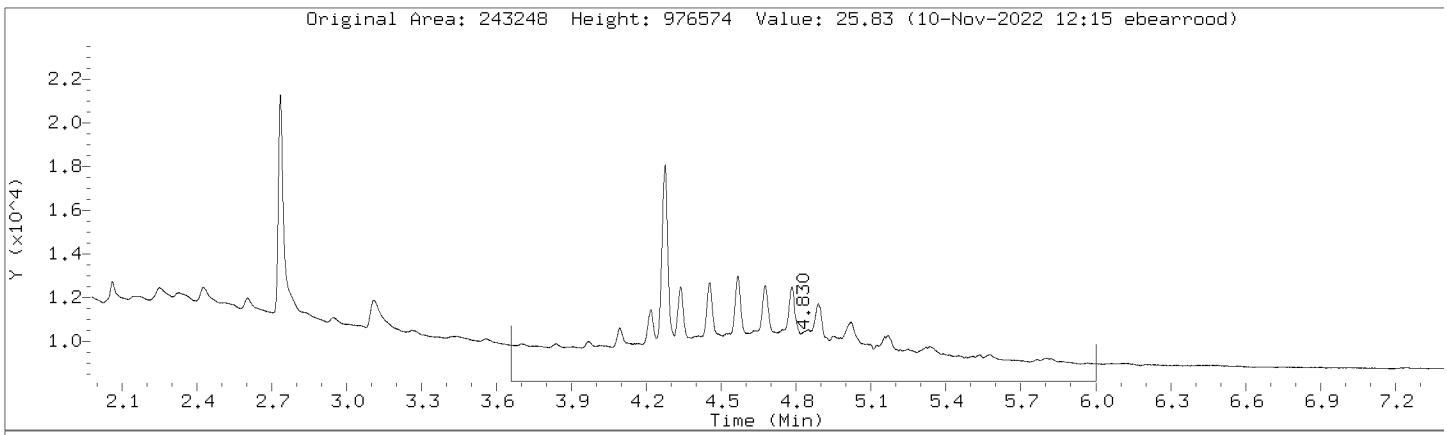
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:

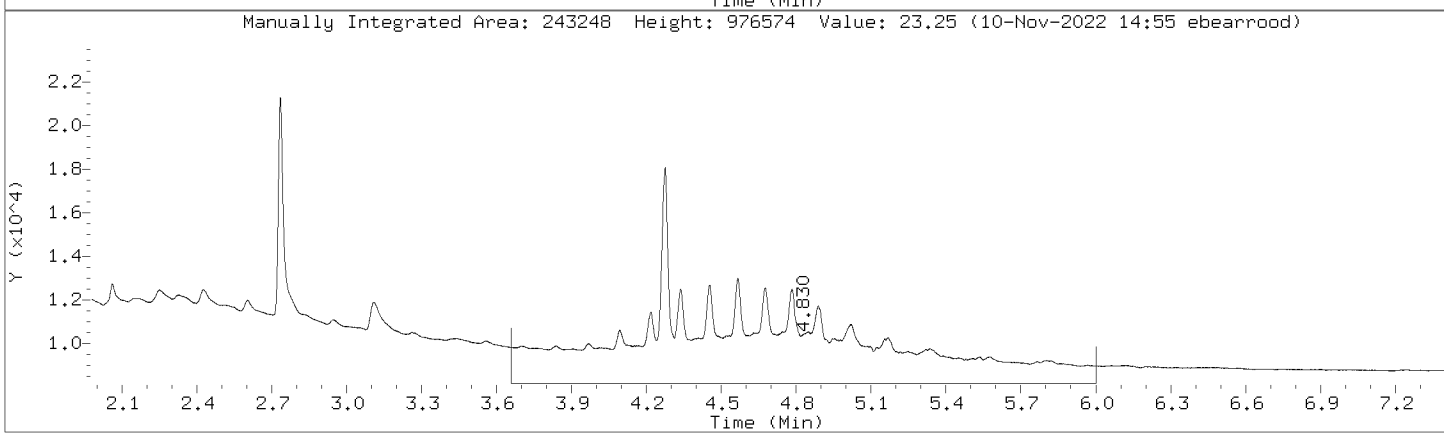




Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

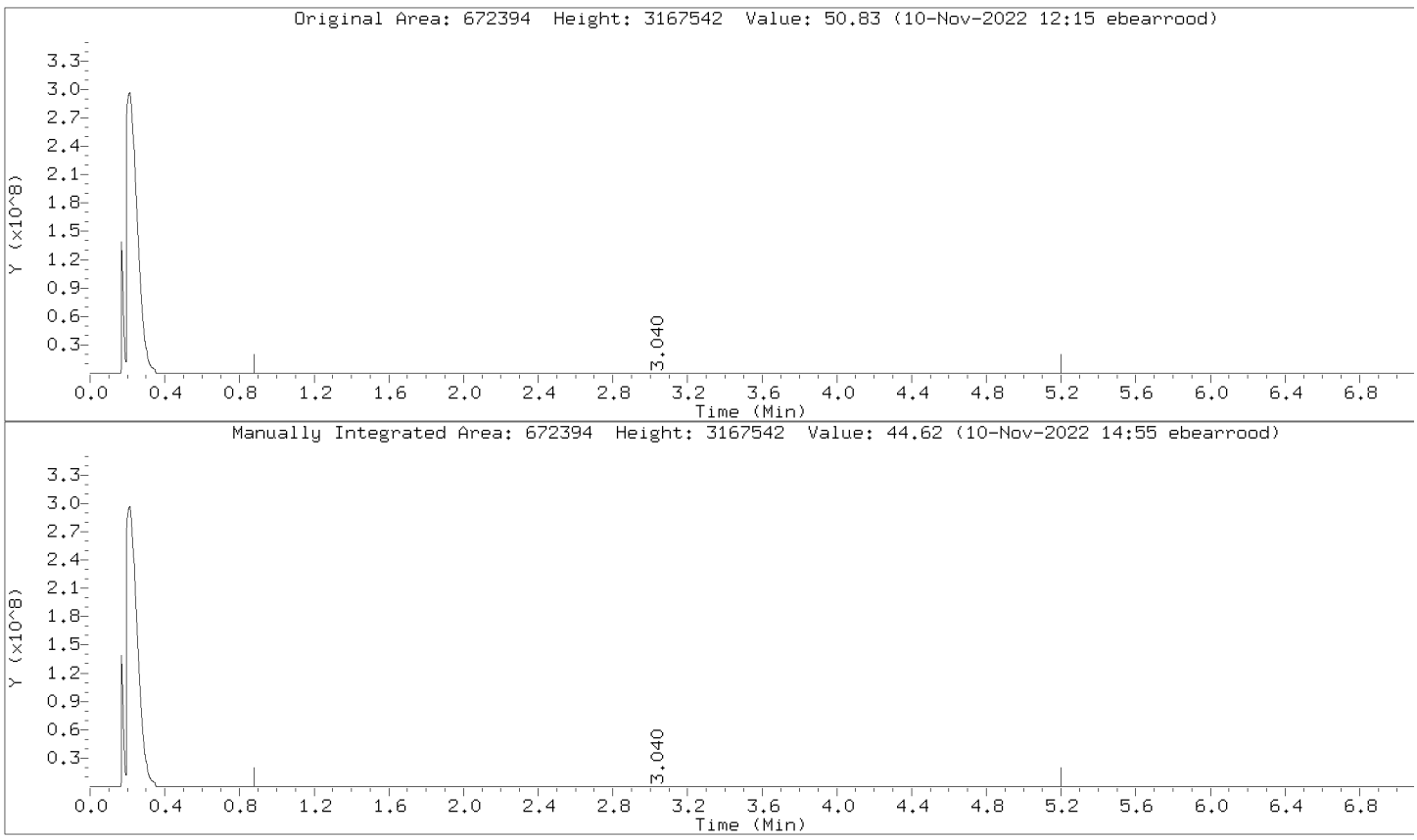
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





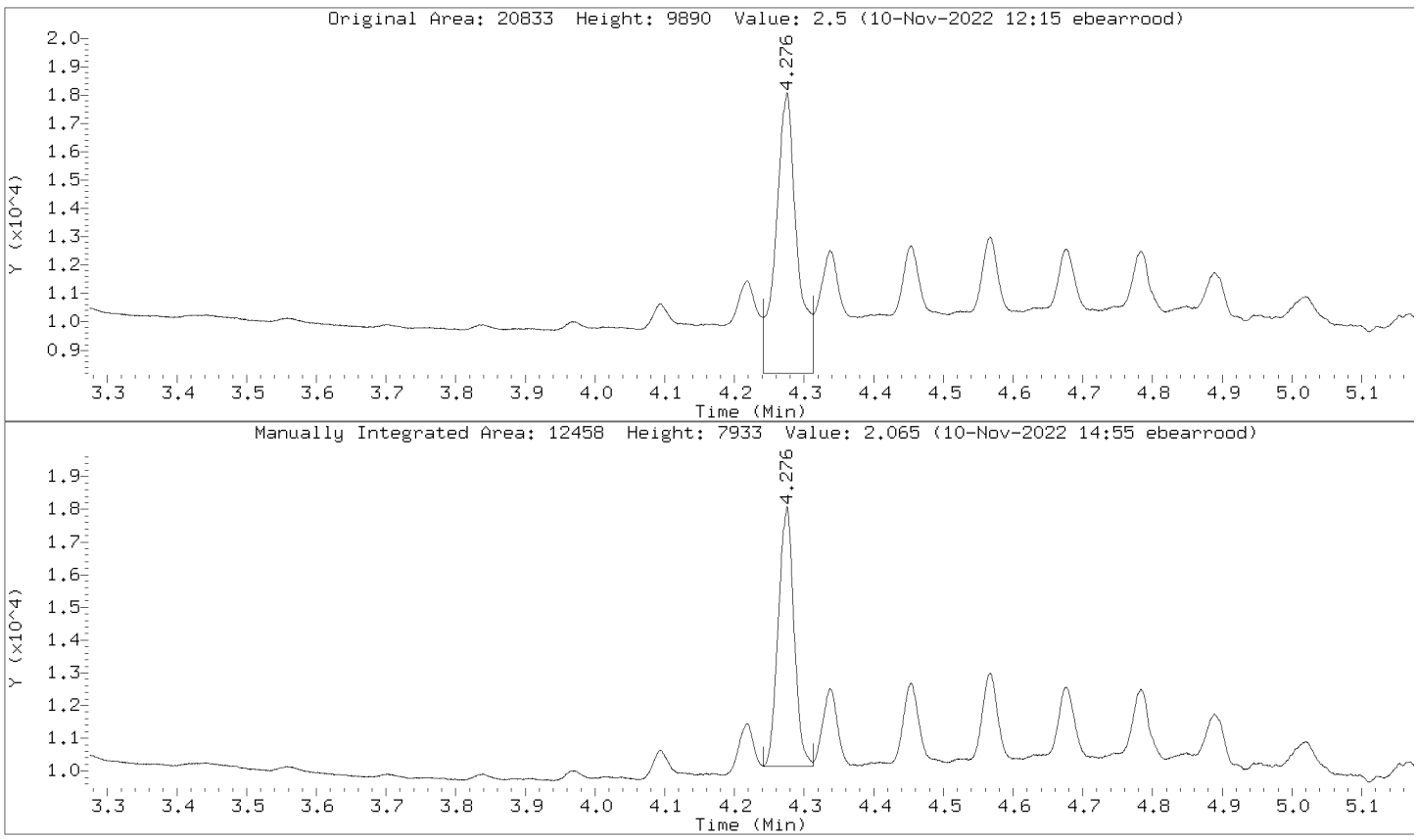
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



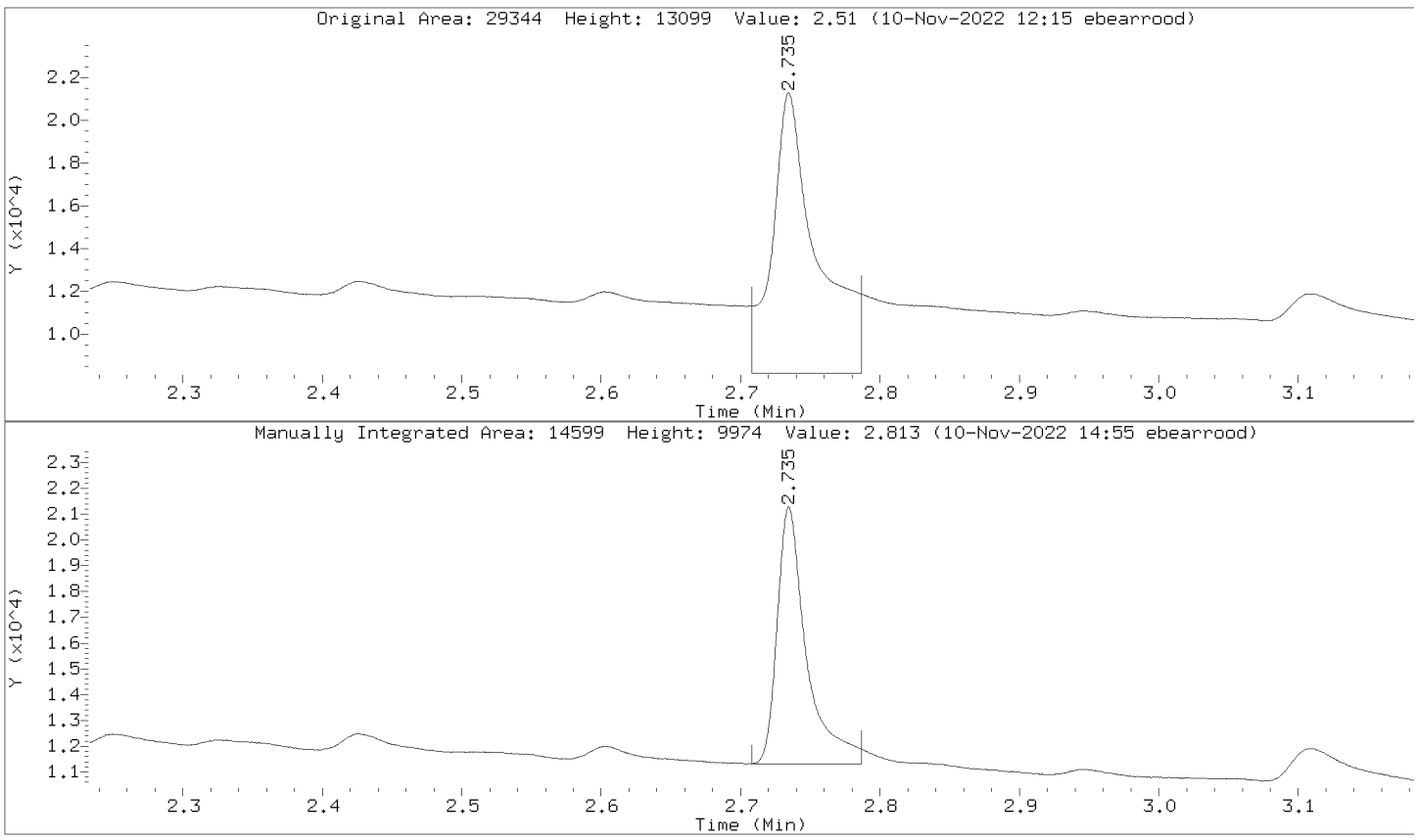
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

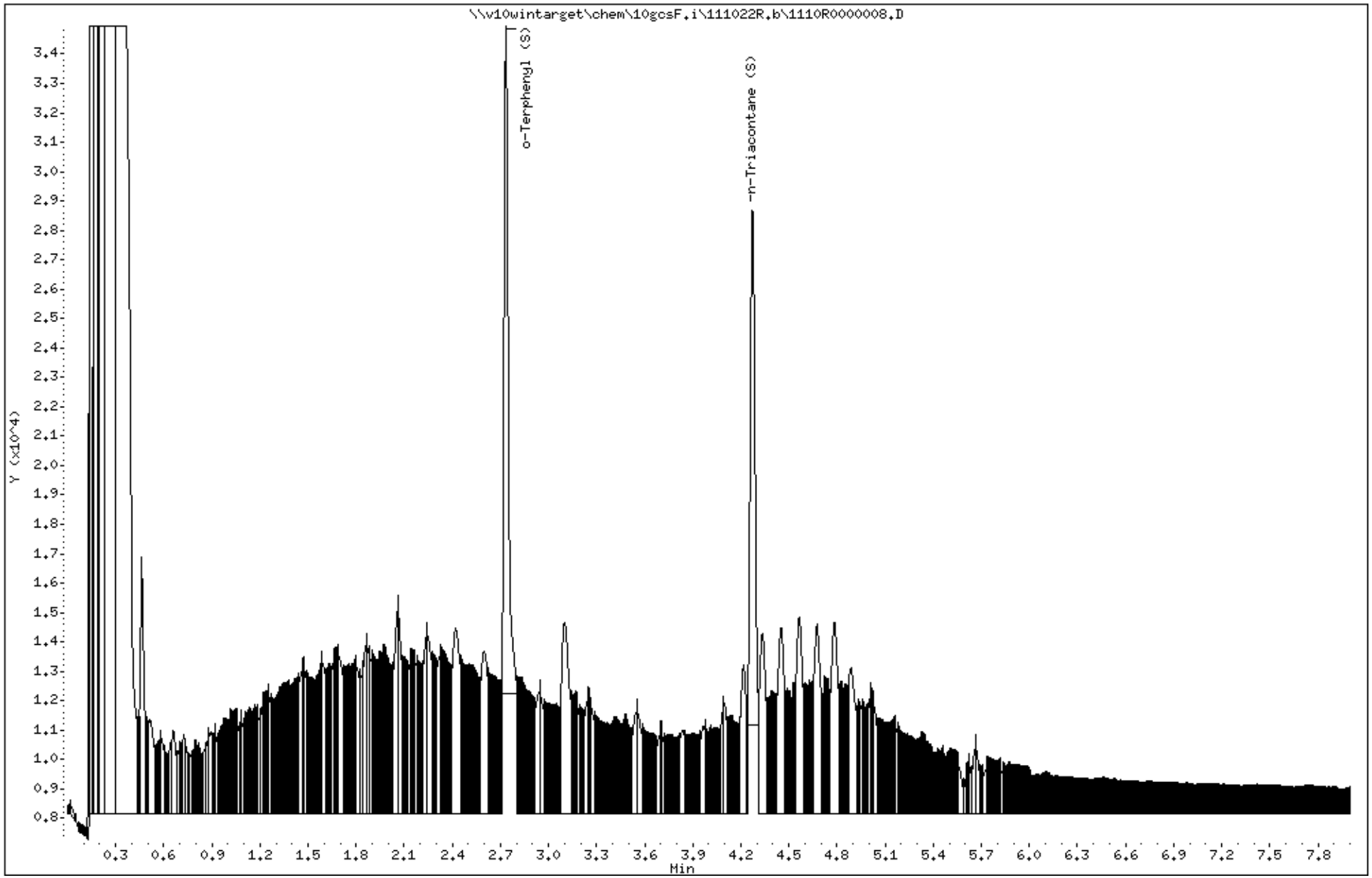
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

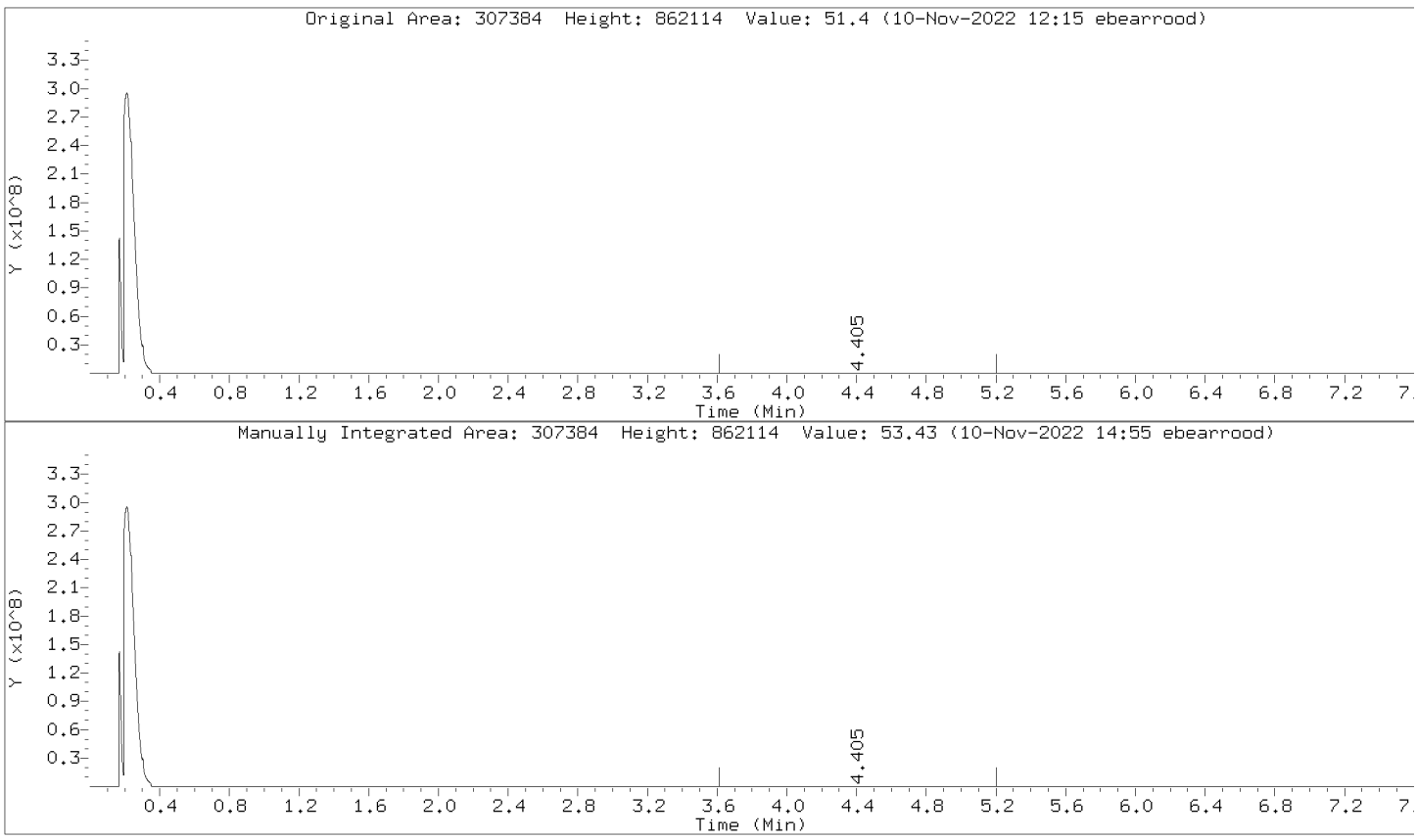
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



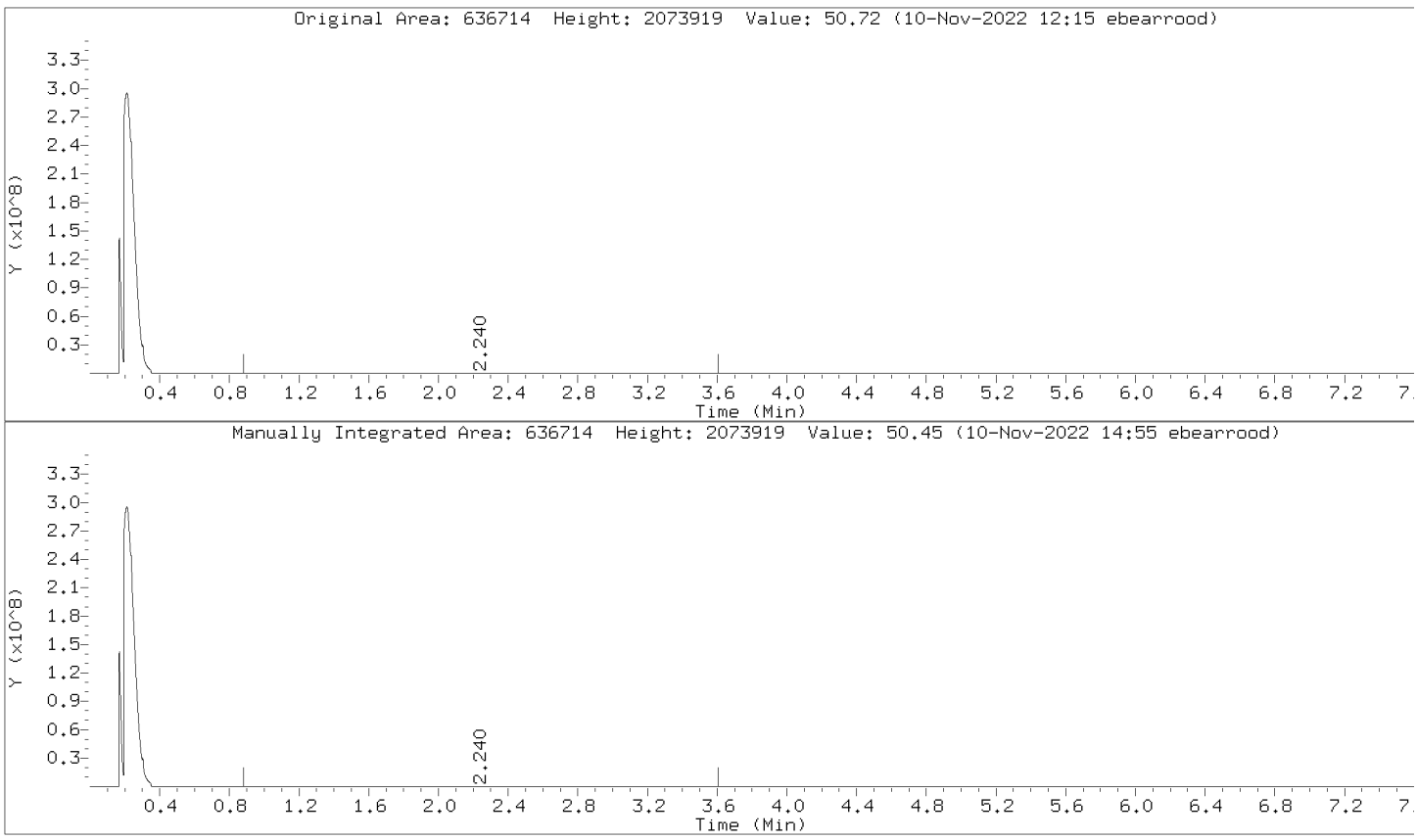
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



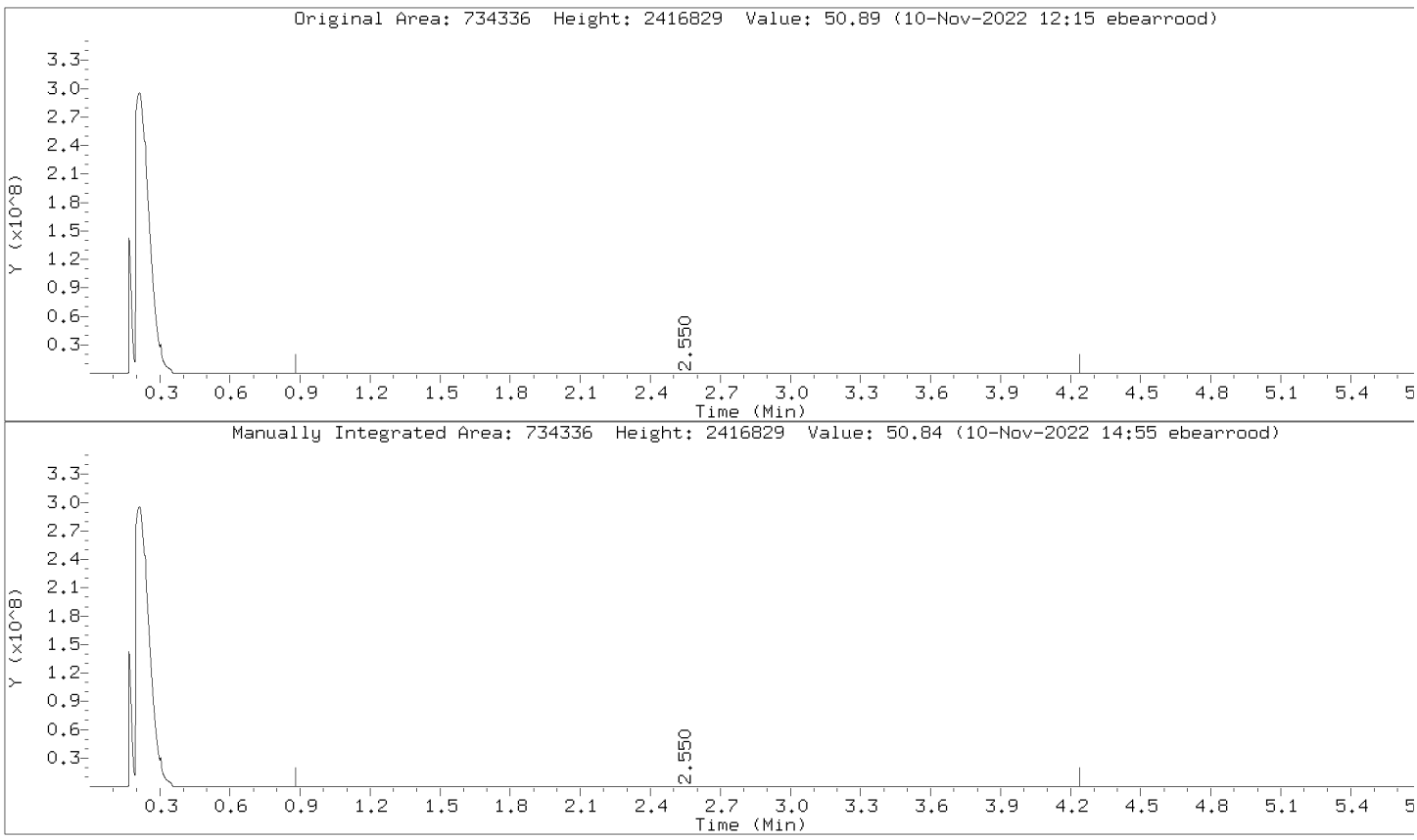
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



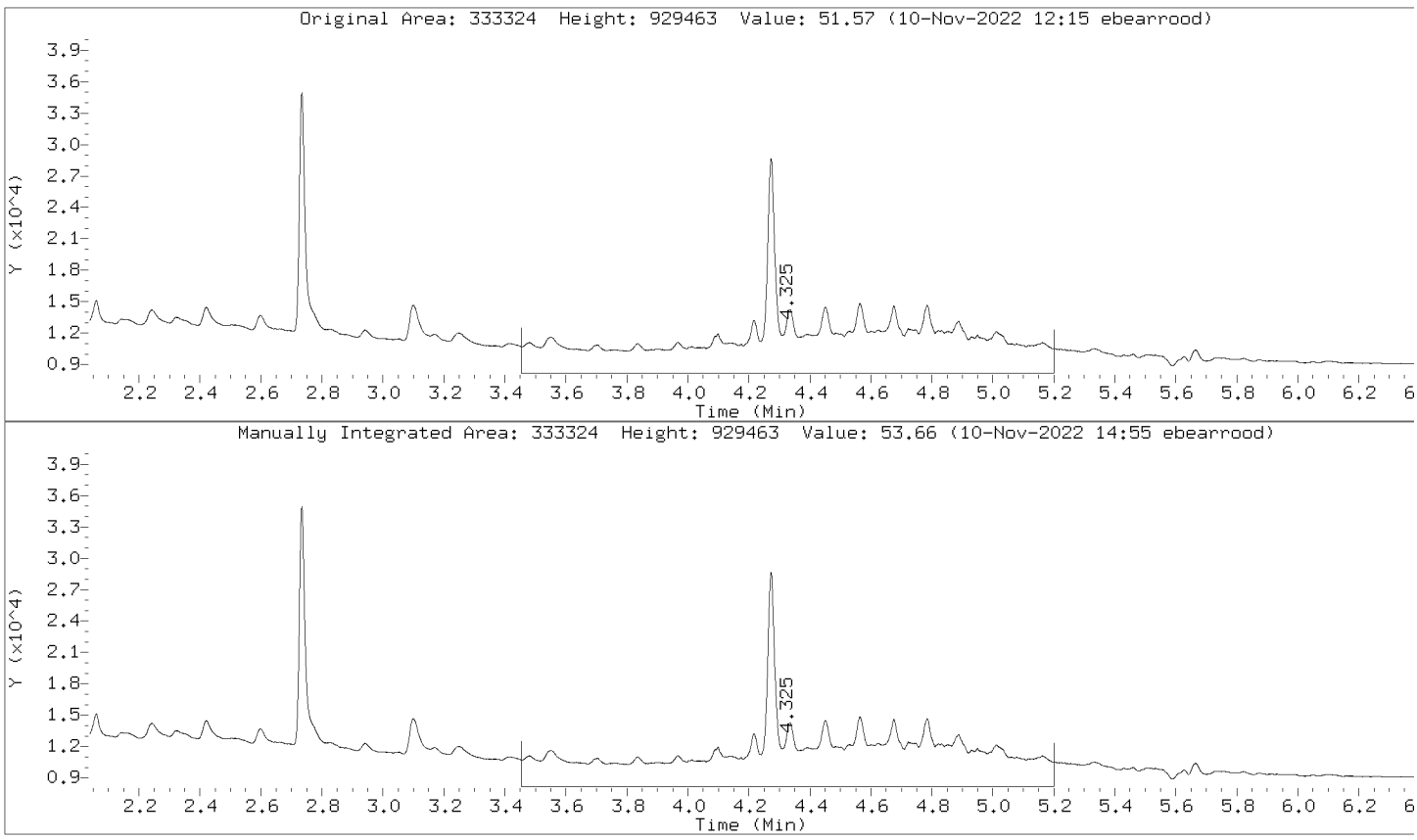
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



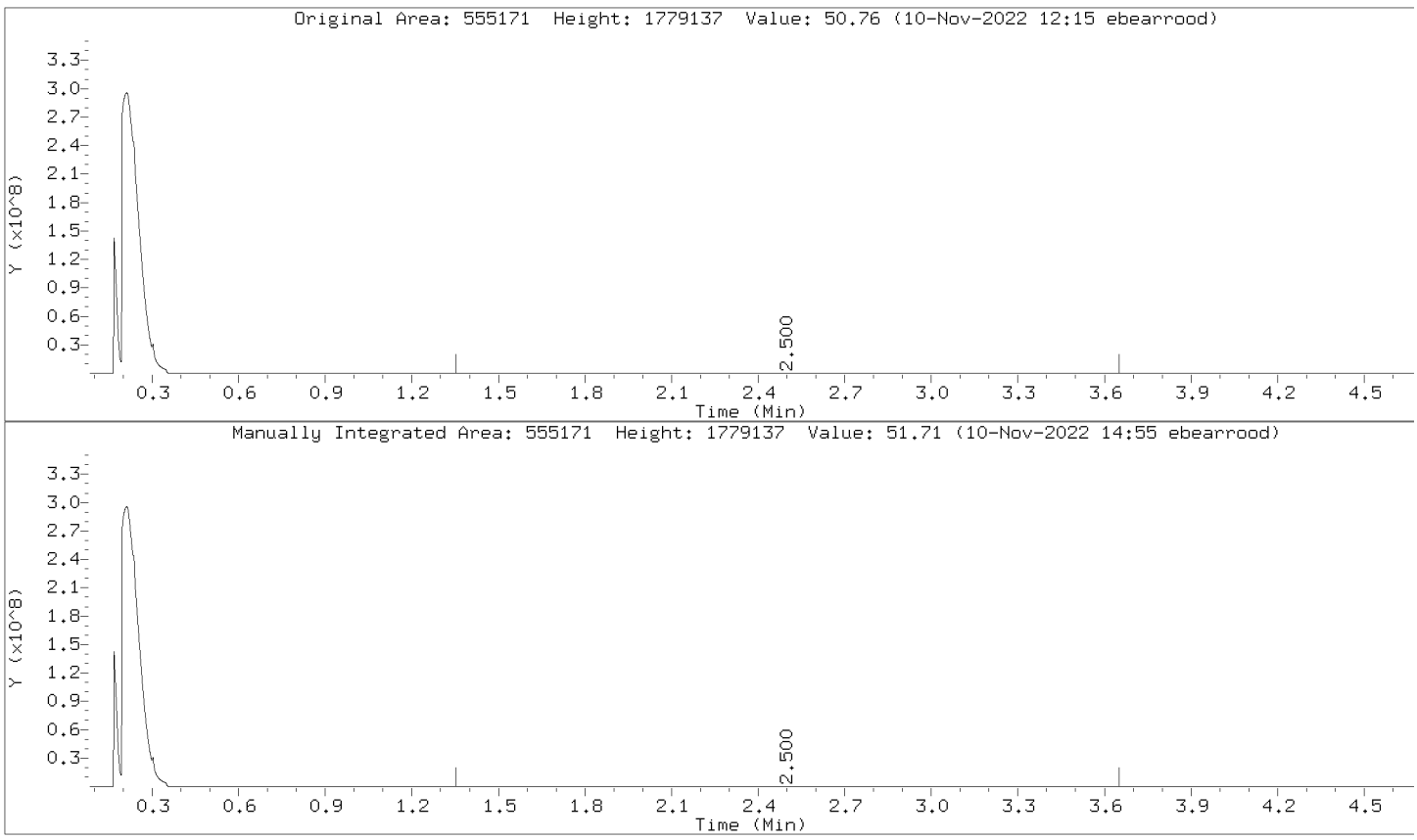
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



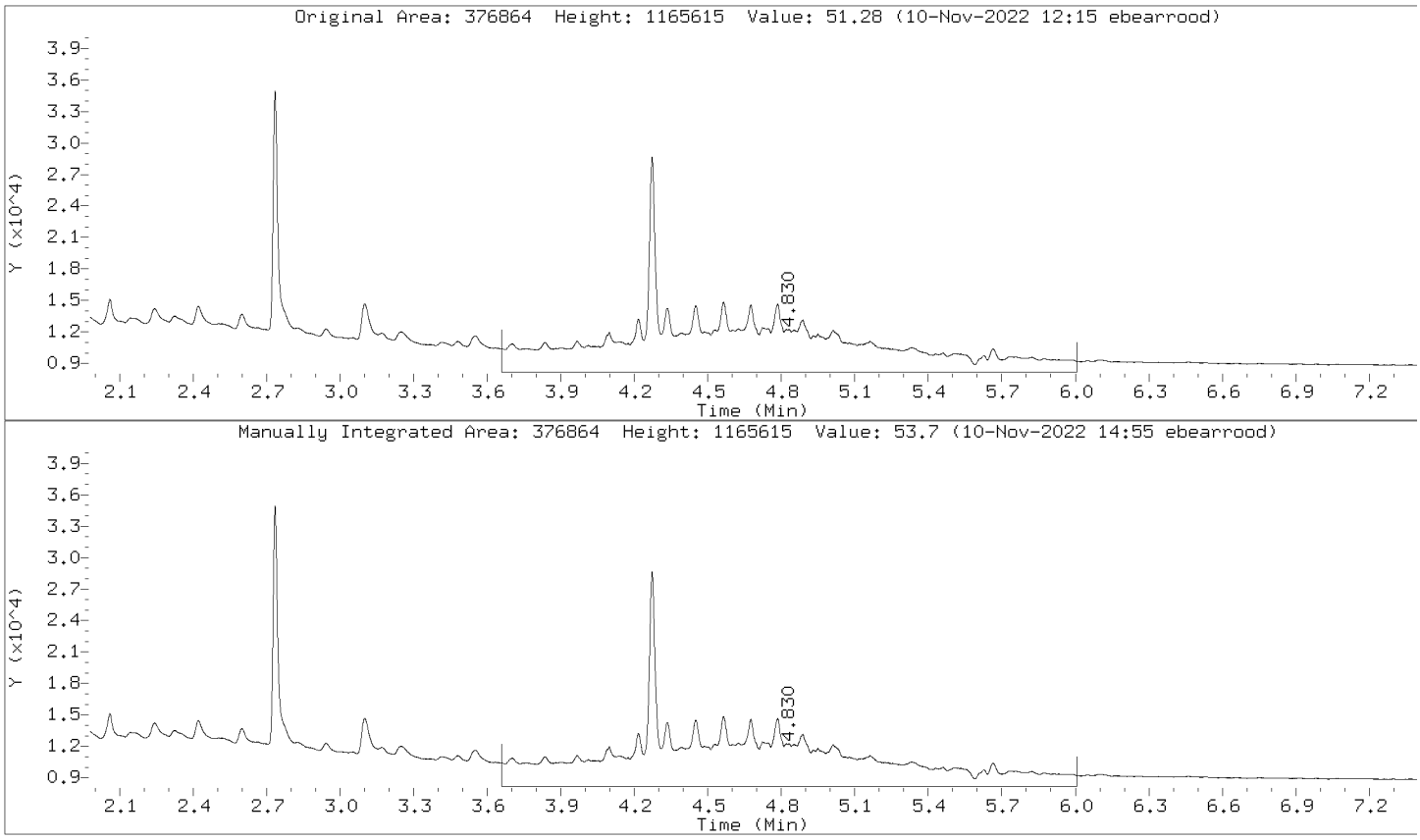
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



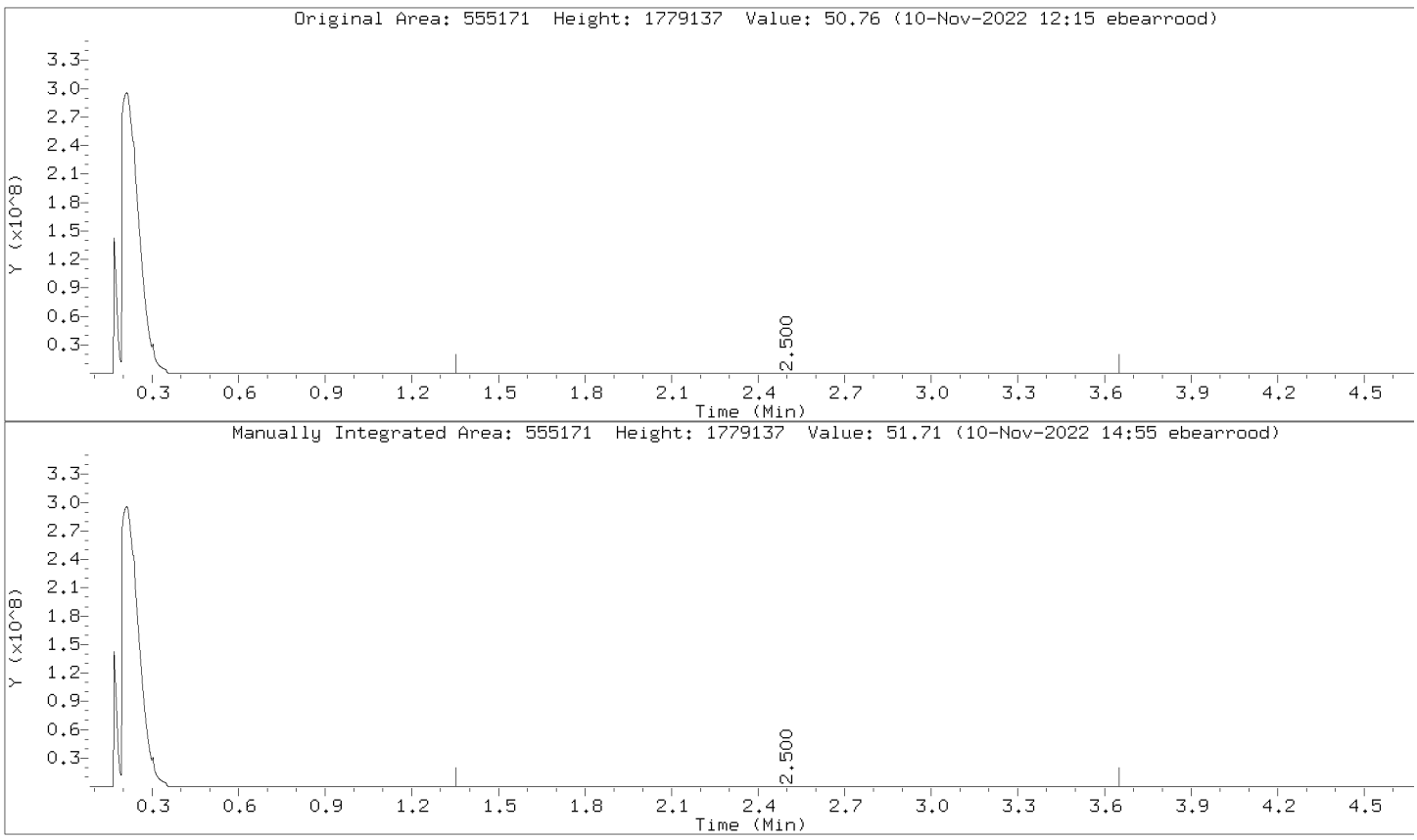
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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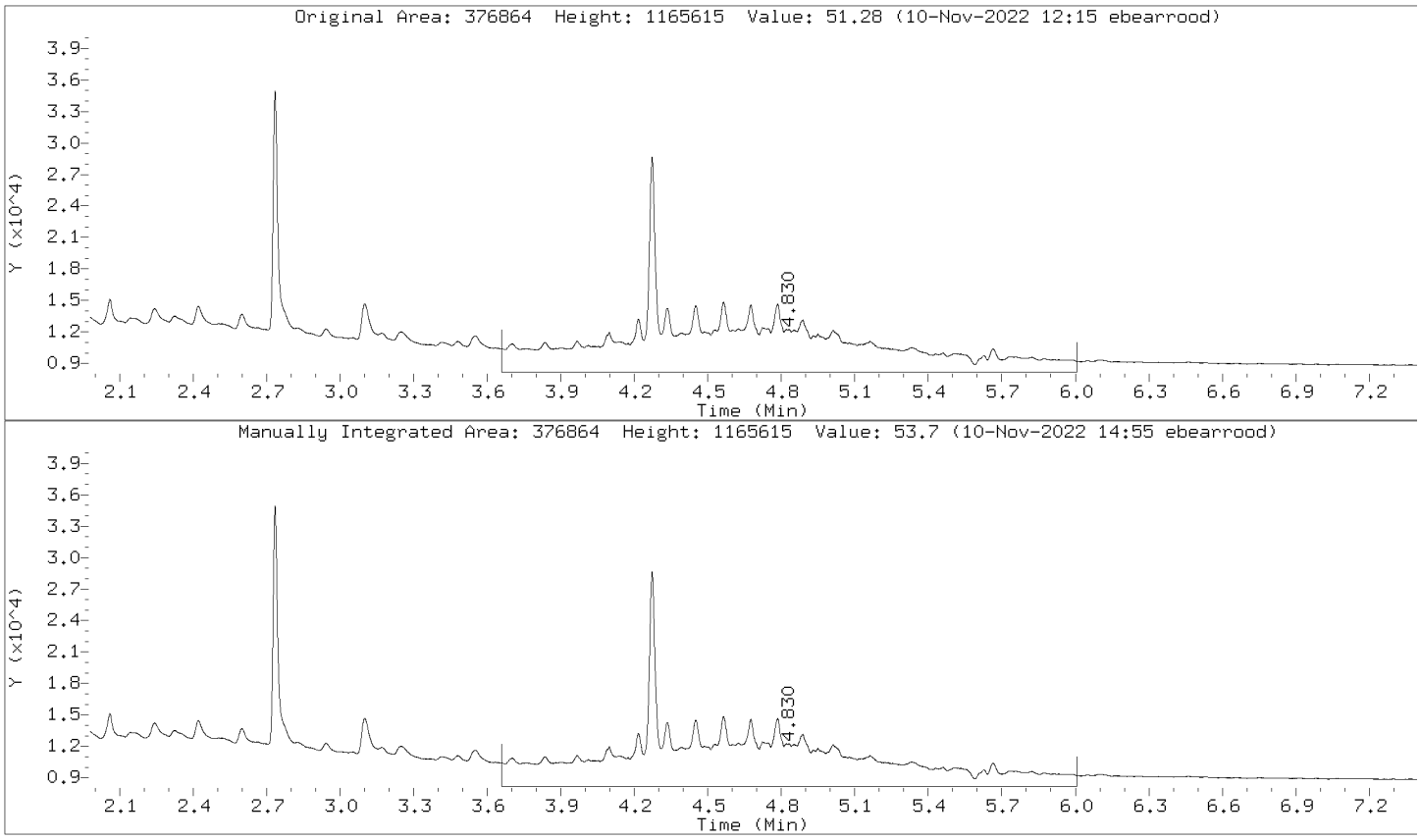
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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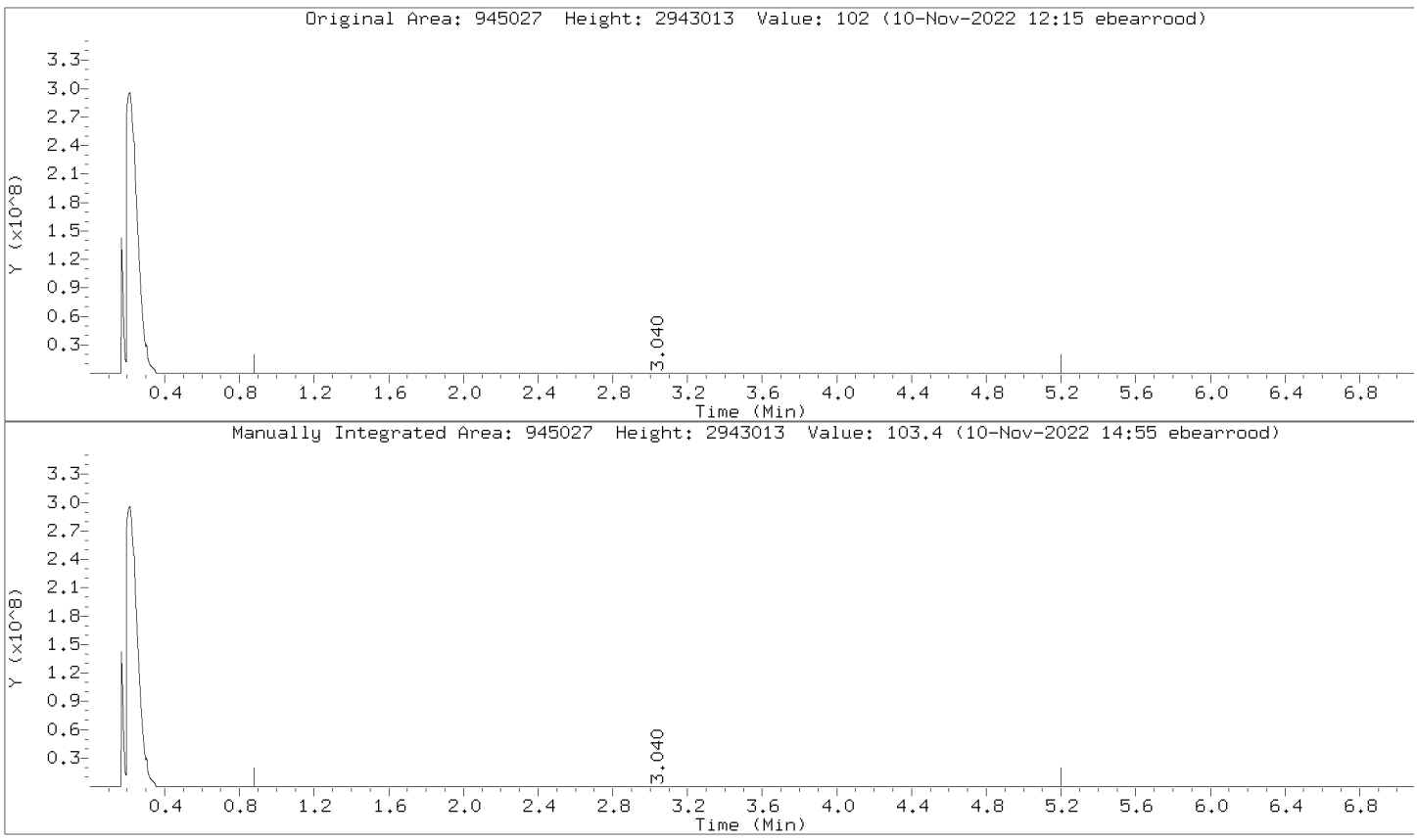
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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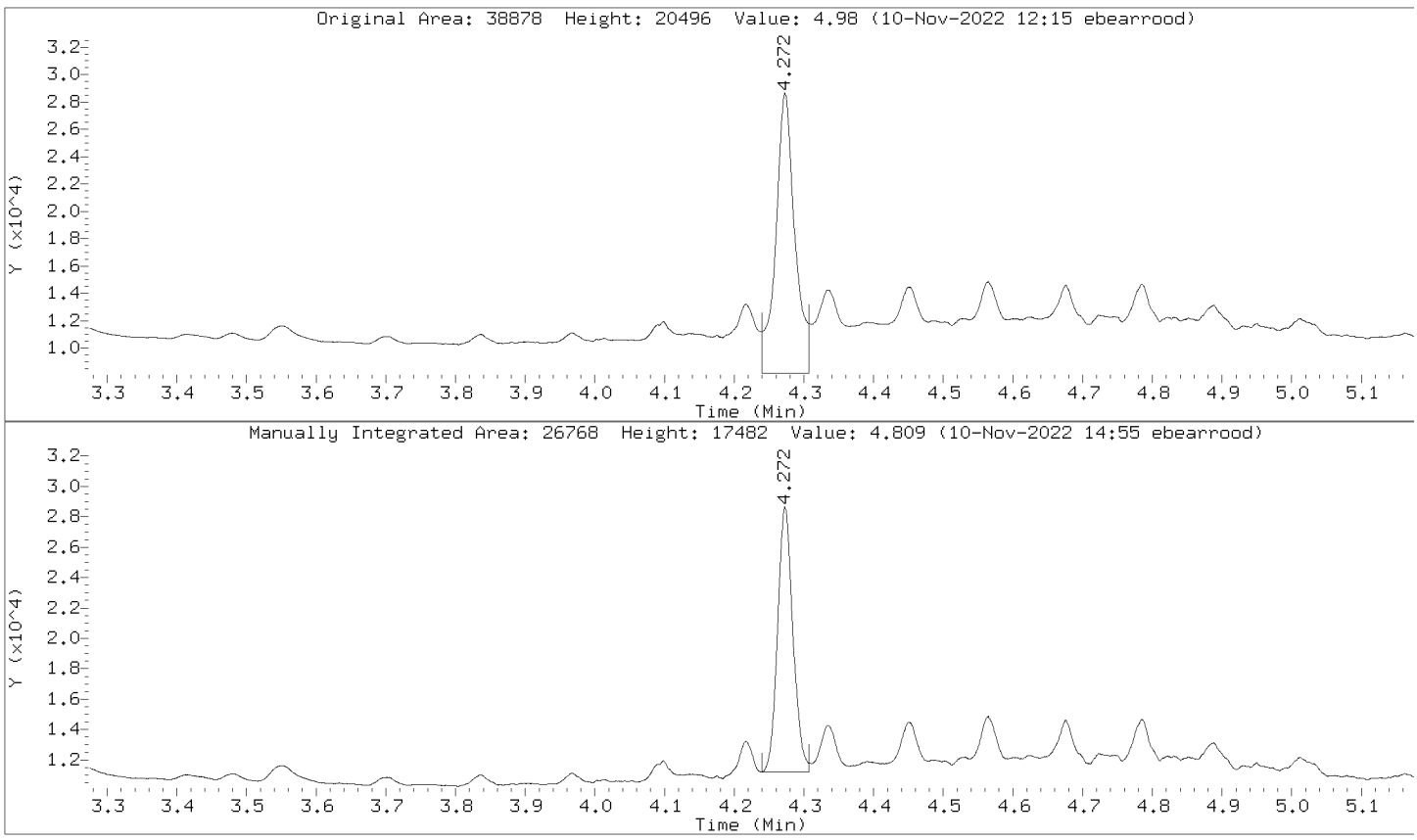
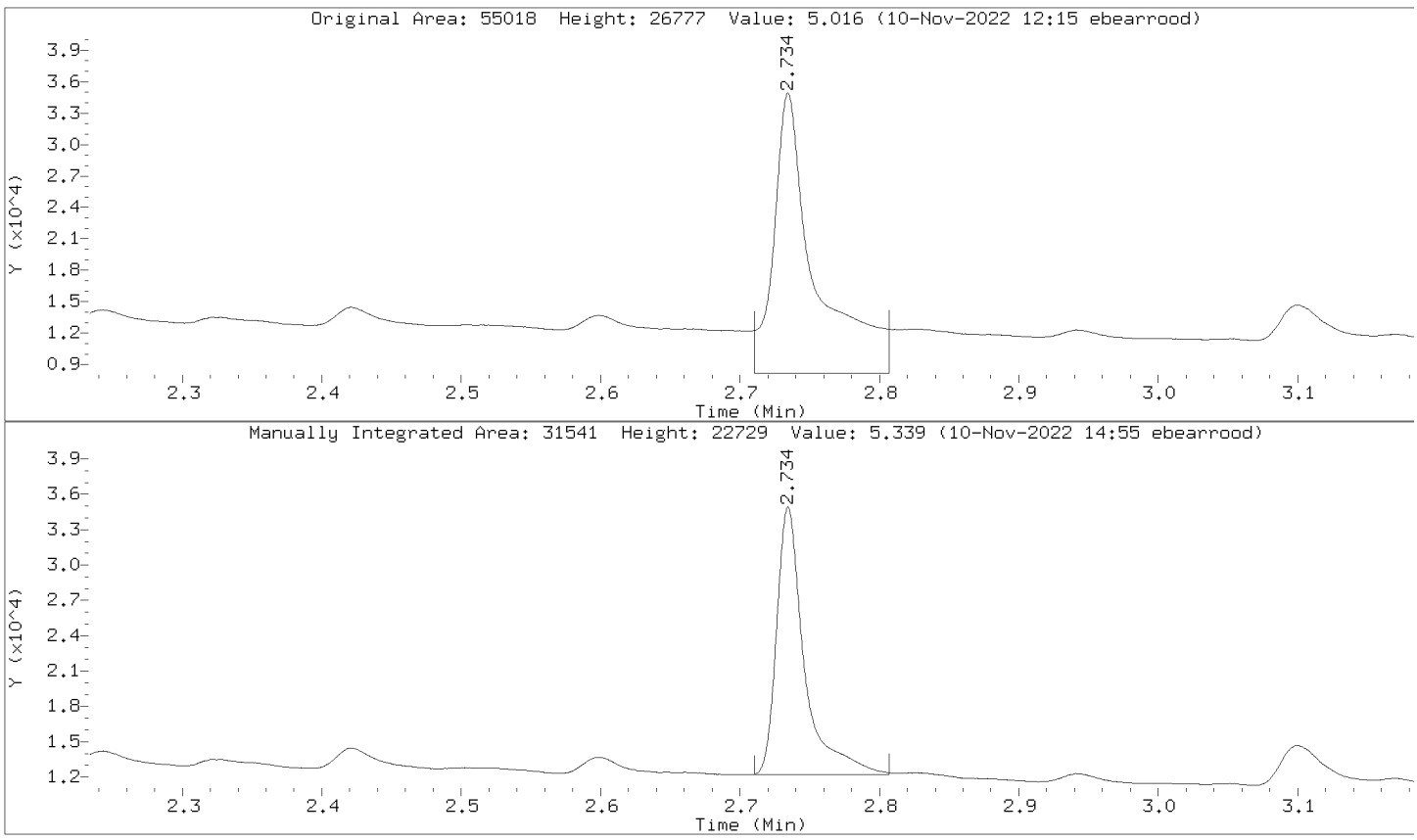
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)		REVIEW	CODE
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		898996	100.000	96.8		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	63221	10.0000	10.1		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.272	4.275	-0.003	50954	10.0000	9.45		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		461790	100.000	96.3		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		1035387	100.000	96.6		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		493334	100.000	96.1		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		1362996	200.000	193		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG

QC Flag Legend

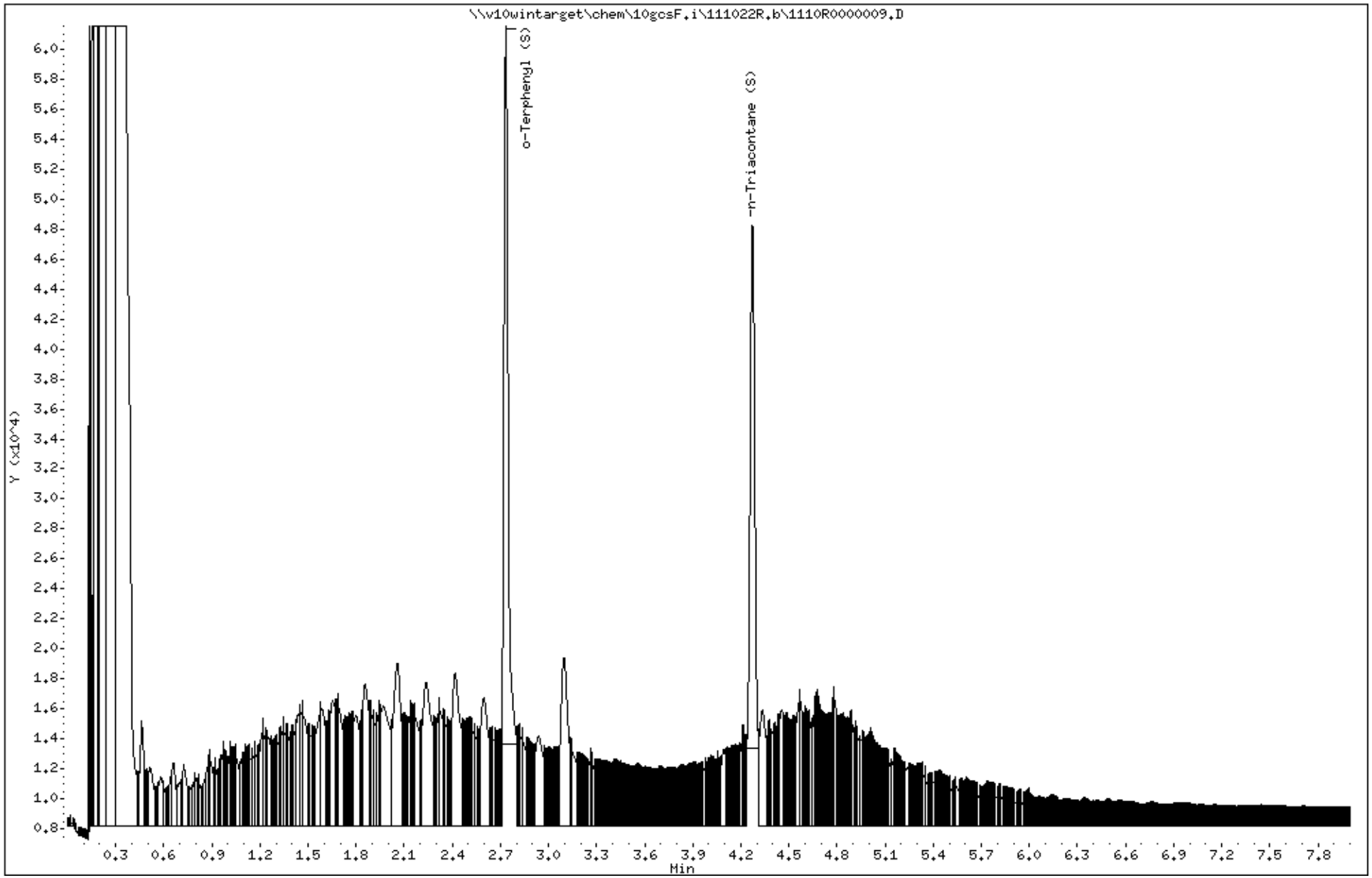
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

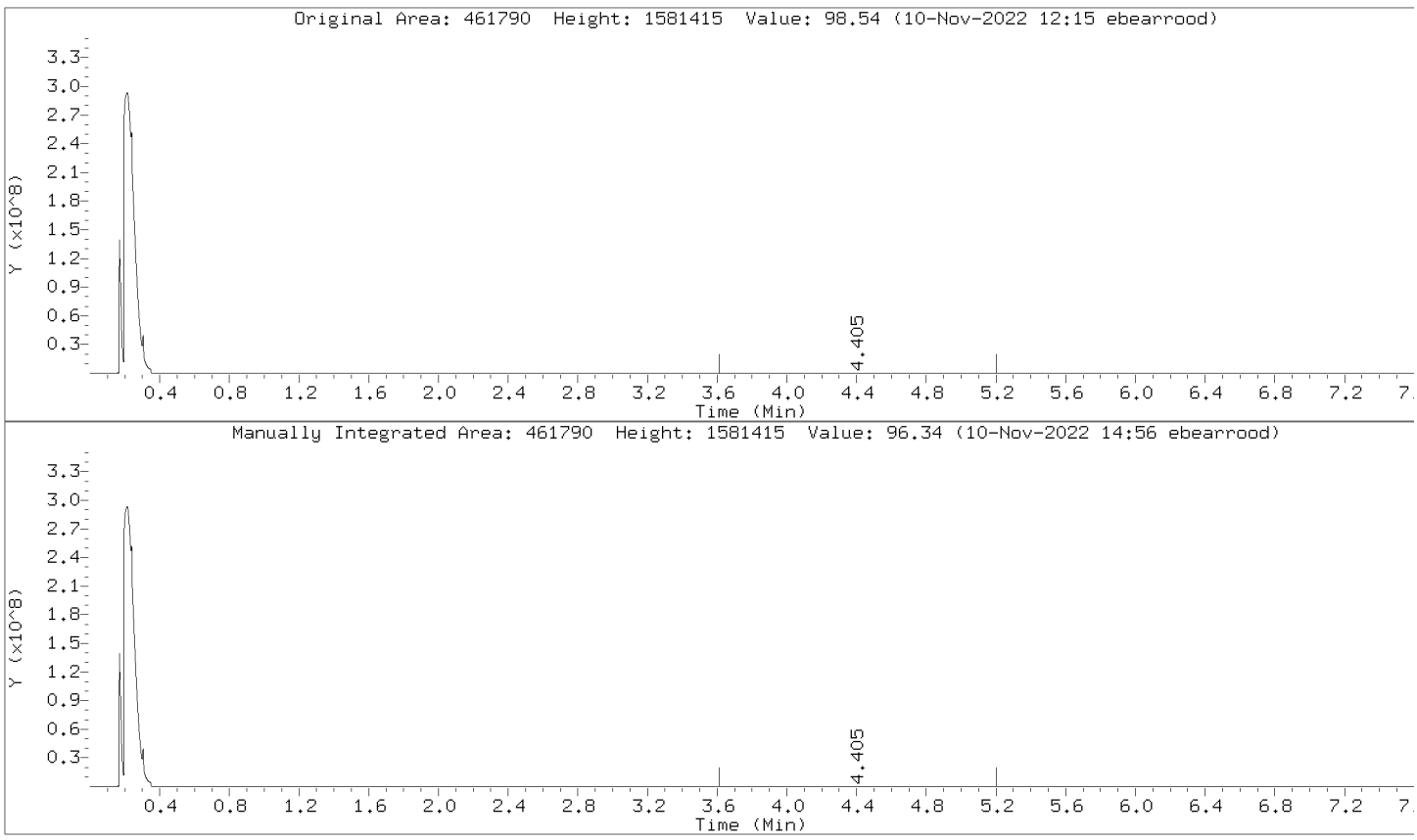
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



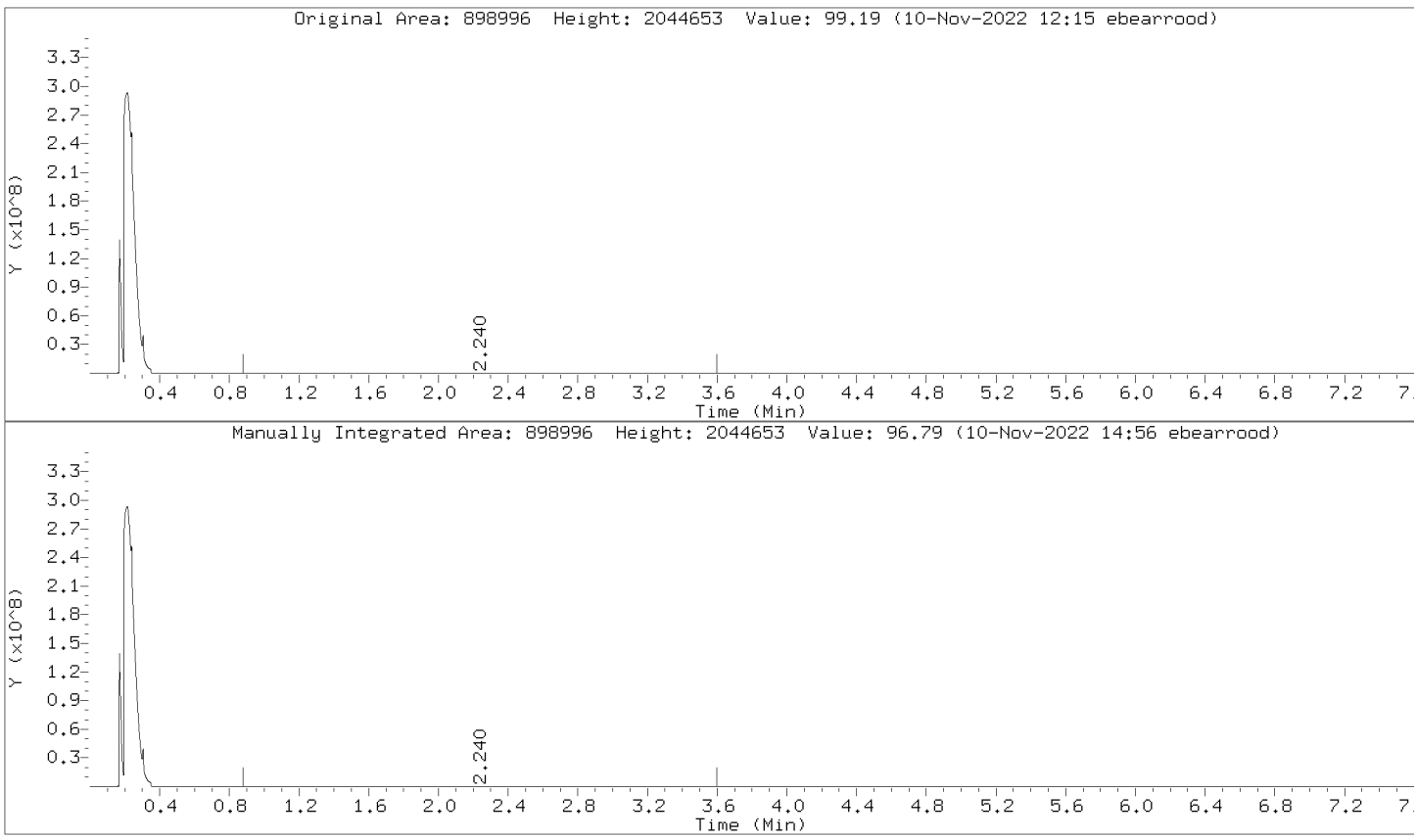
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



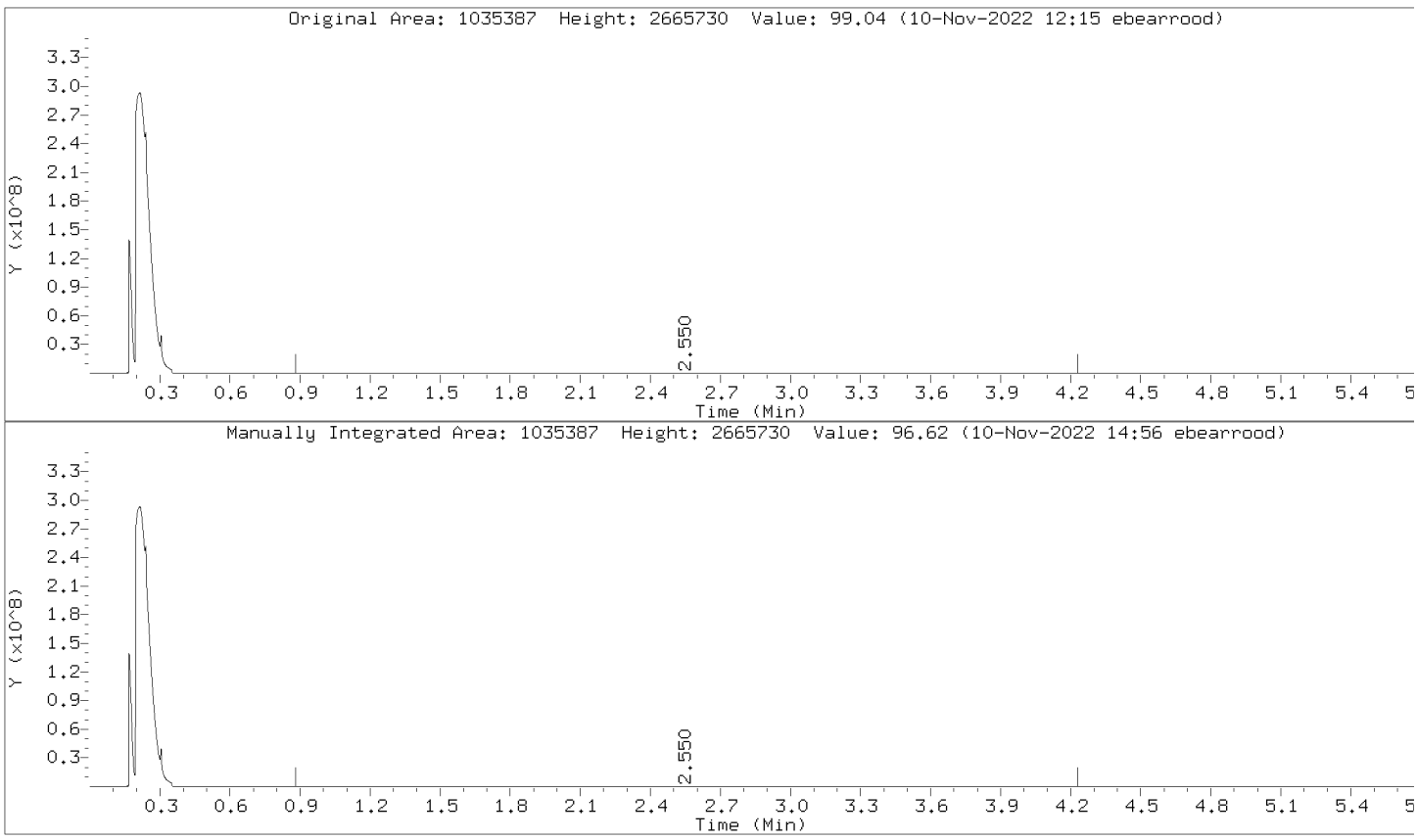
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



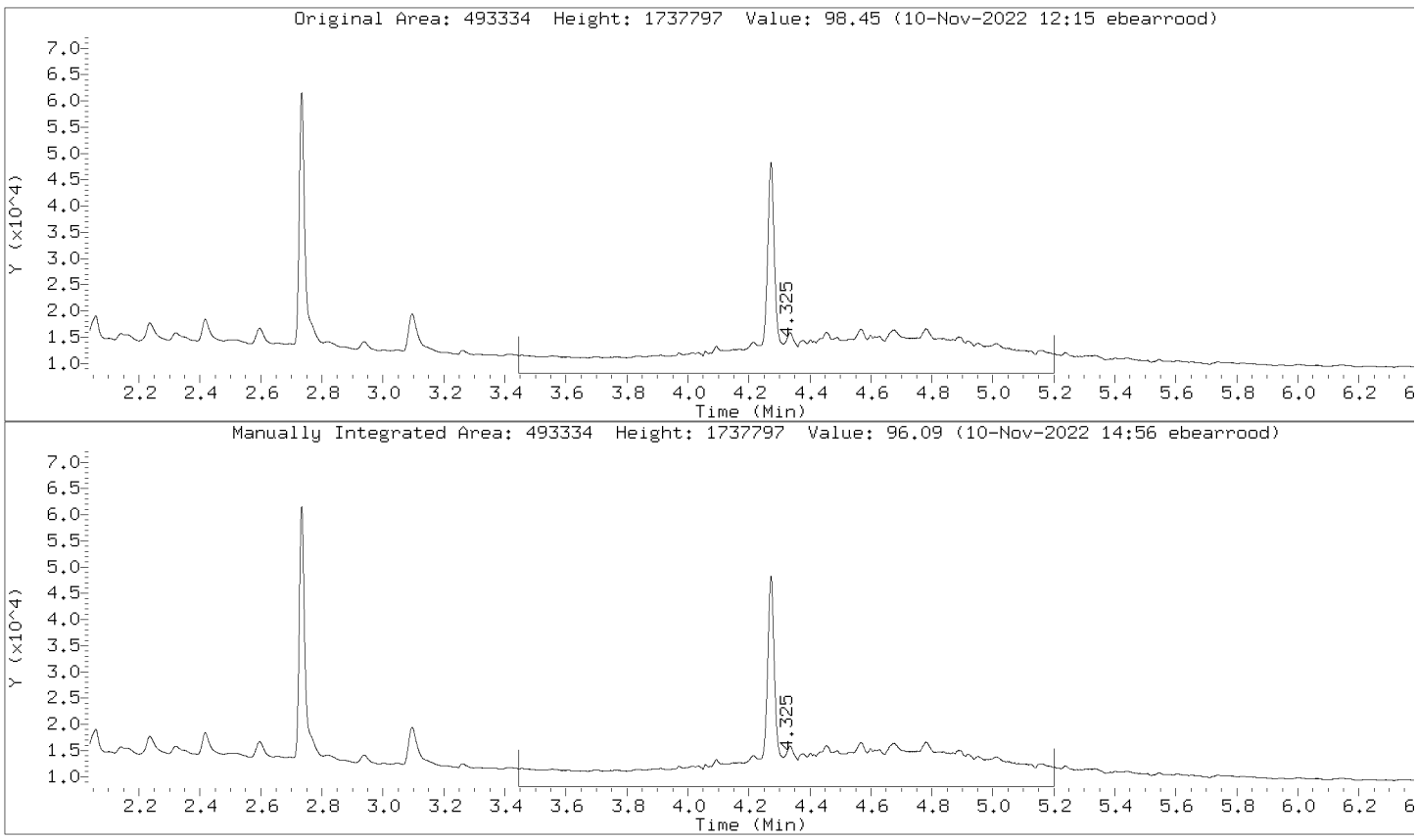
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



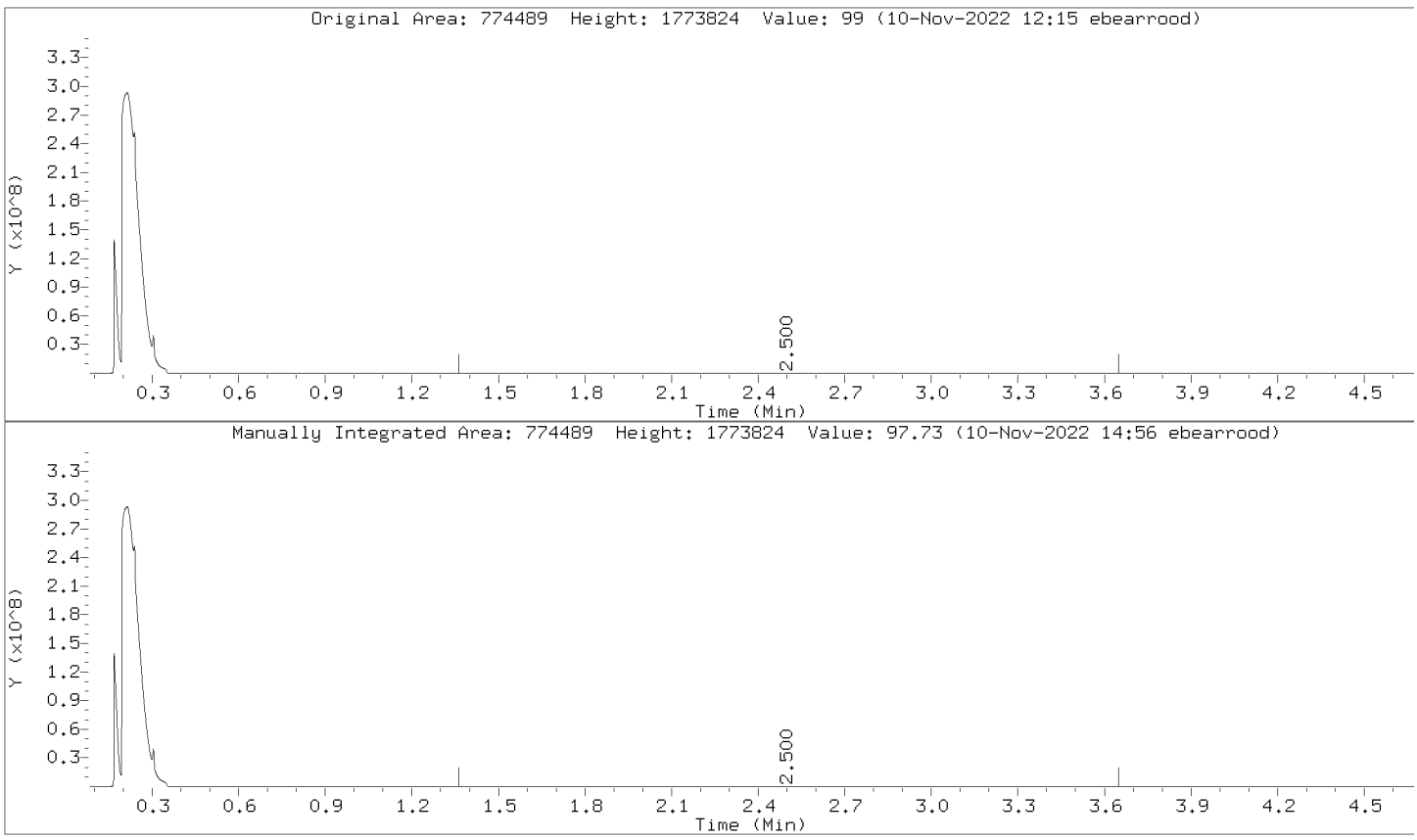
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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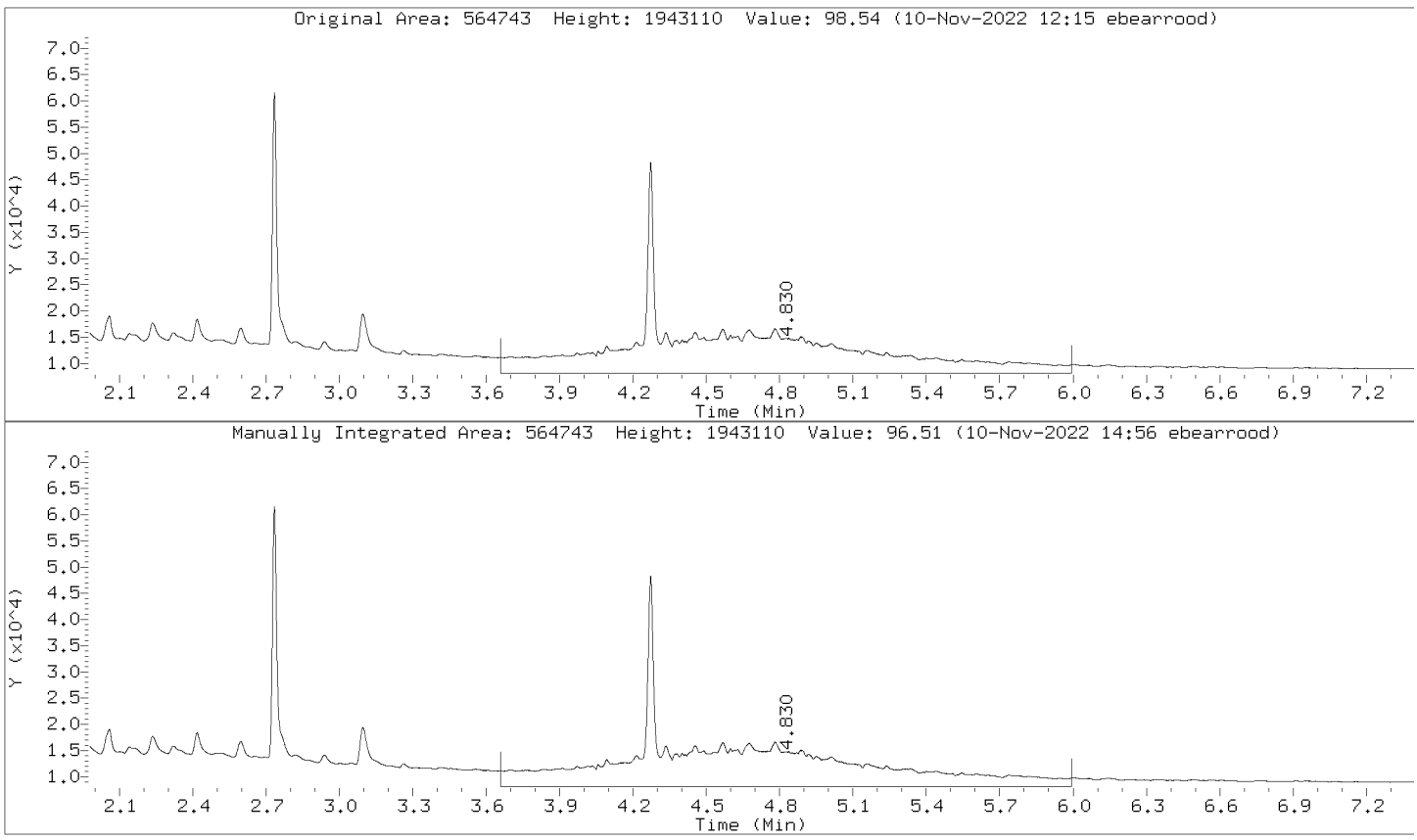
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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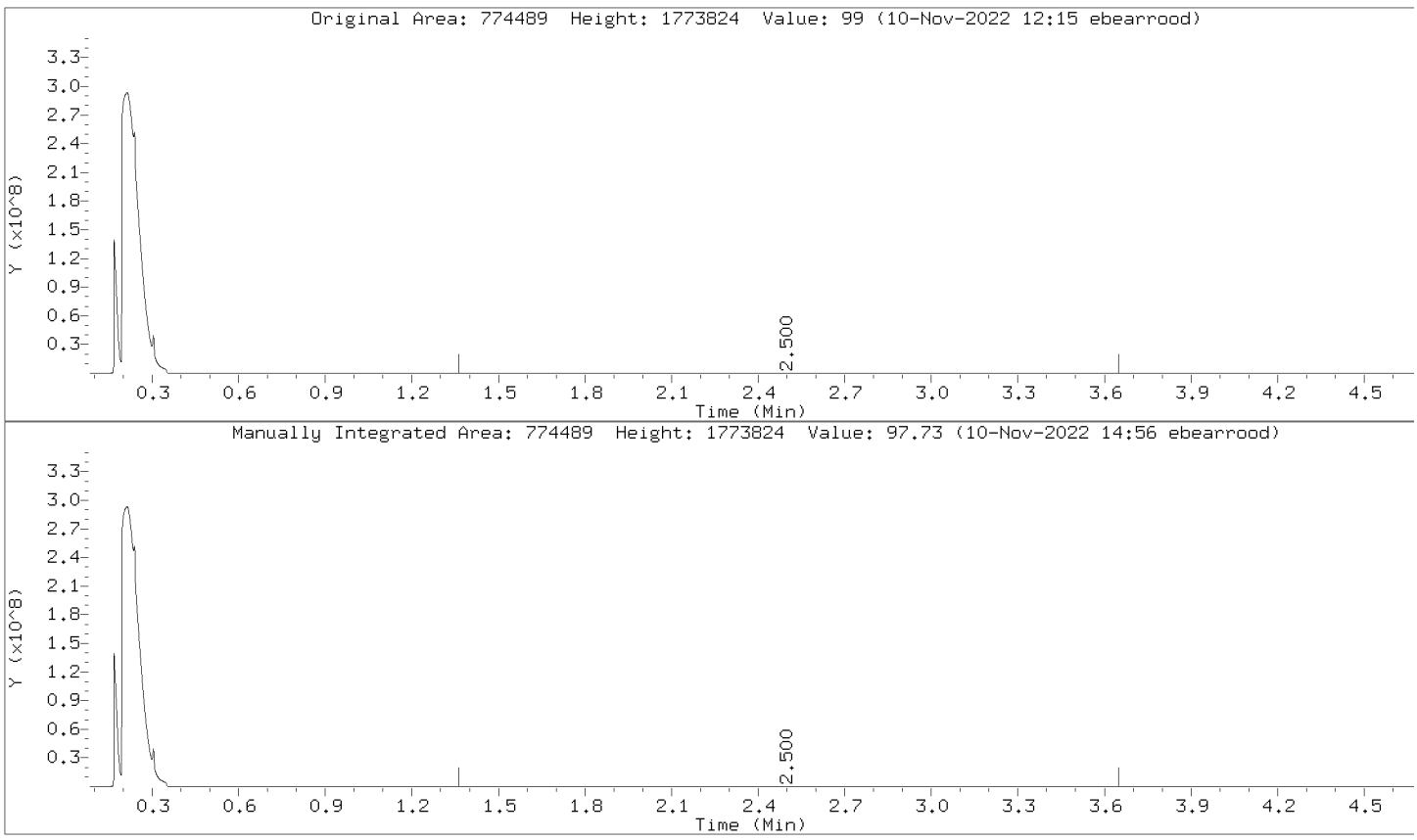
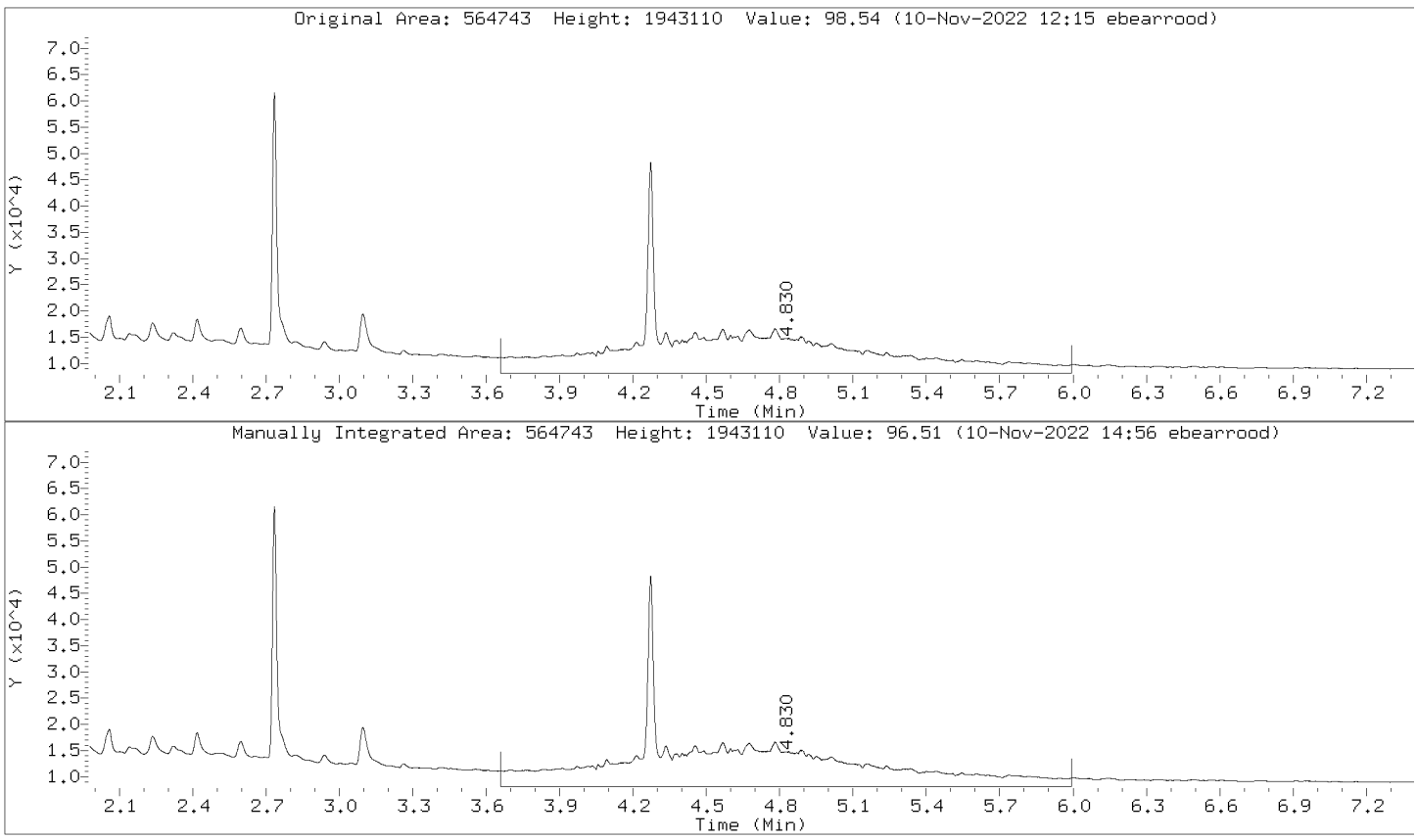
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



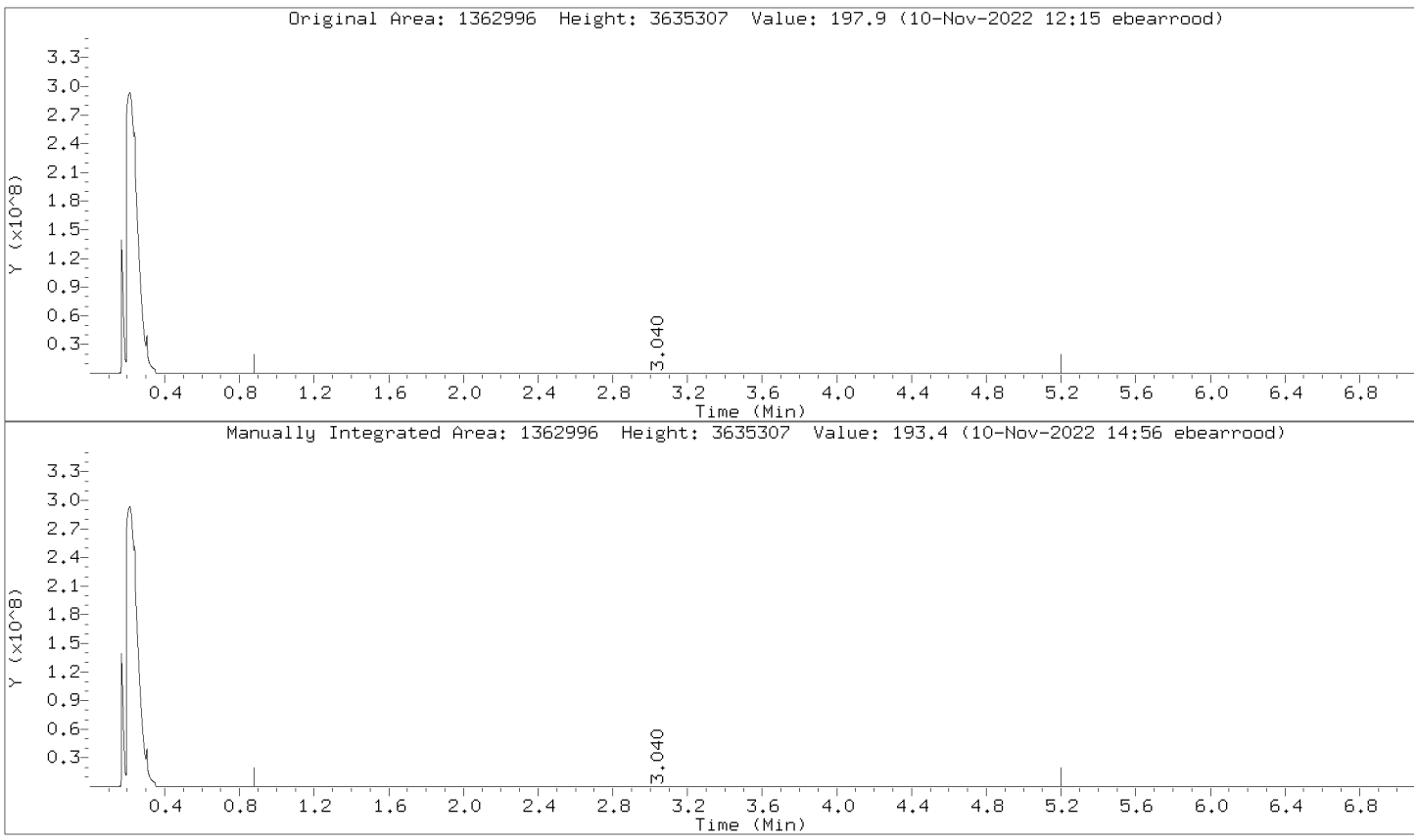
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



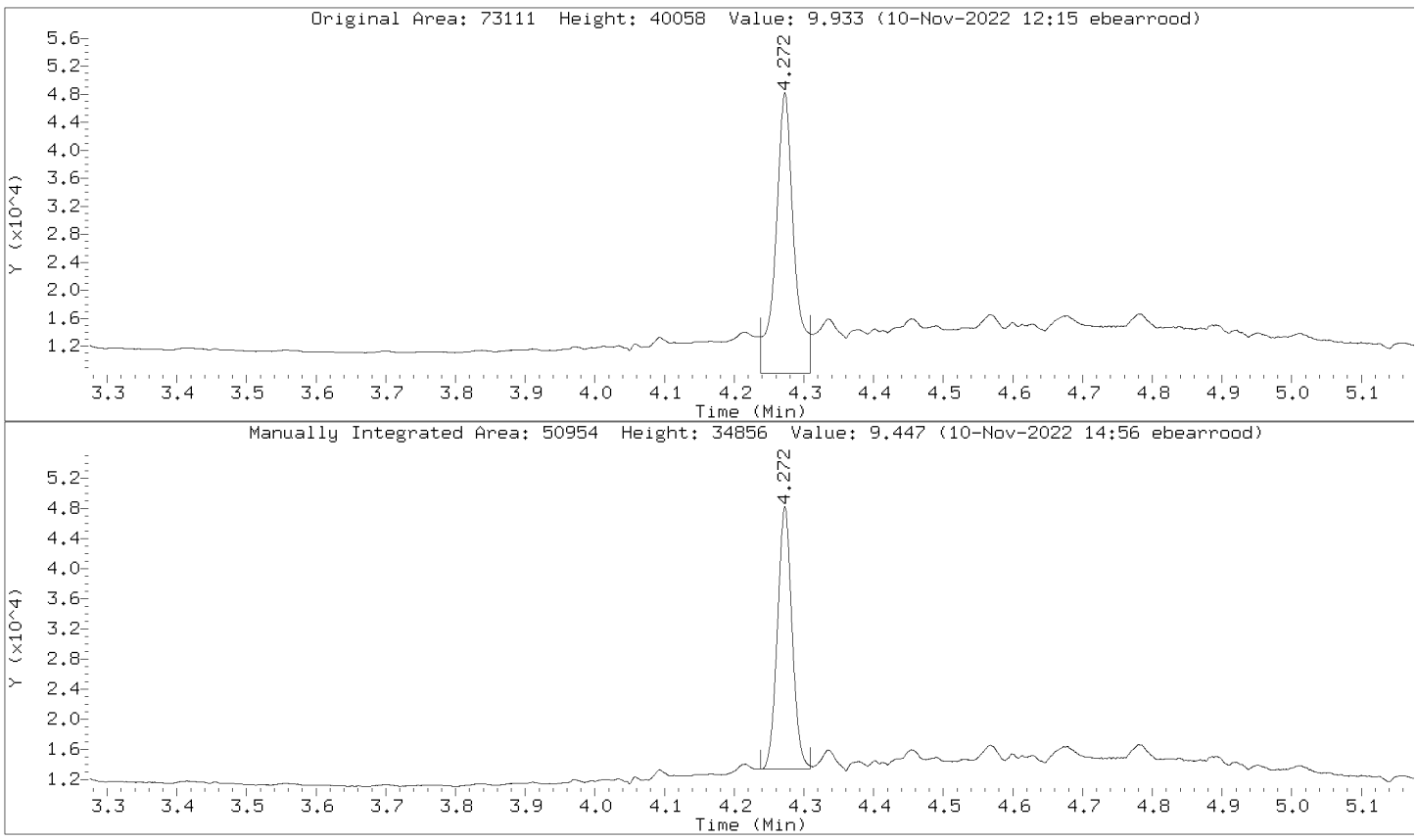
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



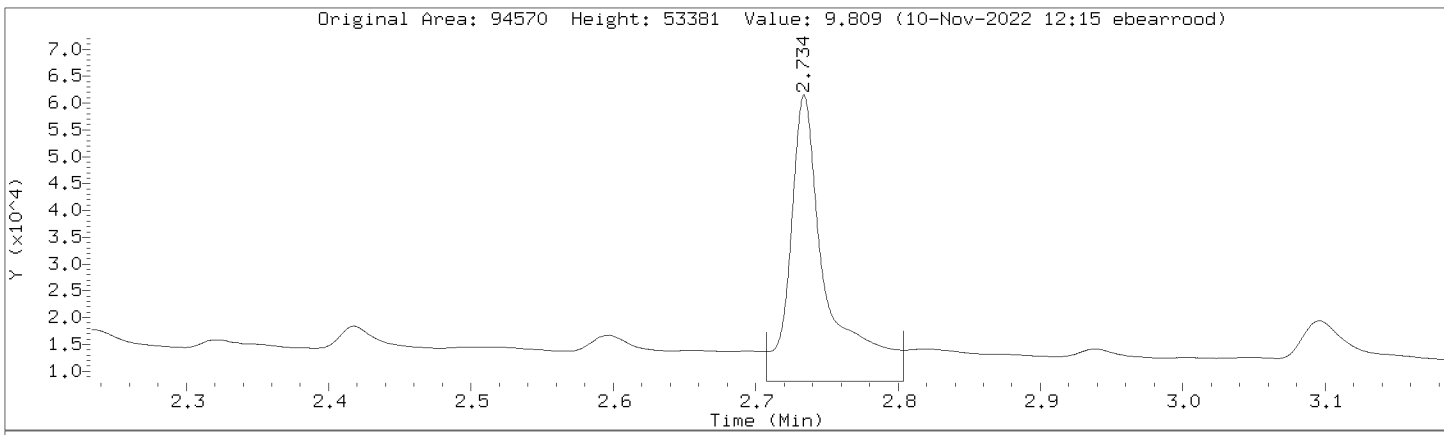
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

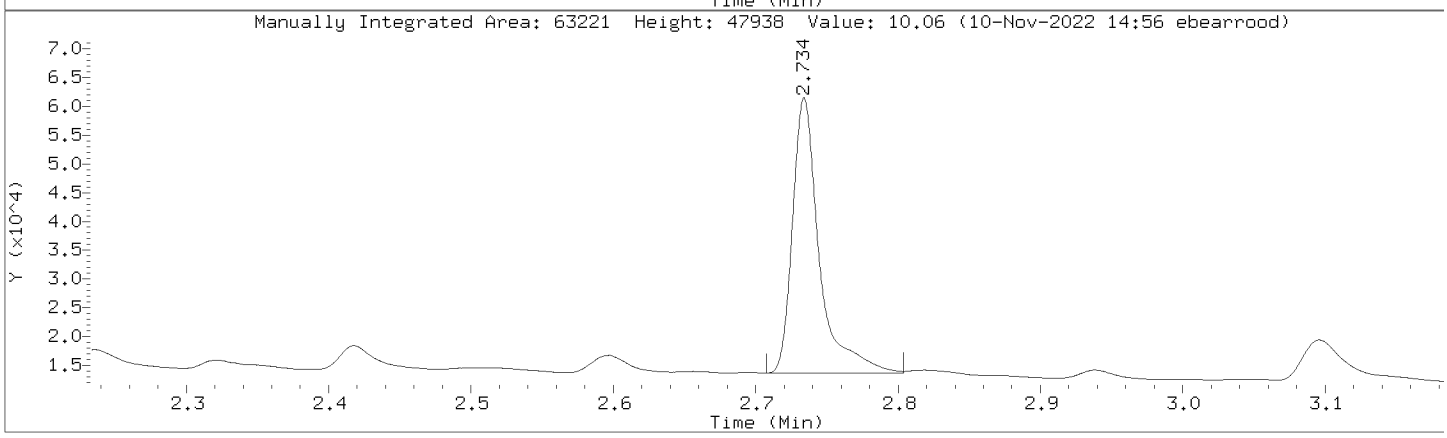
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1767895	250.000	250	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	162877	25.0000	24.9	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	134635	25.0000	25.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1016189	250.000	250	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		2040586	250.000	249	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1068936	250.000	249	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		2784418	500.000	500	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

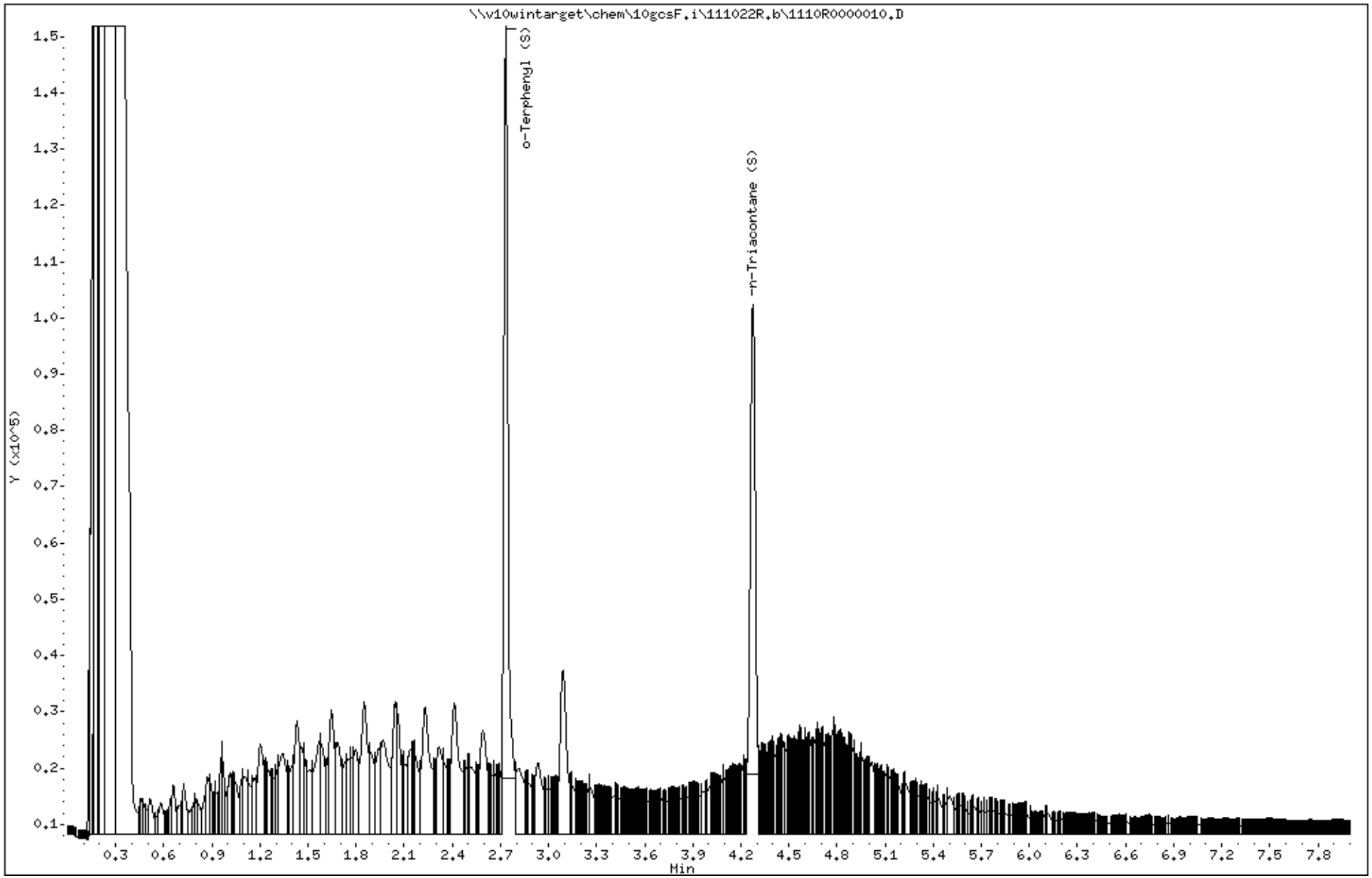
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Column phase: DB-5-US21130002

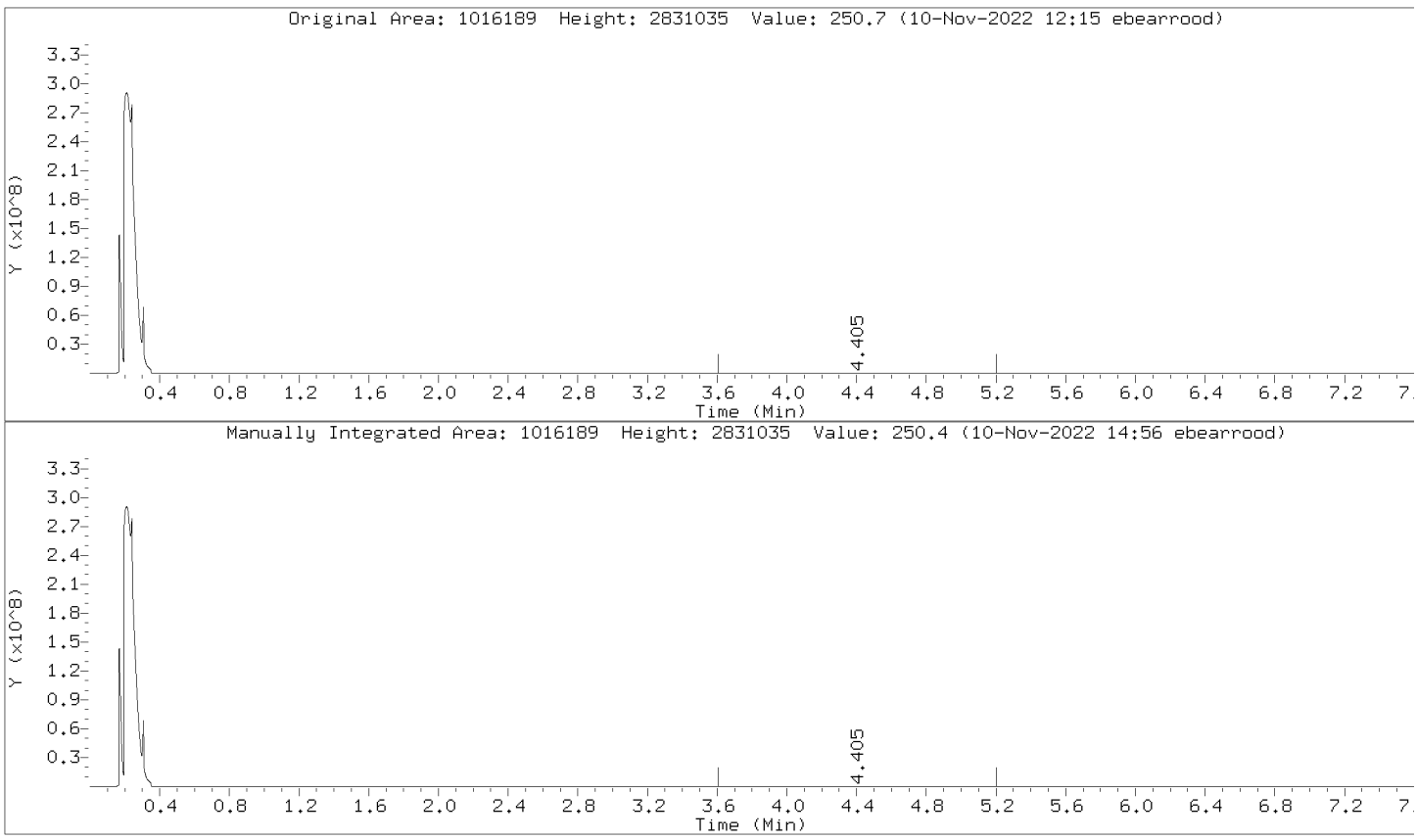
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



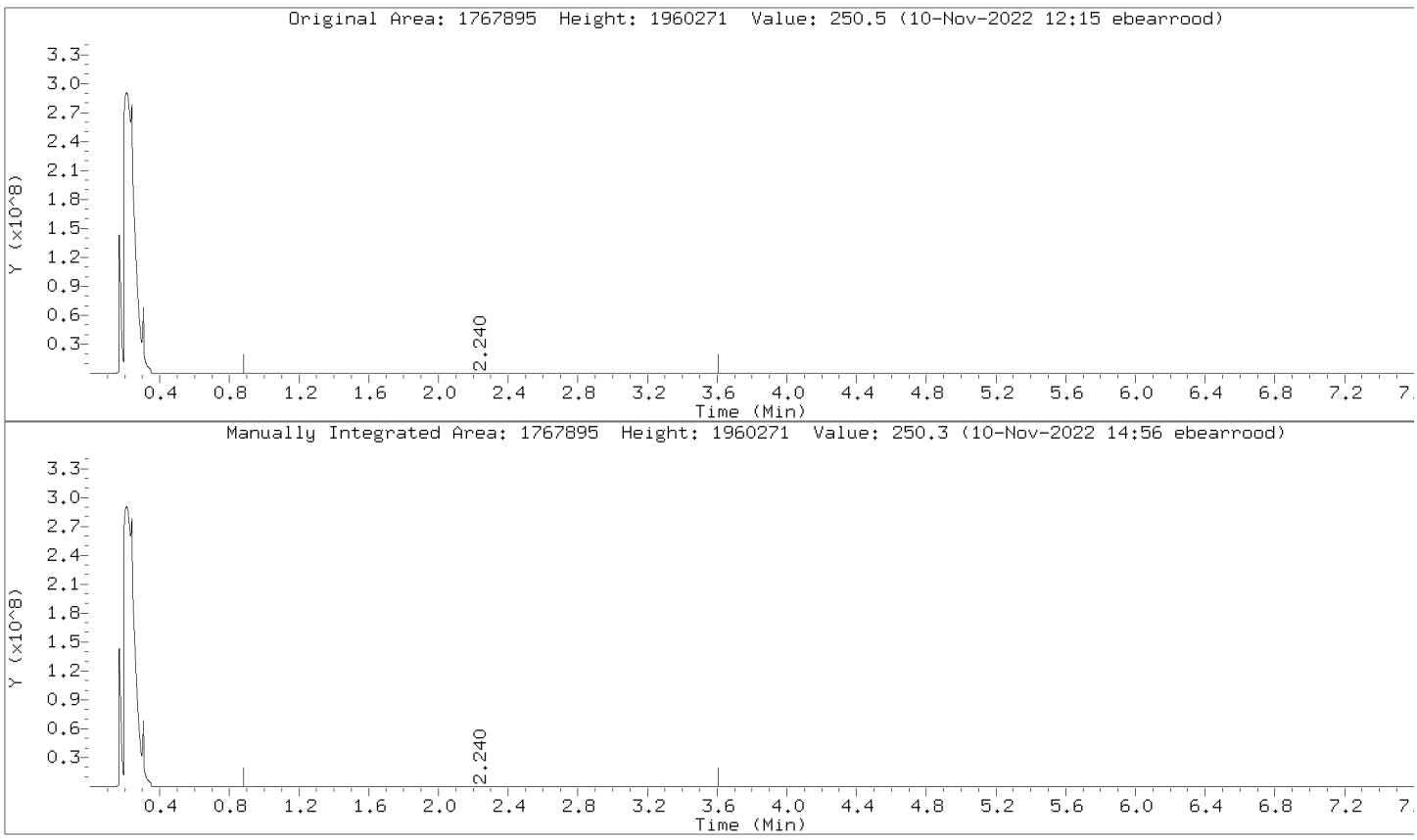
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



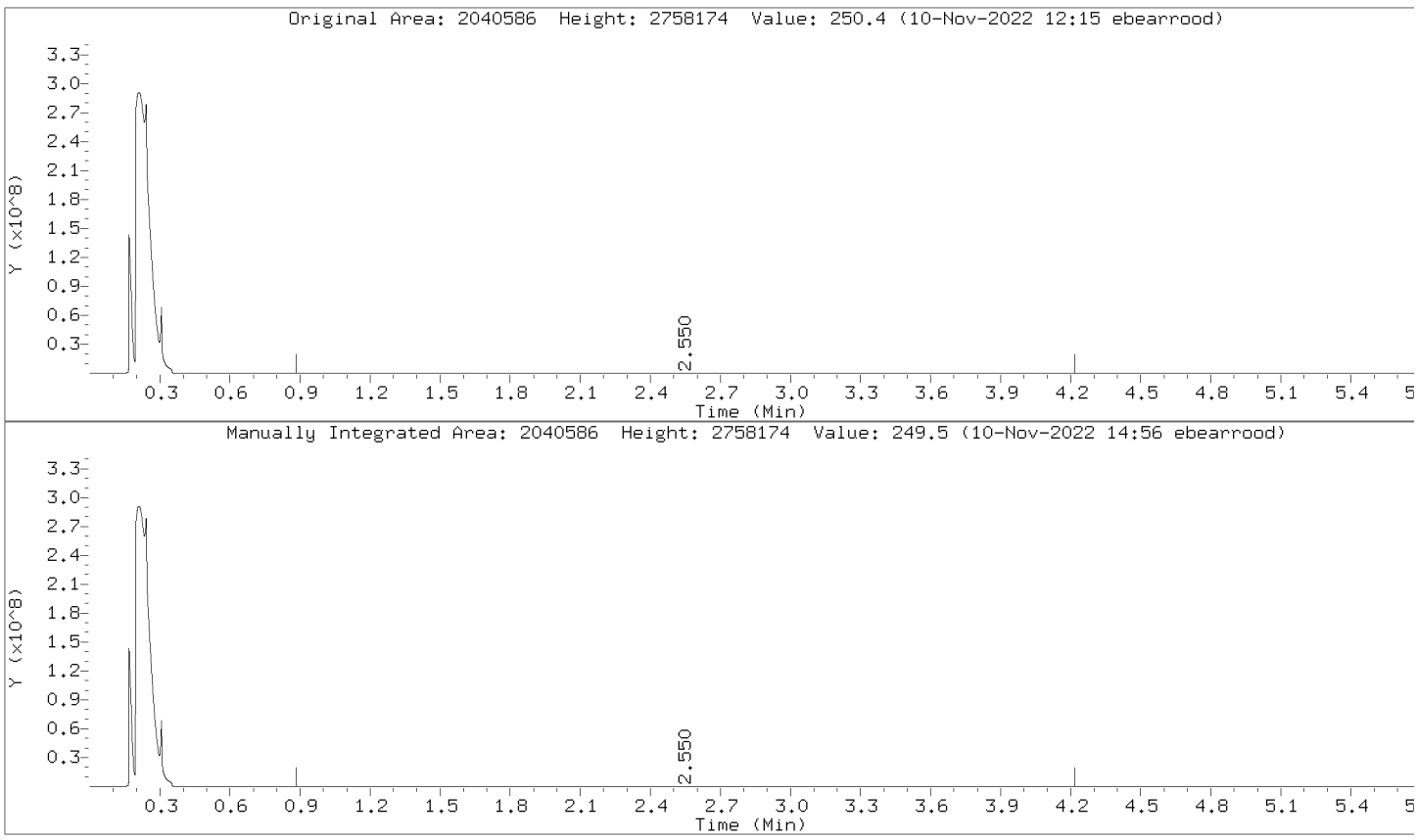
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



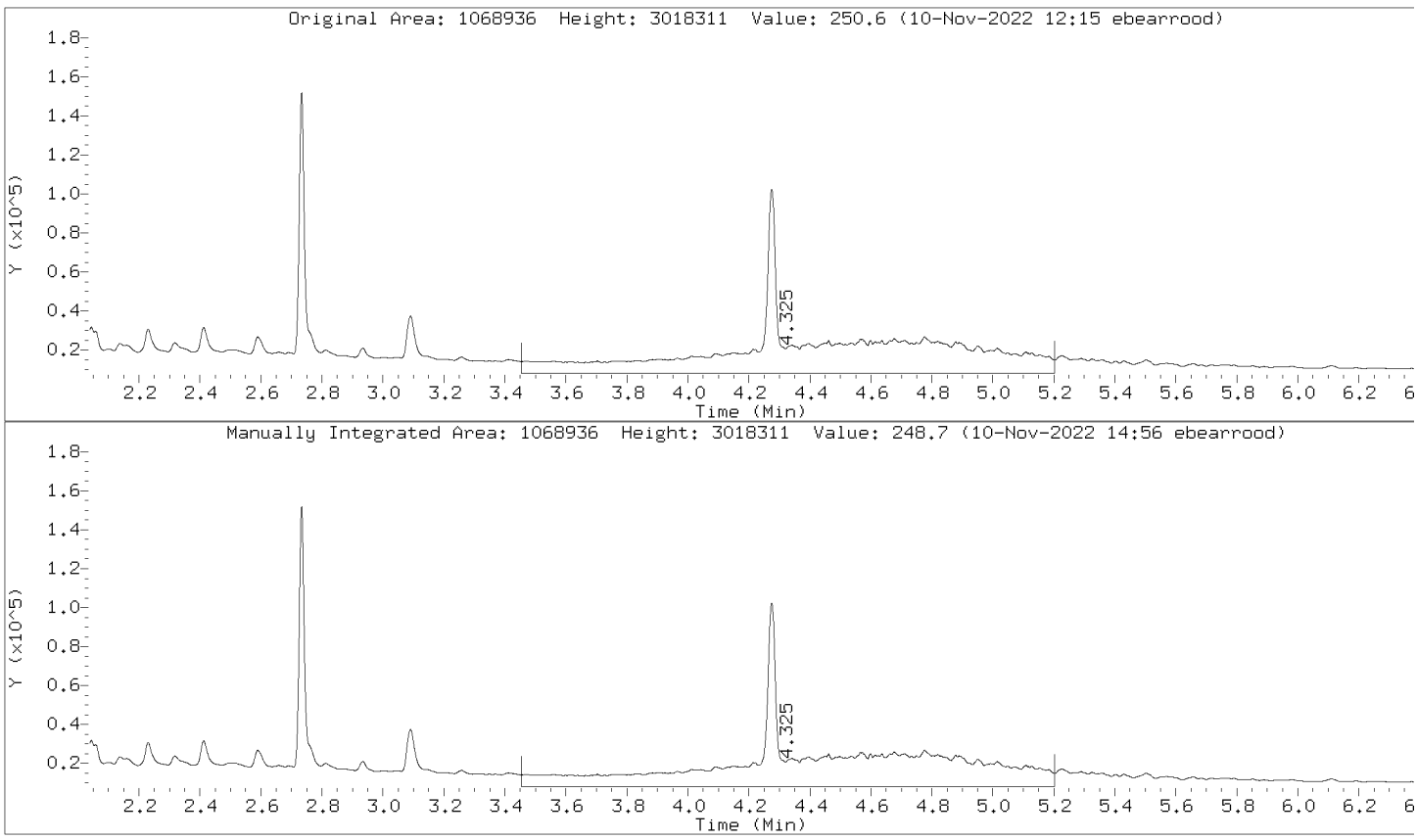
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



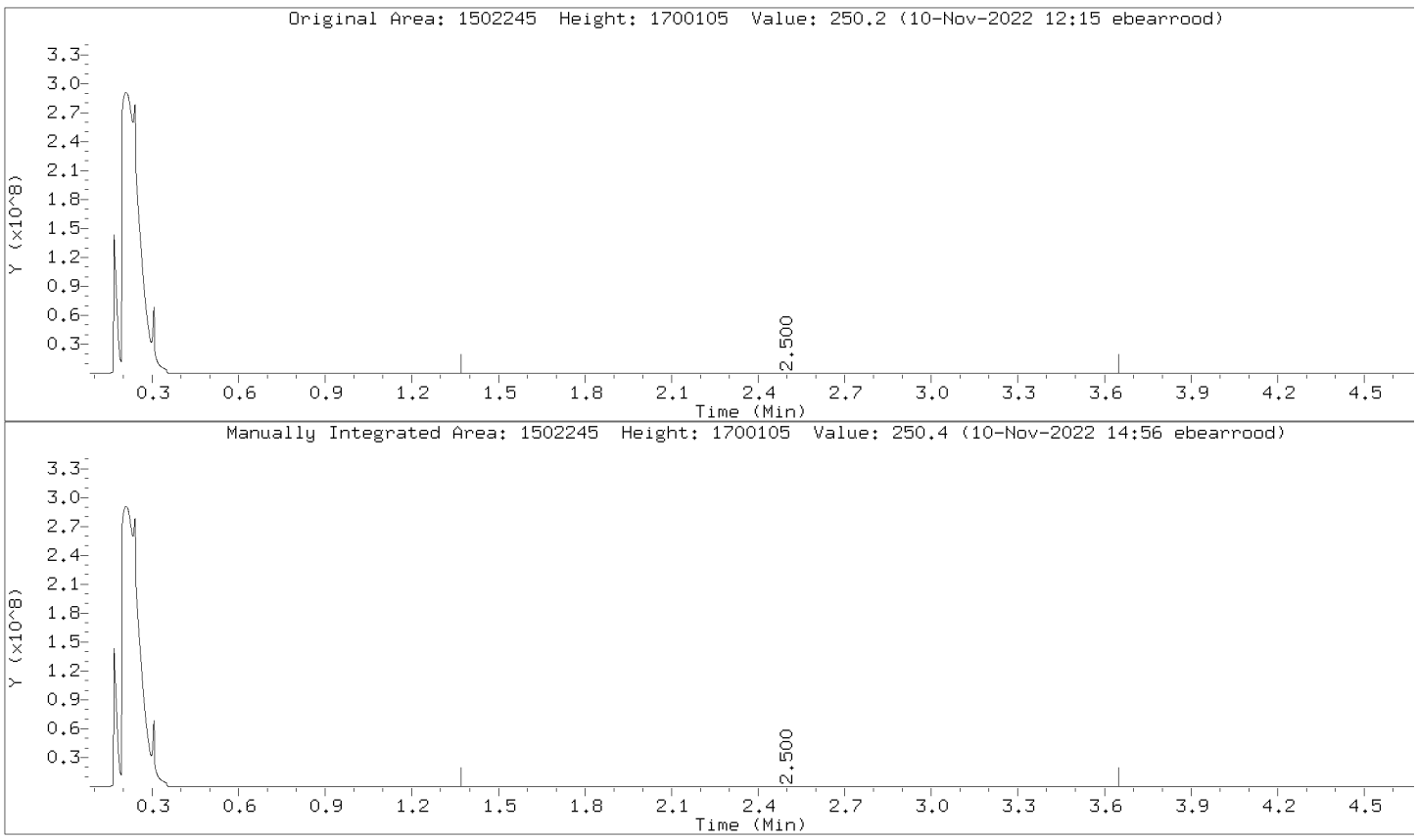
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



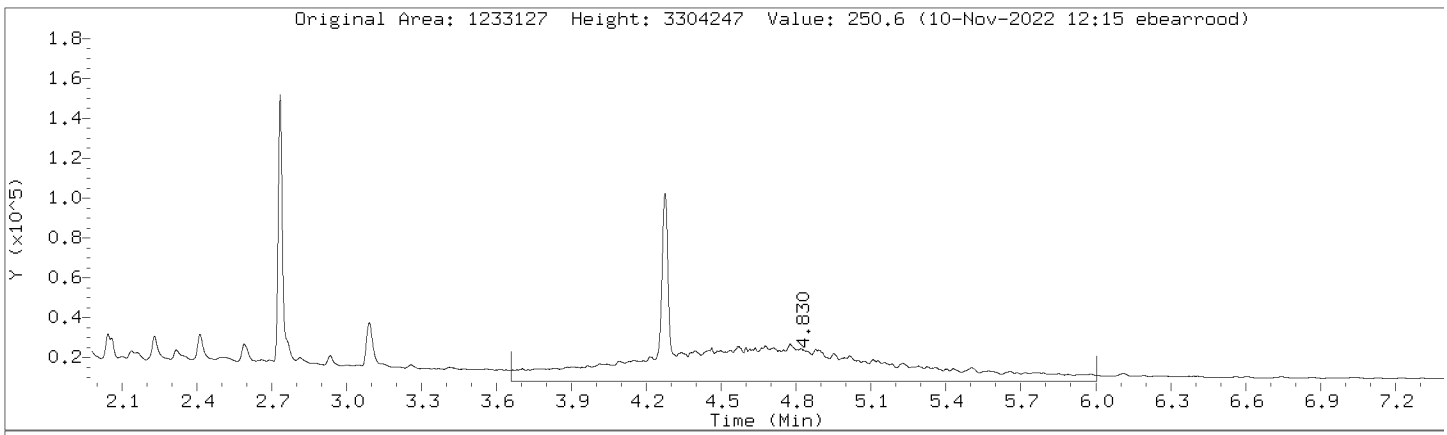
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

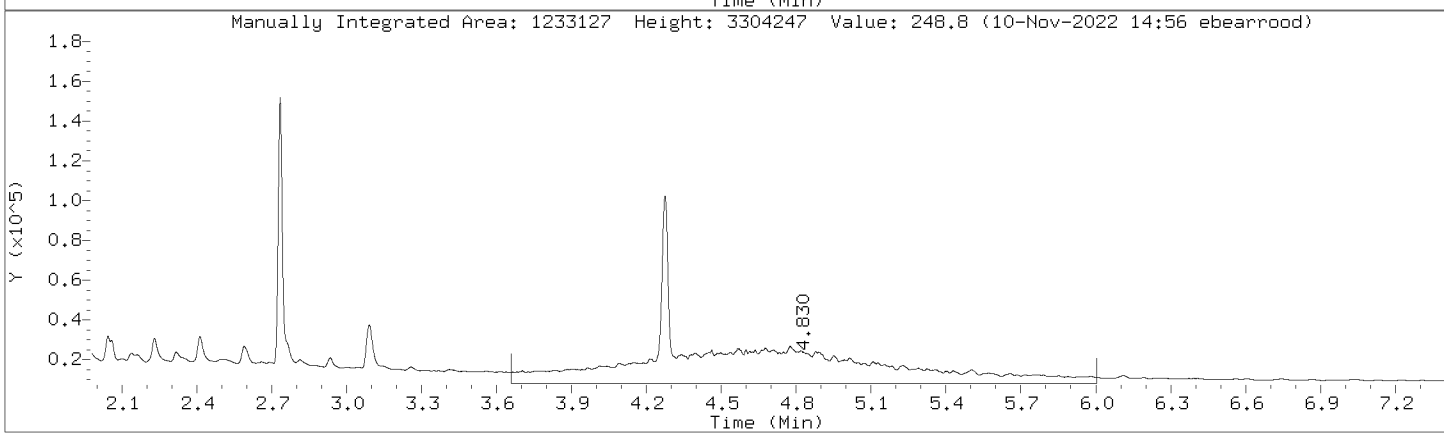
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

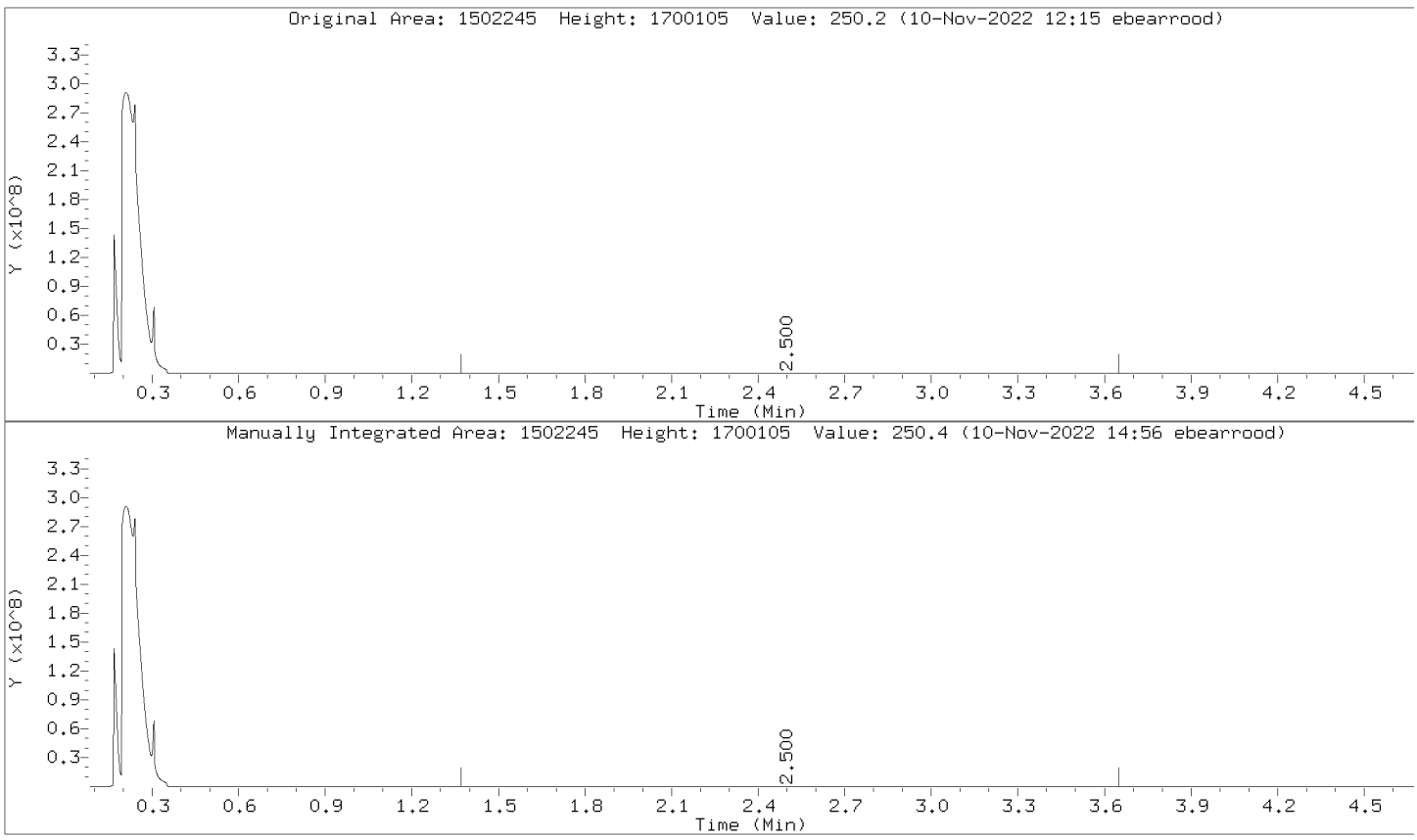
Compound: Motor Oil Range Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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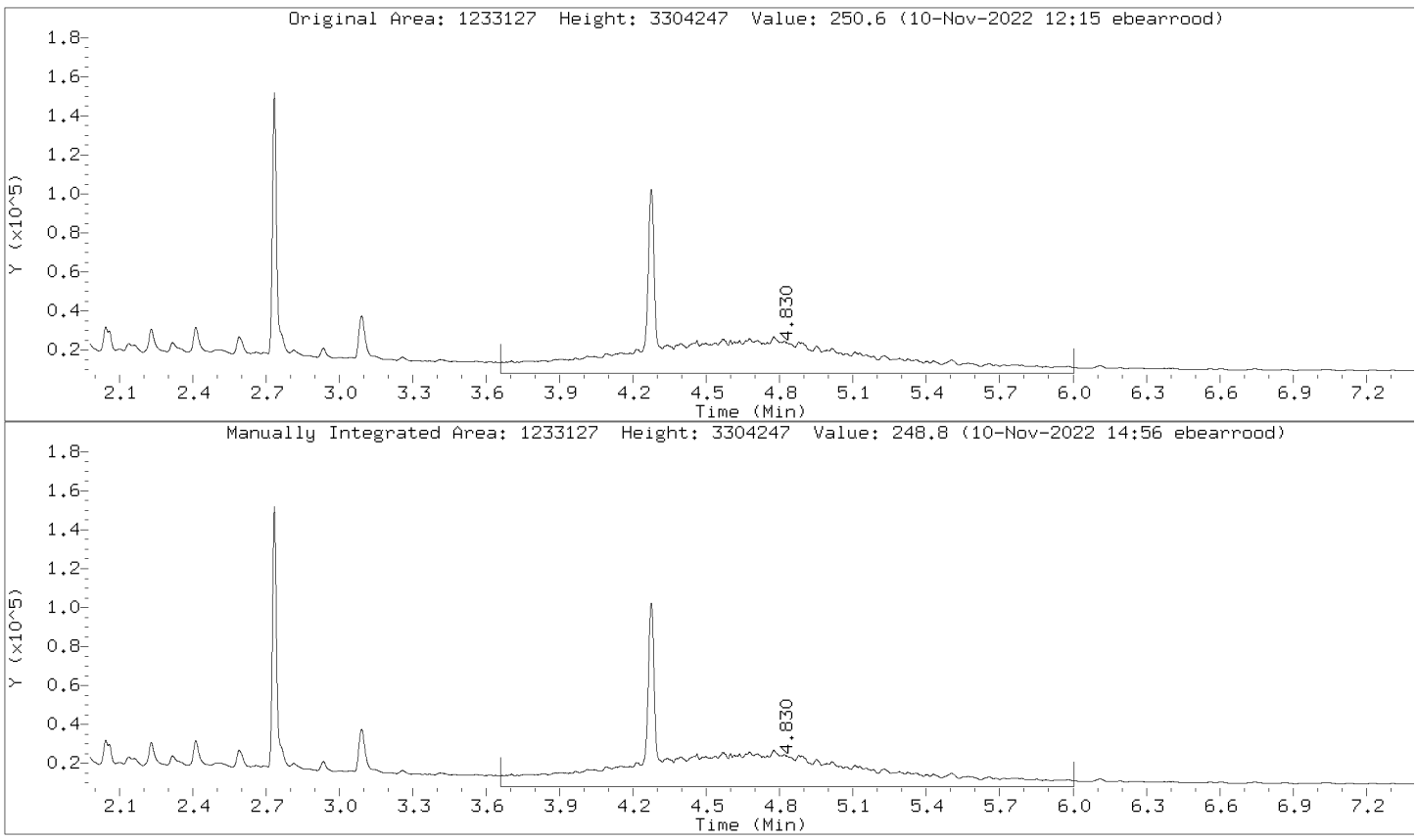
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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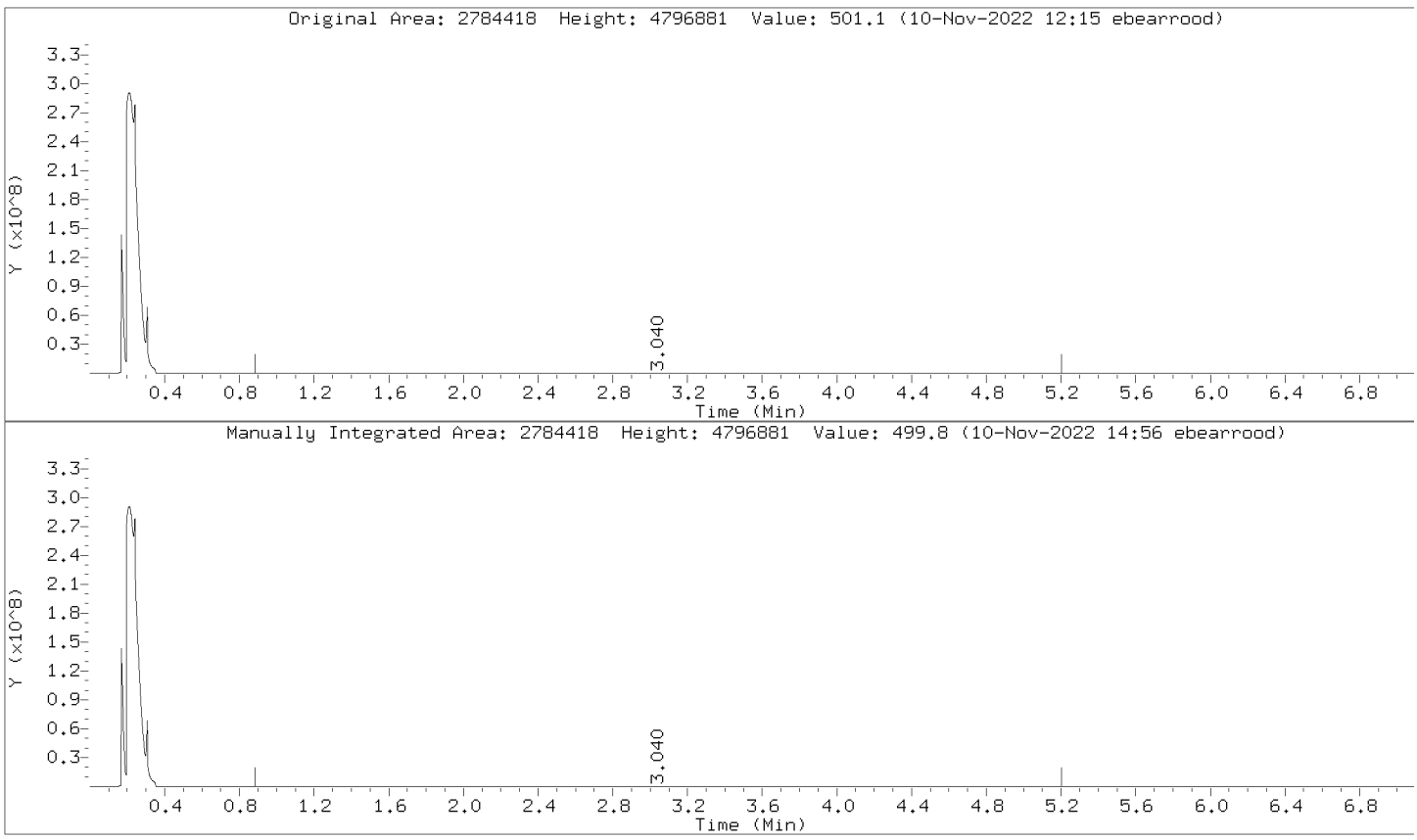
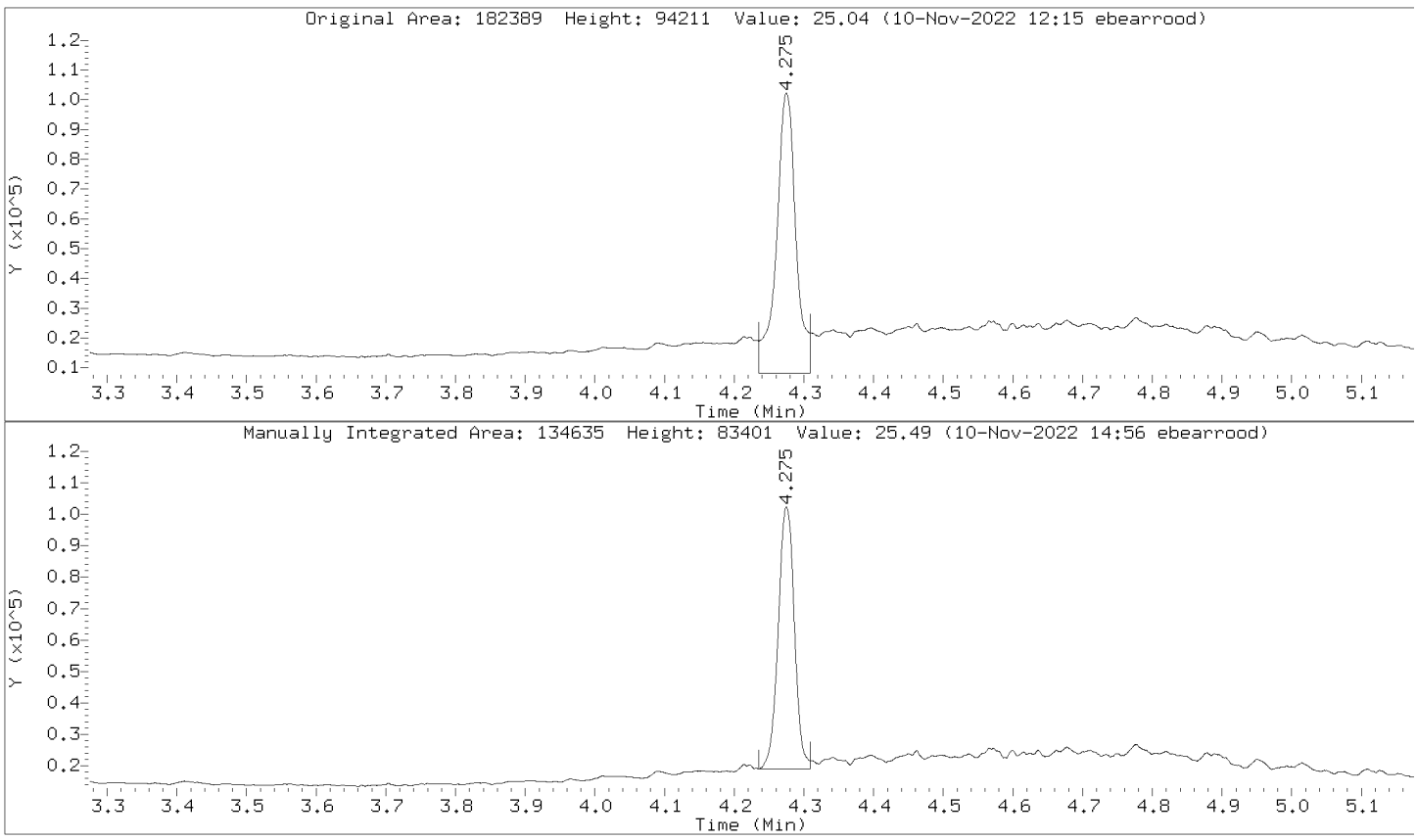
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



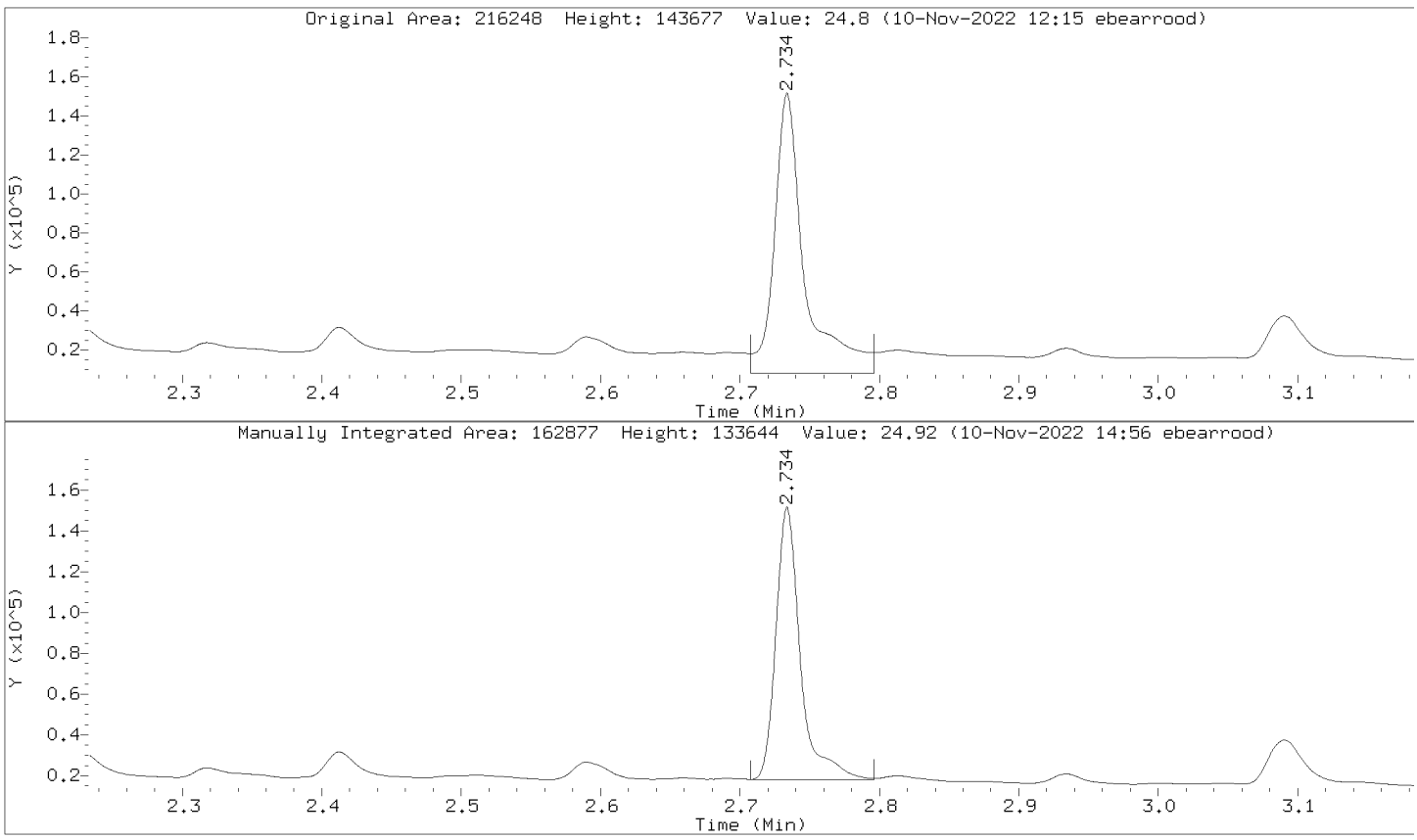
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			6099190	1000.00	1020	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	667884	100.000	100	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	532234	100.000	102	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			3764430	1000.00	1010	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.219			7097120	1000.00	1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			3964256	1000.00	1020	(M)	RNG
S 7 C10-C36					CAS #:		
0.880 - 5.200			9895685	2000.00	2030	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG

QC Flag Legend

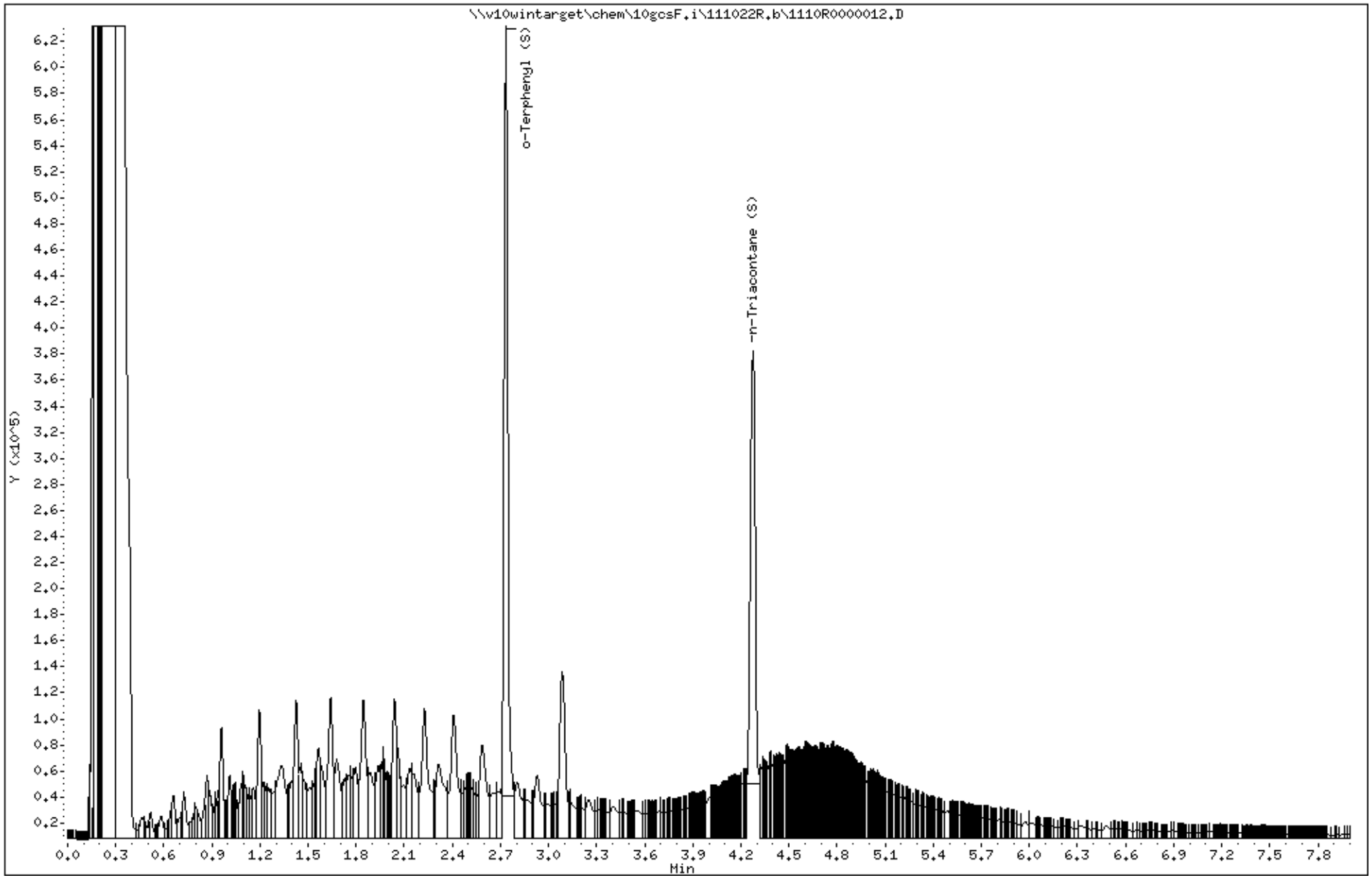
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

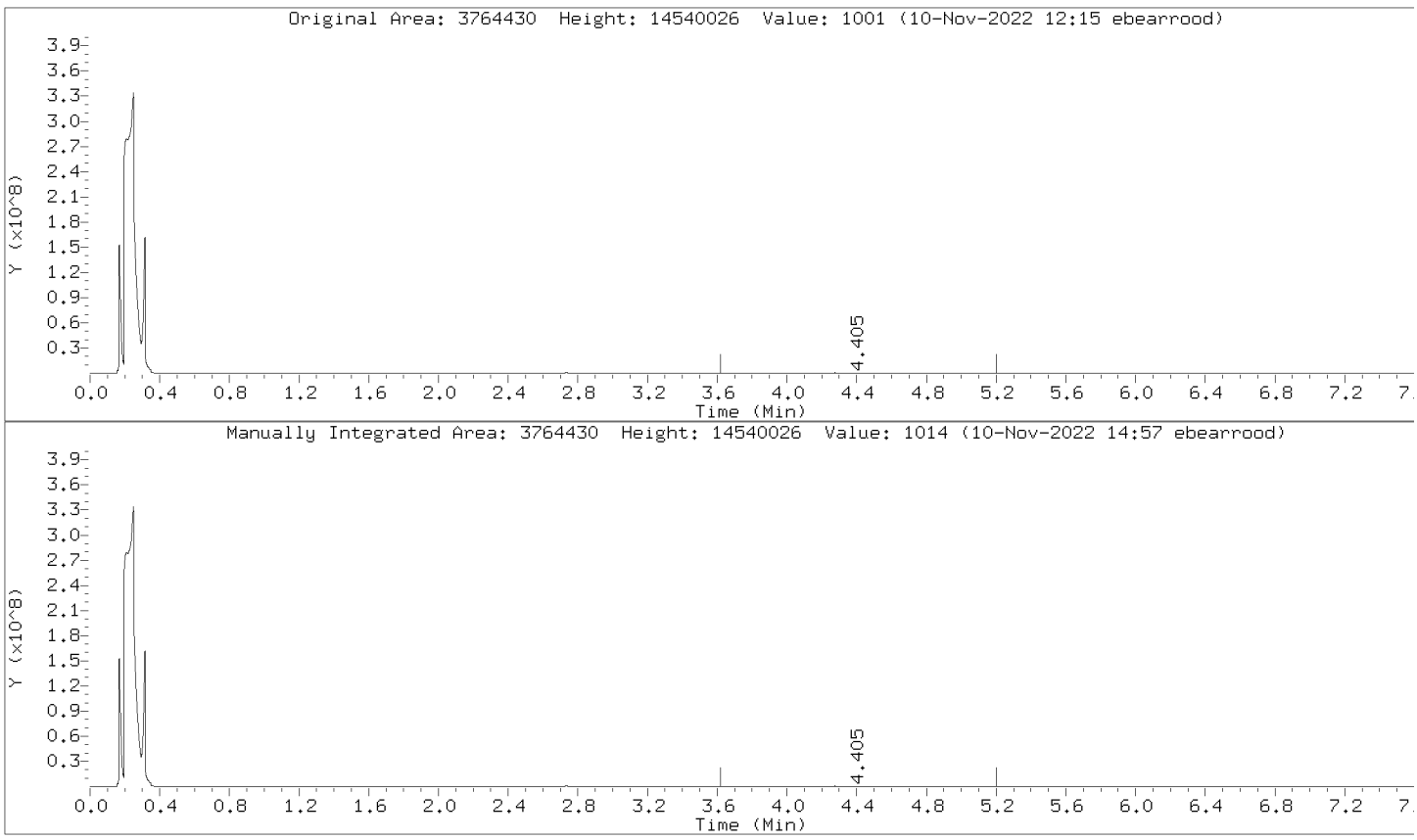
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



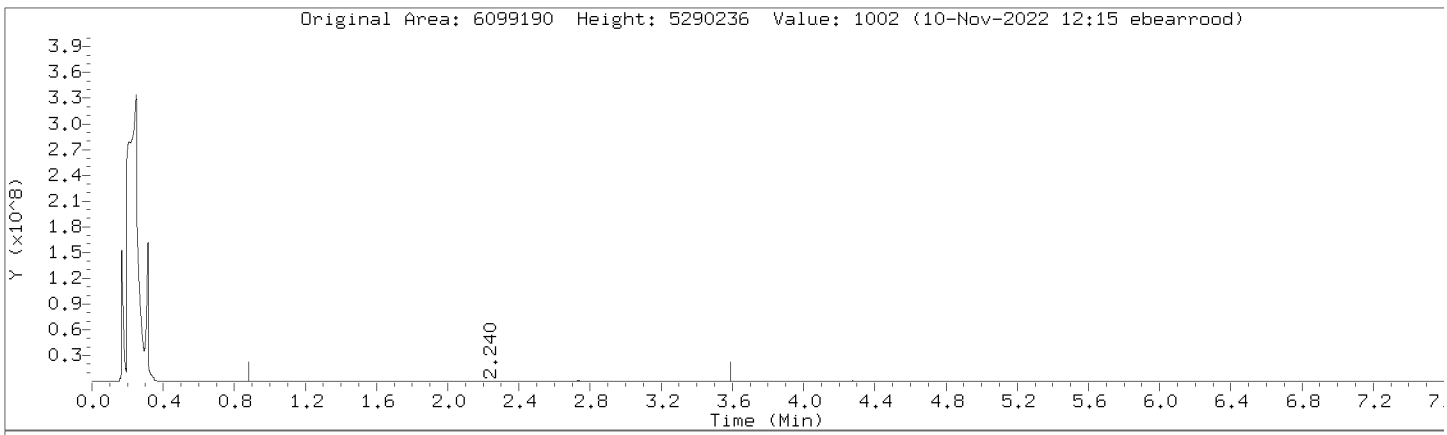
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

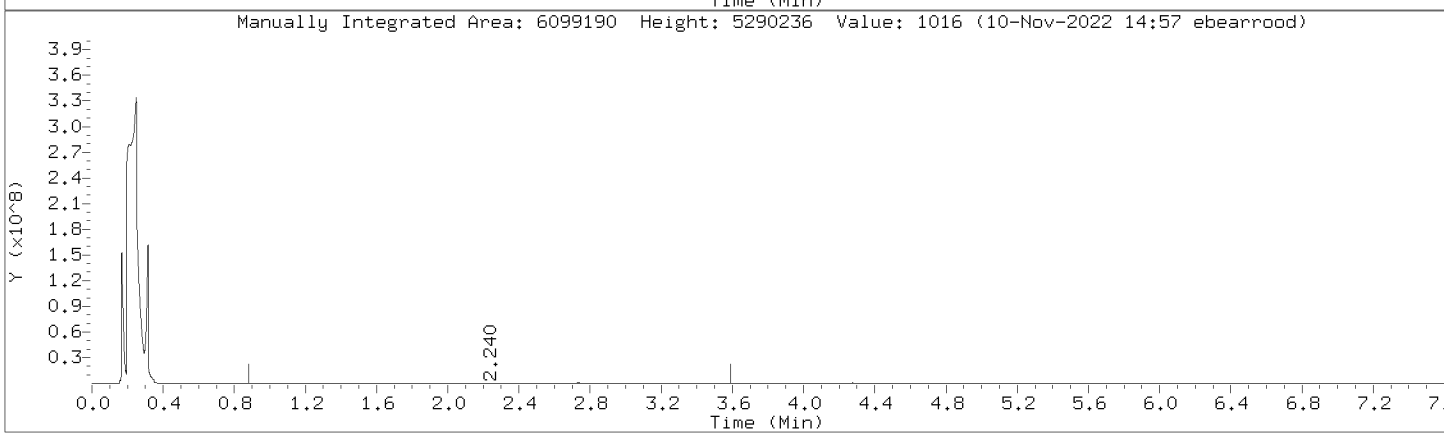
Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

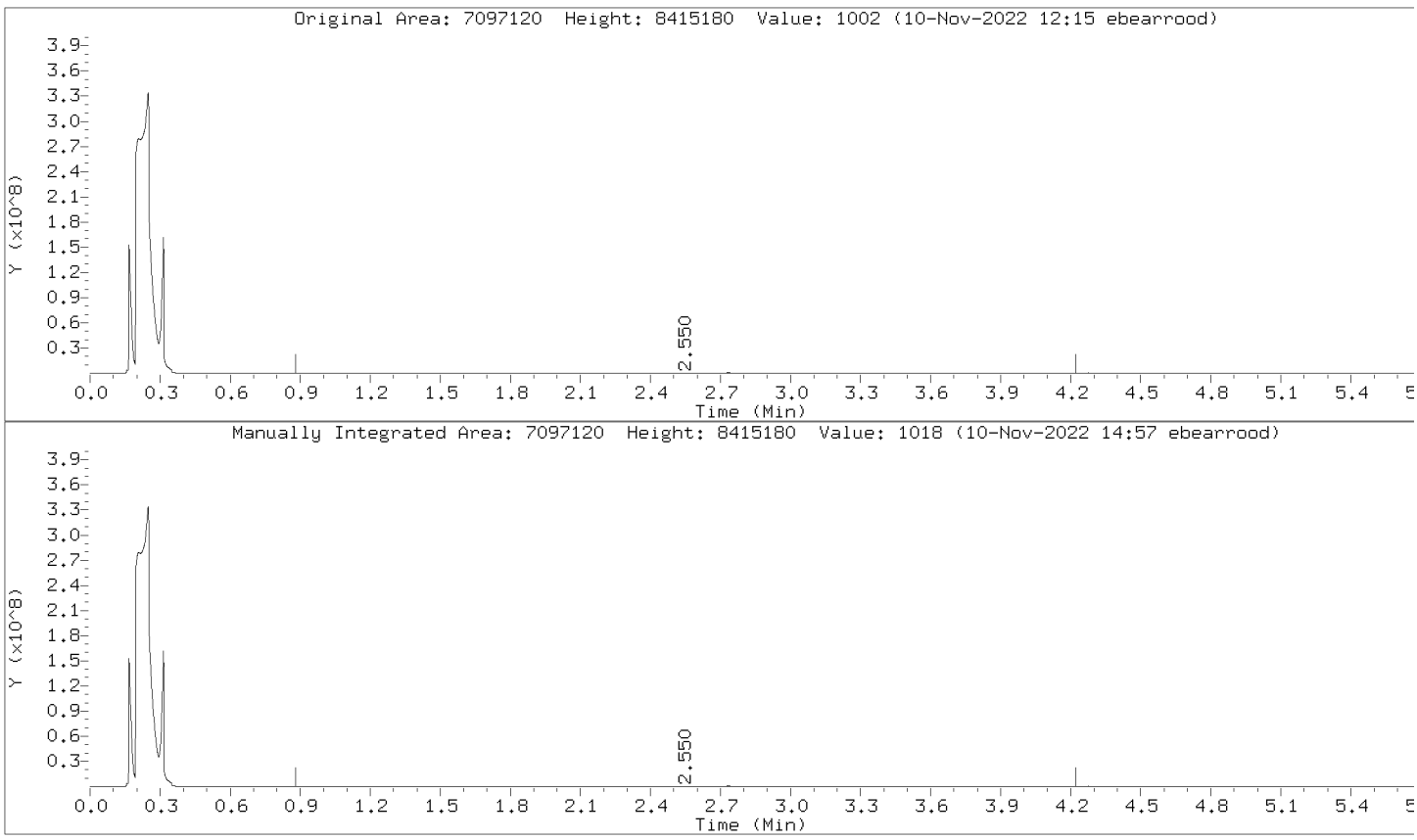
Compound: DRO by AK 102 Review Code: RNG
CAS Number:





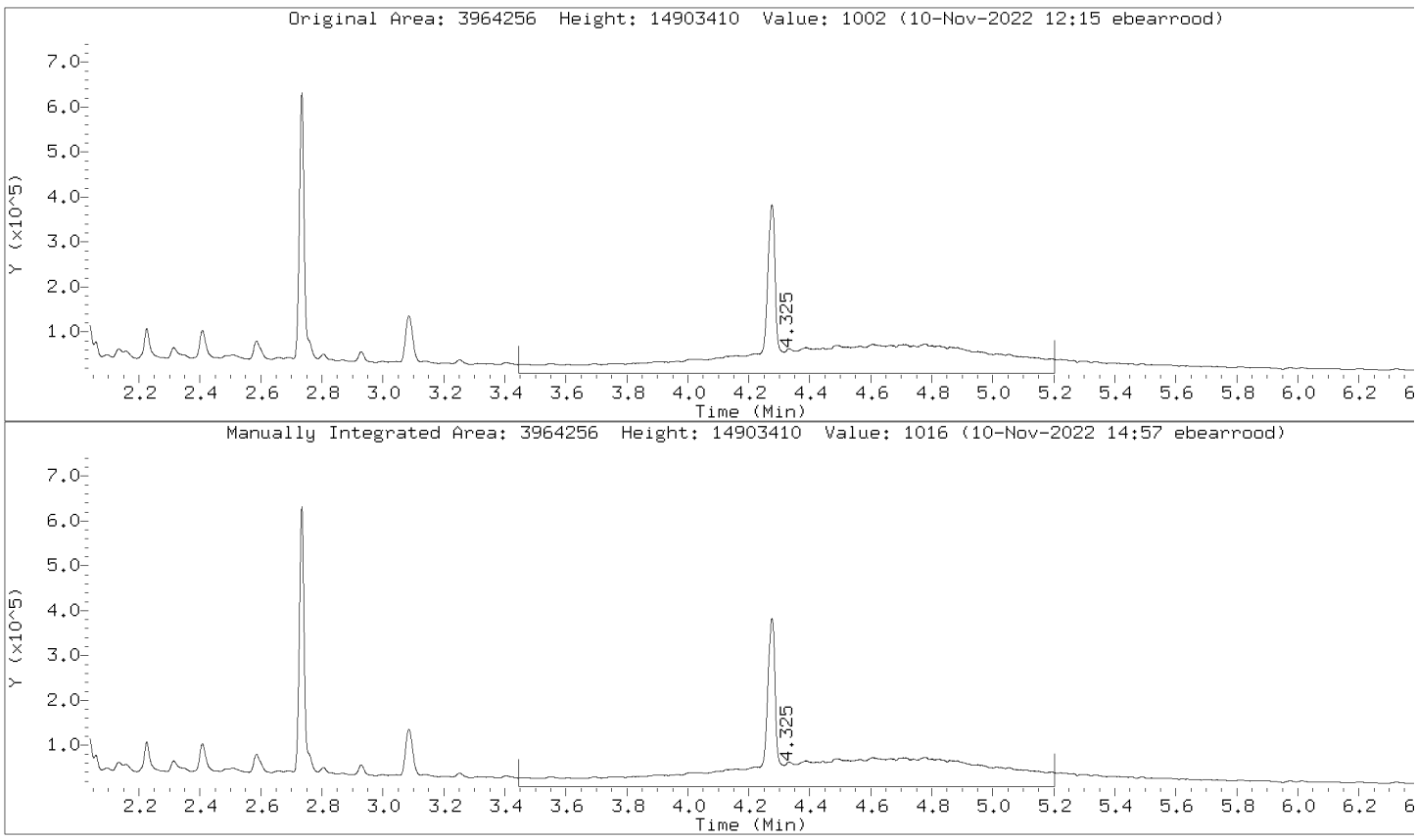
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



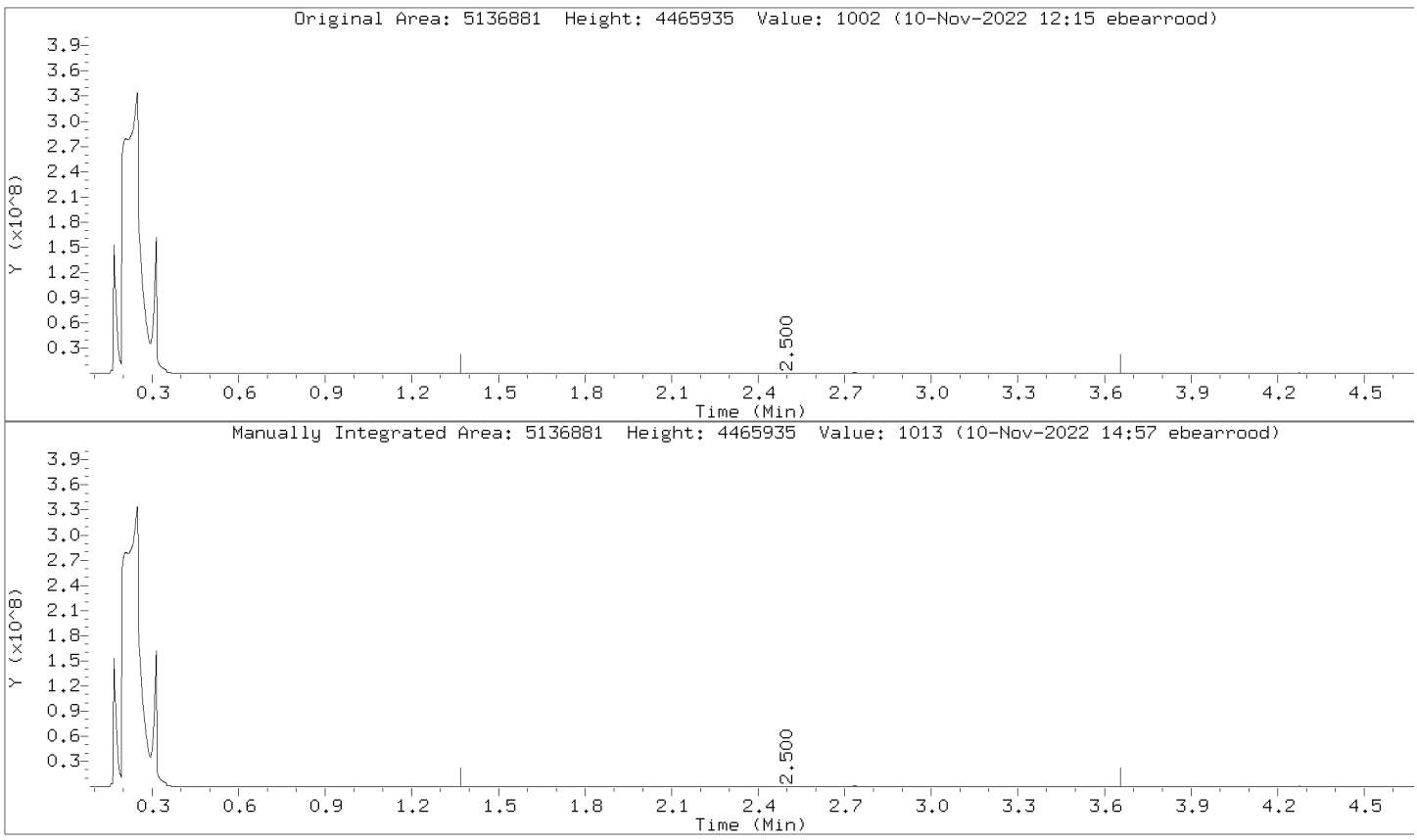
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



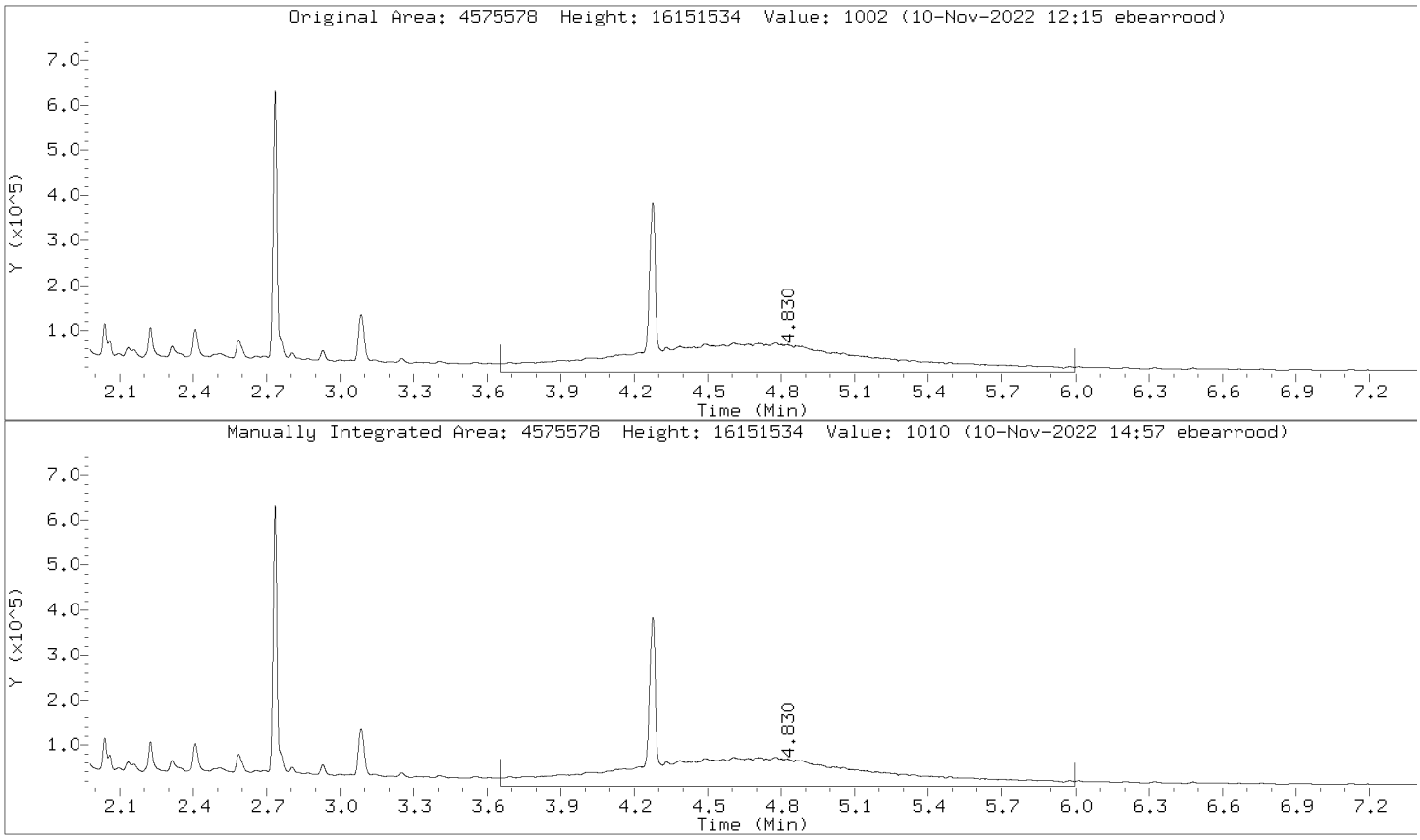
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



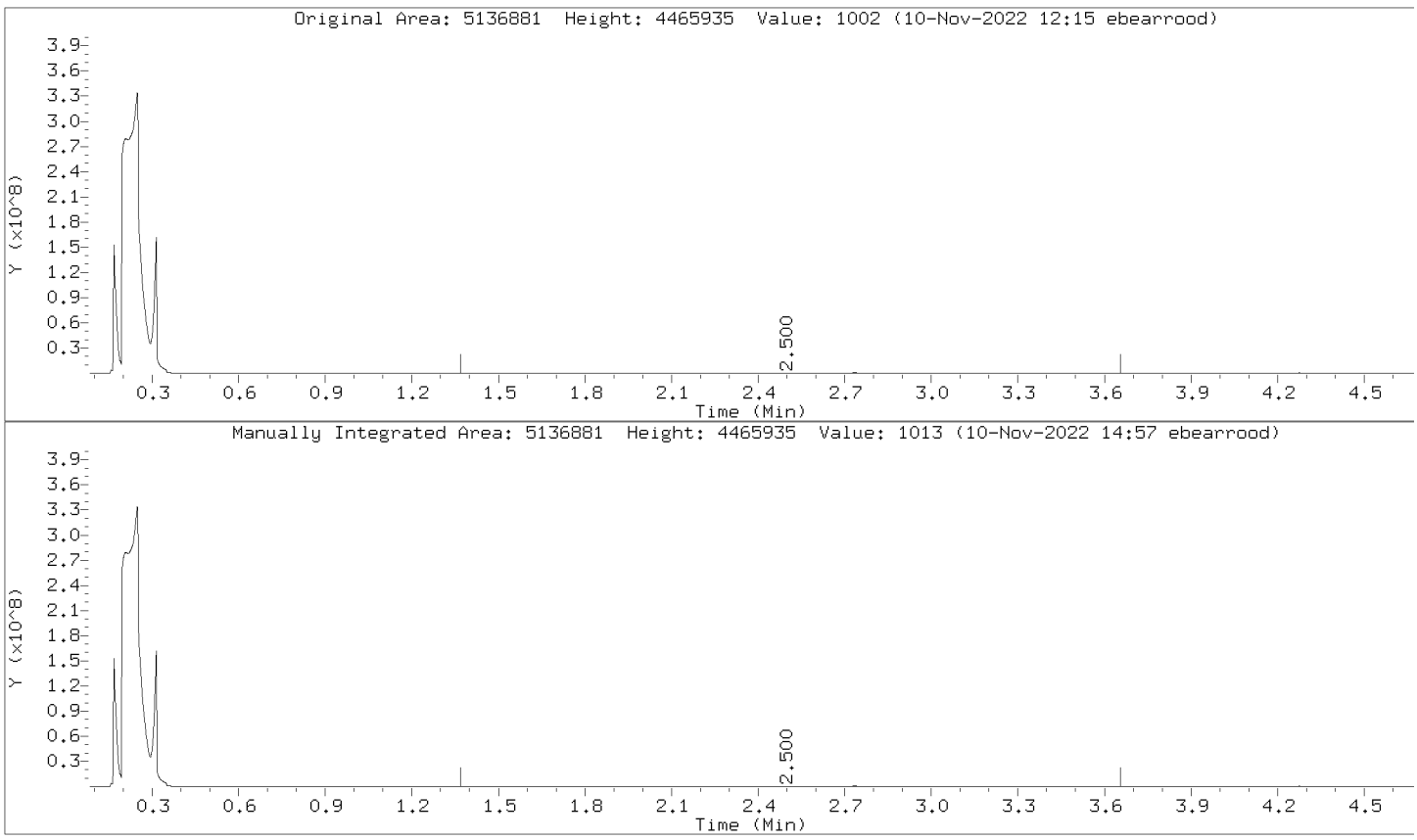
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



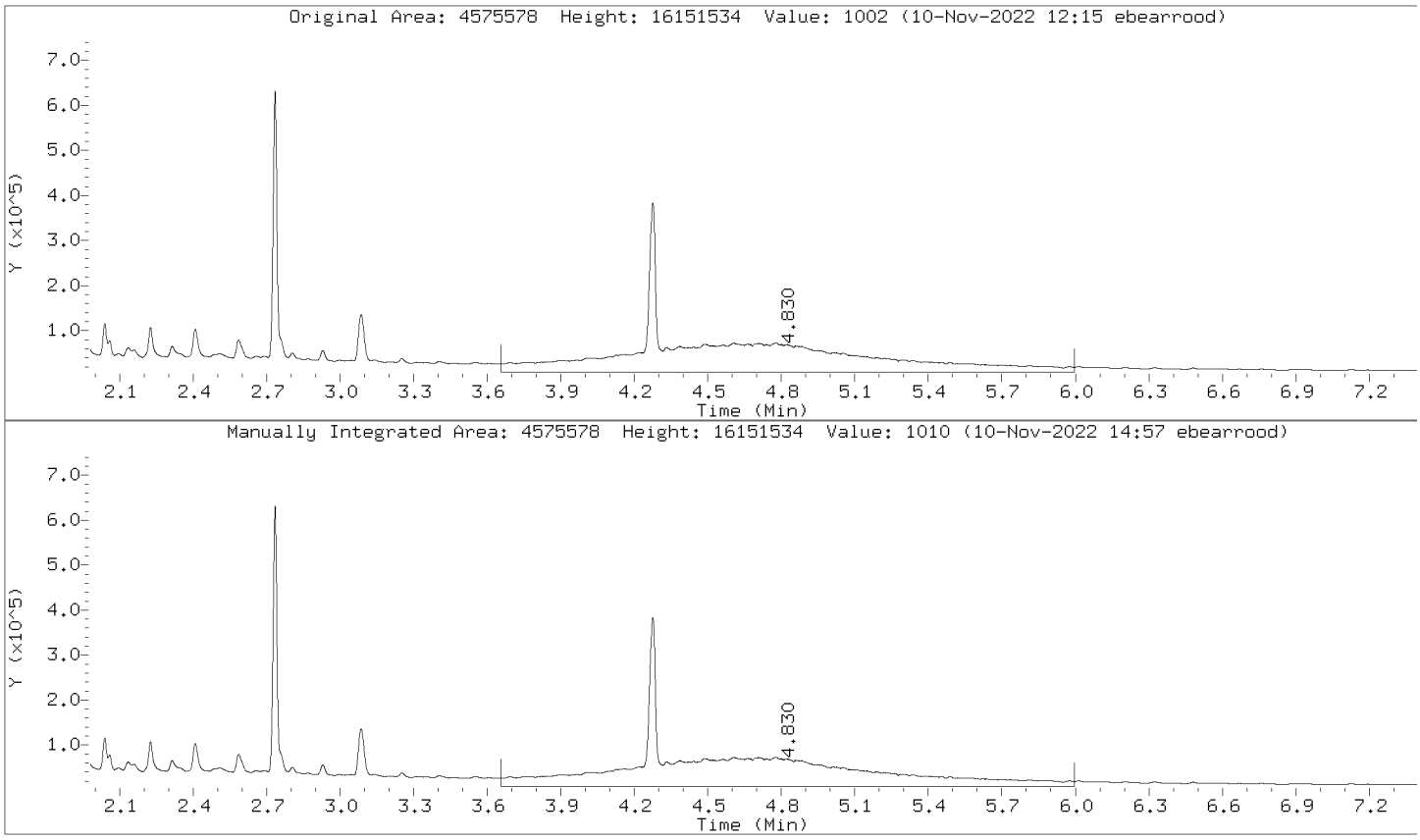
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



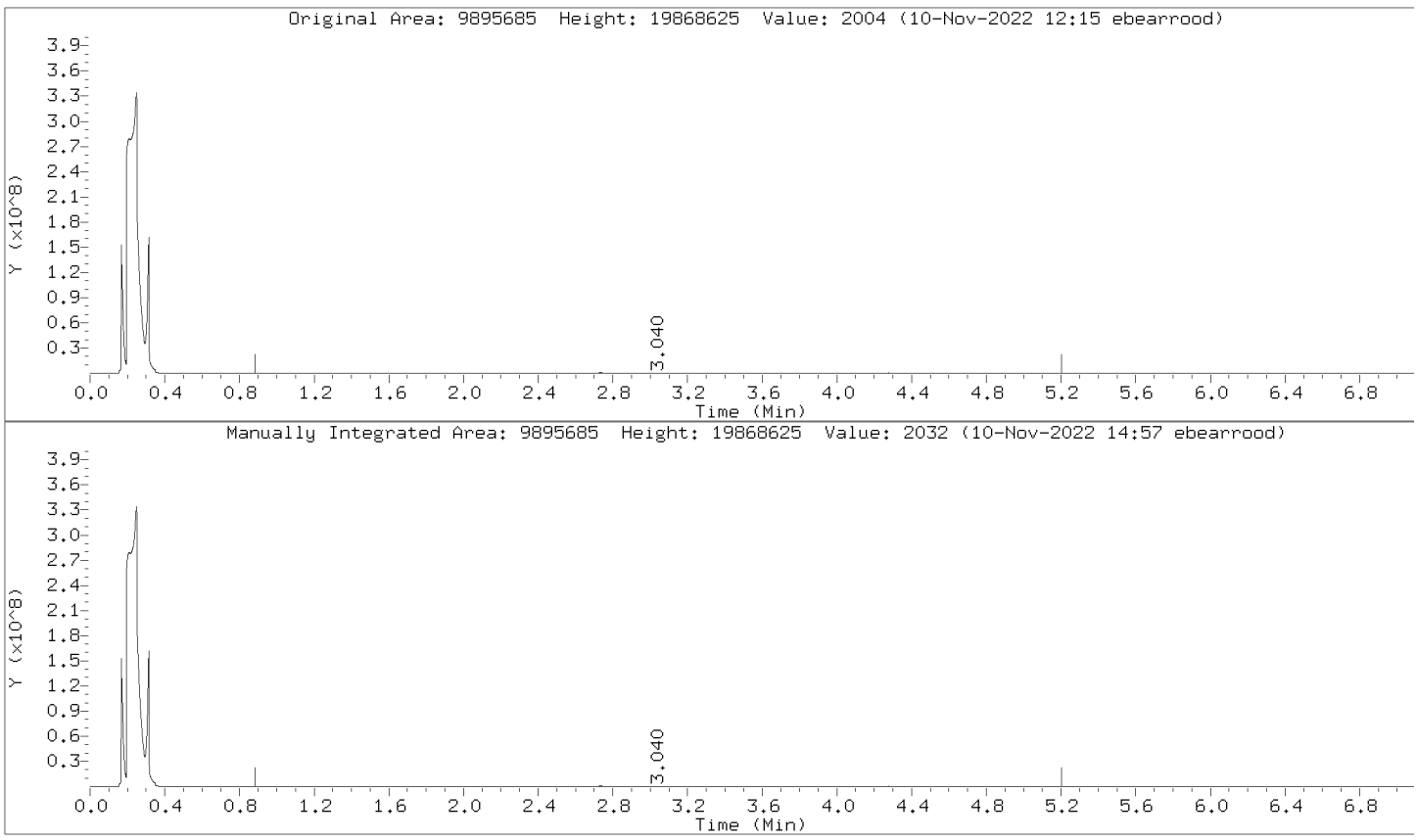
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



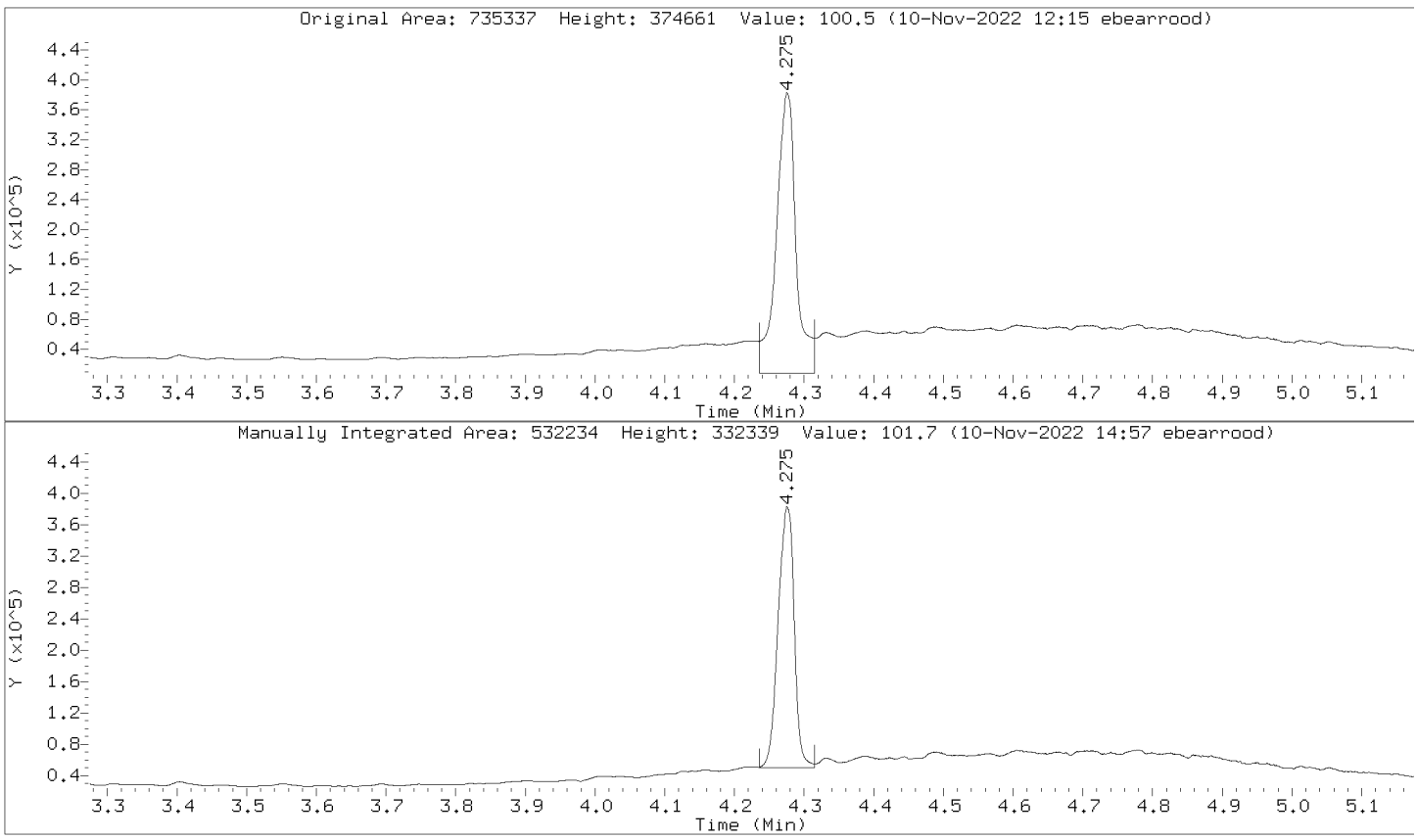
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



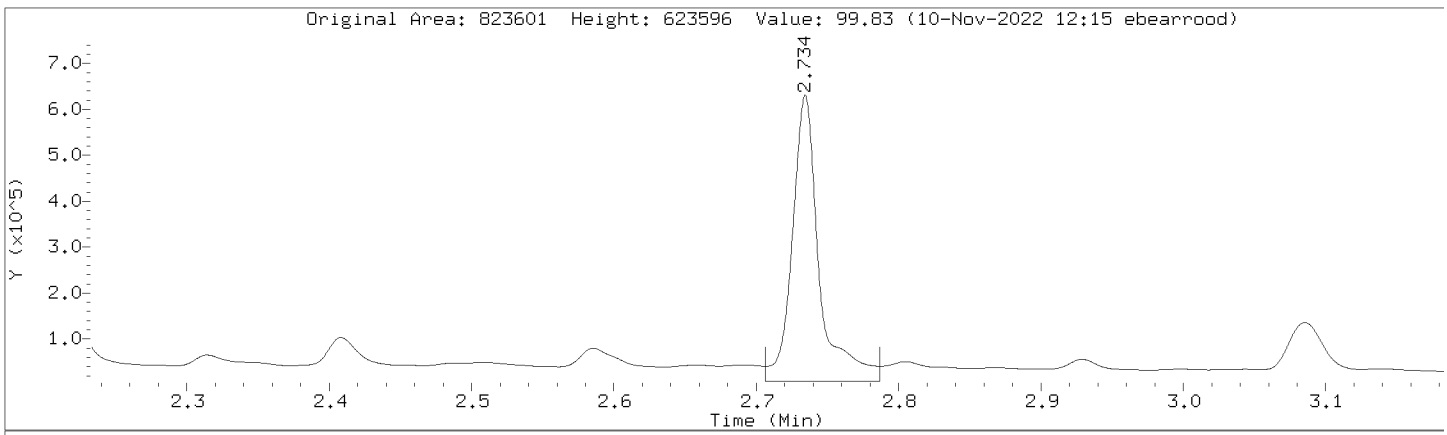
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

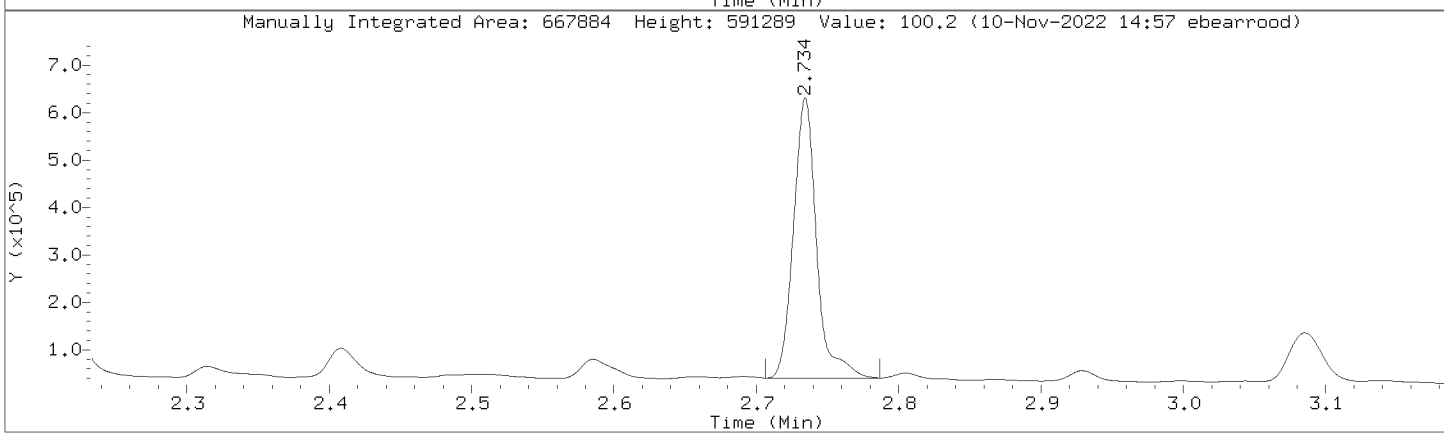
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

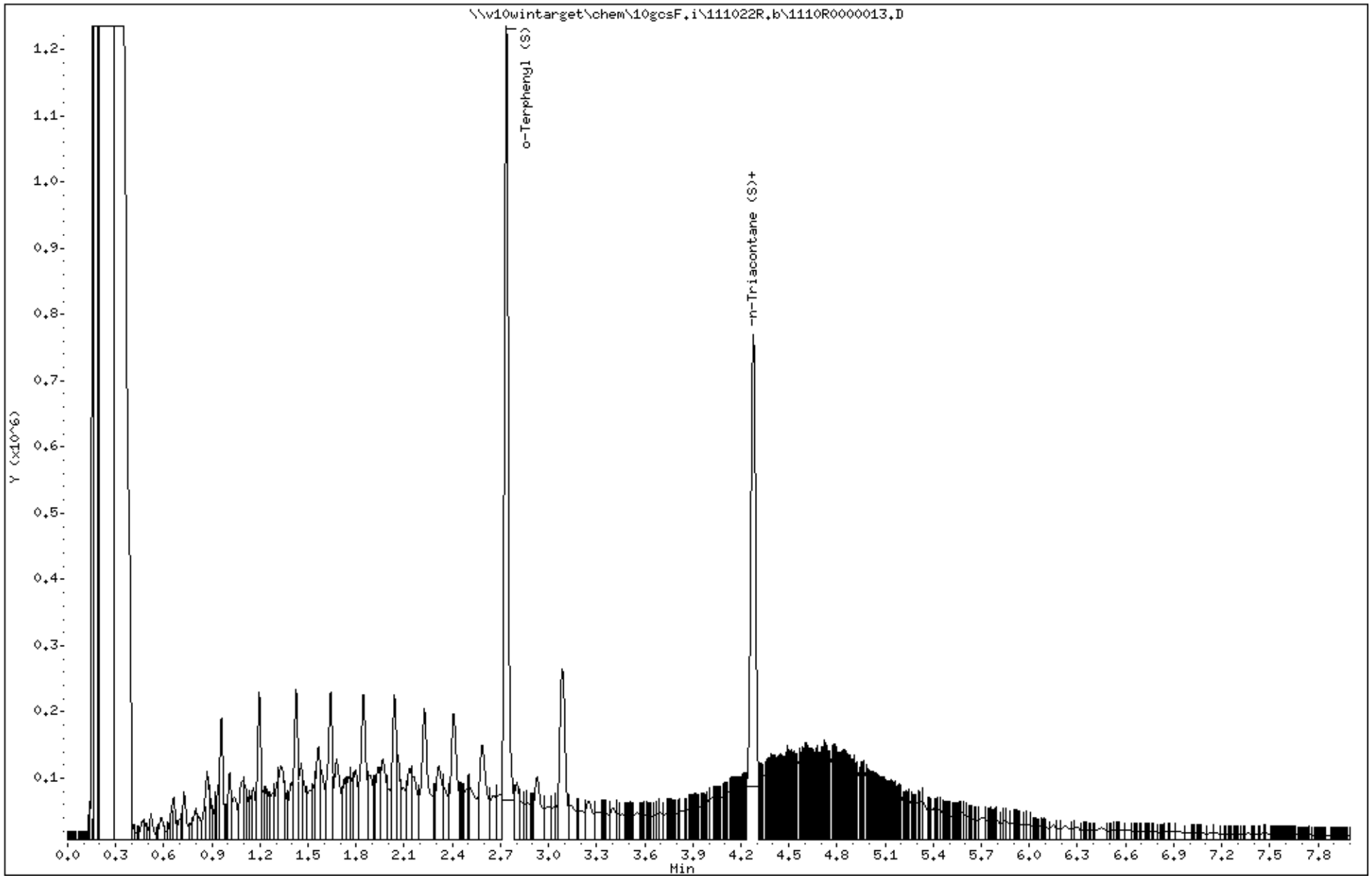
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

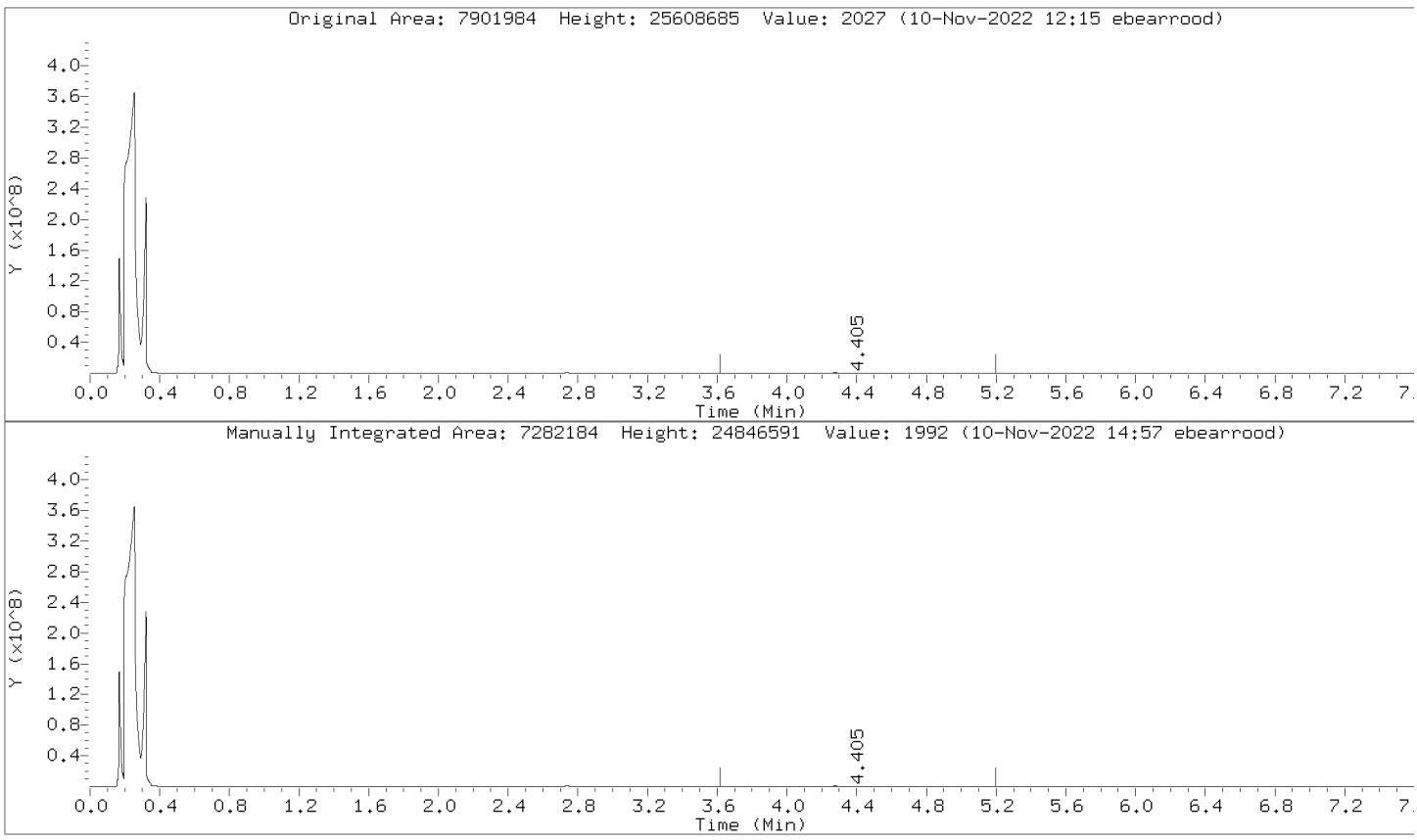
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



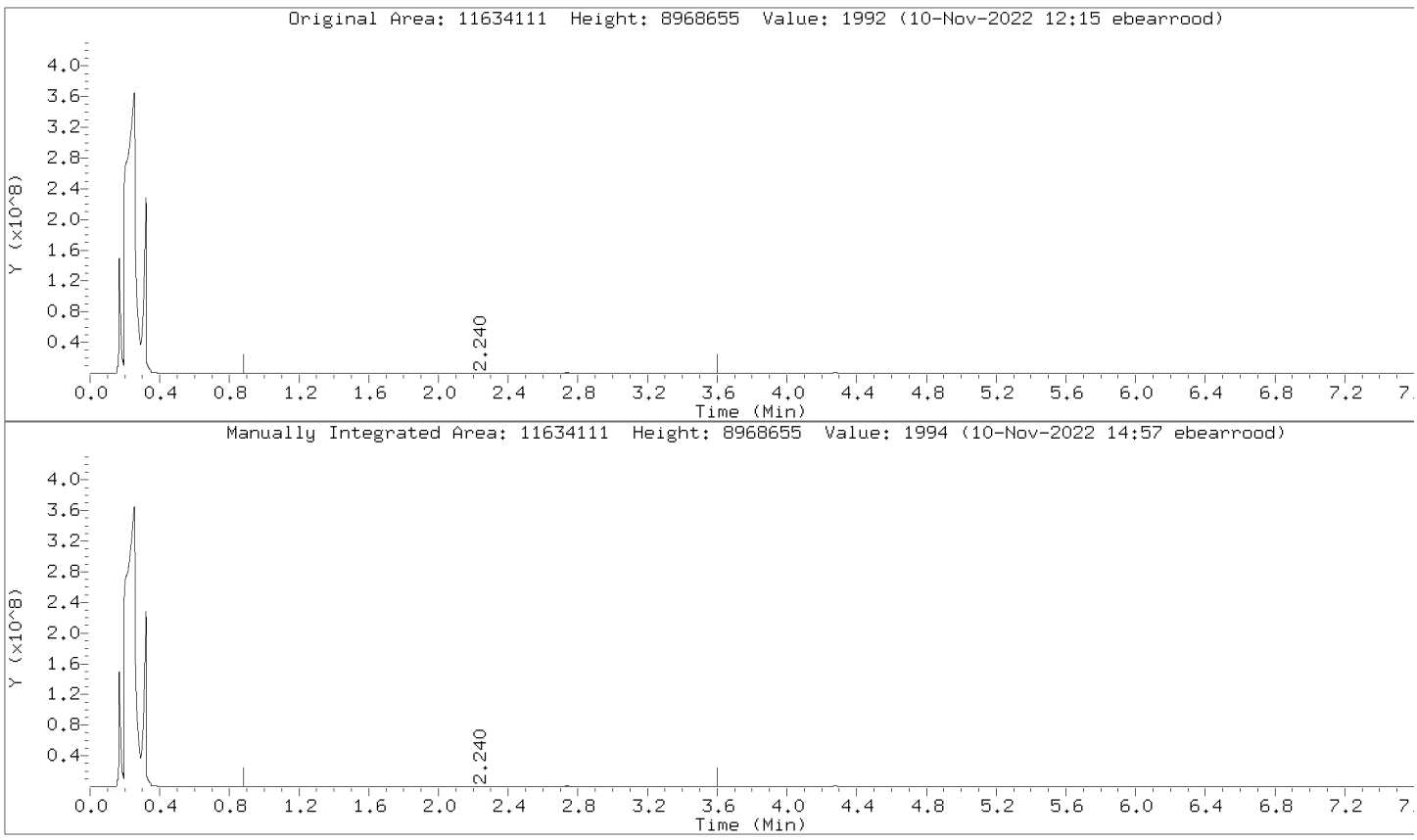
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



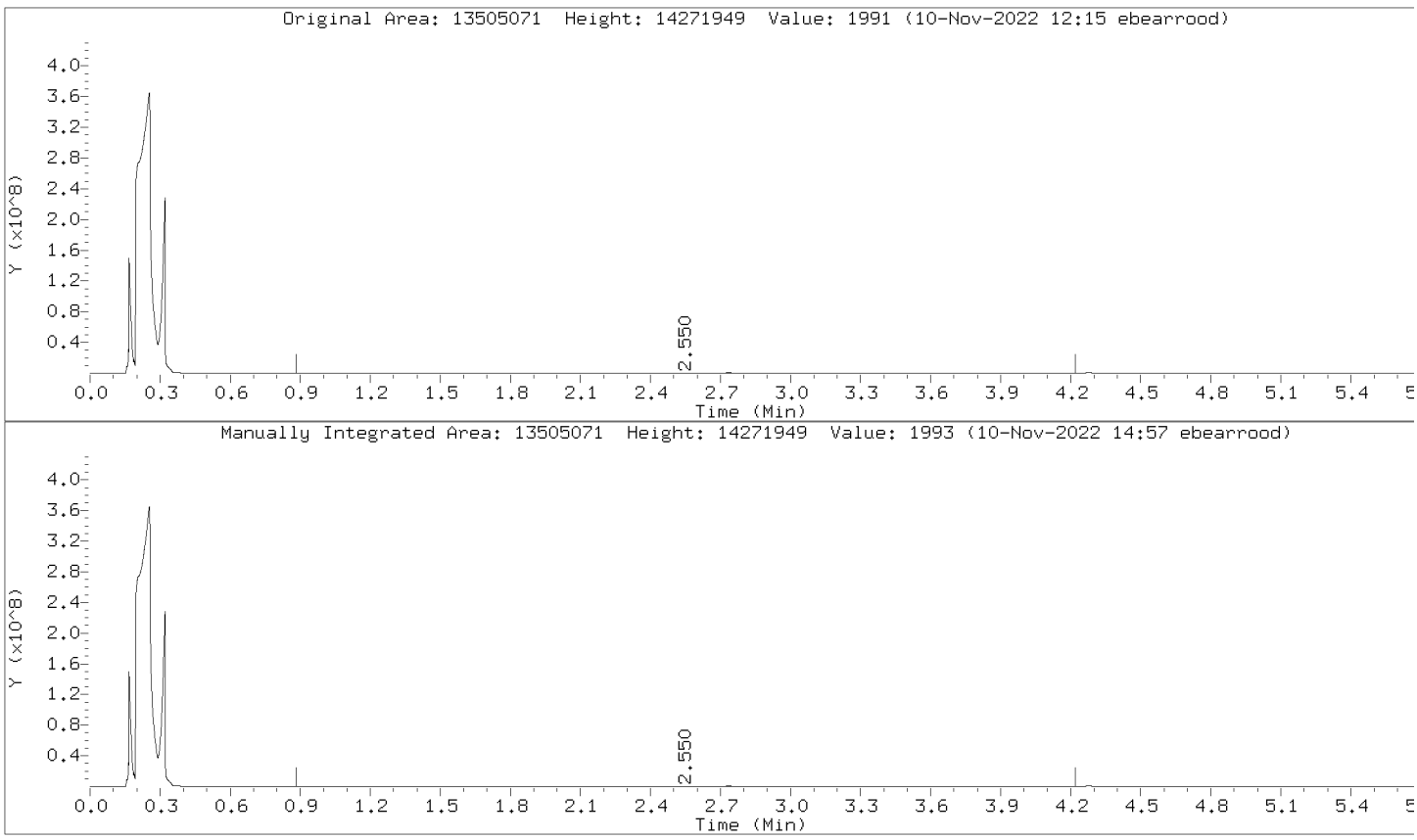
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



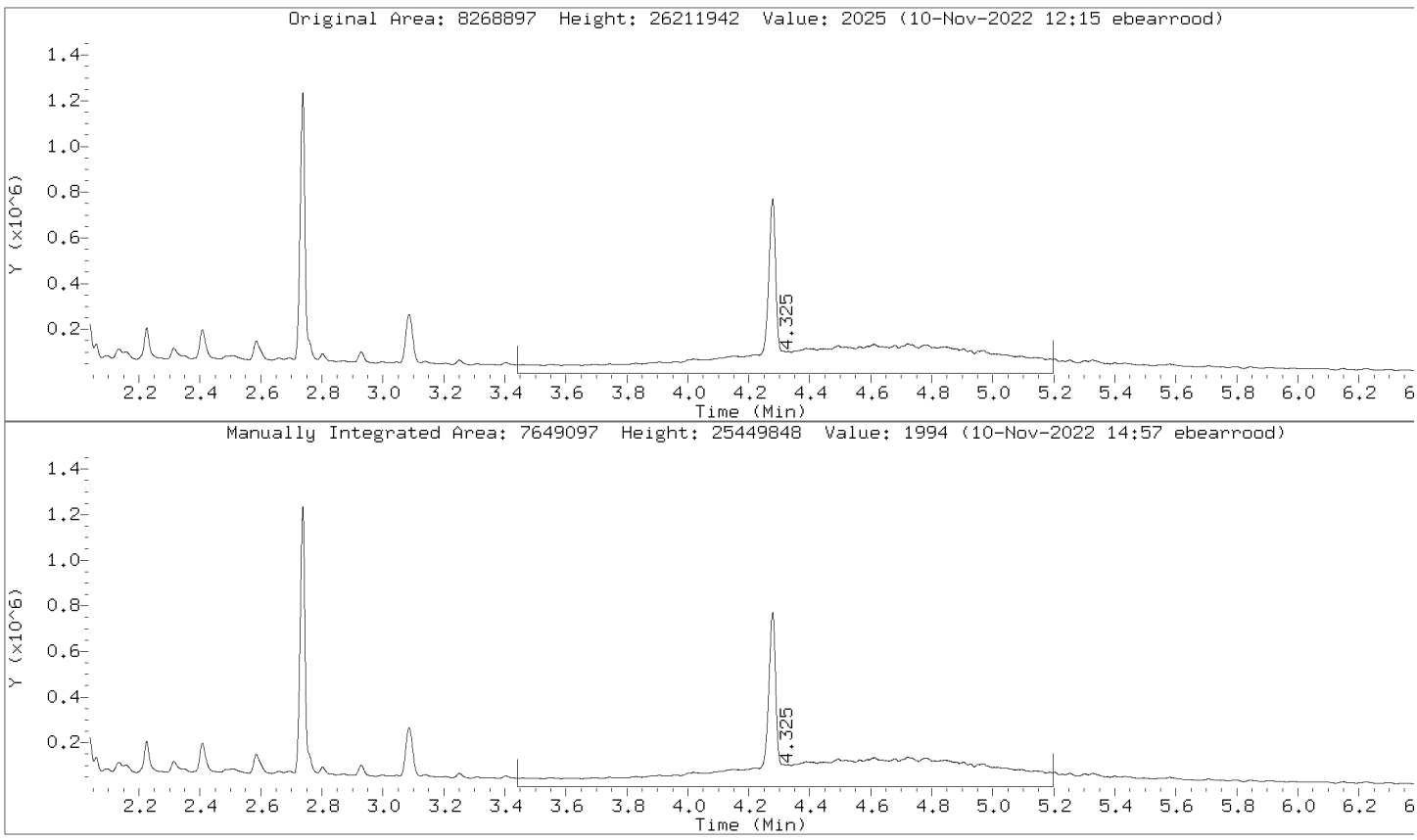
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



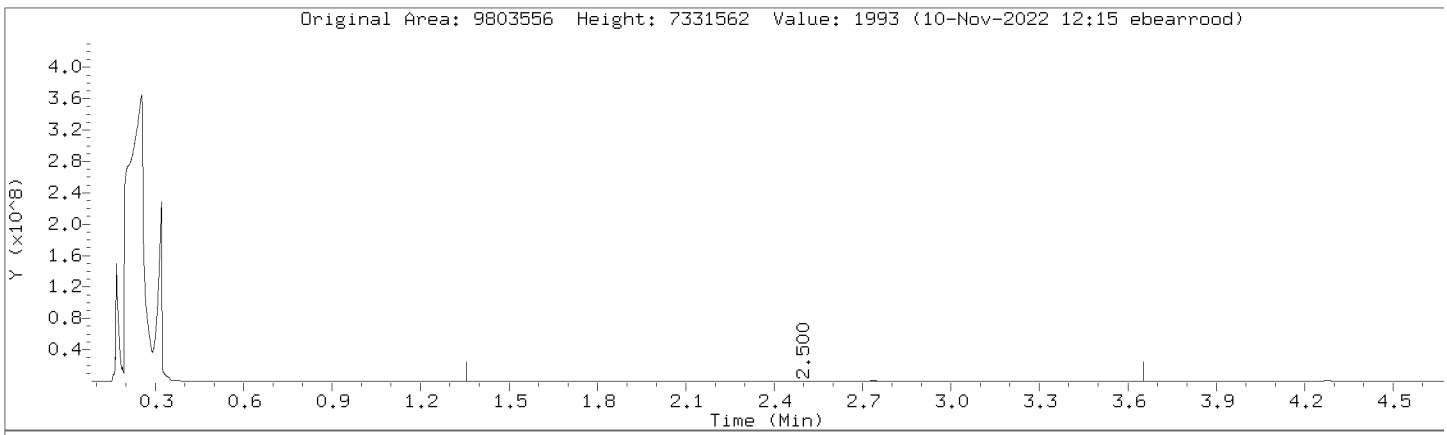
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

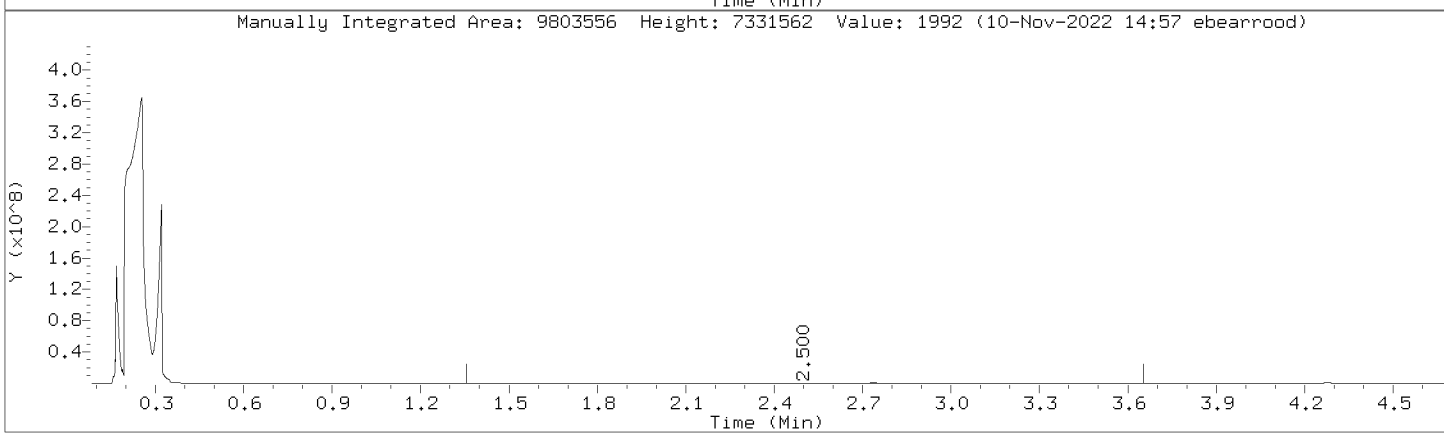
Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

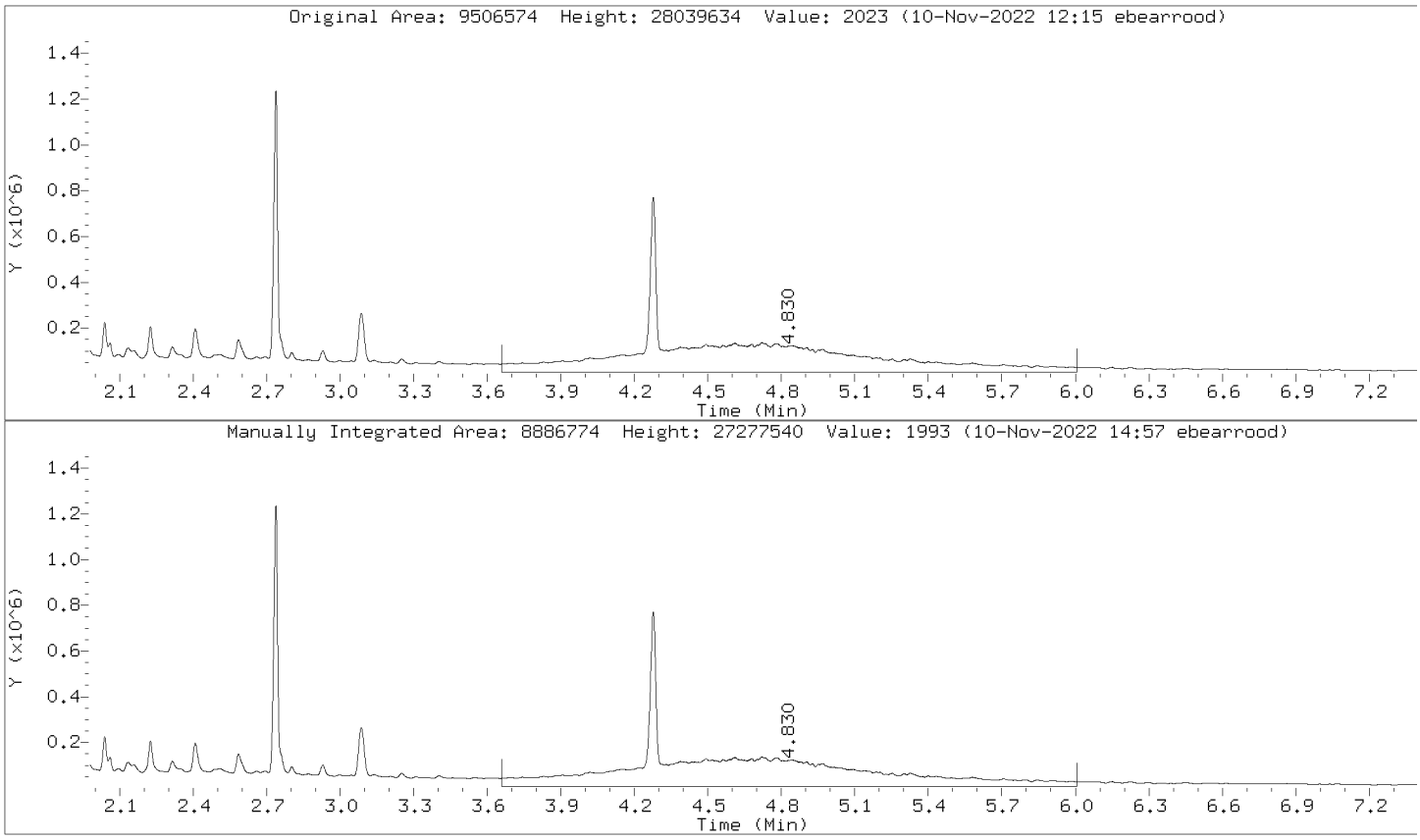
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





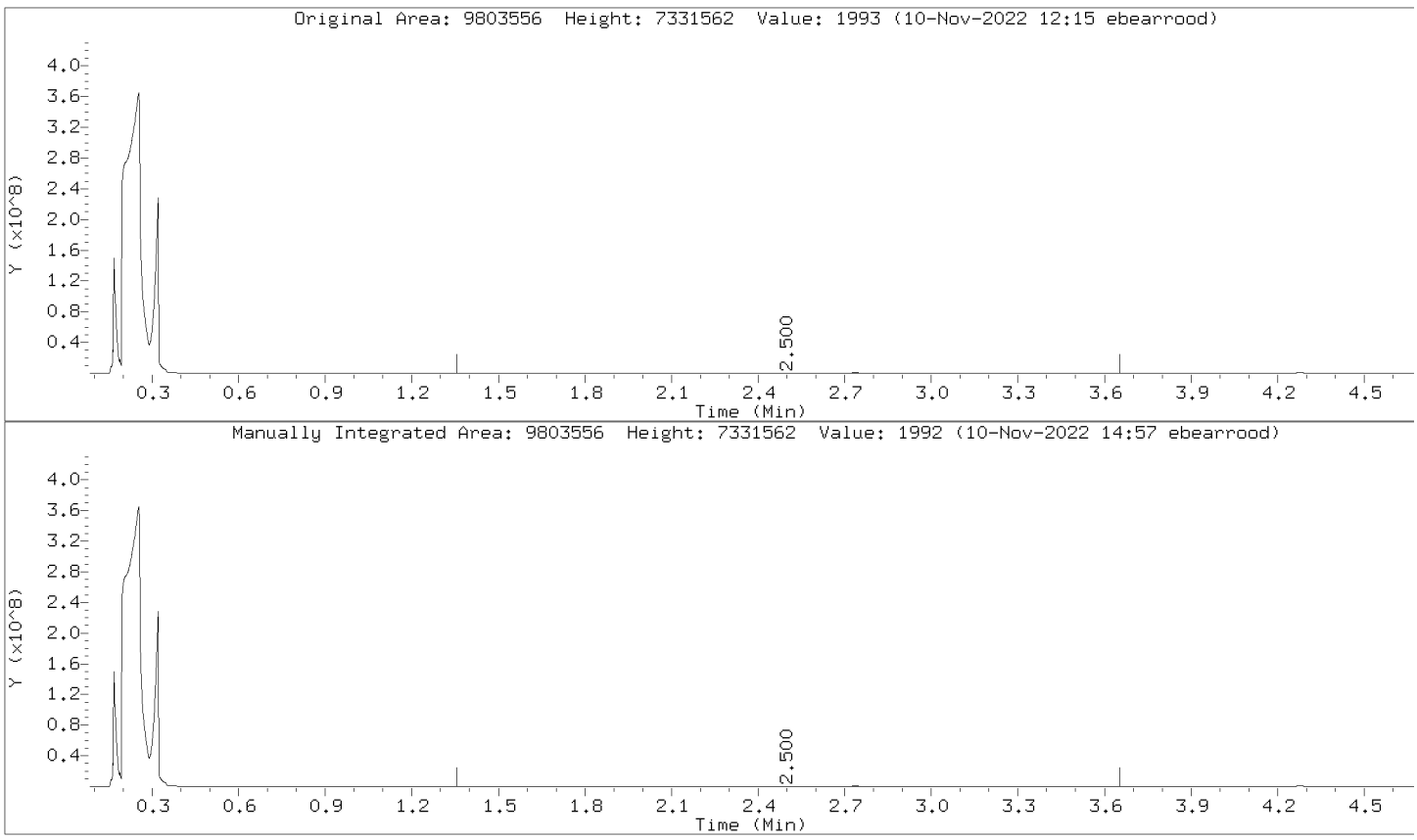
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



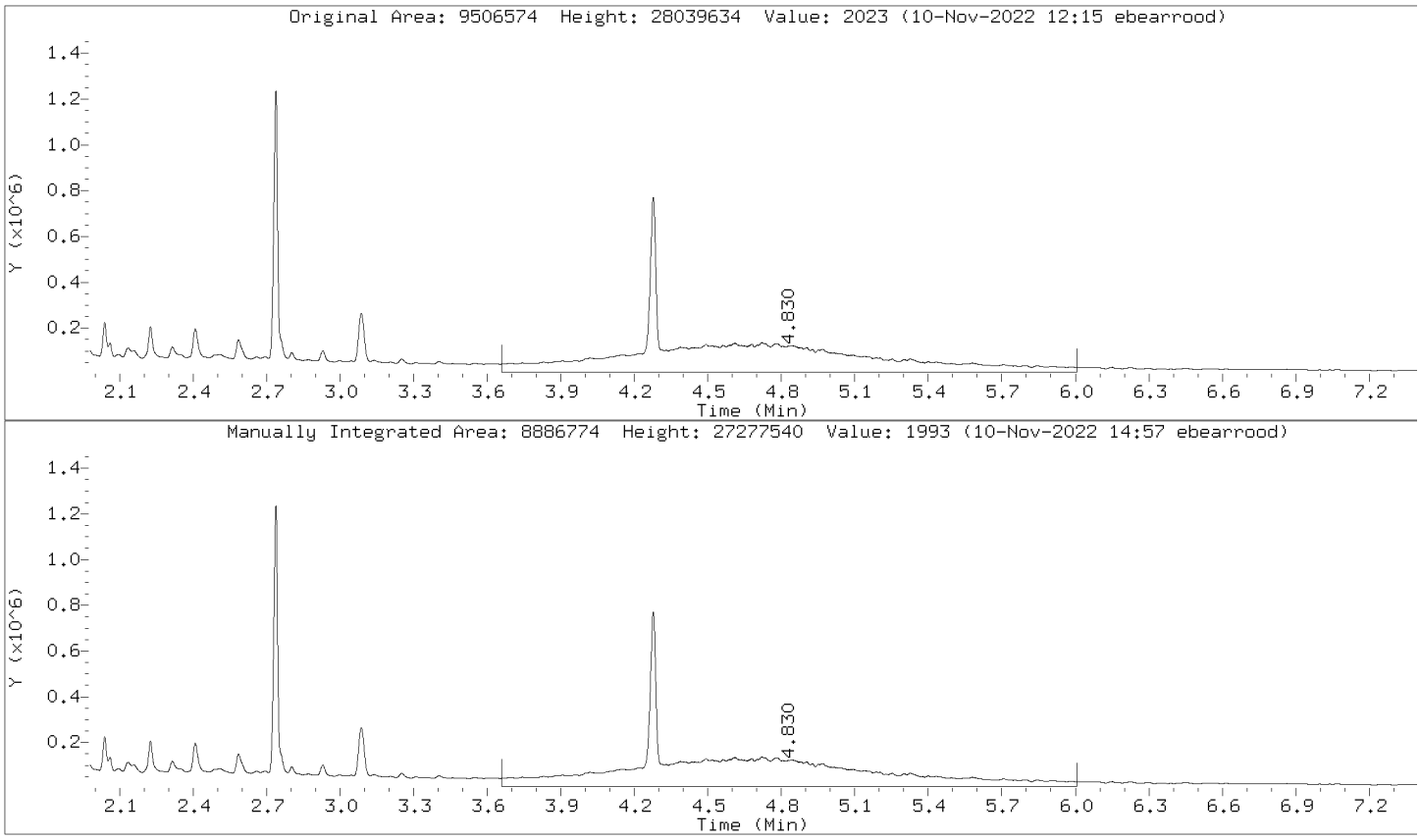
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



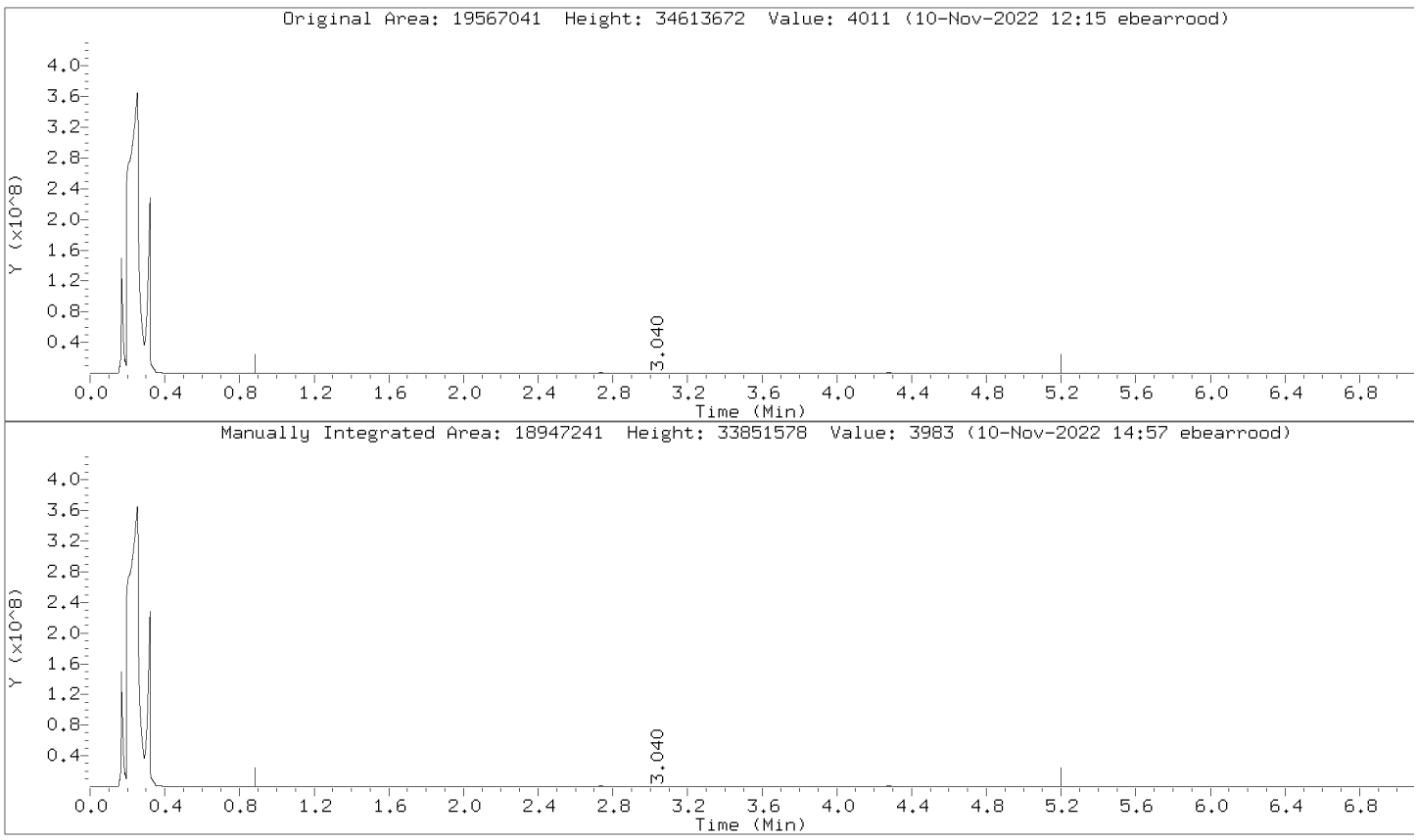
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



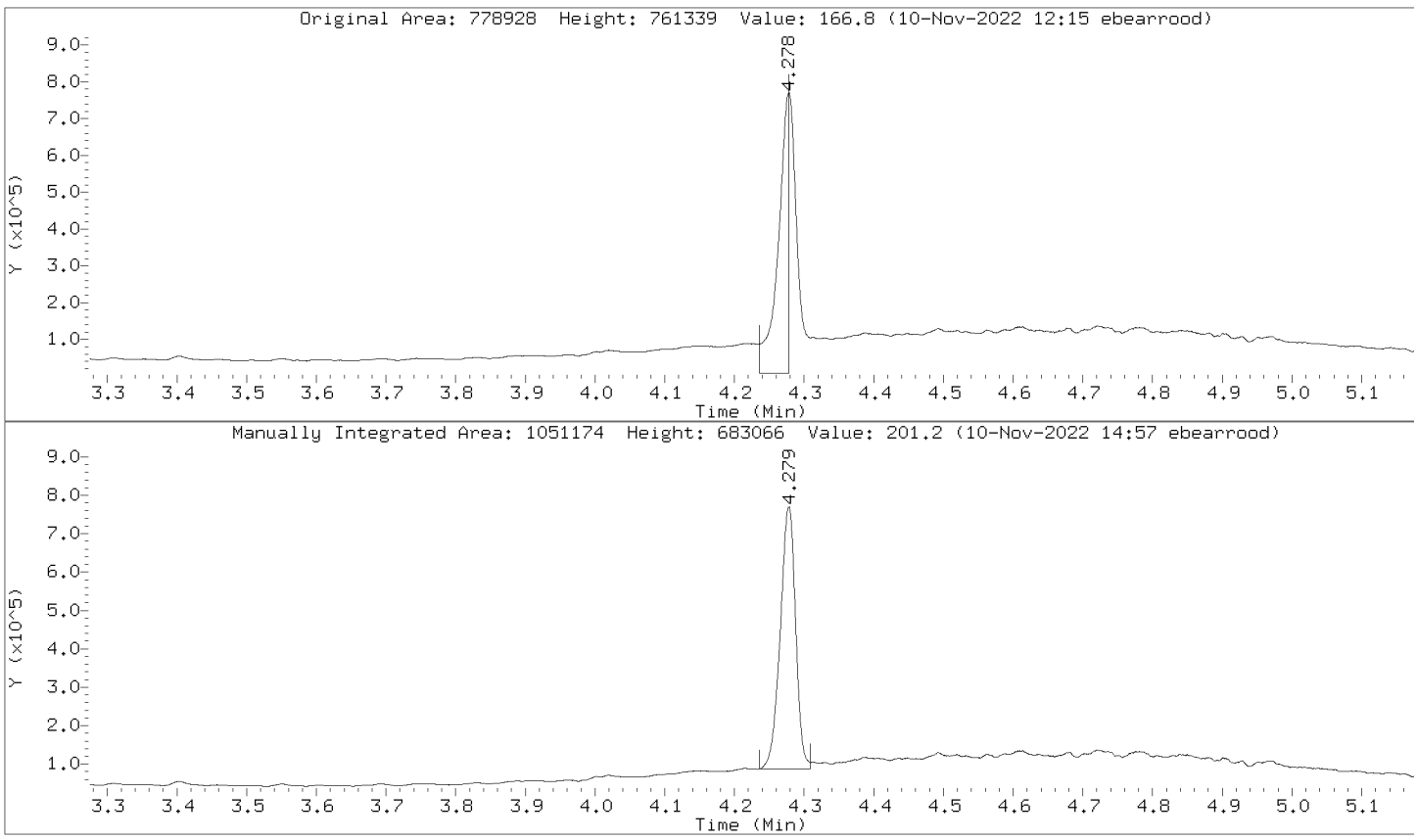
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: C10-C36 Review Code: RNG
CAS Number:



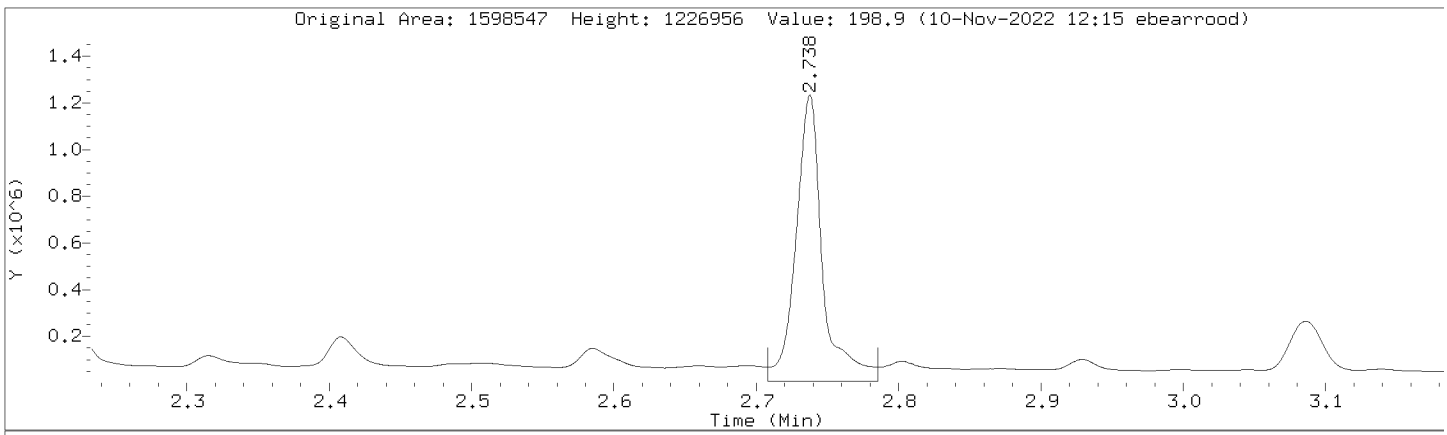
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

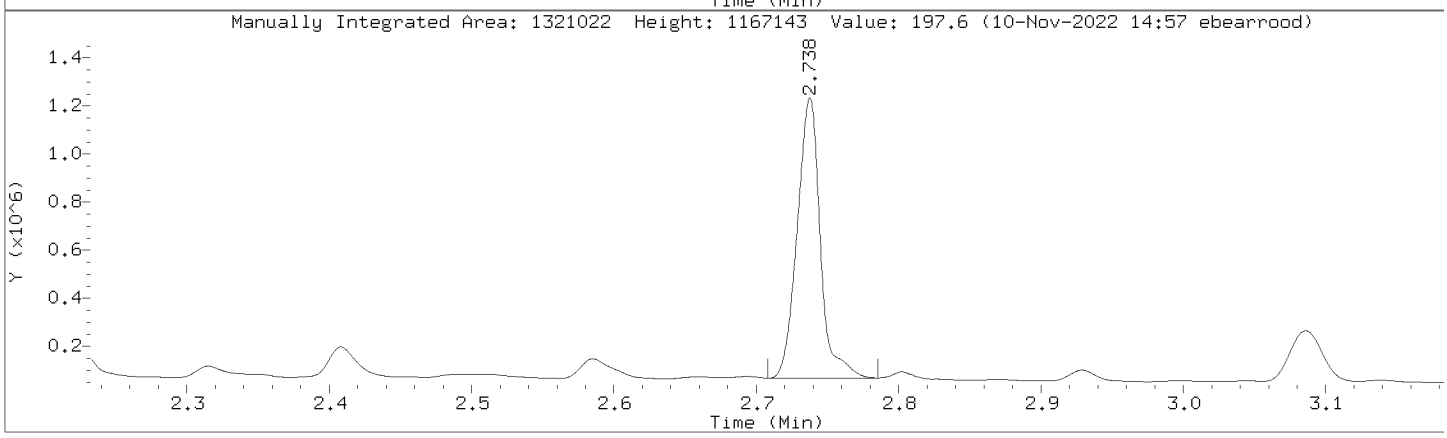
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

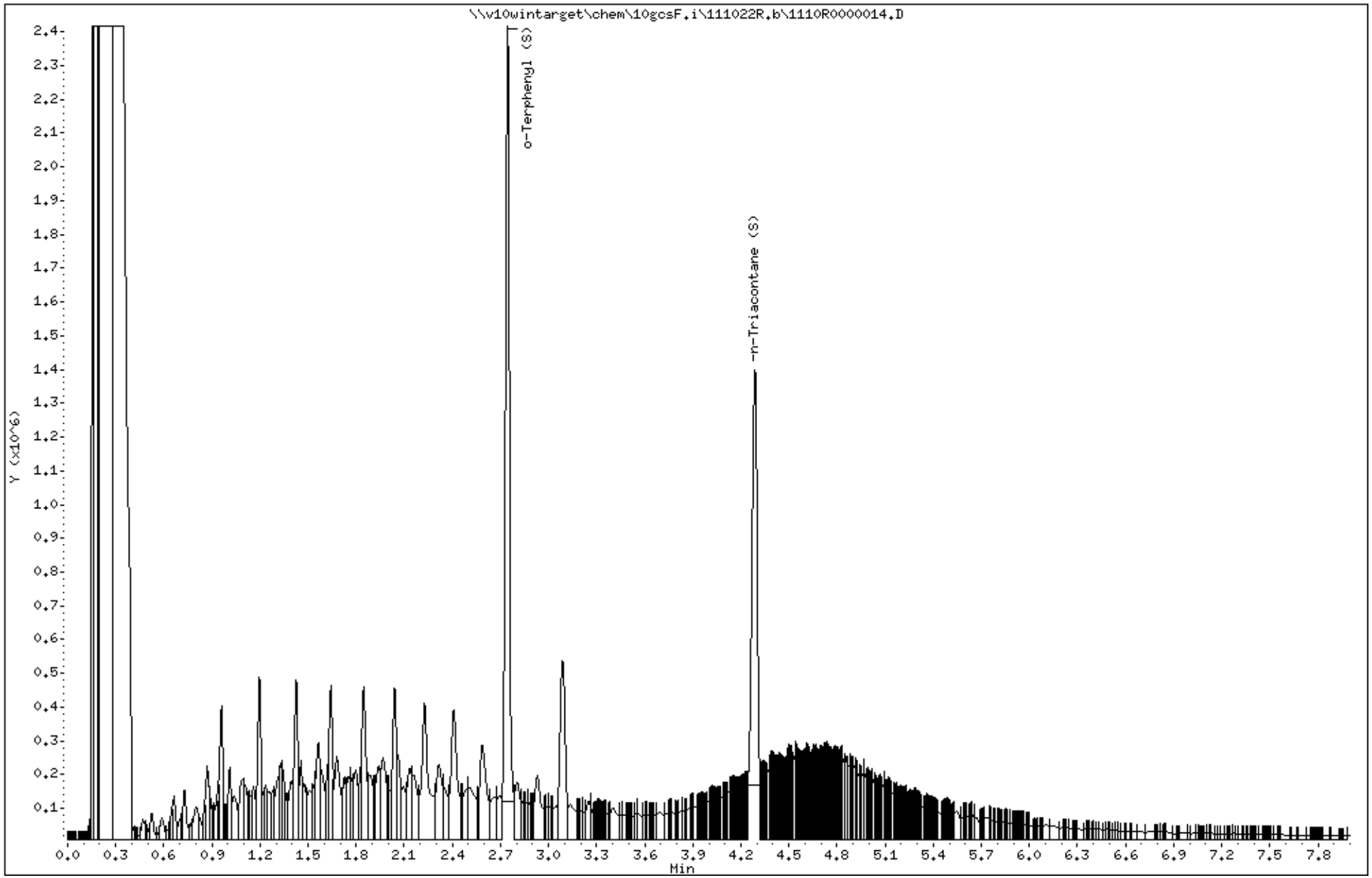
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

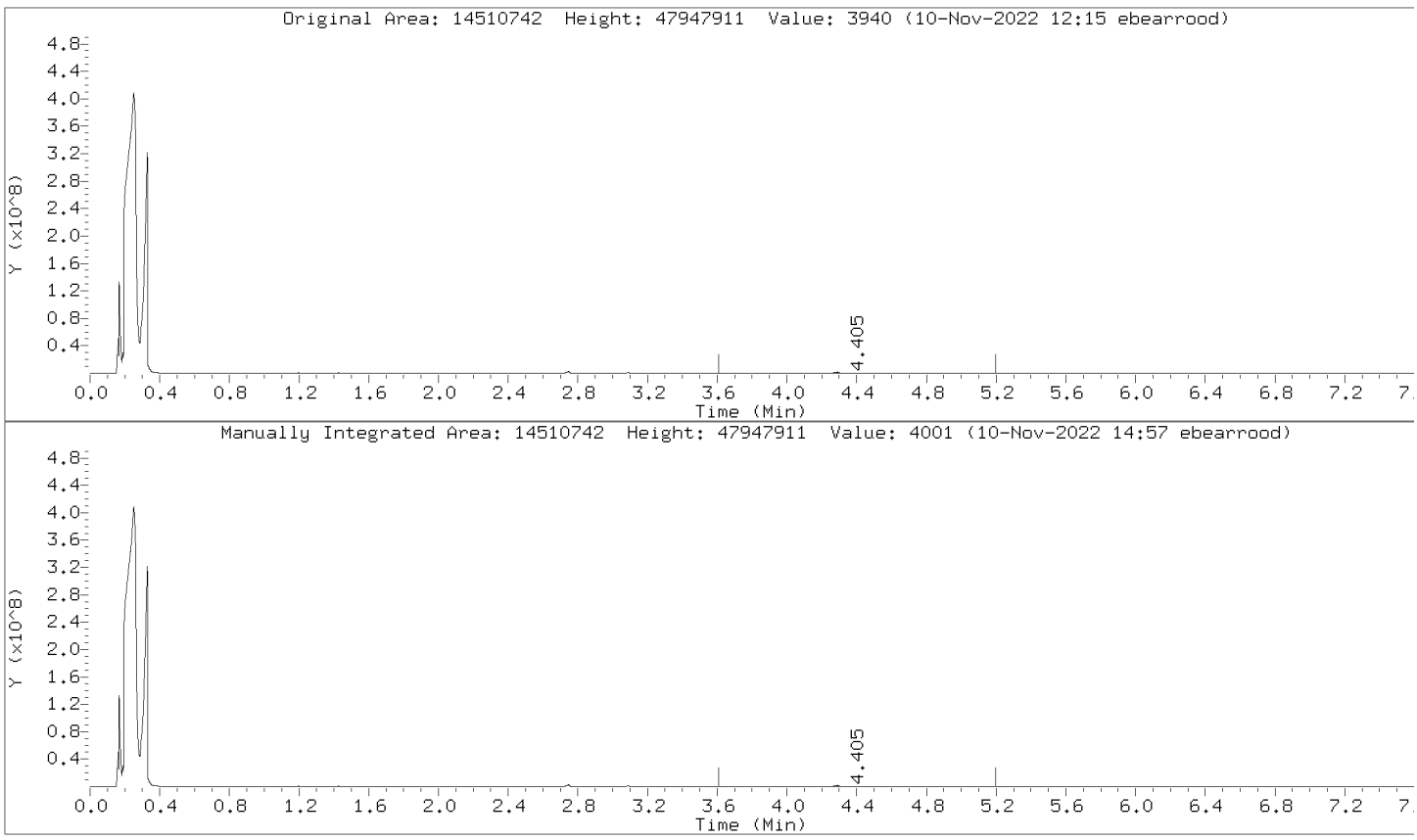
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



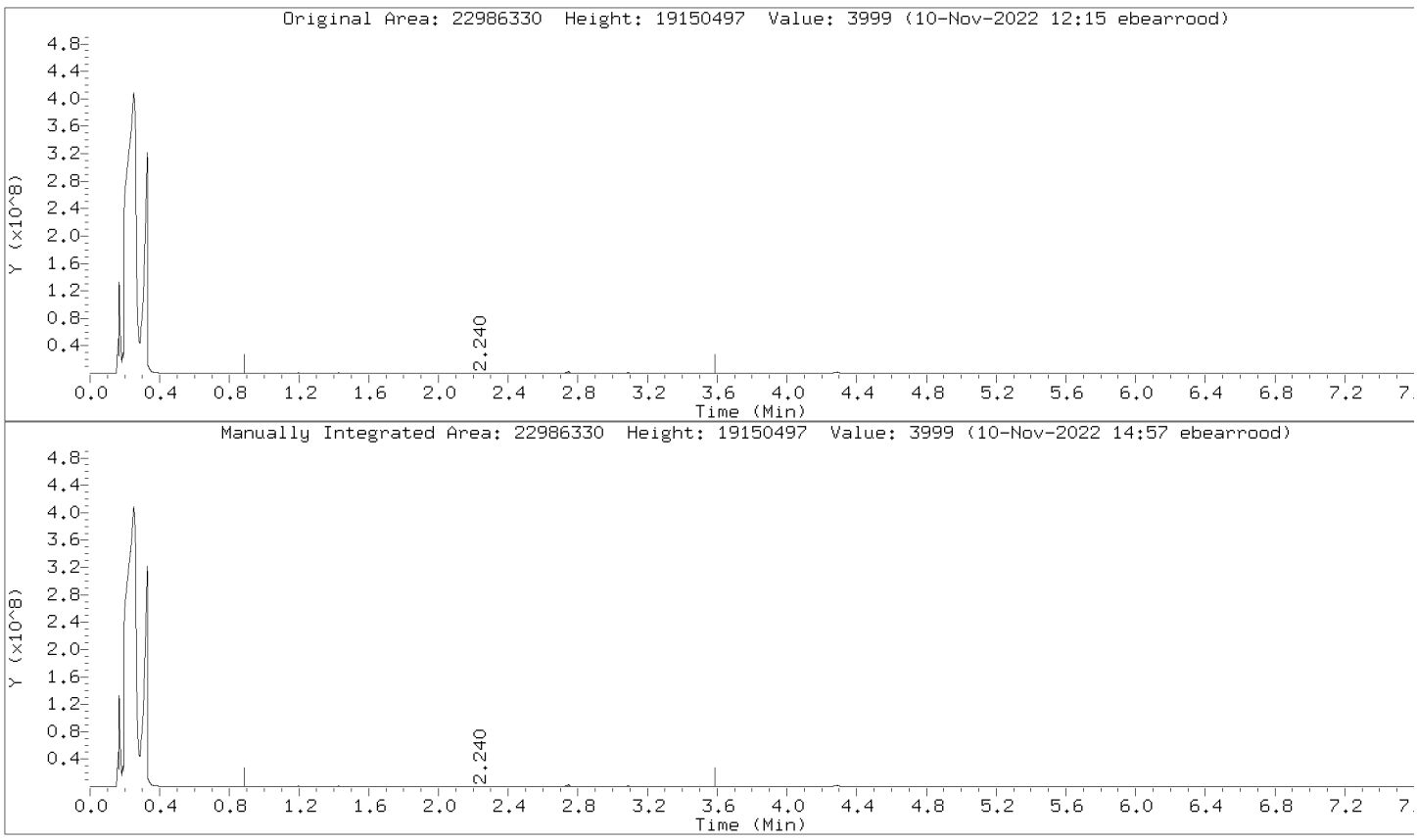
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



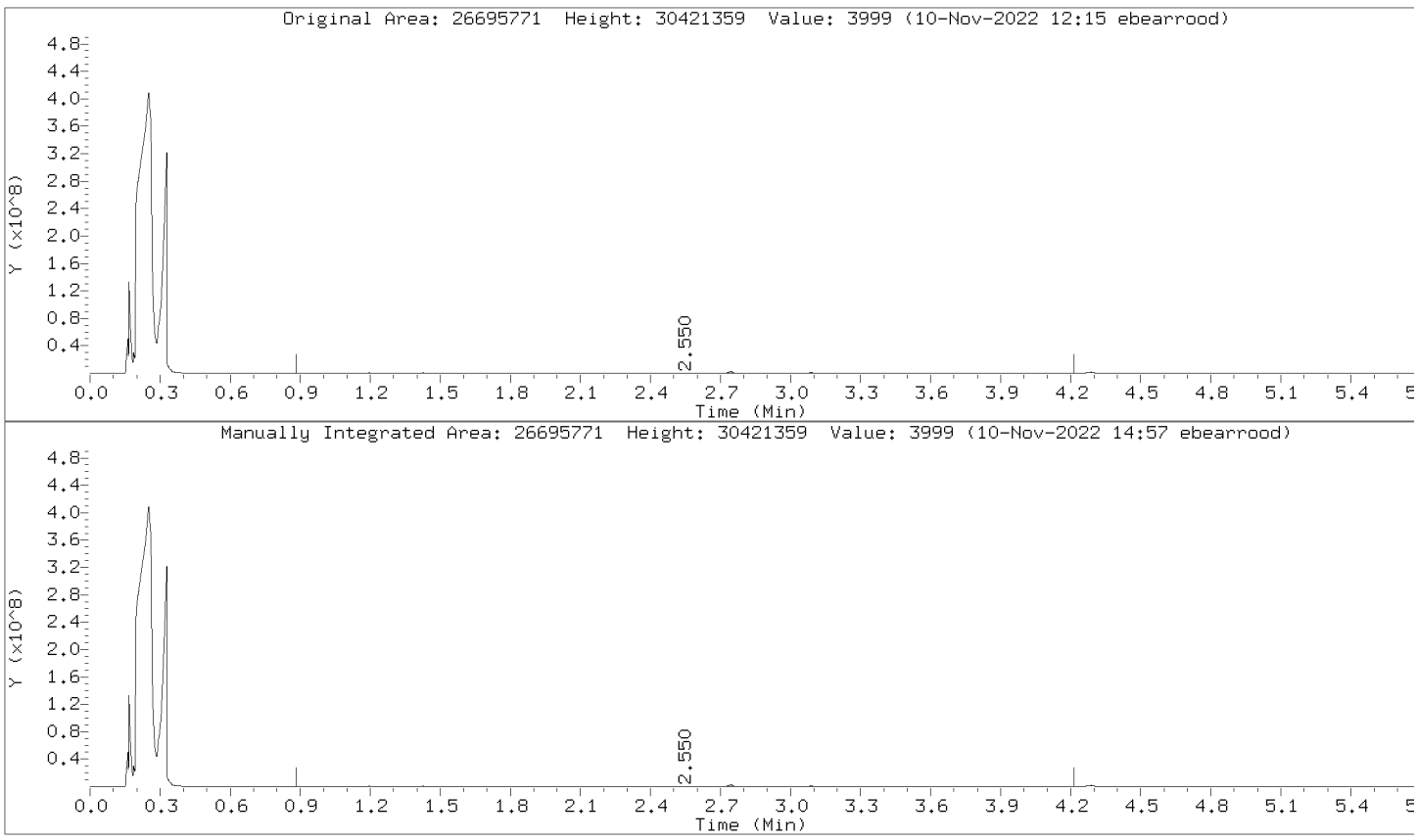
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



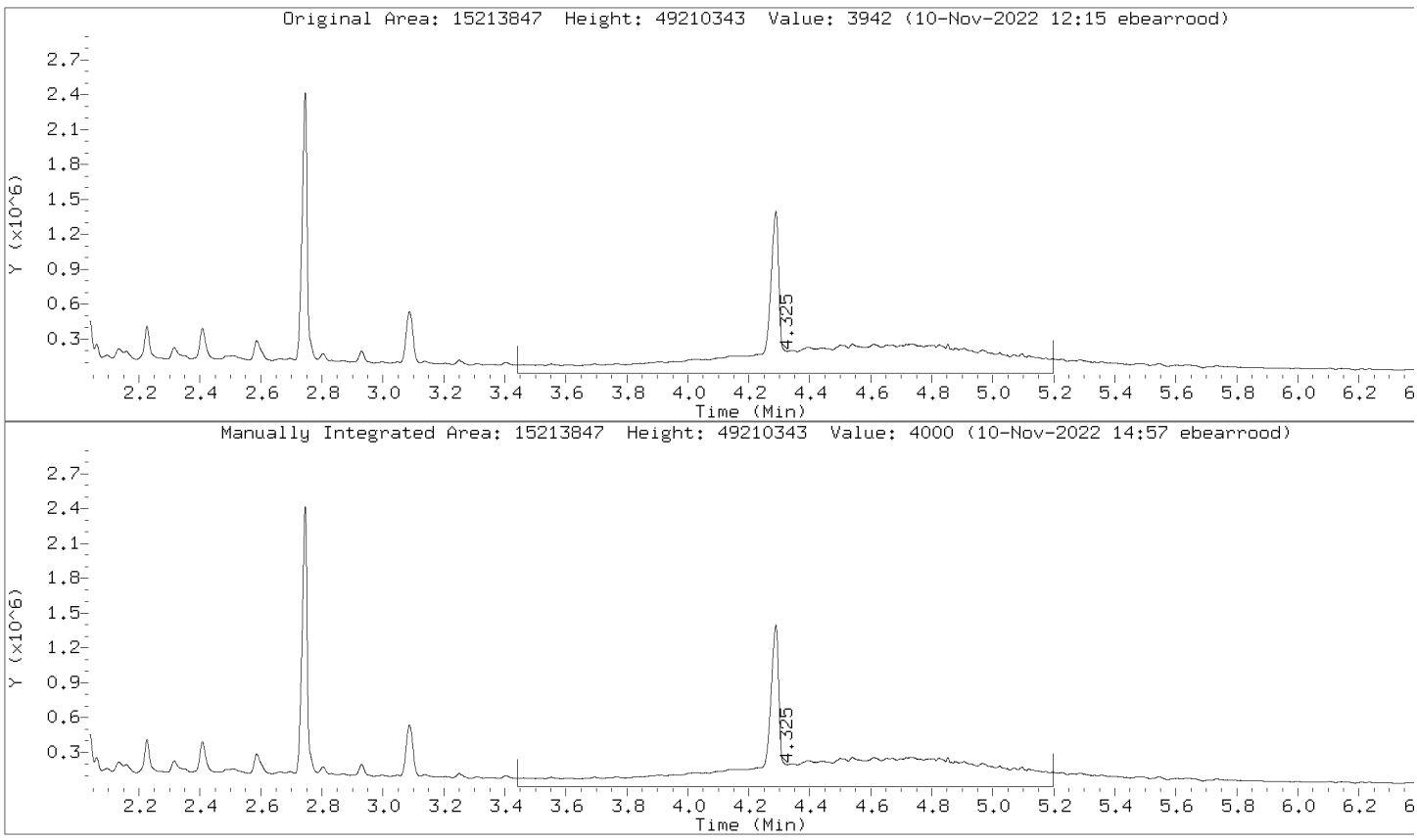
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



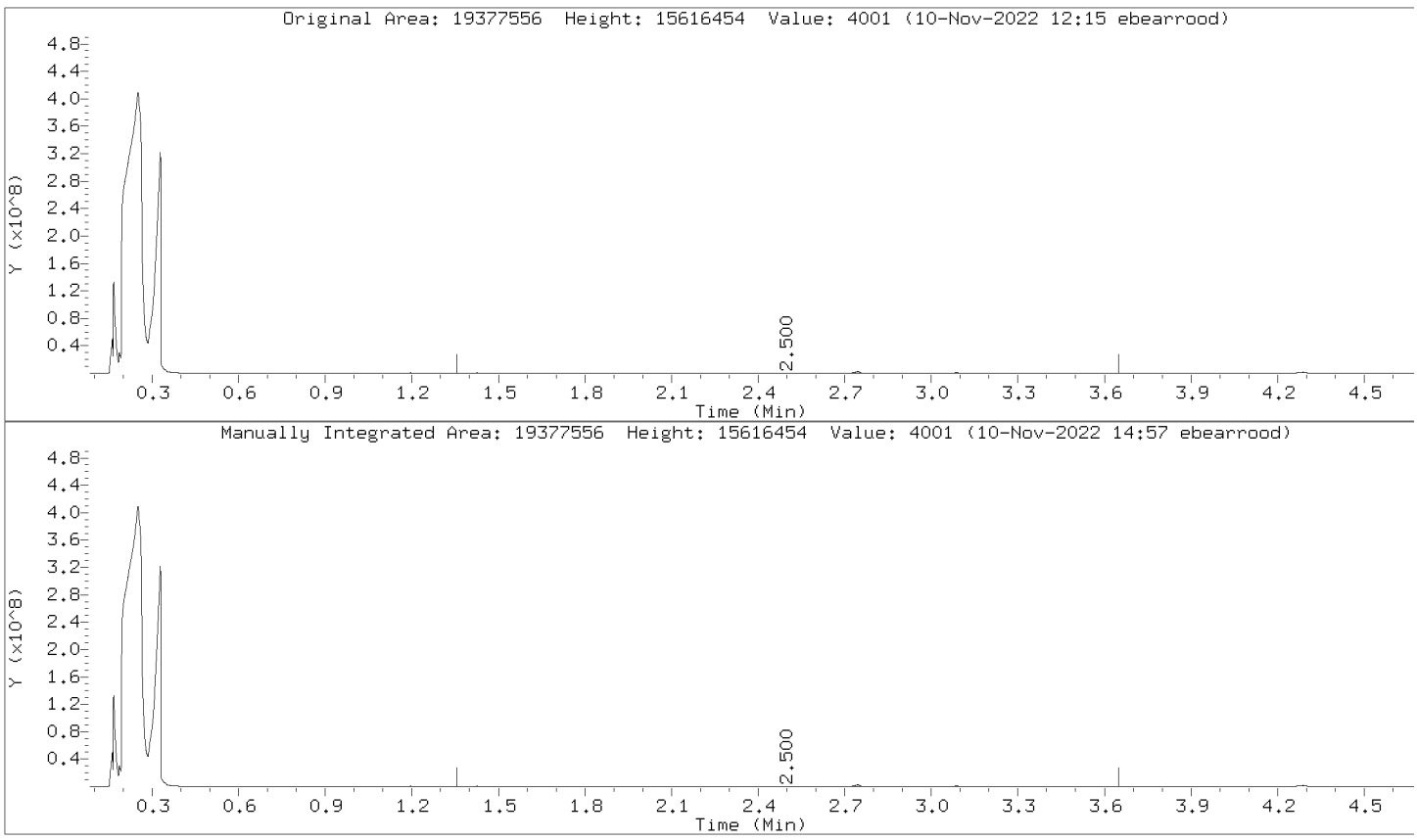
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



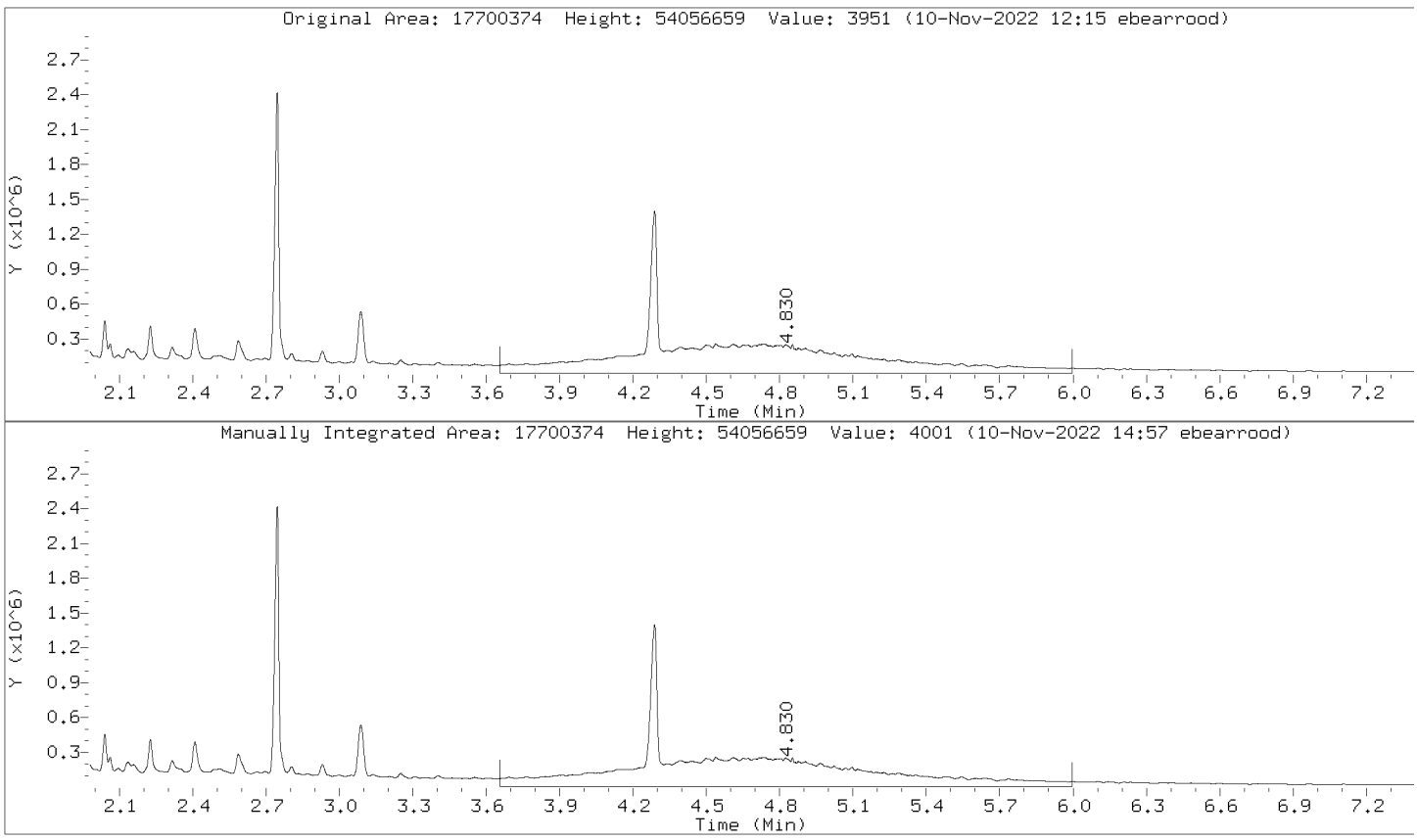
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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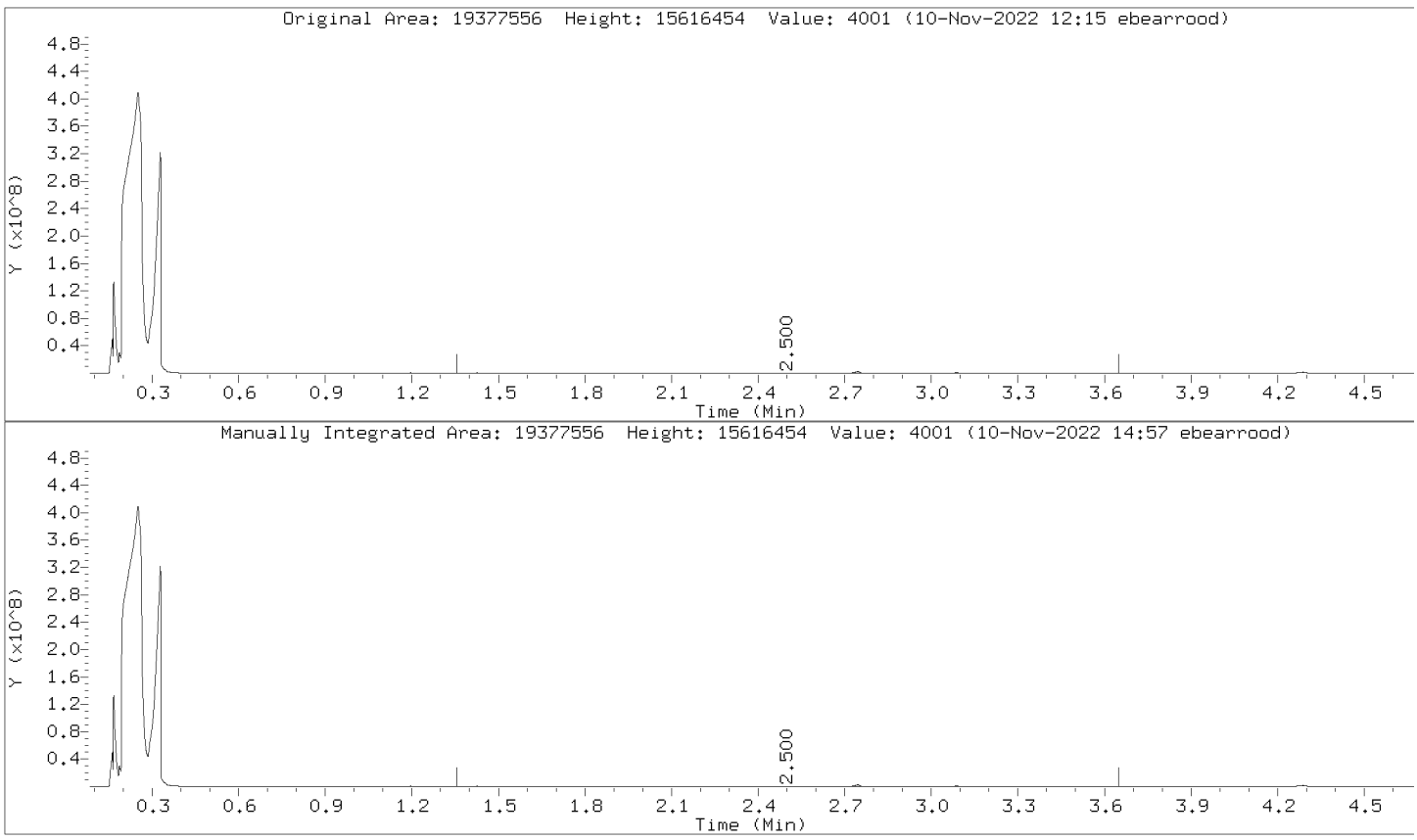
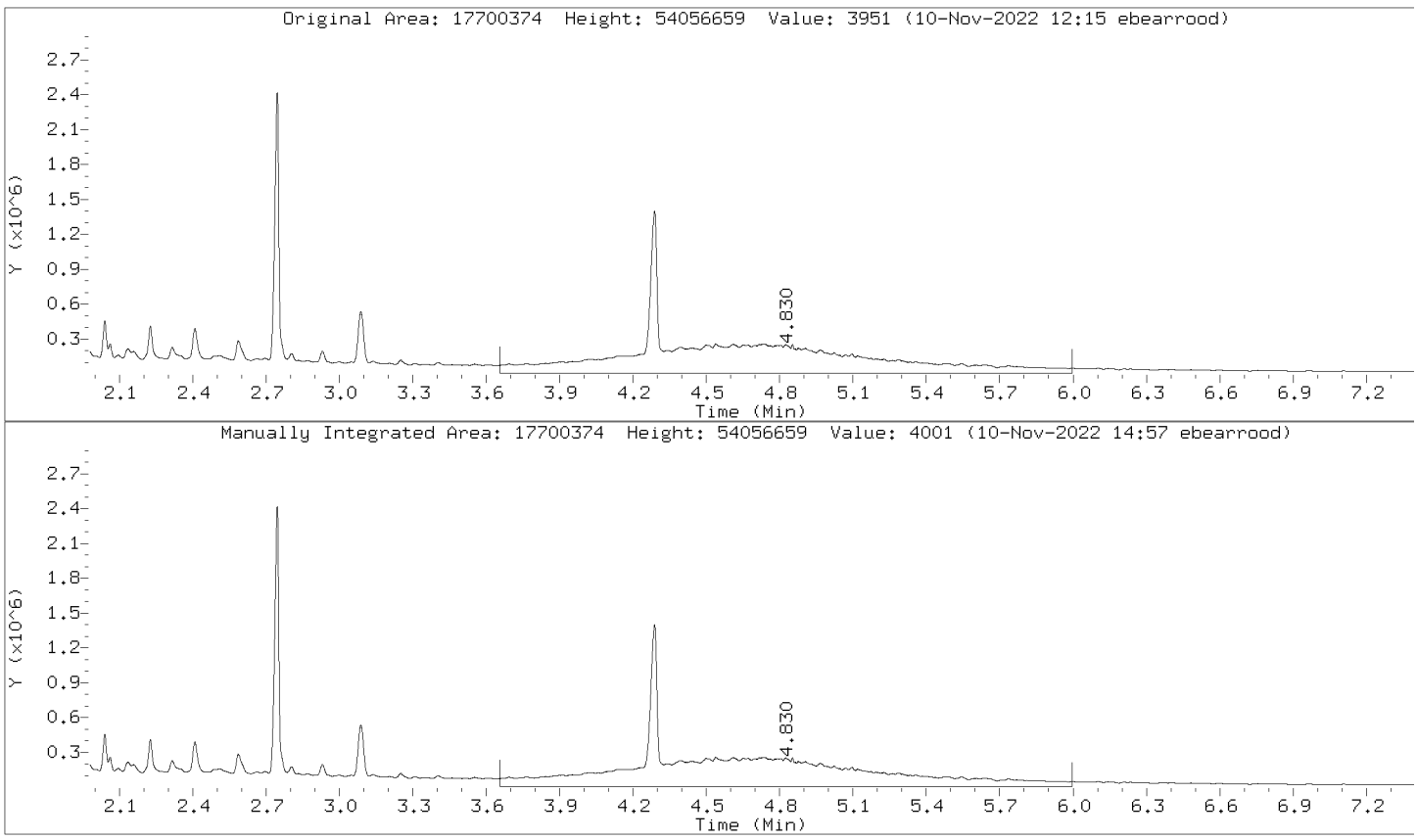
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



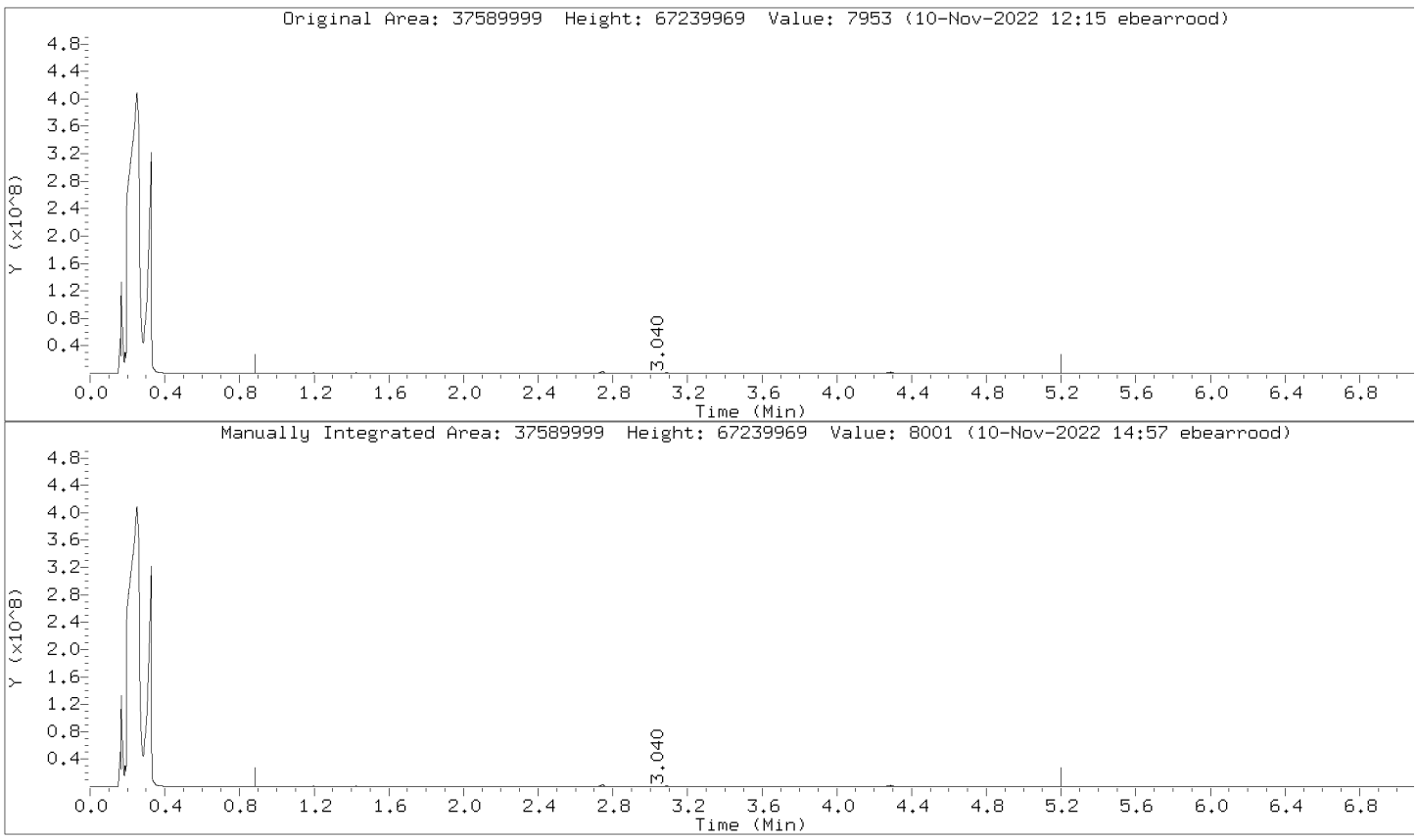
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



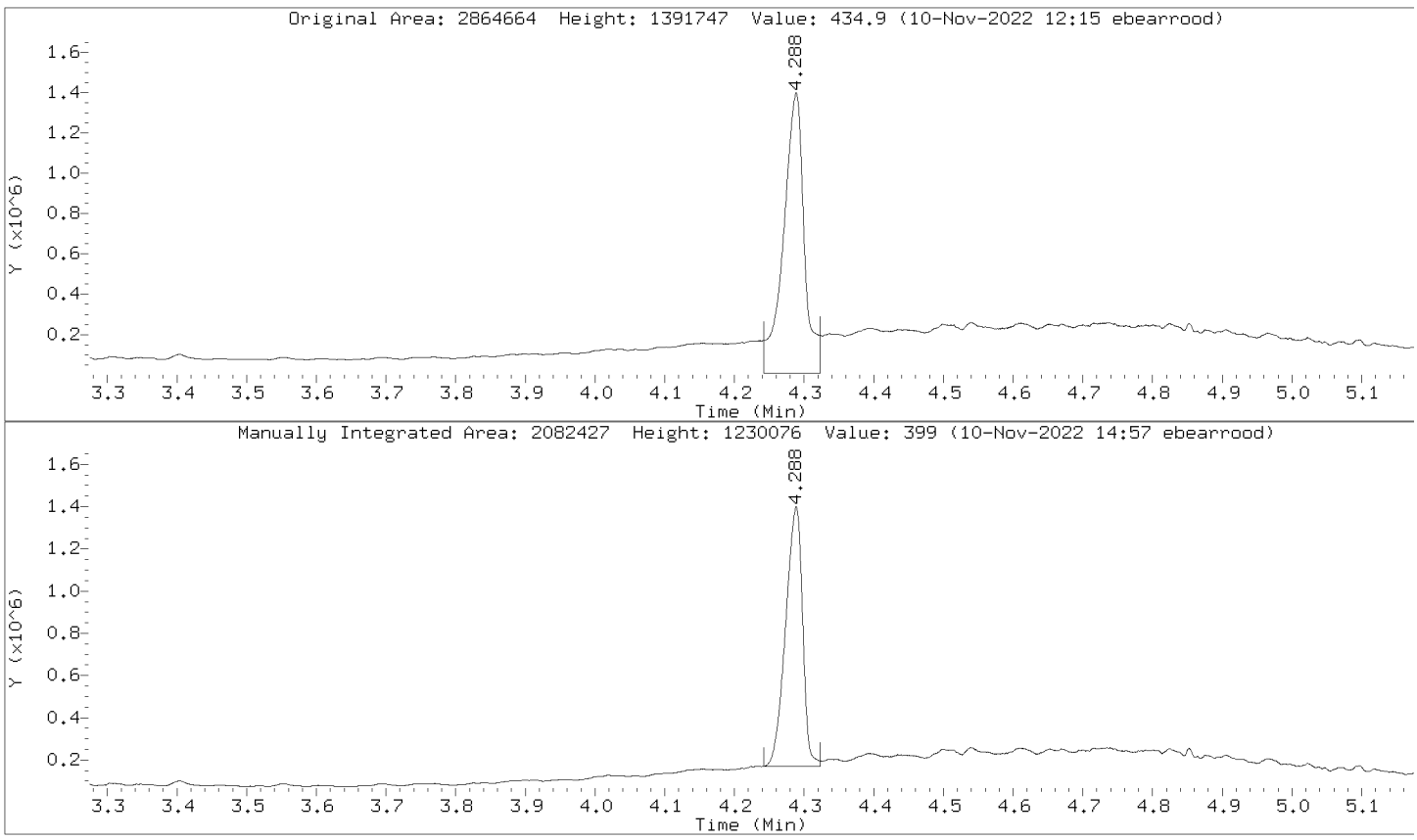
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



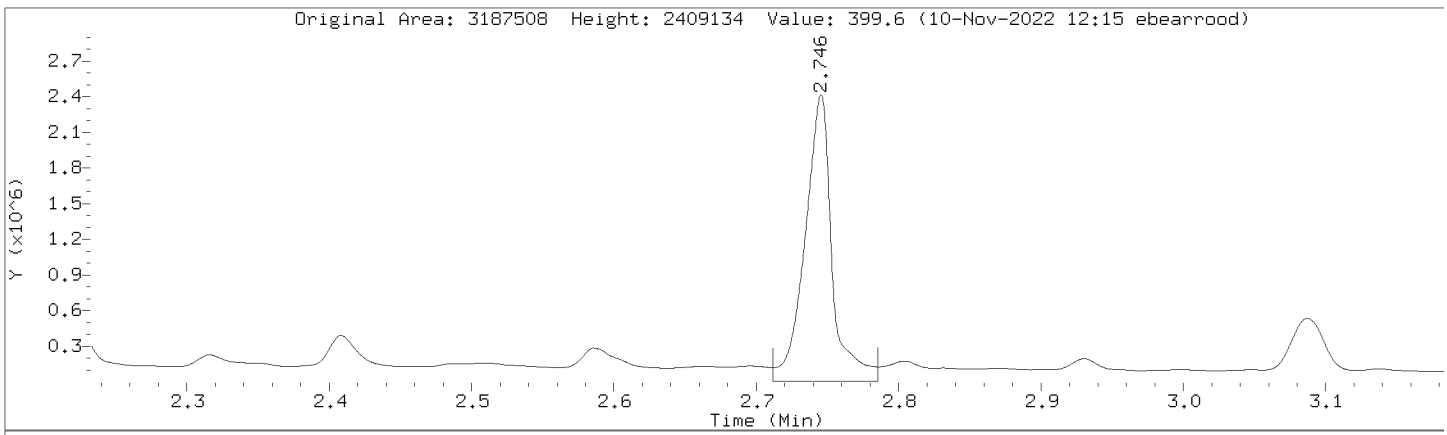
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

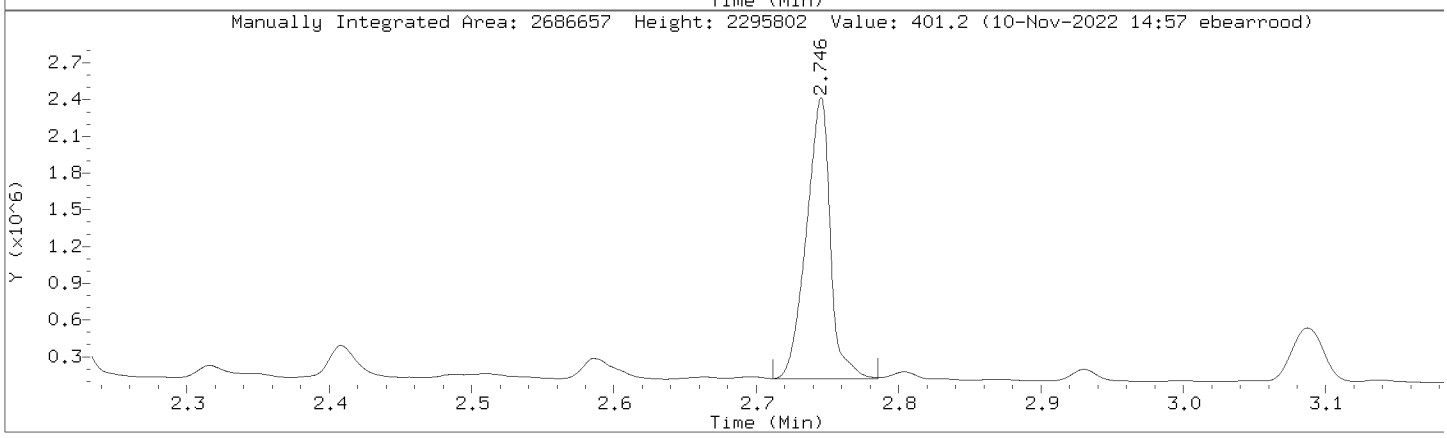
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

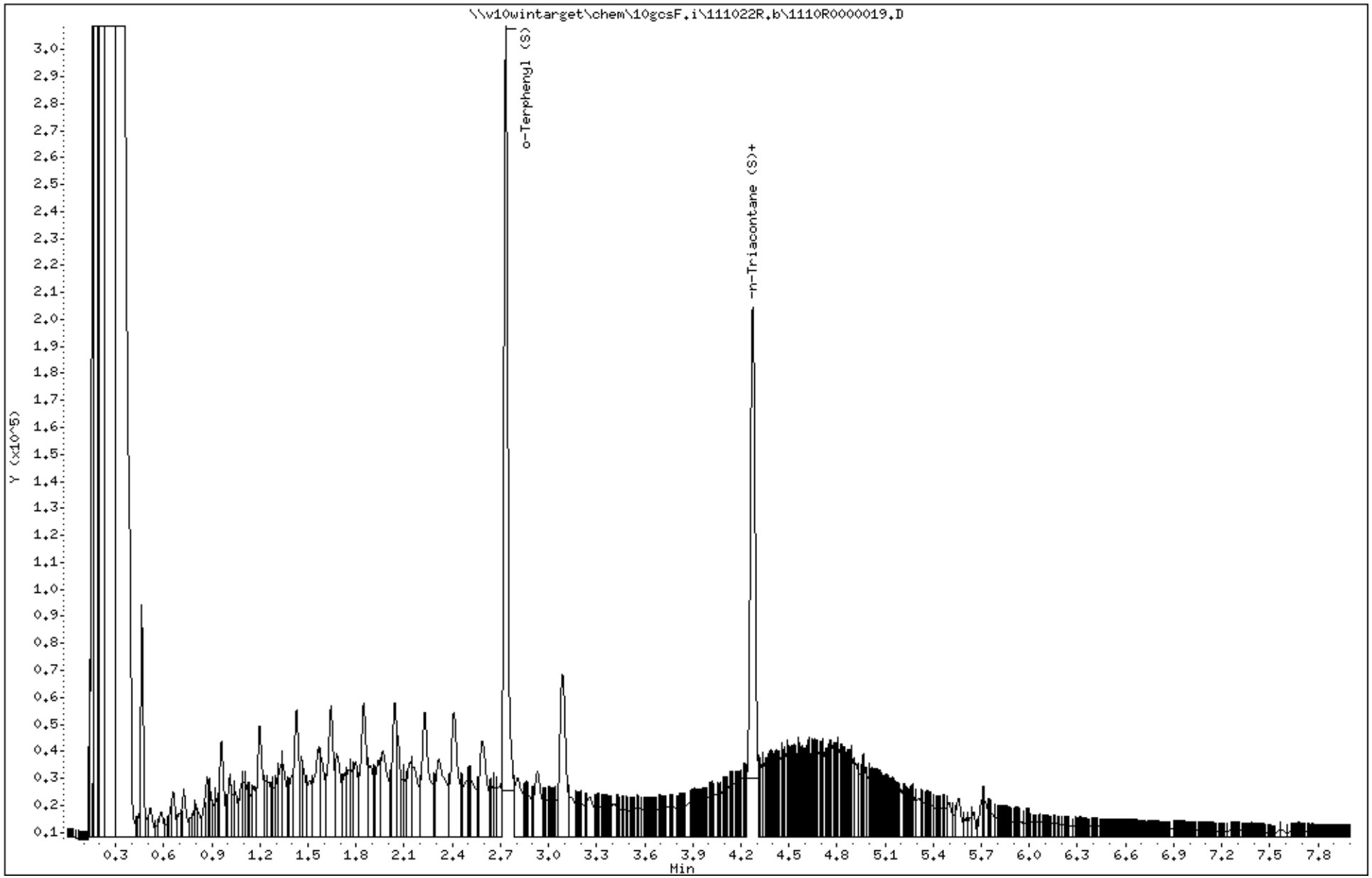
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

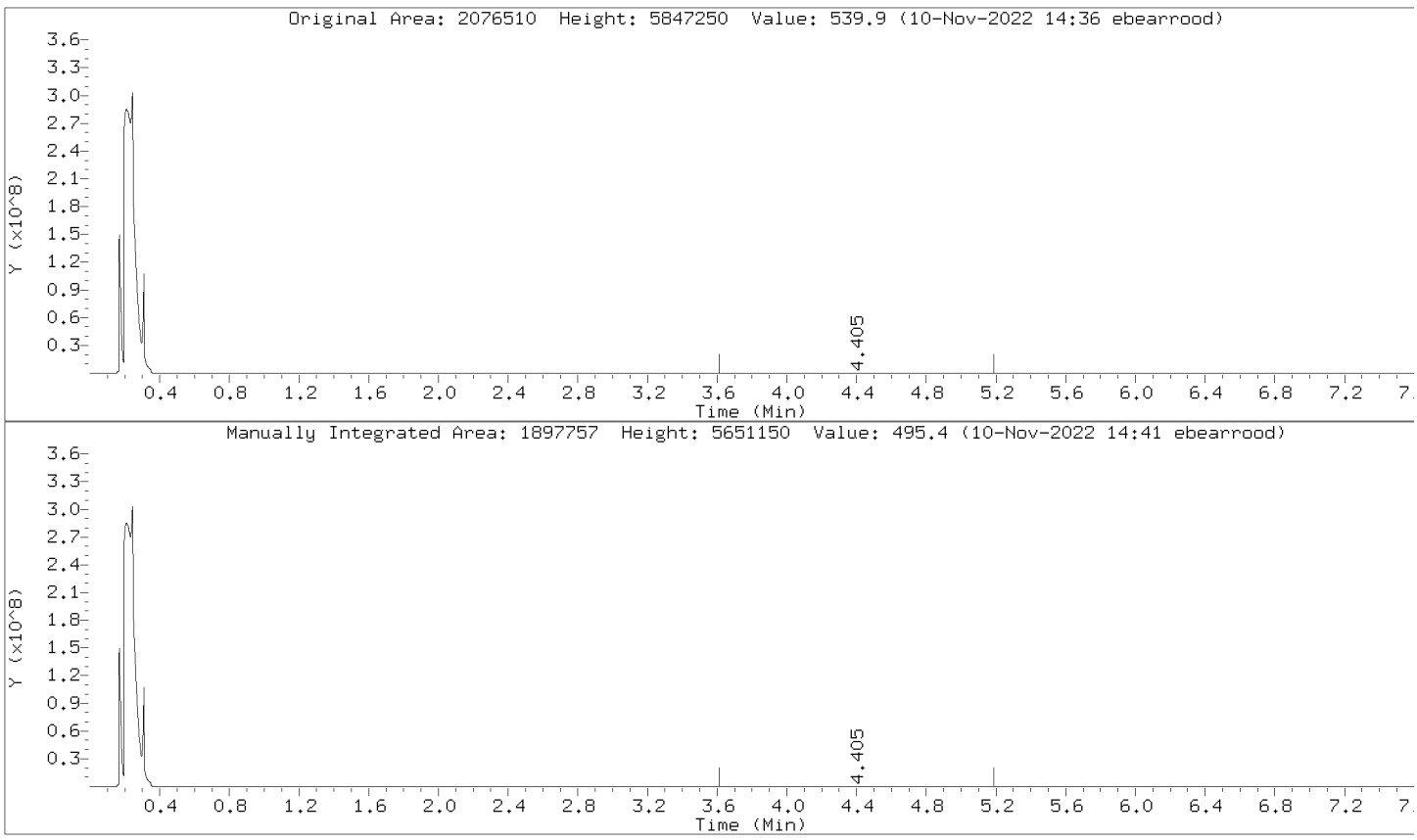
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



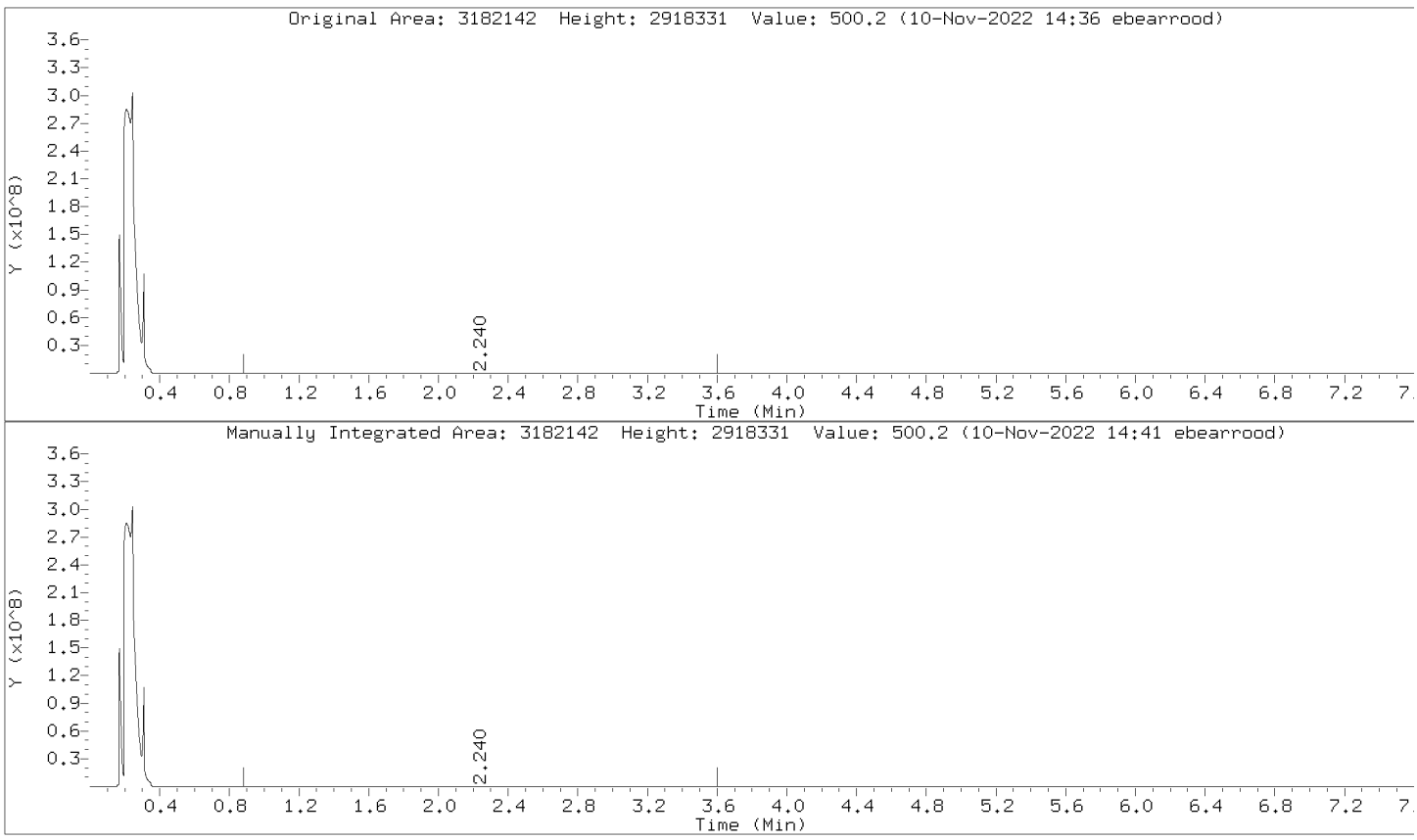
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



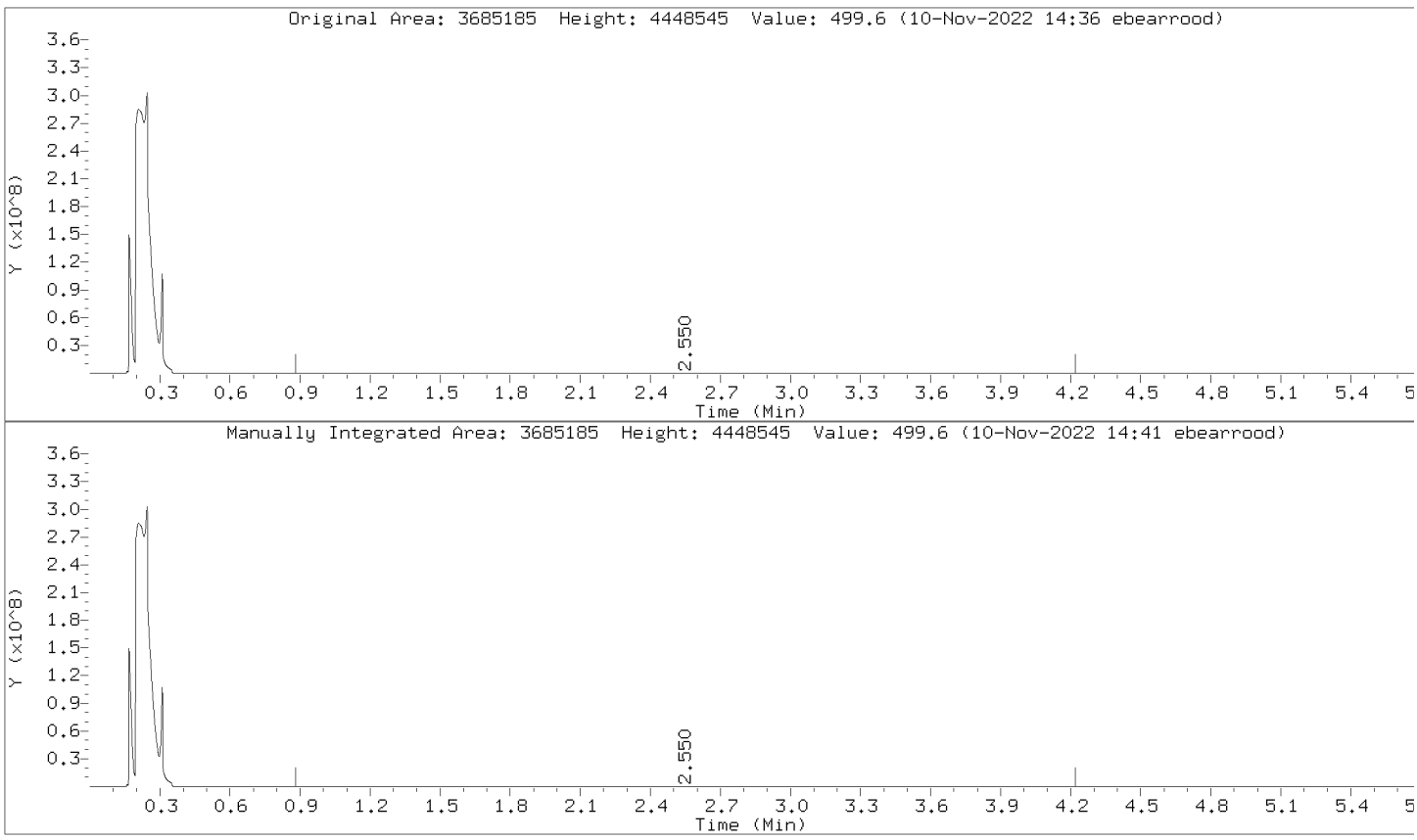
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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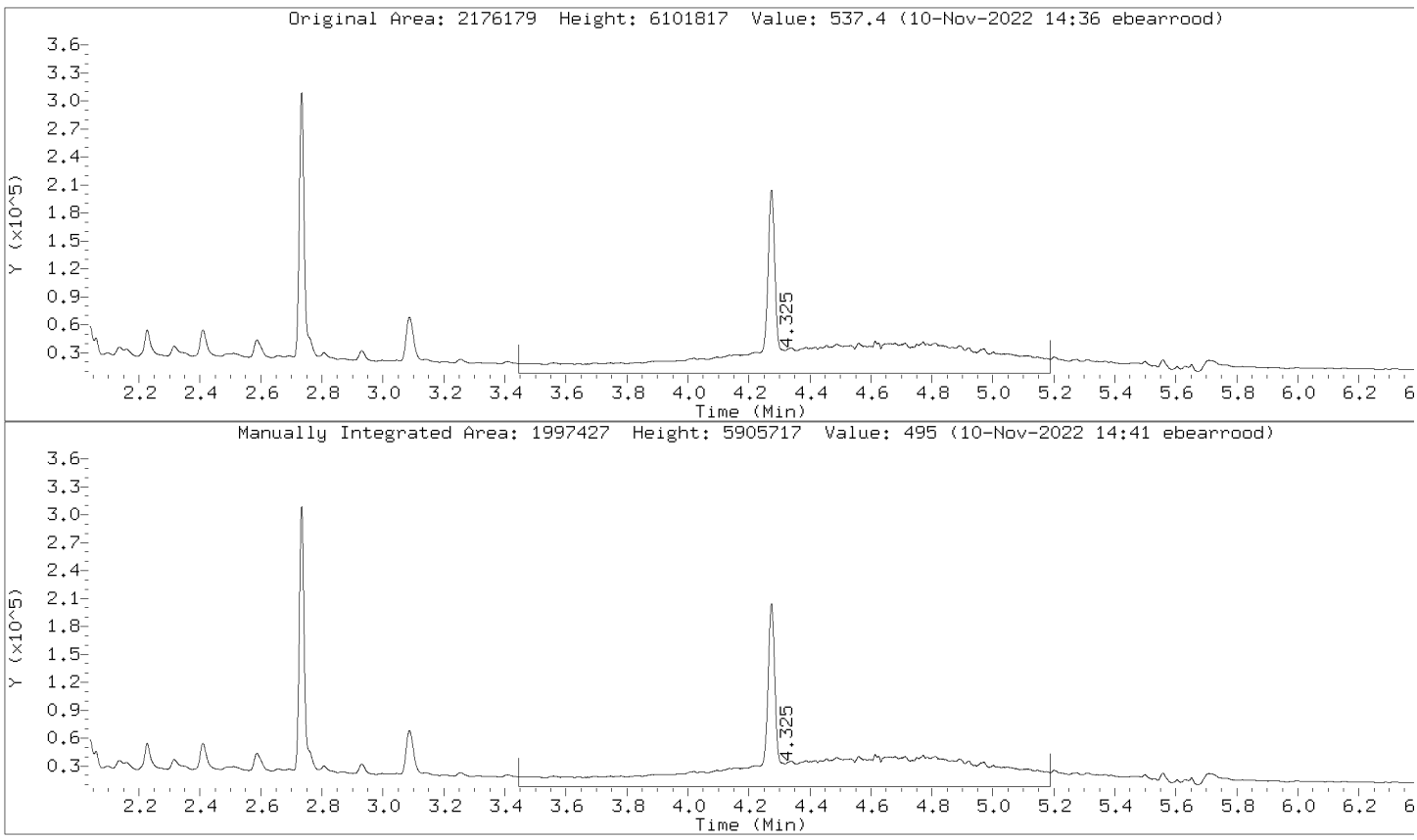
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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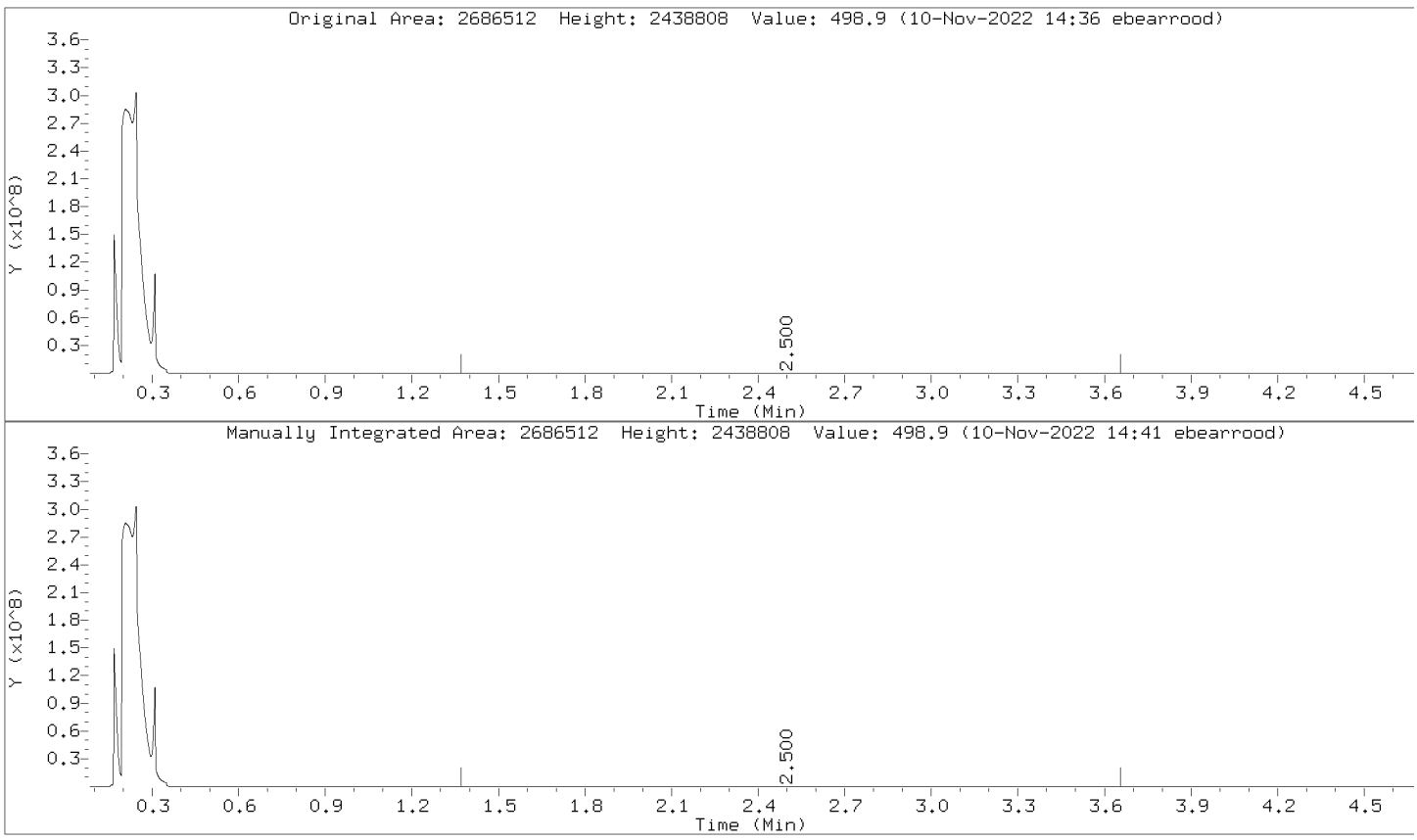
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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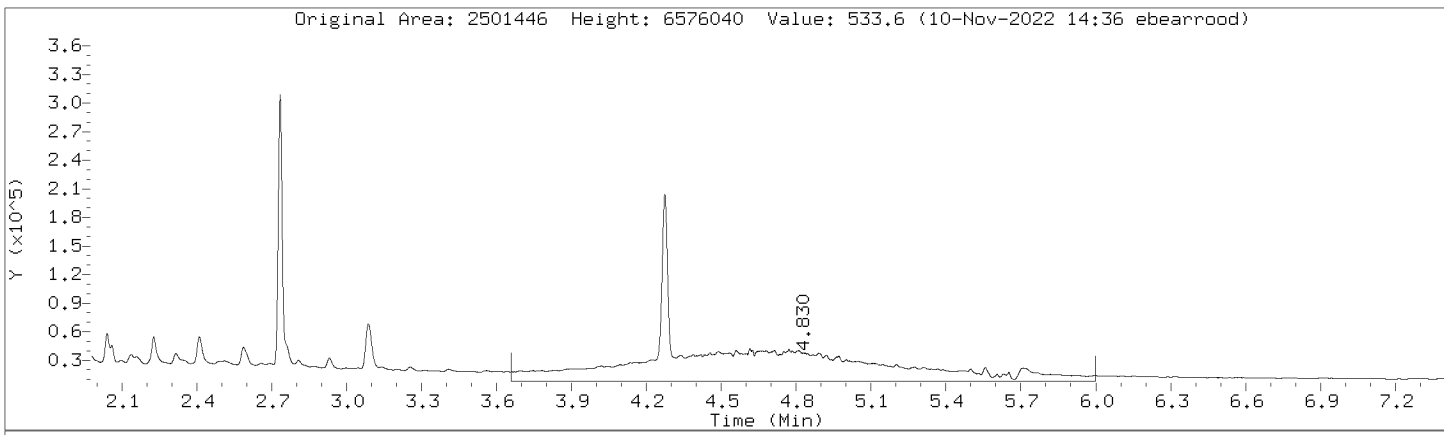
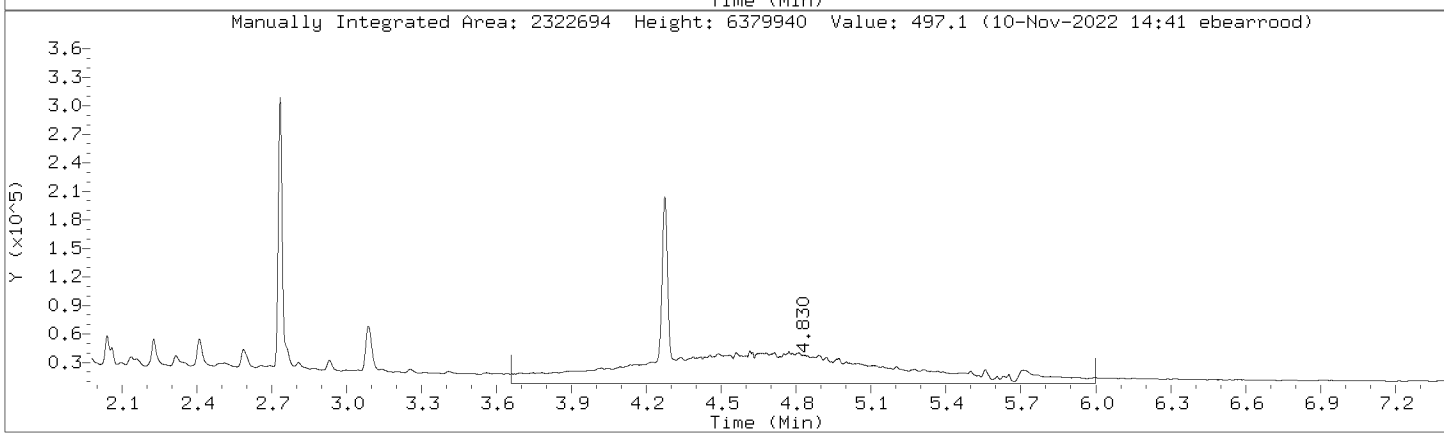
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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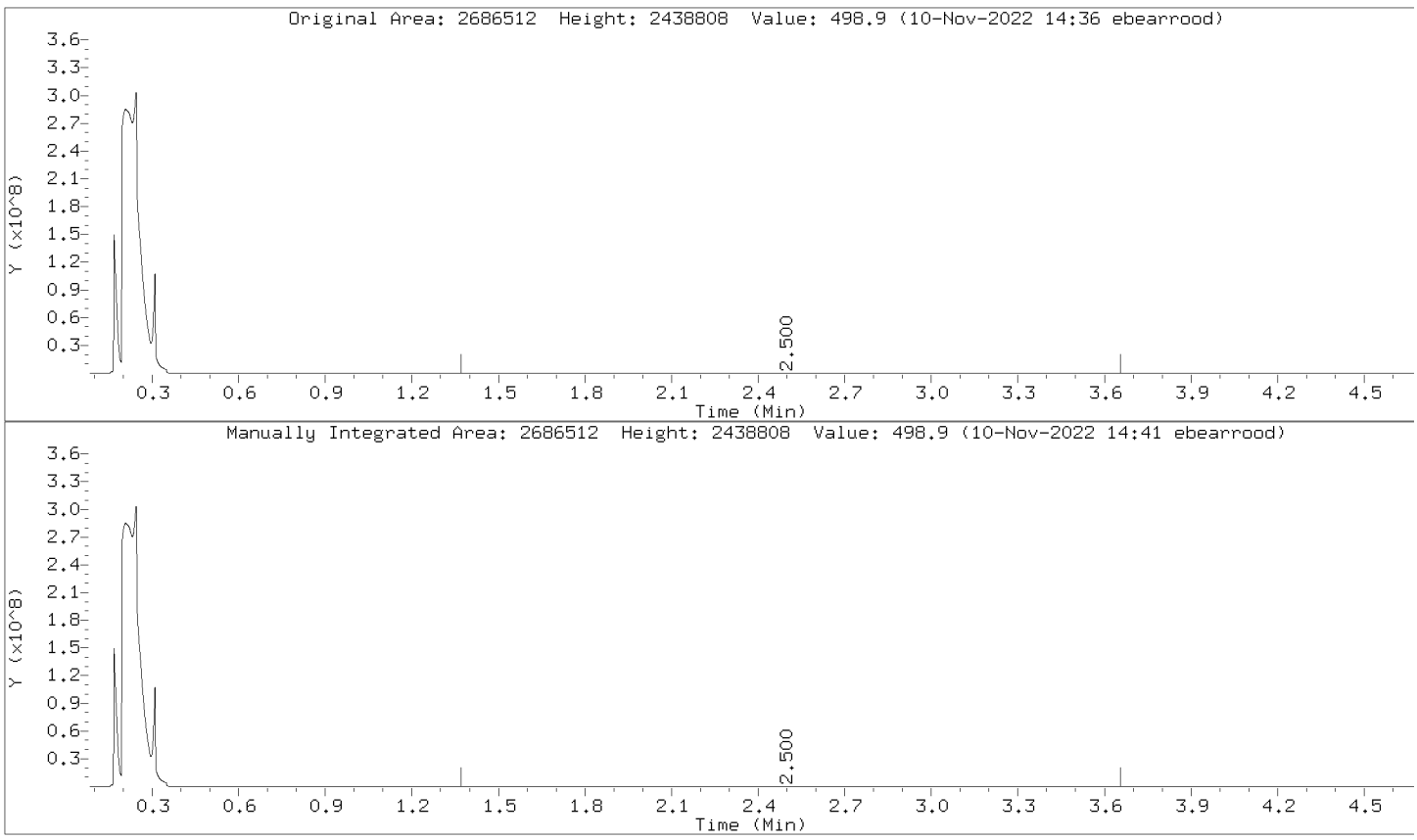
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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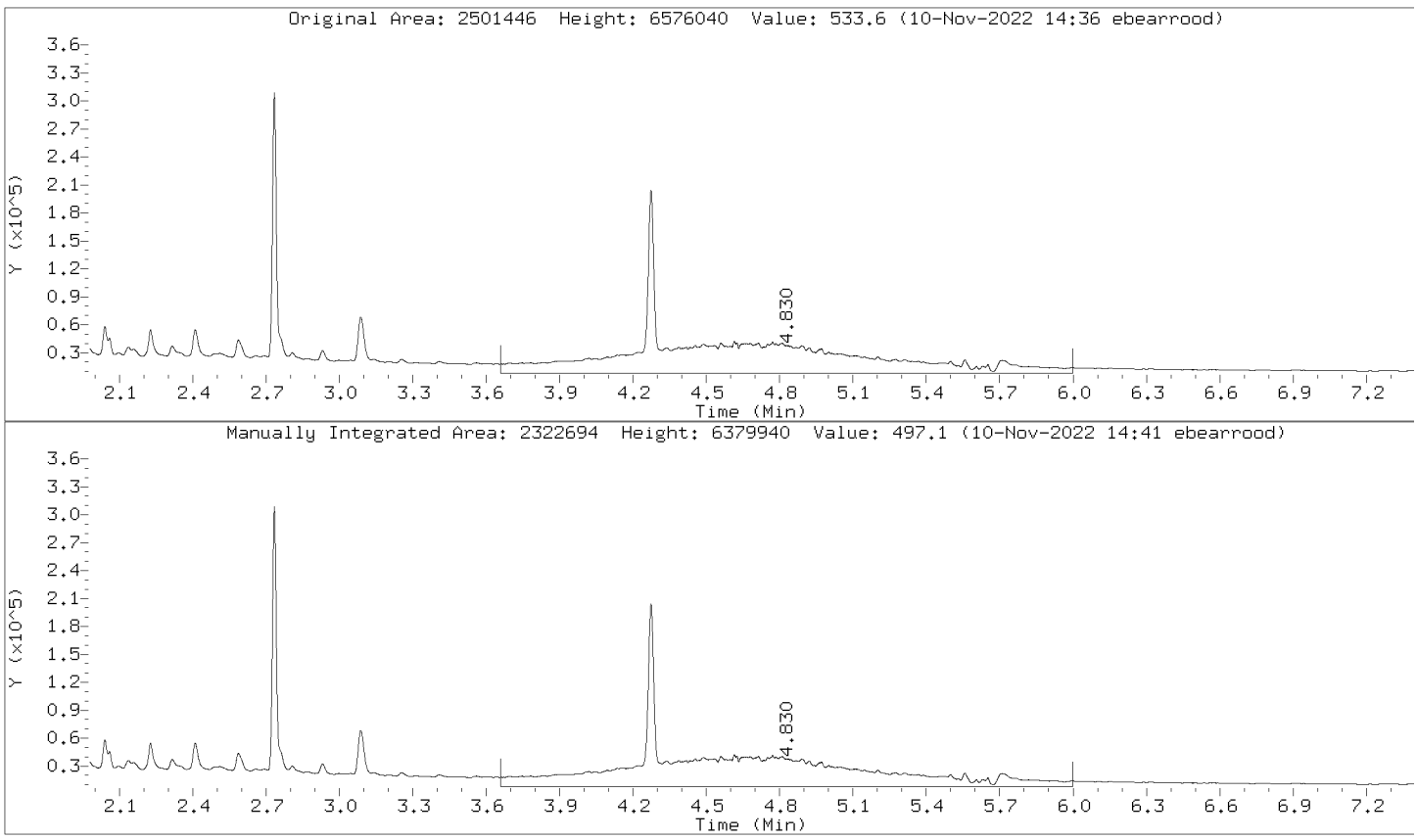
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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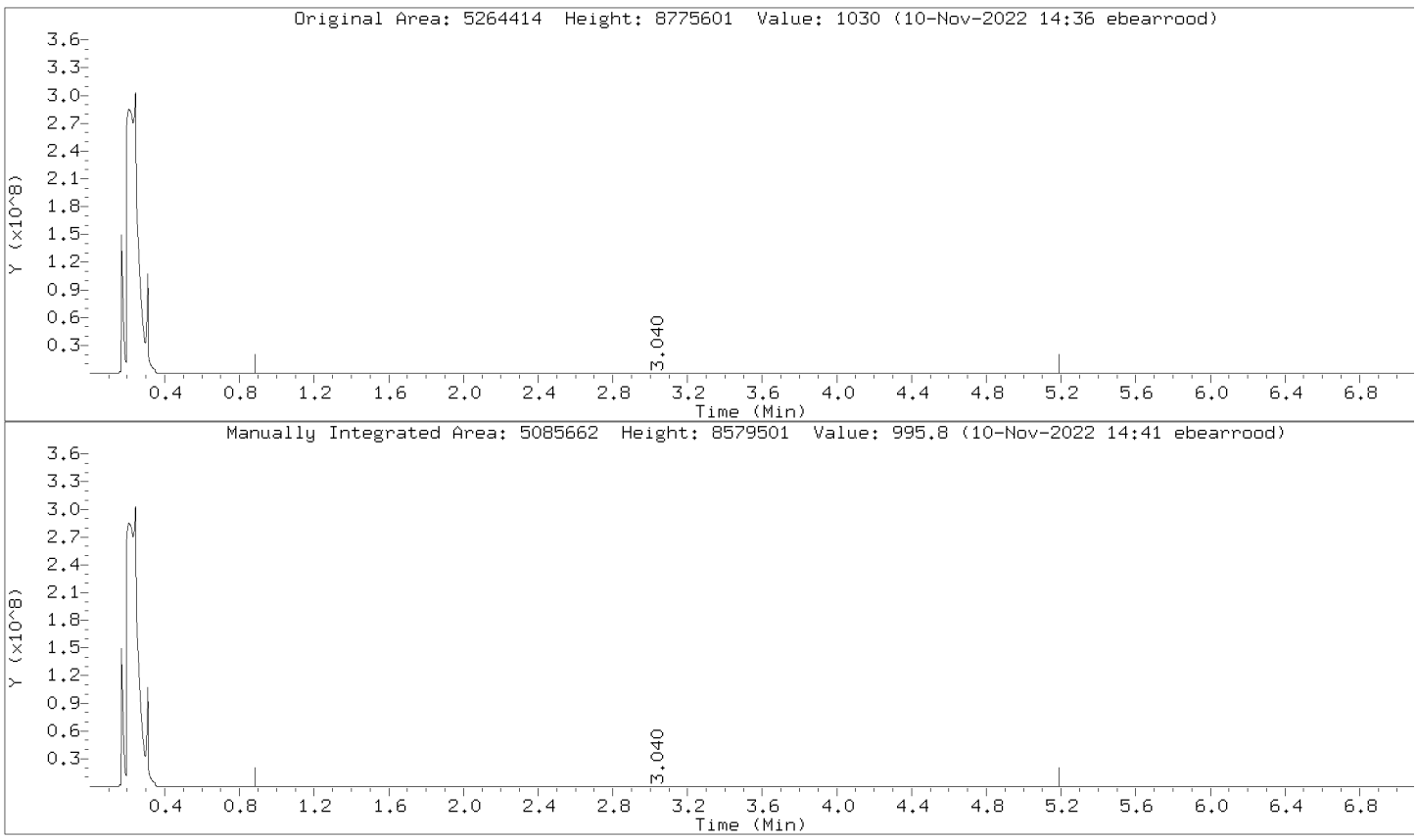
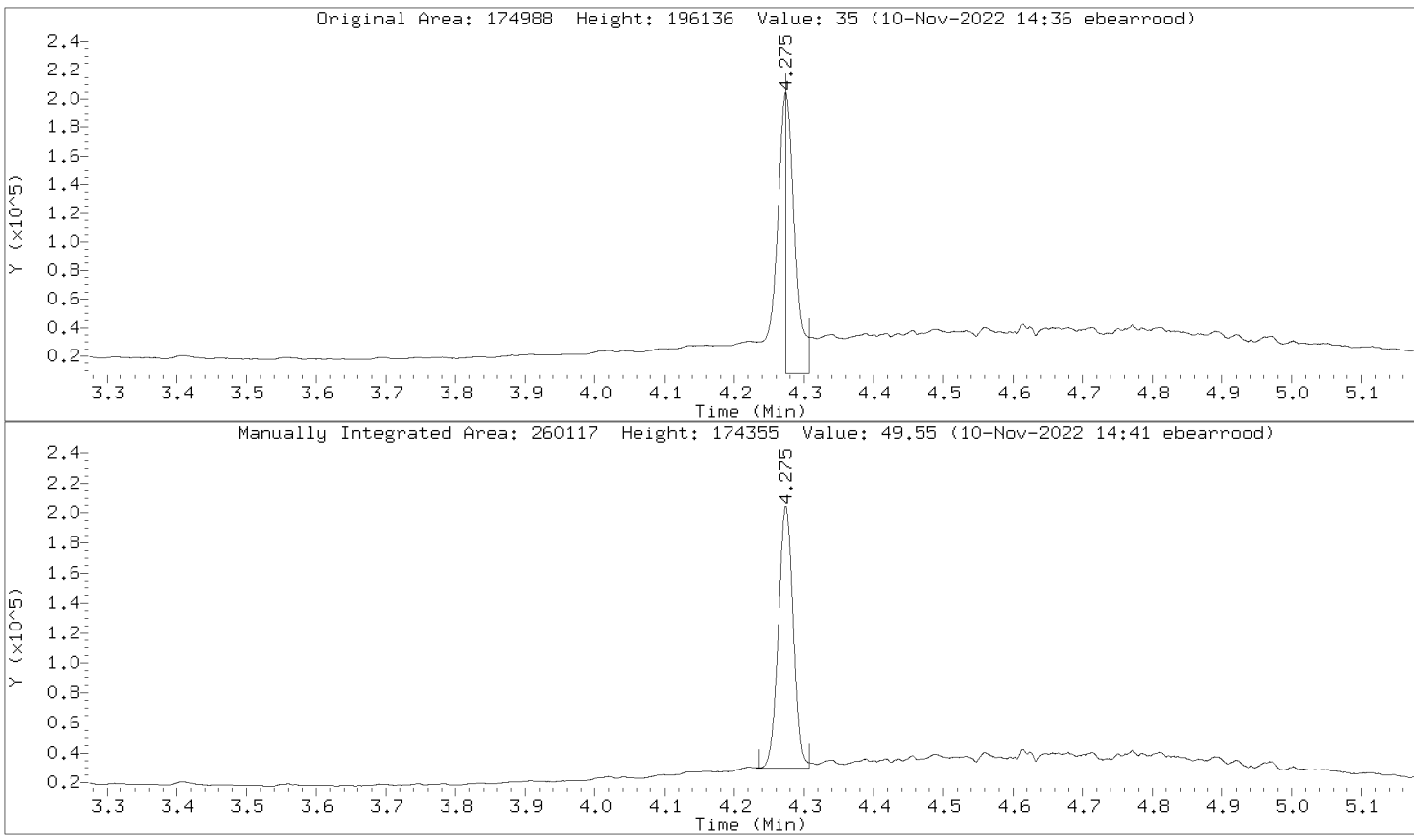
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



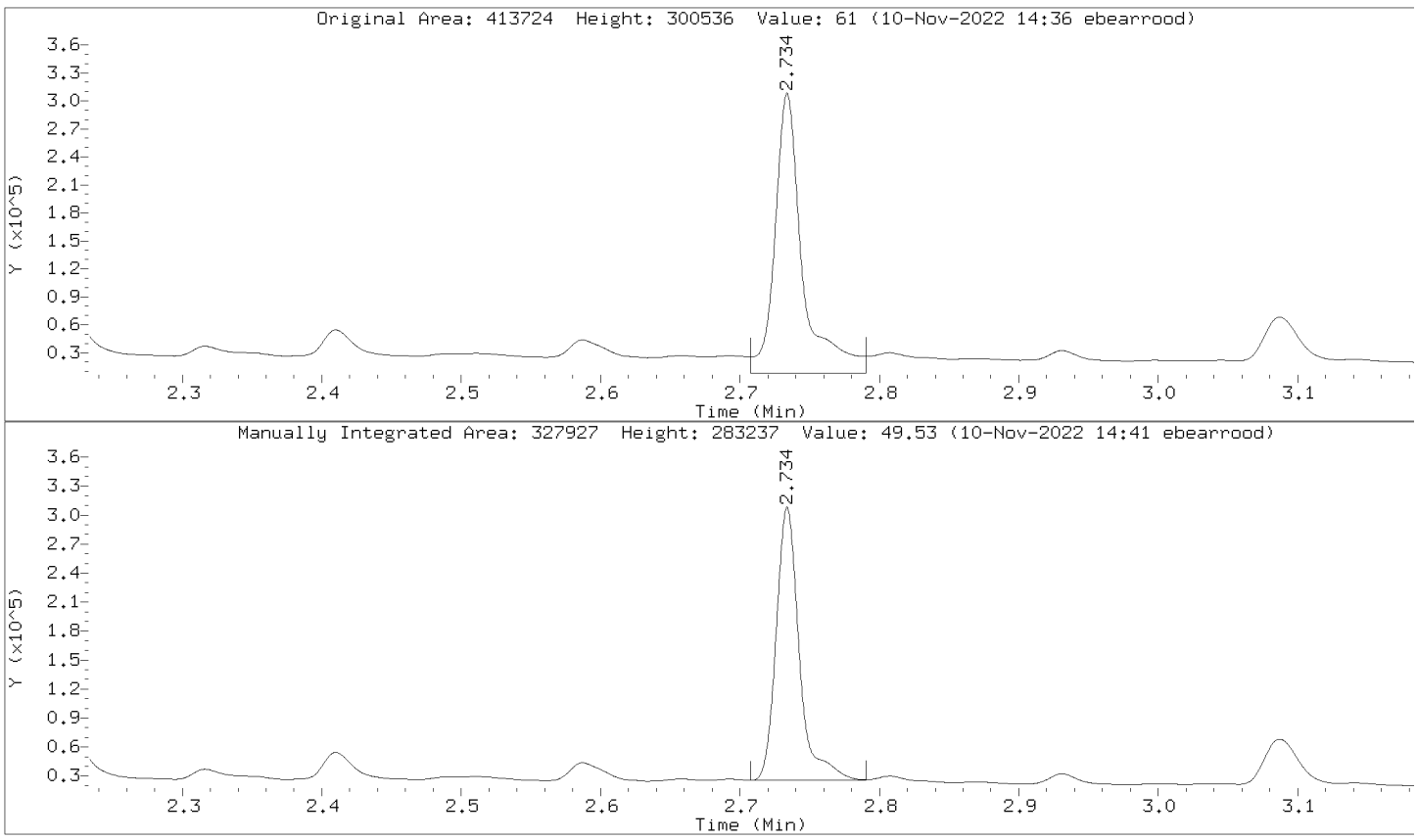
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

SAMPLE NO.

31472811ICV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632545

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496998CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 16:51

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000033C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632545

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	493.8546	0.0100	-1.2291	15.0000
Motor Oil Range	Linear	500	543.3317	0.0100	8.6663	15.0000
n-Triacontane (S)	Linear	50	49.66160	0.0100	-0.6768	15.0000
o-Terphenyl (S)	Linear	50	49.69882	0.0100	-0.6024	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496996CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 18:00

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000039C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632545

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	489.5461	0.0100	-2.0908	15.0000
Motor Oil Range	Linear	500	492.7112	0.0100	-1.4578	15.0000
n-Triacontane (S)	Linear	50	48.92124	0.0100	-2.1575	15.0000
o-Terphenyl (S)	Linear	50	49.32399	0.0100	-1.3520	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496995CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 20:05

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000050C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632545

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	487.5277	0.0100	-2.4944	15.0000
Motor Oil Range	Linear	500	490.5513	0.0100	-1.8897	15.0000
n-Triacontane (S)	Linear	50	48.90551	0.0100	-2.1890	15.0000
o-Terphenyl (S)	Linear	50	49.37588	0.0100	-1.2482	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496994CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 21:48

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000059C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632545

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	487.8108	0.0100	-2.4378	15.0000
Motor Oil Range	Linear	500	496.3714	0.0100	-0.7257	15.0000
n-Triacontane (S)	Linear	50	48.83437	0.0100	-2.3312	15.0000
o-Terphenyl (S)	Linear	50	49.51543	0.0100	-0.9691	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3247087	500.000	512	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1975744	500.000	517	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3761077	500.000	511	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2073788	500.000	515	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

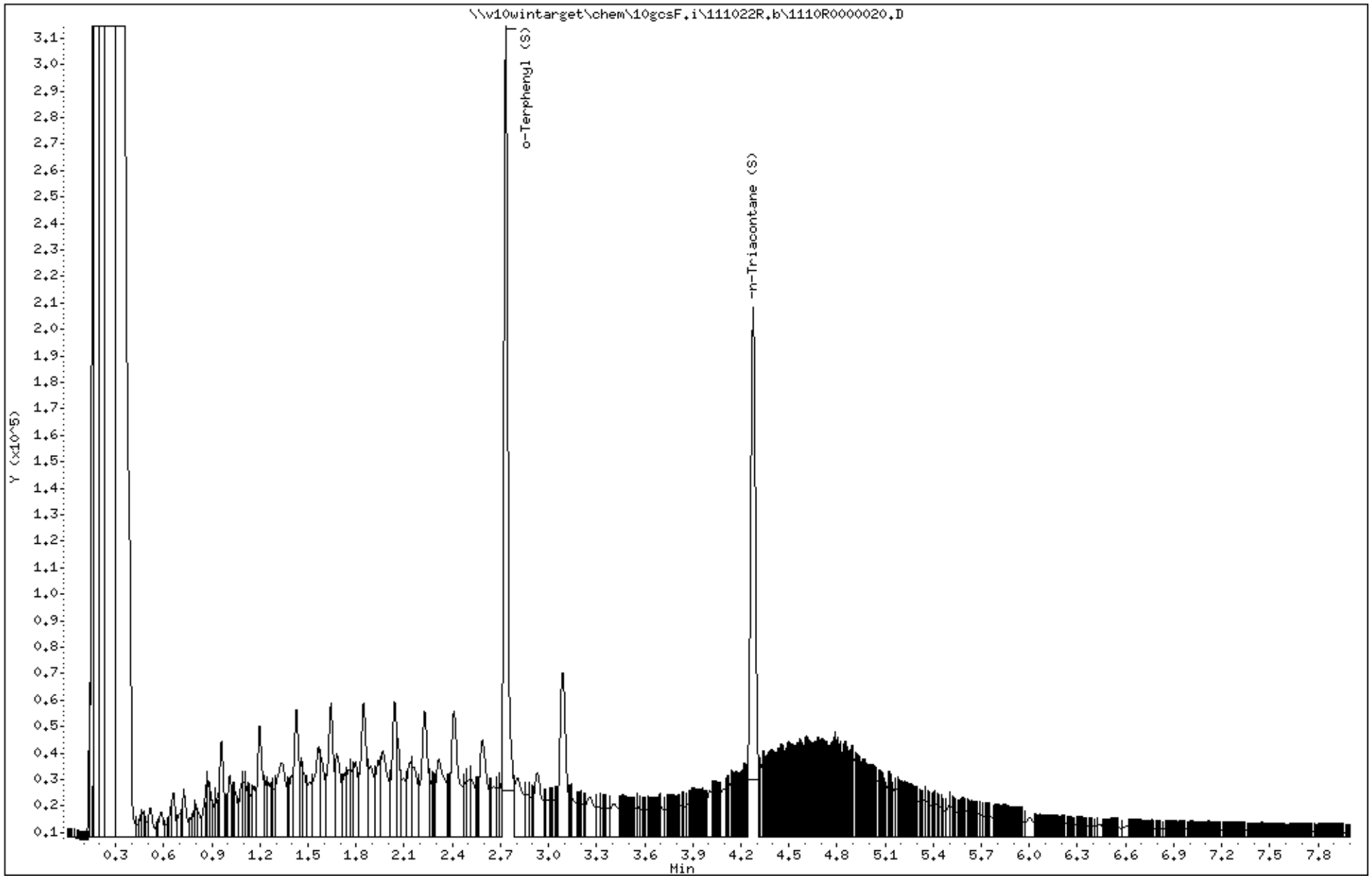
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

Column phase: DB-5-US21130002

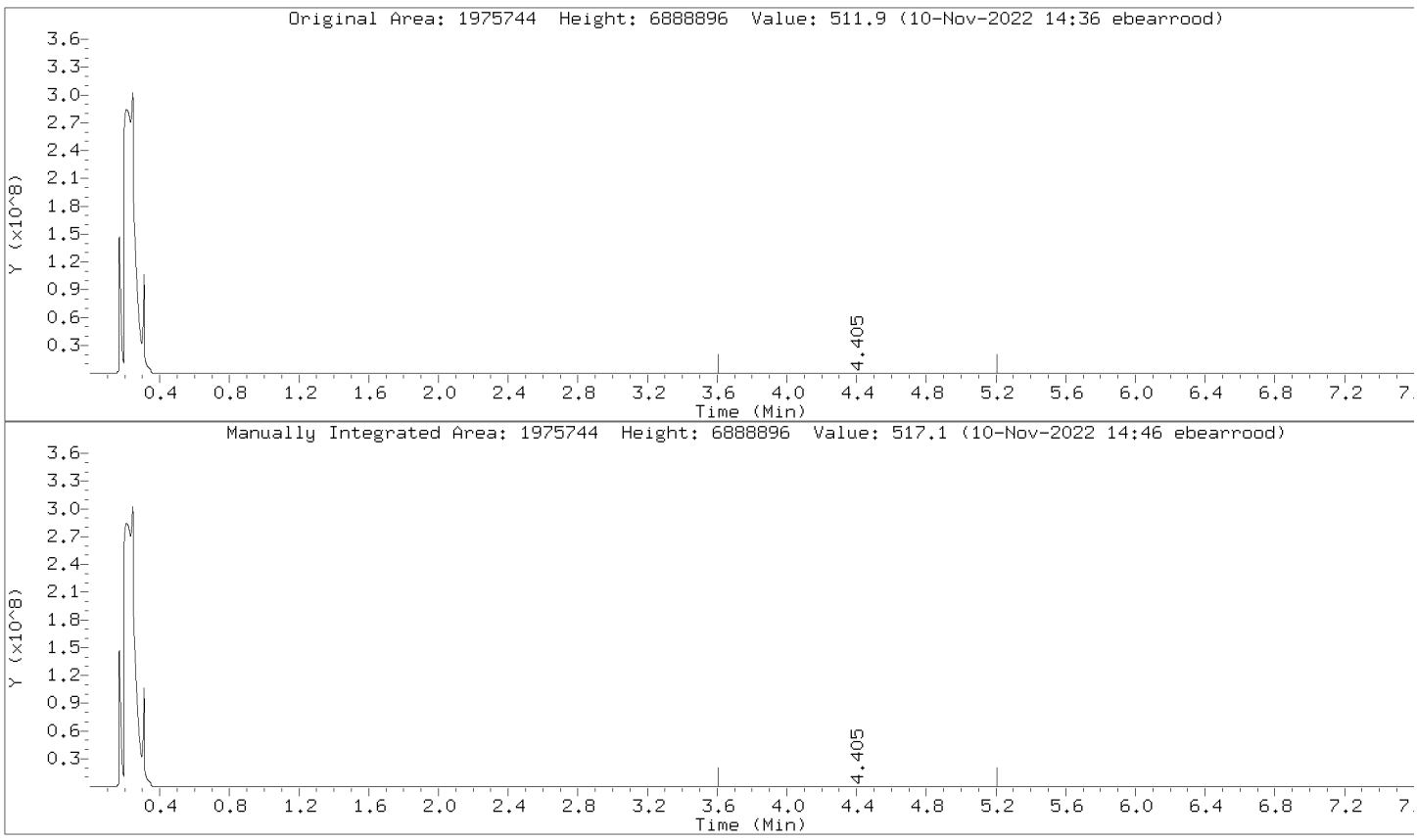
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



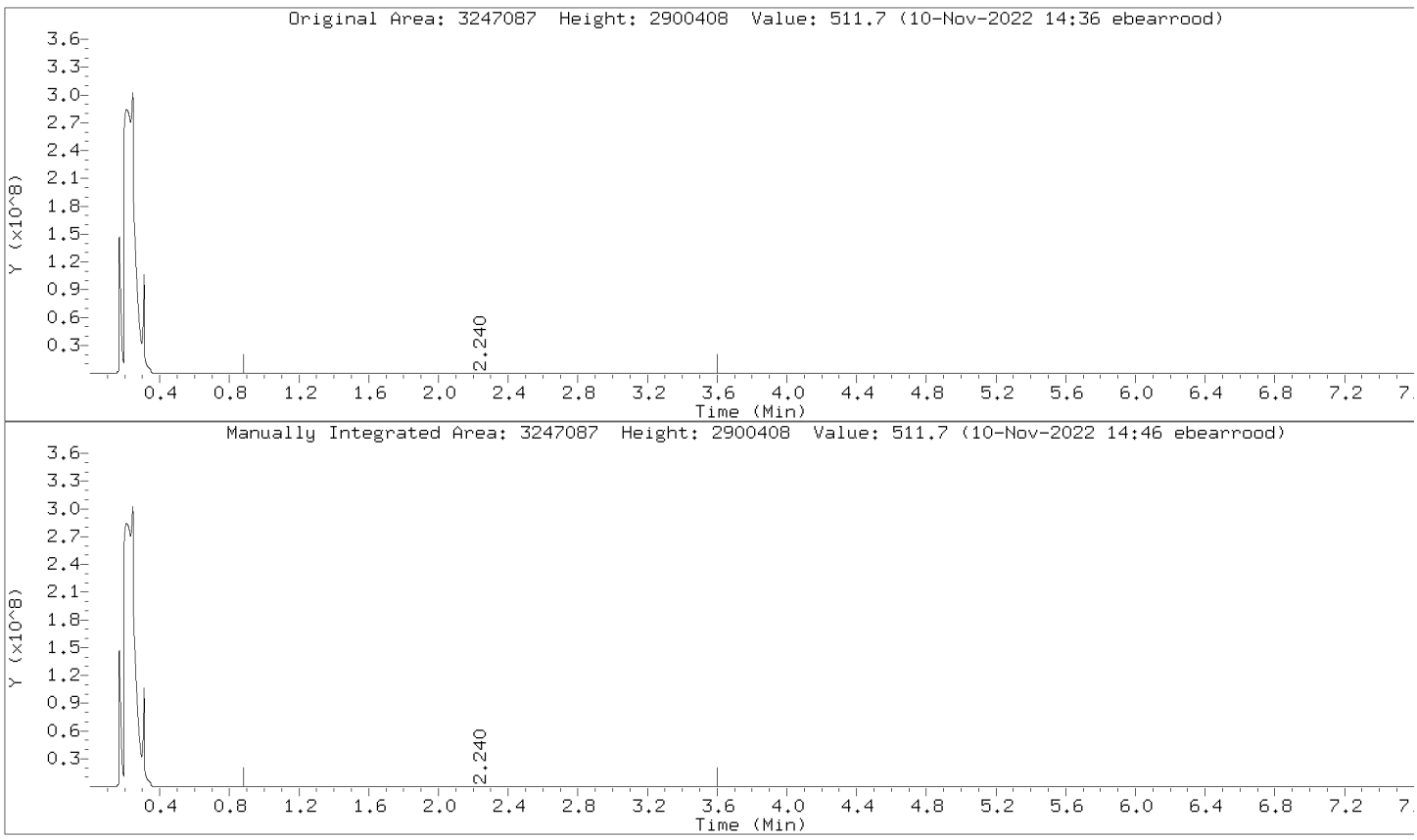
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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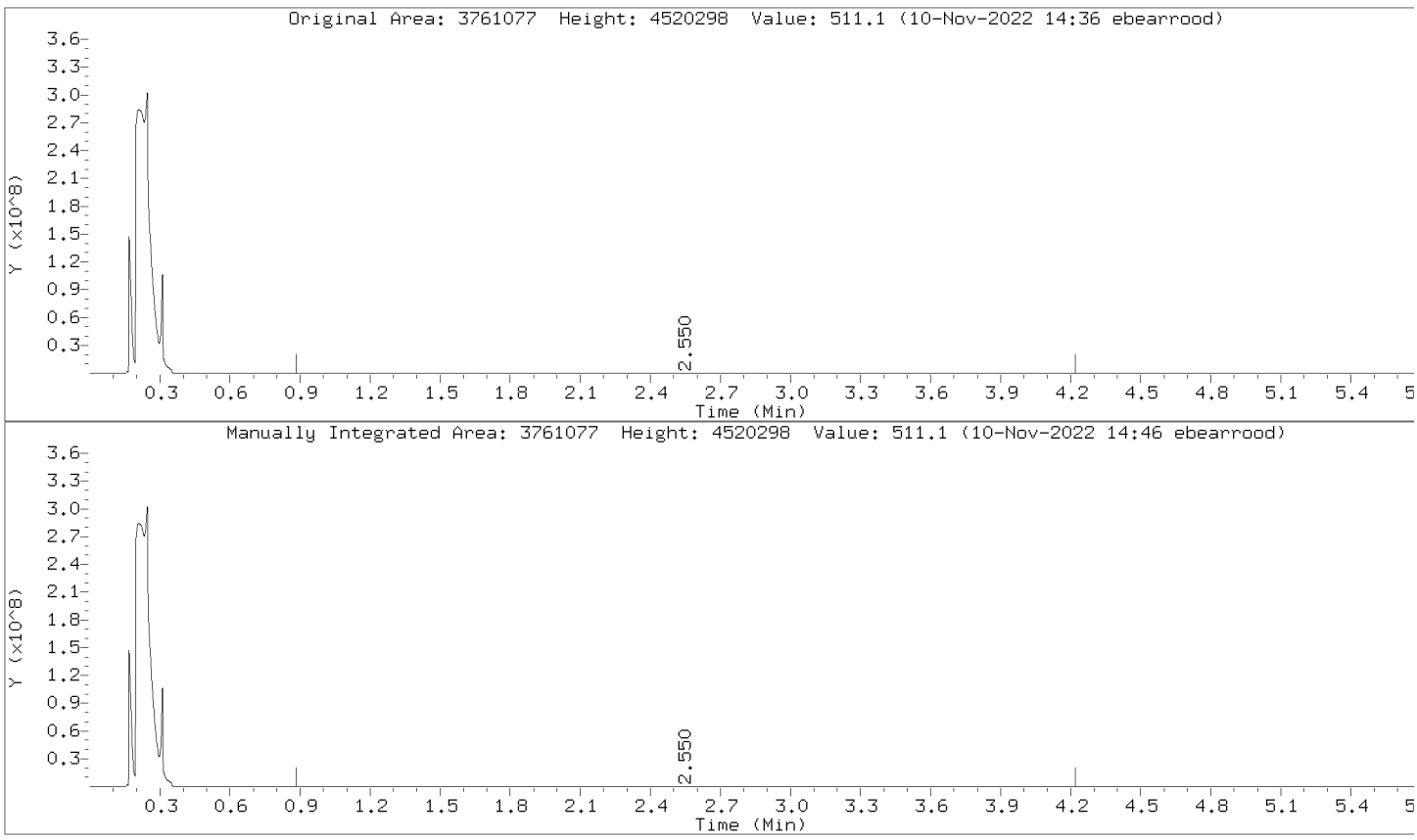
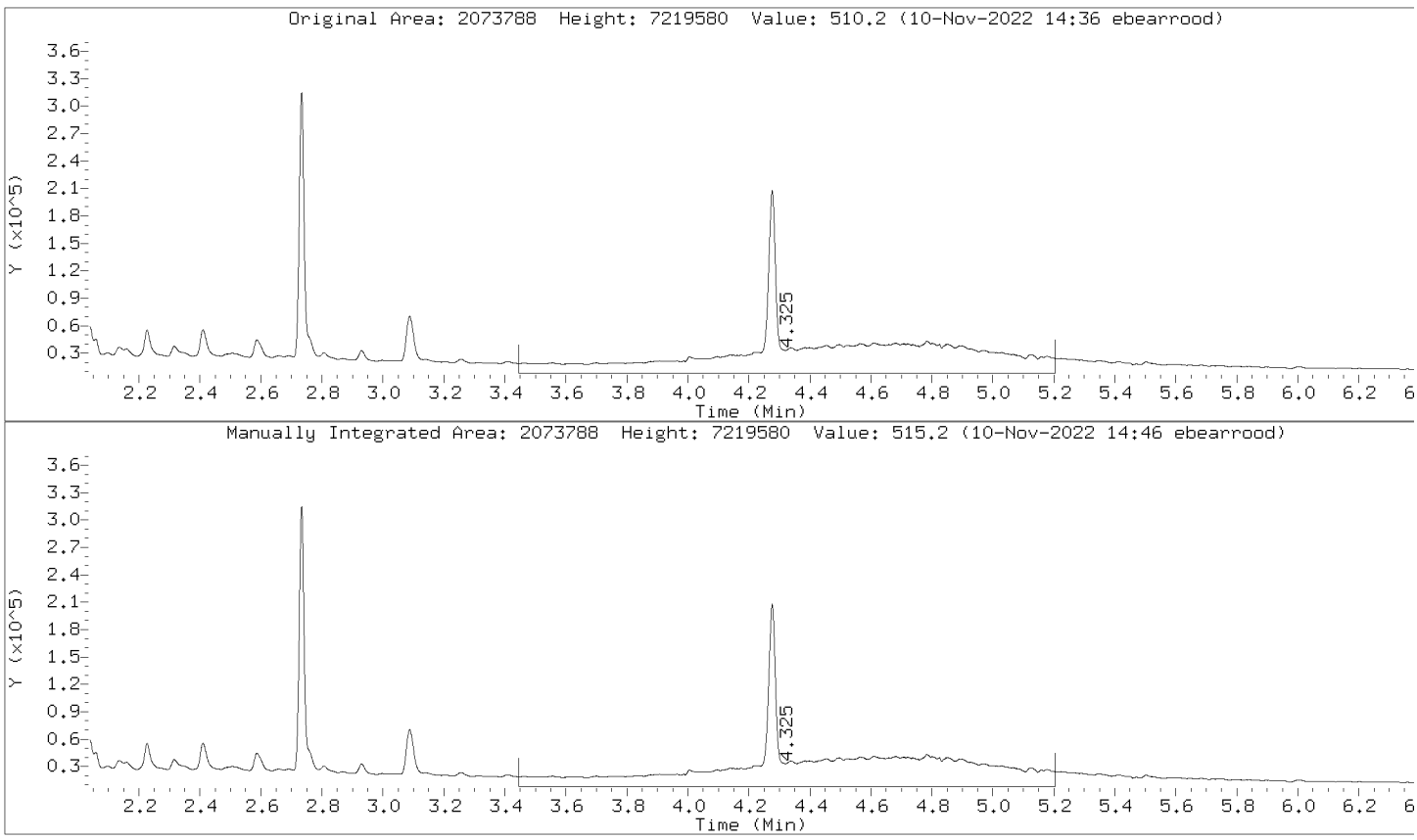
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



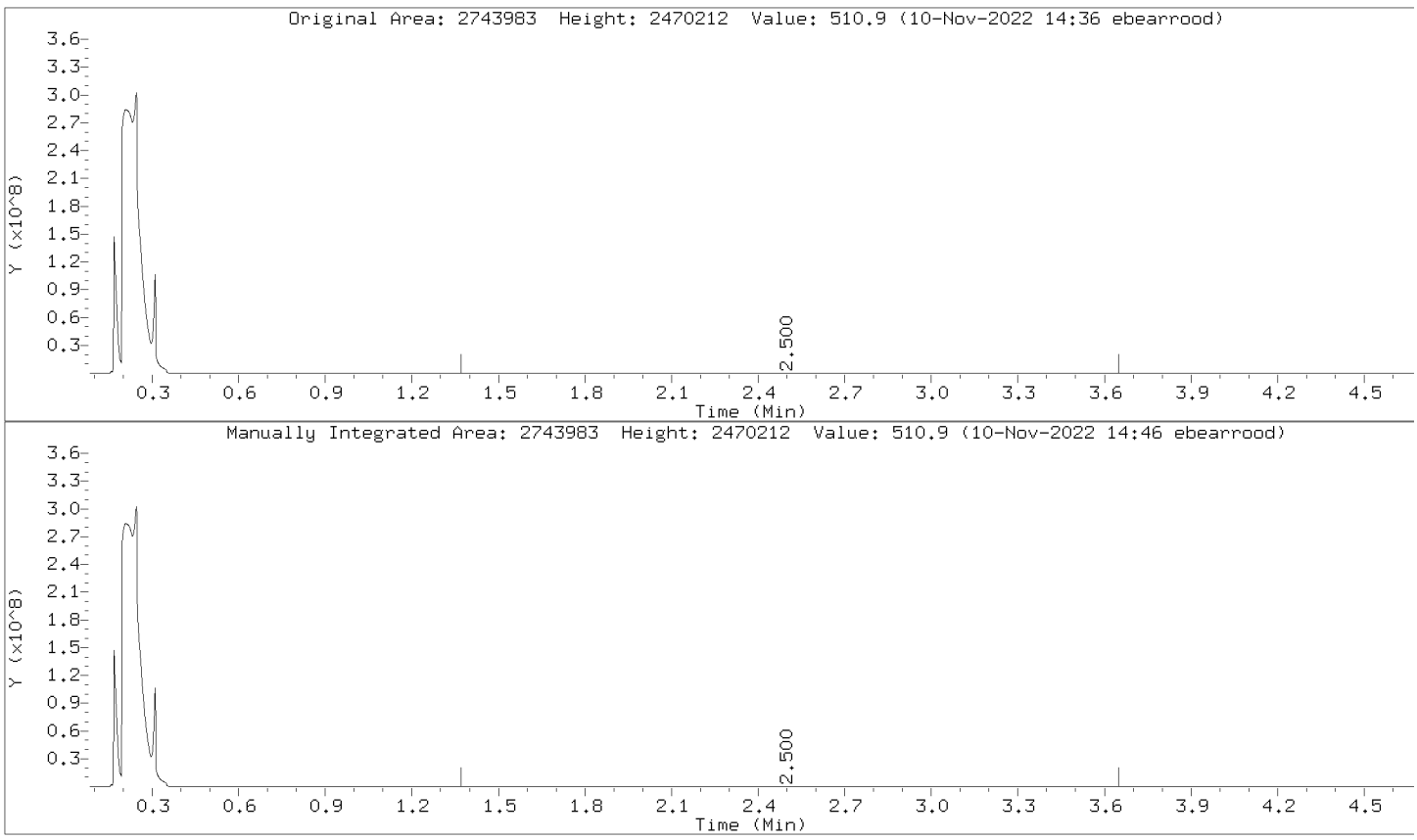
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



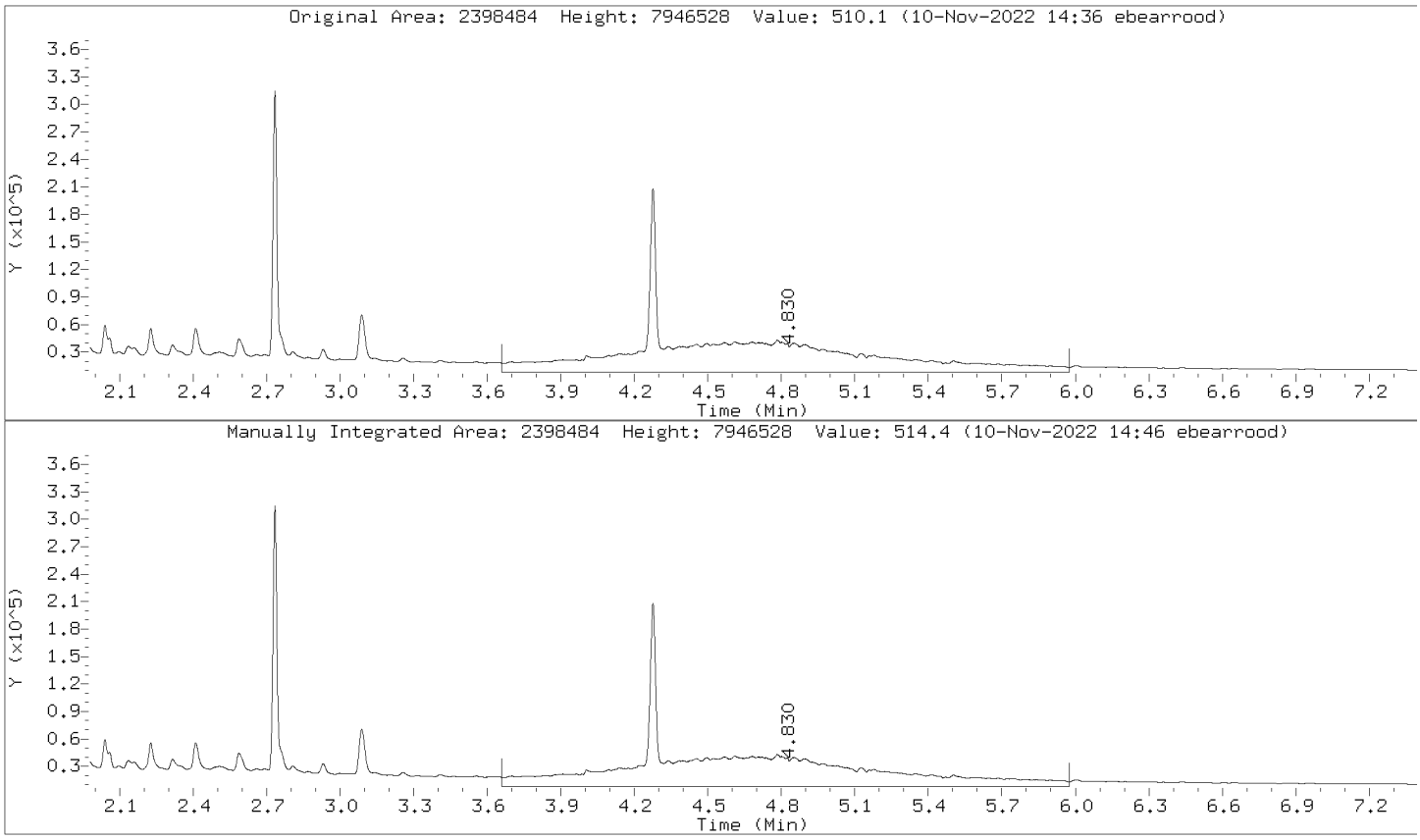
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



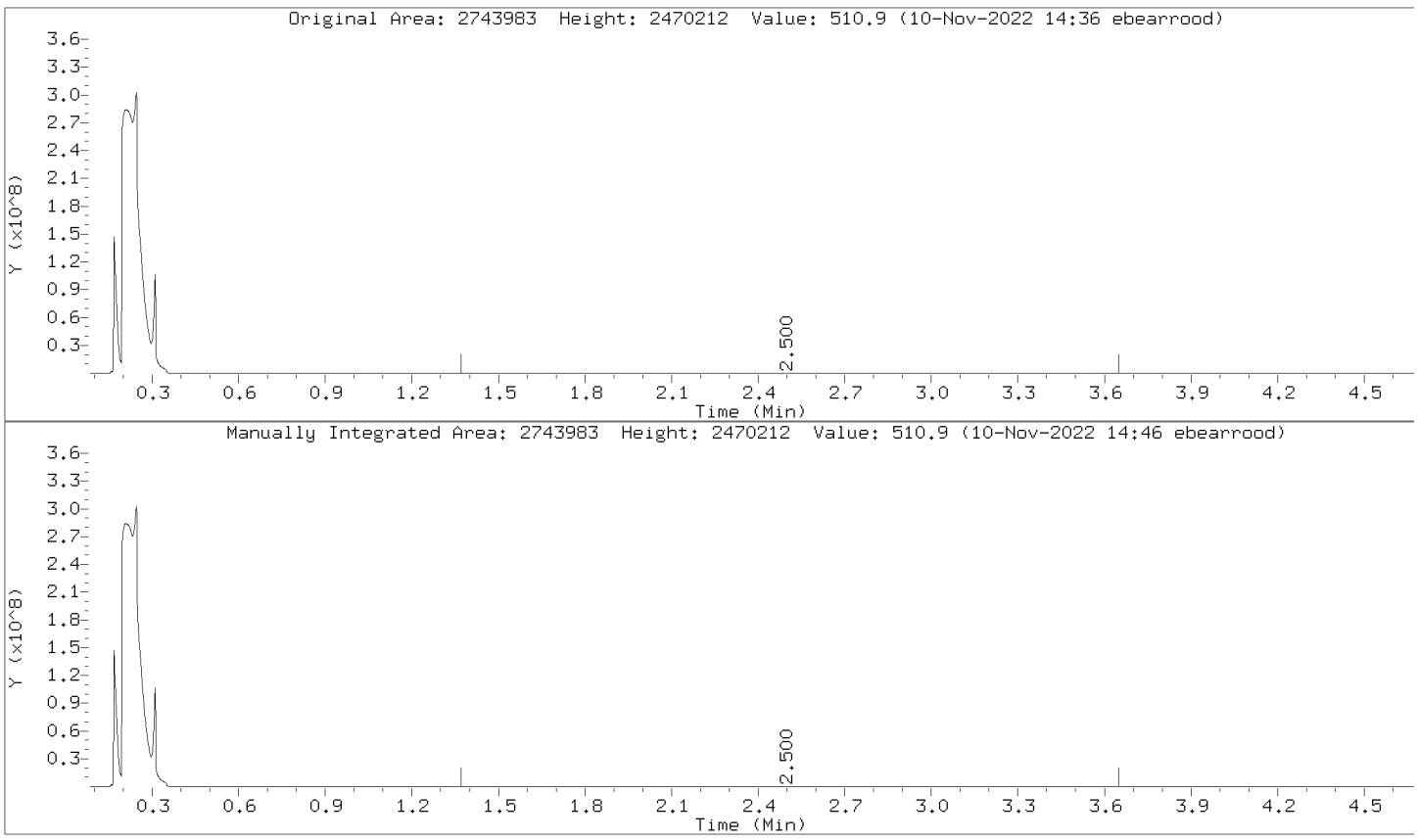
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



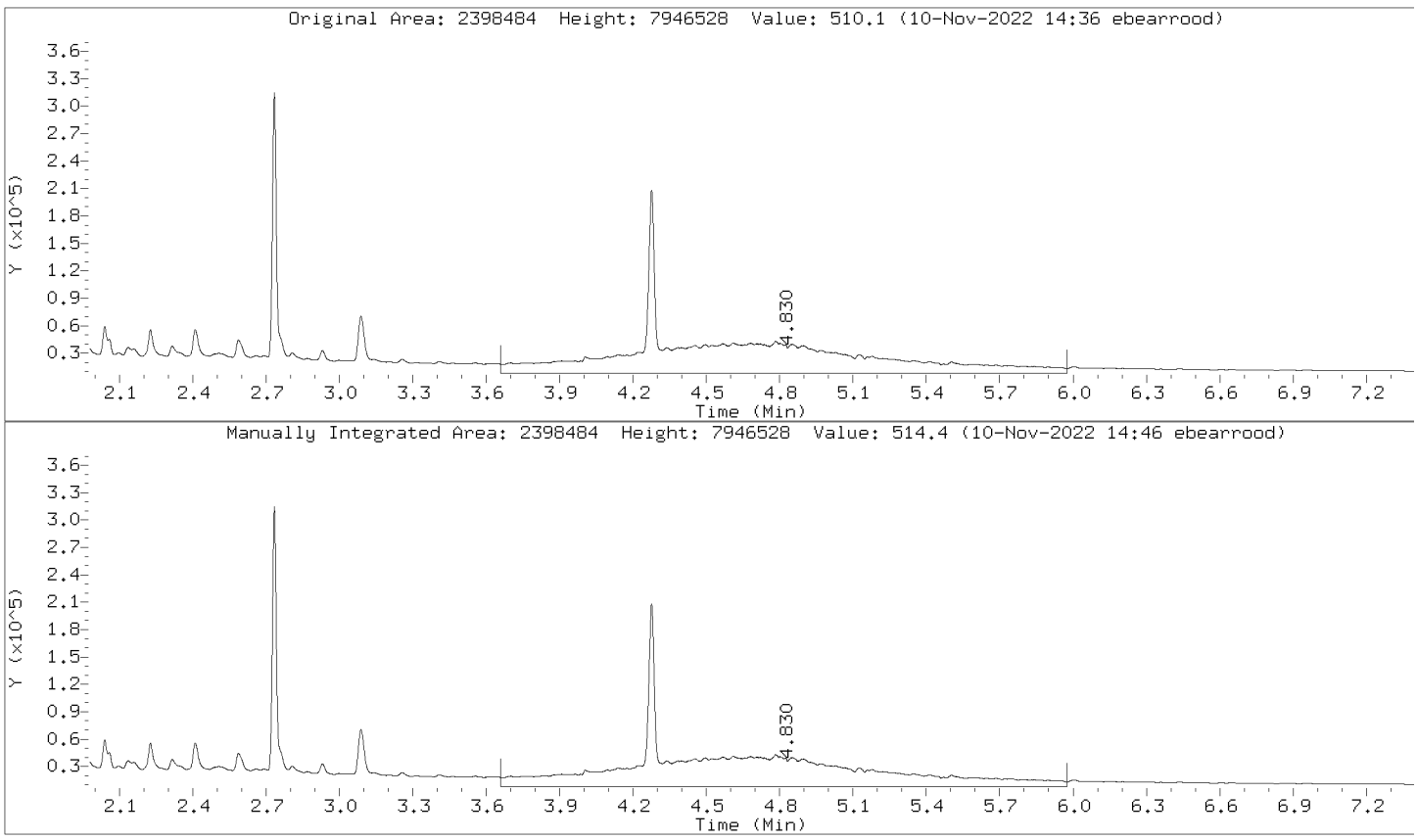
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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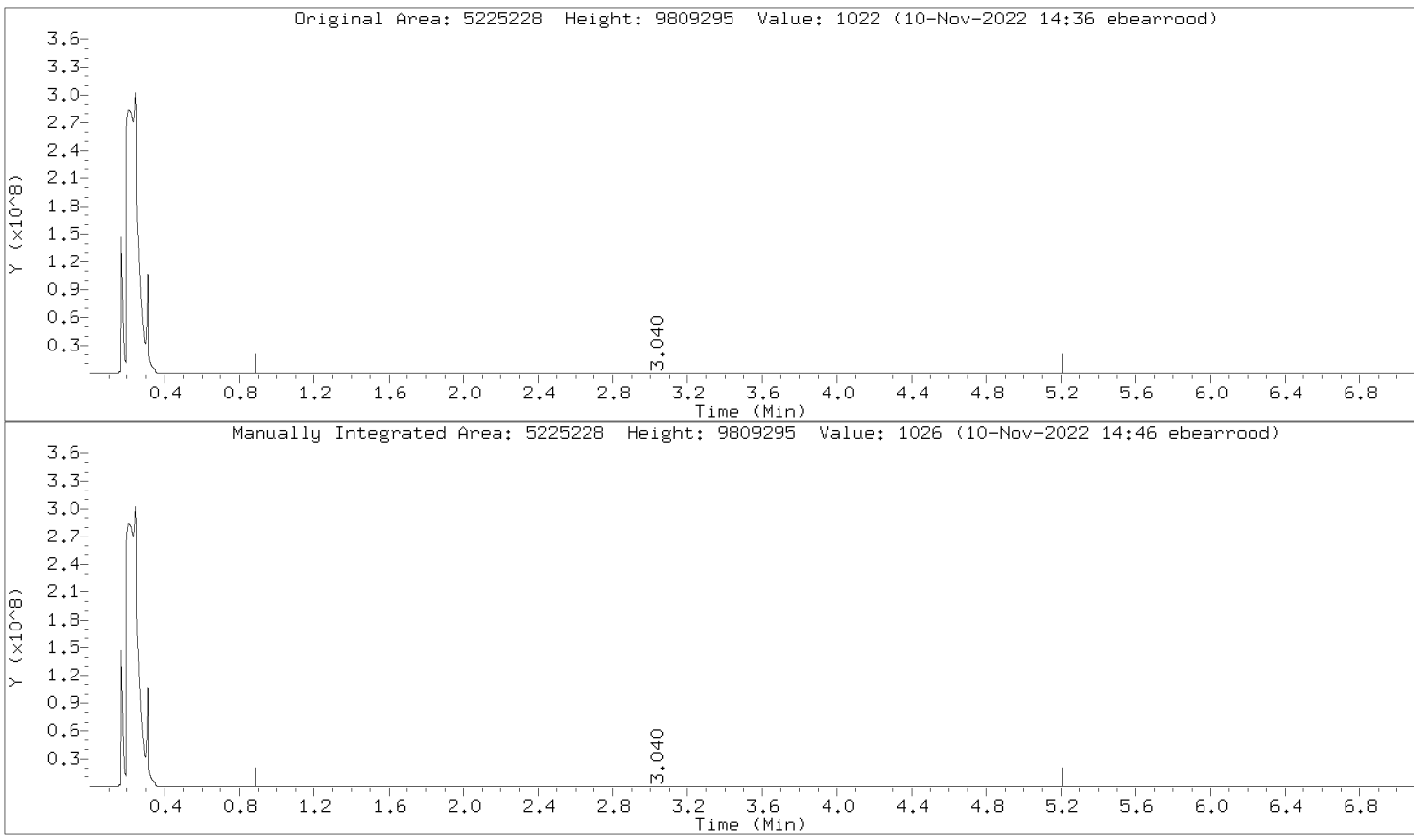
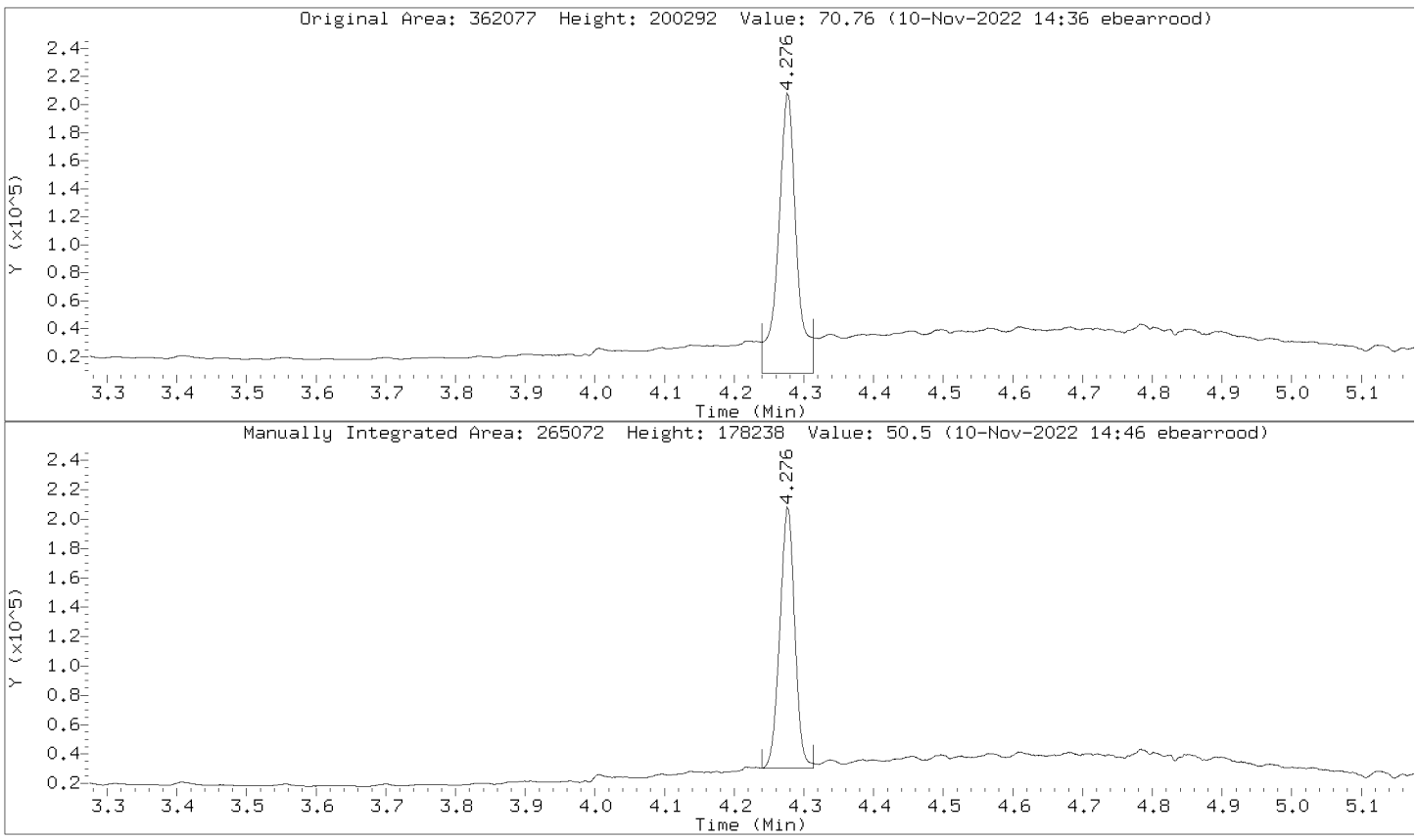
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



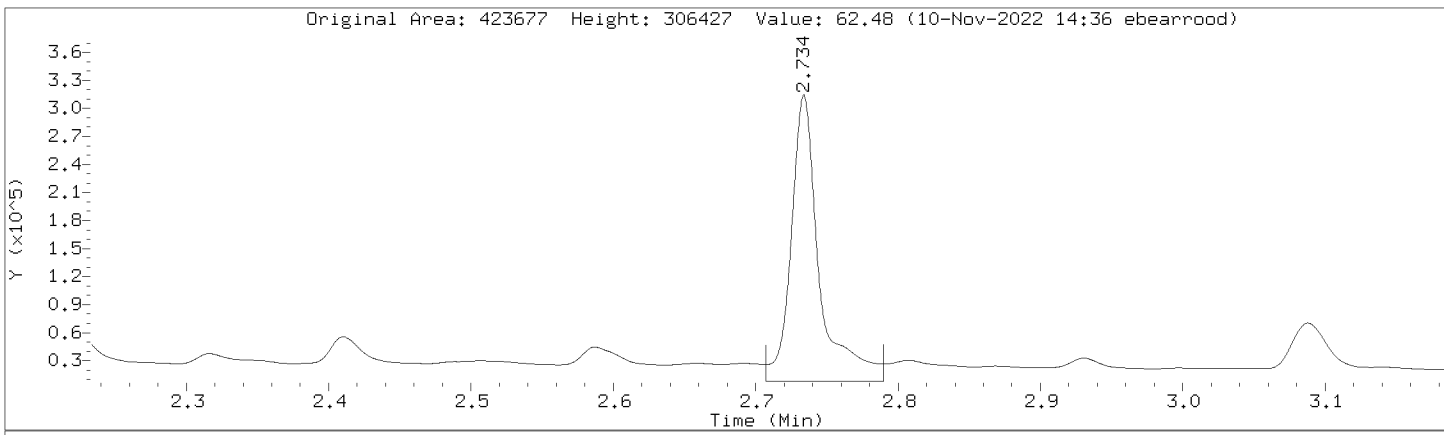
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

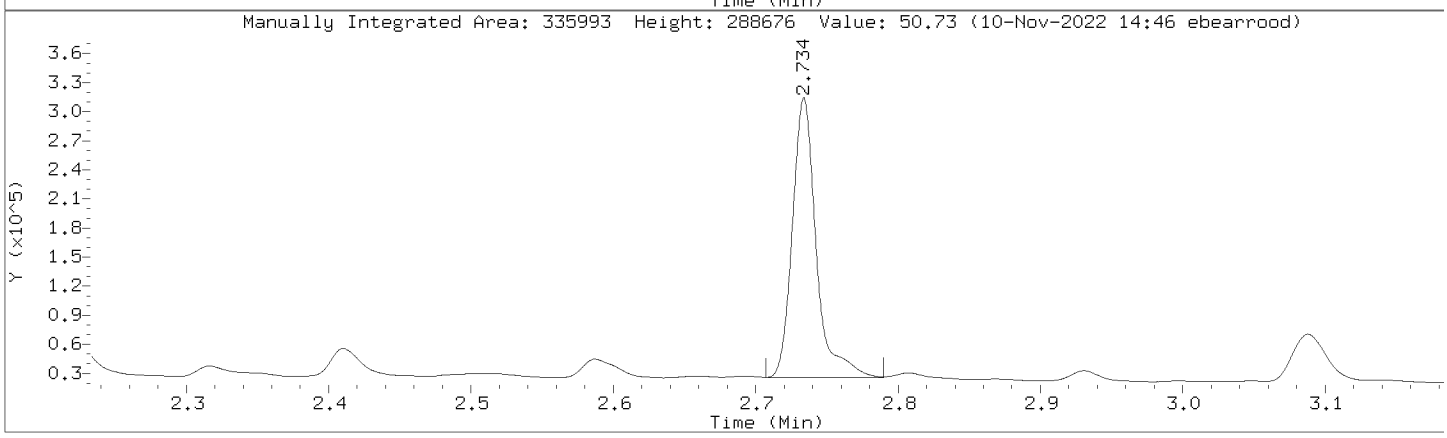
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 16:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3135922	500.000	492	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	329069	50.0000	49.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.274	0.001	260675	50.0000	49.7	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		2024087	500.000	530	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3624885	500.000	490	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2123483	500.000	528	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5170588	1000.00	1010	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2662506	500.000	494	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2662506	500.000	494	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2525503	500.000	543	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2525503	500.000	543	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

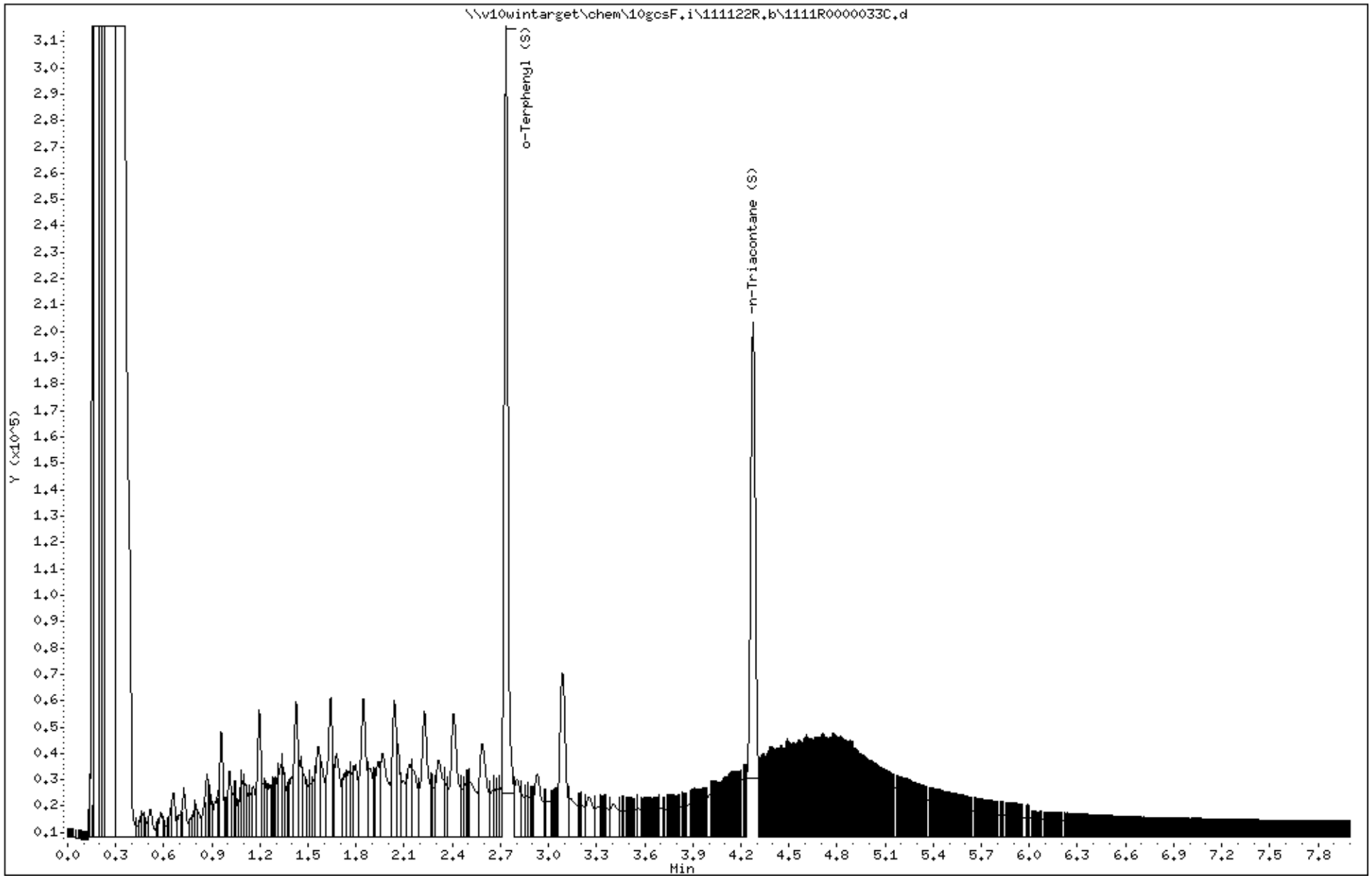
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Date : 11-NOV-2022 16:51
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

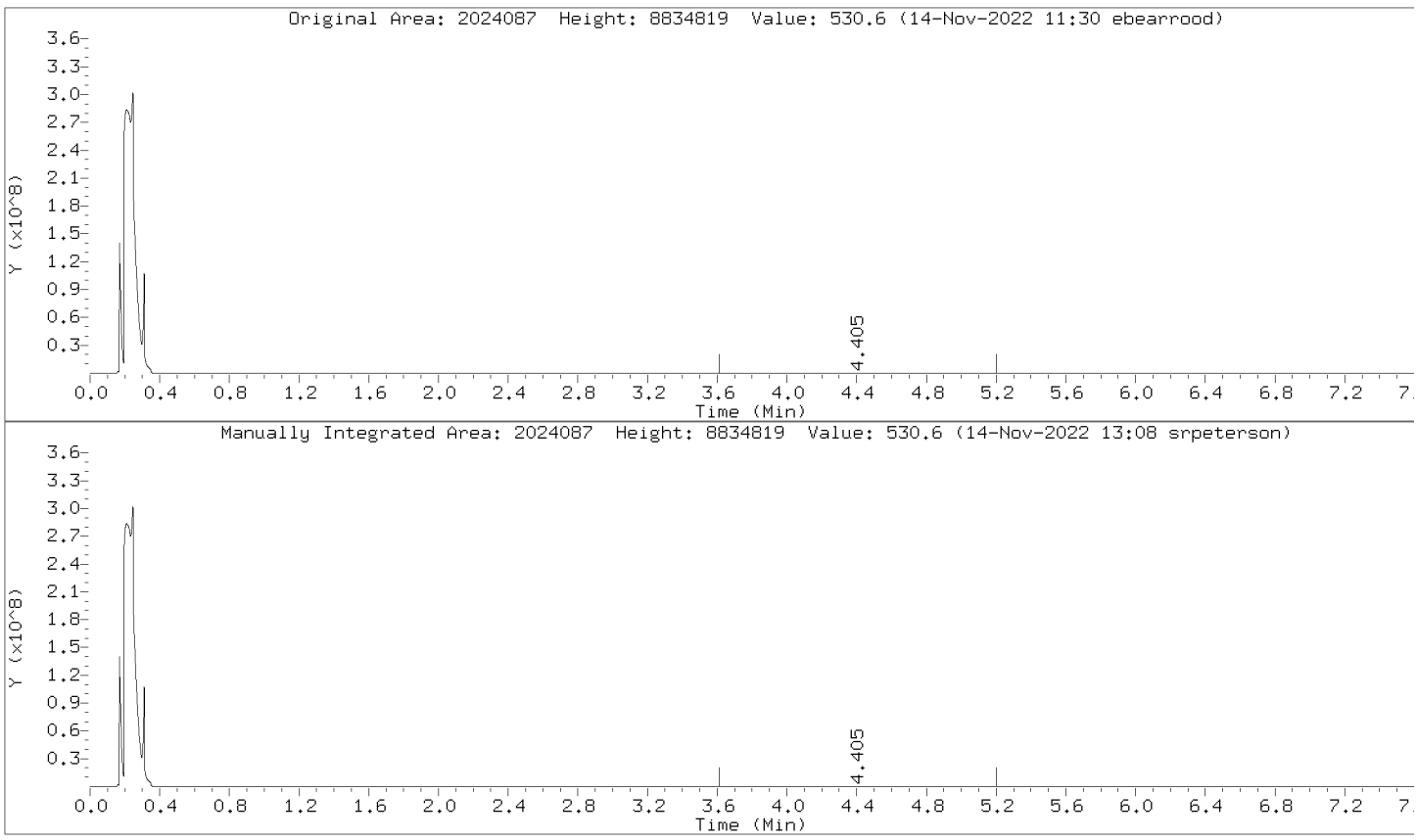
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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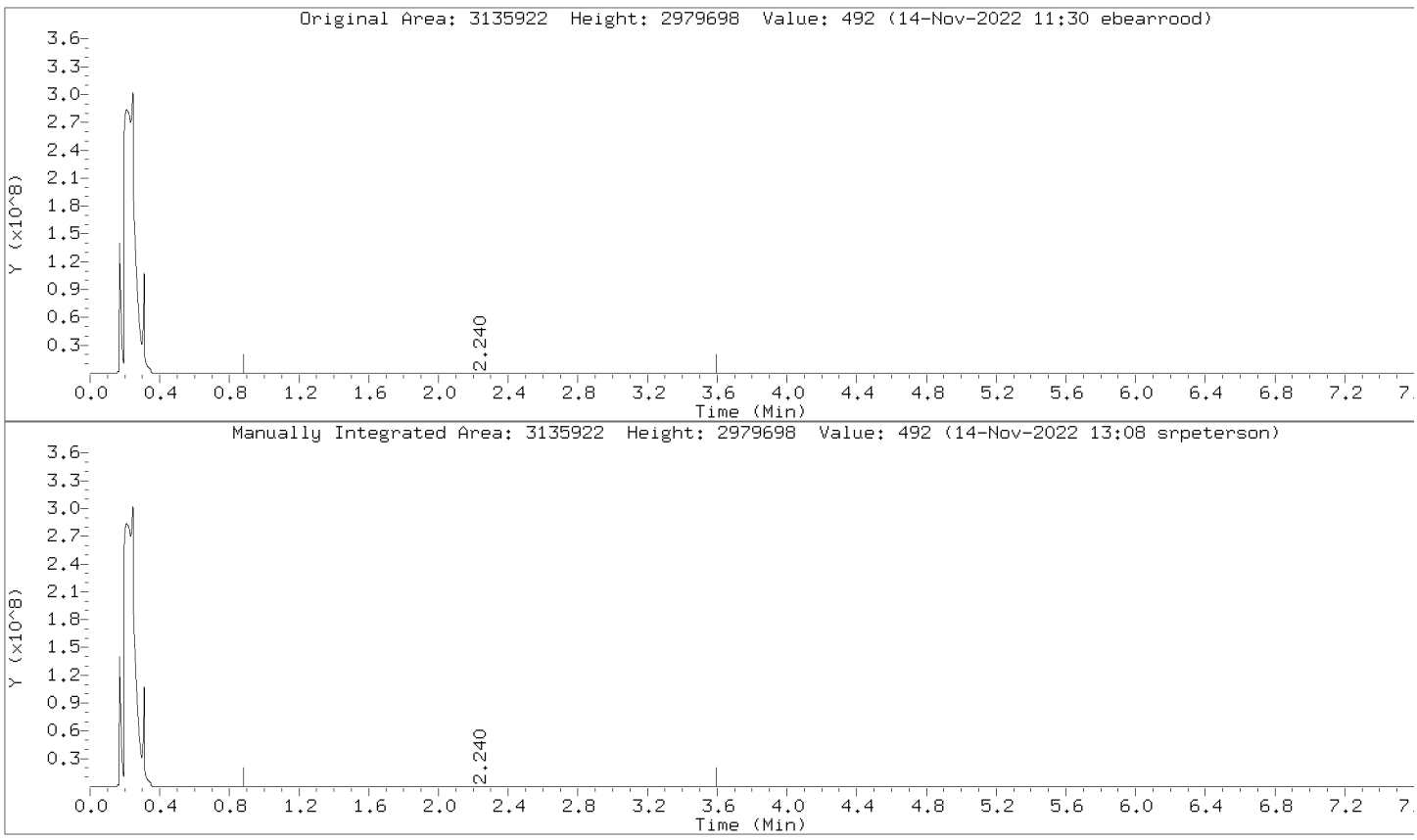
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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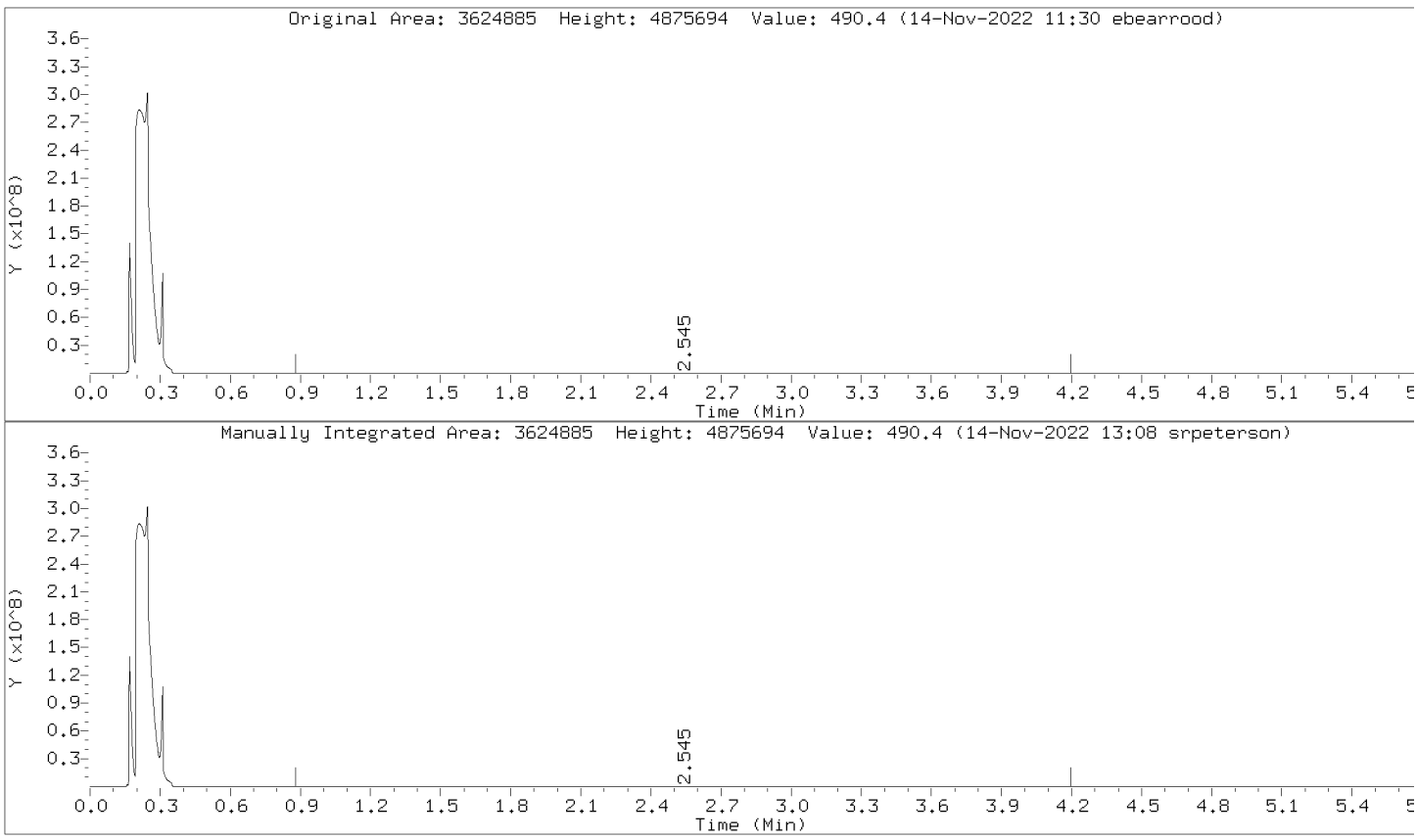
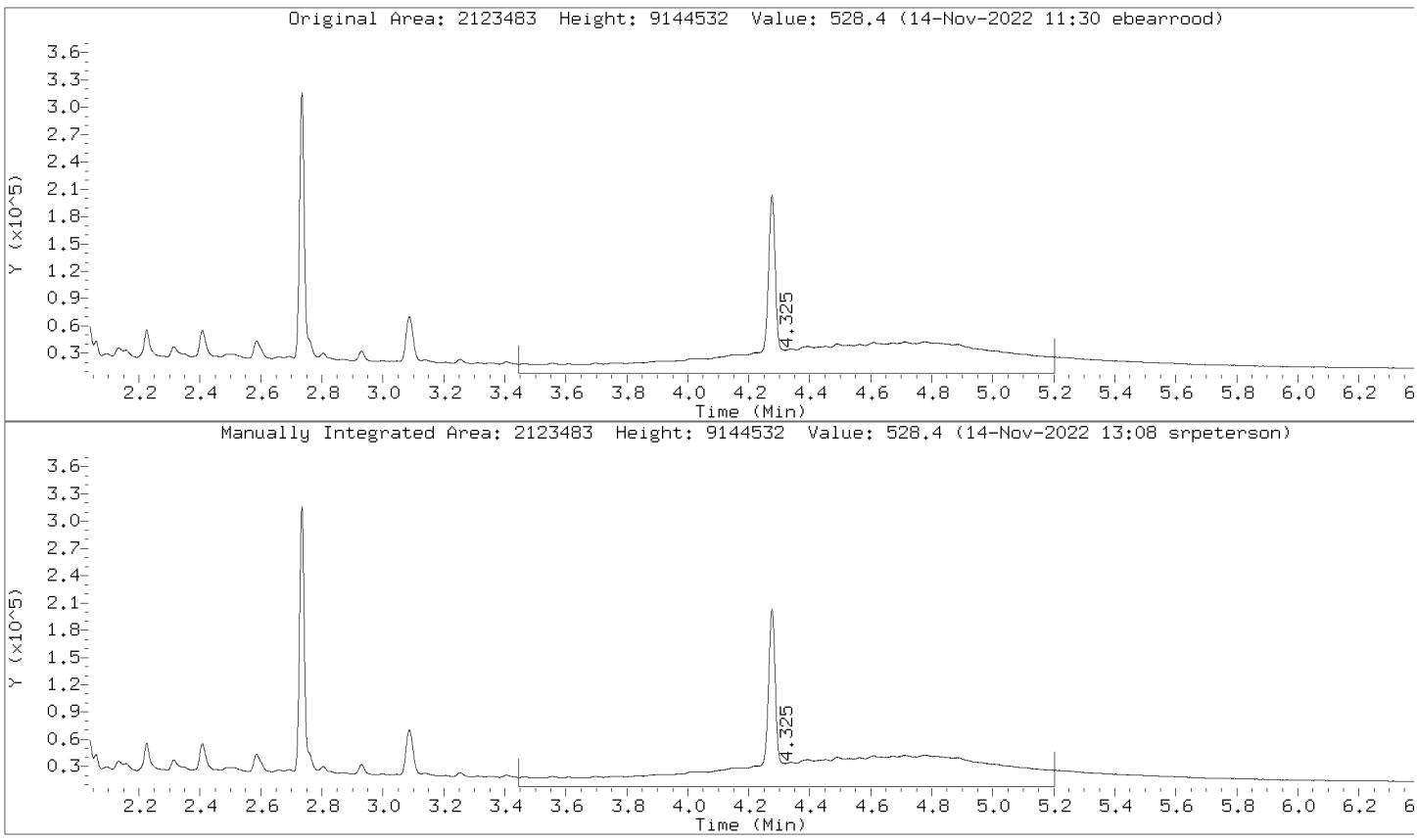
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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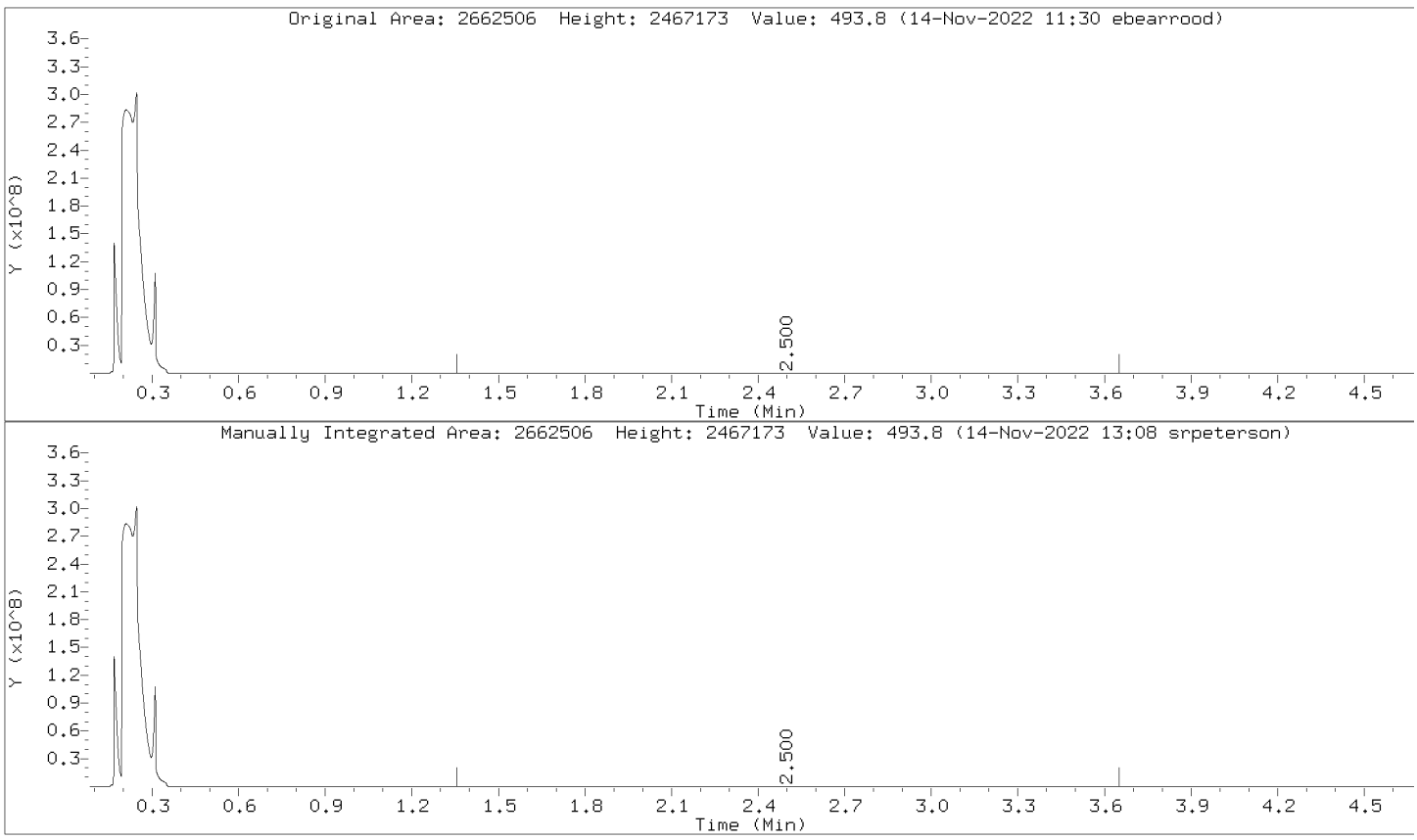
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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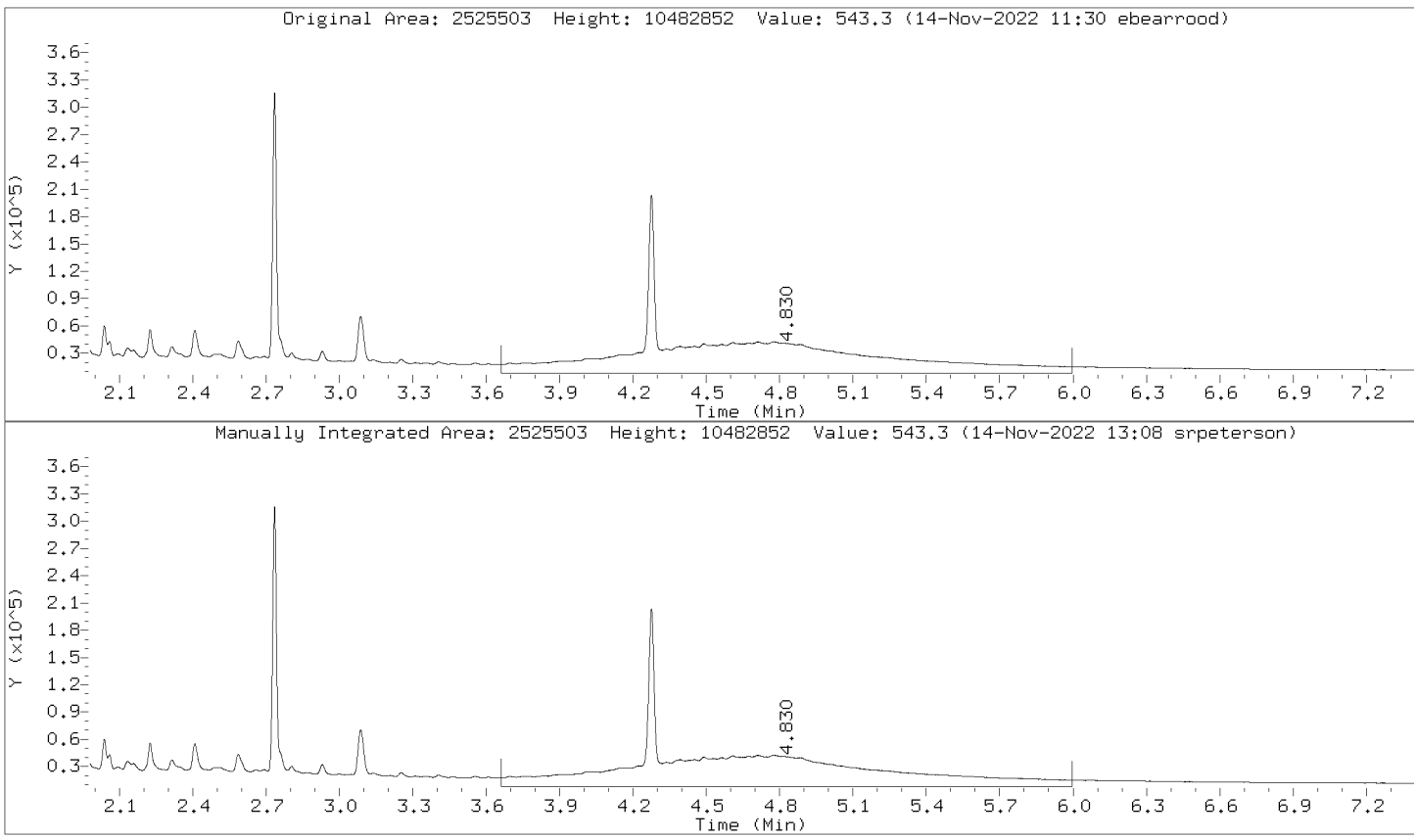
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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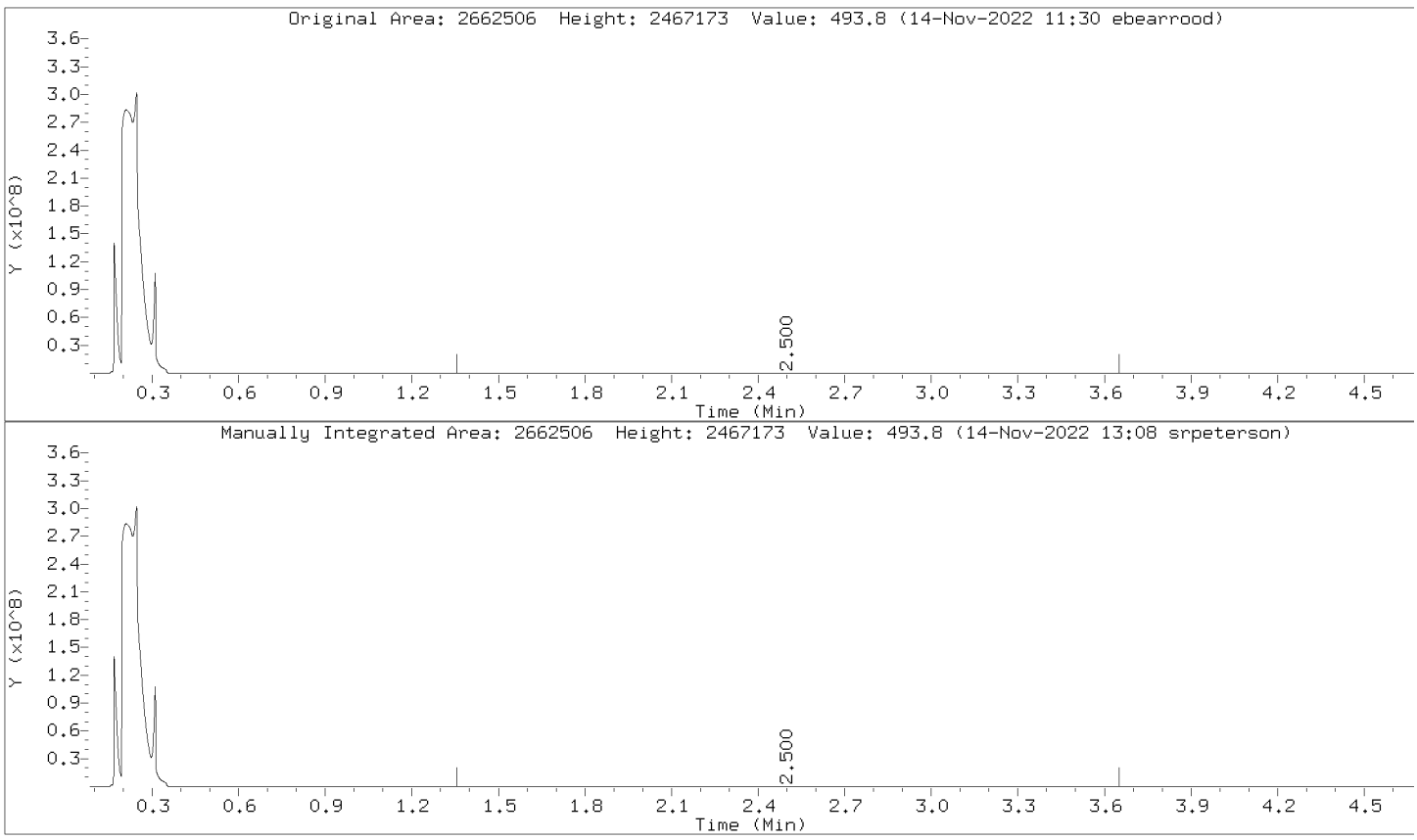
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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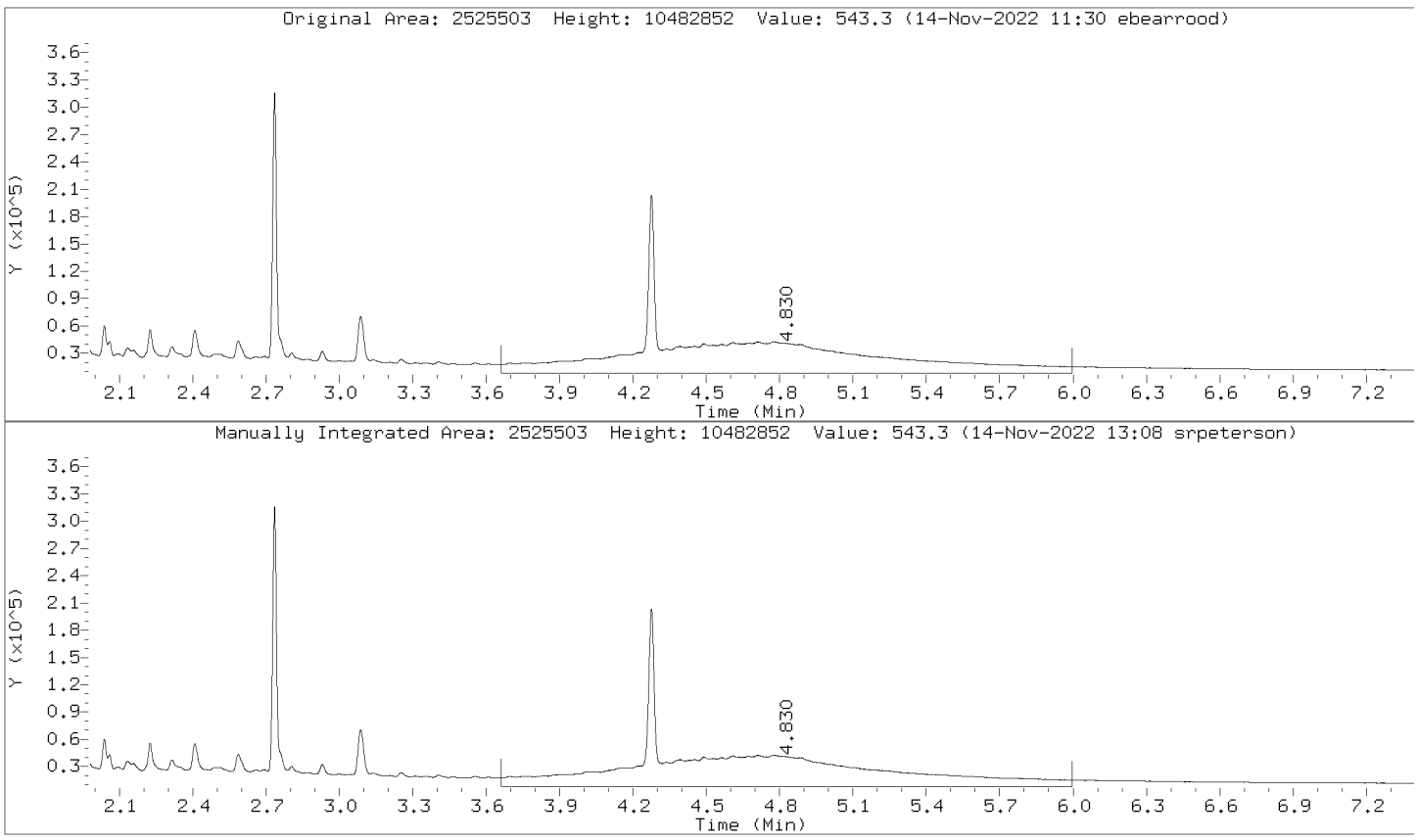
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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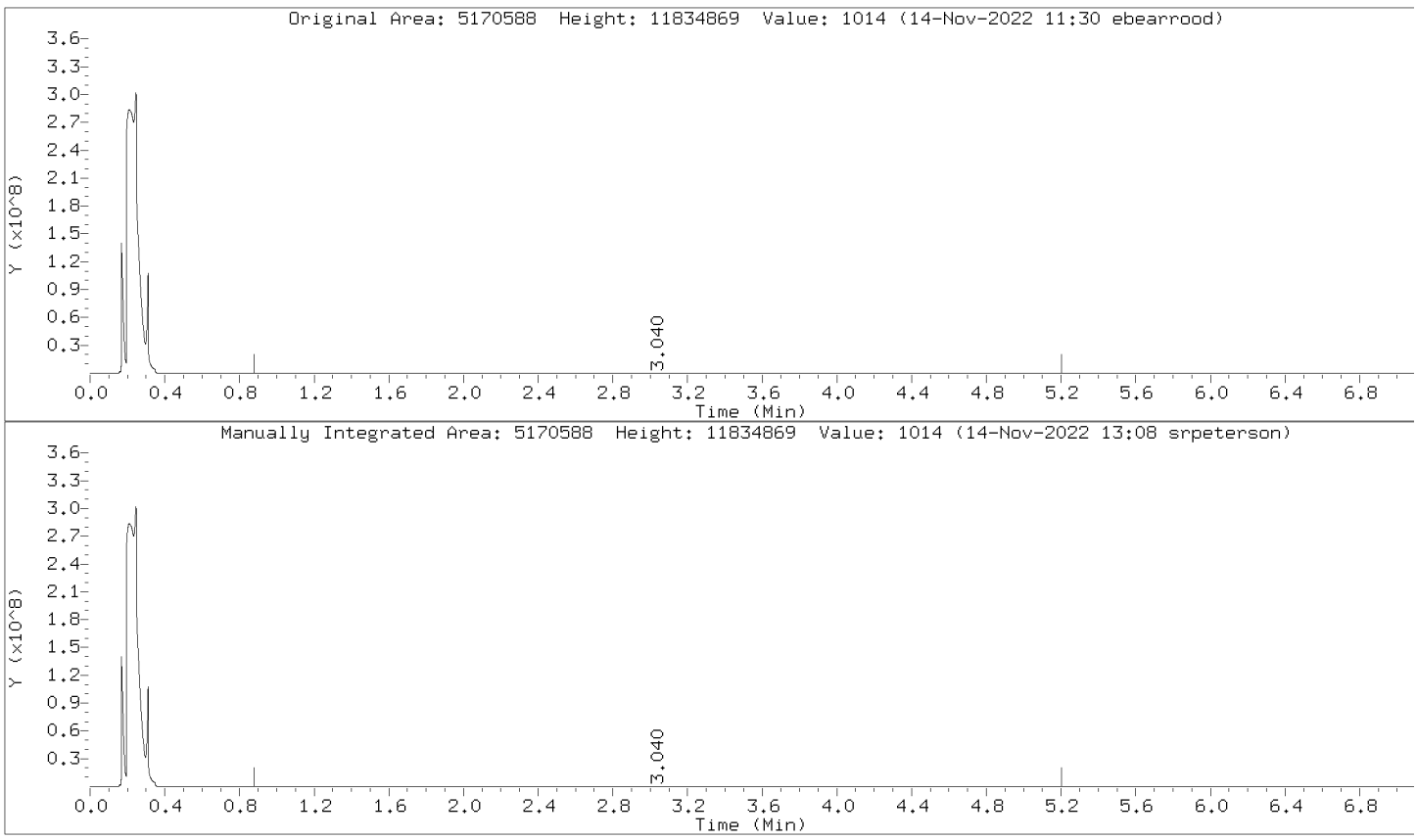
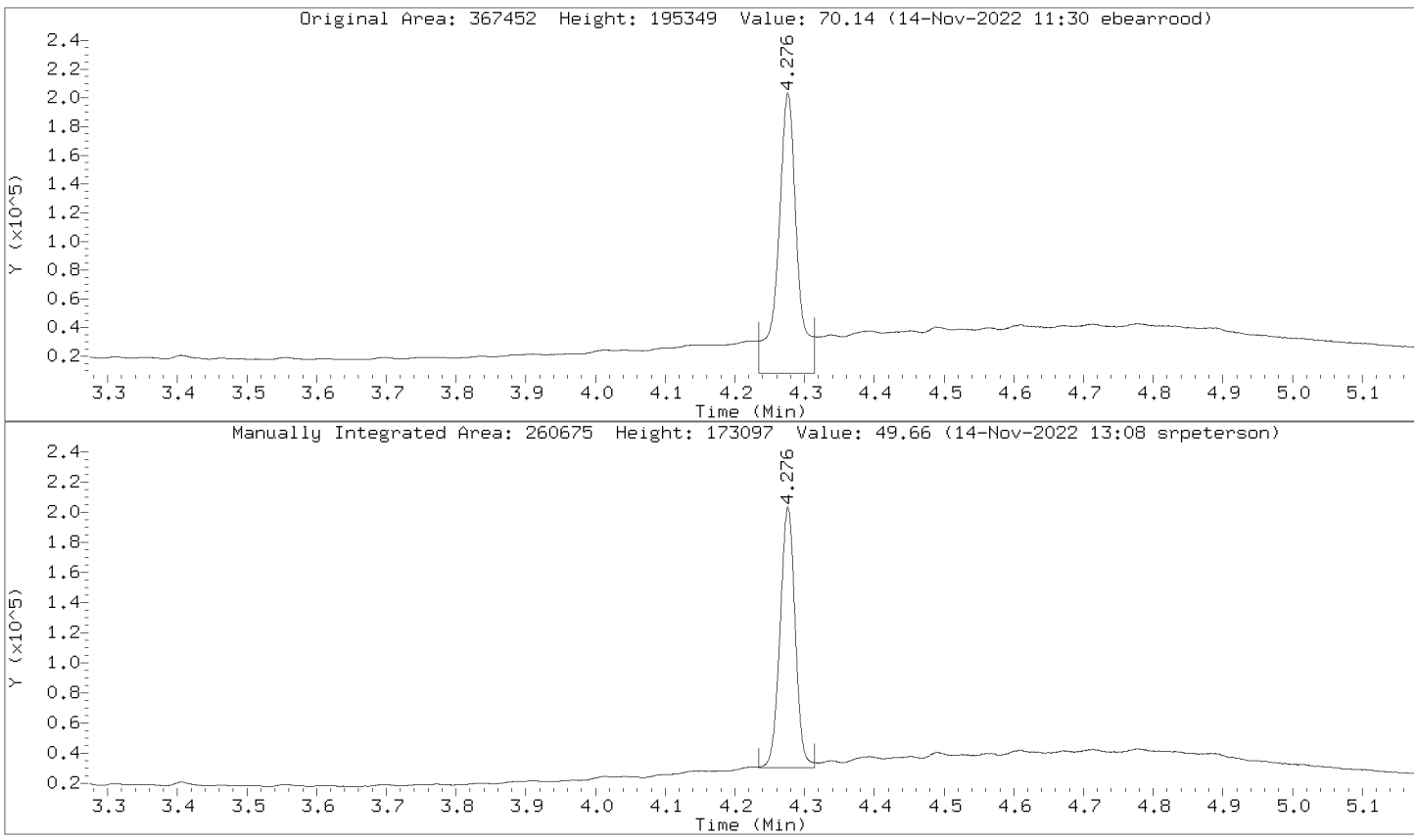
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



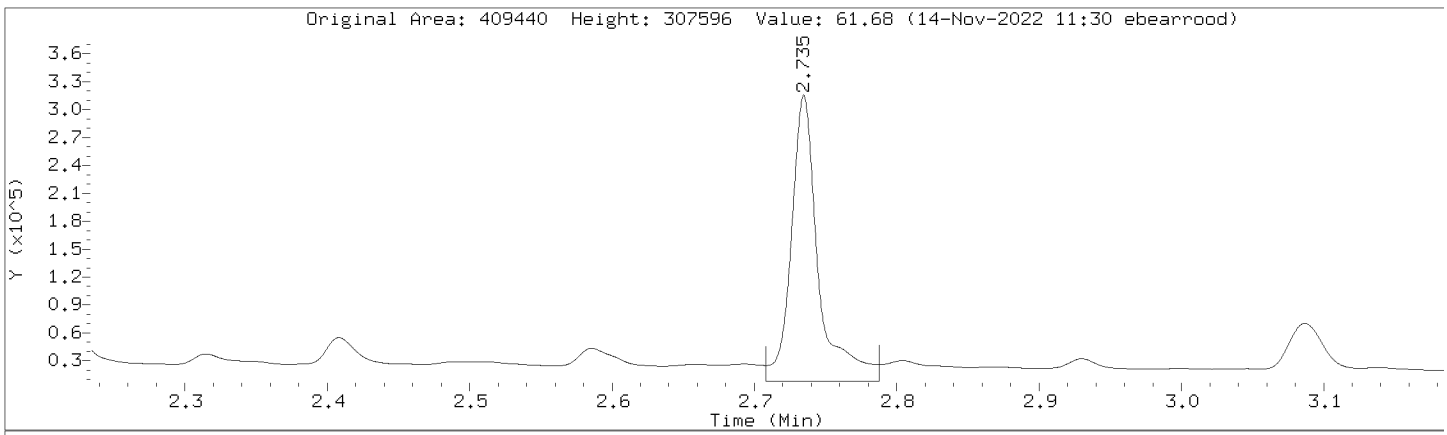
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

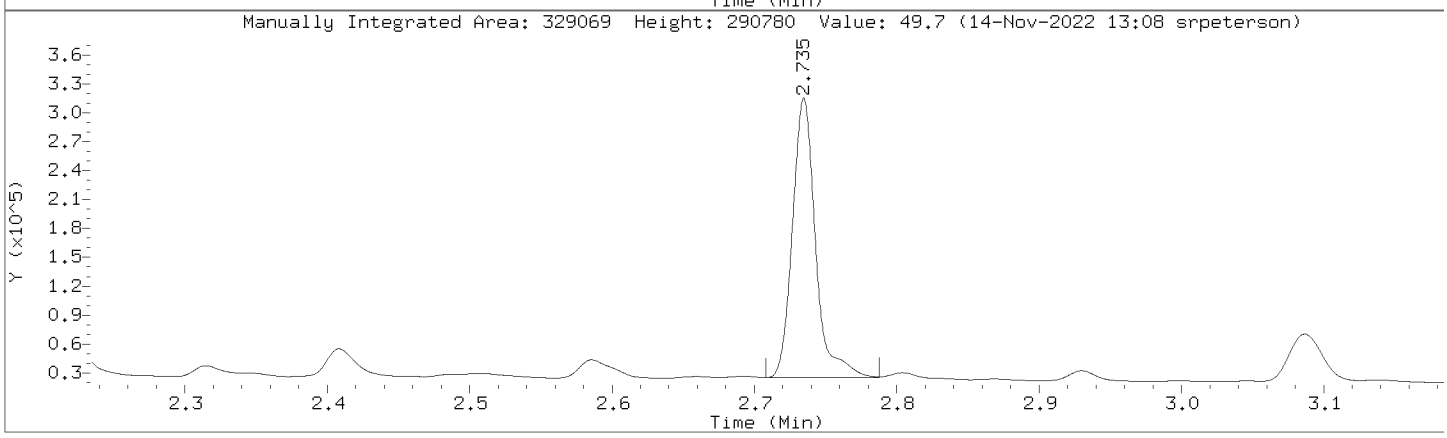
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2024087	2024087
DRO by AK 102	3135922	3135922
TPH-DRO (C10-C28)	3624885	3624885
Motor Oil Range (C24-C36)	2123483	2123483
Diesel Fuel Range	2662506	2662506
Motor Oil Range	2525503	2525503
Diesel Fuel Range SG	2662506	2662506
Motor Oil Range SG	2525503	2525503
C10-C36	5170588	5170588
n-Triacontane (S)	367452	260675
o-Terphenyl (S)	409440	329069

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000039C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 18:00
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3109016	500.000	487	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	326555	50.0000	49.3	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.274	-0.001	256814	50.0000	48.9	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1892621	500.000	494	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3586649	500.000	485	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1989179	500.000	493	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5011167	1000.00	980	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2641971	500.000	490	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2641971	500.000	490	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2303367	500.000	493	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2303367	500.000	493	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

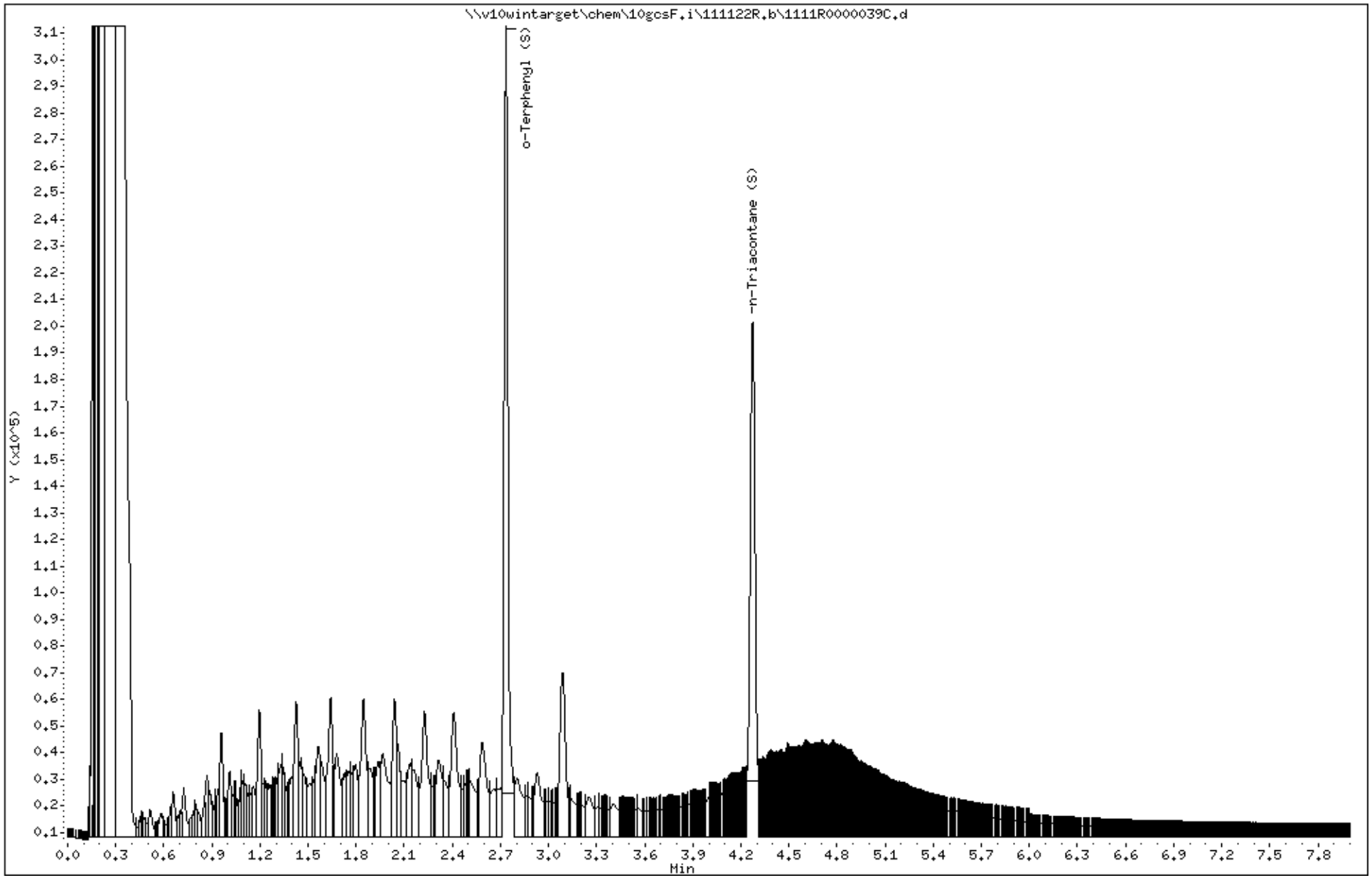
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000039C.d
Date : 11-NOV-2022 18:00
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

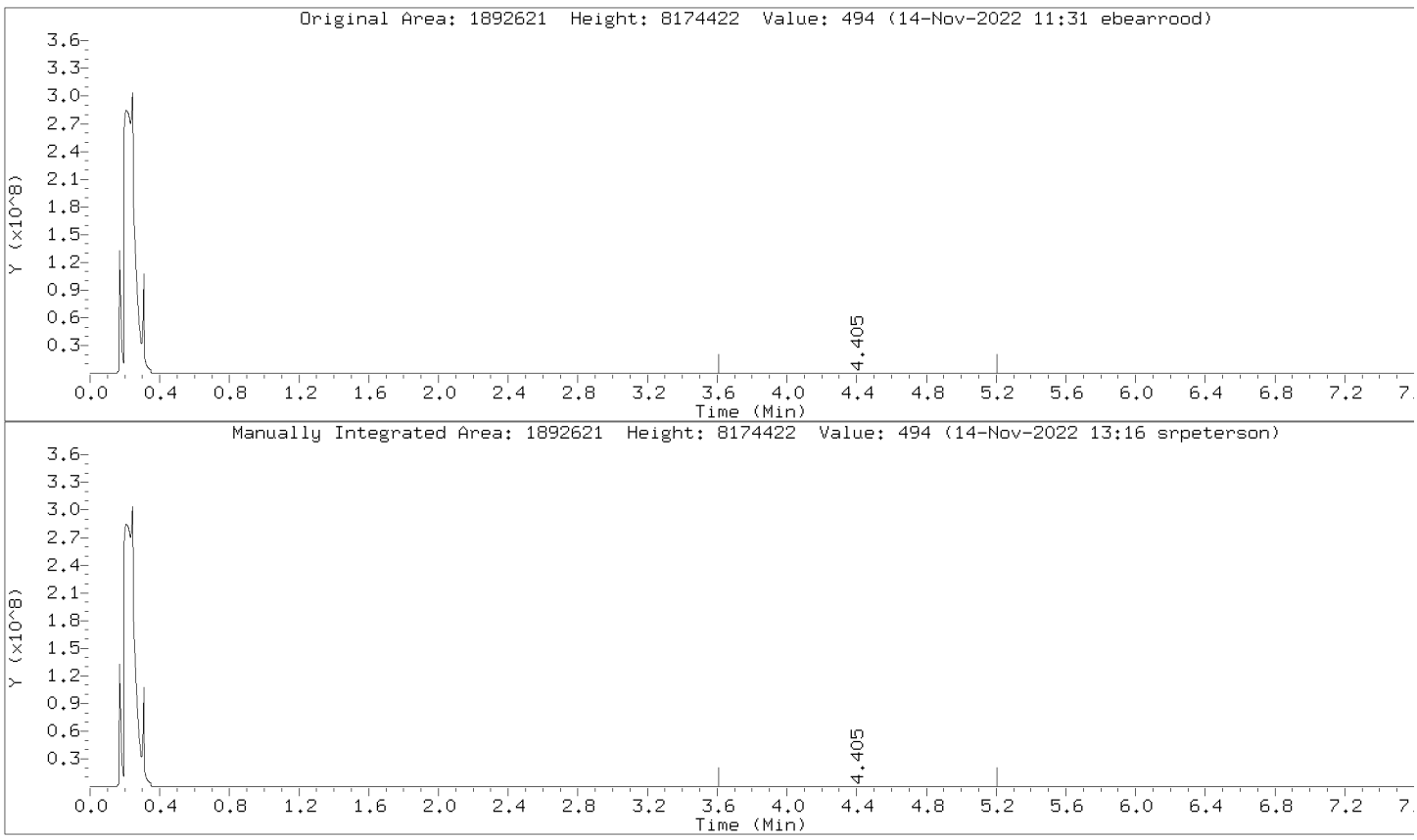
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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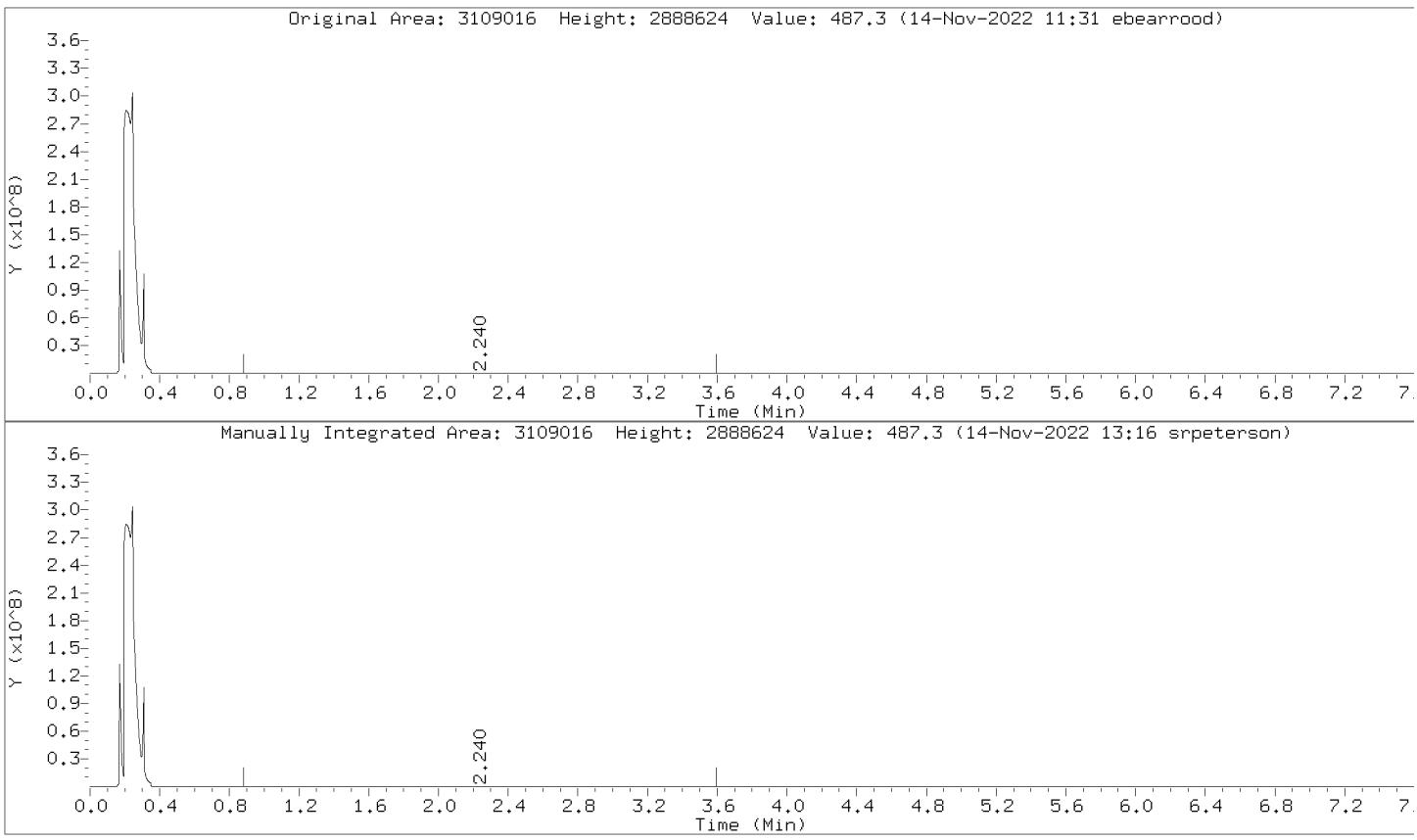
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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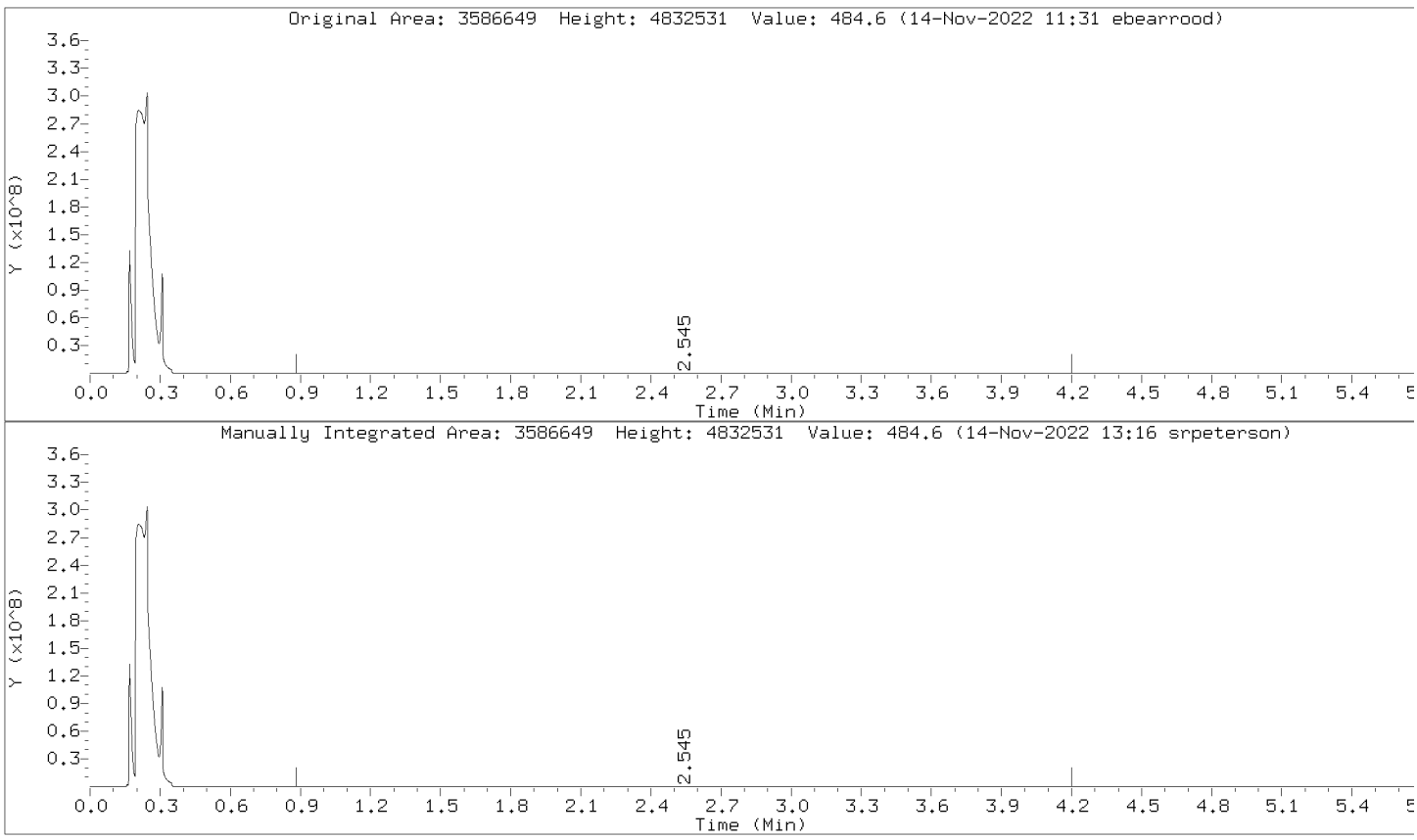
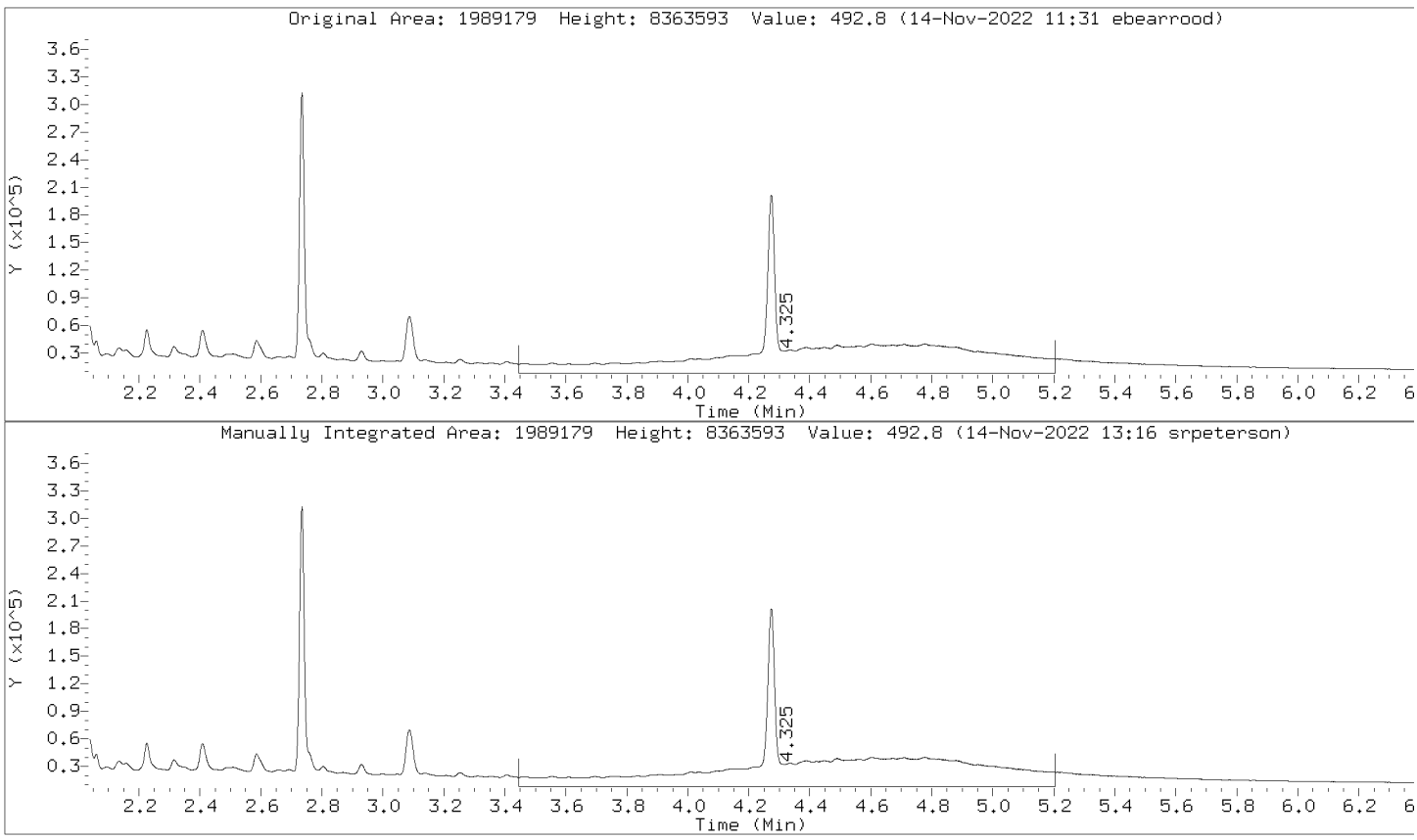
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



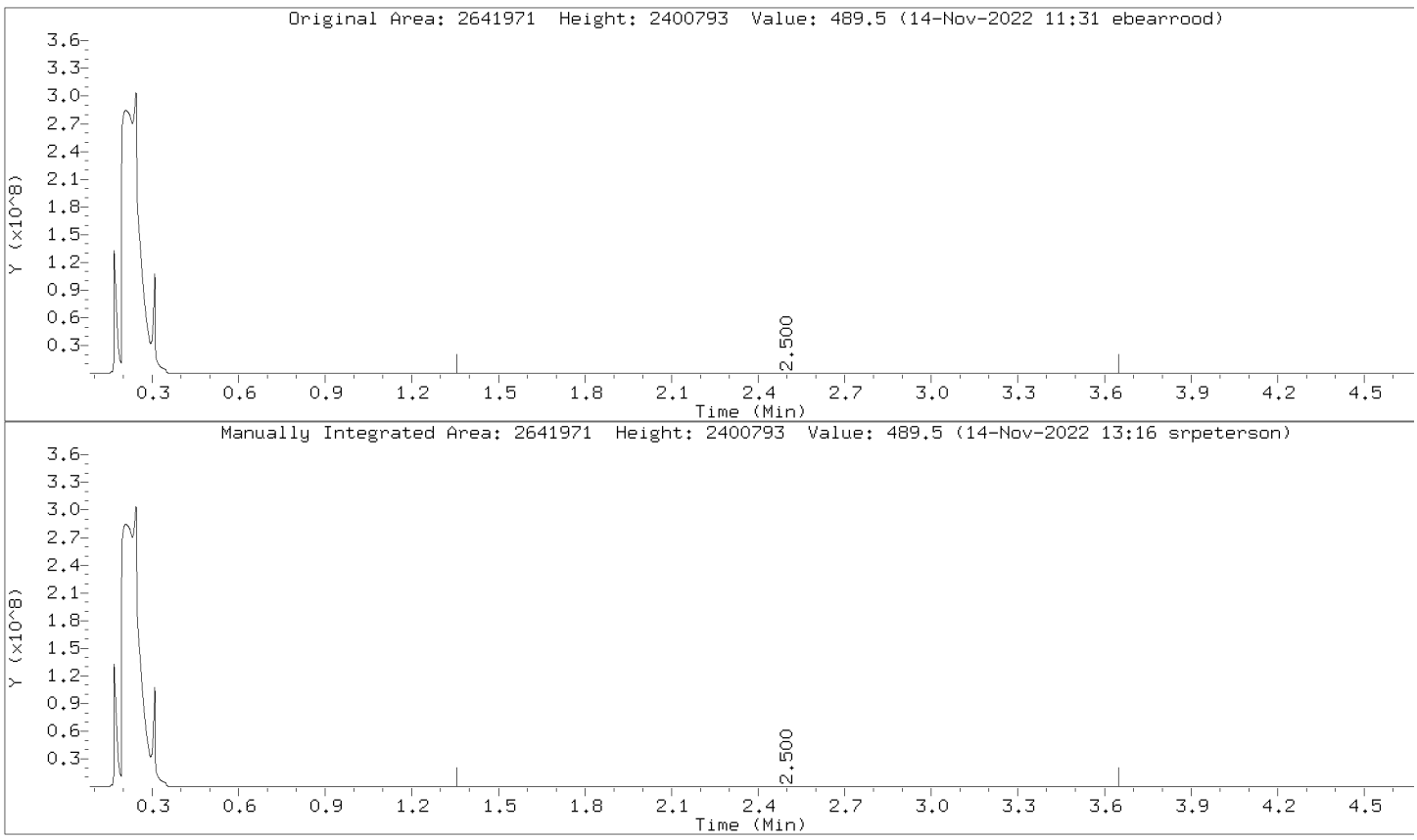
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



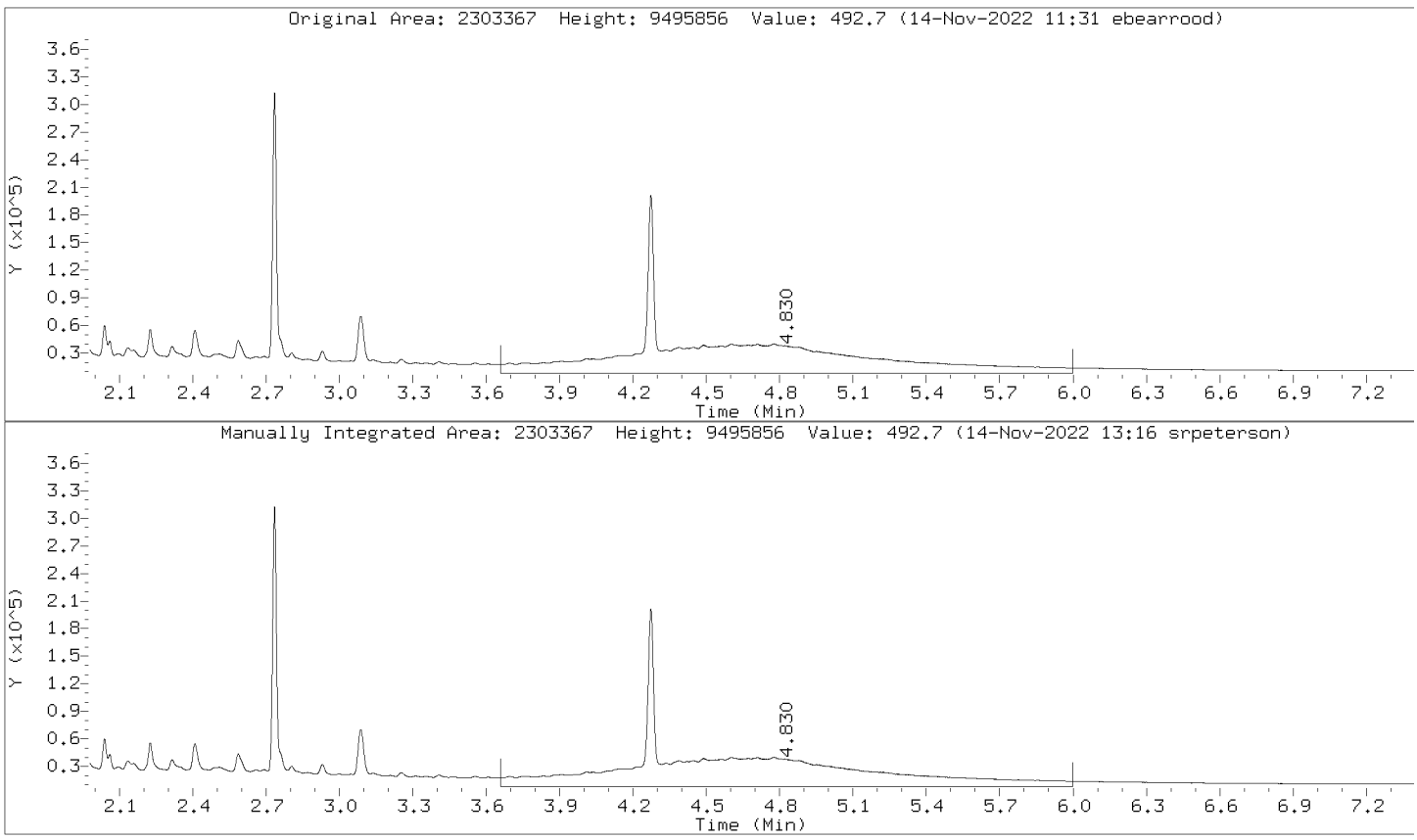
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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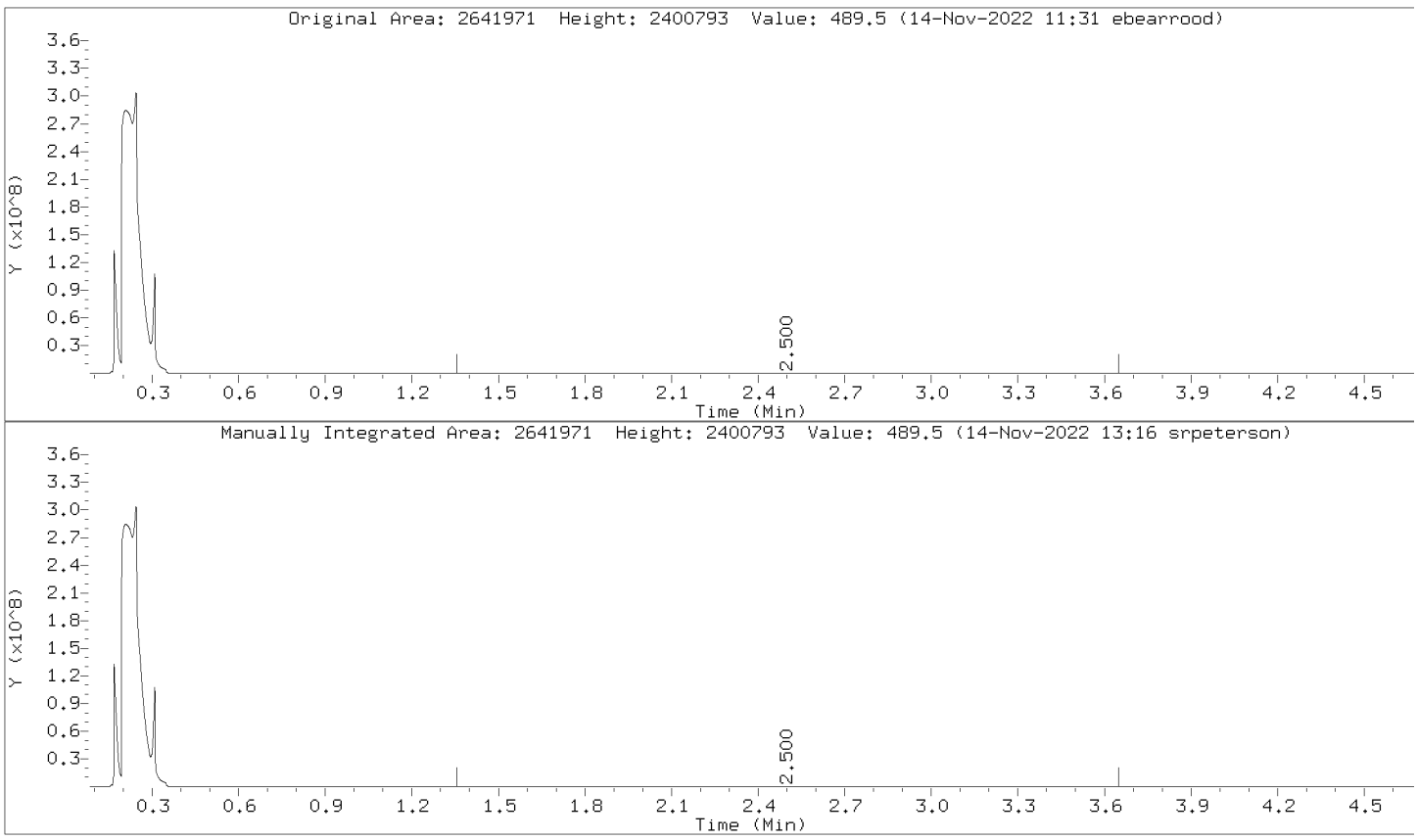
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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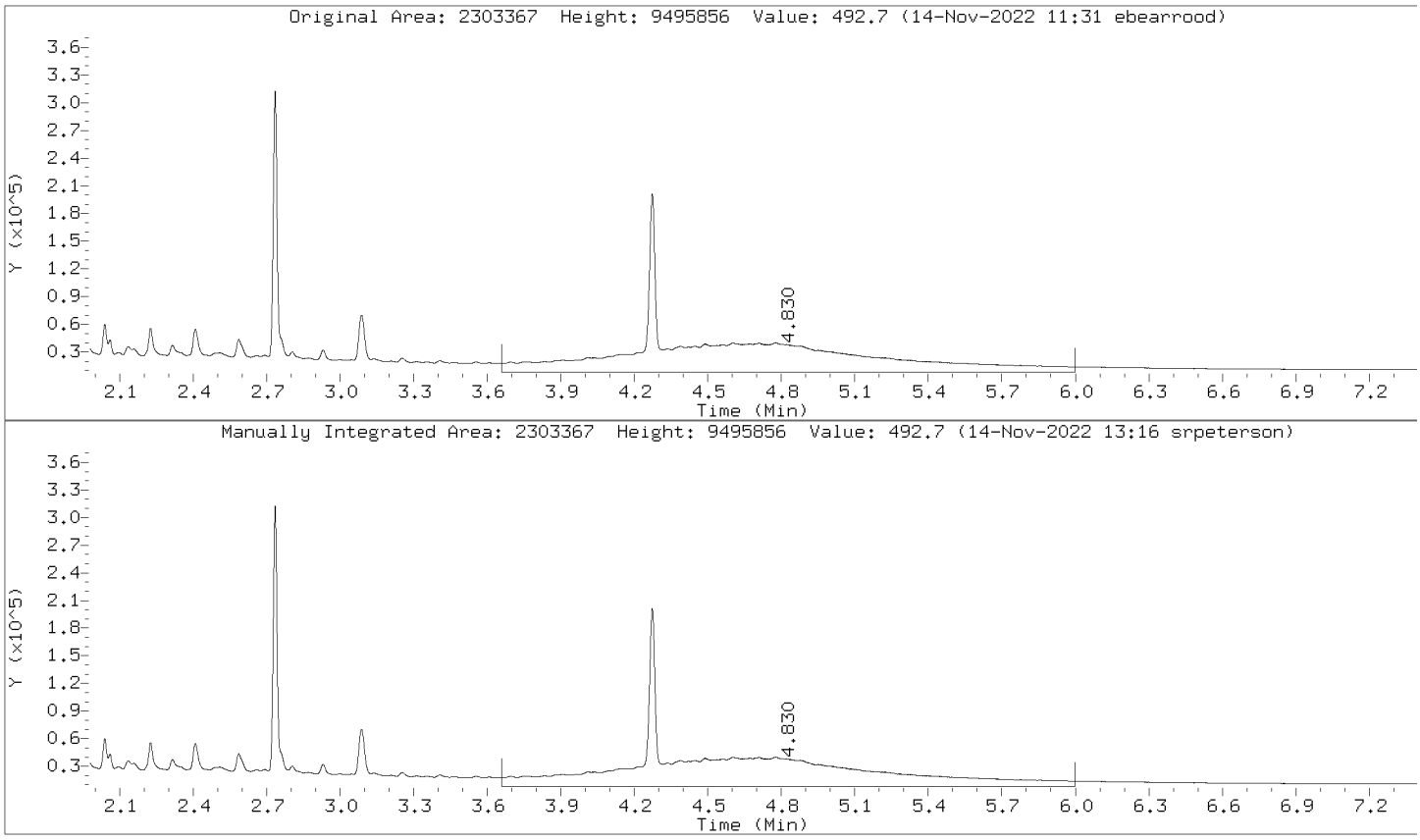
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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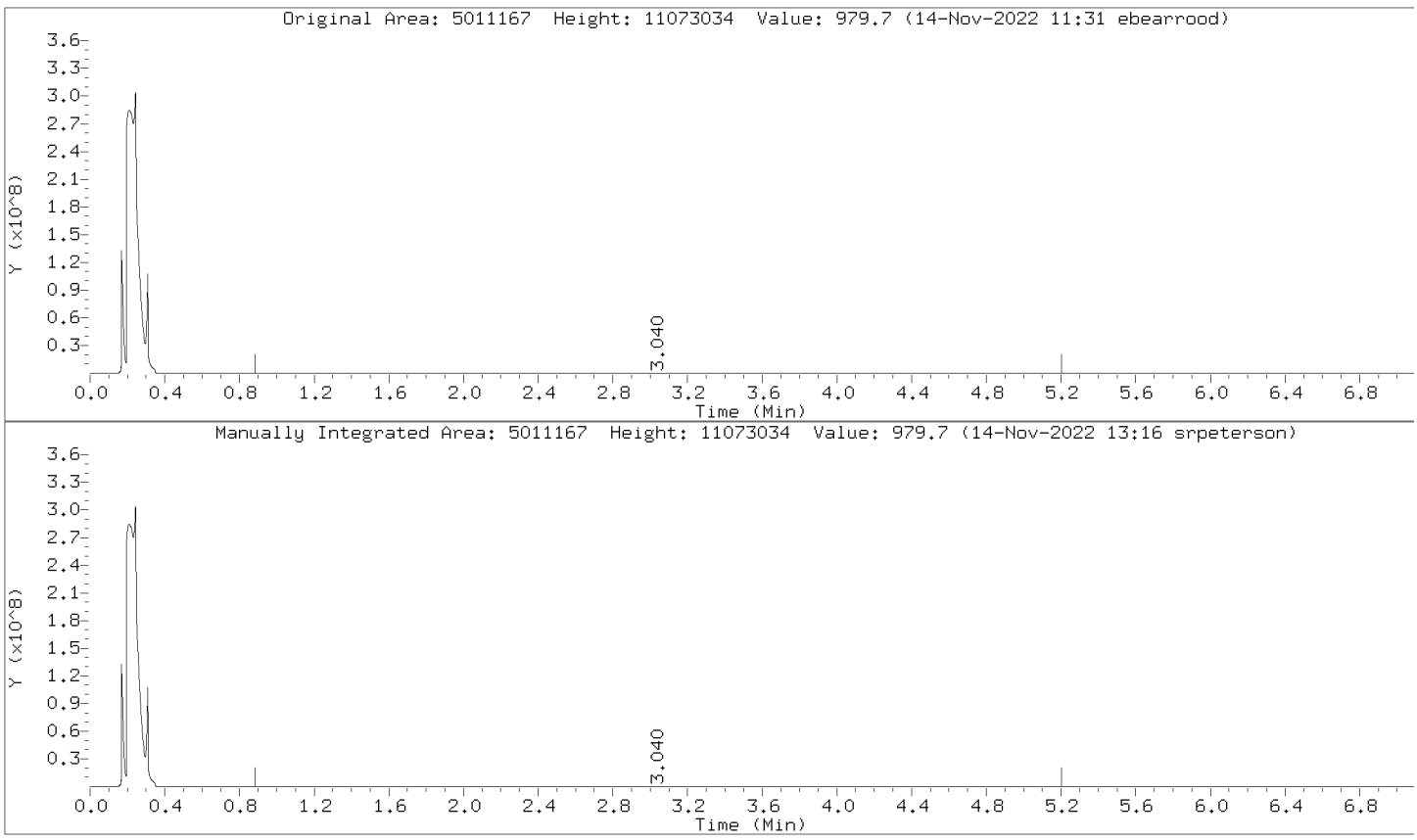
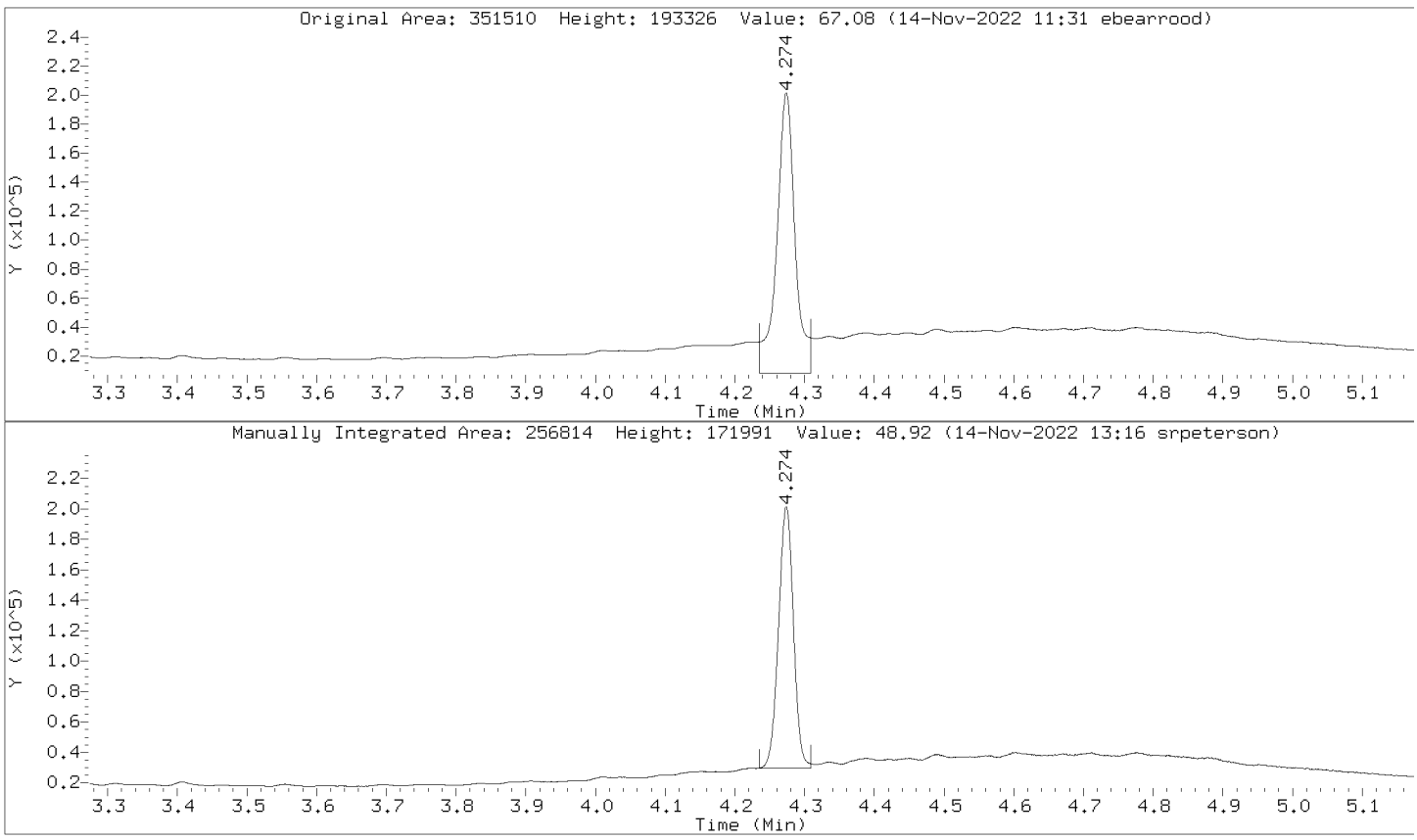
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



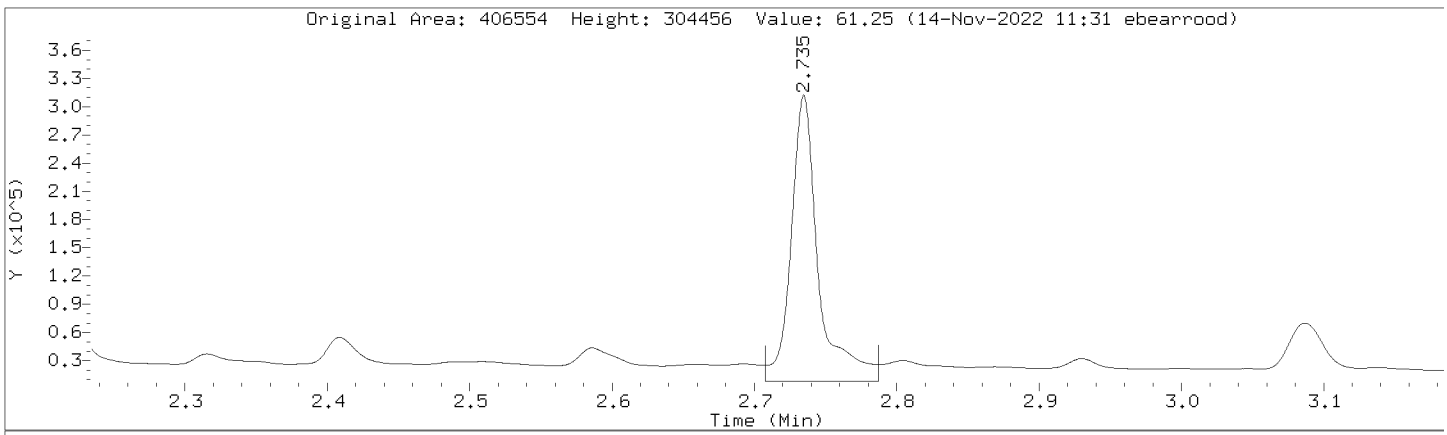
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

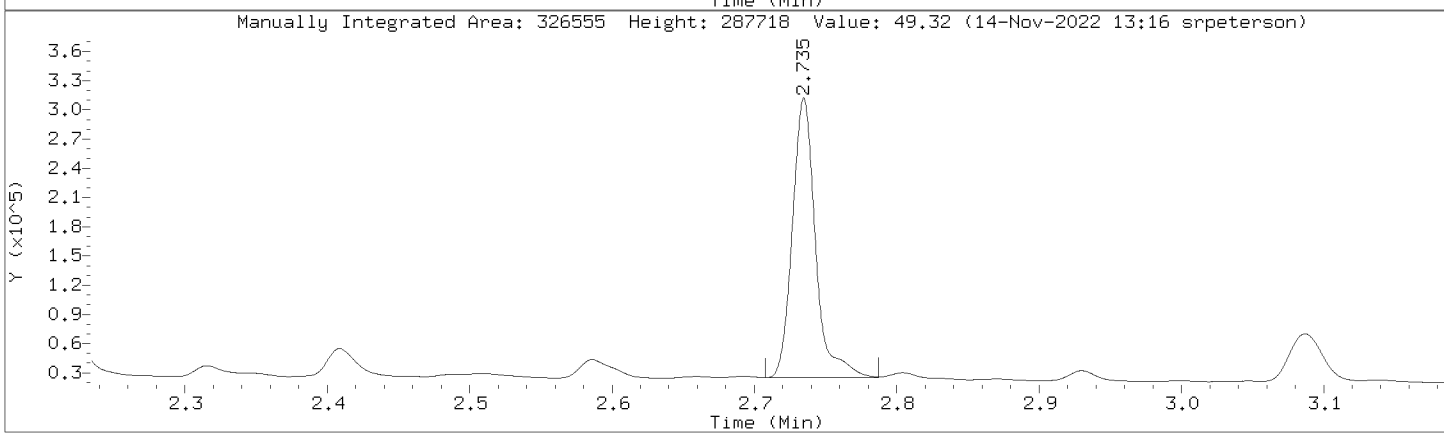
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1892621	1892621
DRO by AK 102	3109016	3109016
TPH-DRO (C10-C28)	3586649	3586649
Motor Oil Range (C24-C36)	1989179	1989179
Diesel Fuel Range	2641971	2641971
Motor Oil Range	2303367	2303367
Diesel Fuel Range SG	2641971	2641971
Motor Oil Range SG	2303367	2303367
C10-C36	5011167	5011167
n-Triacontane (S)	351510	256814
o-Terphenyl (S)	406554	326555

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000050C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 20:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3098220	500.000	485	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	326903	50.0000	49.4	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.274	0.000	256732	50.0000	48.9	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1878287	500.000	490	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3584684	500.000	484	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1973413	500.000	488	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		4985930	1000.00	974	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2632351	500.000	488	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2632351	500.000	488	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2293889	500.000	490	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2293889	500.000	490	(M)	RNG

QC Flag Legend

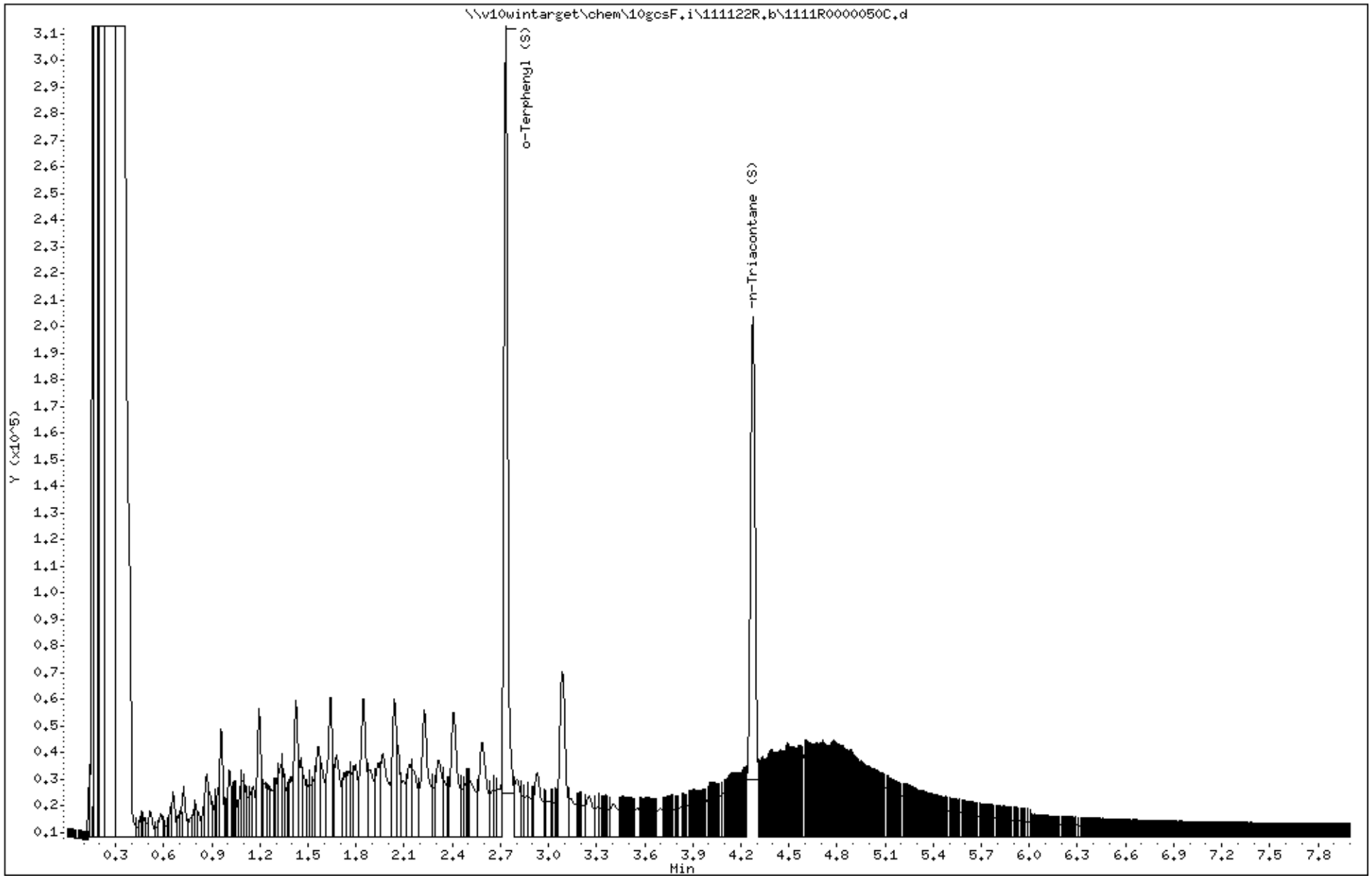
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

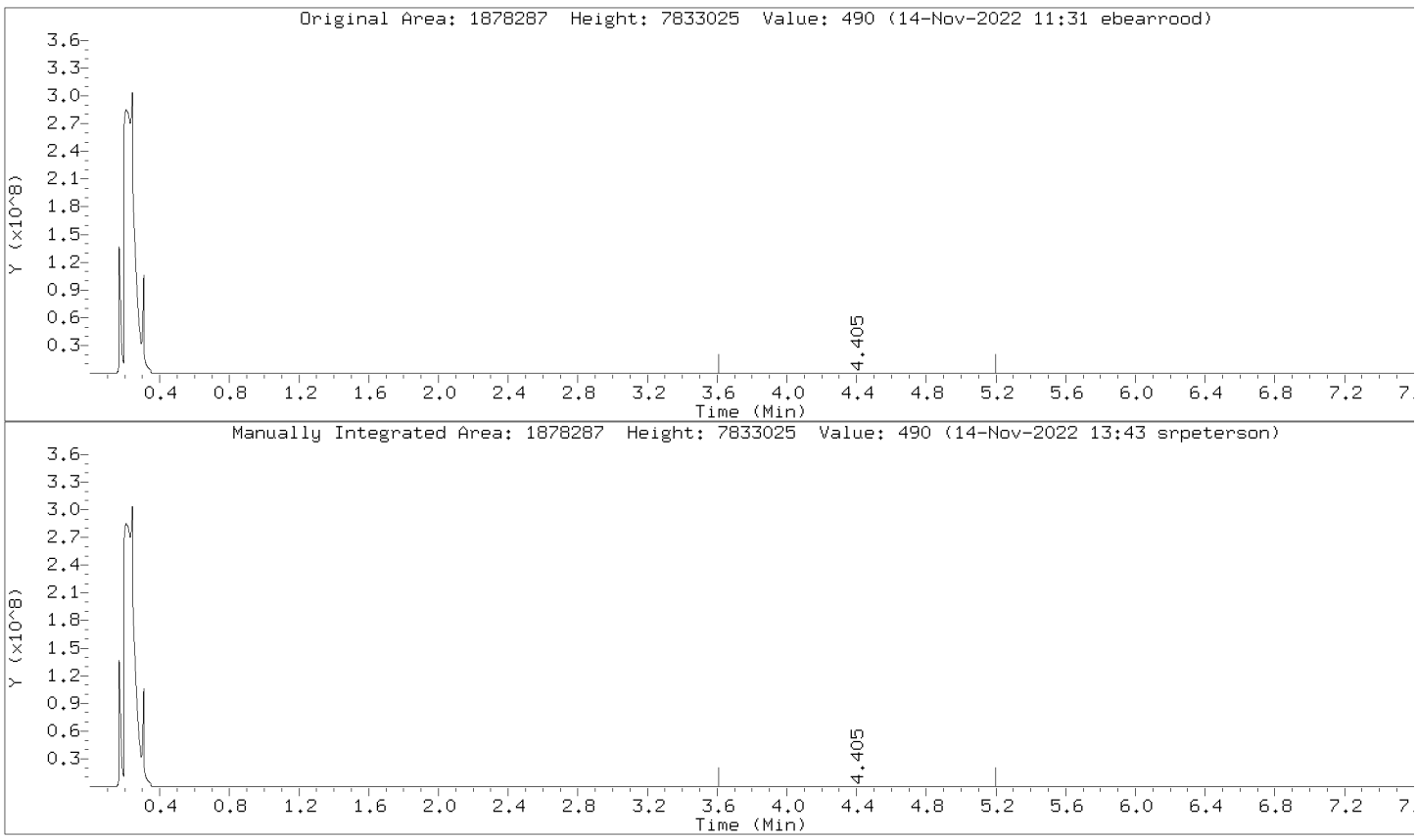
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000050C.d
Date : 11-NOV-2022 20:05
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



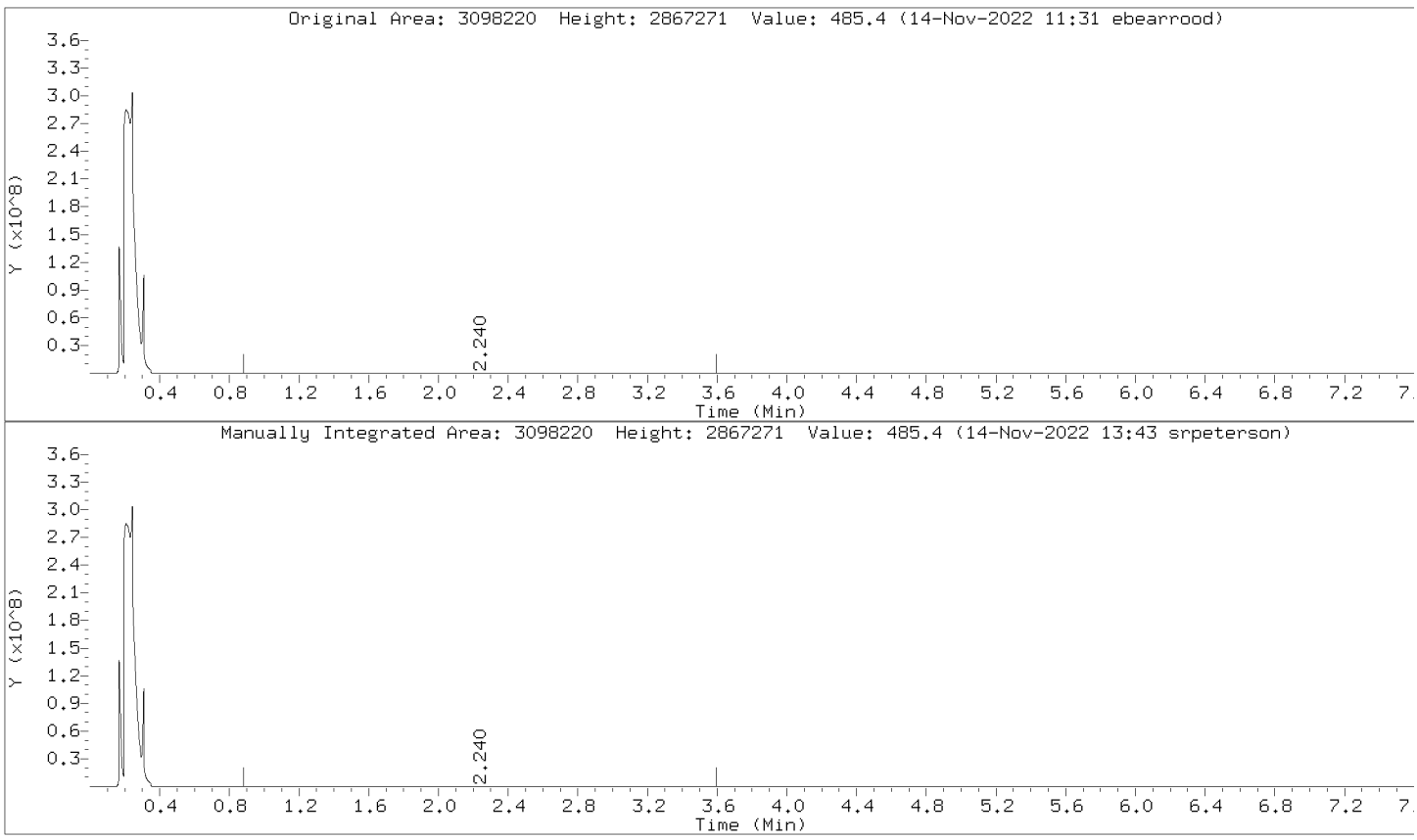
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



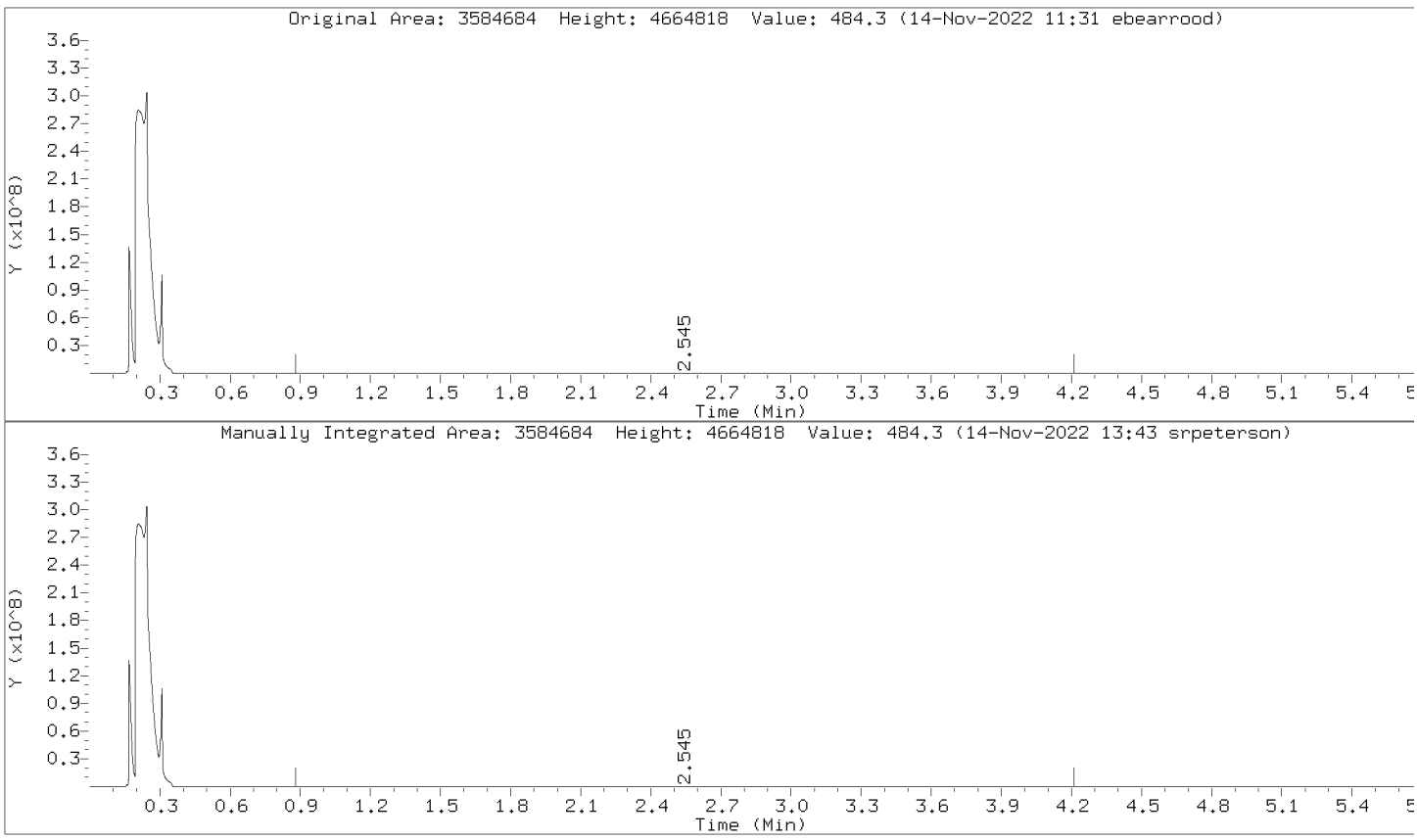
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



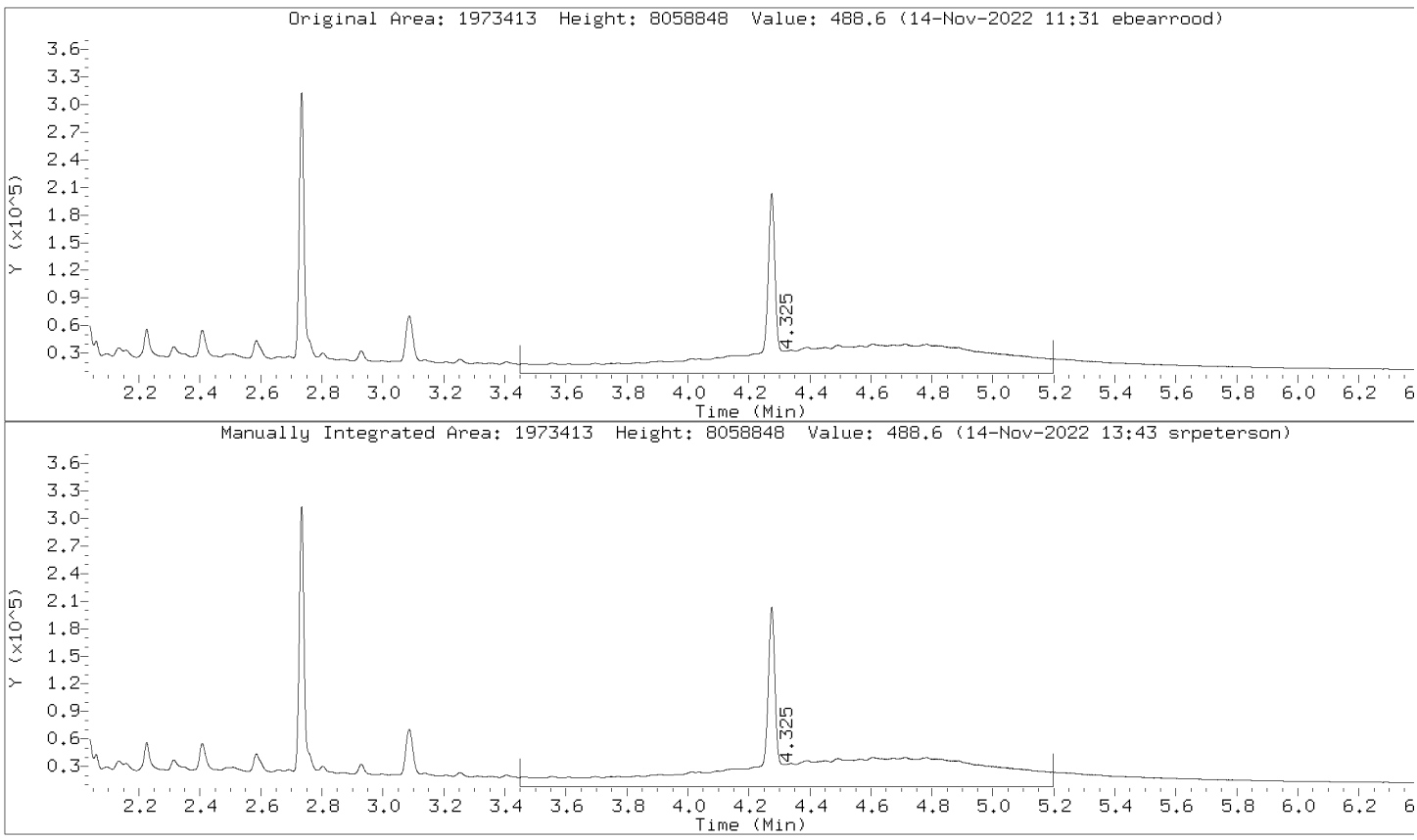
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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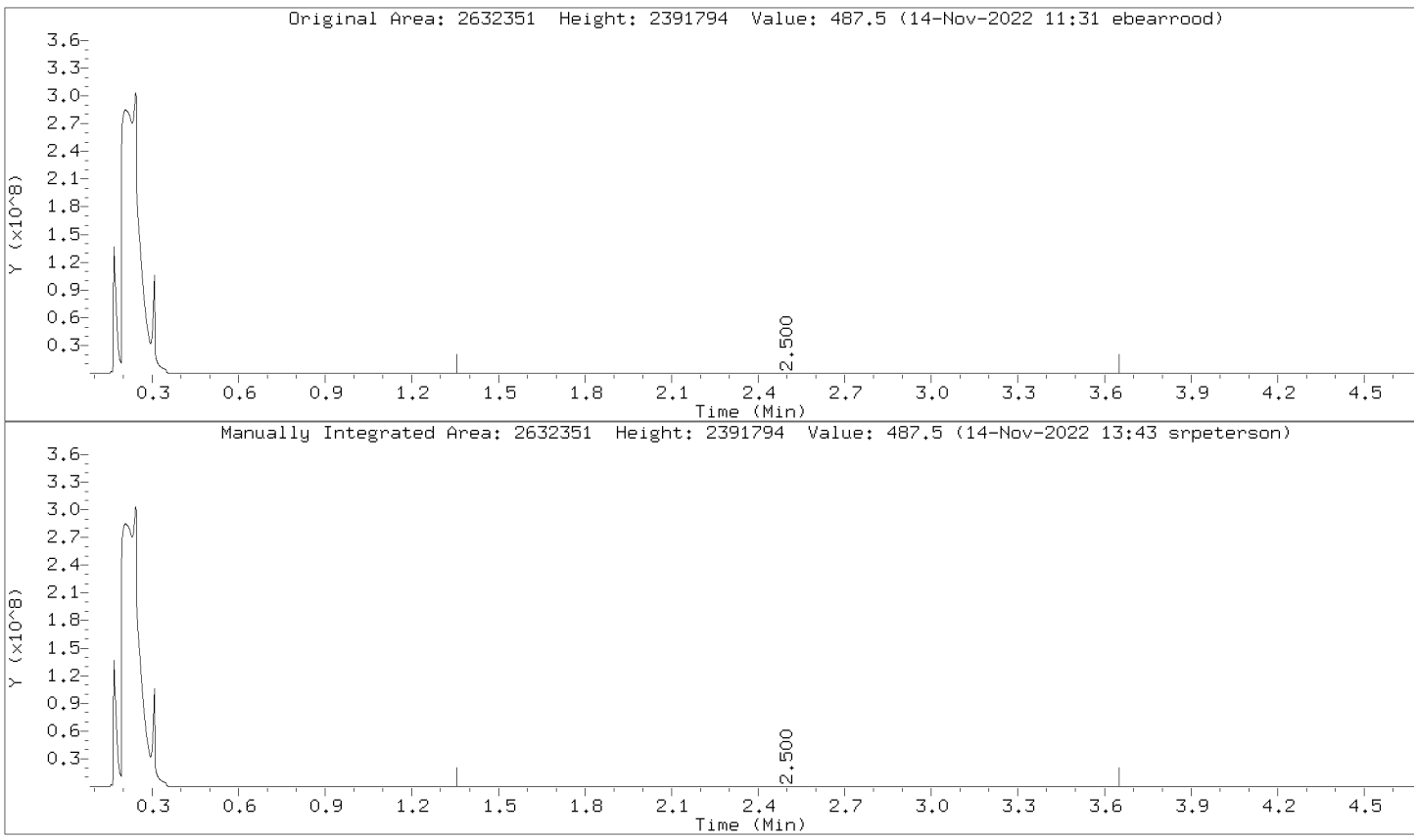
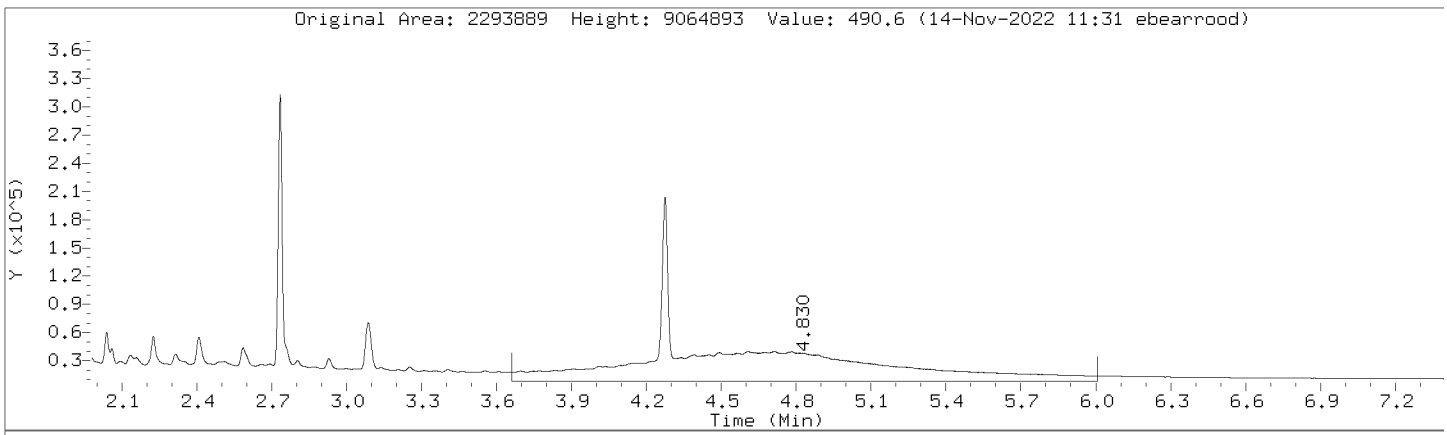
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

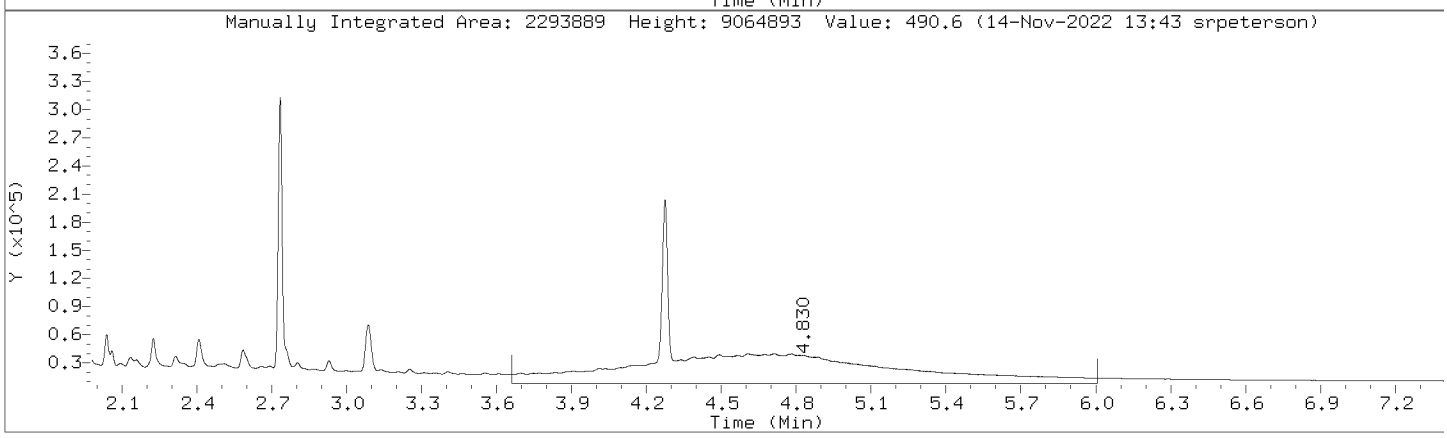
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

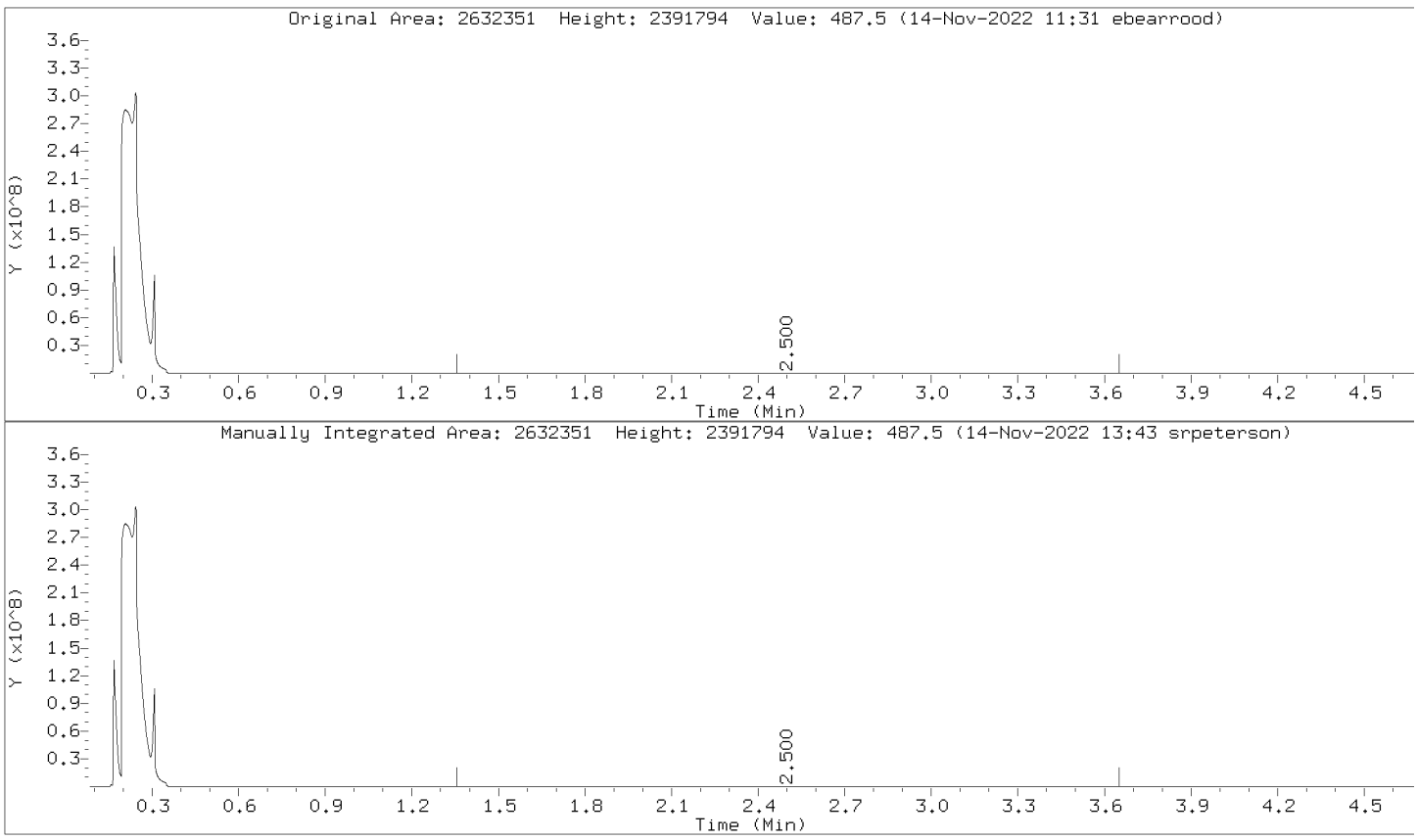
Compound: Motor Oil Range Review Code: RNG
CAS Number:





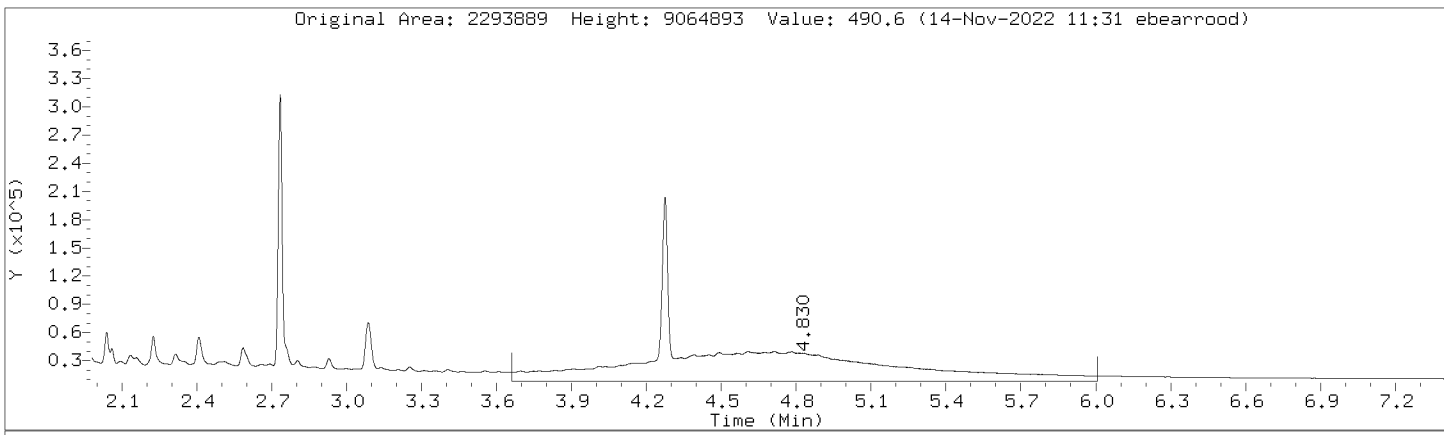
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

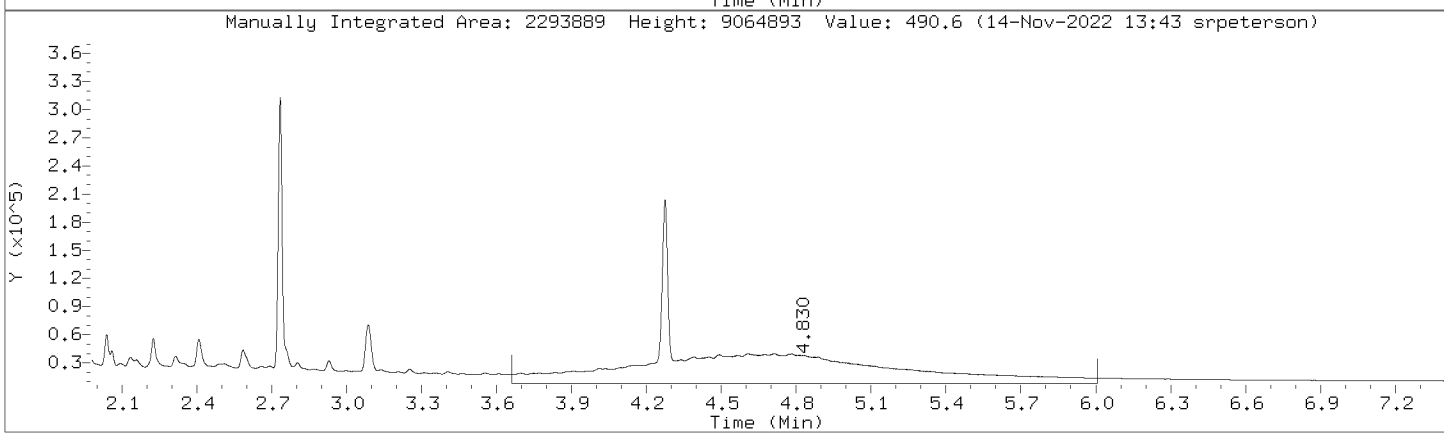
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

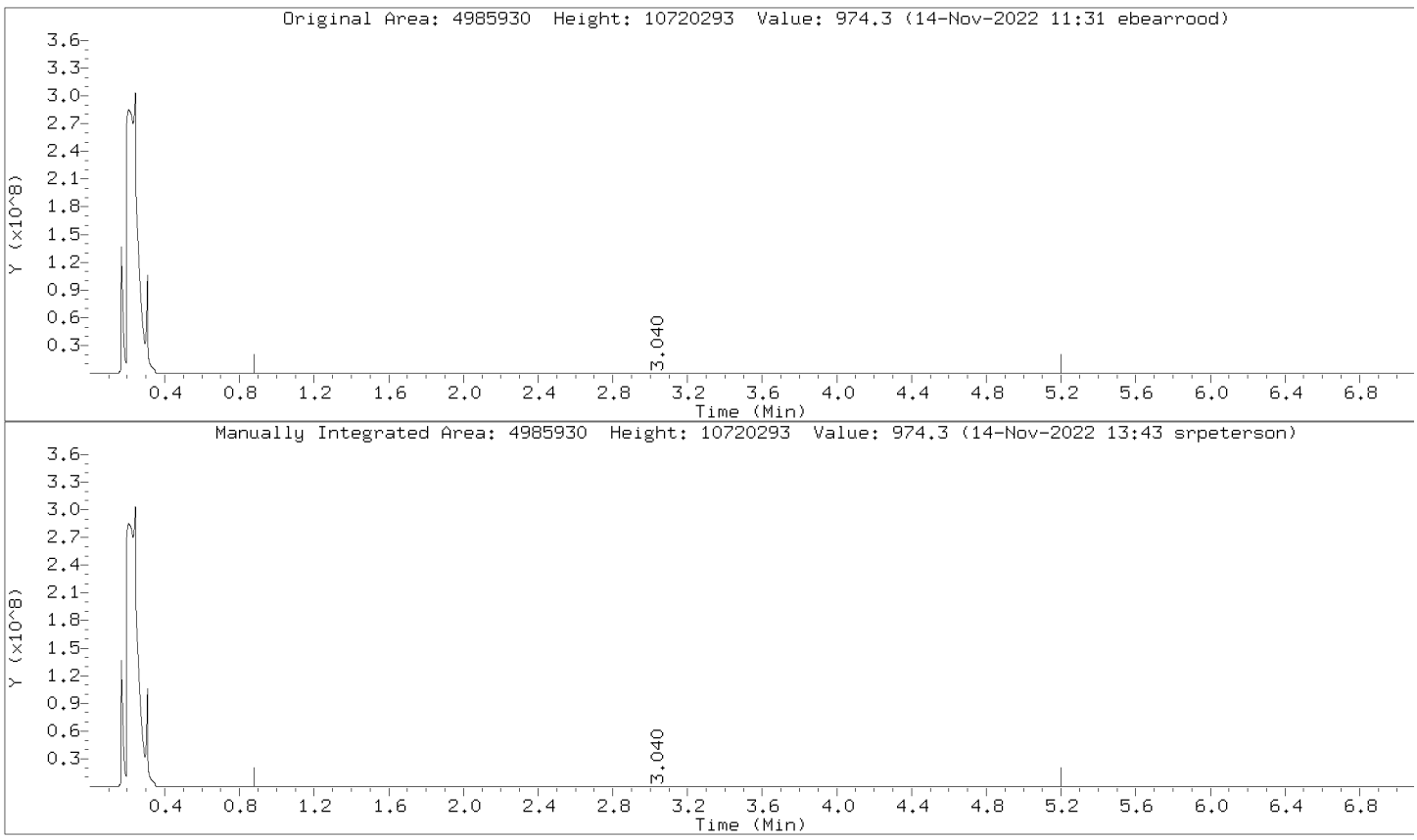
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





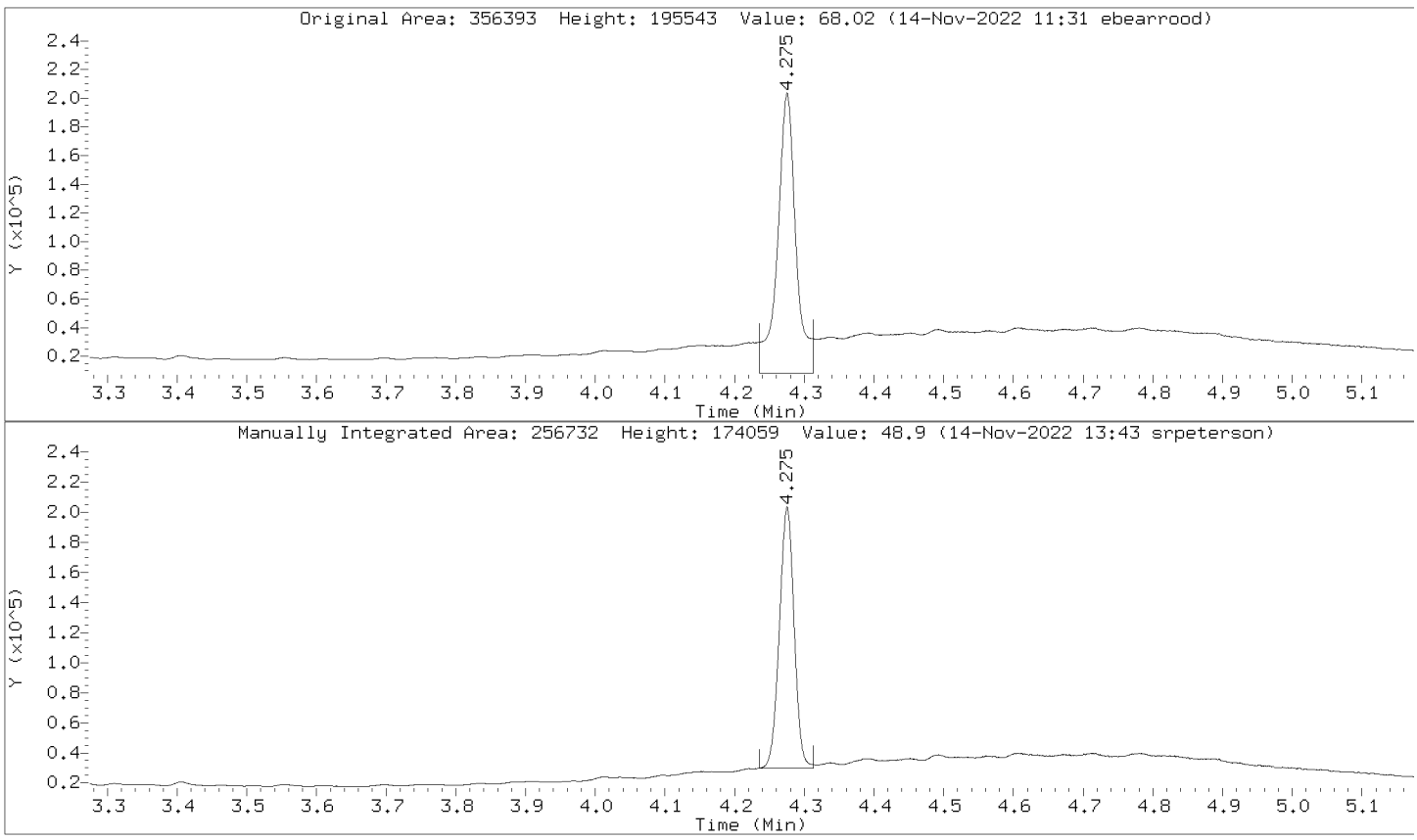
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



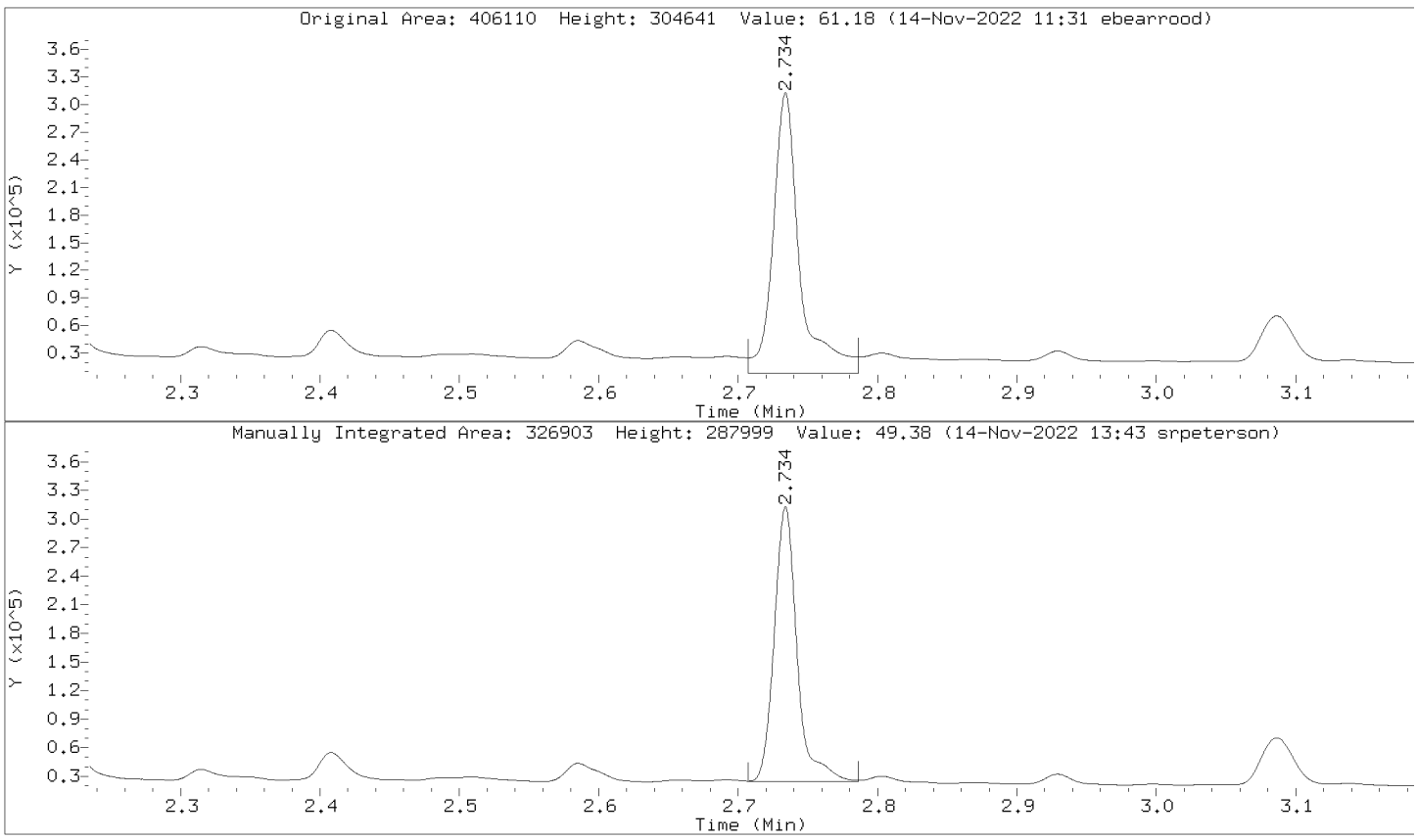
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000050C.d
Injection Date: 11-NOV-2022 20:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1878287	1878287
DRO by AK 102	3098220	3098220
TPH-DRO (C10-C28)	3584684	3584684
Motor Oil Range (C24-C36)	1973413	1973413
Diesel Fuel Range	2632351	2632351
Motor Oil Range	2293889	2293889
Diesel Fuel Range SG	2632351	2632351
Motor Oil Range SG	2293889	2293889
C10-C36	4985930	4985930
n-Triacontane (S)	356393	256732
o-Terphenyl (S)	406110	326903

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000059C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 21:48
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3097267	500.000	485	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	327839	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.274	0.000	256361	50.0000	48.8	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1882897	500.000	491	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3566200	500.000	482	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1985295	500.000	492	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		4996816	1000.00	977	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2633700	500.000	488	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2633700	500.000	488	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2319429	500.000	496	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2319429	500.000	496	(M)	RNG

QC Flag Legend

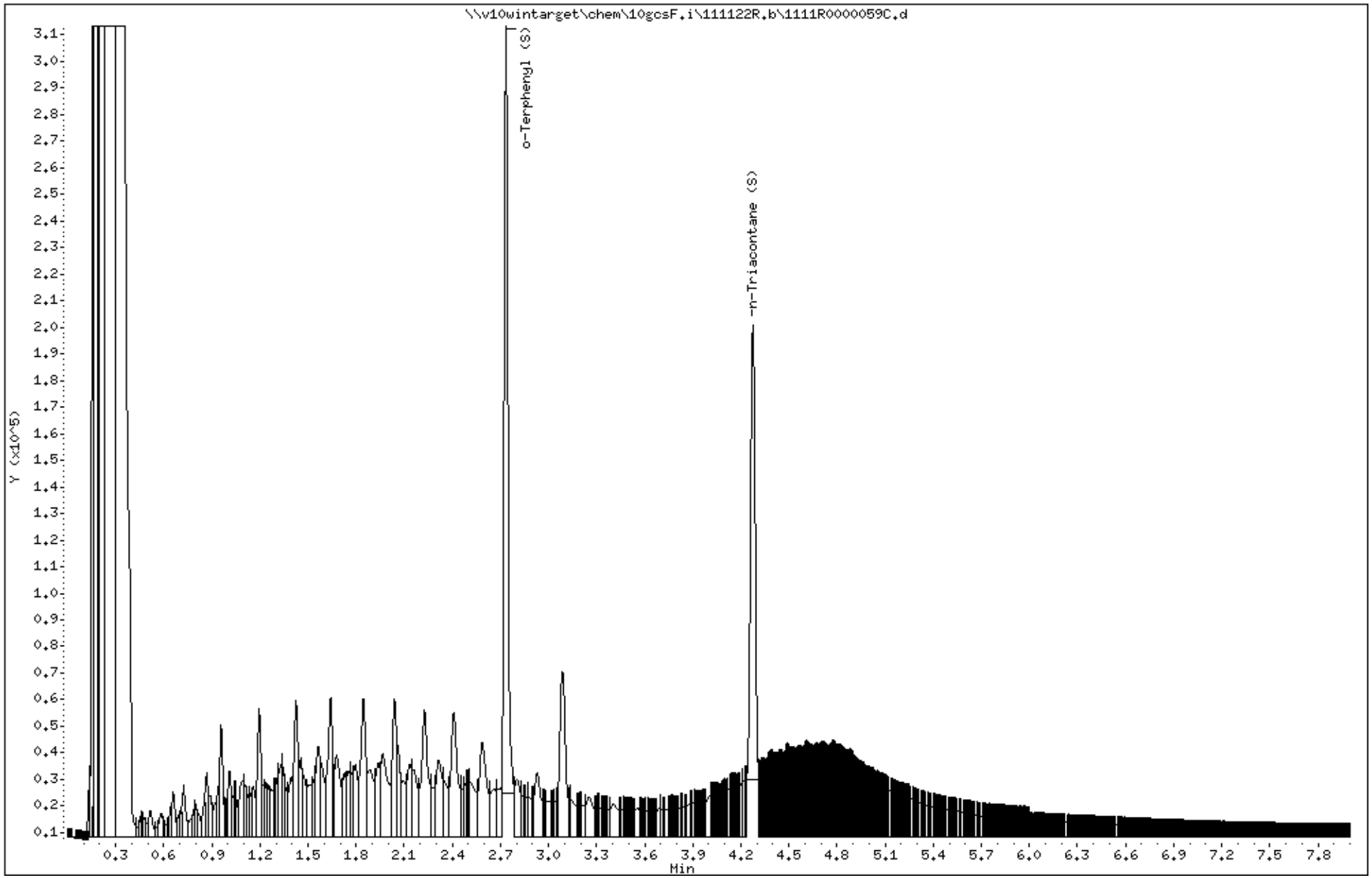
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

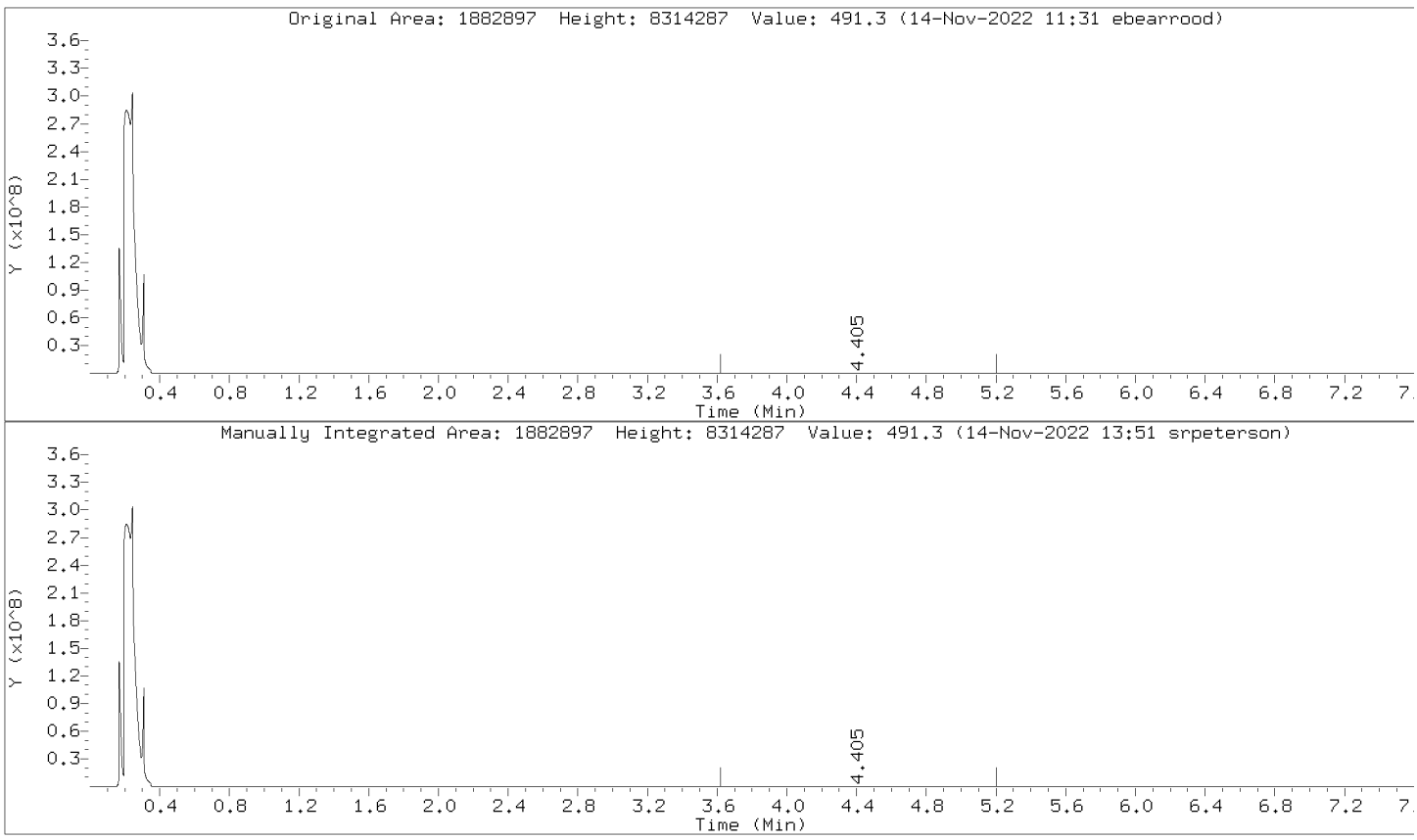
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000059C.d
Date : 11-NOV-2022 21:48
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



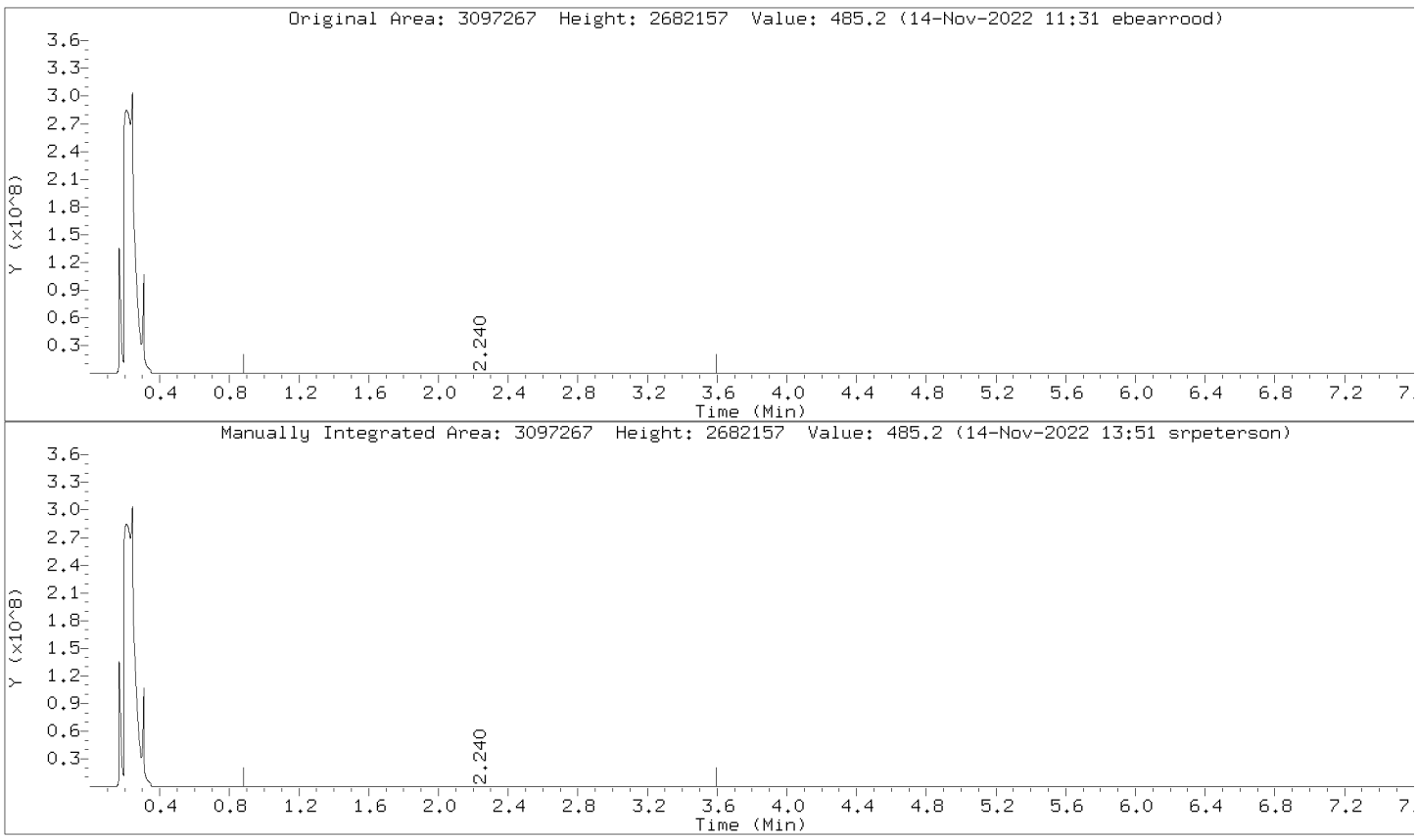
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



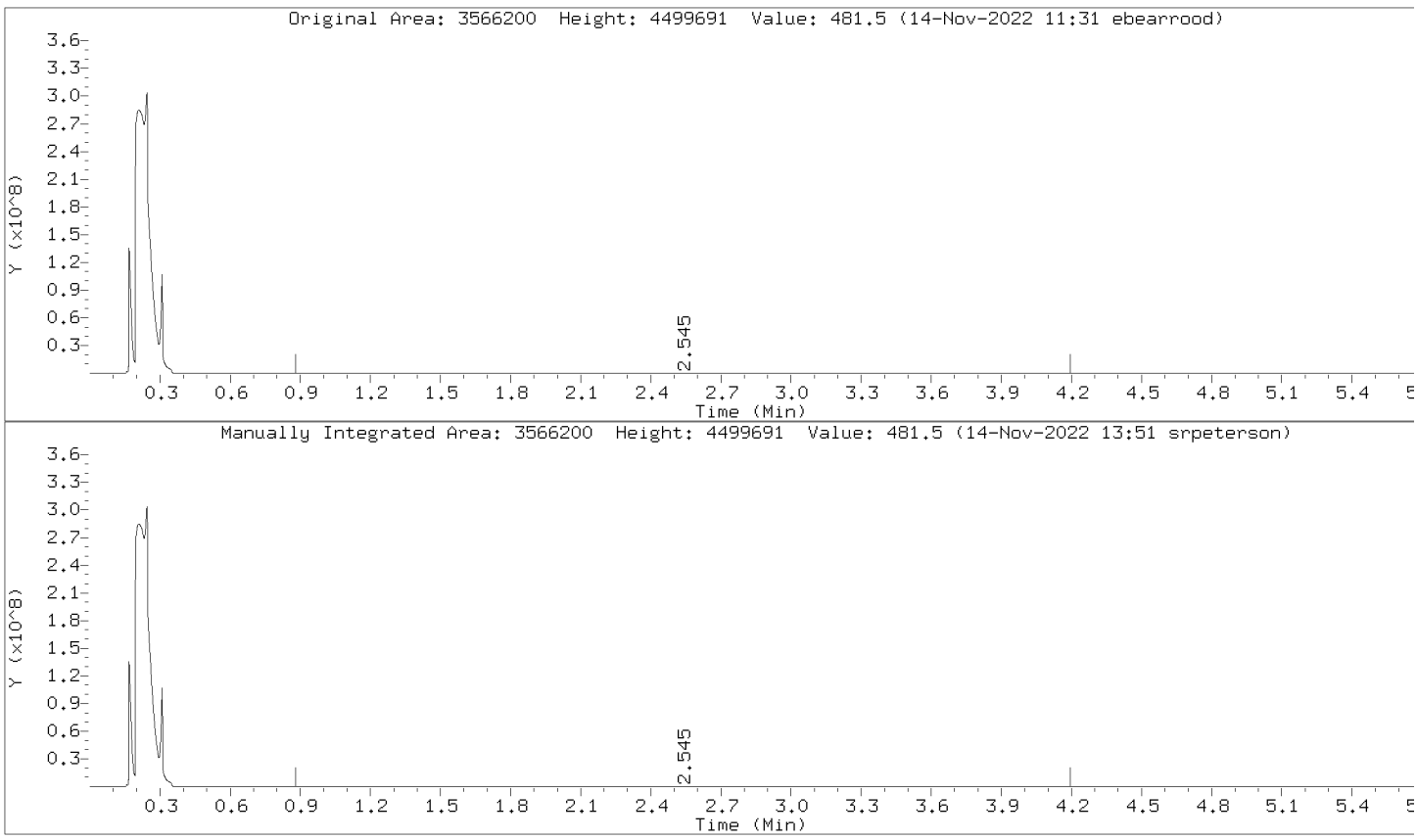
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



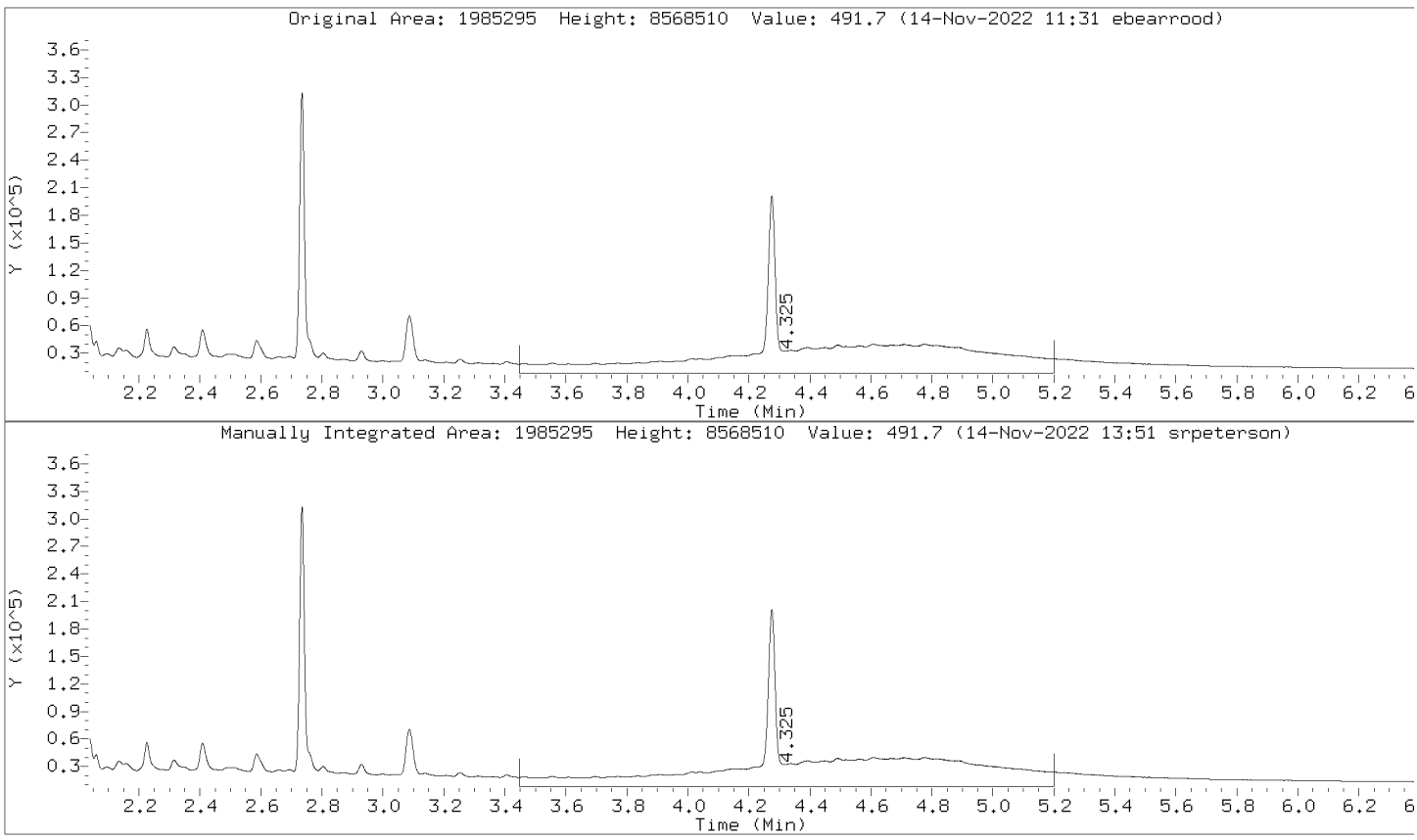
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



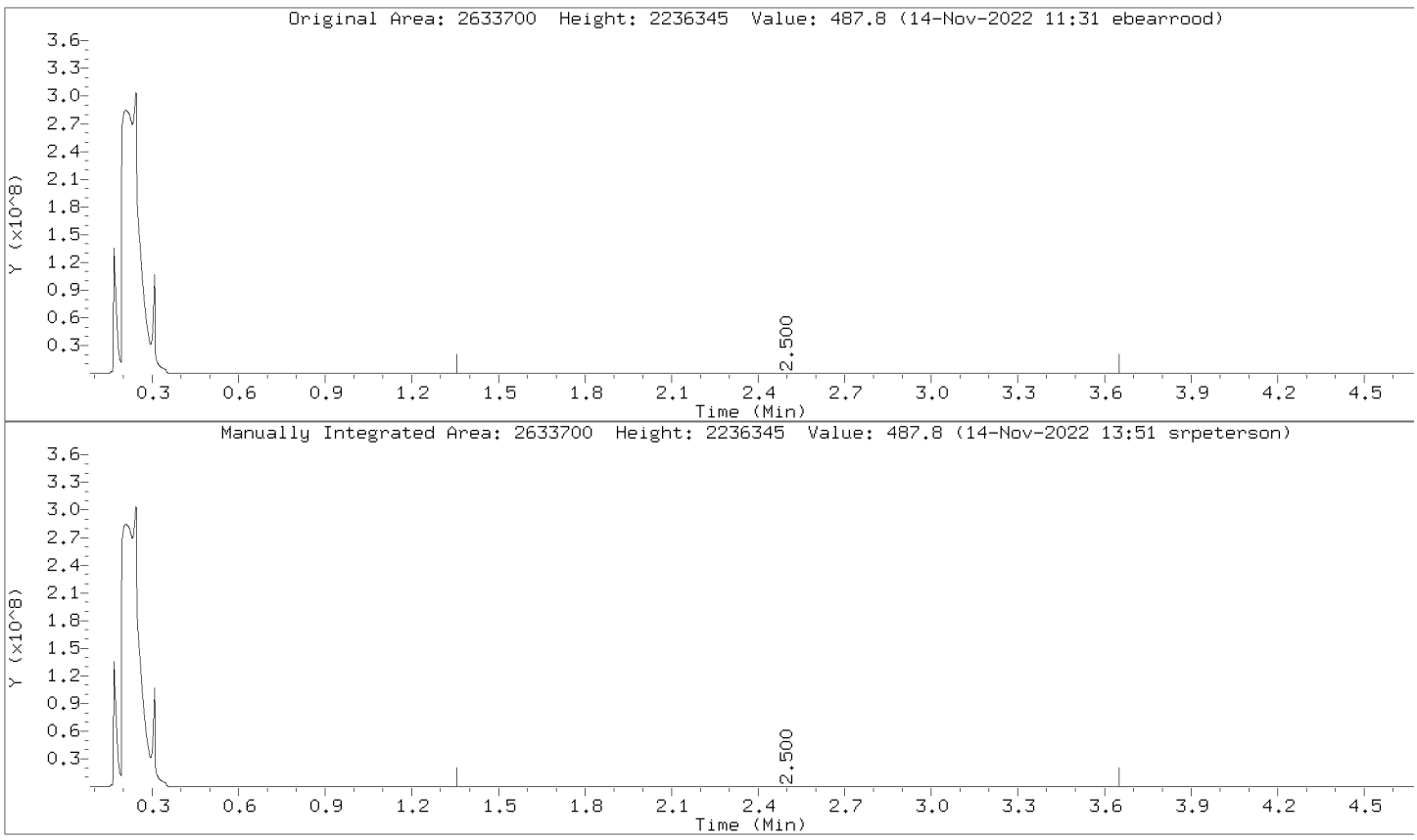
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



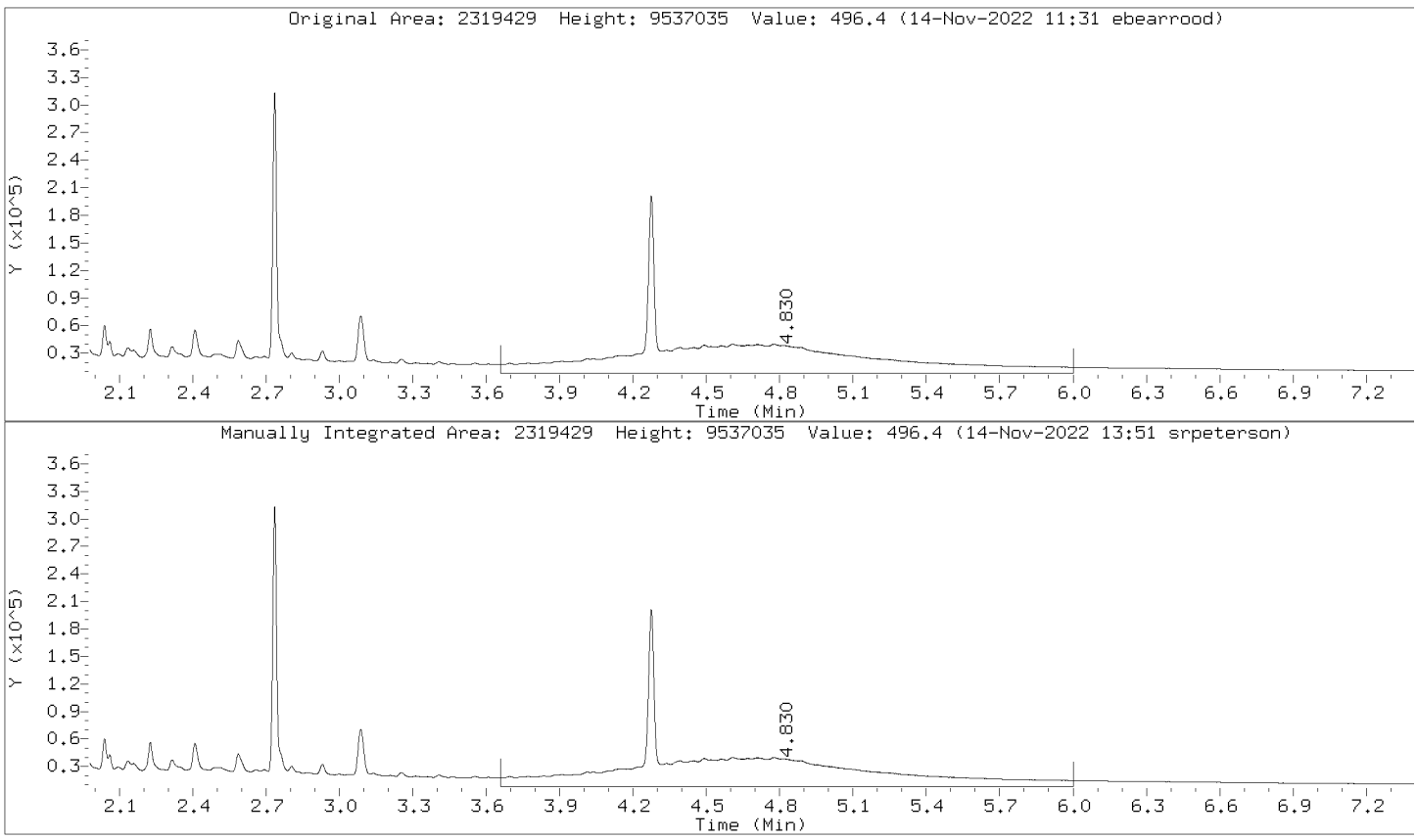
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



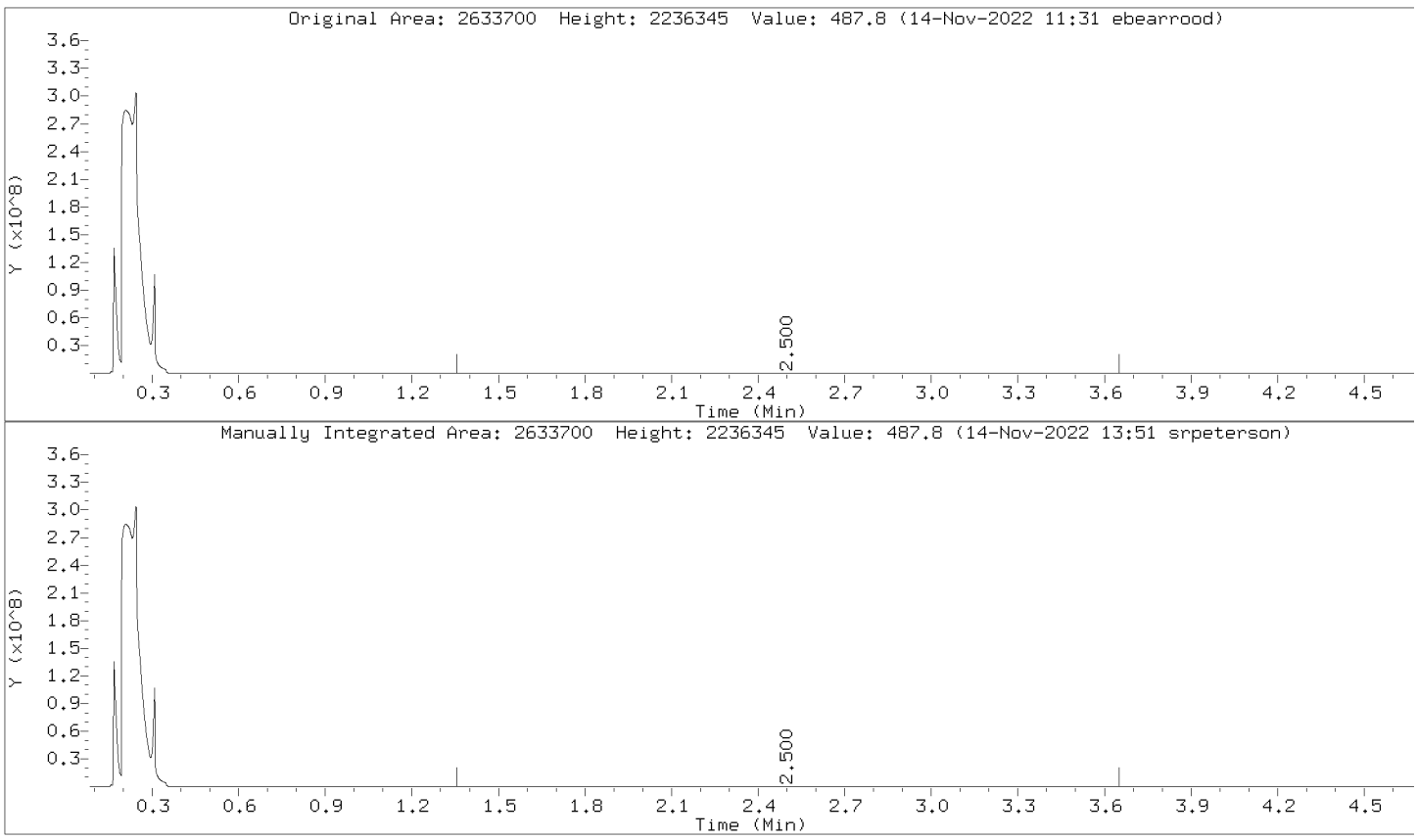
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



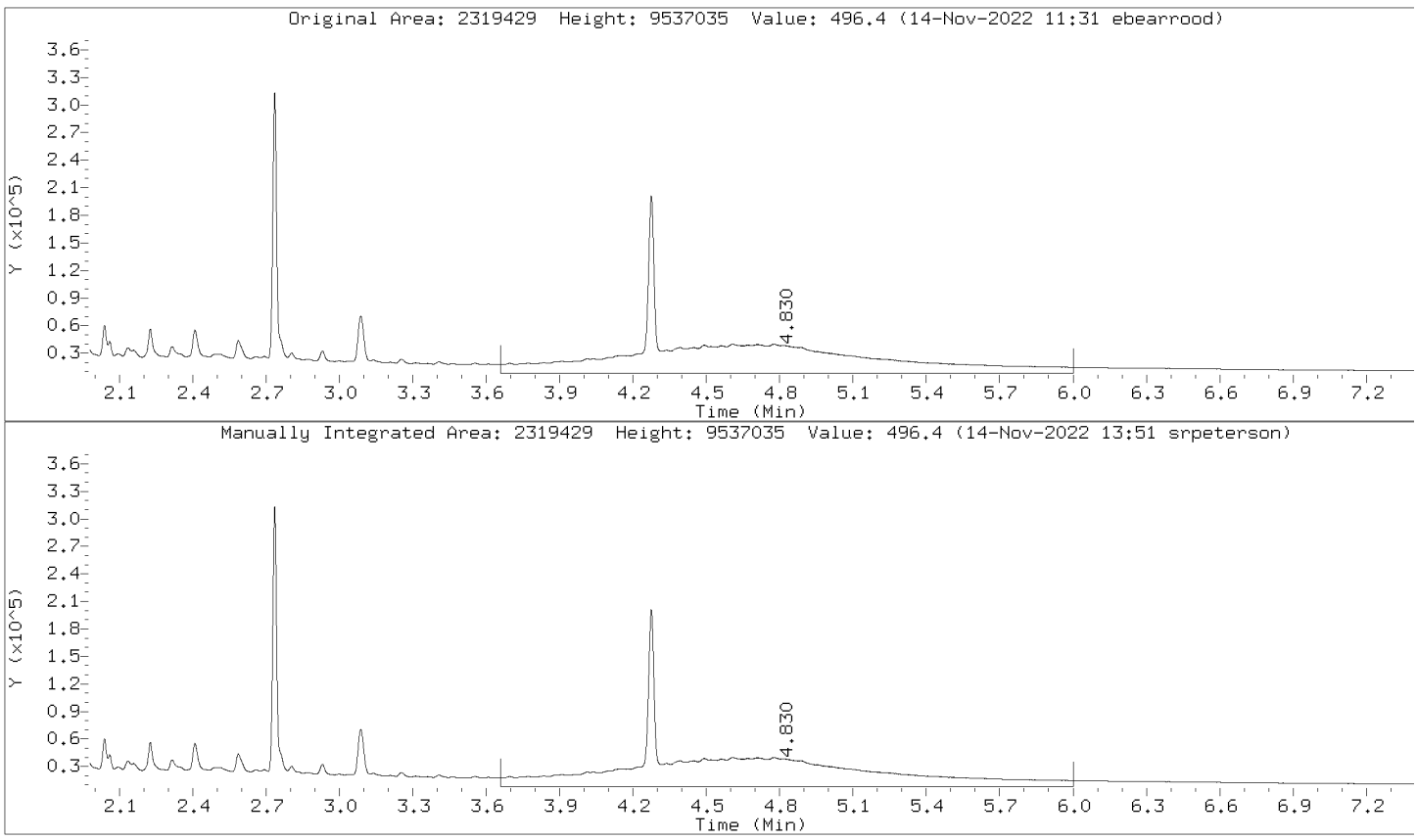
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



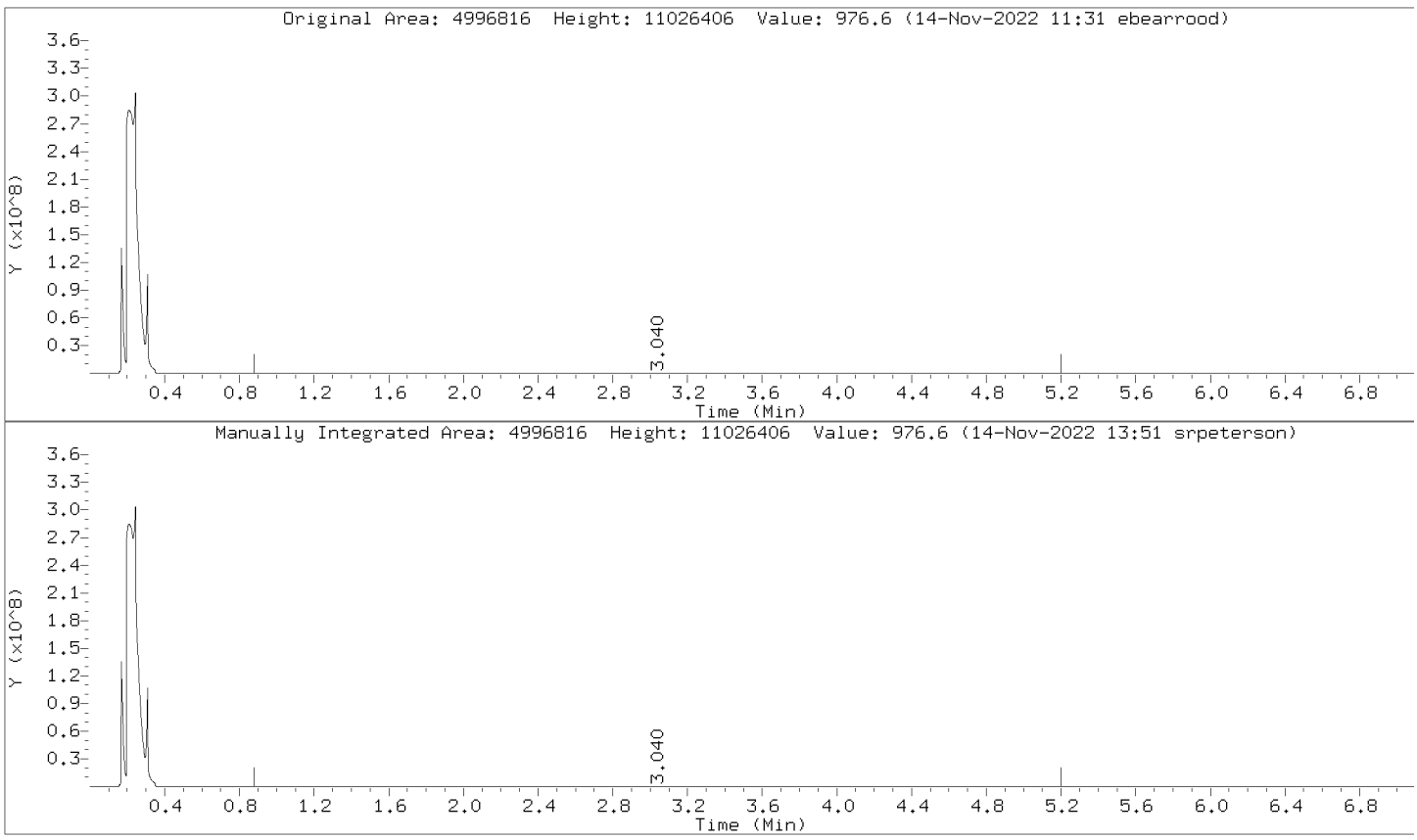
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



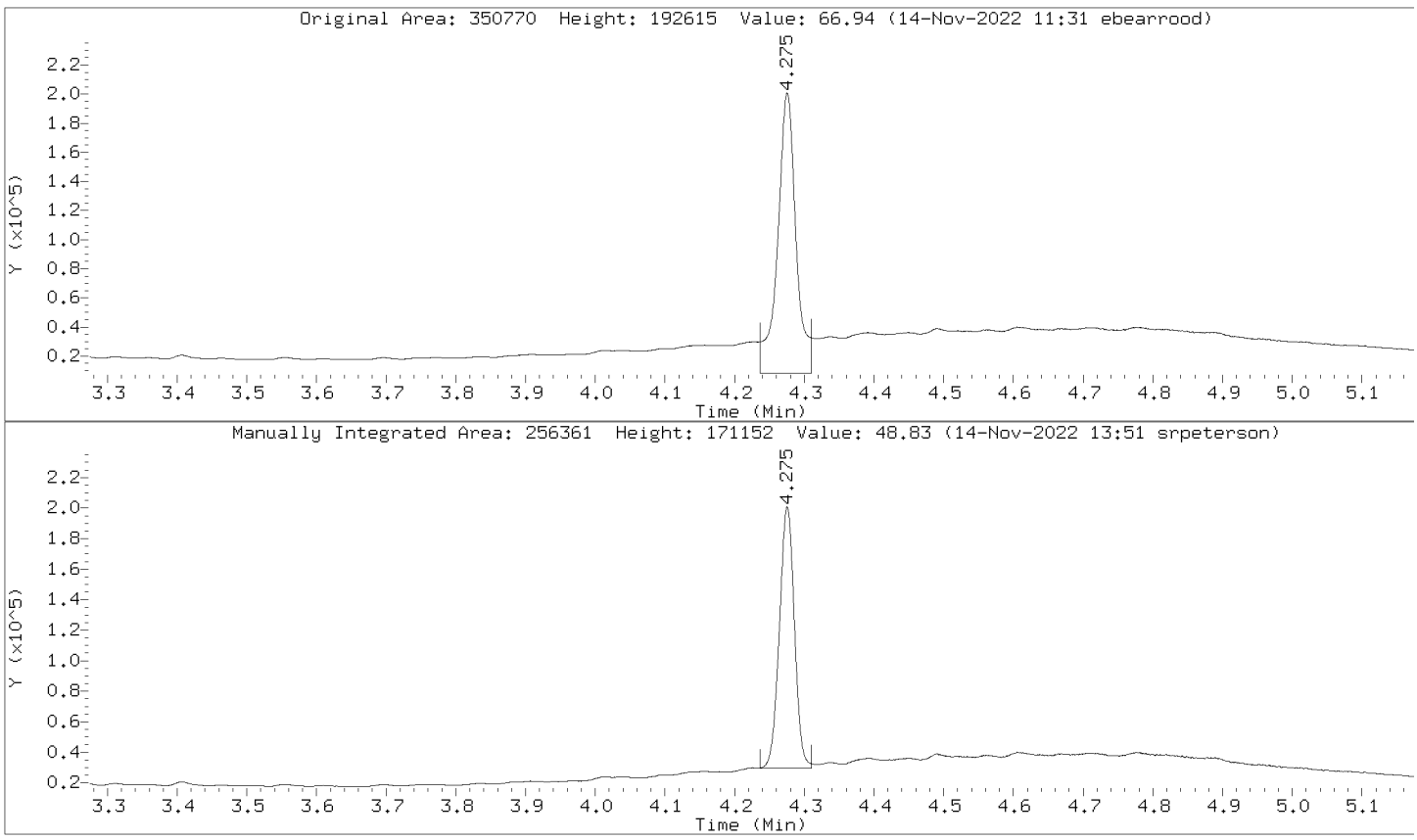
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



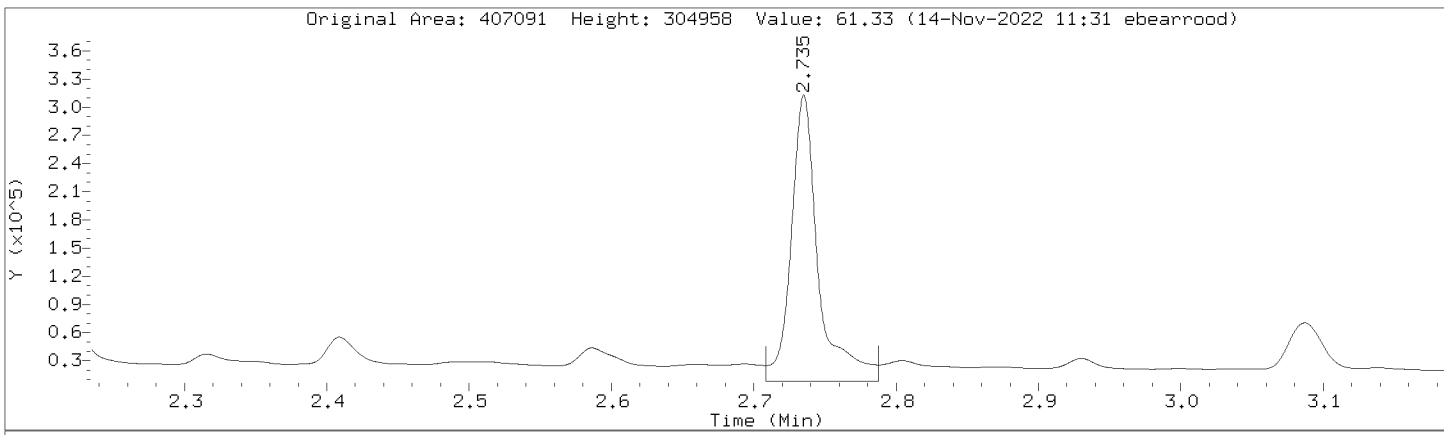
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

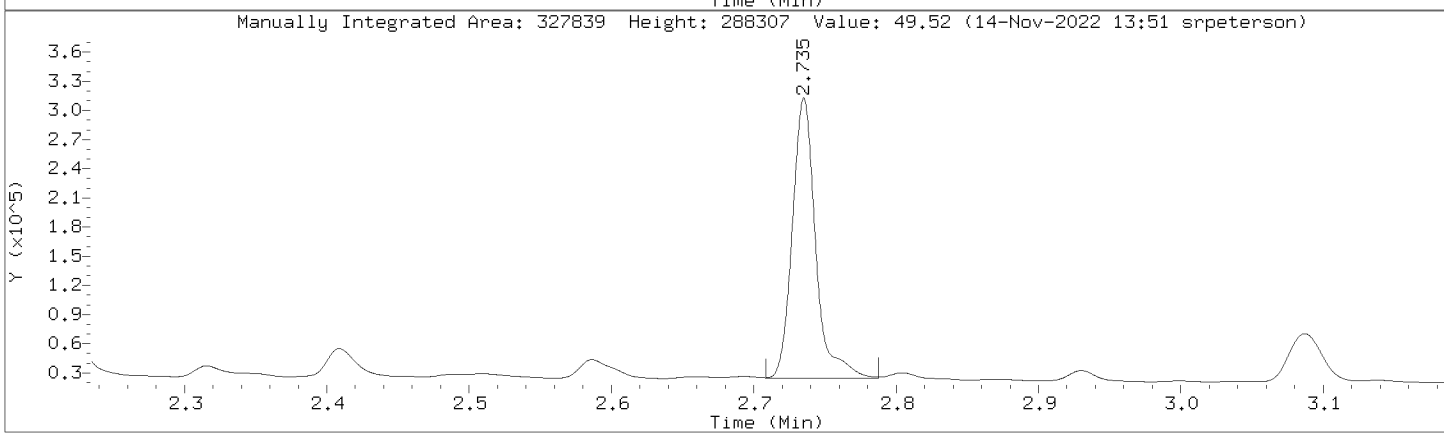
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000059C.d
Injection Date: 11-NOV-2022 21:48
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1882897	1882897
DRO by AK 102	3097267	3097267
TPH-DRO (C10-C28)	3566200	3566200
Motor Oil Range (C24-C36)	1985295	1985295
Diesel Fuel Range	2633700	2633700
Motor Oil Range	2319429	2319429
Diesel Fuel Range SG	2633700	2633700
Motor Oil Range SG	2319429	2319429
C10-C36	4996816	4996816
n-Triacontane (S)	350770	256361
o-Terphenyl (S)	407091	327839

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10632545
Date Extracted: 11/07/2022 10:10
Lab Sample ID: 4504348
Date Analyzed: 11/11/2022 18:11
Lab File ID: 111122R.B\1111R0000040.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000040.d
Lab Smp Id: 4504348 Client Smp ID: MB
Inj Date : 11-NOV-2022 18:11
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4504348
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		477639	22.3449	2.23	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	299060	45.2246	4.52	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.274	0.000	260686	49.6637	4.97	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		244151	35.8524	3.58	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		587799	28.5563	2.86	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		270246	36.9293	3.69	(M)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		724170	55.7748	5.58	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		408414	20.9215	2.09	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		408414	20.9215	2.09	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		319714	40.6752	4.07	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		319714	40.6752	4.07	(M)	RNG

QC Flag Legend

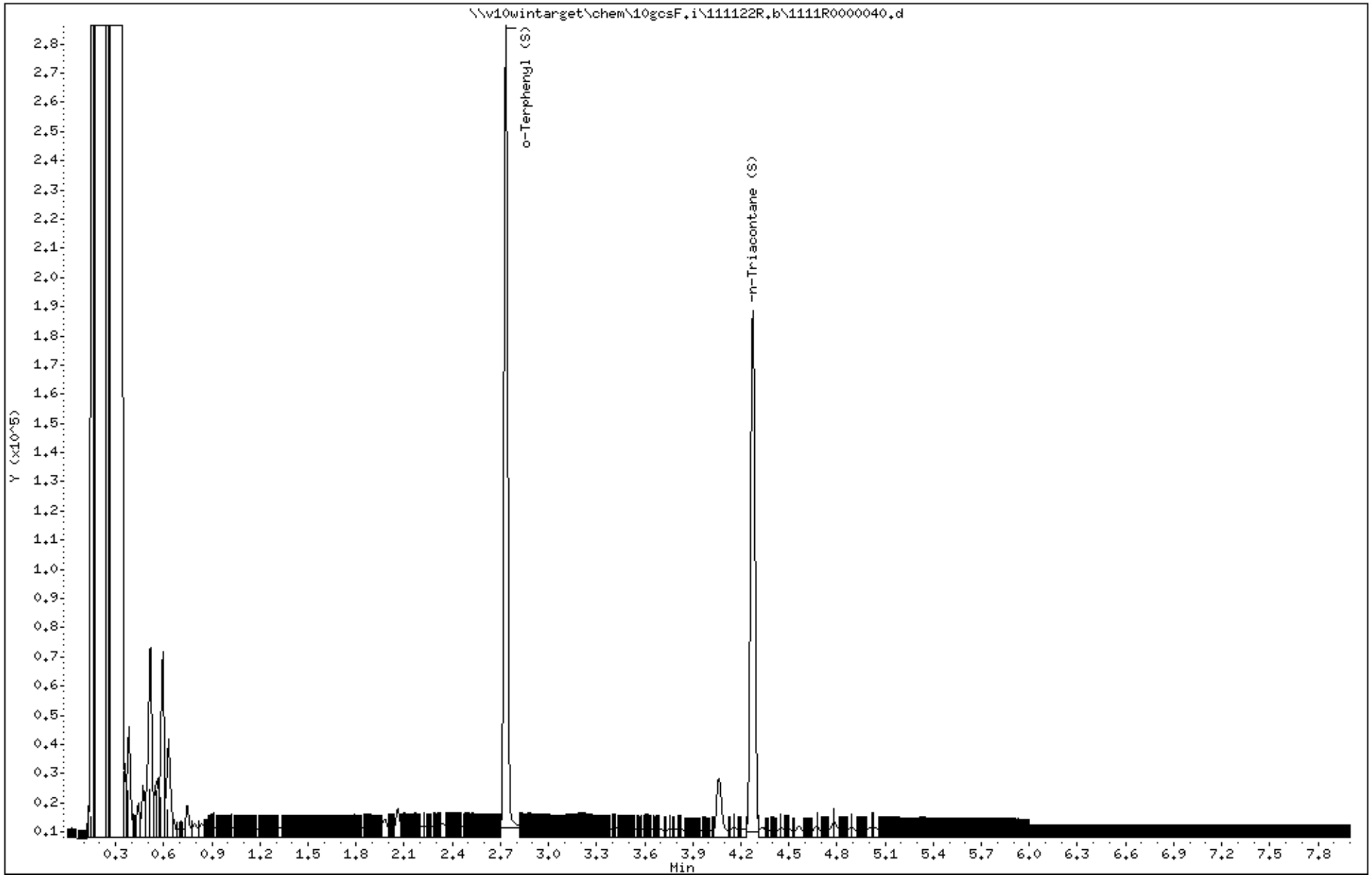
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

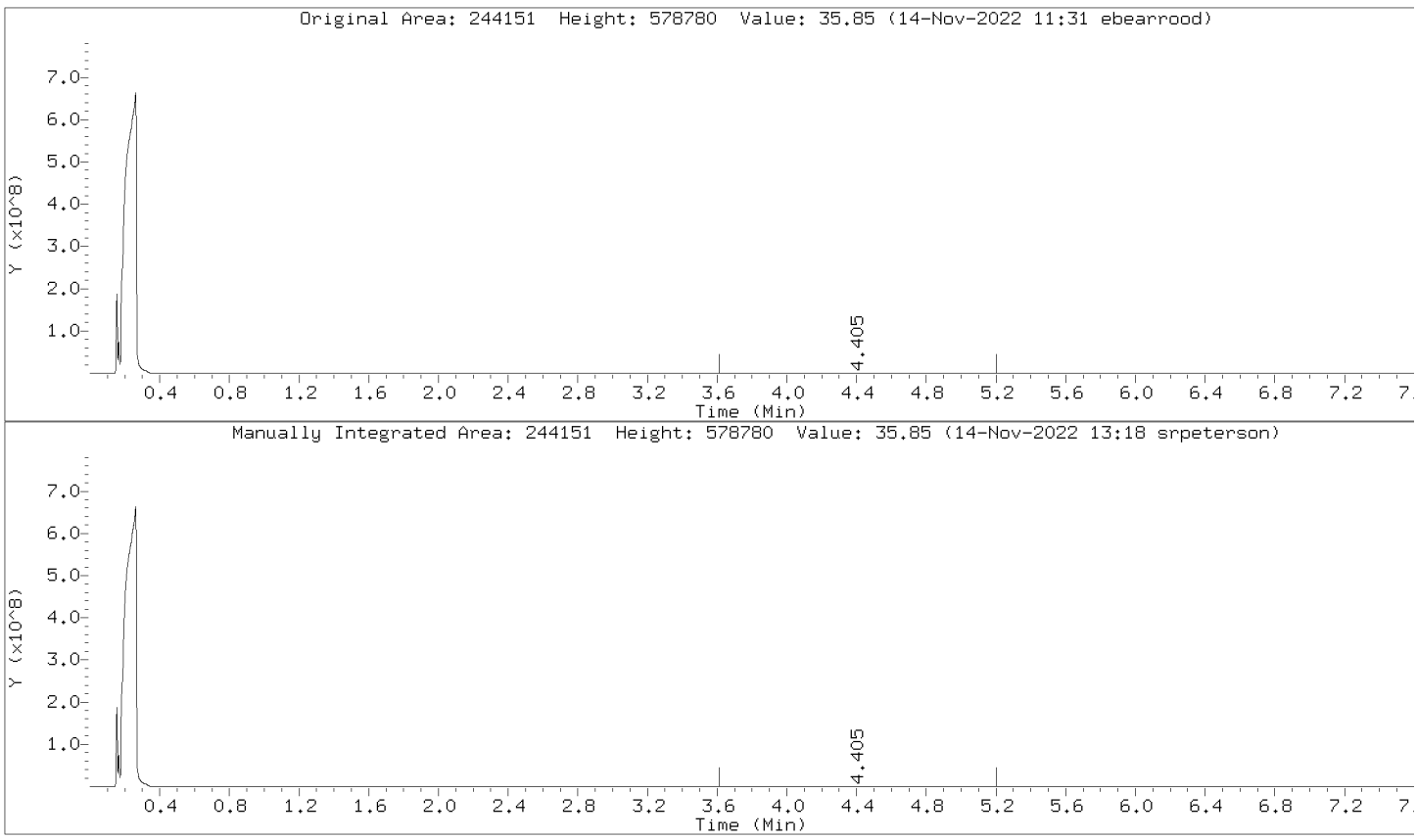
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000040.d
Date : 11-NOV-2022 18:11
Client ID: MB
Sample Info: 4504348
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



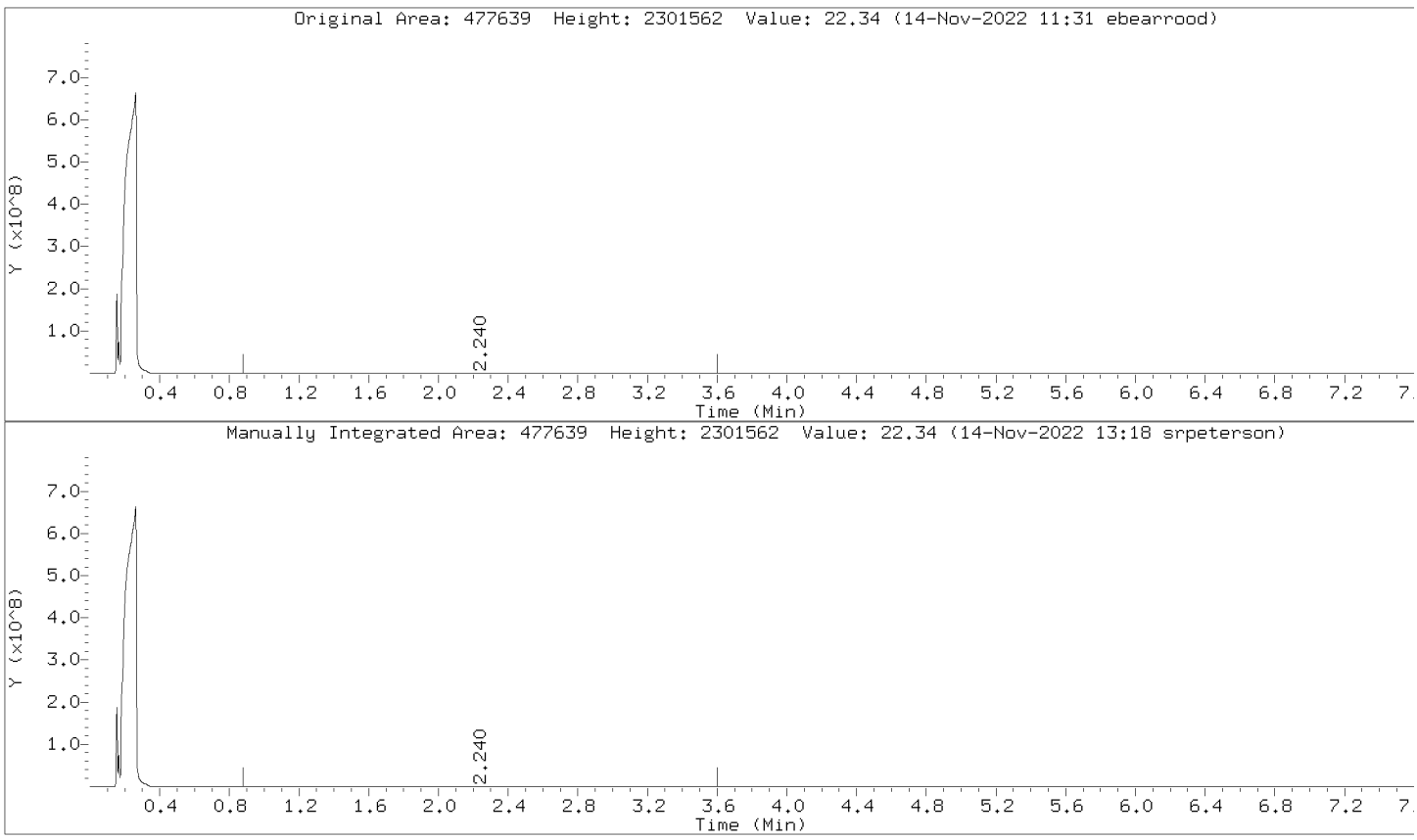
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



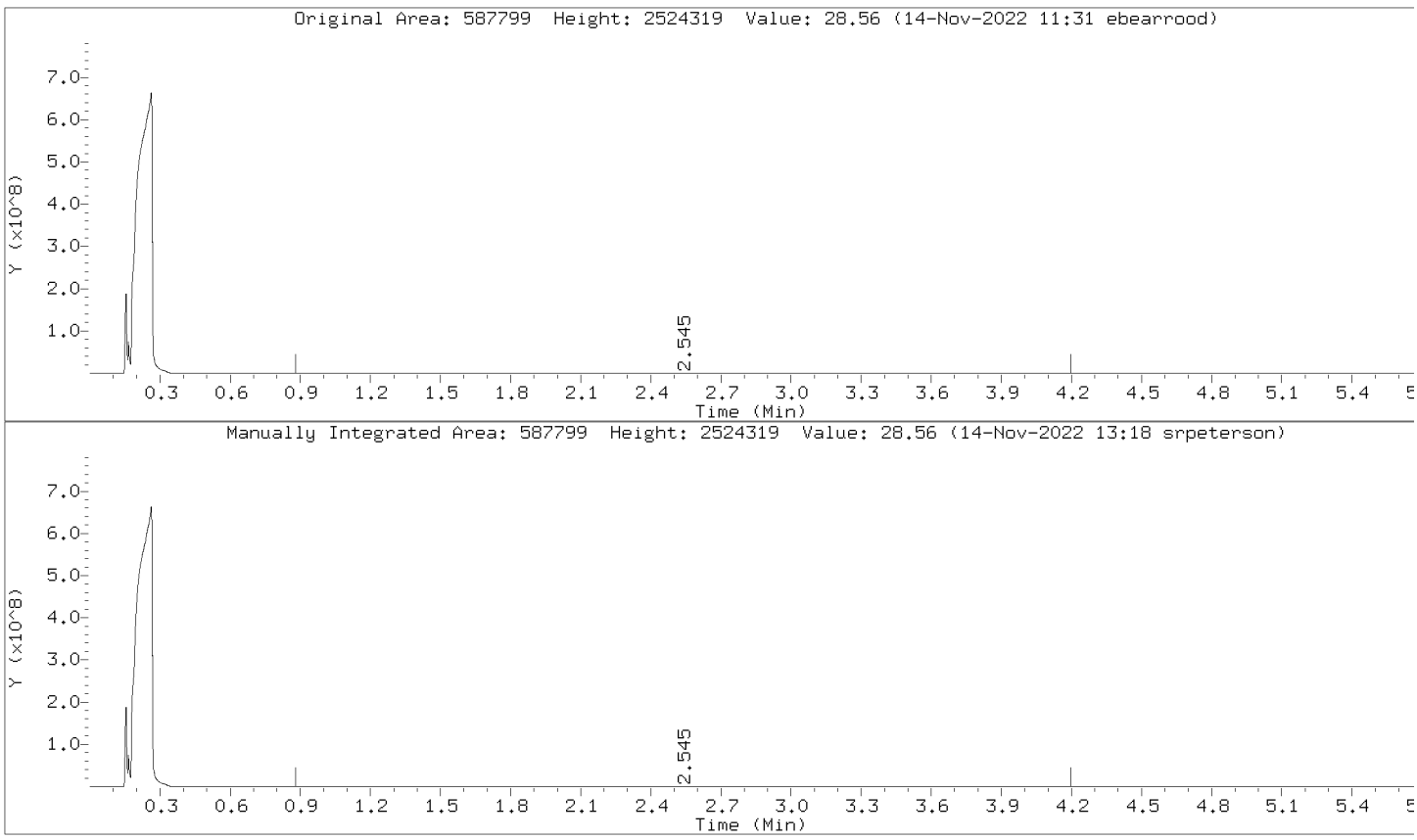
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



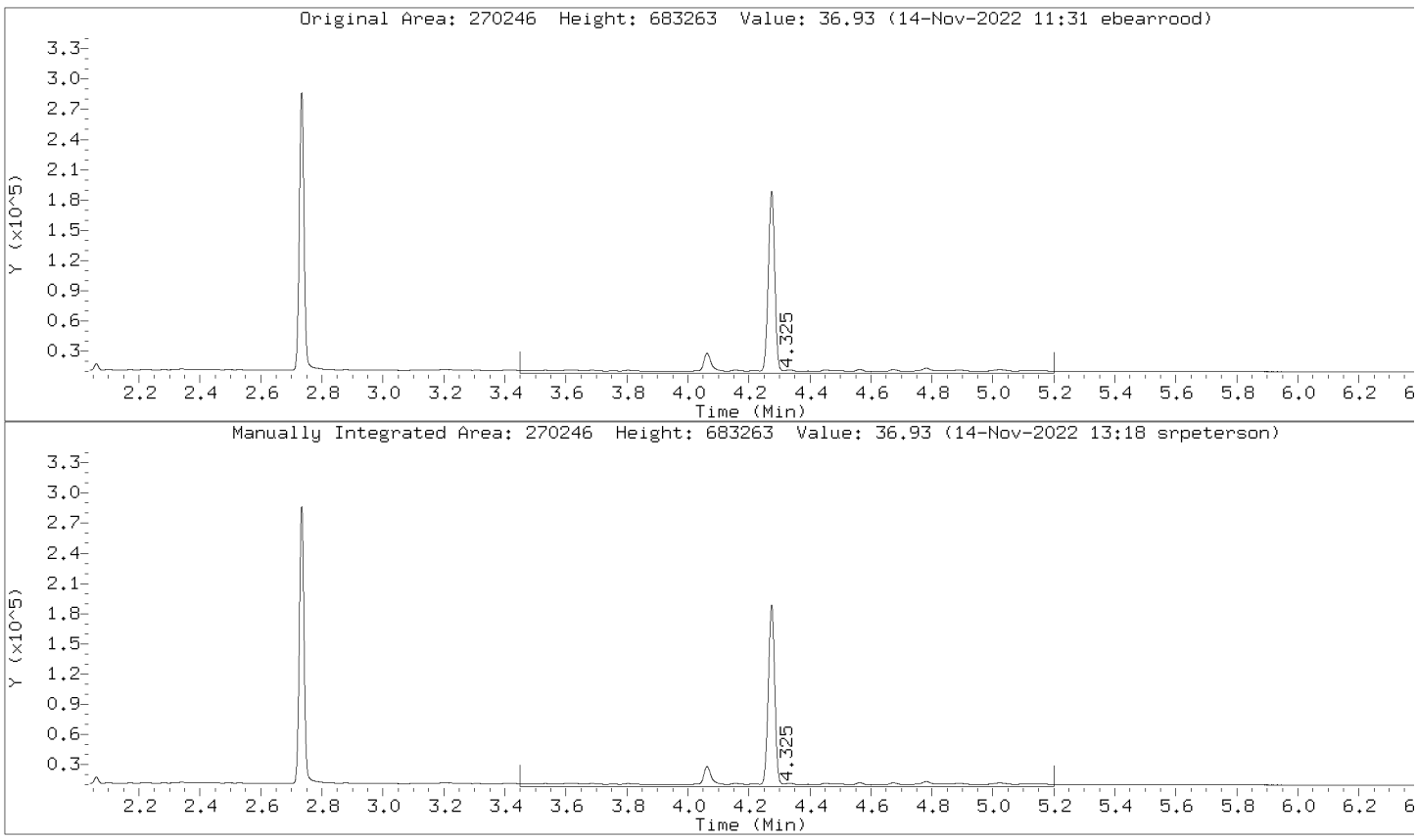
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



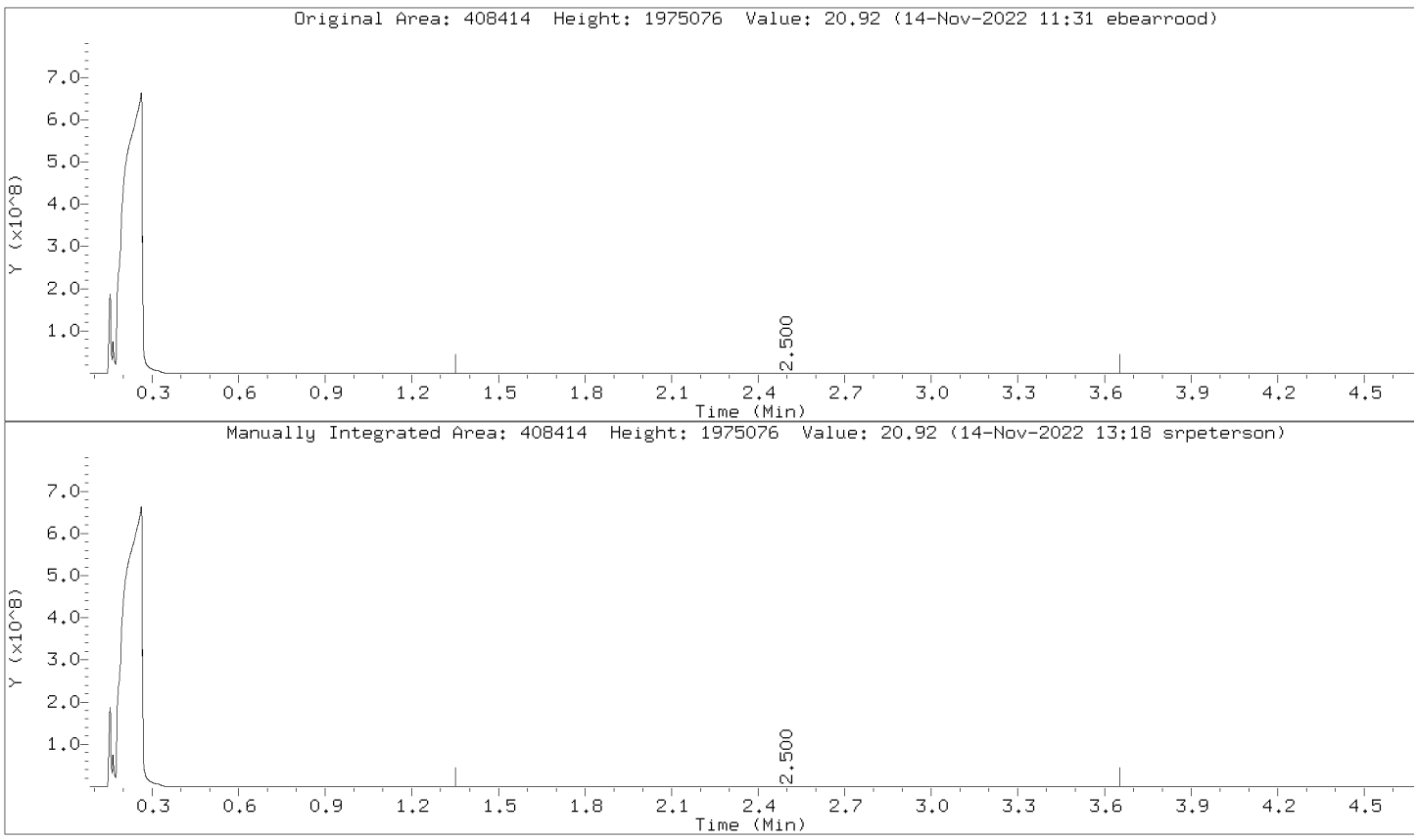
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



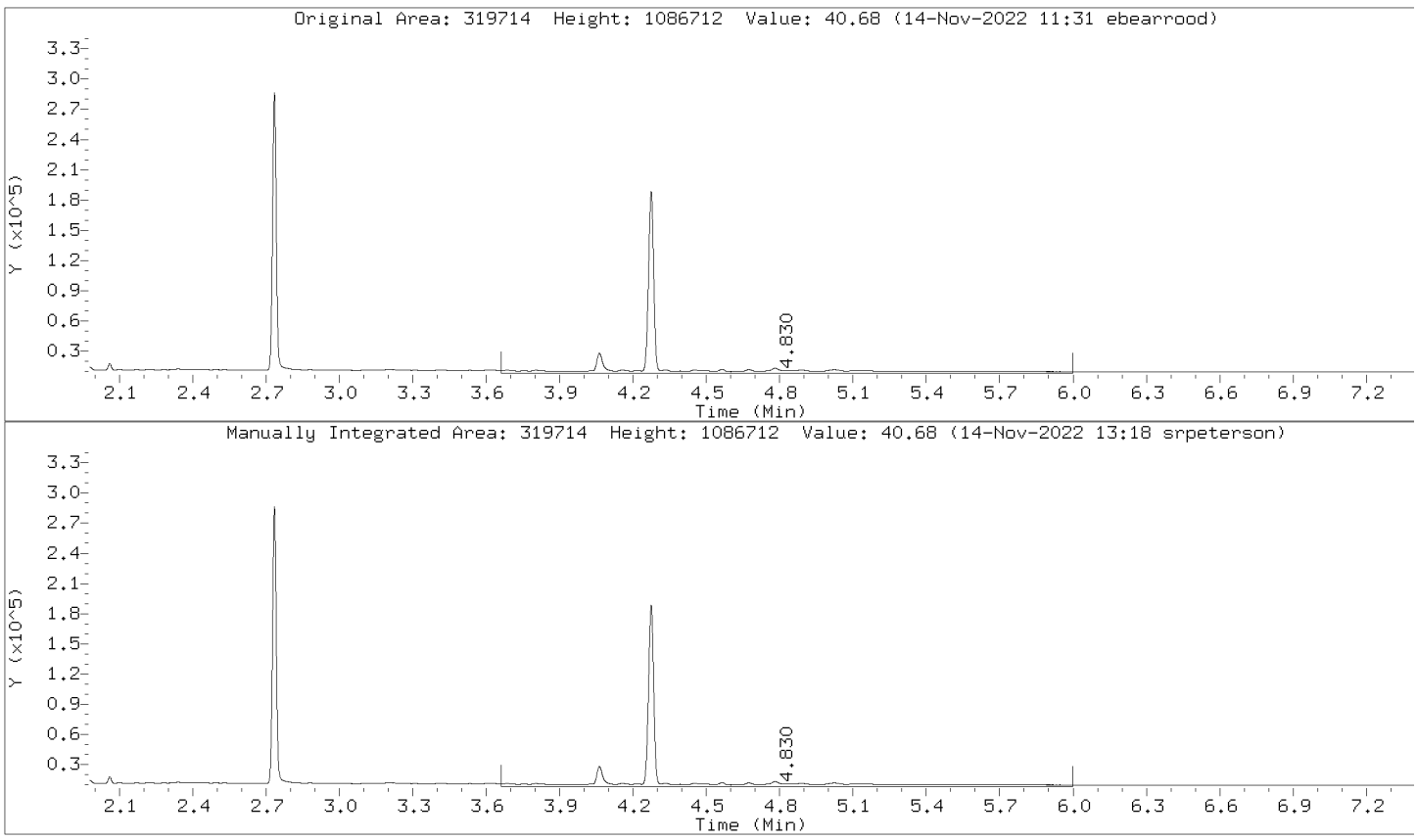
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



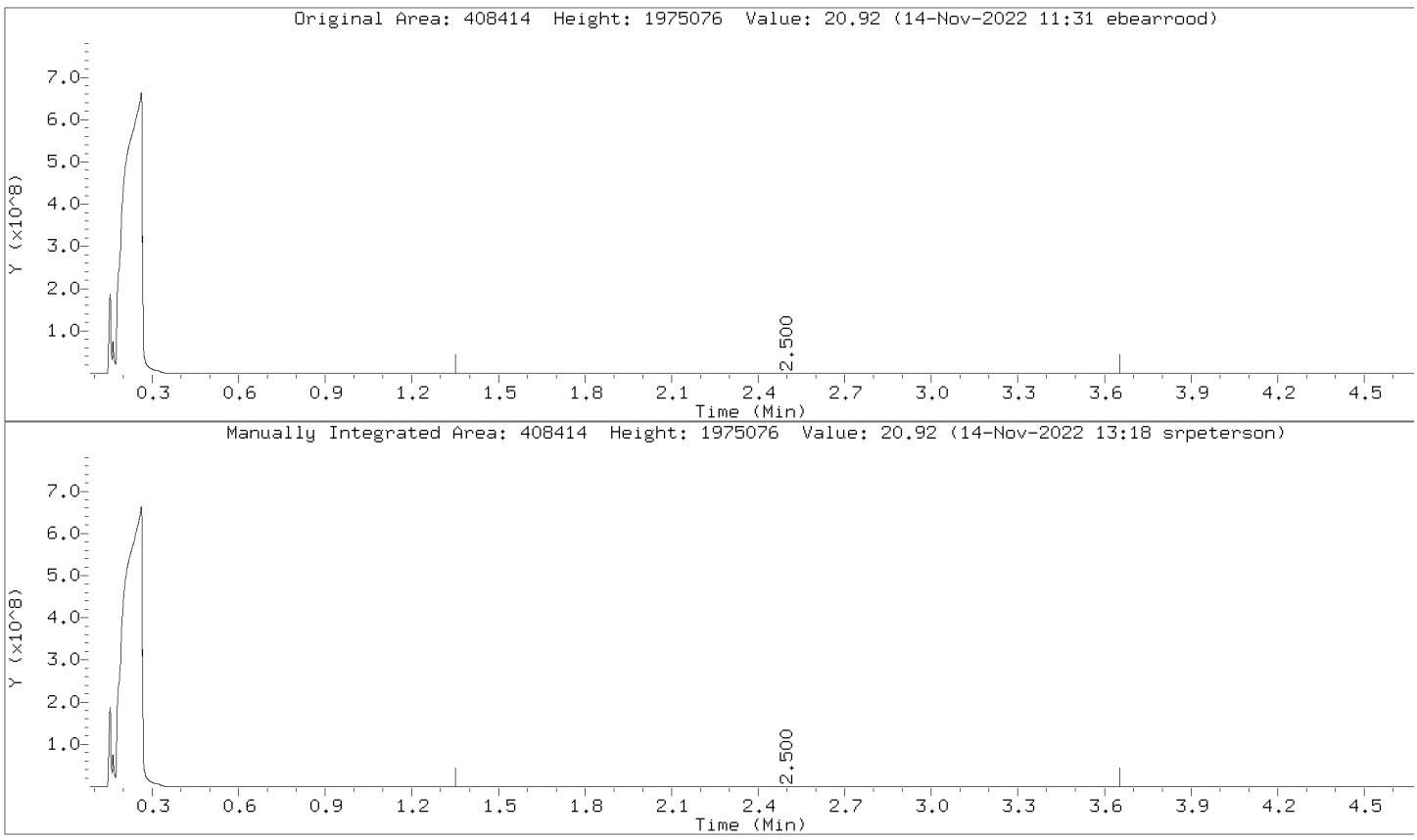
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Motor Oil Range Review Code: RNG
CAS Number:



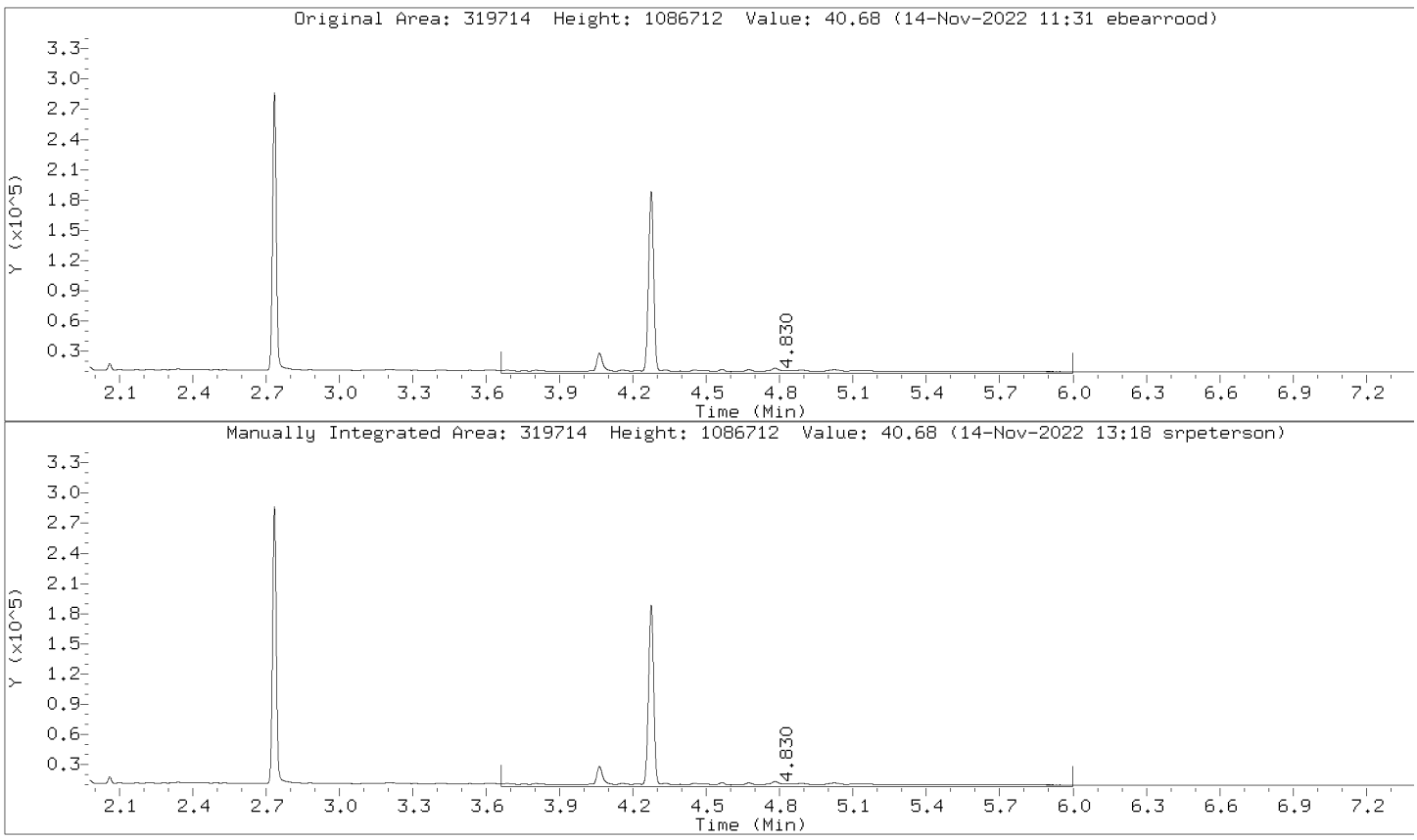
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



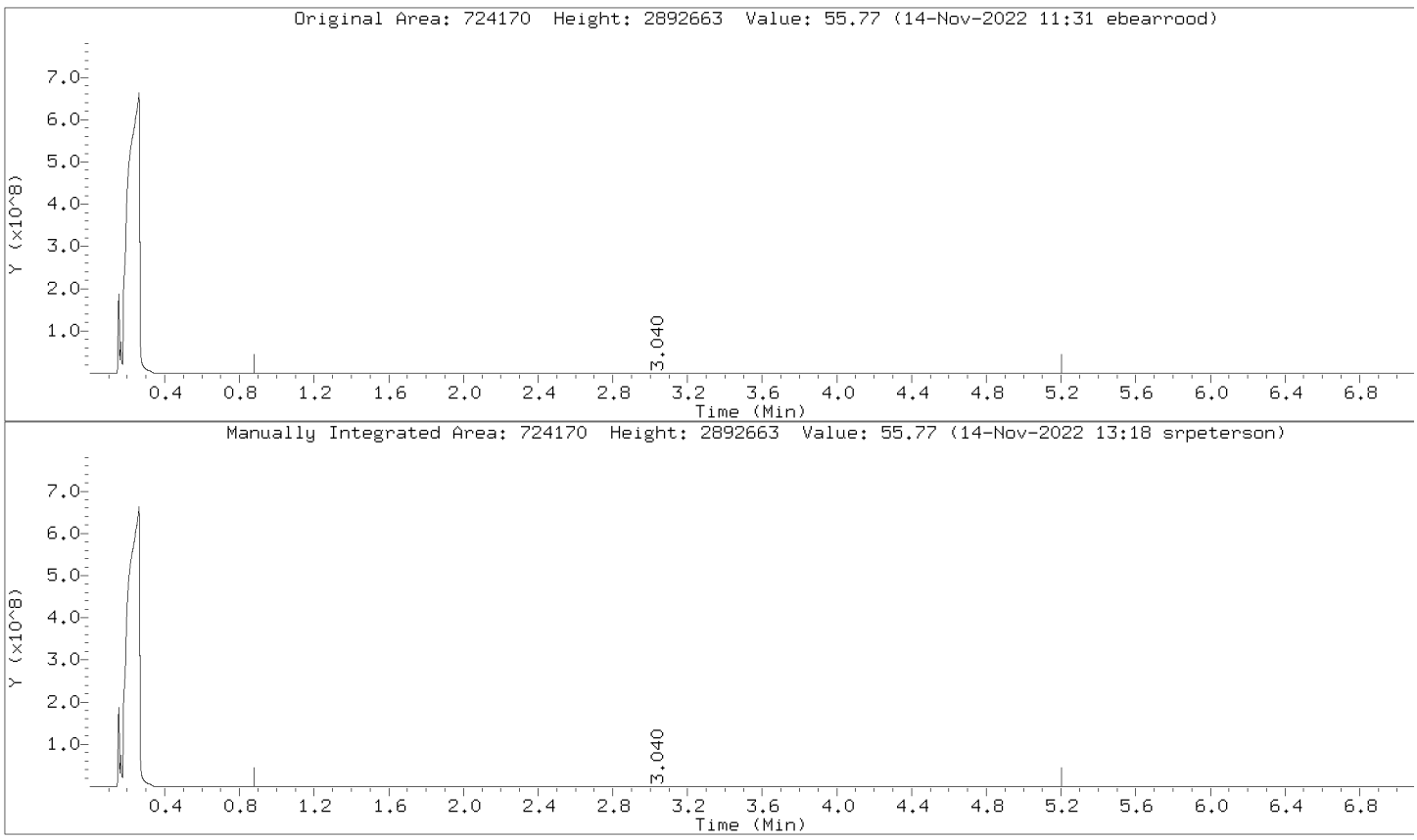
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



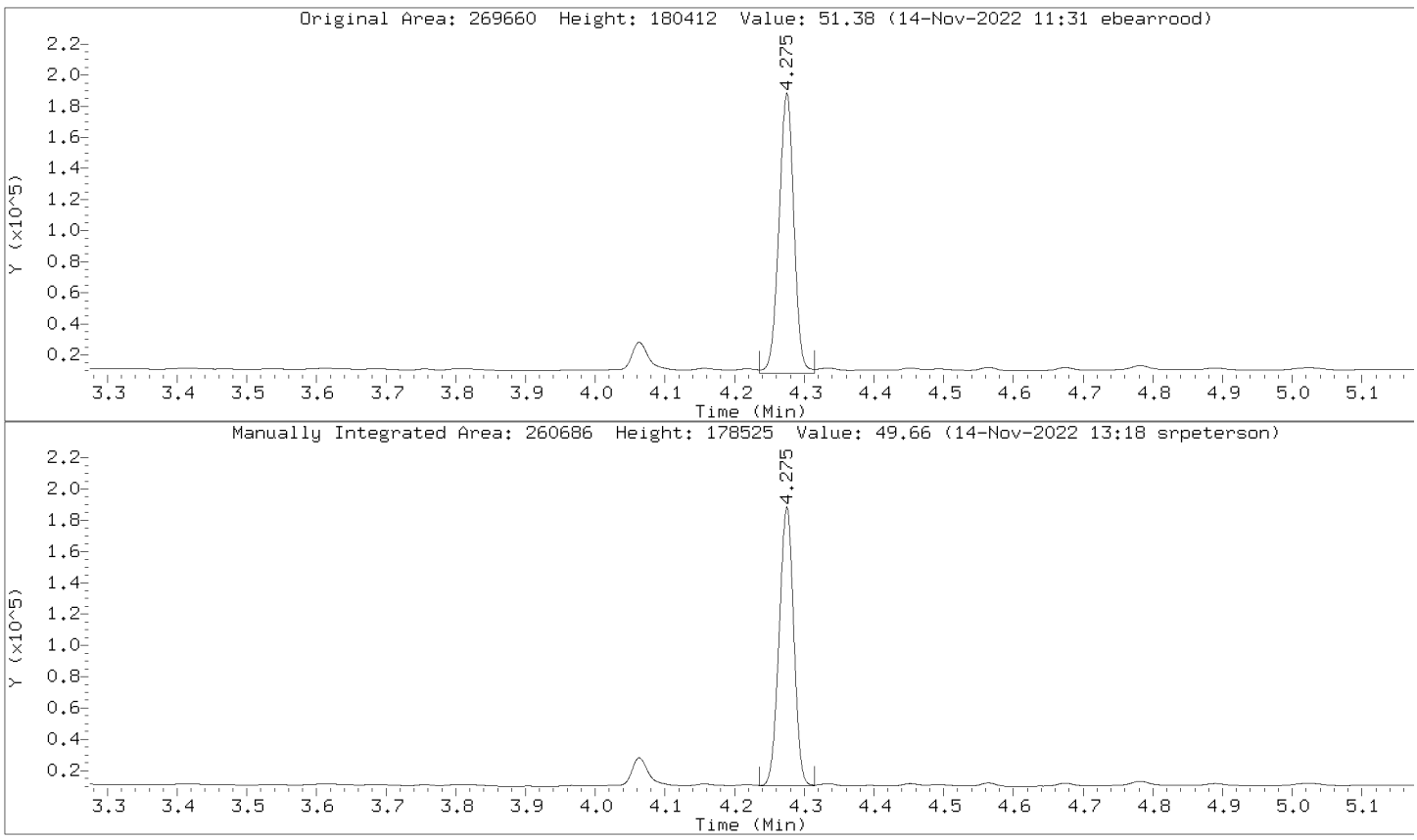
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: C10-C36 Review Code: RNG
CAS Number:



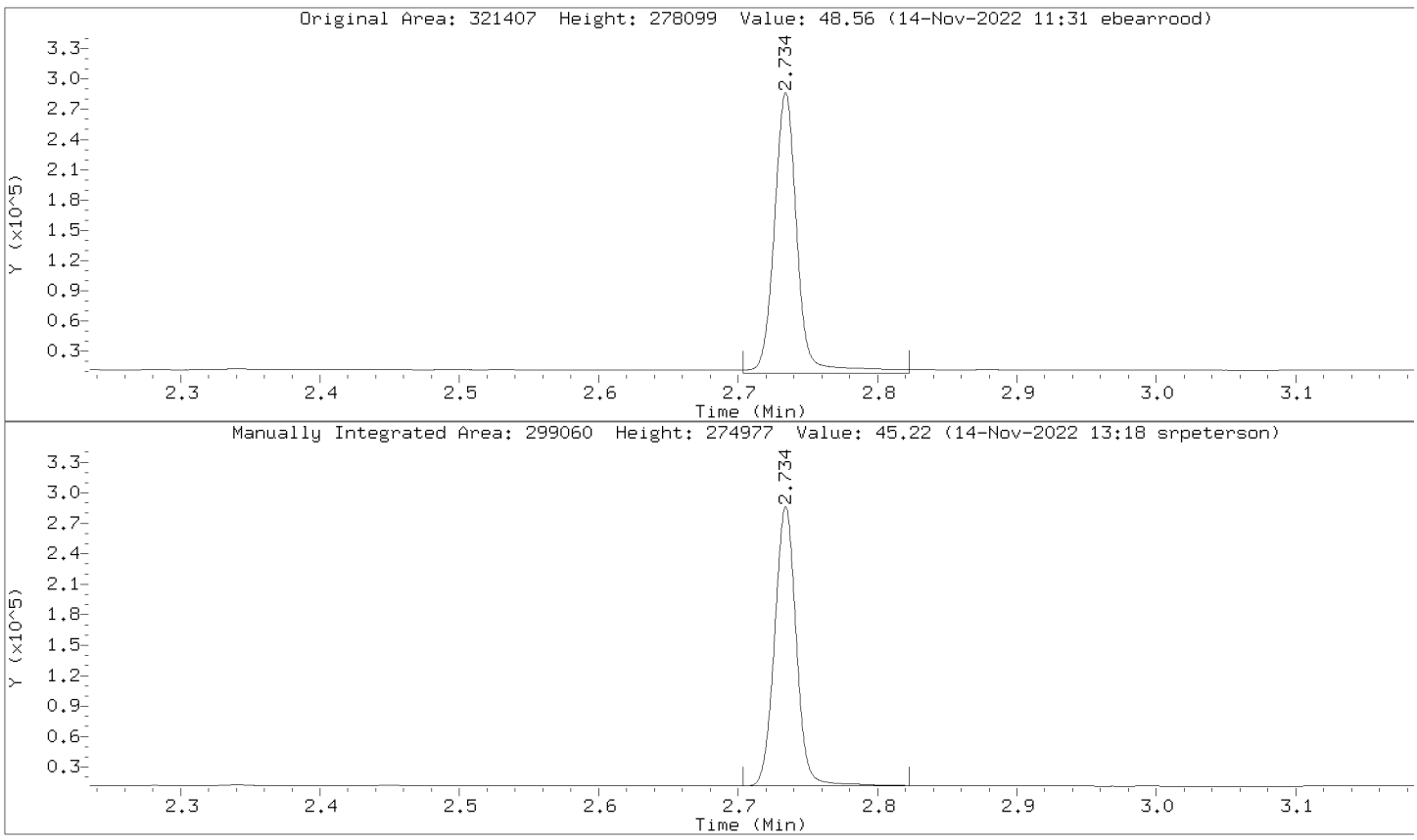
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000040.d
Injection Date: 11-NOV-2022 18:11
Instrument: 10gcsF.i
Lab Sample ID: 4504348

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	244151	244151
DRO by AK 102	477639	477639
TPH-DRO (C10-C28)	587799	587799
Motor Oil Range (C24-C36)	270246	270246
Diesel Fuel Range	408414	408414
Motor Oil Range	319714	319714
Diesel Fuel Range SG	408414	408414
Motor Oil Range SG	319714	319714
C10-C36	724170	724170
n-Triacontane (S)	269660	260686
o-Terphenyl (S)	321407	299060

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Solid SDG No.: 10632545
Date Extracted: 11/07/2022 10:10 Lab Sample ID: 4504349
Date Analyzed: 11/11/2022 18:23 Lab File ID: 111122R.B\1111R0000041.D
Initial wt/vol: 10 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	46.7	
	Motor Oil Range	53.0	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000041.d
Lab Smp Id: 4504349 Client Smp ID: MBLCS
Inj Date : 11-NOV-2022 18:23
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4504349
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		2684250	412.228	41.2	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	312138	47.1745	4.72	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.274	0.001	266613	50.8002	5.08	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		2036474	534.004	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3244886	432.646	43.3	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2143924	533.806	53.4	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.880	- 5.200		4733169	919.786	92.0	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2533732	466.836	46.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2533732	466.836	46.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2467709	530.162	53.0	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2467709	530.162	53.0	(M)	RNG

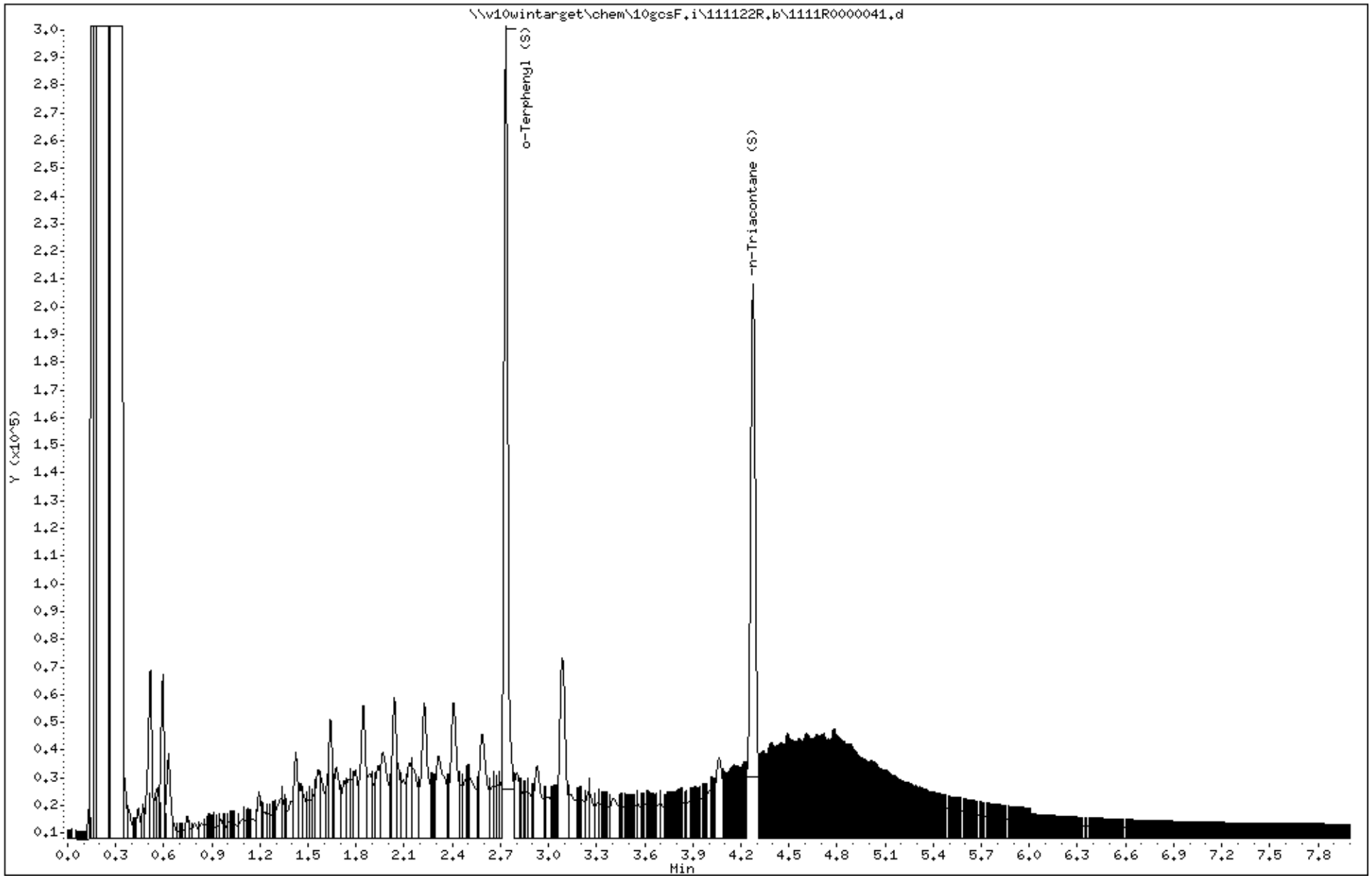
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

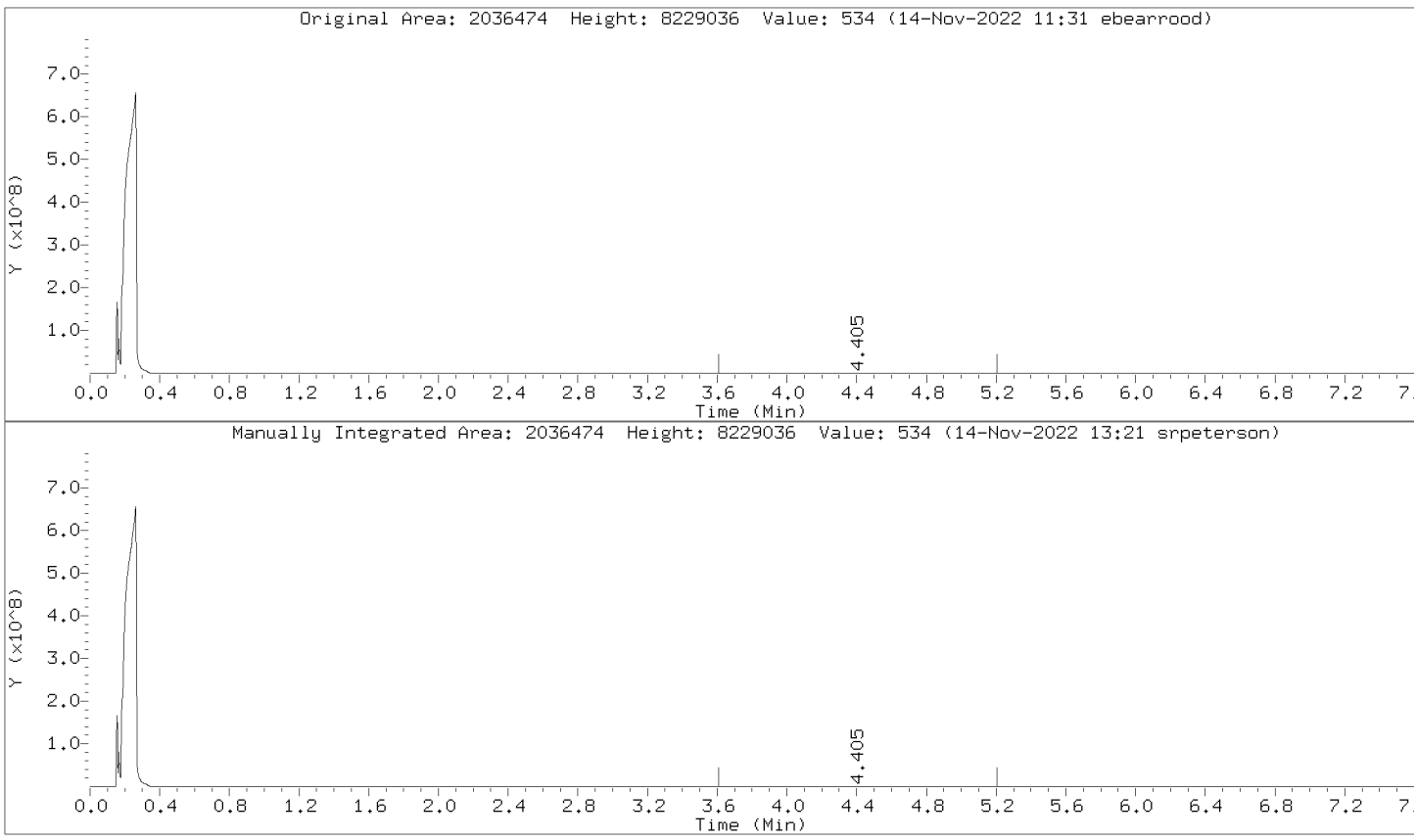
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000041.d
Date : 11-NOV-2022 18:23
Client ID: MBLCS
Instrument: 10gcsF.i
Sample Info: 4504349
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



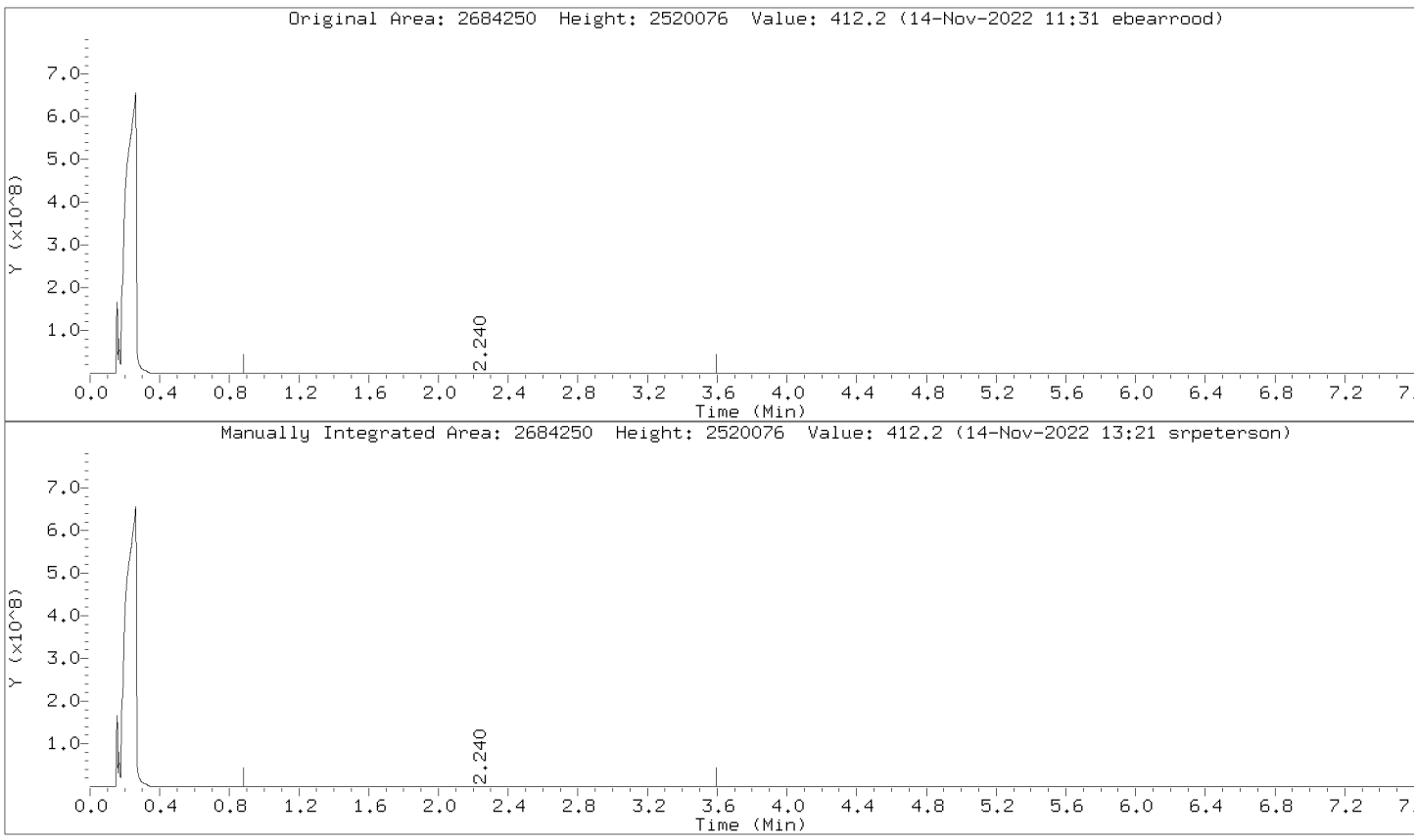
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



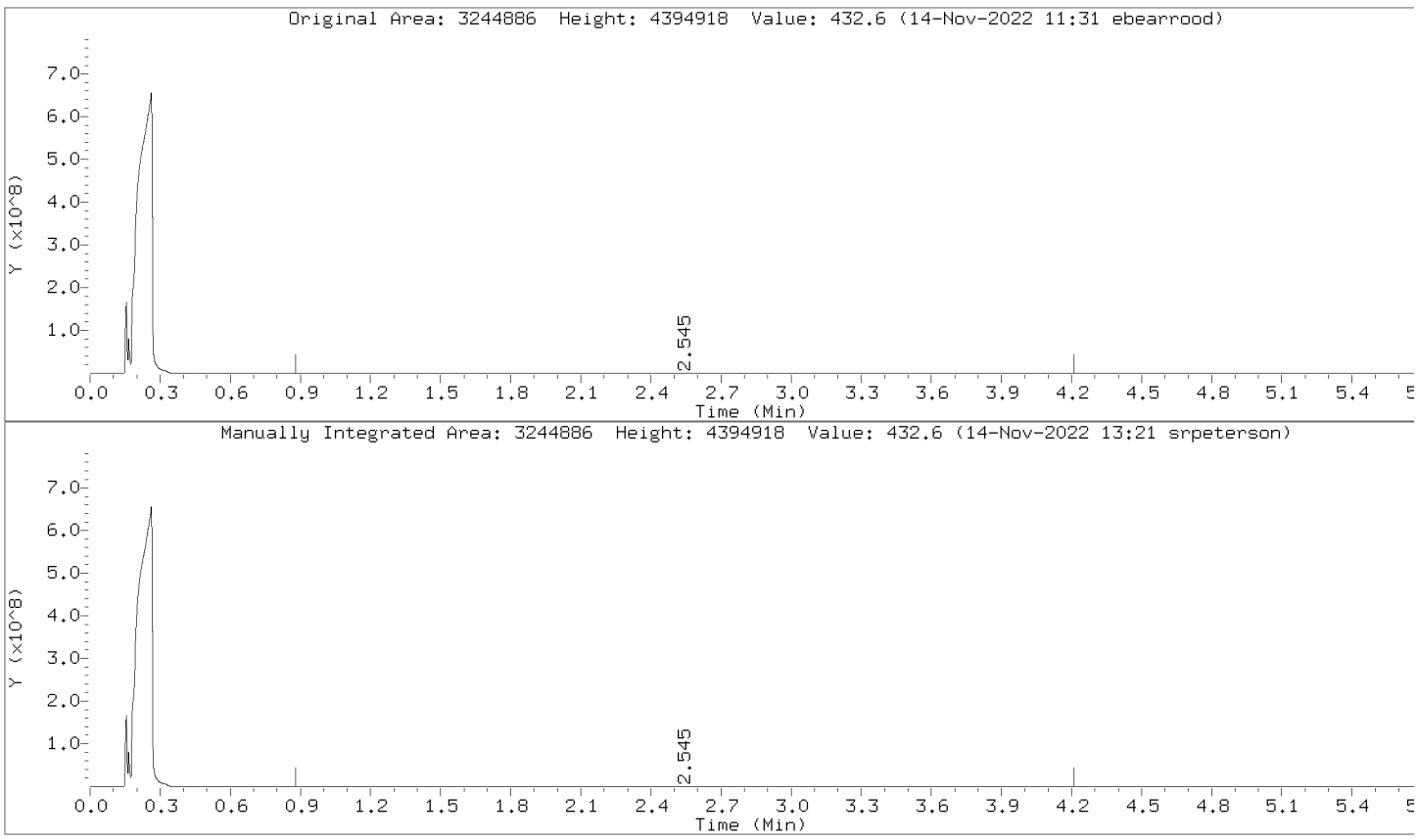
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



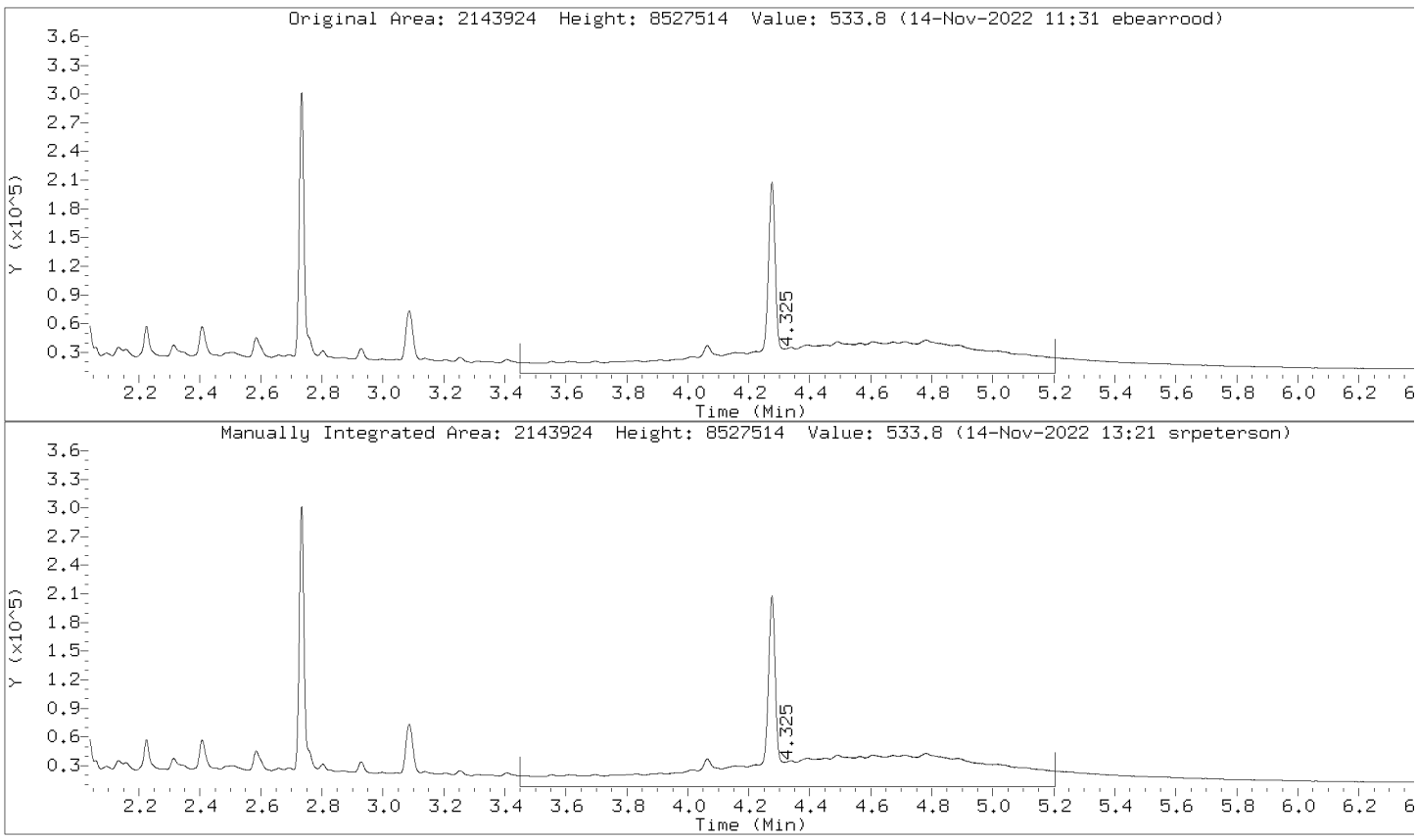
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



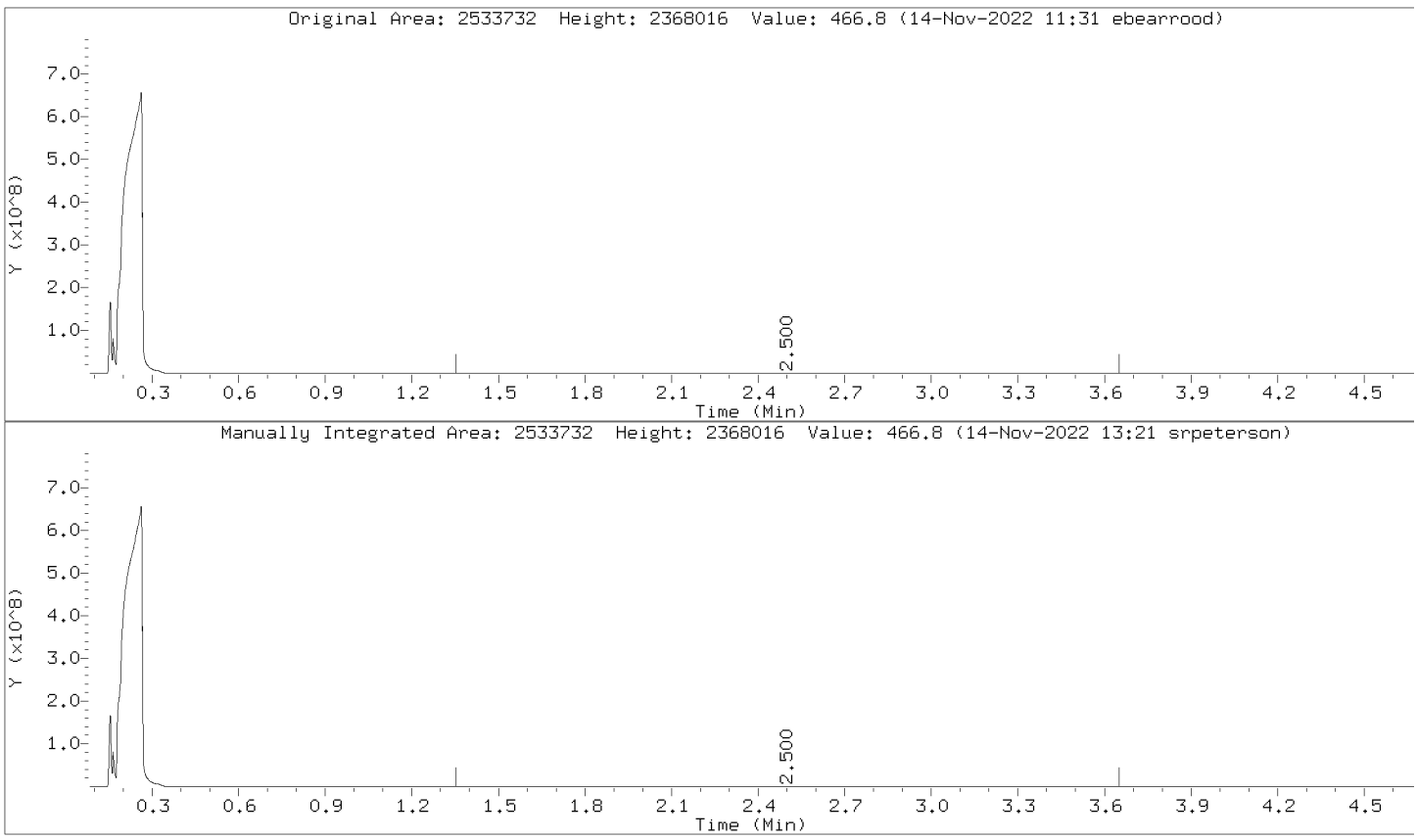
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



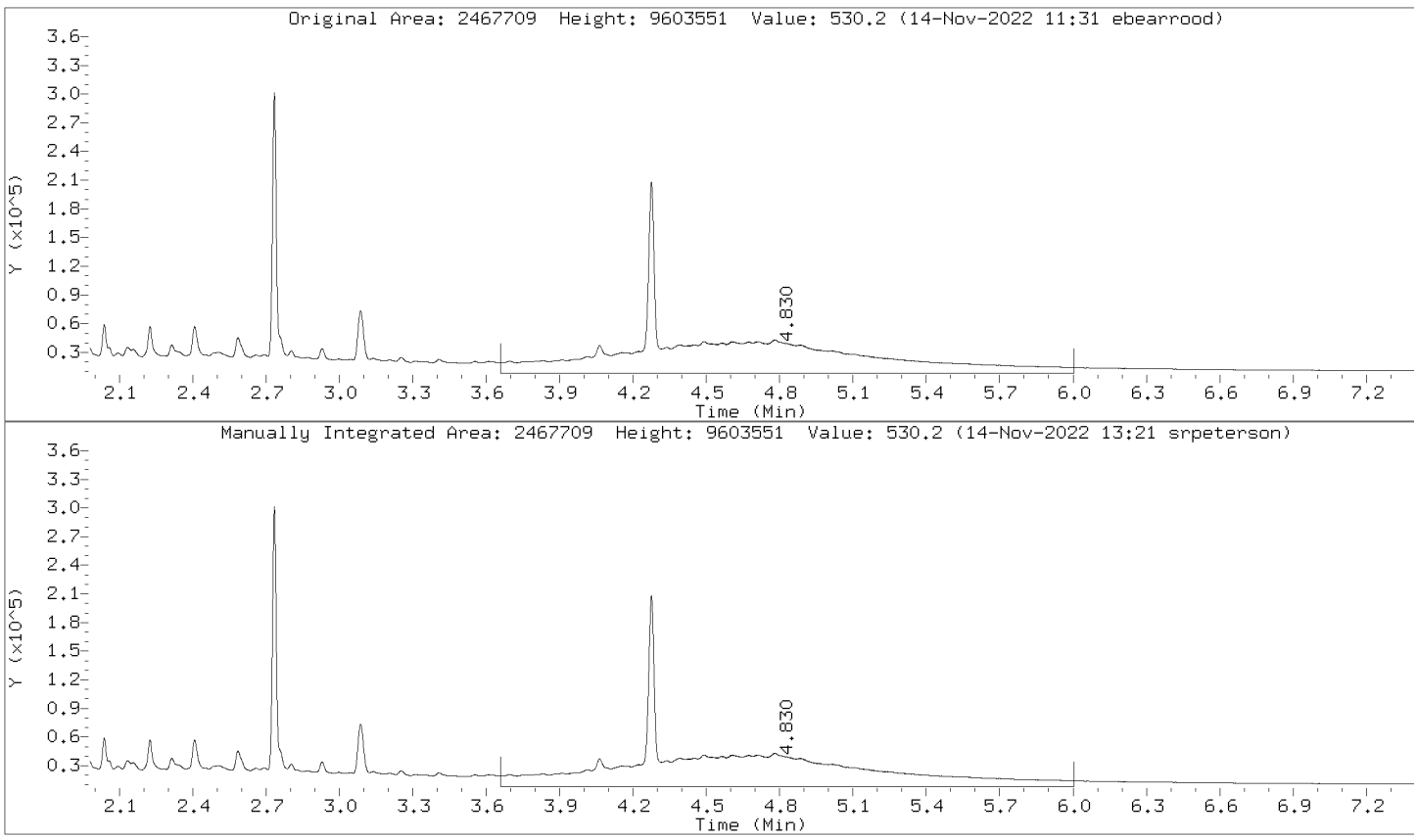
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



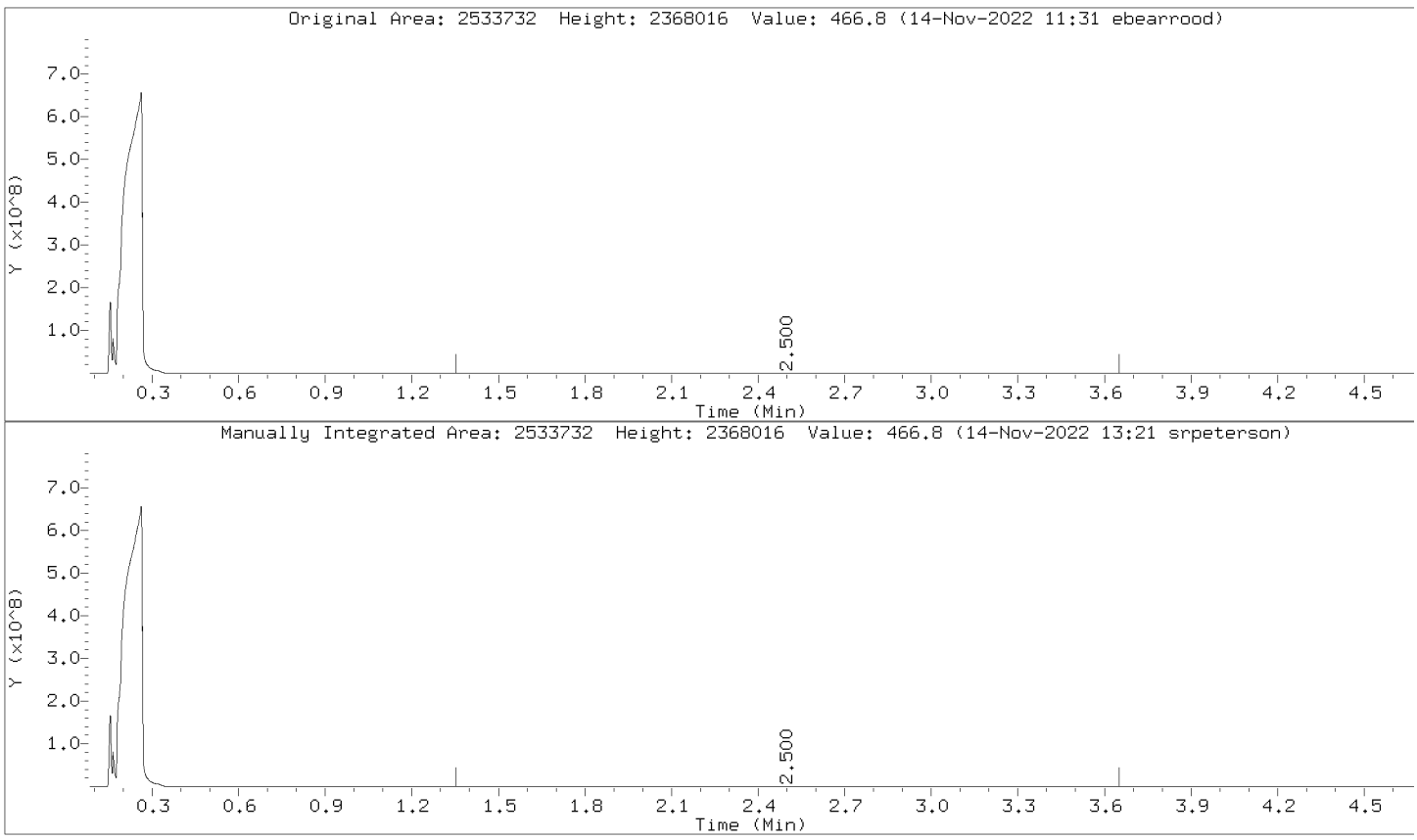
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Motor Oil Range Review Code: RNG
CAS Number:



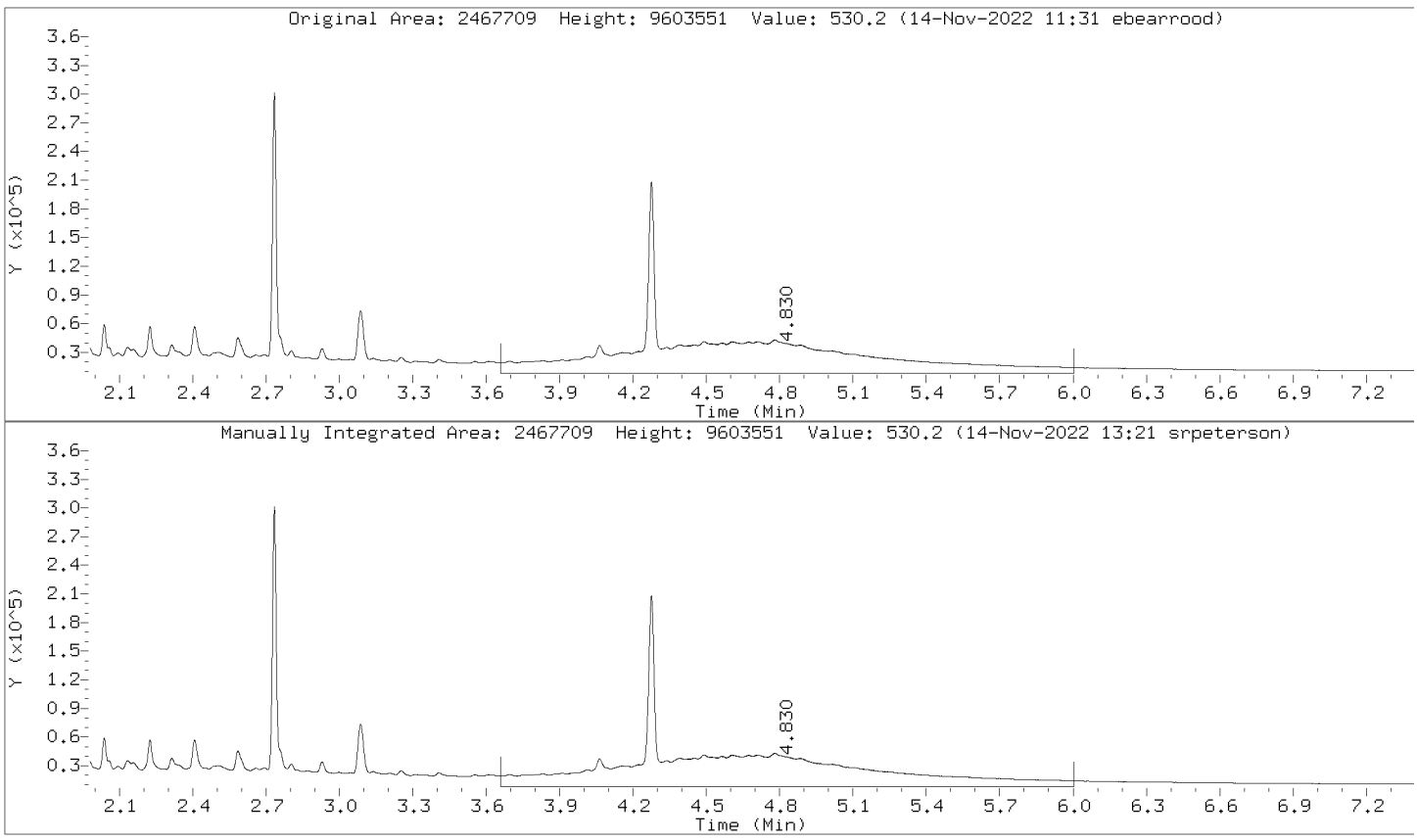
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



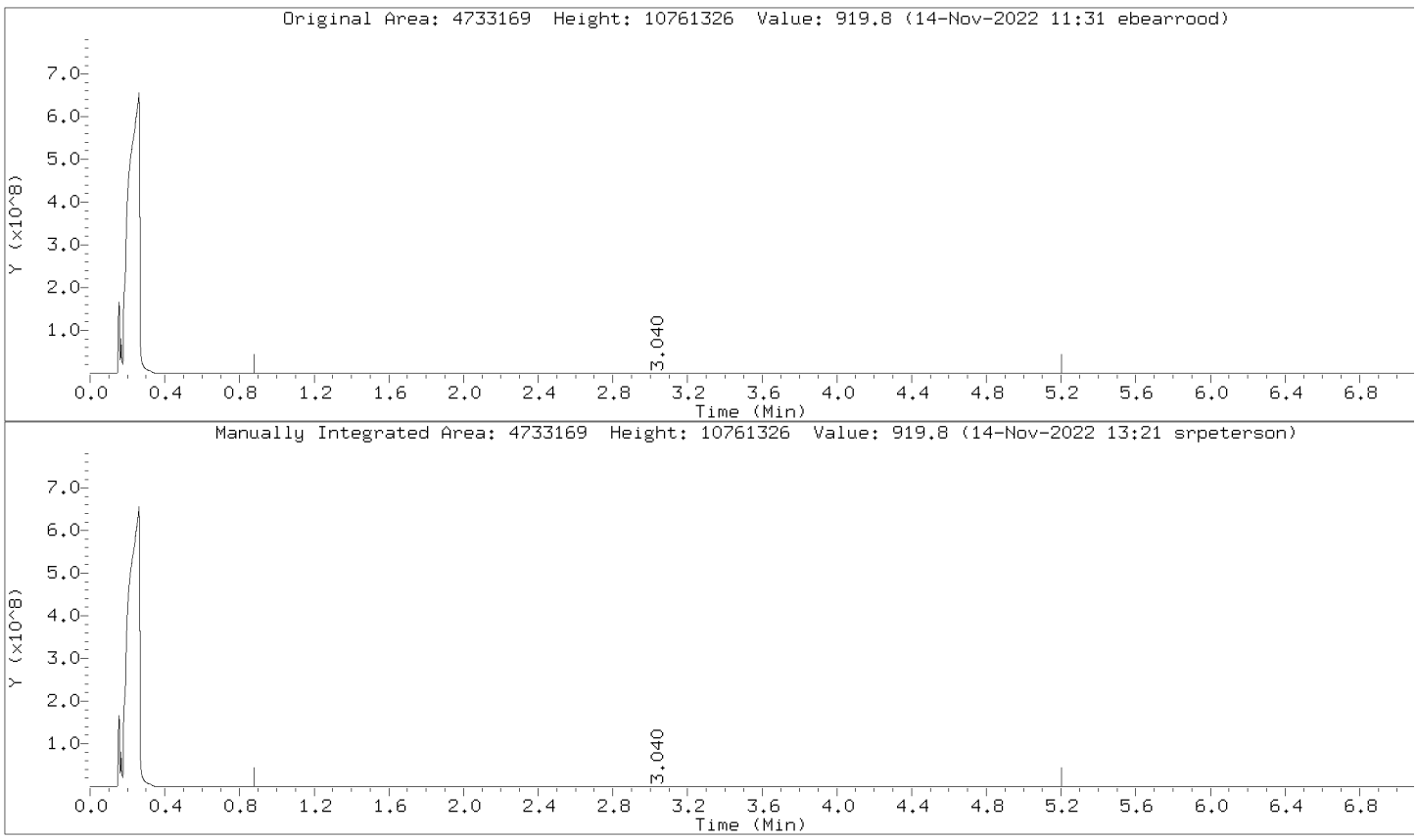
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



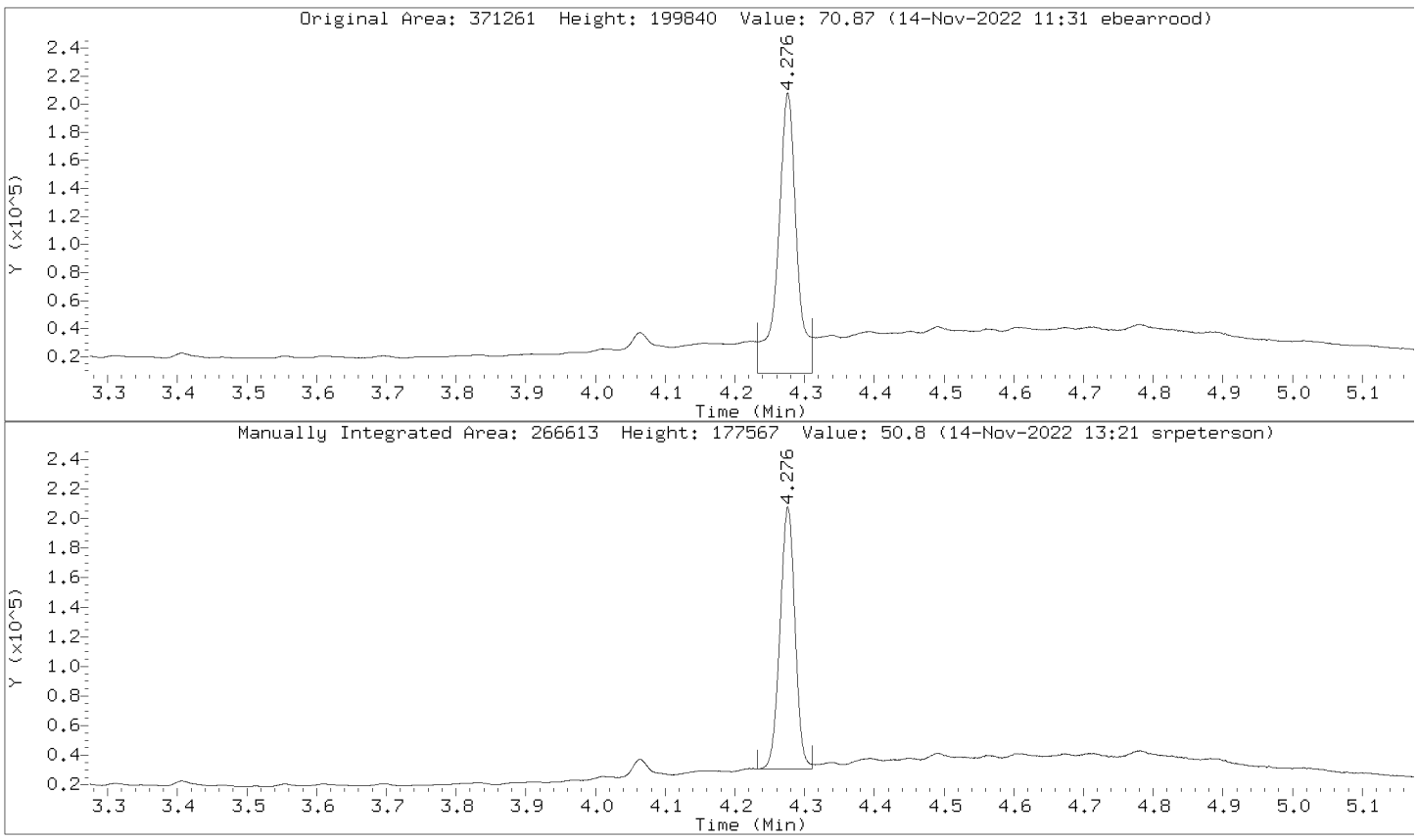
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: C10-C36 Review Code: RNG
CAS Number:



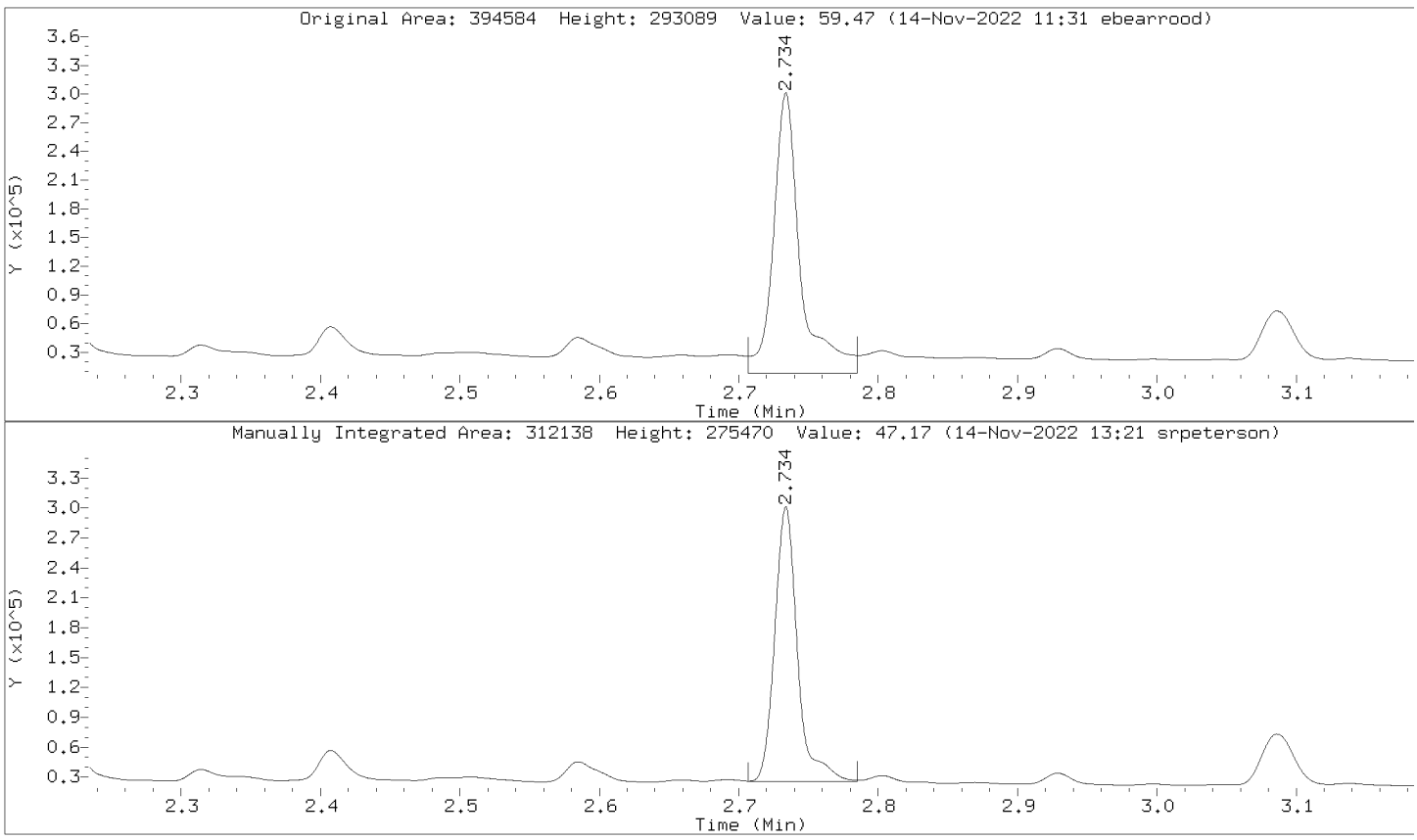
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000041.d
Injection Date: 11-NOV-2022 18:23
Instrument: 10gcsF.i
Lab Sample ID: 4504349

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2036474	2036474
DRO by AK 102	2684250	2684250
TPH-DRO (C10-C28)	3244886	3244886
Motor Oil Range (C24-C36)	2143924	2143924
Diesel Fuel Range	2533732	2533732
Motor Oil Range	2467709	2467709
Diesel Fuel Range SG	2533732	2533732
Motor Oil Range SG	2467709	2467709
C10-C36	4733169	4733169
n-Triacontane (S)	371261	266613
o-Terphenyl (S)	394584	312138

SAMPLE NO.

MS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/04/2022 08:50
Matrix: Solid
SDG No.: 10632545
Date Extracted: 11/07/2022 10:10
Lab Sample ID: 4504350
Date Analyzed: 11/11/2022 18:57
Lab File ID: 111122R.B\1111R0000044.D
Initial wt/vol: 10.05 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture: 28.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	71.9	
	Motor Oil Range	99.2	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000044.d
Lab Smp Id: 4504350 Client Smp ID: BNSF-G000-SC-1.5-2.
Inj Date : 11-NOV-2022 18:57
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4504350
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.050	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			2938932	457.227	45.5	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	282234	42.7159	4.25	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.276	4.274	0.002	243770	46.4200	4.62	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			2751812	732.822	72.9	(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.210			3686141	499.752	49.7	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			2905278	735.708	73.2	(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE
S 7 C10-C36					CAS #:	
0.880	- 5.200		5690744	1126.16	112	(M) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		2760232	514.359	51.2	(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		2760232	514.359	51.2	(M) RNG
S 10 Motor Oil Range					CAS #:	
3.660	- 6.000		3255661	709.721	70.6	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.660	- 6.000		3255661	709.721	70.6	(M) RNG

QC Flag Legend

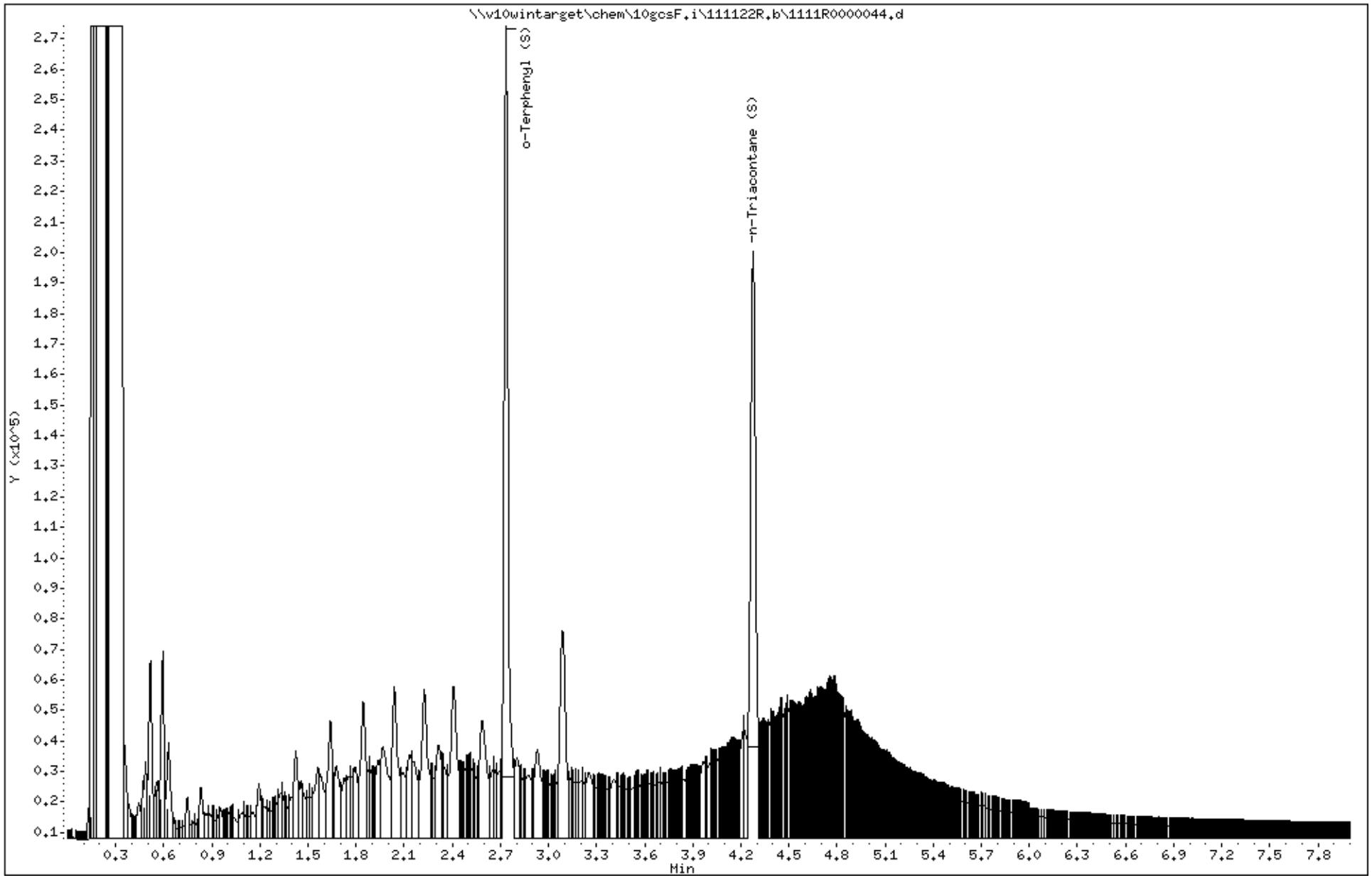
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

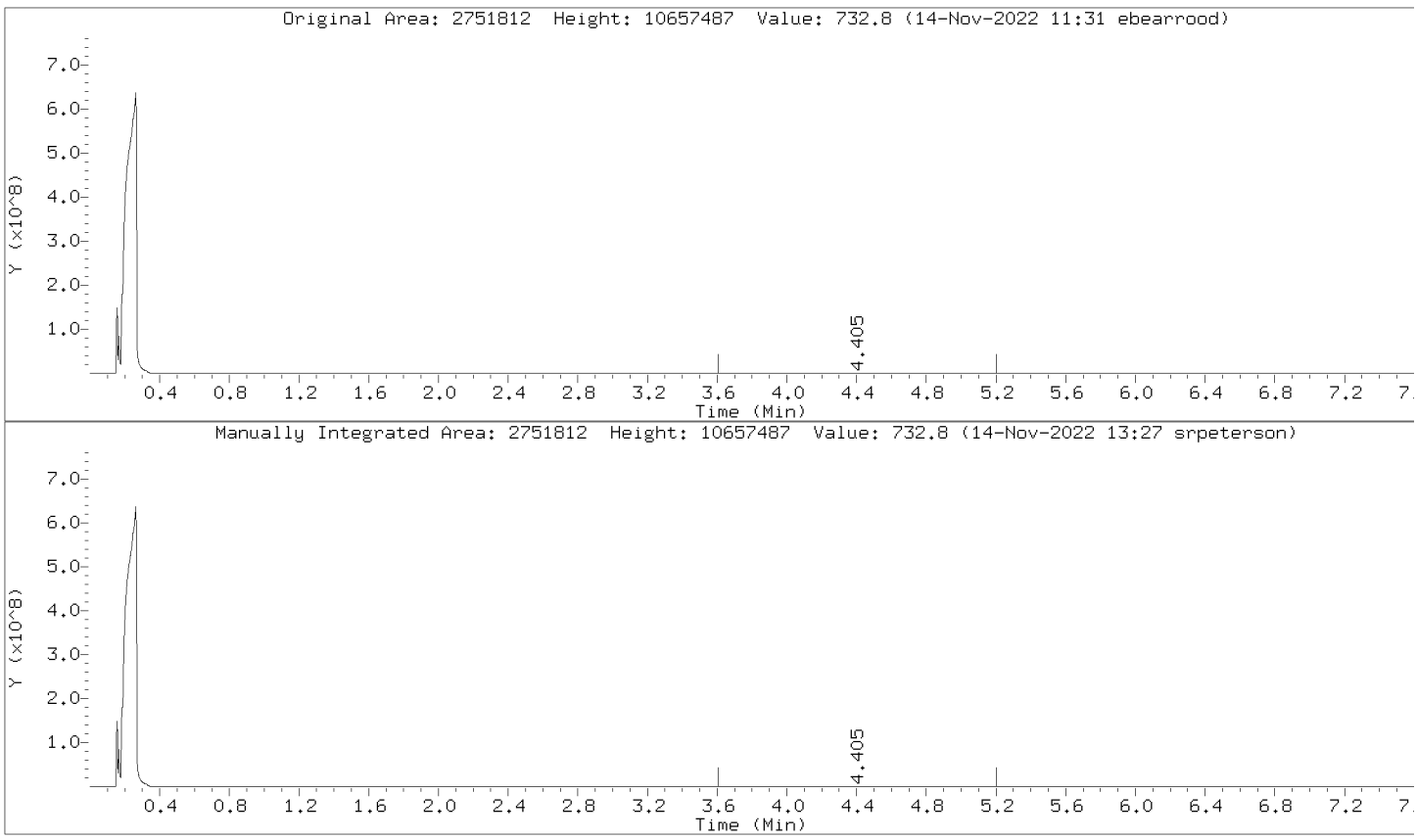
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000044.d
Date : 11-NOV-2022 18:57
Client ID: BNSF-G000-SC-1.5-2.
Sample Info: 4504350
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



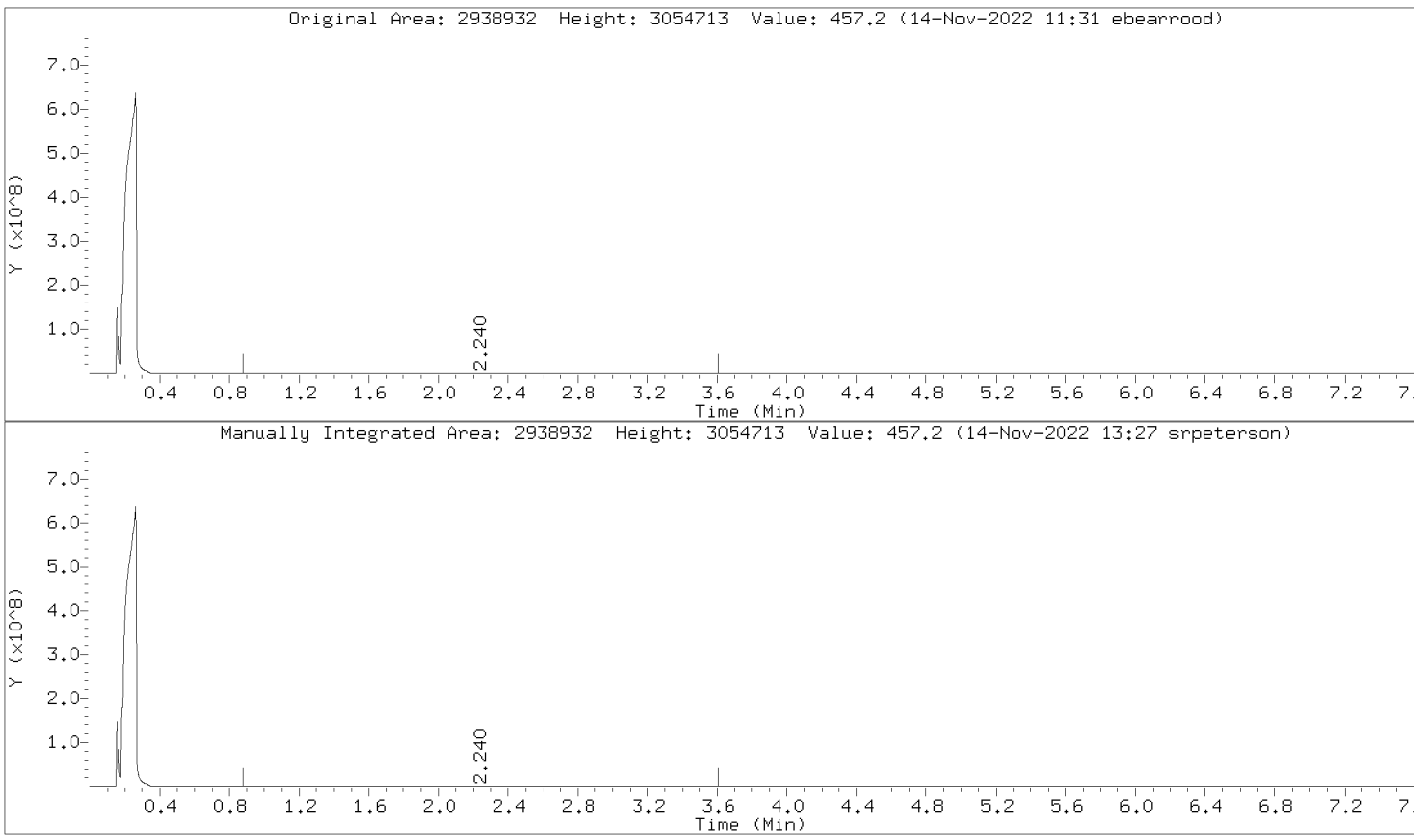
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



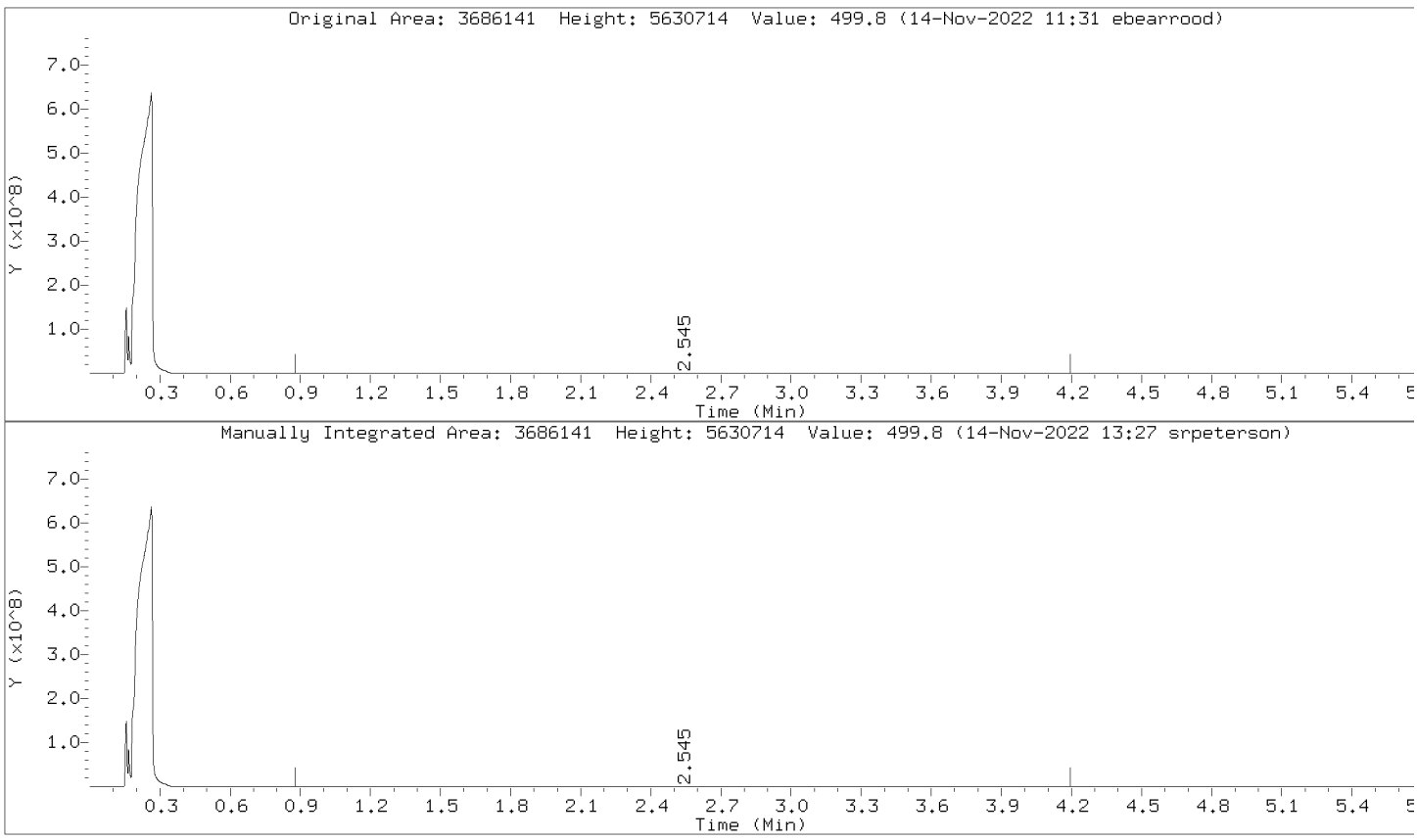
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



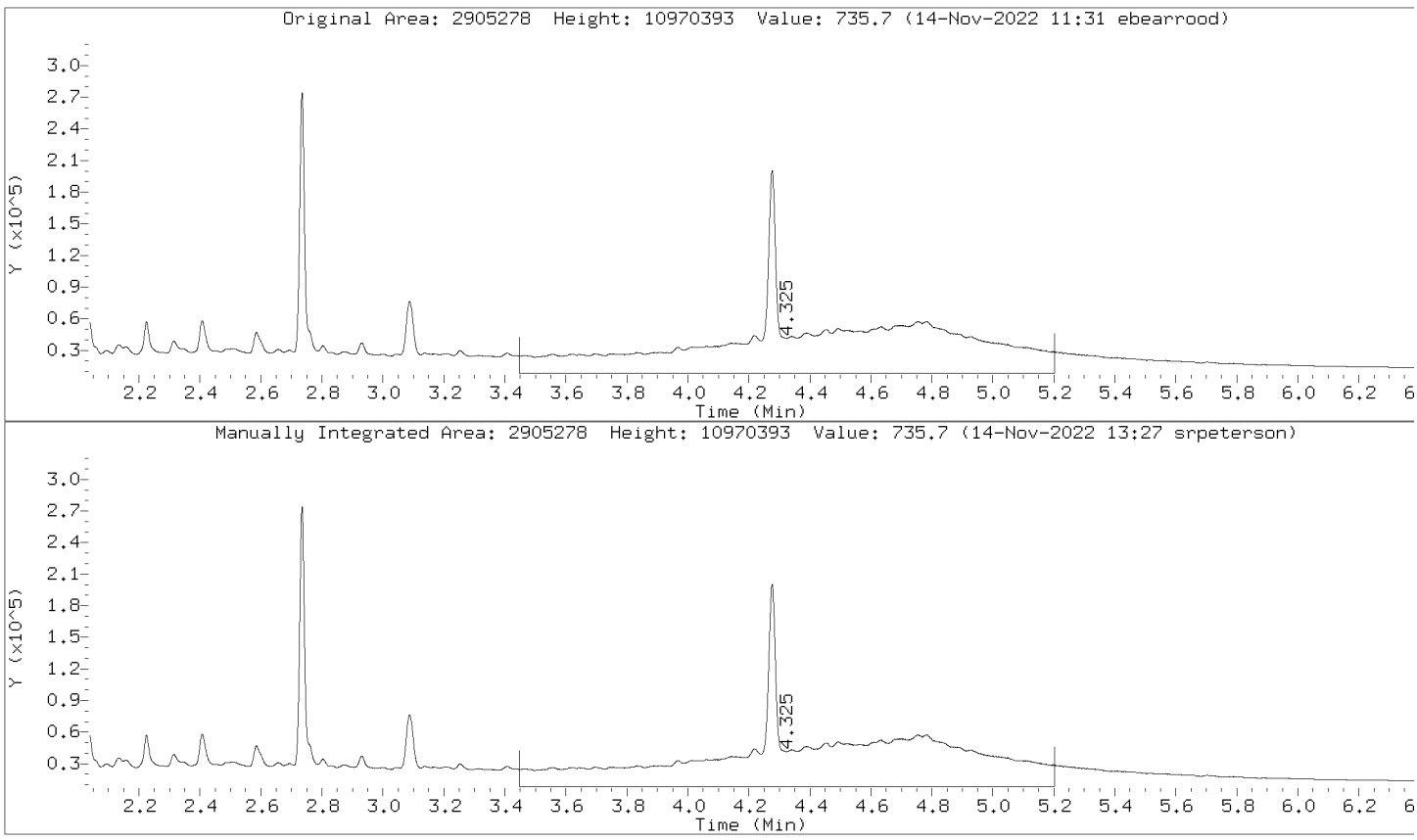
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



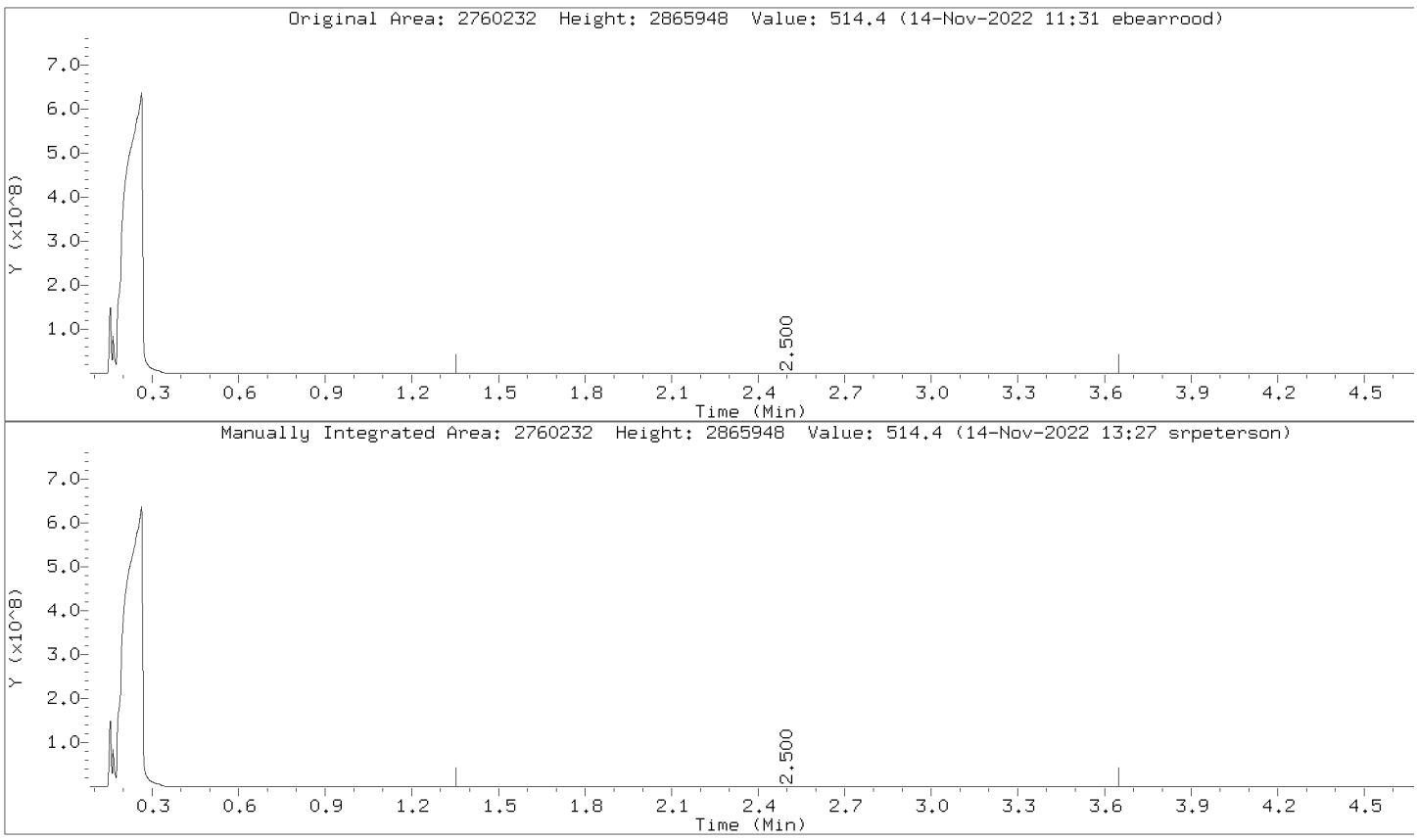
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



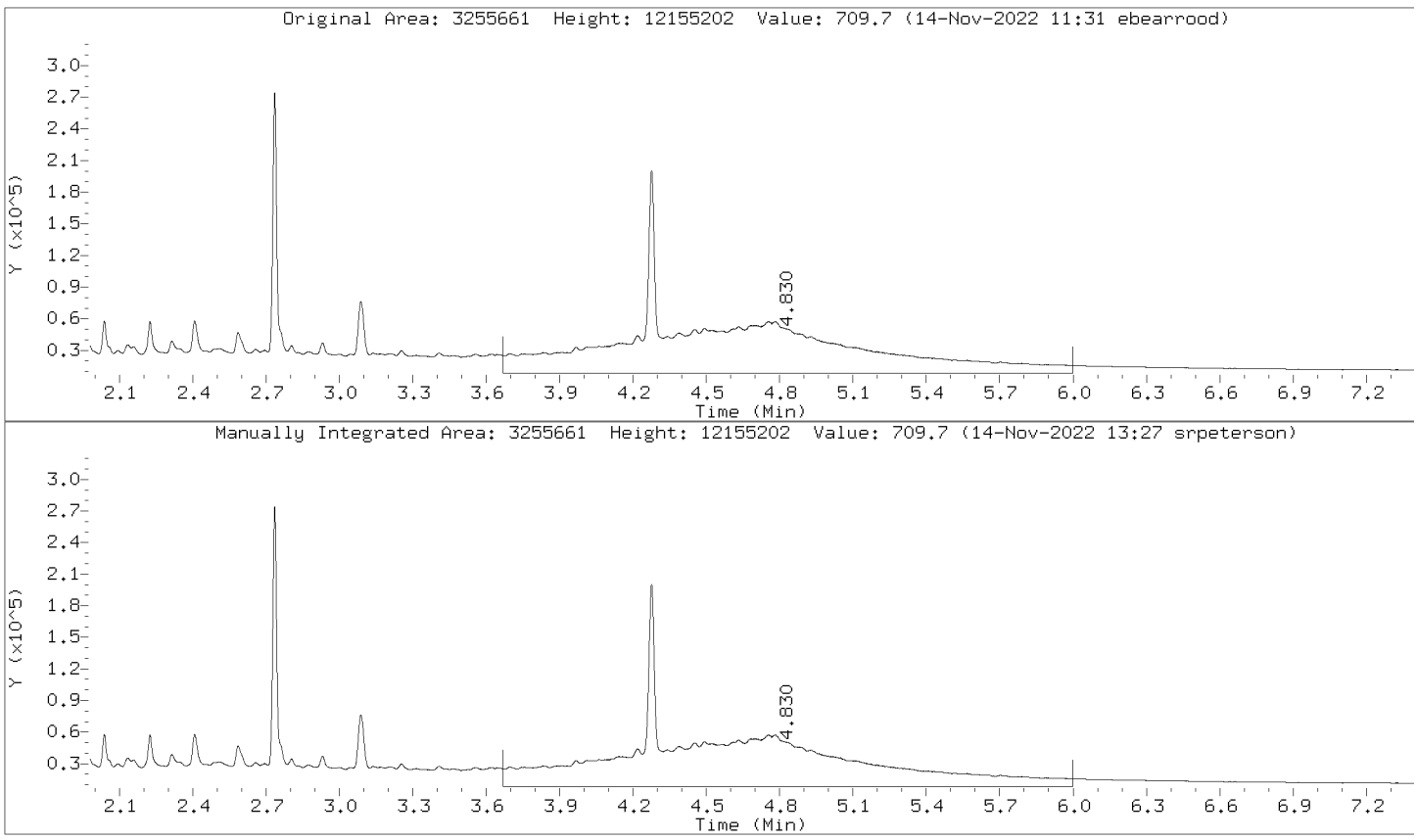
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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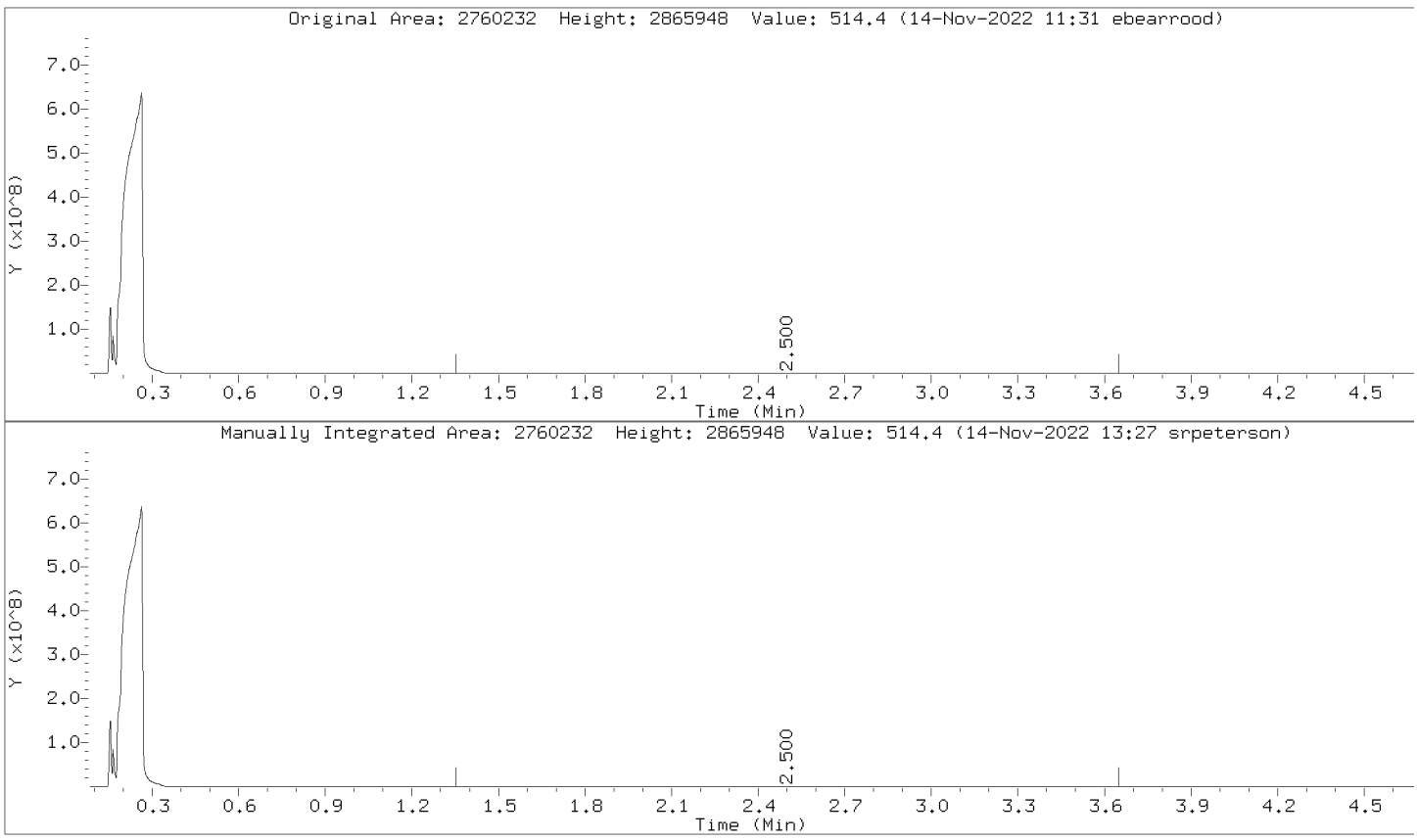
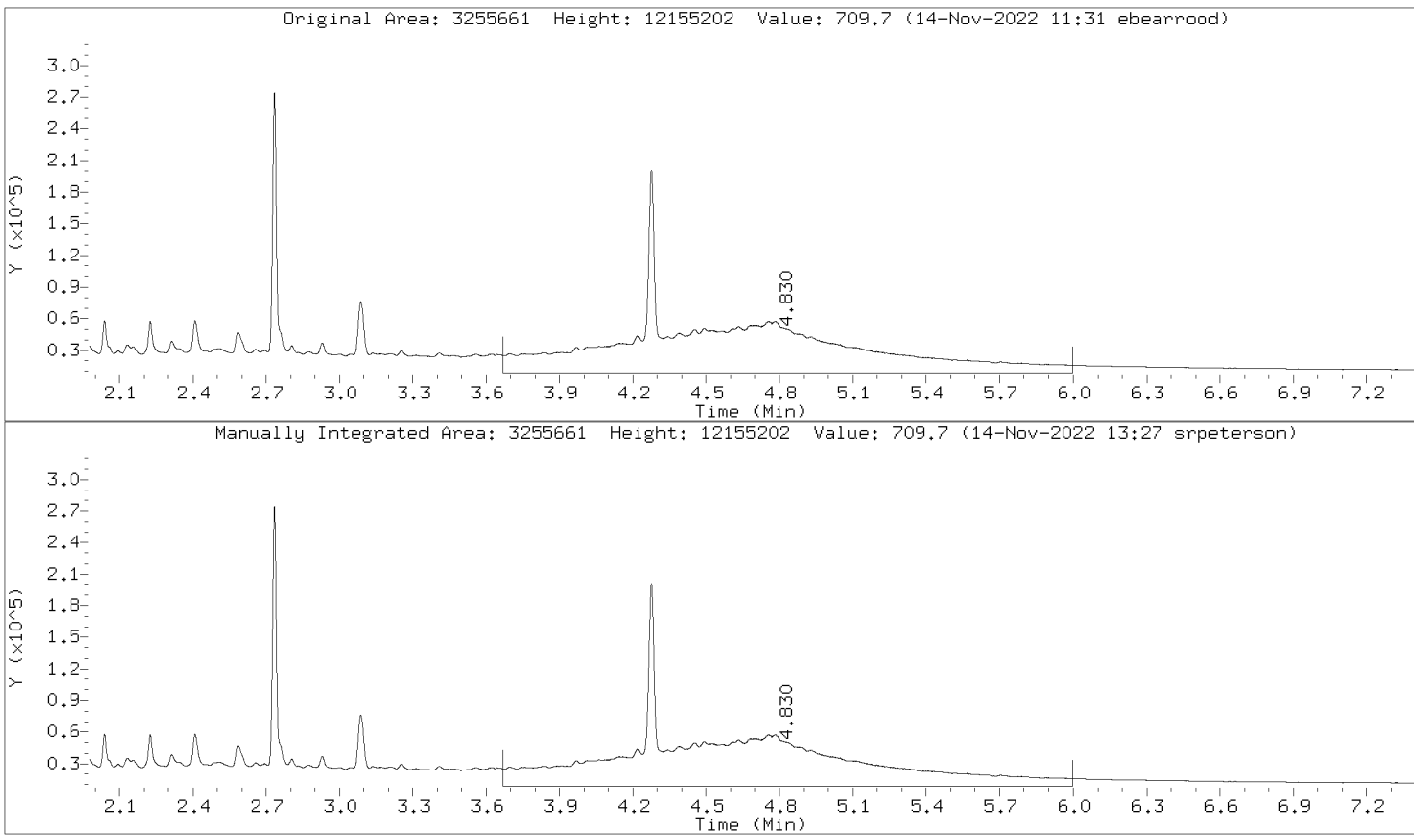
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



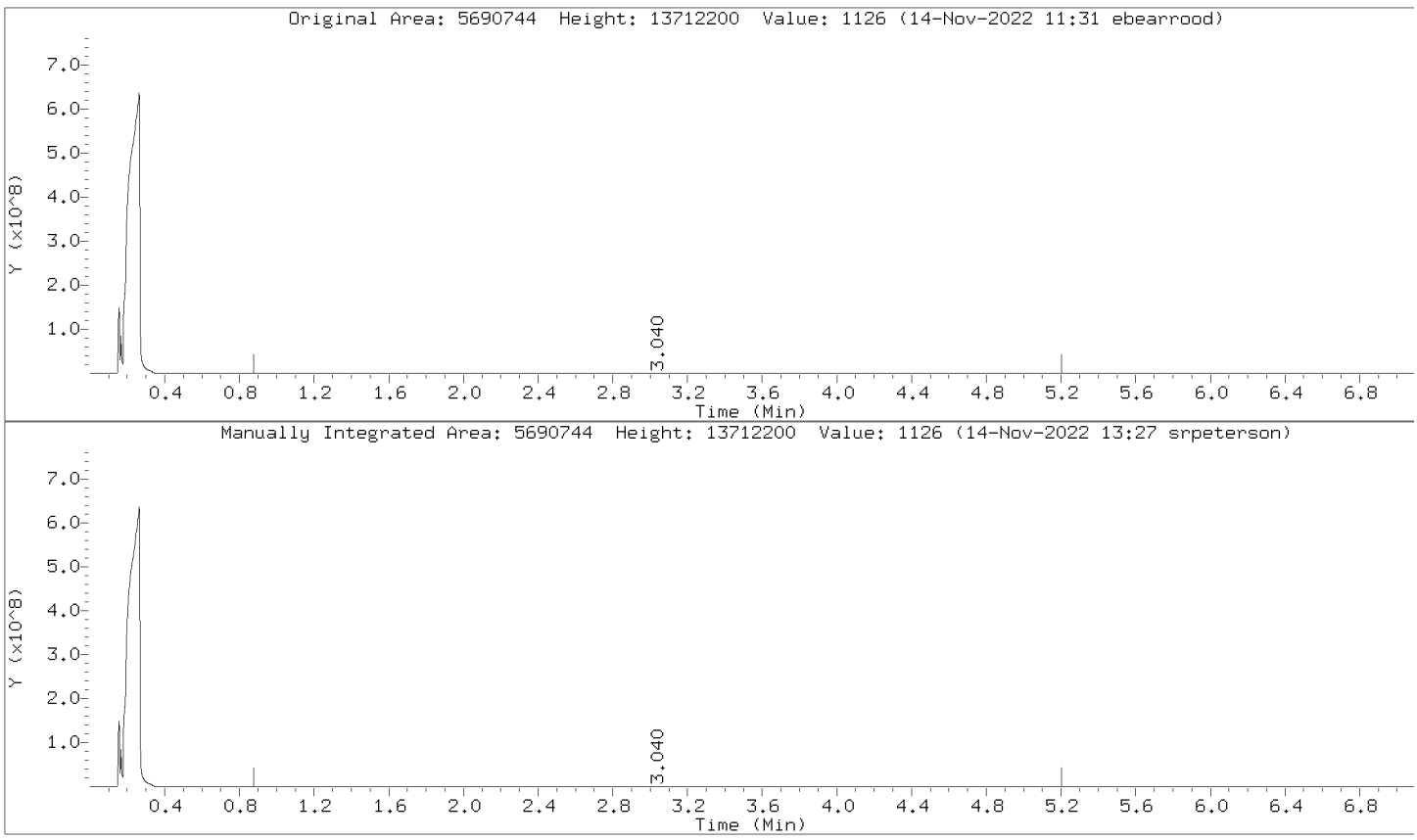
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



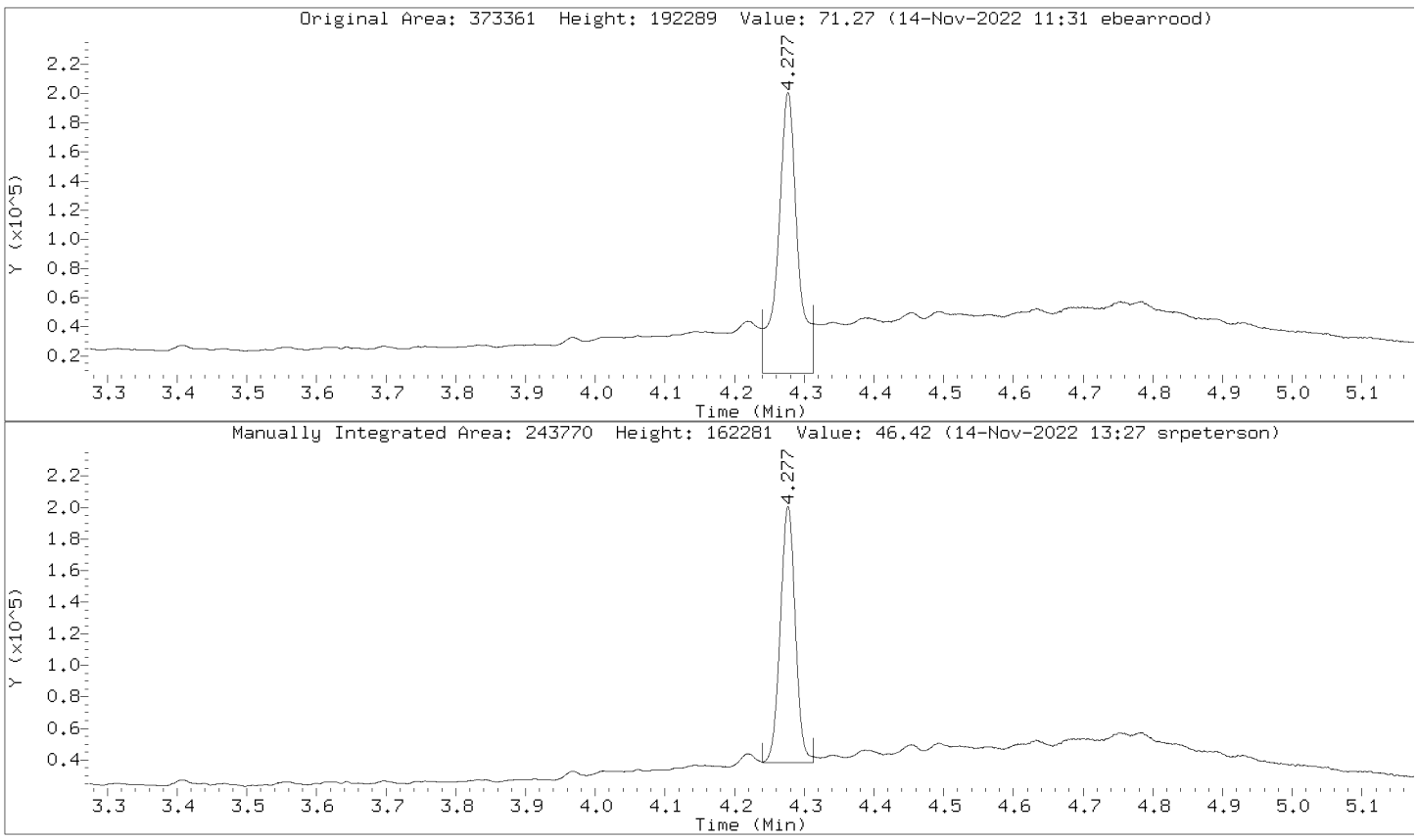
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: C10-C36 Review Code: RNG
CAS Number:



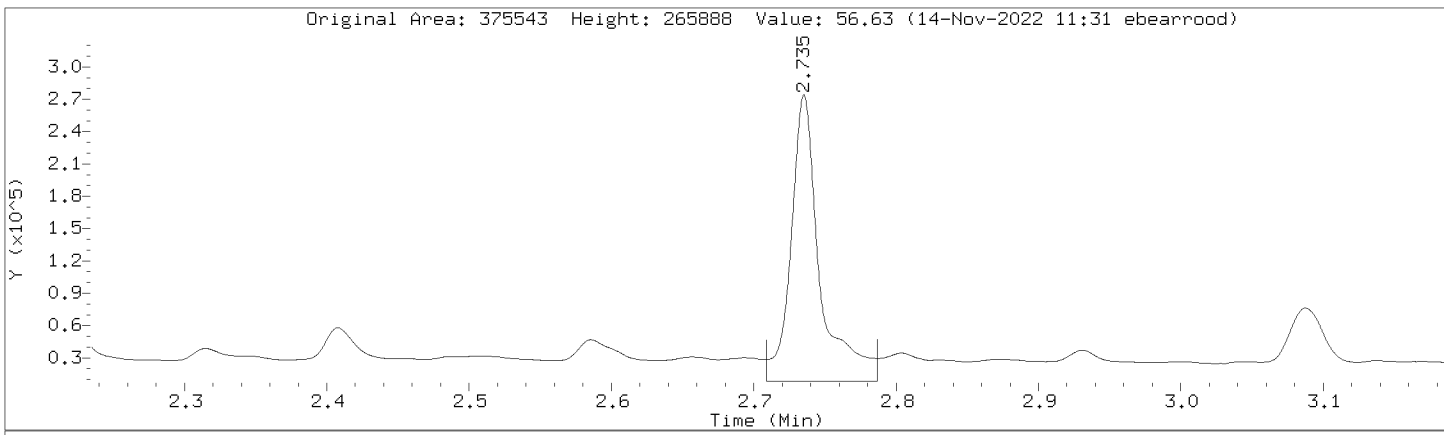
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

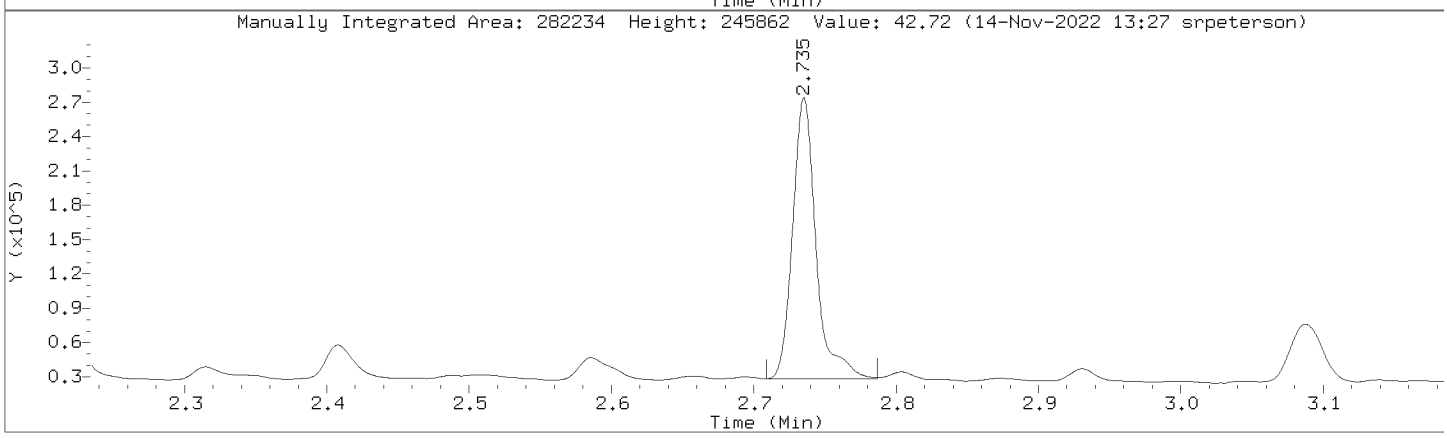
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000044.d
Injection Date: 11-NOV-2022 18:57
Instrument: 10gcsF.i
Lab Sample ID: 4504350

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2751812	2751812
DRO by AK 102	2938932	2938932
TPH-DRO (C10-C28)	3686141	3686141
Motor Oil Range (C24-C36)	2905278	2905278
Diesel Fuel Range	2760232	2760232
Motor Oil Range	3255661	3255661
Diesel Fuel Range SG	2760232	2760232
Motor Oil Range SG	3255661	3255661
C10-C36	5690744	5690744
n-Triacontane (S)	373361	243770
o-Terphenyl (S)	375543	282234

SAMPLE NO.

MSD

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/04/2022 08:50
Matrix: Solid
SDG No.: 10632545
Date Extracted: 11/07/2022 10:10
Lab Sample ID: 4504351
Date Analyzed: 11/11/2022 19:08
Lab File ID: 111122R.B\1111R0000045.D
Initial wt/vol: 10.03 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture: 28.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	66.3	
	Motor Oil Range	94.7	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000045.d
Lab Smp Id: 4504351 Client Smp ID: BNSF-G000-SC-1.5-2.
Inj Date : 11-NOV-2022 19:08
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4504351
Misc Info : 41010
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.030	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		2701044	415.195	41.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	307630	46.5024	4.64	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.274	0.001	236736	45.0712	4.49	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		2601403	691.018	68.9	(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3341295	447.308	44.6	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2729655	689.135	68.7	(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE
S 7 C10-C36					CAS #:	
0.880	- 5.200		5319576	1046.17	104	(M) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		2567227	473.864	47.2	(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		2567227	473.864	47.2	(M) RNG
S 10 Motor Oil Range					CAS #:	
3.660	- 6.000		3110503	676.642	67.5	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.660	- 6.000		3110503	676.642	67.5	(M) RNG

QC Flag Legend

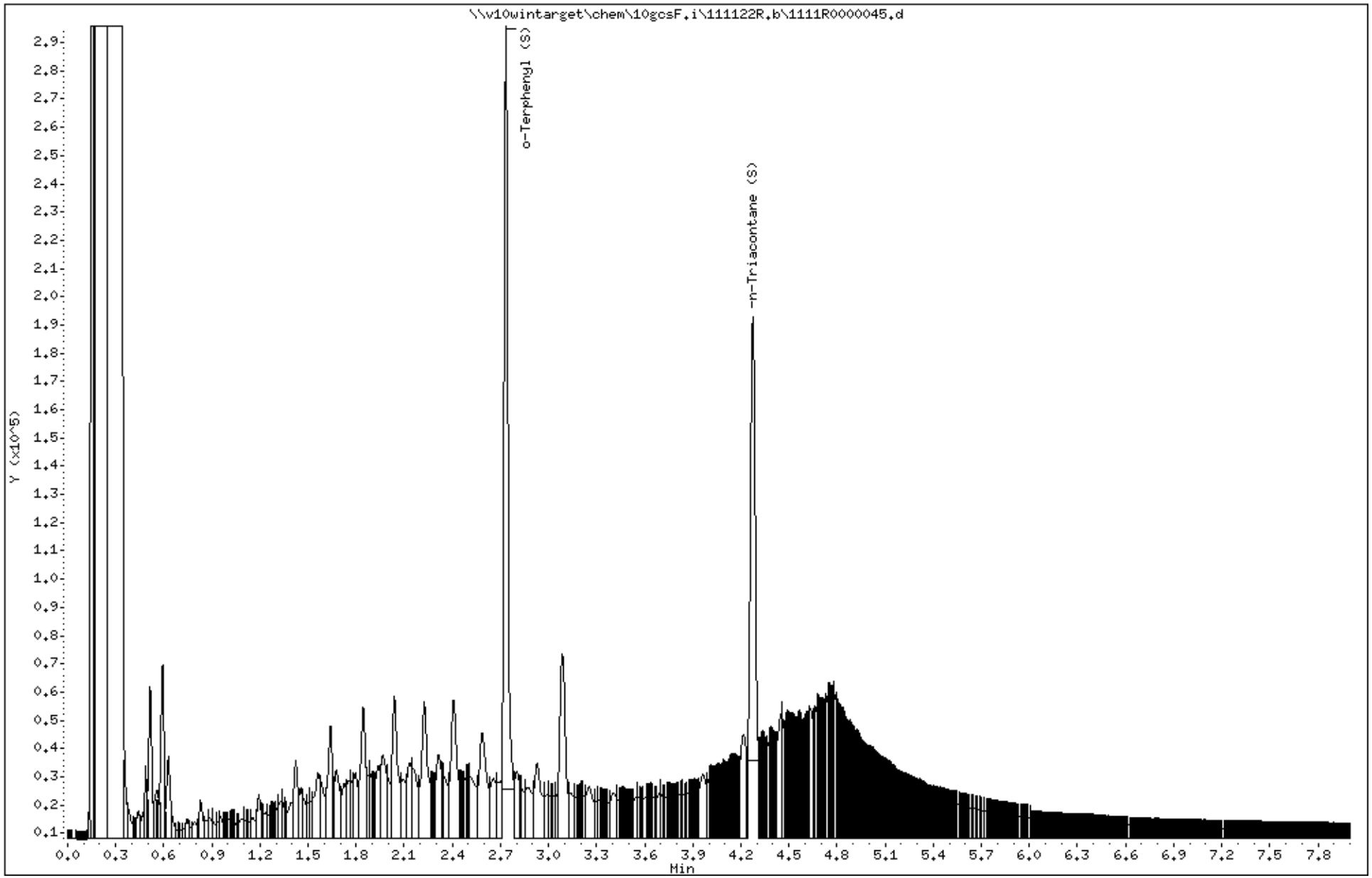
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

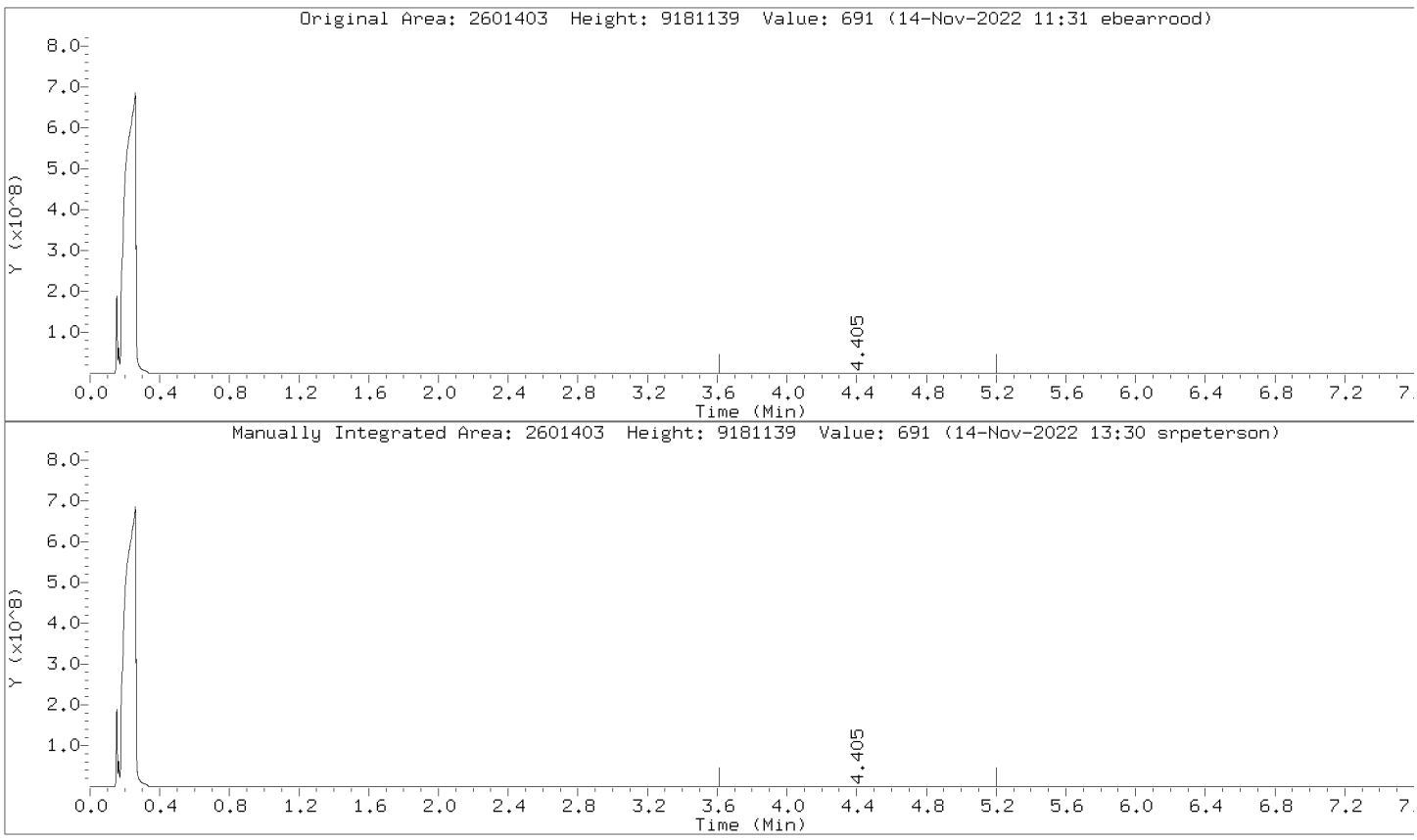
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000045.d
Date : 11-NOV-2022 19:08
Client ID: BNSF-G000-SC-1.5-2.
Sample Info: 4504351
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



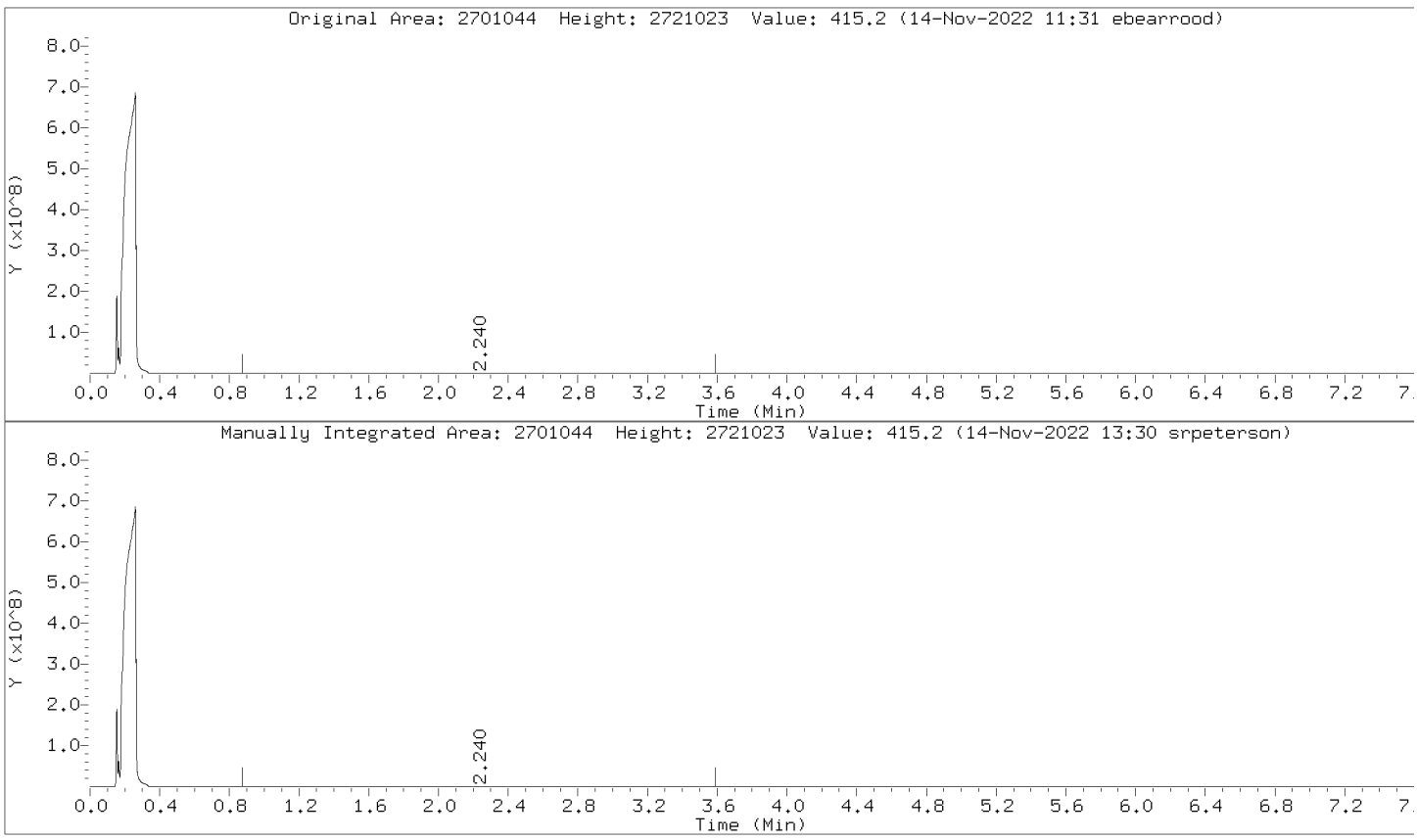
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



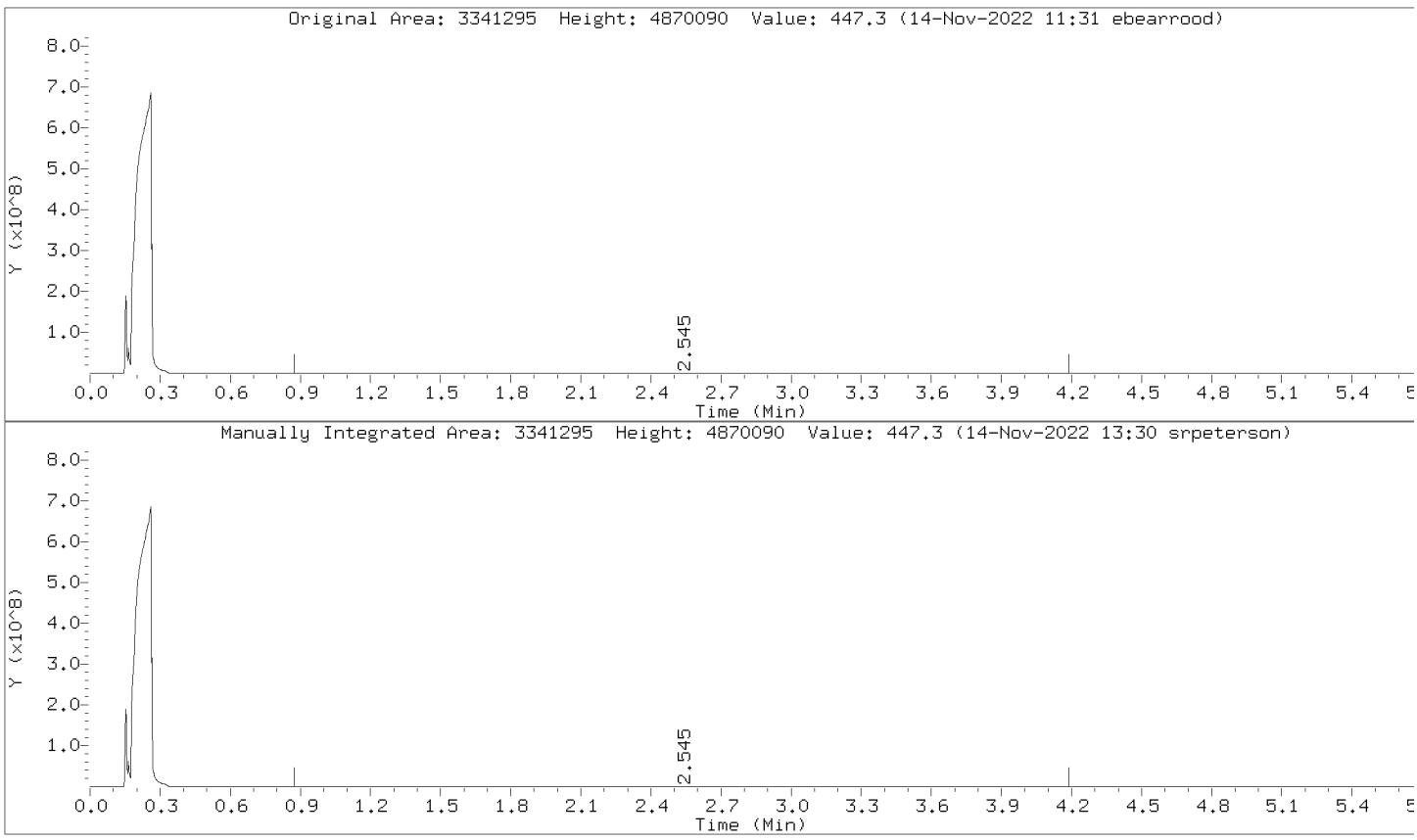
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



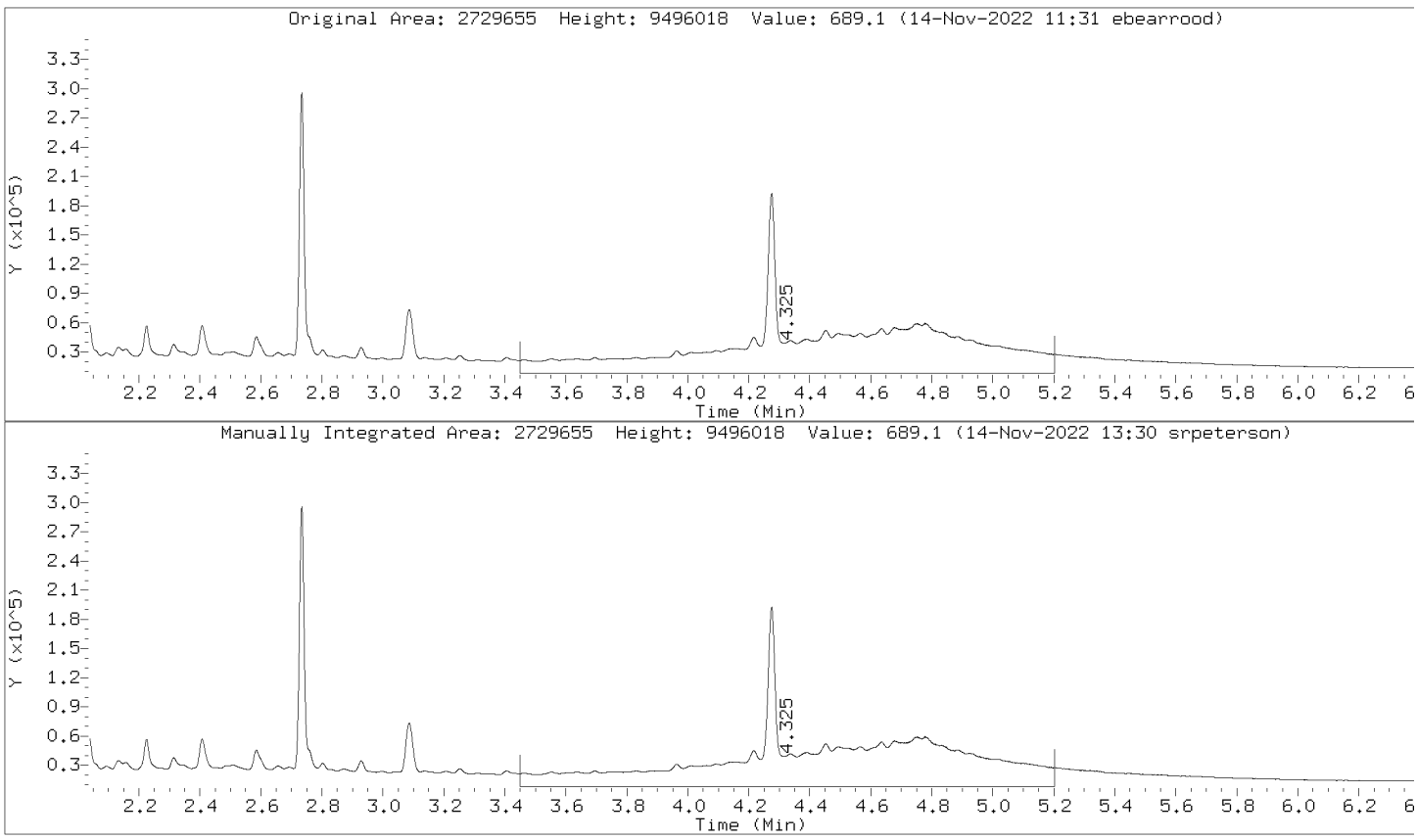
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



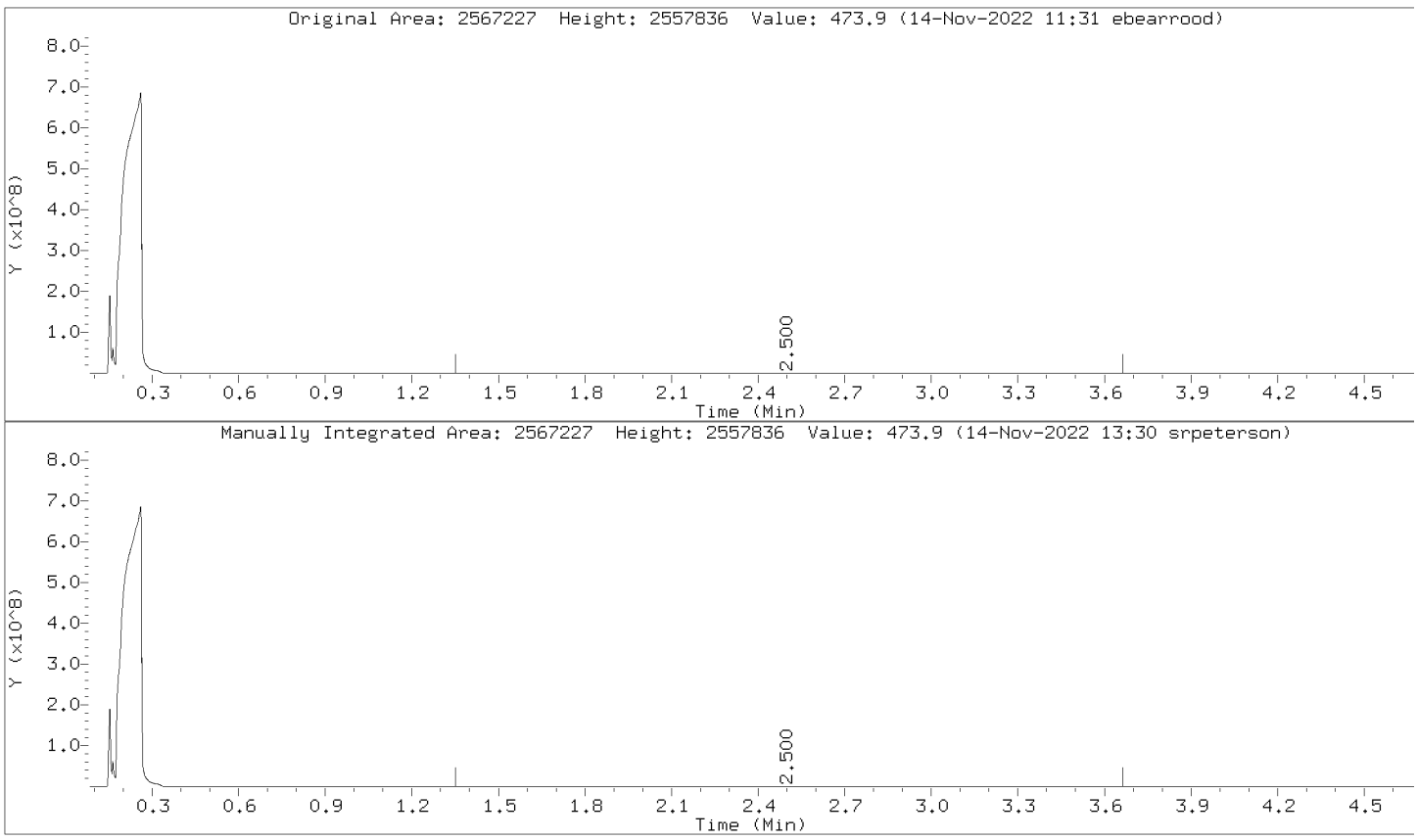
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



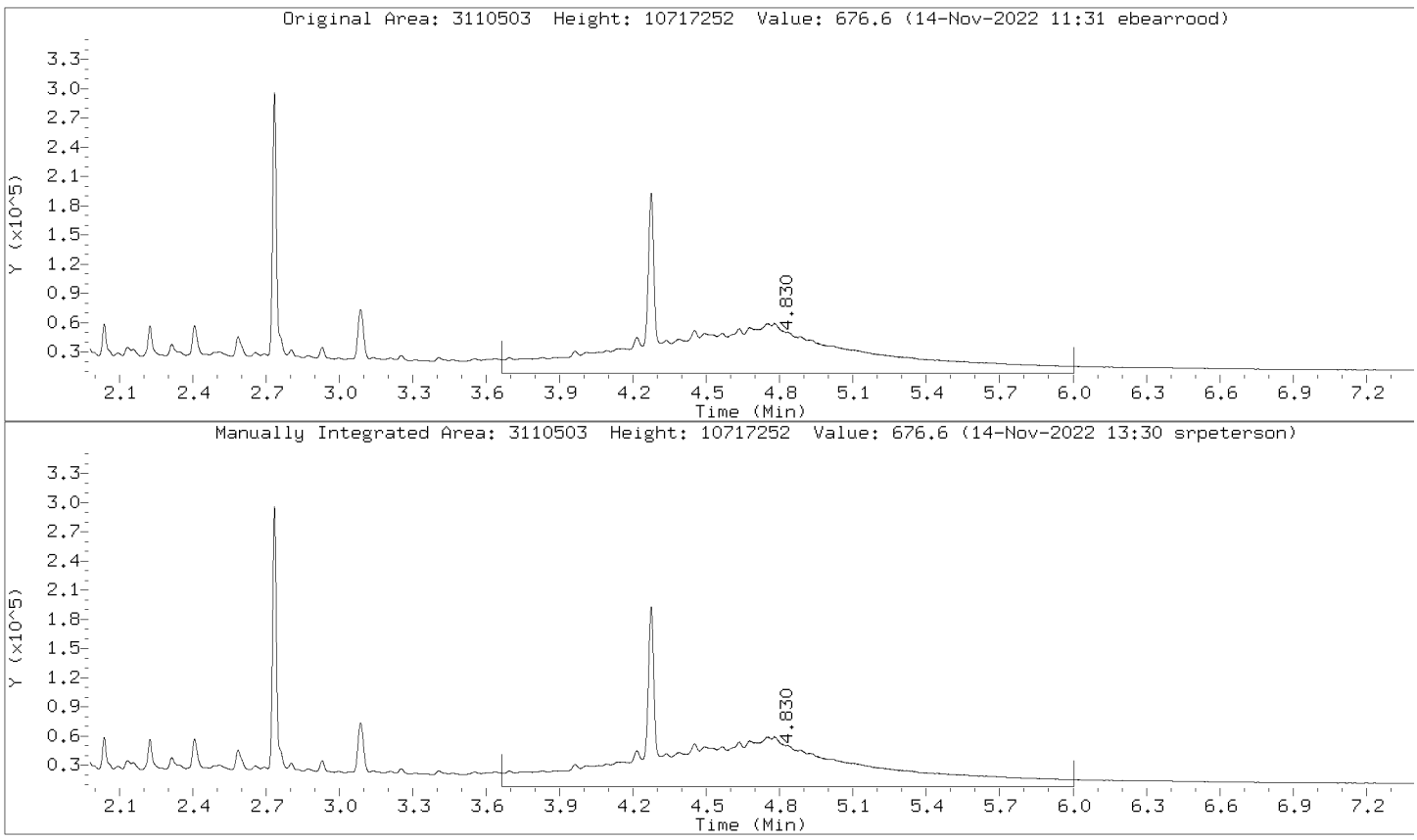
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



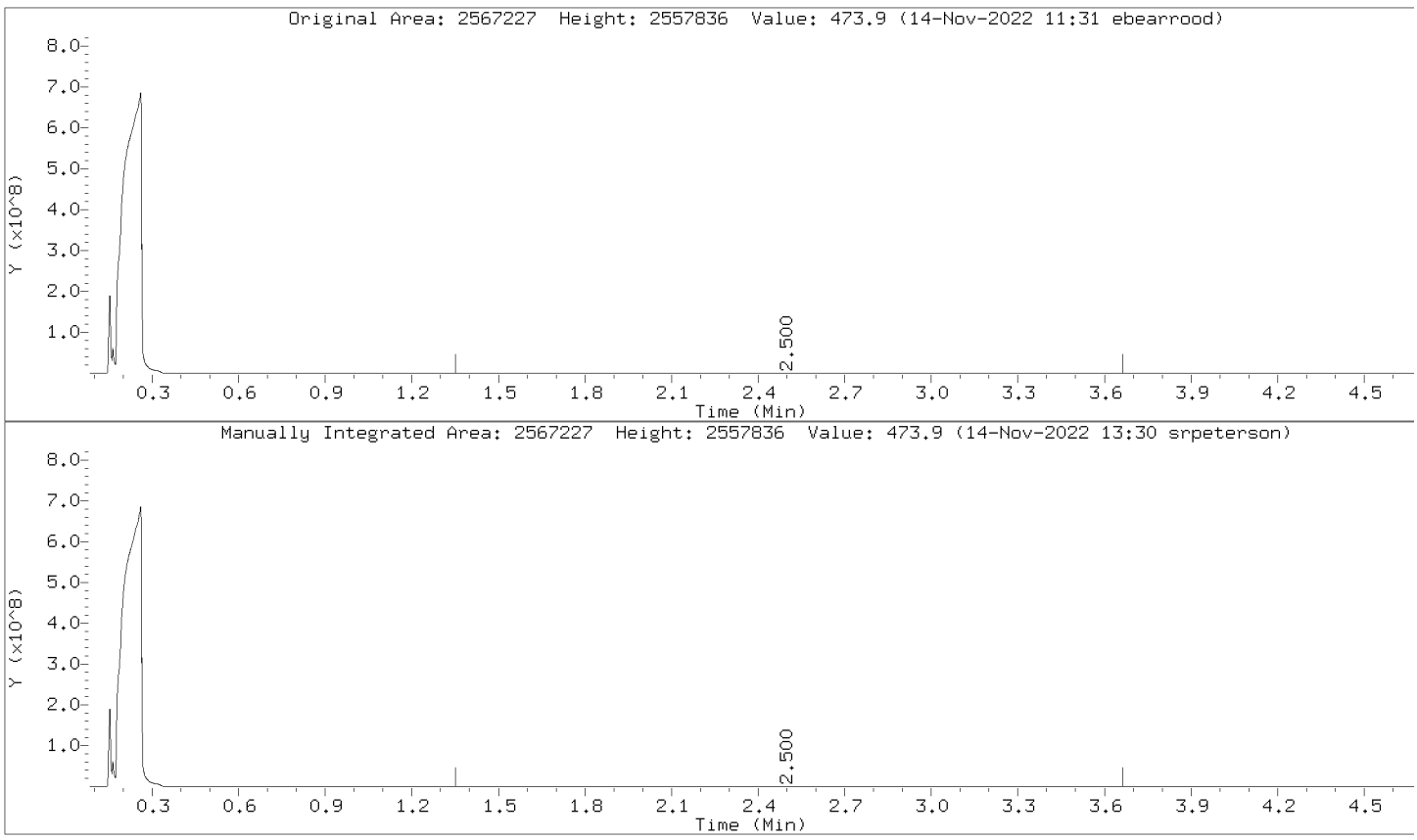
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Motor Oil Range Review Code: RNG
CAS Number:



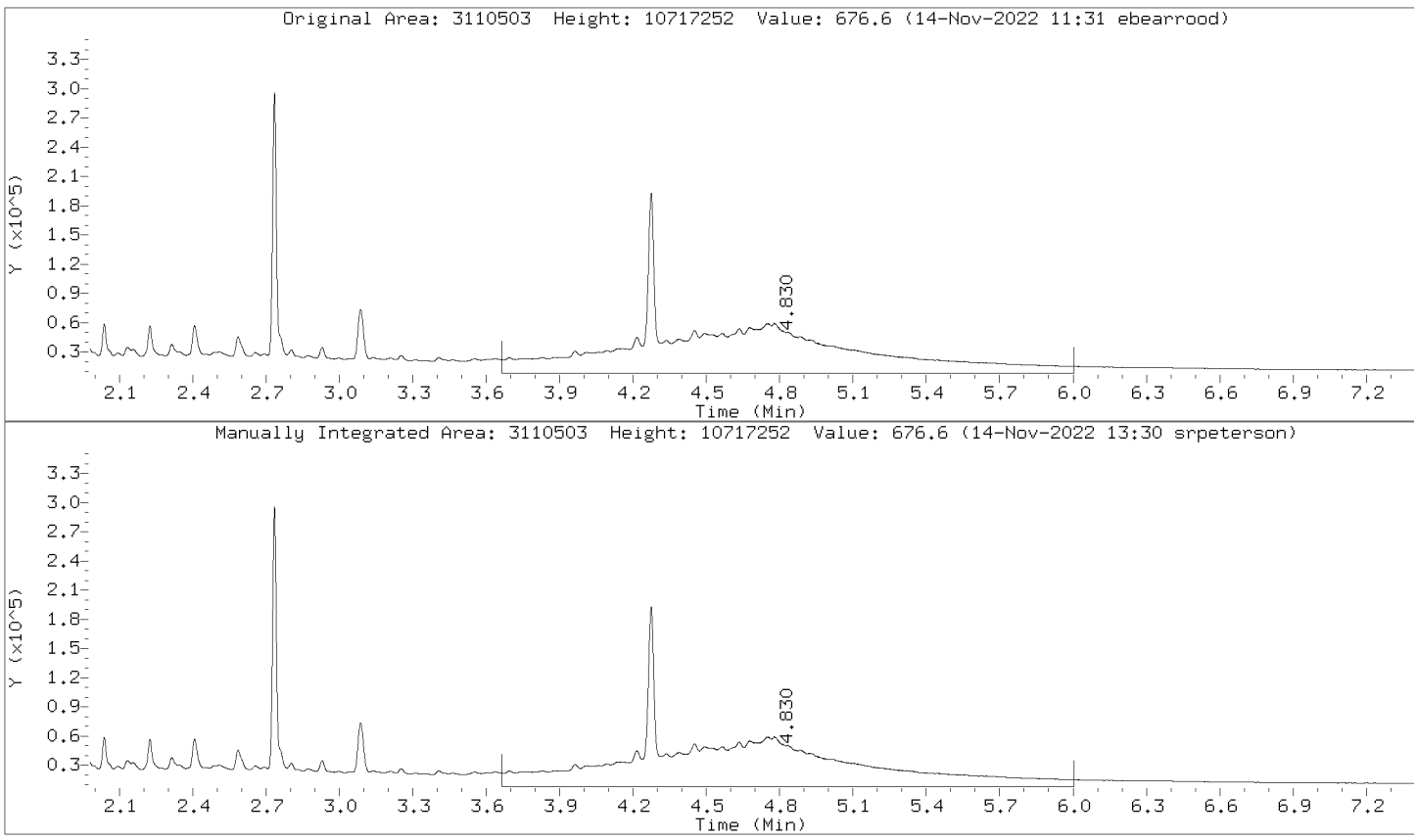
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



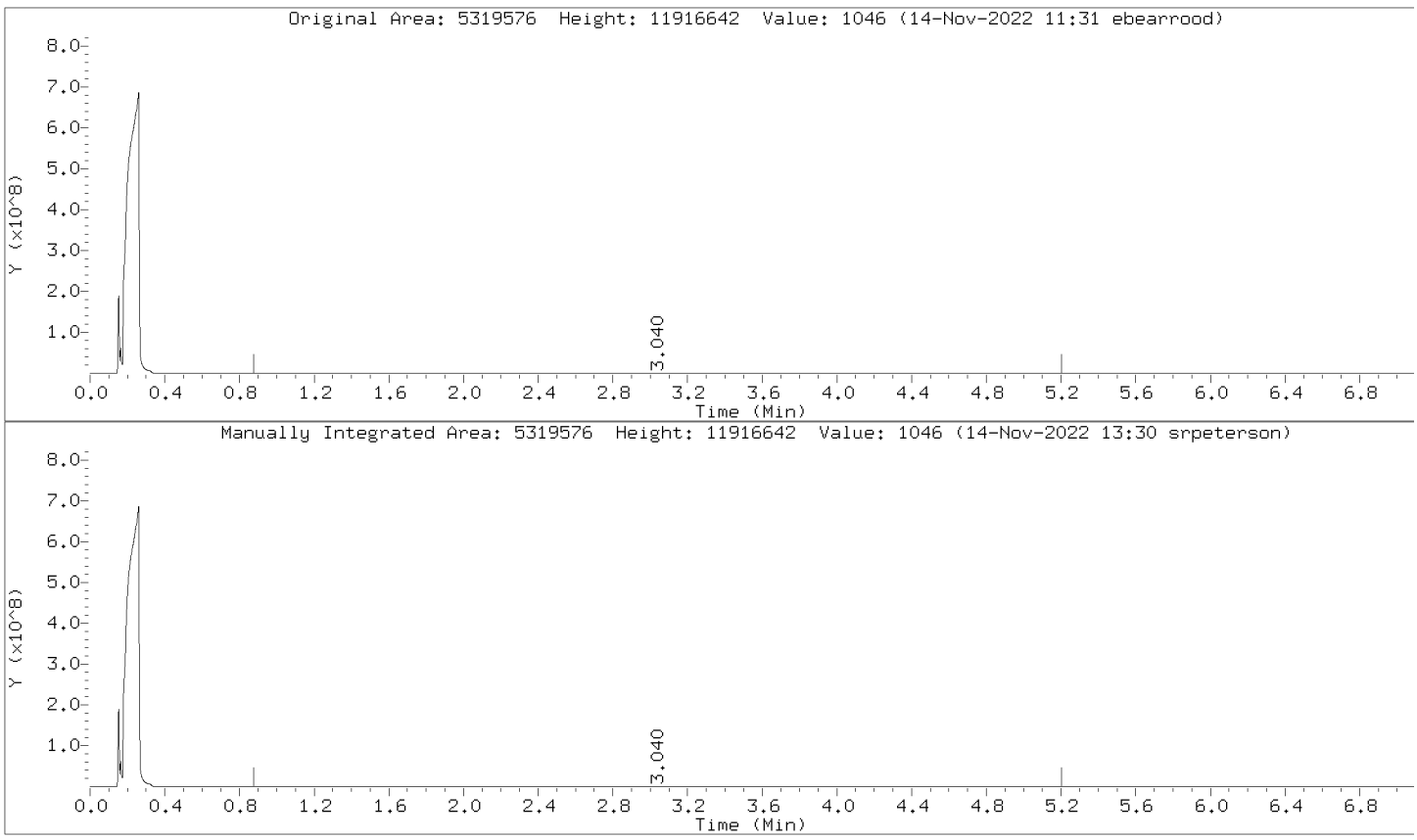
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



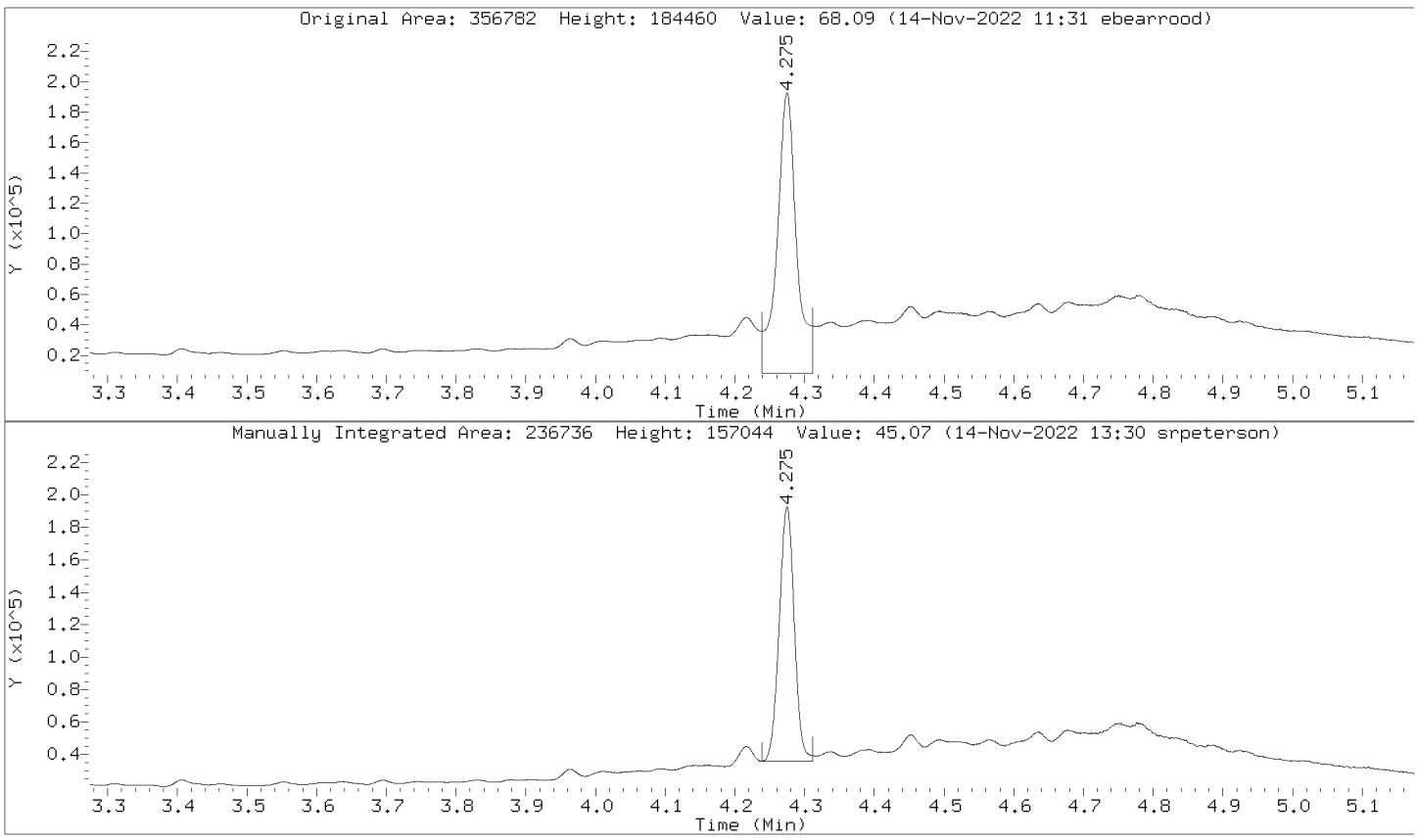
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: C10-C36 Review Code: RNG
CAS Number:



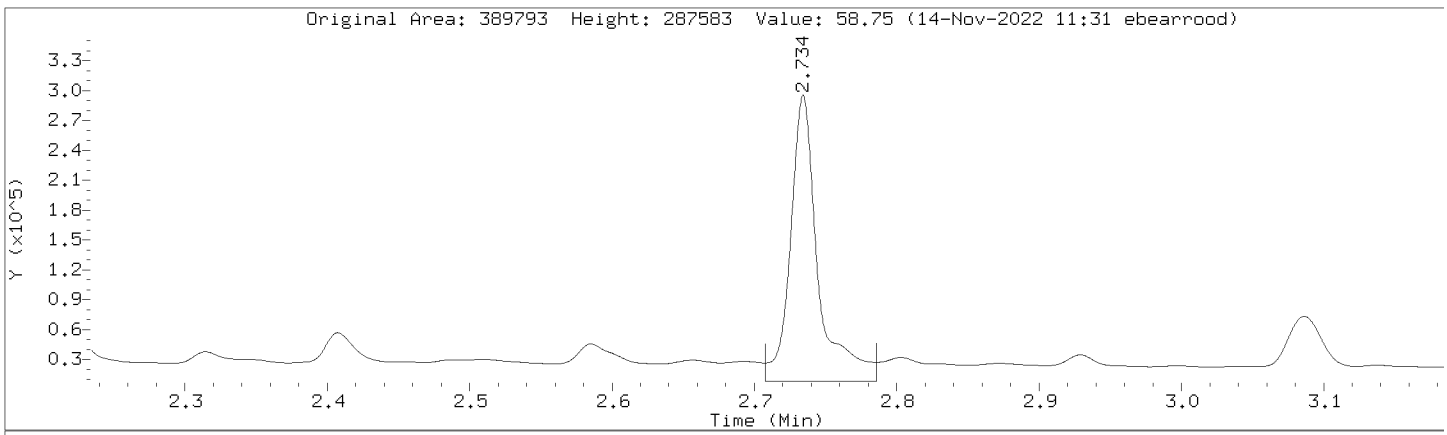
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

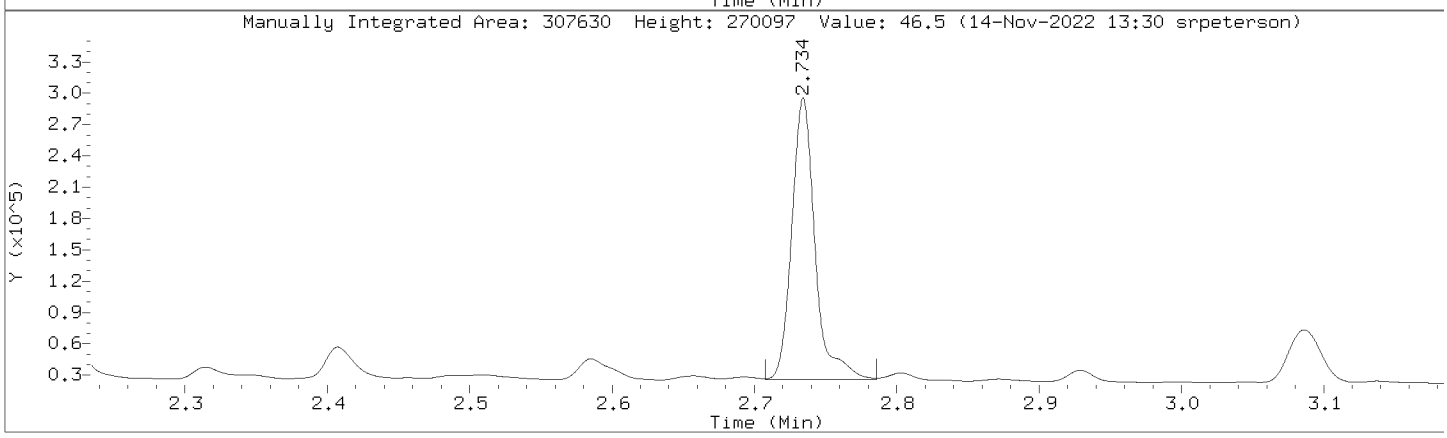
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000045.d
Injection Date: 11-NOV-2022 19:08
Instrument: 10gcsF.i
Lab Sample ID: 4504351

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2601403	2601403
DRO by AK 102	2701044	2701044
TPH-DRO (C10-C28)	3341295	3341295
Motor Oil Range (C24-C36)	2729655	2729655
Diesel Fuel Range	2567227	2567227
Motor Oil Range	3110503	3110503
Diesel Fuel Range SG	2567227	2567227
Motor Oil Range SG	3110503	3110503
C10-C36	5319576	5319576
n-Triacontane (S)	356782	236736
o-Terphenyl (S)	389793	307630

Prep Log Report

Batch Information: OEXT 67146 851774 NWDROS

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3550	Analysis Method	NWTPH-Dx	Prepared By	KG2	Extracted Date/Time	11/07/2022 10:10:41:599
Instrument	10BALW	Calibrated	Yes	Sonicator Tune Date	11/07/2022 11:27:14:907	Spiked By	KG2
Dispenser ID 1	Q617	Dispenser ID 2		Syringe ID 1	Q637	Syringe ID 2	Q701
Syringe ID 3	Q835	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	WAP
Concentration Date/Time	11/07/2022 14:01:34:809	Methylene Chloride	394195	MeCl/Acetone 80:20	394471	Ottawa Sand	372714
Sodium Sulfate	393856	Glass Wool	392734	Gravity Filters	None Added	Vial Lot #	22060845
Reviewed By	ACV	Reviewed By Date	11/07/2022 18:35	Batch Notes	Shares QCs with OEXT 67145 851772 8015DSD10		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Spike Verified By	Container + Sample Wt (g)	Container Wt (g)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Sonicator ID	Water Bath ID	Water Bath Thermo ID	Correction Factor
NWDROS_P	BLANK	**4504348**	Y	Solid	scanner	no one to verify			10	1	10OP37	10OP29	210745396	1
NWDROS_P	LCS	**4504349**	Y	Solid	scanner	no one to verify			10	1	10OP04	10OP29	210745396	1
NWDROS_P	RQS	**10632545001**	Y	Solid	scanner	no one to verify			10.12	1	10OP04	10OP29	210745396	1
NWDROS_P	MS	**4504350**	Y	Solid	scanner	no one to verify			10.05	1	10OP01	10OP29	210745396	1
NWDROS_P	MSD	**4504351**	Y	Solid	scanner	no one to verify			10.03	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10632545002**	Y	Solid	scanner	no one to verify			10.02	1	10OP02	10OP29	210745396	1

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	BLANK	**4504348**	95.00 | 96.00			392917 (10)	386115 (25)
NWDROS_P	LCS	**4504349**	95.00 | 96.00		389587 (250)	392917 (10)	386115 (25)
NWDROS_P	RQS	**10632545001**	95.00 | 96.00	1*		392917 (10)	386115 (25)
NWDROS_P	MS	**4504350**	95.00 | 96.00	1*	389587 (250)	392917 (10)	386115 (25)
NWDROS_P	MSD	**4504351**	95.00 | 96.00	1*	389587 (250)	392917 (10)	386115 (25)

Prep Log Report

10632545

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	PS	**10632545002**	95.00 | 96.00	wet sample		392917 (10)	386114 (25)

Sample Notes:

1*: wet sample, decanted water

Standard Notes:

386114: received 9/9/22, Opened 11/2/22 KG2 **386115: received 9/9/22, Opened 11/7/22 KG2** **389587: 10GCSF 1005R000014.D** **392917: Recieved 10/20/22**

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Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:27	EB3	| PRL meeting criteria for everything except surr*
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_	11/10/22 15:15	EB3	rxooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_	11/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_	11/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_	11/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_	11/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_	11/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_	11/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_	11/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_	11/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	

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Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022_	11/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022_	11/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022_	11/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022_	11/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022_	11/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022_	11/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022_	11/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022_	11/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022_	11/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 01:50	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 11/14/2022 17:50
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:42	TT2	
1111R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:54	TT2	
1111R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:05	TT2	
1111R0000004.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 11:17	TT2	Pass 15% for all ranges
1111R0000005.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 11:29	TT2	OK
1111R0000006.D	10632809004	S/40992	Sample	5		GCSFAKNW8015-111022_	11/11/22 11:40	TT2	rr 1X
1111R0000007.D	10632809007	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:52	TT2	
1111R0000008.D	10632809003	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:04	TT2	
1111R0000009.D	10632809002	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:15	TT2	
1111R0000010.D	10632809006	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:27	TT2	
1111R0000011.D	10632809005	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:39	TT2	
1111R0000012.D	10631840002	S/40963	Sample	5		GCSFAKNW8015-111022_	11/11/22 12:51	TT2	rr 2X
1111R0000013.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:02	TT2	Pass 15% for all ranges
1111R0000014.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:14	TT2	OK
1111R0000015.D	10632809004	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 13:25	TT2	
1111R0000016.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:37	TT2	Pass 15% for all ranges
1111R0000017.D	4506646	L/41005	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:48	EB3	
1111R0000018.D	4506647	L/41005	LCS	1		GCSFAKNW8015-111022_	11/11/22 14:00	EB3	
1111R0000019.D	10632588001	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:11	EB3	
1111R0000020.D	4506691	L/41005	Dupe	1		GCSFAKNW8015-111022_	11/11/22 14:23	EB3	
1111R0000021.D	10632881002	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:34	EB3	
1111R0000022.D	4507080	L/41005	MS	1		GCSFAKNW8015-111022_	11/11/22 14:46	EB3	
1111R0000023.D	4507081	L/41005	MSD	1		GCSFAKNW8015-111022_	11/11/22 14:57	EB3	
1111R0000024.D	10632881003	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 15:08	EB3	
1111R0000025C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 15:20	EB3	Pass 15% for all ranges
1111R0000026.D	4506602	S/41006	Blank	1		GCSFAKNW8015-111022_	11/11/22 15:31	EB3	
1111R0000027.D	4506603	S/41006	LCS	1		GCSFAKNW8015-111022_	11/11/22 15:43	EB3	
1111R0000028.D	10632887001	S/41006	Sample	10		GCSFAKNW8015-111022_	11/11/22 15:54	EB3	
1111R0000029.D	4506604	S/41006	MS	10		GCSFAKNW8015-111022_	11/11/22 16:06	EB3	
1111R0000030.D	4506605	S/41006	MSD	10		GCSFAKNW8015-111022_	11/11/22 16:17	EB3	
1111R0000031.D	10632887002	S/41006	Sample	50		GCSFAKNW8015-111022_	11/11/22 16:28	EB3	rr 20X
1111R0000032.D	10632888001	/41006	Sample	100		GCSFAKNW8015-111022_	11/11/22 16:40	EB3	CA'd by PM
1111R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 16:51	EB3	Pass 15% for all ranges
1111R0000034.D	4505696	L/41007	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000034B.	4505693	L/41008	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000035.D	4505697	L/41007	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000035B.	4505694	L/41008	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000036.D	4505698	L/41007	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000036B.	4505695	L/41008	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000037.D	10632749001	L/41007	Sample	10		GCSFAKNW8015-111022_	11/11/22 17:37	EB3	
1111R0000038.D	10632742001	L/41008	Sample	1		GCSFAKNW8015-111022_	11/11/22 17:48	EB3	
1111R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 18:00	EB3	Pass 15% for all ranges
1111R0000040.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000040B.	4504340	S/41009	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000041.D	4504349	S/41010	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	
1111R0000041B.	4504341	S/41009	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000042.D	10632396001	S/41009	Sample	100		GCSFAKNW8015-111022_	11/11/22 18:34	EB3	
1111R0000043.D	10632545001	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000043B.	10632656001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000044.D	4504350	S/41010	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000044B.	4504448	S/41009	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000045.D	4504351	S/41010	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000045B.	4504449	S/41009	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000046.D	10632545002	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:20	EB3	
1111R0000047.D	10632567001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:31	EB3	
1111R0000048.D	10632567002	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:43	EB3	
1111R0000049.D	10632567003	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:54	EB3	
1111R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 20:05	EB3	Pass 15% for all ranges
1111R0000051.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 20:17	EB3	
1111R0000052.D	10632567004	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:28	EB3	
1111R0000053.D	10632567005	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:40	EB3	
1111R0000054.D	10632567006	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:51	EB3	
1111R0000055.D	10632567007	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:02	EB3	
1111R0000056.D	10632567008	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:14	EB3	
1111R0000057.D	10632567009	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:25	EB3	
1111R0000058.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:37	EB3	
1111R0000059C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 21:48	EB3	Pass 15% for all ranges
1111R0000060.D	PBLK,4504348	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:59	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111122R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/14/2022 11:44
Reviewed By/Date:

SAMPLE NO.

BNSF-G000-SC-1.5-2.5-110322

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Lab Sample ID: 10632545001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	28.8		%	1	11/15/2022 15:04

SAMPLE NO.

BNSF-G000-SC-4.0-5.0-110322

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Lab Sample ID: 10632545002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	30.4		%	1	11/07/2022 15:26

SAMPLE NO.

4504175DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	80.1	80.7	1

SAMPLE NO.

4504176DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	5.1	5.1	0

SAMPLE NO.

4512623DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	28.8	29.0	1

SAMPLE NO.

4512624DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	30.8	28.9	6

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 129711

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4504175	4504175	11/07/2022	1	1
4504176	4504176	11/07/2022	1	1
10632545002	BNSF-G000-SC-4.0-5.0-	11/07/2022	1	1

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 129972

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4512623	4512623	11/15/2022	1	1
4512624	4512624	11/15/2022	1	1
10632545001	BNSF-G000-SC-1.5-2.5-	11/15/2022	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632545 Contract: D3631600

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 11/07/2022 15:22 End Date: 11/15/2022 15:06

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
10631230001	10631230001	1	11/07/2022	15:22	X
4504175DUP	4504175	1	11/07/2022	15:22	X
10632300006	10632300006	1	11/07/2022	15:24	X
4504176DUP	4504176	1	11/07/2022	15:24	X
BNSF-G000-SC-4.0-5.0-	10632545002	1	11/07/2022	15:26	X
BNSF-G000-SC-1.5-2.5-	10632545001	1	11/15/2022	15:04	X
4512623DUP	4512623	1	11/15/2022	15:05	X
10633646003	10633646003	1	11/15/2022	15:06	X
4512624DUP	4512624	1	11/15/2022	15:06	X

Prep Log Report

Batch Information: 851726 129711 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/07/2022 15:44 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	101.0 | 101.0 | 11/08/2022 09:02 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 11/08/2022 09:02 | JDL	Desic. Out 1 Date/Time | Init	11/08/2022 09:39 | JDL	Reviewed By	RAM
Reviewed By Date	11/08/2022 13:26	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10631230001**	Y		19.88	80.12	11/07/2022 15:22:38	2.9303	1.2316	9.7778	2.9303	M	
DRY WEIGHT	DUP	**4504175**	Y		19.31	80.69	11/07/2022 15:22:50	2.8772	1.2243	9.7819	2.8772	M	
DRY WEIGHT	PS	**10631230002**	Y		21.18	78.82	11/07/2022 15:23:02	2.9013	1.2342	9.1037	2.9013	M	
DRY WEIGHT	PS	**10631230003**	Y		25.27	74.73	11/07/2022 15:23:13	3.2767	1.2296	9.3297	3.2767	M	
DRY WEIGHT	PS	**10631230004**	Y		22.83	77.17	11/07/2022 15:23:24	3.1219	1.2286	9.5233	3.1219	M	
DRY WEIGHT	PS	**10631230005**	Y		20.59	79.41	11/07/2022 15:23:36	3.0036	1.2256	9.8591	3.0036	M	
DRY WEIGHT	PS	**10632300001**	Y		95.50	4.496	11/07/2022 15:23:48	8.9311	1.2303	9.2936	8.9311	M	
DRY WEIGHT	PS	**10632300002**	Y		94.19	5.809	11/07/2022 15:24:01	9.3927	1.2259	9.8964	9.3927	M	
DRY WEIGHT	PS	**10632300003**	Y		94.83	5.168	11/07/2022 15:24:12	9.2141	1.2271	9.6494	9.2141	M	
DRY WEIGHT	PS	**10632300004**	Y		93.74	6.258	11/07/2022 15:24:24	8.9161	1.2209	9.4298	8.9161	M	
DRY WEIGHT	PS	**10632300005**	Y		94.97	5.034	11/07/2022 15:24:35	9.5031	1.2248	9.9419	9.5031	M	
DRY WEIGHT	PS	**10632300006**	Y		94.90	5.102	11/07/2022 15:24:46	9.4997	1.2334	9.9441	9.4997	M	
DRY WEIGHT	DUP	**4504176**	Y		94.89	5.111	11/07/2022 15:24:57	9.4805	1.2341	9.9247	9.4805	M	
DRY WEIGHT	PS	**10632300007**	Y		95.17	4.830	11/07/2022 15:25:14	8.7599	1.2285	9.1421	8.7599	M	
DRY WEIGHT	PS	**10632300008**	Y		94.85	5.151	11/07/2022 15:25:25	8.9172	1.2351	9.3344	8.9172	M	
DRY WEIGHT	PS	**10632300009**	Y		94.80	5.198	11/07/2022 15:25:42	8.7441	1.2287	9.1562	8.7441	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10632300010**	Y		94.95	5.045	11/07/2022 15:25:52	9.2615	1.2282	9.6883	9.2615	M	
DRY WEIGHT	PS	**10632300011**	Y		95.19	4.809	11/07/2022 15:26:04	8.9939	1.2299	9.3861	8.9939	M	
DRY WEIGHT	PS	**10632300012**	Y		94.83	5.168	11/07/2022 15:26:16	8.7731	1.2278	9.1843	8.7731	M	
DRY WEIGHT	PS	**10632545002**	Y		69.62	30.38	11/07/2022 15:26:27	7.1986	1.2331	9.8022	7.1986	M	

Prep Log Report

Batch Information: 853434 129972 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/15/2022 15:25 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/16/2022 09:00 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 11/16/2022 09:00 | JDL	Desic. Out 1 Date/Time | Init	11/16/2022 09:30 | JDL	Reviewed By	RAM
Reviewed By Date	11/16/2022 13:29	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10633655001**	Y		75.84	24.16	11/15/2022 15:04:20	7.5331	1.2546	9.5333	7.5331	M	
DRY WEIGHT	PS	**10633655002**	Y		73.63	26.37	11/15/2022 15:04:32	7.5631	1.2457	9.8252	7.5631	M	
DRY WEIGHT	PS	**10633655003**	Y		80.35	19.65	11/15/2022 15:04:45	8.0317	1.2456	9.6914	8.0317	M	
DRY WEIGHT	RQS	**10632545001**	Y		71.21	28.79	11/15/2022 15:04:57	7.4379	1.2473	9.9403	7.4379	M	
DRY WEIGHT	DUP	**4512623**	Y		71.01	28.99	11/15/2022 15:05:11	7.3885	1.2495	9.8948	7.3885	M	
DRY WEIGHT	PS	**10633645001**	Y		81.82	18.18	11/15/2022 15:05:22	7.6364	1.2471	9.0559	7.6364	M	
DRY WEIGHT	PS	**10633645002**	Y		82.38	17.62	11/15/2022 15:05:34	7.7715	1.2473	9.1672	7.7715	M	
DRY WEIGHT	PS	**10633645003**	Y		77.89	22.11	11/15/2022 15:05:47	7.9446	1.2706	9.8391	7.9446	M	
DRY WEIGHT	PS	**10633645004**	Y		81.38	18.62	11/15/2022 15:05:58	7.9719	1.2694	9.5053	7.9719	M	
DRY WEIGHT	PS	**10633646001**	Y		80.87	19.13	11/15/2022 15:06:08	8.1258	1.2664	9.7486	8.1258	M	
DRY WEIGHT	PS	**10633646002**	Y		75.65	24.35	11/15/2022 15:06:20	7.3309	1.2692	9.2815	7.3309	M	
DRY WEIGHT	PS	**10633646003**	Y		69.20	30.80	11/15/2022 15:06:31	7.2725	1.2621	9.9477	7.2725	M	
DRY WEIGHT	DUP	**4512624**	Y		71.13	28.87	11/15/2022 15:06:43	7.4139	1.2709	9.9073	7.4139	M	
DRY WEIGHT	PS	**10633654001**	Y		44.29	55.71	11/15/2022 15:06:54	4.9667	1.2645	9.6244	4.9667	M	
DRY WEIGHT	PS	**10633472001**	Y		67.06	32.94	11/15/2022 15:07:05	7.0424	1.2724	9.8762	7.0424	M	
DRY WEIGHT	PS	**10633286001**	Y		90.34	9.665	11/15/2022 15:07:17	8.9451	1.2638	9.7669	8.9451	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10633287001**	Y		90.57	9.426	11/15/2022 15:07:28	9.0034	1.2694	9.8083	9.0034	M	
DRY WEIGHT	PS	**10633565001**	Y		78.06	21.94	11/15/2022 15:07:38	7.7302	1.2678	9.5467	7.7302	M	
DRY WEIGHT	PS	**10633565002**	Y		72.76	27.24	11/15/2022 15:07:50	6.9496	1.2708	9.0761	6.9496	M	
DRY WEIGHT	PS	**10633565003**	Y		70.43	29.57	11/15/2022 15:08:02	7.1235	1.2687	9.5822	7.1235	M	
DRY WEIGHT	PS	**10633565004**	Y		67.22	32.78	11/15/2022 15:08:15	6.8417	1.2685	9.5601	6.8417	M	
DRY WEIGHT	PS	**10633565005**	Y		74.34	25.66	11/15/2022 15:08:27	7.5762	1.2664	9.7547	7.5762	M	

ANALYTICAL REPORT

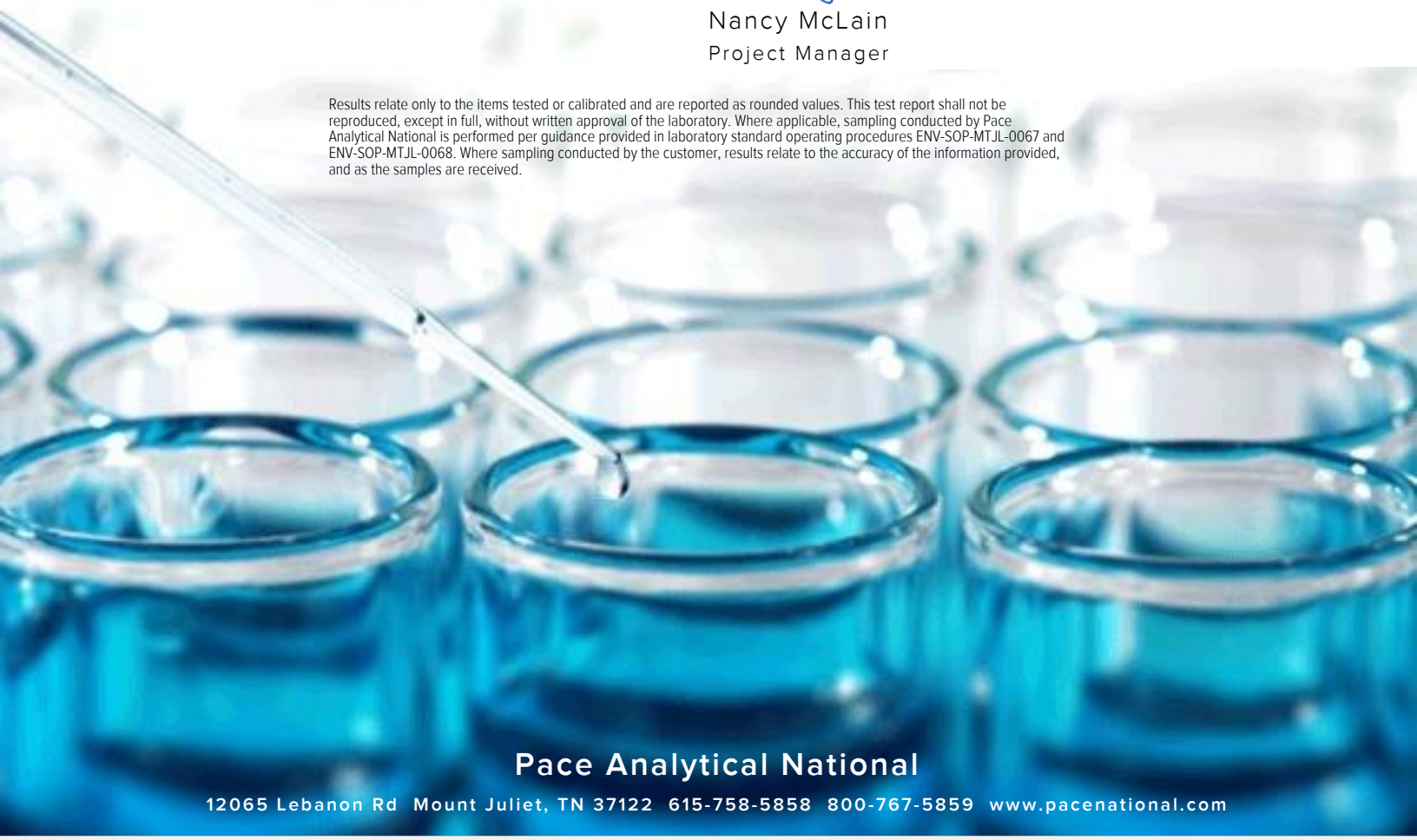
November 18, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1555614
Samples Received:	11/09/2022
Project Number:	10632545
Description:	D3631600
Site:	001
Report To:	Kongmeng Vang 1700 Elm Street Suite 200 Minneapolis, MN 55414

Entire Report Reviewed By: Nancy F. McLain

Nancy McLain
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BNSF-G000-SC-1.5-2.5-110322 L1555614-01 Solid

Collected by	Collected date/time	Received date/time
	11/03/22 13:50	11/09/22 15:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1957213	1	11/10/22 18:59	11/10/22 19:12	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1957138	1	11/10/22 04:20	11/10/22 13:53	ADF	Mt. Juliet, TN

BNSF-G000-SC-4.0-4.5-110322 L1555614-02 Solid

Collected by	Collected date/time	Received date/time
	11/03/22 14:10	11/09/22 15:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1957213	1	11/10/22 18:59	11/10/22 19:12	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1957138	1	11/10/22 04:20	11/13/22 21:30	ADF	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 11/18/22 11:19

2540 G-2011 Total Solids

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G000-SC-1.5-2.5-110322

Lab Sample ID:	L1555614-01	**SDG:**	L1555614
Client Sample ID:	BNSF-G000-SC-1.5-2.5-110322	**Collected Date/Time:**	11/03/22 13:50
Lab File ID:	05	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/10/22 18:59
Analytical Batch:	WG1957213	**Analysis Date/Time:**	11/10/22 19:12
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	9.814 g
Total Solids (%):	73.3	**Final Wt/Vol:**	7.541 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	73.3	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G000-SC-4.0-4.5-110322

Lab Sample ID:	L1555614-02	**SDG:**	L1555614
Client Sample ID:	BNSF-G000-SC-4.0-4.5-110322	**Collected Date/Time:**	11/03/22 14:10
Lab File ID:	06	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/10/22 18:59
Analytical Batch:	WG1957213	**Analysis Date/Time:**	11/10/22 19:12
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	12.83 g
Total Solids (%):	70.1	**Final Wt/Vol:**	9.381 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	70.1	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3859834-1

Lab Sample ID:	R3859834-1	**SDG:**	L1555614
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/10/22 18:54
Analytical Batch:	WG1957213	**Analysis Date/Time:**	11/10/22 19:12
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.294 g
Total Solids (%):		**Final Wt/Vol:**	1.292 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00200	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3859834-3	**SDG:**	L1555614
Client Sample ID:	DUP	**Collected Date/Time:**	11/03/22 13:50
Lab File ID:	02	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/10/22 18:54
Analytical Batch:	WG1957213	**Analysis Date/Time:**	11/10/22 19:12
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	9.594 g
Total Solids (%):	73.3	**Final Wt/Vol:**	7.199 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	71.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3859834-2	**SDG:**	L1555614
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	03	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/10/22 18:54
Analytical Batch:	WG1957213	**Analysis Date/Time:**	11/10/22 19:12
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	11.288 g
Total Solids (%):		**Final Wt/Vol:**	6.287 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SDG:	L1555614	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1957213

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.00200	

DUP Sample / File ID:	R3859834-3 / 02	**SDG:**	L1555614
OS Sample / File ID:	L1555614-01 / 05	**Analytical Batch:**	WG1957213
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	73.3	71.2	2.99	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1555614-01,02

SAMPLE NO.:
R3859834-2

LCS Sample / File ID:	R3859834-2 / 03	**SDG:**	L1555614
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1957213
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1555614-01,02 **Analytical Method:** 2540 G-2011

Matrix: Solid **Prep Method:** SM 2540 G

Analyte	CAS	Wavelength	Mass	MDL	RDL
				%	%
Total Solids	TSOLIDS				

ANALYSIS LOG

SDG:	L1555614	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	_____
Analytical Run:	WG1957213	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3859834-1	01	11/10/22 19:12	1	WG1957213
DUP	R3859834-3	02	11/10/22 19:12	1	WG1957213
LCS	R3859834-2	03	11/10/22 19:12	1	WG1957213
BNSF-G000-SC-1.5-2.5-110322	L1555614-01	05	11/10/22 19:12	1	WG1957213
BNSF-G000-SC-4.0-4.5-110322	L1555614-02	06	11/10/22 19:12	1	WG1957213

Total Solids WetChem Prep Benchsheet

Batch: WG1957213

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1555593	WG1957069	KMT967	PREPREPBAL1	09-NOV-22
L1555614	WG1957031	KMT967	PREPREPBAL1	09-NOV-22
L1555649	WG1957074	KMT967	PREPREPBAL2	09-NOV-22

Analyst: MT3521 **Prep Start Date/Time:** 11/10/22 18:54-18:59 **Prep End Date/Time:** 11/11/22 09:41 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				QQ1	1.294	1.294	1.293	1.292	0.001	0.002	99.998						CMK3616	11/11/22 09:41:54
LCS				QQ2	1.285	11.288	6.286	6.287	0.001	50.005	49.995	100.01	99.99				CMK3616	11/11/22 09:41:54
DUP(L1555614-01)				QQ3	1.285	9.594	7.179	7.199	0.02	71.1758	28.8242			2.99	7.79	PP1 1109 Wed3	CMK3616	11/11/22 09:41:54
1. L1555593-08	SS	FL	11/07/22 12:09	QQ4	1.286	15.055	13.788	13.801	0.013	90.8926	9.1074					PP1 1109	CMK3616	11/11/22 09:41:54
2. L1555614-01	SS	WA	11/03/22 13:50	QQ5	1.289	9.814	7.520	7.541	0.021	73.3372	26.6628						CMK3616	11/11/22 09:41:54
3. L1555614-02	SS	WA	11/03/22 14:10	QQ6	1.286	12.830	9.356	9.381	0.025	70.123	29.877					PP1 1109 Wed3	CMK3616	11/11/22 09:41:54
4. L1555649-01	SS	IL	11/08/22 11:30	QQ7	1.298	11.379	9.875	9.888	0.013	85.2098	14.7902					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
5. L1555649-03	SS	IL	11/08/22 10:05	QQ8	1.285	11.187	9.660	9.686	0.026	84.8414	15.1586					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
6. L1555649-05	SS	IL	11/08/22 09:45	QQ9	1.289	10.964	9.485	9.507	0.022	84.9406	15.0594					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
7. L1555649-06	SS	IL	11/08/22 09:50	QQ10	1.287	10.104	8.771	8.786	0.015	85.0516	14.9484					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
8. L1555649-09	SS	IL	11/08/22 09:30	QQ11	1.278	9.362	8.296	8.310	0.014	86.9866	13.0134					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
9. L1555649-10	SS	IL	11/08/22 09:35	QQ12	1.294	10.864	8.653	8.672	0.019	77.0951	22.9049					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54
10. L1555649-12	SS	IL	11/08/22 10:30	QQ13	1.275	11.007	9.585	9.602	0.017	85.5631	14.4369					Wed-3/PP2 1109	CMK3616	11/11/22 09:41:54

Comments:

Reviewed By:CMK3616 on 11/11/22 09:41:54

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/10/22 19:12:00	104	104	11/11/22 06:13:47	104	104	BLANK, LCS, DUP(L1555614-01), L1555593-08, L1555649-12, L1555649-10, L1555649-09, L1555649-06, L1555649-05, L1555649-03, L1555649-01, L1555614-02, L1555614-01
2	Oven-1hr	11/11/22 06:17:15	104	104	11/11/22 09:38:44	104	104	BLANK, LCS, DUP(L1555614-01), L1555593-08, L1555614-01, L1555614-02, L1555649-01, L1555649-03, L1555649-05, L1555649-06, L1555649-09, L1555649-10, L1555649-12

8270E Semi Volatile Organic Compounds (GC/MS)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1555614

Matrix: Solid

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	
BNSF-G000-SC-1.5-2.5-110322	L1555614-01	BNAMS2	1110_15	53.2	50.3	50.6	54.0	53.2	57.6	0
BNSF-G000-SC-4.0-4.5-110322	L1555614-02	BNAMS2	1113_14	56.2	53.2	53.8	58.5	58.0	56.6	0
MS	R3860458-3	BNAMS2	1110_16	44.9	42.6	37.8	45.5	45.1	44.9	0
MSD	R3860458-4	BNAMS2	1110_17	44.4	42.1	35.7	45.1	43.1	45.4	0
BLANK	R3860458-2	BNAMS2	1110_06	59.6	56.8	55.9	61.6	49.1	69.1	0
LCS	R3860458-1	BNAMS2	1110_05	68.2	64.1	53.5	70.3	64.9	76.9	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	12.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 122
DMC-4	2-Fluorobiphenyl	15.0 - 120
DMC-5	2,4,6-Tribromophenol	10.0 - 127
DMC-6	p-Terphenyl-d14	10.0 - 120

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1555614-01,02

SAMPLE NO.:
R3860458-3
R3860458-4

MS Sample / File ID: R3860458-3 / 1110_16
MSD Sample / File ID: R3860458-4 / 1110_17
OS Sample / File ID: L1555614-01 / 1110_15
Instrument ID: BNAMS2
Analytical Method: 8270E

SDG: L1555614
Analytical Batch: WG1957138
Matrix: Solid

Analyte	Spike Amount (dry)	OS Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*	*%*	*%*		*%*	*%*	*%*
Acenaphthene	0.886	U	0.432	0.408	48.8	45.6	1	18.0 - 120	5.84	32
Acenaphthylene	0.886	U	0.461	0.434	52.0	48.5	1	25.0 - 120	6.10	32
Anthracene	0.886	U	0.419	0.393	47.2	43.9	1	22.0 - 120	6.39	29
Benzoic Acid	1.77	U	1.19	1.12	67.3	62.5	1	10.0 - 152	6.61	40
Benzo(a)anthracene	0.886	U	0.462	0.439	52.2	49.1	1	25.0 - 120	5.14	29
Benzo(b)fluoranthene	0.886	U	0.436	0.420	49.2	47.0	1	19.0 - 122	3.82	31
Benzo(k)fluoranthene	0.886	U	0.430	0.412	48.5	46.0	1	23.0 - 120	4.21	30
Benzo(g,h,i)perylene	0.886	U	0.431	0.412	48.6	46.0	1	10.0 - 120	4.53	33
Benzo(a)pyrene	0.886	U	0.488	0.464	55.1	51.8	1	24.0 - 120	5.16	30
Carbazole	0.886	U	0.420	0.390	47.4	43.6	1	31.0 - 120	7.41	24
Chrysene	0.886	U	0.460	0.436	51.8	48.8	1	21.0 - 120	5.18	29
Dibenz(a,h)anthracene	0.886	U	0.438	0.410	49.4	45.9	1	10.0 - 120	6.43	32
Dibenzofuran	0.886	U	0.435	0.412	49.1	46.0	1	24.0 - 120	5.48	30
Fluoranthene	0.886	U	0.439	0.410	49.5	45.9	1	18.0 - 126	6.74	32
Fluorene	0.886	U	0.439	0.417	49.5	46.6	1	25.0 - 120	5.10	30
Indeno(1,2,3-cd)pyrene	0.886	U	0.406	0.382	45.8	42.7	1	10.0 - 120	6.23	32
1-Methylnaphthalene	0.886	U	0.394	0.378	44.5	42.2	1	10.0 - 120	4.24	36
2-Methylnaphthalene	0.886	U	0.382	0.364	43.1	40.7	1	10.0 - 120	4.75	37
Naphthalene	0.886	U	0.365	0.353	41.2	39.5	1	10.0 - 120	3.42	35
Phenanthrene	0.886	U	0.439	0.417	49.5	46.6	1	17.0 - 120	5.10	31
Bis(2-ethylhexyl)phthalate	0.886	U	0.443	0.424	50.0	47.4	1	17.0 - 126	4.40	30
Di-n-butyl phthalate	0.886	U	0.408	0.386	46.0	43.1	1	30.0 - 120	5.50	29
Di-n-octyl phthalate	0.886	U	0.461	0.436	52.0	48.8	1	21.0 - 123	5.47	29
Pyrene	0.886	U	0.455	0.439	51.4	49.1	1	16.0 - 121	3.66	32
3&4-Methyl Phenol	0.886	U	0.421	0.400	47.5	44.7	1	12.0 - 123	5.32	38
Pentachlorophenol	0.886	U	0.520	0.491	58.6	54.9	1	10.0 - 160	5.67	31
Phenol	0.886	U	0.400	0.379	45.1	42.4	1	12.0 - 120	5.25	38

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1555614-01,02

SAMPLE NO.:
R3860458-1

LCS Sample / File ID:	R3860458-1 / 1110_05	**SDG:**	L1555614
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1957138
Instrument ID:	BNAMS2	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.459		68.9		38.0 - 120		
Acenaphthylene	0.666	0.495		74.3		40.0 - 120		
Anthracene	0.666	0.455		68.3		42.0 - 120		
Benzoic Acid	1.33	0.515		38.7		10.0 - 120		
Benzo(a)anthracene	0.666	0.519		77.9		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.501		75.2		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.518		77.8		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.532		79.9		43.0 - 120		
Benzo(a)pyrene	0.666	0.550		82.6		45.0 - 120		
Carbazole	0.666	0.464		69.7		48.0 - 120		
Chrysene	0.666	0.526		79.0		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.526		79.0		44.0 - 120		
Dibenzofuran	0.666	0.460		69.1		44.0 - 120		
Fluoranthene	0.666	0.490		73.6		44.0 - 120		
Fluorene	0.666	0.464		69.7		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.476		71.5		45.0 - 120		
1-Methylnaphthalene	0.666	0.401		60.2		34.0 - 120		
2-Methylnaphthalene	0.666	0.389		58.4		34.0 - 120		
Naphthalene	0.666	0.373		56.0		18.0 - 120		
Phenanthrene	0.666	0.491		73.7		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.488		73.3		41.0 - 120		
Di-n-butyl phthalate	0.666	0.465		69.8		43.0 - 120		
Di-n-octyl phthalate	0.666	0.484		72.7		40.0 - 120		
Pyrene	0.666	0.530		79.6		41.0 - 120		
3&4-Methyl Phenol	0.666	0.445		66.8		42.0 - 120		
Pentachlorophenol	0.666	0.521		78.2		29.0 - 120		
Phenol	0.666	0.427		64.1		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3860458-2	**SDG:**	L1555614
Lab File ID:	1110_06	**Preparation Date/Time:**	11/10/22 04:19
Instrument ID:	BNAMS2	**Analysis Date/Time:**	11/10/22 10:15
Analytical Batch:	WG1957138	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3860458-1	BNAMS2	1110_05	11/10/22 09:52
BNSF-G000-SC-1.5-2.5-110322	L1555614-01	BNAMS2	1110_15	11/10/22 13:53
MS	R3860458-3	BNAMS2	1110_16	11/10/22 14:17
MSD	R3860458-4	BNAMS2	1110_17	11/10/22 14:41
BNSF-G000-SC-4.0-4.5-110322	L1555614-02	BNAMS2	1113_14	11/13/22 21:30

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 1020_03-1
Instrument ID: BNAMS2
Analysis Date/Time: 10/20/22 19:04

SDG: L1555614
Analytical Method: 8270E

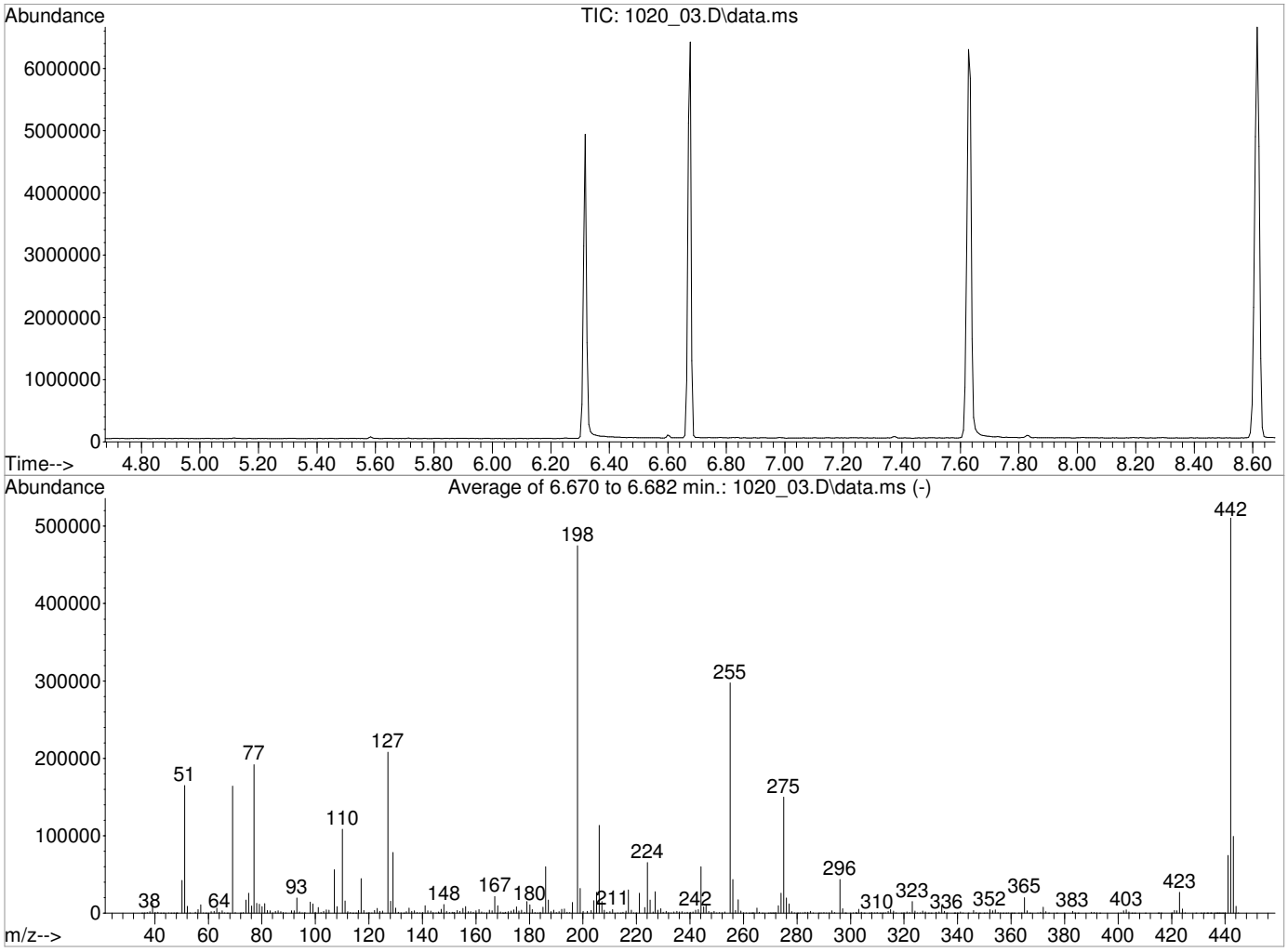
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	41
197	198	0	2	0
198	442	50	100	93
199	198	5	9	7
275	442	10	60	29
365	198	1	100	4
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	1020_04	10/20/22 19:25
STD-1000	1000	1020_05	10/20/22 19:45
STD-4000	4000	1020_06	10/20/22 20:06
STD-10000	10000	1020_07	10/20/22 20:27
STD-20000	20000	1020_08	10/20/22 20:47
STD-30000	30000	1020_09	10/20/22 21:08
STD-40000	40000	1020_10	10/20/22 21:29
STD-50000	50000	1020_11	10/20/22 21:49
STD-1K1	1K1	1020_12	10/20/22 22:10
STD-4K1	4K1	1020_13	10/20/22 22:31
STD-10K1	10K1	1020_14	10/20/22 22:51
STD-20K1	20K1	1020_15	10/20/22 23:12
STD-30K1	30K1	1020_16	10/20/22 23:32
STD-40K1	40K1	1020_17	10/20/22 23:53
STD-50K1	50K1	1020_18	10/21/22 00:14
SSCV	BNAMS21020221020_19-1603375	1020_19-1	10/21/22 00:34
SSCV	BNAMS21020221020_20-1603375	1020_20-1	10/21/22 00:55

DFTPP

Data File : C:\msdchem\1\data\102022\1020_03.D Vial: 2
Acq On : 20 Oct 2022 7:04 pm Operator: 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.670 to 6.682 min.

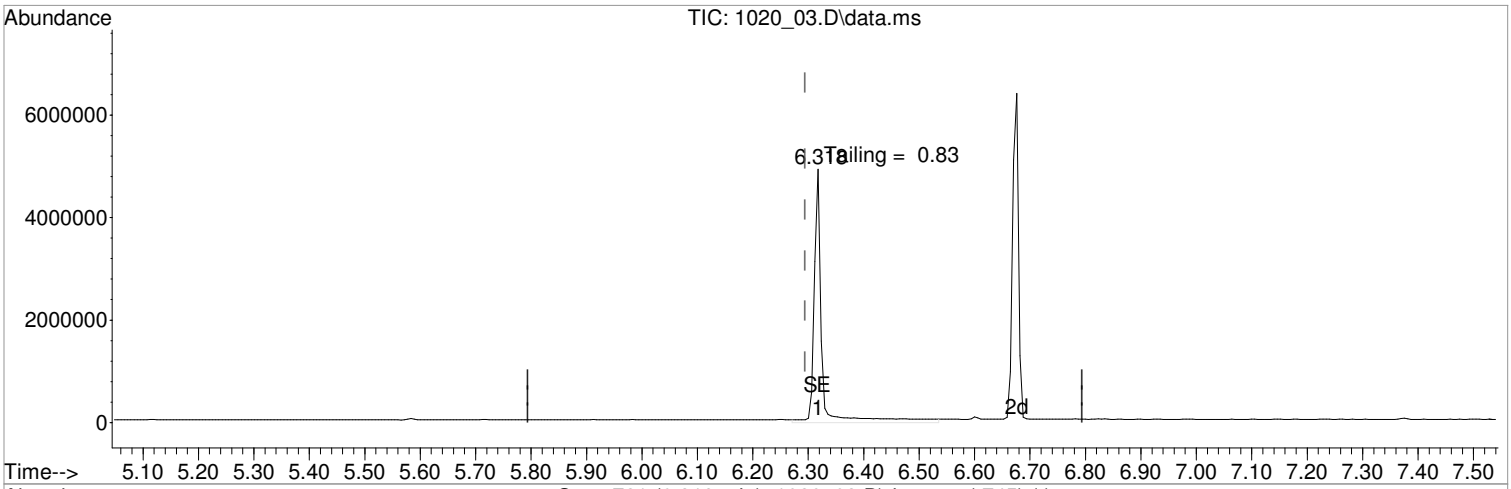
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	32.3	164781	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	164331	PASS
70	69	0.00	2	0.4	717	PASS
127	442	10	80	40.8	208117	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	93.0	474821	PASS
199	198	5	9	6.7	31838	PASS
275	442	10	60	29.4	149869	PASS
365	198	1	100	4.2	20123	PASS
441	442	0.01	24	14.6	74555	PASS
442	442	50	100	100.0	510357	PASS
443	442	15	24	19.5	99336	PASS

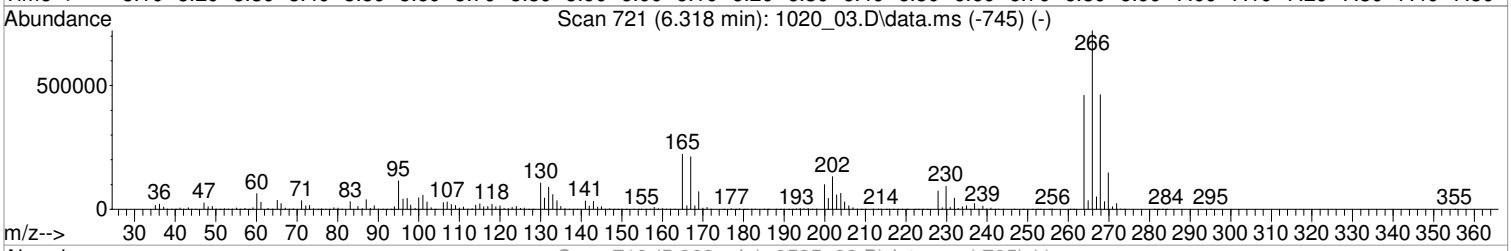
1020_03.D TUNED.M Fri Oct 21 08:14:26 2022

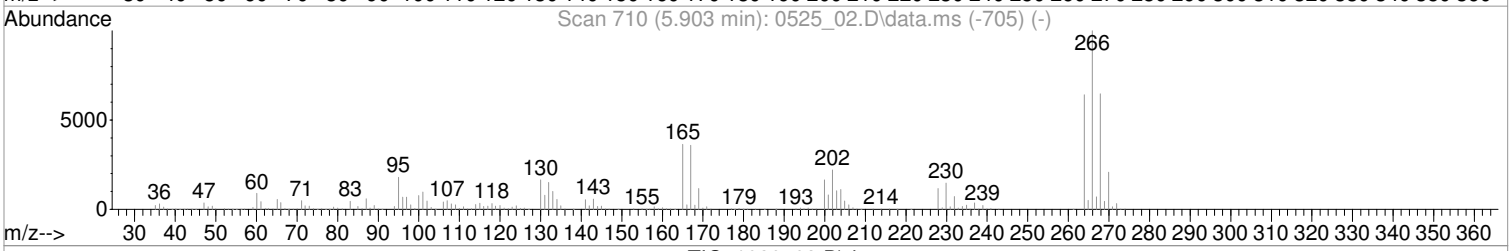
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1020_03.D\data.ms

(1) Pentachlorophenol (TM)

6.318min (+0.024) 669.2396542 ug/mL

Qvalue = 100

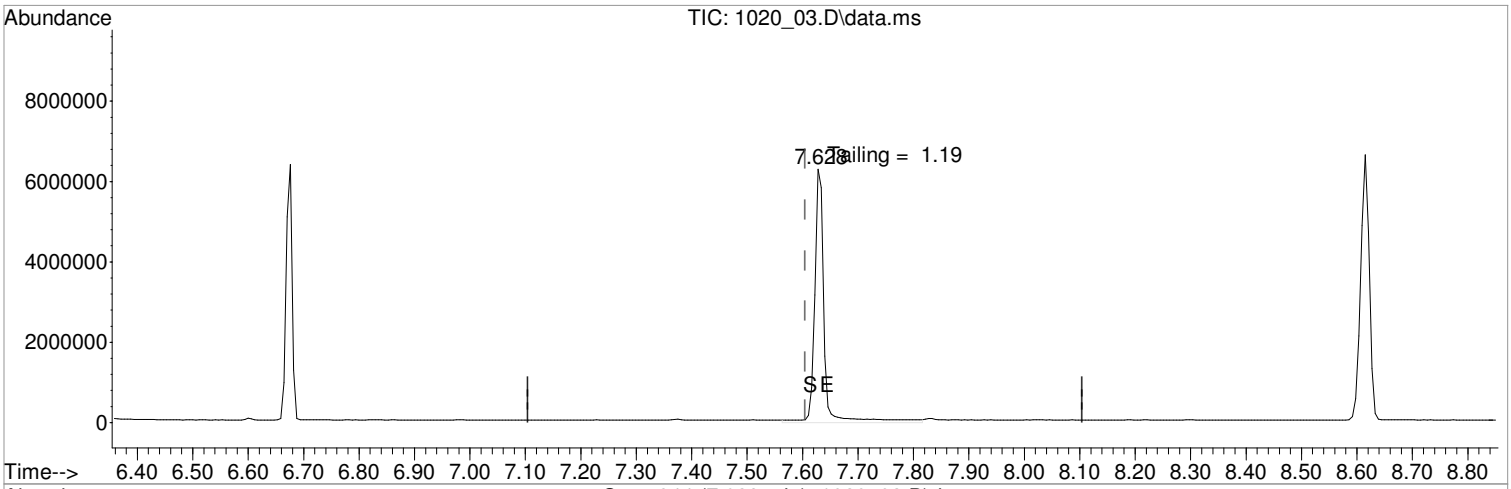
response 3905174

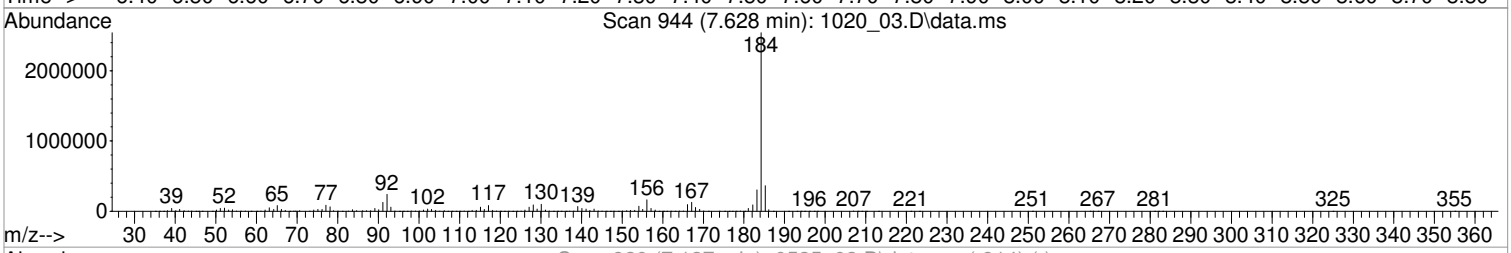
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

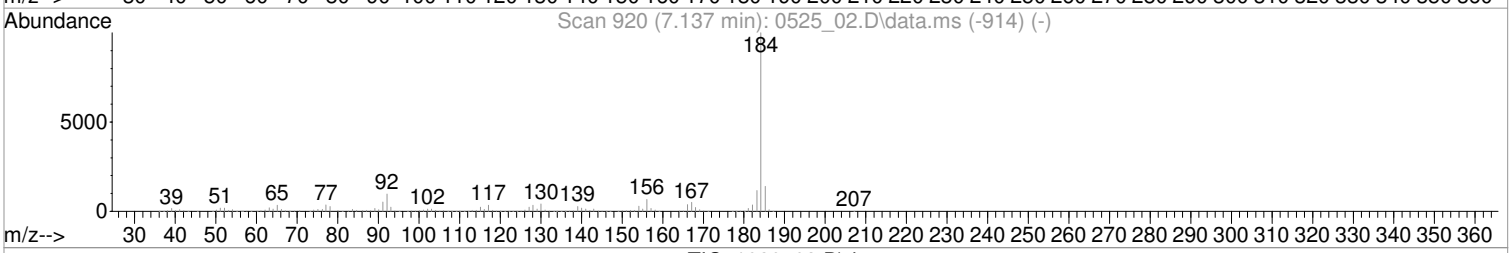
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1020_03.D\data.ms

(3) Benzidine (MT)

7.628min (+0.024) 273.2919084 ug/mL

Qvalue = 100

response 6559454

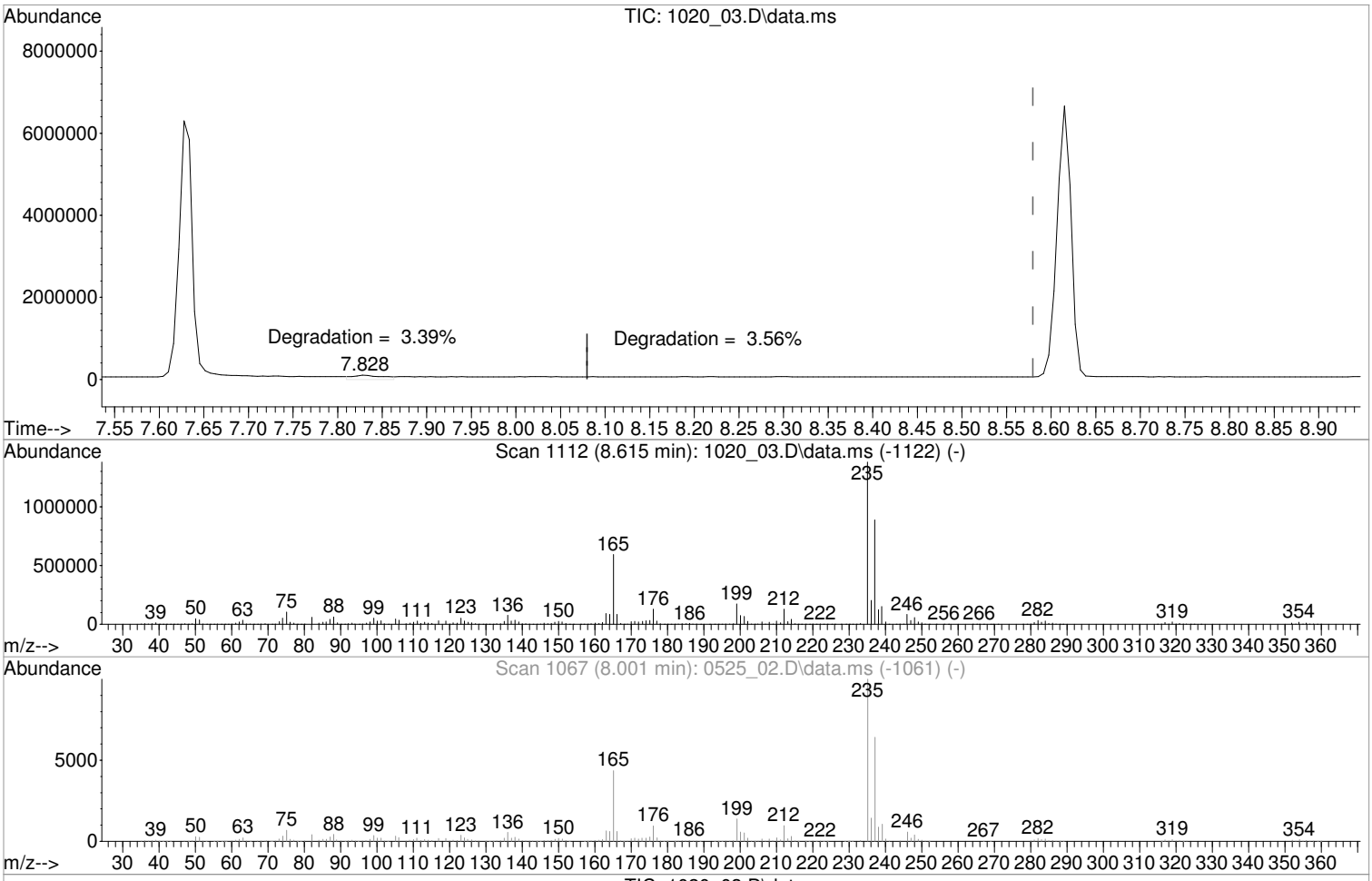
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

TUNED.M Fri Oct 21 08:16:27 2022 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1020_03.D\data.ms

(4) DDT (MT)

8.615min (+0.035) 534.6042202 ug/ml

Qvalue = 100

response 7193752

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

TUNED.M Fri Oct 21 08:16:39 2022 Page: 1

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1110_02T	**SDG:**	L1555614
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	11/10/22 08:15		

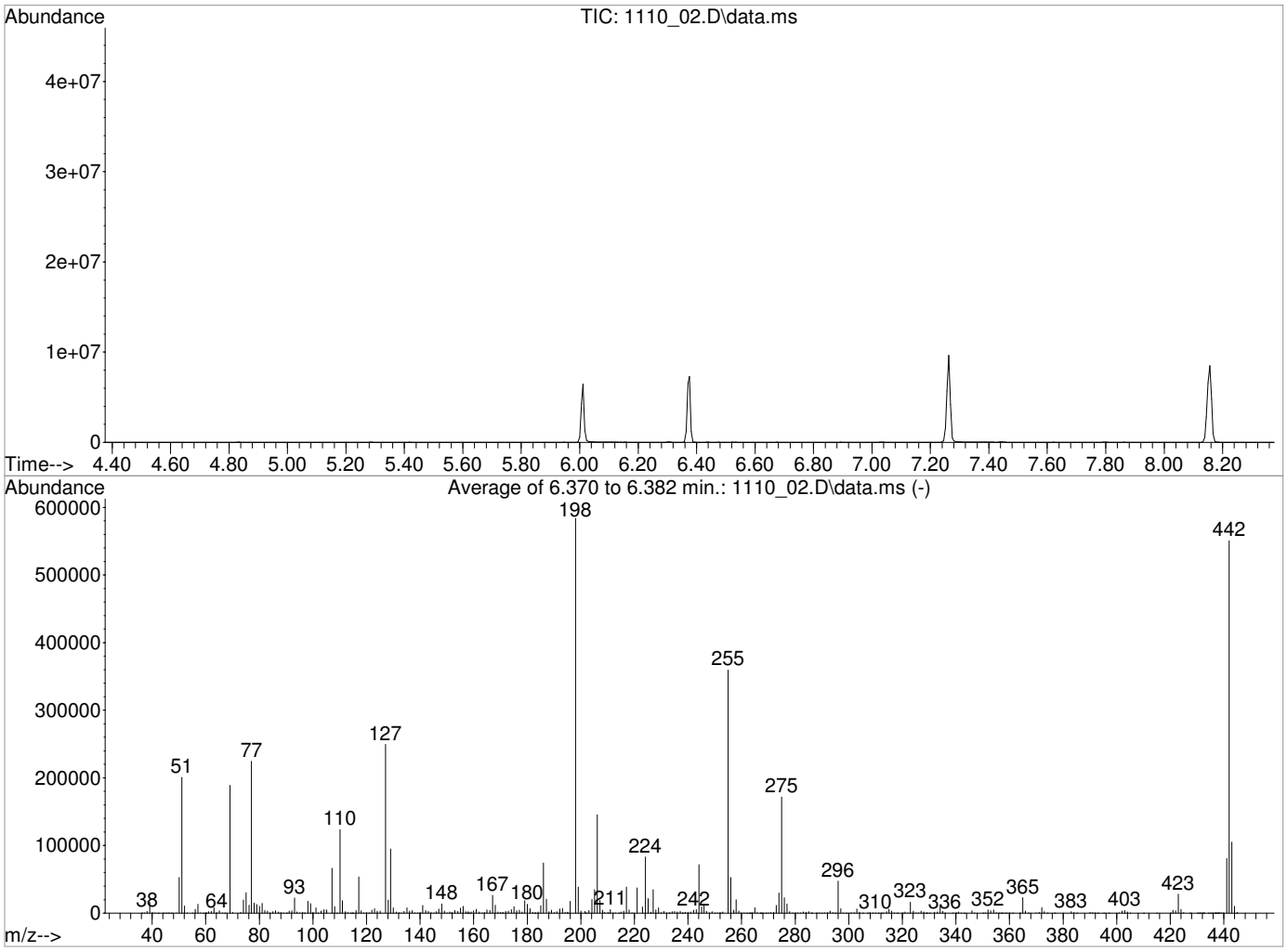
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	34
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	198	10	80	43
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	30
365	198	1	100	4
441	442	0.0001	24	15
442	198	50	100	94
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS21110221110_03603375	1110_03	11/10/22 08:39
ICV	BNAMS21110221110_04603375	1110_04	11/10/22 09:02
LCS	R3860458-1	1110_05	11/10/22 09:52
BLANK	R3860458-2	1110_06	11/10/22 10:15
OS	L1555614-01	1110_15	11/10/22 13:53
BNSF-G000-SC-1.5-2.5-110322	L1555614-01	1110_15	11/10/22 13:53
MS	R3860458-3	1110_16	11/10/22 14:17
MSD	R3860458-4	1110_17	11/10/22 14:41

DFTPP

Data File : C:\msdchem\1\data\111022\1110_02.D Vial: 2
Acq On : 10 Nov 2022 8:15 am Operator: 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



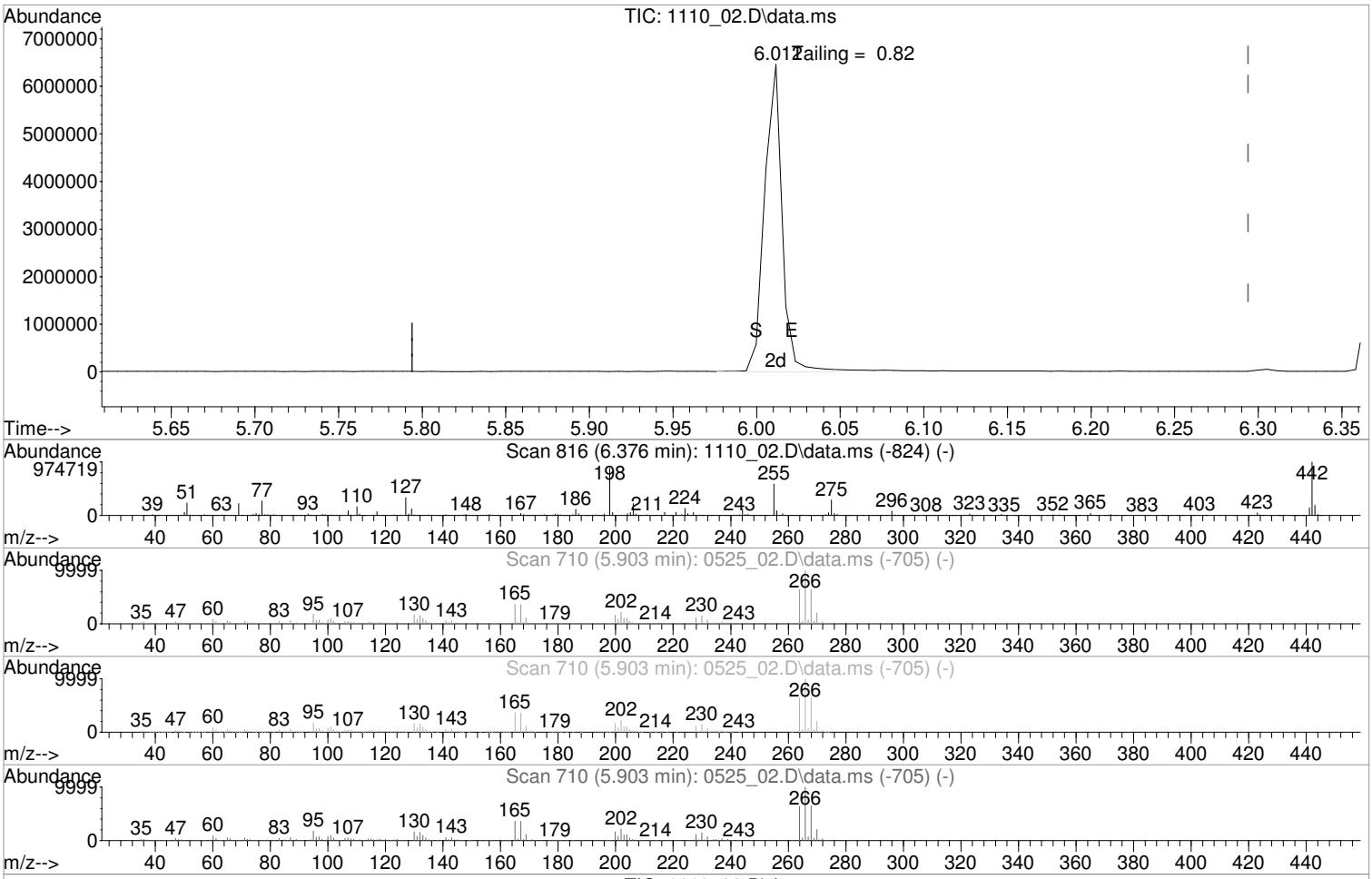
Spectrum Information: Average of 6.370 to 6.382 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.4	200930	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	188871	PASS
70	69	0.00	2	0.6	1060	PASS
127	198	10	80	42.8	249469	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	583405	PASS
199	198	5	9	6.6	38763	PASS
275	198	10	60	29.5	171912	PASS
365	198	1	100	3.9	22732	PASS
441	442	0.01	24	14.7	80789	PASS
442	198	50	100	94.4	550549	PASS
443	442	15	24	19.1	105051	PASS

1110_02.D TUNED.M Thu Nov 10 09:27:50 2022

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_02.D
Acq On : 10 Nov 2022 8:15 am
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:27:39 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1110_02.D\data.ms

(1) Pentachlorophenol (TM)

6.011min (-0.283) 794.0768503 ug/mL m

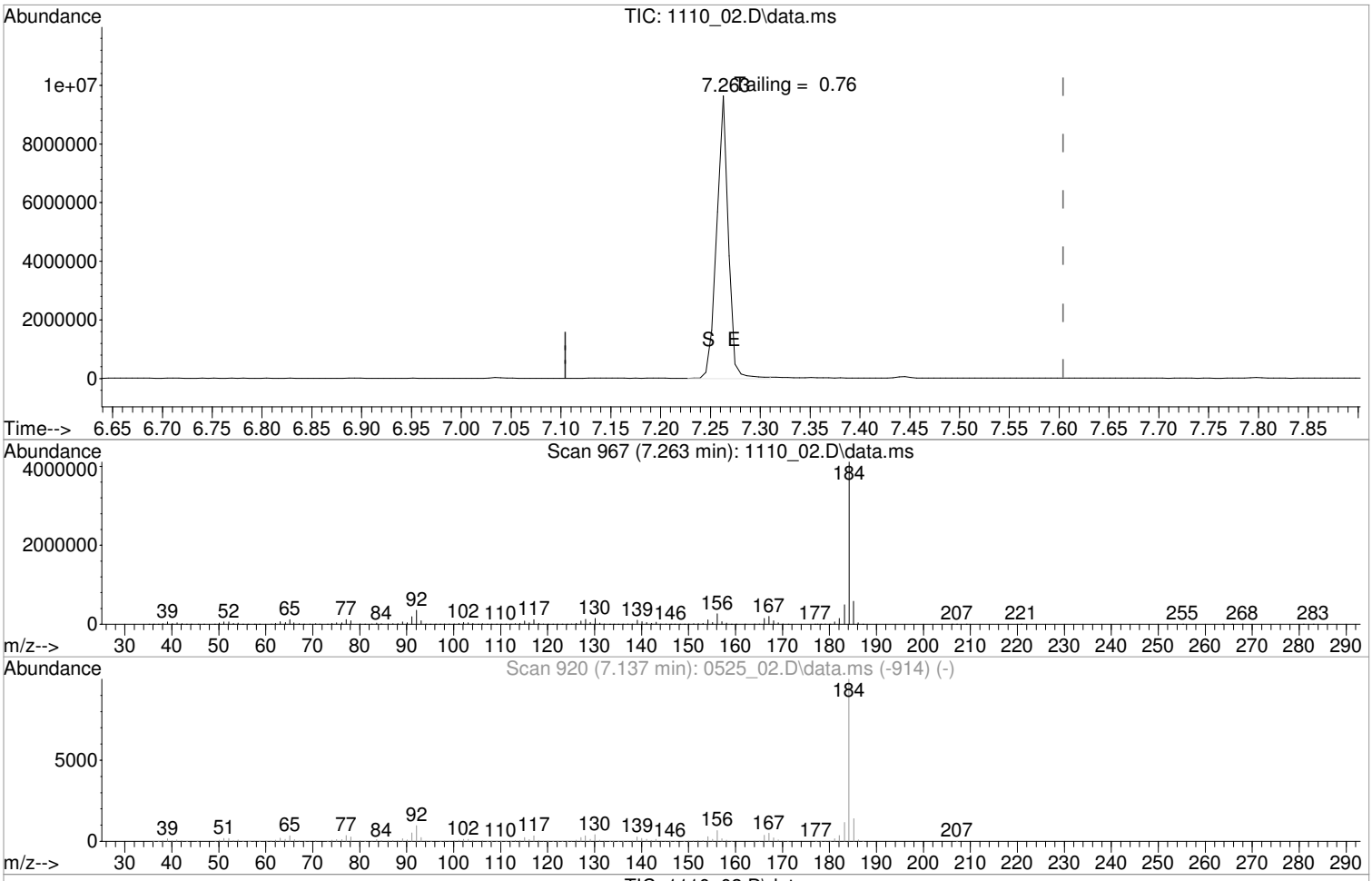
response 4633629

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_02.D
Acq On : 10 Nov 2022 8:15 am
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:27:39 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1110_02.D\data.ms

(3) Benzidine (MT)

7.263min (-0.341) 328.4774707 ug/mL

Qvalue = 100

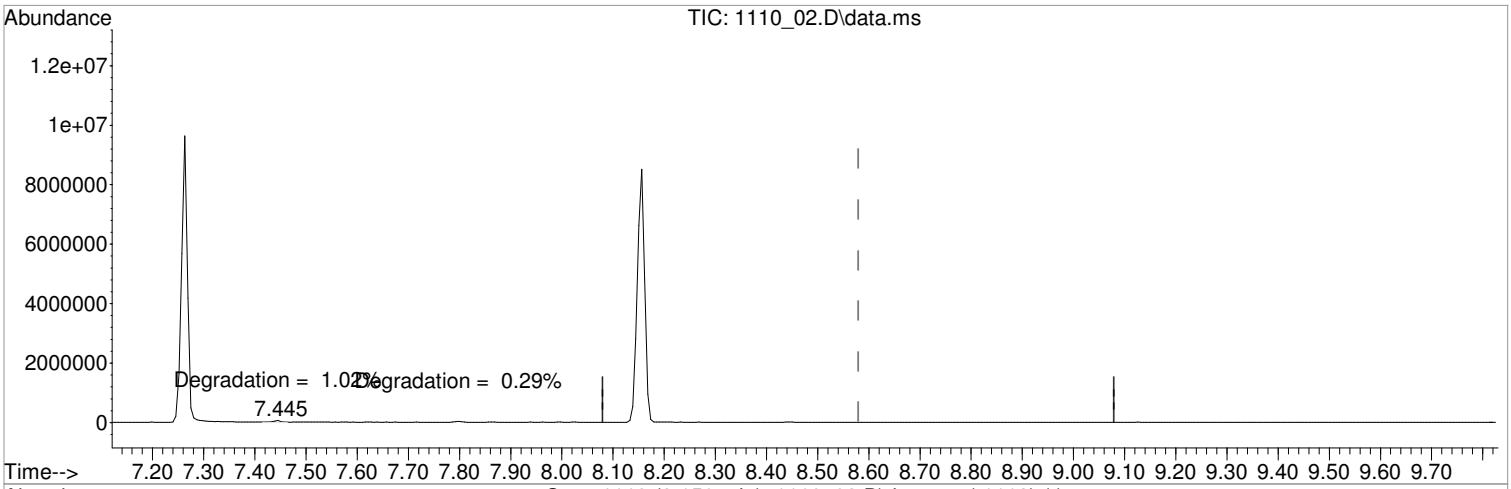
response 7883998

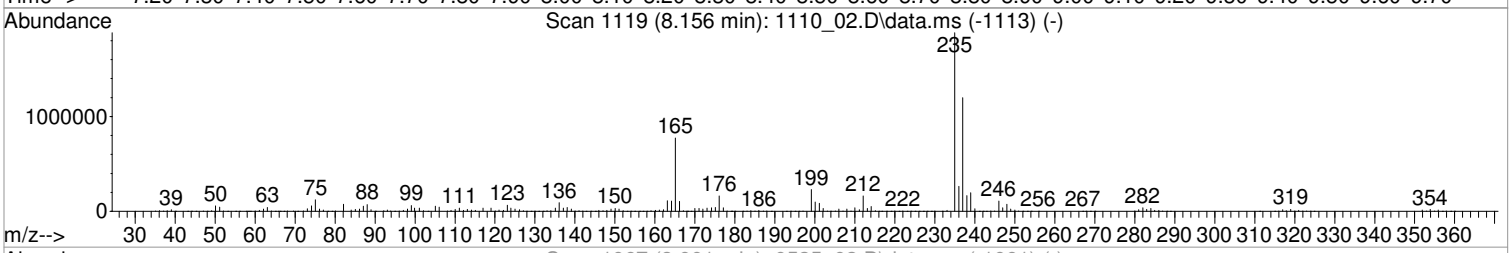
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

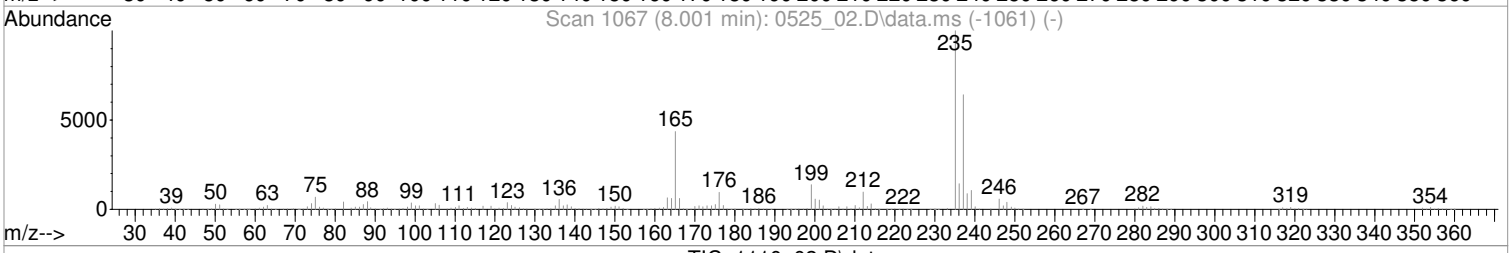
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_02.D
Acq On : 10 Nov 2022 8:15 am
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:27:39 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1110_02.D\data.ms

(4) DDT (MT)

8.156min (-0.424) 640.1016036 ug/ml

Qvalue = 100

response 8613348

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1113_02T	**SDG:**	L1555614
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	11/13/22 16:26		

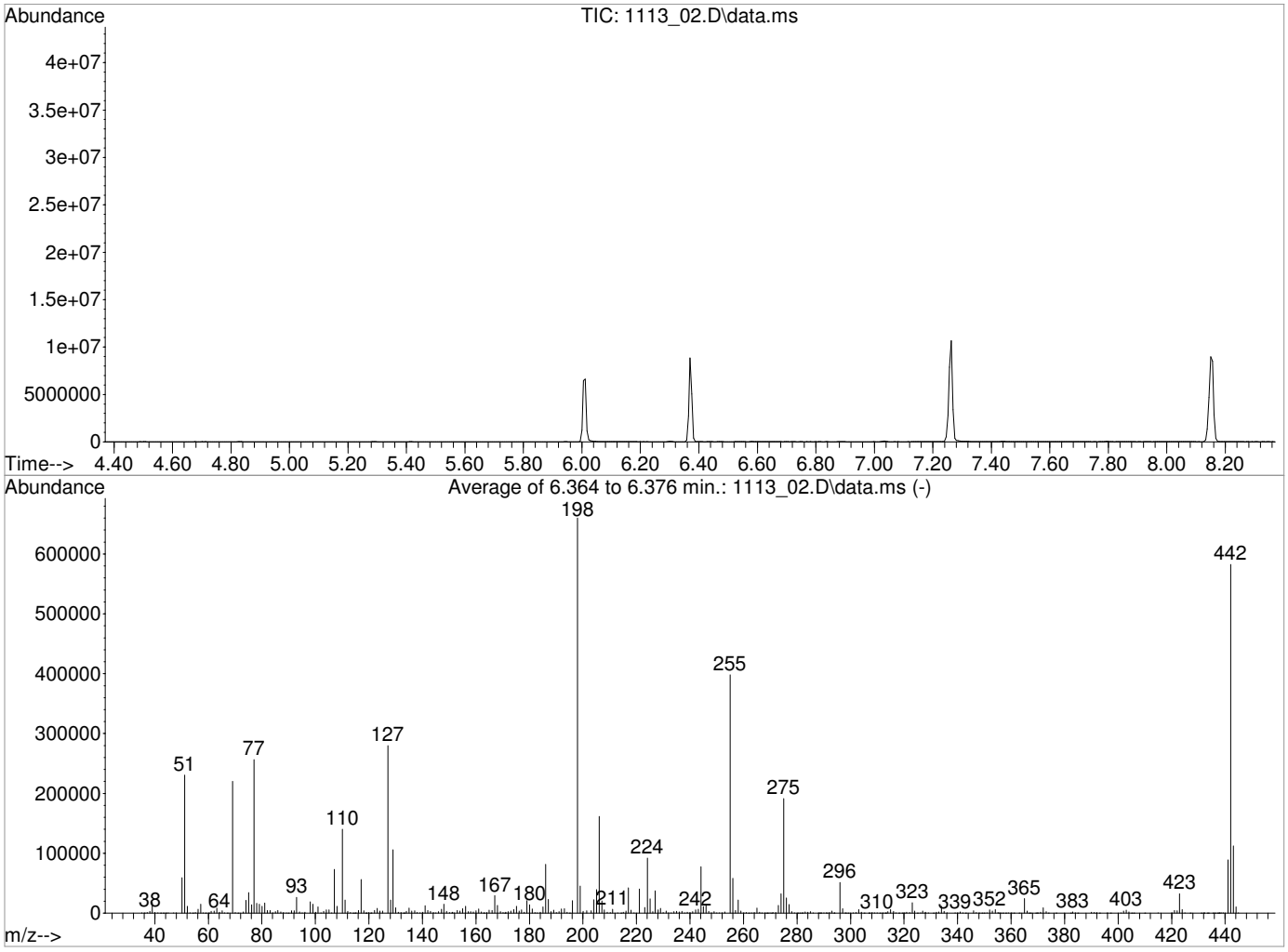
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	35
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	198	10	80	42
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	29
365	198	1	100	4
441	442	0.0001	24	15
442	198	50	100	88
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS21113221113_03-1603375	1113_03-1	11/13/22 16:50
ICV	BNAMS21113221113_04-1603375	1113_04-1	11/13/22 17:14
BNSF-G000-SC-4.0-4.5-11 0322	L1555614-02	1113_14	11/13/22 21:30

DFTPP

Data File : C:\msdchem\1\data\111322\1113_02.D Vial: 2
Acq On : 13 Nov 2022 4:26 pm Operator: 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.364 to 6.376 min.

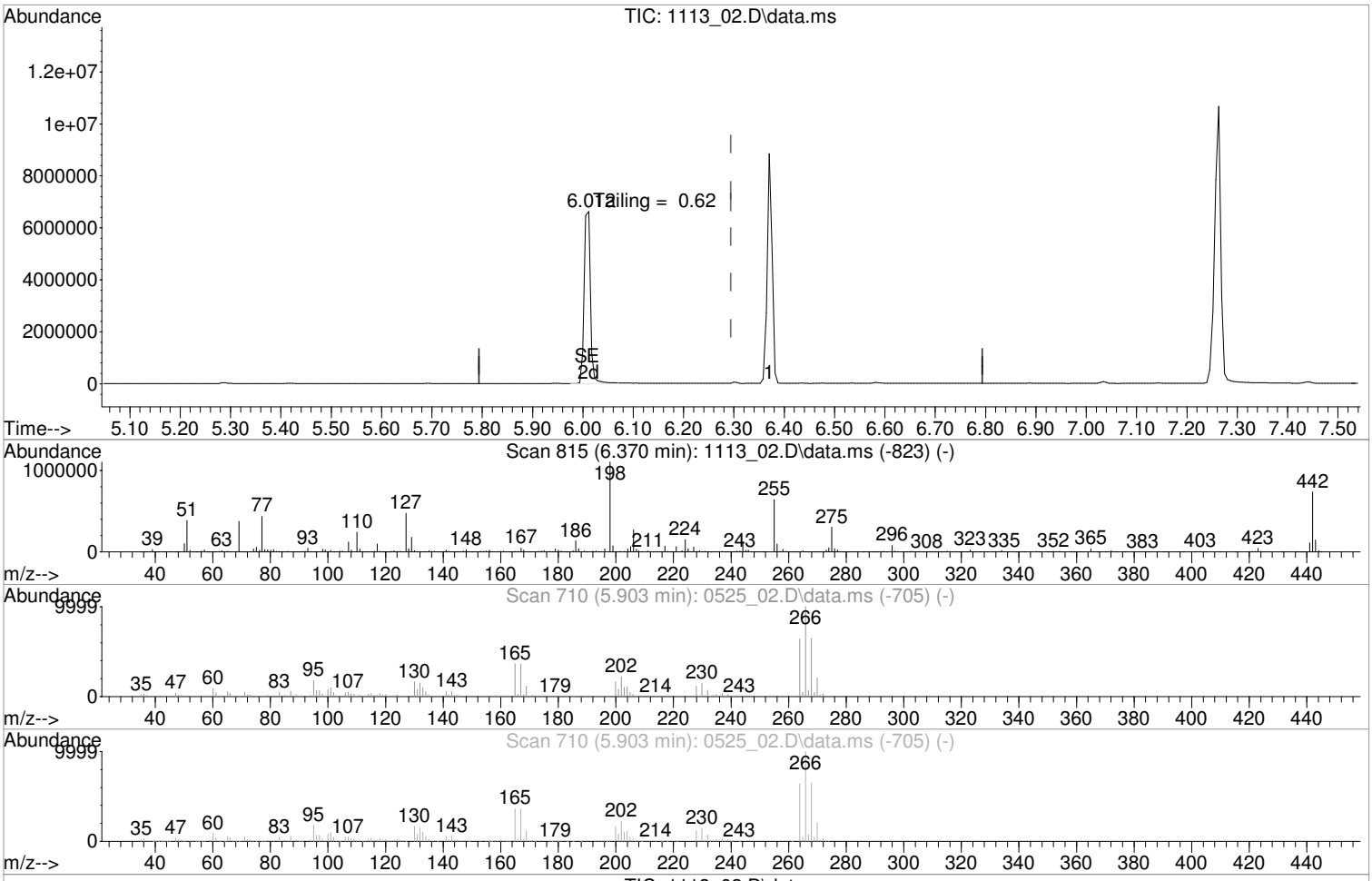
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.9	230557	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	220324	PASS
70	69	0.00	2	0.6	1246	PASS
127	198	10	80	42.4	279851	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	659904	PASS
199	198	5	9	6.9	45251	PASS
275	198	10	60	29.0	191451	PASS
365	198	1	100	3.7	24375	PASS
441	442	0.01	24	15.2	88794	PASS
442	198	50	100	88.3	582435	PASS
443	442	15	24	19.3	112355	PASS

1113_02.D TUNED.M Sun Nov 13 17:13:07 2022

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_02.D
Acq On : 13 Nov 2022 4:26 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:13:03 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1113_02.D\data.ms

(1) Pentachlorophenol (TM)

6.011min (-0.283) 965.2893454 ug/mL m

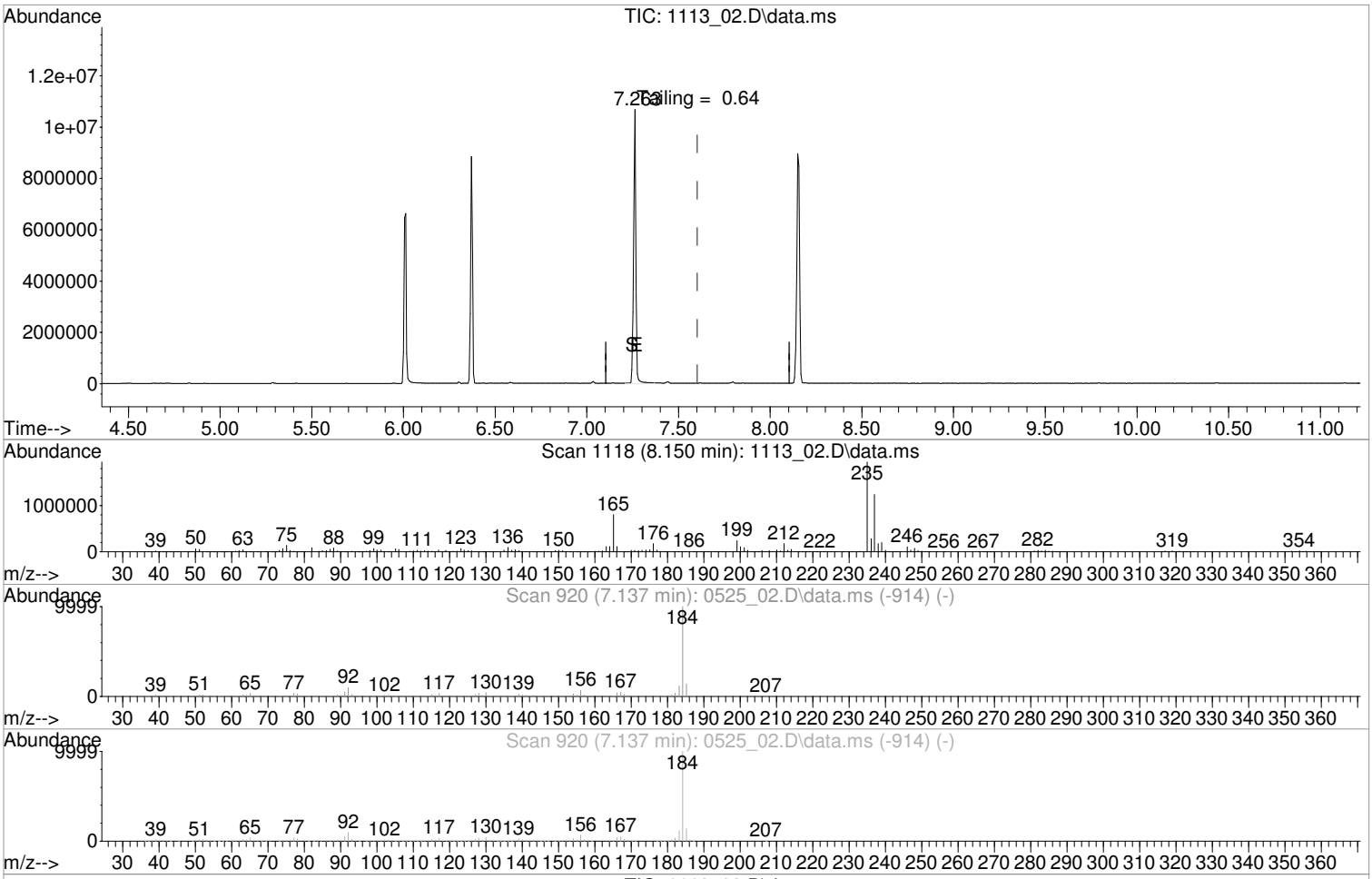
response 5632695

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_02.D
Acq On : 13 Nov 2022 4:26 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:13:03 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1113_02.D\data.ms

(3) Benzidine (MT)

7.263min (-0.341) 388.4028341 ug/mL m

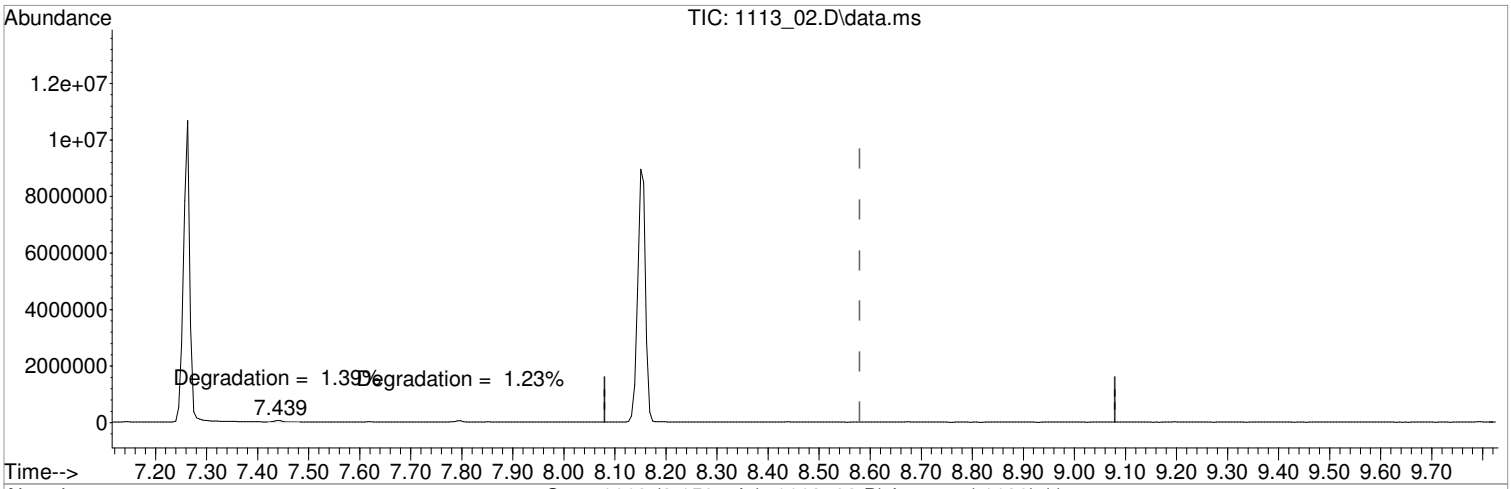
response 9322305

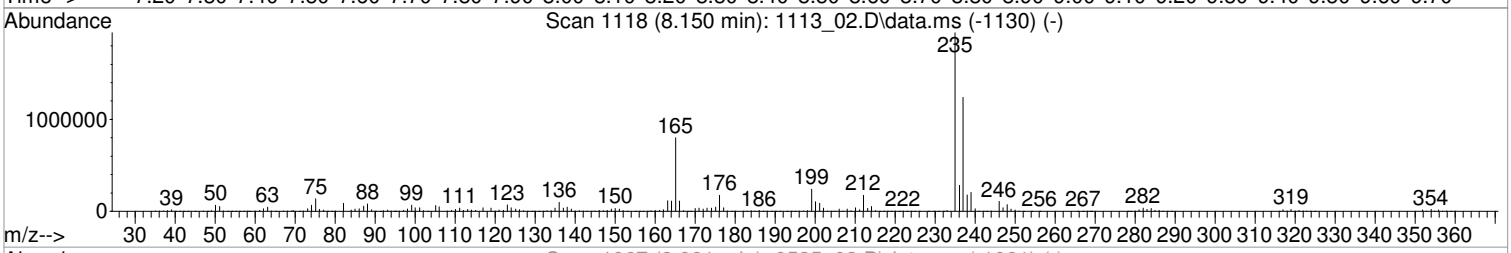
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

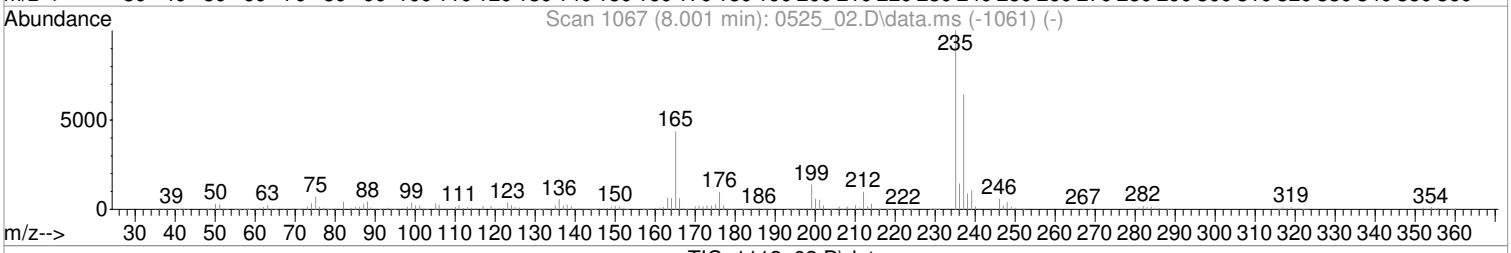
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_02.D
Acq On : 13 Nov 2022 4:26 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:13:03 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1113_02.D\data.ms

(4) DDT (MT)

8.150min (-0.430) 706.4228290 ug/ml

Qvalue = 100

response 9505781

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1110_03	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/10/22 08:39

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		197885	3.20	407693	5.06	763429	8.77	763809	3.92
UPPER LIMIT		395770		815386		1526858		1527618	
LOWER LIMIT		98943		203847		381715		381905	
LCS R3860458-1 WG1957138 1x	1110_05	183980	3.19	371850	5.06	694781	8.78	830507	3.92
BLANK R3860458-2 WG1957138 1x	1110_06	195360	3.19	400997	5.06	723255	8.77	753947	3.92
OS L1555614-01 WG1957138 1x	1110_15	204625	3.19	428085	5.06	808064	8.77	783852	3.92
L1555614-01 WG1957138 1x	1110_15	204625	3.19	428085	5.06	808064	8.77	783852	3.92
MS R3860458-3 WG1957138 1x	1110_16	191167	3.20	394905	5.06	767128	8.77	837935	3.92
MSD R3860458-4 WG1957138 1x	1110_17	202793	3.19	421645	5.06	811775	8.78	877905	3.92

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1110_03	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/10/22 08:39

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		735750	11.29	752686	6.16
UPPER LIMIT		1471500		1505372	
LOWER LIMIT		367875		376343	
LCS R3860458-1 WG1957138 1x	1110_05	704088	11.29	688177	6.16
BLANK R3860458-2 WG1957138 1x	1110_06	723029	11.28	766904	6.16
OS L1555614-01 WG1957138 1x	1110_15	893606	11.29	813637	6.16
L1555614-01 WG1957138 1x	1110_15	893606	11.29	813637	6.16
MS R3860458-3 WG1957138 1x	1110_16	842834	11.29	742508	6.16
MSD R3860458-4 WG1957138 1x	1110_17	884319	11.29	791575	6.16

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1113_03-1	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/13/22 16:50

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		196801	3.20	399649	5.06	792609	8.77	751870	3.92
UPPER LIMIT		393602		799298		1585218		1503740	
LOWER LIMIT		98401		199825		396305		375935	
L1555614-02 WG1957138 1x	1113_14	205087	3.19	428168	5.06	822323	8.78	782480	3.91

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1113_03-1	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/13/22 16:50

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		774767	11.29	758064	6.16
UPPER LIMIT		1549534		1516128	
LOWER LIMIT		387384		379032	
L1555614-02 WG1957138 1x	1113_14	848055	11.29	789075	6.16

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G000-SC-1.5-2.5-110322

Lab Sample ID:	L1555614-01	**SDG:**	L1555614
Client Sample ID:	BNSF-G000-SC-1.5-2.5-110322	**Collected Date/Time:**	11/03/22 13:50
Lab File ID:	1110_15	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:20
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/10/22 13:53
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.26 g
Total Solids (%):	73.3	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00735	0.0454
Acenaphthylene	208-96-8	0	U		0.00640	0.0454
Anthracene	120-12-7	6.22	U		0.00809	0.0454
Benzoic Acid	65-85-0	0	U		0.161	2.28
Benzo(a)anthracene	56-55-3	0	U		0.00800	0.0454
Benzo(b)fluoranthene	205-99-2	10.55	U		0.00847	0.0454
Benzo(k)fluoranthene	207-08-9	10.61	U		0.00807	0.0454
Benzo(g,h,i)perylene	191-24-2	13.71	U		0.00830	0.0454
Benzo(a)pyrene	50-32-8	11.17	U		0.00844	0.0454
Carbazole	86-74-8	0	U		0.0140	0.454
Chrysene	218-01-9	8.81	U		0.00903	0.0454
Dibenz(a,h)anthracene	53-70-3	0	U		0.0126	0.0454
Dibenzofuran	132-64-9	0	U		0.0149	0.454
Fluoranthene	206-44-0	7.13	U		0.00820	0.0454
Fluorene	86-73-7	0	U		0.00739	0.0454
Indeno(1,2,3-cd)pyrene	193-39-5	13.33	U		0.0128	0.0454
1-Methylnaphthalene	90-12-0	4.42	U		0.00581	0.0454
2-Methylnaphthalene	91-57-6	4.35	U		0.00589	0.0454
Naphthalene	91-20-3	3.93	U		0.0114	0.0454
Phenanthrene	85-01-8	6.18	U		0.00901	0.0454
Bis(2-ethylhexyl)phthalate	117-81-7	8.87	U		0.0575	0.454
Di-n-butyl phthalate	84-74-2	6.61	U		0.0155	0.454
Di-n-octyl phthalate	117-84-0	0	U		0.0307	0.454
Pyrene	129-00-0	7.35	U		0.00884	0.0454
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	U		0.0142	0.454
Pentachlorophenol	87-86-5	0	U		0.0122	0.454
Phenol	108-95-2	0	U		0.0183	0.454

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_15.D
Acq On : 10 Nov 2022 1:53 pm
Operator : 3545
Sample : L1555614-01 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 59 Sample Multiplier: 1
InstName : BNAMS2

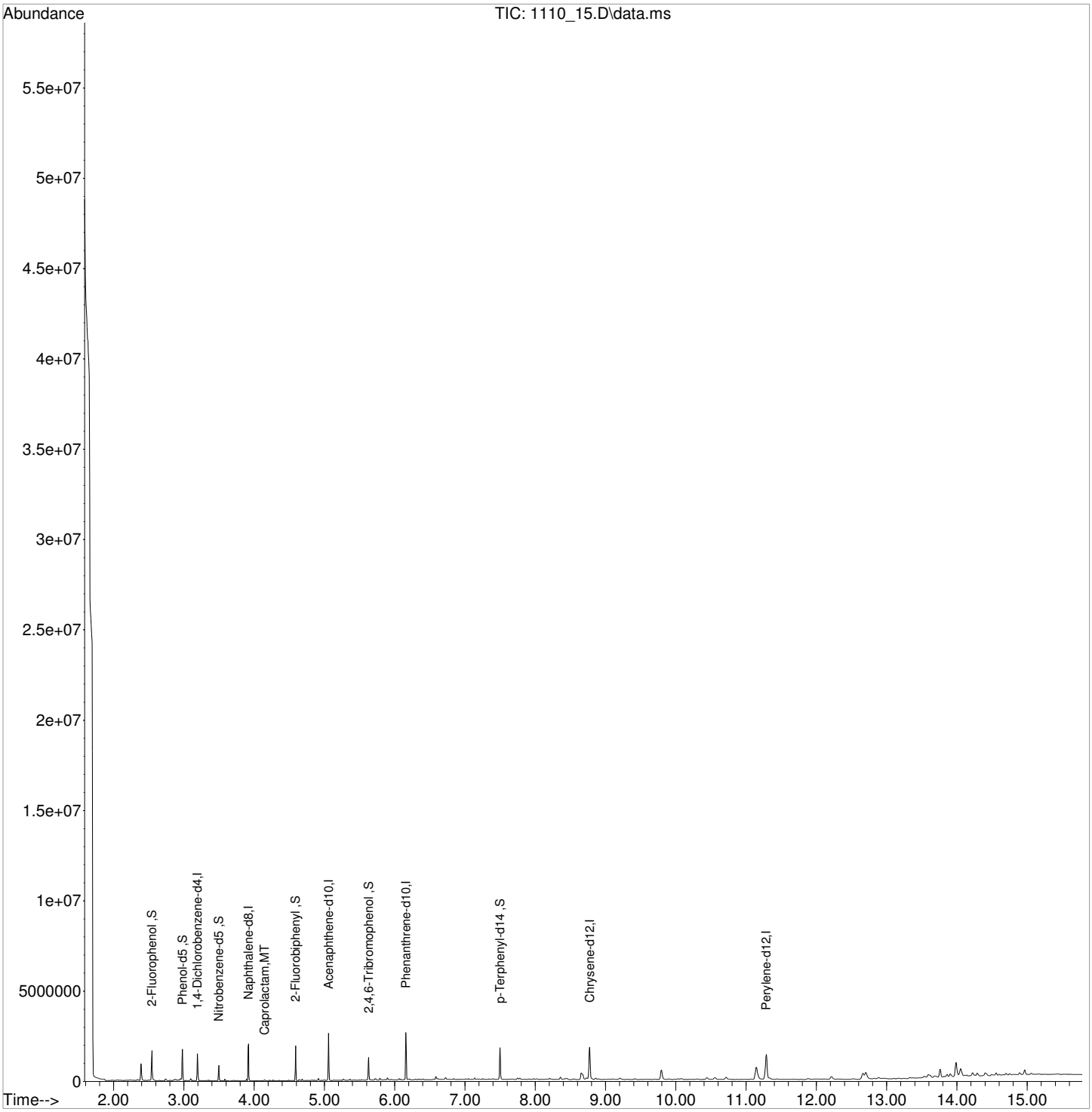
Quant Time: Nov 13 17:04:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

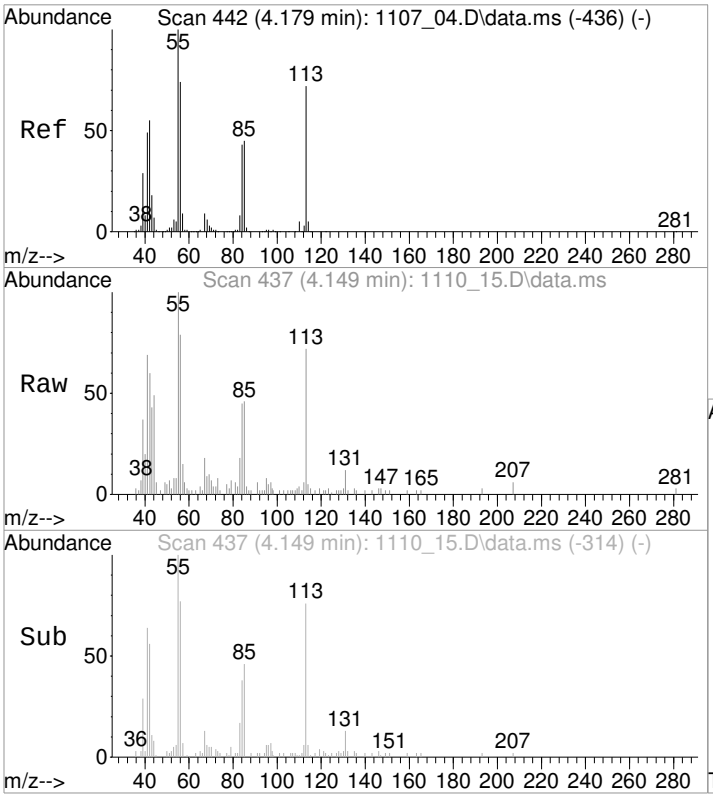
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.191	152	204625	8000.0000000 ppb	-0.02
23) Naphthalene-d8	3.920	136	783852	8000.0000000 ppb	-0.02
46) Acenaphthene-d10	5.060	164	428085	8000.0000000 ppb	-0.02
70) Phenanthrene-d10	6.159	188	813637	8000.0000000 ppb	-0.03
84) Chrysene-d12	8.773	240	808064	8000.0000000 ppb	-0.04
94) Perylene-d12	11.288	264	893606	8000.0000000 ppb	-0.06
System Monitoring Compounds					
4) 2-Fluorophenol	2.545	112	376844	10627.0362656 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 53.14%		
7) Phenol-d5	2.980	99	431820	10059.9110422 ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 50.30%		
24) Nitrobenzene-d5	3.497	82	168004	5057.2013179 ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 50.57%		
50) 2-Fluorobiphenyl	4.590	172	404760	5385.1282078 ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 53.85%		
73) 2,4,6-Tribromophenol	5.630	330	139987	10631.4100885 ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 53.16%		
87) p-Terphenyl-d14	7.498	244	639889	5771.6717745 ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 57.72%		
Target Compounds					Qvalue
39) Caprolactam	4.149	113	5139m	972.6855599 ppb	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_15.D
Acq On : 10 Nov 2022 1:53 pm
Operator : 3545
Sample : L1555614-01 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 59 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:04:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

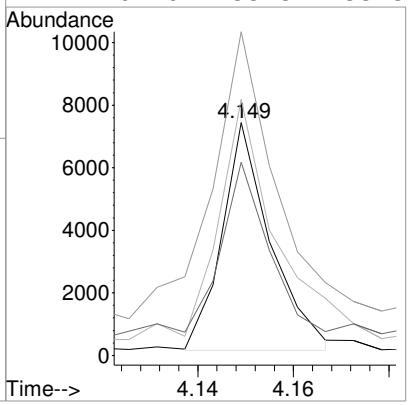




#39
Caprolactam
Concen: 972.6855599 ppb m
RT: 4.149 min Scan# 437
Delta R.T. -0.029 min
Lab File: 1110_15.D
Acq: 10 Nov 2022 1:53 pm

Tgt Ion:113 Resp: 5139

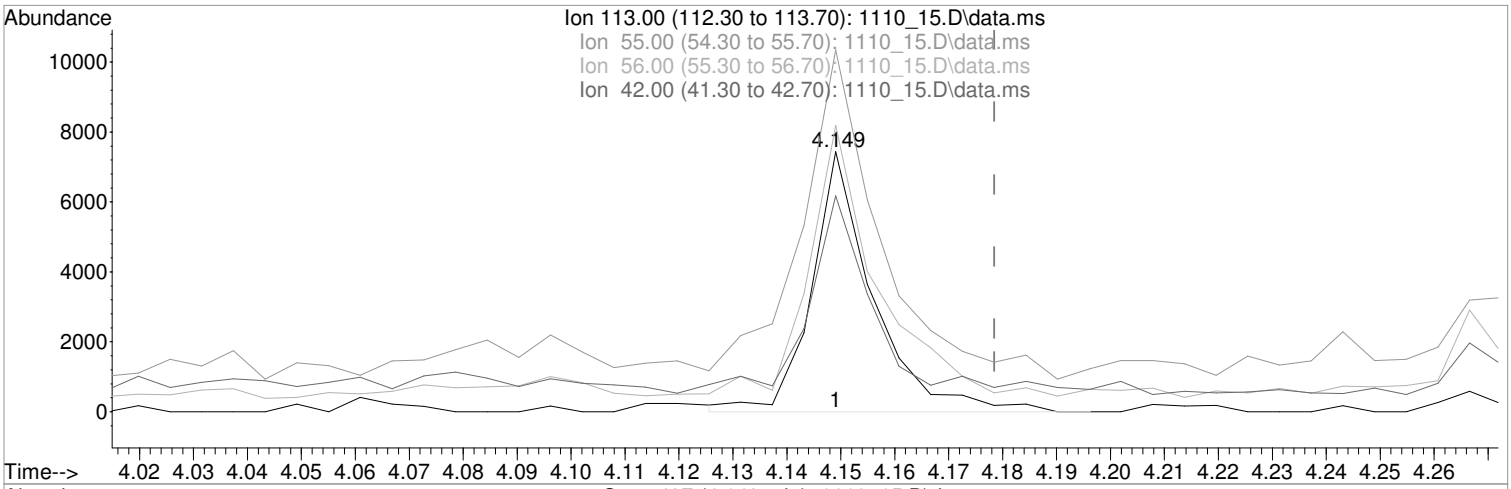
Ion	Ratio	Lower	Upper
113	100		
55	188.4	100.6	150.8#
56	133.6	75.1	112.7#
42	97.9	55.5	83.3#

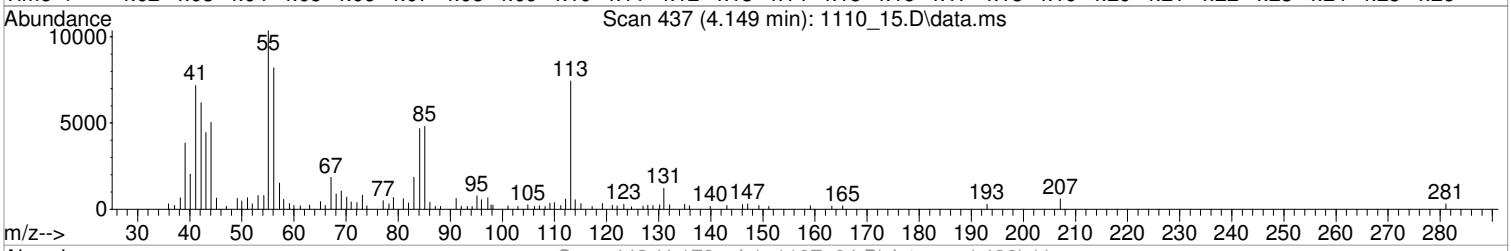


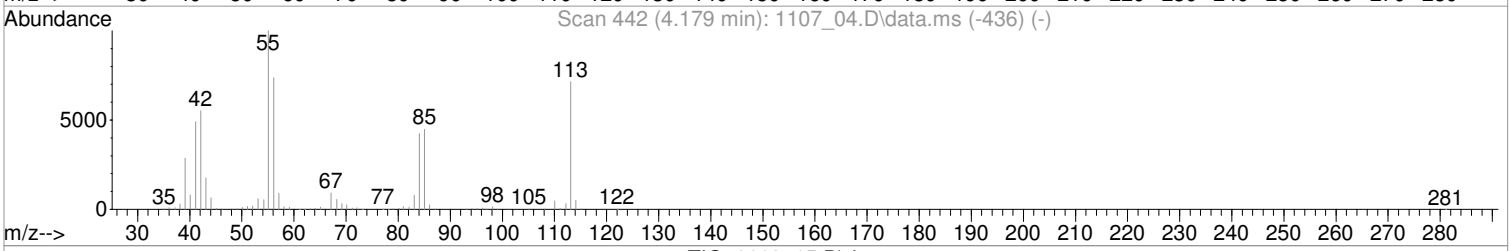
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_15.D
Acq On : 10 Nov 2022 1:53 pm
Operator : 3545
Sample : L1555614-01 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 59 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:23 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_15.D\data.ms

(39) Caprolactam (MT)

4.149min (-0.029) 1116.1562068 ppb

Qvalue = 73

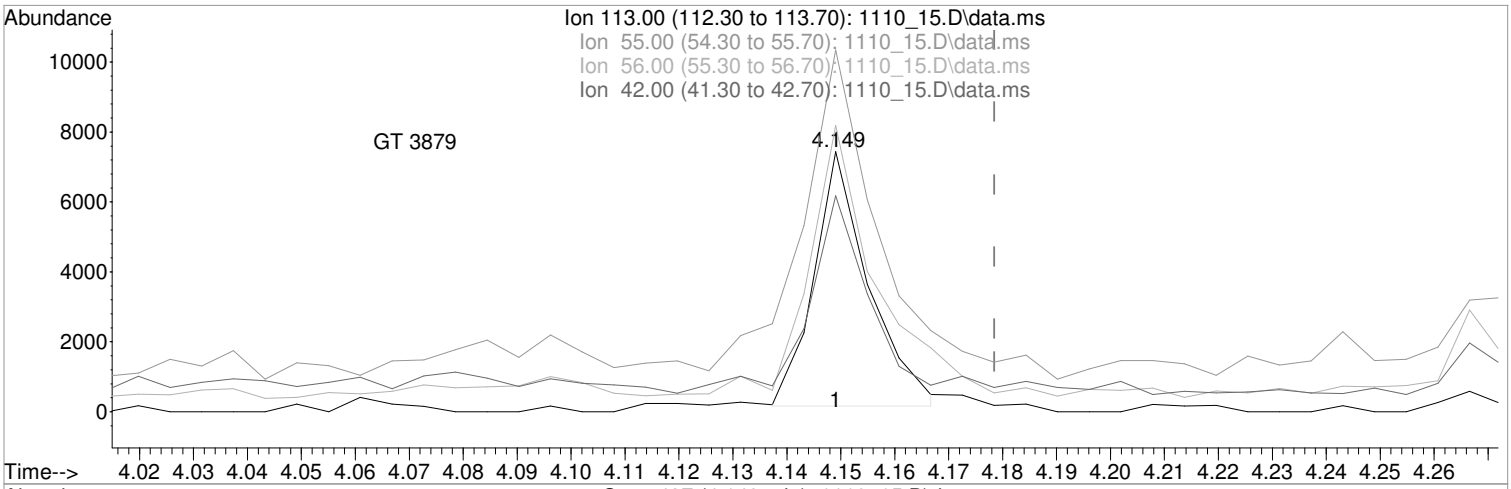
response 5897

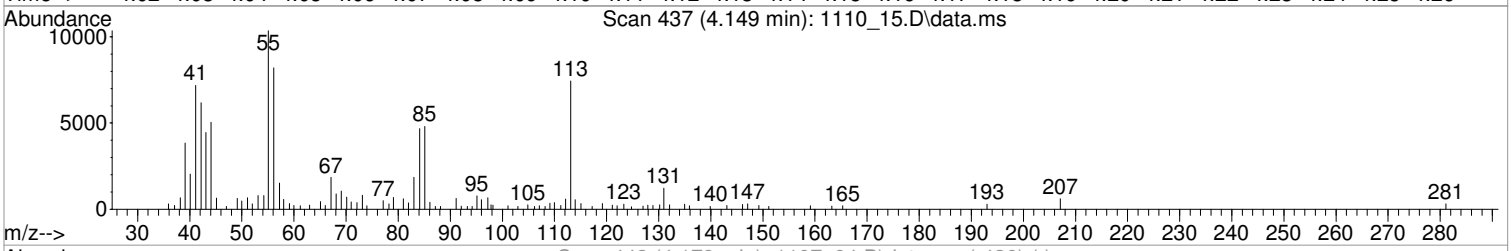
Ion	Exp%	Act%
113.00	100	100
55.00	125.70	164.20#
56.00	93.90	116.40#
42.00	69.40	85.35#

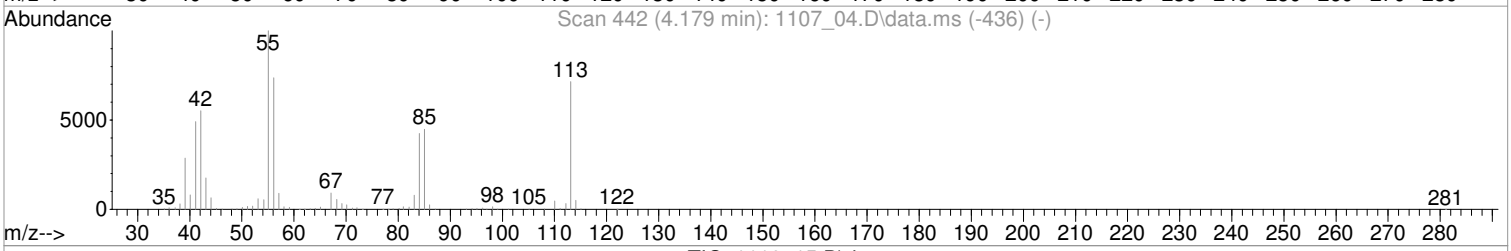
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_15.D
Acq On : 10 Nov 2022 1:53 pm
Operator : 3545
Sample : L1555614-01 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 59 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:23 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_15.D\data.ms

(39) Caprolactam (MT)

4.149min (-0.029) 972.6855599 ppb m

response 5139

Ion	Exp%	Act%
113.00	100	100
55.00	125.70	188.42#
56.00	93.90	133.57#
42.00	69.40	97.94#

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G000-SC-4.0-4.5-110322

Lab Sample ID:	L1555614-02	**SDG:**	L1555614
Client Sample ID:	BNSF-G000-SC-4.0-4.5-110322	**Collected Date/Time:**	11/03/22 14:10
Lab File ID:	1113_14	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:20
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/13/22 21:30
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.40 g
Total Solids (%):	70.1	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	U		0.00769	0.0475
Acenaphthylene	208-96-8	4.96	U		0.00669	0.0475
Anthracene	120-12-7	6.22	0.0120	J	0.00846	0.0475
Benzoic Acid	65-85-0	3.71	U		0.168	2.38
Benzo(a)anthracene	56-55-3	8.77	0.0225	J	0.00837	0.0475
Benzo(b)fluoranthene	205-99-2	10.57	0.0114	J	0.00886	0.0475
Benzo(k)fluoranthene	207-08-9	10.62	U		0.00844	0.0475
Benzo(g,h,i)perylene	191-24-2	13.72	U		0.00868	0.0475
Benzo(a)pyrene	50-32-8	11.18	0.0165	J	0.00883	0.0475
Carbazole	86-74-8	6.34	U		0.0147	0.475
Chrysene	218-01-9	8.81	0.0404	J	0.00944	0.0475
Dibenz(a,h)anthracene	53-70-3	13.40	U		0.0132	0.0475
Dibenzofuran	132-64-9	5.20	U		0.0155	0.475
Fluoranthene	206-44-0	7.14	0.0168	J	0.00857	0.0475
Fluorene	86-73-7	5.45	U		0.00773	0.0475
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	U		0.0134	0.0475
1-Methylnaphthalene	90-12-0	4.42	U		0.00608	0.0475
2-Methylnaphthalene	91-57-6	4.35	U		0.00616	0.0475
Naphthalene	91-20-3	3.93	U		0.0119	0.0475
Phenanthrene	85-01-8	6.18	0.0302	J	0.00943	0.0475
Bis(2-ethylhexyl)phthalate	117-81-7	8.87	U		0.0602	0.475
Di-n-butyl phthalate	84-74-2	6.61	U		0.0163	0.475
Di-n-octyl phthalate	117-84-0	10.02	U		0.0321	0.475
Pyrene	129-00-0	7.35	0.0486		0.00924	0.0475
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	U		0.0148	0.475
Pentachlorophenol	87-86-5	5.88	U		0.0128	0.475
Phenol	108-95-2	0	U		0.0191	0.475

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

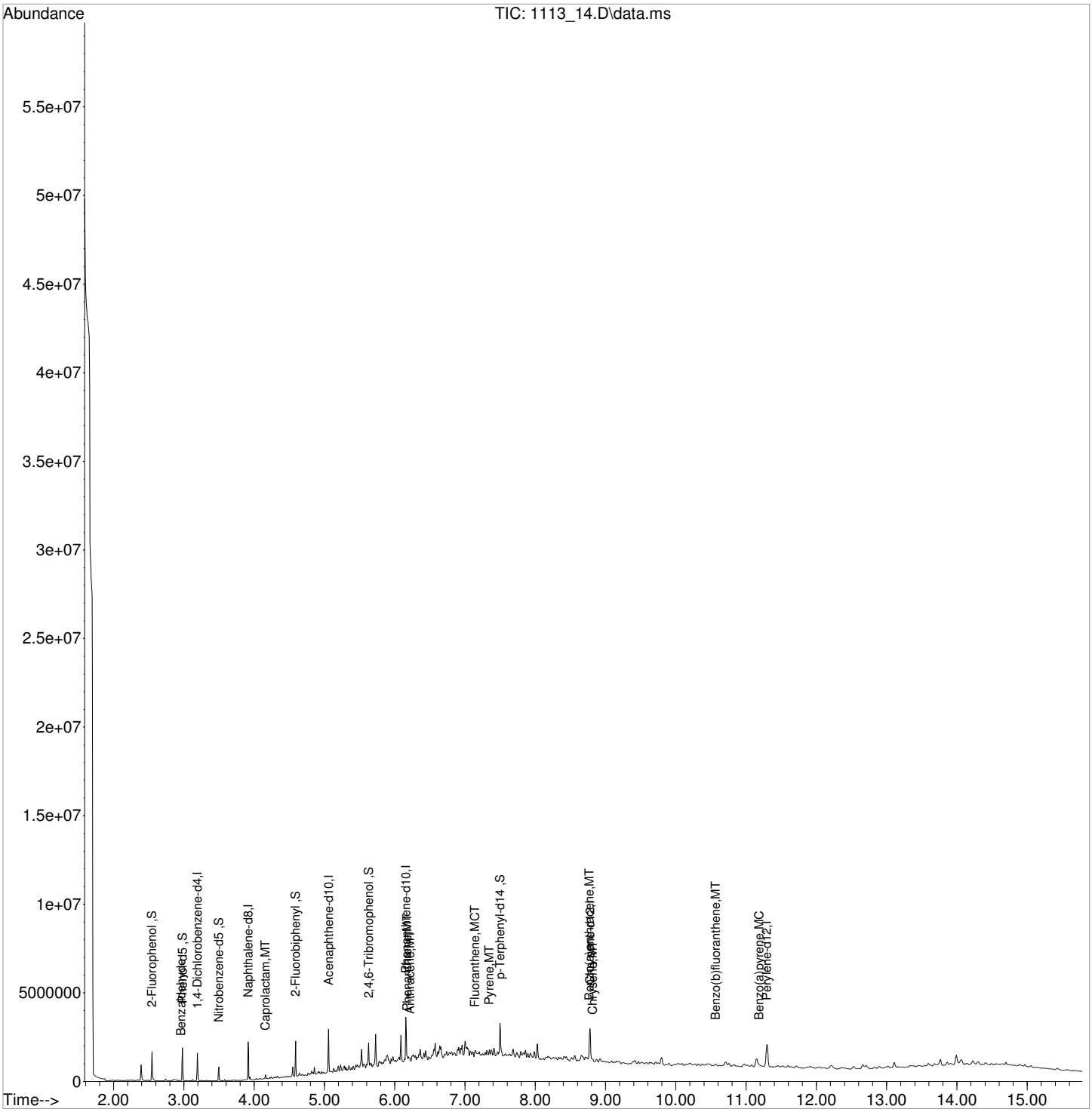
Quant Time: Nov 14 14:19:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

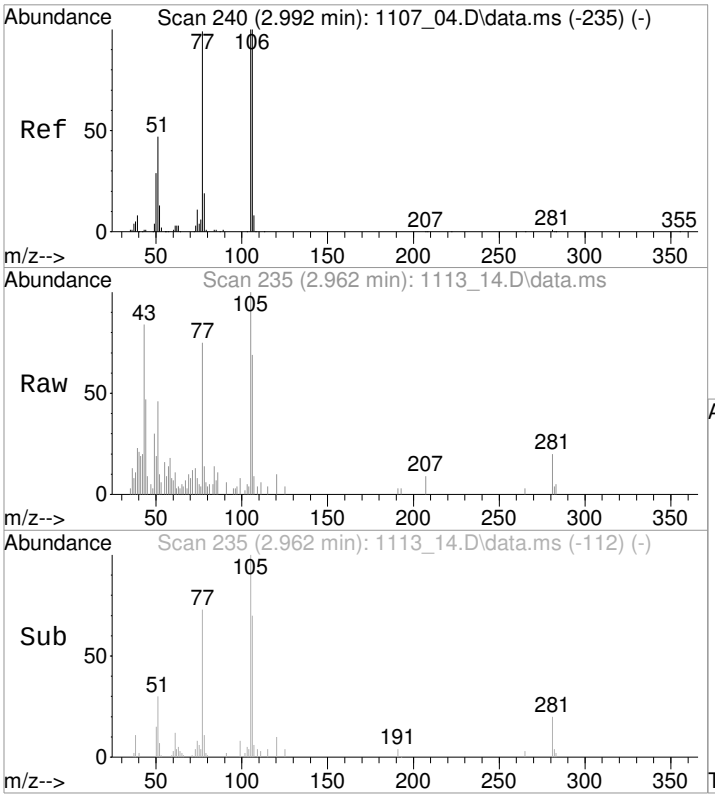
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	205087	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	782480	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.060	164	428168	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.159	188	789075	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.779	240	822323	8000.0000000	ppb	-0.04
94) Perylene-d12	11.294	264	848055	8000.0000000	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	399188	11231.7801828	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 56.16%			
7) Phenol-d5	2.980	99	457599	10636.4576223	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 53.18%			
24) Nitrobenzene-d5	3.497	82	178418	5380.0970786	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 53.80%			
50) 2-Fluorobiphenyl	4.590	172	438854	5837.5998955	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 58.38%			
73) 2,4,6-Tribromophenol	5.630	330	148215	11606.6724475	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 58.03%			
87) p-Terphenyl-d14	7.498	244	638712	5661.1593325	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 56.61%			
Target Compounds						Qvalue
9) Benzaldehyde	2.962	105	6316m	667.5368201	ppb	
39) Caprolactam	4.161	113	7436m	1409.9186550	ppb	
78) Phenanthrene	6.176	178	69460	653.5927759	ppb	94
79) Anthracene	6.217	178	28284	258.9068703	ppb #	78
83) Fluoranthene	7.140	202	46156m	363.3685499	ppb	
86) Pyrene	7.345	202	128358	1049.1684153	ppb	97
90) Benzo(a)anthracene	8.767	228	59949	486.7904644	ppb	90
91) Chrysene	8.814	228	101585	869.4794750	ppb	88
95) Benzo(b)fluoranthene	10.565	252	31256	246.0023858	ppb	93
97) Benzo(a)pyrene	11.182	252	39364m	356.7690977	ppb	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 14:19:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

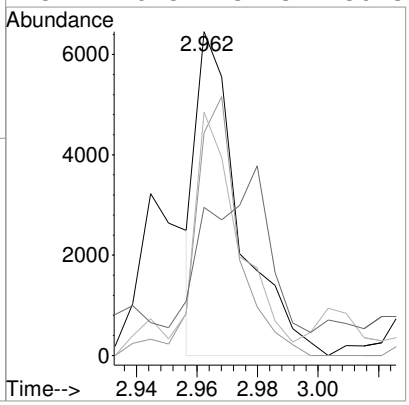


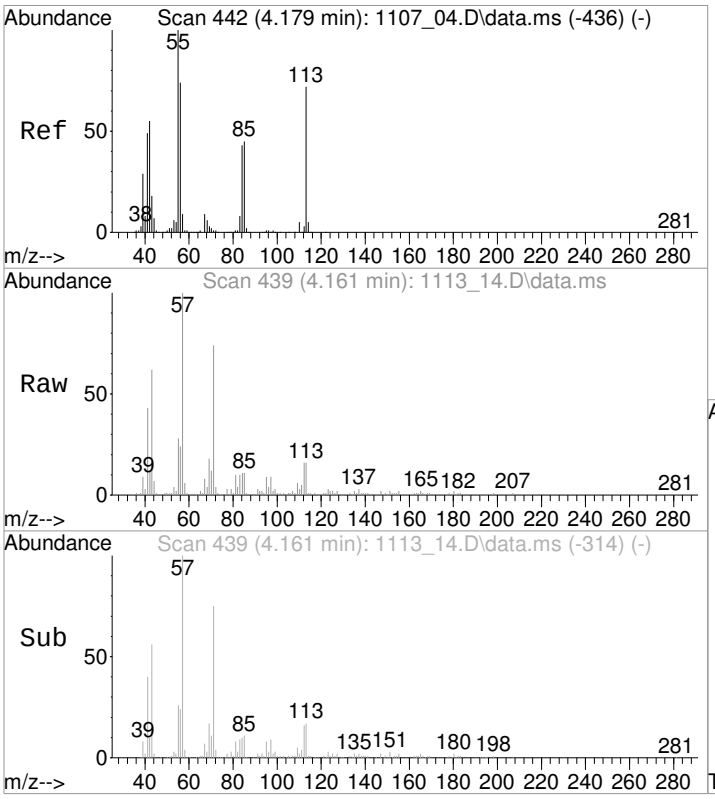


#9
Benzaldehyde
Concen: 667.5368201 ppb m
RT: 2.962 min Scan# 235
Delta R.T. -0.029 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:105 Resp: 6316

Ion	Ratio	Lower	Upper
105	100		
106	82.5	81.3	121.9
77	87.9	79.0	118.6
51	70.5	37.8	56.8#

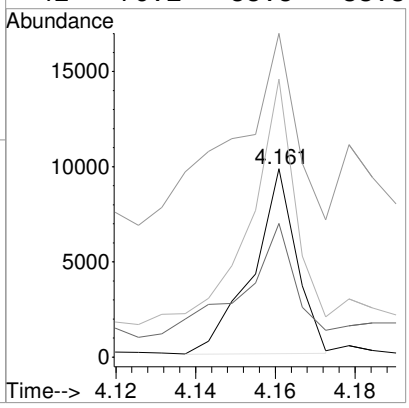


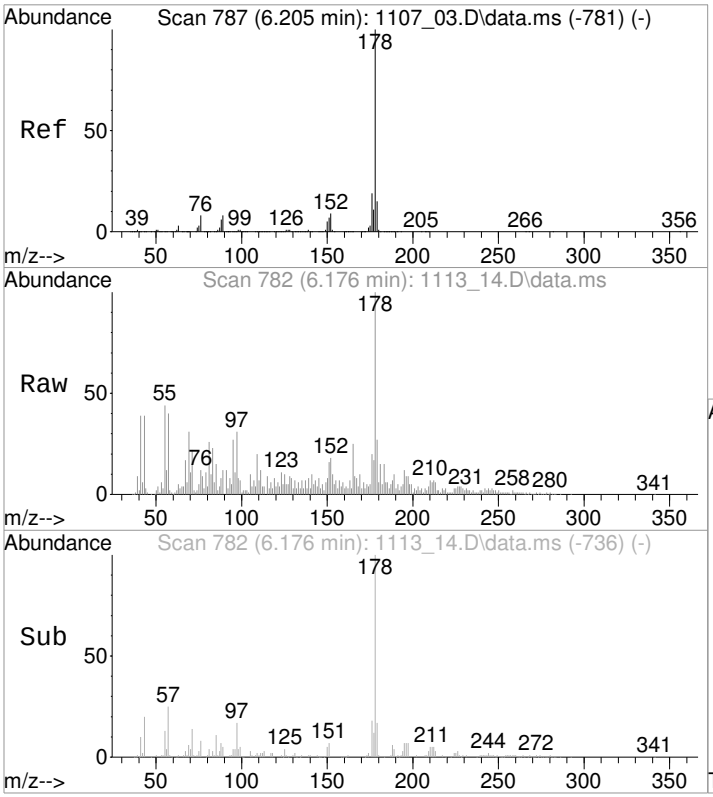


#39
Caprolactam
Concen: 1409.9186550 ppb m
RT: 4.161 min Scan# 439
Delta R.T. -0.018 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:113 Resp: 7436

Ion	Ratio	Lower	Upper
113	100		
55	146.8	100.6	150.8
56	161.1	75.1	112.7#
42	76.1	55.5	83.3

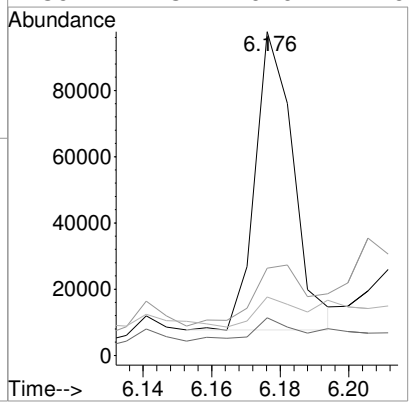


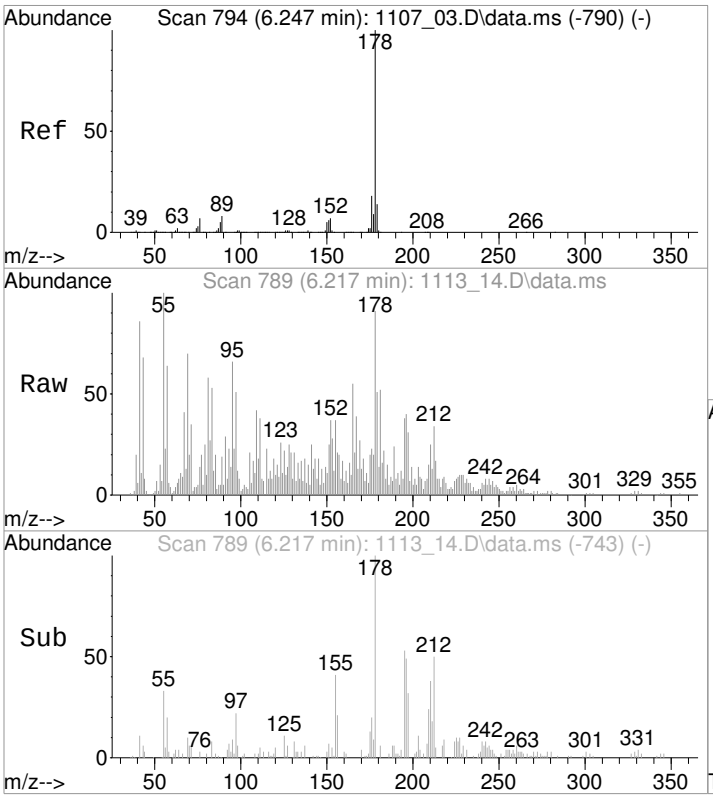


#78
Phenanthrene
Concen: 653.5927759 ppb
RT: 6.176 min Scan# 782
Delta R.T. -0.029 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:178 Resp: 69460

Ion	Ratio	Lower	Upper
178	100		
179	19.4	0.0	34.9
152	8.2	0.0	29.0
89	7.8	0.0	27.9

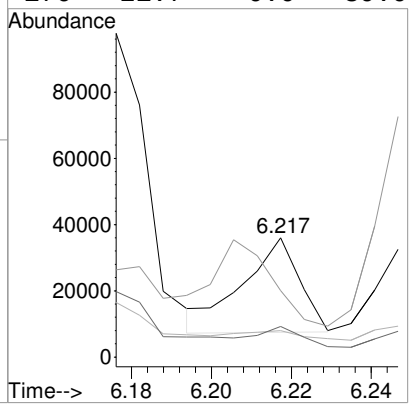


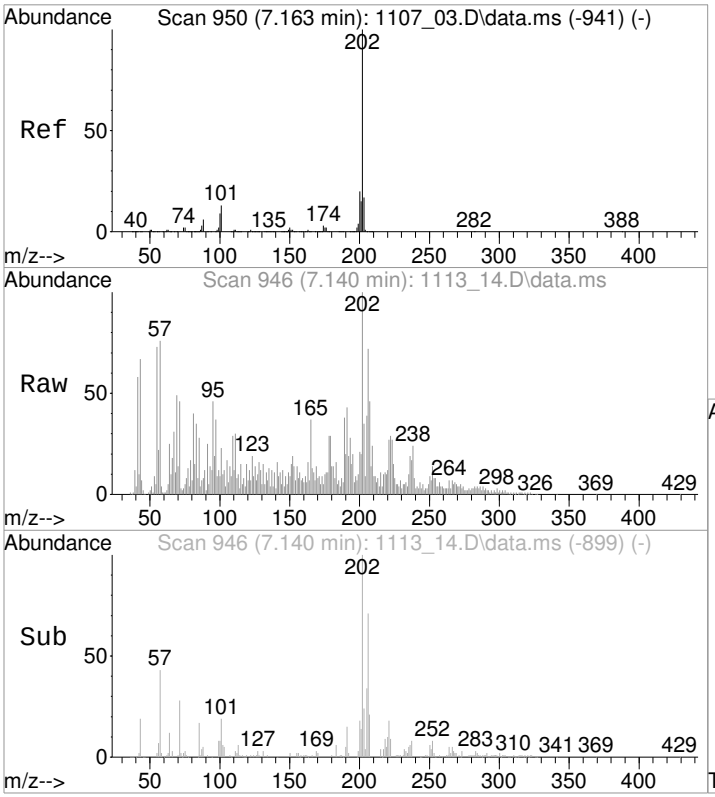


#79
Anthracene
Concen: 258.9068703 ppb
RT: 6.217 min Scan# 789
Delta R.T. -0.029 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:178 Resp: 28284

Ion	Ratio	Lower	Upper
178	100		
179	38.5	0.0	35.8#
177	8.5	0.0	29.8
176	21.7	0.0	39.0

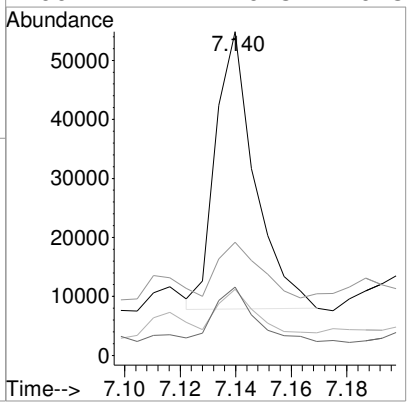


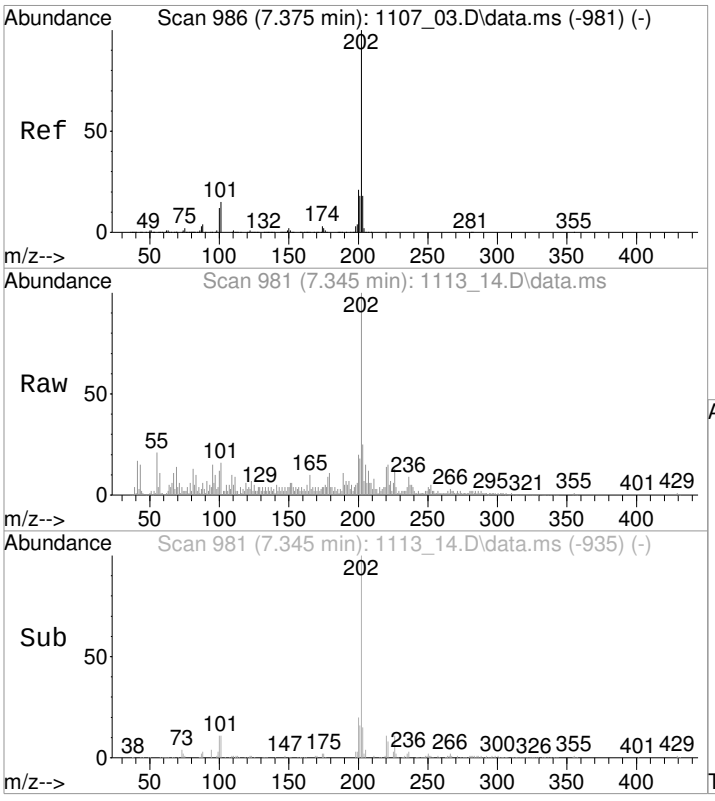


#83
Fluoranthene
Concen: 363.3685499 ppb m
RT: 7.140 min Scan# 946
Delta R.T. -0.023 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:202 Resp: 46156

Ion	Ratio	Lower	Upper
202	100		
203	34.9	0.0	37.5
201	20.4	0.0	35.0
200	21.2	0.8	40.8

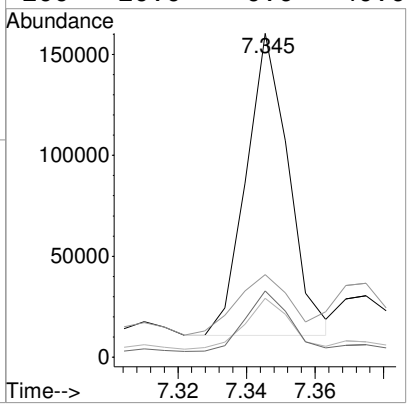


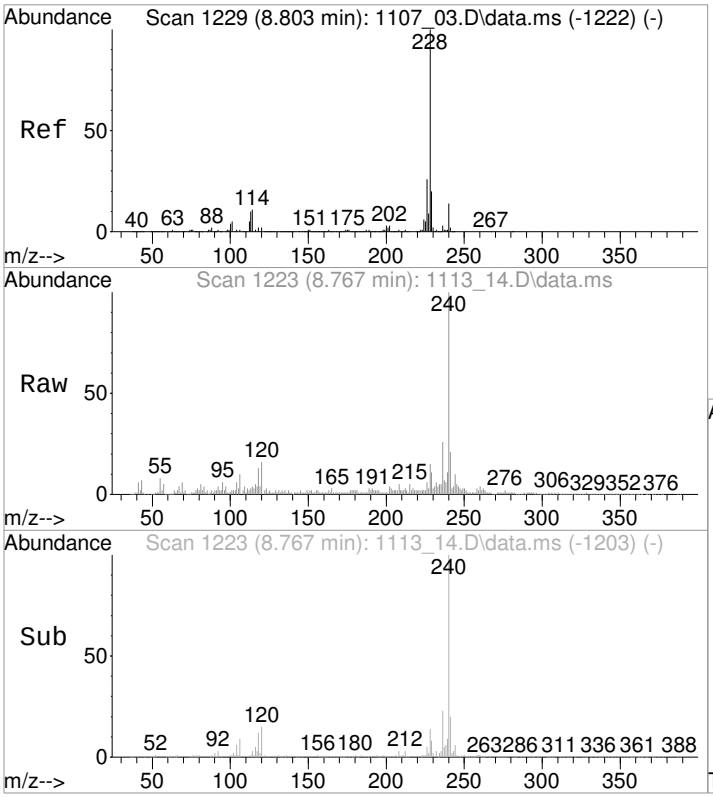


#86
Pyrene
Concen: 1049.1684153 ppb
RT: 7.345 min Scan# 981
Delta R.T. -0.029 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:202 Resp: 128358

Ion	Ratio	Lower	Upper
202	100		
203	20.0	0.0	37.2
201	16.8	0.0	37.4
200	20.0	0.6	40.6

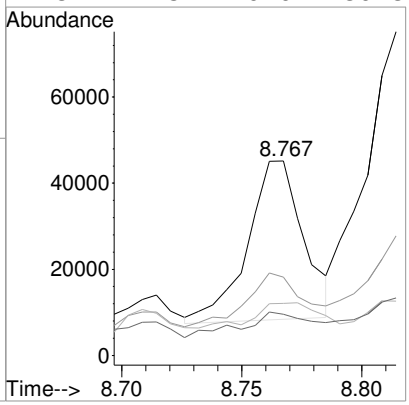


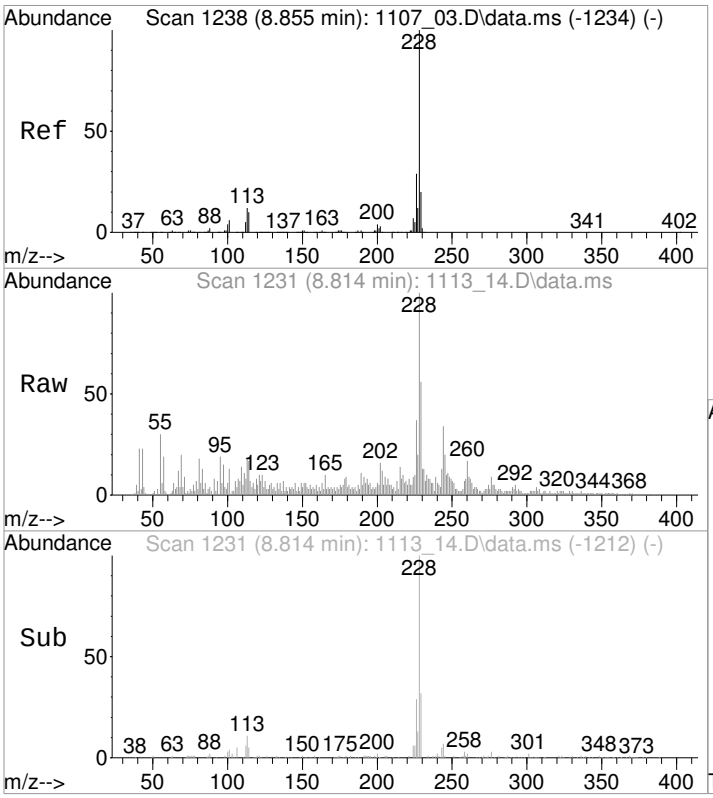


#90
Benzo(a)anthracene
Concen: 486.7904644 ppb
RT: 8.767 min Scan# 1223
Delta R.T. -0.035 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:228 Resp: 59949

Ion	Ratio	Lower	Upper
228	100		
226	31.7	7.1	47.1
114	15.4	0.0	31.6
113	14.8	0.0	30.3

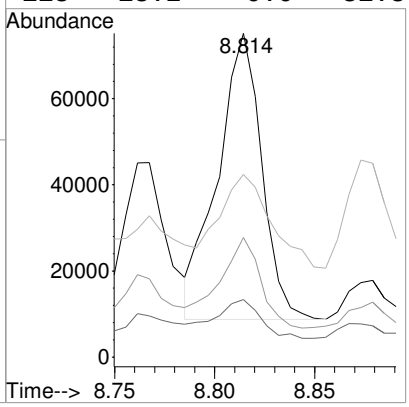


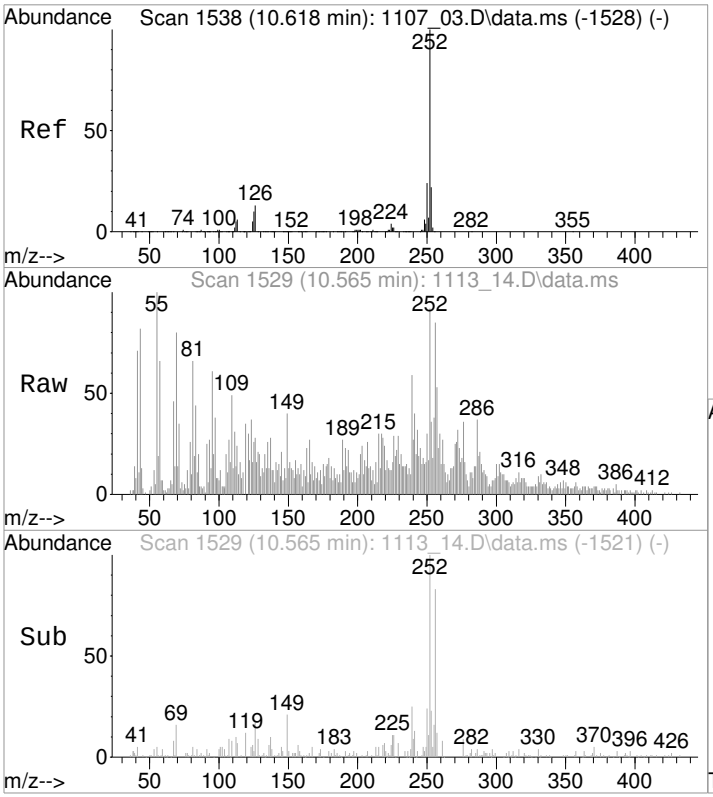


#91
Chrysene
Concen: 869.4794750 ppb
RT: 8.814 min Scan# 1231
Delta R.T. -0.041 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:228 Resp: 101585

Ion	Ratio	Lower	Upper
228	100		
226	31.0	8.9	48.9
229	32.8	0.0	39.6
113	13.2	0.0	31.3

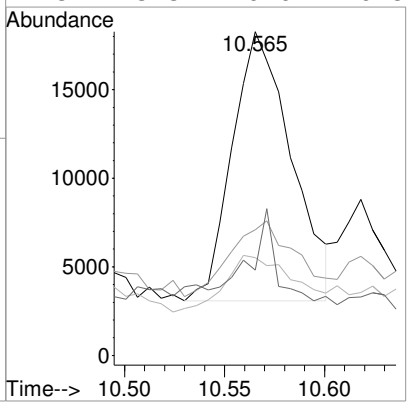


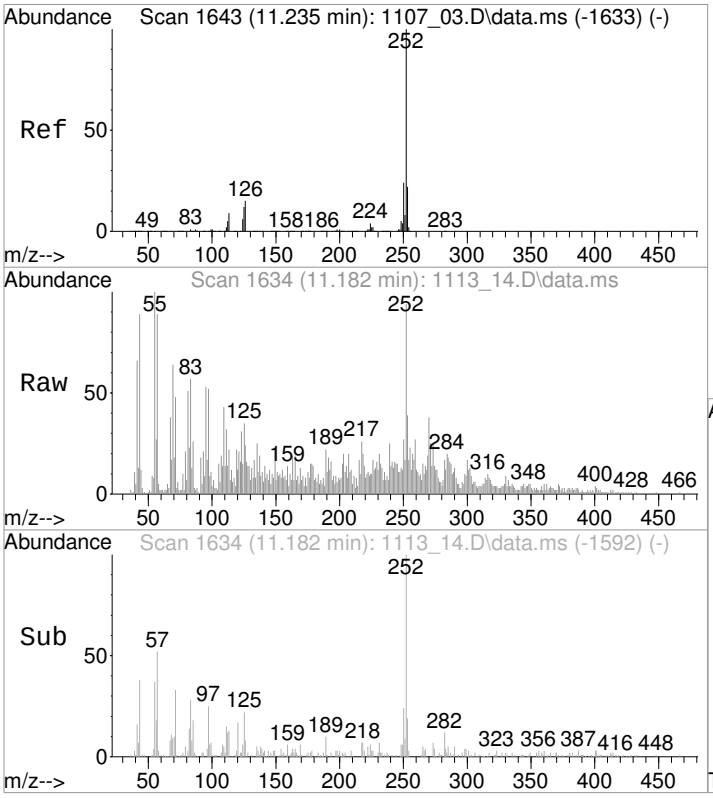


#95
Benzo(b)fluoranthene
Concen: 246.0023858 ppb
RT: 10.565 min Scan# 1529
Delta R.T. -0.053 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:252 Resp: 31256

Ion	Ratio	Lower	Upper
252	100		
253	24.0	1.9	41.9
126	18.0	0.0	33.4
113	8.8	0.0	26.5

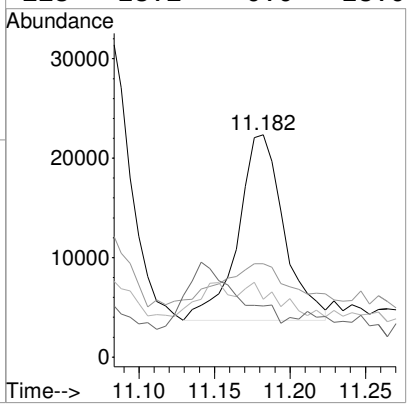




#97
Benzo(a)pyrene
Concen: 356.7690977 ppb m
RT: 11.182 min Scan# 1634
Delta R.T. -0.053 min
Lab File: 1113_14.D
Acq: 13 Nov 2022 9:30 pm

Tgt Ion:252 Resp: 39364

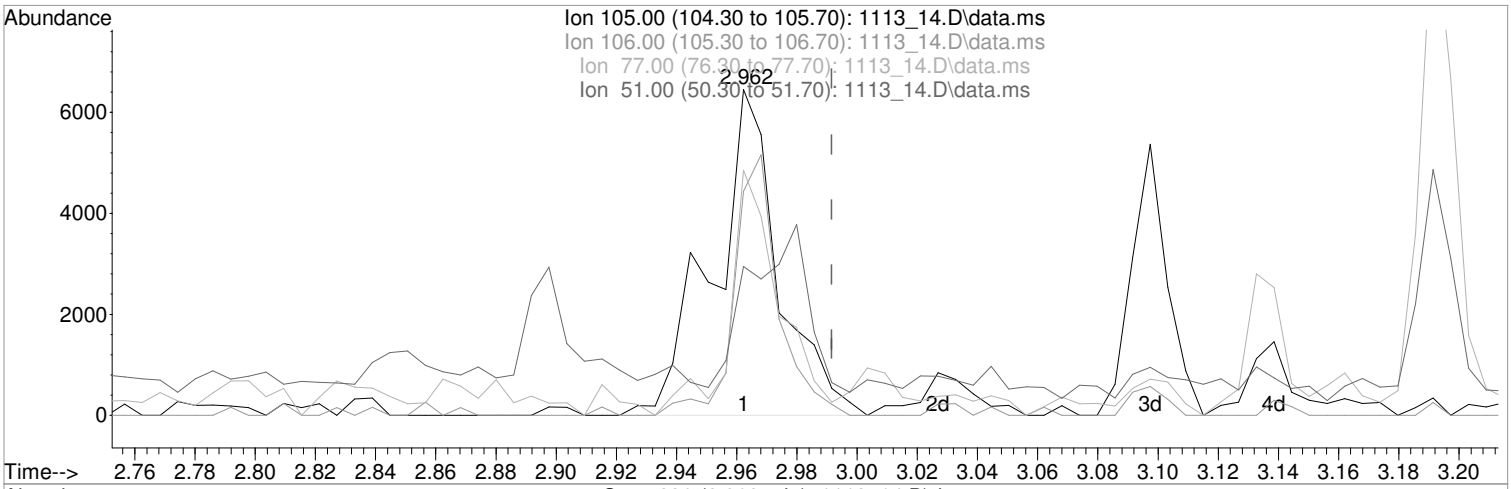
Ion	Ratio	Lower	Upper
252	100		
253	42.0	1.4	41.4#
126	26.0	0.0	34.7
113	23.1	0.0	28.0

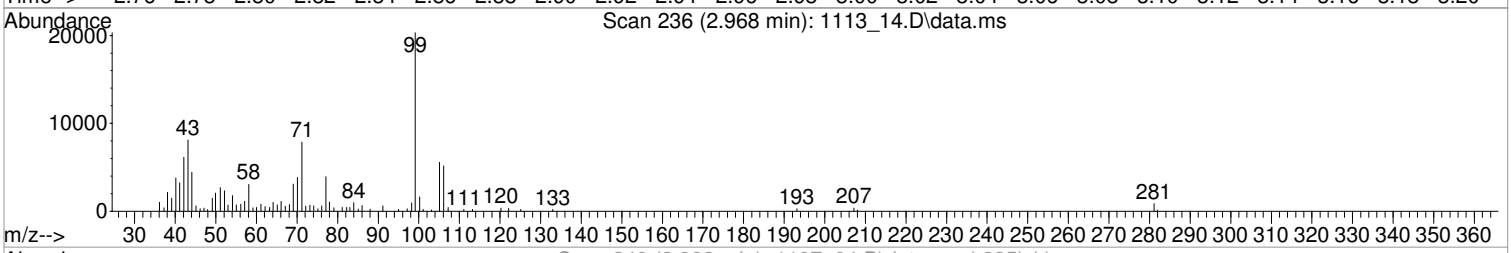


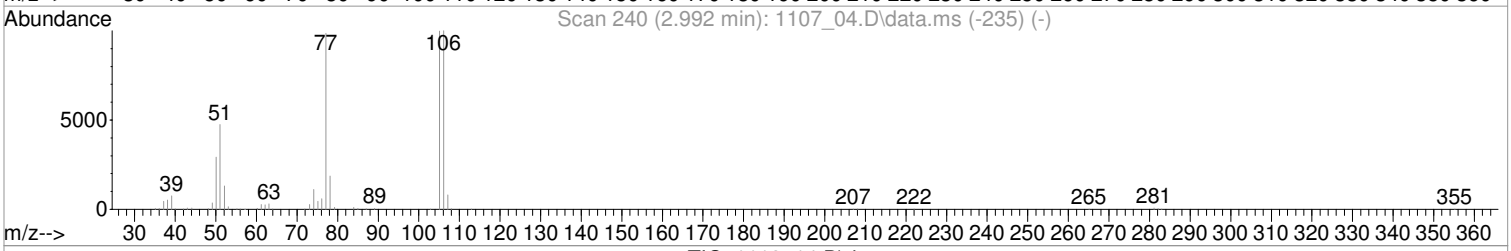
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(9) Benzaldehyde

2.962min (-0.029) 1031.3211353 ppb

Qvalue = 63

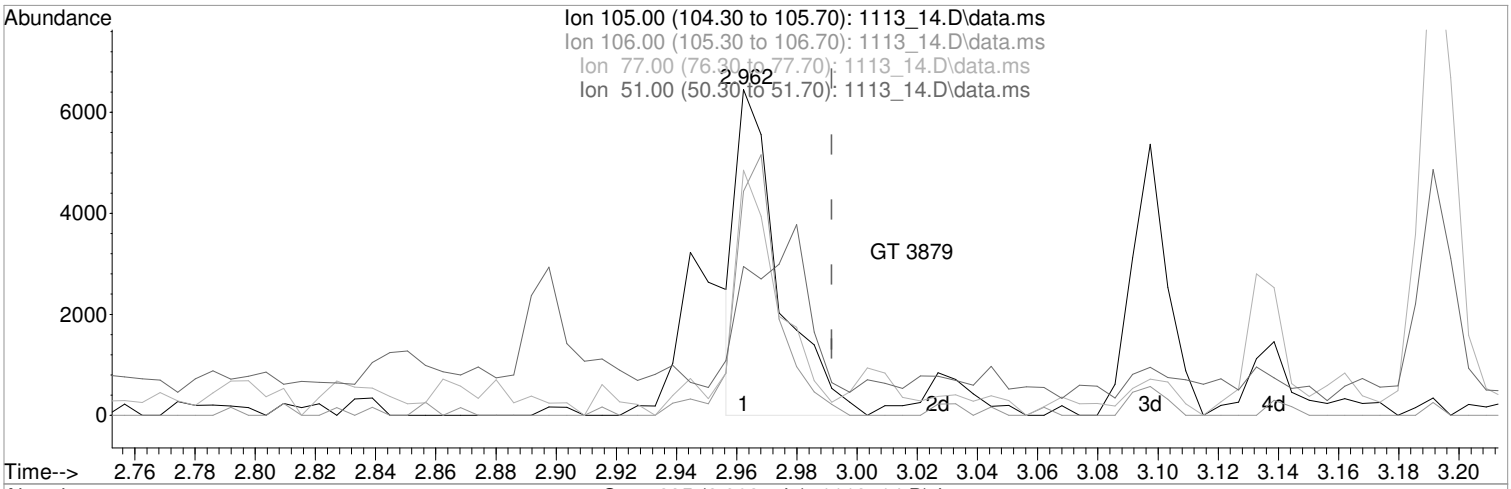
response 9758

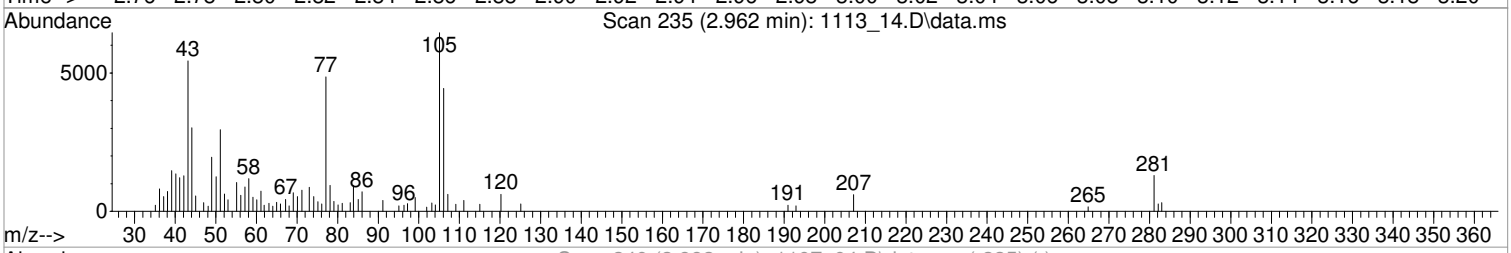
Ion	Exp%	Act%
105.00	100	100
106.00	101.60	53.38#
77.00	98.80	56.90#
51.00	47.30	45.63

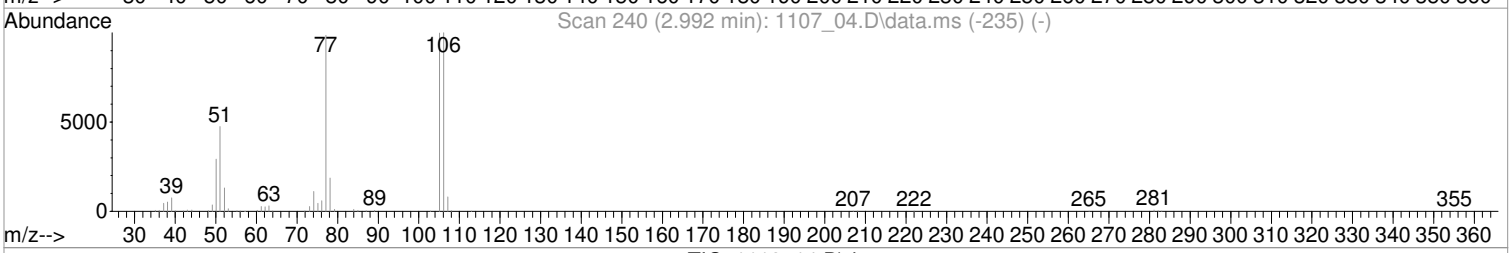
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(9) Benzaldehyde

2.962min (-0.029) 667.5368201 ppb m

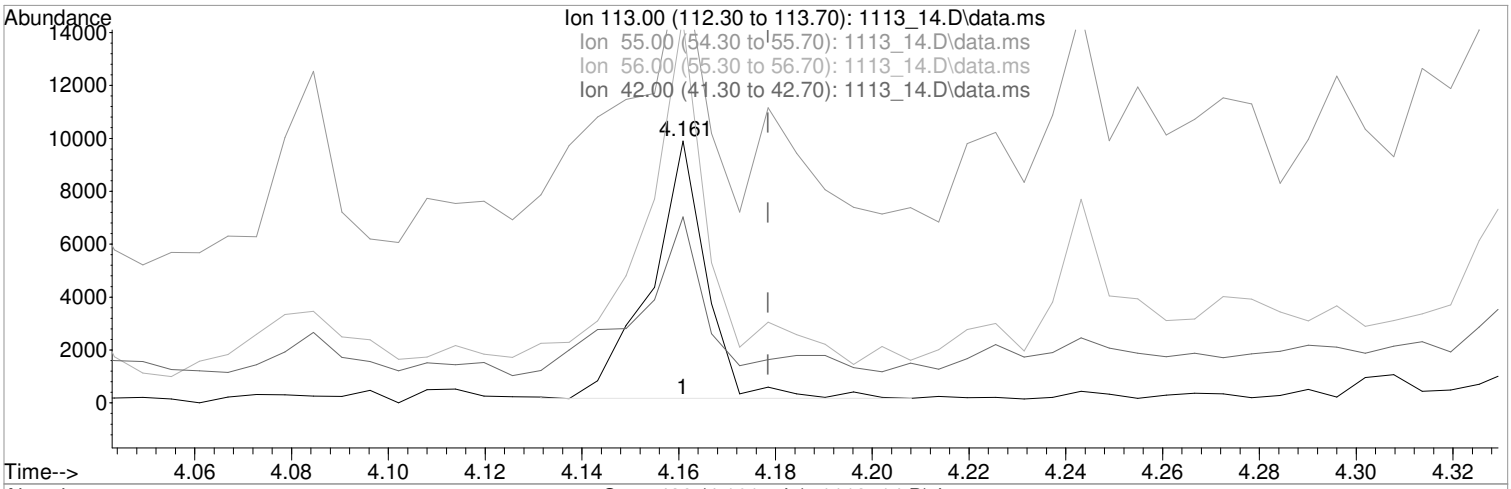
response 6316

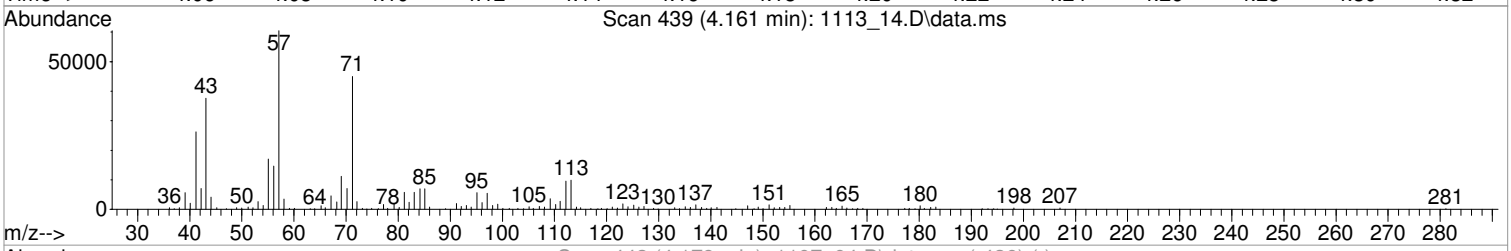
Ion	Exp%	Act%
105.00	100	100
106.00	101.60	82.47
77.00	98.80	87.90
51.00	47.30	70.50#

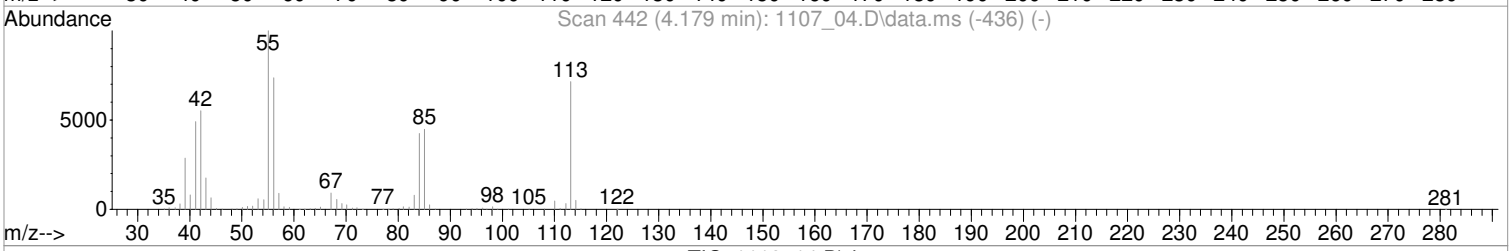
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(39) Caprolactam (MT)

4.161min (-0.018) 1469.8345097 ppb

Qvalue = 73

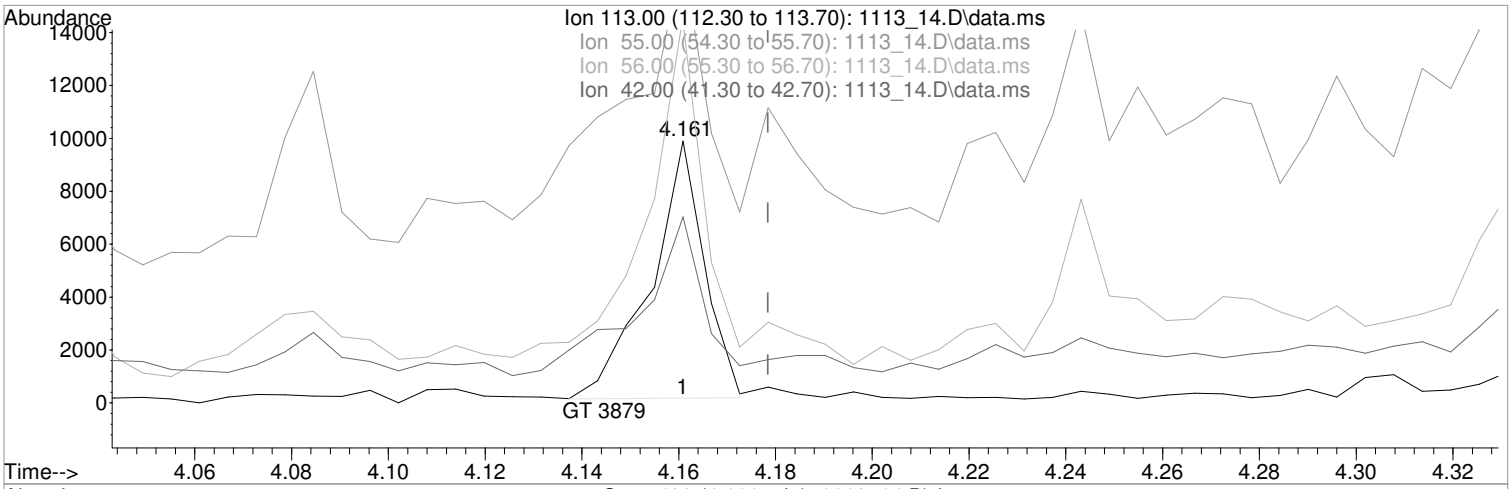
response 7752

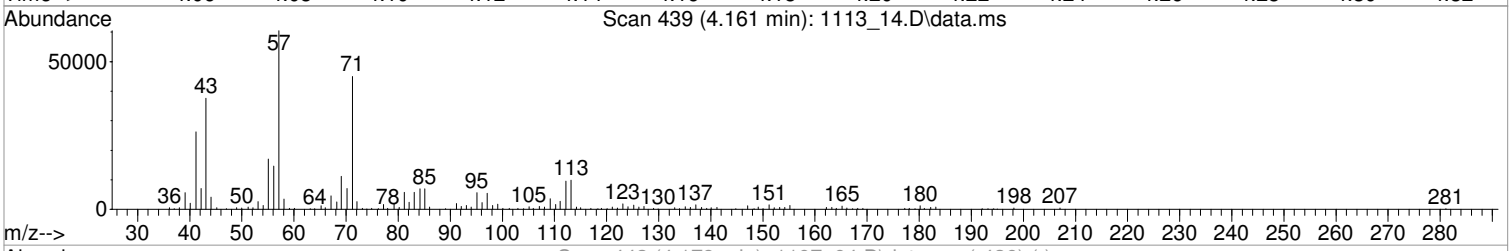
Ion	Exp%	Act%
113.00	100	100
55.00	125.70	140.78
56.00	93.90	154.50#
42.00	69.40	73.00

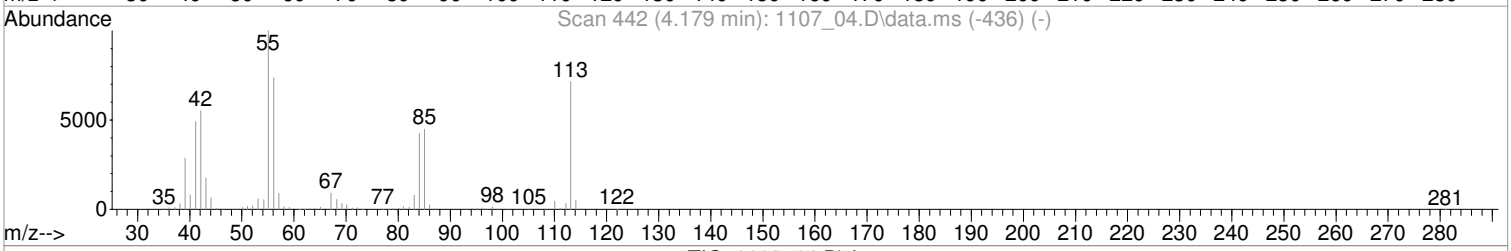
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(39) Caprolactam (MT)

4.161min (-0.018) 1409.9186550 ppb m

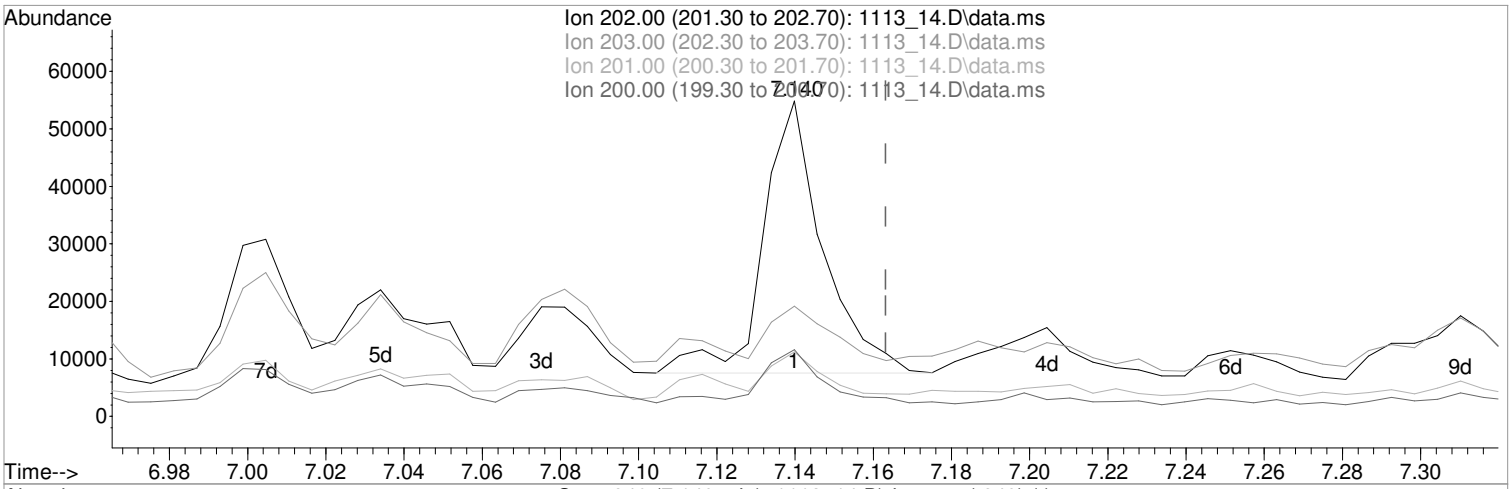
response 7436

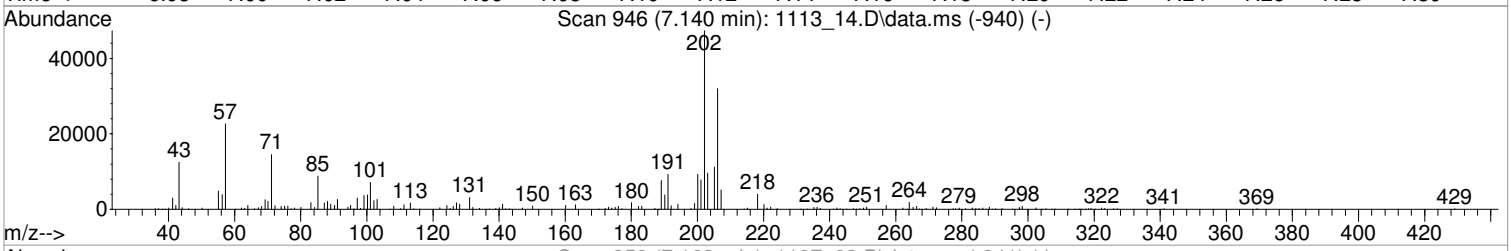
Ion	Exp%	Act%
113.00	100	100
55.00	125.70	146.76
56.00	93.90	161.07#
42.00	69.40	76.10

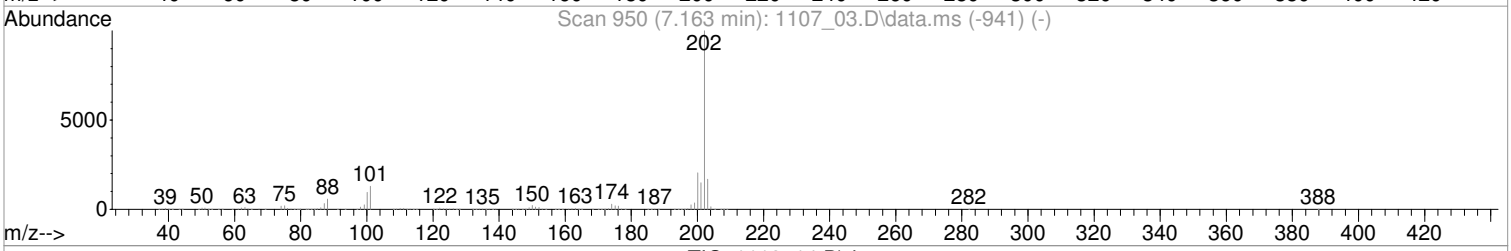
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(83) Fluoranthene (MCT)

7.140min (-0.023) 397.6774185 ppb

Qvalue = 96

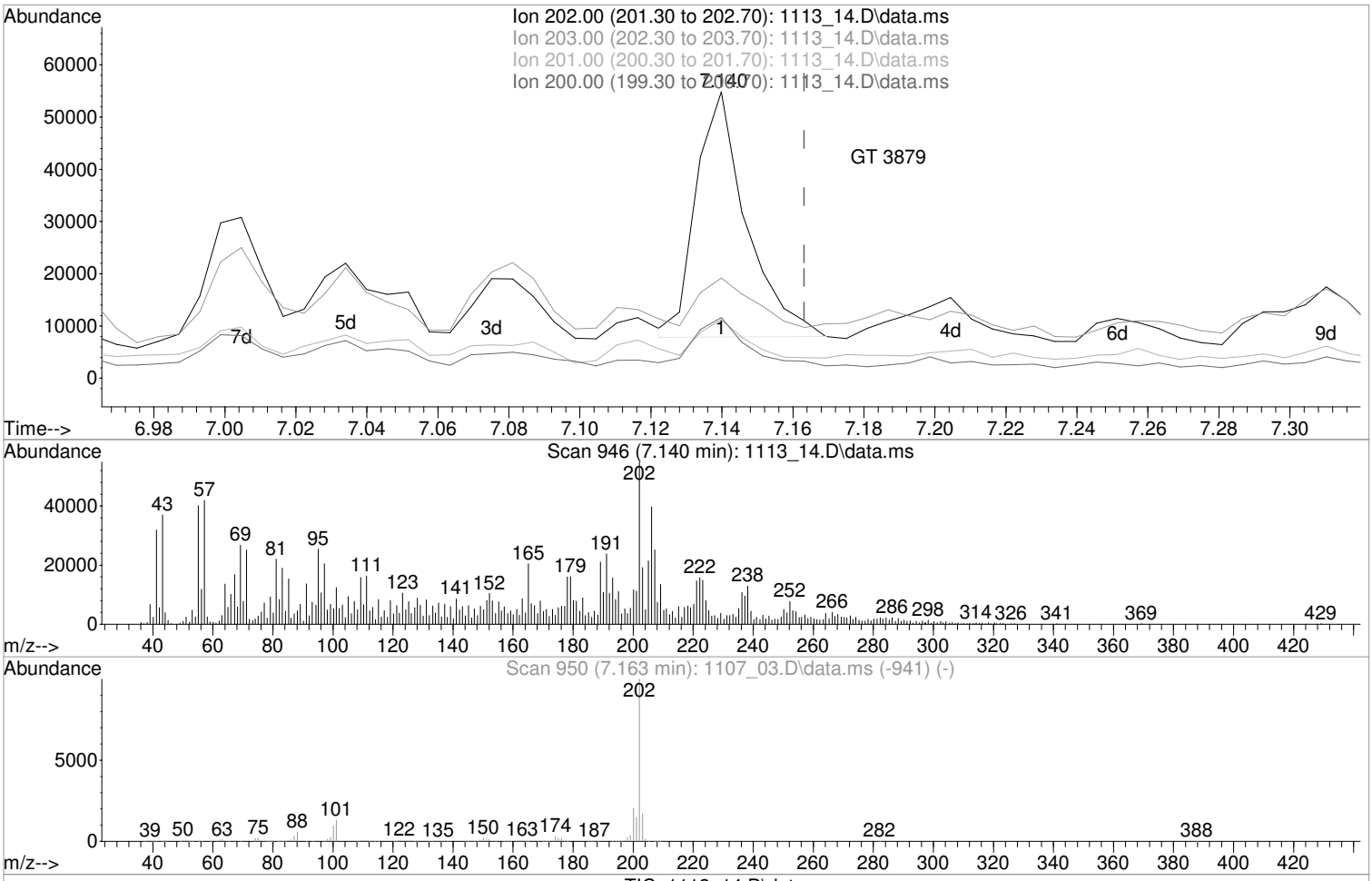
response 50514 Limit = 180.0000000

Ion	Exp%	Act%
202.00	100	100
203.00	17.50	20.18
201.00	15.00	16.54
200.00	20.80	19.51

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1113_14.D\data.ms

(83) Fluoranthene (MCT)

7.140min (-0.023) 363.3685499 ppb m

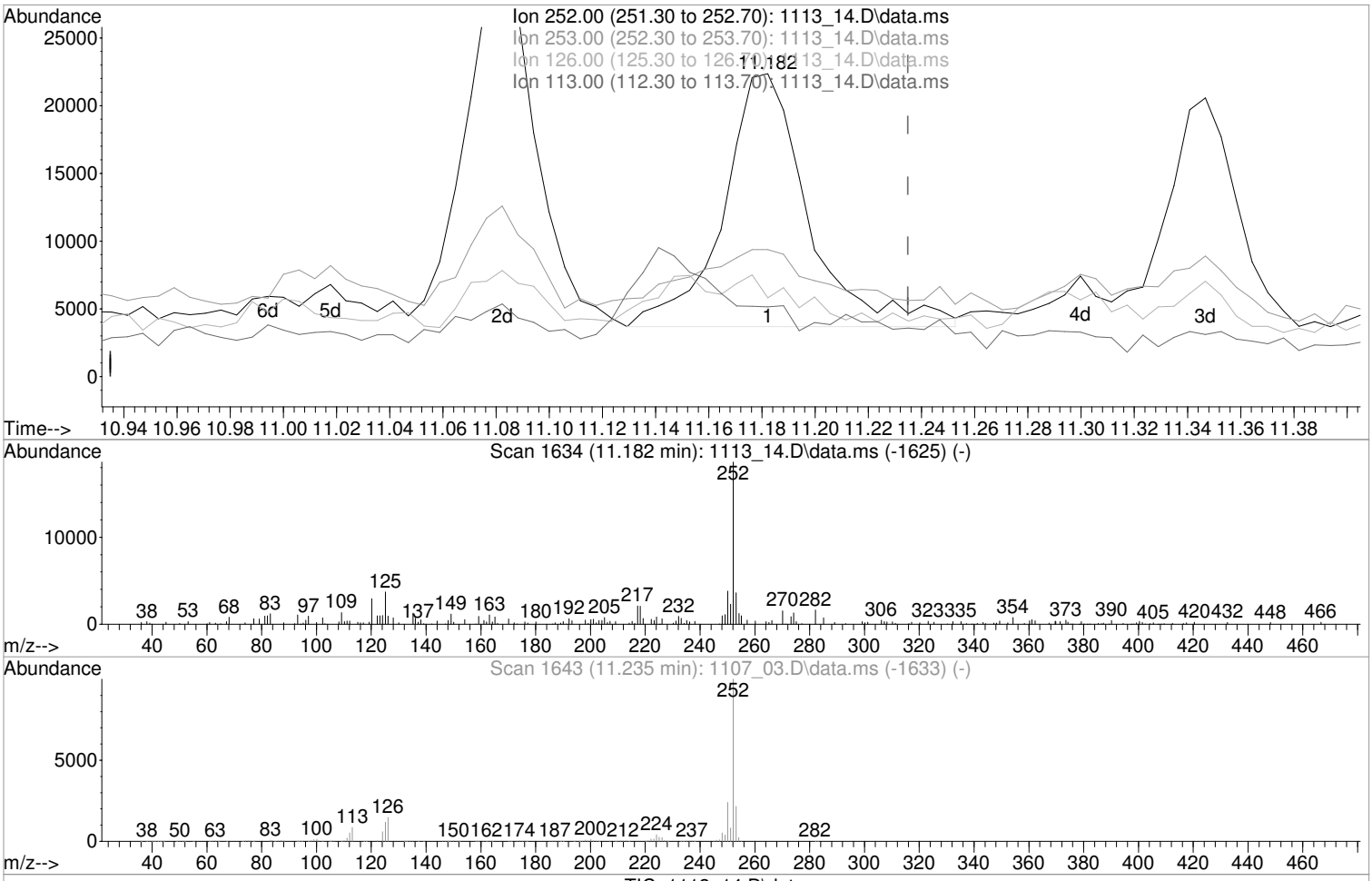
response 46156 Limit = 180.0000000

Ion	Exp%	Act%
202.00	100	100
203.00	17.50	34.92
201.00	15.00	20.45
200.00	20.80	21.15

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1113_14.D\data.ms

(97) Benzo(a)pyrene (MC)

11.182min (-0.053) 376.5634202 ppb

Qvalue = 93

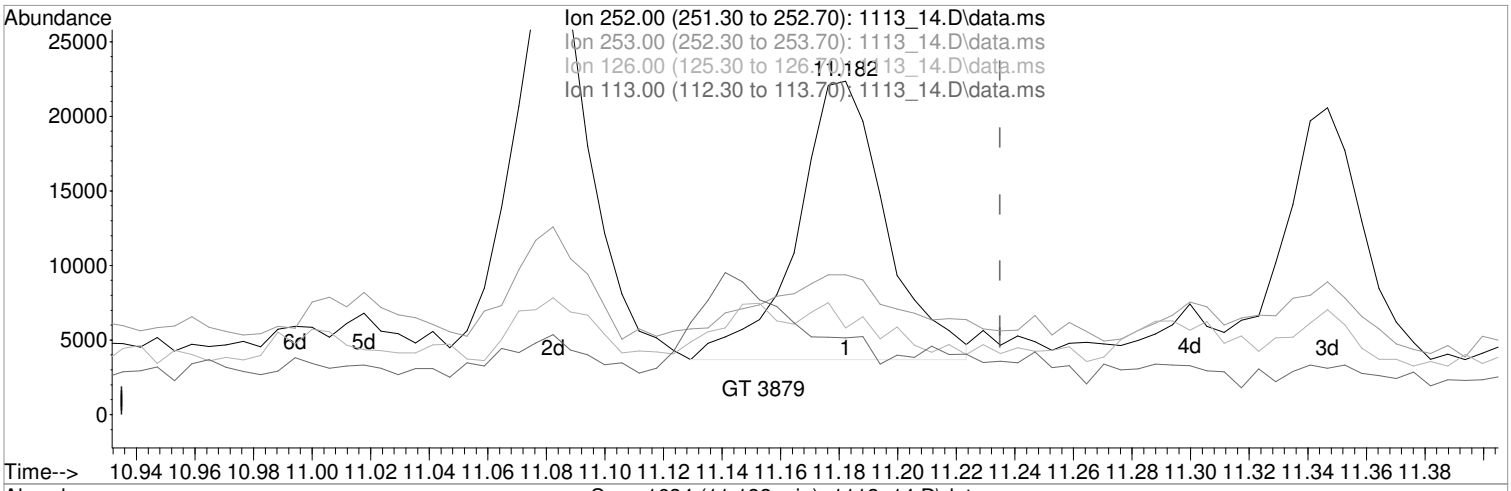
response 41548 Limit = 186.0000000

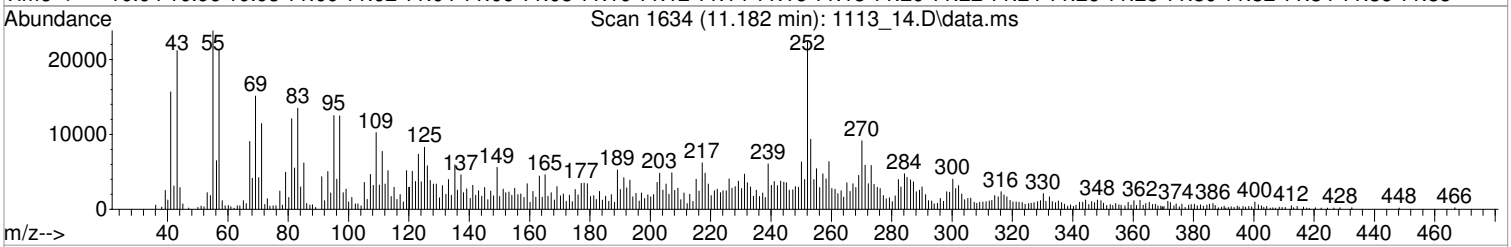
Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.62
126.00	14.70	7.95
113.00	8.00	10.77

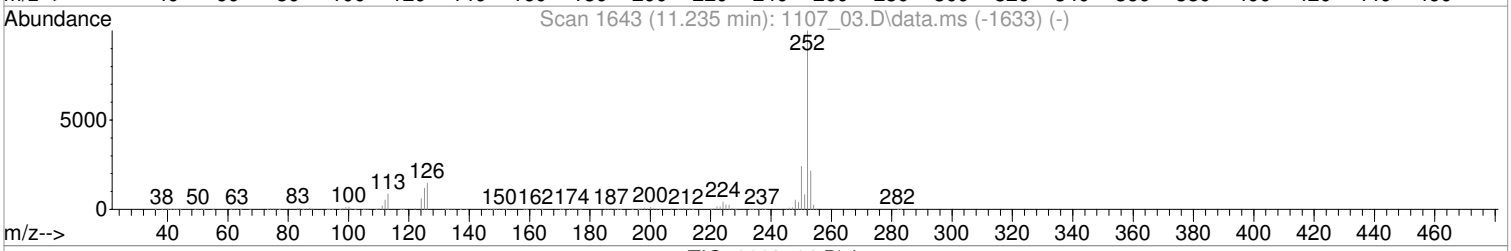
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_14.D
Acq On : 13 Nov 2022 9:30 pm
Operator : 3545
Sample : L1555614-02 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 14 08:10:43 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_14.D\data.ms

(97) Benzo(a)pyrene (MC)

11.182min (-0.053) 356.7690977 ppb m

response 39364 Limit = 186.0000000

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	41.97#
126.00	14.70	25.97
113.00	8.00	23.07

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1555614 **Analytical Method:** 8270E

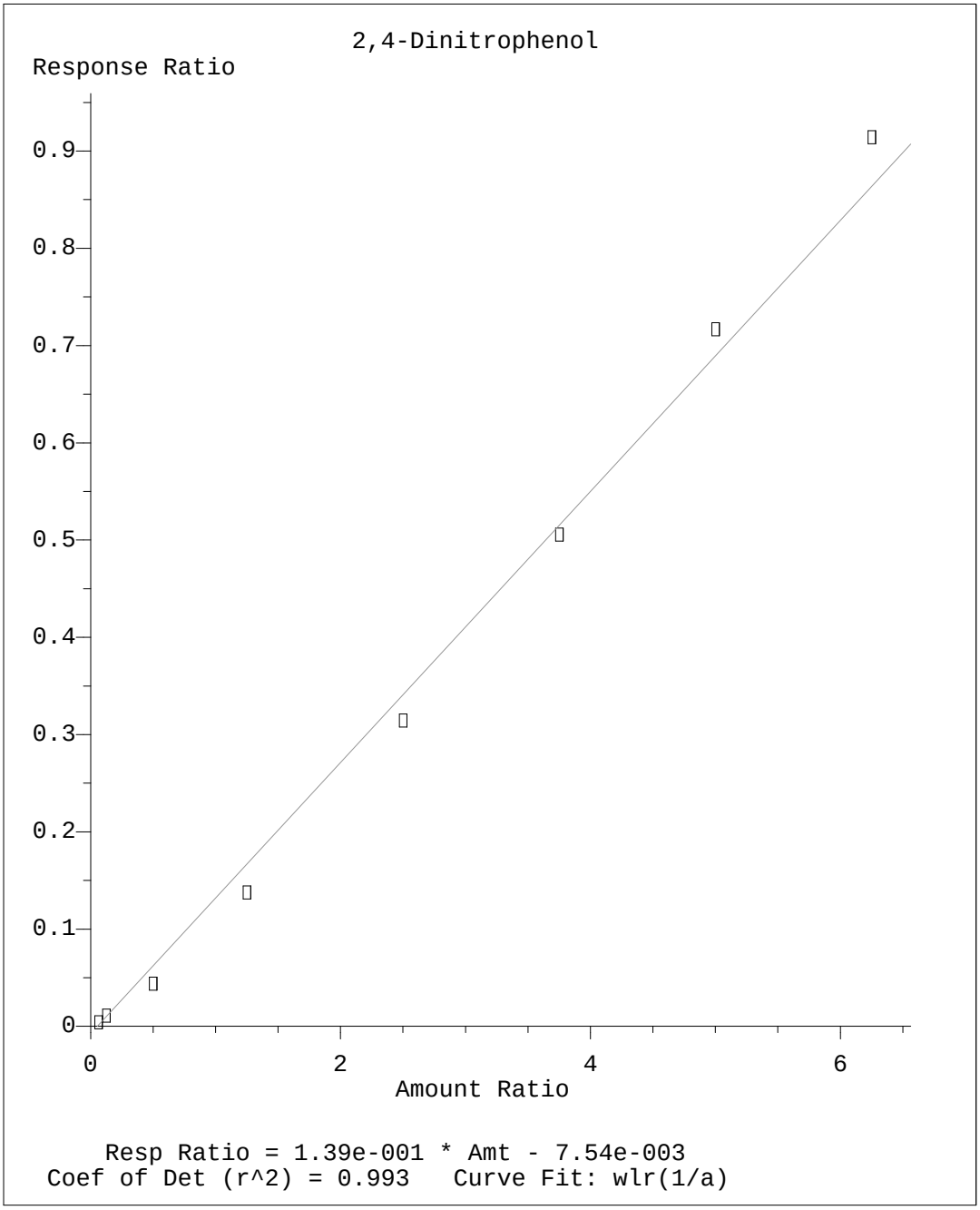
Instrument ID: BNAMS2

Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 1K1**	**RRF: 4K1**
Analysis date/time	10/20/22 19:25	10/20/22 19:45	10/20/22 20:06	10/20/22 20:27	10/20/22 20:47	10/20/22 21:08	10/20/22 21:29	10/20/22 21:49	10/20/22 22:10	10/20/22 22:31
PHENOL	1.9860	1.8660	1.5990	1.6480	1.6710	1.7020	1.6920	1.6880		
3&4-METHYL PHENOL	1.69	1.5340	1.31	1.3730	1.38	1.3970	1.3870	1.3850		
NAPHTHALENE	1.2470	1.1750	1.0010	1.0180	1.0110	1.02	1	0.9770		
2-METHYLNAPHTHALENE	0.7750	0.7290	0.6320	0.6480	0.6580	0.6610	0.6550	0.6480		
1-METHYLNAPHTHALENE	0.7330	0.6710	0.5920	0.6110	0.6130	0.6160	0.6090	0.6090		
ACENAPHTHYLENE	2.1820	1.94	1.7690	1.8170	1.8340	1.7890	1.7970	1.7420		
ACENAPHTHENE	1.4710	1.3470	1.1750	1.20	1.1860	1.1530	1.16	1.1430		
DIBENZOFURAN	2.02	1.8760	1.6430	1.6710	1.6430	1.5840	1.6010	1.5650		
FLUORENE	1.6740	1.5180	1.3520	1.3820	1.3270	1.2860	1.3050	1.2750		
PHENANTHRENE	1.2740	1.1740	1.0190	1.05	1.0370	1.0320	1.0170	1.0160		
ANTHRACENE	1.2740	1.1610	1.0420	1.0720	1.0930	1.0790	1.0710	1.07		
CARBAZOLE	1.1770	1.0960	0.98	1.0280	1.0640	1.0560	1.0630	1.0280		
DI-N-BUTYL PHTHALATE	1.3840	1.2910	1.1470	1.2270	1.2970	1.3280	1.3210	1.2550		
FLUORANTHENE	1.4010	1.3080	1.1740	1.2280	1.2990	1.3220	1.3030	1.2670		
PYRENE	1.4020	1.2610	1.13	1.16	1.1790	1.1490	1.1310	1.1090		
BENZO(A)ANTHRACENE	1.4120	1.2460	1.1070	1.1590	1.1710	1.1640	1.1620	1.1630		
CHRYSENE	1.3050	1.1870	1.0680	1.1270	1.1140	1.1010	1.0940	1.0970		
BIS(2-ETHYLHEXYL)PHTHALATE	0.7580	0.7120	0.6360	0.6810	0.7050	0.6980	0.6960	0.6980		
DI-N-OCTYL PHTHALATE	1.20	1.1380	1.0680	1.1520	1.2050	1.22	1.2280	1.2370		
BENZO(B)FLUORANTHENE	1.3110	1.2030	1.0980	1.1690	1.1610	1.1940	1.2230	1.2290		
BENZO(K)FLUORANTHENE	1.2940	1.1960	1.0990	1.1410	1.17	1.1740	1.18	1.2130		
BENZO(A)PYRENE	1.14	1.0420	0.95	1.0090	1.0230	1.0470	1.0510	1.0650		
INDENO(1,2,3-CD)PYRENE	1.2140	1.1330	1.0270	1.0660	1.0220	0.9590	0.9740	0.9850		
DIBENZ(A,H)ANTHRACENE	1.2260	1.1460	1.0360	1.0990	1.0450	1	1.01	1.02		
BENZO(G,H,I)PERYLENE	1.3110	1.2020	1.0640	1.1070	0.9980	0.9290	0.9490	0.9610		
2-FLUOROPHENOL	1.6320	1.4920	1.2780	1.32	1.33	1.3430	1.3510	1.3450		
PHENOL-D5	1.9380	1.7990	1.5320	1.60	1.6260	1.6470	1.64	1.6440		
NITROBENZENE-D5	0.3730	0.3620	0.3120	0.3220	0.33	0.3360	0.3380	0.3390		
2-FLUOROBIPHENYL	1.6860	1.5270	1.3740	1.4010	1.3630	1.3080	1.3140	1.2640		
2,4,6-TRIBROMOPHENOL	0.13	0.1230	0.11	0.1210	0.1340	0.1420	0.1390	0.1370		
P-TERPHENYL-D14	1.2390	1.1720	1.0110	1.0250	1.09	1.09	1.0820	1.0720		
PENTACHLOROPHENOL			0.1120	0.1280	0.14	0.1480	0.1540	0.16		
BENZOIC ACID									0.0950	0.1090
File ID:	1020_04	1020_05	1020_06	1020_07	1020_08	1020_09	1020_10	1020_11	1020_12	1020_13

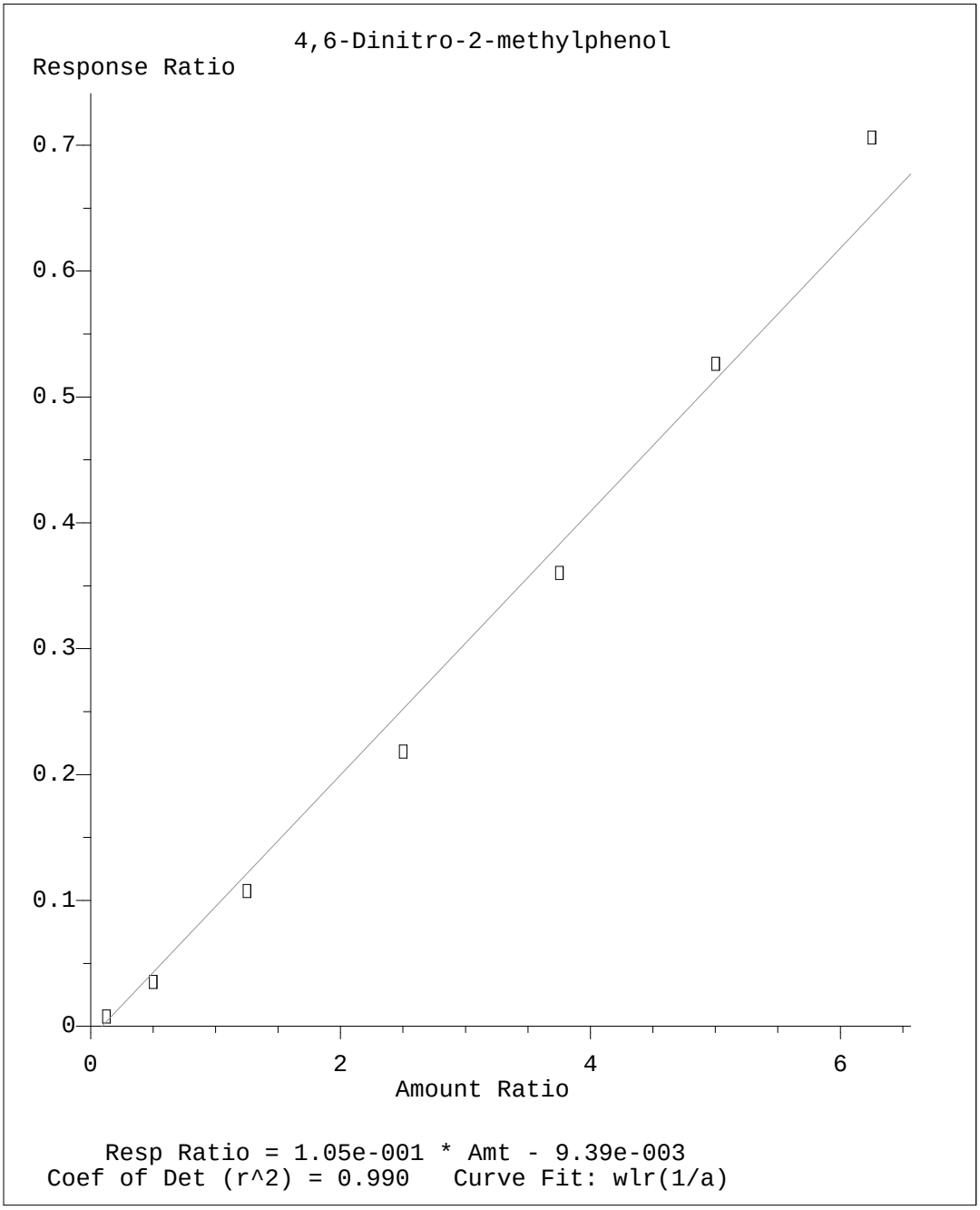
SDG: L1555614 **Analytical Method:** 8270E

Instrument ID: BNAMS2

Analyte	**RRF: 10K1**	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	10/20/22 22:51	10/20/22 23:12	10/20/22 23:32	10/20/22 23:53	10/21/22 00:14			
PHENOL						1.731591	7.42	
3&4-METHYL PHENOL						1.431908	8.49	
NAPHTHALENE						1.056043	9.31	
2-METHYLNAPHTHALENE						0.675661	7.32	
1-METHYLNAPHTHALENE						0.631524	7.42	
ACENAPHTHYLENE						1.858572	7.71	
ACENAPHTHENE						1.229442	9.54	
DIBENZOFURAN						1.700492	9.48	
FLUORENE						1.3899	9.94	
PHENANTHRENE						1.077455	8.82	
ANTHRACENE						1.107564	6.81	
CARBAZOLE						1.06163	5.44	
DI-N-BUTYL PHTHALATE						1.281066	5.63	
FLUORANTHENE						1.287812	5.23	
PYRENE						1.190215	8.18	
BENZO(A)ANTHRACENE						1.198084	7.88	
CHRYSENE						1.136627	6.72	
BIS(2-ETHYLHEXYL)PHTHALATE						0.697969	4.86	
DI-N-OCTYL PHTHALATE						1.180926	4.88	
BENZO(B)FLUORANTHENE						1.198561	5.15	
BENZO(K)FLUORANTHENE						1.183434	4.79	
BENZO(A)PYRENE						1.040826	5.15	
INDENO(1,2,3-CD)PYRENE						1.04746	8.35	
DIBENZ(A,H)ANTHRACENE						1.072637	7.35	
BENZO(G,H,I)PERYLENE						1.064936	12.7	
2-FLUOROPHENOL						1.386375	8.43	
PHENOL-D5						1.678185	7.66	
NITROBENZENE-D5						0.339051	5.85	
2-FLUOROBIPHENYL						1.404629	9.85	
2,4,6-TRIBROMOPHENOL						0.129466	8.23	
P-TERPHENYL-D14						1.097608	6.84	
PENTACHLOROPHENOL						0.140213	12.65	
BENZOIC ACID	0.1280	0.1380	0.1330	0.1280	0.1240	0.122101	12.42	
File ID:	1020_14	1020_15	1020_16	1020_17	1020_18			



Method Name: C:\msdchem\1\methods\S802J20V.M



Method Name: C:\msdchem\1\methods\S802J20V.M

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022
Response Via : Initial Calibration

Calibration Files
500 =1020_04.D 1K =1020_05.D 4K =1020_06.D 10K =1020_07.D 20K =1020_08.D 30K =1020_09.D 40K =1020_10.D
50K =1020_11.D 1K1 =1020_12.D 4K1 =1020_13.D 10K1=1020_14.D 20K1=1020_15.D 30K1=1020_16.D 40K1=1020_17.D
50K1=1020_18.D

		Compound	500	1K	4K	10K	20K	30K	40K	50K	1K1	4K1	10K1	20K1	30K1	40K1	50K1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------																
2)	TM	Pyridine	1.737	1.584	1.400	1.418	1.426	1.445	1.463	1.458								1.491	7.65
3)	MT	N-Nitrosodimet...	0.877	0.807	0.667	0.652	0.665	0.674	0.671	0.680								0.711	11.66
4)	S	2-Fluorophenol	1.632	1.492	1.278	1.320	1.330	1.343	1.351	1.345								1.386	8.43
5)	MT	Aniline	0.915	0.805	0.700	0.724	0.736	0.729	0.735	0.731								0.759	9.15
6)	MT	bis(2-Chloroet...			1.217	1.285	1.326	0.928	1.007	1.055								1.136	14.26
7)	S	Phenol-d5	1.938	1.799	1.532	1.600	1.626	1.647	1.640	1.644								1.678	7.66
8)	MC	Phenol	1.986	1.866	1.599	1.648	1.671	1.702	1.692	1.688								1.732	7.42
9)		Benzaldehyde									0.398	0.367	0.367	0.360	0.364	0.364	0.364	0.369	3.57
10)	MT	2-Chlorophenol	1.705	1.568	1.321	1.357	1.386	1.375	1.360	1.330								1.425	9.61
11)	T	n-Decane	0.860	0.880	0.697	0.719	0.720	0.716	0.704	0.692								0.748	10.16
12)	MT	1,3-Dichlorobe...	1.816	1.645	1.471	1.514	1.524	1.521	1.507	1.490								1.561	7.40
13)	MTC	1,4-Dichlorobe...	1.879	1.688	1.488	1.529	1.530	1.536	1.508	1.501								1.582	8.55
14)	MT	Benzyl Alcohol	1.249	1.112	0.989	1.037	1.049	1.070	1.064	1.063								1.079	7.11
15)	MT	1,2-Dichlorobe...	1.714	1.587	1.413	1.444	1.448	1.442	1.427	1.410								1.486	7.27
16)	MT	bis(2-Chlorois...		0.542	0.453	0.463	0.463	0.461	0.454	0.453								0.470	6.85
17)	MT	2,2-oxybis(1-c...		0.542	0.453	0.463	0.463	0.461	0.454	0.453								0.470	6.85
18)	MT	2-Methylphenol	1.559	1.356	1.175	1.191	1.213	1.212	1.205	1.200								1.264	10

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.44
                          Response Factor Report BNAMS2

 Method Path : C:\msdchem\1\methods\
 Method File : S802J20V.M
 Title       : 8270 BNA
 Last Update : Fri Oct 21 09:58:59 2022
19) MT  Hexachloroethane  0.732 0.587 0.541 0.553 0.555 0.554 0.556 0.560                                           0.580  10
.83
20) MP  N-Nitrosodi-n-... 1.087 0.949 0.844 0.873 0.885 0.893 0.899 0.898                                           0.916   8
.20
21) MT  3&4-Methyl phenol 1.690 1.534 1.310 1.373 1.380 1.397 1.387 1.385                                           1.432   8
.49
22) MT  Acetophenone                                                      1.733 1.670 1.776 1.748 1.773 1.777 1.748 1.746   2
.16

23) I   Naphthalene-d8        ----------------ISTD--------------------
24) S   Nitrobenzene-d5   0.373 0.362 0.312 0.322 0.330 0.336 0.338 0.339                                           0.339   5
.85
25) MT  Nitrobenzene      0.407 0.356 0.324 0.335 0.338 0.340 0.340 0.339                                           0.347   7
.34
26) MT  Isophorone        0.741 0.658 0.591 0.616 0.620 0.625 0.617 0.606                                           0.634   7
.43
27) MCT 2-Nitrophenol     0.187 0.178 0.164 0.173 0.180 0.180 0.182 0.181                                           0.178   3
.92
28) MT  2,4-Dimethylph... 0.388 0.367 0.322 0.324 0.328 0.321 0.315 0.312                                           0.335   8
.24
29) MT  bis(2-Chloreth... 0.451 0.440 0.366 0.377 0.379 0.379 0.378 0.378                                           0.393   8
.25
30) MCT 2,4-Dichloroph... 0.321 0.313 0.273 0.285 0.285 0.284 0.279 0.277                                           0.289   6
.09
31) MT  Benzoic Acid                                                      0.095 0.109 0.128 0.138 0.133 0.128 0.124 0.122  12
.42
32) MT  1,2,4-Trichlor... 0.376 0.363 0.307 0.319 0.319 0.315 0.313 0.311                                           0.328   8
.00
33) MT  alpha-terpineol                                                   0.259 0.238 0.230 0.206 0.186             0.224  12
.72
34) MT  Naphthalene       1.247 1.175 1.001 1.018 1.011 1.020 1.000 0.977                                           1.056   9
.31
35) MT  4-Chloroaniline         0.118 0.110 0.112 0.115 0.113 0.115 0.114                                           0.114   2
.16
36) MCT Hexachloro-1,3... 0.225 0.211 0.179 0.188 0.186 0.182 0.179 0.178                                           0.191   9
.15
37)     Hydroquinone                                                            0.187 0.188 0.239 0.224 0.205 0.190 0.205  10
.63
38) MT  Quinoline                                                         0.647 0.560 0.561 0.499 0.448             0.543  13
.73
39) MT  Caprolactam                                                             0.052 0.058 0.057 0.056 0.052 0.049 0.054   6
.19
40) MCT 4-Chloro-3-met... 0.353 0.296 0.255 0.269 0.279 0.283 0.285 0.288                                           0.288  10
.06
41) MT  2-Methylnaphth... 0.775 0.729 0.632 0.648 0.658 0.661 0.655 0.648                                           0.676   7
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Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

42)	MT	1-Methylnaphth...	0.733	0.671	0.592	0.611	0.613	0.616	0.609	0.609				0.632	7
43)	MT	1,2,4,5-Tetrac...									0.319	0.289	0.276	0.243	0.217	0.269	14
44)		Diphenyl Ether									0.406	0.366	0.361	0.315	0.278	0.345	14
45)		Diphenyl Oxide									0.406	0.366	0.361	0.315	0.278	0.345	14
46)	I	Acenaphthene-d10	----------ISTD----------														
47)	MPT	Hexachlorocycl...	0.512	0.449	0.475	0.466	0.451	0.450	0.439					0.463	5
48)	MCT	2,4,6-Trichlor...	0.447	0.394	0.374	0.398	0.386	0.378	0.377	0.372				0.391	6
49)	MT	2,4,5-Trichlor...	0.437	0.373	0.362	0.382	0.397	0.394	0.403	0.396				0.393	5
50)	S	2-Fluorobiphenyl	1.686	1.527	1.374	1.401	1.363	1.308	1.314	1.264				1.405	9
51)	MT	Biphenyl	1.855	1.673	1.464	1.522	1.487	1.439	1.421	1.385				1.531	10
52)	MT	2-Chloronaphth...	1.462	1.308	1.142	1.197	1.171	1.129	1.125	1.099				1.204	10
53)	MT	2-Nitroaniline	0.383	0.355	0.327	0.385	0.402	0.398	0.406	0.408				0.383	7
54)	MT	Acenaphthylene	2.182	1.940	1.769	1.817	1.834	1.789	1.797	1.742				1.859	7
55)	MT	Dimethyl phtha...	1.466	1.351	1.230	1.280	1.241	1.240	1.295	1.271				1.297	6
56)	MT	2,6-Dinitrotol...	0.297	0.268	0.258	0.296	0.298	0.294	0.309	0.309				0.291	6
57)	MT	3-Nitroaniline	0.328	0.285	0.290	0.325	0.323	0.329	0.342	0.334				0.320	6
58)	MCT	Acenaphthene	1.471	1.347	1.175	1.200	1.186	1.153	1.160	1.143				1.229	9
59)	MPT	2,4-Dinitrophenol	0.068	0.088	0.088	0.110	0.126	0.135	0.143	0.146				0.113	25
60)	MT	Dibenzofuran	2.020	1.876	1.643	1.671	1.643	1.584	1.601	1.565				1.700	9
61)	MT	2,4-Dinitrotol...	0.341	0.324	0.333	0.369	0.387	0.392	0.391	0.384				0.365	7
62)	T	2,3,4,6-Tetrac...									0.277	0.278	0.294	0.289	0.285	0.285	0.283	0.284	2
63)	MPT	4-Nitrophenol	0.230	0.215	0.215	0.251	0.236	0.231	0.243	0.249				0.234	5
64)	MT	Fluorene	1.674	1.518	1.352	1.382	1.327	1.286	1.305	1.275				1.390	9

.94

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

65)	MT	4-Chlorophenyl...	0.846	0.750	0.678	0.676	0.663	0.641	0.646	0.633					0.692	10
.53																
66)	MT	Diethyl phthalate	1.591	1.375	1.267	1.291	1.182	1.079	1.113	1.105					1.250	13
.78																
67)	MT	4-Nitroaniline	0.339	0.340	0.304	0.332	0.216	0.248	0.279	0.286					0.293	15
.31																
68)	MT	Azobenzene	1.594	1.414	1.263	1.288	1.274	1.236	1.240	1.204					1.314	9
.83																
69)	MT	Atrazine									0.385	0.380	0.395	0.409	0.404	4
.52																
70)	I	Phenanthrene-d10	----------ISTD----------													
71)	MT	4,6-Dinitro-2-...		0.063	0.071	0.086	0.087	0.096	0.105	0.113					0.089	20
.09																
72)	MCT	N-Nitrosodiphe...	0.702	0.662	0.587	0.613	0.632	0.640	0.623	0.615					0.634	5
.51																
73)	S	2,4,6-Tribromo...	0.130	0.123	0.110	0.121	0.134	0.142	0.139	0.137					0.129	8
.23																
74)	MT	4-Bromophenyl-...	0.271	0.253	0.222	0.232	0.236	0.238	0.235	0.232					0.240	6
.34																
75)	MT	Hexachlorobenzene	0.350	0.318	0.267	0.279	0.288	0.292	0.295	0.295					0.298	8
.54																
76)	T	n-octadecane	0.127	0.117	0.097	0.104	0.107	0.110	0.113	0.111					0.111	8
.16																
77)	MCT	Pentachlorophenol			0.112	0.128	0.140	0.148	0.154	0.160					0.140	12
.65																
78)	MT	Phenanthrene	1.274	1.174	1.019	1.050	1.037	1.032	1.017	1.016					1.077	8
.82																
79)	MT	Anthracene	1.274	1.161	1.042	1.072	1.093	1.079	1.071	1.070					1.108	6
.81																
80)	MT	Carbazole	1.177	1.096	0.980	1.028	1.064	1.056	1.063	1.028					1.062	5
.44																
81)	MT	Di-n-butyl pht...	1.384	1.291	1.147	1.227	1.297	1.328	1.321	1.255					1.281	5
.63																
82)	MT	2-nitrodipheny...									0.181	0.210	0.233	0.246	0.230	12
.85																
83)	MCT	Fluoranthene	1.401	1.308	1.174	1.228	1.299	1.322	1.303	1.267					1.288	5
.23																
84)	I	Chrysene-d12	----------ISTD----------													
85)	MT	Benzidine									0.339	0.428	0.475	0.526	0.465	15
.51																
86)	MT	Pyrene	1.402	1.261	1.130	1.160	1.179	1.149	1.131	1.109					1.190	8
.18																
87)	S	p-Terphenyl-d14	1.239	1.172	1.011	1.025	1.090	1.090	1.082	1.072					1.098	6

.84

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

88)	MT	Benzylbutyl ph...	0.543	0.518	0.449	0.488	0.502	0.503	0.503	0.507					0.502	5
.30																
89)	MT	3,3-Dichlorobe...									0.445	0.440	0.484	0.505	0.506	0.511	0.511	0.486	6
.41																
90)	MT	Benzo(a)anthra...	1.412	1.246	1.107	1.159	1.171	1.164	1.162	1.163					1.198	7
.88																
91)	MT	Chrysene	1.305	1.187	1.068	1.127	1.114	1.101	1.094	1.097					1.137	6
.72																
92)	MT	bis(2-Ethylhex...	0.758	0.712	0.636	0.681	0.705	0.698	0.696	0.698					0.698	4
.86																
93)	MC	Di-n-octyl pht...	1.200	1.138	1.068	1.152	1.205	1.220	1.228	1.237					1.181	4
.88																
94)	I	Perylene-d12	----------ISTD----------													
95)	MT	Benzo(b)fluora...	1.311	1.203	1.098	1.169	1.161	1.194	1.223	1.229					1.199	5
.15																
96)	MT	Benzo(k)fluora...	1.294	1.196	1.099	1.141	1.170	1.174	1.180	1.213					1.183	4
.79																
97)	MC	Benzo(a)pyrene	1.140	1.042	0.950	1.009	1.023	1.047	1.051	1.065					1.041	5
.15																
98)	MT	Indeno(1,2,3-c...	1.214	1.133	1.027	1.066	1.022	0.959	0.974	0.985					1.047	8
.35																
99)	MT	Dibenz(a,h)ant...	1.226	1.146	1.036	1.099	1.045	1.000	1.010	1.020					1.073	7
.35																
100)	MT	Benzo(g,h,i)pe...	1.311	1.202	1.064	1.107	0.998	0.929	0.949	0.961					1.065	12
.70																

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	150514	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	583117	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	295022	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.470	188	589816	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	613312	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	684519	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.798	112	15349	618.0969934	ppb		0.00
Spiked Amount 20000.000			Recovery =	3.09%			
7) Phenol-d5	3.233	99	18227	605.4498500	ppb		0.00
Spiked Amount 20000.000			Recovery =	3.03%			
24) Nitrobenzene-d5	3.768	82	13599m	578.7135573	ppb		0.00
Spiked Amount 10000.000			Recovery =	5.79%			
50) 2-Fluorobiphenyl	4.878	172	31084	601.5700499	ppb		0.00
Spiked Amount 10000.000			Recovery =	6.02%			
73) 2,4,6-Tribromophenol	5.930	330	4789	535.8563562	ppb		0.00
Spiked Amount 20000.000			Recovery =	2.68%			
87) p-Terphenyl-d14	7.892	244	47512	604.6707658	ppb		0.00
Spiked Amount 10000.000			Recovery =	6.05%			
Target Compounds						Qvalue	
2) Pyridine	2.252	79	16341	612.5939056	ppb	#	95
3) N-Nitrosodimethylamine	2.240	42	8248	672.6655407	ppb	#	85
5) Aniline	3.286	66	8604	631.4349868	ppb	#	84
6) bis(2-Chloroethyl)ether	3.309	93	15010m	620.6847948	ppb		
8) Phenol	3.239	94	18683	602.6426741	ppb		98
10) 2-Chlorophenol	3.351	128	16039	628.4051136	ppb		99
11) n-Decane	3.351	41	8092	598.2914880	ppb	#	94
12) 1,3-Dichlorobenzene	3.439	146	17087	599.8030283	ppb		97
13) 1,4-Dichlorobenzene	3.474	146	17677	614.3359985	ppb	#	88
14) Benzyl Alcohol	3.521	79	11749	601.9756405	ppb		95
15) 1,2-Dichlorobenzene	3.562	146	16120	593.2649735	ppb		99
16) bis(2-Chloroisopropyl)...	3.591	121	6394	733.6912761	ppb	#	60
17) 2,2-oxybis(1-chloropro...	3.591	121	6394	733.6912761	ppb	#	60
18) 2-Methylphenol	3.568	108	14668	654.7282157	ppb		95
19) Hexachloroethane	3.750	117	6884	662.1412758	ppb		91
20) N-Nitrosodi-n-propylamine	3.668	70	10225	622.8211816	ppb		93
21) 3&4-Methyl phenol	3.650	107	15896	615.1929266	ppb		97
25) Nitrobenzene	3.779	77	14822	607.2800693	ppb		95
26) Isophorone	3.909	82	26998	601.6322947	ppb		94
27) 2-Nitrophenol	3.962	139	6805	539.6995505	ppb		93
28) 2,4-Dimethylphenol	3.962	107	14150	598.7476527	ppb		90
29) bis(2-Chlorethoxy)methane	4.020	93	16420	596.7990910	ppb		98
30) 2,4-Dichlorophenol	4.097	162	11702	563.2055949	ppb		94
32) 1,2,4-Trichlorobenzene	4.156	180	13692	588.2050764	ppb		95
34) Naphthalene	4.208	128	45439m	612.2378513	ppb		
35) 4-Chloroaniline	4.226	65	6113	751.8062822	ppb	#	62
36) Hexachloro-1,3-butadiene	4.273	225	8214	600.5117099	ppb		96

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.508	107	12866	655.8233024 ppb		96
41)	2-Methylnaphthalene	4.643	142	28251	597.8151815 ppb		96
42)	1-Methylnaphthalene	4.708	142	26700	599.7026489 ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	9882	563.5922721 ppb		99
48)	2,4,6-Trichlorophenol	4.819	196	8234	561.2976569 ppb		97
49)	2,4,5-Trichlorophenol	4.843	196	8050	571.2913849 ppb		94
51)	Biphenyl	4.949	154	34212	609.6473771 ppb		100
52)	2-Chloronaphthalene	4.966	162	26949	610.4112285 ppb		98
53)	2-Nitroaniline	5.025	138	7068	497.4943727 ppb		97
54)	Acenaphthylene	5.260	152	40232	600.4191062 ppb		99
55)	Dimethyl phthalate	5.143	163	27040	572.6710438 ppb		95
56)	2,6-Dinitrotoluene	5.190	165	5469	500.4814896 ppb		96
57)	3-Nitroaniline	5.307	138	6052	504.8629687 ppb		85
58)	Acenaphthene	5.378	153	27131	612.9018405 ppb		97
59)	2,4-Dinitrophenol	5.378	184	1258	309.6107661 ppb	#	1
60)	Dibenzofuran	5.501	168	37246	604.4520633 ppb		99
61)	2,4-Dinitrotoluene	5.478	165	6282	461.4003003 ppb		96
63)	4-Nitrophenol	5.401	139	4249m	458.4620930 ppb		
64)	Fluorene	5.754	166	30860	605.3897886 ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	15591	625.8638810 ppb		93
66)	Diethyl phthalate	5.648	149	29335	616.1702313 ppb		99
67)	4-Nitroaniline	5.748	138	6249	510.4058895 ppb		93
68)	Azobenzene	5.865	77	29390	618.7799585 ppb		96
71)	4,6-Dinitro-2-methylph...	5.771	198	2287	360.6799179 ppb	#	73
72)	N-Nitrosodiphenylamine	5.830	169	25873	572.4952216 ppb		97
74)	4-Bromophenyl-phenylether	6.118	248	10001	583.9207134 ppb		96
75)	Hexachlorobenzene	6.171	284	12898	626.8843831 ppb		97
76)	n-octadecane	6.365	55	4685	613.0044823 ppb	#	90
77)	Pentachlorophenol	6.312	266	4530	478.6930908 ppb		95
78)	Phenanthrene	6.494	178	46960	606.3361806 ppb		98
79)	Anthracene	6.529	178	46951	594.1205684 ppb		99
80)	Carbazole	6.647	167	43381	572.5632015 ppb		99
81)	Di-n-butyl phthalate	6.917	149	51007	563.9787015 ppb		99
83)	Fluoranthene	7.499	202	51648	570.4836640 ppb		99
86)	Pyrene	7.728	202	53739	604.2879799 ppb		99
88)	Benzylbutyl phthalate	8.492	149	20826	556.4709528 ppb		99
90)	Benzo(a)anthracene	9.285	228	54143	609.2326496 ppb		98
91)	Chrysene	9.338	228	50031	579.0265495 ppb		97
92)	bis(2-Ethylhexyl)phtha...	9.391	149	29065	556.7267591 ppb		97
93)	Di-n-octyl phthalate	10.625	149	46000	520.9833124 ppb		97
95)	Benzo(b)fluoranthene	11.230	252	56105	560.7512039 ppb		98
96)	Benzo(k)fluoranthene	11.288	252	55358	566.9357331 ppb		98
97)	Benzo(a)pyrene	11.888	252	48778	564.7566477 ppb		97
98)	Indeno(1,2,3-cd)pyrene	13.921	276	51939	569.5862164 ppb		97
99)	Dibenz(a,h)anthracene	13.968	278	52438	557.8106312 ppb		98
100)	Benzo(g,h,i)perylene	14.256	276	56068	591.9545643 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
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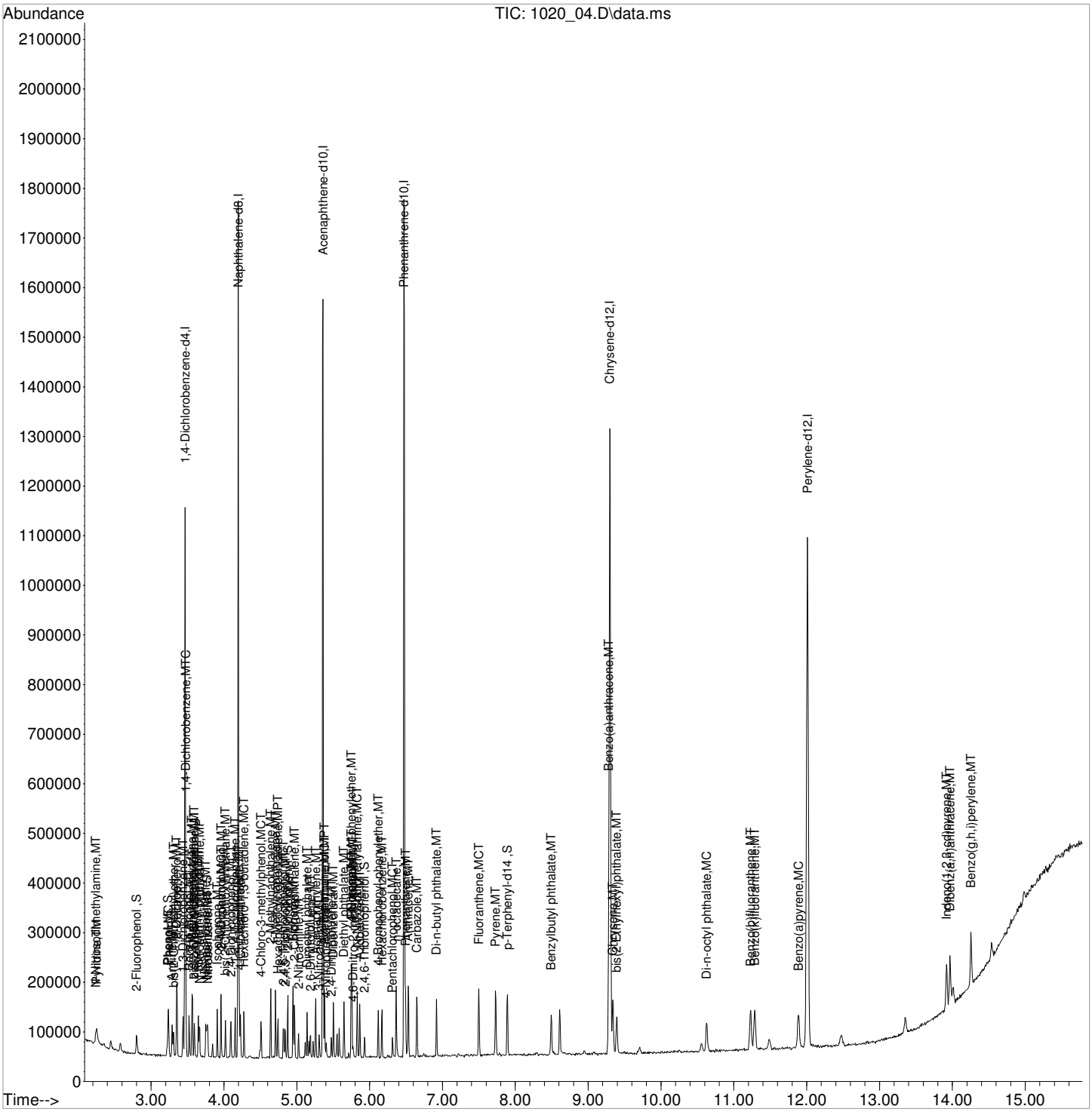
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
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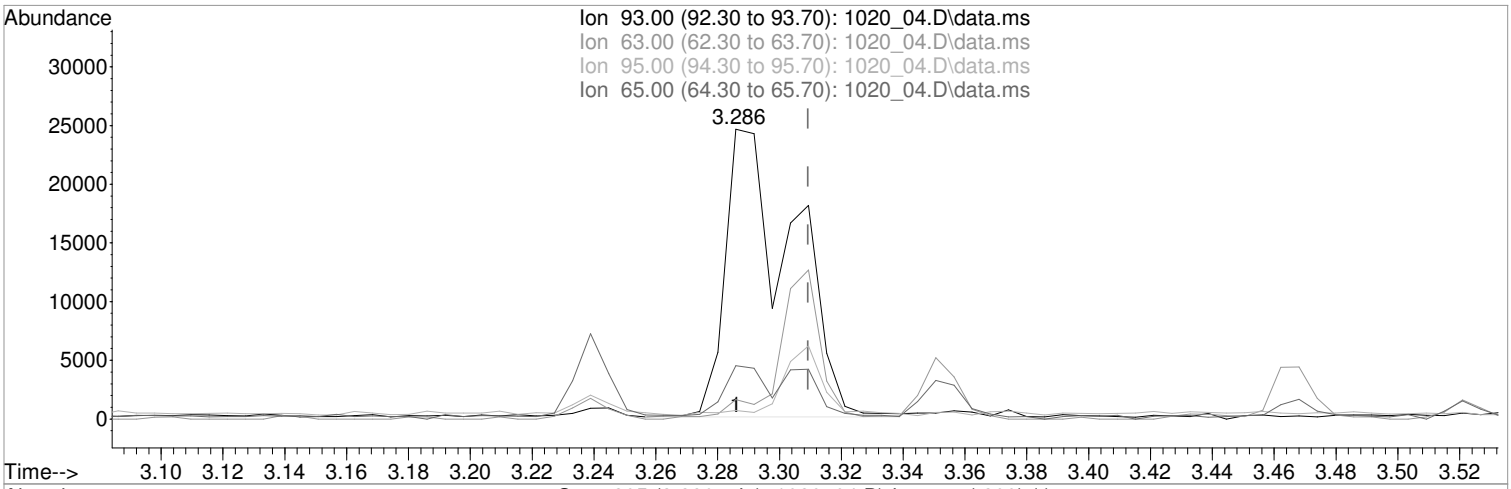
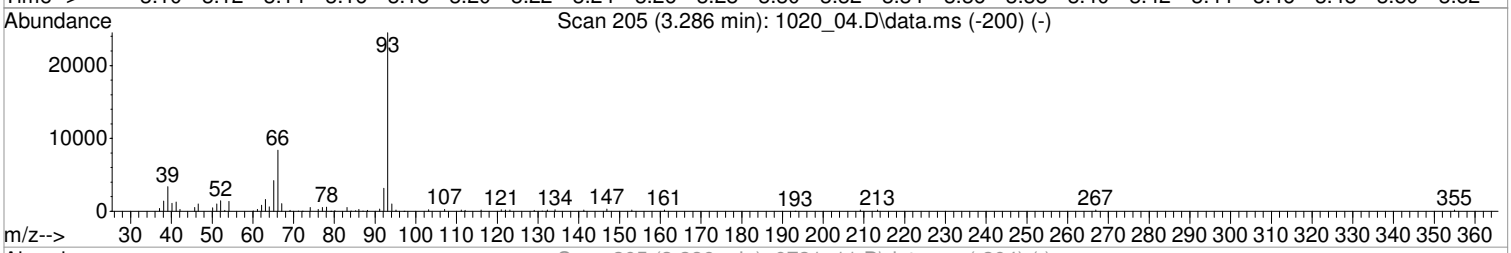
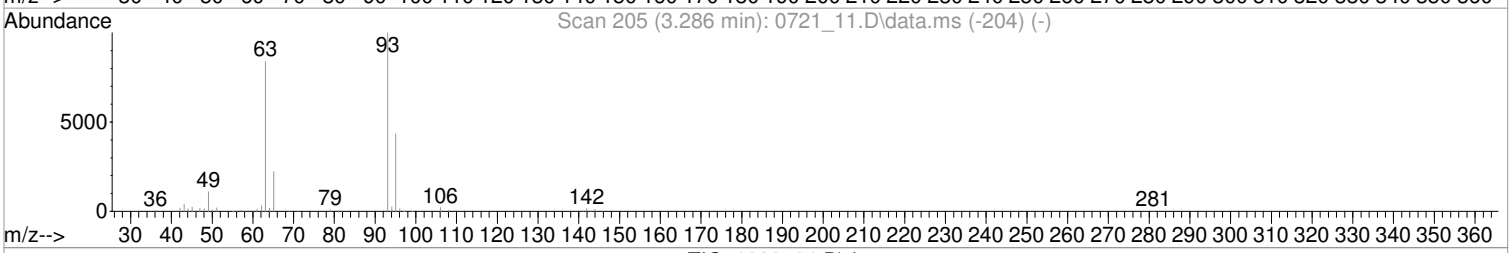
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 1538.9343985 ppb

Qvalue = 42

response 37216

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	6.69#
95.00	32.50	0.95#
65.00	21.90	17.68

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Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
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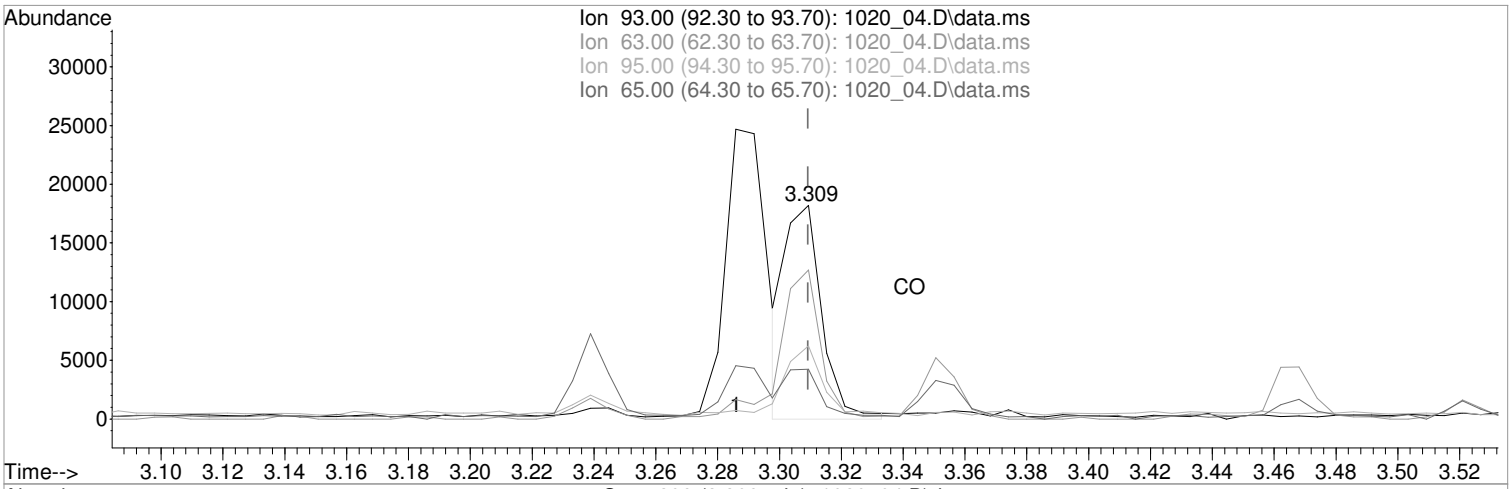

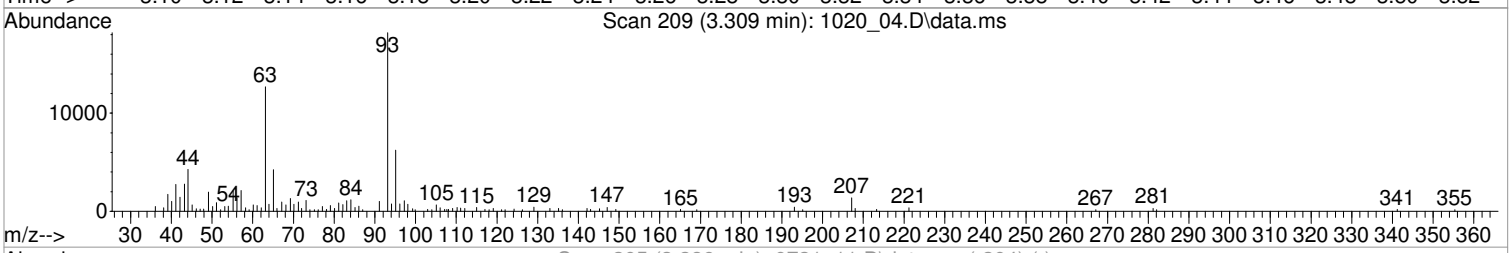

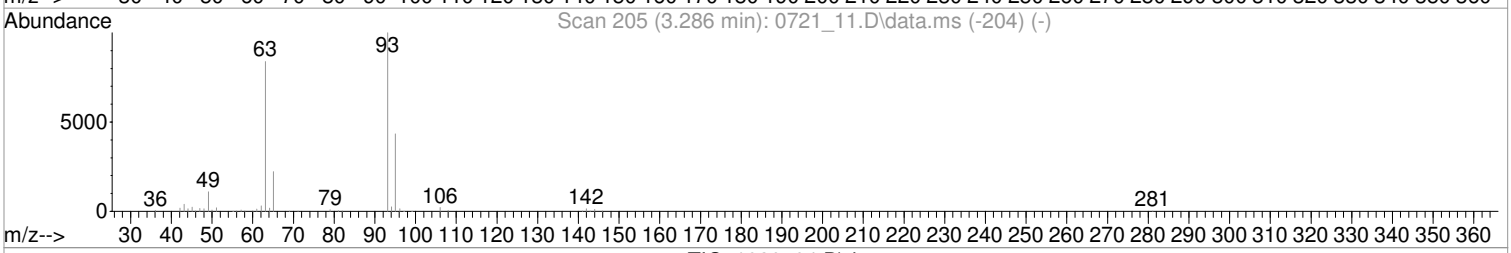

TIC: 1020_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 620.6847948 ppb m

response 15010

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.71
95.00	32.50	34.18
65.00	21.90	23.30

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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Acq On : 20 Oct 2022 7:25 pm
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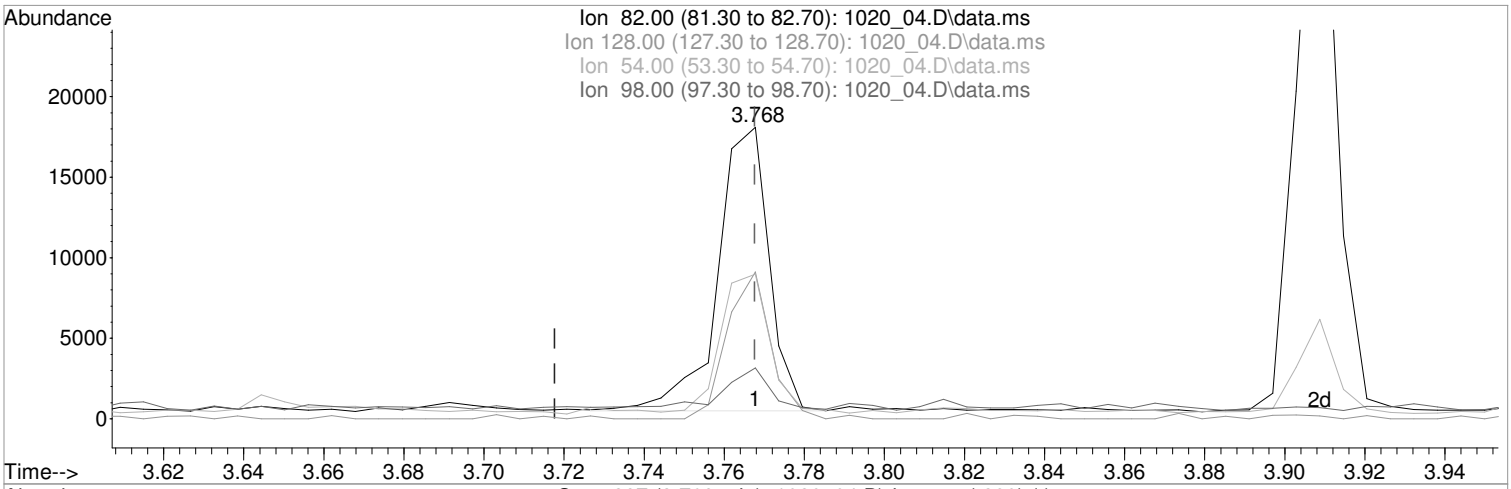
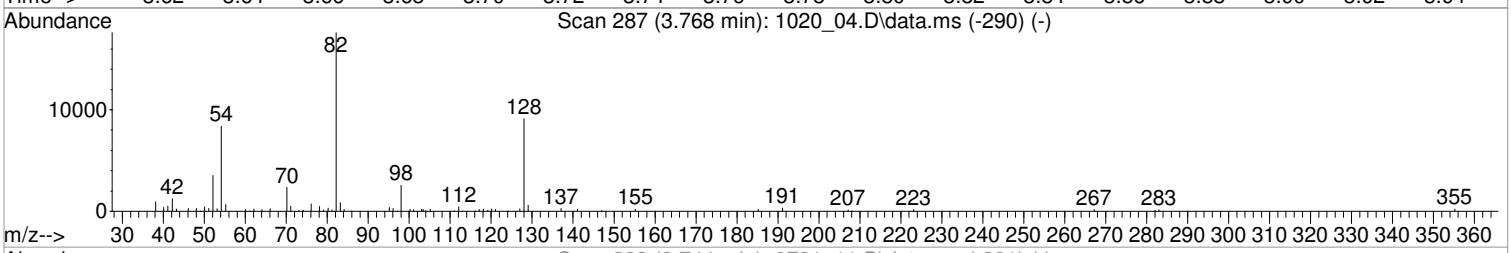
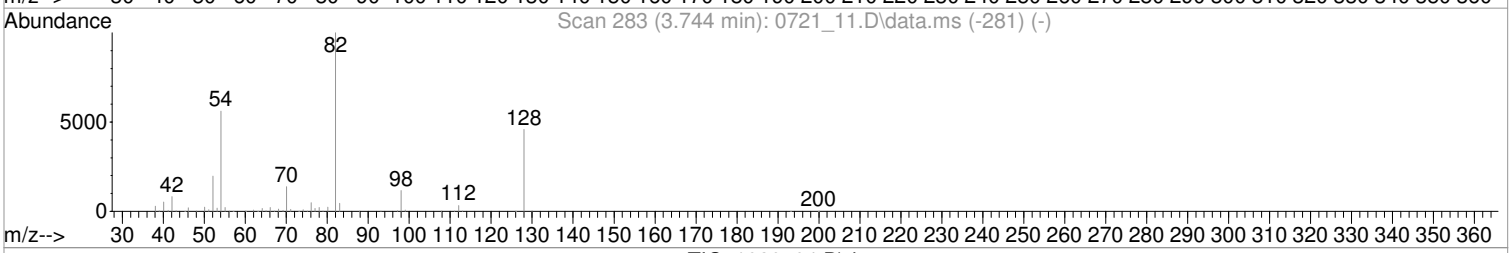
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 666.6334197 ppb

Qvalue = 98

response 15665

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.76
54.00	48.90	47.72
98.00	12.10	14.53

Data Path : C:\msdchem\1\data\102022\
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Acq On : 20 Oct 2022 7:25 pm
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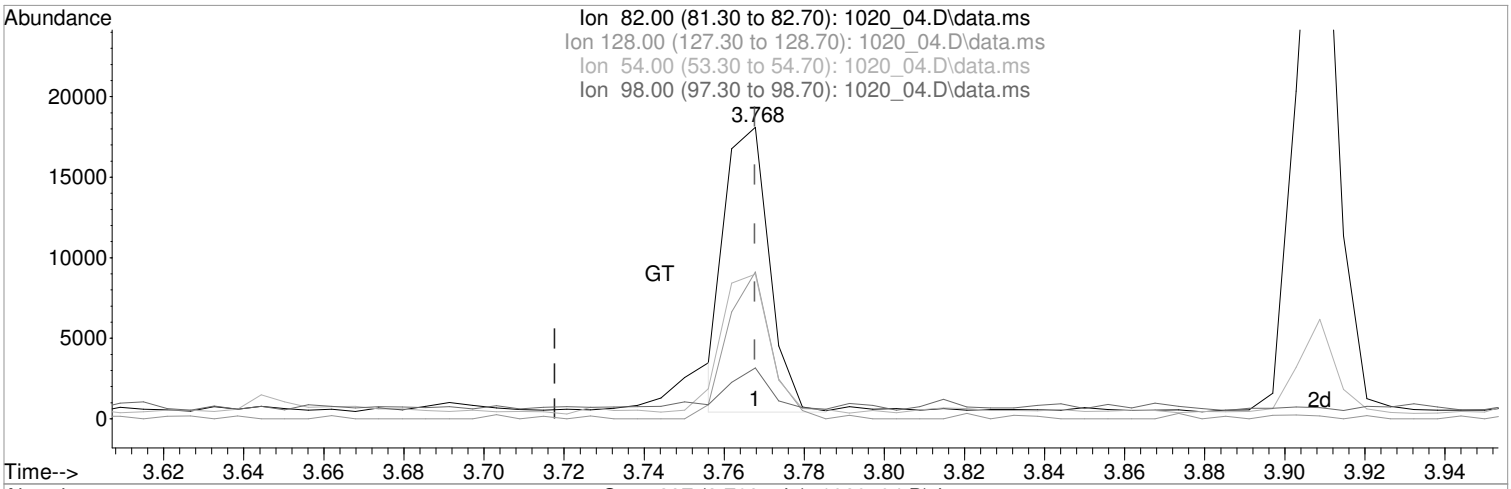
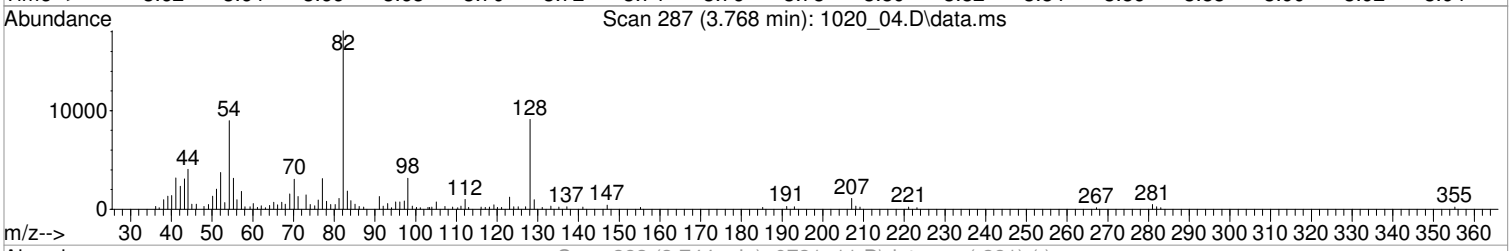
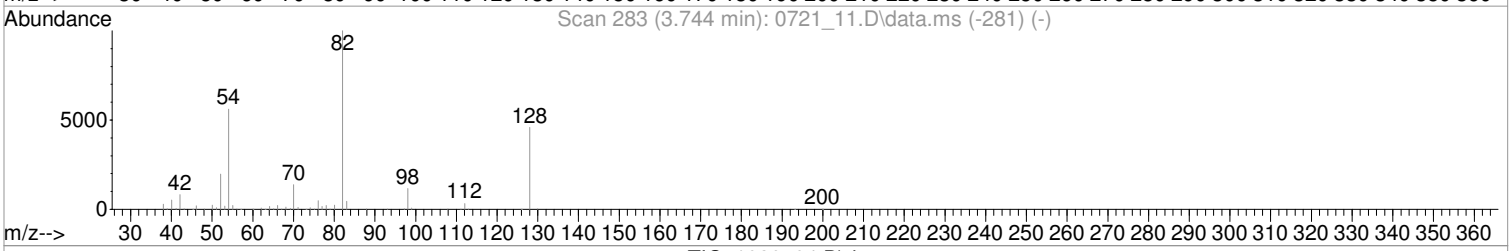
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 578.7135573 ppb m

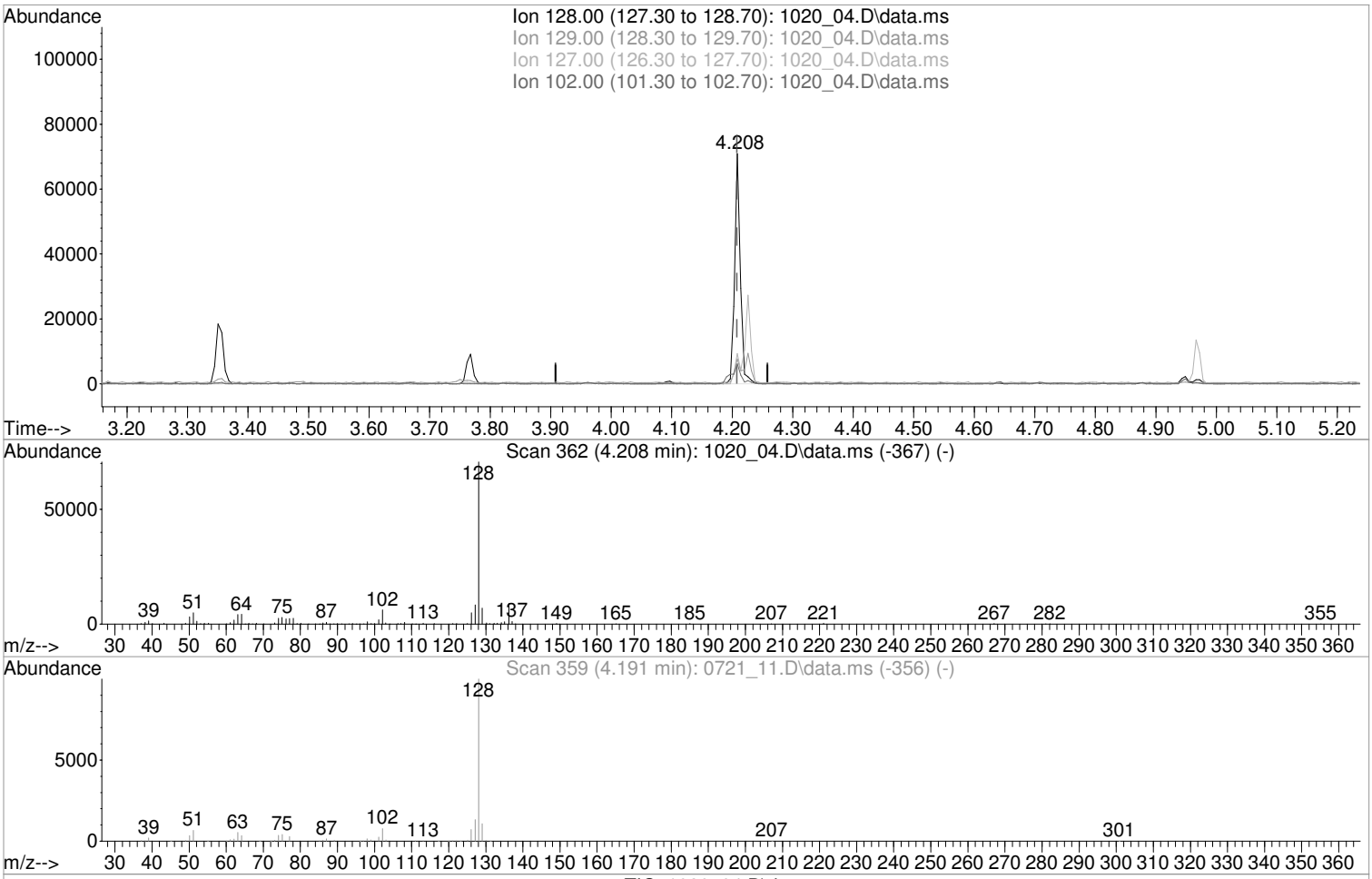
response 13599

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.33
54.00	48.90	49.61
98.00	12.10	17.46

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration



TIC: 1020_04.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 628.5411986 ppb

Qvalue = 99

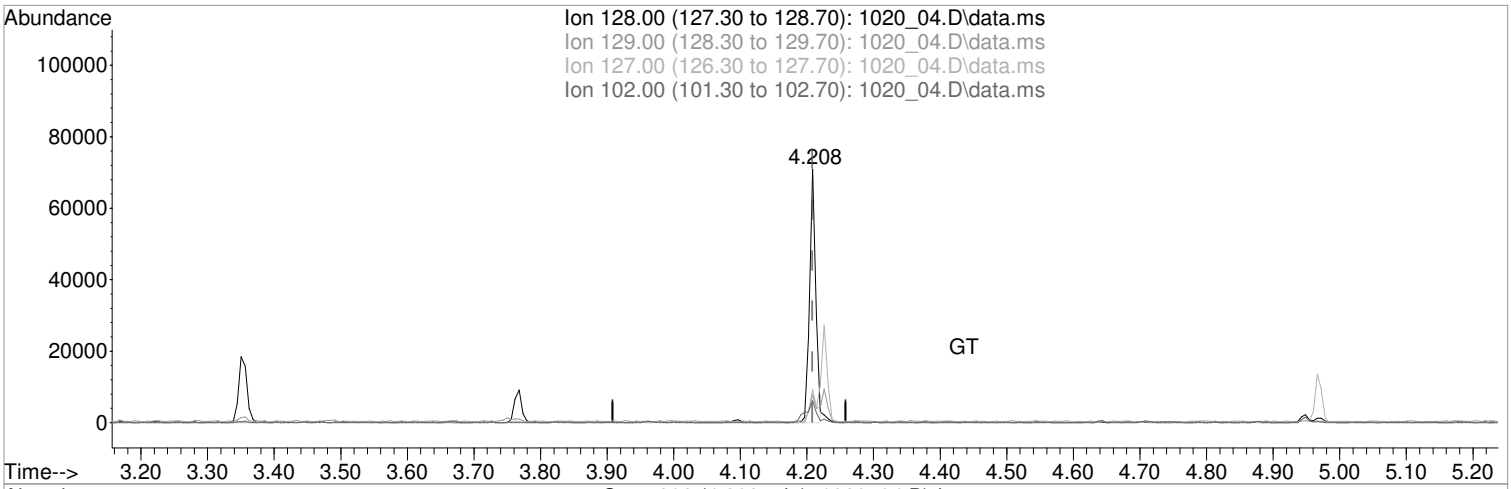
response 46649

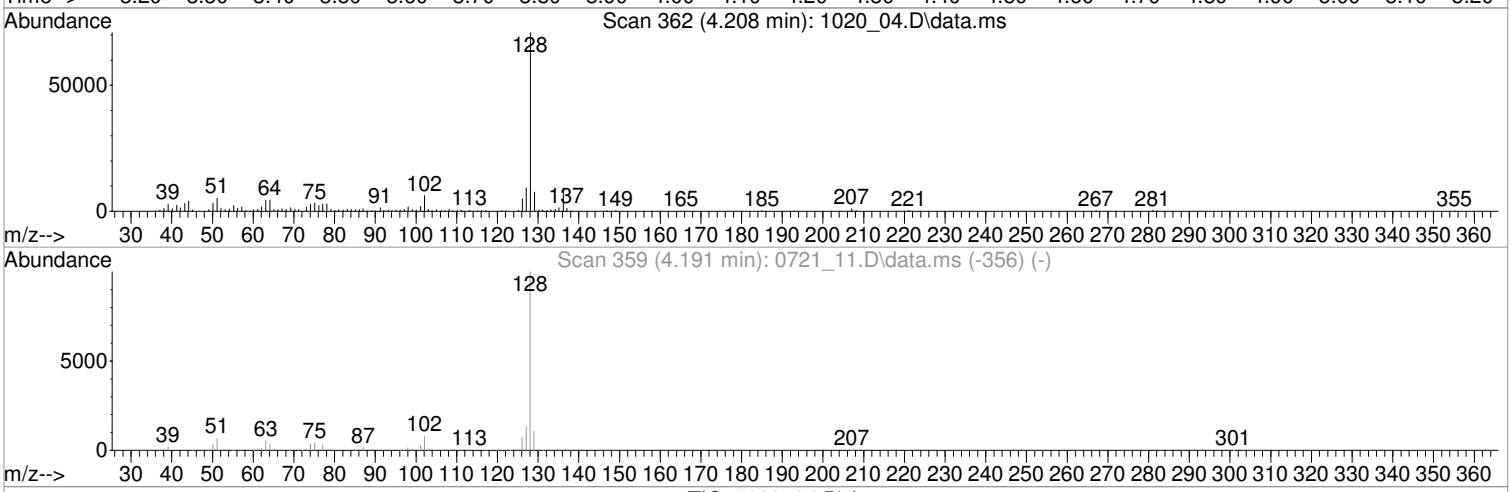
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.44
127.00	13.10	13.14
102.00	8.20	8.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration





TIC: 1020_04.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 612.2378513 ppb m

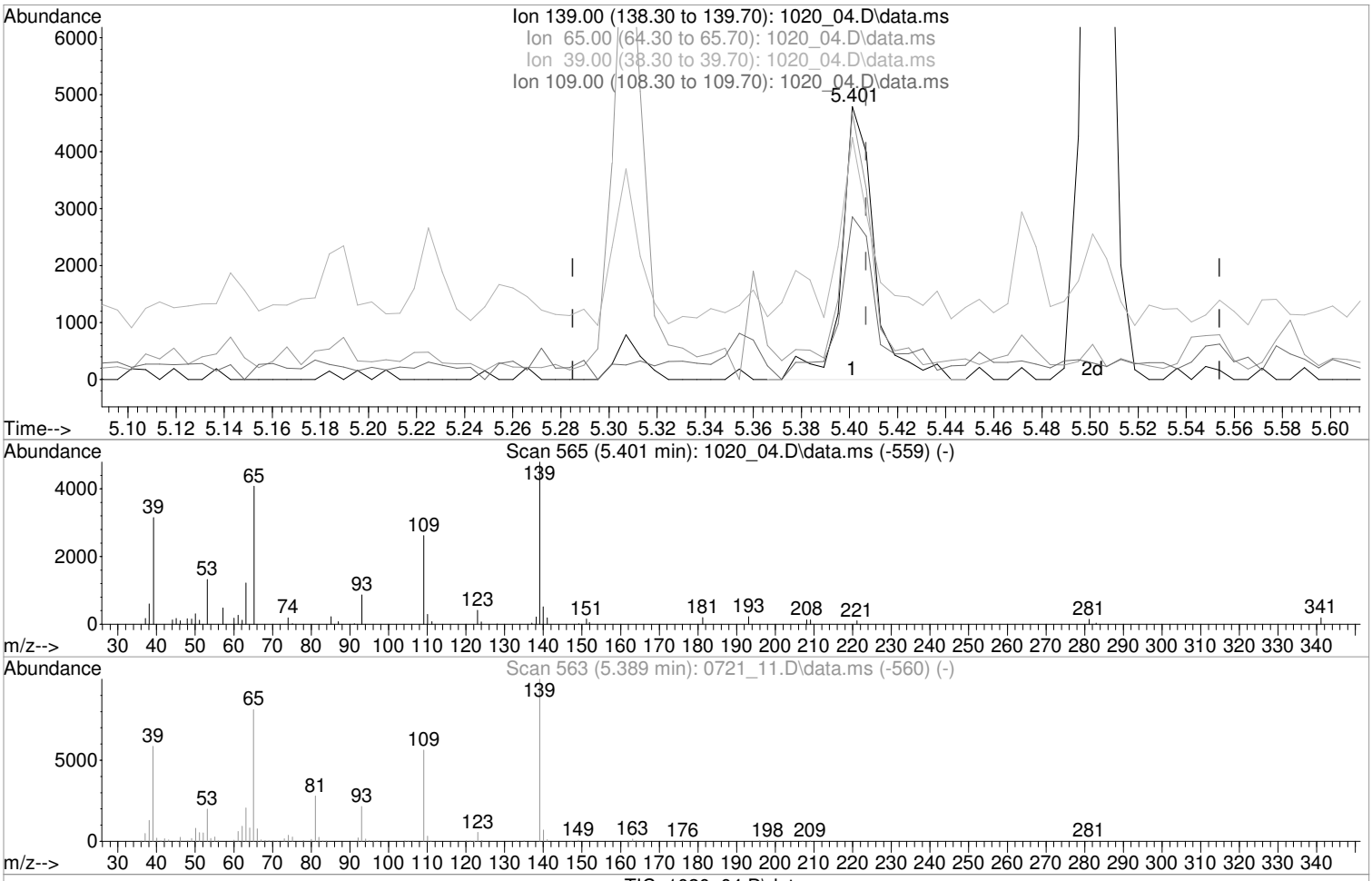
response 45439

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.84
127.00	13.10	13.14
102.00	8.20	8.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration



TIC: 1020_04.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 492.8818171 ppb

Qvalue = 86

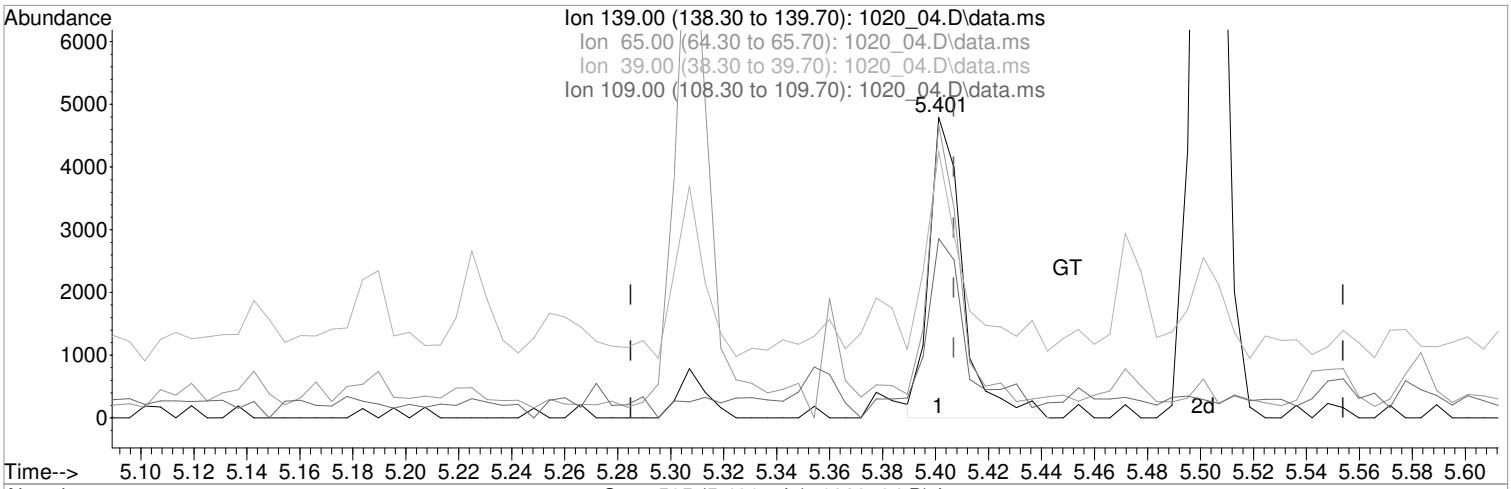
response 4568

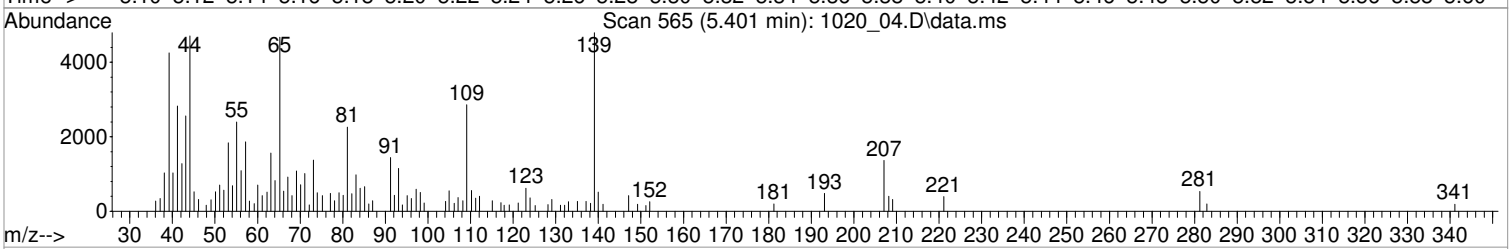
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	89.99
39.00	49.40	65.74
109.00	53.80	54.64

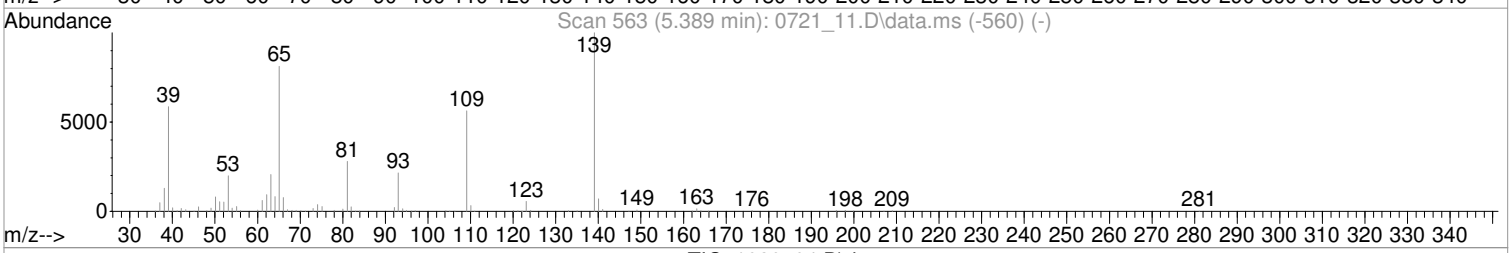
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 458.4620930 ppb m

response 4249

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	97.58#
39.00	49.40	88.73#
109.00	53.80	59.65

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
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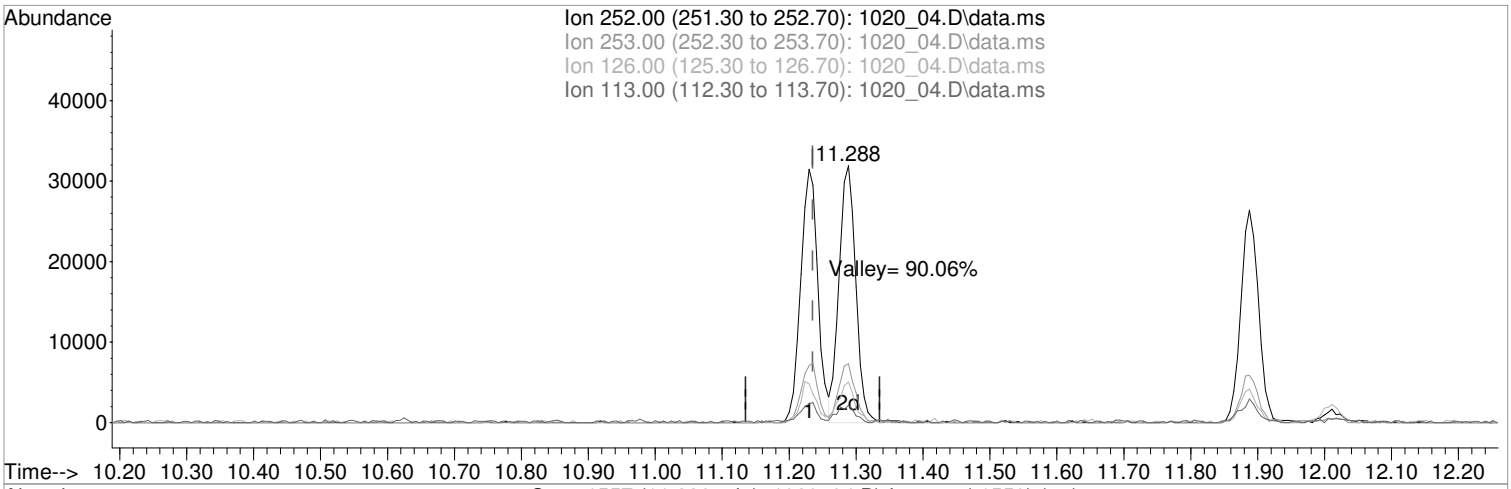
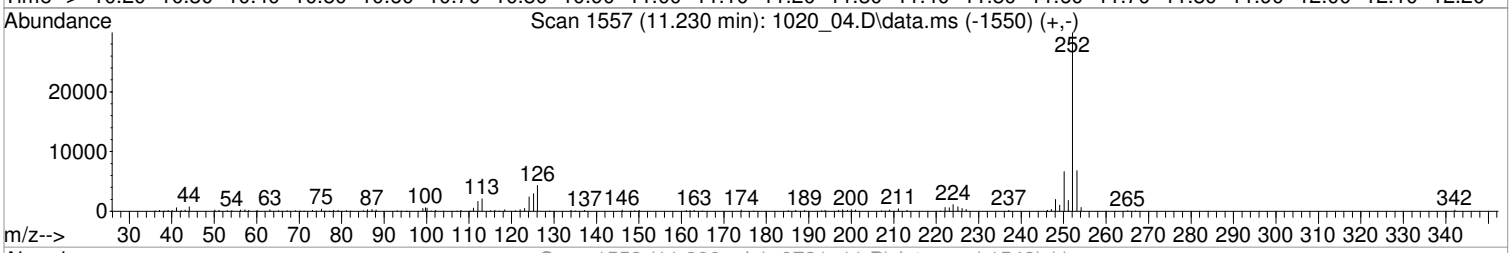
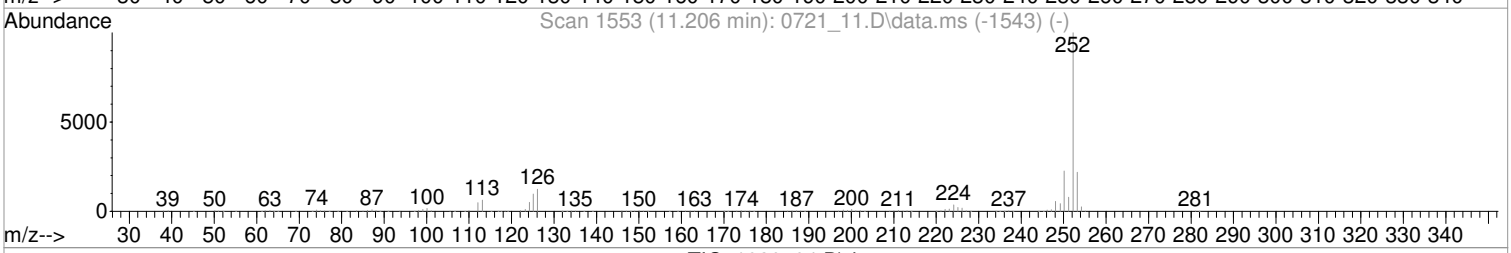
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.230min (-0.006) 560.7512039 ppb

Qvalue = 98

response 56105

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	22.68
126.00	13.40	14.51
113.00	6.50	7.01

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	149462	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	565245	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	290034	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.476	188	574487	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	604574	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	672933	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.804	112	27874	1010.9797790	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.05%				
7) Phenol-d5	3.233	99	33611	1017.0714870	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.09%				
24) Nitrobenzene-d5	3.768	82	25561m	1040.2730789	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.40%				
50) 2-Fluorobiphenyl	4.878	172	55349	989.1279083	ppb		0.00
Spiked Amount 10000.000			Recovery = 9.89%				
73) 2,4,6-Tribromophenol	5.930	330	8856	982.1503282	ppb		0.00
Spiked Amount 20000.000			Recovery = 4.91%				
87) p-Terphenyl-d14	7.892	244	88540	1034.7949784	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.35%				
Target Compounds							Qvalue
2) Pyridine	2.252	79	29596	1004.2376326	ppb		98
3) N-Nitrosodimethylamine	2.246	42	15068	1055.3052148	ppb		87
5) Aniline	3.286	66	15048	982.9321191	ppb	#	90
6) bis(2-Chloroethyl)ether	3.309	93	26405m	981.1585993	ppb		
8) Phenol	3.239	94	34870	1027.2508915	ppb		97
10) 2-Chlorophenol	3.350	128	29291	1024.1832866	ppb		99
11) n-Decane	3.350	41	16446	1114.9251863	ppb	#	94
12) 1,3-Dichlorobenzene	3.439	146	30730	987.7262411	ppb		98
13) 1,4-Dichlorobenzene	3.474	146	31534	990.3903806	ppb		93
14) Benzyl Alcohol	3.521	79	20768	972.4041475	ppb		98
15) 1,2-Dichlorobenzene	3.562	146	29645	1004.9762522	ppb		94
16) bis(2-Chloroisopropyl)...	3.591	121	10133	949.1140017	ppb		97
17) 2,2-oxybis(1-chloropro...	3.591	121	10133	949.1140017	ppb		97
18) 2-Methylphenol	3.568	108	25339	986.3838610	ppb		98
19) Hexachloroethane	3.750	117	10967	914.0813012	ppb		97
20) N-Nitrosodi-n-propylamine	3.668	70	17733	968.7635340	ppb		91
21) 3&4-Methyl phenol	3.650	107	28656	1001.4635564	ppb		97
25) Nitrobenzene	3.779	77	25123	958.9924942	ppb		98
26) Isophorone	3.909	82	46503	970.4269144	ppb		98
27) 2-Nitrophenol	3.962	139	12592	990.8998419	ppb		97
28) 2,4-Dimethylphenol	3.962	107	25925	1029.9761355	ppb		97
29) bis(2-Chlorethoxy)methane	4.020	93	31099	1063.1469955	ppb		98
30) 2,4-Dichlorophenol	4.097	162	22099	1032.0035916	ppb		94
32) 1,2,4-Trichlorobenzene	4.155	180	25667	1045.3102631	ppb		96
34) Naphthalene	4.208	128	82987m	1037.1051213	ppb		
35) 4-Chloroaniline	4.226	65	8322	843.4534381	ppb		93
36) Hexachloro-1,3-butadiene	4.273	225	14893	1020.6416267	ppb		99

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration

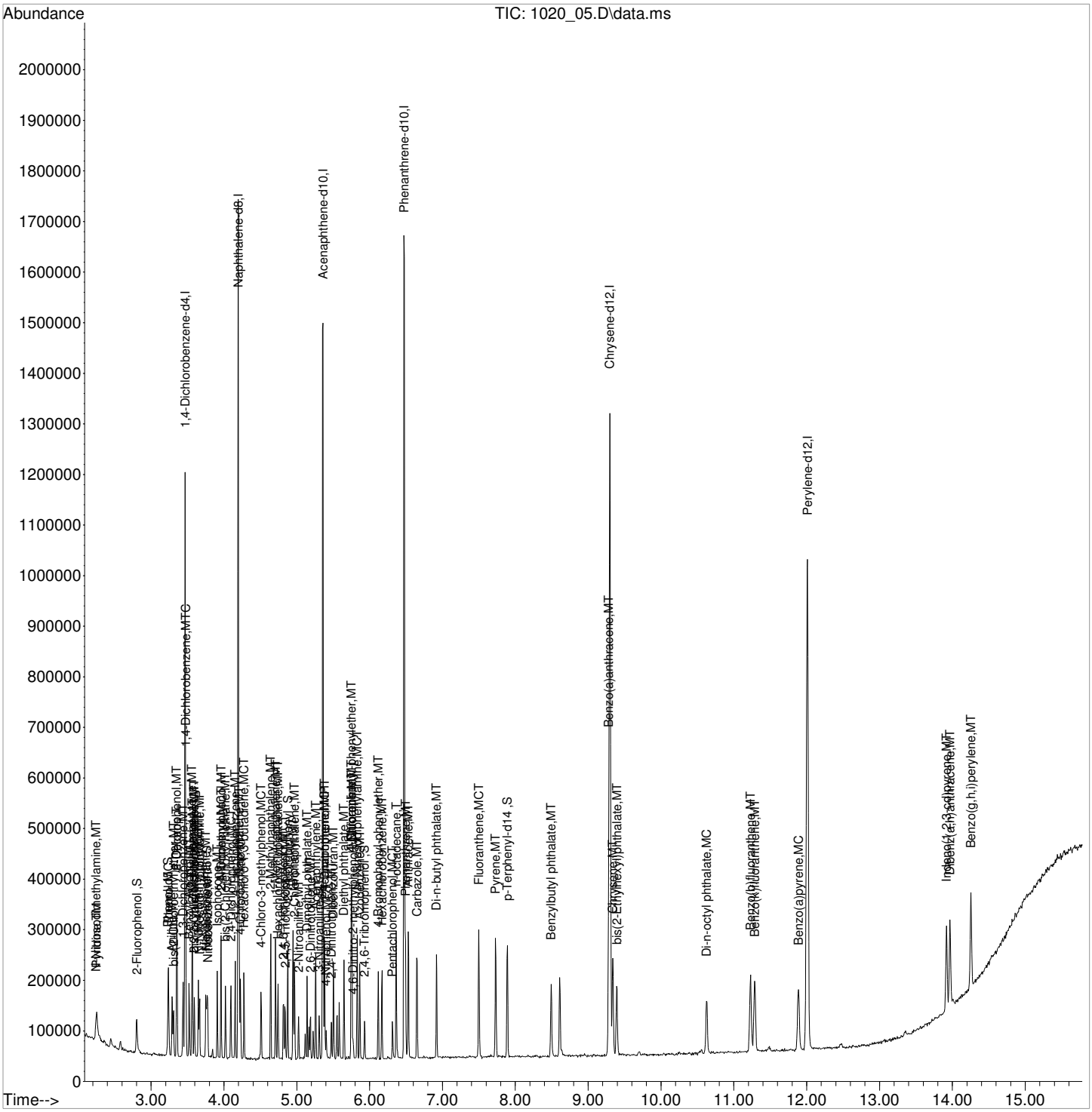
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.508	107	20921	951.8165757	ppb		98
41) 2-Methylnaphthalene	4.643	142	51476	1023.5938032	ppb		99
42) 1-Methylnaphthalene	4.708	142	47378	998.2633612	ppb		98
47) Hexachlorocyclopentadiene	4.743	237	18551	1011.8539301	ppb		98
48) 2,4,6-Trichlorophenol	4.819	196	14272	932.4713324	ppb		97
49) 2,4,5-Trichlorophenol	4.843	196	13534	911.9811144	ppb		95
51) Biphenyl	4.949	154	60645	990.6397411	ppb		98
52) 2-Chloronaphthalene	4.966	162	47417	983.8651528	ppb		98
53) 2-Nitroaniline	5.025	138	12869	923.7011175	ppb		96
54) Acenaphthylene	5.260	152	70320	970.0834859	ppb		98
55) Dimethyl phthalate	5.143	163	48982	983.7256249	ppb		97
56) 2,6-Dinitrotoluene	5.189	165	9728	905.1073484	ppb		96
57) 3-Nitroaniline	5.307	138	10342	873.3287946	ppb	#	84
58) Acenaphthene	5.378	153	48848	1008.6036630	ppb		100
59) 2,4-Dinitrophenol	5.383	184	3199	989.1880676	ppb	#	43
60) Dibenzofuran	5.501	168	68022	1016.6939571	ppb		99
61) 2,4-Dinitrotoluene	5.477	165	11729	911.4695495	ppb		94
63) 4-Nitrophenol	5.401	139	7806m	893.8729560	ppb		
64) Fluorene	5.754	166	55032	993.4465554	ppb		95
65) 4-Chlorophenyl-phenyle...	5.748	204	27181	985.8048530	ppb		99
66) Diethyl phthalate	5.648	149	49860	954.4253137	ppb		95
67) 4-Nitroaniline	5.748	138	12328	1013.6952225	ppb		98
68) Azobenzene	5.865	77	51251	981.0695790	ppb		97
71) 4,6-Dinitro-2-methylph...	5.771	198	4530	852.2140183	ppb		79
72) N-Nitrosodiphenylamine	5.830	169	47562	1007.4561777	ppb		98
74) 4-Bromophenyl-phenylether	6.118	248	18134	1002.8659677	ppb		96
75) Hexachlorobenzene	6.171	284	22816	1010.3260949	ppb		98
76) n-octadecane	6.365	55	8430	1017.4687049	ppb		94
77) Pentachlorophenol	6.312	266	8442	935.8238874	ppb		88
78) Phenanthrene	6.494	178	84337	1010.5382868	ppb		99
79) Anthracene	6.529	178	83342	989.6116995	ppb		98
80) Carbazole	6.653	167	78726	994.6161592	ppb		99
81) Di-n-butyl phthalate	6.917	149	92729	989.3544423	ppb		100
83) Fluoranthene	7.499	202	93953	995.3060775	ppb		99
86) Pyrene	7.728	202	95329	984.7569699	ppb		98
88) Benzylbutyl phthalate	8.492	149	39148	1004.4322541	ppb		96
90) Benzo(a)anthracene	9.285	228	94167	969.0561459	ppb		99
91) Chrysene	9.338	228	89670	975.6775879	ppb		96
92) bis(2-Ethylhexyl)phtha...	9.396	149	53824	989.7306725	ppb		98
93) Di-n-octyl phthalate	10.624	149	85976	967.5124650	ppb		100
95) Benzo(b)fluoranthene	11.230	252	101169	969.6527933	ppb		99
96) Benzo(k)fluoranthene	11.288	252	100577	982.0362910	ppb		98
97) Benzo(a)pyrene	11.888	252	87608	969.0461245	ppb		99
98) Indeno(1,2,3-cd)pyrene	13.921	276	95273	993.6503995	ppb		98
99) Dibenz(a,h)anthracene	13.968	278	96359	985.6862670	ppb		98
100) Benzo(g,h,i)perylene	14.256	276	101077	994.1107391	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
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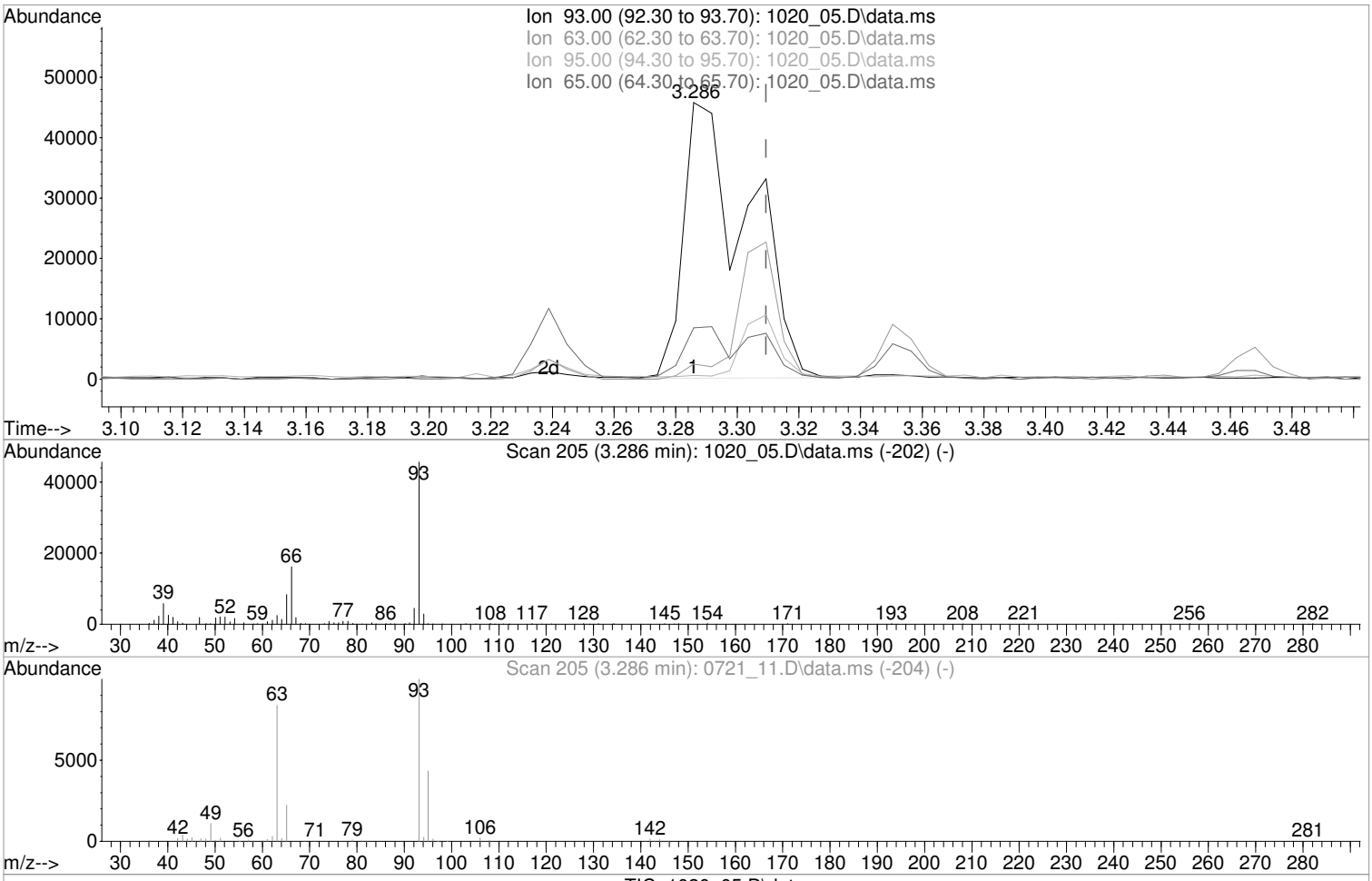
Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration



TIC: 1020_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.024) 2498.2107536 ppb

Qvalue = 41

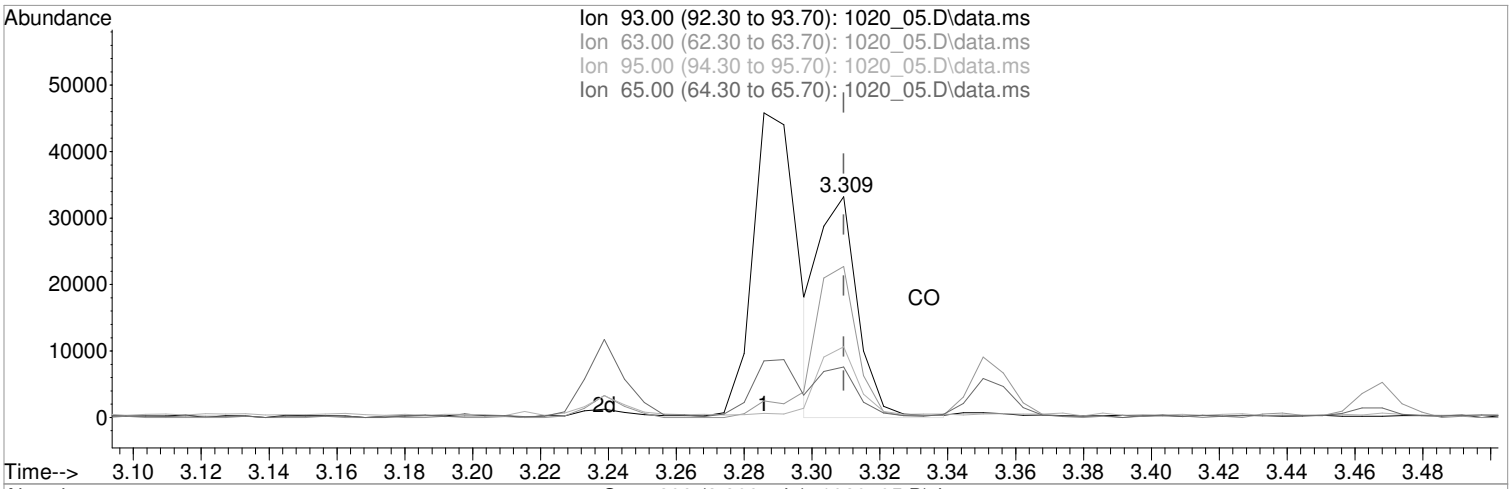
response 67232

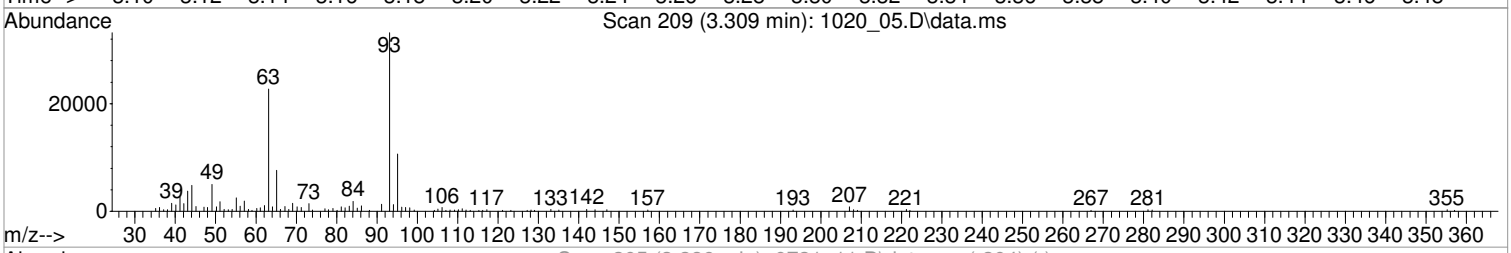
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.45#
95.00	32.50	0.32#
65.00	21.90	18.37

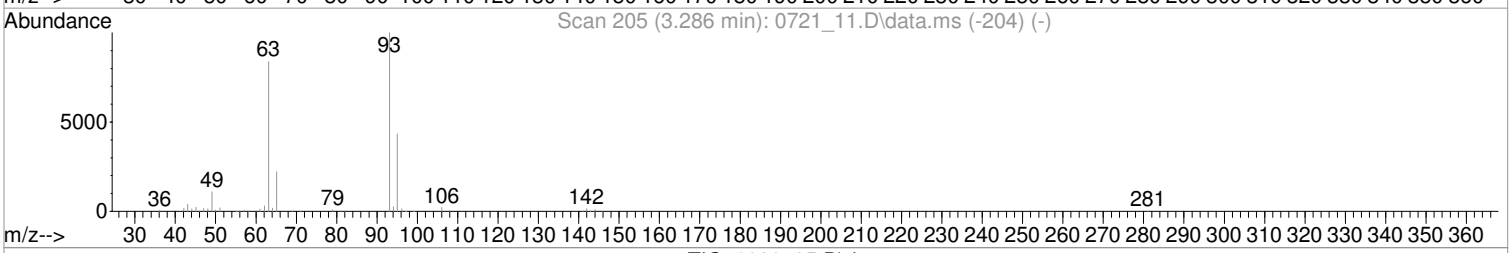
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

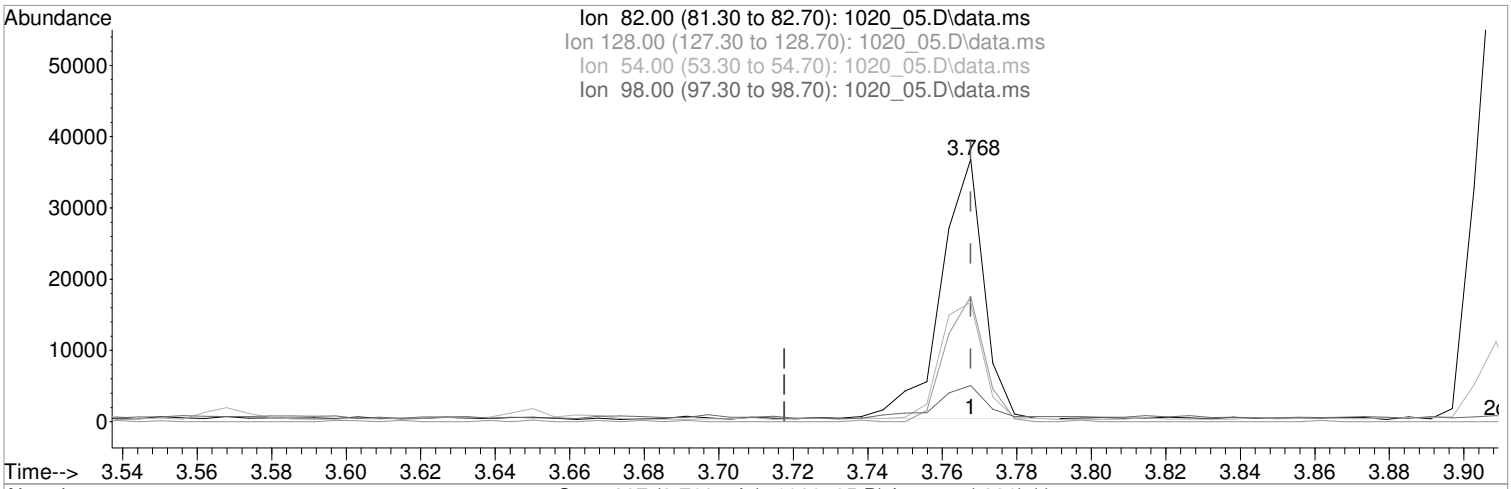
3.309min (-0.000) 981.1585993 ppb m

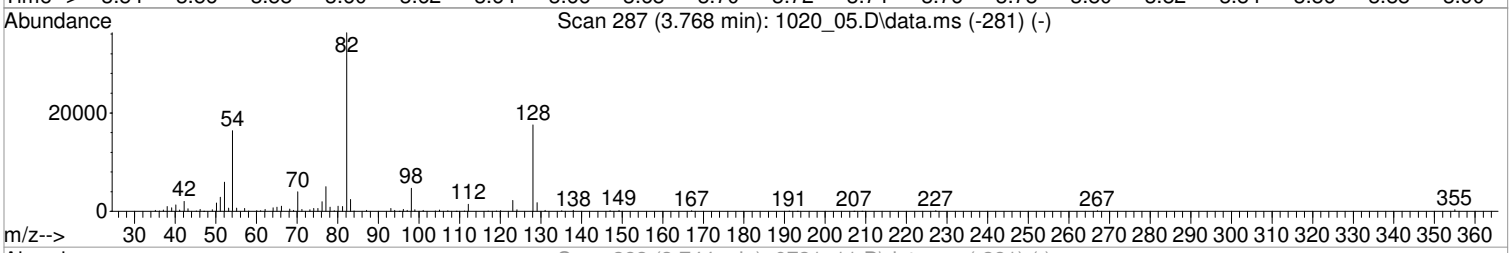
response 26405

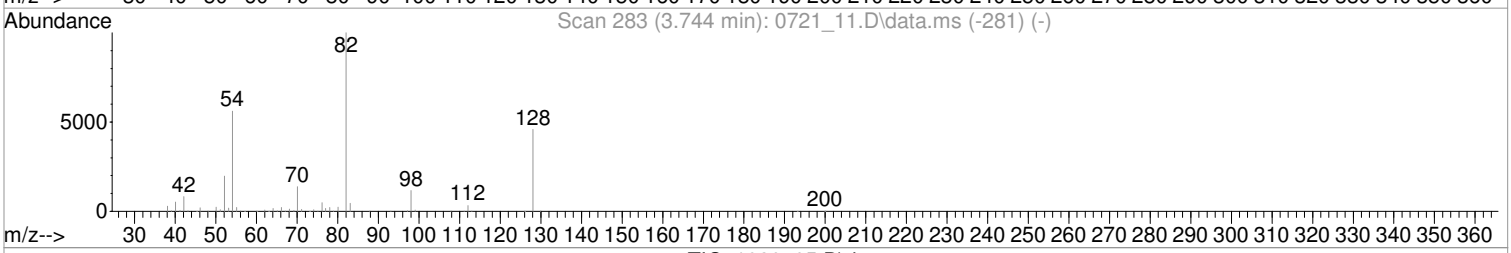
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	68.45
95.00	32.50	32.06
65.00	21.90	22.86

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 1177.3835207 ppb

Qvalue = 95

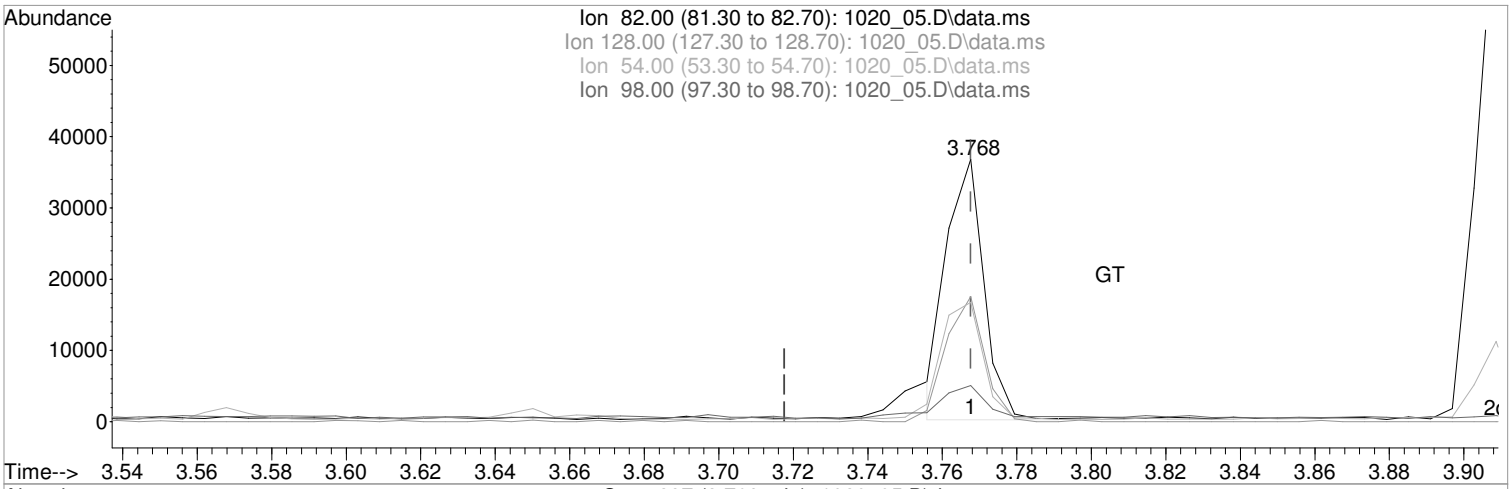
response 28930

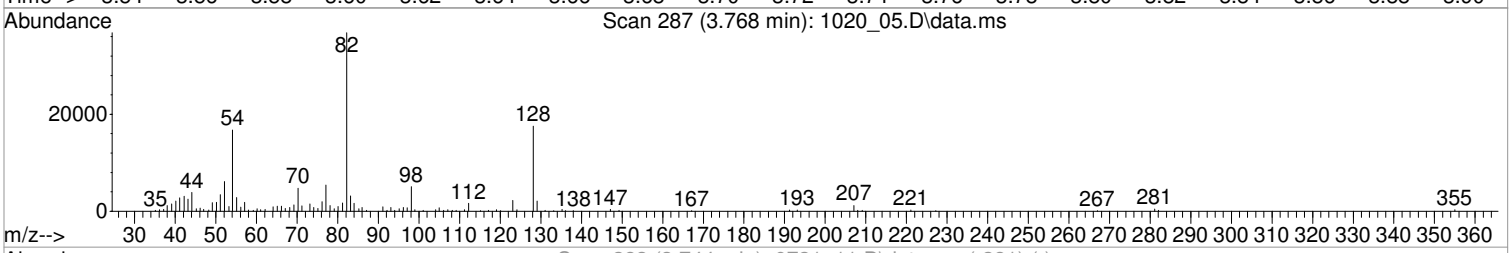
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.24
54.00	48.90	45.16
98.00	12.10	12.88

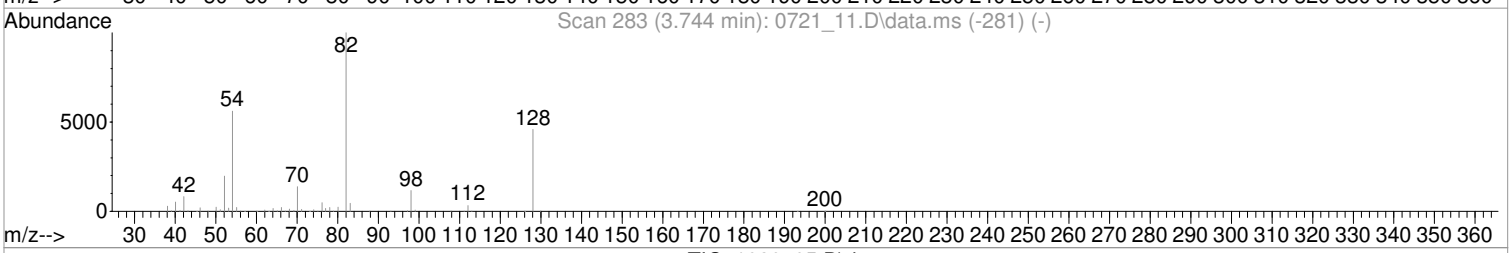
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 1040.2730789 ppb m

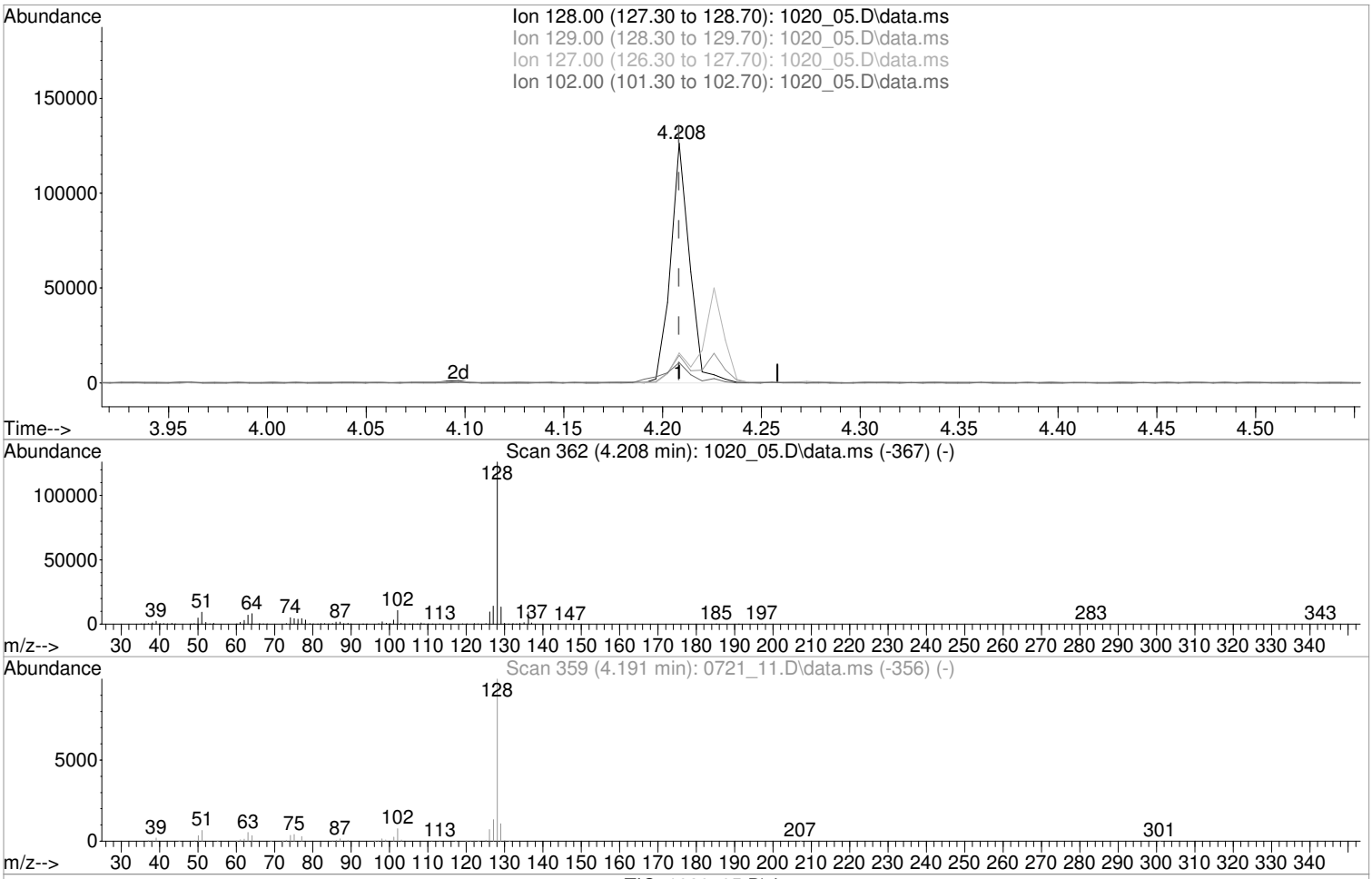
response 25561

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.66
54.00	48.90	45.53
98.00	12.10	13.83

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration



TIC: 1020_05.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 1066.8359596 ppb

Qvalue = 99

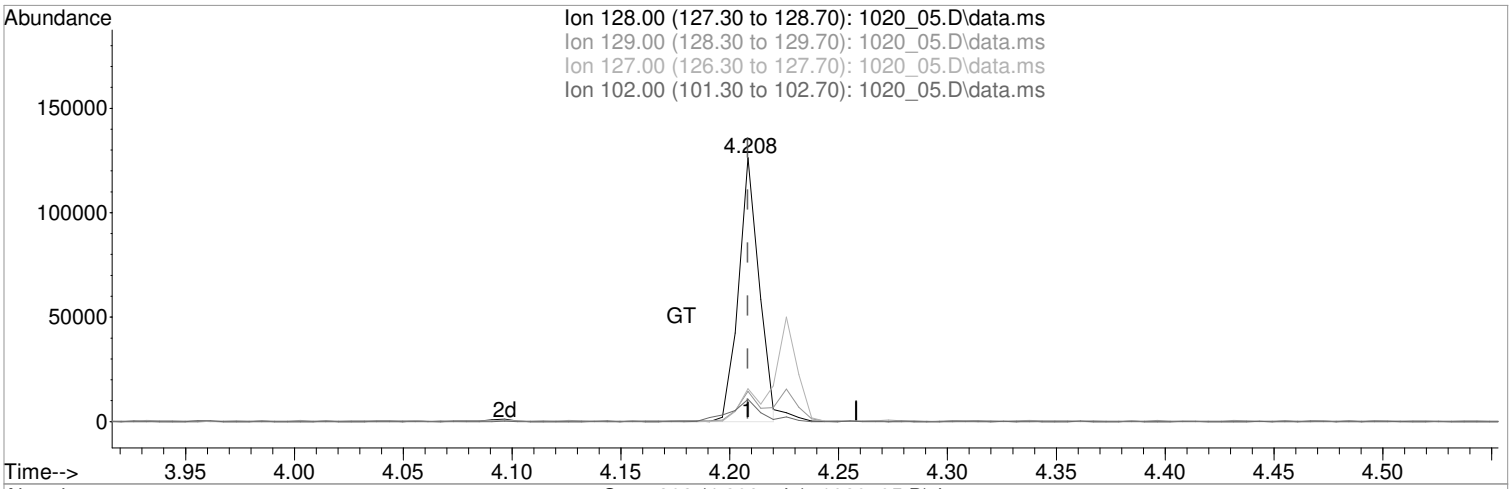
response 85366

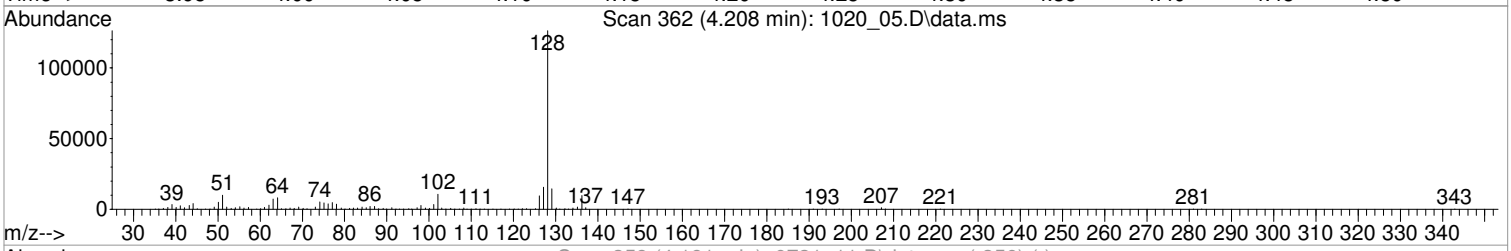
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.17
127.00	13.10	12.41
102.00	8.20	8.41

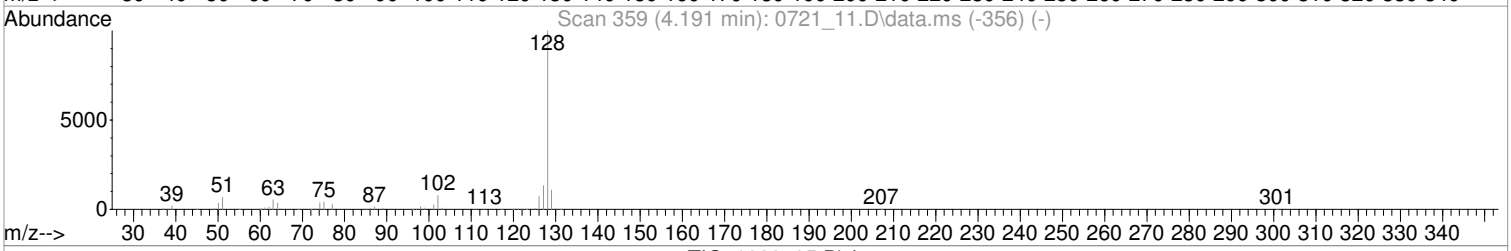
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 1037.1051213 ppb m

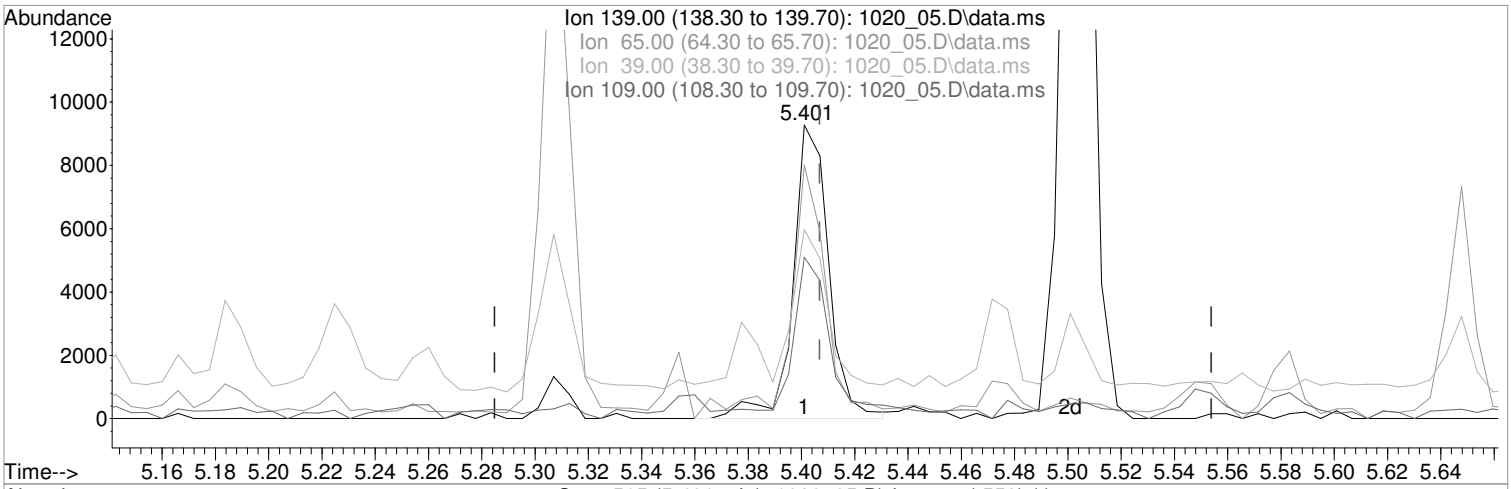
response 82987

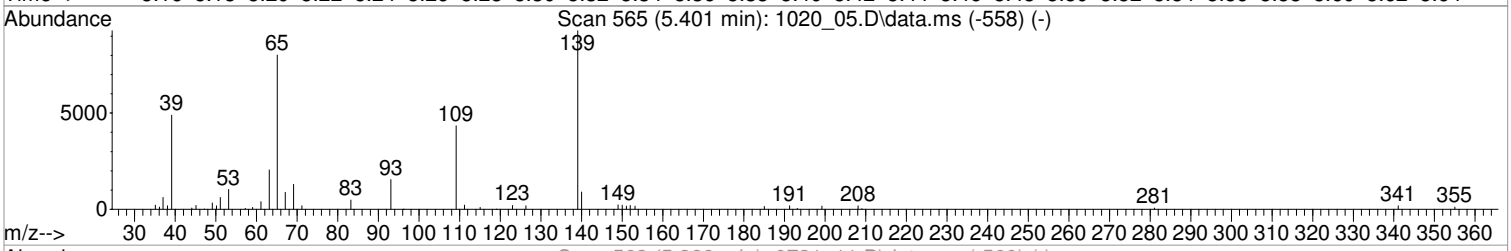
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.47
127.00	13.10	12.41
102.00	8.20	8.41

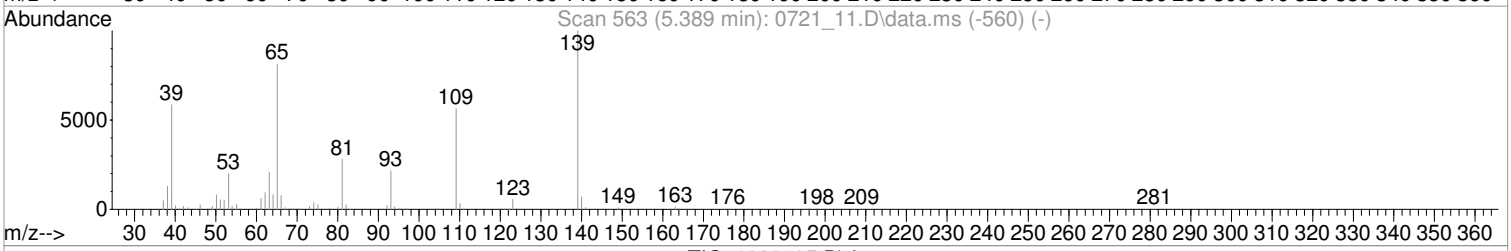
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 990.9782938 ppb

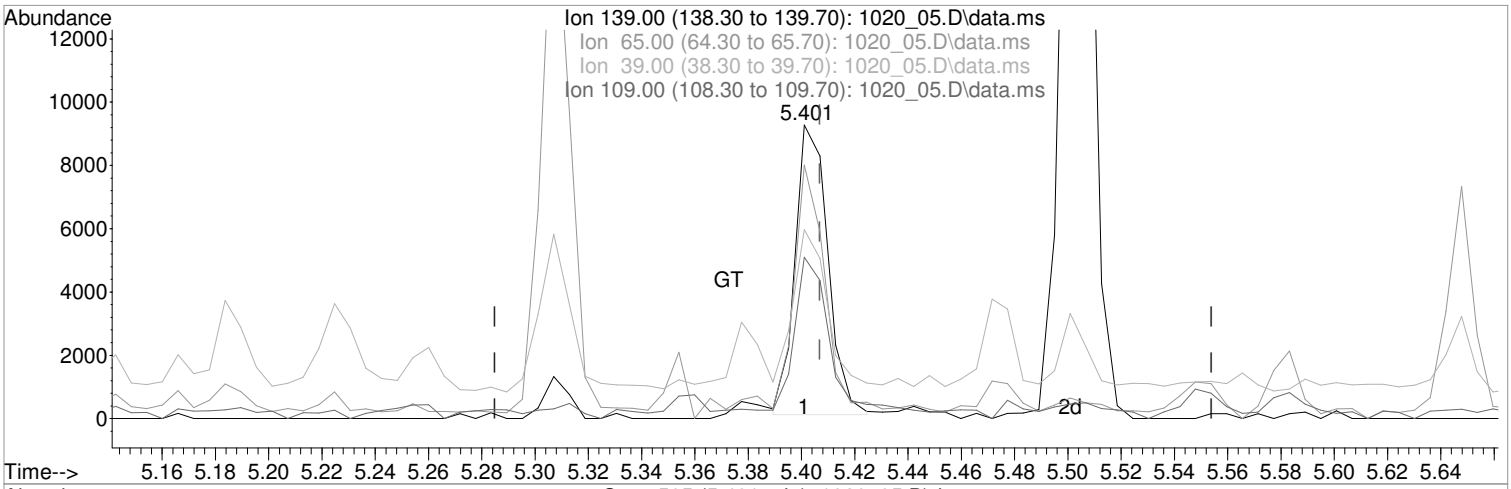
Qvalue = 92

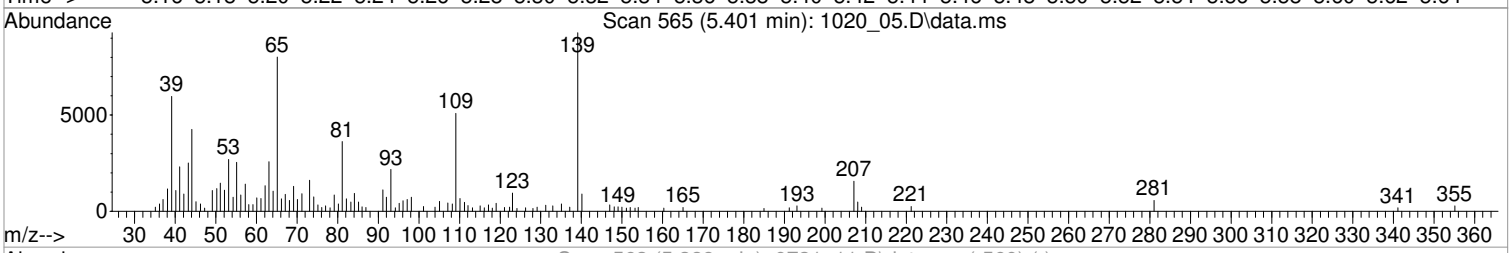
response 8654

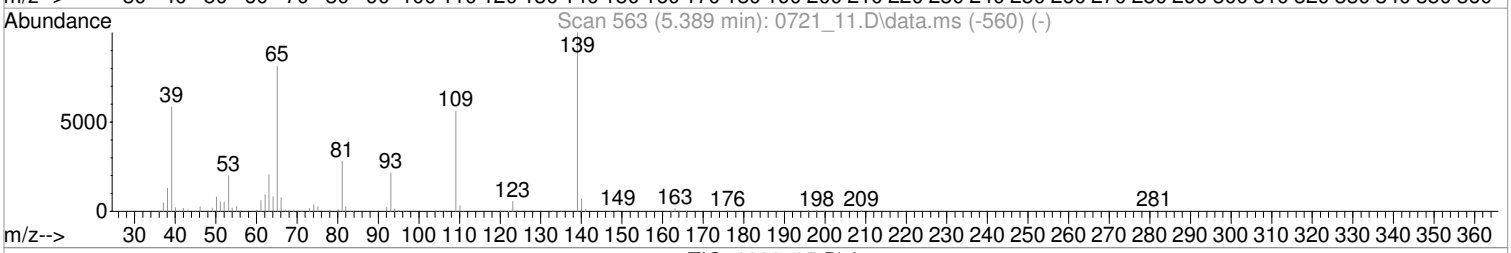
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	86.36
39.00	49.40	52.87
109.00	53.80	50.35

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 893.8729560 ppb m

response 7806

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	86.36
39.00	49.40	64.35
109.00	53.80	54.92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	147748	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	558569	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	279986	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.471	188	564191	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	603254	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	656824	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.804	112	94381	3450.2482358	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.25%			
7) Phenol-d5	3.233	99	113175	3444.8108584	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.22%			
24) Nitrobenzene-d5	3.768	82	87271m	3546.5658889	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.47%			
50) 2-Fluorobiphenyl	4.878	172	192379	3574.2892192	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.74%			
73) 2,4,6-Tribromophenol	5.930	330	31038	3525.9801344	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.63%			
87) p-Terphenyl-d14	7.892	244	304821	3529.3996010	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.29%			
Target Compounds							Qvalue
2) Pyridine	2.252	79	103420	3544.9013852	ppb		95
3) N-Nitrosodimethylamine	2.240	42	49253	3426.3442360	ppb		95
5) Aniline	3.286	66	51744	3438.6803368	ppb	#	91
6) bis(2-Chloroethyl)ether	3.309	93	89922m	3401.4520446	ppb		
8) Phenol	3.239	94	118116	3488.3120504	ppb		97
10) 2-Chlorophenol	3.351	128	97604	3424.7858960	ppb		98
11) n-Decane	3.351	41	51476	3399.9540347	ppb		100
12) 1,3-Dichlorobenzene	3.439	146	108702	3548.9607661	ppb		98
13) 1,4-Dichlorobenzene	3.474	146	109888	3502.5163053	ppb		98
14) Benzyl Alcohol	3.521	79	73078	3493.5048879	ppb		100
15) 1,2-Dichlorobenzene	3.562	146	104365	3573.1283056	ppb		99
16) bis(2-Chloroisopropyl)...	3.591	121	33436	3222.8012731	ppb		96
17) 2,2-oxybis(1-chloropro...	3.591	121	33436	3222.8012731	ppb		96
18) 2-Methylphenol	3.568	108	86790	3433.2938703	ppb		99
19) Hexachloroethane	3.750	117	39962	3468.7497258	ppb		98
20) N-Nitrosodi-n-propylamine	3.668	70	62330	3480.8677412	ppb		96
21) 3&4-Methyl phenol	3.650	107	96775	3419.6378871	ppb		99
25) Nitrobenzene	3.780	77	90516	3544.9193164	ppb		99
26) Isophorone	3.909	82	165052	3520.1805331	ppb		98
27) 2-Nitrophenol	3.962	139	45722	3652.0738300	ppb		98
28) 2,4-Dimethylphenol	3.962	107	89908	3578.8927268	ppb		97
29) bis(2-Chlorethoxy)methane	4.020	93	102147	3460.8742896	ppb		98
30) 2,4-Dichlorophenol	4.097	162	76169	3561.5437559	ppb		97
32) 1,2,4-Trichlorobenzene	4.156	180	85715	3479.9783503	ppb		97
34) Naphthalene	4.208	128	279606m	3492.8547929	ppb		
35) 4-Chloroaniline	4.226	65	30755	3328.0065065	ppb		99
36) Hexachloro-1,3-butadiene	4.273	225	50052	3447.4222108	ppb		99

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

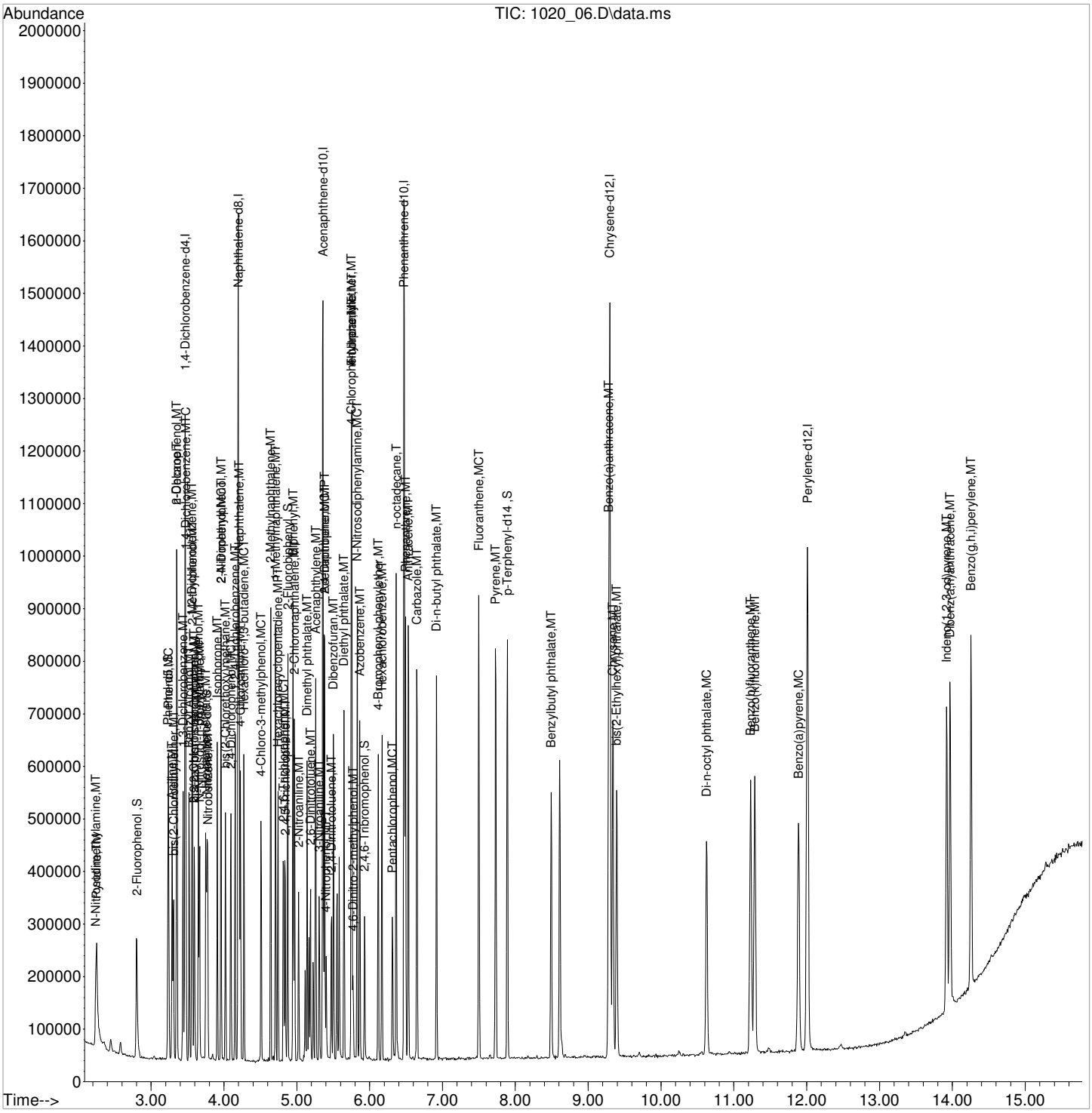
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.508	107	71114	3327.4973587	ppb		99
41)	2-Methylnaphthalene	4.643	142	176450	3522.9155040	ppb		99
42)	1-Methylnaphthalene	4.708	142	165380	3528.2778069	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	62794	3534.0166512	ppb		98
48)	2,4,6-Trichlorophenol	4.819	196	52426	3629.9233179	ppb		98
49)	2,4,5-Trichlorophenol	4.843	196	50673	3644.0270004	ppb		97
51)	Biphenyl	4.949	154	204882	3477.7175075	ppb		99
52)	2-Chloronaphthalene	4.966	162	159921	3455.9039246	ppb		99
53)	2-Nitroaniline	5.025	138	45726	3488.5966328	ppb		96
54)	Acenaphthylene	5.260	152	247704	3575.4315079	ppb		99
55)	Dimethyl phthalate	5.143	163	172155	3601.0742642	ppb		97
56)	2,6-Dinitrotoluene	5.190	165	36060	3589.0037927	ppb		97
57)	3-Nitroaniline	5.307	138	40588	3706.9730065	ppb	#	80
58)	Acenaphthene	5.384	153	164520	3508.8219075	ppb		98
59)	2,4-Dinitrophenol	5.384	184	12305	3955.7319744	ppb	#	65
60)	Dibenzofuran	5.501	168	229982	3541.0926441	ppb		99
61)	2,4-Dinitrotoluene	5.478	165	46663	3870.5745174	ppb		96
63)	4-Nitrophenol	5.401	139	30046m	3694.7776131	ppb		
64)	Fluorene	5.754	166	189285	3547.3803284	ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	94904	3582.4692382	ppb		98
66)	Diethyl phthalate	5.648	149	177339	3570.7115268	ppb		99
67)	4-Nitroaniline	5.754	138	42496	3603.2745025	ppb		94
68)	Azobenzene	5.865	77	176778	3527.6656798	ppb		100
71)	4,6-Dinitro-2-methylph...	5.771	198	19937	4017.0152163	ppb		87
72)	N-Nitrosodiphenylamine	5.830	169	165667	3564.3312804	ppb		99
74)	4-Bromophenyl-phenylether	6.118	248	62754	3530.4499093	ppb		97
75)	Hexachlorobenzene	6.171	284	75391	3387.6874004	ppb		98
76)	n-octadecane	6.365	55	27317	3337.7900822	ppb		97
77)	Pentachlorophenol	6.312	266	31503	3633.6743098	ppb		94
78)	Phenanthrene	6.494	178	287505	3495.5150594	ppb		99
79)	Anthracene	6.529	178	293916	3566.0272143	ppb		100
80)	Carbazole	6.647	167	276499	3563.4037474	ppb		100
81)	Di-n-butyl phthalate	6.917	149	323488	3526.8939520	ppb		99
83)	Fluoranthene	7.499	202	331098	3577.1459487	ppb		99
86)	Pyrene	7.728	202	340881	3547.0585468	ppb		99
88)	Benzylbutyl phthalate	8.492	149	135540	3480.0593199	ppb		99
90)	Benzo(a)anthracene	9.285	228	334029	3480.8593818	ppb		99
91)	Chrysene	9.338	228	322199	3542.1584473	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.391	149	191750	3545.8052283	ppb		98
93)	Di-n-octyl phthalate	10.625	149	322209	3673.6261593	ppb		100
95)	Benzo(b)fluoranthene	11.230	252	360678	3577.8888171	ppb		99
96)	Benzo(k)fluoranthene	11.288	252	360870	3631.7068298	ppb		99
97)	Benzo(a)pyrene	11.888	252	312053	3573.1904813	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.921	276	337378	3612.6302658	ppb		98
99)	Dibenz(a,h)anthracene	13.968	278	340313	3583.6439827	ppb		99
100)	Benzo(g,h,i)perylene	14.256	276	349392	3527.5370785	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

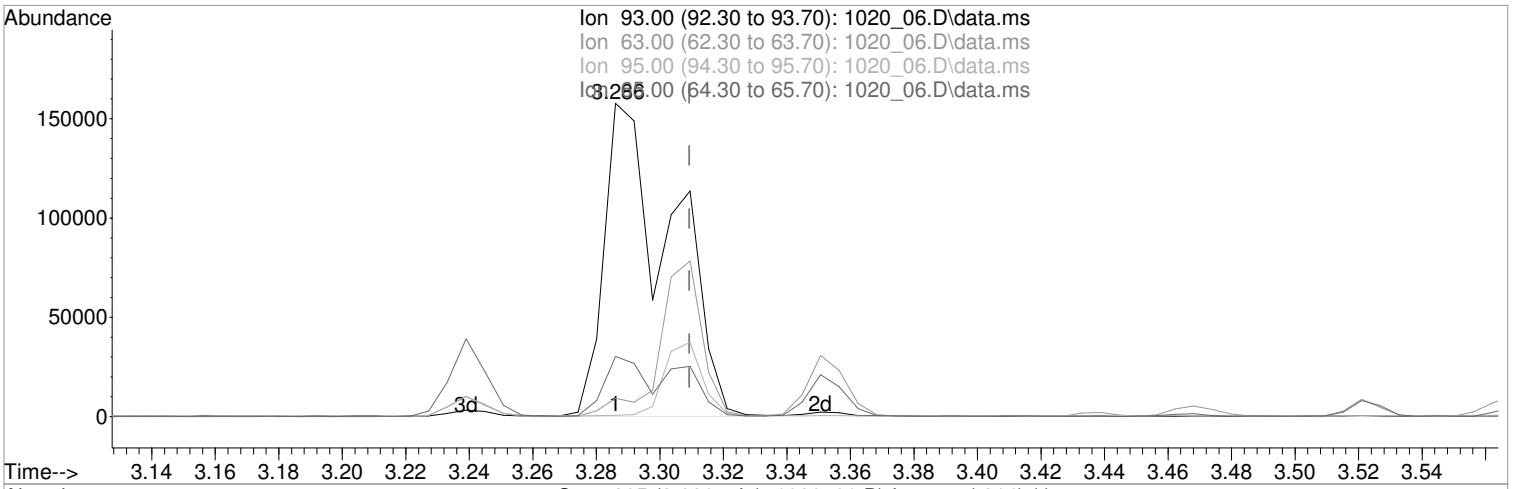
Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

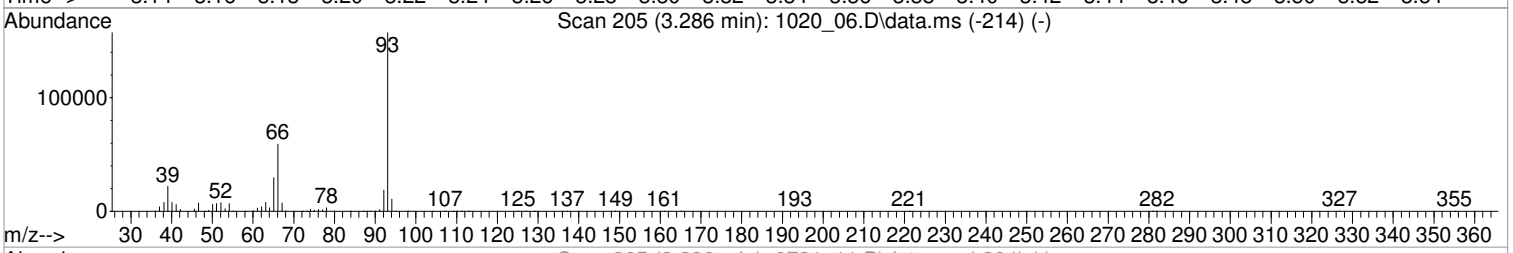
Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

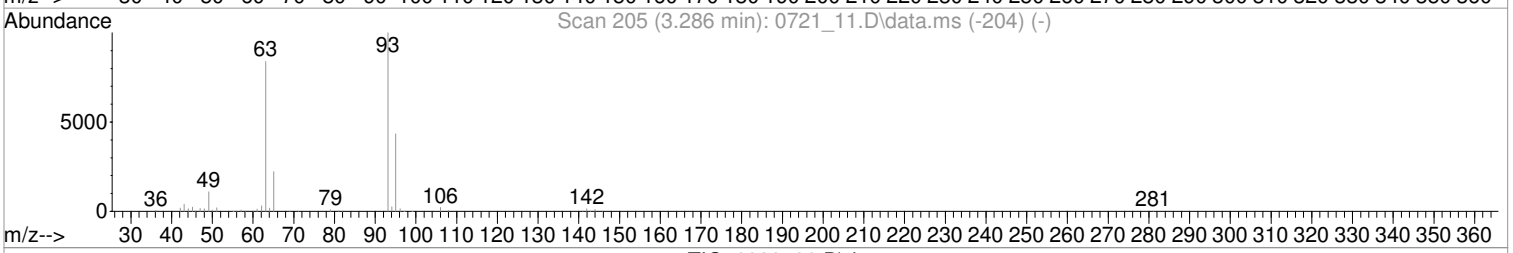


Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 8820.1638932 ppb

Qvalue = 42

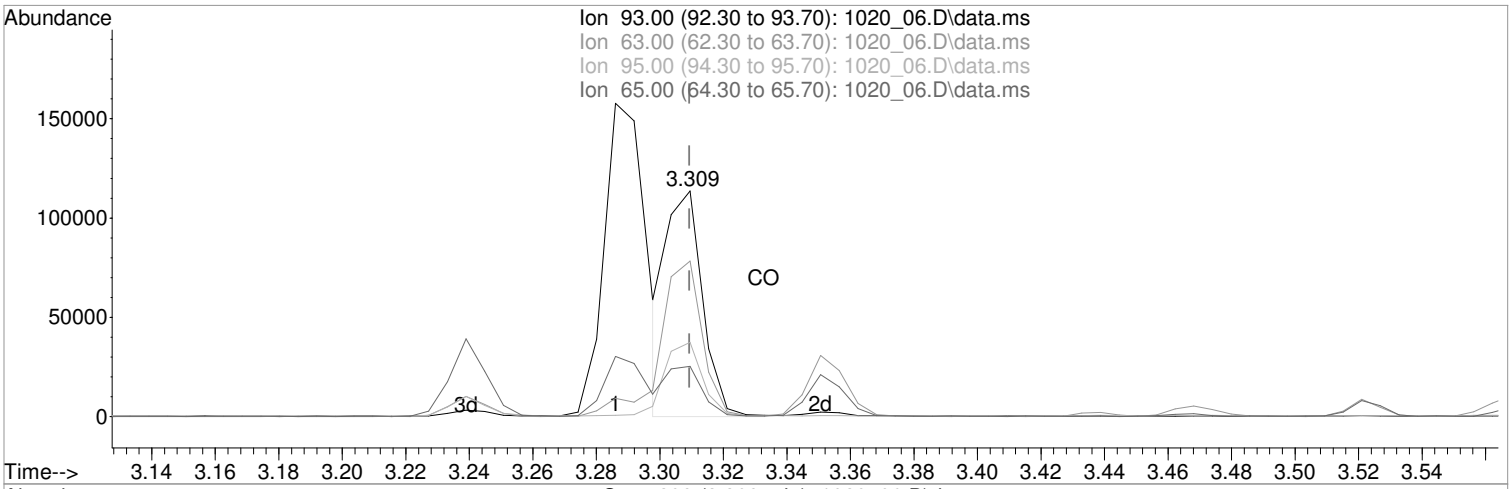
response 233173

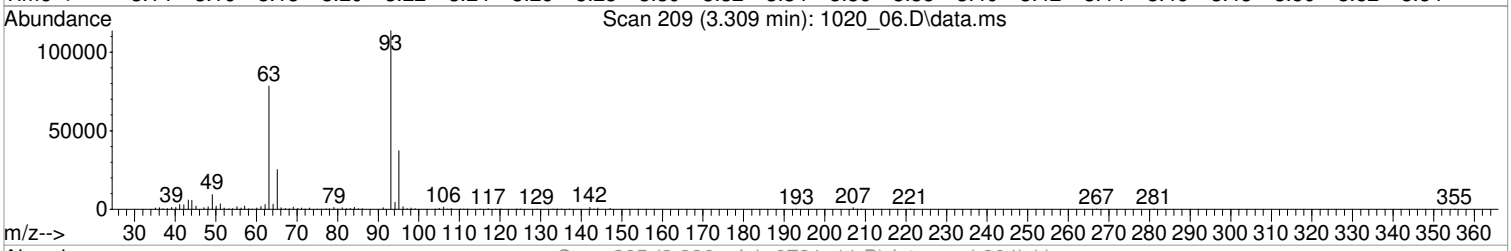
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.73#
95.00	32.50	0.10#
65.00	21.90	18.84

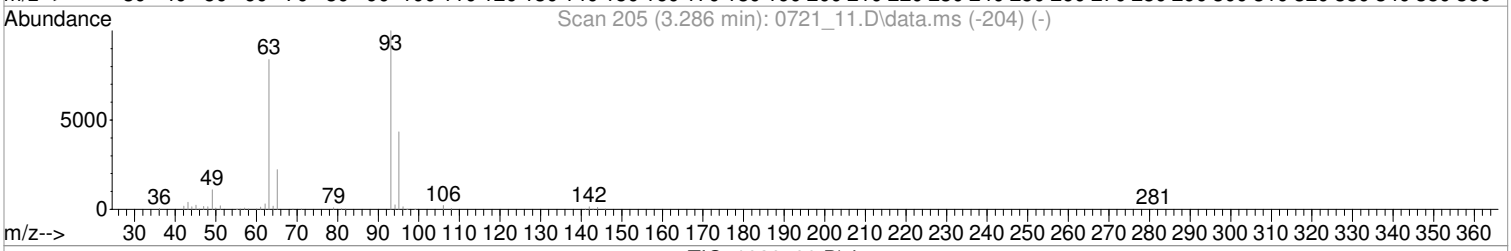
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 3401.4520446 ppb m

response 89922

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.01
95.00	32.50	32.87
65.00	21.90	22.31

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
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InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
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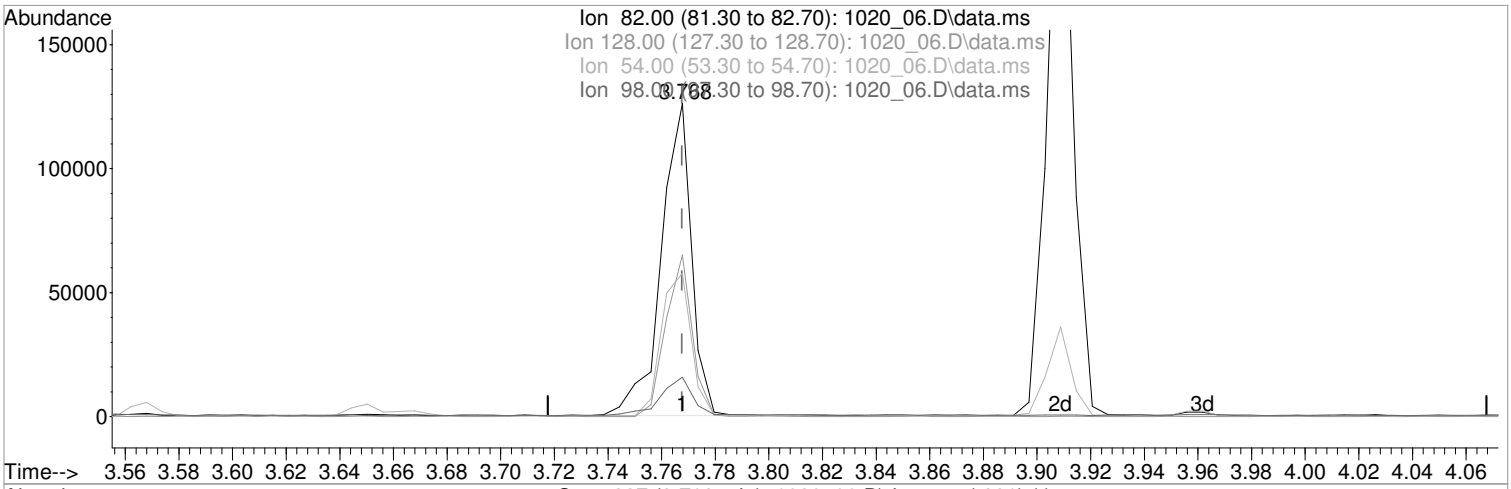

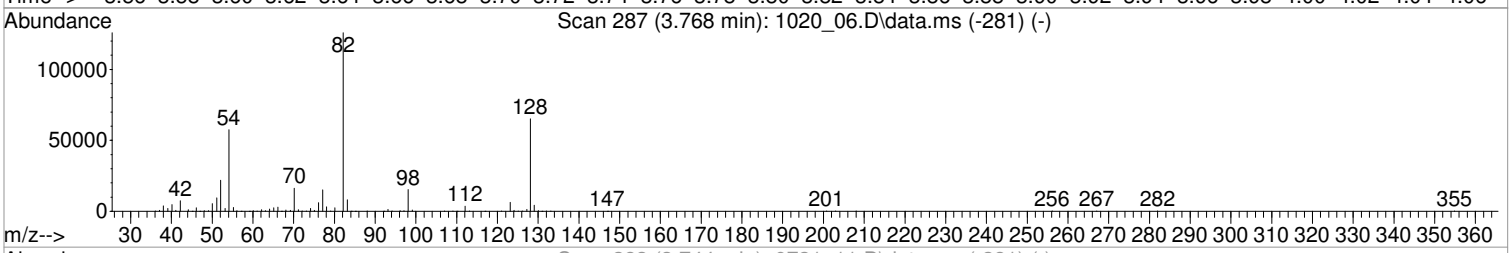

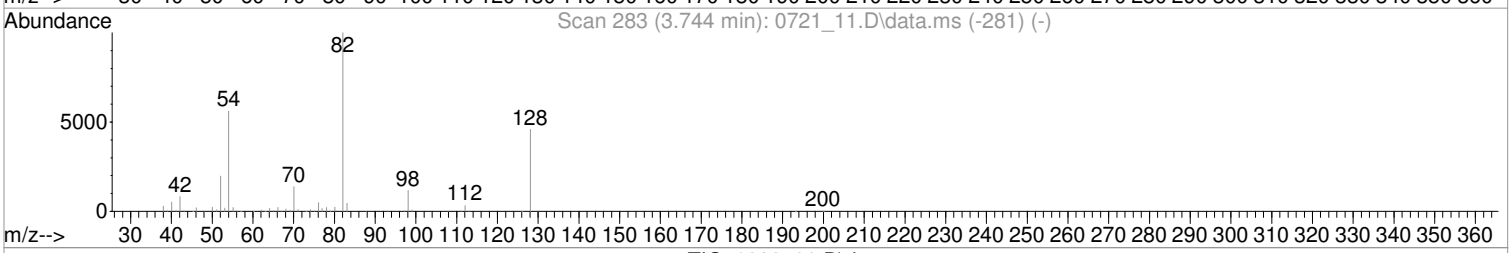

TIC: 1020_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 4028.0106539 ppb

Qvalue = 98

response 99118

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.71
54.00	48.90	45.60
98.00	12.10	12.13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

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Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
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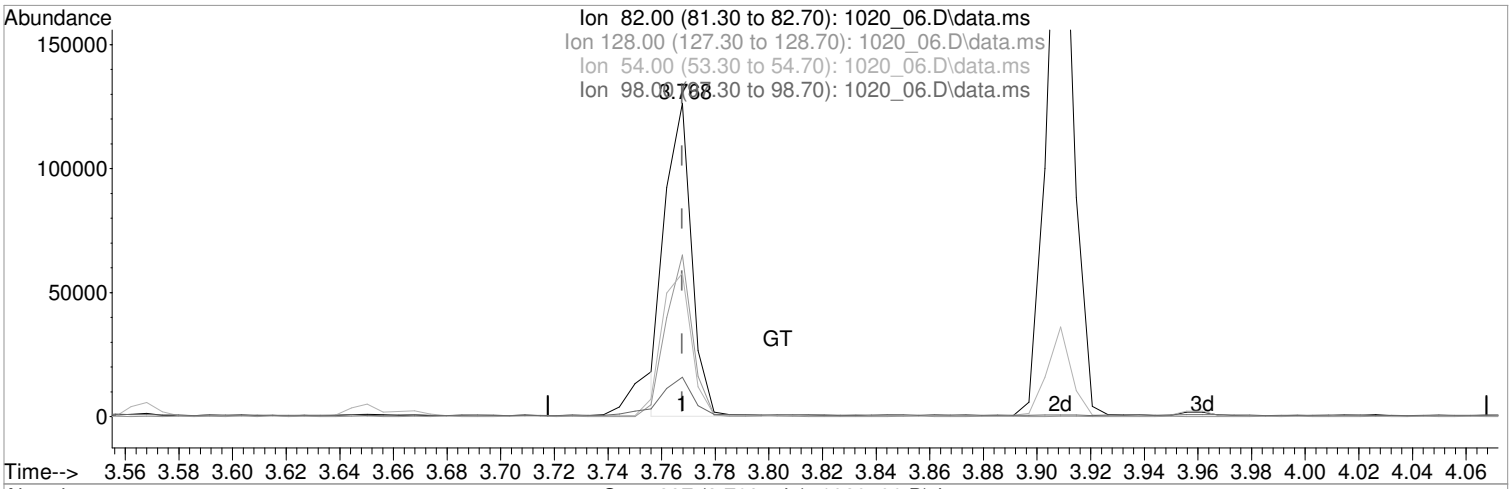
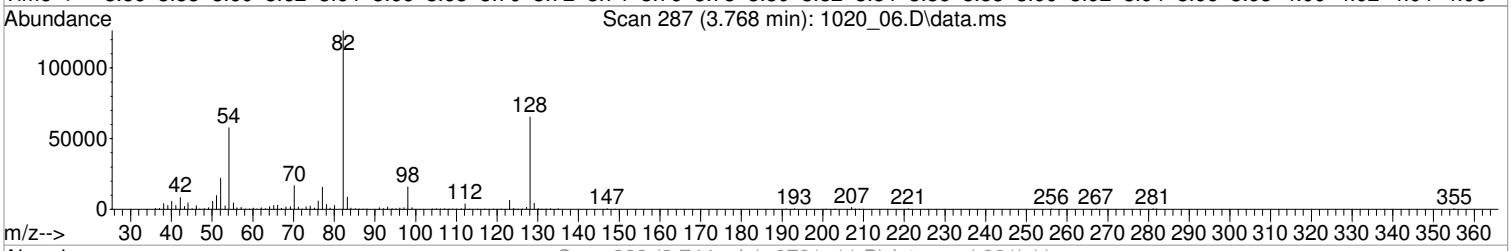
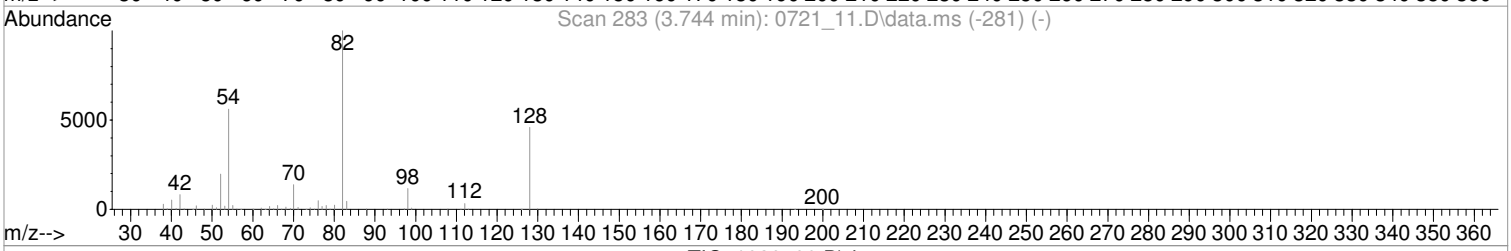
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 3546.5658889 ppb m

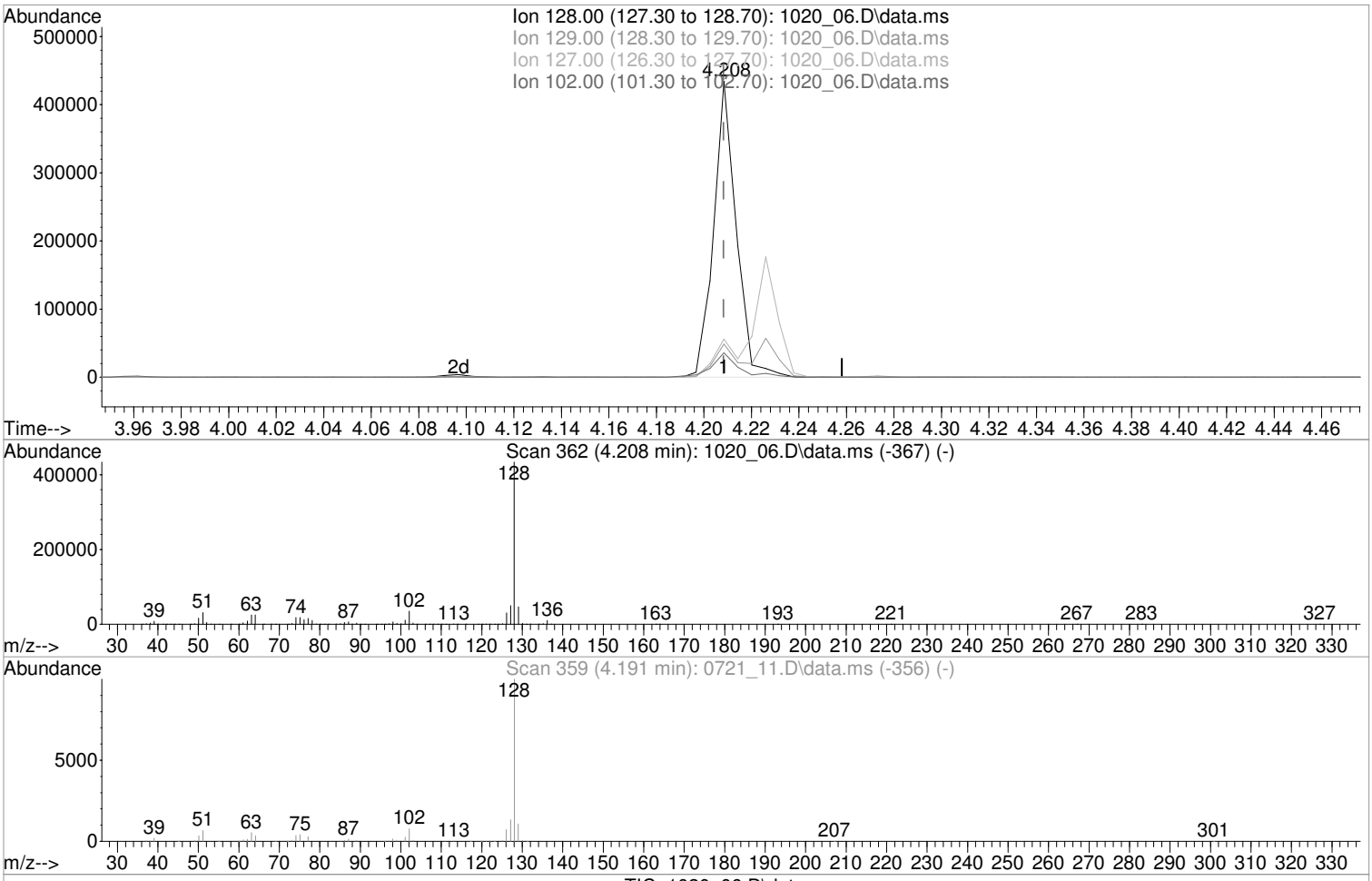
response 87271

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.56
54.00	48.90	45.78
98.00	12.10	12.56

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration



TIC: 1020_06.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 3577.6508929 ppb

Qvalue = 100

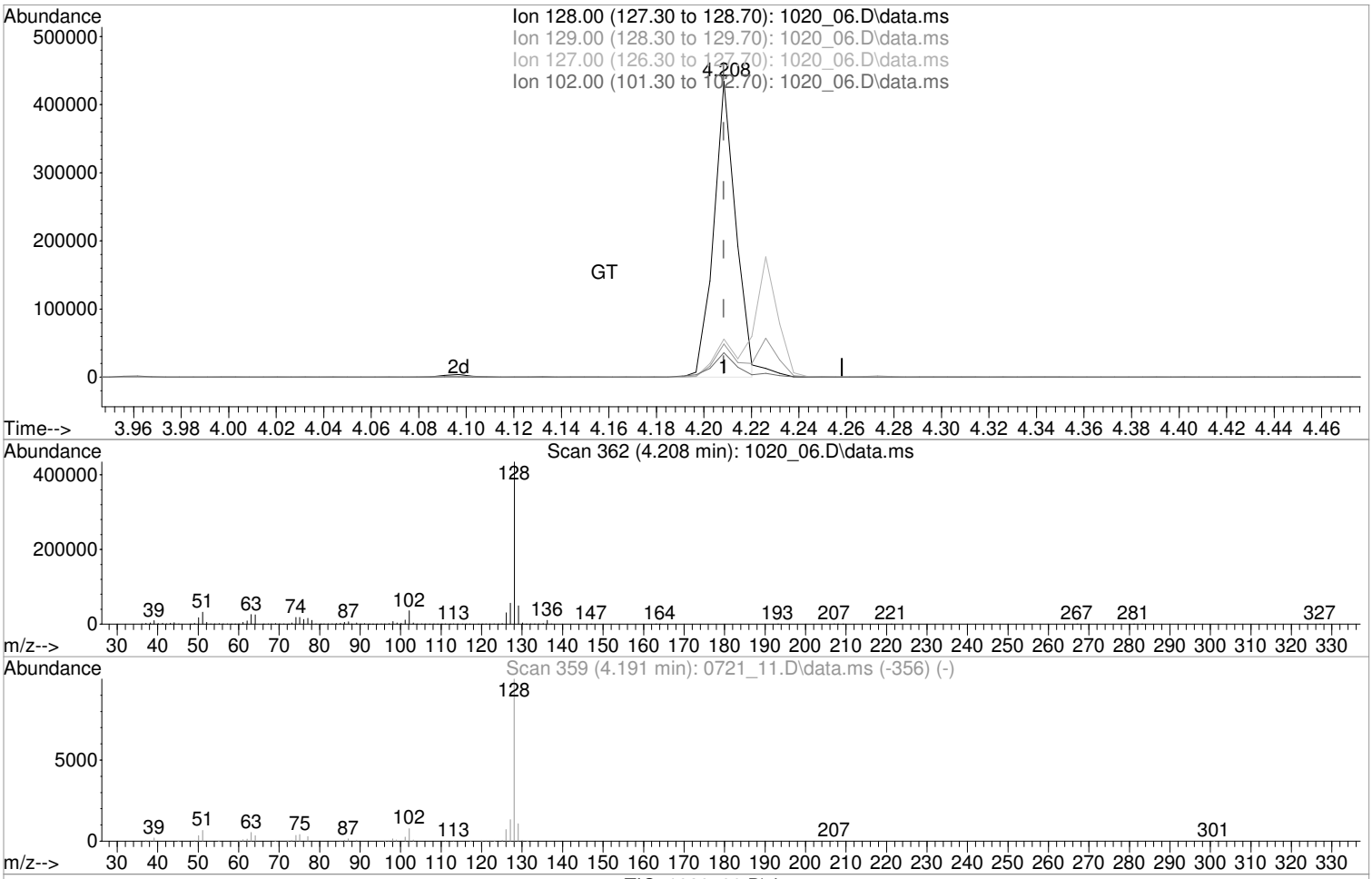
response 286394

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.14
127.00	13.10	12.91
102.00	8.20	8.22

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration



TIC: 1020_06.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 3492.8547929 ppb m

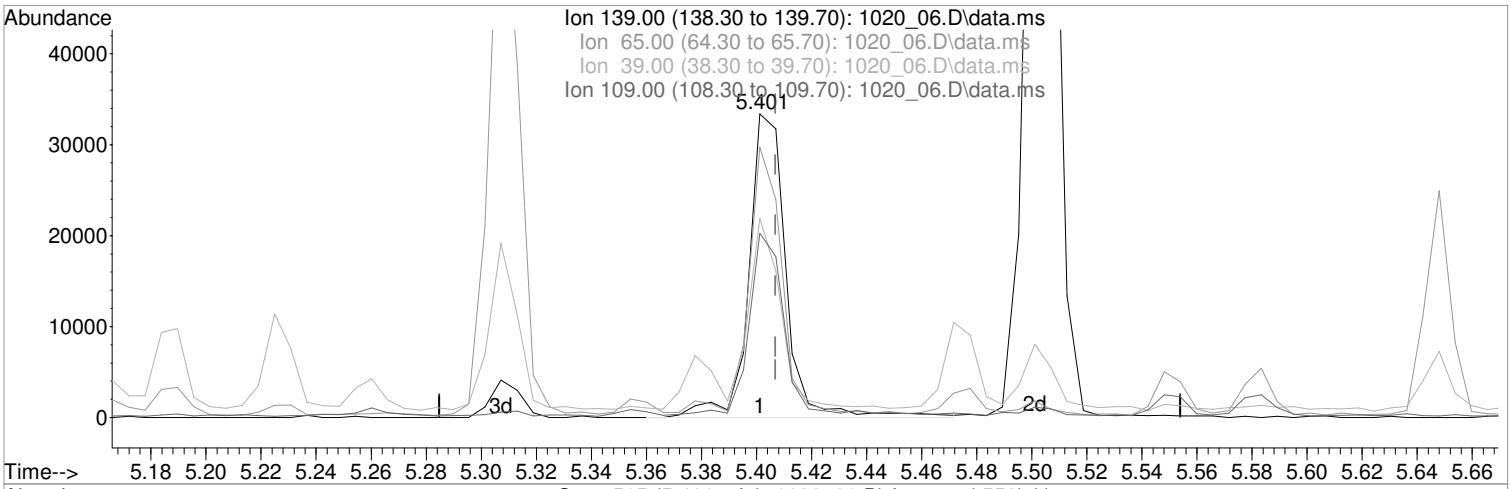
response 279606

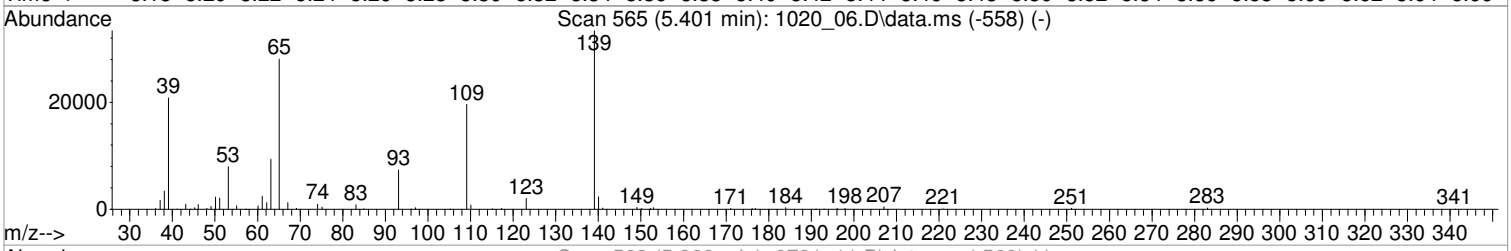
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.21
127.00	13.10	12.91
102.00	8.20	8.22

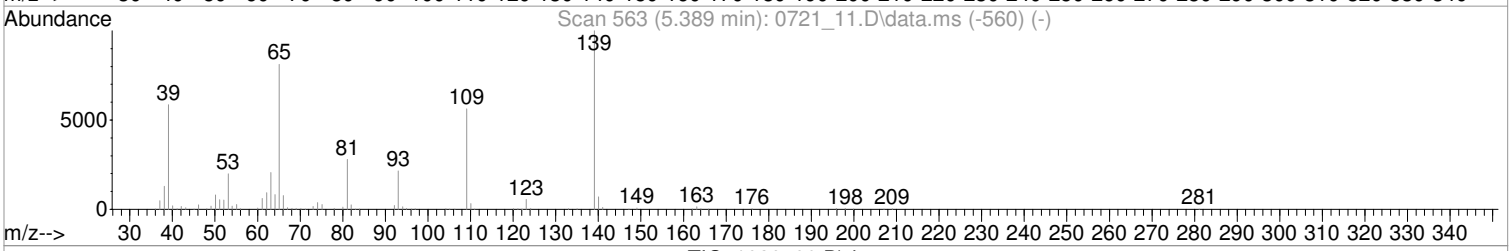
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 3886.1200203 ppb

Qvalue = 89

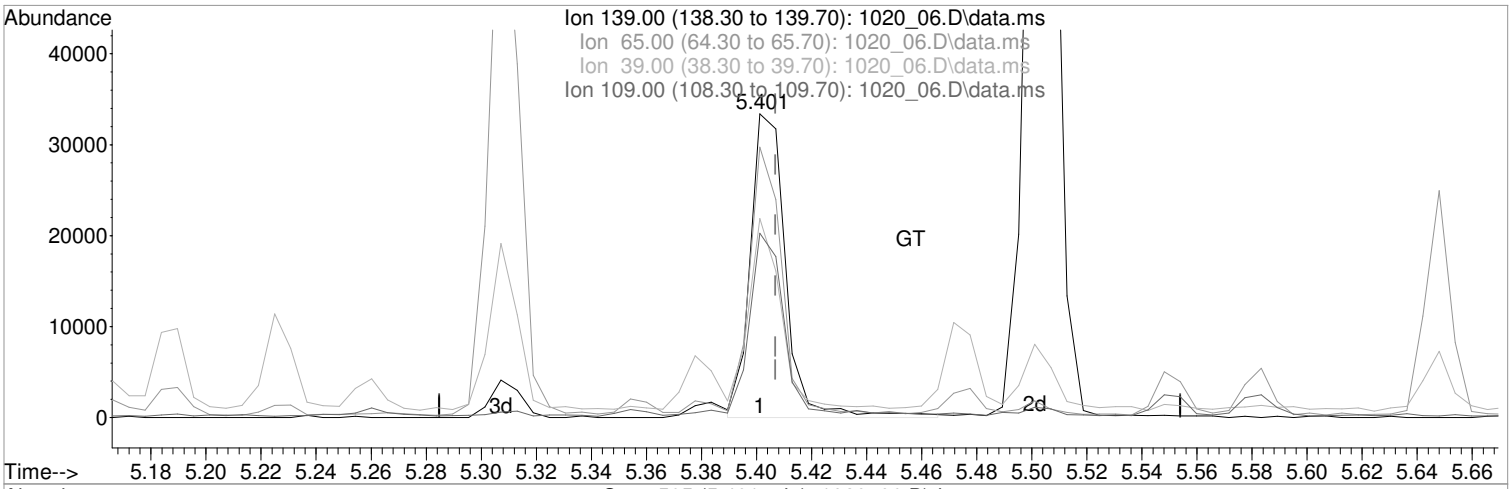
response 31602

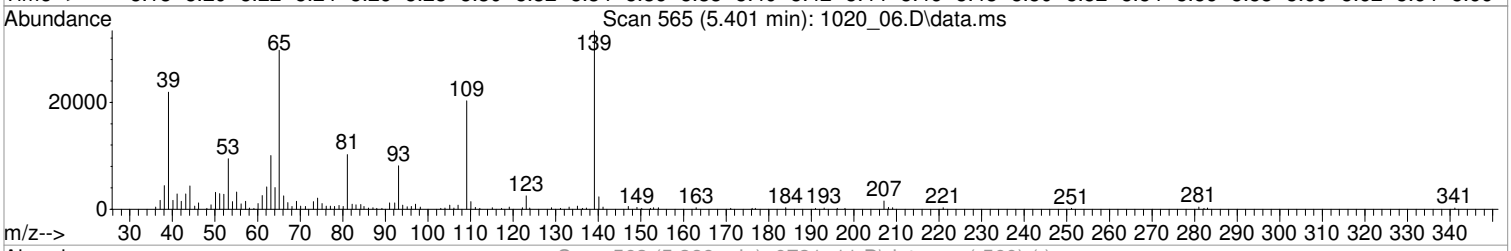
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	84.03
39.00	49.40	62.42
109.00	53.80	59.14

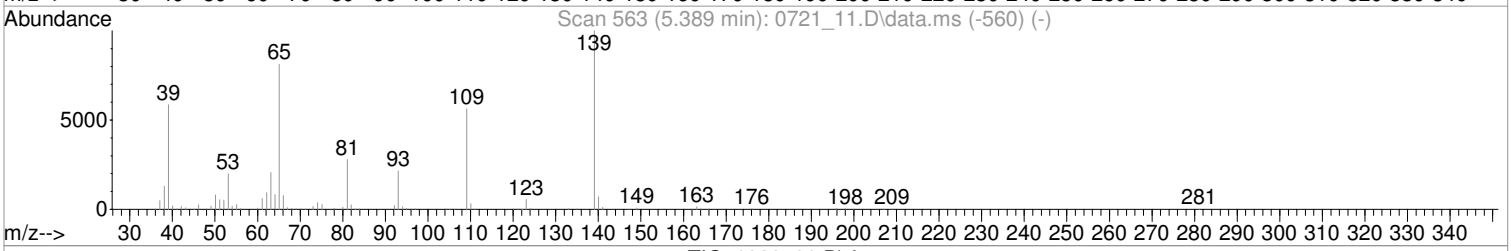
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 3694.7776131 ppb m

response 30046

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	89.07
39.00	49.40	65.59
109.00	53.80	60.68

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.468	152	151370	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.197	136	573157	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.360	164	287887	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.470	188	568440	8000.0000000 ppb	0.00
84) Chrysene-d12	9.302	240	620191	8000.0000000 ppb	0.00
94) Perylene-d12	12.011	264	671005	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.804	112	249739	10000.0000000 ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%	
7) Phenol-d5	3.233	99	302761	10000.0000000 ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%	
24) Nitrobenzene-d5	3.768	82	230973m	10009.1436198 ppb	0.00
Spiked Amount 10000.000				Recovery = 100.09%	
50) 2-Fluorobiphenyl	4.878	172	504218	10000.0000000 ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%	
73) 2,4,6-Tribromophenol	5.936	330	86132	10000.0000000 ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%	
87) p-Terphenyl-d14	7.892	244	794563	10000.0000000 ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%	
Target Compounds					Qvalue
2) Pyridine	2.252	79	268268	10000.0000000 ppb	100
3) N-Nitrosodimethylamine	2.240	42	123314	10000.0000000 ppb	100
5) Aniline	3.292	66	137036	10000.0000000 ppb	100
6) bis(2-Chloroethyl)ether	3.309	93	243205m	10000.0000000 ppb	
8) Phenol	3.239	94	311781	10000.0000000 ppb	100
10) 2-Chlorophenol	3.350	128	256685	10000.0000000 ppb	100
11) n-Decane	3.350	41	136021	10000.0000000 ppb	100
12) 1,3-Dichlorobenzene	3.439	146	286497	10000.0000000 ppb	100
13) 1,4-Dichlorobenzene	3.474	146	289378	10000.0000000 ppb	100
14) Benzyl Alcohol	3.521	79	196284	10000.0000000 ppb	100
15) 1,2-Dichlorobenzene	3.562	146	273262	10000.0000000 ppb	100
16) bis(2-Chloroisopropyl)...	3.591	121	87644	10000.0000000 ppb	100
17) 2,2-oxybis(1-chloropro...	3.591	121	87644	10000.0000000 ppb	100
18) 2-Methylphenol	3.568	108	225306	10000.0000000 ppb	100
19) Hexachloroethane	3.750	117	104557	10000.0000000 ppb	100
20) N-Nitrosodi-n-propylamine	3.668	70	165106	10000.0000000 ppb	100
21) 3&4-Methyl phenol	3.650	107	259860	10000.0000000 ppb	100
25) Nitrobenzene	3.779	77	239903	10000.0000000 ppb	100
26) Isophorone	3.909	82	441081	10000.0000000 ppb	100
27) 2-Nitrophenol	3.962	139	123935	10000.0000000 ppb	100
28) 2,4-Dimethylphenol	3.962	107	232290	10000.0000000 ppb	100
29) bis(2-Chlorethoxy)methane	4.020	93	270435	10000.0000000 ppb	100
30) 2,4-Dichlorophenol	4.097	162	204226	10000.0000000 ppb	100
32) 1,2,4-Trichlorobenzene	4.155	180	228800	10000.0000000 ppb	100
34) Naphthalene	4.208	128	729502m	9995.0949497 ppb	
35) 4-Chloroaniline	4.226	65	79922	10000.0000000 ppb	100
36) Hexachloro-1,3-butadiene	4.273	225	134447	10000.0000000 ppb	100

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

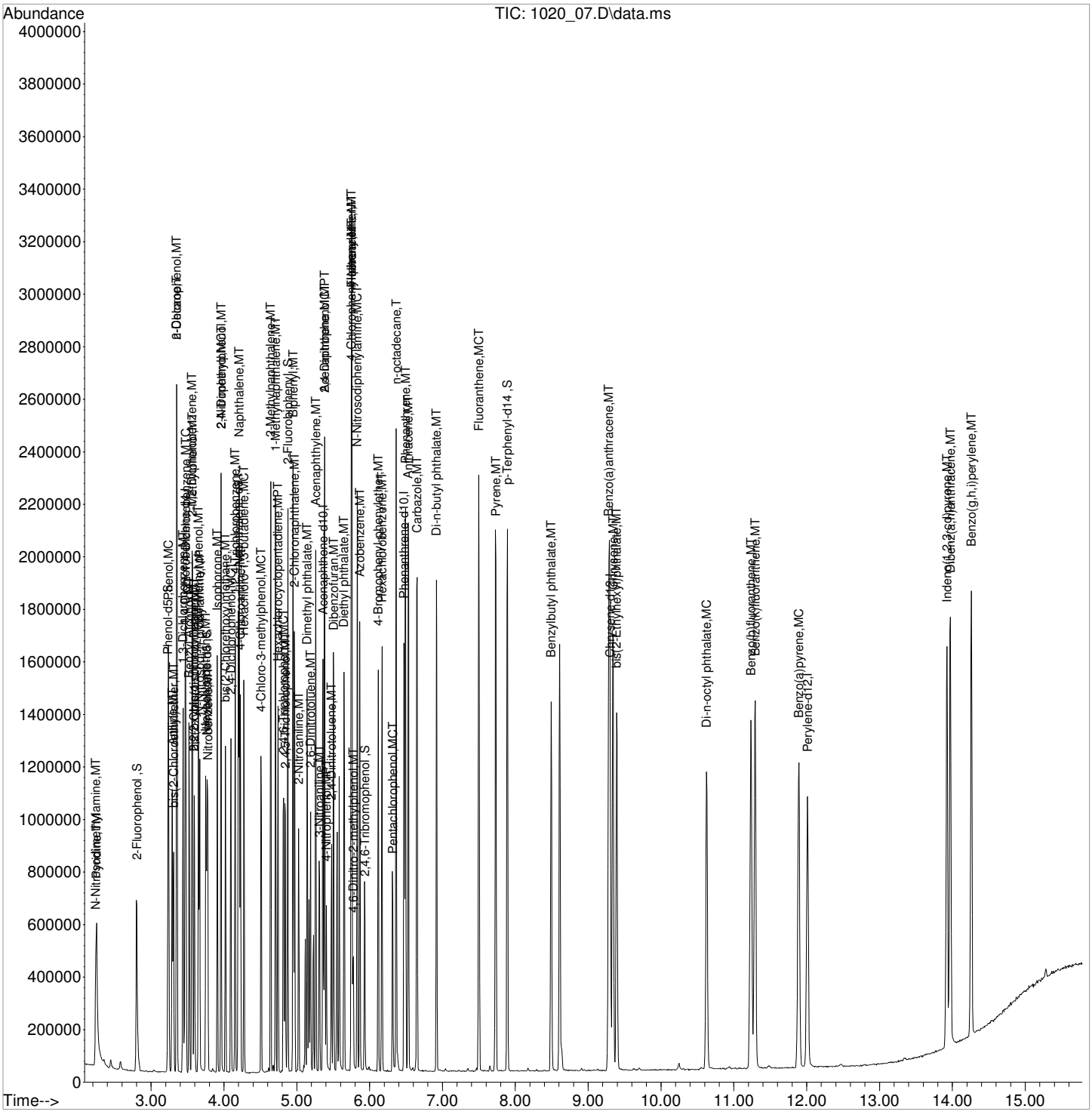
Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 4-Chloro-3-methylphenol	4.508	107	192830	10000.0000000	ppb	100
41) 2-Methylnaphthalene	4.643	142	464499	10000.0000000	ppb	100
42) 1-Methylnaphthalene	4.708	142	437616	10000.0000000	ppb	100
47) Hexachlorocyclopentadiene	4.743	237	171099	10000.0000000	ppb	100
48) 2,4,6-Trichlorophenol	4.819	196	143148	10000.0000000	ppb	100
49) 2,4,5-Trichlorophenol	4.843	196	137501	10000.0000000	ppb	100
51) Biphenyl	4.949	154	547605	10000.0000000	ppb	100
52) 2-Chloronaphthalene	4.966	162	430812	10000.0000000	ppb	100
53) 2-Nitroaniline	5.025	138	138636	10000.0000000	ppb	100
54) Acenaphthylene	5.260	152	653860	10000.0000000	ppb	100
55) Dimethyl phthalate	5.143	163	460754	10000.0000000	ppb	100
56) 2,6-Dinitrotoluene	5.190	165	106632	10000.0000000	ppb	100
57) 3-Nitroaniline	5.313	138	116975	10000.0000000	ppb	100
58) Acenaphthene	5.383	153	431959	10000.0000000	ppb	100
59) 2,4-Dinitrophenol	5.383	184	39649	10000.0000000	ppb	100
60) Dibenzofuran	5.507	168	601292	10000.0000000	ppb	100
61) 2,4-Dinitrotoluene	5.477	165	132858	10000.0000000	ppb	100
63) 4-Nitrophenol	5.407	139	90438m	10000.0000000	ppb	
64) Fluorene	5.754	166	497426	10000.0000000	ppb	100
65) 4-Chlorophenyl-phenyle...	5.748	204	243087	10000.0000000	ppb	100
66) Diethyl phthalate	5.648	149	464572	10000.0000000	ppb	100
67) 4-Nitroaniline	5.754	138	119471	10000.0000000	ppb	100
68) Azobenzene	5.865	77	463480	10004.5113983	ppb	100
71) 4,6-Dinitro-2-methylph...	5.777	198	61110	10028.5545490	ppb	100
72) N-Nitrosodiphenylamine	5.830	169	435555	10000.0000000	ppb	100
74) 4-Bromophenyl-phenylether	6.118	248	165066	10000.0000000	ppb	100
75) Hexachlorobenzene	6.171	284	198291	10000.0000000	ppb	100
76) n-octadecane	6.365	55	73657	10000.0000000	ppb	100
77) Pentachlorophenol	6.318	266	91203	10000.0000000	ppb	100
78) Phenanthrene	6.494	178	746419	10012.8779718	ppb	100
79) Anthracene	6.529	178	761620	10000.0000000	ppb	100
80) Carbazole	6.653	167	730204	10000.0000000	ppb	100
81) Di-n-butyl phthalate	6.917	149	871636	10000.0000000	ppb	100
83) Fluoranthene	7.499	202	872526	10000.0000000	ppb	100
86) Pyrene	7.734	202	899269	10000.0000000	ppb	100
88) Benzylbutyl phthalate	8.492	149	378449	10000.0000000	ppb	100
90) Benzo(a)anthracene	9.285	228	898676	10000.0000000	ppb	100
91) Chrysene	9.344	228	873745	10000.0000000	ppb	100
92) bis(2-Ethylhexyl)phtha...	9.391	149	527925	10000.0000000	ppb	100
93) Di-n-octyl phthalate	10.624	149	892849	10000.0000000	ppb	100
95) Benzo(b)fluoranthene	11.236	252	980780	10000.0000000	ppb	100
96) Benzo(k)fluoranthene	11.294	252	957165	10000.0000000	ppb	100
97) Benzo(a)pyrene	11.894	252	846648	10000.0000000	ppb	100
98) Indeno(1,2,3-cd)pyrene	13.927	276	893870	10000.0000000	ppb	100
99) Dibenz(a,h)anthracene	13.974	278	921509	10000.0000000	ppb	100
100) Benzo(g,h,i)perylene	14.261	276	928468	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.356	152	110436	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.085	136	423129	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.237	164	219757	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.347	188	421087	8000.0000000	ppb	0.00
84) Chrysene-d12	9.091	240	429747	8000.0000000	ppb	0.00
94) Perylene-d12	11.723	264	424107	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.692	112	176497	9222.2291658	ppb	0.00
Spiked Amount 20000.000				Recovery = 46.11%		
7) Phenol-d5	3.127	99	210922	9104.6088477	ppb	0.00
Spiked Amount 20000.000				Recovery = 45.52%		
24) Nitrobenzene-d5	3.656	82	172844m	9638.4280109	ppb	0.00
Spiked Amount 10000.000				Recovery = 96.38%		
50) 2-Fluorobiphenyl	4.761	172	379745	9841.8743748	ppb	0.00
Spiked Amount 10000.000				Recovery = 98.42%		
73) 2,4,6-Tribromophenol	5.812	330	60646	8899.4707853	ppb	0.00
Spiked Amount 20000.000				Recovery = 44.50%		
87) p-Terphenyl-d14	7.728	244	570196	9670.6140852	ppb	0.00
Spiked Amount 10000.000				Recovery = 96.71%		
Target Compounds						Qvalue
2) Pyridine	2.140	79	180590	8772.1725400	ppb	94
3) N-Nitrosodimethylamine	2.128	42	91420	9309.4243702	ppb	92
5) Aniline	3.180	66	95465	9105.8264610	ppb #	42
6) bis(2-Chloroethyl)ether	3.198	93	165063m	10522.7277478	ppb	
8) Phenol	3.139	94	223438	9347.4061900	ppb	95
10) 2-Chlorophenol	3.245	128	184097	9356.6313645	ppb	99
11) n-Decane	3.245	41	102975	9966.9160621	ppb	99
12) 1,3-Dichlorobenzene	3.327	146	208725	9685.5160145	ppb	97
13) 1,4-Dichlorobenzene	3.368	146	211878	9700.0233096	ppb	97
14) Benzyl Alcohol	3.415	79	134393	9021.1649463	ppb	99
15) 1,2-Dichlorobenzene	3.450	146	198849	9696.7593162	ppb	98
16) bis(2-Chloroisopropyl)...	3.486	121	63291	9752.8142740	ppb	97
17) 2,2-oxybis(1-chloropro...	3.486	121	63291	9752.8142740	ppb	97
18) 2-Methylphenol	3.462	108	164833	9447.6606940	ppb	99
19) Hexachloroethane	3.638	117	74650	9327.3355159	ppb	98
20) N-Nitrosodi-n-propylamine	3.562	70	120154	9502.6510663	ppb	96
21) 3&4-Methyl phenol	3.544	107	181890	9201.8026146	ppb	98
25) Nitrobenzene	3.668	77	174221	9485.6963118	ppb	94
26) Isophorone	3.797	82	324275	9668.5337050	ppb	97
27) 2-Nitrophenol	3.850	139	94671	10049.1779176	ppb	99
28) 2,4-Dimethylphenol	3.856	107	164774	9310.3710280	ppb	98
29) bis(2-Chlorethoxy)methane	3.915	93	198754	9551.6725112	ppb	97
30) 2,4-Dichlorophenol	3.985	162	147883	9660.4443715	ppb	94
32) 1,2,4-Trichlorobenzene	4.044	180	165553	9546.7915261	ppb	98
34) Naphthalene	4.097	128	533468m	9550.8964973	ppb	
35) 4-Chloroaniline	4.114	65	58380	9710.6458833	ppb	95
36) Hexachloro-1,3-butadiene	4.161	225	99902	9888.7071243	ppb	98

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

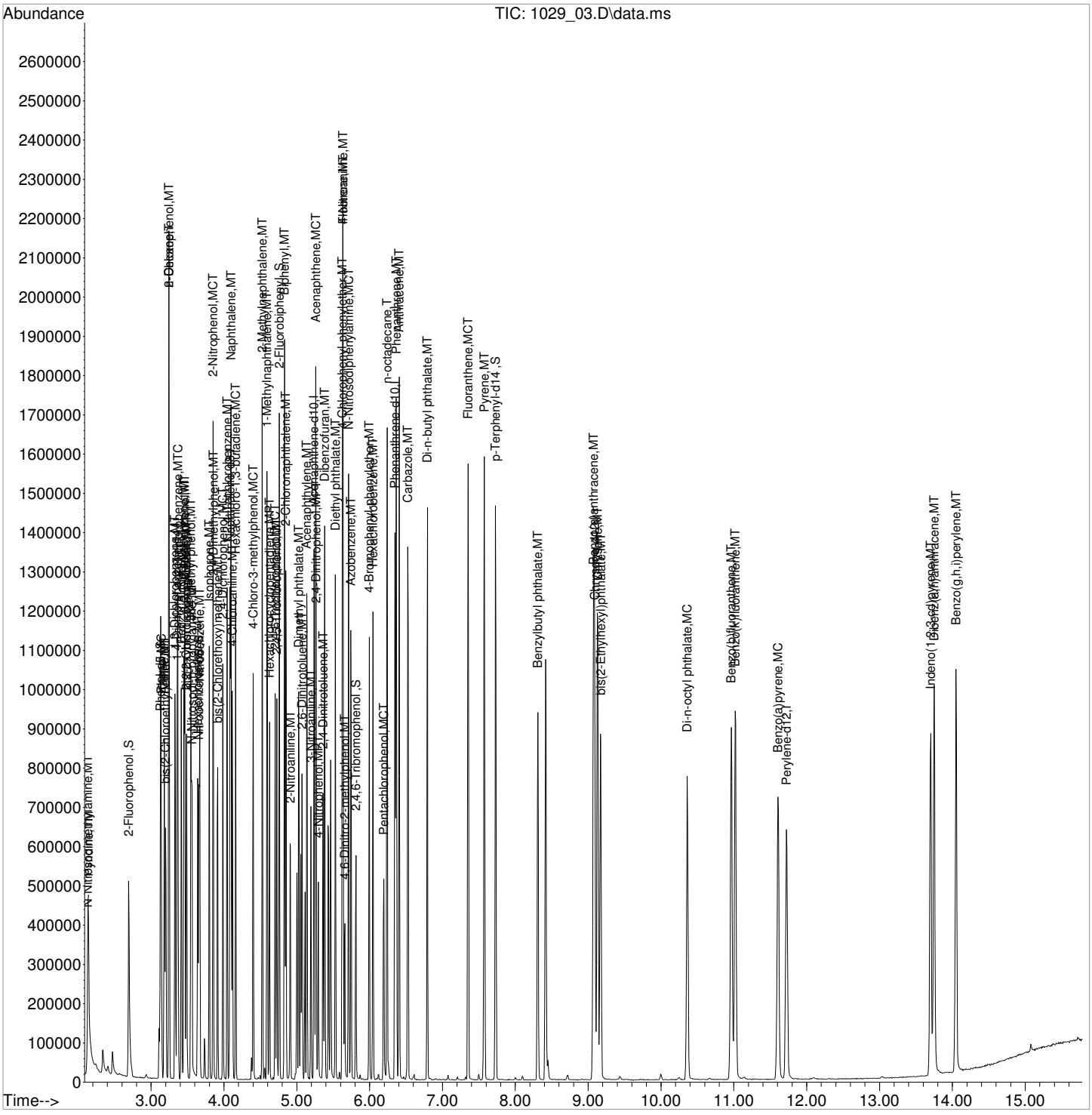
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.402	107	137639	9023.6365538 ppb		90
41) 2-Methylnaphthalene	4.526	142	347589	9726.4476659 ppb		99
42) 1-Methylnaphthalene	4.590	142	324619	9718.5401248 ppb		100
47) Hexachlorocyclopentadiene	4.626	237	105707	8309.7012910 ppb		98
48) 2,4,6-Trichlorophenol	4.702	196	99306	9253.9418057 ppb		95
49) 2,4,5-Trichlorophenol	4.725	196	108563	10053.4774943 ppb		95
51) Biphenyl	4.831	154	415415	9880.1050691 ppb		99
52) 2-Chloronaphthalene	4.849	162	318242	9620.9361981 ppb		98
53) 2-Nitroaniline	4.913	138	106336	10107.3267665 ppb		99
54) Acenaphthylene	5.137	152	485456	9508.6244610 ppb		100
55) Dimethyl phthalate	5.025	163	336003	9431.2537715 ppb		98
56) 2,6-Dinitrotoluene	5.072	165	81737	10222.4514414 ppb		97
57) 3-Nitroaniline	5.196	138	88392	10070.4529900 ppb		92
58) Acenaphthene	5.260	153	319627	9464.1696979 ppb		99
59) 2,4-Dinitrophenol	5.266	184	29087	8032.7010838 ppb	#	21
60) Dibenzofuran	5.384	168	445055	9527.6615756 ppb		99
61) 2,4-Dinitrotoluene	5.360	165	103323	10299.4254314 ppb		96
63) 4-Nitrophenol	5.295	139	66199	10304.5854446 ppb		95
64) Fluorene	5.636	166	364498	9546.8256264 ppb		100
65) 4-Chlorophenyl-phenyle...	5.624	204	184740	9725.5729655 ppb		97
66) Diethyl phthalate	5.530	149	340719	9920.2802828 ppb		98
67) 4-Nitroaniline	5.636	138	86717	10776.1382482 ppb		98
68) Azobenzene	5.742	77	334320	9262.0062424 ppb		99
71) 4,6-Dinitro-2-methylph...	5.660	198	55952	10876.9794625 ppb		97
72) N-Nitrosodiphenylamine	5.713	169	317144	9500.4386097 ppb		99
74) 4-Bromophenyl-phenylether	5.995	248	117543	9308.6264506 ppb		98
75) Hexachlorobenzene	6.047	284	134421	8568.0998552 ppb		98
76) n-octadecane	6.241	55	52677	9035.6618506 ppb		97
77) Pentachlorophenol	6.194	266	60181	8154.3538698 ppb		97
78) Phenanthrene	6.365	178	532565	9390.5609496 ppb		98
79) Anthracene	6.406	178	546745	9378.5136890 ppb		99
80) Carbazole	6.523	167	501264	8970.3904280 ppb		99
81) Di-n-butyl phthalate	6.794	149	593110	8795.9346420 ppb		99
83) Fluoranthene	7.352	202	601581	8874.8236585 ppb		99
86) Pyrene	7.575	202	626634	9800.8965543 ppb		100
88) Benzylbutyl phthalate	8.310	149	243194	9021.8506871 ppb		99
90) Benzo(a)anthracene	9.073	228	595570	9253.8512978 ppb		99
91) Chrysene	9.132	228	595557	9753.9981058 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.173	149	350055	9336.3498387 ppb		98
93) Di-n-octyl phthalate	10.360	149	563051	8875.6940016 ppb		99
95) Benzo(b)fluoranthene	10.965	252	615727	9690.4221561 ppb		99
96) Benzo(k)fluoranthene	11.018	252	625142	9964.3519704 ppb		98
97) Benzo(a)pyrene	11.606	252	528192	9572.5667711 ppb		99
98) Indeno(1,2,3-cd)pyrene	13.703	276	520325	9370.2659267 ppb		98
99) Dibenz(a,h)anthracene	13.750	278	559986	9847.7961211 ppb		98
100) Benzo(g,h,i)perylene	14.050	276	564928	10006.5441447 ppb		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.215	152	152687	8000.0000000 ppb		0.00
23) Naphthalene-d8	3.943	136	578819	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.083	164	300945	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.188	188	569887	8000.0000000 ppb		0.00
84) Chrysene-d12	8.814	240	569427	8000.0000000 ppb		0.00
94) Perylene-d12	11.347	264	559789	8000.0000000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	255529	9657.1145594 ppb		0.00
Spiked Amount 20000.000				Recovery = 48.29%		
7) Phenol-d5	2.992	99	315589	9853.0315817 ppb		0.00
Spiked Amount 20000.000				Recovery = 49.27%		
24) Nitrobenzene-d5	3.520	82	248615m	10134.6613336 ppb		0.00
Spiked Amount 10000.000				Recovery = 101.35%		
50) 2-Fluorobiphenyl	4.613	172	581867	11011.9711703 ppb		0.00
Spiked Amount 10000.000				Recovery = 110.12%		
73) 2,4,6-Tribromophenol	5.653	330	84870	9202.3618433 ppb		0.00
Spiked Amount 20000.000				Recovery = 46.01%		
87) p-Terphenyl-d14	7.527	244	785118	10049.3880949 ppb		0.00
Spiked Amount 10000.000				Recovery = 100.49%		
Target Compounds						Qvalue
2) Pyridine	1.952	79	262820	9233.8004344 ppb		94
3) N-Nitrosodimethylamine	1.934	42	134183	9882.9754022 ppb		92
5) Aniline	3.039	66	144629	9977.9007955 ppb	#	38
6) bis(2-Chloroethyl)ether	3.062	93	259764	11977.4997141 ppb		97
8) Phenol	3.003	94	332099	10048.7086315 ppb		95
10) 2-Chlorophenol	3.103	128	271821	9992.2759632 ppb		99
11) n-Decane	3.109	41	148352	10385.5861282 ppb	#	99
12) 1,3-Dichlorobenzene	3.185	146	307163	10309.2198275 ppb		99
13) 1,4-Dichlorobenzene	3.227	146	313196	10370.7872677 ppb		96
14) Benzyl Alcohol	3.279	79	201041	9760.6607161 ppb		99
15) 1,2-Dichlorobenzene	3.309	146	292248	10307.7376980 ppb		97
16) bis(2-Chloroisopropyl)...	3.350	121	92188	10274.7436528 ppb		94
17) 2,2-oxybis(1-chloropro...	3.350	121	92188	10274.7436528 ppb		94
18) 2-Methylphenol	3.326	108	240571	9973.1420290 ppb		98
19) Hexachloroethane	3.503	117	107194	9687.3919191 ppb		89
20) N-Nitrosodi-n-propylamine	3.420	70	171324	9800.1643881 ppb		91
21) 3&4-Methyl phenol	3.415	107	275506	10081.0033130 ppb		99
25) Nitrobenzene	3.532	77	255470	10168.0725256 ppb		96
26) Isophorone	3.661	82	465995	10156.8354699 ppb		100
27) 2-Nitrophenol	3.714	139	134021	10399.5952722 ppb		93
28) 2,4-Dimethylphenol	3.720	107	246542	10183.5507380 ppb		98
29) bis(2-Chlorethoxy)methane	3.779	93	293642	10316.0094773 ppb		98
30) 2,4-Dichlorophenol	3.849	162	217622	10392.2996842 ppb		98
32) 1,2,4-Trichlorobenzene	3.902	180	248769	10486.8886649 ppb		99
34) Naphthalene	3.955	128	789912m	10338.1895271 ppb		
35) 4-Chloroaniline	3.979	65	85914	10446.6724750 ppb	#	58
36) Hexachloro-1,3-butadiene	4.020	225	147842	10697.7679654 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

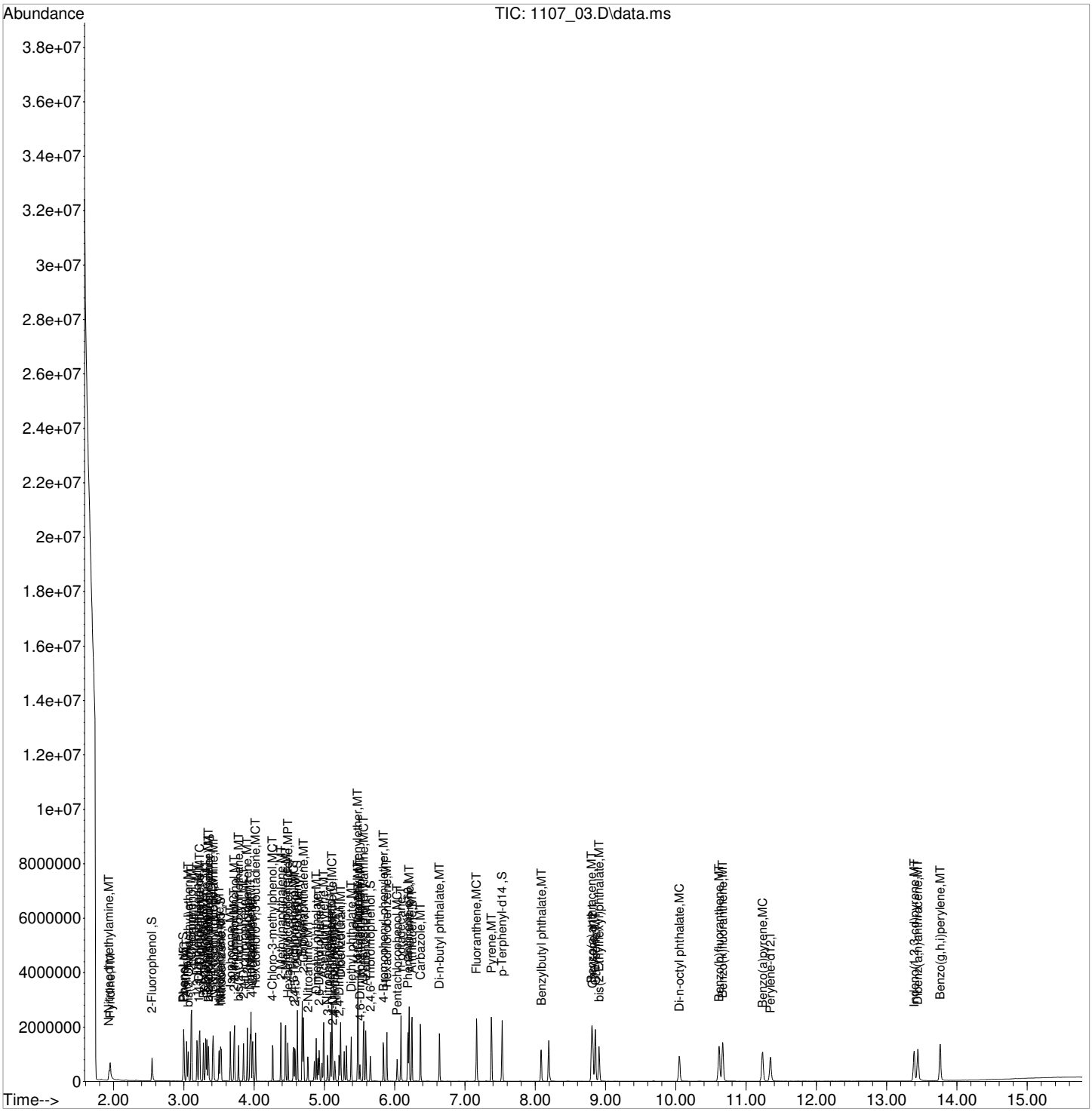
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.261	107	203665	9760.8244224 ppb		98
41)	2-Methylnaphthalene	4.384	142	522839	10695.1337144 ppb		99
42)	1-Methylnaphthalene	4.449	142	490830	10742.0757082 ppb		99
47)	Hexachlorocyclopentadiene	4.478	237	168176	9653.8660625 ppb		98
48)	2,4,6-Trichlorophenol	4.560	196	156500	10649.3034508 ppb		97
49)	2,4,5-Trichlorophenol	4.584	196	157441	10646.5255118 ppb		99
51)	Biphenyl	4.684	154	627986	10906.4882619 ppb		100
52)	2-Chloronaphthalene	4.701	162	481069	10619.9579446 ppb		98
53)	2-Nitroaniline	4.766	138	154845	10747.5322956 ppb		98
54)	Acenaphthylene	4.989	152	739982	10583.8716250 ppb		100
55)	Dimethyl phthalate	4.883	163	499674	10241.6189464 ppb		93
56)	2,6-Dinitrotoluene	4.925	165	120322	10988.4640128 ppb		92
57)	3-Nitroaniline	5.048	138	133741	11126.4391608 ppb		95
58)	Acenaphthene	5.107	153	488683	10566.2742110 ppb		98
59)	2,4-Dinitrophenol	5.119	184	36695	7434.0128658 ppb	#	1
60)	Dibenzofuran	5.230	168	675144	10554.1833833 ppb		99
61)	2,4-Dinitrotoluene	5.213	165	154635	11255.8779243 ppb		89
63)	4-Nitrophenol	5.148	139	102522	11653.3757759 ppb		88
64)	Fluorene	5.477	166	542491	10375.5699721 ppb		99
65)	4-Chlorophenyl-phenyle...	5.471	204	269356	10354.6755818 ppb		99
66)	Diethyl phthalate	5.383	149	474796	10094.6258614 ppb		97
67)	4-Nitroaniline	5.483	138	136700	12404.6069975 ppb		98
68)	Azobenzene	5.589	77	479781	9706.0235793 ppb		98
71)	4,6-Dinitro-2-methylph...	5.506	198	79112	11331.5231044 ppb		96
72)	N-Nitrosodiphenylamine	5.559	169	465909	10312.6752067 ppb		99
74)	4-Bromophenyl-phenylether	5.841	248	170617	9983.7619427 ppb		90
75)	Hexachlorobenzene	5.888	284	199422	9392.3344418 ppb		99
76)	n-octadecane	6.088	55	71346	9042.5652078 ppb		98
77)	Pentachlorophenol	6.035	266	85667	8576.8298919 ppb		97
78)	Phenanthrene	6.205	178	811387	10571.3400574 ppb		100
79)	Anthracene	6.247	178	834461	10576.4111235 ppb		98
80)	Carbazole	6.364	167	729434	9645.2595011 ppb		100
81)	Di-n-butyl phthalate	6.634	149	796129	8723.9521512 ppb		99
83)	Fluoranthene	7.163	202	883088	9626.1514048 ppb		99
86)	Pyrene	7.375	202	918340	10840.0216396 ppb		99
88)	Benzylbutyl phthalate	8.086	149	321630	9004.8011676 ppb		97
90)	Benzo(a)anthracene	8.803	228	878505	10301.6962046 ppb		98
91)	Chrysene	8.855	228	895482	11068.5566375 ppb		100
92)	bis(2-Ethylhexyl)phtha...	8.908	149	455386	9166.3261096 ppb		99
93)	Di-n-octyl phthalate	10.048	149	723846	8611.4357081 ppb		99
95)	Benzo(b)fluoranthene	10.618	252	899246	10722.2047012 ppb		99
96)	Benzo(k)fluoranthene	10.665	252	934507	11285.0638638 ppb		97
97)	Benzo(a)pyrene	11.235	252	751592	10319.7651609 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.391	276	699134	9538.6898269 ppb		98
99)	Dibenz(a,h)anthracene	13.444	278	714604	9520.9087451 ppb		97
100)	Benzo(g,h,i)perylene	13.761	276	802727	10772.3378691 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

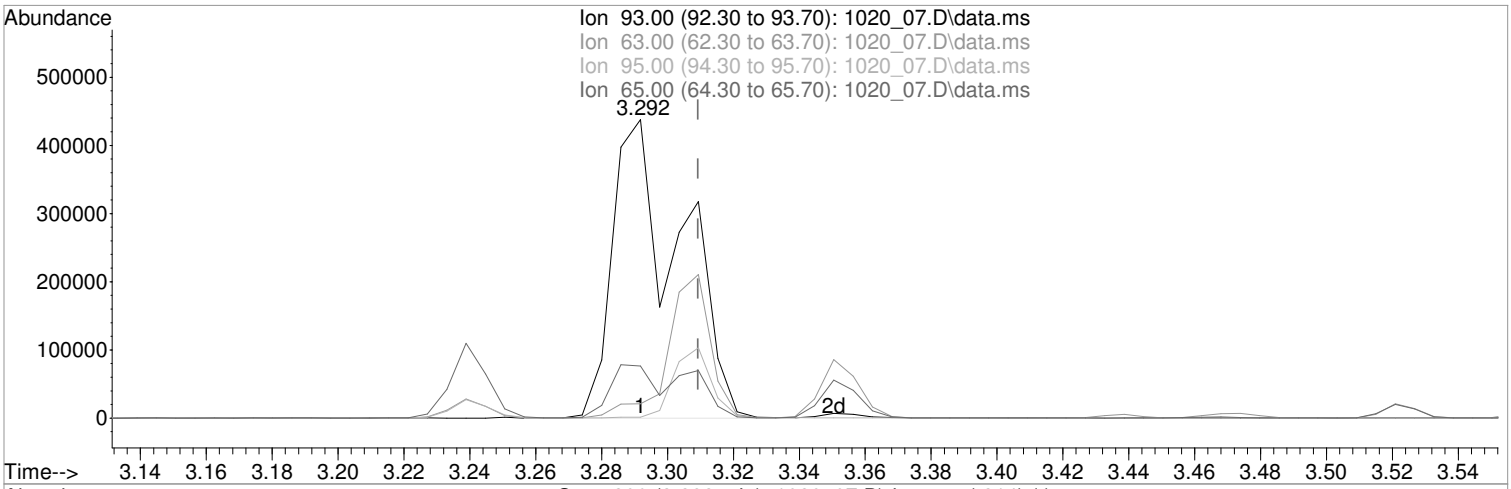
Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

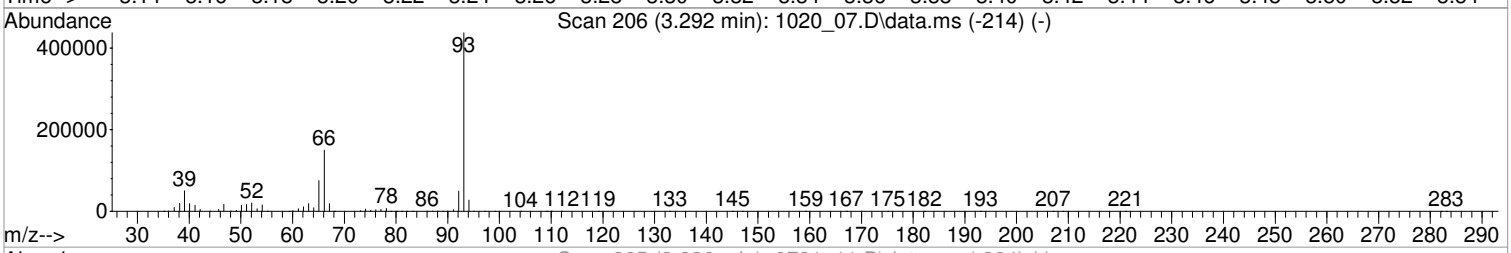


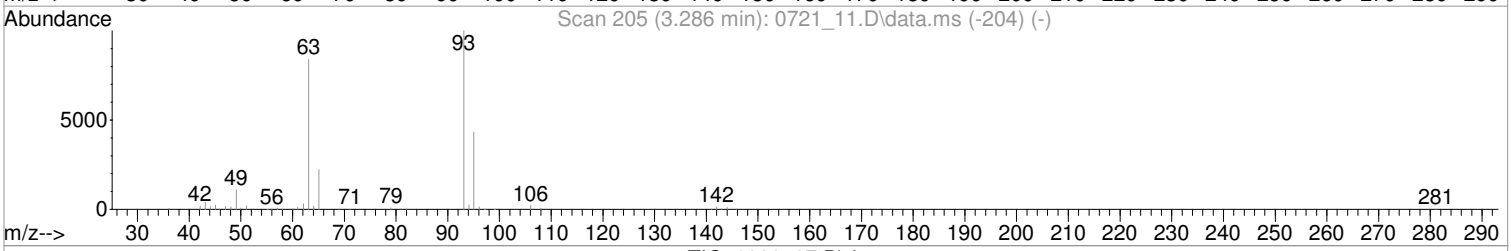
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 25778.8285603 ppb

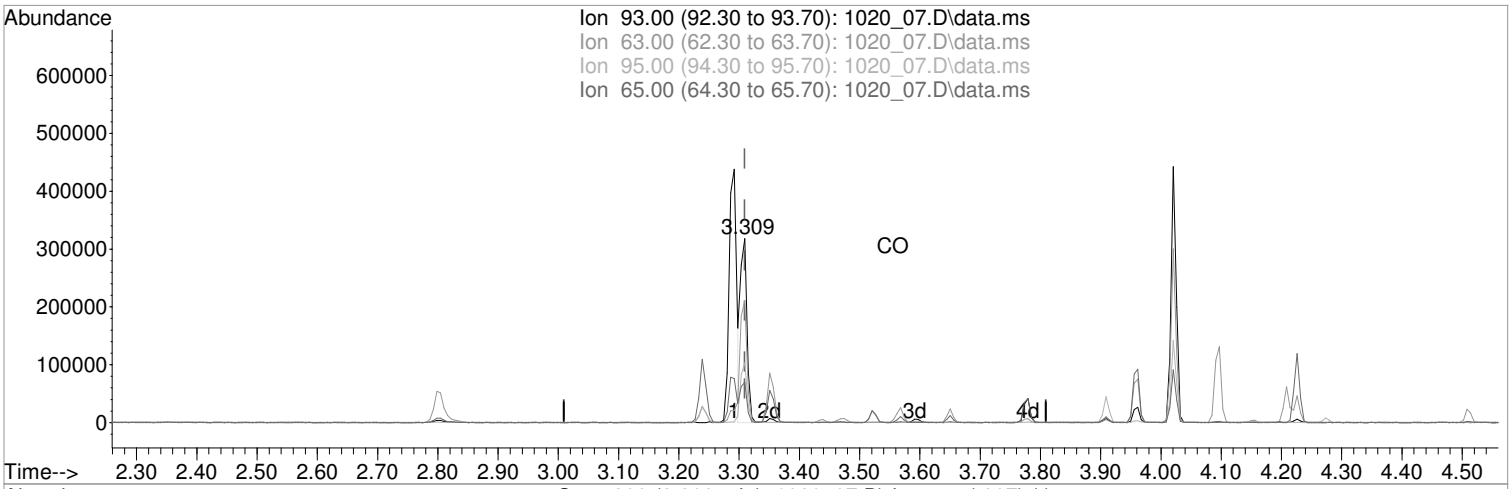
Qvalue = 40

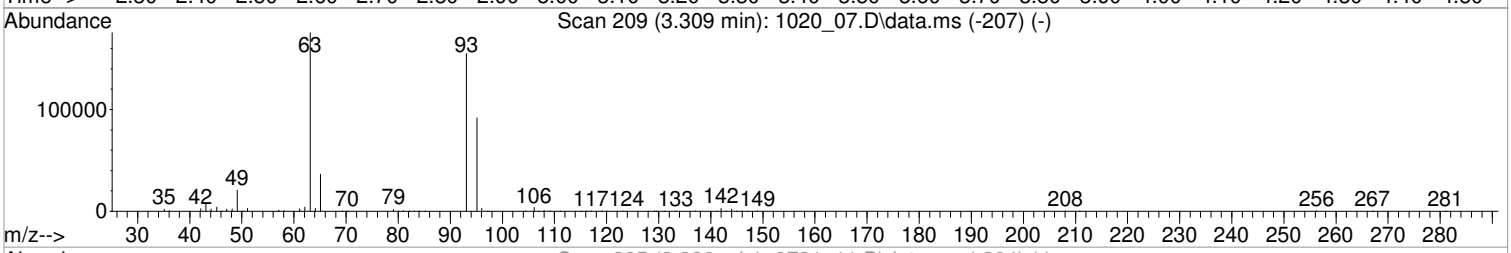
response 626954

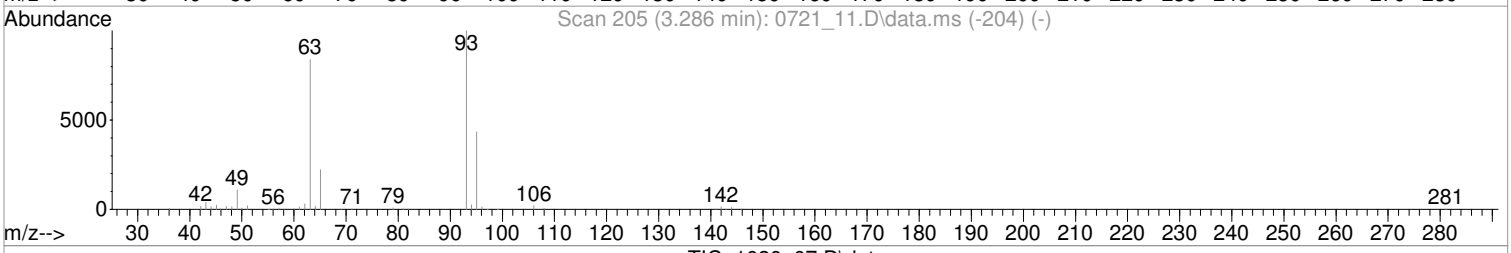
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.71#
95.00	32.50	0.14#
65.00	21.90	17.11

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

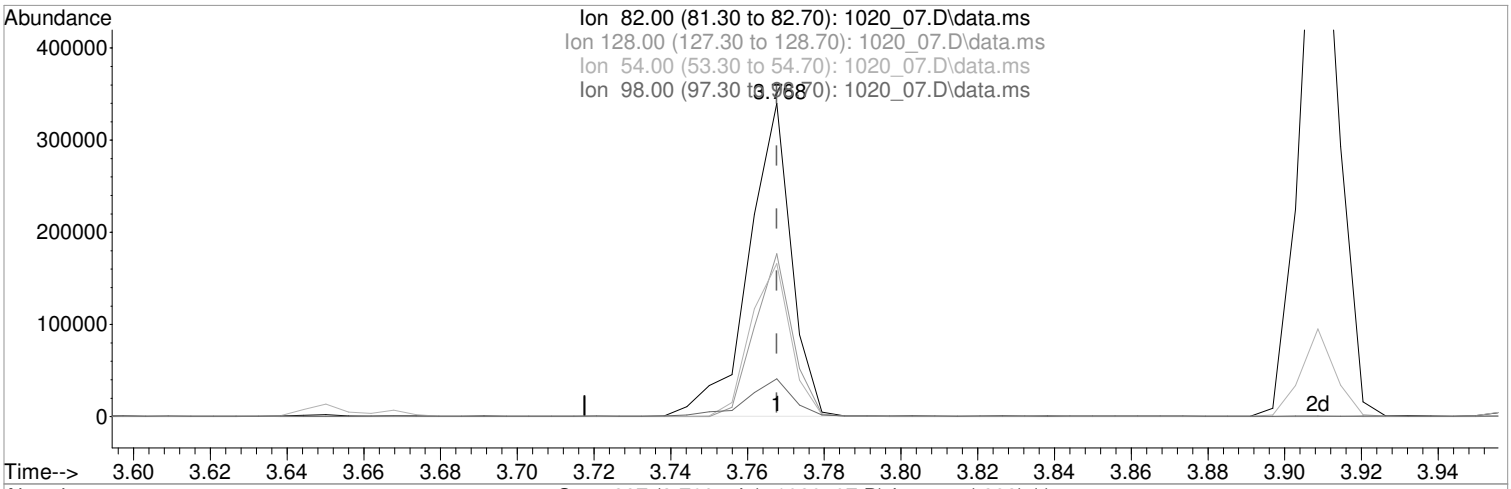
3.309min (0.000) 10000.0000000 ppb m

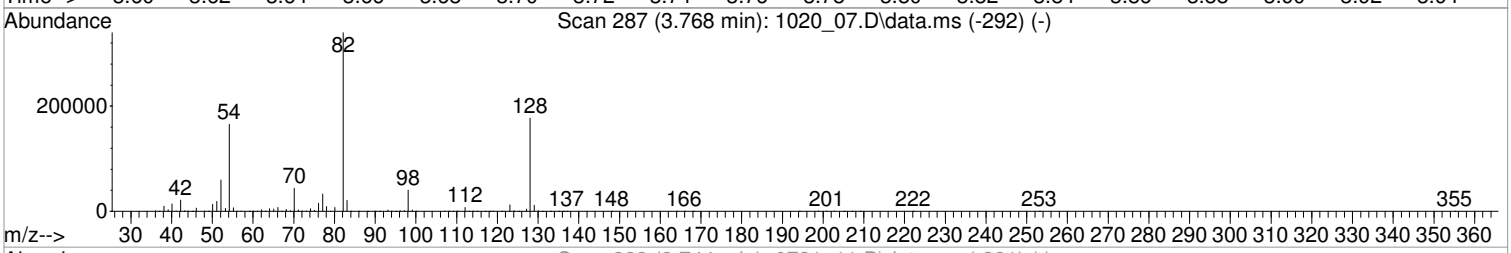
response 243205

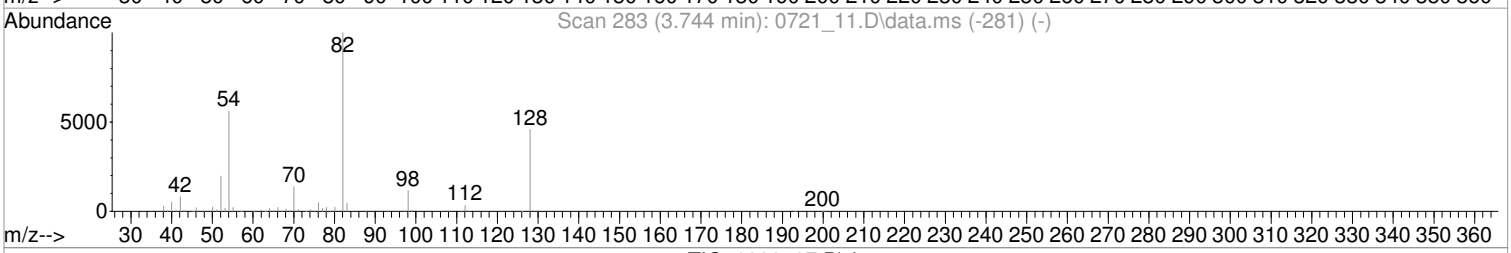
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	66.34
95.00	32.50	32.51
65.00	21.90	21.94

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 11319.5413456 ppb

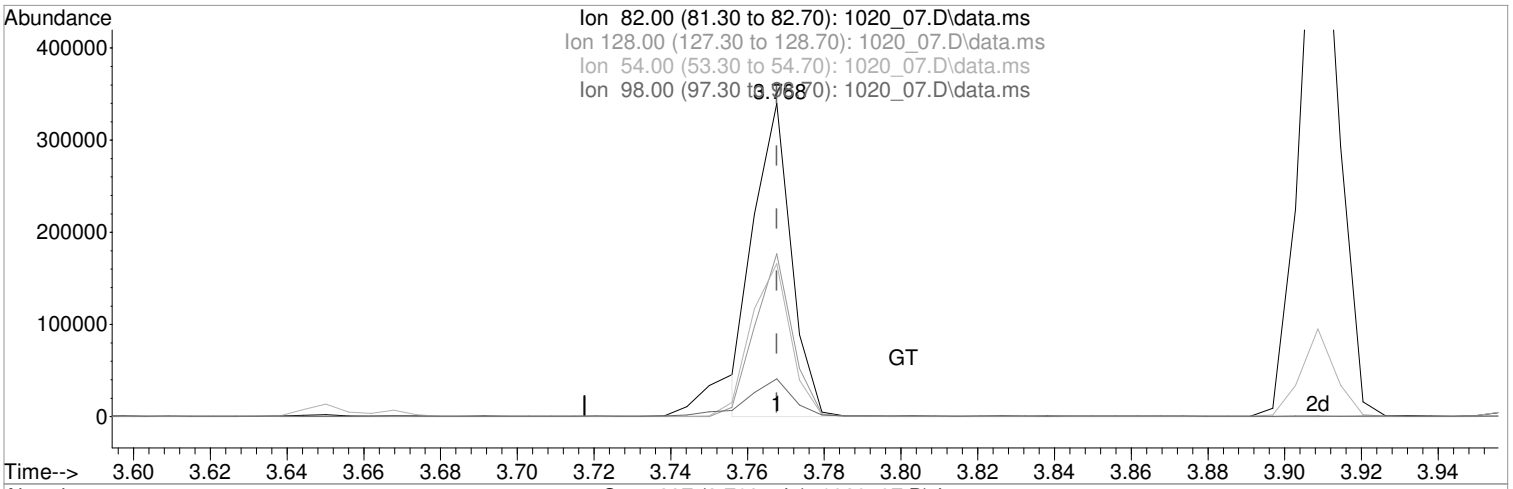
Qvalue = 100

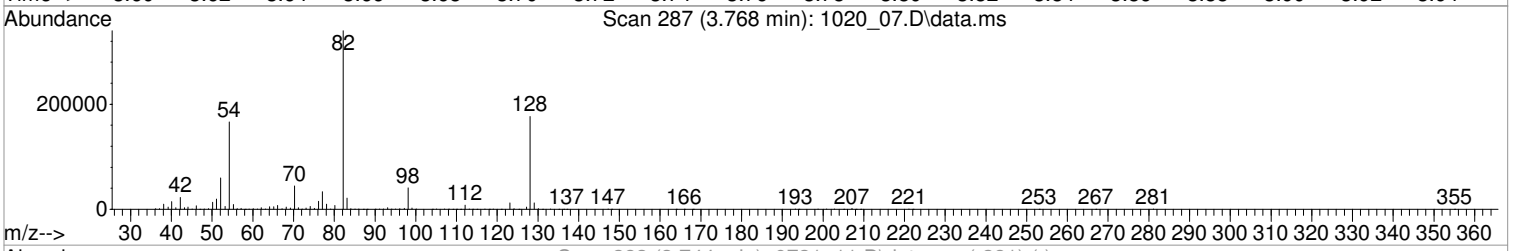
response 261212

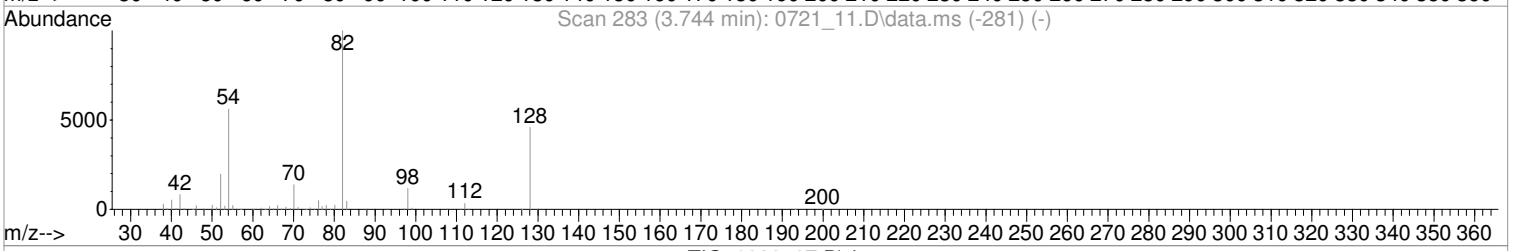
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	52.09
54.00	48.90	48.84
98.00	12.10	11.96

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(24) Nitrobenzene-d5 (S)

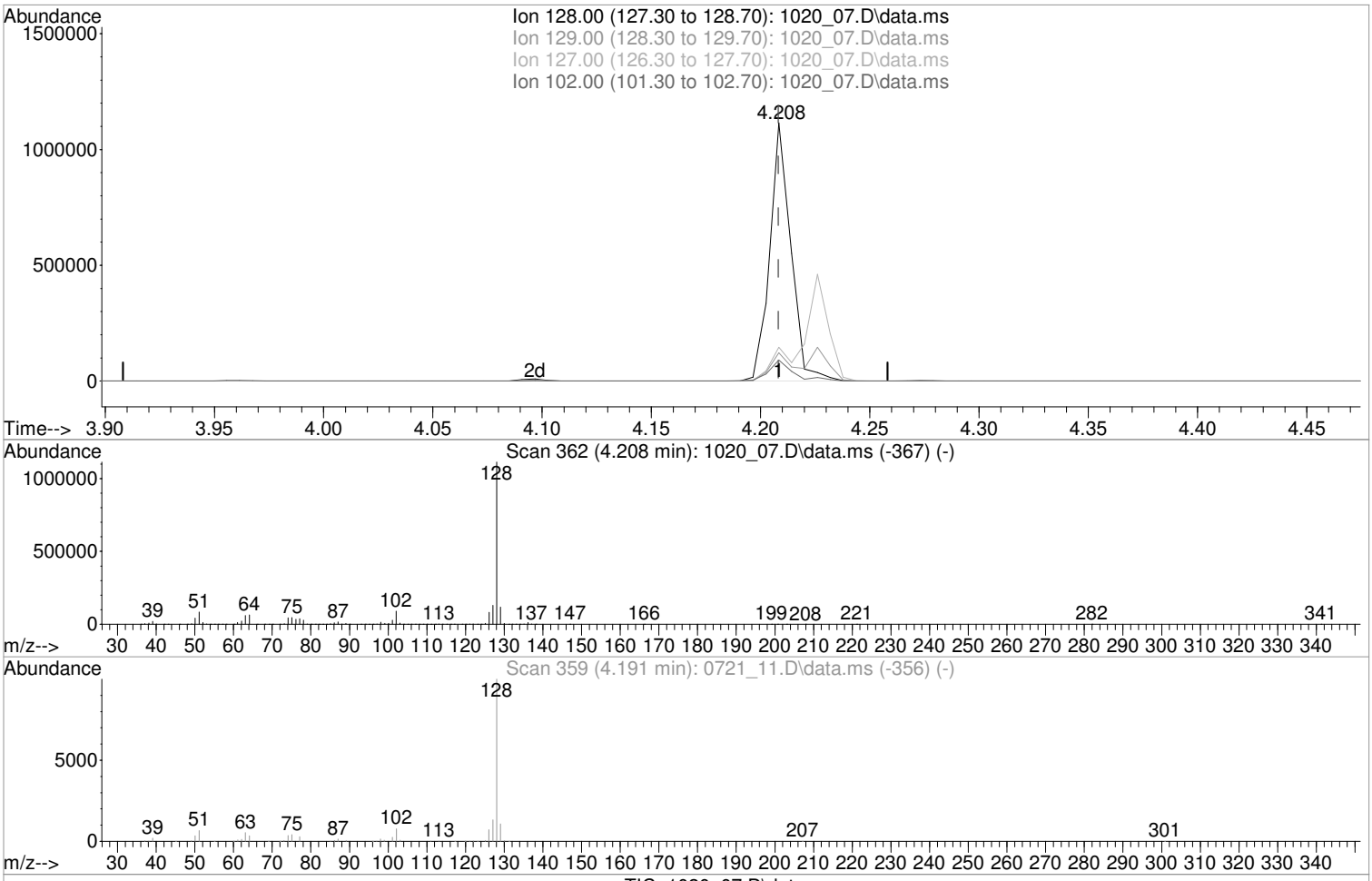
3.768min (0.000) 10009.1436198 ppb m

response 230973

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	52.01
54.00	48.90	48.87
98.00	12.10	12.08

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



TIC: 1020_07.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 10263.2559669 ppb

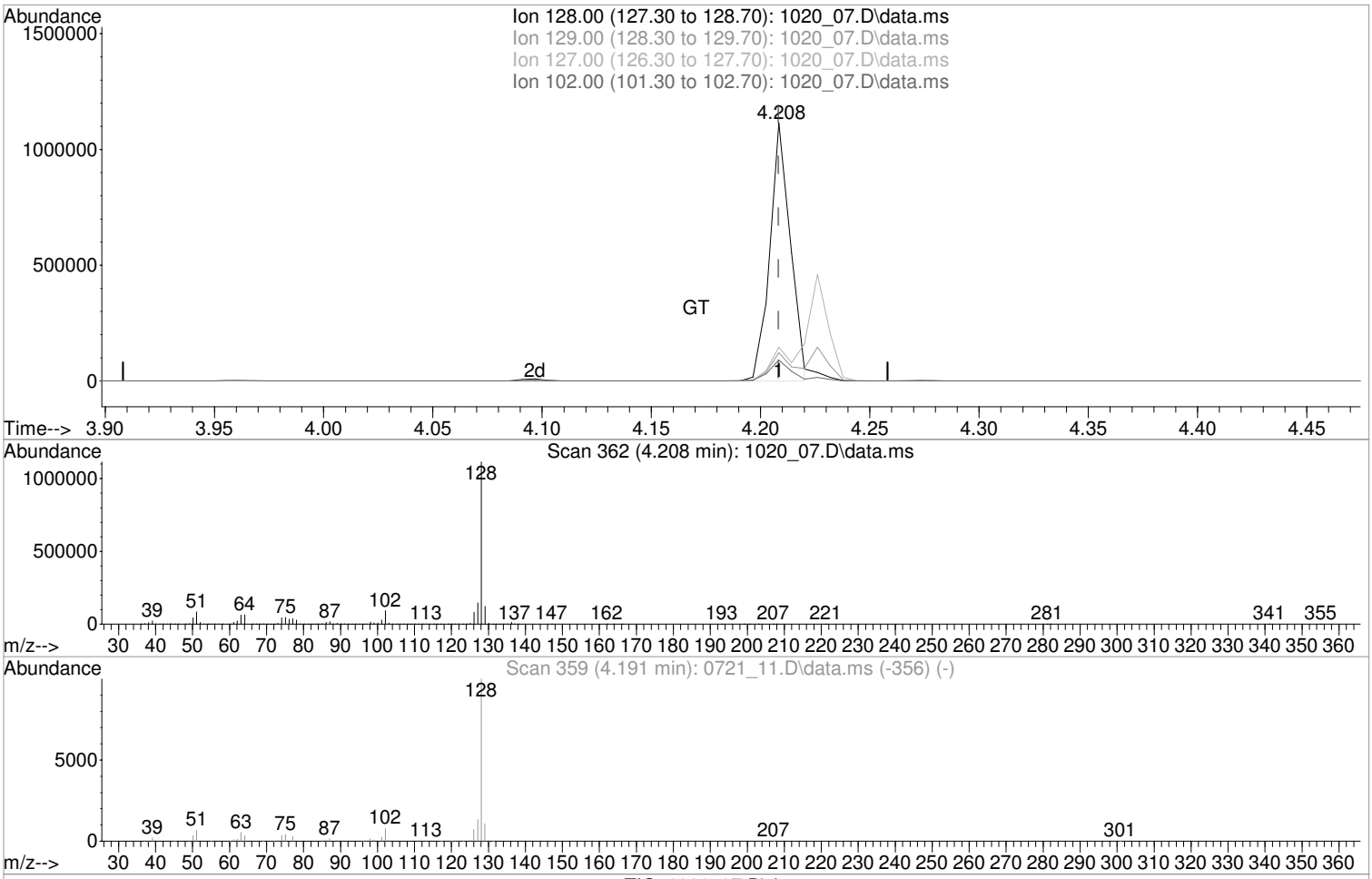
Qvalue = 100

response 749074

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.95
127.00	13.10	13.14
102.00	8.20	8.19

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



TIC: 1020_07.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 9995.0949497 ppb m

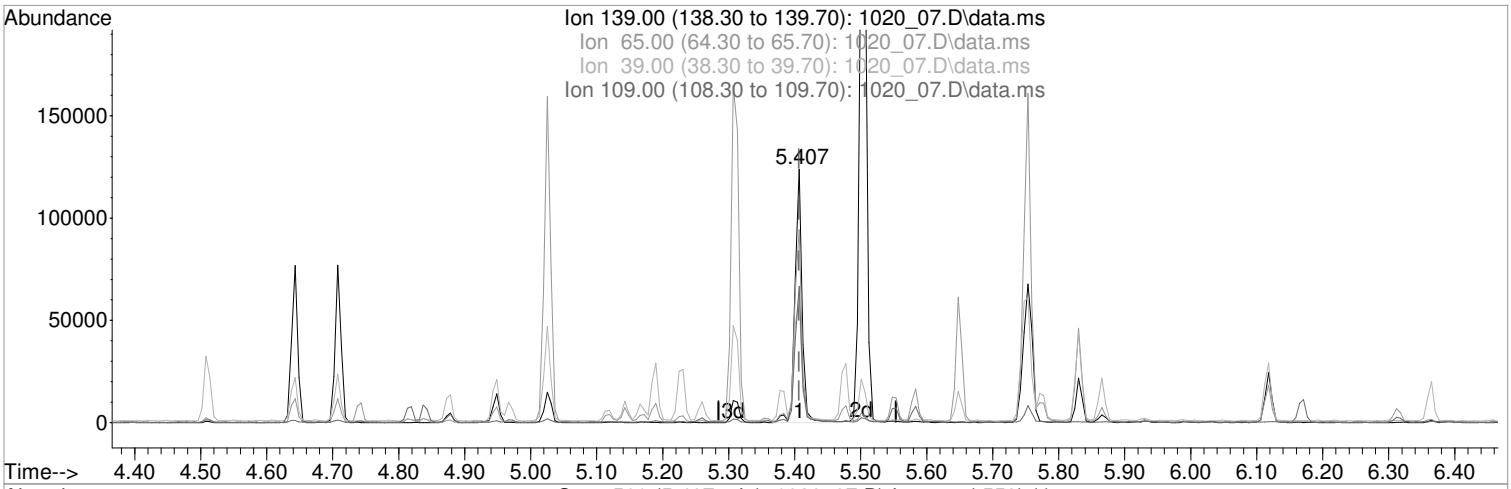
response 729502

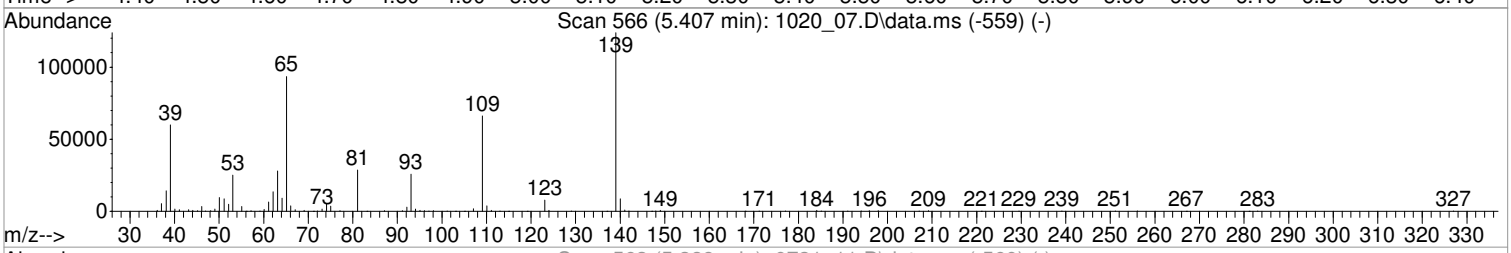
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.98
127.00	13.10	13.14
102.00	8.20	8.19

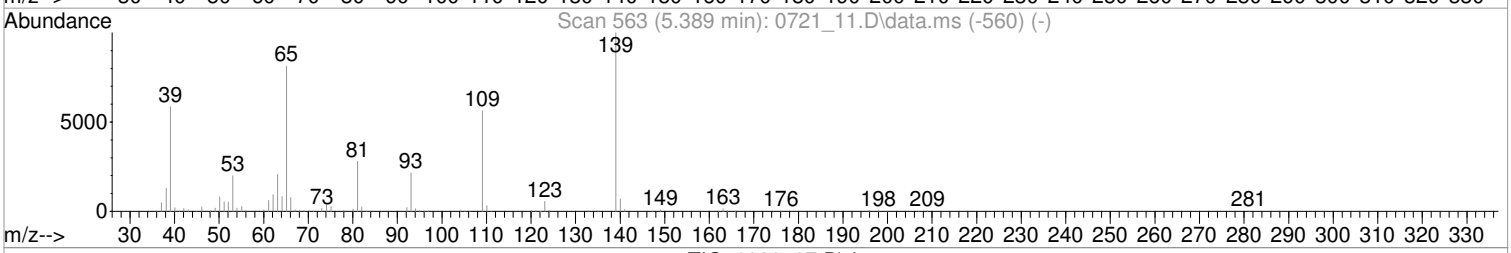
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (0.000) 10337.2476172 ppb

Qvalue = 99

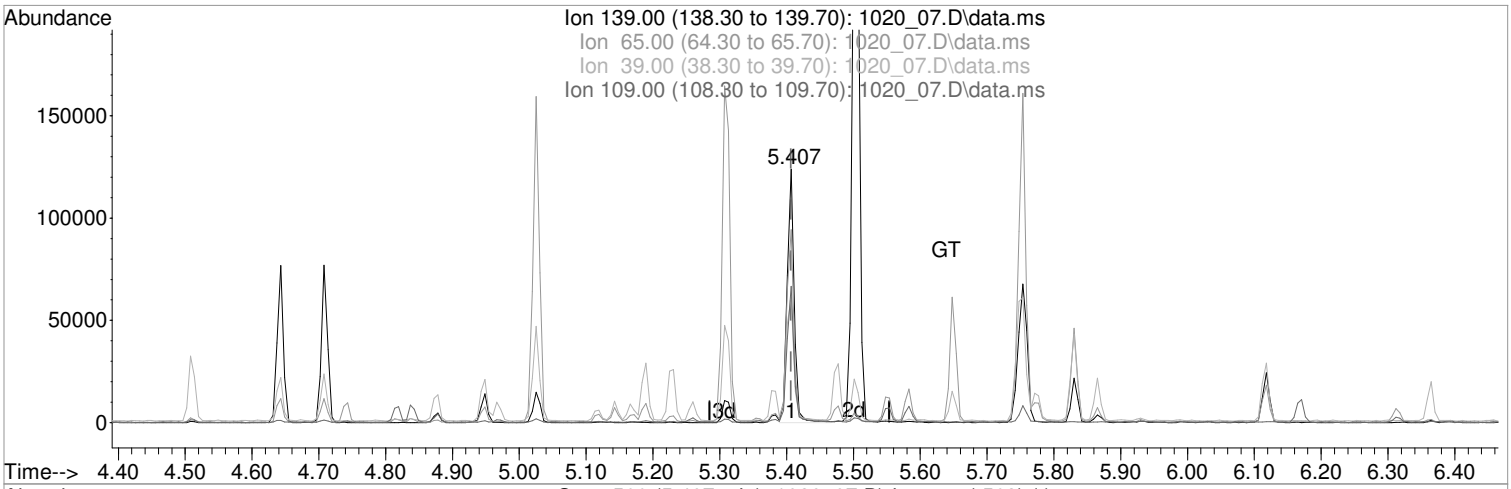
response 93488

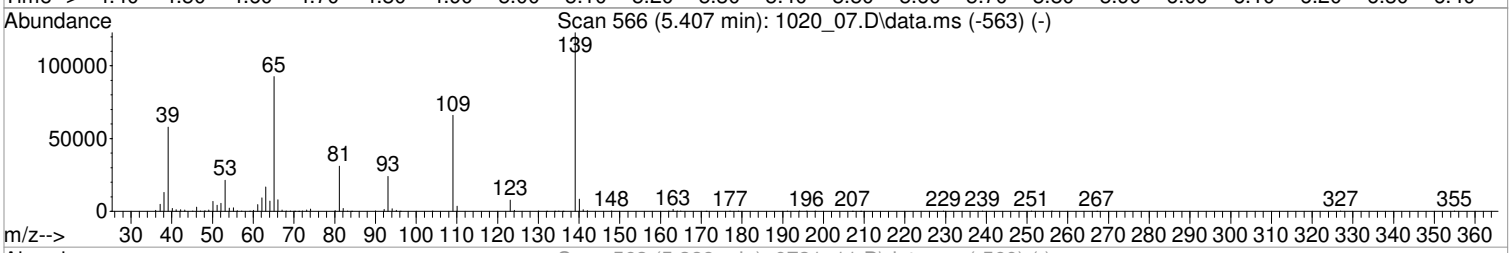
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	75.49
39.00	49.40	48.46
109.00	53.80	53.49

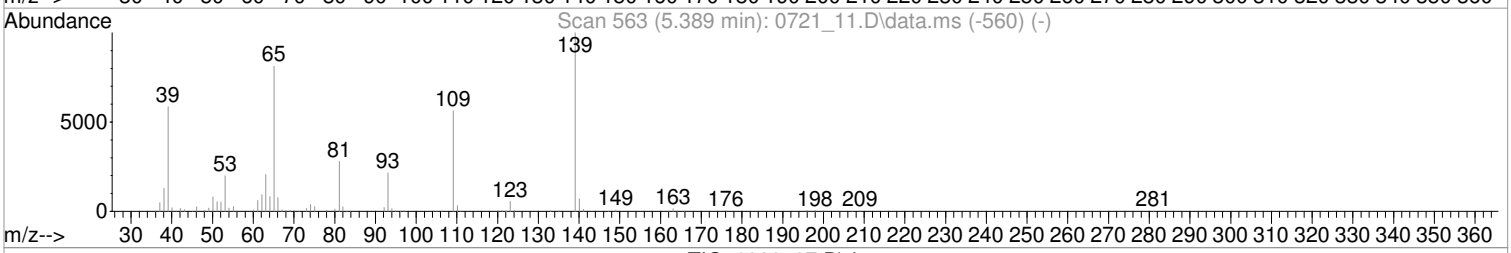
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (0.000) 10000.0000000 ppb m

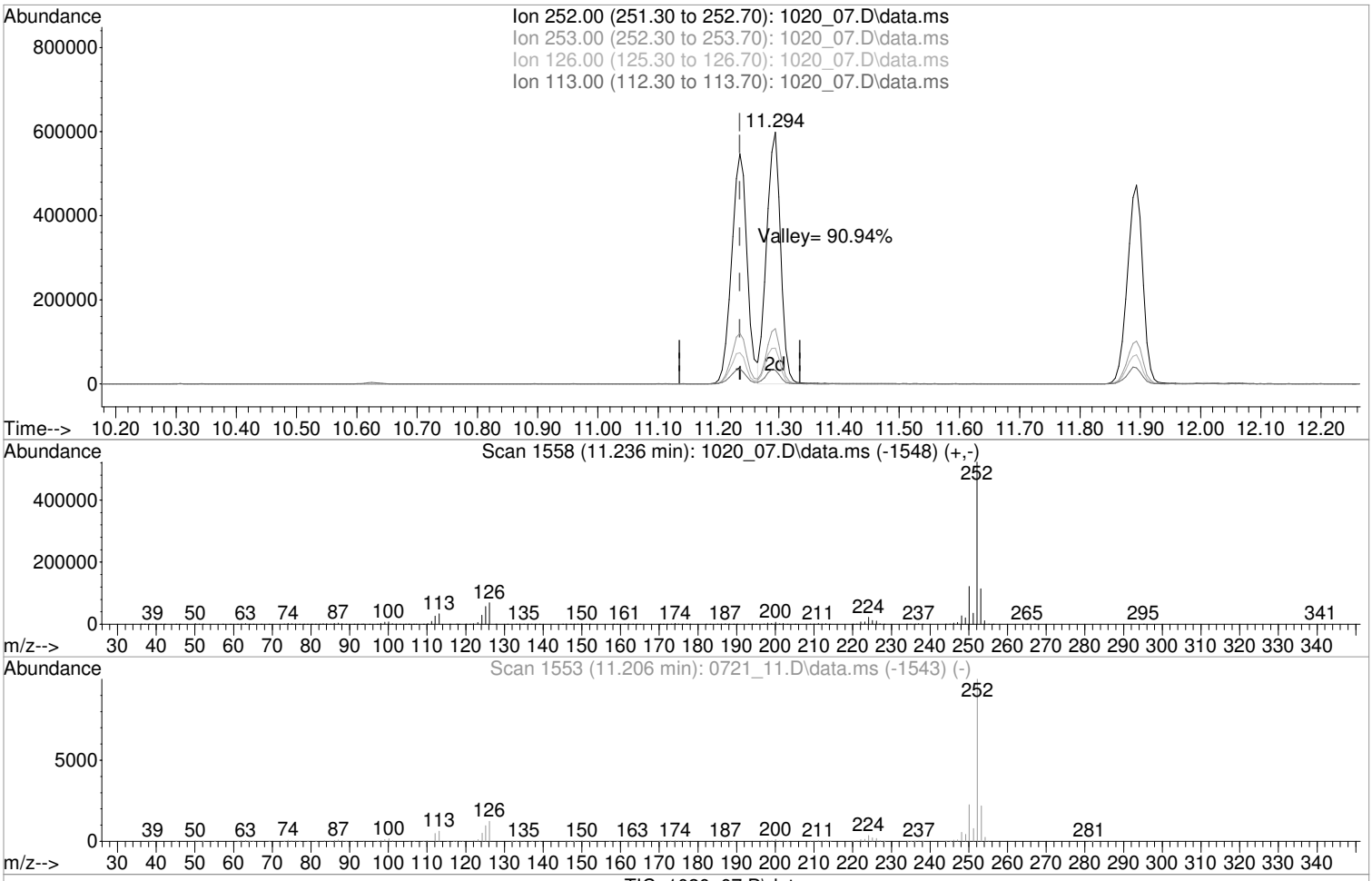
response 90438

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	76.11
39.00	49.40	49.37
109.00	53.80	53.77

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



TIC: 1020_07.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.236min (0.000) 10000.0000000 ppb

Qvalue = 100

response 980780

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	21.92
126.00	13.40	13.35
113.00	6.50	6.48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	146392	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	557868	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	290493	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.476	188	533975	8000.0000000	ppb	0.00
84) Chrysene-d12	9.302	240	611128	8000.0000000	ppb	0.00
94) Perylene-d12	12.011	264	660958	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	486732	18597.0669855	ppb	0.00
Spiked Amount 20000.000				Recovery = 92.99%		
7) Phenol-d5	3.233	99	594964	18934.2113971	ppb	0.00
Spiked Amount 20000.000				Recovery = 94.67%		
24) Nitrobenzene-d5	3.768	82	459916m	19259.6099888	ppb	0.00
Spiked Amount 10000.000				Recovery = 192.60%		
50) 2-Fluorobiphenyl	4.878	172	990081	18214.4115983	ppb	0.00
Spiked Amount 10000.000				Recovery = 182.14%		
73) 2,4,6-Tribromophenol	5.936	330	178452	22073.6289577	ppb	0.00
Spiked Amount 20000.000				Recovery = 110.37%		
87) p-Terphenyl-d14	7.892	244	1664979	19606.4088358	ppb	0.00
Spiked Amount 10000.000				Recovery = 196.06%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	521980	18586.1640341	ppb	98
3) N-Nitrosodimethylamine	2.240	42	243470	17729.8471453	ppb	97
5) Aniline	3.292	66	269327	18720.8591055	ppb	99
6) bis(2-Chloroethyl)ether	3.309	93	485140m	19241.0186232	ppb	
8) Phenol	3.239	94	611734	18836.0300875	ppb	99
10) 2-Chlorophenol	3.356	128	507405	18639.1308545	ppb	93
11) n-Decane	3.350	41	263478	18248.0909284	ppb	100
12) 1,3-Dichlorobenzene	3.439	146	557732	18910.8960767	ppb	99
13) 1,4-Dichlorobenzene	3.474	146	560096	18595.7808819	ppb	99
14) Benzyl Alcohol	3.521	79	383976	19131.6910075	ppb	100
15) 1,2-Dichlorobenzene	3.562	146	530001	18815.6319997	ppb	99
16) bis(2-Chloroisopropyl)...	3.597	121	169534	17334.2753235	ppb	95
17) 2,2-oxybis(1-chloropro...	3.597	121	169534	17334.2753235	ppb	95
18) 2-Methylphenol	3.568	108	443890	18373.0930507	ppb	99
19) Hexachloroethane	3.750	117	203255	18417.7267295	ppb	97
20) N-Nitrosodi-n-propylamine	3.668	70	324069	18878.0370122	ppb	98
21) 3&4-Methyl phenol	3.650	107	504937	18685.4779014	ppb	98
25) Nitrobenzene	3.779	77	471851	19044.2015928	ppb	98
26) Isophorone	3.909	82	864854	19039.4998952	ppb	98
27) 2-Nitrophenol	3.962	139	251670	20574.9719577	ppb	99
28) 2,4-Dimethylphenol	3.962	107	456802	18698.5149270	ppb	97
29) bis(2-Chlorethoxy)methane	4.020	93	528419	18551.1119222	ppb	99
30) 2,4-Dichlorophenol	4.097	162	396810	19100.9655712	ppb	97
32) 1,2,4-Trichlorobenzene	4.155	180	445518	18718.8851765	ppb	99
34) Naphthalene	4.208	128	1409946m	18212.5365069	ppb	
35) 4-Chloroaniline	4.226	65	159995	18094.8310020	ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	259249	18518.2299974	ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

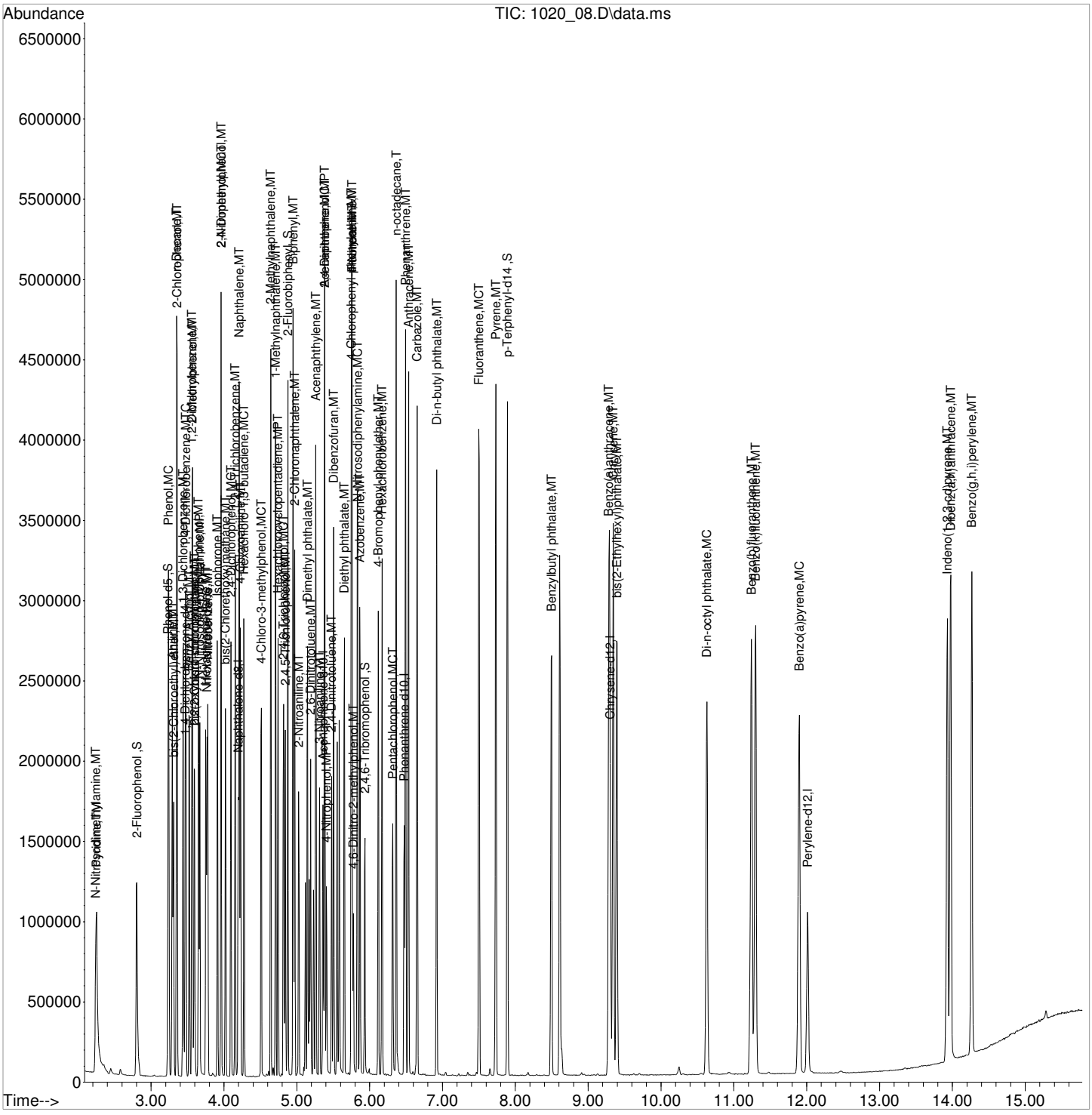
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	388546	19001.9935241	ppb		91
41)	2-Methylnaphthalene	4.643	142	917784	18910.9398940	ppb		100
42)	1-Methylnaphthalene	4.708	142	854732	18812.7298121	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	338252	18898.5148675	ppb		99
48)	2,4,6-Trichlorophenol	4.819	196	280527	19164.1329266	ppb		98
49)	2,4,5-Trichlorophenol	4.843	196	288415	20445.3657156	ppb		98
51)	Biphenyl	4.949	154	1079662	18259.6321448	ppb		100
52)	2-Chloronaphthalene	4.972	162	850489	18337.9625791	ppb		97
53)	2-Nitroaniline	5.025	138	291687	22157.1131973	ppb		98
54)	Acenaphthylene	5.260	152	1331693	19031.8102822	ppb		100
55)	Dimethyl phthalate	5.148	163	901453	18638.9588013	ppb		95
56)	2,6-Dinitrotoluene	5.190	165	216306	21297.0291591	ppb		93
57)	3-Nitroaniline	5.313	138	234473	21025.3261635	ppb		93
58)	Acenaphthene	5.383	153	861027	18260.0185108	ppb		97
59)	2,4-Dinitrophenol	5.383	184	91320	28373.6388907	ppb	#	84
60)	Dibenzofuran	5.507	168	1193392	18233.3153222	ppb		100
61)	2,4-Dinitrotoluene	5.477	165	281291	22671.8308134	ppb		95
63)	4-Nitrophenol	5.407	139	171032m	20665.4313909	ppb		
64)	Fluorene	5.759	166	963737	17914.8629942	ppb		100
65)	4-Chlorophenyl-phenyle...	5.748	204	481722	17996.1159270	ppb		98
66)	Diethyl phthalate	5.654	149	858228	17114.5450166	ppb		97
67)	4-Nitroaniline	5.759	138	157128	13167.6342823	ppb		99
68)	Azobenzene	5.865	77	925392	18340.0028862	ppb		99
71)	4,6-Dinitro-2-methylph...	5.777	198	116581	24792.2000896	ppb		90
72)	N-Nitrosodiphenylamine	5.836	169	843113	19702.5567050	ppb		99
74)	4-Bromophenyl-phenylether	6.118	248	314958	19287.7895890	ppb		96
75)	Hexachlorobenzene	6.171	284	384807	18996.7210613	ppb		99
76)	n-octadecane	6.365	55	143223	19288.6221755	ppb		99
77)	Pentachlorophenol	6.318	266	187149	23342.4129619	ppb		98
78)	Phenanthrene	6.494	178	1383809	18355.2845813	ppb		99
79)	Anthracene	6.535	178	1458732	19221.3710134	ppb		99
80)	Carbazole	6.653	167	1420180	19880.8746860	ppb		100
81)	Di-n-butyl phthalate	6.923	149	1730935	20547.3401959	ppb		99
83)	Fluoranthene	7.499	202	1734277	20334.6120027	ppb		100
86)	Pyrene	7.734	202	1801690	19045.1942429	ppb		100
88)	Benzylbutyl phthalate	8.497	149	767630	20108.8157516	ppb		96
90)	Benzo(a)anthracene	9.285	228	1788897	19018.6894258	ppb		99
91)	Chrysene	9.344	228	1702286	19017.4814761	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.396	149	1076773	20229.1879325	ppb		98
93)	Di-n-octyl phthalate	10.630	149	1840928	21150.1095852	ppb		99
95)	Benzo(b)fluoranthene	11.241	252	1918385	19423.5894754	ppb		99
96)	Benzo(k)fluoranthene	11.300	252	1933905	19796.2928841	ppb		99
97)	Benzo(a)pyrene	11.899	252	1690033	19757.8883935	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.932	276	1689184	18420.5576364	ppb		99
99)	Dibenz(a,h)anthracene	13.979	278	1725965	18544.0426614	ppb		99
100)	Benzo(g,h,i)perylene	14.267	276	1648877	17046.6658523	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

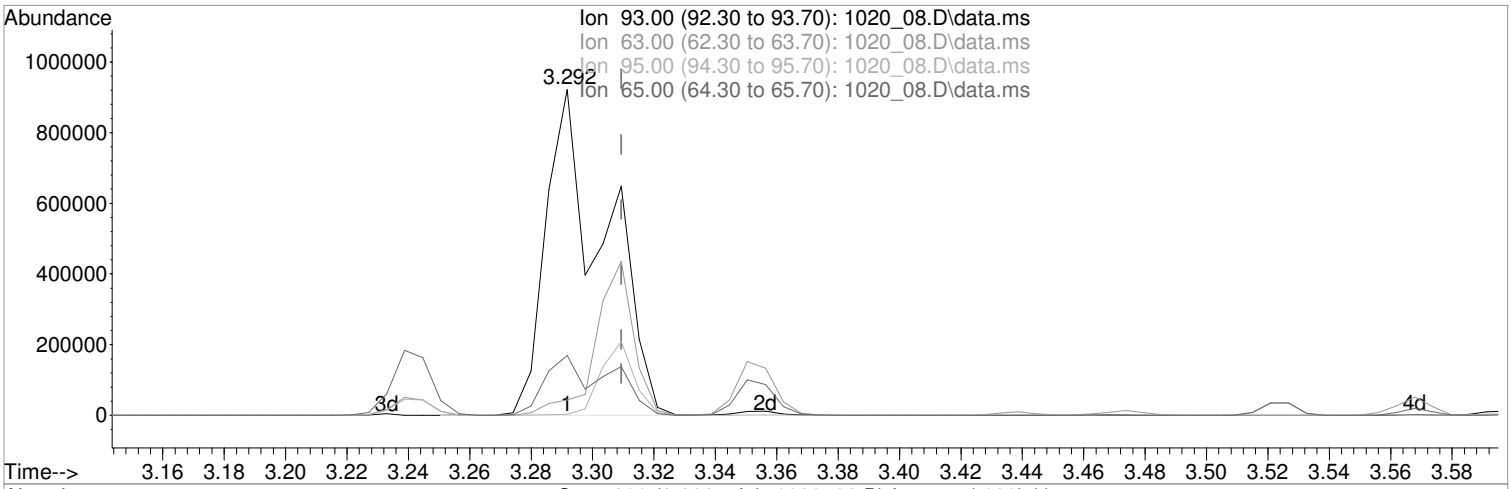
Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

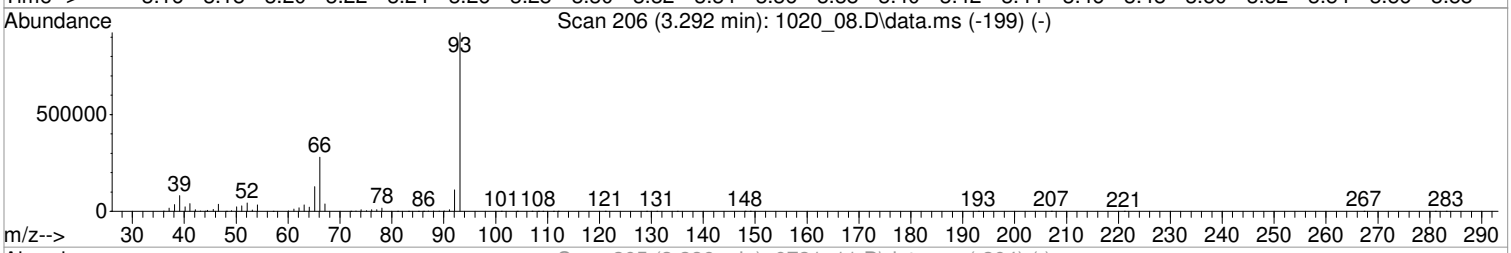


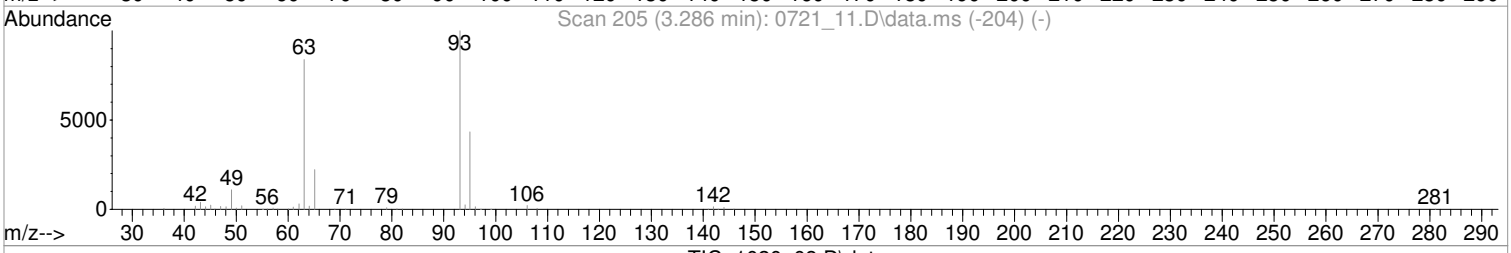
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 48493.7602442 ppb

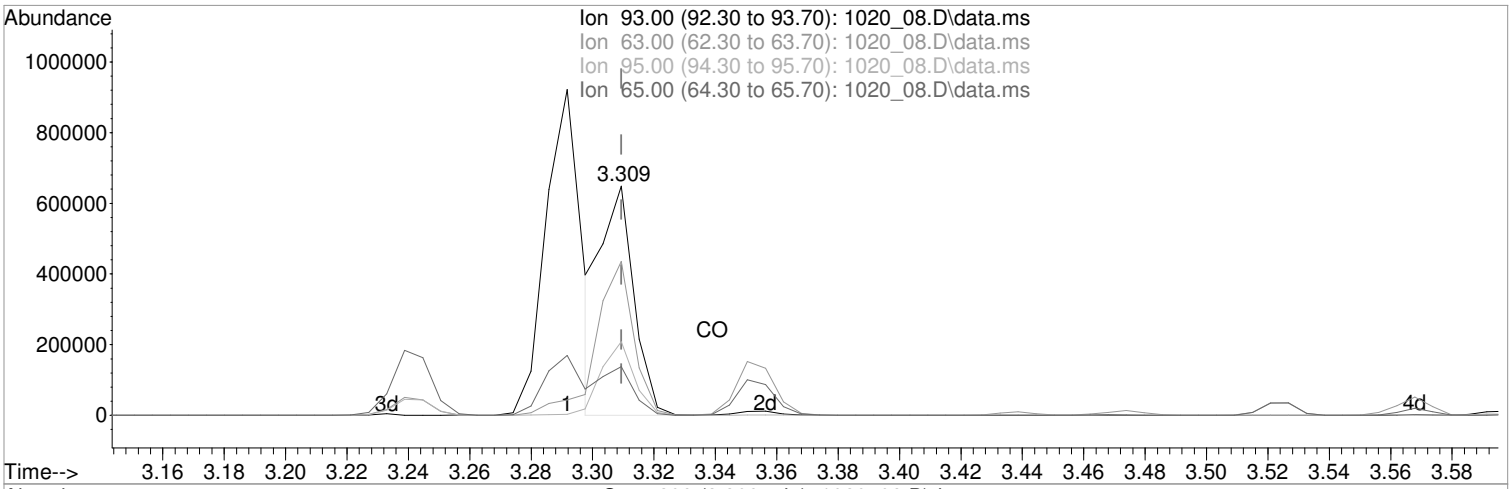
Qvalue = 40

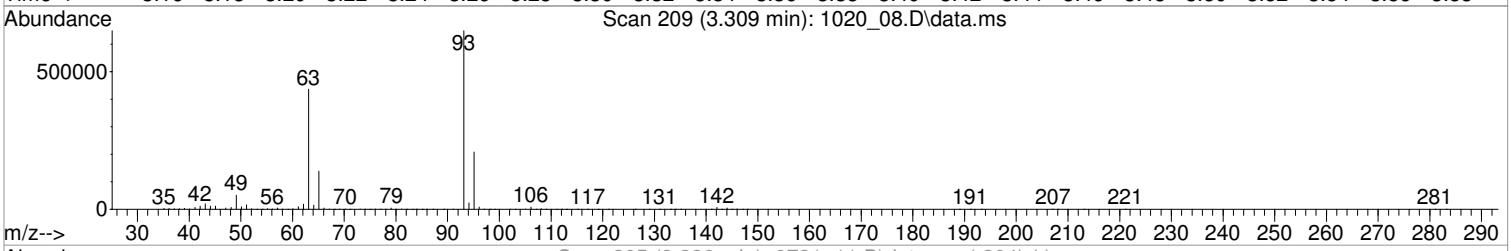
response 1222714

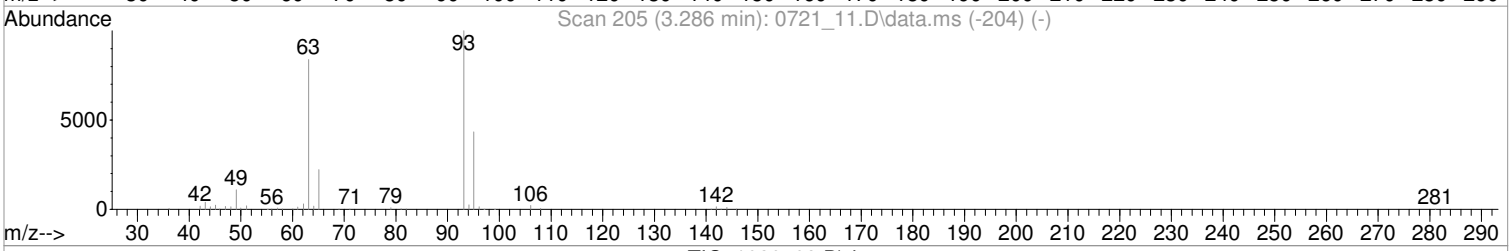
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.38#
95.00	32.50	0.23#
65.00	21.90	18.09

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.000) 19241.0186232 ppb m

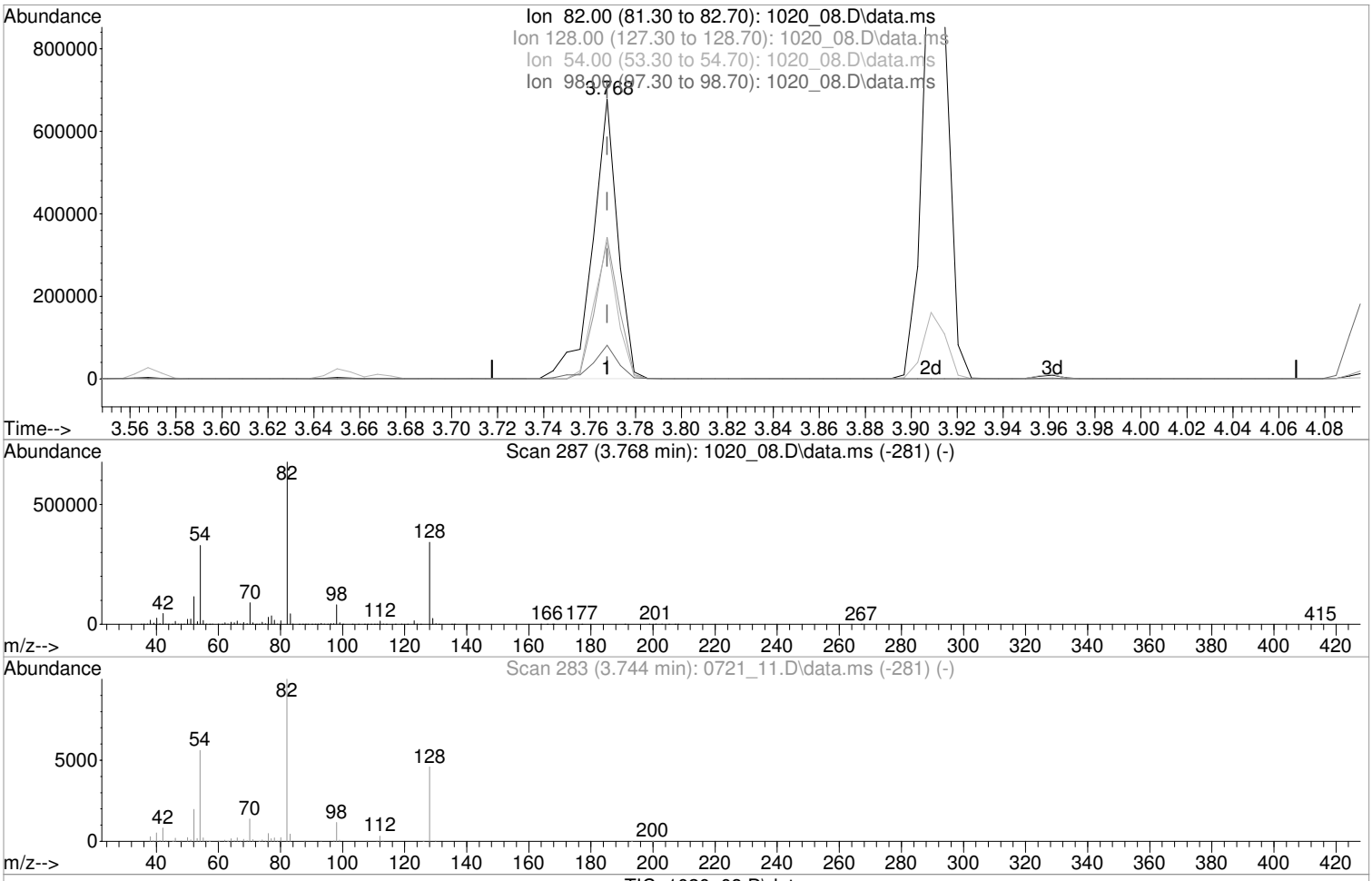
response 485140

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	67.14
95.00	32.50	32.13
65.00	21.90	21.26

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration



TIC: 1020_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 21545.7244717 ppb

Qvalue = 99

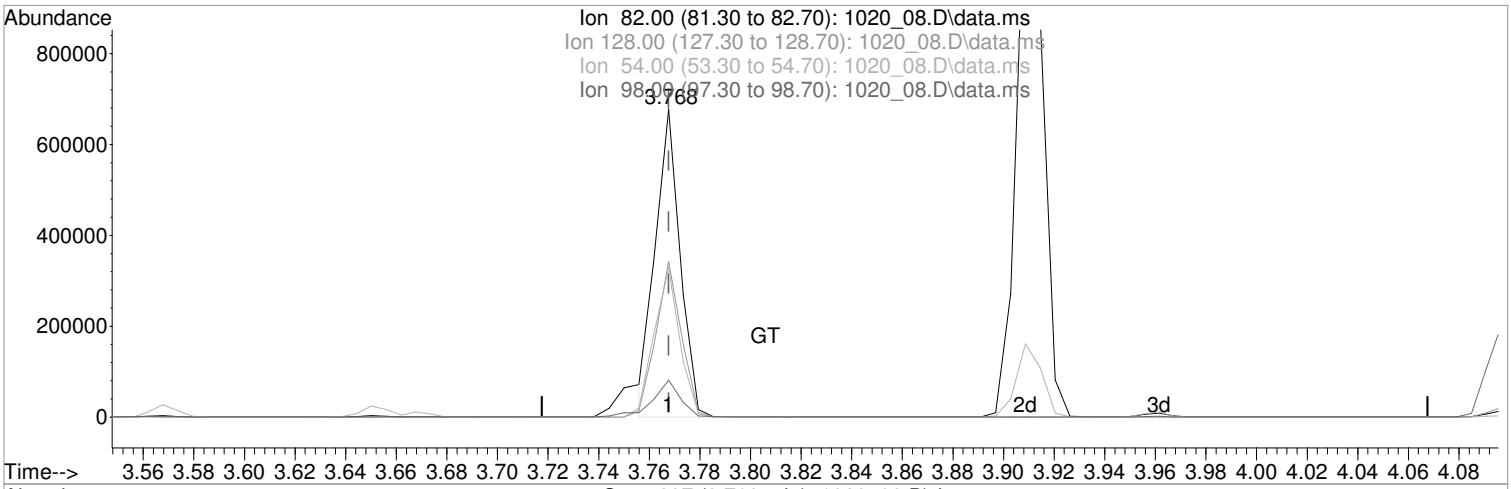
response 514508

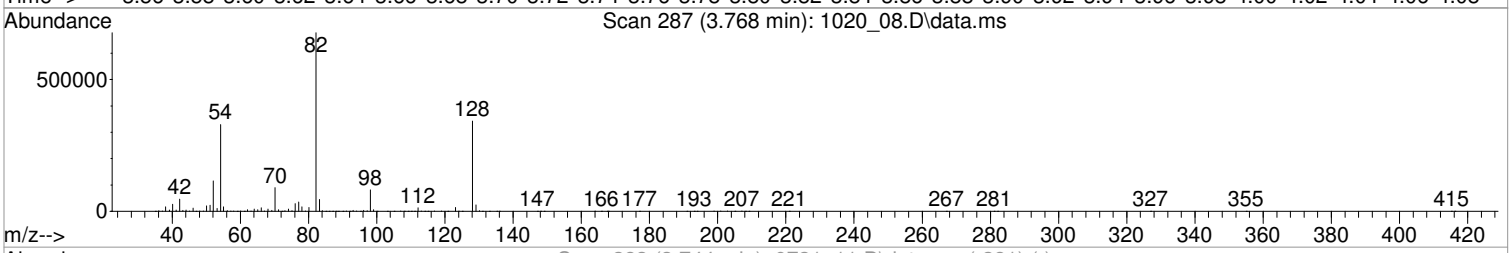
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.61
54.00	48.90	48.58
98.00	12.10	11.93

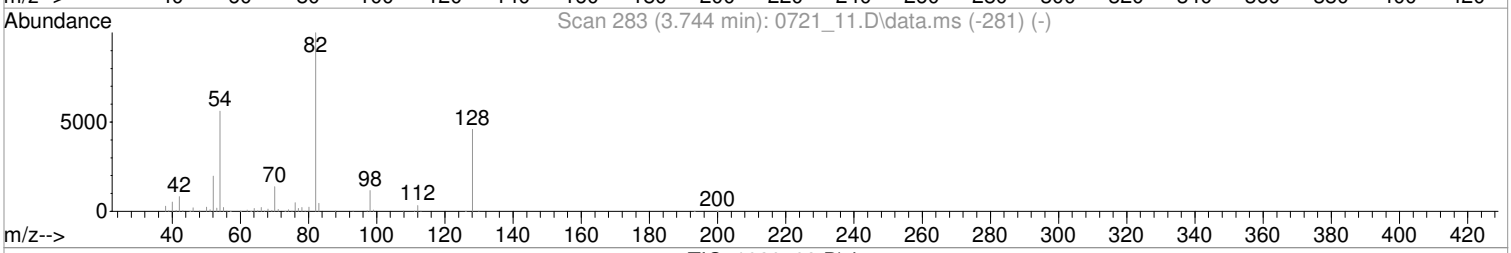
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 19259.6099888 ppb m

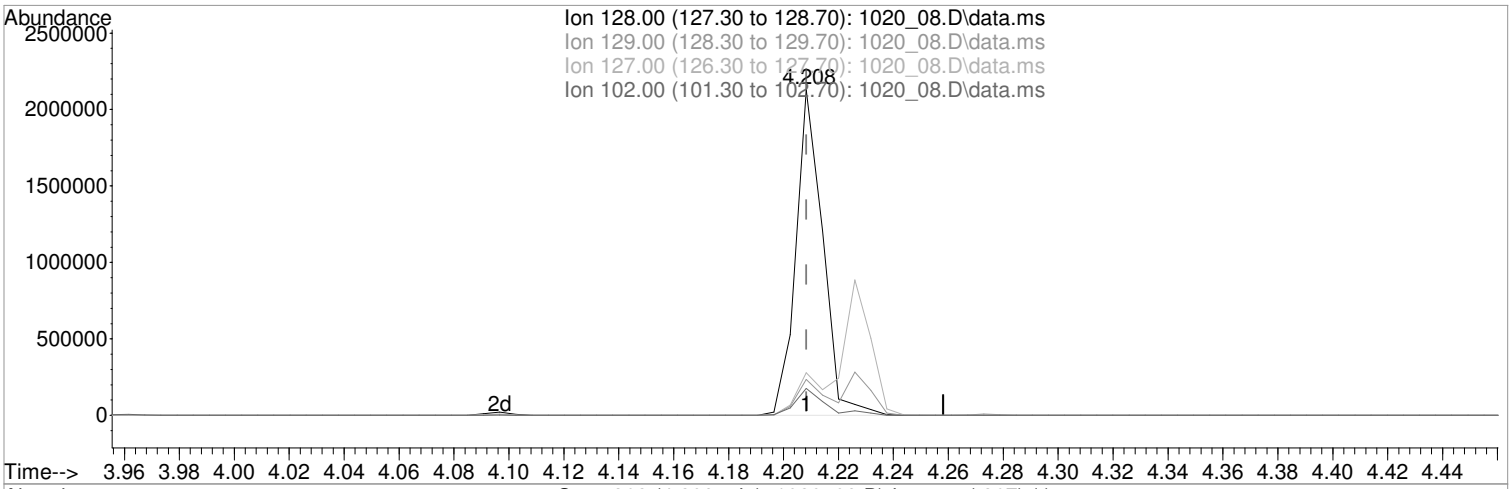
response 459916

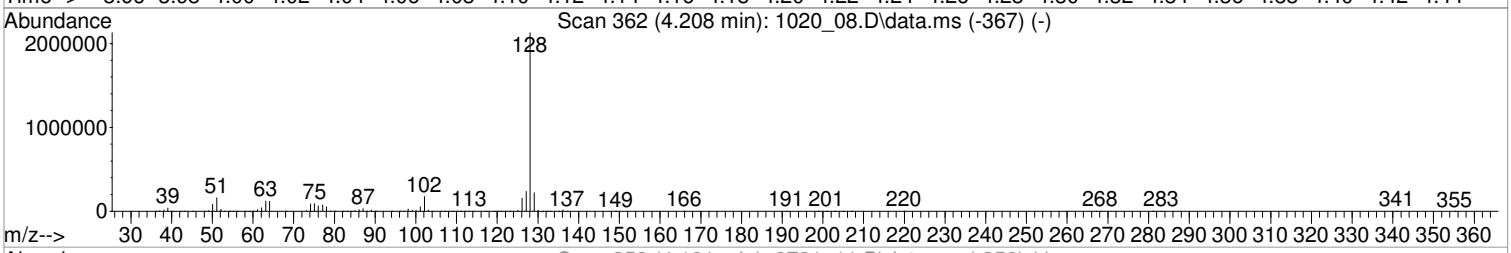
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.59
54.00	48.90	48.59
98.00	12.10	12.00

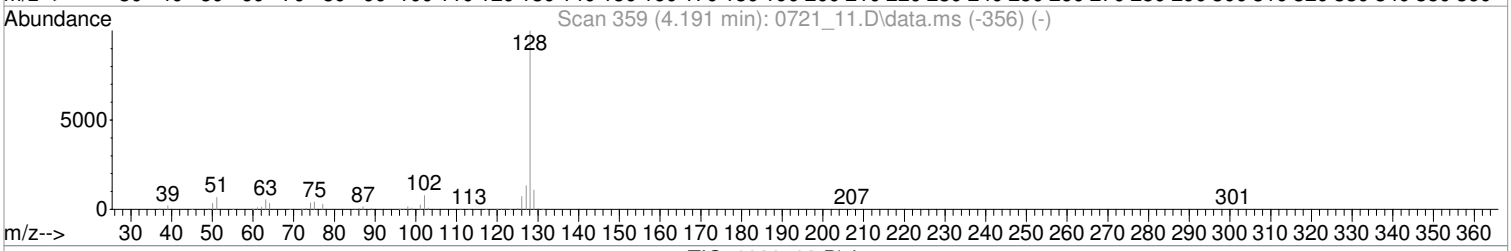
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 18718.0635474 ppb

Qvalue = 100

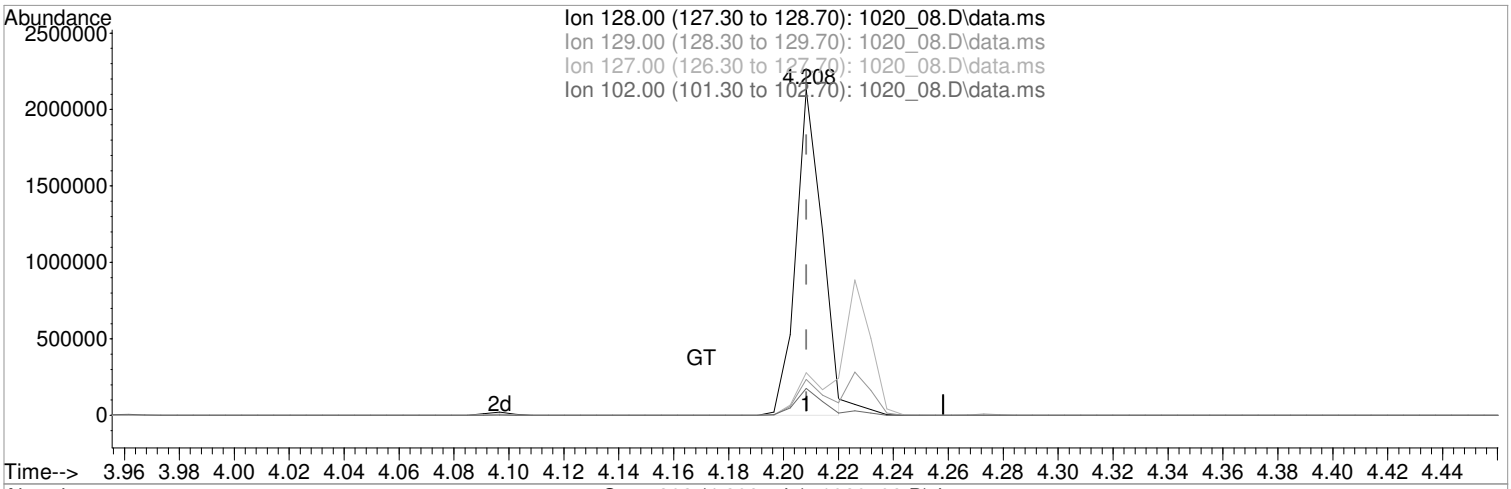
response 1449082

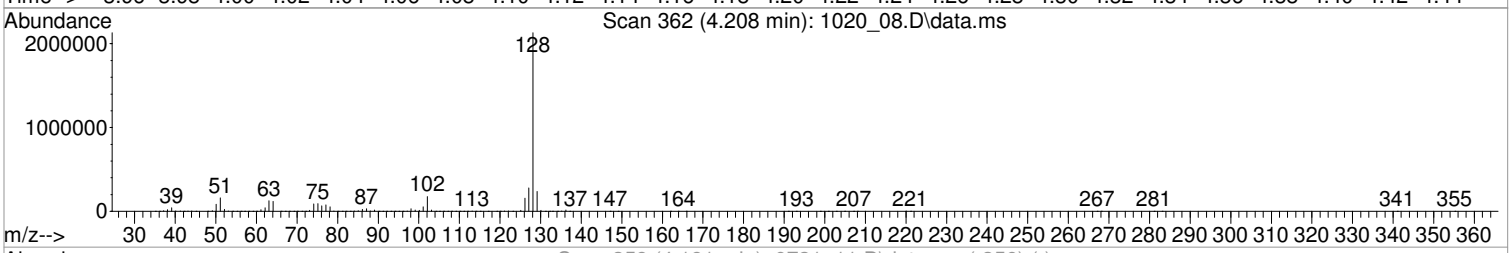
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.05
127.00	13.10	13.06
102.00	8.20	8.29

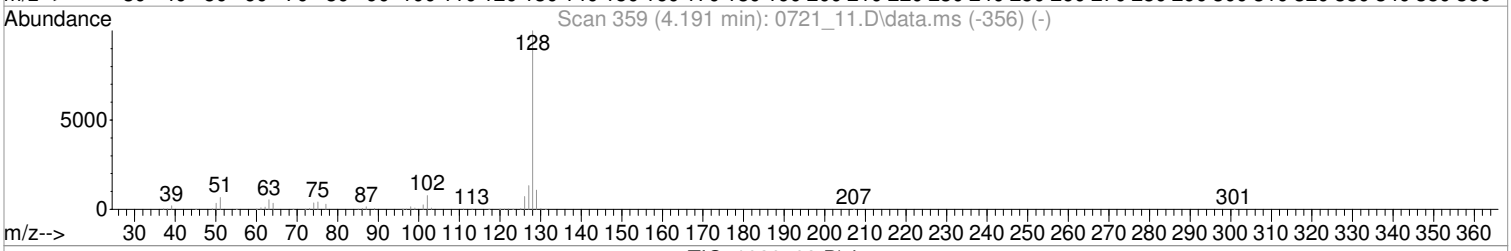
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 18212.5365069 ppb m

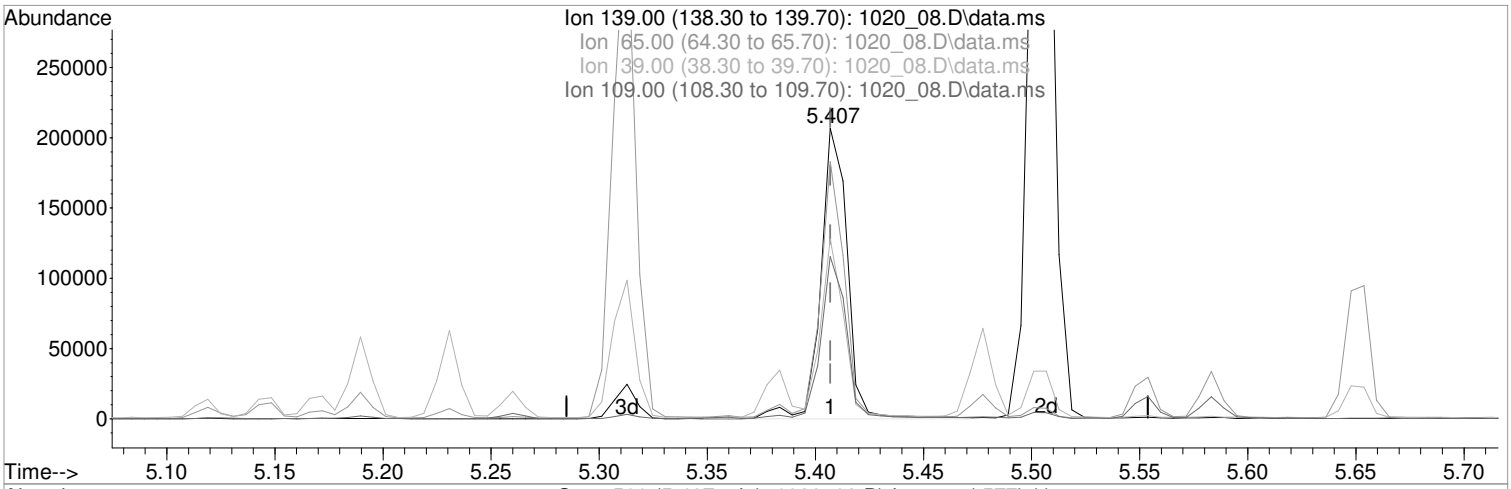
response 1409946

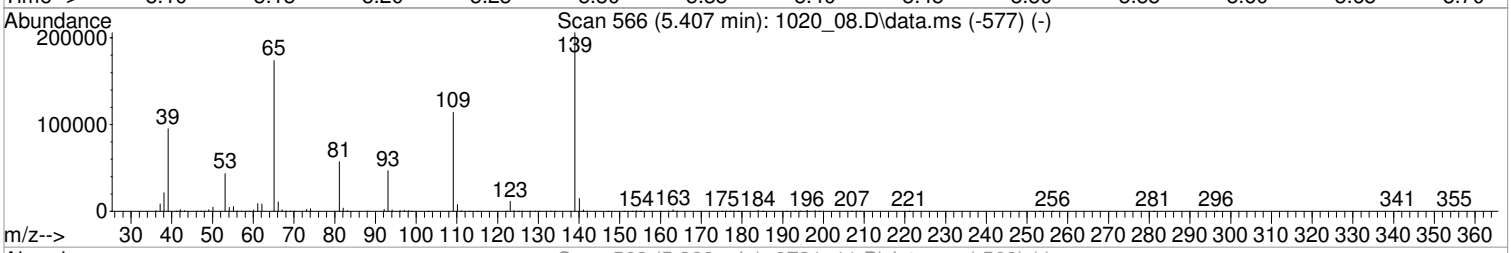
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.06
127.00	13.10	13.06
102.00	8.20	8.29

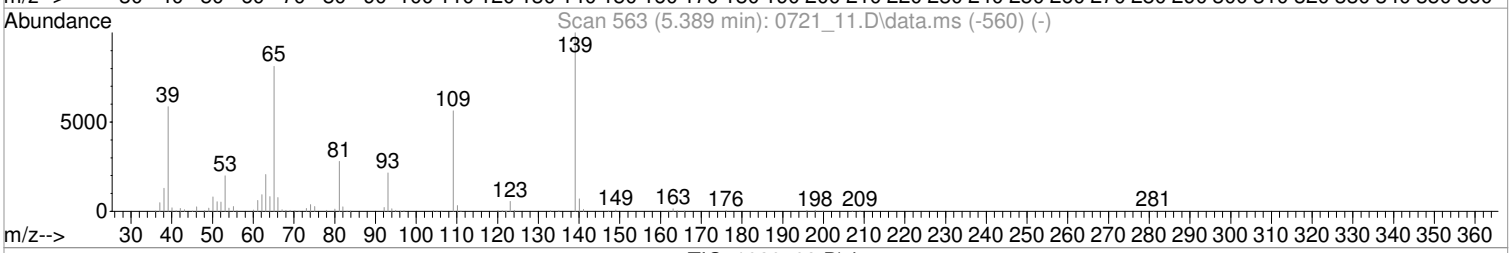
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (-0.000) 21472.1990449 ppb

Qvalue = 89

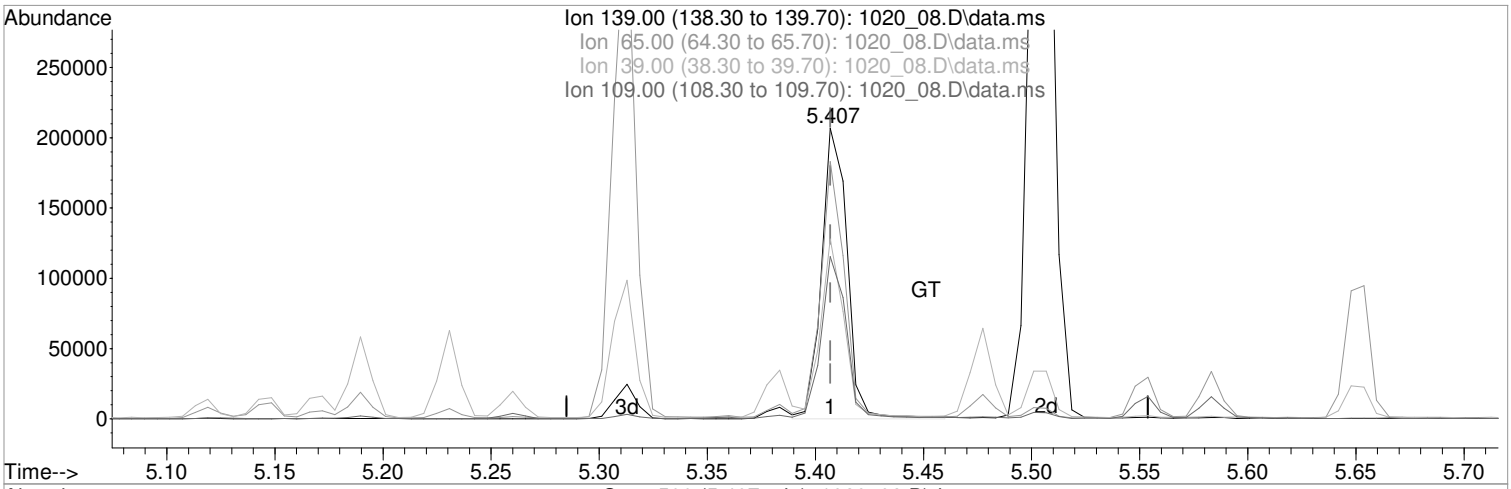
response 177709

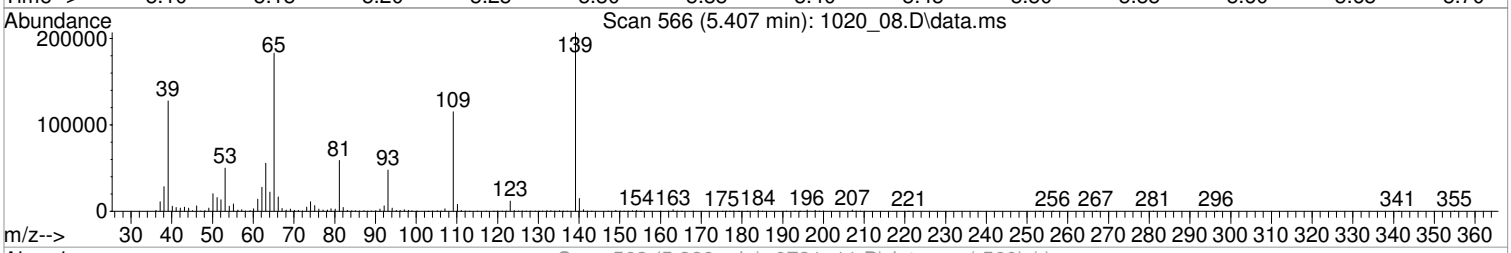
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	87.93
39.00	49.40	61.33
109.00	53.80	55.60

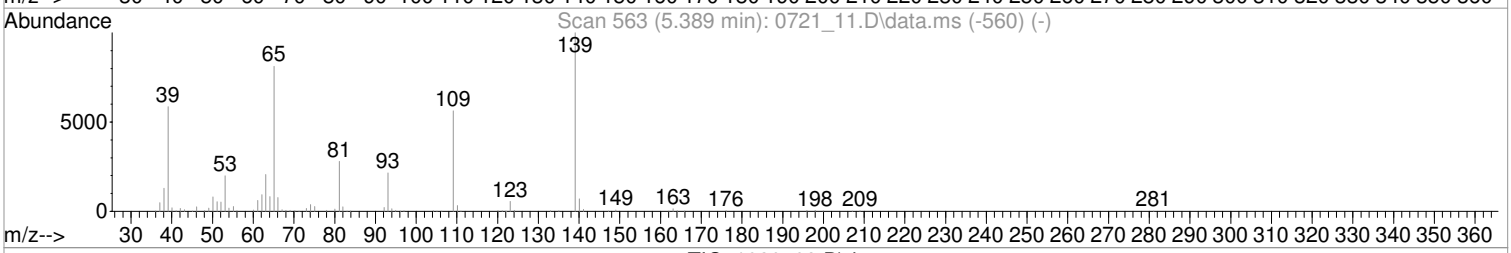
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (-0.000) 20665.4313909 ppb m

response 171032

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	88.52
39.00	49.40	61.90
109.00	53.80	55.81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.468	152	145560	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.197	136	560000	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.360	164	299206	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.476	188	518937	8000.0000000 ppb	0.00
84) Chrysene-d12	9.308	240	613334	8000.0000000 ppb	0.01
94) Perylene-d12	12.017	264	644633	8000.0000000 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.804	112	733161	28573.6165181 ppb	0.00
Spiked Amount 20000.000				Recovery = 142.87%	
7) Phenol-d5	3.233	99	899134	29087.7249315 ppb	0.00
Spiked Amount 20000.000				Recovery = 145.44%	
24) Nitrobenzene-d5	3.768	82	705955m	29669.9522487 ppb	0.00
Spiked Amount 10000.000				Recovery = 296.70%	
50) 2-Fluorobiphenyl	4.878	172	1467488	26687.5762291 ppb	0.00
Spiked Amount 10000.000				Recovery = 266.88%	
73) 2,4,6-Tribromophenol	5.936	330	275467	34349.0420843 ppb	0.00
Spiked Amount 20000.000				Recovery = 171.75%	
87) p-Terphenyl-d14	7.892	244	2507172	29533.9328055 ppb	0.00
Spiked Amount 10000.000				Recovery = 295.34%	
Target Compounds					Qvalue
2) Pyridine	2.252	79	788771	28651.4210023 ppb	99
3) N-Nitrosodimethylamine	2.240	42	367641	27550.6311300 ppb	96
5) Aniline	3.292	66	398133	28192.9440003 ppb	99
6) bis(2-Chloroethyl)ether	3.310	93	506705m	20365.7425686 ppb	
8) Phenol	3.245	94	929215	29114.0733951 ppb	95
10) 2-Chlorophenol	3.357	128	750748	28118.4358903 ppb	94
11) n-Decane	3.351	41	390650	27695.6832574 ppb	99
12) 1,3-Dichlorobenzene	3.439	146	830192	28621.7543489 ppb	99
13) 1,4-Dichlorobenzene	3.474	146	838221	28387.5199429 ppb	99
14) Benzyl Alcohol	3.527	79	584062	29523.7155155 ppb	98
15) 1,2-Dichlorobenzene	3.562	146	787134	28440.7102632 ppb	98
16) bis(2-Chloroisopropyl)...	3.597	121	251836	26605.7919957 ppb	91
17) 2,2-oxybis(1-chloropro...	3.597	121	251836	26605.7919957 ppb	91
18) 2-Methylphenol	3.568	108	661446	27989.8311263 ppb	99
19) Hexachloroethane	3.750	117	302566	28016.6934765 ppb	98
20) N-Nitrosodi-n-propylamine	3.674	70	487229	28868.7470506 ppb	96
21) 3&4-Methyl phenol	3.656	107	762544	28757.6882432 ppb	99
25) Nitrobenzene	3.780	77	714077	28987.9366274 ppb	97
26) Isophorone	3.915	82	1311801	29047.9628657 ppb	96
27) 2-Nitrophenol	3.962	139	377251	30548.6277063 ppb	98
28) 2,4-Dimethylphenol	3.962	107	674043	27848.3537423 ppb	97
29) bis(2-Chlorethoxy)methane	4.020	93	794935	28210.1265502 ppb	99
30) 2,4-Dichlorophenol	4.097	162	595775	28828.3991353 ppb	96
32) 1,2,4-Trichlorobenzene	4.156	180	660799	28017.3646969 ppb	98
34) Naphthalene	4.208	128	2142080m	28065.9752403 ppb	
35) 4-Chloroaniline	4.226	65	237926	27326.7084965 ppb	99
36) Hexachloro-1,3-butadiene	4.273	225	382062	27595.8039891 ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

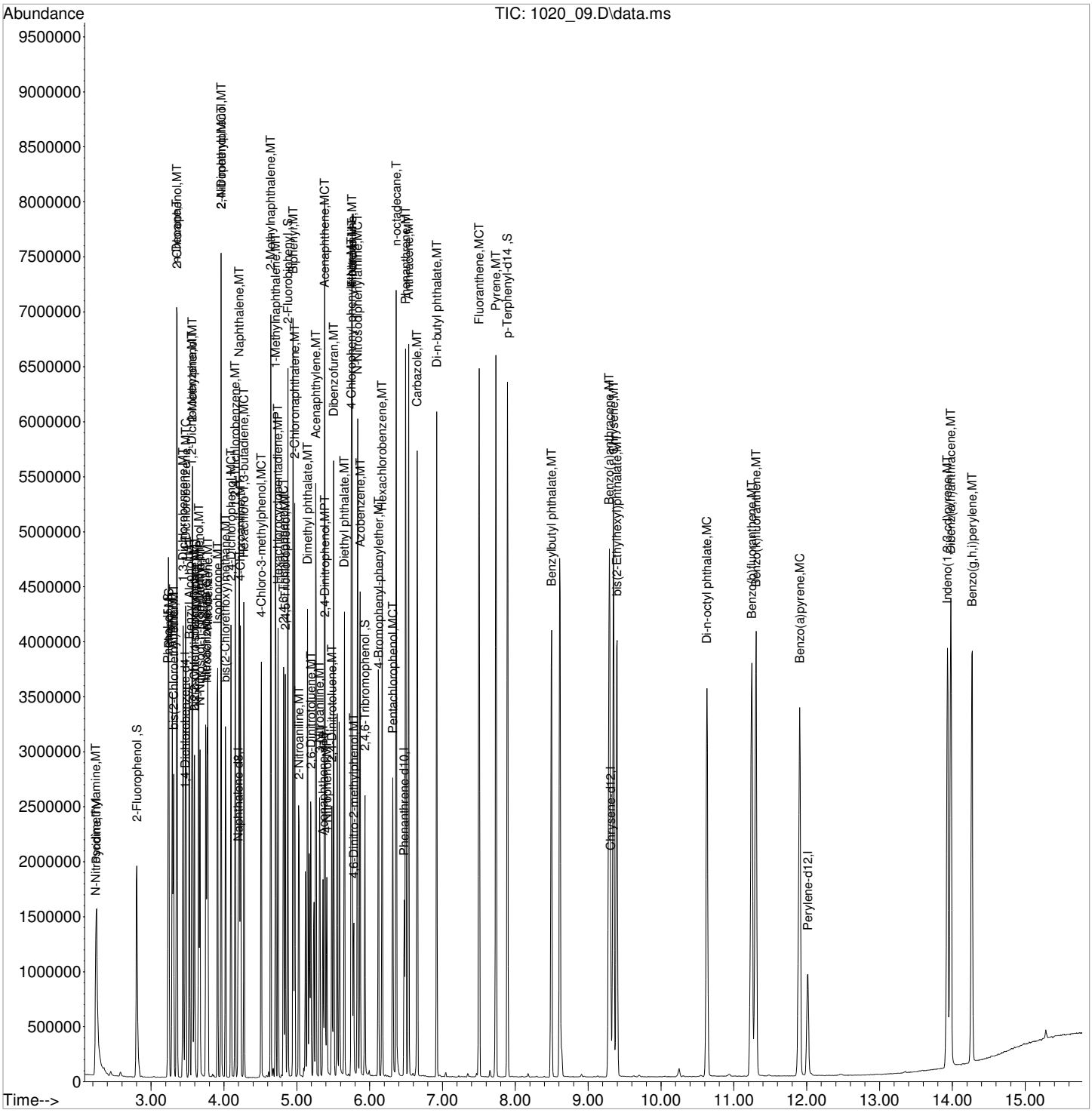
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.514	107	593754	29218.8255517	ppb		91
41) 2-Methylnaphthalene	4.643	142	1387411	28792.3332433	ppb		99
42) 1-Methylnaphthalene	4.708	142	1292665	28683.9112934	ppb		100
47) Hexachlorocyclopentadiene	4.743	237	506398	27775.0525167	ppb		99
48) 2,4,6-Trichlorophenol	4.820	196	423921	28353.7295673	ppb		97
49) 2,4,5-Trichlorophenol	4.843	196	442566	30324.2839923	ppb		97
51) Biphenyl	4.949	154	1614854	26985.3286144	ppb		99
52) 2-Chloronaphthalene	4.972	162	1266249	26955.3927463	ppb		97
53) 2-Nitroaniline	5.031	138	446571	32239.1350165	ppb		99
54) Acenaphthylene	5.260	152	2006972	28119.5231689	ppb		99
55) Dimethyl phthalate	5.149	163	1391565	28320.3718341	ppb		99
56) 2,6-Dinitrotoluene	5.196	165	330101	31150.5675778	ppb		90
57) 3-Nitroaniline	5.313	138	369437	31836.5062970	ppb	#	81
58) Acenaphthene	5.384	153	1293827	27111.2277265	ppb		98
59) 2,4-Dinitrophenol	5.389	184	151247	42099.5662105	ppb	#	1
60) Dibenzofuran	5.507	168	1777819	26845.8176349	ppb		100
61) 2,4-Dinitrotoluene	5.483	165	439693	33511.5390596	ppb		97
63) 4-Nitrophenol	5.413	139	259263m	30212.9170171	ppb		
64) Fluorene	5.760	166	1442624	26590.3996179	ppb		99
65) 4-Chlorophenyl-phenyle...	5.748	204	719118	26615.7661187	ppb		96
66) Diethyl phthalate	5.654	149	1210174	24126.3481406	ppb		98
67) 4-Nitroaniline	5.760	138	278744	24342.2101078	ppb		98
68) Azobenzene	5.871	77	1386383	27126.3924180	ppb		99
71) 4,6-Dinitro-2-methylph...	5.783	198	186911	39030.0836691	ppb		98
72) N-Nitrosodiphenylamine	5.836	169	1244933	30024.9831160	ppb		99
74) 4-Bromophenyl-phenylether	6.124	248	463111	29391.7440921	ppb		90
75) Hexachlorobenzene	6.171	284	568601	29176.2034432	ppb		97
76) n-octadecane	6.365	55	213997	29867.7789498	ppb		98
77) Pentachlorophenol	6.318	266	287283	35677.6182632	ppb		97
78) Phenanthrene	6.494	178	2007407	27856.6568178	ppb		98
79) Anthracene	6.535	178	2100118	28698.1309292	ppb		100
80) Carbazole	6.653	167	2055924	29649.8910960	ppb		100
81) Di-n-butyl phthalate	6.923	149	2583344	31382.8798348	ppb		99
83) Fluoranthene	7.505	202	2572786	30936.8863242	ppb		100
86) Pyrene	7.734	202	2643441	28111.0258045	ppb		99
88) Benzylbutyl phthalate	8.498	149	1155980	30140.3085511	ppb		98
90) Benzo(a)anthracene	9.291	228	2676610	28635.0743382	ppb		99
91) Chrysene	9.350	228	2533154	28477.7277329	ppb		99
92) bis(2-Ethylhexyl)phtha...	9.397	149	1604791	29971.8604766	ppb		98
93) Di-n-octyl phthalate	10.630	149	2805304	31748.5966850	ppb		99
95) Benzo(b)fluoranthene	11.247	252	2885740	30131.6428379	ppb		99
96) Benzo(k)fluoranthene	11.306	252	2837773	29845.1184616	ppb		99
97) Benzo(a)pyrene	11.905	252	2530720	30409.0968651	ppb		99
98) Indeno(1,2,3-cd)pyrene	13.933	276	2318444	26338.9181384	ppb		99
99) Dibenz(a,h)anthracene	13.980	278	2417499	27025.2481776	ppb		99
100) Benzo(g,h,i)perylene	14.273	276	2245323	24525.0964080	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

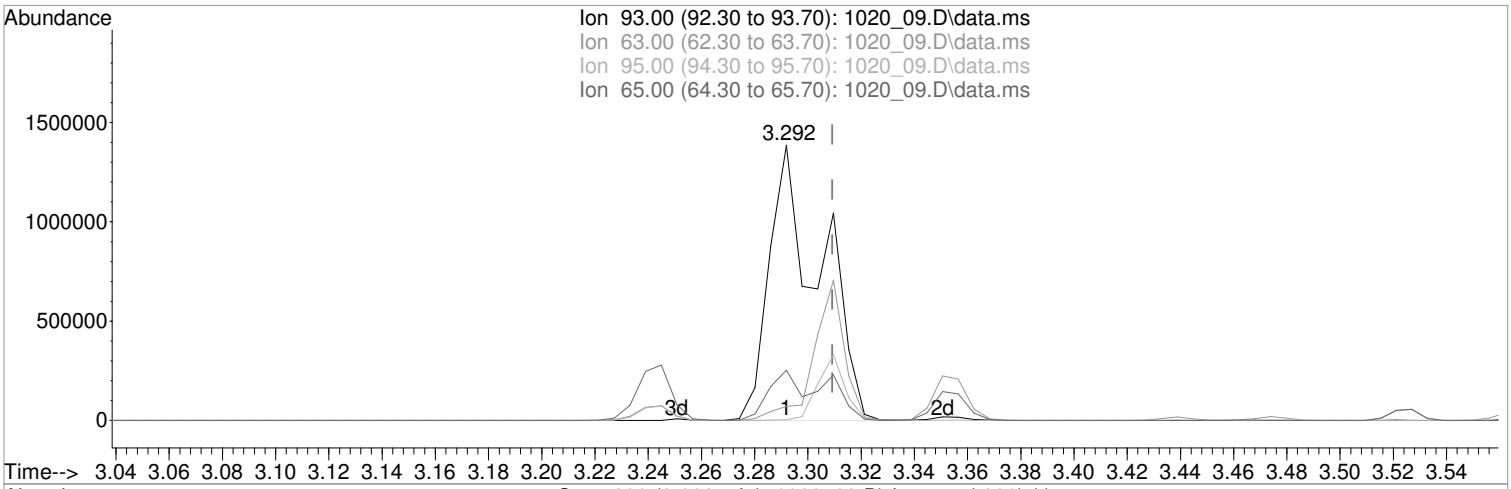
Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

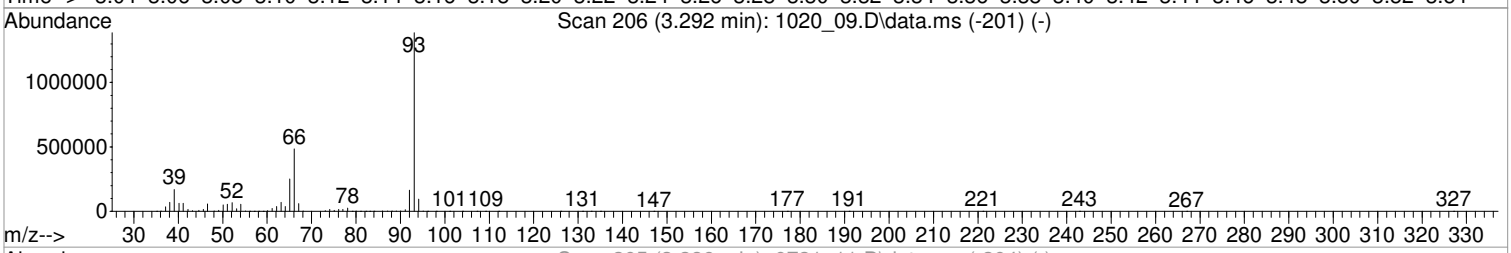


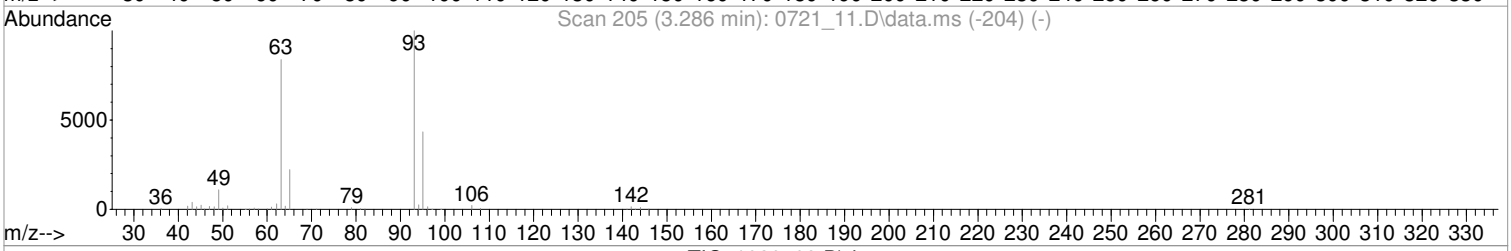
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.017) 73831.4186414 ppb

Qvalue = 41

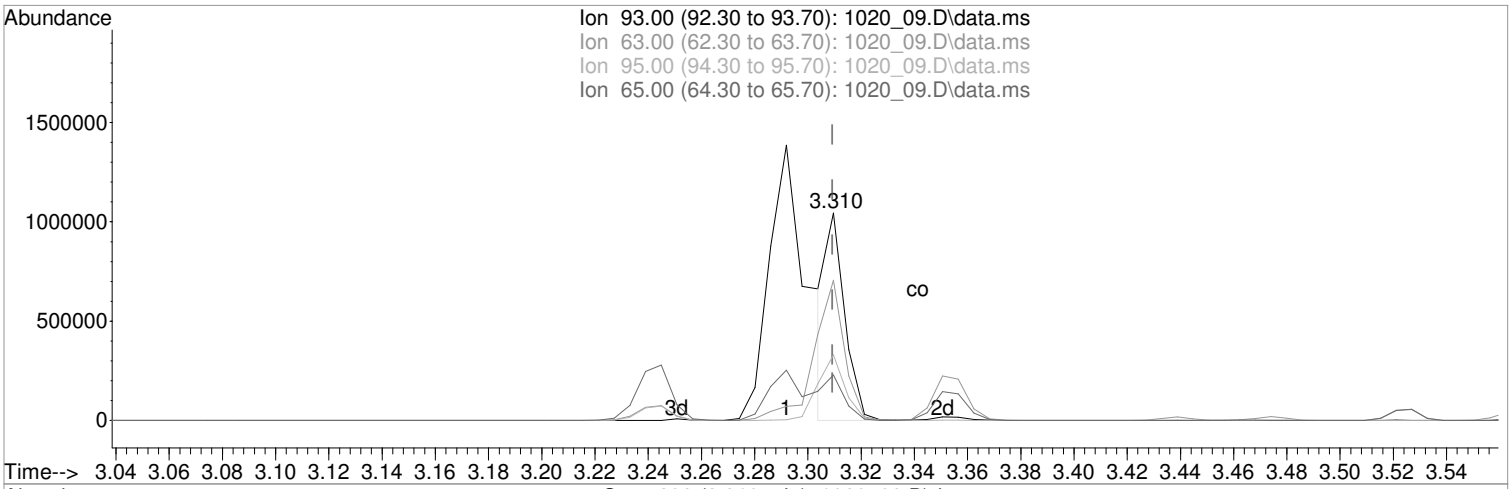
response 1836945

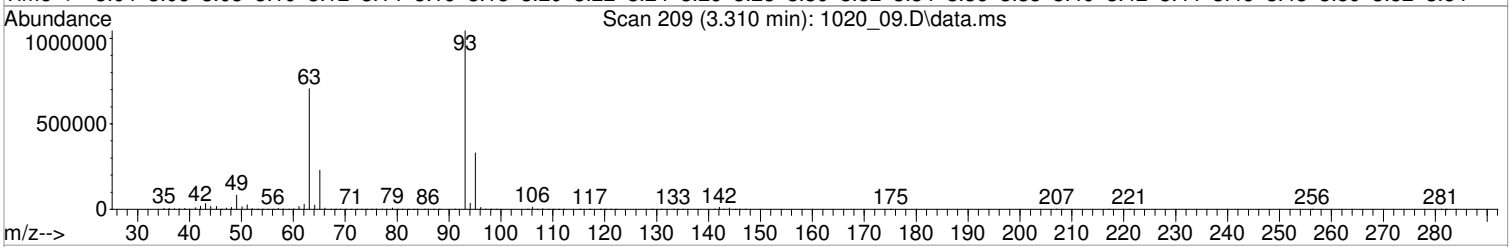
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.05#
95.00	32.50	0.22#
65.00	21.90	18.22

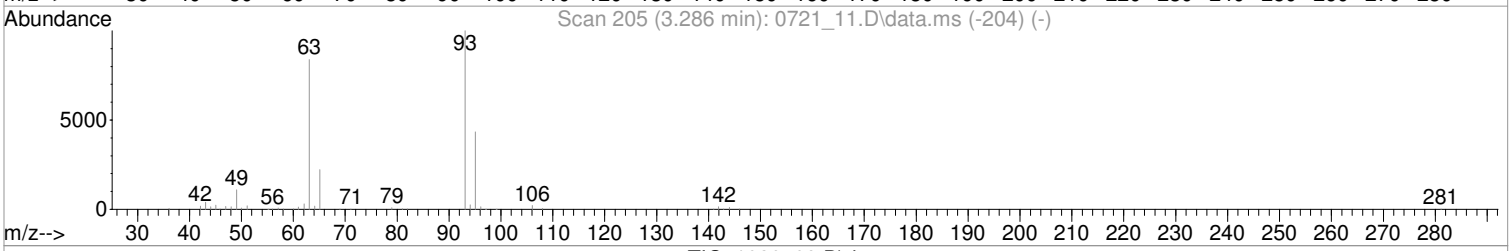
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.310min (+0.000) 20365.7425686 ppb m

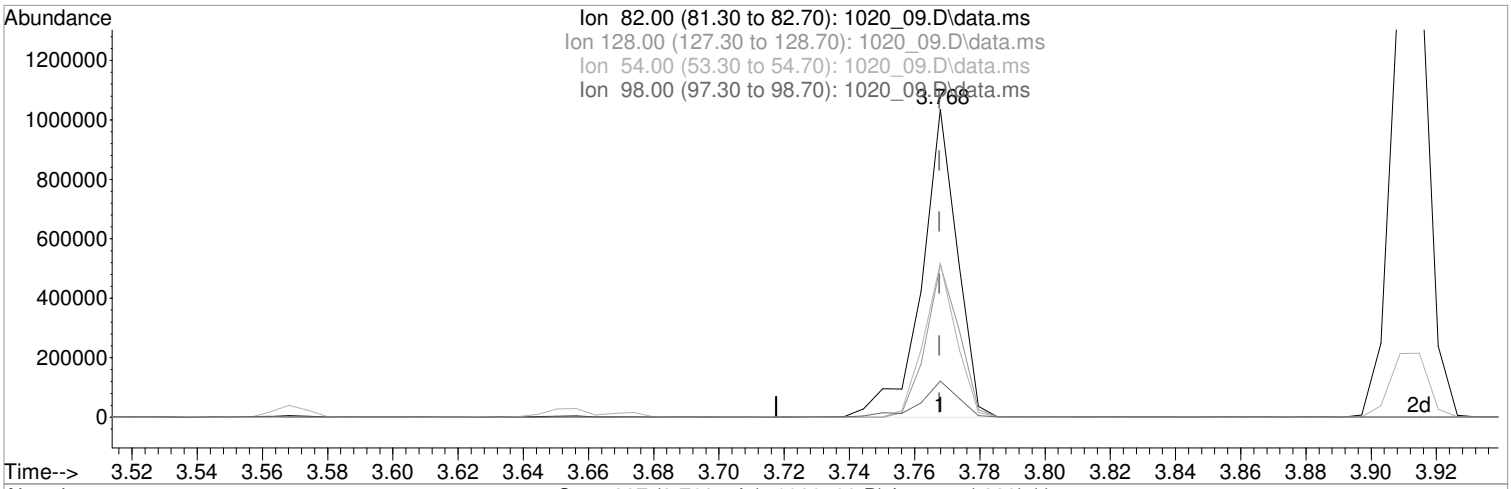
response 506705

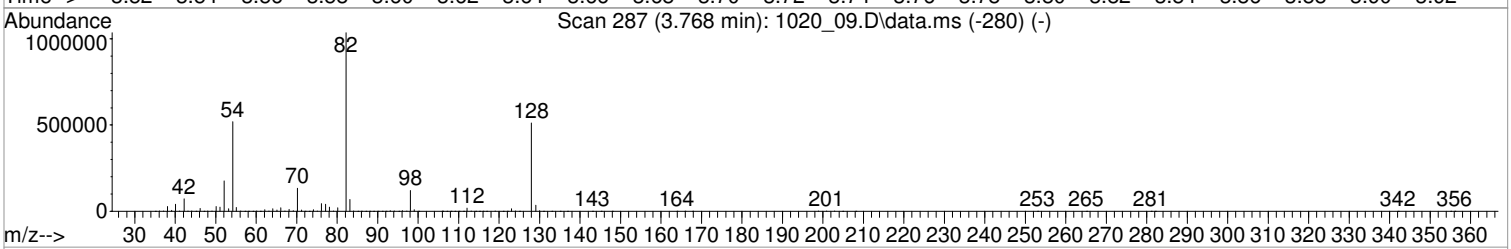
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	67.51
95.00	32.50	31.56
65.00	21.90	21.95

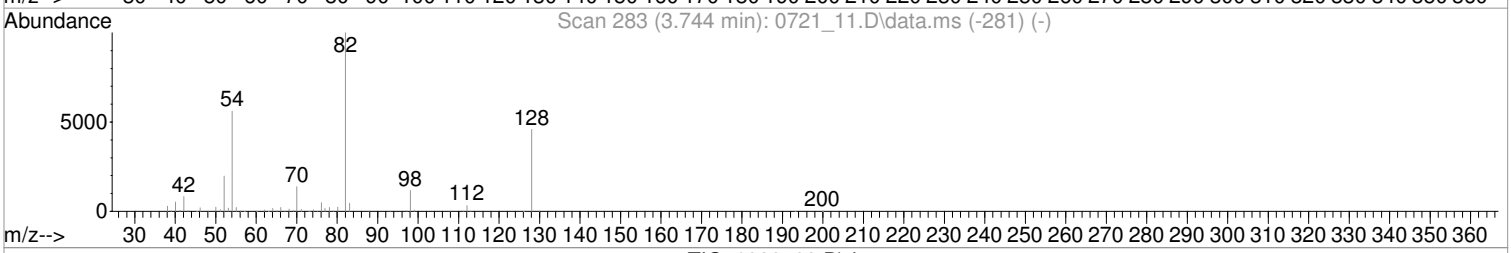
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 32856.3131779 ppb

Qvalue = 97

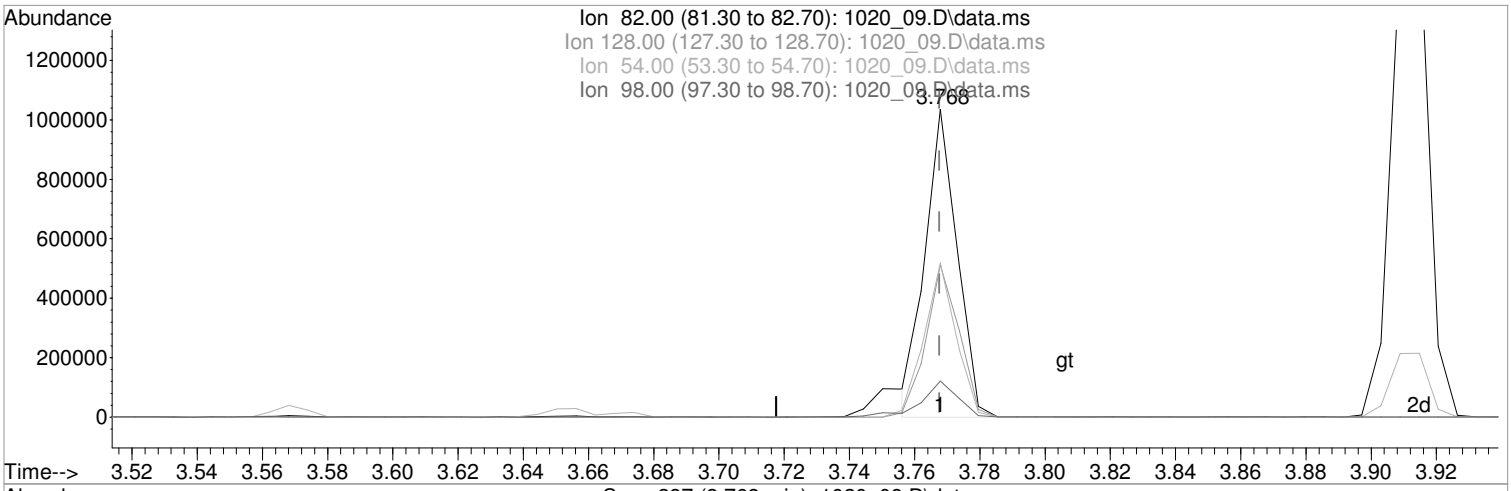
response 781770

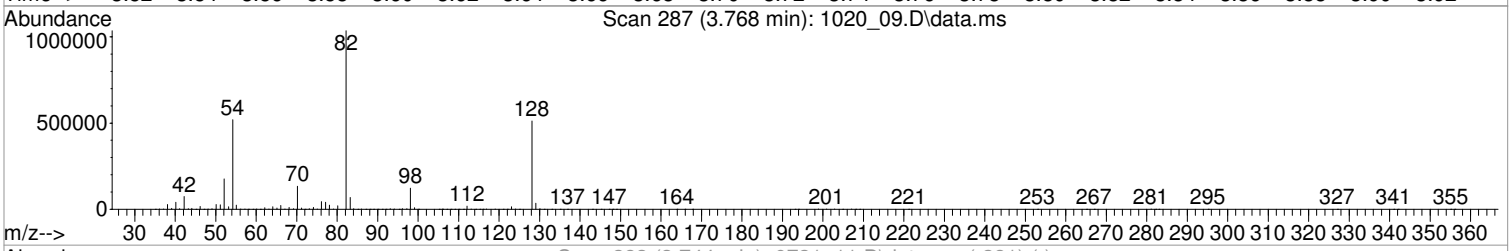
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	49.44
54.00	48.90	50.12
98.00	12.10	11.71

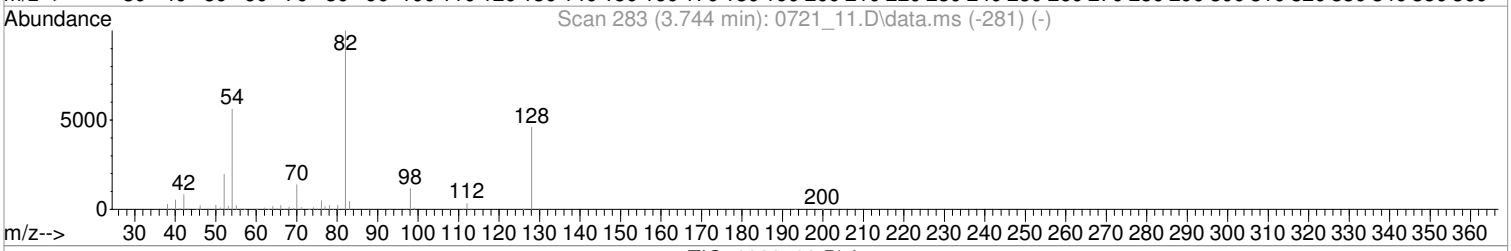
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 29669.9522487 ppb m

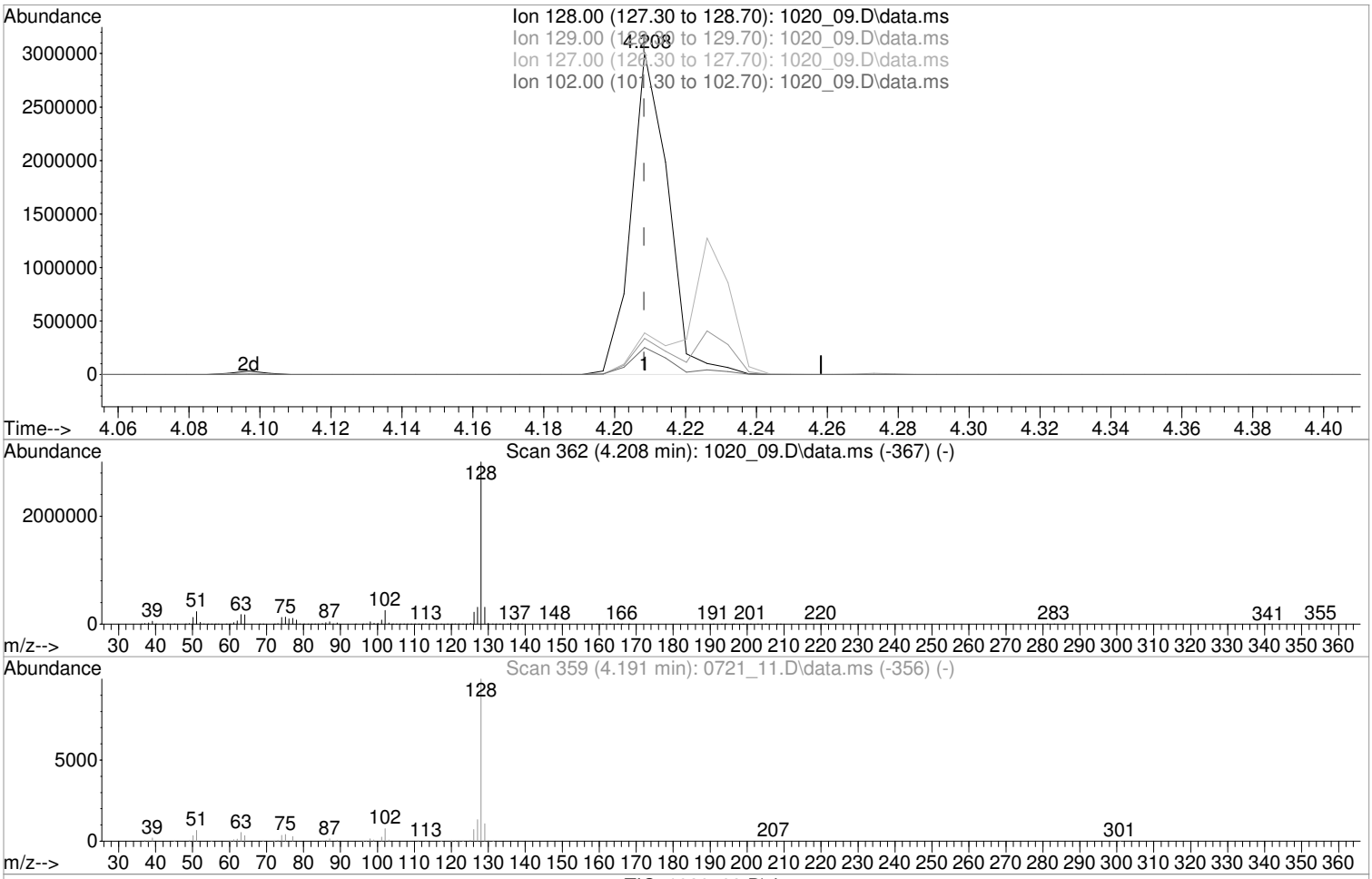
response 705955

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	49.44
54.00	48.90	50.14
98.00	12.10	11.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration



TIC: 1020_09.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 28399.2822802 ppb

Qvalue = 99

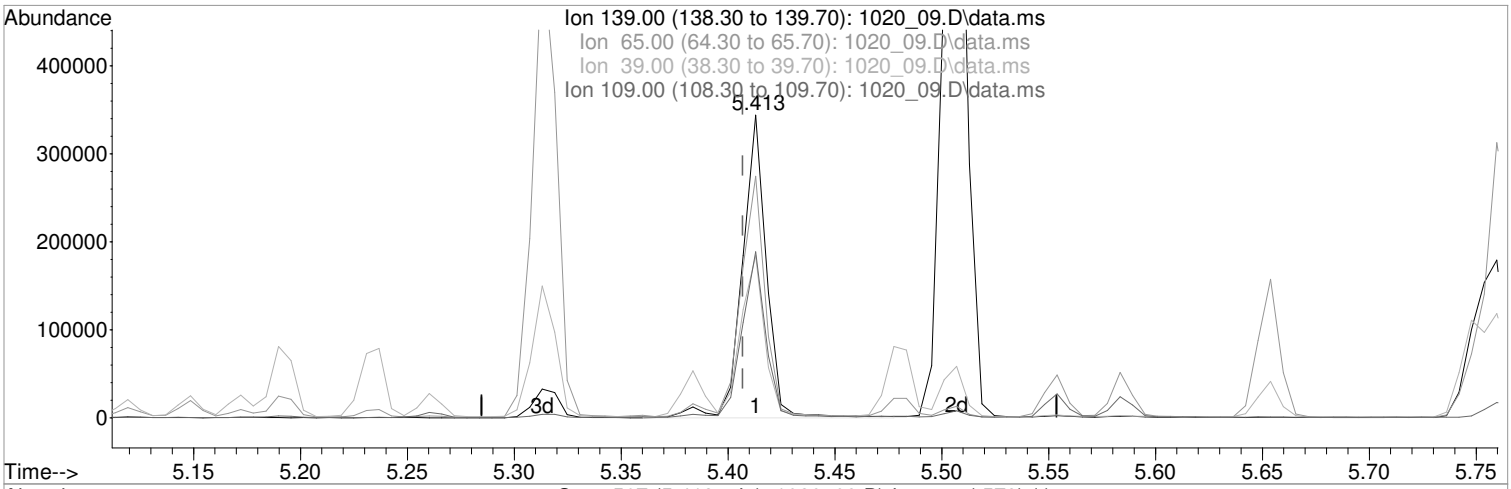
response 2167519

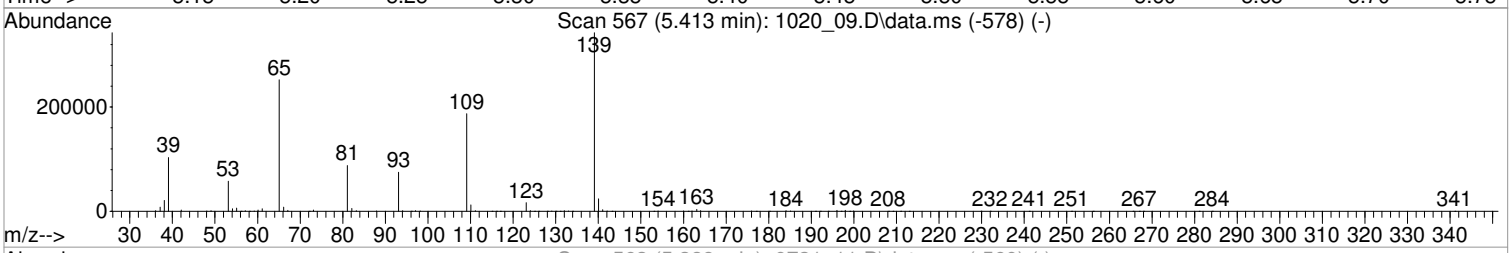
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.20
127.00	13.10	12.93
102.00	8.20	8.44

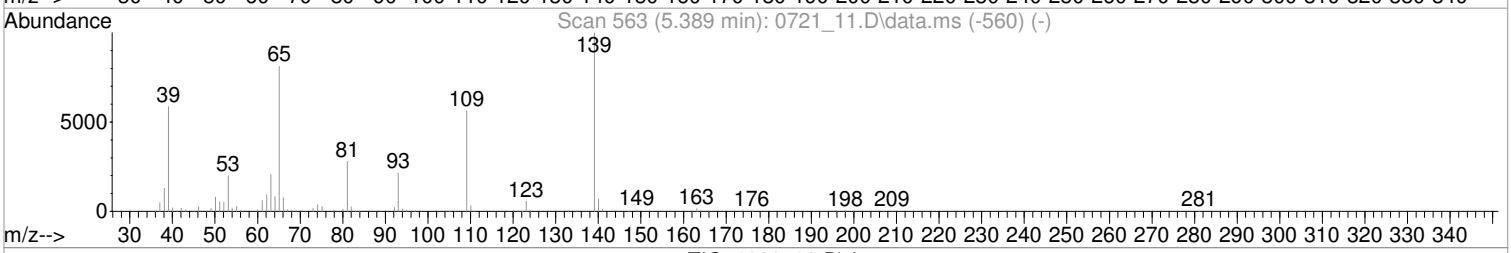
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(63) 4-Nitrophenol (MPT)

5.413min (+0.006) 31566.5742843 ppb

Qvalue = 97

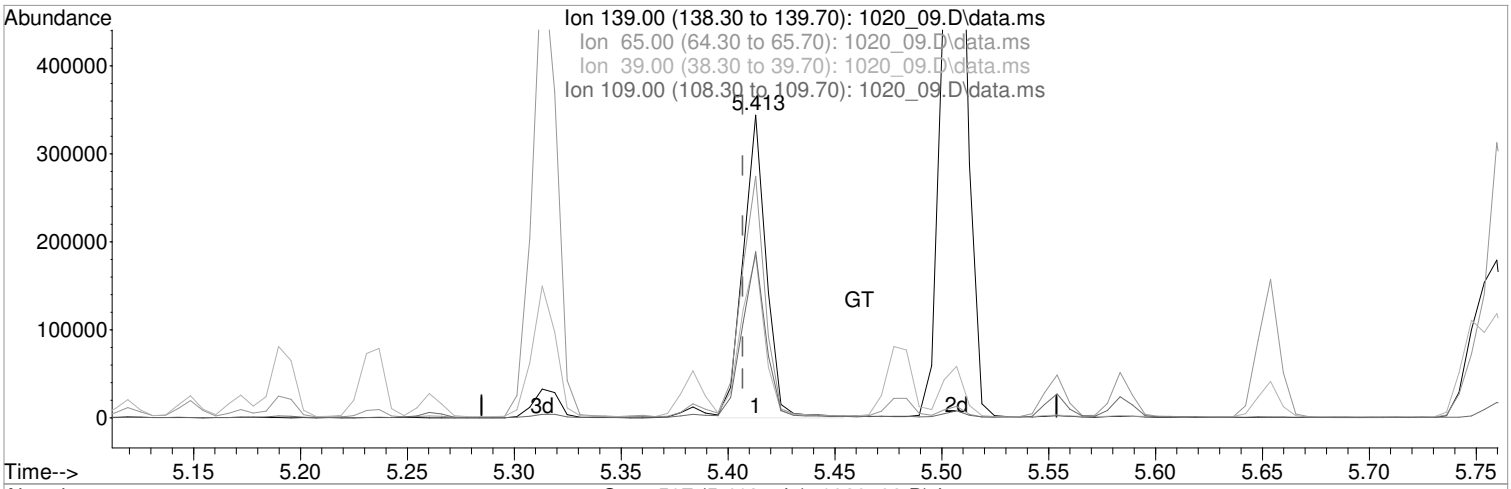
response 270879

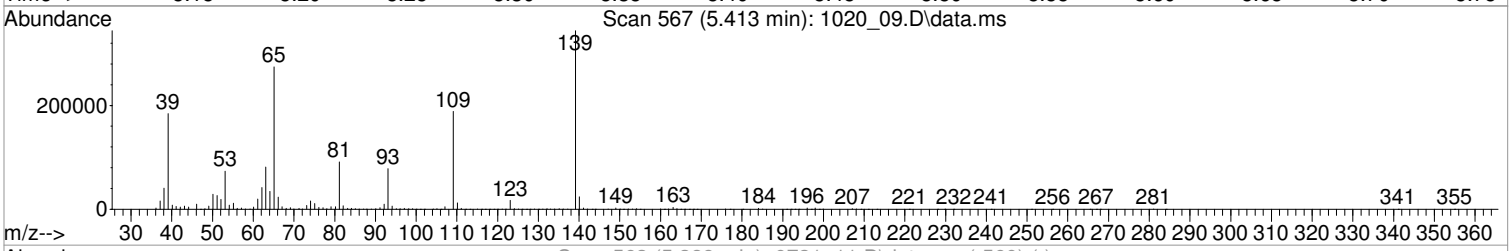
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	78.99
39.00	49.40	53.17
109.00	53.80	54.61

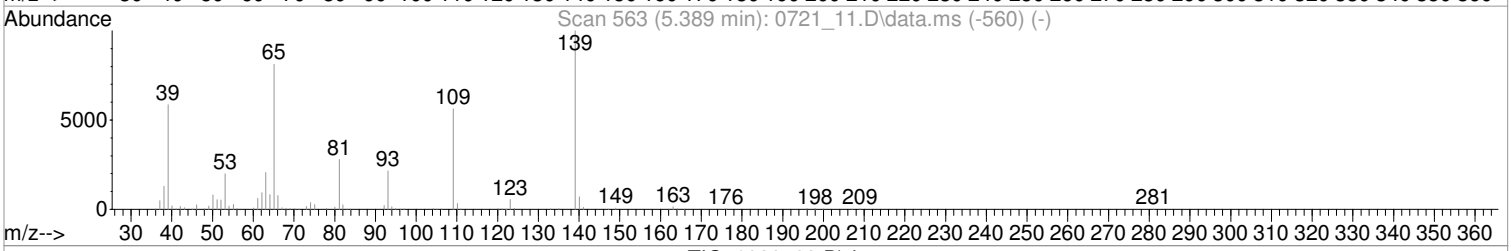
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(63) 4-Nitrophenol (MPT)

5.413min (+0.006) 30212.9170171 ppb m

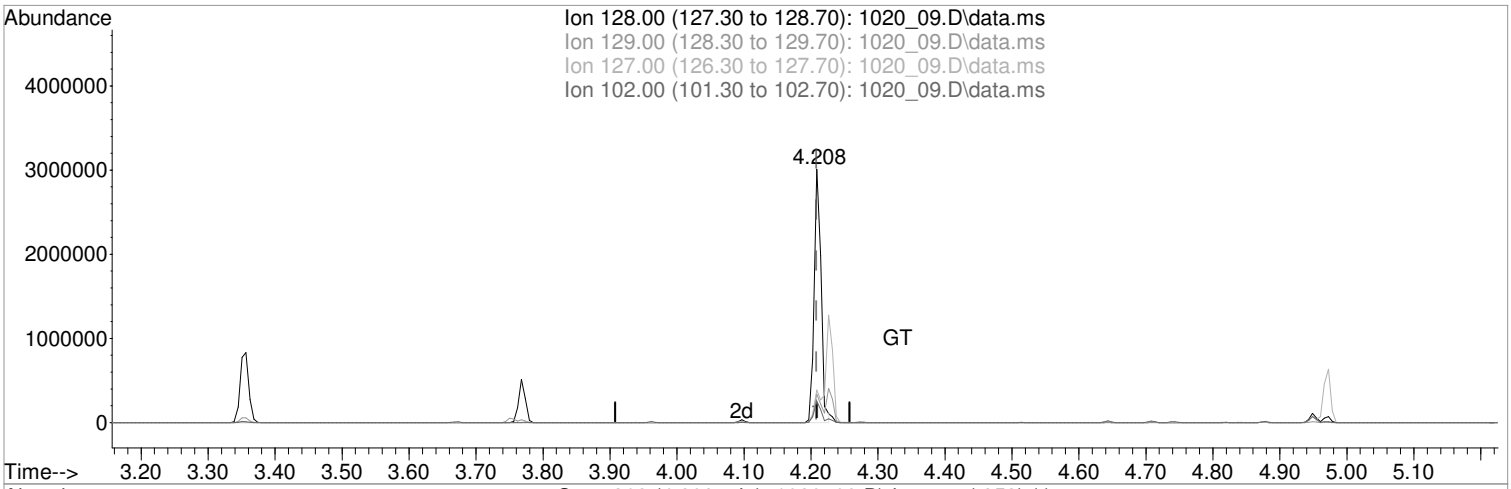
response 259263

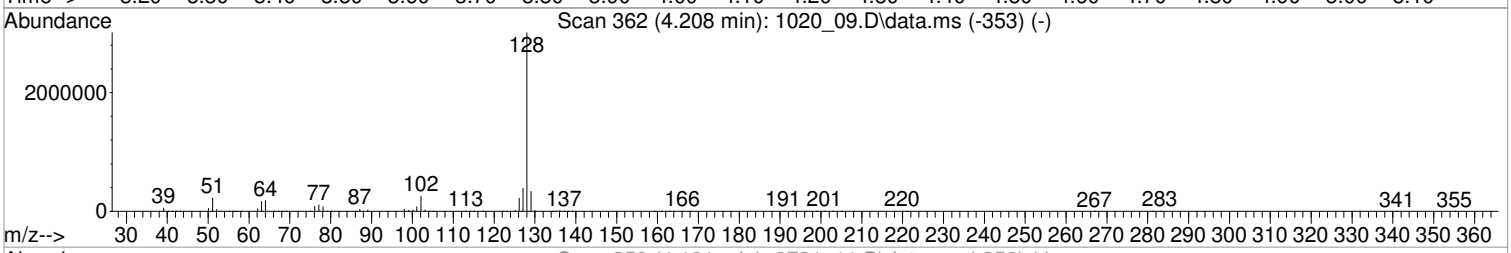
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	79.75
39.00	49.40	53.54
109.00	53.80	54.84

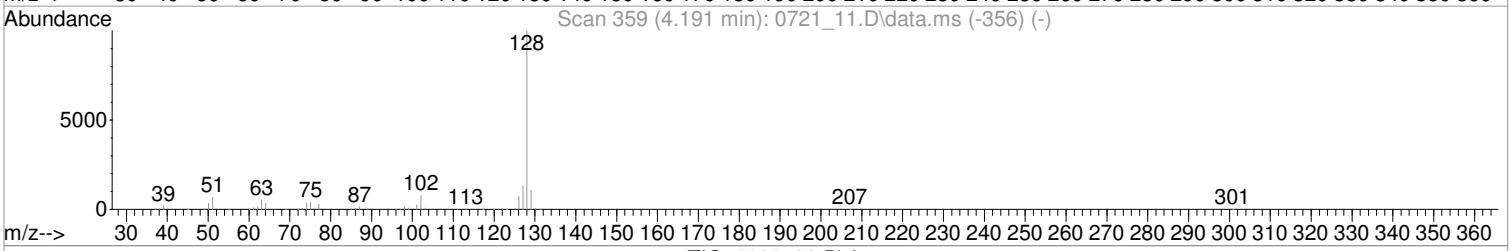
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:09:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 28065.9752403 ppb m

response 2142080

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.21
127.00	13.10	12.93
102.00	8.20	8.44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.468	152	147423	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.197	136	568039	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.360	164	303180	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.476	188	522584	8000.0000000 ppb	0.00
84) Chrysene-d12	9.308	240	623047	8000.0000000 ppb	0.01
94) Perylene-d12	12.017	264	636958	8000.0000000 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.804	112	996117	38637.4291827 ppb	0.00
Spiked Amount 20000.000				Recovery = 193.19%	
7) Phenol-d5	3.239	99	1208689	38804.6161561 ppb	0.00
Spiked Amount 20000.000				Recovery = 194.02%	
24) Nitrobenzene-d5	3.768	82	960389m	39865.1985553 ppb	0.00
Spiked Amount 10000.000				Recovery = 398.65%	
50) 2-Fluorobiphenyl	4.878	172	1991495	36412.4613065 ppb	0.00
Spiked Amount 10000.000				Recovery = 364.12%	
73) 2,4,6-Tribromophenol	5.936	330	362716	43853.2628550 ppb	0.00
Spiked Amount 20000.000				Recovery = 219.27%	
87) p-Terphenyl-d14	7.892	244	3372007	39203.7682065 ppb	0.00
Spiked Amount 10000.000				Recovery = 392.04%	
Target Compounds					Qvalue
2) Pyridine	2.252	79	1078092	38957.7518586 ppb	98
3) N-Nitrosodimethylamine	2.240	42	494334	37081.3197279 ppb	98
5) Aniline	3.292	66	541595	38251.2562541 ppb	100
6) bis(2-Chloroethyl)ether	3.309	93	742214m	31120.1182665 ppb	
8) Phenol	3.245	94	1247231	38775.1292419 ppb	97
10) 2-Chlorophenol	3.356	128	1002737	37473.5165795 ppb	96
11) n-Decane	3.356	41	518618	36774.2878174 ppb	98
12) 1,3-Dichlorobenzene	3.439	146	1111048	38112.3286389 ppb	99
13) 1,4-Dichlorobenzene	3.474	146	1111289	37495.6399702 ppb	98
14) Benzyl Alcohol	3.527	79	784566	39261.6930604 ppb	99
15) 1,2-Dichlorobenzene	3.562	146	1051754	37849.6007273 ppb	98
16) bis(2-Chloroisopropyl)...	3.597	121	335012	35617.4732663 ppb	96
17) 2,2-oxybis(1-chloropro...	3.597	121	335012	35617.4732663 ppb	96
18) 2-Methylphenol	3.568	108	888120	37525.9460908 ppb	98
19) Hexachloroethane	3.750	117	409783	37882.5556295 ppb	96
20) N-Nitrosodi-n-propylamine	3.674	70	662955	39029.5638760 ppb	98
21) 3&4-Methyl phenol	3.656	107	1022263	38329.7761531 ppb	99
25) Nitrobenzene	3.779	77	964482	38817.2711735 ppb	95
26) Isophorone	3.915	82	1751149	38431.1886679 ppb	98
27) 2-Nitrophenol	3.962	139	517256	41167.5507216 ppb	97
28) 2,4-Dimethylphenol	3.962	107	895467	36914.2490718 ppb	96
29) bis(2-Chlorethoxy)methane	4.026	93	1074946	37984.8191337 ppb	95
30) 2,4-Dichlorophenol	4.097	162	792336	38044.6443688 ppb	92
32) 1,2,4-Trichlorobenzene	4.155	180	887598	37514.0740614 ppb	98
34) Naphthalene	4.208	128	2839367m	37172.3036023 ppb	
35) 4-Chloroaniline	4.226	65	325427	37403.0681345 ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	508442	36694.4432272 ppb	98

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

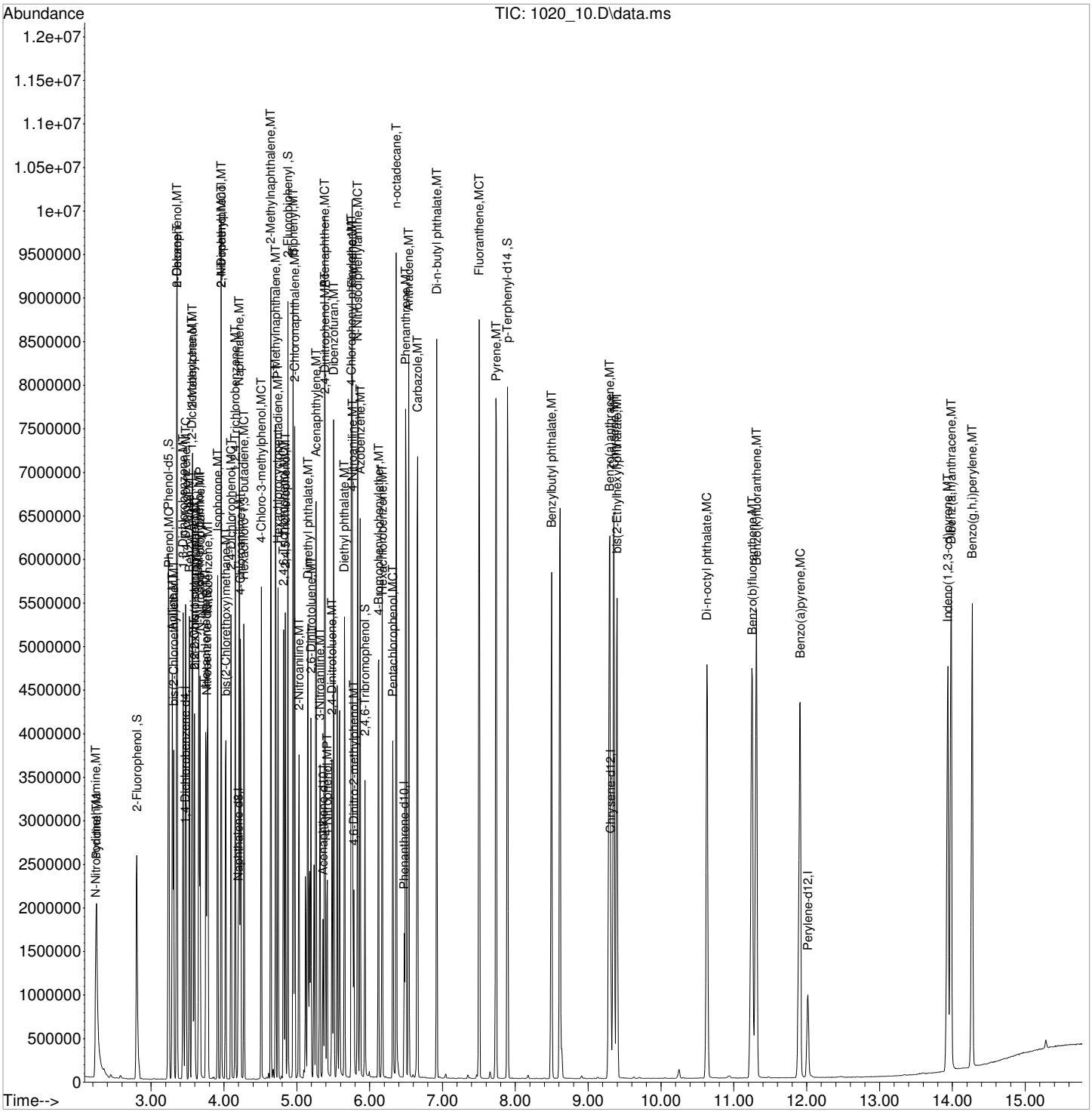
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	809779	39456.7643472	ppb		94
41)	2-Methylnaphthalene	4.643	142	1859160	38293.2281813	ppb		100
42)	1-Methylnaphthalene	4.708	142	1728796	38097.1999464	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	681625	37357.6764811	ppb		98
48)	2,4,6-Trichlorophenol	4.819	196	571175	38049.9868993	ppb		96
49)	2,4,5-Trichlorophenol	4.843	196	611609	41283.3008735	ppb		95
51)	Biphenyl	4.949	154	2153667	36122.5157541	ppb		99
52)	2-Chloronaphthalene	4.972	162	1705906	36455.2514070	ppb		99
53)	2-Nitroaniline	5.031	138	615309	43299.8848056	ppb		100
54)	Acenaphthylene	5.266	152	2723388	38054.5761180	ppb		100
55)	Dimethyl phthalate	5.154	163	1963080	39799.2370004	ppb		96
56)	2,6-Dinitrotoluene	5.195	165	468623	43365.5920202	ppb		98
57)	3-Nitroaniline	5.319	138	518123	43619.3371293	ppb		91
58)	Acenaphthene	5.383	153	1758270	36953.4254663	ppb		99
59)	2,4-Dinitrophenol	5.389	184	217351	55945.9129173	ppb	#	8
60)	Dibenzofuran	5.507	168	2426919	36812.2053070	ppb		99
61)	2,4-Dinitrotoluene	5.483	165	593367	43777.1101116	ppb		92
63)	4-Nitrophenol	5.419	139	368824	42366.9916949	ppb		99
64)	Fluorene	5.759	166	1978492	36684.3792946	ppb		97
65)	4-Chlorophenyl-phenyle...	5.748	204	979388	36459.1362572	ppb		94
66)	Diethyl phthalate	5.654	149	1687838	34328.2998846	ppb		99
67)	4-Nitroaniline	5.765	138	422399	37585.2174898	ppb		99
68)	Azobenzene	5.871	77	1879749	36886.5175556	ppb		98
71)	4,6-Dinitro-2-methylph...	5.783	198	275039	54307.3996239	ppb		85
72)	N-Nitrosodiphenylamine	5.836	169	1626544	38949.4081676	ppb		99
74)	4-Bromophenyl-phenylether	6.124	248	614393	38852.1539500	ppb		91
75)	Hexachlorobenzene	6.177	284	771165	39474.7304392	ppb		98
76)	n-octadecane	6.365	55	294137	40796.4678176	ppb		98
77)	Pentachlorophenol	6.318	266	401289	47974.9641330	ppb		97
78)	Phenanthrene	6.494	178	2657943	37068.0833953	ppb		96
79)	Anthracene	6.535	178	2797453	38236.9934927	ppb		100
80)	Carbazole	6.658	167	2778314	39865.8885628	ppb		99
81)	Di-n-butyl phthalate	6.923	149	3452751	41334.2967279	ppb		99
83)	Fluoranthene	7.505	202	3404143	40437.5331382	ppb		100
86)	Pyrene	7.740	202	3522440	37265.6420172	ppb		99
88)	Benzylbutyl phthalate	8.497	149	1568257	40220.9609394	ppb		100
90)	Benzo(a)anthracene	9.297	228	3620207	38417.4578720	ppb		99
91)	Chrysene	9.355	228	3406848	38024.2981092	ppb		100
92)	bis(2-Ethylhexyl)phtha...	9.396	149	2168093	39867.3399511	ppb		98
93)	Di-n-octyl phthalate	10.630	149	3826953	42225.5583934	ppb		100
95)	Benzo(b)fluoranthene	11.253	252	3893949	41118.7689091	ppb		100
96)	Benzo(k)fluoranthene	11.312	252	3758982	40044.3721860	ppb		99
97)	Benzo(a)pyrene	11.911	252	3347149	40611.6168847	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.938	276	3100767	36391.2125257	ppb		99
99)	Dibenz(a,h)anthracene	13.985	278	3217087m	37008.8188101	ppb		
100)	Benzo(g,h,i)perylene	14.273	276	3022084	34455.2008407	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

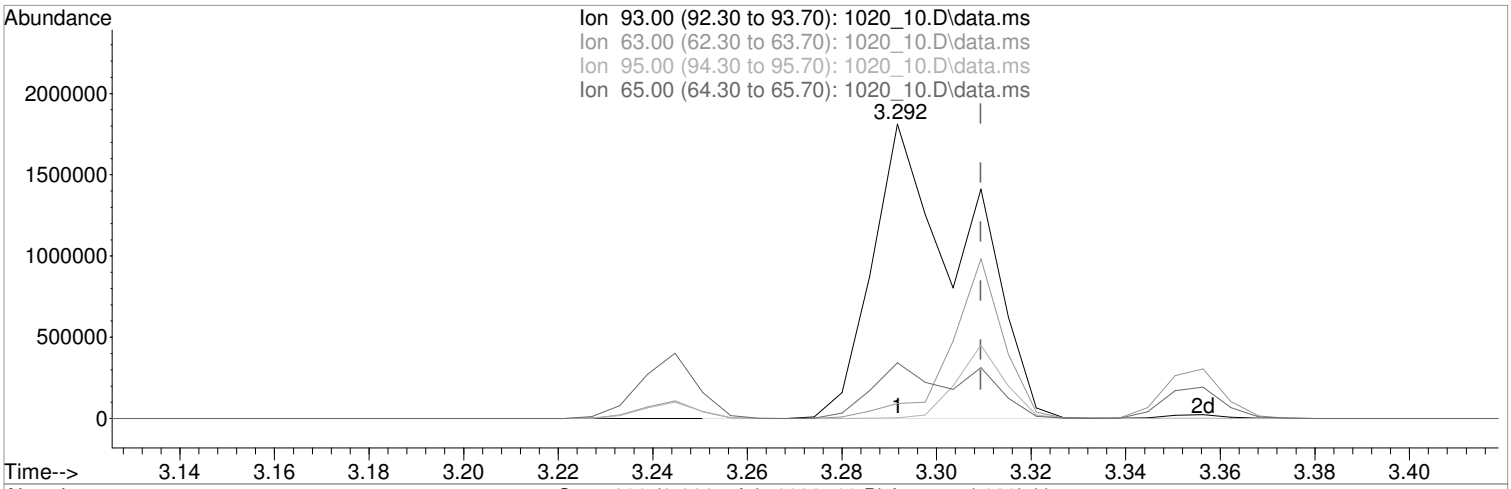
Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

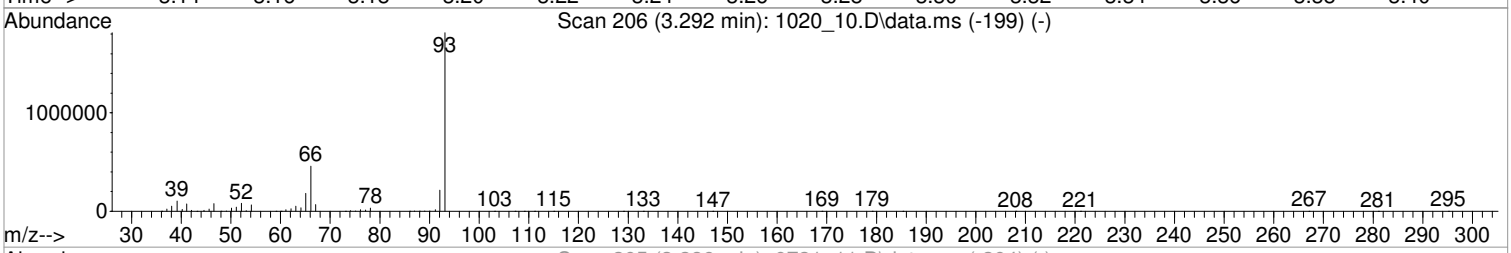


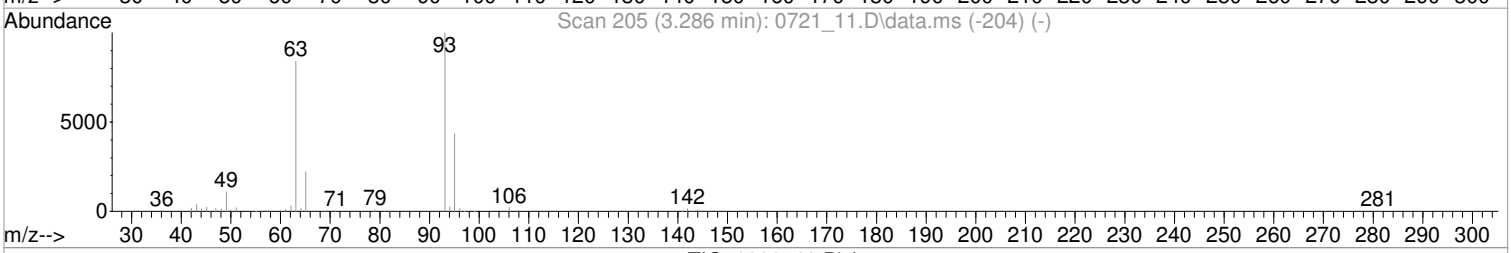
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 103824.7688856 ppb

Qvalue = 41

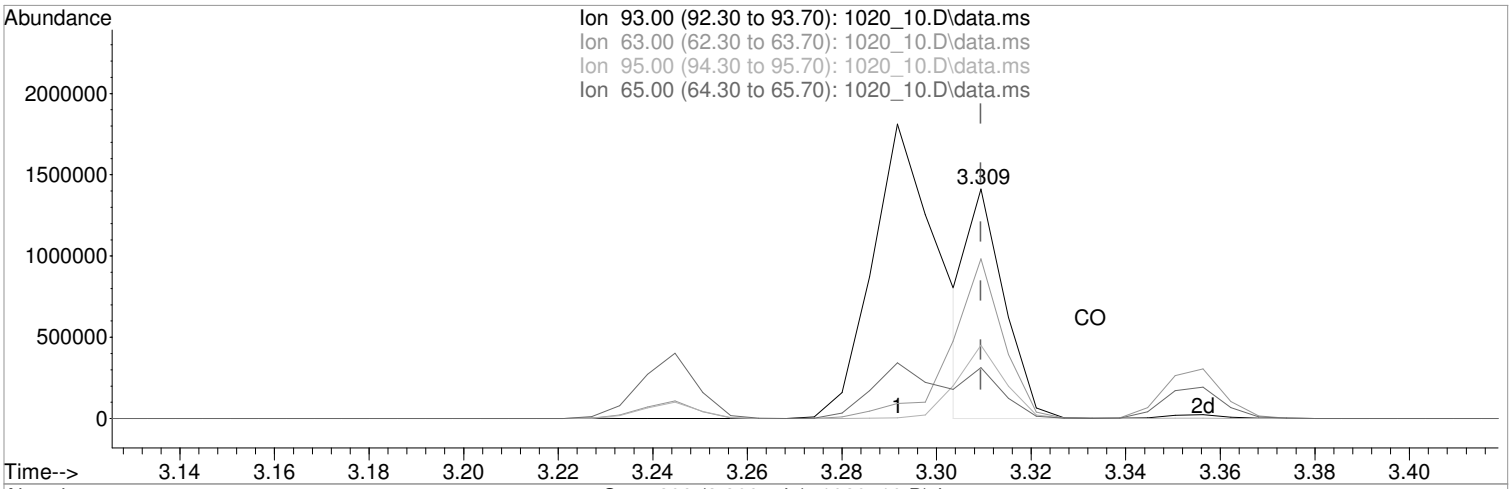
response 2476218

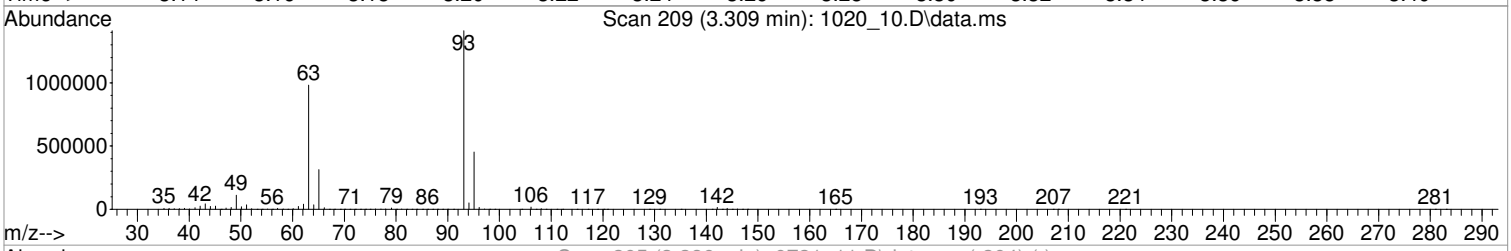
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.83#
95.00	32.50	0.24#
65.00	21.90	18.74

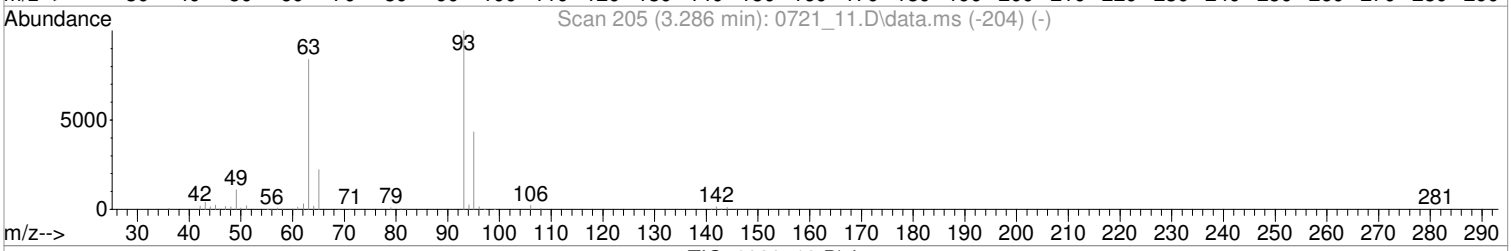
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (0.000) 31120.1182665 ppb m

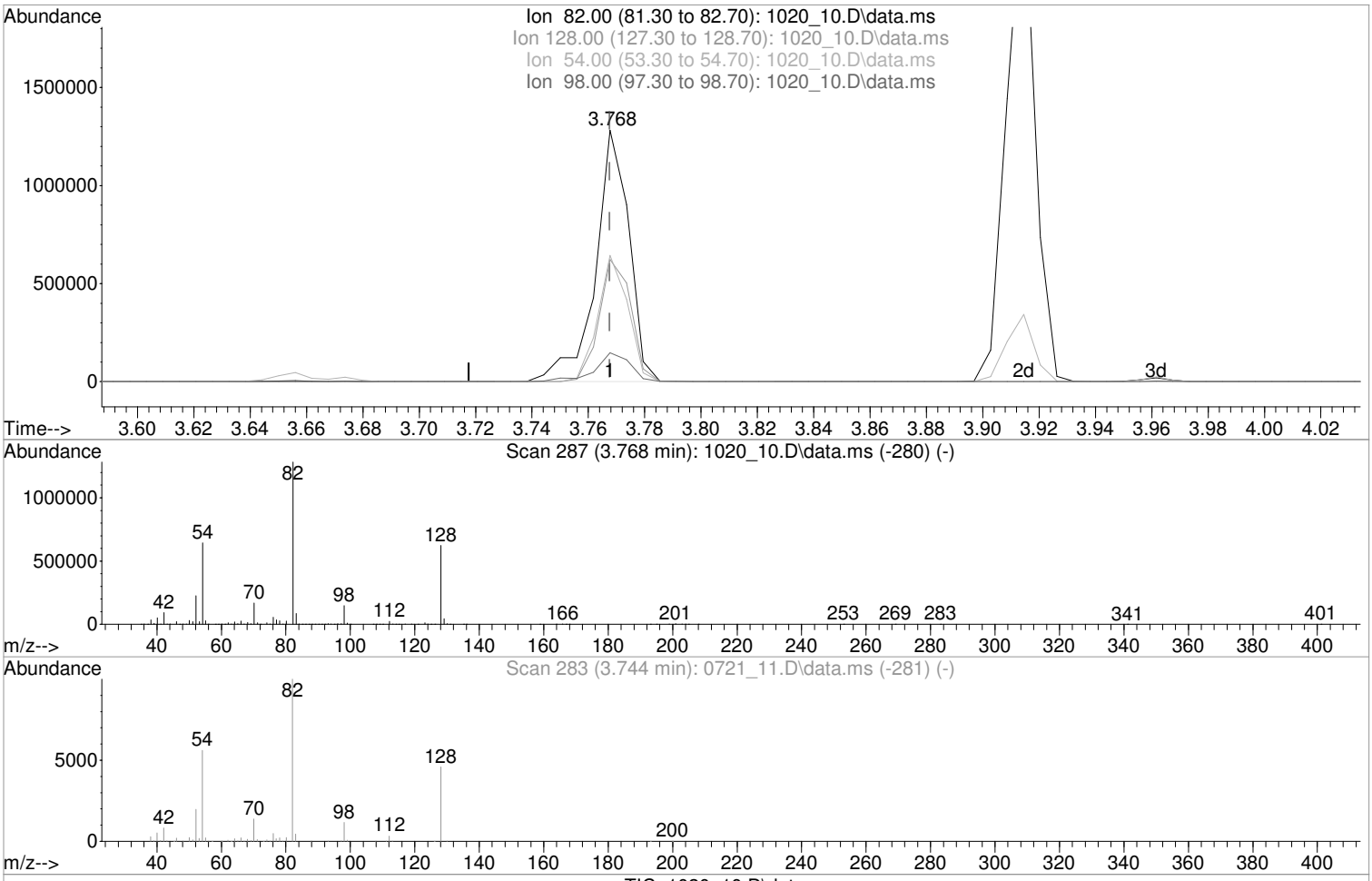
response 742214

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.58
95.00	32.50	32.00
65.00	21.90	22.19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration



TIC: 1020_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 43911.2055729 ppb

Qvalue = 97

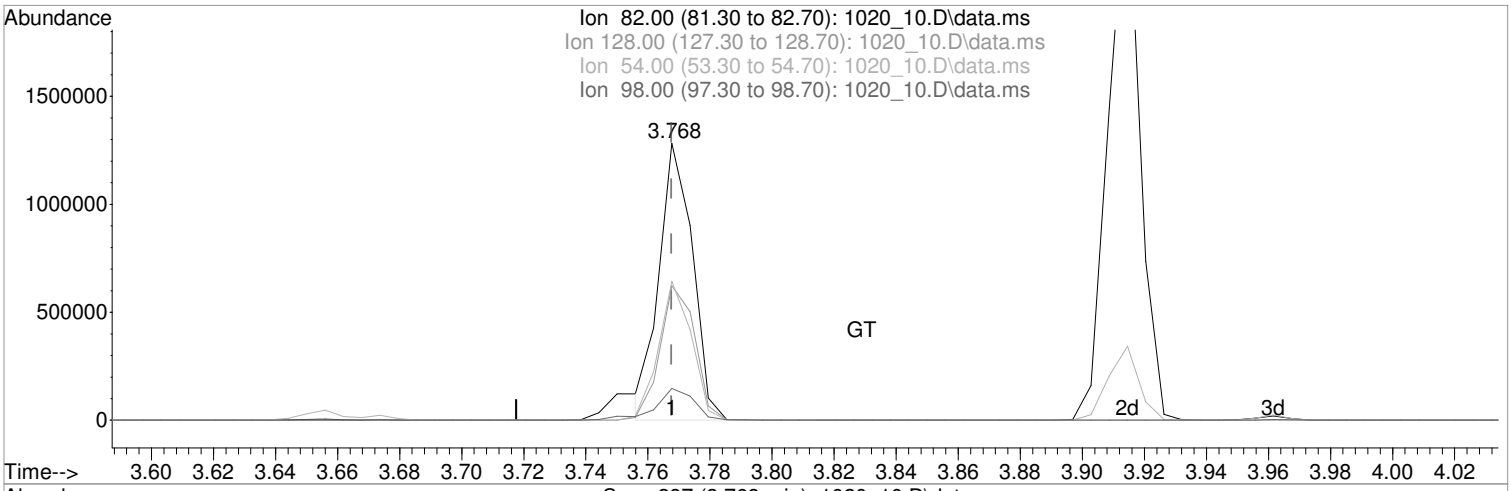
response 1057861

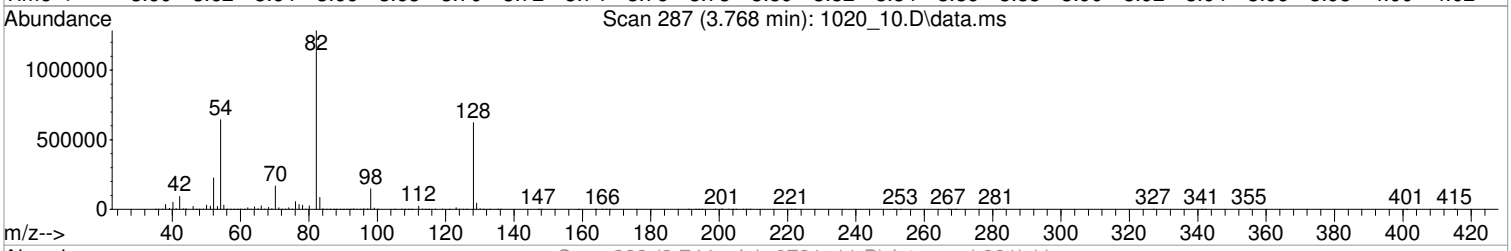
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.55
54.00	48.90	50.15
98.00	12.10	11.47

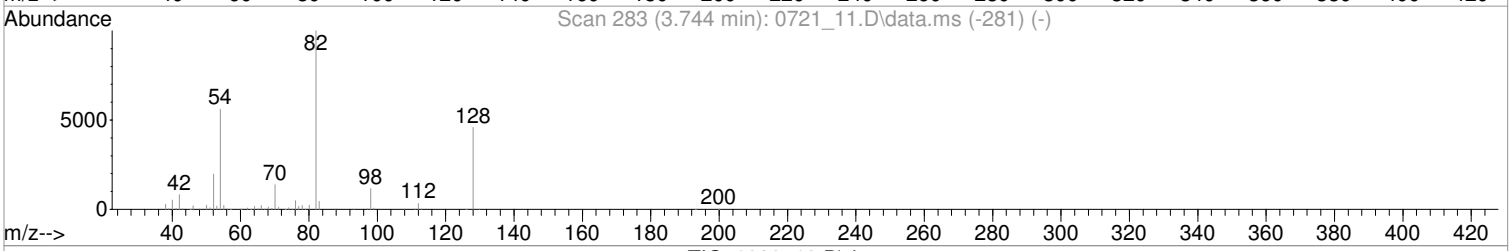
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 39865.1985553 ppb m

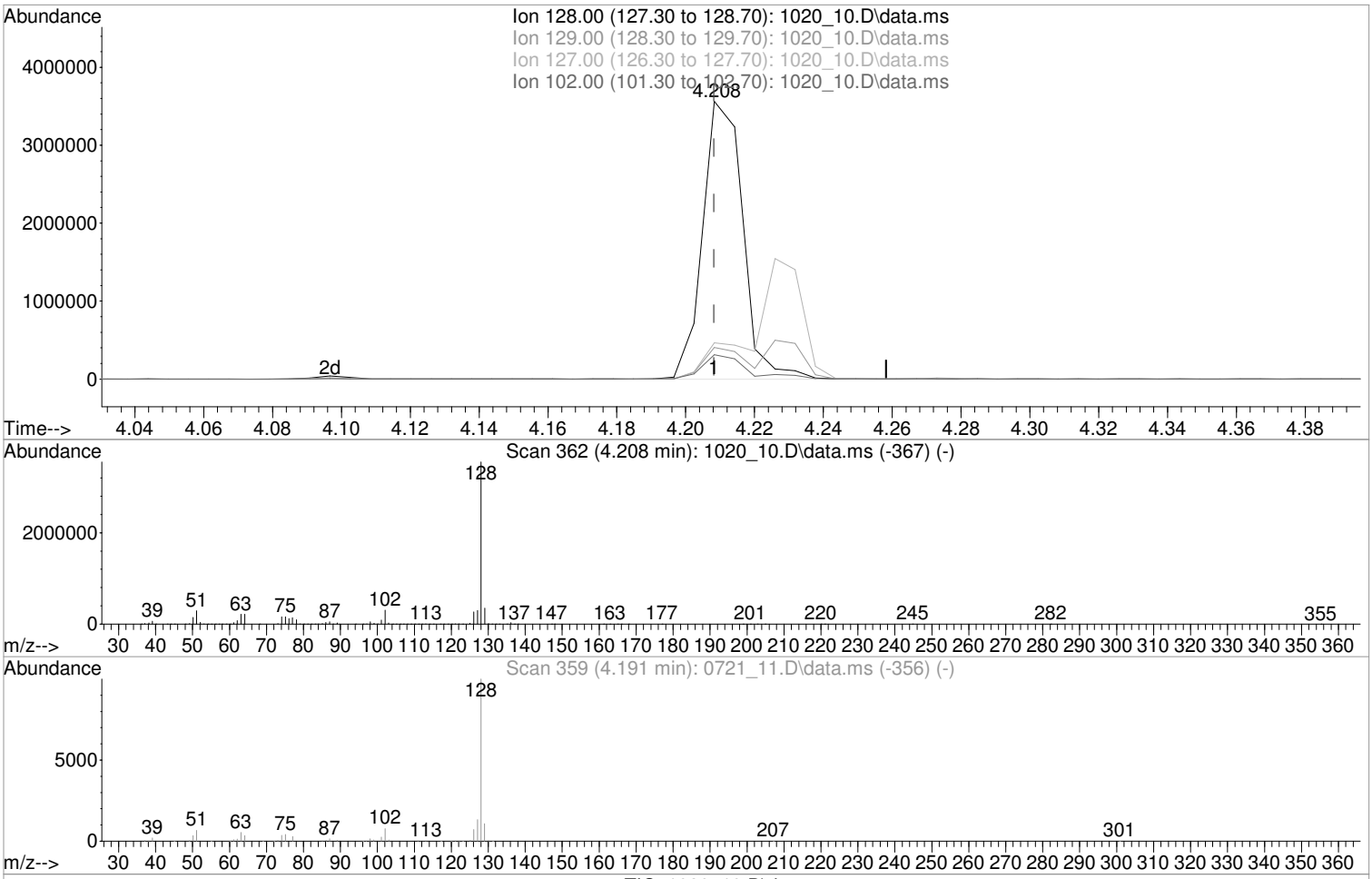
response 960389

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.53
54.00	48.90	50.16
98.00	12.10	11.49

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration



TIC: 1020_10.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 37718.5048079 ppb

Qvalue = 99

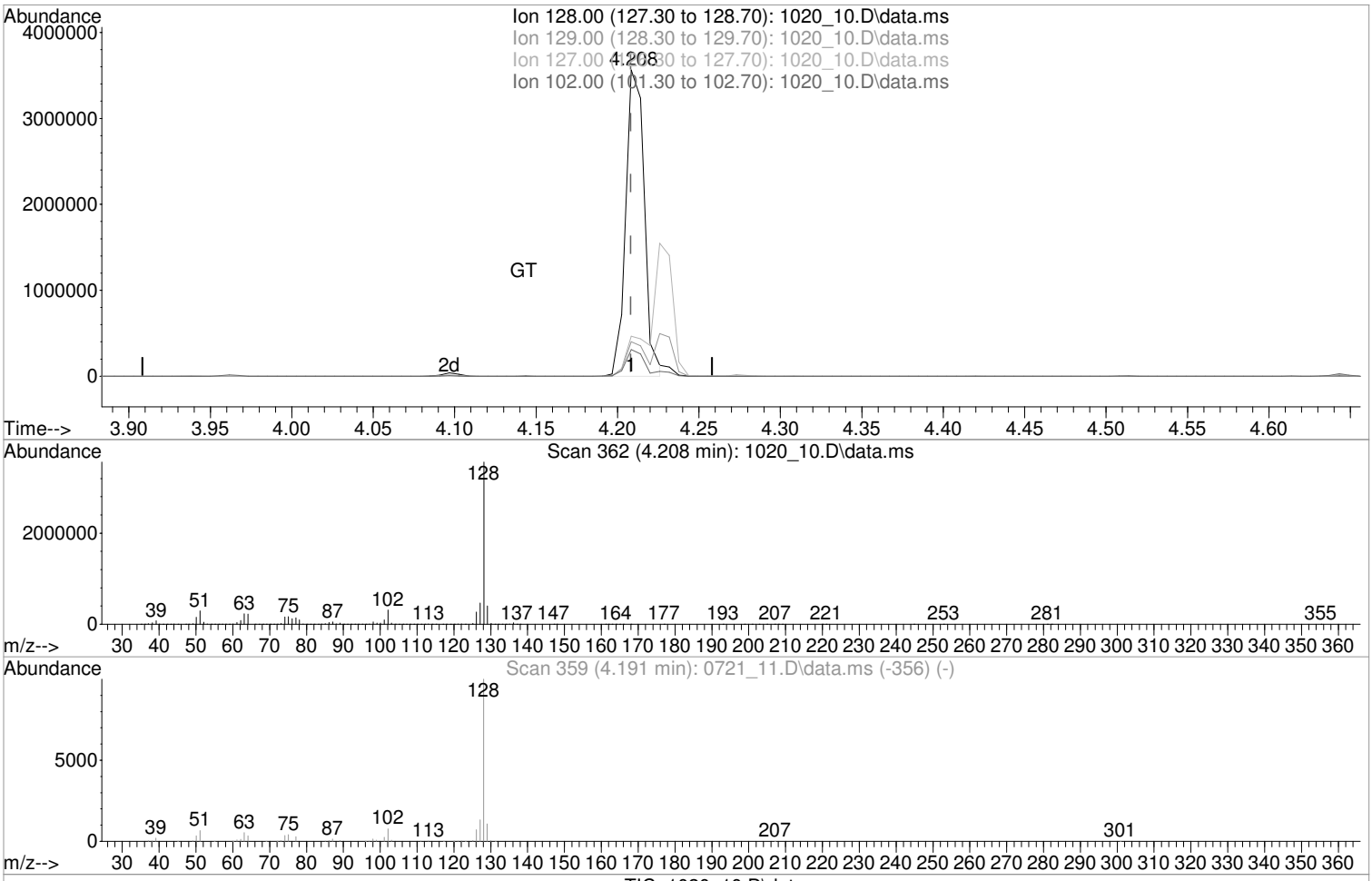
response 2881088

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.30
127.00	13.10	13.07
102.00	8.20	8.71

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration



TIC: 1020_10.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 37172.3036023 ppb m

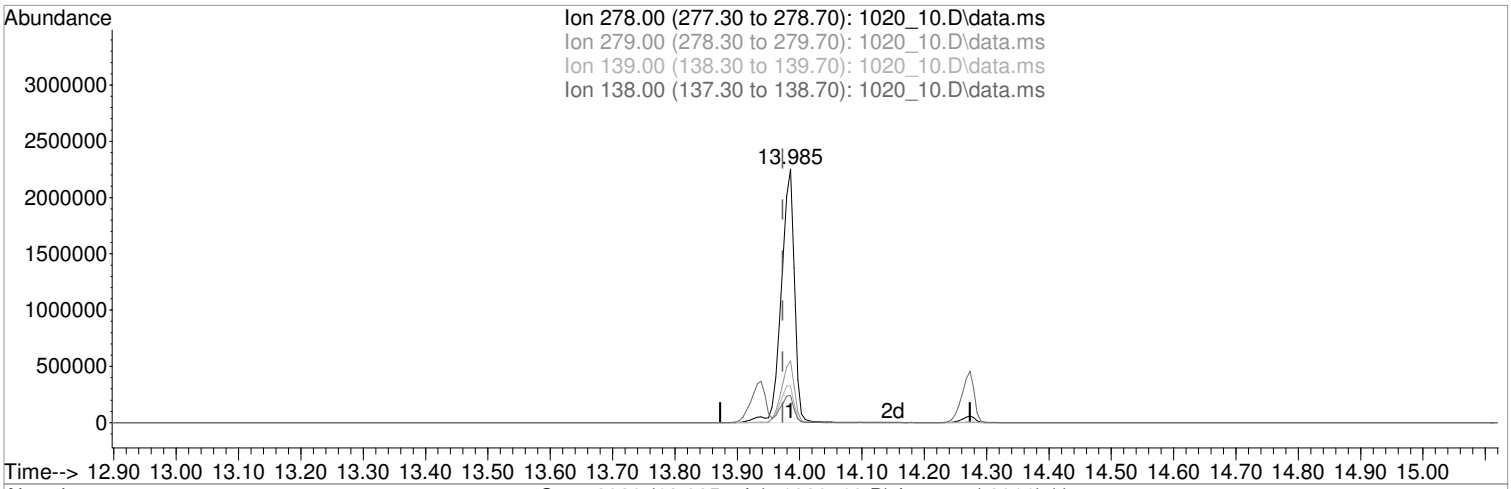
response 2839367

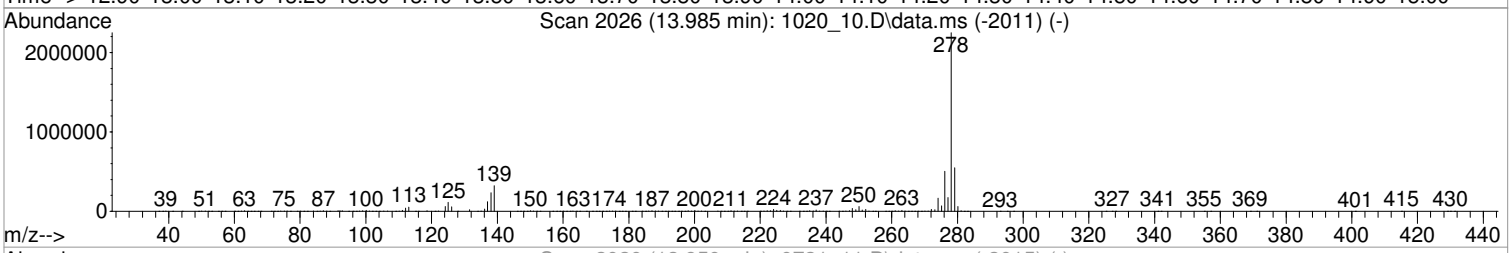
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.31
127.00	13.10	13.07
102.00	8.20	8.71

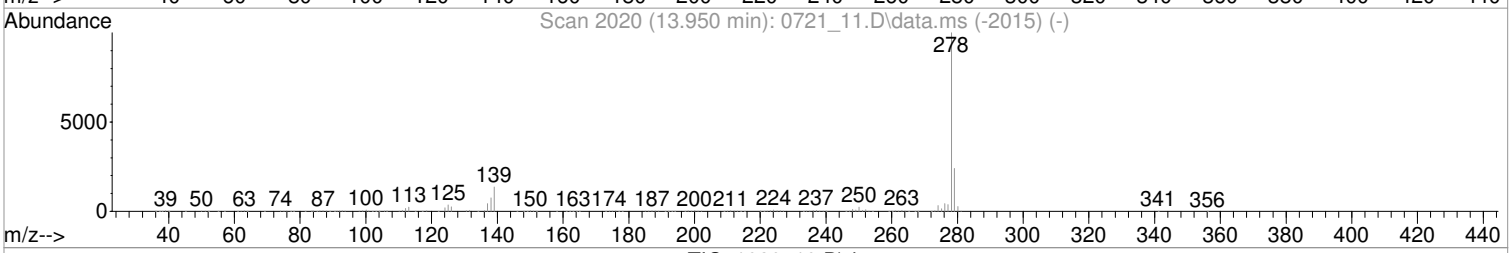
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.985min (+0.012) 37921.8086970 ppb

Qvalue = 98

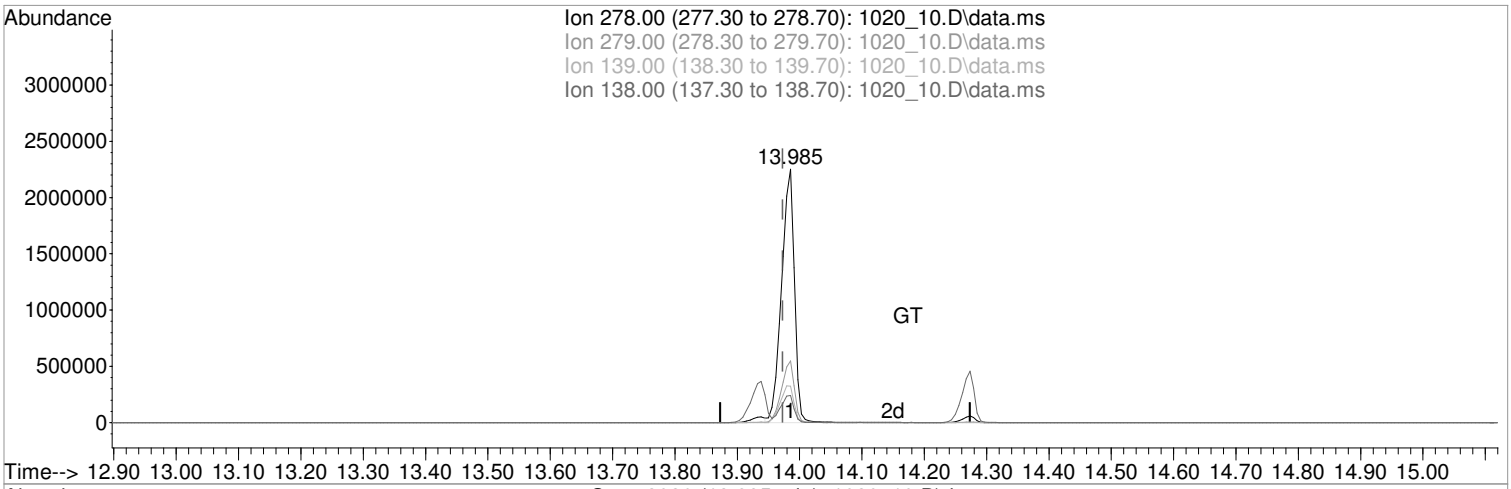
response 3296451

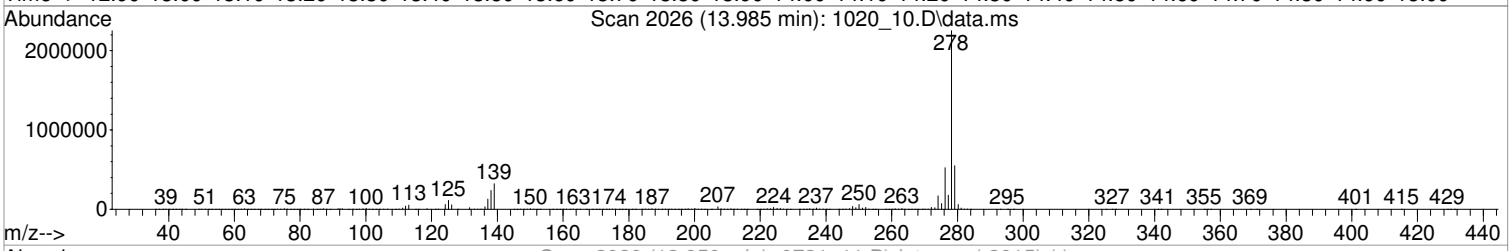
Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.42
139.00	15.10	14.34
138.00	10.40	10.64

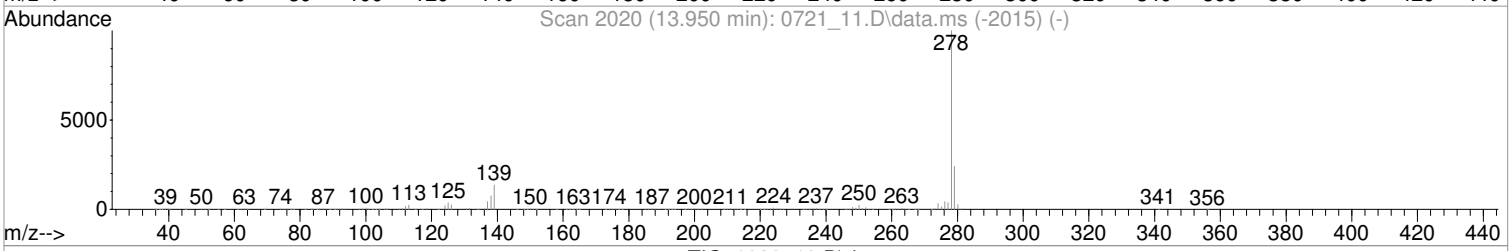
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.985min (+0.012) 37008.8188101 ppb m

response 3217087

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.43
139.00	15.10	14.34
138.00	10.40	10.67

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.468	152	149315	8000.0000000 ppb	# 0.00
23) Naphthalene-d8	4.197	136	575243	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.360	164	310874	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.476	188	527948	8000.0000000 ppb	0.00
84) Chrysene-d12	9.308	240	627119	8000.0000000 ppb	0.01
94) Perylene-d12	12.017	264	623100	8000.0000000 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.804	112	1255600	48320.2931123 ppb	0.00
Spiked Amount 20000.000				Recovery = 241.60%	
7) Phenol-d5	3.239	99	1534314	48843.0693129 ppb	0.00
Spiked Amount 20000.000				Recovery = 244.22%	
24) Nitrobenzene-d5	3.768	82	1217199m	49916.5185056 ppb	0.00
Spiked Amount 10000.000				Recovery = 499.17%	
50) 2-Fluorobiphenyl	4.878	172	2456388	44369.4804596 ppb	0.00
Spiked Amount 10000.000				Recovery = 443.69%	
73) 2,4,6-Tribromophenol	5.936	330	452712	53442.4433417 ppb	0.00
Spiked Amount 20000.000				Recovery = 267.21%	
87) p-Terphenyl-d14	7.898	244	4201645	48670.5559733 ppb	0.00
Spiked Amount 10000.000				Recovery = 486.71%	
Target Compounds					Qvalue
2) Pyridine	2.252	79	1360229	48711.4992377 ppb	99
3) N-Nitrosodimethylamine	2.246	42	634439	47482.8919860 ppb	97
5) Aniline	3.292	66	682068	47860.9632339 ppb	99
6) bis(2-Chloroethyl)ether	3.310	93	984114m	42074.1740402 ppb	
8) Phenol	3.245	94	1575009	48557.3758779 ppb	98
10) 2-Chlorophenol	3.357	128	1240842	46201.0870321 ppb	98
11) n-Decane	3.351	41	645870	45744.1848235 ppb	98
12) 1,3-Dichlorobenzene	3.439	146	1390338	47408.1110650 ppb	98
13) 1,4-Dichlorobenzene	3.474	146	1400759	47084.8130103 ppb	99
14) Benzyl Alcohol	3.527	79	991750	49130.3909298 ppb	99
15) 1,2-Dichlorobenzene	3.562	146	1315593	47106.2729860 ppb	97
16) bis(2-Chloroisopropyl)...	3.597	121	423154	45124.6955076 ppb	96
17) 2,2-oxybis(1-chloropro...	3.597	121	423154	45124.6955076 ppb	96
18) 2-Methylphenol	3.574	108	1120102	47144.8022406 ppb	99
19) Hexachloroethane	3.750	117	522767	48078.6262208 ppb	96
20) N-Nitrosodi-n-propylamine	3.674	70	837751	48864.5855997 ppb	98
21) 3&4-Methyl phenol	3.656	107	1292296	48127.7776344 ppb	98
25) Nitrobenzene	3.780	77	1218357	48626.2309171 ppb	94
26) Isophorone	3.915	82	2178787	47483.4705317 ppb	100
27) 2-Nitrophenol	3.962	139	651037	50953.5924135 ppb	97
28) 2,4-Dimethylphenol	3.962	107	1120870	46135.9255193 ppb	95
29) bis(2-Chlorethoxy)methane	4.026	93	1357332	47706.0288286 ppb	96
30) 2,4-Dichlorophenol	4.097	162	994367	47478.9550224 ppb	91
32) 1,2,4-Trichlorobenzene	4.156	180	1118432	47096.3587211 ppb	98
34) Naphthalene	4.208	128	3512397m	45765.5645619 ppb	
35) 4-Chloroaniline	4.226	65	408473	46794.0444919 ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	640643	46201.8509604 ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration

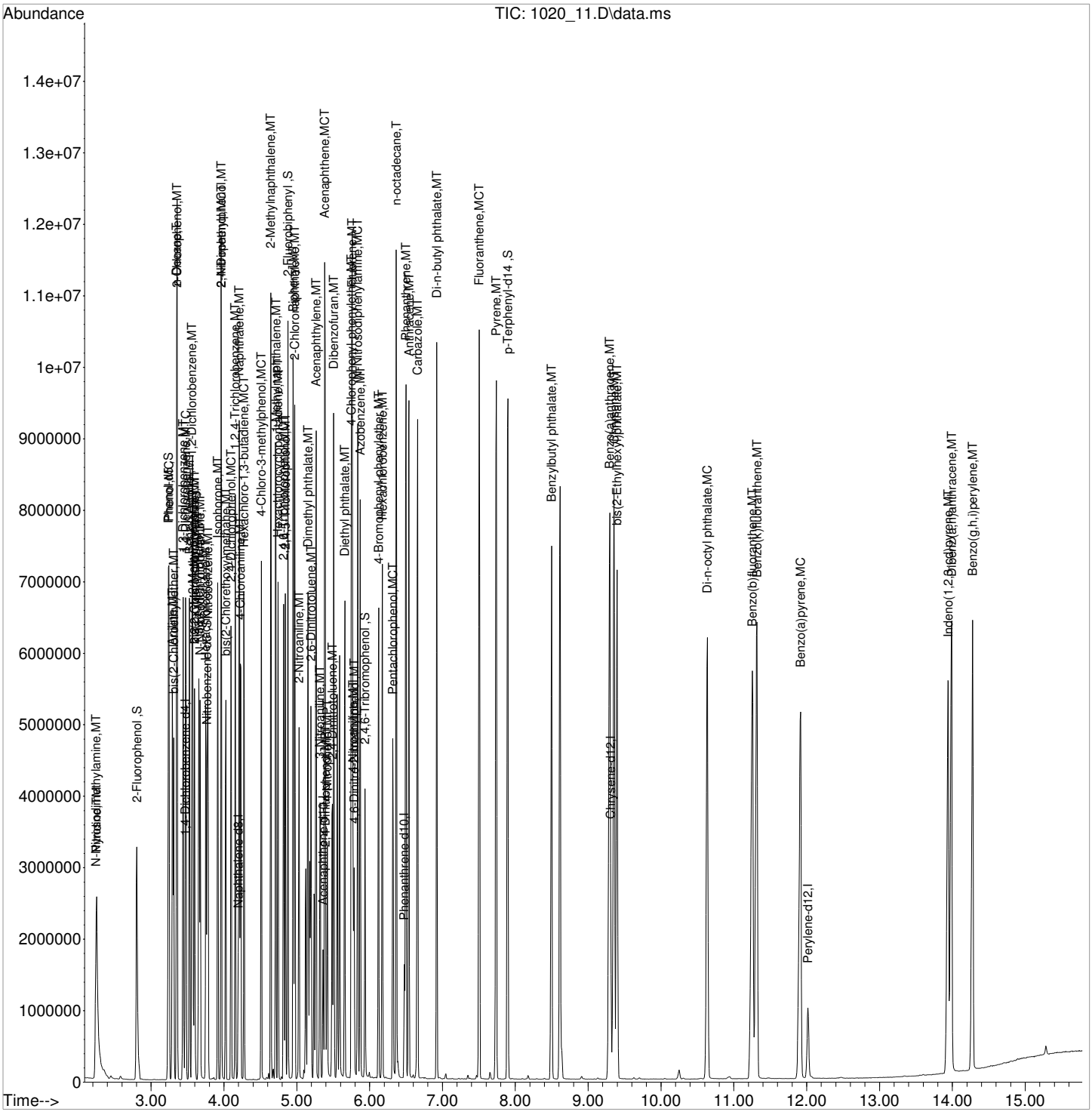
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	1034553	49874.4269933	ppb		94
41)	2-Methylnaphthalene	4.643	142	2330140	47683.6434899	ppb		99
42)	1-Methylnaphthalene	4.714	142	2189379	47968.7590234	ppb		100
47)	Hexachlorocyclopentadiene	4.743	237	853326	46045.0885709	ppb		98
48)	2,4,6-Trichlorophenol	4.820	196	722536	47271.1438612	ppb		95
49)	2,4,5-Trichlorophenol	4.843	196	769185	50403.6030187	ppb		95
51)	Biphenyl	4.949	154	2690855	44633.6176355	ppb		99
52)	2-Chloronaphthalene	4.972	162	2136127	45090.1214439	ppb		99
53)	2-Nitroaniline	5.031	138	793169	53800.5835492	ppb		99
54)	Acenaphthylene	5.266	152	3384018	46438.0703890	ppb		98
55)	Dimethyl phthalate	5.154	163	2470283	48877.7392541	ppb		99
56)	2,6-Dinitrotoluene	5.196	165	599629	53472.6087735	ppb		98
57)	3-Nitroaniline	5.319	138	648665	52578.1131070	ppb	#	84
58)	Acenaphthene	5.384	153	2220014	46003.6496241	ppb		99
59)	2,4-Dinitrophenol	5.395	184	284212	67501.1178728	ppb	#	1
60)	Dibenzofuran	5.507	168	3041276	45507.3275435	ppb		99
61)	2,4-Dinitrotoluene	5.489	165	746559	53001.0717579	ppb		97
63)	4-Nitrophenol	5.419	139	484508	53823.2177799	ppb		92
64)	Fluorene	5.760	166	2477853	45343.1776659	ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	1229886	45223.0330929	ppb		92
66)	Diethyl phthalate	5.660	149	2146604	43458.7305325	ppb		98
67)	4-Nitroaniline	5.771	138	554983	48579.3512449	ppb		100
68)	Azobenzene	5.871	77	2339464	45274.7988258	ppb		98
71)	4,6-Dinitro-2-methylph...	5.789	198	372771	69315.2280142	ppb		92
72)	N-Nitrosodiphenylamine	5.836	169	2030643	48313.2409899	ppb		99
74)	4-Bromophenyl-phenylether	6.124	248	764069	48023.1241059	ppb		95
75)	Hexachlorobenzene	6.177	284	973250	49405.6616790	ppb		98
76)	n-octadecane	6.365	55	367145	50262.2439179	ppb		98
77)	Pentachlorophenol	6.318	266	527449	60688.4625004	ppb		96
78)	Phenanthrene	6.500	178	3353379	46781.4414266	ppb		99
79)	Anthracene	6.541	178	3530553	48069.7422115	ppb		100
80)	Carbazole	6.659	167	3393686	48224.1744075	ppb		99
81)	Di-n-butyl phthalate	6.923	149	4139637	48821.1342573	ppb		99
83)	Fluoranthene	7.505	202	4181986	49096.0198585	ppb		99
86)	Pyrene	7.740	202	4346418	46134.8719310	ppb		98
88)	Benzylbutyl phthalate	8.498	149	1987656	50606.3127632	ppb		99
90)	Benzo(a)anthracene	9.297	228	4557465	48322.6763727	ppb		100
91)	Chrysene	9.355	228	4298961	48008.4939884	ppb		98
92)	bis(2-Ethylhexyl)phtha...	9.397	149	2736228	50011.3175904	ppb		99
93)	Di-n-octyl phthalate	10.636	149	4847030	52714.5521562	ppb		99
95)	Benzo(b)fluoranthene	11.253	252	4787714	51475.3464288	ppb		99
96)	Benzo(k)fluoranthene	11.318	252	4724960	51446.2361145	ppb		99
97)	Benzo(a)pyrene	11.917	252	4146402	51315.9142490	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.944	276	3836172	46624.2983789	ppb		100
99)	Dibenz(a,h)anthracene	13.991	278	3973229m	47228.4286596	ppb		
100)	Benzo(g,h,i)perylene	14.279	276	3741989	44492.8650592	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

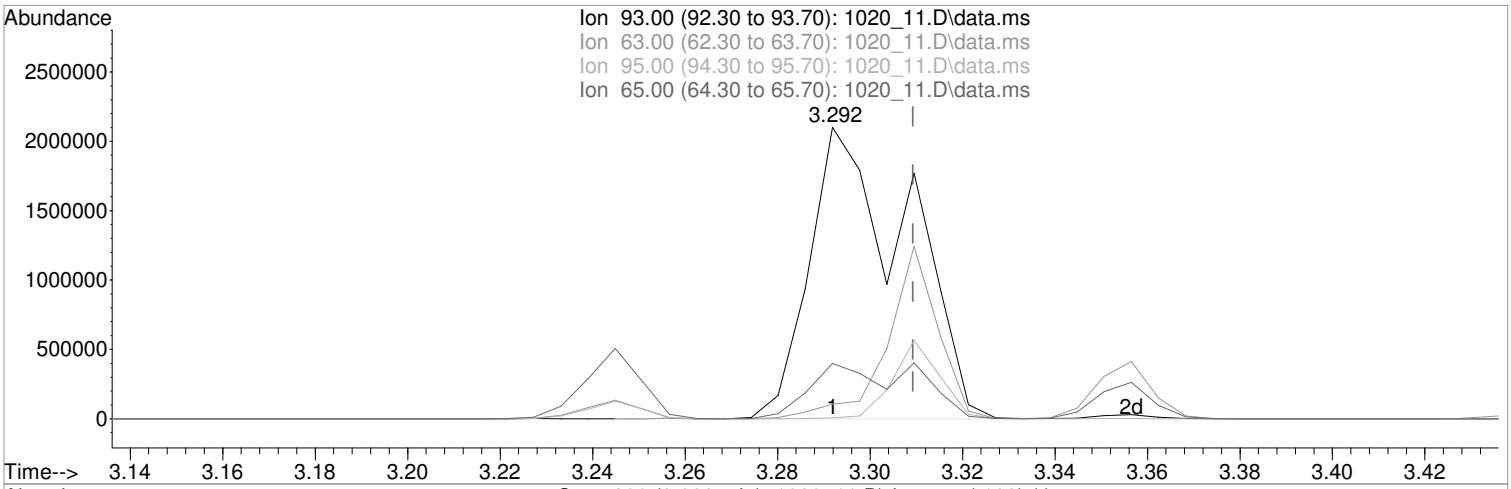
Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration

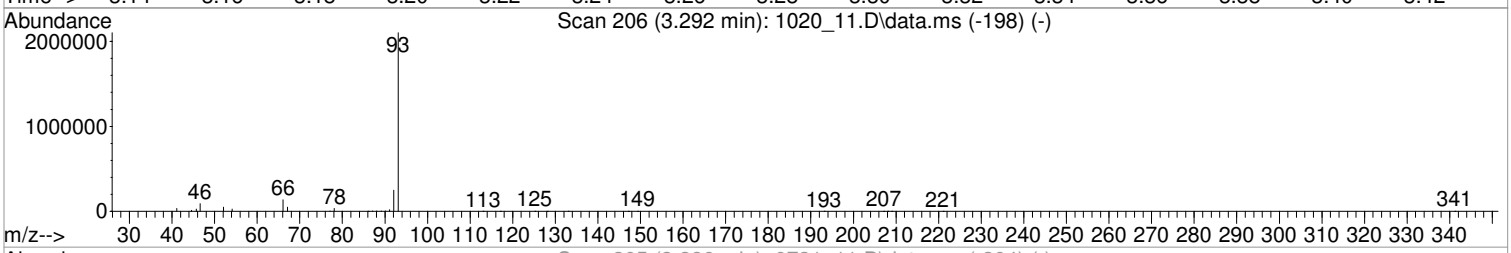


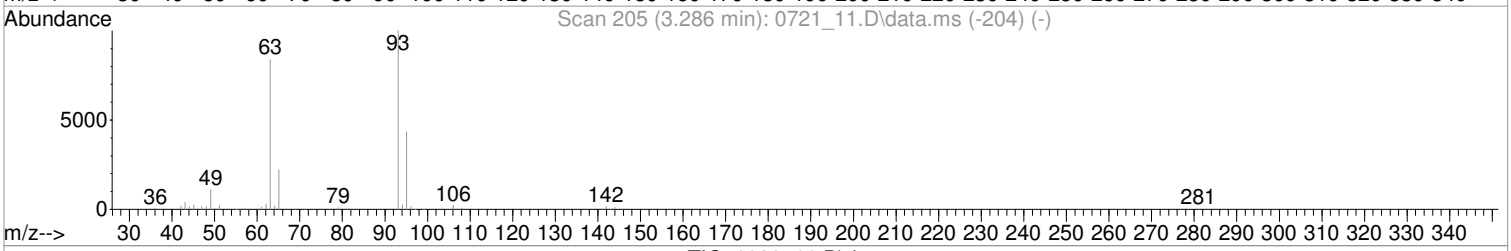
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.017) 132296.7048644 ppb

Qvalue = 41

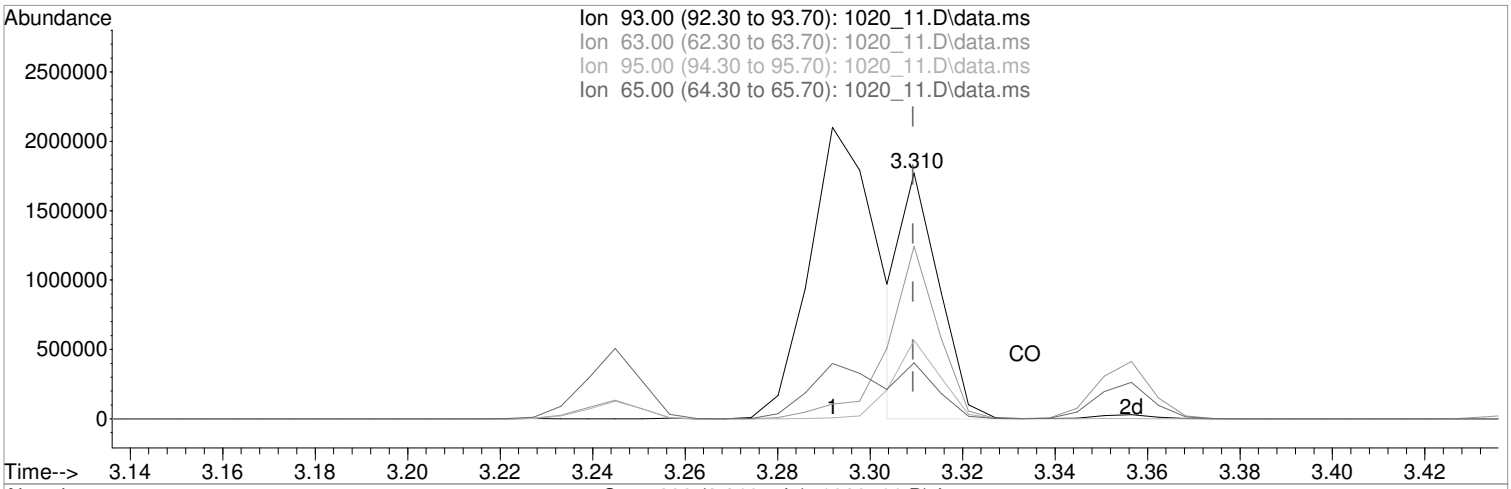
response 3094417

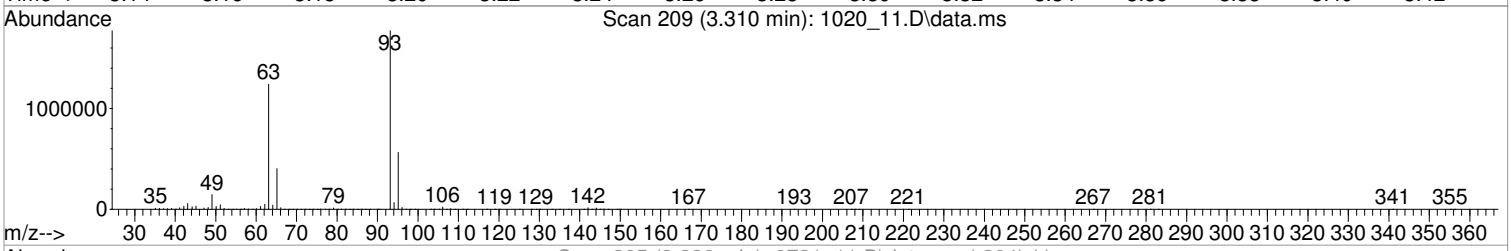
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.77#
95.00	32.50	0.24#
65.00	21.90	18.73

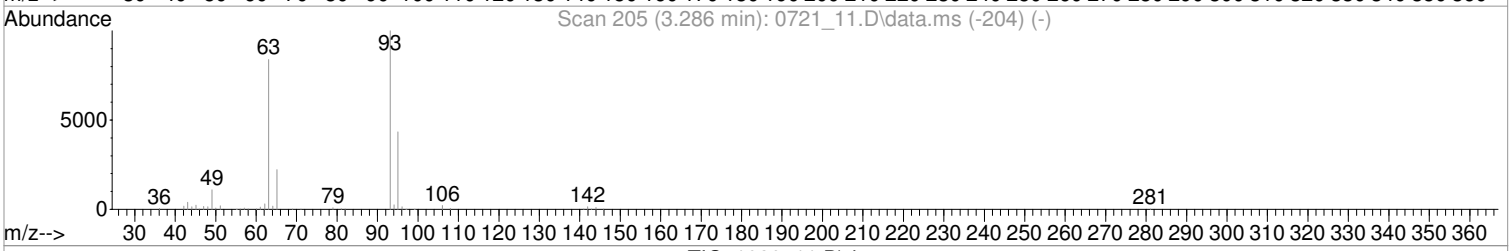
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.310min (+0.000) 42074.1740402 ppb m

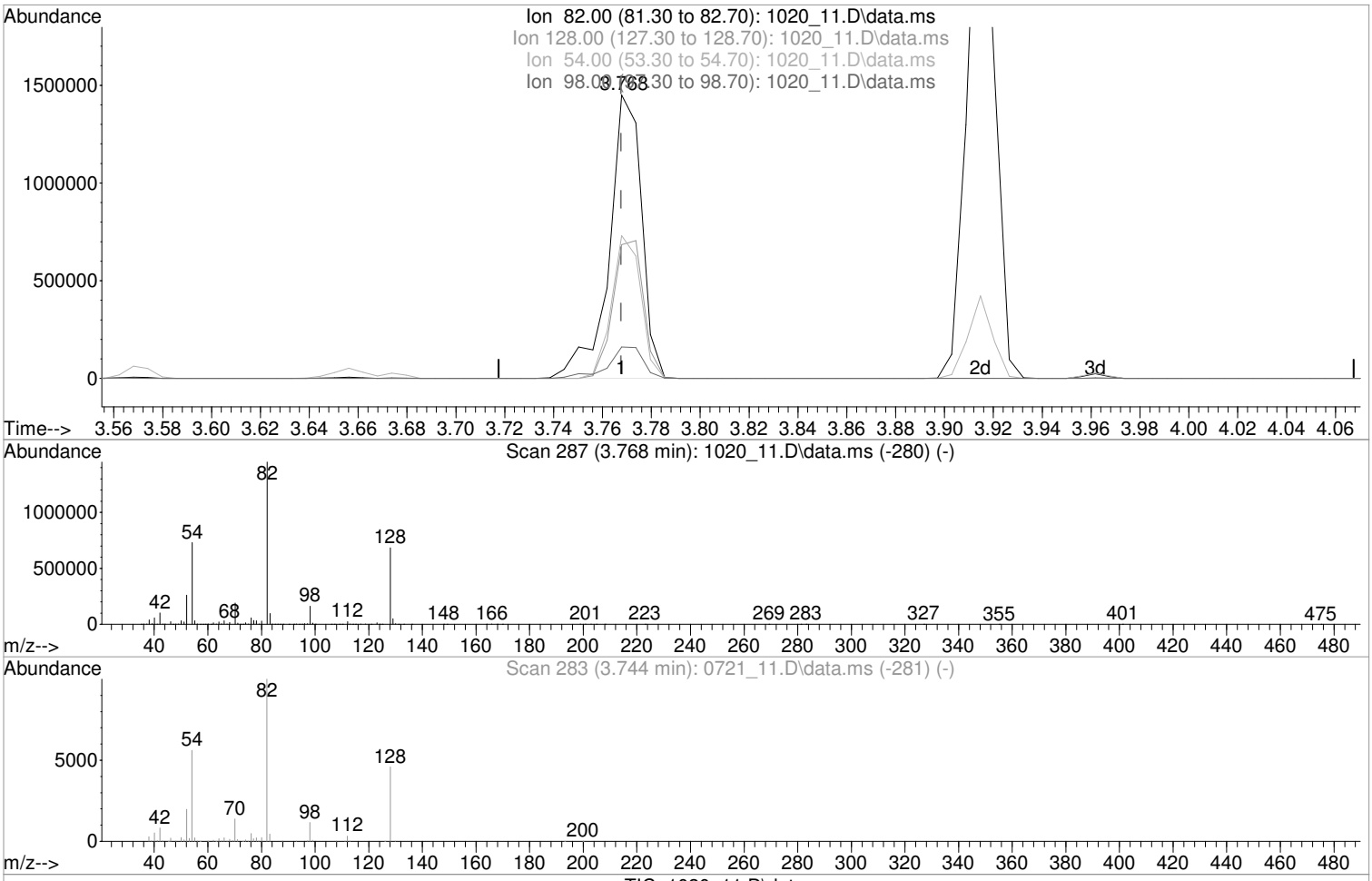
response 984114

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	70.10
95.00	32.50	31.93
65.00	21.90	22.74

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration



TIC: 1020_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 55090.0098373 ppb

Qvalue = 96

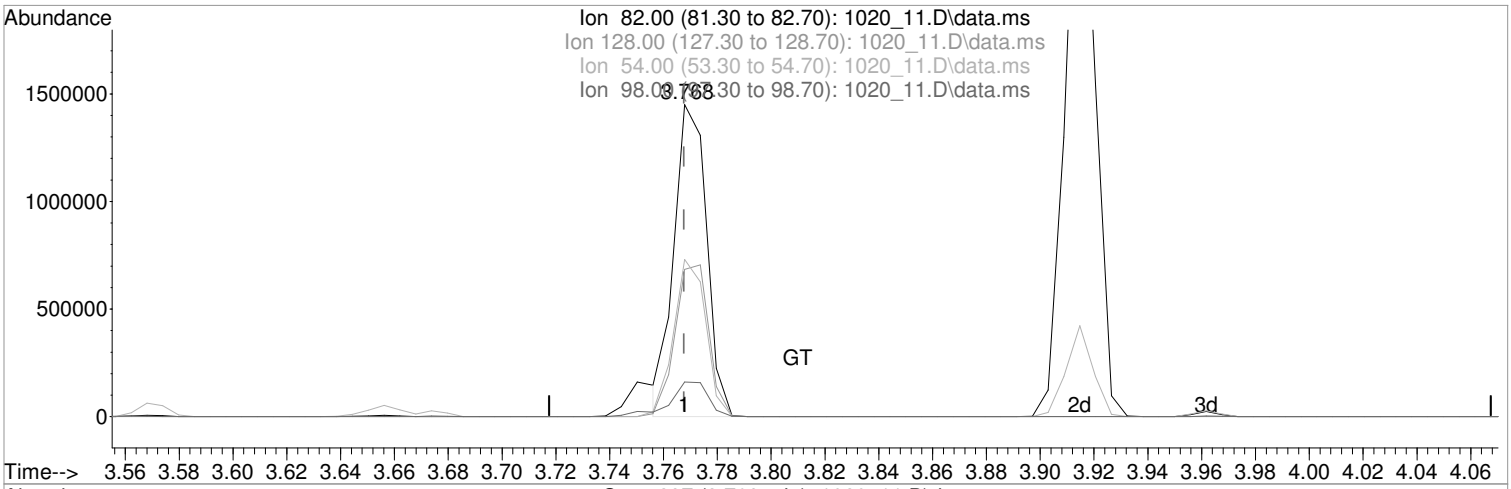
response 1343353

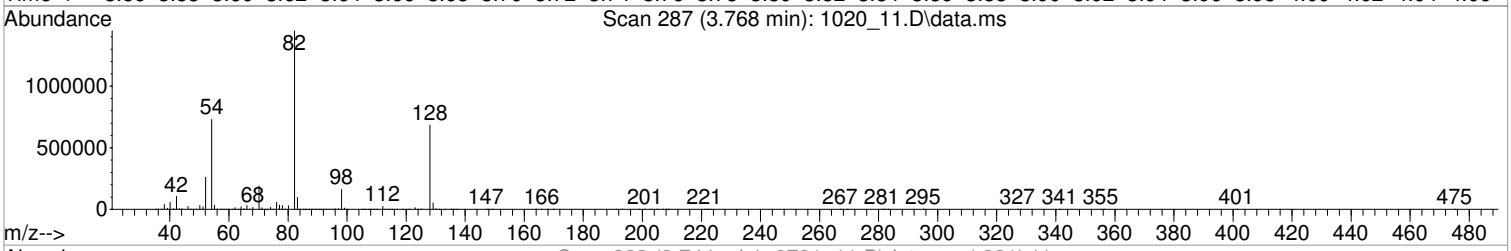
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.17
54.00	48.90	50.35
98.00	12.10	11.12

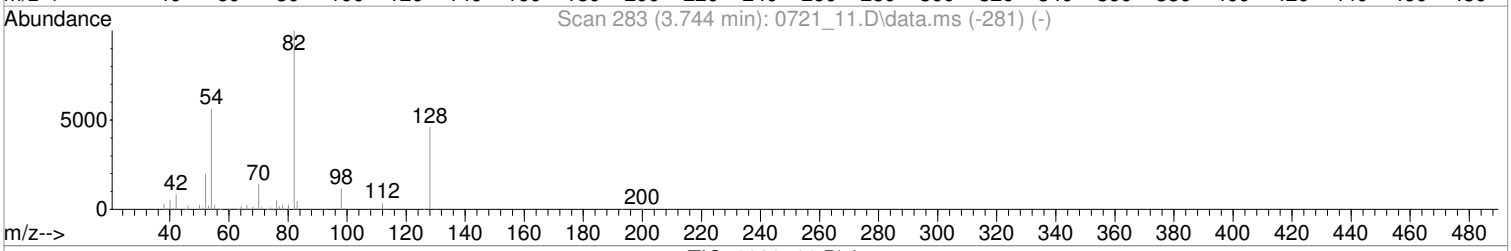
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 49916.5185056 ppb m

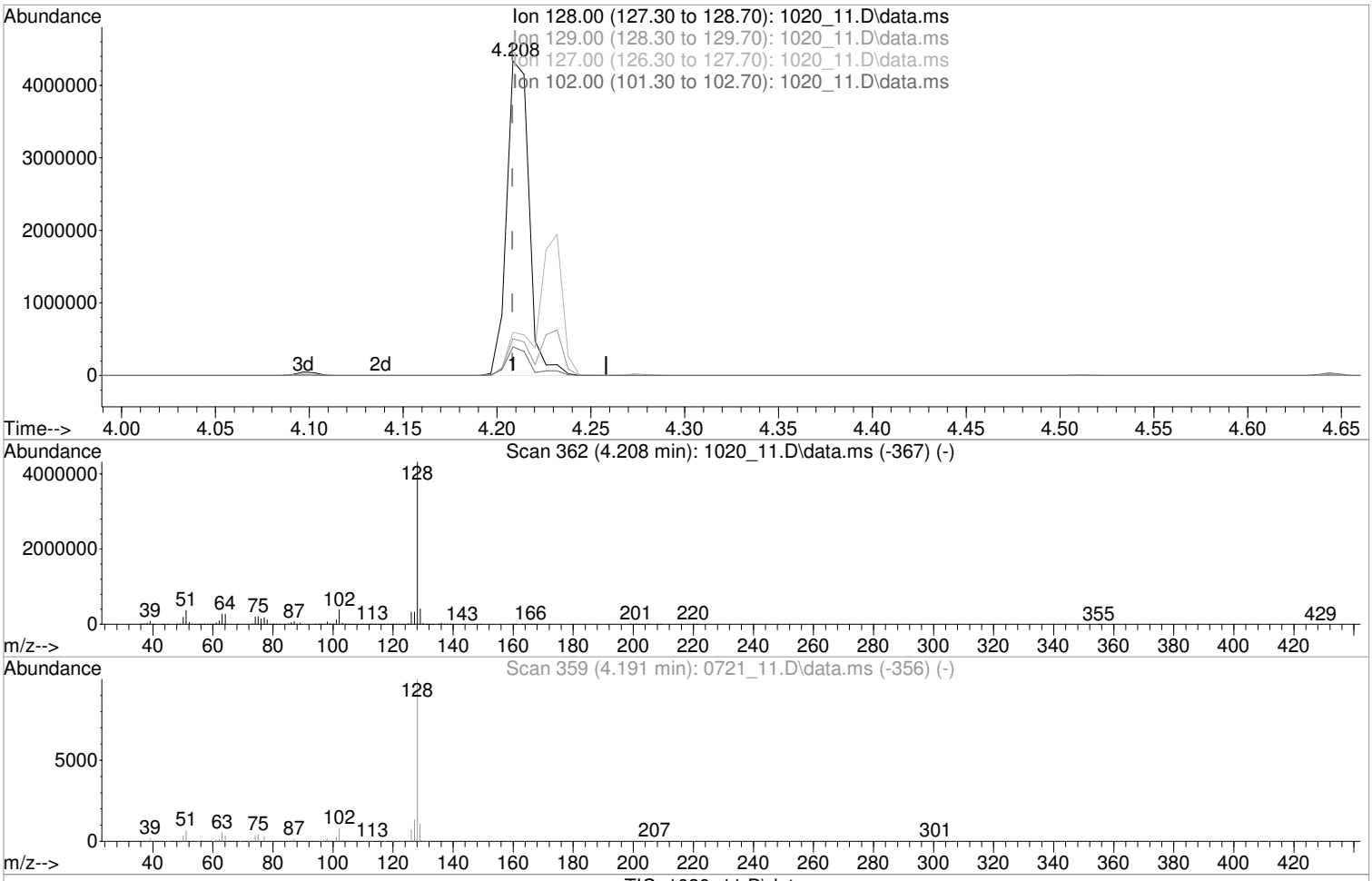
response 1217199

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.16
54.00	48.90	50.38
98.00	12.10	11.15

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration



TIC: 1020_11.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 46549.6803409 ppb

Qvalue = 98

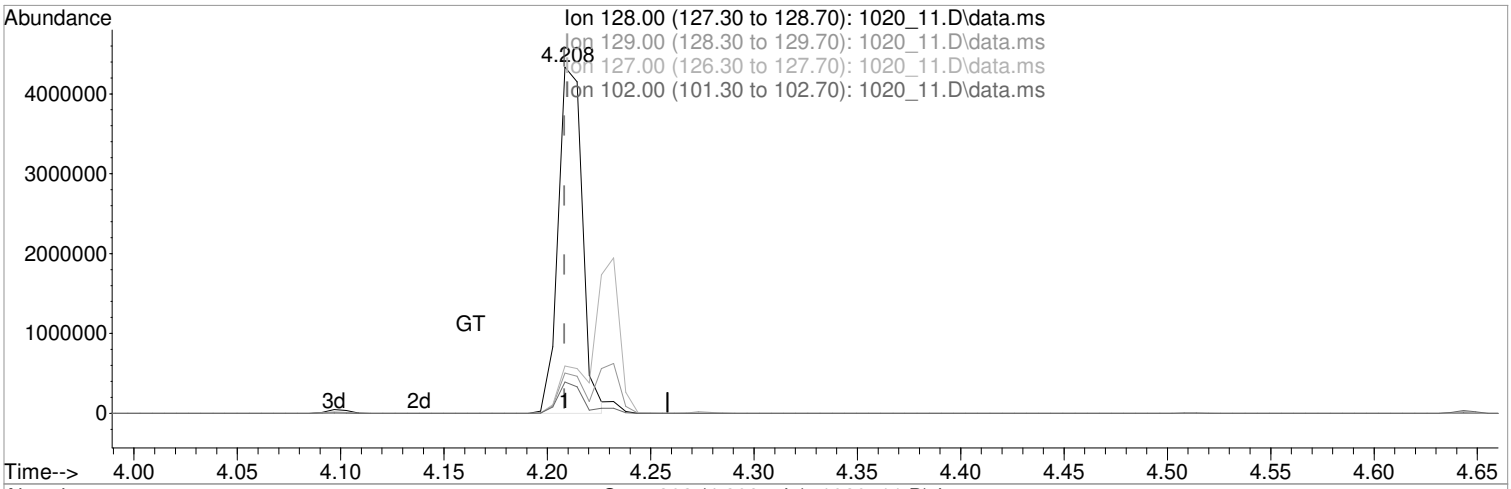
response 3572576

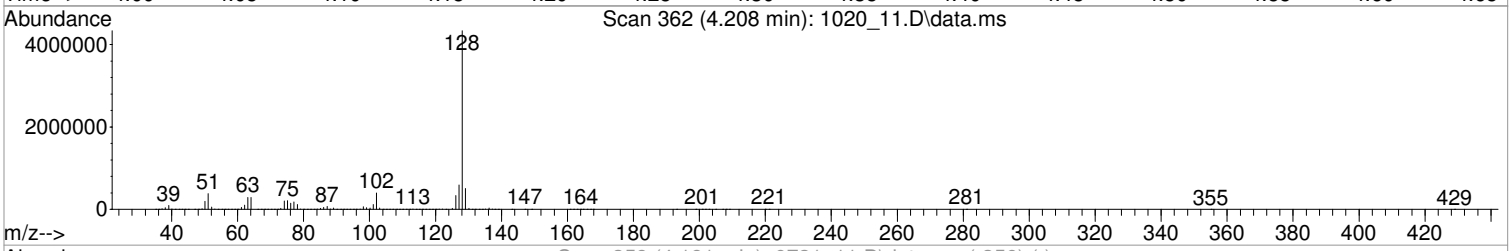
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.58
127.00	13.10	13.65
102.00	8.20	9.06

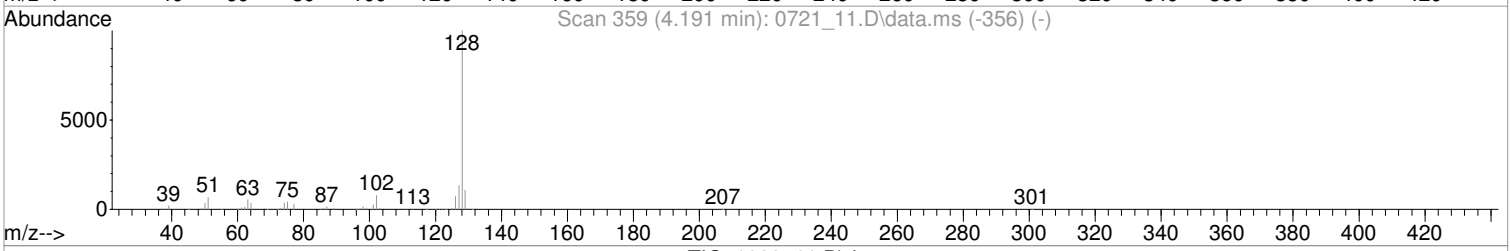
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 45765.5645619 ppb m

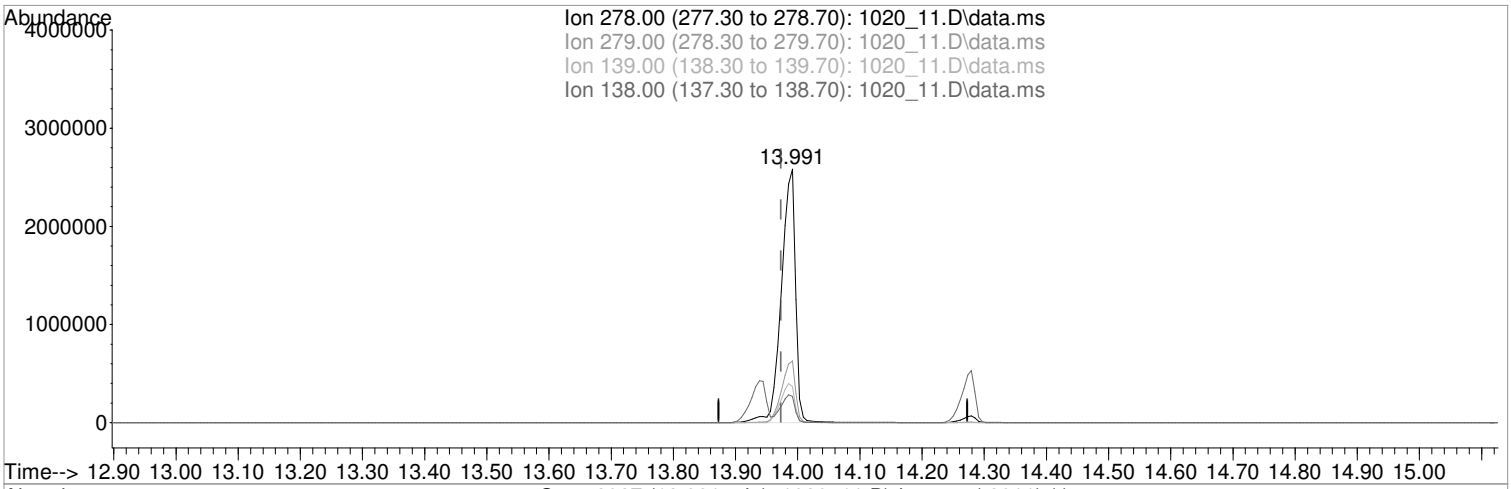
response 3512397

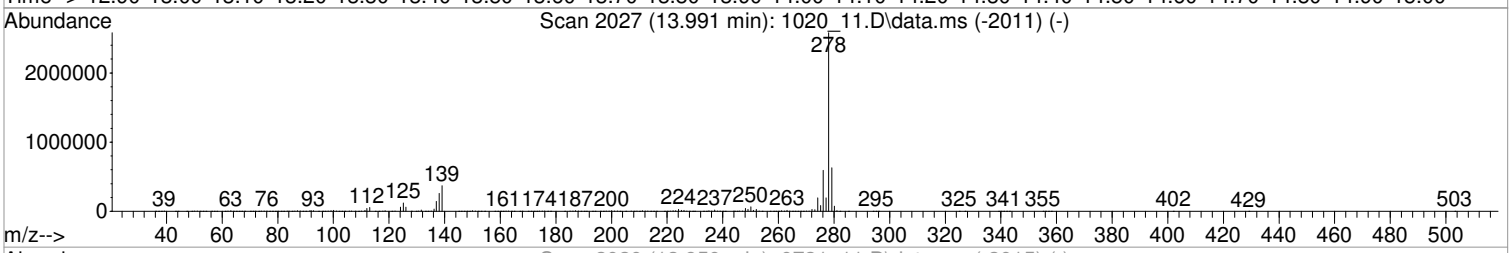
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.59
127.00	13.10	13.65
102.00	8.20	9.06

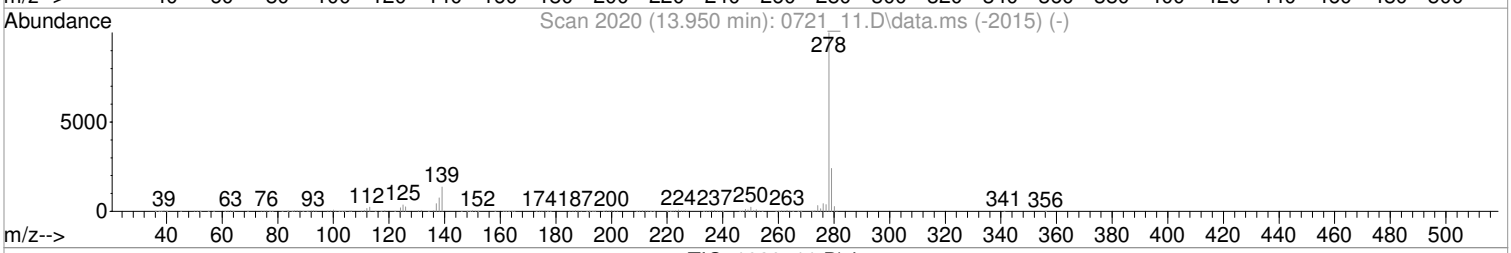
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.991min (+0.018) 48397.9929563 ppb

Qvalue = 99

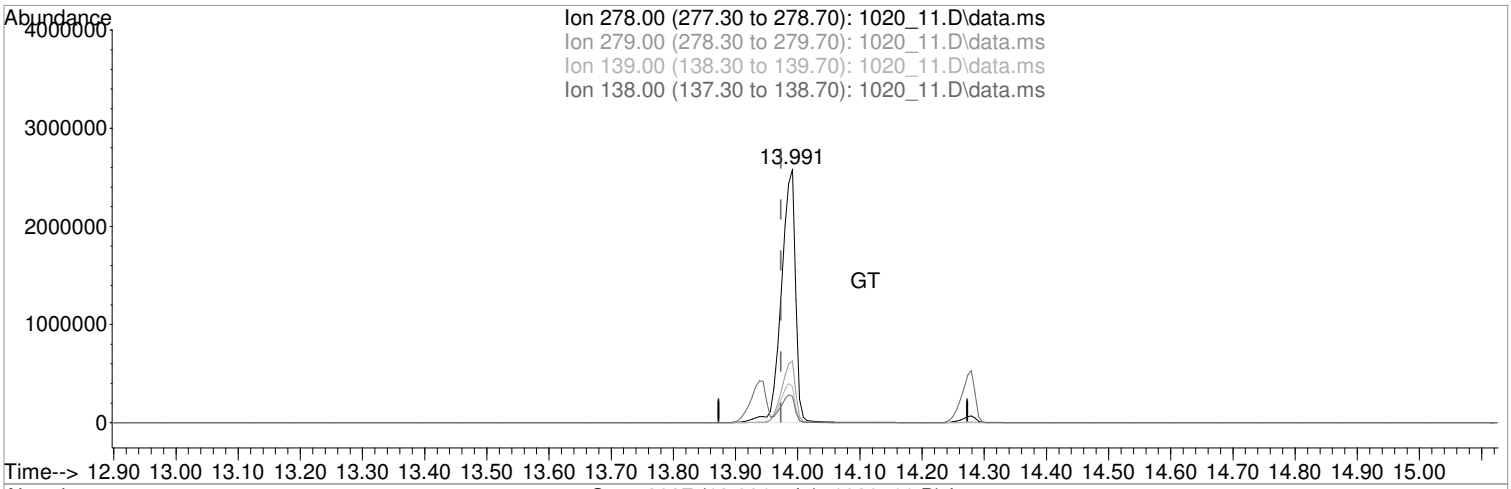
response 4071622

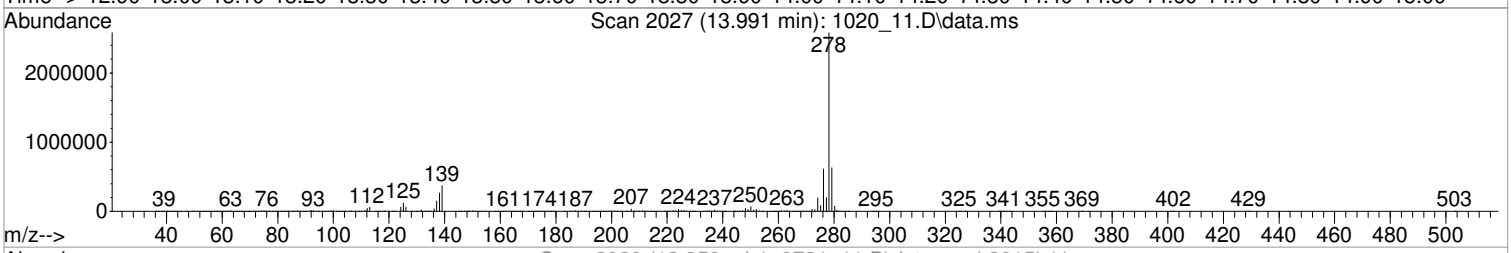
Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.33
139.00	15.10	14.30
138.00	10.40	10.29

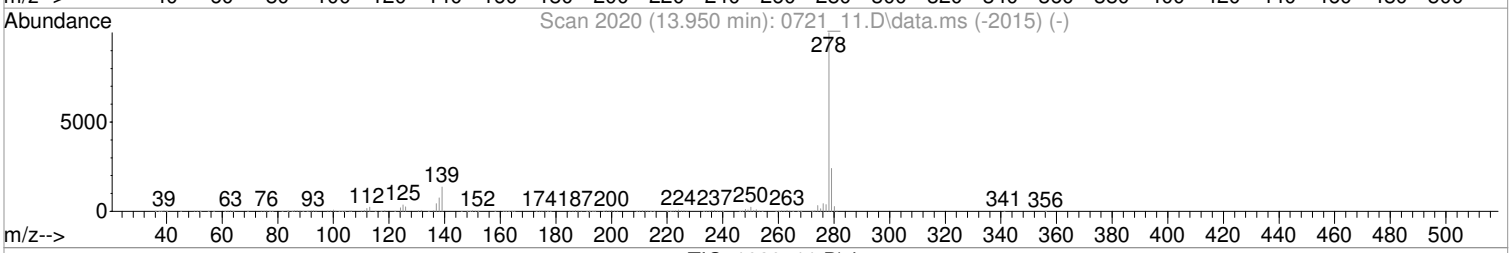
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.991min (+0.018) 47228.4286596 ppb m

response 3973229

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.33
139.00	15.10	14.29
138.00	10.40	10.31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_12.D
Acq On : 20 Oct 2022 10:10 pm
Operator : 3545
Sample : STD TCL 1K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:27:09 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:23:49 2022
Response via : Initial Calibration

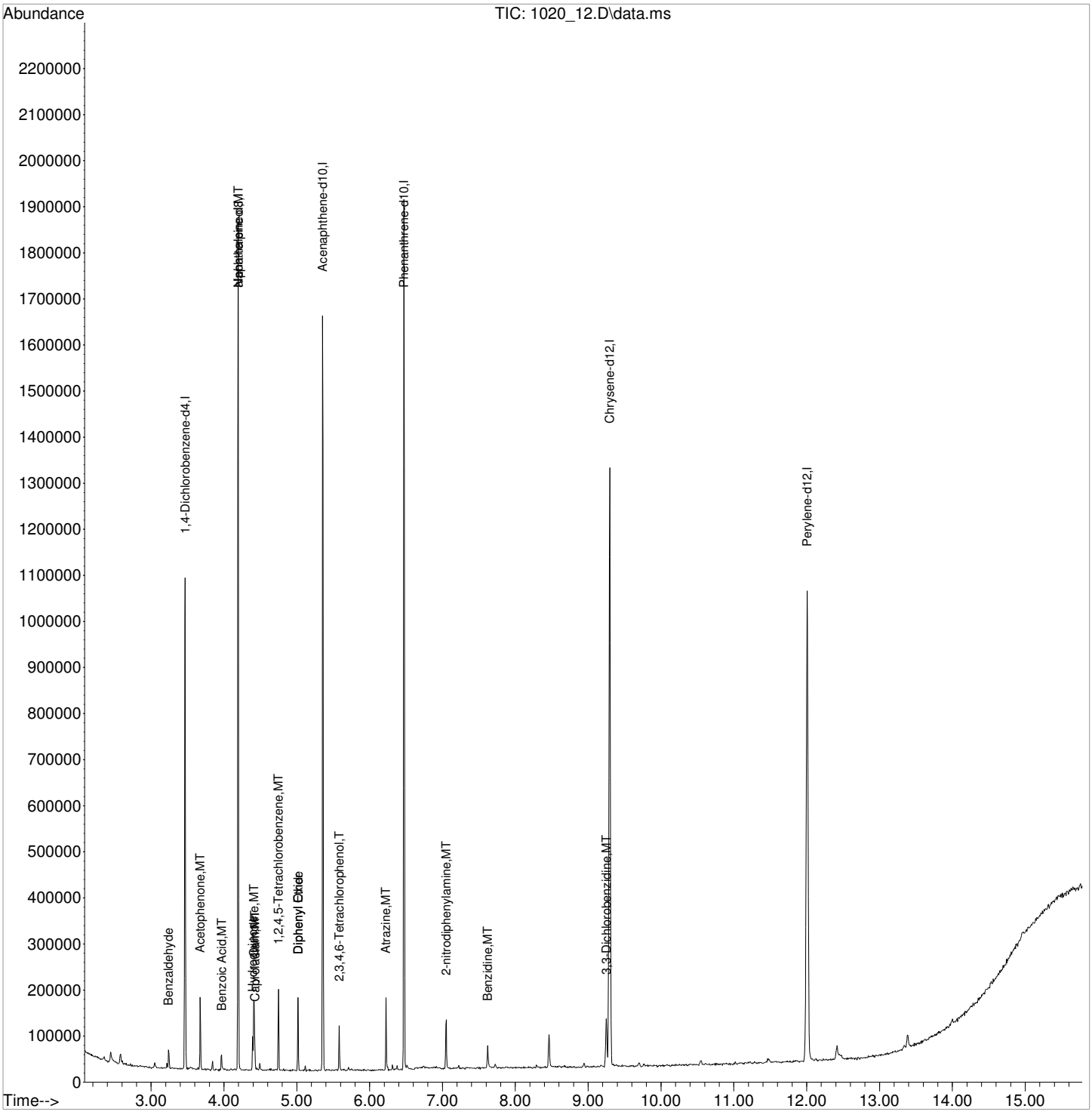
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	154992	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	603411	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	296738	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	599490	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	618690	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	674965	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	7720	1086.4725910	ppb	96
22) Acetophenone	3.674	105	33573	975.7464367	ppb	97
31) Benzoic Acid	3.967	105	7137	739.9159675	ppb	98
33) alpha-terpineol	4.197	59	19537	1124.1896811	ppb	96
37) Hydroquinone	4.396	110	20854	1472.6272223	ppb	97
38) Quinoline	4.414	129	48796	1153.5182155	ppb	97
39) Caprolactam	4.426	113	5920	1358.2886485	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.749	216	24074	1154.4124419	ppb	99
44) Diphenyl Ether	5.019	170	30642	1125.3444220	ppb	94
45) Diphenyl Oxide	5.019	170	30642	1125.3444220	ppb	94
62) 2,3,4,6-Tetrachlorophenol	5.583	232	10261	940.2086249	ppb	98
69) Atrazine	6.224	200	14285	973.7787422	ppb	95
82) 2-nitrodiphenylamine	7.052	167	13035	829.4821373	ppb	95
85) Benzidine	7.622	184	20892	631.5950022	ppb	98
89) 3,3-Dichlorobenzidine	9.250	252	34388	918.3369276	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_12.D
Acq On : 20 Oct 2022 10:10 pm
Operator : 3545
Sample : STD TCL 1K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:27:09 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:23:49 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:02 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration

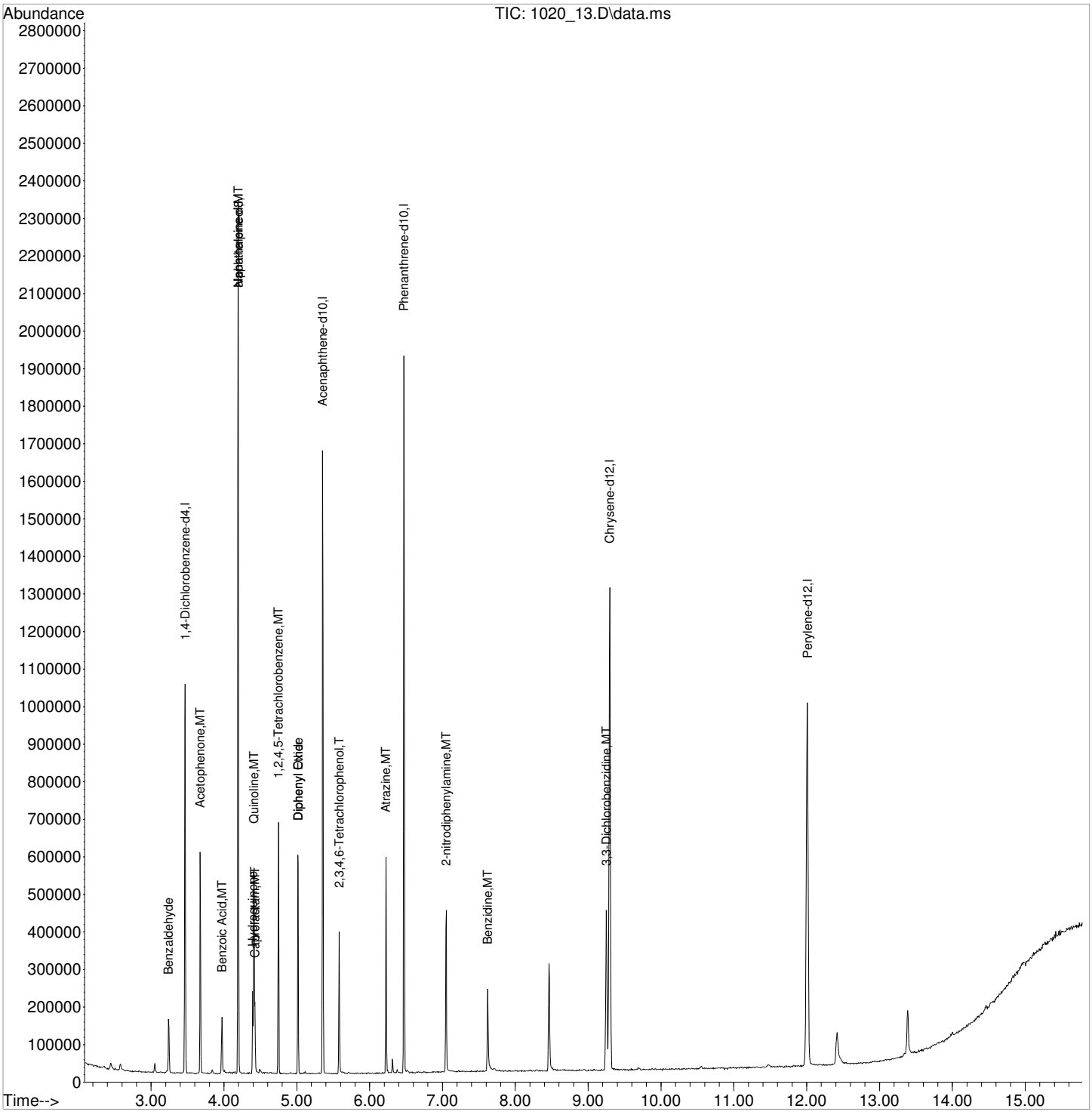
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151549	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	615916	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	291593	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	585633	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	614545	8000.0000000	ppb	0.00
94) Perylene-d12	12.011	264	663481	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	27780	3832.7212516	ppb	97
22) Acetophenone	3.674	105	126531	3807.1392300	ppb	98
31) Benzoic Acid	3.973	105	33535	3915.2407505	ppb	95
33) alpha-terpineol	4.197	59	73295	3890.3126465	ppb	98
37) Hydroquinone	4.396	110	57452	3214.9312724	ppb	98
38) Quinoline	4.414	129	172319	3706.3513181	ppb	99
39) Caprolactam	4.426	113	16100	3069.1704804	ppb	93
43) 1,2,4,5-Tetrachloroben...	4.749	216	88913	3877.6703914	ppb	99
44) Diphenyl Ether	5.019	170	112842	3820.5997440	ppb	98
45) Diphenyl Oxide	5.019	170	112842	3820.5997440	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.583	232	40524	3895.1526828	ppb	97
69) Atrazine	6.224	200	55350	3890.6778243	ppb	98
82) 2-nitrodiphenylamine	7.052	167	52874	3765.2723370	ppb	98
85) Benzidine	7.622	184	104193m	3887.1763754	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	135217	3790.1023847	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

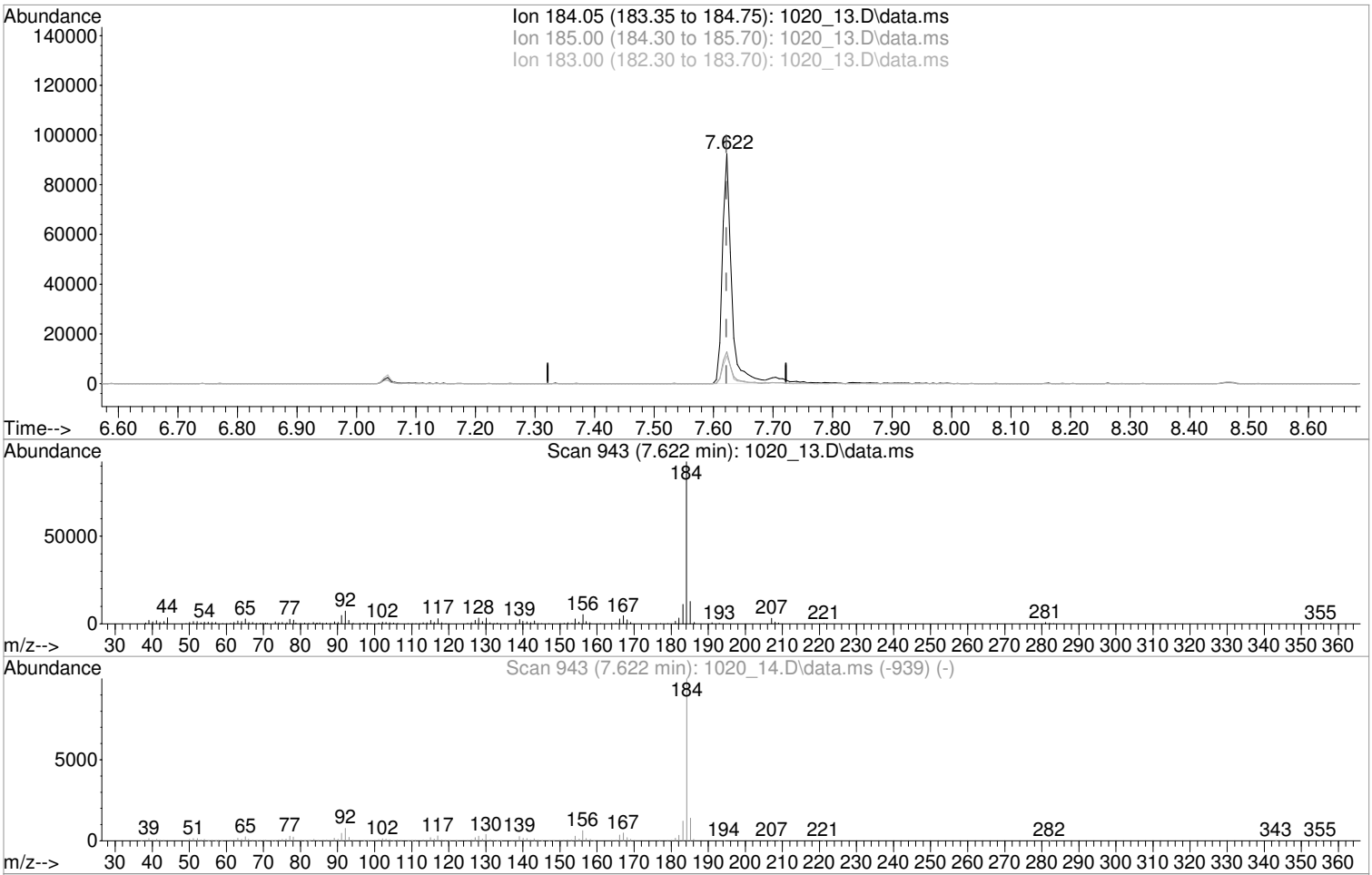
Quant Time: Oct 21 09:30:02 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:28:23 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



TIC: 1020_13.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 3662.2123803 ppb

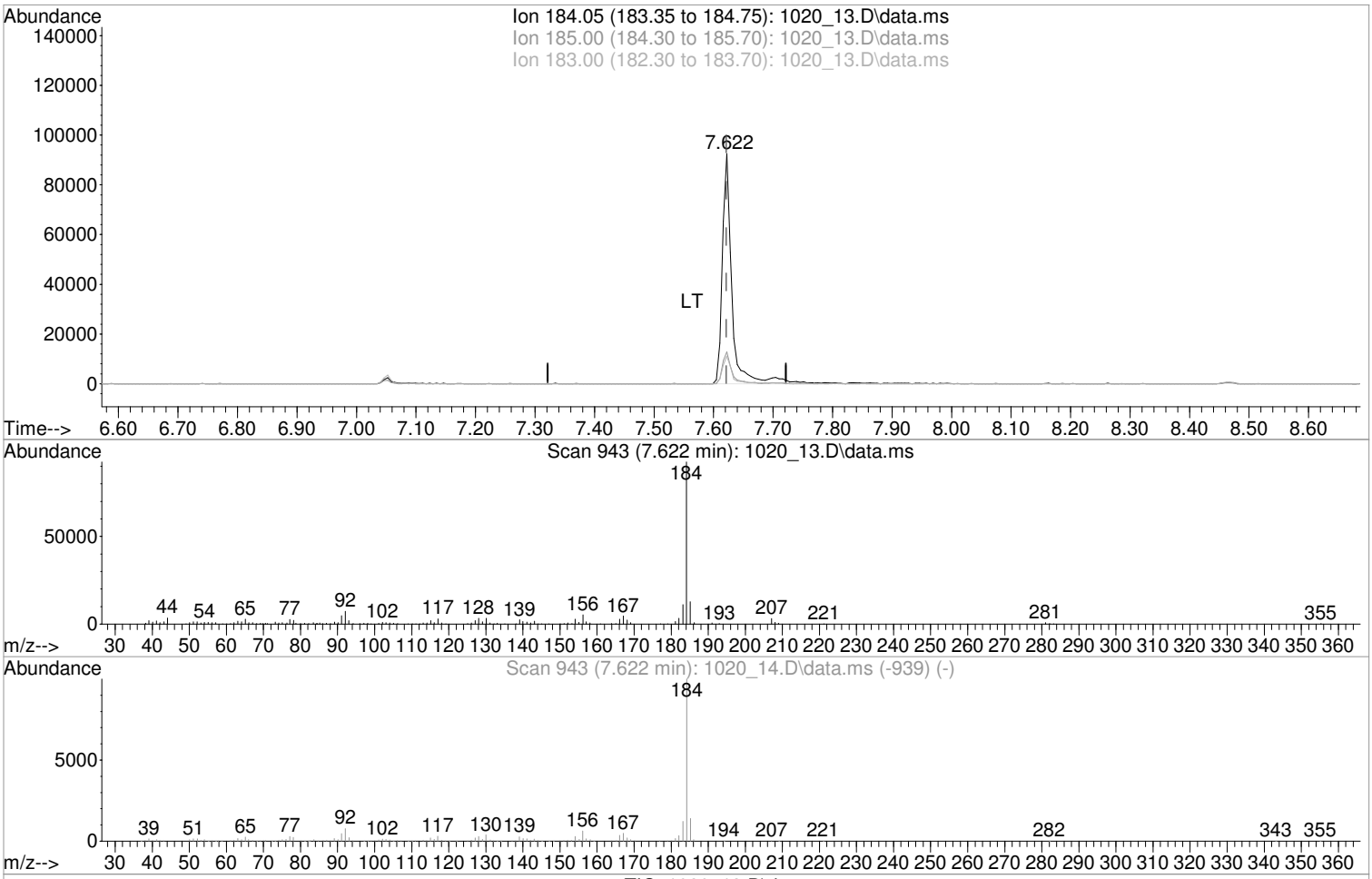
Qvalue = 97

response 98163

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	14.22
183.00	11.30	12.57
0.00	0.00	0.00

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:28:23 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



TIC: 1020_13.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 3887.1763754 ppb m

response 104193

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.40
183.00	11.30	11.85
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration

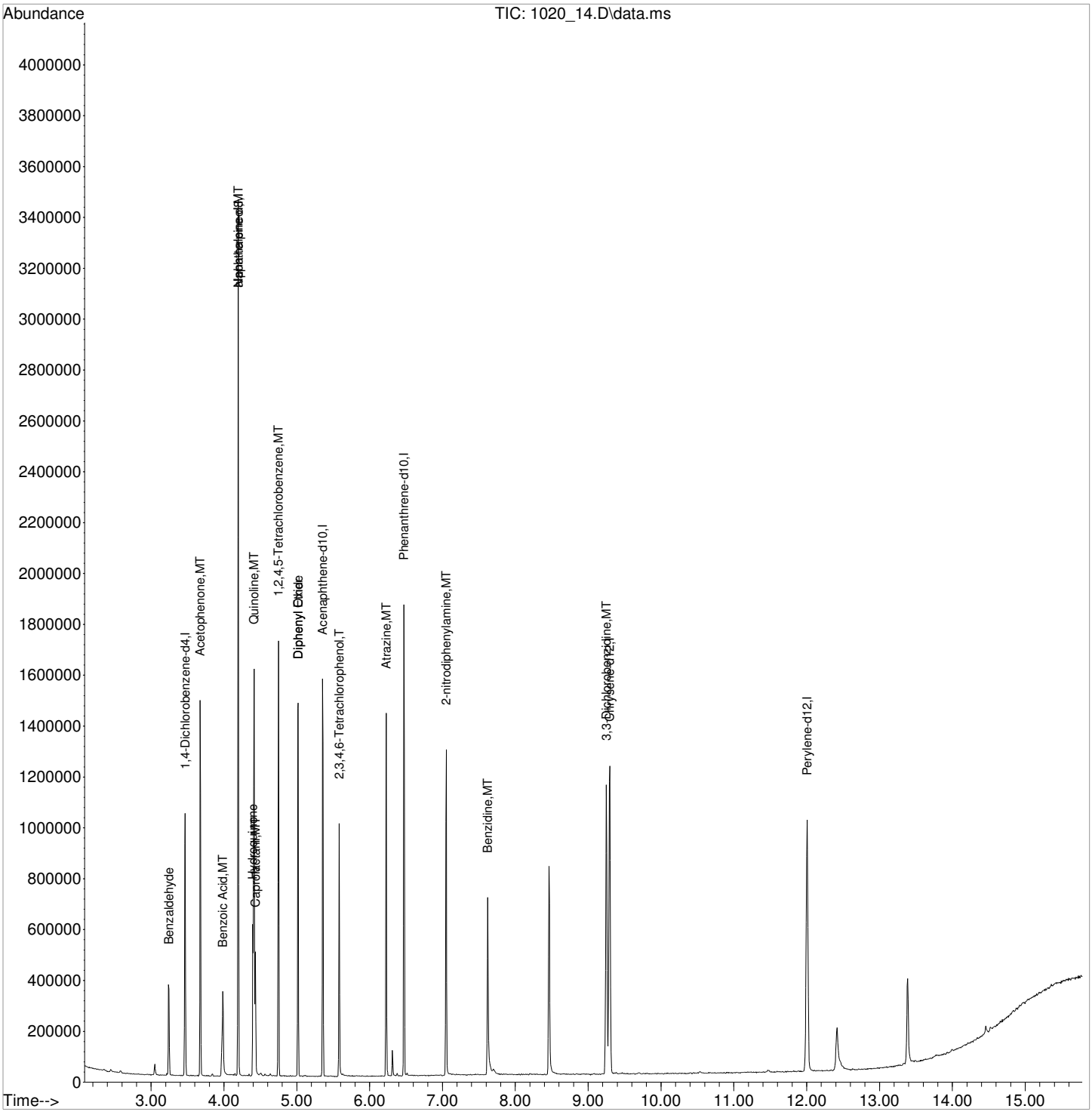
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151241	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	655422	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	290274	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	584573	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	610433	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	658056	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.245	105	69336	10000.0000000	ppb	100
22) Acetophenone	3.674	105	335748	10000.0000000	ppb	100
31) Benzoic Acid	3.985	105	104771	10000.0000000	ppb	100
33) alpha-terpineol	4.197	59	188767	10000.0000000	ppb	100
37) Hydroquinone	4.396	110	153817	9895.9687070	ppb	100
38) Quinoline	4.414	129	459481	10000.0000000	ppb	100
39) Caprolactam	4.432	113	47341	10000.0000000	ppb	100
43) 1,2,4,5-Tetrachloroben...	4.749	216	226514	10000.0000000	ppb	100
44) Diphenyl Ether	5.019	170	295760	10000.0000000	ppb	100
45) Diphenyl Oxide	5.019	170	295760	10000.0000000	ppb	100
62) 2,3,4,6-Tetrachlorophenol	5.583	232	106758	10030.7241311	ppb	100
69) Atrazine	6.229	200	143501	10000.0000000	ppb	100
82) 2-nitrodiphenylamine	7.052	167	153236	10007.5757576	ppb	100
85) Benzidine	7.622	184	326367m	9915.2681403	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	369462	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_04.D
Acq On : 29 Oct 2022 9:30 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:12:49 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

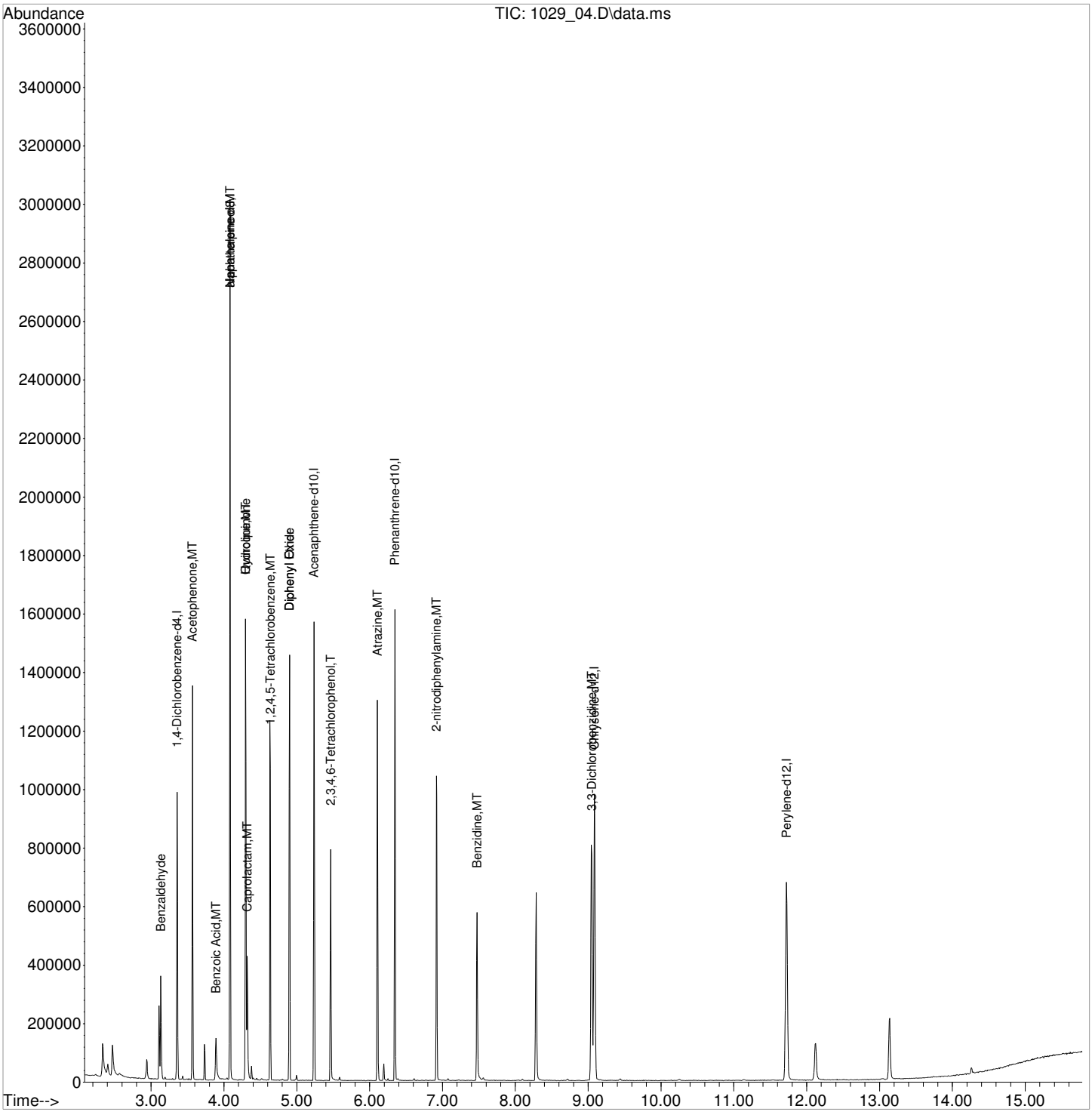
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.356	152	126934	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.085	136	555091	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.237	164	249114	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.347	188	477175	8000.0000000	ppb	0.00
84) Chrysene-d12	9.085	240	475891	8000.0000000	ppb	0.00
94) Perylene-d12	11.723	264	456905	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.133	105	57562	9829.4483675	ppb	96
22) Acetophenone	3.568	105	257284	9284.7770952	ppb	97
31) Benzoic Acid	3.891	105	50120	5915.8789131	ppb	95
33) alpha-terpineol	4.085	59	160648	10341.8973613	ppb	95
37) Hydroquinone	4.296	110	113804m	7990.9115573	ppb	
38) Quinoline	4.296	129	360115	9557.6017839	ppb	97
39) Caprolactam	4.320	113	40389	10795.1041379	ppb	86
43) 1,2,4,5-Tetrachloroben...	4.637	216	188500	10102.0977159	ppb	100
44) Diphenyl Ether	4.902	170	242920	10141.4481075	ppb	98
45) Diphenyl Oxide	4.902	170	242920	10141.4481075	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.466	232	81826	9239.6041253	ppb	100
69) Atrazine	6.106	200	115407	9180.7782914	ppb	99
82) 2-nitrodiphenylamine	6.917	167	129047	9415.7754190	ppb	99
85) Benzidine	7.475	184	228853	8274.5621053	ppb	97
89) 3,3-Dichlorobenzidine	9.050	252	258370	8937.5210595	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_04.D
Acq On : 29 Oct 2022 9:30 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:12:49 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_04.D
Acq On : 7 Nov 2022 8:26 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 08 12:41:03 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

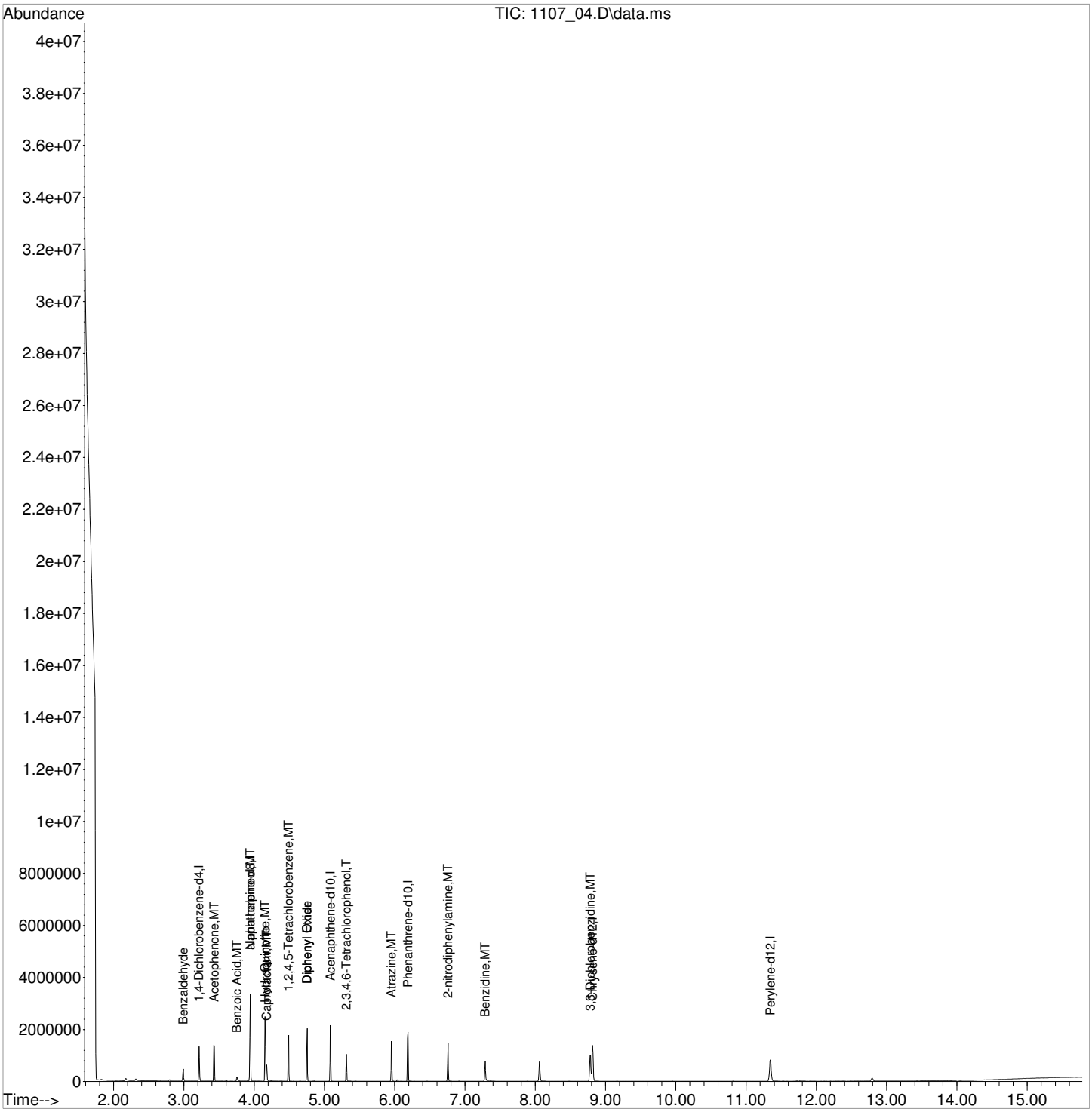
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.215	152	168712	8000.0000000	ppb	0.00
23) Naphthalene-d8	3.943	136	737002	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.083	164	334872	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.188	188	640587	8000.0000000	ppb	0.00
84) Chrysene-d12	8.814	240	634794	8000.0000000	ppb	0.00
94) Perylene-d12	11.347	264	541236	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	2.992	105	74882	9620.6119596	ppb	97
22) Acetophenone	3.432	105	336006	9123.0011049	ppb	98
31) Benzoic Acid	3.755	105	46662	4148.2706404	ppb	99
33) alpha-terpineol	3.943	59	211750	10267.0065402	ppb	85
37) Hydroquinone	4.161	110	159572m	8439.0003486	ppb	
38) Quinoline	4.155	129	494434	9883.5182216	ppb	99
39) Caprolactam	4.179	113	54093	10889.3090407	ppb #	67
43) 1,2,4,5-Tetrachloroben...	4.490	216	258405	10430.2962264	ppb	99
44) Diphenyl Ether	4.754	170	333286	10479.7106307	ppb	98
45) Diphenyl Oxide	4.754	170	333286	10479.7106307	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.313	232	105486	8860.8659431	ppb	98
69) Atrazine	5.953	200	137922	8162.0677137	ppb	100
82) 2-nitrodiphenylamine	6.758	167	144228	7838.9396522	ppb	97
85) Benzidine	7.287	184	304139m	8243.9472085	ppb	
89) 3,3-Dichlorobenzidine	8.785	252	320132	8301.9241112	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_04.D
Acq On : 7 Nov 2022 8:26 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

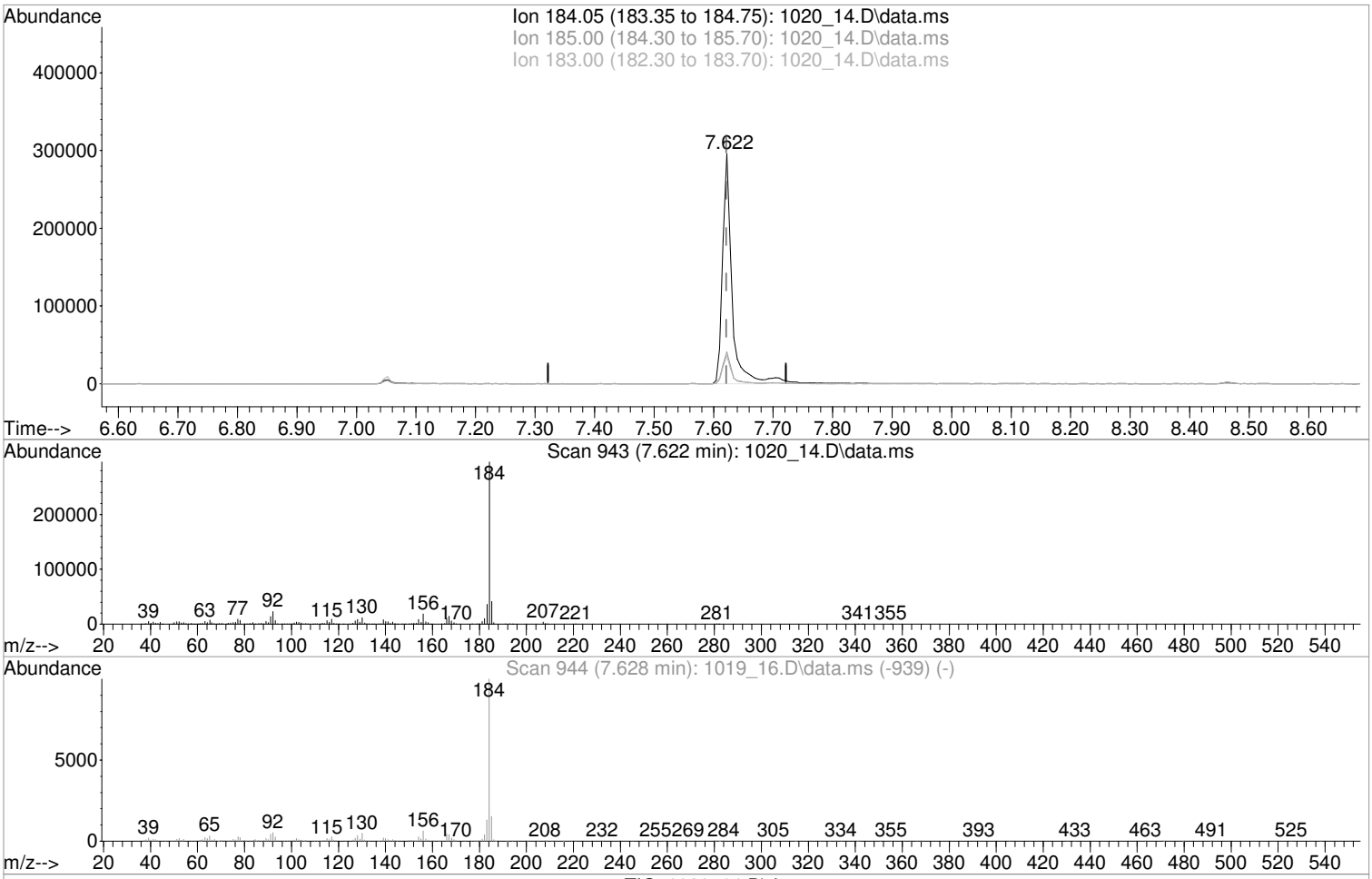
Quant Time: Nov 08 12:41:03 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:20:16 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration



TIC: 1020_14.D\data.ms

(85) Benzidine (MT)

7.622min (0.000) 9401.5299736 ppb

Qvalue = 98

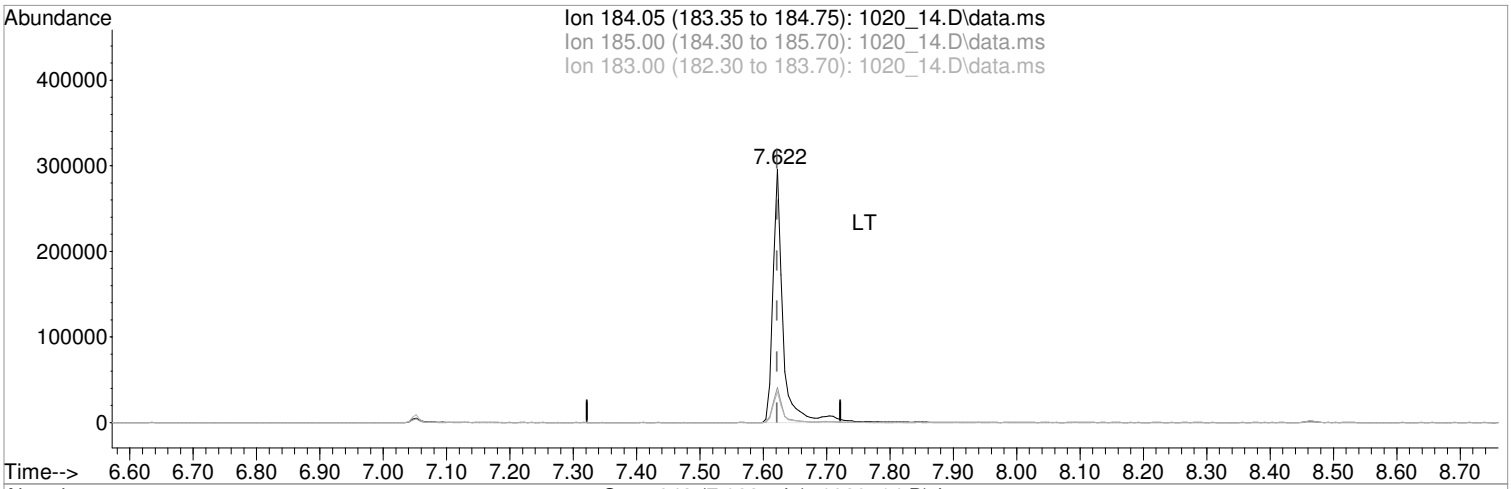
response 309457

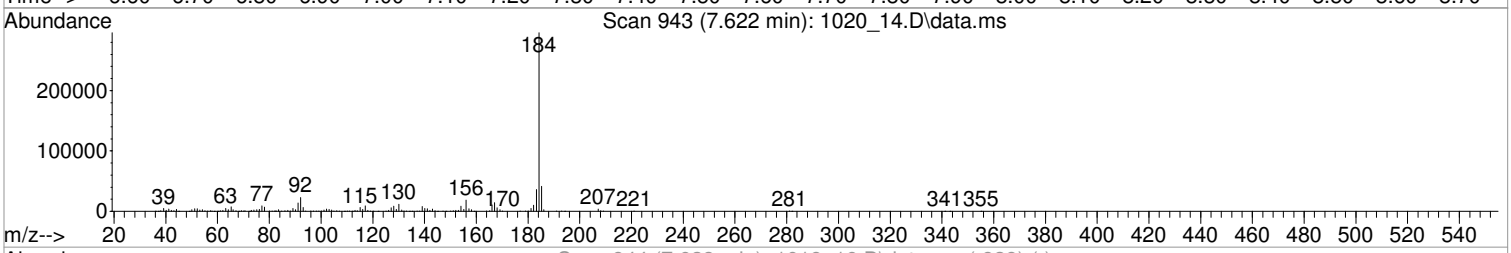
Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.70
183.00	11.30	12.02
0.00	0.00	0.00

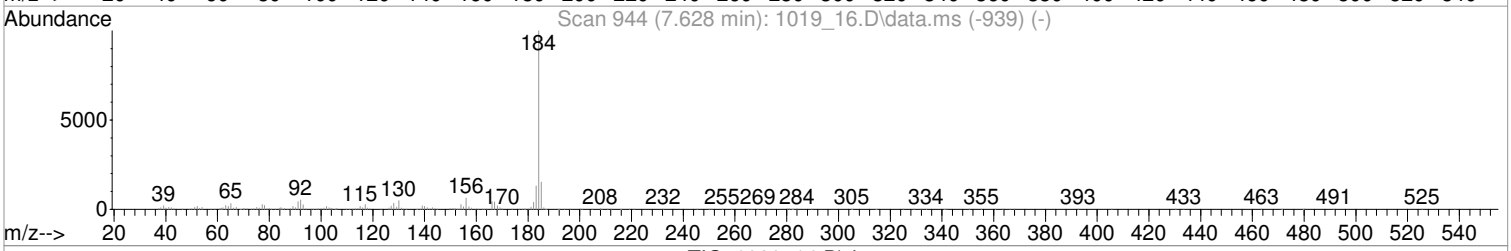
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:20:16 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration







TIC: 1020_14.D\data.ms

(85) Benzidine (MT)

7.622min (0.000) 9915.2681403 ppb m

response 326367

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	12.99
183.00	11.30	11.40
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration

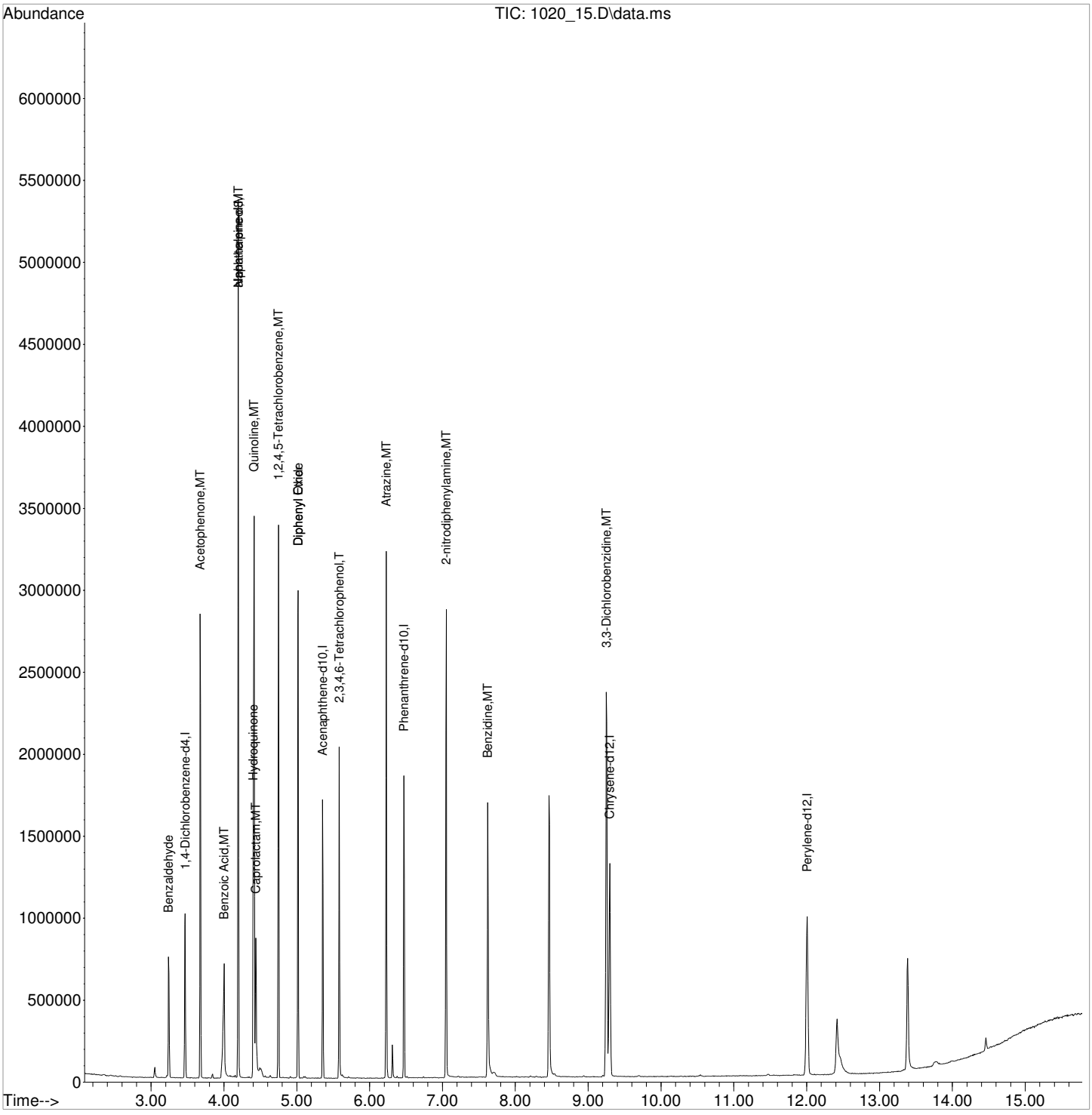
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151012	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	739134	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	289508	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	583560	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	616250	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	658337	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	135755	19062.0259020	ppb	98
22) Acetophenone	3.674	105	660074	20256.8831464	ppb	99
31) Benzoic Acid	4.003	105	255059	24990.6495542	ppb	100
33) alpha-terpineol	4.197	59	381048	17008.8957813	ppb	98
37) Hydroquinone	4.402	110	441216m	22014.0896096	ppb	
38) Quinoline	4.414	129	922876	16955.6626680	ppb	99
39) Caprolactam	4.438	113	104917	18067.8083848	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.749	216	448736	16475.7358953	ppb	100
44) Diphenyl Ether	5.019	170	581681	16660.4100279	ppb	99
45) Diphenyl Oxide	5.019	170	581681	16660.4100279	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	209426	20453.6362040	ppb	99
69) Atrazine	6.230	200	295794	21134.3143899	ppb	99
82) 2-nitrodiphenylamine	7.052	167	340171	24795.3818304	ppb	99
85) Benzidine	7.622	184	731088m	27457.7316415	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	777553	22121.2708876	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

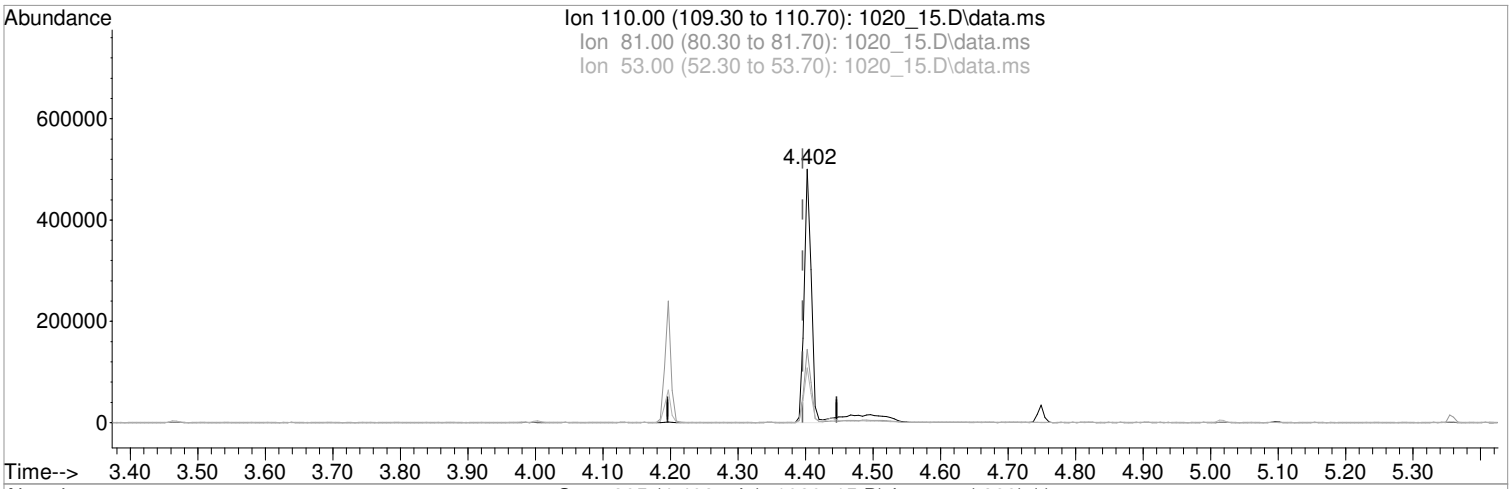
Quant Time: Oct 21 09:32:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration

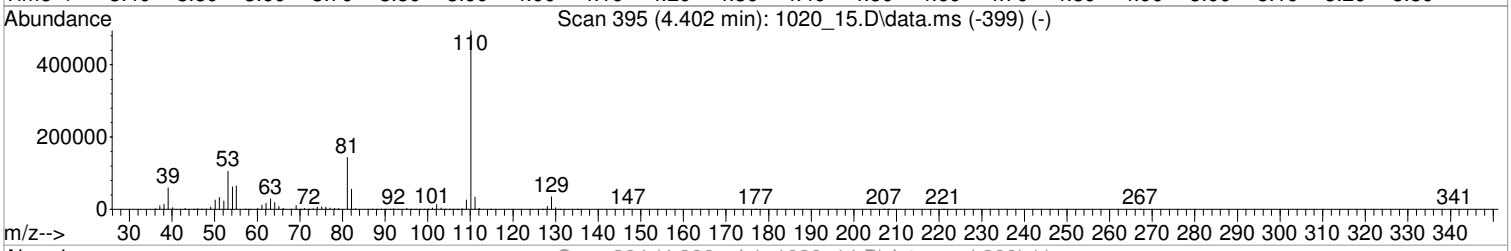


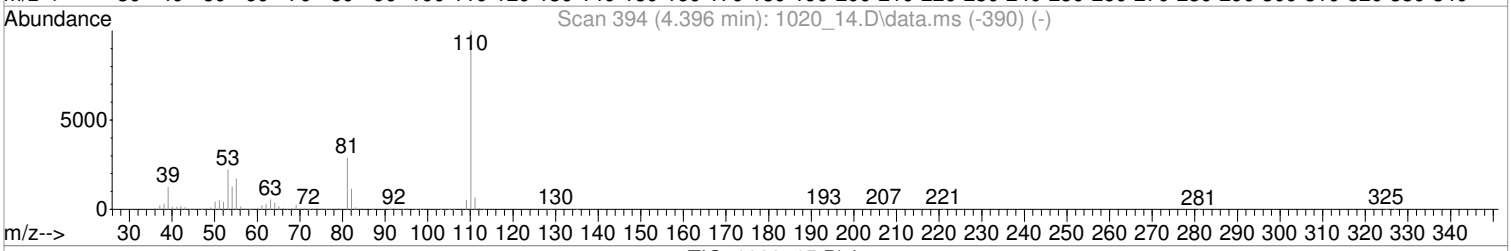
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration







TIC: 1020_15.D\data.ms

(37) Hydroquinone

4.402min (+0.006) 17987.1840615 ppb

Qvalue = 99

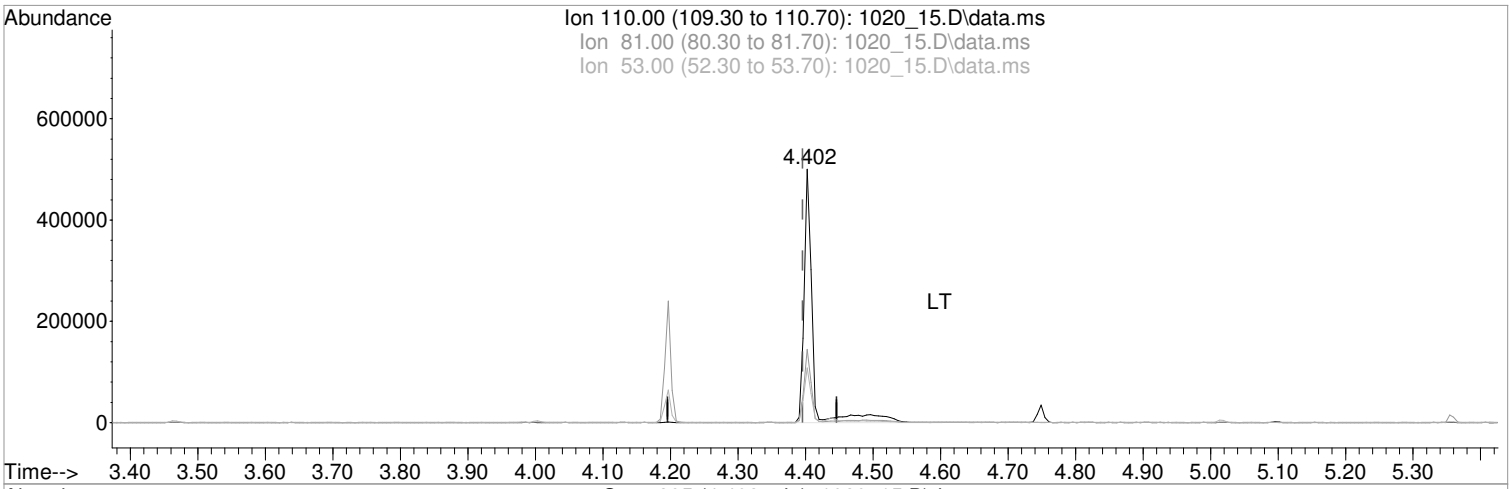
response 360507

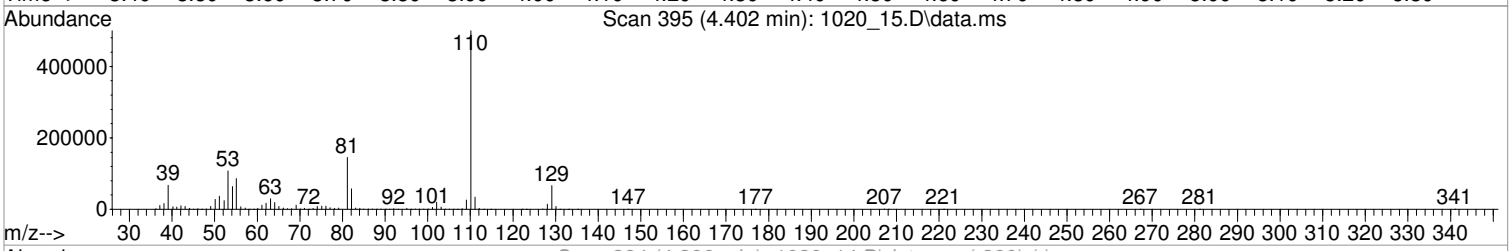
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.90
53.00	22.20	21.51
0.00	0.00	0.00

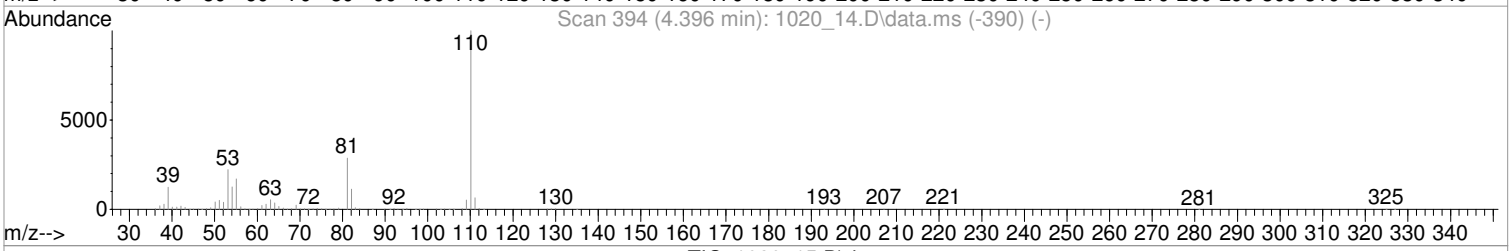
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration







TIC: 1020_15.D\data.ms

(37) Hydroquinone

4.402min (+0.006) 22014.0896096 ppb m

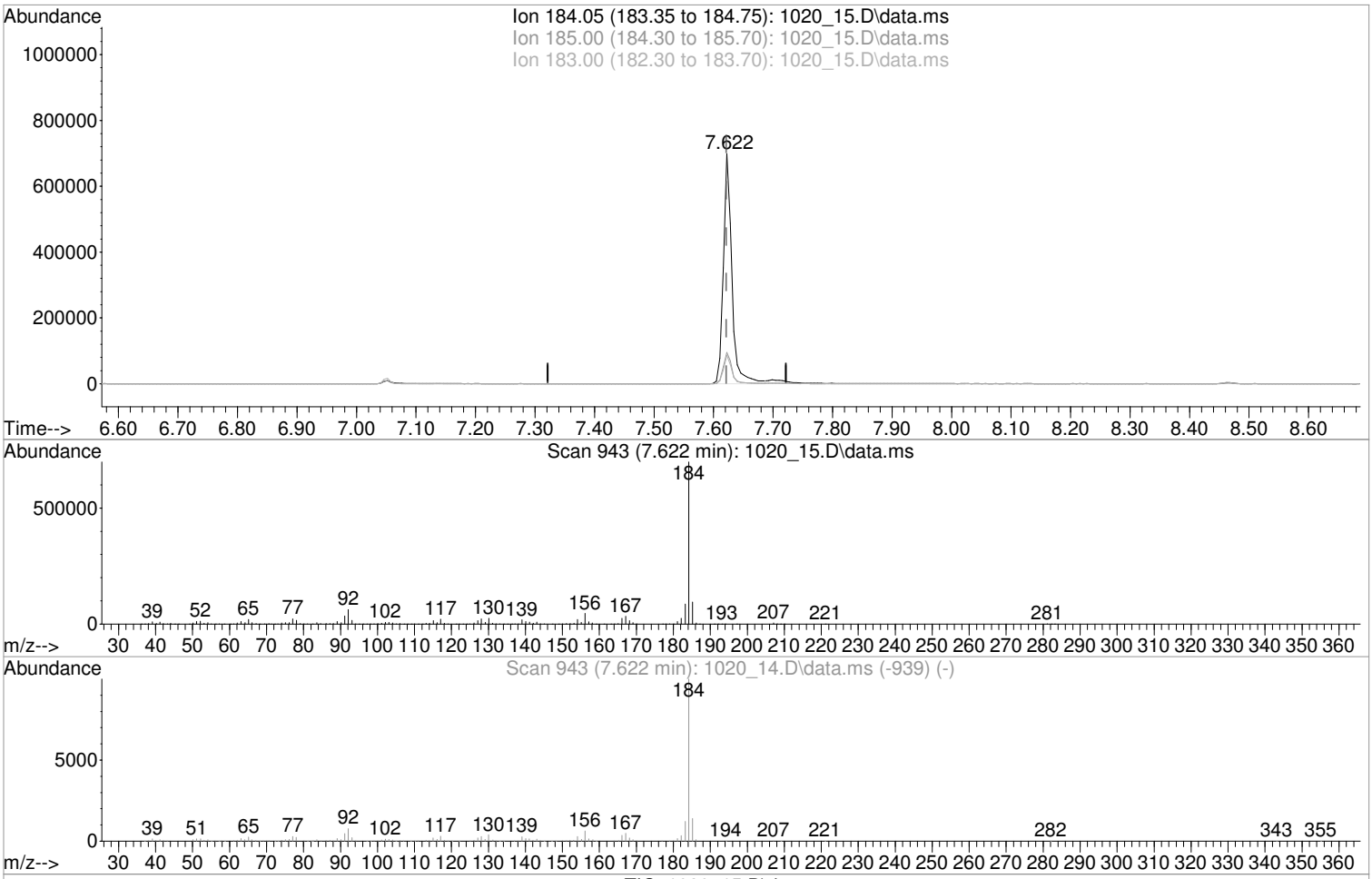
response 441216

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.96
53.00	22.20	21.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration



TIC: 1020_15.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 26092.8222416 ppb

Qvalue = 97

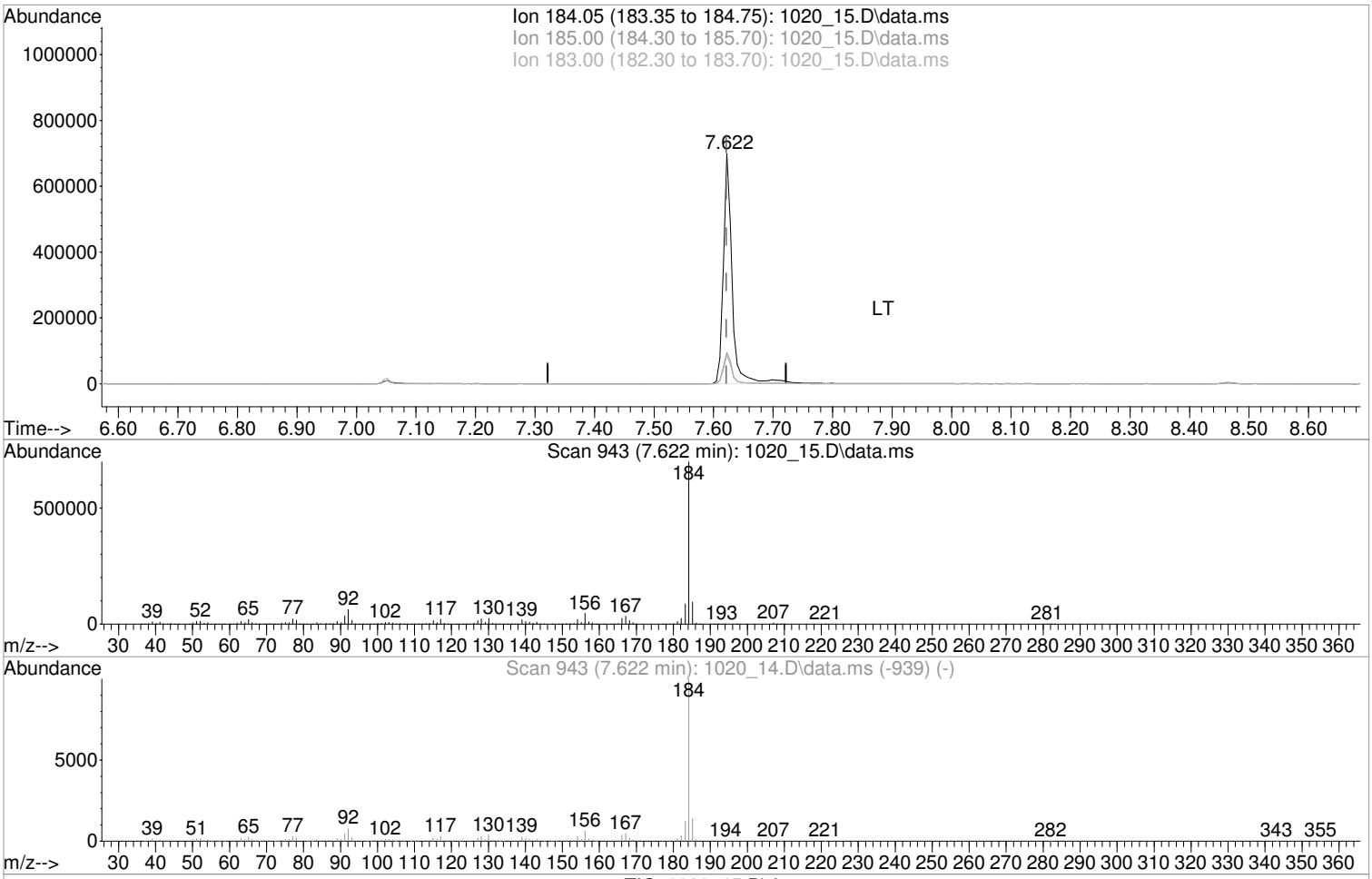
response 694746

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	14.08
183.00	11.30	12.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration



TIC: 1020_15.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 27457.7316415 ppb m

response 731088

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.38
183.00	11.30	11.46
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:06 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration

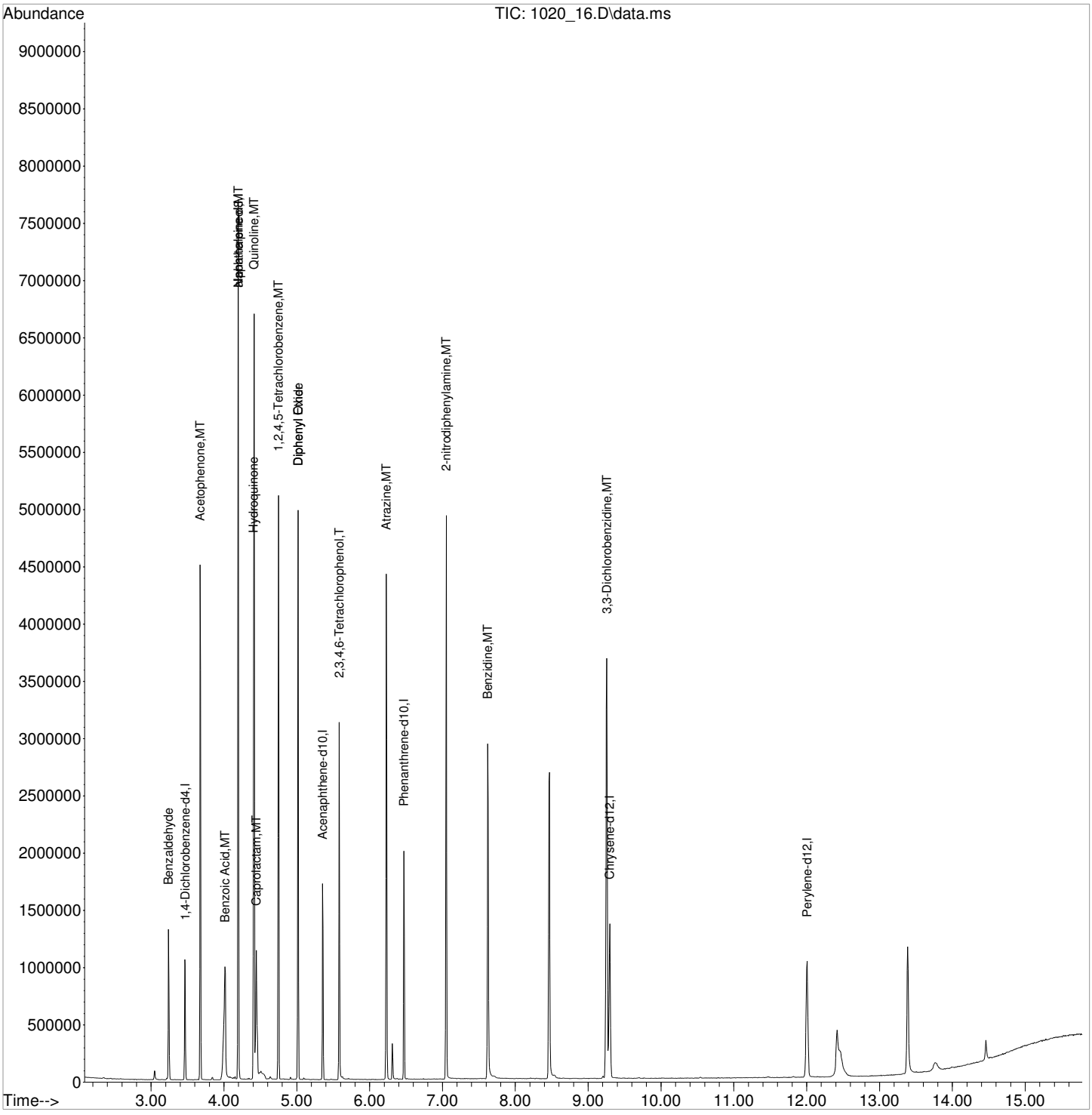
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	157386	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	863962	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	302556	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	606386	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	632960	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	682118	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	214671	29265.3694167	ppb	99
22) Acetophenone	3.674	105	1046151	30706.2958533	ppb	99
31) Benzoic Acid	4.015	105	431512	34046.8664337	ppb	100
33) alpha-terpineol	4.197	59	601703	23870.2100301	ppb	98
37) Hydroquinone	4.408	110	726400m	30245.1240463	ppb	
38) Quinoline	4.414	129	1452596	23735.2714758	ppb	98
39) Caprolactam	4.444	113	179995	27174.8147350	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.749	216	704323	23143.0525407	ppb	99
44) Diphenyl Ether	5.019	170	899419	22999.0688452	ppb	99
45) Diphenyl Oxide	5.019	170	899419	22999.0688452	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	323424	30054.6228328	ppb	98
69) Atrazine	6.230	200	463088	31217.8181325	ppb	99
82) 2-nitrodiphenylamine	7.052	167	558625	36969.8780504	ppb	98
85) Benzidine	7.622	184	1249278m	41785.5898737	ppb	
89) 3,3-Dichlorobenzidine	9.256	252	1202066	32435.7076984	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

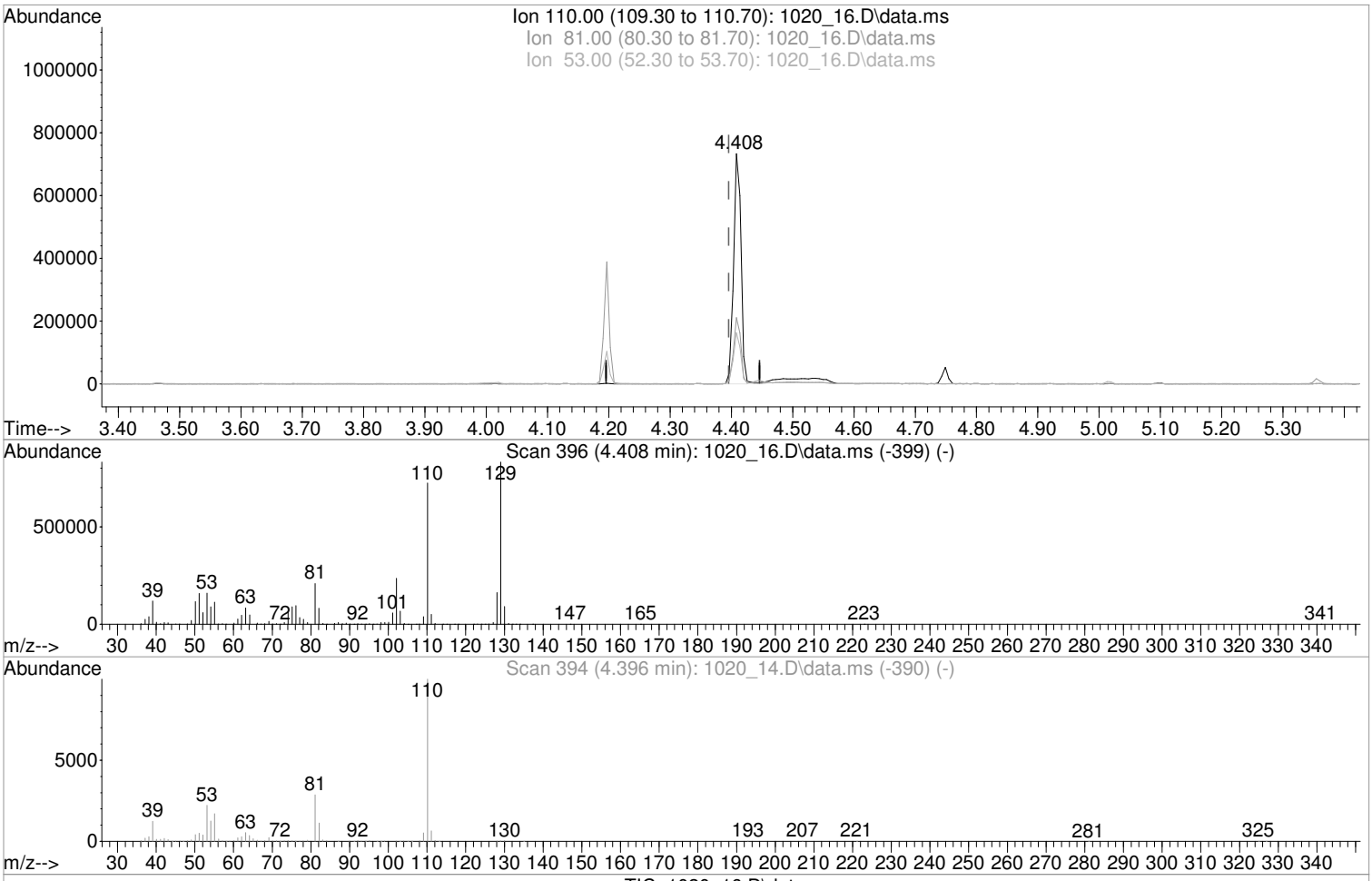
Quant Time: Oct 21 09:34:06 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



TIC: 1020_16.D\data.ms

(37) Hydroquinone

4.408min (+0.012) 25791.8376443 ppb

Qvalue = 100

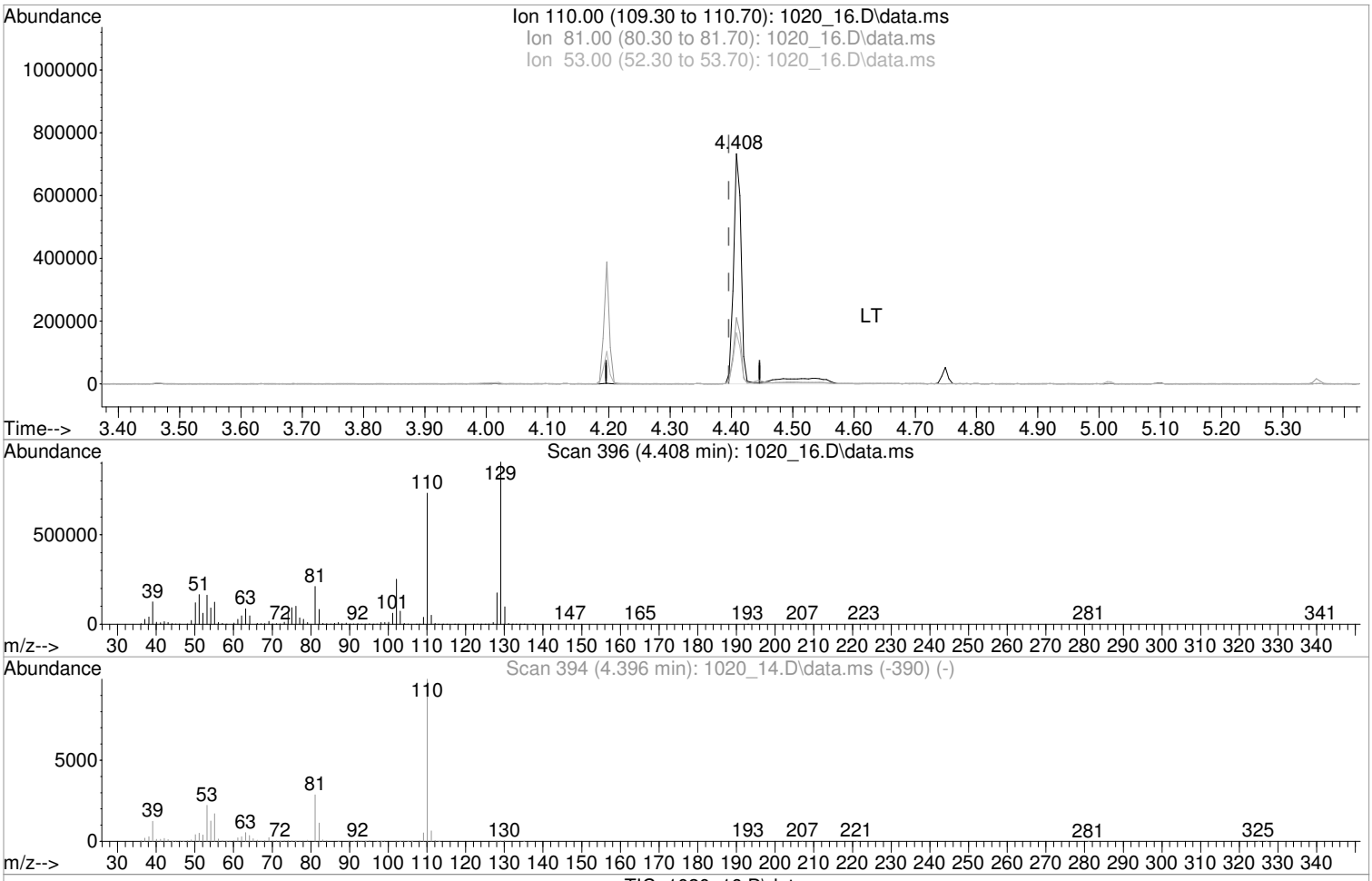
response 619445

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.80
53.00	22.20	22.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



TIC: 1020_16.D\data.ms

(37) Hydroquinone

4.408min (+0.012) 30245.1240463 ppb m

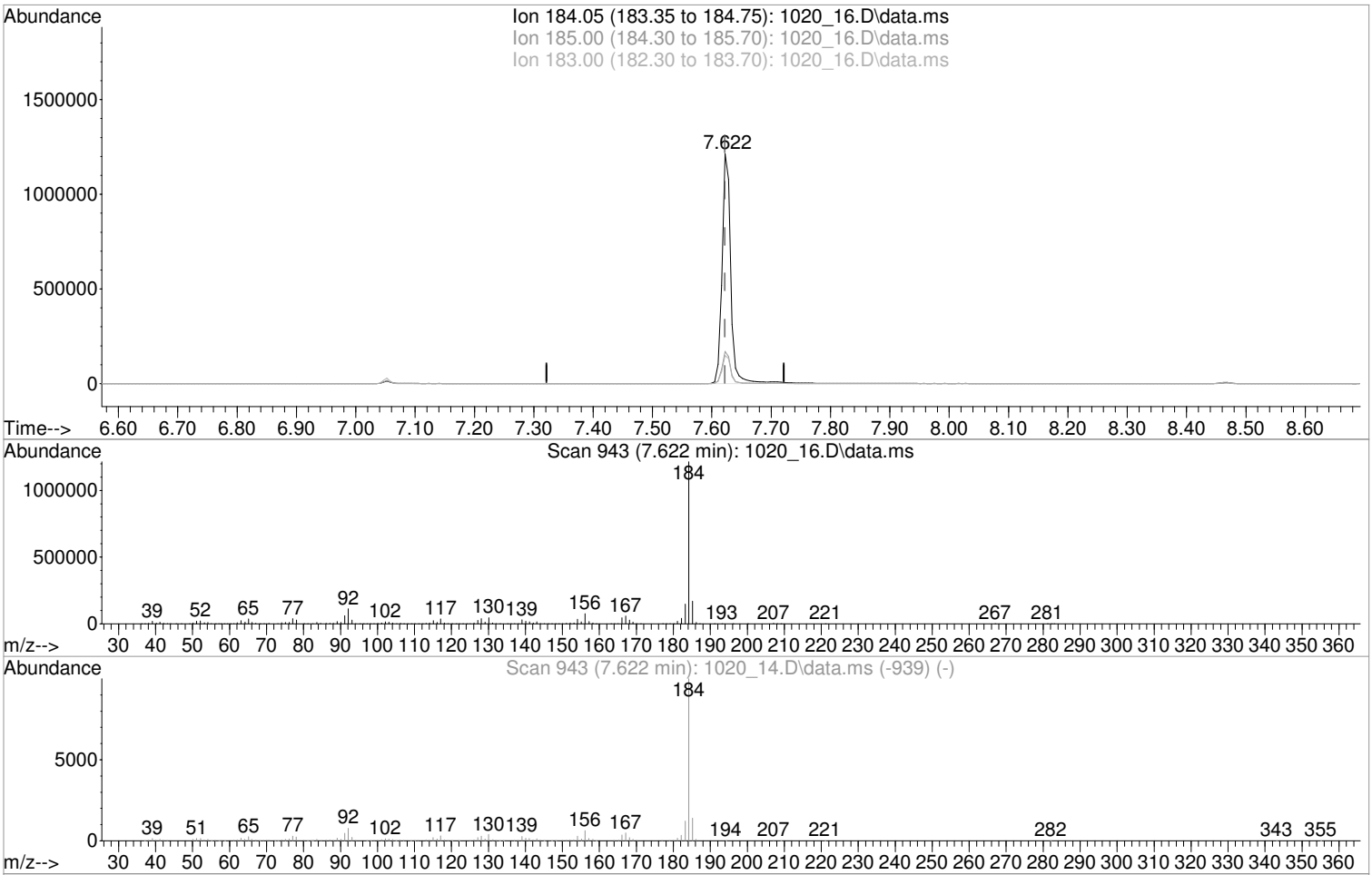
response 726400

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.85
53.00	22.20	22.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



TIC: 1020_16.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 40938.2904234 ppb

Qvalue = 98

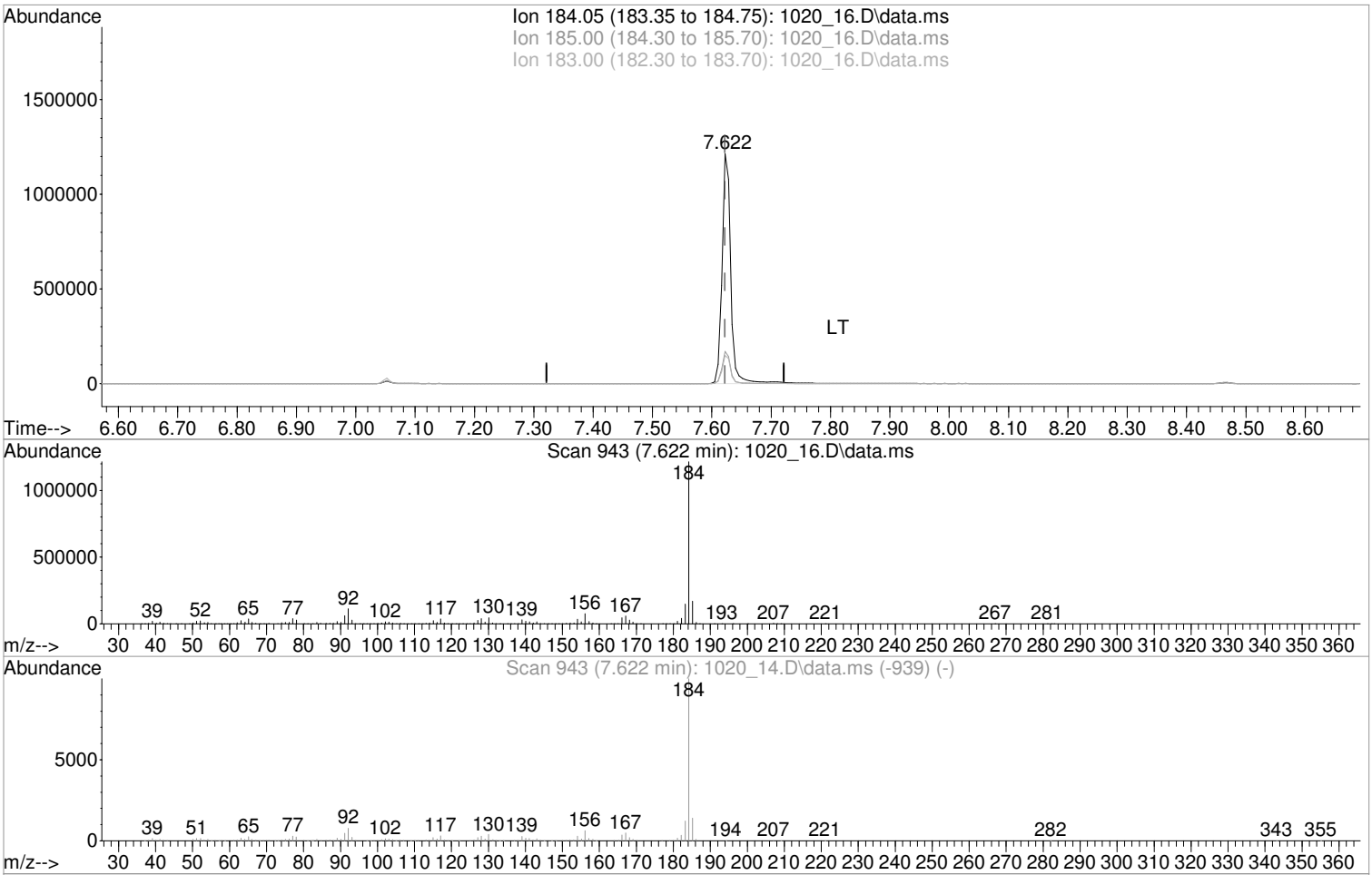
response 1223946

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.83
183.00	11.30	12.20
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



TIC: 1020_16.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 41785.5898737 ppb m

response 1249278

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.55
183.00	11.30	11.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

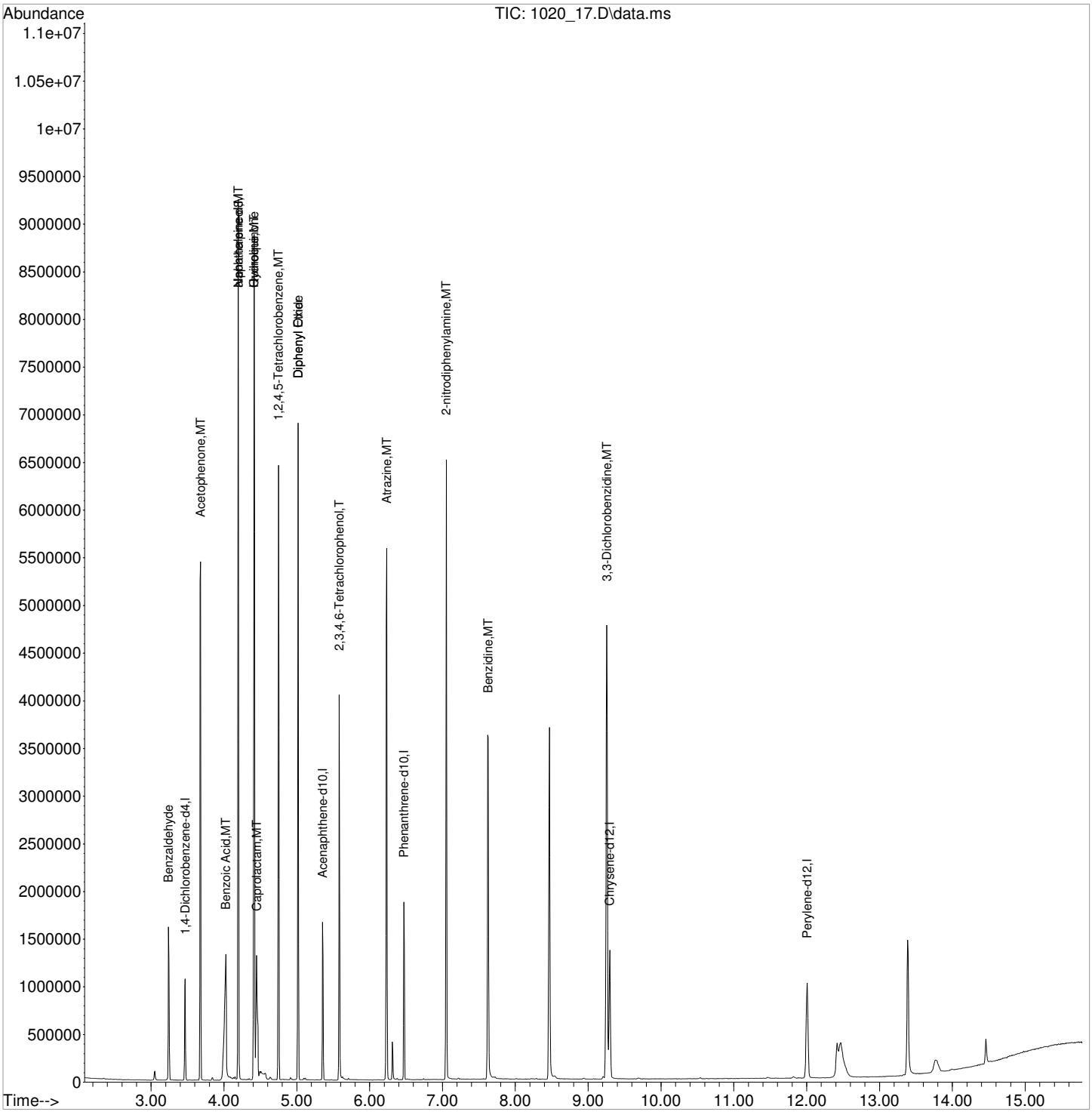
Quant Time: Oct 21 09:34:55 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	154062	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	930657	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	298194	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	604415	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	627608	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	686116	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	280443	39248.9461952	ppb	99
22) Acetophenone	3.680	105	1368829	40851.9397614	ppb	99
31) Benzoic Acid	4.026	105	596891	42571.8657011	ppb	99
33) alpha-terpineol	4.197	59	785614	30165.3696775	ppb	96
37) Hydroquinone	4.414	110	951868m	36732.6386686	ppb	
38) Quinoline	4.414	129	1918056	30362.9203713	ppb	98
39) Caprolactam	4.449	113	242503	34640.6490393	ppb	97
43) 1,2,4,5-Tetrachloroben...	4.749	216	908670	29045.6391854	ppb	100
44) Diphenyl Ether	5.019	170	1166731	29052.3973369	ppb	99
45) Diphenyl Oxide	5.019	170	1166731	29052.3973369	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	424902	40047.6062366	ppb	97
69) Atrazine	6.235	200	621962	42198.5988549	ppb	100
82) 2-nitrodiphenylamine	7.052	167	760578	48256.9955722	ppb	98
85) Benzidine	7.628	184	1615261	50518.3746899	ppb	97
89) 3,3-Dichlorobenzidine	9.255	252	1603951	42951.5166461	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

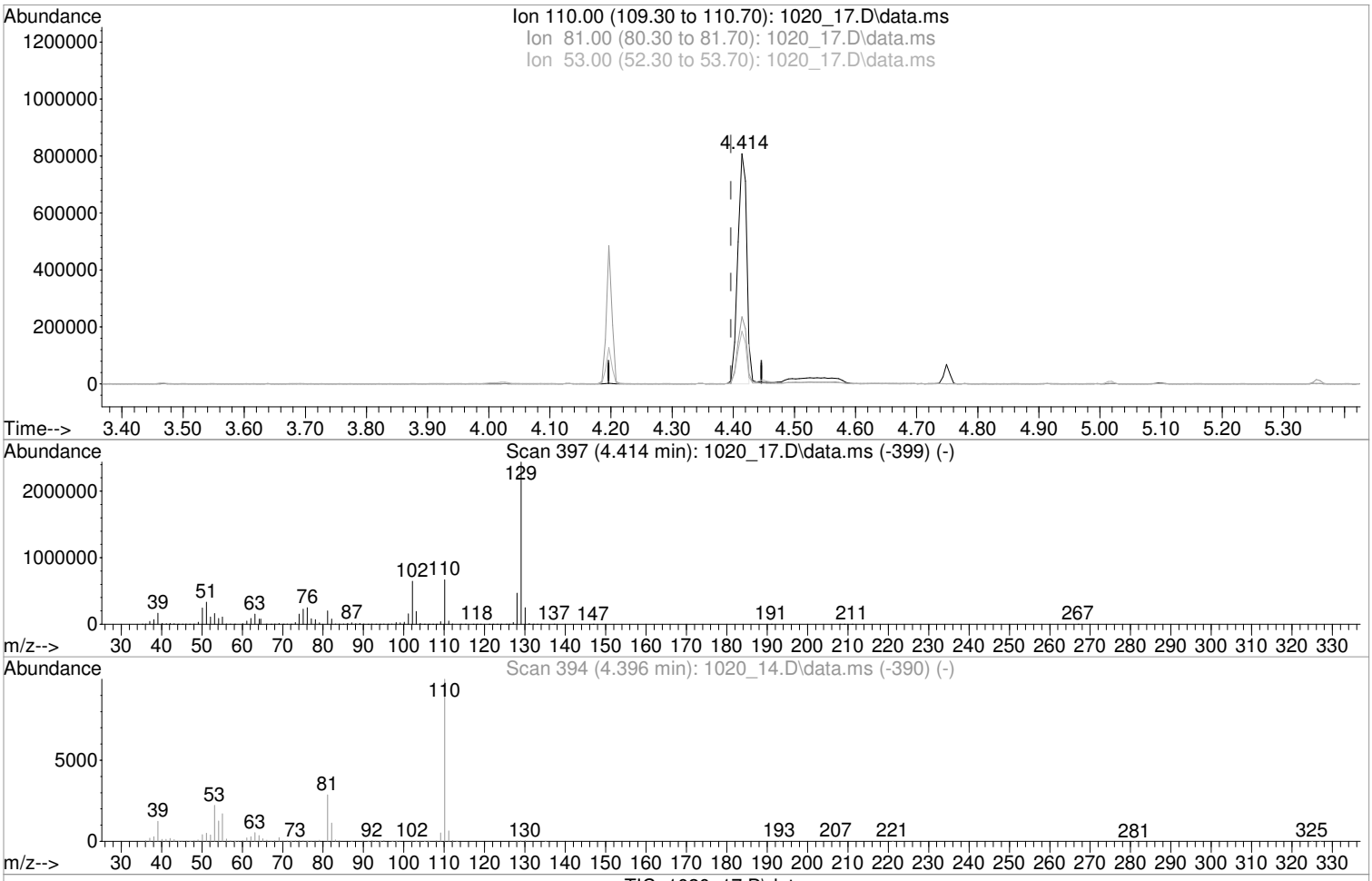
Quant Time: Oct 21 09:34:55 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:18 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration



TIC: 1020_17.D\data.ms

(37) Hydroquinone

4.414min (+0.018) 31480.5321551 ppb

Qvalue = 99

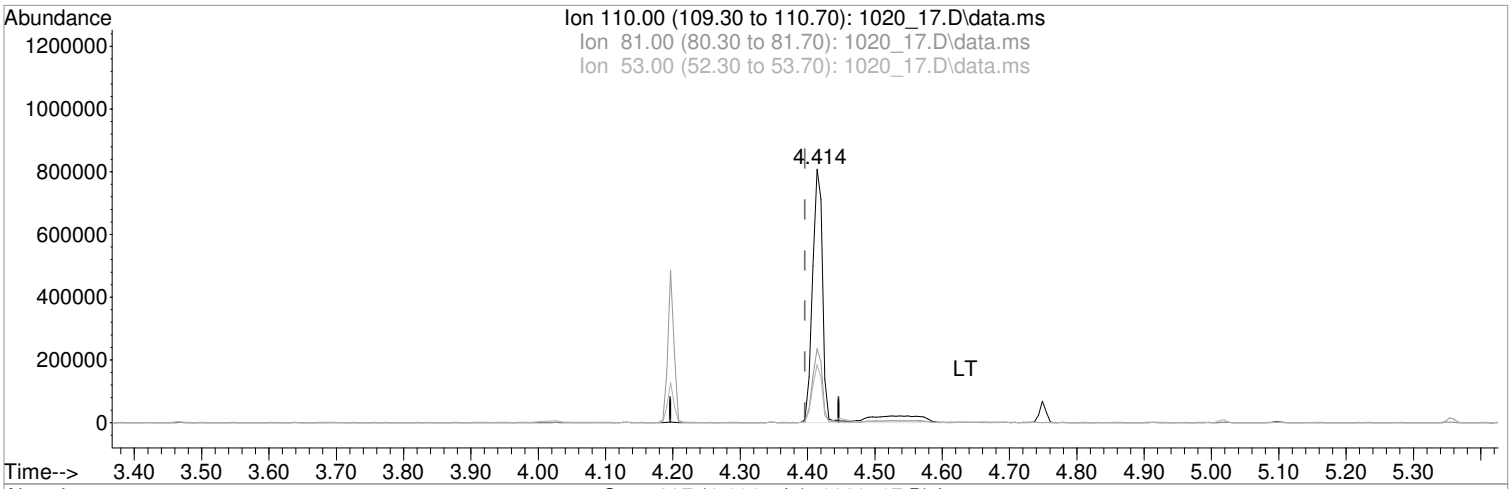
response 815768

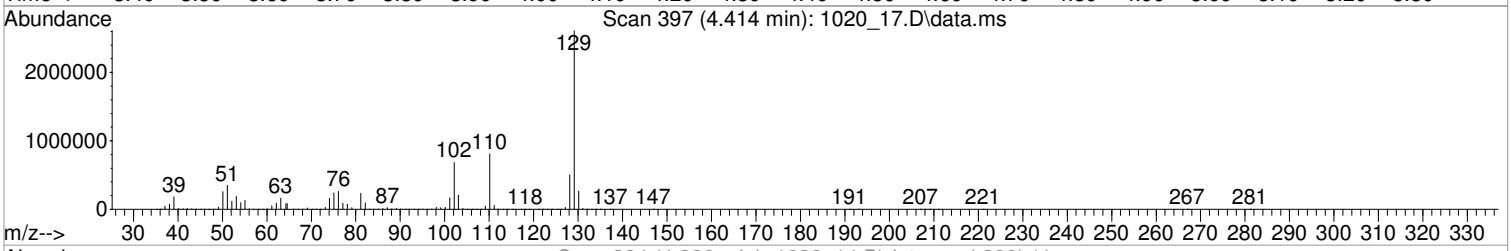
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.10
53.00	22.20	22.85
0.00	0.00	0.00

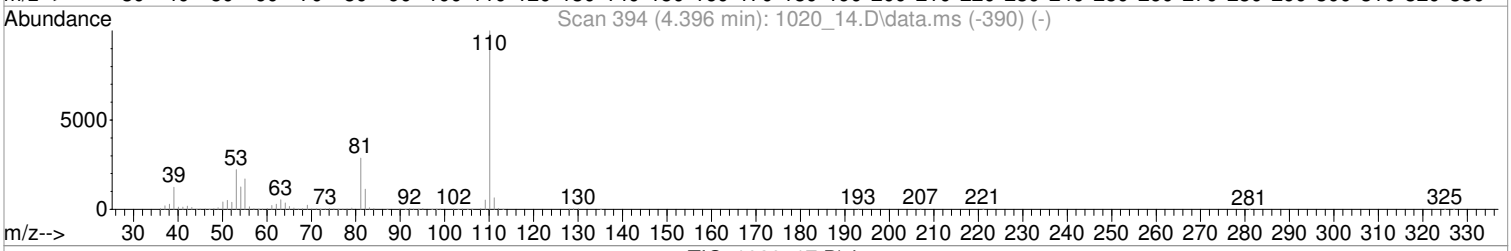
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:18 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration







TIC: 1020_17.D\data.ms

(37) Hydroquinone

4.414min (+0.018) 36732.6386686 ppb m

response 951868

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.16
53.00	22.20	22.89
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

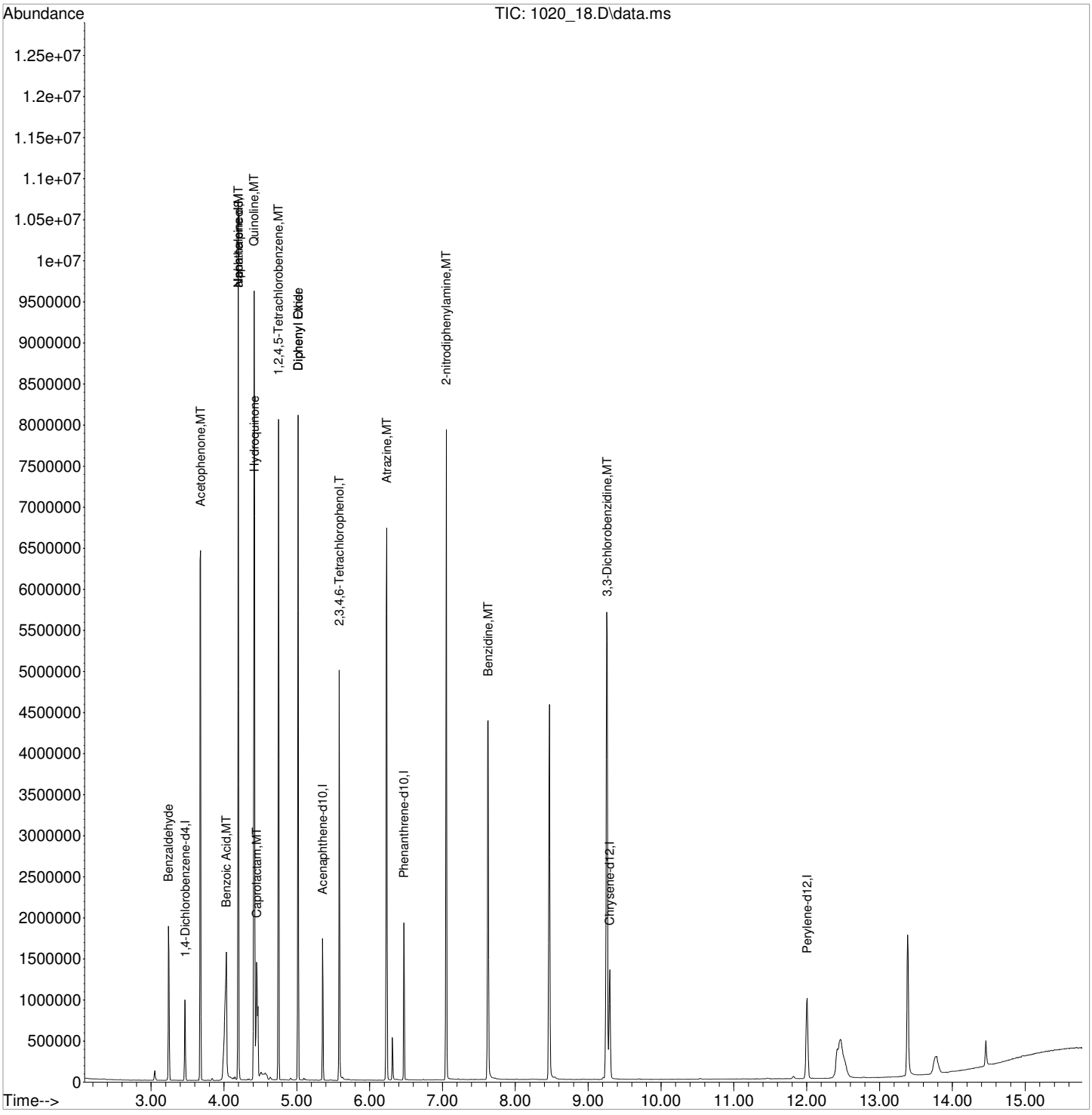
Quant Time: Oct 21 09:35:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	150865	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	972736	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	289984	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	581980	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	612987	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	664381	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	343525	49250.4255428	ppb	99
22) Acetophenone	3.680	105	1648626	50067.2522750	ppb	98
31) Benzoic Acid	4.032	105	752727	50819.5271213	ppb	100
33) alpha-terpineol	4.197	59	947318	36287.8424470	ppb	97
37) Hydroquinone	4.420	110	1153091m	43160.5275520	ppb	
38) Quinoline	4.414	129	2293480	36188.4965347	ppb	97
39) Caprolactam	4.449	113	297999	41656.8437531	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.749	216	1089146	34901.5506177	ppb	100
44) Diphenyl Ether	5.019	170	1407068	35123.4674496	ppb	98
45) Diphenyl Oxide	5.019	170	1407068	35123.4674496	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.583	232	512172	49629.7795188	ppb	94
69) Atrazine	6.236	200	782164	54074.9943457	ppb	99
82) 2-nitrodiphenylamine	7.052	167	937972	59750.7436632	ppb	98
85) Benzidine	7.628	184	1943229	59612.7982599	ppb	98
89) 3,3-Dichlorobenzidine	9.261	252	1956210	52982.4107734	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

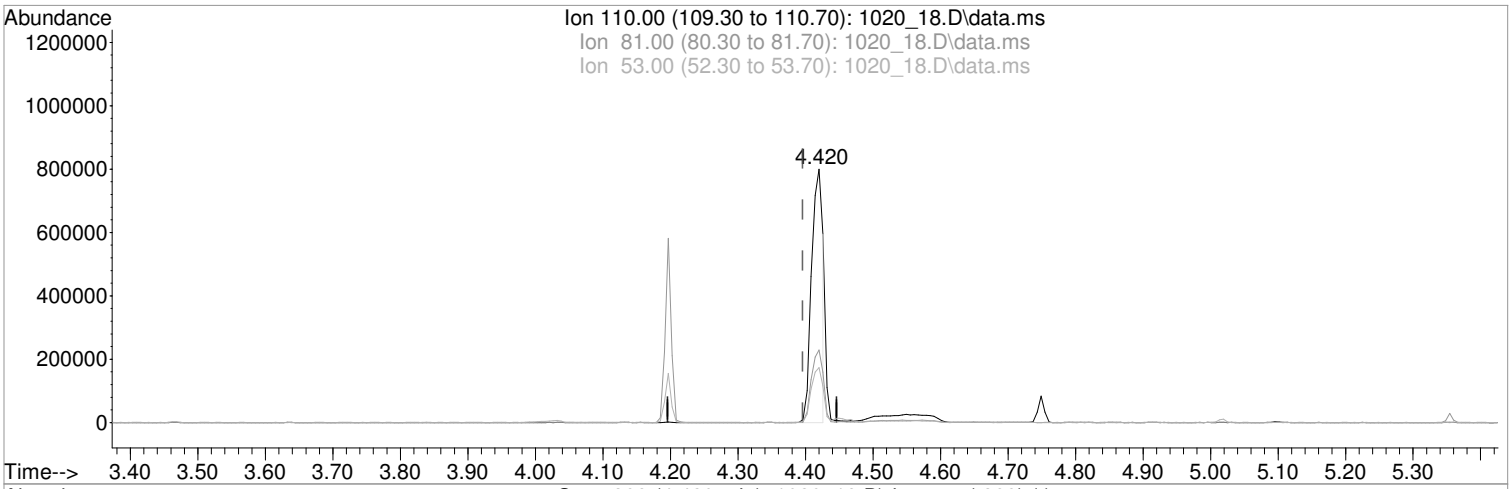
Quant Time: Oct 21 09:35:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration

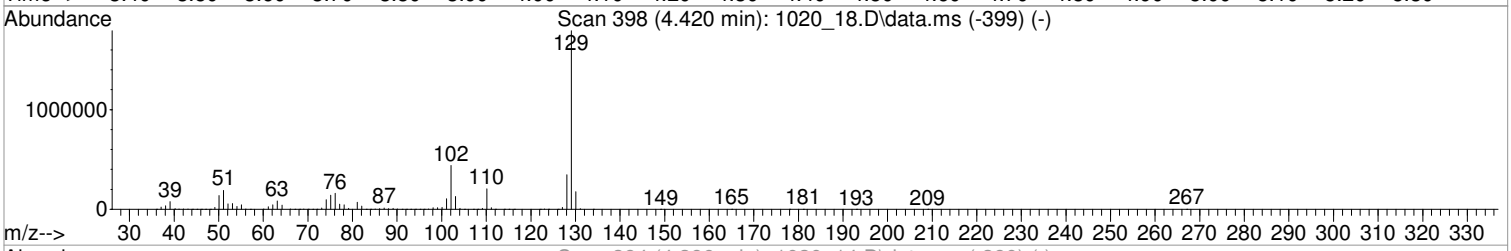


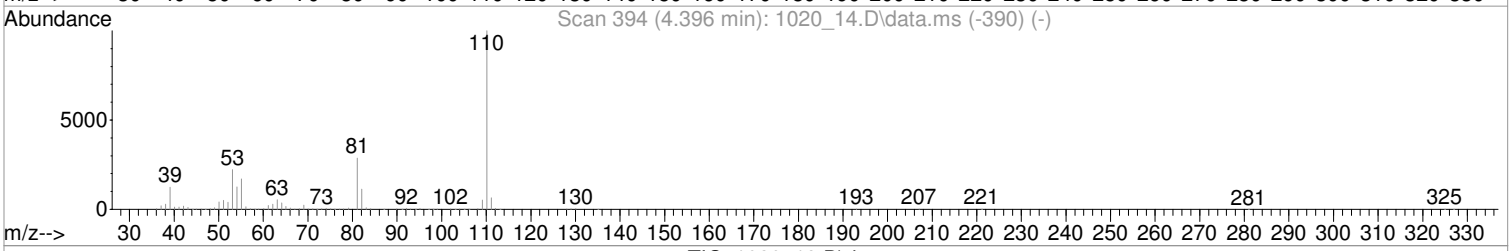
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:35:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration







TIC: 1020_18.D\data.ms

(37) Hydroquinone

4.420min (+0.024) 35422.0027793 ppb

Qvalue = 100

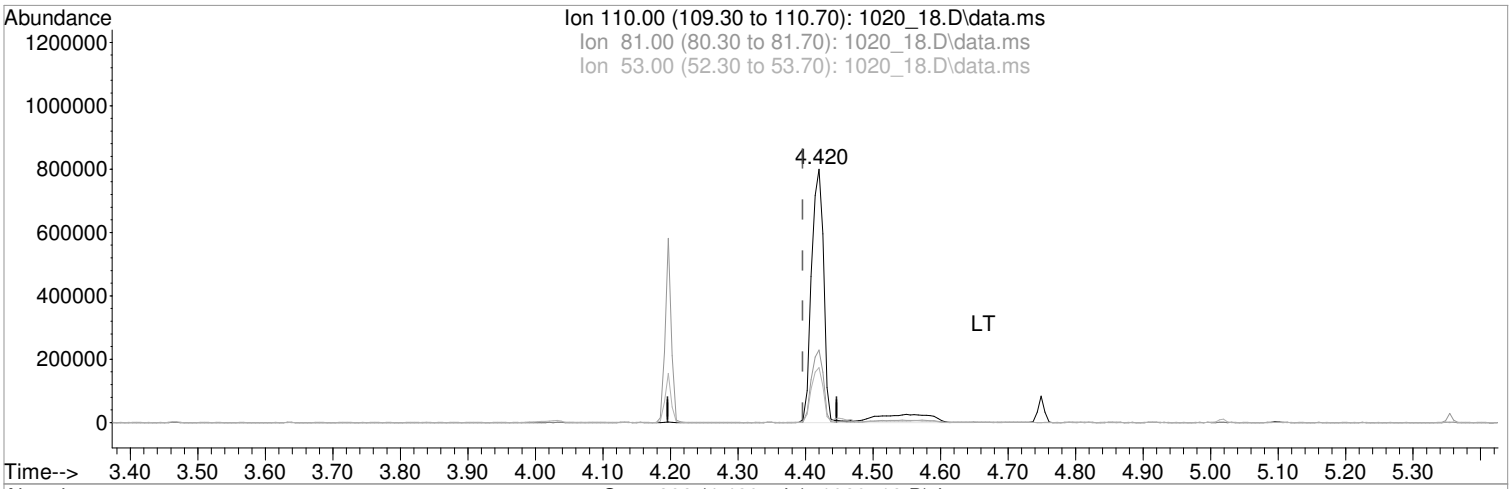
response 946346

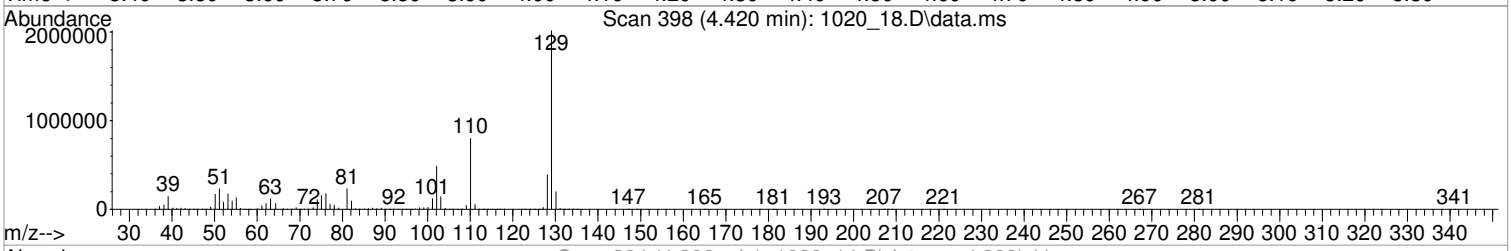
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.66
53.00	22.20	21.73
0.00	0.00	0.00

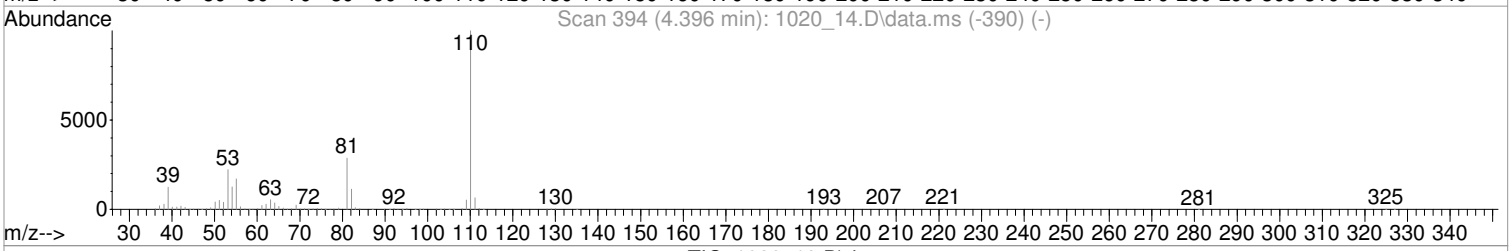
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:35:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration







TIC: 1020_18.D\data.ms

(37) Hydroquinone

4.420min (+0.024) 43160.5275520 ppb m

response 1153091

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.73
53.00	22.20	21.76
0.00	0.00	0.00

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1020_19-1	**Analysis date/time:**	10/21/22 00:34
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.631524	0.64616840		2.32		10	10.23	102	50 - 150
2-METHYLNAPHTHALENE	0.675661	0.66892640		0.9970		10	9.900	99	50 - 150
3&4-METHYL PHENOL	1.431908	1.403001		2.02		10	9.798	98	50 - 150
ACENAPHTHENE	1.229442	1.213867		1.27		10	9.873	98.70	80 - 120
ACENAPHTHYLENE	1.858572	1.896756		2.05		10	10.21	102	50 - 150
ANTHRACENE	1.107564	1.075623		2.88		10	9.712	97.10	50 - 150
BENZO(A)ANTHRACENE	1.198084	1.137022		5.10		10	9.490	94.90	50 - 150
BENZO(A)PYRENE	1.040826	1.101217		5.80		10	10.58	106	80 - 120
BENZO(B)FLUORANTHENE	1.198561	1.186239		1.03		10	9.897	99	50 - 150
BENZO(G,H,I)PERYLENE	1.064936	1.118789		5.06		10	10.51	105	50 - 150
BENZO(K)FLUORANTHENE	1.183434	1.183357		0.006510		10	9.999	100	50 - 150
BIS(2-ETHYLHEXYL)PHTHALATE	0.697969	0.67561790		3.20		10	9.680	96.80	50 - 150
CARBAZOLE	1.061630	1.102846		3.88		10	10.39	104	50 - 150
CHRYSENE	1.136627	1.153955		1.52		10	10.15	102	50 - 150
DI-N-BUTYL PHTHALATE	1.281066	1.300718		1.53		10	10.15	102	50 - 150
DI-N-OCTYL PHTHALATE	1.180926	1.099809		6.87		10	9.313	93.10	80 - 120
DIBENZ(A,H)ANTHRACENE	1.072637	1.138916		6.18		10	10.62	106	50 - 150
DIBENZOFURAN	1.700492	1.683745		0.9850		10	9.902	99	50 - 150
FLUORANTHENE	1.287812	1.252358		2.75		10	9.725	97.30	80 - 120
FLUORENE	1.3899	1.383513		0.46		10	9.954	99.50	50 - 150
INDENO(1,2,3-CD)PYRENE	1.047460	1.087104		3.78		10	10.38	104	50 - 150
NAPHTHALENE	1.056043	1.044998		1.05		10	9.895	99	50 - 150
PENTACHLOROPHENOL	0.140213	0.16779770		19.70		10	11.97	120	80 - 120
PHENANTHRENE	1.077455	1.078873		0.1320		10	10.01	100	50 - 150
PHENOL	1.731591	1.701637		1.73		10	9.827	98.30	80 - 120
PYRENE	1.190215	1.185924		0.3610		10	9.964	99.60	50 - 150
2,4,6-TRIBROMOPHENOL	0.129466	0.123452		4.65		10	9.535	95.30	50 - 150
2-FLUOROBIPHENYL	1.404629	1.360726		3.13		10	9.687	96.90	50 - 150
2-FLUOROPHENOL	1.386375	1.274432		8.07		10	9.193	91.90	50 - 150
NITROBENZENE-D5	0.339051	0.31095360		8.29		10	9.171	91.70	50 - 150
P-TERPHENYL-D14	1.097608	1.035553		5.65		10	9.435	94.40	50 - 150
PHENOL-D5	1.678185	1.574594		6.17		10	9.383	93.80	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	149946	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.197	136	572106	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.354	164	294340	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.471	188	568208	8000.0000000 ppb		0.00
84) Chrysene-d12	9.297	240	630412	8000.0000000 ppb		0.00
94) Perylene-d12	12.005	264	670753	8000.0000000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.798	112	238870	9192.5494501 ppb		0.00
Spiked Amount 20000.000				Recovery = 45.96%		
7) Phenol-d5	3.233	99	295130	9382.7156009 ppb		0.00
Spiked Amount 20000.000				Recovery = 46.91%		
24) Nitrobenzene-d5	3.768	82	222373m	9171.2861496 ppb		0.00
Spiked Amount 10000.000				Recovery = 91.71%		
50) 2-Fluorobiphenyl	4.878	172	500645	9687.4409495 ppb		0.00
Spiked Amount 10000.000				Recovery = 96.87%		
73) 2,4,6-Tribromophenol	5.930	330	87683	9535.4657466 ppb		0.00
Spiked Amount 20000.000				Recovery = 47.68%		
87) p-Terphenyl-d14	7.887	244	816031	9434.6311496 ppb		0.00
Spiked Amount 10000.000				Recovery = 94.35%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	291744	10437.3725056 ppb		99
3) N-Nitrosodimethylamine	2.246	42	120661	9049.4943785 ppb		98
5) Aniline	3.286	66	135014	9484.8349876 ppb	#	92
6) bis(2-Chloroethyl)ether	3.309	93	240174m	11276.6570928 ppb		
8) Phenol	3.239	94	318942	9827.0140368 ppb		97
10) 2-Chlorophenol	3.351	128	267219	10002.6696405 ppb		99
11) n-Decane	3.351	41	130793	9323.7213285 ppb	#	97
12) 1,3-Dichlorobenzene	3.439	146	301493	10303.8922905 ppb		98
13) 1,4-Dichlorobenzene	3.474	146	298970	10080.6911172 ppb		98
14) Benzyl Alcohol	3.521	79	203808	10075.8799741 ppb		98
15) 1,2-Dichlorobenzene	3.562	146	282781	10156.1525122 ppb		99
16) bis(2-Chloroisopropyl)...	3.592	121	90935	10320.3600896 ppb		98
17) 2,2-oxybis(1-chloropro...	3.592	121	90935	10320.3600896 ppb		98
18) 2-Methylphenol	3.568	108	234955	9918.3767111 ppb		99
19) Hexachloroethane	3.750	117	105982	9752.9428906 ppb		97
20) N-Nitrosodi-n-propylamine	3.668	70	168074	9790.0039784 ppb		97
21) 3&4-Methyl phenol	3.650	107	262968	9798.1205102 ppb		98
25) Nitrobenzene	3.780	77	248721	10015.6112315 ppb		98
26) Isophorone	3.909	82	429785	9477.5195879 ppb		100
27) 2-Nitrophenol	3.962	139	128893	10119.0371882 ppb		95
28) 2,4-Dimethylphenol	3.962	107	244086	10200.4061232 ppb		99
29) bis(2-Chlorethoxy)methane	4.020	93	283680	10082.9718202 ppb		99
30) 2,4-Dichlorophenol	4.097	162	208736	10084.9209358 ppb		98
32) 1,2,4-Trichlorobenzene	4.156	180	233557	9961.1518630 ppb		97
34) Naphthalene	4.208	128	747312m	9895.4149478 ppb		
35) 4-Chloroaniline	4.226	65	80420	9893.3730258 ppb		100
36) Hexachloro-1,3-butadiene	4.273	225	150336	11005.8759043 ppb		99

Data Path : C:\msdchem\1\data\102022\
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Acq On : 21 Oct 2022 12:34 am
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Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.508	107	196794	9542.1937076 ppb		96
41) 2-Methylnaphthalene	4.643	142	478371	9900.3229876 ppb		99
42) 1-Methylnaphthalene	4.708	142	462096	10231.8836930 ppb		100
47) Hexachlorocyclopentadiene	4.743	237	136569	8015.4373960 ppb		97
48) 2,4,6-Trichlorophenol	4.814	196	137310	9553.1561018 ppb		92
49) 2,4,5-Trichlorophenol	4.837	196	151112	10447.8483406 ppb		92
51) Biphenyl	4.949	154	548451	9738.9167569 ppb		100
52) 2-Chloronaphthalene	4.966	162	441898	9974.1365049 ppb		99
53) 2-Nitroaniline	5.025	138	147385	10459.3020467 ppb		99
54) Acenaphthylene	5.260	152	697864	10205.4474294 ppb		100
55) Dimethyl phthalate	5.143	163	467465	9796.4518427 ppb		99
56) 2,6-Dinitrotoluene	5.190	165	110942	10359.1896875 ppb		85
57) 3-Nitroaniline	5.307	138	120653	10262.8410595 ppb	#	83
58) Acenaphthene	5.378	153	446612	9873.3124387 ppb		99
59) 2,4-Dinitrophenol	5.384	184	48721	9936.9750567 ppb	#	31
60) Dibenzofuran	5.501	168	619492	9901.5177999 ppb		100
61) 2,4-Dinitrotoluene	5.478	165	139543	10385.2624881 ppb		95
63) 4-Nitrophenol	5.407	139	96317m	11193.7466939 ppb		
64) Fluorene	5.754	166	509029	9954.0495440 ppb		100
65) 4-Chlorophenyl-phenyle...	5.748	204	255592	10046.0409863 ppb		96
66) Diethyl phthalate	5.648	149	487181	10590.3756438 ppb		98
67) 4-Nitroaniline	5.754	138	123458	11454.3797898 ppb		99
68) Azobenzene	5.865	77	479727	9922.7101512 ppb		99
71) 4,6-Dinitro-2-methylph...	5.771	198	68514	9936.8999737 ppb		86
72) N-Nitrosodiphenylamine	5.830	169	447908	9943.5271923 ppb		99
74) 4-Bromophenyl-phenylether	6.118	248	170679	10016.9016888 ppb		95
75) Hexachlorobenzene	6.171	284	204393	9654.9027864 ppb		99
76) n-octadecane	6.359	55	70518	8964.0322931 ppb		99
77) Pentachlorophenol	6.312	266	119180	11967.3509004 ppb		97
78) Phenanthrene	6.488	178	766280	10013.1539849 ppb		98
79) Anthracene	6.529	178	763972	9711.6076414 ppb		98
80) Carbazole	6.647	167	783307	10388.2245294 ppb		100
81) Di-n-butyl phthalate	6.917	149	923848	10153.4061778 ppb		99
83) Fluoranthene	7.499	202	889500	9724.6966616 ppb		99
86) Pyrene	7.728	202	934526	9963.9518690 ppb		99
88) Benzylbutyl phthalate	8.492	149	379770	9603.9925833 ppb		97
90) Benzo(a)anthracene	9.279	228	895990	9490.3285527 ppb		98
91) Chrysene	9.338	228	909334	10152.4566833 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.385	149	532397	9679.7649840 ppb		99
93) Di-n-octyl phthalate	10.619	149	866666	9313.1099090 ppb		100
95) Benzo(b)fluoranthene	11.230	252	994592	9897.1984321 ppb		99
96) Benzo(k)fluoranthene	11.289	252	992175	9999.3432922 ppb		99
97) Benzo(a)pyrene	11.888	252	923306	10580.2288100 ppb		99
98) Indeno(1,2,3-cd)pyrene	13.921	276	911473	10378.4822911 ppb		99
99) Dibenz(a,h)anthracene	13.968	278	954914	10617.9079696 ppb		99
100) Benzo(g,h,i)perylene	14.256	276	938039	10505.6935177 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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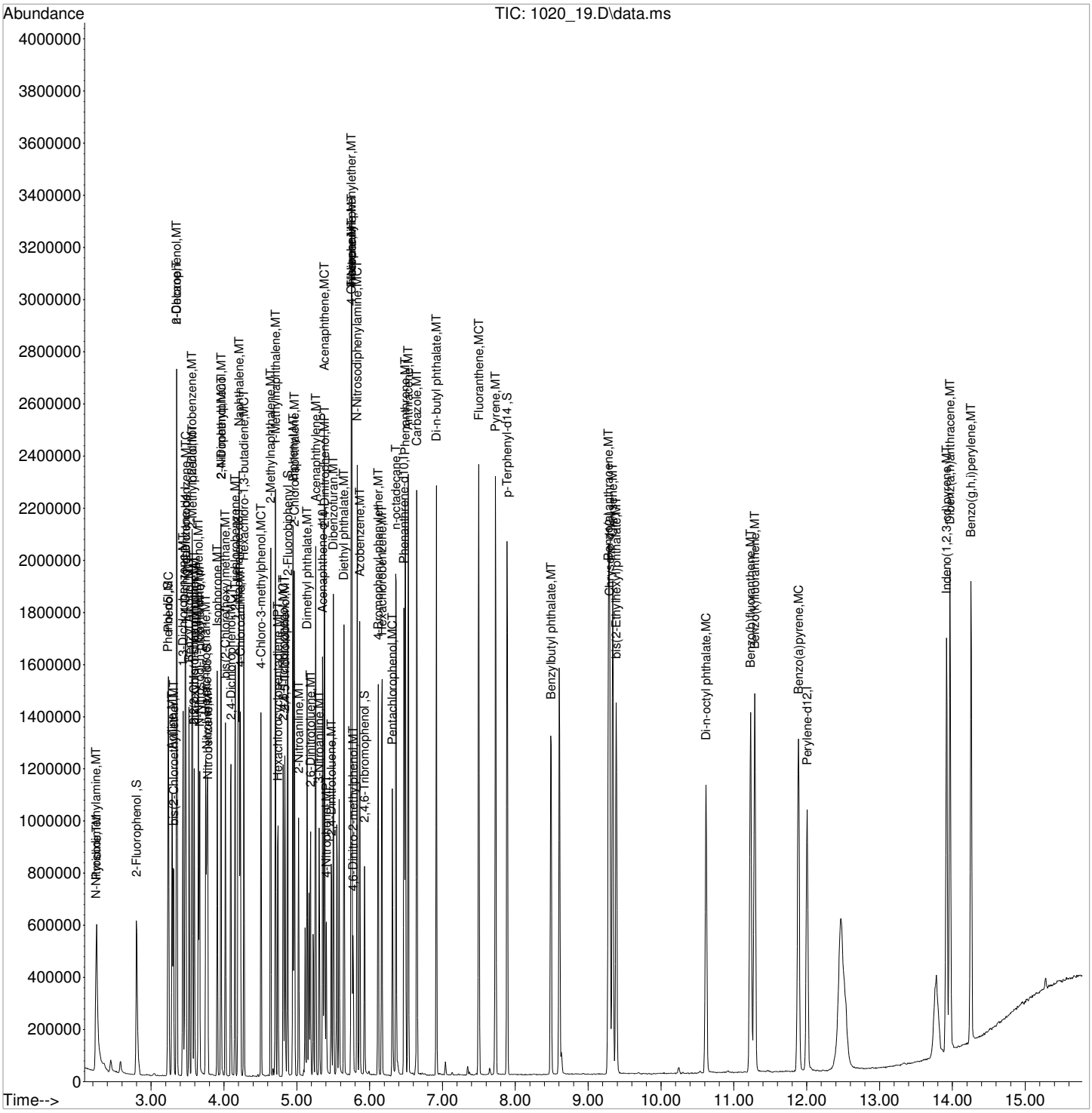
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

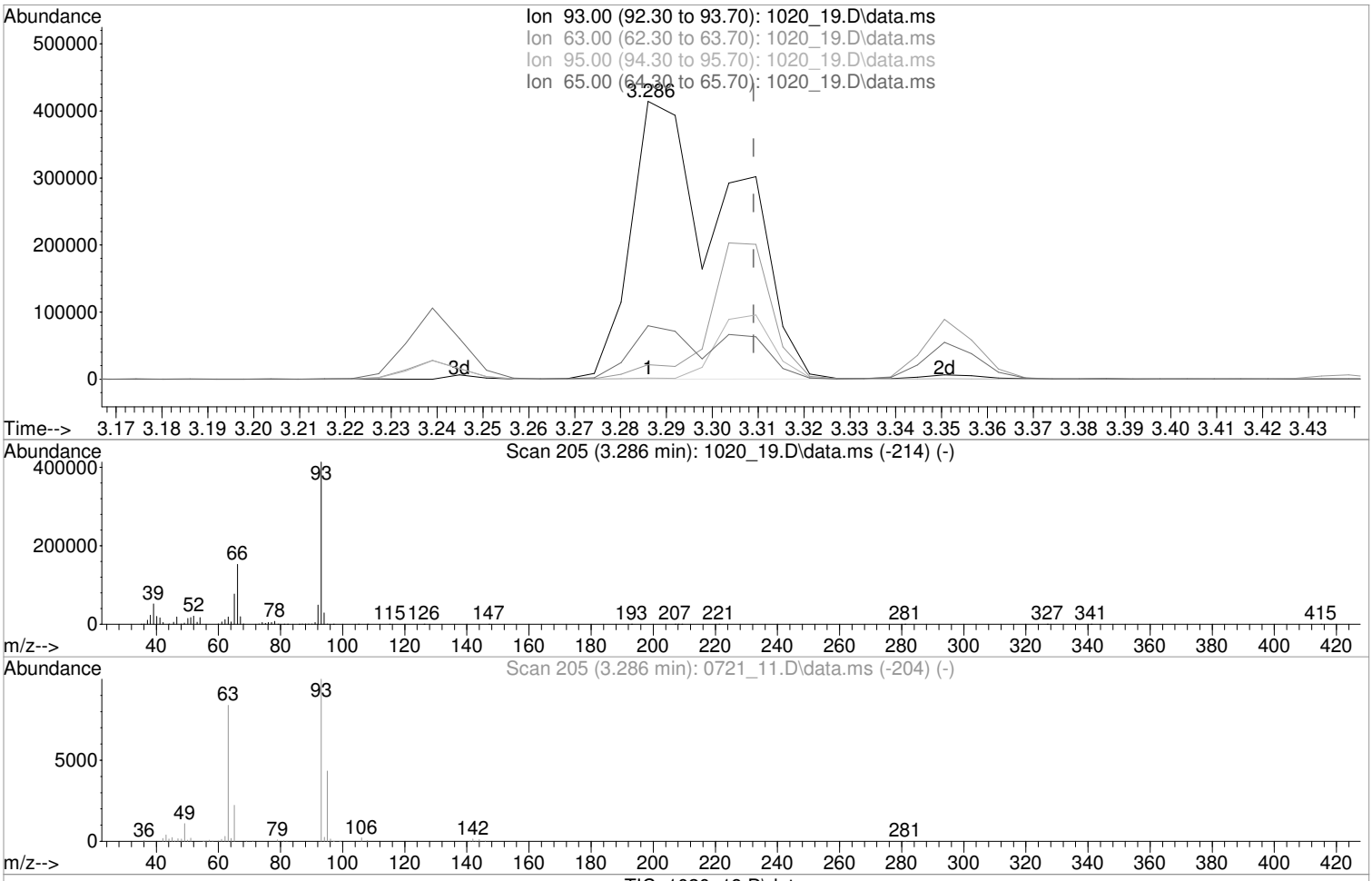


S802J20V.M Fri Oct 21 10:06:04 2022 Page: 3

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 29426.4811473 ppb

Qvalue = 41

response 626735

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.13#
95.00	32.50	0.25#
65.00	21.90	18.86

Quantitation Report (Qedit)

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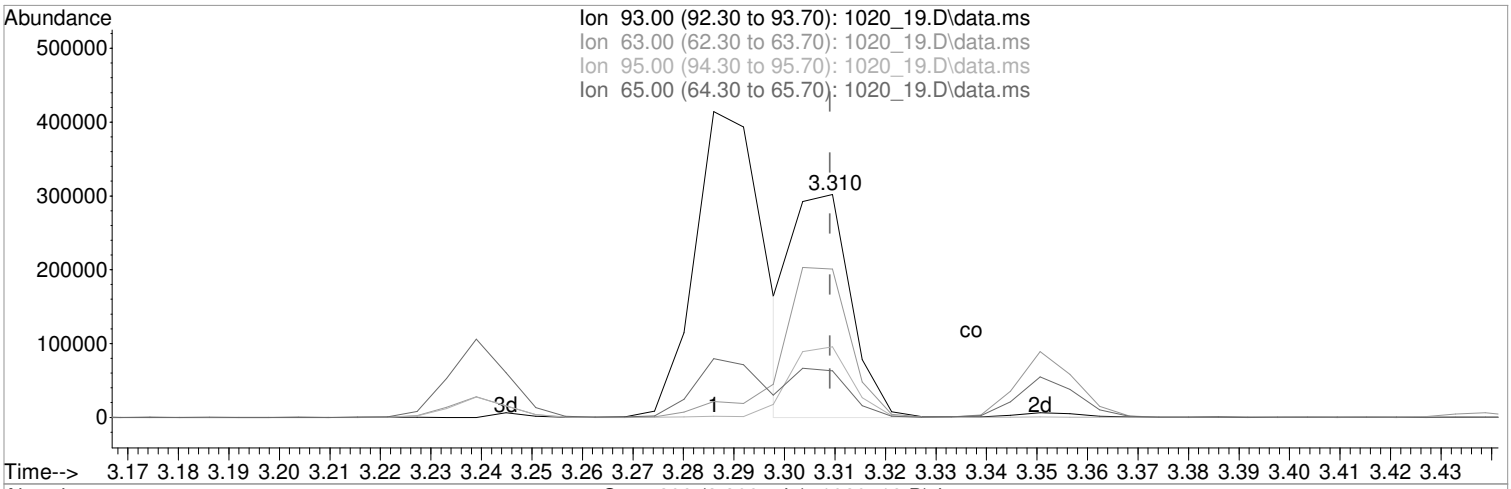
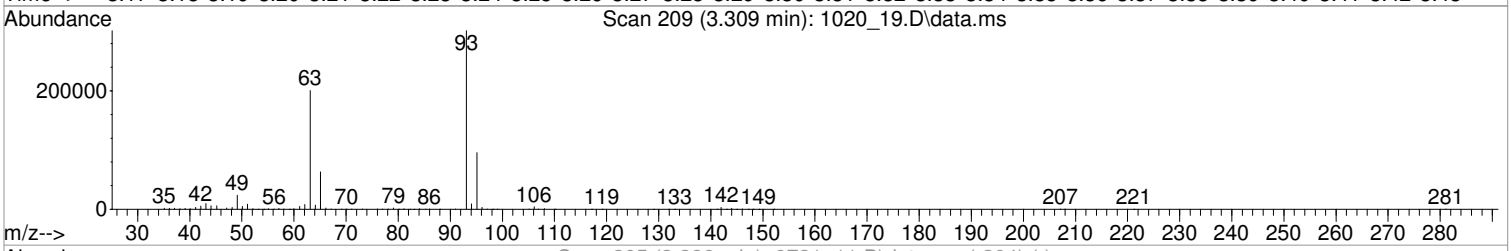
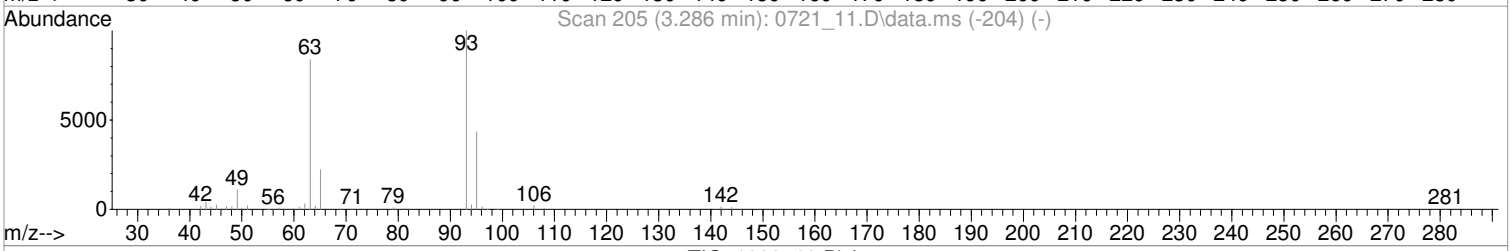
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 11276.6570928 ppb m

response 240174

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	66.57
95.00	32.50	31.68
65.00	21.90	20.96

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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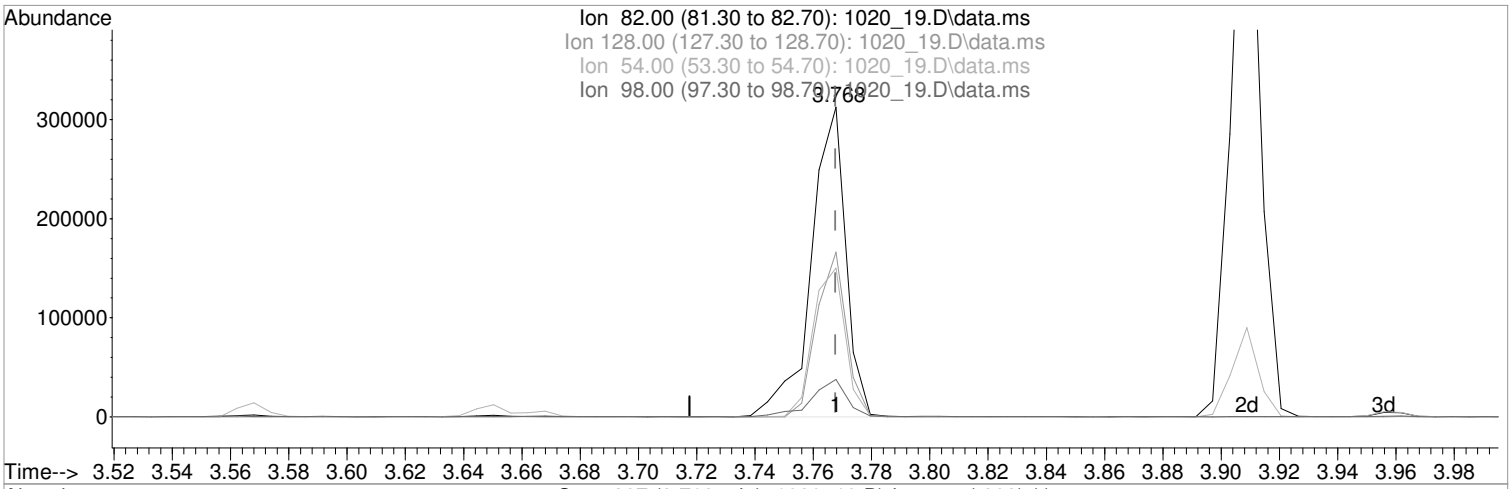
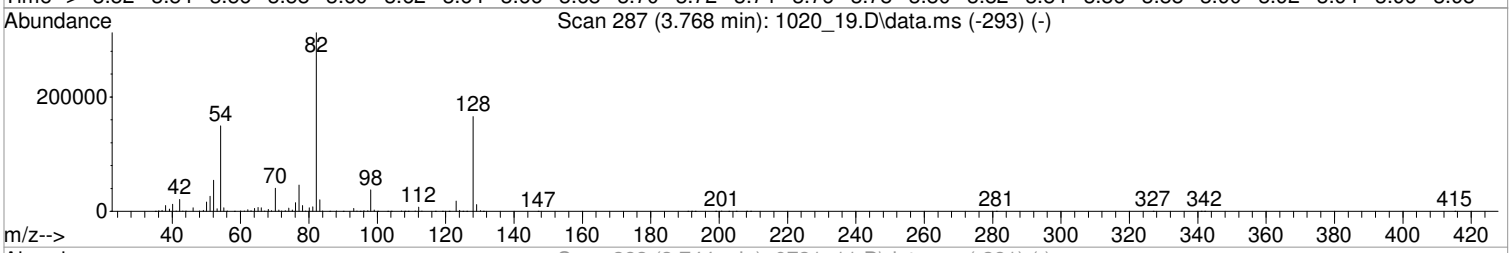
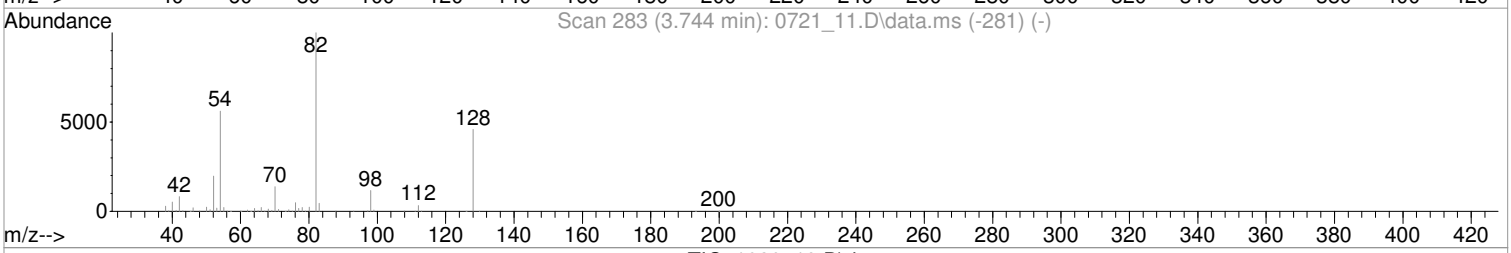
Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 10653.1813556 ppb

Qvalue = 99

response 258304

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.15
54.00	48.90	47.93
98.00	12.10	12.10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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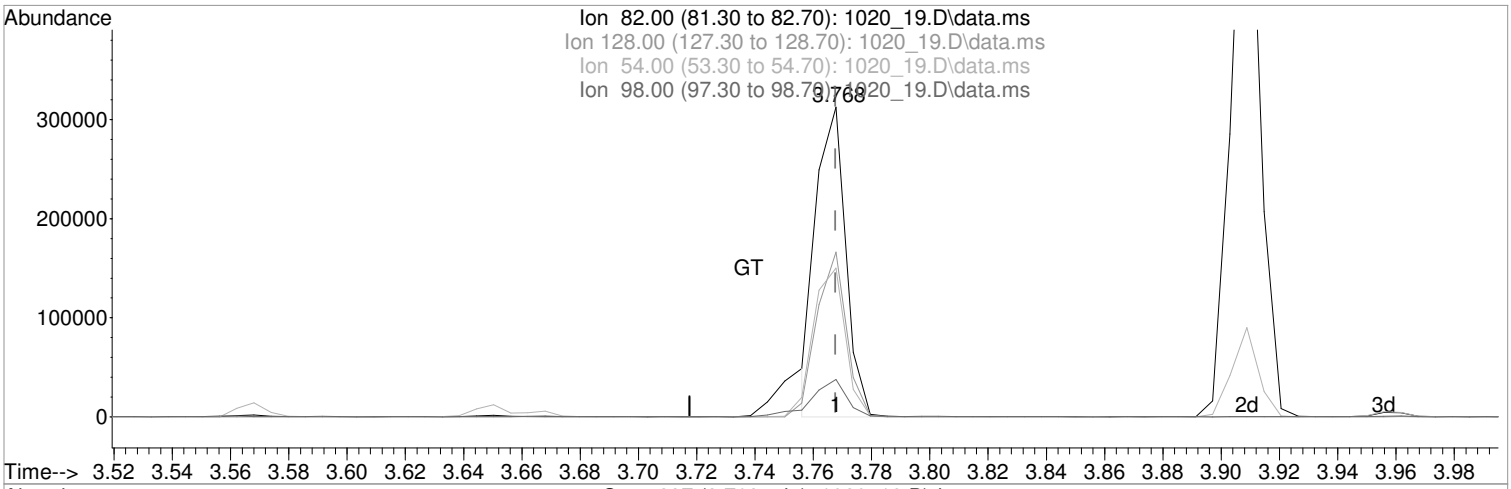
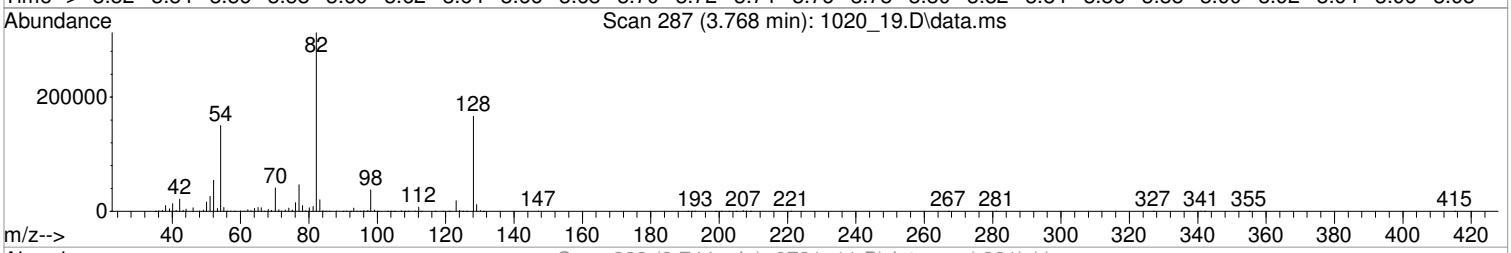
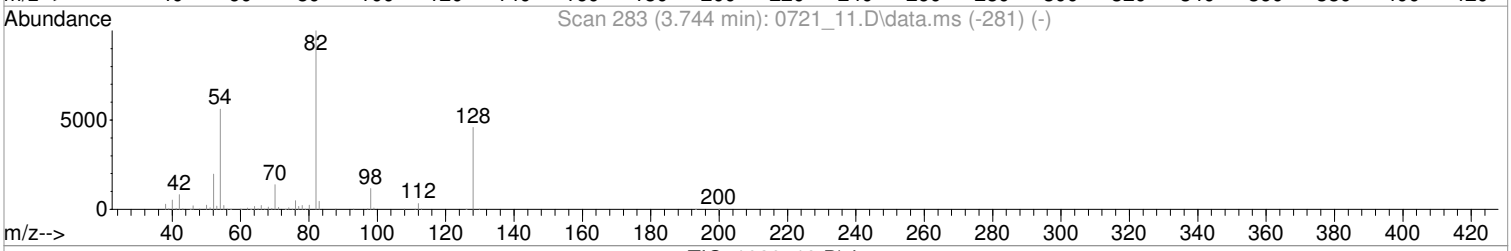
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 9171.2861496 ppb m

response 222373

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.15
54.00	48.90	47.99
98.00	12.10	12.10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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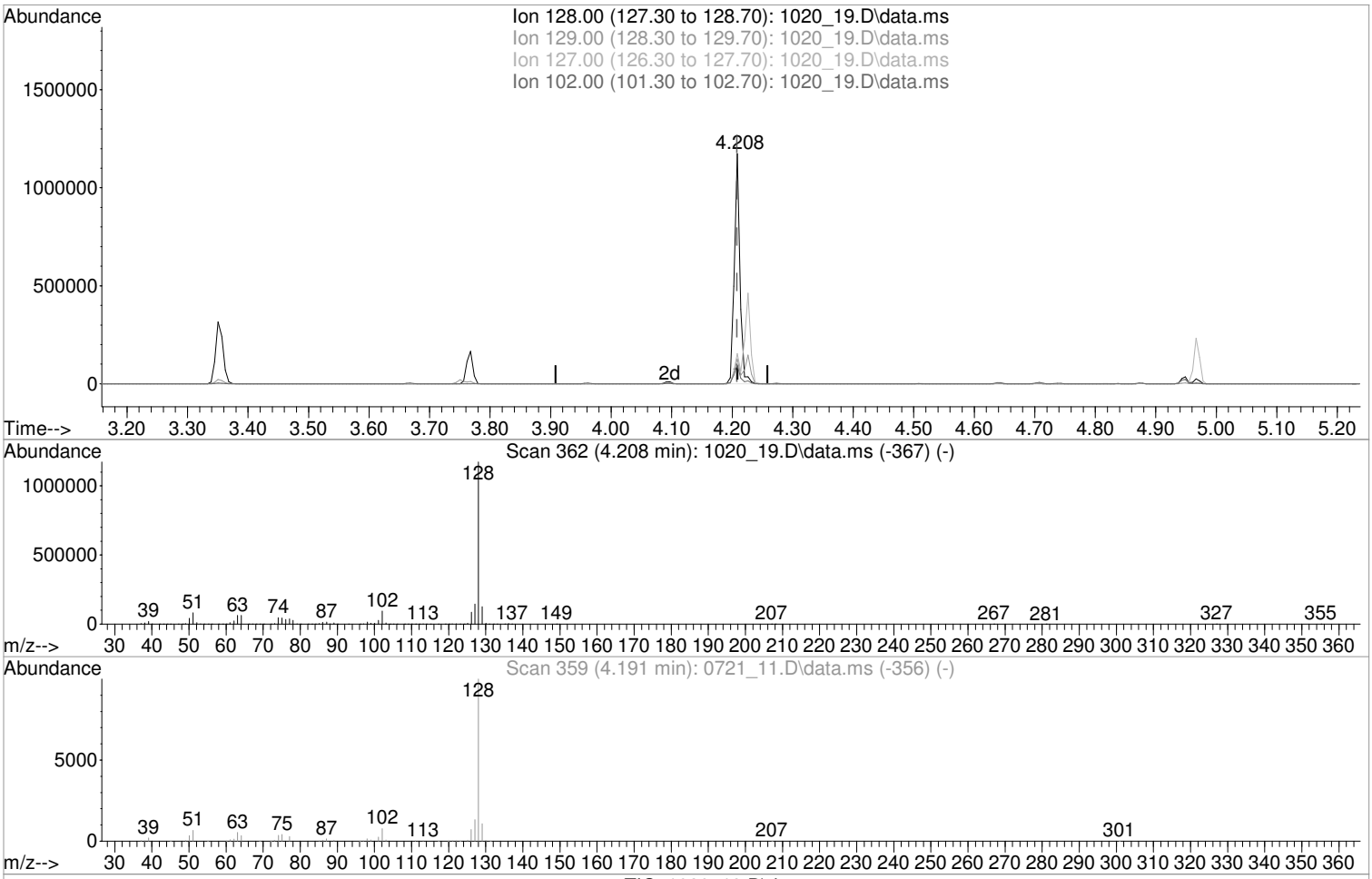
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 10113.4733938 ppb

Qvalue = 100

response 763780

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.90
127.00	13.10	13.08
102.00	8.20	8.08

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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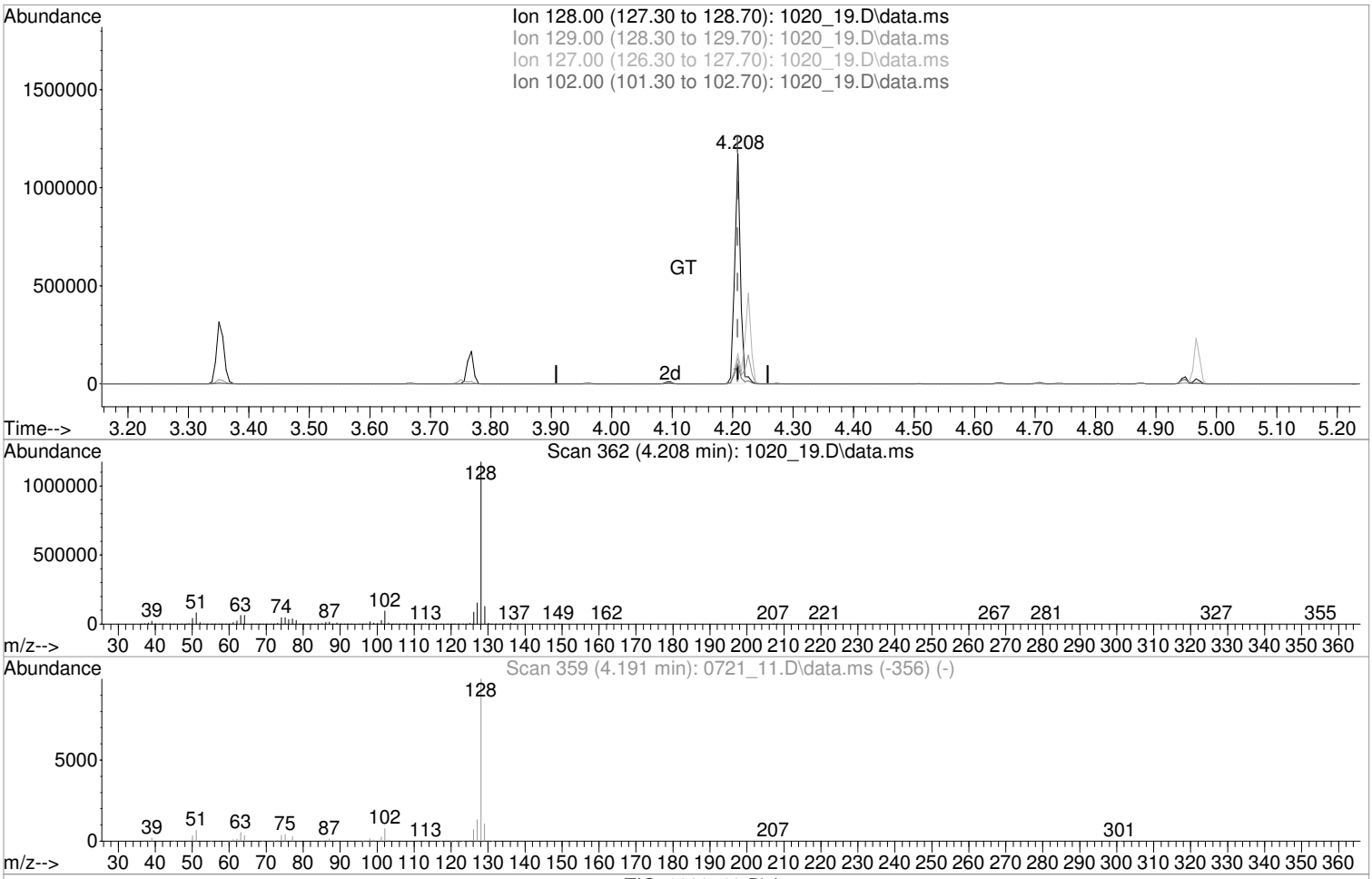
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 9895.4149478 ppb m

response 747312

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.91
127.00	13.10	13.08
102.00	8.20	8.08

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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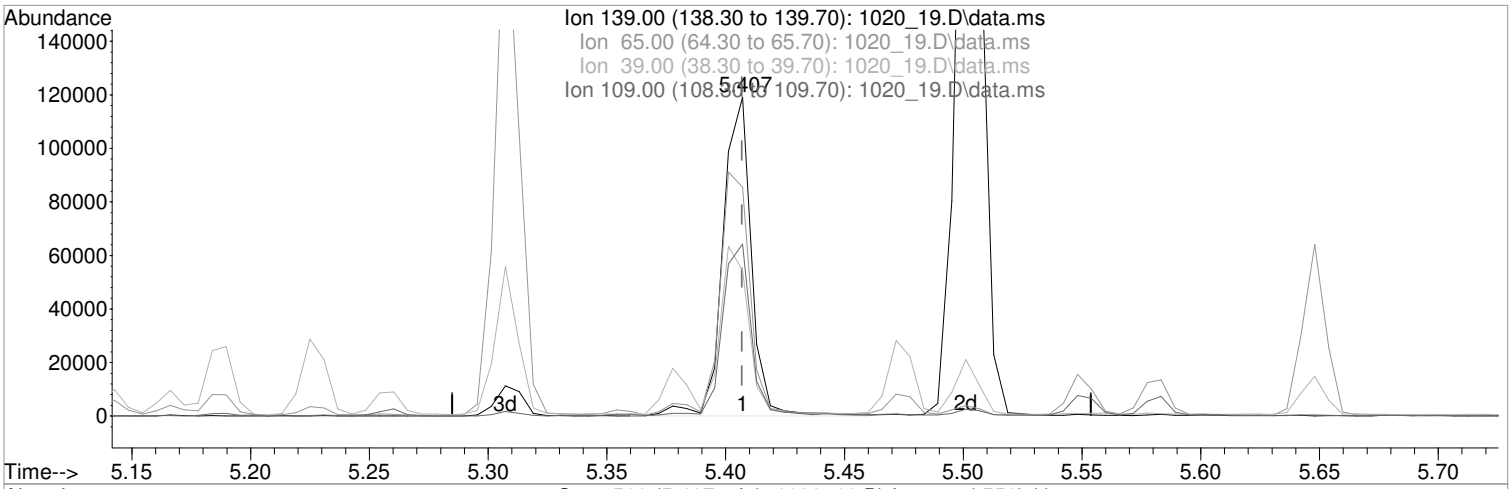

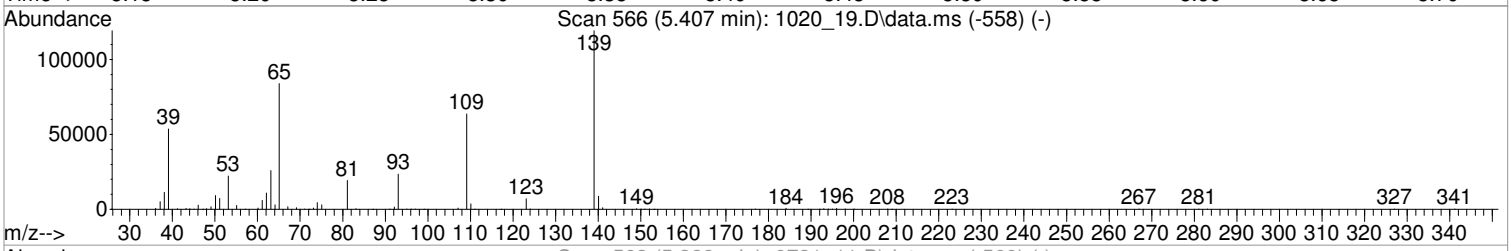

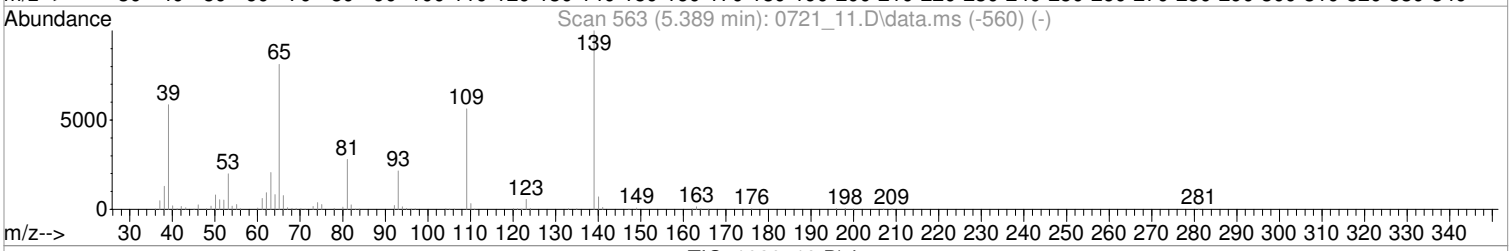

TIC: 1020_19.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (+0.000) 11581.6816012 ppb

Qvalue = 96

response 99655

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	71.05
39.00	49.40	45.06
109.00	53.80	53.53

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
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Acq On : 21 Oct 2022 12:34 am
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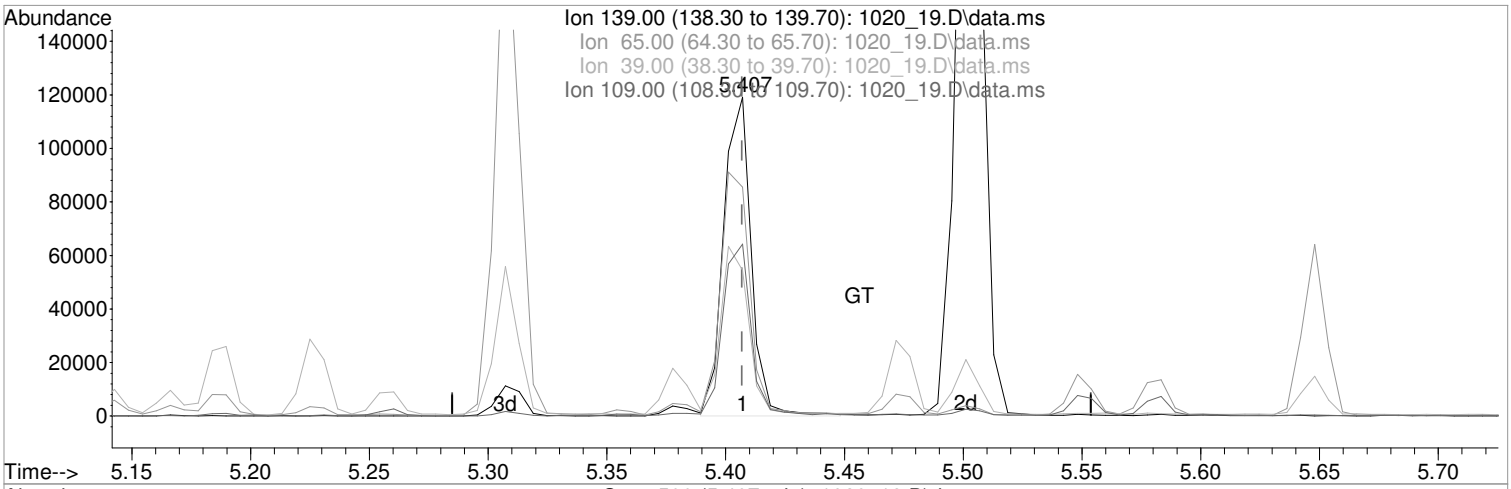
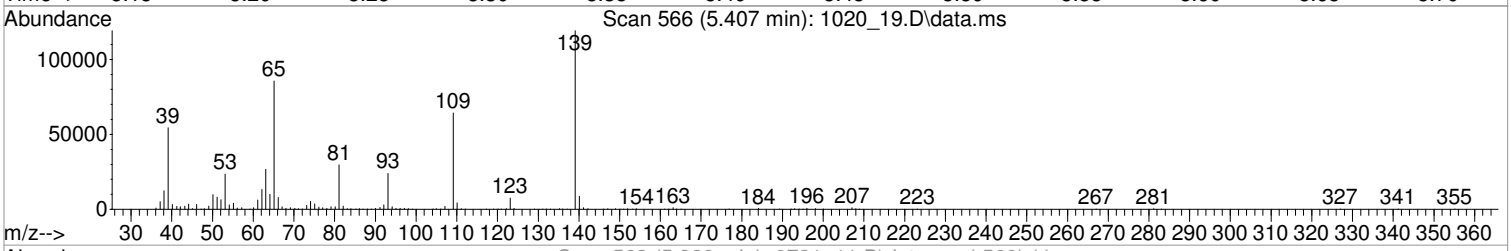
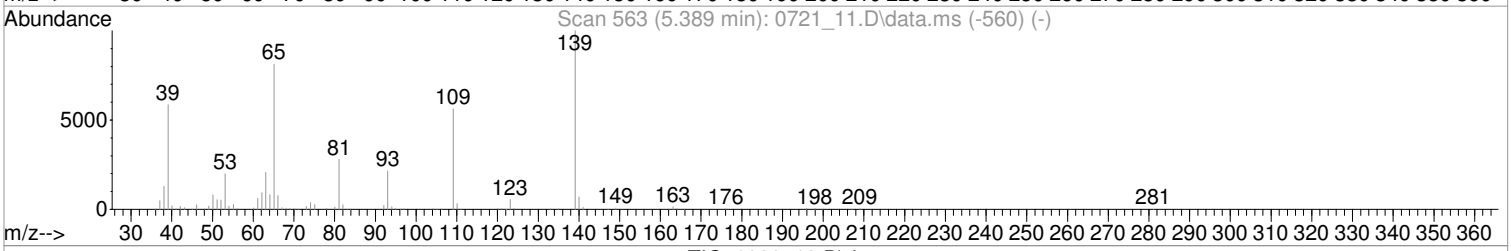
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (+0.000) 11193.7466939 ppb m

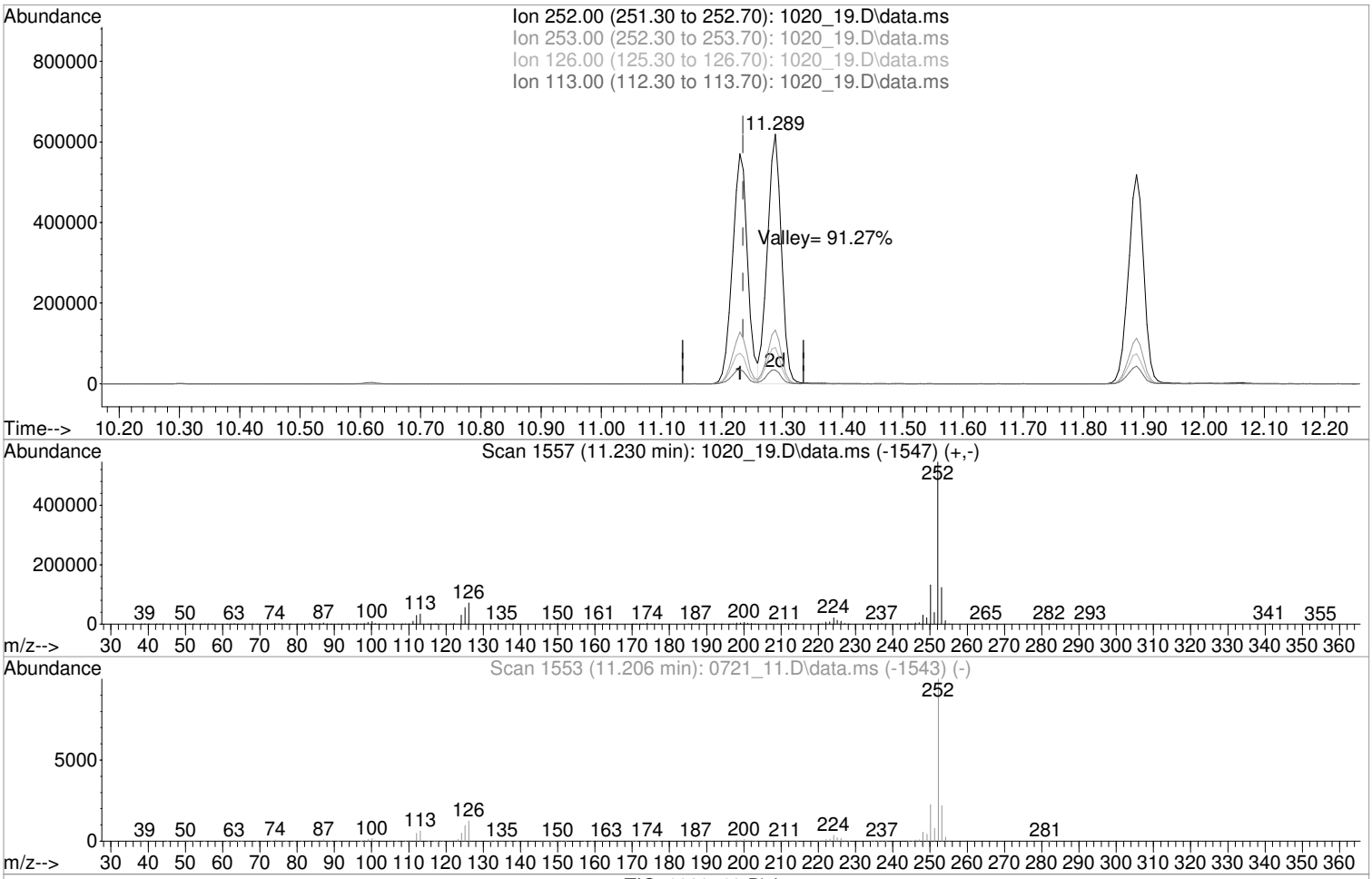
response 96317

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	71.83
39.00	49.40	45.71
109.00	53.80	53.90

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.230min (-0.006) 9897.1984321 ppb

Qvalue = 99

response 994592

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	22.54
126.00	13.40	13.18
113.00	6.50	6.21

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1020_20-1	**Analysis date/time:**	10/21/22 00:55
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122101	0.10123080		17.10		10	8.291	82.90	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_20.D
Acq On : 21 Oct 2022 12:55 am
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22J20314 exp 12/6/22
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 19 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:03:44 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

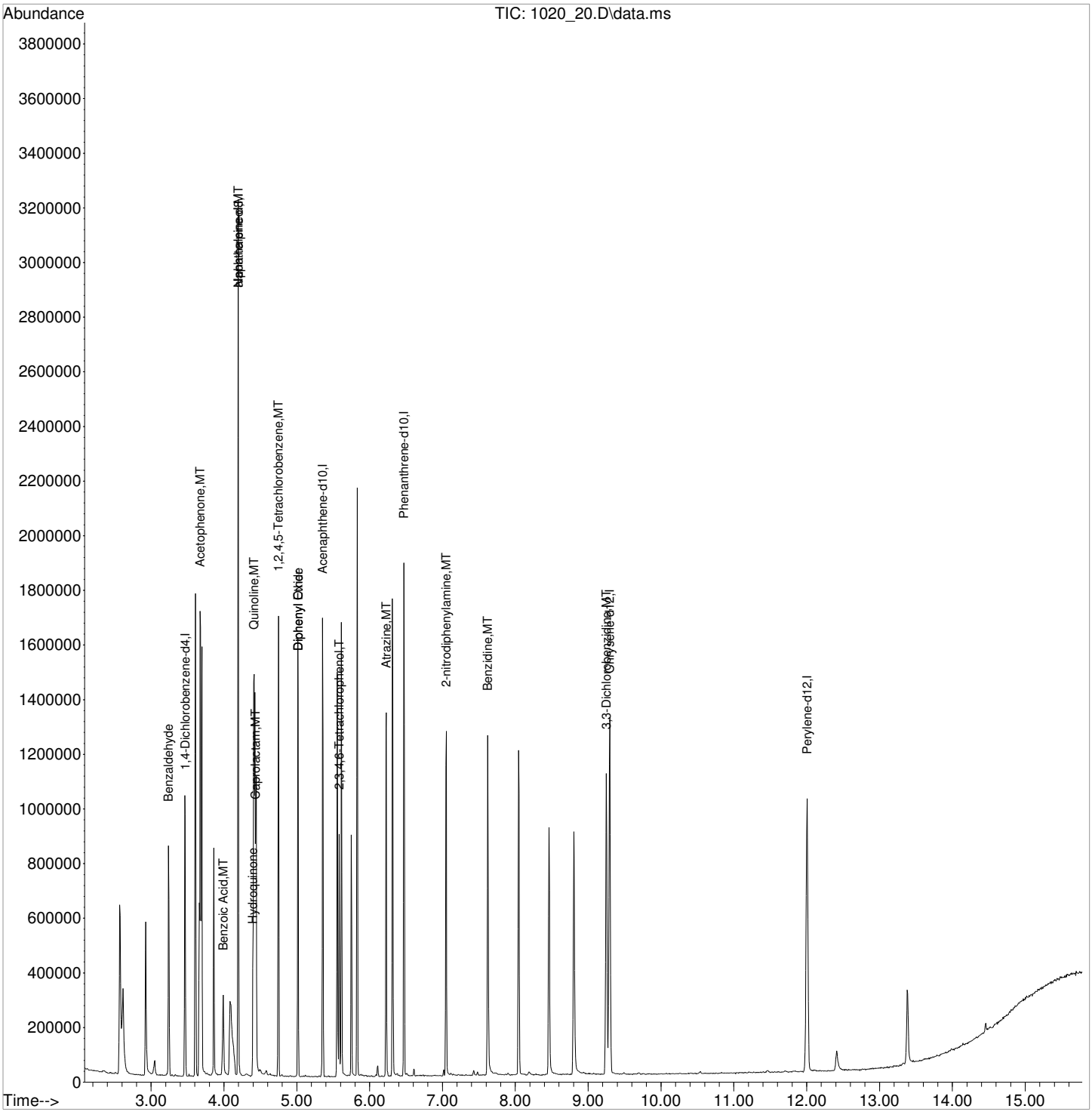
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	152663	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	664296	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.354	164	298257	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.470	188	599632	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	617677	8000.0000000	ppb		0.00
94) Perylene-d12	12.005	264	671473	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
7) Phenol-d5	0.000	99	0d	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 20000.000			Recovery =	0.00%			
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb		
Spiked Amount 10000.000			Recovery =	0.00%			
Target Compounds							Qvalue
9) Benzaldehyde	3.239	105	148226	21045.6252577	ppb		99
22) Acetophenone	3.674	105	338558	10158.6490409	ppb	#	83
31) Benzoic Acid	3.991	105	84059	8290.7721831	ppb		98
33) alpha-terpineol	4.197	59	179842	9674.2782055	ppb		100
37) Hydroquinone	4.396	110	111544	6544.6670879	ppb		96
38) Quinoline	4.414	129	465134	10315.4541988	ppb		99
39) Caprolactam	4.432	113	61616	13761.3102301	ppb	#	45
43) 1,2,4,5-Tetrachloroben...	4.749	216	230649	10328.9062382	ppb		99
44) Diphenyl Ether	5.019	170	302366	10548.0505772	ppb		99
45) Diphenyl Oxide	5.019	170	302366	10548.0505772	ppb		99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	95720	9027.5982249	ppb		99
69) Atrazine	6.229	200	145059	9638.2795204	ppb		99
82) 2-nitrodiphenylamine	7.052	167	160715	9331.6291690	ppb		99
85) Benzidine	7.622	184	491201	13683.3902667	ppb		97
89) 3,3-Dichlorobenzidine	9.250	252	359194	9573.0456066	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_20.D
Acq On : 21 Oct 2022 12:55 am
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22J20314 exp 12/6/22
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 19 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:03:44 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



S802J20V.M Fri Oct 21 10:03:46 2022 Page: 2

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1110_03	**Analysis date/time:**	11/10/22 08:39
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.631524	0.68150650		7.91		10	10.79	108	
2-METHYLNAPHTHALENE	0.675661	0.733640		8.58		10	10.86	109	
3&4-METHYL PHENOL	1.431908	1.461762		2.08		10	10.21	102	
ACENAPHTHENE	1.229442	1.280328		4.14	20	10	10.41	104	
ACENAPHTHYLENE	1.858572	1.930560		3.87		10	10.39	104	
ANTHRACENE	1.107564	1.135888		2.56		10	10.26	103	
BENZO(A)ANTHRACENE	1.198084	1.234927		3.08		10	10.31	103	
BENZO(A)PYRENE	1.040826	1.105840		6.25	20	10	10.62	106	
BENZO(B)FLUORANTHENE	1.198561	1.311966		9.46		10	10.95	110	
BENZO(G,H,I)PERYLENE	1.064936	1.202712		12.90		10	11.29	113	
BENZO(K)FLUORANTHENE	1.183434	1.335720		12.90		10	11.29	113	
BIS(2-ETHYLHEXYL)PHTHALATE	0.697969	0.66222480		5.12		10	9.488	94.90	
CARBAZOLE	1.061630	1.052054		0.9020		10	9.910	99.10	
CHRYSENE	1.136627	1.241428		9.22		10	10.92	109	
DI-N-BUTYL PHTHALATE	1.281066	1.180092		7.88		10	9.212	92.10	
DI-N-OCTYL PHTHALATE	1.180926	1.052829		10.80	20	10	8.915	89.20	
DIBENZ(A,H)ANTHRACENE	1.072637	1.181175		10.10		10	11.01	110	
DIBENZOFURAN	1.700492	1.743104		2.51		10	10.25	103	
FLUORANTHENE	1.287812	1.274766		1.01	20	10	9.899	99	
FLUORENE	1.3899	1.430264		2.90		10	10.29	103	
INDENO(1,2,3-CD)PYRENE	1.047460	1.087567		3.83		10	10.38	104	
NAPHTHALENE	1.056043	1.099955		4.16		10	10.42	104	
PENTACHLOROPHENOL	0.140213	0.13290960		5.21	20	10	9.479	94.80	
PHENANTHRENE	1.077455	1.145627		6.33		10	10.63	106	
PHENOL	1.731591	1.756640		1.45	20	10	10.14	101	
PYRENE	1.190215	1.310738		10.10		10	11.01	110	
2,4,6-TRIBROMOPHENOL	0.129466	0.12141050		6.22		10	9.378	93.80	70 - 130
2-FLUOROBIPHENYL	1.404629	1.515623		7.90		10	10.79	108	70 - 130
2-FLUOROPHENOL	1.386375	1.368520		1.29		10	9.871	98.70	70 - 130
NITROBENZENE-D5	0.339051	0.34996290		3.22		10	10.32	103	70 - 130
P-TERPHENYL-D14	1.097608	1.129743		2.93		10	10.29	103	70 - 130
PHENOL-D5	1.678185	1.680608		0.1440		10	10.01	100	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:46:54 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	197885	8000.0000000 ppb		-0.02
23) Naphthalene-d8	3.920	136	763809	8000.0000000 ppb		-0.02
46) Acenaphthene-d10	5.060	164	407693	8000.0000000 ppb		-0.02
70) Phenanthrene-d10	6.158	188	752686	8000.0000000 ppb		-0.03
84) Chrysene-d12	8.773	240	763429	8000.0000000 ppb		-0.04
94) Perylene-d12	11.288	264	735750	8000.0000000 ppb		-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.527	112	338512	9871.2111912 ppb		-0.02
Spiked Amount 20000.000				Recovery = 49.36%		
7) Phenol-d5	2.974	99	415709	10014.4391367 ppb		-0.02
Spiked Amount 20000.000				Recovery = 50.07%		
24) Nitrobenzene-d5	3.497	82	334131m	10321.8297239 ppb		-0.02
Spiked Amount 10000.000				Recovery = 103.22%		
50) 2-Fluorobiphenyl	4.590	172	772386	10790.2028472 ppb		-0.02
Spiked Amount 10000.000				Recovery = 107.90%		
73) 2,4,6-Tribromophenol	5.630	330	114230	9377.7832929 ppb		-0.02
Spiked Amount 20000.000				Recovery = 46.89%		
87) p-Terphenyl-d14	7.498	244	1078098	10292.7713951 ppb		-0.03
Spiked Amount 10000.000				Recovery = 102.93%		
Target Compounds						Qvalue
2) Pyridine	1.940	79	341500	9257.6758041 ppb		90
3) N-Nitrosodimethylamine	1.928	42	181522	10315.9367787 ppb		91
5) Aniline	3.021	66	187121	9960.8296976 ppb	#	43
6) bis(2-Chloroethyl)ether	3.039	93	317977	11312.8518691 ppb		95
8) Phenol	2.980	94	434516	10144.6634938 ppb		99
10) 2-Chlorophenol	3.080	128	357370	10136.5155962 ppb		98
11) n-Decane	3.086	41	197812	10685.1205673 ppb		99
12) 1,3-Dichlorobenzene	3.168	146	405973	10513.4011966 ppb		97
13) 1,4-Dichlorobenzene	3.203	146	406643	10389.5803619 ppb		98
14) Benzyl Alcohol	3.256	79	265670	9952.3647342 ppb		100
15) 1,2-Dichlorobenzene	3.291	146	389555	10601.5601222 ppb		99
16) bis(2-Chloroisopropyl)...	3.326	121	121664	10462.7989463 ppb		98
17) 2,2-oxybis(1-chloropro...	3.326	121	121664	10462.7989463 ppb		98
18) 2-Methylphenol	3.309	108	312409	9993.1280887 ppb		99
19) Hexachloroethane	3.479	117	143458	10003.4625780 ppb		93
20) N-Nitrosodi-n-propylamine	3.403	70	233605	10310.6602376 ppb		96
21) 3&4-Methyl phenol	3.391	107	361576	10208.4893248 ppb		98
25) Nitrobenzene	3.509	77	340109	10258.2873206 ppb		95
26) Isophorone	3.638	82	643352	10626.3428305 ppb		97
27) 2-Nitrophenol	3.691	139	179087	10530.9039671 ppb		88
28) 2,4-Dimethylphenol	3.697	107	308321	9650.9358731 ppb		99
29) bis(2-Chlorethoxy)methane	3.755	93	383778	10217.1940439 ppb		99
30) 2,4-Dichlorophenol	3.826	162	286520	10368.6404418 ppb		97
32) 1,2,4-Trichlorobenzene	3.879	180	331311	10583.8642146 ppb		99
34) Naphthalene	3.932	128	1050194m	10415.8164526 ppb		
35) 4-Chloroaniline	3.955	65	110969	10225.2449150 ppb	#	59
36) Hexachloro-1,3-butadiene	3.996	225	192867	10575.7524644 ppb		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:46:54 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

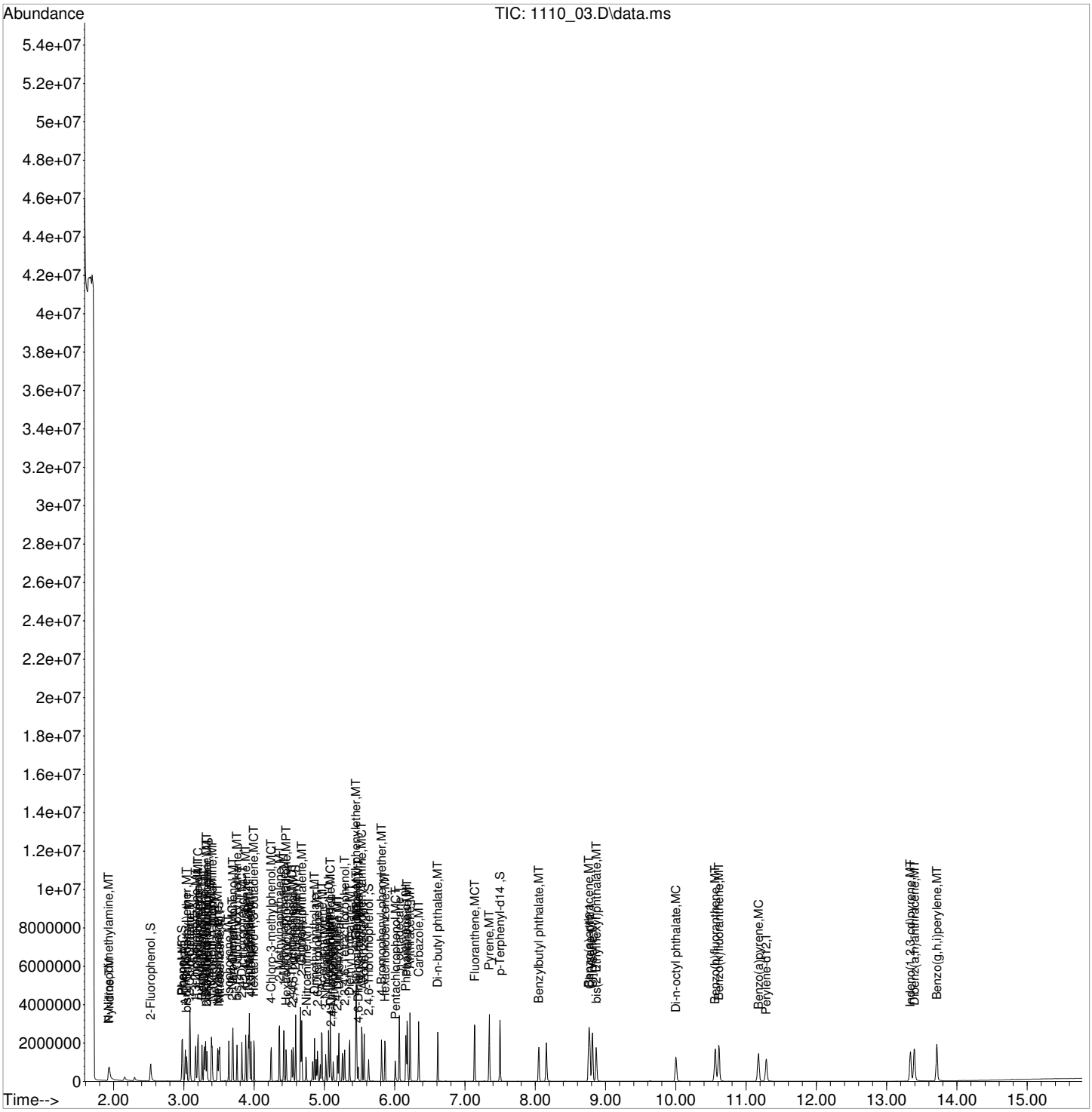
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.243	107	267580	9718.1087752 ppb		88
41)	2-Methylnaphthalene	4.361	142	700451	10858.1043279 ppb		99
42)	1-Methylnaphthalene	4.425	142	650676	10791.4525364 ppb		99
47)	Hexachlorocyclopentadiene	4.455	237	201752	8548.8751873 ppb		97
48)	2,4,6-Trichlorophenol	4.537	196	198959	9993.6544174 ppb		97
49)	2,4,5-Trichlorophenol	4.554	196	217979	10880.7440113 ppb		92
51)	Biphenyl	4.660	154	845269	10836.3692060 ppb		100
52)	2-Chloronaphthalene	4.678	162	630855	10280.1358055 ppb		97
53)	2-Nitroaniline	4.742	138	204510	10478.0387101 ppb		99
54)	Acenaphthylene	4.966	152	983845	10387.3309318 ppb		100
55)	Dimethyl phthalate	4.860	163	668416	10113.0598131 ppb		94
56)	2,6-Dinitrotoluene	4.901	165	165429	11152.1209255 ppb		96
57)	3-Nitroaniline	5.019	138	178317	10950.6086317 ppb	#	84
58)	Acenaphthene	5.083	153	652476	10413.8918917 ppb		98
59)	2,4-Dinitrophenol	5.095	184	61149	9044.8266068 ppb	#	1
60)	Dibenzofuran	5.207	168	888314	10250.5839716 ppb		99
61)	2,4-Dinitrotoluene	5.183	165	208202m	11186.9153055 ppb		
62)	2,3,4,6-Tetrachlorophenol	5.289	232	177707	12261.1571359 ppb		96
63)	4-Nitrophenol	5.124	139	136618	11462.9522113 ppb		90
64)	Fluorene	5.453	166	728886	10290.4155310 ppb		99
65)	4-Chlorophenyl-phenyle...	5.448	204	365884	10382.6242831 ppb		98
66)	Diethyl phthalate	5.359	149	658700	10337.7188483 ppb		96
67)	4-Nitroaniline	5.459	138	180449	12087.1205085 ppb		98
68)	Azobenzene	5.565	77	647668	9671.7400222 ppb		99
71)	4,6-Dinitro-2-methylph...	5.483	198	108558	11744.9057347 ppb		95
72)	N-Nitrosodiphenylamine	5.530	169	620038	10391.1462875 ppb		99
74)	4-Bromophenyl-phenylether	5.812	248	229066	10148.6309449 ppb		96
75)	Hexachlorobenzene	5.865	284	260604	9293.0114102 ppb		99
76)	n-octadecane	6.064	55	100639	9657.4672585 ppb		97
77)	Pentachlorophenol	6.012	266	125049	9479.1276821 ppb		98
78)	Phenanthrene	6.176	178	1077872	10632.7132208 ppb		99
79)	Anthracene	6.217	178	1068709	10255.7318946 ppb		99
80)	Carbazole	6.341	167	989833	9909.7969203 ppb		100
81)	Di-n-butyl phthalate	6.611	149	1110298	9211.7957609 ppb		100
83)	Fluoranthene	7.140	202	1199373	9898.6936732 ppb		99
86)	Pyrene	7.345	202	1250819	11012.6166105 ppb		99
88)	Benzylbutyl phthalate	8.050	149	450554	9408.7911677 ppb		98
90)	Benzo(a)anthracene	8.761	228	1178474	10307.5134174 ppb		99
91)	Chrysene	8.814	228	1184678	10922.0423757 ppb		100
92)	bis(2-Ethylhexyl)phtha...	8.867	149	631952	9487.8787141 ppb		100
93)	Di-n-octyl phthalate	10.001	149	1004700	8915.2841482 ppb		100
95)	Benzo(b)fluoranthene	10.559	252	1206599	10946.1811241 ppb		99
96)	Benzo(k)fluoranthene	10.612	252	1228445	11286.8114157 ppb		98
97)	Benzo(a)pyrene	11.176	252	1017027	10624.6403499 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.338	276	1000222	10382.9029812 ppb		97
99)	Dibenz(a,h)anthracene	13.397	278	1086312	11011.8839586 ppb		98
100)	Benzo(g,h,i)perylene	13.714	276	1106119	11293.7465517 ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

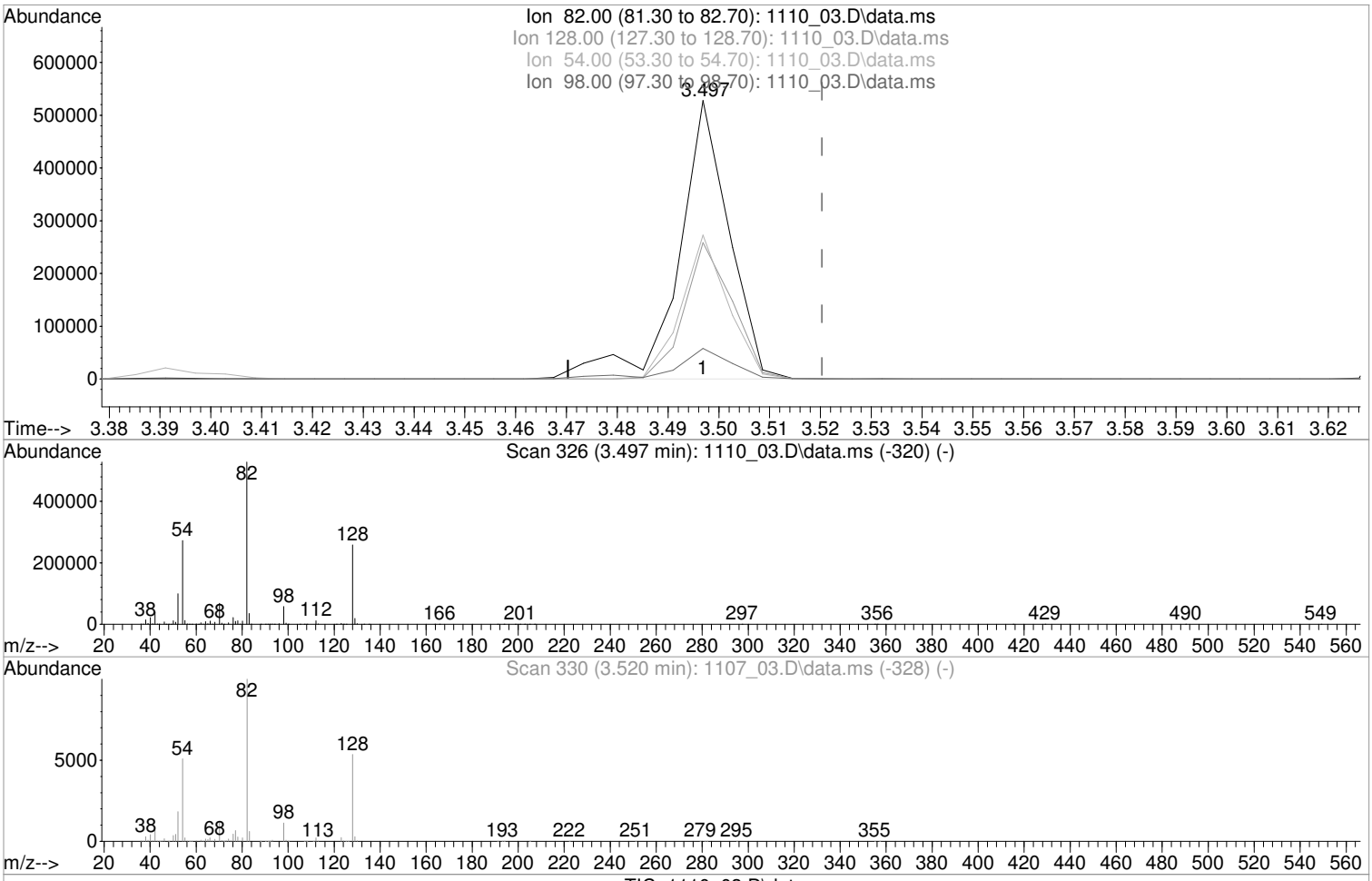
Quant Time: Nov 10 16:46:54 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:28:00 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 11386.1986185 ppb

Qvalue = 96

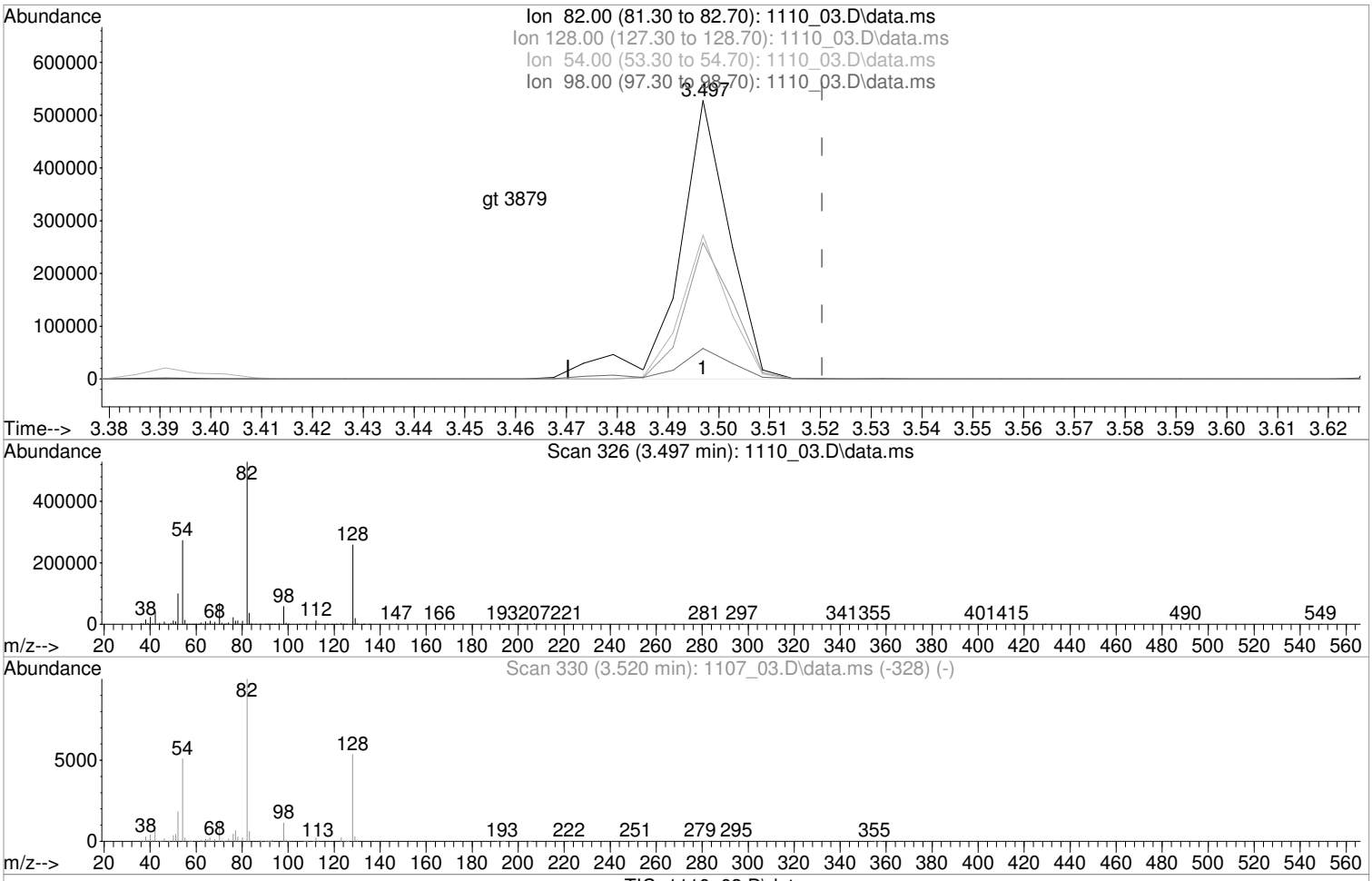
response 368586

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.94
54.00	48.90	51.65
98.00	12.10	10.95

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:28:00 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 10321.8297239 ppb m

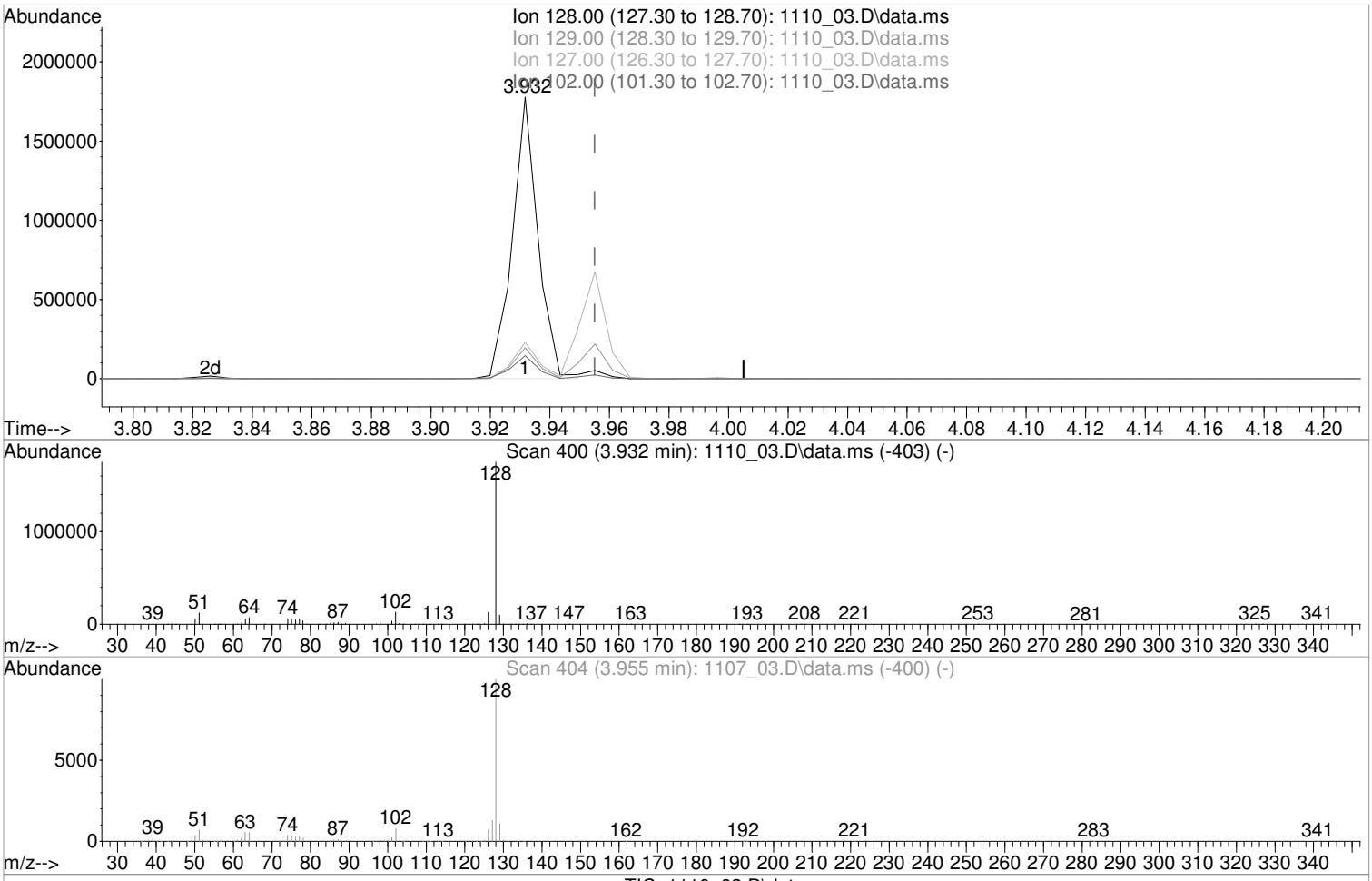
response 334131

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.94
54.00	48.90	51.65
98.00	12.10	10.95

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:28:00 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 10513.7566308 ppb

Qvalue = 100

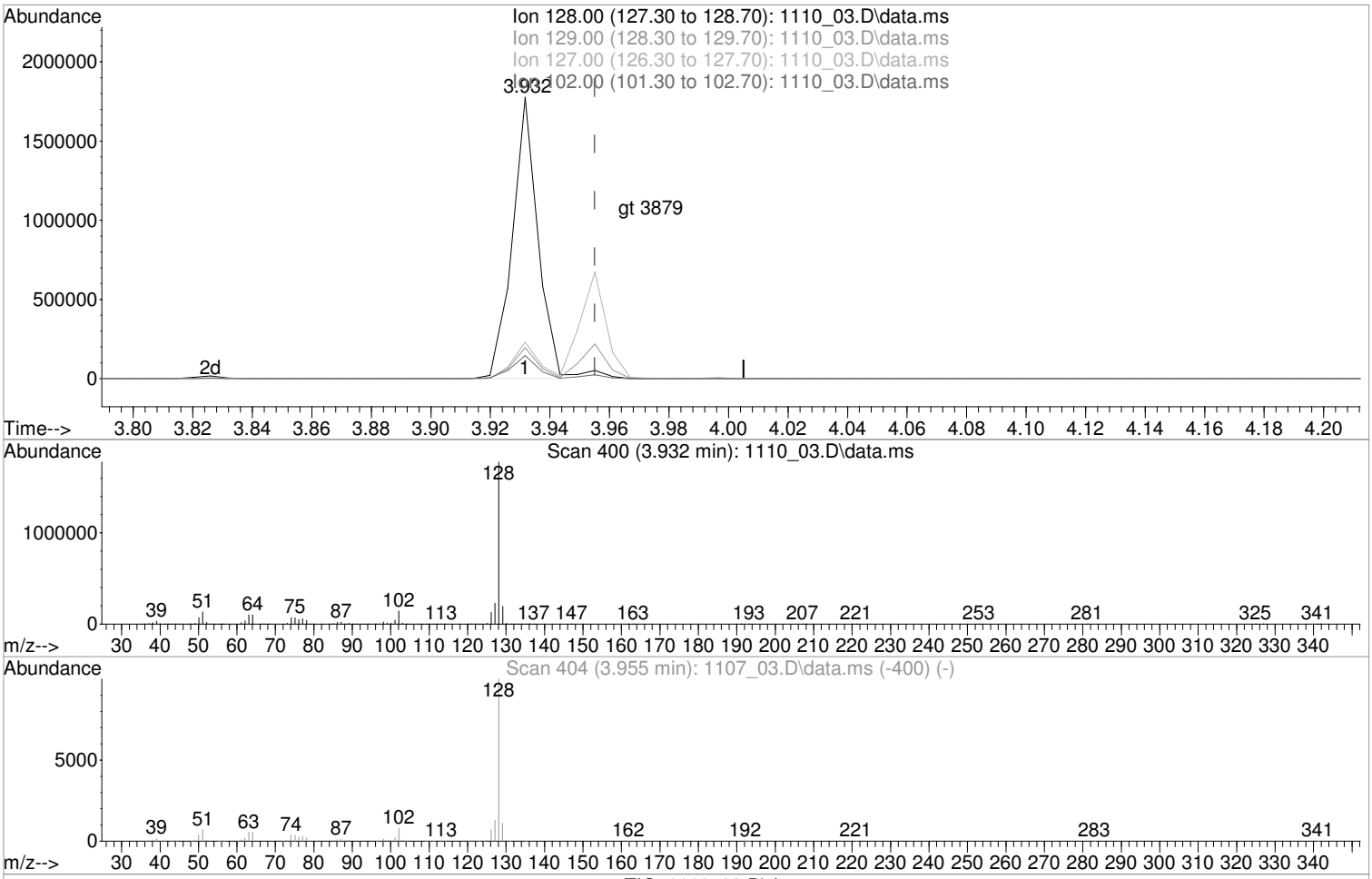
response 1060069

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.99
127.00	13.10	12.88
102.00	8.20	8.11

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_03.D
Acq On : 10 Nov 2022 8:39 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:28:00 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 10415.8164526 ppb m

response 1050194

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.99
127.00	13.10	12.88
102.00	8.20	8.13

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1110_04	**Analysis date/time:**	11/10/22 09:02
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122101	0.07229235		40.80		10	5.921	59.20	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_04.D
Acq On : 10 Nov 2022 9:02 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:38:01 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

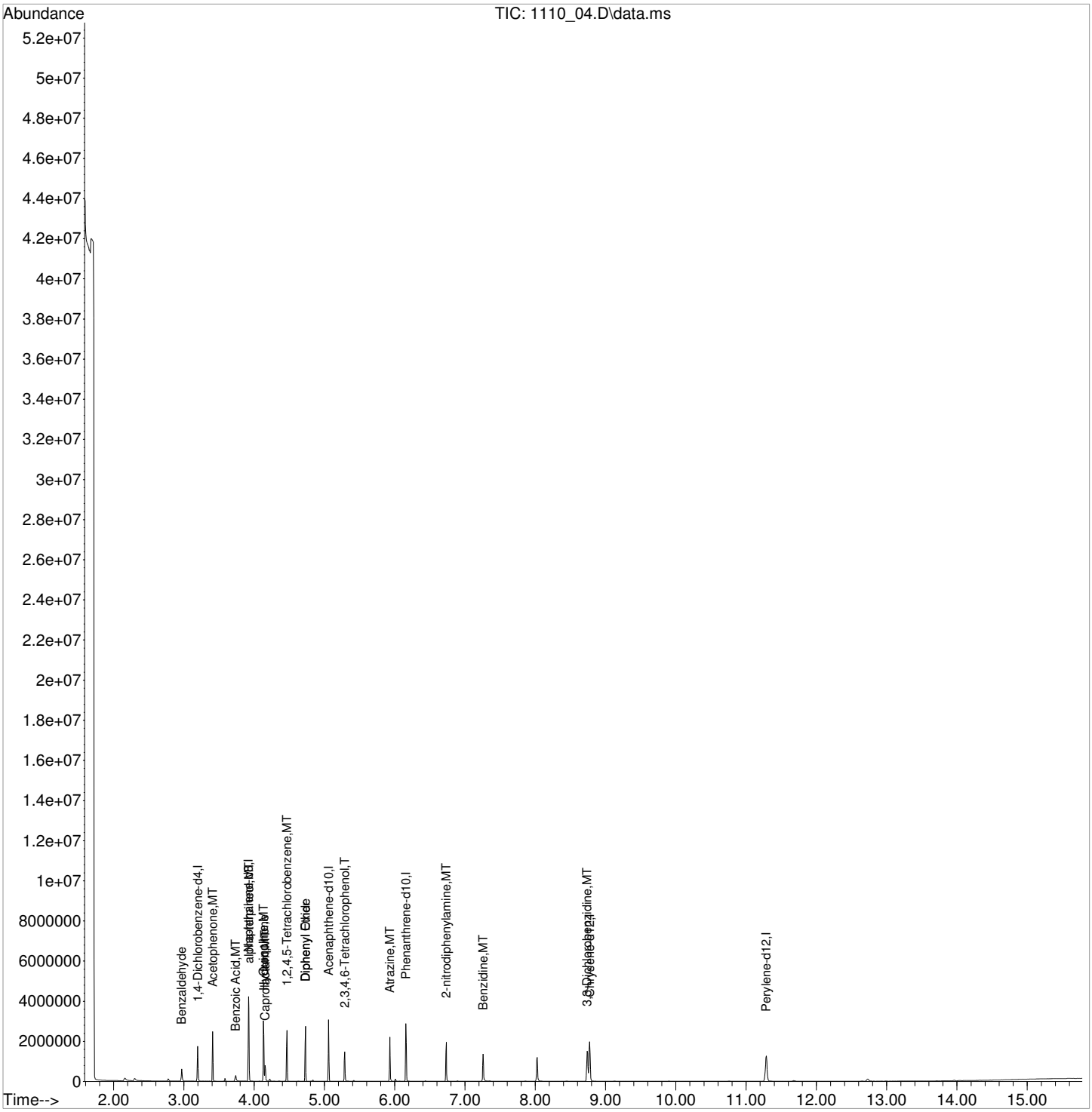
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	237009	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.920	136	1033083	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.060	164	469522	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	889963	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	874811	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	814418	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	2.968	105	105712	9667.8674648	ppb	98
22) Acetophenone	3.409	105	473564	9152.7270470	ppb	98
31) Benzoic Acid	3.738	105	93355m	5920.7233398	ppb	
33) alpha-terpineol	3.926	59	301289	10421.6659157	ppb	95
37) Hydroquinone	4.137	110	197152m	7438.2188983	ppb	
38) Quinoline	4.131	129	681016	9711.6720078	ppb	98
39) Caprolactam	4.155	113	78499	11273.4496865	ppb #	70
43) 1,2,4,5-Tetrachloroben...	4.466	216	358061	10310.6537246	ppb	99
44) Diphenyl Ether	4.731	170	465974	10452.6728077	ppb	99
45) Diphenyl Oxide	4.731	170	465974	10452.6728077	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.289	232	161999	9705.4698546	ppb	98
69) Atrazine	5.929	200	203466	8587.7893671	ppb	100
82) 2-nitrodiphenylamine	6.734	167	210064	8217.9887118	ppb	97
85) Benzidine	7.257	184	513915	10108.1798434	ppb	97
89) 3,3-Dichlorobenzidine	8.738	252	455559	8572.6063216	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_04.D
Acq On : 10 Nov 2022 9:02 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

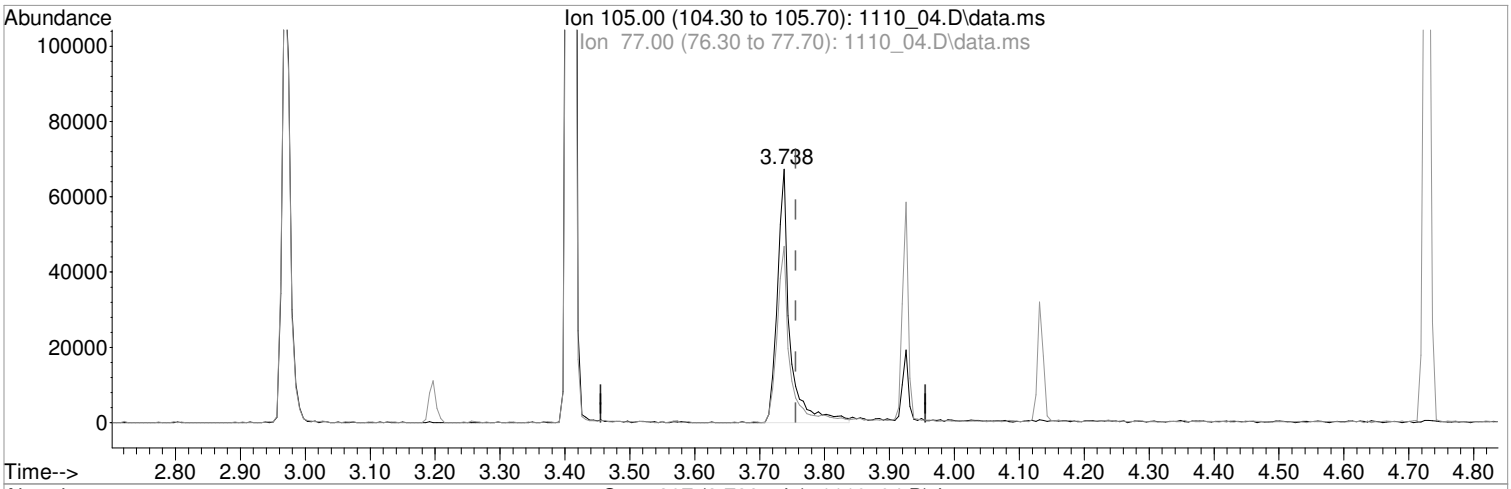
Quant Time: Nov 10 09:38:01 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

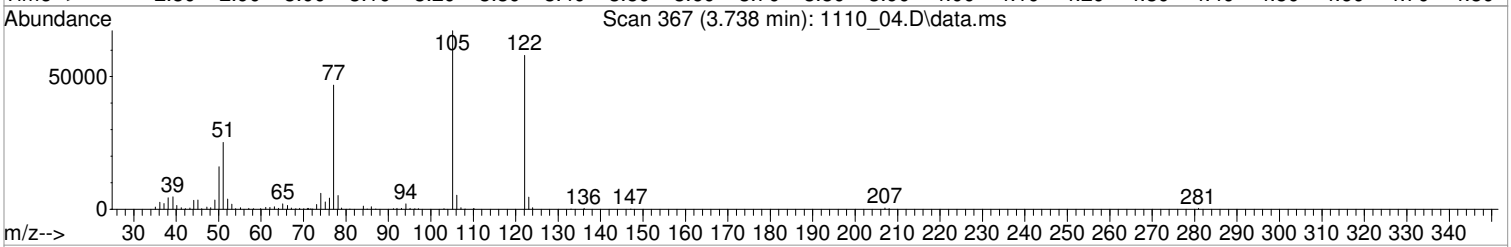


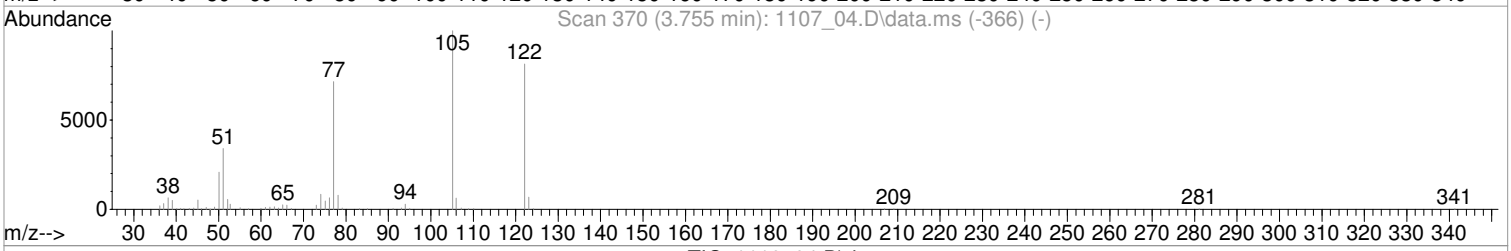
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_04.D
Acq On : 10 Nov 2022 9:02 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:29:15 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_04.D\data.ms

(31) Benzoic Acid (MT)

3.738min (-0.018) 5683.3997177 ppb

Qvalue = 99

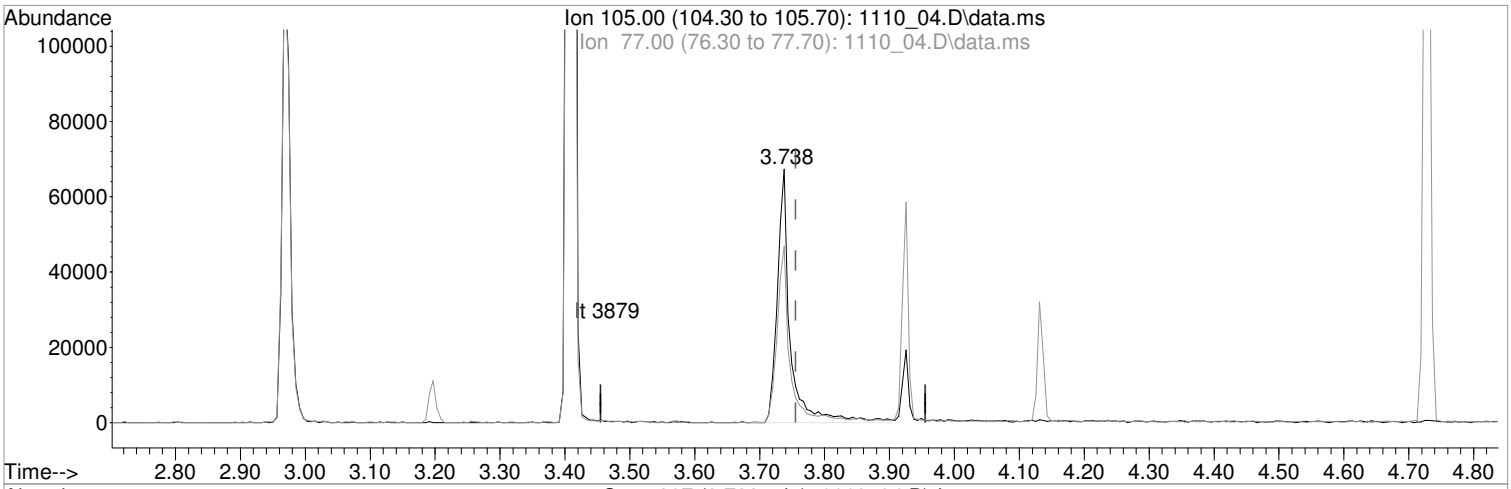
response 89613

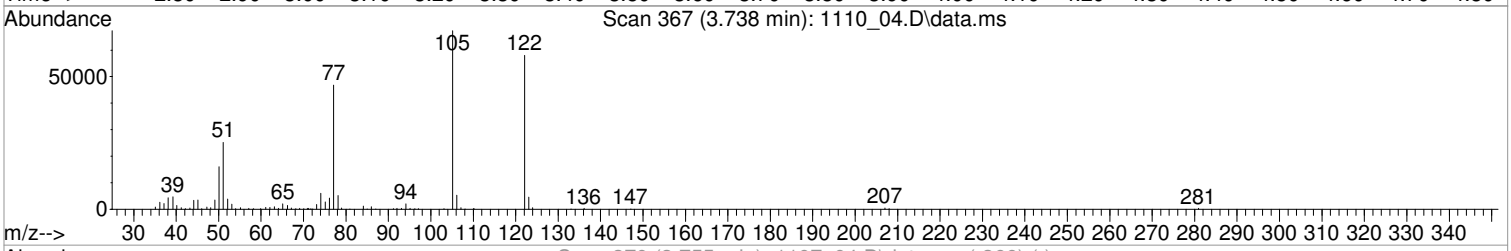
Ion	Exp%	Act%
105.00	100	100
77.00	70.80	71.43
0.00	0.00	0.00
0.00	0.00	0.00

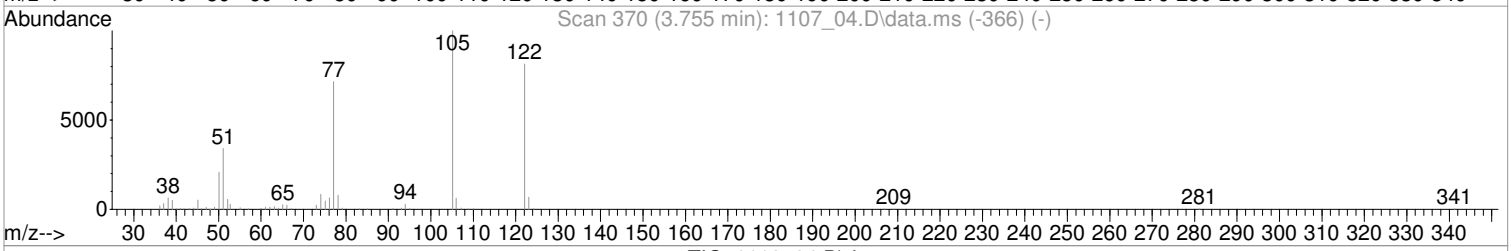
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_04.D
Acq On : 10 Nov 2022 9:02 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 09:29:15 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_04.D\data.ms

(31) Benzoic Acid (MT)

3.738min (-0.018) 5920.7233398 ppb m

response 93355

Ion	Exp%	Act%
105.00	100	100
77.00	70.80	68.57
0.00	0.00	0.00
0.00	0.00	0.00

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1113_03-1	**Analysis date/time:**	11/13/22 16:50
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.631524	0.68977990		9.22		10	10.92	109	
2-METHYLNAPHTHALENE	0.675661	0.74448940		10.20		10	11.02	110	
3&4-METHYL PHENOL	1.431908	1.435281		0.2360		10	10.02	100	
ACENAPHTHENE	1.229442	1.281855		4.26	20	10	10.43	104	
ACENAPHTHYLENE	1.858572	1.951012		4.97		10	10.50	105	
ANTHRACENE	1.107564	1.140091		2.94		10	10.29	103	
BENZO(A)ANTHRACENE	1.198084	1.266740		5.73		10	10.57	106	
BENZO(A)PYRENE	1.040826	1.145115		10	20	10	11.00	110	
BENZO(B)FLUORANTHENE	1.198561	1.330221		11		10	11.10	111	
BENZO(G,H,I)PERYLENE	1.064936	1.076370		1.07		10	10.11	101	
BENZO(K)FLUORANTHENE	1.183434	1.367646		15.60		10	11.56	116	
BIS(2-ETHYLHEXYL)PHTHALATE	0.697969	0.69123420		0.9650		10	9.904	99	
CARBAZOLE	1.061630	1.066266		0.4370		10	10.04	100	
CHRYSENE	1.136627	1.256588		10.60		10	11.06	111	
DI-N-BUTYL PHTHALATE	1.281066	1.224780		4.39		10	9.561	95.60	
DI-N-OCTYL PHTHALATE	1.180926	1.154569		2.23	20	10	9.777	97.80	
DIBENZ(A,H)ANTHRACENE	1.072637	1.088482		1.48		10	10.15	102	
DIBENZOFURAN	1.700492	1.765533		3.82		10	10.38	104	
FLUORANTHENE	1.287812	1.308908		1.64	20	10	10.16	102	
FLUORENE	1.3899	1.459715		5.02		10	10.50	105	
INDENO(1,2,3-CD)PYRENE	1.047460	1.046783		0.0646		10	9.994	99.90	
NAPHTHALENE	1.056043	1.102828		4.43		10	10.44	104	
PENTACHLOROPHENOL	0.140213	0.14671580		4.64	20	10	10.46	105	
PHENANTHRENE	1.077455	1.160135		7.67		10	10.77	108	
PHENOL	1.731591	1.712235		1.12	20	10	9.888	98.90	
PYRENE	1.190215	1.300524		9.27		10	10.93	109	
2,4,6-TRIBROMOPHENOL	0.129466	0.13159310		1.64		10	10.16	102	70 - 130
2-FLUOROBIPHENYL	1.404629	1.512457		7.68		10	10.77	108	70 - 130
2-FLUOROPHENOL	1.386375	1.356802		2.13		10	9.787	97.90	70 - 130
NITROBENZENE-D5	0.339051	0.34887630		2.90		10	10.29	103	70 - 130
P-TERPHENYL-D14	1.097608	1.130072		2.96		10	10.30	103	70 - 130
PHENOL-D5	1.678185	1.657894		1.21		10	9.879	98.80	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:16:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	196801	8000.0000000 ppb		-0.02
23) Naphthalene-d8	3.920	136	751870	8000.0000000 ppb		-0.02
46) Acenaphthene-d10	5.060	164	399649	8000.0000000 ppb		-0.02
70) Phenanthrene-d10	6.158	188	758064	8000.0000000 ppb		-0.03
84) Chrysene-d12	8.773	240	792609	8000.0000000 ppb		-0.04
94) Perylene-d12	11.288	264	774767	8000.0000000 ppb		-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.527	112	333775	9786.6882390 ppb		-0.02
Spiked Amount 20000.000				Recovery = 48.93%		
7) Phenol-d5	2.974	99	407844	9879.0880542 ppb		-0.02
Spiked Amount 20000.000				Recovery = 49.40%		
24) Nitrobenzene-d5	3.497	82	327887m	10289.7810285 ppb		-0.02
Spiked Amount 10000.000				Recovery = 102.90%		
50) 2-Fluorobiphenyl	4.590	172	755565	10767.6659036 ppb		-0.02
Spiked Amount 10000.000				Recovery = 107.68%		
73) 2,4,6-Tribromophenol	5.630	330	124695	10164.2893750 ppb		-0.02
Spiked Amount 20000.000				Recovery = 50.82%		
87) p-Terphenyl-d14	7.498	244	1119632	10295.7749990 ppb		-0.03
Spiked Amount 10000.000				Recovery = 102.96%		
Target Compounds						Qvalue
2) Pyridine	1.952	79	340062	9269.4707666 ppb		93
3) N-Nitrosodimethylamine	1.940	42	172249	9842.8686041 ppb		92
5) Aniline	3.021	66	179480	9606.7086657 ppb	#	43
6) bis(2-Chloroethyl)ether	3.038	93	311327	11137.2701443 ppb		96
8) Phenol	2.980	94	421212	9888.2214170 ppb		99
10) 2-Chlorophenol	3.080	128	354370	10106.7872480 ppb		99
11) n-Decane	3.085	41	184350	10012.7992588 ppb		99
12) 1,3-Dichlorobenzene	3.168	146	405868	10568.5759424 ppb		97
13) 1,4-Dichlorobenzene	3.203	146	395652	10164.4444259 ppb		98
14) Benzyl Alcohol	3.256	79	260805	9823.9299137 ppb		100
15) 1,2-Dichlorobenzene	3.291	146	382500	10466.8984704 ppb		97
16) bis(2-Chloroisopropyl)...	3.326	121	118214	10222.1035552 ppb		95
17) 2,2-oxybis(1-chloropro...	3.326	121	118214	10222.1035552 ppb		95
18) 2-Methylphenol	3.309	108	309080	9941.0989202 ppb		98
19) Hexachloroethane	3.479	117	139942	9812.0382086 ppb	#	88
20) N-Nitrosodi-n-propylamine	3.403	70	222301	9865.7778622 ppb		96
21) 3&4-Methyl phenol	3.391	107	353081	10023.5556358 ppb		98
25) Nitrobenzene	3.509	77	328956	10079.4436532 ppb		95
26) Isophorone	3.638	82	623277	10458.2322828 ppb		98
27) 2-Nitrophenol	3.691	139	188474	11258.8764531 ppb		81
28) 2,4-Dimethylphenol	3.697	107	278664	8861.1319895 ppb		99
29) bis(2-Chlorethoxy)methane	3.755	93	380885	10301.1912596 ppb		100
30) 2,4-Dichlorophenol	3.826	162	292645	10758.4571676 ppb		99
32) 1,2,4-Trichlorobenzene	3.879	180	328614	10664.4013385 ppb		99
34) Naphthalene	3.932	128	1036479m	10443.0247559 ppb		
35) 4-Chloroaniline	3.955	65	109875	10285.2049340 ppb	#	59
36) Hexachloro-1,3-butadiene	3.996	225	192846	10742.5158211 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:16:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

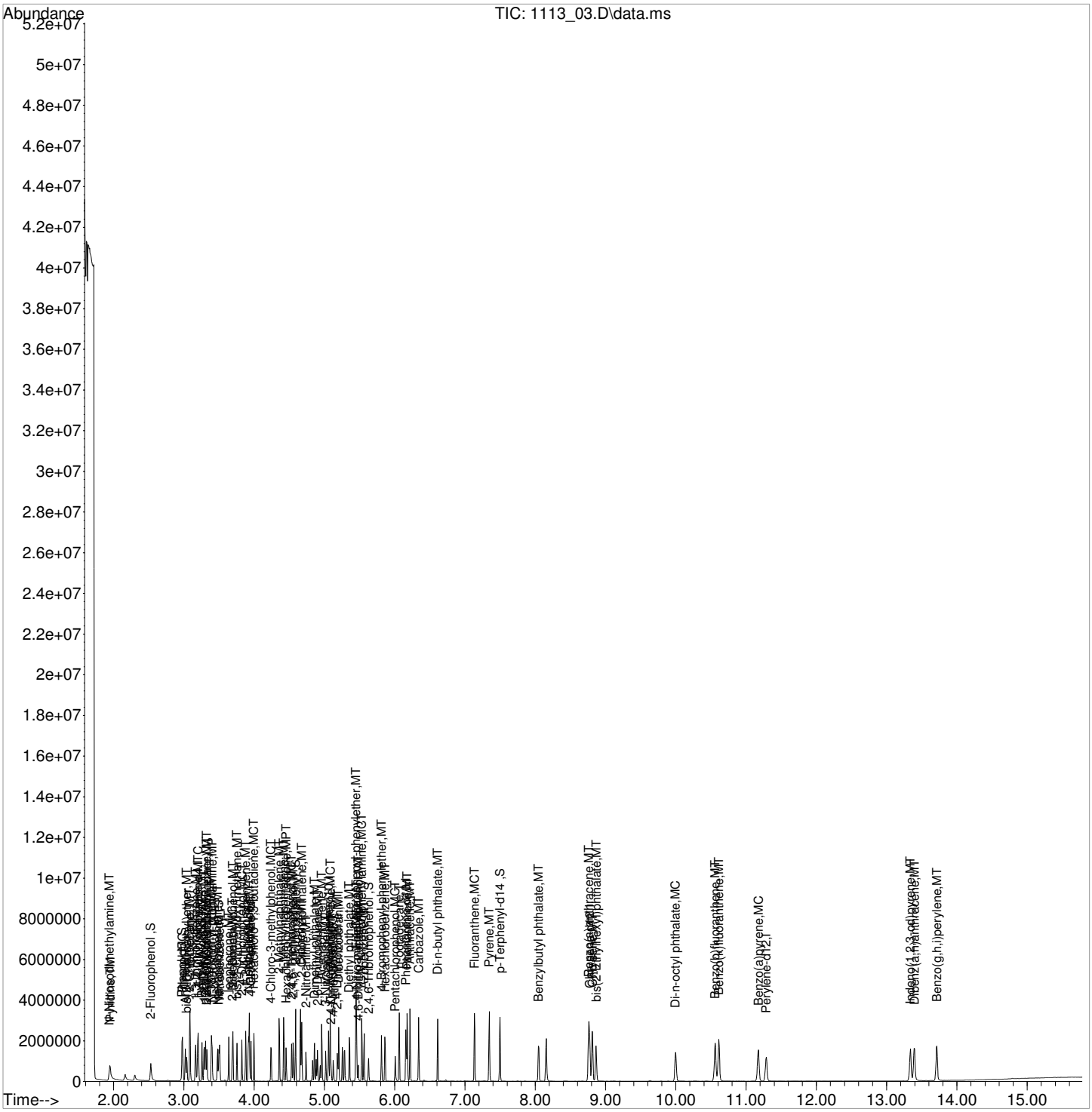
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.237	107	269720	9951.3791257 ppb		100
41)	2-Methylnaphthalene	4.355	142	699699	11018.6786778 ppb		99
42)	1-Methylnaphthalene	4.419	142	648281	10922.4590433 ppb		99
47)	Hexachlorocyclopentadiene	4.455	237	193711	8373.3633092 ppb		99
48)	2,4,6-Trichlorophenol	4.531	196	212008	10863.4435305 ppb		93
49)	2,4,5-Trichlorophenol	4.554	196	229617	11692.3686450 ppb		94
51)	Biphenyl	4.660	154	828053	10829.3280758 ppb		99
52)	2-Chloronaphthalene	4.678	162	632870	10520.5473618 ppb		97
53)	2-Nitroaniline	4.737	138	209176	10932.8106866 ppb		98
54)	Acenaphthylene	4.960	152	974650	10497.3697955 ppb		100
55)	Dimethyl phthalate	4.860	163	668133	10312.2441227 ppb		93
56)	2,6-Dinitrotoluene	4.901	165	161930	11135.9600820 ppb		95
57)	3-Nitroaniline	5.019	138	179187	11225.5216403 ppb		90
58)	Acenaphthene	5.083	153	640365	10426.3100214 ppb		99
59)	2,4-Dinitrophenol	5.095	184	78017	11641.5060754 ppb	#	1
60)	Dibenzofuran	5.201	168	881992	10382.4840127 ppb		99
61)	2,4-Dinitrotoluene	5.183	165	209544	11485.6401929 ppb		93
63)	4-Nitrophenol	5.124	139	143183	12255.5989392 ppb		90
64)	Fluorene	5.453	166	729217	10502.3046540 ppb		99
65)	4-Chlorophenyl-phenyle...	5.447	204	364204	10542.9696314 ppb		94
66)	Diethyl phthalate	5.353	149	663793	10627.3319354 ppb		98
67)	4-Nitroaniline	5.459	138	182687	12483.3325658 ppb		97
68)	Azobenzene	5.565	77	634753	9669.6657123 ppb		98
71)	4,6-Dinitro-2-methylph...	5.483	198	118466	12665.9376049 ppb		94
72)	N-Nitrosodiphenylamine	5.530	169	624288	10388.1474327 ppb		99
74)	4-Bromophenyl-phenylether	5.812	248	233758	10283.0340962 ppb		96
75)	Hexachlorobenzene	5.859	284	264602	9368.6384878 ppb		98
76)	n-octadecane	6.064	55	96655	9209.3551684 ppb		96
77)	Pentachlorophenol	6.006	266	139025	10463.7901007 ppb		94
78)	Phenanthrene	6.176	178	1099321	10767.3641204 ppb		99
79)	Anthracene	6.217	178	1080327	10293.6734772 ppb		99
80)	Carbazole	6.341	167	1010372	10043.6621117 ppb		100
81)	Di-n-butyl phthalate	6.611	149	1160577	9560.6334523 ppb		99
83)	Fluoranthene	7.134	202	1240295	10163.8108746 ppb		99
86)	Pyrene	7.345	202	1288509	10926.8041958 ppb		100
88)	Benzylbutyl phthalate	8.044	149	487159	9798.6752352 ppb		99
90)	Benzo(a)anthracene	8.761	228	1255037	10573.0451509 ppb		99
91)	Chrysene	8.814	228	1244979	11055.4191658 ppb		100
92)	bis(2-Ethylhexyl)phtha...	8.867	149	684848	9903.5039101 ppb		100
93)	Di-n-octyl phthalate	9.995	149	1143902	9776.8119179 ppb		99
95)	Benzo(b)fluoranthene	10.559	252	1288264	11098.4849181 ppb		99
96)	Benzo(k)fluoranthene	10.612	252	1324509	11556.5877653 ppb		98
97)	Benzo(a)pyrene	11.176	252	1108997	11001.9909379 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.338	276	1013766	9993.5380722 ppb		98
99)	Dibenz(a,h)anthracene	13.397	278	1054150	10147.7233470 ppb		98
100)	Benzo(g,h,i)perylene	13.714	276	1042420	10107.3679617 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

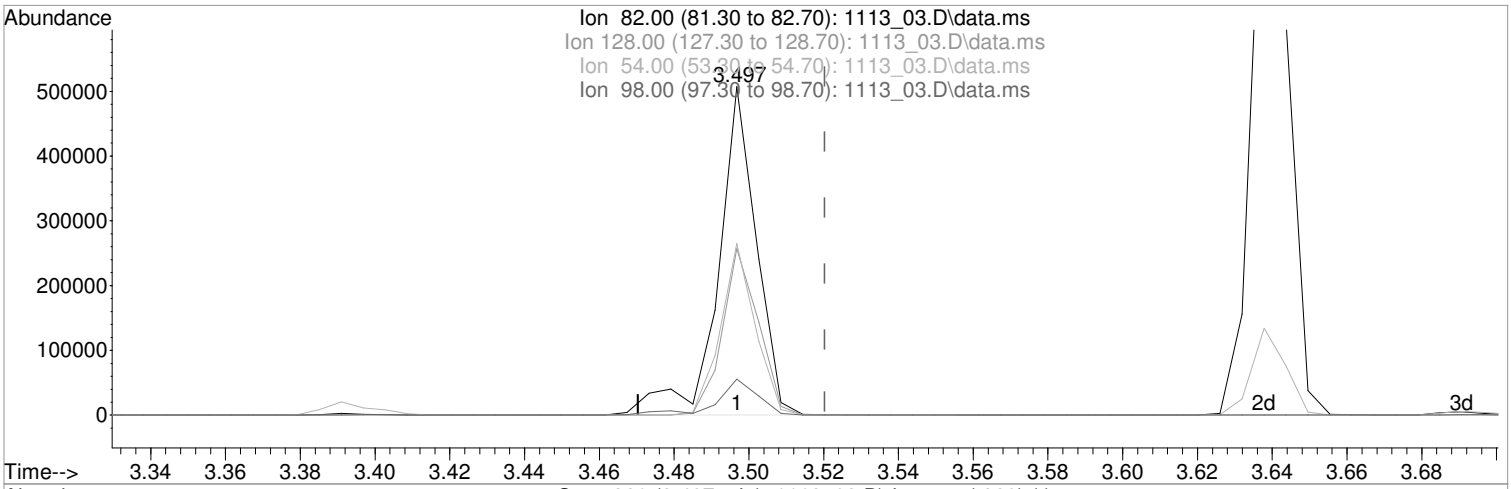
Quant Time: Nov 13 17:16:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

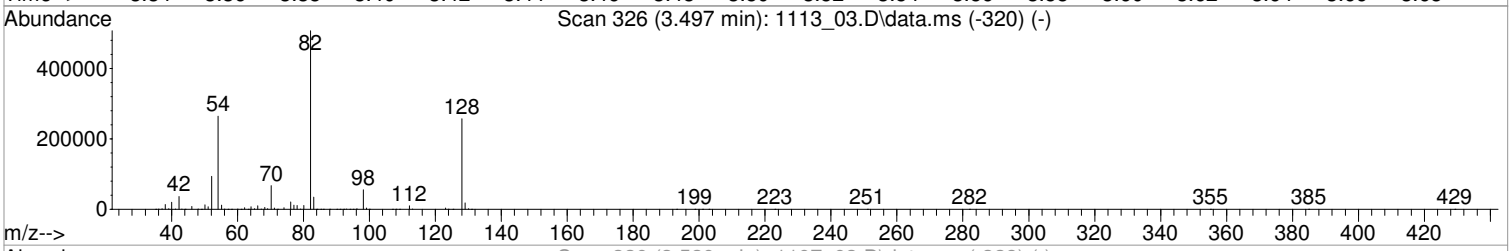


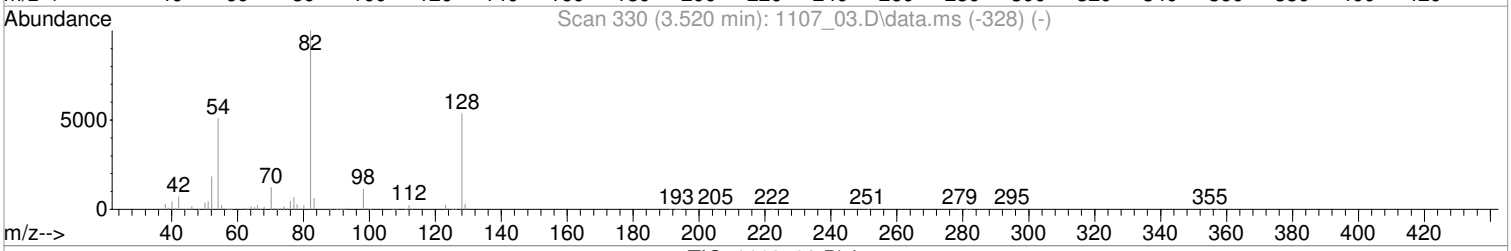
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:14:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 11340.2338991 ppb

Qvalue = 97

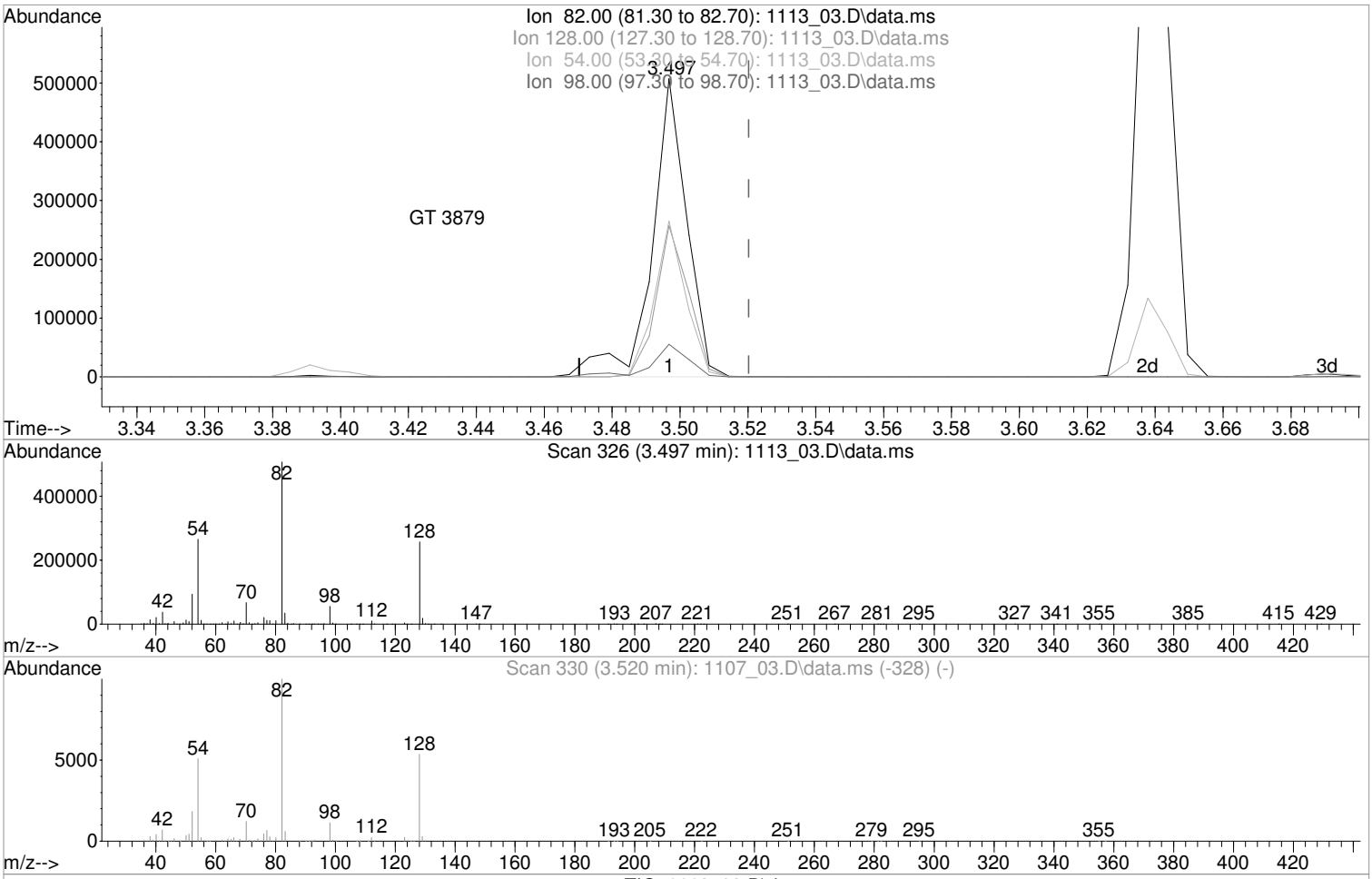
response 361360

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.73
54.00	48.90	52.25
98.00	12.10	10.95

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:14:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1113_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 10289.7810285 ppb m

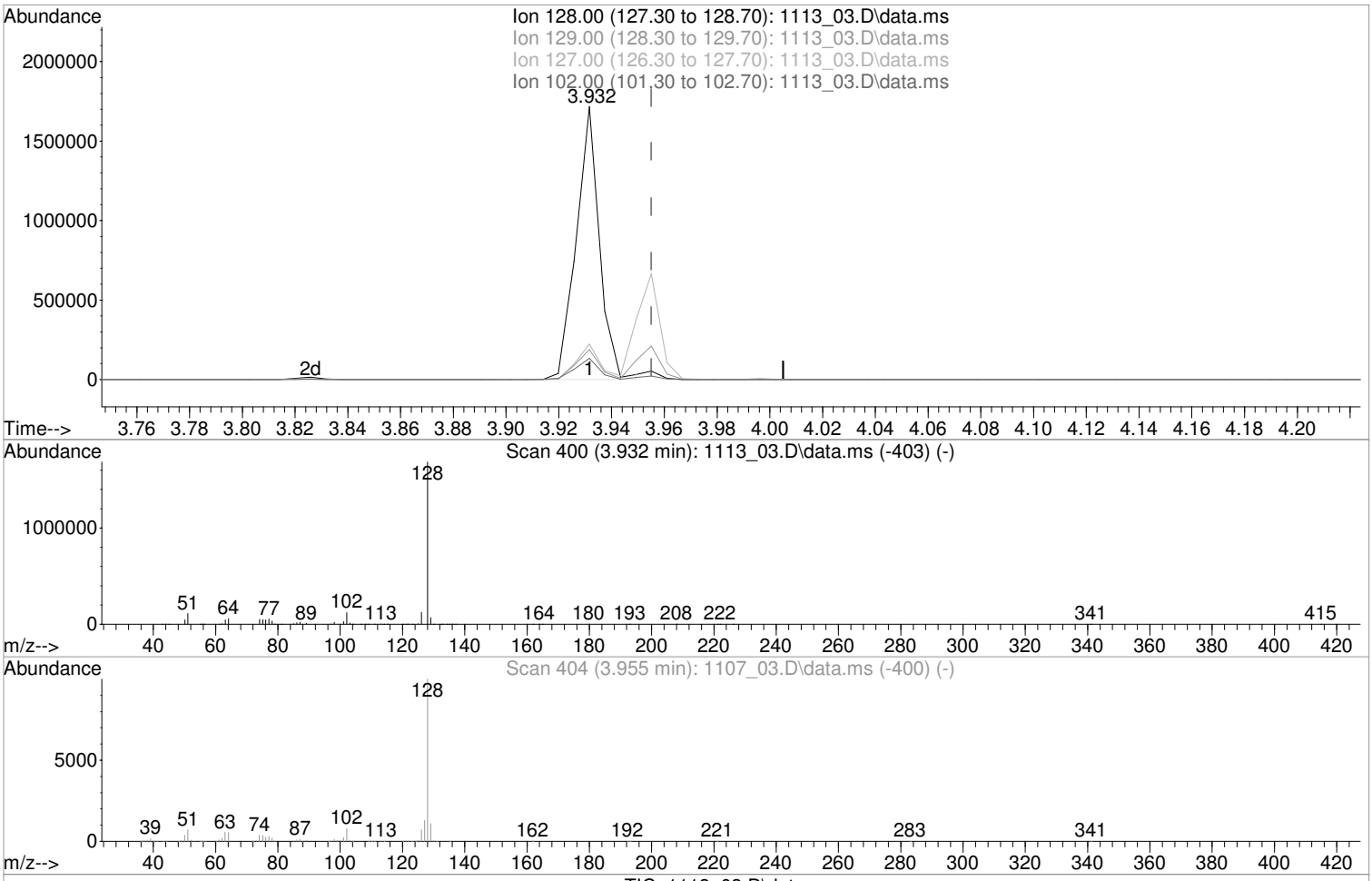
response 327887

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.71
54.00	48.90	52.26
98.00	12.10	10.95

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:14:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1113_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 10560.7366037 ppb

Qvalue = 100

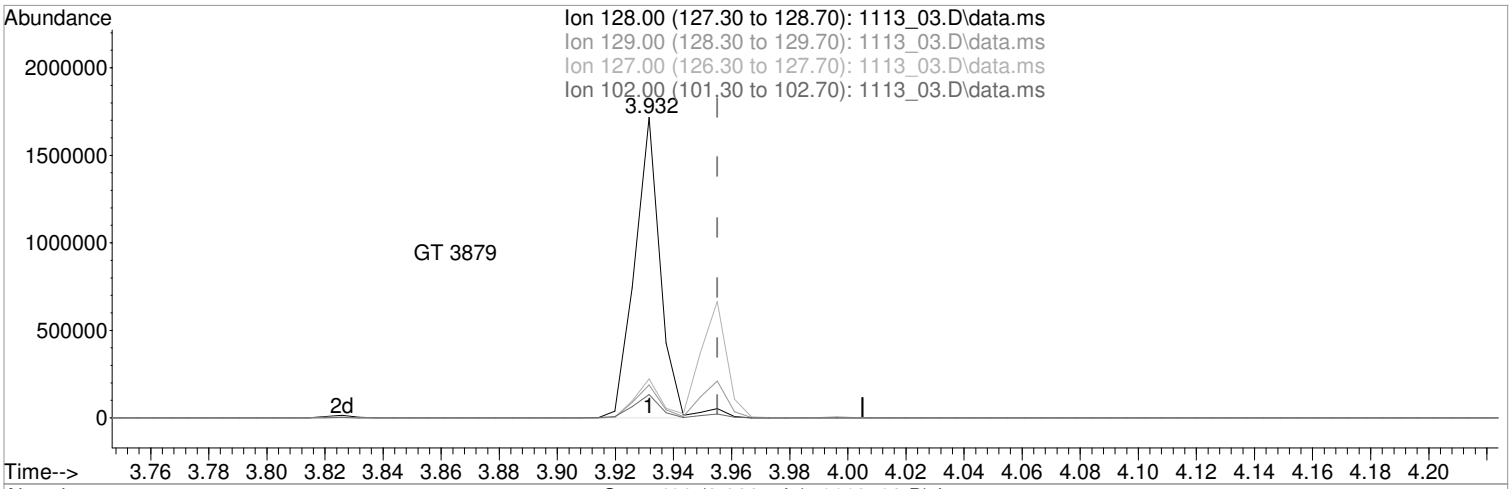
response 1048162

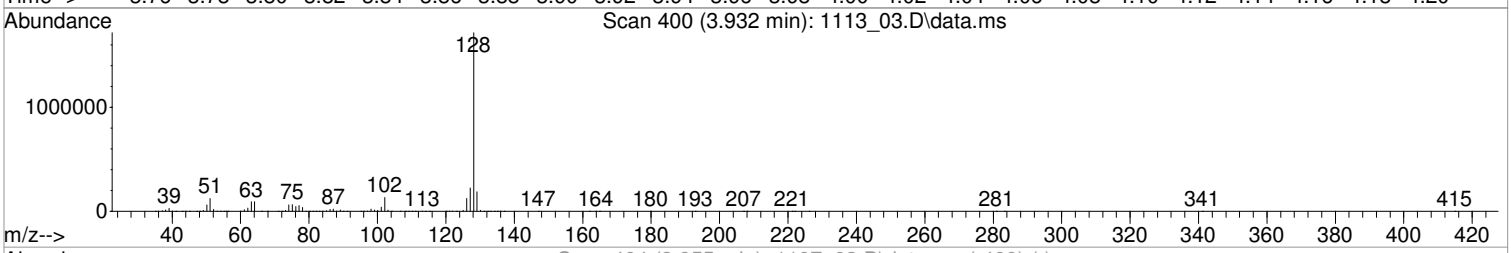
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.96
127.00	13.10	13.06
102.00	8.20	7.79

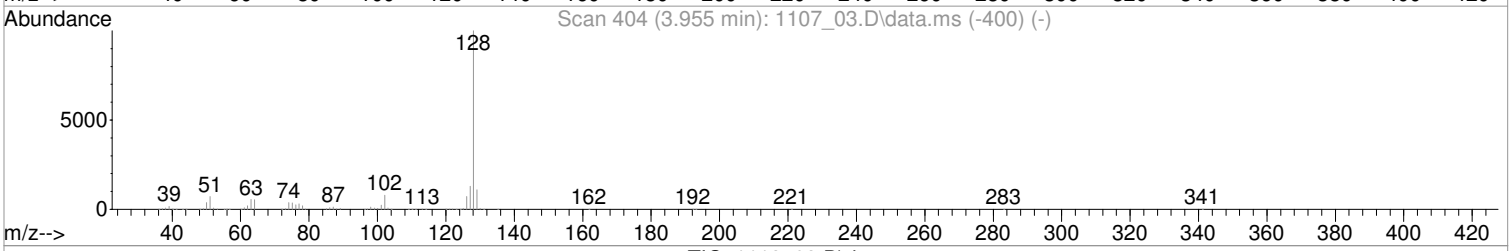
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:14:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1113_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 10443.0247559 ppb m

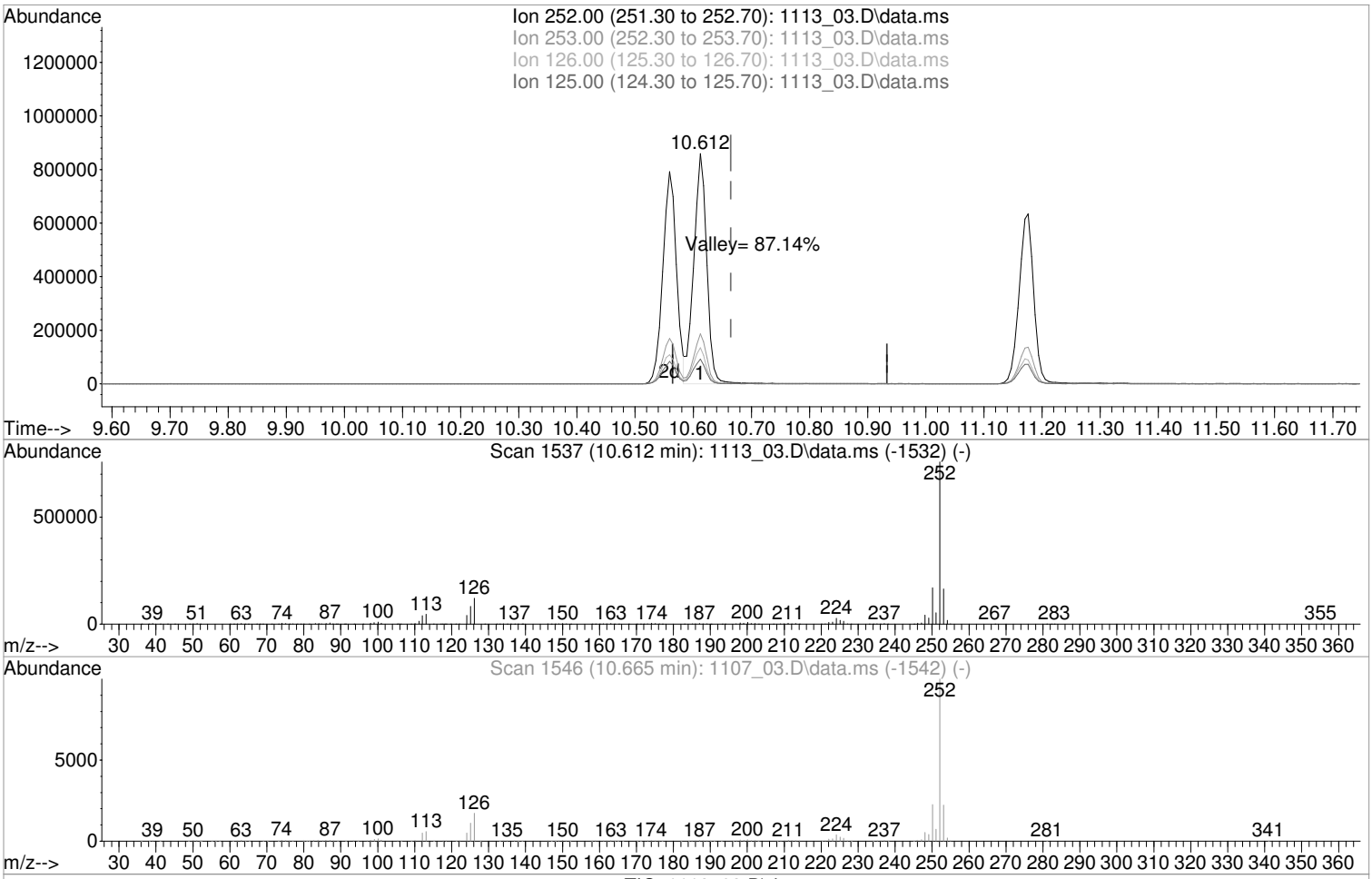
response 1036479

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.96
127.00	13.10	13.06
102.00	8.20	7.79

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_03.D
Acq On : 13 Nov 2022 4:50 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:14:08 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1113_03.D\data.ms

(96) Benzo(k)fluoranthene (MT)

10.612min (-0.053) 11556.5877653 ppb

Qvalue = 98

response 1324509

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	21.65
126.00	14.10	15.68
125.00	10.40	10.67

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1555614	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1113_04-1	**Analysis date/time:**	11/13/22 17:14
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122101	0.10177840		16.60		10	8.336	83.40	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_04.D
Acq On : 13 Nov 2022 5:14 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:36:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

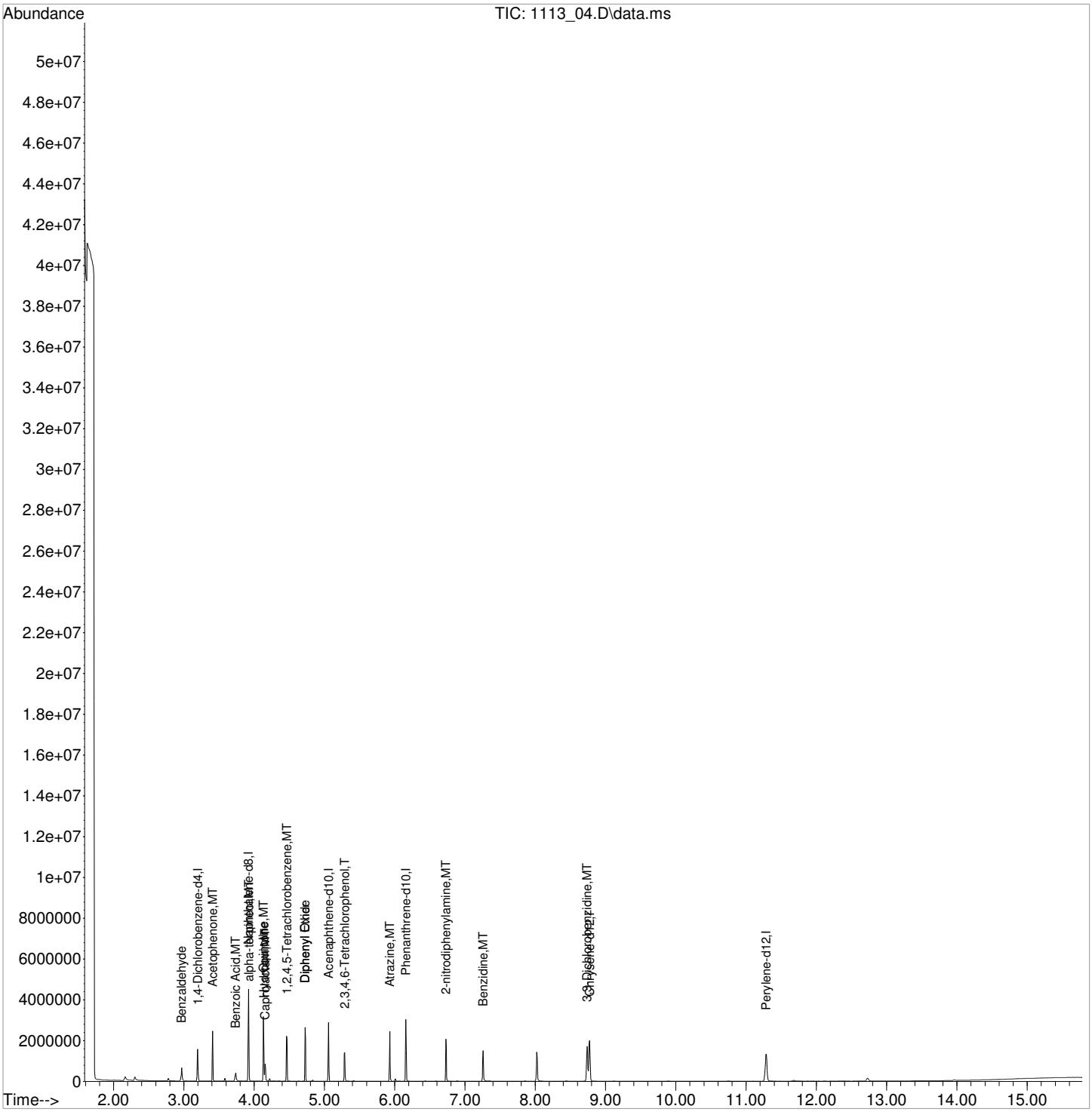
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	235973	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.920	136	1036283	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.060	164	478779	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	918819	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	952376	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	890756	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	2.968	105	108099	9929.5735957	ppb	99
22) Acetophenone	3.409	105	473743	9196.3853453	ppb	98
31) Benzoic Acid	3.738	105	131839	8335.6203523	ppb	99
33) alpha-terpineol	3.926	59	291902	10065.7880856	ppb	98
37) Hydroquinone	4.137	110	209228m	7869.4505895	ppb	
38) Quinoline	4.131	129	691804	9835.0506571	ppb	99
39) Caprolactam	4.155	113	87352	12506.1145106	ppb #	74
43) 1,2,4,5-Tetrachloroben...	4.466	216	367044	10536.6887630	ppb	98
44) Diphenyl Ether	4.725	170	467945	10464.4720834	ppb	98
45) Diphenyl Oxide	4.725	170	467945	10464.4720834	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.289	232	181832	10683.0534202	ppb	91
69) Atrazine	5.929	200	218622	9049.0763569	ppb	99
82) 2-nitrodiphenylamine	6.728	167	233005	8829.1955151	ppb	97
85) Benzidine	7.257	184	560421	10125.1591829	ppb	97
89) 3,3-Dichlorobenzidine	8.738	252	518825	8967.9863101	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111322\
Data File : 1113_04.D
Acq On : 13 Nov 2022 5:14 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:36:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



8B-OR

ANALYTICAL SEQUENCE

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
		Calibration End Date:	10/21/22 00:14

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS21020221020_03-1603375	1020_03-1	10/20/22 19:04		
CAL	500	1020_04	10/20/22 19:25		
CAL	1000	1020_05	10/20/22 19:45		
CAL	4000	1020_06	10/20/22 20:06		
CAL	10000	1020_07	10/20/22 20:27		
CAL	20000	1020_08	10/20/22 20:47		
CAL	30000	1020_09	10/20/22 21:08		
CAL	40000	1020_10	10/20/22 21:29		
CAL	50000	1020_11	10/20/22 21:49		
CAL	1K1	1020_12	10/20/22 22:10		
CAL	4K1	1020_13	10/20/22 22:31		
CAL	10K1	1020_14	10/20/22 22:51		
CAL	20K1	1020_15	10/20/22 23:12		
CAL	30K1	1020_16	10/20/22 23:32		
CAL	40K1	1020_17	10/20/22 23:53		
CAL	50K1	1020_18	10/21/22 00:14		
SSCV	BNAMS21020221020_19-1603375	1020_19-1	10/21/22 00:34		
SSCV	BNAMS21020221020_20-1603375	1020_20-1	10/21/22 00:55		
TUNE	BNAMS21110221110_02T603375	1110_02T	11/10/22 08:15		
ICV	BNAMS21110221110_03603375	1110_03	11/10/22 08:39		
ICV	BNAMS21110221110_04603375	1110_04	11/10/22 09:02		
LCS	R3860458-1	1110_05	11/10/22 09:52	1	WG1957138
BLANK	R3860458-2	1110_06	11/10/22 10:15	1	WG1957138
L1555186-01	L1555186-01	1110_07	11/10/22 10:39	14.9	WG1957138
L1555239-04	L1555239-04	1110_08	11/10/22 11:03	1	WG1957138
L1555239-01	L1555239-01	1110_11	11/10/22 12:16	1	WG1957138
L1555239-07	L1555239-07	1110_12	11/10/22 12:40	1	WG1957138
BNSF-G000-SC-1.5-2.5-110322	L1555614-01	1110_15	11/10/22 13:53	1	WG1957138
MS	R3860458-3	1110_16	11/10/22 14:17	1	WG1957138
MSD	R3860458-4	1110_17	11/10/22 14:41	1	WG1957138
L1555222-01	L1555222-01	1110_18	11/10/22 15:05	1	WG1957138
L1555239-06	L1555239-06	1110_22	11/10/22 16:42	1	WG1957138
L1555239-02	L1555239-02	1110_24	11/10/22 17:31	5	WG1957138
L1554191-15	L1554191-15	1110_30	11/10/22 19:55	1	WG1955882
TUNE	BNAMS21113221113_02T603375	1113_02T	11/13/22 16:26		
ICV	BNAMS21113221113_03-1603375	1113_03-1	11/13/22 16:50		
ICV	BNAMS21113221113_04-1603375	1113_04-1	11/13/22 17:14		
OS	L1553259-01	1113_07	11/13/22 18:25		
L1553259-01	L1553259-01	1113_07	11/13/22 18:25	20	WG1955304
MS	R3860707-1	1113_08	11/13/22 18:49	20	WG1955304
MSD	R3860707-2	1113_09	11/13/22 19:21	20	WG1955304
L1555239-03	L1555239-03	1113_12	11/13/22 20:43	1	WG1957138
L1555239-05	L1555239-05	1113_13	11/13/22 21:07	1	WG1957138
BNSF-G000-SC-4.0-4.5-110322	L1555614-02	1113_14	11/13/22 21:30	1	WG1957138
L1555239-08	L1555239-08	1113_15	11/13/22 21:54	1	WG1957138
L1554191-05	L1554191-05	1113_16	11/13/22 22:18	20	WG1955309
L1554154-02	L1554154-02	1113_17	11/13/22 22:42	10	WG1955309
MS	R3860708-1	1113_18	11/13/22 23:05	10	WG1955309
OS	L1554154-01	1113_19	11/13/22 23:29		
L1554154-01	L1554154-01	1113_19	11/13/22 23:29	10	WG1955309

ANALYTICAL SEQUENCE

SDG:	L1555614	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
		Calibration End Date:	10/21/22 00:14

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
MSD	R3860708-2	1113_20	11/13/22 23:53	10	WG1955309

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1555614-01,02 **Analytical Method:** 8270E
Matrix: Solid **Prep Method:** 3546

Analyte	CAS	MDL	RDL
		mg/kg	*mg/kg*
Benzo(k)fluoranthene	207-08-9	0.005920	0.0333
Benzo(g,h,i)perylene	191-24-2	0.006090	0.0333
Benzo(a)pyrene	50-32-8	0.006190	0.0333
Carbazole	86-74-8	0.0103	0.3330
Acenaphthene	83-32-9	0.005390	0.0333
Chrysene	218-01-9	0.006620	0.0333
Dibenz(a,h)anthracene	53-70-3	0.009230	0.0333
Dibenzofuran	132-64-9	0.0109	0.3330
Fluoranthene	206-44-0	0.006010	0.0333
Acenaphthylene	208-96-8	0.004690	0.0333
Fluorene	86-73-7	0.005420	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0.009410	0.0333
1-Methylnaphthalene	90-12-0	0.004260	0.0333
2-Methylnaphthalene	91-57-6	0.004320	0.0333
Naphthalene	91-20-3	0.008360	0.0333
Phenanthrene	85-01-8	0.006610	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0.0422	0.3330
Di-n-butyl phthalate	84-74-2	0.0114	0.3330
Anthracene	120-12-7	0.005930	0.0333
Di-n-octyl phthalate	117-84-0	0.0225	0.3330
Pyrene	129-00-0	0.006480	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0104	0.3330
Pentachlorophenol	87-86-5	0.008960	0.3330
Phenol	108-95-2	0.0134	0.3330
Benzoic Acid	65-85-0	0.1180	1.67
Benzo(a)anthracene	56-55-3	0.005870	0.0333
Benzo(b)fluoranthene	205-99-2	0.006210	0.0333

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860458-2	**SDG:**	L1555614
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	1110_06	**Received Date/Time:**	
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:19
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/10/22 10:15
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):		**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	0	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	0	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	0	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	3.93	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.61	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	0	U		0.0225	0.333
Pyrene	129-00-0	0	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_06.D
Acq On : 10 Nov 2022 10:15 am
Operator : 3545
Sample : BLANK 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 50 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:32:58 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

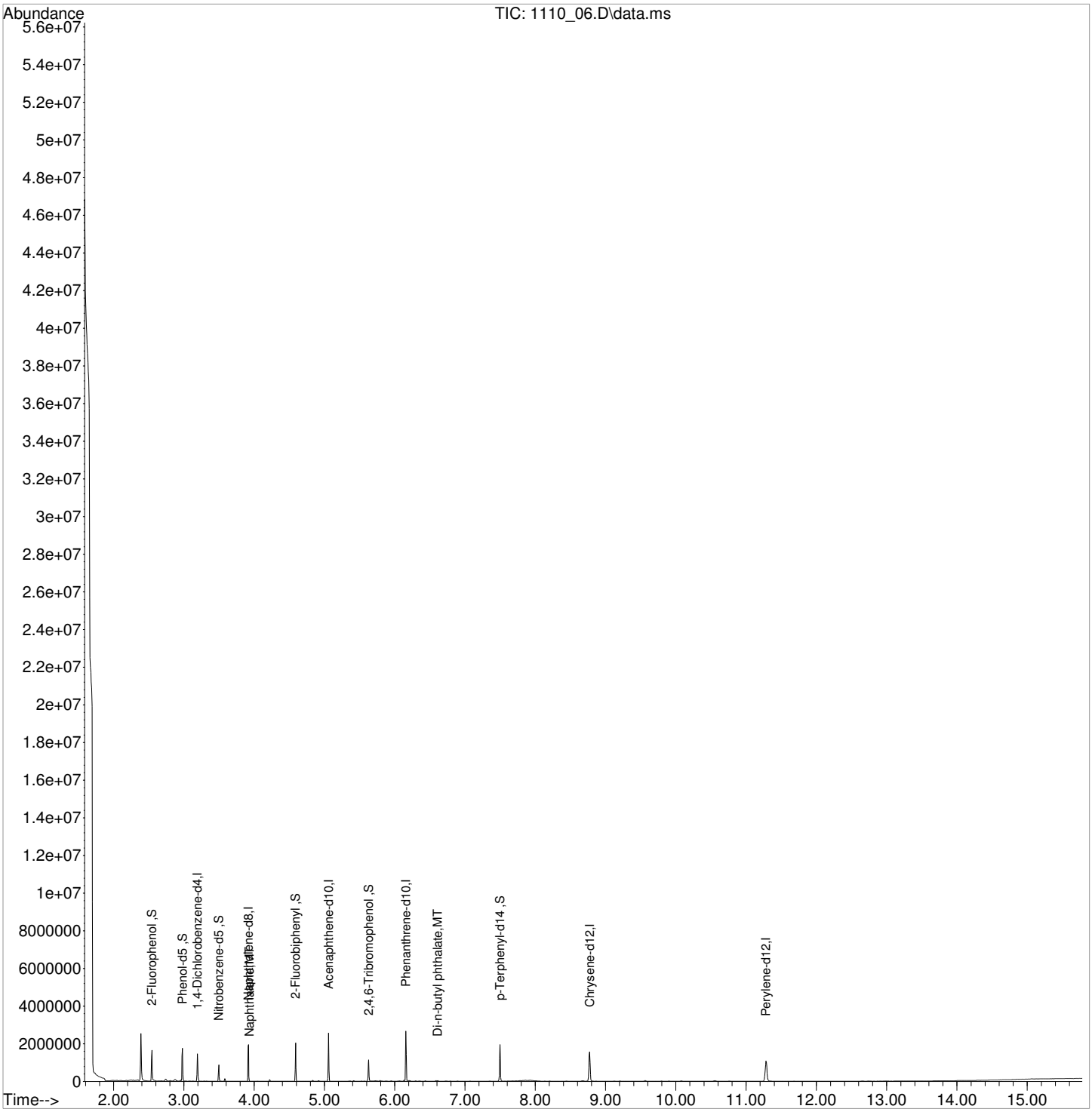
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.191	152	195360	8000.0000000 ppb	-0.02
23) Naphthalene-d8	3.920	136	753947	8000.0000000 ppb	-0.02
46) Acenaphthene-d10	5.060	164	400997	8000.0000000 ppb	-0.02
70) Phenanthrene-d10	6.158	188	766904	8000.0000000 ppb	-0.03
84) Chrysene-d12	8.773	240	723255	8000.0000000 ppb	-0.04
94) Perylene-d12	11.282	264	723029	8000.0000000 ppb	-0.06
System Monitoring Compounds					
4) 2-Fluorophenol	2.545	112	403545	11919.7068386 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 59.60%		
7) Phenol-d5	2.980	99	464993	11346.4720635 ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 56.73%		
24) Nitrobenzene-d5	3.497	82	178910	5599.1034223 ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 55.99%		
50) 2-Fluorobiphenyl	4.590	172	432747	6146.4083889 ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 61.46%		
73) 2,4,6-Tribromophenol	5.630	330	121792	9813.2217633 ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 49.07%		
87) p-Terphenyl-d14	7.498	244	686214	6915.2975167 ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 69.15%		
Target Compounds					Qvalue
34) Naphthalene	3.932	128	1006	10.1080113 ppb	95
81) Di-n-butyl phthalate	6.611	149	6290	51.2186614 ppb	96

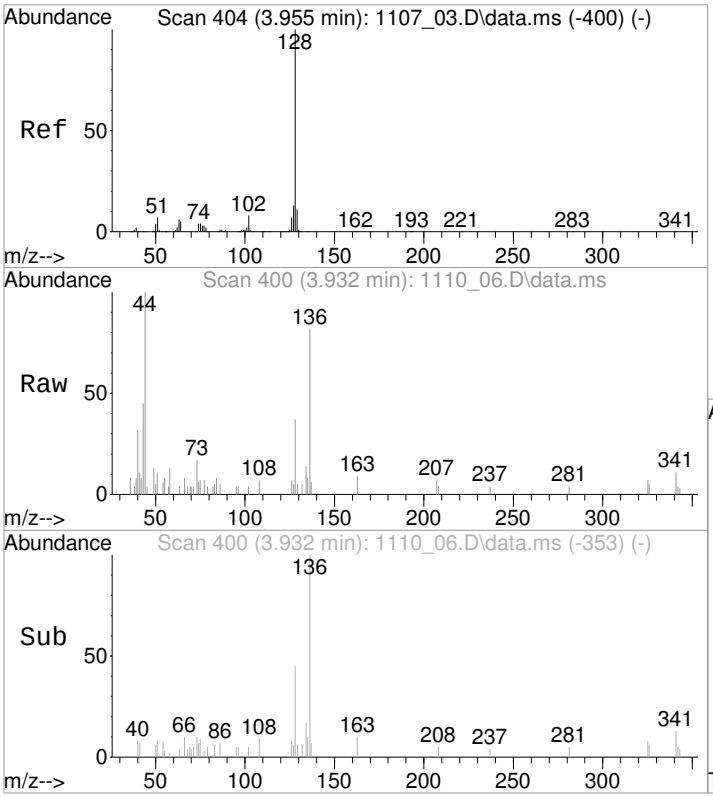
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_06.D
Acq On : 10 Nov 2022 10:15 am
Operator : 3545
Sample : BLANK 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 50 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:32:58 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

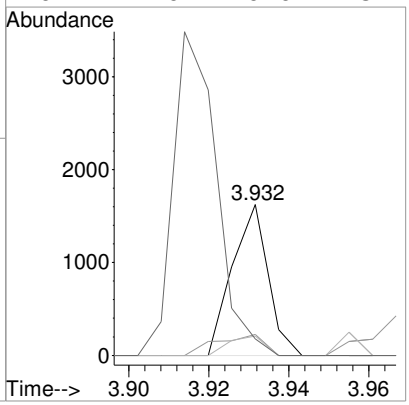


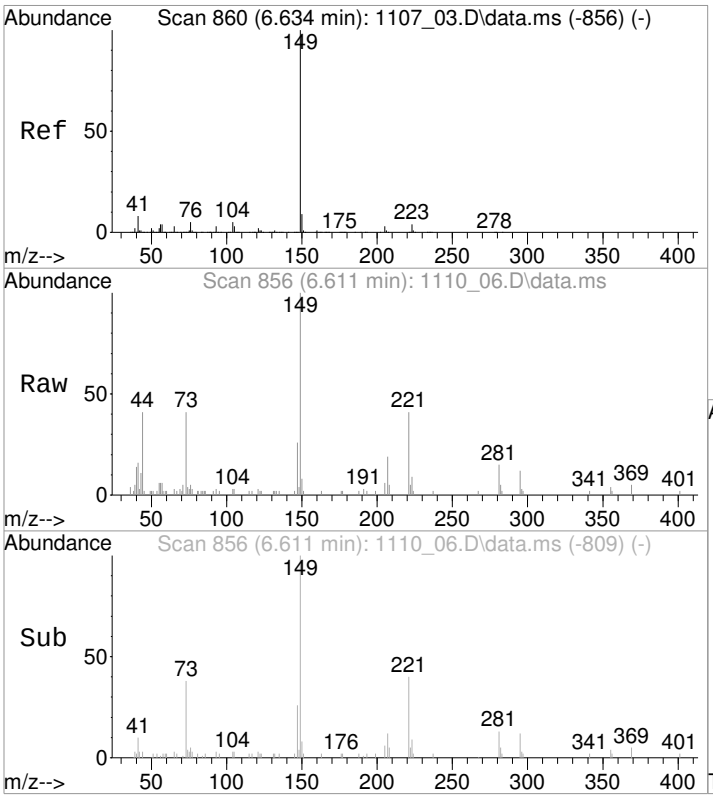


#34
Naphthalene
Concen: 10.1080113 ppb
RT: 3.932 min Scan# 400
Delta R.T. -0.024 min
Lab File: 1110_06.D
Acq: 10 Nov 2022 10:15 am

Tgt Ion:128 Resp: 1006

Ion	Ratio	Lower	Upper
128	100		
129	13.9	0.0	31.0
127	12.7	0.0	33.1
102	11.0	0.0	28.2

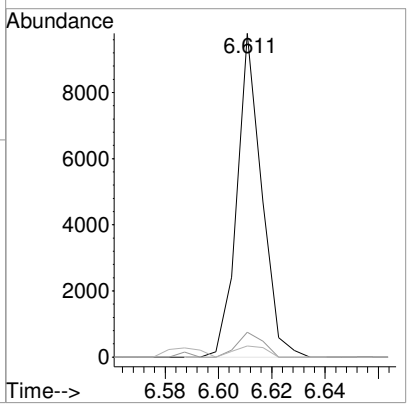




#81
Di-n-butyl phthalate
Concen: 51.2186614 ppb
RT: 6.611 min Scan# 856
Delta R.T. -0.024 min
Lab File: 1110_06.D
Acq: 10 Nov 2022 10:15 am

Tgt Ion:149 Resp: 6290

Ion	Ratio	Lower	Upper
149	100		
150	7.6	0.0	29.2
104	3.4	0.0	24.8



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860458-1	**SDG:**	L1555614
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	1110_05	**Received Date/Time:**	_____
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:19
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/10/22 09:52
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	0.459		0.00539	0.0333
Acenaphthylene	208-96-8	4.97	0.495		0.00469	0.0333
Anthracene	120-12-7	6.22	0.455		0.00593	0.0333
Benzoic Acid	65-85-0	3.74	0.515		0.0000100	1.67
Benzo(a)anthracene	56-55-3	8.77	0.519		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	10.57	0.501		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	10.62	0.518		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	13.72	0.532		0.00609	0.0333
Benzo(a)pyrene	50-32-8	11.19	0.550		0.00619	0.0333
Carbazole	86-74-8	6.34	0.464		0.0103	0.333
Chrysene	218-01-9	8.83	0.526		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	13.40	0.526		0.00923	0.0333
Dibenzofuran	132-64-9	5.21	0.460		0.0109	0.333
Fluoranthene	206-44-0	7.15	0.490		0.00601	0.0333
Fluorene	86-73-7	5.45	0.464		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	0.476		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.43	0.401		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.35	0.389		0.00432	0.0333
Naphthalene	91-20-3	3.93	0.373		0.00836	0.0333
Phenanthrene	85-01-8	6.18	0.491		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	8.88	0.488		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.62	0.465		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.01	0.484		0.0225	0.333
Pyrene	129-00-0	7.36	0.530		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	0.445		0.0104	0.333
Pentachlorophenol	87-86-5	6.01	0.521		0.00896	0.333
Phenol	108-95-2	2.99	0.427		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:29:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.191	152	183980	8000.0000000	ppb		-0.02
23) Naphthalene-d8	3.920	136	830507	8000.0000000	ppb		-0.02
46) Acenaphthene-d10	5.060	164	371850	8000.0000000	ppb		-0.02
70) Phenanthrene-d10	6.164	188	688177	8000.0000000	ppb		-0.02
84) Chrysene-d12	8.785	240	694781	8000.0000000	ppb		-0.03
94) Perylene-d12	11.294	264	704088	8000.0000000	ppb		-0.05
System Monitoring Compounds							
4) 2-Fluorophenol	2.545	112	434649	13632.5569419	ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 68.16%				
7) Phenol-d5	2.980	99	494516	12813.2651387	ppb		-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 64.07%				
24) Nitrobenzene-d5	3.497	82	187630m	5330.6930094	ppb		-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 53.31%				
50) 2-Fluorobiphenyl	4.590	172	459350	7035.6528978	ppb		-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 70.36%				
73) 2,4,6-Tribromophenol	5.630	330	144455	12970.7855458	ppb		-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 64.85%				
87) p-Terphenyl-d14	7.504	244	733043	7689.9631292	ppb		-0.02
Spiked Amount 10000.000	Range 13 - 131		Recovery = 76.90%				
Target Compounds							Qvalue
2) Pyridine	1.928	79	263116	7671.8619428	ppb		93
3) N-Nitrosodimethylamine	1.916	42	203026	12410.0440472	ppb		86
5) Aniline	3.015	66	162307	9292.9263767	ppb	#	35
6) bis(2-Chloroethyl)ether	3.039	93	408499	15631.8238083	ppb		96
8) Phenol	2.986	94	510291	12814.2160580	ppb		99
9) Benzaldehyde	2.962	105	104939	12363.3892650	ppb		95
10) 2-Chlorophenol	3.086	128	415298	12669.8858214	ppb		95
11) n-Decane	3.086	41	185107	10754.5414078	ppb		100
12) 1,3-Dichlorobenzene	3.162	146	445652	12413.2129912	ppb		99
13) 1,4-Dichlorobenzene	3.203	146	451704	12413.1185491	ppb		95
14) Benzyl Alcohol	3.256	79	319494	12873.2657661	ppb		99
15) 1,2-Dichlorobenzene	3.285	146	438304	12829.7647303	ppb		98
16) bis(2-Chloroisopropyl)...	3.327	121	138645	12824.2584520	ppb		95
17) 2,2-oxybis(1-chloropro...	3.327	121	138645	12824.2584520	ppb		95
18) 2-Methylphenol	3.309	108	368804	12688.6611815	ppb		99
19) Hexachloroethane	3.473	117	155387	11654.2014981	ppb		97
20) N-Nitrosodi-n-propylamine	3.397	70	270685	12850.2267966	ppb		91
21) 3&4-Methyl phenol	3.391	107	439774	13354.6863762	ppb		98
22) Acetophenone	3.409	105	521529	12985.0766285	ppb	#	78
25) Nitrobenzene	3.509	77	391912	10871.4324062	ppb		98
26) Isophorone	3.638	82	744124	11303.7346416	ppb		99
27) 2-Nitrophenol	3.691	139	214178	11582.9164554	ppb		81
28) 2,4-Dimethylphenol	3.697	107	378611	10899.3607124	ppb		98
29) bis(2-Chlorethoxy)methane	3.755	93	463454	11347.4865121	ppb		98
30) 2,4-Dichlorophenol	3.826	162	345089	11485.2237970	ppb		95
31) Benzoic Acid	3.744	105	196215	15479.6560715	ppb		97
32) 1,2,4-Trichlorobenzene	3.879	180	382380	11234.2749084	ppb		98

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:29:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
33) alpha-terpineol	3.926	59	346746	14919.6023675 ppb		97
34) Naphthalene	3.932	128	1227519	11196.7887008 ppb		99
35) 4-Chloroaniline	3.955	65	117615	9967.2702467 ppb	#	53
36) Hexachloro-1,3-butadiene	3.996	225	221495	11170.1435161 ppb		99
37) Hydroquinone	4.137	110	51711	2426.8482560 ppb		93
38) Quinoline	4.132	129	810211	14372.3155580 ppb		99
39) Caprolactam	4.161	113	124571	22253.6664919 ppb		88
40) 4-Chloro-3-methylphenol	4.243	107	324473	10837.9749956 ppb		95
41) 2-Methylnaphthalene	4.355	142	818907	11674.8768469 ppb		99
42) 1-Methylnaphthalene	4.425	142	789840	12047.4661527 ppb		99
43) 1,2,4,5-Tetrachloroben...	4.466	216	389661	13957.5129636 ppb		98
44) Diphenyl Ether	4.731	170	517275	14433.7466603 ppb		96
45) Diphenyl Oxide	4.731	170	517275	14433.7466603 ppb		96
47) Hexachlorocyclopentadiene	4.455	237	252001	11707.3569775 ppb		98
48) 2,4,6-Trichlorophenol	4.537	196	248853	13704.6859390 ppb		98
49) 2,4,5-Trichlorophenol	4.560	196	247875	13565.6976438 ppb		98
51) Biphenyl	4.660	154	975838	13716.1443395 ppb		99
52) 2-Chloronaphthalene	4.678	162	755805	13503.4435119 ppb		97
53) 2-Nitroaniline	4.743	138	265175	14895.7884671 ppb		90
54) Acenaphthylene	4.966	152	1283665	14859.1666767 ppb		100
55) Dimethyl phthalate	4.860	163	865761	14361.4809305 ppb		96
56) 2,6-Dinitrotoluene	4.901	165	204662	15126.8502733 ppb		97
57) 3-Nitroaniline	5.025	138	203484	13700.6522751 ppb		98
58) Acenaphthene	5.083	153	786802	13768.2723242 ppb		98
59) 2,4-Dinitrophenol	5.095	184	72454	11620.4680750 ppb	#	1
60) Dibenzofuran	5.207	168	1092230	13818.5244379 ppb		99
61) 2,4-Dinitrotoluene	5.189	165	266983	15728.0373124 ppb		92
62) 2,3,4,6-Tetrachlorophenol	5.289	232	402118	30419.0681449 ppb		99
63) 4-Nitrophenol	5.130	139	175683	16161.5781455 ppb		96
64) Fluorene	5.454	166	899451	13922.4696996 ppb		99
65) 4-Chlorophenyl-phenyle...	5.448	204	447810	13932.3051067 ppb		99
66) Diethyl phthalate	5.359	149	855450	14719.6387877 ppb		97
67) 4-Nitroaniline	5.459	138	225726	16577.3622196 ppb		97
68) Azobenzene	5.565	77	800768	13110.6538983 ppb		98
69) Atrazine	5.935	200	262147	13970.8422648 ppb		99
71) 4,6-Dinitro-2-methylph...	5.483	198	139605	16227.7336142 ppb		98
72) N-Nitrosodiphenylamine	5.536	169	651753	11946.5326832 ppb		99
74) 4-Bromophenyl-phenylether	5.818	248	303302	14697.2400014 ppb		87
75) Hexachlorobenzene	5.865	284	324713	12664.5205669 ppb		99
76) n-octadecane	6.065	55	122210	12826.7715634 ppb		98
77) Pentachlorophenol	6.012	266	188909	15662.2619658 ppb		97
78) Phenanthrene	6.182	178	1365514	14732.8494778 ppb		99
79) Anthracene	6.223	178	1300890	13654.0488410 ppb		99
80) Carbazole	6.341	167	1271614	13924.2499707 ppb		100
81) Di-n-butyl phthalate	6.617	149	1537913	13955.6540633 ppb		99
82) 2-nitrodiphenylamine	6.740	167	309232	15644.8043501 ppb		97
83) Fluoranthene	7.146	202	1628760	14702.6086170 ppb		99
85) Benzidine	7.263	184	379500	9398.5260265 ppb		97
86) Pyrene	7.357	202	1647005	15933.5184653 ppb		99
88) Benzylbutyl phthalate	8.062	149	655531	15041.8389238 ppb		98

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:29:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

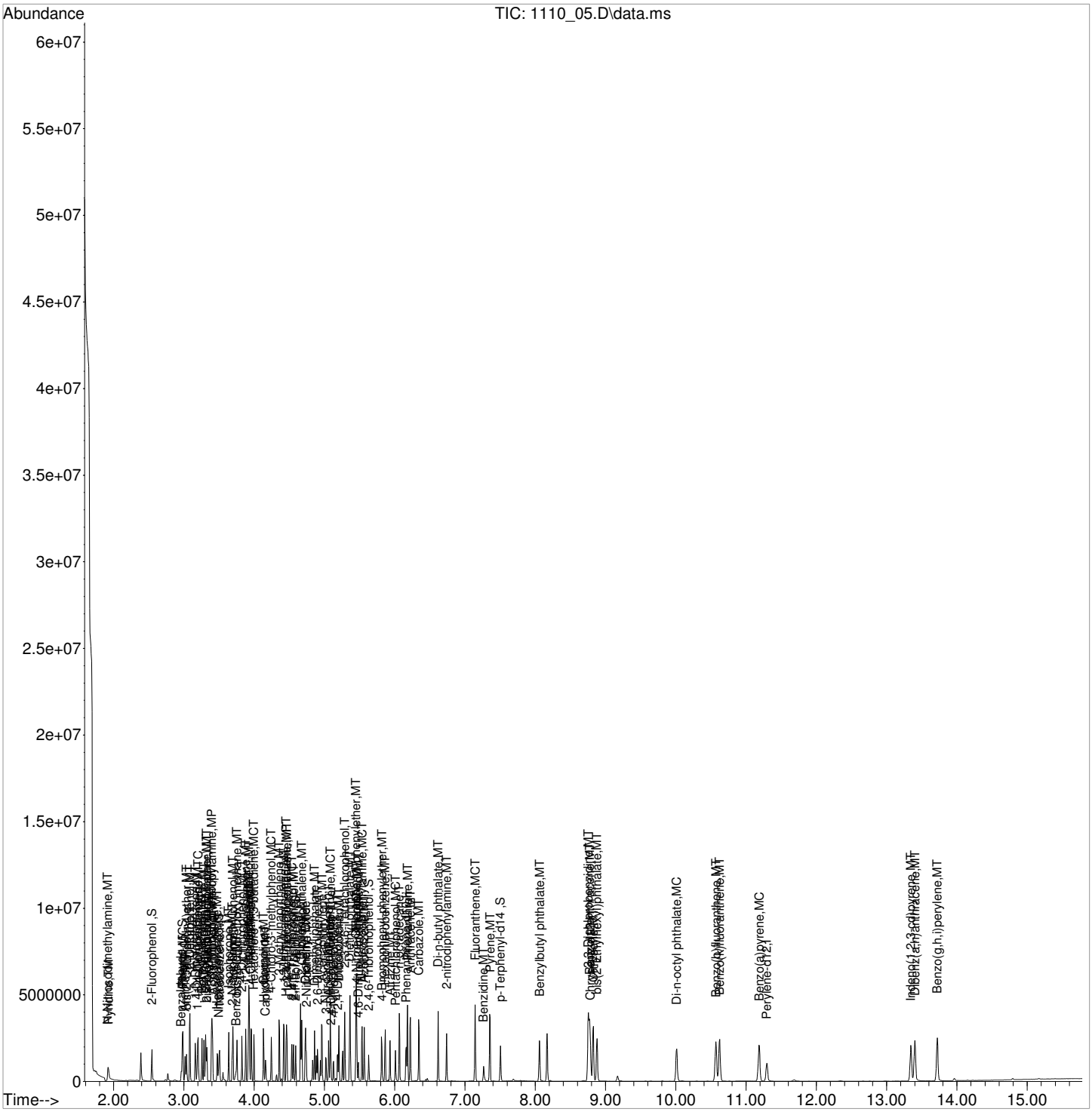
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
89) 3,3-Dichlorobenzidine	8.756	252	1025687	24302.4132862	ppb	100
90) Benzo(a)anthracene	8.773	228	1623684	15604.7255331	ppb	99
91) Chrysene	8.826	228	1559815	15801.4647258	ppb	100
92) bis(2-Ethylhexyl)phtha...	8.879	149	887711	14644.5945739	ppb	100
93) Di-n-octyl phthalate	10.013	149	1490270	14530.6307309	ppb	99
95) Benzo(b)fluoranthene	10.571	252	1586956	15044.1578943	ppb	99
96) Benzo(k)fluoranthene	10.624	252	1620897	15562.3184654	ppb	99
97) Benzo(a)pyrene	11.188	252	1514293	16530.8428818	ppb	100
98) Indeno(1,2,3-cd)pyrene	13.344	276	1318737	14304.8699188	ppb	97
99) Dibenz(a,h)anthracene	13.403	278	1491914	15803.5322404	ppb	97
100) Benzo(g,h,i)perylene	13.720	276	1499029	15993.7221835	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 15:29:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

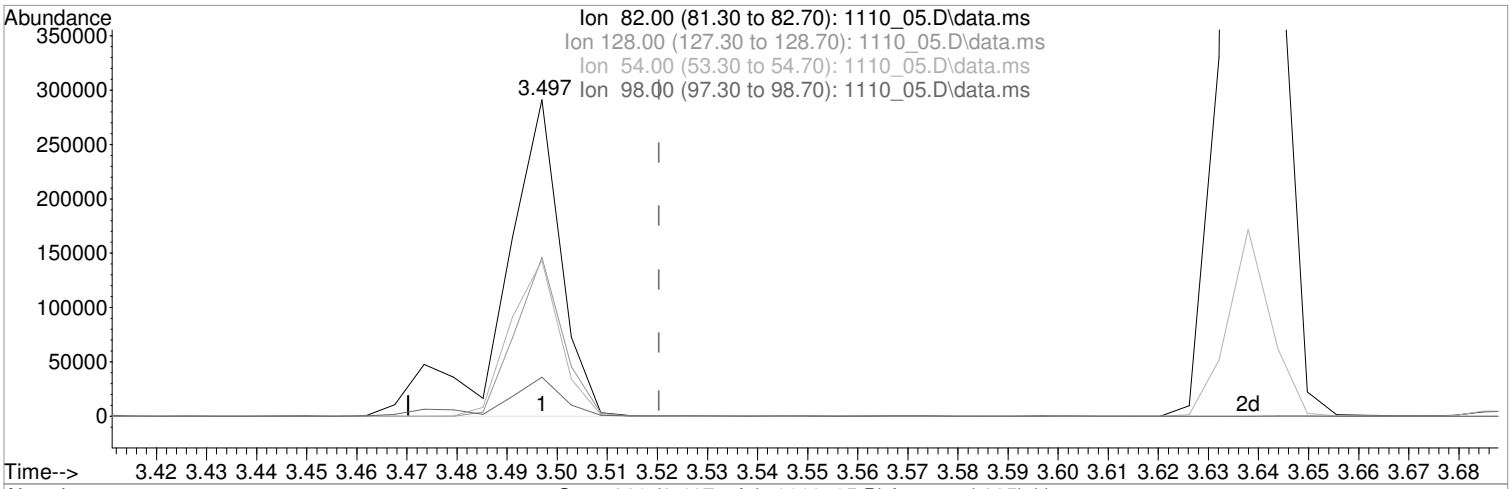


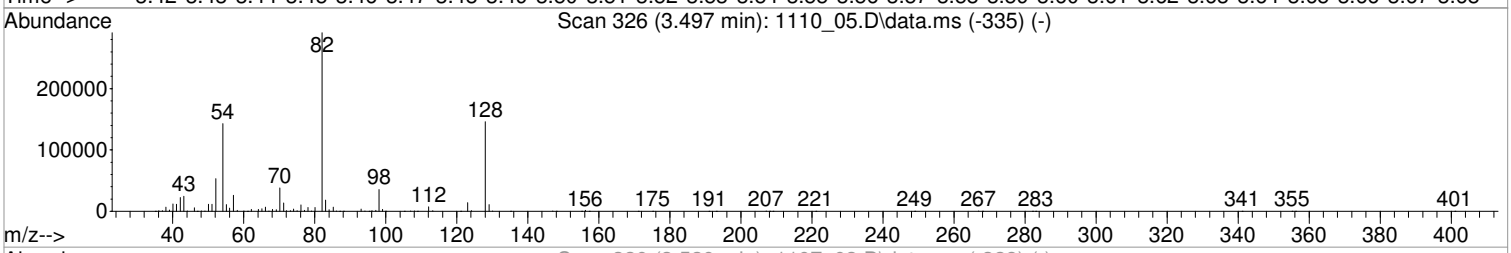
S802K07V.M Sun Nov 13 15:30:45 2022 Page: 4

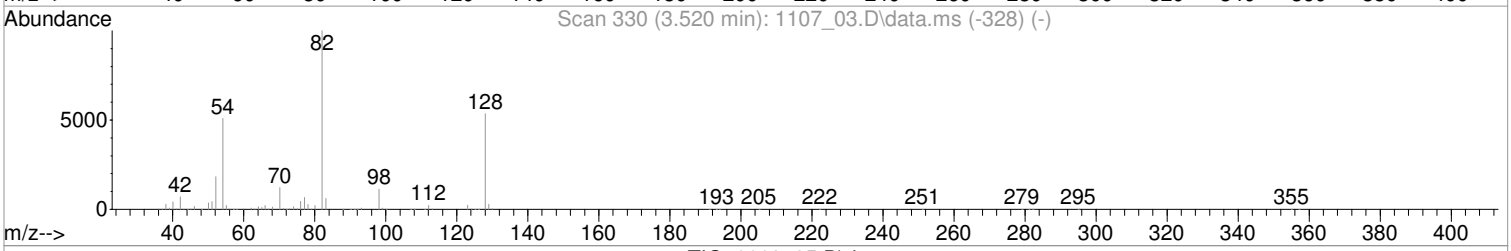
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:36:34 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.023) 6459.4771268 ppb

Qvalue = 99

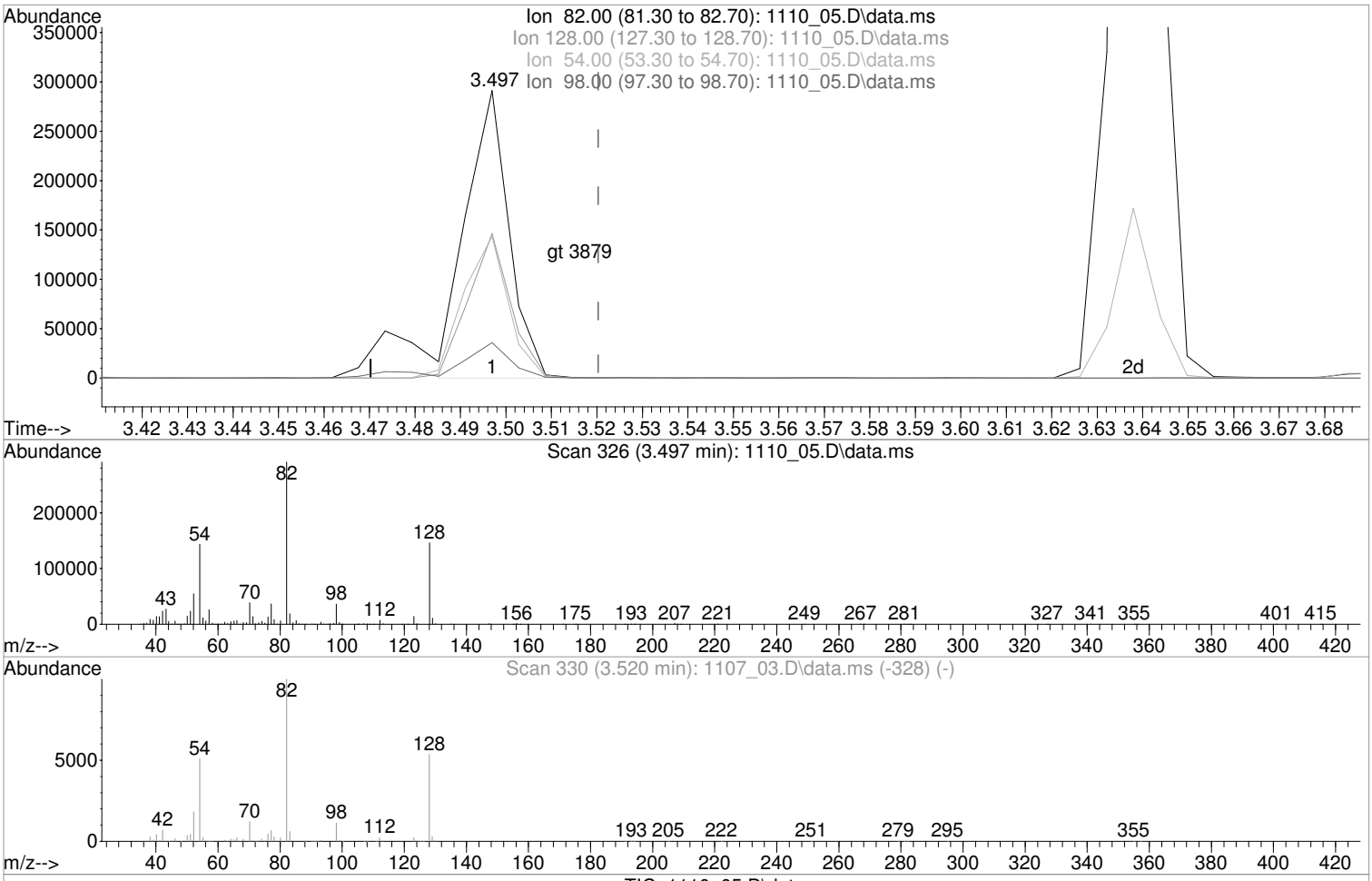
response 227361

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.20
54.00	48.90	49.22
98.00	12.10	12.28

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_05.D
Acq On : 10 Nov 2022 9:52 am
Operator : 3545
Sample : LCS 1X WG1957138
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 49 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:36:34 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.023) 5330.6930094 ppb m

response 187630

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.20
54.00	48.90	49.27
98.00	12.10	12.35

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860458-3	**SDG:**	L1555614
Client Sample ID:	MS	**Collected Date/Time:**	11/03/22 13:50
Lab File ID:	1110_16	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:19
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/10/22 14:17
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	15.38 g
Total Solids (%):	73.3	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	0.432		0.00735	0.0454
Acenaphthylene	208-96-8	4.96	0.461		0.00640	0.0454
Anthracene	120-12-7	6.22	0.419		0.00809	0.0454
Benzoic Acid	65-85-0	3.75	1.19		0.161	2.28
Benzo(a)anthracene	56-55-3	8.76	0.462		0.00800	0.0454
Benzo(b)fluoranthene	205-99-2	10.57	0.436		0.00847	0.0454
Benzo(k)fluoranthene	207-08-9	10.61	0.430		0.00807	0.0454
Benzo(g,h,i)perylene	191-24-2	13.71	0.431		0.00830	0.0454
Benzo(a)pyrene	50-32-8	11.18	0.488		0.00844	0.0454
Carbazole	86-74-8	6.34	0.420		0.0140	0.454
Chrysene	218-01-9	8.81	0.460		0.00903	0.0454
Dibenz(a,h)anthracene	53-70-3	13.40	0.438		0.0126	0.0454
Dibenzofuran	132-64-9	5.21	0.435		0.0149	0.454
Fluoranthene	206-44-0	7.14	0.439		0.00820	0.0454
Fluorene	86-73-7	5.45	0.439		0.00739	0.0454
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	0.406		0.0128	0.0454
1-Methylnaphthalene	90-12-0	4.42	0.394		0.00581	0.0454
2-Methylnaphthalene	91-57-6	4.36	0.382		0.00589	0.0454
Naphthalene	91-20-3	3.93	0.365		0.0114	0.0454
Phenanthrene	85-01-8	6.18	0.439		0.00901	0.0454
Bis(2-ethylhexyl)phthalate	117-81-7	8.87	0.443		0.0575	0.454
Di-n-butyl phthalate	84-74-2	6.61	0.408		0.0155	0.454
Di-n-octyl phthalate	117-84-0	10	0.461		0.0307	0.454
Pyrene	129-00-0	7.35	0.455		0.00884	0.0454
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	0.421		0.0142	0.454
Pentachlorophenol	87-86-5	6.01	0.520		0.0122	0.454
Phenol	108-95-2	2.99	0.400		0.0183	0.454

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:05:57 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	191167	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.920	136	837935	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.060	164	394905	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	742508	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	767128	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	842834	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	297591	8982.8907557	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 44.91%			
7) Phenol-d5	2.980	99	341211	8508.6405760	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 42.54%			
24) Nitrobenzene-d5	3.497	82	134065m	3775.1114089	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 37.75%			
50) 2-Fluorobiphenyl	4.590	172	316379	4562.9266467	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 45.63%			
73) 2,4,6-Tribromophenol	5.630	330	108348	9016.8244799	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 45.08%			
87) p-Terphenyl-d14	7.498	244	474245	4505.8597126	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 45.06%			
Target Compounds						Qvalue
2) Pyridine	1.940	79	235348	6604.2228963	ppb	96
3) N-Nitrosodimethylamine	1.928	42	140375	8257.8905735	ppb	94
5) Aniline	3.021	66	112310	6188.5850365	ppb #	33
6) bis(2-Chloroethyl)ether	3.039	93	312595	11512.2011805	ppb	95
8) Phenol	2.986	94	373491	9026.3457376	ppb	98
9) Benzaldehyde	2.968	105	198112	22463.0691522	ppb #	95
10) 2-Chlorophenol	3.086	128	307230	9020.5739688	ppb	97
11) n-Decane	3.086	41	137414	7683.4757546	ppb	96
12) 1,3-Dichlorobenzene	3.168	146	341330	9149.9874385	ppb	97
13) 1,4-Dichlorobenzene	3.203	146	346096	9153.3746044	ppb	96
14) Benzyl Alcohol	3.256	79	242511	9404.0550076	ppb	99
15) 1,2-Dichlorobenzene	3.285	146	331626	9342.2077473	ppb	98
16) bis(2-Chloroisopropyl)...	3.326	121	104746	9324.4491918	ppb	97
17) 2,2-oxybis(1-chloropro...	3.326	121	104746	9324.4491918	ppb	97
18) 2-Methylphenol	3.309	108	273675	9061.7691568	ppb	99
19) Hexachloroethane	3.479	117	84857	6125.1002922	ppb #	85
20) N-Nitrosodi-n-propylamine	3.397	70	204044	9322.4083211	ppb	91
21) 3&4-Methyl phenol	3.391	107	325487	9512.5177660	ppb	98
22) Acetophenone	3.409	105	384405	9211.1270339	ppb #	77
25) Nitrobenzene	3.509	77	293290	8063.5898663	ppb	97
26) Isophorone	3.638	82	540613	8139.4693665	ppb	99
27) 2-Nitrophenol	3.691	139	152020	8148.4829206	ppb	81
28) 2,4-Dimethylphenol	3.697	107	289462	8259.0923619	ppb	97
29) bis(2-Chlorethoxy)methane	3.755	93	342150	8303.1436387	ppb	99
30) 2,4-Dichlorophenol	3.826	162	264661	8730.3420913	ppb	97
31) Benzoic Acid	3.749	105	344119m	26907.3371824	ppb	
32) 1,2,4-Trichlorobenzene	3.879	180	288704	8406.8954330	ppb	99

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:05:57 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
33) alpha-terpineol	3.926	59	259331	11059.4413490 ppb		97
34) Naphthalene	3.932	128	910790	8234.1064922 ppb		100
35) 4-Chloroaniline	3.955	65	73288	6155.7270859 ppb	#	53
36) Hexachloro-1,3-butadiene	3.996	225	173058	8650.0670274 ppb		100
37) Hydroquinone	4.137	110	140988	6558.0511818 ppb		94
38) Quinoline	4.131	129	622334	10941.7075700 ppb		98
39) Caprolactam	4.161	113	97176	17205.8688864 ppb	#	79
40) 4-Chloro-3-methylphenol	4.243	107	244478	8093.6110682 ppb		94
41) 2-Methylnaphthalene	4.361	142	610160	8621.7301195 ppb		99
42) 1-Methylnaphthalene	4.419	142	587605	8883.3145370 ppb		98
43) 1,2,4,5-Tetrachloroben...	4.466	216	290710	10320.8160255 ppb		99
44) Diphenyl Ether	4.731	170	386062	10676.9598960 ppb		97
45) Diphenyl Oxide	4.731	170	386062	10676.9598960 ppb		97
47) Hexachlorocyclopentadiene	4.455	237	9640	421.7050327 ppb		94
48) 2,4,6-Trichlorophenol	4.537	196	194231	10072.0971563 ppb		98
49) 2,4,5-Trichlorophenol	4.560	196	192825	9936.8309007 ppb		99
51) Biphenyl	4.660	154	722562	9563.2298069 ppb		100
52) 2-Chloronaphthalene	4.678	162	565757	9517.8720187 ppb		96
53) 2-Nitroaniline	4.742	138	211507	11187.4425318 ppb		91
54) Acenaphthylene	4.960	152	953597	10394.0017036 ppb		99
55) Dimethyl phthalate	4.860	163	630678	9851.0844632 ppb		95
56) 2,6-Dinitrotoluene	4.901	165	147146	10240.8241452 ppb		97
57) 3-Nitroaniline	5.019	138	128826	8167.5095966 ppb		91
58) Acenaphthene	5.083	153	592462	9762.2437185 ppb		98
59) 2,4-Dinitrophenol	5.095	184	24653	4017.4965105 ppb	#	1
60) Dibenzofuran	5.207	168	824909	9827.1767018 ppb		99
61) 2,4-Dinitrotoluene	5.183	165	196016	10873.2055434 ppb		91
62) 2,3,4,6-Tetrachlorophenol	5.289	232	320928	22859.9436169 ppb		95
63) 4-Nitrophenol	5.130	139	145670	12618.2550399 ppb		93
64) Fluorene	5.453	166	680442	9917.5646031 ppb		99
65) 4-Chlorophenyl-phenyle...	5.447	204	342107	10022.2747193 ppb		97
66) Diethyl phthalate	5.359	149	627803	10171.8761138 ppb		96
67) 4-Nitroaniline	5.459	138	169412	11715.2932546 ppb		98
68) Azobenzene	5.565	77	602692	9291.5511755 ppb		98
69) Atrazine	5.929	200	201417	10107.6215750 ppb		97
71) 4,6-Dinitro-2-methylph...	5.483	198	52888	6163.8952890 ppb		94
72) N-Nitrosodiphenylamine	5.536	169	494567	8402.0060094 ppb		99
74) 4-Bromophenyl-phenylether	5.812	248	221460	9946.1458650 ppb		97
75) Hexachlorobenzene	5.865	284	239185	8646.1354372 ppb		99
76) n-octadecane	6.064	55	93525	9097.8201981 ppb		96
77) Pentachlorophenol	6.012	266	152615	11727.3009980 ppb		97
78) Phenanthrene	6.176	178	990397	9903.7330873 ppb		99
79) Anthracene	6.217	178	970093	9436.9849844 ppb		98
80) Carbazole	6.341	167	933352	9472.4209449 ppb		100
81) Di-n-butyl phthalate	6.611	149	1094314	9203.6352605 ppb		100
82) 2-nitrodiphenylamine	6.734	167	245536	11513.3020910 ppb		97
83) Fluoranthene	7.140	202	1183697	9903.2299814 ppb		98
85) Benzidine	7.263	184	29535m	662.4682093 ppb		
86) Pyrene	7.345	202	1174657	10292.1934416 ppb		99
88) Benzylbutyl phthalate	8.050	149	494140	10269.2283020 ppb		99

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:05:57 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

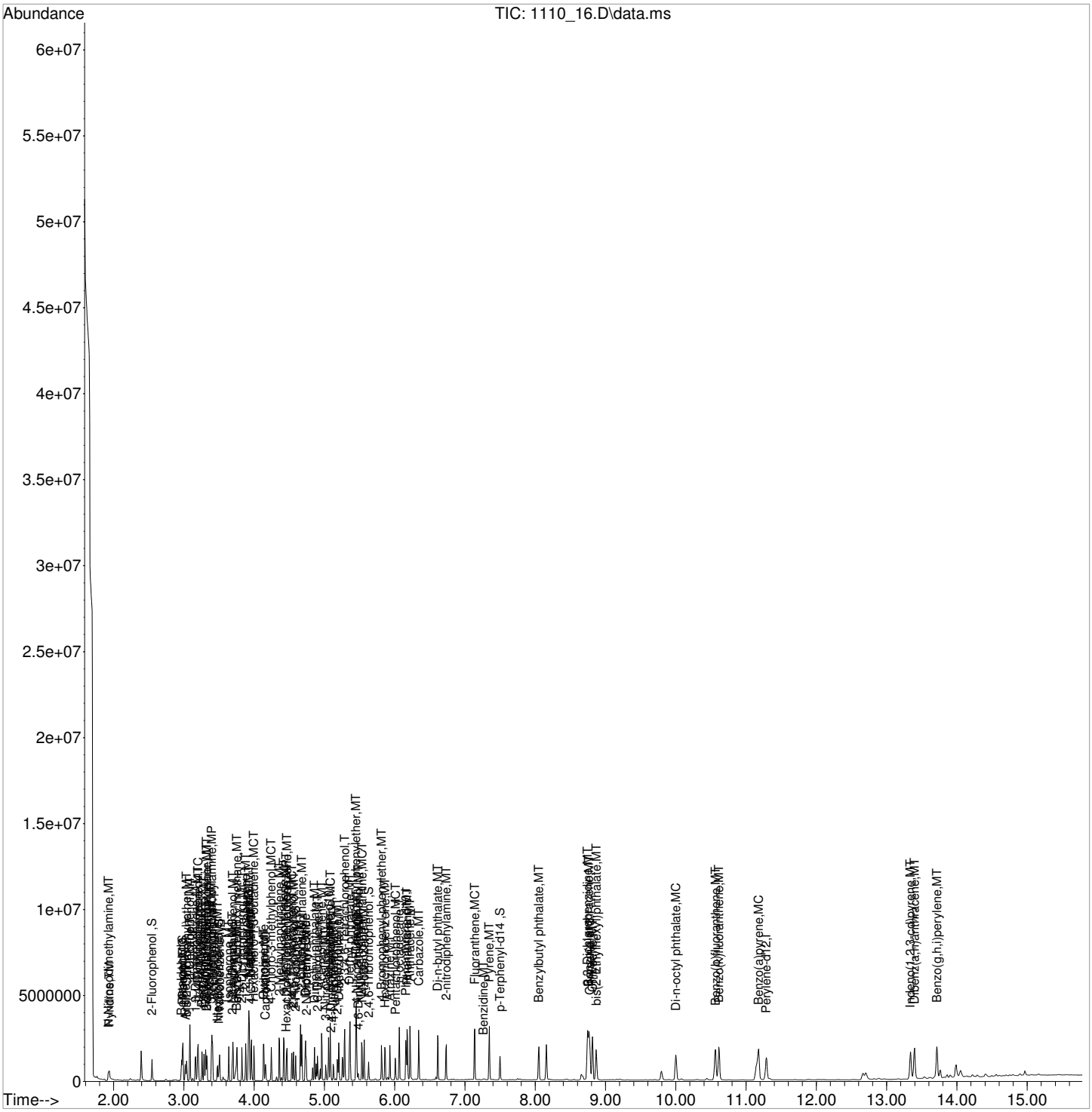
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
89) 3,3-Dichlorobenzidine	8.744	252	780581	16750.6870850 ppb	100
90) Benzo(a)anthracene	8.761	228	1199735	10442.8743068 ppb	99
91) Chrysene	8.814	228	1131531	10381.7557930 ppb	100
92) bis(2-Ethylhexyl)phtha...	8.867	149	669244	9999.3169976 ppb	98
93) Di-n-octyl phthalate	10.001	149	1178468	10406.8045970 ppb	100
95) Benzo(b)fluoranthene	10.565	252	1242811	9842.2180293 ppb	99
96) Benzo(k)fluoranthene	10.612	252	1207676	9686.2173826 ppb	98
97) Benzo(a)pyrene	11.176	252	1209139	11026.7164885 ppb	98
98) Indeno(1,2,3-cd)pyrene	13.338	276	1011471	9165.6665380 ppb	97
99) Dibenz(a,h)anthracene	13.397	278	1117191	9886.0477004 ppb	97
100) Benzo(g,h,i)perylene	13.714	276	1090075	9715.8497154 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:05:57 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

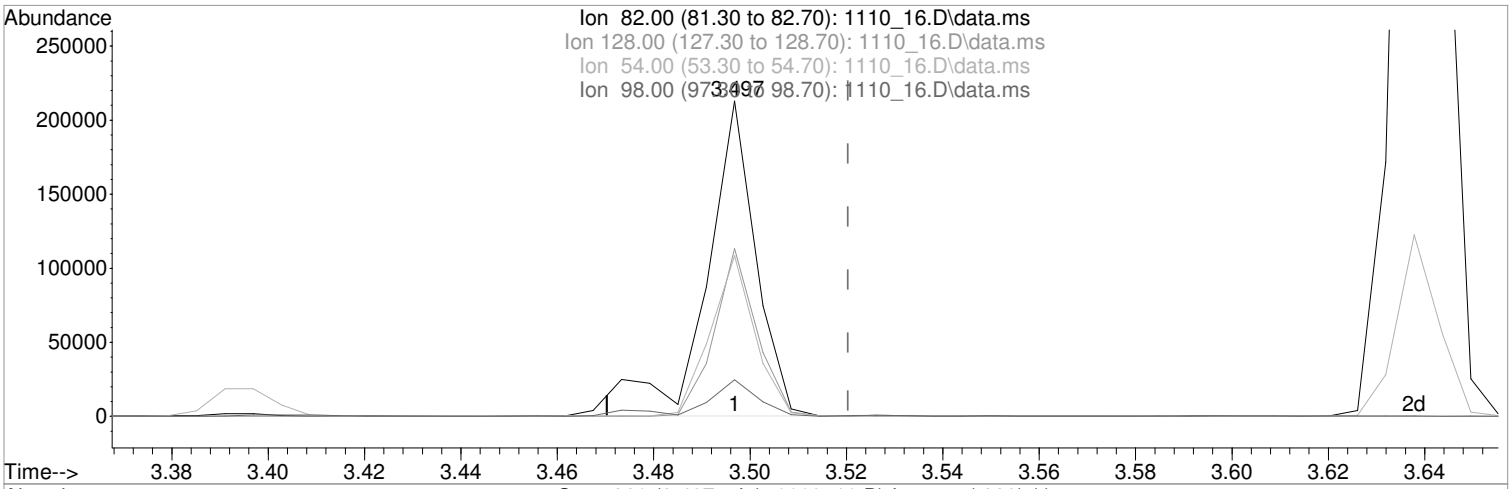


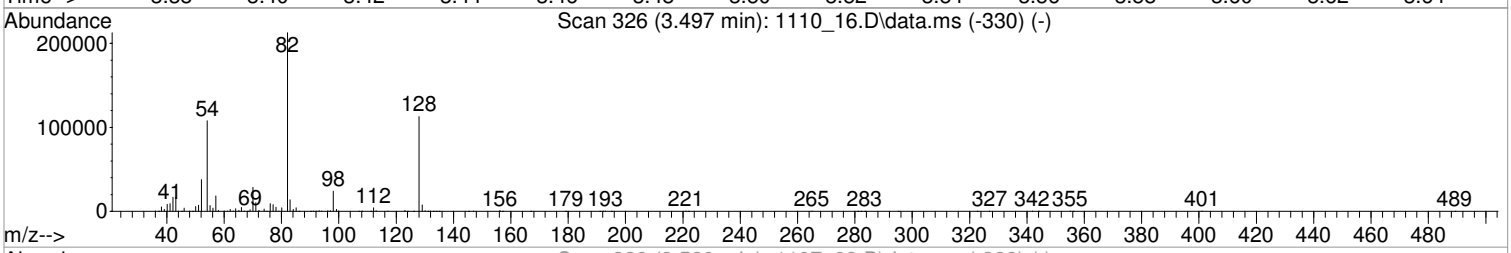
S802K07V.M Sun Nov 13 17:06:18 2022 Page: 4

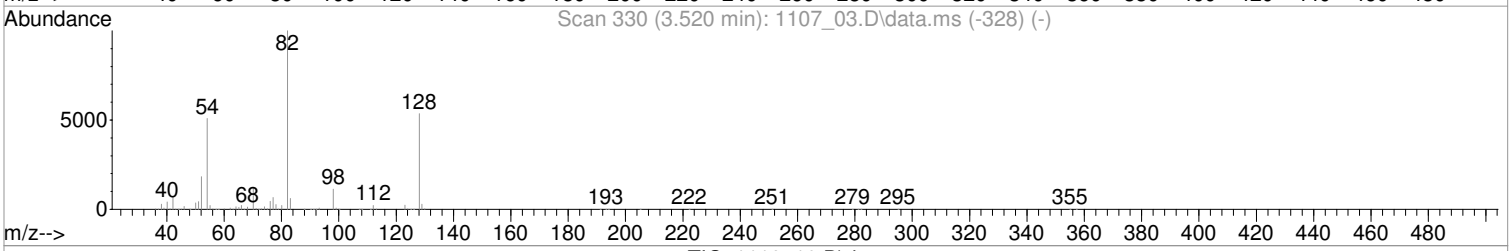
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_16.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 4333.8104389 ppb

Qvalue = 98

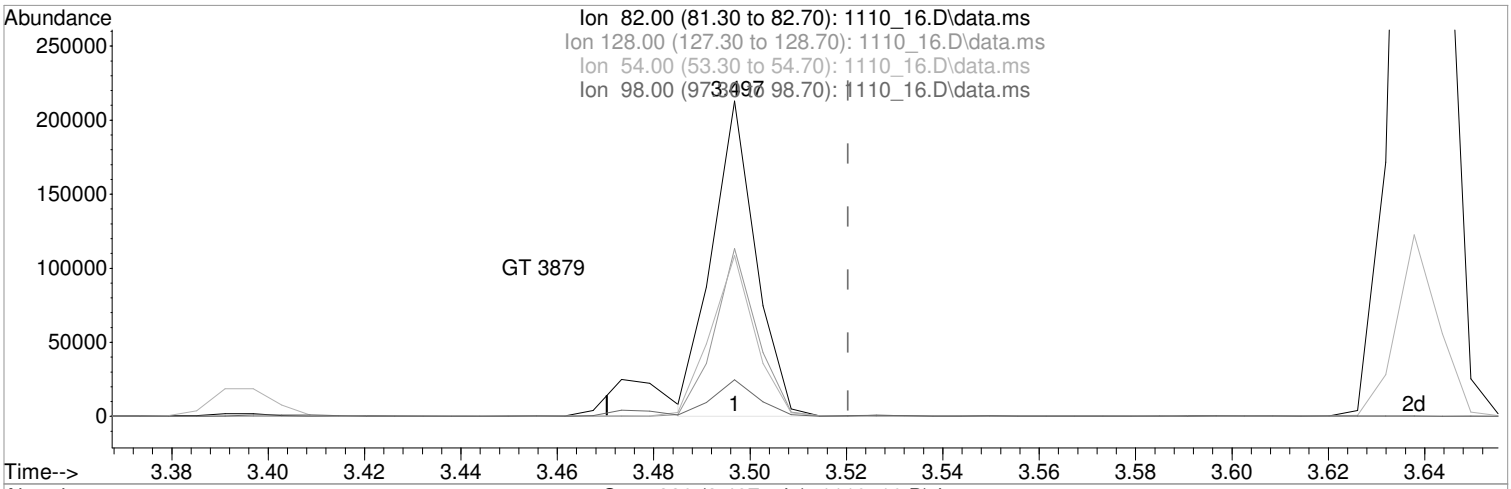
response 153906

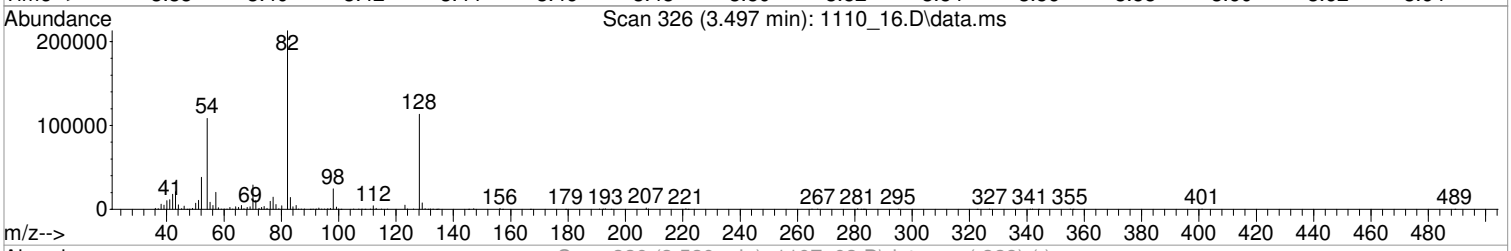
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.25
54.00	48.90	50.87
98.00	12.10	11.58

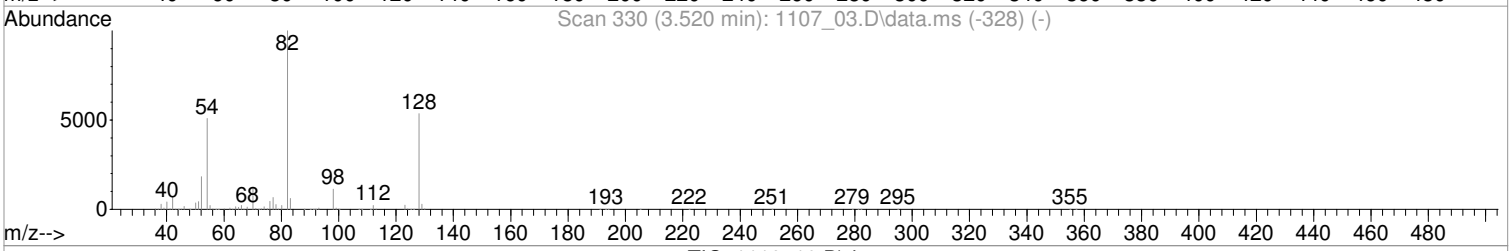
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_16.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 3775.1114089 ppb m

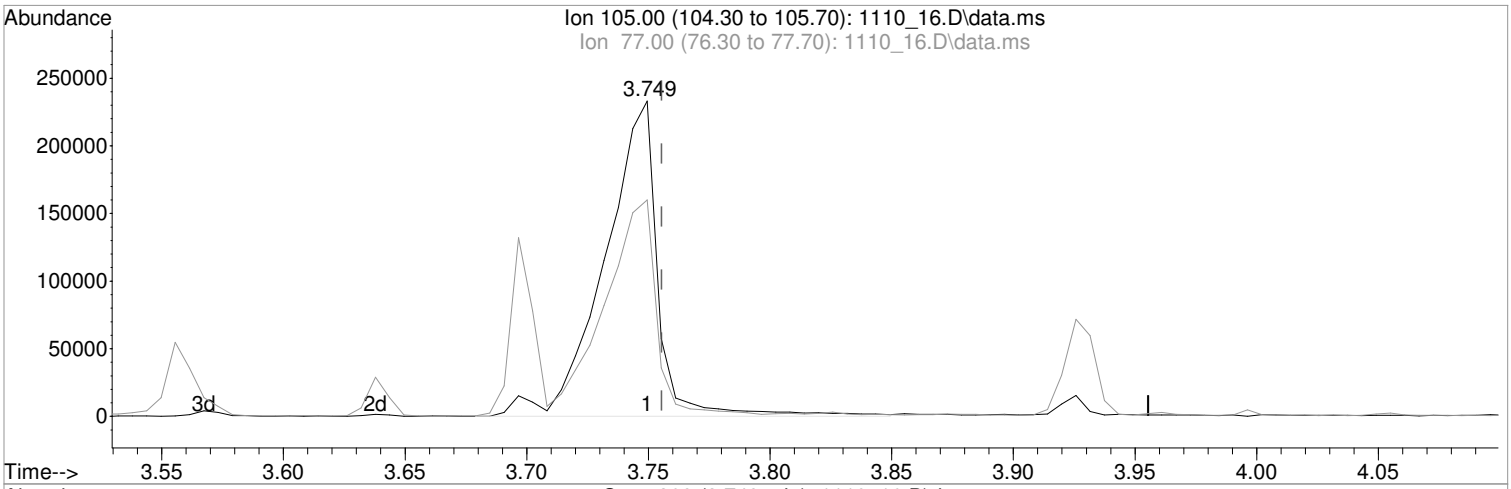
response 134065

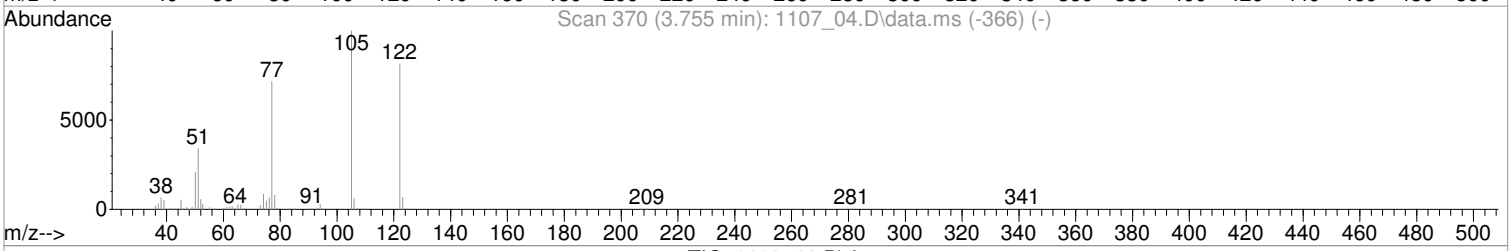
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.17
54.00	48.90	50.92
98.00	12.10	11.56

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration





TIC: 1110_16.D\data.ms

(31) Benzoic Acid (MT)

3.749min (-0.006) 27900.8441559 ppb

Qvalue = 92

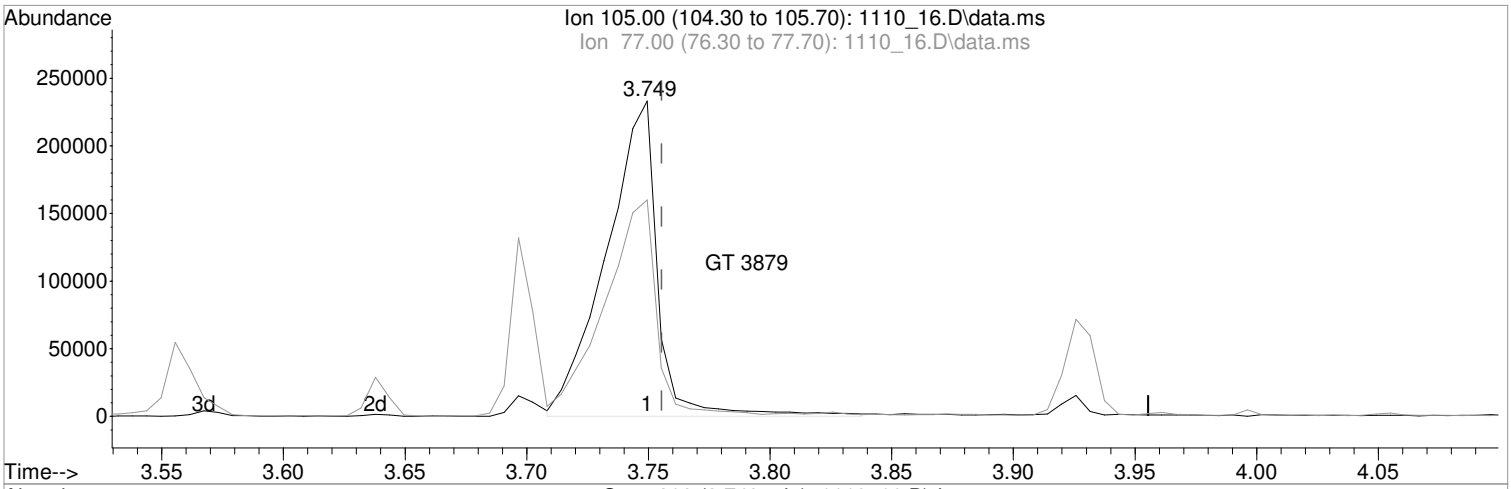
response 356825

Ion	Exp%	Act%
105.00	100	100
77.00	70.80	64.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_16.D\data.ms

(31) Benzoic Acid (MT)

3.749min (-0.006) 26907.3371824 ppb m

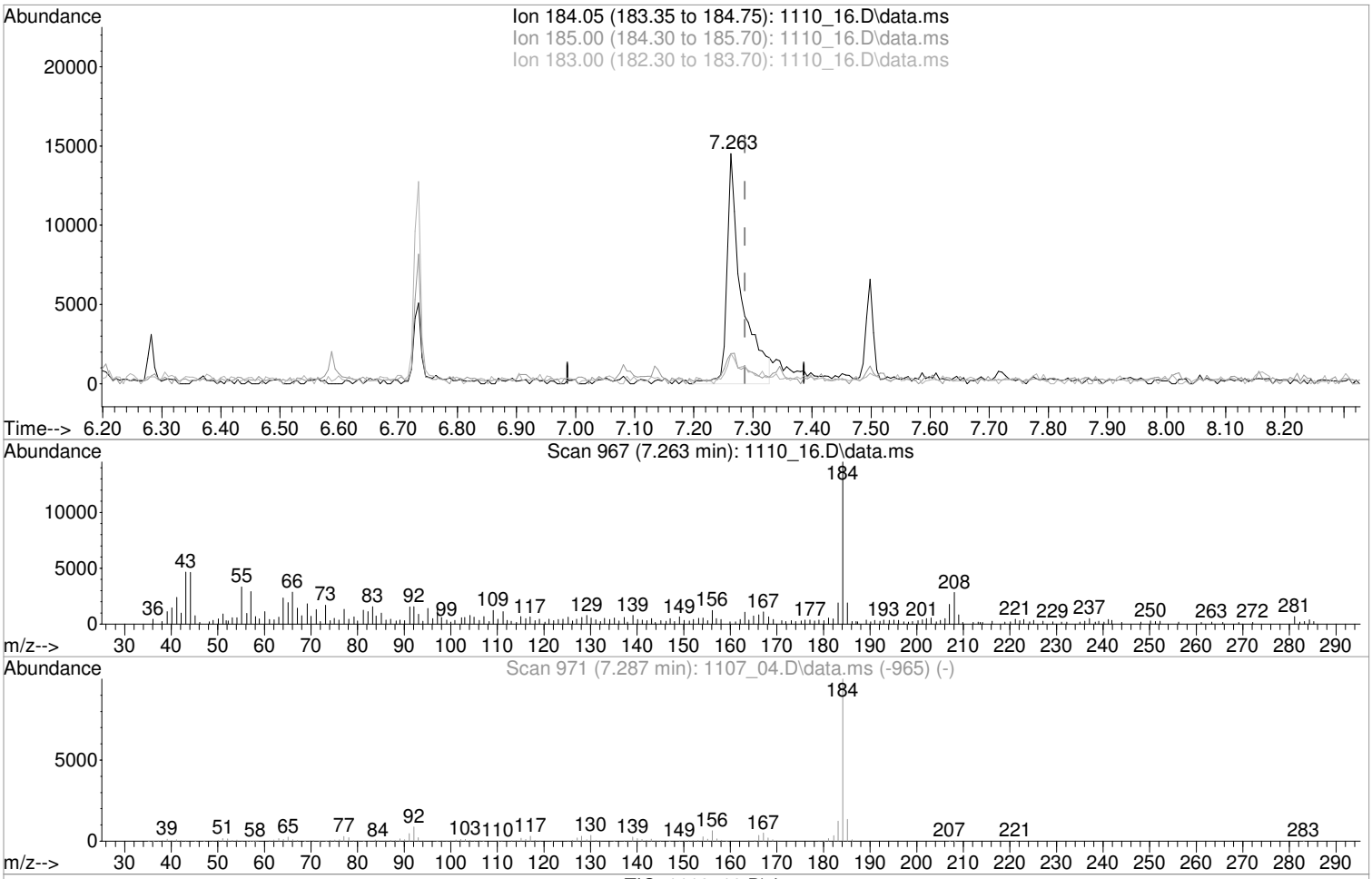
response 344119

Ion	Exp%	Act%
105.00	100	100
77.00	70.80	66.56
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_16.D\data.ms

(85) Benzidine (MT)

7.263min (-0.024) 575.9110798 ppb

Qvalue = 91

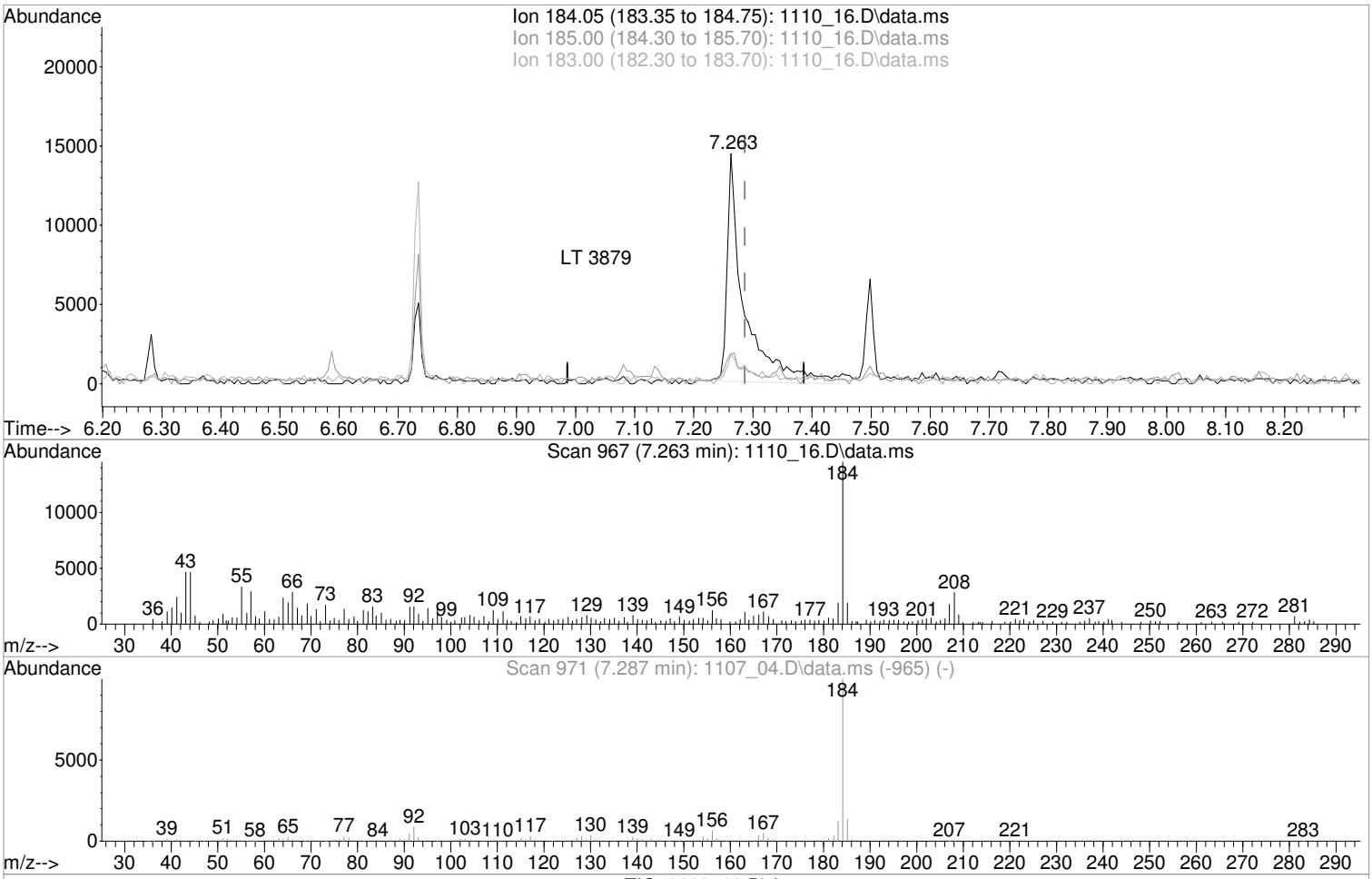
response 25676

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	15.24
183.00	11.30	15.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_16.D
Acq On : 10 Nov 2022 2:17 pm
Operator : 3545
Sample : MS 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 60 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:28 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_16.D\data.ms

(85) Benzidine (MT)

7.263min (-0.024) 662.4682093 ppb m

response 29535

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.25
183.00	11.30	13.75
0.00	0.00	0.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860458-4	**SDG:**	L1555614
Client Sample ID:	MSD	**Collected Date/Time:**	11/03/22 13:50
Lab File ID:	1110_17	**Received Date/Time:**	11/09/22 15:40
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/10/22 04:19
Analytical Batch:	WG1957138	**Analysis Date/Time:**	11/10/22 14:41
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	15.23 g
Total Solids (%):	73.3	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	0.408		0.00735	0.0454
Acenaphthylene	208-96-8	4.96	0.434		0.00640	0.0454
Anthracene	120-12-7	6.22	0.393		0.00809	0.0454
Benzoic Acid	65-85-0	3.75	1.12		0.161	2.28
Benzo(a)anthracene	56-55-3	8.76	0.439		0.00800	0.0454
Benzo(b)fluoranthene	205-99-2	10.57	0.420		0.00847	0.0454
Benzo(k)fluoranthene	207-08-9	10.61	0.412		0.00807	0.0454
Benzo(g,h,i)perylene	191-24-2	13.71	0.412		0.00830	0.0454
Benzo(a)pyrene	50-32-8	11.18	0.464		0.00844	0.0454
Carbazole	86-74-8	6.34	0.390		0.0140	0.454
Chrysene	218-01-9	8.81	0.436		0.00903	0.0454
Dibenz(a,h)anthracene	53-70-3	13.40	0.410		0.0126	0.0454
Dibenzofuran	132-64-9	5.21	0.412		0.0149	0.454
Fluoranthene	206-44-0	7.14	0.410		0.00820	0.0454
Fluorene	86-73-7	5.45	0.417		0.00739	0.0454
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	0.382		0.0128	0.0454
1-Methylnaphthalene	90-12-0	4.42	0.378		0.00581	0.0454
2-Methylnaphthalene	91-57-6	4.35	0.364		0.00589	0.0454
Naphthalene	91-20-3	3.93	0.353		0.0114	0.0454
Phenanthrene	85-01-8	6.18	0.417		0.00901	0.0454
Bis(2-ethylhexyl)phthalate	117-81-7	8.87	0.424		0.0575	0.454
Di-n-butyl phthalate	84-74-2	6.61	0.386		0.0155	0.454
Di-n-octyl phthalate	117-84-0	10	0.436		0.0307	0.454
Pyrene	129-00-0	7.35	0.439		0.00884	0.0454
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	0.400		0.0142	0.454
Pentachlorophenol	87-86-5	6.01	0.491		0.0122	0.454
Phenol	108-95-2	2.99	0.379		0.0183	0.454

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:06:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	202793	8000.0000000 ppb		-0.02
23) Naphthalene-d8	3.920	136	877905	8000.0000000 ppb		-0.02
46) Acenaphthene-d10	5.060	164	421645	8000.0000000 ppb		-0.02
70) Phenanthrene-d10	6.159	188	791575	8000.0000000 ppb		-0.03
84) Chrysene-d12	8.779	240	811775	8000.0000000 ppb		-0.04
94) Perylene-d12	11.288	264	884319	8000.0000000 ppb		-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	312157	8882.3803985 ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 44.41%			
7) Phenol-d5	2.980	99	358160	8419.2654222 ppb		-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 42.10%			
24) Nitrobenzene-d5	3.497	82	133253m	3581.4110076 ppb		-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 35.81%			
50) 2-Fluorobiphenyl	4.590	172	333936	4510.7084428 ppb		-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 45.11%			
73) 2,4,6-Tribromophenol	5.630	330	110621	8635.3384645 ppb		-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 43.18%			
87) p-Terphenyl-d14	7.498	244	507279	4554.6389070 ppb		-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 45.55%			
Target Compounds						Qvalue
2) Pyridine	1.928	79	227608	6020.8623442 ppb		93
3) N-Nitrosodimethylamine	1.916	42	140511	7792.0125588 ppb		91
5) Aniline	3.015	66	109335	5679.2646862 ppb	#	35
6) bis(2-Chloroethyl)ether	3.039	93	301475	10466.1658397 ppb		97
8) Phenol	2.986	94	372446	8485.0636106 ppb		99
9) Benzaldehyde	2.968	105	204070	21812.0980394 ppb	#	96
10) 2-Chlorophenol	3.086	128	306891	8494.0471692 ppb		95
11) n-Decane	3.086	41	148789	7842.5542796 ppb		98
12) 1,3-Dichlorobenzene	3.162	146	337838	8537.1812000 ppb		100
13) 1,4-Dichlorobenzene	3.203	146	345078	8603.2371305 ppb		96
14) Benzyl Alcohol	3.256	79	241344	8822.2668435 ppb		100
15) 1,2-Dichlorobenzene	3.285	146	328505	8723.7436866 ppb		98
16) bis(2-Chloroisopropyl)...	3.326	121	101747	8538.2195380 ppb		96
17) 2,2-oxybis(1-chloropro...	3.326	121	101747	8538.2195380 ppb		96
18) 2-Methylphenol	3.309	108	269131	8400.4307836 ppb		97
19) Hexachloroethane	3.473	117	85513	5818.5884160 ppb		97
20) N-Nitrosodi-n-propylamine	3.397	70	200152	8620.3359491 ppb		91
21) 3&4-Methyl phenol	3.391	107	324471	8939.1800650 ppb		98
22) Acetophenone	3.409	105	382289	8635.2618332 ppb	#	77
25) Nitrobenzene	3.509	77	287854	7553.8133956 ppb		97
26) Isophorone	3.638	82	542109	7790.3870282 ppb		100
27) 2-Nitrophenol	3.691	139	152632	7808.8024296 ppb	#	79
28) 2,4-Dimethylphenol	3.697	107	288942	7868.9040085 ppb		97
29) bis(2-Chlorethoxy)methane	3.755	93	339851	7871.8601031 ppb		99
30) 2,4-Dichlorophenol	3.826	162	261995	8248.9206143 ppb		97
31) Benzoic Acid	3.750	105	334627	24973.8706056 ppb		94
32) 1,2,4-Trichlorobenzene	3.879	180	293907	8168.7495841 ppb		98

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:06:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
33) alpha-terpineol	3.926	59	257043	10462.7860551 ppb		97
34) Naphthalene	3.932	128	916716	7910.3526608 ppb		99
35) 4-Chloroaniline	3.955	65	73900	5924.5276938 ppb	#	53
36) Hexachloro-1,3-butadiene	3.996	225	172348	8222.3668406 ppb		99
37) Hydroquinone	4.137	110	140107	6220.3567688 ppb		97
38) Quinoline	4.131	129	607034	10186.7911003 ppb		98
39) Caprolactam	4.161	113	95782	16186.9229823 ppb	#	83
40) 4-Chloro-3-methylphenol	4.243	107	236473	7472.1729655 ppb		91
41) 2-Methylnaphthalene	4.355	142	603210	8135.4584629 ppb		99
42) 1-Methylnaphthalene	4.419	142	585021	8441.5815721 ppb		98
43) 1,2,4,5-Tetrachloroben...	4.466	216	290805	9854.1403449 ppb		99
44) Diphenyl Ether	4.731	170	391609	10337.2740035 ppb		97
45) Diphenyl Oxide	4.731	170	391609	10337.2740035 ppb		97
47) Hexachlorocyclopentadiene	4.455	237	17608	721.4188028 ppb		96
48) 2,4,6-Trichlorophenol	4.537	196	192873	9367.3872339 ppb		97
49) 2,4,5-Trichlorophenol	4.560	196	186189	8986.3691813 ppb		98
51) Biphenyl	4.660	154	725938	8998.5945143 ppb		100
52) 2-Chloronaphthalene	4.678	162	565038	8902.9361459 ppb		97
53) 2-Nitroaniline	4.742	138	214616	10631.9725386 ppb		91
54) Acenaphthylene	4.960	152	950687	9705.1251618 ppb		100
55) Dimethyl phthalate	4.860	163	629976	9216.0759131 ppb		95
56) 2,6-Dinitrotoluene	4.901	165	143872	9377.9606569 ppb		99
57) 3-Nitroaniline	5.019	138	127074	7545.5084475 ppb	#	86
58) Acenaphthene	5.083	153	591272	9124.7744153 ppb		98
59) 2,4-Dinitrophenol	5.095	184	34484	5128.8789996 ppb	#	1
60) Dibenzofuran	5.207	168	824414	9198.4310921 ppb		99
61) 2,4-Dinitrotoluene	5.183	165	192747	10013.8107711 ppb		93
62) 2,3,4,6-Tetrachlorophenol	5.289	232	318791	21267.6387637 ppb		96
63) 4-Nitrophenol	5.130	139	140084	11364.8417539 ppb		93
64) Fluorene	5.453	166	684266	9340.8105694 ppb		98
65) 4-Chlorophenyl-phenyle...	5.448	204	344583	9454.6154185 ppb		96
66) Diethyl phthalate	5.359	149	617405	9369.0055349 ppb		96
67) 4-Nitroaniline	5.459	138	159552	10333.7255946 ppb		98
68) Azobenzene	5.565	77	592675	8557.6610810 ppb		98
69) Atrazine	5.929	200	200567	9426.6635542 ppb		98
71) 4,6-Dinitro-2-methylph...	5.483	198	68666	7350.2405359 ppb		97
72) N-Nitrosodiphenylamine	5.530	169	488884	7790.6329769 ppb		100
74) 4-Bromophenyl-phenylether	5.812	248	221215	9319.2973320 ppb		98
75) Hexachlorobenzene	5.865	284	235692	7991.7520900 ppb		99
76) n-octadecane	6.064	55	92066	8400.7483443 ppb		96
77) Pentachlorophenol	6.012	266	152400	10984.8690908 ppb		96
78) Phenanthrene	6.182	178	993610	9319.9725340 ppb		99
79) Anthracene	6.217	178	961726	8775.6706951 ppb		99
80) Carbazole	6.341	167	916692	8726.6596015 ppb		99
81) Di-n-butyl phthalate	6.611	149	1094716	8636.3051131 ppb		100
82) 2-nitrodiphenylamine	6.734	167	238334	10482.8601748 ppb		96
83) Fluoranthene	7.140	202	1169226	9175.7981131 ppb		99
85) Benzidine	7.257	184	123279	2613.0597002 ppb		97
86) Pyrene	7.345	202	1186660	9825.5152678 ppb		100
88) Benzylbutyl phthalate	8.050	149	486665	9557.6269273 ppb		97

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:06:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

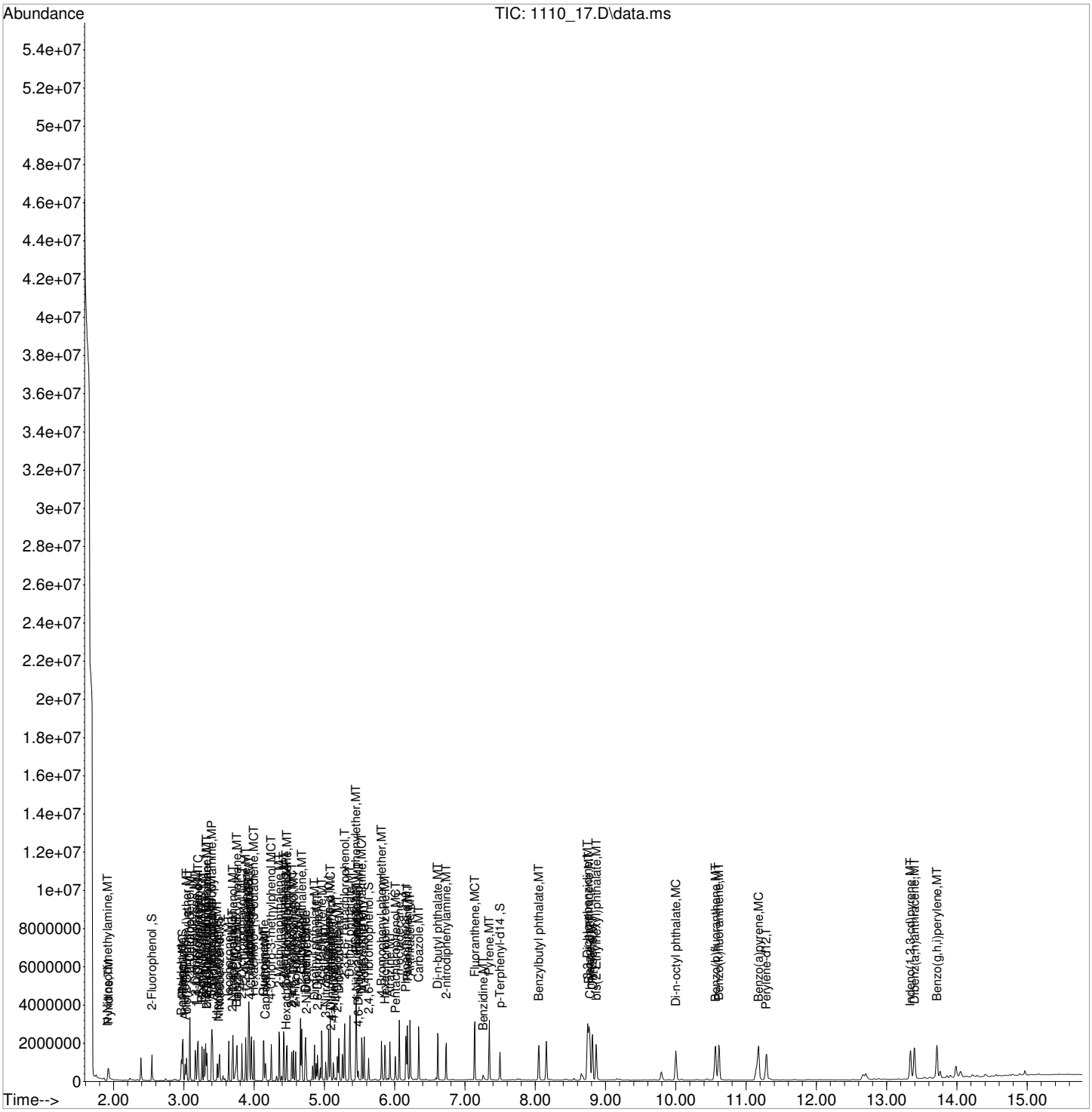
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
89) 3,3-Dichlorobenzidine	8.744	252	808489	16395.3588848 ppb	99
90) Benzo(a)anthracene	8.761	228	1191673	9802.2095801 ppb	99
91) Chrysene	8.814	228	1124491	9749.7279696 ppb	100
92) bis(2-Ethylhexyl)phtha...	8.867	149	672542	9495.9282325 ppb	99
93) Di-n-octyl phthalate	10.001	149	1168509	9751.3294630 ppb	98
95) Benzo(b)fluoranthene	10.565	252	1243321	9384.3512051 ppb	99
96) Benzo(k)fluoranthene	10.612	252	1203812	9202.2819300 ppb	98
97) Benzo(a)pyrene	11.176	252	1192678	10366.3597934 ppb	100
98) Indeno(1,2,3-cd)pyrene	13.338	276	989922	8549.5781018 ppb	97
99) Dibenz(a,h)anthracene	13.397	278	1086419	9162.7474429 ppb	98
100) Benzo(g,h,i)perylene	13.714	276	1085296	9219.4646185 ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 13 17:06:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

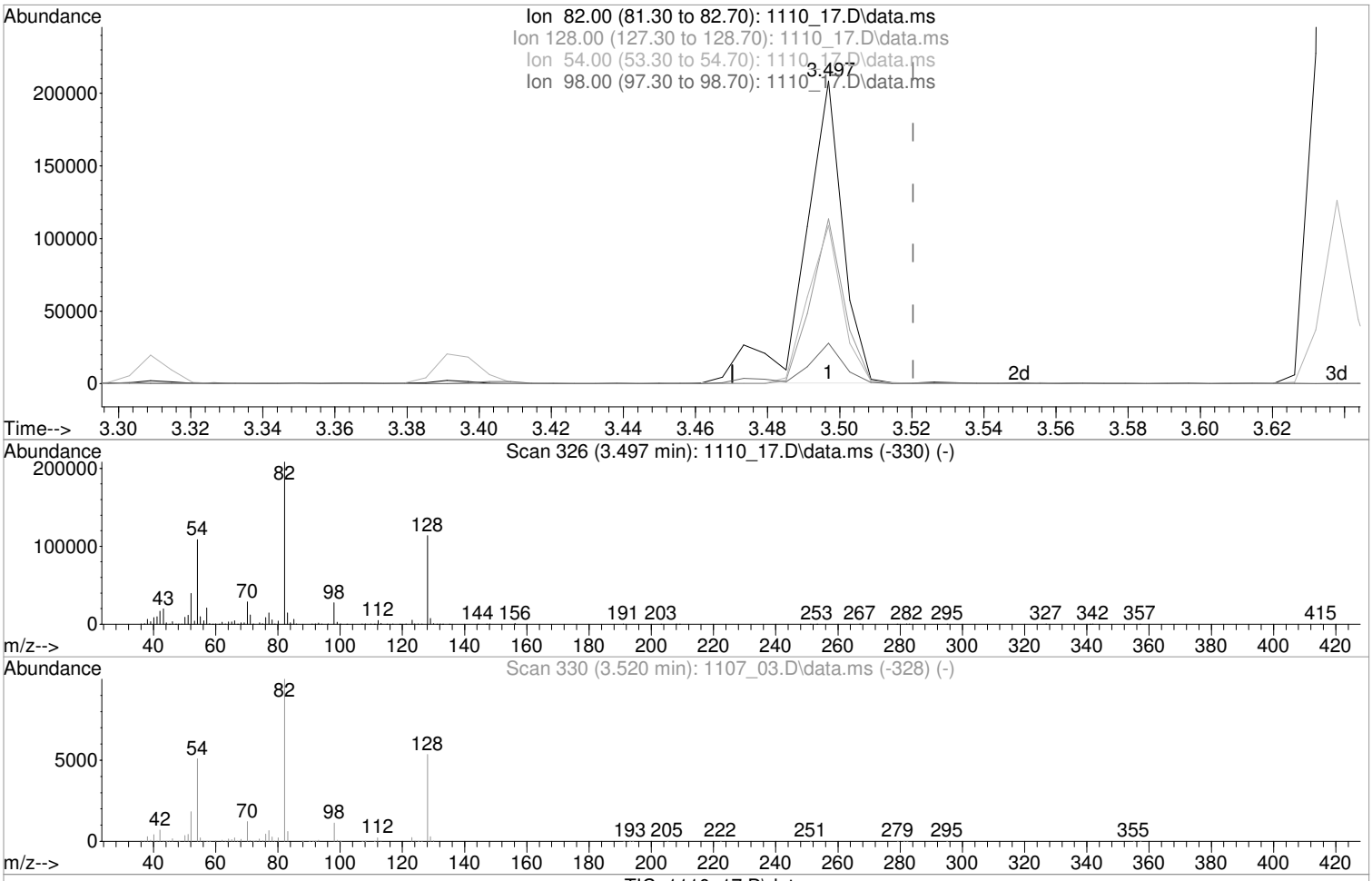


S802K07V.M Sun Nov 13 17:07:36 2022 Page: 4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:33 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1110_17.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 4130.5304143 ppb

Qvalue = 96

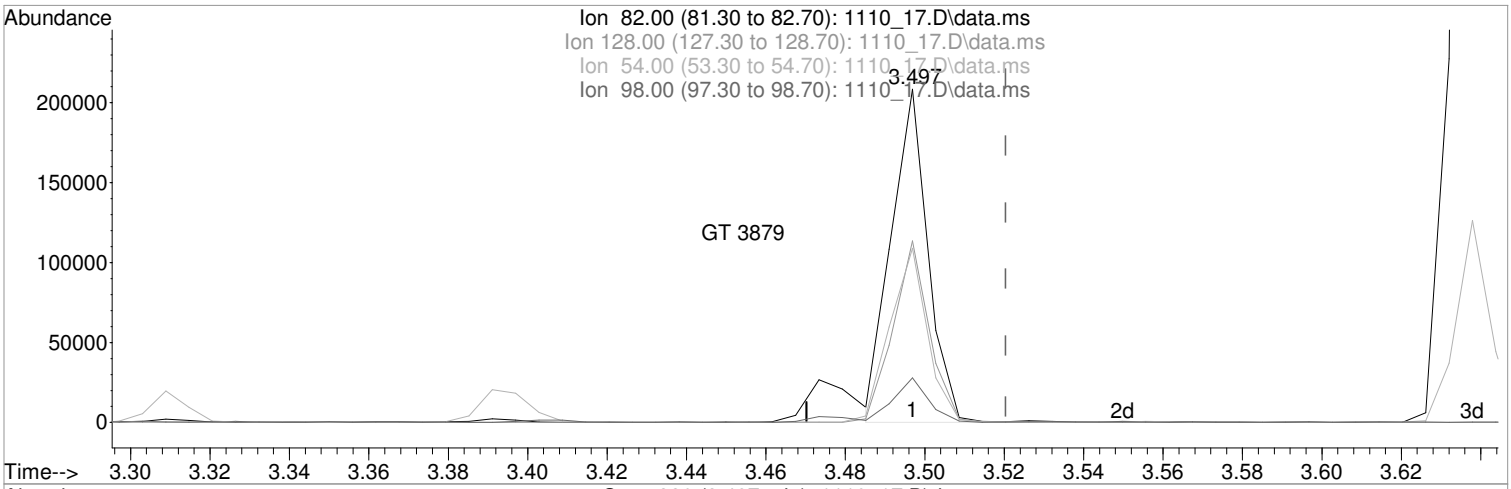
response 153684

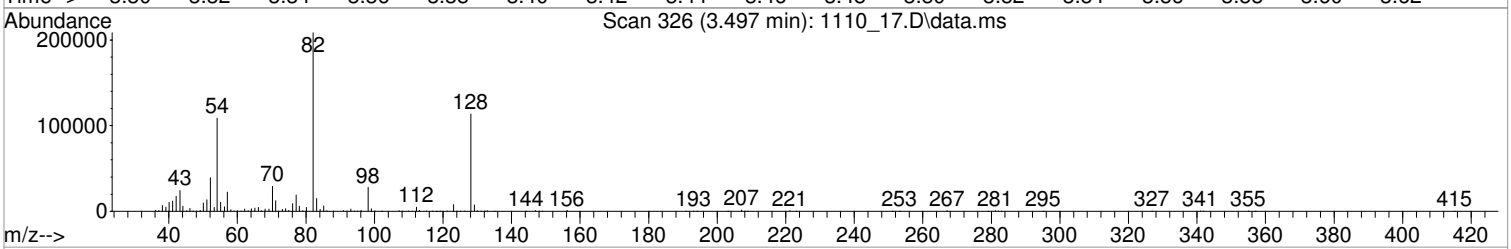
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	54.58
54.00	48.90	52.34
98.00	12.10	13.38

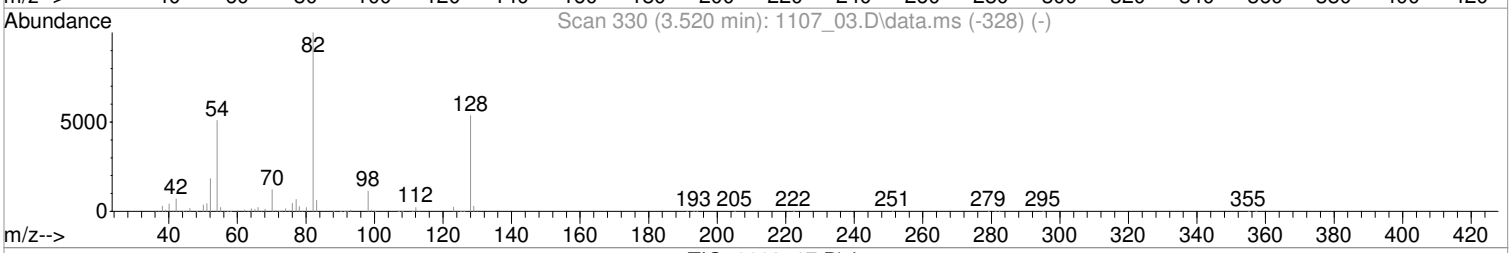
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\111022\
Data File : 1110_17.D
Acq On : 10 Nov 2022 2:41 pm
Operator : 3545
Sample : MSD 1X WG1957138 L1555614-01
Misc : SOIL ISTD 22K02941 exp 05/02/23
ALS Vial : 61 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 10 16:37:33 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1110_17.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 3581.4110076 ppb m

response 133253

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	54.47
54.00	48.90	52.24
98.00	12.10	13.42

BNA SS Extractions Benchsheet

Batch: WG1957138

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1555222	WG1956486	KMT967	PREPREPBAL3	09-NOV-22
L1555239	WG1956567	MF3710	PREPREPBAL3	09-NOV-22
L1555244	WG1956591	MF3710	PREPREPBAL1	09-NOV-22
L1555614	WG1957031	KMT967	PREPREPBAL1	09-NOV-22
L1555654	WG1957097	KMT967	PREPREPBAL1	09-NOV-22

Process Analyst: MAB3514 **Transfer Analyst:** MAB3514 **Material Handler:** MAB3514 **Prep Start Date/Time:** 11/10/22 04:19-04:20
Prep End Date/Time: 11/10/22 09:12 **SOP:** MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17127444

Na2SO4: 22K01890 Amt. Used: 1 Exp. Date:05/01/23 **MeCL2:Acetone:** 22K04378 Amt. Used: 1 Exp. Date:05/01/23
Surrogate: 22J12254 Amt. Used: 0.50 mL Exp. Date:04/11/23 **LCS/MS Spike:** 22K03172 Amt. Used: 0.50 mL Exp. Date:11/17/22
MeCl2: 22K08770 Amt. Used: 1 Exp. Date:05/08/23 **Spike Syringe ID:** 22E29053 Amt. Used: 1 Exp. Date:11/29/22
Surrogate Syringe ID: 22H06900 Amt. Used: 1 Exp. Date:02/06/23

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	JRM3879	11/11/22 10:34:14
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	JRM3879	11/11/22 10:34:14
MS(L1555614-01)	15.38	25	0.5	Yellow	PP1 1109 Wed3	0.0325	0.976	1	1	1	JRM3879	11/11/22 10:34:14
MSD(L1555614-01)	15.23	25	0.5	Yellow	PP1 1109 Wed3	0.0328	0.985	1	1	1	JRM3879	11/11/22 10:34:14
1. L1555186-01	1.01	25	0.5	Colorless		0.495	14.9	14.9	1	1	JRM3879	11/11/22 10:34:14
2. L1555222-01	15.86	25	0.5	Yellow	Wed 1; 110922 PP3	0.0315	0.946	1	1	1	JRM3879	11/11/22 10:34:14
3. L1555239-01	15.49	25	0.5	Yellow	Wed 1; 110922 PP3	0.0323	0.97	1	1	1	JRM3879	11/11/22 10:34:14
4. L1555239-02	15.10	25	0.5	Brown	Wed 1; 110922 PP3	0.0331	0.994	1	1	1	JRM3879	11/11/22 10:34:14
5. L1555239-03	15.10	25	0.5	Brown	Wed 1; 110922 PP3	0.0331	0.994	1	1	1	JRM3879	11/11/22 10:34:14
6. L1555239-04	15.09	25	0.5	Colorless	Wed 1; 110922 PP3	0.0331	0.994	1	1	1	JRM3879	11/11/22 10:34:14
7. L1555239-05	15.24	25	0.5	Brown	Wed 1; 110922 PP3	0.0328	0.985	1	1	1	JRM3879	11/11/22 10:34:14
8. L1555239-06	15.27	25	0.5	Orange	Wed 1; 110922 PP3	0.0327	0.982	1	1	1	JRM3879	11/11/22 10:34:14
9. L1555239-07	15.47	25	0.5	Yellow	Wed 1; 110922 PP3	0.0323	0.97	1	1	1	JRM3879	11/11/22 10:34:14
10. L1555239-08	15.16	25	0.5	Brown	Wed 1; 110922 PP3	0.033	0.991	1	1	1	JRM3879	11/11/22 10:34:14
11. L1555244-01	15.13	25	0.5	Colorless	WED 2/1109-PP1	0.033	0.991	1	1	1	JRM3879	11/11/22 10:34:14
12. L1555244-02	15.77	25	0.5	Yellow	WED 2/1109-PP1	0.0317	0.952	1	1	1	JRM3879	11/11/22 10:34:14
13. L1555244-03	15.27	25	0.5	Colorless	WED 2/1109-PP1	0.0327	0.982	1	1	1	JRM3879	11/11/22 10:34:14
14. L1555244-04	15.05	25	0.5	Yellow	WED 2/1109-PP1	0.0332	0.997	1	1	1	JRM3879	11/11/22 10:34:14
15. L1555244-05	15.32	25	0.5	Brown	WED 2/1109-PP1	0.0326	0.979	1	1	1	JRM3879	11/11/22 10:34:14
16. L1555244-06	15.03	25	0.5	Yellow	WED 2/1109-PP1	0.0333	1	1	1	1	JRM3879	11/11/22 10:34:14
17. L1555614-01	15.26	25	0.5	Yellow	PP1 1109 Wed3	0.0328	0.985	1	1	1	JRM3879	11/11/22 10:34:14
18. L1555614-02	15.40	25	0.5	Dark-brown	PP1 1109 Wed3	0.0325	0.976	1	1	1	JRM3879	11/11/22 10:34:14

Comments:

Reviewed By:JRM3879 on 11/11/22 10:34:14

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Mass	Mass of parameter.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

C212

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [X] Yes ☐ No
Owner Received Date: 11/4/2022 Results Requested By: 11/18/2022

Workorder: 10632545 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: 8270E SVOC - MS/MSD	8270E SVOC											LAB USE ONLY
1	BNSF-G000-SC-1.5-2.5-110322	RQS	11/3/2022 13:50	10632545001	Solid	1						X												-01
2	BNSF-G000-SC-4.0-5.0-110322	PS	11/3/2022 14:10	10632545002	Solid	1							X											-02
3																								
4																								
5																								

LIMS 614

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11.8.22 14:35	[signature]	11.09.22 1030
2				
3				

Comments

Sample 10632545001 is MS/MSD
See attached 8270 list
Lvl 4 data package
Report to MDL, non-detects as ND

Cooler Temperature on Receipt 6.9 °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

GBAT 0.9+0 = 0.9

5466 8887 1303
FEDEX

10632545

L1555614

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 10632545
(To be completed by sending lab)

Sending Project No:	10632545
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/07/22
REQUESTED COMPLETION DATE:	**11/18/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed yes

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8270E SVOC	JGFU		Unpreserved	1	$130.00	$130.00
8270E SVOC - MS/MSD	JGFU		Unpreserved	1	$390.00	$390.00
					TOTAL	$520.00

Special Requirements: Report D, QC Limits, MDLs (D),Jacobs UPRR EQEDD (1579)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$520.00	$416.00	$104.00
* Custom Revenue Allocation	TOTAL	$520.00	$416.00	$104.00

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

675 of 733

L 1555614

8270 SVOC List

Semi-volatile Organic Compounds and Polycy
3&4-Methylphenol
Benzoic acid
Bis(2-ethylhexyl) phthalate
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Di-n-octyl phthalate
Pentachlorophenol
Phenol
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Benz(a)anthracene
Benzo(a)pyrene
Benzo(ghi)perylene
Chrysene
Dibenz(ah)anthracene
Fluoranthene
Fluorene
Indeno(123-cd)pyrene
Naphthalene
Phenanthrene
Pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis MN 55414

Generated 11/21/2022 4:59 PM

JOB DESCRIPTION

D3631600 10632545

JOB NUMBER

580-119826-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

Table of Contents

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Comments
No additional comments.

Receipt
The samples were received on 11/8/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.1º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322 — Lab Sample ID: 580-119826-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	12000		3000	150	mg/Kg	1	☼	9060A	Total/NA

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322 — Lab Sample ID: 580-119826-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	13000		2900	140	mg/Kg	1	☼	9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322

Lab Sample ID: 580-119826-1

Date Collected: 11/03/22 13:50
Matrix: Solid
Date Received: 11/08/22 09:30
Percent Solids: 66.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	12000		3000	150	mg/Kg	☼		11/17/22 21:51	1

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322

Lab Sample ID: 580-119826-2

Date Collected: 11/03/22 14:10
Matrix: Solid
Date Received: 11/08/22 09:30
Percent Solids: 69.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000		2900	140	mg/Kg	☼		11/17/22 22:06	1

Default Detection Limits

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

General Chemistry

Analyte	RL	MDL	Units
Total Organic Carbon - Duplicates	2000	97	mg/Kg

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-410530/5
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			11/17/22 18:28	1

Lab Sample ID: LCS 580-410530/6
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	119000		mg/Kg		100	80 - 120		

Lab Sample ID: LCSD 580-410530/7
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	120000		mg/Kg		100	80 - 120	0	20

Lab Sample ID: 580-119826-1 MS
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	12000		180000	195000		mg/Kg	☼	102	75 - 125		

Lab Sample ID: 580-119826-1 MSD
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	12000		180000	201000		mg/Kg	☼	105	75 - 125	3	20

Lab Sample ID: 580-119826-1 DU
Matrix: Solid
Analysis Batch: 410530

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	12000			12400		mg/Kg	☼			2	20

General Chemistry

Analysis Batch: 409710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-119826-1	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	2540G	
580-119826-2	BNSF-G000-SC-4.0-5.0-110322	Total/NA	Solid	2540G	

Analysis Batch: 409817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-119826-1	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	2540G	
580-119826-2	BNSF-G000-SC-4.0-5.0-110322	Total/NA	Solid	2540G	

Analysis Batch: 410530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-119826-1	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	9060A	
580-119826-2	BNSF-G000-SC-4.0-5.0-110322	Total/NA	Solid	9060A	
MB 580-410530/5	Method Blank	Total/NA	Solid	9060A	
LCS 580-410530/6	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-410530/7	Lab Control Sample Dup	Total/NA	Solid	9060A	
580-119826-1 MS	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	9060A	
580-119826-1 MSD	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	9060A	
580-119826-1 DU	BNSF-G000-SC-1.5-2.5-110322	Total/NA	Solid	9060A	

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Lab Sample ID: 580-119826-1
Date Collected: 11/03/22 13:50
Matrix: Solid
Date Received: 11/08/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409710	JHR	EET SEA	11/11/22 13:58
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322
Lab Sample ID: 580-119826-1
Date Collected: 11/03/22 13:50
Matrix: Solid
Date Received: 11/08/22 09:30
Percent Solids: 66.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	410530	FCG	EET SEA	11/17/22 21:51

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322
Lab Sample ID: 580-119826-2
Date Collected: 11/03/22 14:10
Matrix: Solid
Date Received: 11/08/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409710	JHR	EET SEA	11/11/22 13:58
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322
Lab Sample ID: 580-119826-2
Date Collected: 11/03/22 14:10
Matrix: Solid
Date Received: 11/08/22 09:30
Percent Solids: 69.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	410530	FCG	EET SEA	11/17/22 22:06

Laboratory References:
EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Job ID: 580-119826-1
Project/Site: D3631600 10632545

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Method	Method Description	Protocol	Laboratory
2540G	SM 2540G	SM22	EET SEA
9060A	Organic Carbon, Total (TOC)	SW846	EET SEA

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10632545

Job ID: 580-119826-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-119826-1	BNSF-G000-SC-1.5-2.5-110322	Solid	11/03/22 13:50	11/08/22 09:30
580-119826-2	BNSF-G000-SC-4.0-5.0-110322	Solid	11/03/22 14:10	11/08/22 09:30

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CaCO3_00004_00009	07/16/25		LECO, Lot 1001		(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00012	03/31/23		Alfa Aesar, Lot X15E030		(Purchased Reagent)		Total Organic Carbon - Duplicates	120000 mg/Kg
TOCS_LCS_00012	07/26/23		ERA, Lot D108-542		(Purchased Reagent)		TOC Result 1	4300 mg/Kg
							Total Organic Carbon - Duplicates	4300 mg/Kg

Reagent

CaCO3_00004_00009

Version	00
Molecular weight	100.09
Quality Test / Release Date	07/31/2020
Molecular Formula	C Ca O3
CAS No	471-34-1
Linear Formula	CaCO3
Flash Point (°C)	

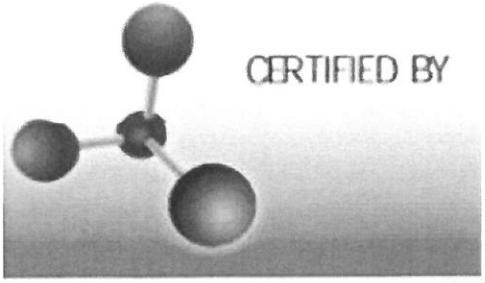
Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	42351	**Quality Test / Release Date**	07/31/2020
Lot Number	A0421160	**Suggested retest date**	07/31/2025
Description	Calcium carbonate,99+%,ACS reagent		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Crystalline powder	Crystalline powder
Titration Complexometric	>=99.0 % (on dried substance)	99.4 % (on dried substance)
Heavy metals (ICP-OES)	=<0.001 %	=<0.001 %
Insoluble matter	=<0.01 % (in dilute HCl)	0.008 % (in dilute HCl)
Chloride (Cl)	=<0.001 %	=<0.001 %
Fluoride (F)	=<0.0015 %	=<0.0015 %
Sulfate (SO4)	=<0.01 %	=<0.01 %
Ammonium (NH4)	=<0.003 %	=<0.003 %
Barium (Ba)	=<0.01 %	0.00164 %
Iron (Fe)	=<0.003 %	=<0.003 %
Magnesium (Mg)	=<0.02 %	0.010341 %
Potassium (K)	=<0.01 %	0.001048 %
Sodium (Na)	=<0.1 %	0.07061 %
Strontium (Sr)	=<0.1 %	0.007741 %



C. Wygaerts, QA Manager

Issued: 08-03-2020

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet:http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

3092515

ID: CaCO3_00004_00009

Exp 07/16/25 Prpd:R1K Opn:03/04/22

CaCO3-12%TC Second Source

FCG 3/4/22

Reagent

CaCO3_00012

Certificate of analysis

2450156
ID: CaCO3_00012
Exp:03/31/23 Prpd:JKM Opn:08/14/19
CaCO3-12%TC Second Source

Product No.: 36337

Product: Calcium carbonate, ACS, low in alkalies, 99.0% min

Lot No.: X15E030

Test	Limits	Results
Assay	99.5 % min	99.1 %
Insoluble in dilute HCl	0.01 % max	< 0.01 %
Chloride	0.001 % max	< 0.001 %
Fluoride	0.0015 % max	< 0.0008 %
Sulfate	0.005 % max	< 0.01 %
Ammonium	0.003 % max	< 0.003 %
Barium	0.01 %	< 0.01 %
Heavy metals (as Pb)	0.001 % max	< 0.001 %
Iron	0.002 % max	< 0.003 %
Magnesium	0.01 % max	0.003 %
Potassium	0.01 % max	< 0.01 %
Sodium	0.01 % max	< 0.1 %
Strontium	0.1 % max	< 0.1 %

This document has been electronically generated and does not require a signature.

Reagent

TOCS_LCS_00012

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D108-542
Certificate Issue Date: December 26, 2019
Expiration Date: July 26, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	853	795	5.50	523 - 1070	456 - 1130
Total Kjeldahl Nitrogen	1510	1500	12.3	976 - 2030	827 - 2180
Total Organic Carbon (TOC)	4300	4370	6.86	1580 - 7150	1530 - 7200
Total Phosphorus	911	815	10.8	422 - 1210	185 - 1440

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	853	795	93.3	39	-	-
Total Kjeldahl Nitrogen	1510	1500	99.7	33	-	-
Total Organic Carbon (TOC)	4300	4370	102	24	-	-
Total Phosphorus	911	815	89.4	55	-	-

2735864
ID: TOCS_LCS_00012
Exp: 01/31/22 Prpd: R1K
1540-7000 mg/kg TOC

Rev.1 10/21/20

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119826-1

SDG No.:

Project: D3631600 10632545

Client Sample ID	Lab Sample ID
BNSF-G000-SC-1.5-2.5-110322	580-119826-1
BNSF-G000-SC-4.0-5.0-110322	580-119826-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-G000-SC-1.5-2.5-110322 Lab Sample ID: 580-119826-1

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG ID.:

Matrix: Solid Date Sampled: 11/03/2022 13:50

Reporting Basis: DRY Date Received: 11/08/2022 09:30

% Solids: 66.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	12000	3000	150	mg/Kg			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-G000-SC-4.0-5.0-110322 Lab Sample ID: 580-119826-2

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG ID.:

Matrix: Solid Date Sampled: 11/03/2022 14:10

Reporting Basis: DRY Date Received: 11/08/2022 09:30

% Solids: 69.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	13000	2900	140	mg/Kg			1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Analyst: FCG Batch Start Date: 11/11/2022

Reporting Units: mg/Kg Analytical Batch No.: 410530

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	20:33	Total Organic Carbon - Duplicates	4220	4300	98	80-120		TOCS_LCS_00012
2	ICB	20:35	Total Organic Carbon - Duplicates	ND					
3	CCV	18:23	Total Organic Carbon - Duplicates	123000	120000	102	80-120		CaCO3_00004_00009
4	CCB	18:26	Total Organic Carbon - Duplicates	ND					
15	CCV	19:48	Total Organic Carbon - Duplicates	126000	120000	105	80-120		CaCO3_00004_00009
16	CCB	19:50	Total Organic Carbon - Duplicates	ND					
23	CCV	21:20	Total Organic Carbon - Duplicates	124000	120000	104	80-120		CaCO3_00004_00009
24	CCB	21:22	Total Organic Carbon - Duplicates	ND					
33	CCV	22:11	Total Organic Carbon - Duplicates	125000	120000	104	80-120		CaCO3_00004_00009
34	CCB	22:13	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 410530 Date: 11/17/2022 18:28							
9060A	MB 580-410530/5	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 410530 Date: 11/17/2022 22:01											
9060A	580-119826-1	Total Organic Carbon - Duplicates	12000		mg/Kg						
9060A	580-119826-1 MS	Total Organic Carbon - Duplicates	195000		mg/Kg	180000	102	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 410530 Date: 11/17/2022 22:04											
9060A	580-119826-1 MSD	Total Organic Carbon - Duplicates	201000		mg/Kg	180000	105	75-125	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 410530 Date: 11/17/2022 21:56								
9060A	BNSF-G000-SC-1.5-2.5-110322	580-119826-1	Total Organic Carbon - Duplicates	12000	mg/Kg			
9060A	BNSF-G000-SC-1.5-2.5-110322	580-119826-1 DU	Total Organic Carbon - Duplicates	12400	mg/Kg	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 410530 Date: 11/17/2022 18:31											
						LCS Source: CaCO3_00012					
9060A	LCS 580-410530/6	Total Organic Carbon - Duplicates	119000		mg/Kg	120000	100	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 410530 Date: 11/17/2022 18:34											
						LCSD Source: CaCO3_00012					
9060A	LCSD 580-410530/7	Total Organic Carbon - Duplicates	120000		mg/Kg	120000	100	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119826-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119826-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119826-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle   Job No.: 580-119826-1

SDG No.:

Instrument ID: NOEQUIP   Analysis Method: 2540G

Start Date: 11/11/2022 13:58   End Date: 11/11/2022 13:58

Lab Sample Id	D/F	Type	Time	Analytes: %Sol	Moist
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
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ZZZZZZ			13:58		
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ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
580-119826-1	1	T	13:58	X	X
580-119826-2	1	T	13:58	X	X
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
ZZZZZZ			13:58		
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ZZZZZZ			13:58		

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 11/11/2022 13:58 End Date: 11/11/2022 13:58

Lab Sample Id	D/F	Type	Time	Analytes																										
				% Sol	Moist																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 11/14/2022 09:46 End Date: 11/14/2022 09:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				% Sol	Moist																							
580-119826-1	1	T	09:46	X	X																							
580-119826-2	1	T	09:46	X	X																							
ZZZZZZ			09:46																									
ZZZZZZ			09:46																									
ZZZZZZ			09:46																									
ZZZZZZ			09:46																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 11/17/2022 22:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCD																								
ICV 580-410530/1	1		20:33	X																								
ICB 580-410530/2	1		20:35	X																								
CCV 580-410530/3	1		18:23	X																								
CCB 580-410530/4	1		18:26	X																								
MB 580-410530/5	1	T	18:28	X																								
LCS 580-410530/6	1	T	18:31	X																								
LCSD 580-410530/7	1	T	18:34	X																								
ZZZZZZ			18:36																									
ZZZZZZ			18:46																									
ZZZZZZ			18:56																									
ZZZZZZ			19:08																									
ZZZZZZ			19:19																									
ZZZZZZ			19:29																									
ZZZZZZ			19:38																									
CCV 580-410530/15	1		19:48	X																								
CCB 580-410530/16	1		19:50	X																								
ZZZZZZ			19:52																									
ZZZZZZ			20:02																									
ZZZZZZ			20:11																									
ZZZZZZ			20:19																									
ZZZZZZ			20:21																									
ZZZZZZ			21:17																									
CCV 580-410530/23	1		21:20	X																								
CCB 580-410530/24	1		21:22	X																								
ZZZZZZ			21:24																									
ZZZZZZ			21:33																									
ZZZZZZ			21:42																									
580-119826-1	1	T	21:51	X																								
580-119826-1 DU	1	T	21:56	X																								
580-119826-1 MS	1	T	22:01	X																								
580-119826-1 MSD	1	T	22:04	X																								
580-119826-2	1	T	22:06	X																								
CCV 580-410530/33	1		22:11	X																								
CCB 580-410530/34	1		22:13	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Batch Number: 409710 Batch Start Date: 11/11/22 13:58 Batch Analyst: Roberts, Jacob H

Batch Method: 2540G Batch End Date: 11/14/22 16:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	
580-119826-A-1	BNSF-G000-SC-1.5-2.5-110322	2540G	T	.8317 g	10.4051 g	7.1989 g	33.490713852967 6 %	66.509286147032 4 %	
580-119826-A-2	BNSF-G000-SC-4.0-5.0-110322	2540G	T	.8081 g	8.8330 g	6.3932 g	30.402871063813 9 %	69.597128936186 1 %	

Batch Notes	
Balance ID	SEA241/SEA228
Oven ID	OVEN 2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	11/11/2022
Time samples were place in the oven	15:21
Temperature - Start - Uncorrected	110.2 Degrees C
Oven Temp In	109.8 Degrees C
Date samples were removed from oven	11/14/2022
Time Samples were removed from oven	15:02
Temperature - End - Uncorrected	110.0 Degrees C
Oven Temp Out	109.6 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Batch Number: 409817 Batch Start Date: 11/14/22 09:46 Batch Analyst: Ulloa Aguilar, Ashley

Batch Method: 2540G Batch End Date: 11/14/22 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	
580-119826-A-1	BNSF-G000-SC-1.5-2.5-110322	2540G	T	0.8548 g	9.4670 g	6.5475 g	33.899584310629 1 %	66.100415689370 9 %	
580-119826-A-2	BNSF-G000-SC-4.0-5.0-110322	2540G	T	0.8522 g	8.3596 g	6.0286 g	31.049364626901 5 %	68.950635373098 5 %	

Batch Notes	
Balance ID	SEA227
Oven ID	OVEN 2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	11/14/2022
Time samples were place in the oven	10:26
Temperature - Start - Uncorrected	110.1 Degrees C
Oven Temp In	109.7 Degrees C
Date samples were removed from oven	11/14/2022
Time Samples were removed from oven	16:49
Temperature - End - Uncorrected	109.9 Degrees C
Oven Temp Out	109.5 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Batch Number: 410530 Batch Start Date: 11/17/22 18:23 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 11/17/22 22:13

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00141	Baked Sand 00149	CaCO3 00012	CaCO3_00004 00009	TOCS_LCS 00012	
ICV 580-410530/1		9060A						# g	
ICB 580-410530/2		9060A			# g				
CCV 580-410530/3		9060A					# g		
CCB 580-410530/4		9060A		# g					
MB 580-410530/5		9060A			# g				
LCS 580-410530/6		9060A				# g			
LCSD 580-410530/7		9060A				# g			
CCV 580-410530/15		9060A					# g		
CCB 580-410530/16		9060A			# g				
CCV 580-410530/23		9060A					# g		
CCB 580-410530/24		9060A			# g				
580-119826-A-1 MS	BNSF-G000-SC-1.5 -2.5-110322	9060A	T				0.1016 g		
580-119826-A-1 MSD	BNSF-G000-SC-1.5 -2.5-110322	9060A	T				0.1027 g		
CCV 580-410530/33		9060A					# g		
CCB 580-410530/34		9060A			# g				

Batch Notes	
Acid ID	395327
Pipette/Syringe/Dispenser ID	SEA224
Oven ID	oven 4
Temperature	70.2 Deg. C
Drying Time	12+hours min
Batch Comment	alum dish: 20200416

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119826-1

SDG No.:

Batch Number: 410530 Batch Start Date: 11/17/22 18:23 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 11/17/22 22:13

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 580-119826-1

Batch: 409710 **Analyst Initials: JHR**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-119826-A-1 **Analysis Date: Nov 11, 2022 13:58**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	66.5092861470324	%
Percent Moisture	None	1	33.4907138529676	%

Lab Sample ID: 580-119826-A-2 **Analysis Date: Nov 11, 2022 13:58**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	69.5971289361861	%
Percent Moisture	None	1	30.4028710638139	%

General Chemistry Raw Data Report

Job ID: 580-119826-1

Batch: 409817 **Analyst Initials: AUA**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-119826-A-1 **Analysis Date: Nov 14, 2022 09:46**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	66.1004156893709	%
Percent Moisture	None	1	33.8995843106291	%

Lab Sample ID: 580-119826-A-2 **Analysis Date: Nov 14, 2022 09:46**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	68.9506353730985	%
Percent Moisture	None	1	31.0493646269015	%

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV 3092515	1688426		0.2010	TA SOIL LINNEAR	11/17/2022 6:23:34 PM	12.29	A01
CCV 3092515	1730892		0.2018	TA SOIL LINNEAR	11/17/2022 7:48:05 PM	12.55	D04
CCV 3092515	1711472		0.2013	TA SOIL LINNEAR	11/17/2022 9:20:18 PM	12.44	E08
CCV 3092515	1753091		0.2057	TA SOIL LINNEAR	11/17/2022 10:11:56 PM	12.47	B10
Average			0.2025			12.44	
Std. Deviation			0.002			0.109	
RSD			1.083			0.875	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	4059.1		0.2025	TA SOIL LINNEAR	11/17/2022 6:26:01 PM	-0.01262	A02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB 3117971	4099.8		0.2001	TA SOIL LINNEAR	11/17/2022 6:28:14 PM	-0.01248	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS 2450156	1670855		0.2047	TA SOIL LINNEAR	11/17/2022 6:31:06 PM	11.94	A04

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD 2450156	1685835		0.2059	TA SOIL LINNEAR	11/17/2022 6:34:19 PM	11.98	A05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-1	62142		0.2073	TA SOIL LINNEAR	11/17/2022 6:36:41 PM	0.3989	A06
570-115201-B-1	57385		0.2031	TA SOIL LINNEAR	11/17/2022 6:39:06 PM	0.3728	A07
570-115201-B-1	66665		0.2078	TA SOIL LINNEAR	11/17/2022 6:41:24 PM	0.4299	A08
570-115201-B-1	59727		0.2042	TA SOIL LINNEAR	11/17/2022 6:43:37 PM	0.3876	A09
Average			0.2056			0.3973	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.002			0.02422	
RSD			1.121			6.096	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-2	43554		0.2010	TA SOIL LINNEAR	11/17/2022 6:46:15 PM	0.2757	A10
570-115201-B-2	48807		0.2054	TA SOIL LINNEAR	11/17/2022 6:48:44 PM	0.3073	B01
570-115201-B-2	45562		0.2064	TA SOIL LINNEAR	11/17/2022 6:51:10 PM	0.2828	B02
570-115201-B-2	49687		0.2039	TA SOIL LINNEAR	11/17/2022 6:53:30 PM	0.3159	B03
Average			0.2042			0.2954	
Std. Deviation			0.002			0.01925	
RSD			1.152			6.515	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-3	27455		0.2052	TA SOIL LINNEAR	11/17/2022 6:56:27 PM	0.1549	B04
570-115201-B-3	30568		0.1997	TA SOIL LINNEAR	11/17/2022 6:59:18 PM	0.1820	B05
570-115201-B-3	29846		0.2084	TA SOIL LINNEAR	11/17/2022 7:02:30 PM	0.1694	B06
570-115201-B-3	25693		0.2042	TA SOIL LINNEAR	11/17/2022 7:05:41 PM	0.1430	B07
Average			0.2044			0.1623	
Std. Deviation			0.004			0.01700	
RSD			1.759			10.48	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-4	30303		0.2023	TA SOIL LINNEAR	11/17/2022 7:08:32 PM	0.1778	B08
570-115201-B-4	29424		0.2012	TA SOIL LINNEAR	11/17/2022 7:11:33 PM	0.1723	B09
570-115201-B-4	28020		0.2053	TA SOIL LINNEAR	11/17/2022 7:14:32 PM	0.1589	B10
570-115201-B-4	29678		0.2037	TA SOIL LINNEAR	11/17/2022 7:17:29 PM	0.1721	C01
Average			0.2031			0.1703	
Std. Deviation			0.002			0.00804	
RSD			0.874			4.724	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-5	115585		0.2088	TA SOIL LINNEAR	11/17/2022 7:19:40 PM	0.7718	C02

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-5	106001		0.2038	TA SOIL LINNEAR	11/17/2022 7:21:54 PM	0.7217	C03
570-115201-B-5	109089		0.2028	TA SOIL LINNEAR	11/17/2022 7:24:15 PM	0.7476	C04
570-115201-B-5	101952		0.2047	TA SOIL LINNEAR	11/17/2022 7:26:42 PM	0.6895	C05
Average			0.2050			0.7326	
Std. Deviation			0.003			0.03530	
RSD			1.285			4.819	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-6	191893		0.2070	TA SOIL LINNEAR	11/17/2022 7:29:00 PM	1.320	C06
570-115201-B-6	200215		0.1997	TA SOIL LINNEAR	11/17/2022 7:31:15 PM	1.429	C07
570-115201-B-6	204820		0.2045	TA SOIL LINNEAR	11/17/2022 7:33:30 PM	1.429	C08
570-115201-B-6	189768		0.1990	TA SOIL LINNEAR	11/17/2022 7:35:45 PM	1.357	C09
Average			0.2026			1.384	
Std. Deviation			0.004			0.0544	
RSD			1.898			3.933	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-7	1682469		0.2039	TA SOIL LINNEAR	11/17/2022 7:38:01 PM	12.07	C10
570-115201-B-7	1703933		0.2018	TA SOIL LINNEAR	11/17/2022 7:40:18 PM	12.35	D01
570-115201-B-7	1750072		0.2068	TA SOIL LINNEAR	11/17/2022 7:42:34 PM	12.38	D02
570-115201-B-7	1547659		0.2044	TA SOIL LINNEAR	11/17/2022 7:44:53 PM	11.07	D03
Average			0.2042			11.97	
Std. Deviation			0.002			0.614	
RSD			1.005			5.128	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3117971	3286.7		0.2018	TA SOIL LINNEAR	11/17/2022 7:50:16 PM	-0.01829	D05
CCB 3117971	3812.2		0.2043	TA SOIL LINNEAR	11/17/2022 9:22:15 PM	-0.01429	E09
CCB 3117971	2976.4		0.1991	TA SOIL LINNEAR	11/17/2022 10:13:51 PM	-0.02082	C01
Average			0.2017			-0.01780	
Std. Deviation			0.003			0.003295	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
RSD			1.289			18.51	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-8	628468		0.2015	TA SOIL LINNEAR	11/17/2022 7:52:27 PM	4.536	D06
570-115201-B-8	604043		0.2053	TA SOIL LINNEAR	11/17/2022 7:54:54 PM	4.277	D07
570-115201-B-8	621735		0.2020	TA SOIL LINNEAR	11/17/2022 7:57:22 PM	4.476	D08
570-115201-B-8	611267		0.1992	TA SOIL LINNEAR	11/17/2022 7:59:55 PM	4.462	D09
Average			0.2020			4.438	
Std. Deviation			0.003			0.1116	
RSD			1.245			2.515	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-9	189893		0.2010	TA SOIL LINNEAR	11/17/2022 8:02:21 PM	1.344	D10
570-115201-B-9	227975		0.2054	TA SOIL LINNEAR	11/17/2022 8:04:44 PM	1.588	E01
570-115201-B-9	210955		0.2025	TA SOIL LINNEAR	11/17/2022 8:07:06 PM	1.487	E02
570-115201-B-9	200515		0.2057	TA SOIL LINNEAR	11/17/2022 8:09:31 PM	1.389	E03
Average			0.2036			1.452	
Std. Deviation			0.002			0.1082	
RSD			1.120			7.454	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-10	567319		0.2034	TA SOIL LINNEAR	11/17/2022 8:11:47 PM	4.052	E04
570-115201-B-10	546511		0.2014	TA SOIL LINNEAR	11/17/2022 8:14:06 PM	3.941	E05
570-115201-B-10	611595		0.2030	TA SOIL LINNEAR	11/17/2022 8:16:22 PM	4.380	E06
570-115201-B-10	517589		0.2077	TA SOIL LINNEAR	11/17/2022 9:17:07 PM	3.617	E07
Average			0.2039			3.998	
Std. Deviation			0.003			0.3150	
RSD			1.321			7.880	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
X570-115201-B-10	1768399		0.2054	TA SOIL LINNEAR	11/17/2022 8:19:20 PM	12.60	E07

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
XCCV 3092515	4045.1		0.2011	TA SOIL LINNEAR	11/17/2022 8:21:31 PM	-0.01281	E08

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-11	1420757		0.2028	TA SOIL LINNEAR	11/17/2022 9:24:26 PM	10.24	E10
570-115201-B-11	1434299		0.2046	TA SOIL LINNEAR	11/17/2022 9:26:37 PM	10.25	A01
570-115201-B-11	1670815		0.2067	TA SOIL LINNEAR	11/17/2022 9:28:54 PM	11.82	A02
570-115201-B-11	1627704		0.2053	TA SOIL LINNEAR	11/17/2022 9:31:12 PM	11.60	A03
Average			0.2049			10.98	
Std. Deviation			0.002			0.851	
RSD			0.792			7.752	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-12	148274		0.2012	TA SOIL LINNEAR	11/17/2022 9:33:33 PM	1.039	A04
570-115201-B-12	163871		0.2017	TA SOIL LINNEAR	11/17/2022 9:35:56 PM	1.150	A05
570-115201-B-12	185702		0.2045	TA SOIL LINNEAR	11/17/2022 9:38:15 PM	1.291	A06
570-115201-B-12	152970		0.2022	TA SOIL LINNEAR	11/17/2022 9:40:38 PM	1.068	A07
Average			0.2024			1.137	
Std. Deviation			0.001			0.1129	
RSD			0.721			9.924	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-115201-B-13	165546		0.2008	TA SOIL LINNEAR	11/17/2022 9:42:53 PM	1.168	A08
570-115201-B-13	178703		0.2040	TA SOIL LINNEAR	11/17/2022 9:45:09 PM	1.244	A09
570-115201-B-13	179116		0.2028	TA SOIL LINNEAR	11/17/2022 9:47:25 PM	1.254	A10
570-115201-B-13	181342		0.2018	TA SOIL LINNEAR	11/17/2022 9:49:39 PM	1.277	B01
Average			0.2024			1.236	
Std. Deviation			0.001			0.0474	
RSD			0.677			3.834	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119826-A-1	116684		0.2007	TA SOIL LINNEAR	11/17/2022 9:51:54 PM	0.8110	B02

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119826-A-1	118376		0.2066	TA SOIL LINNEAR	11/17/2022 9:54:09 PM	0.7998	B03
Average			0.2036			0.8054	
Std. Deviation			0.004			0.00788	
RSD			2.049			0.978	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-119826-A-1	118446		0.2008	TA SOIL LINNEAR	11/17/2022 9:56:25 PM	0.8234	B04
DU 580-119826-A-1	121061		0.2052	TA SOIL LINNEAR	11/17/2022 9:58:40 PM	0.8245	B05
Average			0.2030			0.8240	
Std. Deviation			0.003			0.00074	
RSD			1.533			0.090	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-119826-A-1	915308	0.1016	0.1028	TA SOIL LINNEAR	11/17/2022 10:01:33 PM	12.99	B06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-119826-A-1	917428	0.1027	0.1002	TA SOIL LINNEAR	11/17/2022 10:04:23 PM	13.35	B07

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119826-A-2	133012		0.2050	TA SOIL LINNEAR	11/17/2022 10:06:34 PM	0.9109	B08
580-119826-A-2	122379		0.2034	TA SOIL LINNEAR	11/17/2022 10:08:45 PM	0.8413	B09
Average			0.2042			0.8761	
Std. Deviation			0.001			0.04919	
RSD			0.554			5.615	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	5800.6		1.0000	TA SOIL LINNEAR	11/11/2022 8:11:21 PM	0.000000008319	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
2450155	207376		0.0250	TA SOIL LINNEAR	11/11/2022 8:13:53 PM	12.04	A04
2450155	403472		0.0498	TA SOIL LINNEAR	11/11/2022 8:16:25 PM	11.82	A05
2450155	613484		0.0753	TA SOIL LINNEAR	11/11/2022 8:19:09 PM	11.91	A06
2450155	818286		0.1007	TA SOIL LINNEAR	11/11/2022 8:21:56 PM	11.89	A07
2450155	1225915		0.1506	TA SOIL LINNEAR	11/11/2022 8:24:50 PM	11.93	A08
2450155	1651543		0.2001	TA SOIL LINNEAR	11/11/2022 8:27:46 PM	12.10	A09
2450155	2061584		0.2505	TA SOIL LINNEAR	11/11/2022 8:31:03 PM	12.07	A10
Average			0.1217			11.96	
Std. Deviation			0.08			0.102	
RSD			67.66			0.855	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Shipping and Receiving Documents

Pace Analytical®
www.pacelabs.com

Workorder: 10632545 **Workorder Name:** D3631600 **Results Requested By:** 11/18/2022

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	SW9060A TOC	SW9060A TOC - MS/MSD	LAB USE ONLY
1	BNSF-G000-SC-1.5-2.5-110322	11/3/2022 13:50	10632545001	Solid	3		X	
2	BNSF-G000-SC-4.0-5.0-110322	11/3/2022 14:10	10632545002	Solid	1	X		
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	FMC2/PACE	11/7/22 16:25		11/8/22 0930
2				
3				

Comments

Sample 10632545001 is MS/MSD
Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

580-119826 Chain of Custody

Therm. ID: IR10 Cor: -0.1 ° Unc: 0.1 °
Cooler Dsc: Bub MR FedEx: PB
Packing: _____ UPS: _____
Cust. Seal: Yes / No ____ Lab Cour: _____
Blue Ice, Wet, Dry, None Other: _____

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-119826-1

Login Number: 119826
List Number: 1
Creator: Presley, Kim A

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
11/21/2022 4:59 PM

Authorized for release by
Pauline M Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
253 922-2310

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 22, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10632887

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
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CERTIFICATIONS

Project: D3631600
Pace Project No.: 10632887

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10632887

Pace Analytical Services National

Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10632887

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	Solid	11/04/22 10:20	11/08/22 08:50
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	Solid	11/07/22 10:30	11/08/22 08:50

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SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10632887

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	ADF	33	PAN
		SM 2540G	KDW	1	PAN
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	ADF	33	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632887

Date: December 22, 2022

BNSF-F390-SC-6.2-7.2-110722 (Lab ID: 10632887002)

- Semi Volatile Organic Compounds (GC/MS) by Method 8270E - Cannot run at lower dilution due to viscosity of extract

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632887

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
2 samples were analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 852301

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- BNSF-F390-SC-6.2-7.2-110722 (Lab ID: 10632887002)
  - n-Triacontane (S)
  - o-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 852301

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10632887001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 4506604)
  - Diesel Fuel Range
  - Motor Oil Range
- MSD (Lab ID: 4506605)
  - Diesel Fuel Range
  - Motor Oil Range

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632887

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 22, 2022

QC Batch: 852301

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10632887001

R1: RPD value was outside control limits.

- MSD (Lab ID: 4506605)
  - Diesel Fuel Range
  - Motor Oil Range

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632887

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
2 samples were analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632887

Method: **SM 2540G**
Description: Total Solids 2540 G-2011
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
2 samples were analyzed for SM 2540G by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632887

Sample: BNSF-G020-SC-0.0-1.0-110422 **Lab ID: 10632887001** Collected: 11/04/22 10:20 Received: 11/08/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**154J**	mg/kg	209	96.6	10	11/09/22 07:04	11/11/22 15:54	68334-30-5	P6,R1
Motor Oil Range	**392**	mg/kg	140	69.7	10	11/09/22 07:04	11/11/22 15:54		P6,R1
Surrogates									
n-Triacontane (S)	91	%.	50-150		10	11/09/22 07:04	11/11/22 15:54		
o-Terphenyl (S)	96	%.	50-150		10	11/09/22 07:04	11/11/22 15:54	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**28.9**	%	0.10	0.10	1		11/09/22 11:12		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0487	0.00789	1	11/14/22 04:53	11/14/22 17:40	83-32-9	
Acenaphthylene	ND	mg/kg	0.0487	0.00686	1	11/14/22 04:53	11/14/22 17:40	208-96-8	
Anthracene	ND	mg/kg	0.0487	0.00868	1	11/14/22 04:53	11/14/22 17:40	120-12-7	
Benzoic acid	ND	mg/kg	2.44	0.173	1	11/14/22 04:53	11/14/22 17:40	65-85-0	
Benzo(a)anthracene	**0.0116J**	mg/kg	0.0487	0.00859	1	11/14/22 04:53	11/14/22 17:40	56-55-3	J
Benzo(b)fluoranthene	**0.0106J**	mg/kg	0.0487	0.00909	1	11/14/22 04:53	11/14/22 17:40	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0487	0.00866	1	11/14/22 04:53	11/14/22 17:40	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0487	0.00891	1	11/14/22 04:53	11/14/22 17:40	191-24-2	
Benzo(a)pyrene	**0.0119J**	mg/kg	0.0487	0.00906	1	11/14/22 04:53	11/14/22 17:40	50-32-8	J
Carbazole	ND	mg/kg	0.487	0.0151	1	11/14/22 04:53	11/14/22 17:40	86-74-8	
Chrysene	**0.0137J**	mg/kg	0.0487	0.00969	1	11/14/22 04:53	11/14/22 17:40	218-01-9	J
Dibenz(a,h)anthracene	ND	mg/kg	0.0487	0.0135	1	11/14/22 04:53	11/14/22 17:40	53-70-3	
Dibenzofuran	ND	mg/kg	0.487	0.0159	1	11/14/22 04:53	11/14/22 17:40	132-64-9	
Fluoranthene	**0.0131J**	mg/kg	0.0487	0.00879	1	11/14/22 04:53	11/14/22 17:40	206-44-0	J
Fluorene	ND	mg/kg	0.0487	0.00793	1	11/14/22 04:53	11/14/22 17:40	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0487	0.0138	1	11/14/22 04:53	11/14/22 17:40	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0487	0.00623	1	11/14/22 04:53	11/14/22 17:40	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0487	0.00632	1	11/14/22 04:53	11/14/22 17:40	91-57-6	
Naphthalene	ND	mg/kg	0.0487	0.0122	1	11/14/22 04:53	11/14/22 17:40	91-20-3	
Phenanthrene	ND	mg/kg	0.0487	0.00967	1	11/14/22 04:53	11/14/22 17:40	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.487	0.0617	1	11/14/22 04:53	11/14/22 17:40	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.487	0.0167	1	11/14/22 04:53	11/14/22 17:40	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.487	0.0329	1	11/14/22 04:53	11/14/22 17:40	117-84-0	
Pyrene	**0.0272J**	mg/kg	0.0487	0.00948	1	11/14/22 04:53	11/14/22 17:40	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.487	0.0152	1	11/14/22 04:53	11/14/22 17:40		
Pentachlorophenol	ND	mg/kg	0.487	0.0131	1	11/14/22 04:53	11/14/22 17:40	87-86-5	
Phenol	ND	mg/kg	0.487	0.0196	1	11/14/22 04:53	11/14/22 17:40	108-95-2	
Surrogates									
2-Fluorophenol (S)	55.6	%	12.0-120		1	11/14/22 04:53	11/14/22 17:40	367-12-4	
Phenol-d5 (S)	50.9	%	10.0-120		1	11/14/22 04:53	11/14/22 17:40	4165-62-2	
Nitrobenzene-d5 (S)	48.5	%	10.0-122		1	11/14/22 04:53	11/14/22 17:40	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632887

Sample: BNSF-G020-SC-0.0-1.0-110422 **Lab ID: 10632887001** Collected: 11/04/22 10:20 Received: 11/08/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	48.8	%	15.0-120		1	11/14/22 04:53	11/14/22 17:40	321-60-8	
2,4,6-Tribromophenol (S)	56.9	%	10.0-127		1	11/14/22 04:53	11/14/22 17:40	118-79-6	
p-Terphenyl-d14 (S)	51.8	%	10.0-120		1	11/14/22 04:53	11/14/22 17:40	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**68.3**	%			1	11/11/22 10:31	11/11/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632887

Sample: BNSF-F390-SC-6.2-7.2-110722 **Lab ID: 10632887002** Collected: 11/07/22 10:30 Received: 11/08/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**676**	mg/kg	391	181	20	11/09/22 07:04	11/14/22 15:45	68334-30-5	
Motor Oil Range	**2530**	mg/kg	261	130	20	11/09/22 07:04	11/14/22 15:45		
Surrogates									
n-Triacontane (S)	0	%.	50-150		20	11/09/22 07:04	11/14/22 15:45		S4
o-Terphenyl (S)	0	%.	50-150		20	11/09/22 07:04	11/14/22 15:45	84-15-1	S4
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**23.5**	%	0.10	0.10	1		11/09/22 11:13		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.427	0.0691	10	11/14/22 04:53	11/14/22 21:30	83-32-9	
Acenaphthylene	ND	mg/kg	0.427	0.0601	10	11/14/22 04:53	11/14/22 21:30	208-96-8	
Anthracene	ND	mg/kg	0.427	0.0760	10	11/14/22 04:53	11/14/22 21:30	120-12-7	
Benzoic acid	ND	mg/kg	21.4	1.51	10	11/14/22 04:53	11/14/22 21:30	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.427	0.0752	10	11/14/22 04:53	11/14/22 21:30	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.427	0.0796	10	11/14/22 04:53	11/14/22 21:30	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.427	0.0758	10	11/14/22 04:53	11/14/22 21:30	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.427	0.0780	10	11/14/22 04:53	11/14/22 21:30	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.427	0.0793	10	11/14/22 04:53	11/14/22 21:30	50-32-8	
Carbazole	ND	mg/kg	4.27	0.132	10	11/14/22 04:53	11/14/22 21:30	86-74-8	
Chrysene	ND	mg/kg	0.427	0.0848	10	11/14/22 04:53	11/14/22 21:30	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.427	0.118	10	11/14/22 04:53	11/14/22 21:30	53-70-3	
Dibenzofuran	ND	mg/kg	4.27	0.140	10	11/14/22 04:53	11/14/22 21:30	132-64-9	
Fluoranthene	ND	mg/kg	0.427	0.0770	10	11/14/22 04:53	11/14/22 21:30	206-44-0	
Fluorene	ND	mg/kg	0.427	0.0694	10	11/14/22 04:53	11/14/22 21:30	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.427	0.121	10	11/14/22 04:53	11/14/22 21:30	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.427	0.0546	10	11/14/22 04:53	11/14/22 21:30	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.427	0.0553	10	11/14/22 04:53	11/14/22 21:30	91-57-6	
Naphthalene	ND	mg/kg	0.427	0.107	10	11/14/22 04:53	11/14/22 21:30	91-20-3	
Phenanthrene	ND	mg/kg	0.427	0.0847	10	11/14/22 04:53	11/14/22 21:30	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	4.27	0.541	10	11/14/22 04:53	11/14/22 21:30	117-81-7	
Di-n-butylphthalate	ND	mg/kg	4.27	0.146	10	11/14/22 04:53	11/14/22 21:30	84-74-2	
Di-n-octylphthalate	ND	mg/kg	4.27	0.288	10	11/14/22 04:53	11/14/22 21:30	117-84-0	
Pyrene	ND	mg/kg	0.427	0.0830	10	11/14/22 04:53	11/14/22 21:30	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	4.27	0.133	10	11/14/22 04:53	11/14/22 21:30		
Pentachlorophenol	ND	mg/kg	4.27	0.115	10	11/14/22 04:53	11/14/22 21:30	87-86-5	
Phenol	ND	mg/kg	4.27	0.172	10	11/14/22 04:53	11/14/22 21:30	108-95-2	
Surrogates									
2-Fluorophenol (S)	61.8	%	12.0-120		10	11/14/22 04:53	11/14/22 21:30	367-12-4	
Phenol-d5 (S)	55.8	%	10.0-120		10	11/14/22 04:53	11/14/22 21:30	4165-62-2	
Nitrobenzene-d5 (S)	53.0	%	10.0-122		10	11/14/22 04:53	11/14/22 21:30	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632887

Sample: BNSF-F390-SC-6.2-7.2-110722 **Lab ID: 10632887002** Collected: 11/07/22 10:30 Received: 11/08/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	53.6	%	15.0-120		10	11/14/22 04:53	11/14/22 21:30	321-60-8	
2,4,6-Tribromophenol (S)	58.8	%	10.0-127		10	11/14/22 04:53	11/14/22 21:30	118-79-6	
p-Terphenyl-d14 (S)	56.8	%	10.0-120		10	11/14/22 04:53	11/14/22 21:30	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**78.1**	%			1	11/11/22 10:31	11/11/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

QC Batch: 852292
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10632887001, 10632887002

SAMPLE DUPLICATE: 4506582

Parameter	Units	10632893001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.0	17.5	3	30	N2

SAMPLE DUPLICATE: 4506743

Parameter	Units	10632809002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.4	11.5	1	30	N2

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

QC Batch: 1958443
QC Batch Method: 3546
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10632887001, 10632887002

METHOD BLANK: R3861170-2 Matrix: Solid
Associated Lab Samples: 10632887001, 10632887002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/14/22 13:05	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/14/22 13:05	
Anthracene	mg/kg	ND	0.0333	0.00593	11/14/22 13:05	
Benzoic acid	mg/kg	ND	1.67	0.118	11/14/22 13:05	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/14/22 13:05	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/14/22 13:05	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/14/22 13:05	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/14/22 13:05	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/14/22 13:05	
Carbazole	mg/kg	ND	0.333	0.0103	11/14/22 13:05	
Chrysene	mg/kg	ND	0.0333	0.00662	11/14/22 13:05	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/14/22 13:05	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/14/22 13:05	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/14/22 13:05	
Fluorene	mg/kg	ND	0.0333	0.00542	11/14/22 13:05	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/14/22 13:05	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/14/22 13:05	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/14/22 13:05	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/14/22 13:05	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/14/22 13:05	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/14/22 13:05	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/14/22 13:05	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/14/22 13:05	
Pyrene	mg/kg	ND	0.0333	0.00648	11/14/22 13:05	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/14/22 13:05	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/14/22 13:05	
Phenol	mg/kg	ND	0.333	0.0134	11/14/22 13:05	
2-Fluorophenol (S)	%	59.3	12.0-120		11/14/22 13:05	
Phenol-d5 (S)	%	52.9	10.0-120		11/14/22 13:05	
Nitrobenzene-d5 (S)	%	50.2	10.0-122		11/14/22 13:05	
2-Fluorobiphenyl (S)	%	53.5	15.0-120		11/14/22 13:05	
2,4,6-Tribromophenol (S)	%	52.7	10.0-127		11/14/22 13:05	
p-Terphenyl-d14 (S)	%	59.8	10.0-120		11/14/22 13:05	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

METHOD BLANK: R3861672-1 Matrix: Solid
Associated Lab Samples: 10632887001, 10632887002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/15/22 14:34	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/15/22 14:34	
Anthracene	mg/kg	ND	0.0333	0.00593	11/15/22 14:34	
Benzoic acid	mg/kg	ND	1.67	0.118	11/15/22 14:34	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/15/22 14:34	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/15/22 14:34	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/15/22 14:34	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/15/22 14:34	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/15/22 14:34	
Carbazole	mg/kg	ND	0.333	0.0103	11/15/22 14:34	
Chrysene	mg/kg	ND	0.0333	0.00662	11/15/22 14:34	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/15/22 14:34	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/15/22 14:34	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/15/22 14:34	
Fluorene	mg/kg	ND	0.0333	0.00542	11/15/22 14:34	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/15/22 14:34	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/15/22 14:34	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/15/22 14:34	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/15/22 14:34	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/15/22 14:34	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/15/22 14:34	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/15/22 14:34	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/15/22 14:34	
Pyrene	mg/kg	ND	0.0333	0.00648	11/15/22 14:34	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/15/22 14:34	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/15/22 14:34	
Phenol	mg/kg	ND	0.333	0.0134	11/15/22 14:34	
2-Fluorophenol (S)	%	58.1	12.0-120		11/15/22 14:34	
Phenol-d5 (S)	%	52.4	10.0-120		11/15/22 14:34	
Nitrobenzene-d5 (S)	%	49.5	10.0-122		11/15/22 14:34	
2-Fluorobiphenyl (S)	%	53.2	15.0-120		11/15/22 14:34	
2,4,6-Tribromophenol (S)	%	49.5	10.0-127		11/15/22 14:34	
p-Terphenyl-d14 (S)	%	60.1	10.0-120		11/15/22 14:34	

LABORATORY CONTROL SAMPLE: R3861170-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.666	0.473	71.0	38.0-120	
Acenaphthylene	mg/kg	0.666	0.530	79.6	40.0-120	
Anthracene	mg/kg	0.666	0.480	72.1	42.0-120	
Benzoic acid	mg/kg	1.33	0.473	35.6	10.0-120	
Benzo(a)anthracene	mg/kg	0.666	0.537	80.6	44.0-120	
Benzo(b)fluoranthene	mg/kg	0.666	0.507	76.1	43.0-120	
Benzo(k)fluoranthene	mg/kg	0.666	0.488	73.3	44.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

LABORATORY CONTROL SAMPLE: R3861170-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(g,h,i)perylene	mg/kg	0.666	0.498	74.8	43.0-120	
Benzo(a)pyrene	mg/kg	0.666	0.567	85.1	45.0-120	
Carbazole	mg/kg	0.666	0.497	74.6	48.0-120	
Chrysene	mg/kg	0.666	0.500	75.1	43.0-120	
Dibenz(a,h)anthracene	mg/kg	0.666	0.521	78.2	44.0-120	
Dibenzofuran	mg/kg	0.666	0.492	73.9	44.0-120	
Fluoranthene	mg/kg	0.666	0.522	78.4	44.0-120	
Fluorene	mg/kg	0.666	0.494	74.2	41.0-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.666	0.495	74.3	45.0-120	
1-Methylnaphthalene	mg/kg	0.666	0.411	61.7	34.0-120	
2-Methylnaphthalene	mg/kg	0.666	0.405	60.8	34.0-120	
Naphthalene	mg/kg	0.666	0.386	58.0	18.0-120	
Phenanthrene	mg/kg	0.666	0.487	73.1	42.0-120	
bis(2-Ethylhexyl)phthalate	mg/kg	0.666	0.504	75.7	41.0-120	
Di-n-butylphthalate	mg/kg	0.666	0.470	70.6	43.0-120	
Di-n-octylphthalate	mg/kg	0.666	0.521	78.2	40.0-120	
Pyrene	mg/kg	0.666	0.482	72.4	41.0-120	
3&4-Methylphenol(m&p Cresol)	mg/kg	0.666	0.499	74.9	42.0-120	
Pentachlorophenol	mg/kg	0.666	0.458	68.8	29.0-120	
Phenol	mg/kg	0.666	0.467	70.1	28.0-120	
2-Fluorophenol (S)	%			77.2	12.0-120	
Phenol-d5 (S)	%			70.7	10.0-120	
Nitrobenzene-d5 (S)	%			53.8	10.0-122	
2-Fluorobiphenyl (S)	%			69.7	15.0-120	
2,4,6-Tribromophenol (S)	%			79.3	10.0-127	
p-Terphenyl-d14 (S)	%			73.9	10.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3861170-3 R3861170-4

Parameter	Units	L1556406-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	mg/kg	ND	0.660	0.654	0.370	0.358	56.1	54.7	18.0-120	3.30	32	
Acenaphthylene	mg/kg	ND	0.660	0.654	0.409	0.397	62.0	60.7	25.0-120	2.98	32	
Anthracene	mg/kg	ND	0.660	0.654	0.372	0.370	56.4	56.6	22.0-120	0.539	29	
Benzoic acid	mg/kg		1.32	1.31	0.999	0.910	75.7	69.5	10.0-152	9.32	40	
Benzo(a)anthracene	mg/kg	ND	0.660	0.654	0.423	0.417	64.1	63.8	25.0-120	1.43	29	
Benzo(b)fluoranthene	mg/kg	ND	0.660	0.654	0.392	0.386	59.4	59.0	19.0-122	1.54	31	
Benzo(k)fluoranthene	mg/kg	ND	0.660	0.654	0.386	0.377	58.5	57.6	23.0-120	2.36	30	
Benzo(g,h,i)perylene	mg/kg	ND	0.660	0.654	0.386	0.387	58.5	59.2	10.0-120	0.259	33	
Benzo(a)pyrene	mg/kg	ND	0.660	0.654	0.446	0.439	67.6	67.1	24.0-120	1.58	30	
Carbazole	mg/kg	ND	0.660	0.654	0.385	0.383	58.3	58.6	31.0-120	0.521	24	
Chrysene	mg/kg	ND	0.660	0.654	0.395	0.388	59.8	59.3	21.0-120	1.79	29	
Dibenz(a,h)anthracene	mg/kg	ND	0.660	0.654	0.383	0.388	58.0	59.3	10.0-120	1.30	32	
Dibenzofuran	mg/kg	ND	0.660	0.654	0.386	0.367	58.5	56.1	24.0-120	5.05	30	
Fluoranthene	mg/kg	ND	0.660	0.654	0.401	0.400	60.8	61.2	18.0-126	0.250	32	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3861170-3 R3861170-4

Parameter	Units	L1556406-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluorene	mg/kg	ND	0.660	0.654	0.387	0.373	58.6	57.0	25.0-120	3.68	30	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.660	0.654	0.389	0.391	58.9	59.8	10.0-120	0.513	32	
1-Methylnaphthalene	mg/kg	ND	0.660	0.654	0.334	0.325	50.6	49.7	10.0-120	2.73	36	
2-Methylnaphthalene	mg/kg	ND	0.660	0.654	0.328	0.315	49.7	48.2	10.0-120	4.04	37	
Naphthalene	mg/kg	ND	0.660	0.654	0.319	0.298	48.3	45.6	10.0-120	6.81	35	
Phenanthrene	mg/kg	ND	0.660	0.654	0.381	0.373	57.7	57.0	17.0-120	2.12	31	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.660	0.654	0.397	0.393	60.2	60.1	17.0-126	1.01	30	
Di-n-butylphthalate	mg/kg	ND	0.660	0.654	0.361	0.357	54.7	54.6	30.0-120	1.11	29	
Di-n-octylphthalate	mg/kg	ND	0.660	0.654	0.416	0.407	63.0	62.2	21.0-123	2.19	29	
Pyrene	mg/kg	ND	0.660	0.654	0.382	0.376	57.9	57.5	16.0-121	1.58	32	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.660	0.654	0.392	0.372	59.4	56.9	12.0-123	5.24	38	
Pentachlorophenol	mg/kg	ND	0.660	0.654	0.406	0.399	61.5	61.0	10.0-160	1.74	31	
Phenol	mg/kg	ND	0.660	0.654	0.357	0.349	54.1	53.4	12.0-120	2.27	38	
2-Fluorophenol (S)	%						60.6	59.3	12.0-120			
Phenol-d5 (S)	%						54.8	53.5	10.0-120			
Nitrobenzene-d5 (S)	%						43.3	50.2	10.0-122			
2-Fluorobiphenyl (S)	%						54.5	53.8	15.0-120			
2,4,6-Tribromophenol (S)	%						64.2	63.8	10.0-127			
p-Terphenyl-d14 (S)	%						58.5	58.7	10.0-120			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

QC Batch: 852301
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10632887001, 10632887002

METHOD BLANK: 4506602 Matrix: Solid
Associated Lab Samples: 10632887001, 10632887002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/11/22 15:31	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/11/22 15:31	
n-Triacontane (S)	%.	96	50-150		11/11/22 15:31	
o-Terphenyl (S)	%.	88	50-150		11/11/22 15:31	

LABORATORY CONTROL SAMPLE: 4506603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	43.5	87	50-150	
Motor Oil Range	mg/kg	50	49.6	99	50-150	
n-Triacontane (S)	%.			101	50-150	
o-Terphenyl (S)	%.			90	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4506604 4506605

Parameter	Units	10632887001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	154J	70.3	70.2	275	404	172	357	50-150	38	30	P6,R1
Motor Oil Range	mg/kg	392	70.3	70.2	555	771	232	541	50-150	33	30	P6,R1
n-Triacontane (S)	%.						86	84	50-150			
o-Terphenyl (S)	%.						100	107	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632887

QC Batch: 1957928
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10632887001, 10632887002

METHOD BLANK: R3860239-1 Matrix: Solid
Associated Lab Samples: 10632887001, 10632887002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			11/11/22 10:36	

LABORATORY CONTROL SAMPLE: R3860239-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3860239-3

Parameter	Units	L1556173-19 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	95.3	95.3	0.00178	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10632887

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 10632887002

[1]	Semi Volatile Organic Compounds (GC/MS) by Method 8270E - Cannot run at lower dilution due to viscosity of extract

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10632887

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	EPA 3550	852301	NWTPH-Dx	853256
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	EPA 3550	852301	NWTPH-Dx	853256
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	ASTM D2974	852292		
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	ASTM D2974	852292		
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	3546	1958443	EPA 8270E	1958443
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	3546	1958443	EPA 8270E	1958443
10632887001	**BNSF-G020-SC-0.0-1.0-110422**	SM 2540 G	1957928	SM 2540G	1957928
10632887002	**BNSF-F390-SC-6.2-7.2-110722**	SM 2540 G	1957928	SM 2540G	1957928

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder M

WO# : 10632887

10632887

ALL SHADED

Company: JACOBS	Billing Information: SEE CONTRACT
Address: 2020 SW 4th AVE SUITE 300, PDX, OR 97201	KRIS.IVARSON@JACOBS.COM
Report To: Berney Kidd, KRIS IVARSON	Email To: Bernice.Kidd@JACOBS.COM
Copy To:	Site Collection Info/Address: WISHRAM, WA BNSF
Customer Project Name/Number: D3631000	State: / County/City: Time Zone Collected: [Y] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: BNSF WISHRAM
Collected By (print): Jennifer Ulrich	Purchase Order #: Quote #:
Collected By (signature):	Turnaround Date Required: STANDARD
Sample Disposal: [Y] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Compliance Monitoring? [ ] Yes [ ] No	DW PWS ID #: DW Location Code:
Immediately Packed on Ice: [Y] Yes [ ] No	Field Filtered (if applicable): [ ] Yes [N] No Analysis: _____

Container Preservative Type **: U U U U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	~~Composite End~~ Date	~~Composite End~~ Time	Res Cl	# of Ctns	TOC SW9060A	SVOC 8270E	PAH 8270SIM	NWTPH-Dx	GRAIN SIZE	Analyses	Analyses	Analyses	Analyses	Analyses	Analyses	Analyses	Analyses
BNSF-G020-SC-0.0-1.0-110422	SL	Comp			11/4/22	1020		5	X	X	X	X	X								
BNSF-F390-SC-6.2-7.2-110322	SL	COMP			11/3/22	1030		5	X	X	X	X	X								
BNSF-G200-SC-4.0-5.0-110722	SL	Comp			11/7/22	1400		5	X	X	X	X	X								

Lab Profile/Line: 44461

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Archive

Customer Remarks / Special Conditions / Possible Hazards:

NAPL

Archive: BNSF-G200-SC-4.0-5.0-110722

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2855339

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____ oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments: 2c

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
JACOBS	11/7/22 1700	Pace	11/8/22 0850
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

10632887

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: WO#: 10632887
PM: KV Due Date: 12/01/22
CLIENT: BNSF_Jacobs

Courier: ☑ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 540518247430 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☑ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☑ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710 **Type of Ice:** ☑ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 2.2 °C

Correction Factor: TNC **Cooler Temp Corrected w/temp blank:** 2.2 °C

Average Corrected Temp (no temp blank only): _____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil (☐ N/A, water sample/other: _____) **Date/Initials of Person Examining Contents:** KB 11/8/22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☑ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☑ Yes	☐ No		1.
Chain of Custody Relinquished?	☑ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☑ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other	☑ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample # ☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Isaac Johnson **Date:** 11/9/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: KB **Line:** 3

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, Minnesota 55414

Generated 12/21/2022 9:59:38 PM Revision 1

JOB DESCRIPTION

10632887 D3631600

JOB NUMBER

580-119923-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
12/21/2022 9:59:38 PM
Revision 1

Authorized for release by
Pauline Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
(253)922-2310

Table of Contents

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Job ID: 580-119923-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-119923-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 12/19/2022. The report (revision 1) is being revised due to: Sample ID for sample #1 contained an error, this has been corrected.

Receipt
The samples were received on 11/10/2022 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3º C.

General Chemistry
Method 9060A: The following samples were prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-G020-SC-0.0-1.0-110422 (580-119923-1) and BNSF-F390-SC-6.2-7.2-110722 (580-119923-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Date Collected: 11/04/22 10:20
Date Received: 11/10/22 09:35

Lab Sample ID: 580-119923-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	67.4		0.1	0.1	%			11/14/22 09:46	1
Percent Moisture (SM22 2540G)	32.6		0.1	0.1	%			11/14/22 09:46	1

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Date Collected: 11/04/22 10:20
Date Received: 11/10/22 09:35

Lab Sample ID: 580-119923-1
Matrix: Solid
Percent Solids: 67.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	10000	H	3000	140	mg/Kg	☼		12/16/22 23:29	1

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Date Collected: 11/07/22 10:30
Date Received: 11/10/22 09:35

Lab Sample ID: 580-119923-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	77.4		0.1	0.1	%			11/14/22 09:46	1
Percent Moisture (SM22 2540G)	22.6		0.1	0.1	%			11/14/22 09:46	1

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Date Collected: 11/07/22 10:30
Date Received: 11/10/22 09:35

Lab Sample ID: 580-119923-2
Matrix: Solid
Percent Solids: 77.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	32000	H	2600	120	mg/Kg	☼		12/16/22 23:34	1

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/5
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/16/22 22:15	1

Lab Sample ID: LCS 580-413230/6
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	132000		mg/Kg		110	80 - 120		

Lab Sample ID: LCSD 580-413230/7
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	131000		mg/Kg		109	80 - 120	0	20

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Lab Sample ID: 580-119923-1
Date Collected: 11/04/22 10:20
Matrix: Solid
Date Received: 11/10/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Lab Sample ID: 580-119923-1
Date Collected: 11/04/22 10:20
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 67.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/16/22 23:29

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Lab Sample ID: 580-119923-2
Date Collected: 11/07/22 10:30
Matrix: Solid
Date Received: 11/10/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Lab Sample ID: 580-119923-2
Date Collected: 11/07/22 10:30
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/16/22 23:34

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-119923-1	BNSF-G020-SC-0.0-1.0-110422	Solid	11/04/22 10:20	11/10/22 09:35
580-119923-2	BNSF-F390-SC-6.2-7.2-110722	Solid	11/07/22 10:30	11/10/22 09:35

Pace Analytical®
www.pacelabs.com

Workorder: 10632887 **Workorder Name:** D3631600 **Results Requested By:** 12/1/2022 119923

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

P.O._____

JGFU

State of Sample Origin: WA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	SW9060A TOC	LAB USE ONLY
1	BNSF-G020-SC-0.0-1.0-110422	11/4/2022 10:20	10632887001	Solid	1	X	
2	BNSF-F390-SC-6.2-7.2-110722	11/7/2022 10:30	10632887002	Solid	1	X	
3							
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-9-22 12:40		11/10/22 0935
2				
3				

580-119923 Chain of Custody

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

Therm. ID: IR10 Cor: 1.3 ° Unc: 1.5 °
Cooler Dsc: SR
Packing: Bulk
Cust. Seal: Yes No
Blue Ice, Wet, Dry, None
FedEx: P.O
UPS:
Lab Cour:
Other:

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-119923-1

Login Number: 119923
List Number: 1
Creator: Holdener, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 11/17/2022

CLIENT: Pace Analytical - Minneapolis
Project: 10632887 D3631600
Lab Order: S2211159

CASE NARRATIVE

Report ID: S2211159001

Entire Report Reviewed by: John M. Jacobs
John Jacobs, Project Manager

Samples BNSF-F390-SC-6.2-7.2-110722 and BNSF-G020-SC-0.0-1.0-110422 were received on November 10, 2022.

All samples were received and analyzed within recommended holding times, except those noted below in this case narrative. Samples were analyzed using methods outlined in the following references:

Standard Methods for the Examination of Water and Wastewater, approved method versions
EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, online versions
EPA methods 40 CFR Parts 136 and 141EPA 600/2-78-054 methods
NDEP Mining Methods
40 CFR Part 50, Appendices B, J, L, O and FEM EQL-0310-189
IO Compendium Methods
Clean Water Act Methods Update Rule for the Analysis of Effluent, current version.
ASTM approved and recognized standards
ISO approved and recognized standards
USDA Handbook 60
Soil Survey Laboratory Manual Ver 4.0
ASA/SSSA 9 Methods of Analysis Part 2, 1982
ASA/SSSA Methods of Analysis Book 5 Part 3, 1996
Other industry approved methods

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical except as indicated in this case narrative:

Date: 11/17/2022

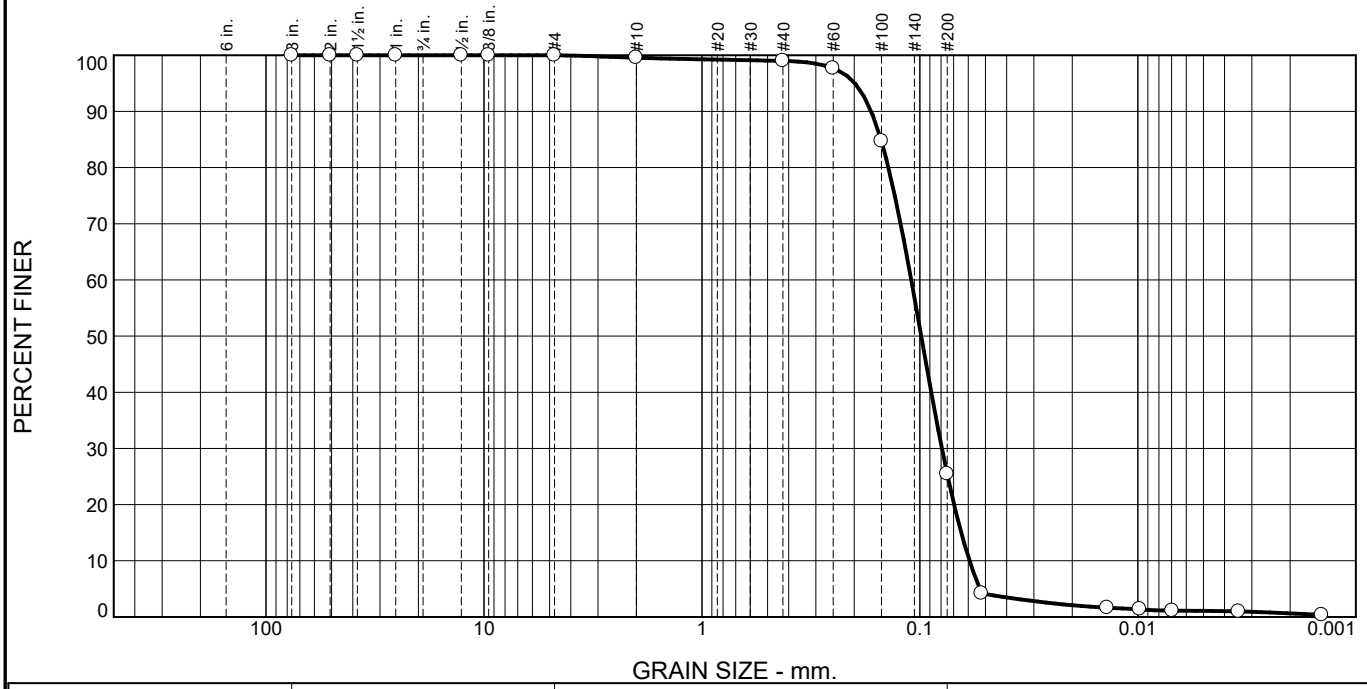
Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.4	0.6	73.5	24.4	1.1

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	99.6		
#40	99.0		
#60	97.7		
#100	84.7		
#200	25.5		
0.0520 mm.	4.2		
0.0138 mm.	1.6		
0.0098 mm.	1.4		
0.0070 mm.	1.1		
0.0034 mm.	1.0		
0.0014 mm.	0.4		

* (no specification provided)

Material Description

silty sand

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-2-4(0)

Coefficients

D_{90}= 0.1673 D_{85}= 0.1508 D_{60}= 0.1096
D_{50}= 0.0986 D_{30}= 0.0793 D_{15}= 0.0646
D_{10}= 0.0592 C_u= 1.85 C_c= 0.97

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/10/2022 **Date Tested:** 11/17/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-G020-SC-0_0-1_0-110422
Sample Number: S2211159-001A

Date Sampled: 11/4/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10632887 D3631600

Project No: S2211159 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/17/2022

Client: Pace Analytical-Minneapolis
Project: 10632887 D3631600
Project Number: S2211159
Location: BNSF-G020-SC-0_0-1_0-110422
Sample Number: S2211159-001A
Material Description: silty sand
Sample Date: 11/4/2022 10:20
Date Received: 11/10/2022 **PL:** NP **LL:** NV **PI:** NP
USCS Classification: SM **AASHTO Classification:** A-2-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/17/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
133.02	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.59	0.00	99.6
50.08	0.00	#40	0.29	0.00	99.0
		#60	0.66	0.00	97.7
		#100	6.52	0.00	84.7
		#200	29.80	0.00	25.5

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 25.5
Weight of hydrometer sample =50.08
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	15.0	8.2	0.0140	15.0	13.8	0.0520	4.2
15.00	18.0	10.0	3.2	0.0140	10.0	14.7	0.0138	1.6
30.00	18.0	9.5	2.7	0.0140	9.5	14.7	0.0098	1.4
60.00	18.0	9.0	2.2	0.0140	9.0	14.8	0.0070	1.1
240.00	19.0	8.5	1.9	0.0138	8.5	14.9	0.0034	1.0
1440.00	18.0	7.5	0.7	0.0140	7.5	15.1	0.0014	0.4

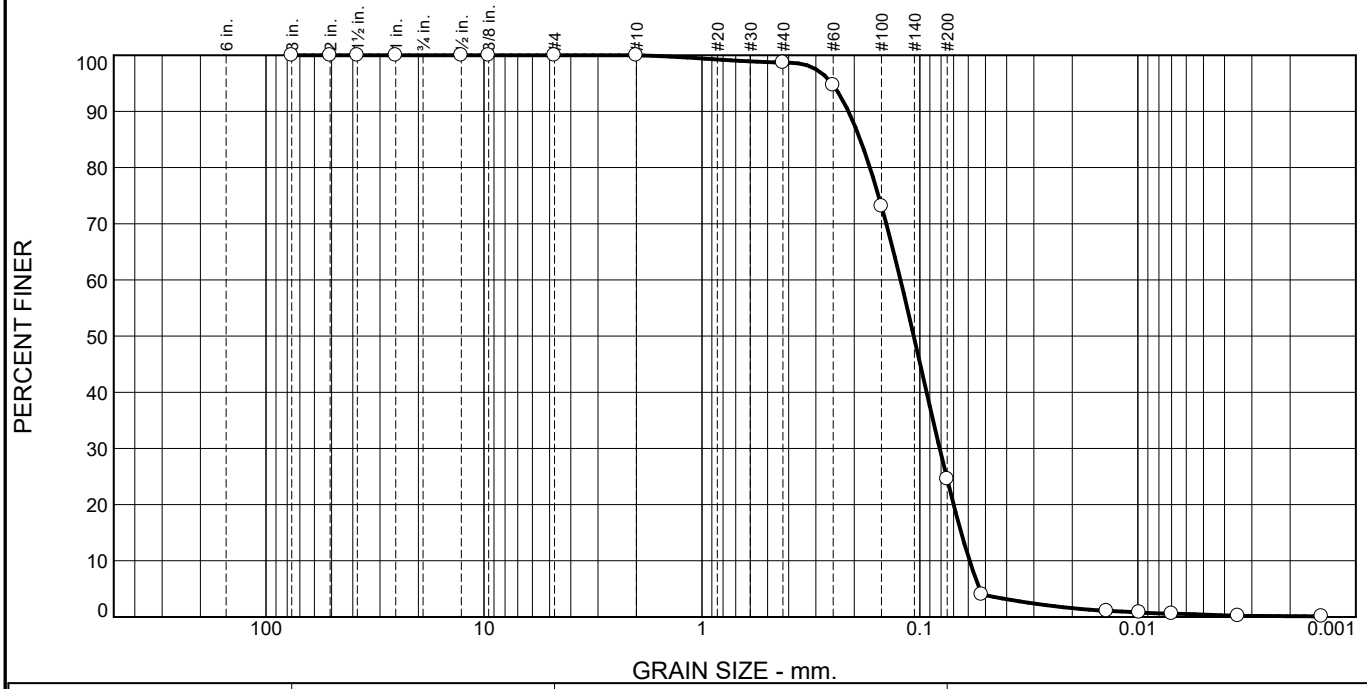
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.4	0.6	73.5	74.5	24.4	1.1	25.5

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0531	0.0592	0.0646	0.0697	0.0793	0.0887	0.0986	0.1096	0.1394	0.1508	0.1673	0.1987

Fineness Modulus	C_u	C_c
0.19	1.85	0.97

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.3	74.1	24.2	0.4

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	98.7		
#60	94.7		
#100	73.1		
#200	24.6		
0.0520 mm.	4.0		
0.0139 mm.	1.1		
0.0099 mm.	0.8		
0.0070 mm.	0.6		
0.0035 mm.	0.2		
0.0014 mm.	0.1		

* (no specification provided)

Material Description

silty sand

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-2-4(0)

Coefficients

D_{90}= 0.2127 D_{85}= 0.1879 D_{60}= 0.1228
D_{50}= 0.1068 D_{30}= 0.0811 D_{15}= 0.0646
D_{10}= 0.0591 C_u= 2.08 C_c= 0.91

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/10/2022 **Date Tested:** 11/17/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-F390-SC-6_2-7_2-110722
Sample Number: S2211159-002A

Date Sampled: 11/7/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10632887 D3631600

Project No: S2211159 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/17/2022

Client: Pace Analytical-Minneapolis
Project: 10632887 D3631600
Project Number: S2211159
Location: BNSF-F390-SC-6_2-7_2-110722
Sample Number: S2211159-002A
Material Description: silty sand
Sample Date: 11/7/2022 10:30
Date Received: 11/10/2022 **PL:** NP **LL:** NV **PI:** NP
USCS Classification: SM **AASHTO Classification:** A-2-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/17/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
136.65	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
50.48	0.00	#40	0.66	0.00	98.7
		#60	2.02	0.00	94.7
		#100	10.88	0.00	73.1
		#200	24.52	0.00	24.6

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 24.6
Weight of hydrometer sample =50.48
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	15.0	8.2	0.0140	15.0	13.8	0.0520	4.0
15.00	18.0	9.0	2.2	0.0140	9.0	14.8	0.0139	1.1
30.00	18.0	8.5	1.7	0.0140	8.5	14.9	0.0099	0.8
60.00	18.0	8.0	1.2	0.0140	8.0	15.0	0.0070	0.6
240.00	19.0	7.0	0.4	0.0138	7.0	15.1	0.0035	0.2
1440.00	18.0	7.0	0.2	0.0140	7.0	15.1	0.0014	0.1

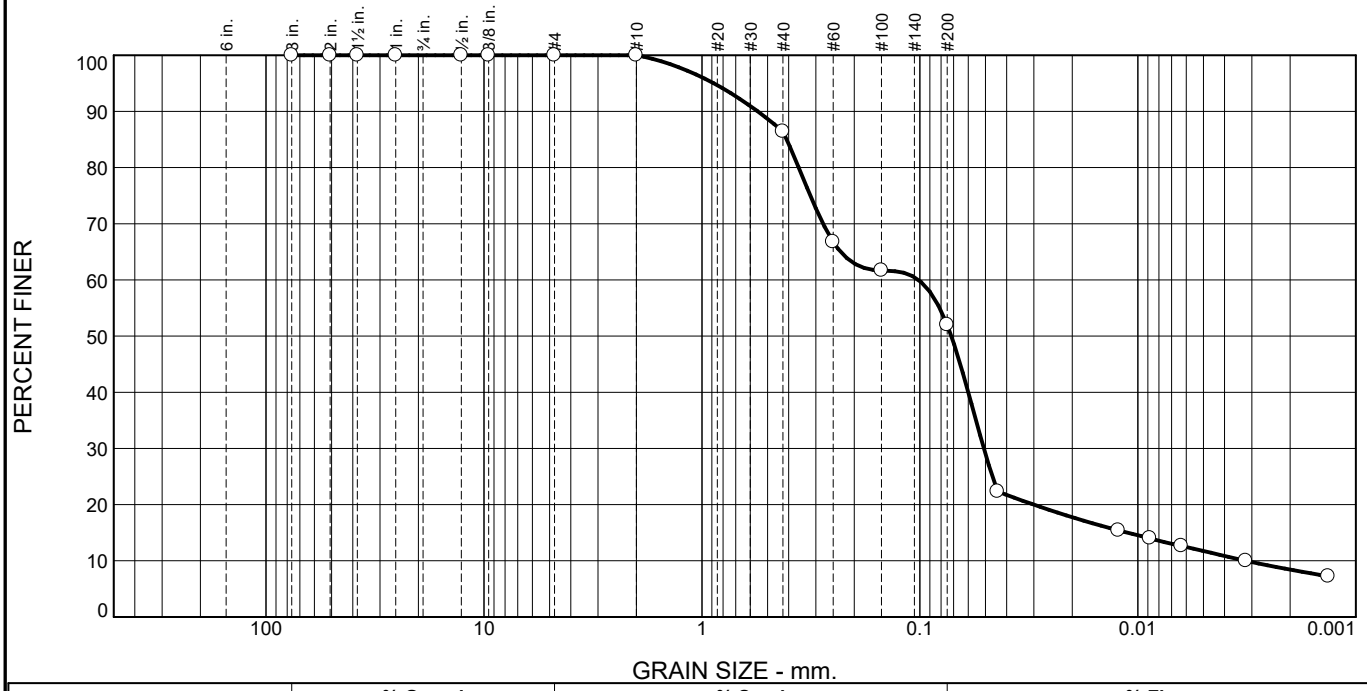
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.3	74.1	75.4	24.2	0.4	24.6

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0533	0.0591	0.0646	0.0700	0.0811	0.0932	0.1068	0.1228	0.1695	0.1879	0.2127	0.2536

Fineness Modulus	C_u	C_c
0.31	2.08	0.91

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	13.6	34.4	40.3	11.7

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	86.4		
#60	66.8		
#100	61.7		
#200	52.0		
0.0440 mm.	22.3		
0.0123 mm.	15.4		
0.0088 mm.	14.0		
0.0063 mm.	12.6		
0.0032 mm.	10.0		
0.0013 mm.	7.2		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.5547 D_{85}= 0.4086 D_{60}= 0.1015
D_{50}= 0.0718 D_{30}= 0.0509 D_{15}= 0.0111
D_{10}= 0.0032 C_u= 31.76 C_c= 7.97

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: **Date Tested:** 11/17/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: LCS
Sample Number: LCS

Date Sampled:

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client:
Project:

Project No: **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/17/2022

Location: LCS
Sample Number: LCS
Material Description: sandy silt
PL: NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/17/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.00	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
75.00	0.00	#40	10.18	0.00	86.4
		#60	14.74	0.00	66.8
		#100	3.83	0.00	61.7
		#200	7.24	0.00	52.0

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 52.0
Weight of hydrometer sample =75.0
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	18.0	39.0	32.2	0.0140	39.0	9.9	0.0440	22.3
15.00	18.0	29.0	22.2	0.0140	29.0	11.5	0.0123	15.4
30.00	18.0	27.0	20.2	0.0140	27.0	11.9	0.0088	14.0
60.00	18.0	25.0	18.2	0.0140	25.0	12.2	0.0063	12.6
240.00	19.0	21.0	14.4	0.0138	21.0	12.9	0.0032	10.0
1440.00	19.0	17.0	10.4	0.0138	17.0	13.5	0.0013	7.2

Pace Analytical Services, Inc.

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	13.6	34.4	48.0	40.3	11.7	52.0

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0032	0.0111	0.0301	0.0509	0.0600	0.0718	0.1015	0.3598	0.4086	0.5547	0.8825

Fineness Modulus	C_u	C_c
0.77	31.76	7.97

Internal Transfer Chain of Custody

10632887

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: ☐ Yes ☐ No
Owner Received Date: 11/8/2022 **Results Requested By:** 12/1/2022

Pace Analytical®
www.pacelabs.com

Workorder: 10632887 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Sheridan WY 1673 Terra Avenue Sheridan, WY 82801 Phone (307) 672-8945

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: D422 Grain Size - Hydrometer												LAB USE ONLY
1	BNSF-G020-SC-0.0-1.0-110422	PS	11/4/2022 10:20	10632887001	Solid	1						X												S22111591
2	BNSF-F390-SC-6.2-7.2-110722	PS	11/7/2022 10:30	10632887002	Solid	1						X												
3																								
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-9-22 12:05	[signature]	11/9/22 10:44
2				
3				

Comments

Cooler Temperature on Receipt -0.3 °C | **Custody Seal** (Y) or N | **Received on Ice** (Y) or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10632887

Table Of Contents

GC-FID DRO - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632887 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4506602	4506602BLANK	96	88
4506603	4506603LCS	101	90
4506604	4506604MS	86	100
4506605	4506605MSD	84	107
10632887001	BNSF-G020-SC-0.0-1.0-	91	96
10632887002	BNSF-F390-SC-6.2-7.2-	0*	0*

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4506603LCS
Date Extracted: 11/09/2022
Date Analyzed (1): 11/11/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 111122R.B\1111R0000027.D
SDG No.: 10632887

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	50.0	43.5	87	50-150
Motor Oil Range	50.0	49.6	99	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Minnesota

Matrix Spike - Sample No: 4506604MS

Date Extracted: 11/09/2022

Date Analyzed (1): 11/11/2022

Instrument: 10GCSF

Lab File ID: 111122R.B\1111R0000029.D

Parent Sample ID: BNSF-G020-SC-0.0-1.0-

SDG No.: 10632887

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Diesel Fuel Range	70.3	154J	275	172	50-150
Motor Oil Range	70.3	392	555	232	50-150

Spike Recovery: 2 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 10GCSF

Matrix Spike Duplicate - Sample No: 4506605MSD

Lab File ID (2): 111122R.B\1111R0000030.D

Date Analyzed (2): 11/11/2022

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	70.2	404	357	38	0-30	50-150
Motor Oil Range	70.2	771	541	33	0-30	50-150

RPD: 2 out of 2 outside limits.

Spike Recovery: 2 out of 2 outside limits.

SAMPLE NO.

4506602BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632887 Contract: D3631600

Instrument ID: 10GCSF Matrix: Solid Lab Sample ID: 4506602

Lab File ID: 111122R.B\1111R0000026.D Date Analyzed: 11/11/2022 Time: 15:31

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4506603LCS	4506603	111122R.B\1111R0000027.D	11/11/2022 15:43
BNSF-G020-SC-0.0-1.0-	10632887001	111122R.B\1111R0000028.D	11/11/2022 15:54
4506604MS	4506604	111122R.B\1111R0000029.D	11/11/2022 16:06
4506605MSD	4506605	111122R.B\1111R0000030.D	11/11/2022 16:17
BNSF-F390-SC-6.2-7.2-	10632887002	111422R.B\1114R0000022.D	11/14/2022 15:45

SAMPLE NO.

BNSF-G020-SC-0.0-1.0-110422

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/08/2022 08:50 Matrix: Solid SDG No.: 10632887

Date Extracted: 11/09/2022 07:04 Lab Sample ID: 10632887001

Date Analyzed: 11/11/2022 15:54 Lab File ID: 111122R.B\1111R0000028.D

Initial wt/vol: 10.07 g Final wt/vol: 1 mL Dilution: 10 Instrument: 10GCSF Percent Moisture: 28.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	154	J
	Motor Oil Range	392	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000028.d
Lab Smp Id: 10632887001 Client Smp ID: BNSF-G020-SC-0.0-1.
Inj Date : 11-NOV-2022 15:54
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10632887001x10
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.070	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	28.894	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		849933	88.1249	123	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.734	-0.002	28031	4.81551	6.72	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.271	4.274	-0.003	25390	4.54470	6.35	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1140211	284.900	398	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		1286324	134.788	188	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1239009	293.834	410	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.880	- 5.200		1996484	329.981	461	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		835674	110.565	154	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		835674	110.565	154	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1372134	280.501	392	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1372134	280.501	392	(M)	RNG

QC Flag Legend

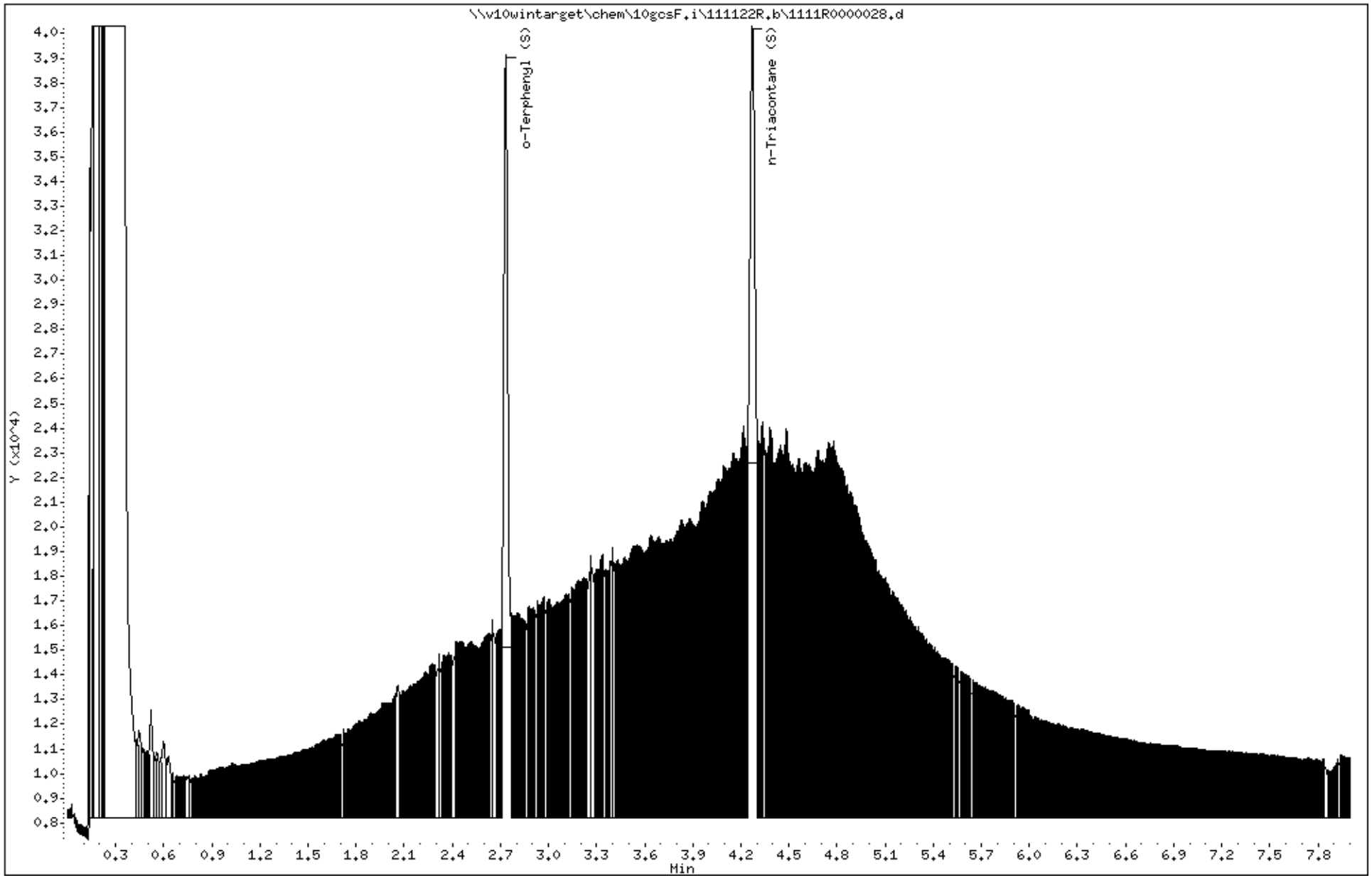
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000028.d
Date : 11-NOV-2022 15:54
Client ID: BNSF-G020-SC-0.0-1.
Sample Info: 10632887001X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



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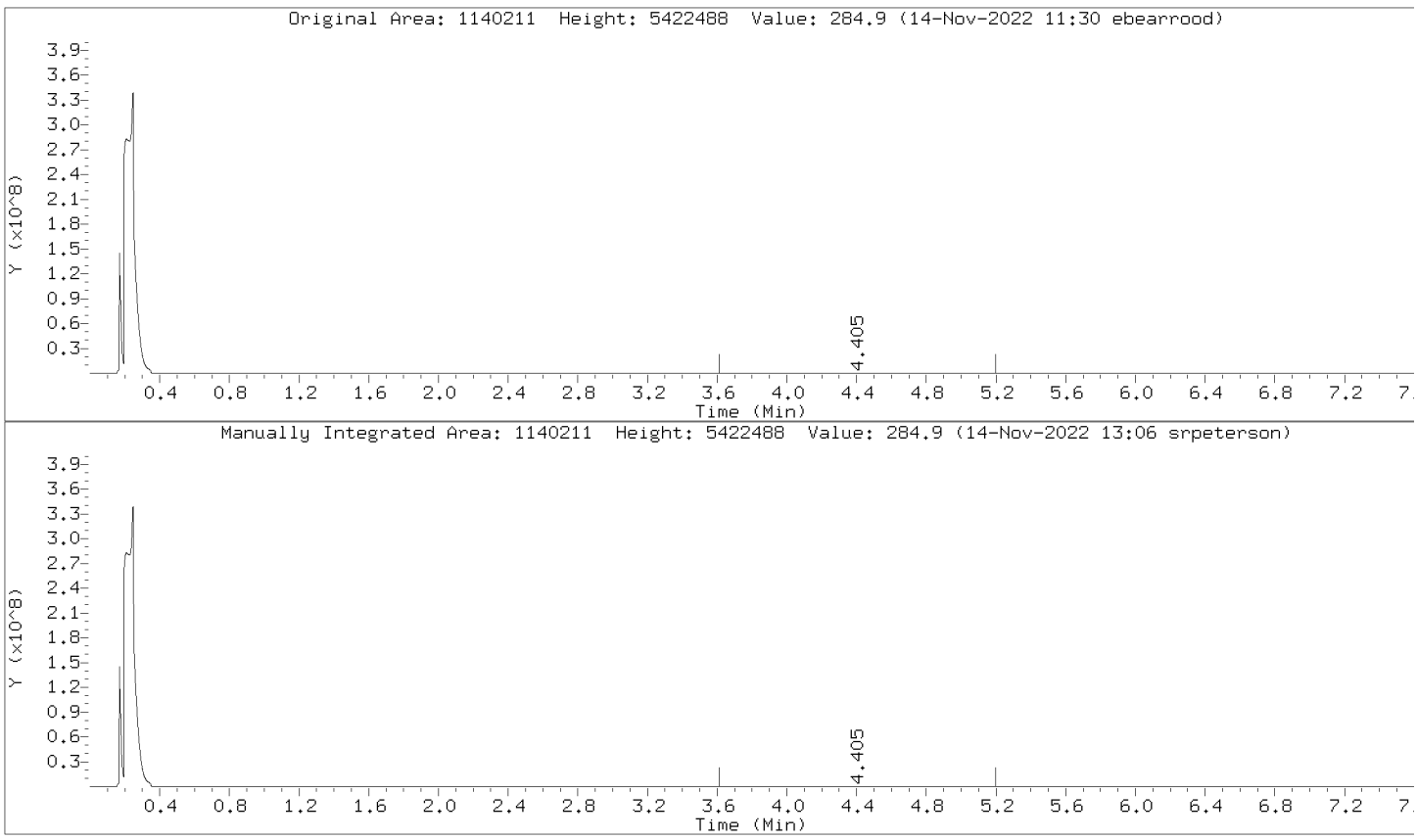
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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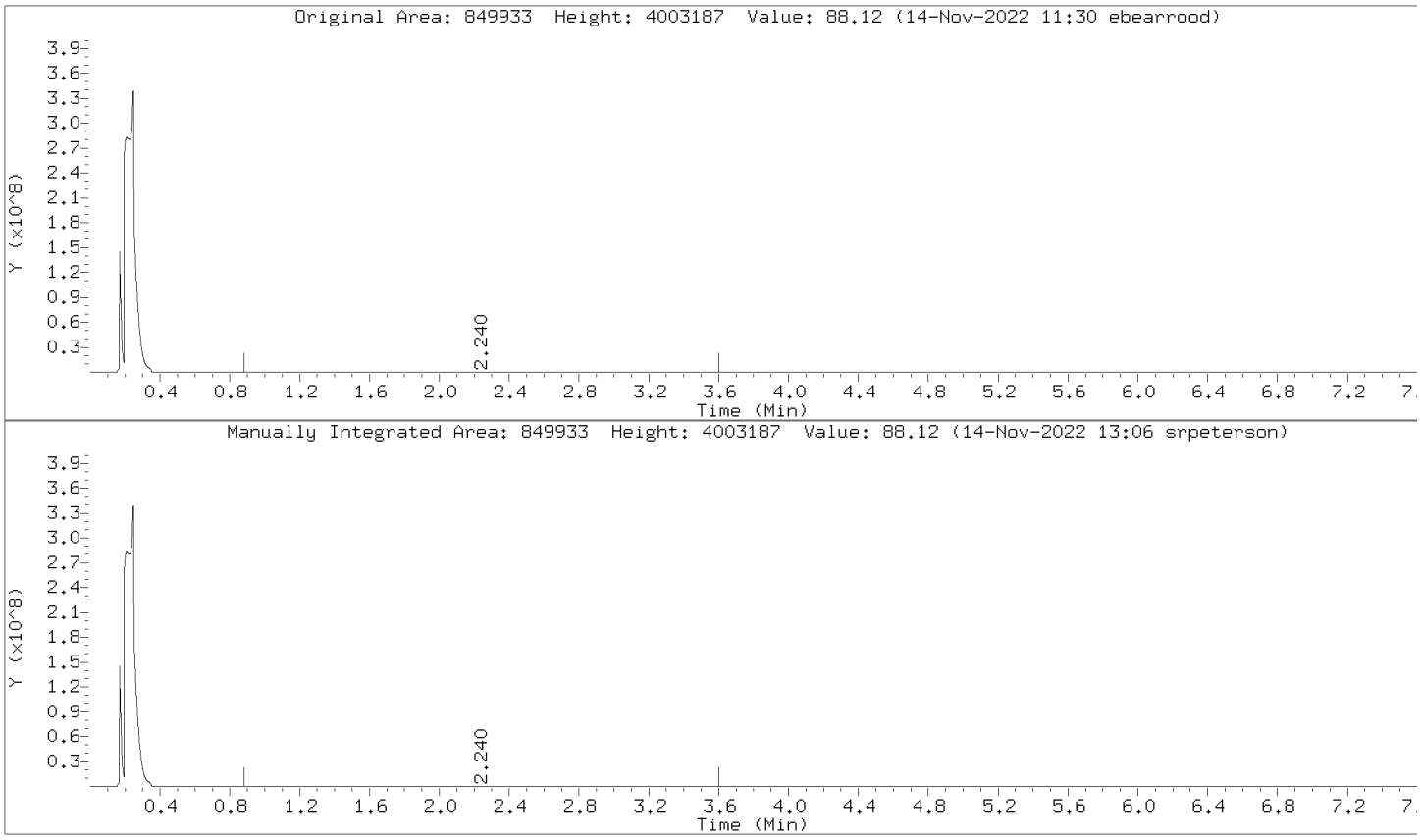
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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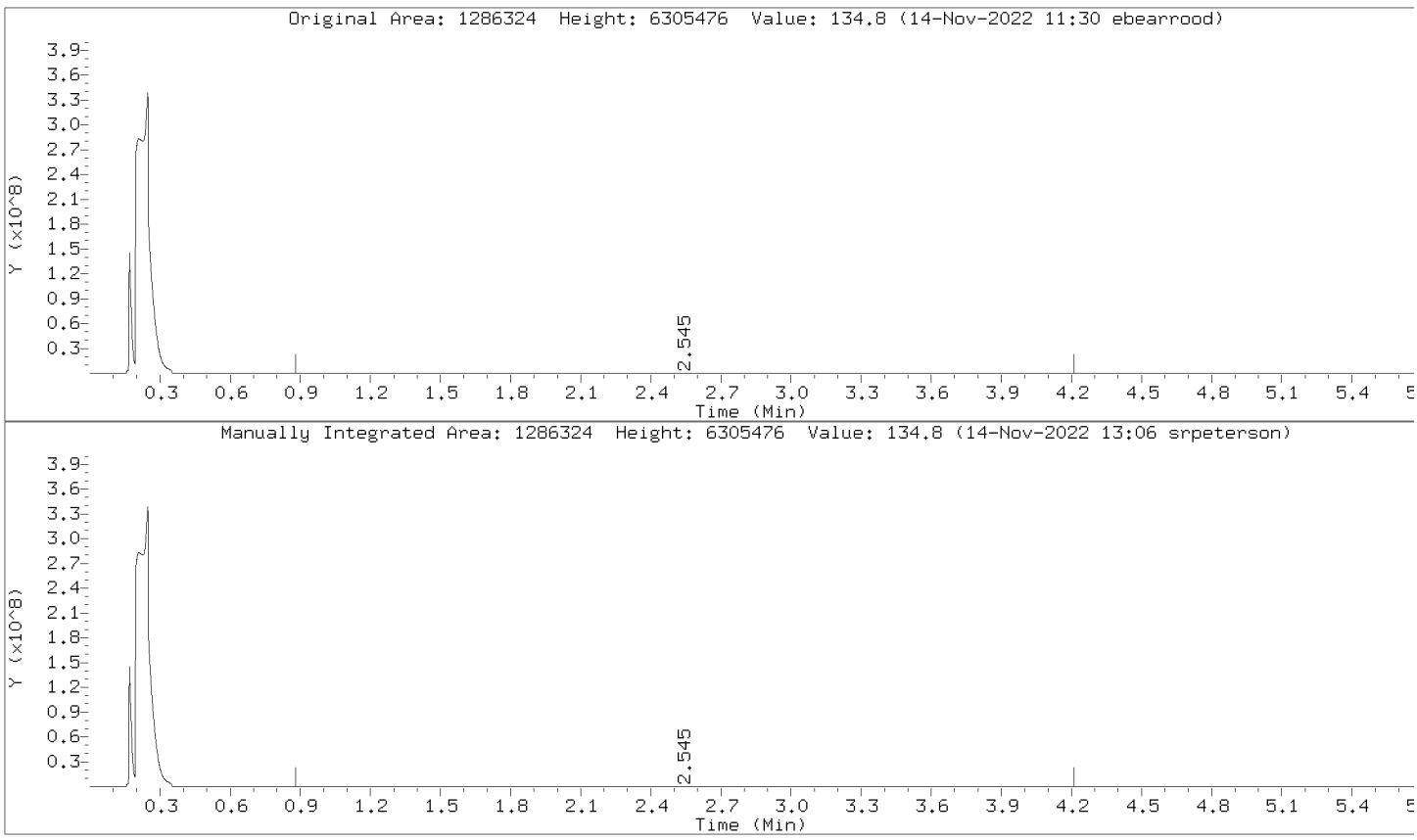
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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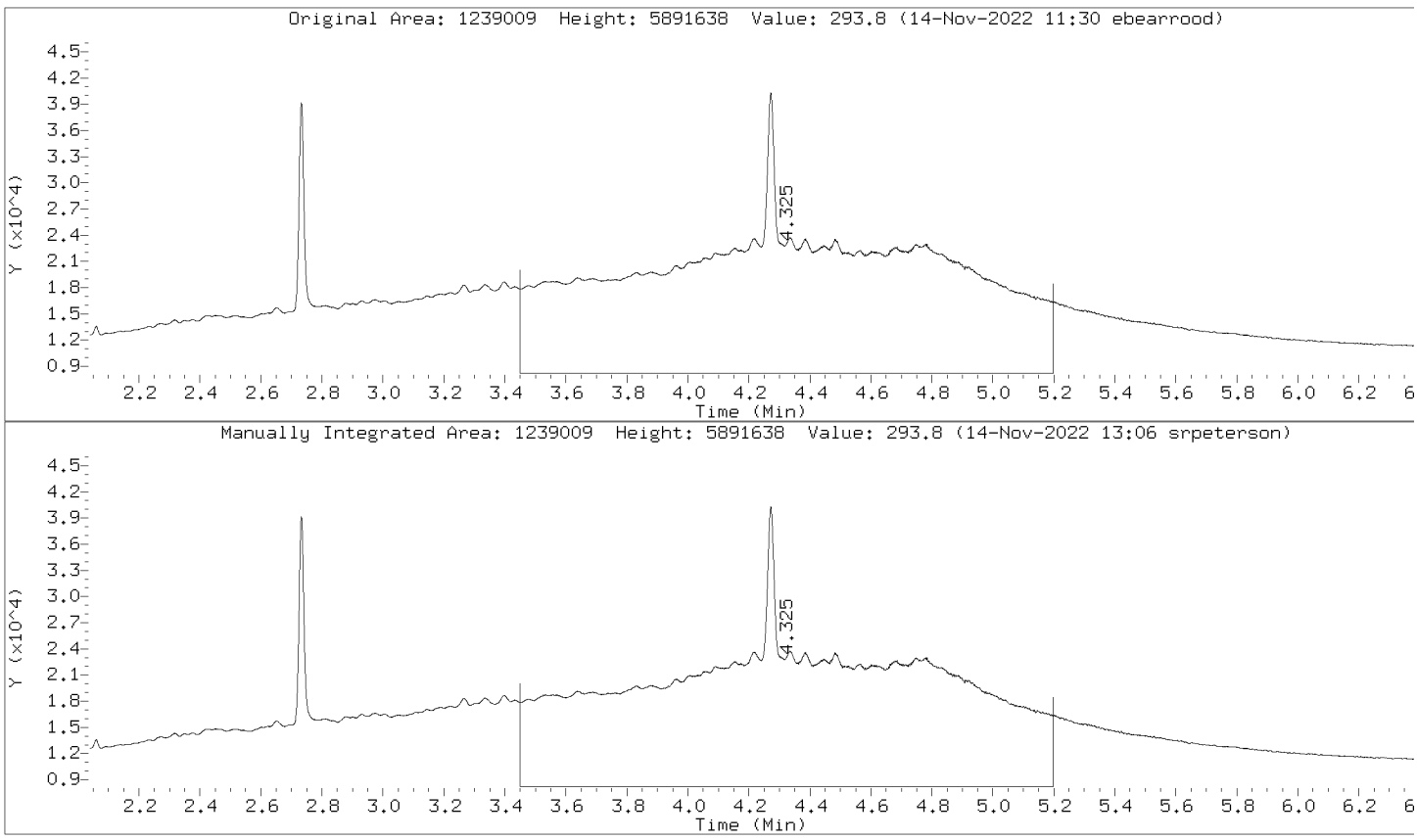
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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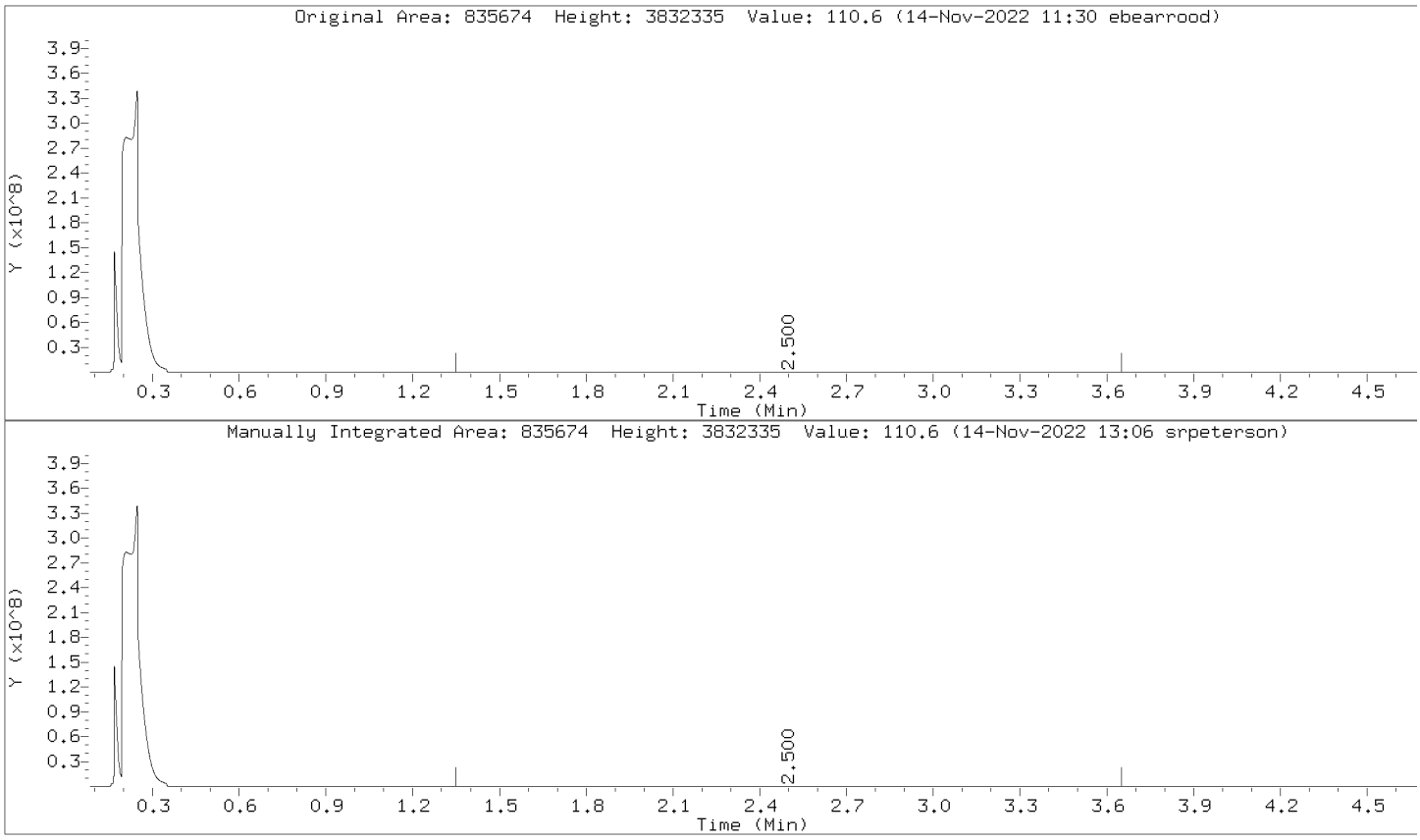
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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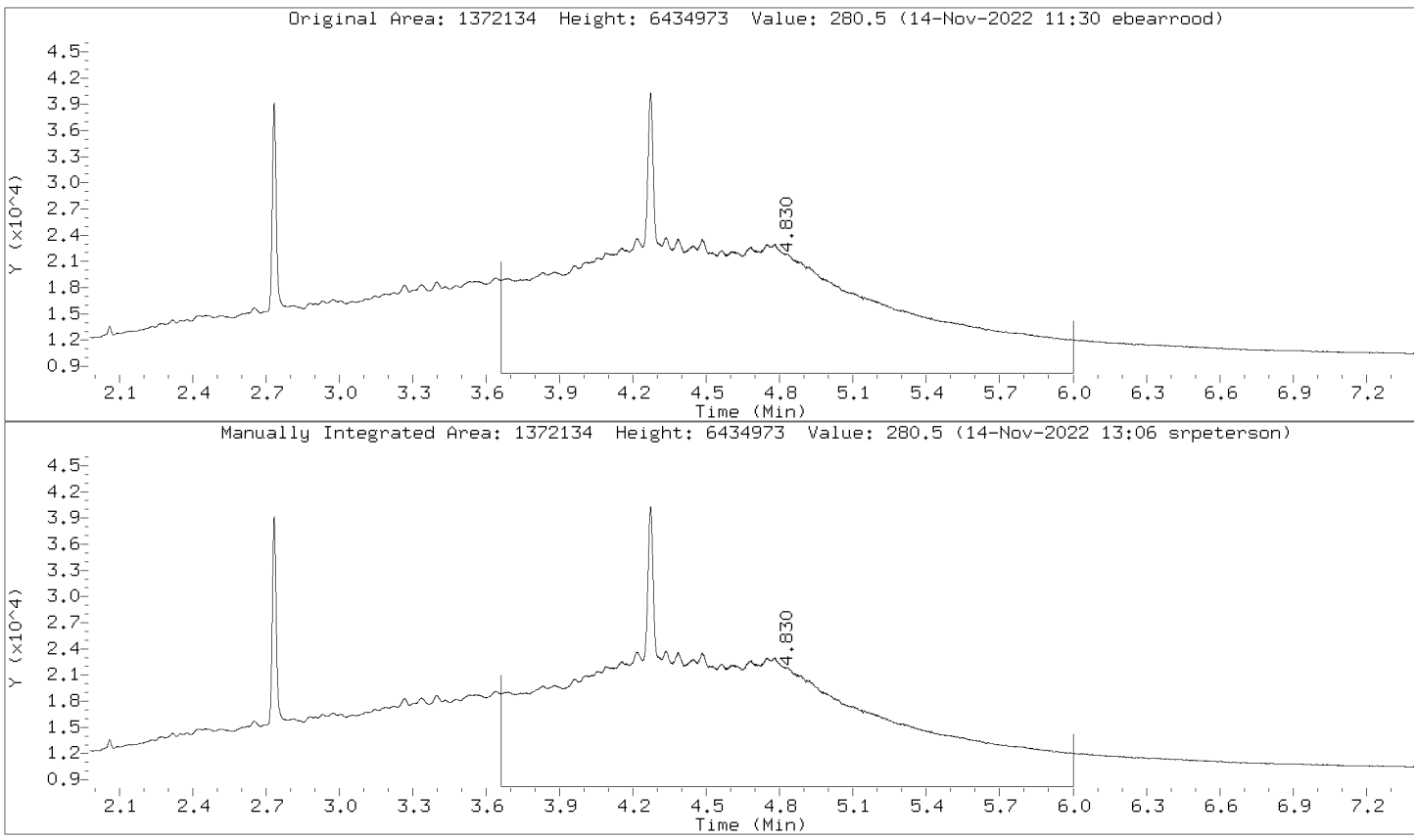
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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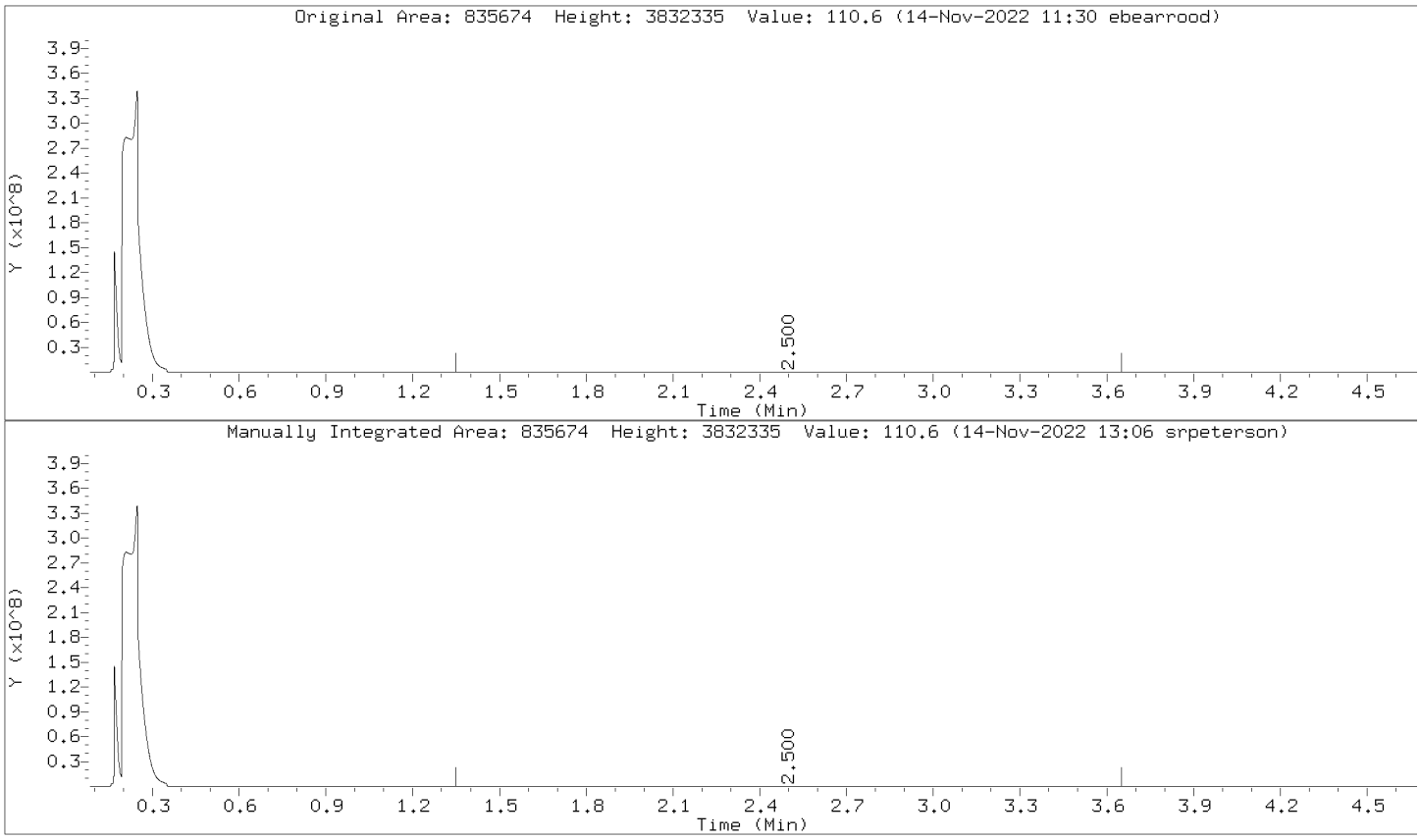
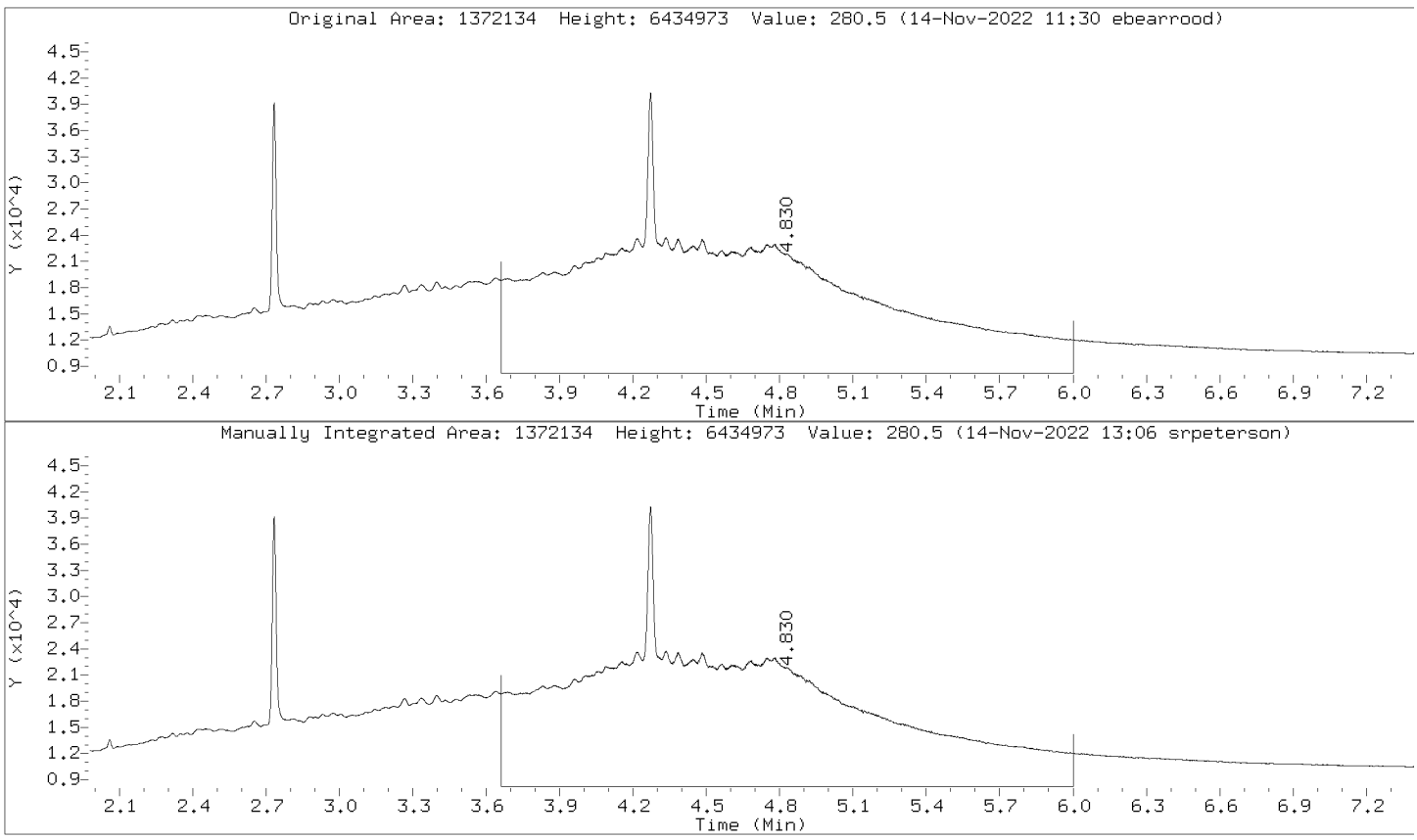
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



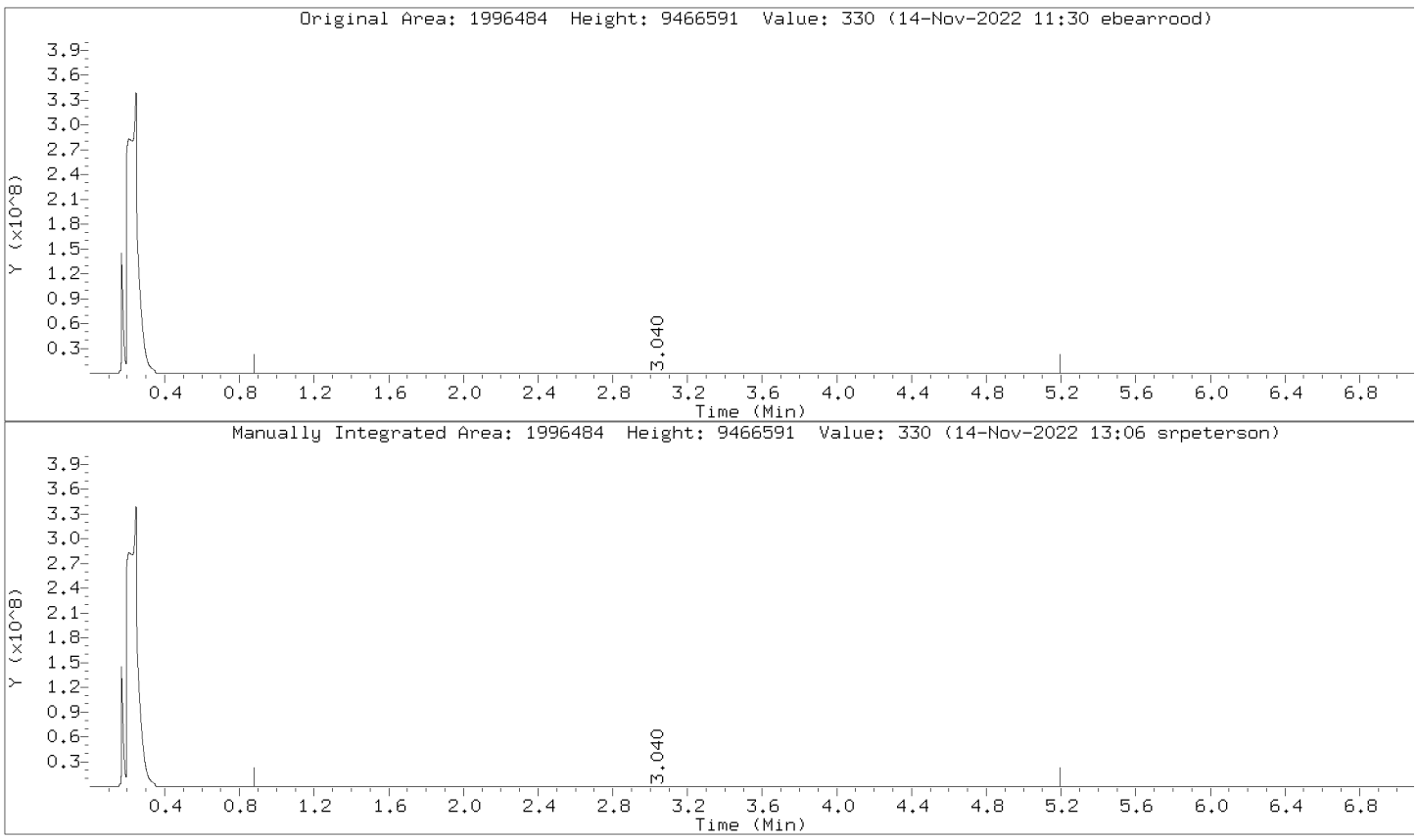
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000028.d
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



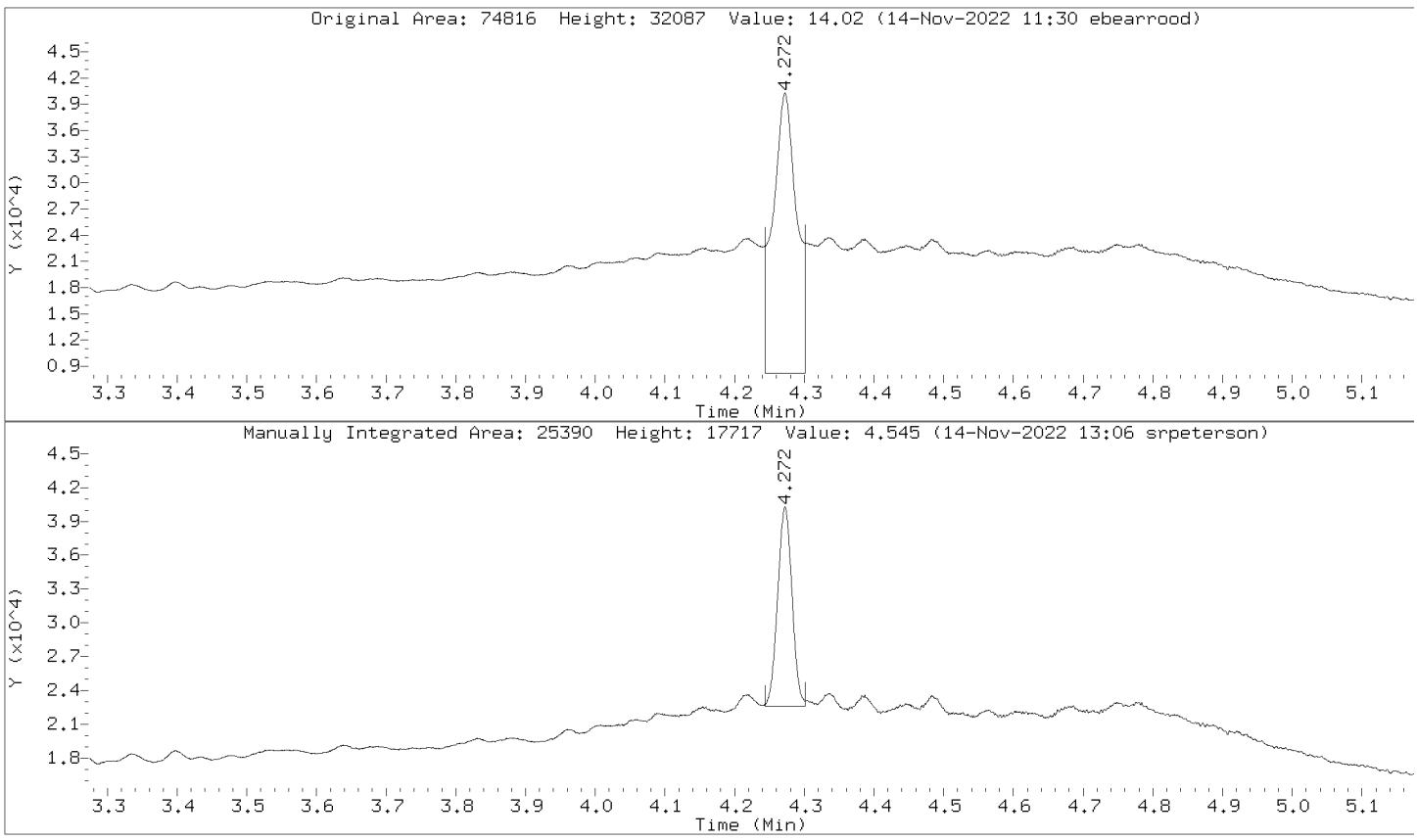
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000028.d
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: C10-C36 Review Code: RNG
CAS Number:



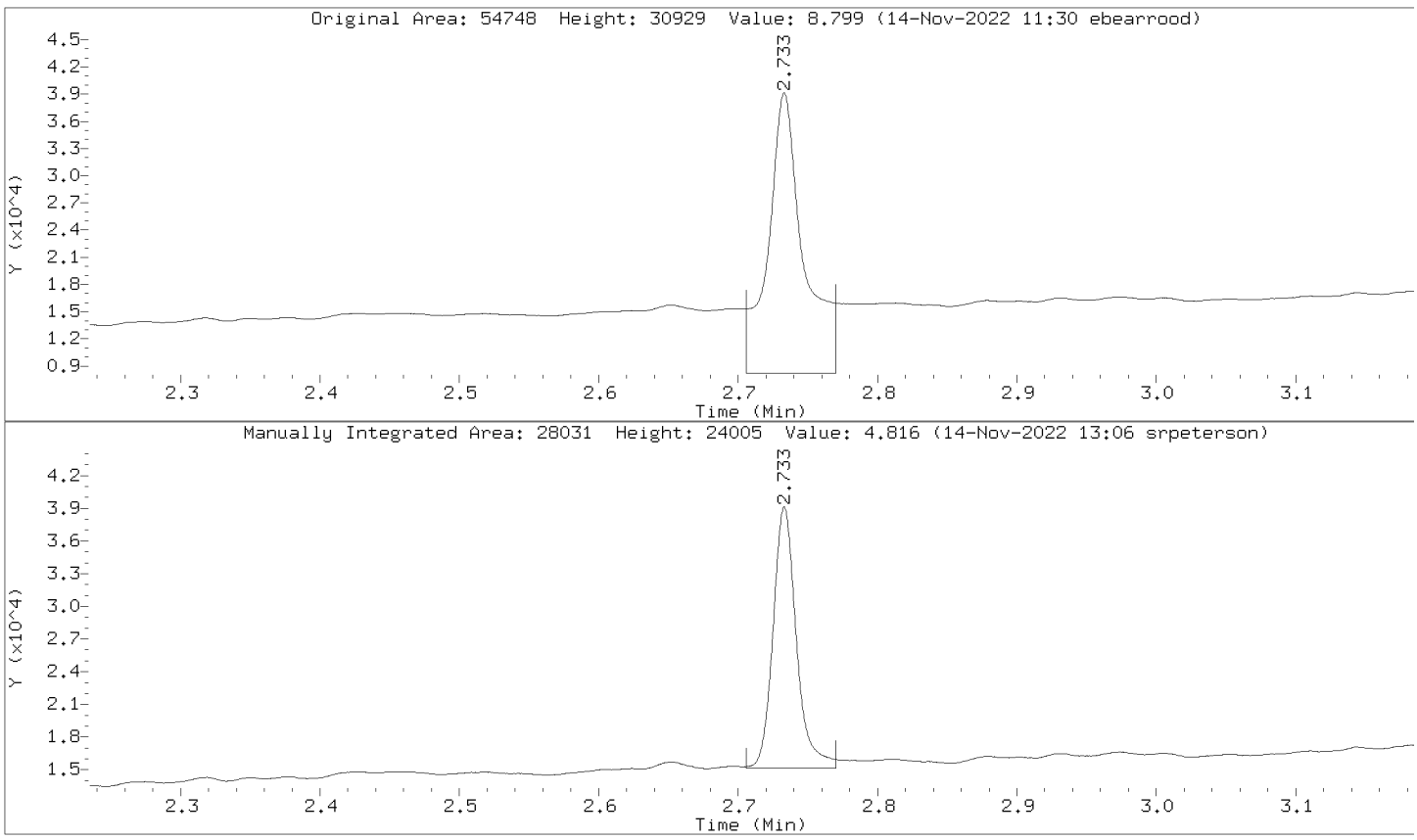
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000028.d
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000028.d
Injection Date: 11-NOV-2022 15:54
Instrument: 10gcsF.i
Lab Sample ID: 10632887001

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1140211	1140211
DRO by AK 102	849933	849933
TPH-DRO (C10-C28)	1286324	1286324
Motor Oil Range (C24-C36)	1239009	1239009
Diesel Fuel Range	835674	835674
Motor Oil Range	1372134	1372134
Diesel Fuel Range SG	835674	835674
Motor Oil Range SG	1372134	1372134
C10-C36	1996484	1996484
n-Triacontane (S)	74816	25390
o-Terphenyl (S)	54748	28031

SAMPLE NO.

BNSF-F390-SC-6.2-7.2-110722

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/08/2022 08:50 Matrix: Solid SDG No.: 10632887

Date Extracted: 11/09/2022 07:04 Lab Sample ID: 10632887002

Date Analyzed: 11/14/2022 15:45 Lab File ID: 111422R.B\1114R0000022.D

Initial wt/vol: 10.02 g Final wt/vol: 1 mL Dilution: 20 Instrument: 10GCSF Percent Moisture: 23.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	676	
	Motor Oil Range	2530	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000022.D
Lab Smp Id: 10632887002 Client Smp ID: BNSF-F390-SC-6.2-7.
Inj Date : 14-NOV-2022 15:45
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10632887002x20
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111422R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 16:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 19
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	20.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.020	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	23.479	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.895	- 3.650		1557754	213.189	556	(M)
$ 2 o-Terphenyl (S)					CAS #:	
Operator disabled compound identification.						
$ 3 n-Triacontane (S)					CAS #:	
Operator disabled compound identification.						
S 4 Residual Range Organics AK103					CAS #:	
3.651	- 5.260		3626979	976.063	2550	(M)
S 5 TPH-DRO (C10-C28)					CAS #:	
0.895	- 4.250		2674706	345.933	902	
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.500	- 5.260		3758818	962.057	2510	

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.895	- 5.260		5057994	989.792	2580		
S 8 Diesel Fuel Range					CAS #:		
1.360	- 3.700		1544508	259.286	676	RNG	
S 9 Diesel Fuel Range SG					CAS #:		
1.360	- 3.700		1544508	259.286	676	RNG	
S 10 Motor Oil Range					CAS #:		
3.701	- 6.250		4390052	968.226	2520	RNG	
S 11 Motor Oil Range SG					CAS #:		
3.701	- 6.250		4390052	968.226	2520	RNG	

QC Flag Legend

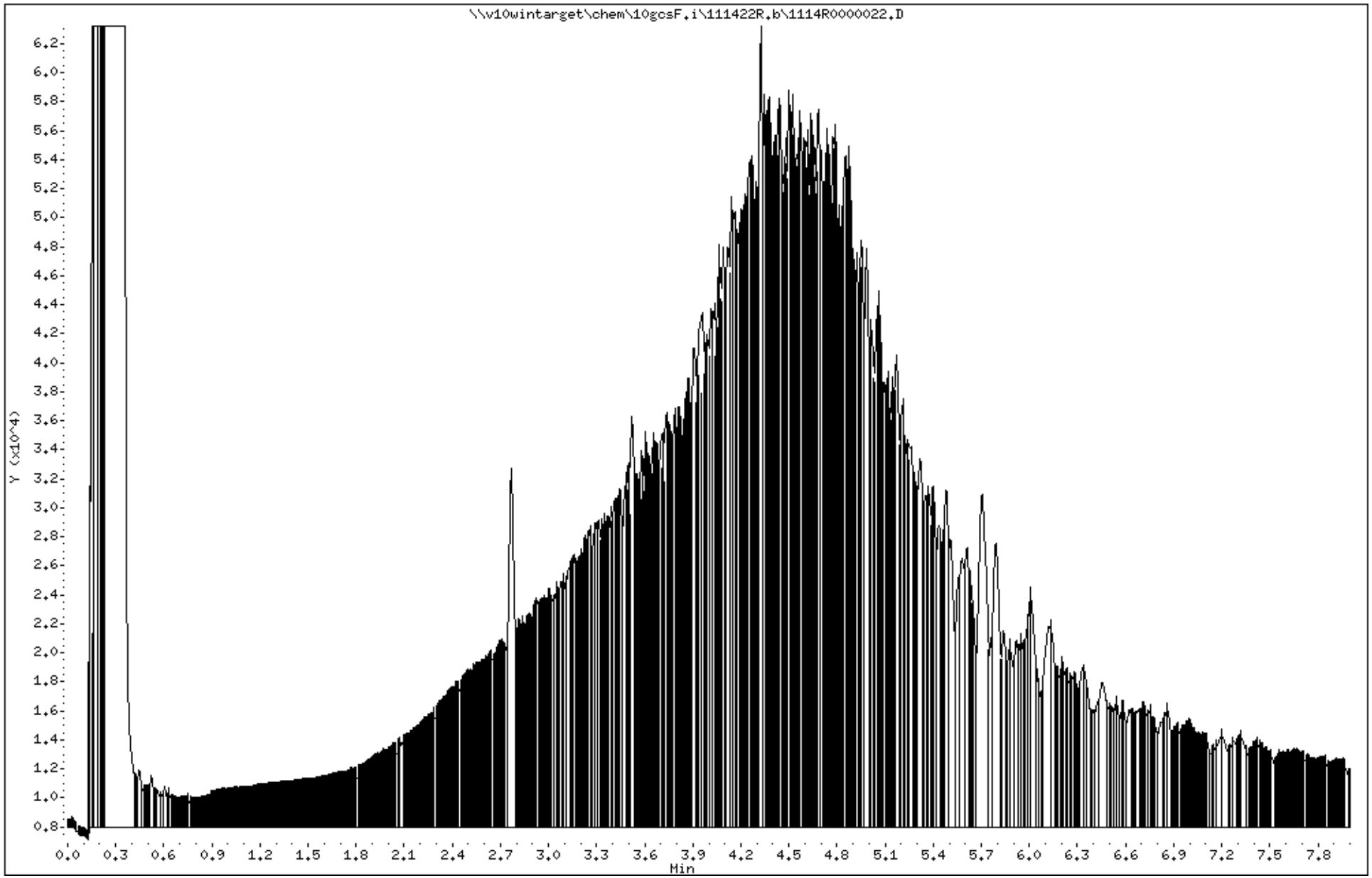
M - Compound response manually integrated.

Review Codes Legend

:
RNG: Indicates that the analyst integrated a surrogate within the range.

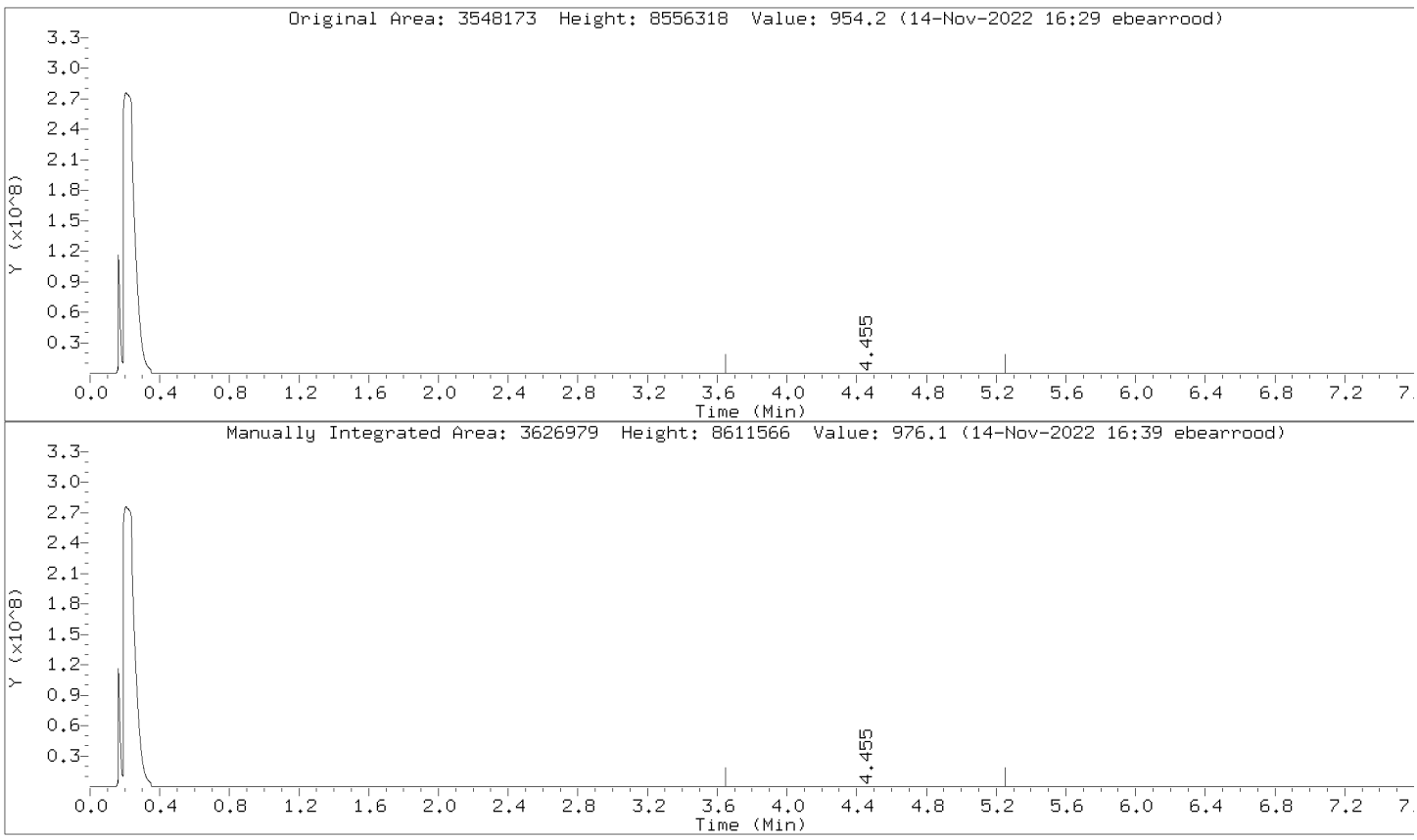
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000022.D
Date : 14-NOV-2022 15:45
Client ID: BNSF-F390-SC-6.2-7.
Sample Info: 10632887002X20
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



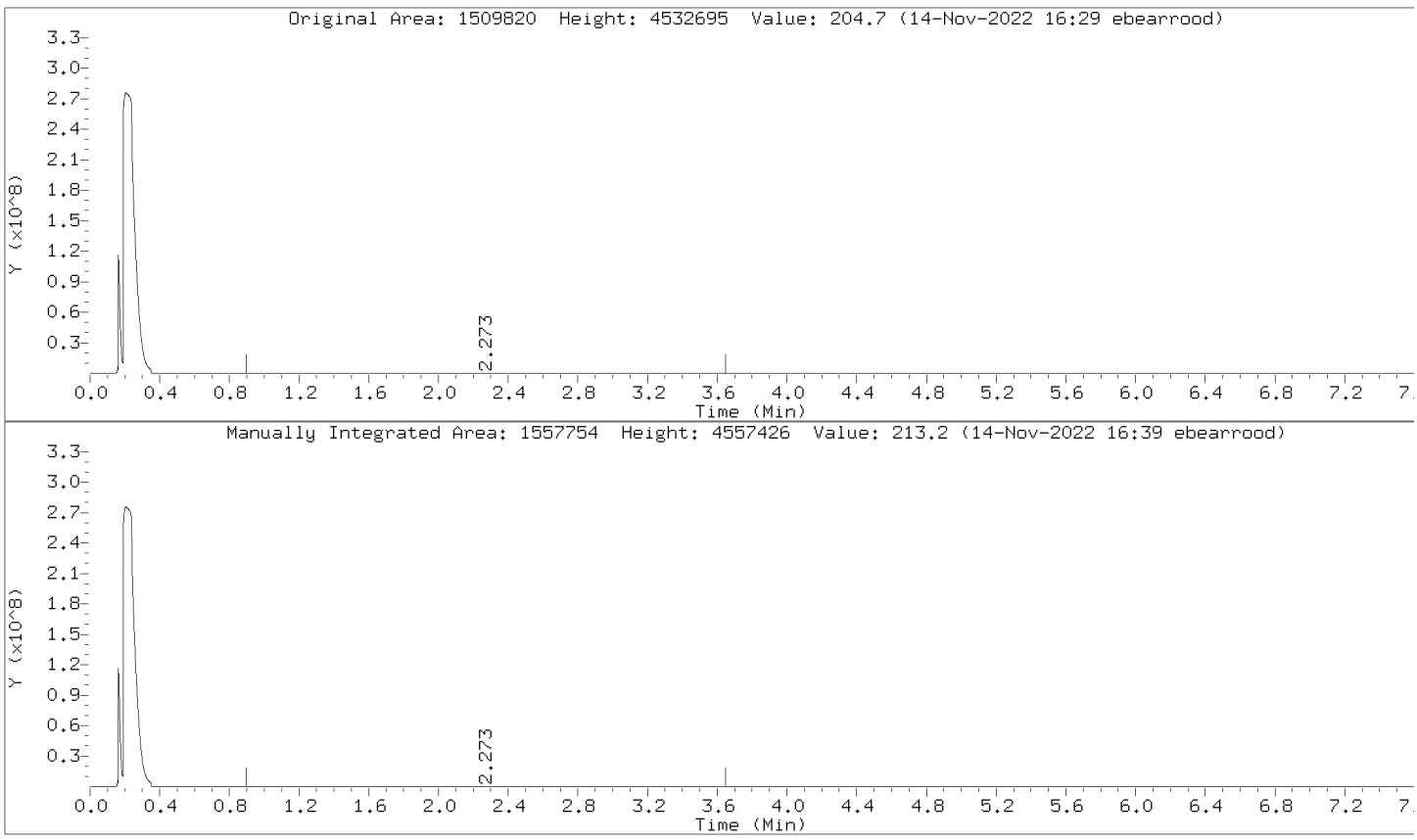
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000022.D
Injection Date: 14-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10632887002

Compound: Residual Range Organics AK103 Review Code:
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000022.D
Injection Date: 14-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10632887002

Compound: DRO by AK 102 Review Code:
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3548173	3626979
DRO by AK 102	1509820	1557754
TPH-DRO (C10-C28)	2674706	2674706
Motor Oil Range (C24-C36)	3758818	3758818
Diesel Fuel Range	1544508	1544508
Motor Oil Range	4390052	4390052
Diesel Fuel Range SG	1544508	1544508
Motor Oil Range SG	4390052	4390052
C10-C36	5057994	5057994
n-Triacontane (S)	78805	0
o-Terphenyl (S)	47934	0

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632887

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632887

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632887

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

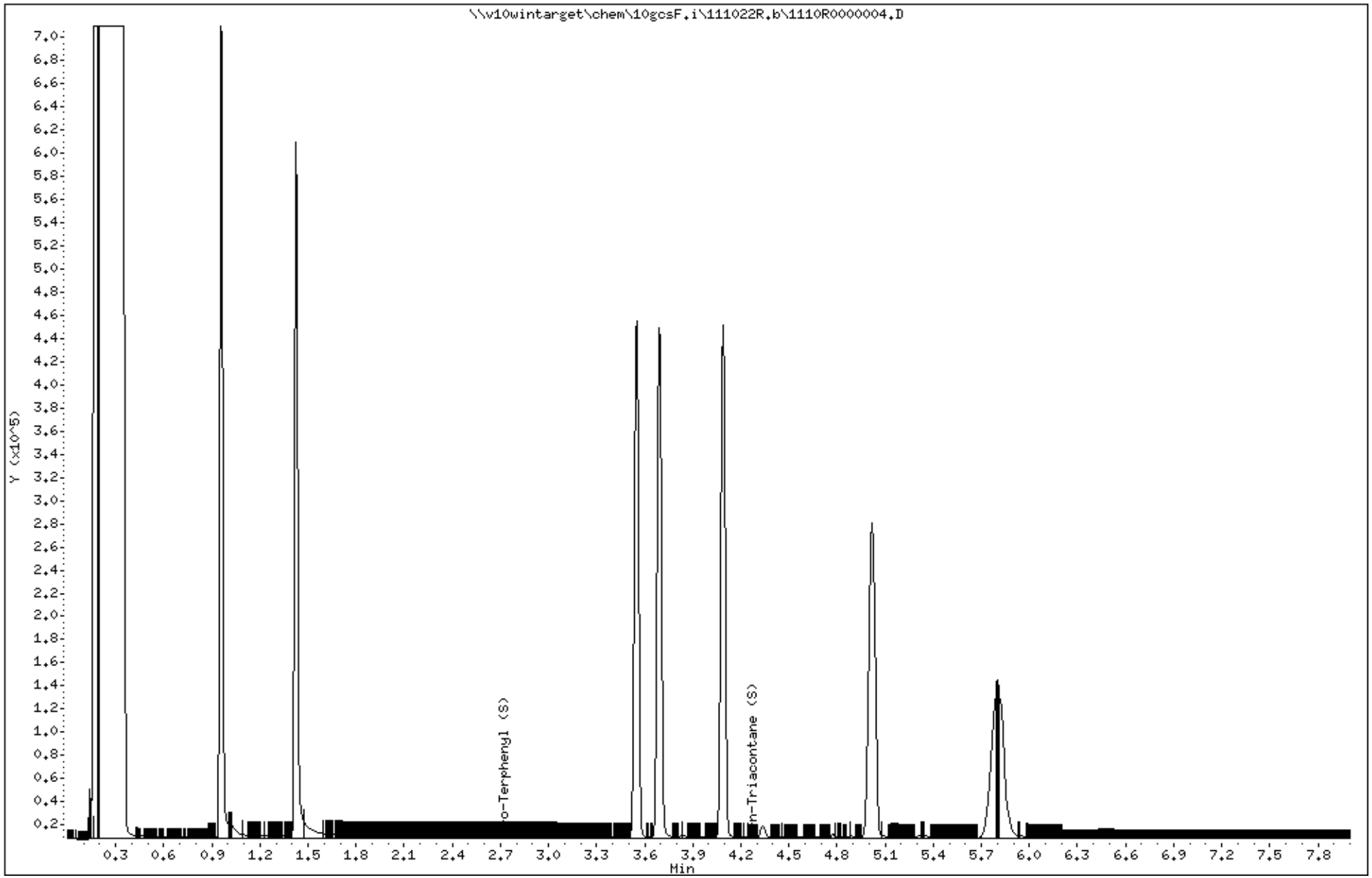
AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/mL)	
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE
S 1 DRO by AK 102						CAS #:
0.880	- 3.600		2108709			
$ 2 o-Terphenyl (S)						CAS #:
2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)						CAS #:
4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103						CAS #:
3.610	- 5.200		2005315			
S 5 TPH-DRO (C10-C28)						CAS #:
0.880	- 4.219		3399190			
S 6 Motor Oil Range (C24-C36)						CAS #:
3.450	- 5.200		2635115			
S 7 C10-C36						CAS #:
0.880	- 5.200		4114949			
S 8 Diesel Fuel Range						CAS #:
1.350	- 3.650		1498770			
S 9 Diesel Fuel Range SG						CAS #:
1.350	- 3.650		1498770			
S 10 Motor Oil Range						CAS #:
3.660	- 6.000		2695751			
S 11 Motor Oil Range SG						CAS #:
3.660	- 6.000		2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

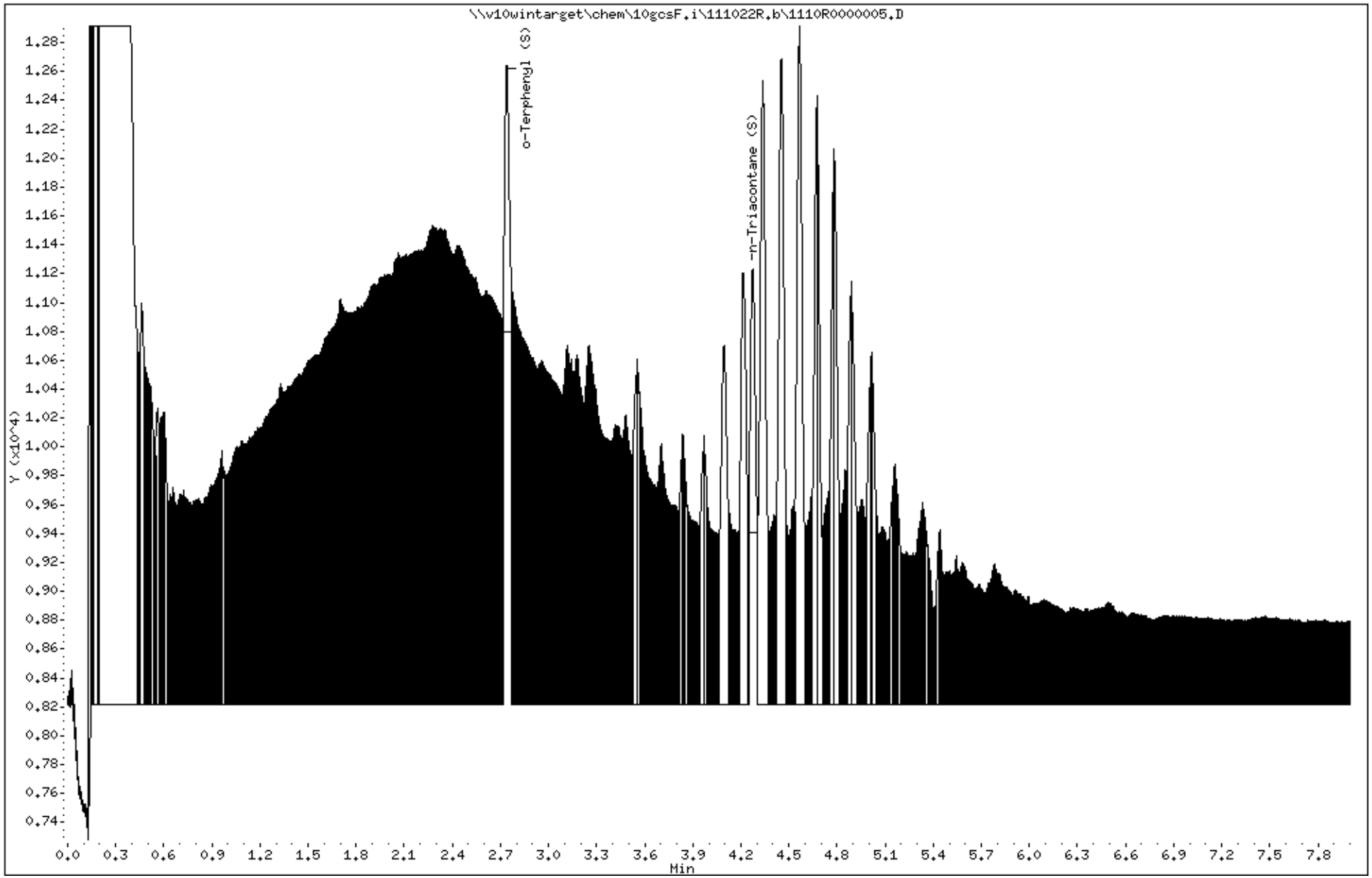
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

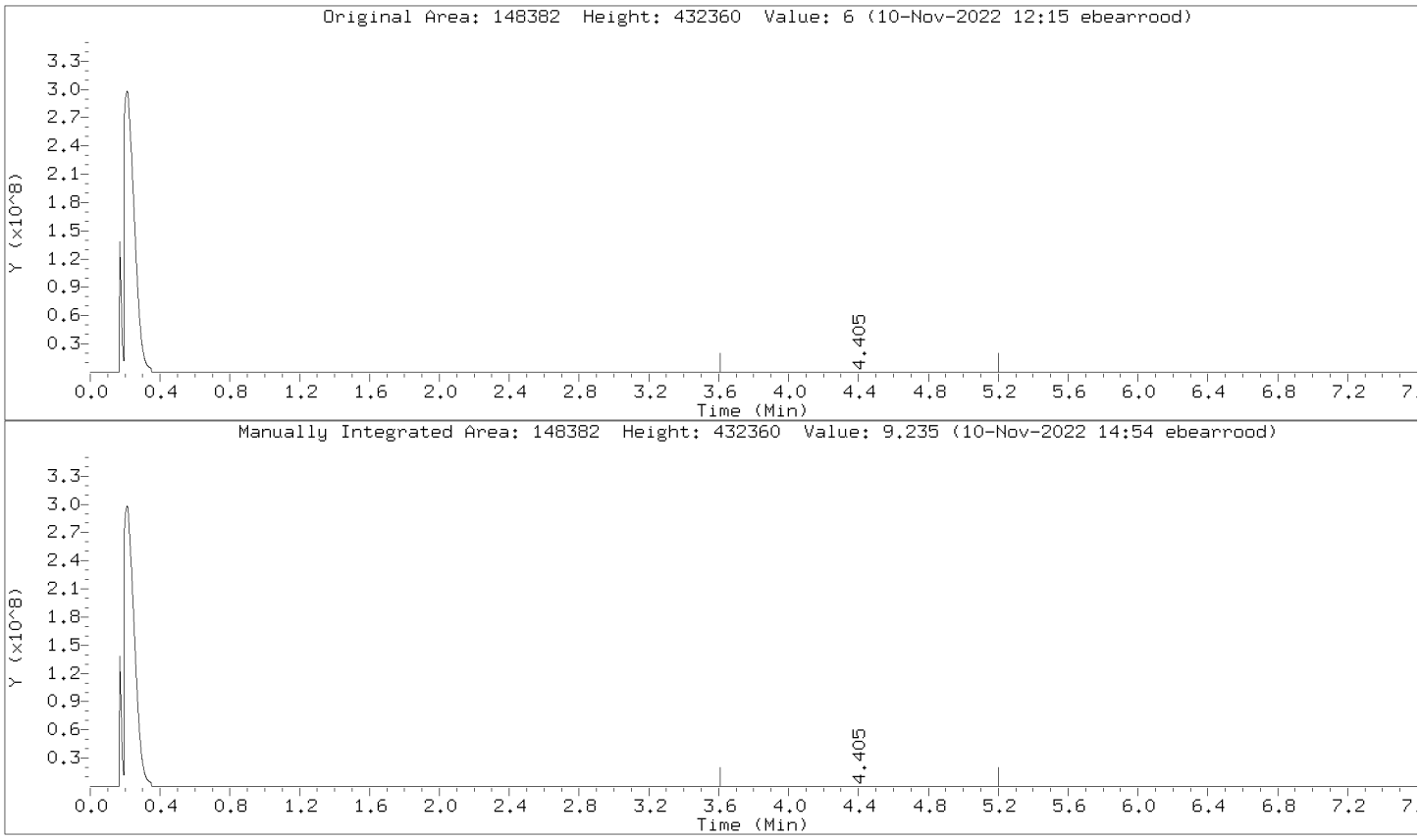
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



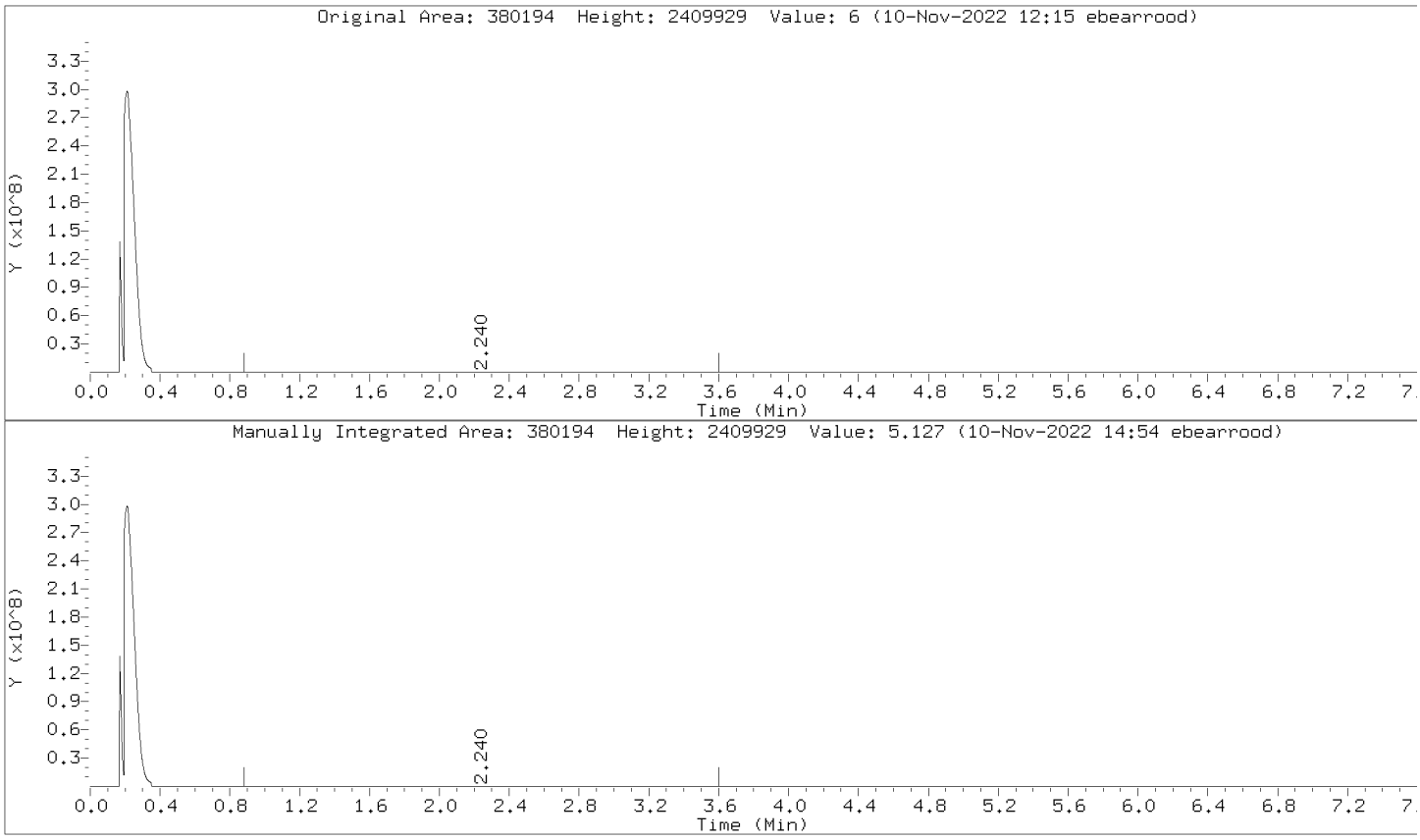
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



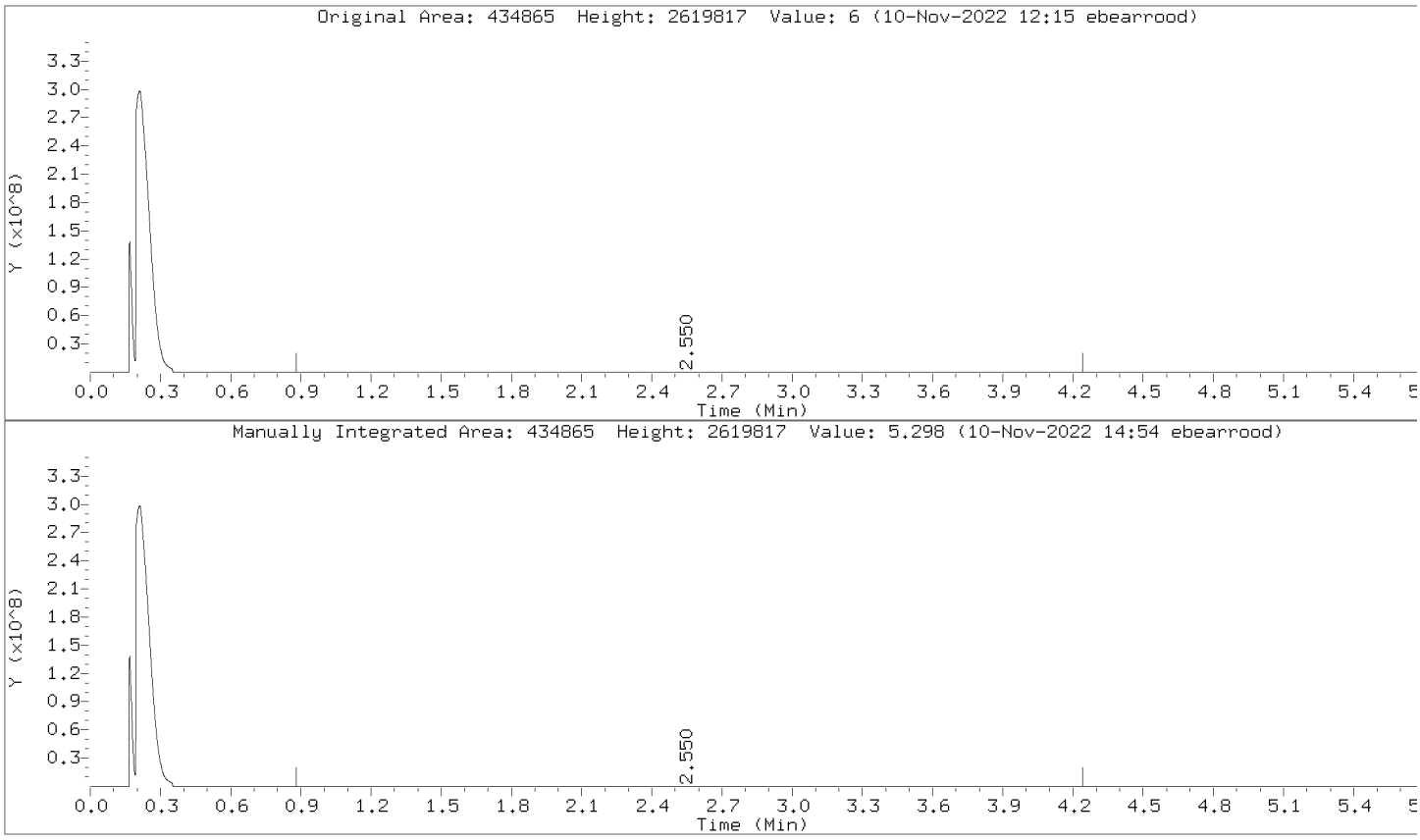
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



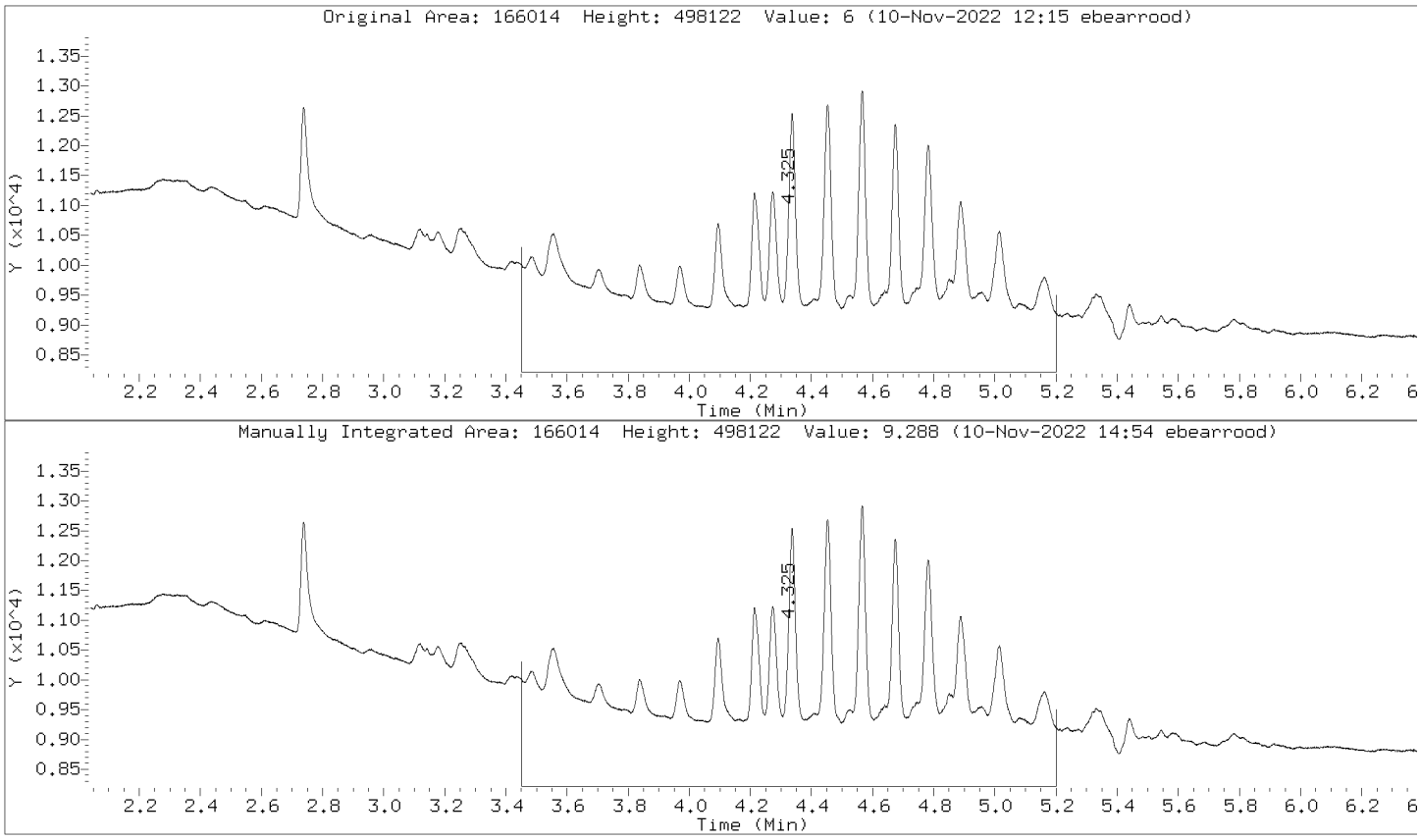
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



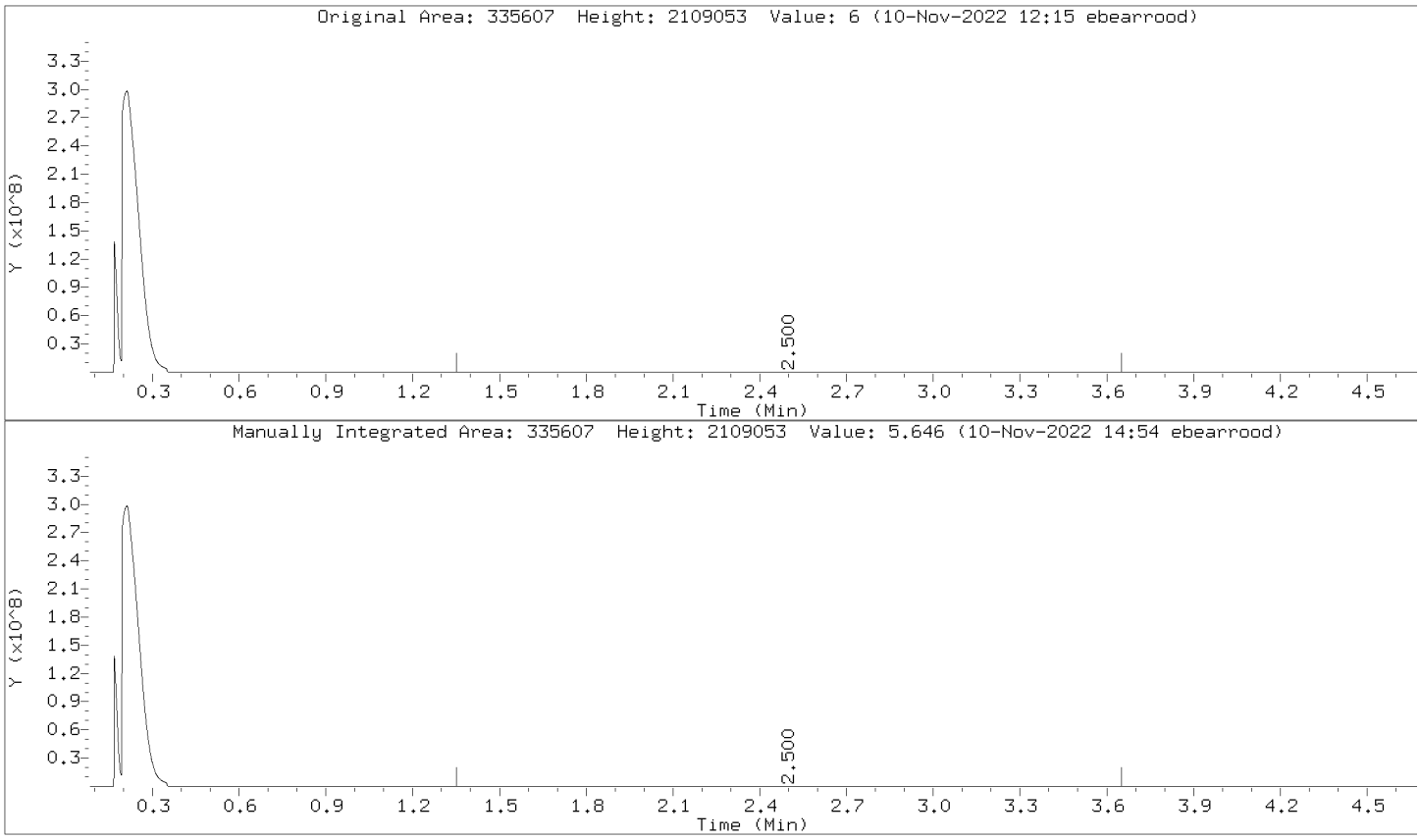
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



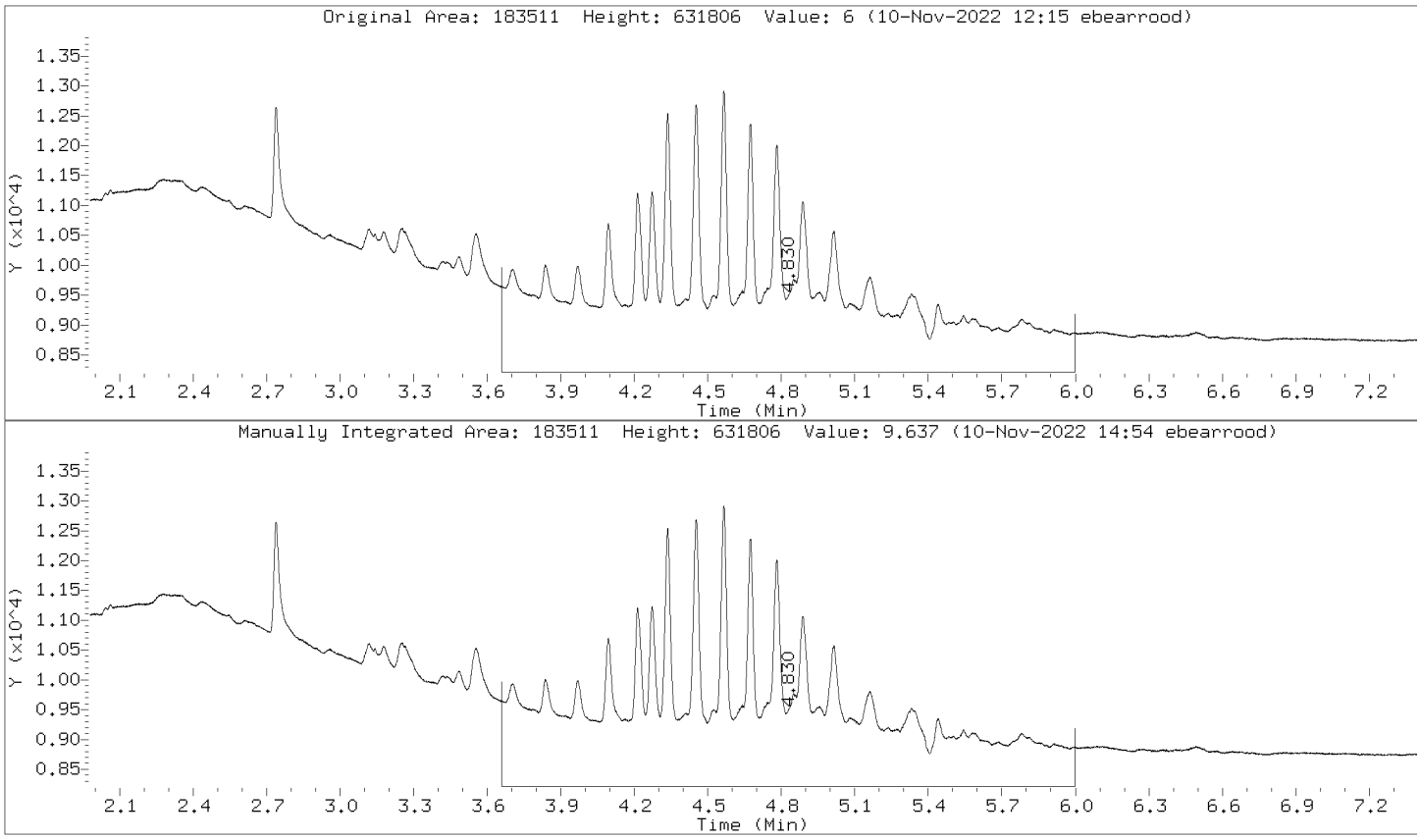
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



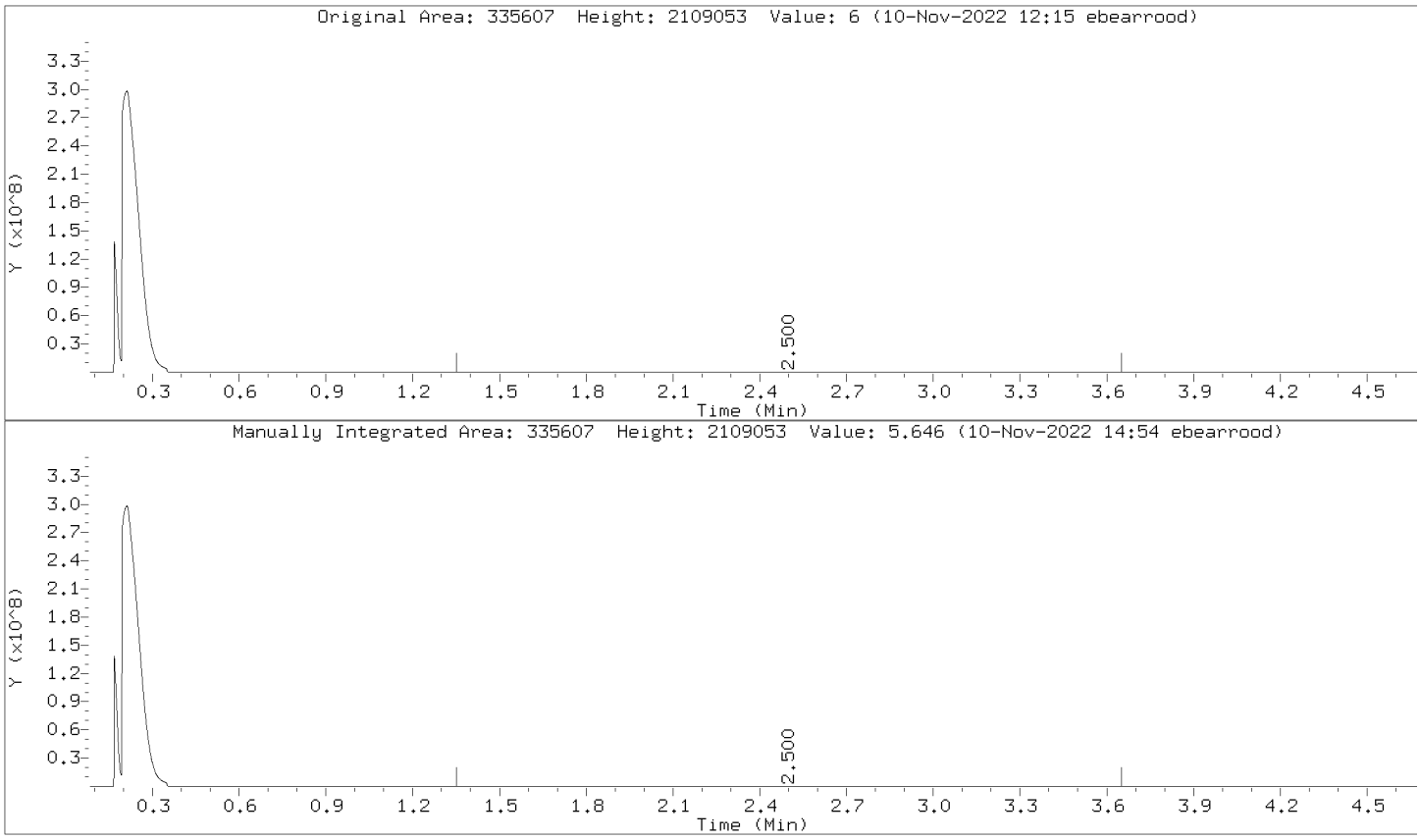
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



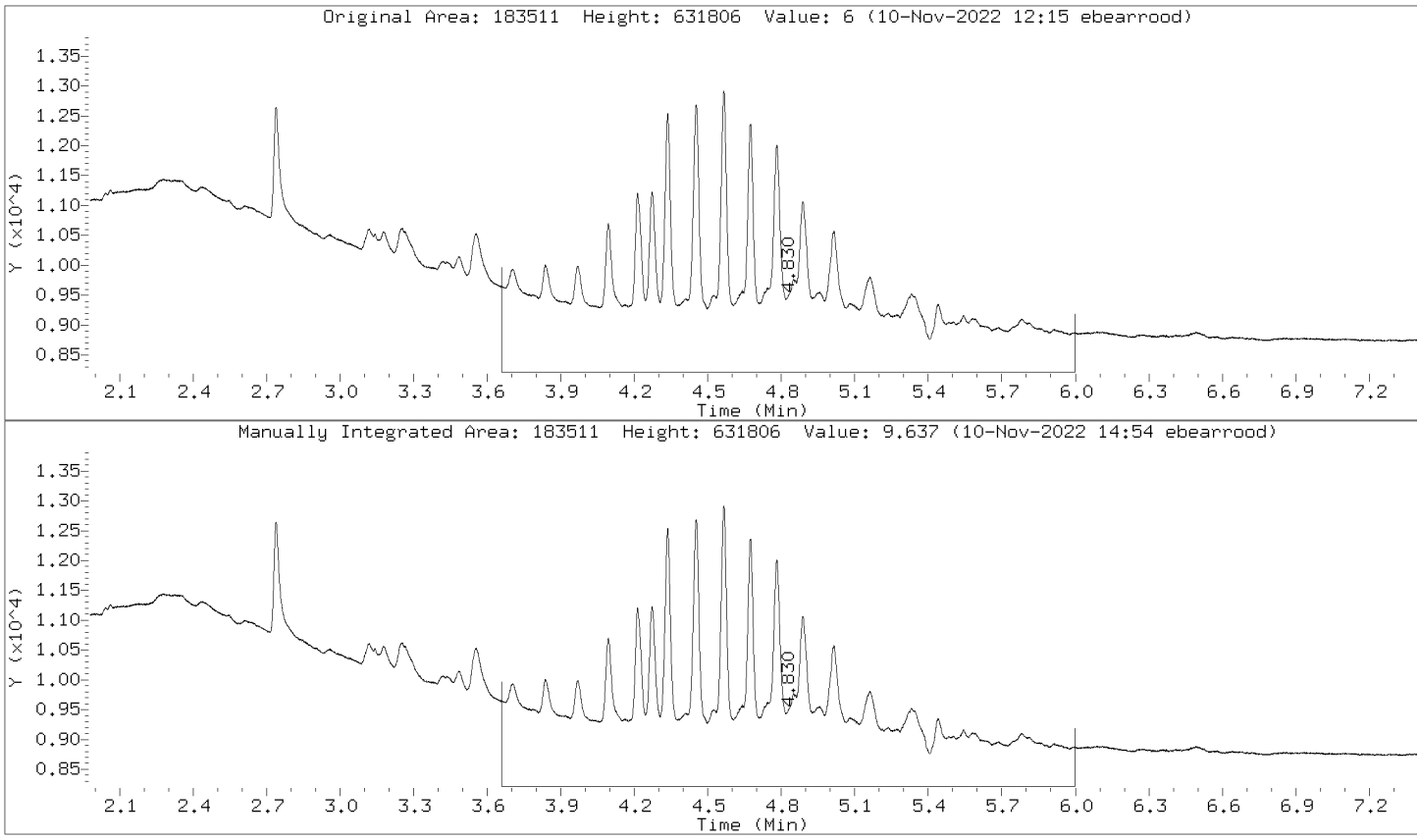
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



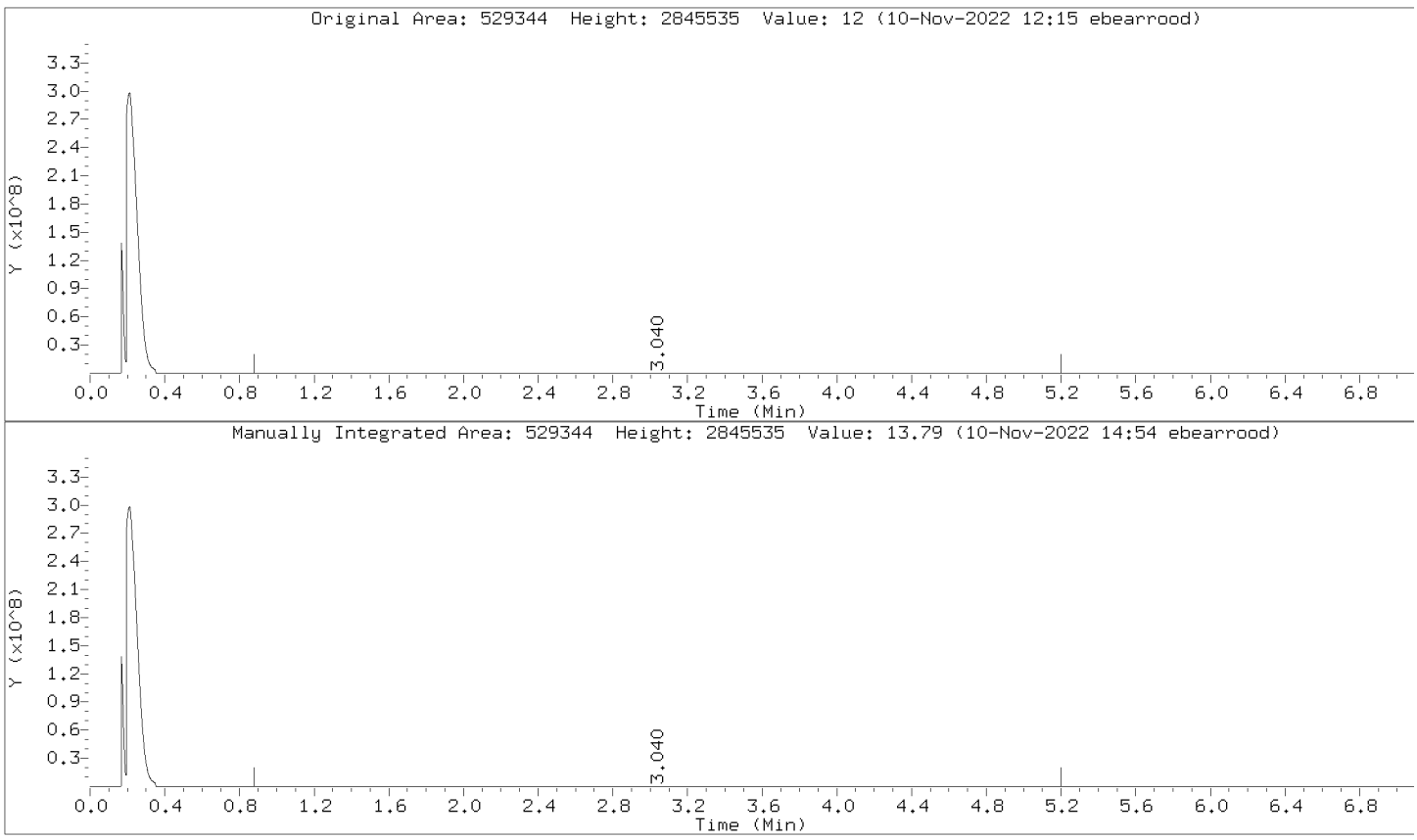
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



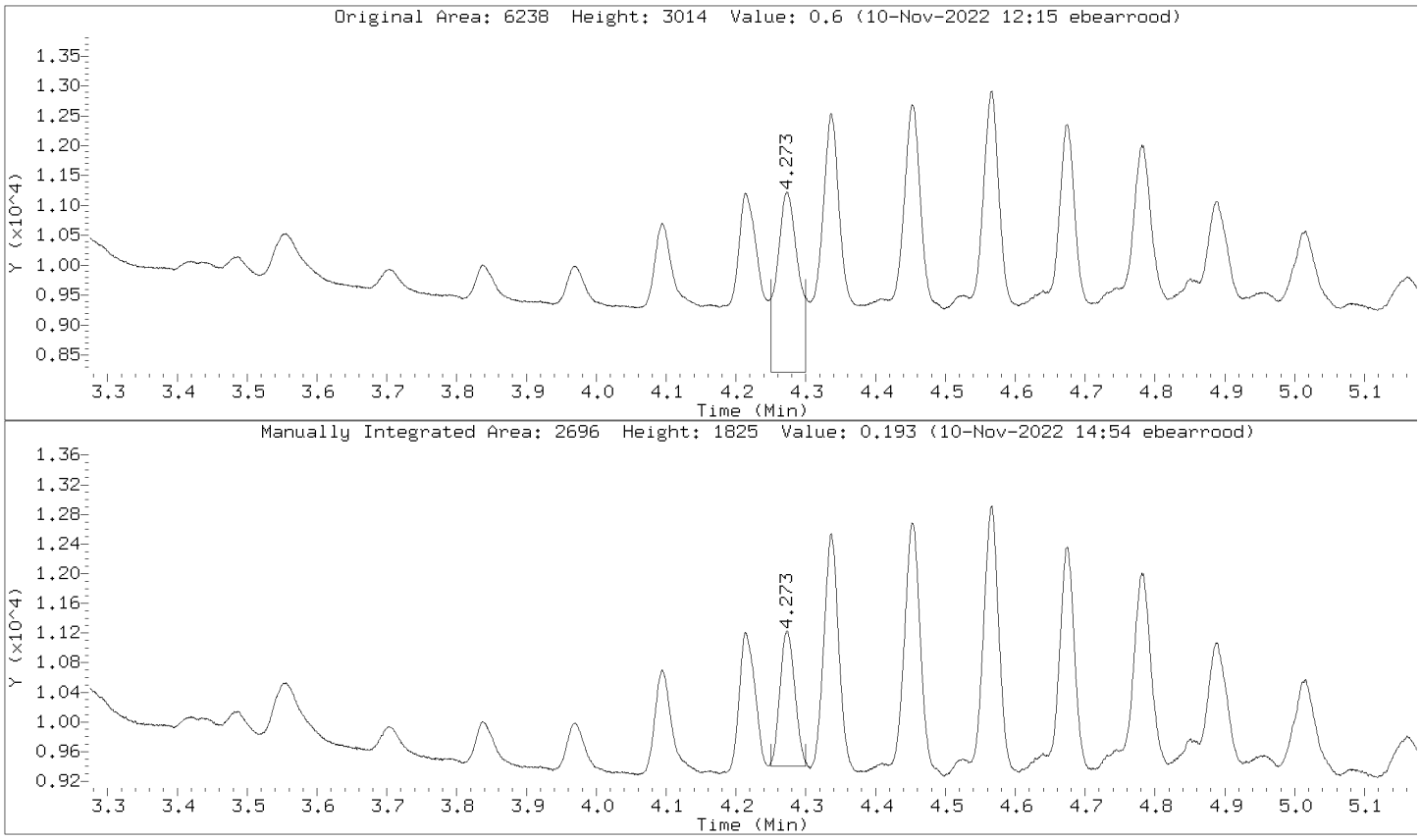
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



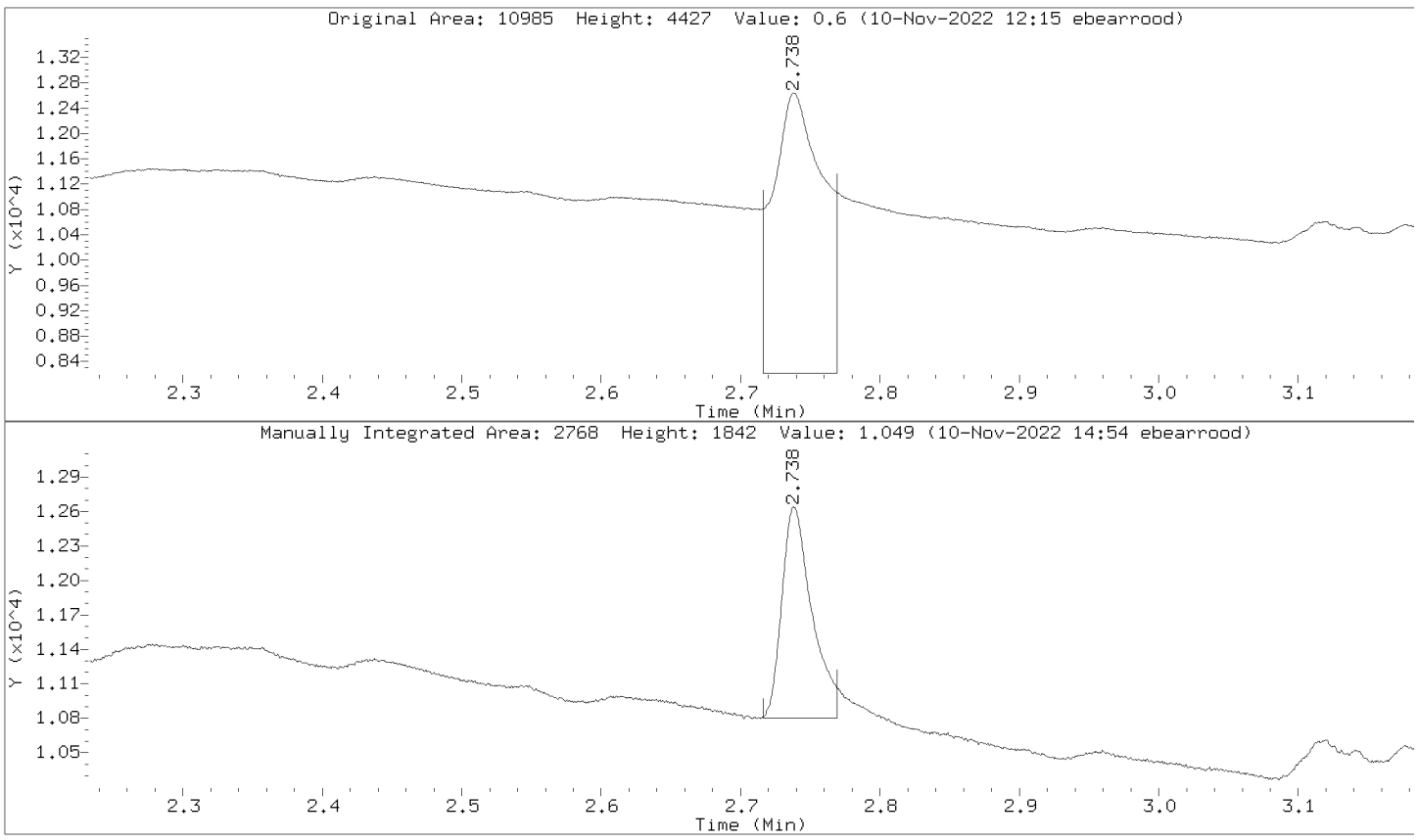
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)		REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		394088	10.0000	7.58		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		138206	10.0000	6.41		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		446339	10.0000	7.04		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		154886	10.0000	6.34		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		533232	20.0000	14.6		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		346937	10.0000	8.02		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		346937	10.0000	8.02		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		172488	10.0000	7.12		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		172488	10.0000	7.12		(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

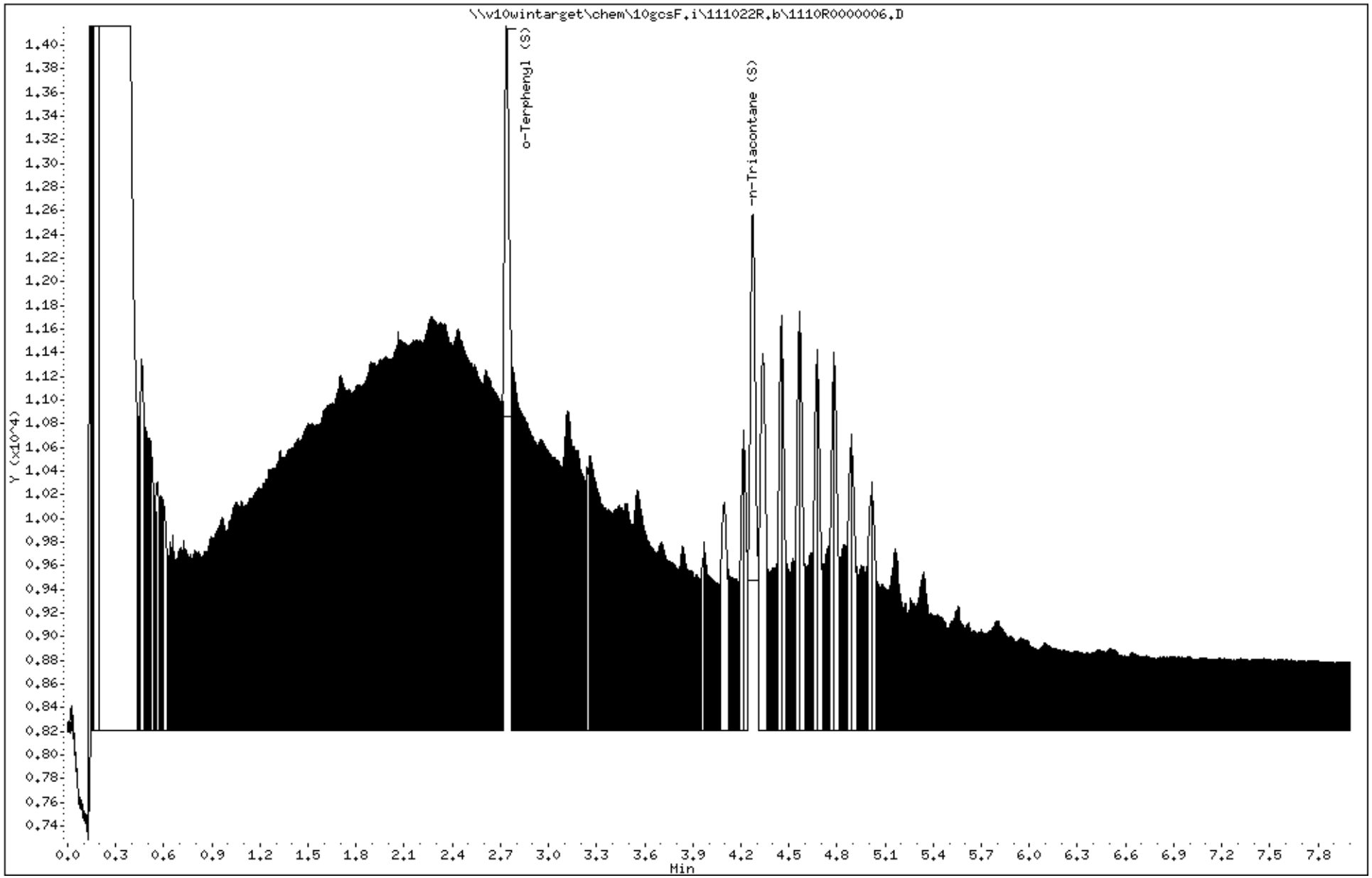
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

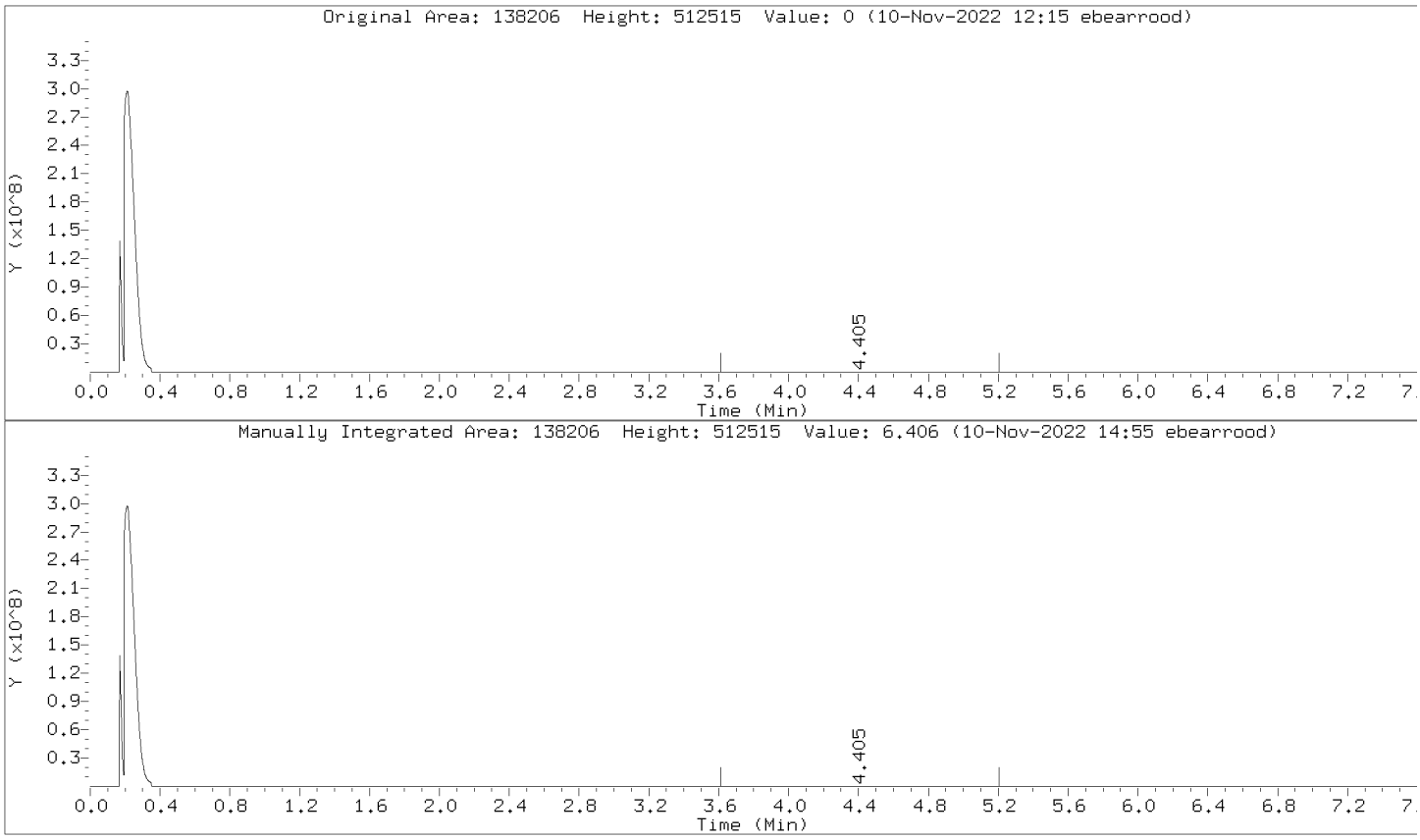
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



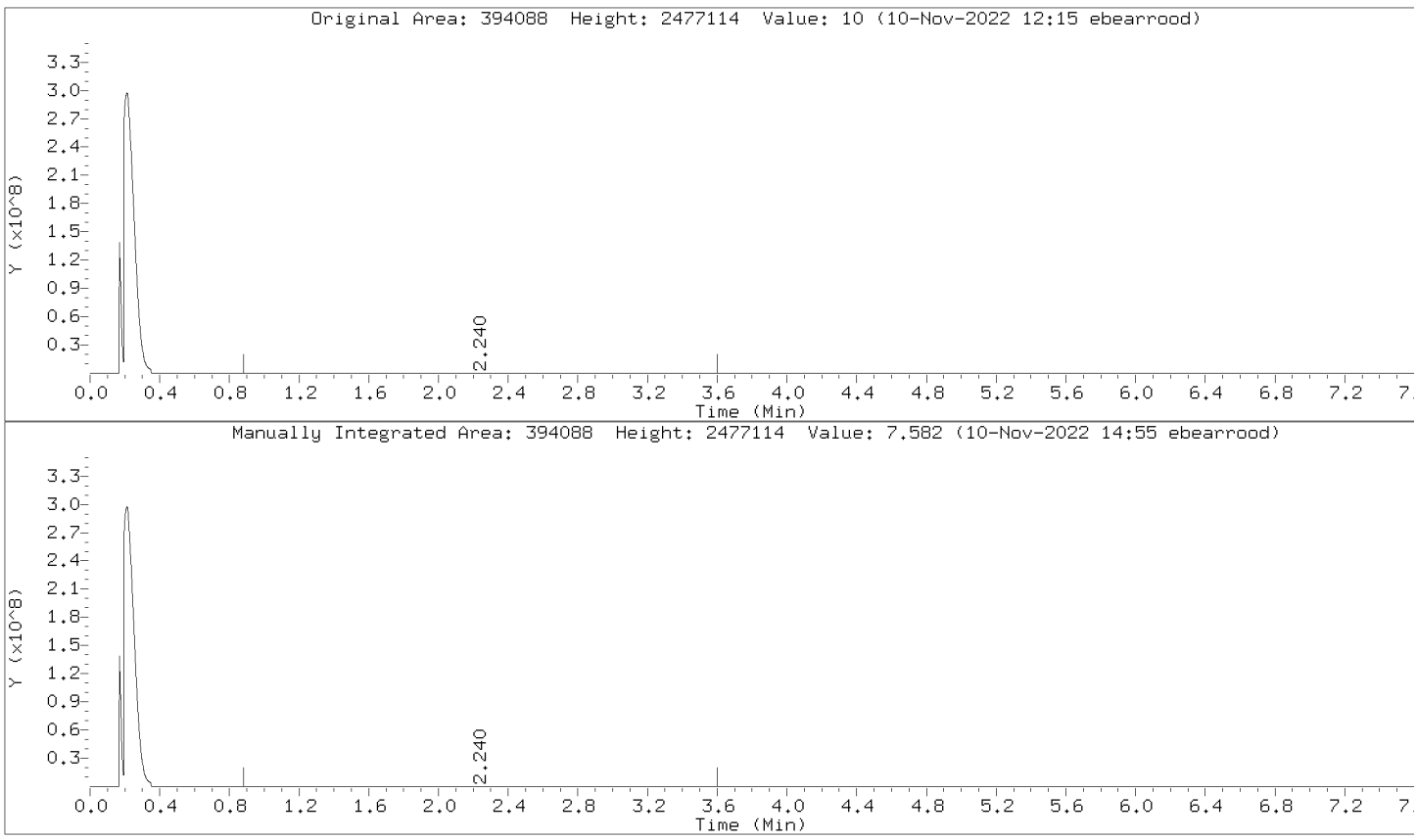
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



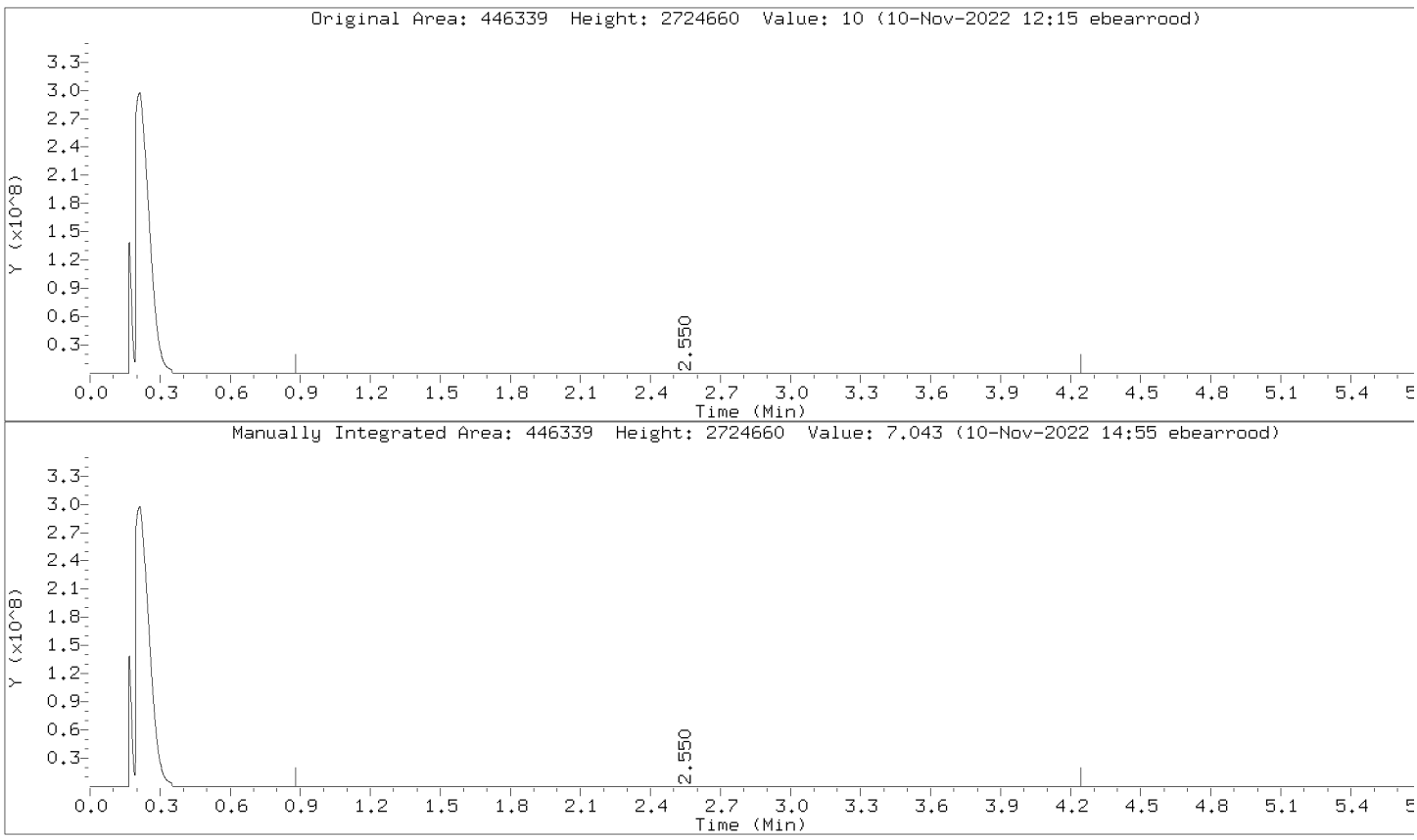
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



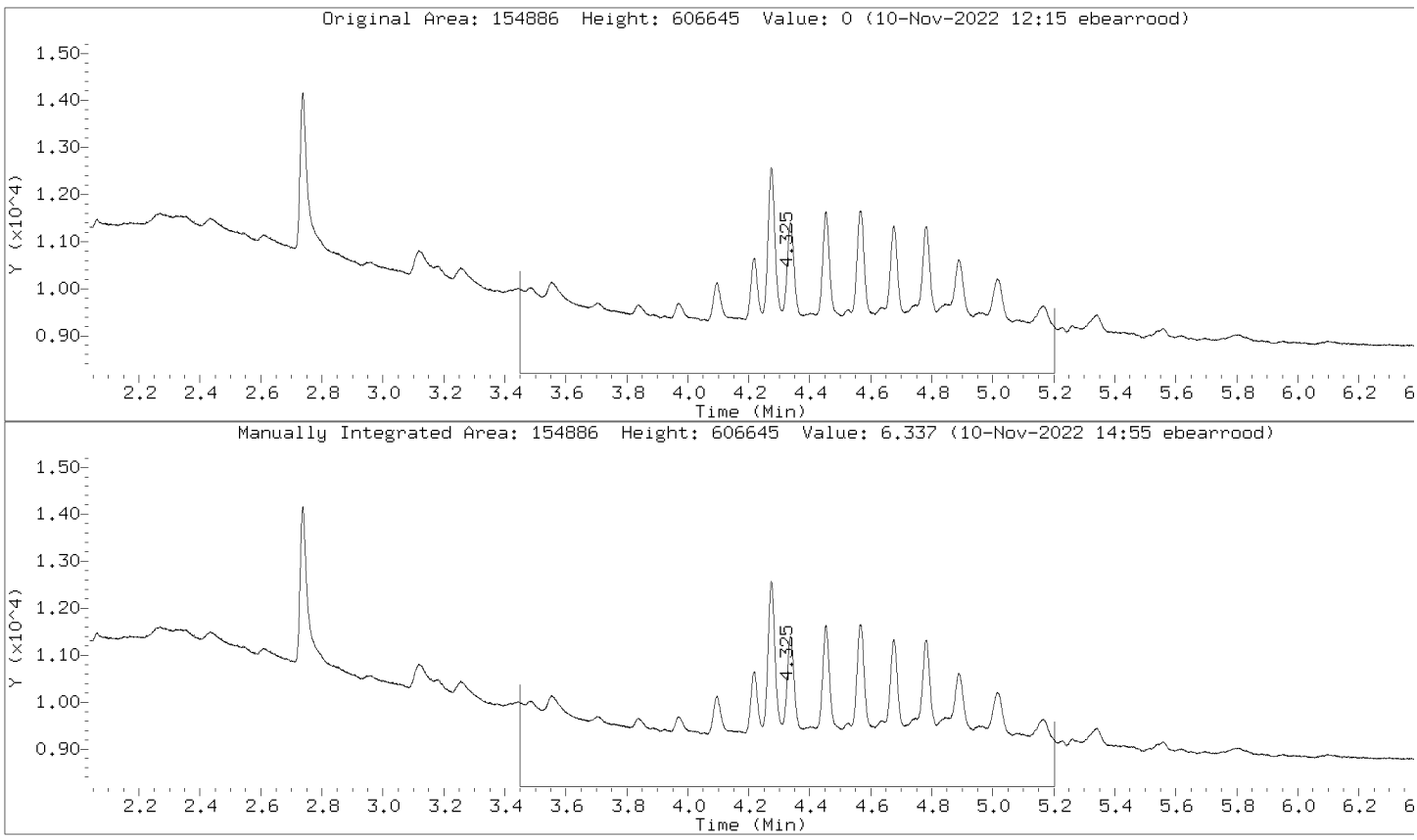
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



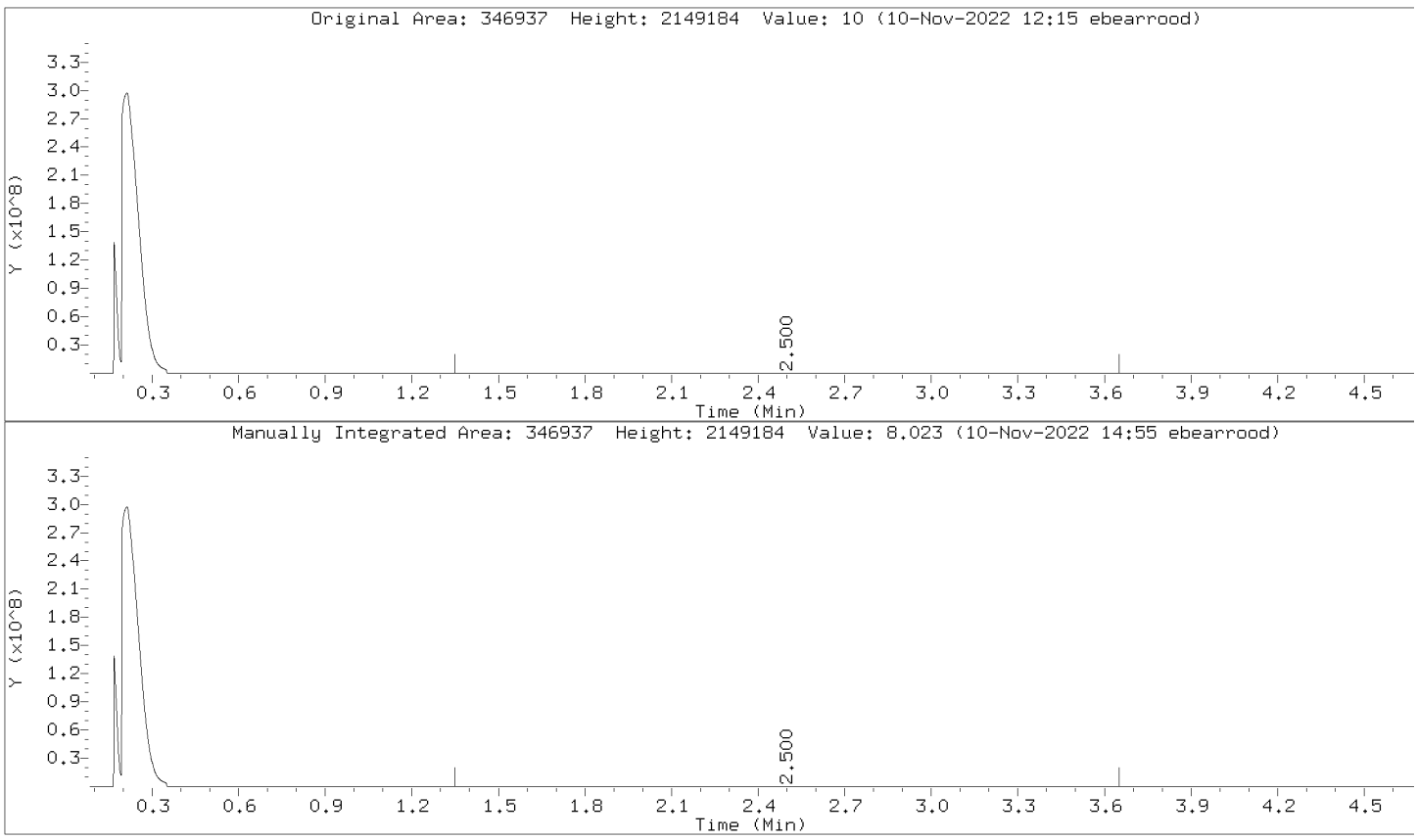
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



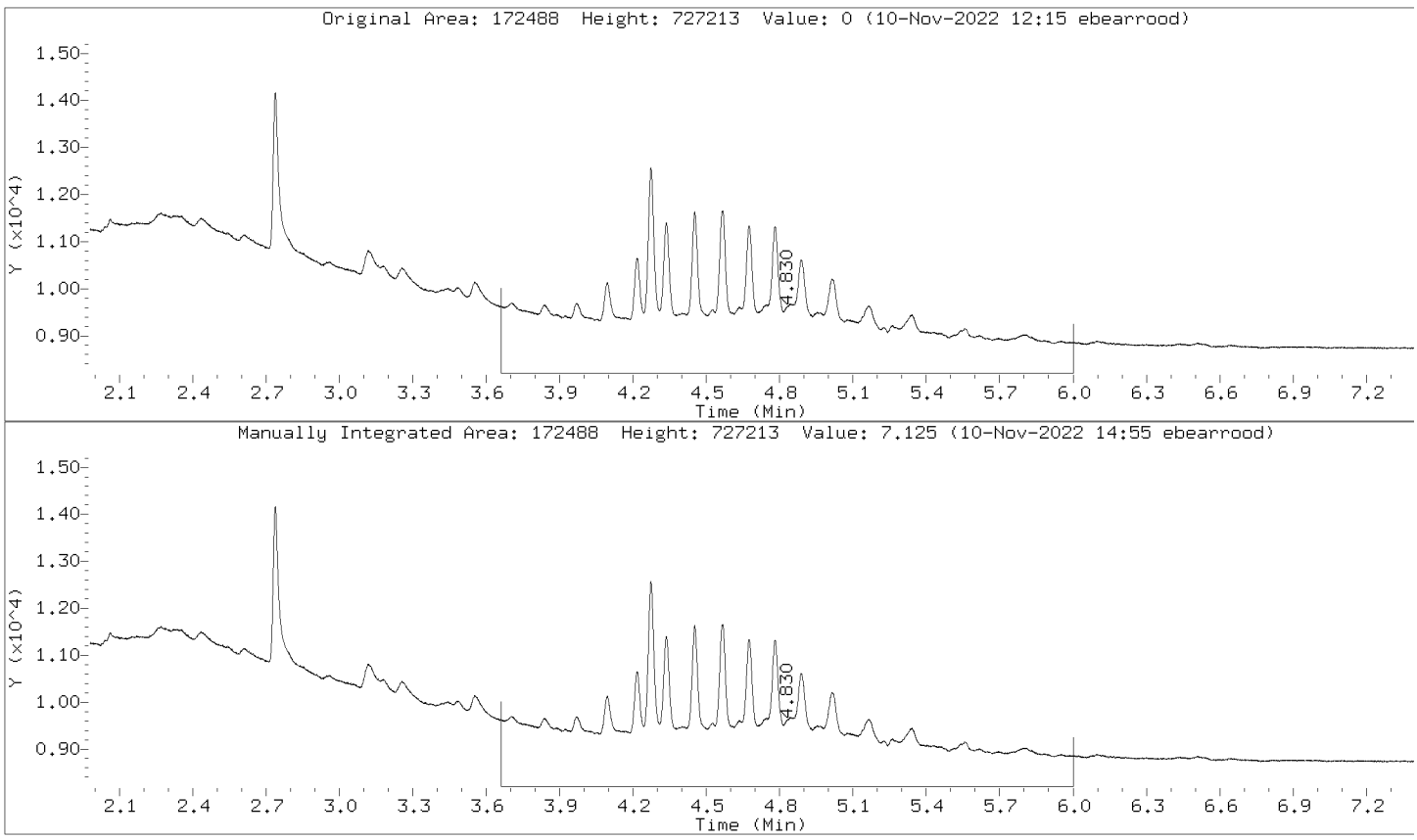
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



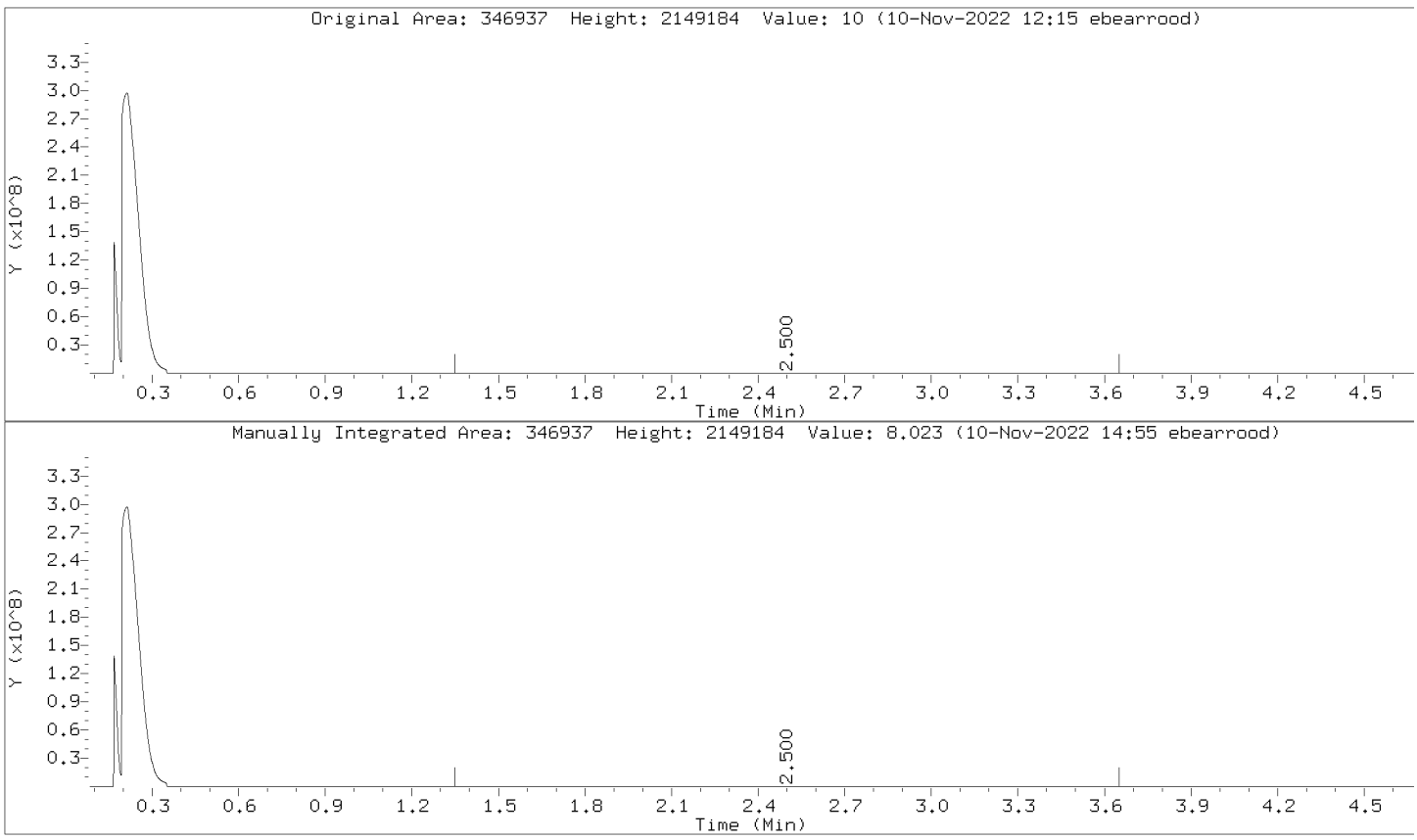
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



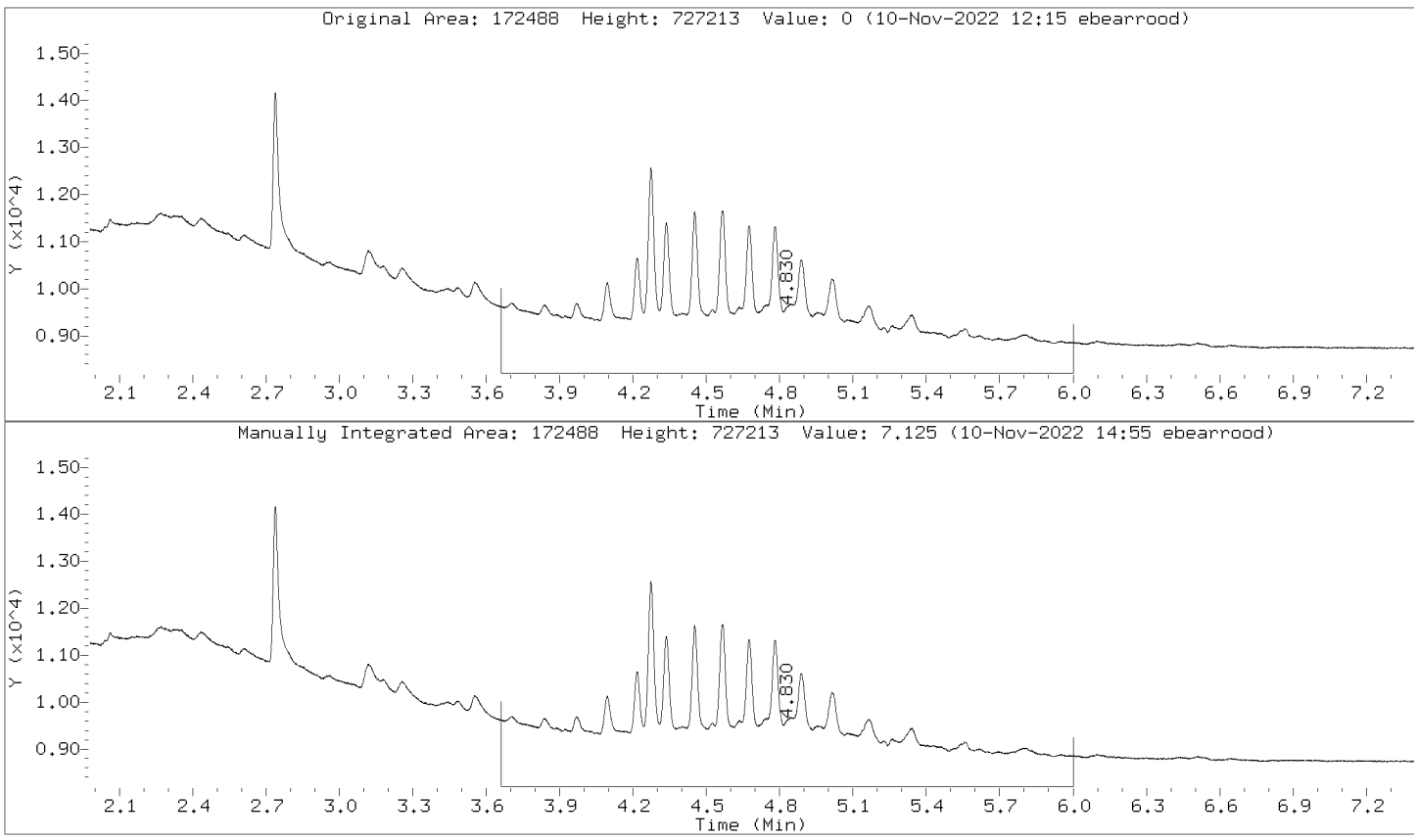
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



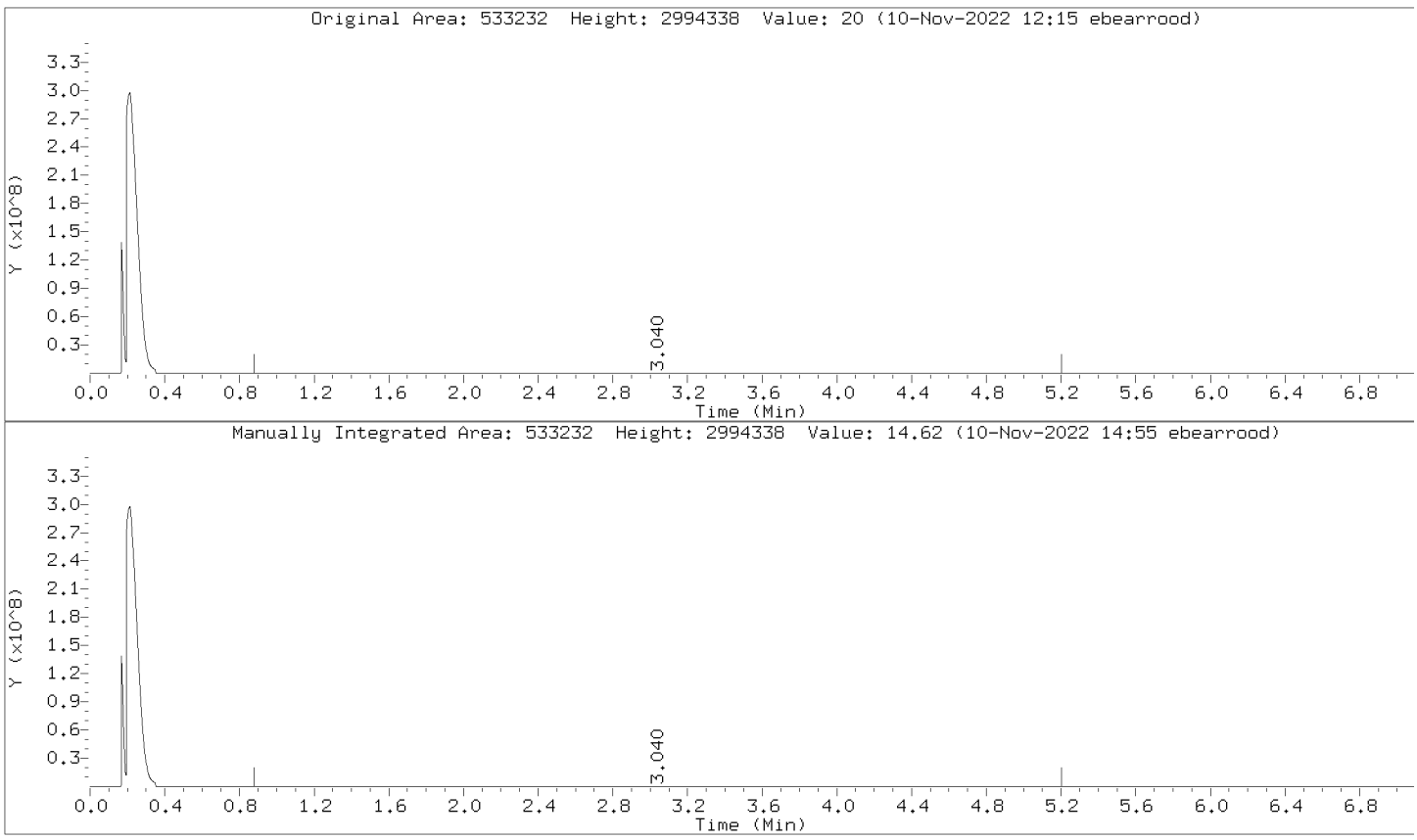
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



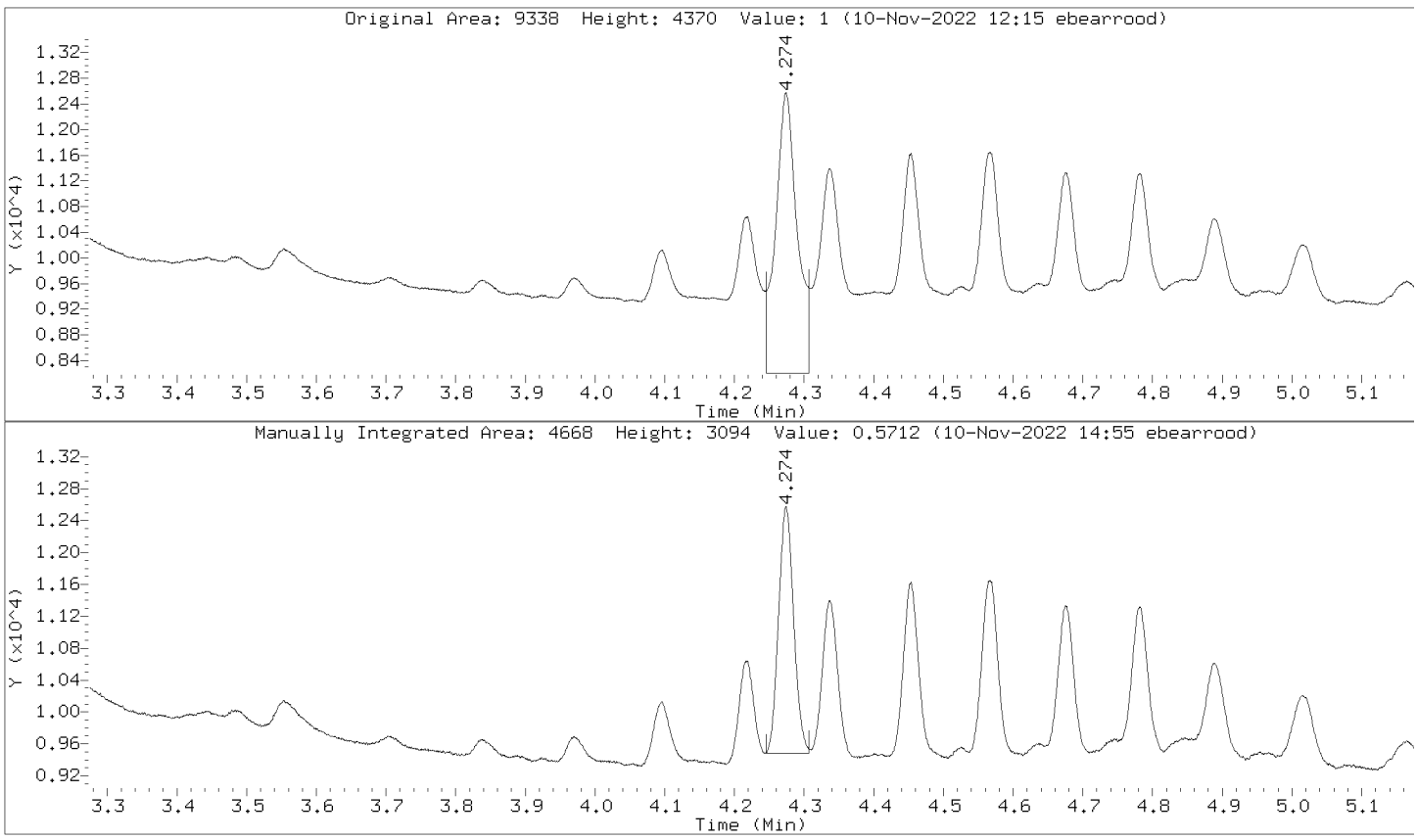
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



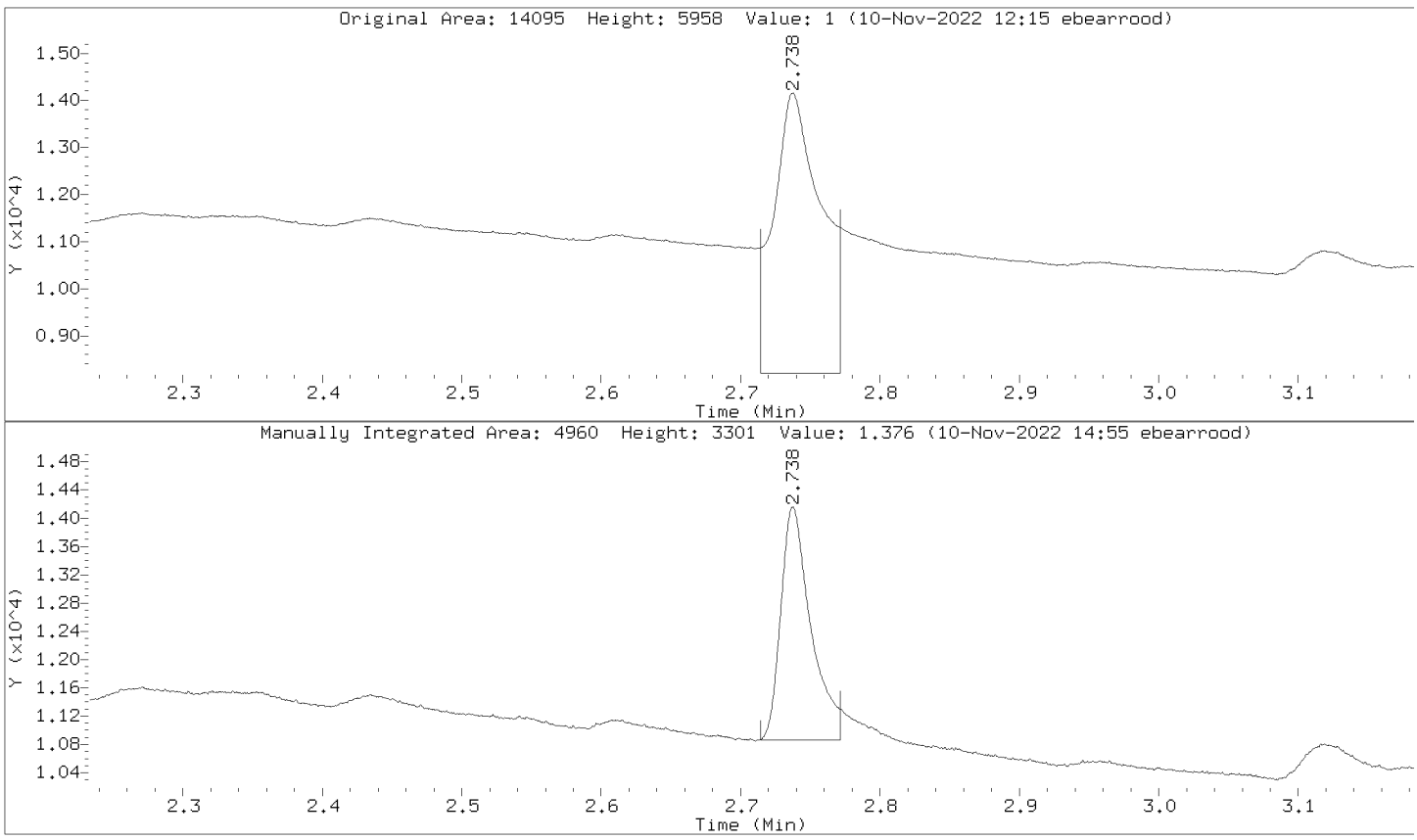
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE		(ug/mL)	(ug/mL)	REVIEW	CODE
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		475588	25.0000		22.0	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.734	2.733	0.001	14599	2.50000		2.81	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.275	4.275	0.000	12458	2.50000		2.06	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		195791	25.0000		22.4	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		541580	25.0000		21.5	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		213550	25.0000		21.9	(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		672394	50.0000		44.6	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		416390	25.0000		22.6	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		416390	25.0000		22.6	(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		243248	25.0000		23.2	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		243248	25.0000		23.2	(M)	RNG

QC Flag Legend

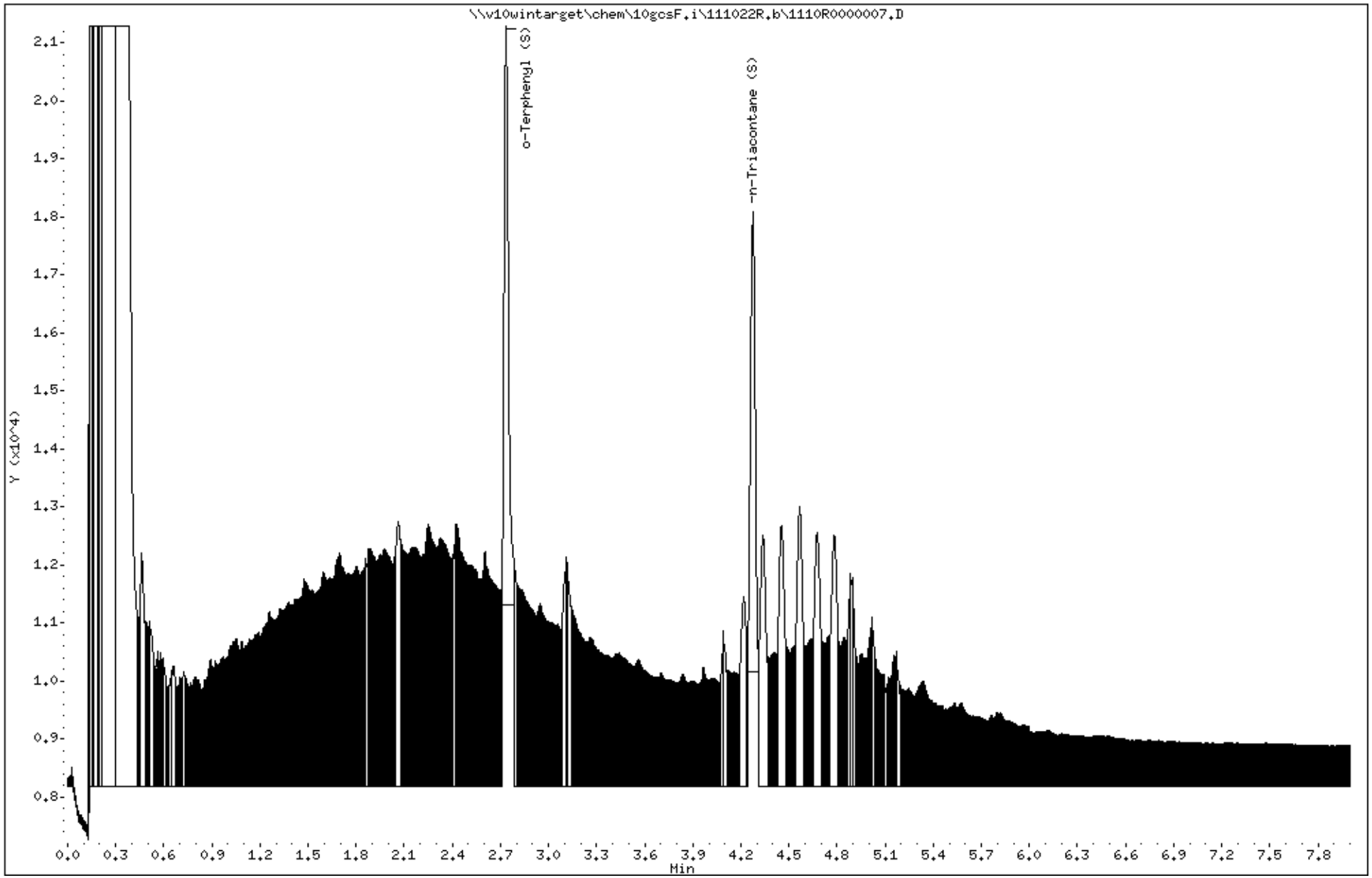
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

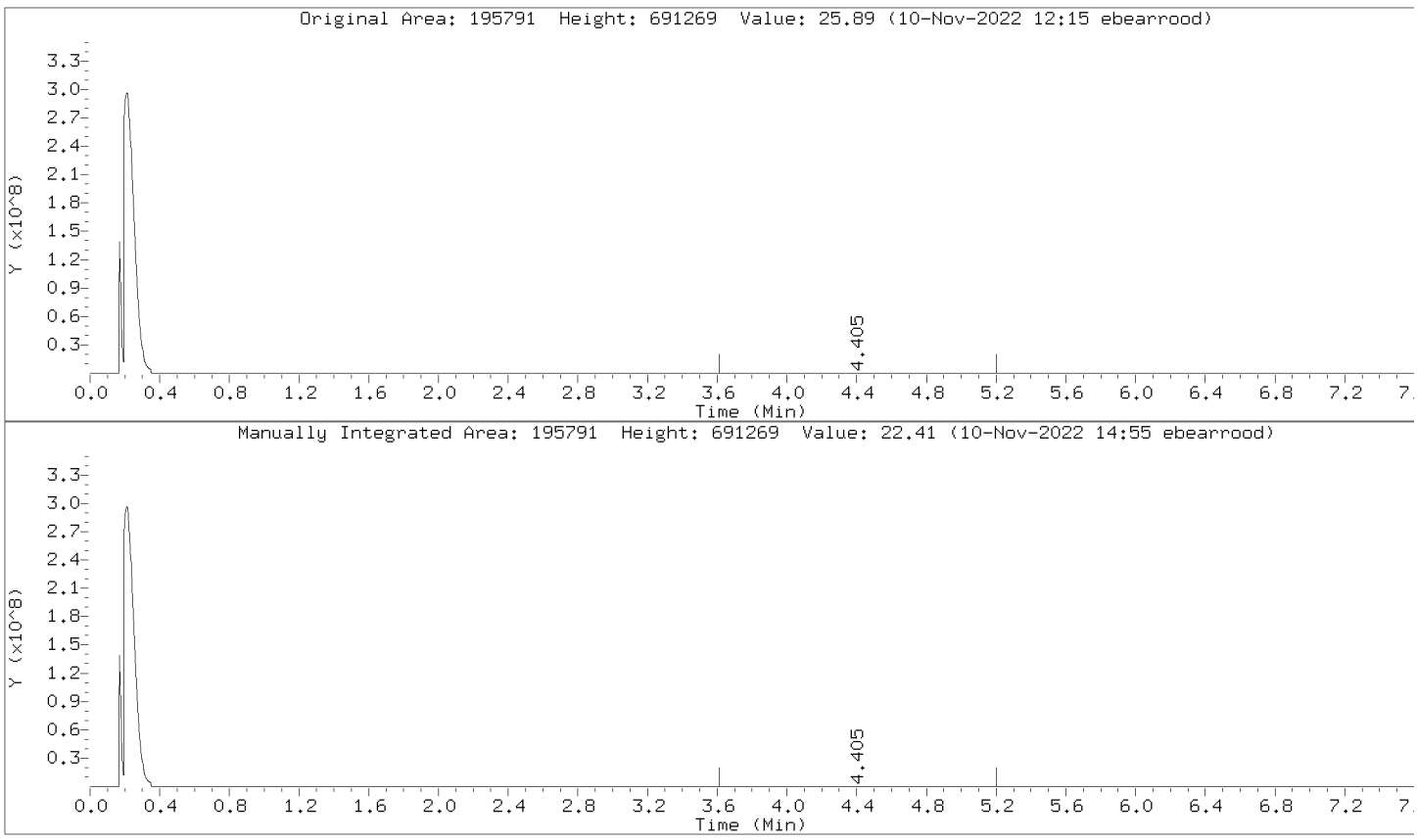
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



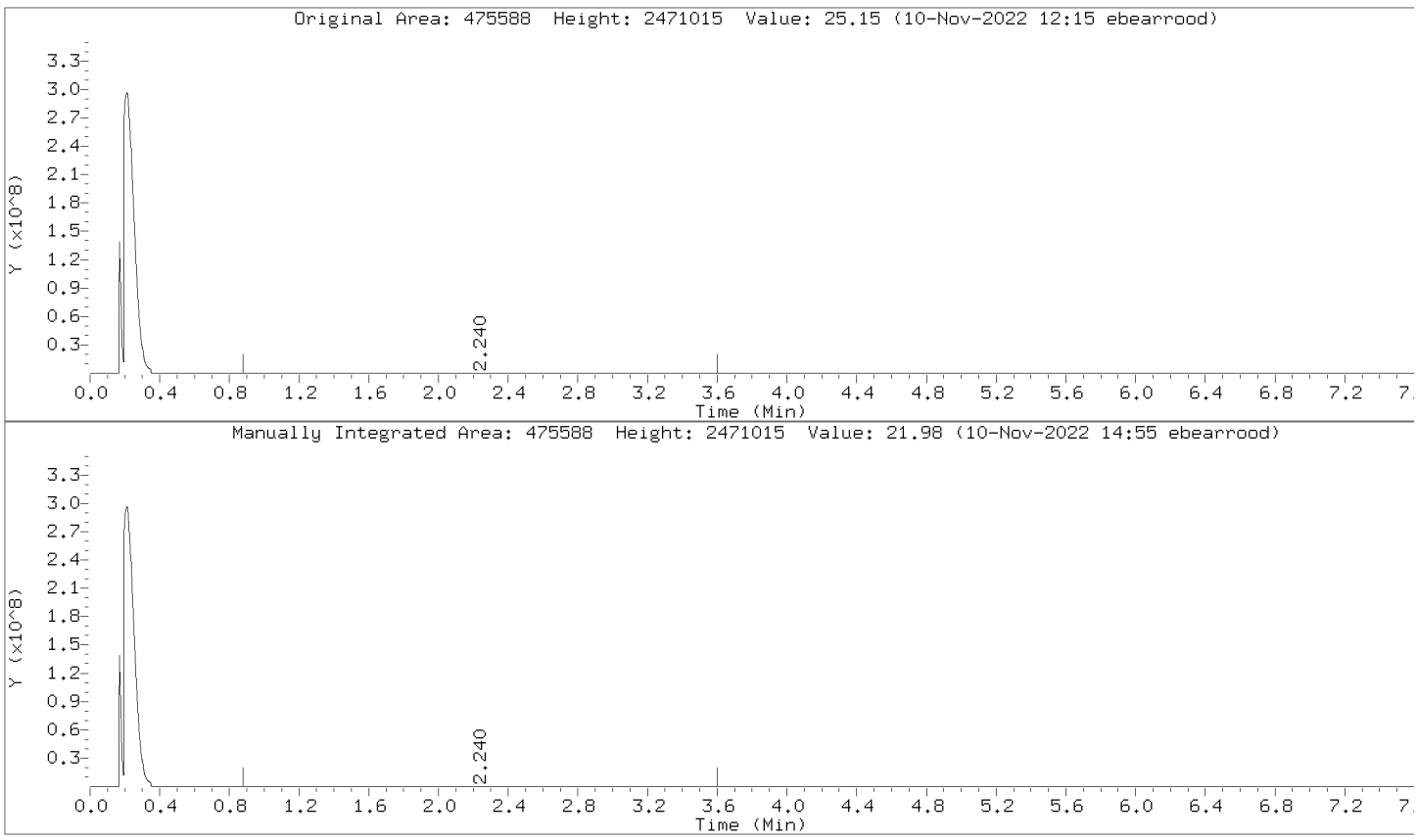
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



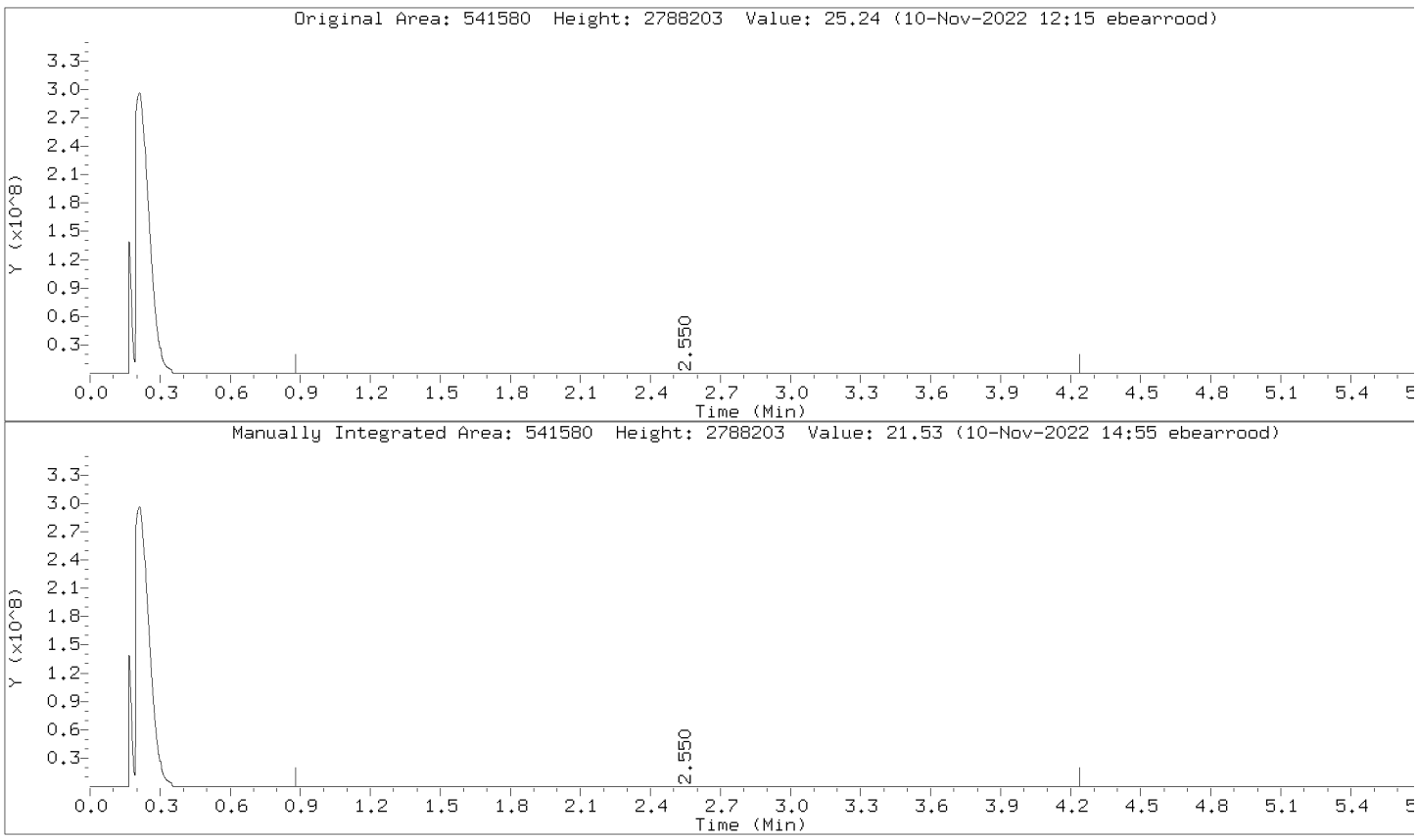
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



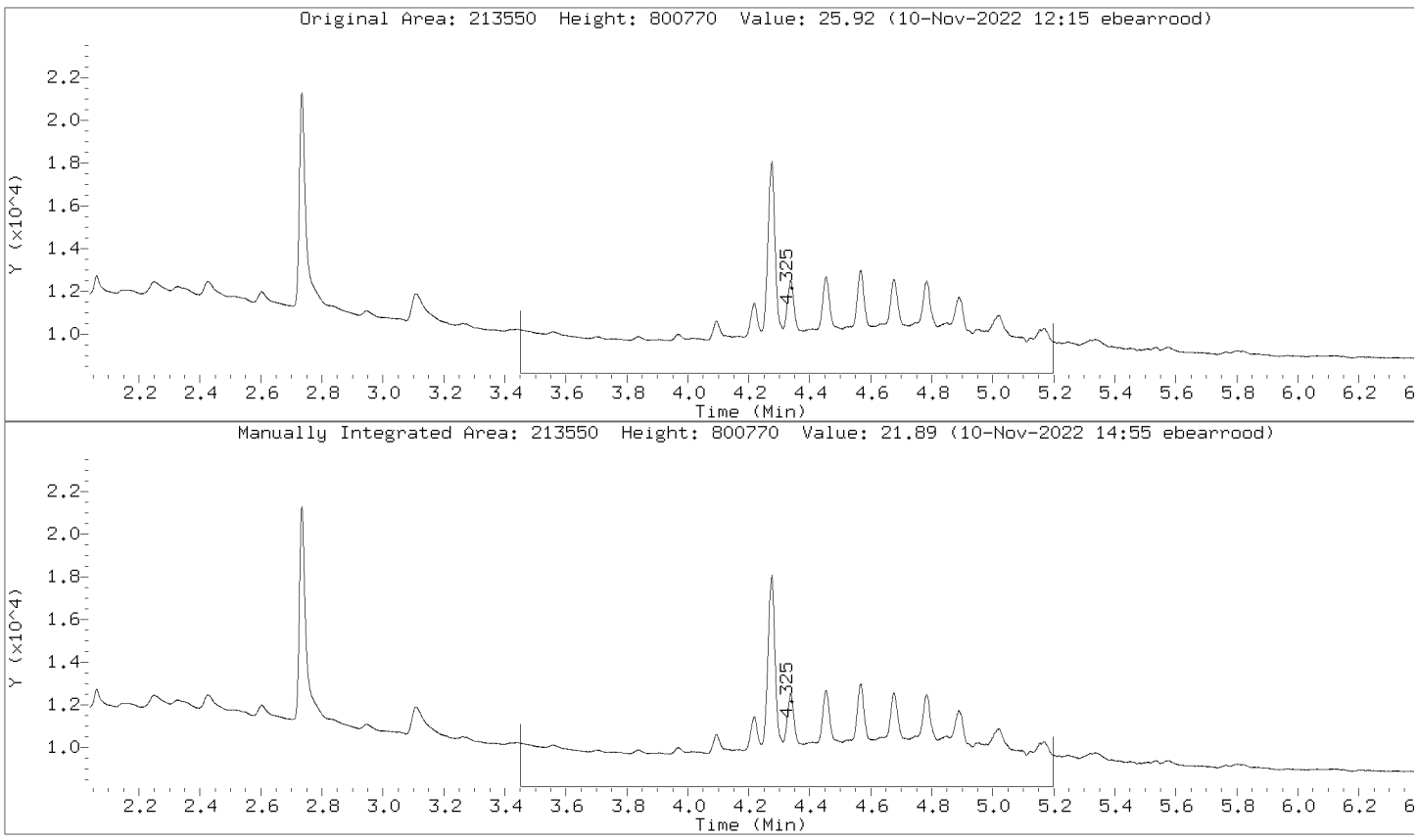
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



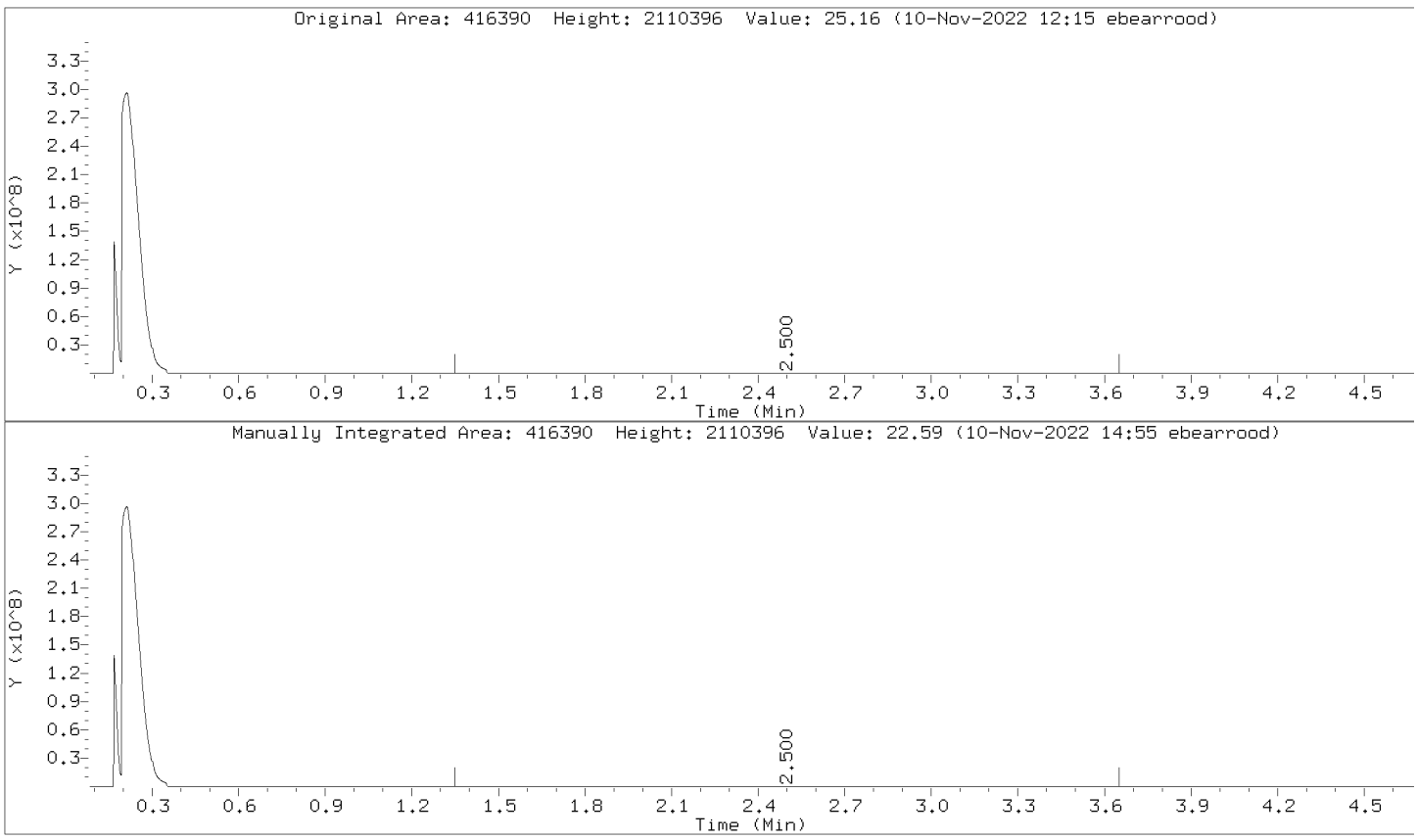
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



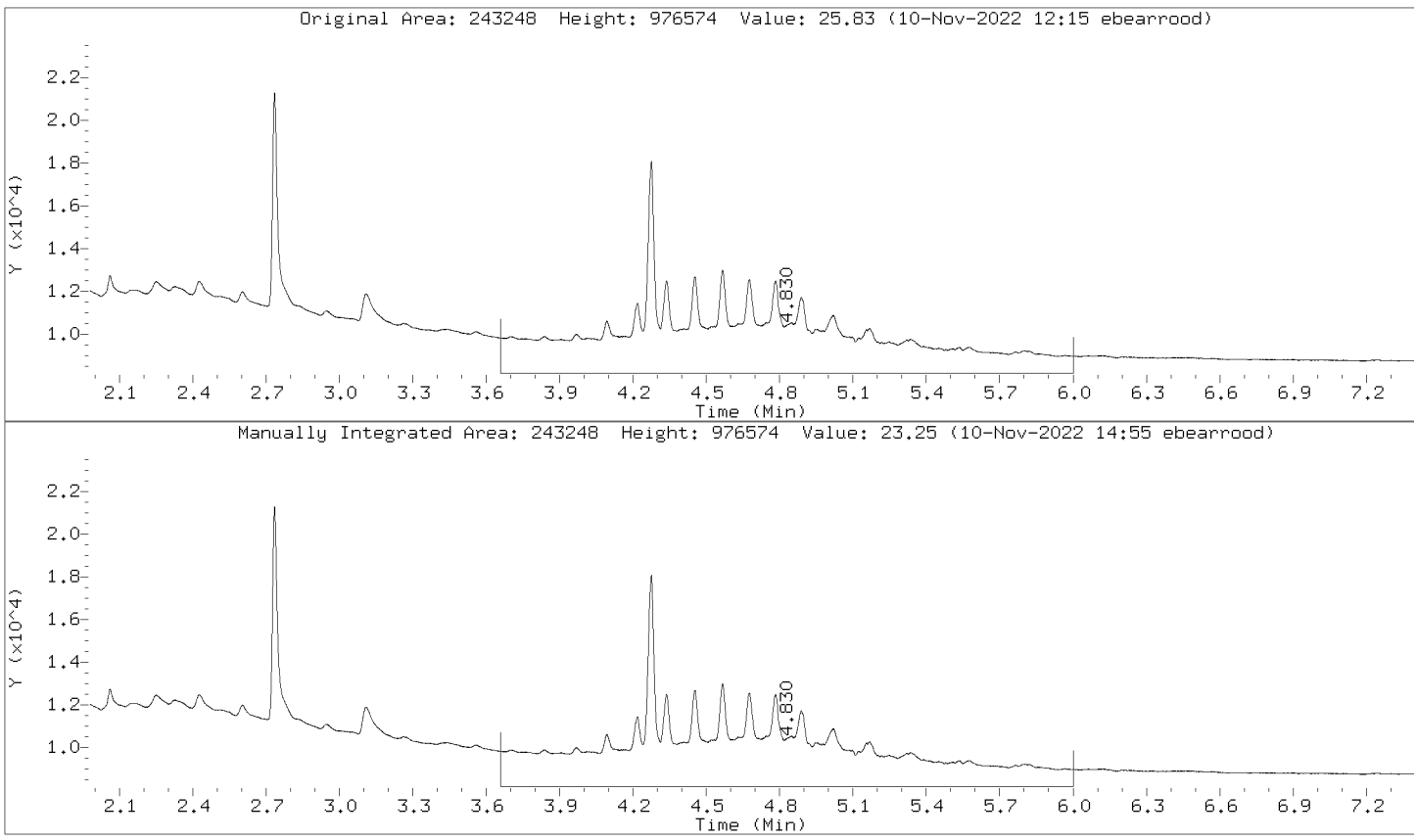
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



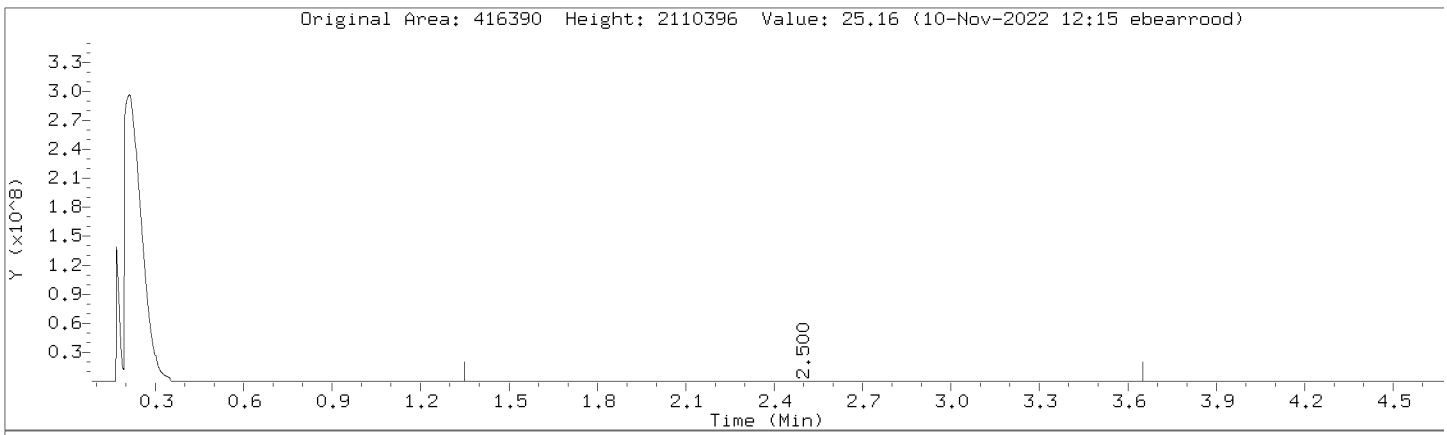
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

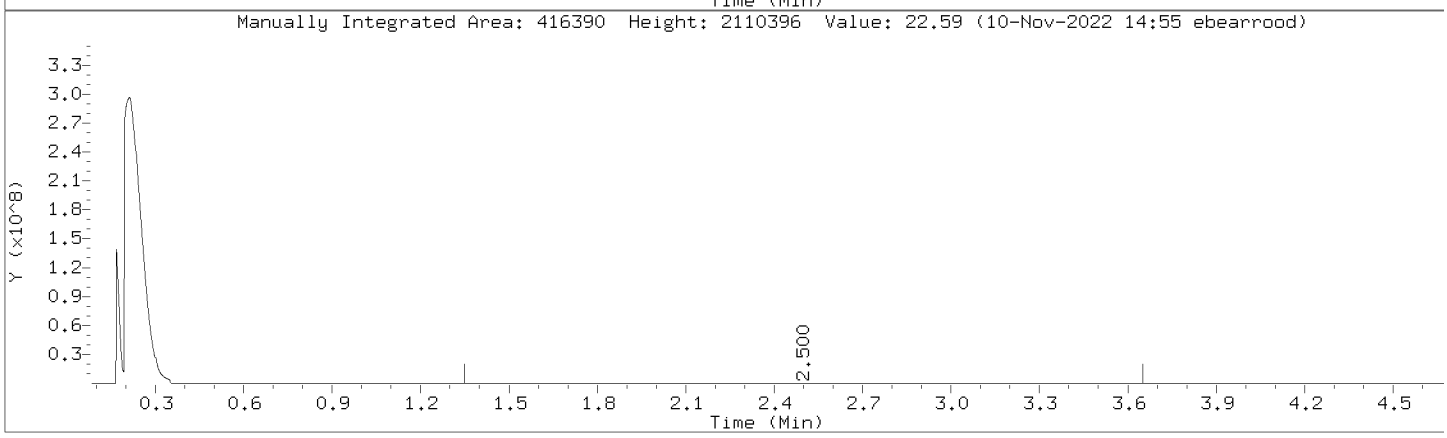
Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

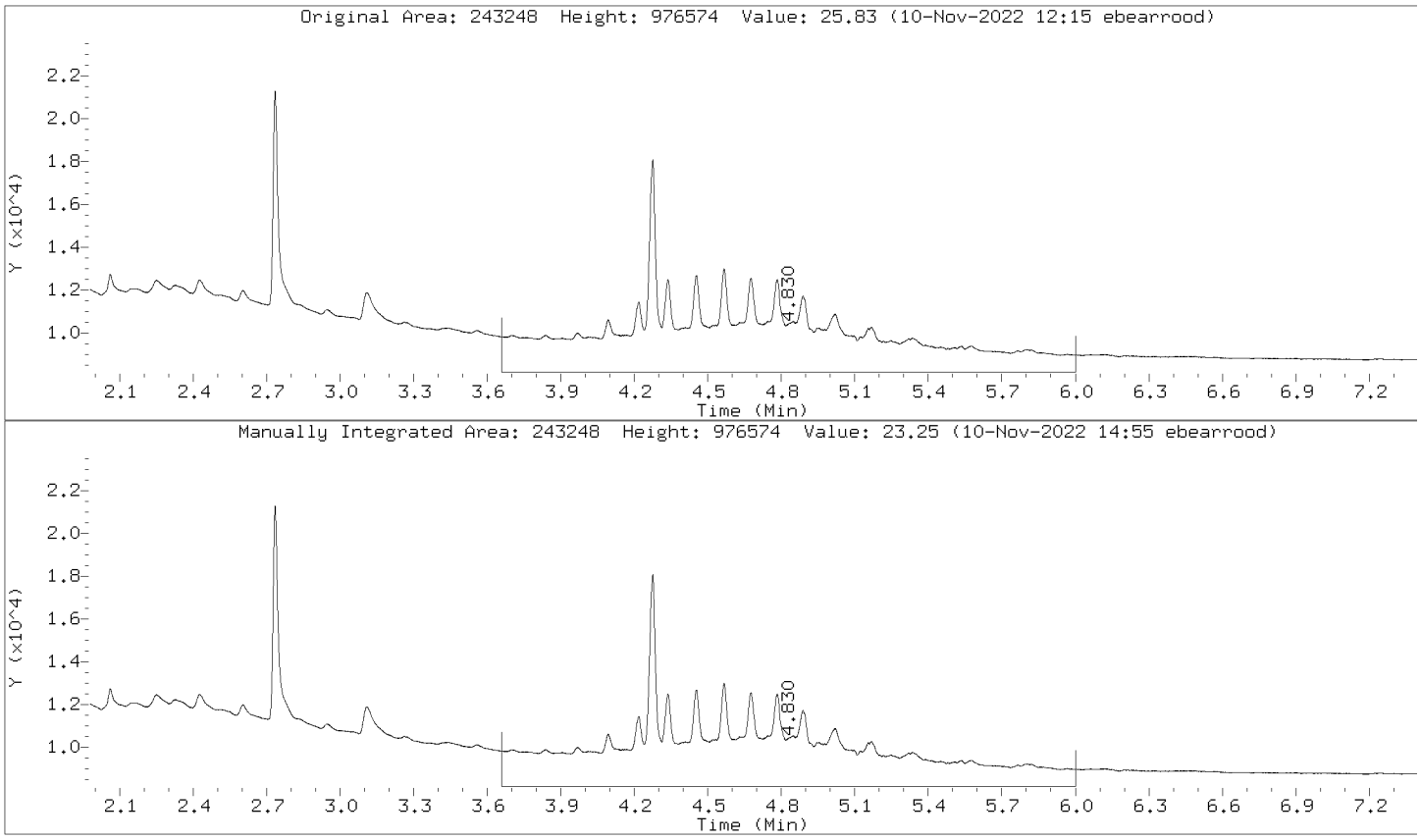
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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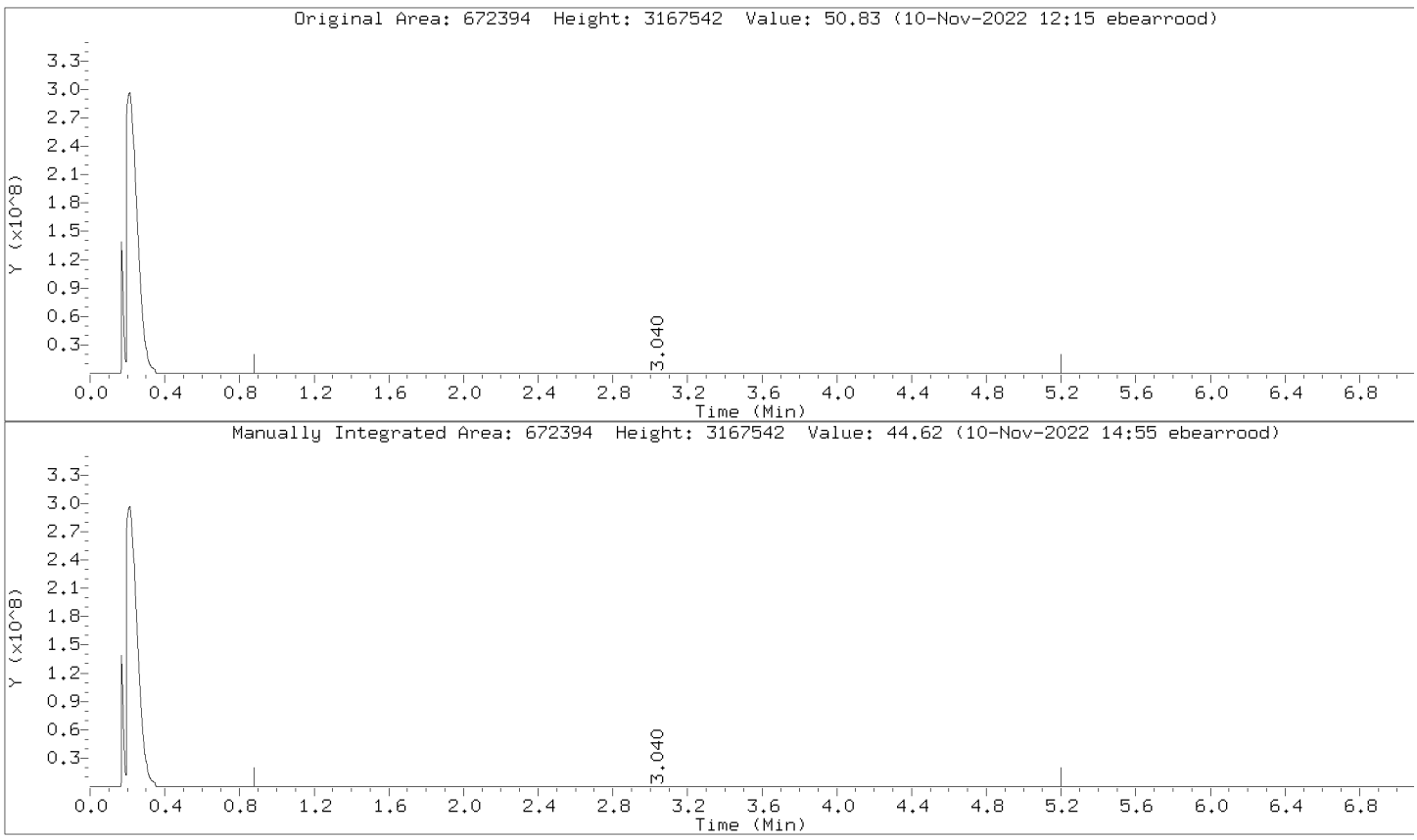
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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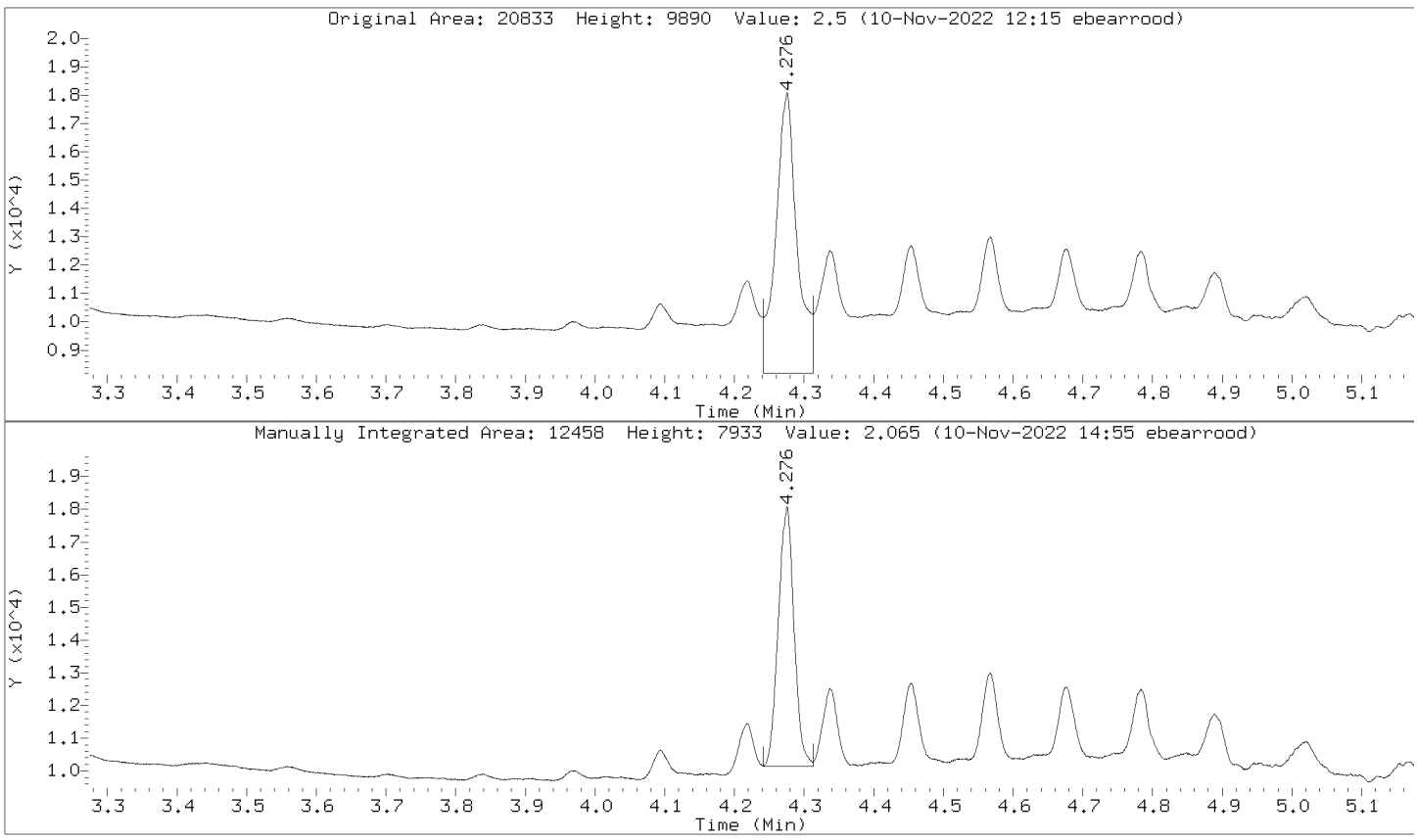
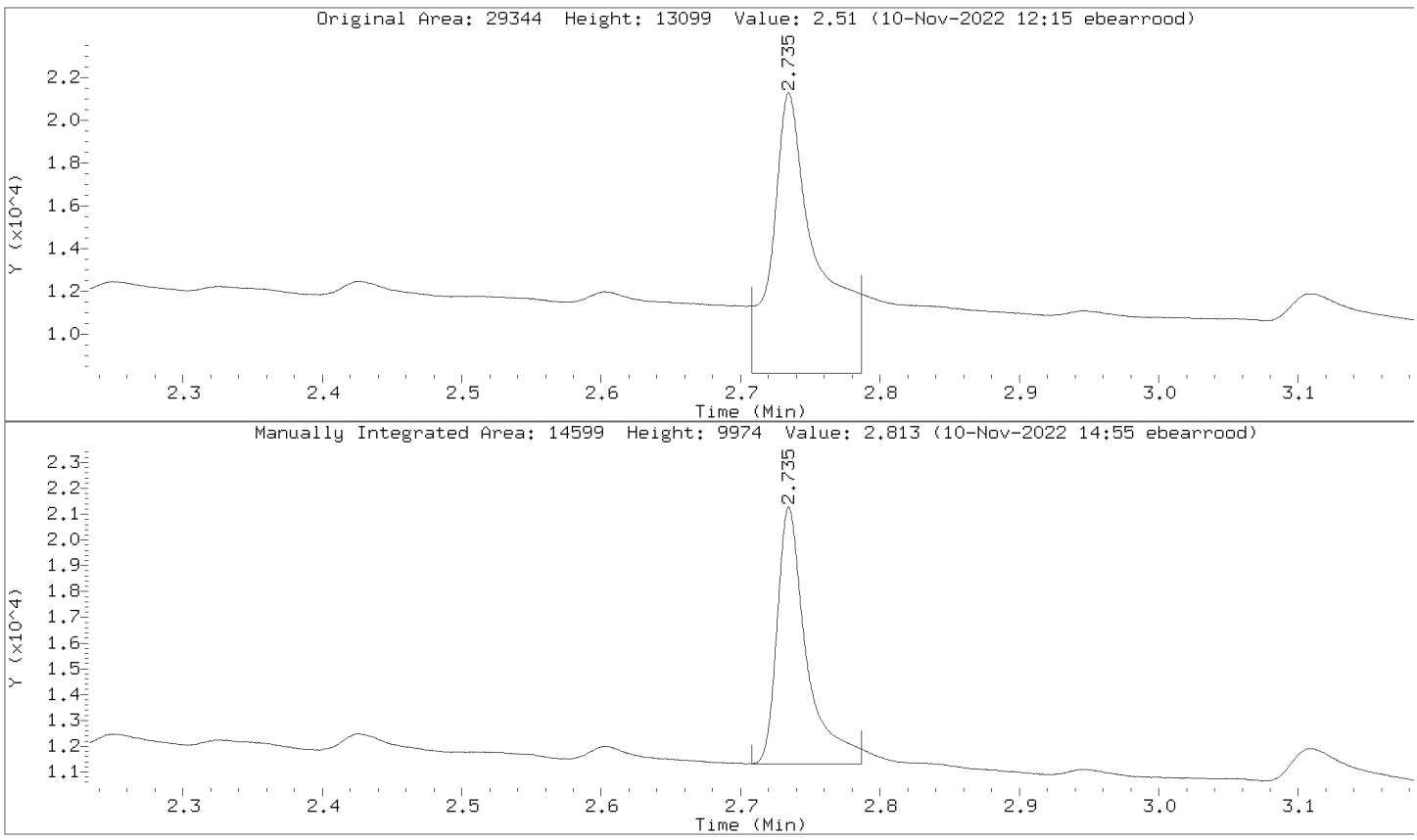
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

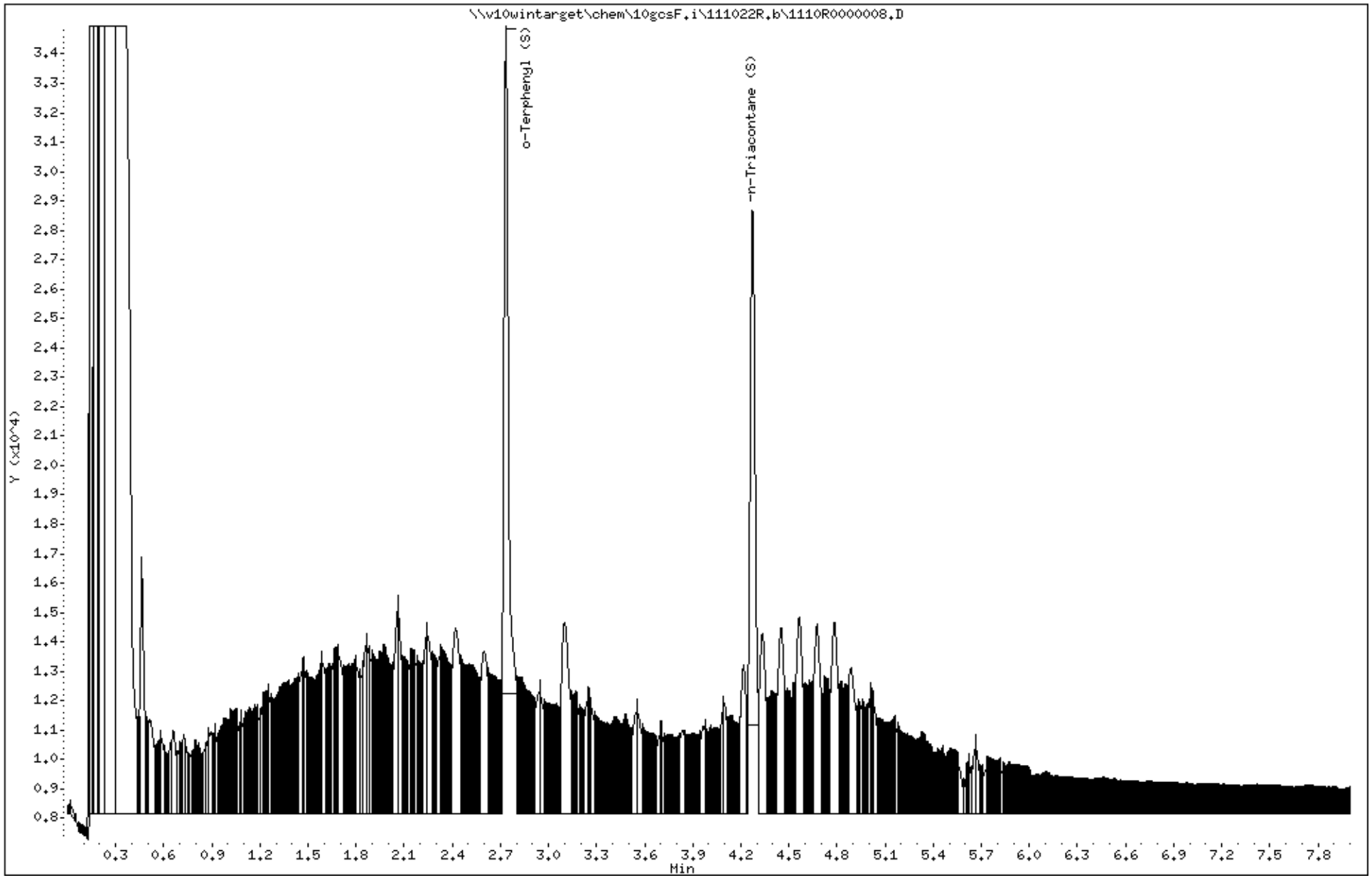
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

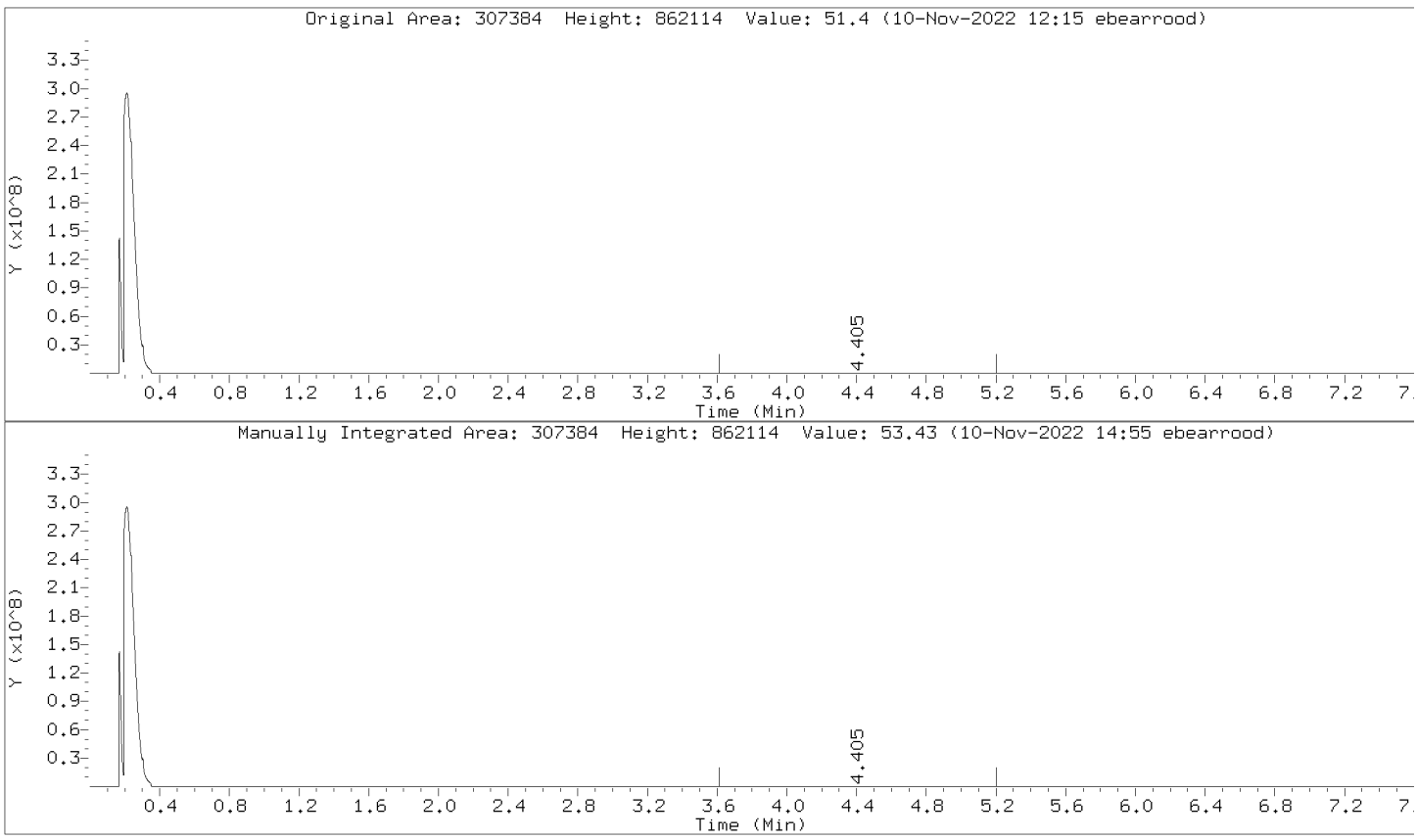
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



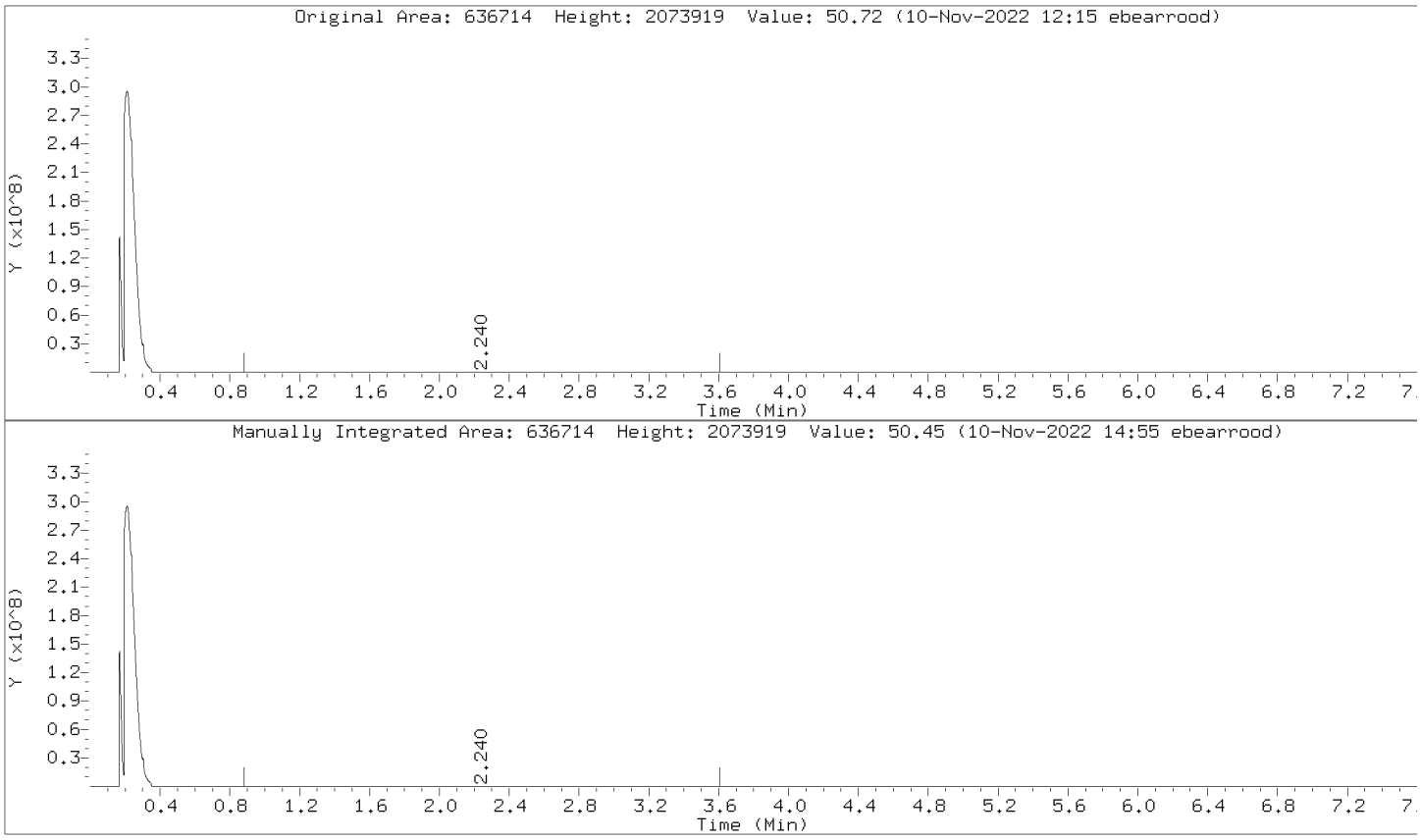
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



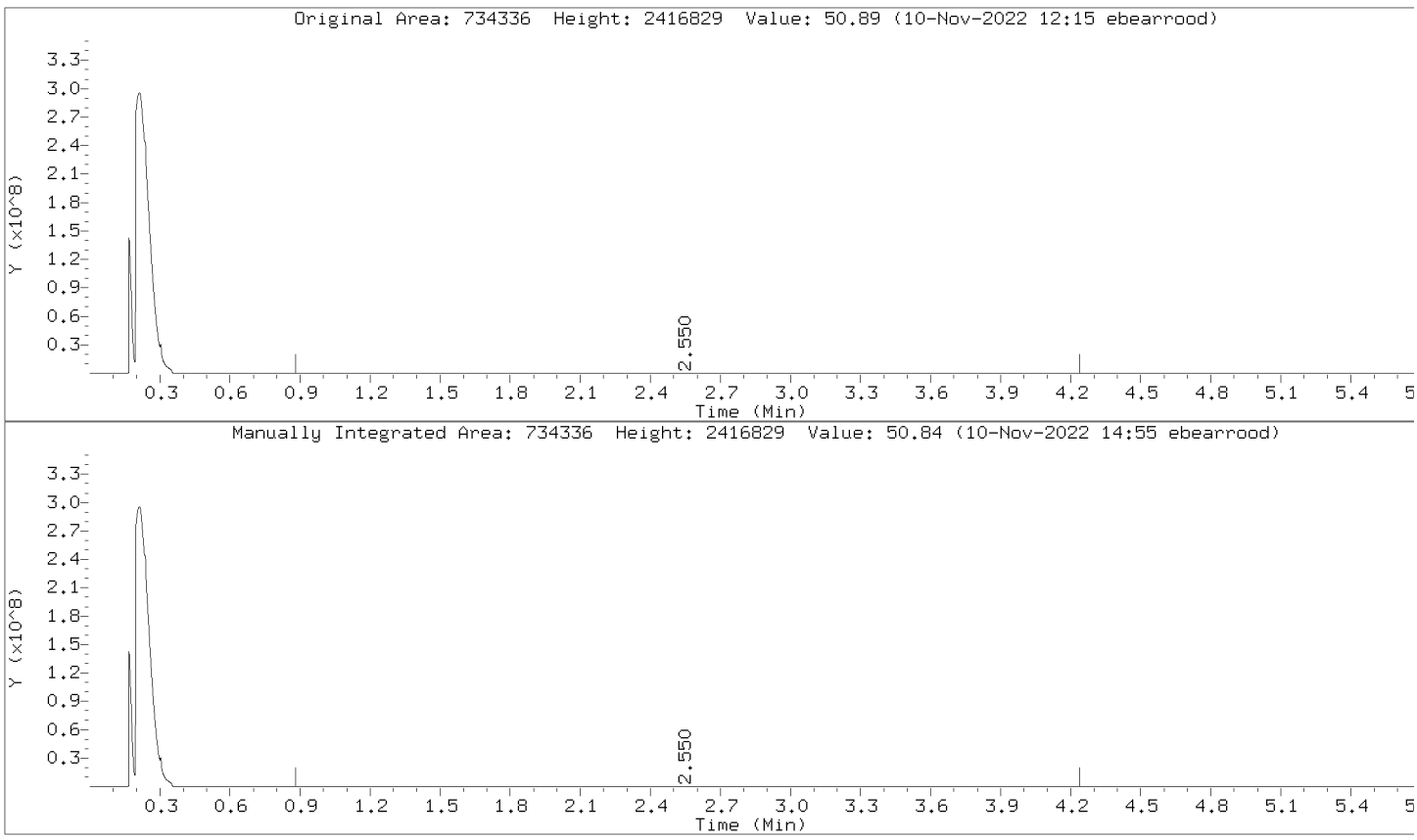
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



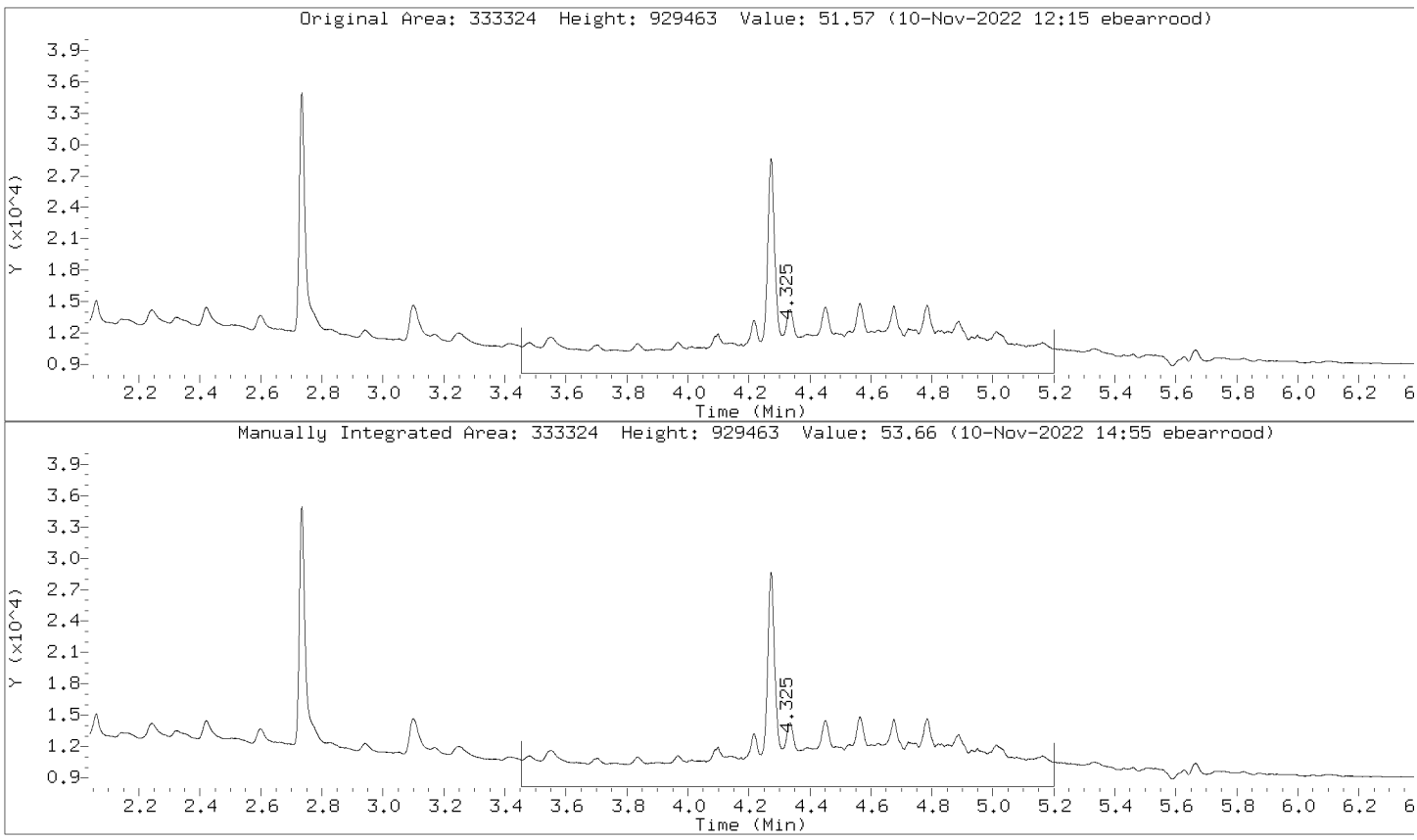
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



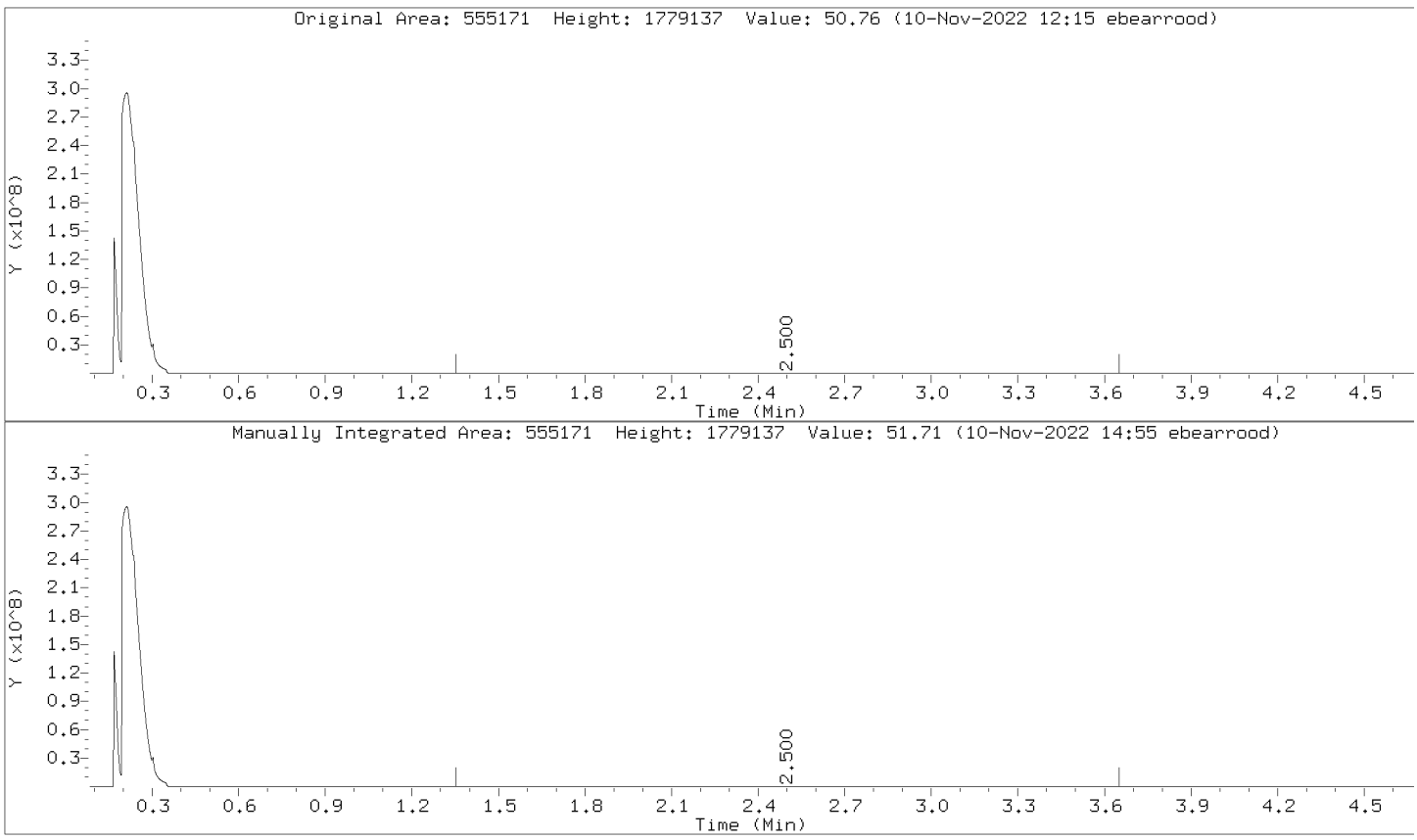
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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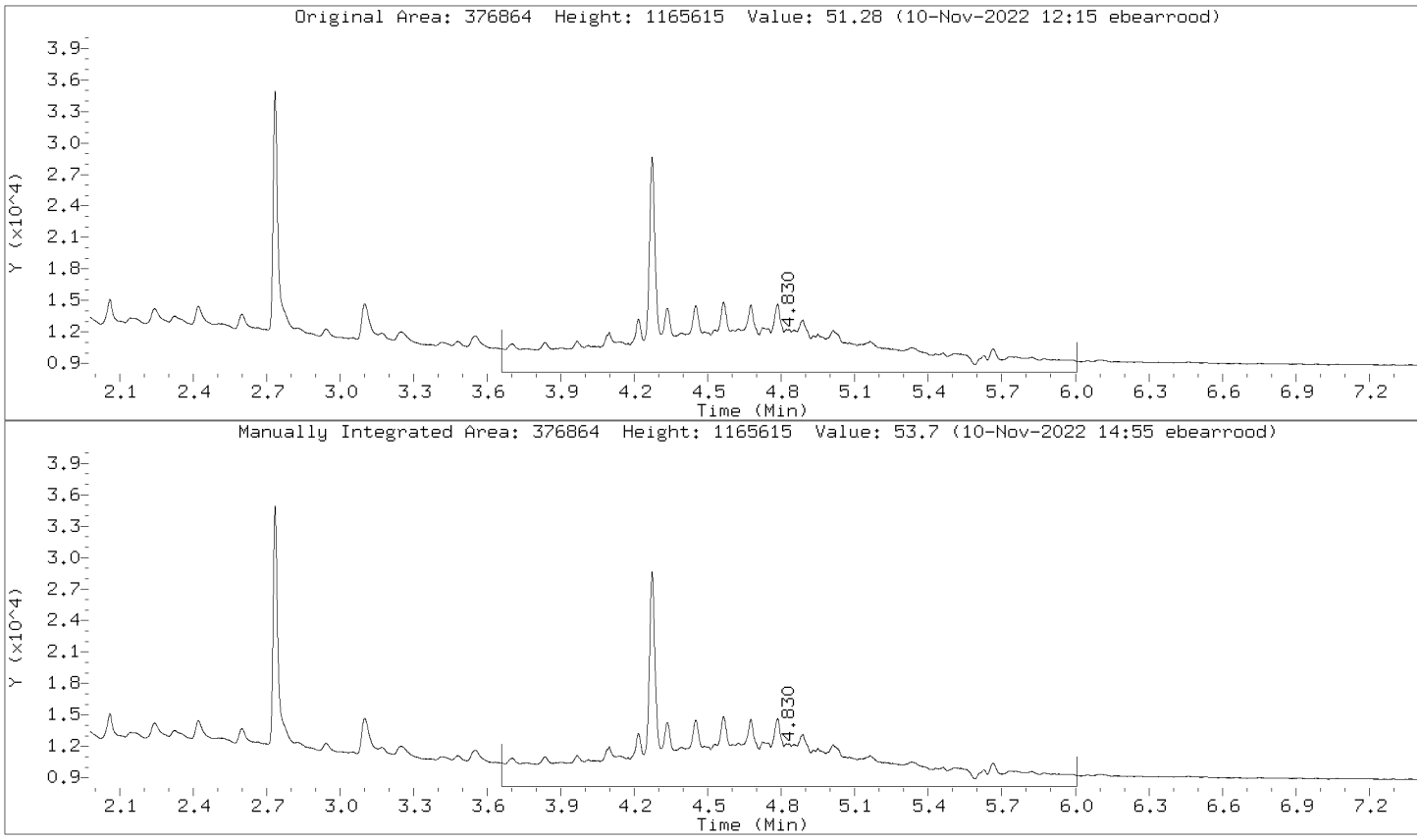
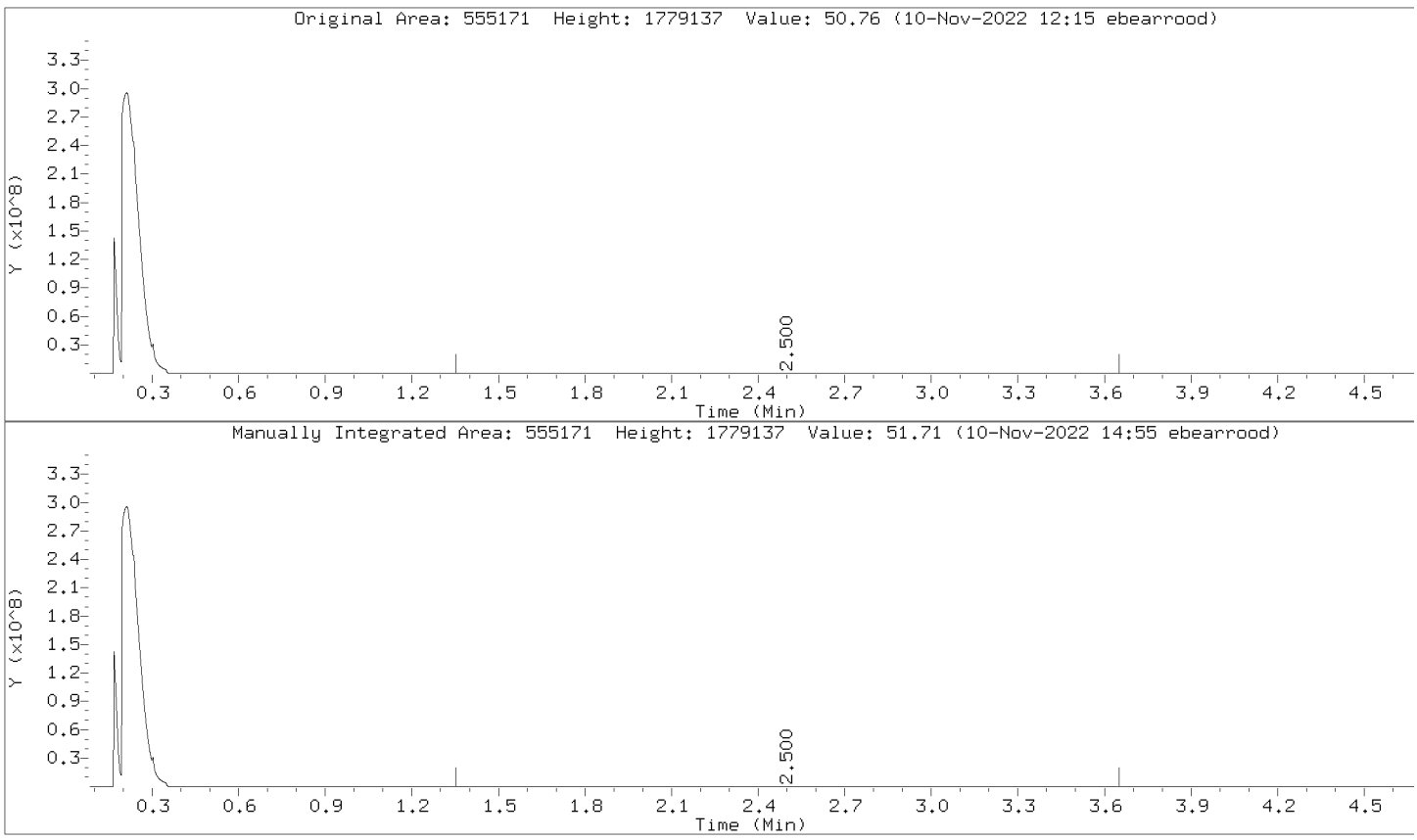
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



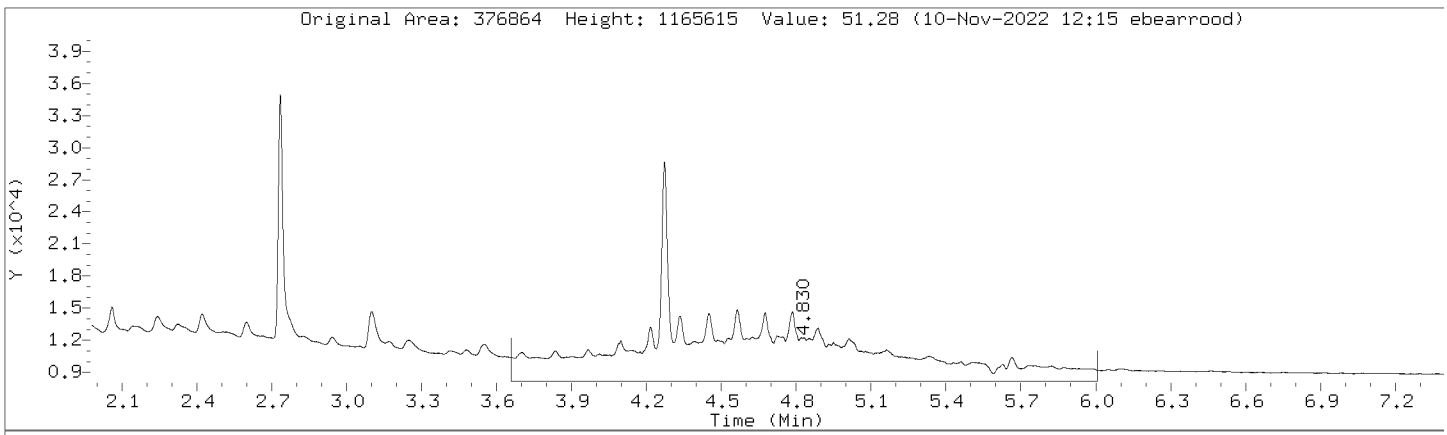
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

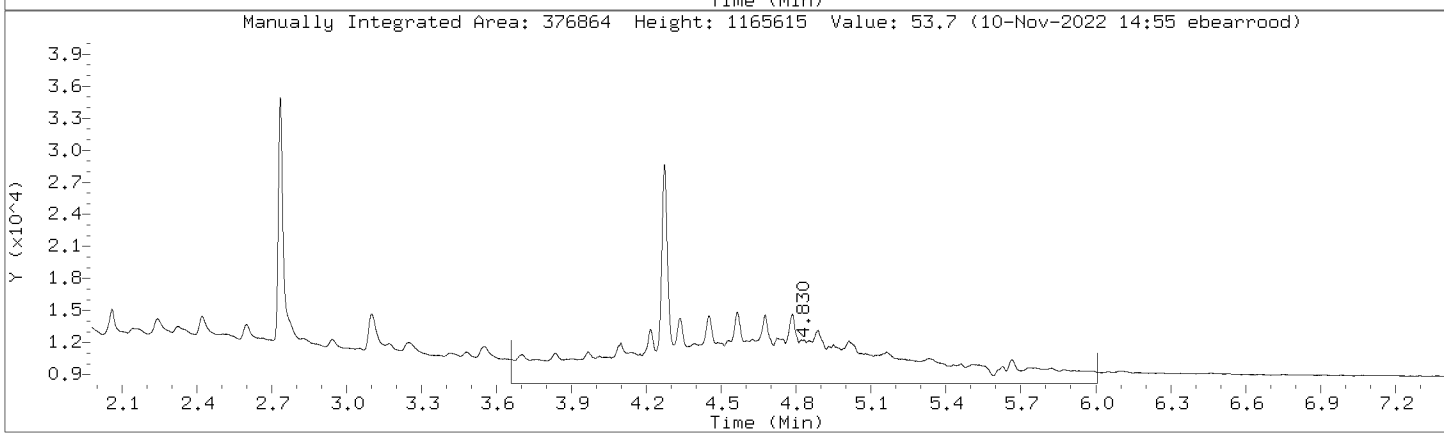
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





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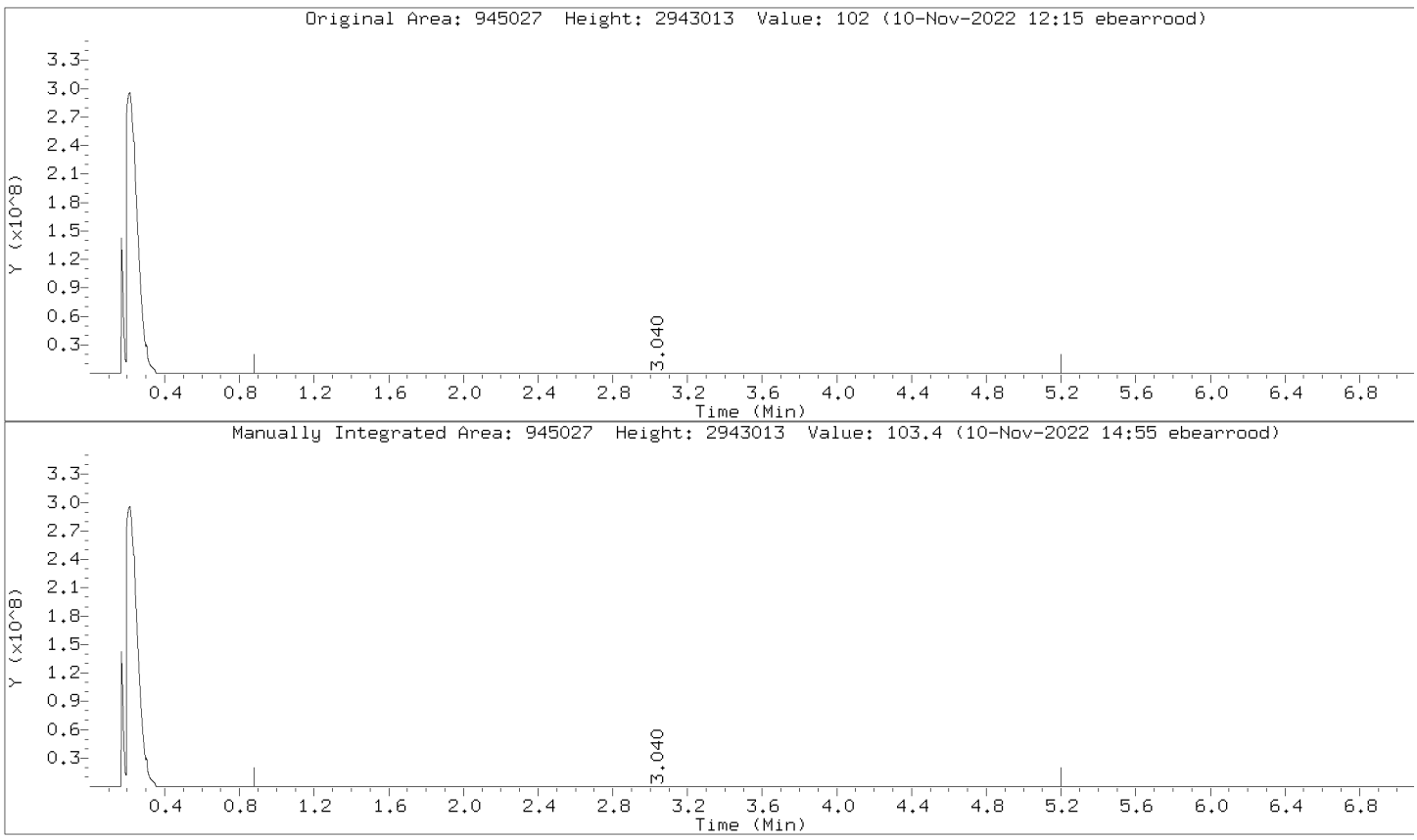
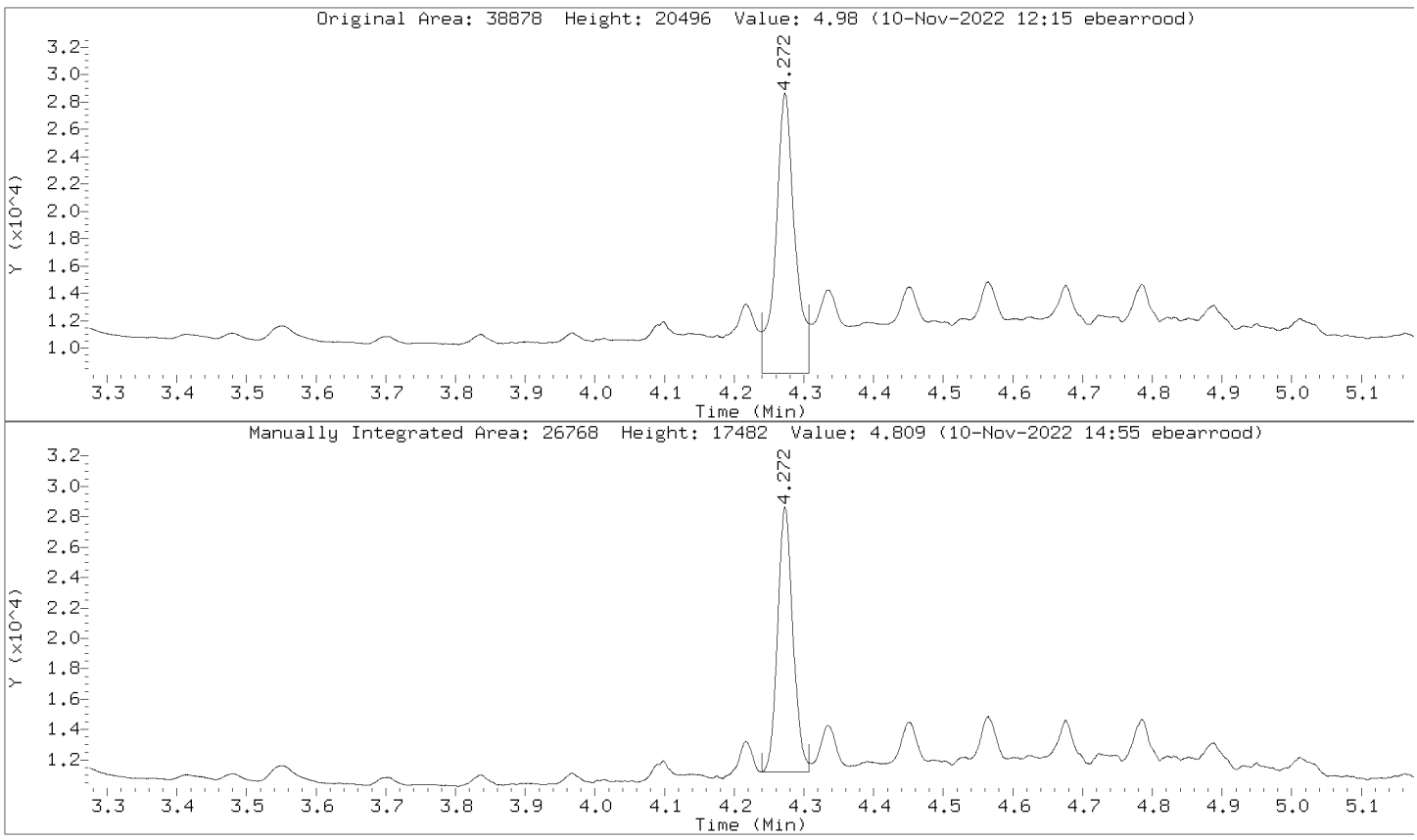
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



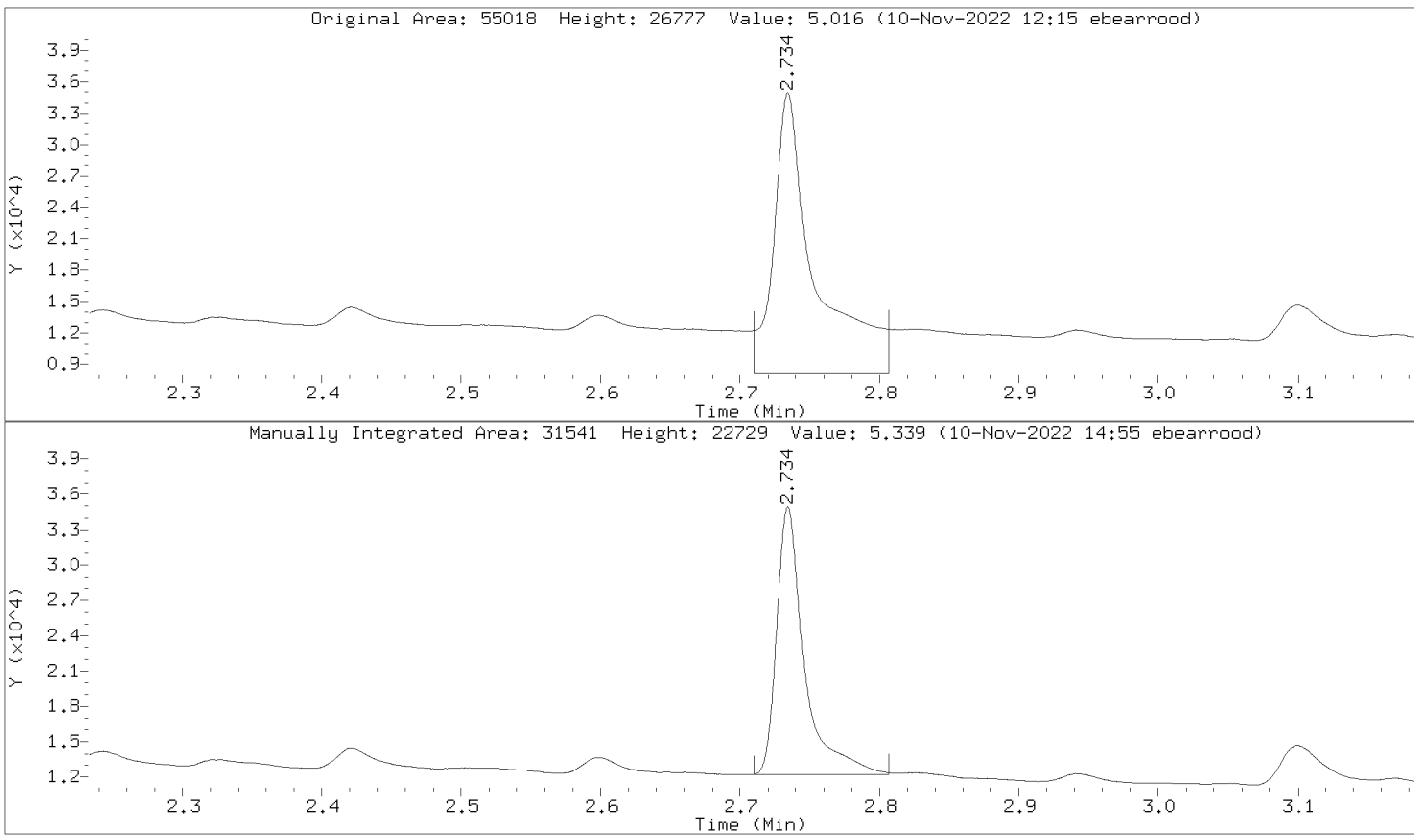
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		898996	100.000	96.8	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	63221	10.0000	10.1	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	50954	10.0000	9.45	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		461790	100.000	96.3	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		1035387	100.000	96.6	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		493334	100.000	96.1	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		1362996	200.000	193	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		774489	100.000	97.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		774489	100.000	97.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		564743	100.000	96.5	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		564743	100.000	96.5	(M)	RNG

QC Flag Legend

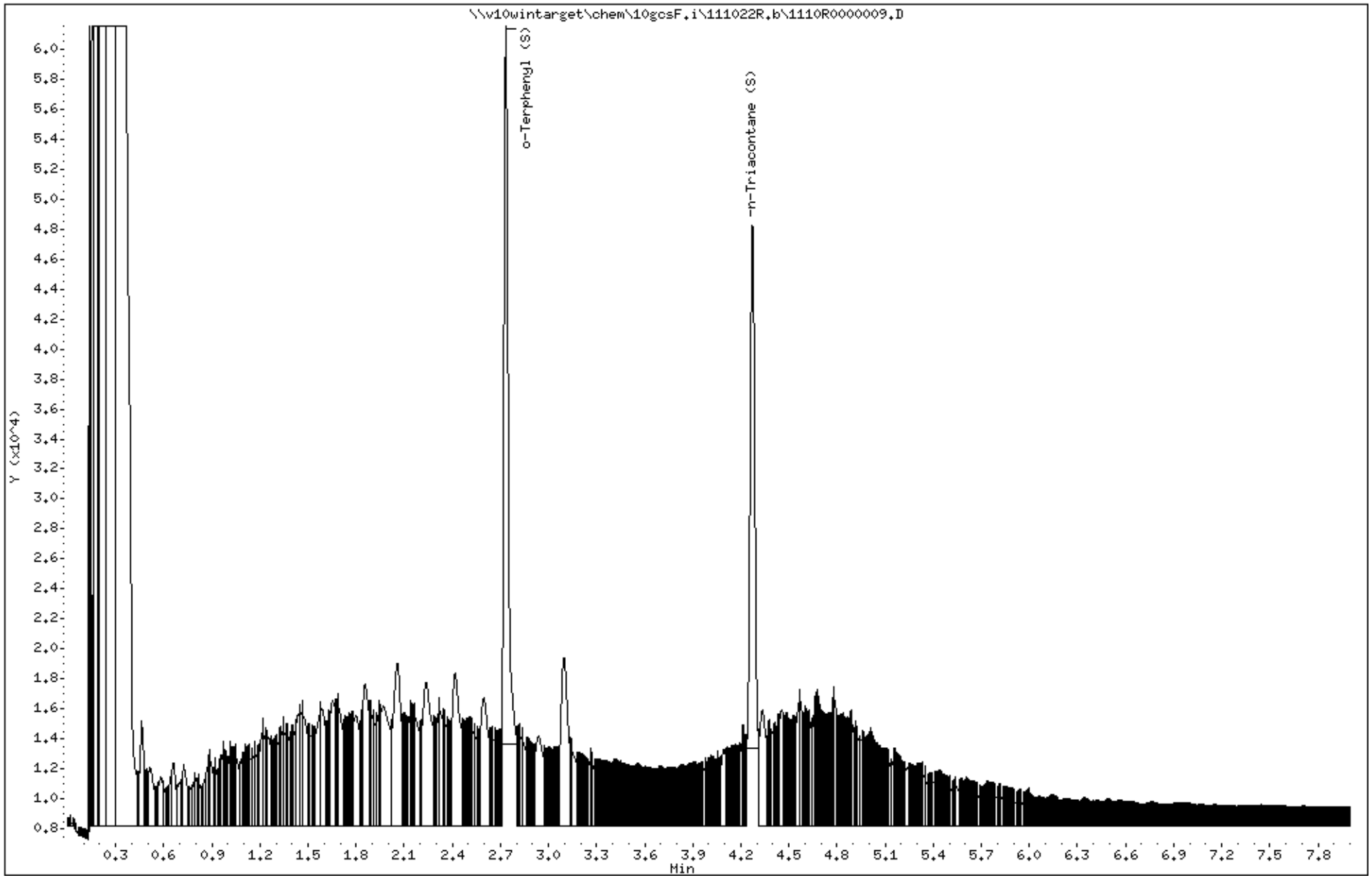
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

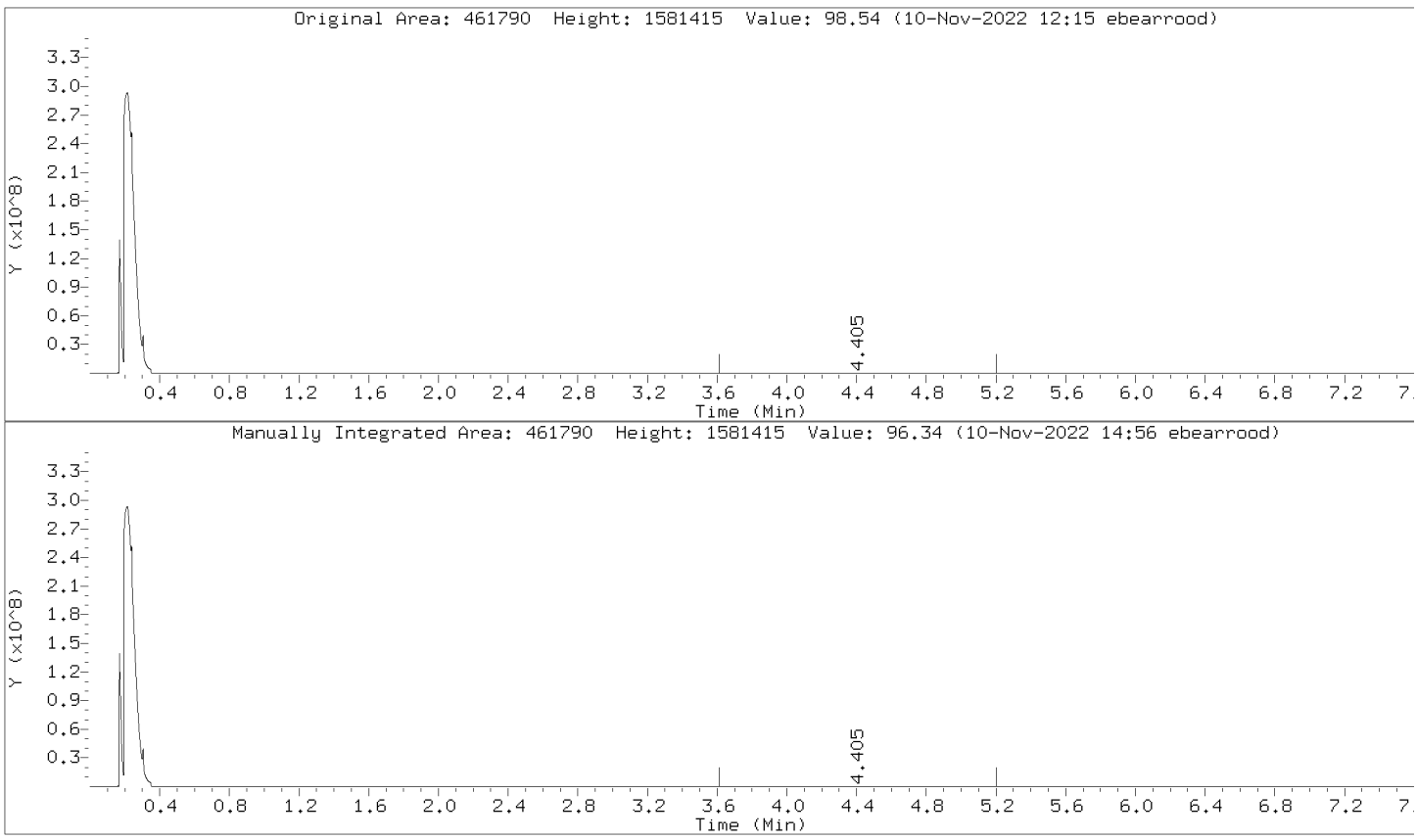
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



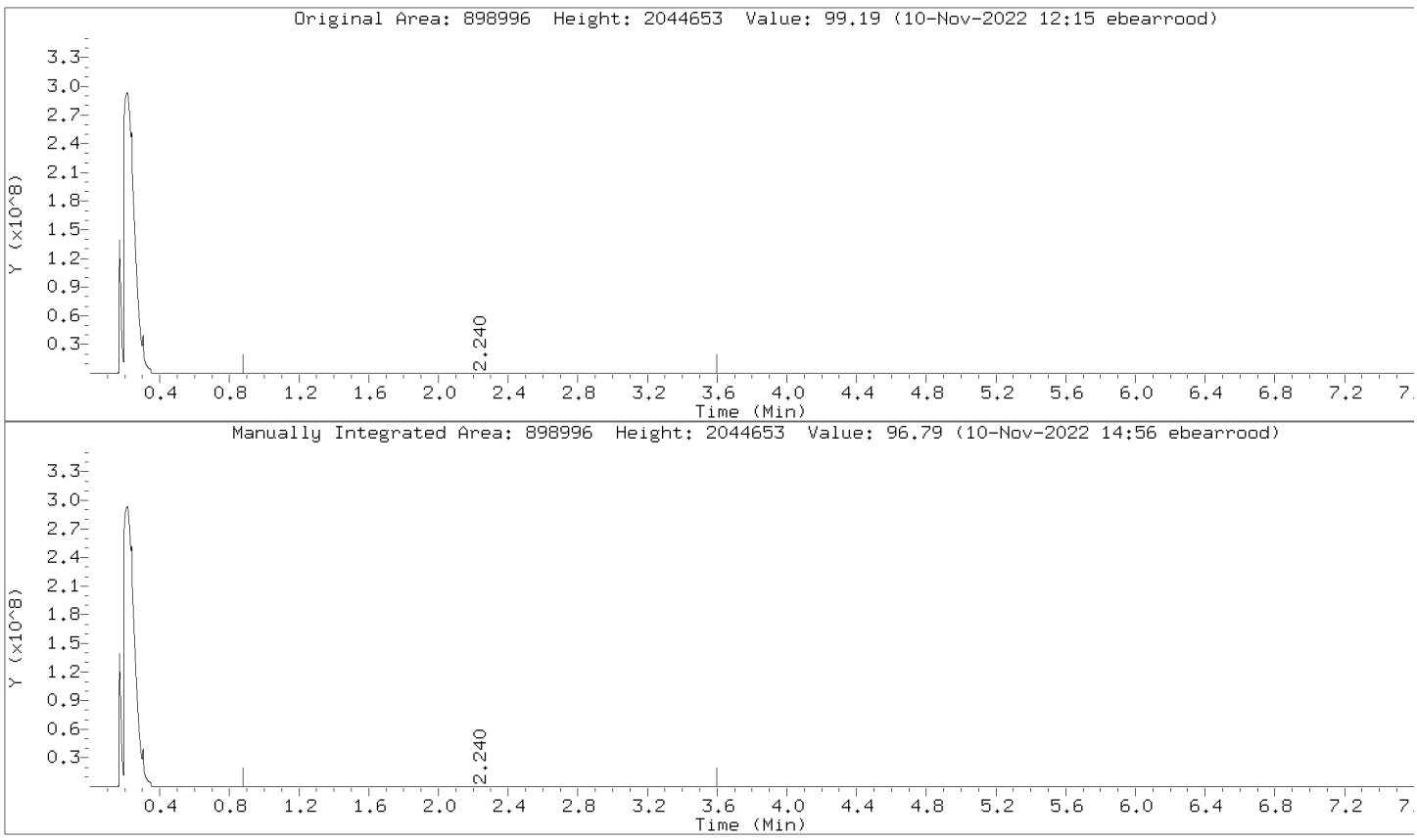
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



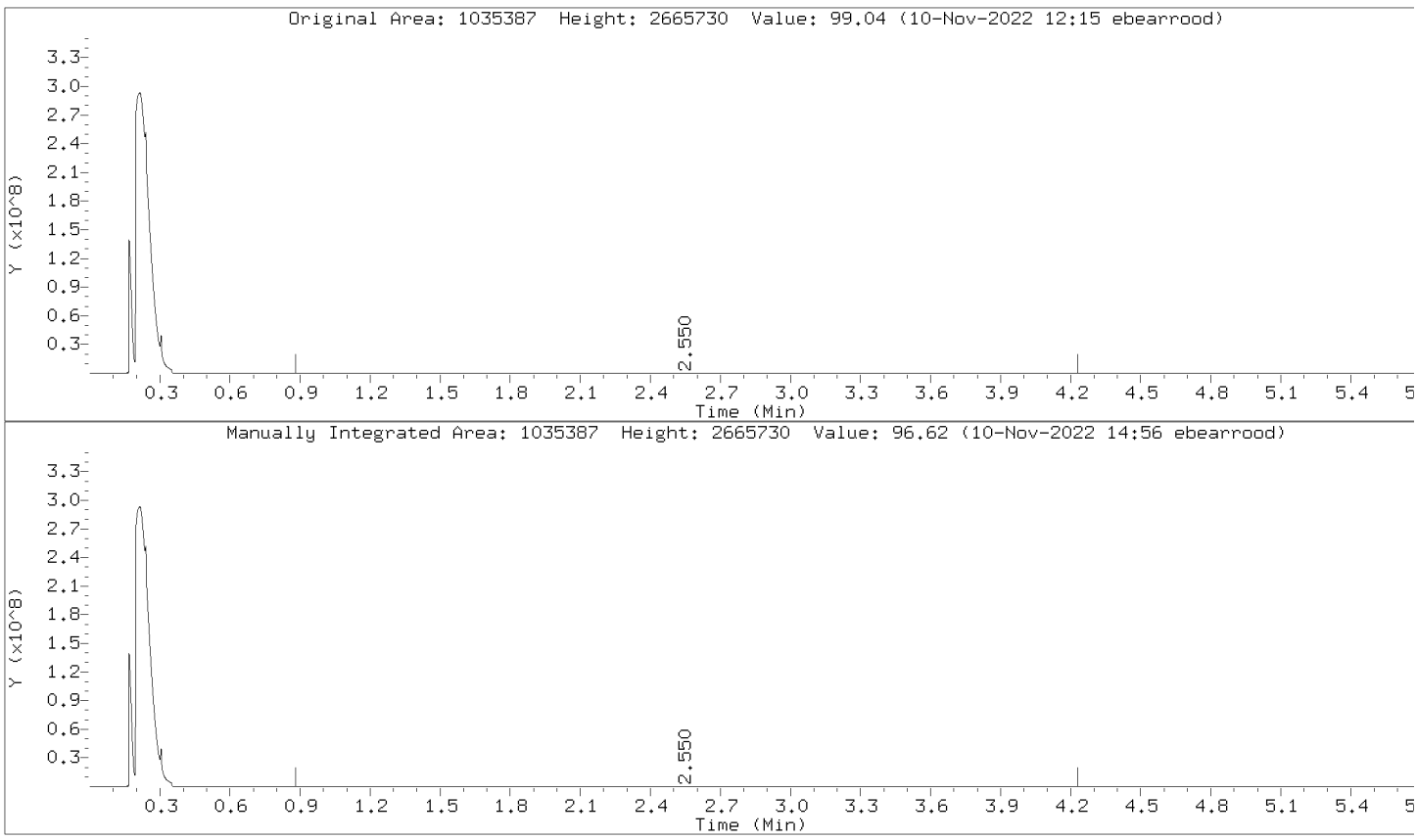
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



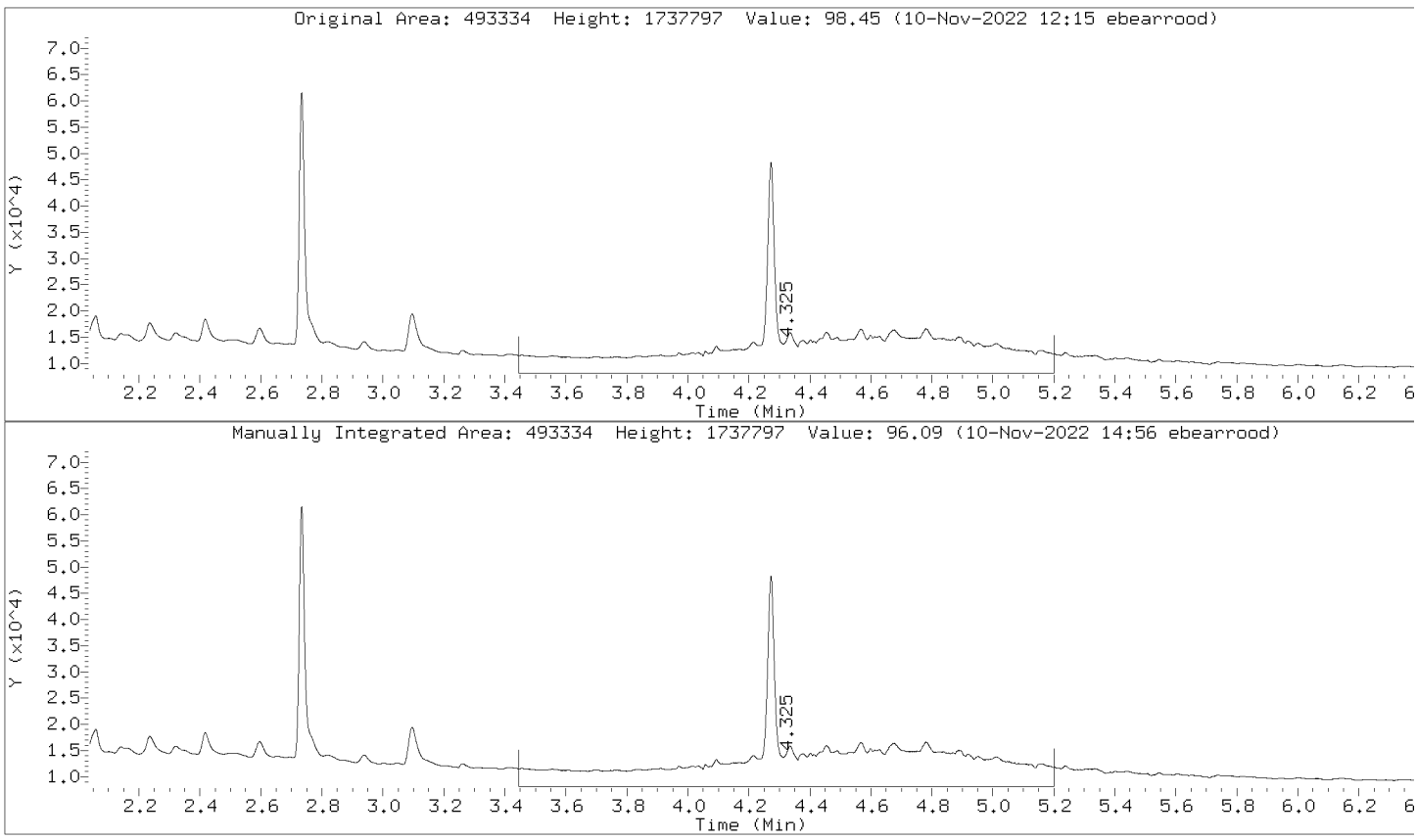
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



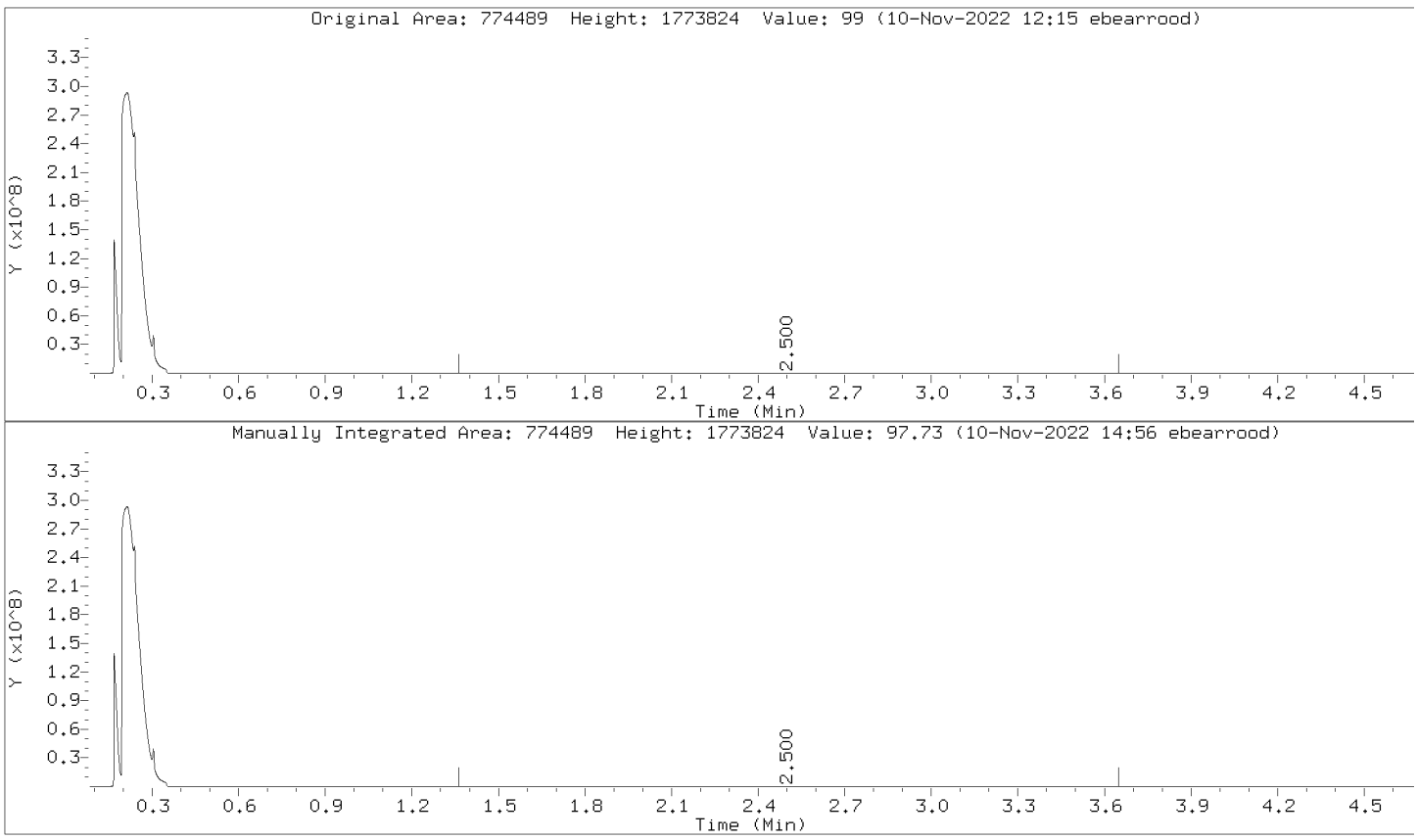
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



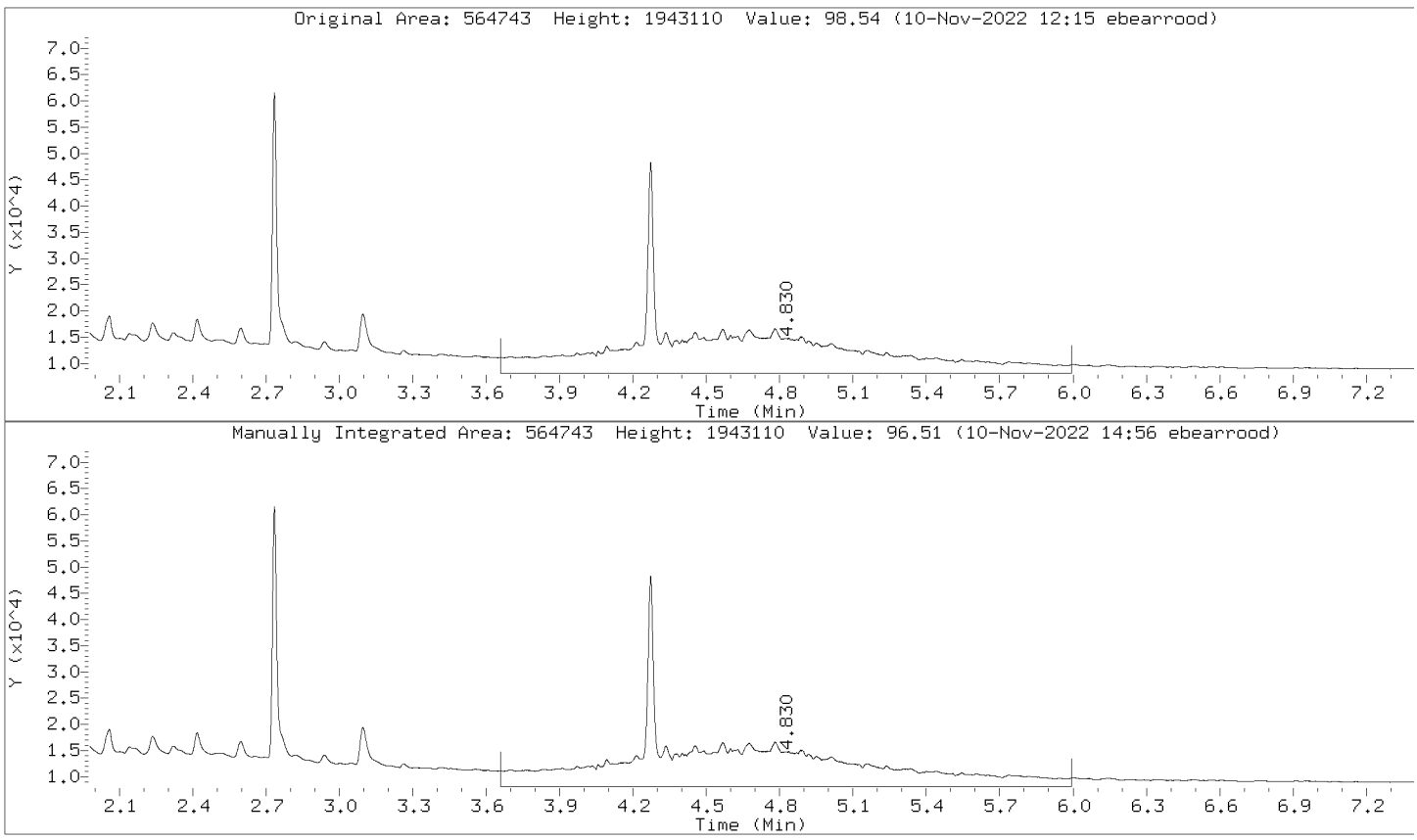
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



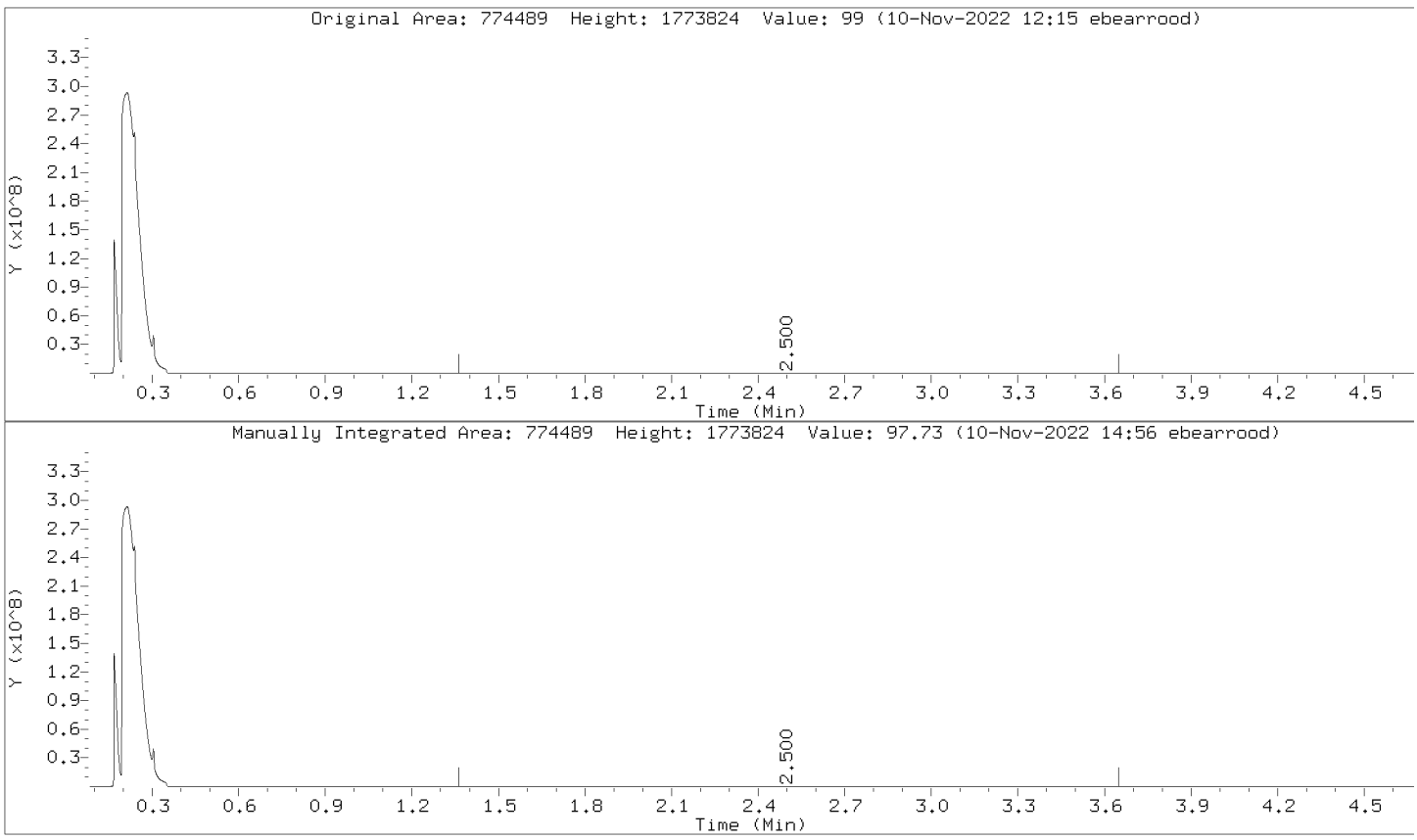
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



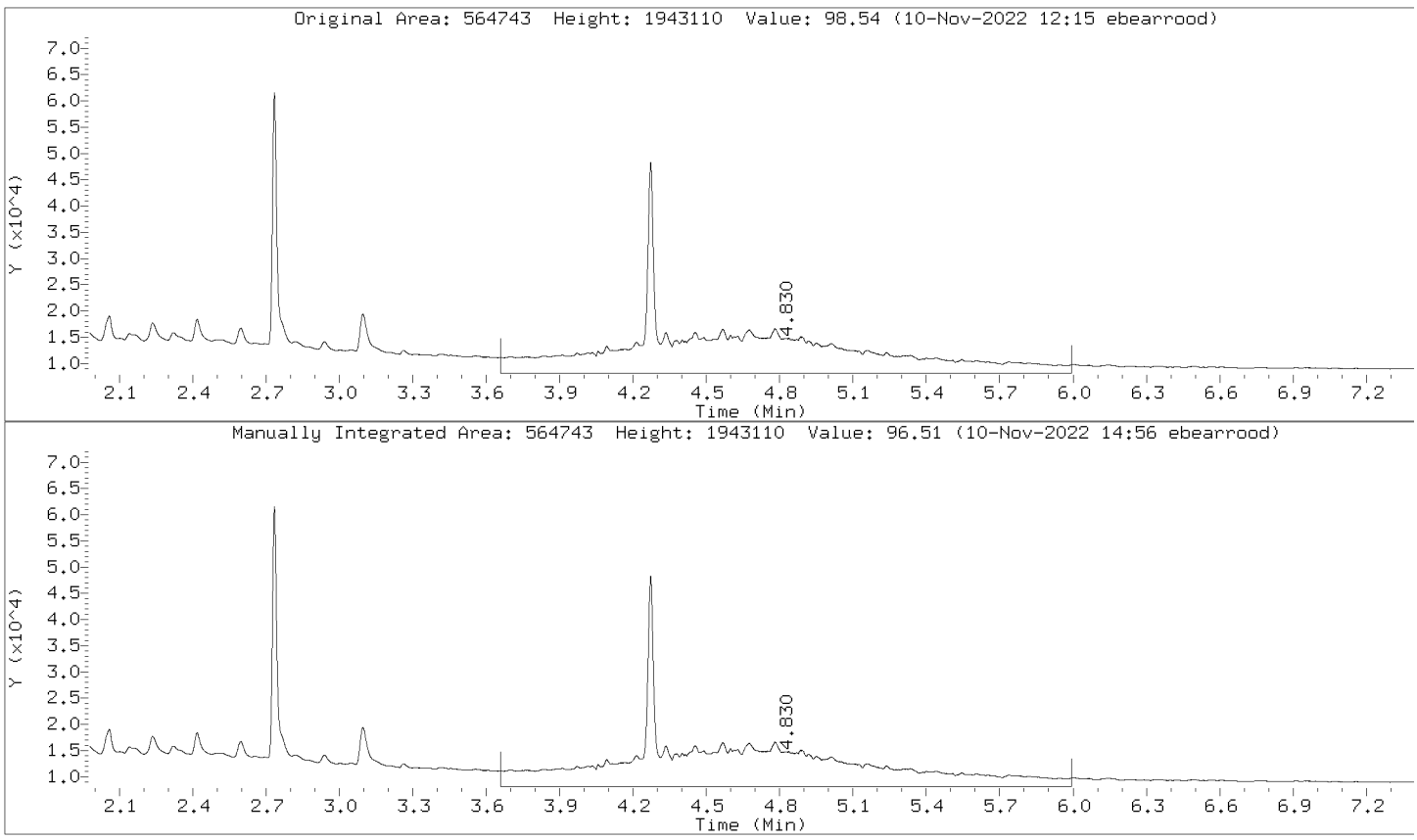
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



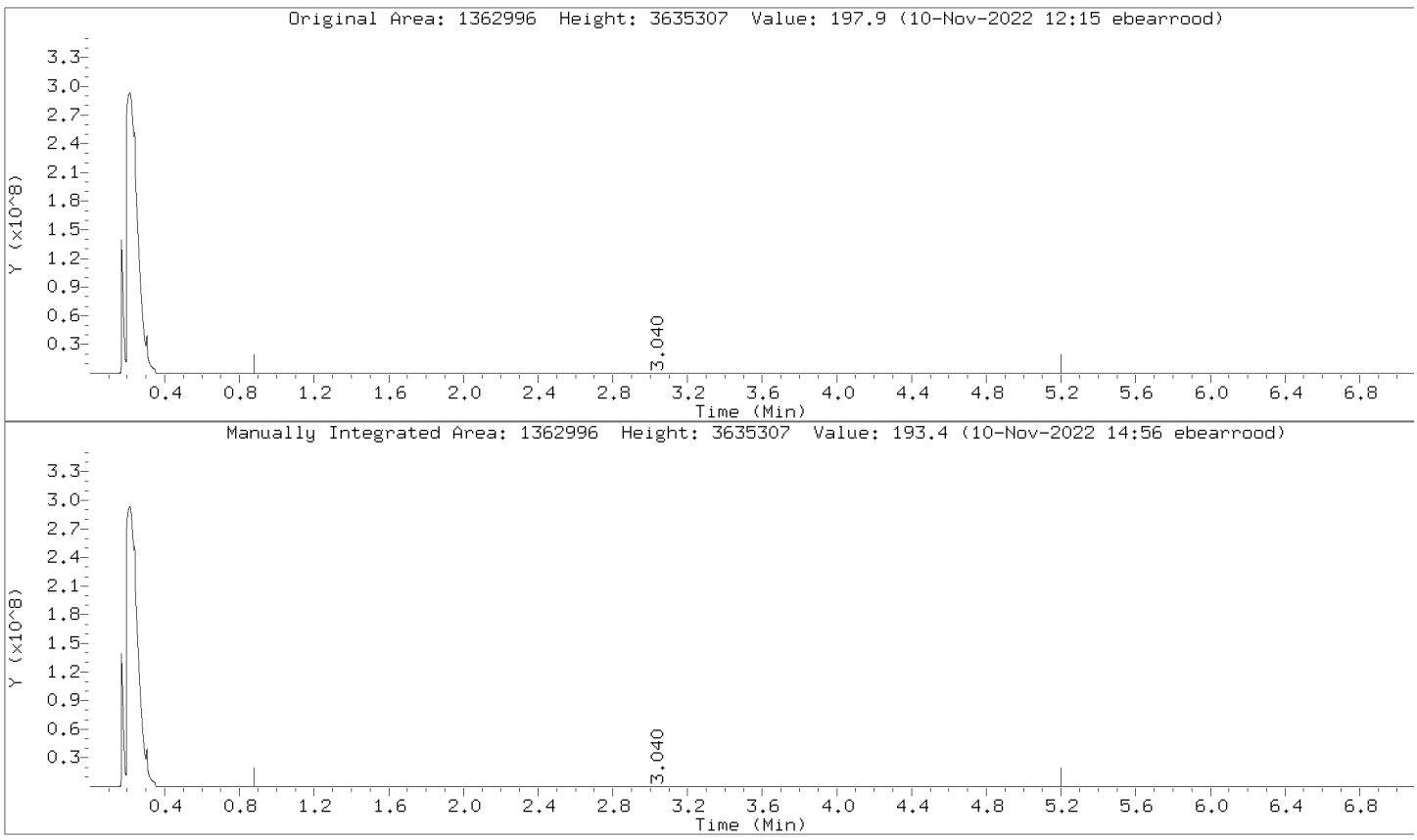
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



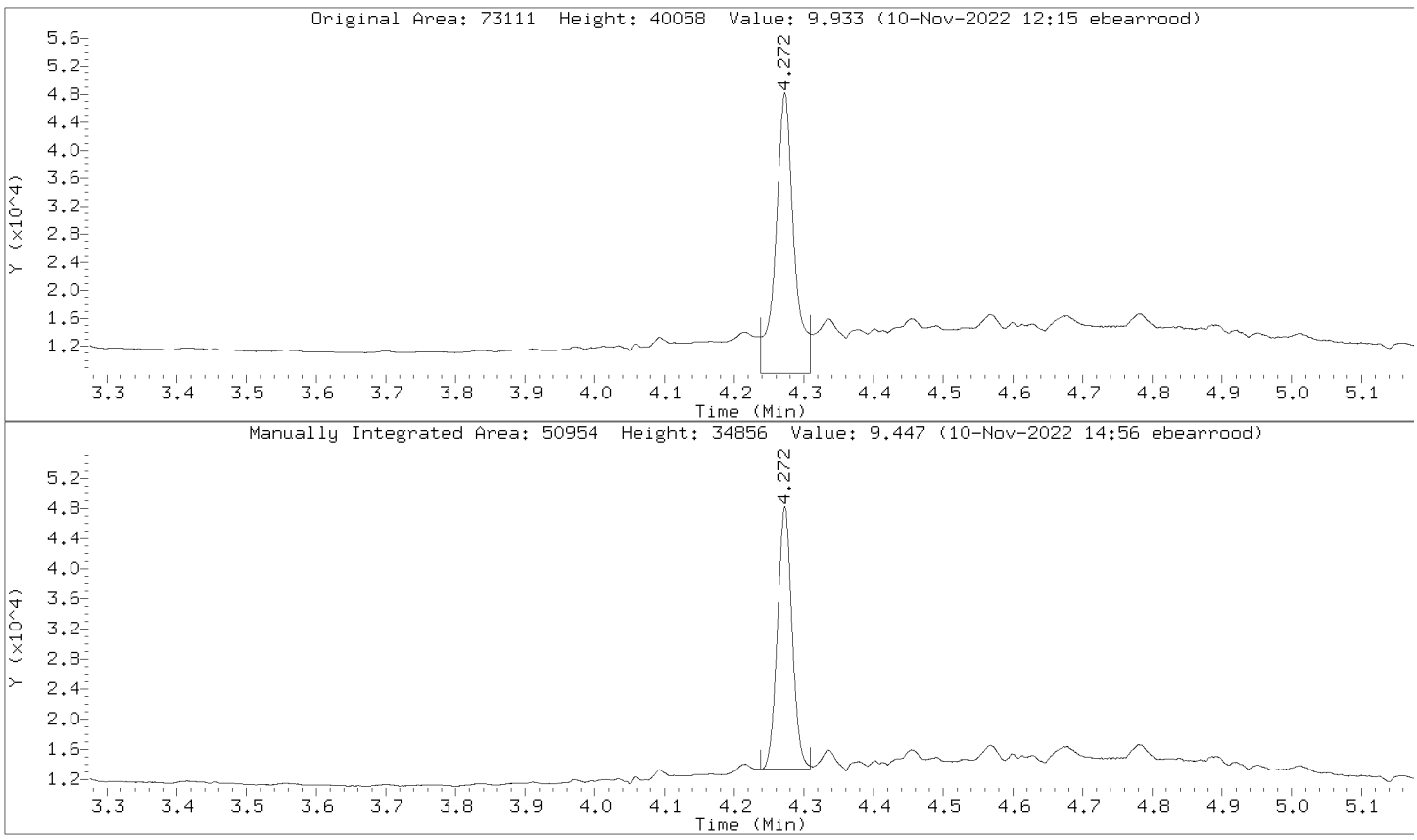
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



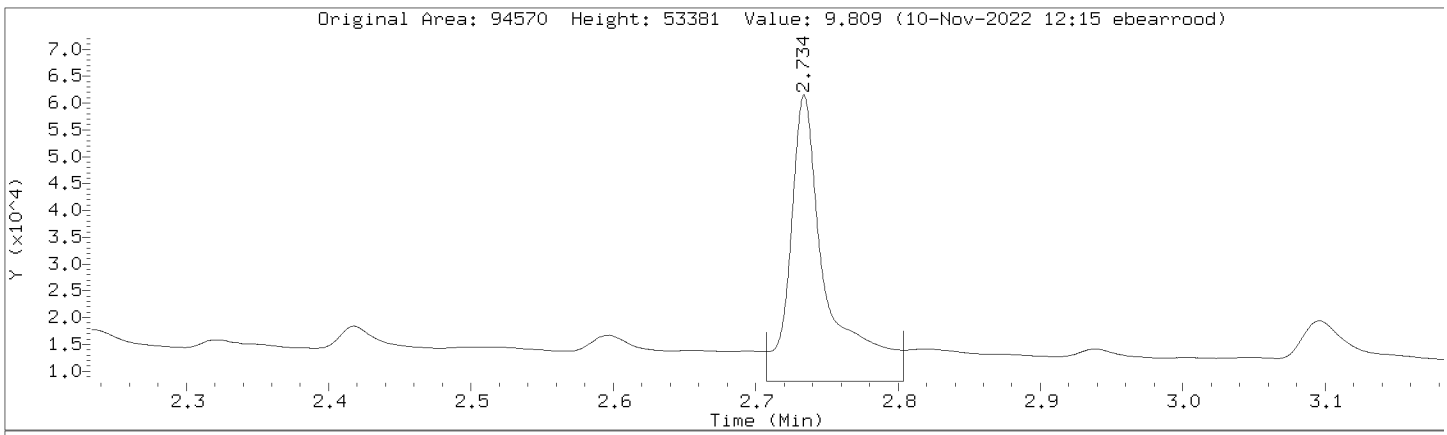
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

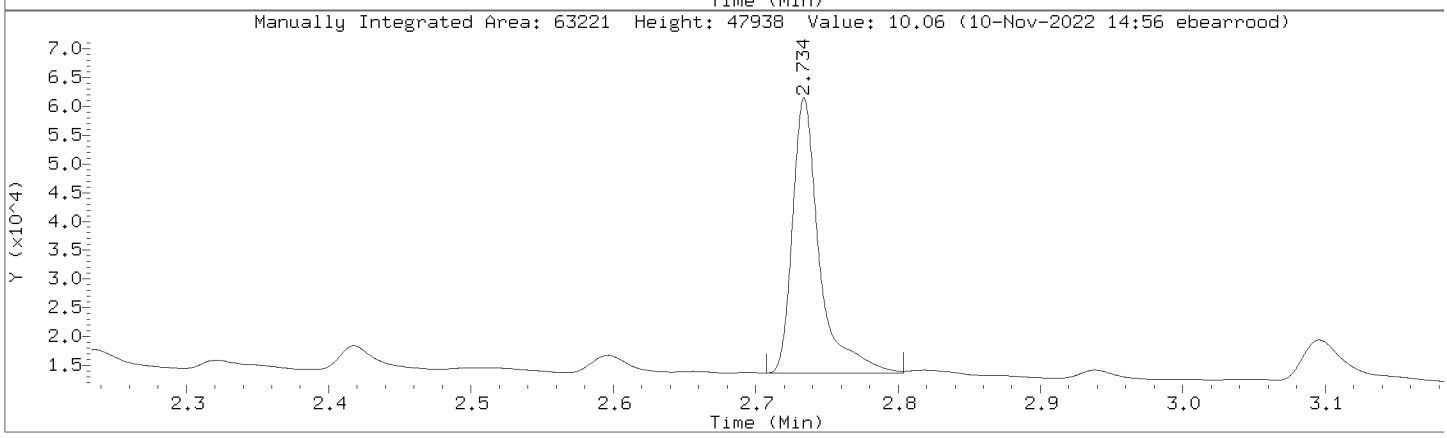
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1767895	250.000	250	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	162877	25.0000	24.9	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	134635	25.0000	25.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1016189	250.000	250	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		2040586	250.000	249	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1068936	250.000	249	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		2784418	500.000	500	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG

QC Flag Legend

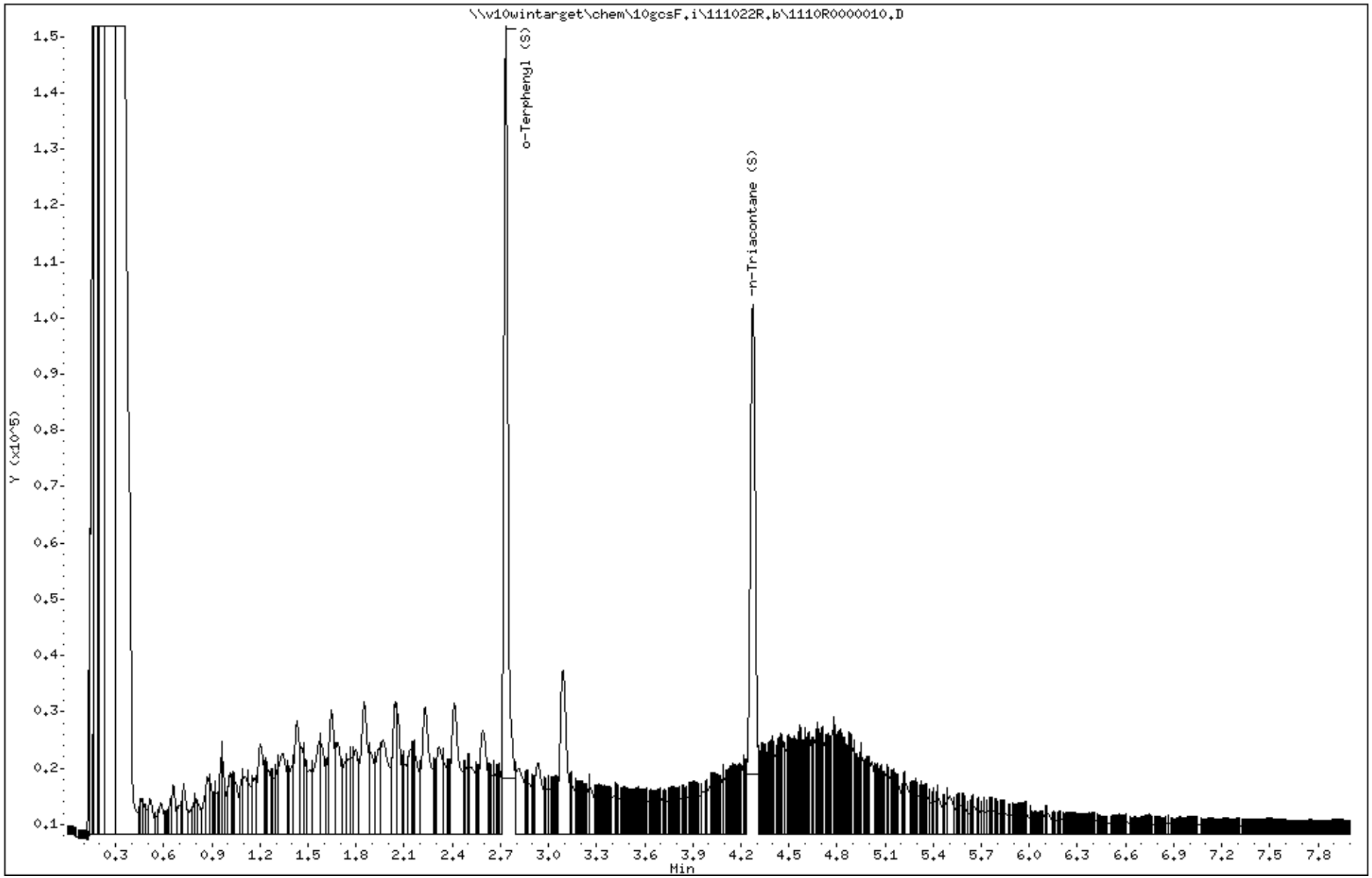
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

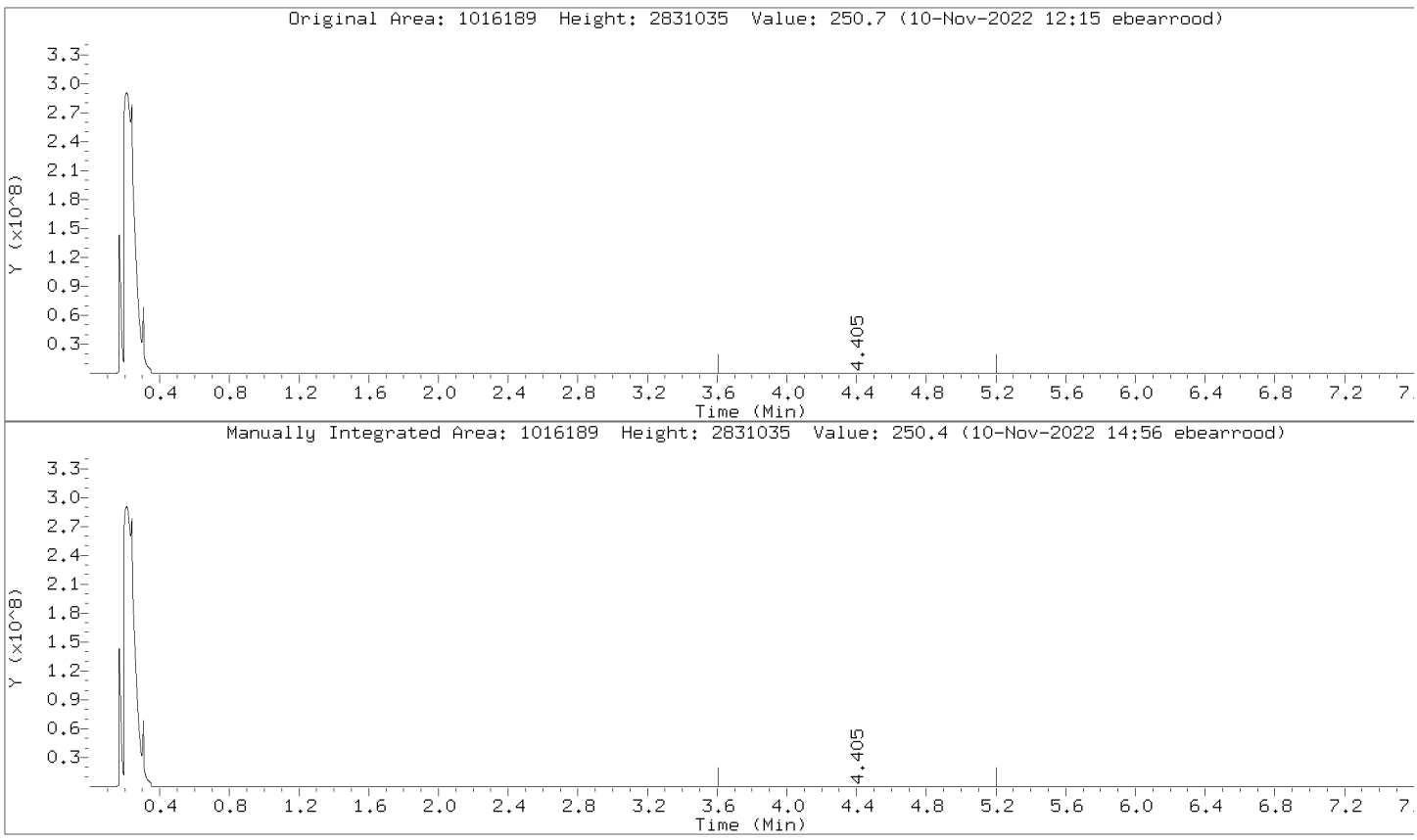
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



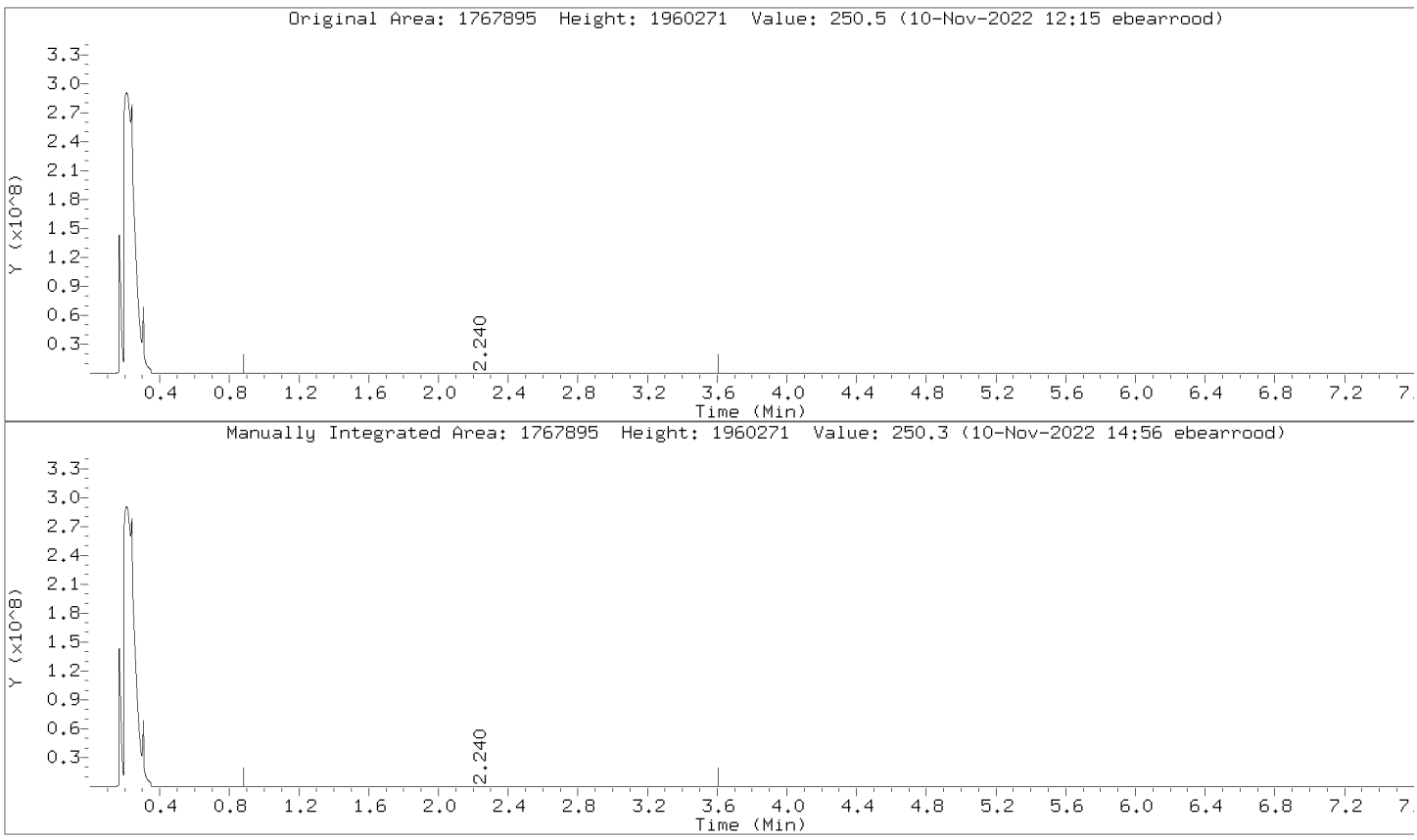
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



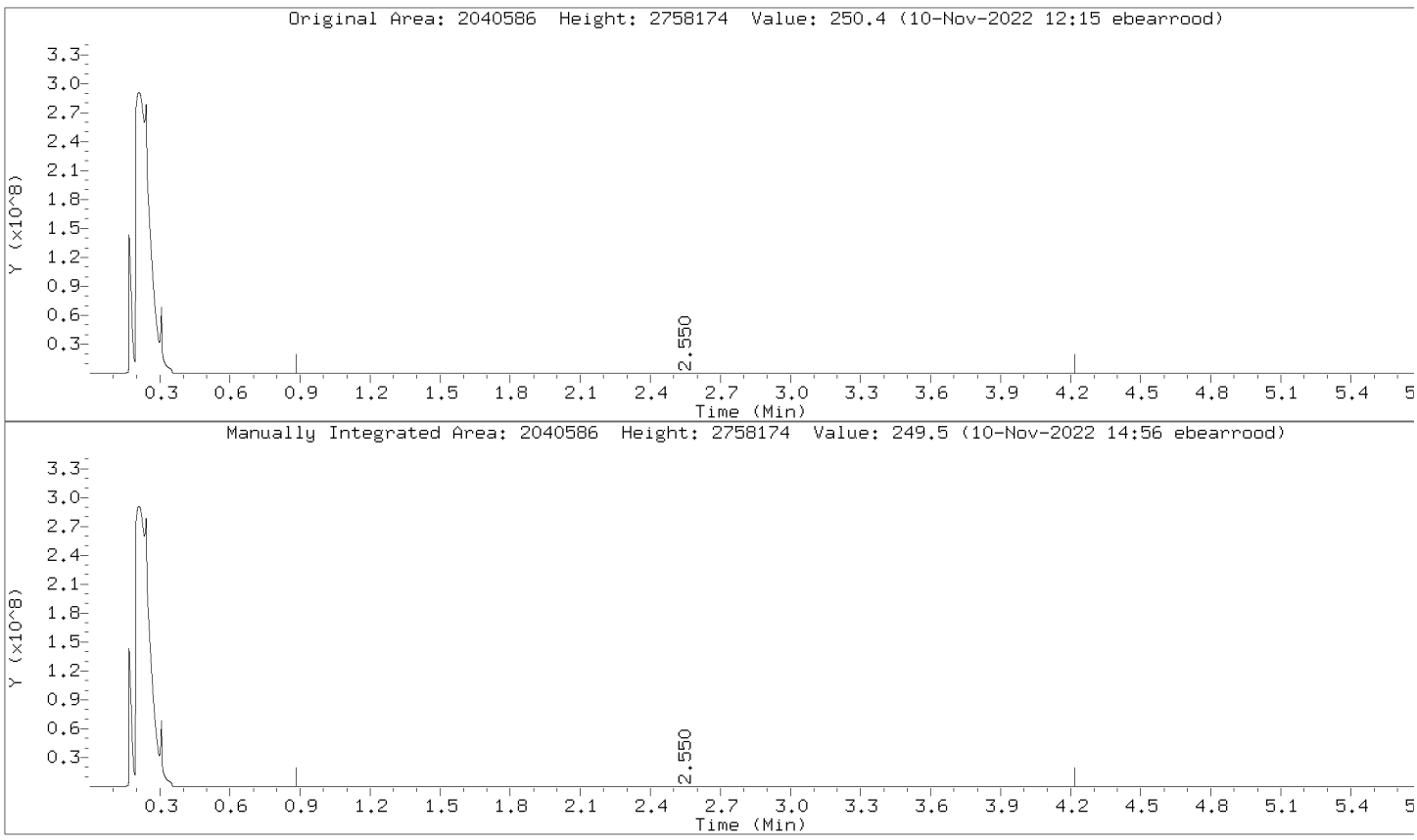
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



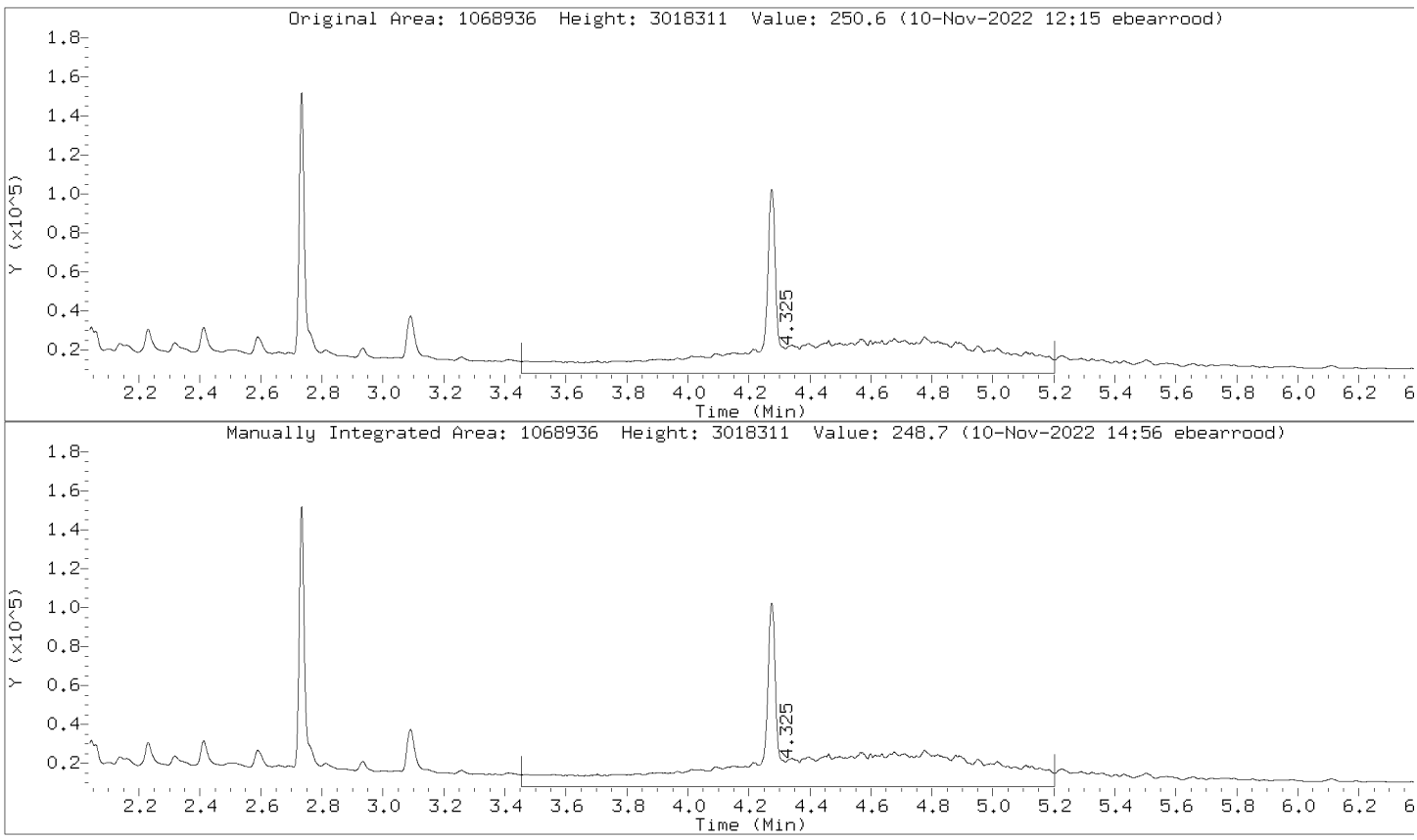
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



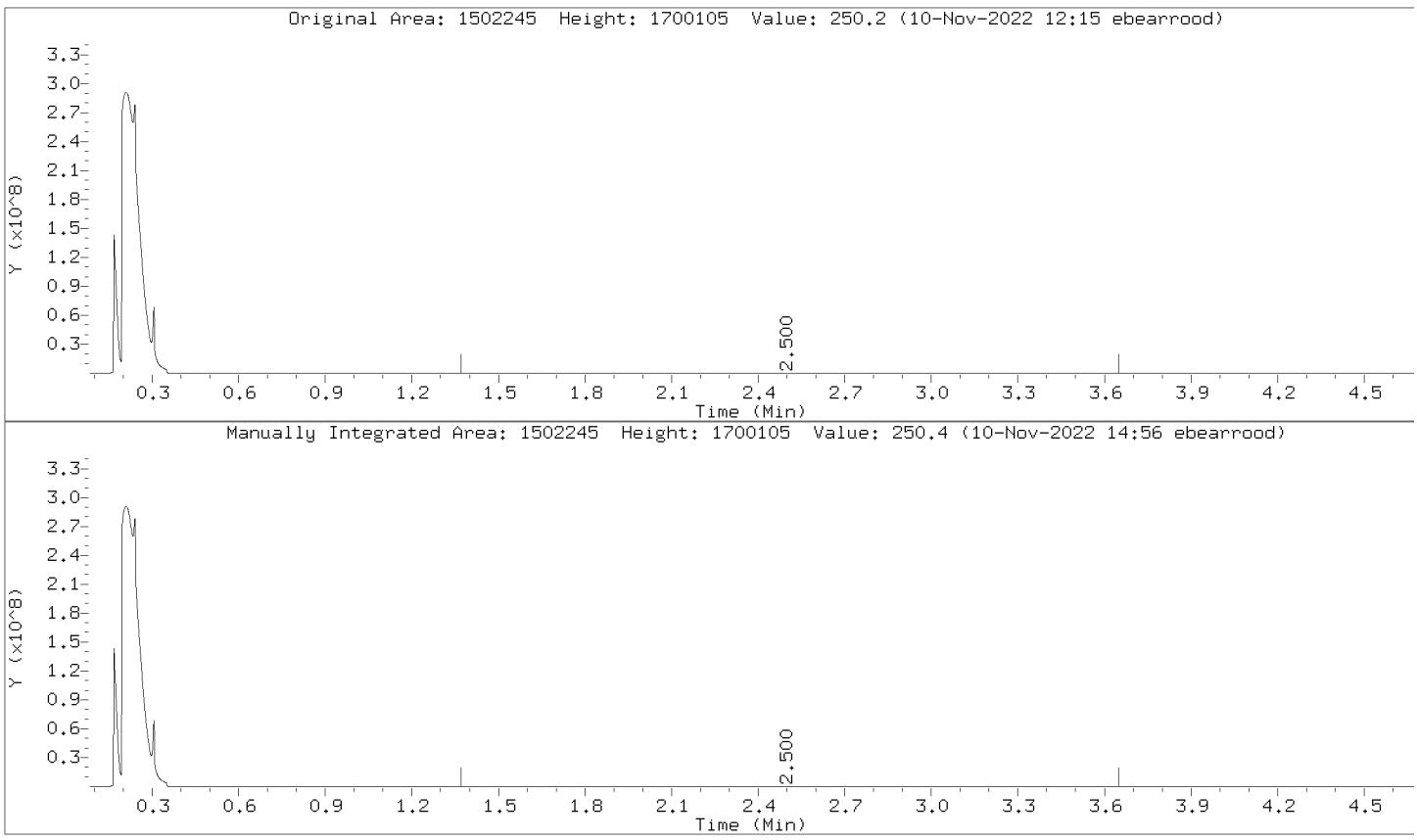
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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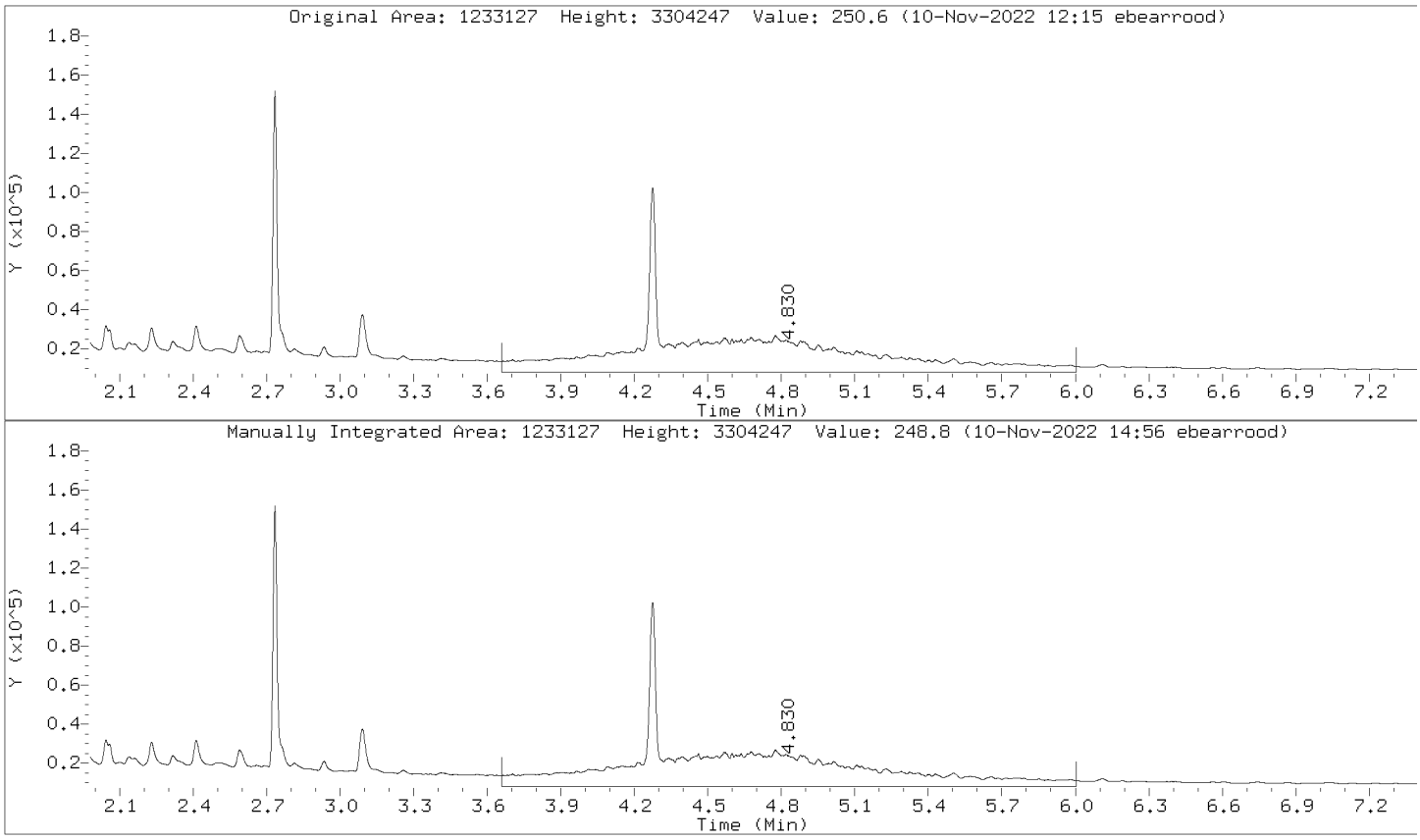
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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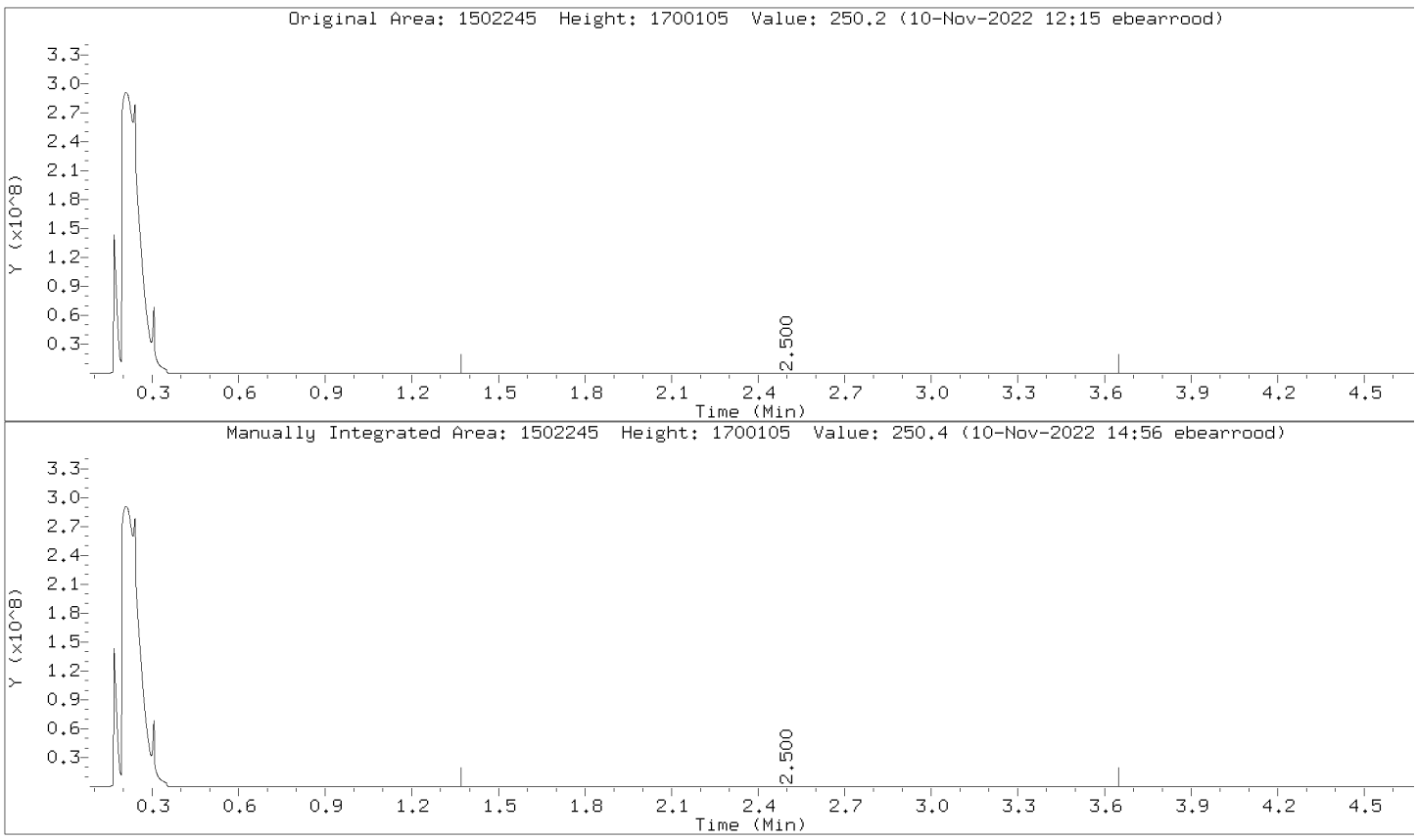
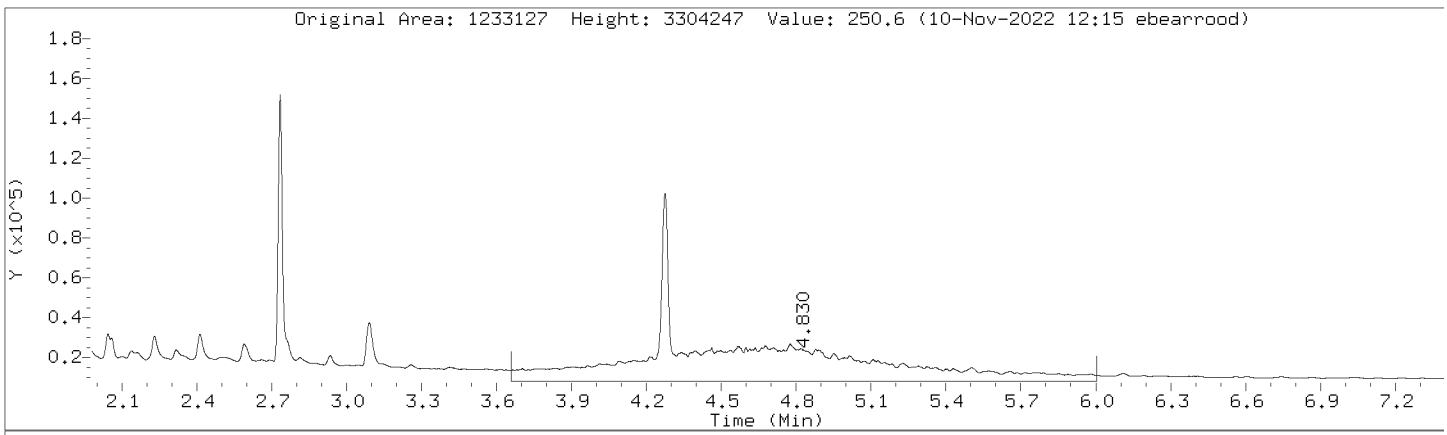
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

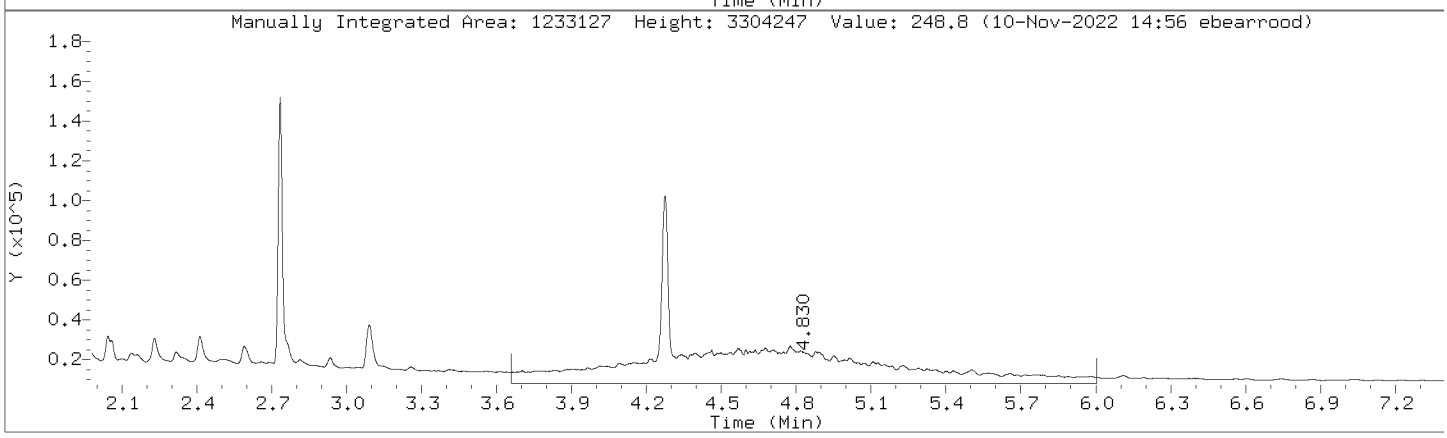
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

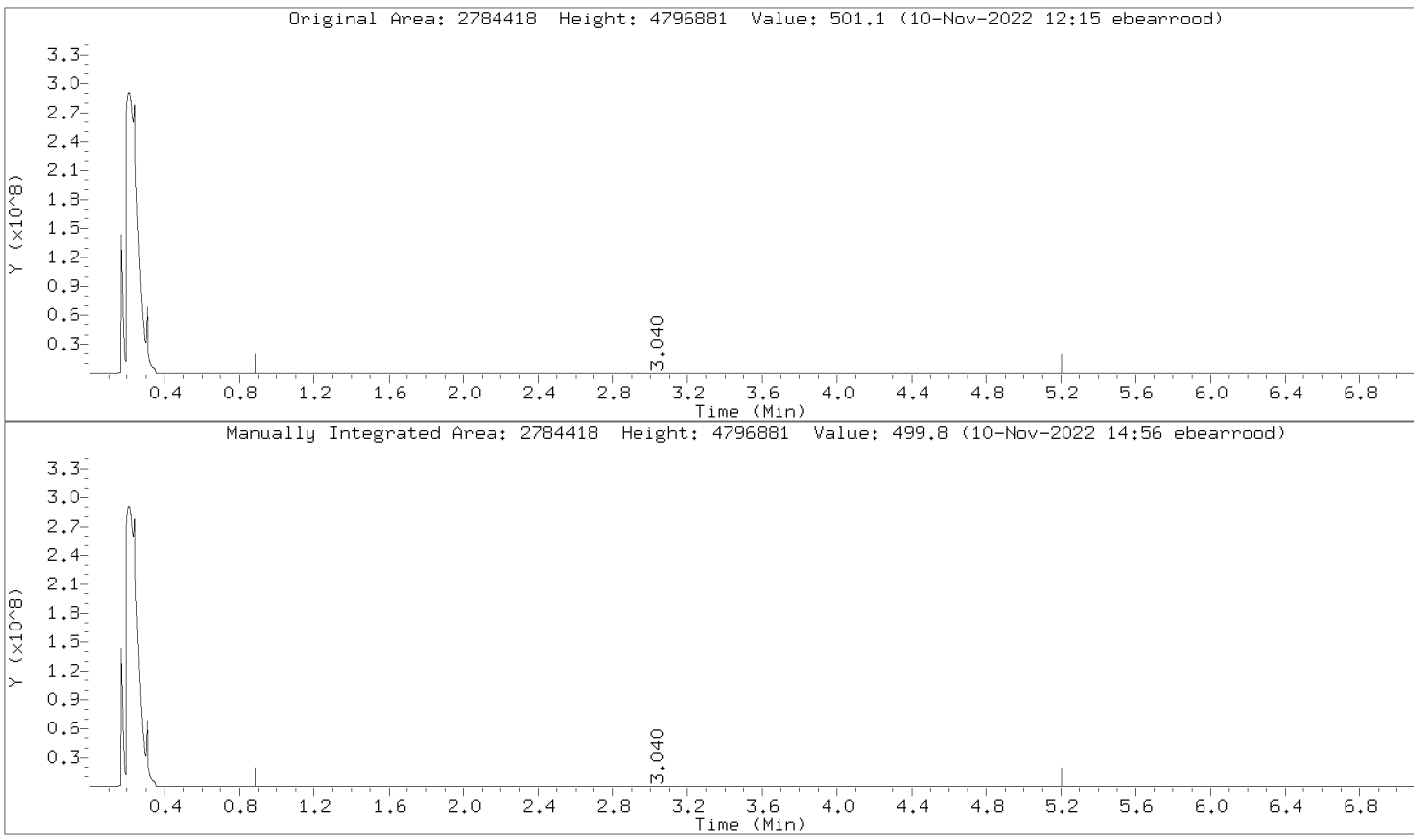
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





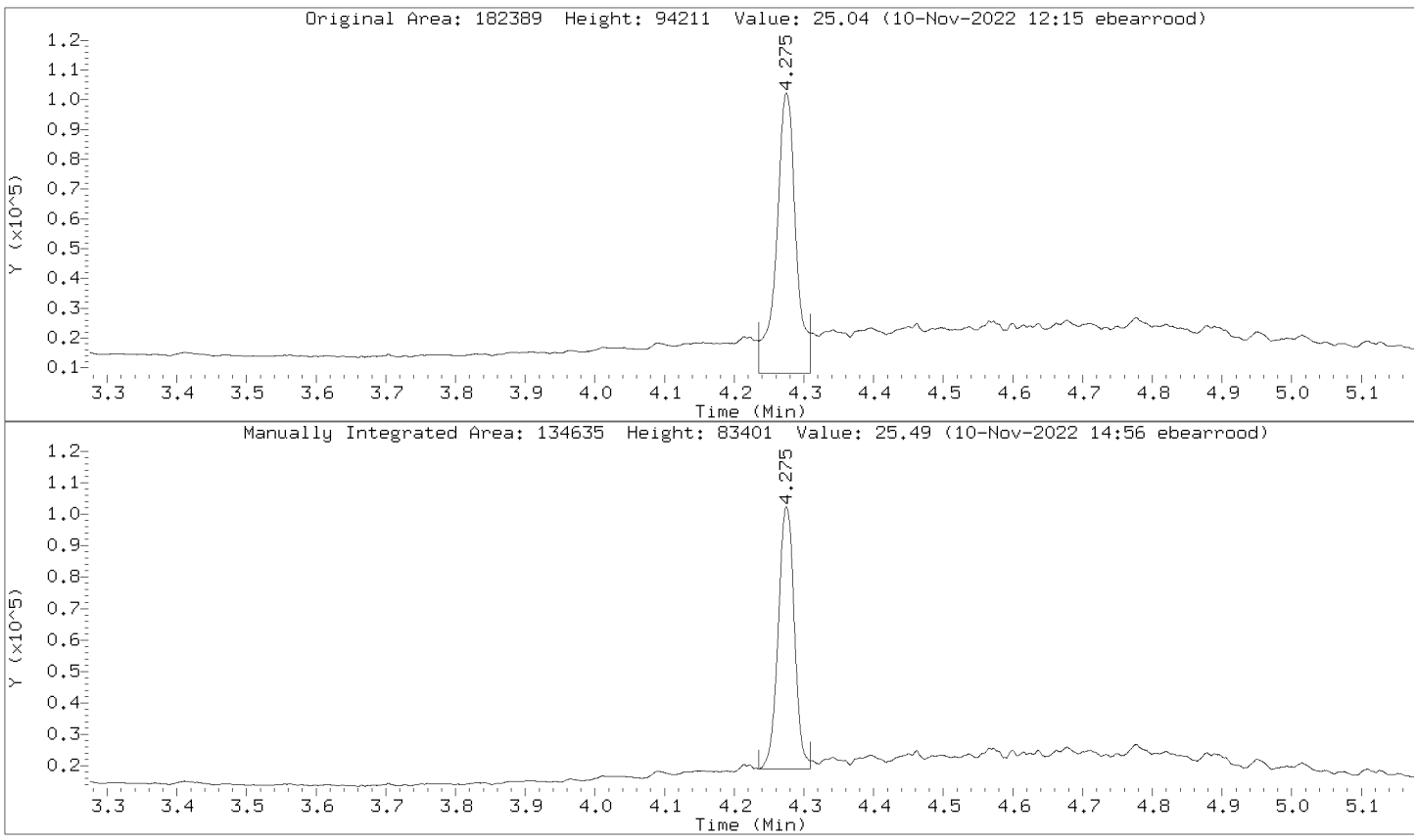
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



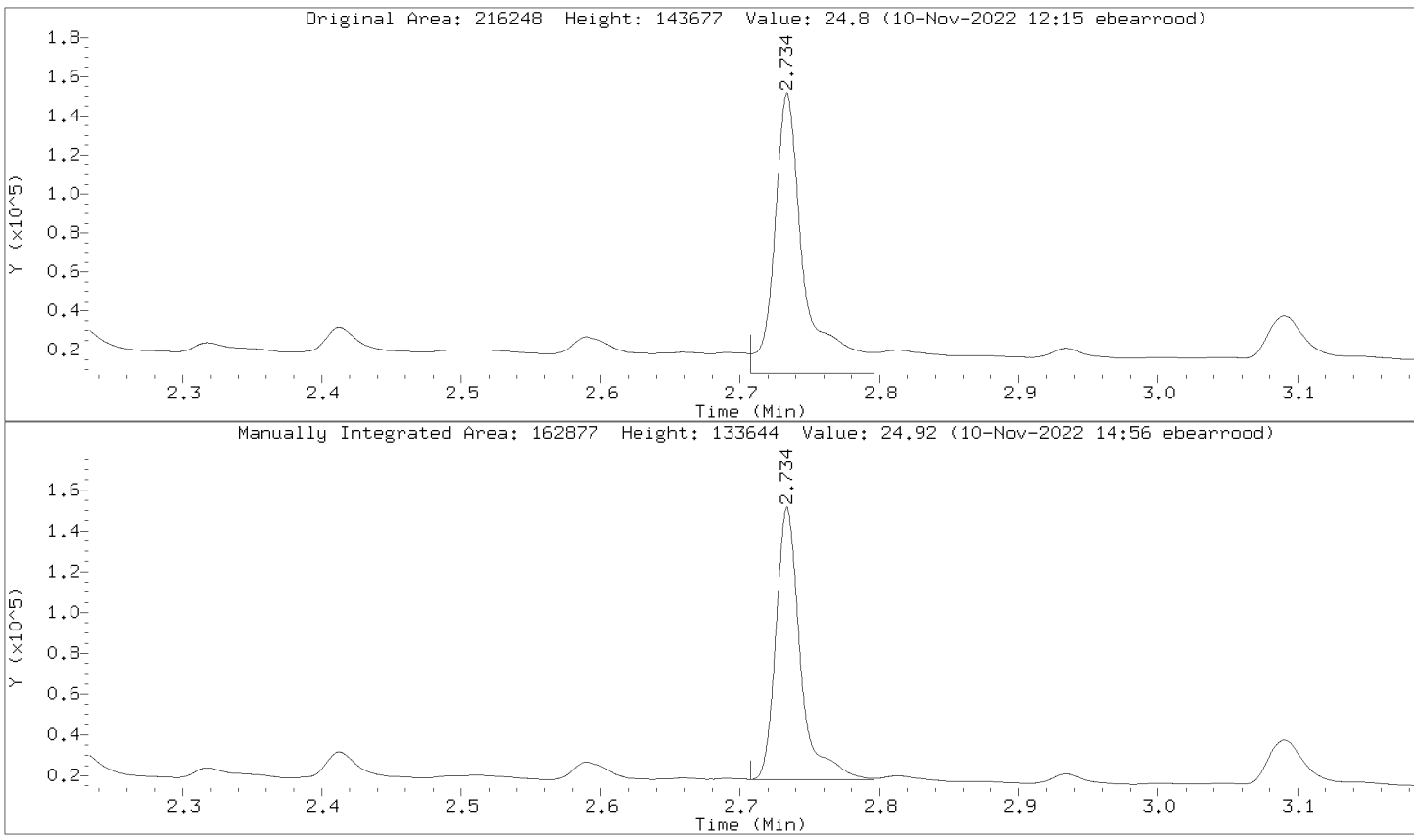
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			6099190	1000.00	1020	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	667884	100.000	100	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	532234	100.000	102	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			3764430	1000.00	1010	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.219			7097120	1000.00	1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			3964256	1000.00	1020	(M)	RNG
S 7 C10-C36					CAS #:		
0.880 - 5.200			9895685	2000.00	2030	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG

QC Flag Legend

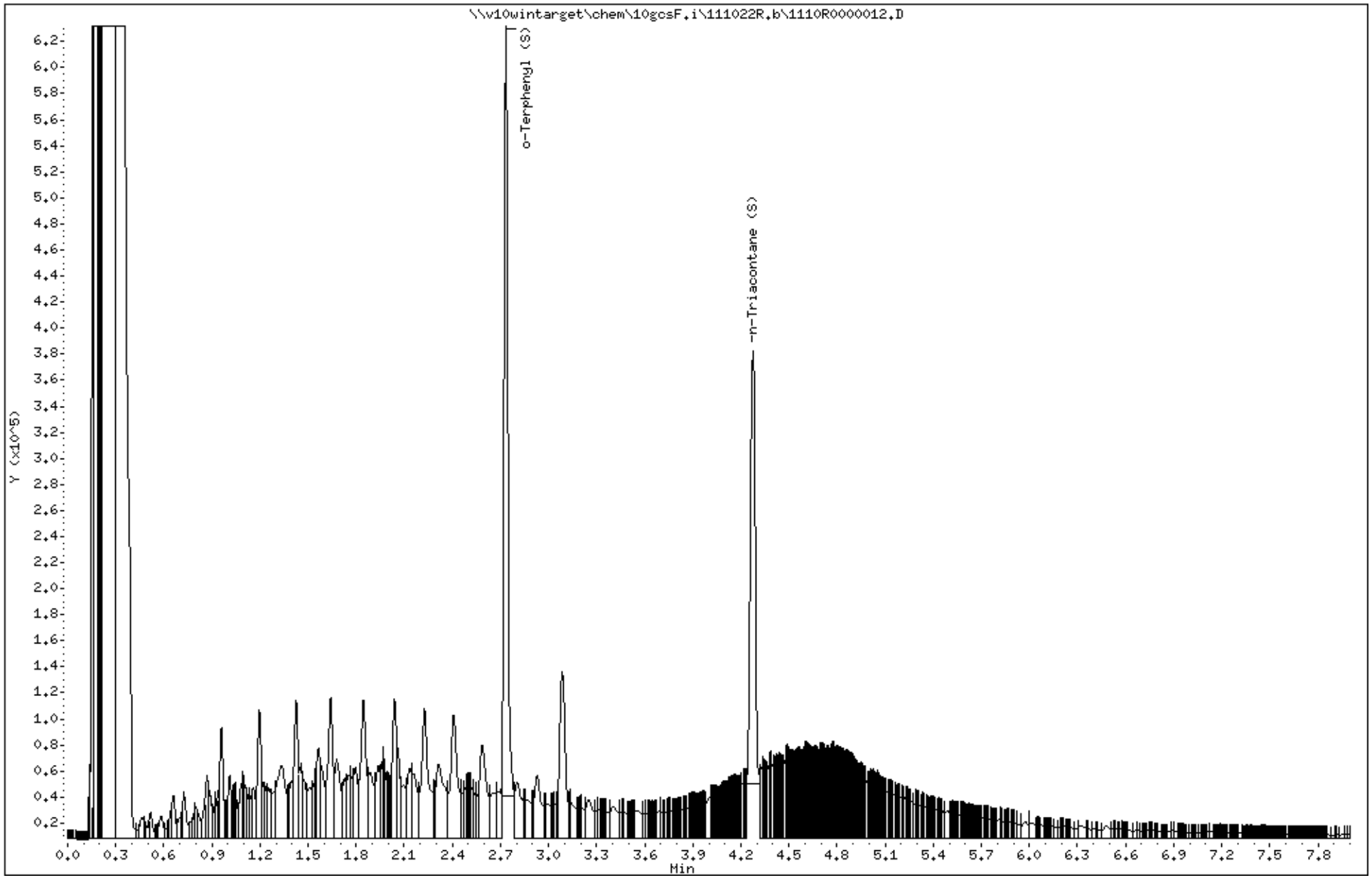
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

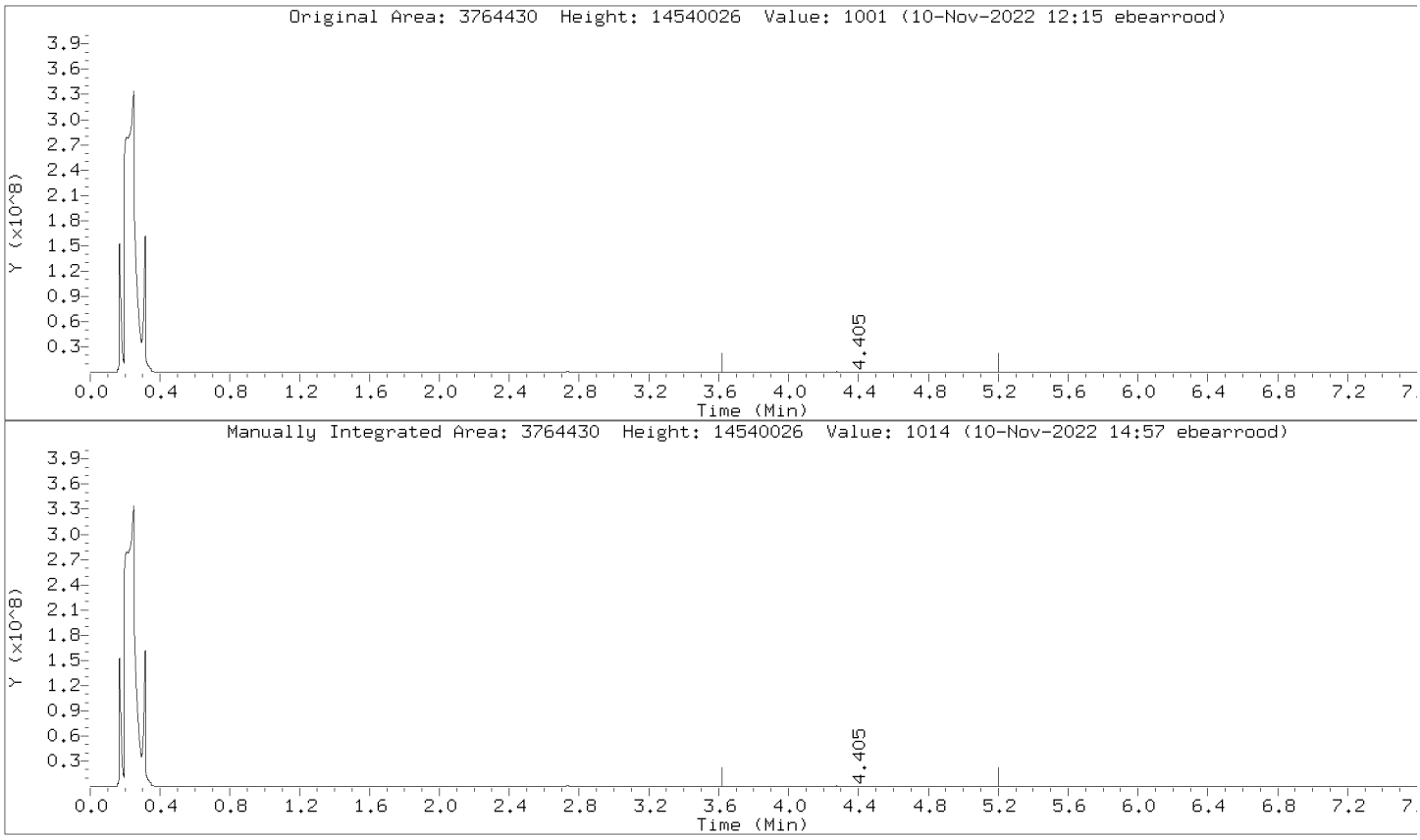
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



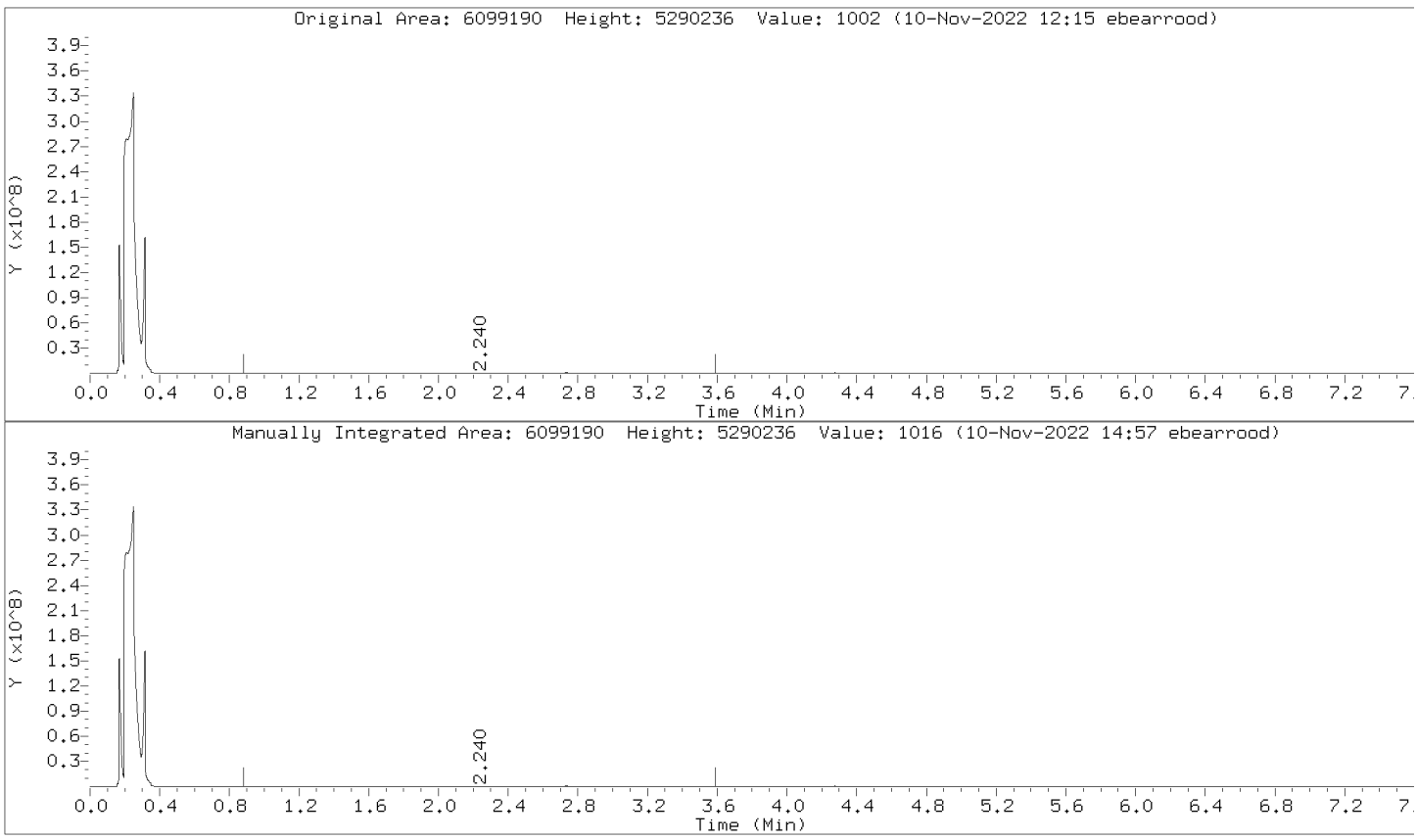
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



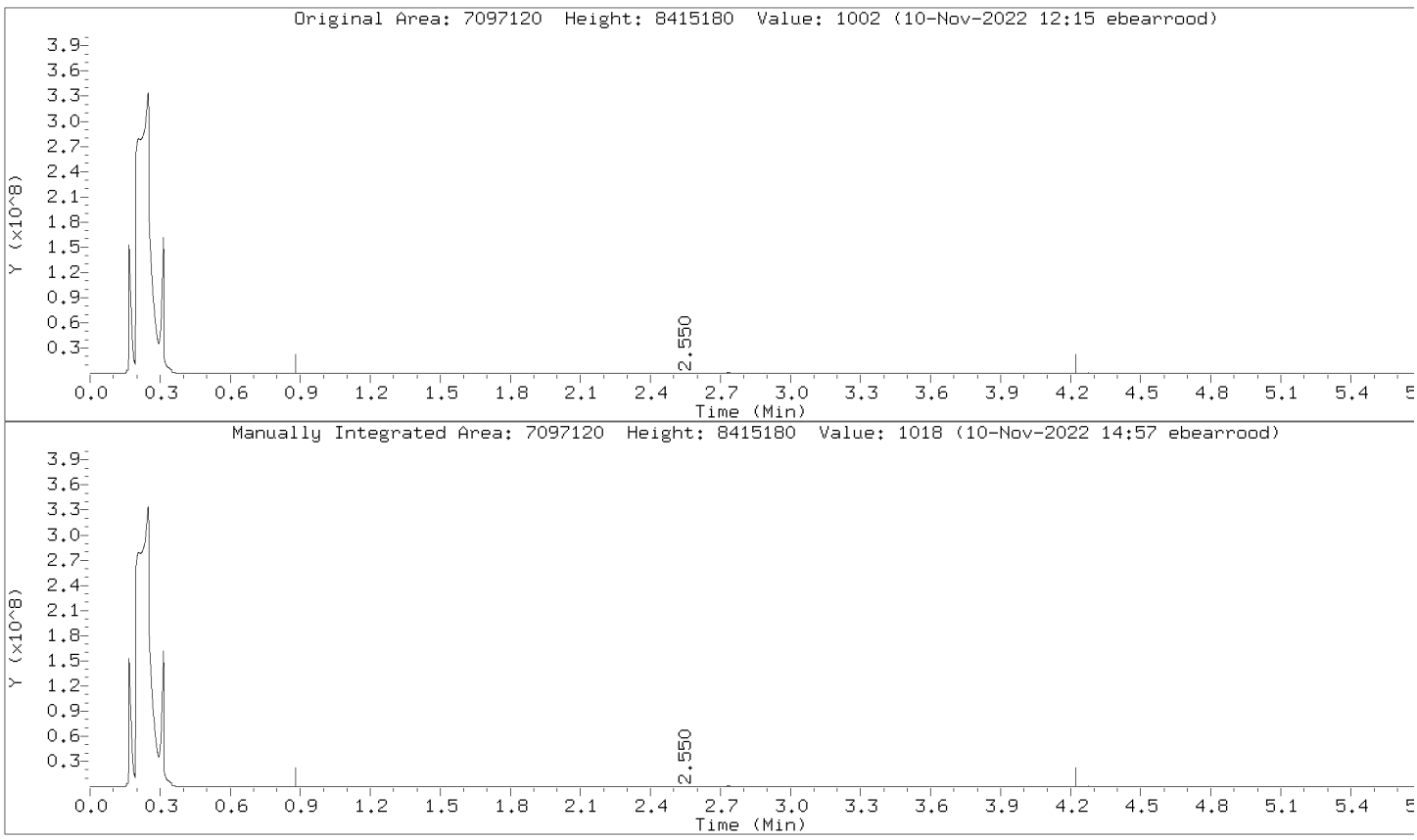
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



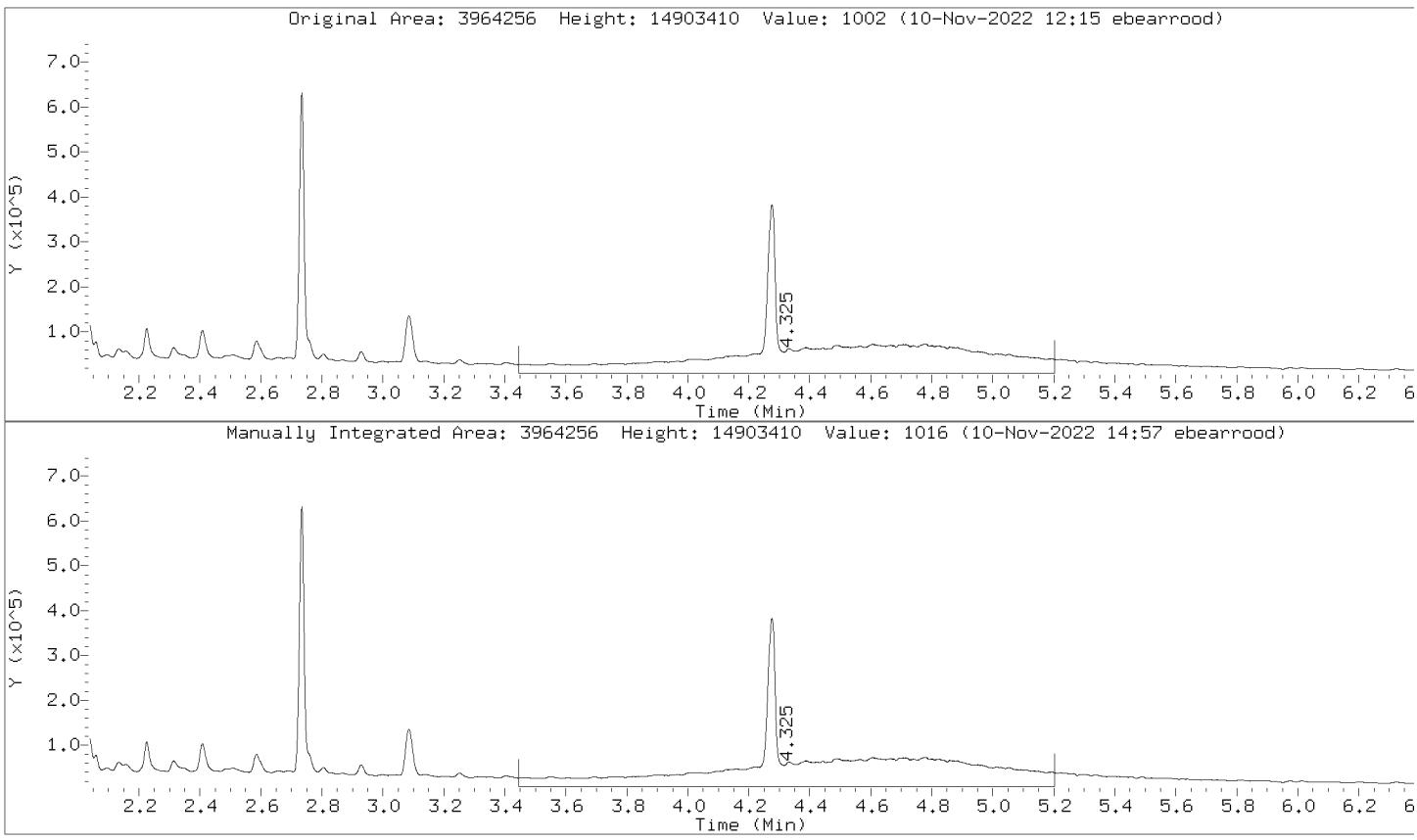
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



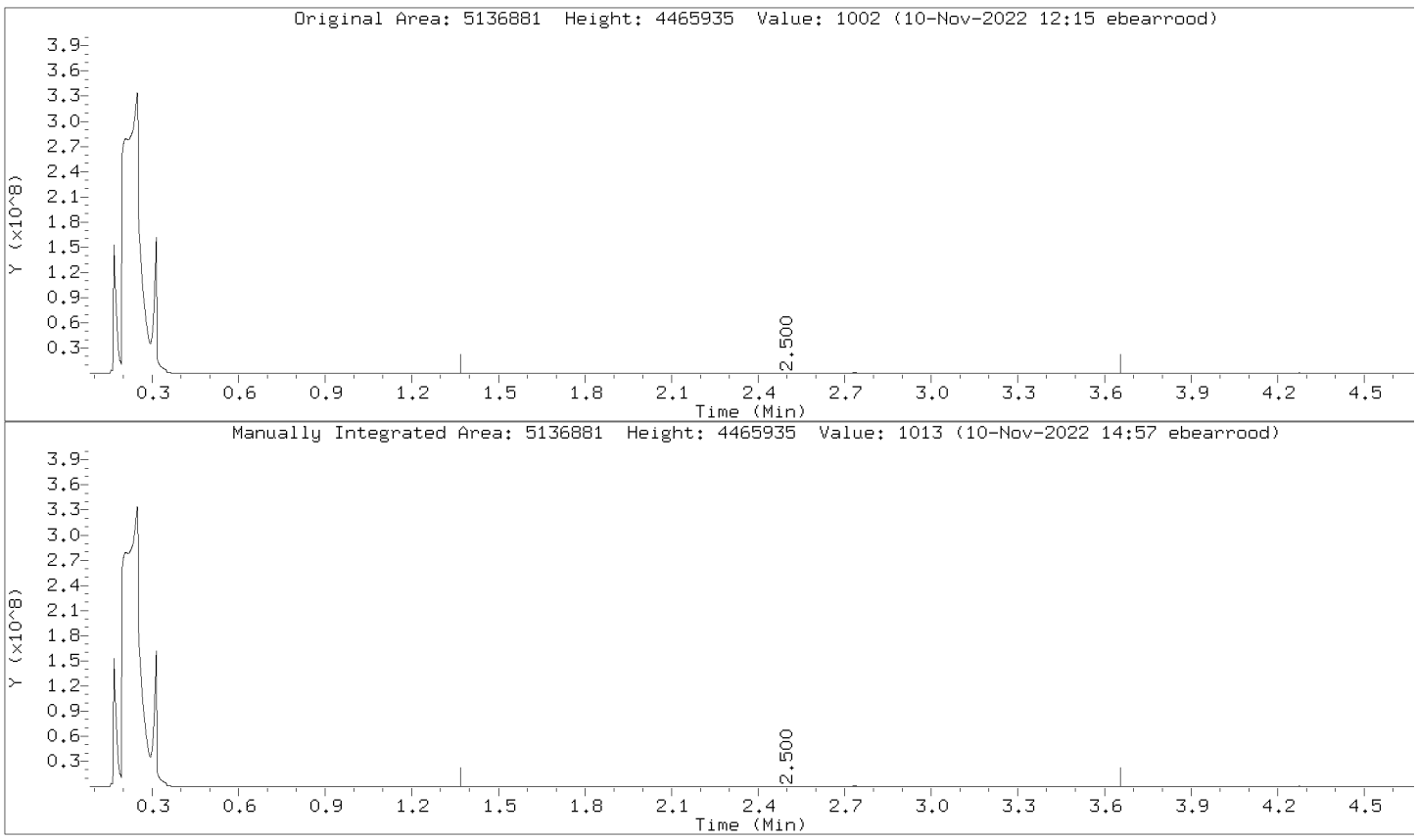
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



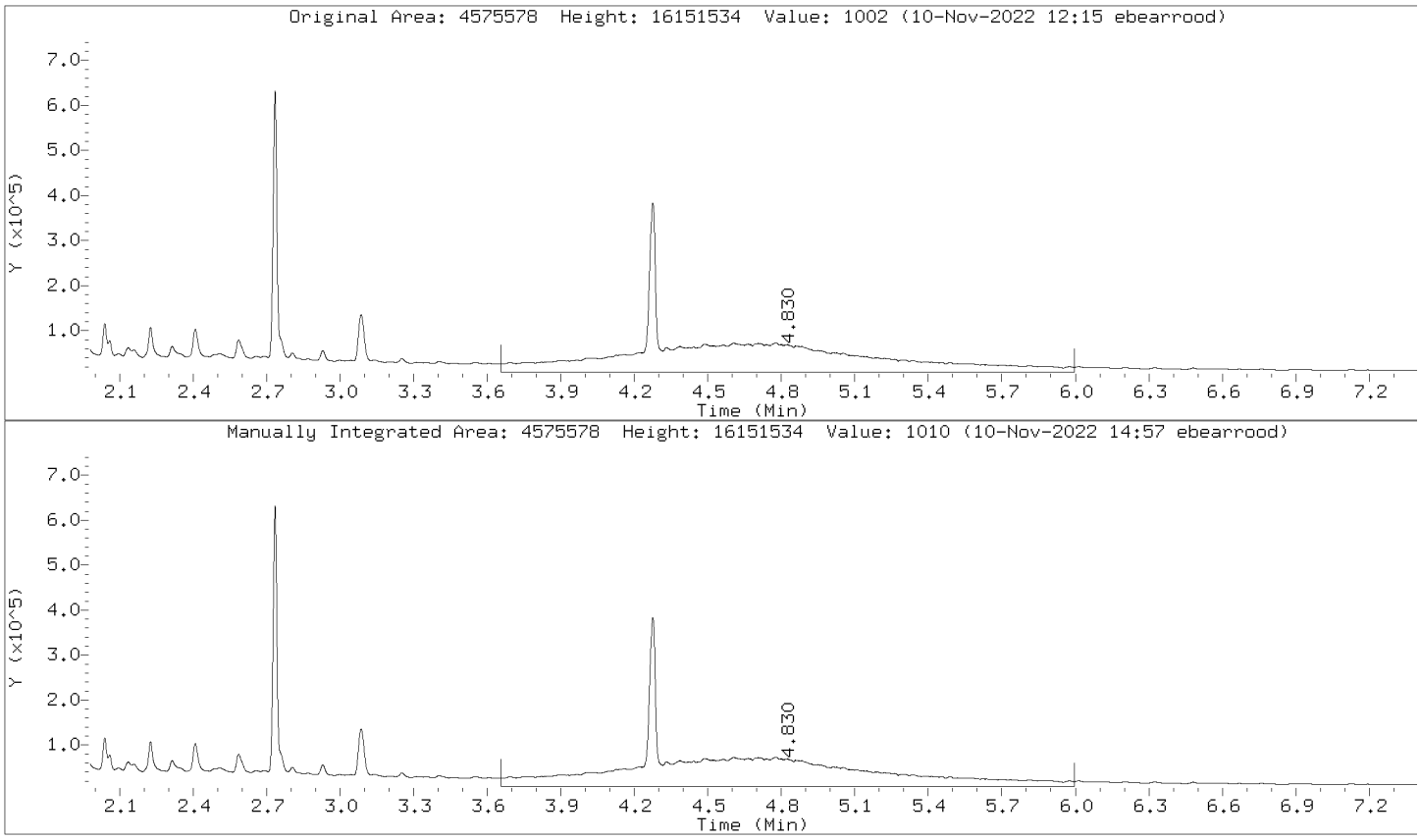
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



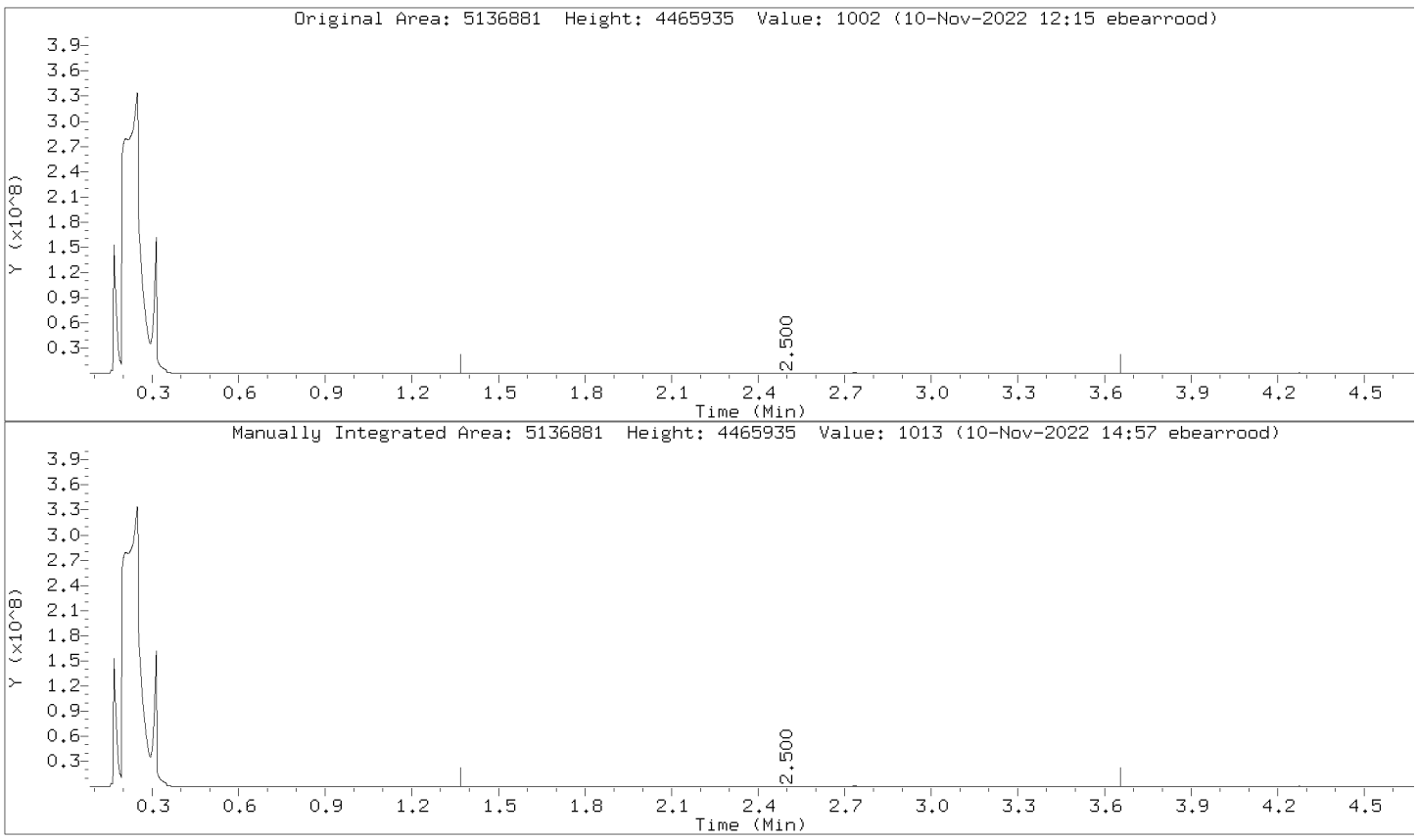
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



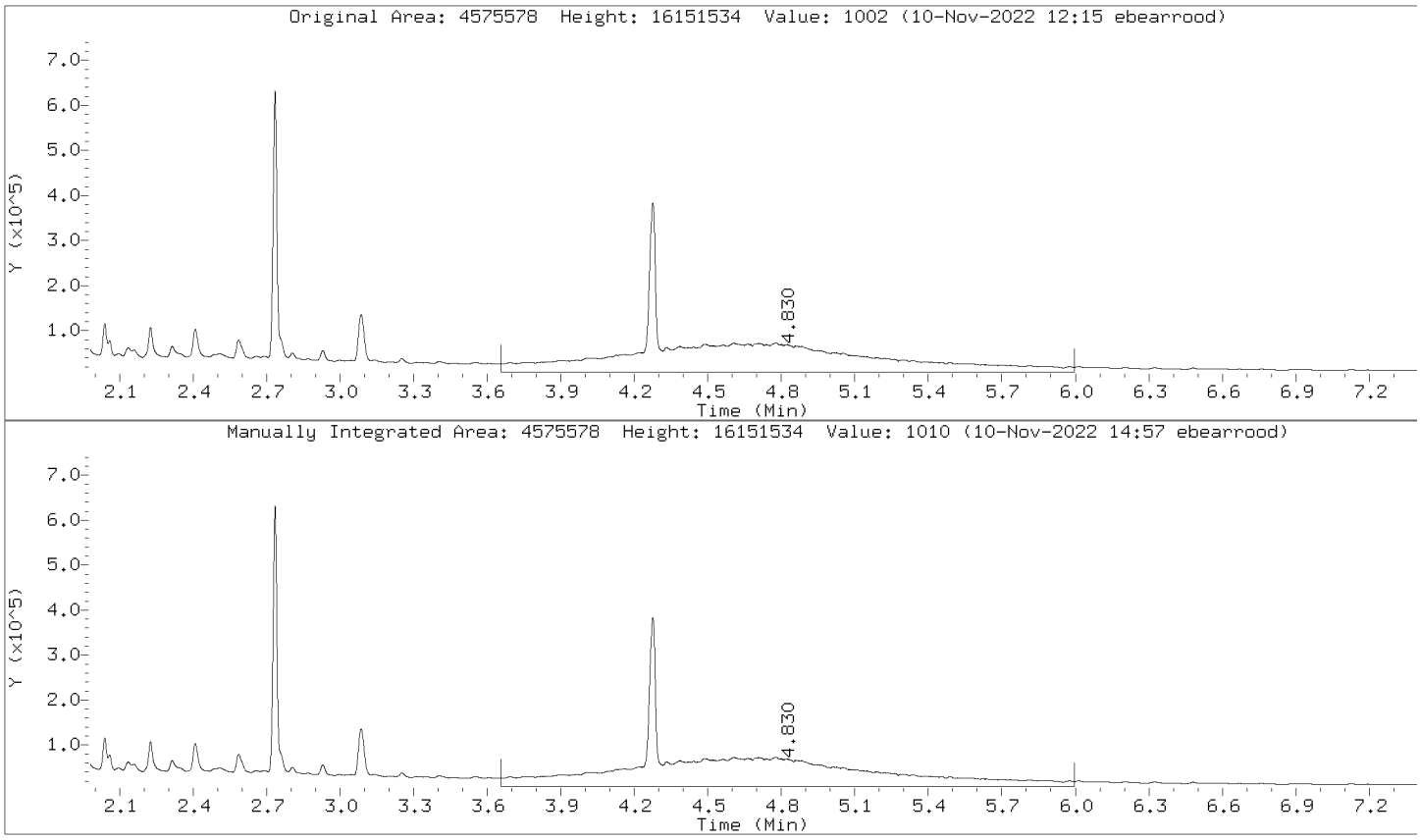
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



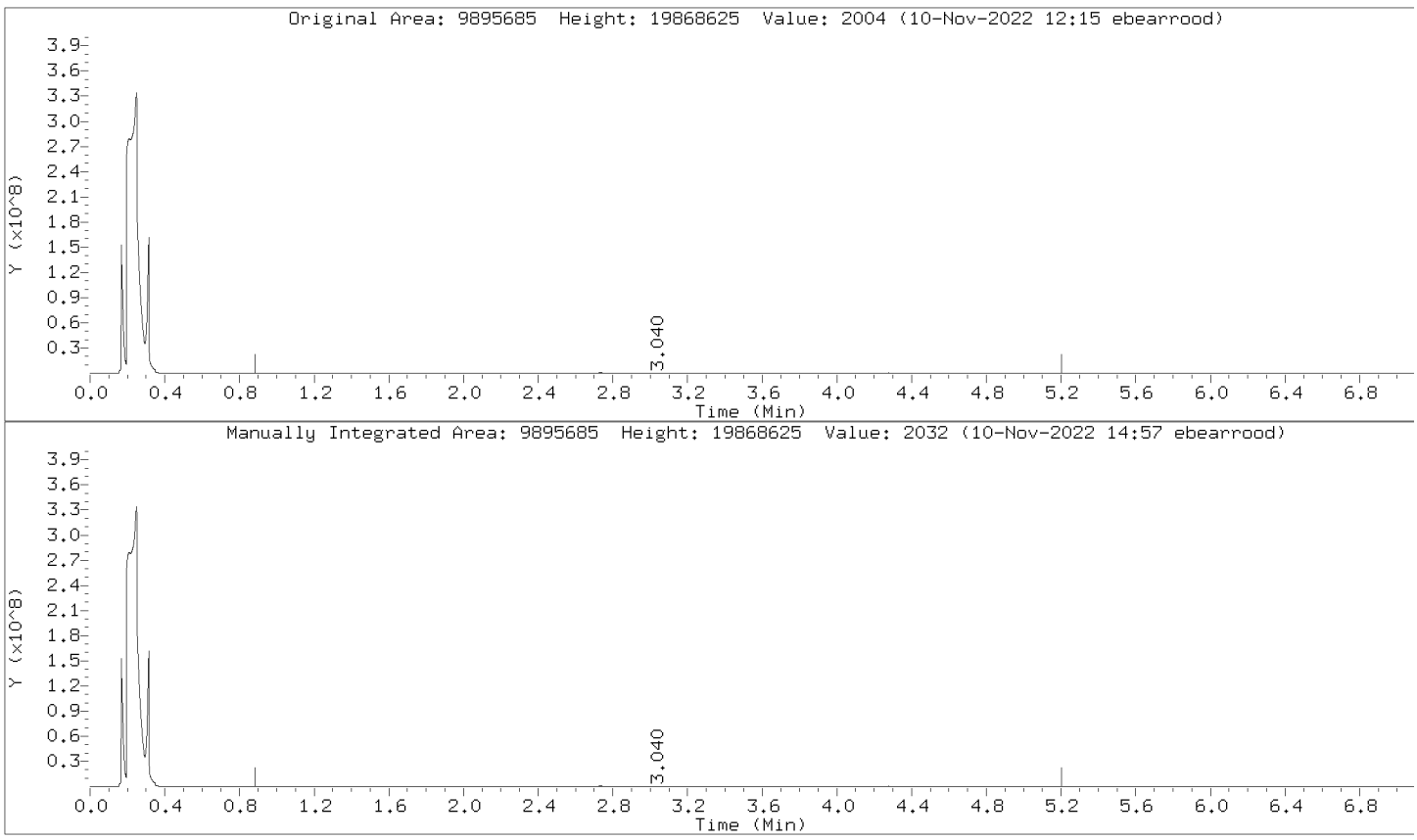
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



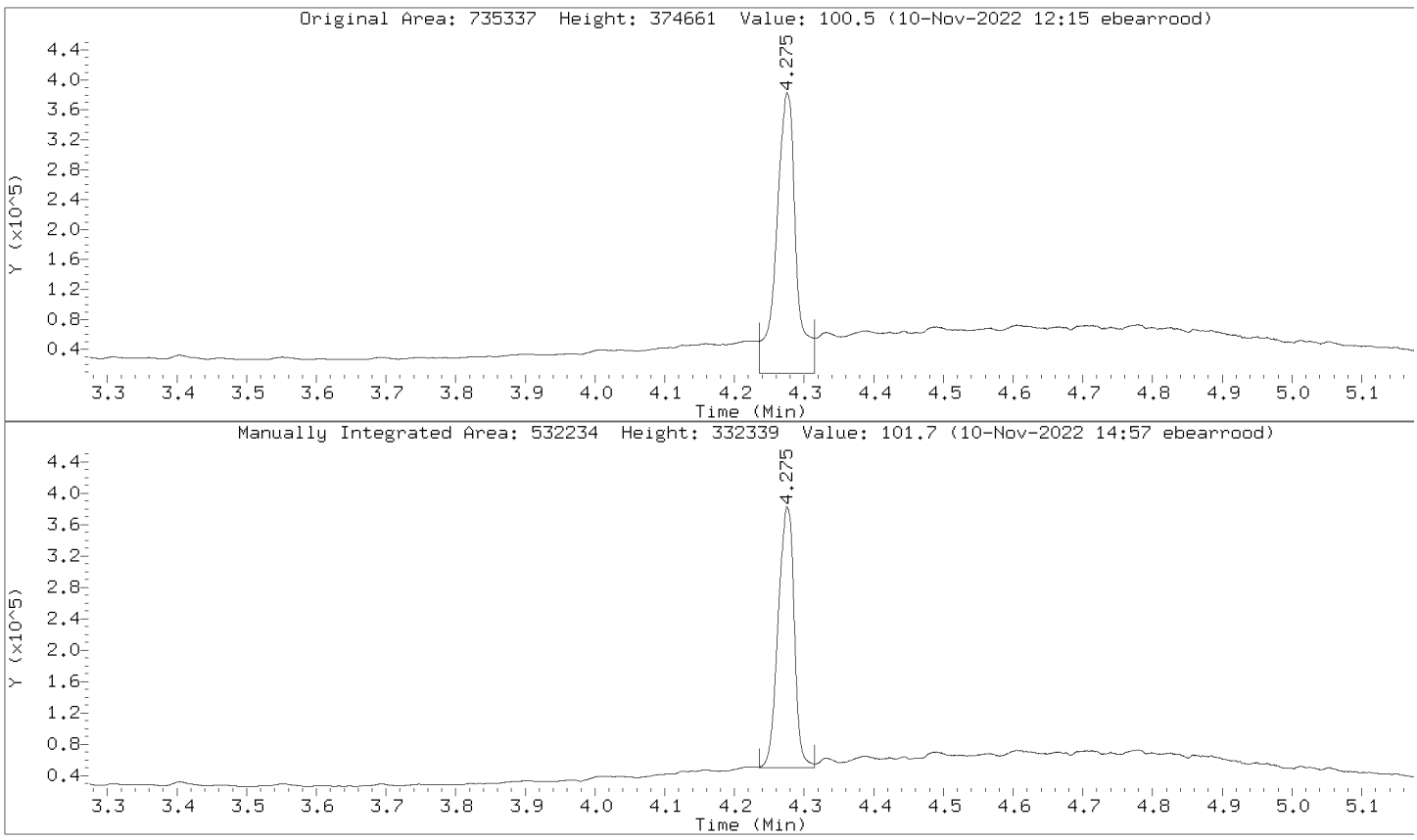
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



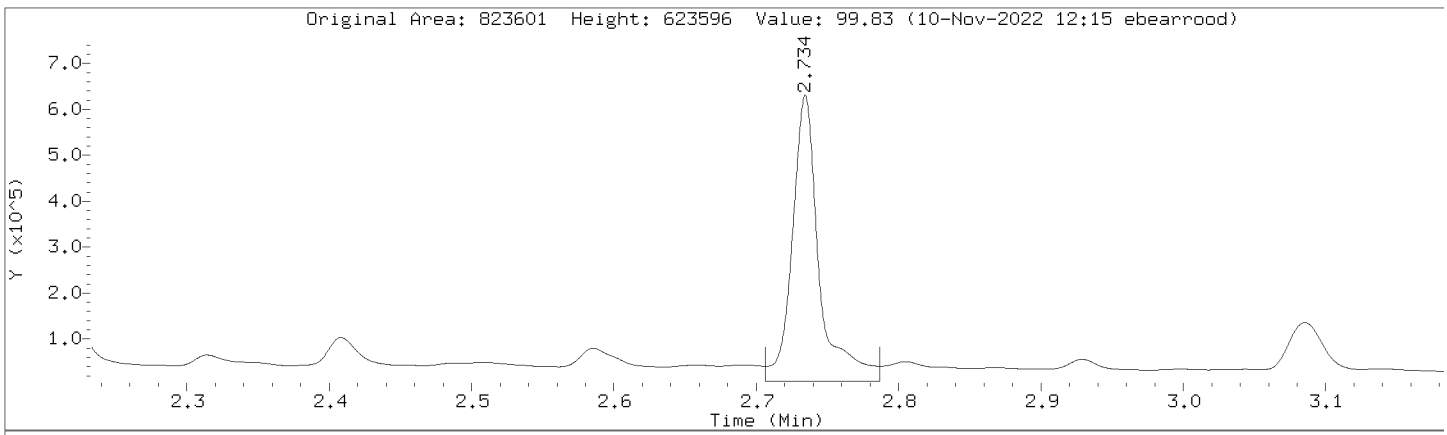
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

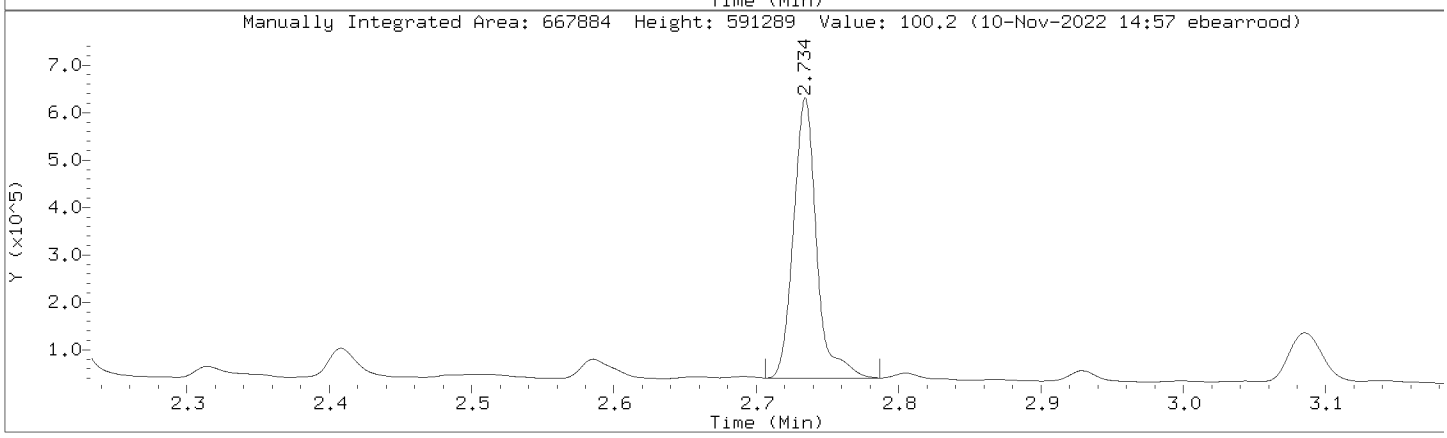
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

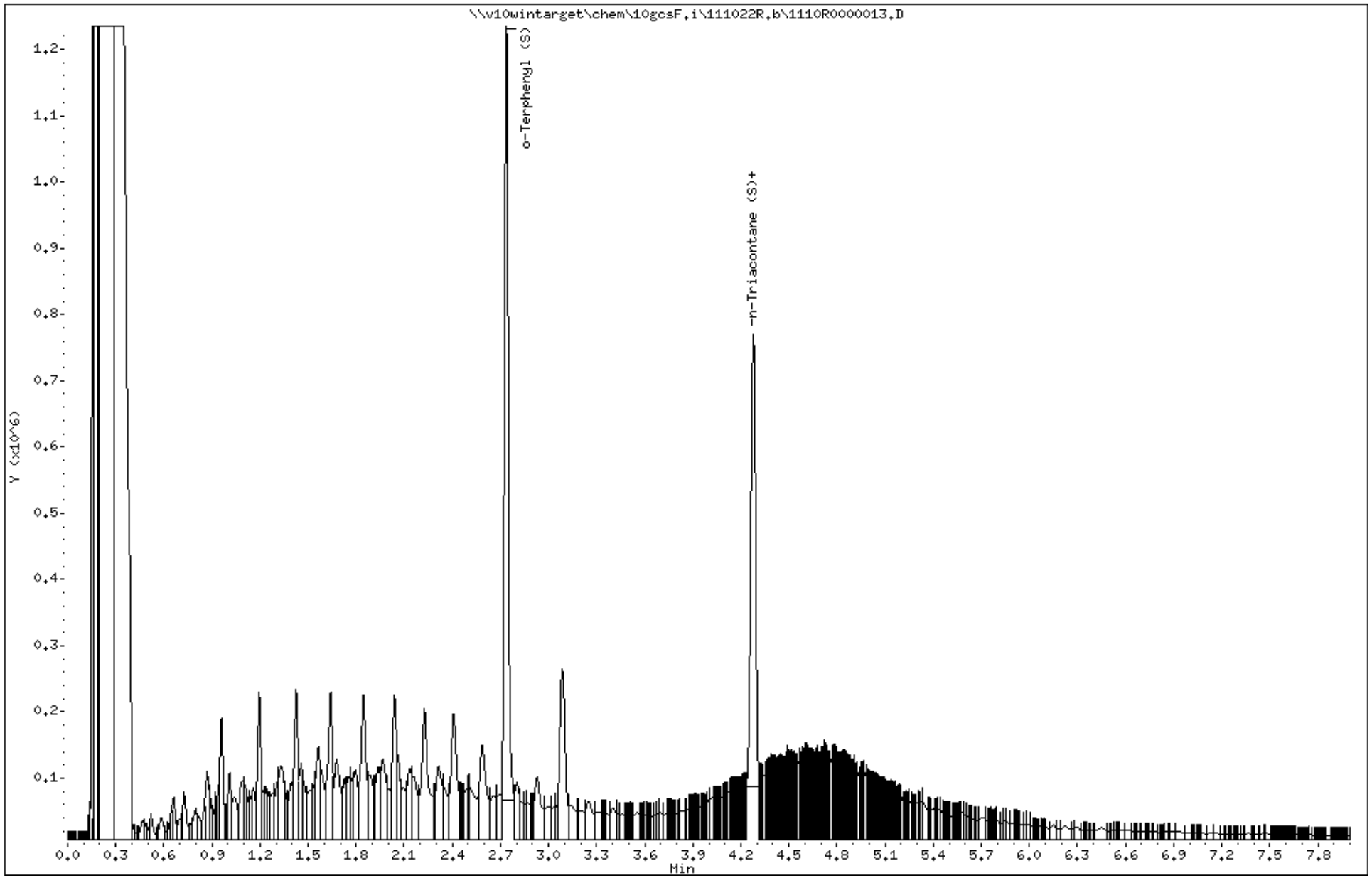
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

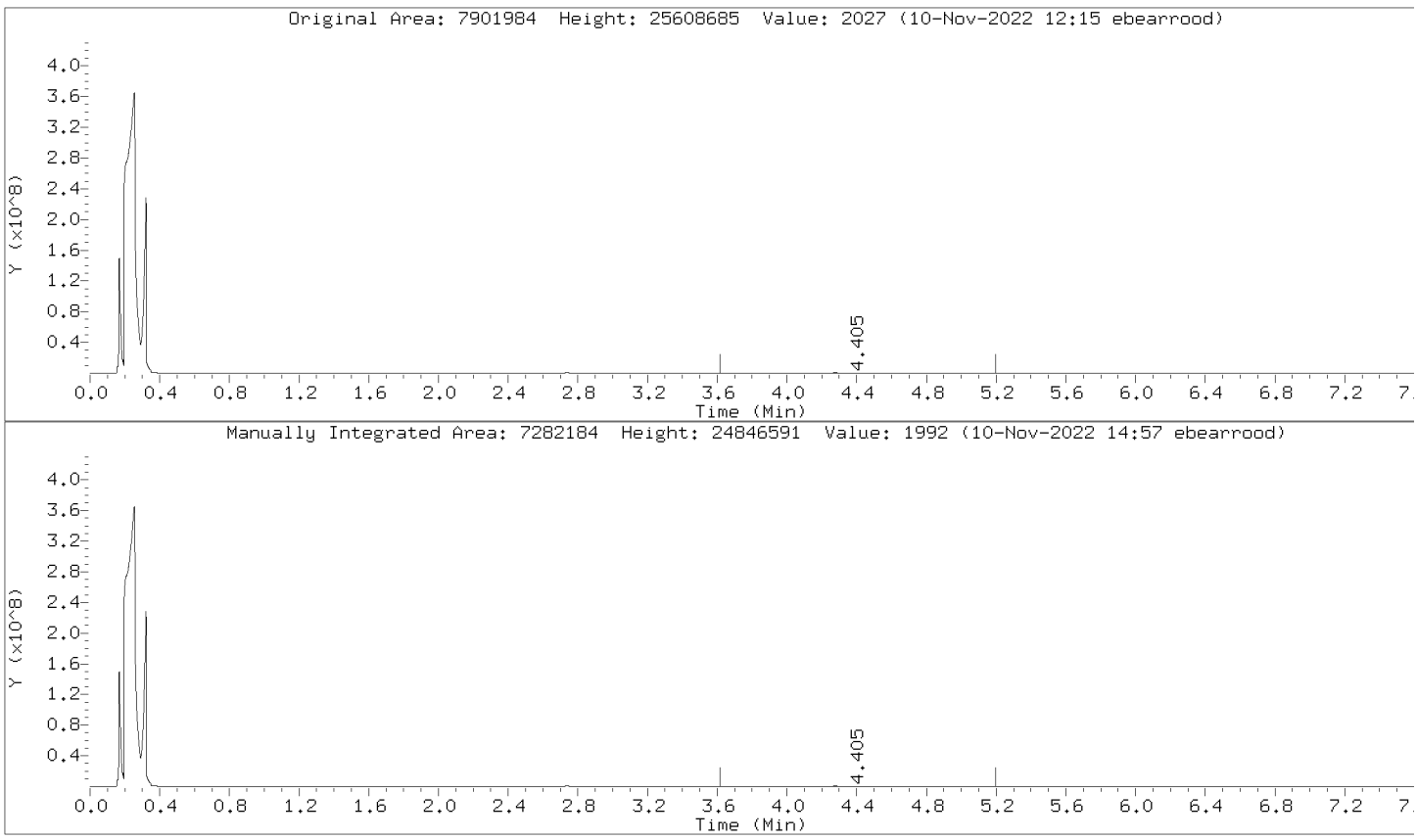
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



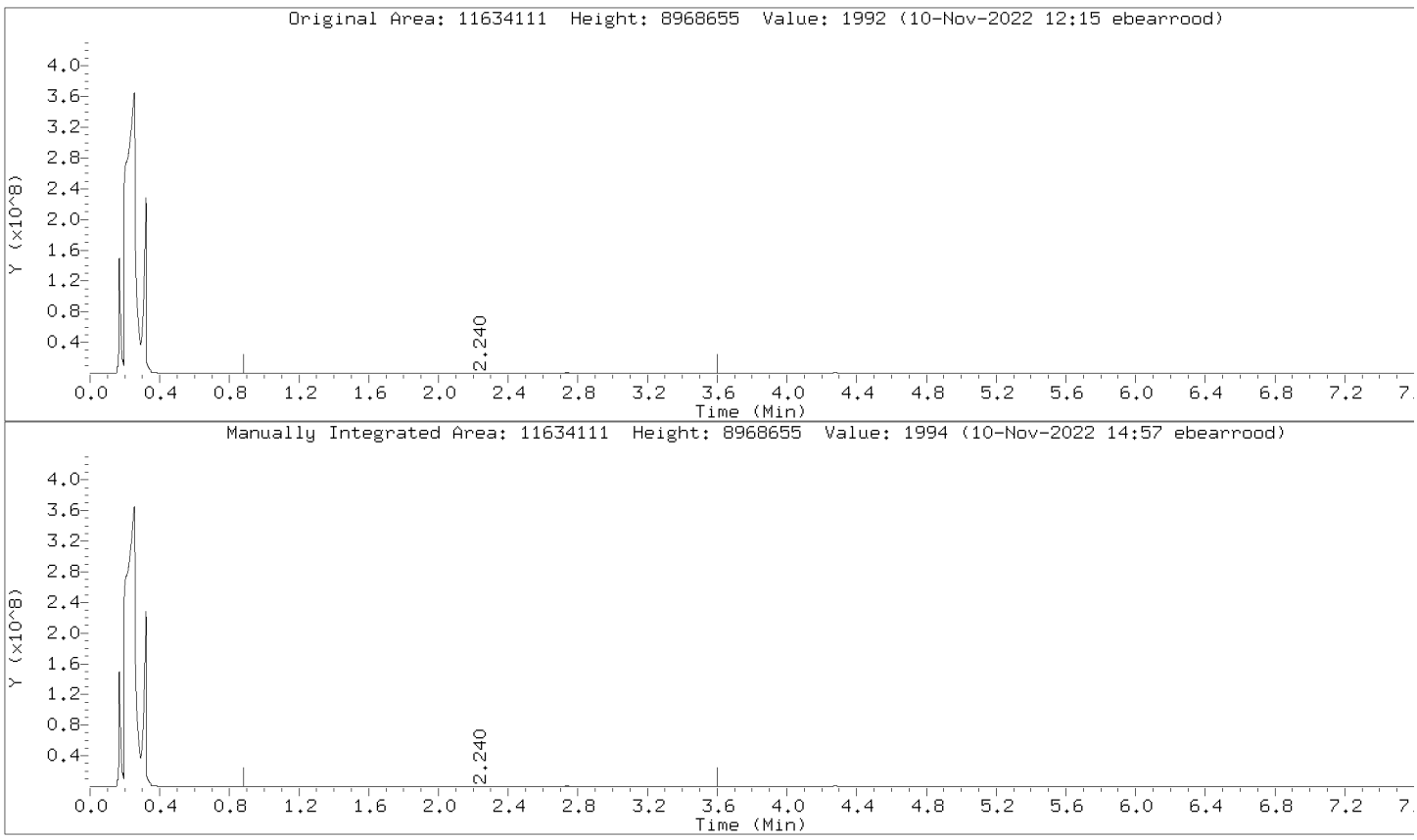
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



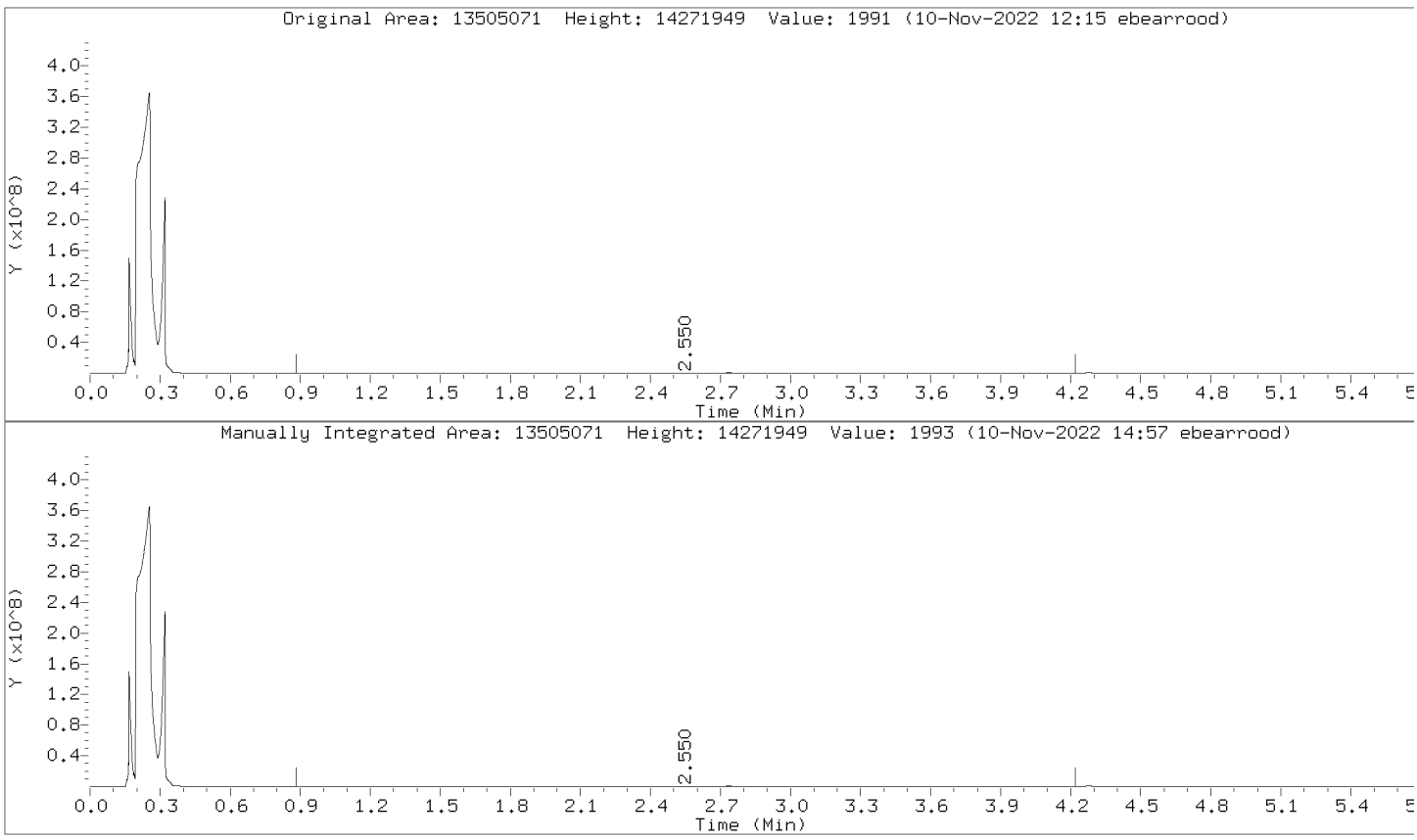
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



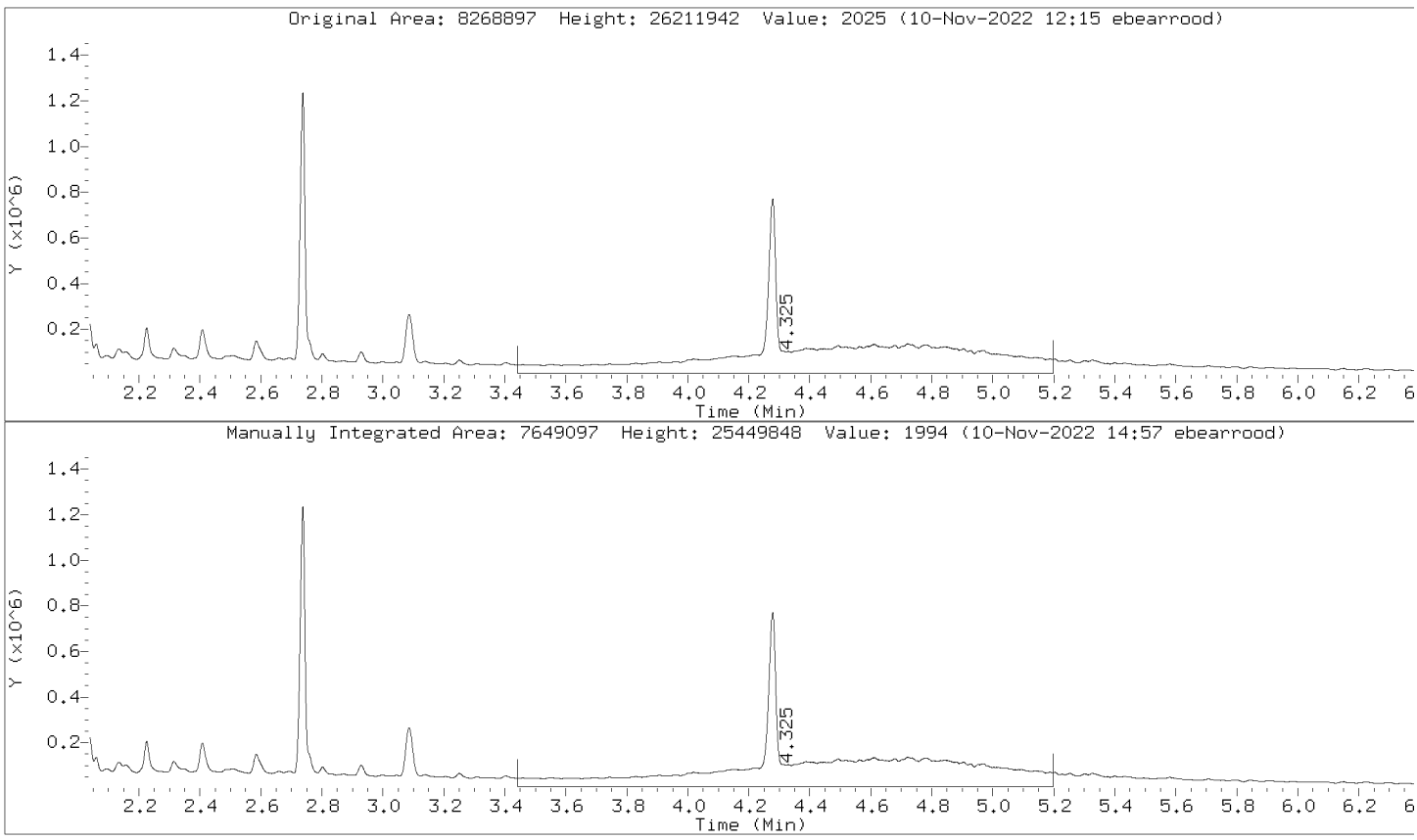
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



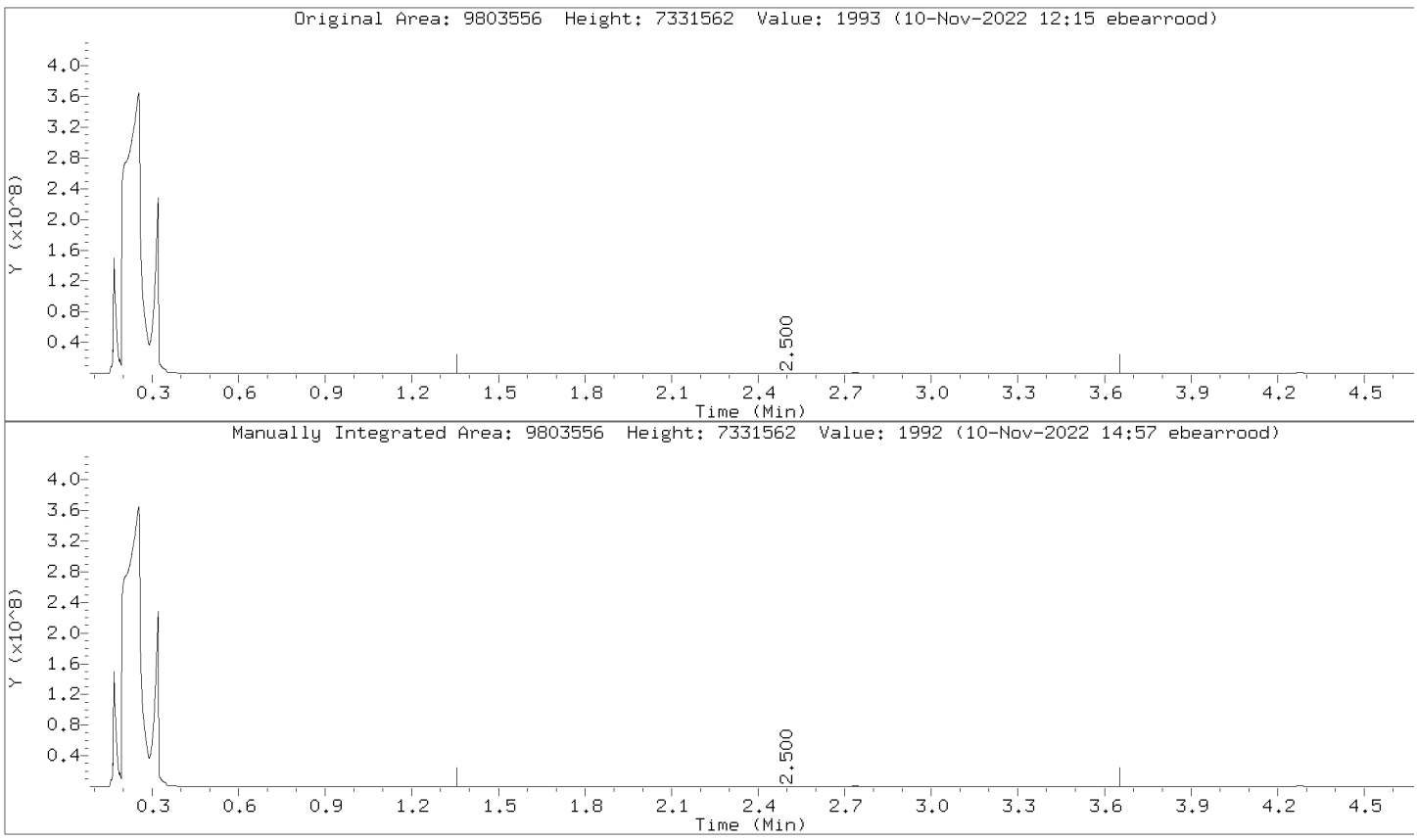
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



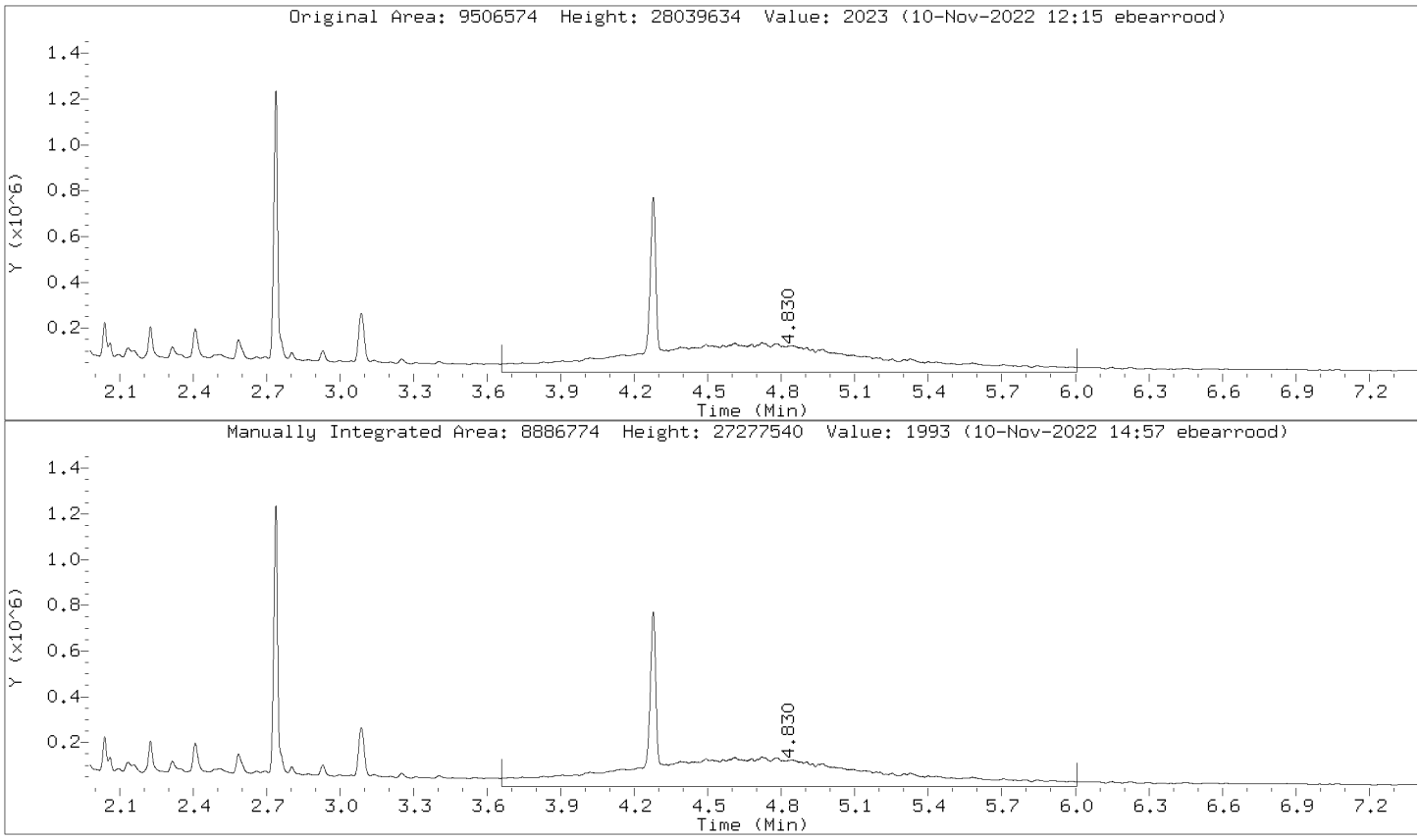
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



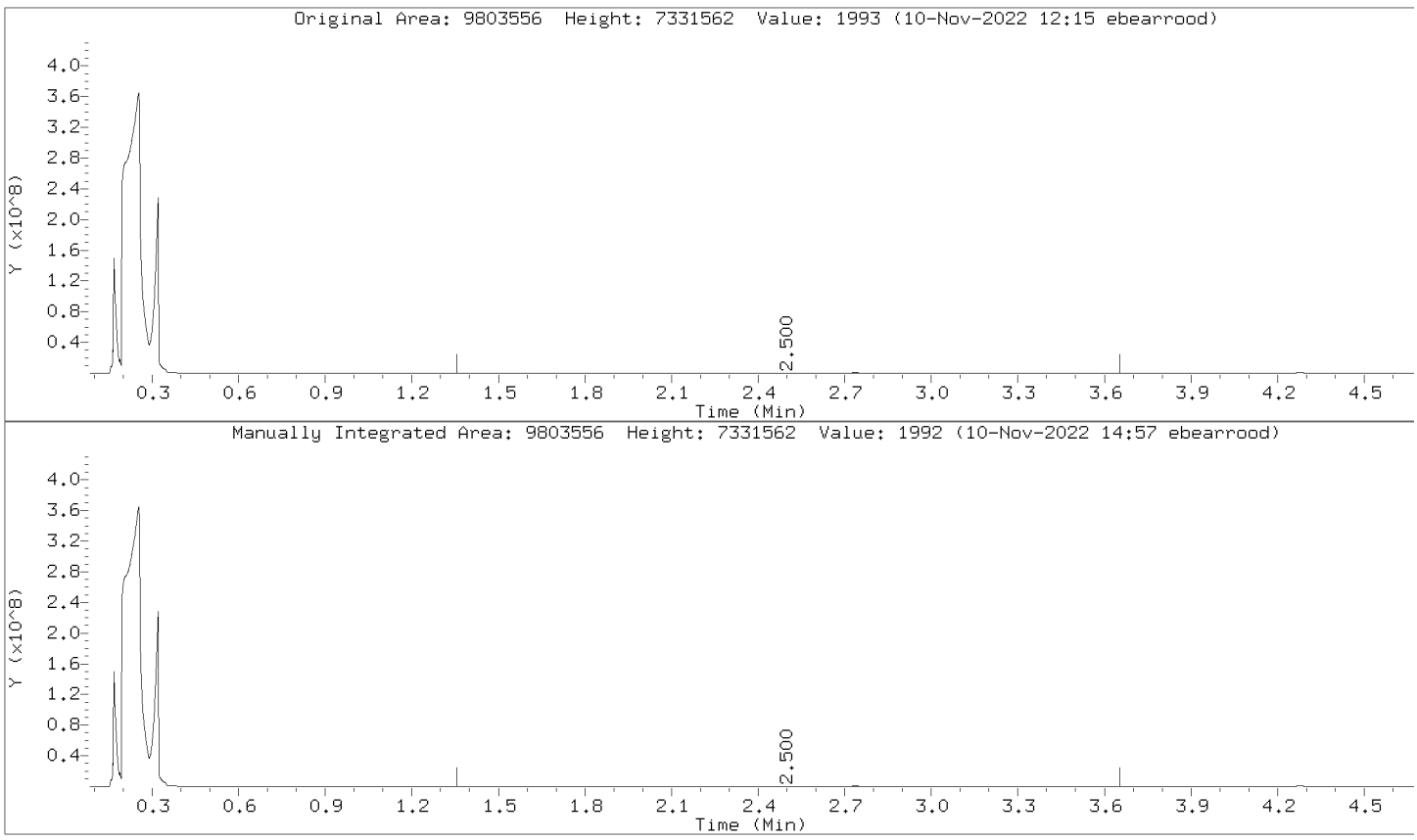
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



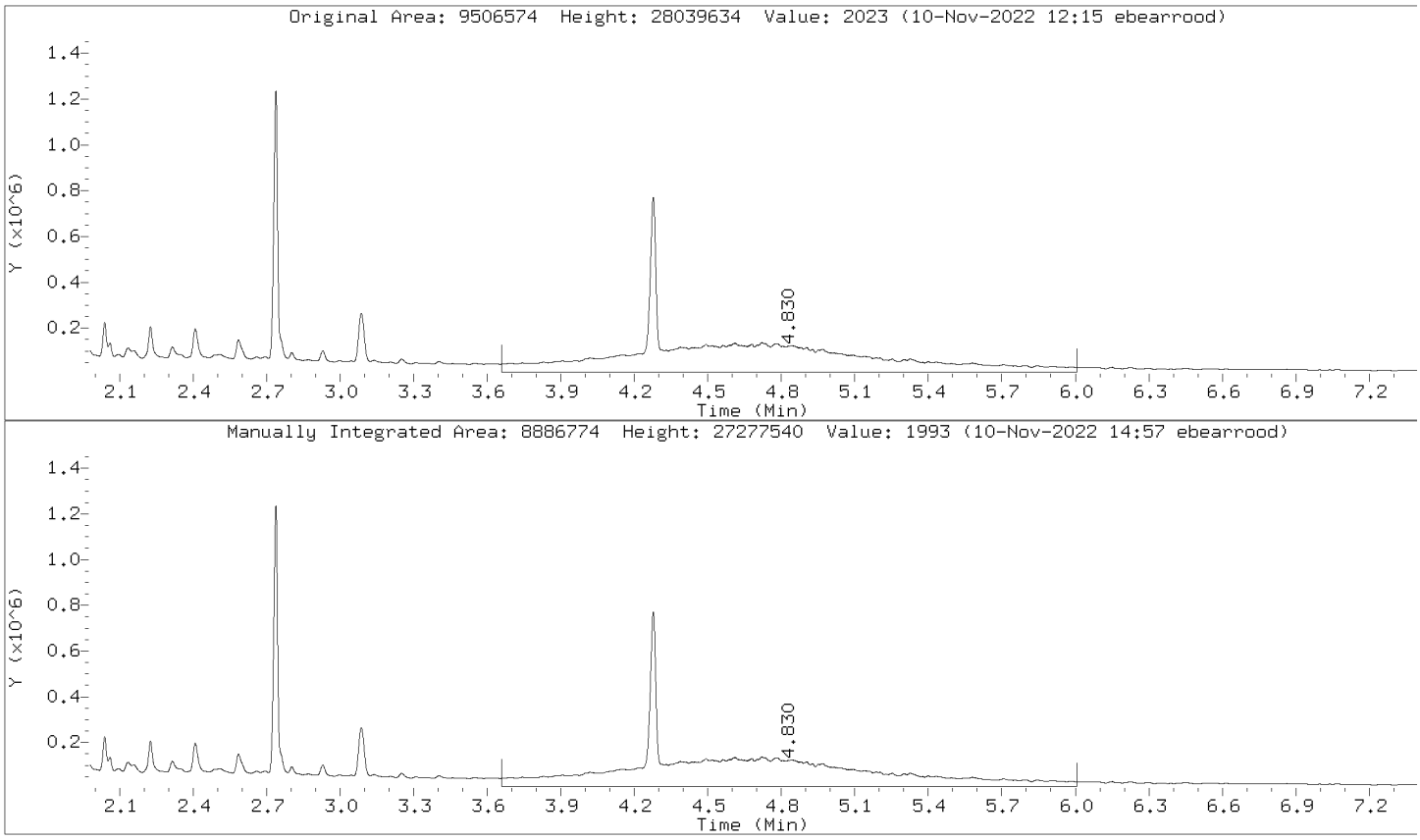
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



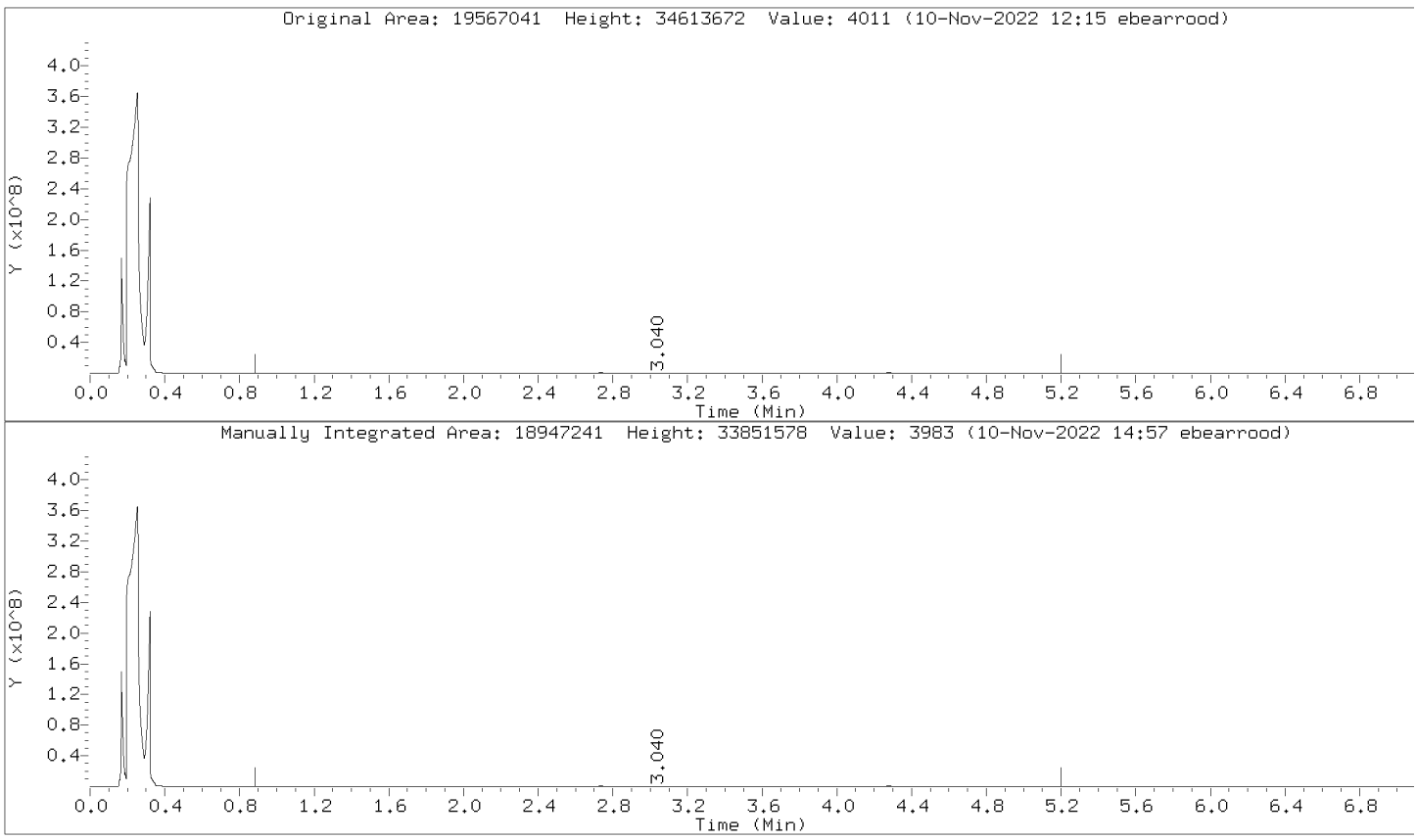
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



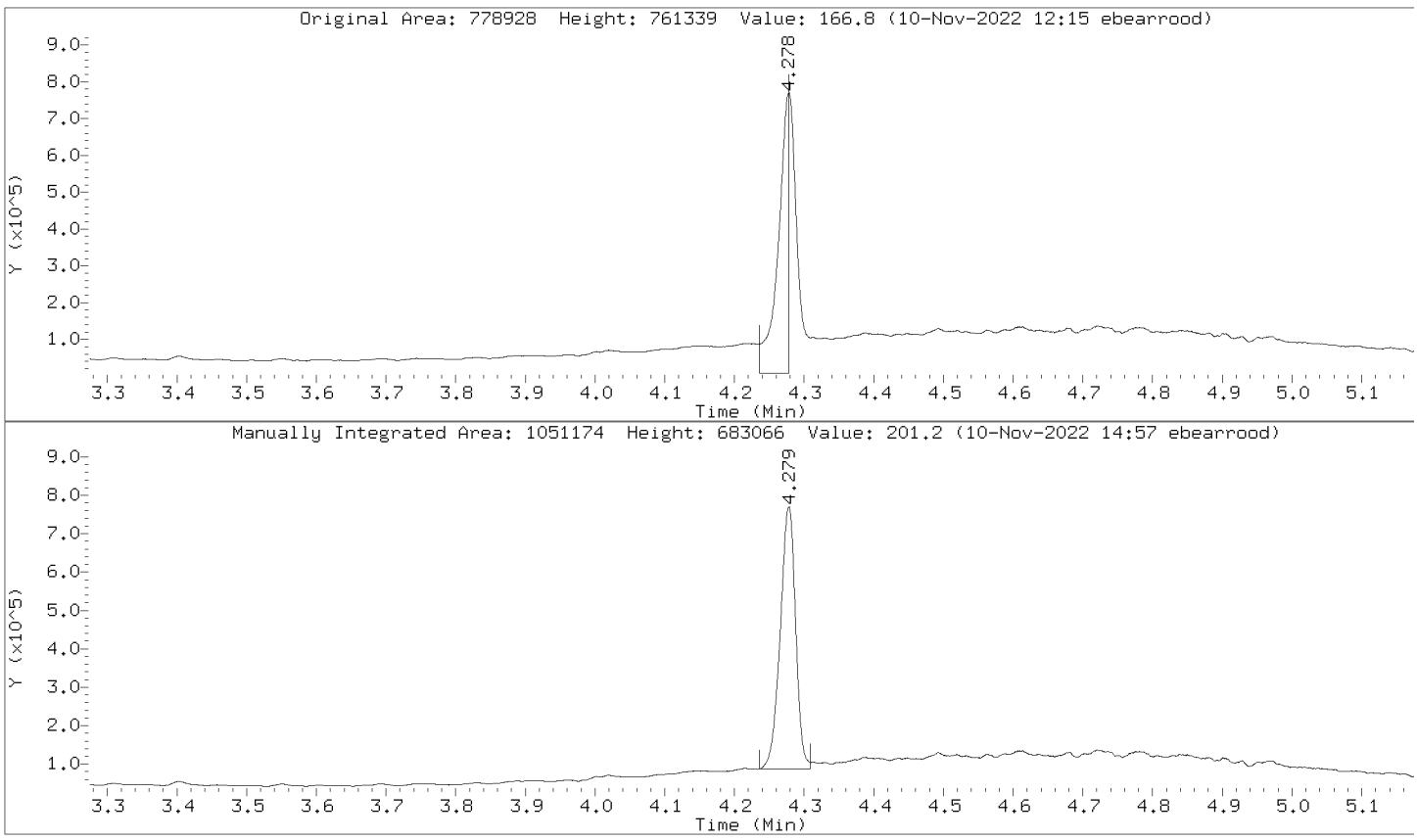
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: C10-C36 Review Code: RNG
CAS Number:



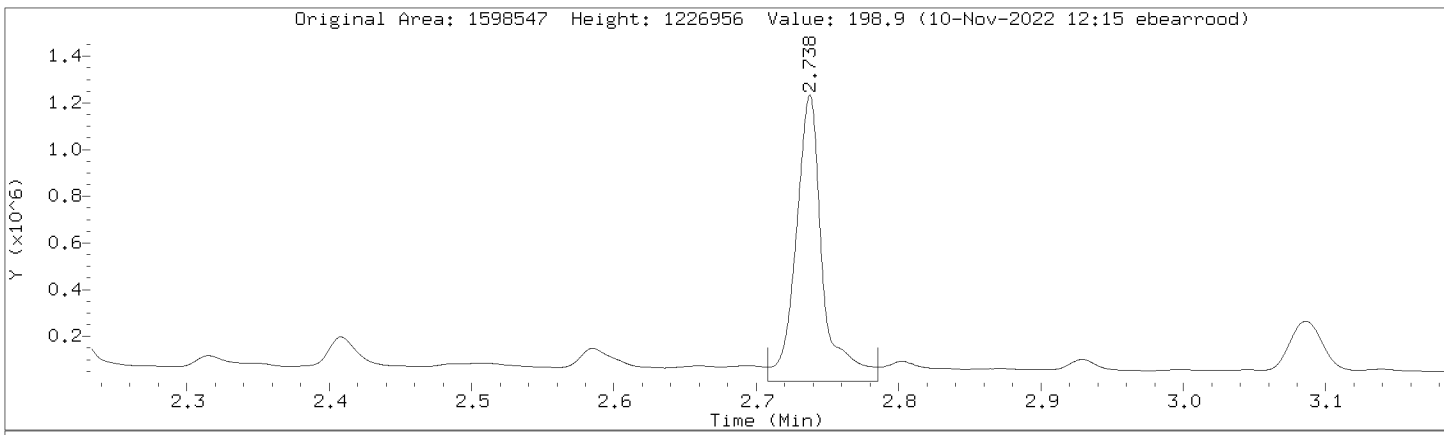
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

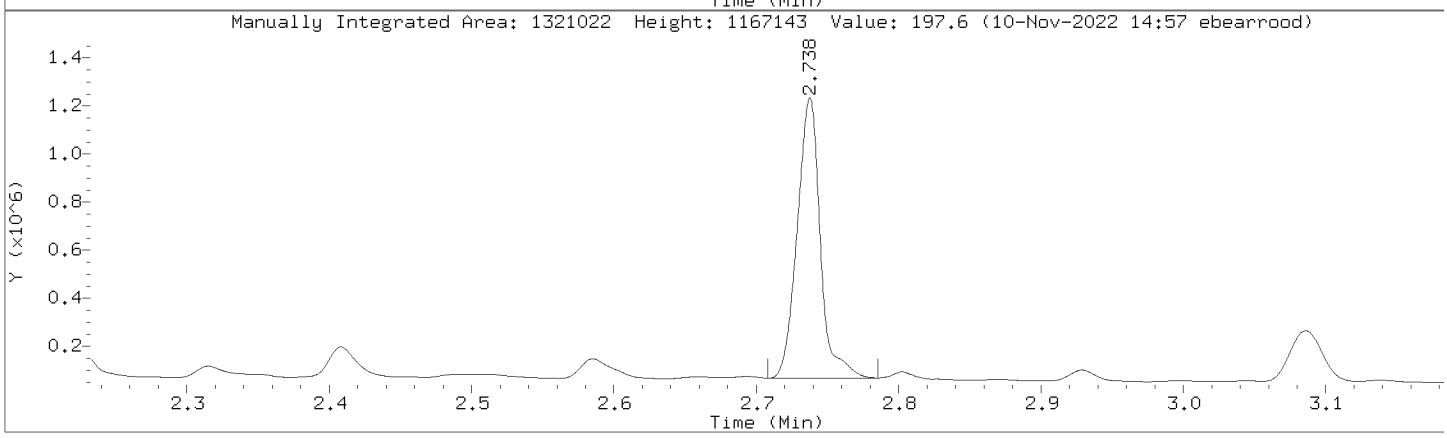
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

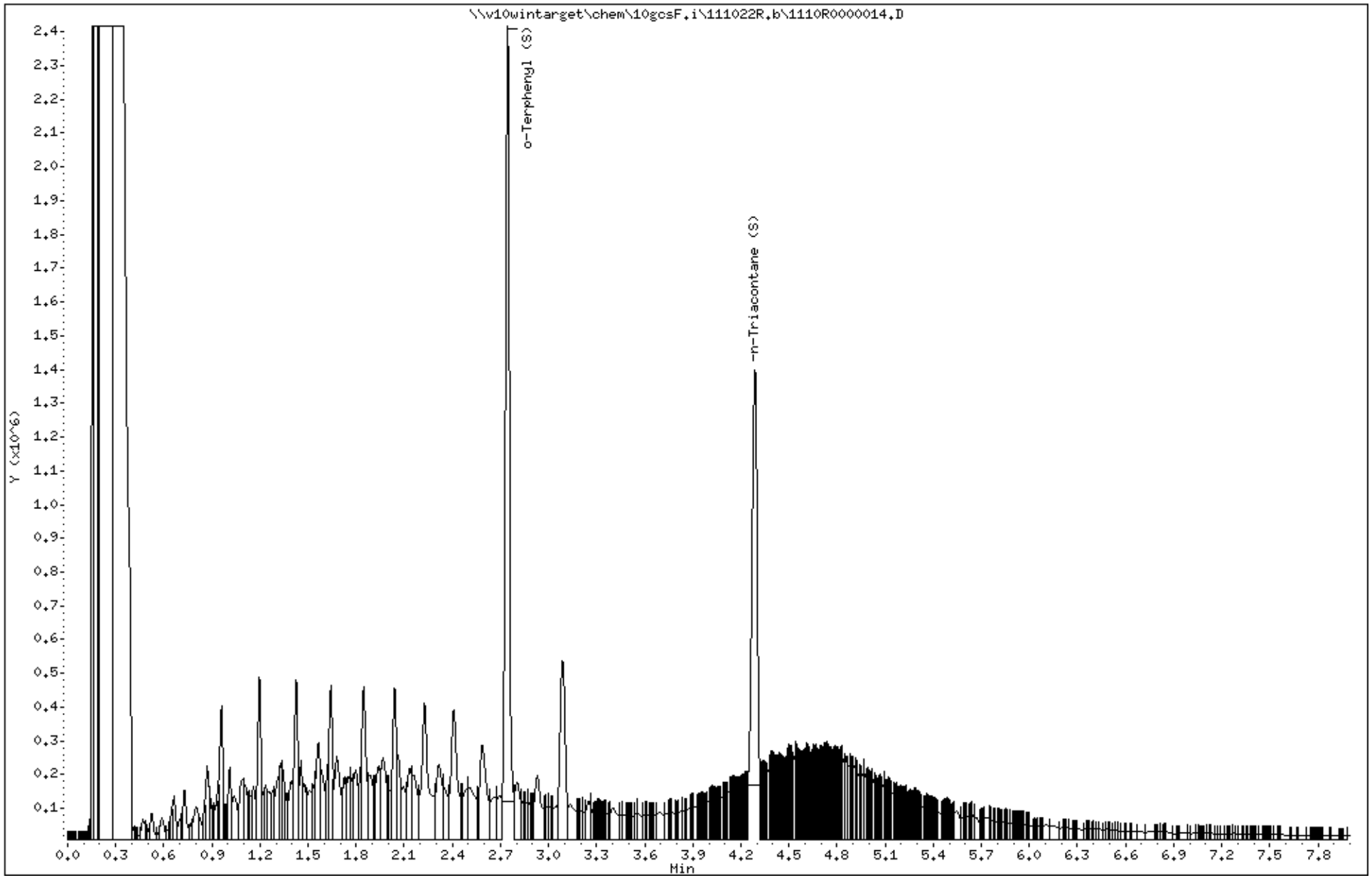
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

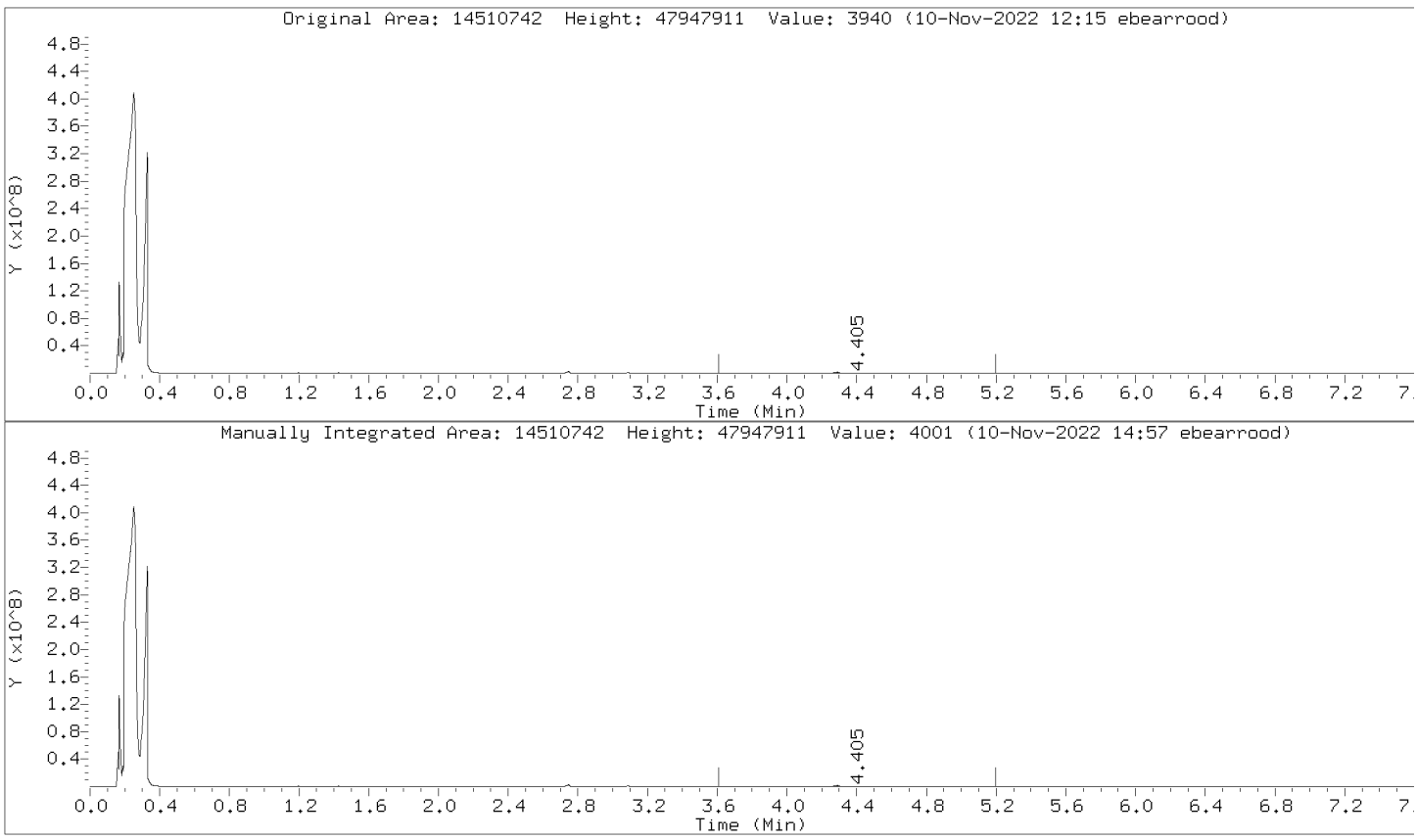
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



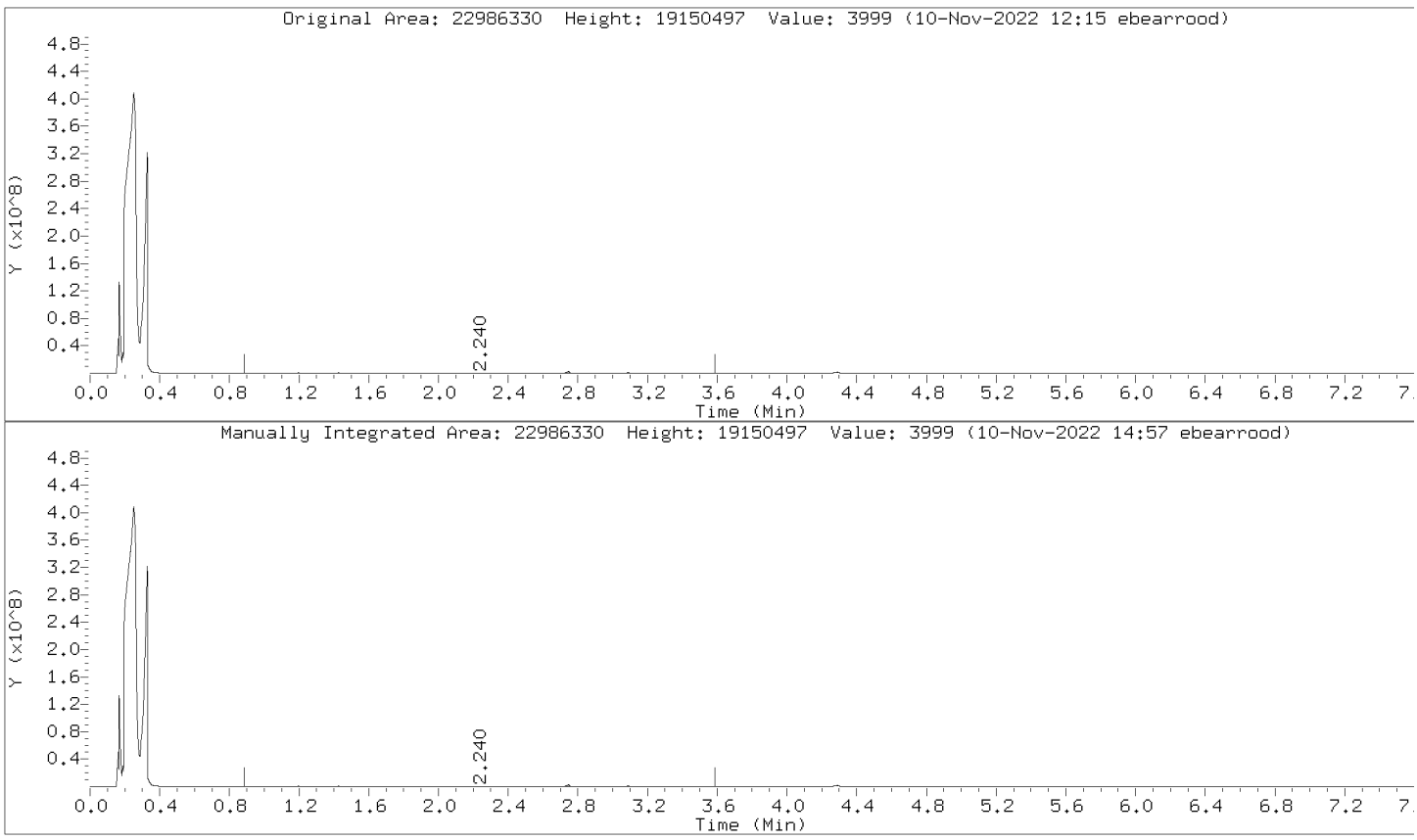
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



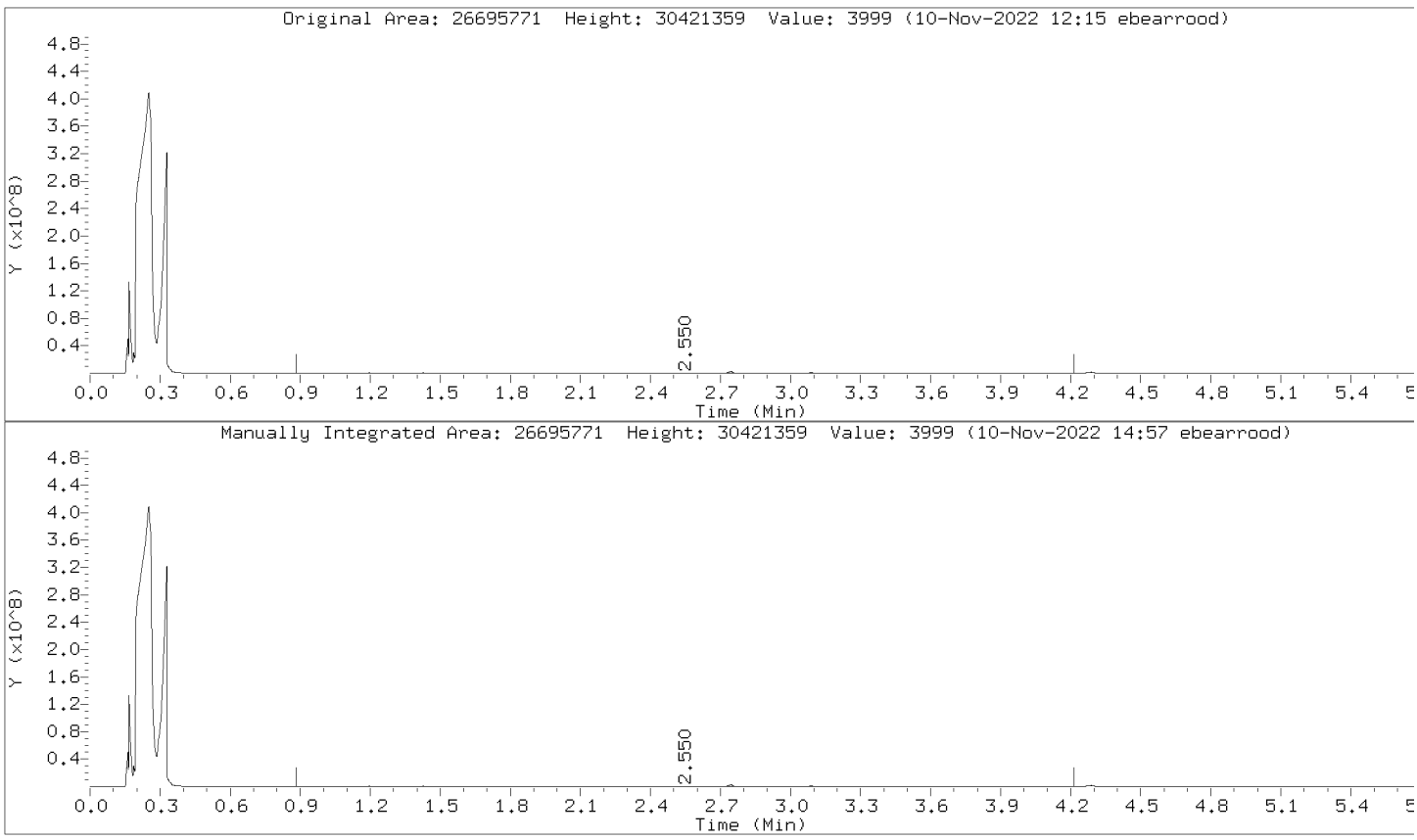
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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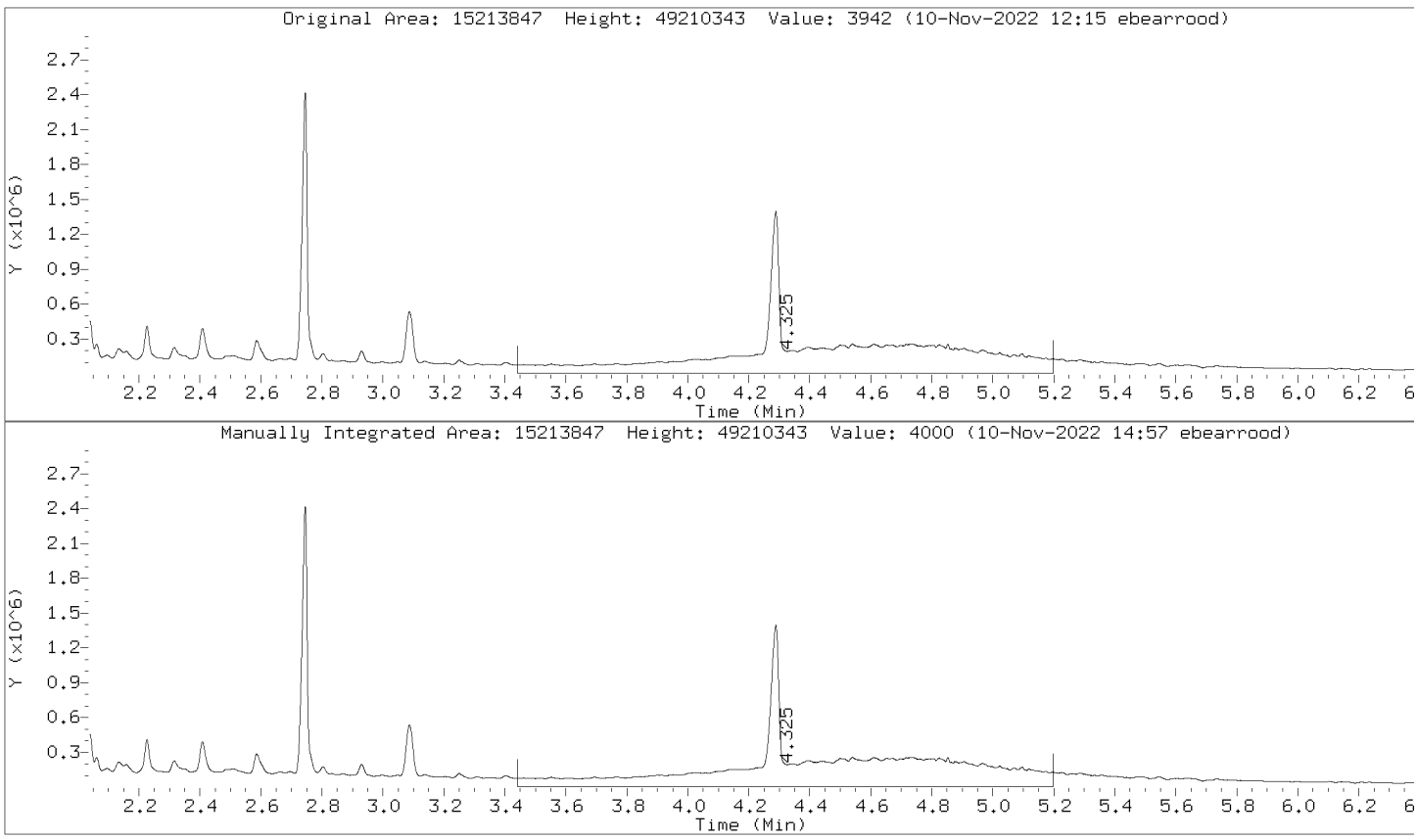
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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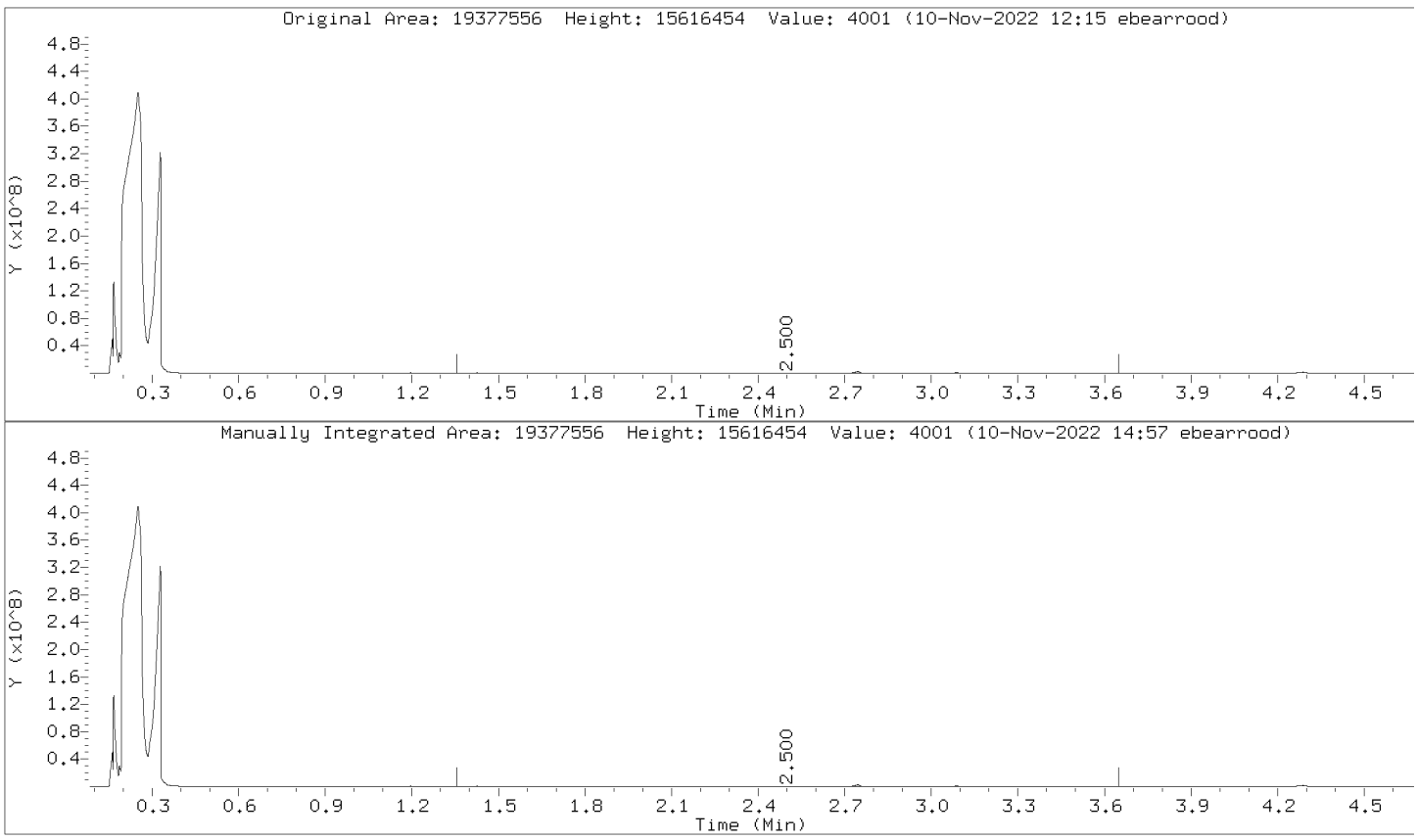
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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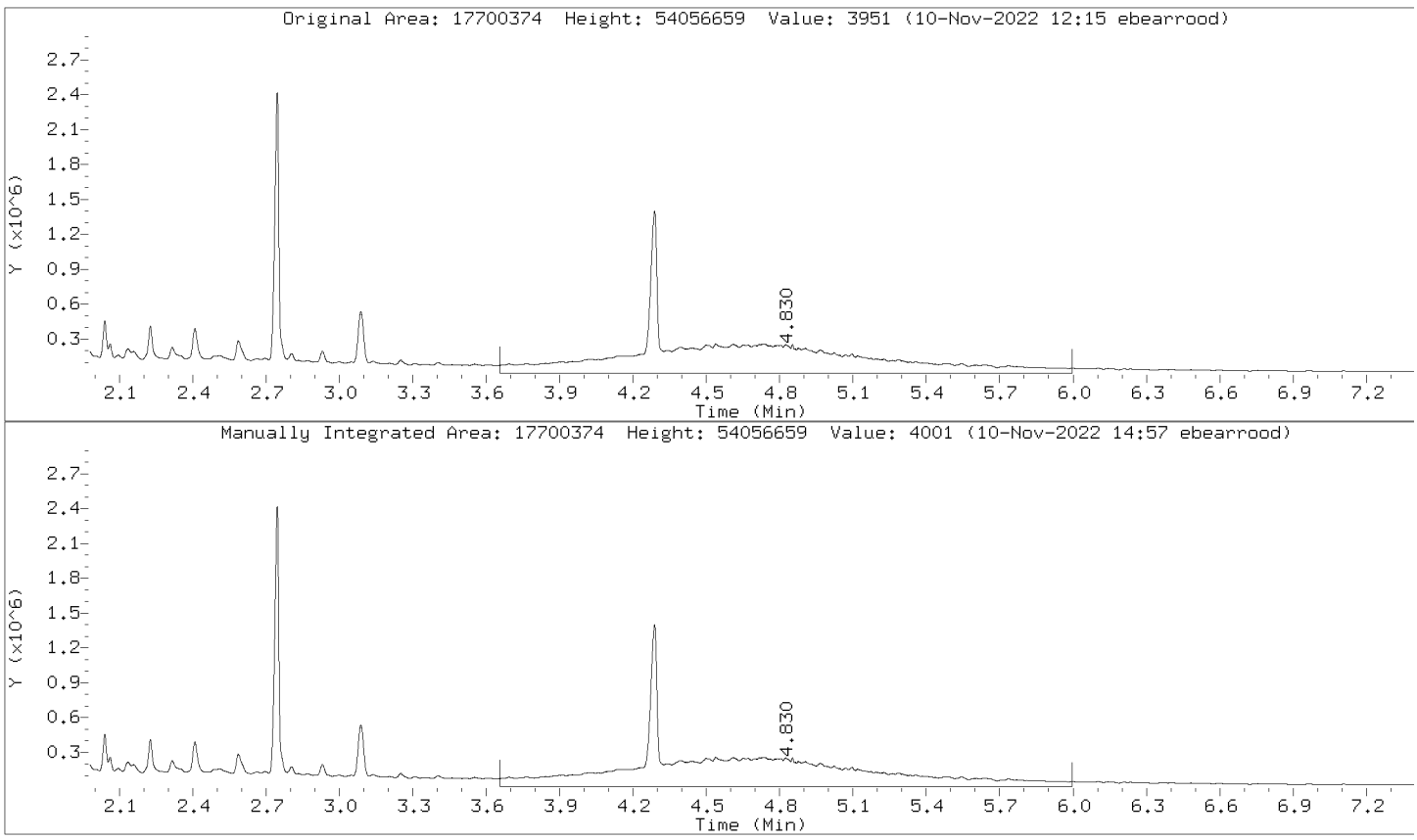
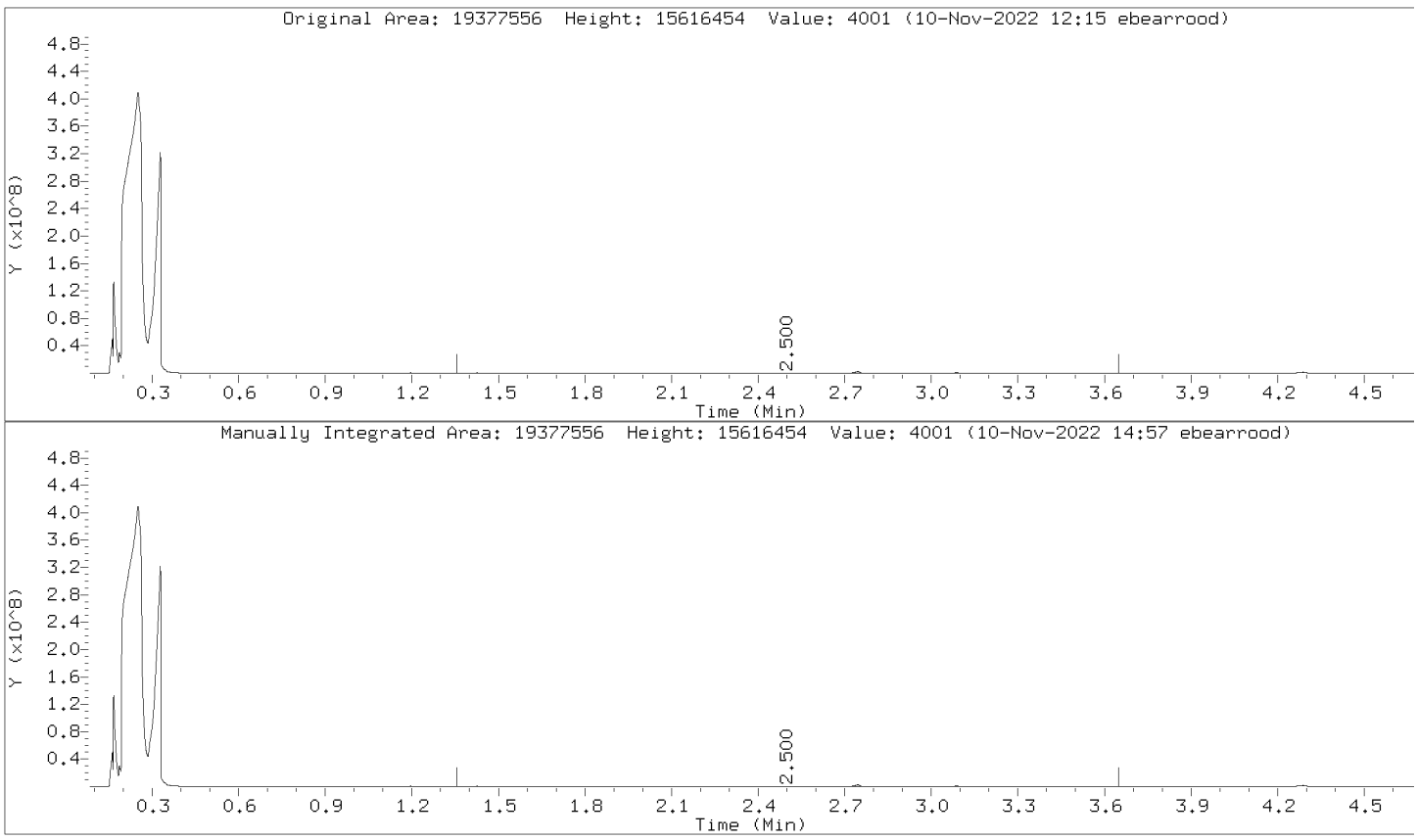
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



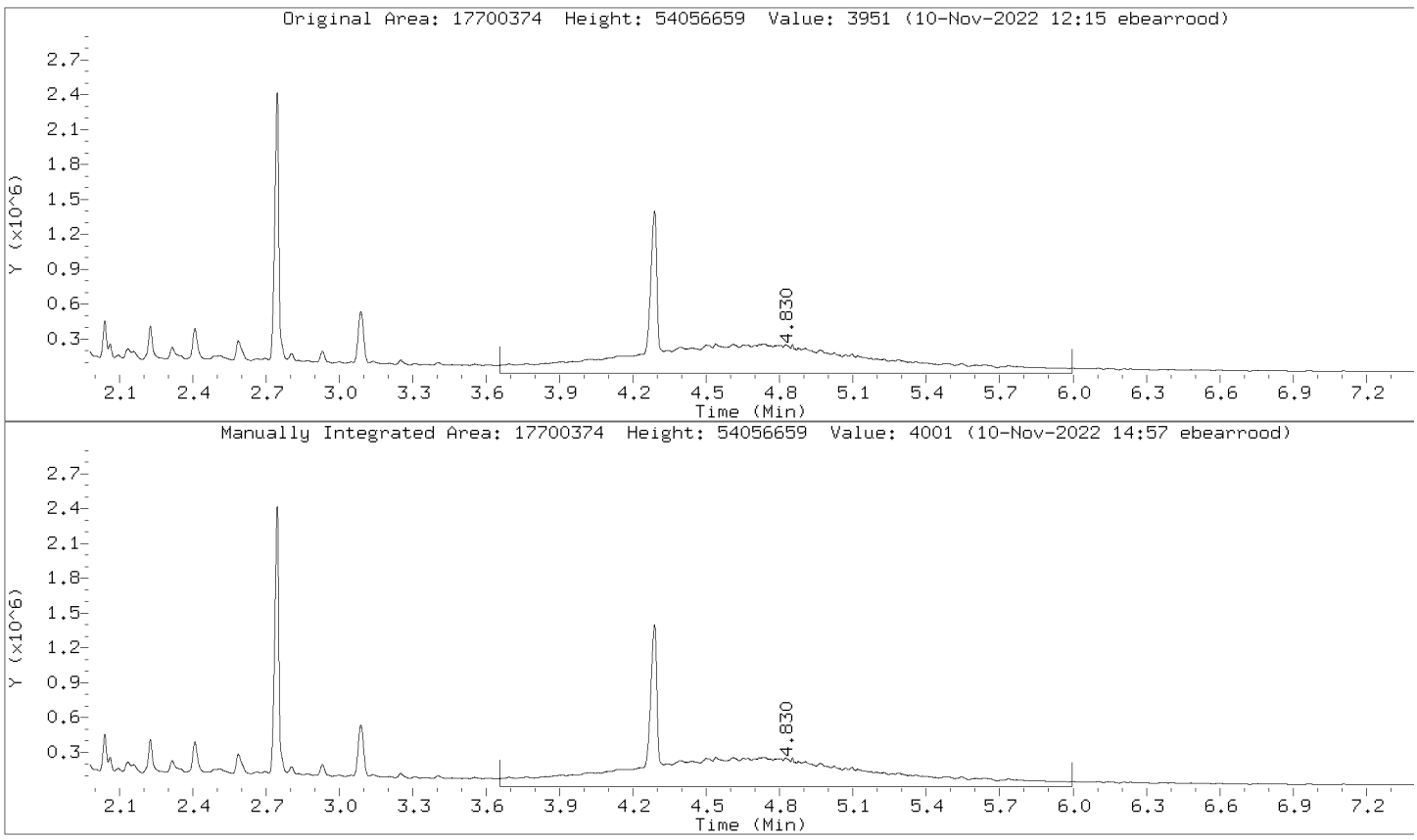
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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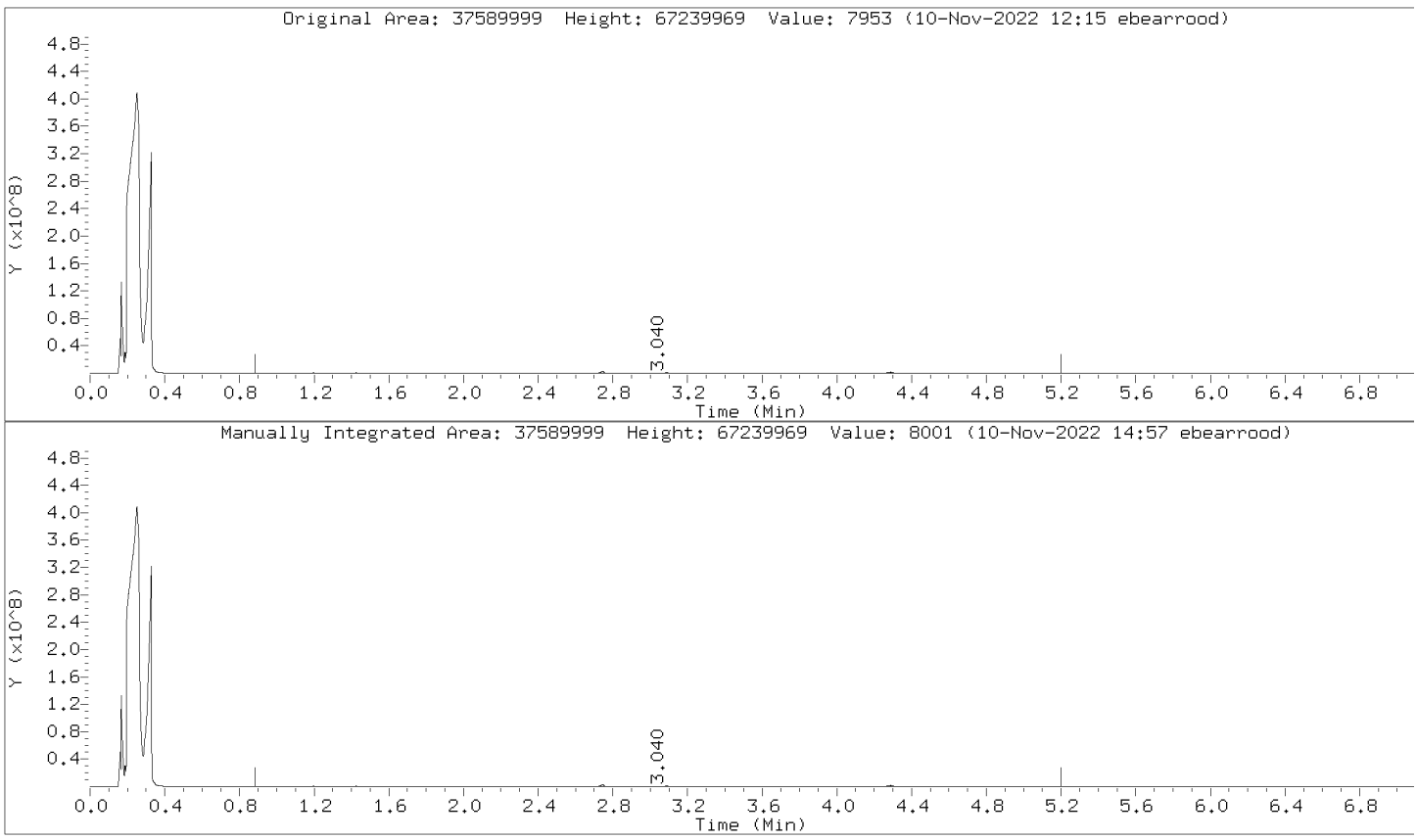
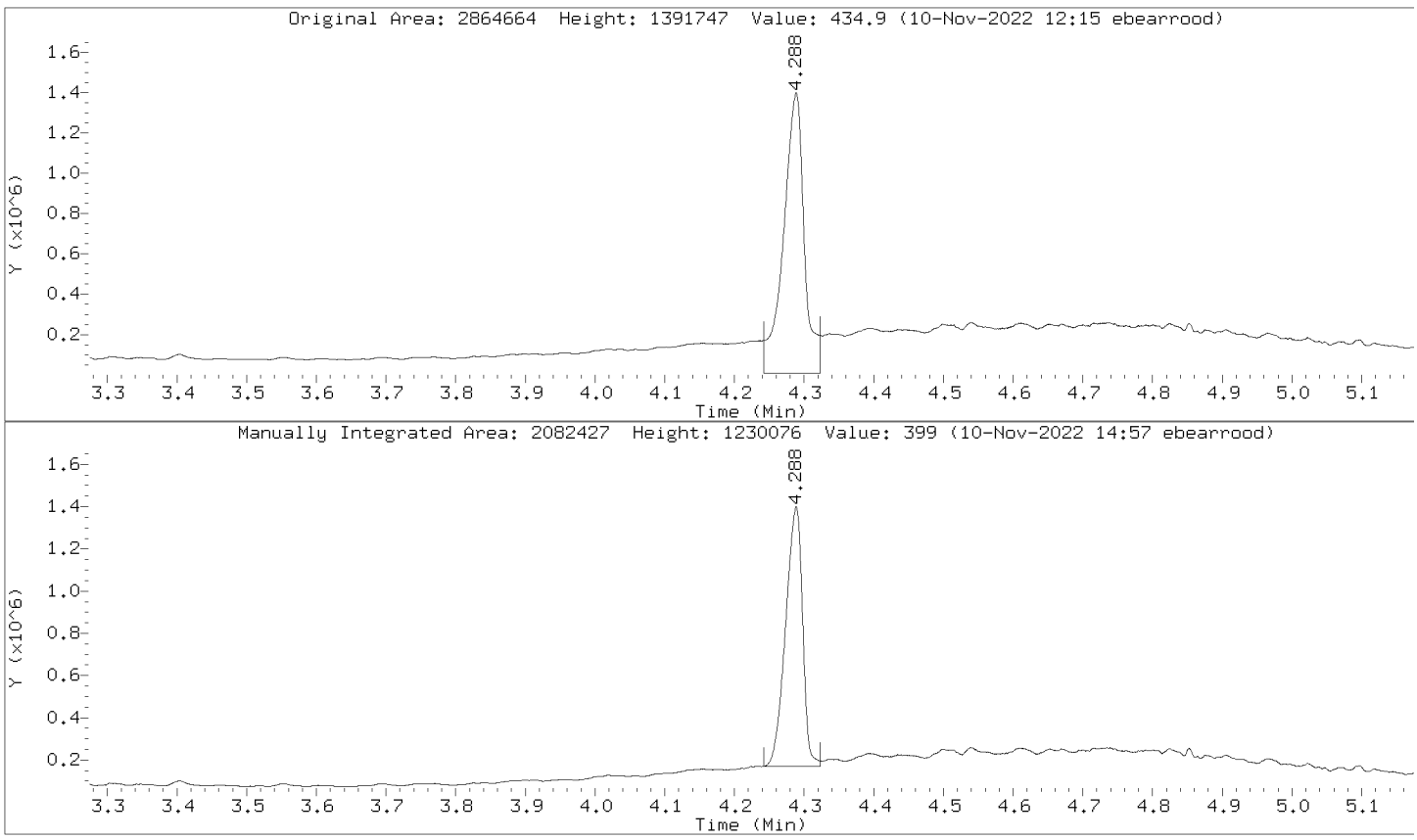
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



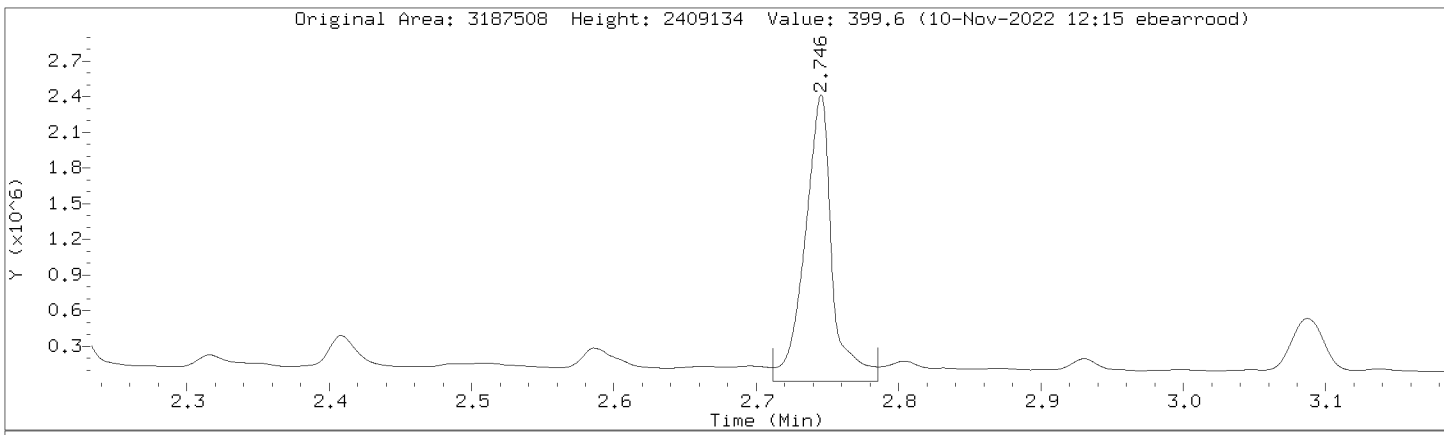
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

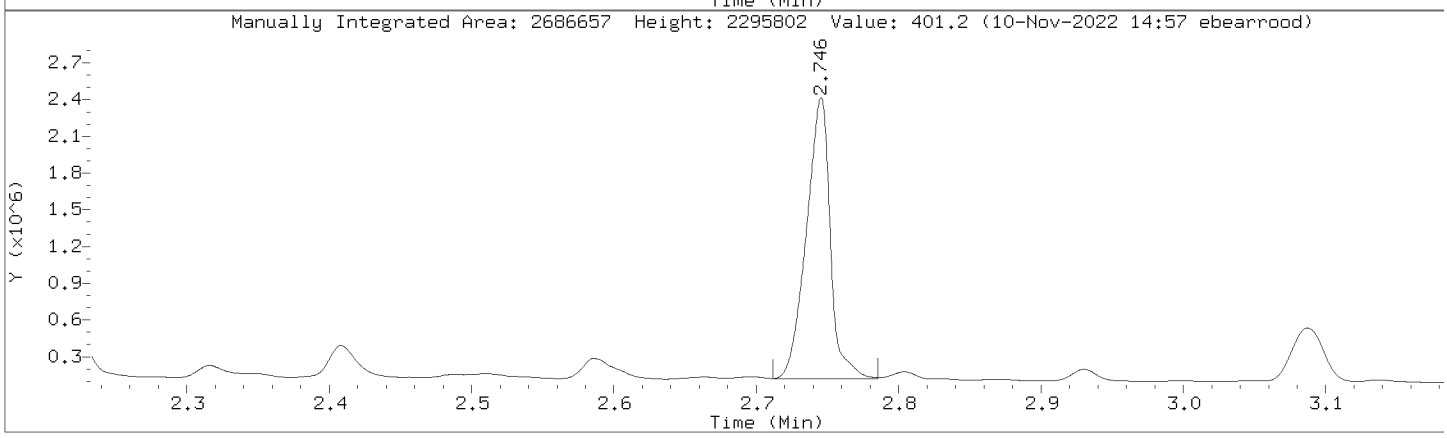
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

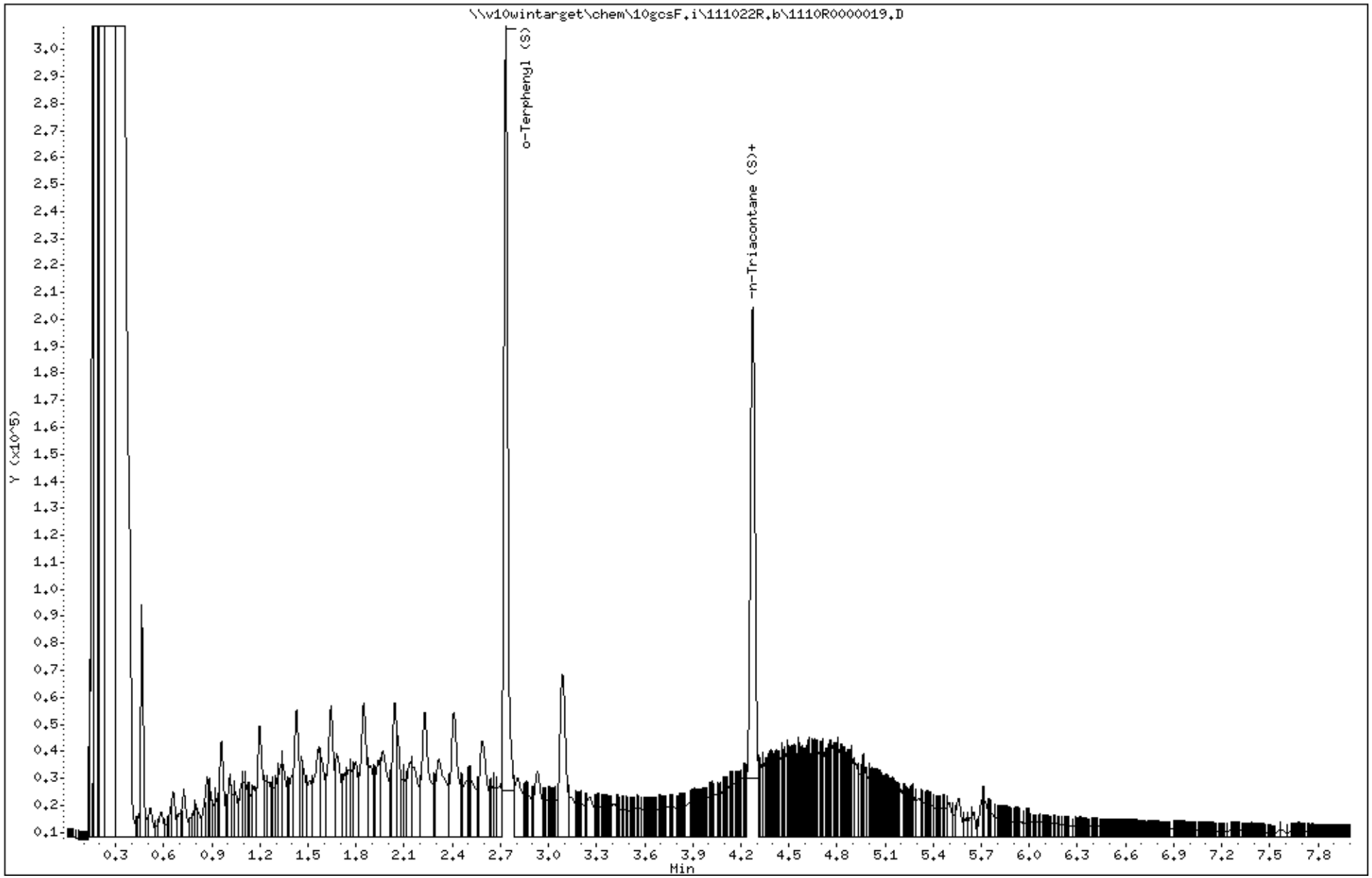
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

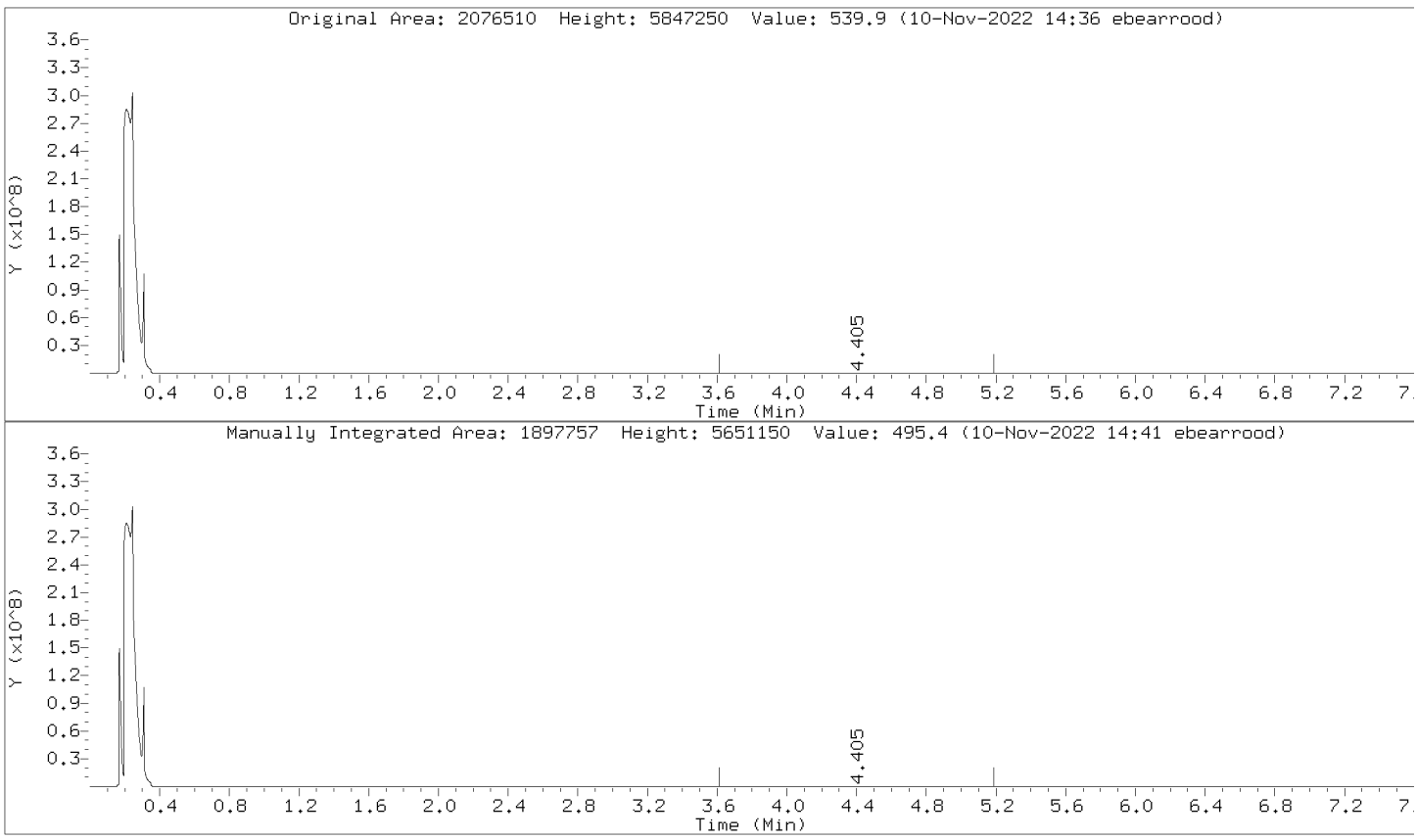
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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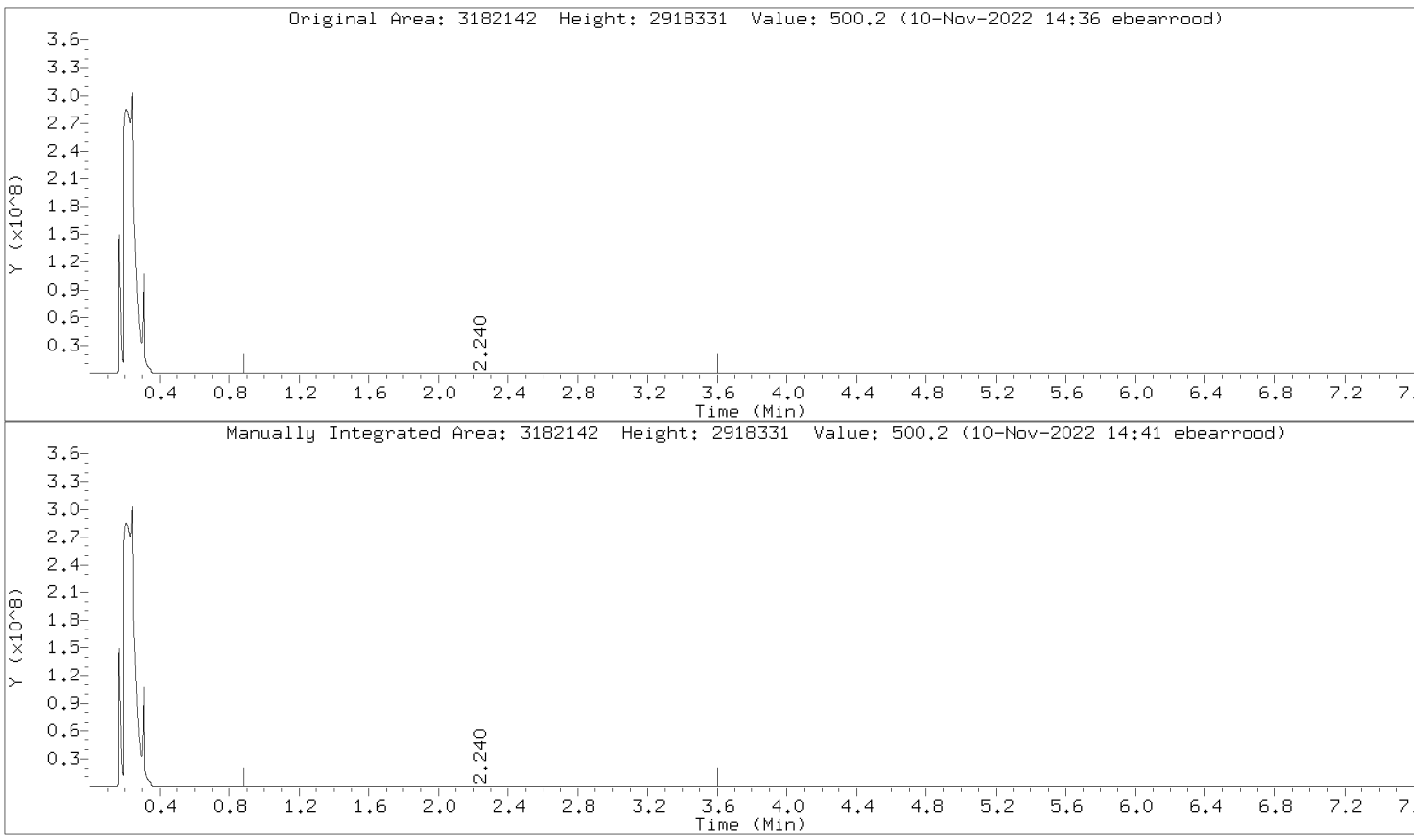
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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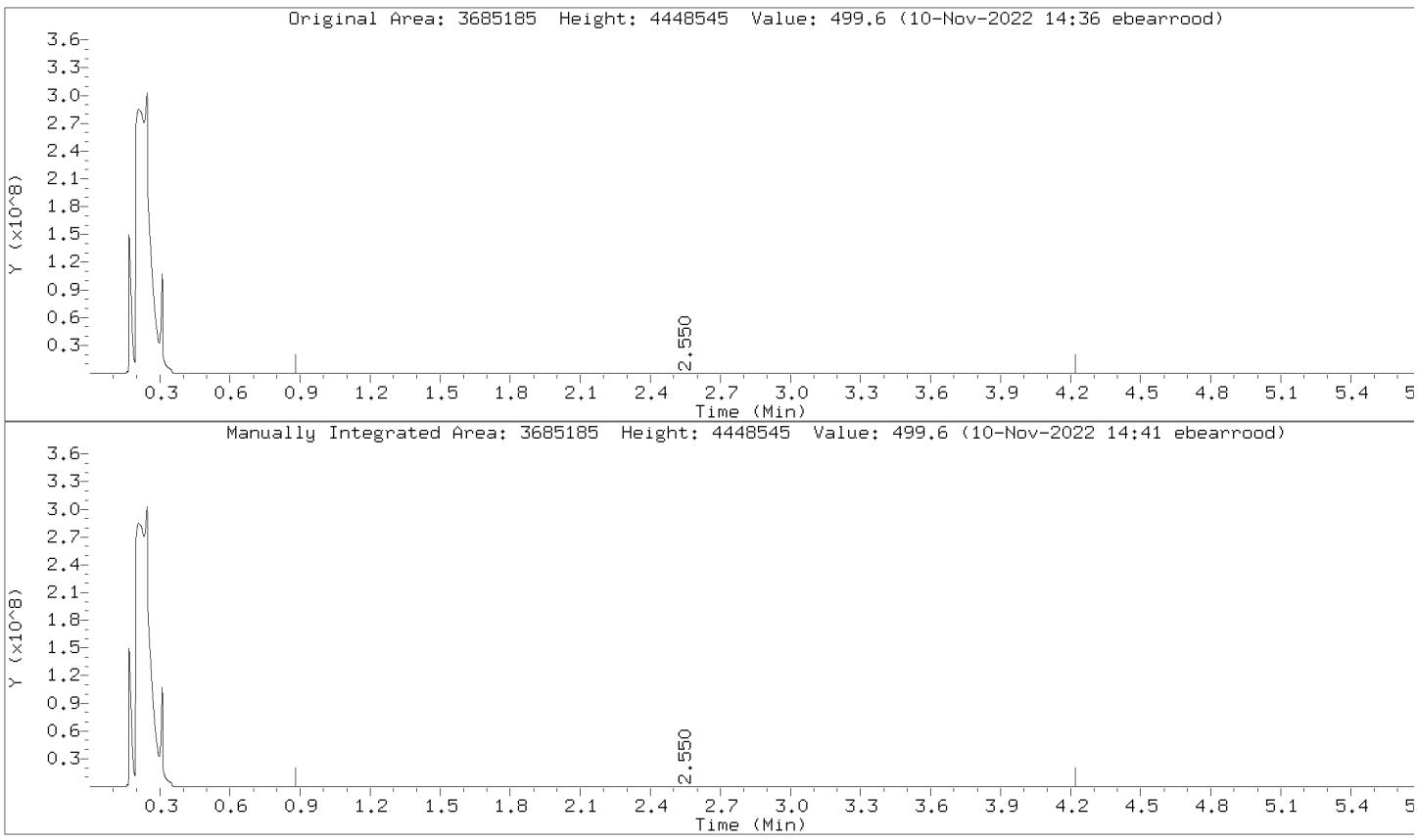
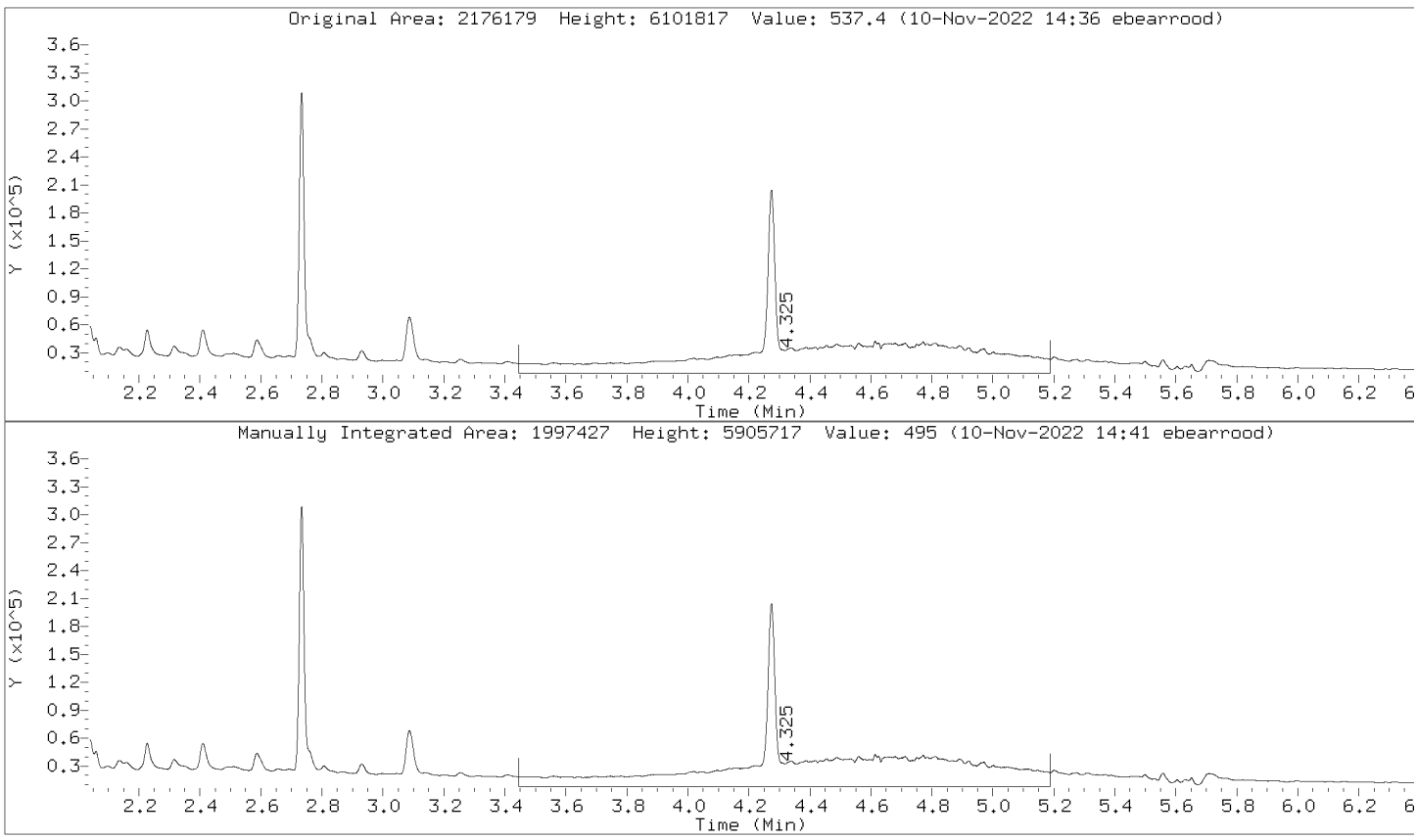
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



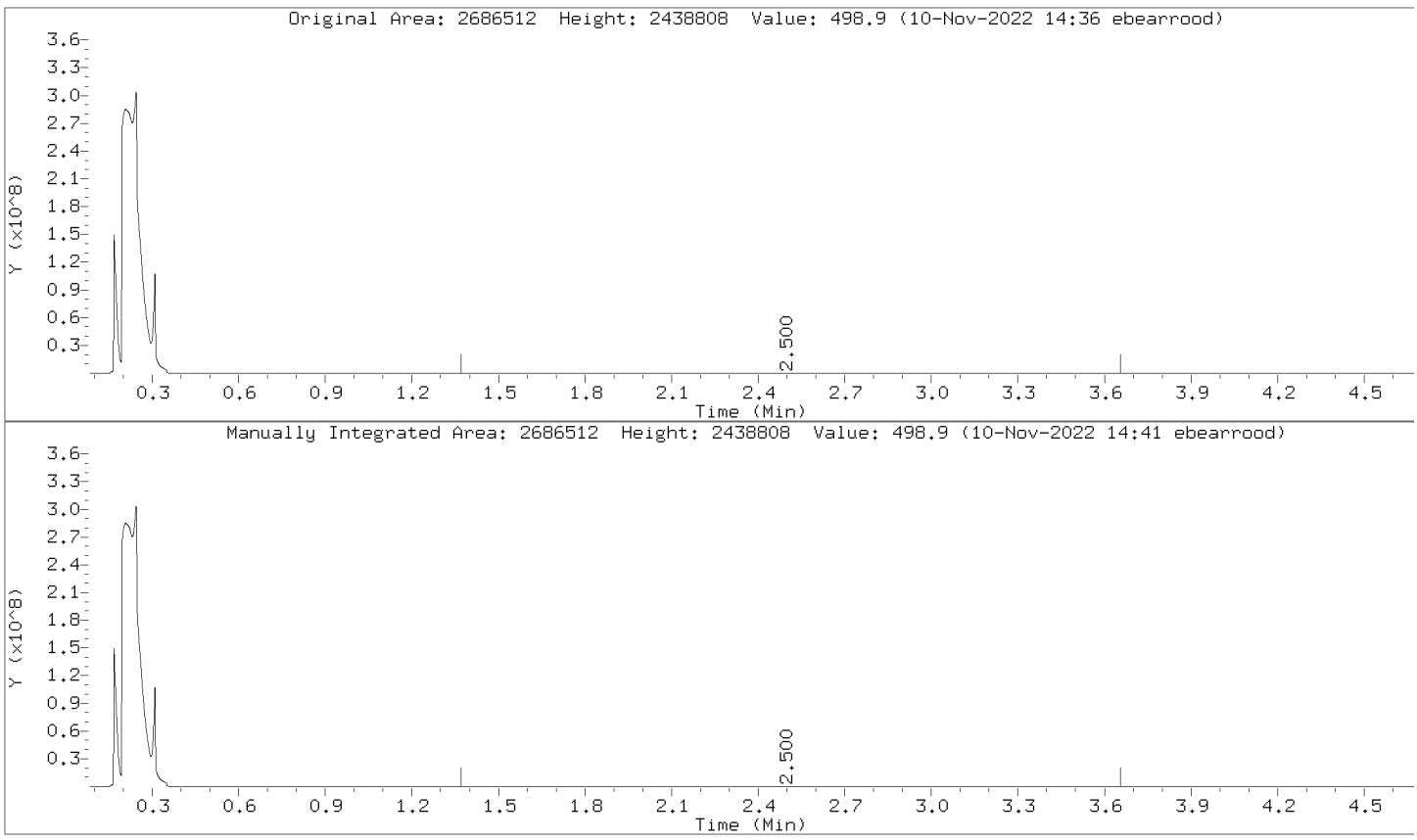
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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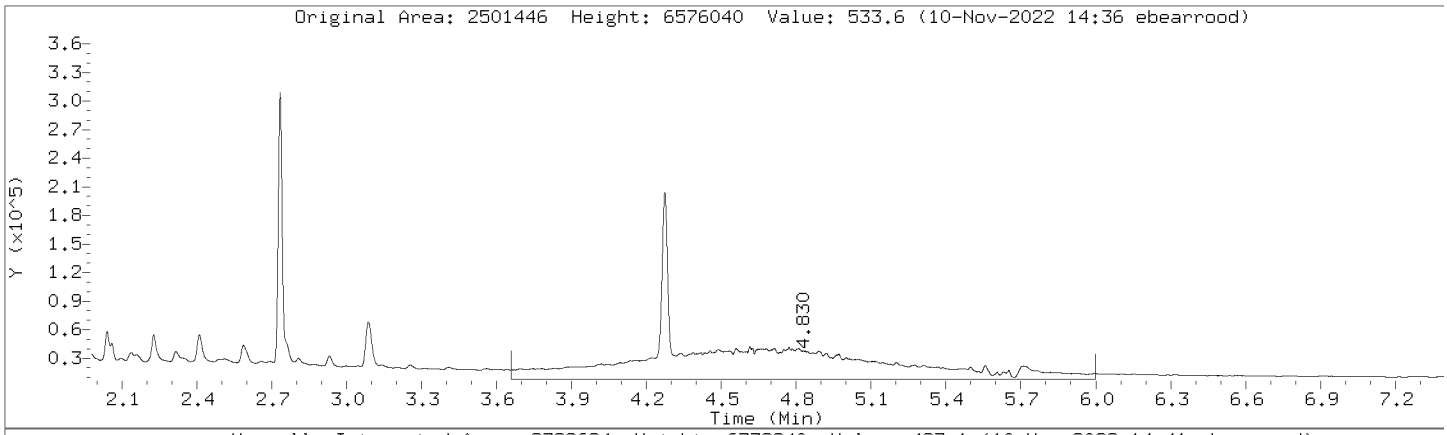
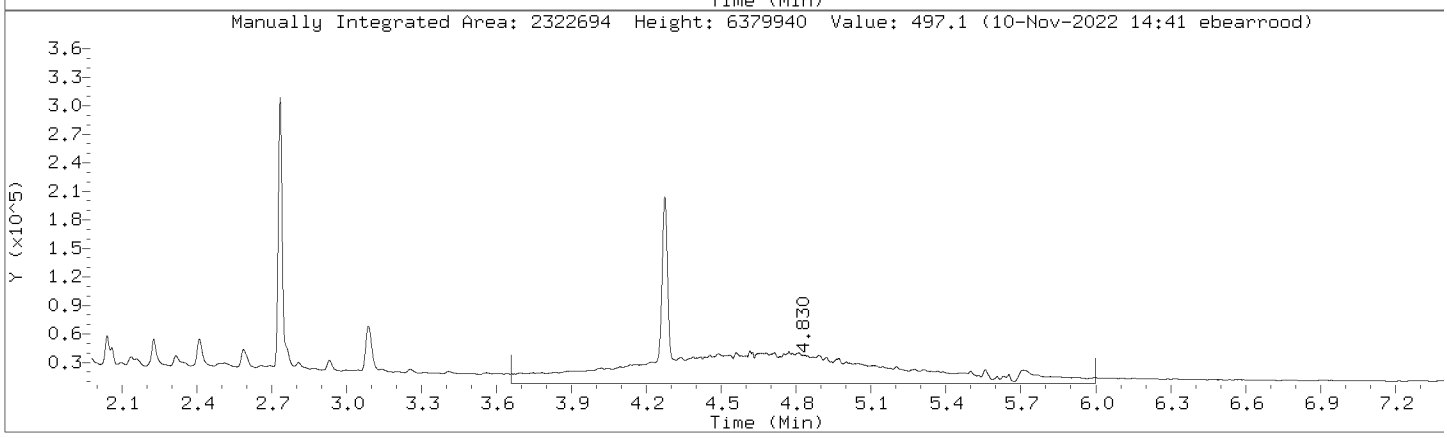
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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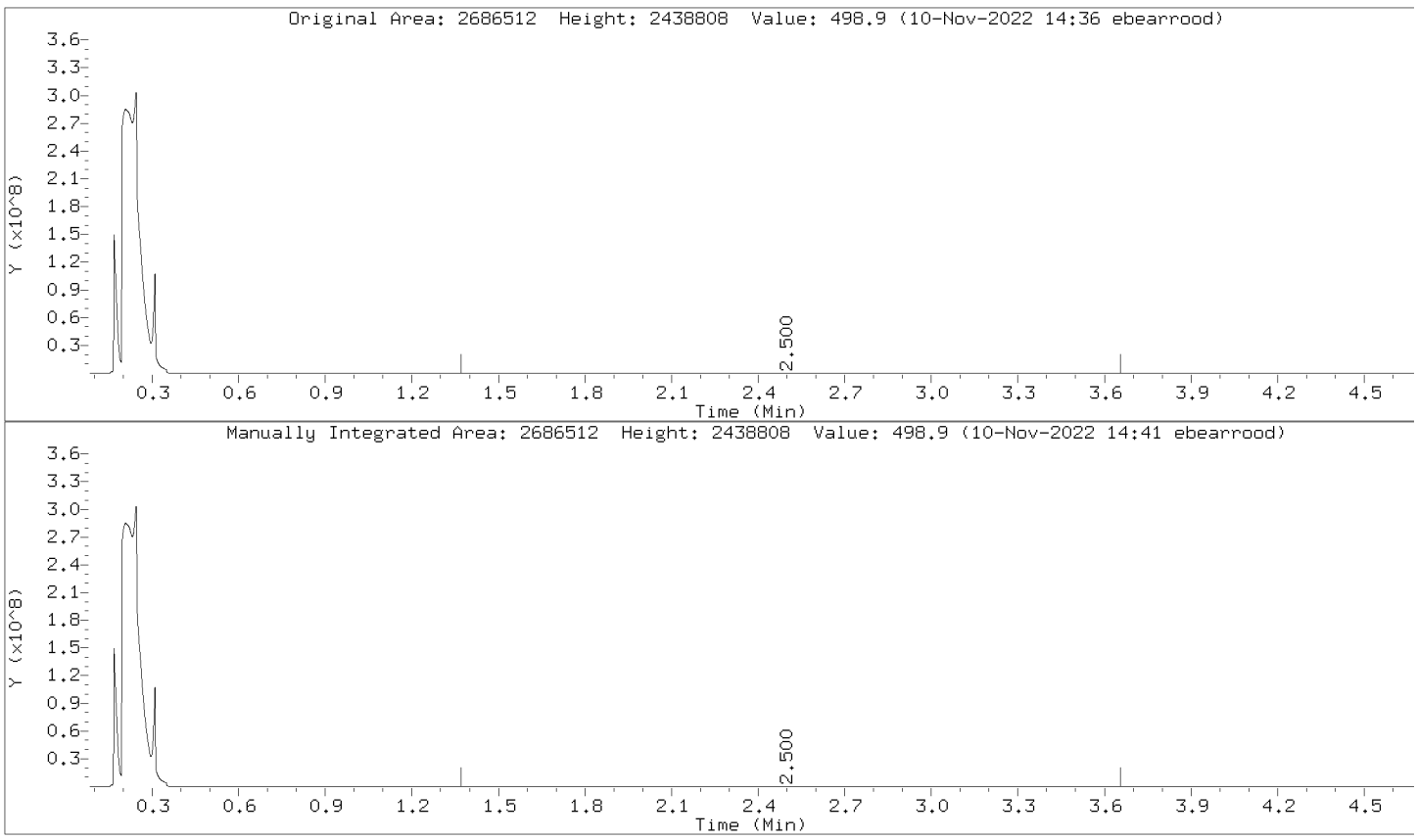
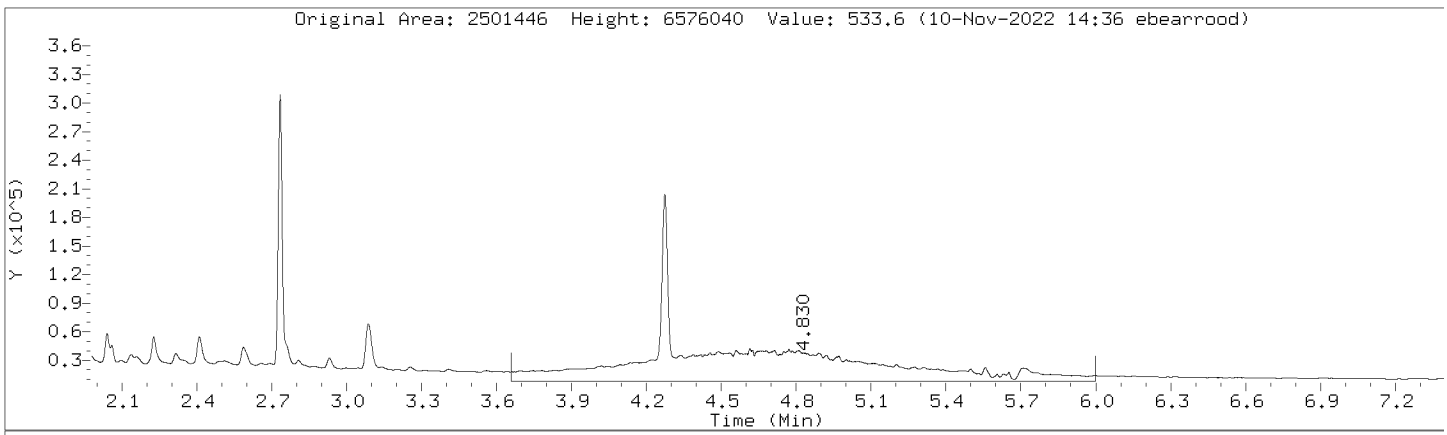
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

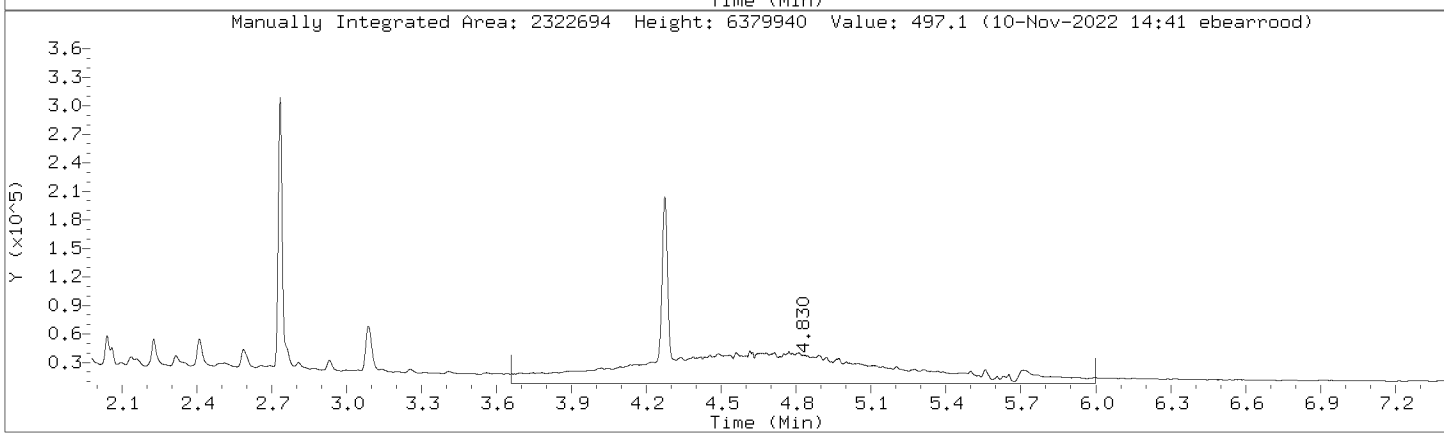
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





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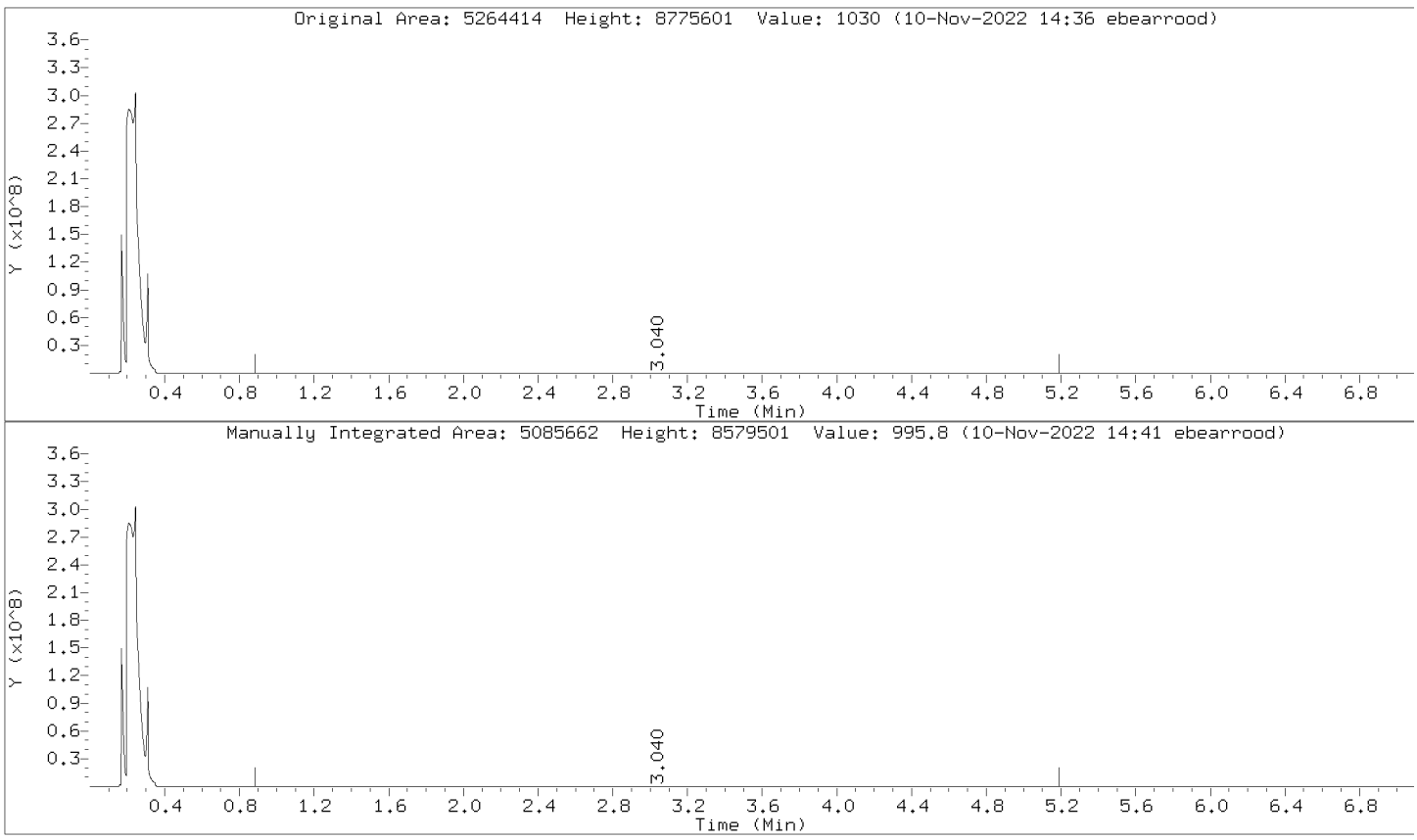
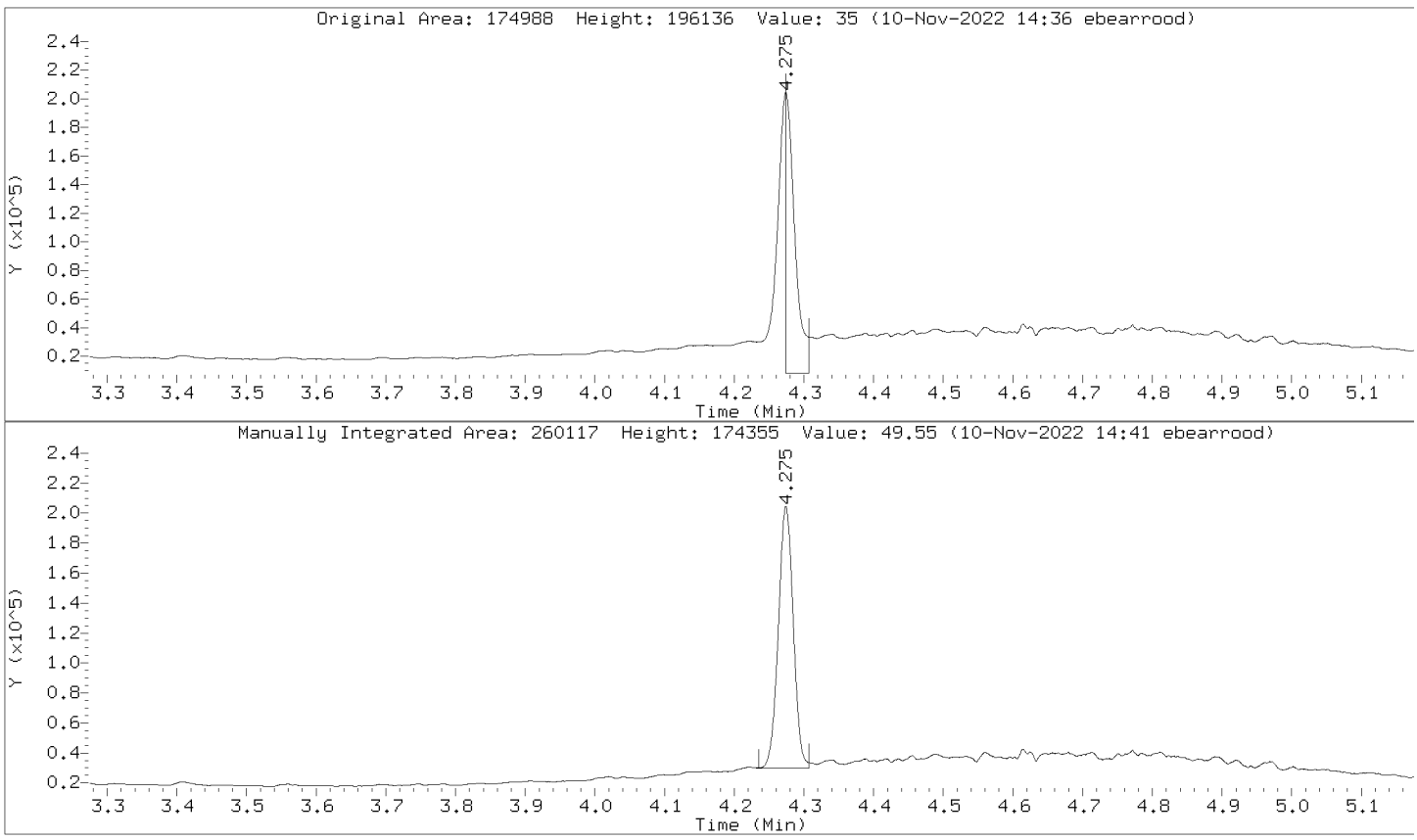
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



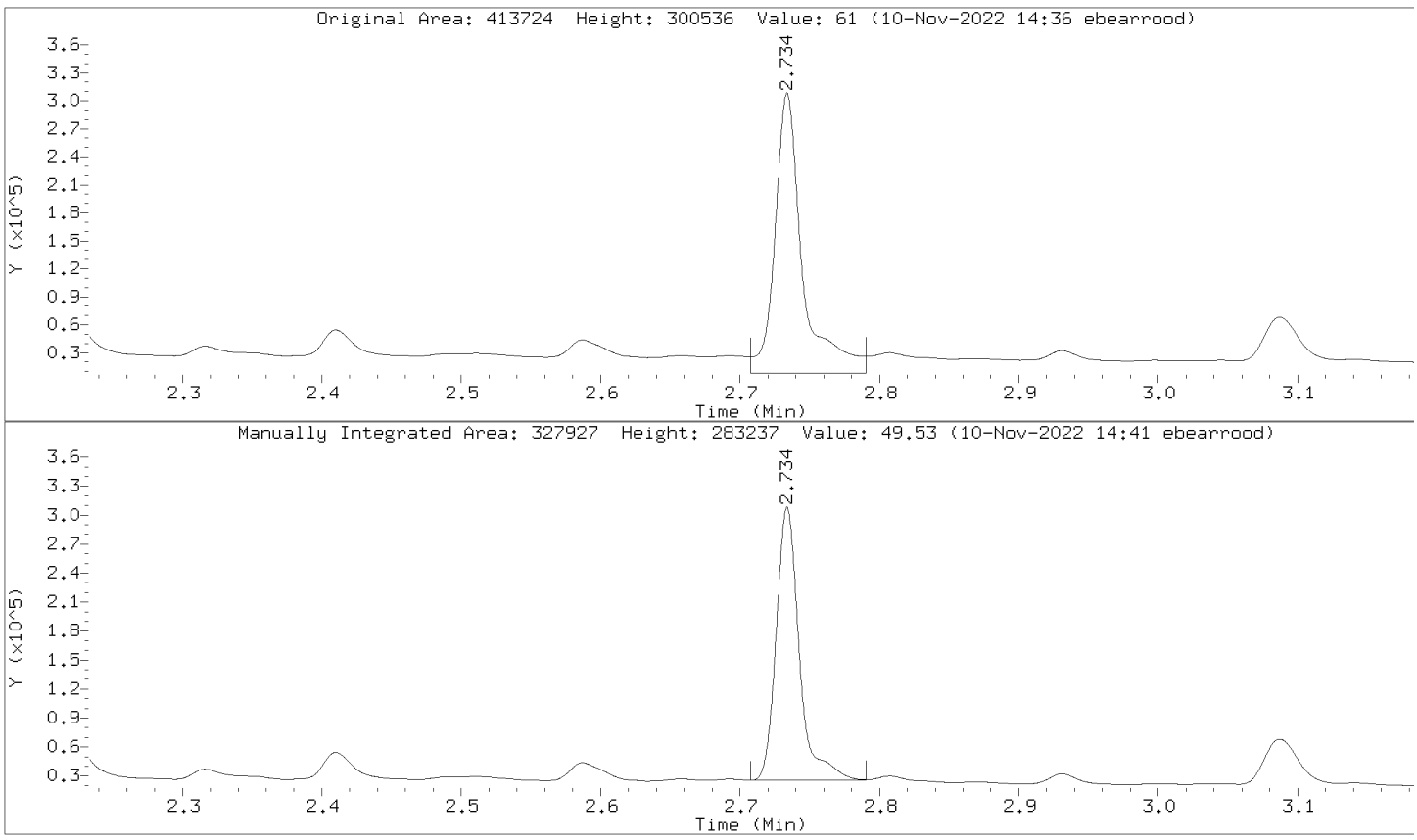
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

SAMPLE NO.

31472811ICV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31482909CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 13:37

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000016.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	486.9539	0.0100	-2.6092	15.0000
Motor Oil Range	Linear	500	502.6552	0.0100	0.5311	15.0000
n-Triacontane (S)	Linear	50	48.88404	0.0100	-2.2319	15.0000
o-Terphenyl (S)	Linear	50	49.17206	0.0100	-1.6559	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496997CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 15:20

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000025C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	489.1500	0.0100	-2.1700	15.0000
Motor Oil Range	Linear	500	492.5002	0.0100	-1.5000	15.0000
n-Triacontane (S)	Linear	50	48.39756	0.0100	-3.2049	15.0000
o-Terphenyl (S)	Linear	50	48.83302	0.0100	-2.3339	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31496998CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 16:51

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000033C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	493.8546	0.0100	-1.2291	15.0000
Motor Oil Range	Linear	500	543.3317	0.0100	8.6663	15.0000
n-Triacontane (S)	Linear	50	49.66160	0.0100	-0.6768	15.0000
o-Terphenyl (S)	Linear	50	49.69882	0.0100	-0.6024	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

31496996CCV

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 18:00

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000039C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	489.5461	0.0100	-2.0908	15.0000
Motor Oil Range	Linear	500	492.7112	0.0100	-1.4578	15.0000
n-Triacontane (S)	Linear	50	48.92124	0.0100	-2.1575	15.0000
o-Terphenyl (S)	Linear	50	49.32399	0.0100	-1.3520	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31497685CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/14/2022 Time: 15:26

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111422R.B\1114R0000020C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	487.0005	0.0100	-2.5999	15.0000
Motor Oil Range	Linear	500	498.6586	0.0100	-0.2683	15.0000
n-Triacontane (S)	Linear	50	48.79468	0.0100	-2.4106	15.0000
o-Terphenyl (S)	Linear	50	48.89221	0.0100	-2.2156	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31497684CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/14/2022 Time: 16:03

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111422R.B\1114R0000024C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632887

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	488.2063	0.0100	-2.3587	15.0000
Motor Oil Range	Linear	500	498.2380	0.0100	-0.3524	15.0000
n-Triacontane (S)	Linear	50	47.67426	0.0100	-4.6515	15.0000
o-Terphenyl (S)	Linear	50	48.76638	0.0100	-2.4672	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3247087	500.000	512	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1975744	500.000	517	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3761077	500.000	511	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2073788	500.000	515	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

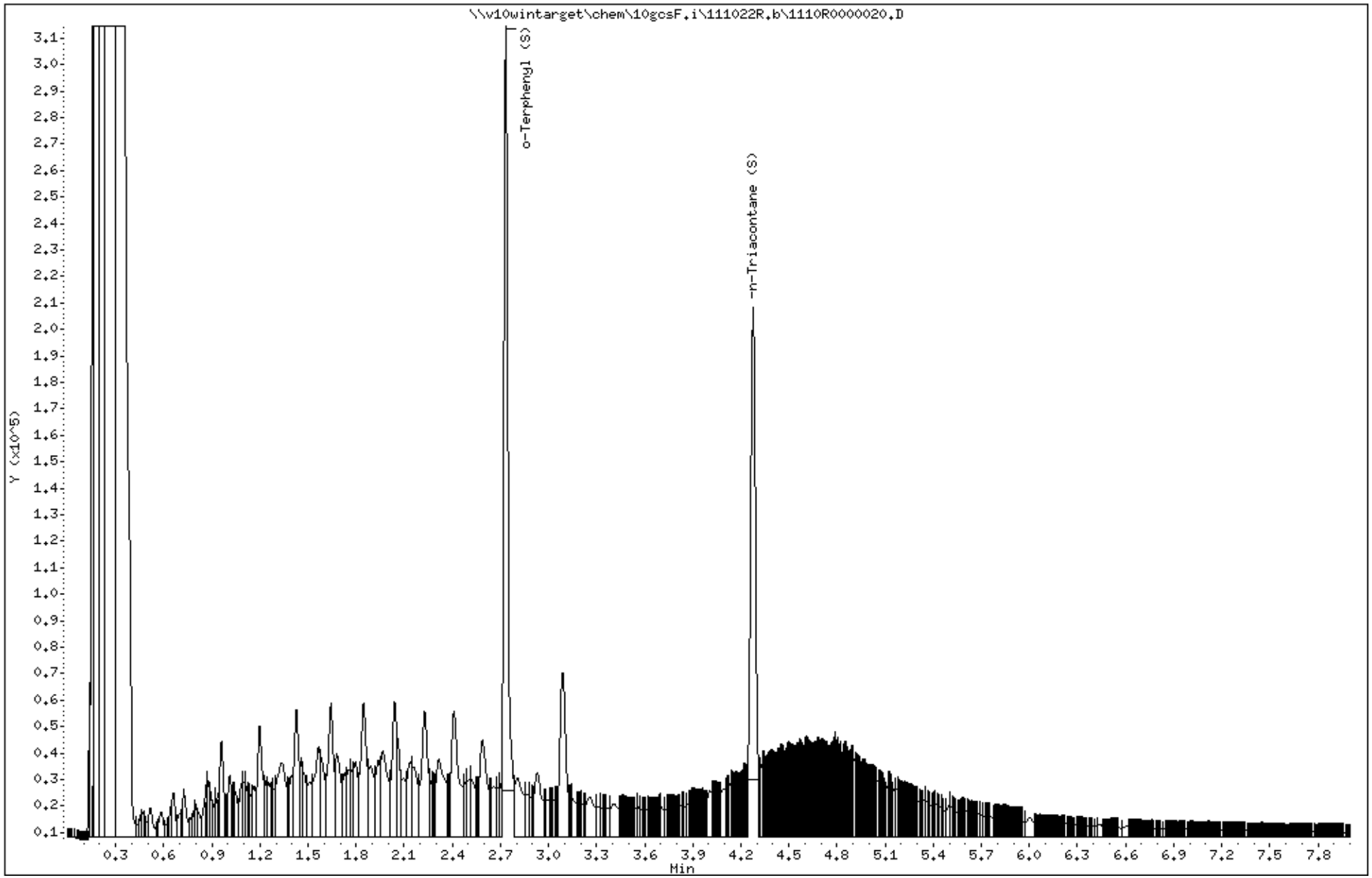
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

Column phase: DB-5-US21130002

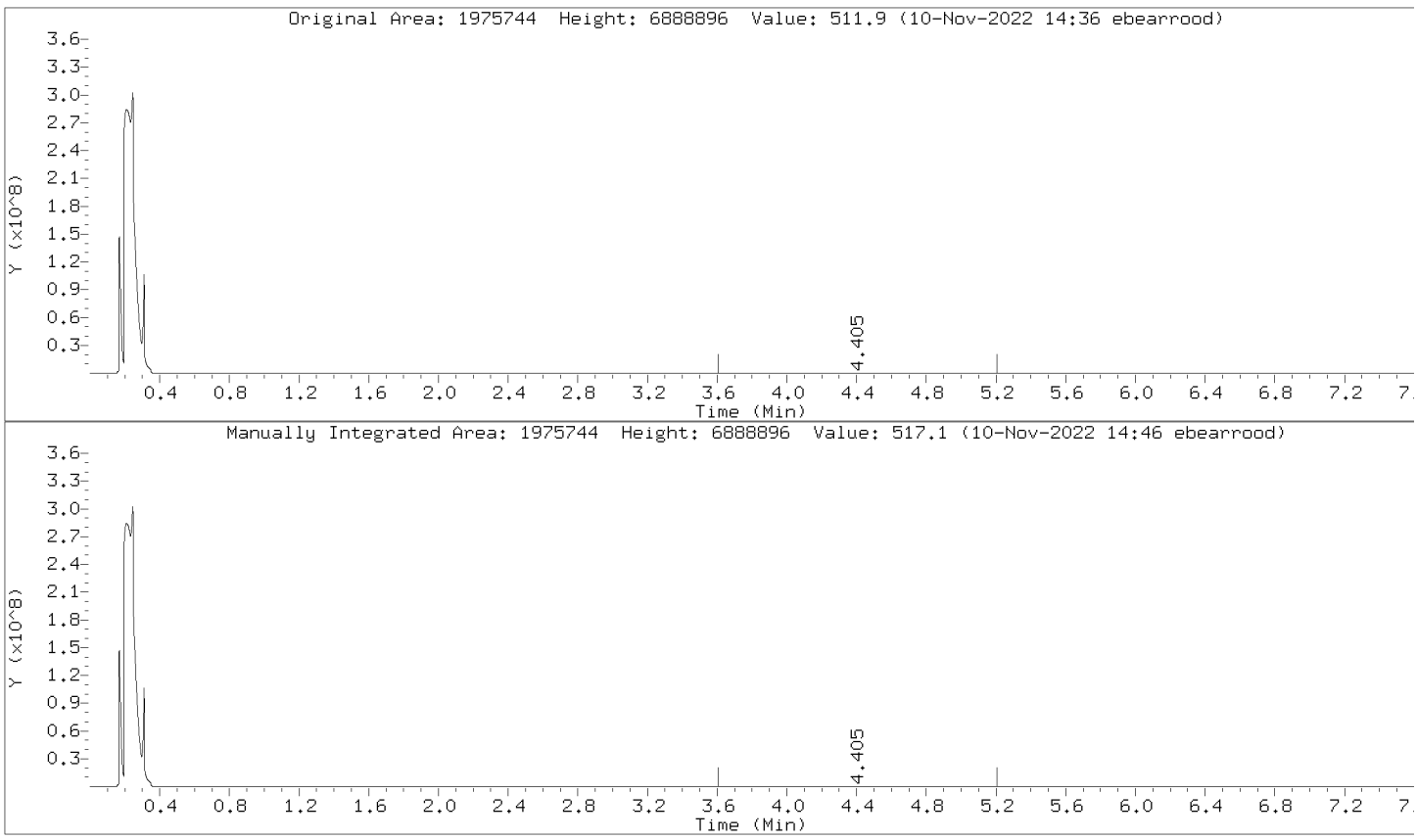
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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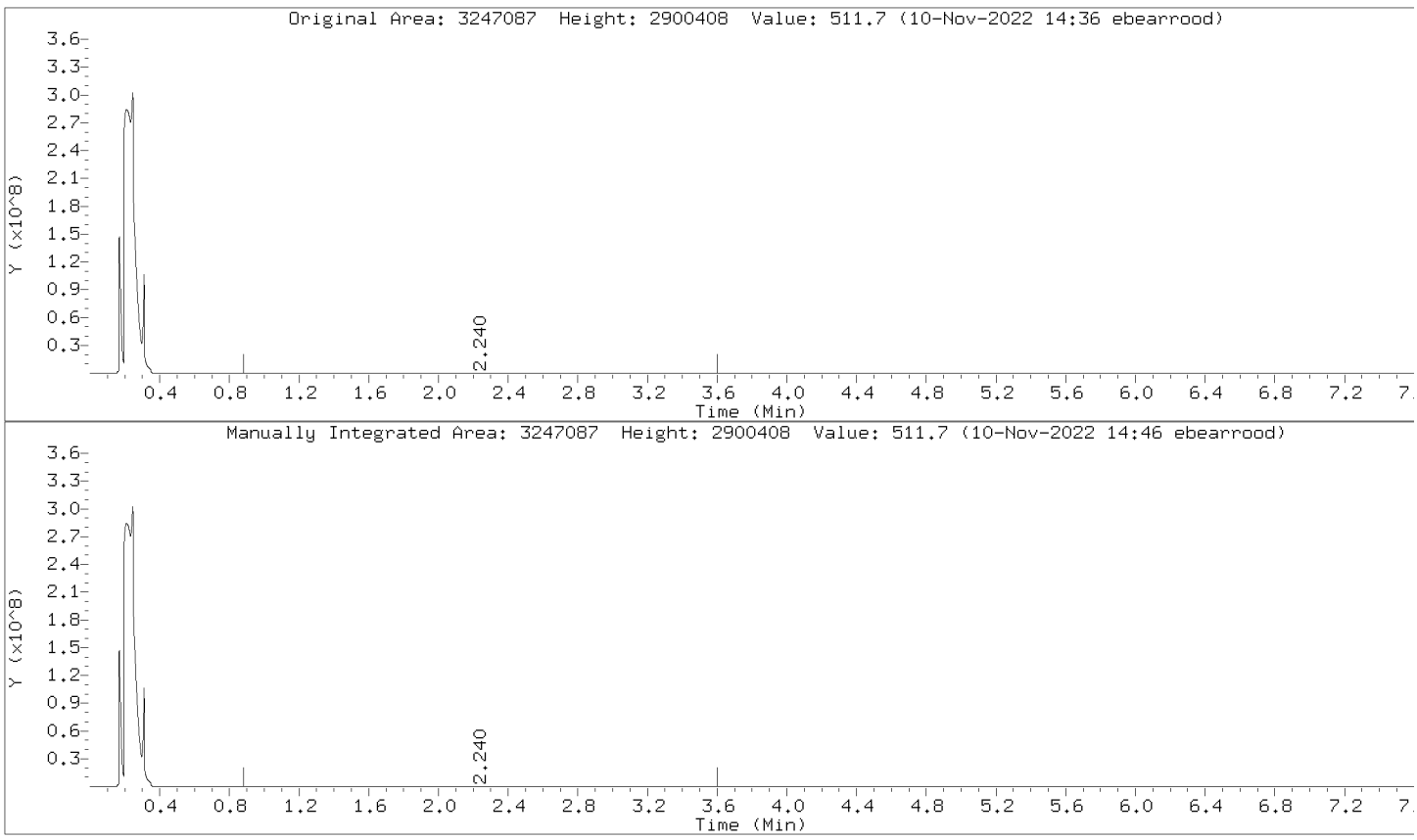
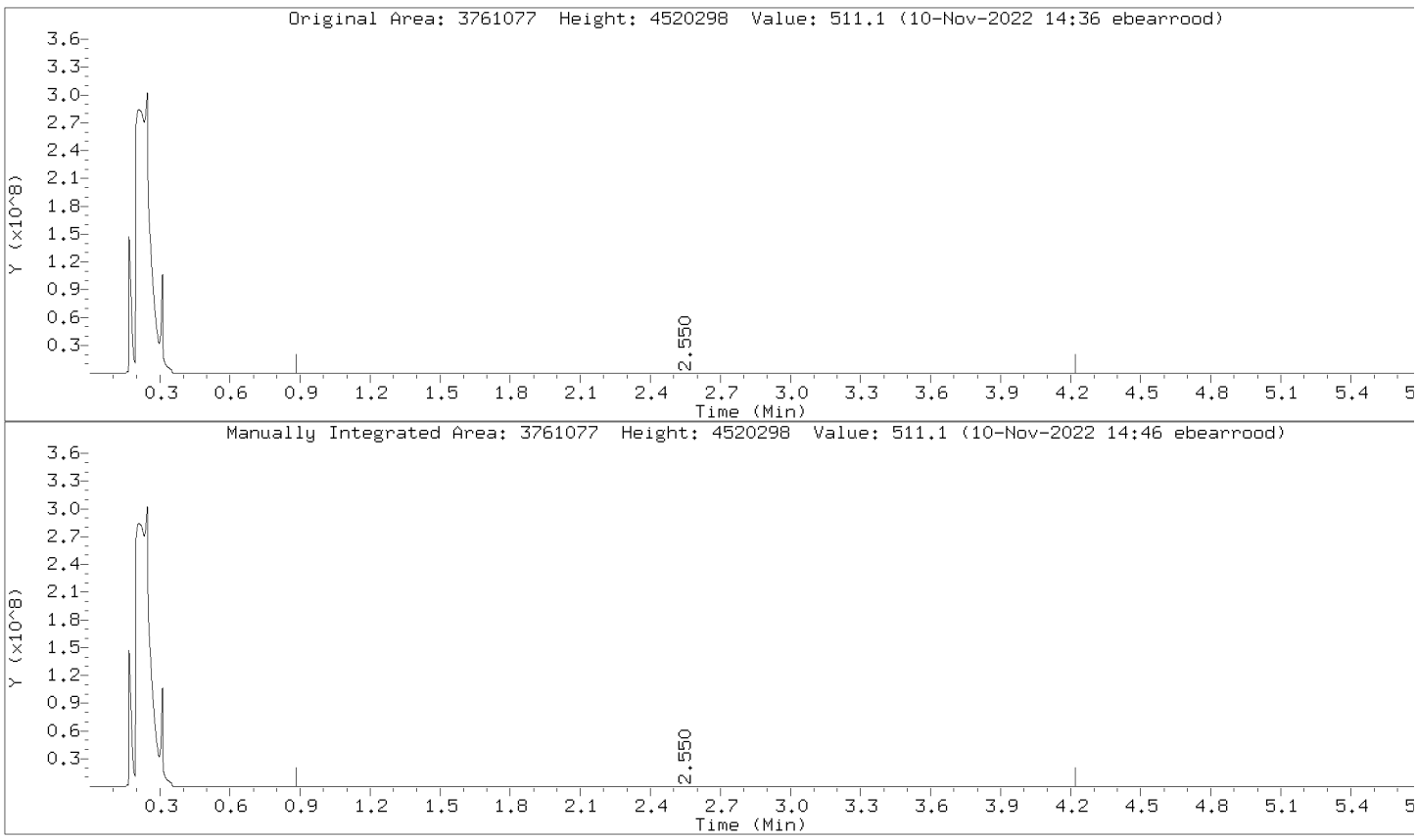
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



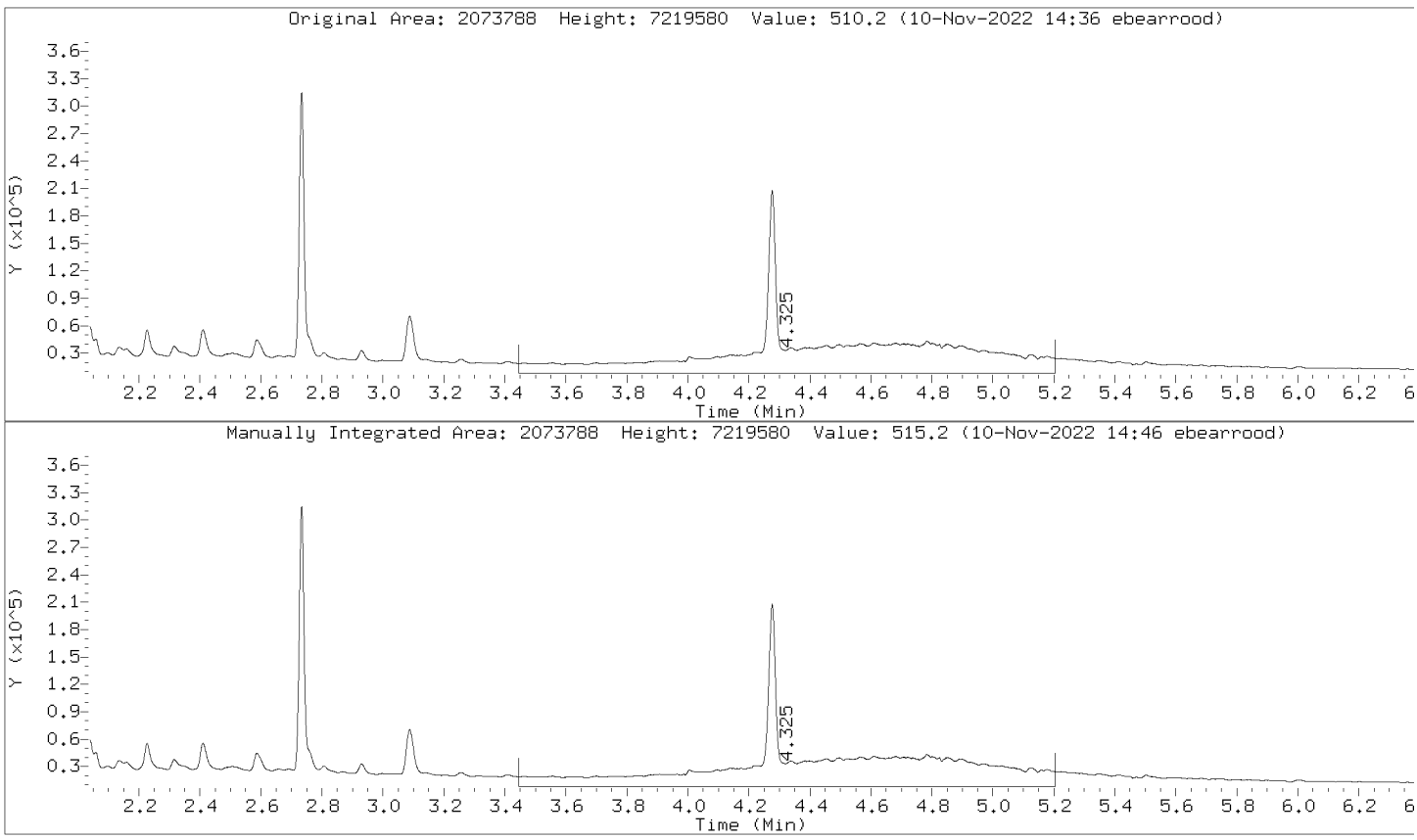
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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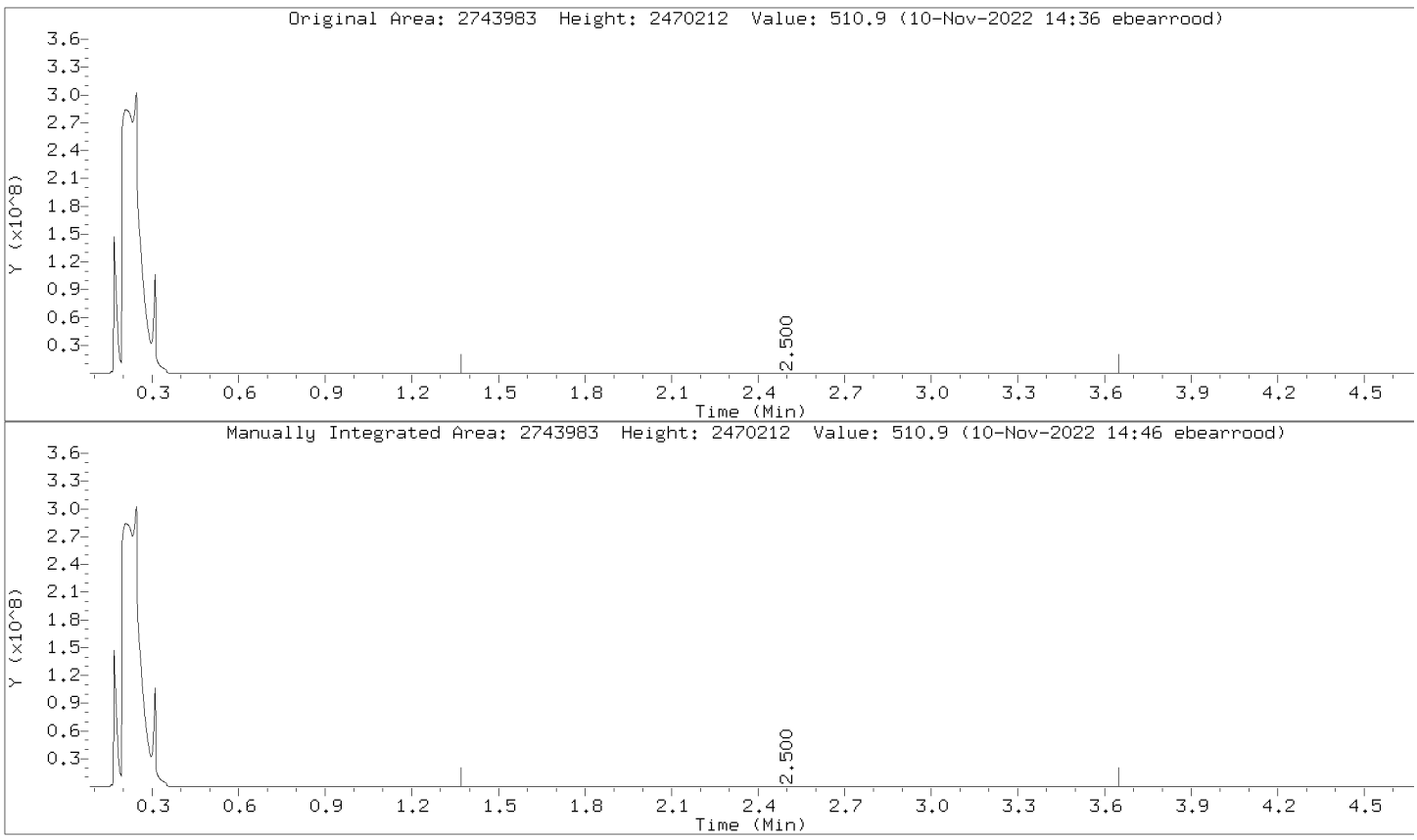
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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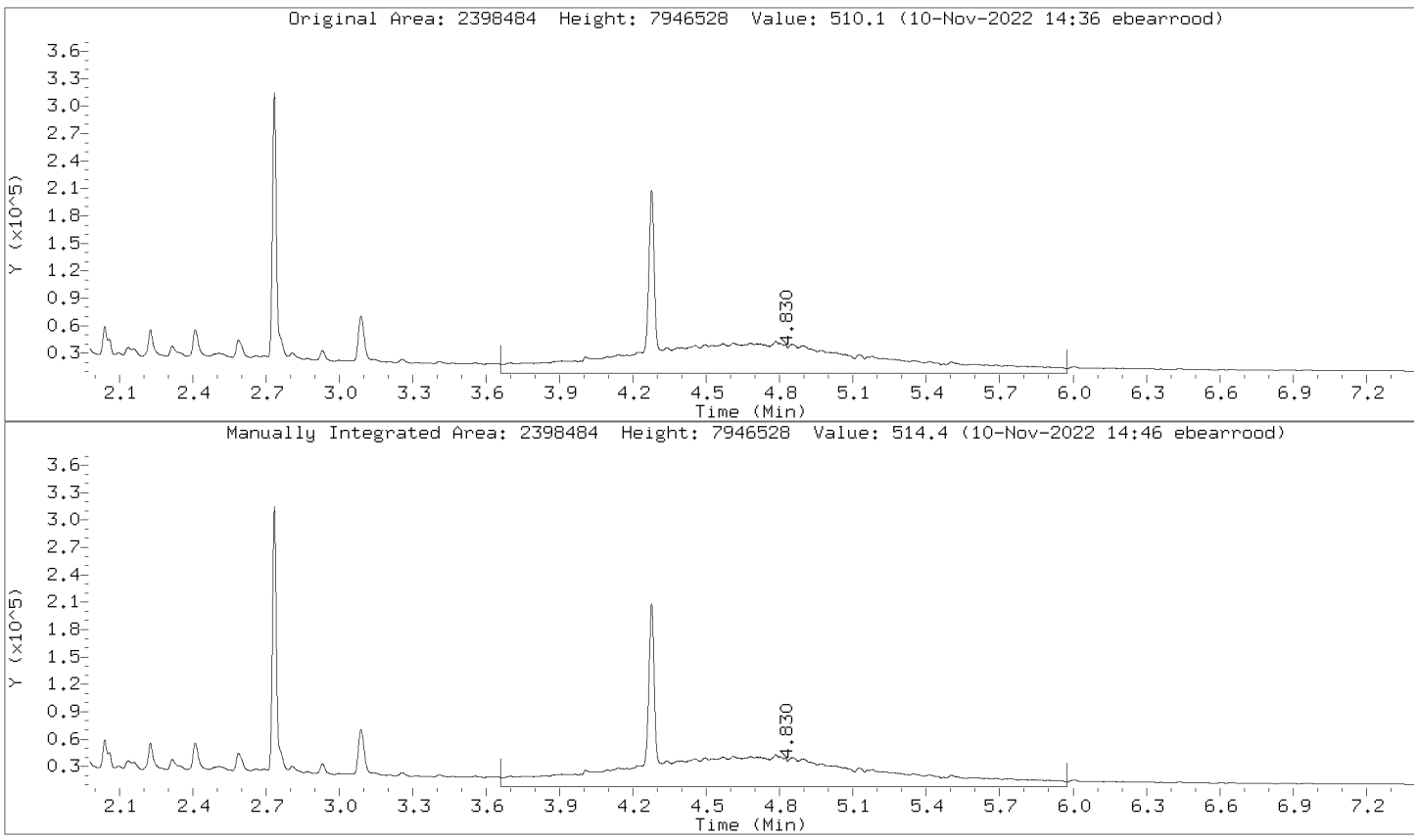
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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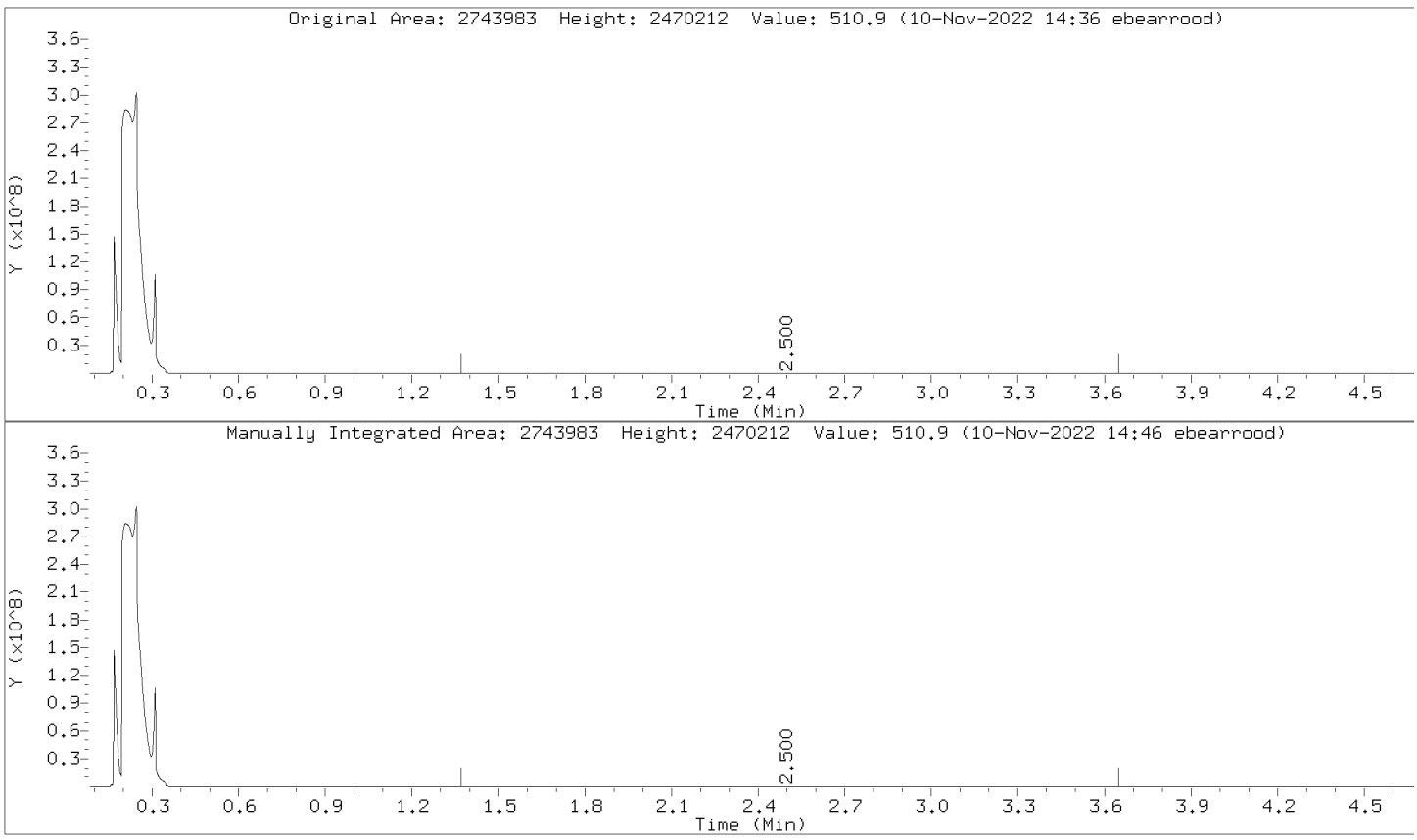
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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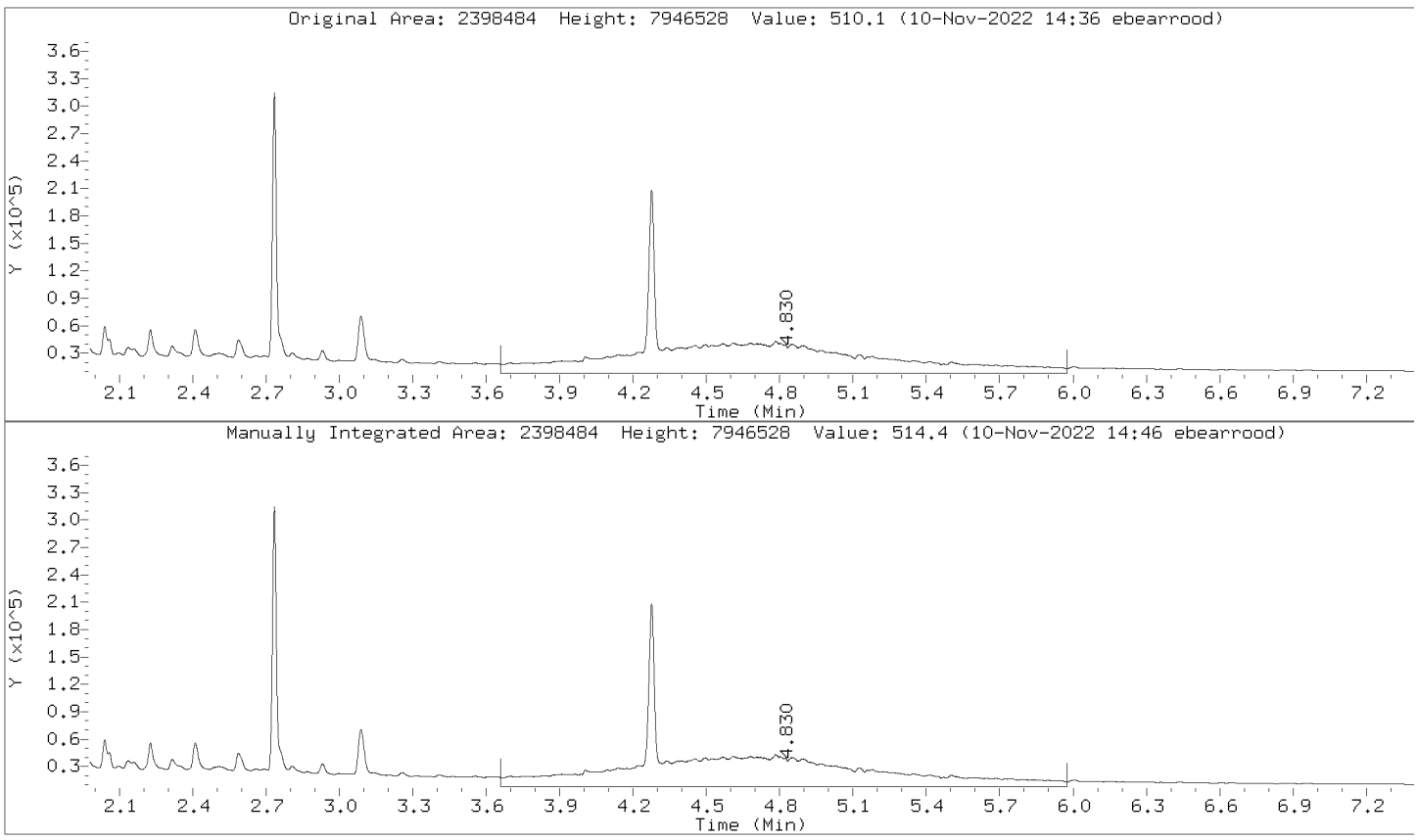
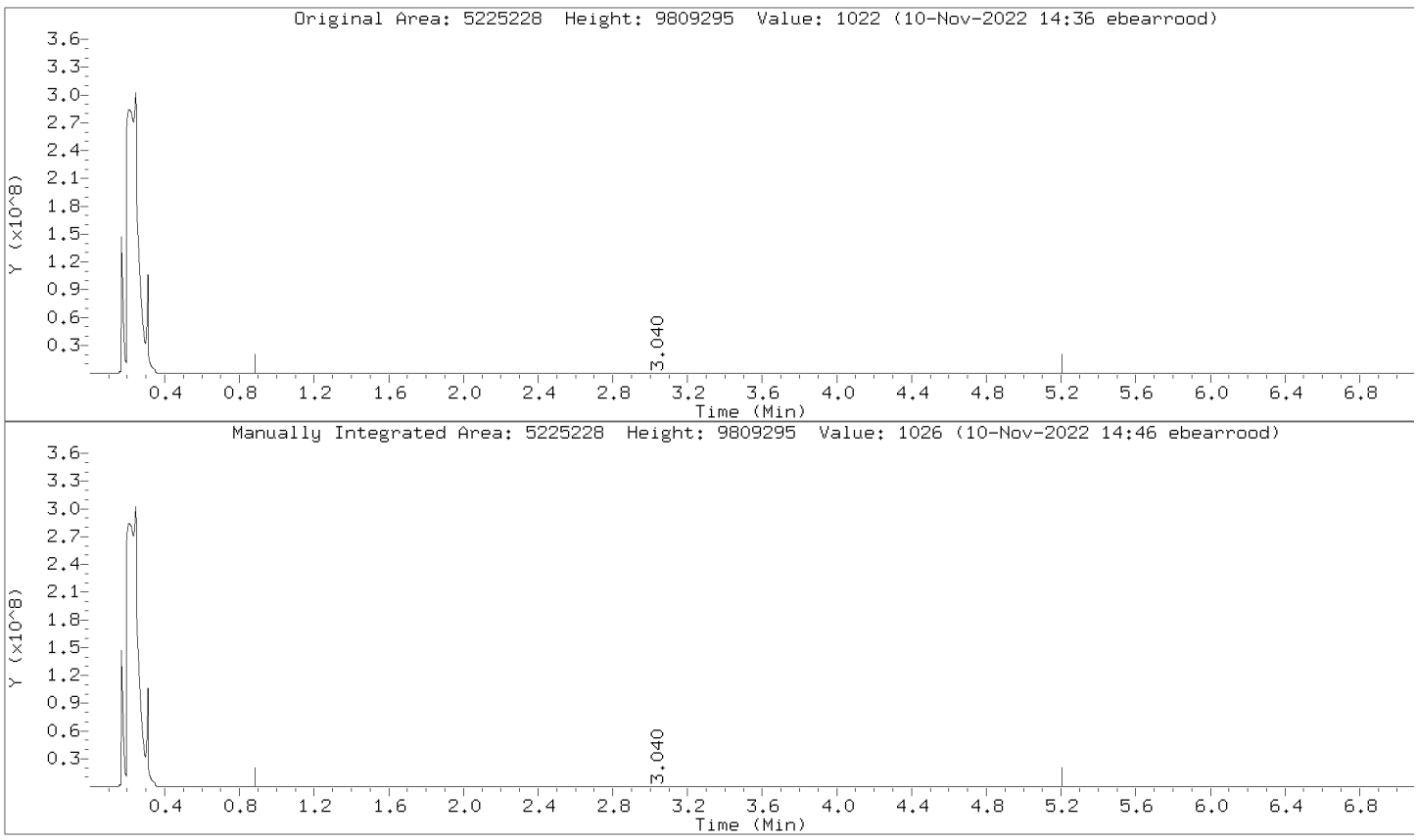
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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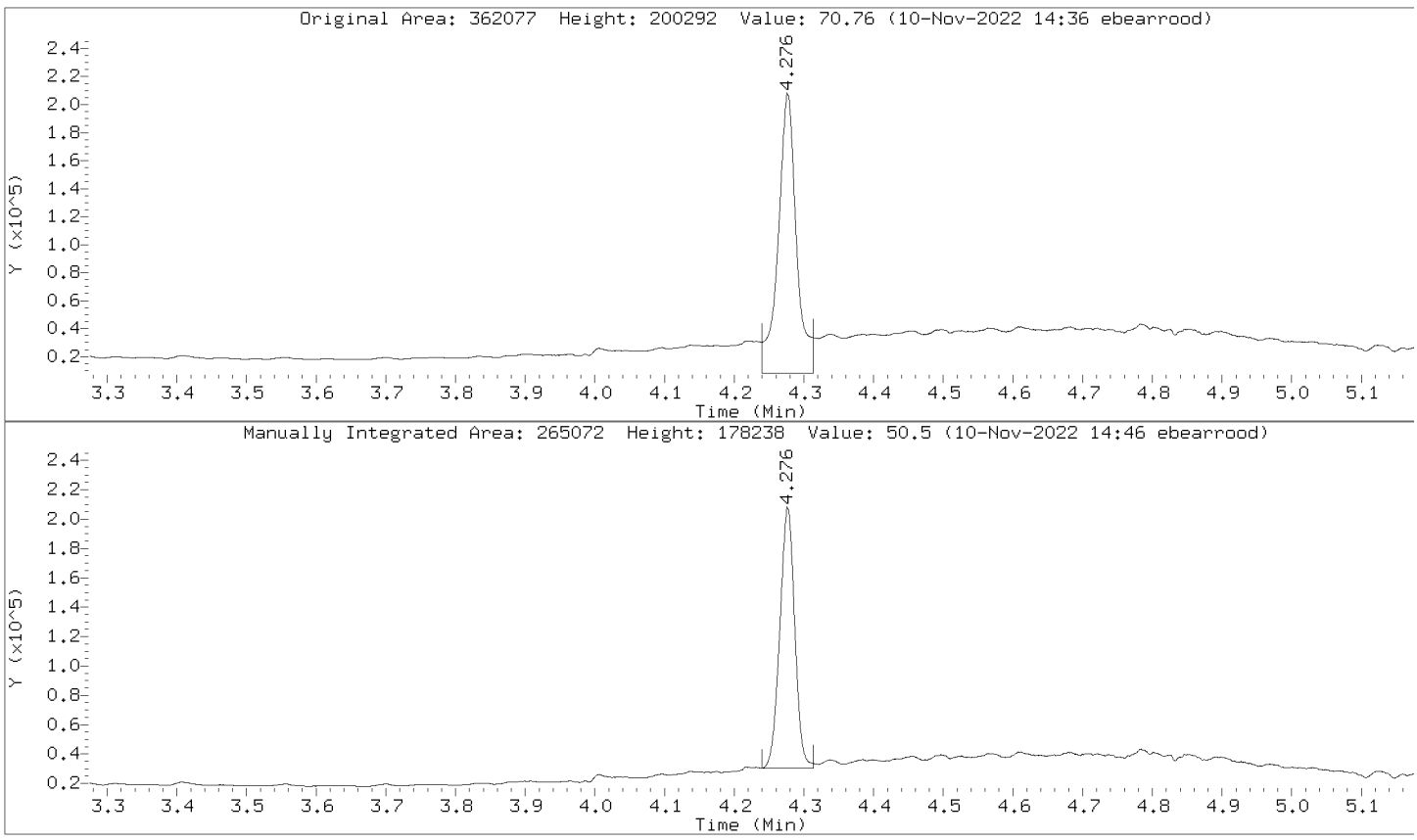
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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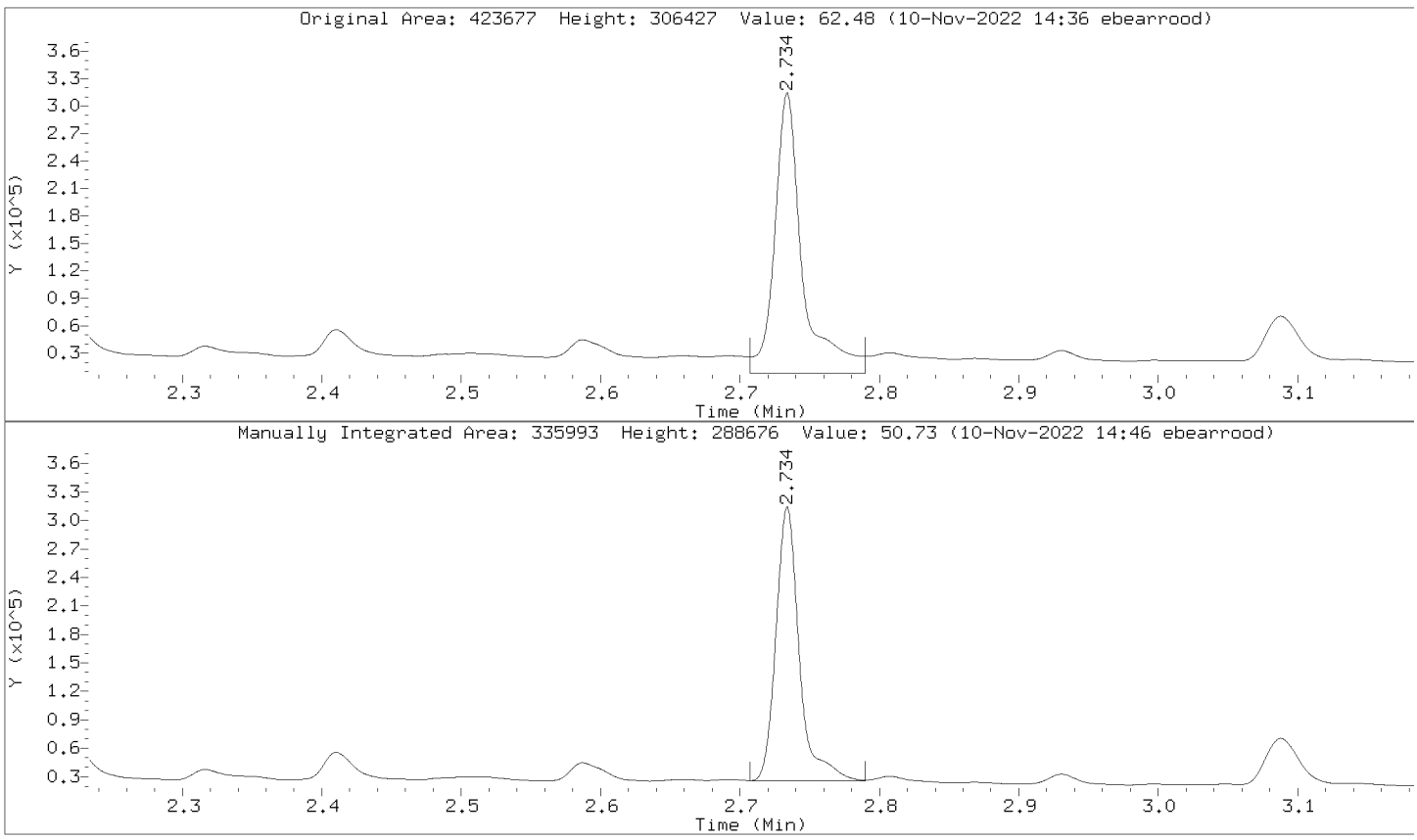
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000016.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 13:37
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 11-Nov-2022 13:59 TargetAdmi Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3093869	500.000	485	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	325536	50.0000	49.2	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.273	0.000	256620	50.0000	48.9	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1906513	500.000	498	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3580816	500.000	484	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2010679	500.000	498	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5017847	1000.00	981	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2629616	500.000	487	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2629616	500.000	487	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2347004	500.000	503	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2347004	500.000	503	(M)	RNG

QC Flag Legend

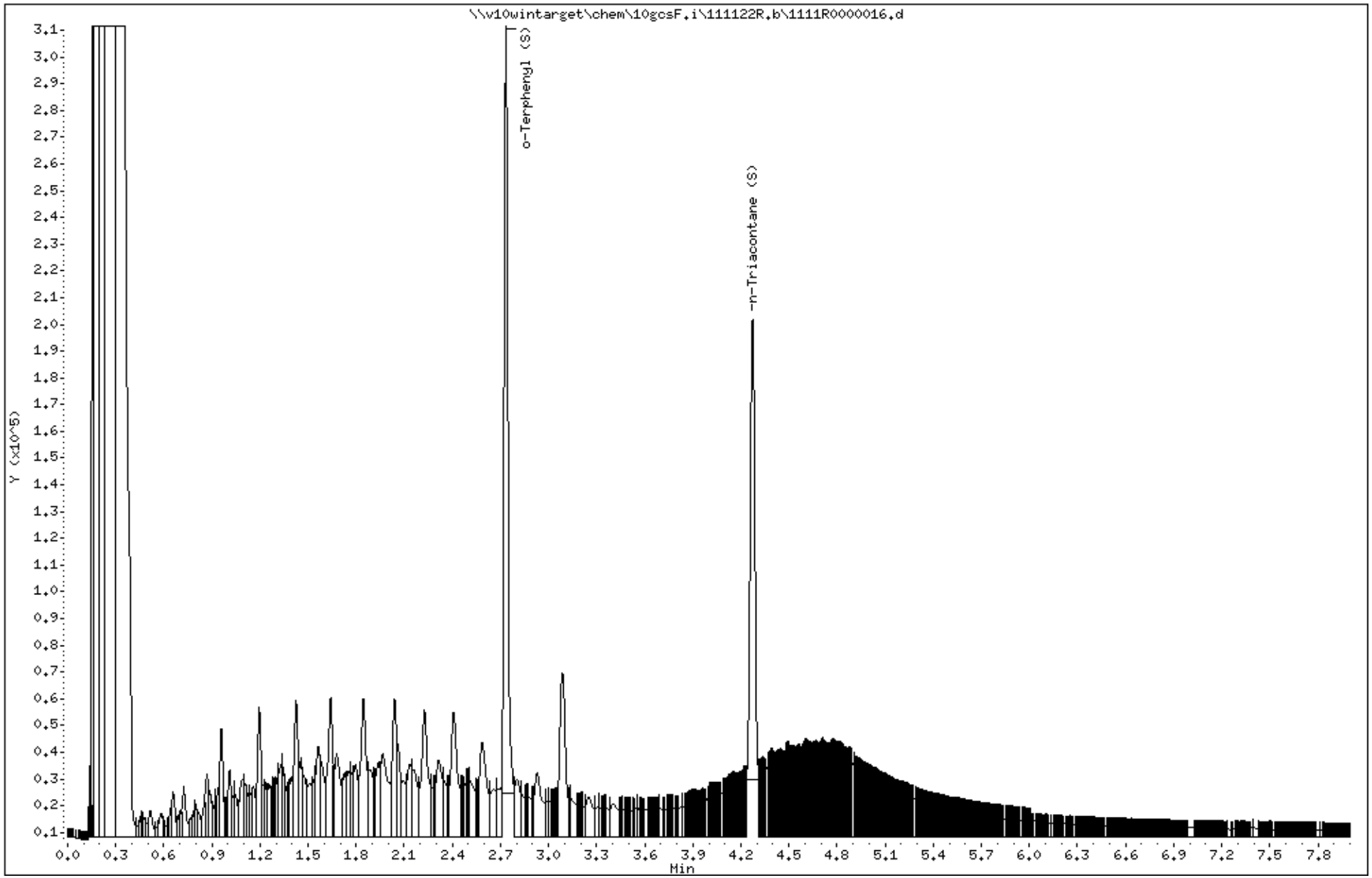
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

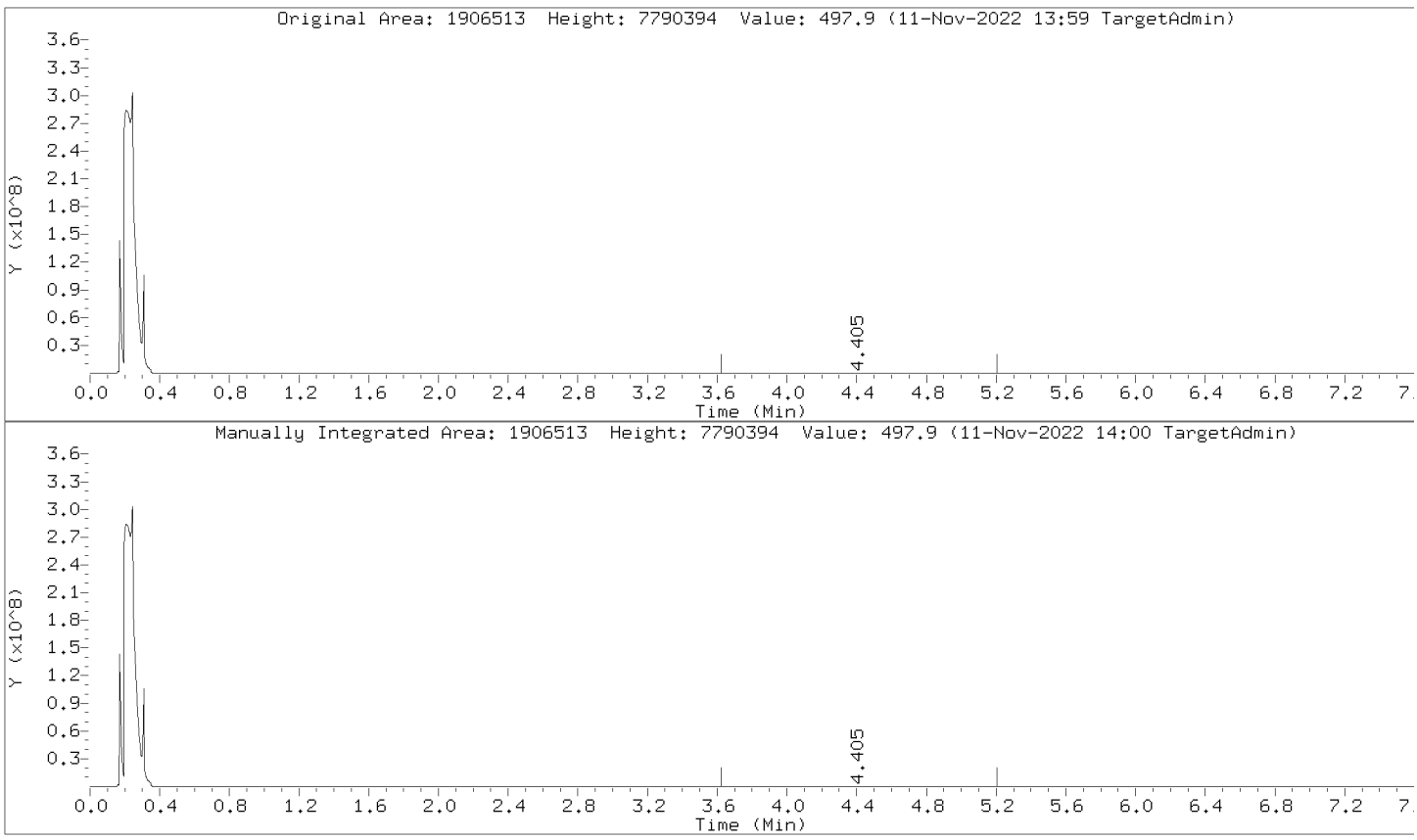
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000016.d
Date : 11-NOV-2022 13:37
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



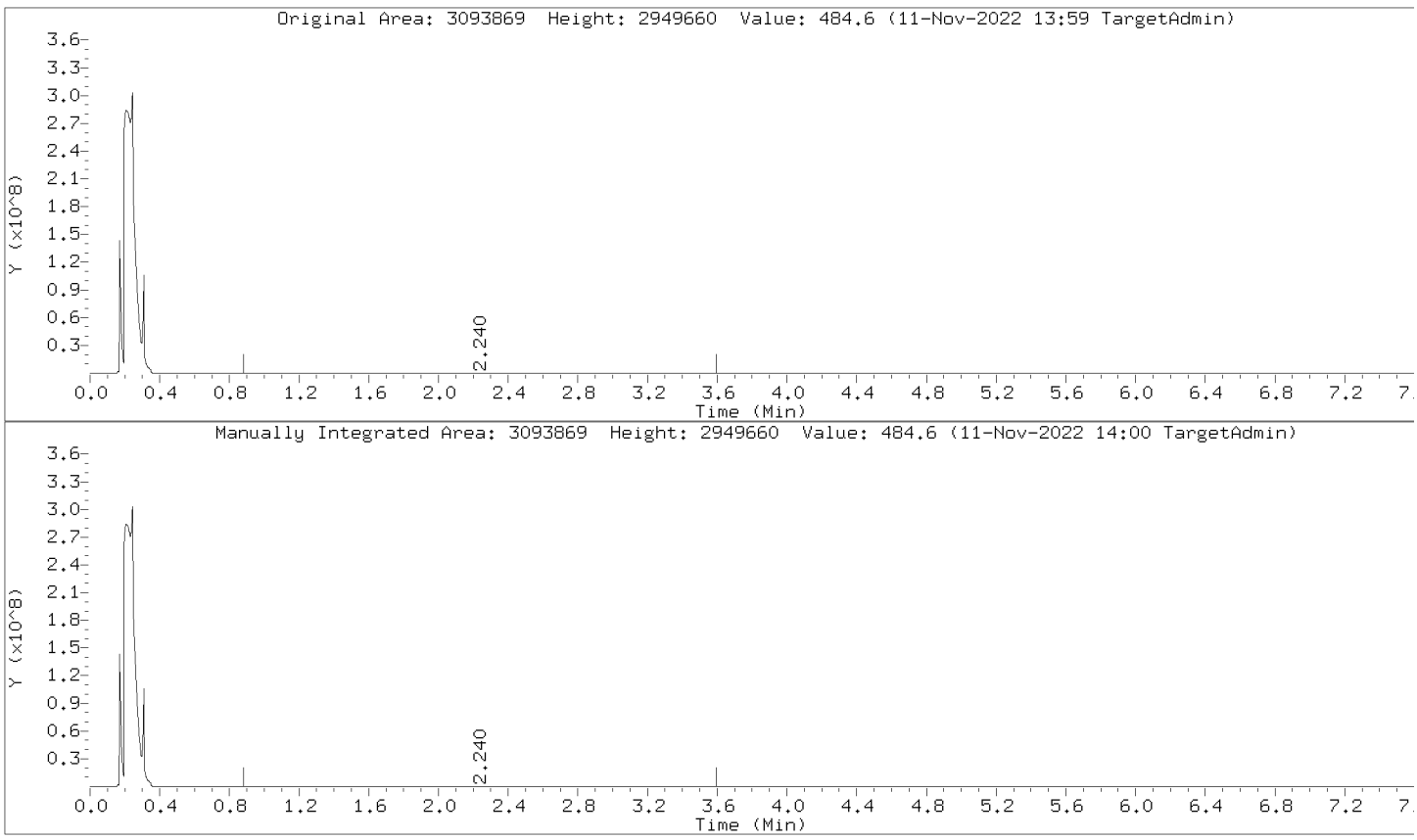
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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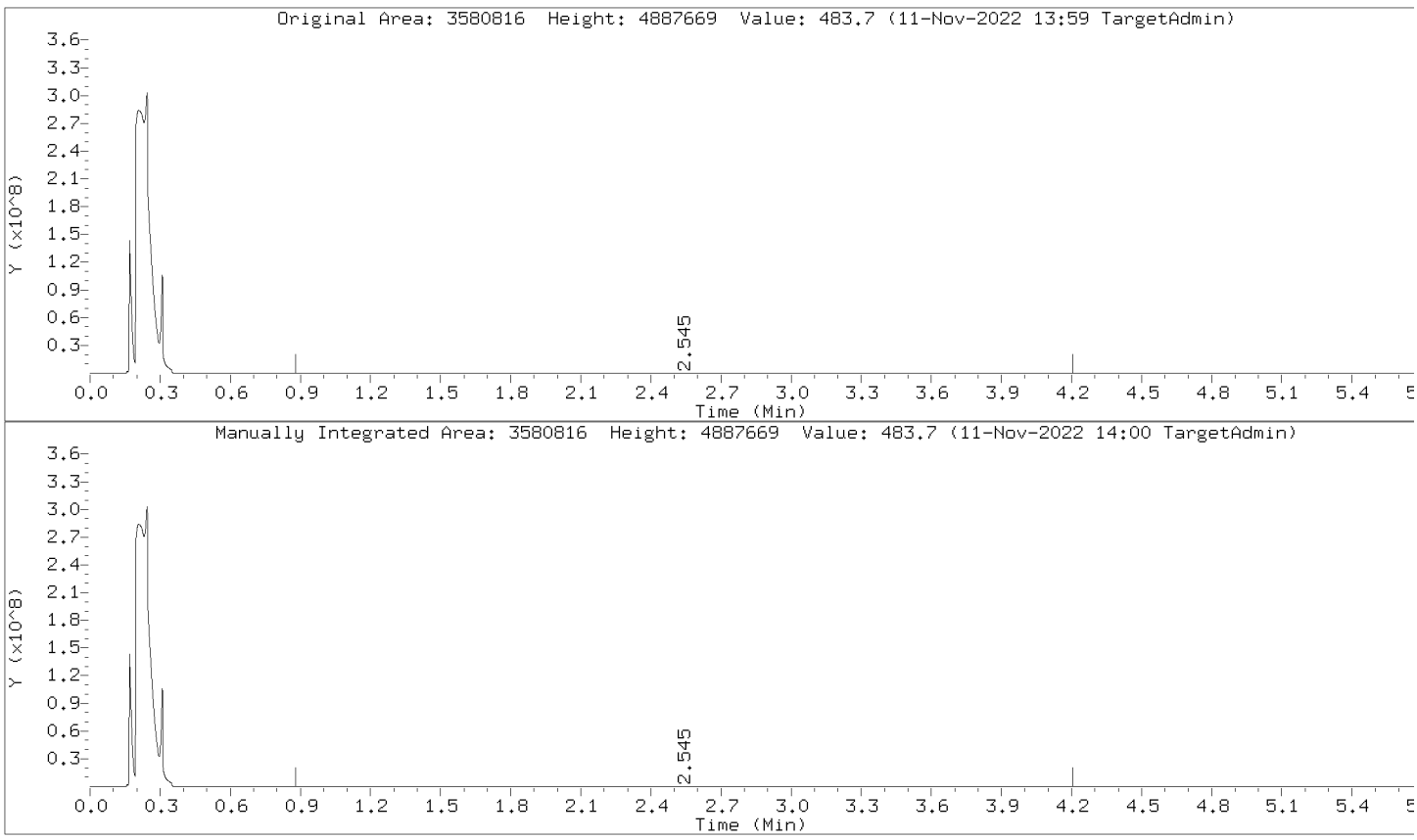
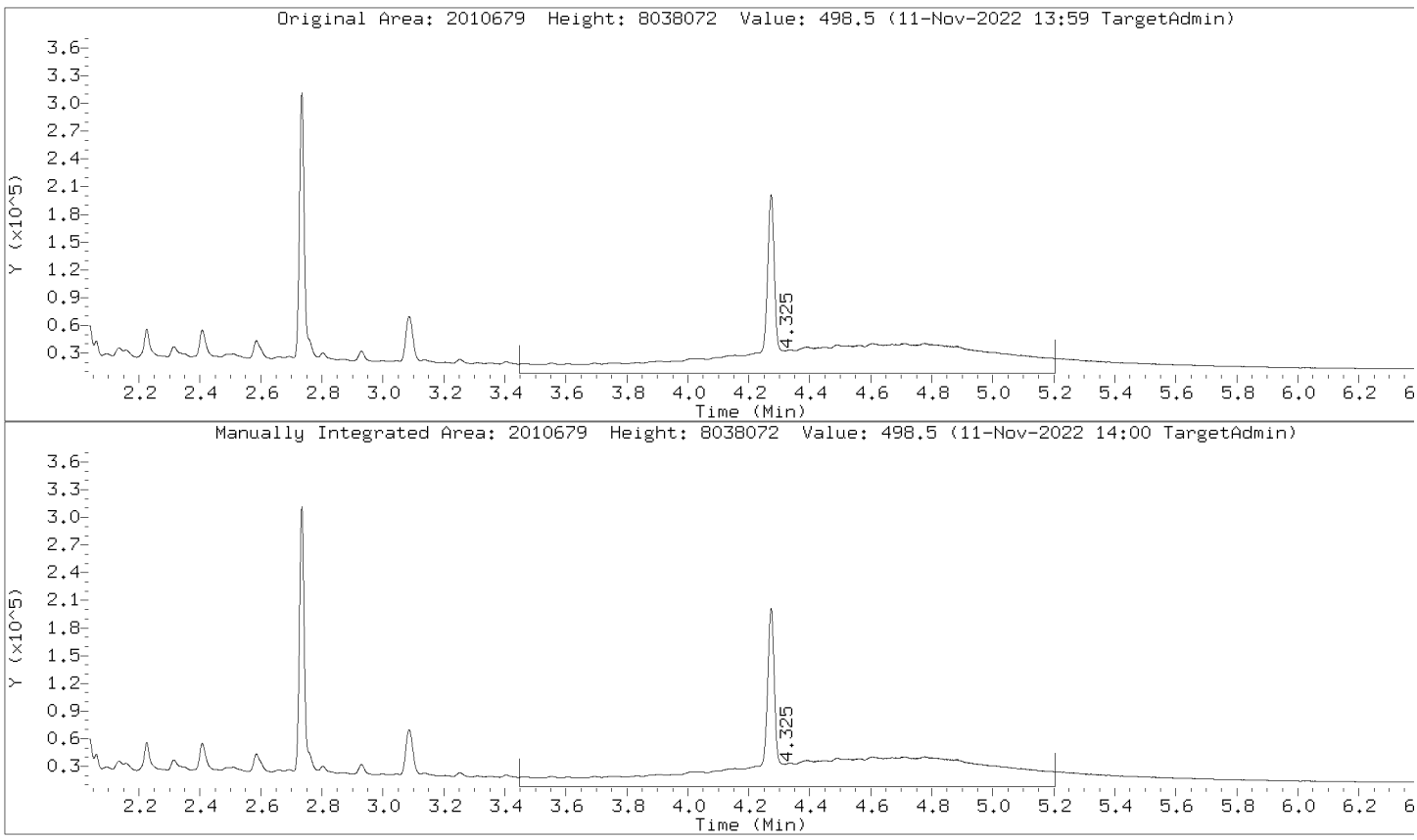
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



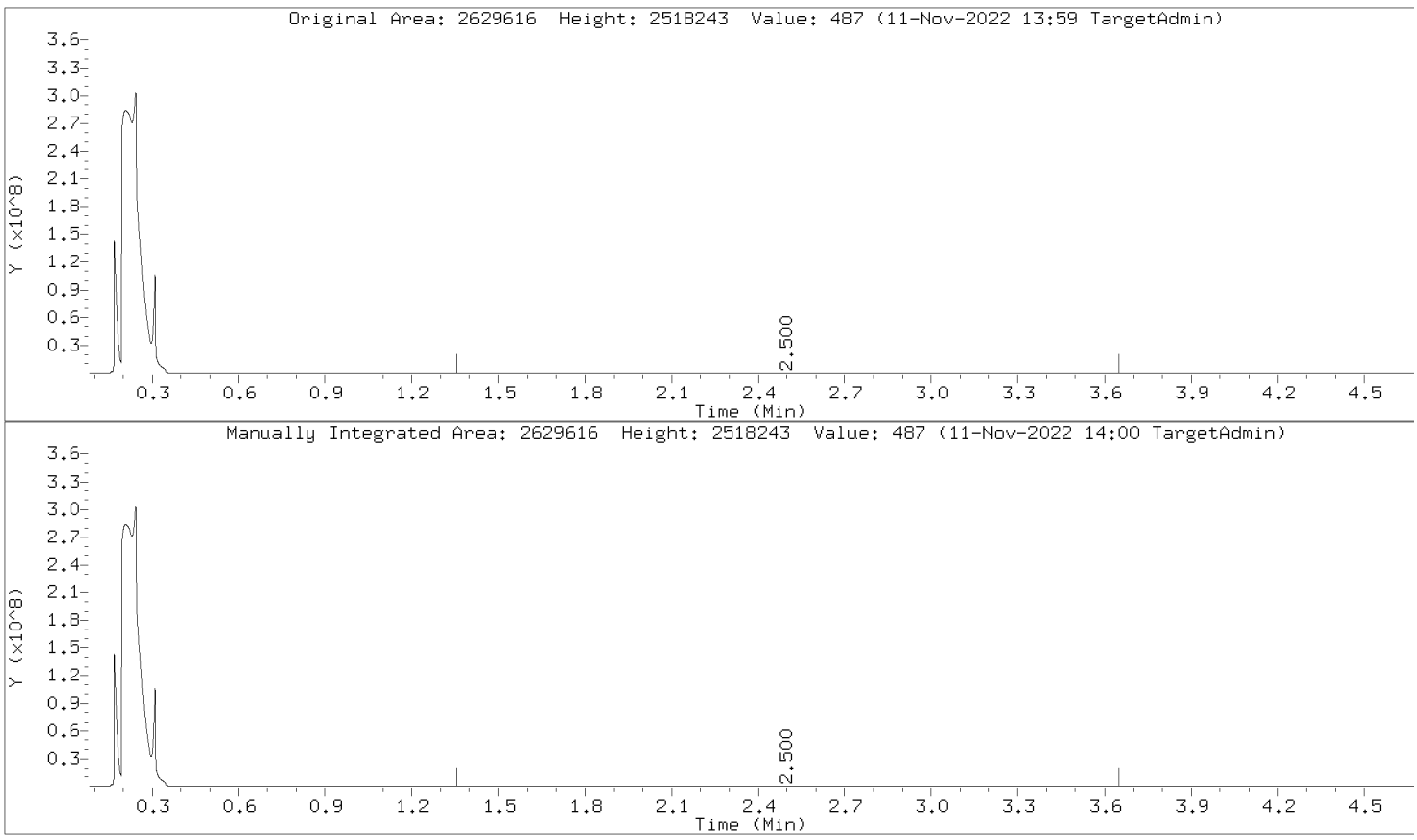
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



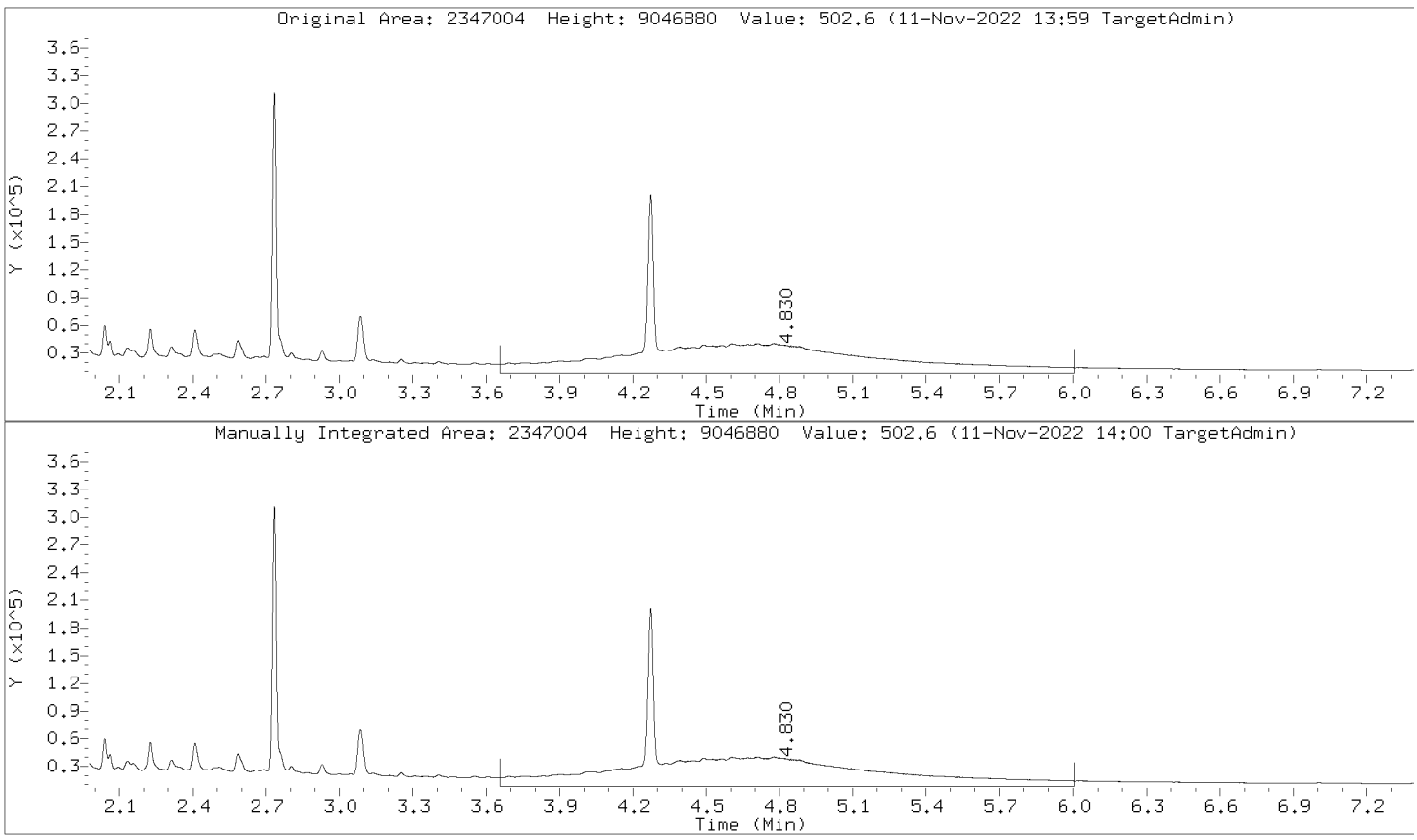
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



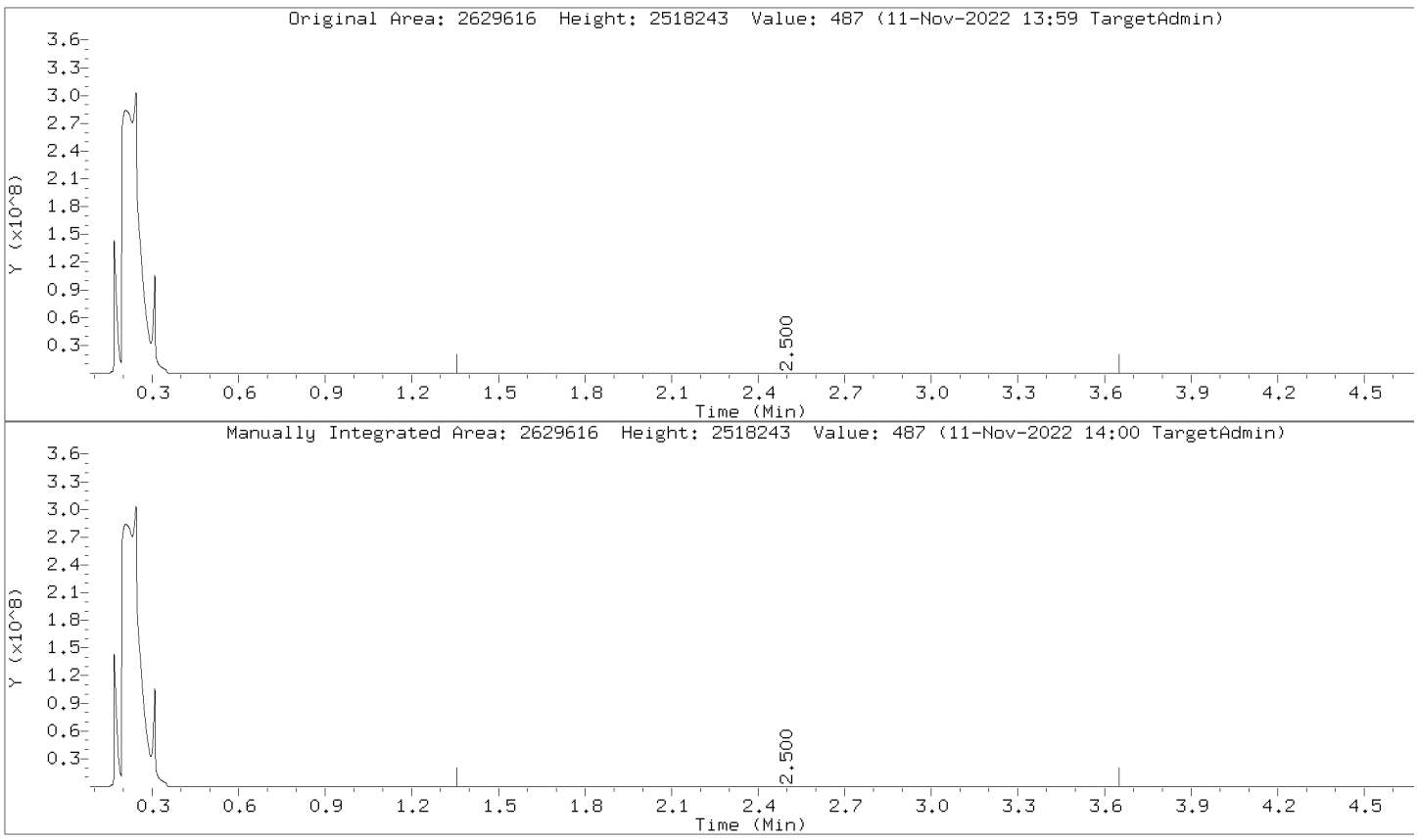
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



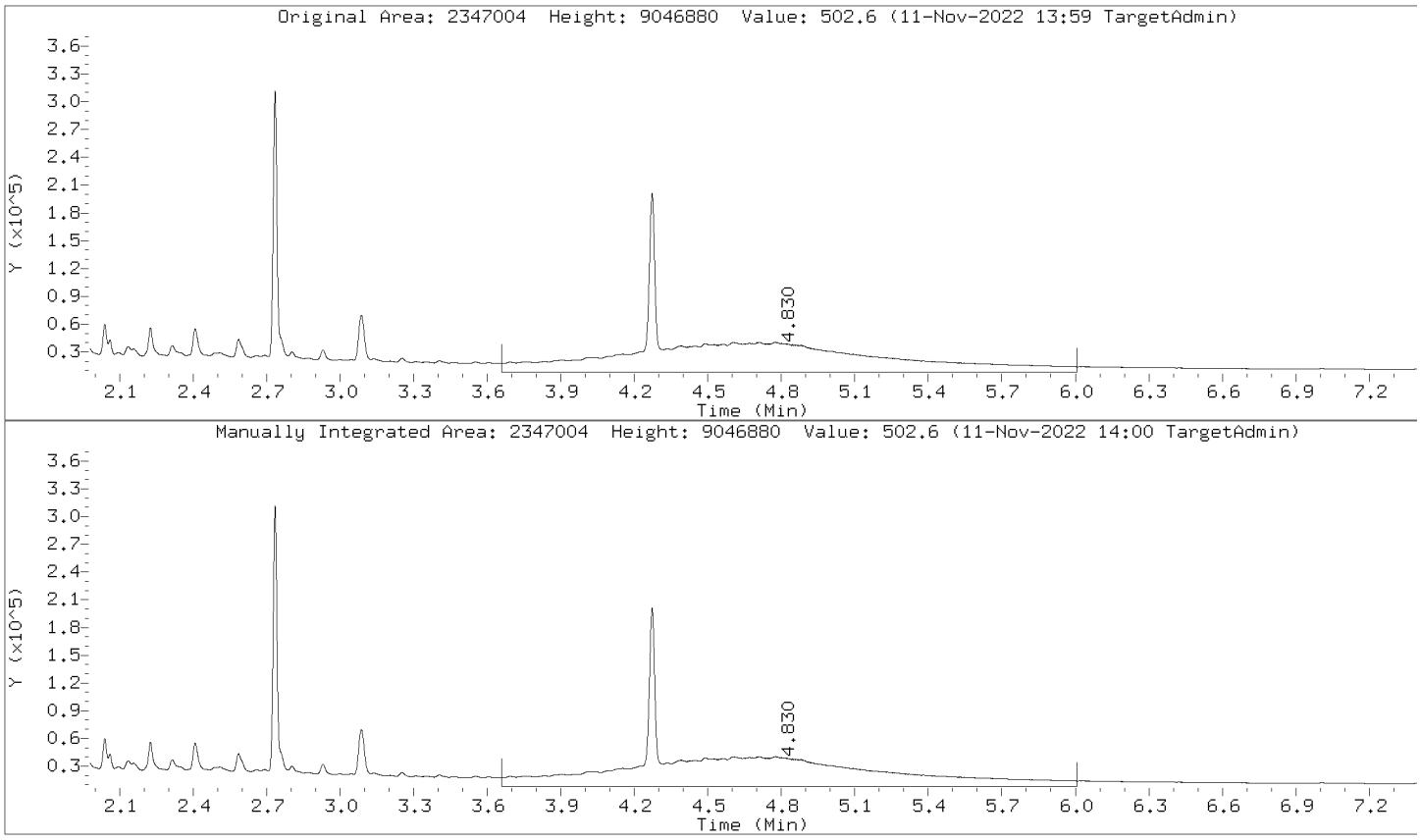
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



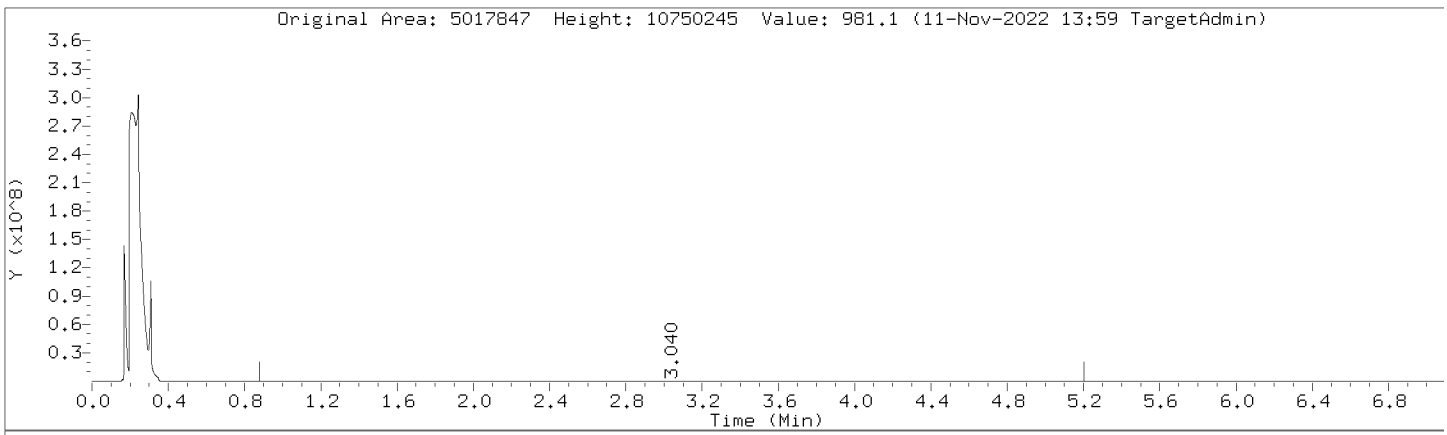
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

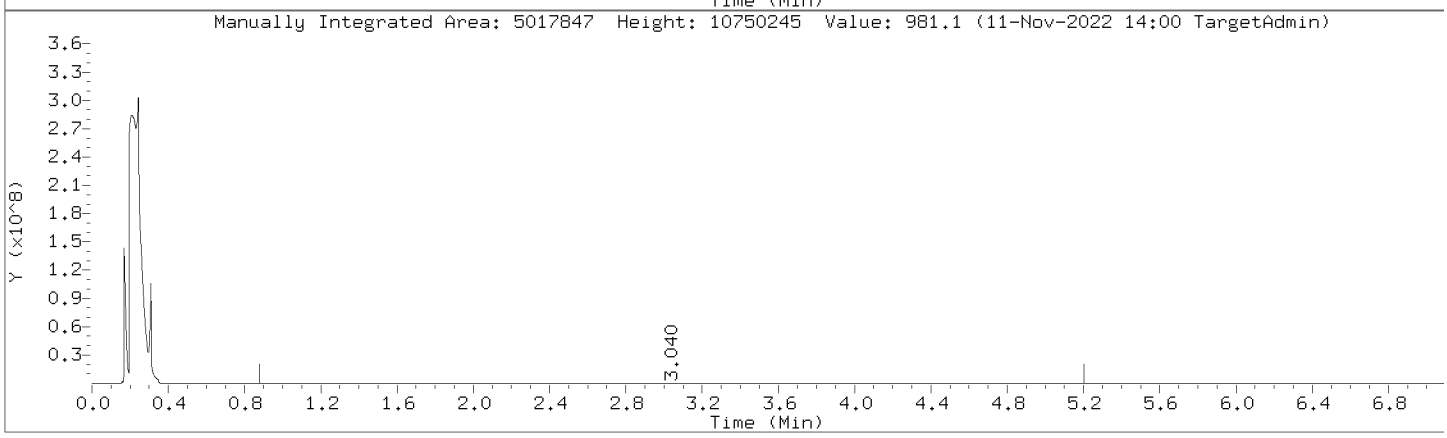
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

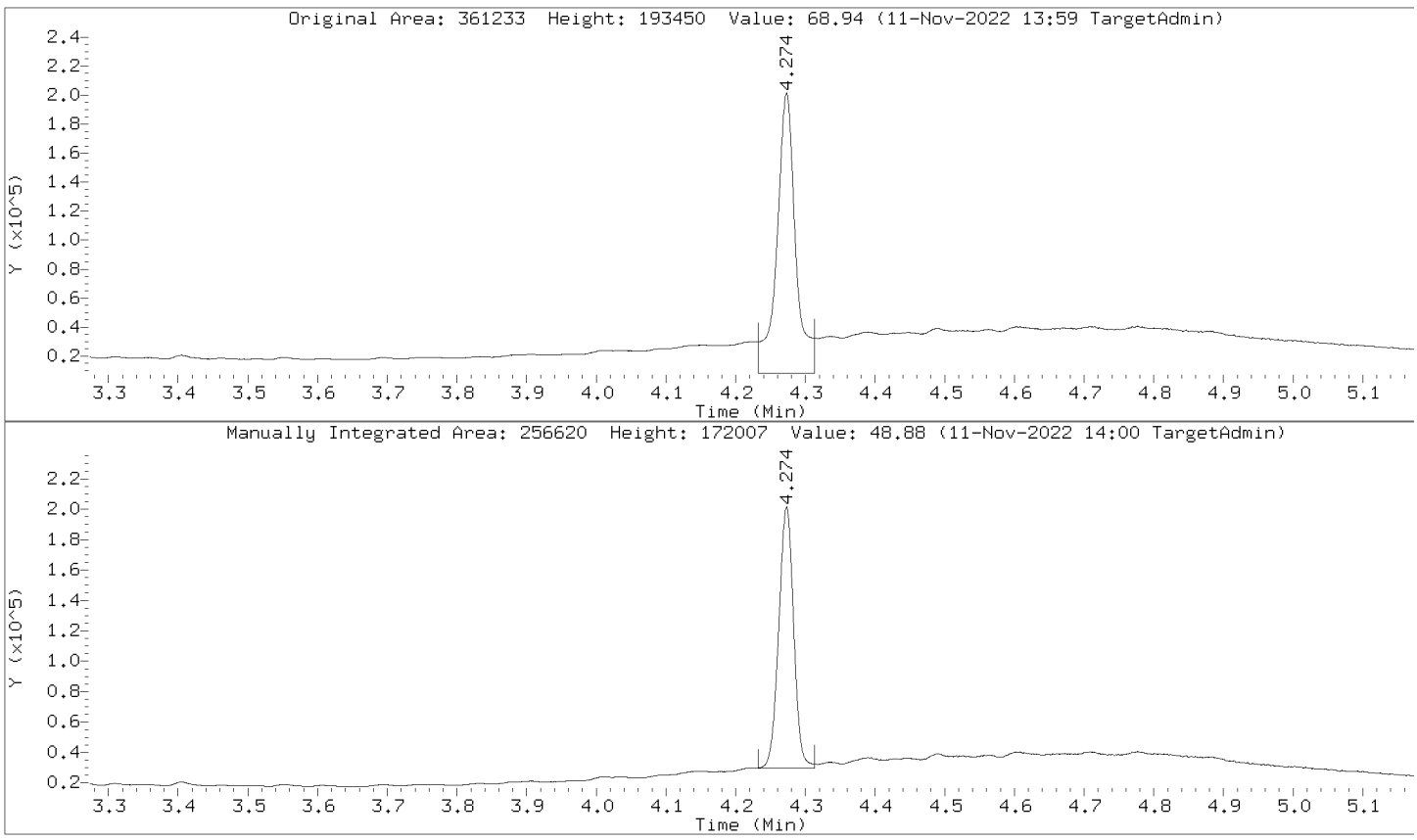
Compound: C10-C36 Review Code: RNG
CAS Number:





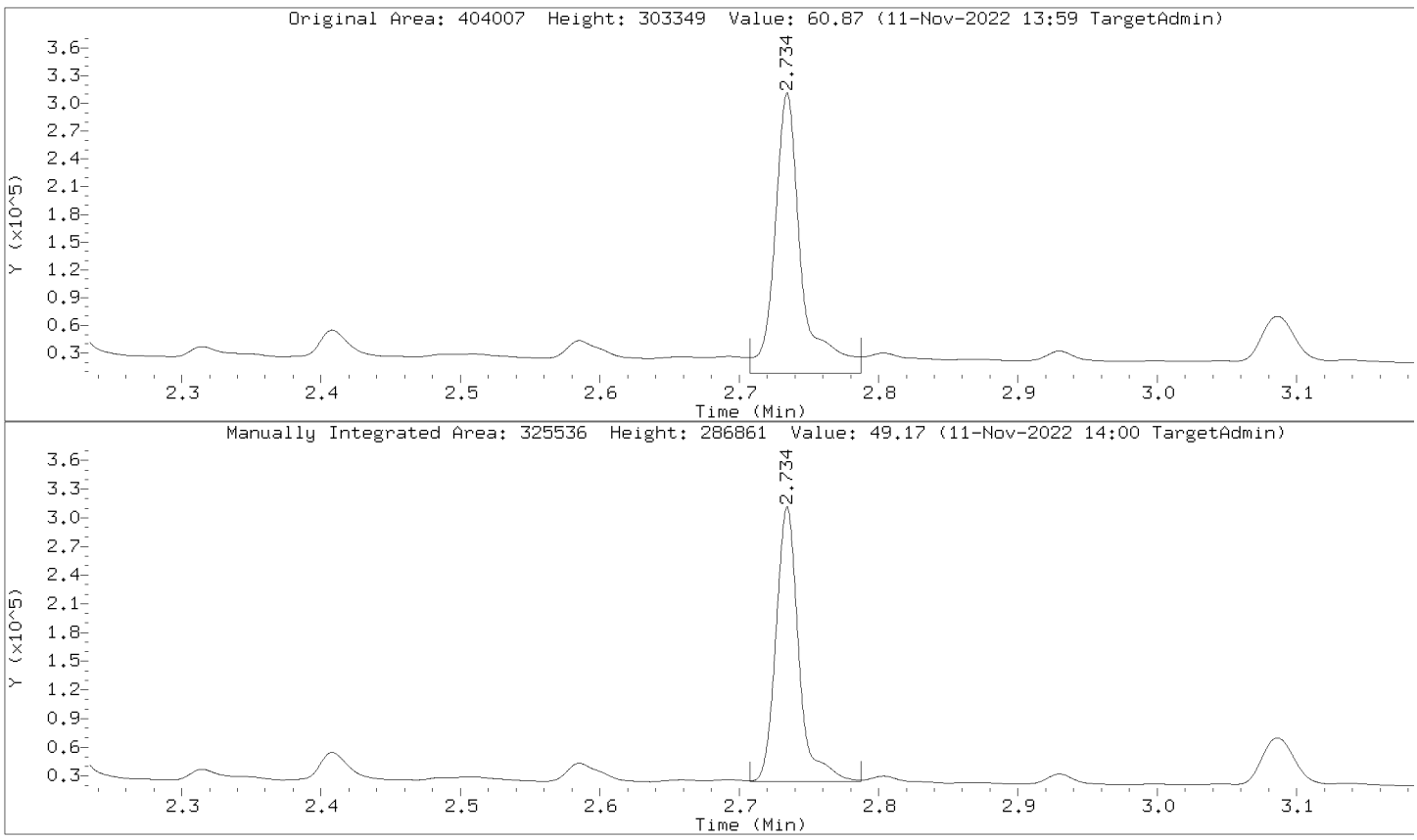
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000016.d
Injection Date: 11-NOV-2022 13:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1906513	1906513
DRO by AK 102	3093869	3093869
TPH-DRO (C10-C28)	3580816	3580816
Motor Oil Range (C24-C36)	2010679	2010679
Diesel Fuel Range	2629616	2629616
Motor Oil Range	2347004	2347004
Diesel Fuel Range SG	2629616	2629616
Motor Oil Range SG	2347004	2347004
C10-C36	5017847	5017847
n-Triacontane (S)	361233	256620
o-Terphenyl (S)	404007	325536

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000025C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 15:20
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3105257	500.000	487	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	323262	50.0000	48.8	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.276	4.274	0.002	254083	50.0000	48.4	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1892292	500.000	494	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3583545	500.000	484	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1992618	500.000	494	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5007436	1000.00	979	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2640083	500.000	489	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2640083	500.000	489	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2302441	500.000	492	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2302441	500.000	492	(M)	RNG

QC Flag Legend

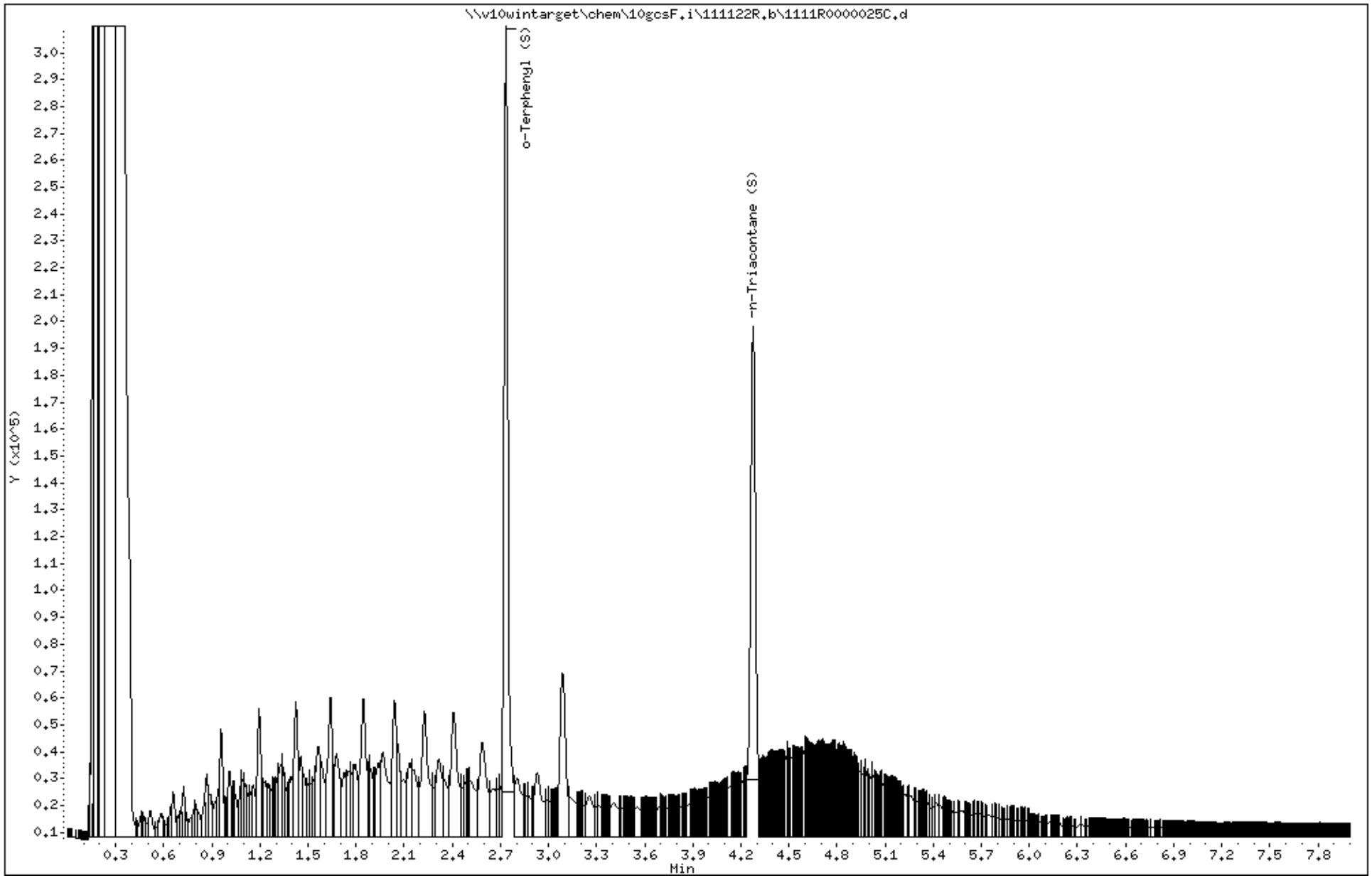
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

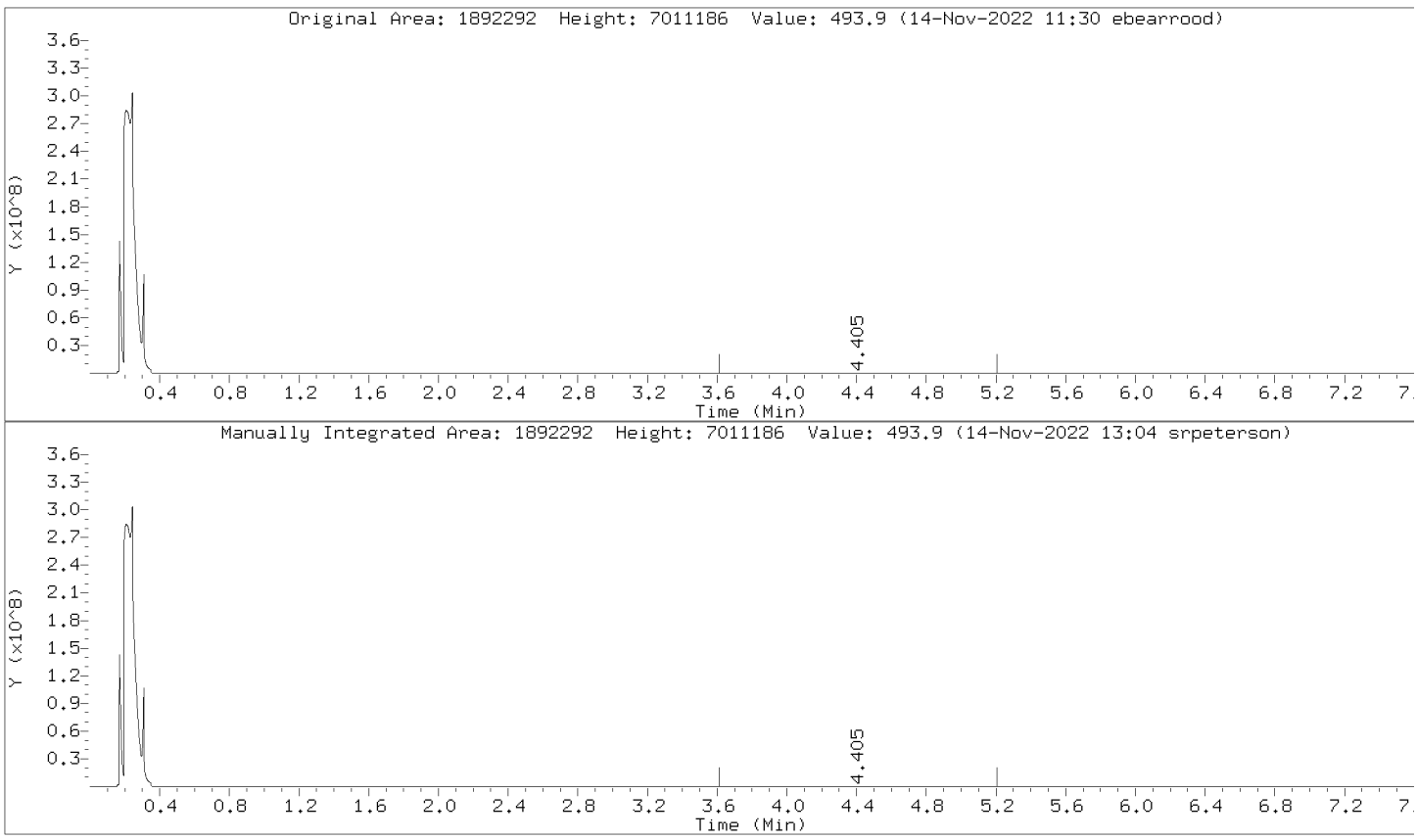
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000025C.d
Date : 11-NOV-2022 15:20
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



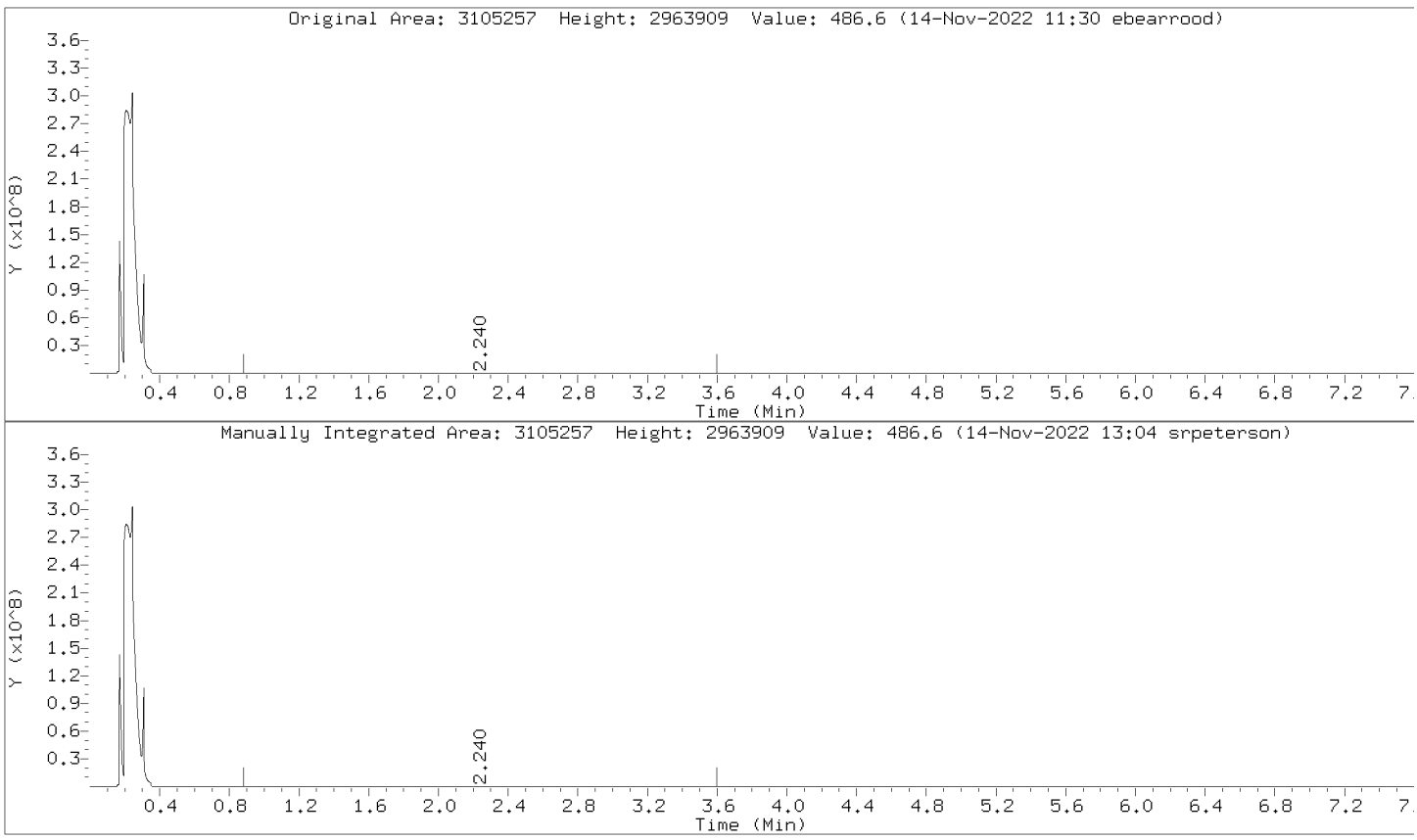
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



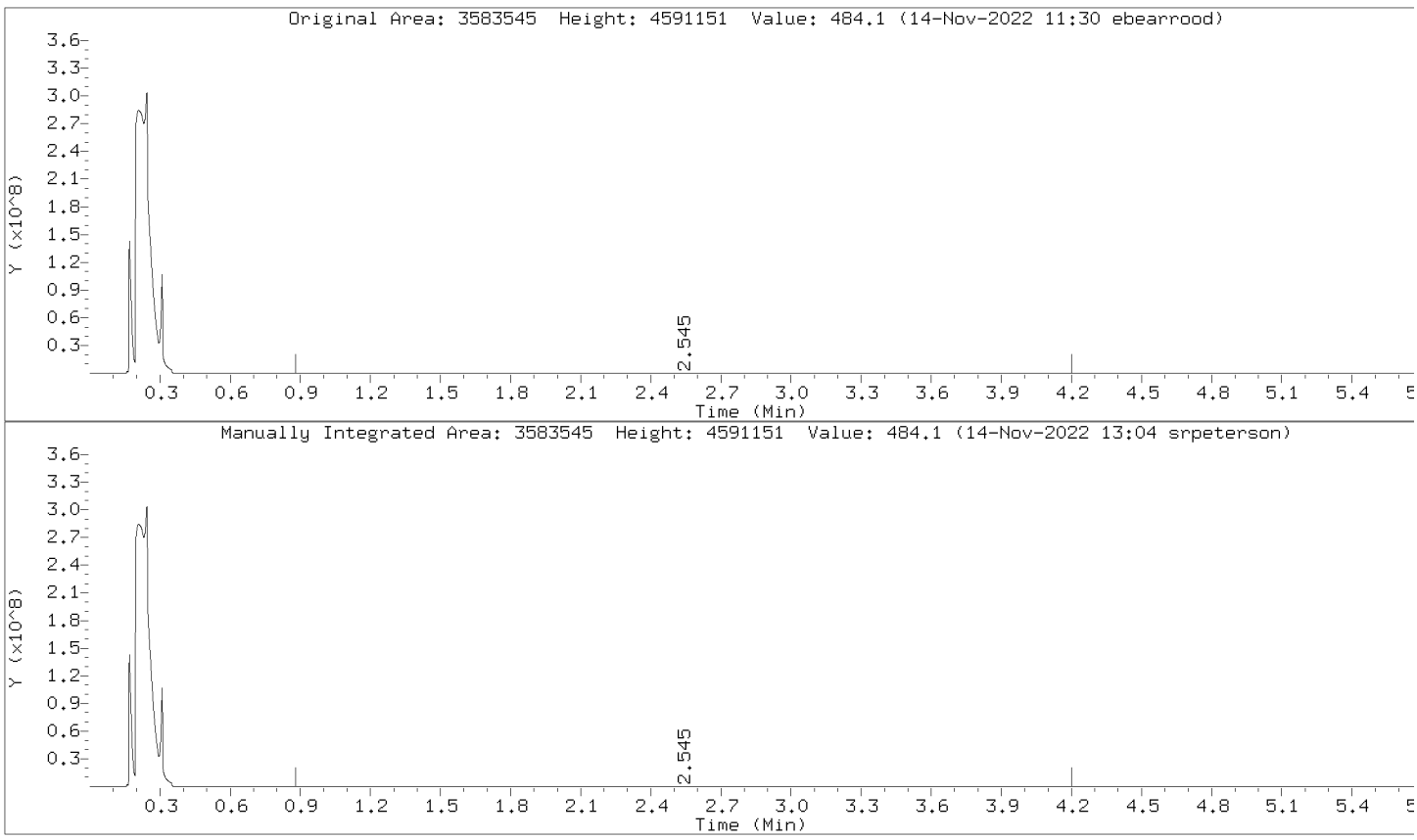
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



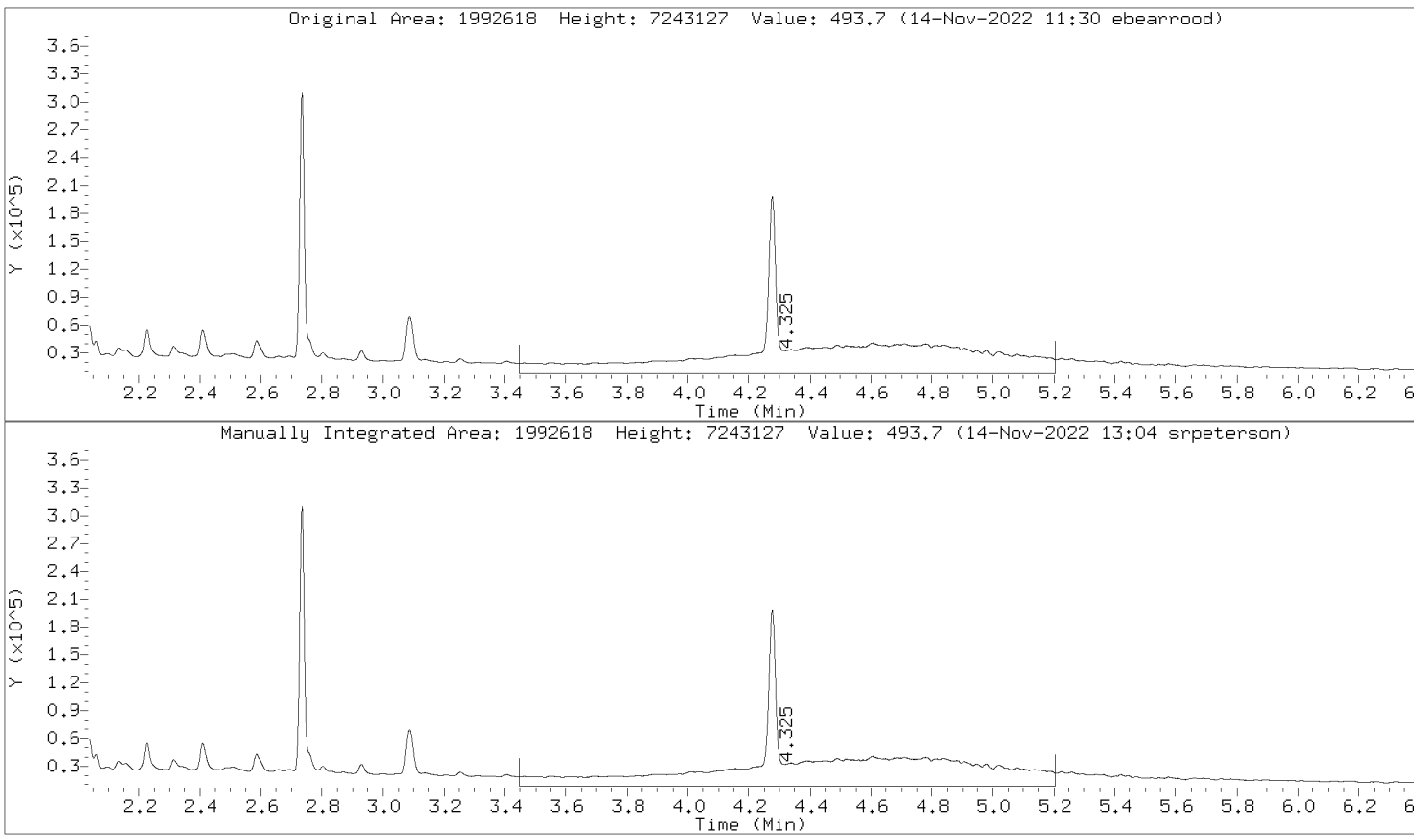
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



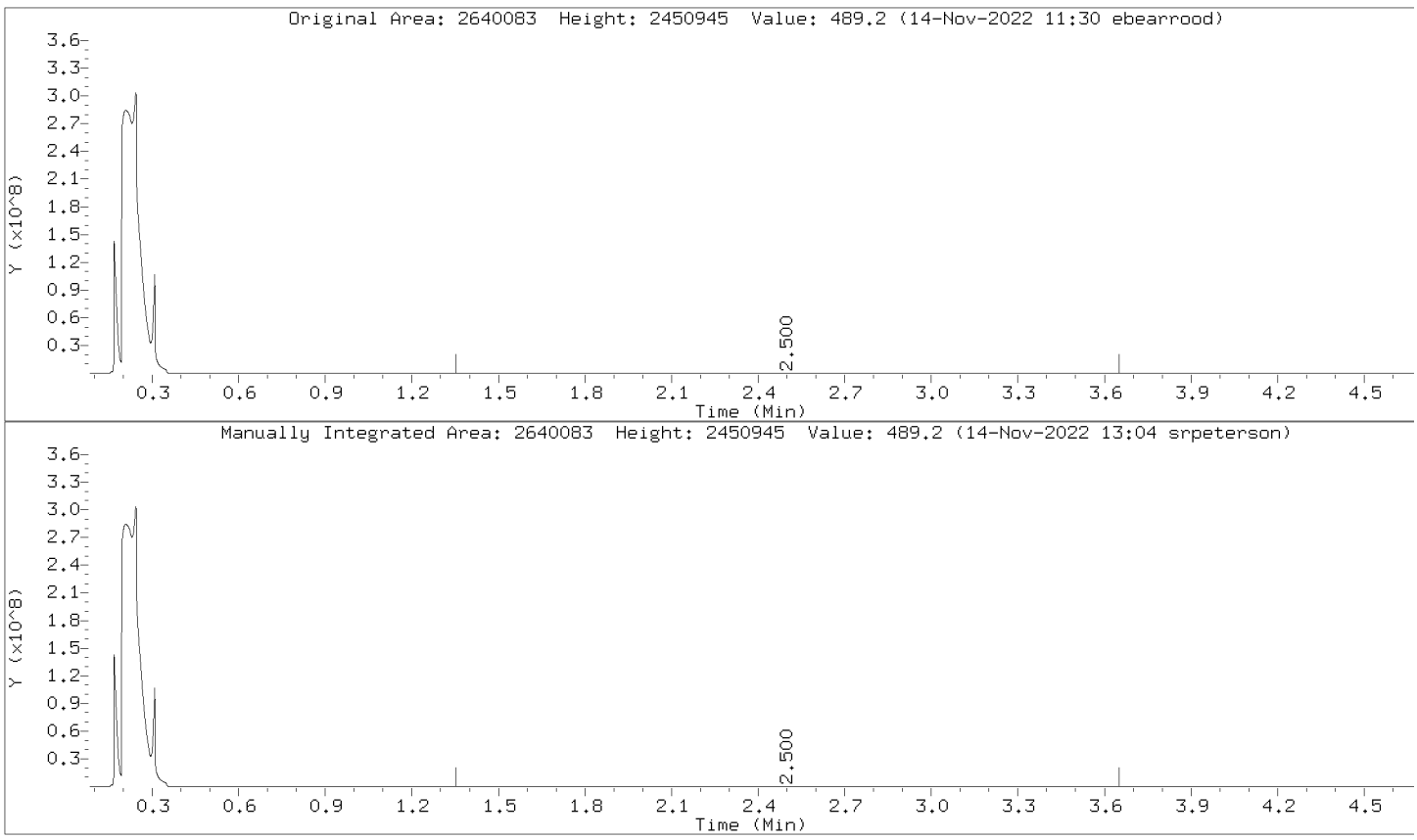
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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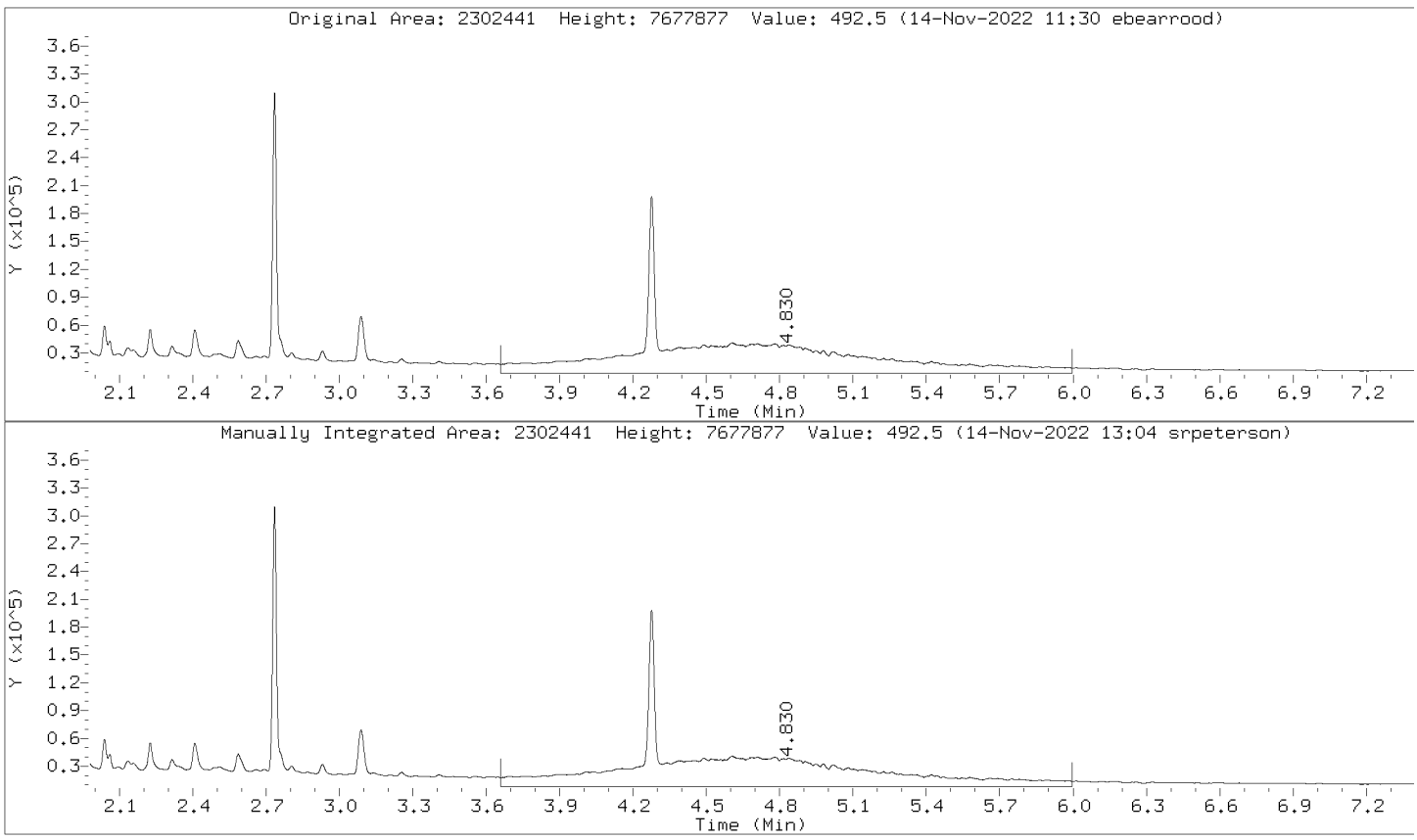
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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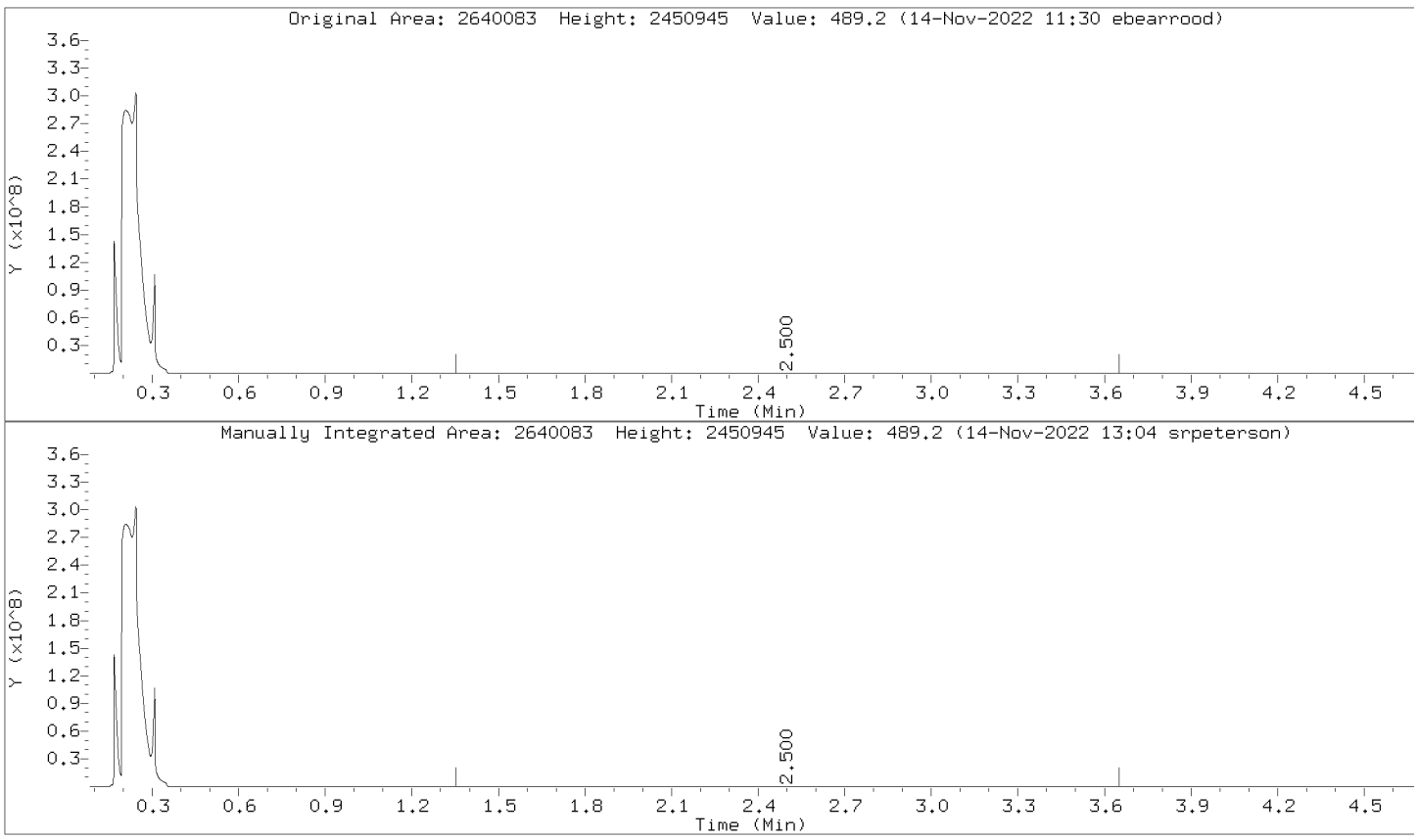
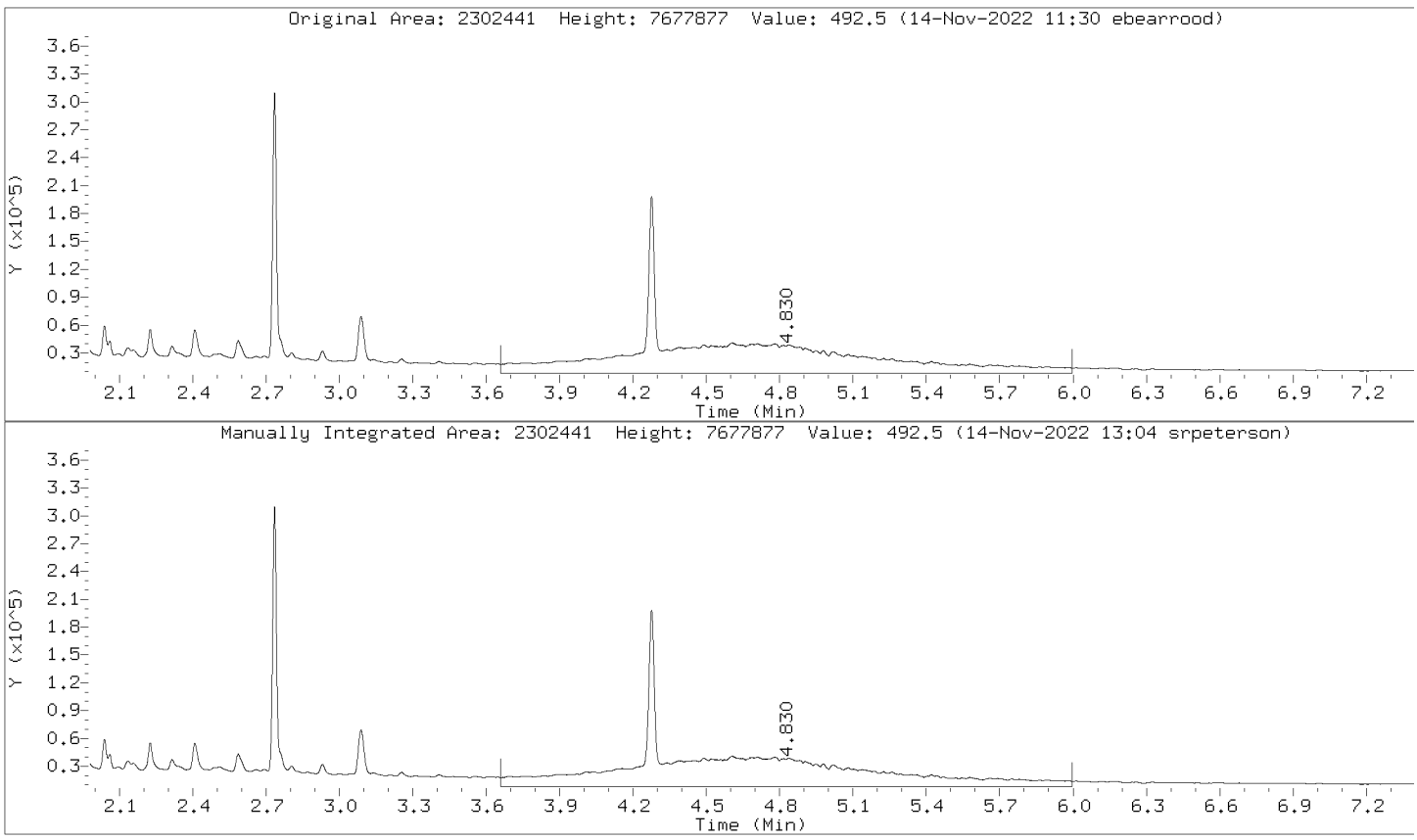
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



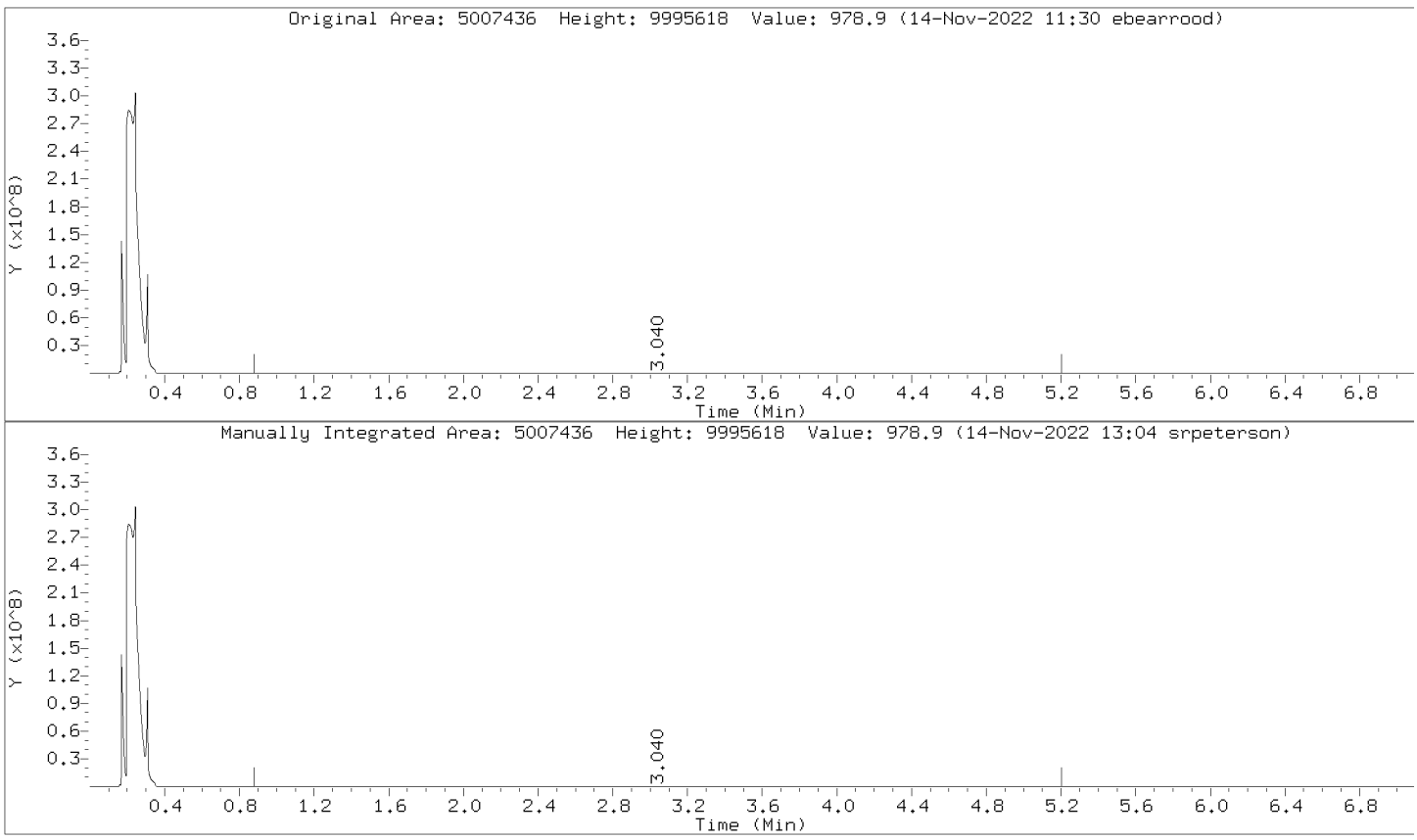
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



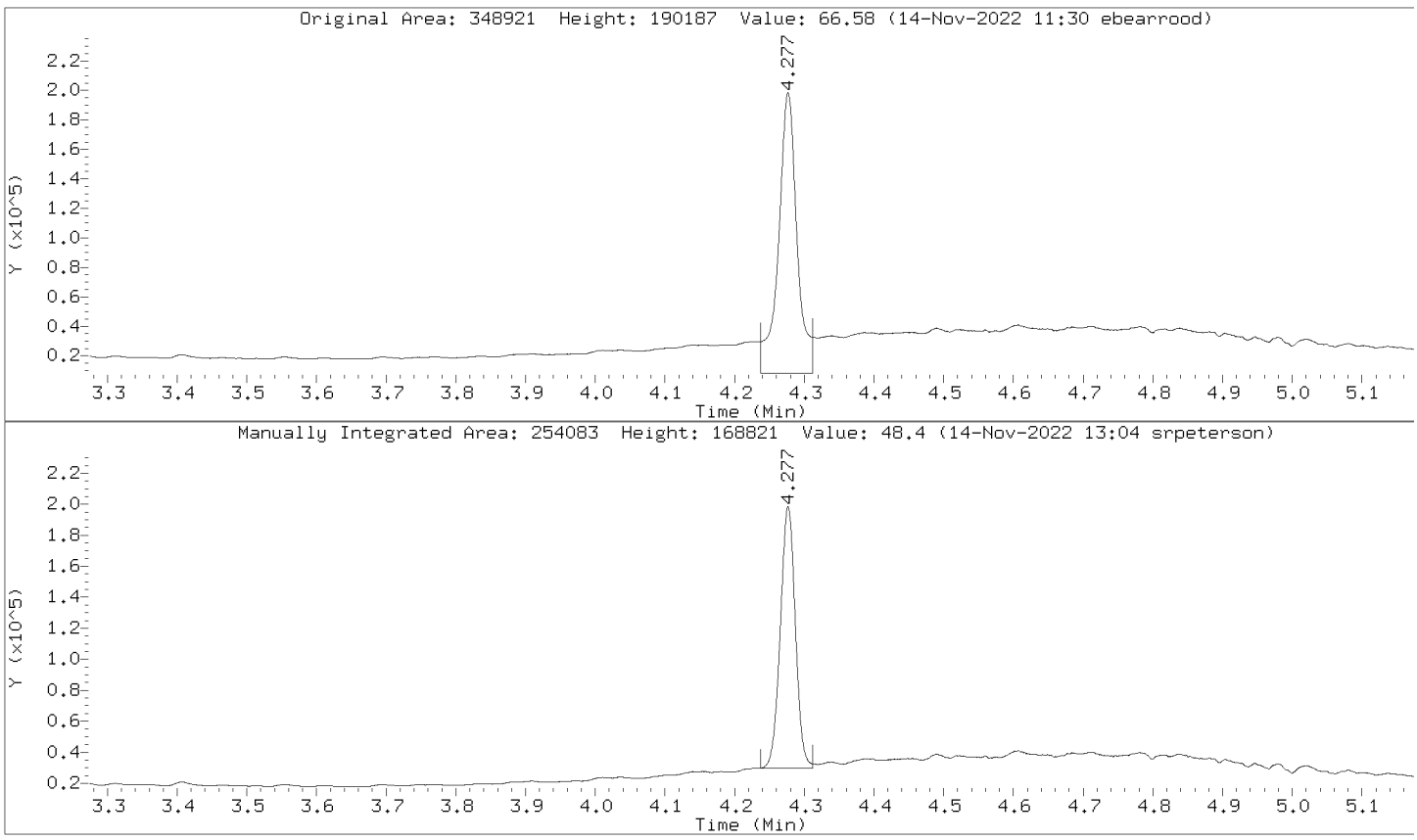
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



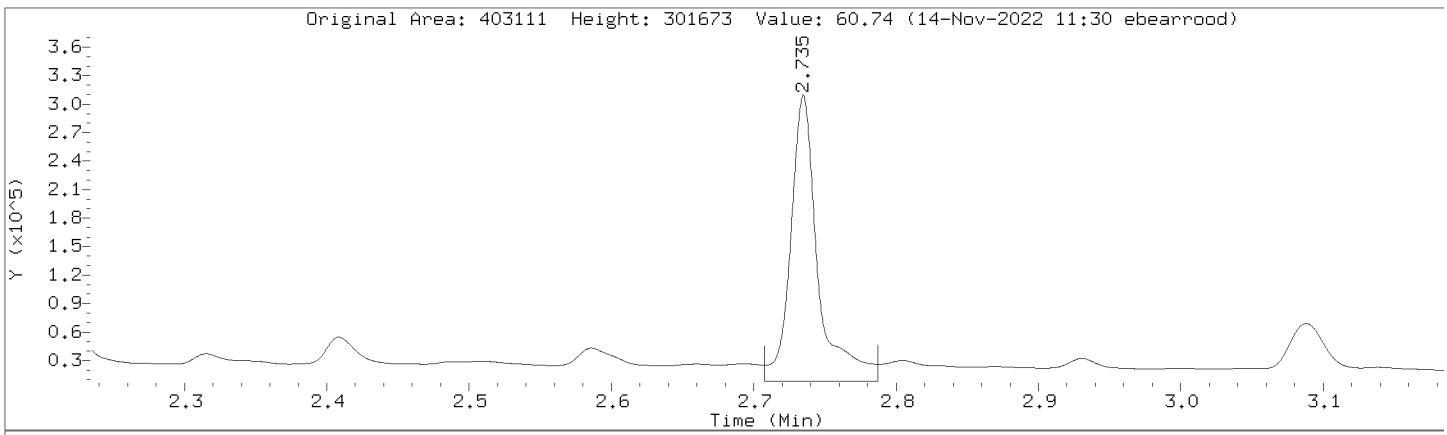
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

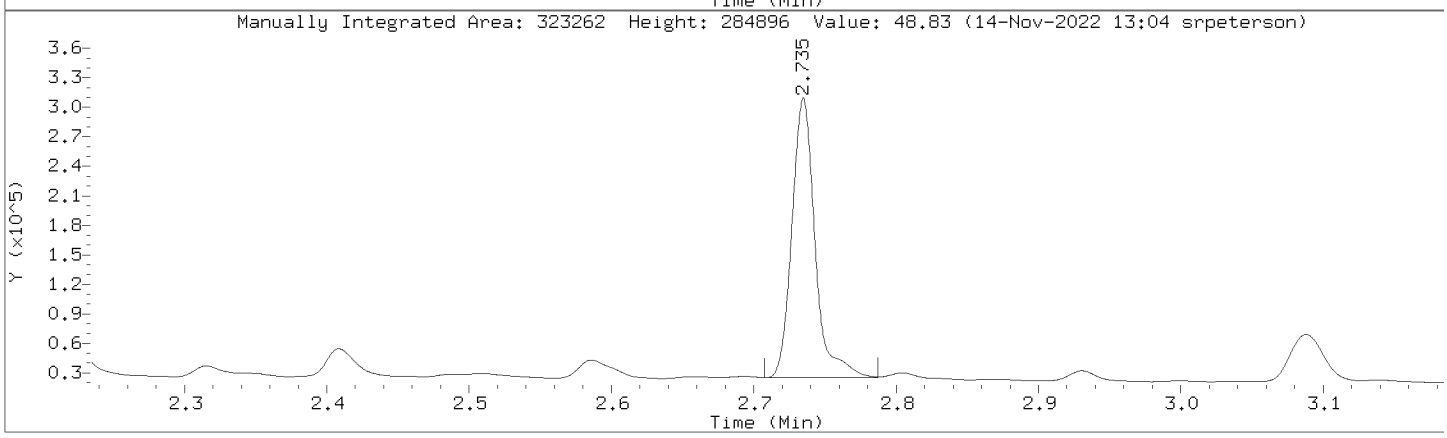
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1892292	1892292
DRO by AK 102	3105257	3105257
TPH-DRO (C10-C28)	3583545	3583545
Motor Oil Range (C24-C36)	1992618	1992618
Diesel Fuel Range	2640083	2640083
Motor Oil Range	2302441	2302441
Diesel Fuel Range SG	2640083	2640083
Motor Oil Range SG	2302441	2302441
C10-C36	5007436	5007436
n-Triacontane (S)	348921	254083
o-Terphenyl (S)	403111	323262

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 16:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3135922	500.000	492	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	329069	50.0000	49.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.274	0.001	260675	50.0000	49.7	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		2024087	500.000	530	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3624885	500.000	490	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2123483	500.000	528	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5170588	1000.00	1010	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2662506	500.000	494	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2662506	500.000	494	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2525503	500.000	543	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2525503	500.000	543	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

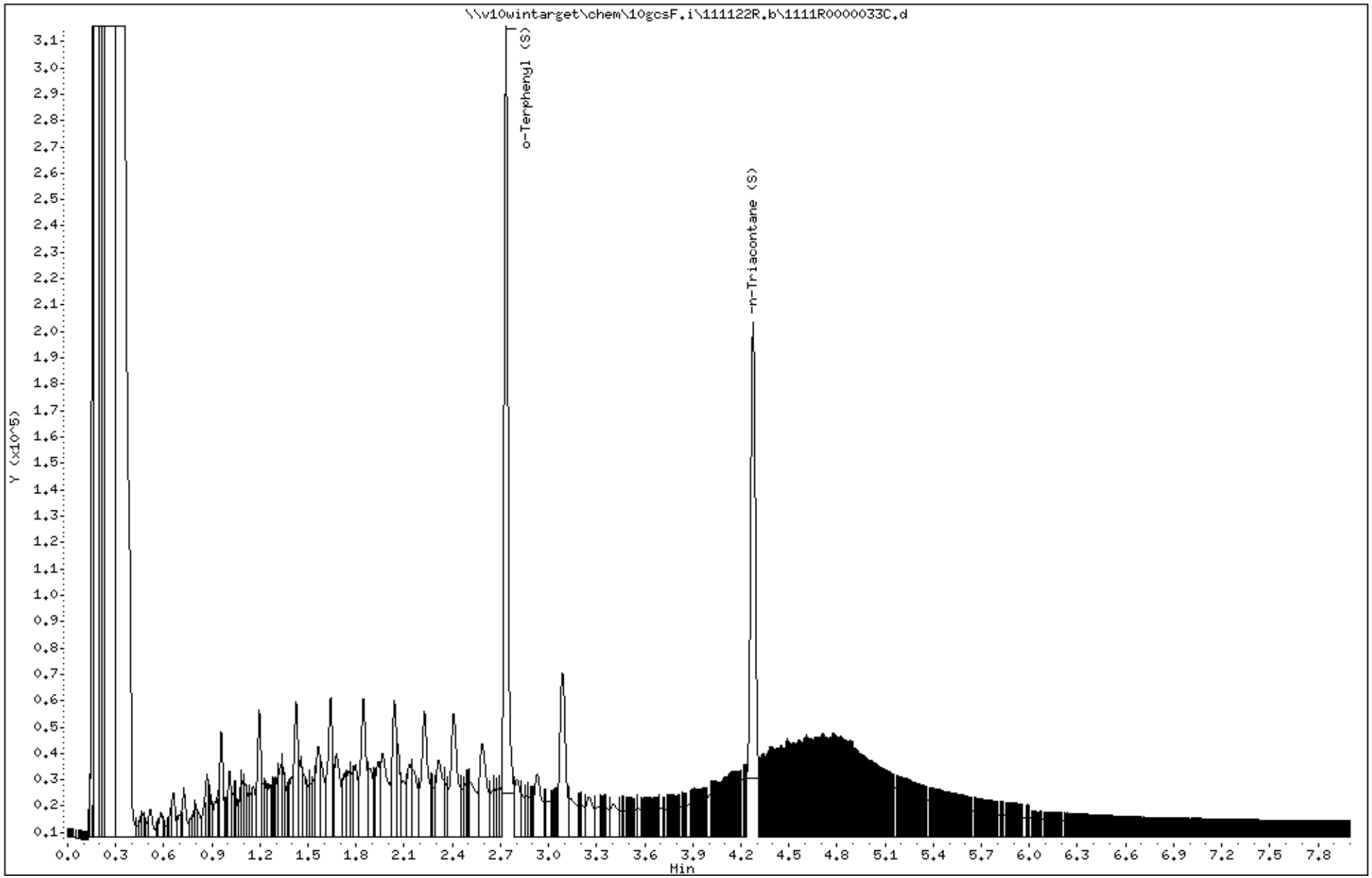
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Date : 11-NOV-2022 16:51
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

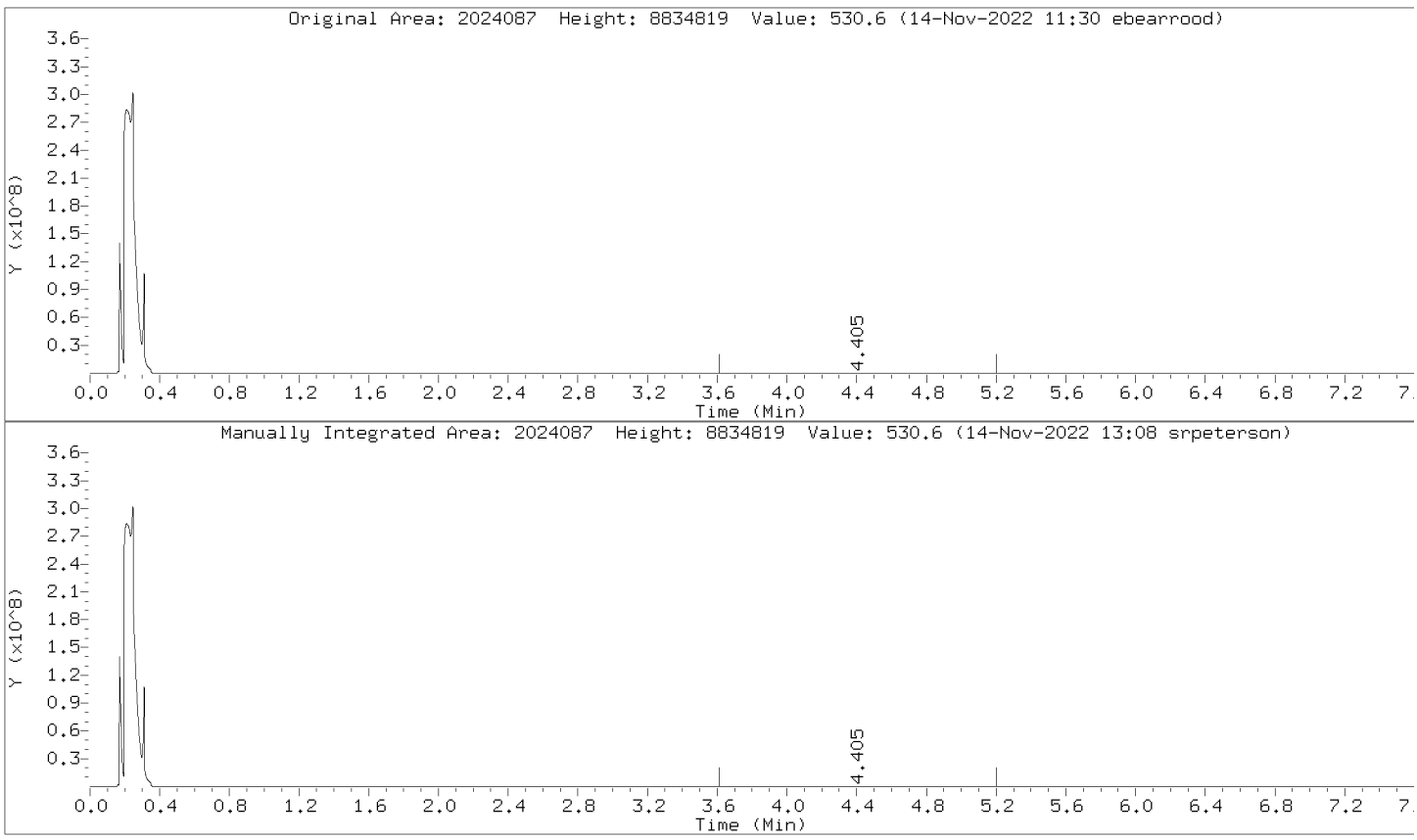
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



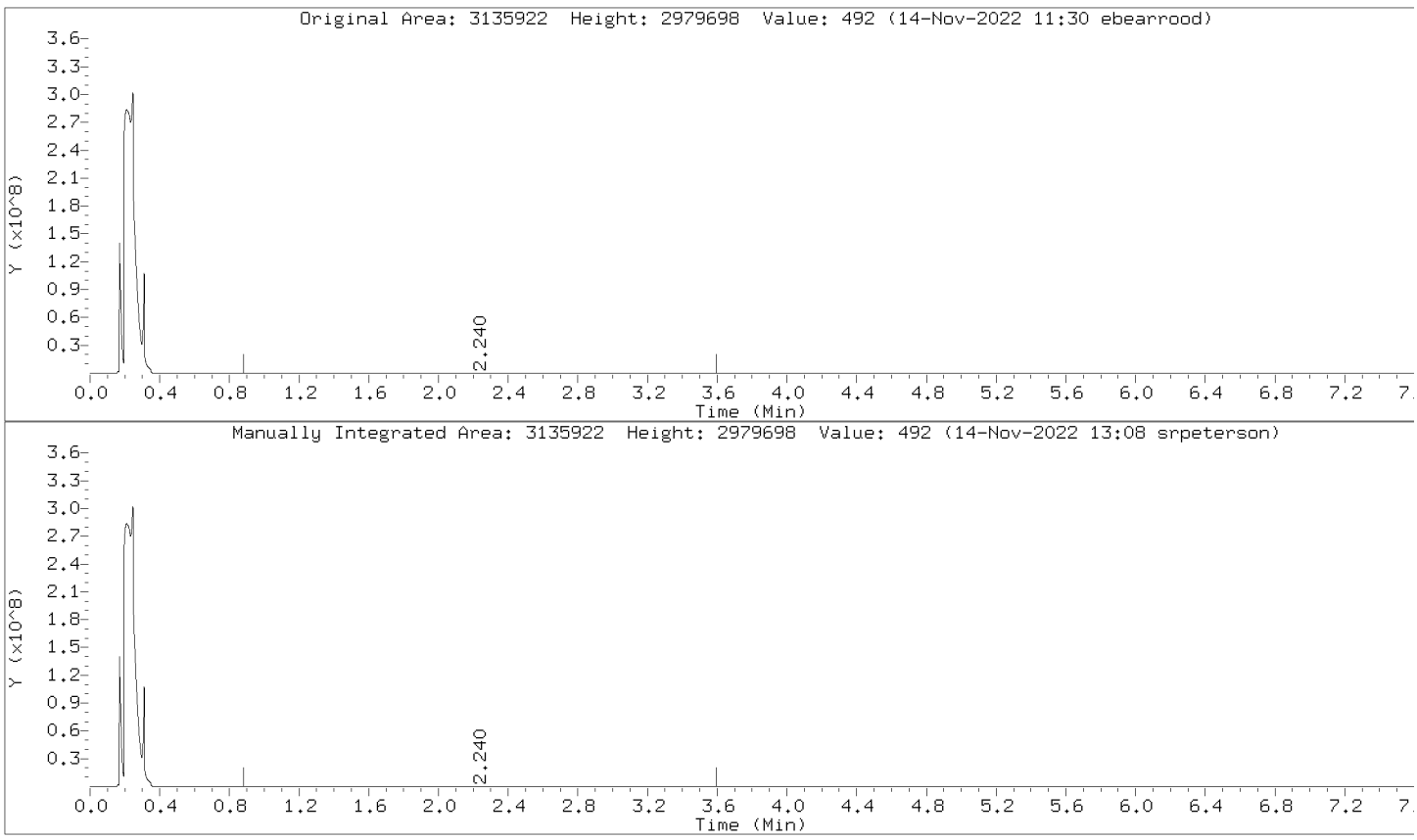
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



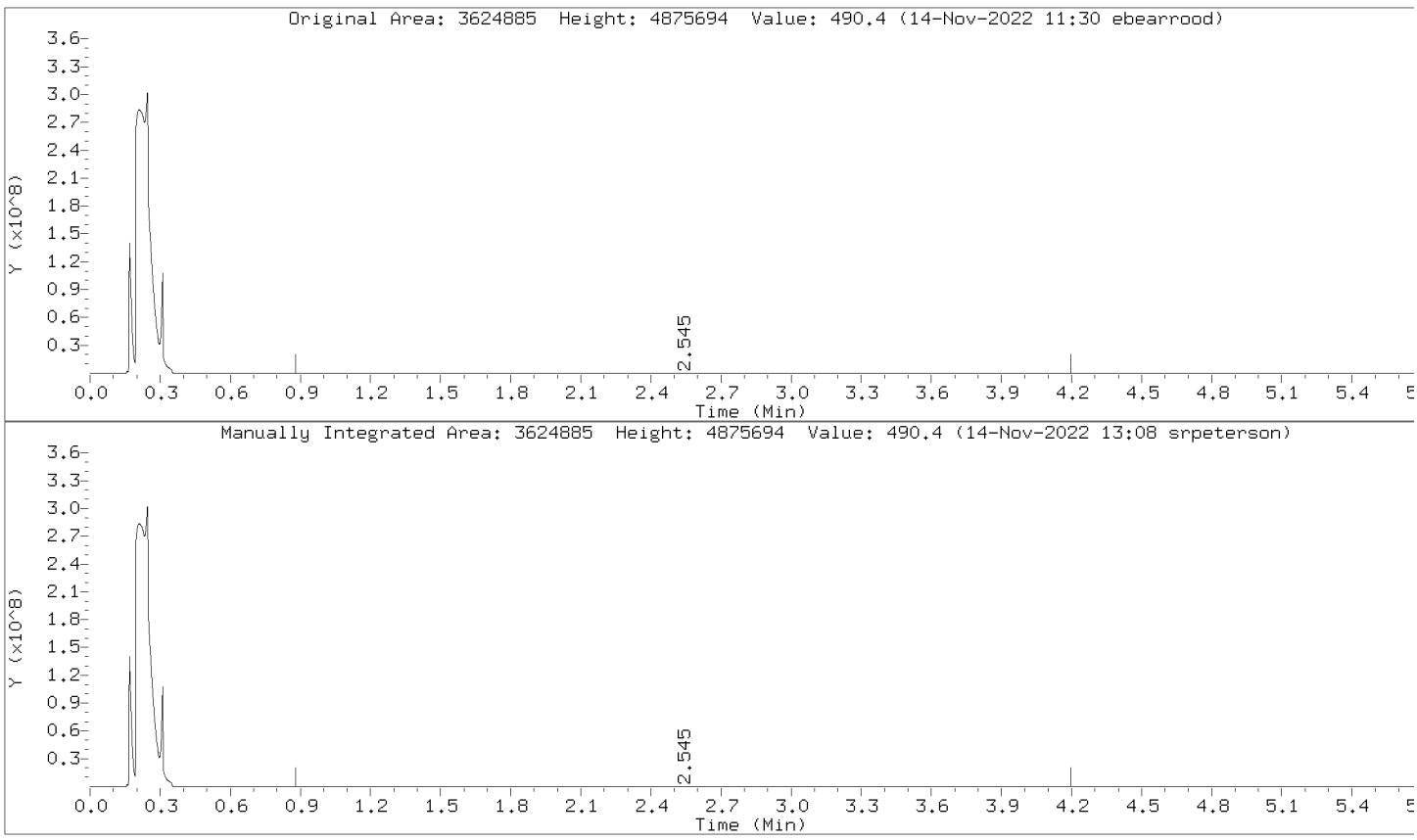
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



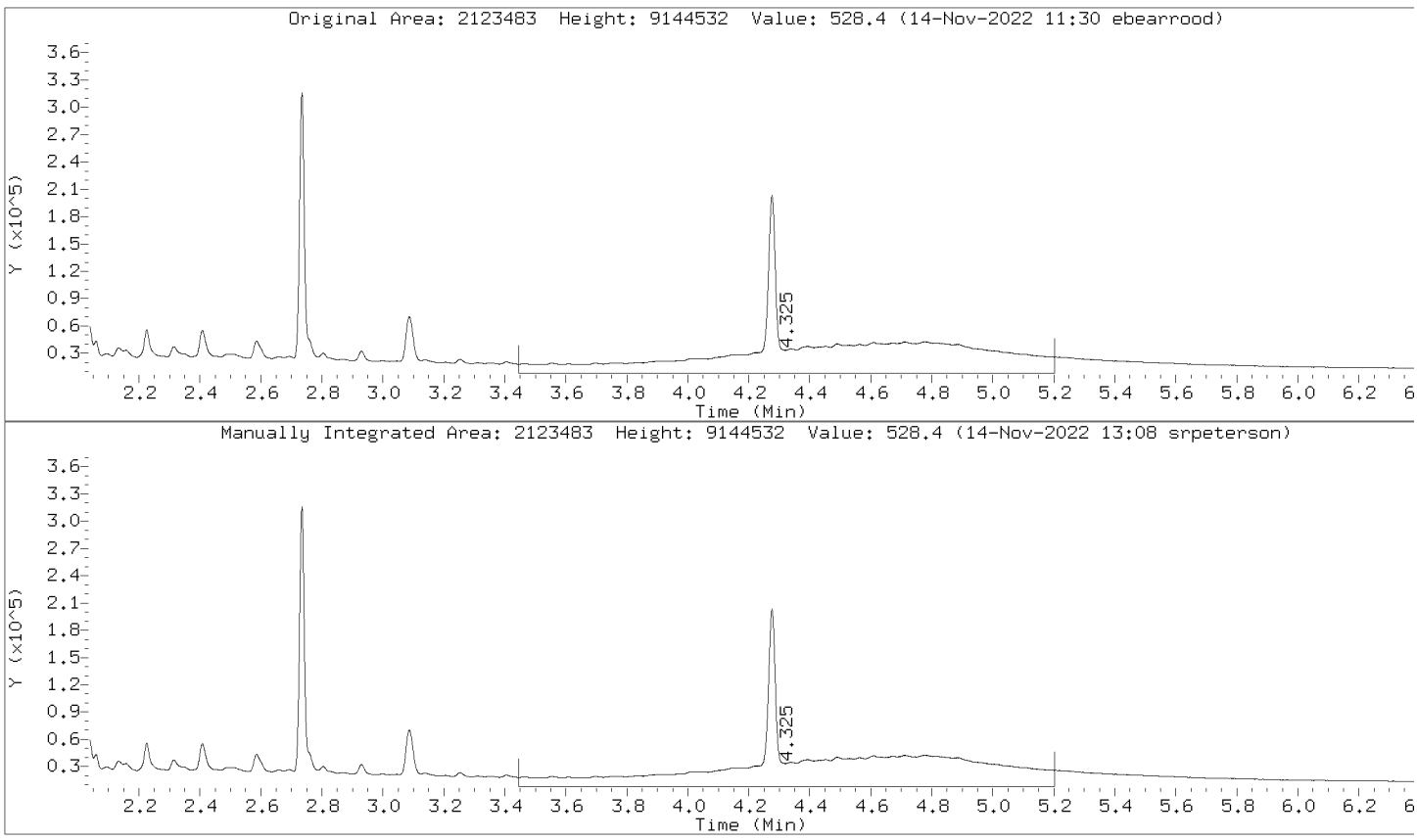
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



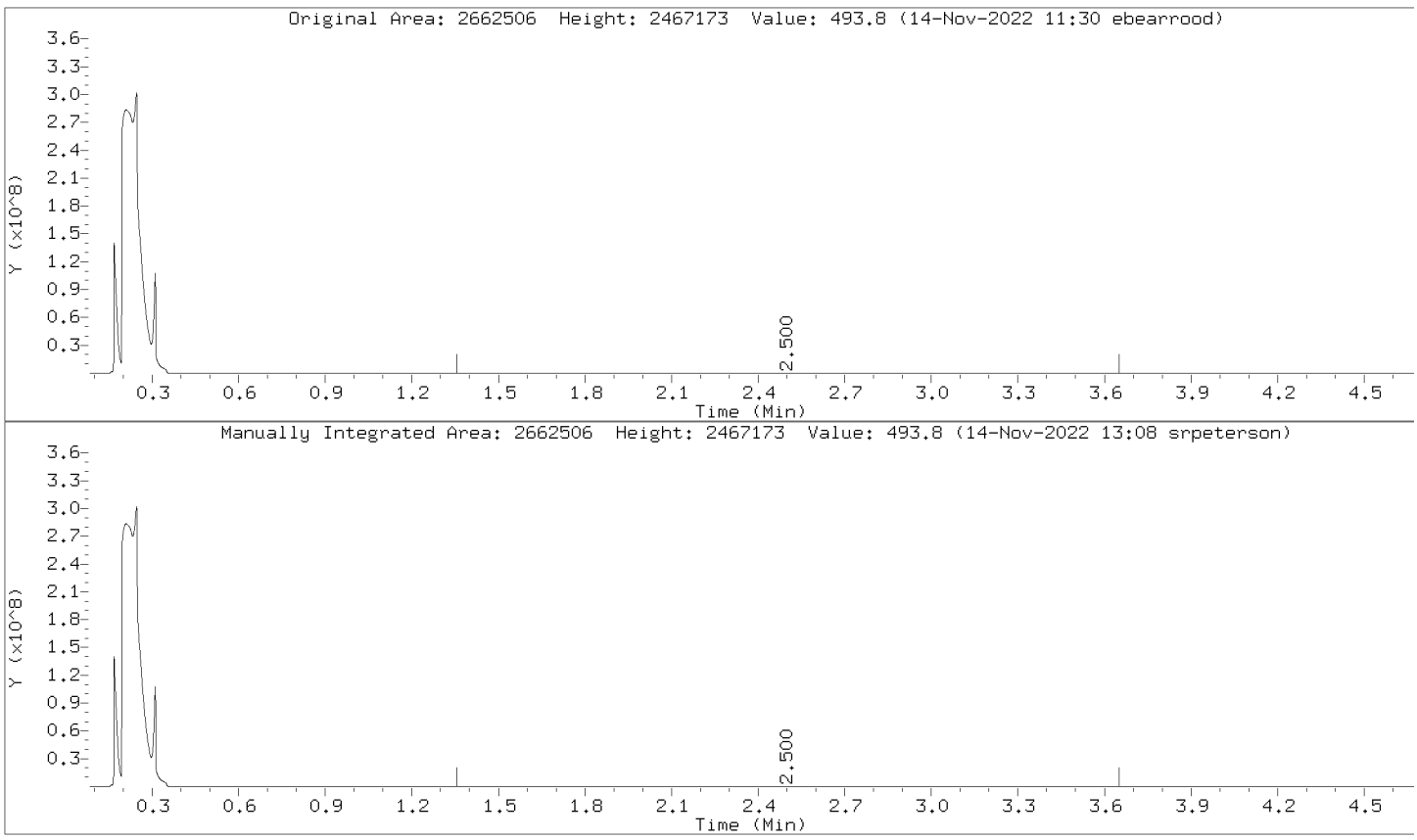
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



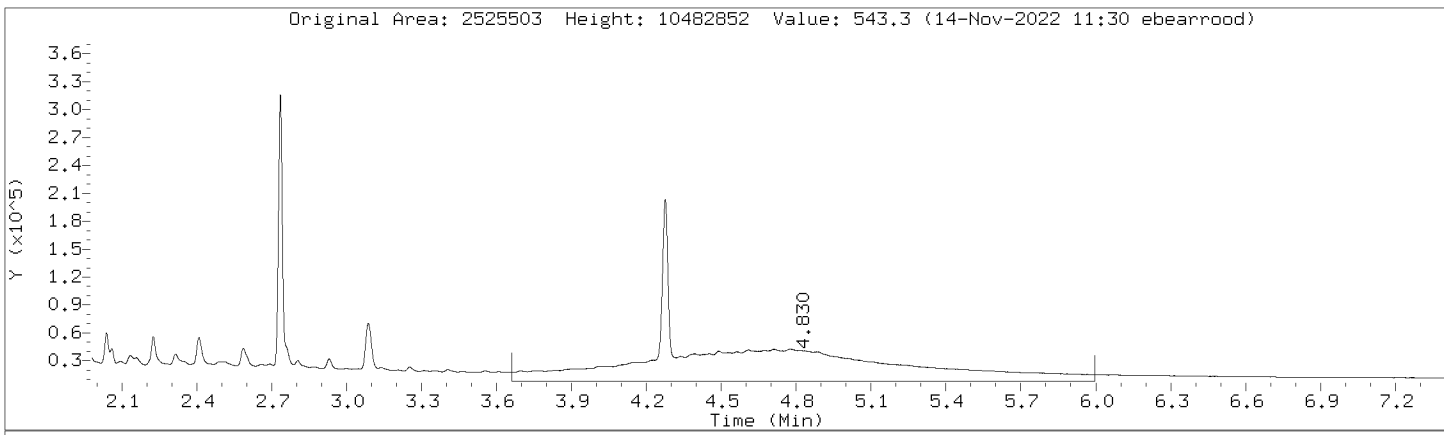
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

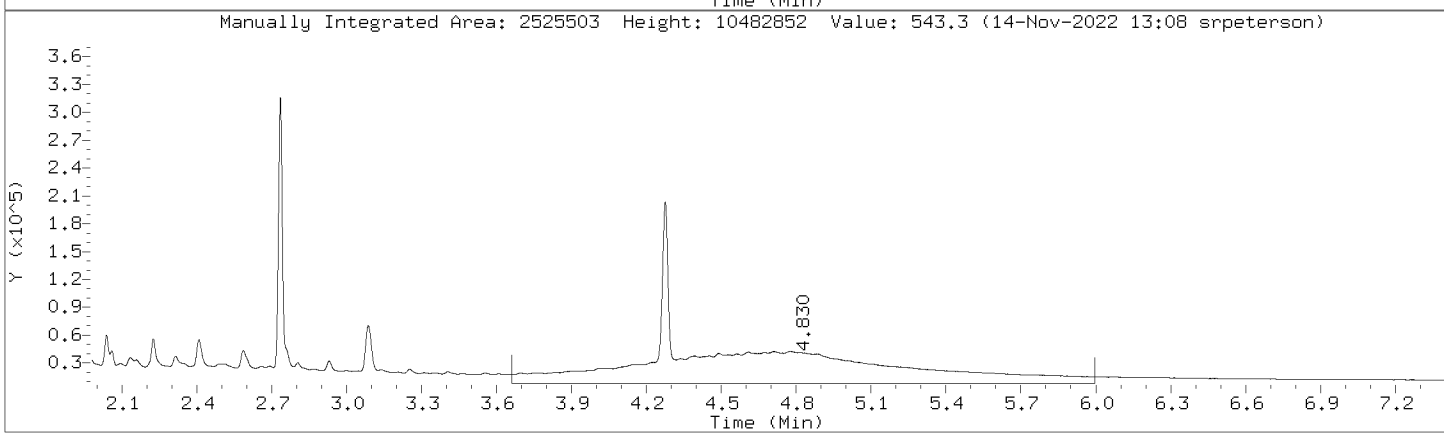
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

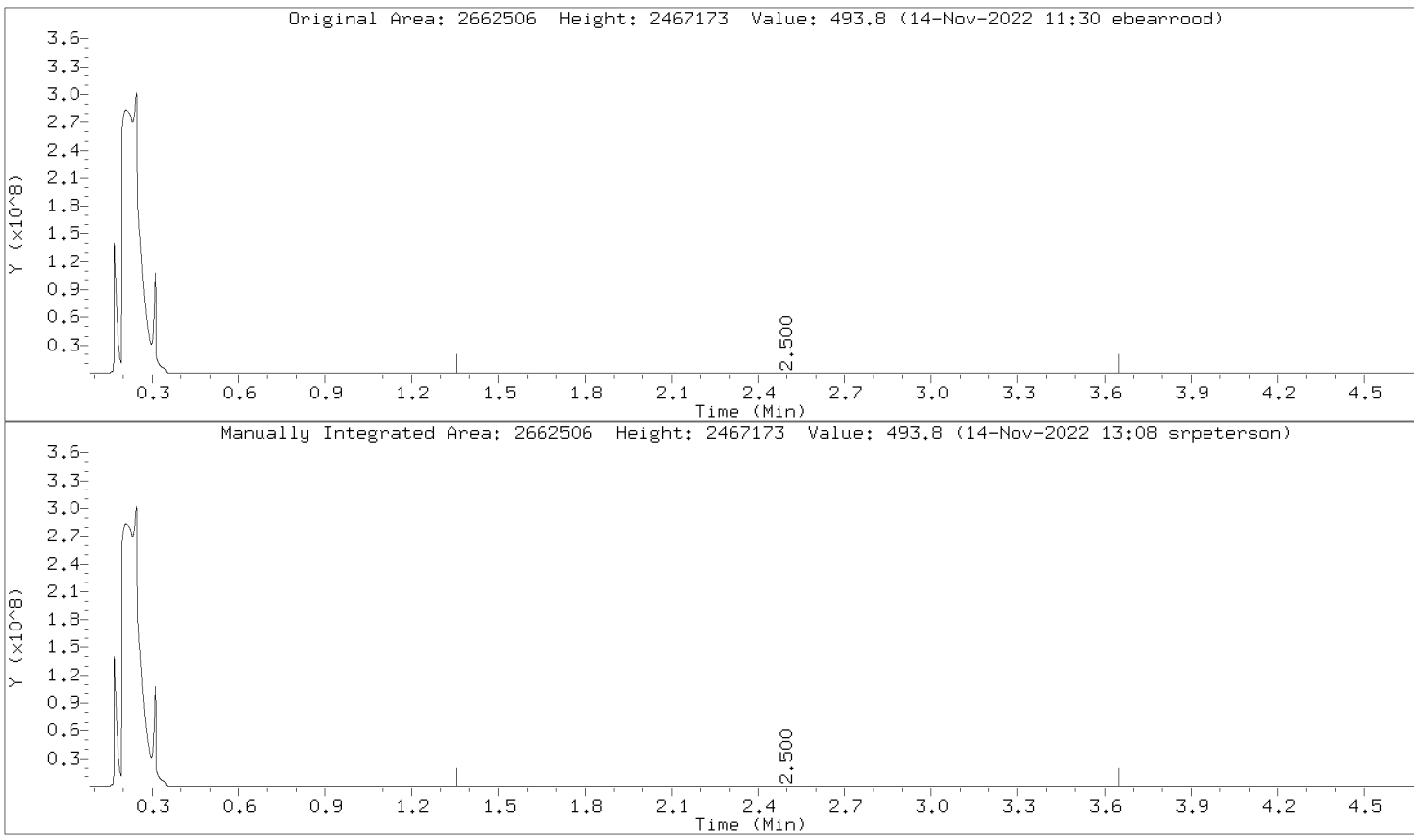
Compound: Motor Oil Range Review Code: RNG
CAS Number:





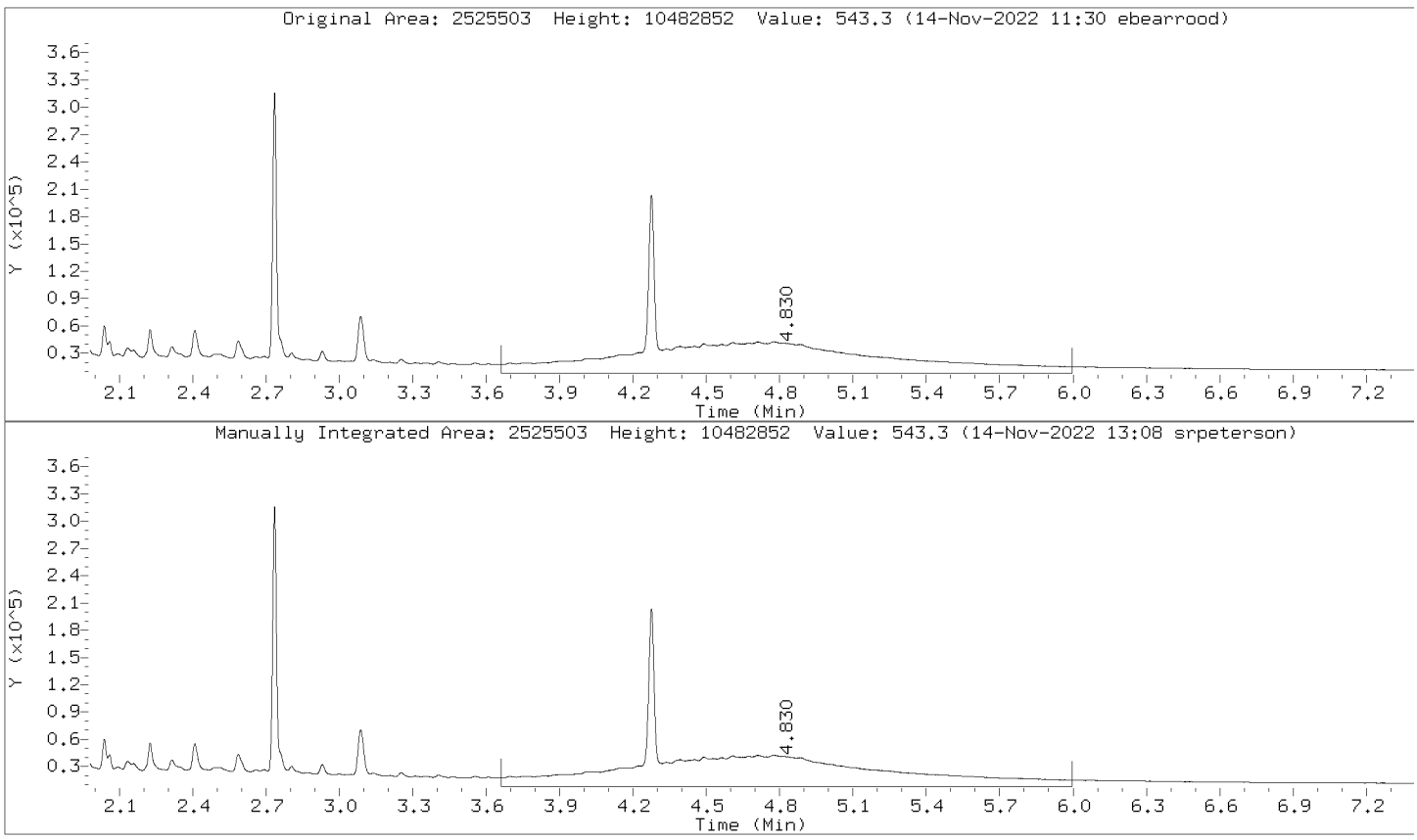
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



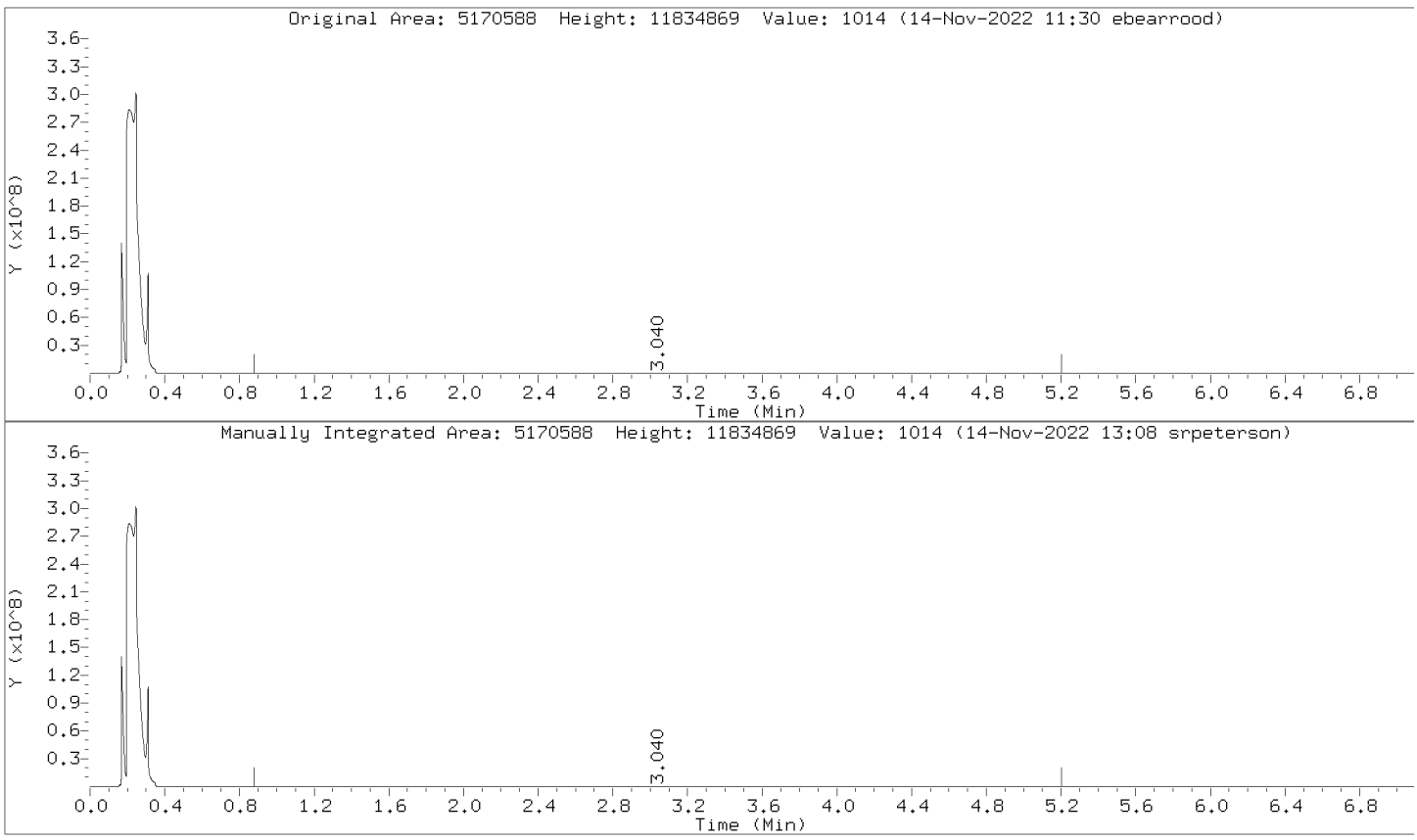
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



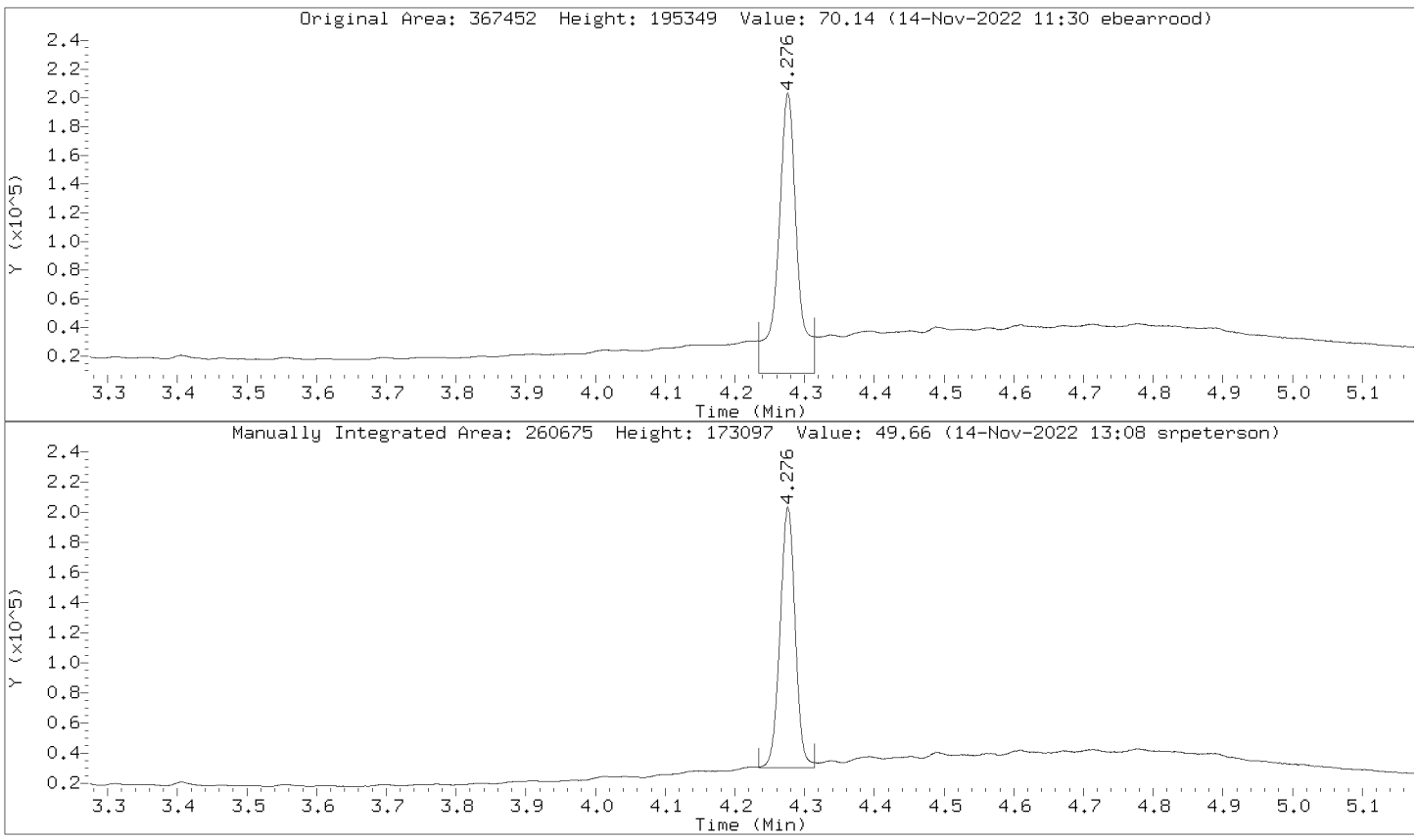
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



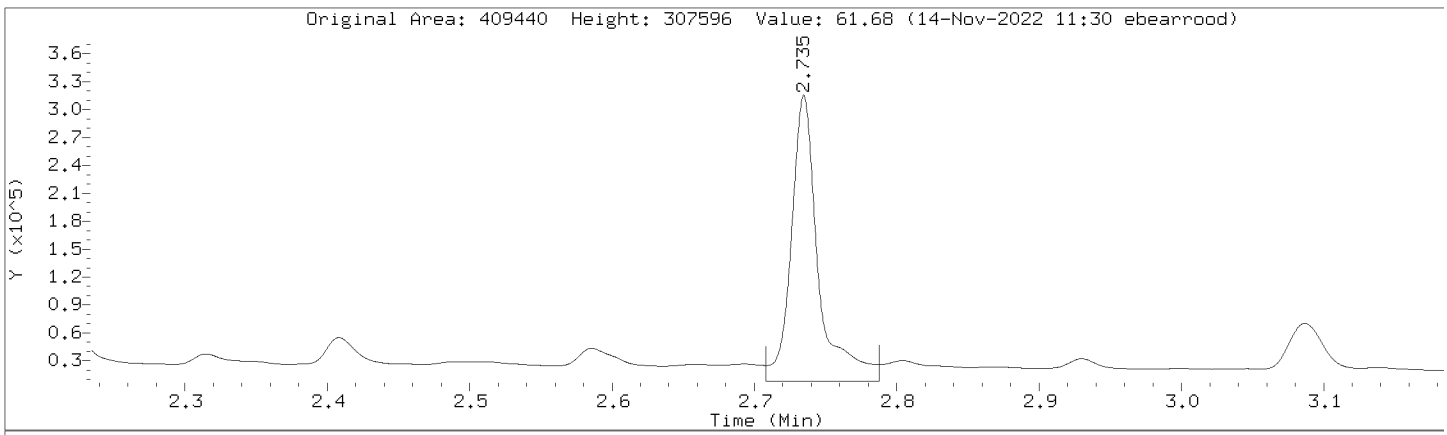
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

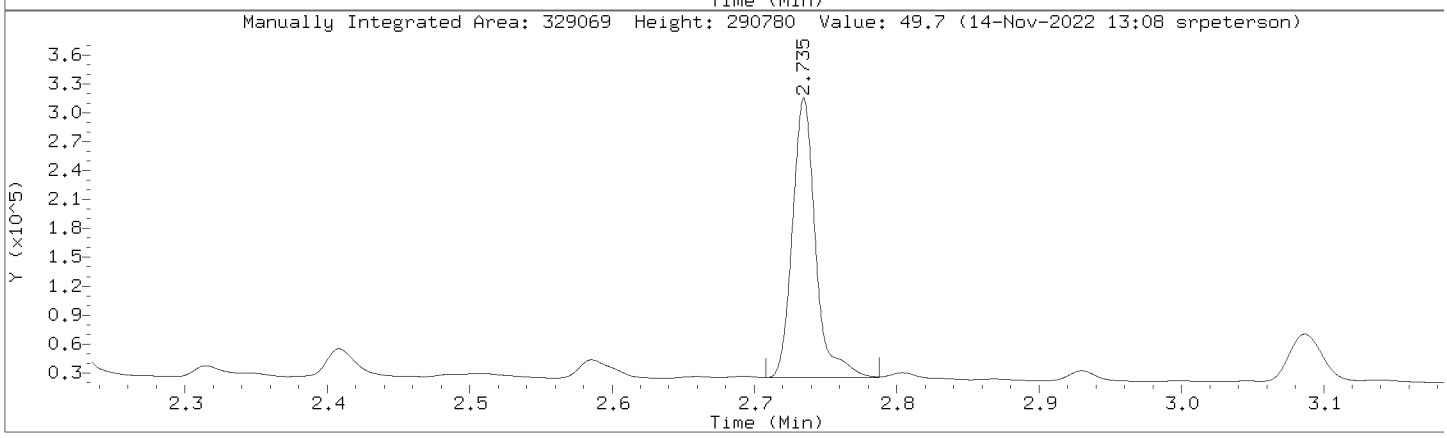
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2024087	2024087
DRO by AK 102	3135922	3135922
TPH-DRO (C10-C28)	3624885	3624885
Motor Oil Range (C24-C36)	2123483	2123483
Diesel Fuel Range	2662506	2662506
Motor Oil Range	2525503	2525503
Diesel Fuel Range SG	2662506	2662506
Motor Oil Range SG	2525503	2525503
C10-C36	5170588	5170588
n-Triacontane (S)	367452	260675
o-Terphenyl (S)	409440	329069

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000039C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 18:00
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3109016	500.000	487	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	326555	50.0000	49.3	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.274	-0.001	256814	50.0000	48.9	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1892621	500.000	494	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3586649	500.000	485	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1989179	500.000	493	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5011167	1000.00	980	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2641971	500.000	490	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2641971	500.000	490	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2303367	500.000	493	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2303367	500.000	493	(M)	RNG

QC Flag Legend

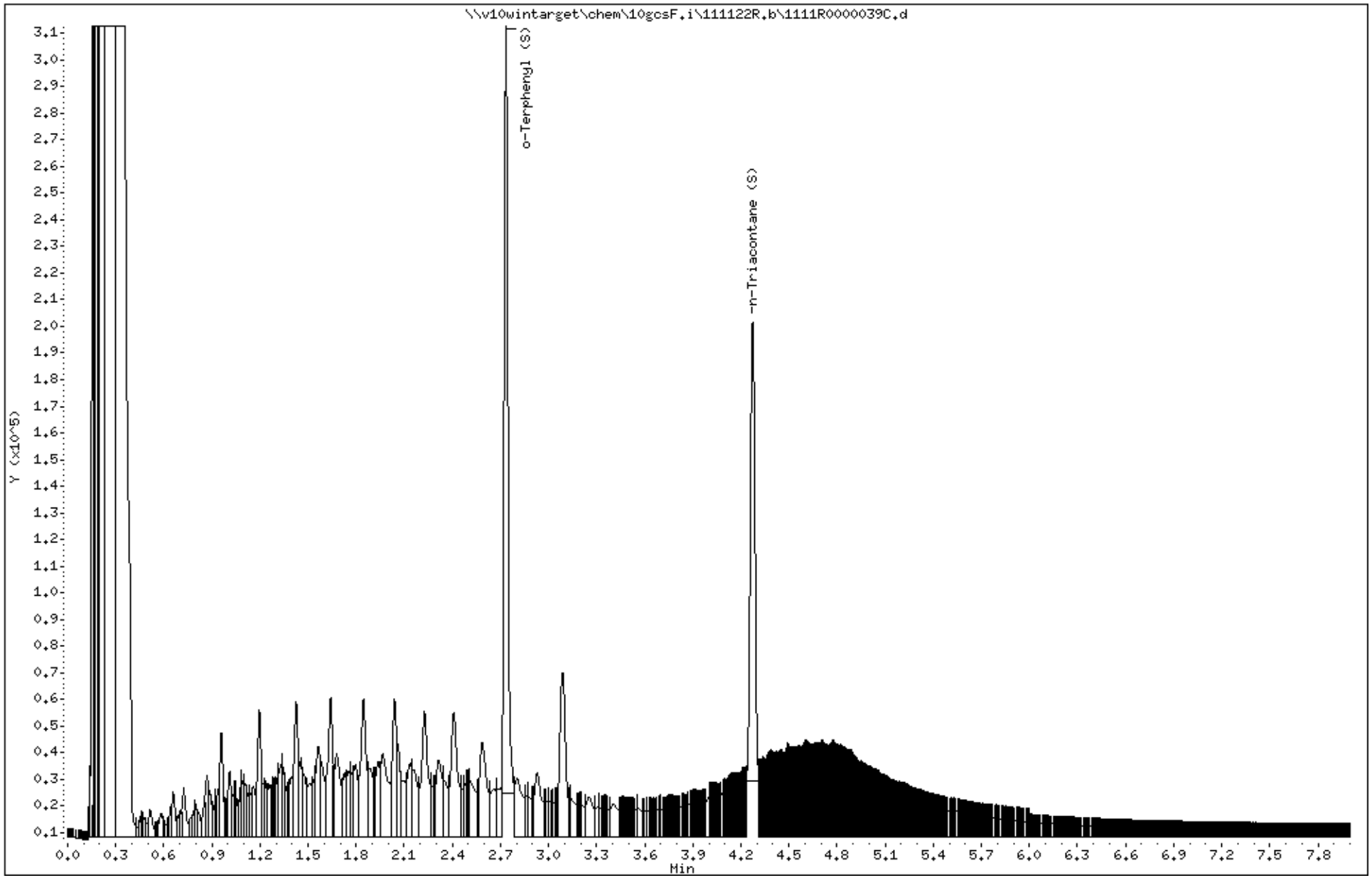
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

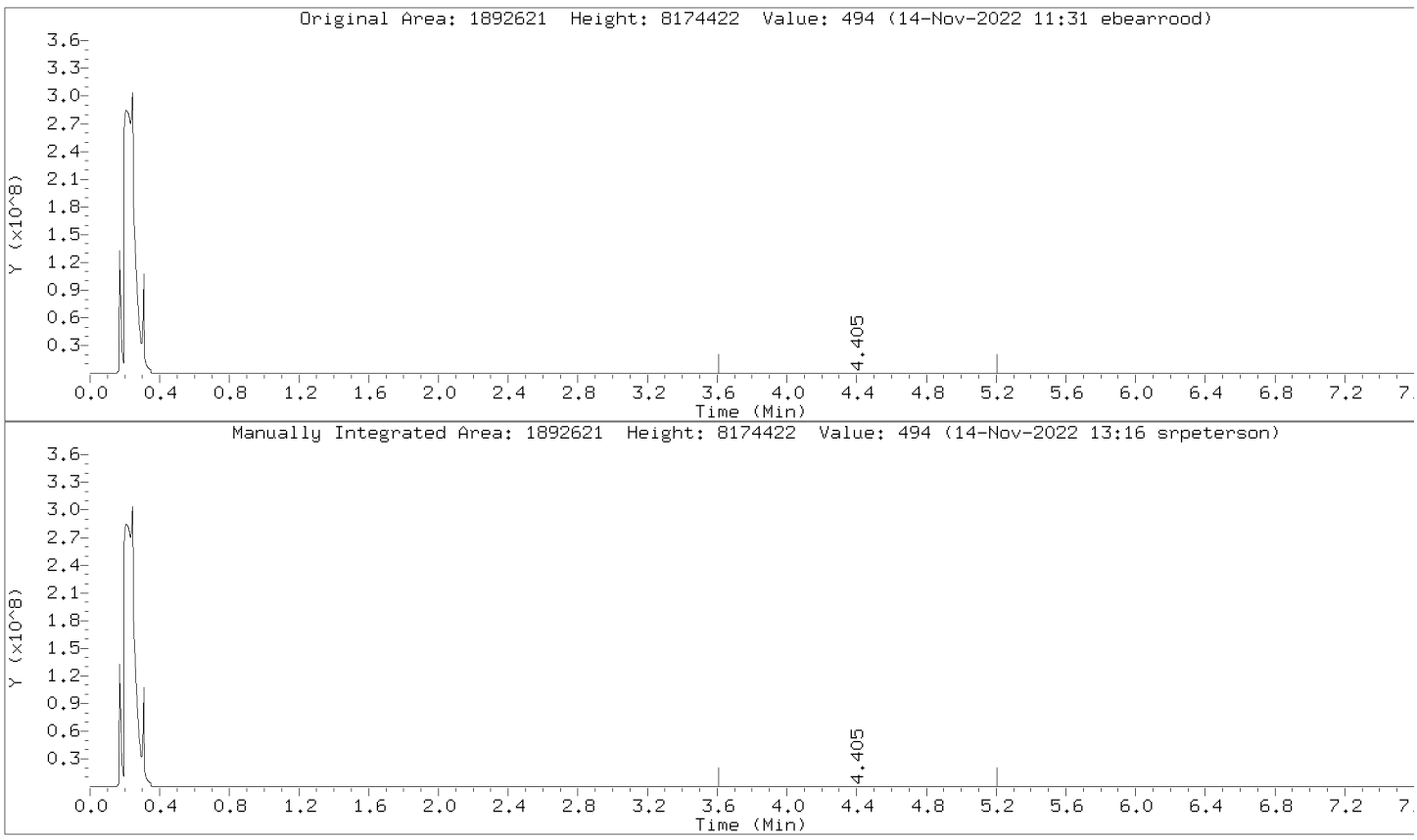
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000039C.d
Date : 11-NOV-2022 18:00
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



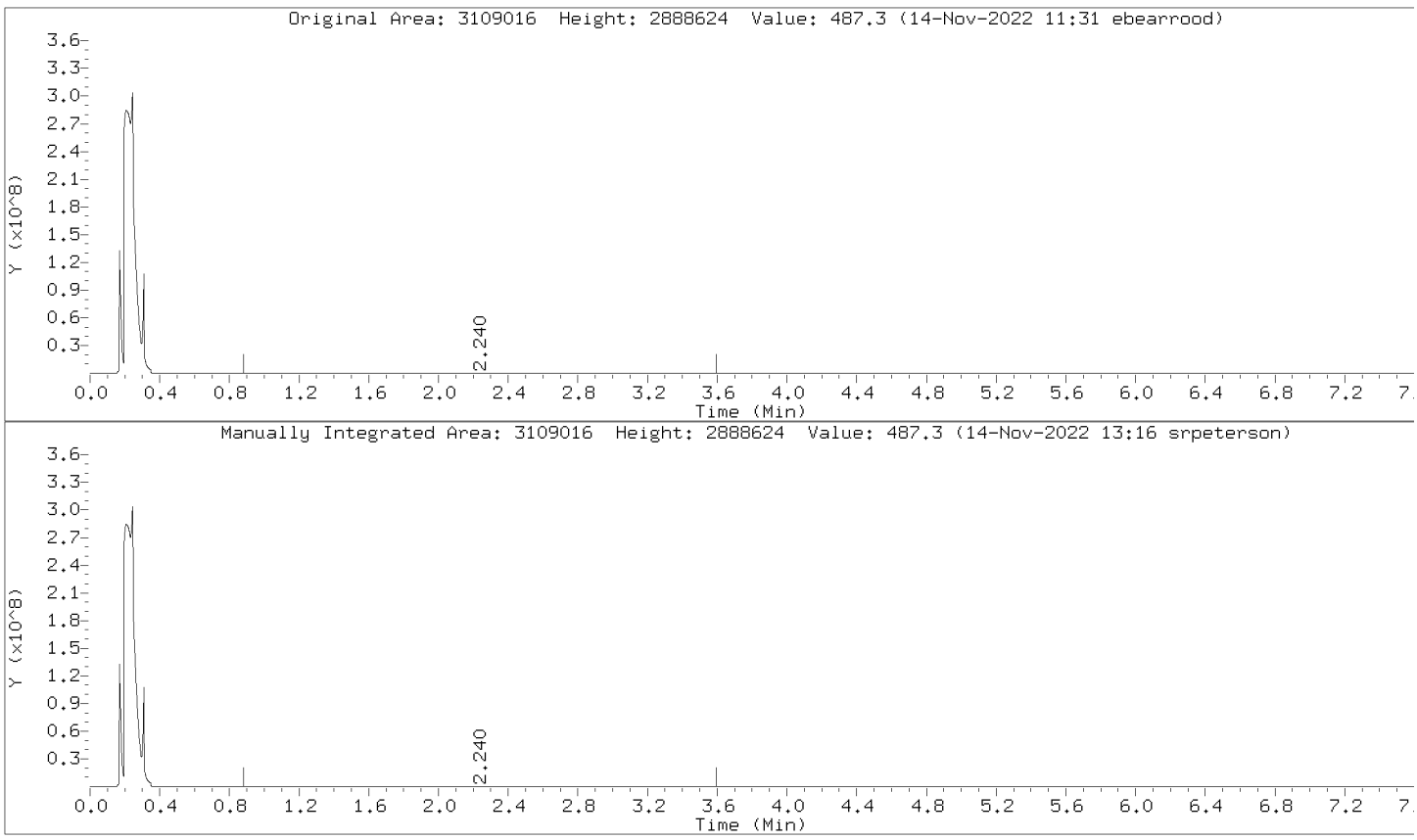
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



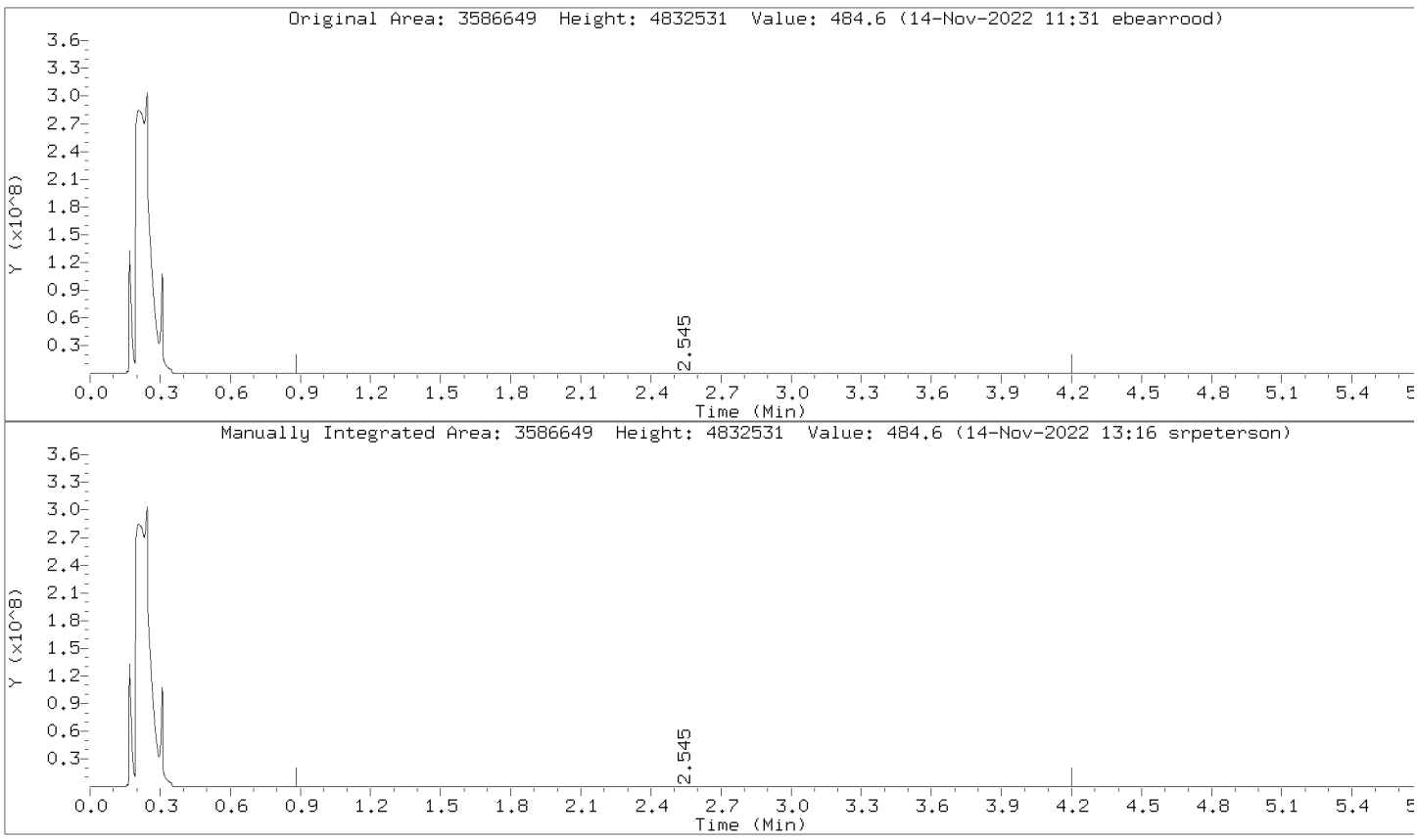
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



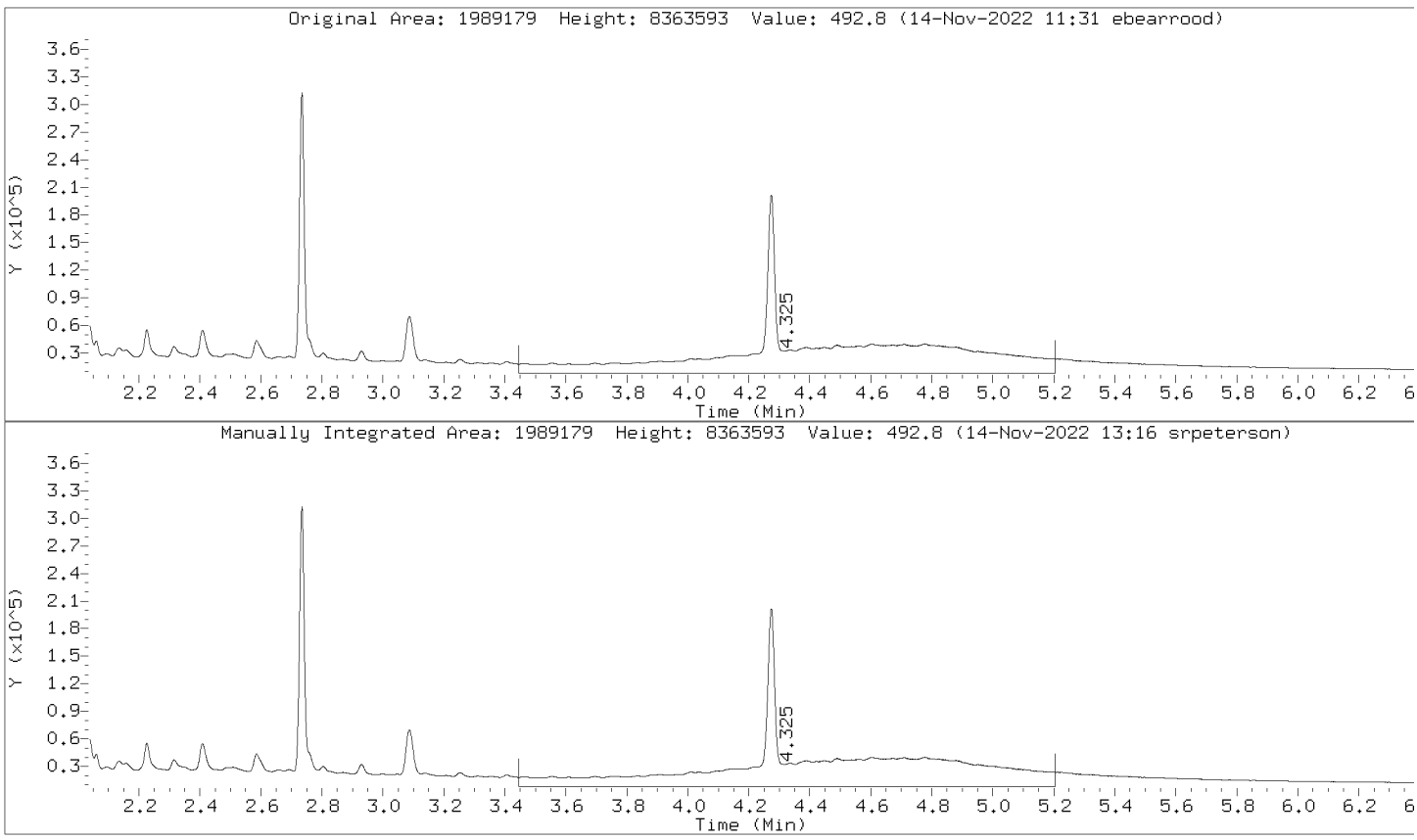
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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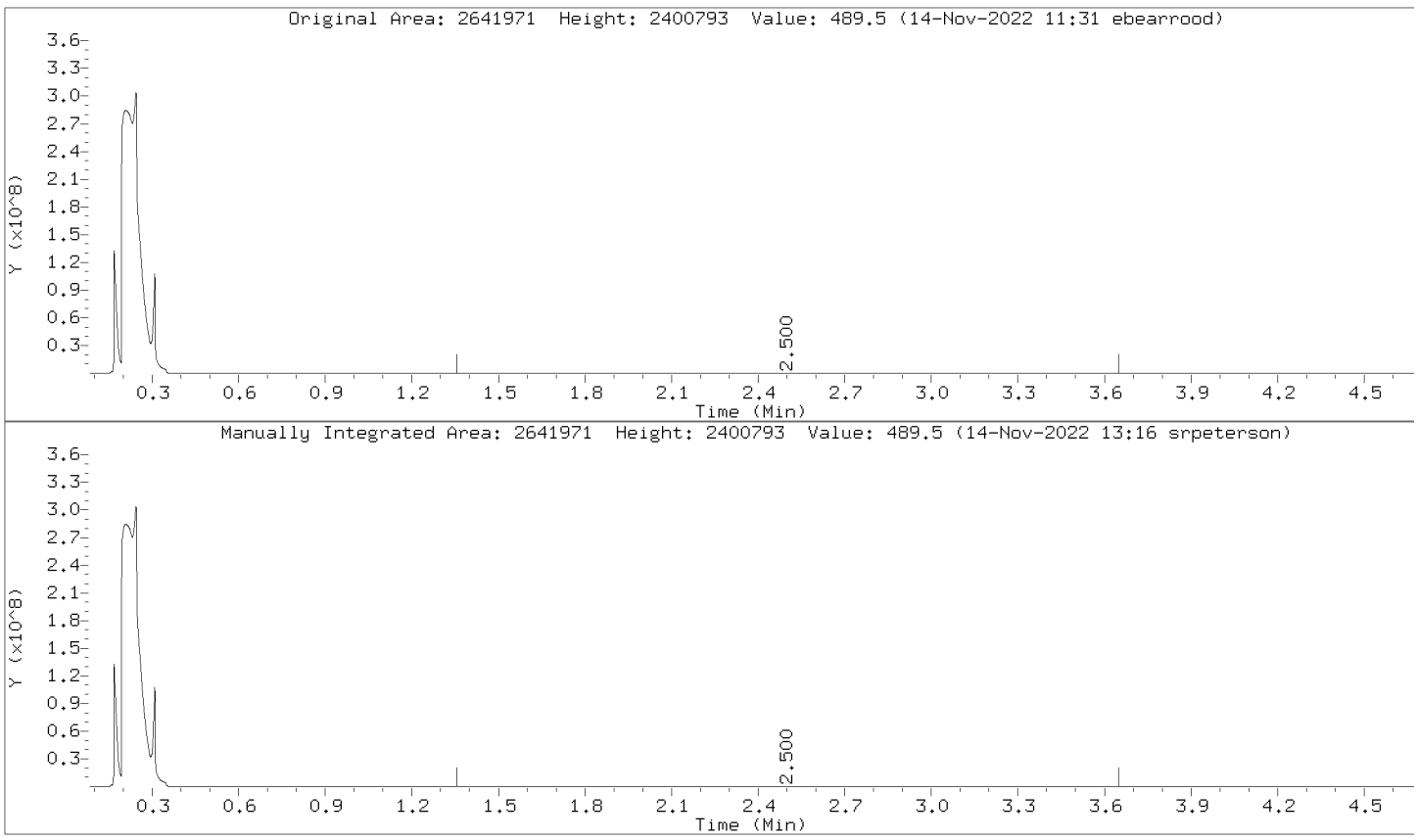
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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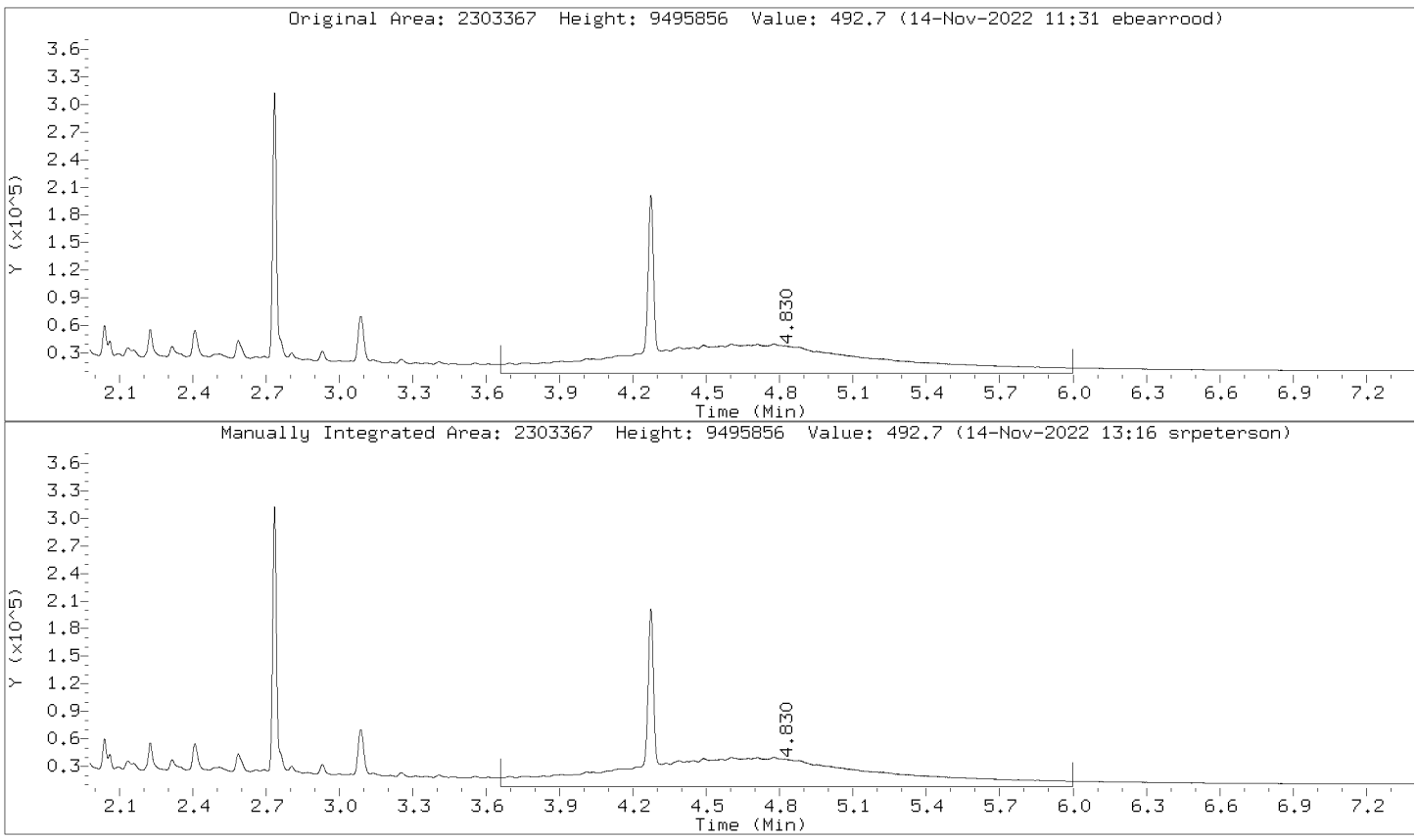
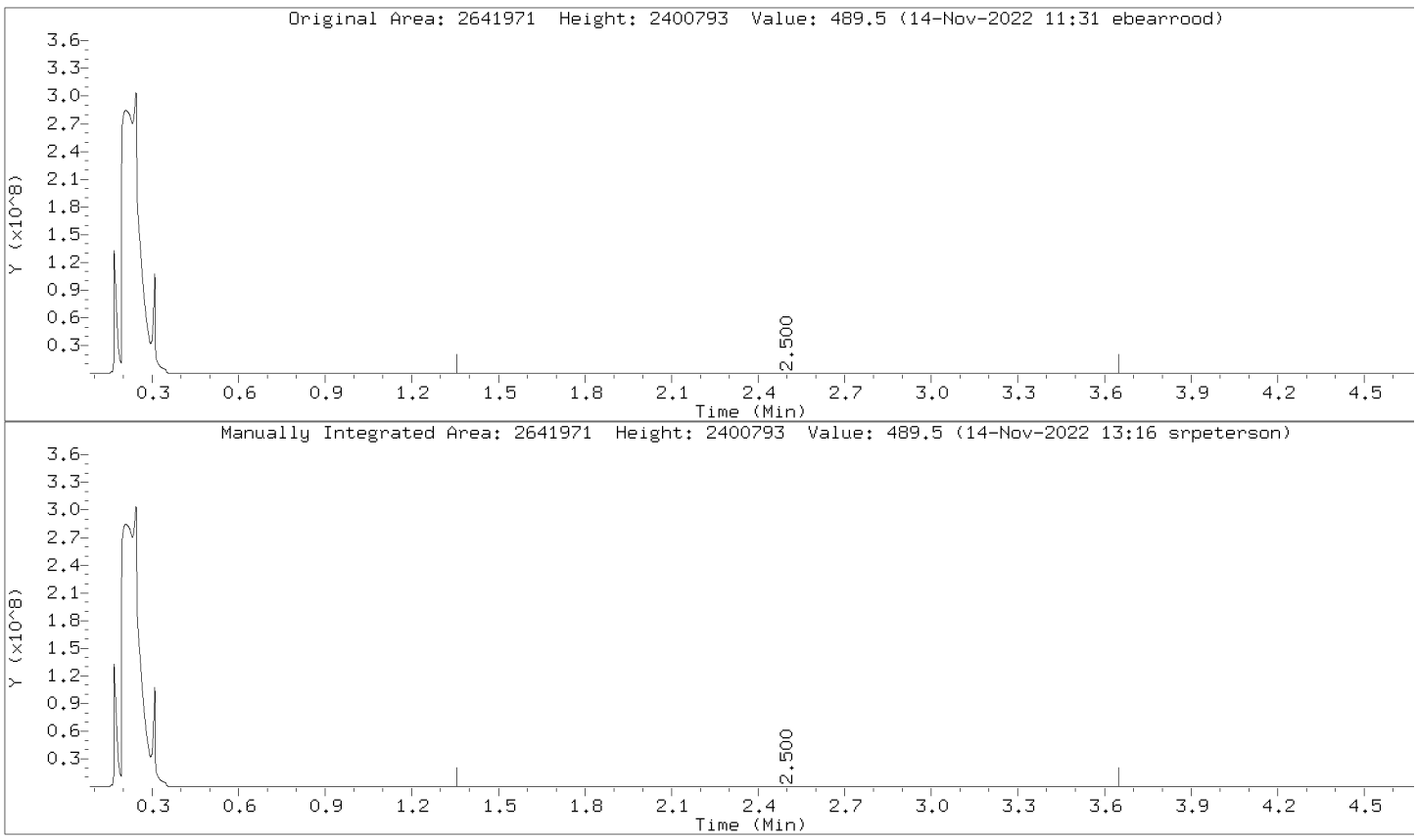
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



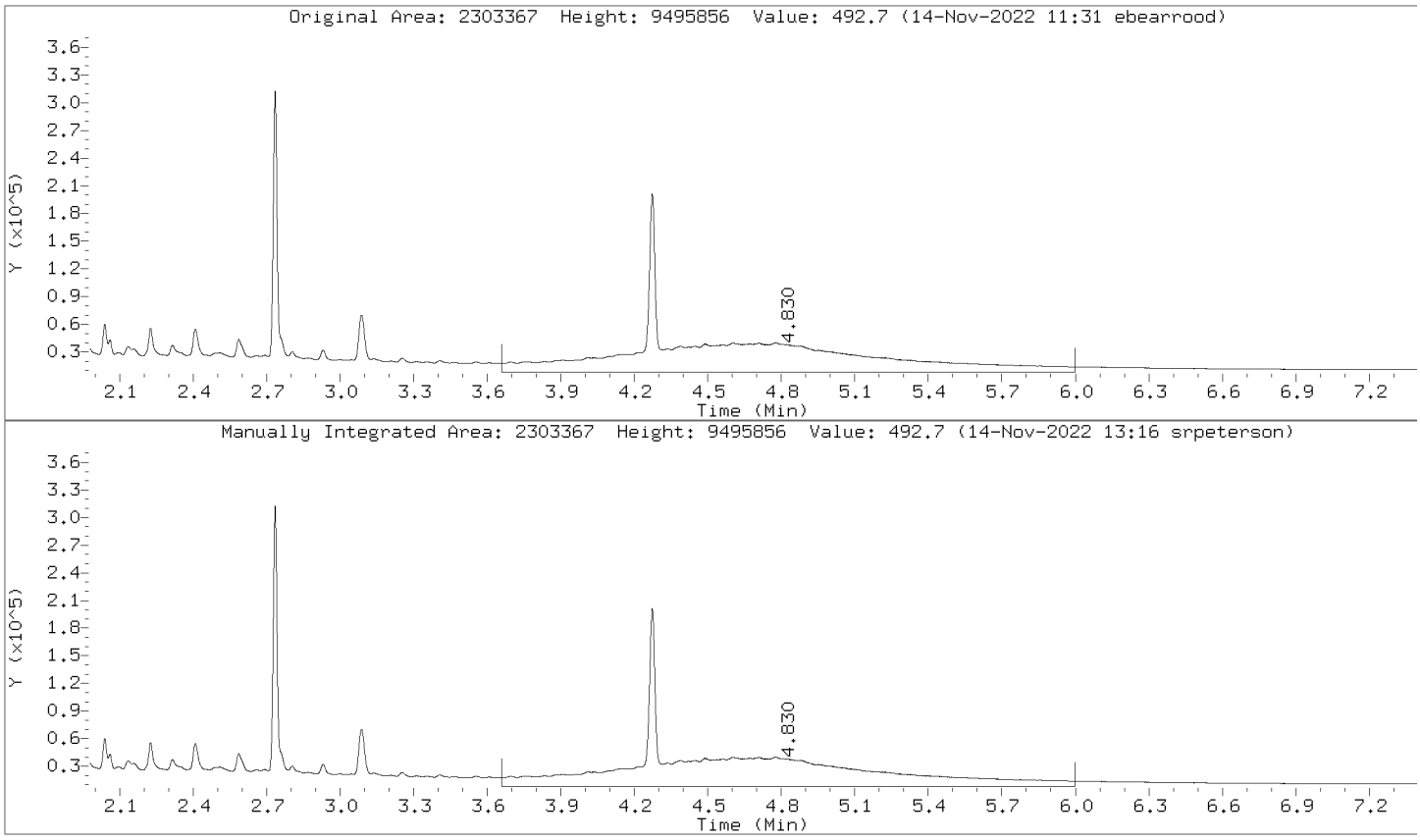
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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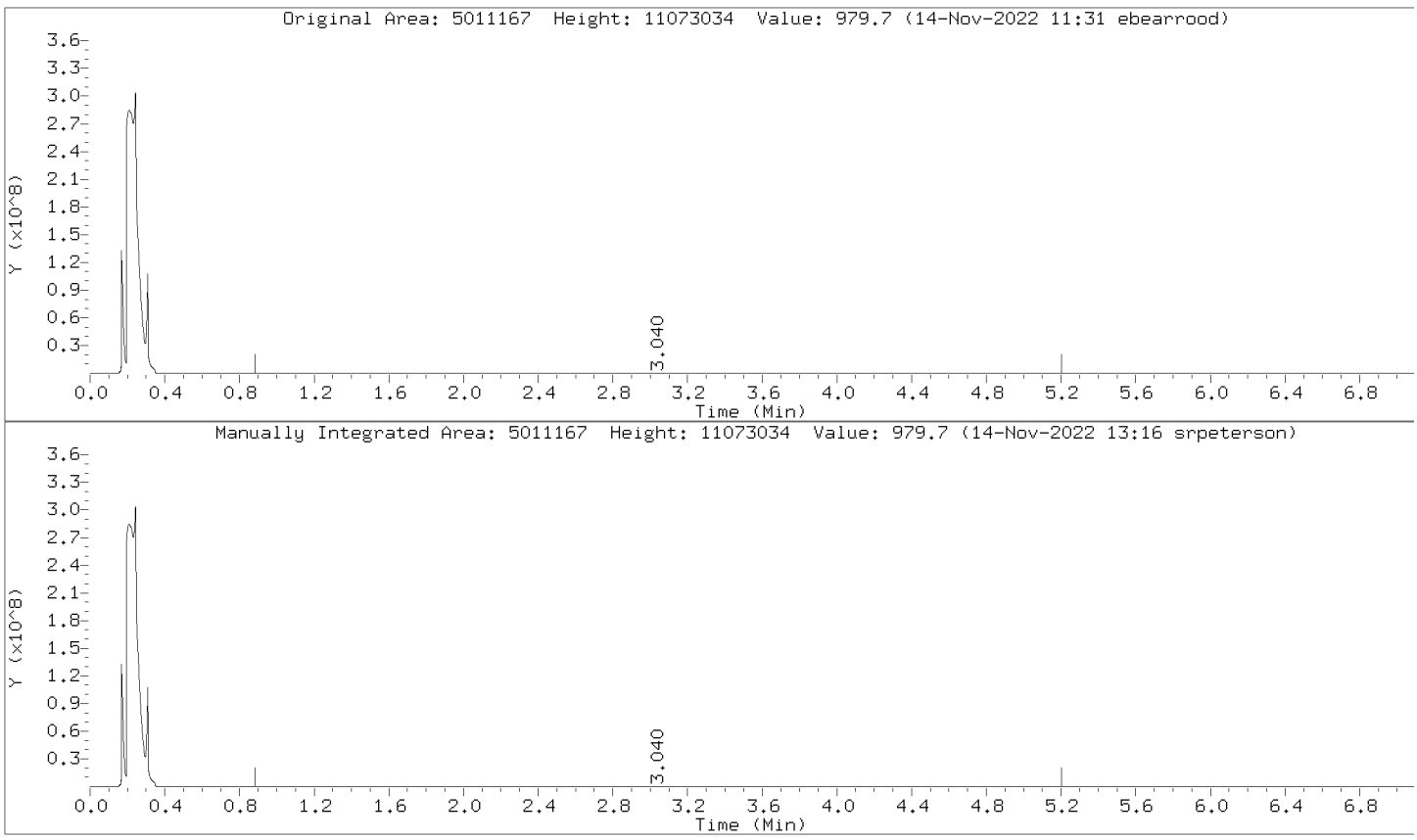
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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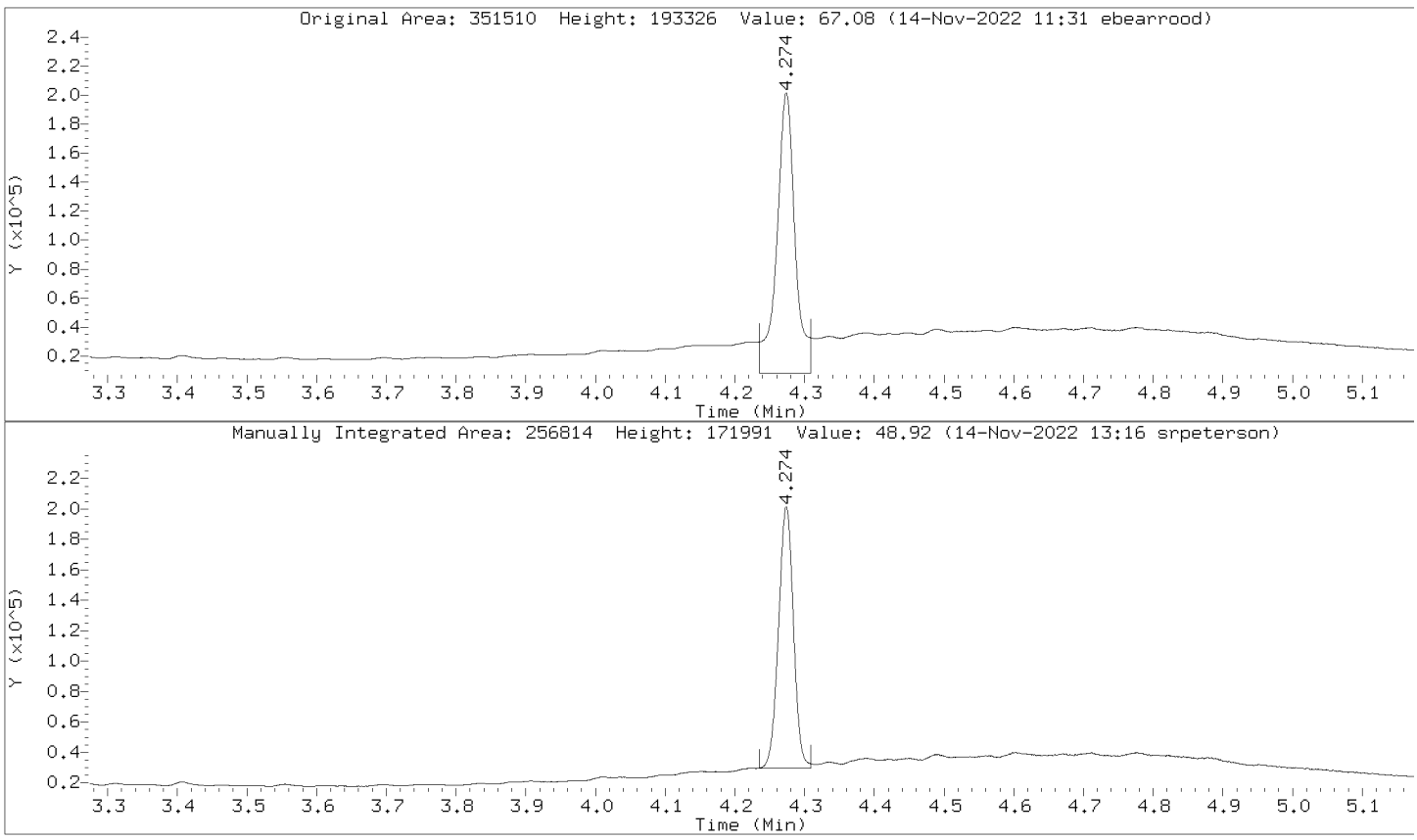
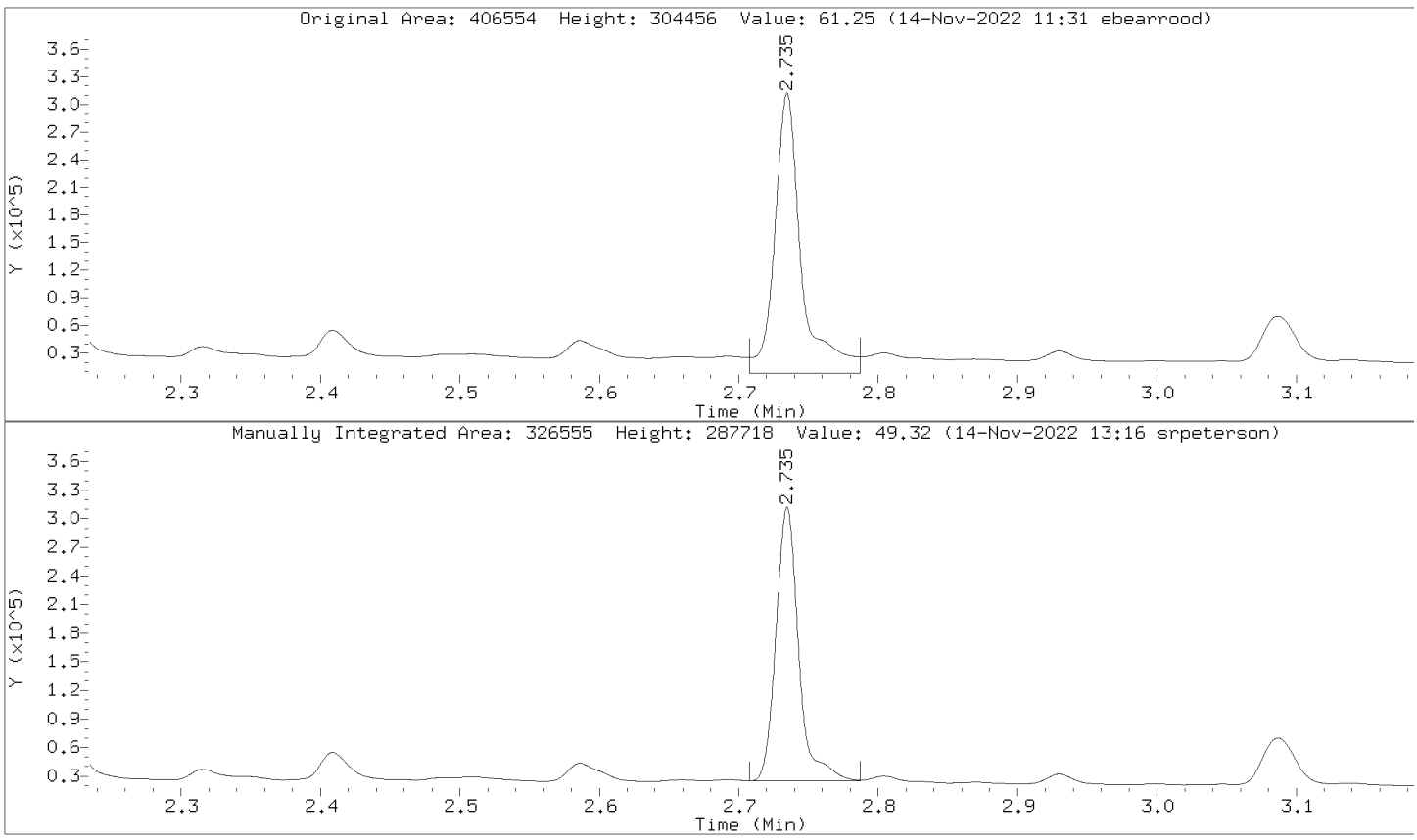
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000039C.d
Injection Date: 11-NOV-2022 18:00
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1892621	1892621
DRO by AK 102	3109016	3109016
TPH-DRO (C10-C28)	3586649	3586649
Motor Oil Range (C24-C36)	1989179	1989179
Diesel Fuel Range	2641971	2641971
Motor Oil Range	2303367	2303367
Diesel Fuel Range SG	2641971	2641971
Motor Oil Range SG	2303367	2303367
C10-C36	5011167	5011167
n-Triacontane (S)	351510	256814
o-Terphenyl (S)	406554	326555

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000020C.D
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 14-NOV-2022 15:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111422R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 16:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.895	- 3.650		3103345	500.000	486	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.769	2.770	-0.001	323659	50.0000	48.9	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.331	4.333	-0.002	256154	50.0000	48.8	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.651	- 5.260		1831677	500.000	477	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.895	- 4.250		3569897	500.000	482	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.500	- 5.260		1917472	500.000	474	(M)	RNG
S 7 C10-C36					CAS #:		
0.895	- 5.260		4935022	1000.00	963	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.360	- 3.700		2629838	500.000	487	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.360	- 3.700		2629838	500.000	487	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.701	- 6.250		2329466	500.000	499	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.701	- 6.250		2329466	500.000	499	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

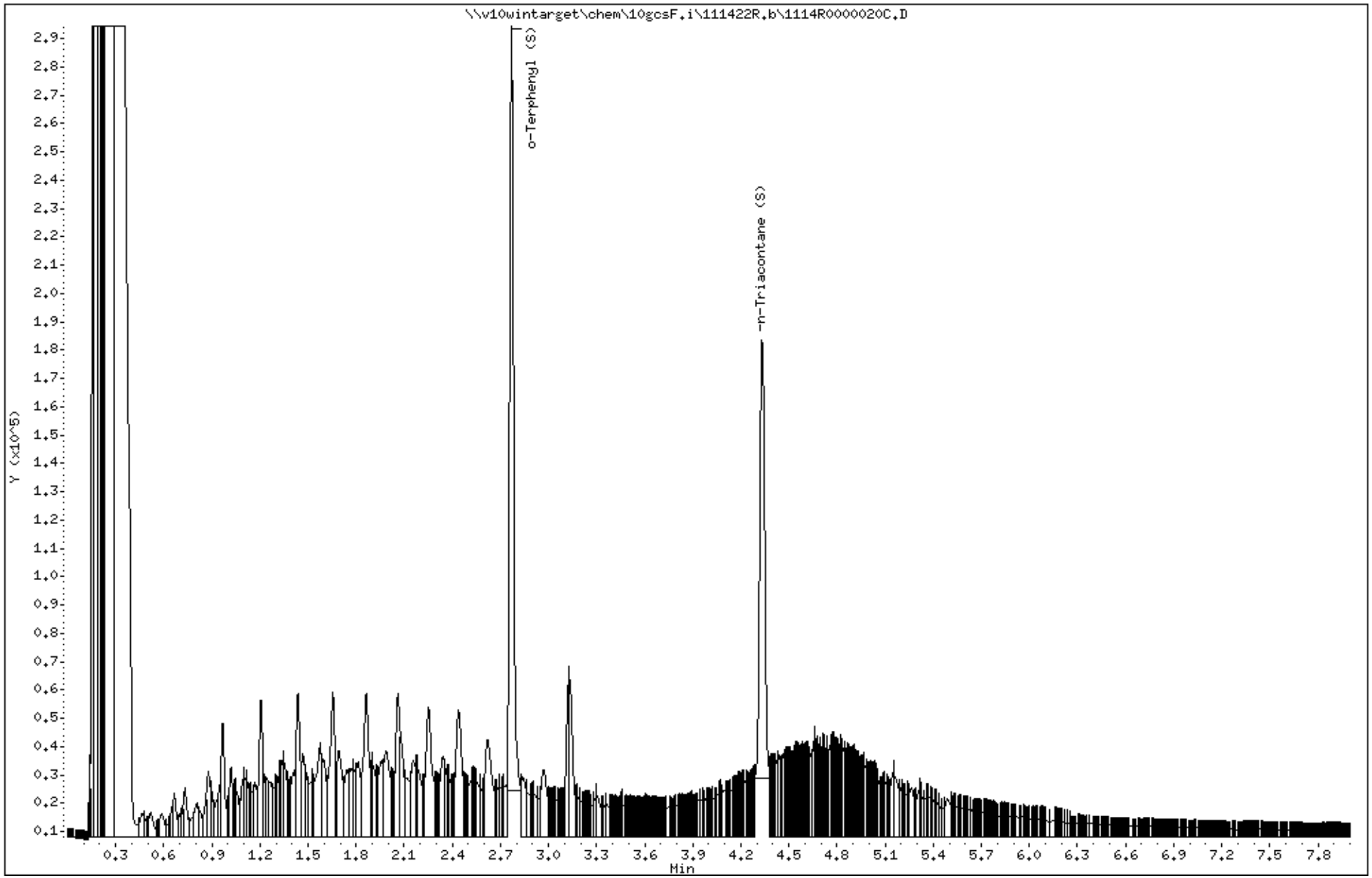
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000020C.D
Date : 14-NOV-2022 15:26
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Column phase: DB-5-US21130002

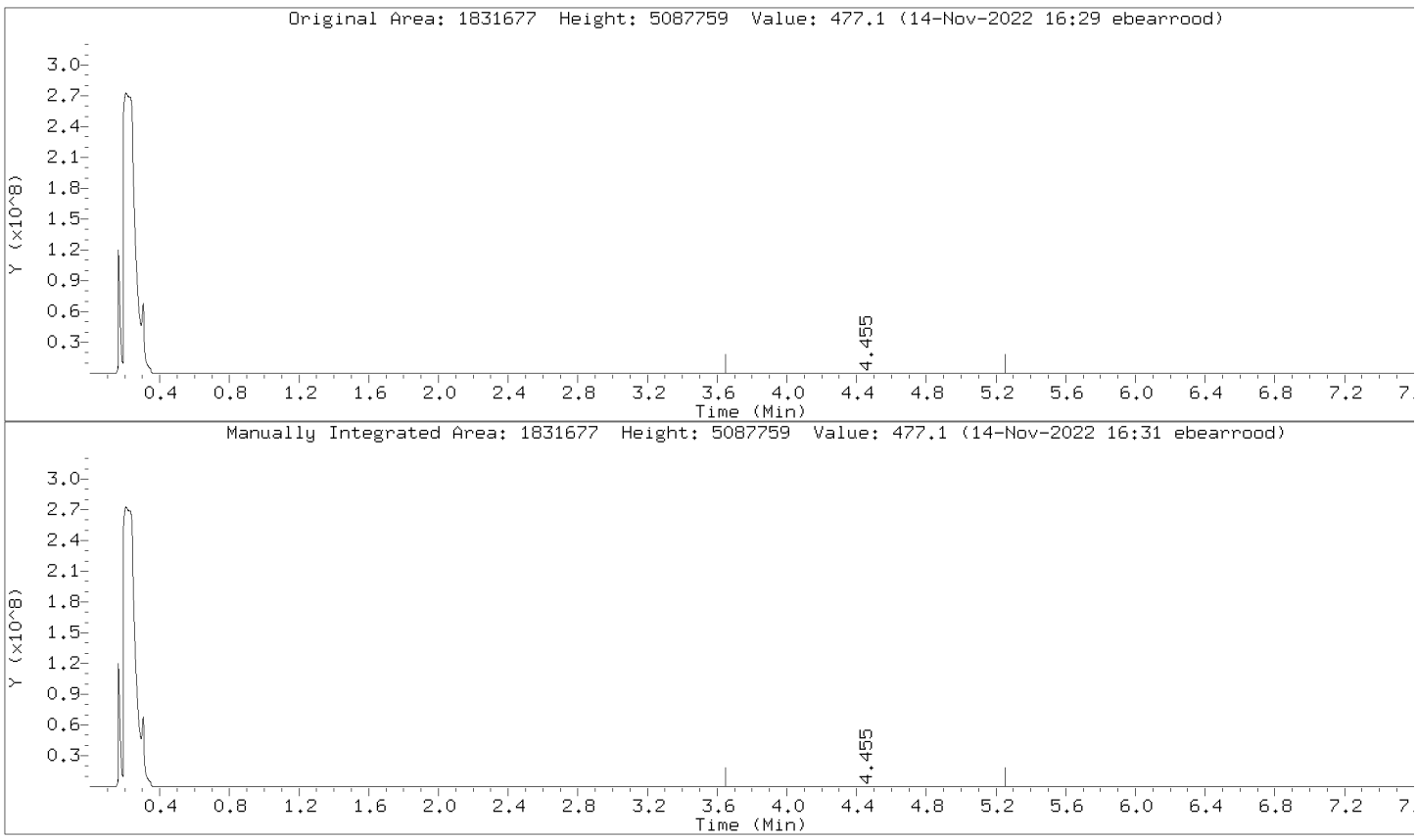
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



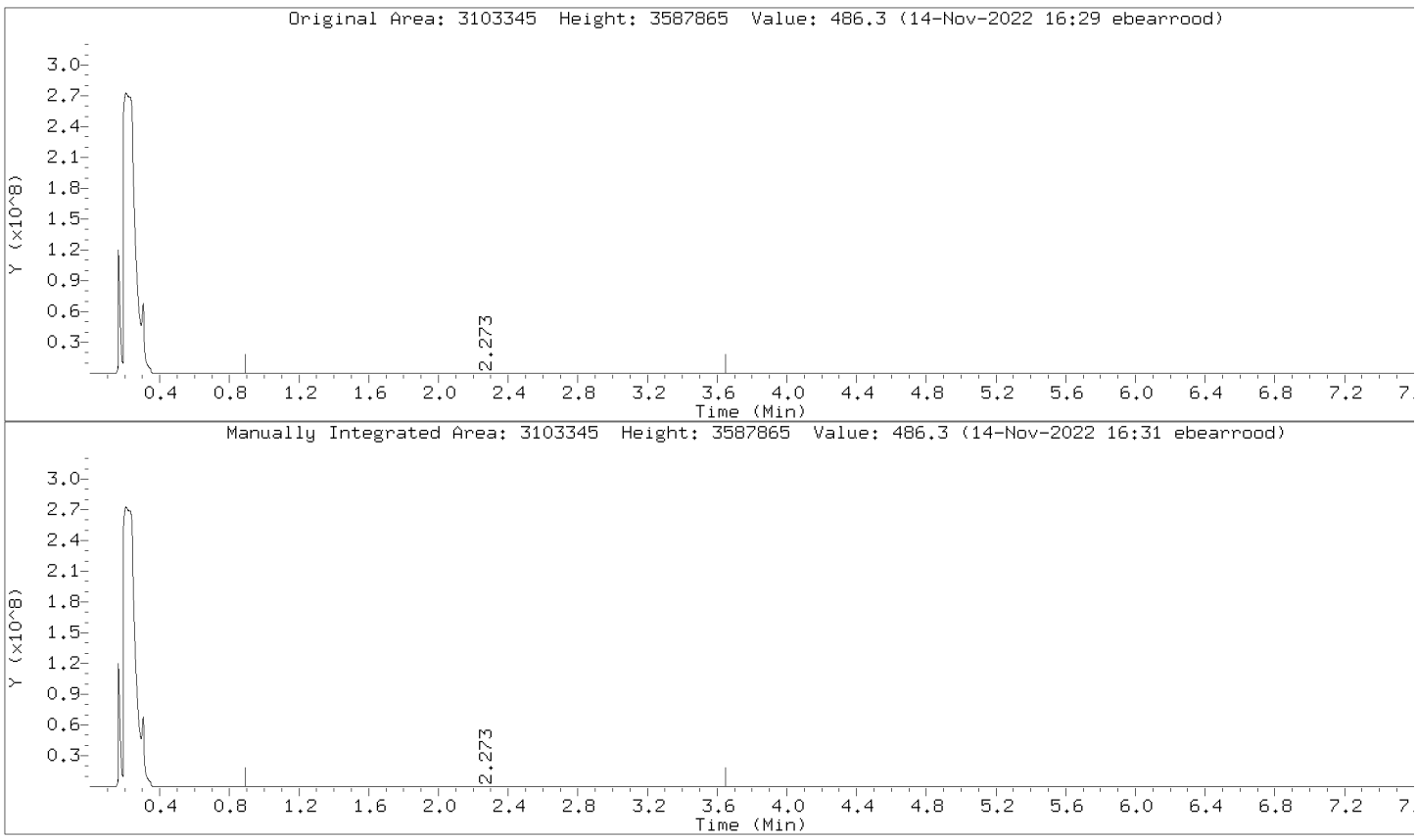
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



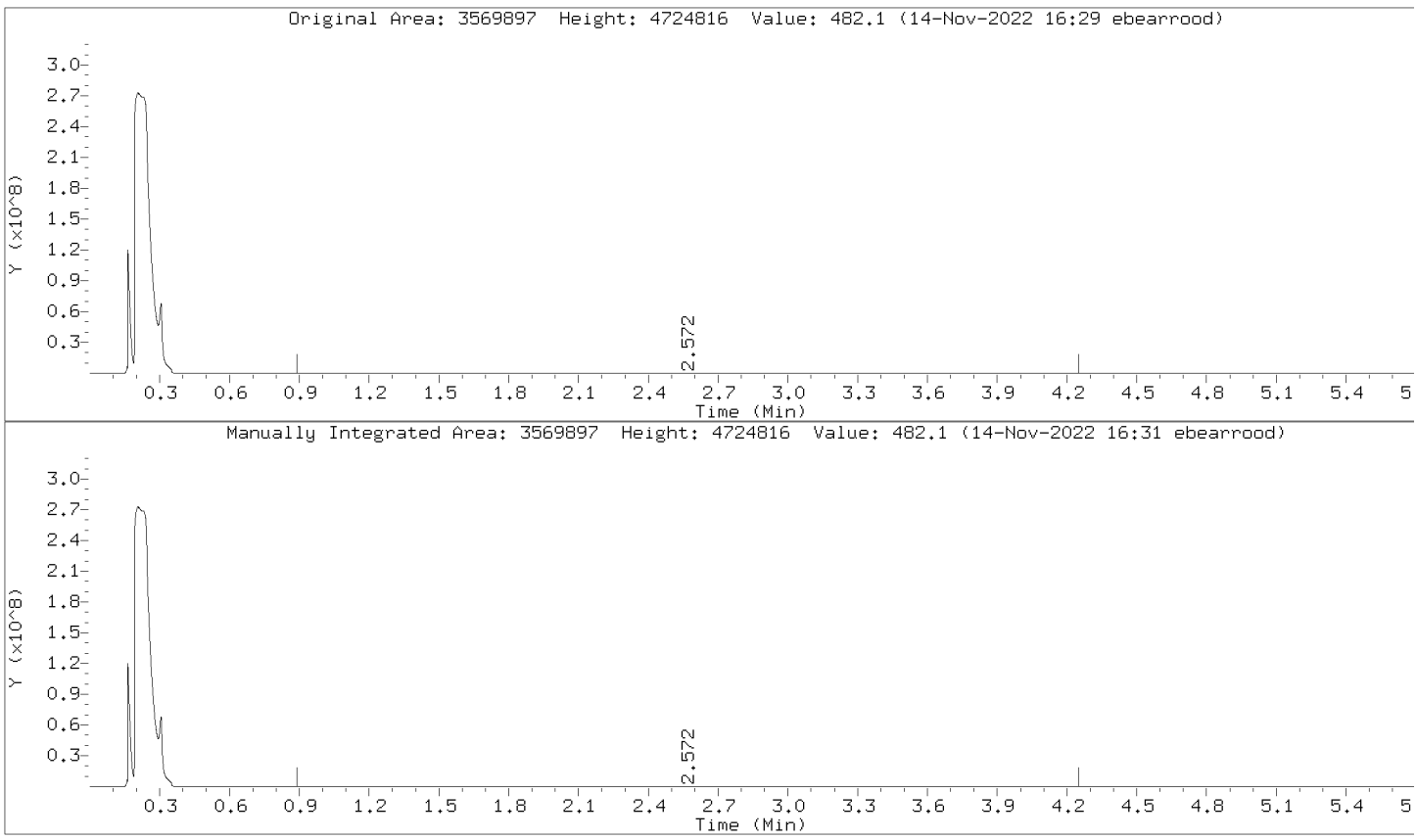
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



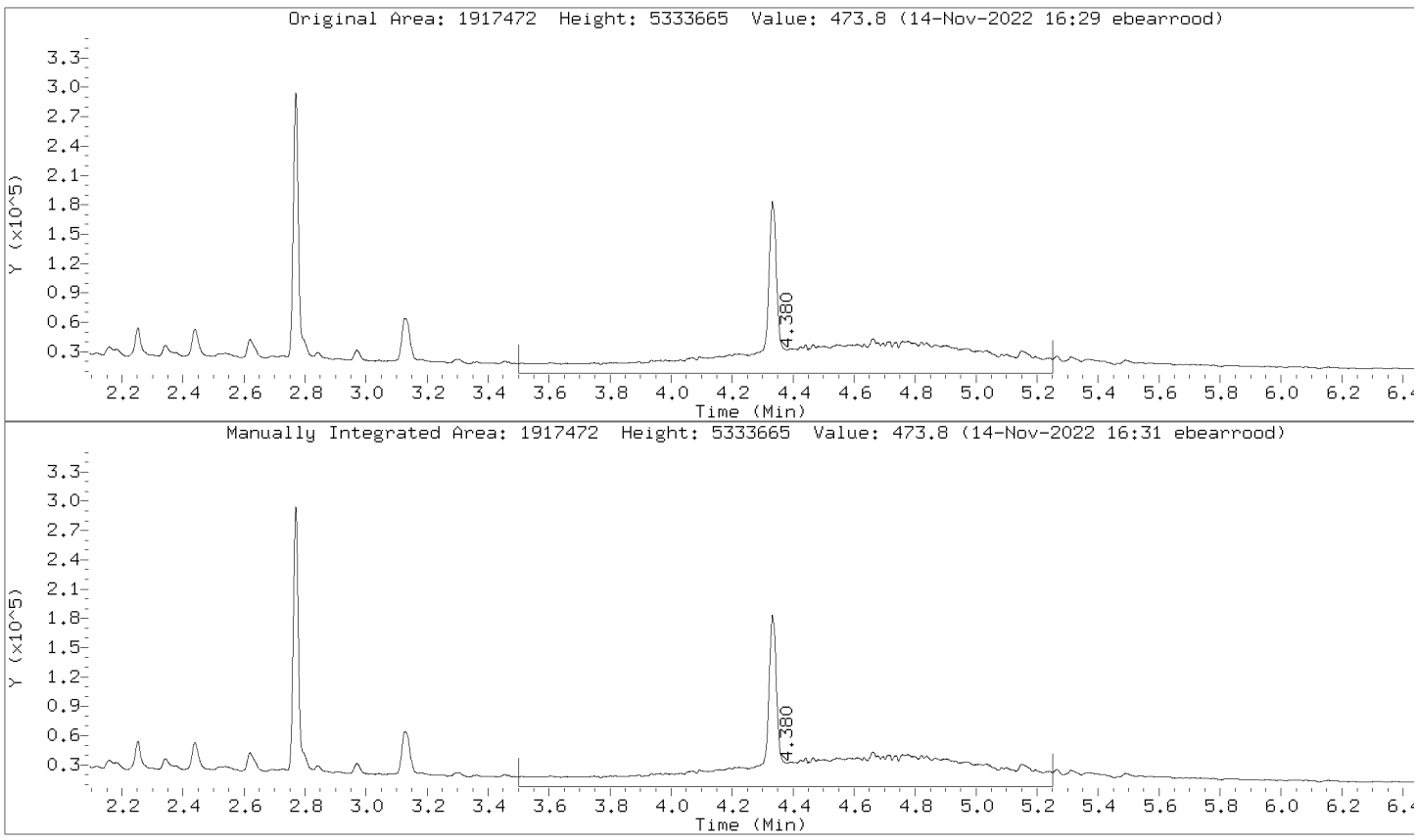
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



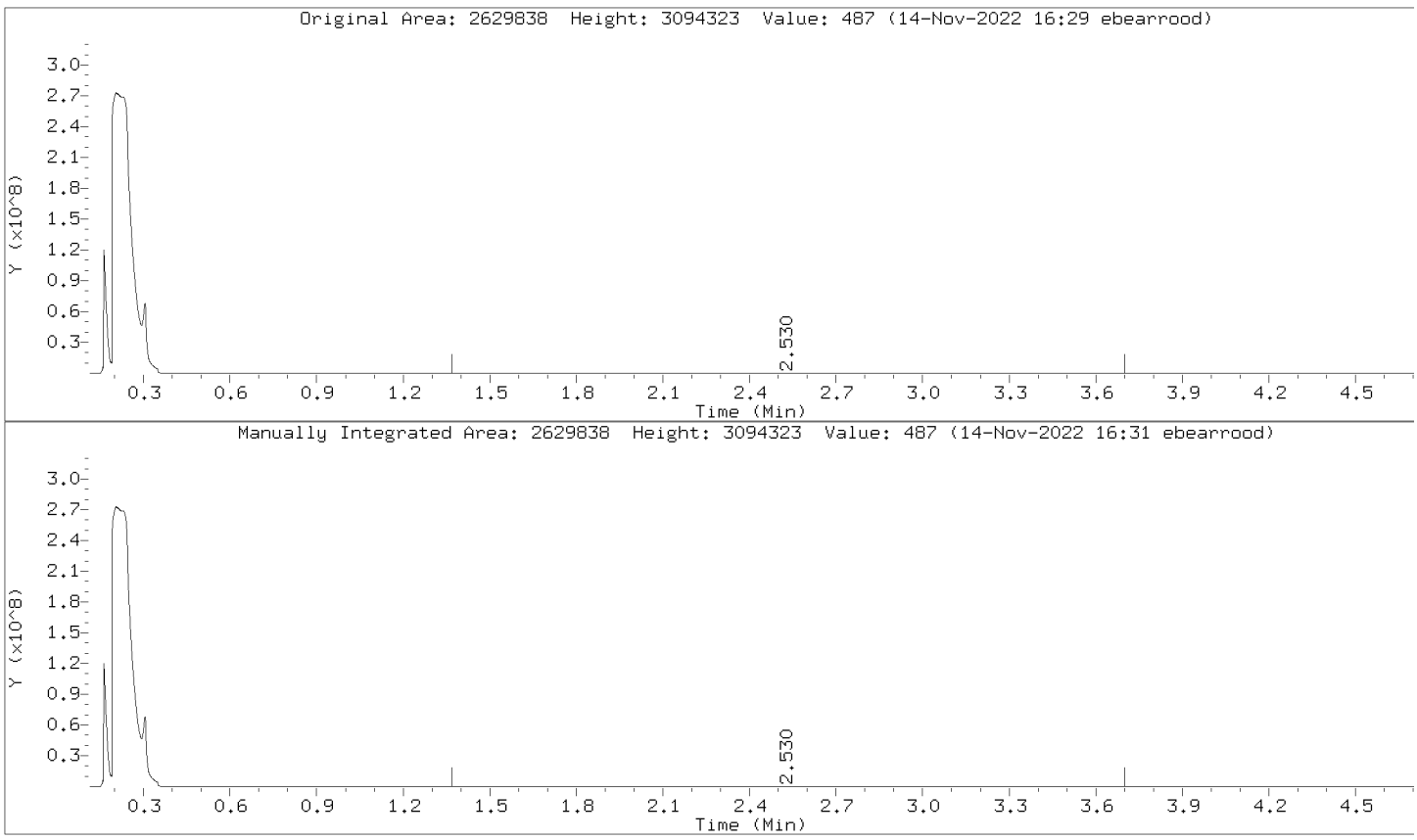
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



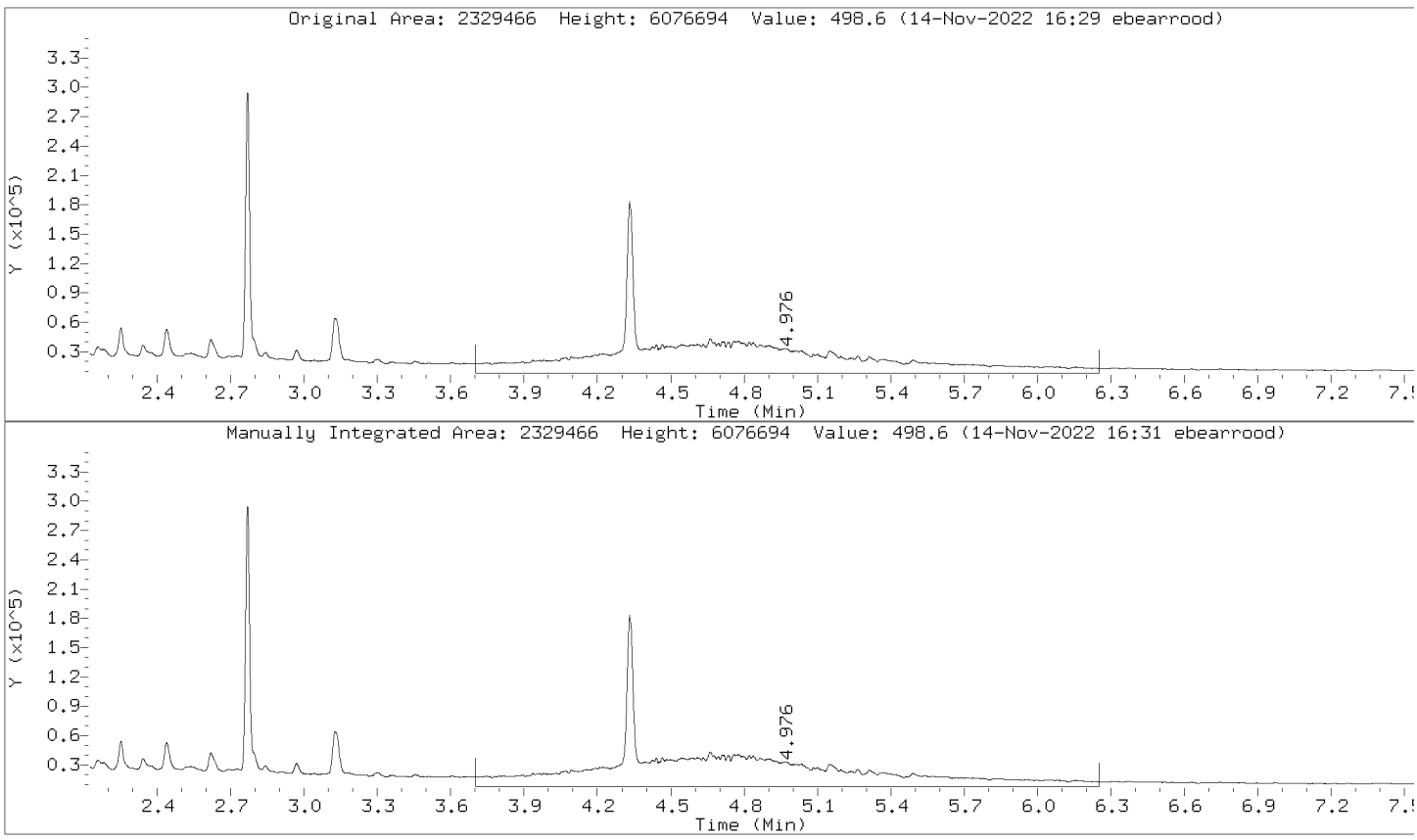
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



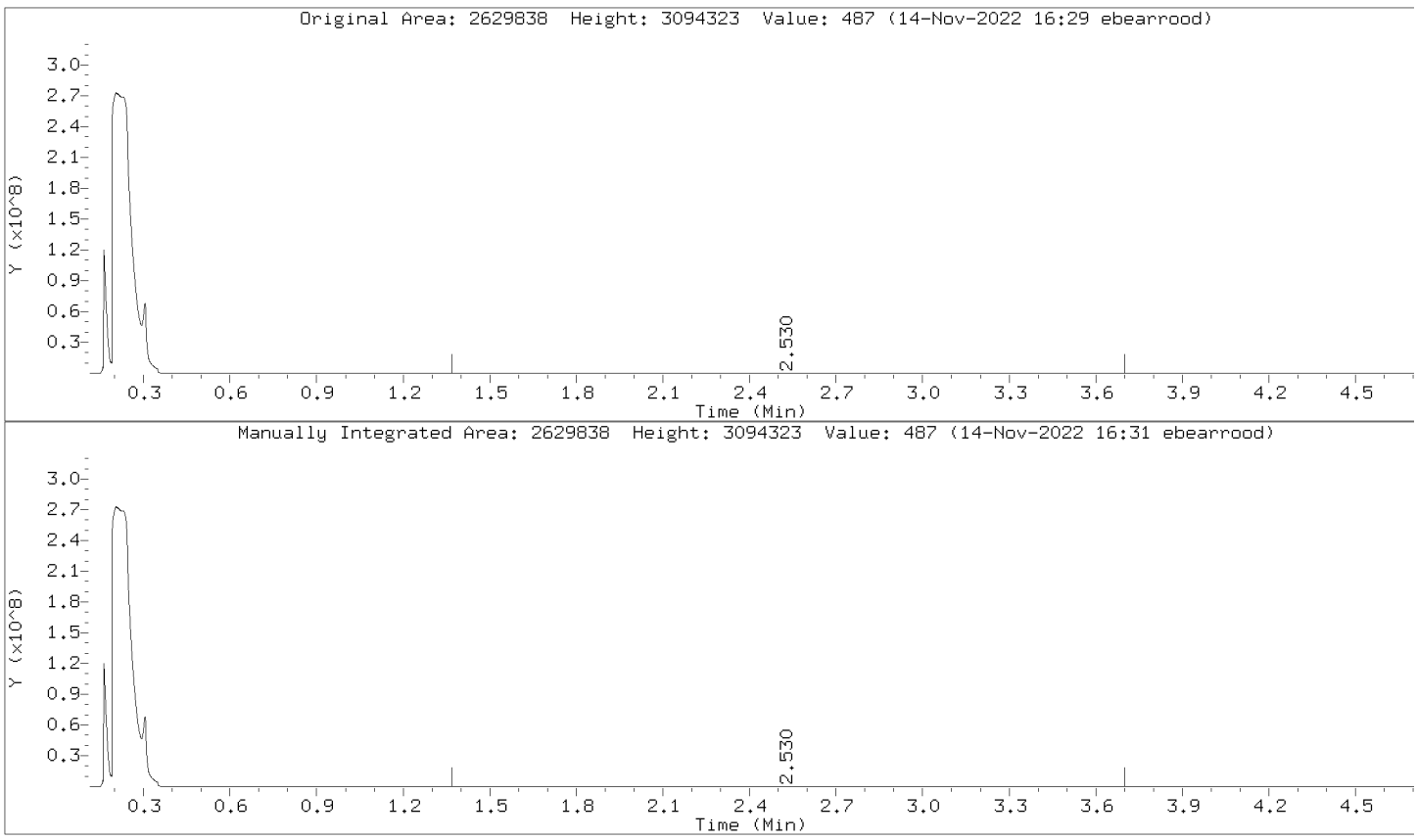
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



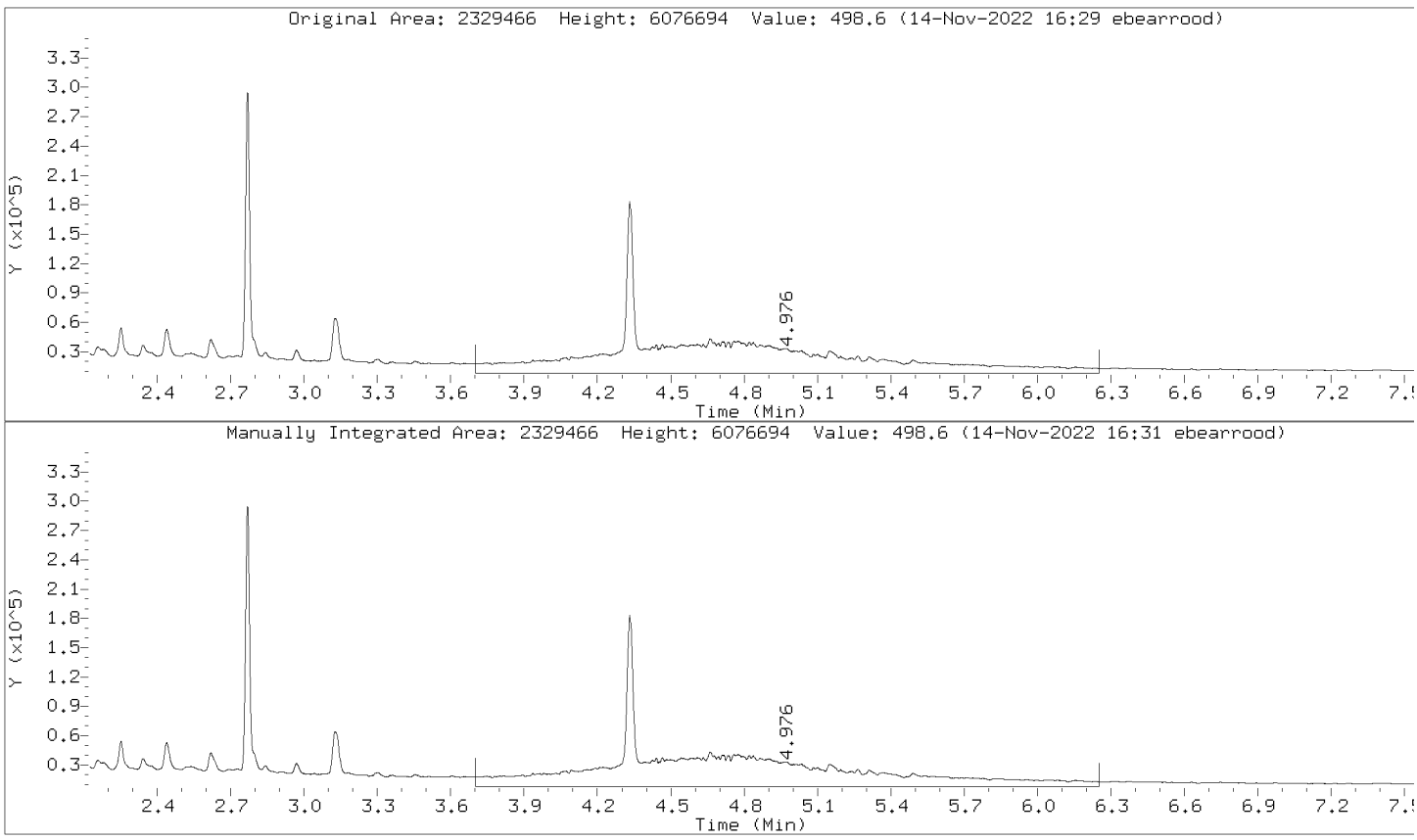
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



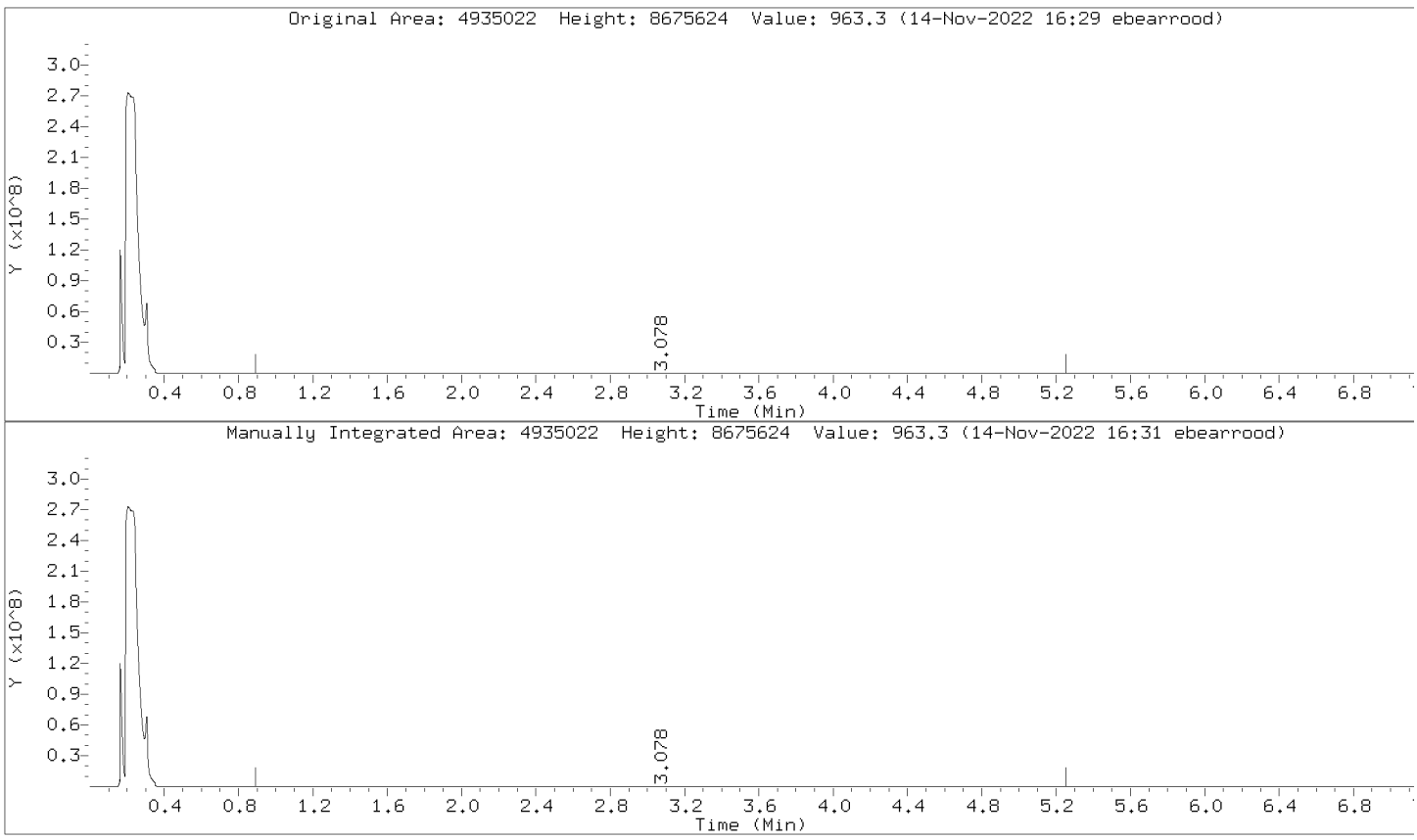
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



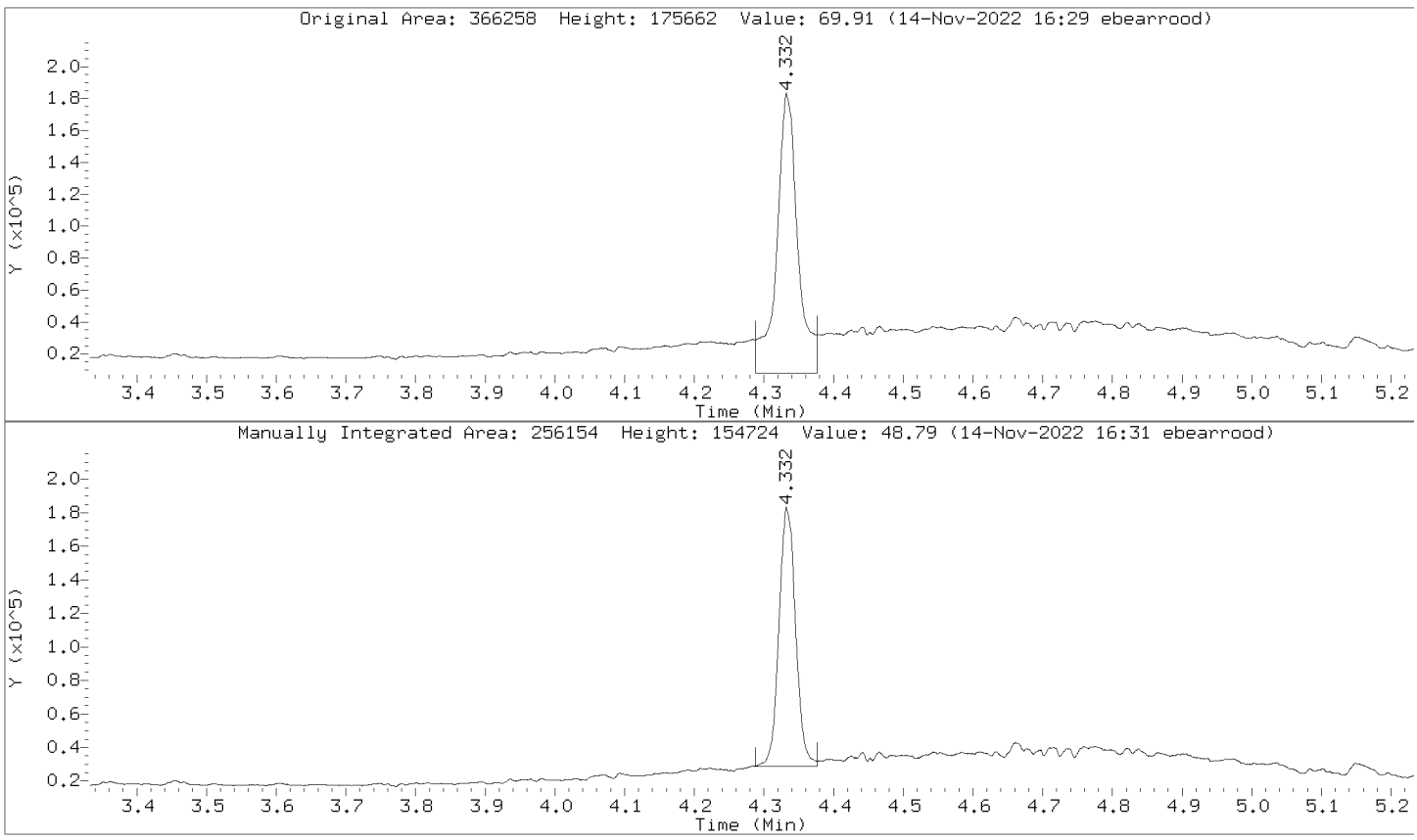
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



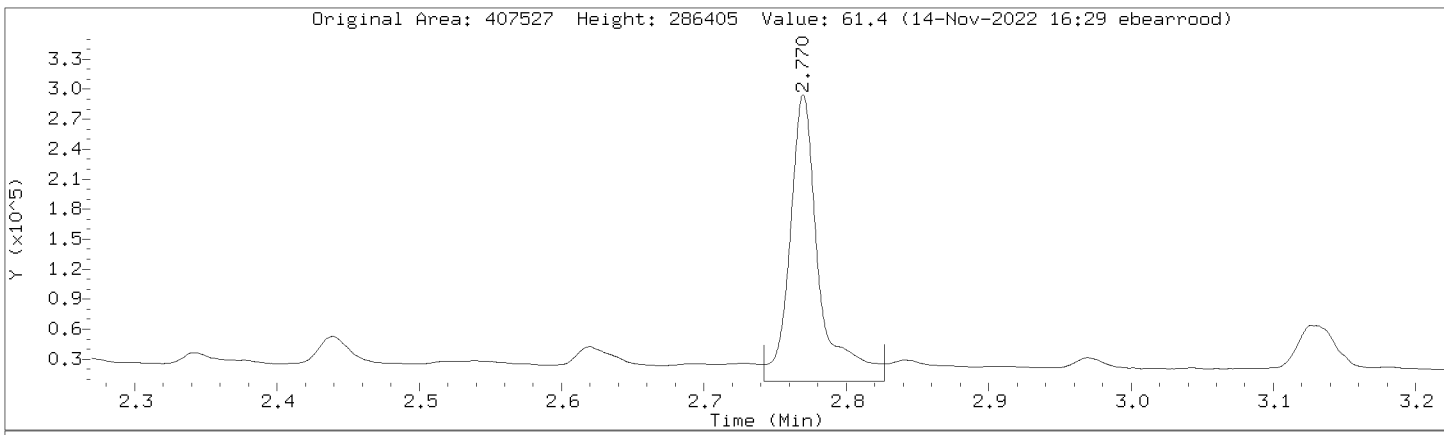
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

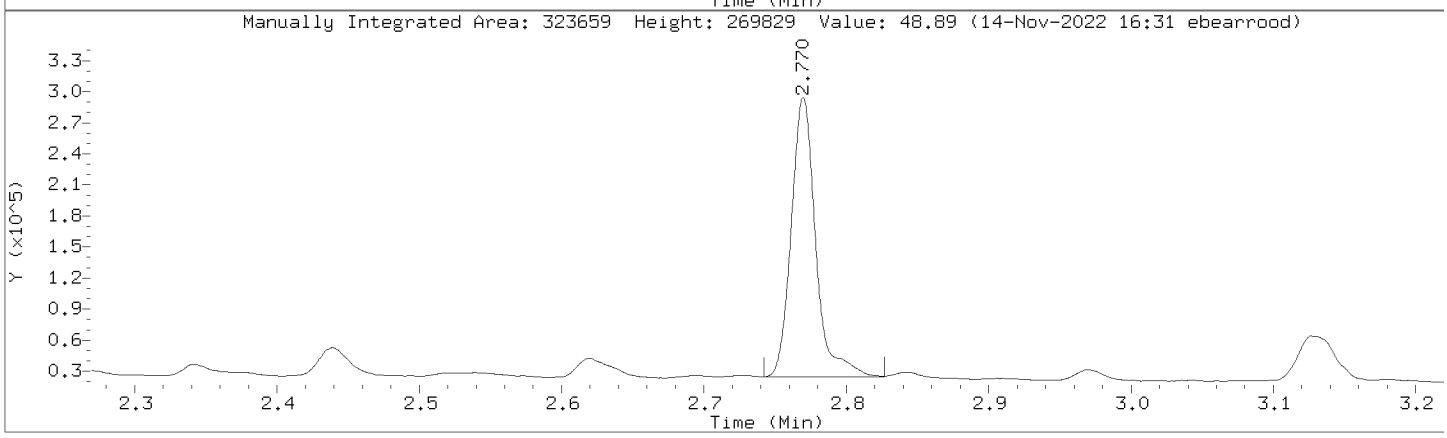
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000020C.D
Injection Date: 14-NOV-2022 15:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1831677	1831677
DRO by AK 102	3103345	3103345
TPH-DRO (C10-C28)	3569897	3569897
Motor Oil Range (C24-C36)	1917472	1917472
Diesel Fuel Range	2629838	2629838
Motor Oil Range	2329466	2329466
Diesel Fuel Range SG	2629838	2629838
Motor Oil Range SG	2329466	2329466
C10-C36	4935022	4935022
n-Triacontane (S)	366258	256154
o-Terphenyl (S)	407527	323659

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000024C.D
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 14-NOV-2022 16:03
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111422R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 16:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.895	- 3.650		3106212	500.000	487	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.770	2.770	0.000	322815	50.0000	48.8	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.333	4.333	0.000	250311	50.0000	47.7	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.651	- 5.260		1848892	500.000	482	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.895	- 4.250		3569740	500.000	482	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.500	- 5.260		1935583	500.000	478	(M)	RNG
S 7 C10-C36					CAS #:		
0.895	- 5.260		4955104	1000.00	968	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.360	- 3.700		2635585	500.000	488	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.360	- 3.700		2635585	500.000	488	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.701	- 6.250		2327620	500.000	498	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.701	- 6.250		2327620	500.000	498	(M)	RNG

QC Flag Legend

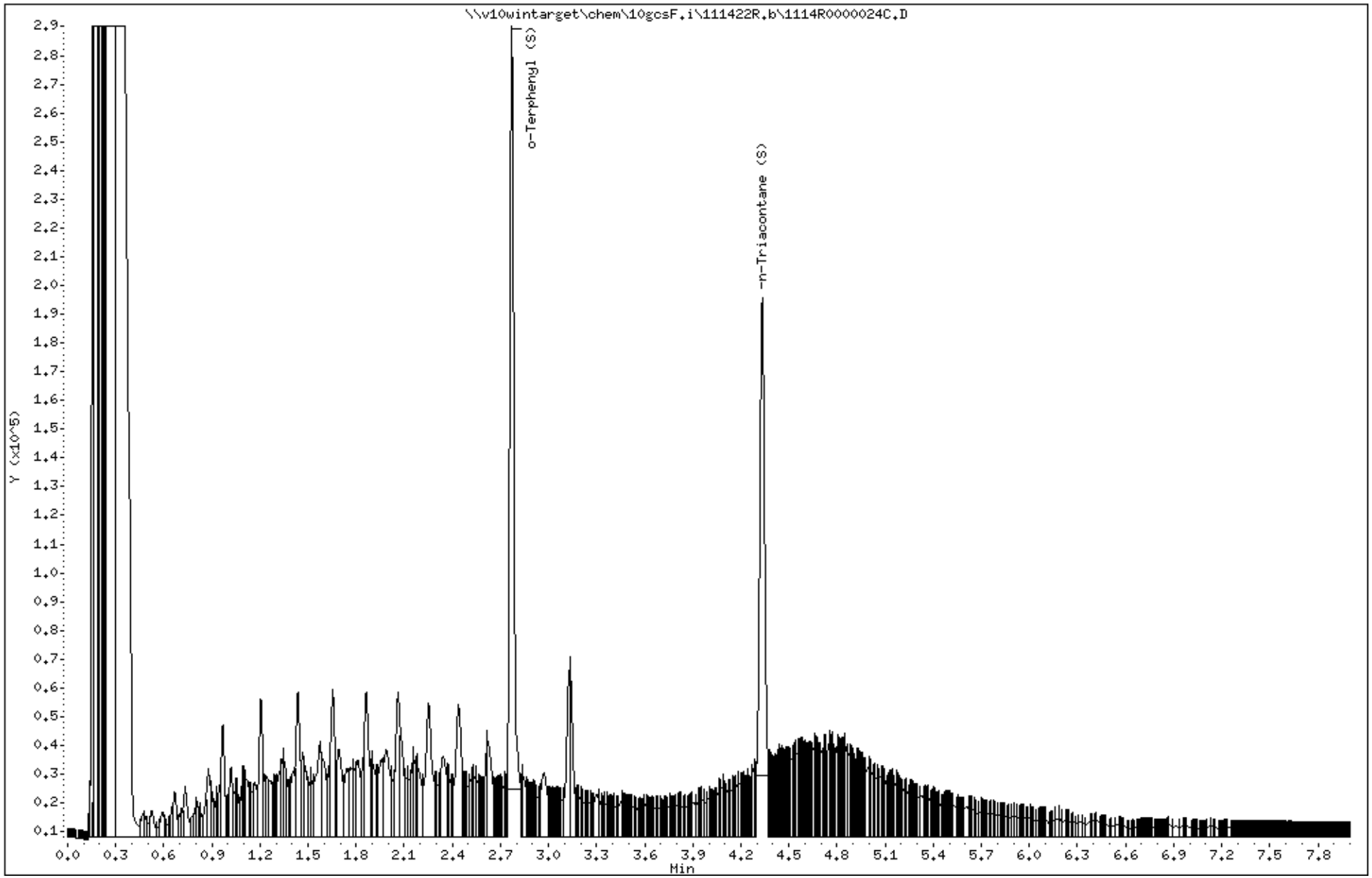
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

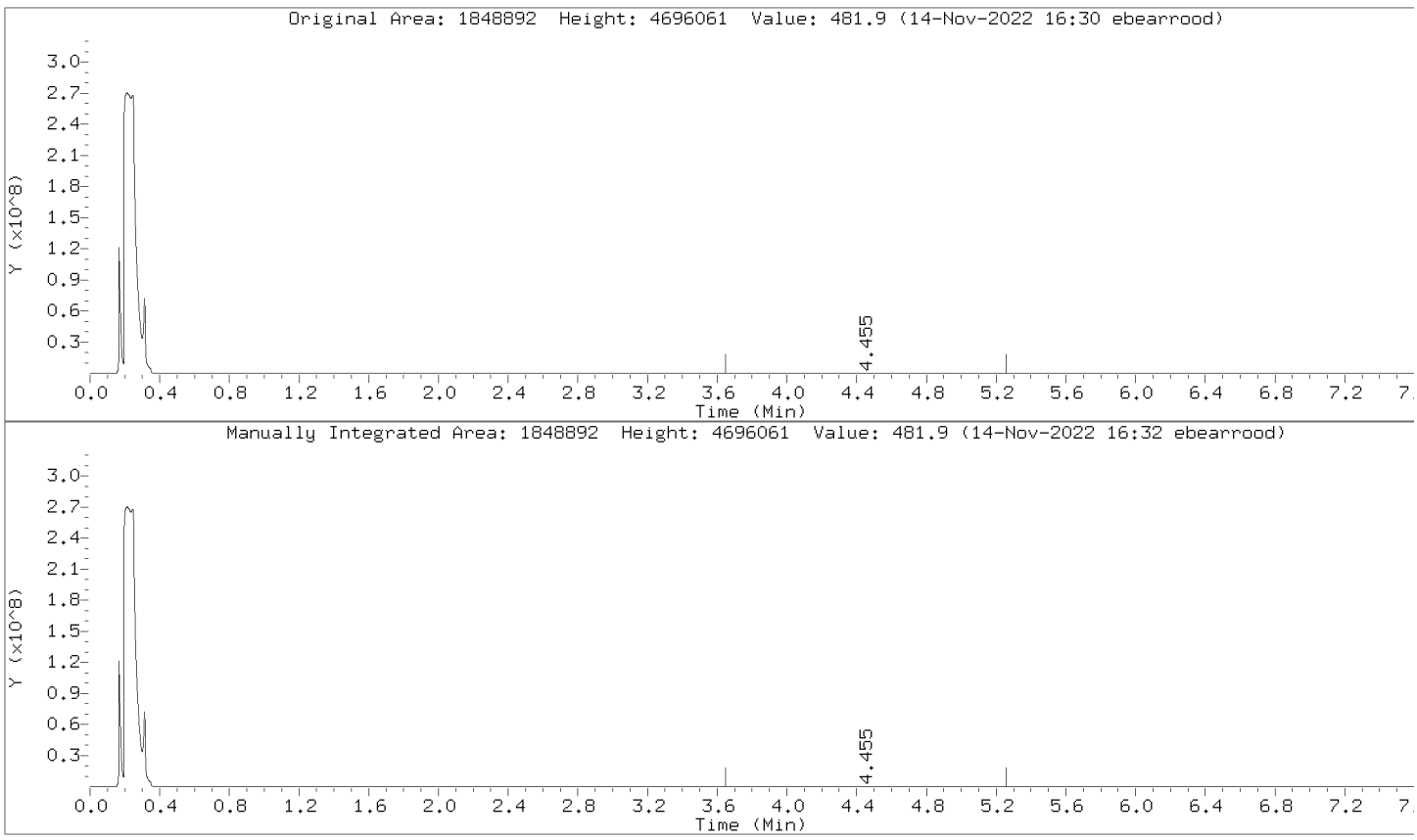
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b\1114R0000024C.D
Date : 14-NOV-2022 16:03
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



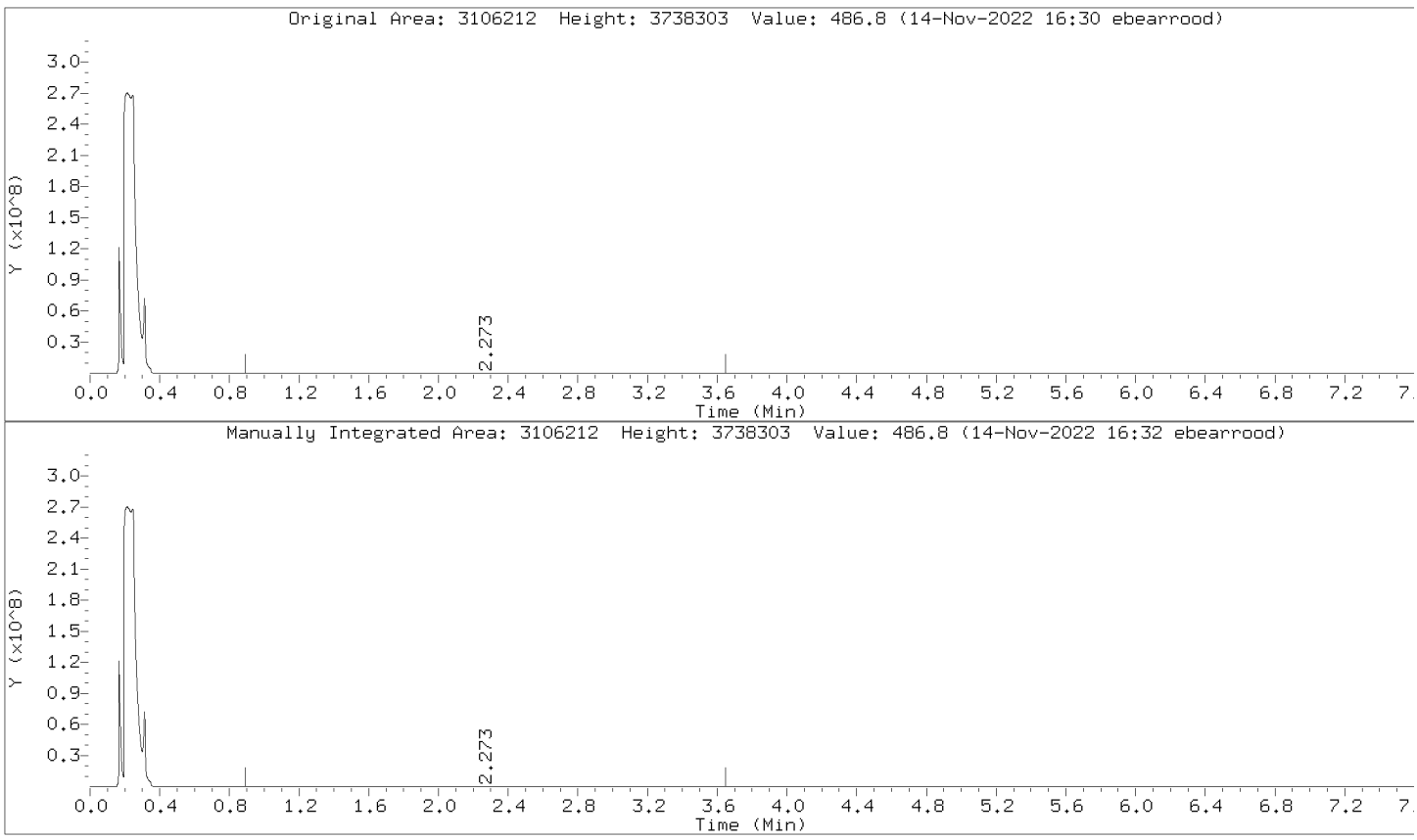
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



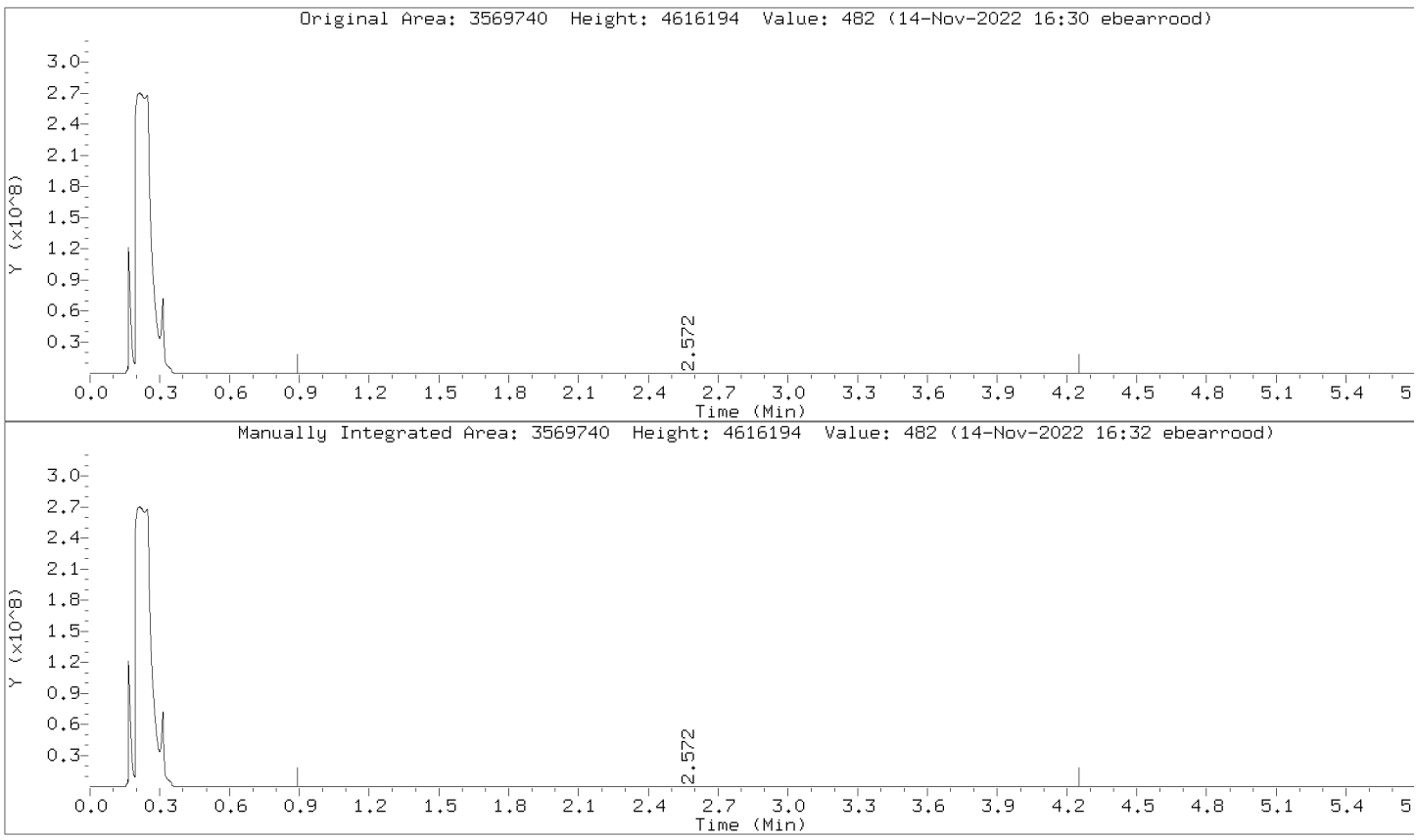
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



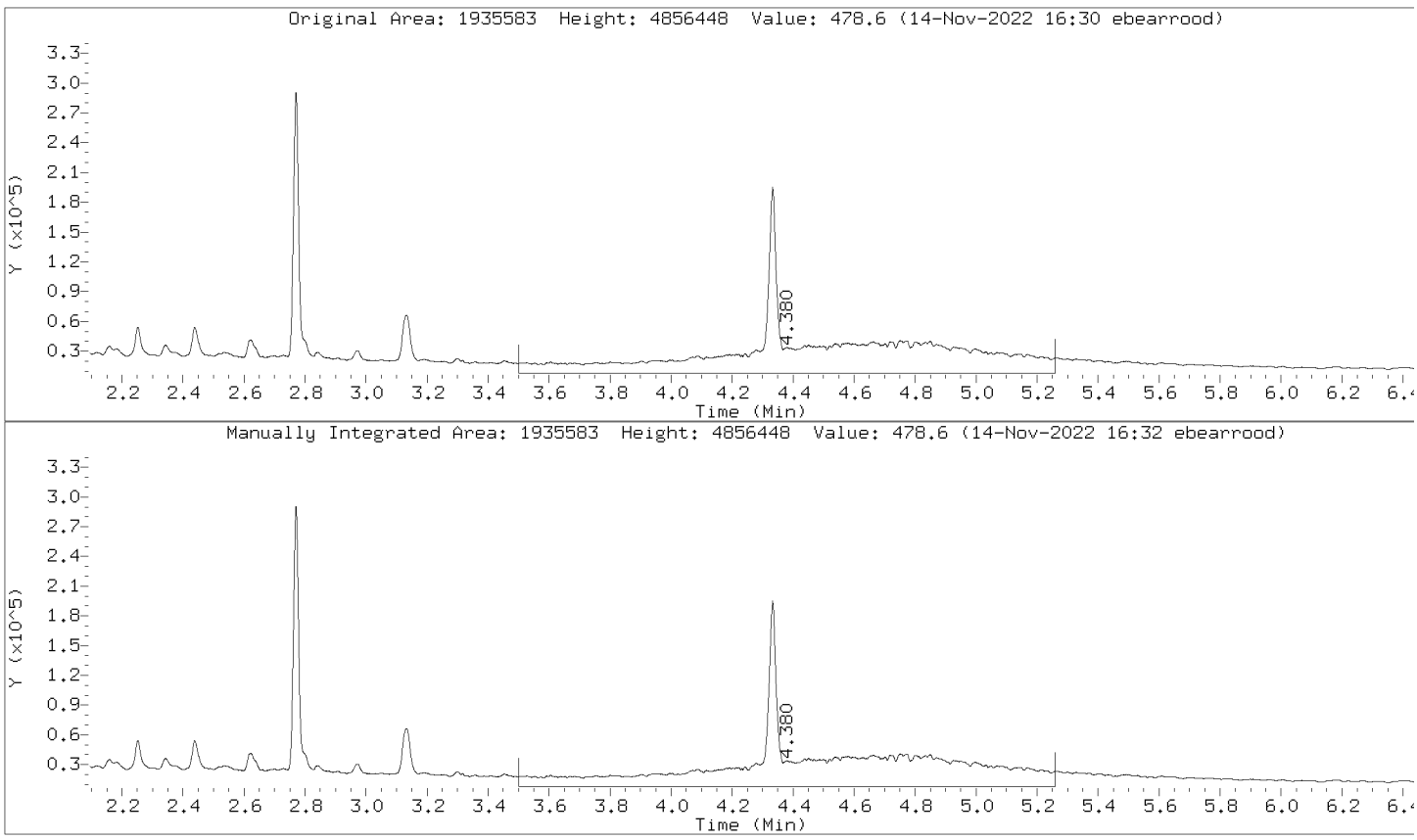
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



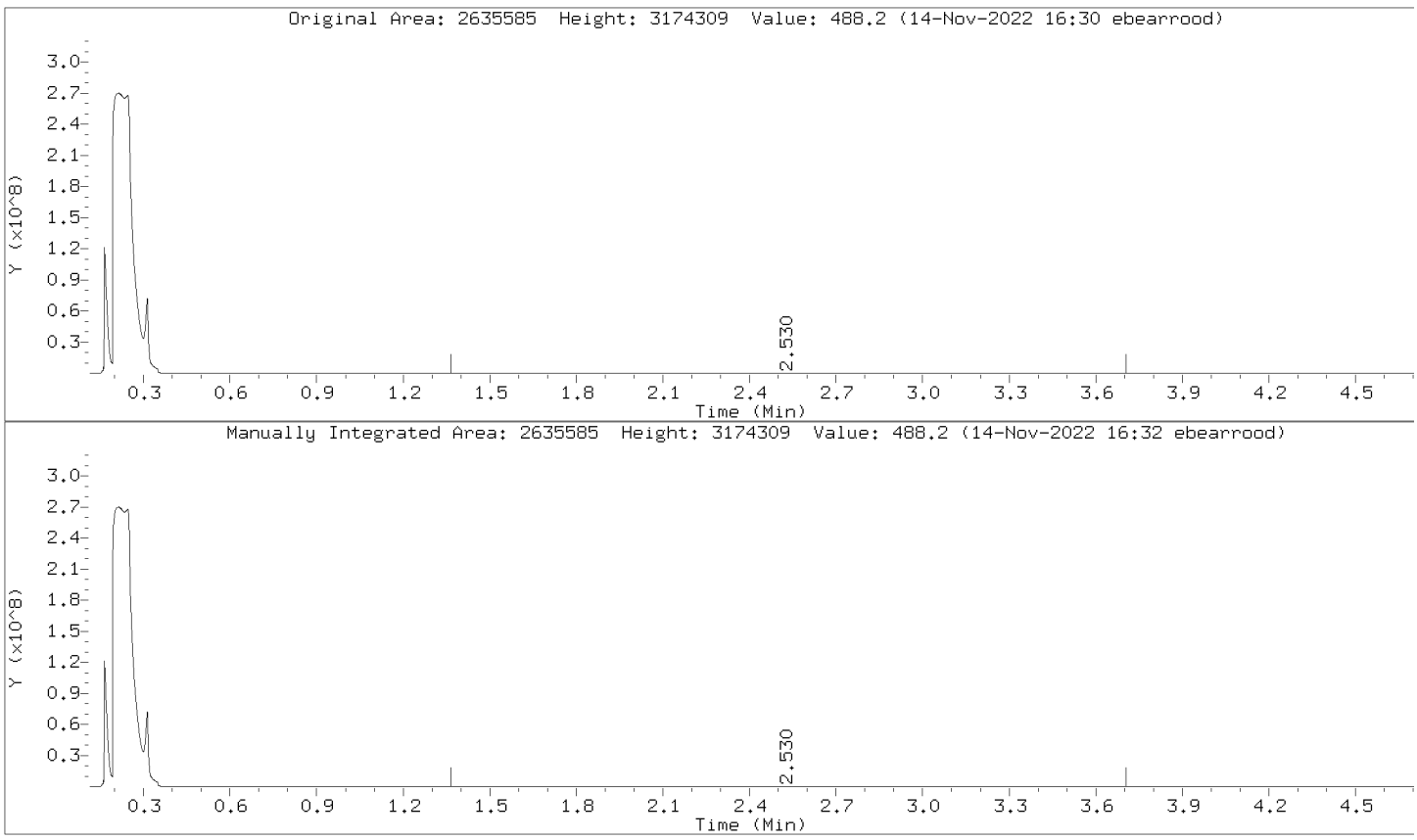
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



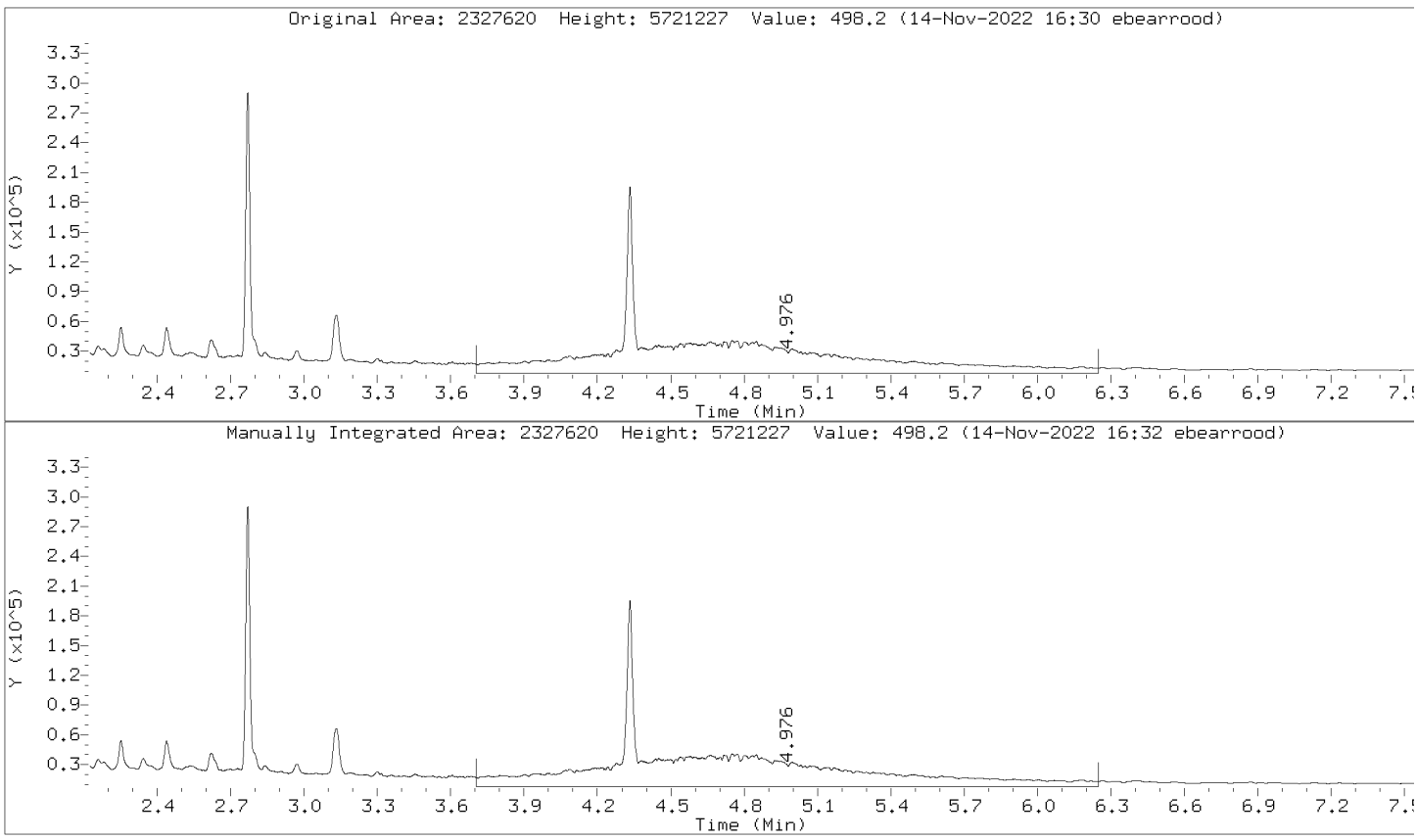
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



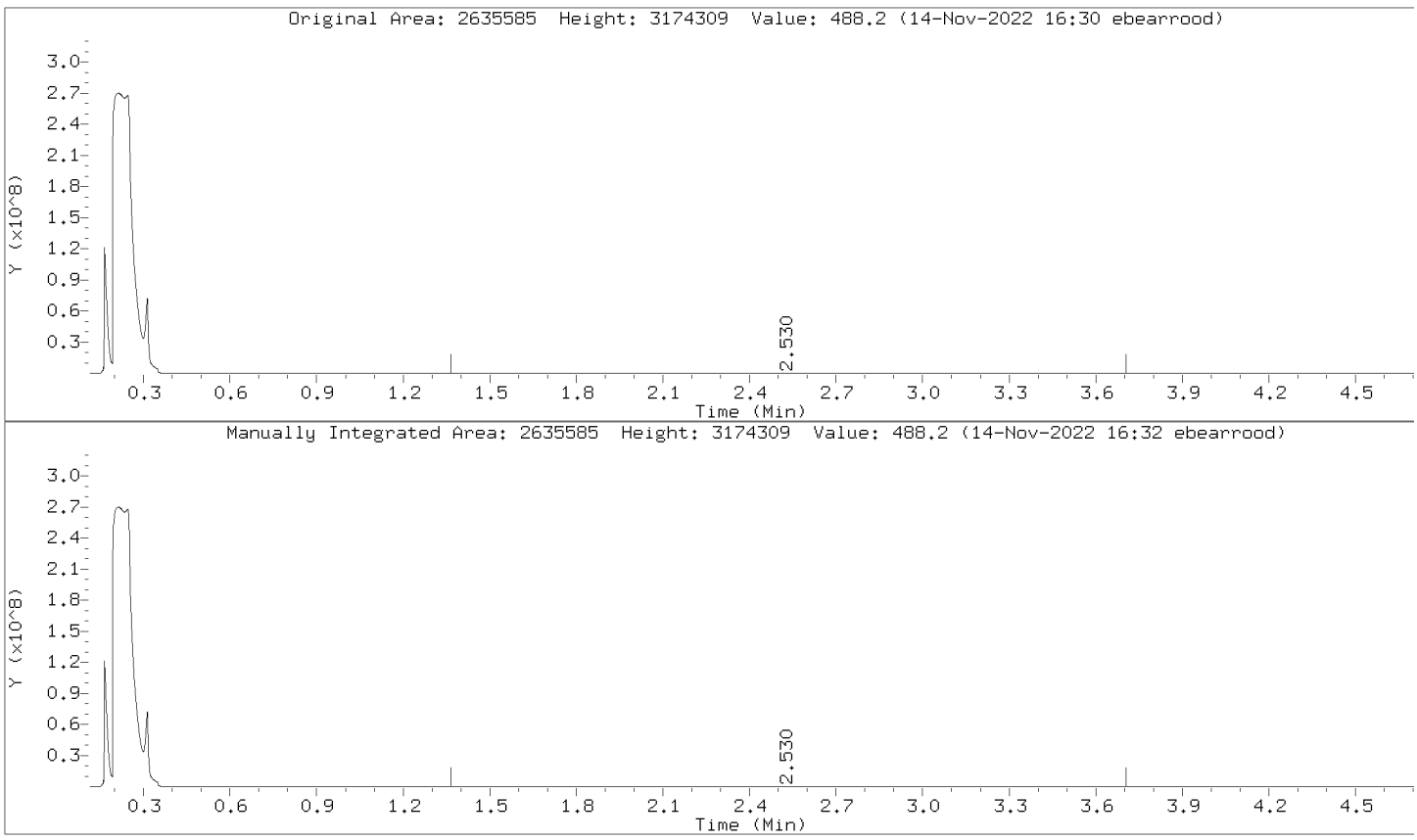
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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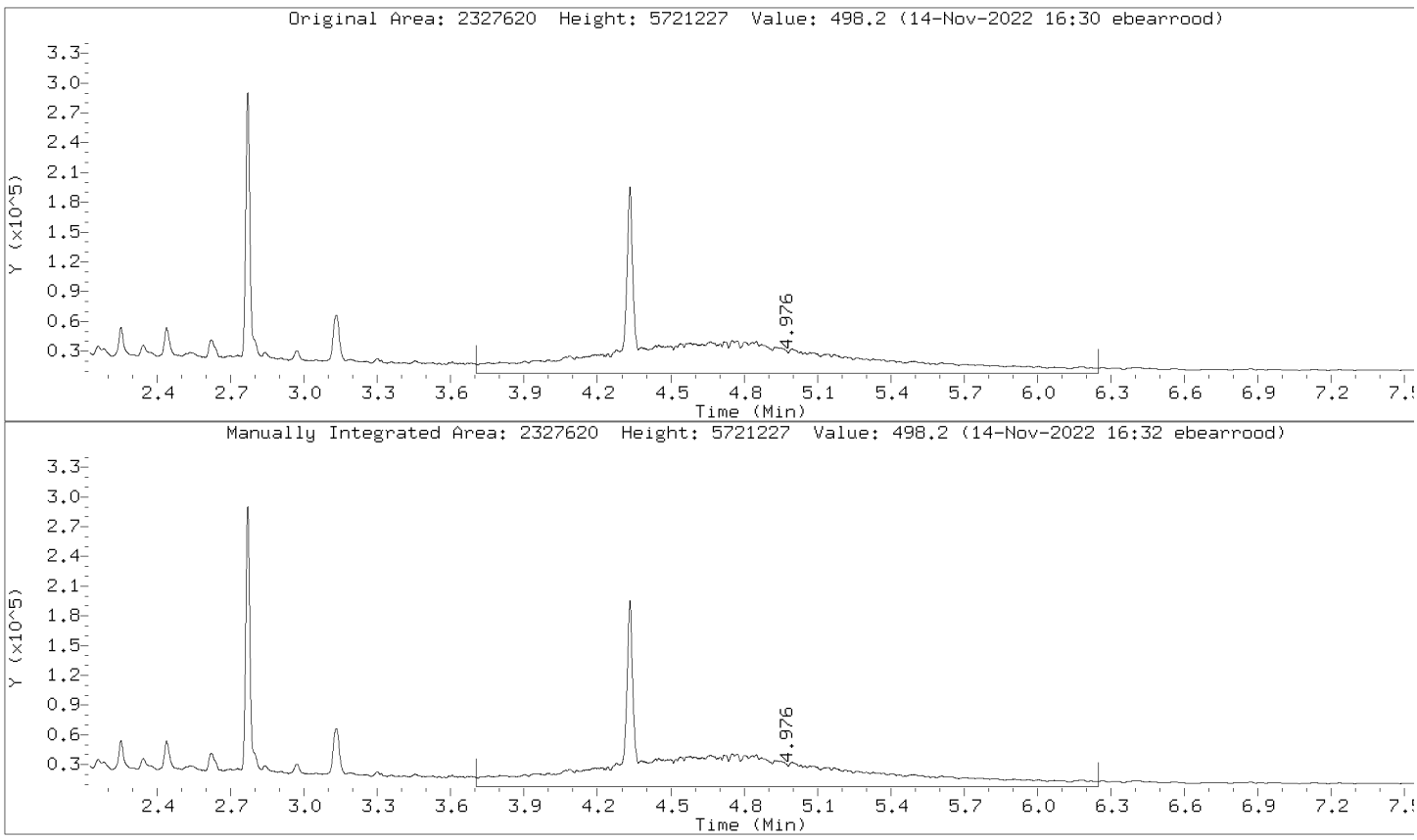
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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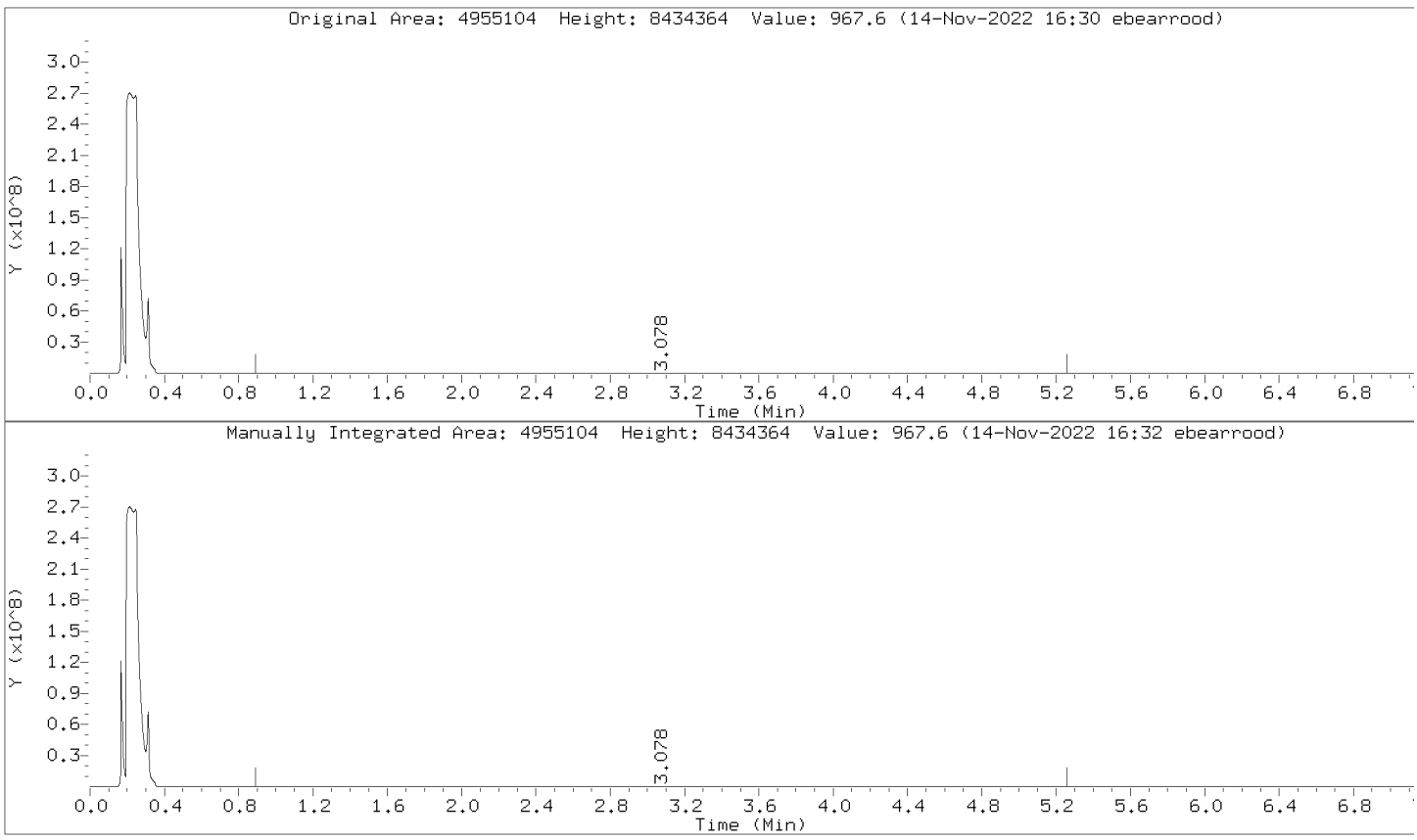
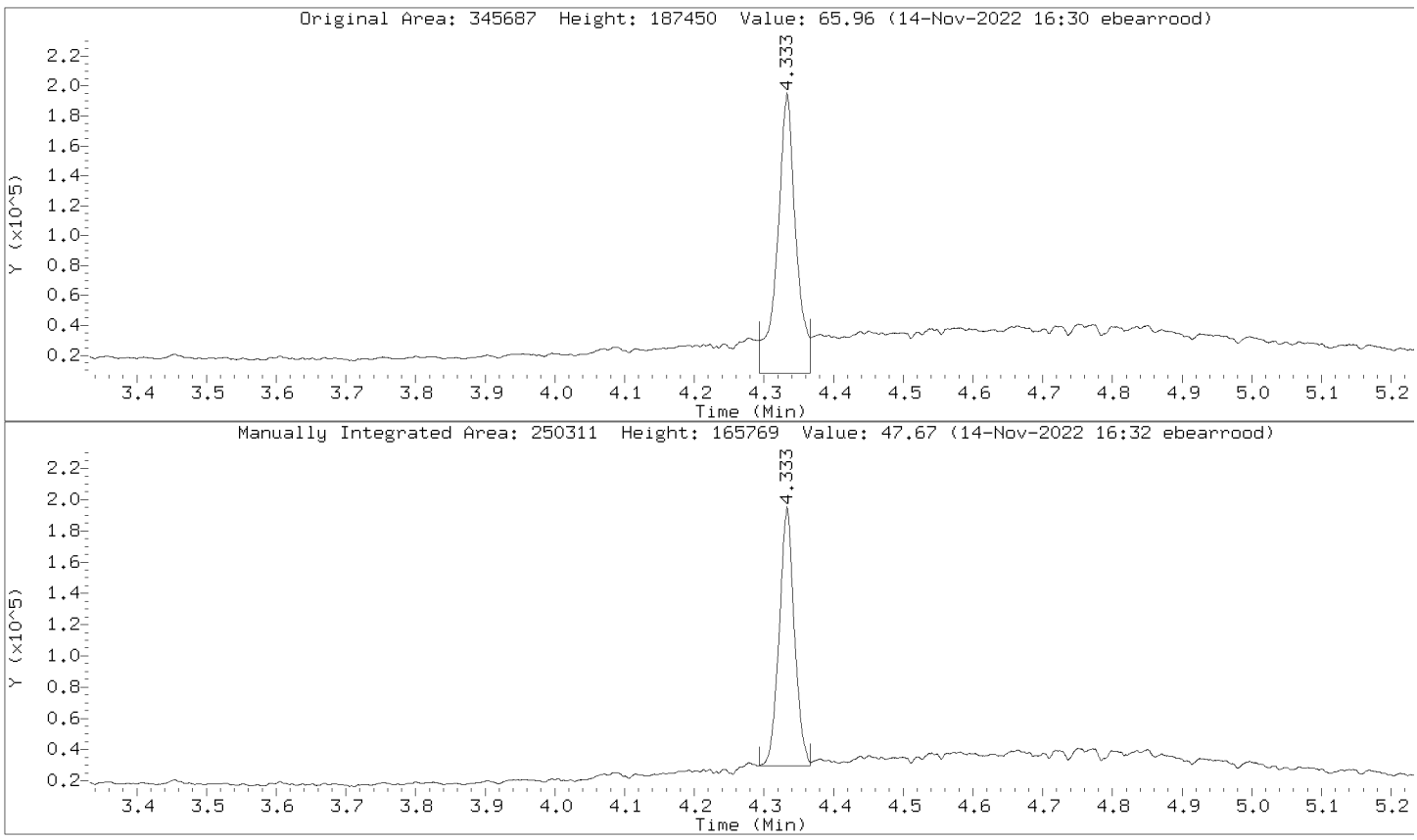
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



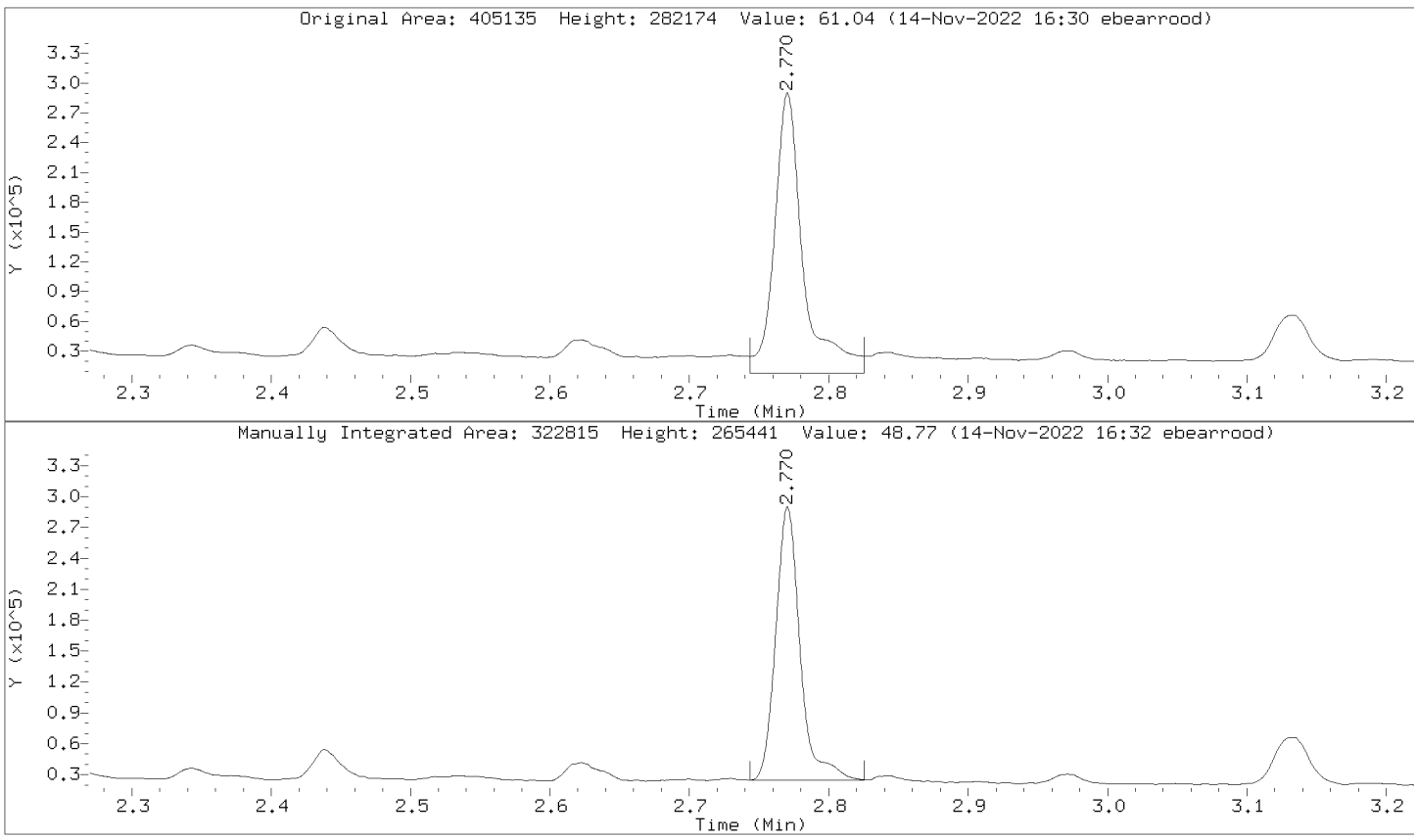
Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111422R.b/1114R0000024C.D
Injection Date: 14-NOV-2022 16:03
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1848892	1848892
DRO by AK 102	3106212	3106212
TPH-DRO (C10-C28)	3569740	3569740
Motor Oil Range (C24-C36)	1935583	1935583
Diesel Fuel Range	2635585	2635585
Motor Oil Range	2327620	2327620
Diesel Fuel Range SG	2635585	2635585
Motor Oil Range SG	2327620	2327620
C10-C36	4955104	4955104
n-Triacontane (S)	345687	250311
o-Terphenyl (S)	405135	322815

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10632887
Date Extracted: 11/09/2022 07:04
Lab Sample ID: 4506602
Date Analyzed: 11/11/2022 15:31
Lab File ID: 111122R.B\1111R0000026.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000026.d
Lab Smp Id: 4506602 Client Smp ID: MB
Inj Date : 11-NOV-2022 15:31
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506602
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 20 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		455118	18.3657	1.84	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	290901	44.0082	4.40	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.274	-0.001	251567	47.9151	4.79	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		251114	37.7877	3.78	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		563516	24.8634	2.49	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		277918	38.9638	3.90	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.880	- 5.200		710879	52.9104	5.29	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		400583	19.2785	1.93	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		400583	19.2785	1.93	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		333671	43.8557	4.38	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		333671	43.8557	4.38	(M)	RNG

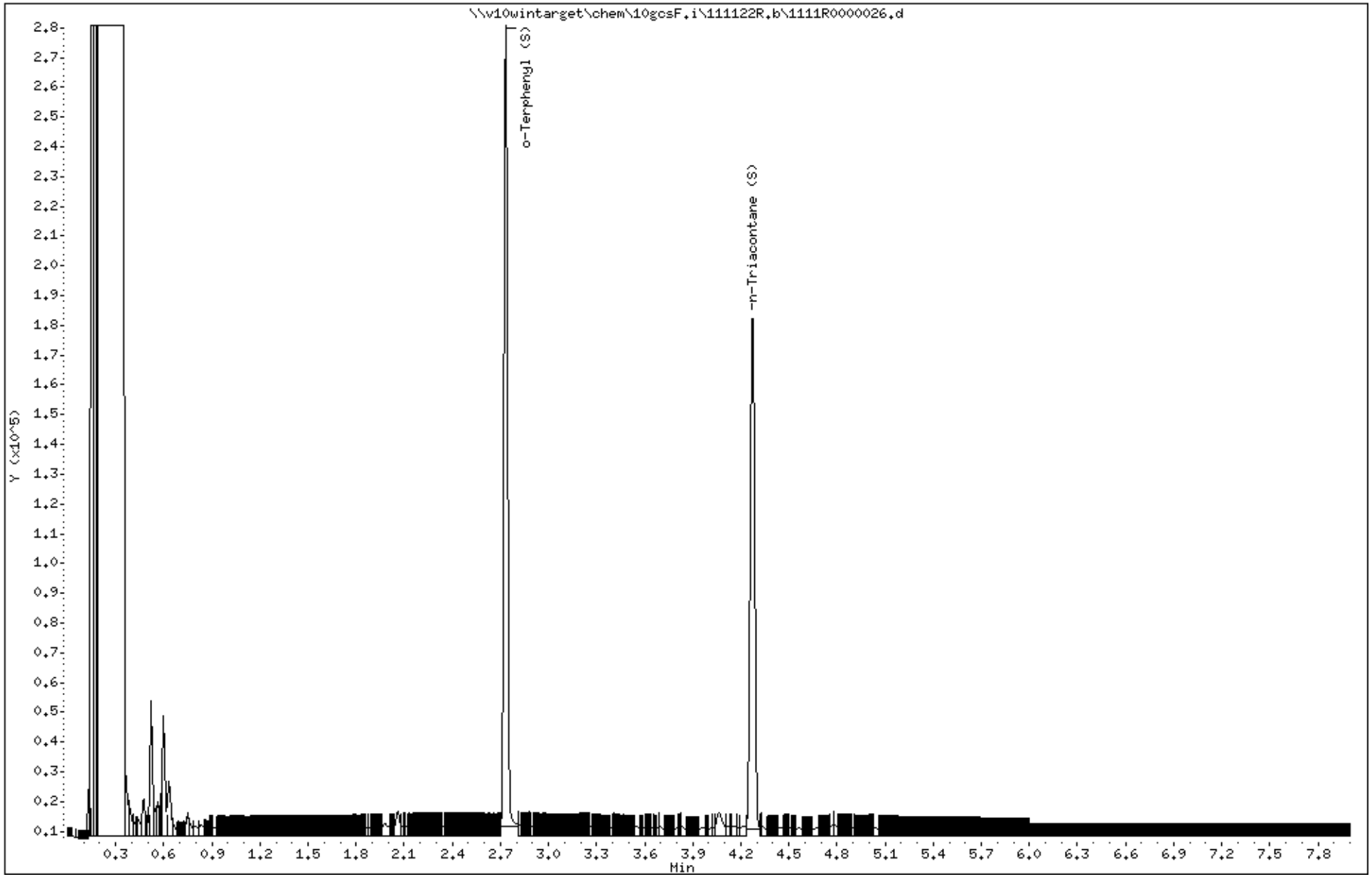
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

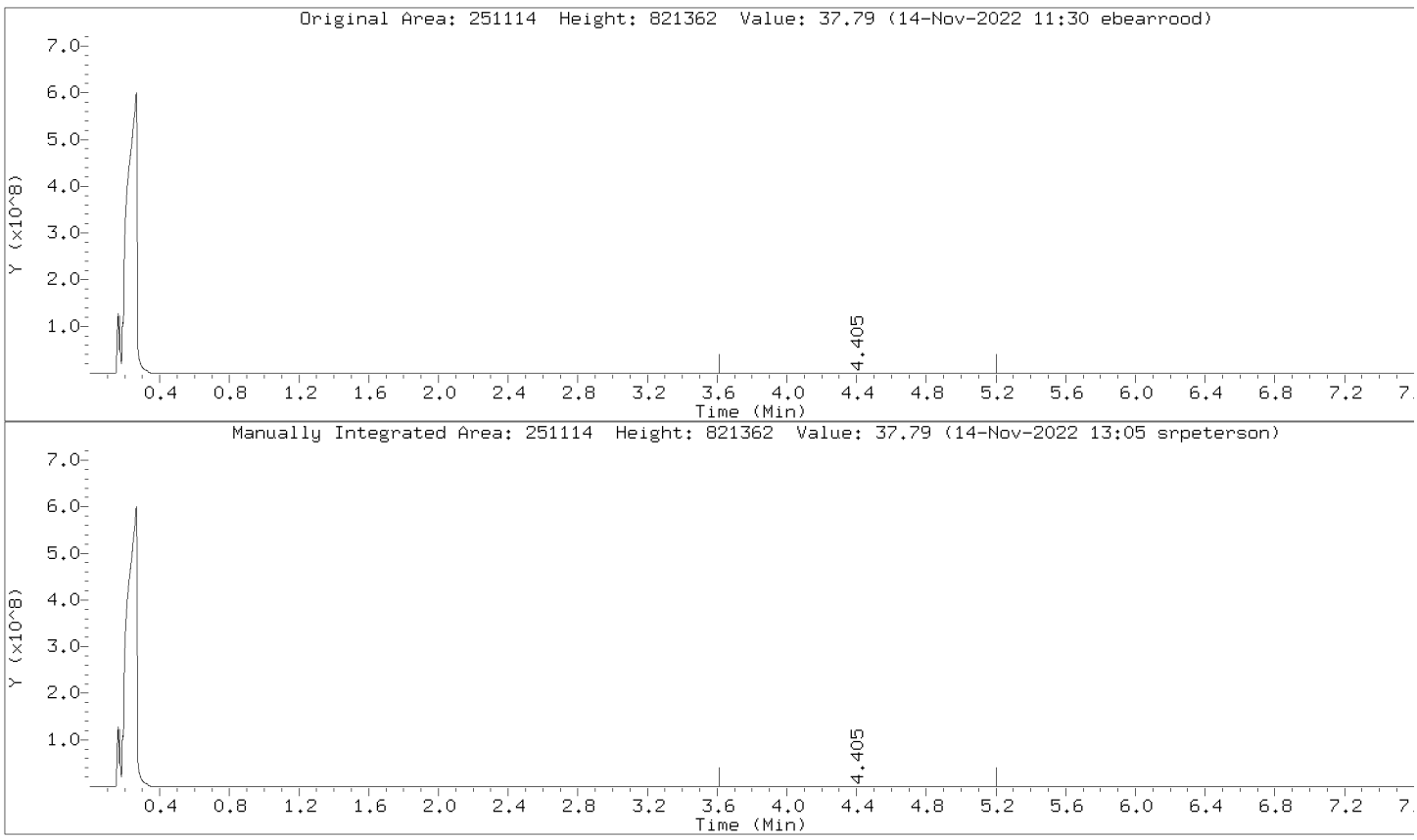
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000026.d
Date : 11-NOV-2022 15:31
Client ID: MB
Instrument: 10gcsF.i
Sample Info: 4506602
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



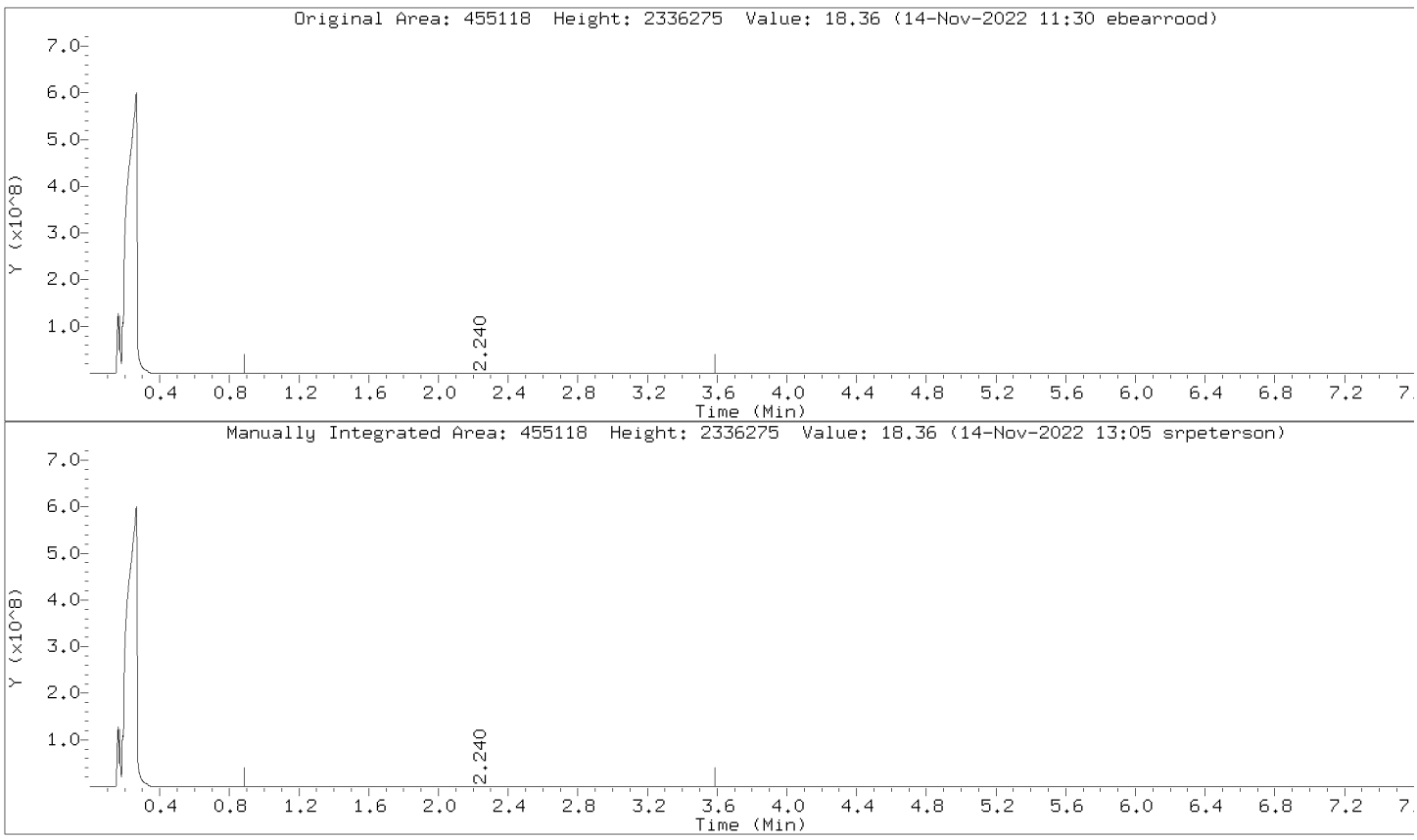
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



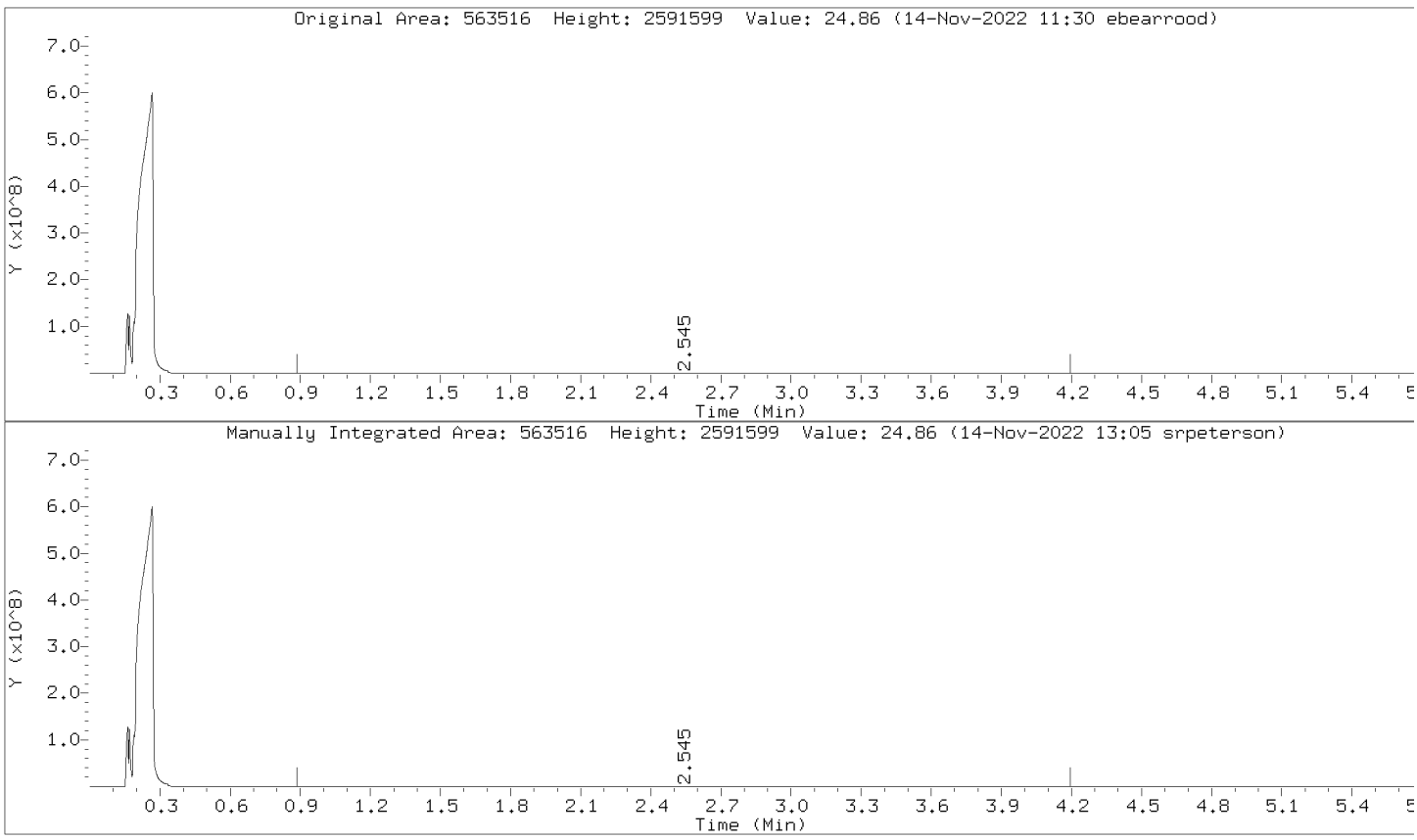
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



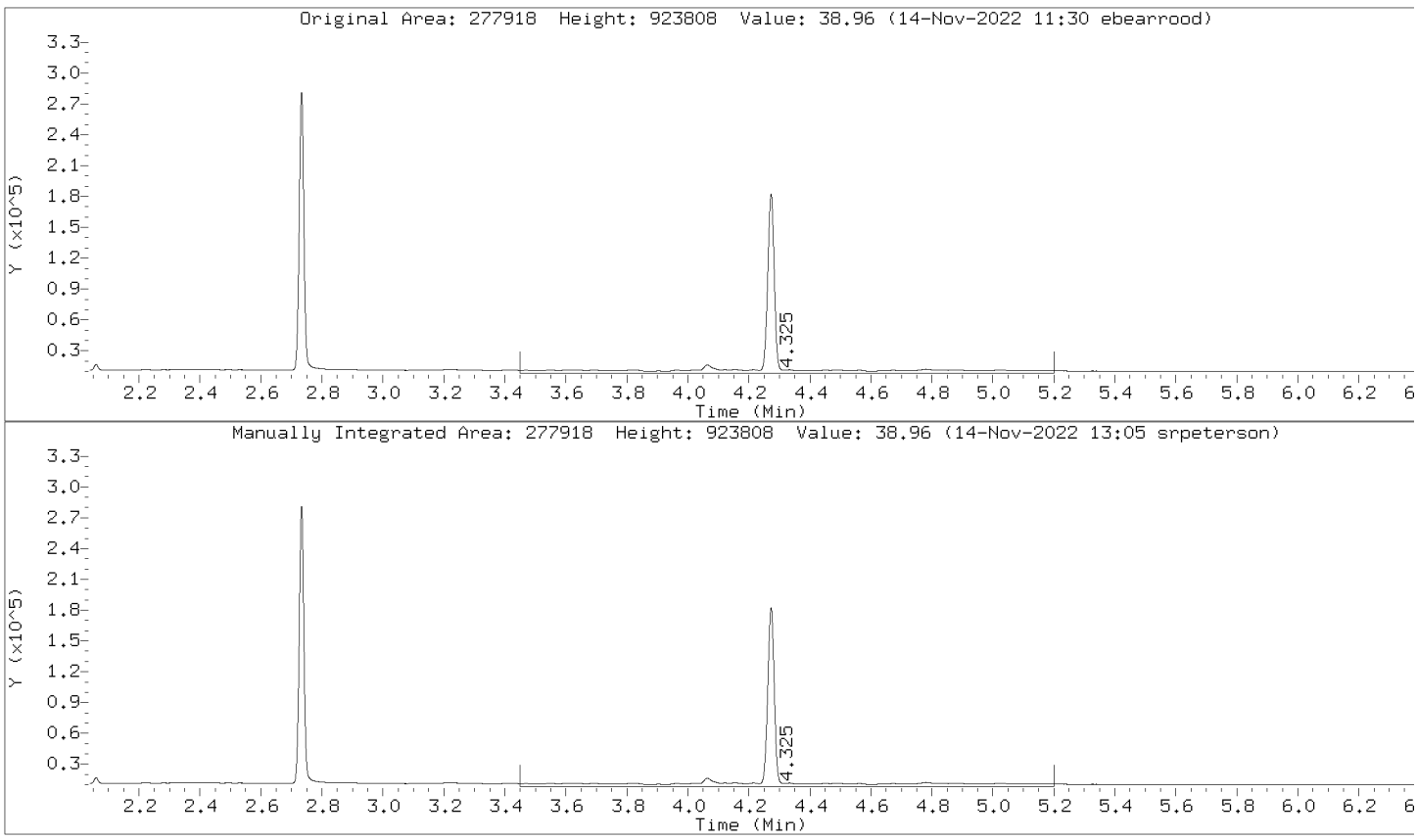
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



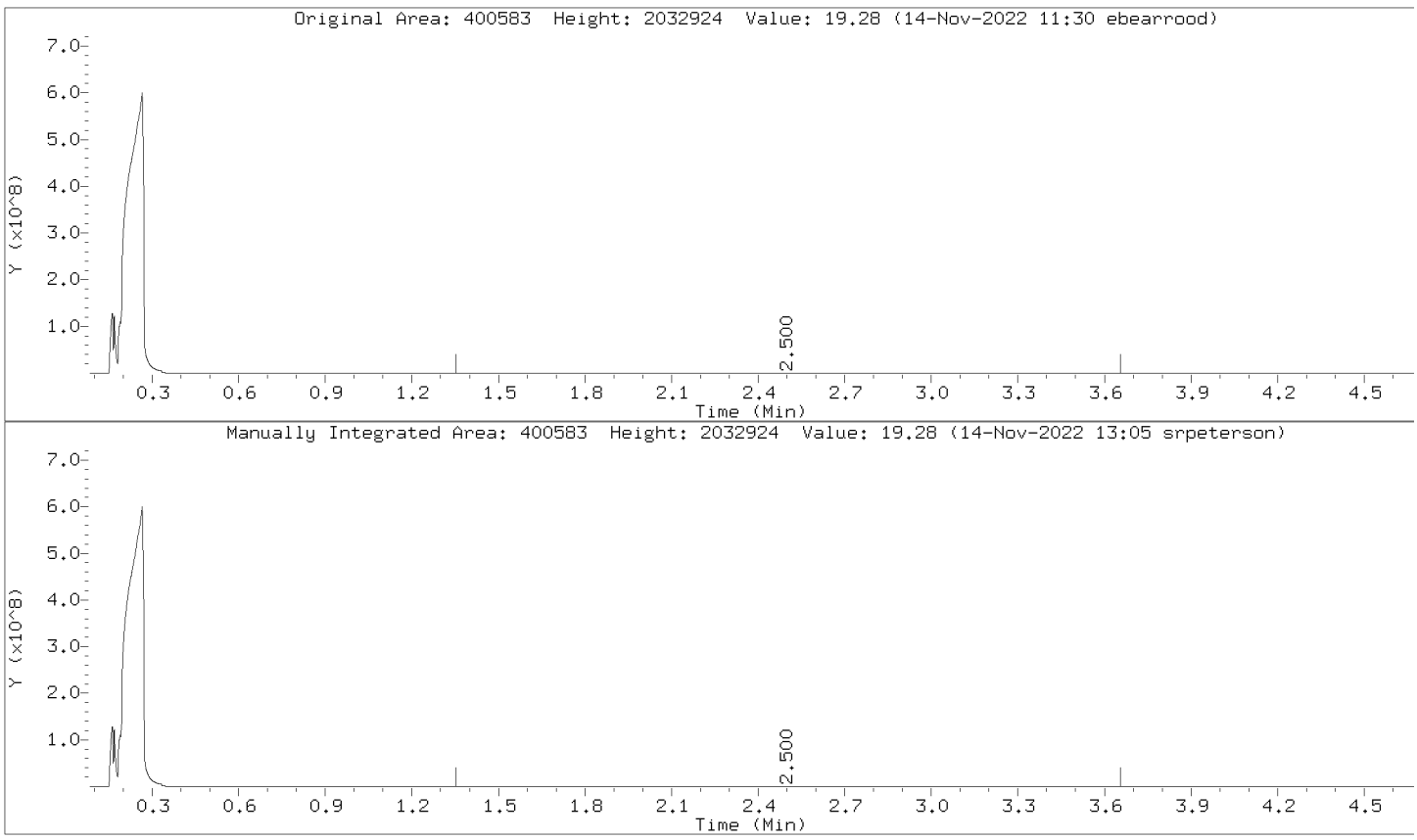
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



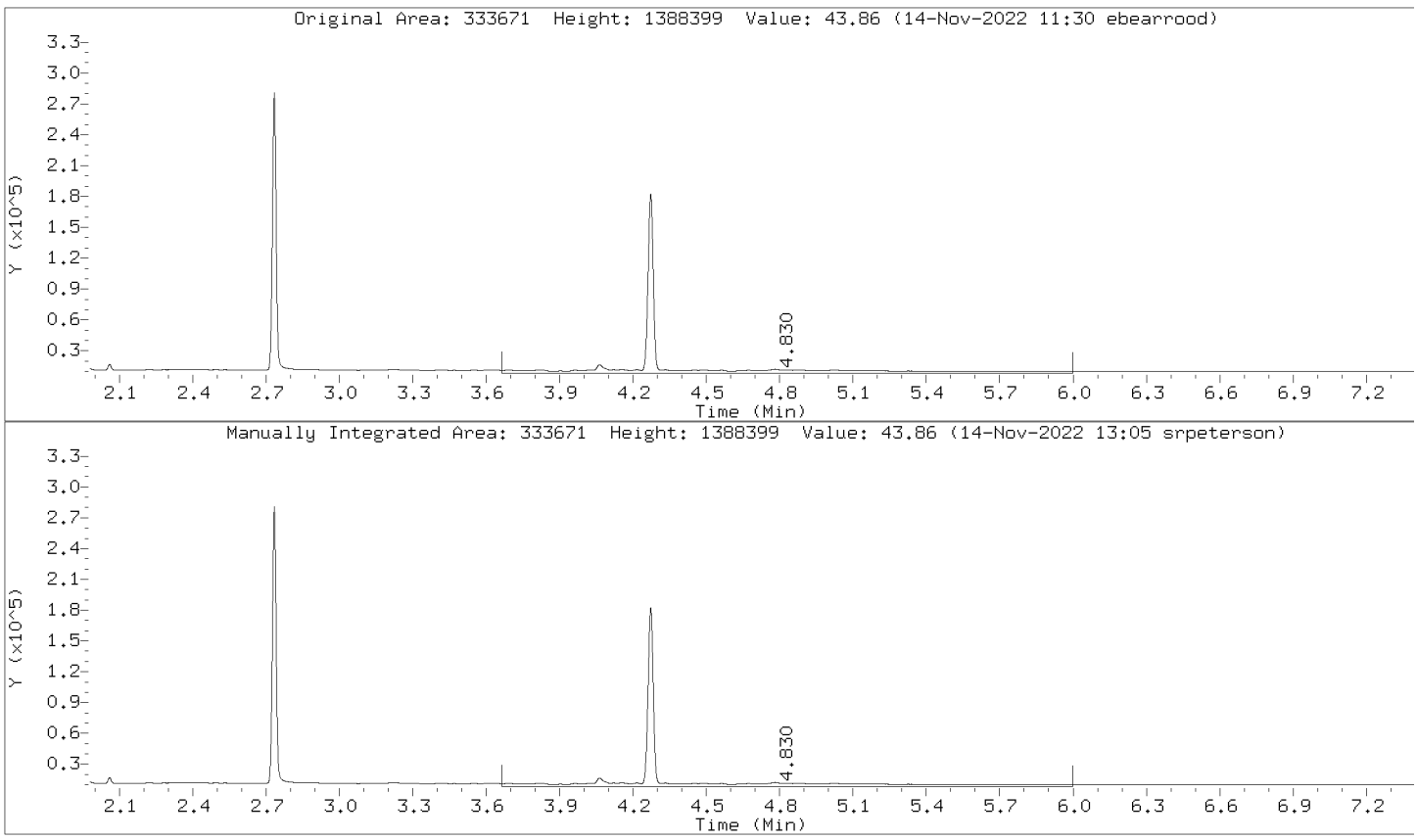
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



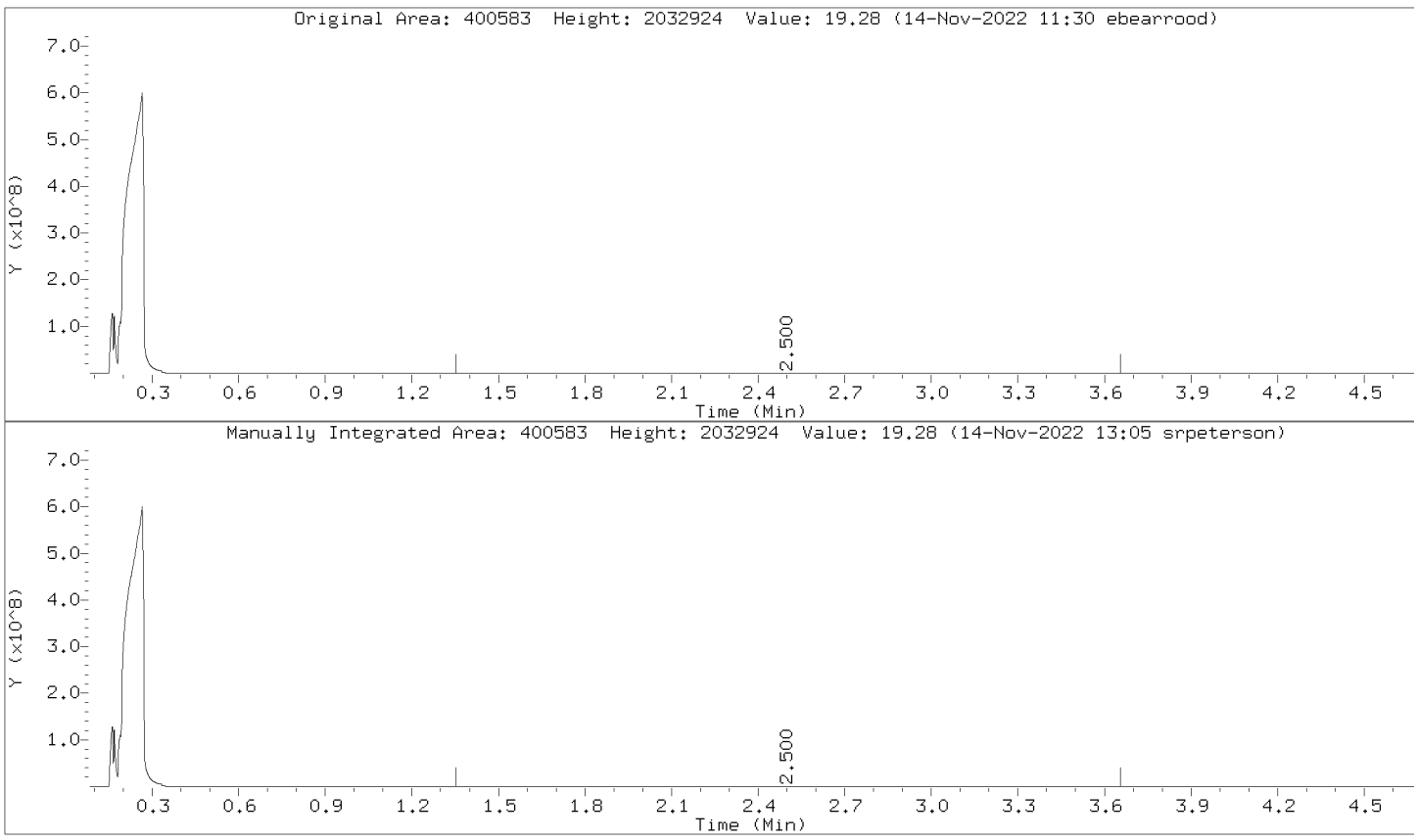
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range Review Code: RNG
CAS Number:



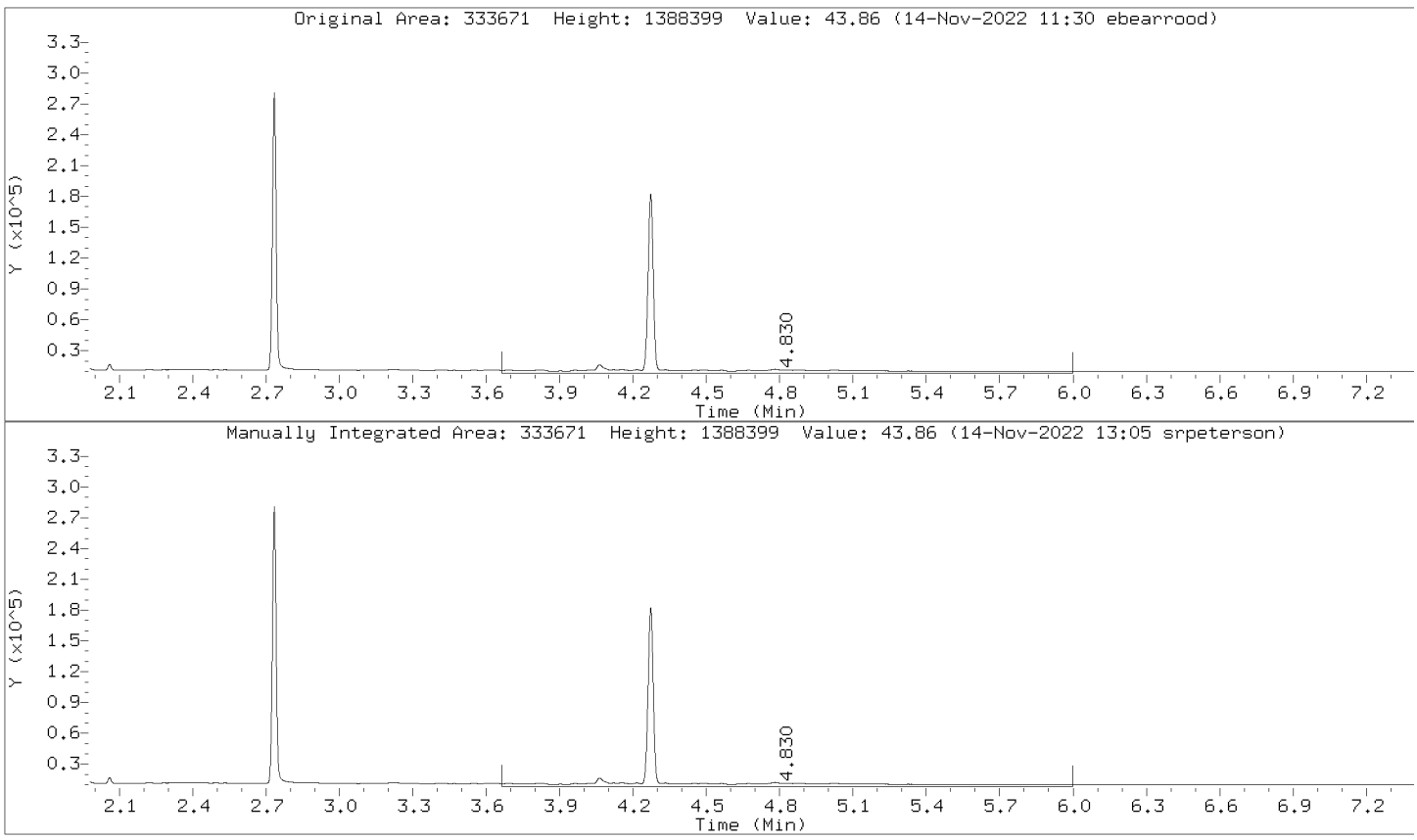
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



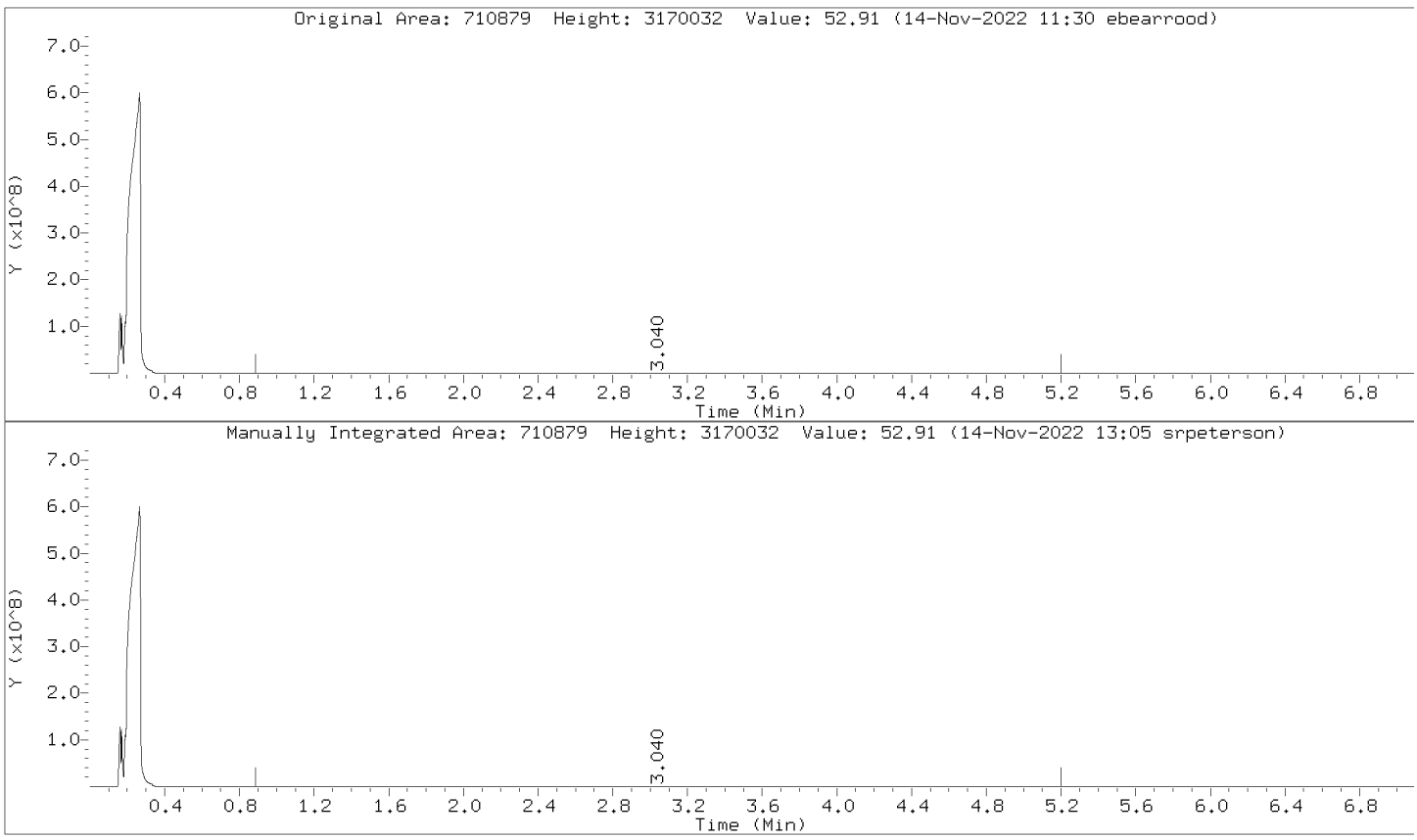
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



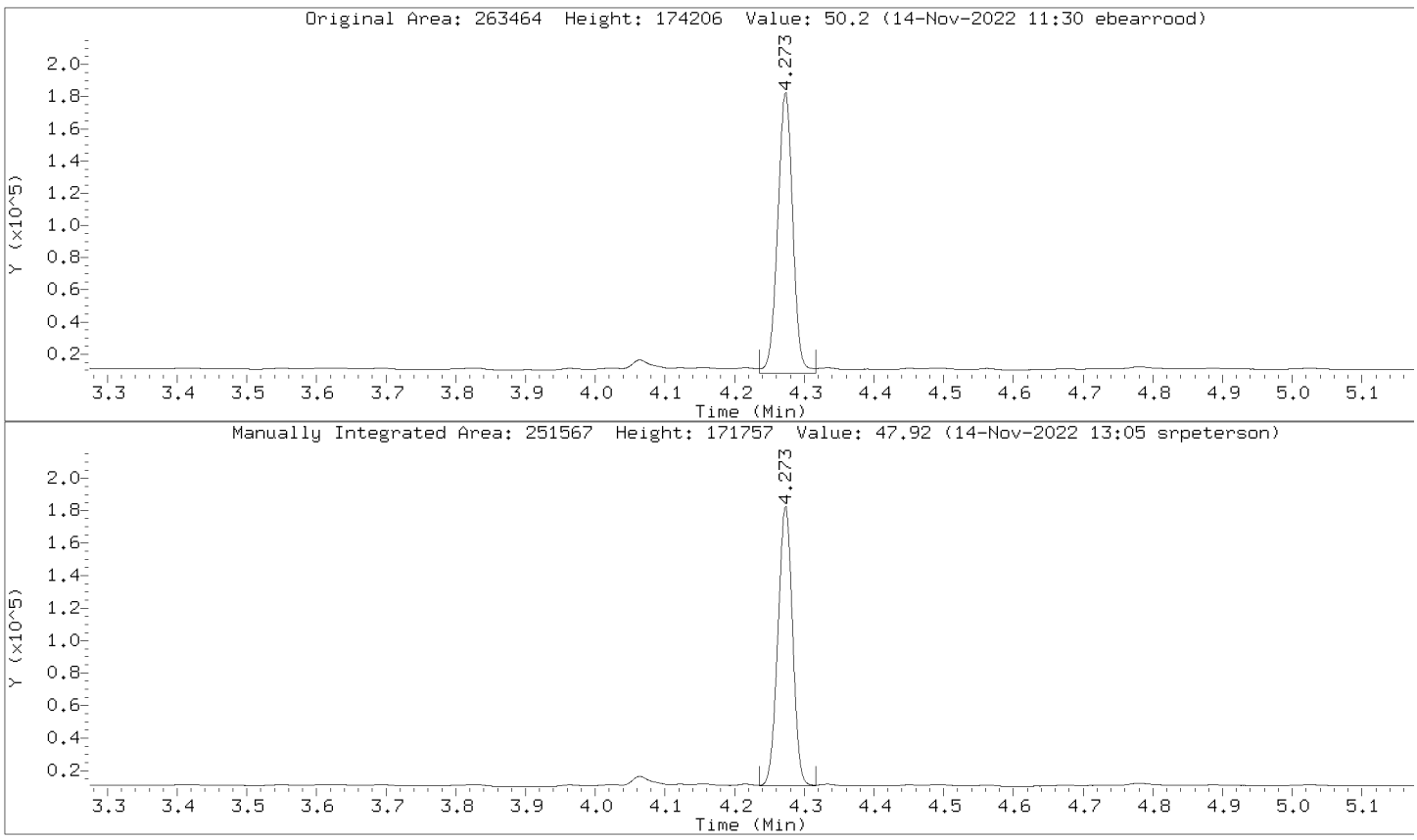
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: C10-C36 Review Code: RNG
CAS Number:



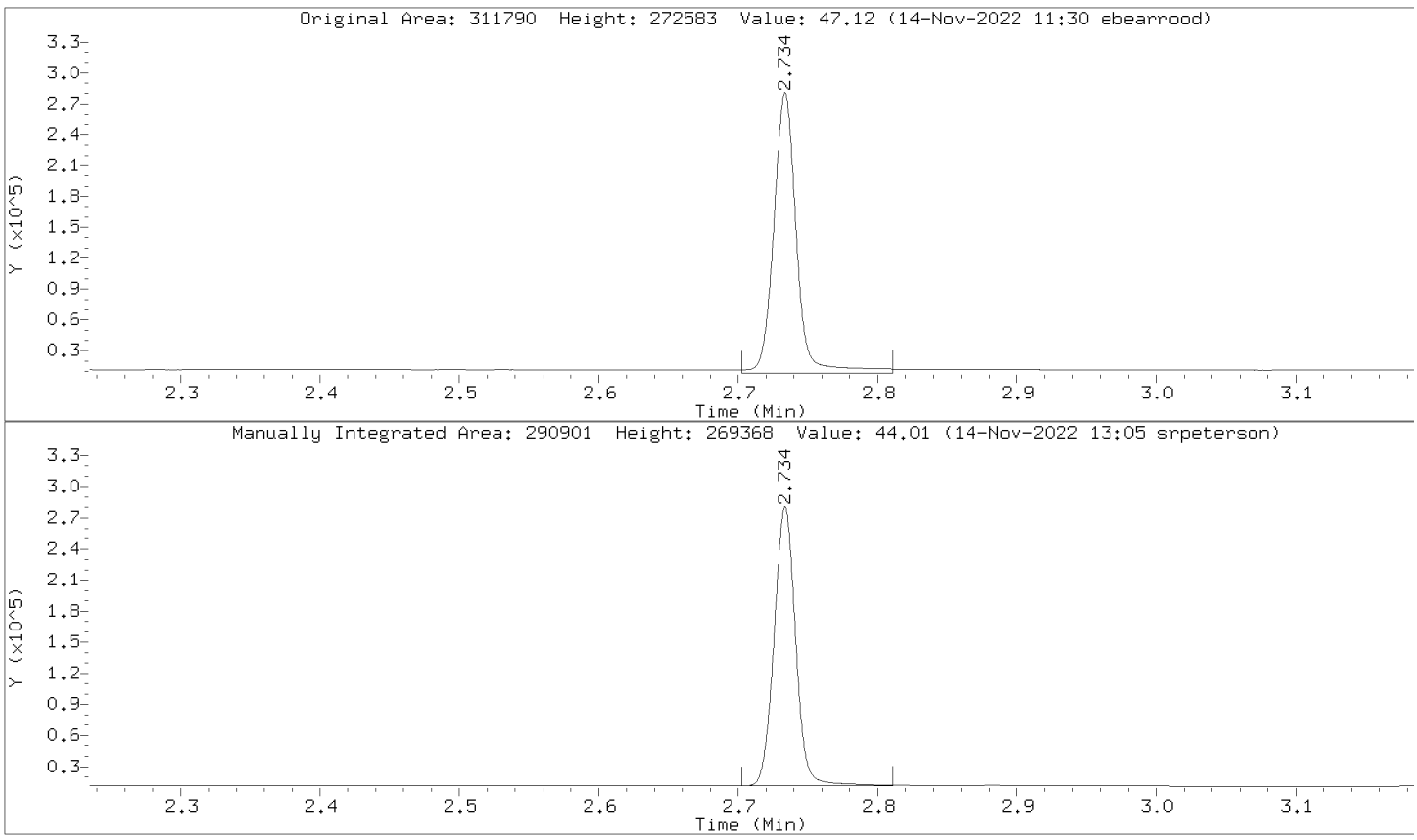
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	251114	251114
DRO by AK 102	455118	455118
TPH-DRO (C10-C28)	563516	563516
Motor Oil Range (C24-C36)	277918	277918
Diesel Fuel Range	400583	400583
Motor Oil Range	333671	333671
Diesel Fuel Range SG	400583	400583
Motor Oil Range SG	333671	333671
C10-C36	710879	710879
n-Triacontane (S)	263464	251567
o-Terphenyl (S)	311790	290901

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Solid SDG No.: 10632887
Date Extracted: 11/09/2022 07:04 Lab Sample ID: 4506603
Date Analyzed: 11/11/2022 15:43 Lab File ID: 111122R.B\1111R0000027.D
Initial wt/vol: 10 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	43.5	
	Motor Oil Range	49.6	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000027.d
Lab Smp Id: 4506603 Client Smp ID: MBLCS
Inj Date : 11-NOV-2022 15:43
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506603
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 21 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			2495772	378.926	37.9	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	298075	45.0778	4.51	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.274	0.000	265656	50.6167	5.06	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			1927091	503.603	50.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.210			3020288	398.489	39.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			2029563	503.479	50.3	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.880	- 5.200		4434057	855.322	85.5	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2382698	435.148	43.5	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2382698	435.148	43.5	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2319054	496.286	49.6	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2319054	496.286	49.6	(M)	RNG

QC Flag Legend

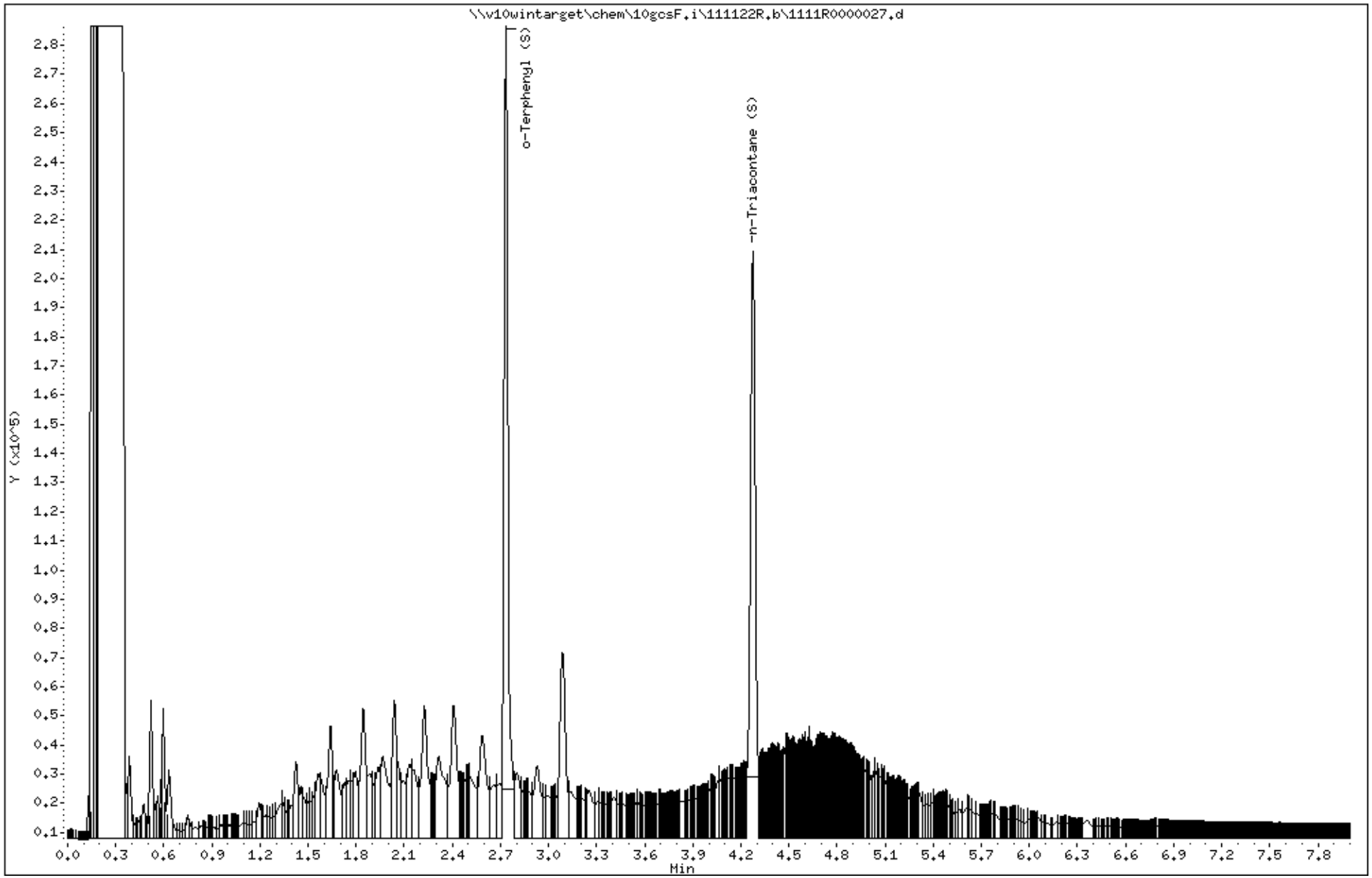
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

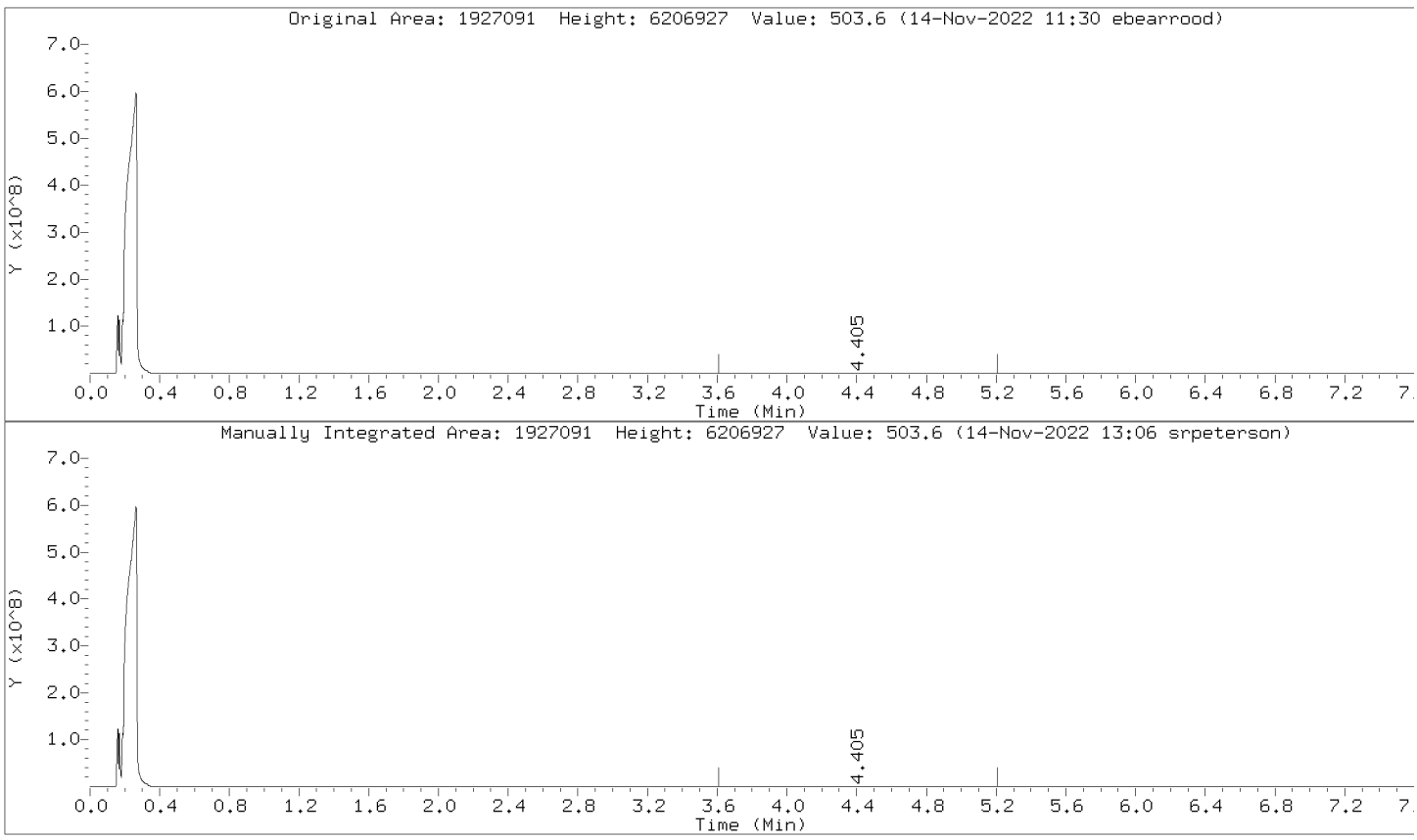
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000027.d
Date : 11-NOV-2022 15:43
Client ID: MBLCS
Sample Info: 4506603
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



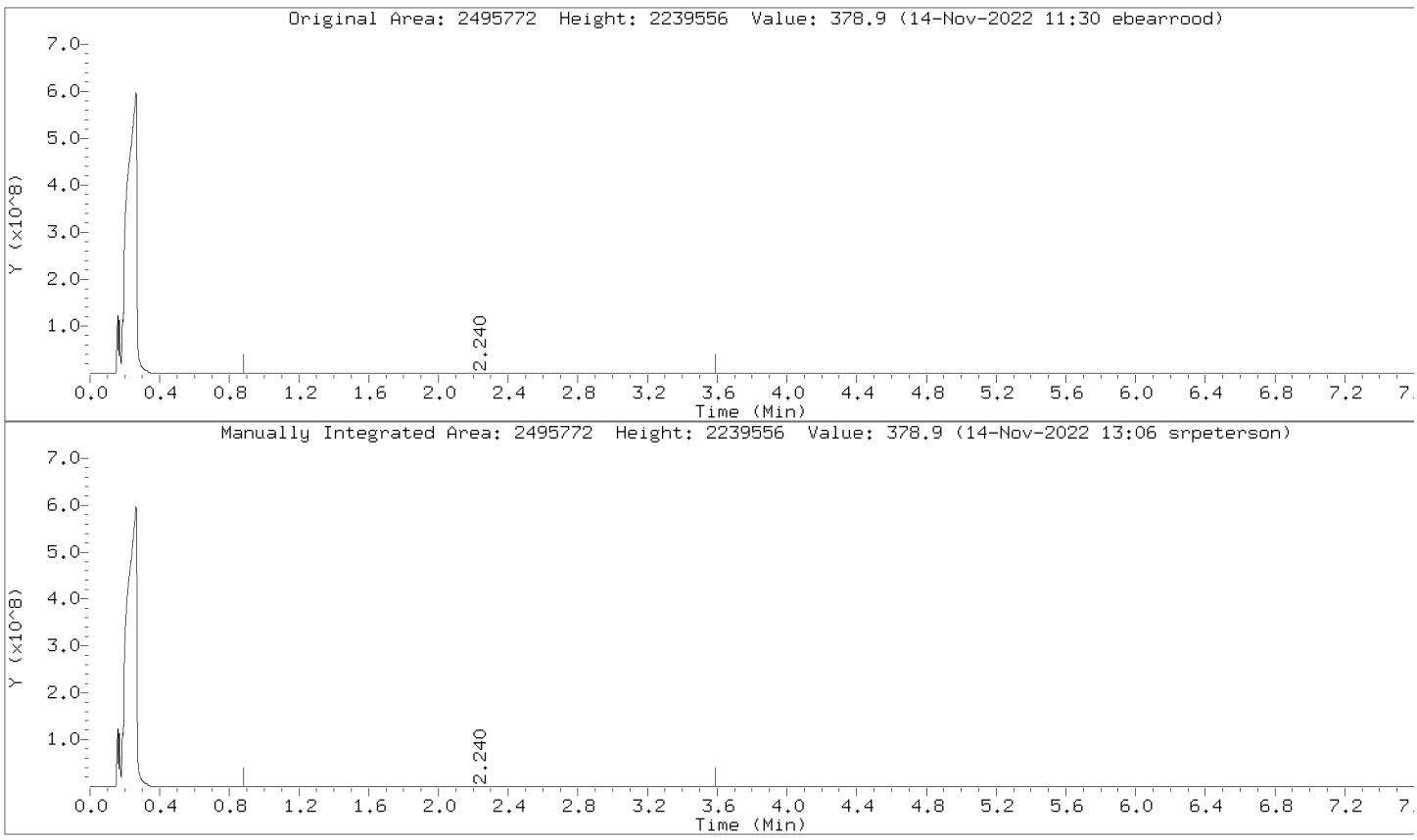
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



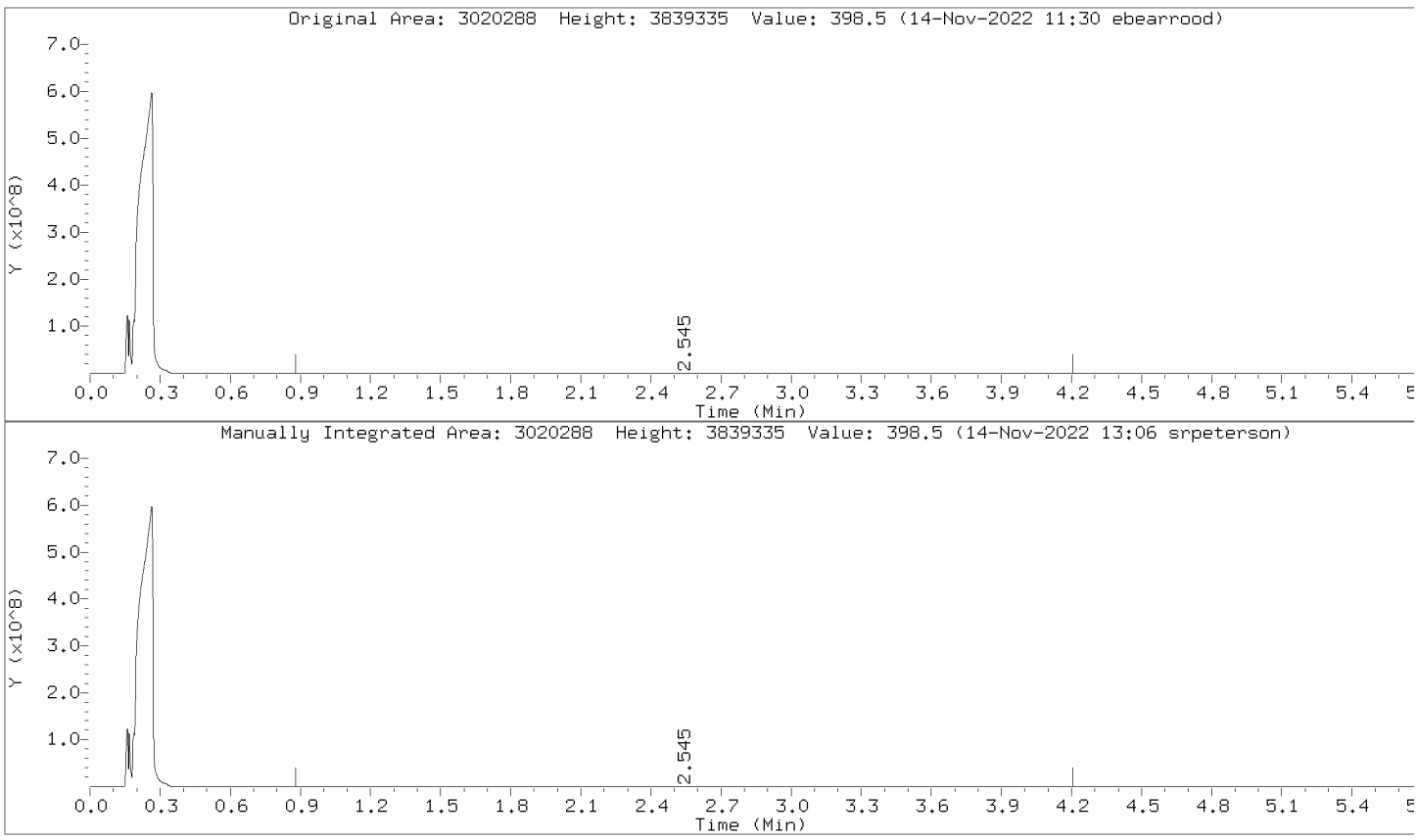
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



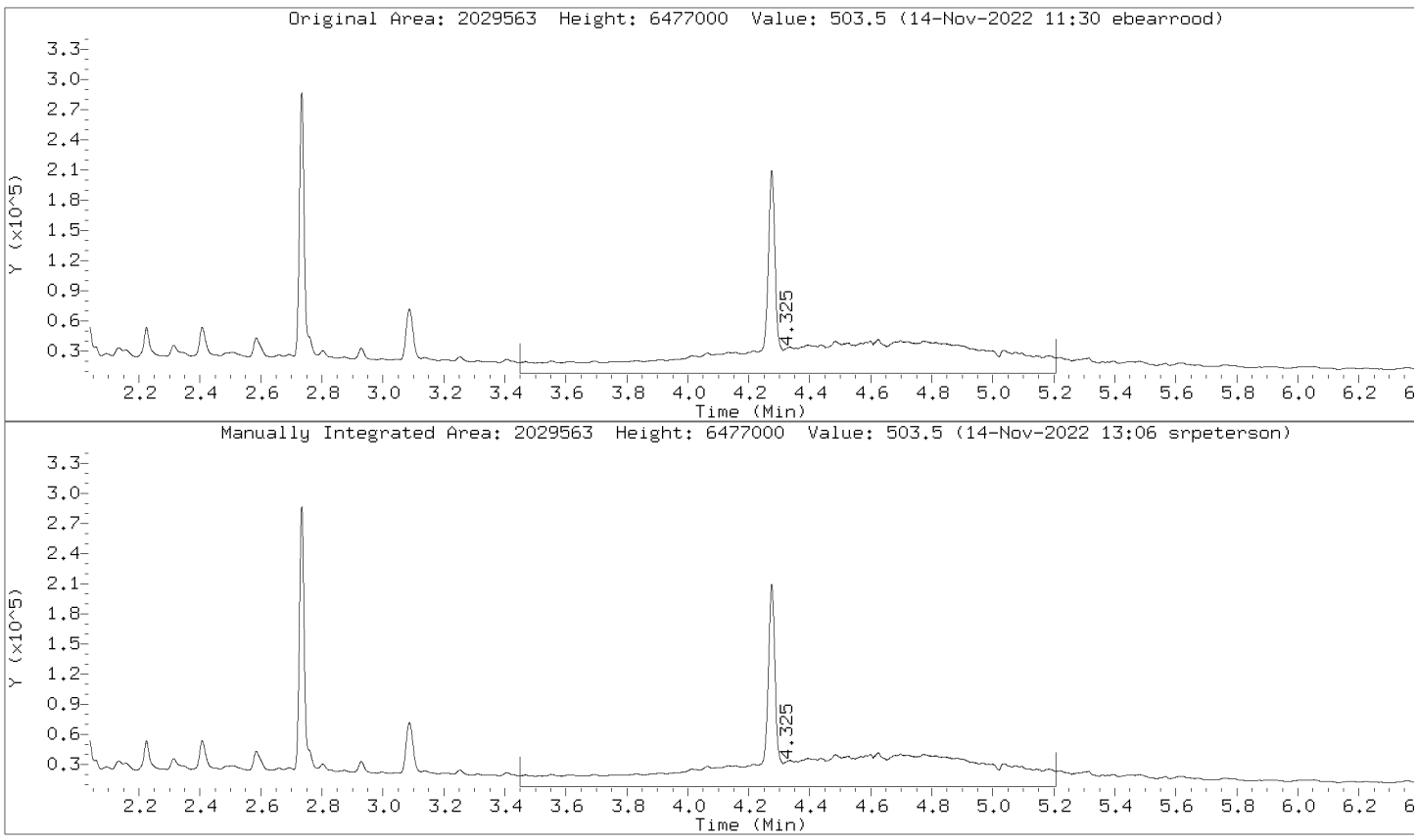
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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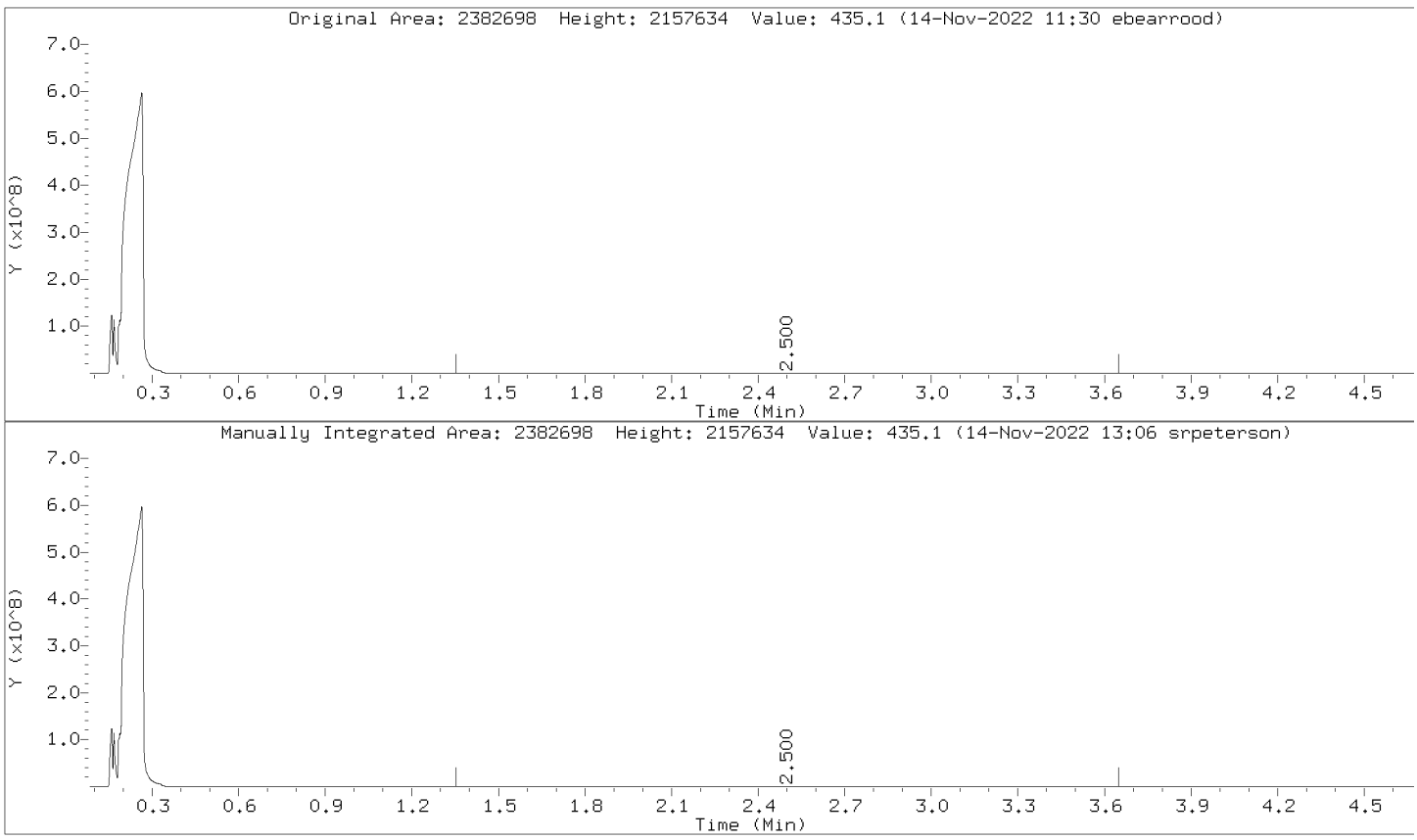
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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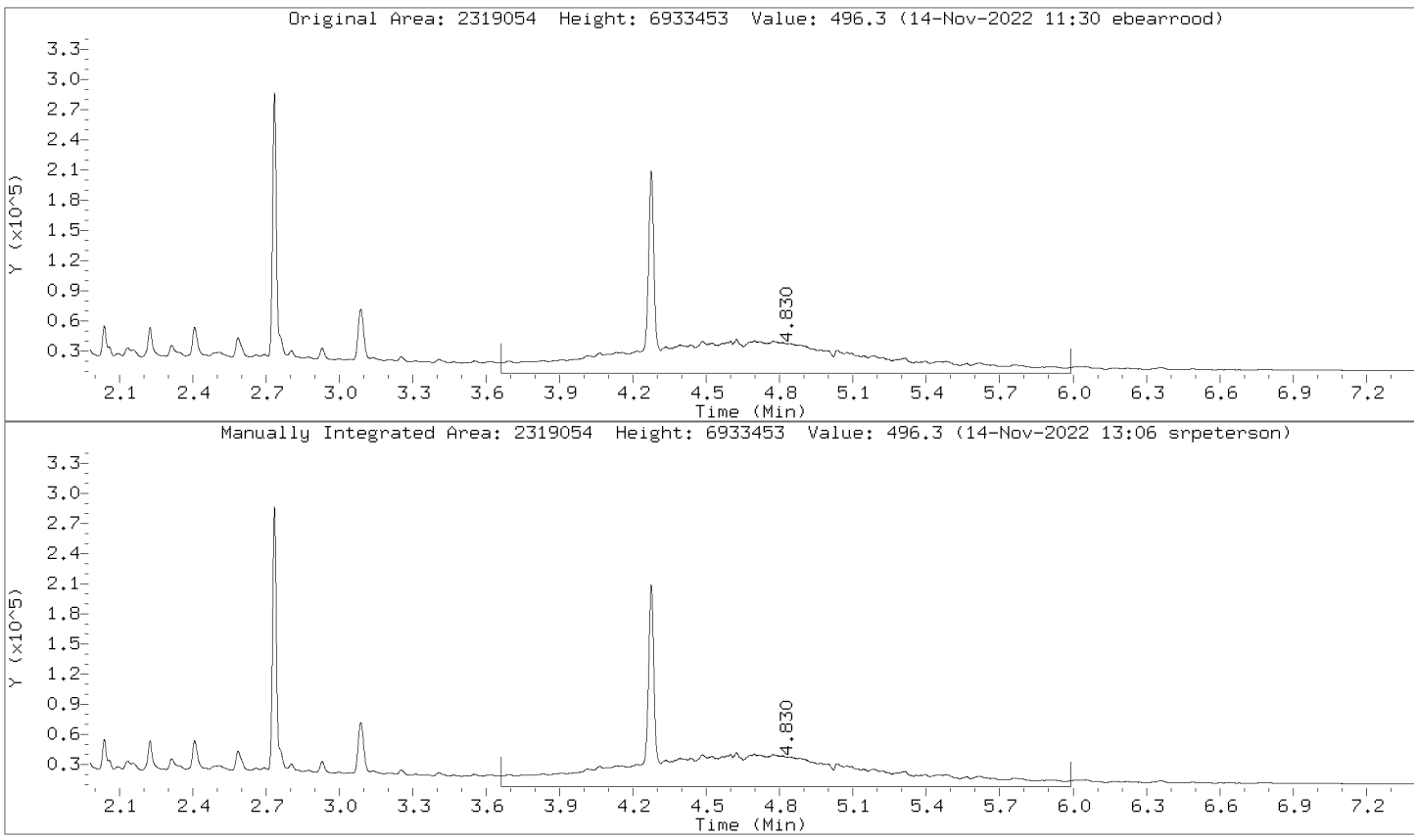
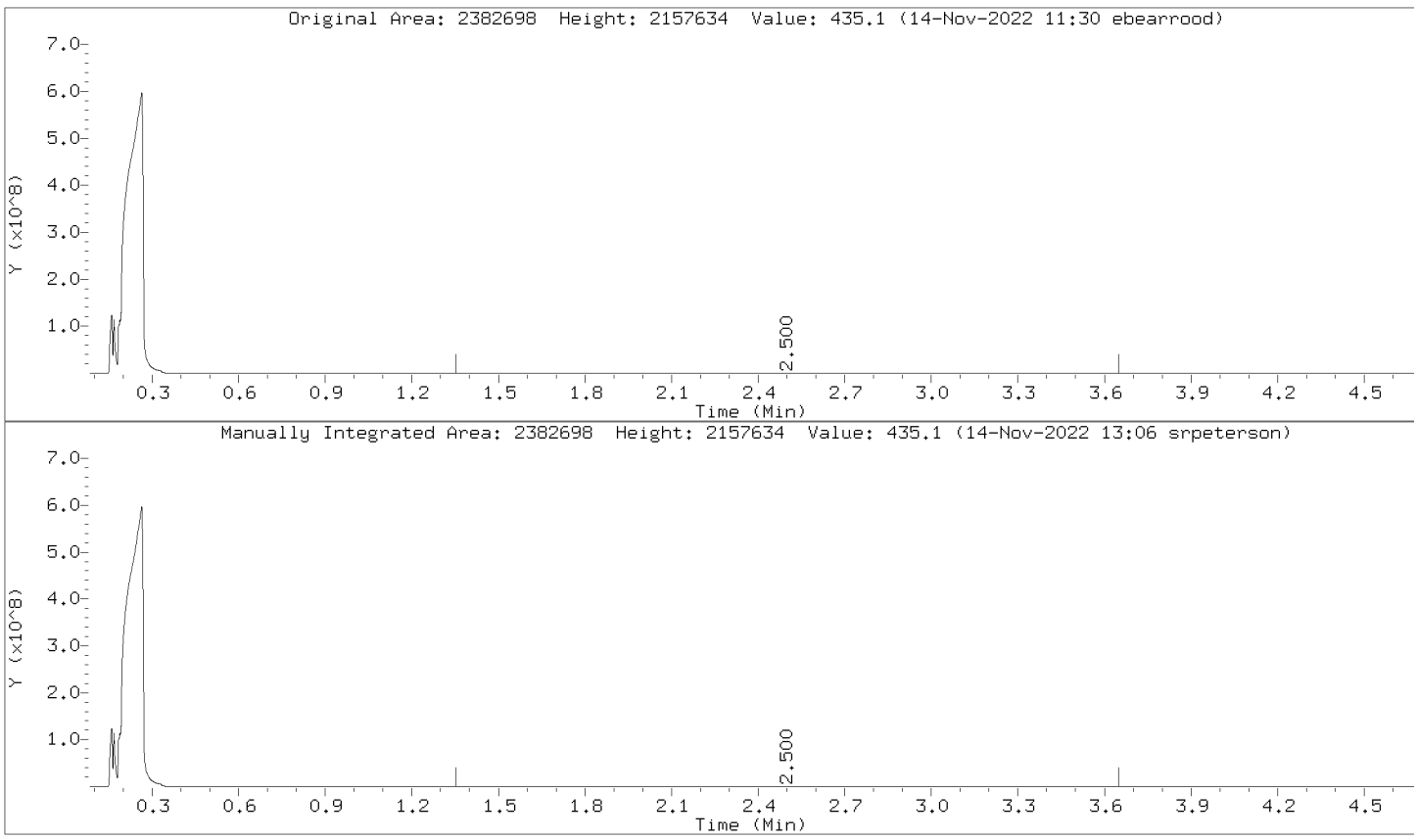
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range Review Code: RNG
CAS Number:



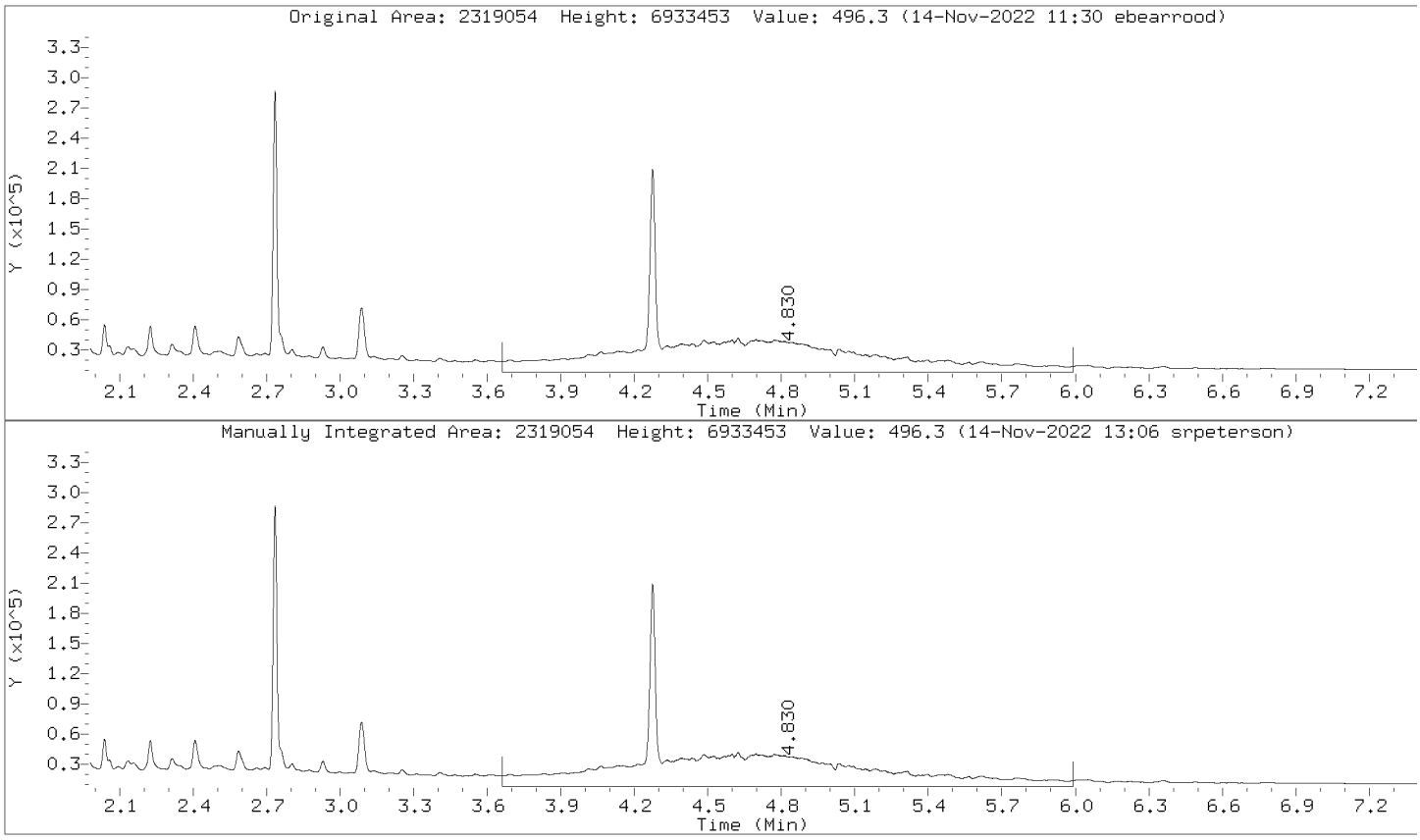
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



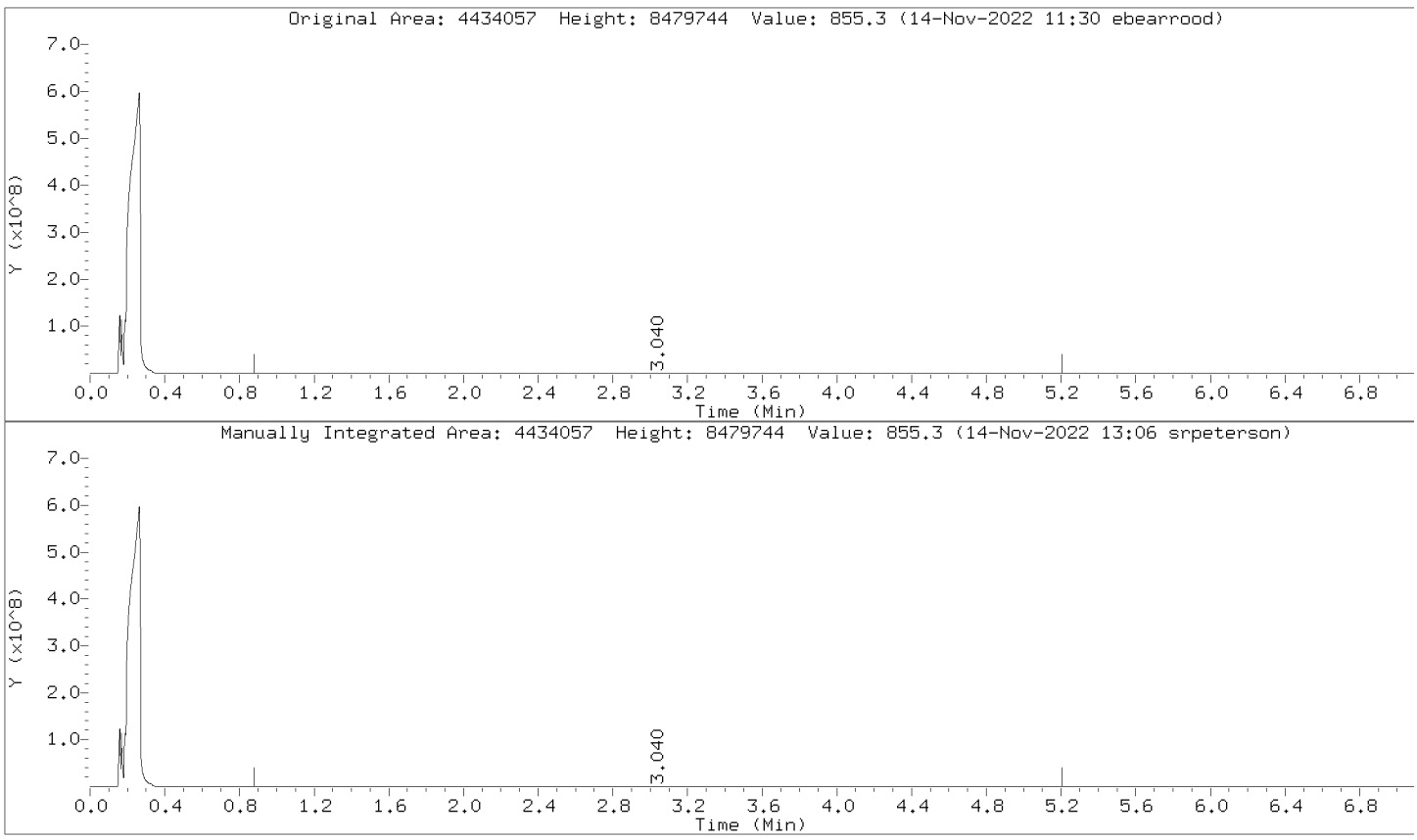
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



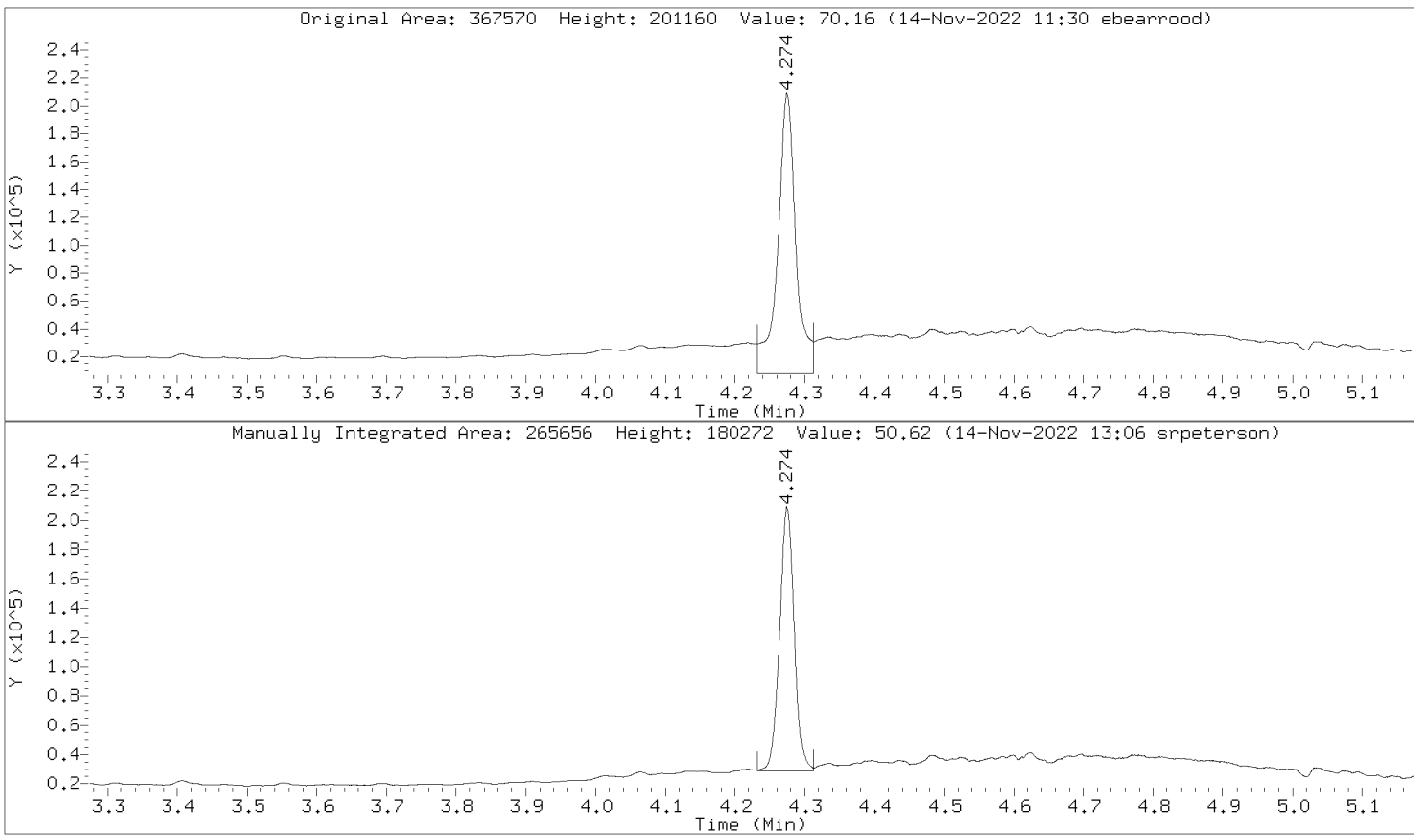
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: C10-C36 Review Code: RNG
CAS Number:



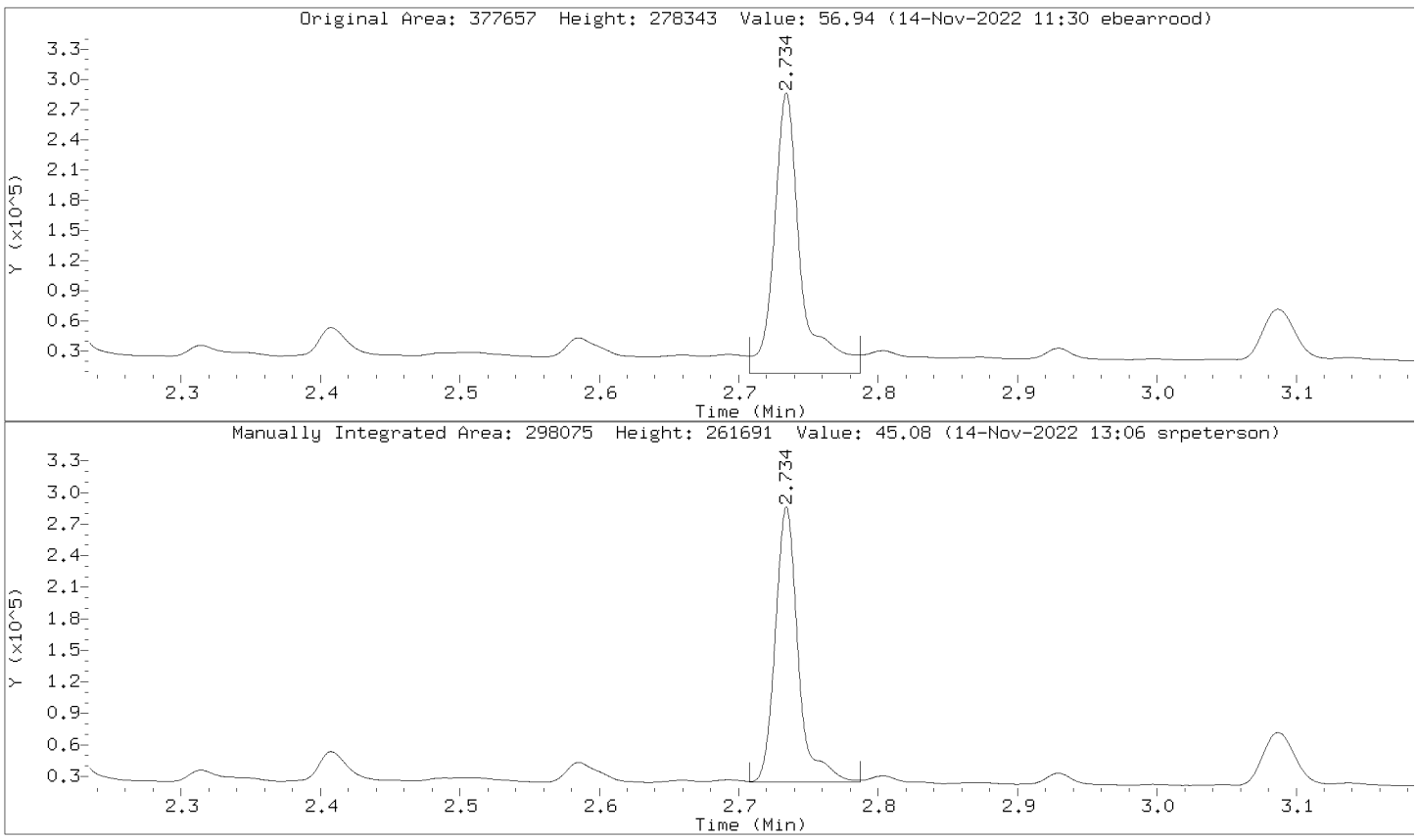
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1927091	1927091
DRO by AK 102	2495772	2495772
TPH-DRO (C10-C28)	3020288	3020288
Motor Oil Range (C24-C36)	2029563	2029563
Diesel Fuel Range	2382698	2382698
Motor Oil Range	2319054	2319054
Diesel Fuel Range SG	2382698	2382698
Motor Oil Range SG	2319054	2319054
C10-C36	4434057	4434057
n-Triacontane (S)	367570	265656
o-Terphenyl (S)	377657	298075

SAMPLE NO.

MS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/08/2022 08:50
Matrix: Solid
SDG No.: 10632887
Date Extracted: 11/09/2022 07:04
Lab Sample ID: 4506604
Date Analyzed: 11/11/2022 16:06
Lab File ID: 111122R.B\1111R0000029.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 10GCSF
Percent Moisture: 28.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	275	
	Motor Oil Range	555	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000029.d
Lab Smp Id: 4506604 Client Smp ID: BNSF-G020-SC-0.0-1.
Inj Date : 11-NOV-2022 16:06
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506604x10
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 23 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	28.894	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1255635	159.808	225	(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	29242	4.99606	7.03	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.274	0.001	24144	4.30577	6.06	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1572273	404.986	570	(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		1838982	218.836	308	(RM)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1700940	416.332	586	(RM)	RNG

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		2841264	512.047	720	(RM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1241793	195.774	275	(RM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1241793	195.774	275	(RM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1871860	394.379	555	(RM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1871860	394.379	555	(RM)	RNG

QC Flag Legend

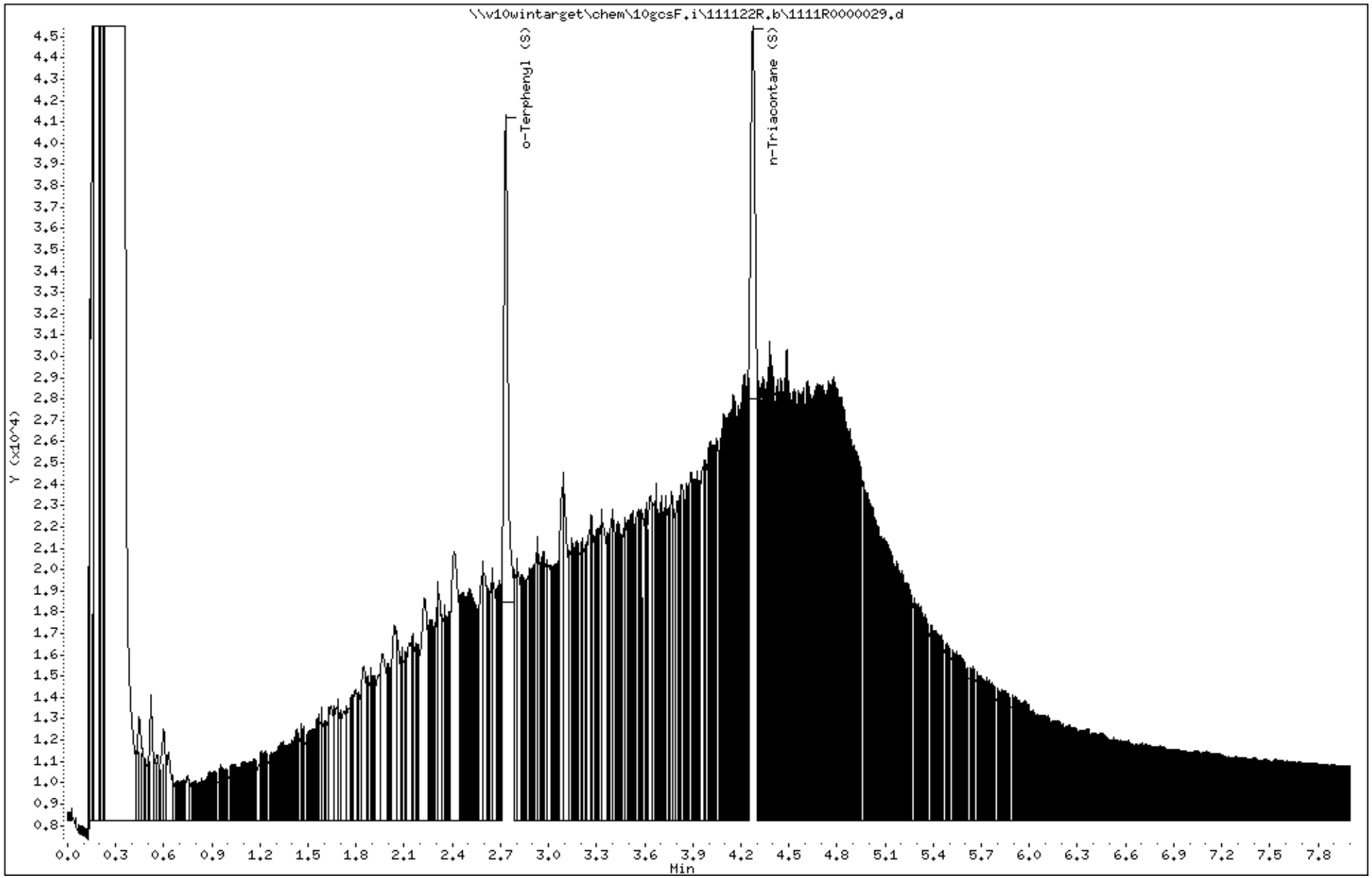
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

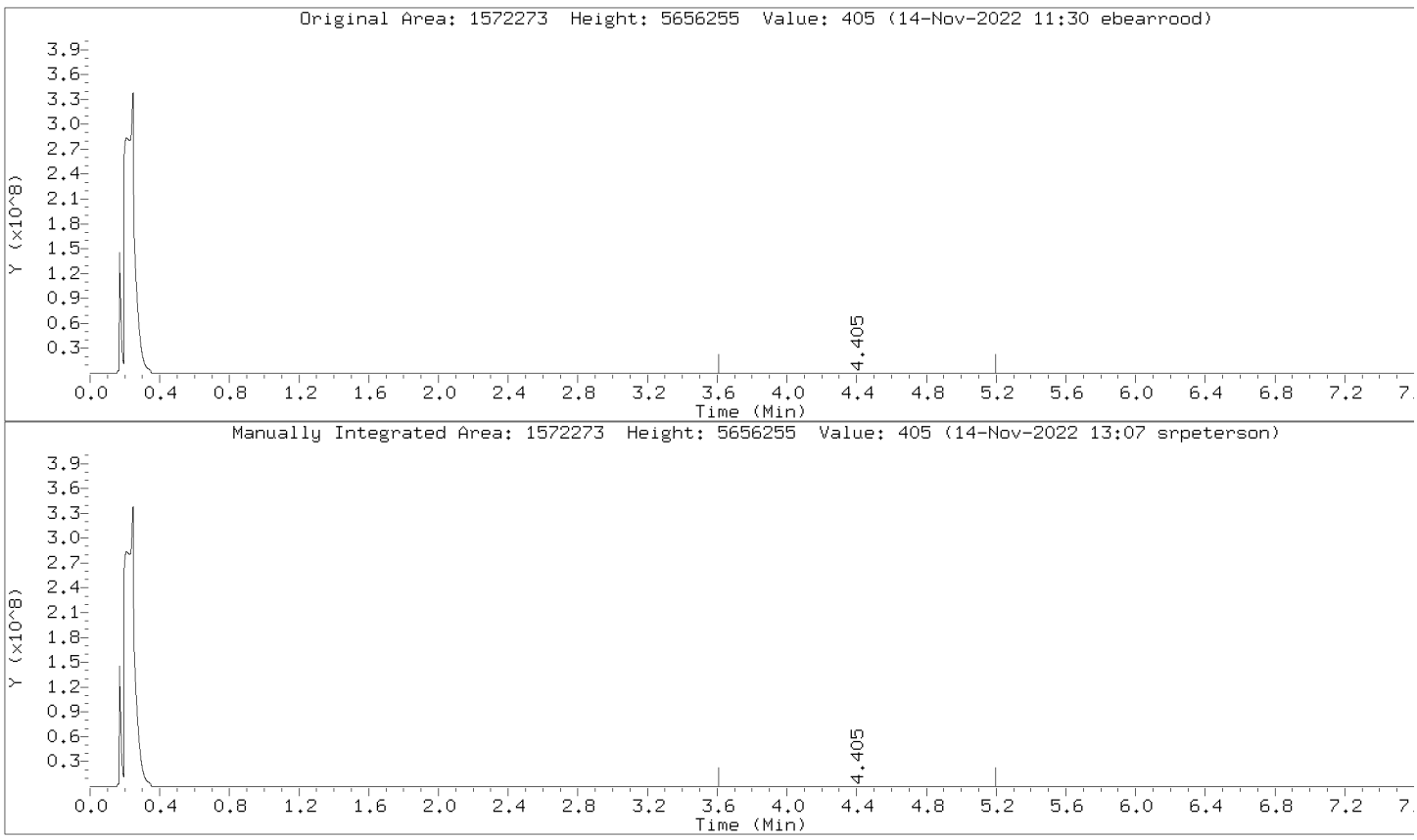
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000029.d
Date : 11-NOV-2022 16:06
Client ID: BNSF-G020-SC-0.0-1.
Sample Info: 4506604X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



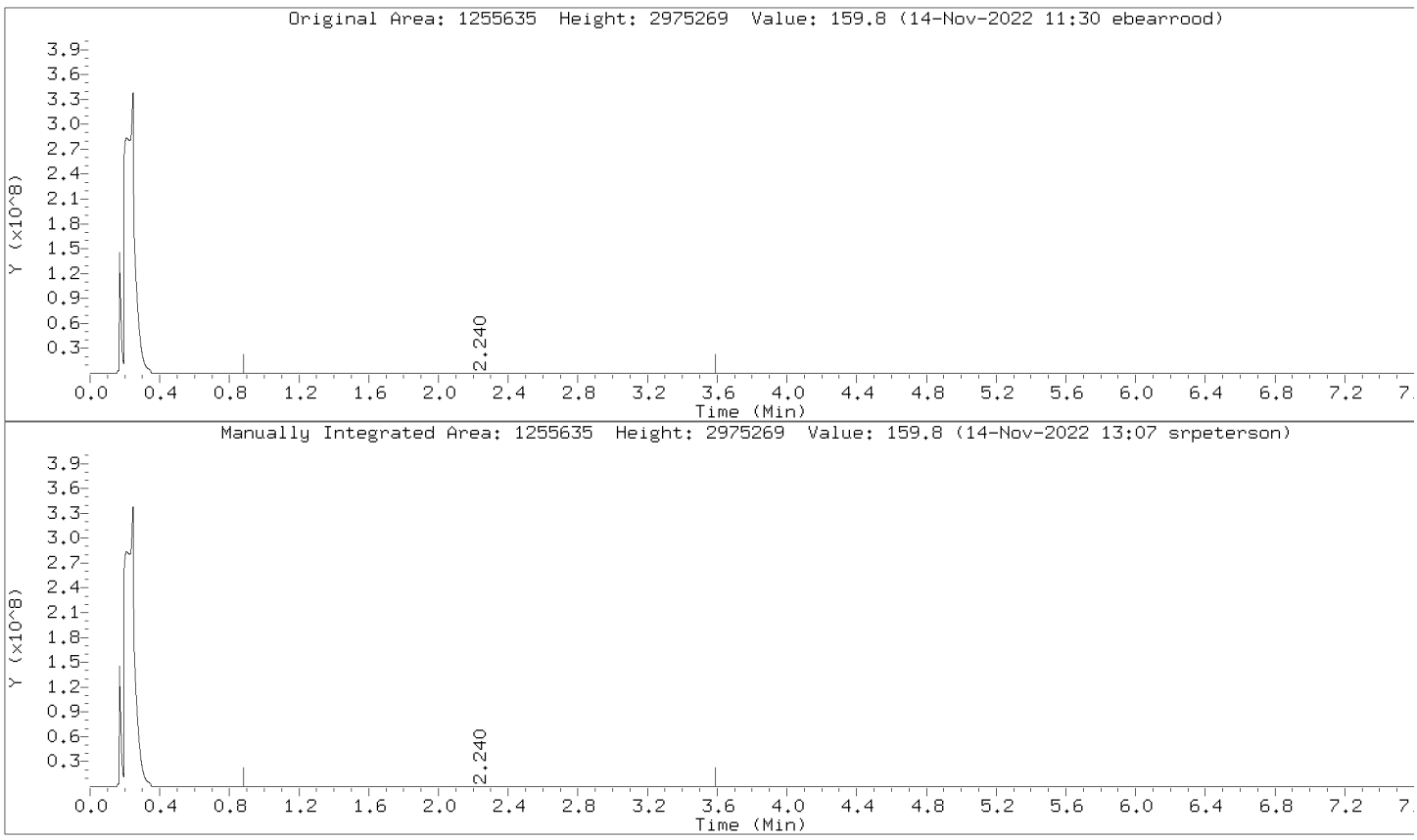
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



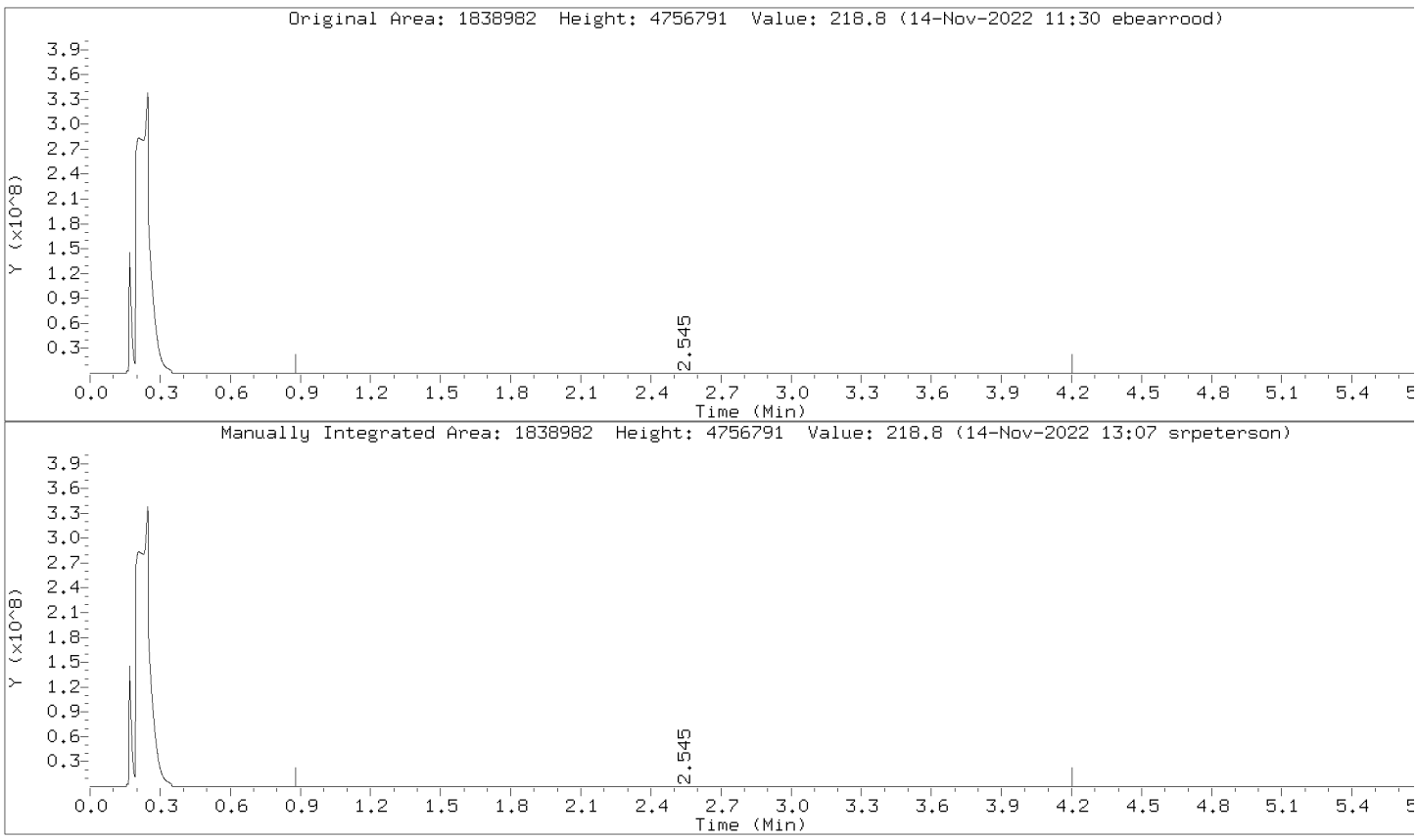
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



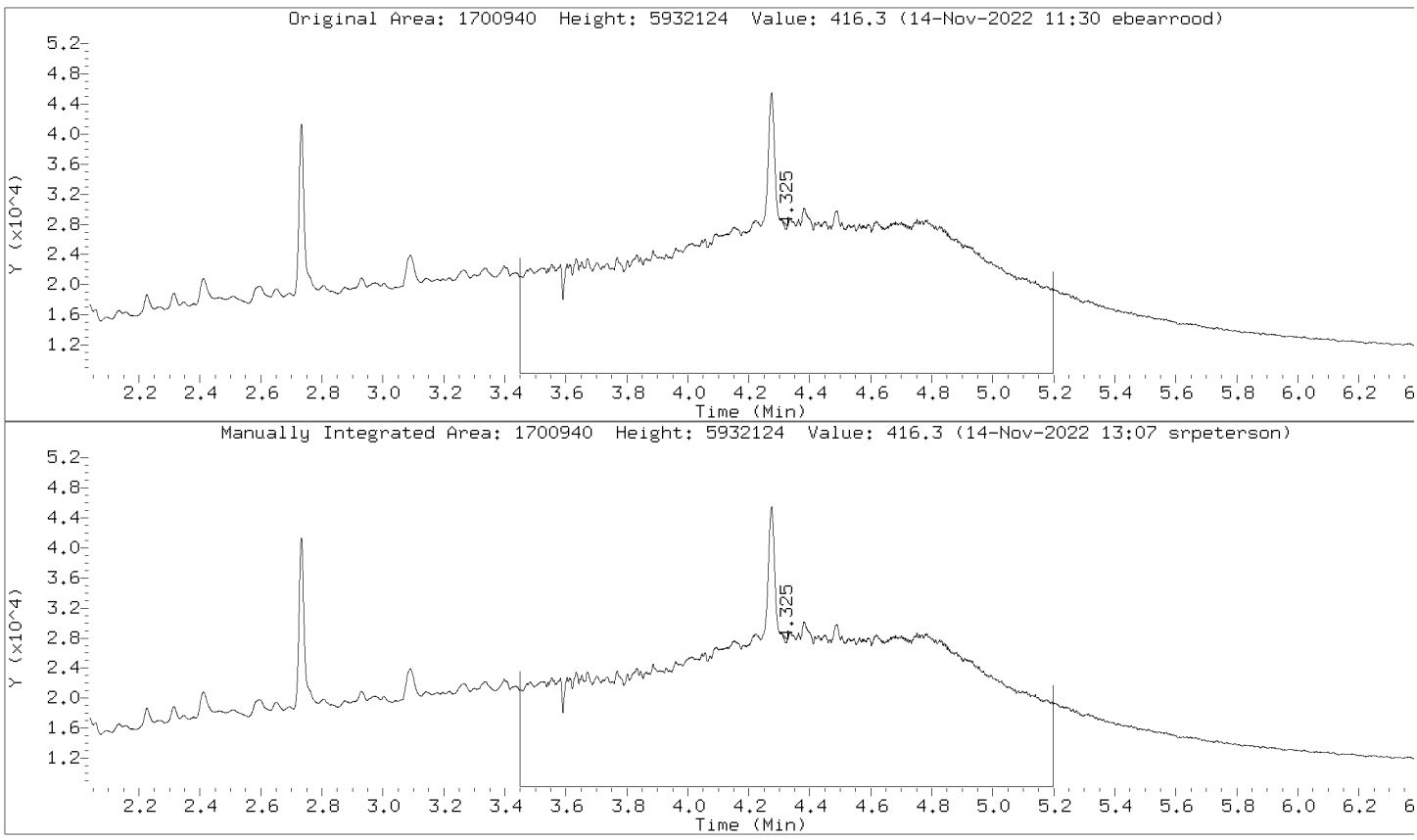
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



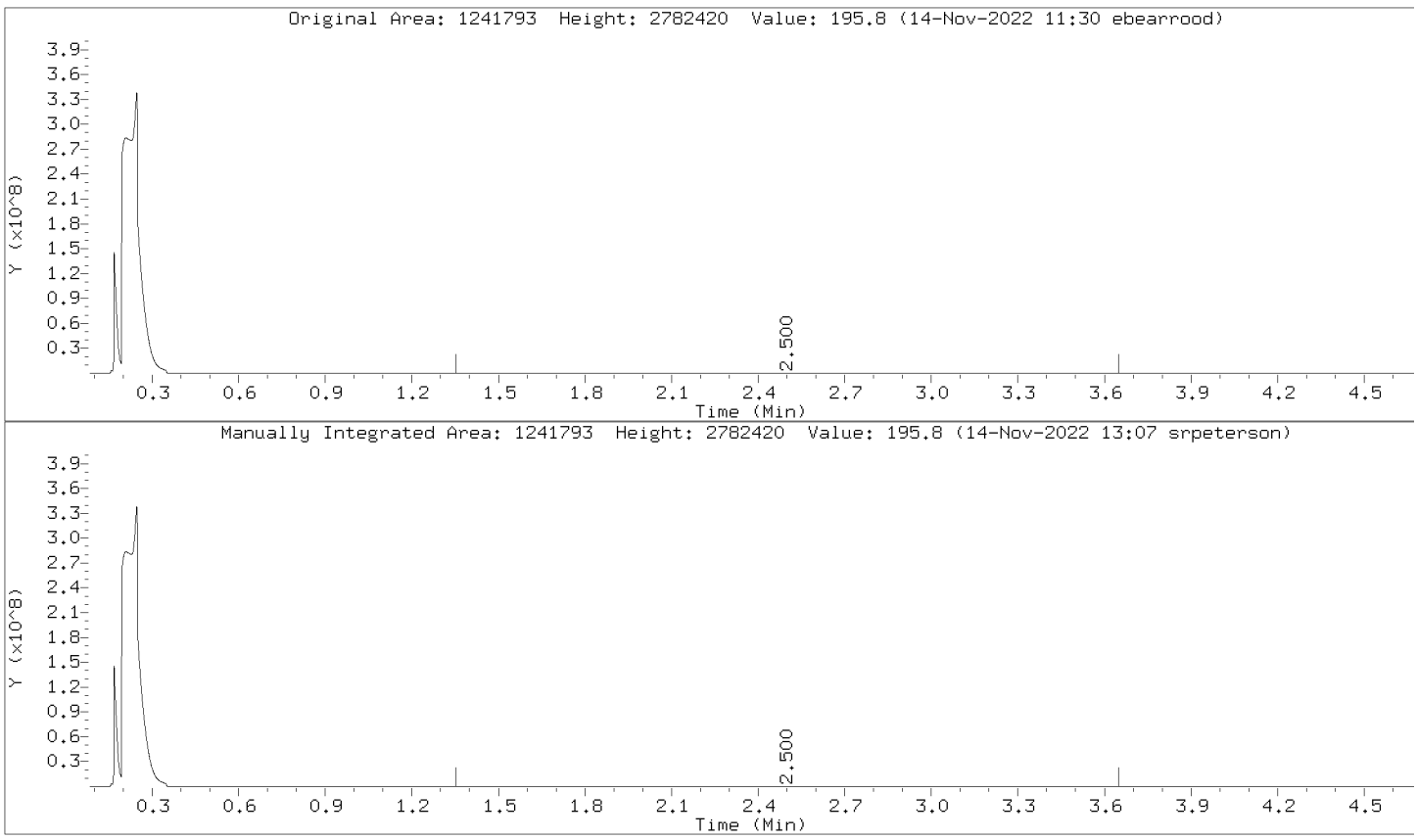
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



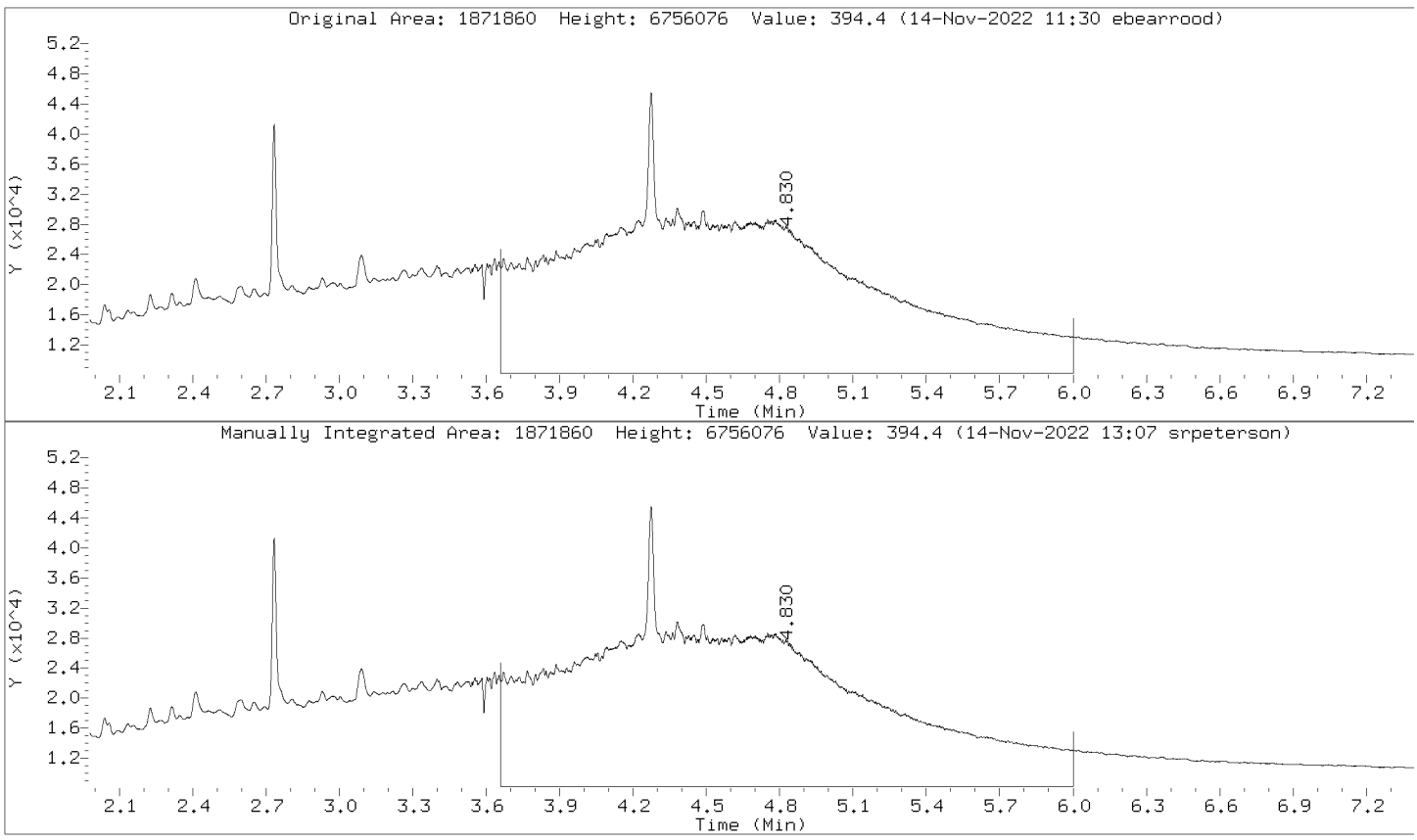
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



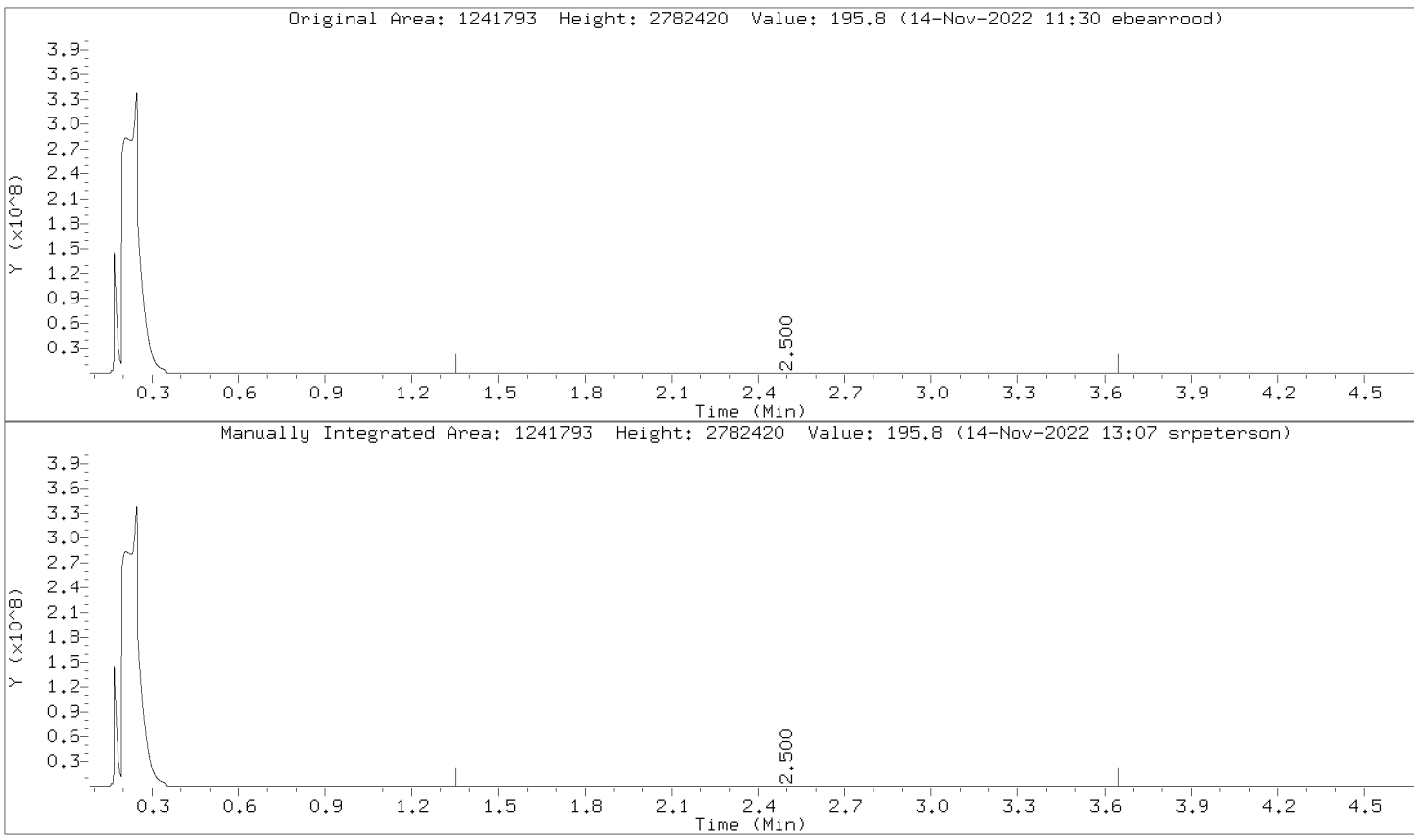
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Motor Oil Range Review Code: RNG
CAS Number:



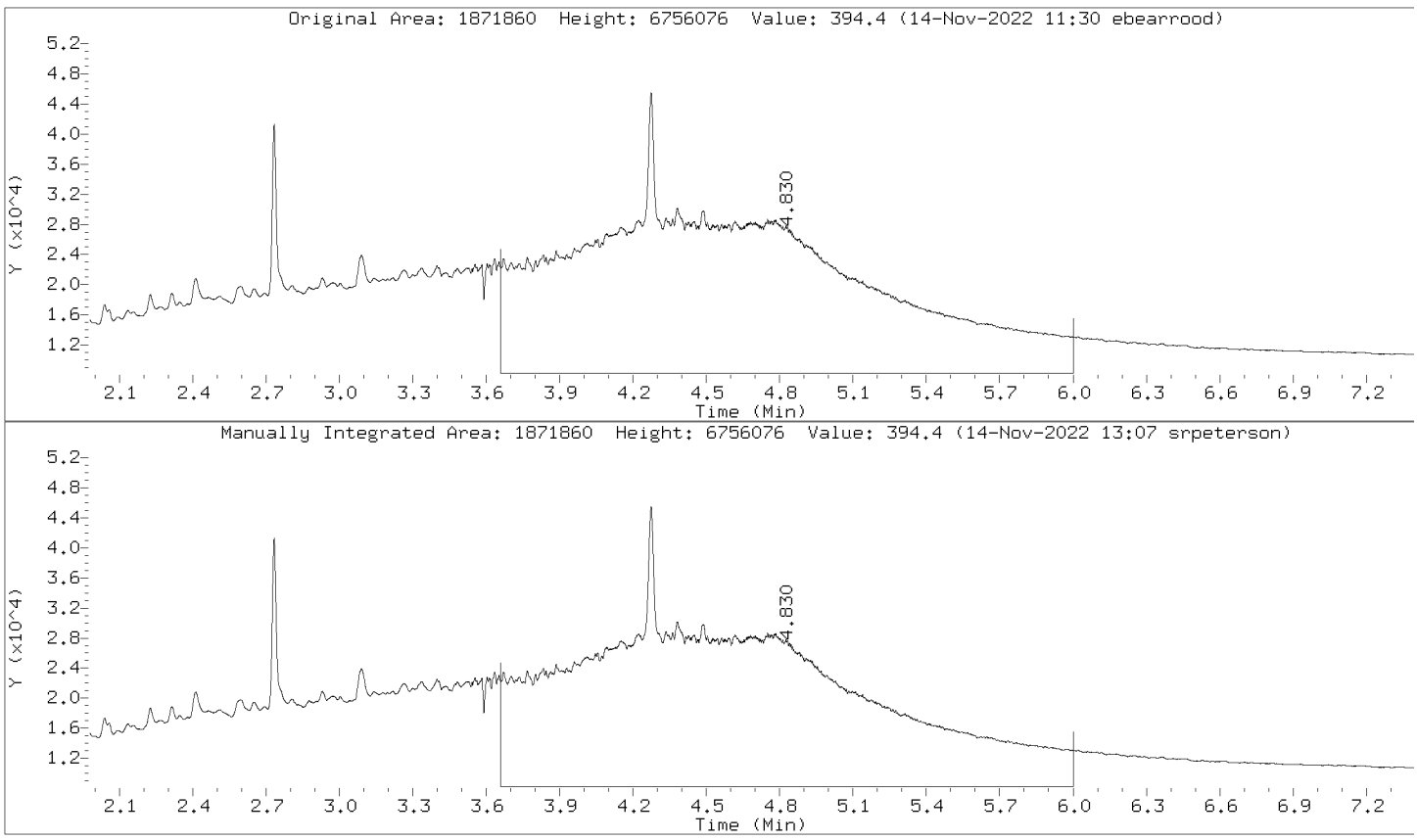
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



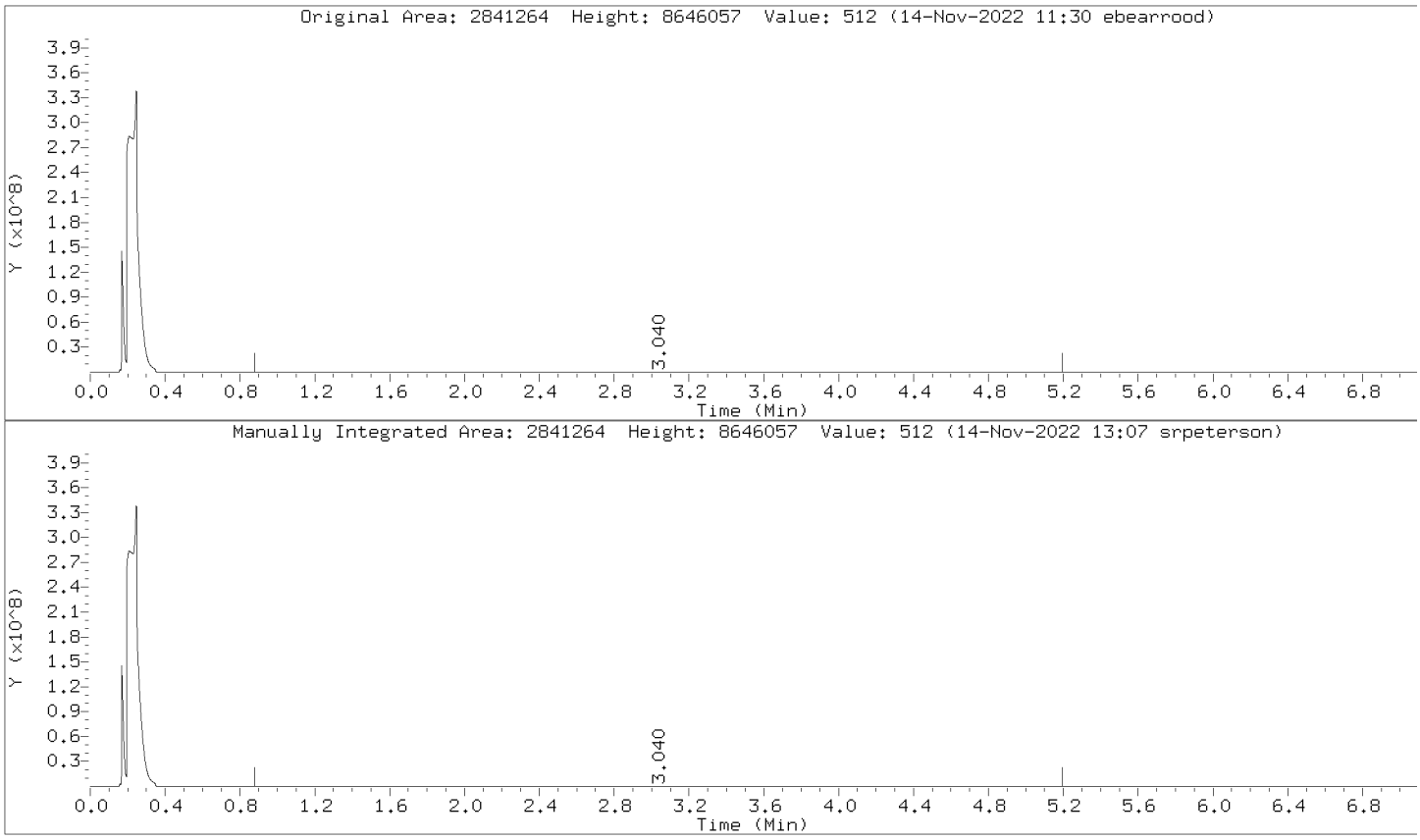
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



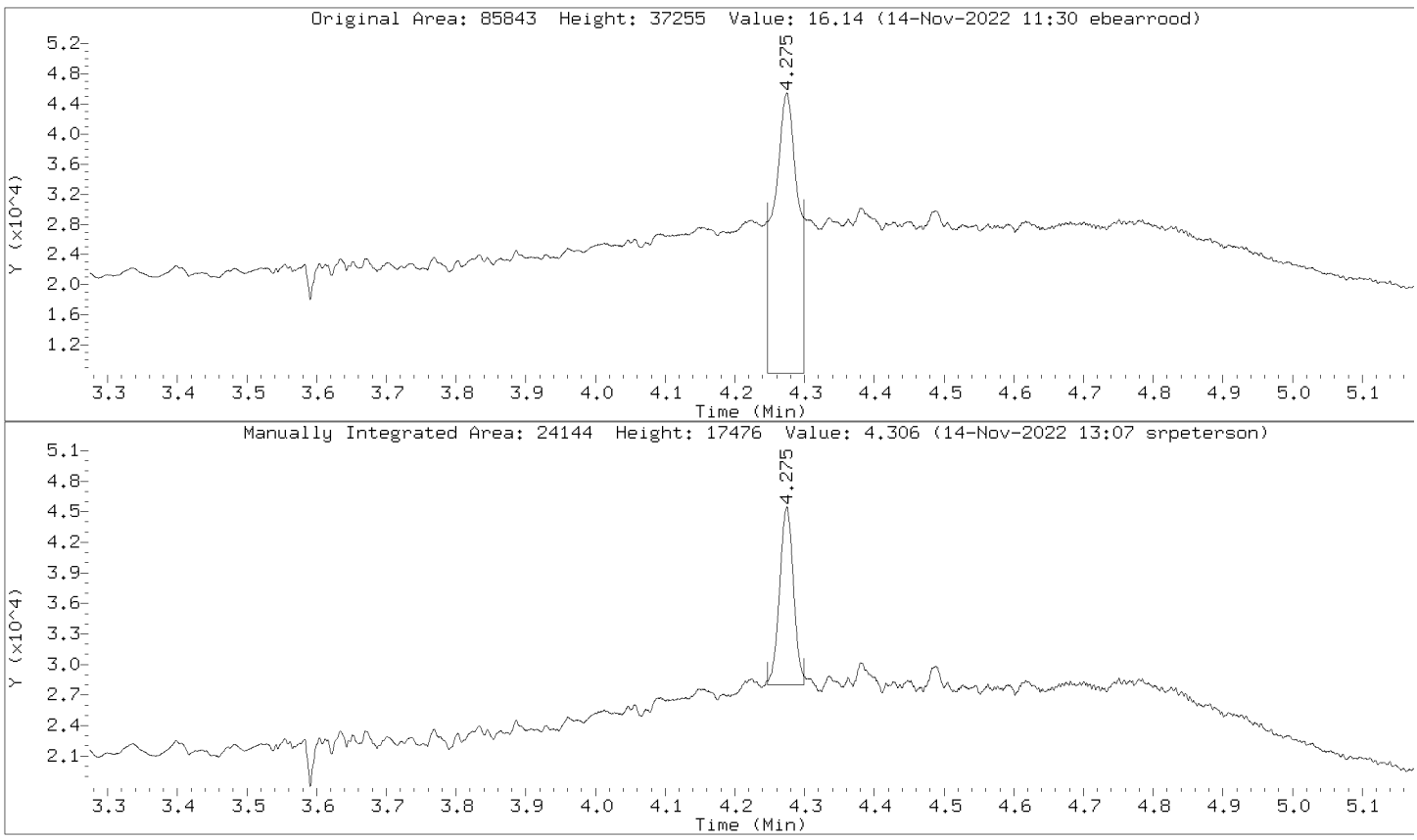
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: C10-C36 Review Code: RNG
CAS Number:



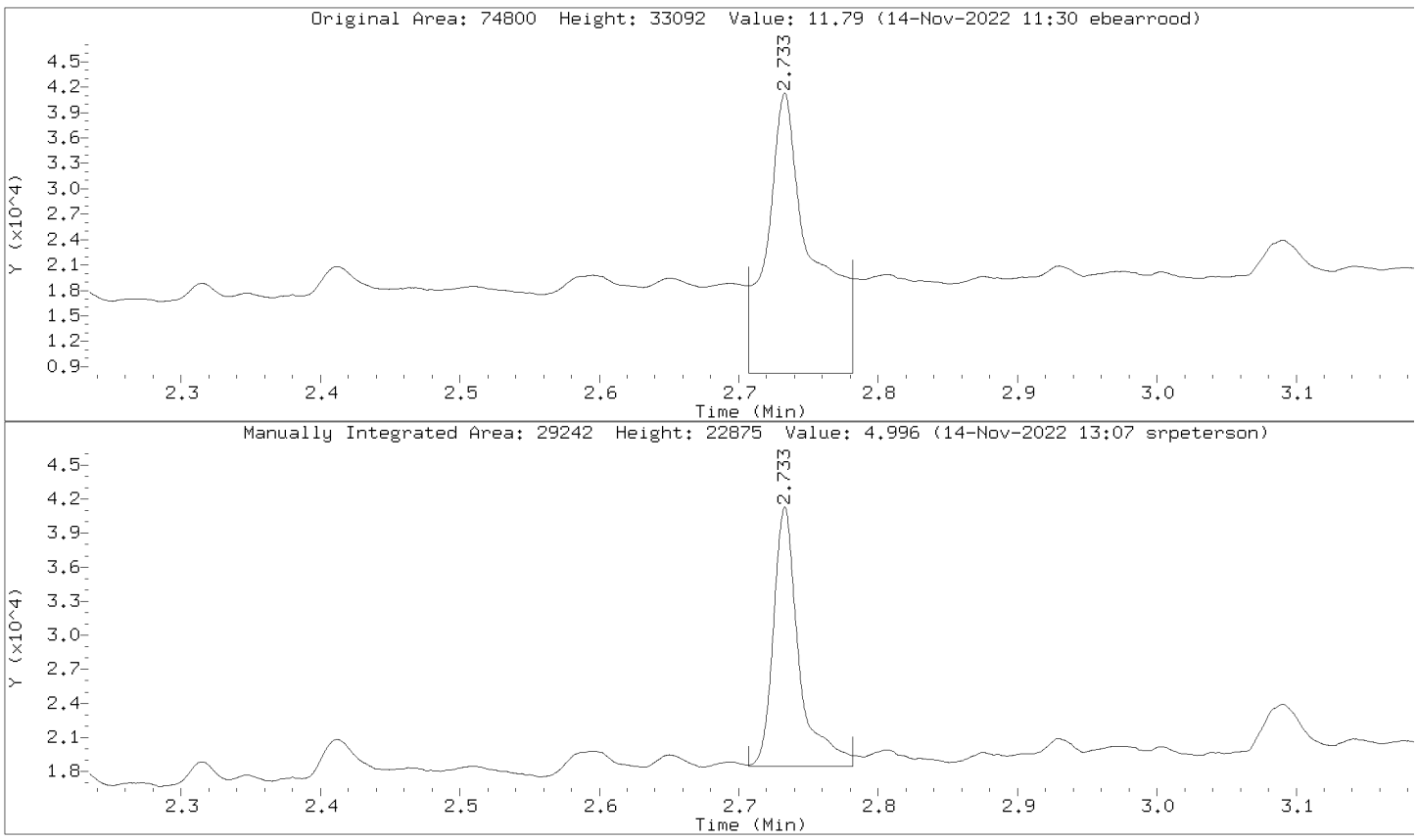
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000029.d
Injection Date: 11-NOV-2022 16:06
Instrument: 10gcsF.i
Lab Sample ID: 4506604

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1572273	1572273
DRO by AK 102	1255635	1255635
TPH-DRO (C10-C28)	1838982	1838982
Motor Oil Range (C24-C36)	1700940	1700940
Diesel Fuel Range	1241793	1241793
Motor Oil Range	1871860	1871860
Diesel Fuel Range SG	1241793	1241793
Motor Oil Range SG	1871860	1871860
C10-C36	2841264	2841264
n-Triacontane (S)	85843	24144
o-Terphenyl (S)	74800	29242

SAMPLE NO.

MSD

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/08/2022 08:50
Matrix: Solid
SDG No.: 10632887
Date Extracted: 11/09/2022 07:04
Lab Sample ID: 4506605
Date Analyzed: 11/11/2022 16:17
Lab File ID: 111122R.B\1111R0000030.D
Initial wt/vol: 10.03 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 10GCSF
Percent Moisture: 28.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	404	
	Motor Oil Range	771	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000030.d
Lab Smp Id: 4506605 Client Smp ID: BNSF-G020-SC-0.0-1.
Inj Date : 11-NOV-2022 16:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506605x10
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 24 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.030	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	28.894	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1684949	235.663	330	(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	31764	5.37208	7.53	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.274	-0.001	23559	4.19360	5.88	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		2165178	569.776	799	(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		2511095	321.051	450	(RM)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2354590	589.673	827	(RM)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		3858763	731.336	1020	(RM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1683666	288.483	404	(RM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1683666	288.483	404	(RM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2553916	549.806	771	(RM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2553916	549.806	771	(RM)	RNG

QC Flag Legend

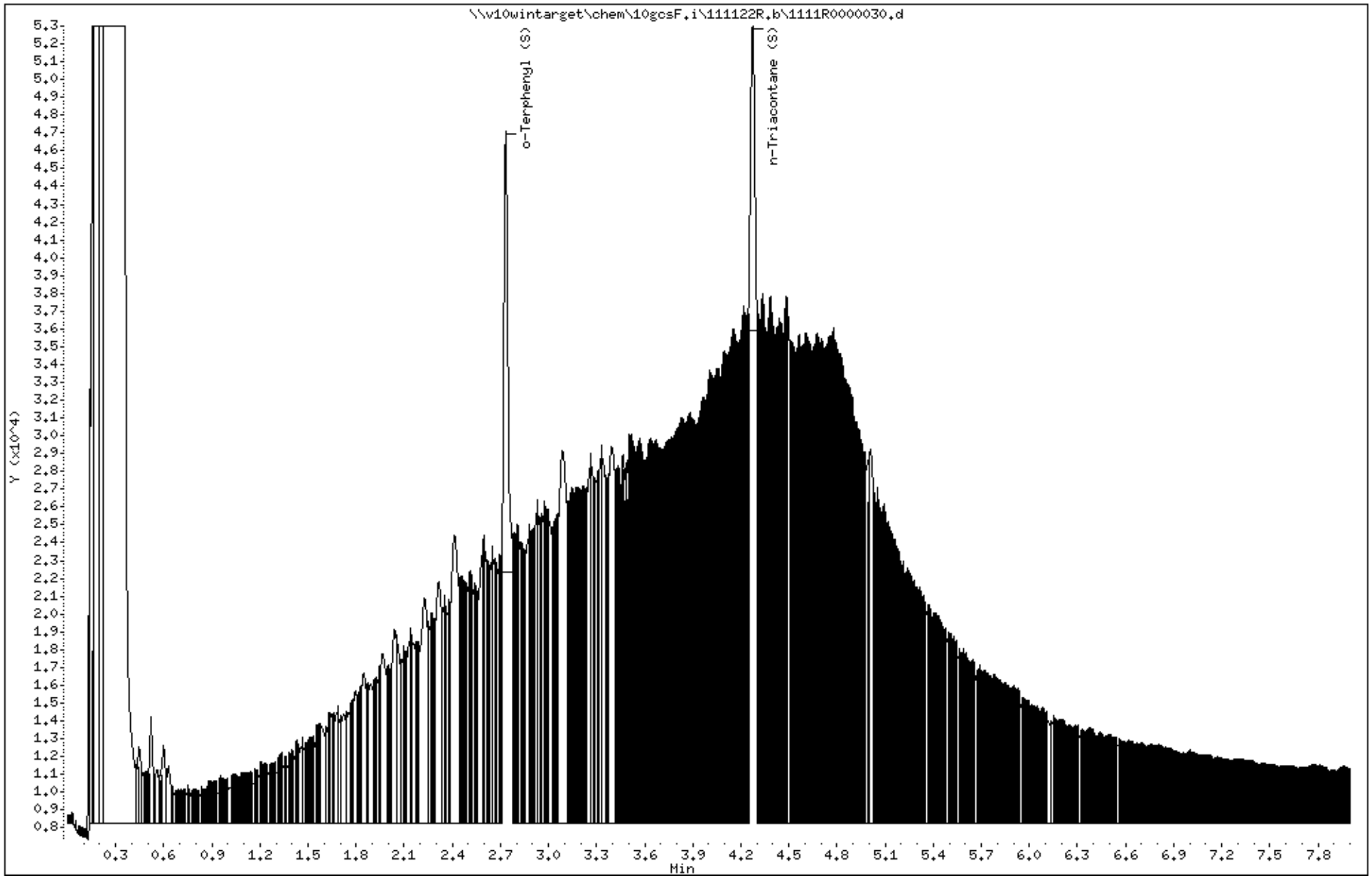
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

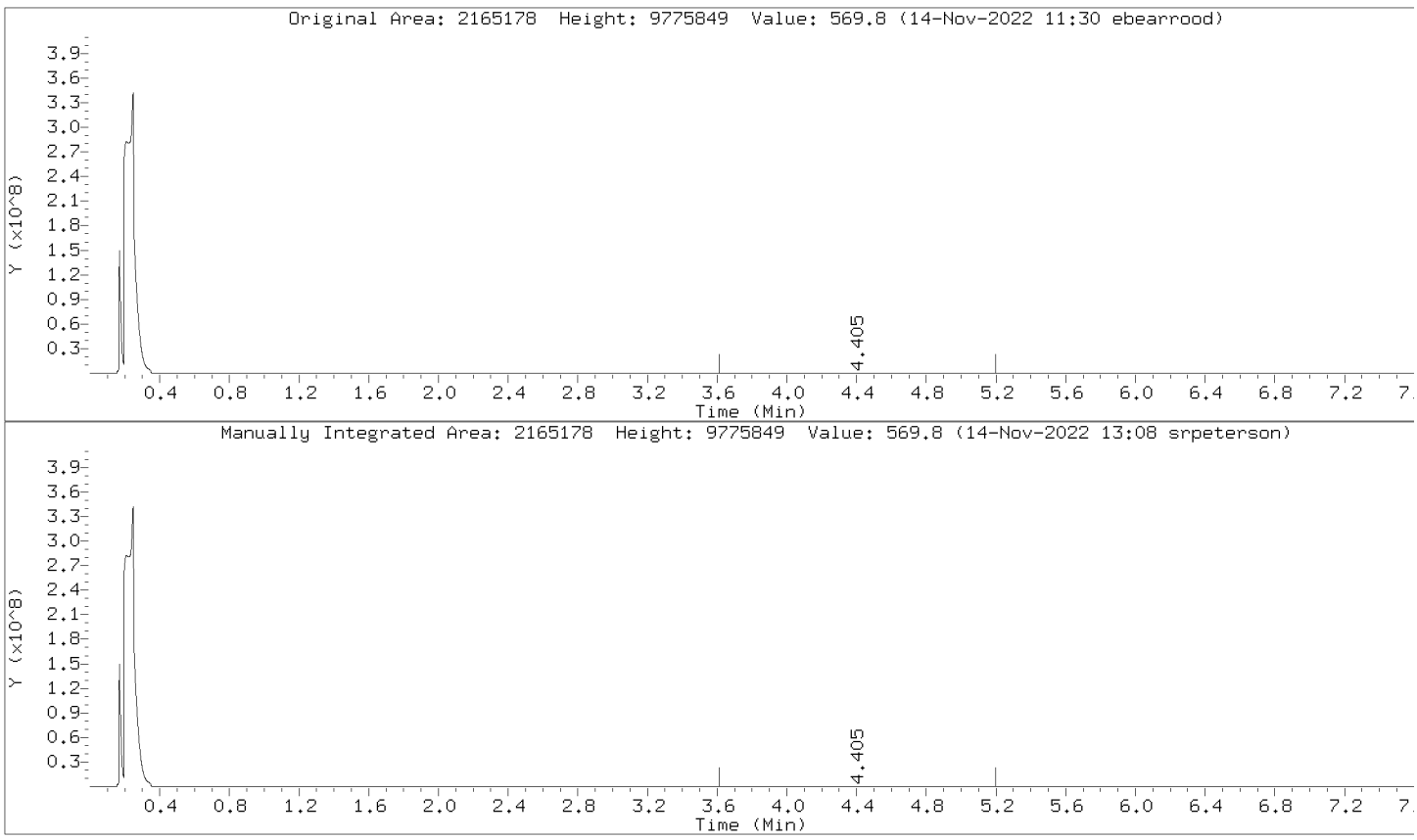
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000030.d
Date : 11-NOV-2022 16:17
Client ID: BNSF-G020-SC-0.0-1.
Sample Info: 4506605X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



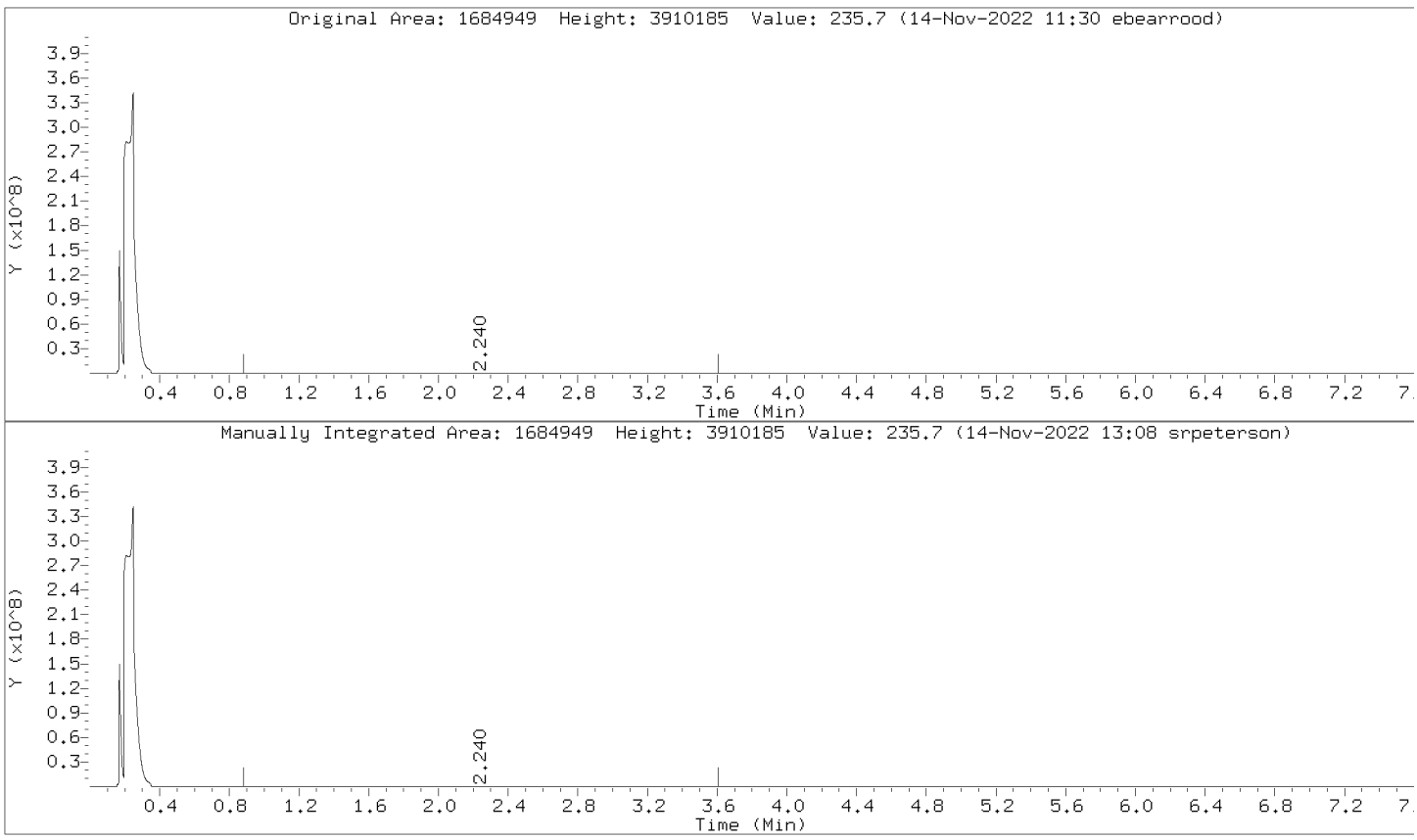
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



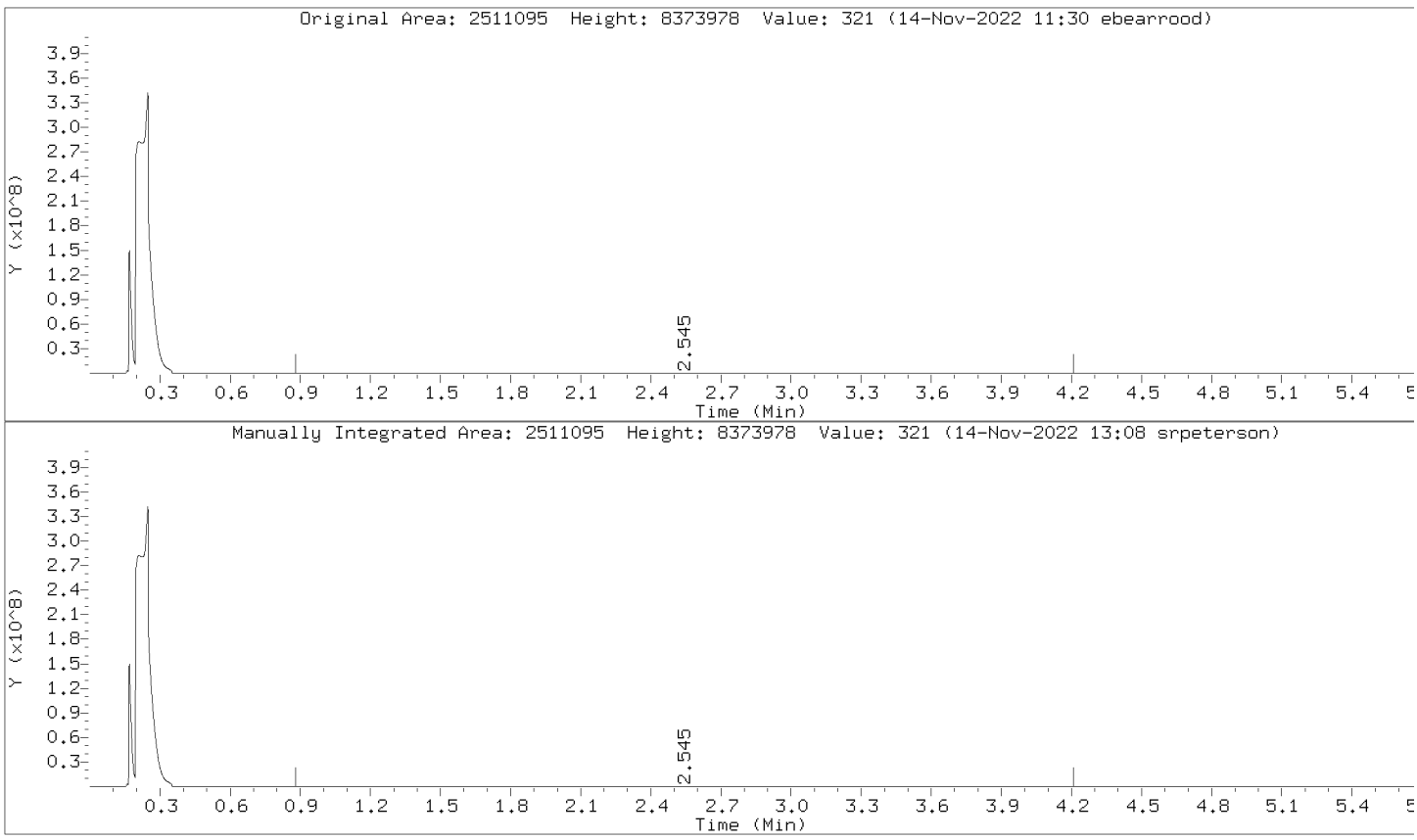
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



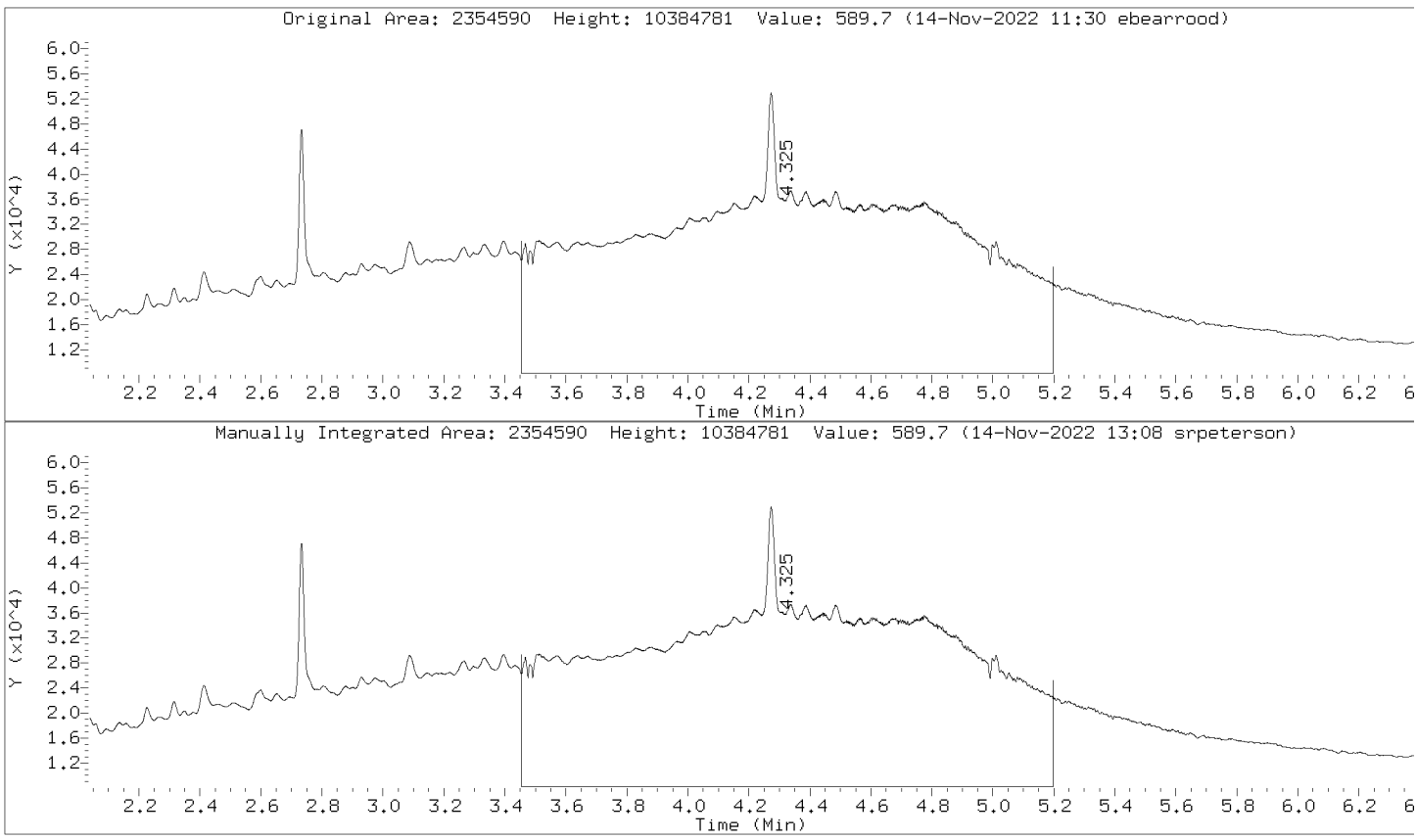
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



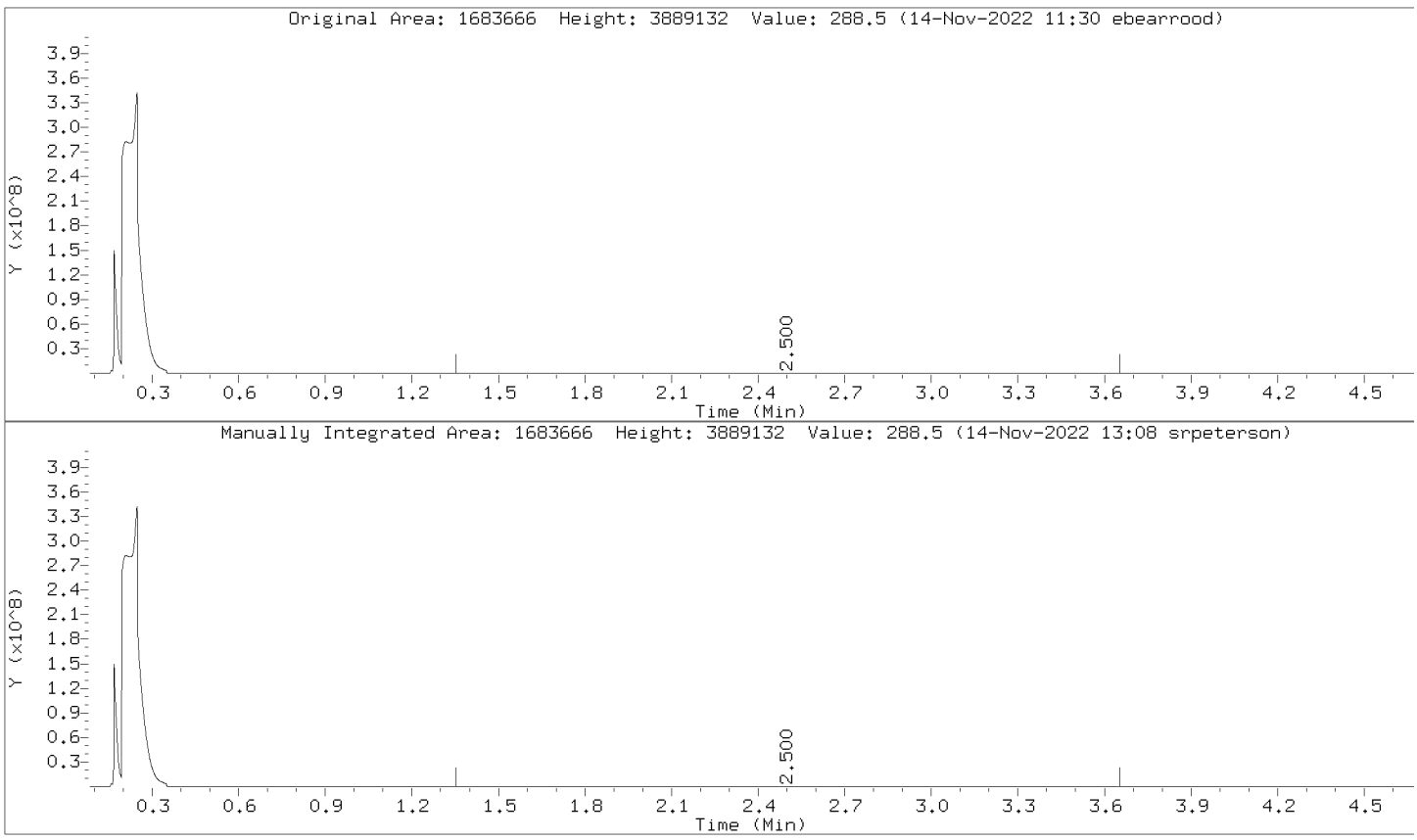
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
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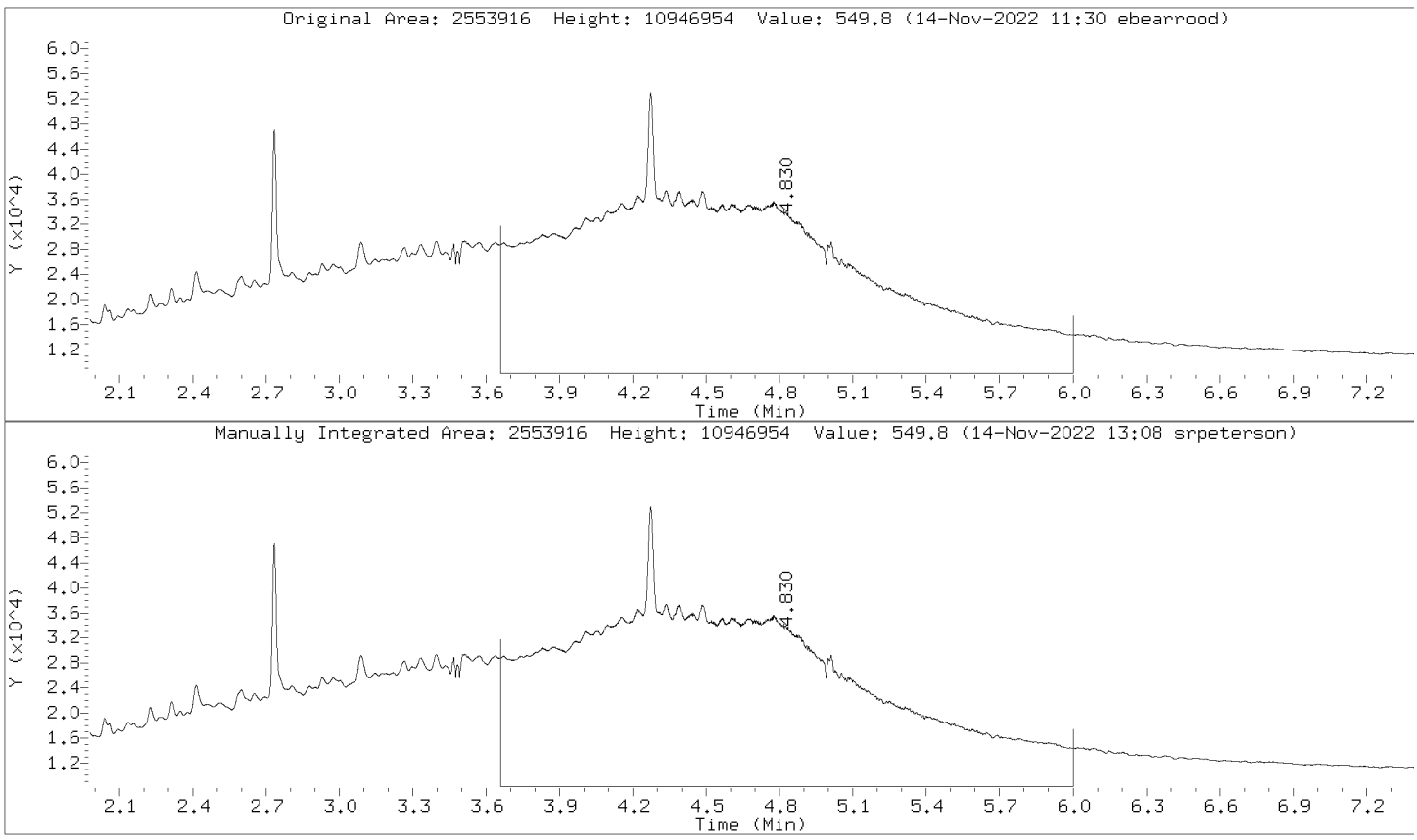
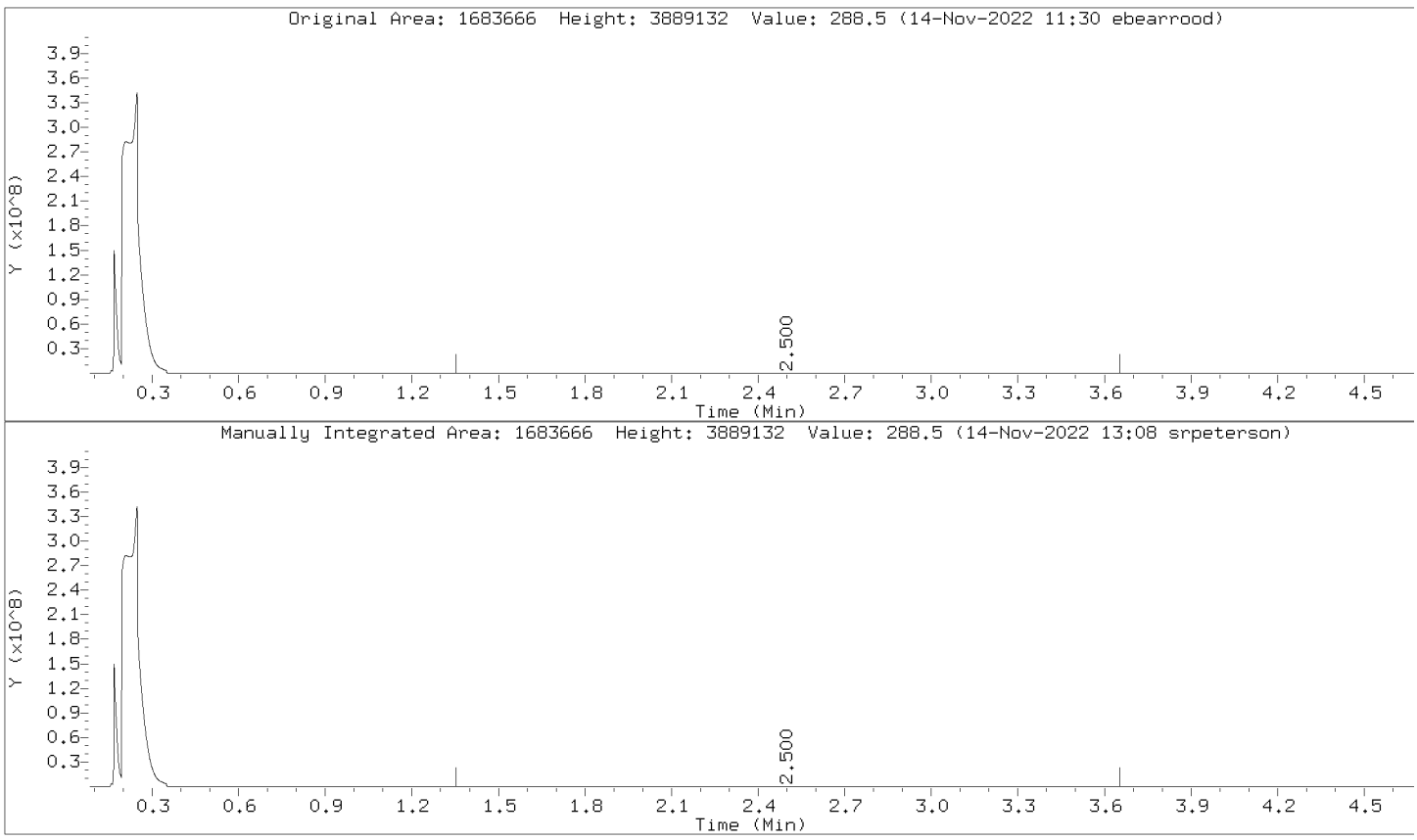
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Motor Oil Range Review Code: RNG
CAS Number:



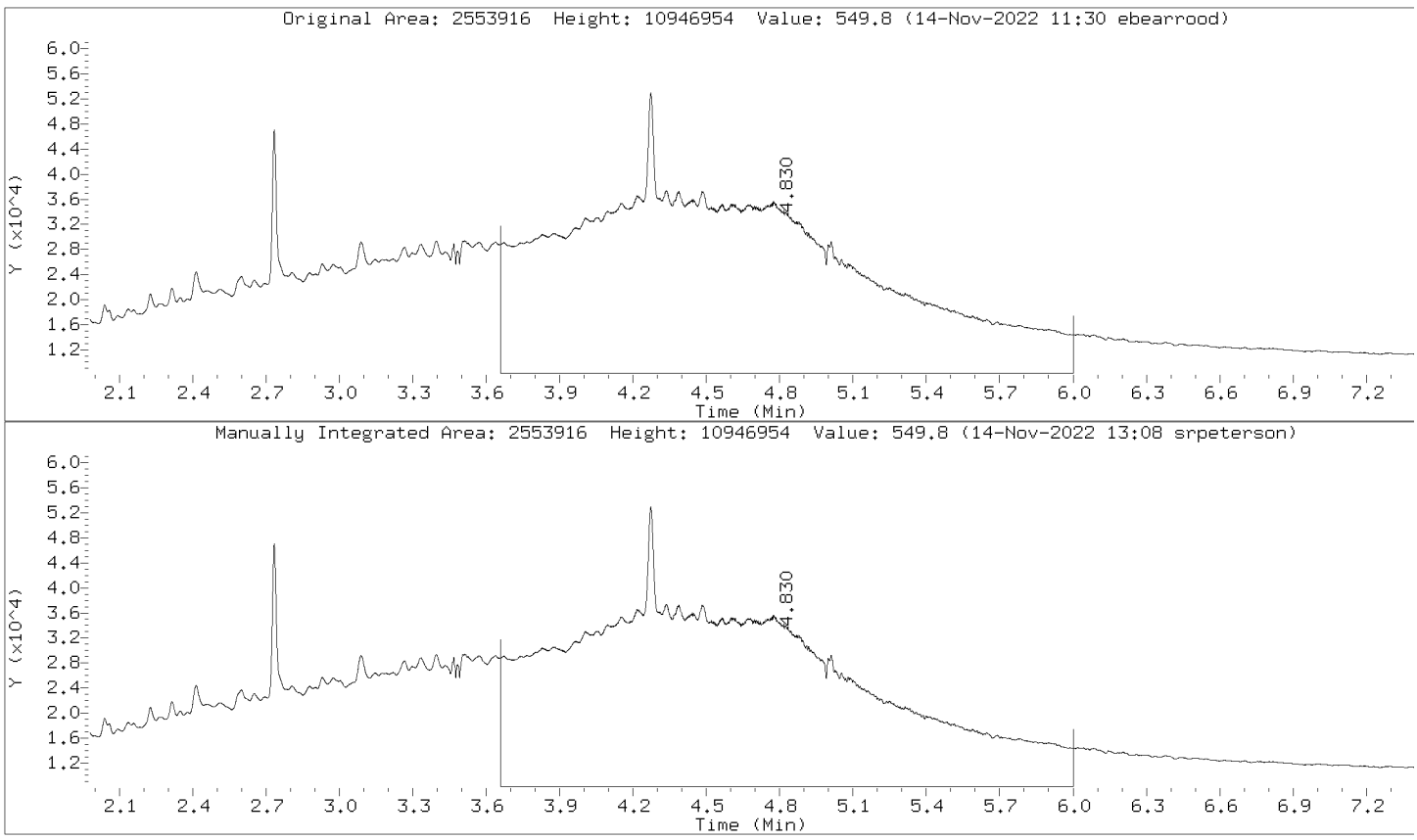
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



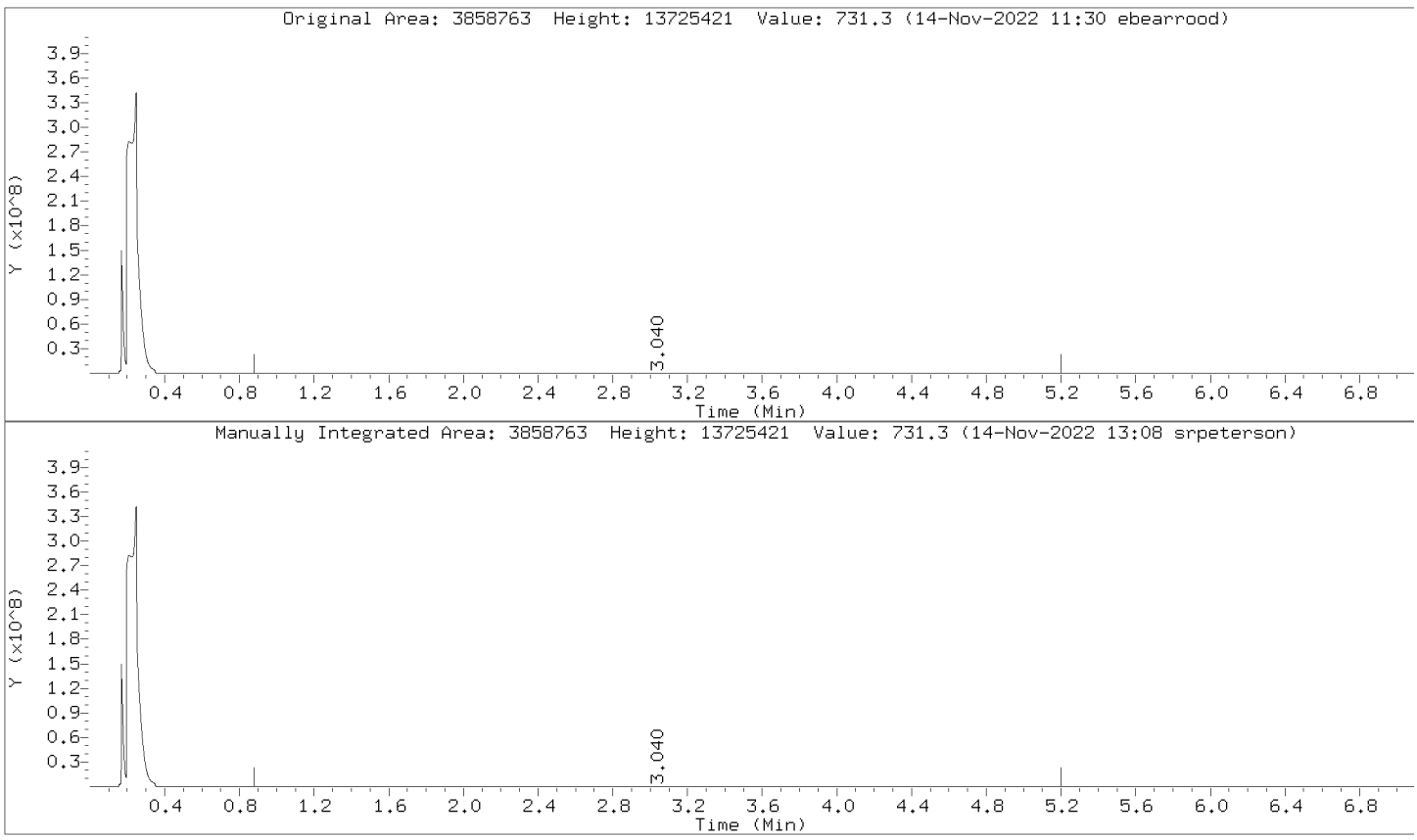
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



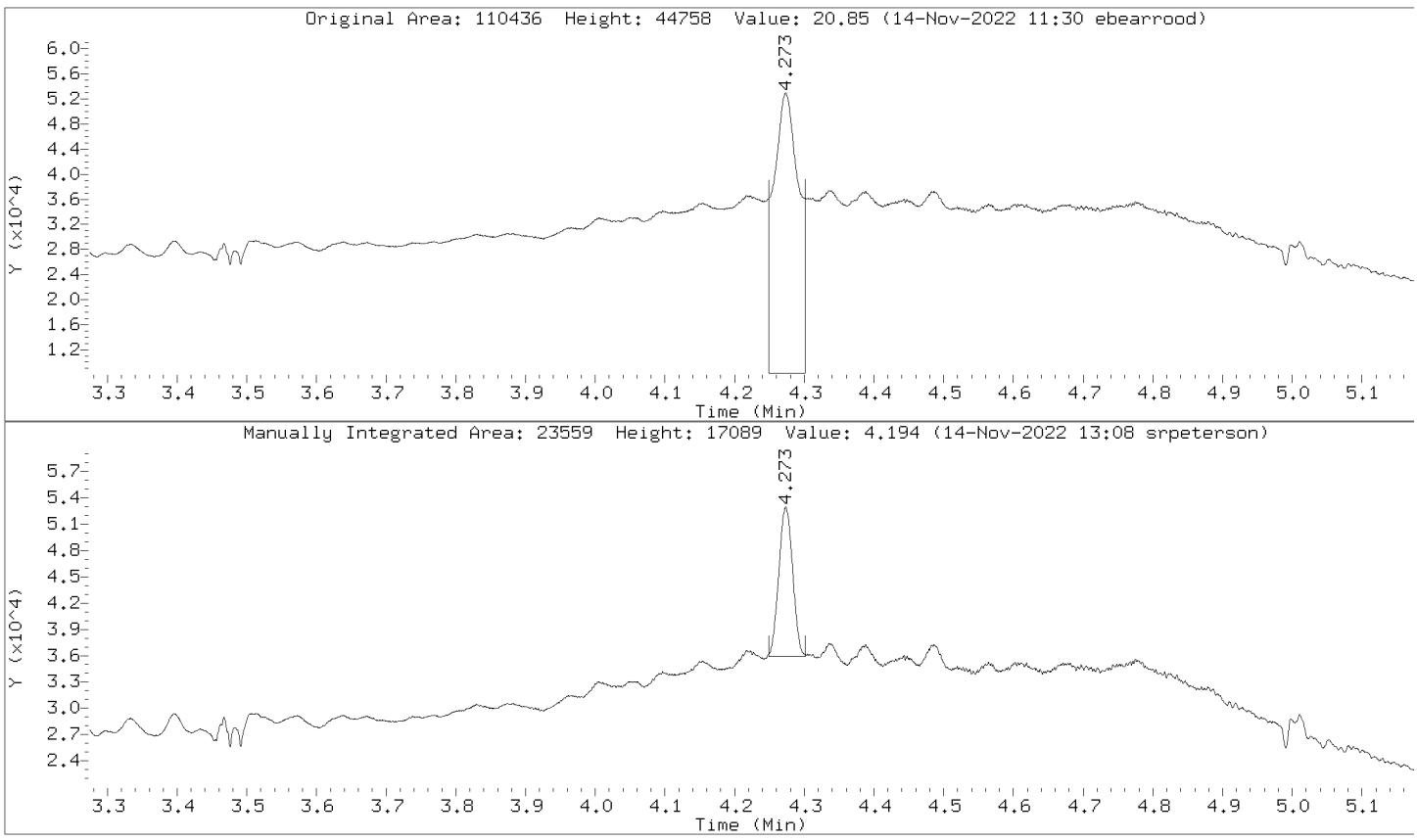
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: C10-C36 Review Code: RNG
CAS Number:



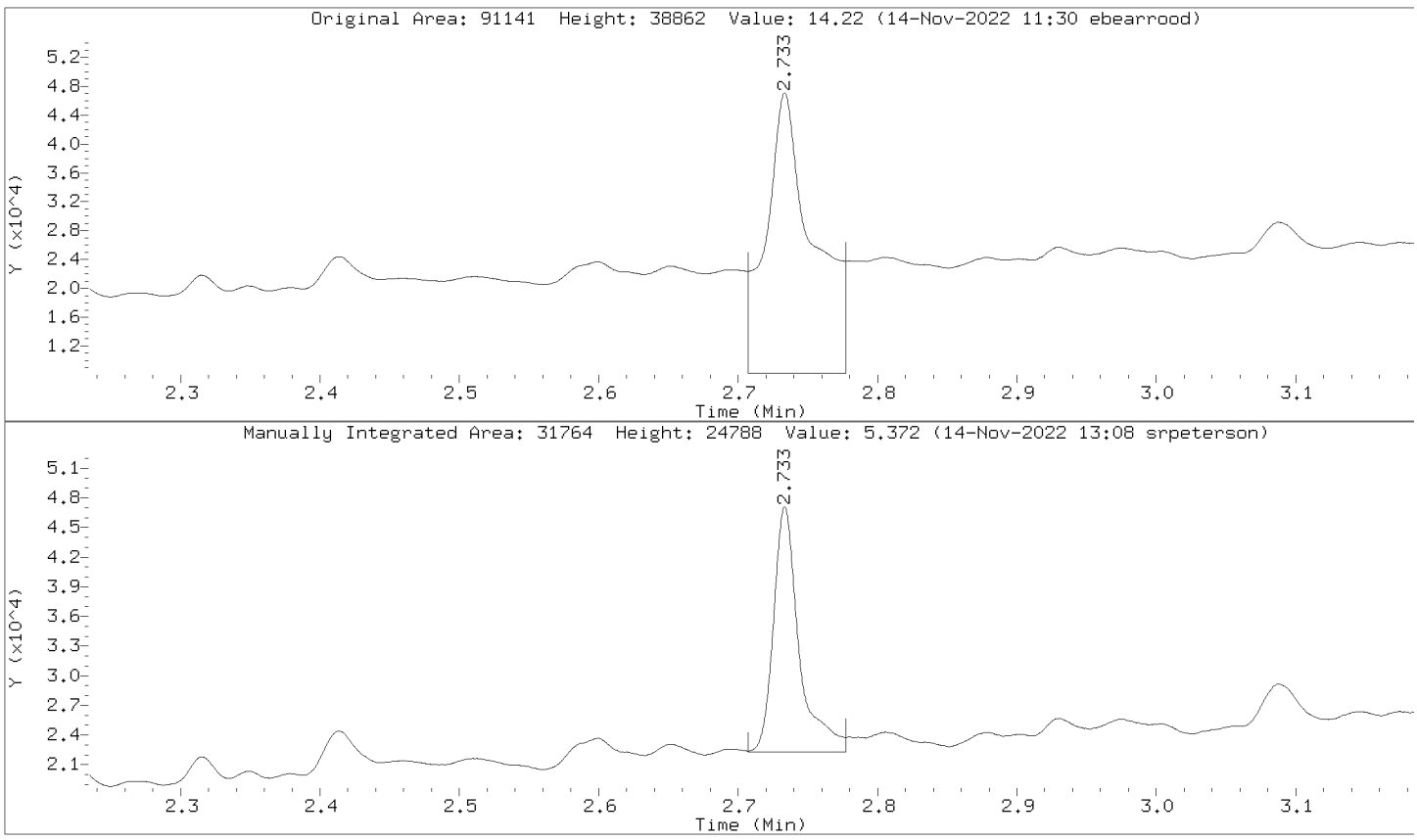
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000030.d
Injection Date: 11-NOV-2022 16:17
Instrument: 10gcsF.i
Lab Sample ID: 4506605

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2165178	2165178
DRO by AK 102	1684949	1684949
TPH-DRO (C10-C28)	2511095	2511095
Motor Oil Range (C24-C36)	2354590	2354590
Diesel Fuel Range	1683666	1683666
Motor Oil Range	2553916	2553916
Diesel Fuel Range SG	1683666	1683666
Motor Oil Range SG	2553916	2553916
C10-C36	3858763	3858763
n-Triacontane (S)	110436	23559
o-Terphenyl (S)	91141	31764

Prep Log Report

Batch Information: OEXT 67177 852301 NWDROS

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3550	Analysis Method	NWTPH-Dx	Prepared By	KG2	Extracted Date/Time	11/09/2022 07:04:17:202
Instrument	10BALW	Calibrated	Yes	Sonicator Tune Date	11/09/2022 07:04:12:009	Spiked By	KG2
Dispenser ID 1	Q617	Dispenser ID 2		Syringe ID 1	Q701	Syringe ID 2	Q628
Syringe ID 3	Q835	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	SC
Concentration Date/Time	11/10/2022 05:26:30:605	Methylene Chloride	394195	MeCl/Acetone 80:20	395153	Ottawa Sand	372714
Sodium Sulfate	393856	Glass Wool	392734	Gravity Filters	None Added	Vial Lot #	220211590
Reviewed By	RS	Reviewed By Date	11/10/2022 06:38	Batch Notes	pipette PP5-13		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Spike Verified By	Container + Sample Wt (g)	Container Wt (g)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Sonicator ID	Water Bath ID	Water Bath Thermo ID	Correction Factor
NWDROS_P	BLANK	**4506602**	Y	Solid	scanner	no one to verify			10	1	10OP37	10OP29	210745396	1
NWDROS_P	LCS	**4506603**	Y	Solid	scanner	no one to verify			10	1	10OP04	10OP29	210745396	1
NWDROS_P	PS	**10632887001**	Y	Solid	scanner	no one to verify			10.07	1	10OP04	10OP29	210745396	1
NWDROS_P	MS	**4506604**	Y	Solid	scanner	no one to verify			10	1	10OP01	10OP29	210745396	1
NWDROS_P	MSD	**4506605**	Y	Solid	scanner	no one to verify			10.03	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10632887002**	Y	Solid	scanner	no one to verify			10.02	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10632888001**	Y	Solid	scanner	no one to verify			10.07	5	10OP37	10OP29	210745396	1

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	BLANK	**4506602**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	LCS	**4506603**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)
NWDROS_P	PS	**10632887001**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	MS	**4506604**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)

Prep Log Report

10632887

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	MSD	**4506605**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)
NWDROS_P	PS	**10632887002**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	PS	**10632888001**	98.00 | 99.00	1*		392918 (10)	386115 (25)

Sample Notes:

1*: Finalized at 5ml

Standard Notes:

386115: received 9/9/22, Opened 11/7/22 KG2 **389587: 10GCSF 1005R000014.D** **392918: Recieved 10/20/22**

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:27	EB3	| PRL meeting criteria for everything except surr*
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_	11/10/22 15:15	EB3	rxooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_	11/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_	11/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_	11/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_	11/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_	11/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_	11/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_	11/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_	11/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022_	11/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022_	11/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022_	11/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022_	11/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022_	11/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022_	11/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022_	11/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022_	11/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022_	11/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 01:50	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 11/14/2022 17:50
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF | Method: 8015/AK/NW | Solvent lot: | Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy | ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:42	TT2	
1111R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:54	TT2	
1111R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:05	TT2	
1111R0000004.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 11:17	TT2	Pass 15% for all ranges
1111R0000005.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 11:29	TT2	OK
1111R0000006.D	10632809004	S/40992	Sample	5		GCSFAKNW8015-111022_	11/11/22 11:40	TT2	rr 1X
1111R0000007.D	10632809007	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:52	TT2	
1111R0000008.D	10632809003	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:04	TT2	
1111R0000009.D	10632809002	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:15	TT2	
1111R0000010.D	10632809006	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:27	TT2	
1111R0000011.D	10632809005	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:39	TT2	
1111R0000012.D	10631840002	S/40963	Sample	5		GCSFAKNW8015-111022_	11/11/22 12:51	TT2	rr 2X
1111R0000013.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:02	TT2	Pass 15% for all ranges
1111R0000014.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:14	TT2	OK
1111R0000015.D	10632809004	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 13:25	TT2	
1111R0000016.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:37	TT2	Pass 15% for all ranges
1111R0000017.D	4506646	L/41005	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:48	EB3	
1111R0000018.D	4506647	L/41005	LCS	1		GCSFAKNW8015-111022_	11/11/22 14:00	EB3	
1111R0000019.D	10632588001	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:11	EB3	
1111R0000020.D	4506691	L/41005	Dupe	1		GCSFAKNW8015-111022_	11/11/22 14:23	EB3	
1111R0000021.D	10632881002	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:34	EB3	
1111R0000022.D	4507080	L/41005	MS	1		GCSFAKNW8015-111022_	11/11/22 14:46	EB3	
1111R0000023.D	4507081	L/41005	MSD	1		GCSFAKNW8015-111022_	11/11/22 14:57	EB3	
1111R0000024.D	10632881003	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 15:08	EB3	
1111R0000025C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 15:20	EB3	Pass 15% for all ranges
1111R0000026.D	4506602	S/41006	Blank	1		GCSFAKNW8015-111022_	11/11/22 15:31	EB3	
1111R0000027.D	4506603	S/41006	LCS	1		GCSFAKNW8015-111022_	11/11/22 15:43	EB3	
1111R0000028.D	10632887001	S/41006	Sample	10		GCSFAKNW8015-111022_	11/11/22 15:54	EB3	
1111R0000029.D	4506604	S/41006	MS	10		GCSFAKNW8015-111022_	11/11/22 16:06	EB3	
1111R0000030.D	4506605	S/41006	MSD	10		GCSFAKNW8015-111022_	11/11/22 16:17	EB3	
1111R0000031.D	10632887002	S/41006	Sample	50		GCSFAKNW8015-111022_	11/11/22 16:28	EB3	rr 20X
1111R0000032.D	10632888001	/41006	Sample	100		GCSFAKNW8015-111022_	11/11/22 16:40	EB3	CA'd by PM
1111R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 16:51	EB3	Pass 15% for all ranges
1111R0000034.D	4505696	L/41007	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000034B.	4505693	L/41008	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000035.D	4505697	L/41007	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000035B.	4505694	L/41008	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000036.D	4505698	L/41007	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000036B.	4505695	L/41008	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000037.D	10632749001	L/41007	Sample	10		GCSFAKNW8015-111022_	11/11/22 17:37	EB3	
1111R0000038.D	10632742001	L/41008	Sample	1		GCSFAKNW8015-111022_	11/11/22 17:48	EB3	
1111R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 18:00	EB3	Pass 15% for all ranges
1111R0000040.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000040B.	4504340	S/41009	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000041.D	4504349	S/41010	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	
1111R0000041B.	4504341	S/41009	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000042.D	10632396001	S/41009	Sample	100		GCSFAKNW8015-111022_	11/11/22 18:34	EB3	
1111R0000043.D	10632545001	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000043B.	10632656001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000044.D	4504350	S/41010	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000044B.	4504448	S/41009	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000045.D	4504351	S/41010	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000045B.	4504449	S/41009	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000046.D	10632545002	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:20	EB3	
1111R0000047.D	10632567001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:31	EB3	
1111R0000048.D	10632567002	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:43	EB3	
1111R0000049.D	10632567003	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:54	EB3	
1111R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 20:05	EB3	Pass 15% for all ranges
1111R0000051.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 20:17	EB3	
1111R0000052.D	10632567004	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:28	EB3	
1111R0000053.D	10632567005	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:40	EB3	
1111R0000054.D	10632567006	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:51	EB3	
1111R0000055.D	10632567007	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:02	EB3	
1111R0000056.D	10632567008	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:14	EB3	
1111R0000057.D	10632567009	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:25	EB3	
1111R0000058.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:37	EB3	
1111R0000059C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 21:48	EB3	Pass 15% for all ranges
1111R0000060.D	PBLK,4504348	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:59	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111122R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/14/2022 11:44
ReviewedBy/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1114R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/14/22 12:29	EB3	
1114R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/14/22 12:39	EB3	
1114R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_	11/14/22 12:48	EB3	
1114R0000004C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/14/22 12:57	EB3	Pass 15% for all ranges
1114R0000005.D	4501498	L/40960	Blank	1		GCSFAKNW8015-111022_	11/14/22 13:07	EB3	clean
1114R0000006.D	4501499	L/40960	LCS	1		GCSFAKNW8015-111022_	11/14/22 13:16	EB3	pass
1114R0000007.D	4501500	L/40960	LCSD	1		GCSFAKNW8015-111022_	11/14/22 13:25	EB3	pass
1114R0000008.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_	11/14/22 13:34	EB3	this is rx ooh result, doesn't confirm
1114R0000009.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_	11/14/22 13:44	EB3	this is rx ooh result, doesn't confirm
1114R0000010.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_	11/14/22 13:53	EB3	this is rx ooh result, confirms
1114R0000011.D	10631872002	L/40960	Sample	1		GCSFAKNW8015-111022_	11/14/22 14:02	EB3	this is rx ooh result, confirms
1114R0000012.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_	11/14/22 14:12	EB3	this is rx ooh result, doesn't confirm
1114R0000013.D	10632161002	L/40960	Sample	1		GCSFAKNW8015-111022_	11/14/22 14:21	EB3	this is rx ooh result, doesn't confirm
1114R0000014C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/14/22 14:30	EB3	Pass 15% for all ranges
1114R0000015.D	4509135	S/41016	Blank	1		GCSFAKNW8015-111022_	11/14/22 14:40	EB3	
1114R0000016.D	4509136	S/41016	Sample	1		GCSFAKNW8015-111022_	11/14/22 14:49	EB3	
1114R0000017.D	10633212001	S/41016	Sample	1		GCSFAKNW8015-111022_	11/14/22 14:58	EB3	
1114R0000018.D	4509137	S/41016	Sample	1		GCSFAKNW8015-111022_	11/14/22 15:08	EB3	
1114R0000019.D	4509138	S/41016	Sample	1		GCSFAKNW8015-111022_	11/14/22 15:17	EB3	
1114R0000020C.	DMO-CCV,395578	/40988	Sample	1		GCSFAKNW8015-111022_	11/14/22 15:26	EB3	Pass 15% for all ranges
1114R0000021.D	4506602	S/41006	Sample	1		GCSFAKNW8015-111022_	11/14/22 15:35	EB3	ok
1114R0000022.D	10632887002	S/41006	Sample	20		GCSFAKNW8015-111022_	11/14/22 15:45	EB3	
1114R0000023.D	10631840002	S/40963	Sample	2		GCSFAKNW8015-111022_	11/14/22 15:54	EB3	
1114R0000024C.	DMO-CCV,395578	/40988	Sample	1		GCSFAKNW8015-111022_	11/14/22 16:03	EB3	Pass 15% for all ranges

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111422R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 11/14/2022 16:41
Reviewed By/Date:

SAMPLE NO.

BNSF-G020-SC-0.0-1.0-110422

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Lab Sample ID: 10632887001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	28.9		%	1	11/09/2022 11:12

SAMPLE NO.

BNSF-F390-SC-6.2-7.2-110722

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Lab Sample ID: 10632887002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	23.5		%	1	11/09/2022 11:13

SAMPLE NO.

4506582DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	18.0	17.5	3

SAMPLE NO.

4506743DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	11.4	11.5	1

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 129779

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4506582	4506582	11/09/2022	1	1
4506743	4506743	11/09/2022	1	1
10632887001	BNSF-G020-SC-0.0-1.0-	11/09/2022	1	1
10632887002	BNSF-F390-SC-6.2-7.2-	11/09/2022	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632887 Contract: D3631600

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 11/09/2022 11:08 End Date: 11/09/2022 11:13

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
10632809002	10632809002	1	11/09/2022	11:08	X
4506743DUP	4506743	1	11/09/2022	11:09	X
10632893001	10632893001	1	11/09/2022	11:11	X
4506582DUP	4506582	1	11/09/2022	11:11	X
BNSF-G020-SC-0.0-1.0-	10632887001	1	11/09/2022	11:12	X
BNSF-F390-SC-6.2-7.2-	10632887002	1	11/09/2022	11:13	X

Prep Log Report

Batch Information: 852292 129779 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/09/2022 11:35 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/10/2022 08:00 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 11/10/2022 08:00 | JDL	Desic. Out 1 Date/Time | Init	11/10/2022 08:30 | JDL	Reviewed By	RAM
Reviewed By Date	11/10/2022 13:20	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10632809001**	Y		86.84	13.16	11/09/2022 11:08:22	8.5073	1.2426	9.6082	8.5073	M	
DRY WEIGHT	PS	**10632809002**	Y		88.65	11.35	11/09/2022 11:08:51	8.9857	1.2365	9.9781	8.9857	M	
DRY WEIGHT	DUP	**4506743**	Y		88.54	11.46	11/09/2022 11:09:04	8.8735	1.2392	9.8614	8.8735	M	
DRY WEIGHT	PS	**10632809003**	Y		88.82	11.18	11/09/2022 11:09:18	8.5117	1.2352	9.4279	8.5117	M	
DRY WEIGHT	PS	**10632809004**	Y		88.44	11.56	11/09/2022 11:09:30	8.2032	1.2377	9.1135	8.2032	M	
DRY WEIGHT	PS	**10632809005**	Y		88.74	11.26	11/09/2022 11:09:42	8.3474	1.2383	9.2492	8.3474	M	
DRY WEIGHT	PS	**10632809006**	Y		87.99	12.01	11/09/2022 11:09:55	8.1503	1.2337	9.0948	8.1503	M	
DRY WEIGHT	PS	**10632809007**	Y		88.98	11.02	11/09/2022 11:10:08	8.7929	1.2402	9.7279	8.7929	M	
DRY WEIGHT	PS	**10632869001**	Y		91.97	8.029	11/09/2022 11:10:19	8.8338	1.2331	9.4973	8.8338	M	
DRY WEIGHT	PS	**10632869002**	Y		91.35	8.647	11/09/2022 11:10:46	9.1298	1.2398	9.8766	9.1298	M	
DRY WEIGHT	PS	**10632570001**	Y		63.04	36.96	11/09/2022 11:10:58	6.4052	1.2356	9.4359	6.4052	M	
DRY WEIGHT	PS	**10632893001**	Y		82.04	17.96	11/09/2022 11:11:11	8.3651	1.2389	9.9254	8.3651	M	
DRY WEIGHT	DUP	**4506582**	Y		82.53	17.47	11/09/2022 11:11:23	8.4421	1.2405	9.9669	8.4421	M	
DRY WEIGHT	PS	**10632893003**	Y		83.50	16.50	11/09/2022 11:11:35	8.2421	1.2371	9.6261	8.2421	M	
DRY WEIGHT	PS	**10632893004**	Y		87.47	12.53	11/09/2022 11:11:53	8.3666	1.2323	9.3887	8.3666	M	
DRY WEIGHT	PS	**10632928001**	Y		94.21	5.788	11/09/2022 11:12:06	9.3439	1.2343	9.8421	9.3439	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10632928002**	Y		81.48	18.52	11/09/2022 11:12:23	7.9181	1.2389	9.4358	7.9181	M	
DRY WEIGHT	PS	**10632928003**	Y		93.84	6.164	11/09/2022 11:12:41	8.9506	1.2333	9.4575	8.9506	M	
DRY WEIGHT	PS	**10632887001**	Y		71.11	28.89	11/09/2022 11:12:53	7.0091	1.2346	9.3556	7.0091	M	
DRY WEIGHT	PS	**10632887002**	Y		76.52	23.48	11/09/2022 11:13:05	7.7475	1.2452	9.7426	7.7475	M	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis MN 55414

Generated 12/21/2022 10:02 PM Revision 1

JOB DESCRIPTION

10632887 D3631600

JOB NUMBER

580-119923-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
12/21/2022 10:02 PM
Revision 1

Authorized for release by
Pauline M Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
253 922-2310

Table of Contents

Table of Contents

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
580-119923-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 12/19/2022. The report (revision 1) is being revised due to: Sample ID for sample #1 contained an error, this has been corrected.

Receipt
The samples were received on 11/10/2022 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3º C.

General Chemistry
Method 9060A: The following samples were prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-G020-SC-0.0-1.0-110422 (580-119923-1) and BNSF-F390-SC-6.2-7.2-110722 (580-119923-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422 — Lab Sample ID: 580-119923-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	10000	H	3000	140	mg/Kg	1	☼	9060A	Total/NA

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722 — Lab Sample ID: 580-119923-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	32000	H	2600	120	mg/Kg	1	☼	9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422

Lab Sample ID: 580-119923-1

Date Collected: 11/04/22 10:20
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 67.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	10000	H	3000	140	mg/Kg	☼		12/16/22 23:29	1

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722

Lab Sample ID: 580-119923-2

Date Collected: 11/07/22 10:30
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 77.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	32000	H	2600	120	mg/Kg	☼		12/16/22 23:34	1

Default Detection Limits

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

General Chemistry

Analyte	RL	MDL	Units
Total Organic Carbon - Duplicates	2000	97	mg/Kg

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/5
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/16/22 22:15	1

Lab Sample ID: LCS 580-413230/6
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	132000		mg/Kg		110	80 - 120		

Lab Sample ID: LCSD 580-413230/7
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	131000		mg/Kg		109	80 - 120	0	20

QC Association Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

General Chemistry

Analysis Batch: 409817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-119923-1	BNSF-G020-SC-0.0-1.0-110422	Total/NA	Solid	2540G	
580-119923-2	BNSF-F390-SC-6.2-7.2-110722	Total/NA	Solid	2540G	

Analysis Batch: 413230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-119923-1	BNSF-G020-SC-0.0-1.0-110422	Total/NA	Solid	9060A	
580-119923-2	BNSF-F390-SC-6.2-7.2-110722	Total/NA	Solid	9060A	
MB 580-413230/5	Method Blank	Total/NA	Solid	9060A	
LCS 580-413230/6	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-413230/7	Lab Control Sample Dup	Total/NA	Solid	9060A	

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Lab Sample ID: 580-119923-1
Date Collected: 11/04/22 10:20
Matrix: Solid
Date Received: 11/10/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422
Lab Sample ID: 580-119923-1
Date Collected: 11/04/22 10:20
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 67.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/16/22 23:29

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Lab Sample ID: 580-119923-2
Date Collected: 11/07/22 10:30
Matrix: Solid
Date Received: 11/10/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	409817	AUA	EET SEA	11/14/22 09:46

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722
Lab Sample ID: 580-119923-2
Date Collected: 11/07/22 10:30
Matrix: Solid
Date Received: 11/10/22 09:35
Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/16/22 23:34

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Job ID: 580-119923-1
Project/Site: 10632887 D3631600

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Method	Method Description	Protocol	Laboratory
2540G	SM 2540G	SM22	EET SEA
9060A	Organic Carbon, Total (TOC)	SW846	EET SEA

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: 10632887 D3631600

Job ID: 580-119923-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-119923-1	BNSF-G020-SC-0.0-1.0-110422	Solid	11/04/22 10:20	11/10/22 09:35
580-119923-2	BNSF-F390-SC-6.2-7.2-110722	Solid	11/07/22 10:30	11/10/22 09:35

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CaCO3_00004_00009	07/16/25	LECO, Lot 1001			(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00012	03/31/23	Alfa Aesar, Lot X15E030			(Purchased Reagent)		Total Organic Carbon - Duplicates	120000 mg/Kg
TOCS_LCS_00012	07/26/23	ERA, Lot D108-542			(Purchased Reagent)		TOC Result 1	4300 mg/Kg
							Total Organic Carbon - Duplicates	4300 mg/Kg

Reagent

CaCO3_00004_00009

Version	00
Molecular weight	100.09
Quality Test / Release Date	07/31/2020
Molecular Formula	C Ca O3
CAS No	471-34-1
Linear Formula	CaCO3
Flash Point (°C)	

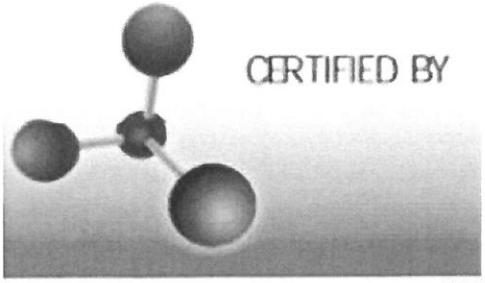
Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	42351	**Quality Test / Release Date**	07/31/2020
Lot Number	A0421160	**Suggested retest date**	07/31/2025
Description	Calcium carbonate,99+%,ACS reagent		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Crystalline powder	Crystalline powder
Titration Complexometric	>=99.0 % (on dried substance)	99.4 % (on dried substance)
Heavy metals (ICP-OES)	=<0.001 %	=<0.001 %
Insoluble matter	=<0.01 % (in dilute HCl)	0.008 % (in dilute HCl)
Chloride (Cl)	=<0.001 %	=<0.001 %
Fluoride (F)	=<0.0015 %	=<0.0015 %
Sulfate (SO4)	=<0.01 %	=<0.01 %
Ammonium (NH4)	=<0.003 %	=<0.003 %
Barium (Ba)	=<0.01 %	0.00164 %
Iron (Fe)	=<0.003 %	=<0.003 %
Magnesium (Mg)	=<0.02 %	0.010341 %
Potassium (K)	=<0.01 %	0.001048 %
Sodium (Na)	=<0.1 %	0.07061 %
Strontium (Sr)	=<0.1 %	0.007741 %



C. Wygaerts, QA Manager

Issued: 08-03-2020

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet:http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

3092515

ID: CaCO3_00004_00009

Exp 07/16/25 Prpd:R1K Opn:03/04/22

CaCO3-12%TC Second Source

FCG 3/4/22

Reagent

CaCO3_00012

Certificate of analysis

2450156
ID: CaCO3_00012
Exp:03/31/23 Prpd:JKM Opn:08/14/19
CaCO3-12%TC Second Source

Product No.: 36337

Product: Calcium carbonate, ACS, low in alkalies, 99.0% min

Lot No.: X15E030

Test	Limits	Results
Assay	99.5 % min	99.1 %
Insoluble in dilute HCl	0.01 % max	< 0.01 %
Chloride	0.001 % max	< 0.001 %
Fluoride	0.0015 % max	< 0.0008 %
Sulfate	0.005 % max	< 0.01 %
Ammonium	0.003 % max	< 0.003 %
Barium	0.01 %	< 0.01 %
Heavy metals (as Pb)	0.001 % max	< 0.001 %
Iron	0.002 % max	< 0.003 %
Magnesium	0.01 % max	0.003 %
Potassium	0.01 % max	< 0.01 %
Sodium	0.01 % max	< 0.1 %
Strontium	0.1 % max	< 0.1 %

This document has been electronically generated and does not require a signature.

Reagent

TOCS_LCS_00012

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D108-542
Certificate Issue Date: December 26, 2019
Expiration Date: July 26, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	853	795	5.50	523 - 1070	456 - 1130
Total Kjeldahl Nitrogen	1510	1500	12.3	976 - 2030	827 - 2180
Total Organic Carbon (TOC)	4300	4370	6.86	1580 - 7150	1530 - 7200
Total Phosphorus	911	815	10.8	422 - 1210	185 - 1440

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	853	795	93.3	39	-	-
Total Kjeldahl Nitrogen	1510	1500	99.7	33	-	-
Total Organic Carbon (TOC)	4300	4370	102	24	-	-
Total Phosphorus	911	815	89.4	55	-	-

2735864
ID: TOCS_LCS_00012
Exp: 01/31/22 Prpd: R1K
1540-7000 mg/kg TOC

Rev.1 10/21/20

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119923-1

SDG No.:

Project: 10632887 D3631600

Client Sample ID	Lab Sample ID
BNSF-G020-SC-0.0-1.0-110422	580-119923-1
BNSF-F390-SC-6.2-7.2-110722	580-119923-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-G020-SC-0.0-1.0-110422 Lab Sample ID: 580-119923-1

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG ID.:

Matrix: Solid Date Sampled: 11/04/2022 10:20

Reporting Basis: DRY Date Received: 11/10/2022 09:35

% Solids: 67.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	10000	3000	140	mg/Kg		H	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-F390-SC-6.2-7.2-110722 Lab Sample ID: 580-119923-2

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG ID.:

Matrix: Solid Date Sampled: 11/07/2022 10:30

Reporting Basis: DRY Date Received: 11/10/2022 09:35

% Solids: 77.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	32000	2600	120	mg/Kg		H	1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Analyst: FCG Batch Start Date: 11/11/2022

Reporting Units: mg/Kg Analytical Batch No.: 413230

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	20:33	Total Organic Carbon - Duplicates	4220	4300	98	80-120		TOCS_LCS_00012
2	ICB	20:35	Total Organic Carbon - Duplicates	ND					
3	CCV	22:10	Total Organic Carbon - Duplicates	138000	120000	115	80-120		CaCO3_00004_00009
4	CCB	22:12	Total Organic Carbon - Duplicates	ND					
15	CCV	23:16	Total Organic Carbon - Duplicates	137000	120000	114	80-120		CaCO3_00004_00009
16	CCB	23:18	Total Organic Carbon - Duplicates	ND					
27	CCV	01:35	Total Organic Carbon - Duplicates	137000	120000	115	80-120		CaCO3_00004_00009
28	CCB	01:37	Total Organic Carbon - Duplicates	104				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 413230 Date: 12/16/2022 22:15							
9060A	MB 580-413230/5	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/16/2022 22:18											
						LCS Source: CaCO3_00012					
9060A	LCS 580-413230/6	Total Organic Carbon - Duplicates	132000		mg/Kg	120000	110	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230	Date: 12/16/2022 22:21										
						LCSD Source: CaCO3_00012					
9060A	LCSD 580-413230/7	Total Organic Carbon - Duplicates	131000		mg/Kg	120000	109	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119923-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119923-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-119923-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 11/14/2022 09:46 End Date: 11/14/2022 09:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
ZZZZZZ			09:46																										
ZZZZZZ			09:46																										
580-119923-1	1	T	09:46	X	X																								
580-119923-2	1	T	09:46	X	X																								
ZZZZZZ			09:46																										
ZZZZZZ			09:46																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes
				TOCD
ICV 580-413230/1	1		20:33	X
ICB 580-413230/2	1		20:35	X
CCV 580-413230/3	1		22:10	X
CCB 580-413230/4	1		22:12	X
MB 580-413230/5	1	T	22:15	X
LCS 580-413230/6	1	T	22:18	X
LCSD 580-413230/7	1	T	22:21	X
ZZZZZZ			22:23	
ZZZZZZ			22:33	
ZZZZZZ			22:42	
ZZZZZZ			22:45	
ZZZZZZ			22:47	
ZZZZZZ			22:57	
ZZZZZZ			23:06	
CCV 580-413230/15	1		23:16	X
CCB 580-413230/16	1		23:18	X
ZZZZZZ			23:20	
580-119923-1	1	T	23:29	X
580-119923-2	1	T	23:34	X
ZZZZZZ			23:39	
ZZZZZZ			23:50	
ZZZZZZ			00:00	
ZZZZZZ			00:12	
ZZZZZZ			01:00	
ZZZZZZ			01:11	
ZZZZZZ			01:22	
CCV 580-413230/27	1		01:35	X
CCB 580-413230/28	1		01:37	X
ZZZZZZ			01:40	
ZZZZZZ			01:51	
ZZZZZZ			02:03	
ZZZZZZ			02:08	
ZZZZZZ			02:13	
ZZZZZZ			02:19	
CCV 580-413230/35			02:24	
CCB 580-413230/36			02:27	
CCV 580-413230/37			23:41	
CCB 580-413230/38			23:43	
ZZZZZZ			23:46	
ZZZZZZ			23:48	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes
				TOCD
ZZZZZZ			23:52	
ZZZZZZ			23:54	
ZZZZZZ			23:59	
ZZZZZZ			00:04	
ZZZZZZ			00:07	
ZZZZZZ			00:09	
ZZZZZZ			00:14	
ZZZZZZ			00:19	
CCV 580-413230/49			00:25	
CCB 580-413230/50			00:27	
ZZZZZZ			00:29	
ZZZZZZ			00:34	
ZZZZZZ			00:38	
ZZZZZZ			00:43	
ZZZZZZ			00:47	
ZZZZZZ			00:52	
ZZZZZZ			00:57	
ZZZZZZ			01:02	
ZZZZZZ			01:07	
ZZZZZZ			01:11	
CCV 580-413230/61			01:22	
CCB 580-413230/62			01:24	
ZZZZZZ			01:27	
ZZZZZZ			01:32	
ZZZZZZ			01:36	
ZZZZZZ			01:41	
ZZZZZZ			01:46	
ZZZZZZ			01:52	
CCV 580-413230/69			01:58	
CCB 580-413230/70			02:00	
CCV 580-413230/71			02:03	
CCB 580-413230/72			02:05	
ZZZZZZ			02:07	
ZZZZZZ			02:10	
ZZZZZZ			02:13	
ZZZZZZ			02:15	
ZZZZZZ			02:20	
ZZZZZZ			02:25	
ZZZZZZ			02:28	
ZZZZZZ			02:31	

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCD																									
ZZZZZZ			02:36																										
ZZZZZZ			02:41																										
CCV 580-413230/83			02:46																										
CCB 580-413230/84			02:49																										
ZZZZZZ			02:51																										
ZZZZZZ			02:56																										
ZZZZZZ			03:00																										
ZZZZZZ			03:05																										
ZZZZZZ			03:10																										
ZZZZZZ			03:14																										
ZZZZZZ			03:19																										
CCV 580-413230/92			03:24																										
CCB 580-413230/93			03:27																										

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Batch Number: 409817 Batch Start Date: 11/14/22 09:46 Batch Analyst: Ulloa Aguilar, Ashley

Batch Method: 2540G Batch End Date: 11/14/22 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	
580-119923-A-1	BNSF-G020-SC-0.0 -1.0-110422	2540G	T	0.8401 g	8.1105 g	5.7372 g	32.643320862676 1 %	67.356679137323 9 %	
580-119923-A-2	BNSF-F390-SC-6.2 -7.2-110722	2540G	T	0.8414 g	9.0052 g	7.1581 g	22.625493030206 5 %	77.374506969793 5 %	

Batch Notes	
Balance ID	SEA227
Oven ID	OVEN 2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	11/14/2022
Time samples were place in the oven	10:26
Temperature - Start - Uncorrected	110.1 Degrees C
Oven Temp In	109.7 Degrees C
Date samples were removed from oven	11/14/2022
Time Samples were removed from oven	16:49
Temperature - End - Uncorrected	109.9 Degrees C
Oven Temp Out	109.5 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-119923-1

SDG No.:

Batch Number: 413230 Batch Start Date: 12/16/22 22:10 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 12/18/22 03:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00141	Baked Sand 00149	CaCO3 00012	CaCO3_00004 00009	TOCS_LCS 00012	
ICV 580-413230/1		9060A						# g	
ICB 580-413230/2		9060A			# g				
CCV 580-413230/3		9060A					# g		
CCB 580-413230/4		9060A		# g					
MB 580-413230/5		9060A			# g				
LCS 580-413230/6		9060A				# g			
LCSD 580-413230/7		9060A				# g			
CCV 580-413230/15		9060A					# g		
CCB 580-413230/16		9060A		# g					
CCV 580-413230/27		9060A					# g		
CCB 580-413230/28		9060A		# g					

Batch Notes	
Phosphoric Acid ID	3157753
Pipette/Syringe/Dispenser ID	SEA224
Oven ID	oven 4
Temperature	70.3 Deg. C
Drying Time	12+ hours min
Batch Comment	ALum dish: 20200416

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 580-119923-1

Batch: 409817 **Analyst Initials: AUA**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-119923-A-1 **Analysis Date: Nov 14, 2022 09:46**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	67.3566791373239	%
Percent Moisture	None	1	32.6433208626761	%

Lab Sample ID: 580-119923-A-2 **Analysis Date: Nov 14, 2022 09:46**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	77.3745069697935	%
Percent Moisture	None	1	22.6254930302065	%

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV 3092515	1928393		0.2048	TA SOIL LINNEAR	12/16/2022 10:10:04 PM	13.78	A01
CCV 3092515	1921327		0.2050	TA SOIL LINNEAR	12/16/2022 11:16:07 PM	13.72	C08
CCV 3092515	1940994		0.2067	TA SOIL LINNEAR	12/17/2022 1:35:16 AM	13.74	B06
CCV 3092515	1900140		0.2069	TA SOIL LINNEAR	12/17/2022 2:24:36 AM	13.44	D04
CCV 3092515	1745241		0.2031	TA SOIL LINNEAR	12/17/2022 11:41:32 PM	12.57	A01
CCV 3092515	1815018		0.2053	TA SOIL LINNEAR	12/18/2022 12:25:06 AM	12.94	B08
CCV 3092515	1850831		0.2062	TA SOIL LINNEAR	12/18/2022 1:22:25 AM	13.13	D10
CCV 3092515	1778178		0.2026	TA SOIL LINNEAR	12/18/2022 1:58:23 AM	12.84	A04
CCV 3092515	1829472		0.2068	TA SOIL LINNEAR	12/18/2022 2:03:45 AM	12.94	A06
CCV 3092515	1824452		0.2054	TA SOIL LINNEAR	12/18/2022 2:46:40 AM	13.00	C03
CCV 3092515	1817433		0.2042	TA SOIL LINNEAR	12/18/2022 3:24:58 AM	13.02	D09
Average			0.2052			13.19	
Std. Deviation			0.001			0.411	
RSD			0.708			3.116	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3508.7		0.2050	TA SOIL LINNEAR	12/16/2022 10:12:47 PM	-0.01641	A02
CCB 3049570	3414.5		0.2086	TA SOIL LINNEAR	12/16/2022 11:18:18 PM	-0.01679	C09
CCB 3049570	7228.9		0.2025	TA SOIL LINNEAR	12/17/2022 1:37:47 AM	0.01035	B07
CCB 3049570	3849.4		0.2061	TA SOIL LINNEAR	12/17/2022 2:27:17 AM	-0.01390	D05
CCB 3049570	2618.3		0.2008	TA SOIL LINNEAR	12/17/2022 11:43:55 PM	-0.02326	A02

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3200.0		0.2080	TA SOIL LINNEAR	12/18/2022 12:27:17 AM	-0.01835	B09
CCB 3049570	5209.5		0.2042	TA SOIL LINNEAR	12/18/2022 1:24:57 AM	-0.004249	E01
CCB 3049570	2279.2		0.2008	TA SOIL LINNEAR	12/18/2022 2:00:34 AM	-0.02574	A05
CCB 3049570	4798.6		0.2064	TA SOIL LINNEAR	12/18/2022 2:05:43 AM	-0.007125	A07
CCB 3049570	4108.3		0.2000	TA SOIL LINNEAR	12/18/2022 2:49:12 AM	-0.01242	C04
CCB 3049570	4340.2		0.2019	TA SOIL LINNEAR	12/18/2022 3:27:10 AM	-0.01062	D10
Average			0.2040			-0.01259	
Std. Deviation			0.003			0.009918	
RSD			1.483			78.77	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB 3117971	1689.4		0.2019	TA SOIL LINNEAR	12/16/2022 10:15:04 PM	-0.02989	A03
MB 3117971	2466.7		0.2042	TA SOIL LINNEAR	12/17/2022 11:46:07 PM	-0.02396	A03
MB 3117971	4104.7		0.2013	TA SOIL LINNEAR	12/18/2022 2:07:54 AM	-0.01237	A08
Average			0.2025			-0.02207	
Std. Deviation			0.002			0.008913	
RSD			0.756			40.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS 2450156	1823044		0.2022	TA SOIL LINNEAR	12/16/2022 10:18:02 PM	13.19	A04
LCS 2450156	1714809		0.2052	TA SOIL LINNEAR	12/17/2022 11:48:48 PM	12.23	A04
LCS 2450156	1761308		0.2076	TA SOIL LINNEAR	12/18/2022 2:10:32 AM	12.41	A09
Average			0.2050			12.61	
Std. Deviation			0.003			0.513	
RSD			1.320			4.067	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD 2450156	1841658		0.2052	TA SOIL LINNEAR	12/16/2022 10:21:00 PM	13.13	A05
LCSD 2450156	1721468		0.2055	TA SOIL LINNEAR	12/17/2022 11:52:05 PM	12.25	A05
LCSD 2450156	1748637		0.2071	TA SOIL LINNEAR	12/18/2022 2:13:43 AM	12.35	A10

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Average			0.2059			12.58	
Std. Deviation			0.001			0.481	
RSD			0.496			3.823	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-1	9932.1		0.2029	TA SOIL LINNEAR	12/16/2022 10:23:15 PM	0.02989	A06
570-116140-B-1	11513		0.2059	TA SOIL LINNEAR	12/16/2022 10:25:50 PM	0.04073	A07
570-116140-B-1	13827		0.2057	TA SOIL LINNEAR	12/16/2022 10:28:17 PM	0.05728	A08
570-116140-B-1	14078		0.2018	TA SOIL LINNEAR	12/16/2022 10:30:35 PM	0.06021	A09
Average			0.2041			0.04703	
Std. Deviation			0.002			0.014286	
RSD			1.001			30.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 570-116140-B-1	12906		0.2055	TA SOIL LINNEAR	12/16/2022 10:33:01 PM	0.05075	A10
DU 570-116140-B-1	16055		0.2019	TA SOIL LINNEAR	12/16/2022 10:35:20 PM	0.07455	B01
DU 570-116140-B-1	10511		0.2026	TA SOIL LINNEAR	12/16/2022 10:37:38 PM	0.03413	B02
DU 570-116140-B-1	15974		0.2077	TA SOIL LINNEAR	12/16/2022 10:40:00 PM	0.07190	B03
Average			0.2044			0.05783	
Std. Deviation			0.003			0.019056	
RSD			1.312			32.95	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 570-116140-B-1	944674	0.1033	0.1050	TA SOIL LINNEAR	12/16/2022 10:42:46 PM	13.13	B04

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 570-116140-B-1	940461	0.1035	0.1049	TA SOIL LINNEAR	12/16/2022 10:45:36 PM	13.08	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-2	22614		0.2053	TA SOIL LINNEAR	12/16/2022 10:47:52 PM	0.1202	B06
570-116140-B-2	20284		0.2006	TA SOIL LINNEAR	12/16/2022 10:50:15 PM	0.1060	B07
570-116140-B-2	19379		0.2019	TA SOIL LINNEAR	12/16/2022 10:52:32 PM	0.09872	B08
570-116140-B-2	36855		0.2074	TA SOIL LINNEAR	12/16/2022 10:54:52 PM	0.2198	B09
Average			0.2038			0.1362	
Std. Deviation			0.003			0.05645	
RSD			1.527			41.45	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-3	6431.3		0.1985	TA SOIL LINNEAR	12/16/2022 10:57:12 PM	0.004664	B10
570-116140-B-3	8272.4		0.2091	TA SOIL LINNEAR	12/16/2022 10:59:29 PM	0.01735	C01
570-116140-B-3	93022		0.2034	TA SOIL LINNEAR	12/16/2022 11:01:58 PM	0.6294	C02
570-116140-B-3	5461.7		0.2074	TA SOIL LINNEAR	12/16/2022 11:04:11 PM	-0.002398	C03
Average			0.2046			0.1623	
Std. Deviation			0.005			0.31156	
RSD			2.305			192.0	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-4	23302		0.2041	TA SOIL LINNEAR	12/16/2022 11:06:31 PM	0.1259	C04
570-116140-B-4	33569		0.2001	TA SOIL LINNEAR	12/16/2022 11:08:43 PM	0.2037	C05
570-116140-B-4	27017		0.2069	TA SOIL LINNEAR	12/16/2022 11:10:56 PM	0.1505	C06
570-116140-B-4	17782		0.2000	TA SOIL LINNEAR	12/16/2022 11:13:14 PM	0.08793	C07
Average			0.2028			0.1420	
Std. Deviation			0.003			0.04852	
RSD			1.651			34.17	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-5	22299		0.2062	TA SOIL LINNEAR	12/16/2022 11:20:44 PM	0.1174	C10
570-116140-B-5	17106		0.2024	TA SOIL LINNEAR	12/16/2022 11:22:56 PM	0.08199	D01
570-116140-B-5	24456		0.2075	TA SOIL LINNEAR	12/16/2022 11:25:07 PM	0.1320	D02
570-116140-B-5	18981		0.2030	TA SOIL LINNEAR	12/16/2022 11:27:18 PM	0.09530	D03
Average			0.2048			0.1067	
Std. Deviation			0.002			0.02232	
RSD			1.204			20.92	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-1	101628		0.2055	TA SOIL LINNEAR	12/16/2022 11:29:40 PM	0.6845	D04
580-119923-A-1	100997		0.2046	TA SOIL LINNEAR	12/16/2022 11:32:11 PM	0.6830	D05
Average			0.2051			0.6837	
Std. Deviation			0.0006			0.00107	
RSD			0.310			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-2	353162		0.2025	TA SOIL LINNEAR	12/16/2022 11:34:22 PM	2.518	D06
580-119923-A-2	338148		0.2049	TA SOIL LINNEAR	12/16/2022 11:36:37 PM	2.381	D07
Average			0.2037			2.449	
Std. Deviation			0.002			0.0969	
RSD			0.833			3.956	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148318-A-1	13813		0.1991	TA SOIL LINNEAR	12/16/2022 11:39:20 PM	0.05907	D08
180-148318-A-1	17780		0.2058	TA SOIL LINNEAR	12/16/2022 11:41:57 PM	0.08544	D09
180-148318-A-1	19470		0.2054	TA SOIL LINNEAR	12/16/2022 11:44:45 PM	0.09768	D10
180-148318-A-1	18303		0.2061	TA SOIL LINNEAR	12/16/2022 11:47:20 PM	0.08904	E01
Average			0.2041			0.08281	
Std. Deviation			0.003			0.016637	
RSD			1.639			20.09	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-1	36361		0.2018	TA SOIL LINNEAR	12/16/2022 11:50:00 PM	0.2223	E02
180-148319-A-1	36599		0.2045	TA SOIL LINNEAR	12/16/2022 11:52:49 PM	0.2211	E03
180-148319-A-1	36353		0.2014	TA SOIL LINNEAR	12/16/2022 11:55:33 PM	0.2227	E04
180-148319-A-1	35751		0.2016	TA SOIL LINNEAR	12/16/2022 11:58:19 PM	0.2181	E05
Average			0.2023			0.2210	
Std. Deviation			0.001			0.00209	
RSD			0.721			0.945	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-2	40258		0.2009	TA SOIL LINNEAR	12/17/2022 12:00:59 AM	0.2518	E06
180-148319-A-2	43927		0.1971	TA SOIL LINNEAR	12/17/2022 12:04:10 AM	0.2839	E07
180-148319-A-2	41649		0.2019	TA SOIL LINNEAR	12/17/2022 12:06:49 AM	0.2606	E08
180-148319-A-2	45358		0.1999	TA SOIL LINNEAR	12/17/2022 12:09:41 AM	0.2905	E09
Average			0.1999			0.2717	
Std. Deviation			0.002			0.01846	
RSD			1.034			6.793	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-1	25791		0.2071	TA SOIL LINNEAR	12/17/2022 12:12:10 AM	0.1417	E10
180-148320-A-1	26095		0.2041	TA SOIL LINNEAR	12/17/2022 12:52:55 AM	0.1460	A01
180-148320-A-1	25934		0.2053	TA SOIL LINNEAR	12/17/2022 12:55:21 AM	0.1440	A02
180-148320-A-1	32938		0.2080	TA SOIL LINNEAR	12/17/2022 12:57:44 AM	0.1915	A03
Average			0.2061			0.1558	
Std. Deviation			0.002			0.02389	
RSD			0.852			15.33	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	123060		0.2074	TA SOIL LINNEAR	12/17/2022 1:00:29 AM	0.8299	A04
180-148320-A-2	120778		0.1992	TA SOIL LINNEAR	12/17/2022 1:03:19 AM	0.8472	A05
180-148320-A-2	122644		0.2004	TA SOIL LINNEAR	12/17/2022 1:06:01 AM	0.8558	A06

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	125711		0.2054	TA SOIL LINNEAR	12/17/2022 1:08:47 AM	0.8569	A07
Average			0.2031			0.8475	
Std. Deviation			0.004			0.01249	
RSD			1.934			1.474	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148321-A-1	8238.1		0.2060	TA SOIL LINNEAR	12/17/2022 1:11:30 AM	0.01737	A08
180-148321-A-1	6082.7		0.2087	TA SOIL LINNEAR	12/17/2022 1:14:00 AM	0.001985	A09
180-148321-A-1	9335.3		0.2044	TA SOIL LINNEAR	12/17/2022 1:16:39 AM	0.02538	A10
180-148321-A-1	26.074		0.2022	TA SOIL LINNEAR	12/17/2022 1:19:20 AM	-0.04192	B01
Average			0.2053			0.0007045	
Std. Deviation			0.003			0.030029	
RSD			1.333			4.262E+3	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-1	98003		0.2046	TA SOIL LINNEAR	12/17/2022 1:22:41 AM	0.6615	B02
180-148322-A-1	115920		0.2039	TA SOIL LINNEAR	12/17/2022 1:25:41 AM	0.7927	B03
180-148322-A-1	106683		0.2018	TA SOIL LINNEAR	12/17/2022 1:28:35 AM	0.7338	B04
180-148322-A-1	106572		0.2011	TA SOIL LINNEAR	12/17/2022 1:31:50 AM	0.7355	B05
Average			0.2028			0.7309	
Std. Deviation			0.002			0.05377	
RSD			0.821			7.356	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-2	118451		0.2052	TA SOIL LINNEAR	12/17/2022 1:40:34 AM	0.8058	B08
180-148322-A-2	107362		0.2040	TA SOIL LINNEAR	12/17/2022 1:43:20 AM	0.7308	B09
180-148322-A-2	116247		0.2035	TA SOIL LINNEAR	12/17/2022 1:46:07 AM	0.7967	B10
180-148322-A-2	116916		0.2079	TA SOIL LINNEAR	12/17/2022 1:49:02 AM	0.7845	C01
Average			0.2052			0.7794	
Std. Deviation			0.002			0.03360	
RSD			0.959			4.311	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-3	143102		0.2085	TA SOIL LINNEAR	12/17/2022 1:51:47 AM	0.9666	C02
180-148322-A-3	179812		0.2068	TA SOIL LINNEAR	12/17/2022 1:54:36 AM	1.235	C03
180-148322-A-3	133592		0.2072	TA SOIL LINNEAR	12/17/2022 1:57:18 AM	0.9053	C04
180-148322-A-3	160271		0.2040	TA SOIL LINNEAR	12/17/2022 2:00:13 AM	1.111	C05
Average			0.2066			1.055	
Std. Deviation			0.002			0.1482	
RSD			0.917			14.05	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-1	29742		0.2083	TA SOIL LINNEAR	12/17/2022 2:03:13 AM	0.1687	C06
580-120040-A-1	27576		0.2079	TA SOIL LINNEAR	12/17/2022 2:06:02 AM	0.1537	C07
Average			0.2081			0.1612	
Std. Deviation			0.0003			0.01058	
RSD			0.136			6.565	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-2	125374		0.2002	TA SOIL LINNEAR	12/17/2022 2:08:40 AM	0.8767	C08
580-120040-A-2	129250		0.2058	TA SOIL LINNEAR	12/17/2022 2:11:24 AM	0.8805	C09
Average			0.2030			0.8786	
Std. Deviation			0.004			0.00268	
RSD			1.951			0.305	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-3	118575		0.2082	TA SOIL LINNEAR	12/17/2022 2:13:58 AM	0.7951	C10
580-120040-A-3	109232		0.2017	TA SOIL LINNEAR	12/17/2022 2:16:30 AM	0.7527	D01
Average			0.2050			0.7739	
Std. Deviation			0.005			0.02996	
RSD			2.243			3.872	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-4	250449		0.2063	TA SOIL LINNEAR	12/17/2022 2:19:04 AM	1.741	D02
580-120040-A-4	223372		0.1989	TA SOIL LINNEAR	12/17/2022 2:21:38 AM	1.606	D03
Average			0.2026			1.673	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.005			0.0955	
RSD			2.583			5.708	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120212-A-1	9734.6		0.2035	TA SOIL LINNEAR	12/17/2022 11:54:24 PM	0.02838	A06
580-120212-A-1	9752.0		0.2022	TA SOIL LINNEAR	12/17/2022 11:56:59 PM	0.02869	A07
Average			0.2028			0.02853	
Std. Deviation			0.0009			0.000218	
RSD			0.453			0.766	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-120212-A-1	8819.3		0.2034	TA SOIL LINNEAR	12/17/2022 11:59:31 PM	0.02178	A08
DU 580-120212-A-1	9379.4		0.2025	TA SOIL LINNEAR	12/18/2022 12:01:58 AM	0.02594	A09
Average			0.2030			0.02386	
Std. Deviation			0.0006			0.002939	
RSD			0.314			12.32	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-120212-A-1	894038	0.1025	0.1022	TA SOIL LINNEAR	12/18/2022 12:04:48 AM	12.76	A10

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-120212-A-1	923969	0.1060	0.1042	TA SOIL LINNEAR	12/18/2022 12:07:33 AM	12.93	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-1	290184		0.2063	TA SOIL LINNEAR	12/18/2022 12:09:44 AM	2.023	B02
580-119976-A-1	332503		0.2003	TA SOIL LINNEAR	12/18/2022 12:11:56 AM	2.394	B03
Average			0.2033			2.209	
Std. Deviation			0.004			0.2621	
RSD			2.087			11.87	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-2	82513		0.2040	TA SOIL LINNEAR	12/18/2022 12:14:23 AM	0.5520	B04
580-119976-A-2	76533		0.2068	TA SOIL LINNEAR	12/18/2022 12:16:56 AM	0.5021	B05
Average			0.2054			0.5270	
Std. Deviation			0.002			0.03530	
RSD			0.964			6.698	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-3	264768		0.2020	TA SOIL LINNEAR	12/18/2022 12:19:11 AM	1.882	B06
580-119976-A-3	282077		0.2065	TA SOIL LINNEAR	12/18/2022 12:21:25 AM	1.964	B07
Average			0.2042			1.923	
Std. Deviation			0.003			0.0580	
RSD			1.558			3.016	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-4	343337		0.1991	TA SOIL LINNEAR	12/18/2022 12:29:14 AM	2.488	B10
580-119976-A-4	340680		0.2004	TA SOIL LINNEAR	12/18/2022 12:31:32 AM	2.453	C01
Average			0.1997			2.471	
Std. Deviation			0.0009			0.0252	
RSD			0.460			1.019	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-5	28357		0.2021	TA SOIL LINNEAR	12/18/2022 12:34:12 AM	0.1638	C02
580-119976-A-5	39203		0.2025	TA SOIL LINNEAR	12/18/2022 12:36:44 AM	0.2421	C03
Average			0.2023			0.2030	
Std. Deviation			0.0003			0.05536	
RSD			0.140			27.27	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-6	448592		0.2073	TA SOIL LINNEAR	12/18/2022 12:38:55 AM	3.135	C04
580-119976-A-6	445955		0.2015	TA SOIL LINNEAR	12/18/2022 12:41:07 AM	3.206	C05
Average			0.2044			3.171	
Std. Deviation			0.004			0.0502	
RSD			2.006			1.584	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-7	361807		0.1032	TA SOIL LINNEAR	12/18/2022 12:43:21 AM	5.064	C06
580-119976-A-7	389508		0.1059	TA SOIL LINNEAR	12/18/2022 12:45:37 AM	5.318	C07
Average			0.1046			5.191	
Std. Deviation			0.002			0.1802	
RSD			1.826			3.472	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-8	256825		0.2050	TA SOIL LINNEAR	12/18/2022 12:47:56 AM	1.797	C08
580-119976-A-8	252142		0.2072	TA SOIL LINNEAR	12/18/2022 12:50:15 AM	1.745	C09
Average			0.2061			1.771	
Std. Deviation			0.002			0.0370	
RSD			0.755			2.086	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-9	66829		0.2022	TA SOIL LINNEAR	12/18/2022 12:52:57 AM	0.4430	C10
580-119976-A-9	74279		0.2069	TA SOIL LINNEAR	12/18/2022 12:55:38 AM	0.4858	D01
Average			0.2046			0.4644	
Std. Deviation			0.003			0.03026	
RSD			1.625			6.515	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-10	628252		0.2009	TA SOIL LINNEAR	12/18/2022 12:57:49 AM	4.548	D02
580-119976-A-10	518016		0.2050	TA SOIL LINNEAR	12/18/2022 1:00:01 AM	3.668	D03
Average			0.2029			4.108	
Std. Deviation			0.003			0.6224	
RSD			1.428			15.15	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-11	75280		0.2034	TA SOIL LINNEAR	12/18/2022 1:02:17 AM	0.5014	D04
580-119976-A-11	187913		0.2005	TA SOIL LINNEAR	12/18/2022 1:04:32 AM	1.333	D05
Average			0.2020			0.9173	
Std. Deviation			0.002			0.58820	
RSD			1.015			64.12	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-12	41691		0.2062	TA SOIL LINNEAR	12/18/2022 1:07:02 AM	0.2555	D06
580-119976-A-12	47423		0.2032	TA SOIL LINNEAR	12/18/2022 1:09:28 AM	0.3007	D07
Average			0.2047			0.2781	
Std. Deviation			0.002			0.03195	
RSD			1.036			11.49	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-13	77779		0.2058	TA SOIL LINNEAR	12/18/2022 1:11:51 AM	0.5134	D08
580-119976-A-13	76126		0.2073	TA SOIL LINNEAR	12/18/2022 1:14:17 AM	0.4980	D09
Average			0.2066			0.5057	
Std. Deviation			0.001			0.01090	
RSD			0.514			2.155	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-14	284848		0.2080	TA SOIL LINNEAR	12/18/2022 1:27:08 AM	1.969	E02
580-119976-A-14	253416		0.2087	TA SOIL LINNEAR	12/18/2022 1:29:19 AM	1.742	E03
Average			0.2083			1.855	
Std. Deviation			0.0005			0.1610	
RSD			0.238			8.677	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-15	26092		0.2059	TA SOIL LINNEAR	12/18/2022 1:32:01 AM	0.1447	E04
580-119976-A-15	24881		0.2023	TA SOIL LINNEAR	12/18/2022 1:34:38 AM	0.1384	E05
Average			0.2041			0.1416	
Std. Deviation			0.003			0.00439	
RSD			1.247			3.105	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-16	223688		0.2043	TA SOIL LINNEAR	12/18/2022 1:36:50 AM	1.565	E06
580-119976-A-16	236123		0.2071	TA SOIL LINNEAR	12/18/2022 1:39:02 AM	1.632	E07
Average			0.2057			1.599	
Std. Deviation			0.002			0.0474	
RSD			0.963			2.962	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-17	15251		0.2030	TA SOIL LINNEAR	12/18/2022 1:41:38 AM	0.06834	E08
580-119976-A-17	13846		0.2048	TA SOIL LINNEAR	12/18/2022 1:44:02 AM	0.05767	E09
Average			0.2039			0.06300	
Std. Deviation			0.001			0.007546	
RSD			0.624			11.98	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-18	52973		0.2049	TA SOIL LINNEAR	12/18/2022 1:46:39 AM	0.3379	E10
580-119976-A-18	54241		0.2030	TA SOIL LINNEAR	12/18/2022 1:49:49 AM	0.3503	A01
Average			0.2040			0.3441	
Std. Deviation			0.001			0.00872	
RSD			0.659			2.535	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-19	61150		0.2029	TA SOIL LINNEAR	12/18/2022 1:52:28 AM	0.4004	A02
580-119976-A-19	66462		0.2020	TA SOIL LINNEAR	12/18/2022 1:55:04 AM	0.4408	A03
Average			0.2025			0.4206	
Std. Deviation			0.0006			0.02855	
RSD			0.314			6.788	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-20	317725		0.2052	TA SOIL LINNEAR	12/18/2022 2:15:54 AM	2.231	B01
580-119976-A-20	311724		0.2017	TA SOIL LINNEAR	12/18/2022 2:18:05 AM	2.226	B02
Average			0.2034			2.229	
Std. Deviation			0.002			0.0035	
RSD			1.216			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-119976-A-20	317573		0.2036	TA SOIL LINNEAR	12/18/2022 2:20:20 AM	2.248	B03
DU 580-119976-A-20	309506		0.1991	TA SOIL LINNEAR	12/18/2022 2:22:35 AM	2.239	B04
Average			0.2014			2.243	
Std. Deviation			0.003			0.0061	
RSD			1.580			0.273	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-119976-A-20	1114088	0.1080	0.1018	TA SOIL LINNEAR	12/18/2022 2:25:24 AM	15.98	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-119976-A-20	1098477	0.1071	0.1021	TA SOIL LINNEAR	12/18/2022 2:28:22 AM	15.71	B06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-21	24420		0.2068	TA SOIL LINNEAR	12/18/2022 2:31:10 AM	0.1322	B07
580-119976-A-21	22768		0.2038	TA SOIL LINNEAR	12/18/2022 2:34:05 AM	0.1222	B08
Average			0.2053			0.1272	
Std. Deviation			0.002			0.00704	
RSD			1.033			5.533	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-22	173333		0.2046	TA SOIL LINNEAR	12/18/2022 2:36:34 AM	1.202	B09
580-119976-A-22	168984		0.2068	TA SOIL LINNEAR	12/18/2022 2:39:02 AM	1.158	B10
Average			0.2057			1.180	
Std. Deviation			0.002			0.0309	
RSD			0.756			2.616	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-23	124975		0.2033	TA SOIL LINNEAR	12/18/2022 2:41:20 AM	0.8605	C01
580-119976-A-23	148893		0.2063	TA SOIL LINNEAR	12/18/2022 2:43:40 AM	1.018	C02
Average			0.2048			0.9393	
Std. Deviation			0.002			0.11148	
RSD			1.036			11.87	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-24	56879		0.2025	TA SOIL LINNEAR	12/18/2022 2:51:27 AM	0.3703	C05
580-119976-A-24	52313		0.2073	TA SOIL LINNEAR	12/18/2022 2:53:49 AM	0.3293	C06
Average			0.2049			0.3498	
Std. Deviation			0.003			0.02892	
RSD			1.656			8.268	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-25	216436		0.2049	TA SOIL LINNEAR	12/18/2022 2:56:00 AM	1.509	C07
580-119976-A-25	227871		0.2000	TA SOIL LINNEAR	12/18/2022 2:58:15 AM	1.630	C08
Average			0.2025			1.569	
Std. Deviation			0.003			0.0855	
RSD			1.711			5.447	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-26	162714		0.2023	TA SOIL LINNEAR	12/18/2022 3:00:39 AM	1.139	C09
580-119976-A-26	208820		0.2053	TA SOIL LINNEAR	12/18/2022 3:02:59 AM	1.452	C10
Average			0.2038			1.295	
Std. Deviation			0.002			0.2213	
RSD			1.041			17.09	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-27	103846		0.1971	TA SOIL LINNEAR	12/18/2022 3:05:21 AM	0.7302	D01
580-119976-A-27	93093		0.2072	TA SOIL LINNEAR	12/18/2022 3:07:47 AM	0.6184	D02
Average			0.2021			0.6743	
Std. Deviation			0.007			0.07903	
RSD			3.533			11.72	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-28	258528		0.1992	TA SOIL LINNEAR	12/18/2022 3:10:13 AM	1.862	D03
580-119976-A-28	263877		0.2056	TA SOIL LINNEAR	12/18/2022 3:12:34 AM	1.843	D04
Average			0.2024			1.852	
Std. Deviation			0.005			0.0140	
RSD			2.236			0.755	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-29	260776		0.2016	TA SOIL LINNEAR	12/18/2022 3:14:54 AM	1.856	D05
580-119976-A-29	289727		0.1989	TA SOIL LINNEAR	12/18/2022 3:17:13 AM	2.095	D06
Average			0.2002			1.976	
Std. Deviation			0.002			0.1689	
RSD			0.953			8.548	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-30	189258		0.2051	TA SOIL LINNEAR	12/18/2022 3:19:28 AM	1.313	D07
580-119976-A-30	265114		0.2049	TA SOIL LINNEAR	12/18/2022 3:21:45 AM	1.858	D08
Average			0.2050			1.585	
Std. Deviation			0.0001			0.3852	
RSD			0.069			24.30	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	5800.6		1.0000	TA SOIL LINNEAR	11/11/2022 8:11:21 PM	0.000000008319	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
2450155	207376		0.0250	TA SOIL LINNEAR	11/11/2022 8:13:53 PM	12.04	A04
2450155	403472		0.0498	TA SOIL LINNEAR	11/11/2022 8:16:25 PM	11.82	A05
2450155	613484		0.0753	TA SOIL LINNEAR	11/11/2022 8:19:09 PM	11.91	A06
2450155	818286		0.1007	TA SOIL LINNEAR	11/11/2022 8:21:56 PM	11.89	A07
2450155	1225915		0.1506	TA SOIL LINNEAR	11/11/2022 8:24:50 PM	11.93	A08
2450155	1651543		0.2001	TA SOIL LINNEAR	11/11/2022 8:27:46 PM	12.10	A09
2450155	2061584		0.2505	TA SOIL LINNEAR	11/11/2022 8:31:03 PM	12.07	A10
Average			0.1217			11.96	
Std. Deviation			0.08			0.102	
RSD			67.66			0.855	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Shipping and Receiving Documents

Pace Analytical®
www.pacelabs.com

Workorder: 10632887 **Workorder Name:** D3631600 **Results Requested By:** 12/1/2022 119923

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

P.O._____

JGFU

State of Sample Origin: WA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	SW9060A TOC	LAB USE ONLY
1	BNSF-G020-SC-0.0-1.0-110422	11/4/2022 10:20	10632887001	Solid	1	X	
2	BNSF-F390-SC-6.2-7.2-110722	11/7/2022 10:30	10632887002	Solid	1	X	
3							
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-9-22 12:40		11/10/22 0935
2				
3				

580-119923 Chain of Custody

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

Therm. ID: IR10 Cor: 1.3 ° Unc: 1.5 °
Cooler Dsc: SR
Packing: Bulk
Cust. Seal: Yes No
Blue Ice, Wet Dry, None
FedEx: PO
UPS:
Lab Cour:
Other:

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-119923-1

Login Number: 119923
List Number: 1
Creator: Holdener, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

November 18, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1556196
Samples Received:	11/10/2022
Project Number:	10632887
Description:	D3631600
Site:	001
Report To:	Kongmeng Vang 1700 Elm Street Suite 200 Minneapolis, MN 55414

Entire Report Reviewed By: Nancy F. McLain

Nancy McLain
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BNSF-G020-SC-0.0-1.0-110422 L1556196-01 Solid

Collected by	Collected date/time	Received date/time
	11/04/22 10:20	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1957928	1	11/11/22 10:31	11/11/22 10:36	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1958443	1	11/14/22 04:53	11/14/22 17:40	ADF	Mt. Juliet, TN

BNSF-F390-SC-6.2-7.2-110722 L1556196-02 Solid

Collected by	Collected date/time	Received date/time
	11/07/22 10:30	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1957928	1	11/11/22 10:31	11/11/22 10:36	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1958443	10	11/14/22 04:53	11/14/22 21:30	ADF	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 11/18/22 17:15

2540 G-2011 Total Solids

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G020-SC-0.0-1.0-110422

Lab Sample ID:	L1556196-01	**SDG:**	L1556196
Client Sample ID:	BNSF-G020-SC-0.0-1.0-110422	**Collected Date/Time:**	11/04/22 10:20
Lab File ID:	12	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	LOGBAL3	**Preparation Date/Time:**	11/11/22 10:31
Analytical Batch:	WG1957928	**Analysis Date/Time:**	11/11/22 10:36
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.04 g
Total Solids (%):	68.3	**Final Wt/Vol:**	5.9 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	68.3	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-F390-SC-6.2-7.2-110722

Lab Sample ID:	L1556196-02	**SDG:**	L1556196
Client Sample ID:	BNSF-F390-SC-6.2-7.2-110722	**Collected Date/Time:**	11/07/22 10:30
Lab File ID:	13	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	LOGBAL3	**Preparation Date/Time:**	11/11/22 10:31
Analytical Batch:	WG1957928	**Analysis Date/Time:**	11/11/22 10:36
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.997 g
Total Solids (%):	78.1	**Final Wt/Vol:**	7.303 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	78.1	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860239-1	**SDG:**	L1556196
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL3	**Preparation Date/Time:**	11/11/22 10:30
Analytical Batch:	WG1957928	**Analysis Date/Time:**	11/11/22 10:36
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.283 g
Total Solids (%):		**Final Wt/Vol:**	1.282 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00100	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3860239-3

Lab Sample ID:	R3860239-3	**SDG:**	L1556196
Client Sample ID:	DUP	**Collected Date/Time:**	11/09/22 11:00
Lab File ID:	02	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	LOGBAL3	**Preparation Date/Time:**	11/11/22 10:30
Analytical Batch:	WG1957928	**Analysis Date/Time:**	11/11/22 10:36
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	9.62 g
Total Solids (%):	95.3	**Final Wt/Vol:**	9.226 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	95.3	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3860239-2	**SDG:**	L1556196
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	03	**Received Date/Time:**	
Instrument ID:	LOGBAL3	**Preparation Date/Time:**	11/11/22 10:30
Analytical Batch:	WG1957928	**Analysis Date/Time:**	11/11/22 10:36
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	11.291 g
Total Solids (%):		**Final Wt/Vol:**	6.29 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SDG:	L1556196	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL3	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1957928

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.00100	

DUP Sample / File ID:	R3860239-3 / 02	**SDG:**	L1556196
OS Sample / File ID:	L1556173-19 / 05	**Analytical Batch:**	WG1957928
Instrument ID:	LOGBAL3	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	95.3	95.3	0.00178	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1556196-01,02

SAMPLE NO.:
R3860239-2

LCS Sample / File ID:	R3860239-2 / 03	**SDG:**	L1556196
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1957928
Instrument ID:	LOGBAL3	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1556196-01,02 **Analytical Method:** 2540 G-2011

Matrix: Solid **Prep Method:** SM 2540 G

Analyte	CAS	Wavelength	Mass	MDL	RDL
				%	%
Total Solids	TSOLIDS				

ANALYSIS LOG

SDG:	L1556196	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL3	**Calibration Start Date:**	
Analytical Run:	WG1957928	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3860239-1	01	11/11/22 10:36	1	WG1957928
DUP	R3860239-3	02	11/11/22 10:36	1	WG1957928
LCS	R3860239-2	03	11/11/22 10:36	1	WG1957928
OS	L1556173-19	05	11/11/22 10:36		
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	12	11/11/22 10:36	1	WG1957928
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	13	11/11/22 10:36	1	WG1957928

Total Solids WetChem Prep Benchsheet

Batch: WG1957928

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1556173	WG1957785	BJM688	PREPREPBAL1	10-NOV-22
L1556180	WG1957755	BJM688	PREPREPBAL4	10-NOV-22
L1556182	WG1957755	BJM688	PREPREPBAL4	10-NOV-22
L1556196	WG1957796	KMT967	PREPREPBAL1	10-NOV-22

Analyst: CMK3616 **Prep Start Date/Time:** 11/11/22 10:30-10:31 **Prep End Date/Time:** 11/12/22 08:16 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL3 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				F1	1.283	1.283	1.280	1.282	0.002	0.001	99.999						KDW475	11/12/22 08:16:46
LCS				F2	1.288	11.291	6.290	6.290	0	50.005	49.995	100.01	99.99				KDW475	11/12/22 08:16:46
DUP(L1556173-19)				F3	1.280	9.620	9.233	9.226	0.007	95.2758	4.7242			0	0.04	PP1 1110 Thur3	KDW475	11/12/22 08:16:46
1. L1556173-18	SS	CA	11/09/22 10:50	F4	1.278	14.282	13.628	13.608	0.02	94.817	5.183					PP1 1110 Thur3	KDW475	11/12/22 08:16:46
2. L1556173-19	SS	CA	11/09/22 11:00	F5	1.295	14.572	13.960	13.945	0.015	95.2775	4.7225						KDW475	11/12/22 08:16:46
3. L1556180-01	SS	TX	11/08/22 15:50	F6	1.288	9.517	8.376	8.344	0.032	85.7455	14.2545					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
4. L1556182-01	SS	TX	11/08/22 09:30	F7	1.288	9.728	8.272	8.229	0.043	82.2393	17.7607					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
5. L1556182-02	SS	TX	11/08/22 09:45	F8	1.289	14.273	12.556	12.542	0.014	86.6682	13.3318					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
6. L1556182-03	SS	TX	11/08/22 10:15	F9	1.292	11.553	10.533	10.495	0.038	89.6891	10.3109					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
7. L1556182-04	SS	TX	11/08/22 10:40	F10	1.285	9.060	8.046	8.029	0.017	86.7395	13.2605					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
8. L1556182-05	SS	TX	11/08/22 11:55	F11	1.282	10.037	8.914	8.867	0.047	86.6362	13.3638					Thur 02 / 1110PP4	KDW475	11/12/22 08:16:46
9. L1556196-01	SS	WA	11/04/22 10:20	F12	1.280	8.040	5.918	5.900	0.018	68.3432	31.6568					PP1 1110 Thur2	KDW475	11/12/22 08:16:46
10. L1556196-02	SS	WA	11/07/22 10:30	F13	1.279	8.997	7.319	7.303	0.016	78.0513	21.9487					PP1 1110 Thur2	KDW475	11/12/22 08:16:46

Comments:

Reviewed By:KDW475 on 11/12/22 08:16:46

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/11/22 10:36:12	104	104	11/11/22 15:53:29	104	104	BLANK, LCS, DUP(L1556173-19), L1556173-18, L1556196-02, L1556196-01, L1556182-05, L1556182-04, L1556182-03, L1556182-02, L1556182-01, L1556180-01, L1556173-19
2	Oven-1hr	11/11/22 15:55:57	104	104	11/12/22 08:12:35	104	104	BLANK, LCS, DUP(L1556173-19), L1556173-18, L1556173-19, L1556180-01, L1556182-01, L1556182-02, L1556182-03, L1556182-04, L1556182-05, L1556196-01, L1556196-02

8270E Semi Volatile Organic Compounds (GC/MS)

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1556196
Matrix: Solid

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	BNAMS4	1114A_18	55.6	50.9	48.5	48.8	56.9	51.8	0
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	BNAMS4	1114A_28	61.8	55.8	53.0	53.6	58.8	56.8	0
MS	R3861170-3	BNAMS4	1114A_08	60.6	54.8	43.3	54.5	64.2	58.5	0
MSD	R3861170-4	BNAMS4	1114A_09	59.3	53.5	50.2	53.8	63.8	58.7	0
BLANK	R3861170-2	BNAMS4	1114A_06	59.3	52.9	50.2	53.5	52.7	59.8	0
BLANK	R3861672-1	BNAMS4	1115_10	58.1	52.4	49.5	53.2	49.5	60.1	0
LCS	R3861170-1	BNAMS4	1114A_05	77.2	70.7	53.8	69.7	79.3	73.9	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	12.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 122
DMC-4	2-Fluorobiphenyl	15.0 - 120
DMC-5	2,4,6-Tribromophenol	10.0 - 127
DMC-6	p-Terphenyl-d14	10.0 - 120

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1556196-01,02

SAMPLE NO.:
R3861170-3
R3861170-4

MS Sample / File ID: R3861170-3 / 1114A_08
MSD Sample / File ID: R3861170-4 / 1114A_09
OS Sample / File ID: L1556406-01 / 1114A_07
Instrument ID: BNAMS4
Analytical Method: 8270E

SDG: L1556196
Analytical Batch: WG1958443
Matrix: Solid

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*	*%*	*%*		*%*	*%*	*%*
Acenaphthene	0.660	U	0.370	0.358	56.1	54.7	1	18.0 - 120	3.30	32
Acenaphthylene	0.660	U	0.409	0.397	62.0	60.7	1	25.0 - 120	2.98	32
Anthracene	0.660	U	0.372	0.370	56.4	56.6	1	22.0 - 120	0.539	29
Benzoic Acid	1.32		0.999	0.910	75.7	69.5	1	10.0 - 152	9.32	40
Benzo(a)anthracene	0.660	U	0.423	0.417	64.1	63.8	1	25.0 - 120	1.43	29
Benzo(b)fluoranthene	0.660	U	0.392	0.386	59.4	59.0	1	19.0 - 122	1.54	31
Benzo(k)fluoranthene	0.660	U	0.386	0.377	58.5	57.6	1	23.0 - 120	2.36	30
Benzo(g,h,i)perylene	0.660	U	0.386	0.387	58.5	59.2	1	10.0 - 120	0.259	33
Benzo(a)pyrene	0.660	U	0.446	0.439	67.6	67.1	1	24.0 - 120	1.58	30
Carbazole	0.660	U	0.385	0.383	58.3	58.6	1	31.0 - 120	0.521	24
Chrysene	0.660	U	0.395	0.388	59.8	59.3	1	21.0 - 120	1.79	29
Dibenz(a,h)anthracene	0.660	U	0.383	0.388	58.0	59.3	1	10.0 - 120	1.30	32
Dibenzofuran	0.660	U	0.386	0.367	58.5	56.1	1	24.0 - 120	5.05	30
Fluoranthene	0.660	U	0.401	0.400	60.8	61.2	1	18.0 - 126	0.250	32
Fluorene	0.660	U	0.387	0.373	58.6	57.0	1	25.0 - 120	3.68	30
Indeno(1,2,3-cd)pyrene	0.660	U	0.389	0.391	58.9	59.8	1	10.0 - 120	0.513	32
1-Methylnaphthalene	0.660	U	0.334	0.325	50.6	49.7	1	10.0 - 120	2.73	36
2-Methylnaphthalene	0.660	U	0.328	0.315	49.7	48.2	1	10.0 - 120	4.04	37
Naphthalene	0.660	U	0.319	0.298	48.3	45.6	1	10.0 - 120	6.81	35
Phenanthrene	0.660	U	0.381	0.373	57.7	57.0	1	17.0 - 120	2.12	31
Bis(2-ethylhexyl)phthalate	0.660	U	0.397	0.393	60.2	60.1	1	17.0 - 126	1.01	30
Di-n-butyl phthalate	0.660	U	0.361	0.357	54.7	54.6	1	30.0 - 120	1.11	29
Di-n-octyl phthalate	0.660	U	0.416	0.407	63.0	62.2	1	21.0 - 123	2.19	29
Pyrene	0.660	U	0.382	0.376	57.9	57.5	1	16.0 - 121	1.58	32
3&4-Methyl Phenol	0.660	U	0.392	0.372	59.4	56.9	1	12.0 - 123	5.24	38
Pentachlorophenol	0.660	U	0.406	0.399	61.5	61.0	1	10.0 - 160	1.74	31
Phenol	0.660	U	0.357	0.349	54.1	53.4	1	12.0 - 120	2.27	38

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1556196-01,02

SAMPLE NO.:
R3861170-1

LCS Sample / File ID:	R3861170-1 / 1114A_05	**SDG:**	L1556196
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1958443
Instrument ID:	BNAMS4	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.473		71.0		38.0 - 120		
Acenaphthylene	0.666	0.530		79.6		40.0 - 120		
Anthracene	0.666	0.480		72.1		42.0 - 120		
Benzoic Acid	1.33	0.473		35.6		10.0 - 120		
Benzo(a)anthracene	0.666	0.537		80.6		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.507		76.1		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.488		73.3		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.498		74.8		43.0 - 120		
Benzo(a)pyrene	0.666	0.567		85.1		45.0 - 120		
Carbazole	0.666	0.497		74.6		48.0 - 120		
Chrysene	0.666	0.500		75.1		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.521		78.2		44.0 - 120		
Dibenzofuran	0.666	0.492		73.9		44.0 - 120		
Fluoranthene	0.666	0.522		78.4		44.0 - 120		
Fluorene	0.666	0.494		74.2		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.495		74.3		45.0 - 120		
1-Methylnaphthalene	0.666	0.411		61.7		34.0 - 120		
2-Methylnaphthalene	0.666	0.405		60.8		34.0 - 120		
Naphthalene	0.666	0.386		58.0		18.0 - 120		
Phenanthrene	0.666	0.487		73.1		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.504		75.7		41.0 - 120		
Di-n-butyl phthalate	0.666	0.470		70.6		43.0 - 120		
Di-n-octyl phthalate	0.666	0.521		78.2		40.0 - 120		
Pyrene	0.666	0.482		72.4		41.0 - 120		
3&4-Methyl Phenol	0.666	0.499		74.9		42.0 - 120		
Pentachlorophenol	0.666	0.458		68.8		29.0 - 120		
Phenol	0.666	0.467		70.1		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3861170-2	**SDG:**	L1556196
Lab File ID:	1114A_06	**Preparation Date/Time:**	11/14/22 04:51
Instrument ID:	BNAMS4	**Analysis Date/Time:**	11/14/22 13:05
Analytical Batch:	WG1958443	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3861170-1	BNAMS4	1114A_05	11/14/22 12:44
OS	L1556406-01	BNAMS4	1114A_07	11/14/22 13:25
MS	R3861170-3	BNAMS4	1114A_08	11/14/22 13:46
MSD	R3861170-4	BNAMS4	1114A_09	11/14/22 14:07
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	BNAMS4	1114A_18	11/14/22 17:40
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	BNAMS4	1114A_28	11/14/22 21:30

Sample Narrative:

Cannot run at lower dilution due to viscosity of extract

Lab Sample ID:	R3861672-1	**SDG:**	L1556196
Lab File ID:	1115_10	**Preparation Date/Time:**	11/14/22 04:51
Instrument ID:	BNAMS4	**Analysis Date/Time:**	11/15/22 14:34
Analytical Batch:	WG1958443	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3861170-1	BNAMS4	1114A_05	11/14/22 12:44
OS	L1556406-01	BNAMS4	1114A_07	11/14/22 13:25
MS	R3861170-3	BNAMS4	1114A_08	11/14/22 13:46
MSD	R3861170-4	BNAMS4	1114A_09	11/14/22 14:07
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	BNAMS4	1114A_18	11/14/22 17:40
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	BNAMS4	1114A_28	11/14/22 21:30

Sample Narrative:

Cannot run at lower dilution due to viscosity of extract

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

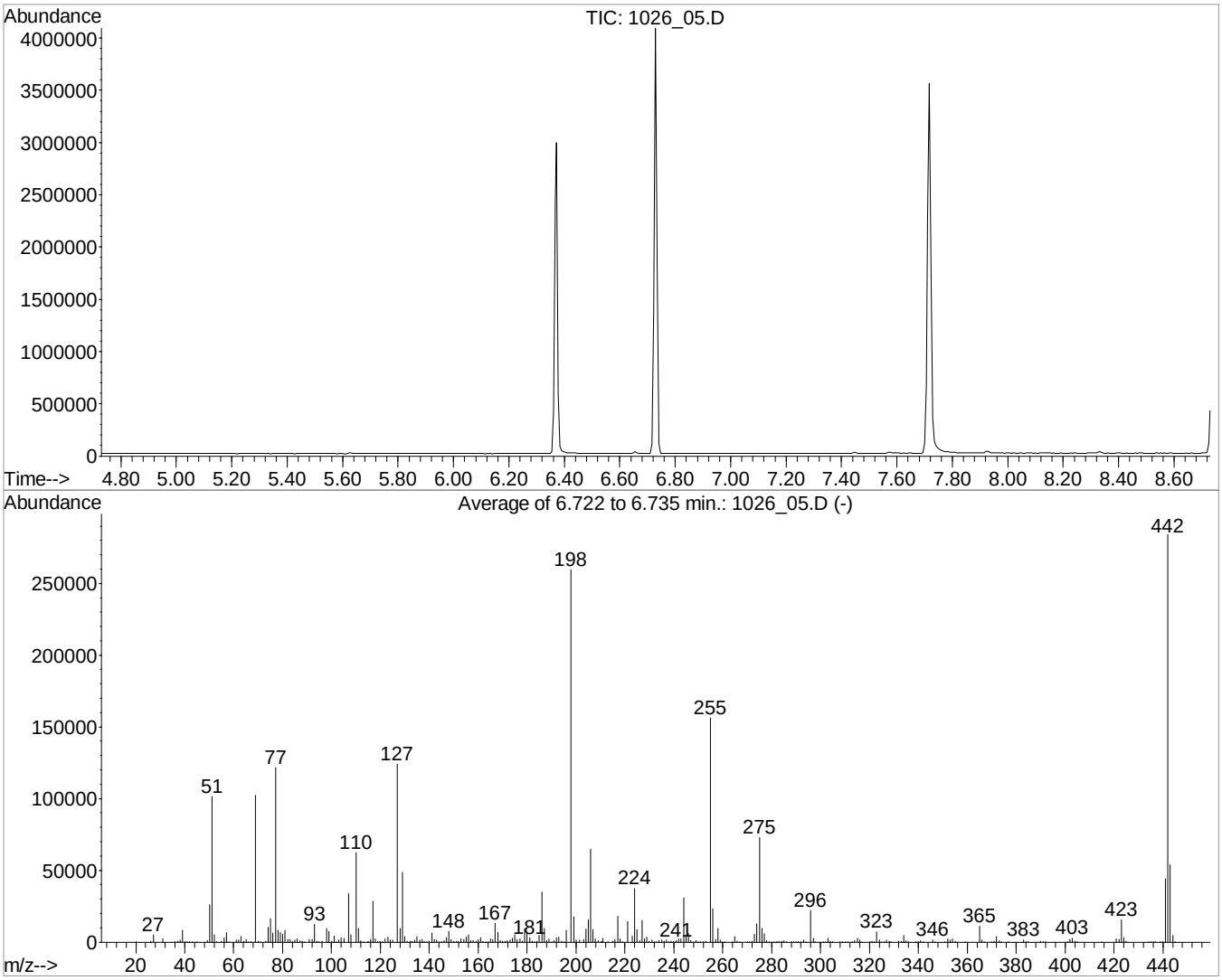
Lab File ID:	1026_05-1	**SDG:**	L1556196
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	10/26/22 22:49		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	36
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	442	10	80	44
197	198	0	2	0
198	442	50	100	91
199	198	5	9	7
275	442	10	60	26
365	198	1	100	4
441	442	0.0001	24	16
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	1026_06	10/26/22 23:10
STD-1000	1000	1026_07	10/26/22 23:31
STD-4000	4000	1026_08	10/26/22 23:52
STD-10000	10000	1026_09	10/27/22 00:13
STD-20000	20000	1026_10	10/27/22 00:34
STD-30000	30000	1026_11	10/27/22 00:55
STD-40000	40000	1026_12	10/27/22 01:16
STD-50000	50000	1026_13	10/27/22 01:37
STD-1K1	1K1	1026_14	10/27/22 01:58
STD-4K1	4K1	1026_15	10/27/22 02:19
STD-10K1	10K1	1026_16	10/27/22 02:39
STD-20K1	20K1	1026_17	10/27/22 03:00
STD-30K1	30K1	1026_18	10/27/22 03:21
STD-40K1	40K1	1026_19	10/27/22 03:42
STD-50K1	50K1	1026_20	10/27/22 04:03
SSCV	BNAMS41026221026_22-1601635	1026_22-1	10/27/22 04:45

DFTPP

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.722 to 6.735 min.

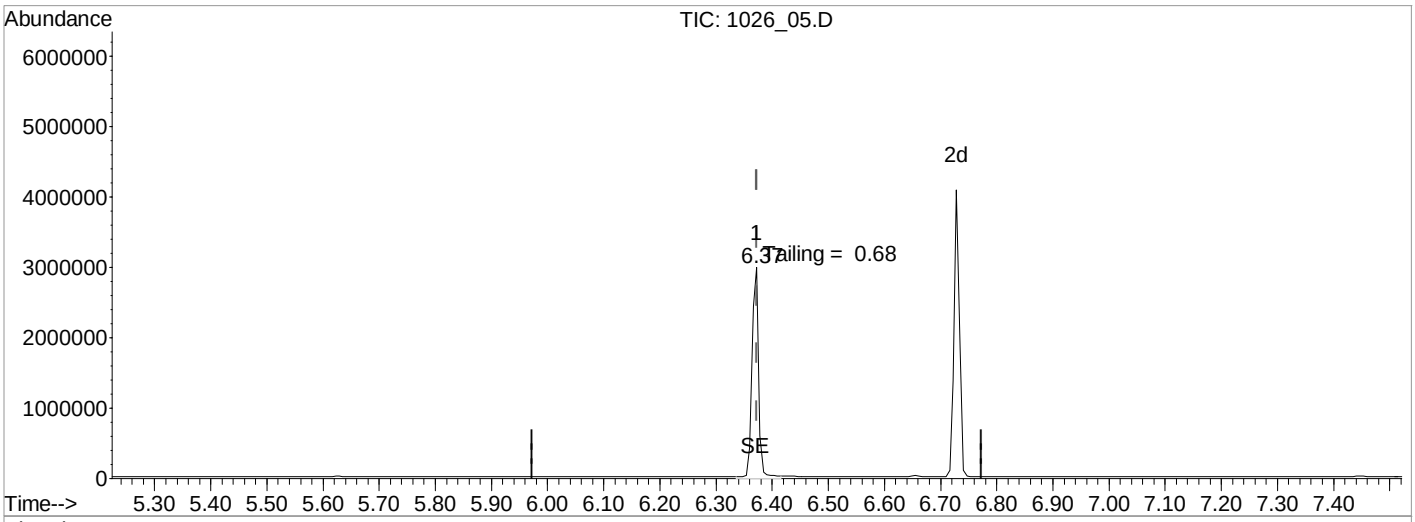
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	35.7	101621	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	102362	PASS
70	69	0.00	2	0.6	563	PASS
127	442	10	80	43.6	123936	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	91.4	259712	PASS
199	198	5	9	6.8	17554	PASS
275	442	10	60	25.7	72973	PASS
365	198	1	100	4.3	11166	PASS
441	442	0.01	24	15.5	43990	PASS
442	442	50	100	100.0	284269	PASS
443	442	15	24	18.9	53807	PASS

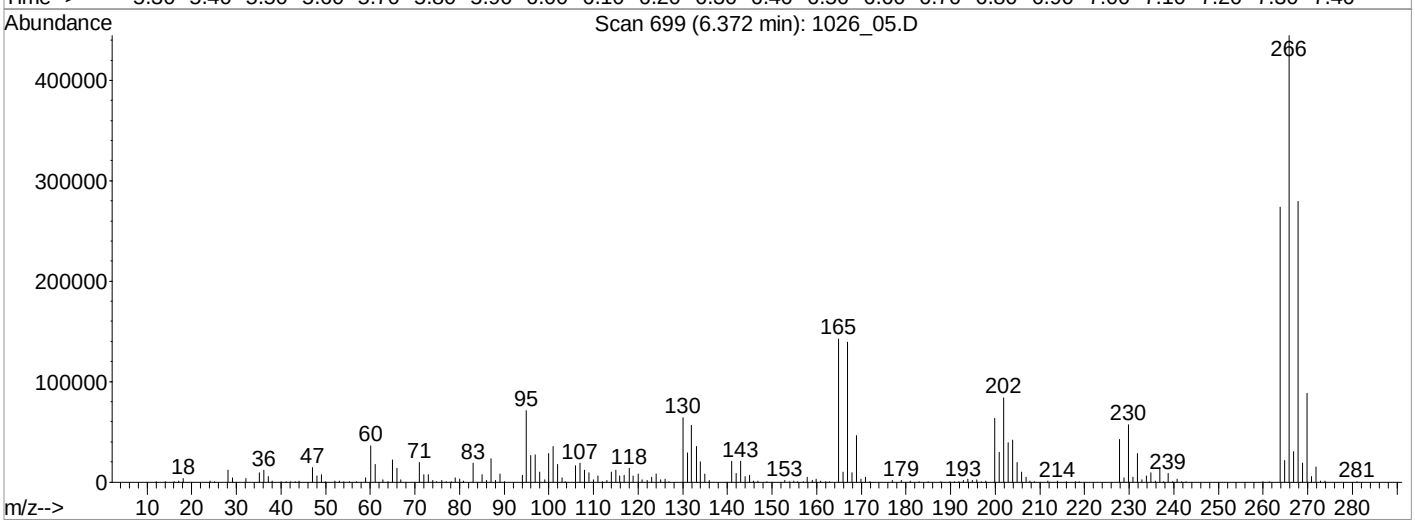
1026_05.D TUNED.M Wed Oct 26 23:43:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_05.D

(1) Pentachlorophenol (TM)

6.37min (-0.000) 417.3905443 ug/mL

Qvalue = 100

response 2435574

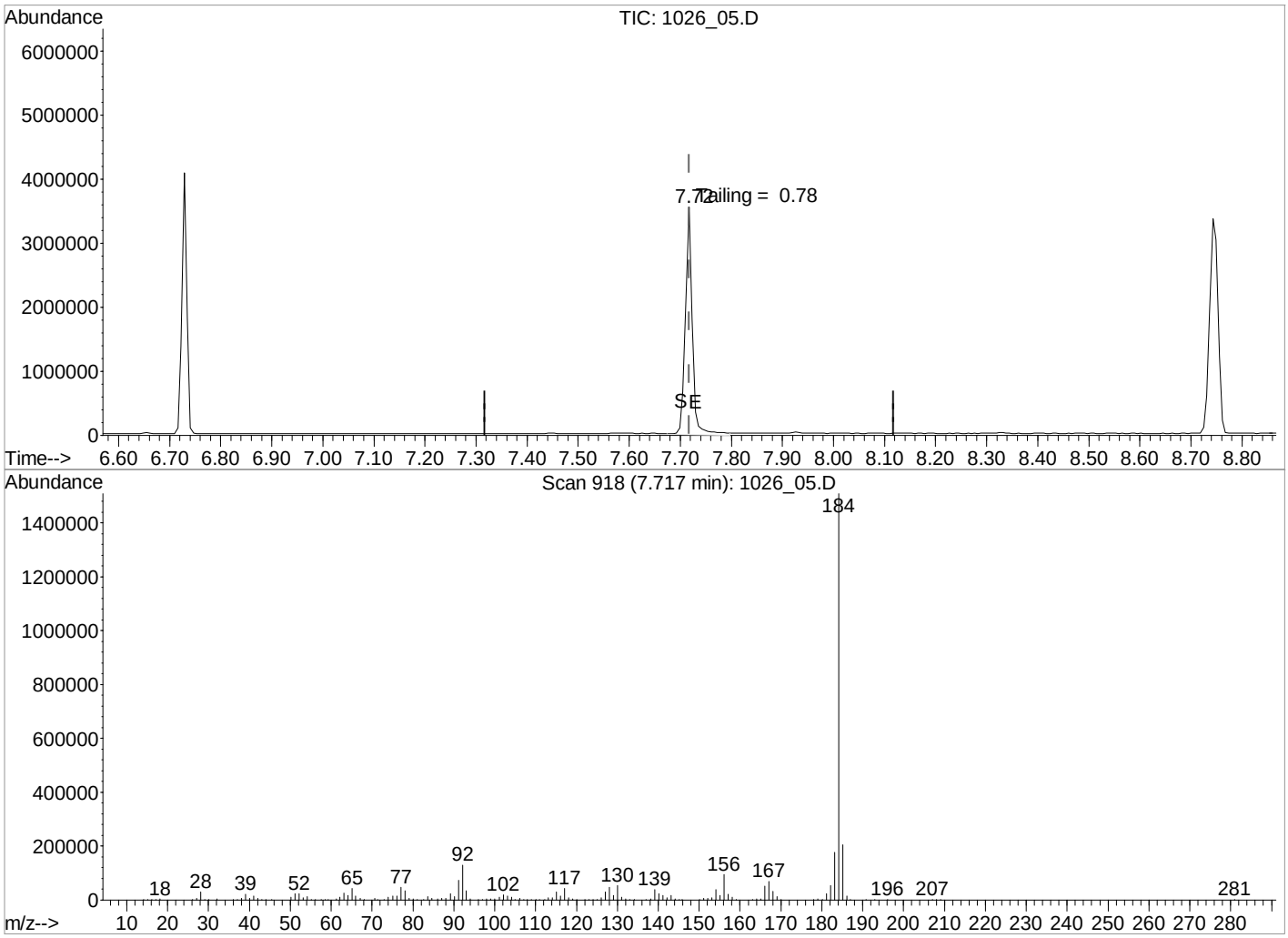
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_05.D TUNED.M Wed Oct 26 23:43:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1026_05.D

(3) Benzidine (MT)

7.72min (-0.000) 139.3152301 ug/mL

Qvalue = 100

response 3343794

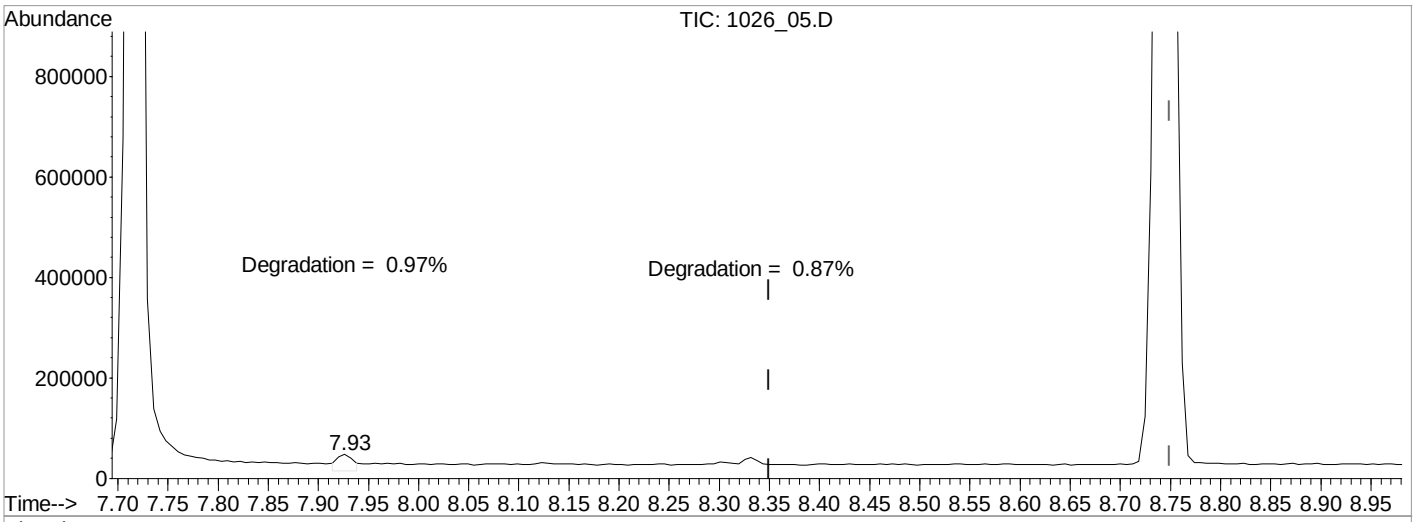
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

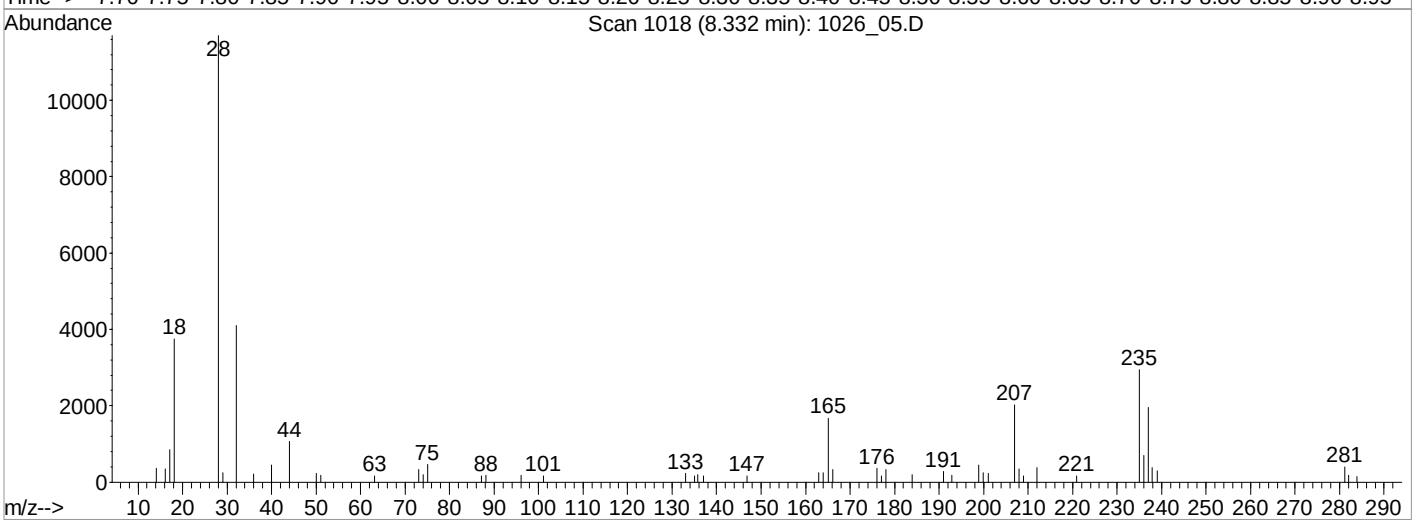
1026_05.D TUNED.M Wed Oct 26 23:44:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_05.D

(4) DDT (MT)

8.74min (-0.006) 285.5792340 ug/ml

Qvalue = 100

response 3842817

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_05.D TUNED.M Wed Oct 26 23:44:27 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

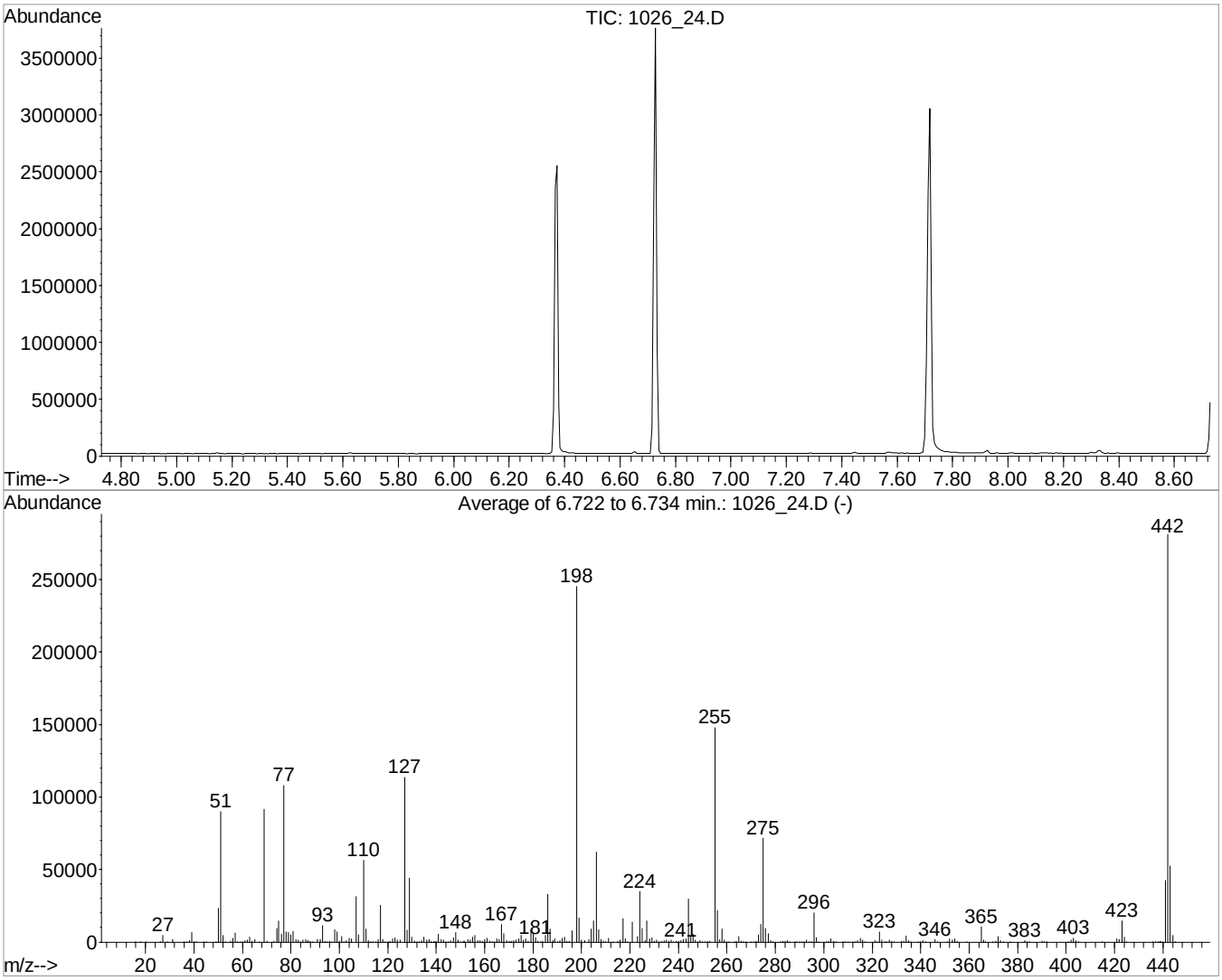
Lab File ID:	1026_24-1	**SDG:**	L1556196
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	10/27/22 09:56		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	40
197	198	0	2	0
198	442	50	100	87
199	198	5	9	7
275	442	10	60	26
365	198	1	100	4
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
SSCV	BNAMS41026221026_25-1601635	1026_25-1	10/27/22 10:17

DFTPP

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.722 to 6.734 min.

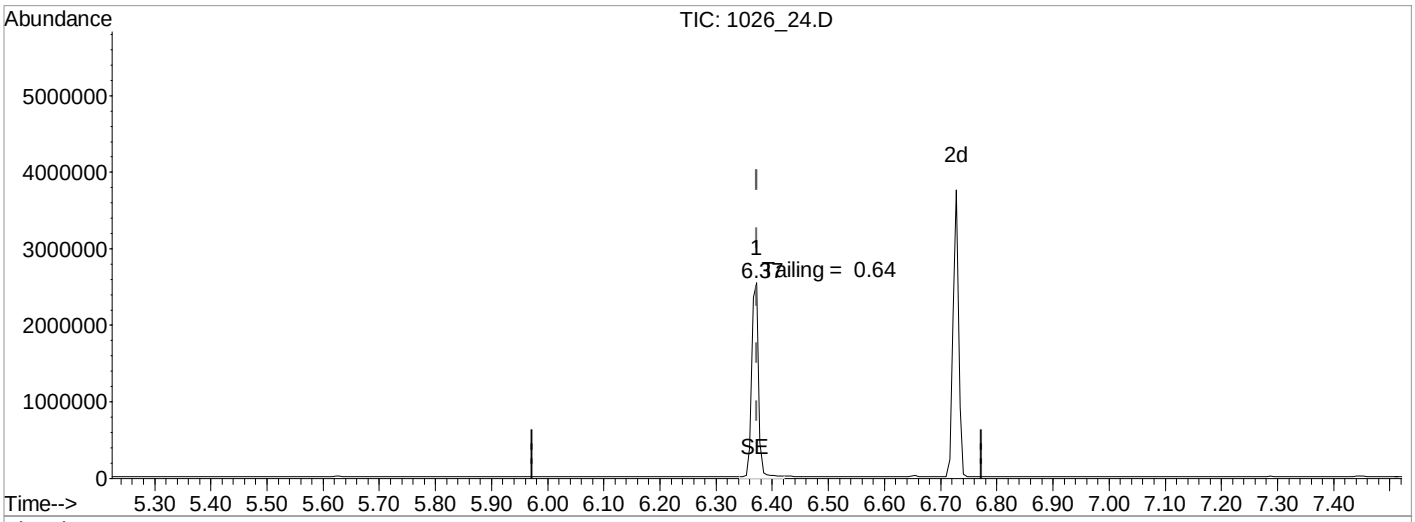
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	32.0	90110	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	91545	PASS
70	69	0.00	2	0.5	453	PASS
127	442	10	80	40.3	113408	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	87.2	245416	PASS
199	198	5	9	6.7	16430	PASS
275	442	10	60	25.5	71789	PASS
365	198	1	100	4.3	10571	PASS
441	442	0.01	24	15.2	42704	PASS
442	442	50	100	100.0	281301	PASS
443	442	15	24	18.7	52541	PASS

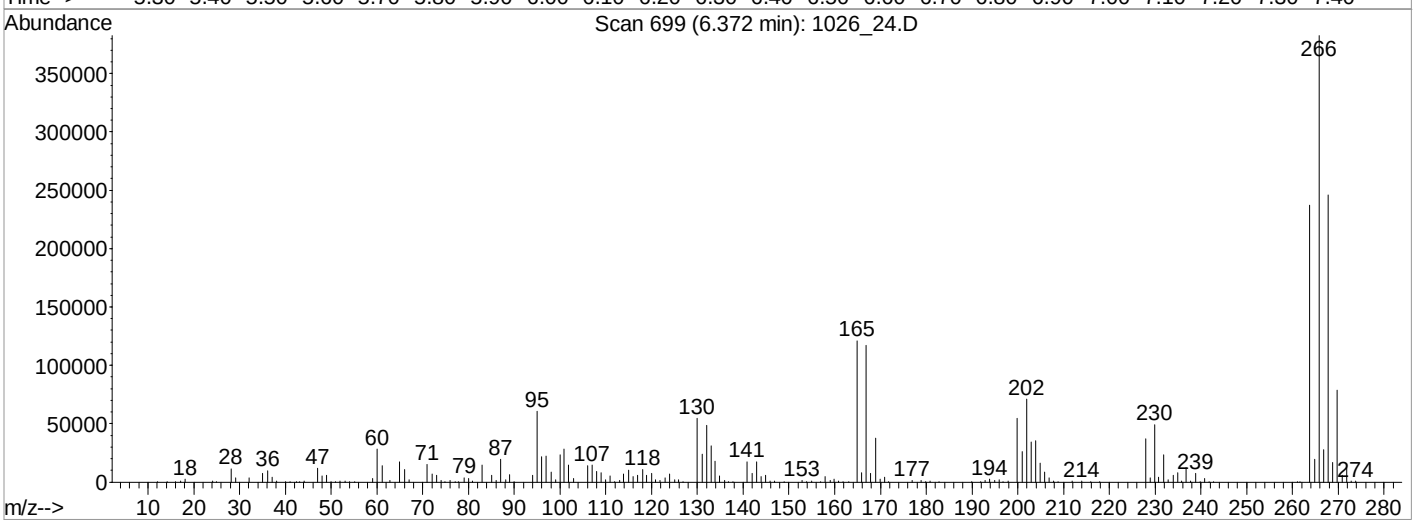
1026_24.D TUNED.M Thu Oct 27 10:54:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_24.D

(1) Pentachlorophenol (TM)

6.37min (-0.000) 372.7084062 ug/mL

Qvalue = 100

response 2174843

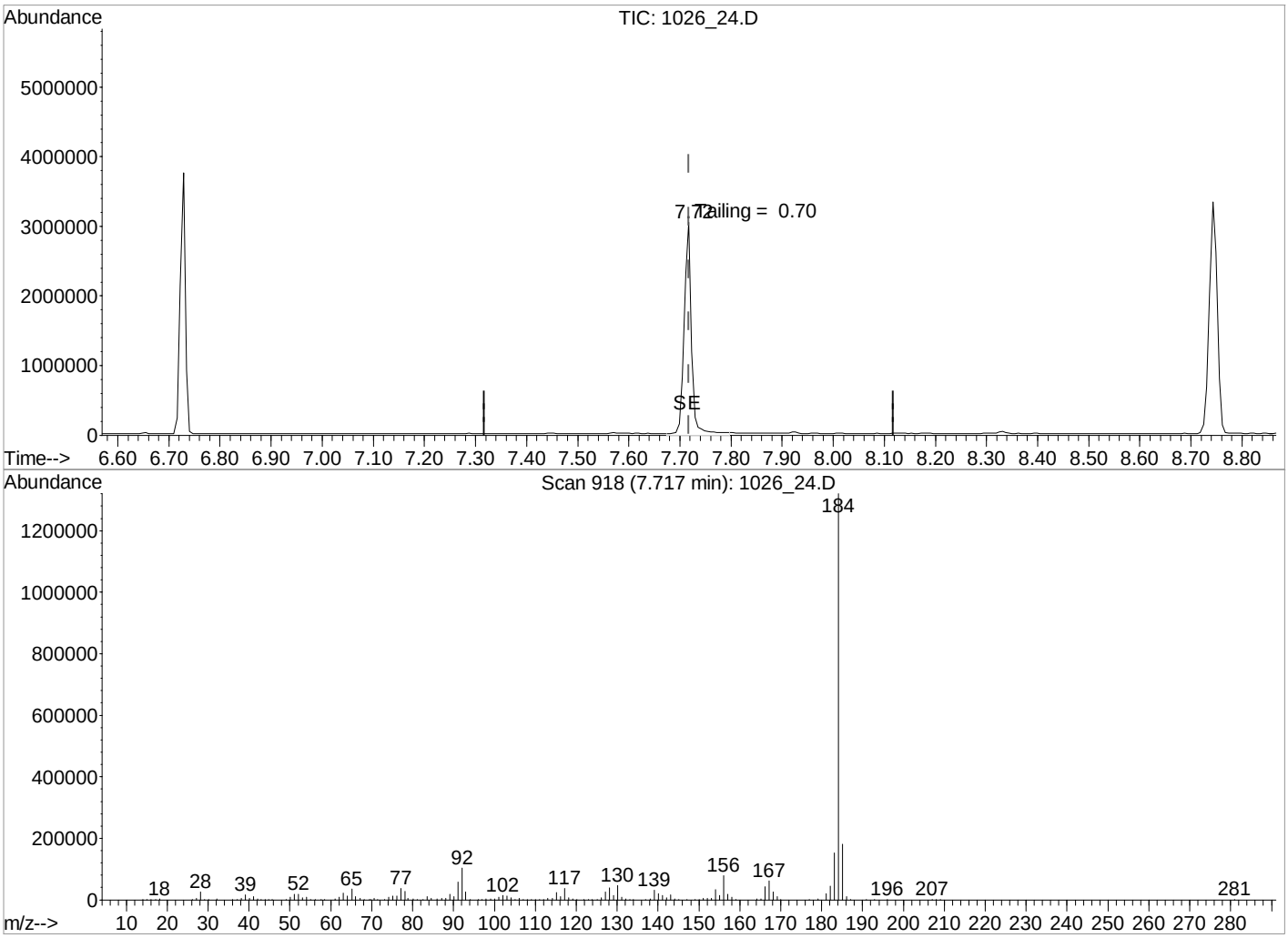
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1026_24.D

(3) Benzidine (MT)

7.72min (-0.000) 123.8737436 ug/mL

Qvalue = 100

response 2973173

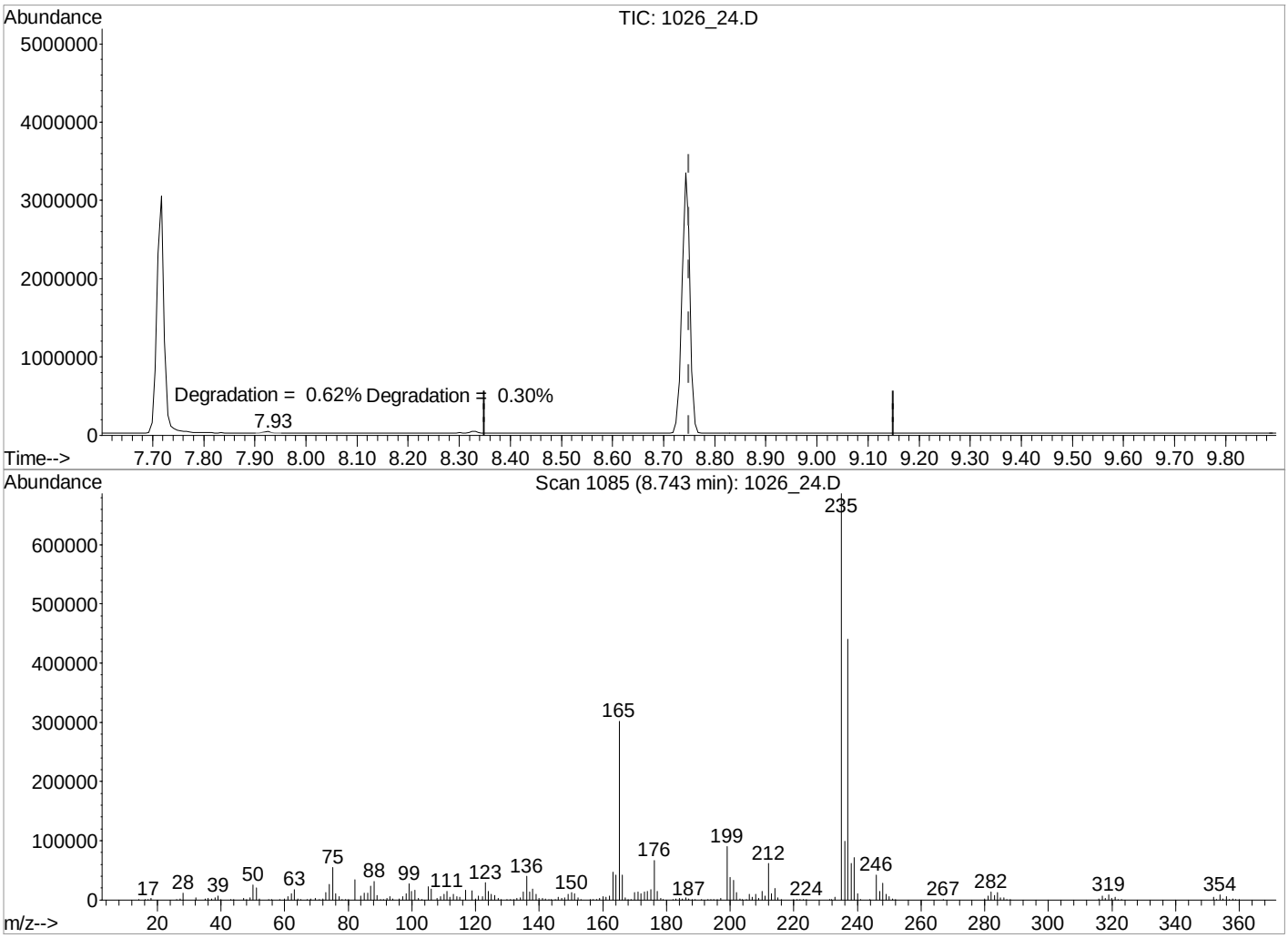
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1026_24.D

(4) DDT (MT)

8.74min (-0.006) 265.6078007 ug/ml

Qvalue = 100

response 3574077

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:45 2022

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

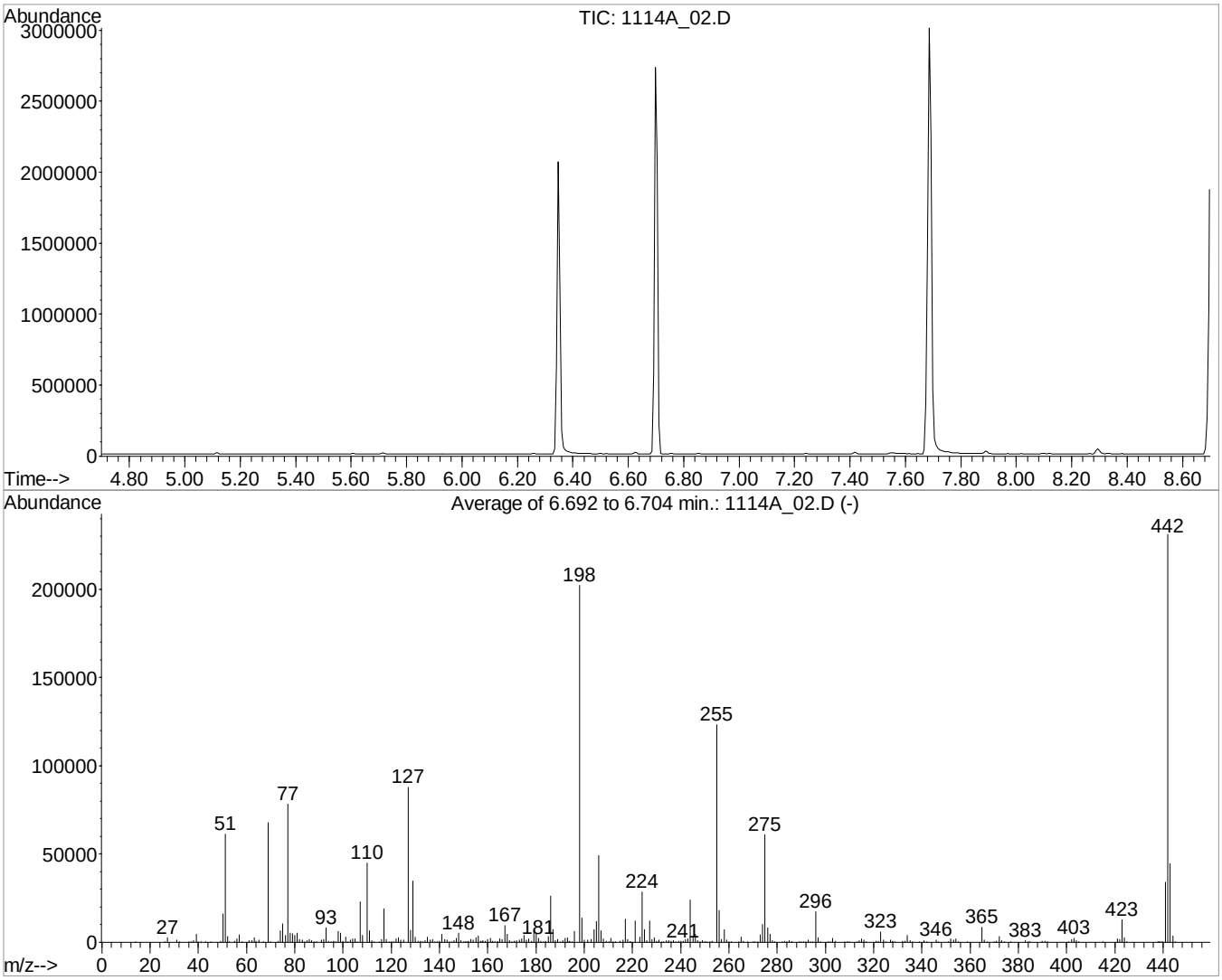
Lab File ID:	1114A_02T	**SDG:**	L1556196
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	11/14/22 11:41		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	26
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	38
197	198	0	2	0
198	442	50	100	88
199	198	5	9	7
275	442	10	60	26
365	198	1	100	4
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS4111422A1114A_03601635	1114A_03	11/14/22 12:02
ICV	BNAMS4111422A1114A_04601635	1114A_04	11/14/22 12:23
LCS	R3861170-1	1114A_05	11/14/22 12:44
BLANK	R3861170-2	1114A_06	11/14/22 13:05
OS	L1556406-01	1114A_07	11/14/22 13:25
MS	R3861170-3	1114A_08	11/14/22 13:46
MSD	R3861170-4	1114A_09	11/14/22 14:07
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	1114A_18	11/14/22 17:40
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	1114A_28	11/14/22 21:30

DFTPP

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.692 to 6.704 min.

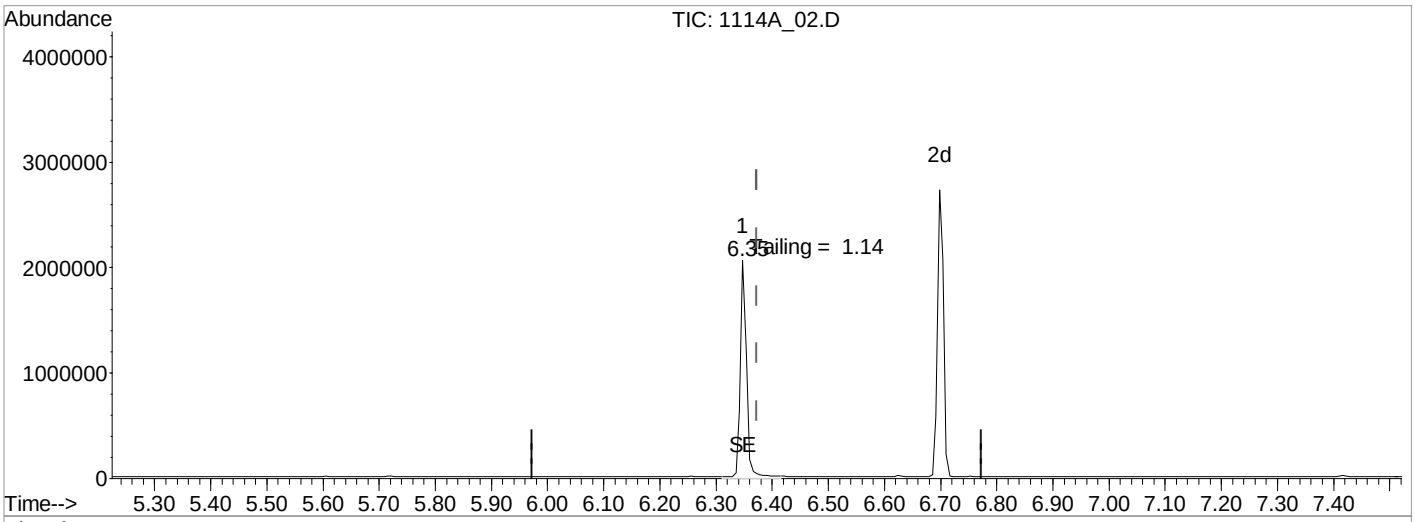
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	26.5	61257	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	67677	PASS
70	69	0.00	2	0.4	291	PASS
127	442	10	80	37.9	87680	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	87.5	202178	PASS
199	198	5	9	6.8	13679	PASS
275	442	10	60	26.3	60678	PASS
365	198	1	100	4.1	8336	PASS
441	442	0.01	24	14.7	34017	PASS
442	442	50	100	100.0	231077	PASS
443	442	15	24	19.2	44334	PASS

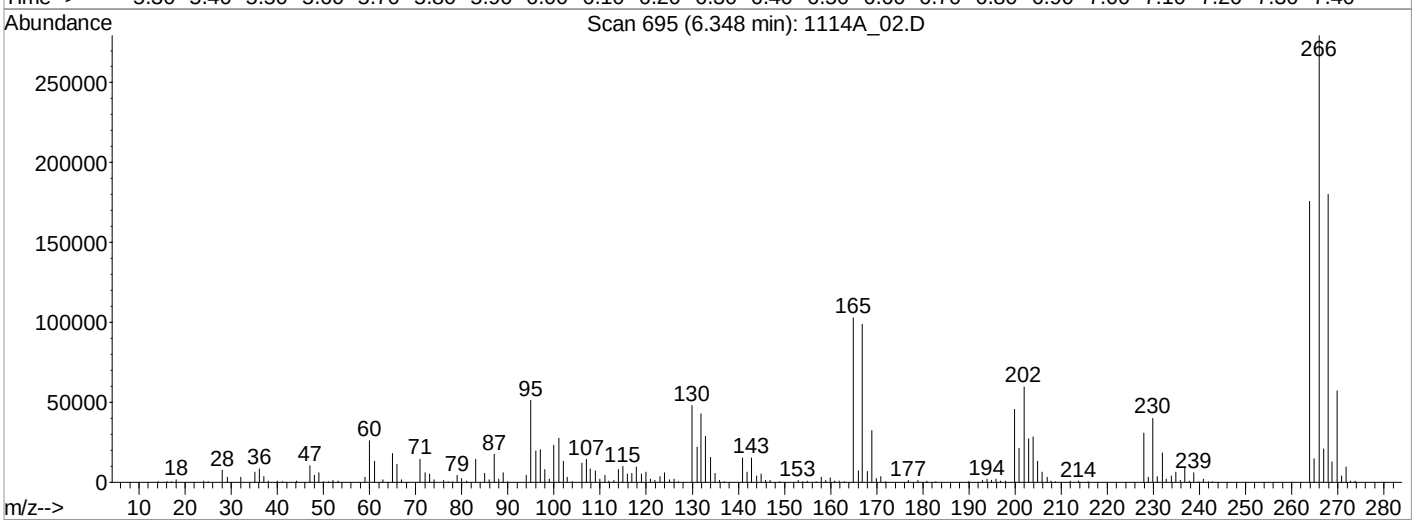
1114A_02.D TUNED.M Mon Nov 14 12:23:30 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1114A_02.D

(1) Pentachlorophenol (TM)

6.35min (-0.025) 268.1144220 ug/mL
Qvalue = 100
response 1564512

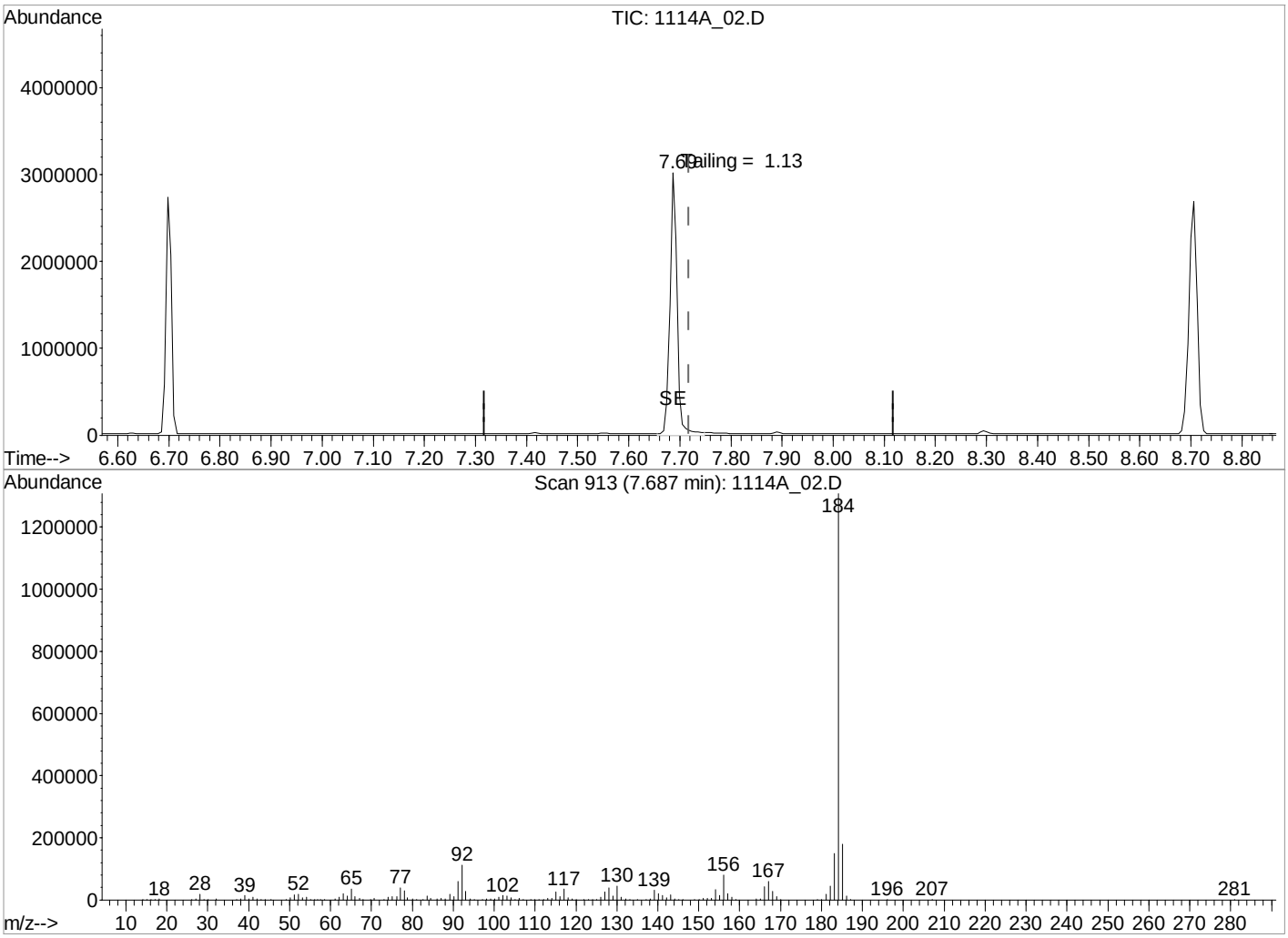
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1114A_02.D TUNED.M Mon Nov 14 12:23:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1114A_02.D

(3) Benzidine (MT)

7.69min (-0.031) 122.3518893 ug/mL

Qvalue = 100

response 2936646

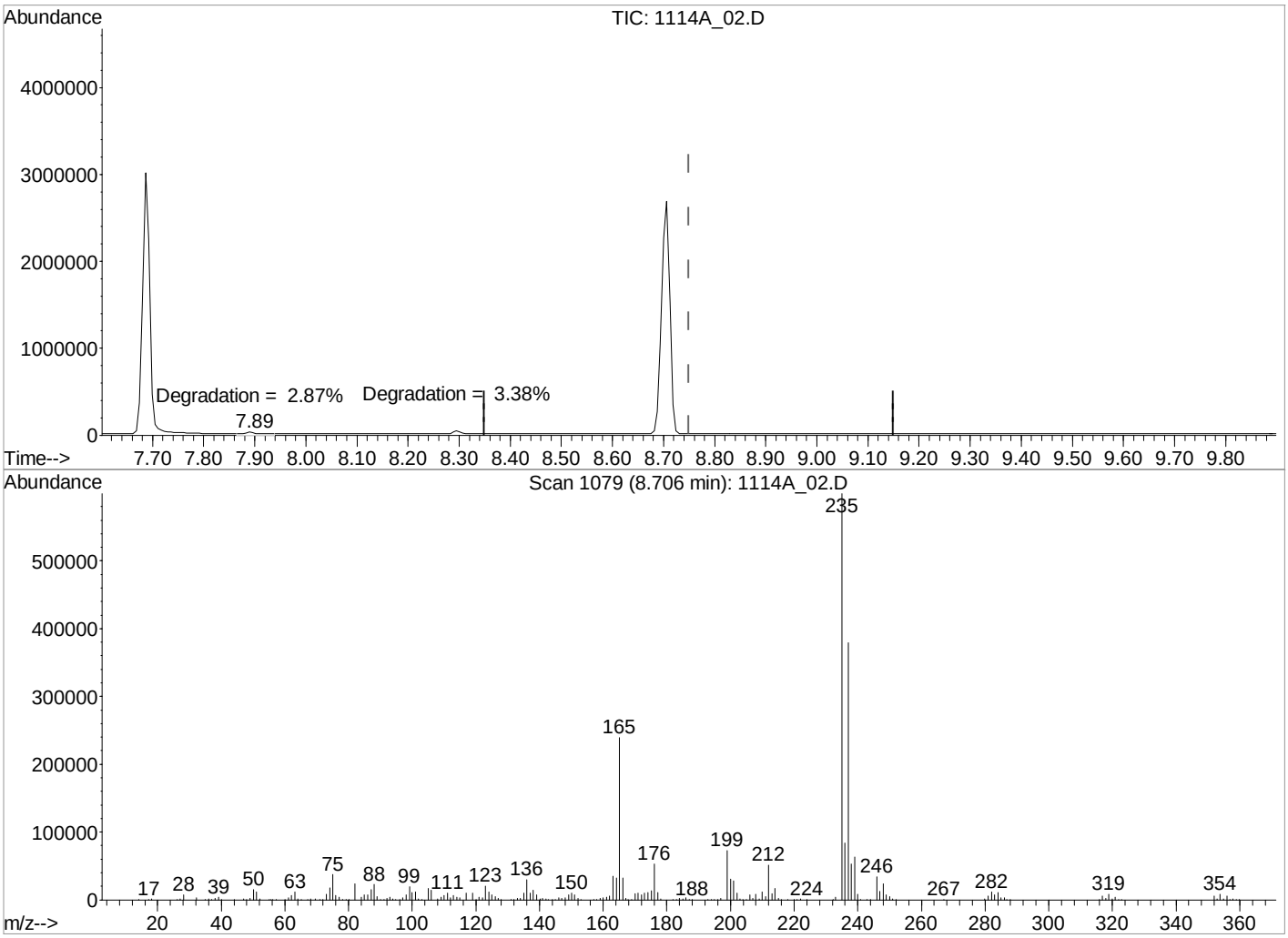
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1114A_02.D TUNED.M Mon Nov 14 12:23:56 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1114A_02.D

(4) DDT (MT)

8.71min (-0.043) 223.4852730 ug/ml

Qvalue = 100

response 3007267

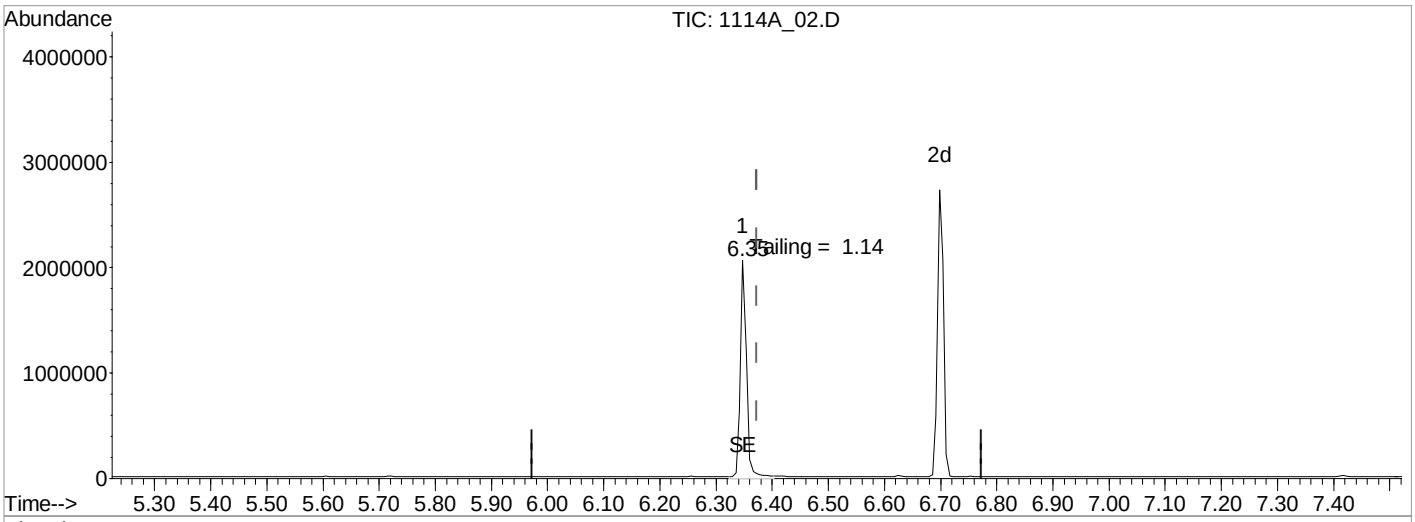
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

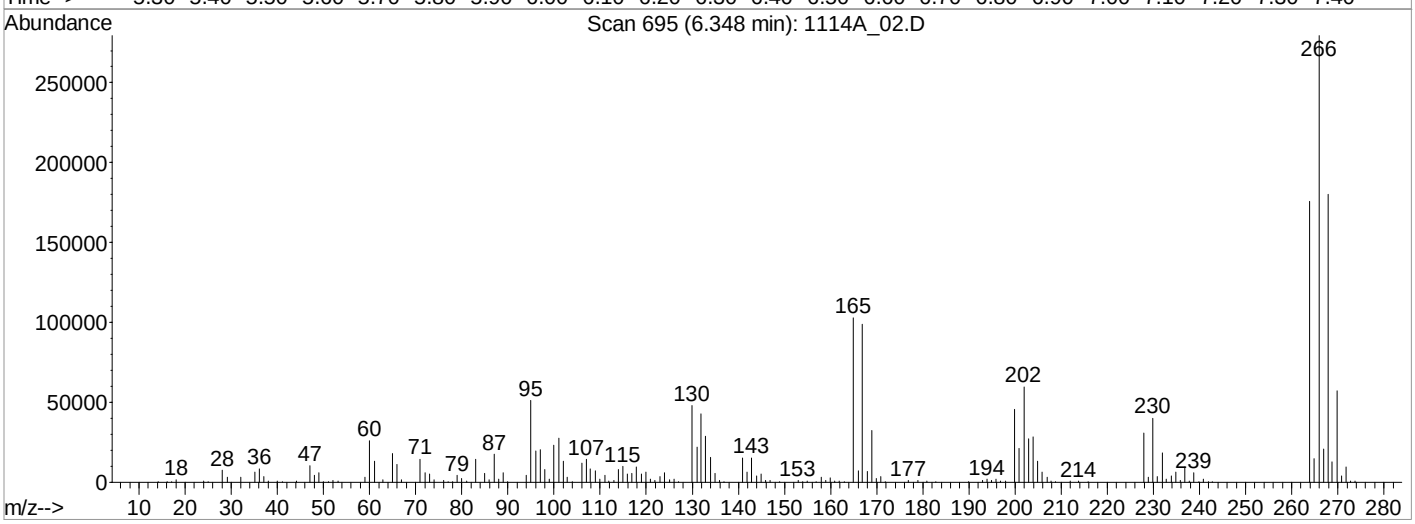
1114A_02.D TUNED.M Mon Nov 14 12:24:19 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1114A_02.D

(1) Pentachlorophenol (TM)

6.35min (-0.025) 268.1144220 ug/mL

Qvalue = 100

response 1564512

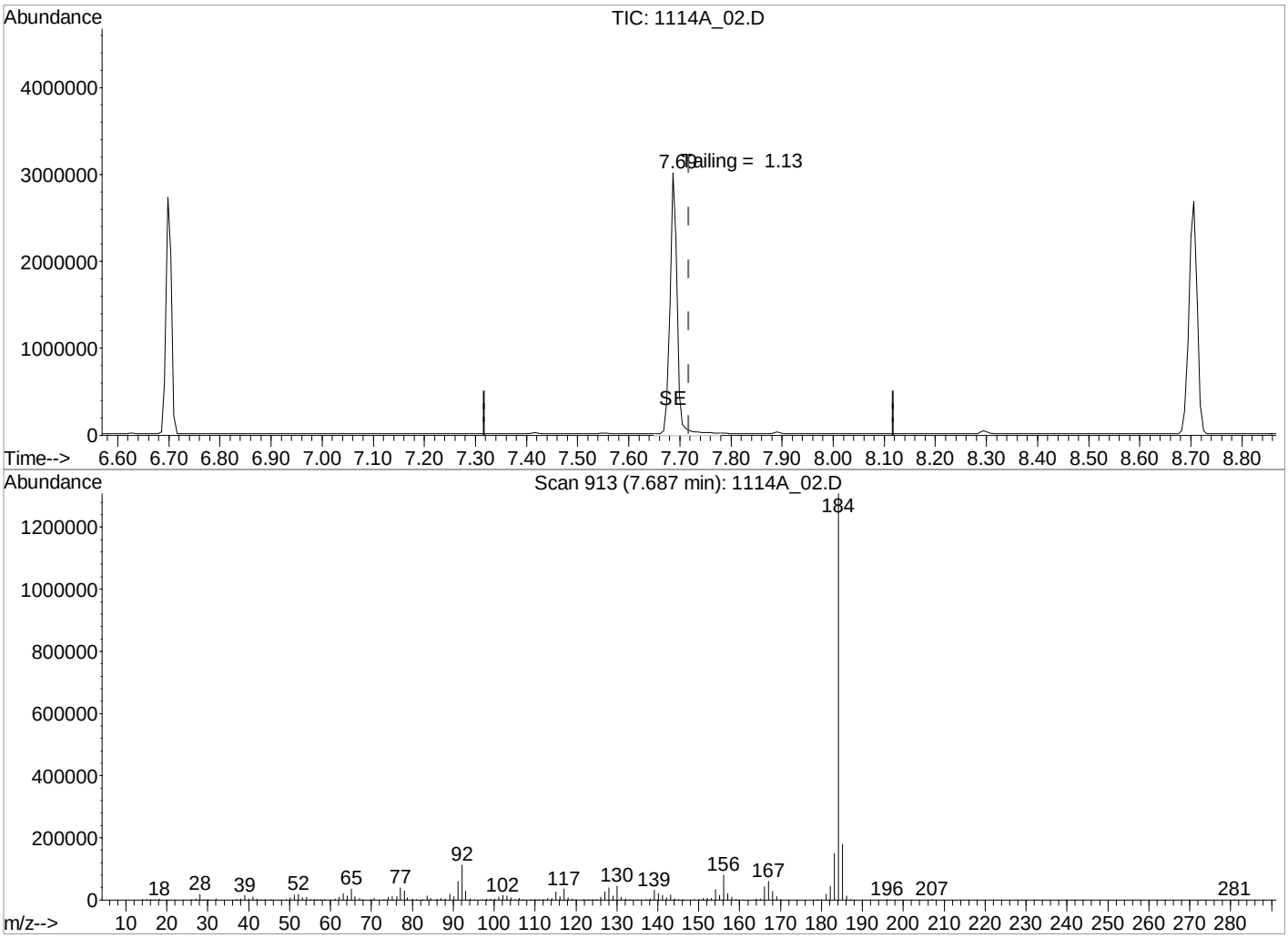
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1114A_02.D TUNED.M Tue Nov 15 09:56:20 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1114A_02.D

(3) Benzidine (MT)

7.69min (-0.031) 122.3518893 ug/mL

Qvalue = 100

response 2936646

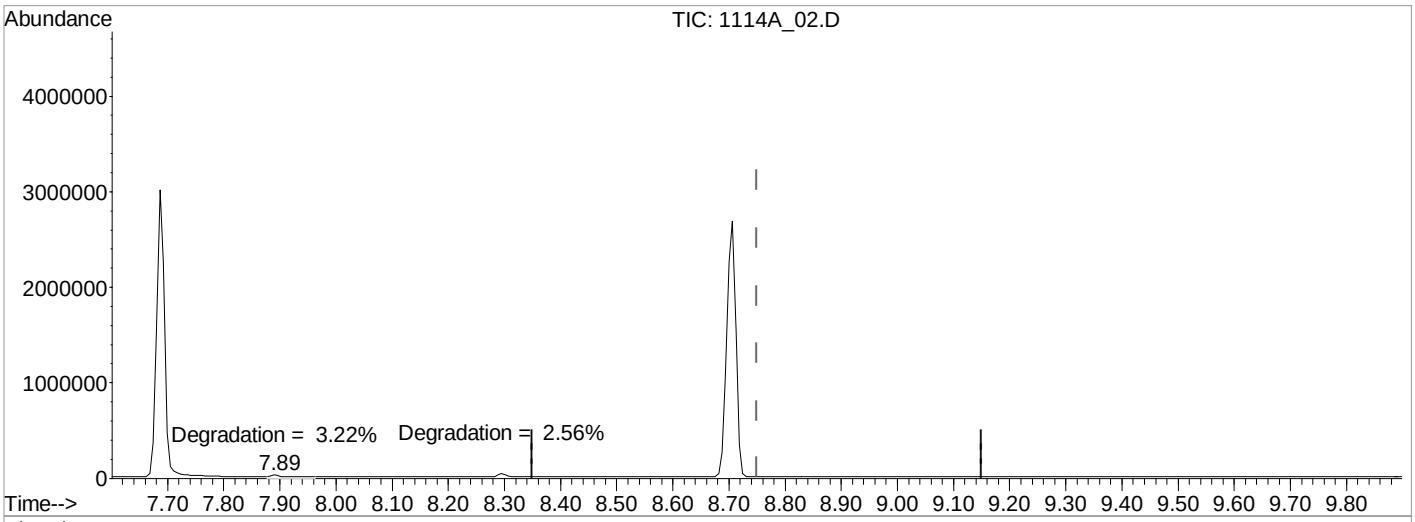
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

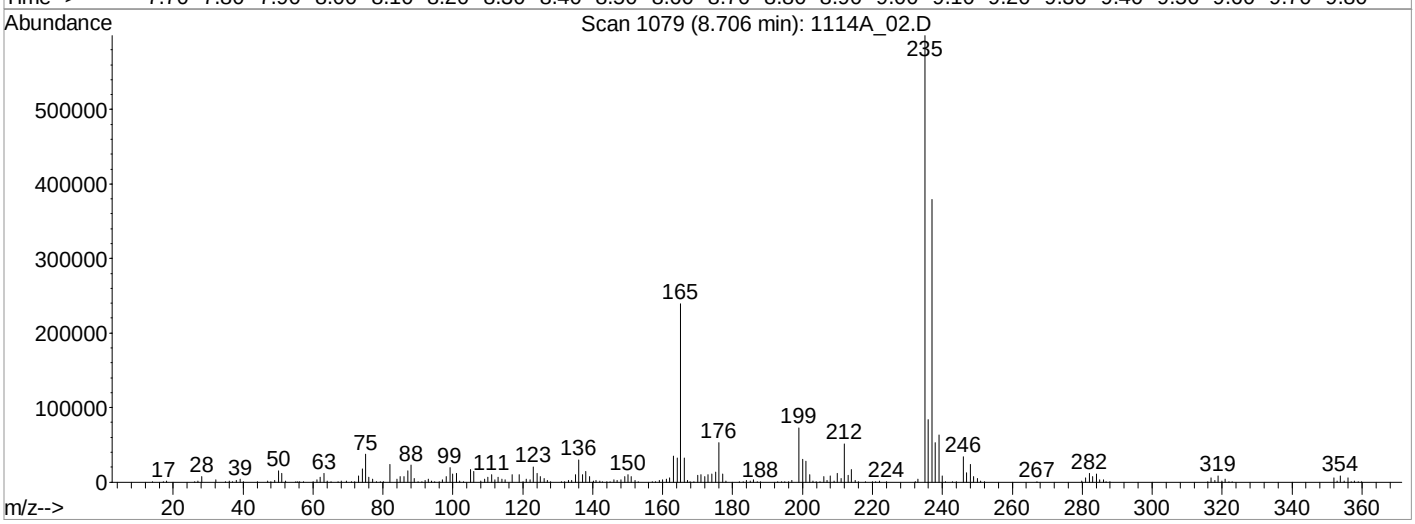
1114A_02.D TUNED.M Tue Nov 15 09:56:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 02.D Vial: 2
Acq On : 14 Nov 2022 11:41 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:23 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1114A_02.D

(4) DDT (MT)

8.71min (-0.043) 223.4852730 ug/ml

Qvalue = 100

response 3007267

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1114A_02.D TUNED.M Tue Nov 15 09:56:50 2022

5A-OR

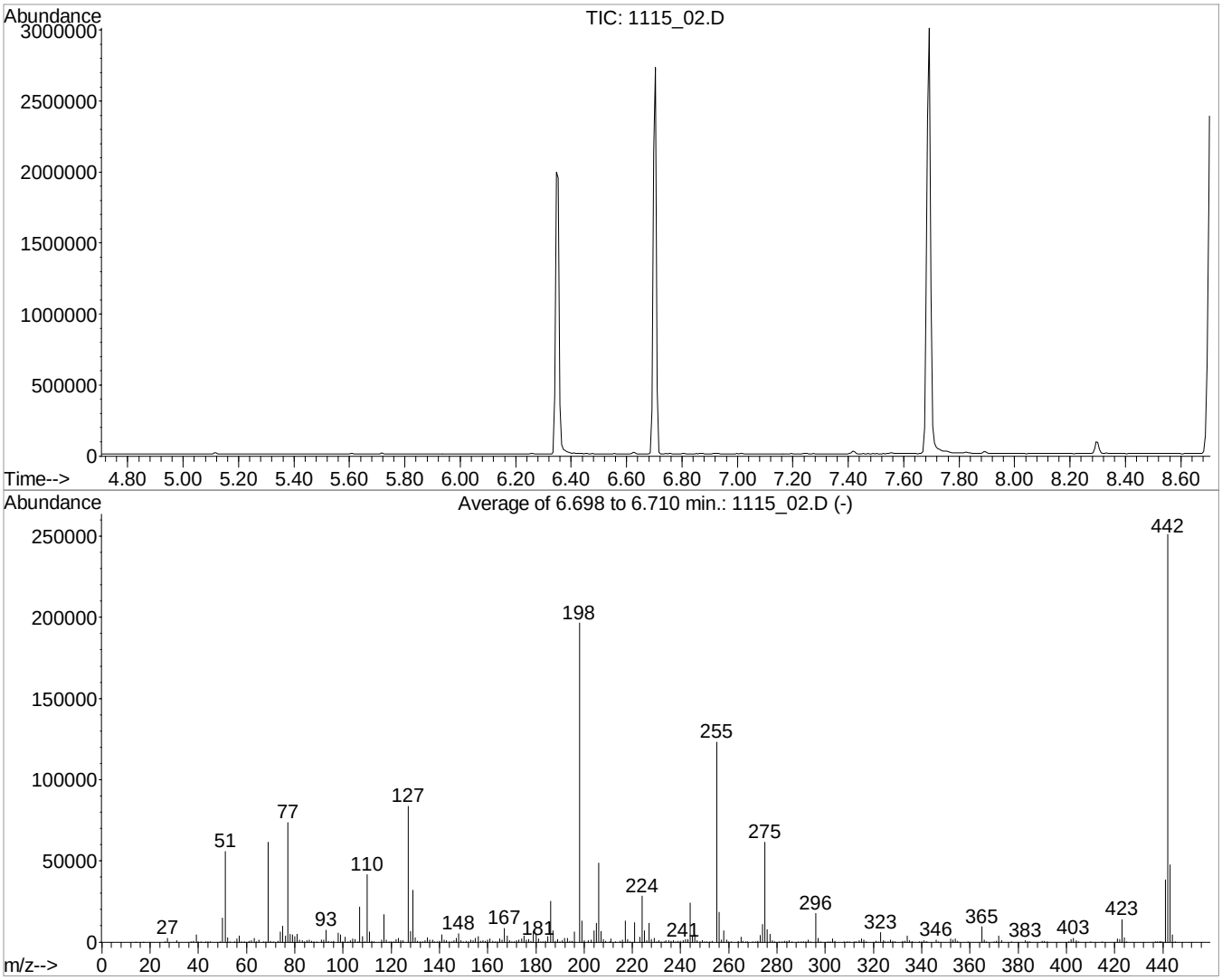
GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1115_02T	**SDG:**	L1556196
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	11/15/22 08:09		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	22
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	442	10	80	33
197	198	0	2	0
198	442	50	100	78
199	198	5	9	7
275	442	10	60	24
365	198	1	100	5
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS41115221115_03601635	1115_03	11/15/22 08:32
ICV	BNAMS41115221115_04601635	1115_04	11/15/22 08:55
BLANK	R3861672-1	1115_10	11/15/22 14:34

Data File : C:\MSDCHEM\1\DATA\111522\1115 02.D Vial: 2
Acq On : 15 Nov 2022 8:09 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.698 to 6.710 min.

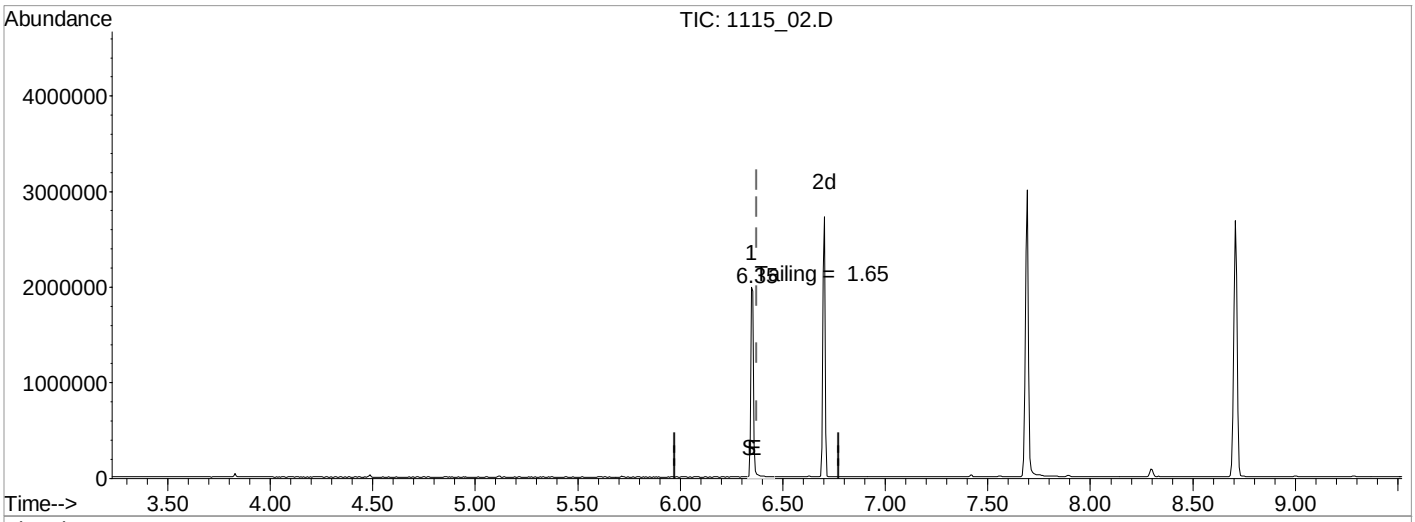
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	22.2	55826	PASS
68	69	0.00	2	0.1	67	PASS
69	69	100	100	100.0	61628	PASS
70	69	0.00	2	0.6	369	PASS
127	442	10	80	33.3	83566	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	78.3	196645	PASS
199	198	5	9	6.7	13176	PASS
275	442	10	60	24.4	61404	PASS
365	198	1	100	4.7	9338	PASS
441	442	0.01	24	15.2	38181	PASS
442	442	50	100	100.0	251178	PASS
443	442	15	24	18.9	47565	PASS

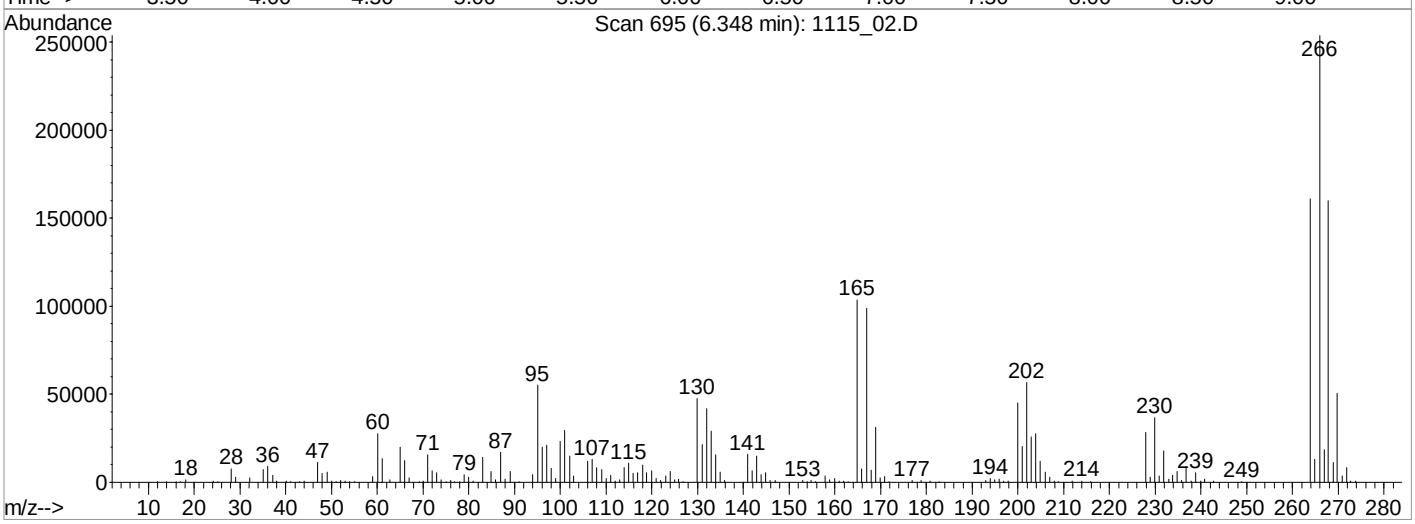
1115_02.D TUNED.M Tue Nov 15 09:16:19 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 02.D Vial: 2
Acq On : 15 Nov 2022 8:09 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1115_02.D

(1) Pentachlorophenol (TM)

6.35min (-0.025) 309.9569169 ug/mL
Qvalue = 100
response 1808673

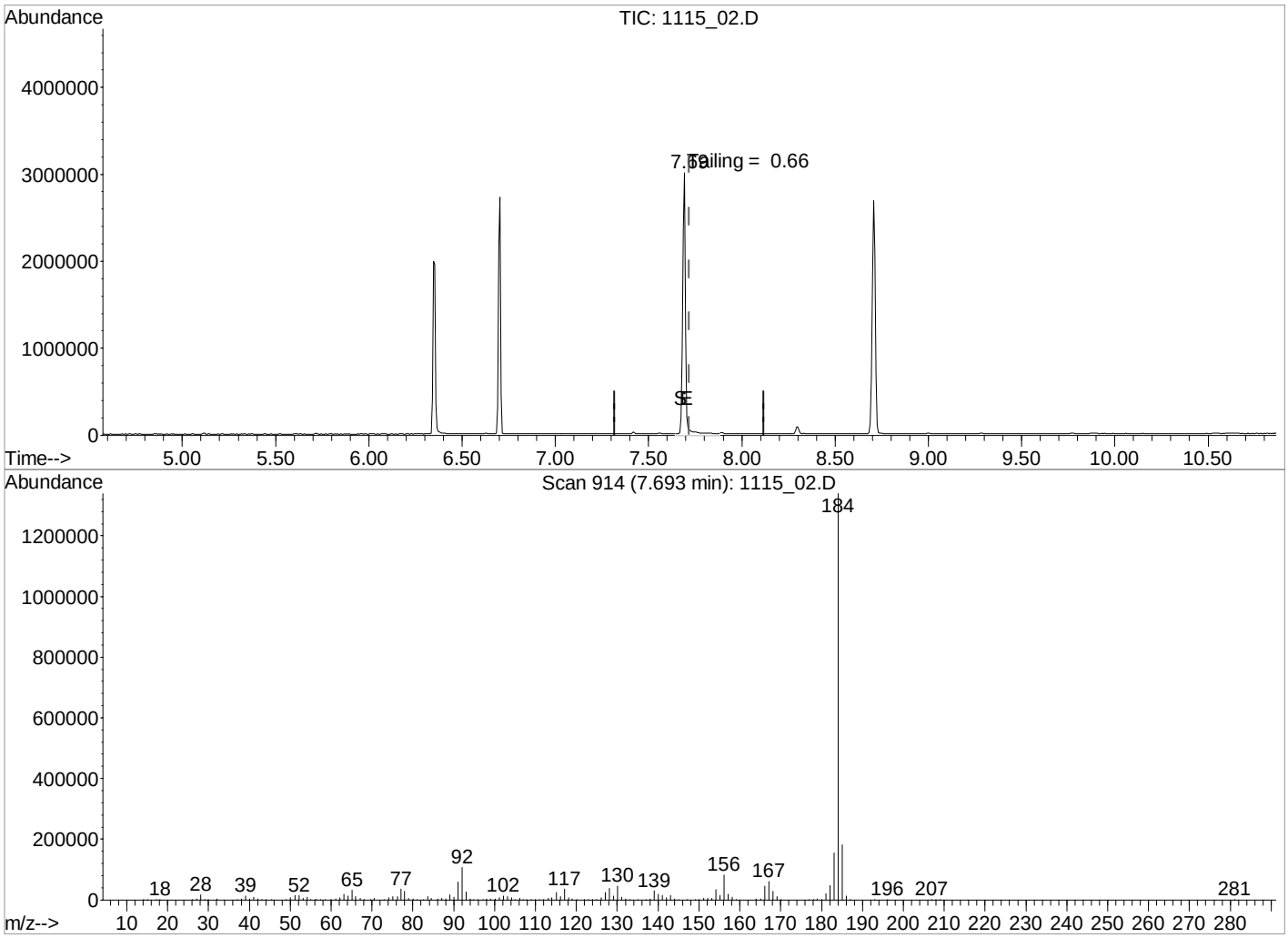
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1115_02.D TUNED.M Wed Nov 16 10:54:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 02.D Vial: 2
Acq On : 15 Nov 2022 8:09 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1115_02.D

(3) Benzidine (MT)

7.69min (-0.025) 125.0144573 ug/mL

Qvalue = 100

response 3000552

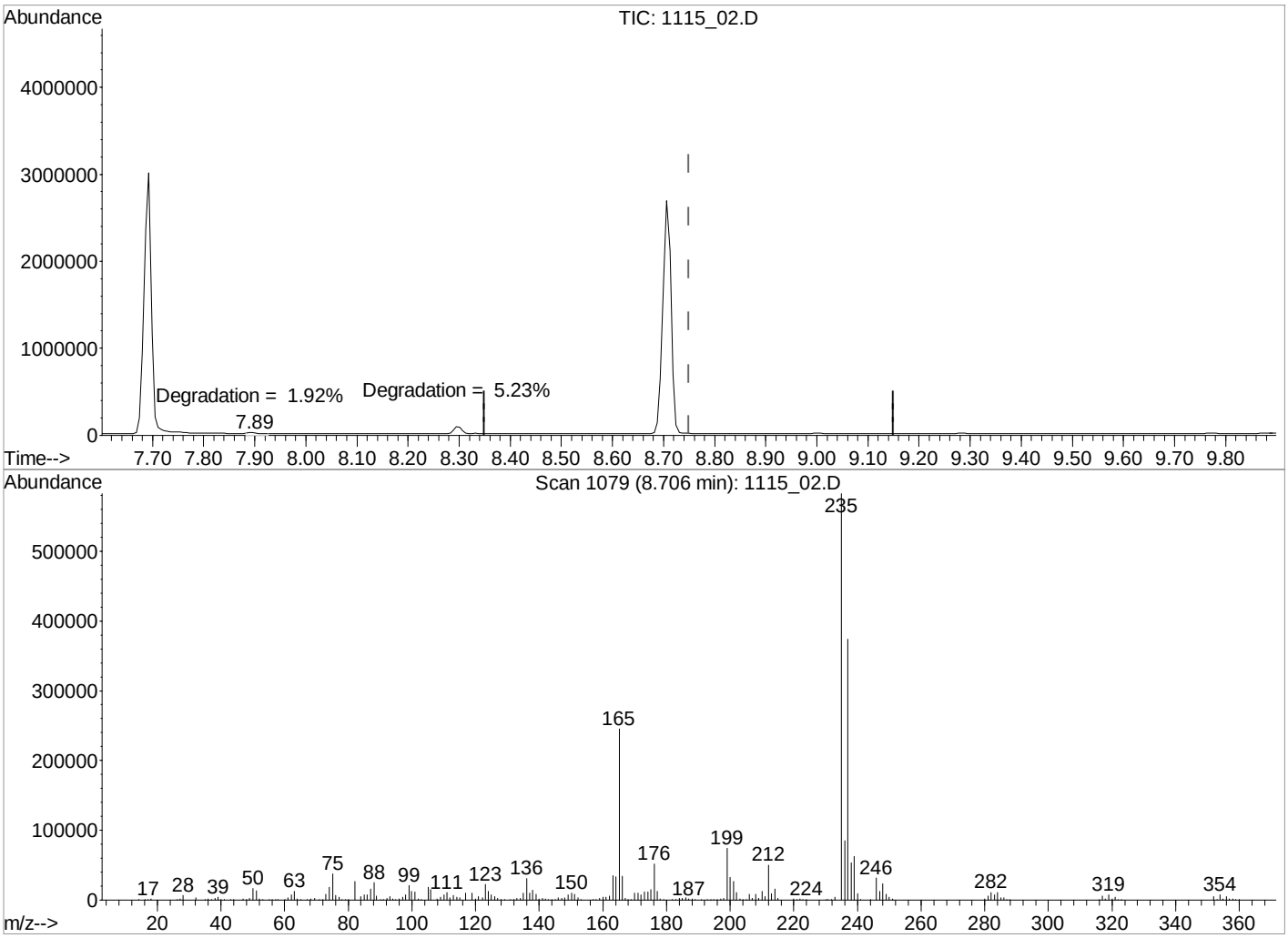
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1115_02.D TUNED.M Wed Nov 16 10:54:26 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 02.D Vial: 2
Acq On : 15 Nov 2022 8:09 am Operator: 917
Sample : TUNE 50 PPM 22K03250 EXP: 04/28/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1115_02.D

(4) DDT (MT)

8.71min (-0.043) 223.7834994 ug/ml

Qvalue = 100

response 3011280

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1115_02.D TUNED.M Wed Nov 16 10:54:45 2022

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1114A_03	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/14/22 12:02

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		63127	3.45	126372	5.37	249961	9.42	244754	4.19
UPPER LIMIT		126254		252744		499922		489508	
LOWER LIMIT		31564		63186		124981		122377	
LCS R3861170-1 WG1958443 1x	1114A_05	57488	3.45	123958	5.37	247576	9.42	278984	4.19
BLANK R3861170-2 WG1958443 1x	1114A_06	67902	3.45	140923	5.37	269313	9.42	267384	4.19
OS L1556406-01 WG1958443 1x	1114A_07	65436	3.45	137840	5.37	260492	9.42	257165	4.19
MS R3861170-3 WG1958443 1x	1114A_08	66214	3.45	143689	5.37	282401	9.42	309299	4.19
MSD R3861170-4 WG1958443 1x	1114A_09	68346	3.45	147386	5.37	289445	9.42	318222	4.19
L1556196-01 WG1958443 1x	1114A_18	70484	3.45	151688	5.37	311992	9.42	279362	4.19
L1556196-02 WG1958443 10x	1114A_28	76926	3.45	169787	5.37	346837	9.43	309150	4.19

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1114A_03	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/14/22 12:02

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		264041	12.23	251953	6.50
UPPER LIMIT		528082		503906	
LOWER LIMIT		132021		125977	
LCS R3861170-1 WG1958443 1x	1114A_05	267463	12.23	244171	6.50
BLANK R3861170-2 WG1958443 1x	1114A_06	290269	12.23	277791	6.50
OS L1556406-01 WG1958443 1x	1114A_07	284916	12.23	275468	6.50
MS R3861170-3 WG1958443 1x	1114A_08	308653	12.23	284619	6.50
MSD R3861170-4 WG1958443 1x	1114A_09	314617	12.23	288530	6.50
L1556196-01 WG1958443 1x	1114A_18	352661	12.24	305267	6.50
L1556196-02 WG1958443 10x	1114A_28	357757	12.25	340143	6.51

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1115_03	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/15/22 08:32

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		59911	3.45	124226	5.37	246038	9.43	234494	4.19
UPPER LIMIT		119822		248452		492076		468988	
LOWER LIMIT		29956		62113		123019		117247	
BLANK R3861672-1 WG1958443 1x	1115_10	68976	3.45	143133	5.37	274636	9.42	268411	4.19

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1115_03	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/15/22 08:32

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		256119	12.24	248423	6.51
UPPER LIMIT		512238		496846	
LOWER LIMIT		128060		124212	
BLANK R3861672-1 WG1958443 1x	1115_10	284986	12.24	292957	6.51

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-G020-SC-0.0-1.0-110422

Lab Sample ID:	L1556196-01	**SDG:**	L1556196
Client Sample ID:	BNSF-G020-SC-0.0-1.0-110422	**Collected Date/Time:**	11/04/22 10:20
Lab File ID:	1114A_18	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:53
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 17:40
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.07 g
Total Solids (%):	68.3	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00789	0.0487
Acenaphthylene	208-96-8	0	U		0.00686	0.0487
Anthracene	120-12-7	6.56	U		0.00868	0.0487
Benzoic Acid	65-85-0	0	U		0.173	2.44
Benzo(a)anthracene	56-55-3	9.41	0.0116	J	0.00859	0.0487
Benzo(b)fluoranthene	205-99-2	11.43	0.0106	J	0.00909	0.0487
Benzo(k)fluoranthene	207-08-9	11.49	U		0.00866	0.0487
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.00891	0.0487
Benzo(a)pyrene	50-32-8	12.11	0.0119	J	0.00906	0.0487
Carbazole	86-74-8	6.75	U		0.0151	0.487
Chrysene	218-01-9	9.46	0.0137	J	0.00969	0.0487
Dibenz(a,h)anthracene	53-70-3	14.14	U		0.0135	0.0487
Dibenzofuran	132-64-9	0	U		0.0159	0.487
Fluoranthene	206-44-0	7.56	0.0131	J	0.00879	0.0487
Fluorene	86-73-7	0	U		0.00793	0.0487
Indeno(1,2,3-cd)pyrene	193-39-5	14.10	U		0.0138	0.0487
1-Methylnaphthalene	90-12-0	0	U		0.00623	0.0487
2-Methylnaphthalene	91-57-6	0	U		0.00632	0.0487
Naphthalene	91-20-3	0	U		0.0122	0.0487
Phenanthrene	85-01-8	6.52	U		0.00967	0.0487
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0617	0.487
Di-n-butyl phthalate	84-74-2	0	U		0.0167	0.487
Di-n-octyl phthalate	117-84-0	0	U		0.0329	0.487
Pyrene	129-00-0	7.80	0.0272	J	0.00948	0.0487
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0152	0.487
Pentachlorophenol	87-86-5	0	U		0.0131	0.487
Phenol	108-95-2	0	U		0.0196	0.487

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:11 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

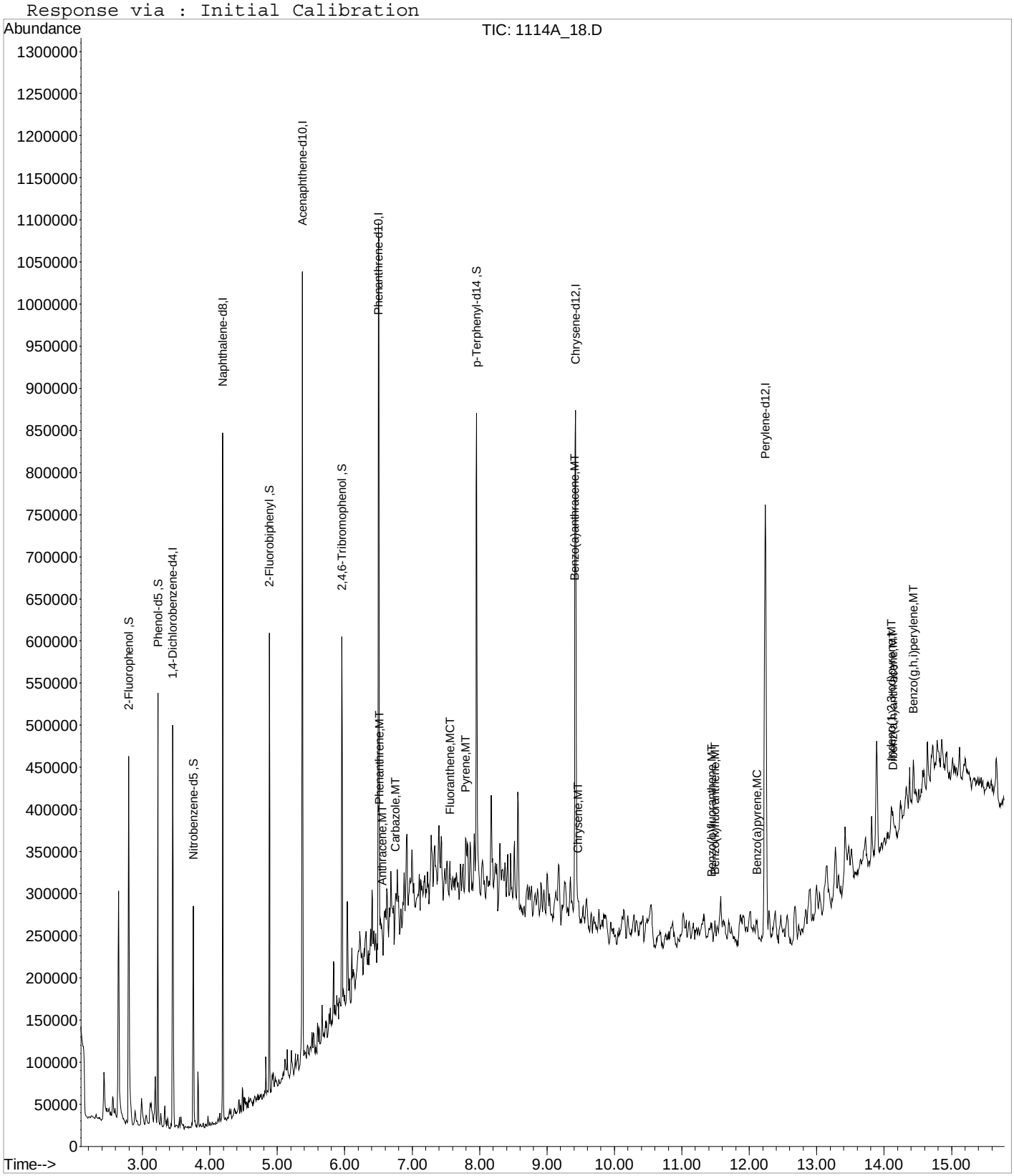
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	70484	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	279362	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	151688	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.50	188	305267	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	311992	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	352661	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	118684	11113.9161325	ppb	0.00
Spiked Amount 20000.000			Recovery = 55.57%			
7) Phenol-d5	3.23	99	140094	10181.3535757	ppb	-0.01
Spiked Amount 20000.000			Recovery = 50.91%			
24) Nitrobenzene-d5	3.76	82	58174	4859.8313382	ppb	-0.02
Spiked Amount 10000.000			Recovery = 48.60%			
50) 2-Fluorobiphenyl	4.88	172	135338	4878.9765469	ppb	-0.03
Spiked Amount 10000.000			Recovery = 48.79%			
73) 2,4,6-Tribromophenol	5.96	330	53105	11387.5015187	ppb	-0.02
Spiked Amount 20000.000			Recovery = 56.94%			
87) p-Terphenyl-d14	7.96	244	220553	5174.5699188	ppb	-0.03
Spiked Amount 10000.000			Recovery = 51.75%			
Target Compounds						Qvalue
78) Phenanthrene	6.52	178	5823m	137.7651268	ppb	
79) Anthracene	6.56	178	1633	39.1349644	ppb	71
80) Carbazole	6.75	167	1240	33.5830651	ppb #	1
83) Fluoranthene	7.56	202	11925	270.0183453	ppb	94
86) Pyrene	7.80	202	27466m	560.7263090	ppb	
90) Benzo(a)anthracene	9.41	228	10581	238.5623220	ppb	94
91) Chrysene	9.46	228	12896m	281.0226955	ppb	
95) Benzo(b)fluoranthene	11.43	252	11112	217.8948178	ppb	92
96) Benzo(k)fluoranthene	11.49	252	2729	51.3379396	ppb	80
97) Benzo(a)pyrene	12.11	252	10454m	245.1043895	ppb	
98) Indeno(1,2,3-cd)pyrene	14.10	276	5149m	115.2349114	ppb	
99) Dibenz(a,h)anthracene	14.14	278	2088m	41.7880746	ppb	
100) Benzo(g,h,i)perylene	14.44	276	8431m	168.9950513	ppb	

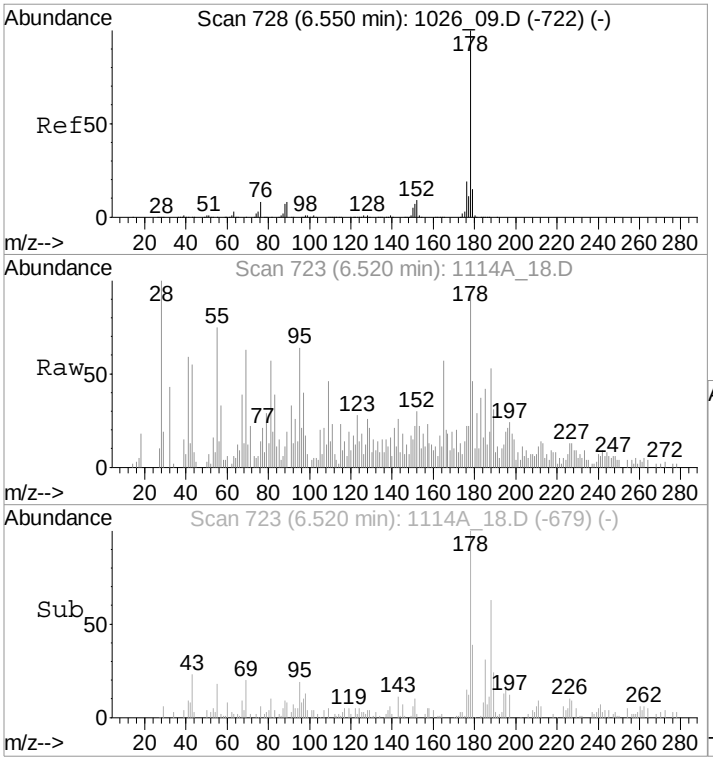
(#) = qualifier out of range (m) = manual integration
1114A_18.D S804J26V.M Tue Nov 15 14:11:32 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:11 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

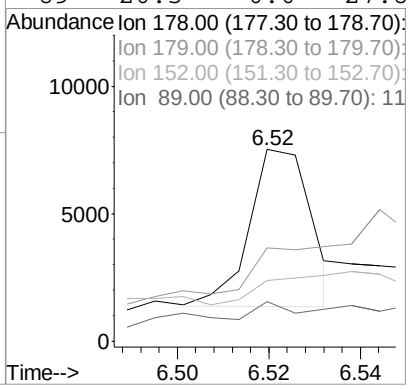


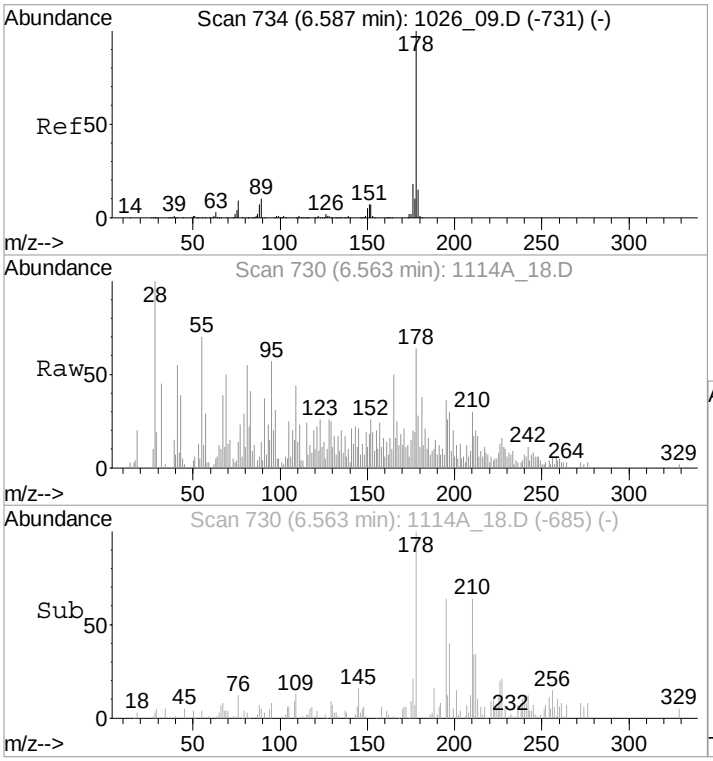


#78
Phenanthrene
Concen: 137.7651268 ppb m
RT: 6.52 min Scan# 723
Delta R.T. -0.03 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:178 Resp: 5823

Ion	Ratio	Lower	Upper
178	100		
179	48.5	0.0	34.9#
152	31.7	0.0	28.9#
89	20.5	0.0	27.8

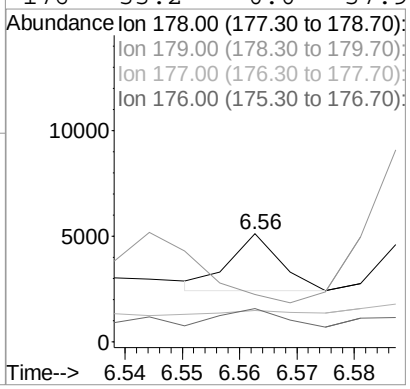


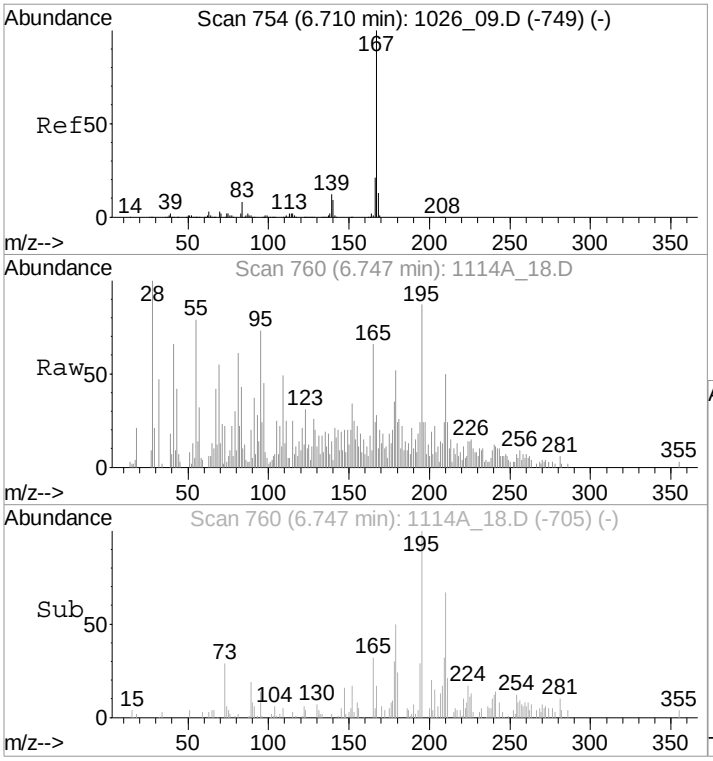


#79
Anthracene
Concen: 39.1349644 ppb
RT: 6.56 min Scan# 730
Delta R.T. -0.02 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:178 Resp: 1633

Ion	Ratio	Lower	Upper
178	100		
179	0.0	0.0	35.3
177	6.8	0.0	29.5
176	33.2	0.0	37.9

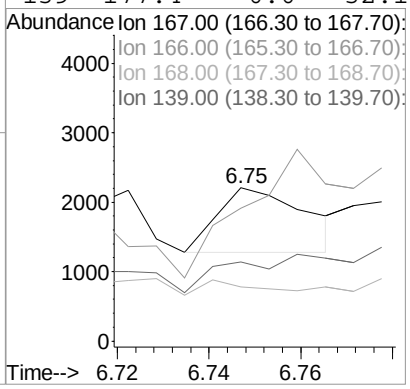


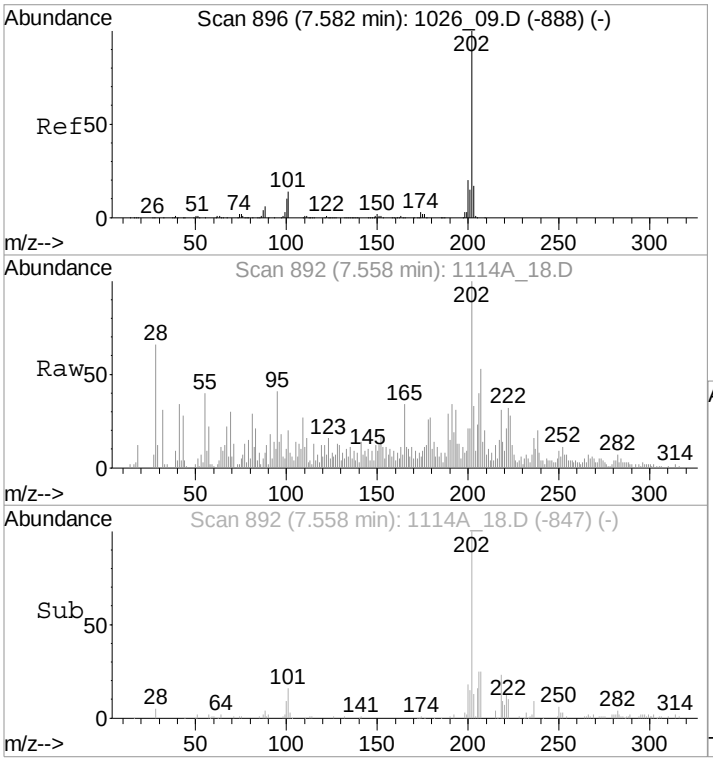


#80
Carbazole
Concen: 33.5830651 ppb
RT: 6.75 min Scan# 760
Delta R.T. 0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:167 Resp: 1240

Ion	Ratio	Lower	Upper
167	100		
166	221.4	0.7	40.7#
168	0.0	0.0	33.2
139	177.4	0.0	32.1#

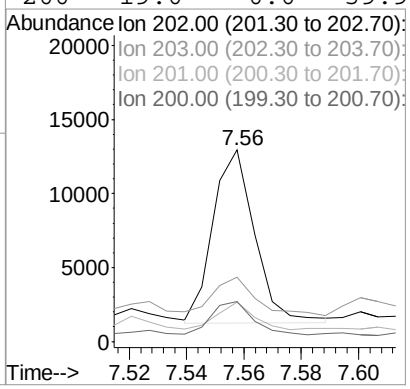


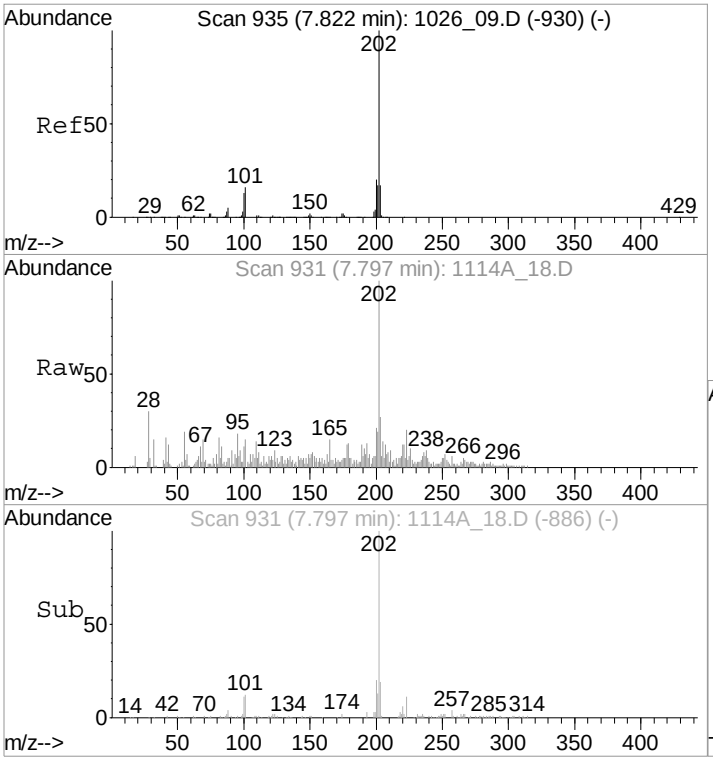


#83
Fluoranthene
Concen: 270.0183453 ppb
RT: 7.56 min Scan# 892
Delta R.T. -0.02 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:202 Resp: 11925

Ion	Ratio	Lower	Upper
202	100		
203	22.4	0.0	37.4
201	16.1	0.0	34.6
200	19.0	0.0	39.9

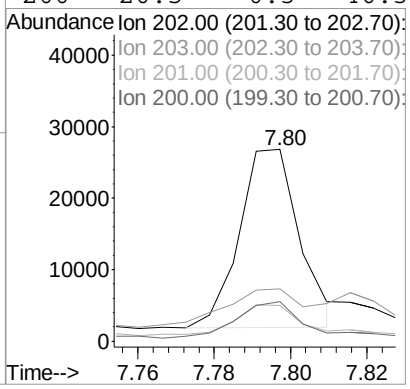


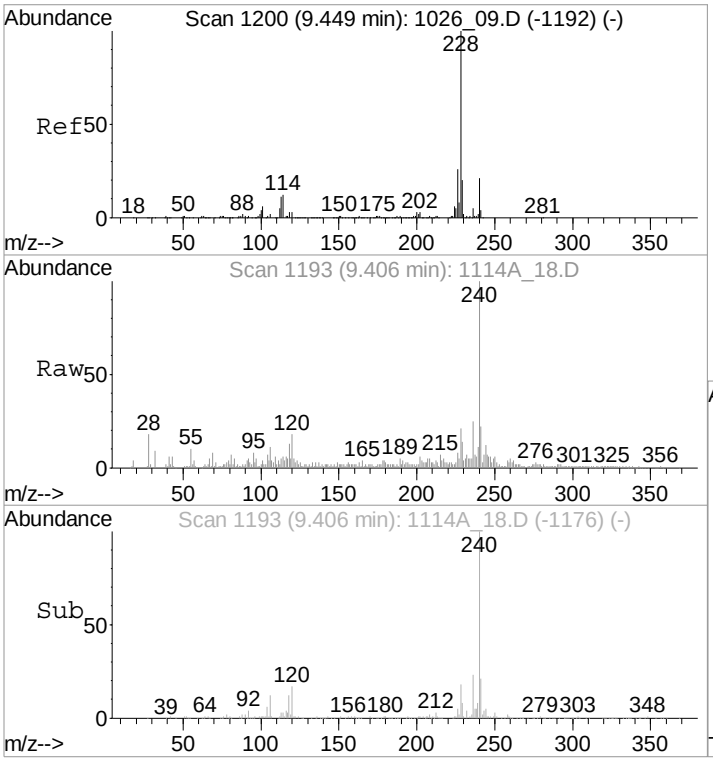


#86
Pyrene
Concen: 560.7263090 ppb m
RT: 7.80 min Scan# 931
Delta R.T. -0.02 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:202 Resp: 27466

Ion	Ratio	Lower	Upper
202	100		
203	27.3	0.0	37.1
201	18.6	0.0	37.2
200	20.5	0.3	40.3

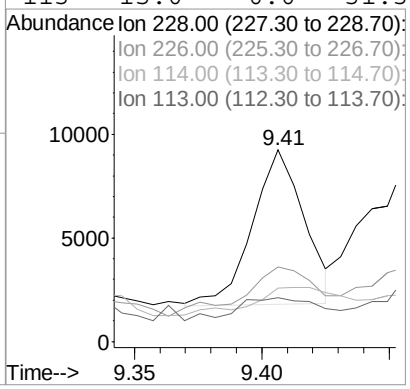


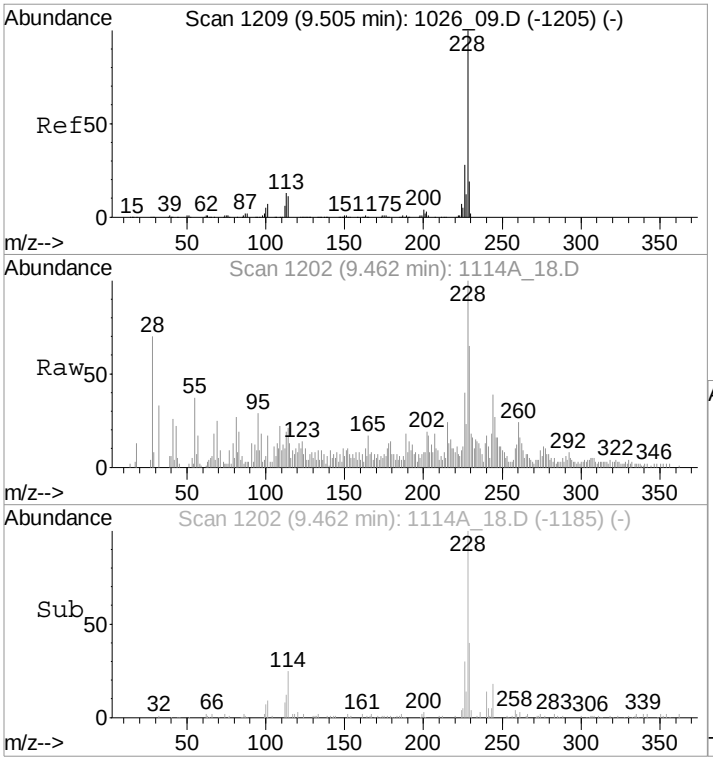


#90
Benzo(a)anthracene
Concen: 238.5623220 ppb
RT: 9.41 min Scan# 1193
Delta R.T. -0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:228 Resp: 10581

Ion	Ratio	Lower	Upper
228	100		
226	26.3	5.9	45.9
114	17.7	0.0	31.7
113	15.0	0.0	31.3

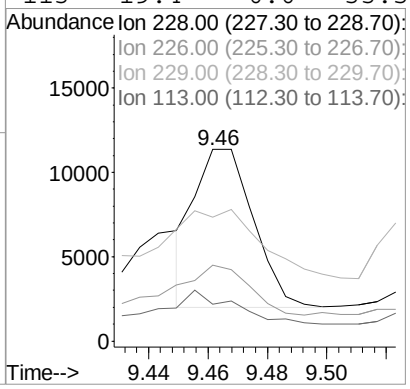


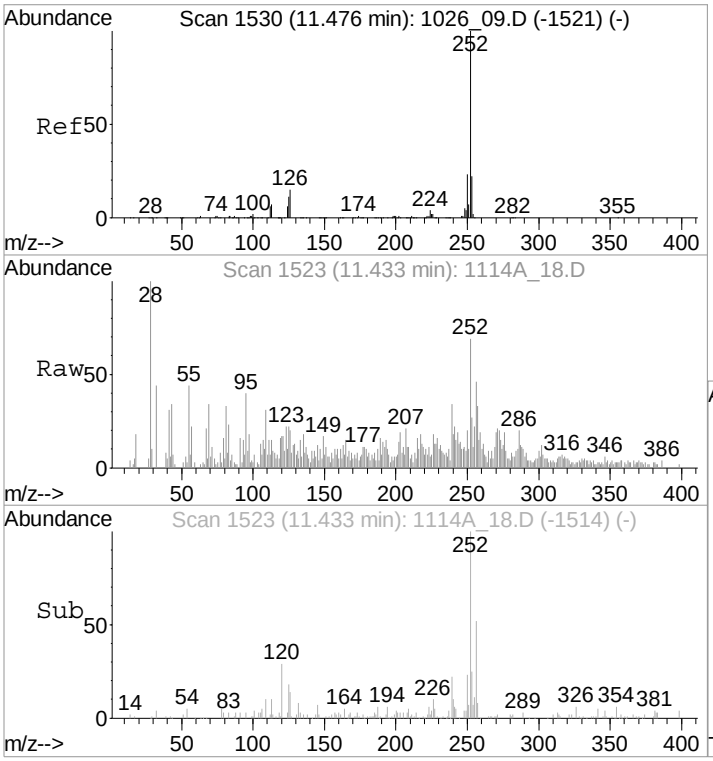


#91
Chrysene
Concen: 281.0226955 ppb m
RT: 9.46 min Scan# 1202
Delta R.T. -0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:228 Resp: 12896

Ion	Ratio	Lower	Upper
228	100		
226	39.6	8.1	48.1
229	64.5	0.0	39.5#
113	19.4	0.0	33.5

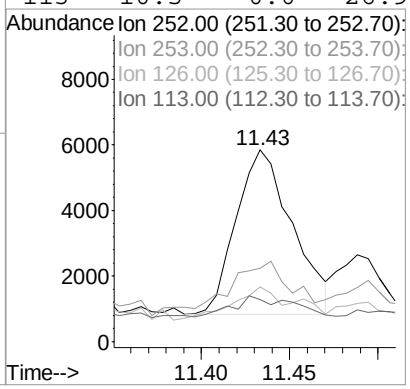


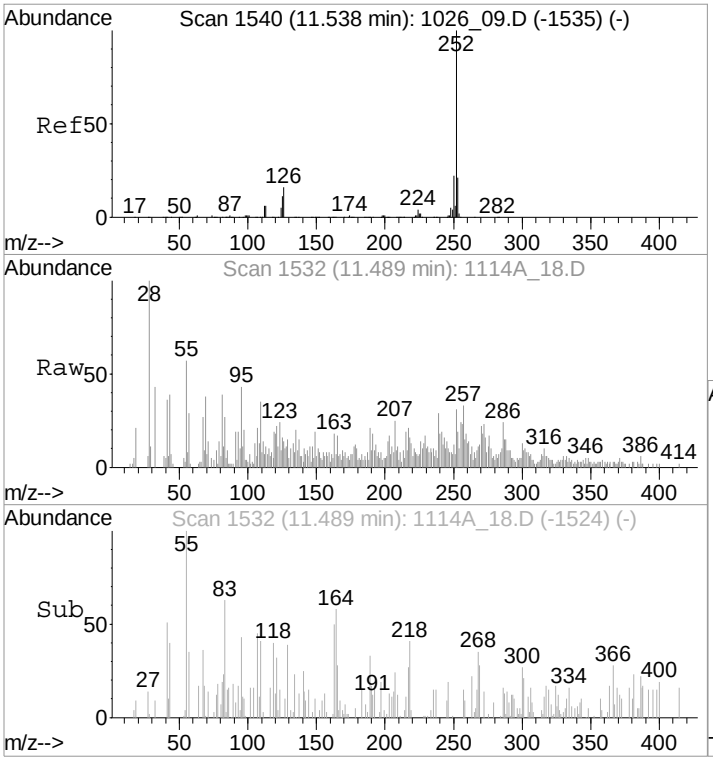


#95
Benzo(b)fluoranthene
Concen: 217.8948178 ppb
RT: 11.43 min Scan# 1523
Delta R.T. -0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:252 Resp: 11112

Ion	Ratio	Lower	Upper
252	100		
253	23.8	1.5	41.5
126	19.9	0.0	34.7
113	10.5	0.0	26.9

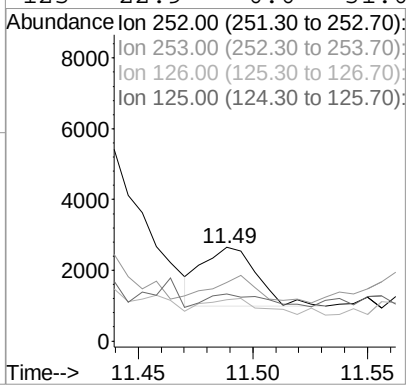


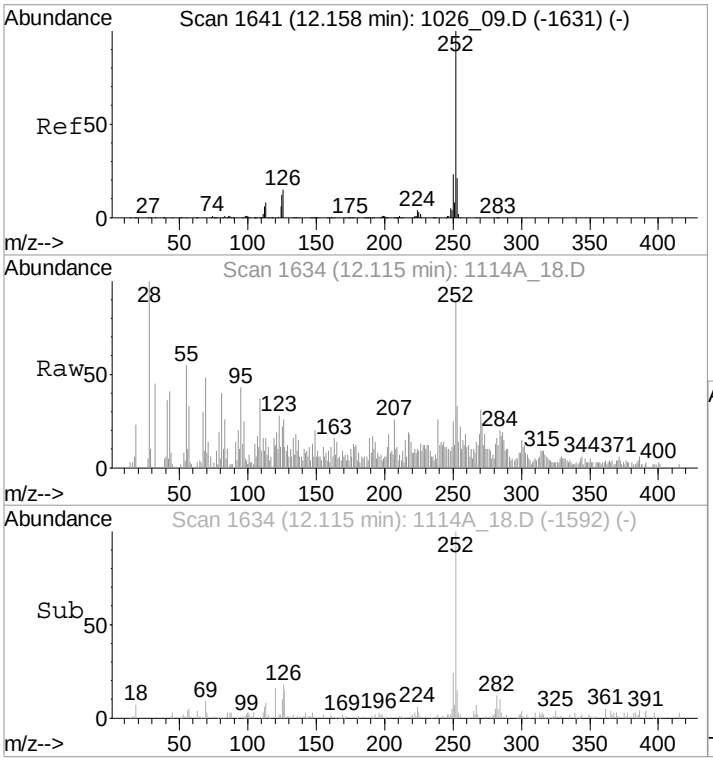


#96
Benzo(k)fluoranthene
Concen: 51.3379396 ppb
RT: 11.49 min Scan# 1532
Delta R.T. -0.05 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:252 Resp: 2729

Ion	Ratio	Lower	Upper
252	100		
253	25.4	1.0	41.0
126	26.6	0.0	35.7
125	22.9	0.0	31.0

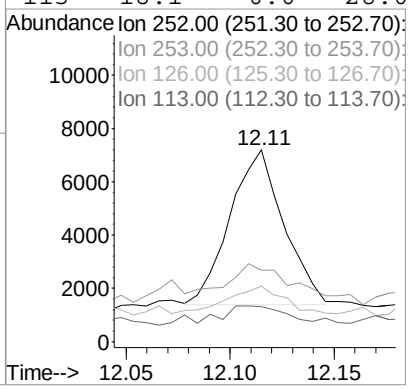


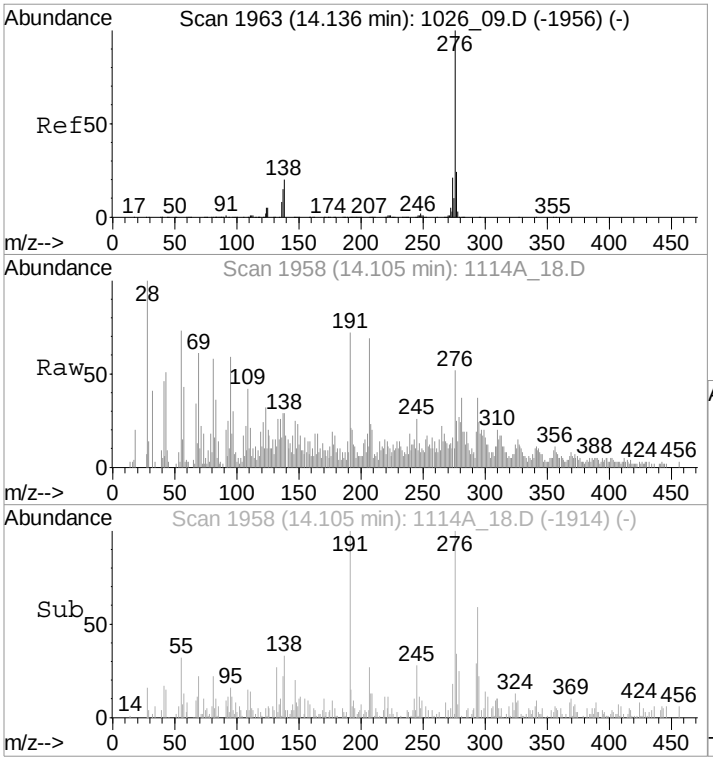


#97
Benzo(a)pyrene
Concen: 245.1043895 ppb m
RT: 12.11 min Scan# 1634
Delta R.T. -0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:252 Resp: 10454

Ion	Ratio	Lower	Upper
252	100		
253	37.2	1.2	41.2
126	28.8	0.0	35.3
113	18.1	0.0	28.0

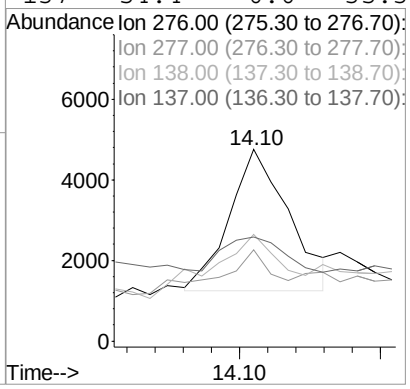


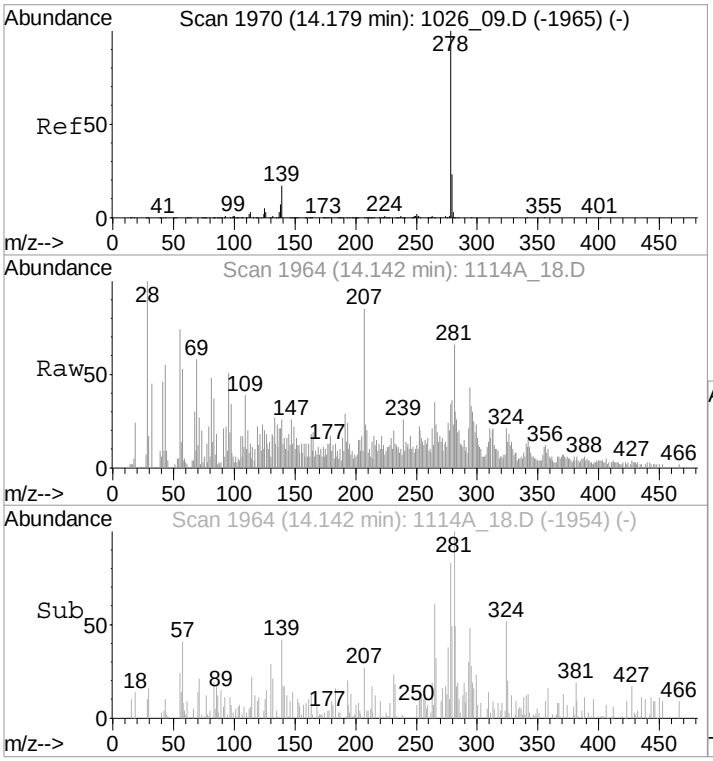


#98
Indeno(1,2,3-cd)pyrene
Concen: 115.2349114 ppb m
RT: 14.10 min Scan# 1958
Delta R.T. -0.03 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:276 Resp: 5149

Ion	Ratio	Lower	Upper
276	100		
277	47.7	4.1	44.1#
138	55.7	0.2	40.2#
137	54.4	0.0	35.3#

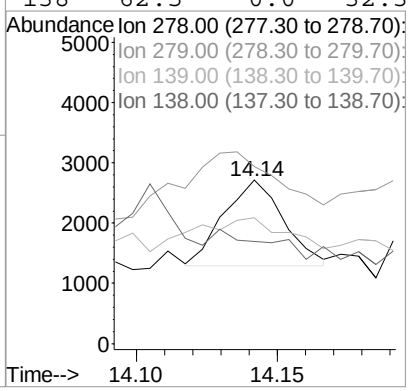


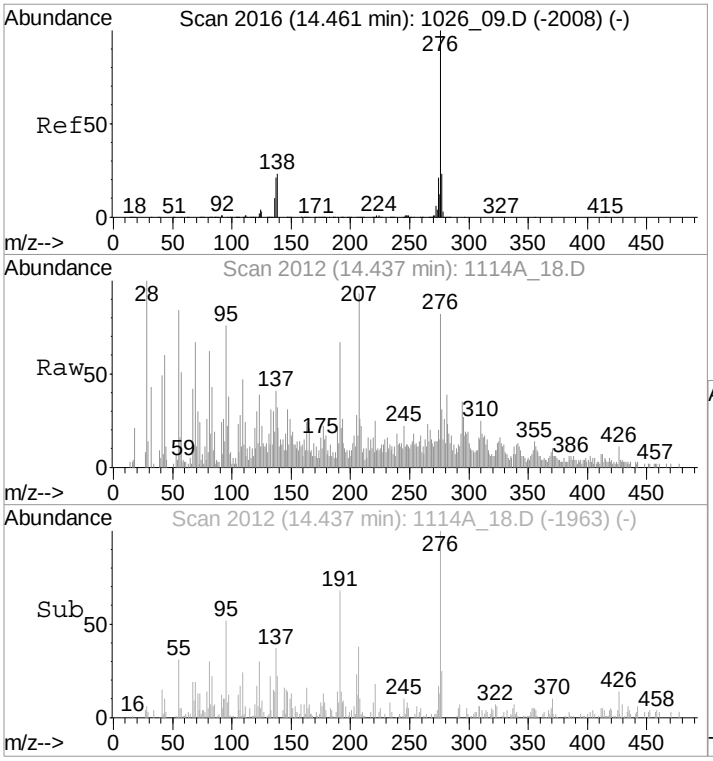


#99
Dibenz(a,h)anthracene
Concen: 41.7880746 ppb m
RT: 14.14 min Scan# 1964
Delta R.T. -0.04 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:278 Resp: 2088

Ion	Ratio	Lower	Upper
278	100		
279	108.3	3.2	43.2#
139	76.9	0.0	37.0#
138	62.5	0.0	32.3#

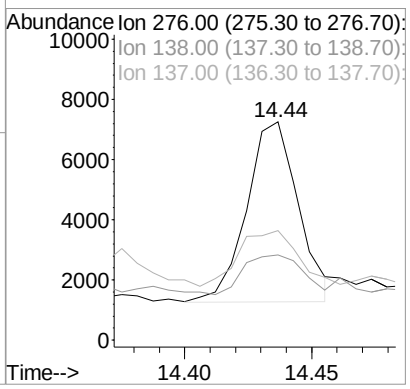




#100
Benzo(g,h,i)perylene
Concen: 168.9950513 ppb m
RT: 14.44 min Scan# 2012
Delta R.T. -0.02 min
Lab File: 1114A_18.D
Acq: 14 Nov 2022 5:40 pm

Tgt Ion:276 Resp: 8431

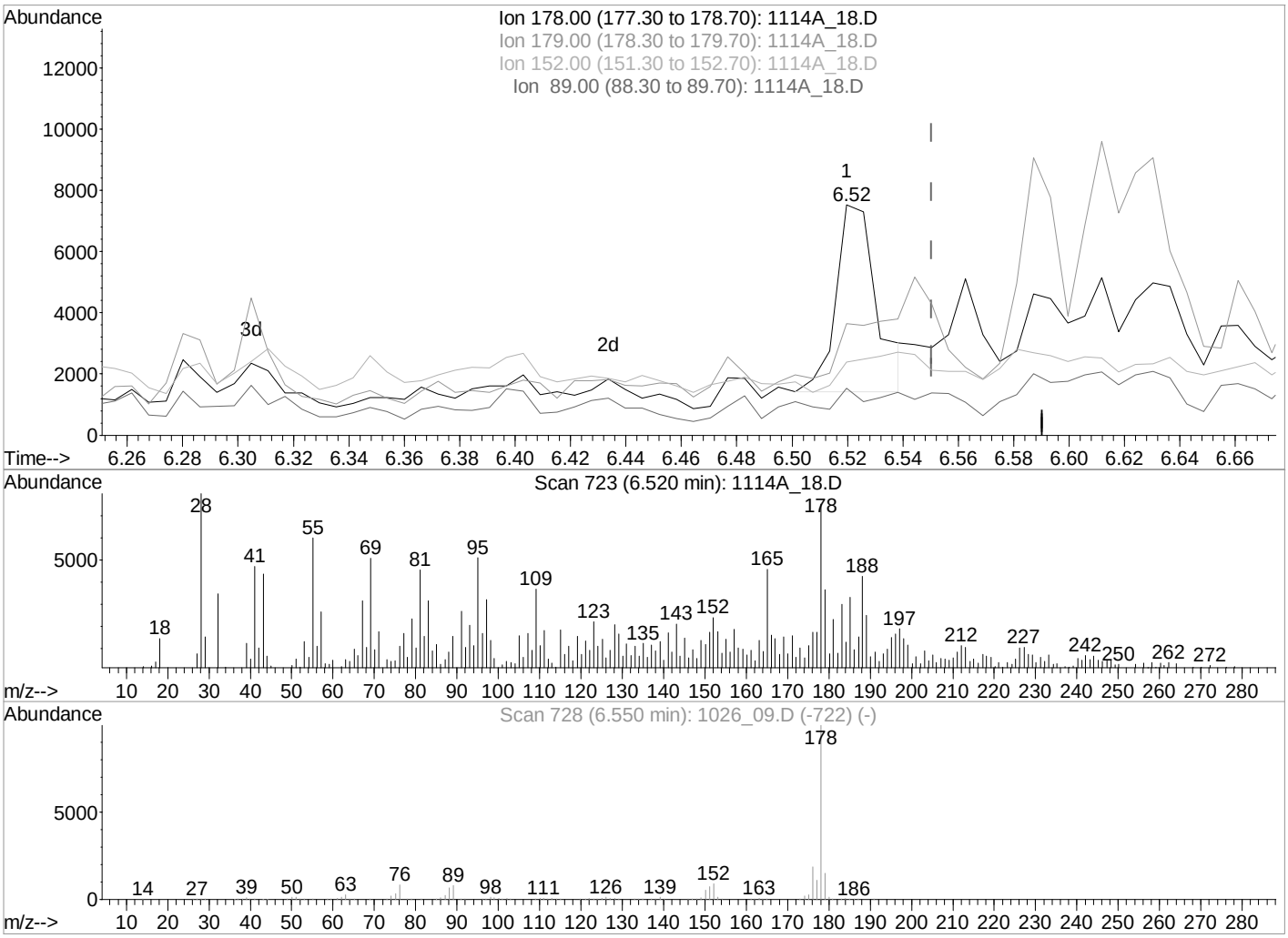
Ion	Ratio	Lower	Upper
276	100		
138	39.0	3.1	43.1
137	50.3	0.7	40.7#



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(78) Phenanthrene (MT)

6.52min (-0.031) 148.9793927 ppb

Qvalue = 84

response 6297 Limit = 198.0000000

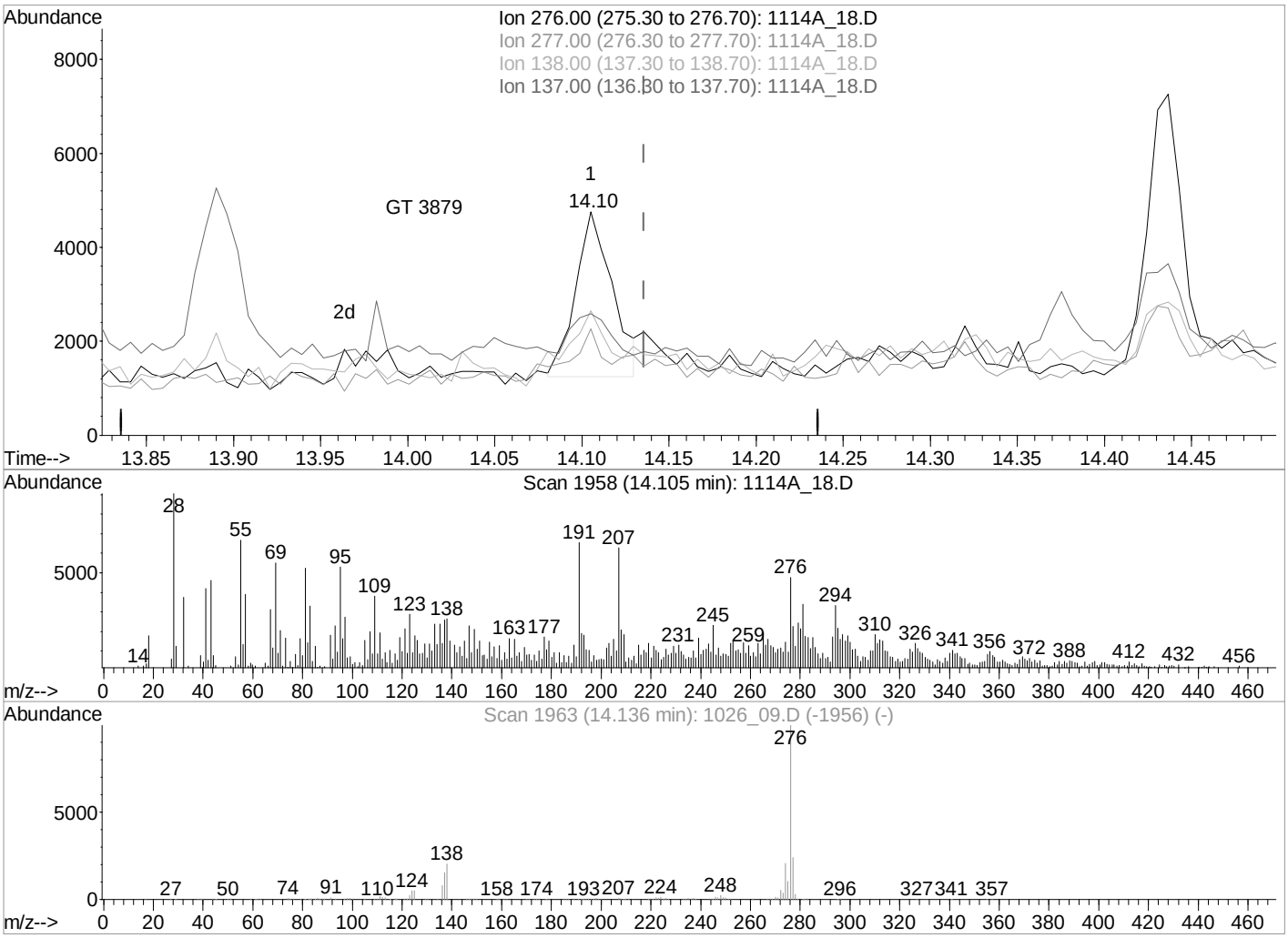
Ion	Exp%	Act%
178.00	100	100
179.00	14.90	27.42
152.00	8.90	10.45
89.00	7.80	7.17

1114A_18.D S804J26V.M Tue Nov 15 14:08:33 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.10min (-0.031) 115.2349114 ppb m

response 5149 Limit = 282.0000000

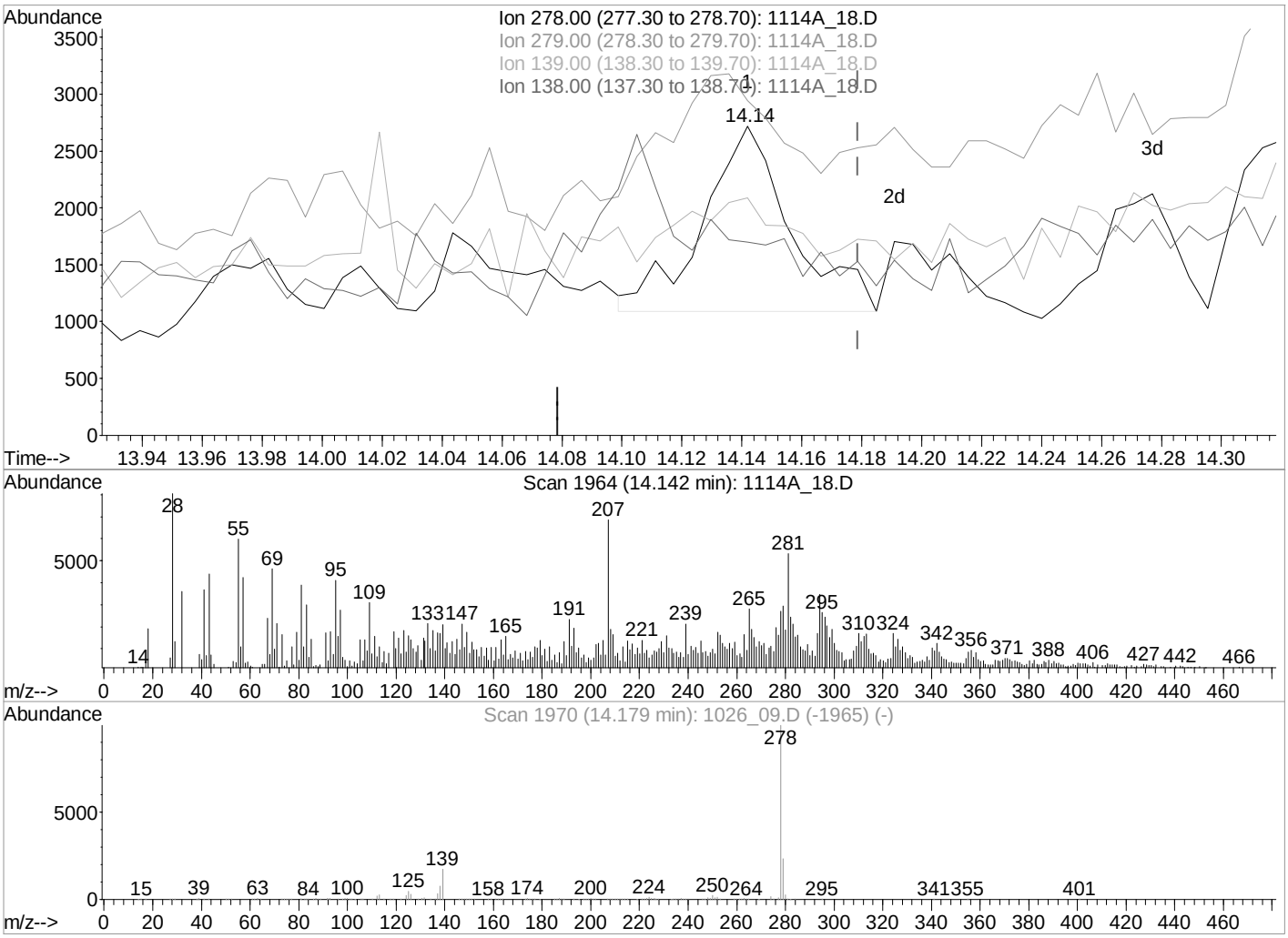
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	47.68#
138.00	20.20	55.67#
137.00	15.30	54.43#

1114A_18.D S804J26V.M Tue Nov 15 14:10:42 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(99) Dibenz(a,h)anthracene (MT)

14.14min (-0.037) 65.9843305 ppb

Qvalue = 63

response 3297 Limit = 277.0000000

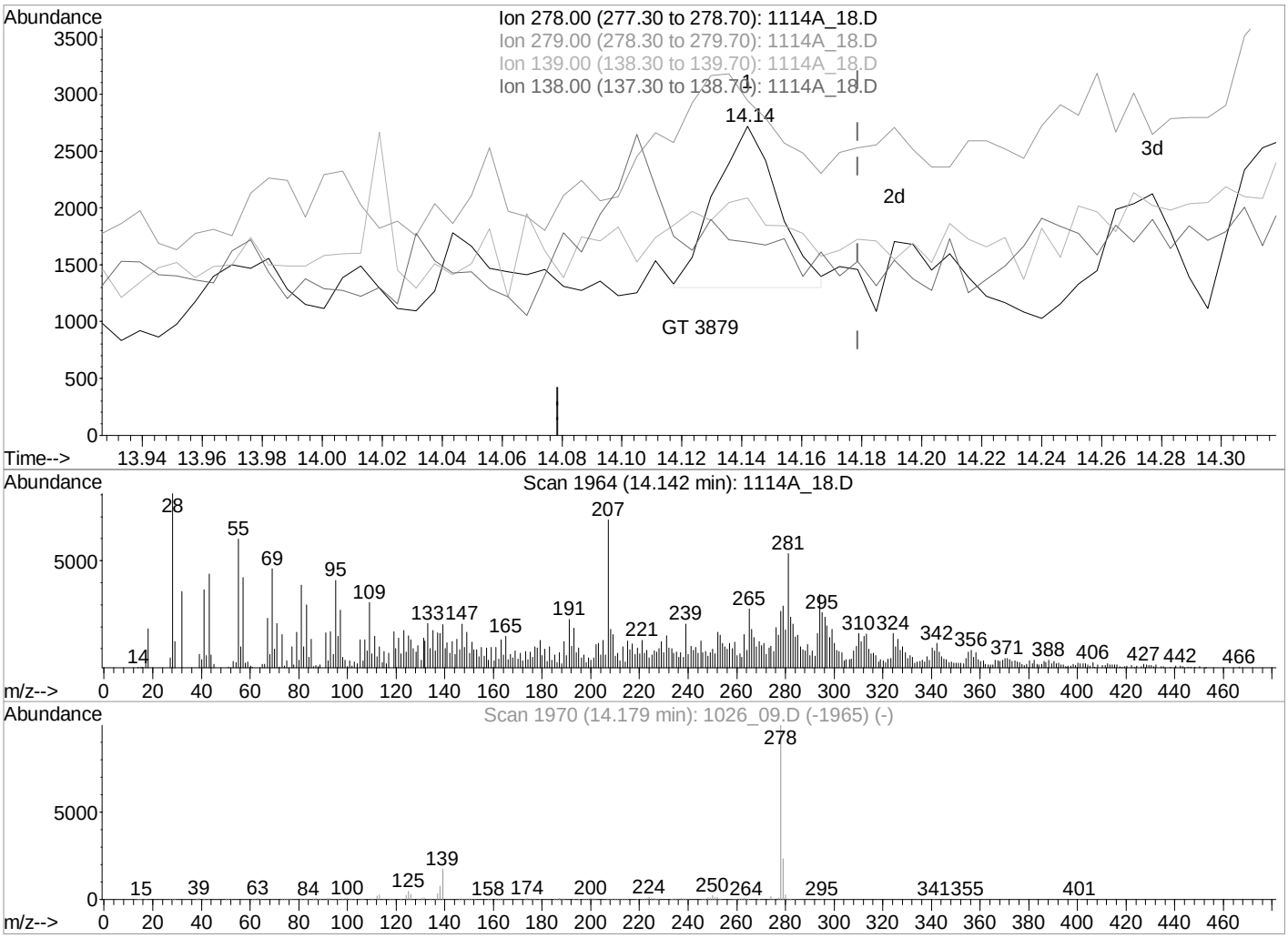
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	51.81#
139.00	17.00	23.29
138.00	12.30	23.66

1114A_18.D S804J26V.M Tue Nov 15 14:10:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:11 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(99) Dibenz(a,h)anthracene (MT)

14.14min (-0.037) 41.7880746 ppb m

response 2088 Limit = 277.0000000

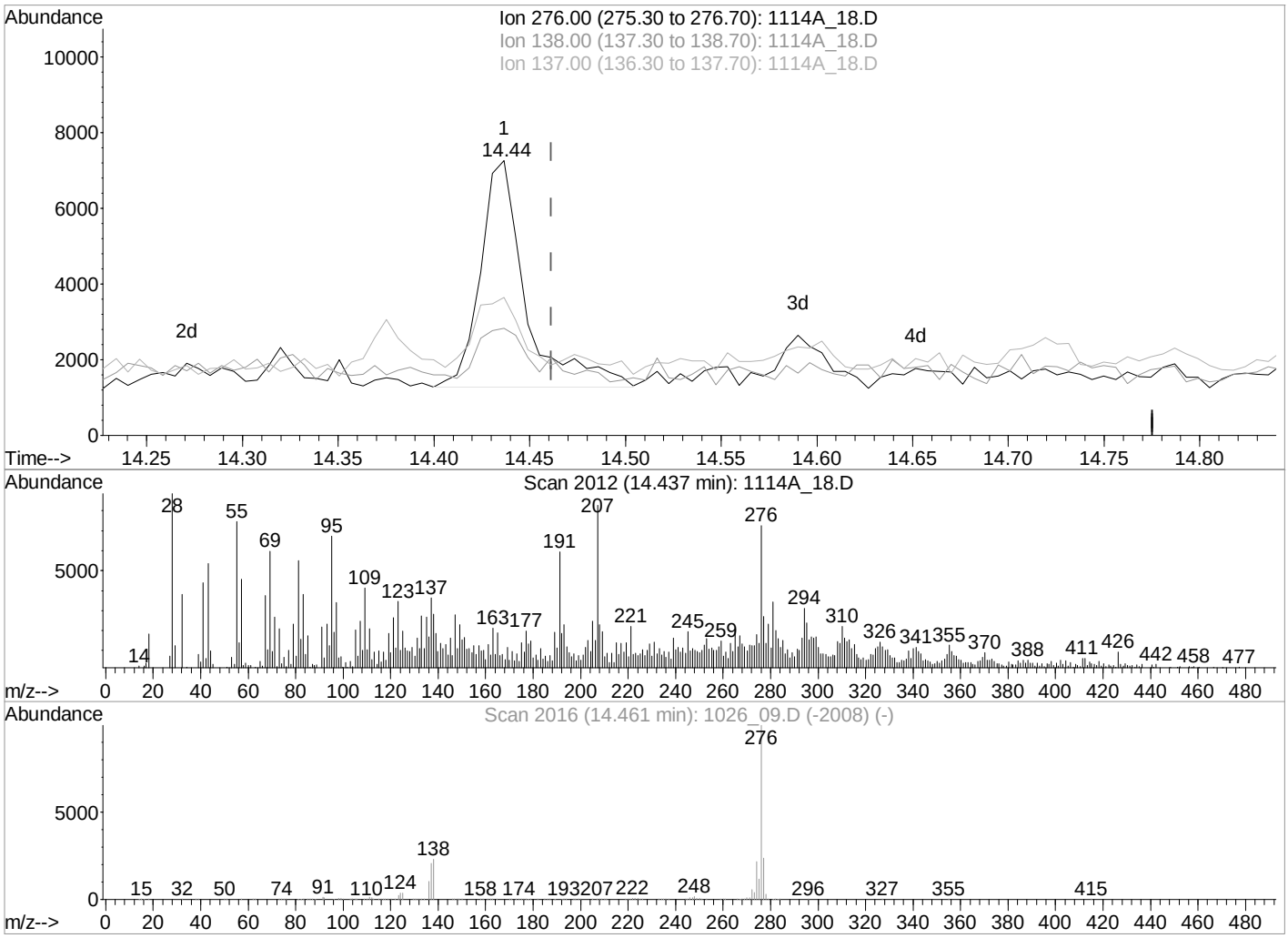
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	108.28#
139.00	17.00	76.88#
138.00	12.30	62.52#

1114A_18.D S804J26V.M Tue Nov 15 14:11:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:11 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.024) 196.9370631 ppb

Qvalue = 85

response 9825 Limit = 183.0000000

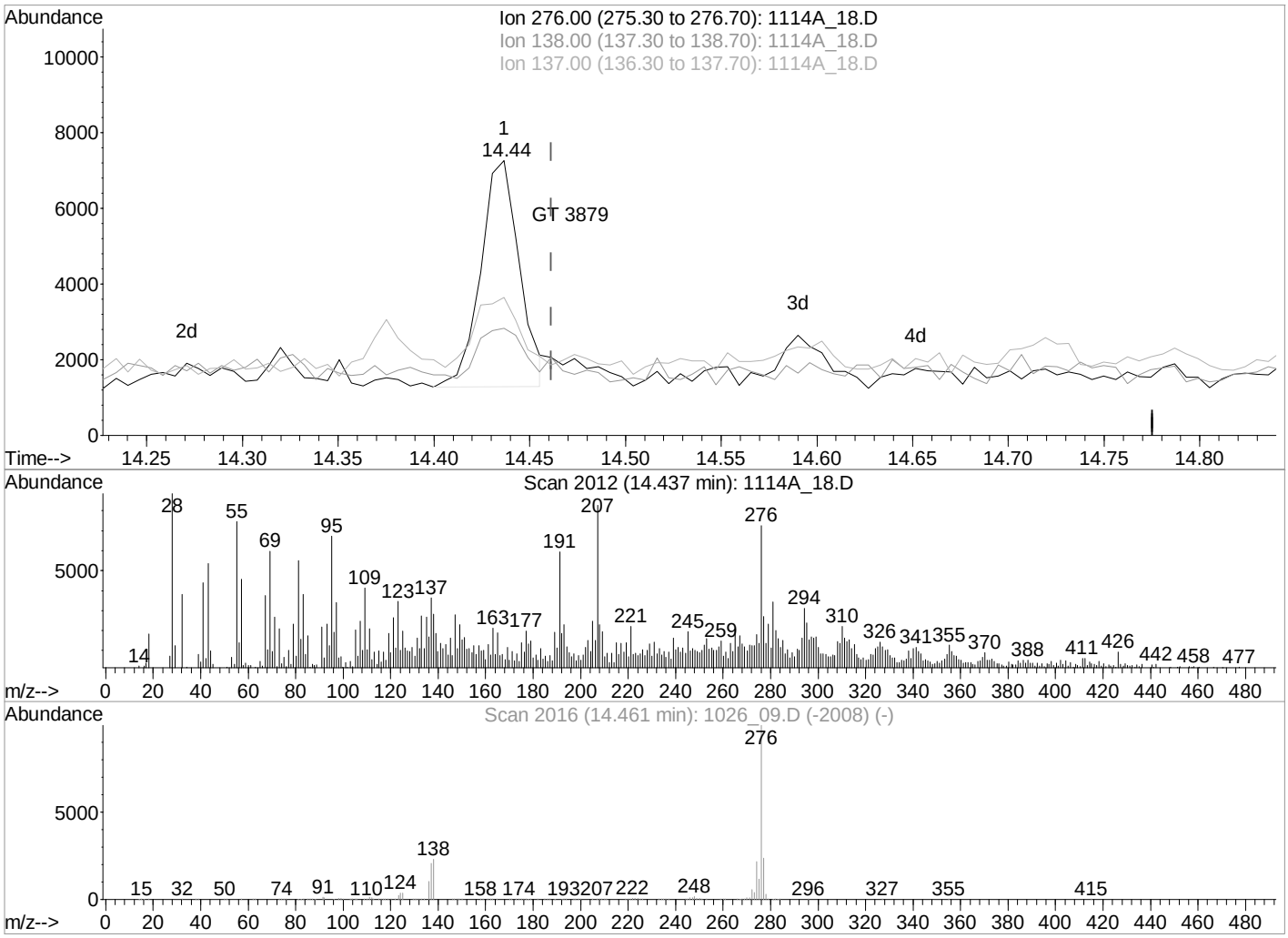
Ion	Exp%	Act%
276.00	100	100
138.00	23.10	21.92
137.00	20.70	34.16
0.00	0.00	0.00

1114A_18.D S804J26V.M Tue Nov 15 14:11:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:11 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.024) 168.9950513 ppb m

response 8431 Limit = 183.0000000

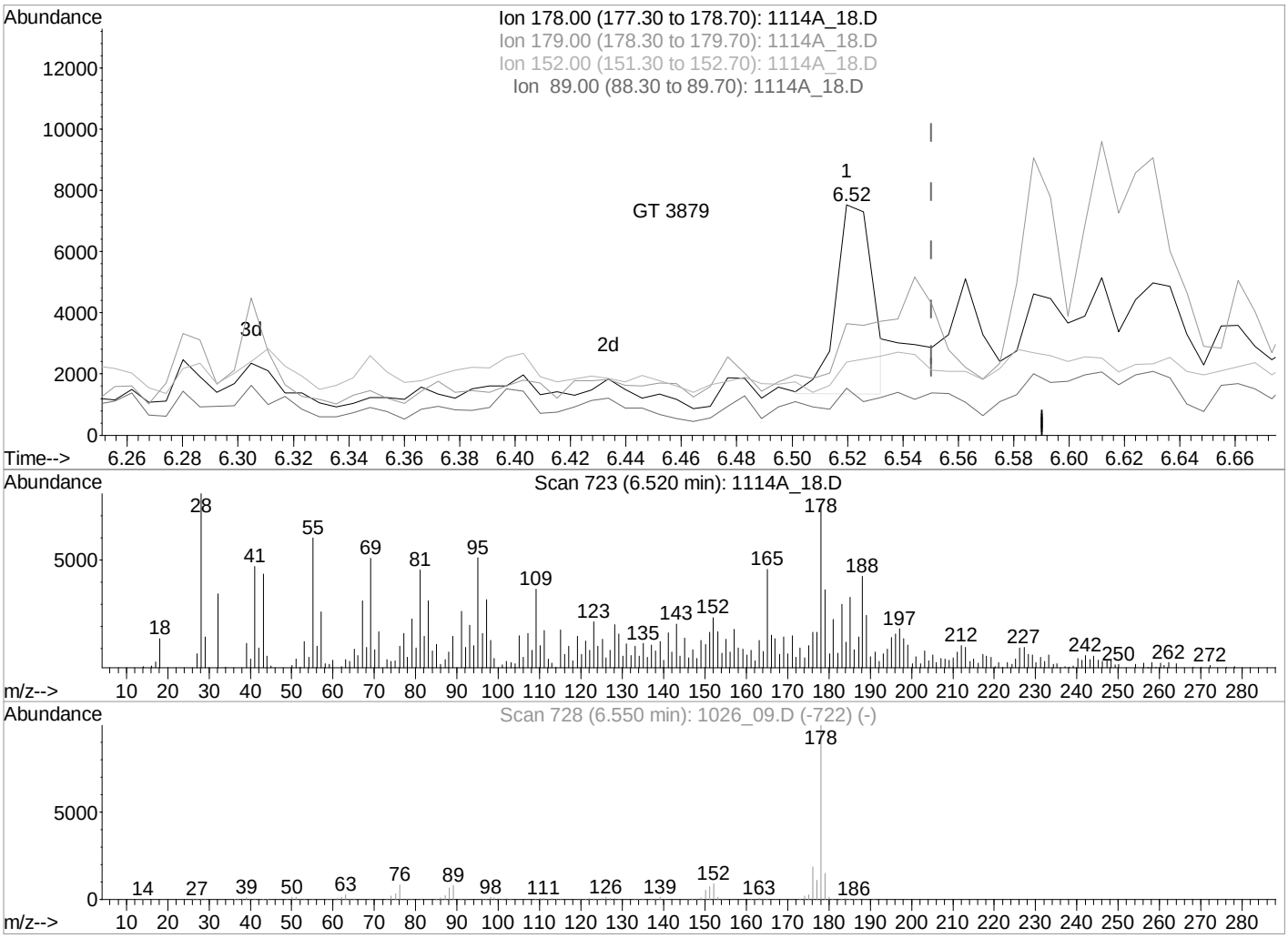
Ion	Exp%	Act%
276.00	100	100
138.00	23.10	39.02
137.00	20.70	50.31#
0.00	0.00	0.00

1114A_18.D S804J26V.M Tue Nov 15 14:11:29 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(78) Phenanthrene (MT)

6.52min (-0.031) 137.7651268 ppb m

response 5823 Limit = 198.0000000

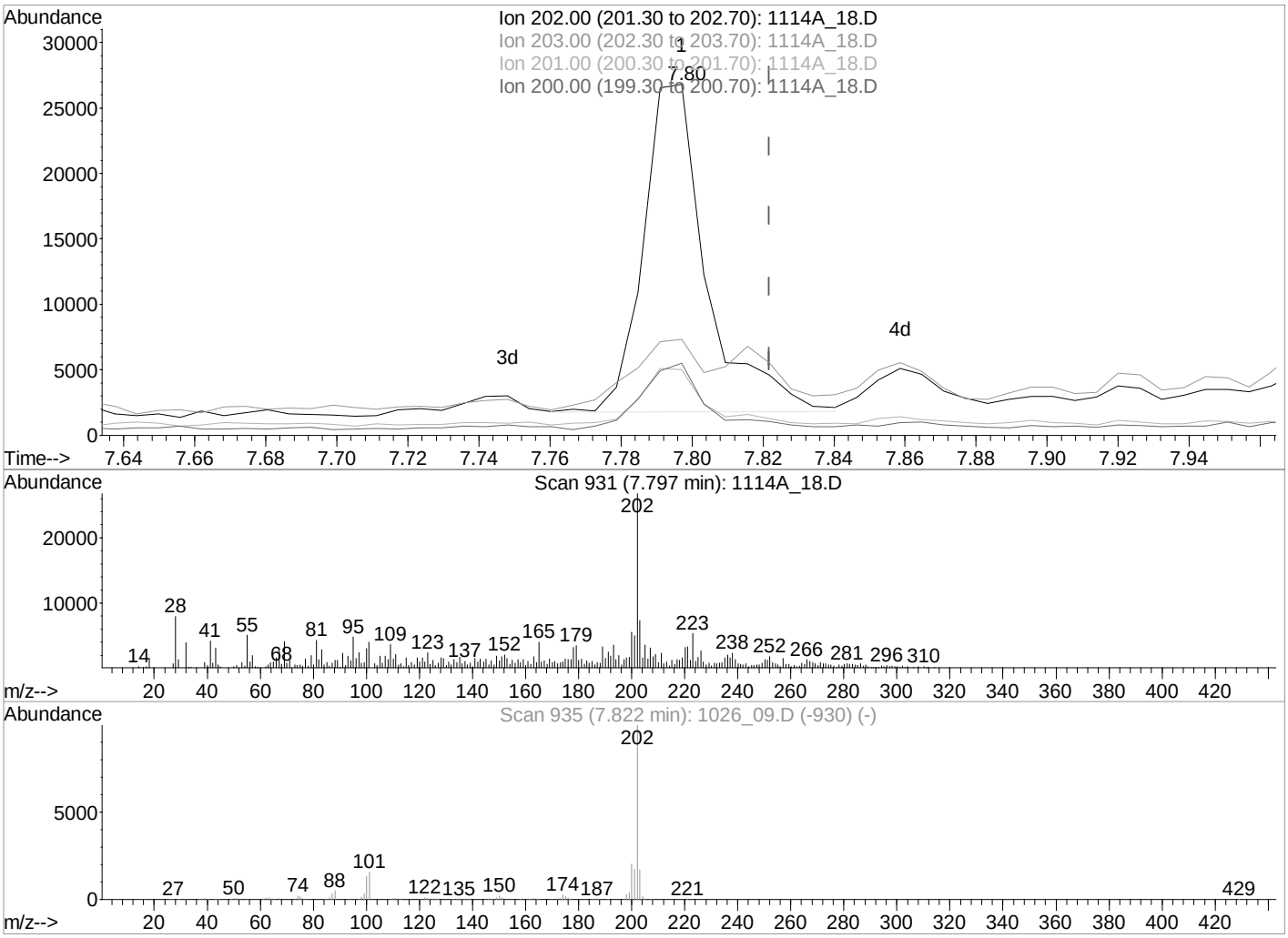
Ion	Exp%	Act%
178.00	100	100
179.00	14.90	48.47#
152.00	8.90	31.73#
89.00	7.80	20.50

1114A_18.D S804J26V.M Tue Nov 15 14:08:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:08 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(86) Pyrene (MT)

7.80min (-0.024) 632.4248015 ppb

Qvalue = 96

response 30978 Limit = 194.0000000

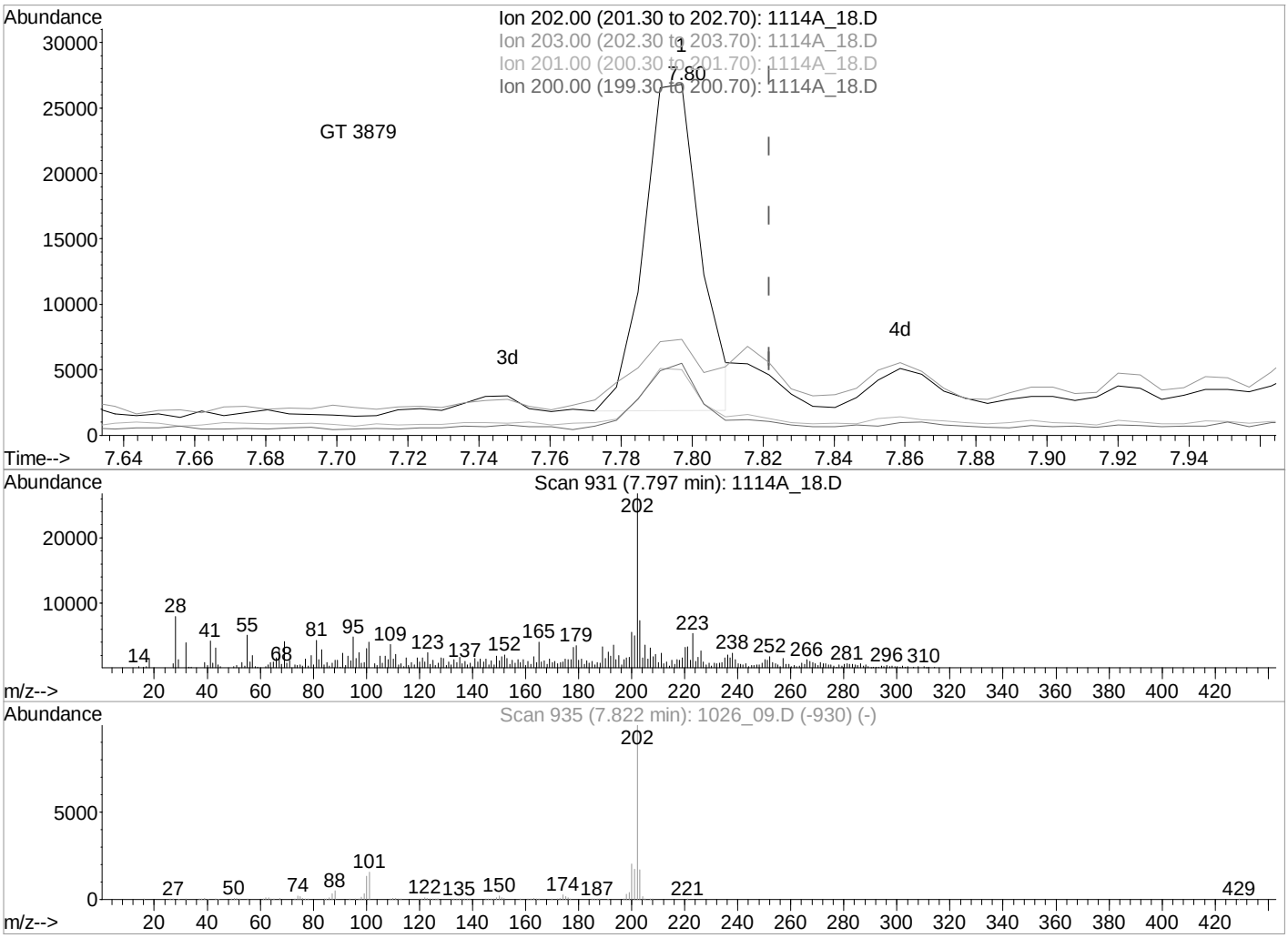
Ion	Exp%	Act%
202.00	100	100
203.00	17.10	21.43
201.00	17.20	16.82
200.00	20.30	19.39

1114A_18.D S804J26V.M Tue Nov 15 14:08:57 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(86) Pyrene (MT)

7.80min (-0.024) 560.7263090 ppb m

response 27466 Limit = 194.0000000

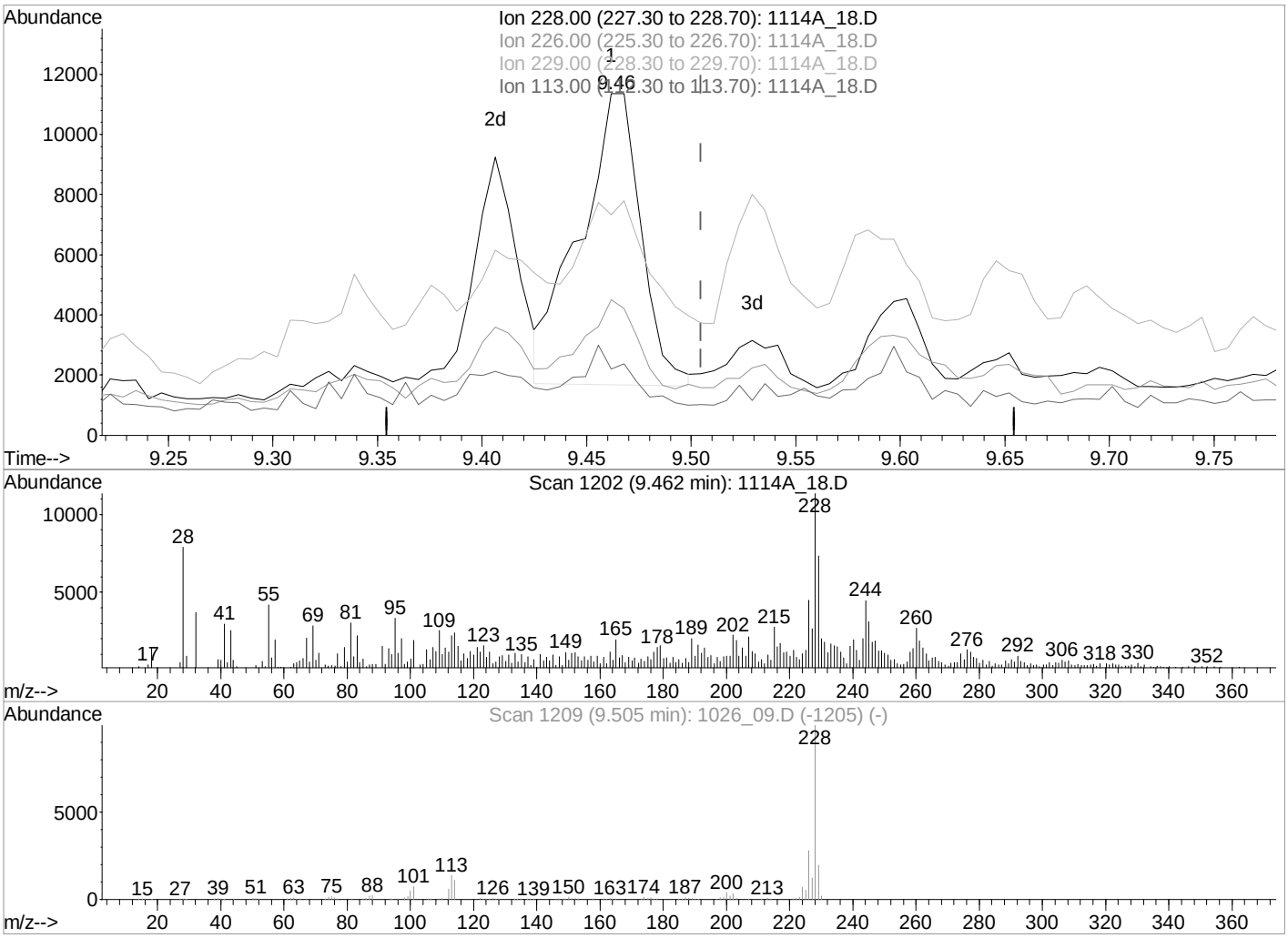
Ion	Exp%	Act%
202.00	100	100
203.00	17.10	27.26
201.00	17.20	18.64
200.00	20.30	20.54

1114A_18.D S804J26V.M Tue Nov 15 14:09:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(91) Chrysene (MT)

9.46min (-0.043) 429.2482208 ppb

Qvalue = 87

response 19698 Limit = 199.0000000

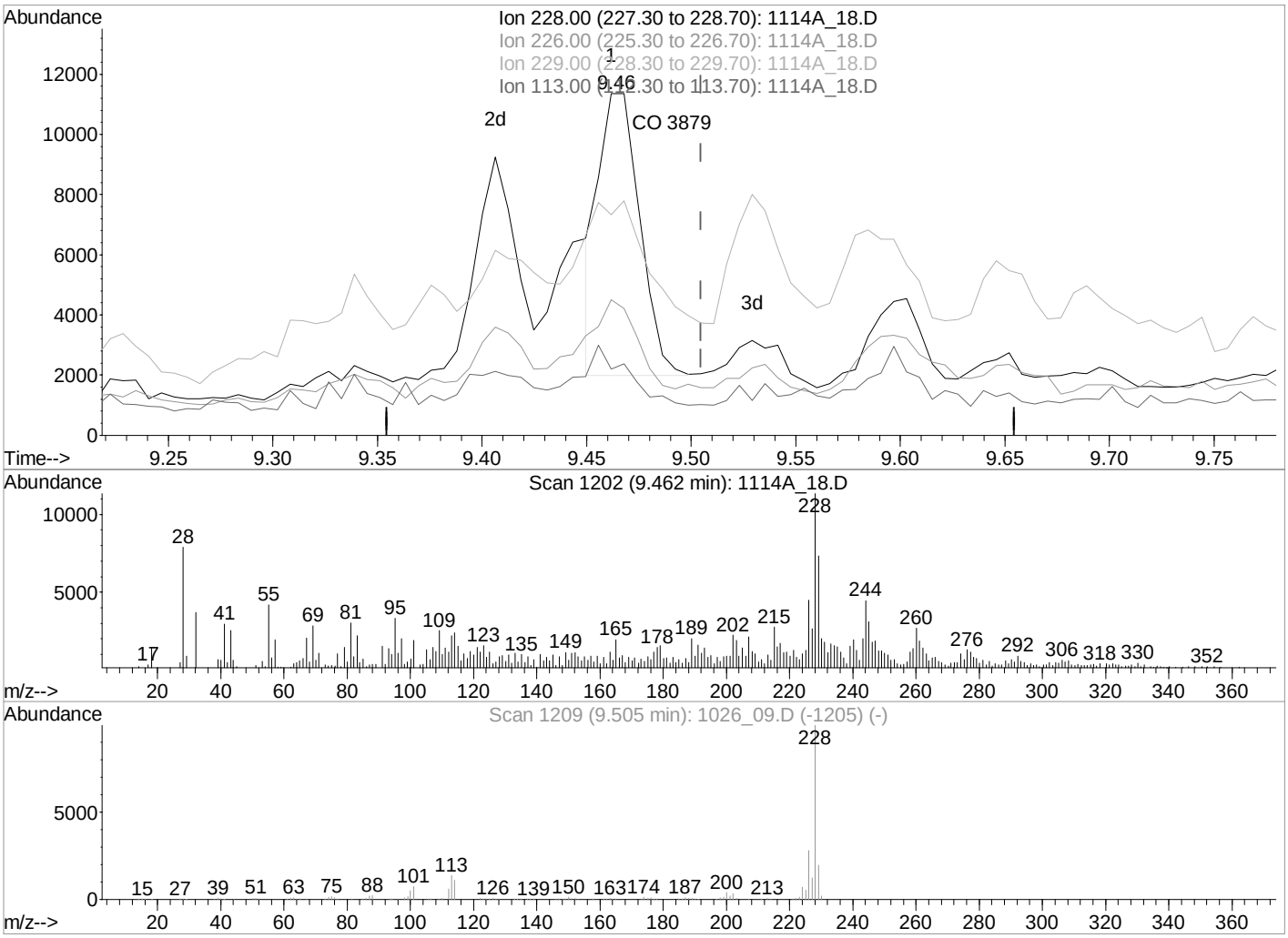
Ion	Exp%	Act%
228.00	100	100
226.00	28.10	29.95
229.00	19.50	35.87
113.00	13.50	12.81

1114A_18.D S804J26V.M Tue Nov 15 14:09:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(91) Chrysene (MT)

9.46min (-0.043) 281.0226955 ppb m

response 12896 Limit = 199.0000000

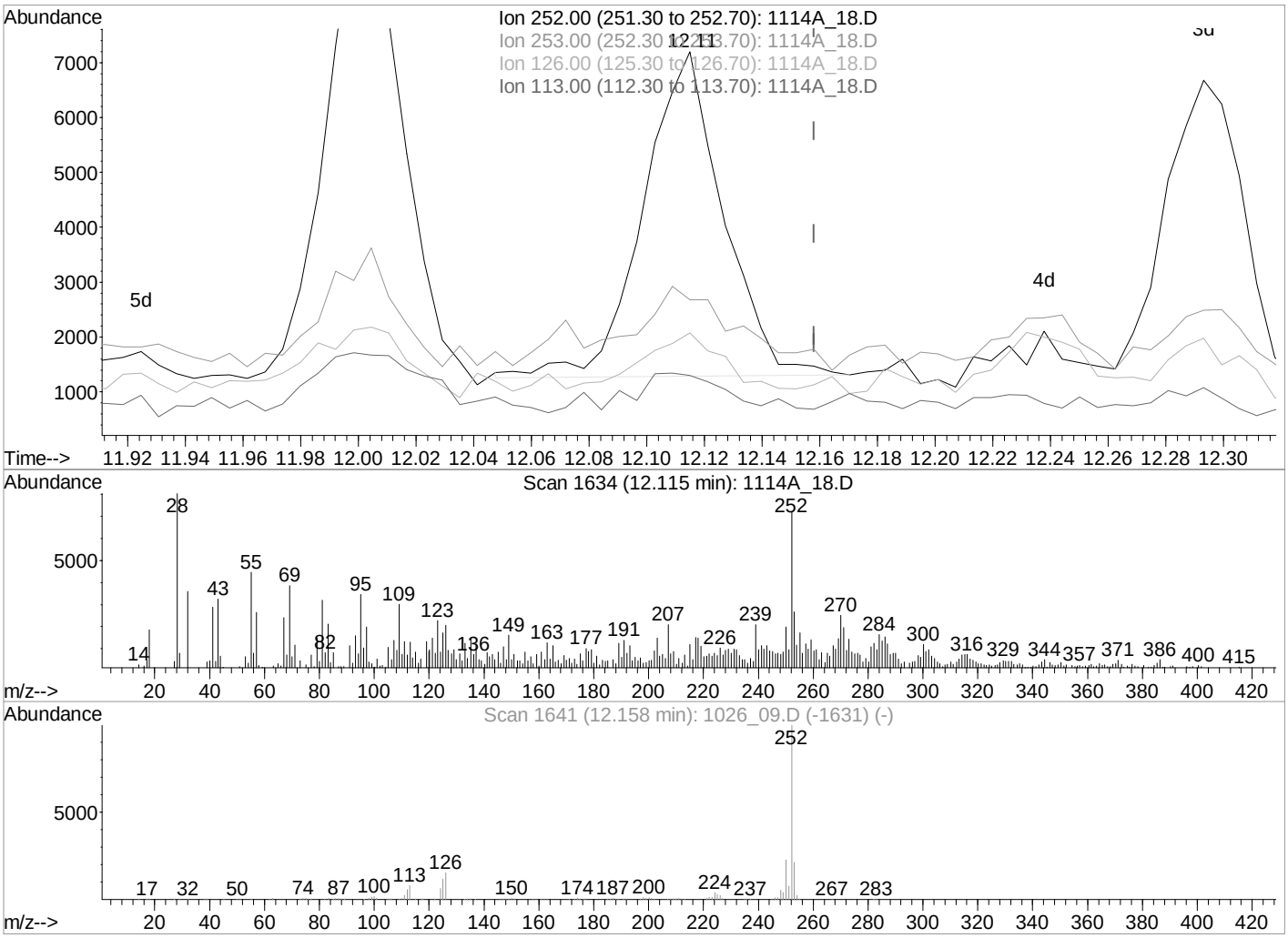
Ion	Exp%	Act%
228.00	100	100
226.00	28.10	39.57
229.00	19.50	64.50#
113.00	13.50	19.37

1114A_18.D S804J26V.M Tue Nov 15 14:09:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(97) Benzo(a)pyrene (MC)

12.11min (-0.043) 266.0885514 ppb

Qvalue = 92

response 11349 Limit = 186.0000000

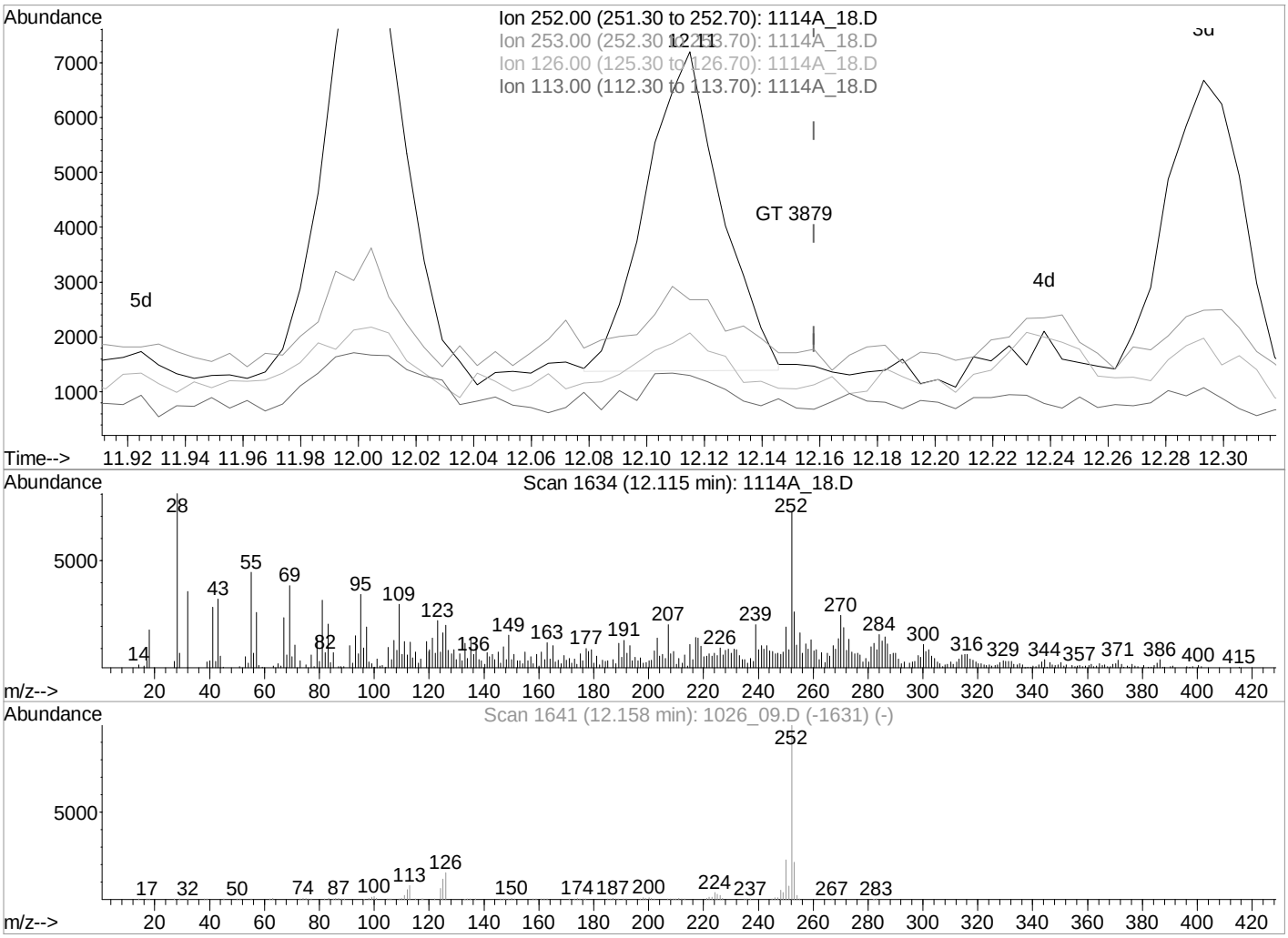
Ion	Exp%	Act%
252.00	100	100
253.00	21.20	17.11
126.00	15.30	18.76
113.00	8.00	6.75

1114A_18.D S804J26V.M Tue Nov 15 14:09:57 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(97) Benzo(a)pyrene (MC)

12.11min (-0.043) 245.1043895 ppb m

response 10454 Limit = 186.0000000

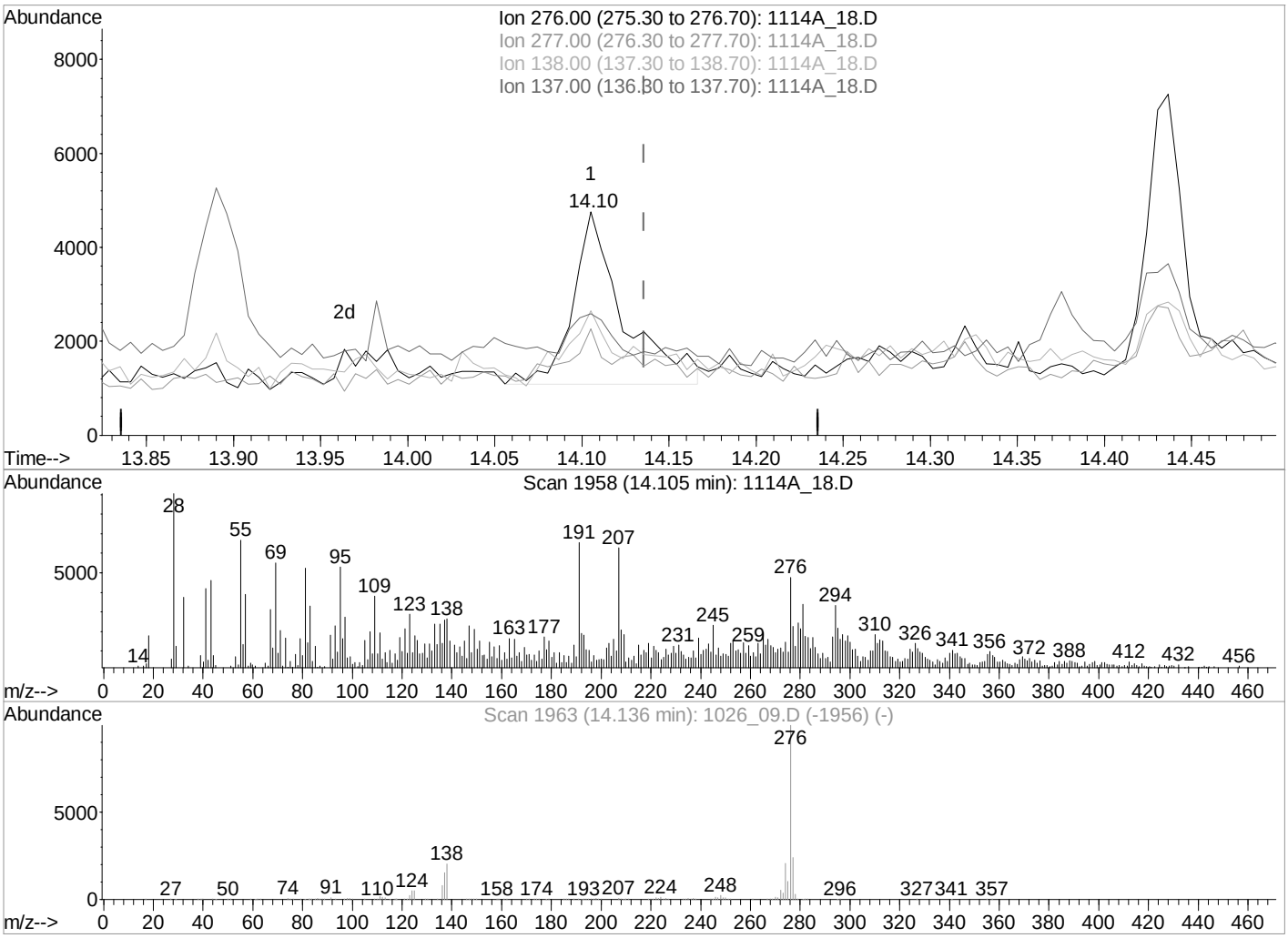
Ion	Exp%	Act%
252.00	100	100
253.00	21.20	37.22
126.00	15.30	28.84
113.00	8.00	18.05

1114A_18.D S804J26V.M Tue Nov 15 14:10:13 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 18.D Vial: 71
Acq On : 14 Nov 2022 5:40 pm Operator: 917
Sample : L1556196-01 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_18.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.10min (-0.031) 166.2390603 ppb

Qvalue = 79

response 7428 Limit = 282.0000000

Ion	Exp%	Act%
276.00	100	100
277.00	24.10	27.40
138.00	20.20	37.02
137.00	15.30	24.70

1114A_18.D S804J26V.M Tue Nov 15 14:10:23 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-F390-SC-6.2-7.2-110722

Lab Sample ID:	L1556196-02	**SDG:**	L1556196
Client Sample ID:	BNSF-F390-SC-6.2-7.2-110722	**Collected Date/Time:**	11/07/22 10:30
Lab File ID:	1114A_28	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:53
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 21:30
Dilution Factor:	10	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.80 g
Total Solids (%):	78.1	**Final Wt/Vol:**	1.0 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.0691	0.427
Acenaphthylene	208-96-8	0	U		0.0601	0.427
Anthracene	120-12-7	0	U		0.0760	0.427
Benzoic Acid	65-85-0	0	U		1.51	21.4
Benzo(a)anthracene	56-55-3	0	U		0.0752	0.427
Benzo(b)fluoranthene	205-99-2	0	U		0.0796	0.427
Benzo(k)fluoranthene	207-08-9	0	U		0.0758	0.427
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.0780	0.427
Benzo(a)pyrene	50-32-8	0	U		0.0793	0.427
Carbazole	86-74-8	0	U		0.132	4.27
Chrysene	218-01-9	0	U		0.0848	0.427
Dibenz(a,h)anthracene	53-70-3	0	U		0.118	0.427
Dibenzofuran	132-64-9	0	U		0.140	4.27
Fluoranthene	206-44-0	0	U		0.0770	0.427
Fluorene	86-73-7	0	U		0.0694	0.427
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.121	0.427
1-Methylnaphthalene	90-12-0	0	U		0.0546	0.427
2-Methylnaphthalene	91-57-6	0	U		0.0553	0.427
Naphthalene	91-20-3	0	U		0.107	0.427
Phenanthrene	85-01-8	0	U		0.0847	0.427
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.541	4.27
Di-n-butyl phthalate	84-74-2	0	U		0.146	4.27
Di-n-octyl phthalate	117-84-0	0	U		0.288	4.27
Pyrene	129-00-0	0	U		0.0830	0.427
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.133	4.27
Pentachlorophenol	87-86-5	0	U		0.115	4.27
Phenol	108-95-2	0	U		0.172	4.27

Sample Narrative:
Cannot run at lower dilution due to viscosity of extract

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 28.D Vial: 81
Acq On : 14 Nov 2022 9:30 pm Operator: 917
Sample : L1556196-02 5X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:31 2022 Quant Results File: S804J26V.RES

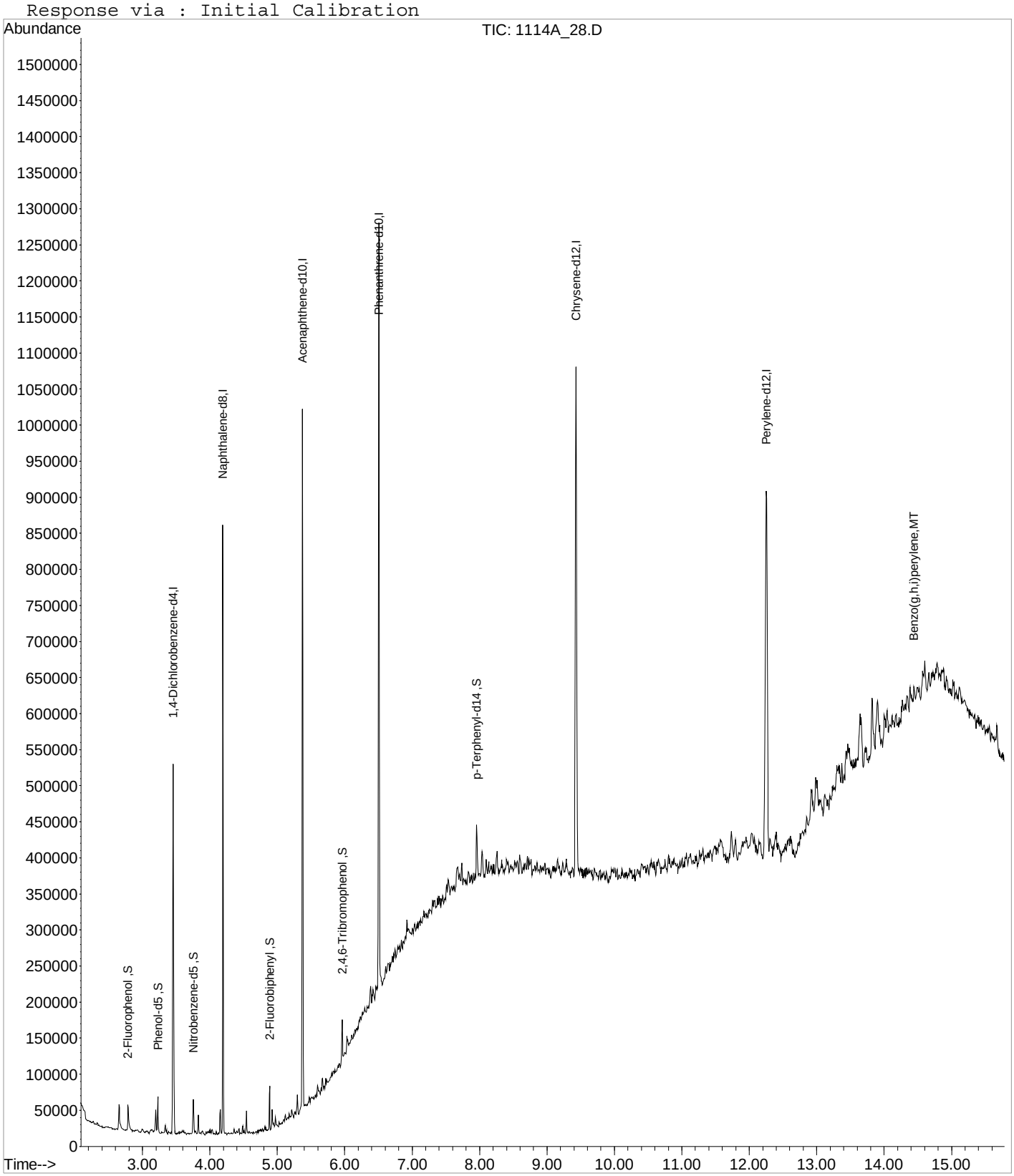
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

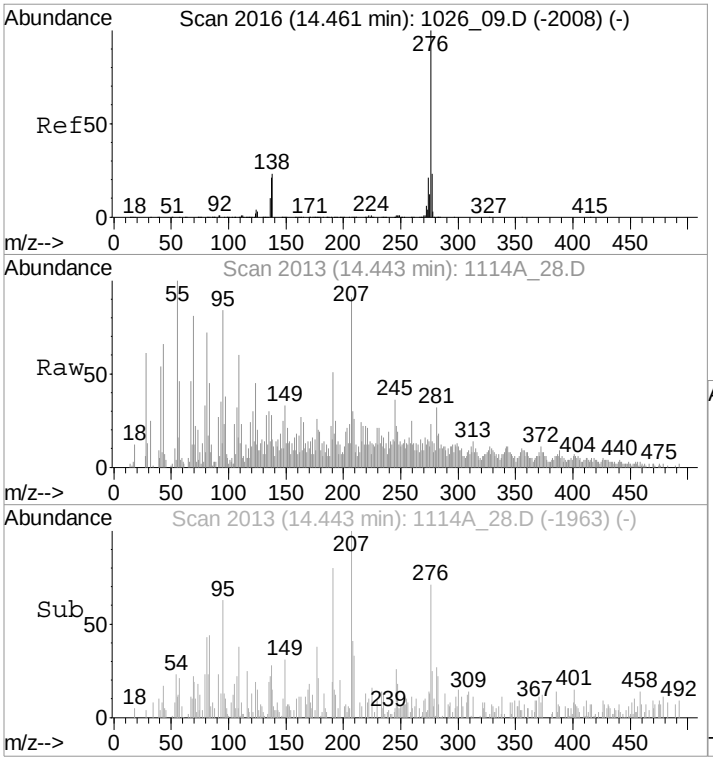
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	76926	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	309150	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	169787	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	340143	8000.00	ppb	-0.02
84) Chrysene-d12	9.43	240	346837	8000.00	ppb	-0.03
94) Perylene-d12	12.25	264	357757	8000.00	ppb	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.79	112	14384	1234.1615349	ppb	-0.02
Spiked Amount 20000.000			Recovery =	6.17%		
7) Phenol-d5	3.23	99	16760	1116.0339098	ppb	-0.01
Spiked Amount 20000.000			Recovery =	5.58%		
24) Nitrobenzene-d5	3.76	82	7024	530.2428902	ppb	-0.02
Spiked Amount 10000.000			Recovery =	5.30%		
50) 2-Fluorobiphenyl	4.89	172	16685	537.3805923	ppb	-0.02
Spiked Amount 10000.000			Recovery =	5.37%		
73) 2,4,6-Tribromophenol	5.96	330	6098	1173.5423741	ppb	-0.02
Spiked Amount 20000.000			Recovery =	5.87%		
87) p-Terphenyl-d14	7.96	244	26927	568.2864452	ppb	-0.03
Spiked Amount 10000.000			Recovery =	5.68%		
Target Compounds						Qvalue
100) Benzo(g,h,i)perylene	14.44	276	2393m	47.2832033	ppb	

(#) = qualifier out of range (m) = manual integration
1114A_28.D S804J26V.M Tue Nov 15 14:31:25 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 28.D Vial: 81
Acq On : 14 Nov 2022 9:30 pm Operator: 917
Sample : L1556196-02 5X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:31 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

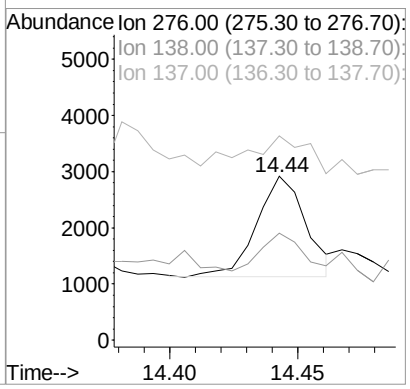




#100
Benzo(g,h,i)perylene
Concen: 47.2832033 ppb m
RT: 14.44 min Scan# 2013
Delta R.T. -0.02 min
Lab File: 1114A_28.D
Acq: 14 Nov 2022 9:30 pm

Tgt Ion:276 Resp: 2393

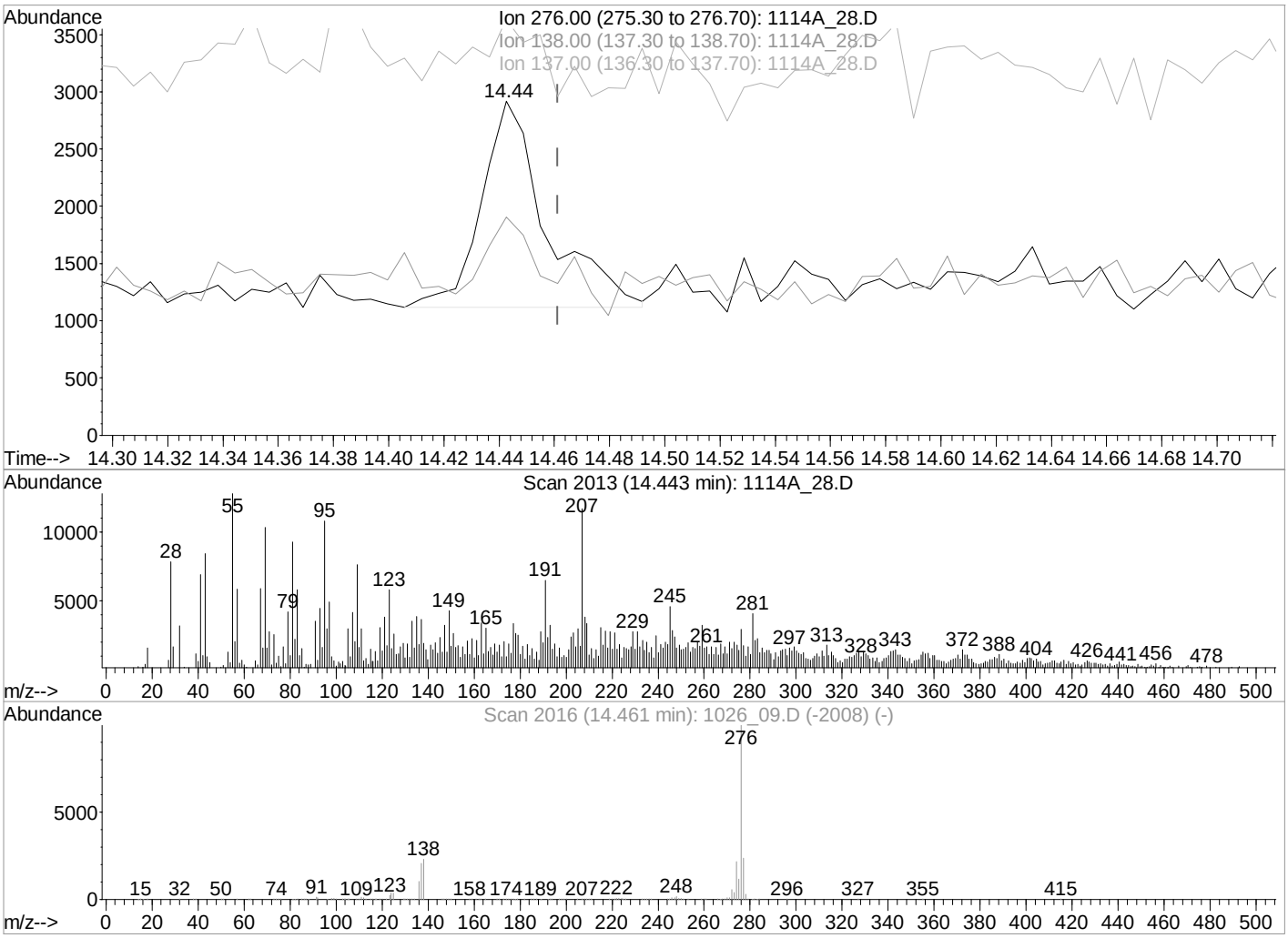
Ion	Ratio	Lower	Upper
276	100		
138	65.2	3.1	43.1#
137	124.7	0.7	40.7#



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 28.D Vial: 81
Acq On : 14 Nov 2022 9:30 pm Operator: 917
Sample : L1556196-02 5X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_28.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.018) 57.8542496 ppb

Qvalue = 89

response 2928 Limit = 915.0000000

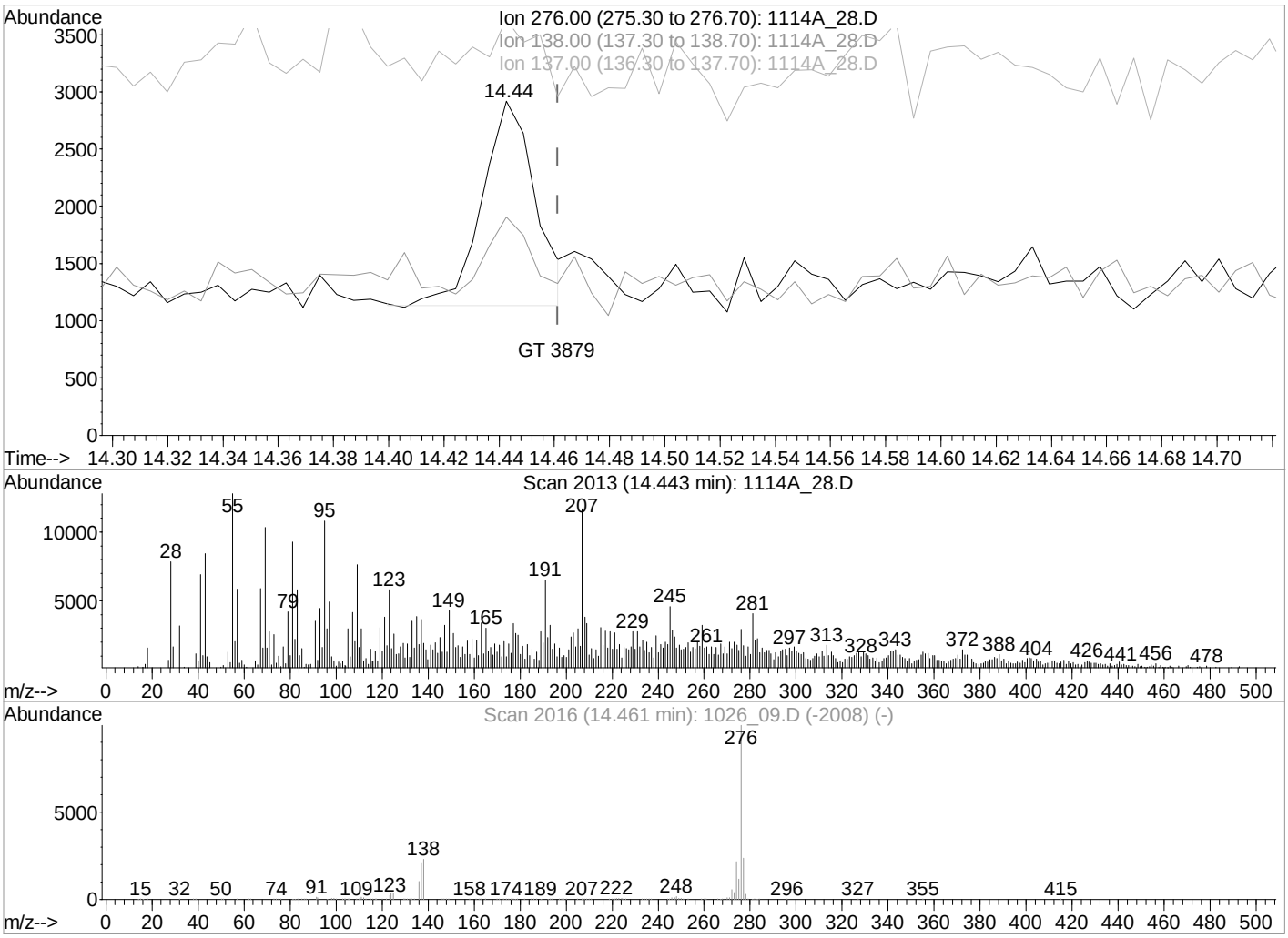
Ion	Exp%	Act%
276.00	100	100
138.00	23.10	32.00
137.00	20.70	19.28
0.00	0.00	0.00

1114A_28.D S804J26V.M Tue Nov 15 14:31:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 28.D Vial: 81
Acq On : 14 Nov 2022 9:30 pm Operator: 917
Sample : L1556196-02 5X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 14:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_28.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.018) 47.2832033 ppb m

response 2393 Limit = 915.0000000

Ion	Exp%	Act%
276.00	100	100
138.00	23.10	65.19#
137.00	20.70	124.70#
0.00	0.00	0.00

1114A_28.D S804J26V.M Tue Nov 15 14:31:20 2022

GC/MS INITIAL CALIBRATION DATA

SDG: L1556196 **Analytical Method:** 8270E

Instrument ID: BNAMS4

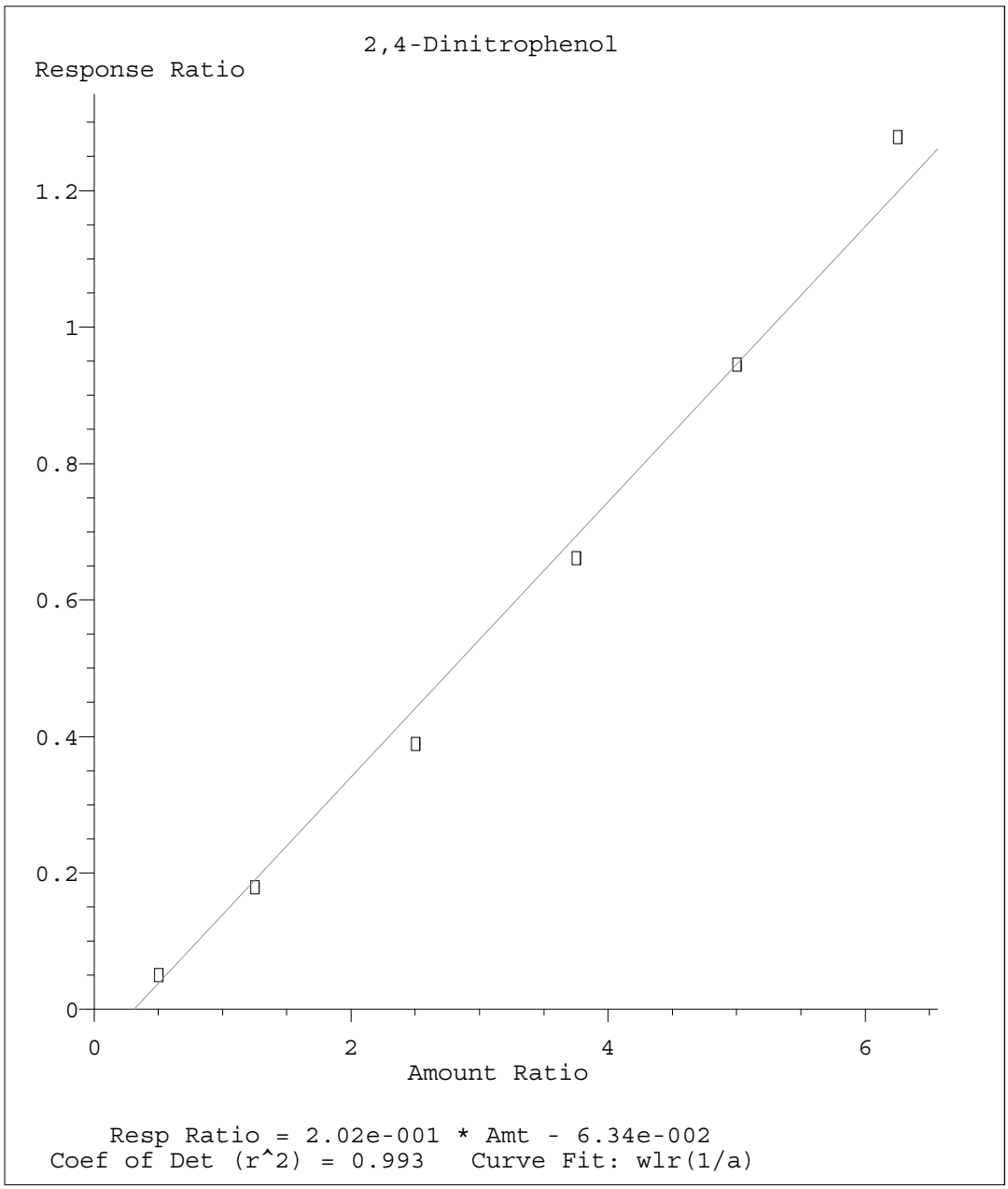
Analyte	RRF: 500	RRF: 1000	RRF: 4000	RRF: 10000	RRF: 20000	RRF: 30000	RRF: 40000	RRF: 50000	RRF: 1K1	RRF: 4K1
Analysis date/time	10/26/22 23:10	10/26/22 23:31	10/26/22 23:52	10/27/22 00:13	10/27/22 00:34	10/27/22 00:55	10/27/22 01:16	10/27/22 01:37	10/27/22 01:58	10/27/22 02:19
PHENOL	1.6470	1.6360	1.3760	1.5710	1.5010	1.6130	1.6240	1.7010		
3&4-METHYL PHENOL	1.3580	1.3160	1.0370	1.3150	1.2710	1.3660	1.3740	1.4460		
NAPHTHALENE	1.1180	1.0780	0.8770	0.9930	0.96	1.02	1.0290	1.0750		
2-METHYLNAPHTHALENE	0.6880	0.6780	0.5760	0.6510	0.6360	0.6750	0.6790	0.7240		
1-METHYLNAPHTHALENE	0.6660	0.6570	0.5480	0.6160	0.5970	0.6350	0.6450	0.6810		
ACENAPHTHYLENE	1.8380	1.7940	1.5330	1.7970	1.7780	1.87	1.8860	1.9940		
ACENAPHTHENE	1.3410	1.3010	1.0590	1.1830	1.1710	1.2410	1.2570	1.3440		
DIBENZOFURAN	1.85	1.7920	1.4640	1.6360	1.5810	1.6650	1.6970	1.7850		
FLUORENE	1.4470	1.4350	1.2010	1.3780	1.3450	1.4140	1.4350	1.5380		
PHENANTHRENE	1.1840	1.1870	0.9480	1.0620	1.0570	1.1170	1.1270	1.18		
ANTHRACENE	1.0360	1.0630	0.9250	1.0750	1.0860	1.1630	1.1710	1.2310		
CARBAZOLE	0.8920	0.9110	0.7970	0.9430	0.9670	1.0350	1.0580	1.1380		
DI-N-BUTYL PHTHALATE	0.8940	0.9480	0.8710	1.0760	1.1590	1.2910	1.3370	1.3790		
FLUORANTHENE	1.0720	1.1030	0.9410	1.10	1.1380	1.2510	1.2890	1.3660		
PYRENE	1.2930	1.3010	1.0830	1.2270	1.2290	1.2820	1.28	1.3540		
BENZO(A)ANTHRACENE	1.1550	1.1450	0.9510	1.0970	1.1130	1.1880	1.1890	1.26		
CHRYSENE	1.2570	1.2880	1.0390	1.1370	1.1280	1.1670	1.1610	1.2380		
BIS(2-ETHYLHEXYL)PHTHALATE	0.4660	0.4760	0.4810	0.6250	0.6690	0.7250	0.7450	0.7990		
BENZO(B)FLUORANTHENE	1.0940	1.0960	0.9680	1.1350	1.1640	1.2420	1.2330	1.3240		
BENZO(K)FLUORANTHENE	1.1690	1.2050	1.0510	1.1820	1.18	1.2640	1.2680	1.3280		
BENZO(A)PYRENE	0.8280	0.8660	0.8010	0.9710	0.9850	1.0650	1.0860	1.1390		
INDENO(1,2,3-CD)PYRENE	0.9270	0.9560	0.8760	1.0350	1.0320	1.0930	1.0920	1.0970		
DIBENZ(A,H)ANTHRACENE	1.0850	1.1360	0.9630	1.1430	1.1590	1.2020	1.18	1.2010		
BENZO(G,H,I)PERYLENE	1.1660	1.1680	1.0130	1.1560	1.1380	1.18	1.1260	1.1070		
2-FLUOROPHENOL	1.3040	1.3220	0.9890	1.1980	1.1550	1.2270	1.22	1.2810		
PHENOL-D5	1.6440	1.6040	1.3390	1.55	1.4860	1.5940	1.5960	1.68		
NITROBENZENE-D5	0.3630	0.34	0.2990	0.3410	0.3380	0.36	0.3360	0.3660		
2-FLUOROBIPHENYL	1.58	1.5740	1.2820	1.4380	1.3870	1.4460	1.4630	1.5340		
P-TERPHENYL-D14	1.1780	1.1270	0.9410	1.0640	1.06	1.1020	1.0980	1.1730		
PENTACHLOROPHENOL		0.10	0.1020	0.1350	0.1420	0.1550	0.1590	0.1720		
DI-N-OCTYL PHTHALATE		0.6860	0.6740	0.9390	1.0480	1.1580	1.1890	1.2950		
2,4,6-TRIBROMOPHENOL			0.0920	0.1130	0.1190	0.1310	0.1340	0.1440		
BENZOIC ACID									0.1030	0.08
File ID:	1026_06	1026_07	1026_08	1026_09	1026_10	1026_11	1026_12	1026_13	1026_14	1026_15

GC/MS INITIAL CALIBRATION DATA

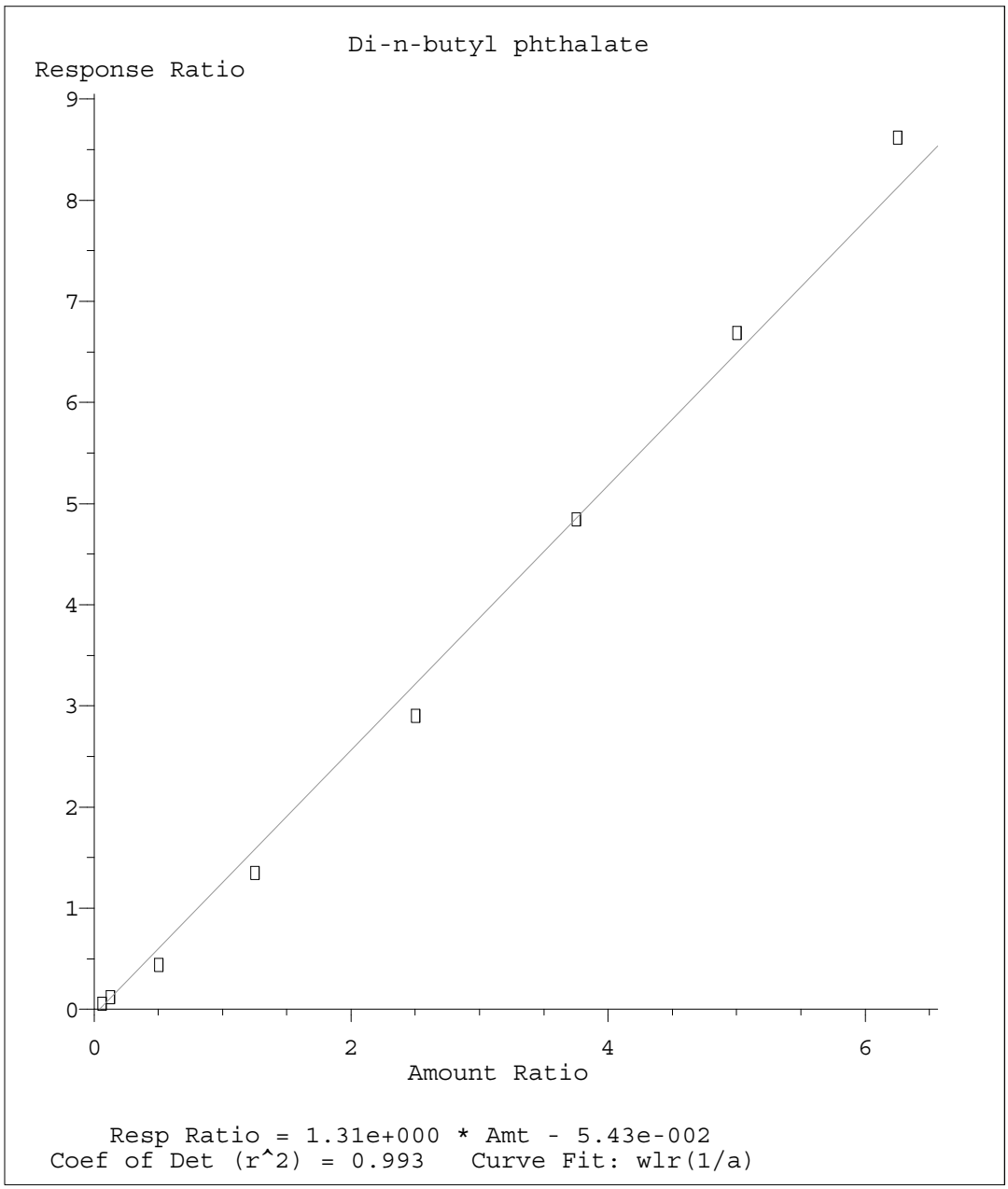
SDG: L1556196 **Analytical Method:** 8270E

Instrument ID: BNAMS4

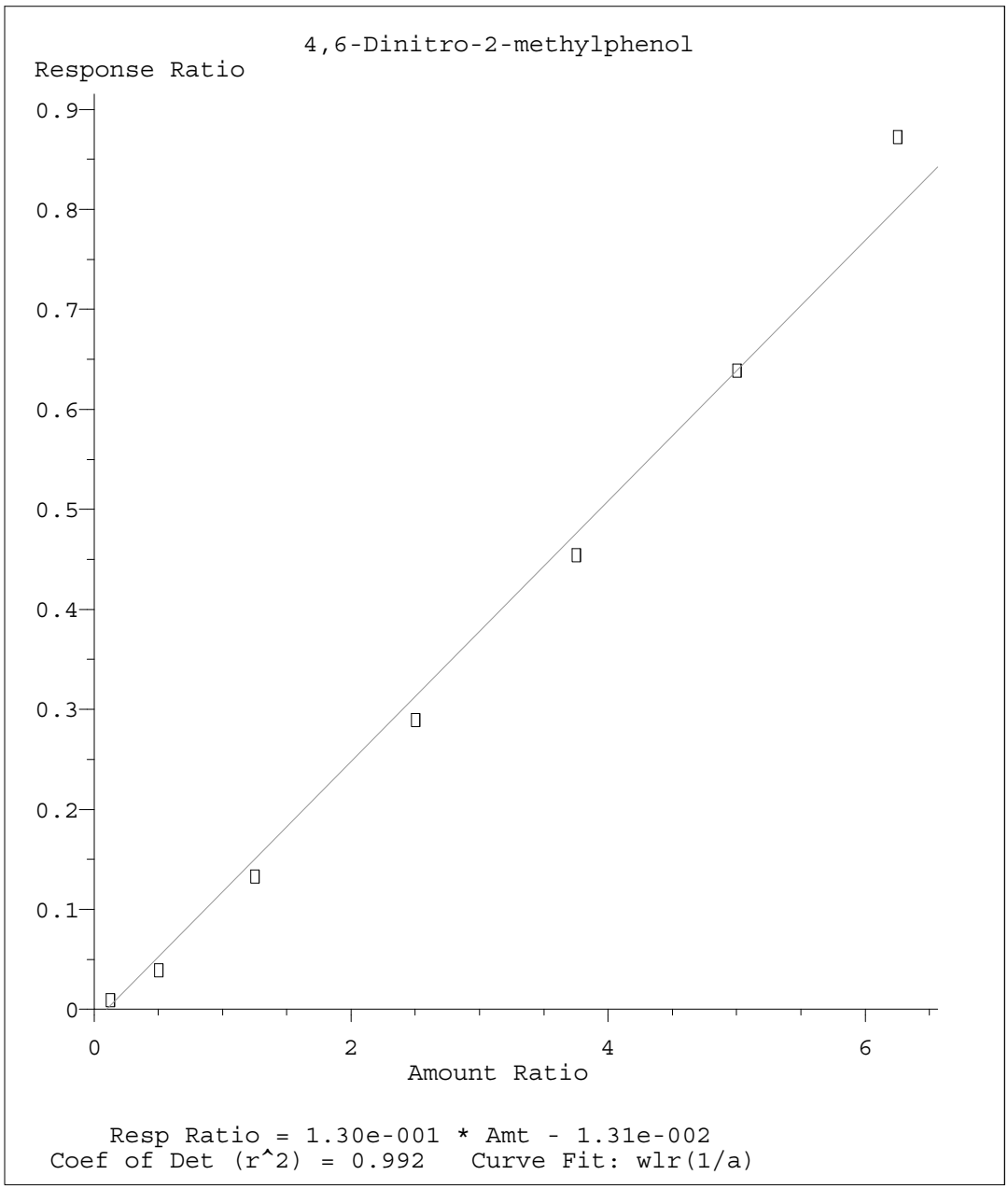
Analyte	**RRF: 10K1**	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	10/27/22 02:39	10/27/22 03:00	10/27/22 03:21	10/27/22 03:42	10/27/22 04:03			
PHENOL						1.583712	6.45	
3&4-METHYL PHENOL						1.31046	9.3	
NAPHTHALENE						1.018737	7.51	
2-METHYLNAPHTHALENE						0.663331	6.58	
1-METHYLNAPHTHALENE						0.630728	6.8	
ACENAPHTHYLENE						1.811284	7.29	
ACENAPHTHENE						1.237201	7.84	
DIBENZOFURAN						1.683731	7.5	
FLUORENE						1.39923	6.99	
PHENANTHRENE						1.107688	7.47	
ANTHRACENE						1.093532	8.64	
CARBAZOLE						0.967635	11.08	
DI-N-BUTYL PHTHALATE						1.119355	18.15	0.993
FLUORANTHENE						1.157378	11.78	
PYRENE						1.256004	6.45	
BENZO(A)ANTHRACENE						1.13729	7.95	
CHRYSENE						1.176685	6.87	
BIS(2-ETHYLHEXYL)PHTHALATE						0.623139	21.4	0.993
BENZO(B)FLUORANTHENE						1.156852	9.52	
BENZO(K)FLUORANTHENE						1.205862	6.92	
BENZO(A)PYRENE						0.967529	12.99	
INDENO(1,2,3-CD)PYRENE						1.013611	8.34	
DIBENZ(A,H)ANTHRACENE						1.133472	6.95	
BENZO(G,H,I)PERYLENE						1.131717	4.74	
2-FLUOROPHENOL						1.212061	8.73	
PHENOL-D5						1.561757	6.86	
NITROBENZENE-D5						0.342792	6.24	
2-FLUOROBIPHENYL						1.462951	6.86	
P-TERPHENYL-D14						1.092912	6.91	
PENTACHLOROPHENOL						0.137739	20.22	0.993
DI-N-OCTYL PHTHALATE						0.99839	24.49	0.991
2,4,6-TRIBROMOPHENOL						0.122213	15.08	
BENZOIC ACID	0.1220	0.13	0.1280	0.1210	0.1180	0.114506	15.29	
File ID:	1026_16	1026_17	1026_18	1026_19	1026_20			



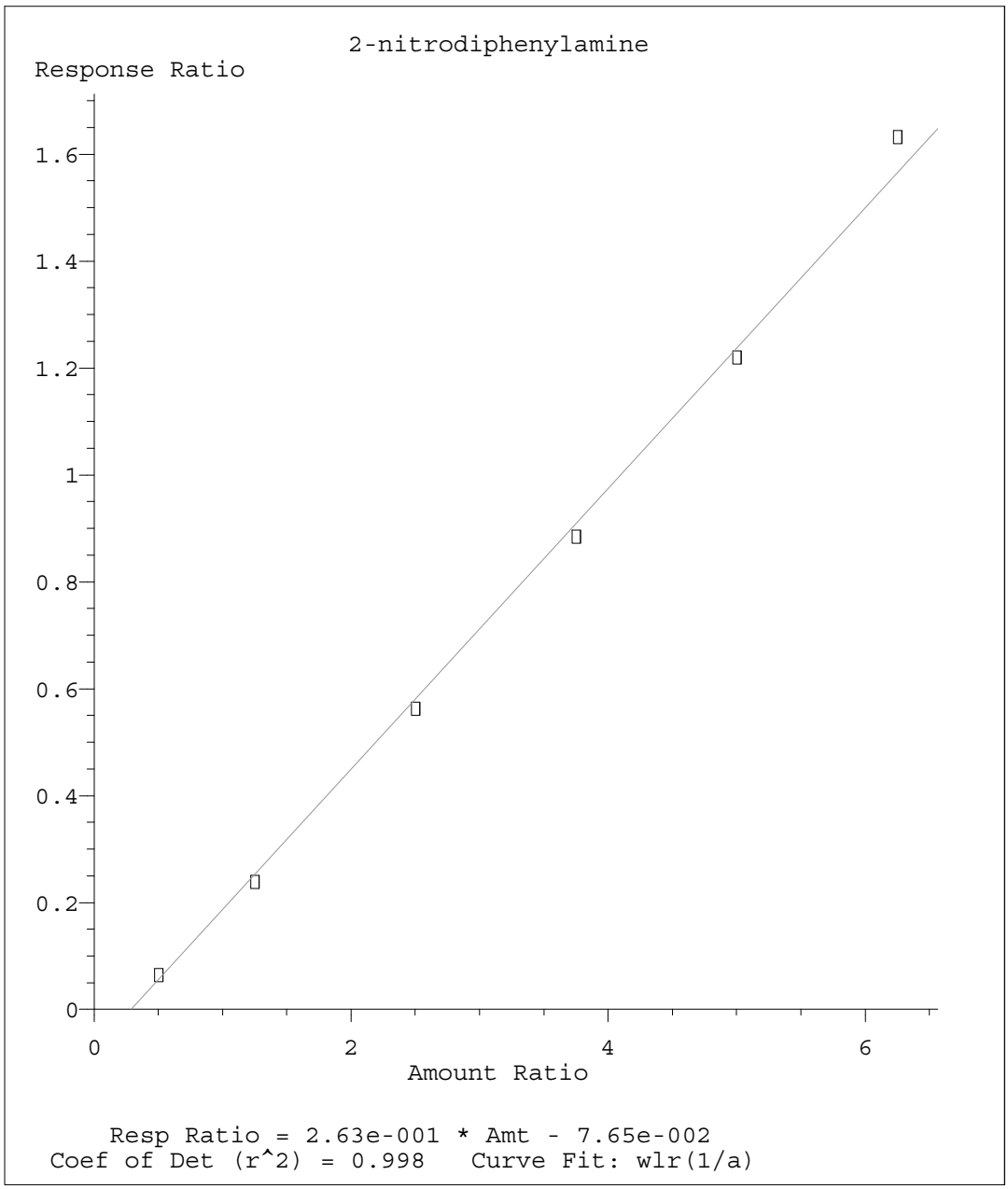
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



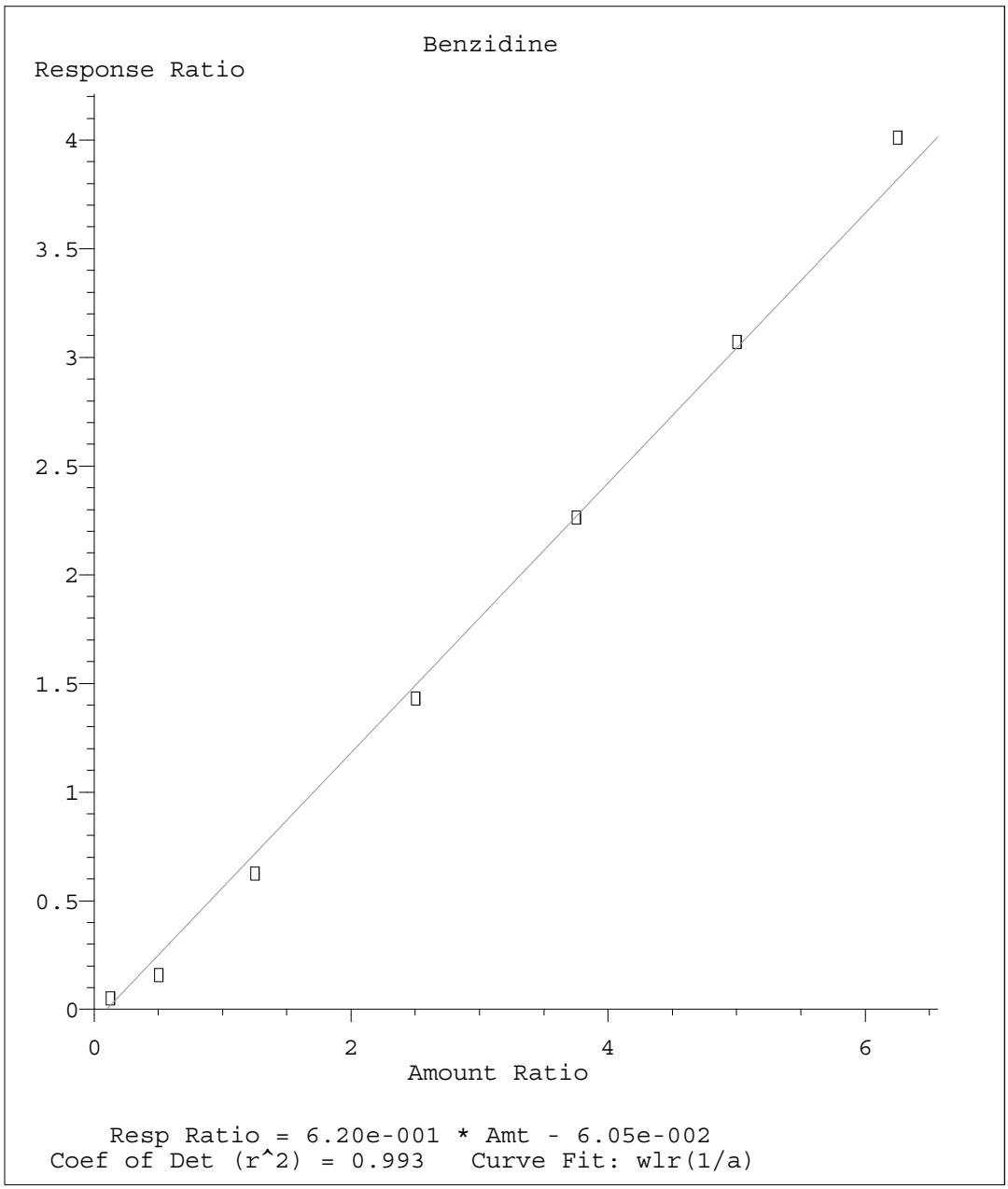
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



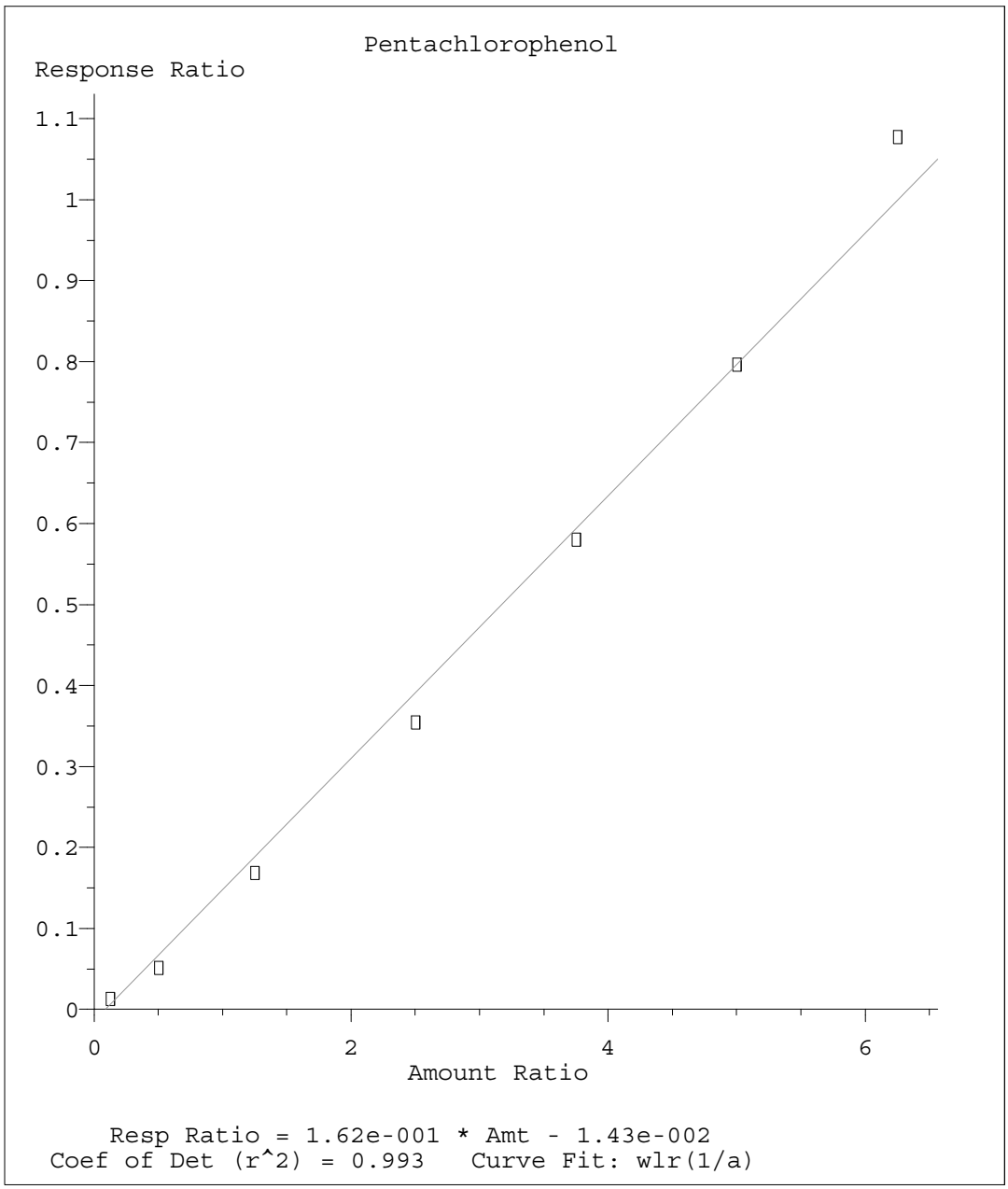
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



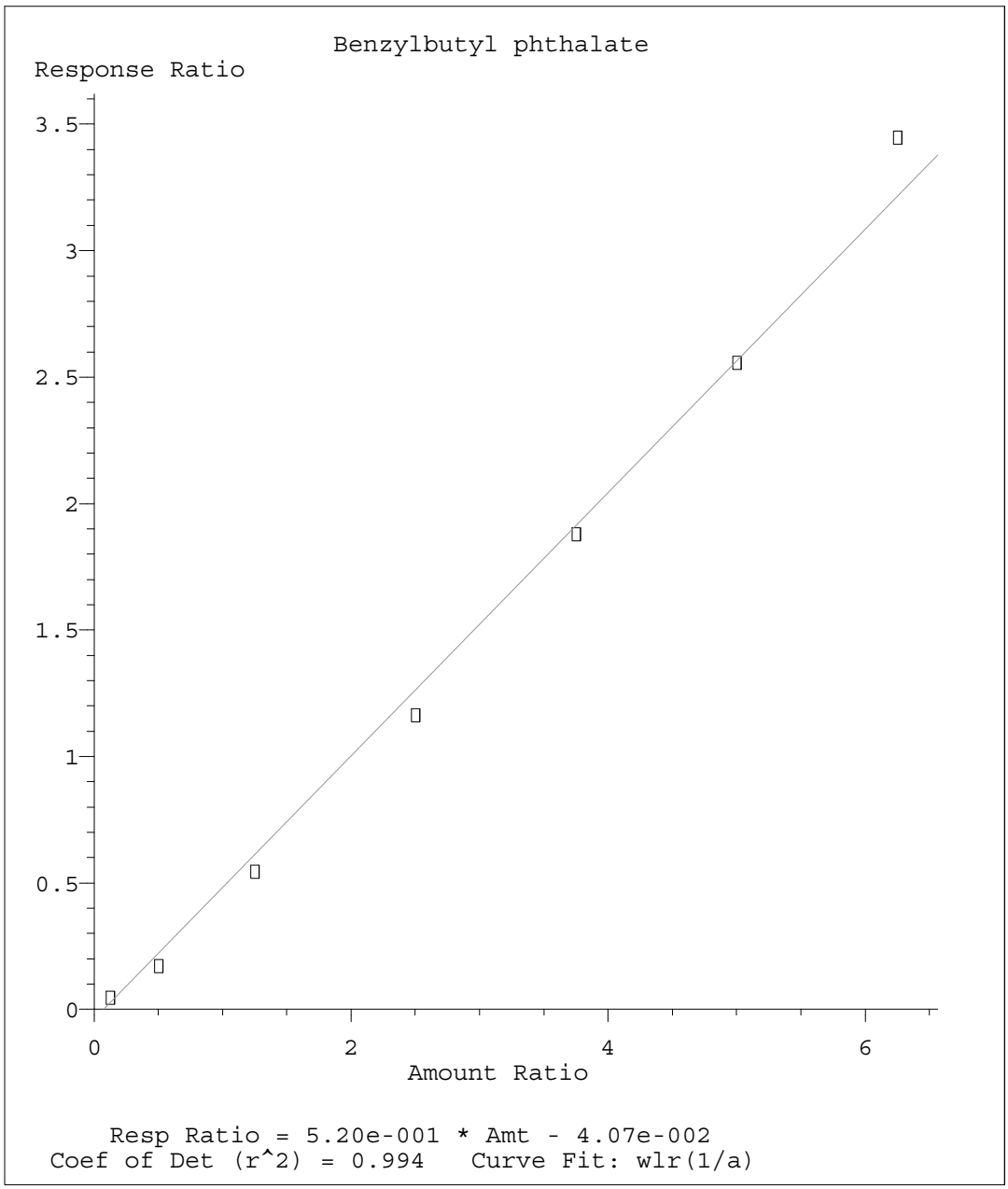
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M

Response Factor Report BNAMS4

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

Calibration Files
500 =1026 06.D 1K =1026 07.D 4K =1026 08.D
10K =1026_09.D 20K =1026_10.D 30K =1026_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	TM	Pyridine	1.488	1.460	1.074	1.337	1.279	1.353	1.343	9.58
3)	MT	N-Nitrosodimeth			0.499	0.618	0.598	0.624	0.598	8.40
4)	S	2-Fluorophenol	1.304	1.322	0.989	1.198	1.155	1.227	1.212	8.73
5)	MT	Aniline	0.708	0.745	0.586	0.686	0.661	0.706	0.691	7.24
6)	MT	bis(2-Chloroeth	1.406	1.357	1.089	1.241	1.201	1.349	1.242	12.88
7)	S	Phenol-d5	1.644	1.604	1.339	1.550	1.486	1.594	1.562	6.86
8)	MC	Phenol	1.647	1.636	1.376	1.571	1.501	1.613	1.584	6.45
9)		Benzaldehyde							0.489	7.83
10)	MT	2-Chlorophenol	1.243	1.344	1.152	1.294	1.250	1.341	1.297	6.17
11)	T	n-Decane	0.861	0.847	0.662	0.725	0.671	0.712	0.737	10.22
12)	MT	1,3-Dichloroben	1.685	1.660	1.354	1.497	1.411	1.508	1.523	7.43
13)	MTC	1,4-Dichloroben	1.705	1.689	1.208	1.502	1.428	1.522	1.523	10.43
14)	MT	Benzyl Alcohol	1.027	1.017	0.780	1.001	0.976	1.063	1.010	10.52
15)	MT	1,2-Dichloroben	1.543	1.612	1.147	1.425	1.348	1.444	1.434	9.87
16)	MT	bis(2-Chloroiso	0.481	0.491	0.360	0.461	0.432	0.452	0.450	9.13
17)	MT	2,2-oxybis(1-ch	0.481	0.491	0.360	0.461	0.432	0.452	0.450	9.13
18)	MT	2-Methylphenol	1.214	1.216	0.901	1.172	1.133	1.208	1.169	10.02
19)	MT	Hexachloroethan	0.612	0.606	0.438	0.543	0.516	0.554	0.552	10.22
20)	MP	N-Nitrosodi-n-p	0.897	0.861	0.683	0.903	0.865	0.931	0.883	10.19
21)	MT	3&4-Methyl phen	1.358	1.316	1.037	1.315	1.271	1.366	1.310	9.30
22)	MT	Acetophenone							1.738	12.10
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.363	0.340	0.299	0.341	0.338	0.360	0.343	6.24
25)	MT	Nitrobenzene	0.344	0.354	0.296	0.342	0.329	0.351	0.342	6.36
26)	MT	Isophorone	0.590	0.603	0.520	0.618	0.608	0.658	0.616	8.08
27)	MCT	2-Nitrophenol	0.161	0.161	0.144	0.170	0.171	0.186	0.172	10.13
28)	MT	2,4-Dimethylphe	0.322	0.317	0.272	0.317	0.307	0.327	0.317	6.83
29)	MT	bis(2-Chloretho	0.393	0.406	0.340	0.375	0.368	0.386	0.383	5.89
30)	MCT	2,4-Dichlorophe	0.266	0.259	0.229	0.265	0.259	0.274	0.265	6.89
31)	MT	Benzoic Acid							0.115	15.29
32)	MT	1,2,4-Trichloro	0.346	0.340	0.279	0.309	0.295	0.311	0.315	7.16
33)	MT	alpha-terpineol							0.199	13.77
34)	MT	Naphthalene	1.118	1.078	0.877	0.993	0.960	1.020	1.019	7.51
35)	MT	4-Chloroaniline	0.105	0.108	0.093	0.107	0.106	0.112	0.108	7.23
36)	MCT	Hexachloro-1,3-	0.203	0.188	0.160	0.177	0.167	0.179	0.180	7.45
37)		Hydroquinone							0.155	6.21
38)	MT	Quinoline							0.454	14.16
39)	MT	Caprolactam							0.055	7.56
40)	MCT	4-Chloro-3-meth	0.251	0.243	0.204	0.250	0.248	0.265	0.252	9.51
41)	MT	2-Methylnaphtha	0.688	0.678	0.576	0.651	0.636	0.675	0.663	6.58
42)	MT	1-Methylnaphtha	0.666	0.657	0.548	0.616	0.597	0.635	0.631	6.80
43)	MT	1,2,4,5-Tetrach							0.240	14.01
44)		Diphenyl Ether							0.316	13.16
45)		Diphenyl Oxide							0.316	13.16
46)	I	Acenaphthene-d10	----------ISTD----------							
47)	MPT	Hexachlorocyclo	0.397	0.408	0.337	0.396	0.397	0.412	0.402	7.98
48)	MCT	2,4,6-Trichloro	0.341	0.366	0.322	0.377	0.377	0.388	0.372	7.82
49)	MT	2,4,5-Trichloro	0.351	0.368	0.324	0.395	0.389	0.416	0.388	10.18
50)	S	2-Fluorobipheny	1.580	1.574	1.282	1.438	1.387	1.446	1.463	6.86
51)	MT	Biphenyl	1.762	1.766	1.409	1.601	1.542	1.629	1.632	7.33
52)	MT	2-Chloronaphtha	1.270	1.290	1.042	1.193	1.144	1.204	1.203	6.79
53)	MT	2-Nitroaniline	0.306	0.300	0.288	0.358	0.372	0.397	0.356	14.49
54)	MT	Acenaphthylene	1.838	1.794	1.533	1.797	1.778	1.870	1.811	7.29

(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

Calibration Files
500 =1026 06.D 1K =1026 07.D 4K =1026 08.D
10K =1026_09.D 20K =1026_10.D 30K =1026_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
55)	MT	Dimethyl phthal	1.286	1.251	1.082	1.230	1.215	1.276	1.256	7.32
56)	MT	2,6-Dinitrotolu	0.249	0.267	0.248	0.297	0.290	0.303	0.286	10.23
57)	MT	3-Nitroaniline	0.258	0.273	0.257	0.305	0.312	0.327	0.303	12.06
58)	MCT	Acenaphthene	1.341	1.301	1.059	1.183	1.171	1.241	1.237	7.84
59)	MPT	2,4-Dinitrophen			0.099	0.143	0.156	0.176	0.161	23.41
60)	MT	Dibenzofuran	1.850	1.792	1.464	1.636	1.581	1.665	1.684	7.50
61)	MT	2,4-Dinitrotolu	0.292	0.322	0.304	0.377	0.382	0.403	0.364	13.97
62)	T	2,3,4,6-Tetrach							0.293	12.30
63)	MPT	4-Nitrophenol		0.199	0.208	0.249	0.257	0.259	0.244	11.60
64)	MT	Fluorene	1.447	1.435	1.201	1.378	1.345	1.414	1.399	6.99
65)	MT	4-Chlorophenyl-	0.718	0.700	0.575	0.657	0.635	0.666	0.666	6.93
66)	MT	Diethyl phthala	1.229	1.237	1.078	1.290	1.239	1.249	1.222	5.21
67)	MT	4-Nitroaniline	0.257	0.246	0.262	0.304	0.303	0.243	0.276	10.34
68)	MT	Azobenzene	1.233	1.289	1.144	1.330	1.287	1.353	1.306	6.97
69)	MT	Atrazine							0.375	14.07
70)	I	Phenanthrene-d10	----------	----------	ISTD	----------	----------	----------		
71)	MT	4,6-Dinitro-2-m		0.069	0.078	0.106	0.116	0.121	0.108	23.89
72)	MCT	N-Nitrosodiphen	0.607	0.605	0.520	0.606	0.618	0.666	0.630	10.11
73)	S	2,4,6-Tribromop			0.092	0.113	0.119	0.131	0.122	15.08
74)	MT	4-Bromophenyl-p	0.213	0.208	0.175	0.204	0.209	0.220	0.211	8.54
75)	MT	Hexachlorobenze	0.288	0.286	0.228	0.254	0.254	0.272	0.269	8.16
76)	T	n-octadecane	0.095	0.097	0.087	0.100	0.104	0.113	0.104	11.41
77)	MCT	Pentachlorophen		0.100	0.102	0.135	0.142	0.155	0.138	20.22#
78)	MT	Phenanthrene	1.184	1.187	0.948	1.062	1.057	1.117	1.108	7.47
79)	MT	Anthracene	1.036	1.063	0.925	1.075	1.086	1.163	1.094	8.64
80)	MT	Carbazole	0.892	0.911	0.797	0.943	0.967	1.035	0.968	11.08
81)	MT	Di-n-butyl phth	0.894	0.948	0.871	1.076	1.159	1.291	1.119	18.15
82)	MT	2-nitrodiphenyl							0.214	22.58
83)	MCT	Fluoranthene	1.072	1.103	0.941	1.100	1.138	1.251	1.157	11.78
84)	I	Chrysene-d12	----------	----------	ISTD	----------	----------	----------		
85)	MT	Benzidine							0.518	24.26
86)	MT	Pyrene	1.293	1.301	1.083	1.227	1.229	1.282	1.256	6.45
87)	S	p-Terphenyl-d14	1.178	1.127	0.941	1.064	1.060	1.102	1.093	6.91
88)	MT	Benzylbutyl pht		0.359	0.340	0.435	0.465	0.501	0.452	17.47
89)	MT	3,3-Dichloroben							0.444	12.37
90)	MT	Benzo(a)anthrac	1.155	1.145	0.951	1.097	1.113	1.188	1.137	7.95
91)	MT	Chrysene	1.257	1.288	1.039	1.137	1.128	1.167	1.177	6.87
92)	MT	bis(2-Ethylhexy	0.466	0.476	0.481	0.625	0.669	0.725	0.623	21.40
93)	MC	Di-n-octyl phth		0.686	0.674	0.939	1.048	1.158	0.998	24.49
94)	I	Perylene-d12	----------	----------	ISTD	----------	----------	----------		
95)	MT	Benzo(b)fluoran	1.094	1.096	0.968	1.135	1.164	1.242	1.157	9.52
96)	MT	Benzo(k)fluoran	1.169	1.205	1.051	1.182	1.180	1.264	1.206	6.92
97)	MC	Benzo(a)pyrene	0.828	0.866	0.801	0.971	0.985	1.065	0.968	12.99
98)	MT	Indeno(1,2,3-cd	0.927	0.956	0.876	1.035	1.032	1.093	1.014	8.34
99)	MT	Dibenz(a,h)anth	1.085	1.136	0.963	1.143	1.159	1.202	1.133	6.95
100)	MT	Benzo(g,h,i)per	1.166	1.168	1.013	1.156	1.138	1.180	1.132	4.74

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	81735	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	319593	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	161195	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	310894	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	268780	8000.00	ppb		0.00
94) Perylene-d12	12.28	264	277468	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	6663	544.2149668	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.72%				
7) Phenol-d5	3.24	99	8400	530.6017545	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.65%				
24) Nitrobenzene-d5	3.78	82	7245m	531.6846867	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.32%				
50) 2-Fluorobiphenyl	4.91	172	15916	549.4602312	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.49%				
73) 2,4,6-Tribromophenol	5.98	330	1894	429.5057290	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.15%				
87) p-Terphenyl-d14	7.99	244	19791	553.7164322	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.54%				
Target Compounds							Qvalue
2) Pyridine	2.25	79	7603m	556.7903751	ppb		
3) N-Nitrosodimethylamine	2.23	42	3418	541.0832743	ppb	#	85
5) Aniline	3.29	66	3618	515.9941438	ppb		90
6) bis(2-Chloroethyl)ether	3.31	93	7185m	566.9066616	ppb		
8) Phenol	3.25	94	8414	524.0471929	ppb		97
10) 2-Chlorophenol	3.36	128	6351	480.3222212	ppb		91
11) n-Decane	3.36	41	4398	593.5704582	ppb	#	99
12) 1,3-Dichlorobenzene	3.45	146	8610	562.9632603	ppb		97
13) 1,4-Dichlorobenzene	3.49	146	8711	567.7717948	ppb	#	84
14) Benzyl Alcohol	3.53	79	5245	513.0447250	ppb		100
15) 1,2-Dichlorobenzene	3.57	146	7883	541.4602051	ppb		98
16) bis(2-Chloroisopropyl)ethe	3.61	121	2457	522.1079498	ppb		87
17) 2,2-oxybis(1-chloropropane	3.61	121	2457	522.1079498	ppb		87
18) 2-Methylphenol	3.58	108	6204	518.2363813	ppb		94
19) Hexachloroethane	3.77	117	3127	563.6036231	ppb		96
20) N-Nitrosodi-n-propylamine	3.68	70	4582	496.8329228	ppb		94
21) 3&4-Methyl phenol	3.66	107	6935	516.2381981	ppb		95
25) Nitrobenzene	3.79	77	6878	503.5671361	ppb		95
26) Isophorone	3.93	82	11790	477.6549774	ppb		96
27) 2-Nitrophenol	3.98	139	3224	473.4120742	ppb		99
28) 2,4-Dimethylphenol	3.98	107	6437	508.5445943	ppb		94
29) bis(2-Chlorethoxy)methane	4.04	93	7854	524.5168063	ppb		95
30) 2,4-Dichlorophenol	4.12	162	5316	502.6661500	ppb		94
32) 1,2,4-Trichlorobenzene	4.17	180	6916	560.1959946	ppb		97
34) Naphthalene	4.23	128	22336	562.9199547	ppb		98
35) 4-Chloroaniline	4.25	65	2099	492.4946646	ppb		92
36) Hexachloro-1,3-butadiene	4.30	225	4059	574.8486284	ppb		97
40) 4-Chloro-3-methylphenol	4.54	107	5006	501.2714606	ppb		96
41) 2-Methylnaphthalene	4.67	142	13740	528.3339817	ppb		98
42) 1-Methylnaphthalene	4.74	142	13311	540.9049228	ppb		99
47) Hexachlorocyclopentadiene	4.77	237	3998	500.9161650	ppb		97
48) 2,4,6-Trichlorophenol	4.85	196	3438	452.2662370	ppb		94
49) 2,4,5-Trichlorophenol	4.87	196	3539	444.7799532	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

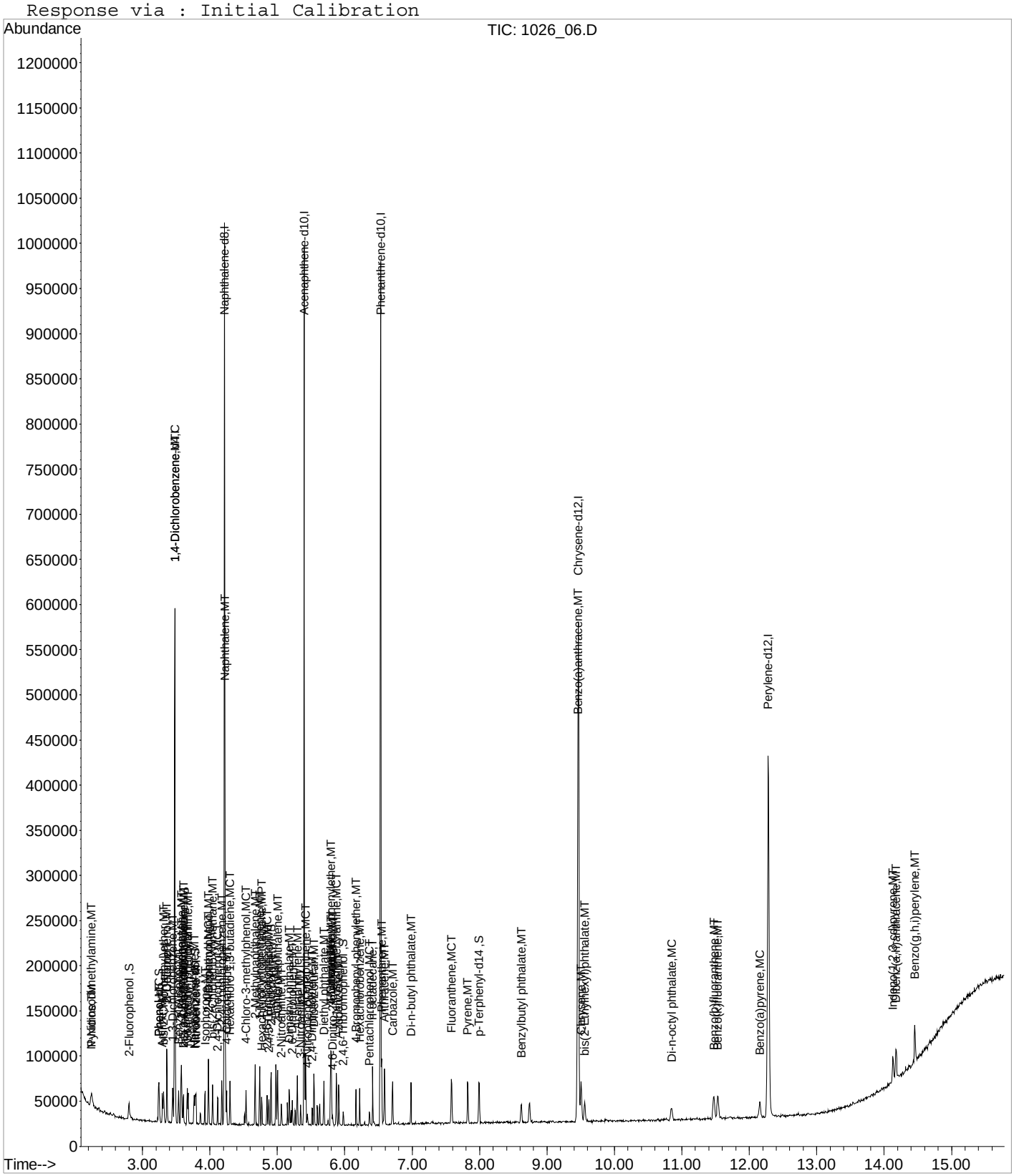
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	17749	550.1344665	ppb		97
52)	2-Chloronaphthalene	5.00	162	12796	532.3064022	ppb		99
53)	2-Nitroaniline	5.06	138	3085	427.3562499	ppb	#	92
54)	Acenaphthylene	5.30	152	18519	511.5275957	ppb		98
55)	Dimethyl phthalate	5.17	163	12957	522.6154735	ppb		93
56)	2,6-Dinitrotoluene	5.22	165	2510	419.8270643	ppb		93
57)	3-Nitroaniline	5.35	138	2604	424.3235687	ppb	#	89
58)	Acenaphthene	5.42	153	13512	566.6357798	ppb		97
60)	Dibenzofuran	5.54	168	18642	565.6375481	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	2938	386.5382052	ppb		98
63)	4-Nitrophenol	5.44	139	1641	327.2813235	ppb		83
64)	Fluorene	5.80	166	14577	524.9954911	ppb		97
65)	4-Chlorophenyl-phenylether	5.79	204	7235	546.8663608	ppb		96
66)	Diethyl phthalate	5.69	149	12383	476.5811448	ppb		97
67)	4-Nitroaniline	5.79	138	2591	422.4855028	ppb		94
68)	Azobenzene	5.91	77	12426	463.7093377	ppb		97
71)	4,6-Dinitro-2-methylphenol	5.82	198	1171	283.8129901	ppb		90
72)	N-Nitrosodiphenylamine	5.87	169	11791	500.5336720	ppb		98
74)	4-Bromophenyl-phenylether	6.17	248	4140	522.2665326	ppb		95
75)	Hexachlorobenzene	6.22	284	5593	567.3305630	ppb		95
76)	n-octadecane	6.42	55	1845	472.5692474	ppb	#	69
77)	Pentachlorophenol	6.37	266	1907	364.7538700	ppb		90
78)	Phenanthrene	6.55	178	22998	557.3582331	ppb		97
79)	Anthracene	6.59	178	20126	481.9044322	ppb		98
80)	Carbazole	6.71	167	17323	472.5642530	ppb		100
81)	Di-n-butyl phthalate	6.98	149	17380	415.6140952	ppb		99
83)	Fluoranthene	7.58	202	20823	487.2889097	ppb		99
86)	Pyrene	7.82	202	21716	526.9170398	ppb		96
88)	Benzylbutyl phthalate	8.62	149	6237	426.8355283	ppb		97
90)	Benzo(a)anthracene	9.45	228	19399	526.1217032	ppb		98
91)	Chrysene	9.50	228	21111	552.5162755	ppb		96
92)	bis(2-Ethylhexyl)phthalate	9.56	149	7821	372.5048427	ppb		96
93)	Di-n-octyl phthalate	10.84	149	11583	367.0226271	ppb		97
95)	Benzo(b)fluoranthene	11.48	252	18966	481.8470427	ppb		98
96)	Benzo(k)fluoranthene	11.53	252	20266	494.3799334	ppb		97
97)	Benzo(a)pyrene	12.16	252	14360	426.4069924	ppb		97
98)	Indeno(1,2,3-cd)pyrene	14.13	276	16078	447.8065433	ppb		98
99)	Dibenz(a,h)anthracene	14.17	278	18808	474.3901296	ppb		99
100)	Benzo(g,h,i)perylene	14.45	276	20217	504.2318621	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

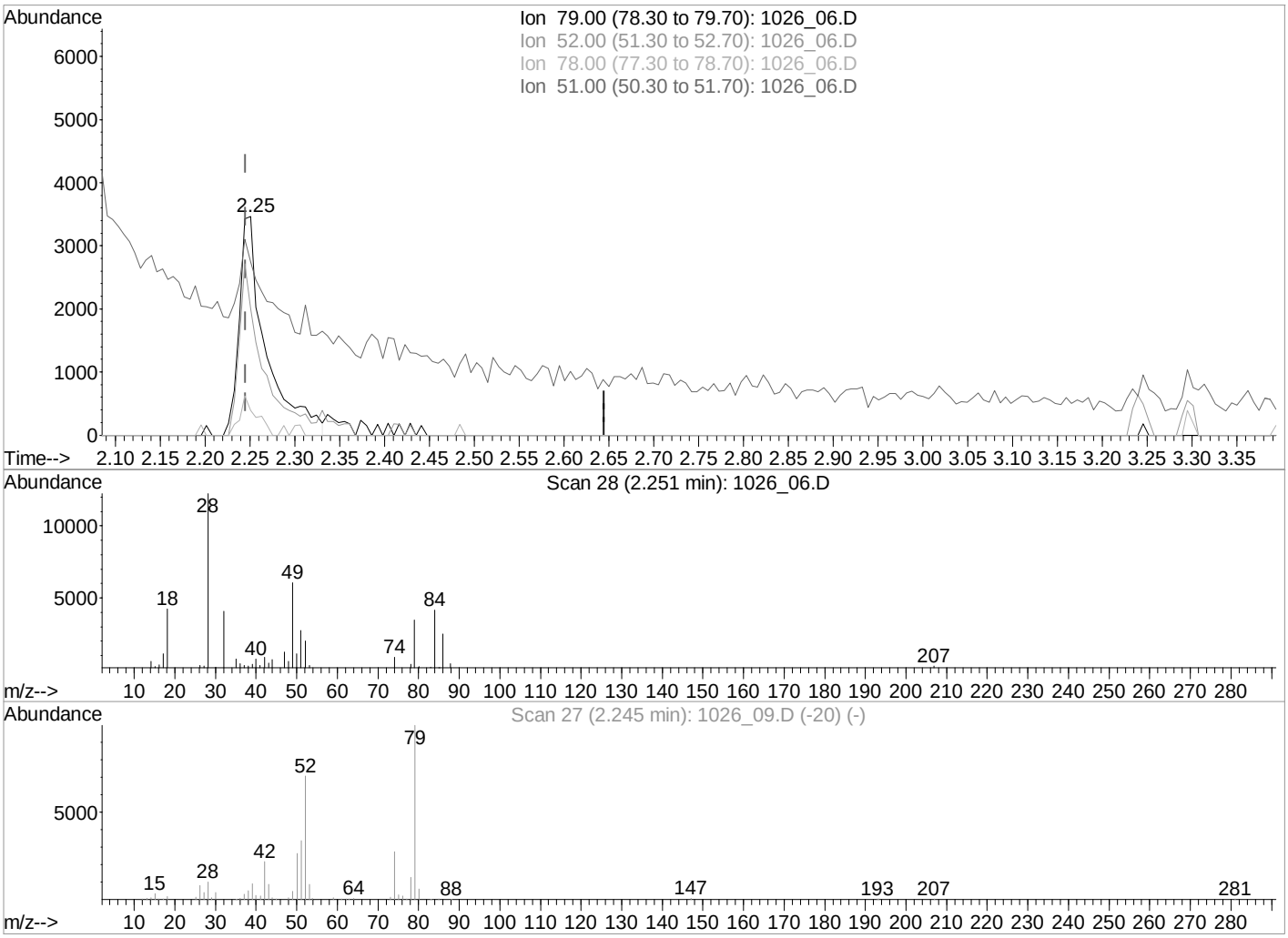
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(2) Pyridine (TM)

2.25min (+0.006) 525.0804932 ppb

Qvalue = 89

response 7170

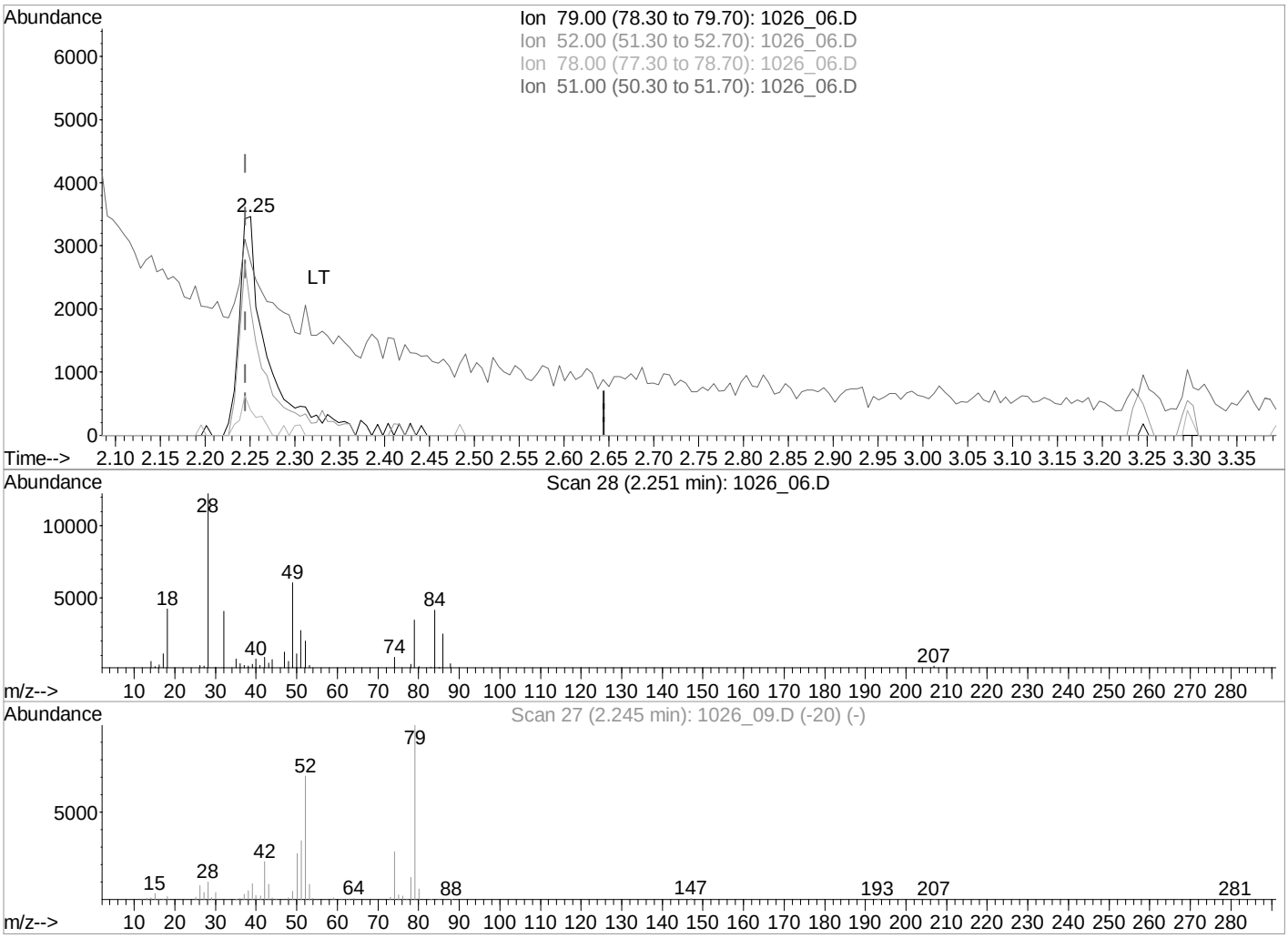
Ion	Exp%	Act%
79.00	100	100
52.00	70.70	58.02
78.00	12.60	11.38
51.00	34.90	31.84

1026_06.D S804J26V.M Thu Oct 27 06:26:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(2) Pyridine (TM)

2.25min (+0.006) 556.7903751 ppb m

response 7603

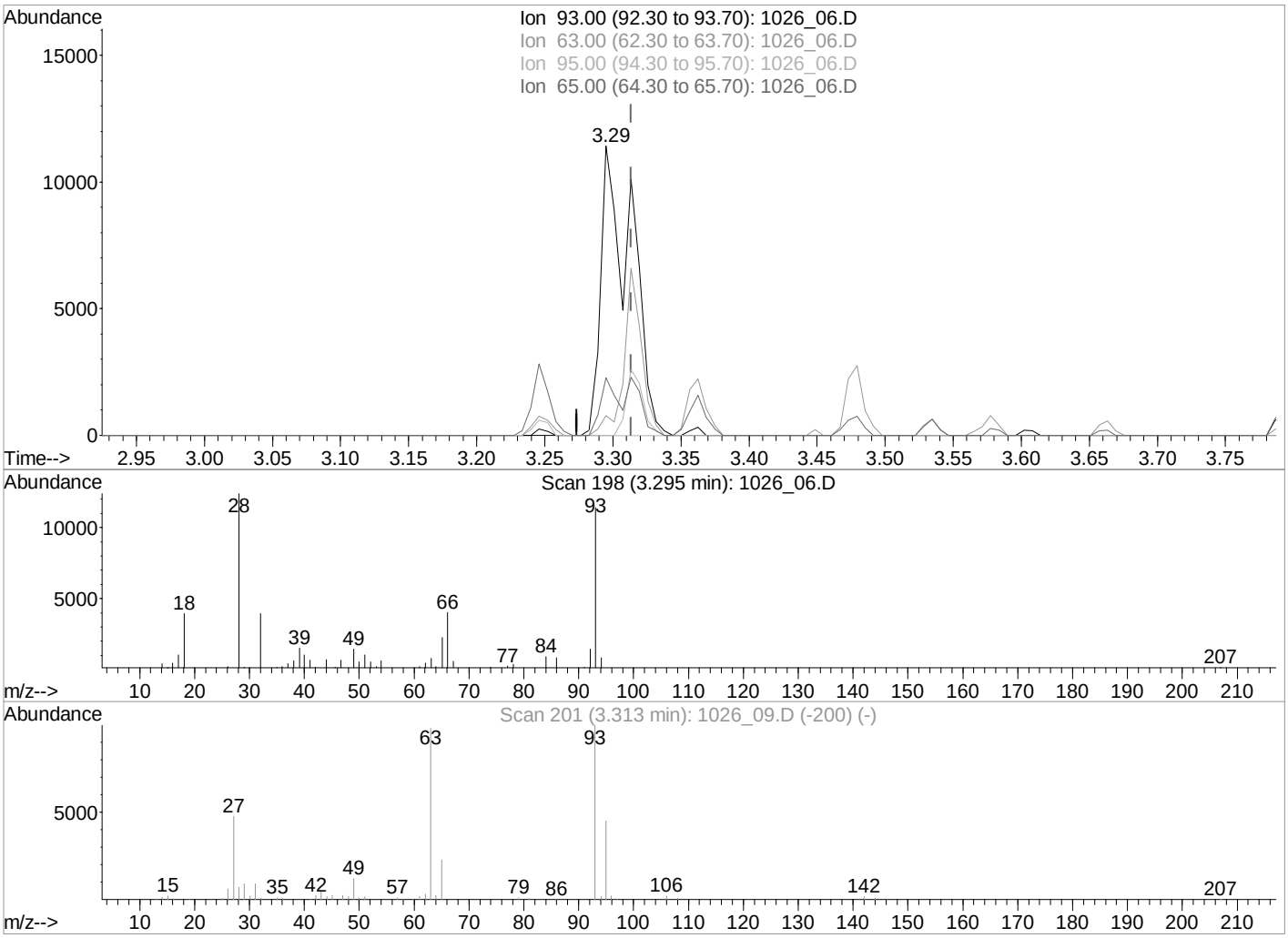
Ion	Exp%	Act%
79.00	100	100
52.00	70.70	58.02
78.00	12.60	11.38
51.00	34.90	79.37#

1026_06.D S804J26V.M Thu Oct 27 06:26:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.019) 1395.4504128 ppb

Qvalue = 43

response 17686

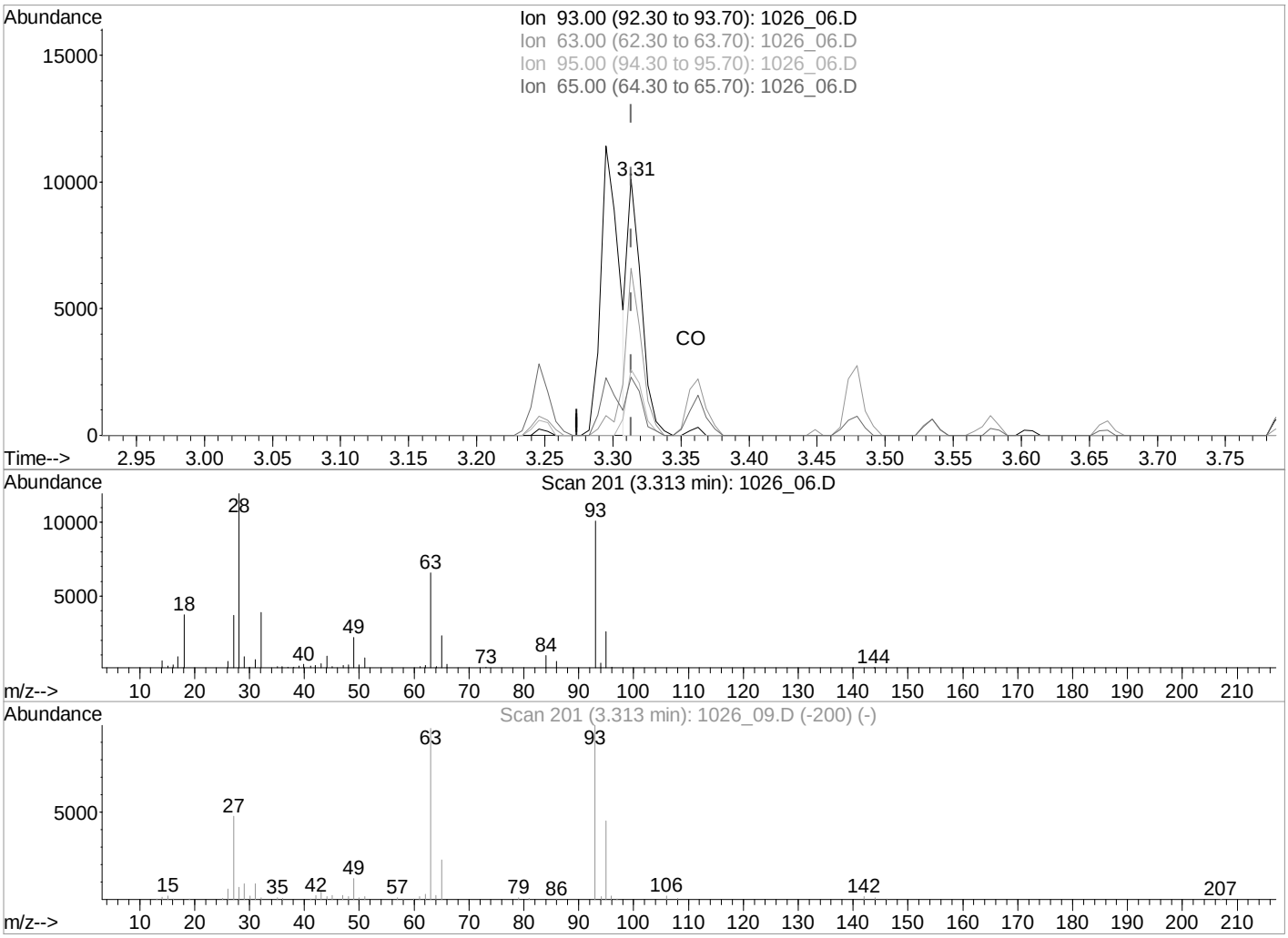
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	6.79#
95.00	28.70	0.00#
65.00	22.20	19.90

1026_06.D S804J26V.M Thu Oct 27 06:26:41 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 566.9066616 ppb m

response 7185

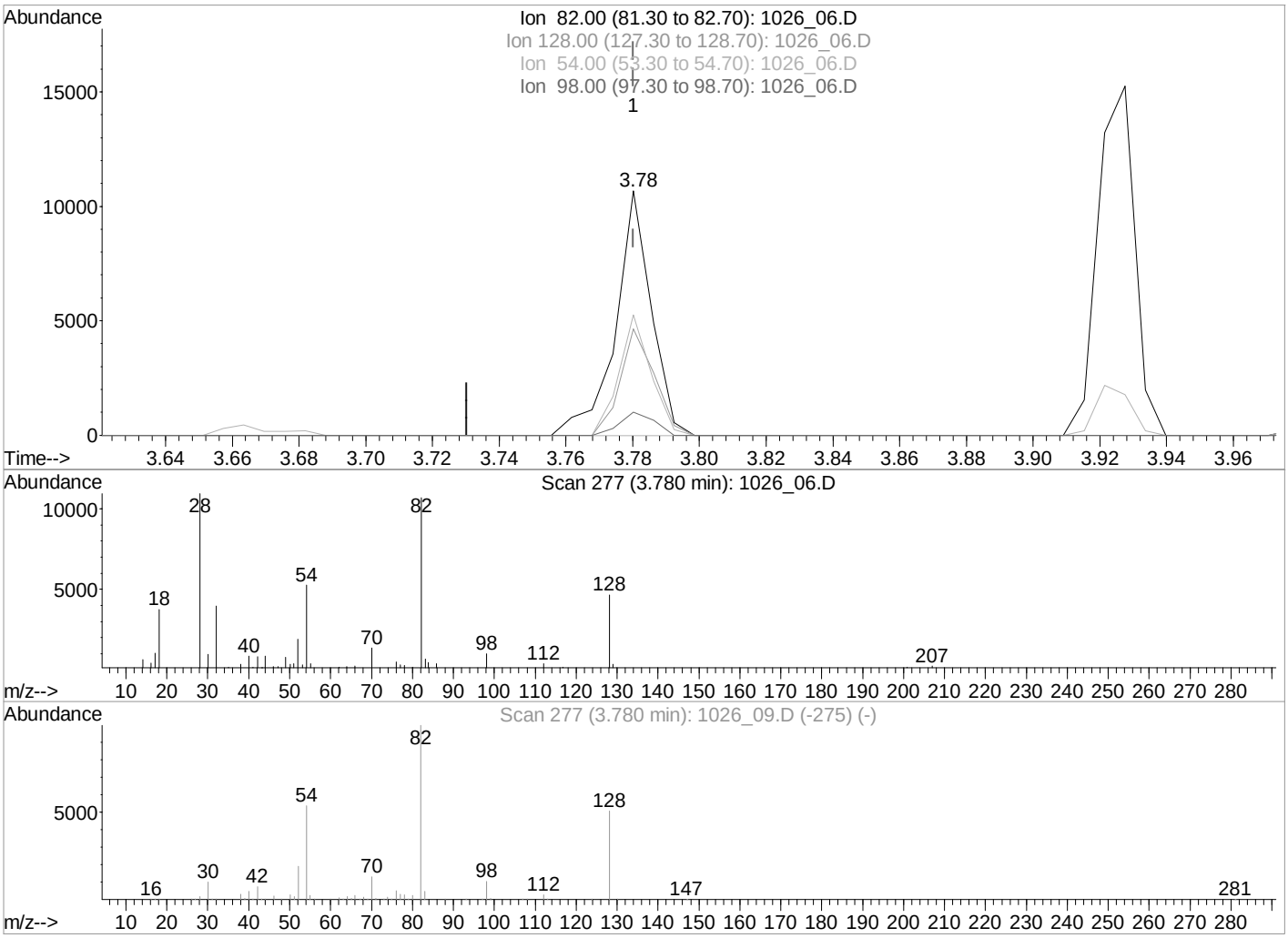
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.21
95.00	28.70	25.67
65.00	22.20	22.69

1026_06.D S804J26V.M Thu Oct 27 06:26:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 582.1745507 ppb

Qvalue = 98

response 7933

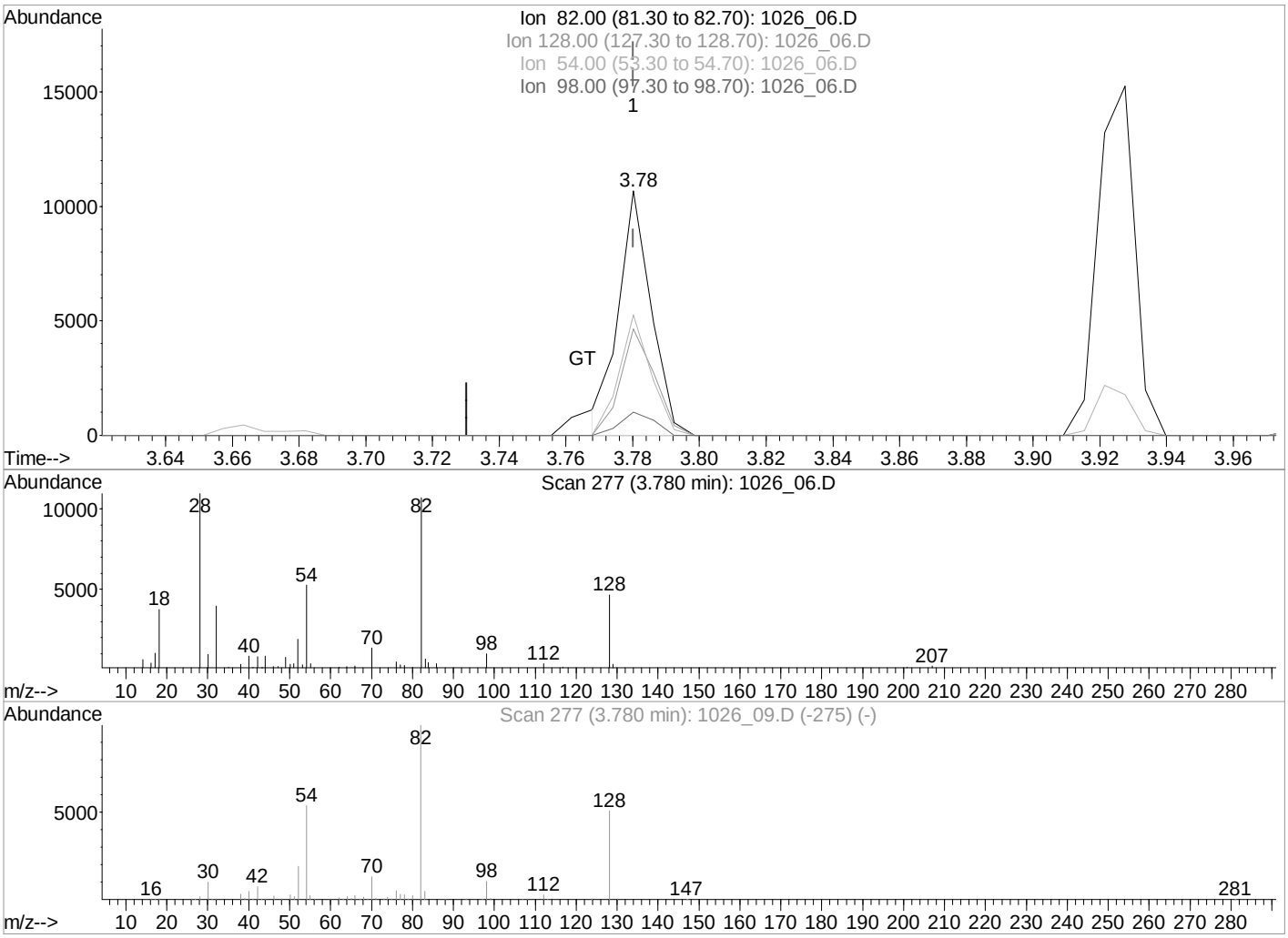
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.53
54.00	49.10	49.23
98.00	10.80	9.42

1026_06.D S804J26V.M Thu Oct 27 06:27:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 531.6846867 ppb m

response 7245

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.53
54.00	49.10	49.23
98.00	10.80	9.42

1026_06.D S804J26V.M Thu Oct 27 06:27:06 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	78102	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	304420	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	154171	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	294546	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	259969	8000.00	ppb		0.00
94) Perylene-d12	12.28	264	264035	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	12902	1056.1210620	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.28%				
7) Phenol-d5	3.24	99	15663	1004.6606163	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.02%				
24) Nitrobenzene-d5	3.78	82	12927m	965.3628984	ppb		0.00
Spiked Amount 10000.000			Recovery = 9.65%				
50) 2-Fluorobiphenyl	4.91	172	30333	1043.2793001	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.43%				
73) 2,4,6-Tribromophenol	5.98	330	3509	903.6068095	ppb		0.00
Spiked Amount 20000.000			Recovery = 4.52%				
87) p-Terphenyl-d14	7.99	244	36628	1005.5056422	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.06%				
Target Compounds							Qvalue
2) Pyridine	2.24	79	14258	1034.0044354	ppb		99
3) N-Nitrosodimethylamine	2.23	42	8781	1397.3219158	ppb	#	72
5) Aniline	3.30	66	7273	1068.4261398	ppb	#	40
6) bis(2-Chloroethyl)ether	3.31	93	13250m	1025.4633682	ppb		
8) Phenol	3.25	94	15970	1016.4797887	ppb		98
10) 2-Chlorophenol	3.36	128	13125	1059.6609810	ppb		94
11) n-Decane	3.36	41	8267	1067.7366074	ppb	#	97
12) 1,3-Dichlorobenzene	3.45	146	16206	1043.2307842	ppb		97
13) 1,4-Dichlorobenzene	3.49	146	16490	1053.4014774	ppb		92
14) Benzyl Alcohol	3.53	79	9933	1003.7081760	ppb		98
15) 1,2-Dichlorobenzene	3.57	146	15742	1086.5210803	ppb		99
16) bis(2-Chloroisopropyl)ethe	3.61	121	4797	1043.6959868	ppb		100
17) 2,2-oxybis(1-chloropropane	3.61	121	4797	1043.6959868	ppb		100
18) 2-Methylphenol	3.58	108	11870	1019.0702645	ppb		99
19) Hexachloroethane	3.77	117	5917	1049.3335726	ppb		97
20) N-Nitrosodi-n-propylamine	3.68	70	8405	956.7898032	ppb		92
21) 3&4-Methyl phenol	3.66	107	12843	984.5109482	ppb		97
25) Nitrobenzene	3.79	77	13458	1030.7500812	ppb		96
26) Isophorone	3.92	82	22928	997.4821594	ppb		95
27) 2-Nitrophenol	3.98	139	6109	967.4794970	ppb		97
28) 2,4-Dimethylphenol	3.98	107	12066	992.2881957	ppb		96
29) bis(2-Chlorethoxy)methane	4.04	93	15462	1058.1303469	ppb		97
30) 2,4-Dichlorophenol	4.11	162	9862	976.3991435	ppb		91
32) 1,2,4-Trichlorobenzene	4.17	180	12944	1038.2248909	ppb		99
34) Naphthalene	4.23	128	41019	1021.0566264	ppb		99
35) 4-Chloroaniline	4.25	65	4107	1019.3179927	ppb		94
36) Hexachloro-1,3-butadiene	4.30	225	7172	992.0909759	ppb		96
40) 4-Chloro-3-methylphenol	4.54	107	9237	969.8070051	ppb		97
41) 2-Methylnaphthalene	4.67	142	25788	1012.3469132	ppb		99
42) 1-Methylnaphthalene	4.74	142	24995	1024.4161252	ppb		98
47) Hexachlorocyclopentadiene	4.77	237	7872	1030.2877036	ppb		90
48) 2,4,6-Trichlorophenol	4.85	196	7049	1018.1371785	ppb		97
49) 2,4,5-Trichlorophenol	4.87	196	7090	986.1184512	ppb		93

(#) = qualifier out of range (m) = manual integration
1026_07.D S804J26V.M Thu Oct 27 11:34:03 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

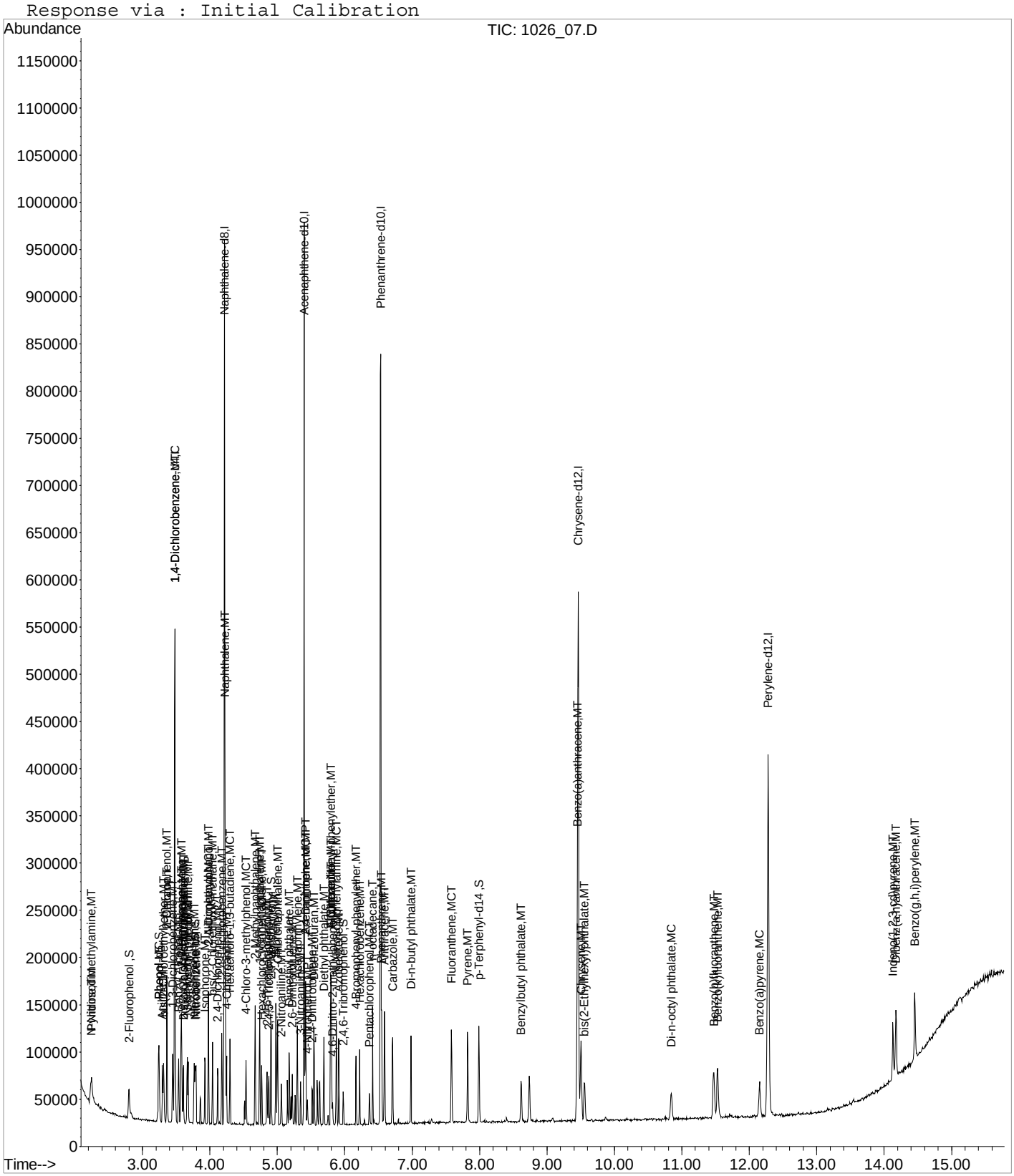
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	34038	1050.4199558	ppb		98
52)	2-Chloronaphthalene	5.00	162	24853	1047.1443033	ppb		98
53)	2-Nitroaniline	5.06	138	5781	902.9010014	ppb	#	94
54)	Acenaphthylene	5.30	152	34565	986.8683917	ppb		99
55)	Dimethyl phthalate	5.17	163	24101	993.9153214	ppb		94
56)	2,6-Dinitrotoluene	5.22	165	5152	979.5243992	ppb		98
57)	3-Nitroaniline	5.35	138	5262	969.9109649	ppb		93
58)	Acenaphthene	5.42	153	25070	1030.5555845	ppb		98
59)	2,4-Dinitrophenol	5.42	184	1482	539.0547479	ppb	#	1
60)	Dibenzofuran	5.54	168	34531	1028.0026767	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	6200	962.0192112	ppb		96
63)	4-Nitrophenol	5.44	139	3842	968.4242581	ppb		93
64)	Fluorene	5.80	166	27656	1016.0233959	ppb		97
65)	4-Chlorophenyl-phenylether	5.79	204	13492	1018.5365991	ppb		97
66)	Diethyl phthalate	5.69	149	23843	982.4544504	ppb		98
67)	4-Nitroaniline	5.79	138	4739	875.8312446	ppb		98
68)	Azobenzene	5.91	77	24841	1005.7415145	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	2555	833.8981937	ppb		96
72)	N-Nitrosodiphenylamine	5.87	169	22267	997.1761228	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	7653	996.8243478	ppb		98
75)	Hexachlorobenzene	6.22	284	10538	1057.0847825	ppb		94
76)	n-octadecane	6.42	55	3583	995.9890695	ppb	#	96
77)	Pentachlorophenol	6.37	266	3689	861.2407443	ppb		96
78)	Phenanthrene	6.55	178	43705	1057.3348228	ppb		99
79)	Anthracene	6.59	178	39121	1006.9395305	ppb		98
80)	Carbazole	6.71	167	33536	992.8643805	ppb		99
81)	Di-n-butyl phthalate	6.98	149	34902	962.1384075	ppb		98
83)	Fluoranthene	7.58	202	40598	1015.6938438	ppb		98
86)	Pyrene	7.82	202	42273	1032.6793809	ppb		97
88)	Benzylbutyl phthalate	8.61	149	11671	890.9751660	ppb		93
90)	Benzo(a)anthracene	9.44	228	37199	1016.5170142	ppb		97
91)	Chrysene	9.50	228	41849	1075.8901225	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	15477	873.5021126	ppb		94
93)	Di-n-octyl phthalate	10.84	149	22286	842.0712962	ppb		100
95)	Benzo(b)fluoranthene	11.47	252	36177	983.7246839	ppb		97
96)	Benzo(k)fluoranthene	11.53	252	39774	1025.3948170	ppb		97
97)	Benzo(a)pyrene	12.15	252	28576	962.5446723	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	31554	974.4162844	ppb		97
99)	Dibenz(a,h)anthracene	14.17	278	37501	1020.1273815	ppb		95
100)	Benzo(g,h,i)perylene	14.46	276	38537	1005.7936380	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

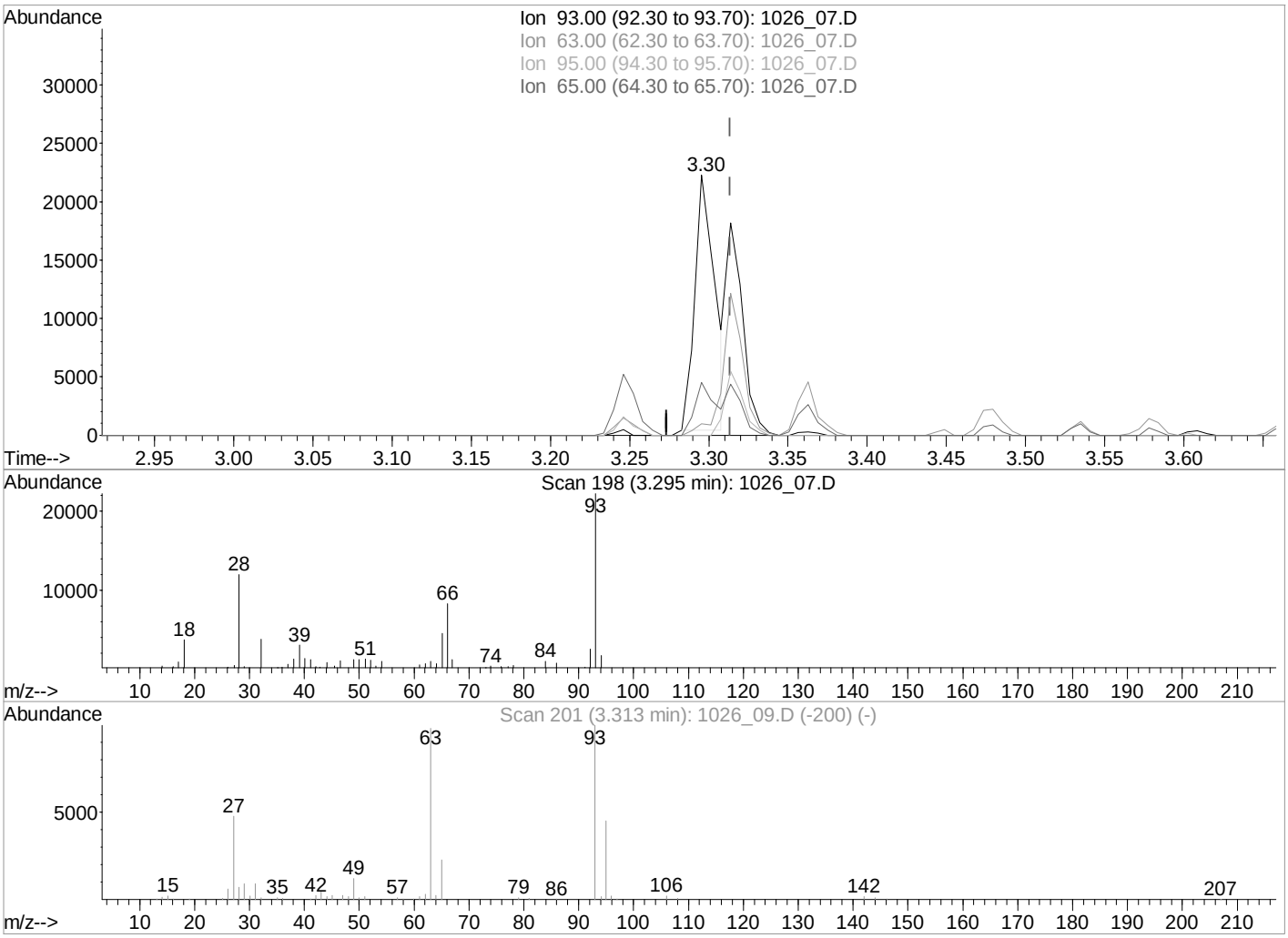


1026_07.D S804J26V.M Thu Oct 27 11:34:03 2022 Page 3

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 1498.3374195 ppb

Qvalue = 42

response 19360

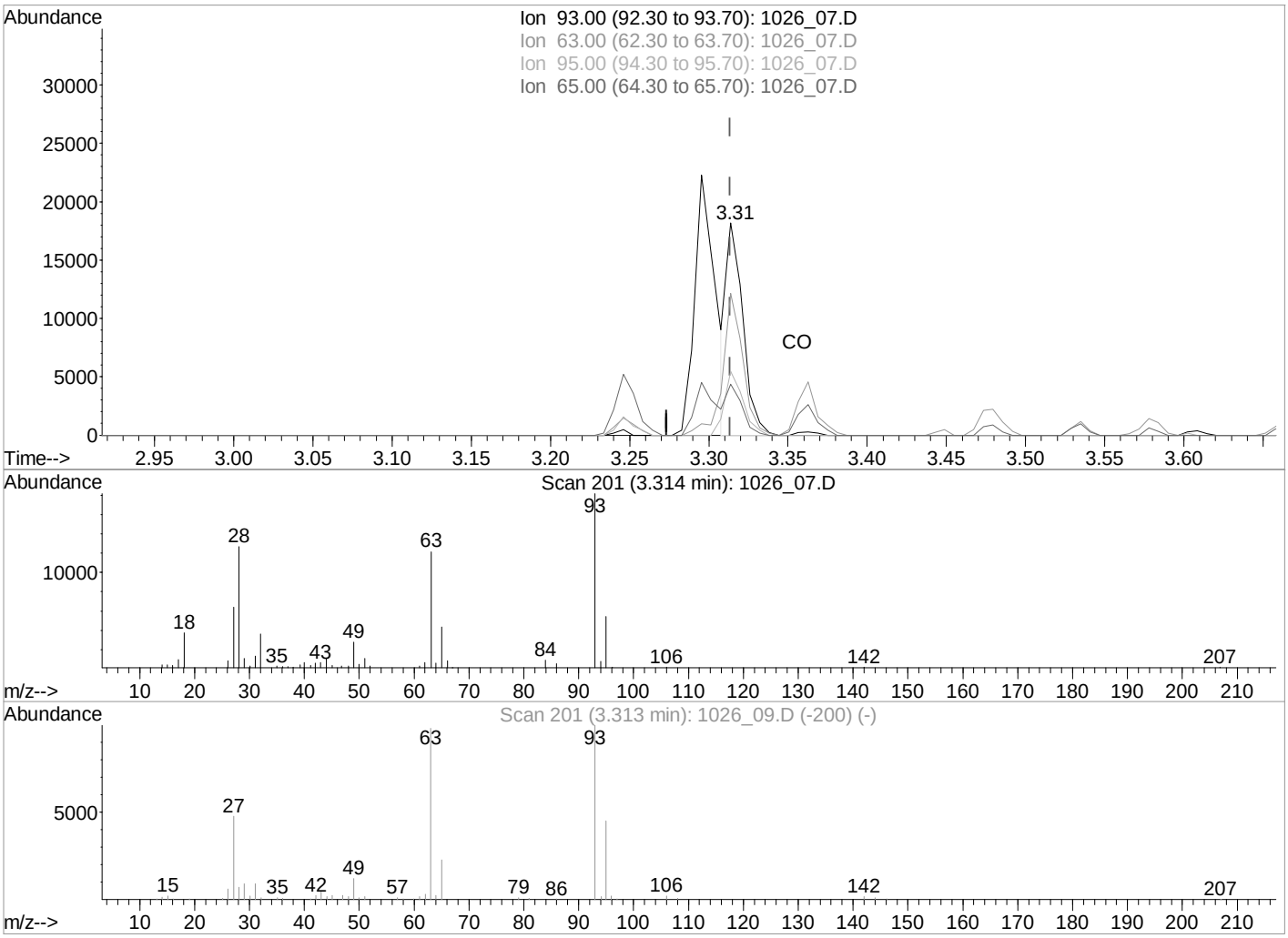
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.54#
95.00	28.70	0.00#
65.00	22.20	20.58

1026_07.D S804J26V.M Thu Oct 27 06:28:43 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 1025.4633682 ppb m

response 13250

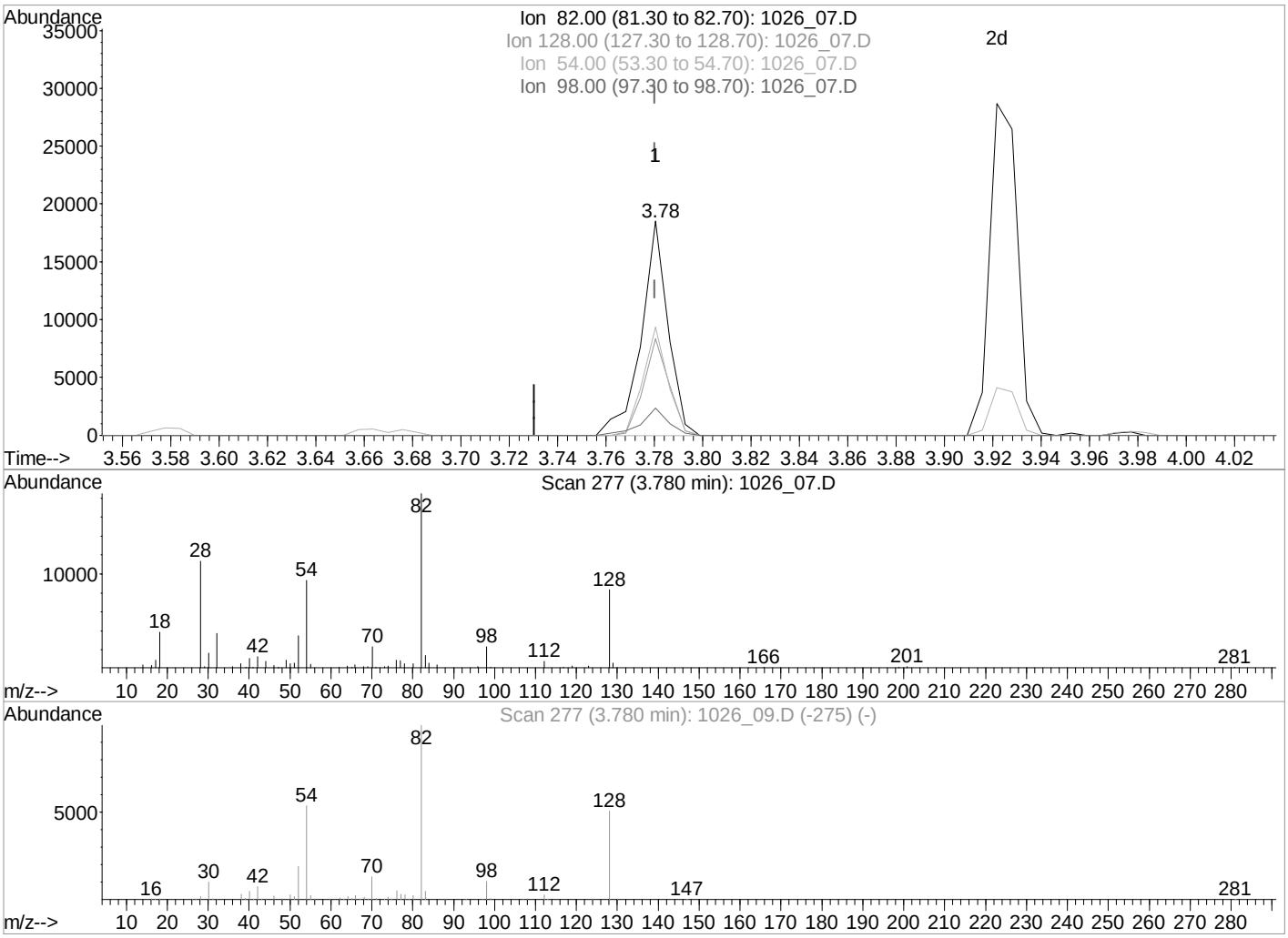
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	66.85
95.00	28.70	29.95
65.00	22.20	23.97

1026_07.D S804J26V.M Thu Oct 27 06:28:48 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 1060.2039970 ppb

Qvalue = 98

response 14197

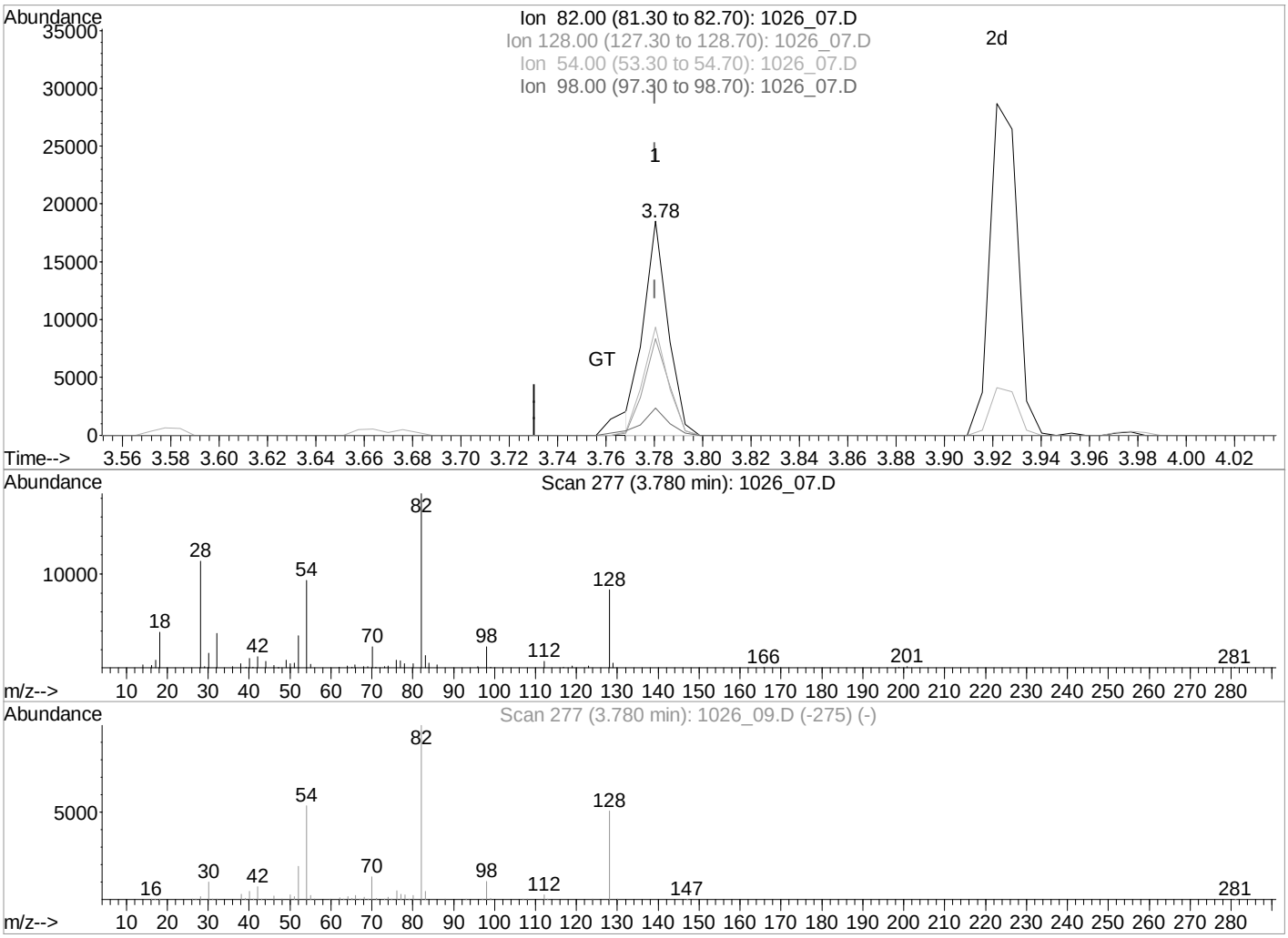
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.14
54.00	49.10	50.41
98.00	10.80	12.64

1026_07.D S804J26V.M Thu Oct 27 06:28:59 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 965.3628984 ppb m

response 12927

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.14
54.00	49.10	50.41
98.00	10.80	12.64

1026_07.D S804J26V.M Thu Oct 27 06:29:03 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	89979	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	313905	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	158211	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	304175	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	275578	8000.00	ppb		0.00
94) Perylene-d12	12.27	264	280512	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	44517	3104.9474157	ppb		0.00
Spiked Amount 20000.000			Recovery = 15.52%				
7) Phenol-d5	3.24	99	60237	3348.5330328	ppb		0.00
Spiked Amount 20000.000			Recovery = 16.74%				
24) Nitrobenzene-d5	3.78	82	46940m	3439.1751459	ppb		0.00
Spiked Amount 10000.000			Recovery = 34.39%				
50) 2-Fluorobiphenyl	4.91	172	101410	3350.5142137	ppb		0.00
Spiked Amount 10000.000			Recovery = 33.51%				
73) 2,4,6-Tribromophenol	5.98	330	13989	3604.0919137	ppb		0.00
Spiked Amount 20000.000			Recovery = 18.02%				
87) p-Terphenyl-d14	7.99	244	129712	3352.9894647	ppb		0.00
Spiked Amount 10000.000			Recovery = 33.53%				
Target Compounds							Qvalue
2) Pyridine	2.24	79	48306	3006.7055878	ppb		96
3) N-Nitrosodimethylamine	2.23	42	22459	2739.3558729	ppb		99
5) Aniline	3.30	66	26382	3289.0100999	ppb		96
6) bis(2-Chloroethyl)ether	3.31	93	49001m	3264.0707571	ppb		
8) Phenol	3.25	94	61901	3401.2090389	ppb		99
10) 2-Chlorophenol	3.36	128	51813	3560.2074890	ppb		98
11) n-Decane	3.36	41	29804	3267.4949782	ppb	#	99
12) 1,3-Dichlorobenzene	3.45	146	60929	3356.1083163	ppb		99
13) 1,4-Dichlorobenzene	3.49	146	54335	2960.1333454	ppb		98
14) Benzyl Alcohol	3.53	79	35081	3073.1481843	ppb		99
15) 1,2-Dichlorobenzene	3.57	146	51621	3005.9216913	ppb		99
16) bis(2-Chloroisopropyl)ethe	3.61	121	16215	3018.2987517	ppb		99
17) 2,2-oxybis(1-chloropropane	3.61	121	16215	3018.2987517	ppb		99
18) 2-Methylphenol	3.58	108	40523	3000.7100104	ppb		99
19) Hexachloroethane	3.77	117	19685	2981.1561893	ppb		96
20) N-Nitrosodi-n-propylamine	3.68	70	30739	3081.6999500	ppb		88
21) 3&4-Methyl phenol	3.66	107	46670	3121.4827534	ppb		97
25) Nitrobenzene	3.79	77	46400	3411.4335149	ppb		97
26) Isophorone	3.93	82	81611	3446.0951074	ppb		99
27) 2-Nitrophenol	3.98	139	22626	3513.0789008	ppb		97
28) 2,4-Dimethylphenol	3.98	107	42763	3419.2861945	ppb		98
29) bis(2-Chlorethoxy)methane	4.04	93	53343	3472.8909643	ppb		100
30) 2,4-Dichlorophenol	4.11	162	35892	3473.4822407	ppb		88
32) 1,2,4-Trichlorobenzene	4.17	180	43829	3366.3617217	ppb		99
34) Naphthalene	4.23	128	137588	3298.2430394	ppb		99
35) 4-Chloroaniline	4.25	65	14534	3475.8217079	ppb		98
36) Hexachloro-1,3-butadiene	4.30	225	25083	3373.7438447	ppb		97
40) 4-Chloro-3-methylphenol	4.54	107	32016	3292.9824801	ppb		99
41) 2-Methylnaphthalene	4.67	142	90453	3429.4612056	ppb		98
42) 1-Methylnaphthalene	4.74	142	86009	3390.9533979	ppb		99
47) Hexachlorocyclopentadiene	4.77	237	26633	3362.7681486	ppb		99
48) 2,4,6-Trichlorophenol	4.85	196	25480	3564.7288664	ppb		96
49) 2,4,5-Trichlorophenol	4.87	196	25593	3484.8515618	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

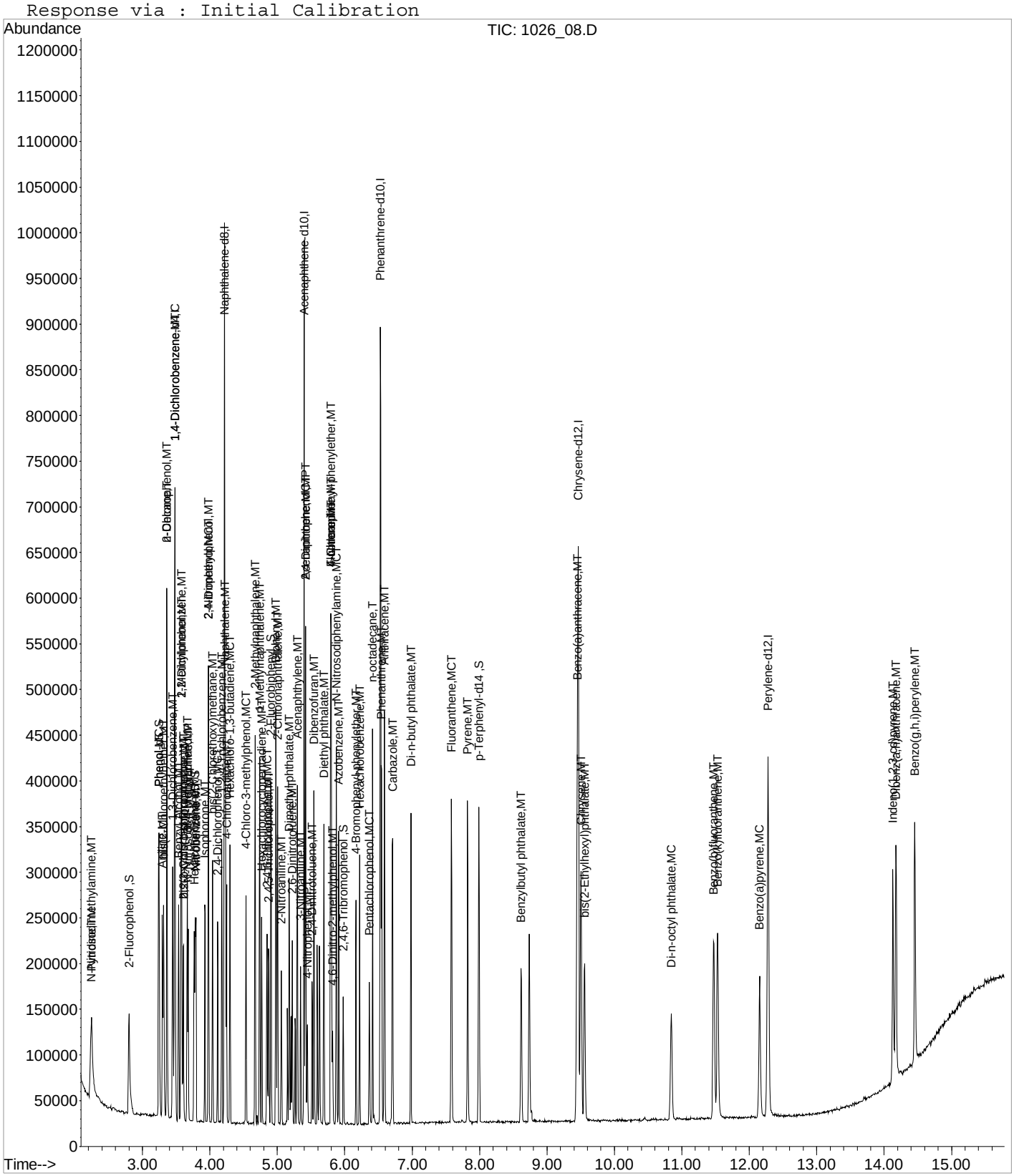
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	111435	3295.7038733	ppb		98
52)	2-Chloronaphthalene	5.00	162	82450	3332.8258536	ppb		99
53)	2-Nitroaniline	5.06	138	22813	3588.1832053	ppb		98
54)	Acenaphthylene	5.30	152	121276	3388.9777994	ppb		99
55)	Dimethyl phthalate	5.17	163	85579	3446.1111884	ppb		97
56)	2,6-Dinitrotoluene	5.22	165	19588	3654.0107586	ppb		99
57)	3-Nitroaniline	5.35	138	20331	3688.7872187	ppb		88
58)	Acenaphthene	5.42	153	83754	3321.1436398	ppb		98
59)	2,4-Dinitrophenol	5.42	184	7827	3605.1384368	ppb	#	62
60)	Dibenzofuran	5.54	168	115808	3328.5467817	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	24051	3683.1939722	ppb		97
63)	4-Nitrophenol	5.44	139	16489	4093.2089358	ppb		86
64)	Fluorene	5.80	166	95021	3383.6583141	ppb		98
65)	4-Chlorophenyl-phenylether	5.79	204	45485	3325.5181942	ppb		84
66)	Diethyl phthalate	5.69	149	85252	3443.2578849	ppb		98
67)	4-Nitroaniline	5.79	138	20740	3896.4252435	ppb		99
68)	Azobenzene	5.91	77	90490	3563.3093652	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	11845	3962.9976666	ppb		93
72)	N-Nitrosodiphenylamine	5.87	169	79059	3431.6270431	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	26606	3359.3564629	ppb		96
75)	Hexachlorobenzene	6.22	284	34658	3303.6840614	ppb		98
76)	n-octadecane	6.42	55	13216	3562.2011279	ppb		98
77)	Pentachlorophenol	6.37	266	15501	3674.2786998	ppb		98
78)	Phenanthrene	6.55	178	144189	3314.5258115	ppb		99
79)	Anthracene	6.59	178	140728	3499.4527302	ppb		98
80)	Carbazole	6.71	167	121255	3484.5135301	ppb		100
81)	Di-n-butyl phthalate	6.98	149	132502	3582.2442229	ppb		99
83)	Fluoranthene	7.58	202	143182	3450.7239906	ppb		100
86)	Pyrene	7.82	202	149162	3400.4188096	ppb		99
88)	Benzylbutyl phthalate	8.61	149	46840	3500.4858780	ppb		92
90)	Benzo(a)anthracene	9.44	228	131094	3360.9240408	ppb		99
91)	Chrysene	9.50	228	143109	3385.1447152	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.56	149	66334	3687.2290536	ppb		98
93)	Di-n-octyl phthalate	10.84	149	92852	3493.5849359	ppb		99
95)	Benzo(b)fluoranthene	11.48	252	135705	3492.2830119	ppb		98
96)	Benzo(k)fluoranthene	11.53	252	147440	3547.7778850	ppb		98
97)	Benzo(a)pyrene	12.15	252	112400	3608.7115600	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	122872	3602.2396264	ppb		99
99)	Dibenz(a,h)anthracene	14.17	278	135076	3435.5462275	ppb		98
100)	Benzo(g,h,i)perylene	14.46	276	142075	3483.5399470	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

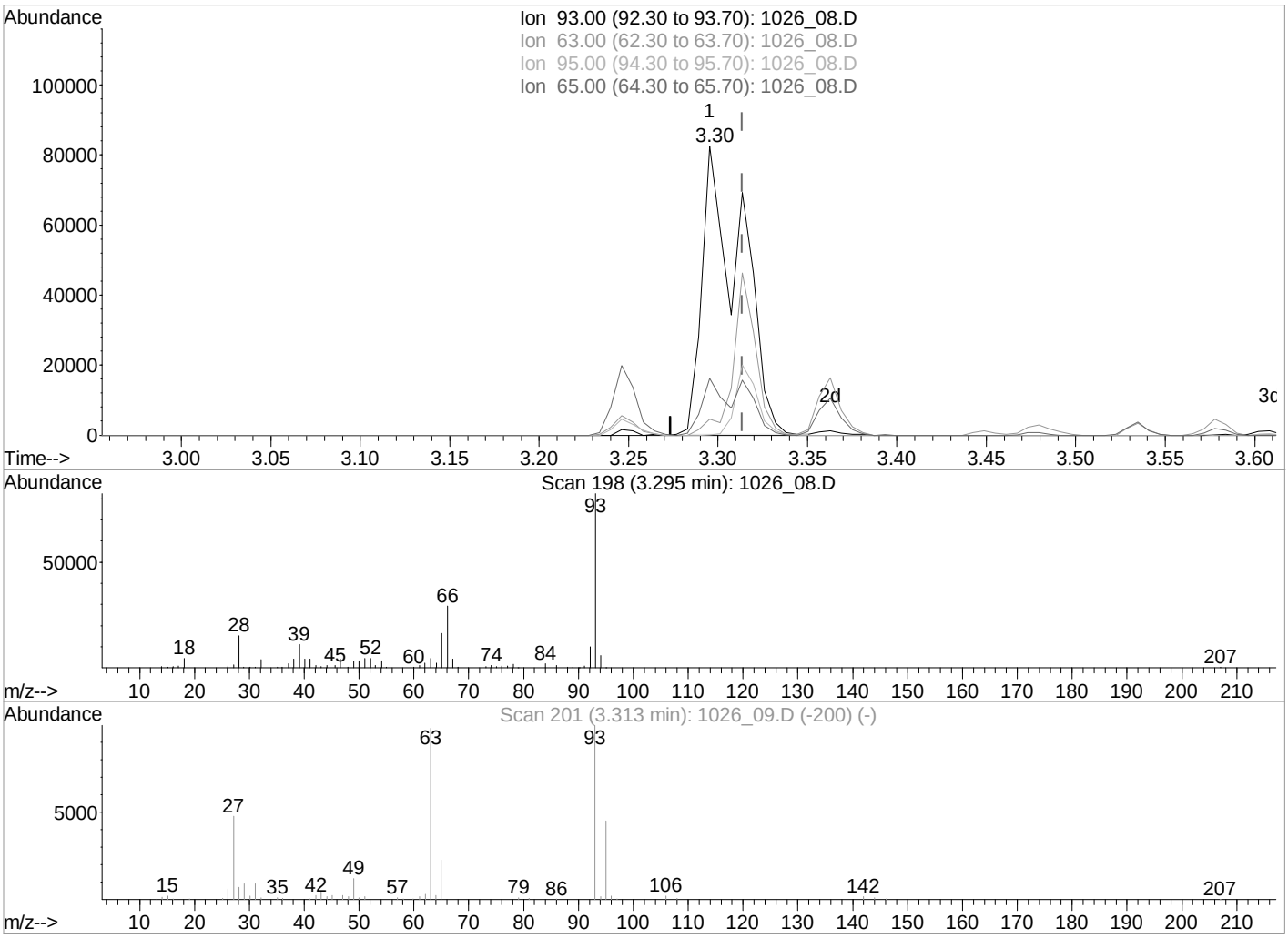
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration



TIC: 1026_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 8181.5927567 ppb

Qvalue = 42

response 122824

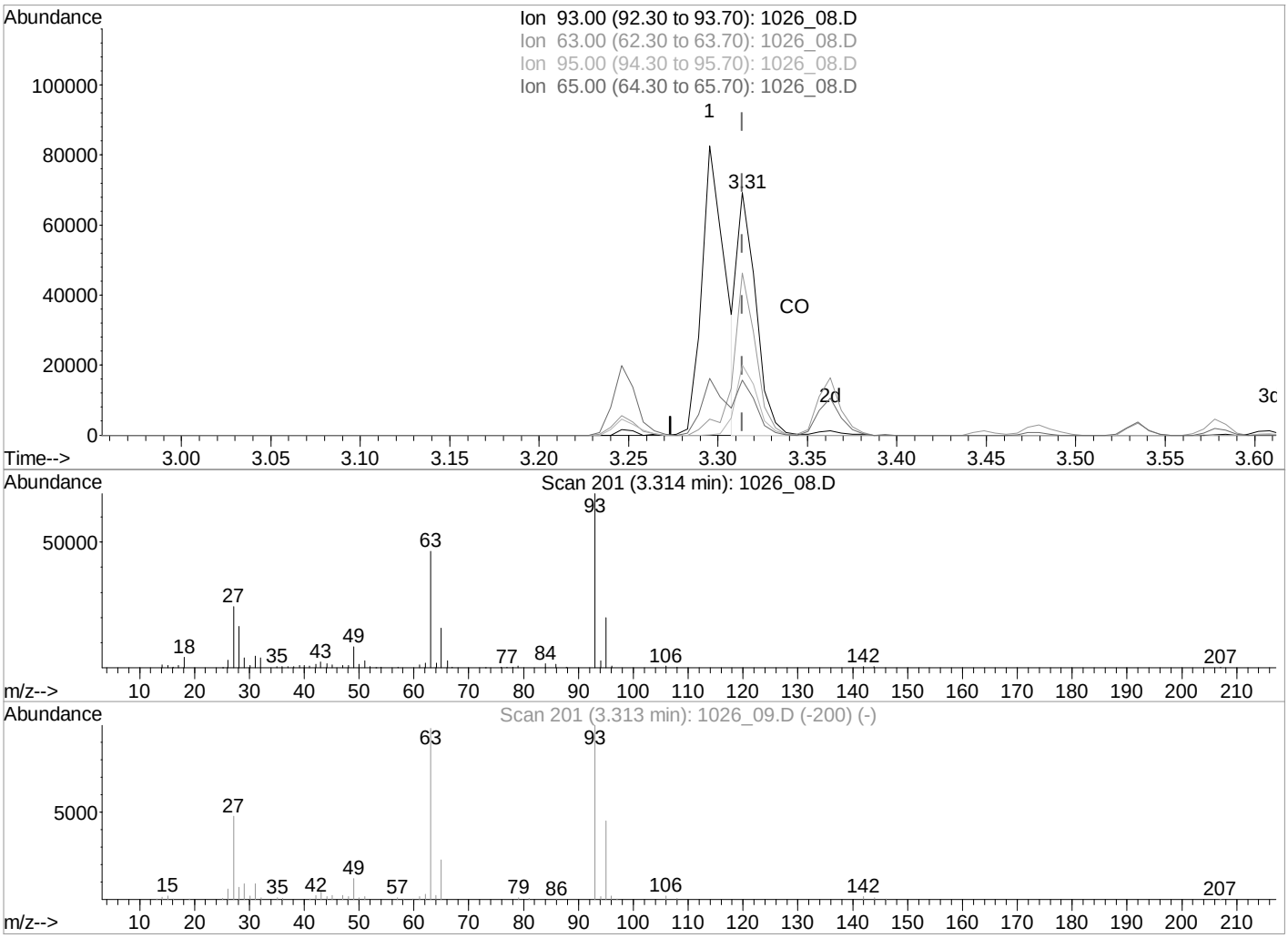
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.55#
95.00	28.70	0.20#
65.00	22.20	19.09

1026_08.D S804J26V.M Thu Oct 27 06:30:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration



TIC: 1026_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 3264.0707571 ppb m

response 49001

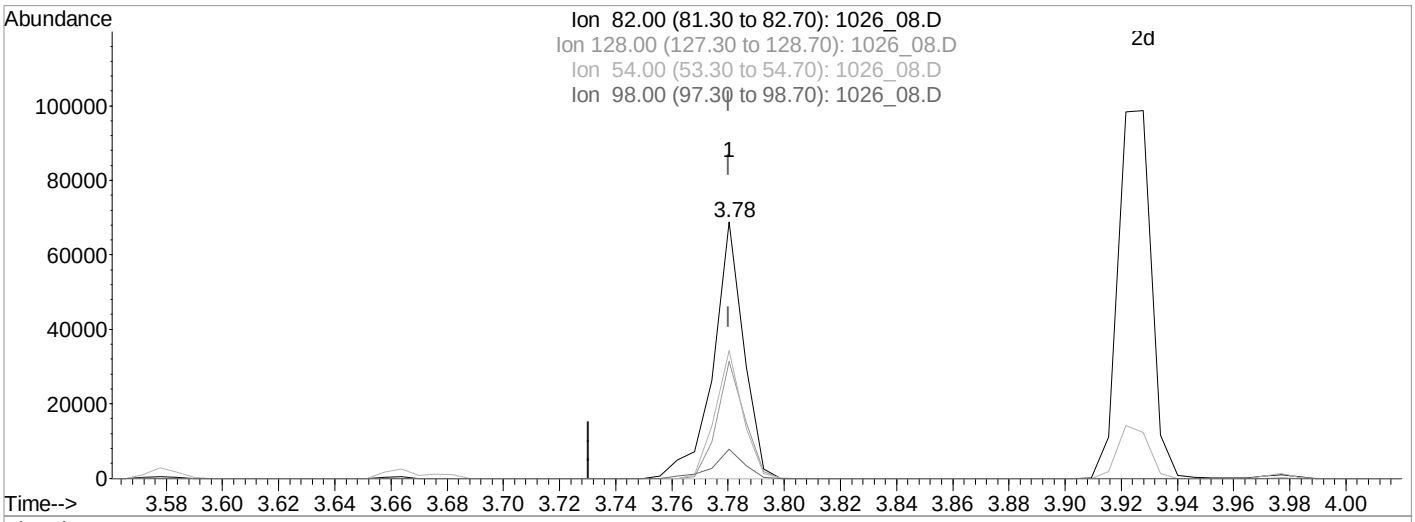
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	66.77
95.00	28.70	28.94
65.00	22.20	22.80

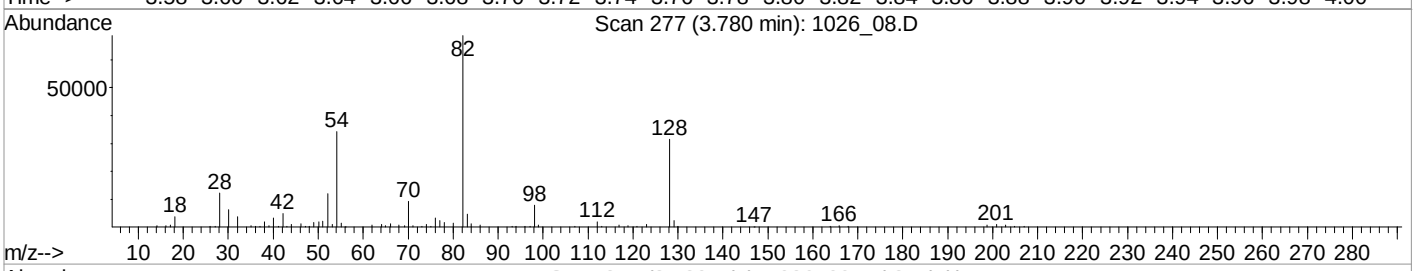
1026_08.D S804J26V.M Thu Oct 27 06:30:34 2022

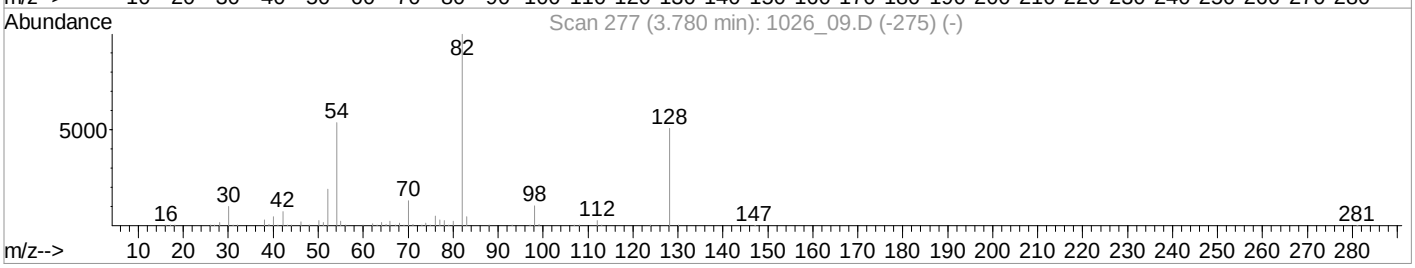
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration







TIC: 1026_08.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 3781.9936484 ppb

Qvalue = 99

response 51619

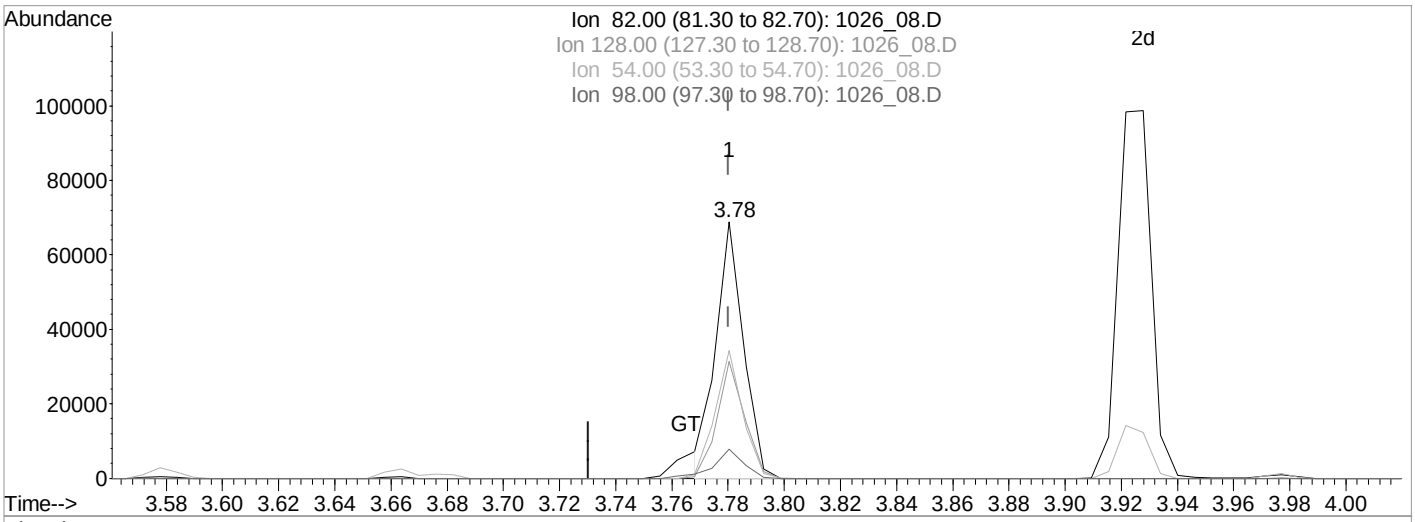
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.68
54.00	49.10	49.76
98.00	10.80	11.40

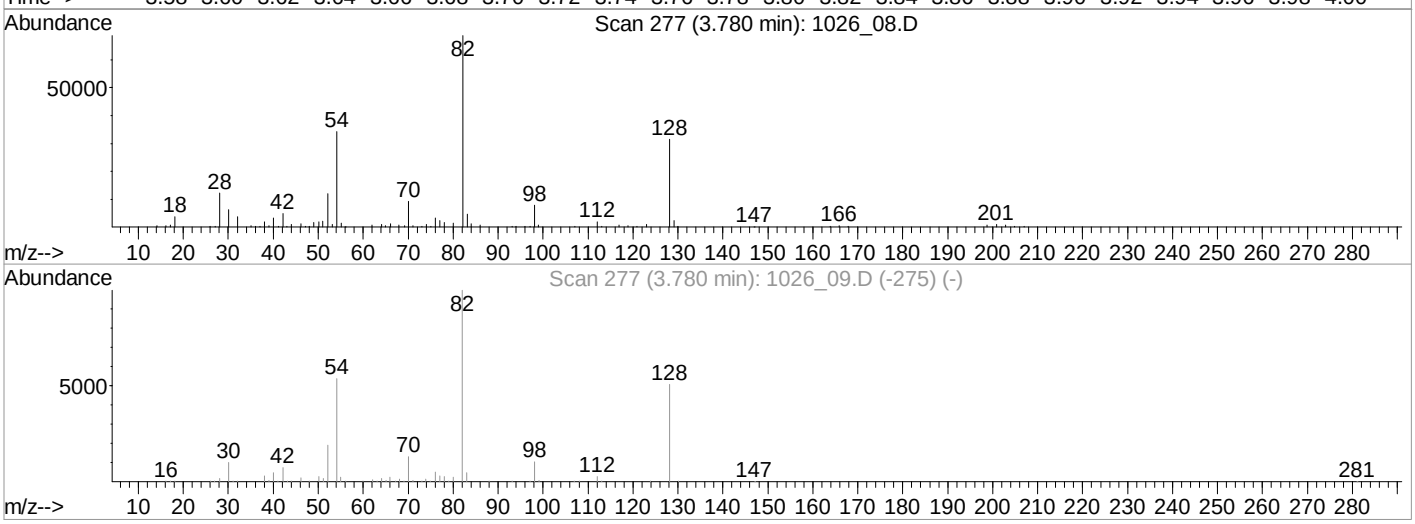
1026_08.D S804J26V.M Thu Oct 27 06:30:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration





TIC: 1026_08.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 3439.1751459 ppb m

response 46940

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.68
54.00	49.10	49.76
98.00	10.80	11.40

1026_08.D S804J26V.M Thu Oct 27 06:30:48 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79435	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	313026	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	158368	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	305894	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	288131	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	289945	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	118988	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
7) Phenol-d5	3.24	99	153856	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
24) Nitrobenzene-d5	3.78	82	133465m	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
50) 2-Fluorobiphenyl	4.91	172	284586	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
73) 2,4,6-Tribromophenol	5.98	330	43388	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
87) p-Terphenyl-d14	7.99	244	383154	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
Target Compounds						Qvalue
2) Pyridine	2.24	79	132708	10000.0000000	ppb	100
3) N-Nitrosodimethylamine	2.23	42	61392	10000.0000000	ppb	100
5) Aniline	3.30	66	68144	10000.0000000	ppb	100
6) bis(2-Chloroethyl)ether	3.31	93	123174m	10023.5179233	ppb	
8) Phenol	3.25	94	156040	10000.0000000	ppb	100
10) 2-Chlorophenol	3.36	128	128503	10000.0000000	ppb	100
11) n-Decane	3.36	41	72009	10000.0000000	ppb	100
12) 1,3-Dichlorobenzene	3.45	146	148637	10000.0000000	ppb	100
13) 1,4-Dichlorobenzene	3.49	146	149107	10000.0000000	ppb	100
14) Benzyl Alcohol	3.53	79	99356	10000.0000000	ppb	100
15) 1,2-Dichlorobenzene	3.57	146	141491	10000.0000000	ppb	100
16) bis(2-Chloroisopropyl)ethe	3.61	121	45735	10000.0000000	ppb	100
17) 2,2-oxybis(1-chloropropane	3.61	121	45735	10000.0000000	ppb	100
18) 2-Methylphenol	3.58	108	116345	10000.0000000	ppb	100
19) Hexachloroethane	3.77	117	53921	10000.0000000	ppb	100
20) N-Nitrosodi-n-propylamine	3.68	70	89629	10000.0000000	ppb	100
21) 3&4-Methyl phenol	3.66	107	130557	10000.0000000	ppb	100
25) Nitrobenzene	3.79	77	133779	10000.0000000	ppb	100
26) Isophorone	3.93	82	241759	10000.0000000	ppb	100
27) 2-Nitrophenol	3.98	139	66702	10000.0000000	ppb	100
28) 2,4-Dimethylphenol	3.98	107	123976	10000.0000000	ppb	100
29) bis(2-Chlorethoxy)methane	4.04	93	146661	10000.0000000	ppb	100
30) 2,4-Dichlorophenol	4.12	162	103583	10000.0000000	ppb	100
32) 1,2,4-Trichlorobenzene	4.17	180	120920	10000.0000000	ppb	100
34) Naphthalene	4.23	128	388635	10000.0000000	ppb	100
35) 4-Chloroaniline	4.25	65	41744	10000.0000000	ppb	100
36) Hexachloro-1,3-butadiene	4.30	225	69159	10000.0000000	ppb	100
40) 4-Chloro-3-methylphenol	4.54	107	97814	10000.0000000	ppb	100
41) 2-Methylnaphthalene	4.67	142	254719	10000.0000000	ppb	100
42) 1-Methylnaphthalene	4.74	142	241031	10000.0000000	ppb	100
47) Hexachlorocyclopentadiene	4.77	237	78414	10000.0000000	ppb	100
48) 2,4,6-Trichlorophenol	4.85	196	74684	10000.0000000	ppb	100
49) 2,4,5-Trichlorophenol	4.87	196	78172	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration
1026_09.D S804J26V.M Thu Oct 27 11:34:24 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

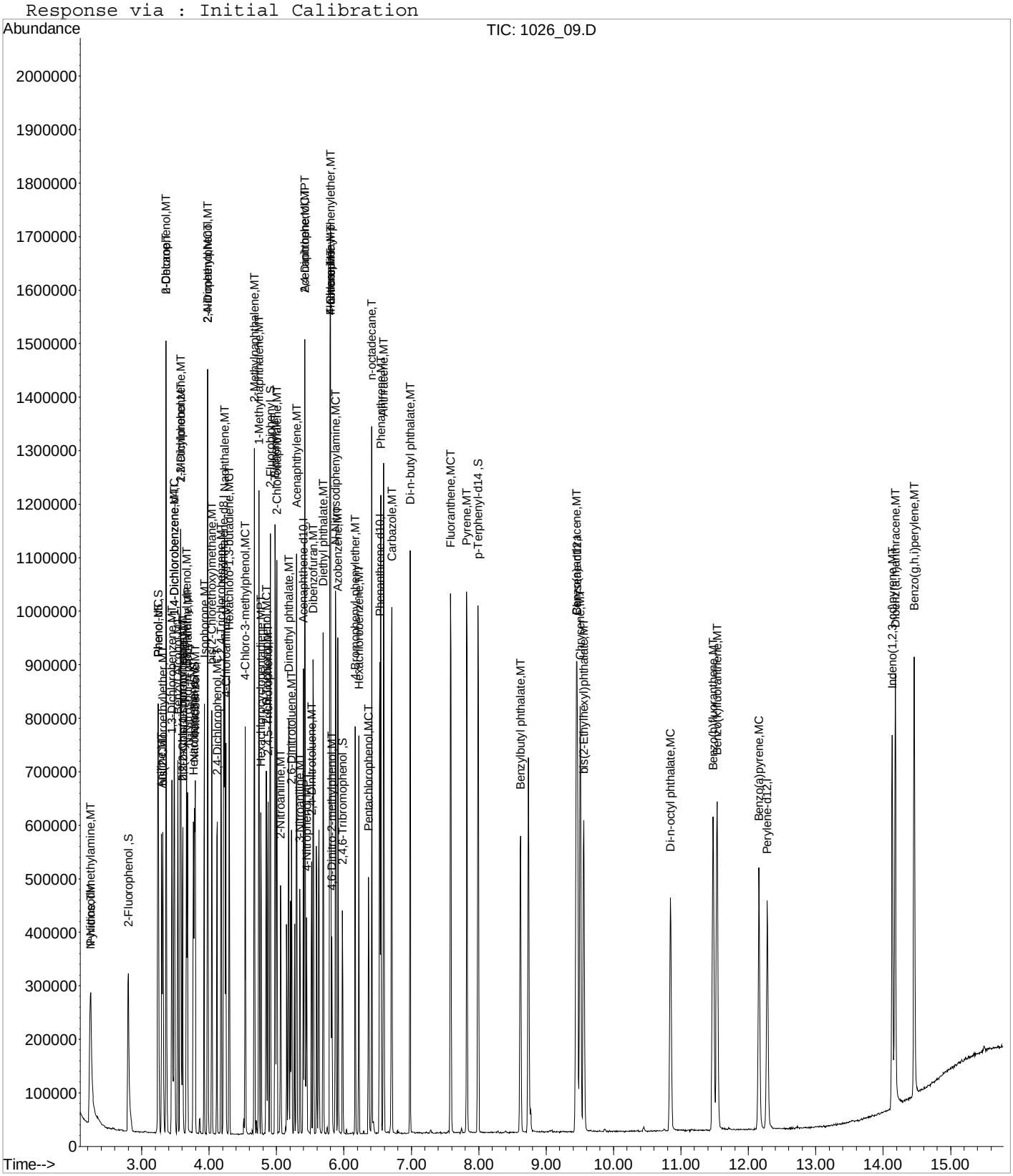
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	Biphenyl	4.98	154	316972	10000.0000000	ppb	100
52)	2-Chloronaphthalene	5.00	162	236172	10000.0000000	ppb	100
53)	2-Nitroaniline	5.06	138	70922	10000.0000000	ppb	100
54)	Acenaphthylene	5.30	152	355684	10000.0000000	ppb	100
55)	Dimethyl phthalate	5.18	163	243578	10000.0000000	ppb	100
56)	2,6-Dinitrotoluene	5.22	165	58738	10000.0000000	ppb	100
57)	3-Nitroaniline	5.35	138	60292	10000.0000000	ppb	100
58)	Acenaphthene	5.42	153	234278	10000.0000000	ppb	100
59)	2,4-Dinitrophenol	5.42	184	28241	10000.0000000	ppb	100
60)	Dibenzofuran	5.54	168	323795	10000.0000000	ppb	100
61)	2,4-Dinitrotoluene	5.52	165	74675	10000.0000000	ppb	100
63)	4-Nitrophenol	5.44	139	49261m	10000.0000000	ppb	
64)	Fluorene	5.80	166	272790	10000.0000000	ppb	100
65)	4-Chlorophenyl-phenylether	5.79	204	129979	10000.0000000	ppb	100
66)	Diethyl phthalate	5.69	149	255273	10000.0000000	ppb	100
67)	4-Nitroaniline	5.80	138	60252	10000.0000000	ppb	100
68)	Azobenzene	5.91	77	263270	10000.0000000	ppb	100
71)	4,6-Dinitro-2-methylphenol	5.82	198	40596	10000.0000000	ppb	100
72)	N-Nitrosodiphenylamine	5.87	169	231780	10000.0000000	ppb	100
74)	4-Bromophenyl-phenylether	6.17	248	77995	10000.0000000	ppb	100
75)	Hexachlorobenzene	6.22	284	96999	10000.0000000	ppb	100
76)	n-octadecane	6.42	55	38414	10000.0000000	ppb	100
77)	Pentachlorophenol	6.37	266	51441	10000.0000000	ppb	100
78)	Phenanthrene	6.55	178	405989	10000.0000000	ppb	100
79)	Anthracene	6.59	178	410918	10000.0000000	ppb	100
80)	Carbazole	6.71	167	360679	10000.0000000	ppb	100
81)	Di-n-butyl phthalate	6.98	149	411451	10000.0000000	ppb	100
83)	Fluoranthene	7.58	202	420451	10000.0000000	ppb	100
86)	Pyrene	7.82	202	441805	10000.0000000	ppb	100
88)	Benzylbutyl phthalate	8.62	149	156642	10000.0000000	ppb	100
90)	Benzo(a)anthracene	9.45	228	395263	10000.0000000	ppb	100
91)	Chrysene	9.50	228	409597	10000.0000000	ppb	100
92)	bis(2-Ethylhexyl)phthalate	9.56	149	225073	10000.0000000	ppb	100
93)	Di-n-octyl phthalate	10.84	149	338315	10000.0000000	ppb	100
95)	Benzo(b)fluoranthene	11.48	252	411310	10000.0000000	ppb	100
96)	Benzo(k)fluoranthene	11.54	252	428361	10000.0000000	ppb	100
97)	Benzo(a)pyrene	12.16	252	351911	10000.0000000	ppb	100
98)	Indeno(1,2,3-cd)pyrene	14.14	276	375184	10000.0000000	ppb	100
99)	Dibenz(a,h)anthracene	14.18	278	414295	10000.0000000	ppb	100
100)	Benzo(g,h,i)perylene	14.46	276	418976	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

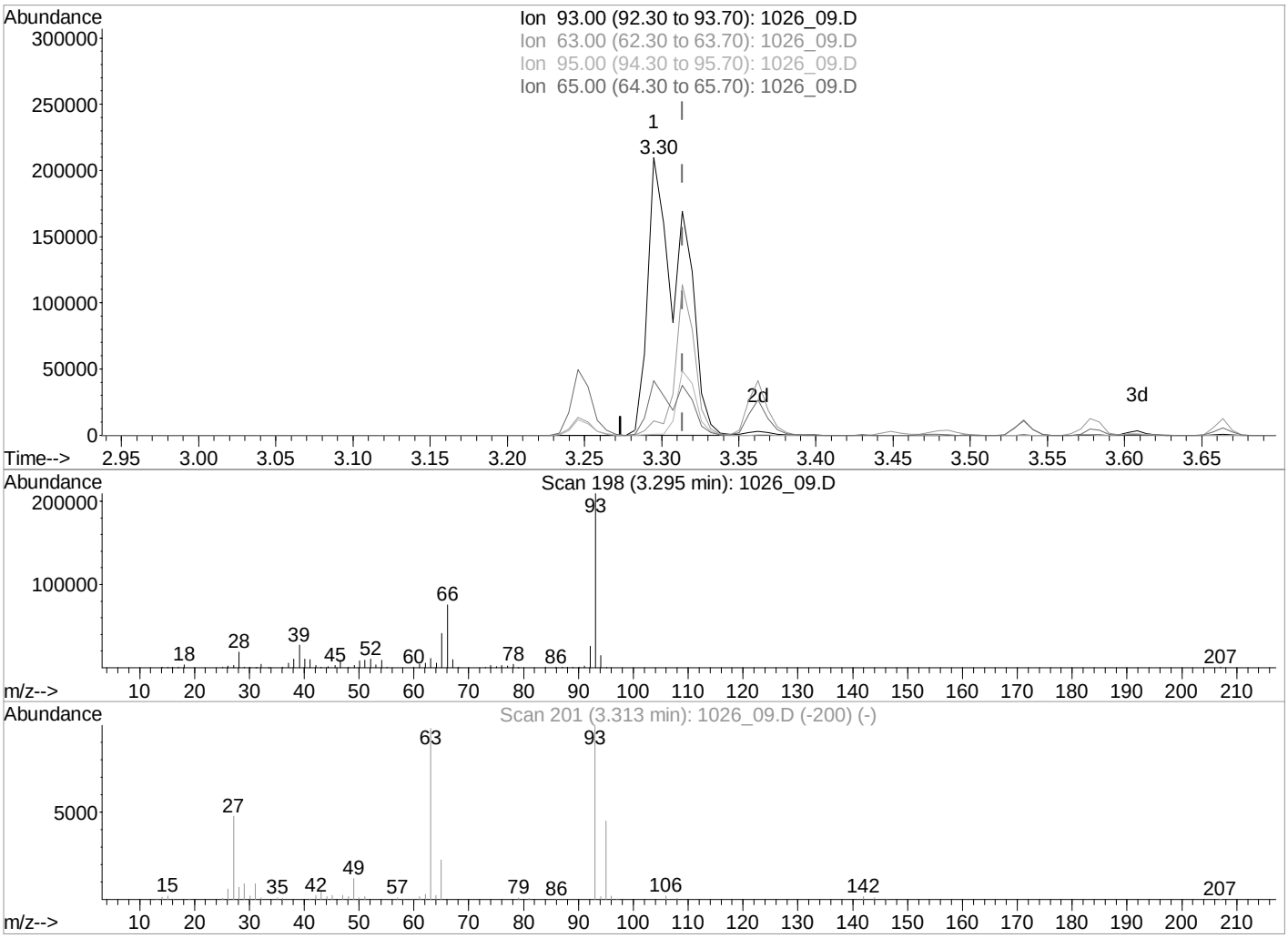
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 25294.2181715 ppb

Qvalue = 42

response 310828

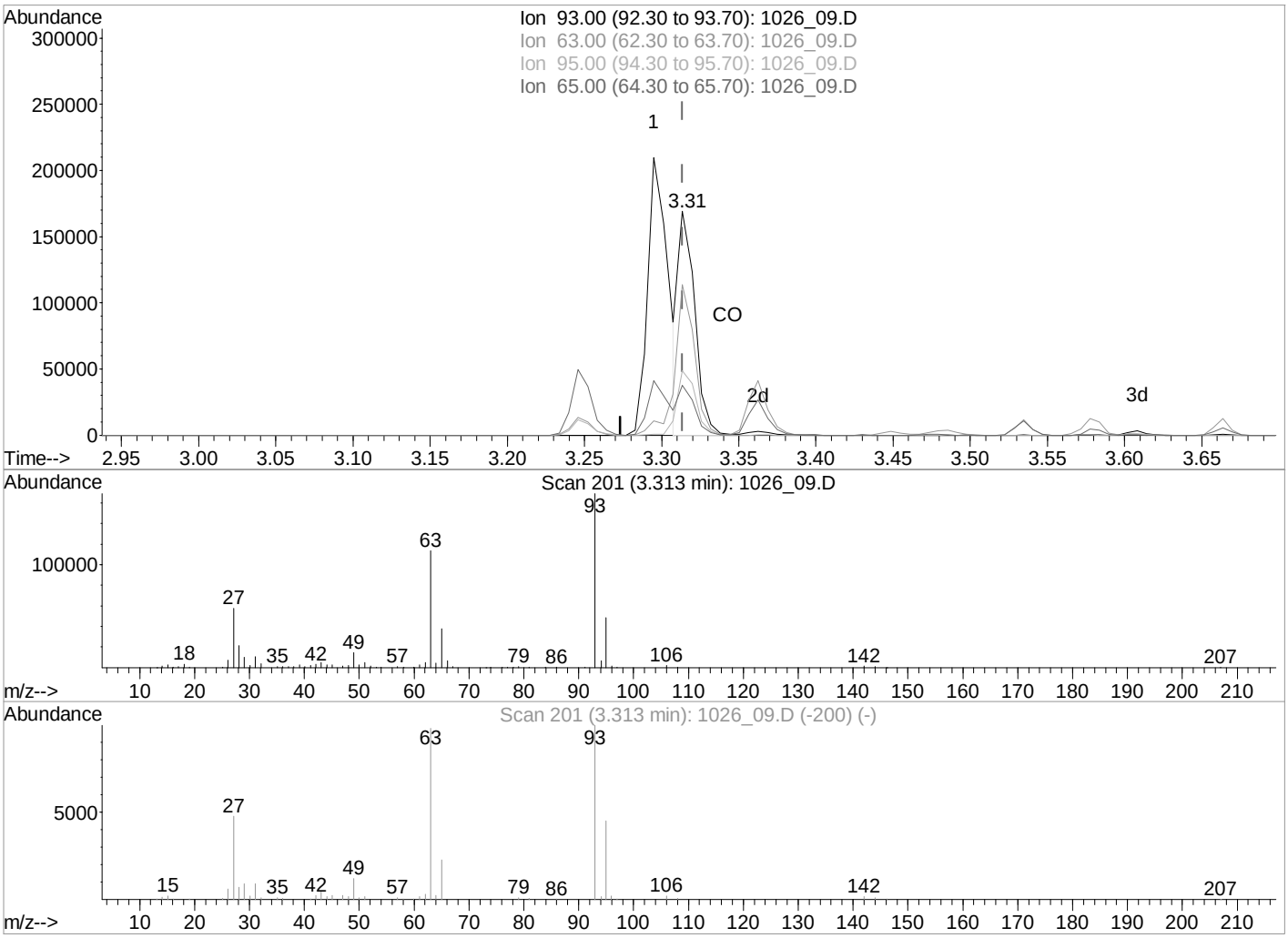
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.09#
95.00	28.70	0.28#
65.00	22.20	19.58

1026_09.D S804J26V.M Thu Oct 27 06:20:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (0.000) 10023.5179233 ppb m

response 123174

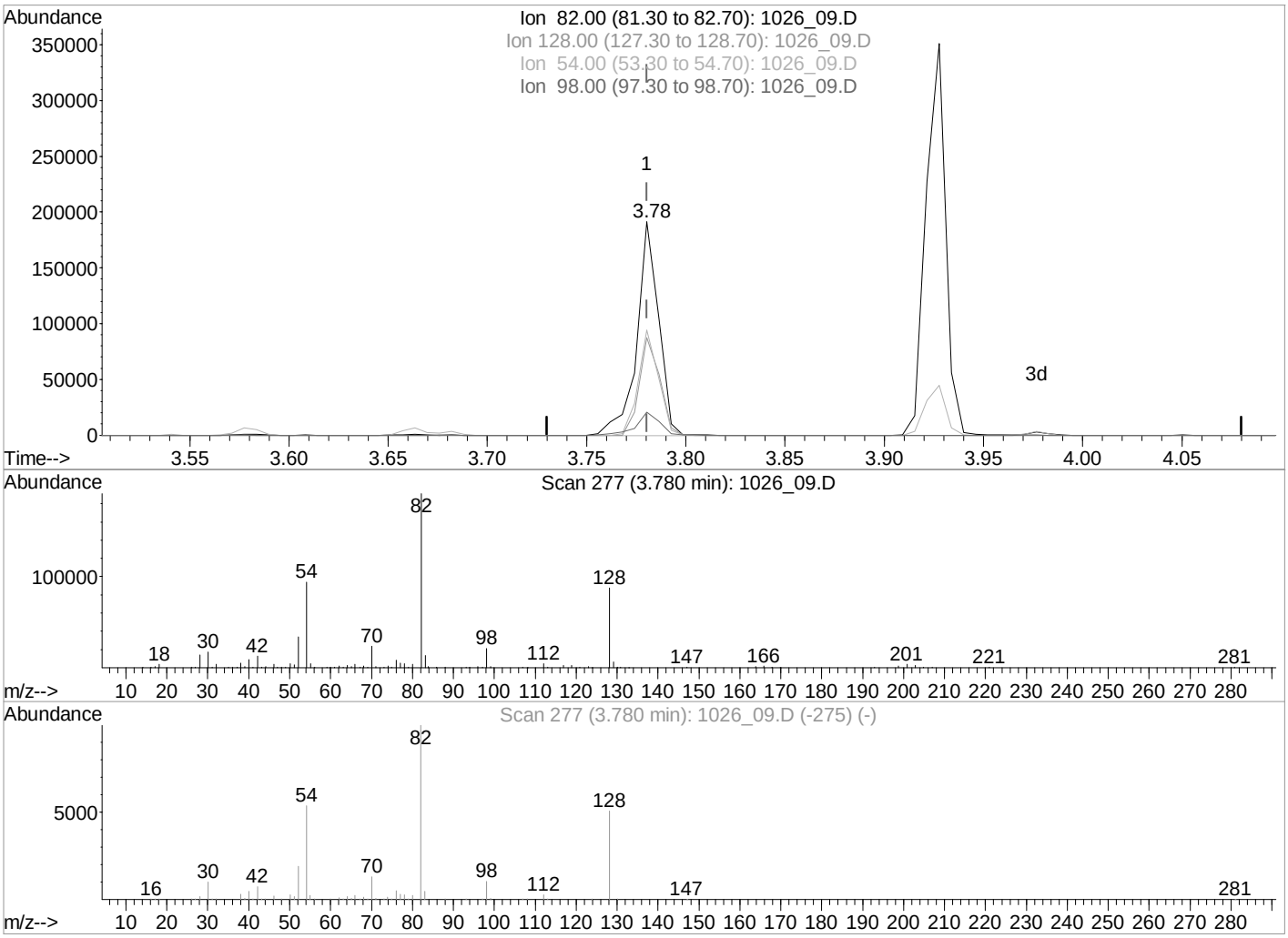
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	67.17
95.00	28.70	28.73
65.00	22.20	22.18

1026_09.D S804J26V.M Thu Oct 27 06:20:22 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(24) Nitrobenzene-d5 (S)

3.78min (0.000) 10878.9570299 ppb

Qvalue = 100

response 145196

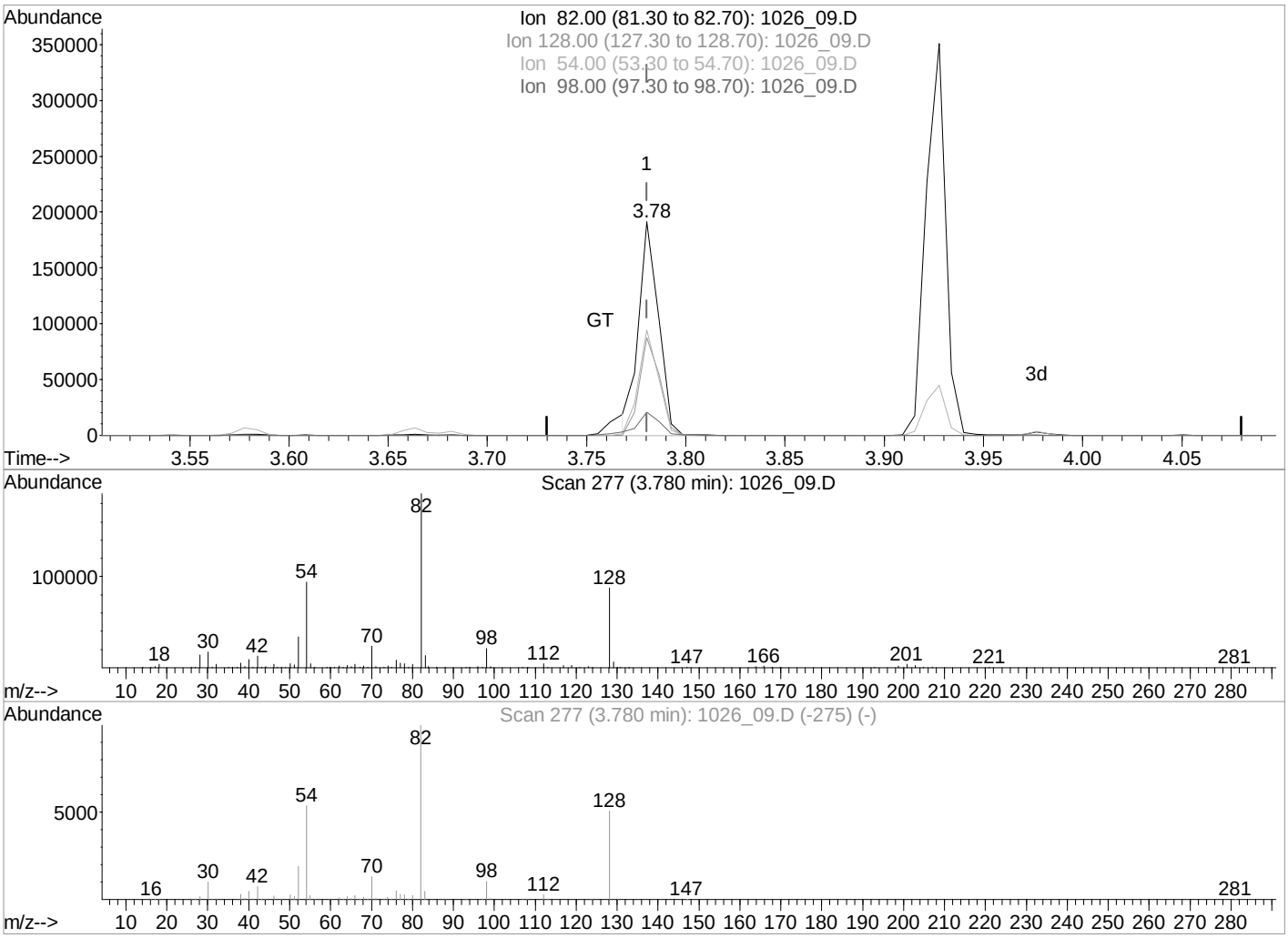
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.63
54.00	49.10	49.10
98.00	10.80	10.79

1026_09.D S804J26V.M Thu Oct 27 06:20:31 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(24) Nitrobenzene-d5 (S)

3.78min (0.000) 10000.0000000 ppb m

response 133465

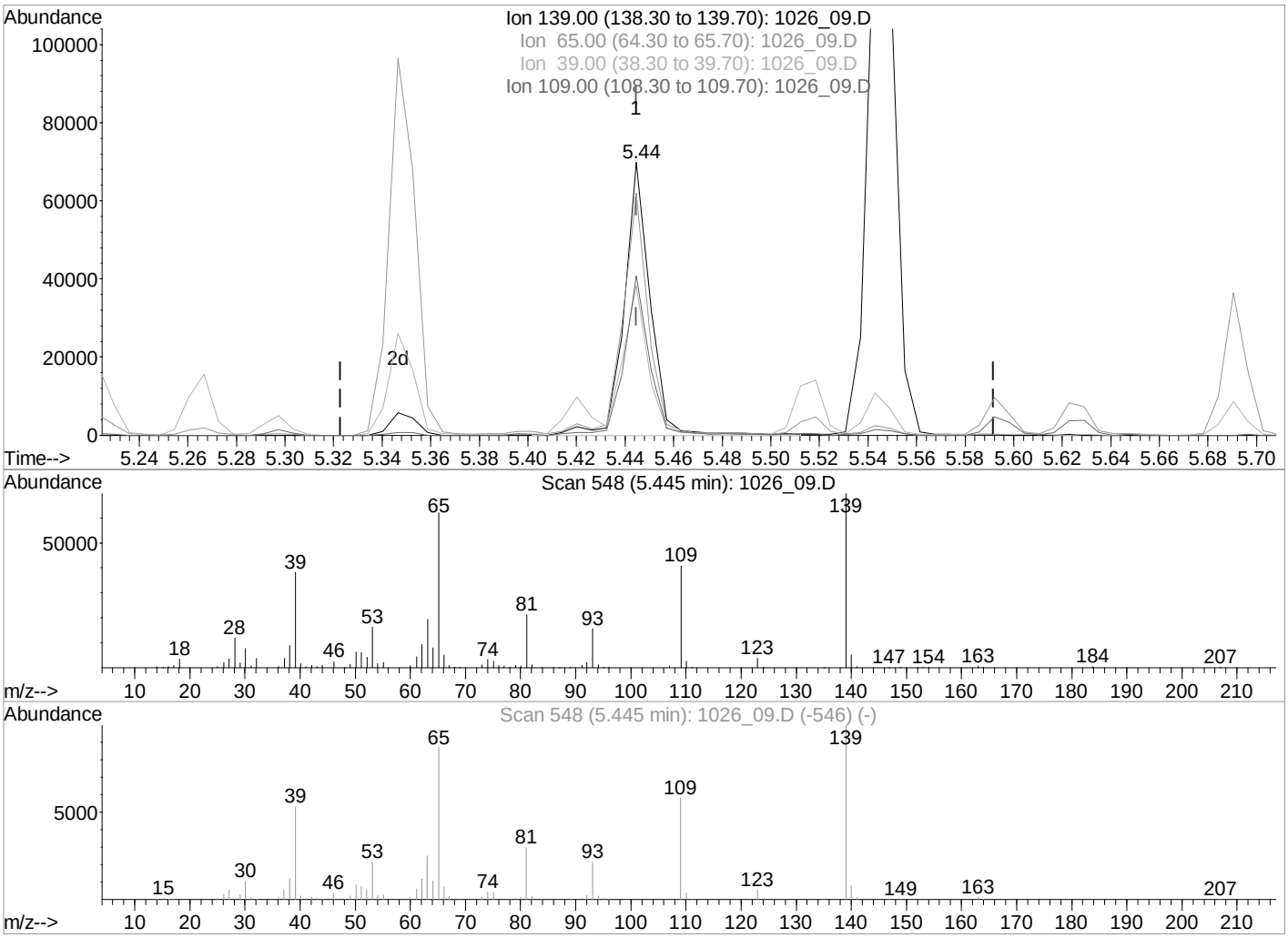
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.63
54.00	49.10	49.10
98.00	10.80	10.79

1026_09.D S804J26V.M Thu Oct 27 06:20:36 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(63) 4-Nitrophenol (MPT)

5.44min (0.000) 10562.1079556 ppb

Qvalue = 99

response 52030

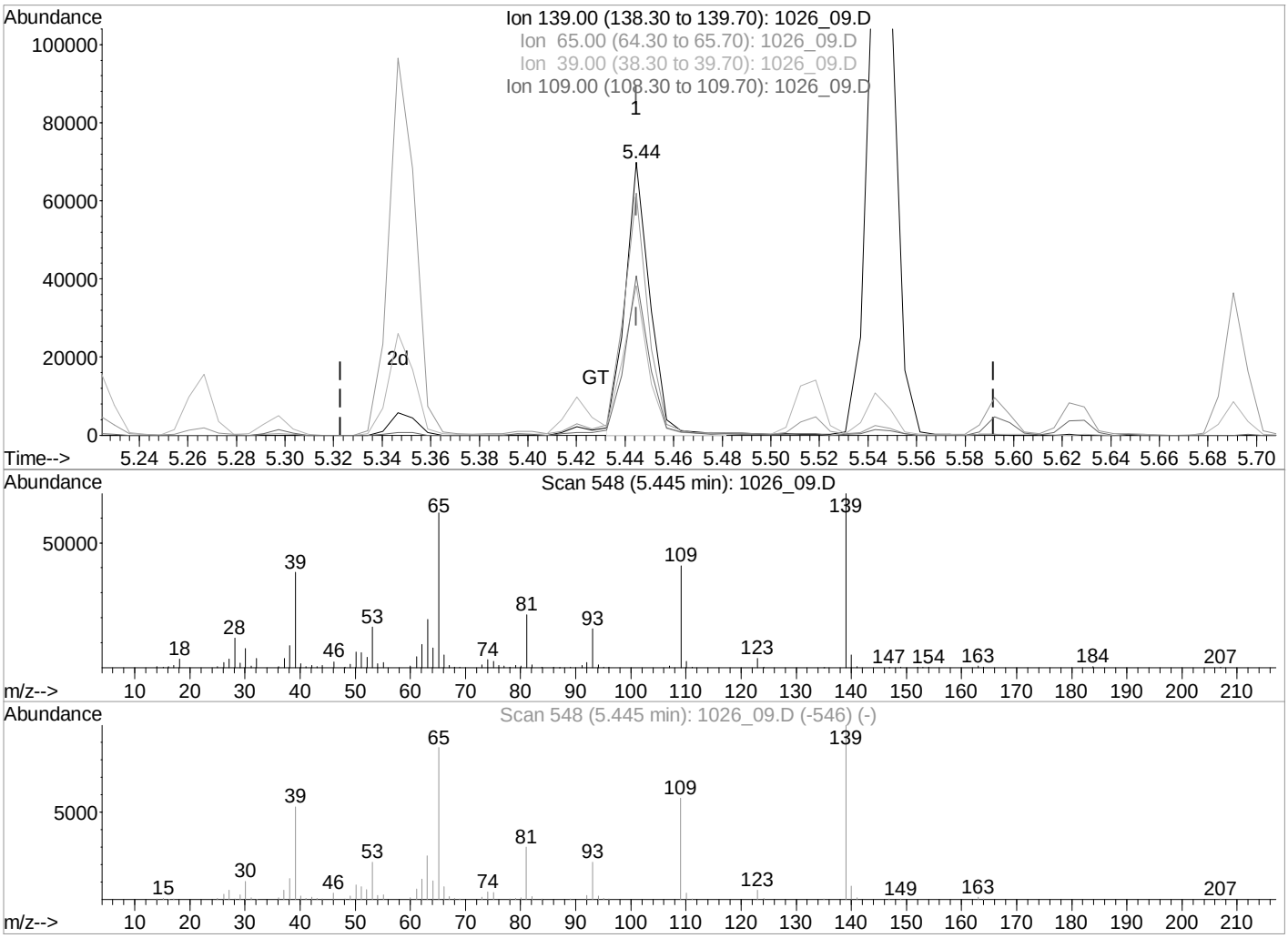
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	87.38
39.00	54.80	54.47
109.00	58.30	58.05

1026_09.D S804J26V.M Thu Oct 27 06:21:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(63) 4-Nitrophenol (MPT)

5.44min (0.000) 10000.0000000 ppb m

response 49261

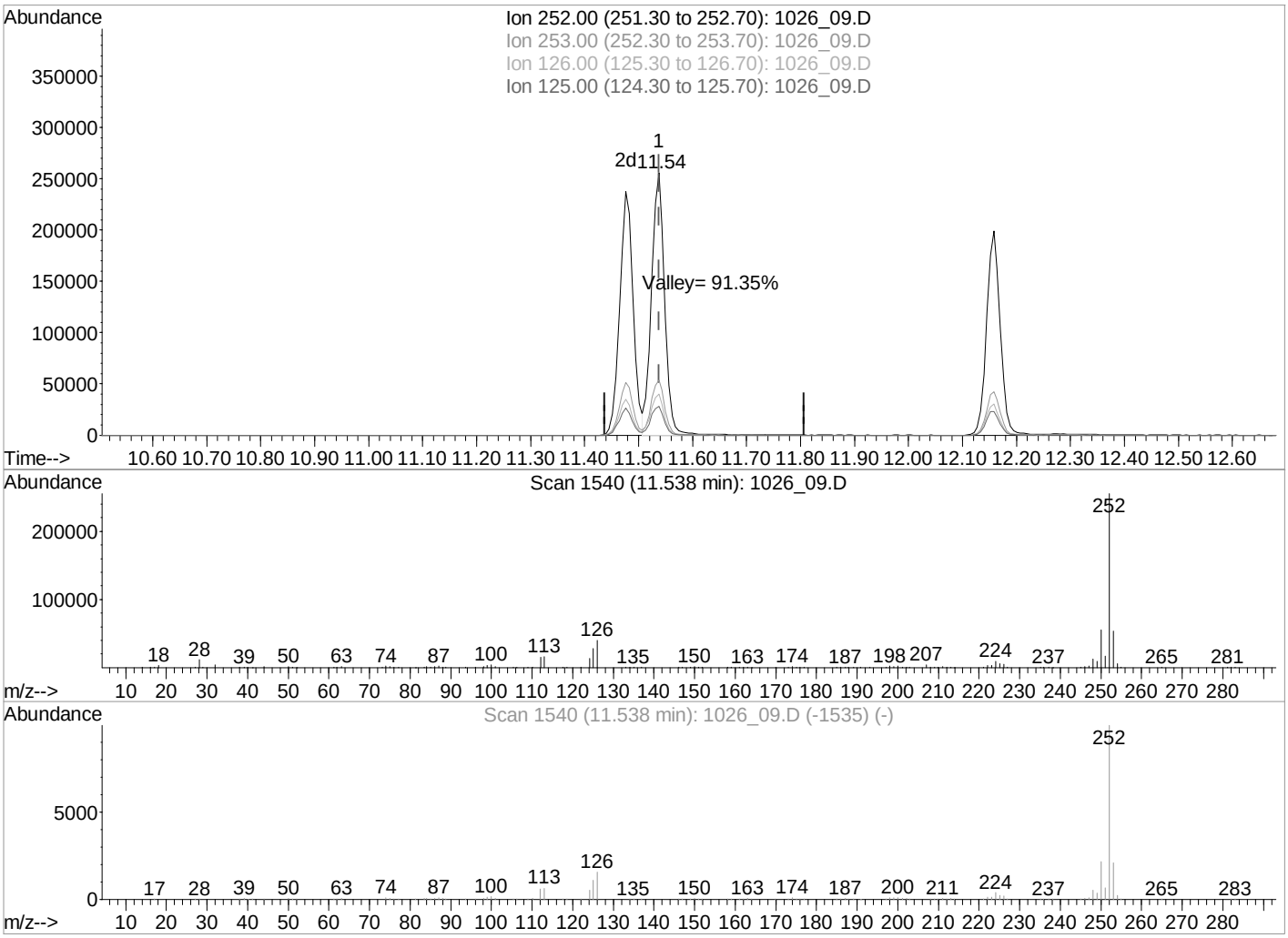
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	88.67
39.00	54.80	54.79
109.00	58.30	58.33

1026_09.D S804J26V.M Thu Oct 27 06:21:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(96) Benzo(k)fluoranthene (MT)

11.54min (0.000) 10000.0000000 ppb

Qvalue = 100

response 428361

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	21.04
126.00	15.70	15.68
125.00	11.00	11.04

1026_09.D S804J26V.M Thu Oct 27 06:21:25 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84991	8000.00 ppb		0.00
23) Naphthalene-d8	4.22	136	331372	8000.00 ppb		0.00
46) Acenaphthene-d10	5.40	164	168410	8000.00 ppb		0.00
70) Phenanthrene-d10	6.53	188	309383	8000.00 ppb		0.00
84) Chrysene-d12	9.47	240	299248	8000.00 ppb		0.00
94) Perylene-d12	12.28	264	303375	8000.00 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	245508	19202.7309202 ppb		0.00
Spiked Amount 20000.000			Recovery = 96.01%			
7) Phenol-d5	3.24	99	315807	19374.6710538 ppb		0.00
Spiked Amount 20000.000			Recovery = 96.87%			
24) Nitrobenzene-d5	3.78	82	279777m	20123.4078988 ppb		0.00
Spiked Amount 10000.000			Recovery = 201.23%			
50) 2-Fluorobiphenyl	4.91	172	583976	18892.5915427 ppb		0.00
Spiked Amount 10000.000			Recovery = 188.93%			
73) 2,4,6-Tribromophenol	5.99	330	91816	23847.1294801 ppb		0.00
Spiked Amount 20000.000			Recovery = 119.24%			
87) p-Terphenyl-d14	7.99	244	793063	19674.3339999 ppb		0.00
Spiked Amount 10000.000			Recovery = 196.74%			
Target Compounds						Qvalue
2) Pyridine	2.24	79	271801	19096.0578355 ppb		98
3) N-Nitrosodimethylamine	2.23	42	127114	17818.0891156 ppb		98
5) Aniline	3.30	66	140441	19398.1468372 ppb	#	93
6) bis(2-Chloroethyl)ether	3.31	93	255280m	18870.7537707 ppb		
8) Phenol	3.25	94	318992	19277.4169709 ppb		99
10) 2-Chlorophenol	3.36	128	265698	19874.5670980 ppb		99
11) n-Decane	3.36	41	142594	17344.5104295 ppb		98
12) 1,3-Dichlorobenzene	3.45	146	299712	18210.5511187 ppb		99
13) 1,4-Dichlorobenzene	3.49	146	303330	18711.1168130 ppb		99
14) Benzyl Alcohol	3.53	79	207444	20421.9238501 ppb		98
15) 1,2-Dichlorobenzene	3.57	146	286314	18819.9889175 ppb		99
16) bis(2-Chloroisopropyl)ethe	3.61	121	91726	19257.7344006 ppb		99
17) 2,2-oxybis(1-chloropropane	3.61	121	91726	19257.7344006 ppb		99
18) 2-Methylphenol	3.58	108	240748	20130.8223220 ppb		96
19) Hexachloroethane	3.77	117	109606	18768.3681503 ppb		98
20) N-Nitrosodi-n-propylamine	3.68	70	183848	20701.2912508 ppb		97
21) 3&4-Methyl phenol	3.66	107	270151	20240.6076095 ppb		100
25) Nitrobenzene	3.79	77	272577	19709.1324717 ppb		99
26) Isophorone	3.93	82	504061	20885.5231863 ppb		98
27) 2-Nitrophenol	3.98	139	141342	21441.5293584 ppb		97
28) 2,4-Dimethylphenol	3.98	107	254092	19970.8438961 ppb		100
29) bis(2-Chlorethoxy)methane	4.04	93	304730	19433.8955944 ppb		99
30) 2,4-Dichlorophenol	4.12	162	214281	20312.5961638 ppb		98
32) 1,2,4-Trichlorobenzene	4.17	180	244351	18511.6313744 ppb		99
34) Naphthalene	4.23	128	795306	18888.4885240 ppb		100
35) 4-Chloroaniline	4.25	65	87739	20550.0888993 ppb		97
36) Hexachloro-1,3-butadiene	4.30	225	138610	18380.1883293 ppb		99
40) 4-Chloro-3-methylphenol	4.54	107	205560	20954.2042996 ppb		98
41) 2-Methylnaphthalene	4.67	142	527174	19633.9892165 ppb		99
42) 1-Methylnaphthalene	4.74	142	494905	19214.8345074 ppb		100
47) Hexachlorocyclopentadiene	4.77	237	167109	20644.1013505 ppb		98
48) 2,4,6-Trichlorophenol	4.85	196	158630	21431.8482785 ppb		98
49) 2,4,5-Trichlorophenol	4.87	196	163750	21643.4321874 ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

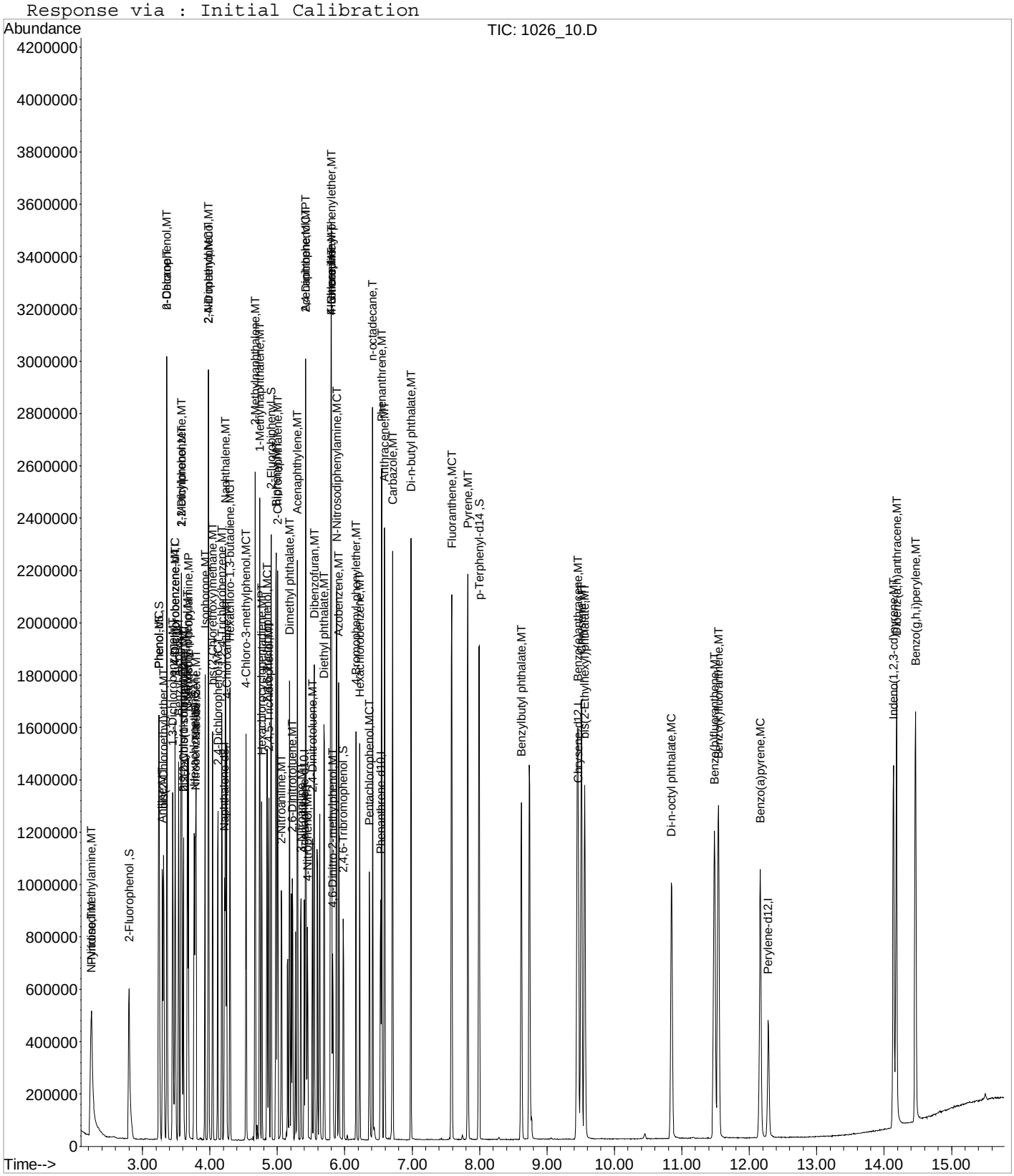
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	649100	18865.0295362	ppb		100
52)	2-Chloronaphthalene	5.00	162	481740	19089.7943186	ppb		99
53)	2-Nitroaniline	5.06	138	156566	23745.5889641	ppb		99
54)	Acenaphthylene	5.30	152	748687	20434.9303110	ppb		99
55)	Dimethyl phthalate	5.18	163	511440	20041.3233669	ppb		97
56)	2,6-Dinitrotoluene	5.23	165	121949	21843.4445352	ppb	#	78
57)	3-Nitroaniline	5.35	138	131257	22816.3803221	ppb	#	82
58)	Acenaphthene	5.42	153	493122	19183.7752723	ppb		99
59)	2,4-Dinitrophenol	5.42	184	65500	29306.7481823	ppb	#	90
60)	Dibenzofuran	5.55	168	665655	18760.8754830	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	160797	23600.6336359	ppb		98
63)	4-Nitrophenol	5.44	139	108242m	25096.4062774	ppb		
64)	Fluorene	5.80	166	566355	19705.3793765	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	267391	19173.9472829	ppb		99
66)	Diethyl phthalate	5.70	149	521627	20505.7140045	ppb		96
67)	4-Nitroaniline	5.80	138	127616	22670.0268542	ppb		98
68)	Azobenzene	5.91	77	541814	20605.8244563	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.83	198	89412	29479.2998014	ppb		83
72)	N-Nitrosodiphenylamine	5.88	169	477928	21146.8933136	ppb		100
74)	4-Bromophenyl-phenylether	6.17	248	161804	20923.7628823	ppb		97
75)	Hexachlorobenzene	6.22	284	196301	19233.9545046	ppb		98
76)	n-octadecane	6.42	55	80819	22019.5230828	ppb		99
77)	Pentachlorophenol	6.37	266	109457	26038.4667797	ppb		97
78)	Phenanthrene	6.55	178	817717	19307.9337965	ppb		99
79)	Anthracene	6.59	178	839822	21195.2016240	ppb		99
80)	Carbazole	6.71	167	747917	21834.6075856	ppb		100
81)	Di-n-butyl phthalate	6.98	149	896080	24456.6285649	ppb		99
83)	Fluoranthene	7.59	202	880386	21601.9593798	ppb		99
86)	Pyrene	7.83	202	919691	20059.3514315	ppb		100
88)	Benzylbutyl phthalate	8.62	149	347644	24696.4278323	ppb		99
90)	Benzo(a)anthracene	9.45	228	833026	20485.6791881	ppb		100
91)	Chrysene	9.51	228	844096	19122.0222497	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	500365	26123.8924175	ppb		99
93)	Di-n-octyl phthalate	10.84	149	783718	28042.7898760	ppb		99
95)	Benzo(b)fluoranthene	11.48	252	882906	21697.2286685	ppb		99
96)	Benzo(k)fluoranthene	11.54	252	894619	20483.4227247	ppb		99
97)	Benzo(a)pyrene	12.16	252	746762	22724.4118935	ppb		100
98)	Indeno(1,2,3-cd)pyrene	14.14	276	782711m	21758.3422395	ppb		
99)	Dibenz(a,h)anthracene	14.18	278	878674m	21419.7805079	ppb		
100)	Benzo(g,h,i)perylene	14.47	276	862791	20212.9692660	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

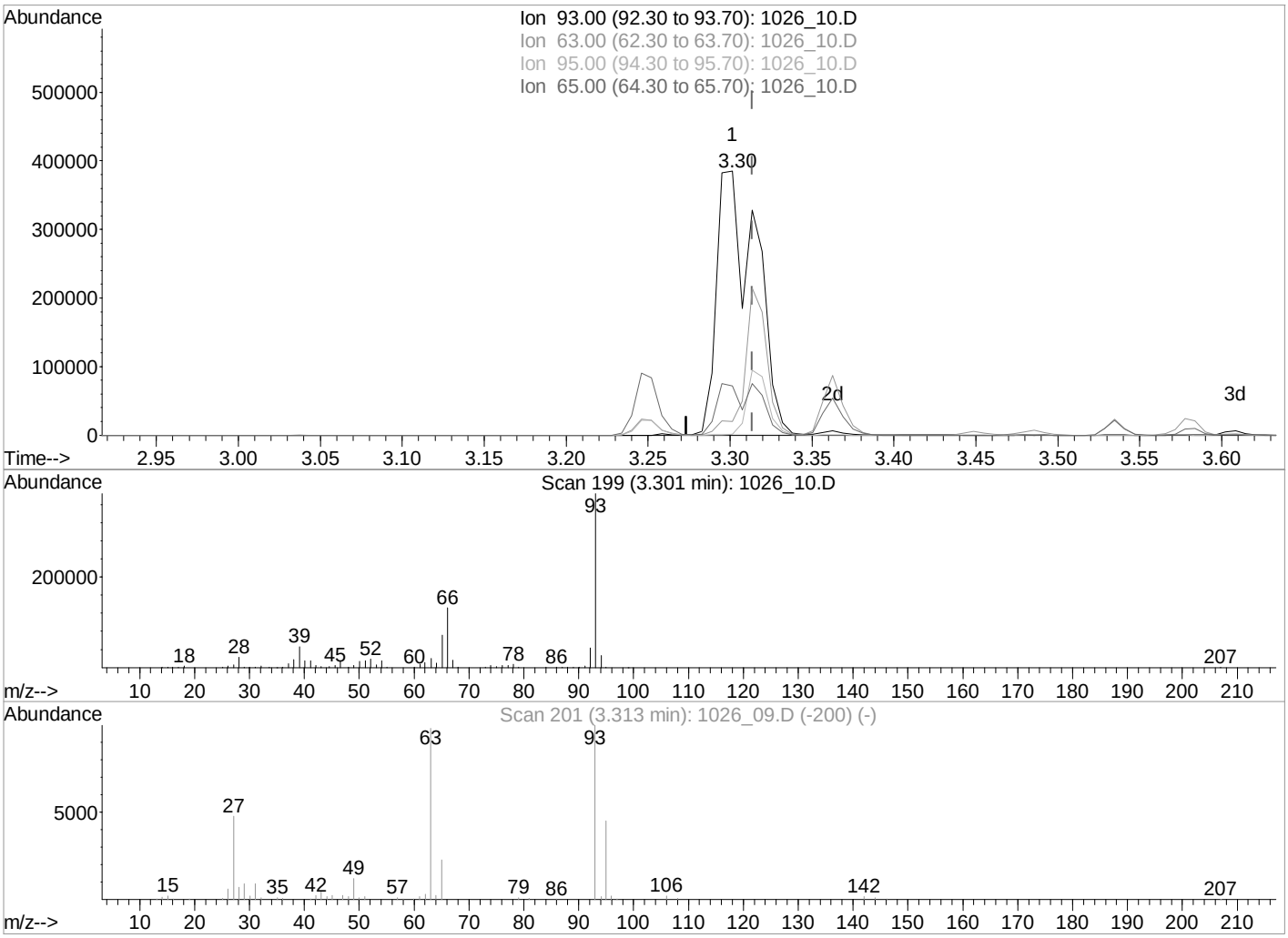
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 47018.5439590 ppb

Qvalue = 42

response 636058

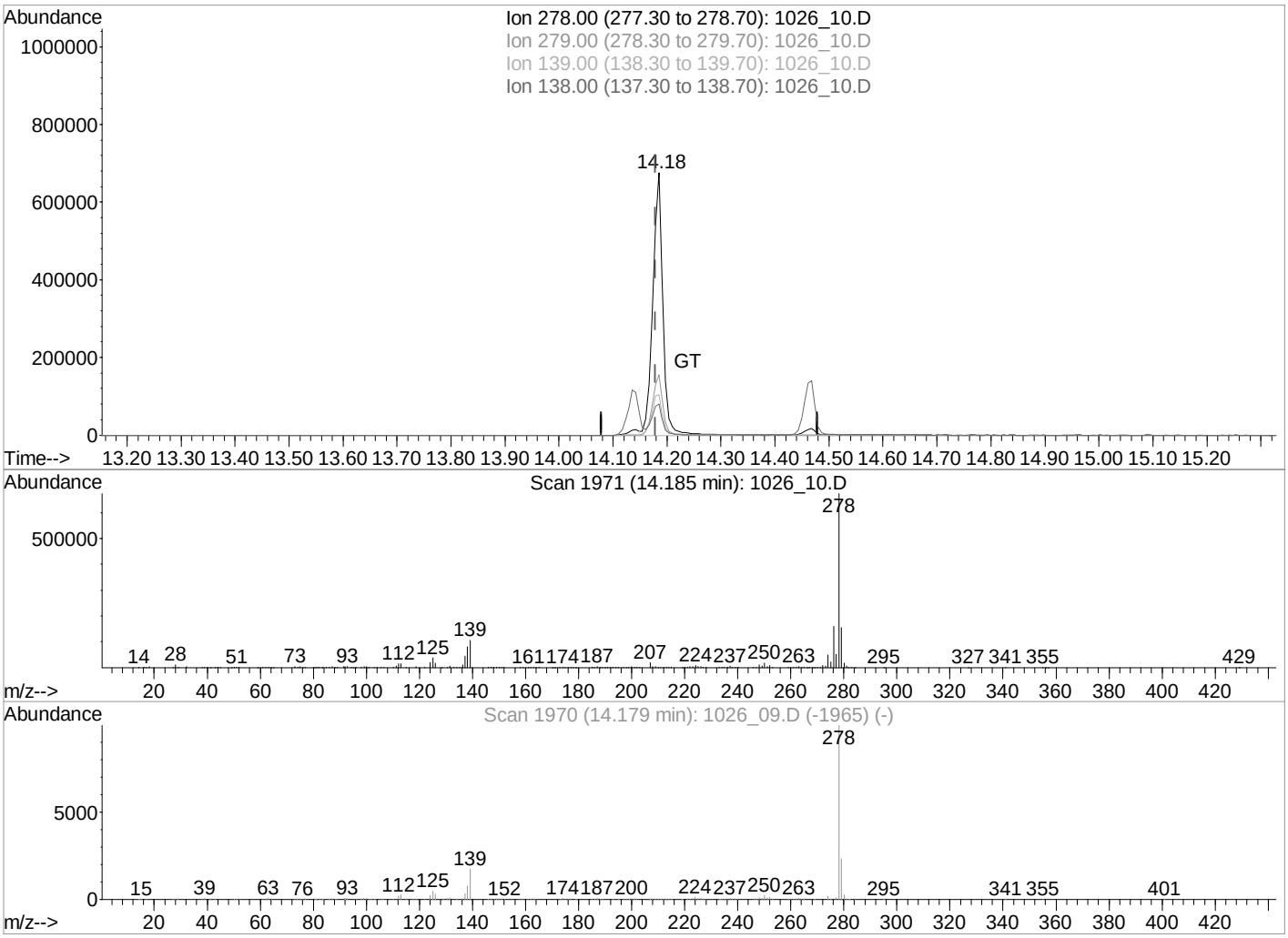
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.02#
95.00	28.70	0.32#
65.00	22.20	18.53

1026_10.D S804J26V.M Thu Oct 27 06:32:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(99) Dibenz(a,h)anthracene (MT)

14.18min (+0.006) 21419.7805079 ppb m

response 878674

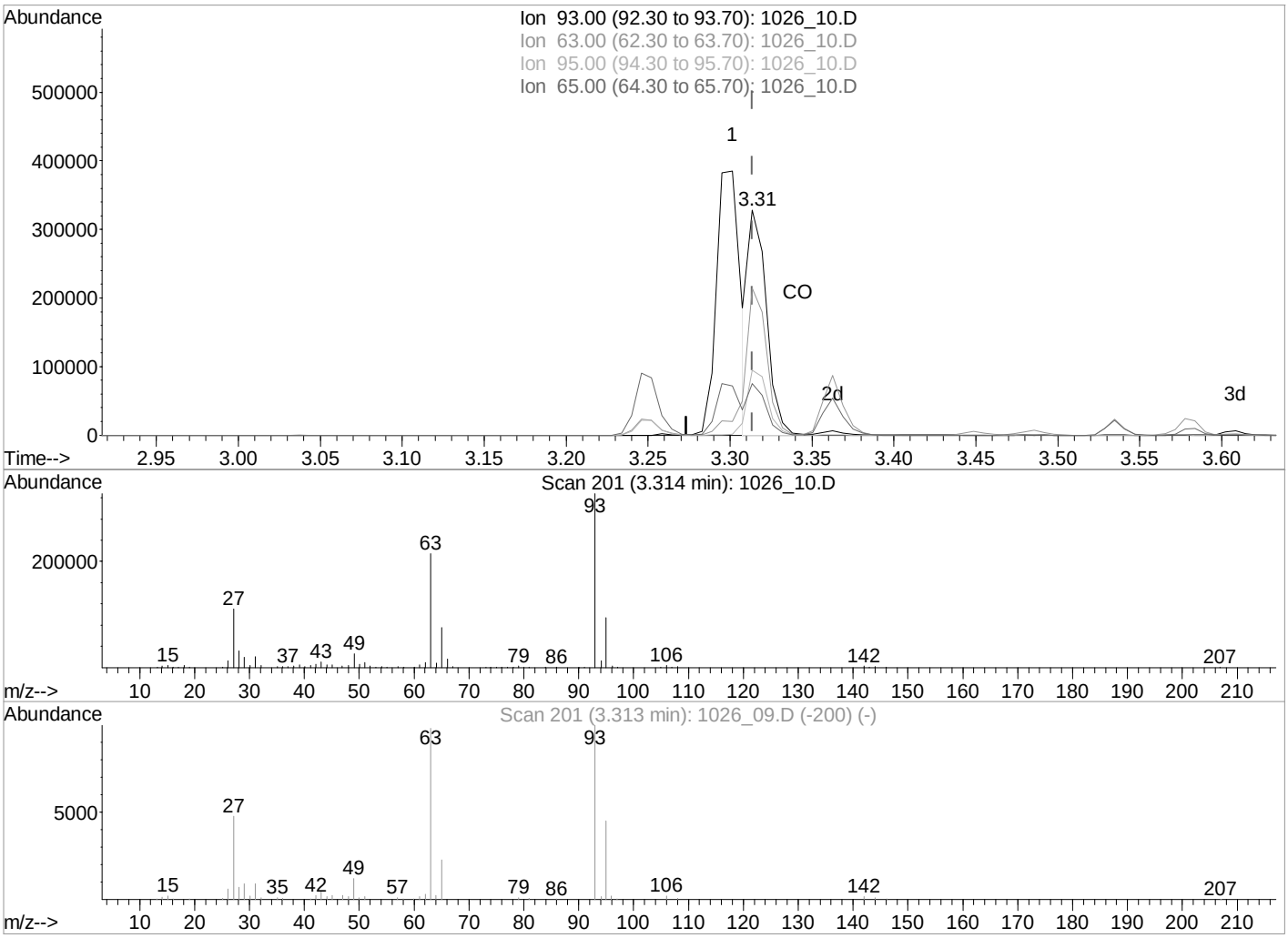
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.07
139.00	17.00	15.43
138.00	12.30	11.99

1026_10.D S804J26V.M Thu Oct 27 06:33:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 18870.7537707 ppb m

response 255280

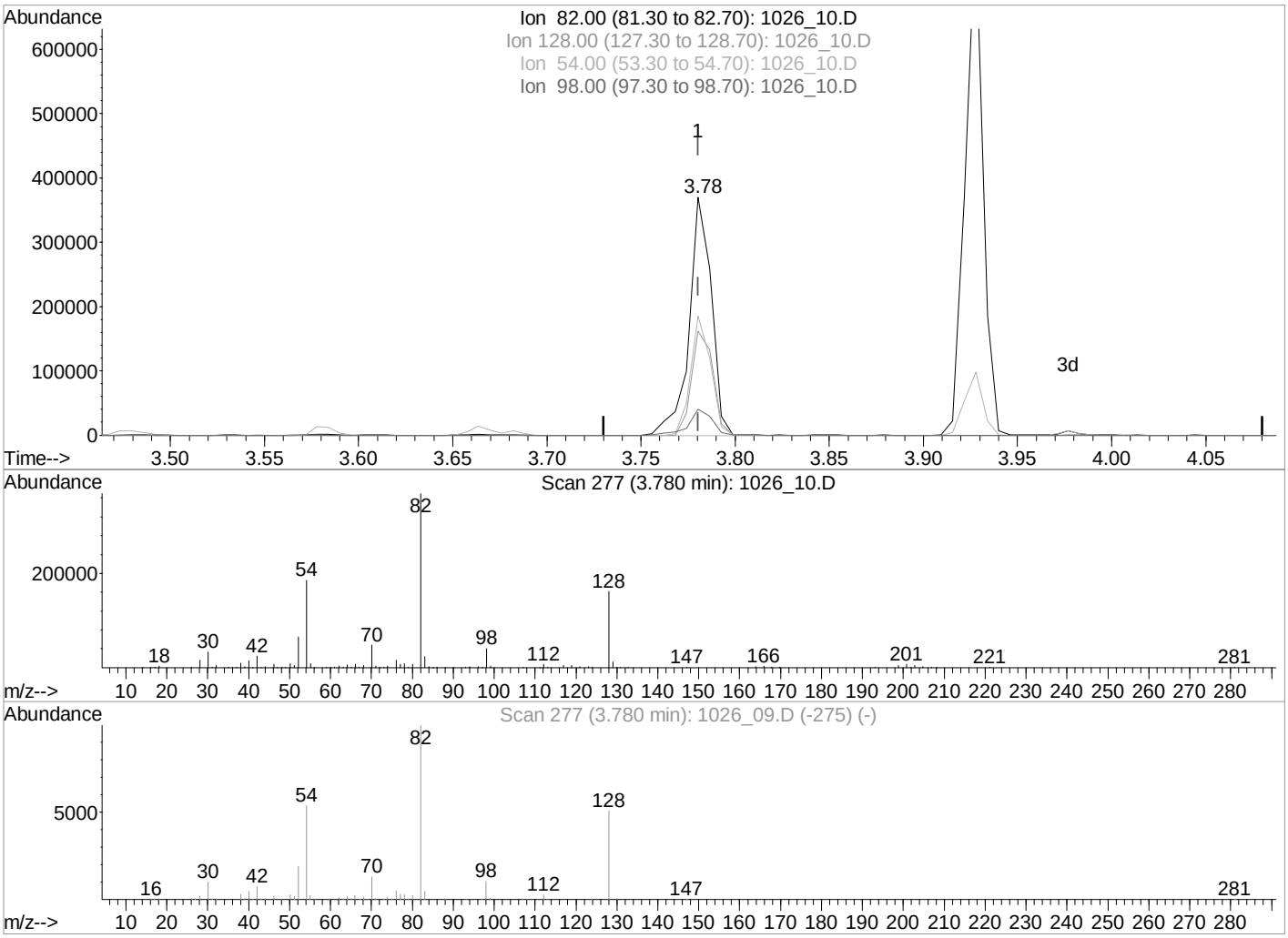
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.29
95.00	28.70	28.71
65.00	22.20	22.98

1026_10.D S804J26V.M Thu Oct 27 06:32:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 21736.1460864 ppb

Qvalue = 98

response 302199

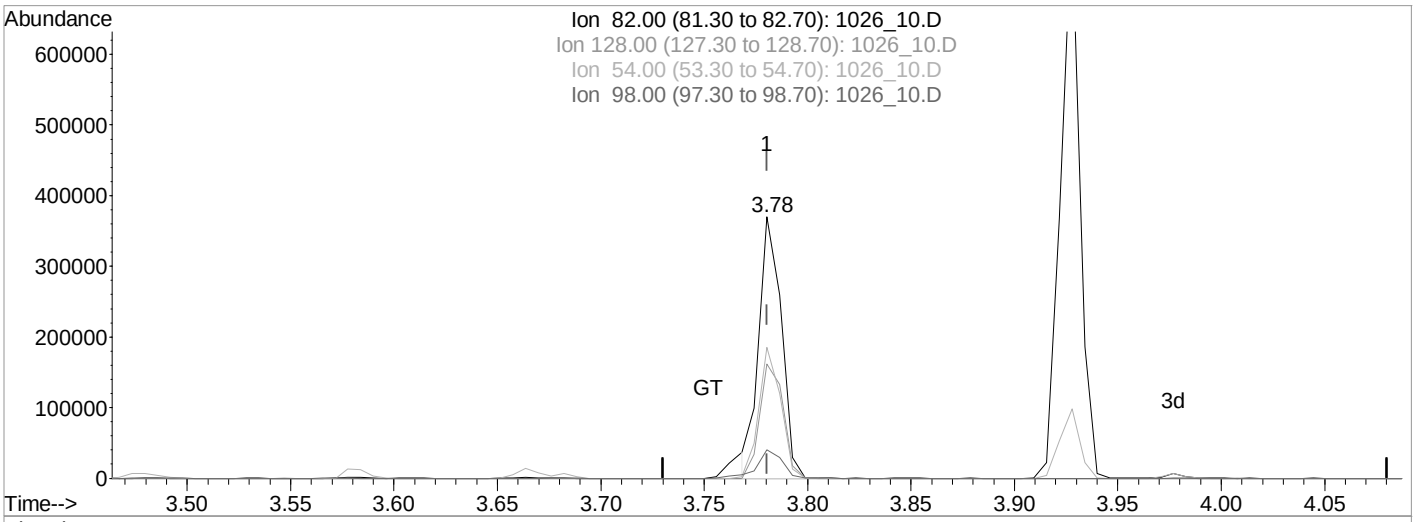
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.68
54.00	49.10	50.05
98.00	10.80	10.93

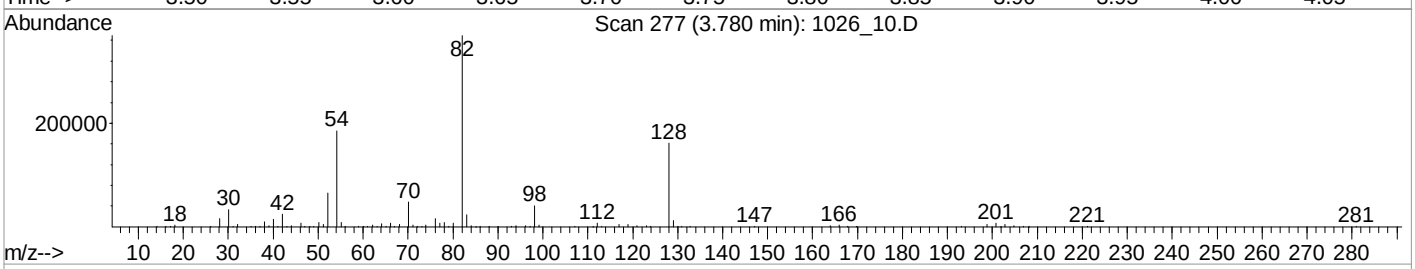
1026_10.D S804J26V.M Thu Oct 27 06:32:23 2022

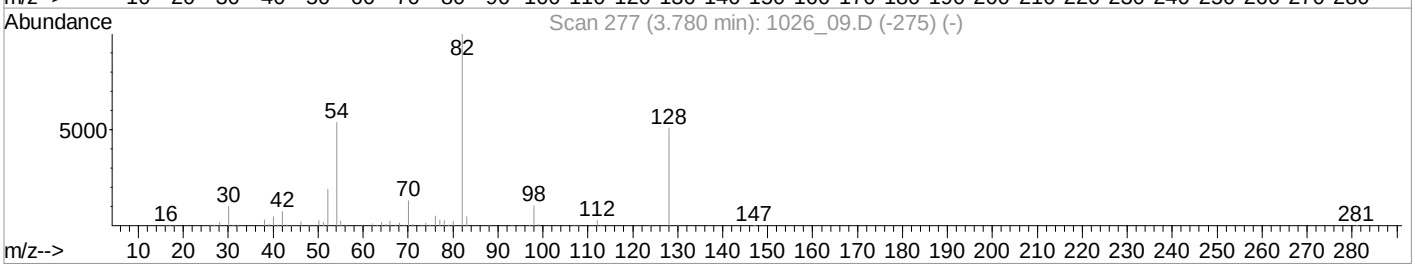
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration







TIC: 1026_10.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 20123.4078988 ppb m

response 279777

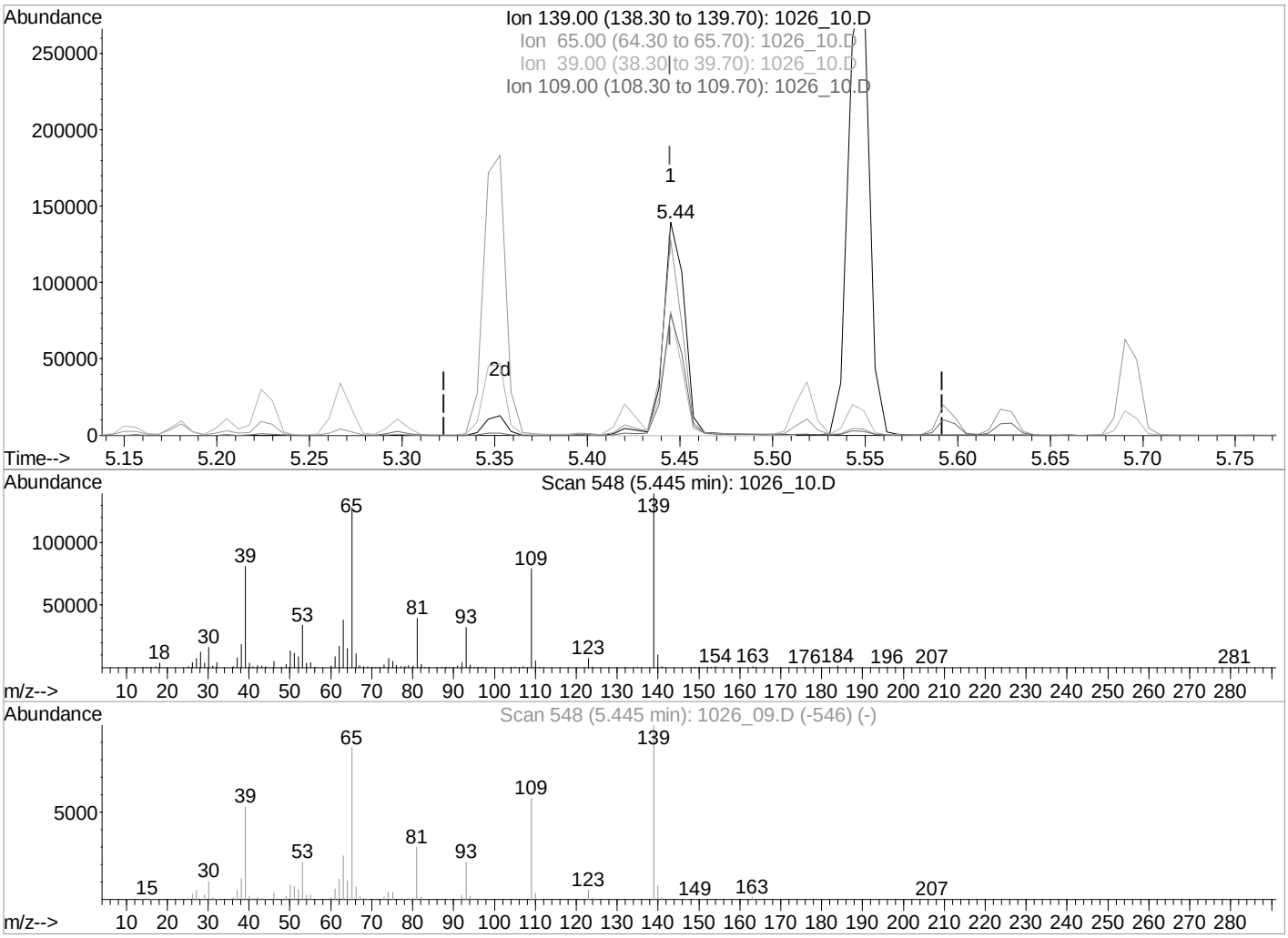
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.68
54.00	49.10	50.05
98.00	10.80	10.93

1026_10.D S804J26V.M Thu Oct 27 06:32:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(63) 4-Nitrophenol (MPT)

5.44min (+0.000) 26224.8426455 ppb

Qvalue = 97

response 113109

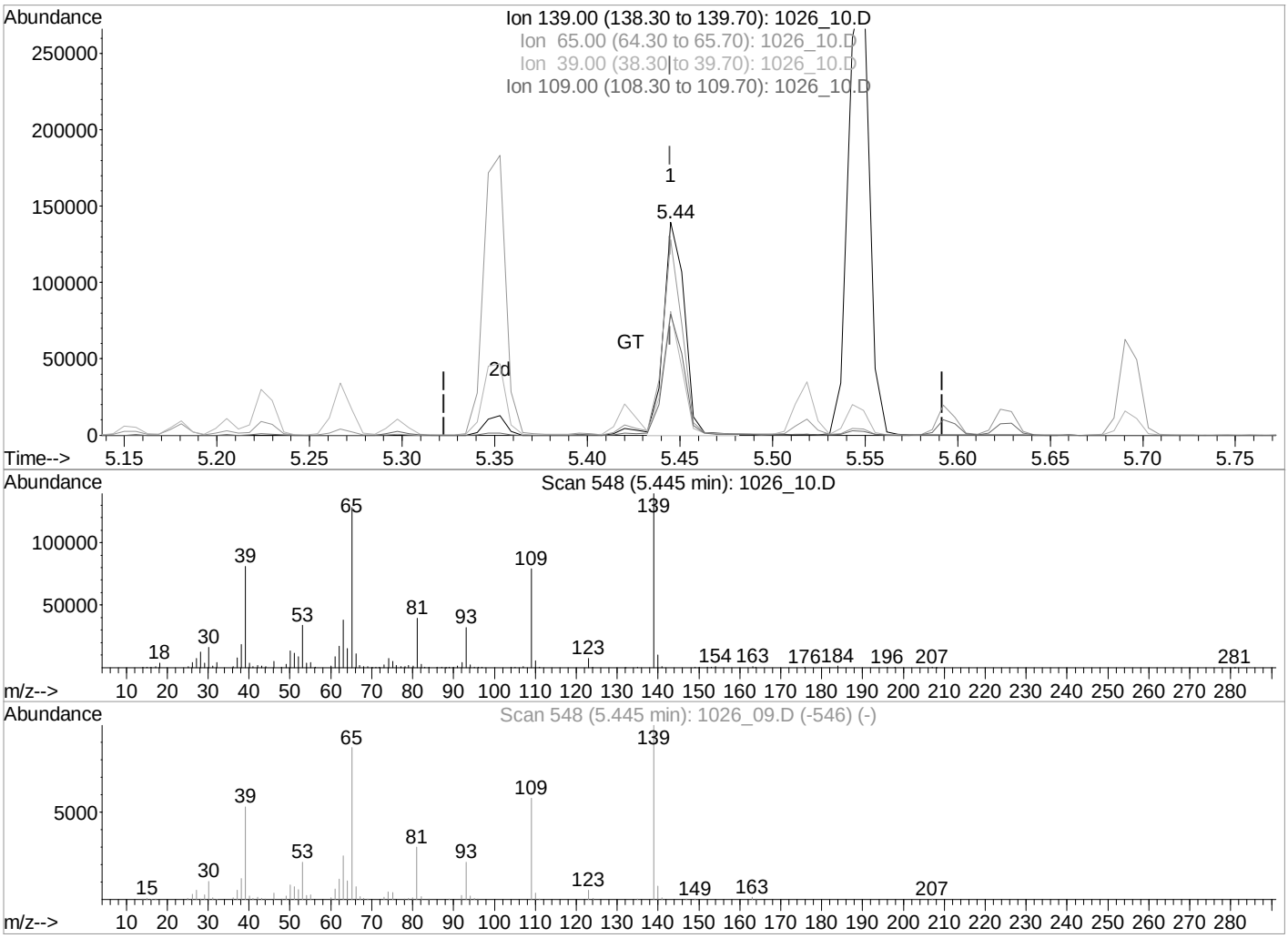
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	90.97
39.00	54.80	58.05
109.00	58.30	56.45

1026_10.D S804J26V.M Thu Oct 27 06:32:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(63) 4-Nitrophenol (MPT)

5.44min (+0.000) 25096.4062774 ppb m

response 108242

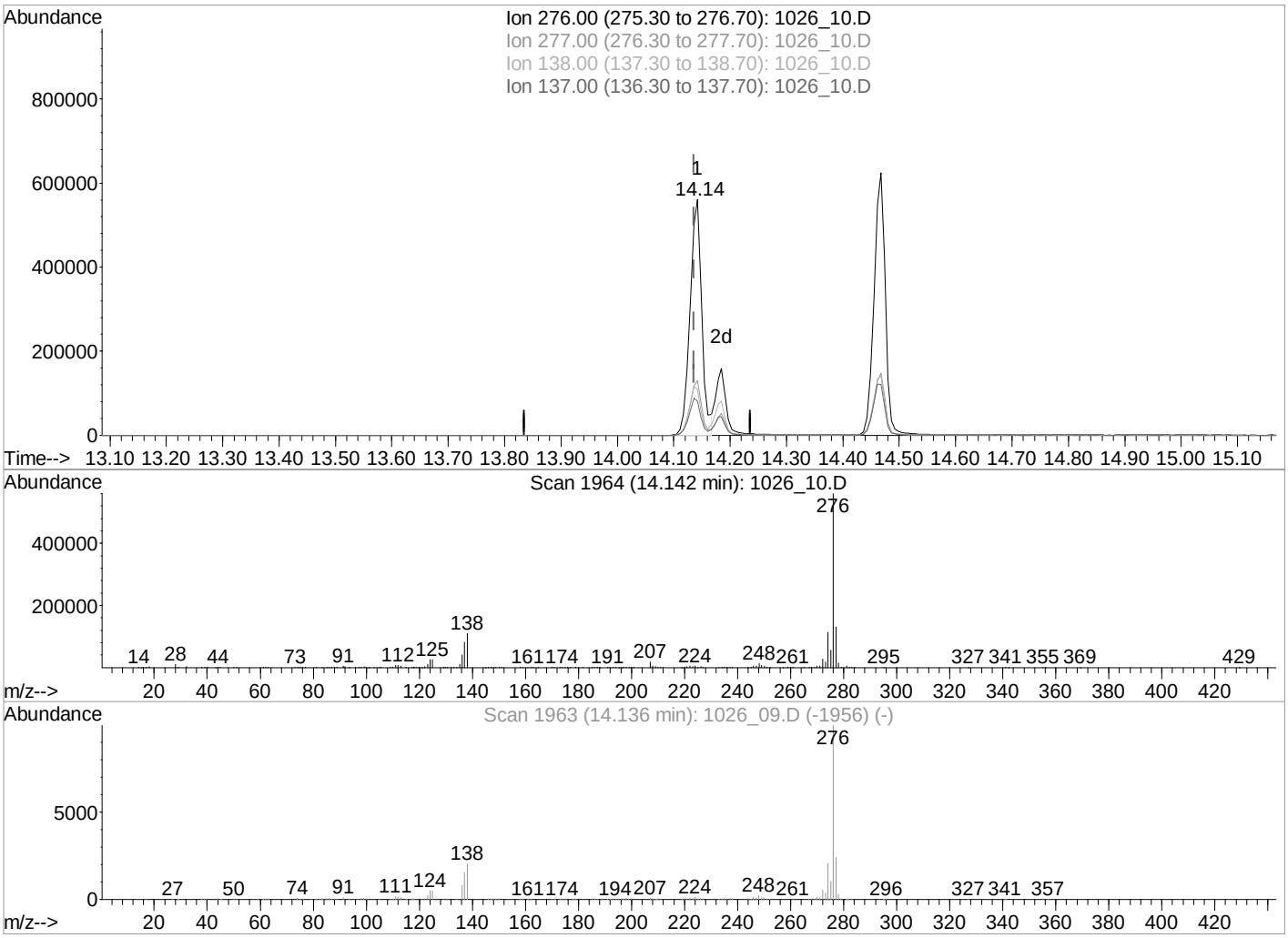
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	91.79
39.00	54.80	58.24
109.00	58.30	56.69

1026_10.D S804J26V.M Thu Oct 27 06:32:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.14min (+0.006) 22258.1071294 ppb

Qvalue = 98

response 800689

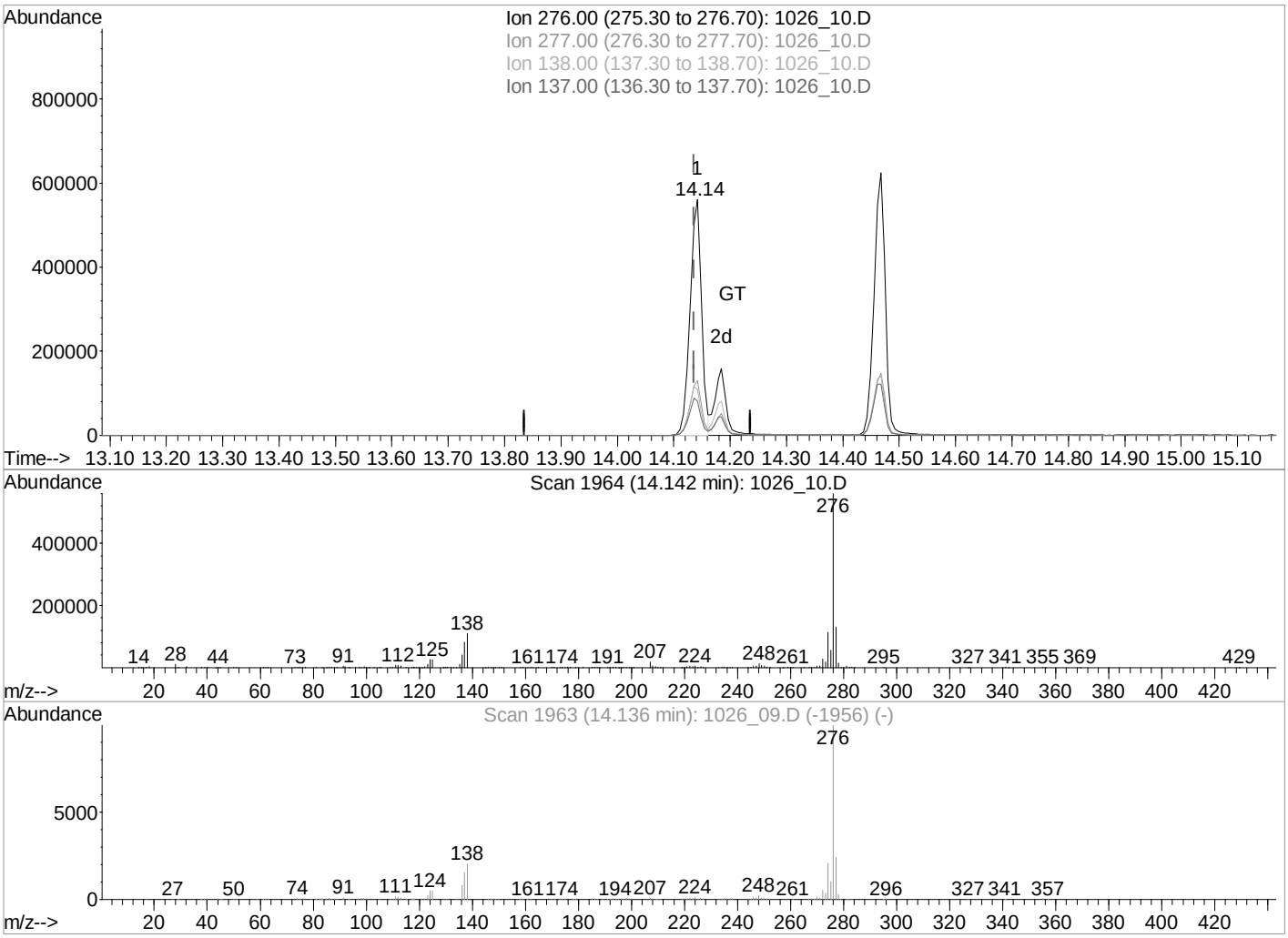
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.19
138.00	20.20	19.52
137.00	15.30	14.43

1026_10.D S804J26V.M Thu Oct 27 06:33:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.14min (+0.006) 21758.3422395 ppb m

response 782711

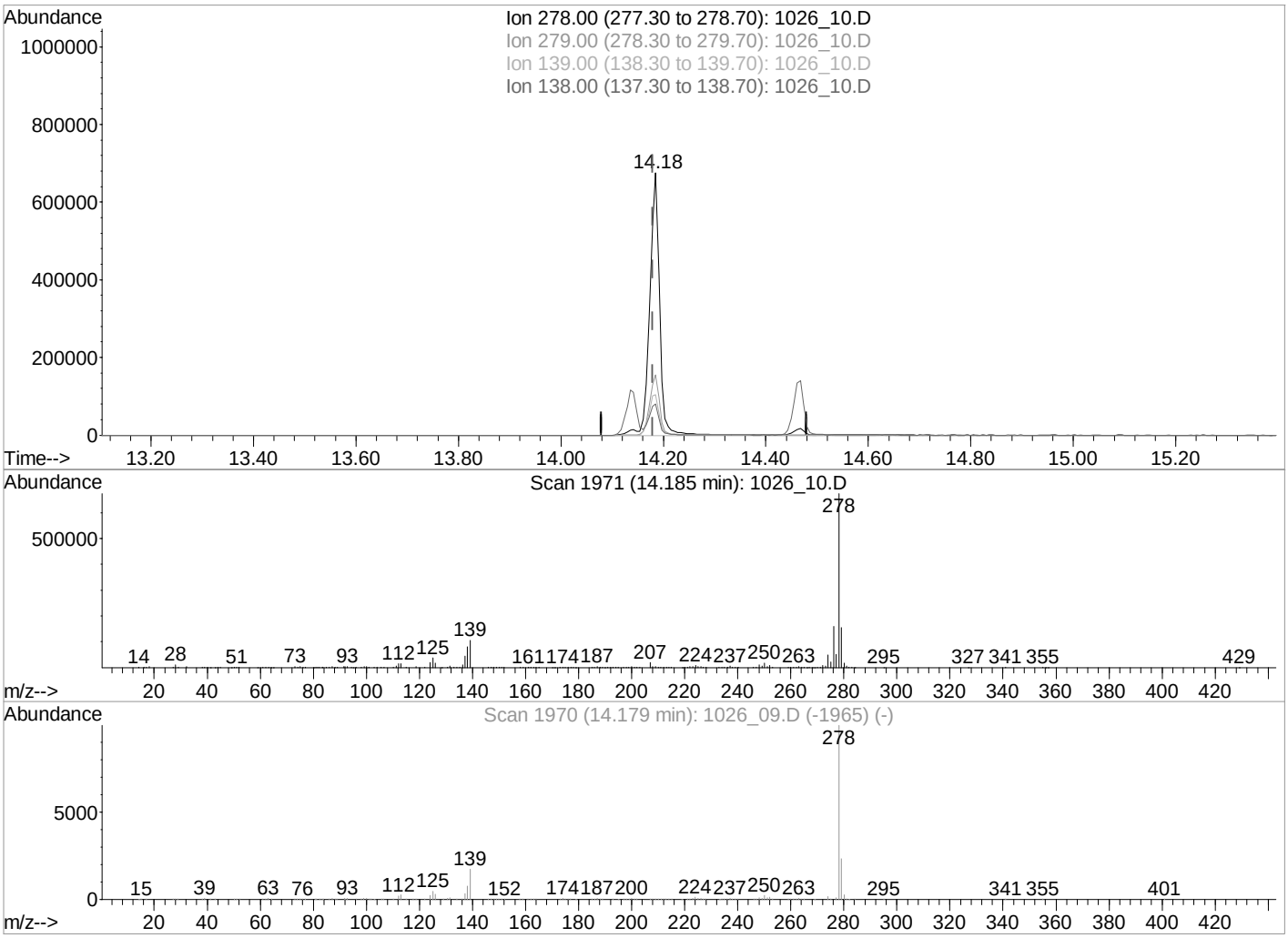
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.19
138.00	20.20	19.52
137.00	15.30	14.43

1026_10.D S804J26V.M Thu Oct 27 06:33:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(99) Dibenz(a,h)anthracene (MT)

14.18min (+0.006) 21974.8537230 ppb

Qvalue = 98

response 901444

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.07
139.00	17.00	15.43
138.00	12.30	11.95

1026_10.D S804J26V.M Thu Oct 27 06:33:20 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	82302	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	324359	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	167921	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	297499	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	300333	8000.00 ppb	0.00
94) Perylene-d12	12.29	264	296882	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	378681	30832.5742165 ppb	0.00
Spiked Amount 20000.000			Recovery = 154.16%		
7) Phenol-d5	3.25	99	491983	31365.3059420 ppb	0.00
Spiked Amount 20000.000			Recovery = 156.83%		
24) Nitrobenzene-d5	3.79	82	437804m	32130.9435740 ppb	0.00
Spiked Amount 10000.000			Recovery = 321.31%		
50) 2-Fluorobiphenyl	4.91	172	910635	29877.2059276 ppb	0.00
Spiked Amount 10000.000			Recovery = 298.77%		
73) 2,4,6-Tribromophenol	5.99	330	145998	37973.5401929 ppb	0.00
Spiked Amount 20000.000			Recovery = 189.87%		
87) p-Terphenyl-d14	7.99	244	1241039	30776.7417723 ppb	0.00
Spiked Amount 10000.000			Recovery = 307.77%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	417469	30564.9067245 ppb	99
3) N-Nitrosodimethylamine	2.23	42	192645	28508.1384059 ppb	99
5) Aniline	3.30	66	217747	31246.6003062 ppb #	94
6) bis(2-Chloroethyl)ether	3.31	93	416231m	32136.7226077 ppb	
8) Phenol	3.25	94	497926	31300.1151367 ppb	94
10) 2-Chlorophenol	3.36	128	413977	32017.9296196 ppb	98
11) n-Decane	3.36	41	219821	28364.8870181 ppb	99
12) 1,3-Dichlorobenzene	3.45	146	465340	29729.9203099 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	469844	30320.3712622 ppb	98
14) Benzyl Alcohol	3.53	79	328038	33208.8581223 ppb	97
15) 1,2-Dichlorobenzene	3.57	146	445708	30615.7538518 ppb	99
16) bis(2-Chloroisopropyl)ethe	3.61	121	139556	30483.1218948 ppb	97
17) 2,2-oxybis(1-chloropropane	3.61	121	139556	30483.1218948 ppb	97
18) 2-Methylphenol	3.58	108	372927	32160.1023785 ppb	98
19) Hexachloroethane	3.77	117	171030	30620.2796304 ppb	97
20) N-Nitrosodi-n-propylamine	3.68	70	287347	33179.7190213 ppb	94
21) 3&4-Methyl phenol	3.67	107	421704	32549.4418836 ppb	97
25) Nitrobenzene	3.79	77	426849	31623.3218398 ppb	97
26) Isophorone	3.93	82	800885	33604.1896868 ppb	95
27) 2-Nitrophenol	3.98	139	226401	34588.9147143 ppb	98
28) 2,4-Dimethylphenol	3.98	107	398289	31990.4416215 ppb	99
29) bis(2-Chlorethoxy)methane	4.04	93	469908	30790.2272363 ppb	97
30) 2,4-Dichlorophenol	4.12	162	332982	32146.7381818 ppb	97
32) 1,2,4-Trichlorobenzene	4.18	180	378446	29732.8703498 ppb	95
34) Naphthalene	4.23	128	1241009	30449.6283364 ppb	99
35) 4-Chloroaniline	4.25	65	136647	32518.3516703 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	217313	29924.2522689 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	322245	33241.7744494 ppb	97
41) 2-Methylnaphthalene	4.67	142	820629	31338.9010004 ppb	99
42) 1-Methylnaphthalene	4.74	142	772788	30895.0157081 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	259567	31953.6267167 ppb	95
48) 2,4,6-Trichlorophenol	4.85	196	244595	32674.6091735 ppb	96
49) 2,4,5-Trichlorophenol	4.87	196	261974	34165.4037127 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

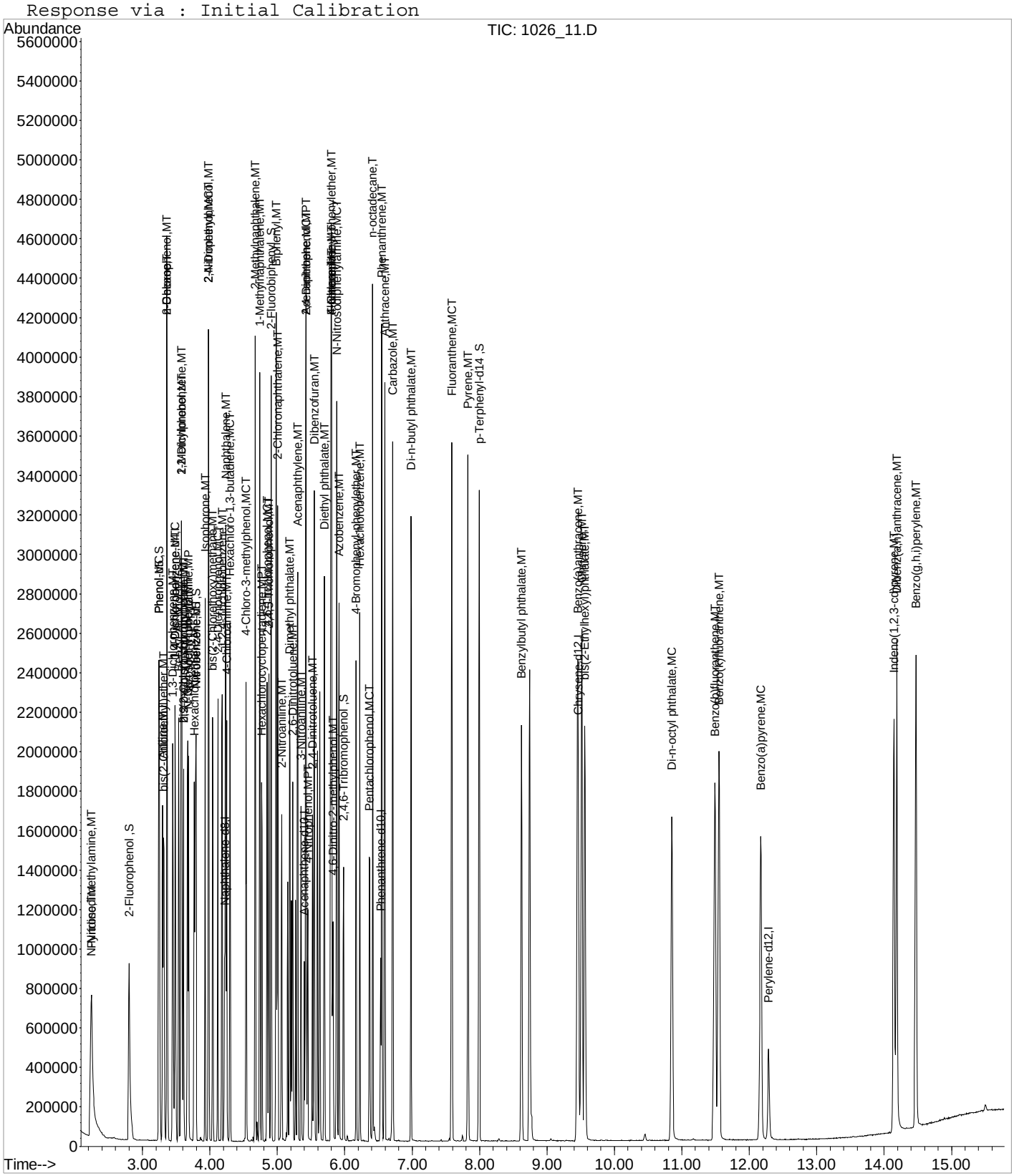
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1025905	30246.3651131	ppb		100
52)	2-Chloronaphthalene	5.00	162	758241	30410.9328321	ppb		98
53)	2-Nitroaniline	5.06	138	249822	36627.6785415	ppb		98
54)	Acenaphthylene	5.30	152	1177813	32101.6454384	ppb		100
55)	Dimethyl phthalate	5.19	163	803435	31562.0996665	ppb		96
56)	2,6-Dinitrotoluene	5.23	165	190926	33677.3367183	ppb		86
57)	3-Nitroaniline	5.35	138	205851	34904.2096291	ppb		91
58)	Acenaphthene	5.43	153	781574	30744.8254974	ppb		99
59)	2,4-Dinitrophenol	5.43	184	110963	44603.9270909	ppb	#	42
60)	Dibenzofuran	5.55	168	1048186	29999.9264600	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	254036	36094.5340247	ppb		89
63)	4-Nitrophenol	5.45	139	163359m	36143.7985185	ppb		
64)	Fluorene	5.81	166	890669	31171.4261150	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	419418	30414.2473280	ppb		97
66)	Diethyl phthalate	5.70	149	786370	30847.0672756	ppb		99
67)	4-Nitroaniline	5.81	138	153264	26595.3831173	ppb		97
68)	Azobenzene	5.92	77	852003	32301.3472486	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.83	198	135088	42307.4696278	ppb		90
72)	N-Nitrosodiphenylamine	5.88	169	743493	33823.5643026	ppb		100
74)	4-Bromophenyl-phenylether	6.17	248	245884	32764.1048555	ppb		93
75)	Hexachlorobenzene	6.22	284	303617	31176.1724334	ppb		99
76)	n-octadecane	6.42	55	125544	34867.2780331	ppb		97
77)	Pentachlorophenol	6.37	266	172451	40233.2467643	ppb		95
78)	Phenanthrene	6.55	178	1245714	30801.9427818	ppb		99
79)	Anthracene	6.59	178	1297253	33645.4239337	ppb		99
80)	Carbazole	6.71	167	1154780	34427.6026515	ppb		100
81)	Di-n-butyl phthalate	6.98	149	1439992	39127.7445543	ppb		100
83)	Fluoranthene	7.59	202	1395218	35040.5521315	ppb		99
86)	Pyrene	7.83	202	1443621	31354.4119700	ppb		99
88)	Benzylbutyl phthalate	8.62	149	563984	38129.6240618	ppb		96
90)	Benzo(a)anthracene	9.46	228	1337839	32622.6842582	ppb		99
91)	Chrysene	9.52	228	1314062	29923.7406479	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	816179	40008.4209381	ppb		99
93)	Di-n-octyl phthalate	10.85	149	1304502	43046.5705735	ppb		100
95)	Benzo(b)fluoranthene	11.49	252	1382715	34143.5973458	ppb		99
96)	Benzo(k)fluoranthene	11.55	252	1407551	32774.0455070	ppb		100
97)	Benzo(a)pyrene	12.17	252	1185295	35880.5551138	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	1217303	33982.0017274	ppb		99
99)	Dibenz(a,h)anthracene	14.19	278	1337774m	32858.1605619	ppb		
100)	Benzo(g,h,i)perylene	14.47	276	1313974	31389.4187111	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

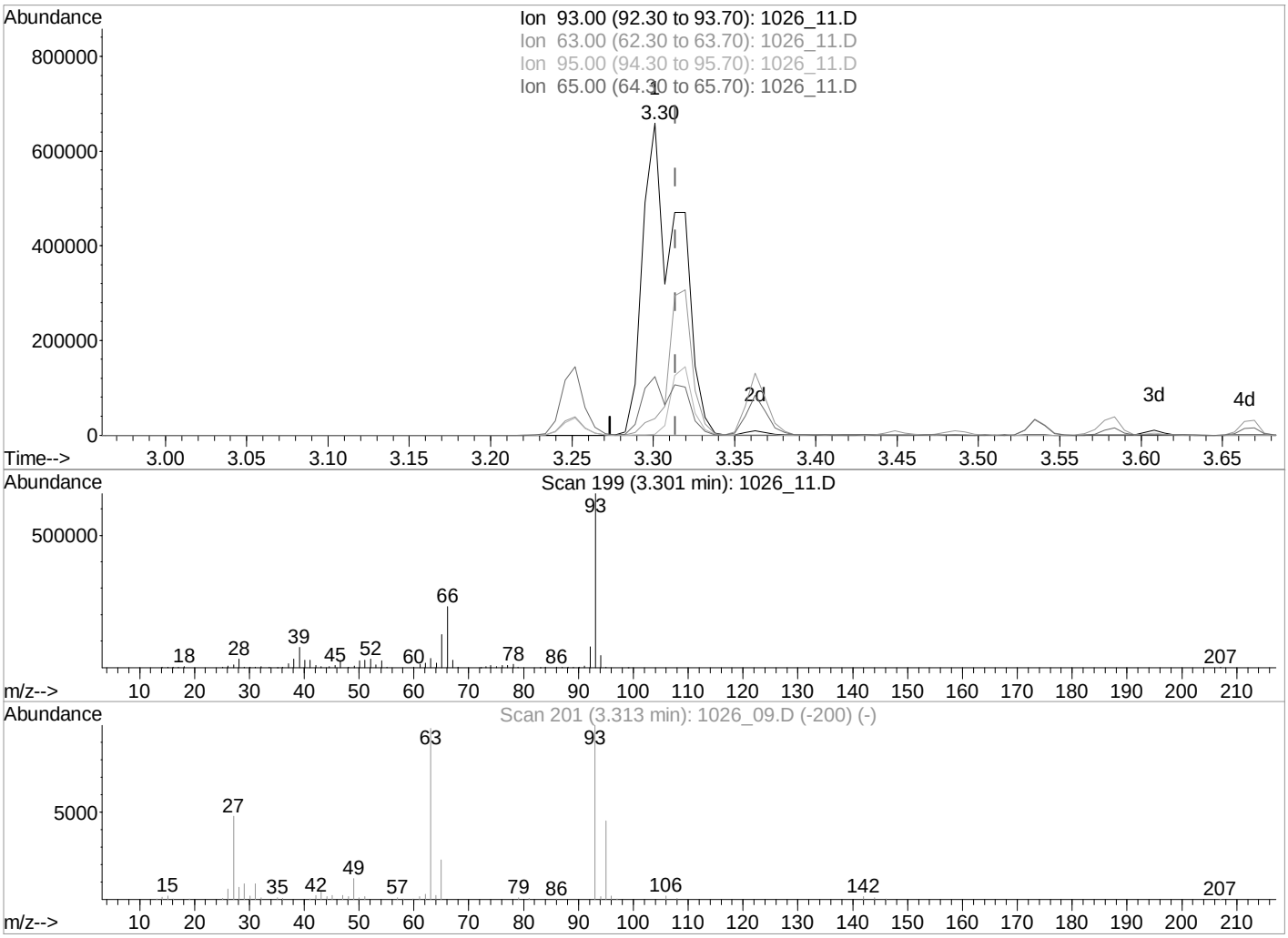
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 76652.2651471 ppb

Qvalue = 42

response 992791

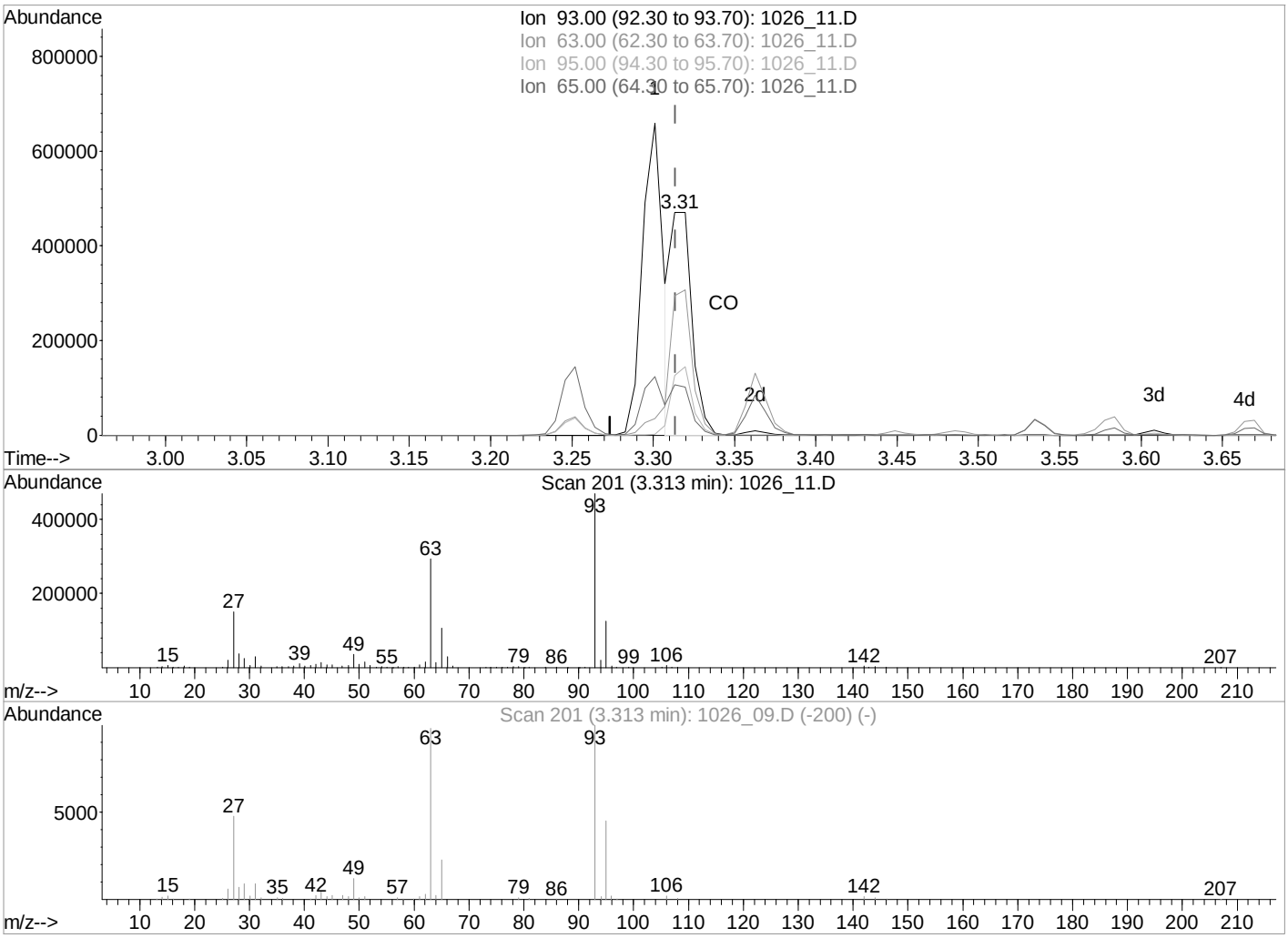
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.21#
95.00	28.70	0.26#
65.00	22.20	18.64

1026_11.D S804J26V.M Thu Oct 27 06:35:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 32136.7226077 ppb m

response 416231

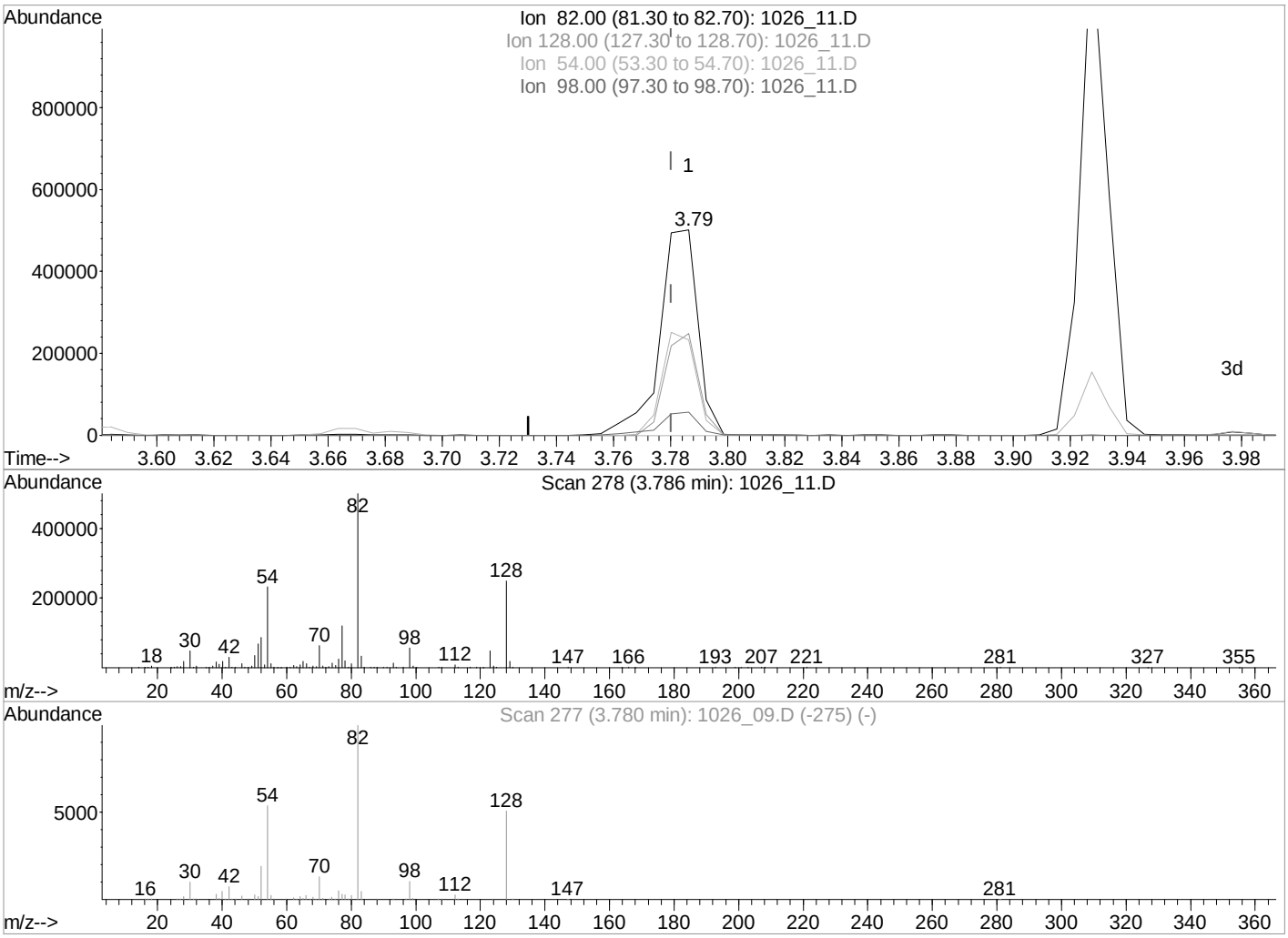
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	62.54
95.00	28.70	26.76
65.00	22.20	22.58

1026_11.D S804J26V.M Thu Oct 27 06:35:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 34523.6421844 ppb

Qvalue = 95

response 470406

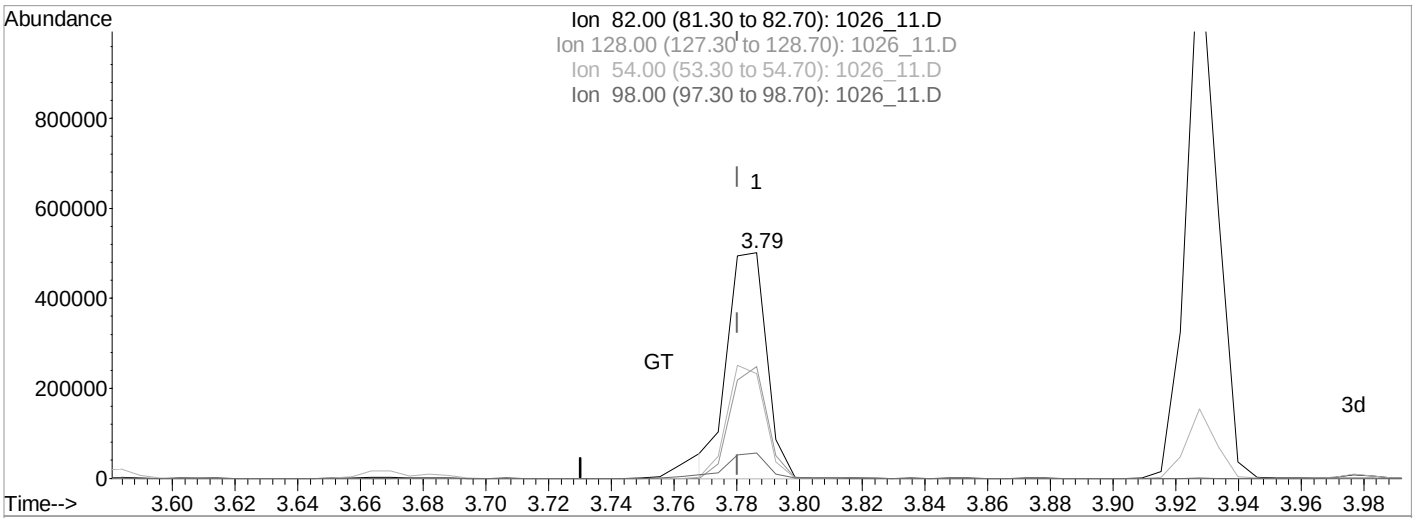
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.53
54.00	49.10	46.47
98.00	10.80	11.32

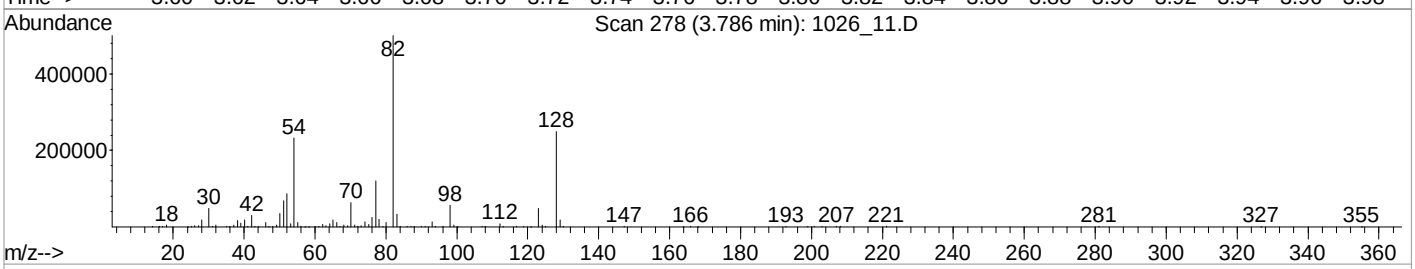
1026_11.D S804J26V.M Thu Oct 27 06:35:47 2022

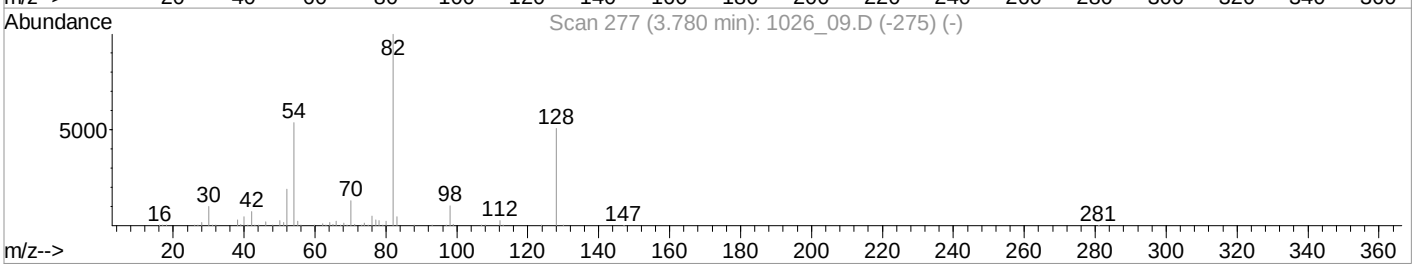
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration







TIC: 1026_11.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 32130.9435740 ppb m

response 437804

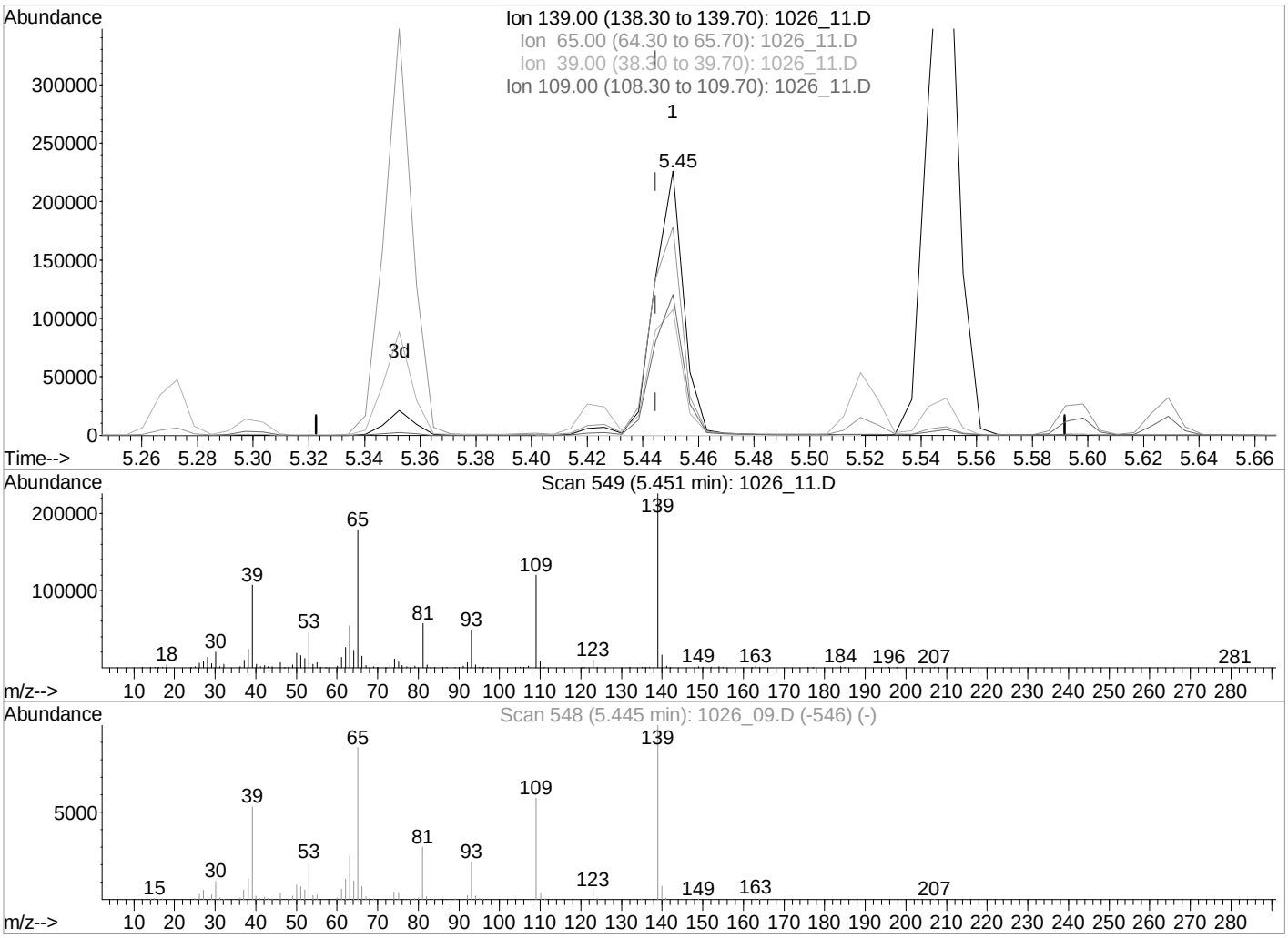
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.53
54.00	49.10	46.47
98.00	10.80	11.32

1026_11.D S804J26V.M Thu Oct 27 06:35:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 37659.8295143 ppb

Qvalue = 90

response 170211

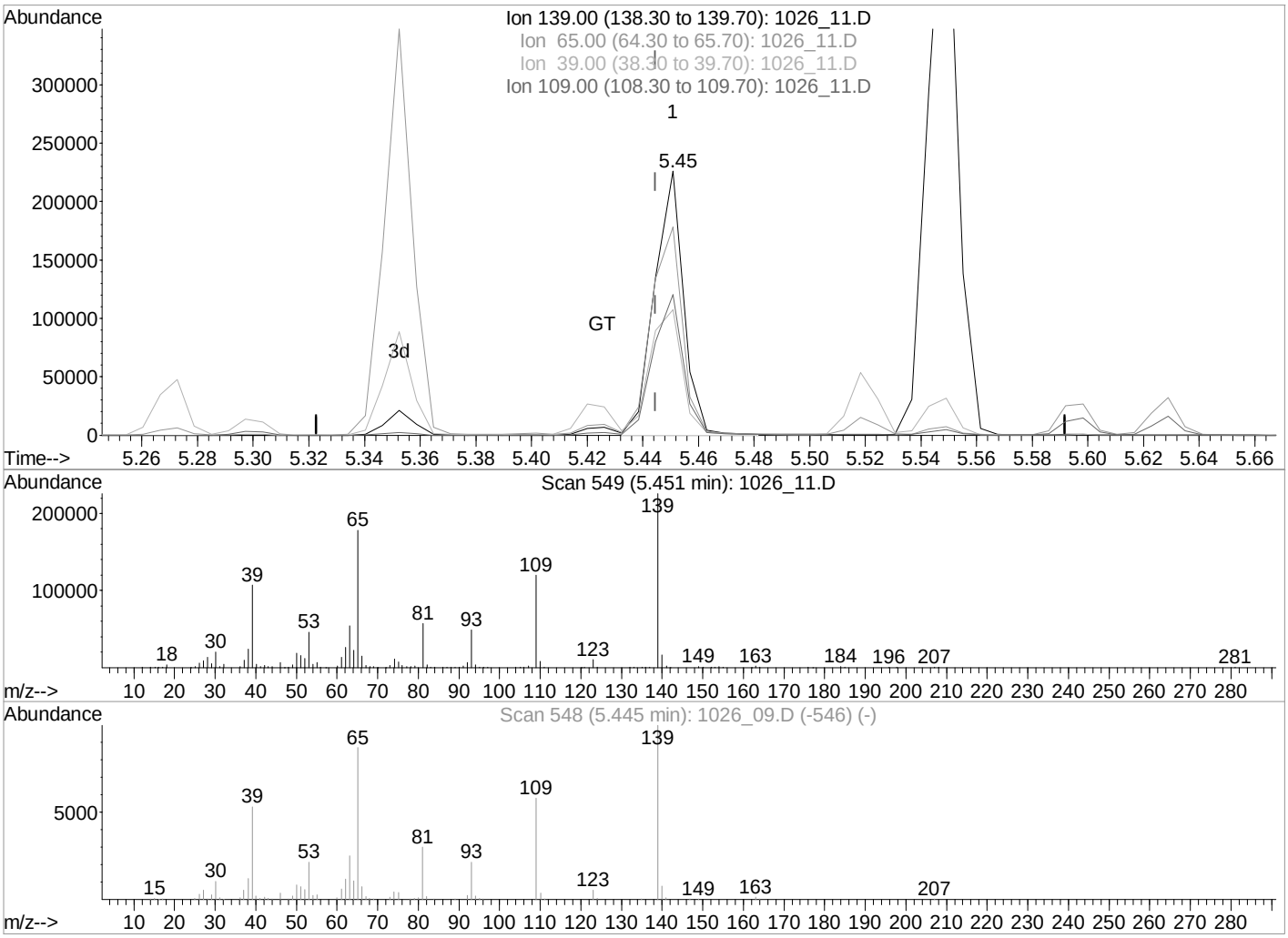
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	77.98
39.00	54.80	47.30
109.00	58.30	53.01

1026_11.D S804J26V.M Thu Oct 27 06:36:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 36143.7985185 ppb m

response 163359

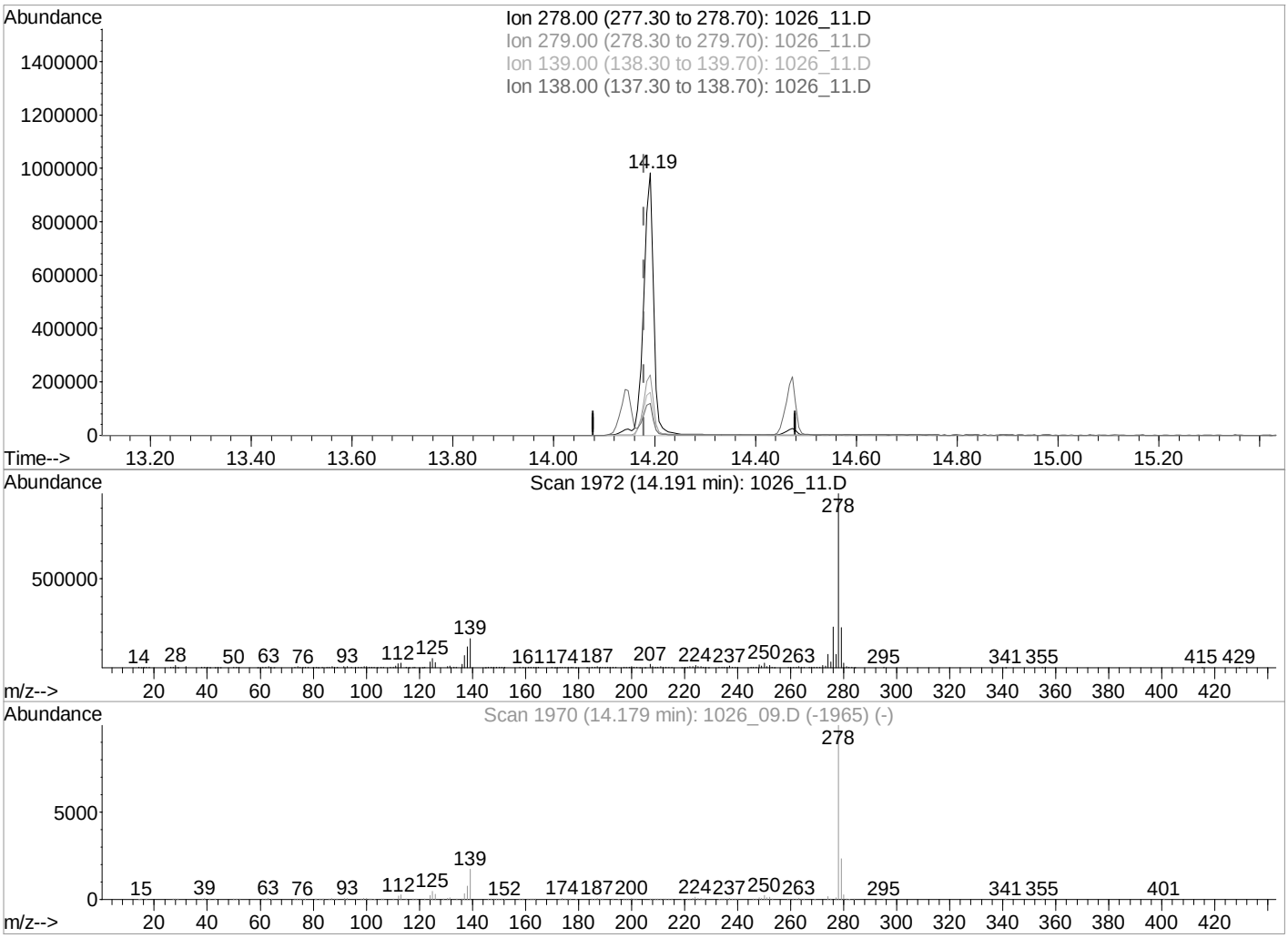
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	78.77
39.00	54.80	47.46
109.00	58.30	53.17

1026_11.D S804J26V.M Thu Oct 27 06:36:20 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 33787.5306045 ppb

Qvalue = 99

response 1375612

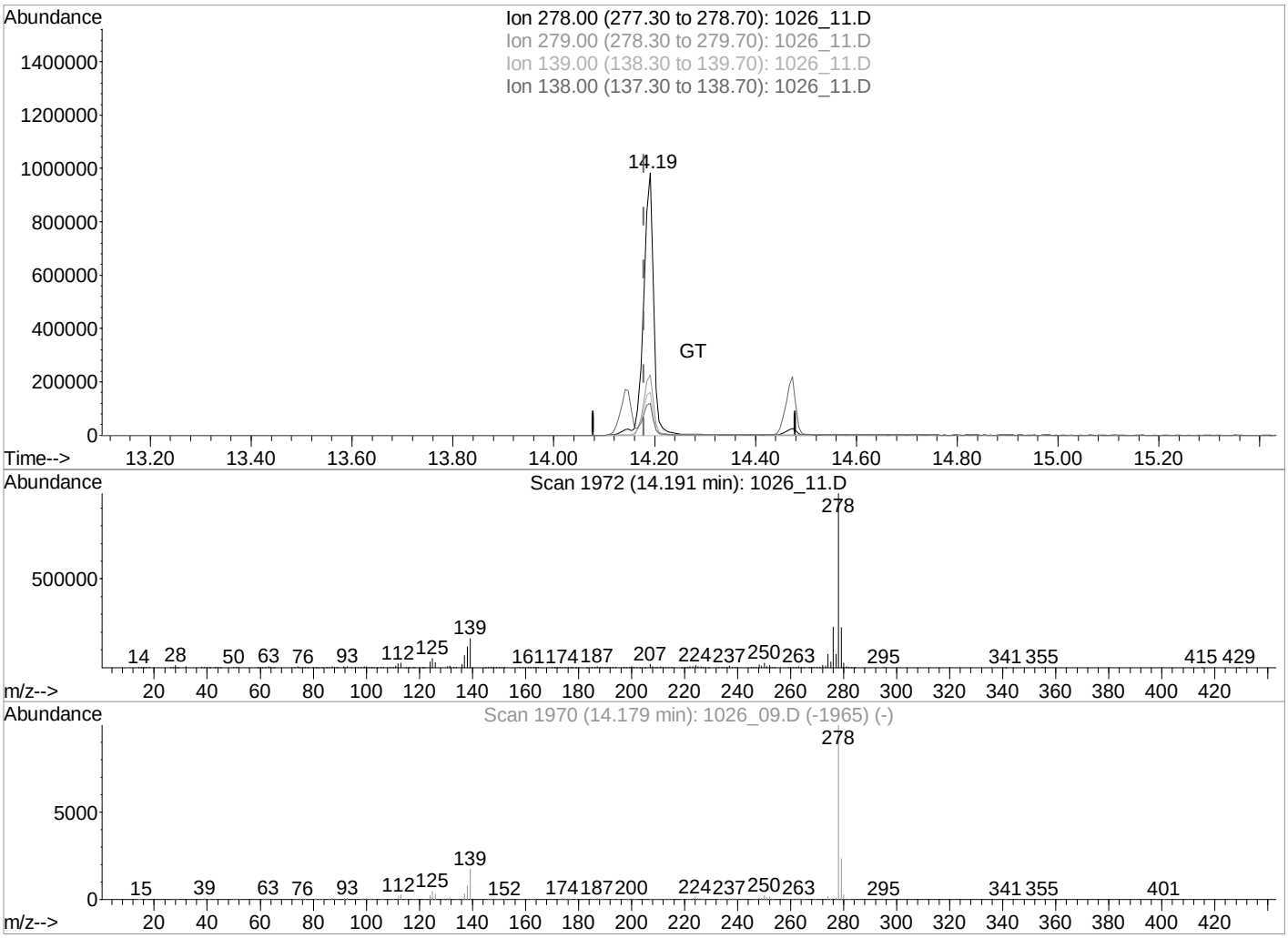
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	22.99
139.00	17.00	16.43
138.00	12.30	11.99

1026_11.D S804J26V.M Thu Oct 27 06:36:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 32858.1605619 ppb m

response 1337774

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	22.99
139.00	17.00	16.43
138.00	12.30	12.03

1026_11.D S804J26V.M Thu Oct 27 06:36:46 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84476	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	335930	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	174068	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	302662	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	315653	8000.00 ppb	0.01
94) Perylene-d12	12.29	264	308379	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	515190	40679.5914699 ppb	0.00
Spiked Amount 20000.000			Recovery = 203.40%		
7) Phenol-d5	3.25	99	674185	41559.8390598 ppb	0.00
Spiked Amount 20000.000			Recovery = 207.80%		
24) Nitrobenzene-d5	3.79	82	565151m	39579.8537449 ppb	0.00
Spiked Amount 10000.000			Recovery = 395.80%		
50) 2-Fluorobiphenyl	4.91	172	1273555	40336.2752613 ppb	0.00
Spiked Amount 10000.000			Recovery = 403.36%		
73) 2,4,6-Tribromophenol	5.99	330	203157	49735.8298836 ppb	0.00
Spiked Amount 20000.000			Recovery = 248.68%		
87) p-Terphenyl-d14	7.99	244	1732338	40699.8610574 ppb	0.00
Spiked Amount 10000.000			Recovery = 407.00%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	569740	40512.7532753 ppb	99
3) N-Nitrosodimethylamine	2.23	42	257284	37403.7743054 ppb	98
5) Aniline	3.30	66	296336	41144.7748120 ppb #	94
6) bis(2-Chloroethyl)ether	3.32	93	570494m	42410.1958450 ppb	
8) Phenol	3.25	94	685821	41700.7036013 ppb	95
10) 2-Chlorophenol	3.36	128	564767	42084.4569583 ppb	98
11) n-Decane	3.36	41	295012	37427.5802480 ppb	97
12) 1,3-Dichlorobenzene	3.45	146	634385	39546.2616999 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	642366	40315.1365639 ppb	99
14) Benzyl Alcohol	3.53	79	454667	44058.1549561 ppb	97
15) 1,2-Dichlorobenzene	3.57	146	606523	40451.6021458 ppb	98
16) bis(2-Chloroisopropyl)ethe	3.61	121	189678	40256.9482598 ppb	99
17) 2,2-oxybis(1-chloropropane	3.61	121	189678	40256.9482598 ppb	99
18) 2-Methylphenol	3.58	108	515722	42815.9460205 ppb	98
19) Hexachloroethane	3.77	117	235837	40995.0896729 ppb	97
20) N-Nitrosodi-n-propylamine	3.69	70	395381	43707.3017350 ppb	99
21) 3&4-Methyl phenol	3.67	107	580402	43036.1853402 ppb	99
25) Nitrobenzene	3.79	77	584613	41445.7250569 ppb	96
26) Isophorone	3.93	82	1091348	43346.4570047 ppb	93
27) 2-Nitrophenol	3.98	139	308952	44442.0063692 ppb	98
28) 2,4-Dimethylphenol	3.98	107	550748	42245.0609590 ppb	95
29) bis(2-Chlorethoxy)methane	4.04	93	649713	40925.7200551 ppb	95
30) 2,4-Dichlorophenol	4.12	162	463445	42691.6191232 ppb	96
32) 1,2,4-Trichlorobenzene	4.18	180	519437	39462.8055294 ppb	96
34) Naphthalene	4.23	128	1727611m	40826.9278842 ppb	
35) 4-Chloroaniline	4.25	65	189622	42969.4974923 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	296208	39399.8297565 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	450226	44050.7961043 ppb	96
41) 2-Methylnaphthalene	4.67	142	1139804	41718.2197567 ppb	99
42) 1-Methylnaphthalene	4.74	142	1082961	41597.1843532 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	365341	42920.7155930 ppb	95
48) 2,4,6-Trichlorophenol	4.85	196	340826	43278.8721992 ppb	95
49) 2,4,5-Trichlorophenol	4.87	196	365793	44979.4648640 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

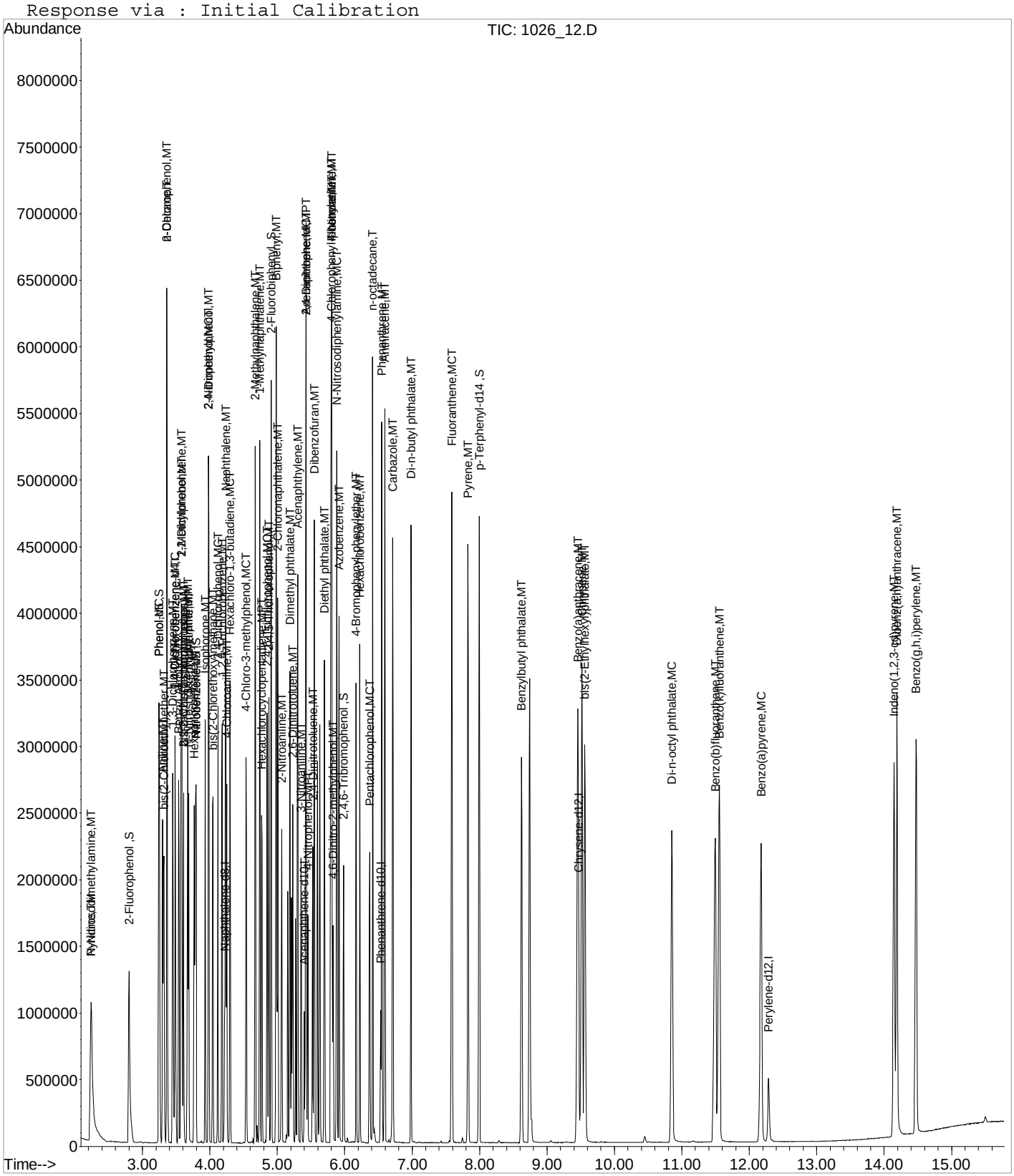
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1424023	40445.9564503	ppb		100
52)	2-Chloronaphthalene	5.00	162	1049668	40520.0675748	ppb		98
53)	2-Nitroaniline	5.06	138	346696	47294.4378589	ppb		98
54)	Acenaphthylene	5.30	152	1641775	42668.6886666	ppb		99
55)	Dimethyl phthalate	5.19	163	1134902	42638.9873989	ppb		99
56)	2,6-Dinitrotoluene	5.23	165	267541	44613.4711913	ppb		98
57)	3-Nitroaniline	5.35	138	291081	46350.0774719	ppb		95
58)	Acenaphthene	5.43	153	1093684	41332.0068035	ppb		99
59)	2,4-Dinitrophenol	5.43	184	164439	58108.1265507	ppb	#	40
60)	Dibenzofuran	5.55	168	1476990	40779.8515185	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	355549	47137.9395991	ppb		98
63)	4-Nitrophenol	5.45	139	224872m	46412.6231365	ppb		
64)	Fluorene	5.81	166	1248622	41883.2324851	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	582128	40629.0103812	ppb		96
66)	Diethyl phthalate	5.70	149	1042709	39273.2799305	ppb		99
67)	4-Nitroaniline	5.81	138	241755	41249.6997999	ppb		96
68)	Azobenzene	5.92	77	1188077	42903.5076812	ppb		98
71)	4,6-Dinitro-2-methylphenol	5.83	198	193157	55656.3466452	ppb		97
72)	N-Nitrosodiphenylamine	5.88	169	1041244	45592.5553727	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	339818	43835.2644798	ppb		90
75)	Hexachlorobenzene	6.22	284	416122	41726.9291672	ppb		99
76)	n-octadecane	6.42	55	174418	46361.0705950	ppb		98
77)	Pentachlorophenol	6.37	266	240850	52261.2402490	ppb		94
78)	Phenanthrene	6.55	178	1705200	41260.2745416	ppb		99
79)	Anthracene	6.59	178	1771805	44272.8266292	ppb		99
80)	Carbazole	6.71	167	1600765	45783.5332259	ppb		100
81)	Di-n-butyl phthalate	6.98	149	2023818	51444.7503225	ppb		100
83)	Fluoranthene	7.59	202	1950289	46833.9775639	ppb		99
86)	Pyrene	7.83	202	2019757	41426.8683151	ppb		99
88)	Benzylbutyl phthalate	8.62	149	806655	49646.8868078	ppb		96
90)	Benzo(a)anthracene	9.46	228	1876253	42906.0126498	ppb		100
91)	Chrysene	9.52	228	1831592	39701.4098947	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	1175115	51920.5343930	ppb		98
93)	Di-n-octyl phthalate	10.85	149	1875880	54916.4441611	ppb		99
95)	Benzo(b)fluoranthene	11.49	252	1900923	44172.9171439	ppb		99
96)	Benzo(k)fluoranthene	11.56	252	1955168	43162.5450944	ppb		100
97)	Benzo(a)pyrene	12.18	252	1674074	47243.8158571	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	1683093	44254.2123814	ppb		99
99)	Dibenz(a,h)anthracene	14.19	278	1819536m	42352.4344229	ppb		
100)	Benzo(g,h,i)perylene	14.48	276	1736411	39628.5933678	ppb		93

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

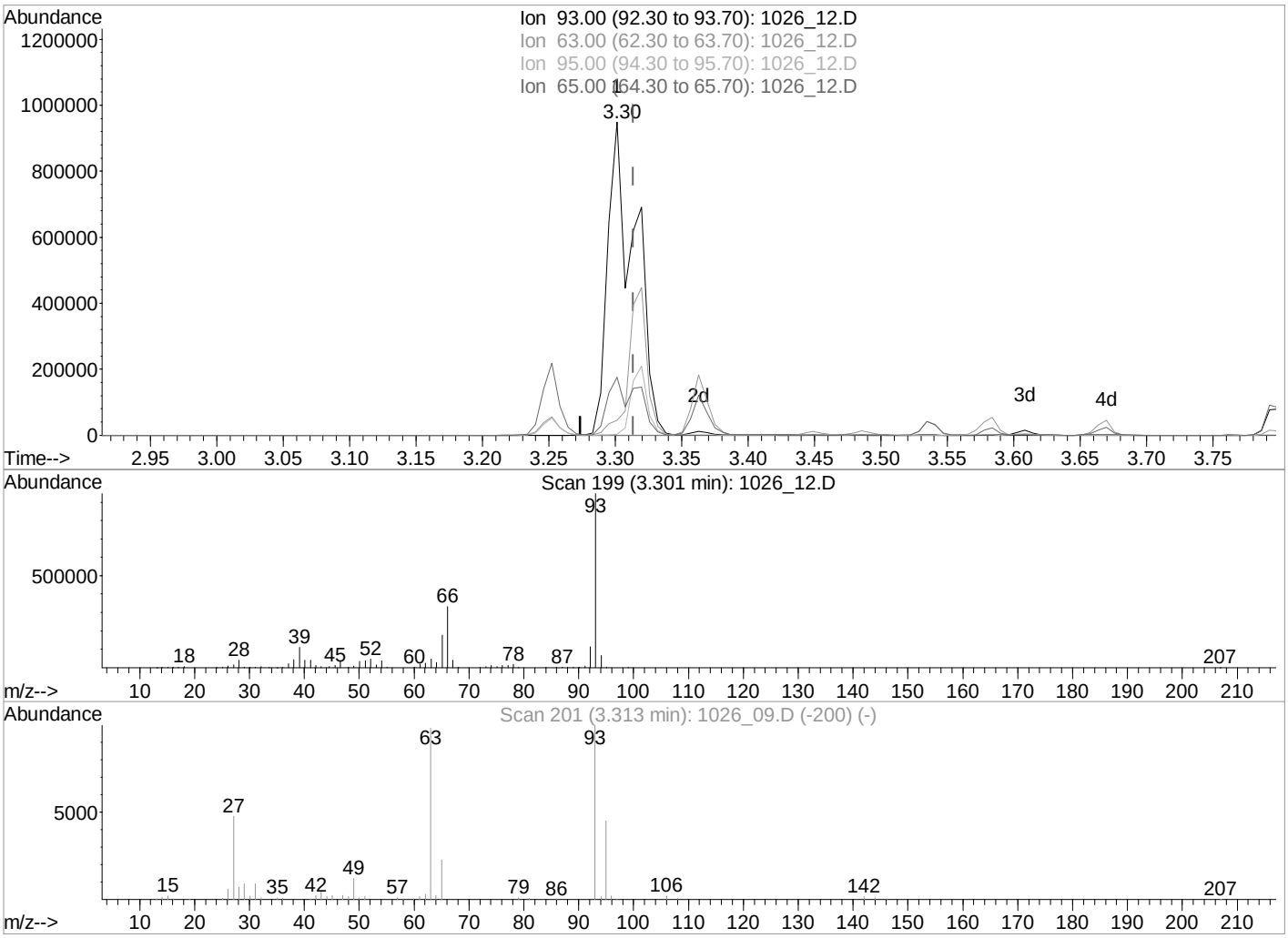
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 101399.2728642 ppb

Qvalue = 41

response 1364004

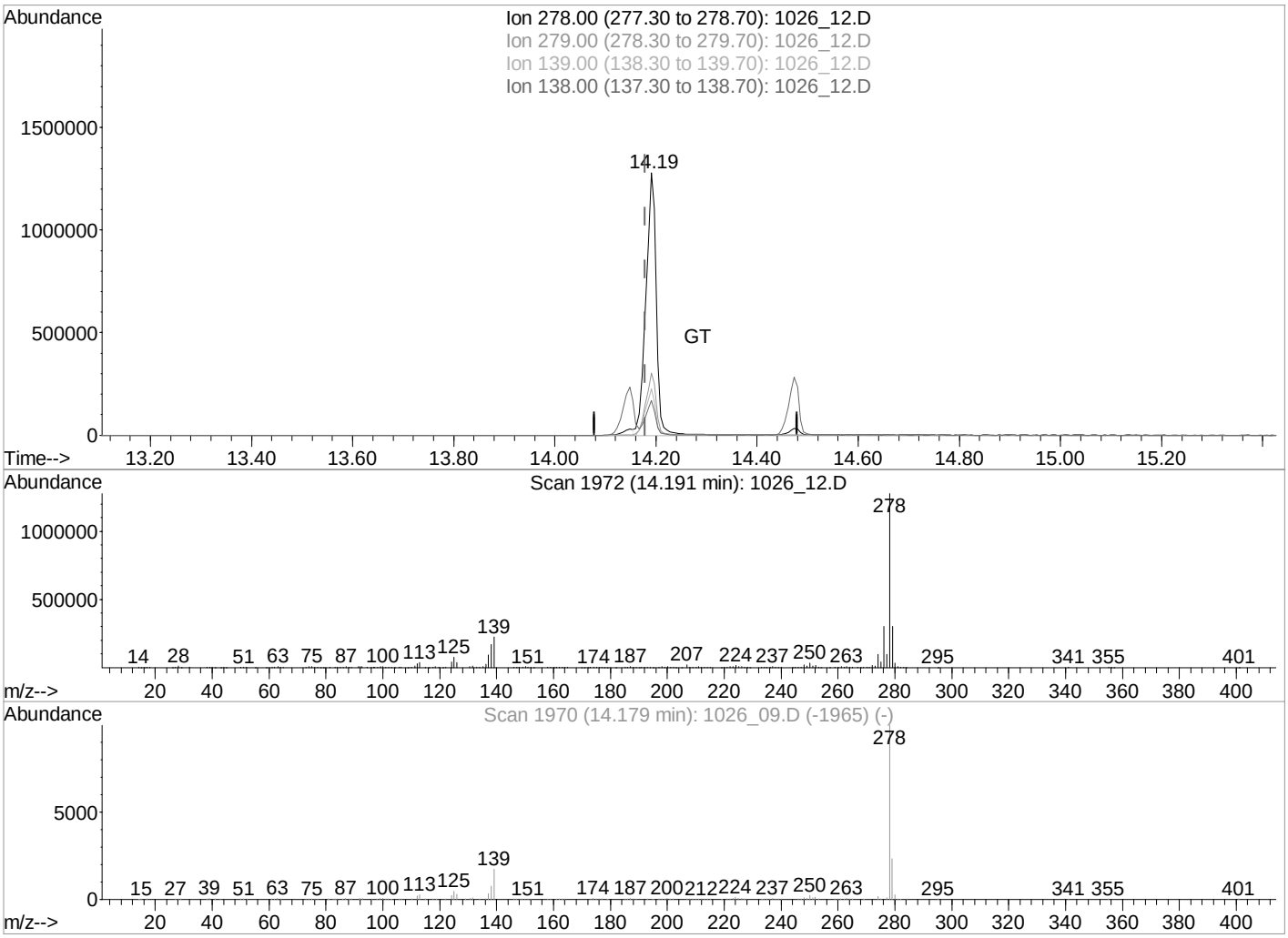
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.77#
95.00	28.70	0.25#
65.00	22.20	18.56

1026_12.D S804J26V.M Thu Oct 27 06:39:18 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 42352.4344229 ppb m

response 1819536

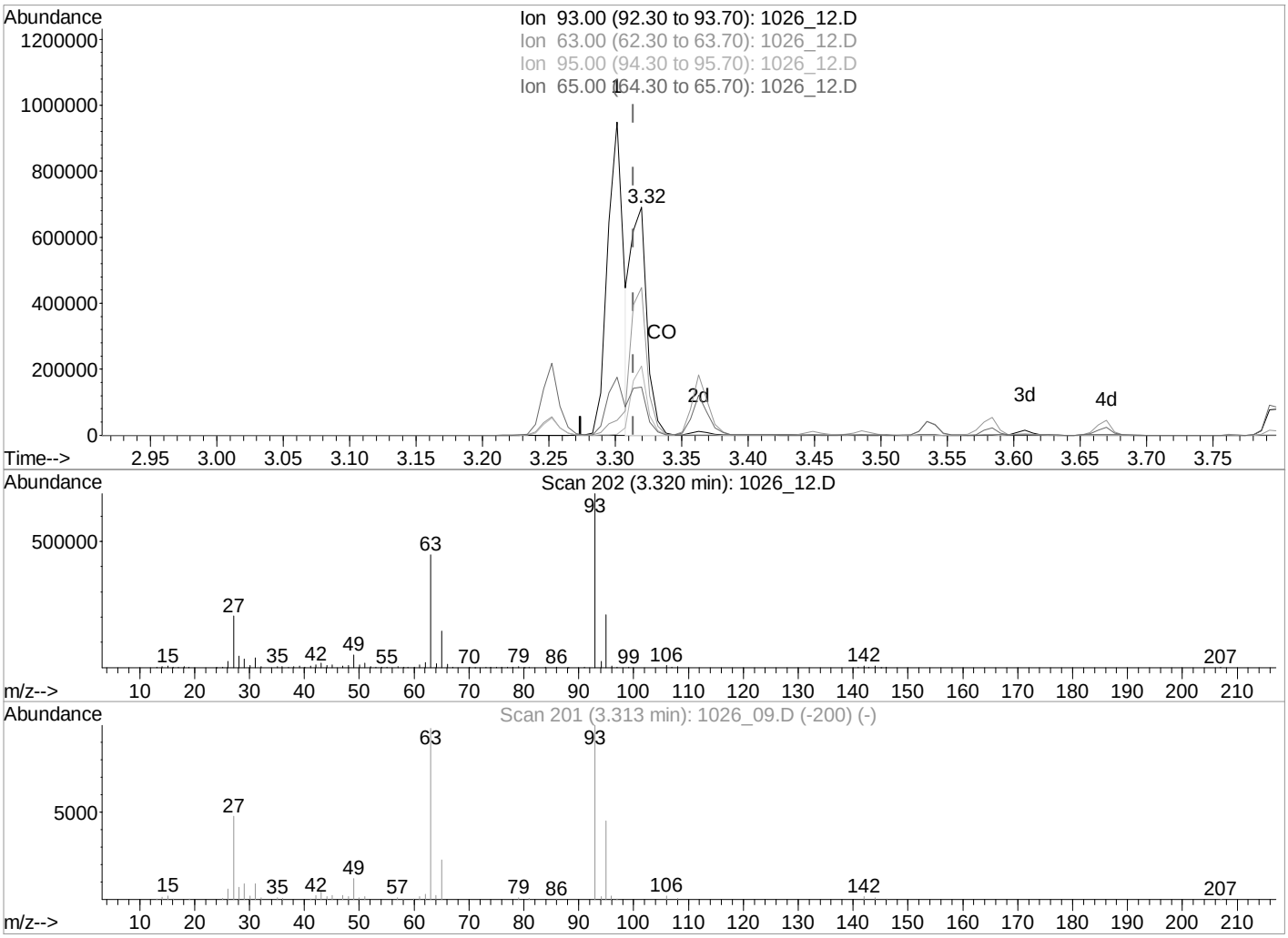
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.59
139.00	17.00	17.58
138.00	12.30	13.16

1026_12.D S804J26V.M Thu Oct 27 06:40:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.32min (+0.006) 42410.1958450 ppb m

response 570494

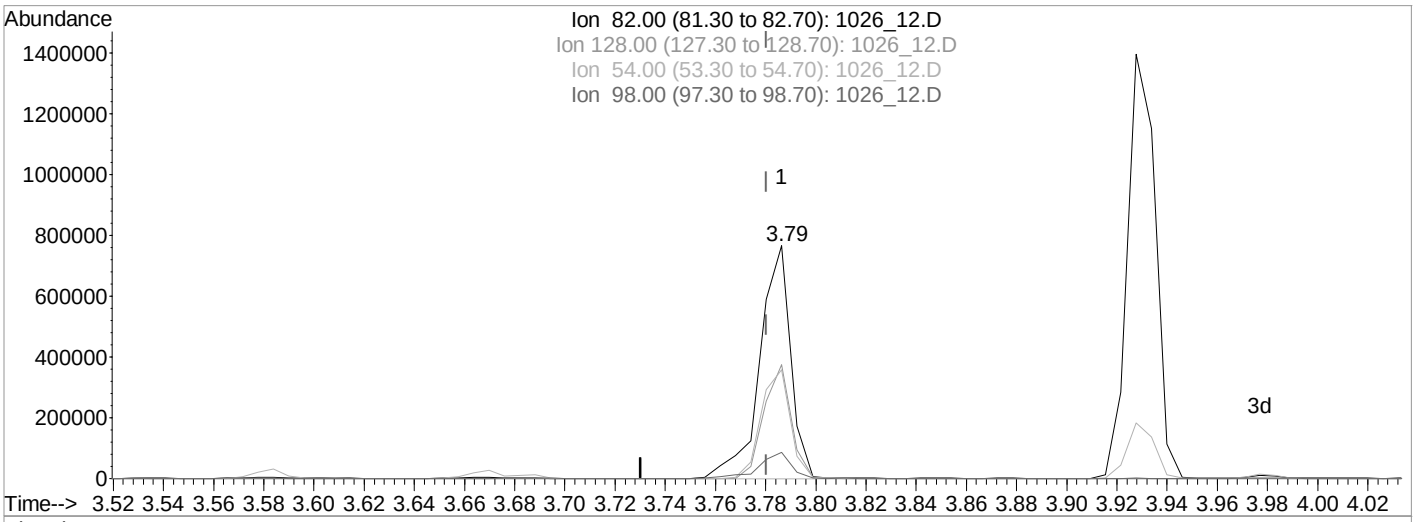
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	64.80
95.00	28.70	30.35
65.00	22.20	21.08

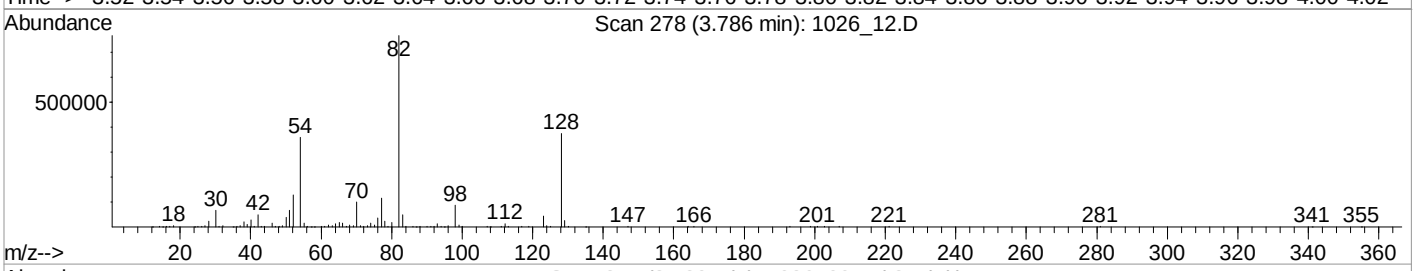
1026_12.D S804J26V.M Thu Oct 27 06:39:24 2022

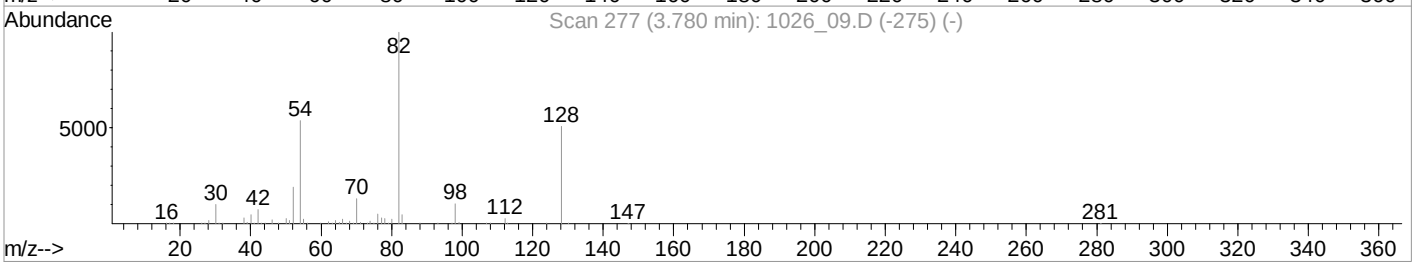
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration







TIC: 1026_12.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 45878.1623509 ppb

Qvalue = 96

response 655083

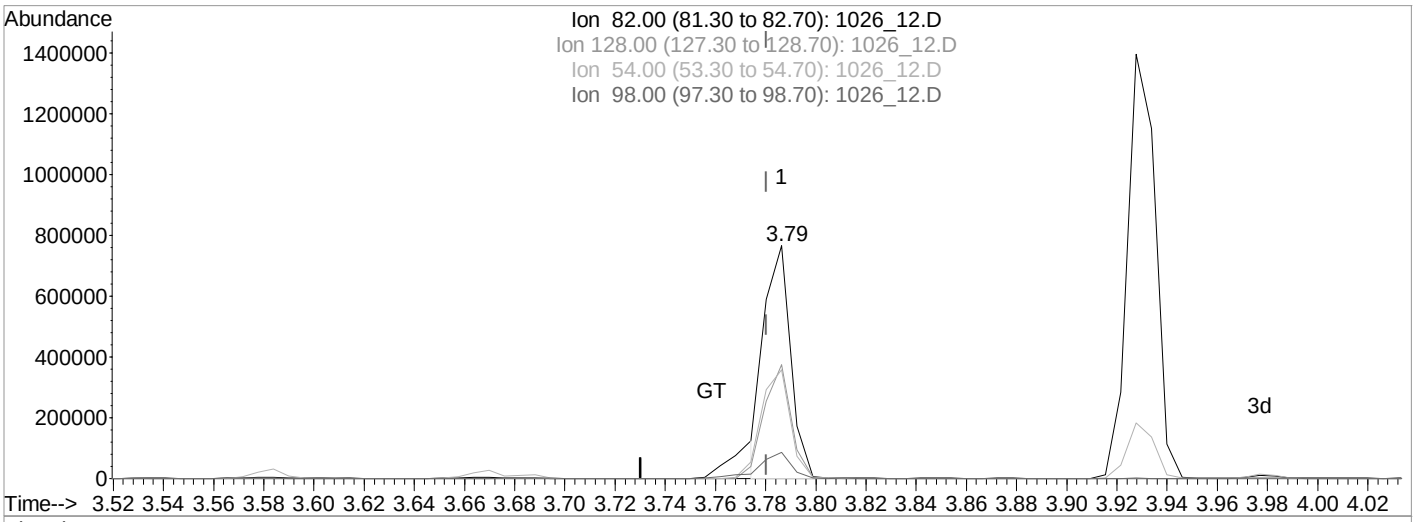
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	48.72
54.00	49.10	46.72
98.00	10.80	11.19

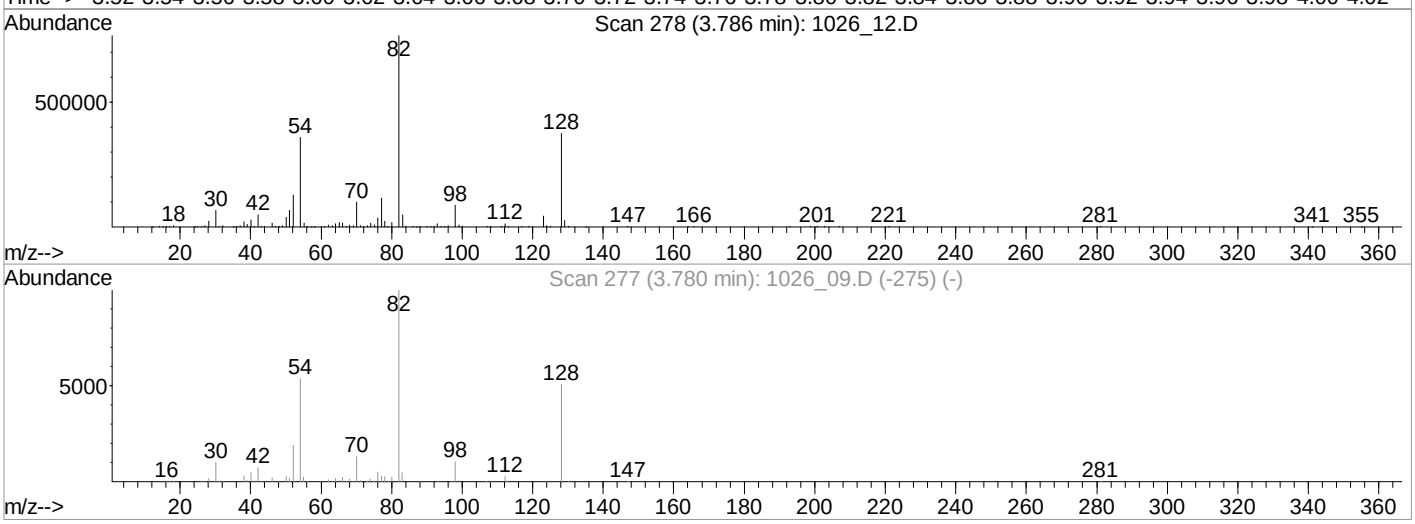
1026_12.D S804J26V.M Thu Oct 27 06:39:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration





TIC: 1026_12.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 39579.8537449 ppb m

response 565151

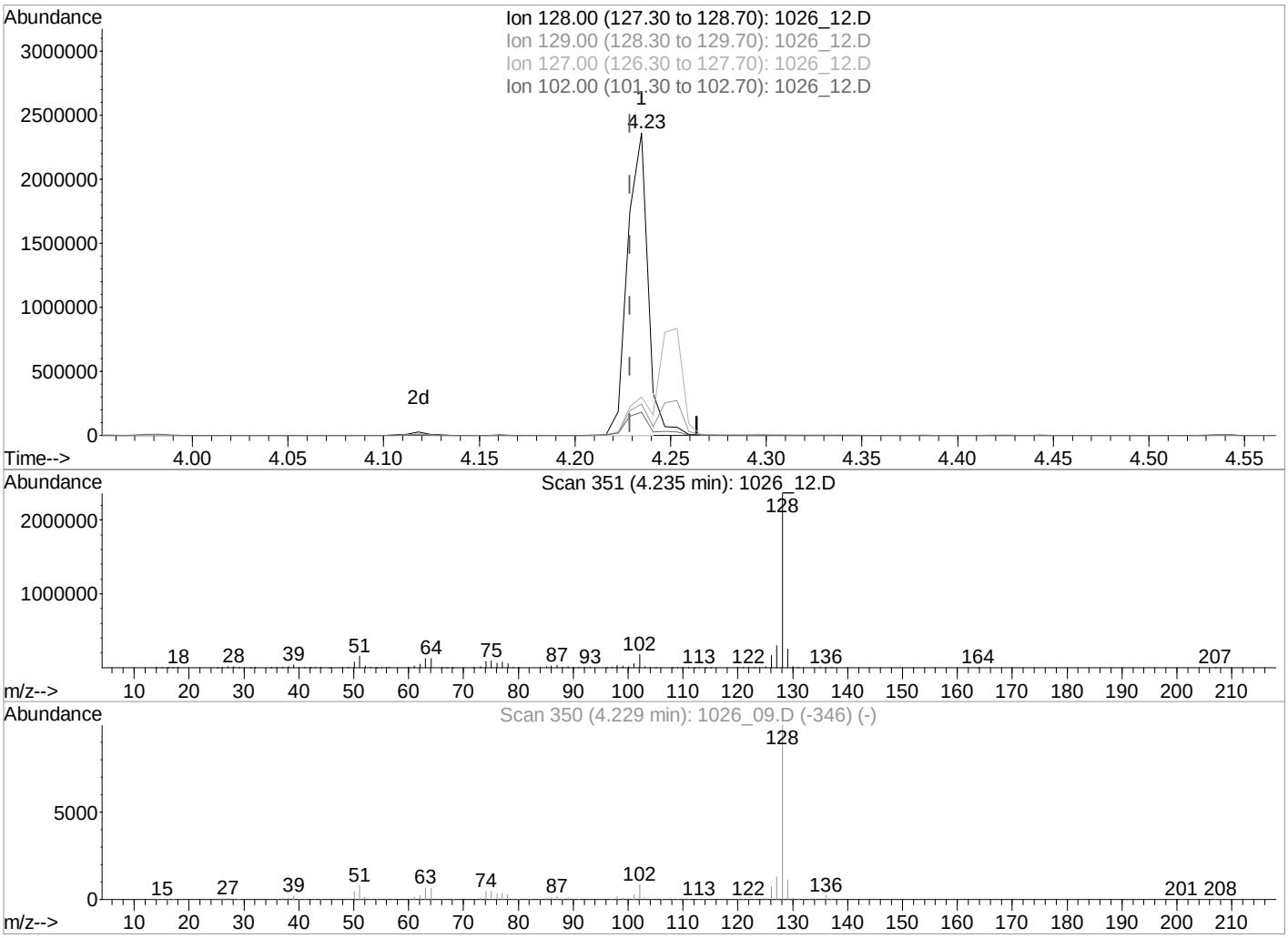
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	48.72
54.00	49.10	46.72
98.00	10.80	11.19

1026_12.D S804J26V.M Thu Oct 27 06:39:39 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(34) Naphthalene (MT)

4.23min (+0.006) 40263.1625507 ppb

Qvalue = 99

response 1703755

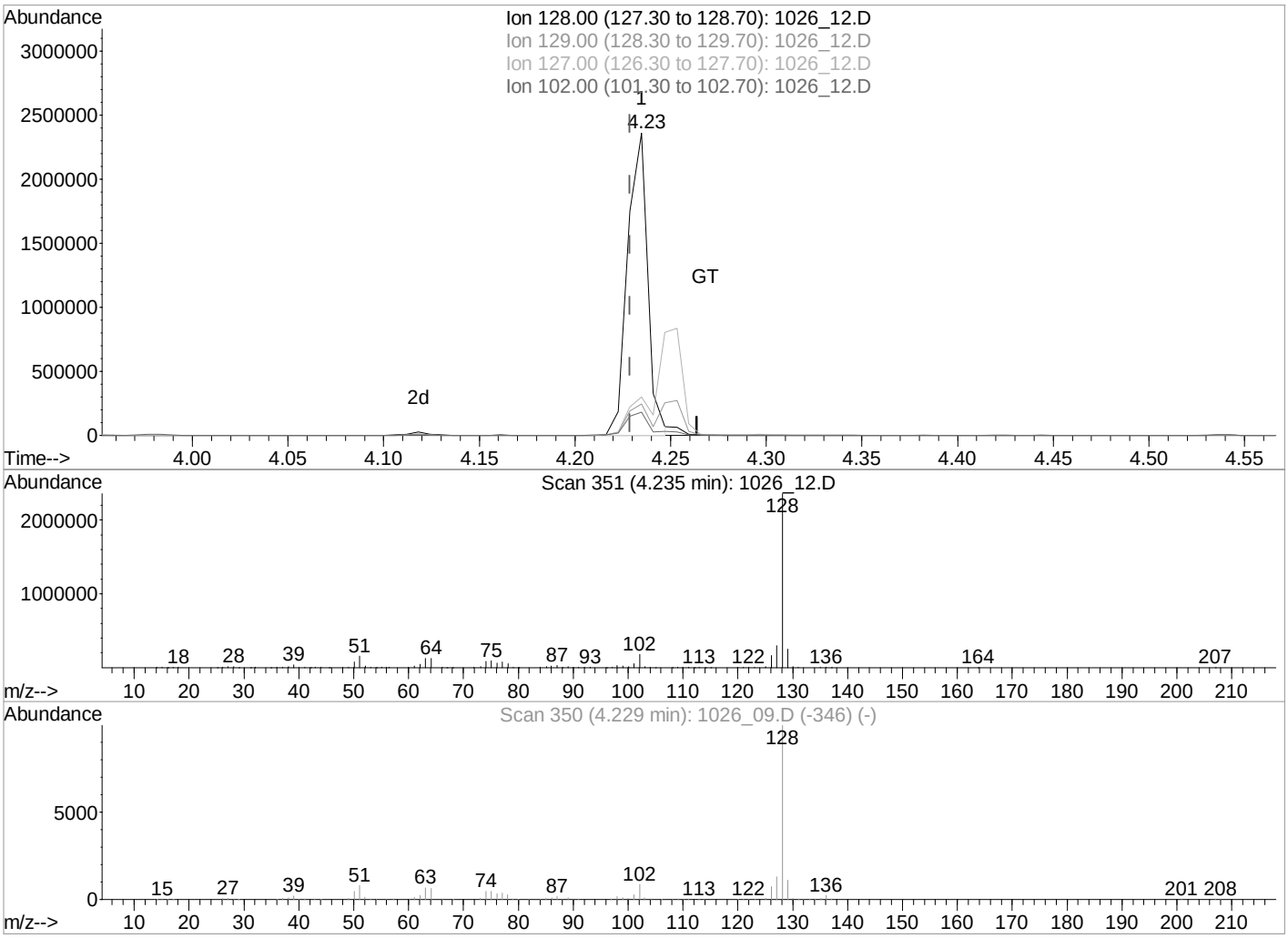
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.40
127.00	12.90	12.63
102.00	8.40	7.54

1026_12.D S804J26V.M Thu Oct 27 06:39:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(34) Naphthalene (MT)

4.23min (+0.006) 40826.9278842 ppb m

response 1727611

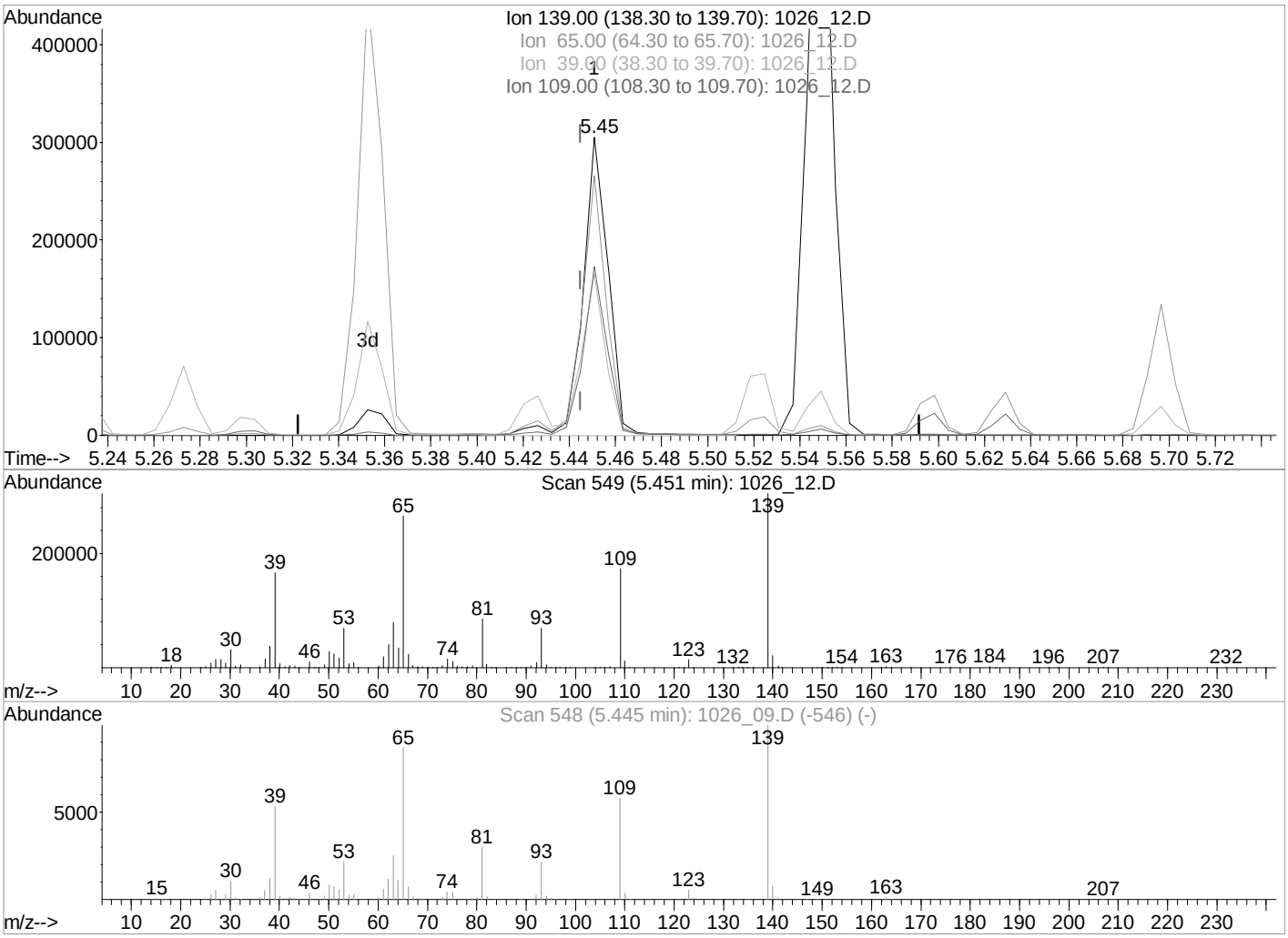
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.40
127.00	12.90	12.63
102.00	8.40	7.54

1026_12.D S804J26V.M Thu Oct 27 06:39:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 48218.5858728 ppb

Qvalue = 98

response 233622

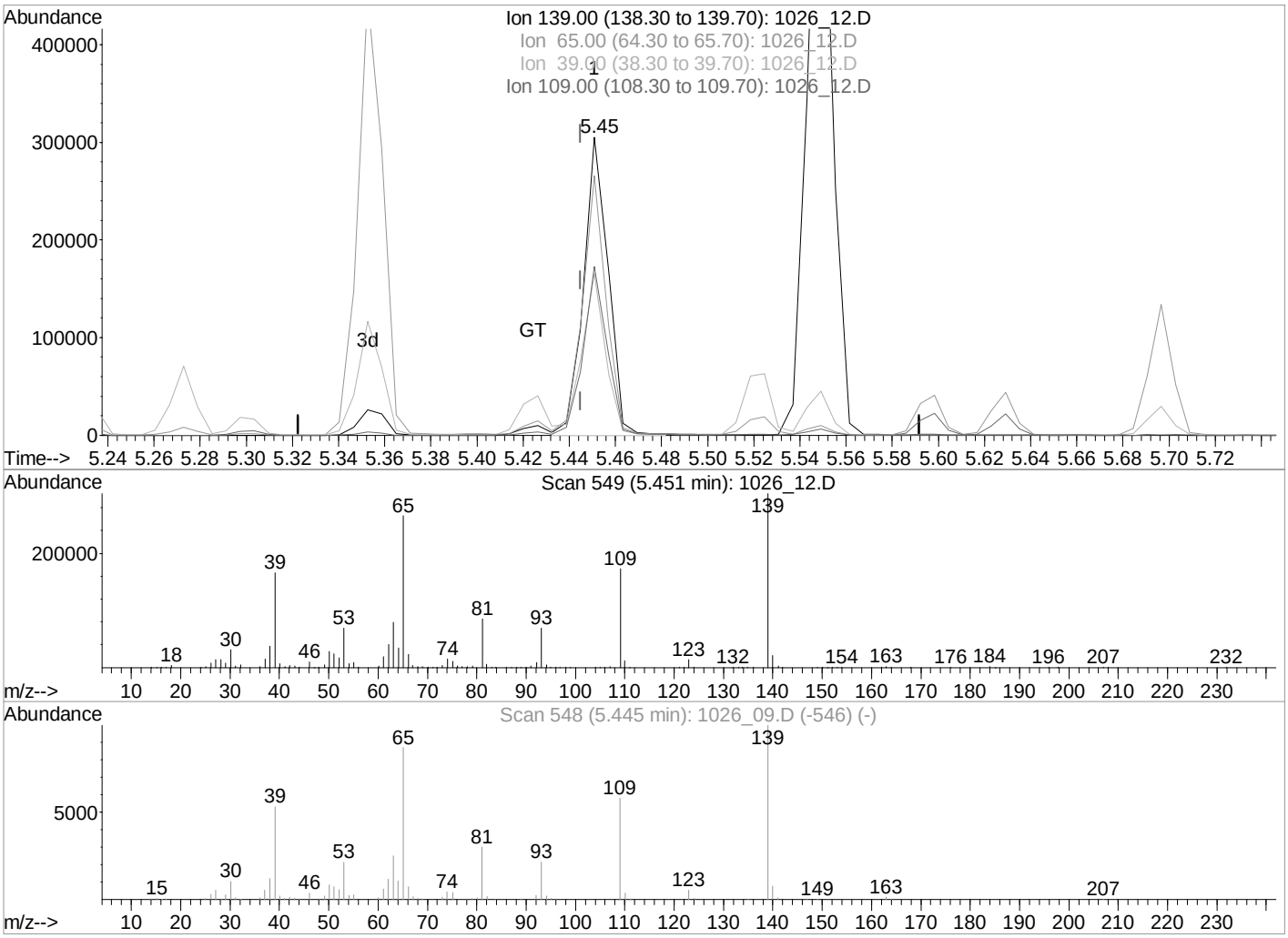
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	86.60
39.00	54.80	54.22
109.00	58.30	56.52

1026_12.D S804J26V.M Thu Oct 27 06:40:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 46412.6231365 ppb m

response 224872

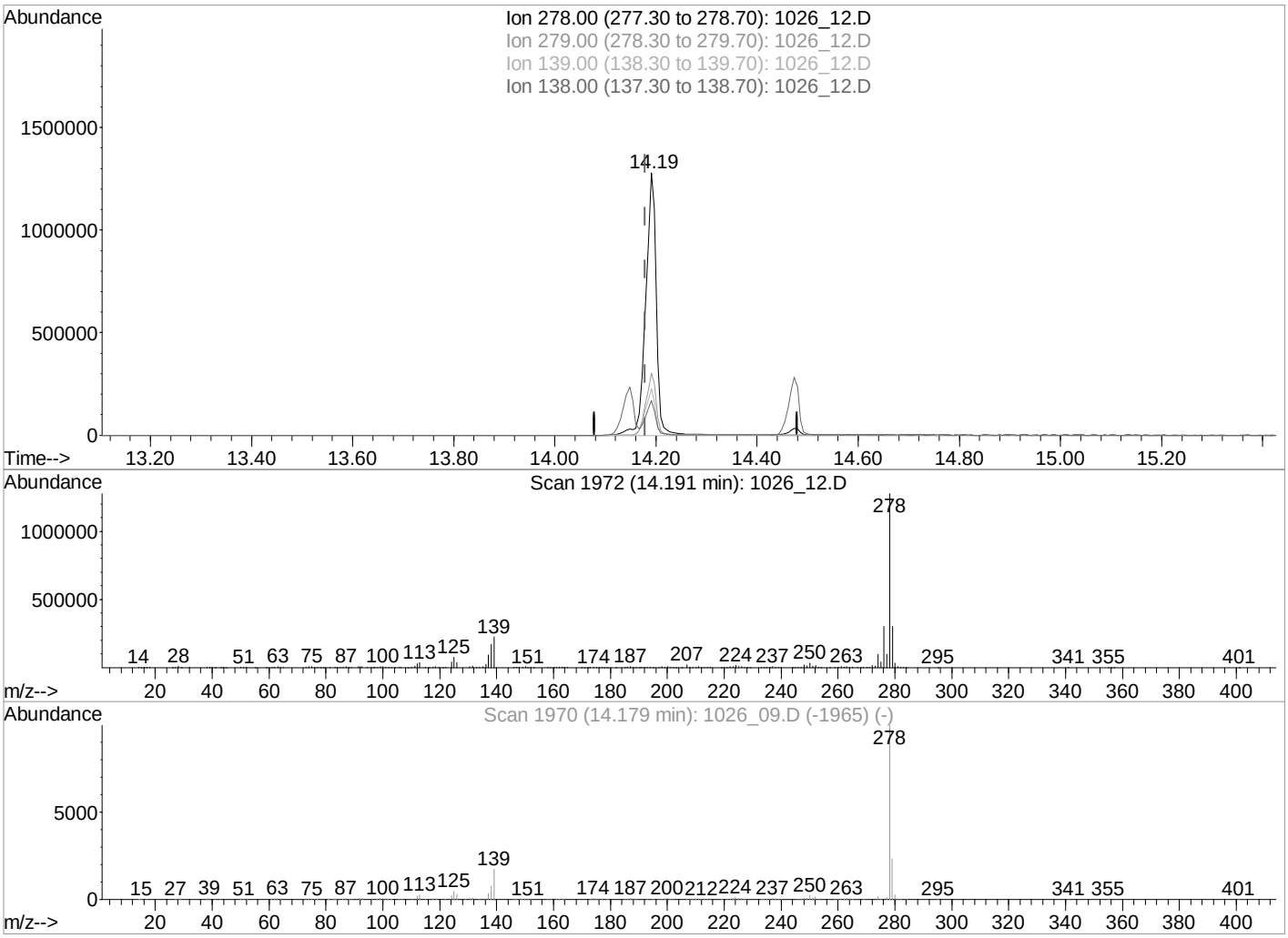
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	87.14
39.00	54.80	54.32
109.00	58.30	56.65

1026_12.D S804J26V.M Thu Oct 27 06:40:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 43552.6407261 ppb

Qvalue = 99

response 1871099

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.59
139.00	17.00	17.58
138.00	12.30	13.14

1026_12.D S804J26V.M Thu Oct 27 06:40:28 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84823	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	335625	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	174075	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	301511	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	314997	8000.00 ppb	0.01
94) Perylene-d12	12.29	264	309482	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	678919	53259.1253245 ppb	0.00
Spiked Amount 20000.000			Recovery = 266.30%		
7) Phenol-d5	3.25	99	890853	54388.5968099 ppb	0.00
Spiked Amount 20000.000			Recovery = 271.94%		
24) Nitrobenzene-d5	3.79	82	766940m	53841.5704248 ppb	0.00
Spiked Amount 10000.000			Recovery = 538.42%		
50) 2-Fluorobiphenyl	4.91	172	1668739	52787.0960374 ppb	0.00
Spiked Amount 10000.000			Recovery = 527.87%		
73) 2,4,6-Tribromophenol	5.99	330	271366	64447.1287906 ppb	0.00
Spiked Amount 20000.000			Recovery = 322.24%		
87) p-Terphenyl-d14	7.99	244	2309697	54241.8685813 ppb	0.00
Spiked Amount 10000.000			Recovery = 542.42%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	746516	52769.0531793 ppb	99
3) N-Nitrosodimethylamine	2.24	42	338349	49446.2003996 ppb	98
5) Aniline	3.30	66	390811	53820.1349680 ppb #	95
6) bis(2-Chloroethyl)ether	3.32	93	498938m	36623.7786961 ppb	
8) Phenol	3.25	94	901816	54280.0641876 ppb	96
10) 2-Chlorophenol	3.36	128	747729	55080.1643396 ppb	98
11) n-Decane	3.36	41	382956	48834.7599357 ppb	97
12) 1,3-Dichlorobenzene	3.45	146	830557	51647.1104690 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	851504	53162.2650767 ppb	98
14) Benzyl Alcohol	3.54	79	605033	57554.9150751 ppb	97
15) 1,2-Dichlorobenzene	3.58	146	803954	53313.7795869 ppb	97
16) bis(2-Chloroisopropyl)ethe	3.61	121	252403	53301.5398909 ppb	97
17) 2,2-oxybis(1-chloropropane	3.61	121	252403	53301.5398909 ppb	97
18) 2-Methylphenol	3.58	108	683020	55910.9869479 ppb	98
19) Hexachloroethane	3.77	117	310793	53613.0039211 ppb	97
20) N-Nitrosodi-n-propylamine	3.69	70	521696	56684.3196872 ppb	98
21) 3&4-Methyl phenol	3.67	107	766843	56020.5164867 ppb	98
25) Nitrobenzene	3.80	77	774211	54654.8205140 ppb	96
26) Isophorone	3.93	82	1429146	56143.7837881 ppb	98
27) 2-Nitrophenol	3.98	139	418673	59338.4756586 ppb	86
28) 2,4-Dimethylphenol	3.98	107	729223	55540.4683675 ppb	97
29) bis(2-Chlorethoxy)methane	4.04	93	860182	54053.7885648 ppb	96
30) 2,4-Dichlorophenol	4.12	162	612950	55976.9278321 ppb	93
32) 1,2,4-Trichlorobenzene	4.18	180	689134	52503.3792597 ppb	97
34) Naphthalene	4.23	128	2255010m	53181.7938738 ppb	
35) 4-Chloroaniline	4.25	65	250636	56250.6956192 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	392795	52407.0716696 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	600651	57983.1629372 ppb	96
41) 2-Methylnaphthalene	4.67	142	1519052	55310.2745838 ppb	99
42) 1-Methylnaphthalene	4.74	142	1428676	54614.6402619 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	490571	57035.6284697 ppb	94
48) 2,4,6-Trichlorophenol	4.85	196	450317	56518.1505519 ppb	94
49) 2,4,5-Trichlorophenol	4.87	196	483240	58380.6289952 ppb	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

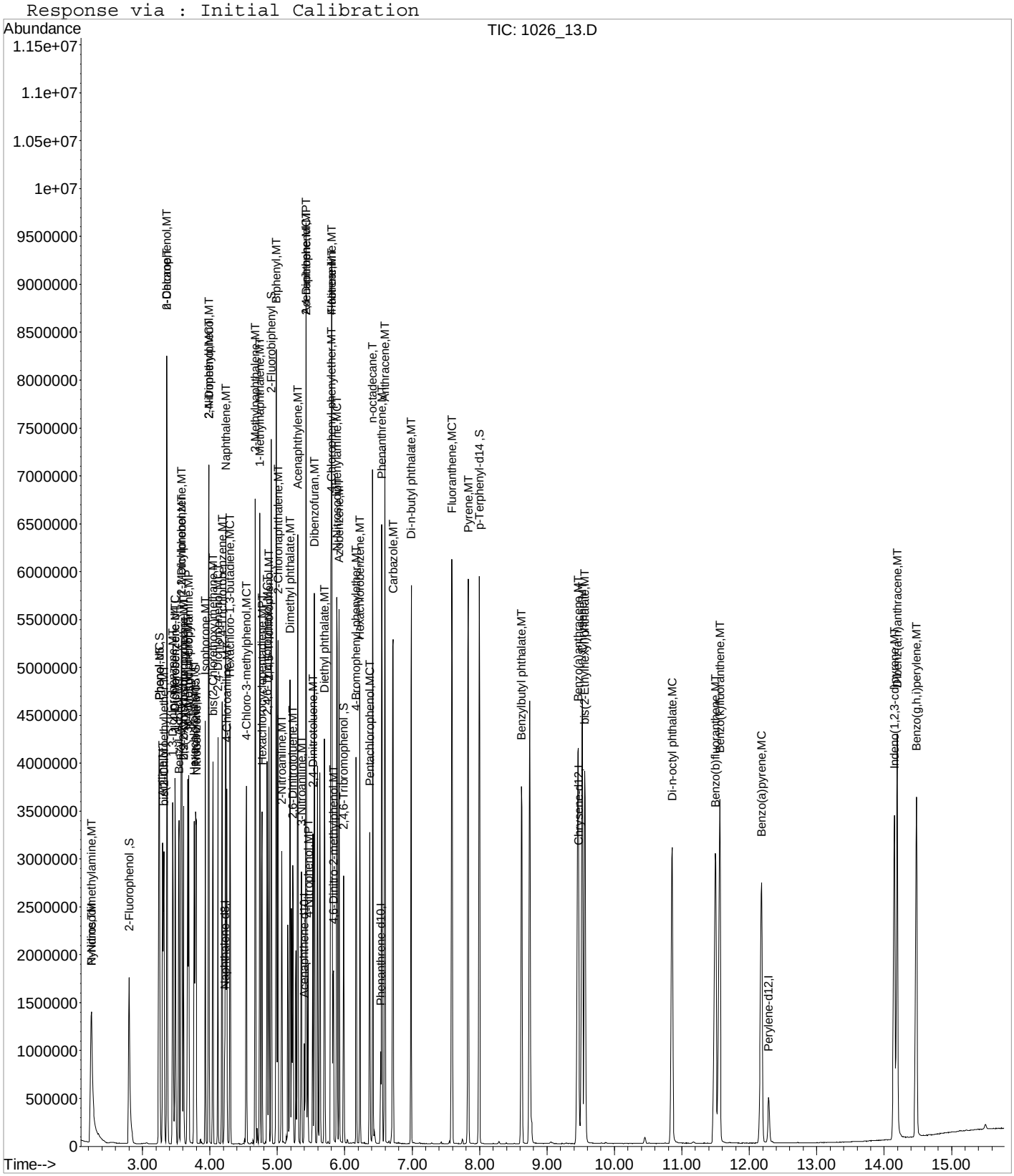
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1862742	52820.4622140	ppb		99
52)	2-Chloronaphthalene	5.01	162	1388144	53484.6743291	ppb		98
53)	2-Nitroaniline	5.06	138	461829	61398.2207813	ppb		98
54)	Acenaphthylene	5.30	152	2169018	55836.9485751	ppb		100
55)	Dimethyl phthalate	5.19	163	1531254	56990.7346870	ppb		97
56)	2,6-Dinitrotoluene	5.24	165	359107	58909.4075237	ppb		84
57)	3-Nitroaniline	5.36	138	386147	60121.8773381	ppb	#	86
58)	Acenaphthene	5.43	153	1462525	55007.1766897	ppb		99
59)	2,4-Dinitrophenol	5.43	184	222431	73083.5205264	ppb	#	68
60)	Dibenzofuran	5.55	168	1942436	53479.7576501	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	459803	59441.9327144	ppb		94
63)	4-Nitrophenol	5.46	139	297979m	60122.1914733	ppb		
64)	Fluorene	5.81	166	1673754	55766.3424748	ppb		98
65)	4-Chlorophenyl-phenylether	5.79	204	769320	53571.3733622	ppb		93
66)	Diethyl phthalate	5.70	149	1366311	51593.4770187	ppb		99
67)	4-Nitroaniline	5.81	138	344629	58539.0468029	ppb		97
68)	Azobenzene	5.92	77	1572941	56216.3804244	ppb		98
71)	4,6-Dinitro-2-methylphenol	5.83	198	262859	72003.3423828	ppb		86
72)	N-Nitrosodiphenylamine	5.89	169	1372391	59140.5241351	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	445353	56888.9671866	ppb		87
75)	Hexachlorobenzene	6.22	284	549415	54964.2955323	ppb		98
76)	n-octadecane	6.42	55	231898	60500.3584322	ppb		99
77)	Pentachlorophenol	6.37	266	324646	67746.1567343	ppb		96
78)	Phenanthrene	6.55	178	2224402	53786.6428017	ppb		99
79)	Anthracene	6.59	178	2318872	57289.5649517	ppb		100
80)	Carbazole	6.72	167	2145038	60338.1905133	ppb		100
81)	Di-n-butyl phthalate	6.99	149	2597726	63682.4086893	ppb		100
83)	Fluoranthene	7.59	202	2574247	60575.1446720	ppb		99
86)	Pyrene	7.83	202	2666394	54525.9551867	ppb		100
88)	Benzylbutyl phthalate	8.62	149	1085408	64712.7534094	ppb		94
90)	Benzo(a)anthracene	9.46	228	2480164	56250.5163561	ppb		99
91)	Chrysene	9.52	228	2436387	52977.3639593	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.56	149	1572730	66789.7541006	ppb		99
93)	Di-n-octyl phthalate	10.86	149	2550075	71025.2638014	ppb		100
95)	Benzo(b)fluoranthene	11.49	252	2560315	58413.0257176	ppb		100
96)	Benzo(k)fluoranthene	11.56	252	2568986	55879.9909669	ppb		100
97)	Benzo(a)pyrene	12.18	252	2203107	60389.6693800	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	2122805	54784.4274209	ppb		99
99)	Dibenz(a,h)anthracene	14.20	278	2322266m	53412.8295804	ppb		
100)	Benzo(g,h,i)perylene	14.48	276	2141863	48772.3488717	ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

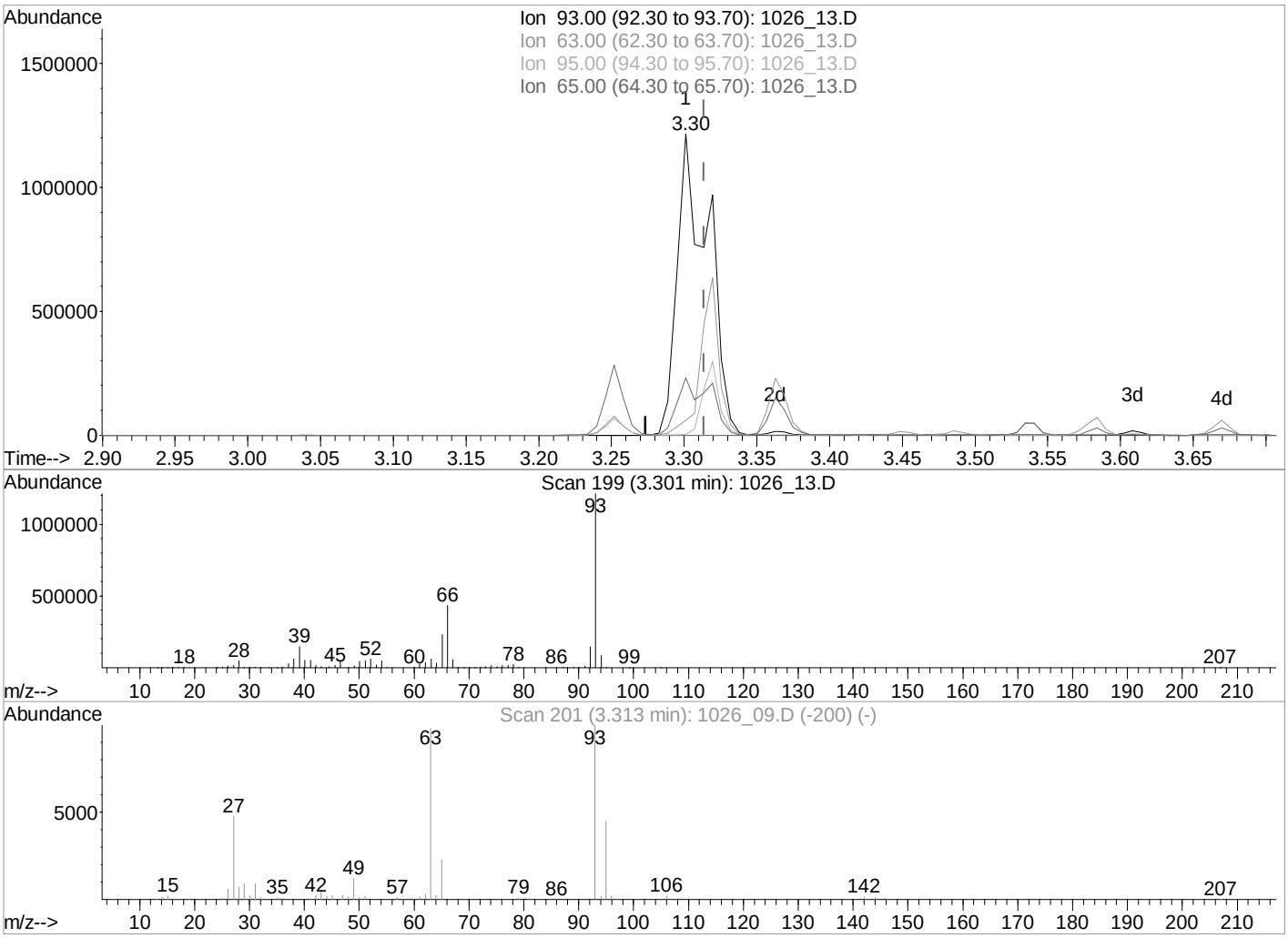
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 131896.9270097 ppb

Qvalue = 42

response 1796876

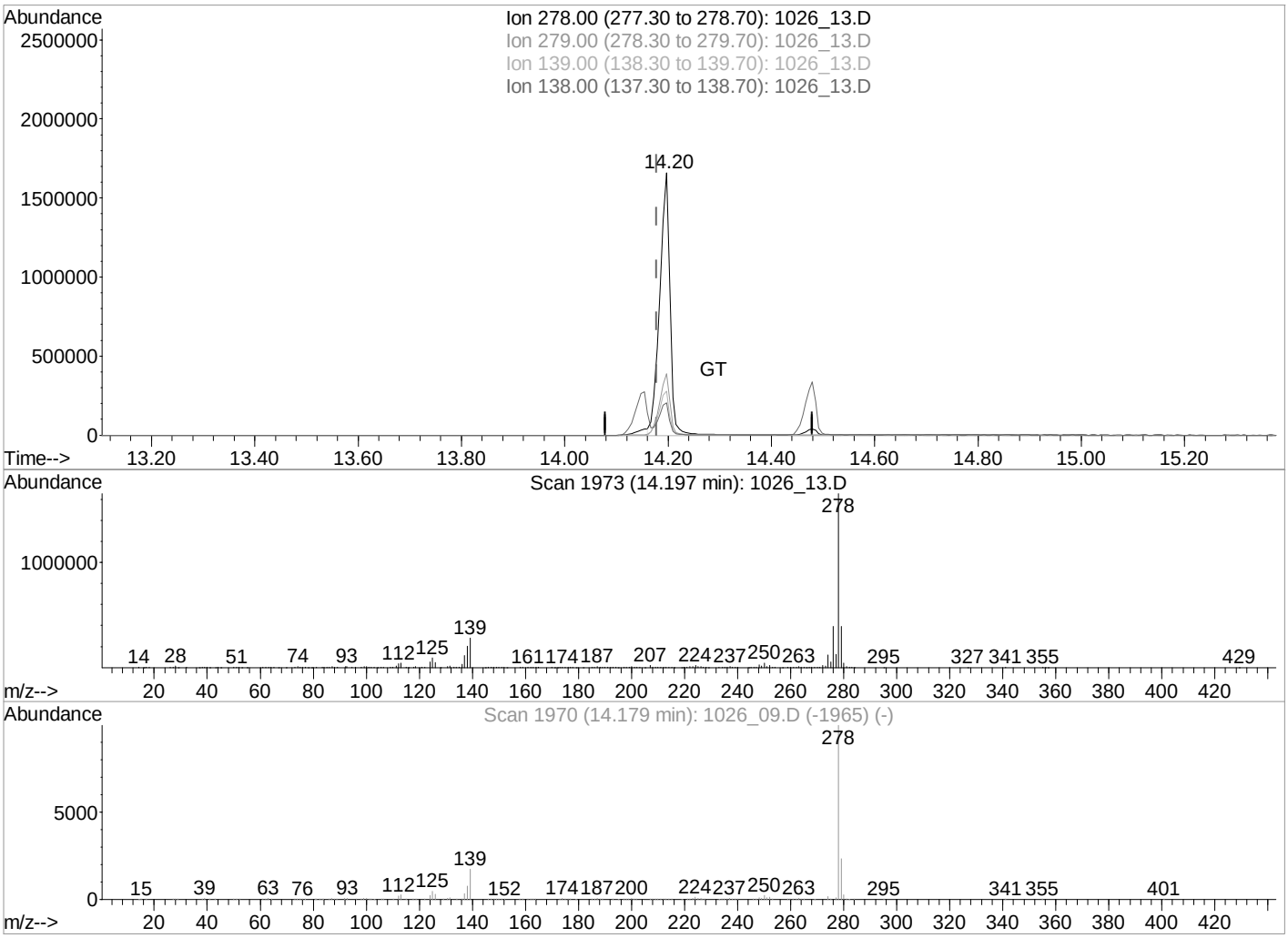
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.93#
95.00	28.70	0.24#
65.00	22.20	19.07

1026_13.D S804J26V.M Thu Oct 27 06:41:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(99) Dibenz(a,h)anthracene (MT)

14.20min (+0.018) 53412.8295804 ppb m

response 2322266

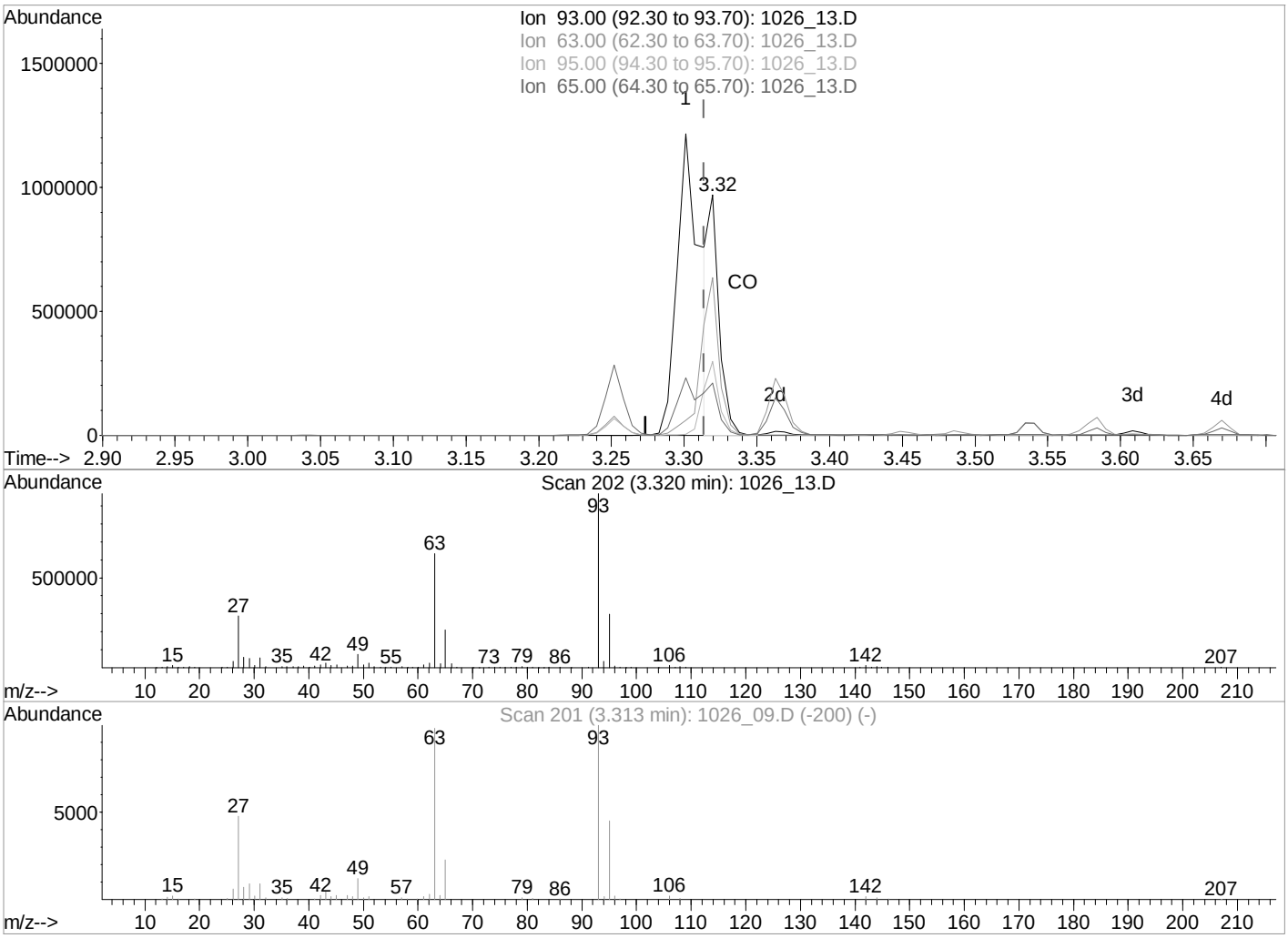
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.43
139.00	17.00	16.75
138.00	12.30	12.35

1026_13.D S804J26V.M Thu Oct 27 06:42:58 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.32min (+0.006) 36623.7786961 ppb m

response 498938

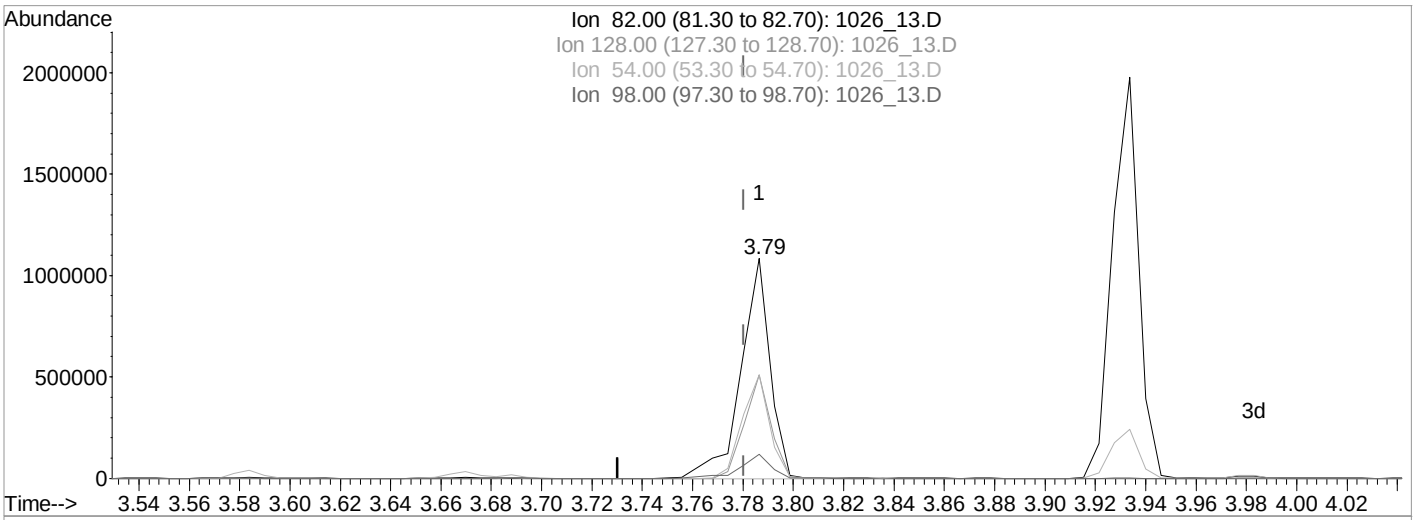
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.54
95.00	28.70	30.57
65.00	22.20	21.66

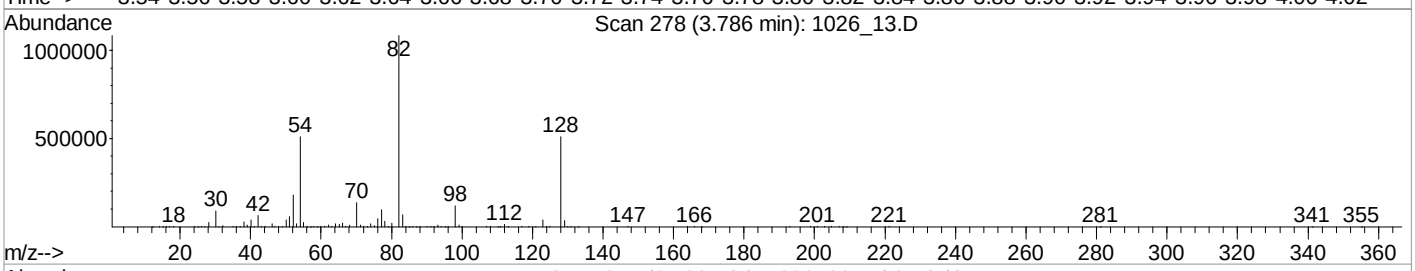
1026_13.D S804J26V.M Thu Oct 27 06:41:30 2022

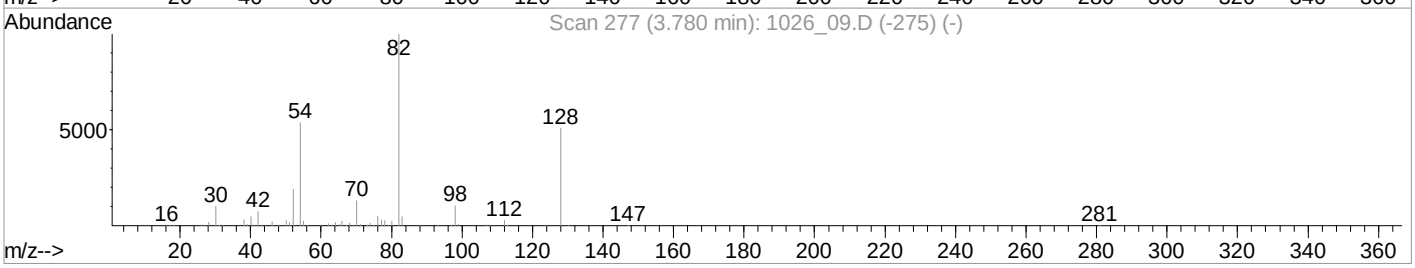
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration







TIC: 1026_13.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 61060.6962624 ppb

Qvalue = 98

response 869772

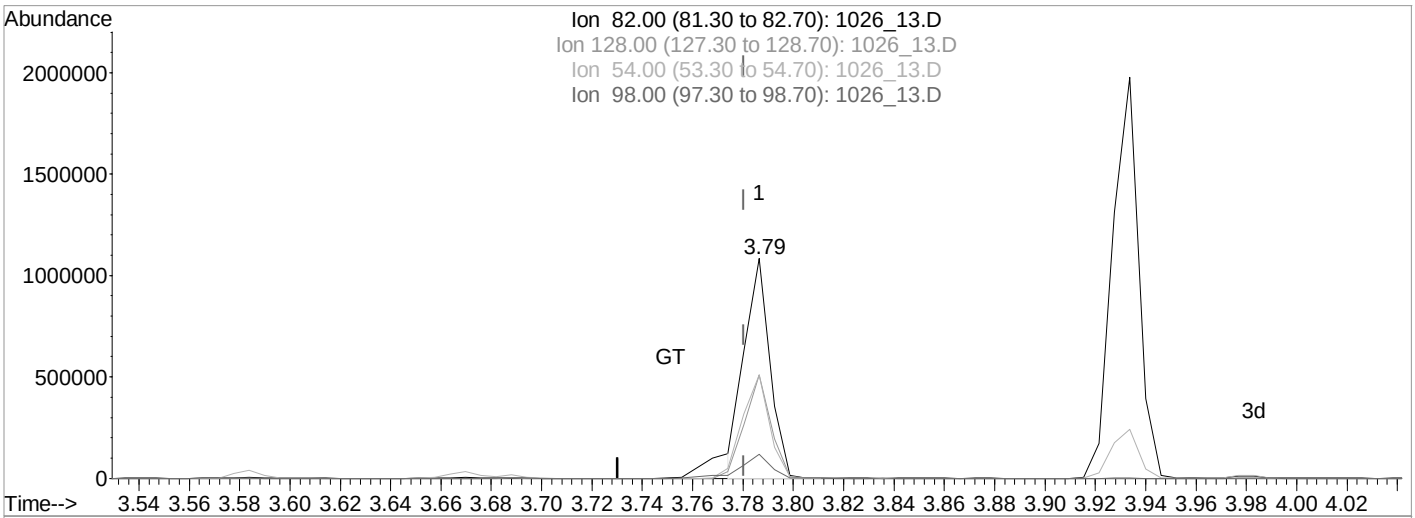
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.94
54.00	49.10	46.93
98.00	10.80	10.90

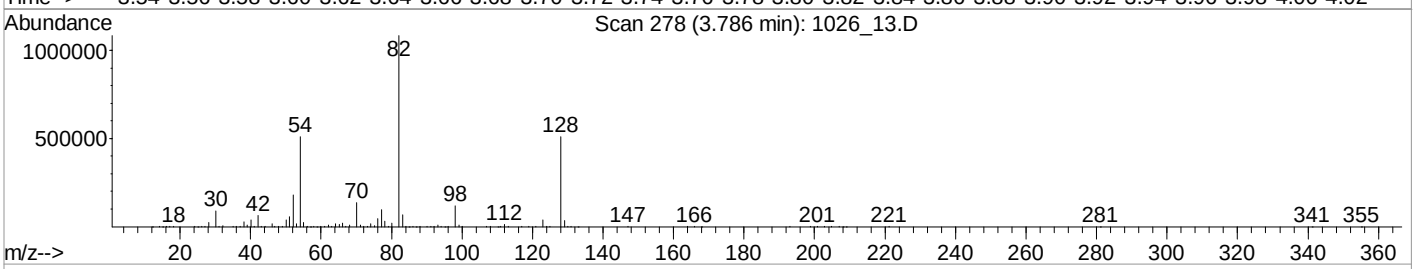
1026_13.D S804J26V.M Thu Oct 27 06:41:40 2022

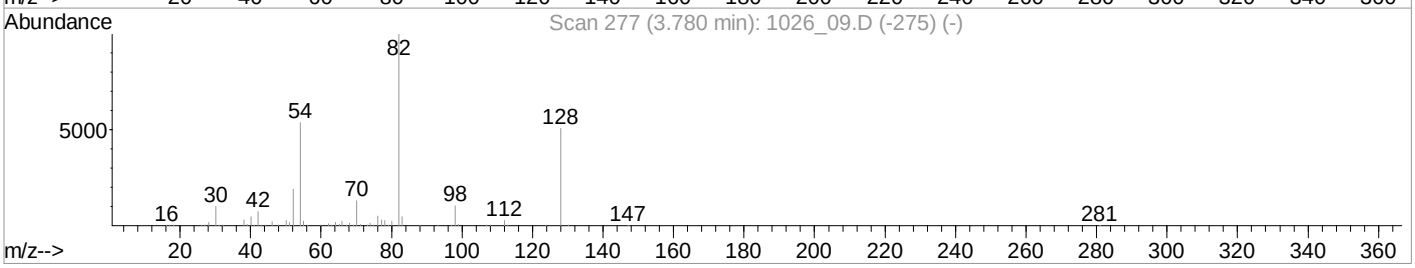
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration







TIC: 1026_13.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 53841.5704248 ppb m

response 766940

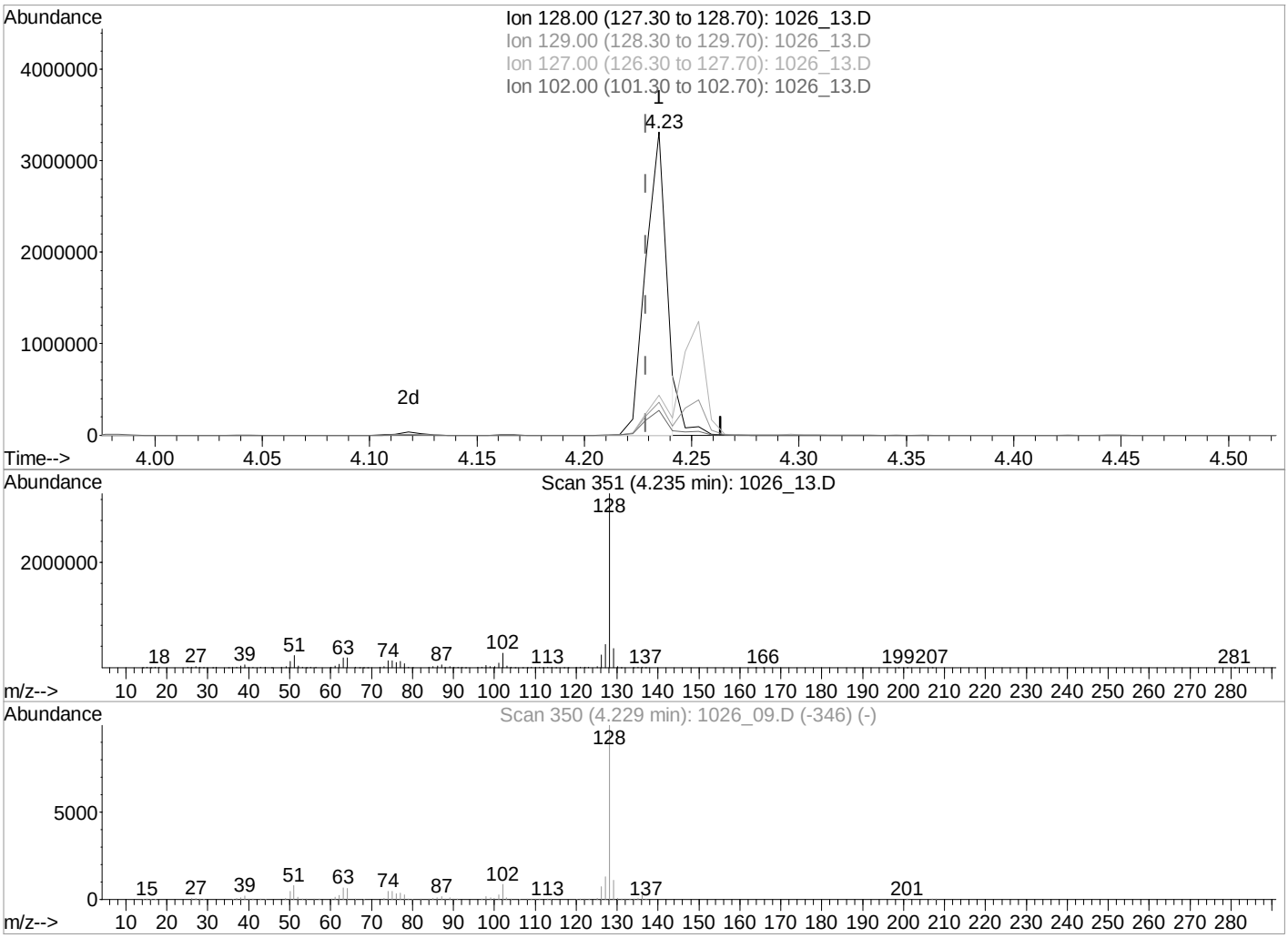
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.94
54.00	49.10	46.93
98.00	10.80	10.90

1026_13.D S804J26V.M Thu Oct 27 06:41:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(34) Naphthalene (MT)

4.23min (+0.006) 52460.1991372 ppb

Qvalue = 100

response 2224413

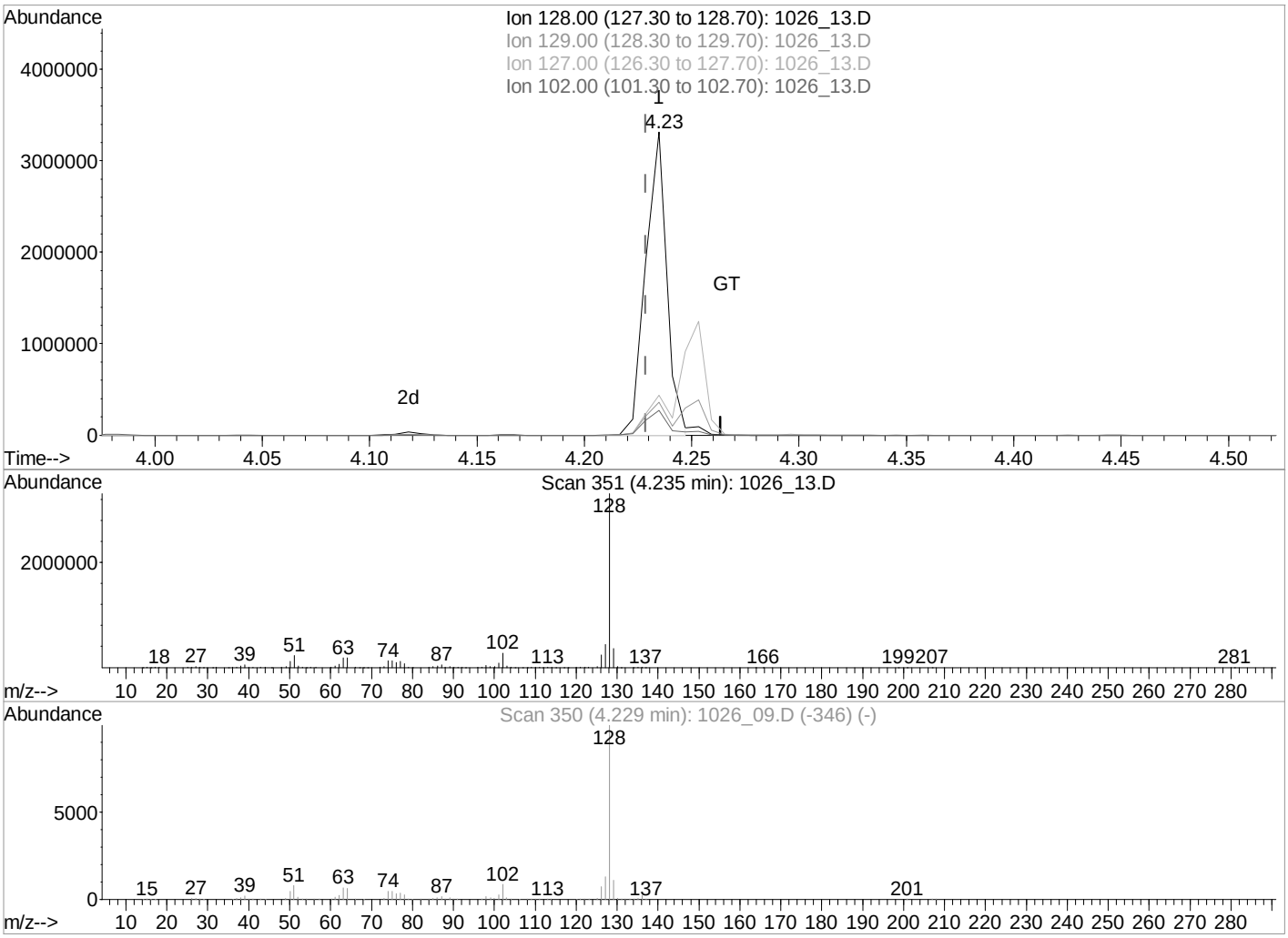
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.78
127.00	12.90	13.09
102.00	8.40	8.19

1026_13.D S804J26V.M Thu Oct 27 06:41:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(34) Naphthalene (MT)

4.23min (+0.006) 53181.7938738 ppb m

response 2255010

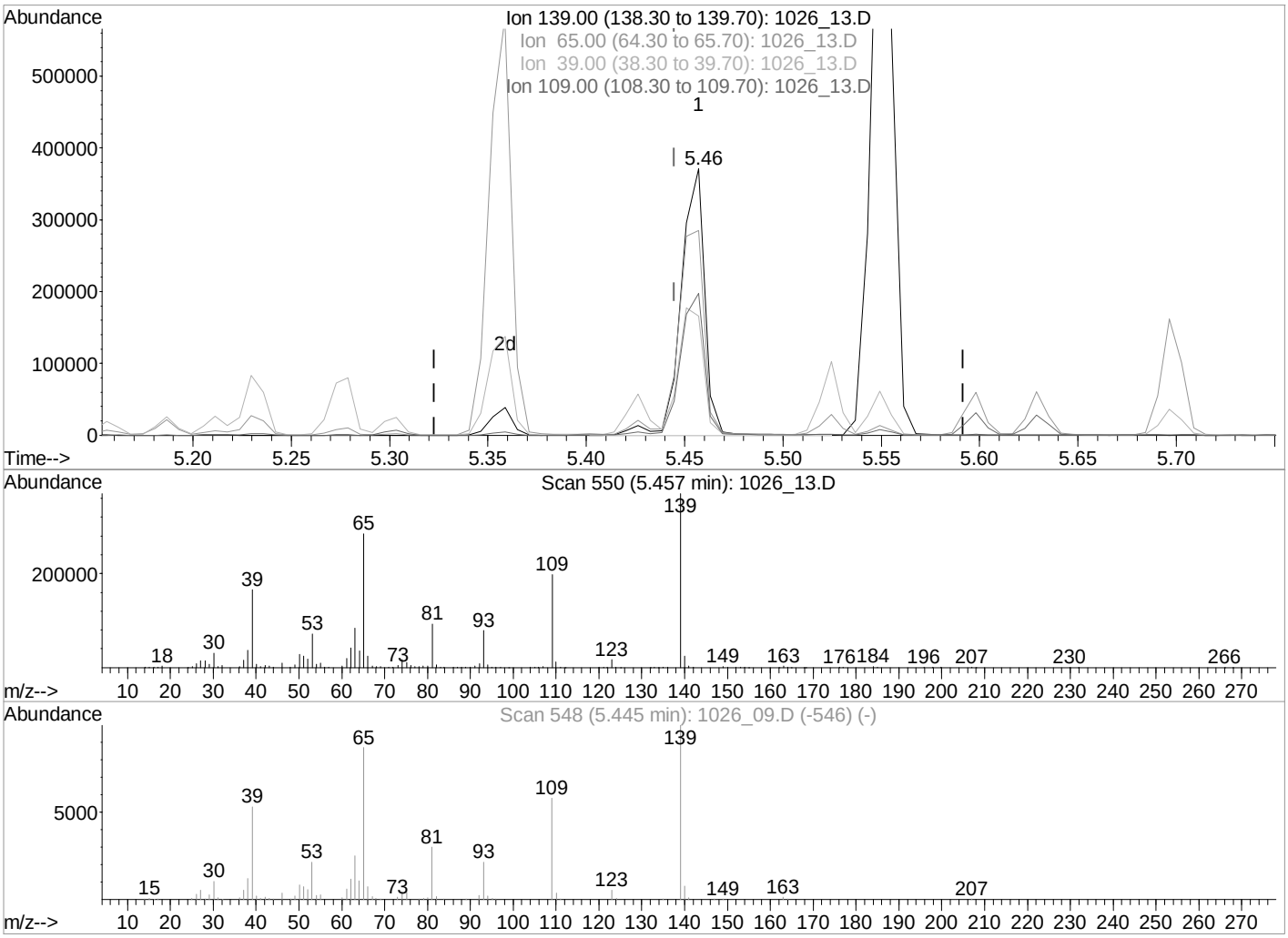
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.78
127.00	12.90	13.09
102.00	8.40	8.19

1026_13.D S804J26V.M Thu Oct 27 06:41:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(63) 4-Nitrophenol (MPT)

5.46min (+0.012) 62764.7278323 ppb

Qvalue = 88

response 311076

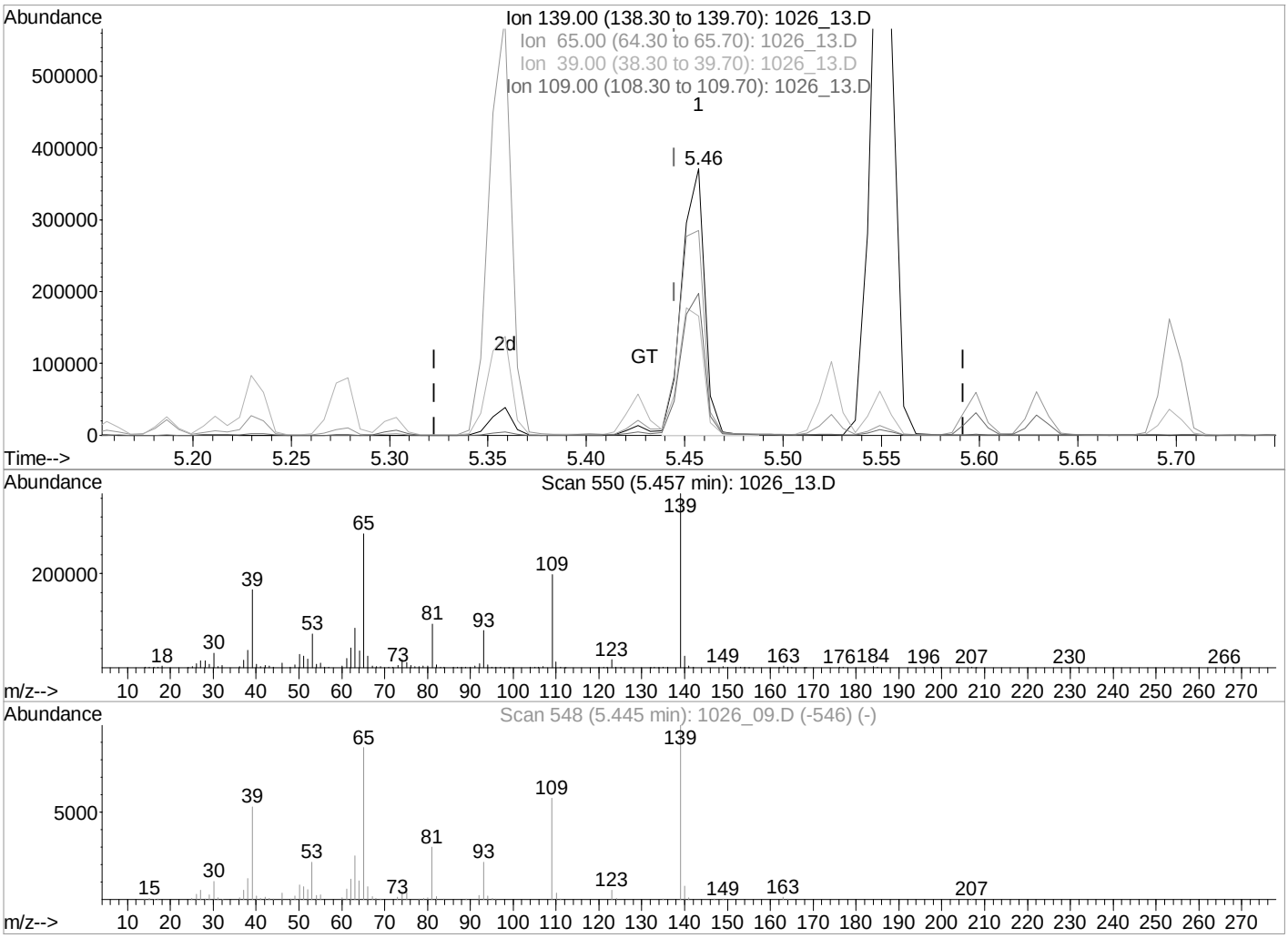
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	76.42
39.00	54.80	44.59
109.00	58.30	53.20

1026_13.D S804J26V.M Thu Oct 27 06:42:08 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(63) 4-Nitrophenol (MPT)

5.46min (+0.012) 60122.1914733 ppb m

response 297979

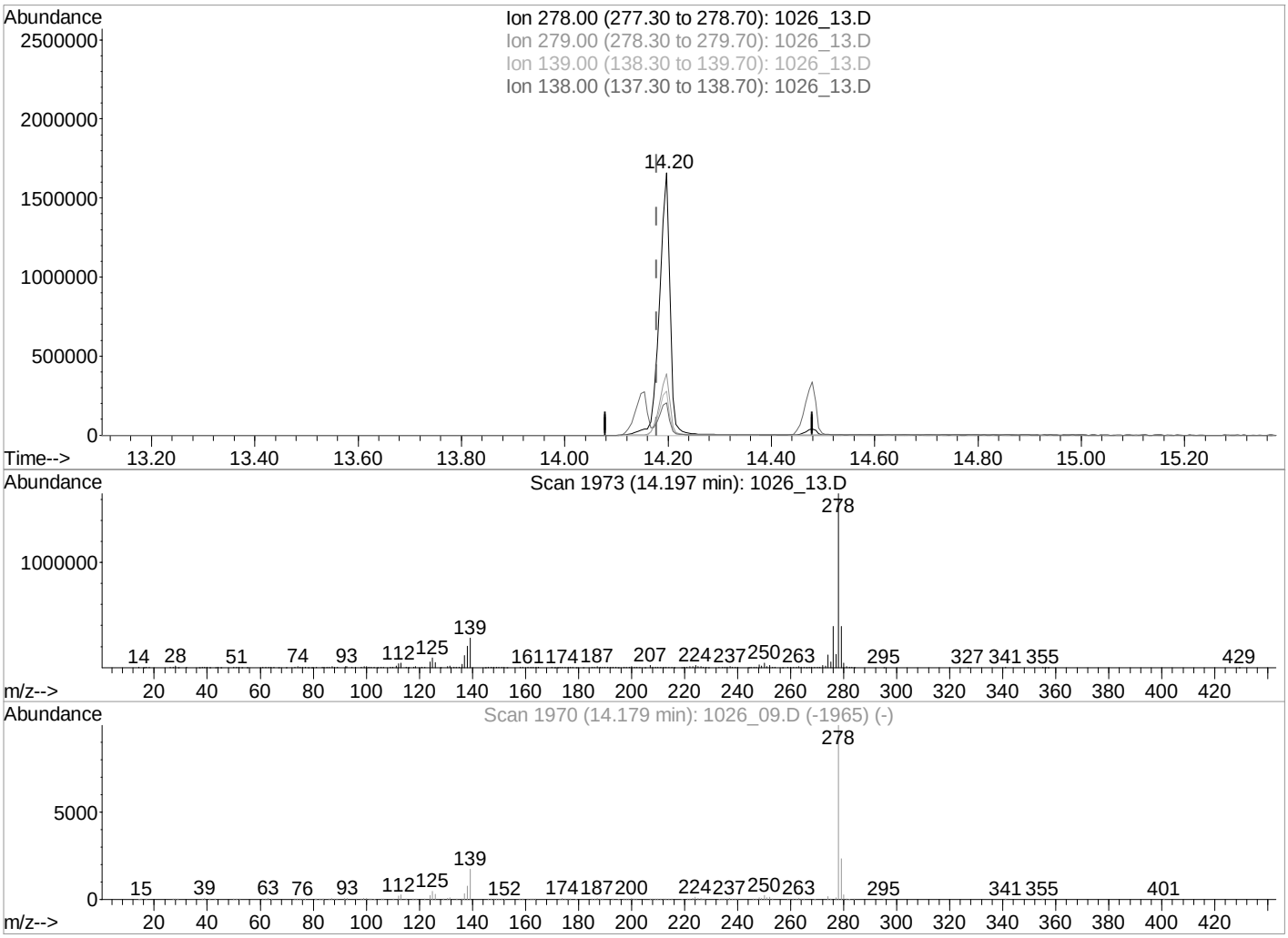
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	76.92
39.00	54.80	44.73
109.00	58.30	53.32

1026_13.D S804J26V.M Thu Oct 27 06:42:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(99) Dibenz(a,h)anthracene (MT)

14.20min (+0.018) 54939.6819216 ppb

Qvalue = 100

response 2388650

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.43
139.00	17.00	16.75
138.00	12.30	12.34

1026_13.D S804J26V.M Thu Oct 27 06:42:51 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: S804J26V.RES

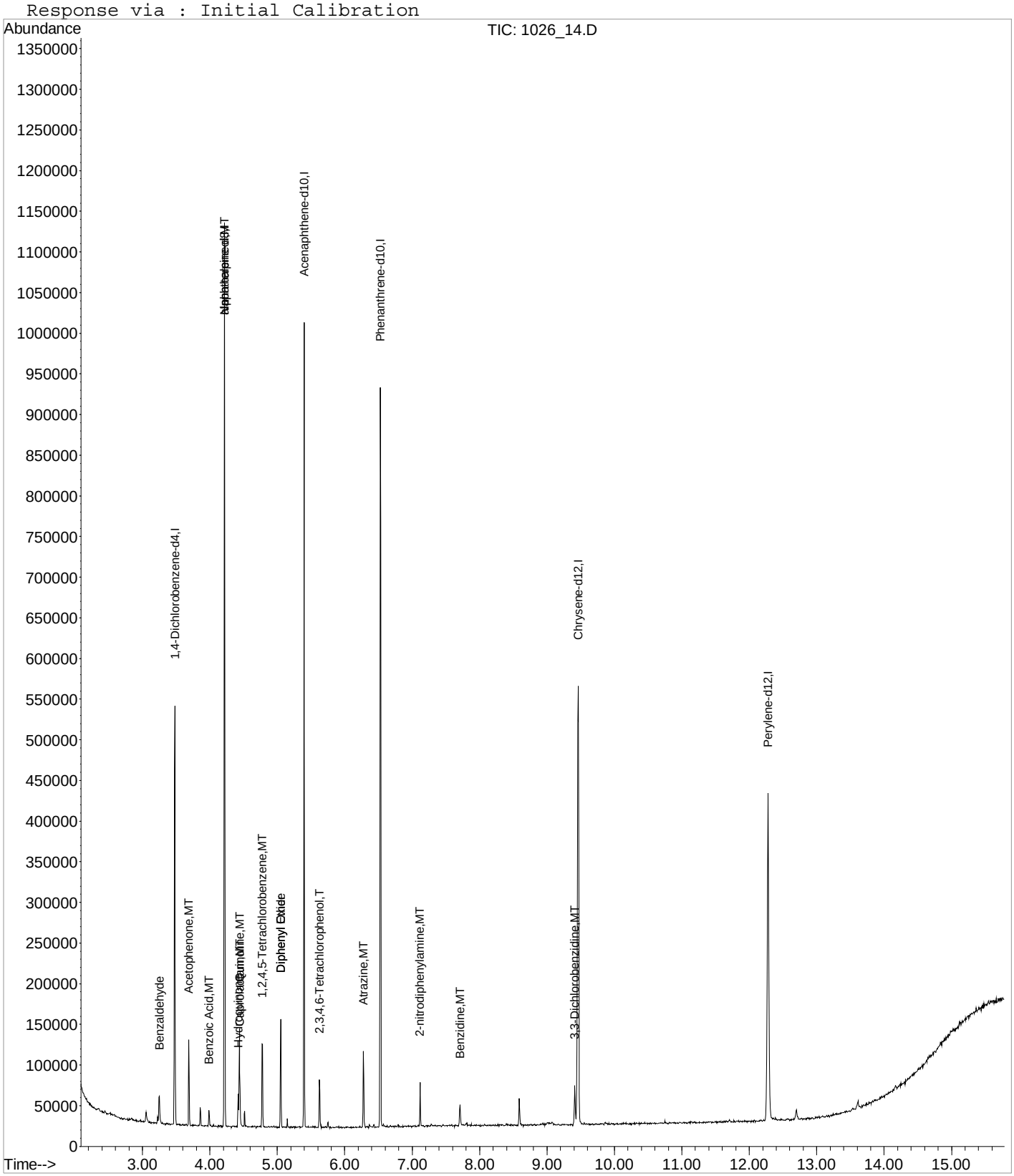
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	80901	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	321562	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157041	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	306565	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	270316	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	275137	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	6829	1368.2609368	ppb	97
22) Acetophenone	3.69	105	21235	1232.4095802	ppb	96
31) Benzoic Acid	3.98	105	4126	840.2418948	ppb	93
33) alpha-terpineol	4.22	59	14285	1495.0742181	ppb	98
37) Hydroquinone	4.42	110	10219m	1663.6881505	ppb	
38) Quinoline	4.44	129	31465	1442.6279684	ppb	97
39) Caprolactam	4.45	113	3843	1637.5497152	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	17361	1559.6106772	ppb	98
44) Diphenyl Ether	5.05	170	21610	1472.7298004	ug/ml	98
45) Diphenyl Oxide	5.05	170	21610	1472.7298004	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.62	232	6757	1212.0828252	ppb	99
69) Atrazine	6.27	200	8531	1190.2878215	ppb	97
82) 2-nitrodiphenylamine	7.12	167	6697	919.3656485	ppb	91
85) Benzidine	7.71	184	13094m	777.8599027	ppb	
89) 3,3-Dichlorobenzidine	9.41	252	16279	1103.6063959	ppb	94

(#) = qualifier out of range (m) = manual integration
1026_14.D S804J26V.M Thu Oct 27 11:35:16 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: S804J26V.RES

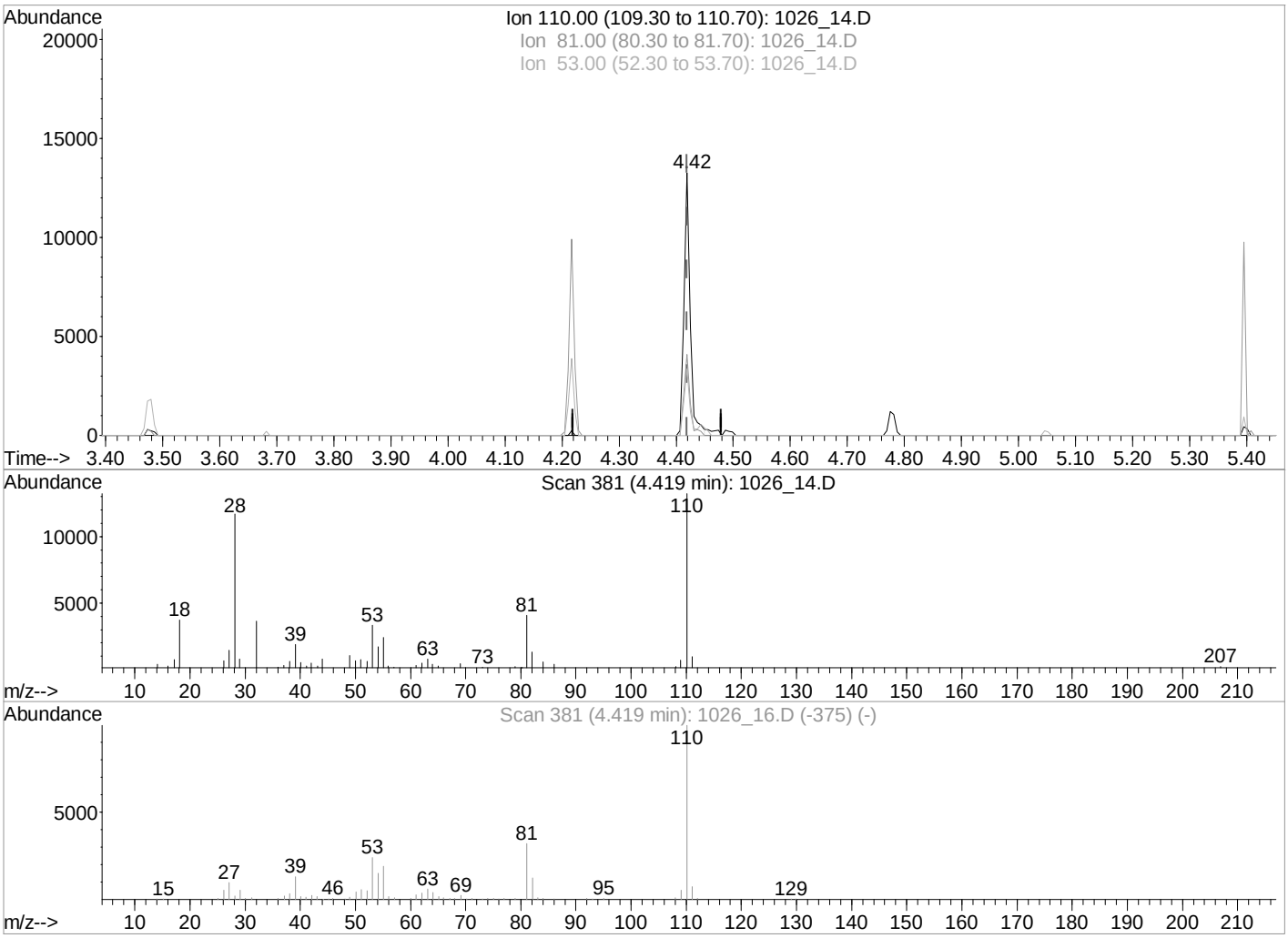
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(37) Hydroquinone

4.42min (-0.000) 1607.5209706 ppb

Qvalue = 98

response 9874

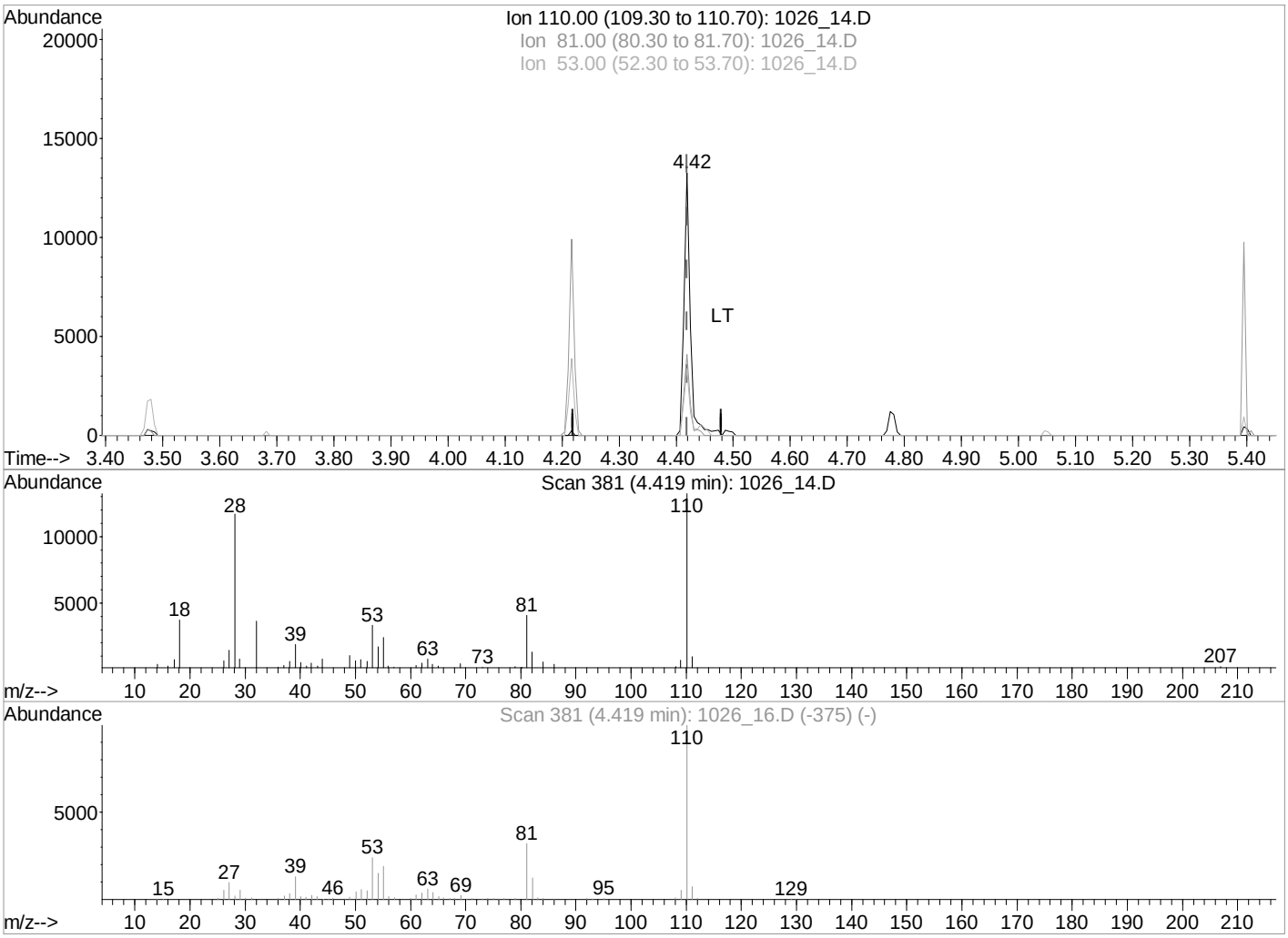
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.75
53.00	23.80	25.17
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(37) Hydroquinone

4.42min (-0.000) 1663.6881505 ppb m

response 10219

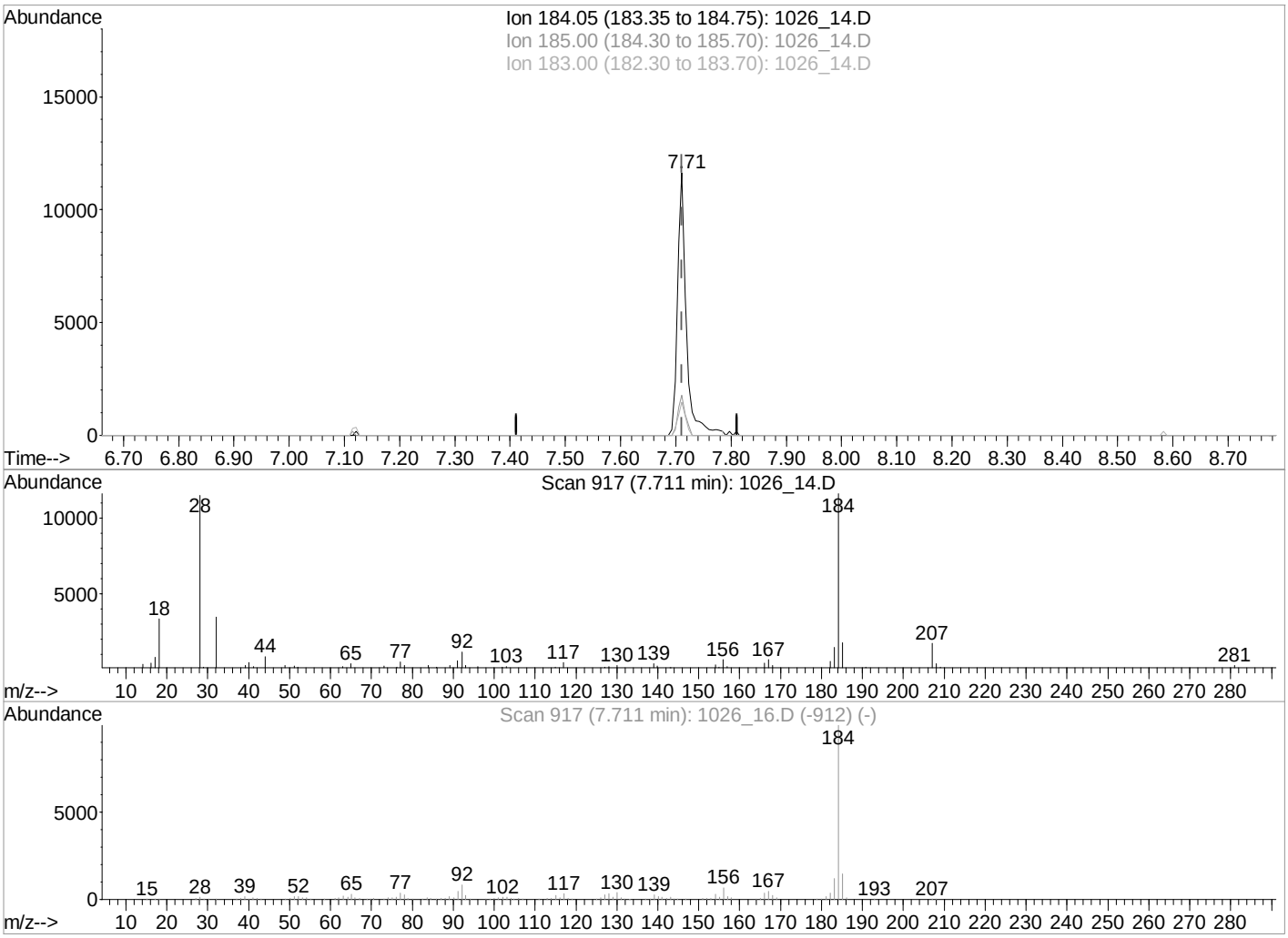
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.75
53.00	23.80	25.17
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(85) Benzidine (MT)

7.71min (-0.000) 777.7410910 ppb

Qvalue = 97

response 13092

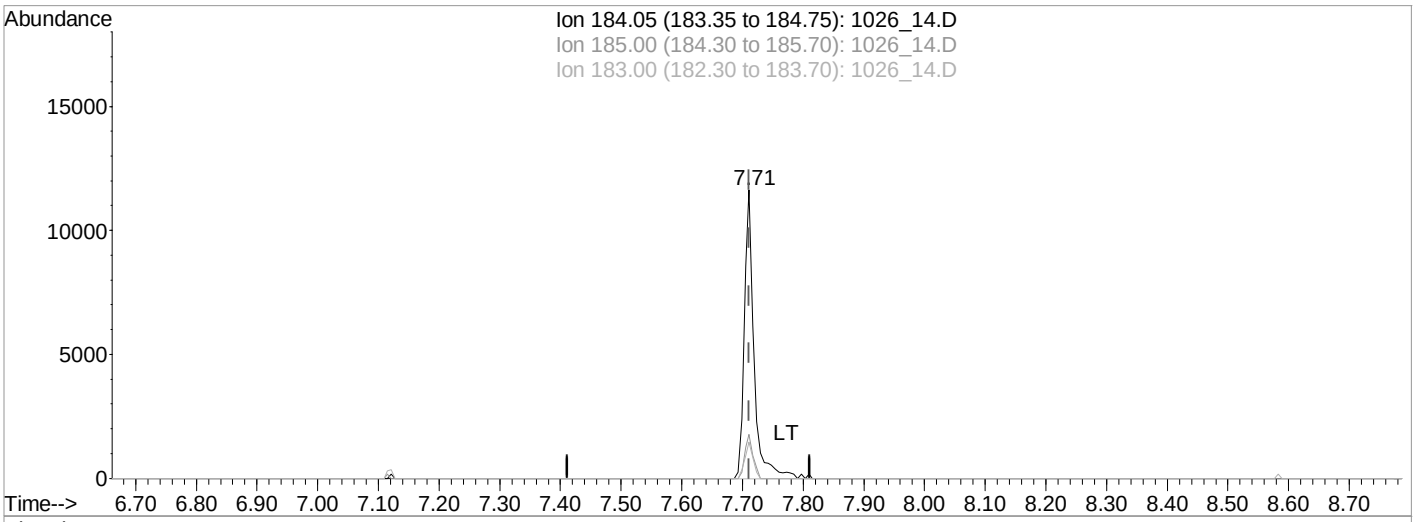
Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.01
183.00	11.70	10.77
0.00	0.00	0.00

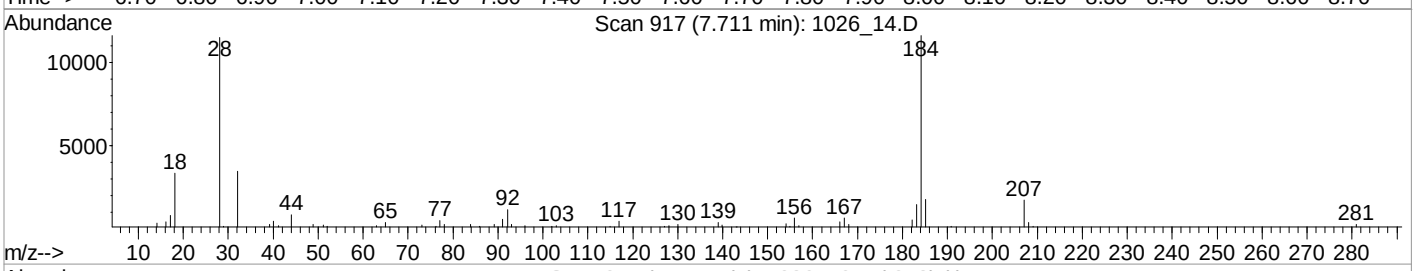
1026_14.D S804J26V.M Thu Oct 27 06:44:26 2022

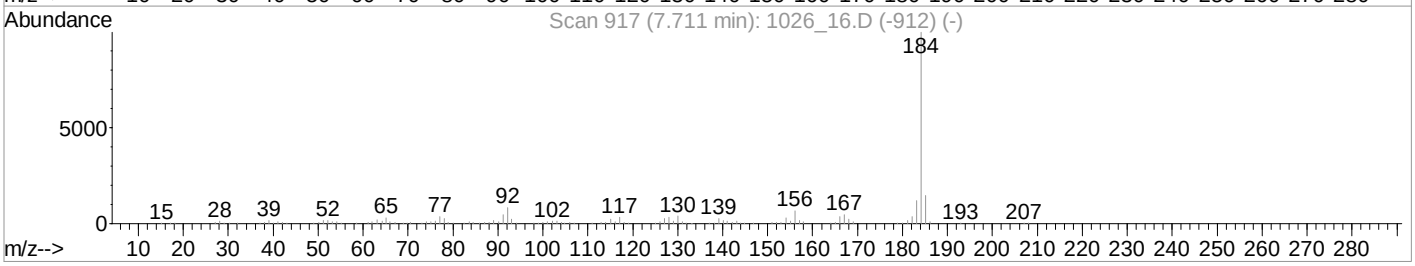
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration







TIC: 1026_14.D

(85) Benzidine (MT)

7.71min (-0.000) 777.8599027 ppb m

response 13094

Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.01
183.00	11.70	10.77
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:32 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: S804J26V.RES

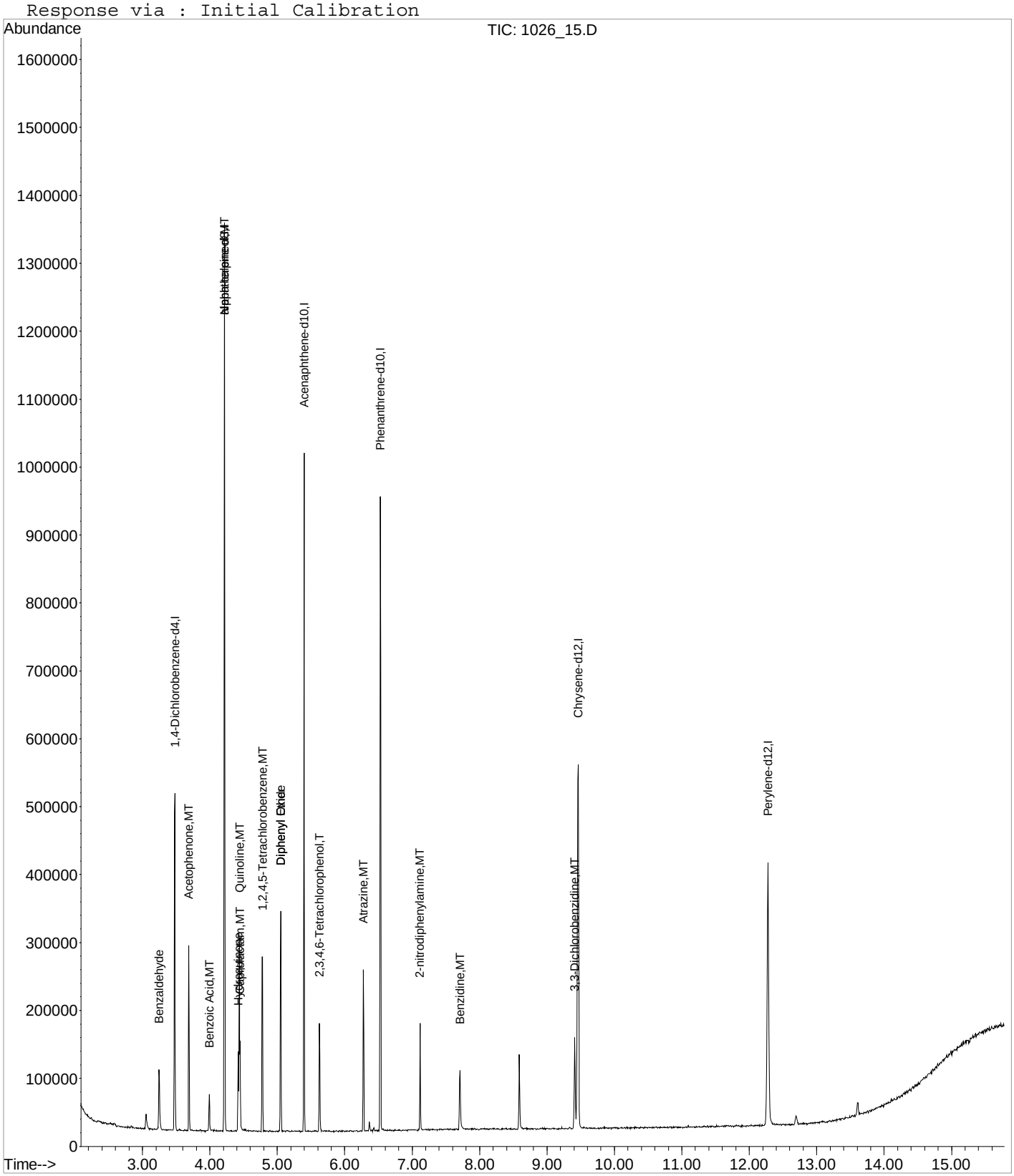
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79963	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	332029	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	158298	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	306704	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	274856	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	269464	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	16560	2834.8977718	ppb	97
22) Acetophenone	3.69	105	55468	2917.8719953	ppb	97
31) Benzoic Acid	3.99	105	13344	2860.2561449	ppb	95
33) alpha-terpineol	4.22	59	34595	2810.8073037	ppb	98
37) Hydroquinone	4.42	110	25869	3062.5168420	ppb	96
38) Quinoline	4.44	129	80742	2935.5365240	ppb	98
39) Caprolactam	4.45	113	8754	2739.3573932	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	43433	2952.6099360	ppb	99
44) Diphenyl Ether	5.05	170	55397	2957.3082227	ug/ml	98
45) Diphenyl Oxide	5.05	170	55397	2957.3082227	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.62	232	17811	2865.7144807	ppb	98
69) Atrazine	6.27	200	21229	2683.1689323	ppb	95
82) 2-nitrodiphenylamine	7.12	167	19618	2805.0338875	ppb	93
85) Benzidine	7.71	184	42759m	2810.3187390	ppb	
89) 3,3-Dichlorobenzidine	9.41	252	44759	2837.2584892	ppb	96

(#) = qualifier out of range (m) = manual integration
1026_15.D S804J26V.M Thu Oct 27 11:35:22 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: S804J26V.RES

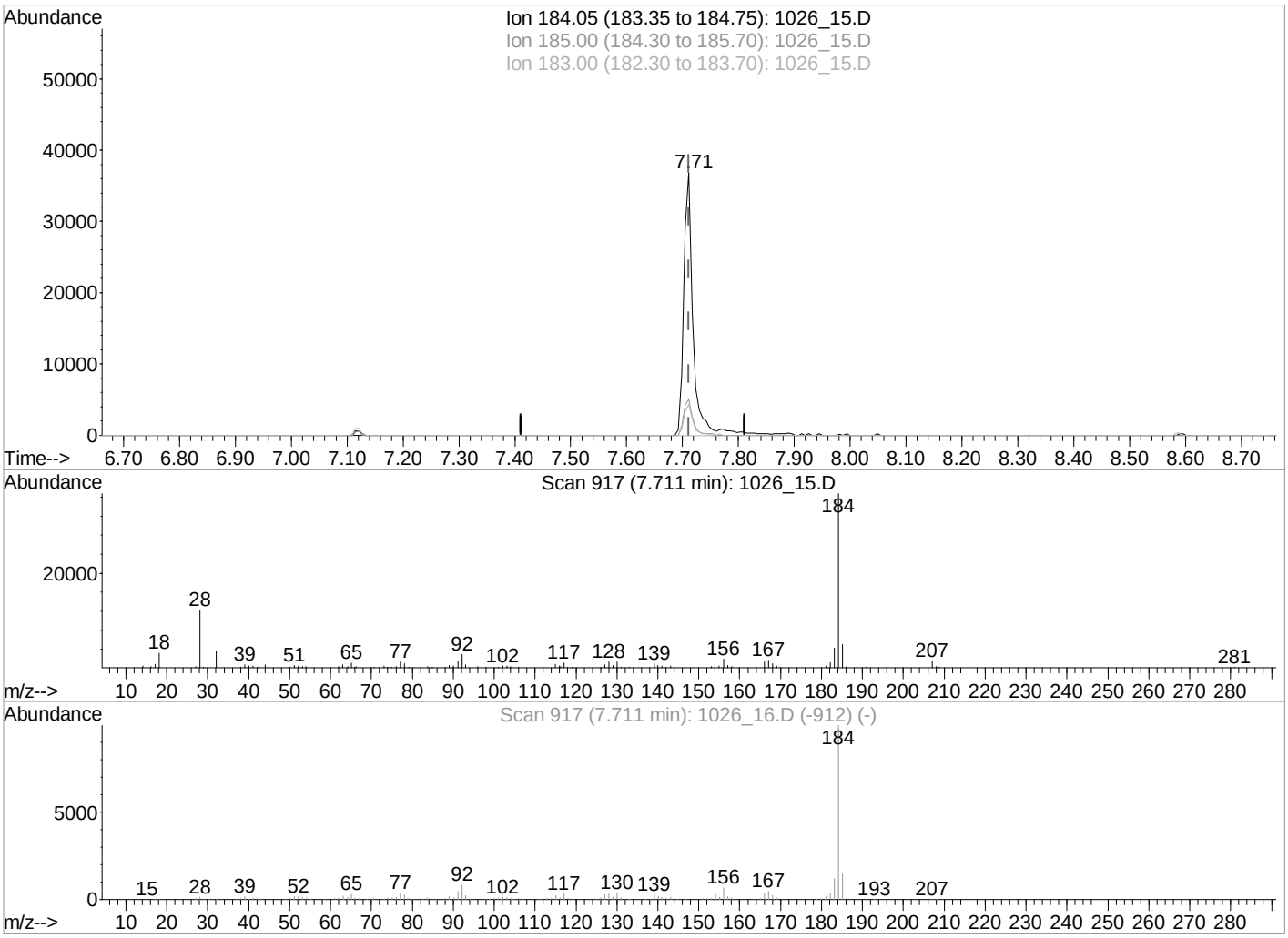
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Single Level Calibration



TIC: 1026_15.D

(85) Benzidine (MT)

7.71min (+0.000) 2663.4899529 ppb

Qvalue = 100

response 40525

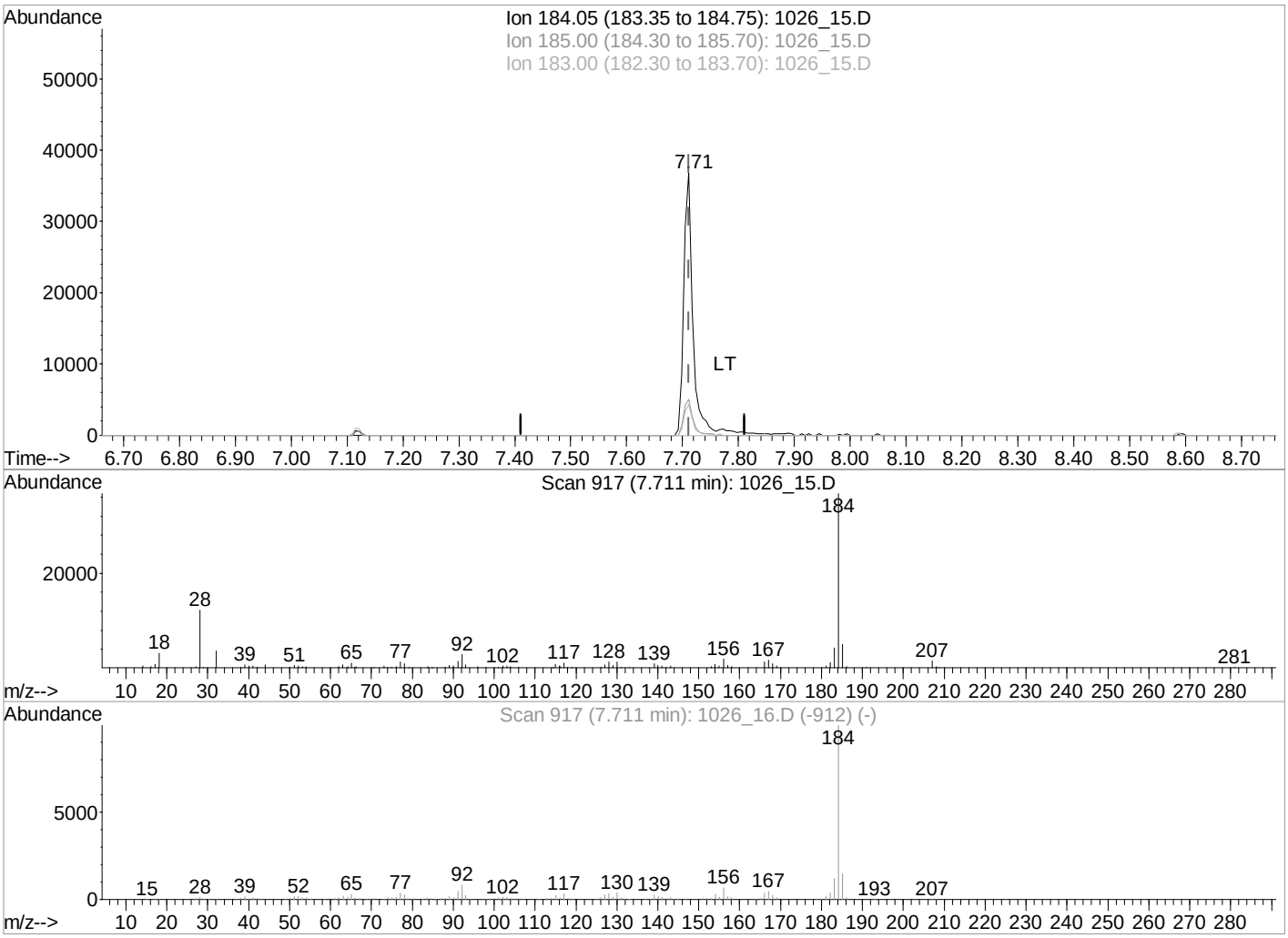
Ion	Exp%	Act%
184.05	100	100
185.00	14.50	14.31
183.00	11.70	11.56
0.00	0.00	0.00

1026_15.D S804J26V.M Thu Oct 27 06:45:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Single Level Calibration



TIC: 1026_15.D

(85) Benzidine (MT)

7.71min (+0.000) 2810.3187390 ppb m

response 42759

Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.56
183.00	11.70	10.95
0.00	0.00	0.00

1026_15.D S804J26V.M Thu Oct 27 06:45:58 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

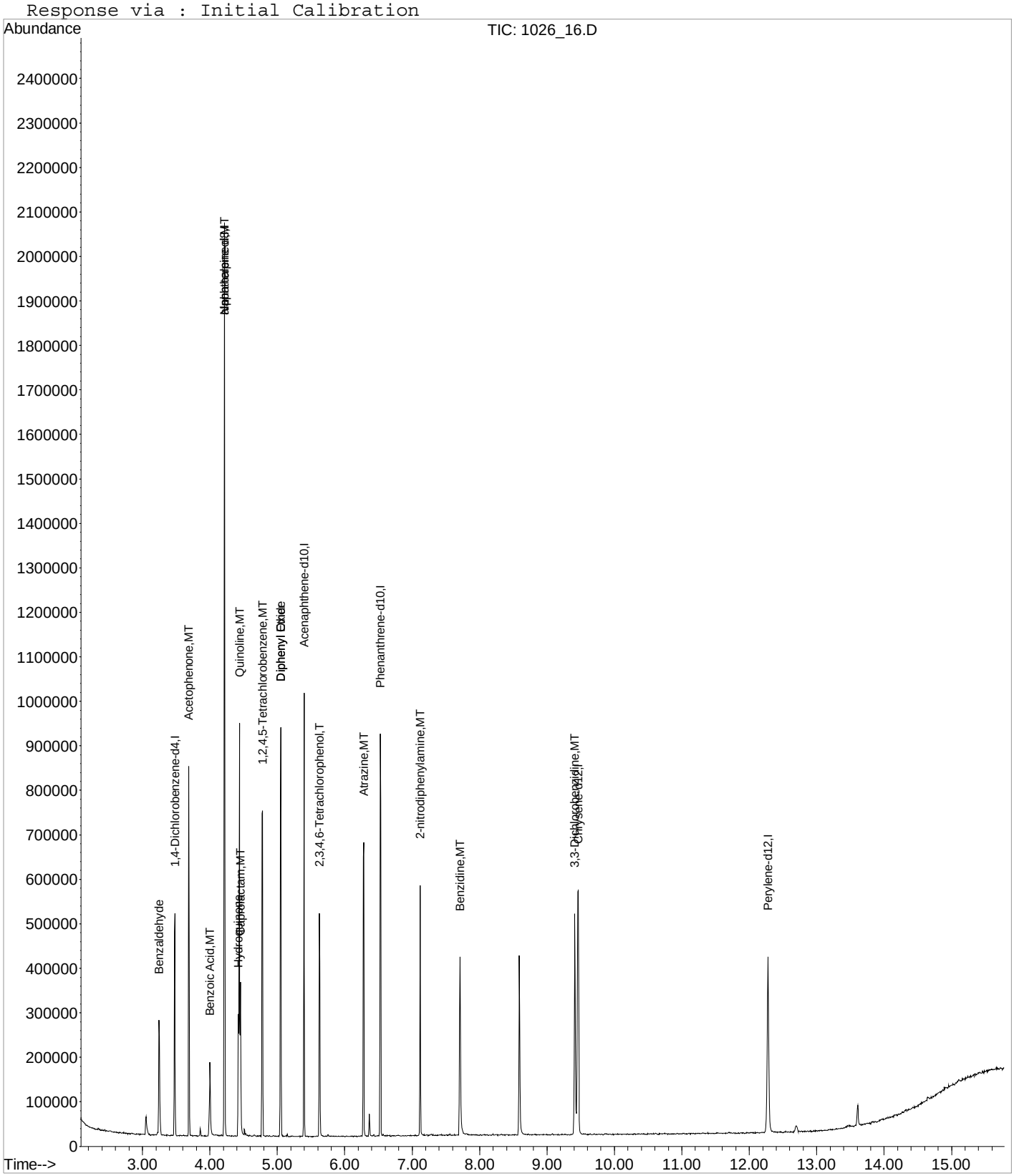
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79609	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	360120	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157379	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	304079	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	280072	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	269964	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	49113	10000.0000000	ppb	100
22) Acetophenone	3.69	105	169553	10000.0000000	ppb	100
31) Benzoic Acid	4.00	105	54993	10000.0000000	ppb	100
33) alpha-terpineol	4.22	59	107004	10000.0000000	ppb	100
37) Hydroquinone	4.42	110	68789m	9998.4011628	ppb	
38) Quinoline	4.44	129	244262	10000.0000000	ppb	100
39) Caprolactam	4.46	113	26282	10000.0000000	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	124664	10000.0000000	ppb	100
44) Diphenyl Ether	5.05	170	164329	10000.0000000	ug/ml	100
45) Diphenyl Oxide	5.05	170	164329	10000.0000000	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.62	232	55867	10000.0000000	ppb	100
69) Atrazine	6.28	200	71826	10000.0000000	ppb	100
82) 2-nitrodiphenylamine	7.12	167	72253	10008.1724243	ppb	100
85) Benzidine	7.71	184	174409	10000.0000000	ppb	100
89) 3,3-Dichlorobenzidine	9.41	252	152831	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration
1026_16.D S804J26V.M Thu Oct 27 11:35:28 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: S804J26V.RES

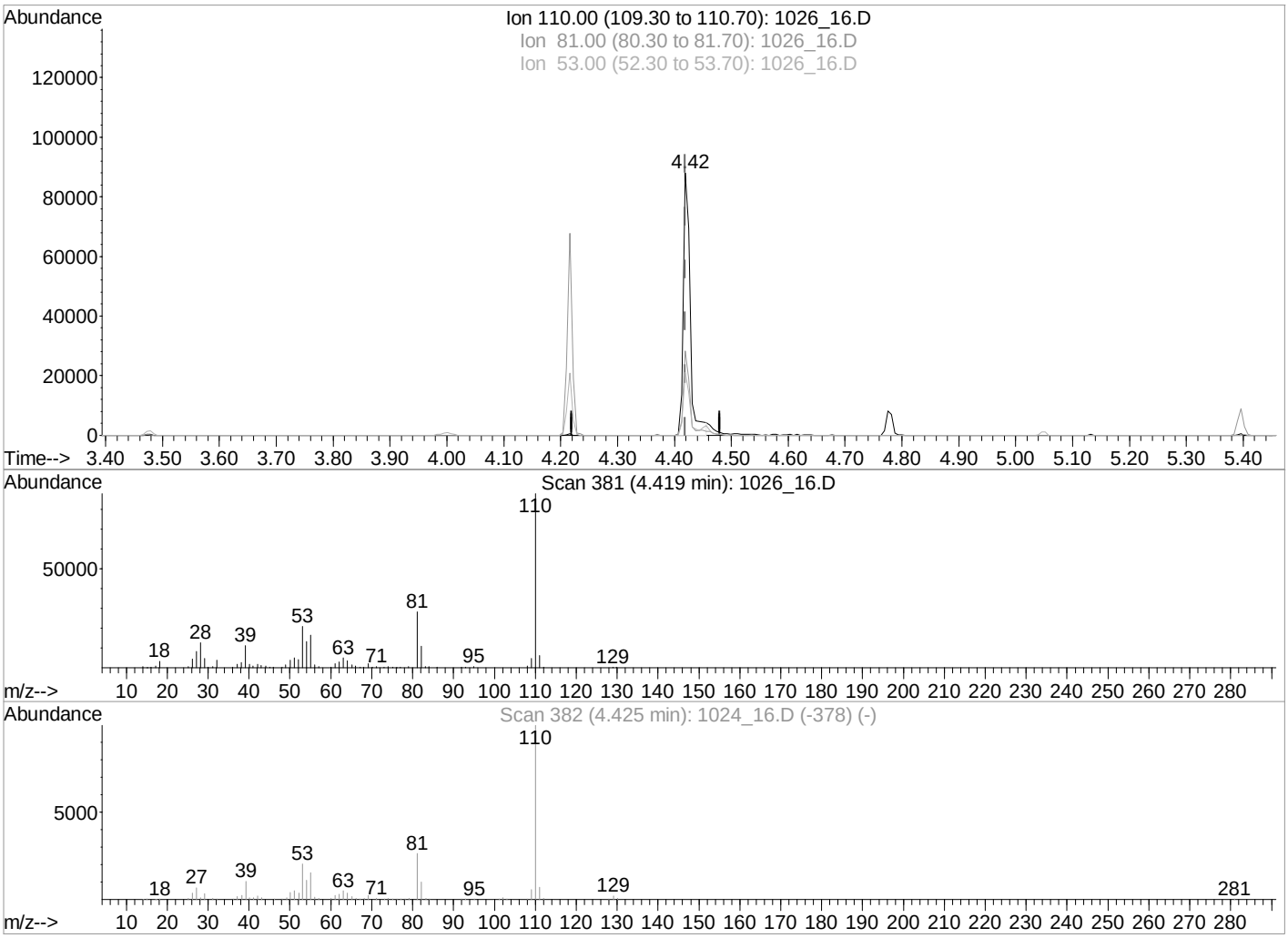
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:24 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Single Level Calibration



TIC: 1026_16.D

(37) Hydroquinone

4.42min (0.000) 10710.0290698 ppb

Qvalue = 100

response 73685

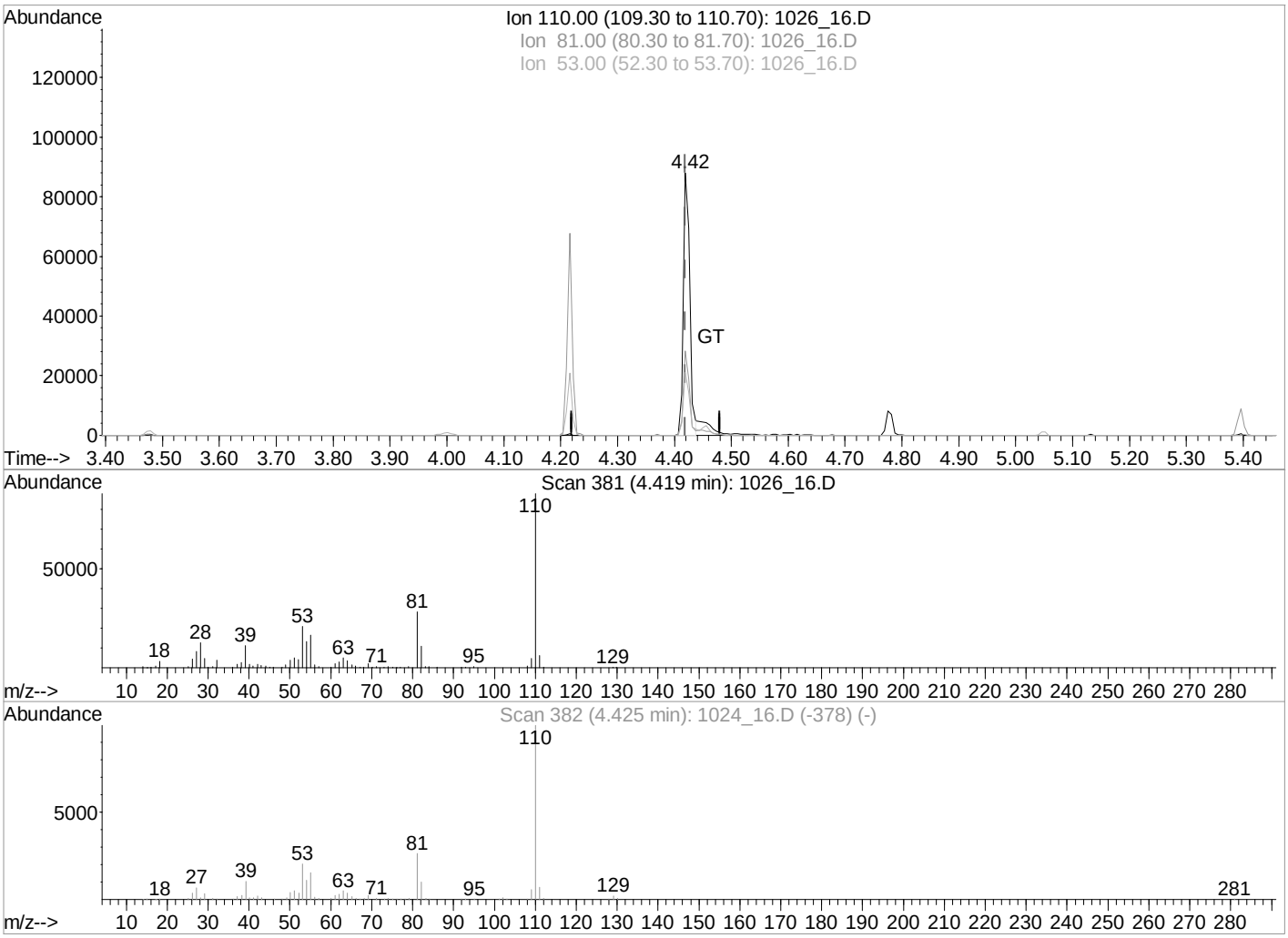
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	32.03
53.00	23.80	23.79
0.00	0.00	0.00

1026_16.D S804J26V.M Thu Oct 27 06:25:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Single Level Calibration



TIC: 1026_16.D

(37) Hydroquinone

4.42min (0.000) 9998.4011628 ppb m

response 68789

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	32.03
53.00	23.80	23.79
0.00	0.00	0.00

1026_16.D S804J26V.M Thu Oct 27 06:25:18 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

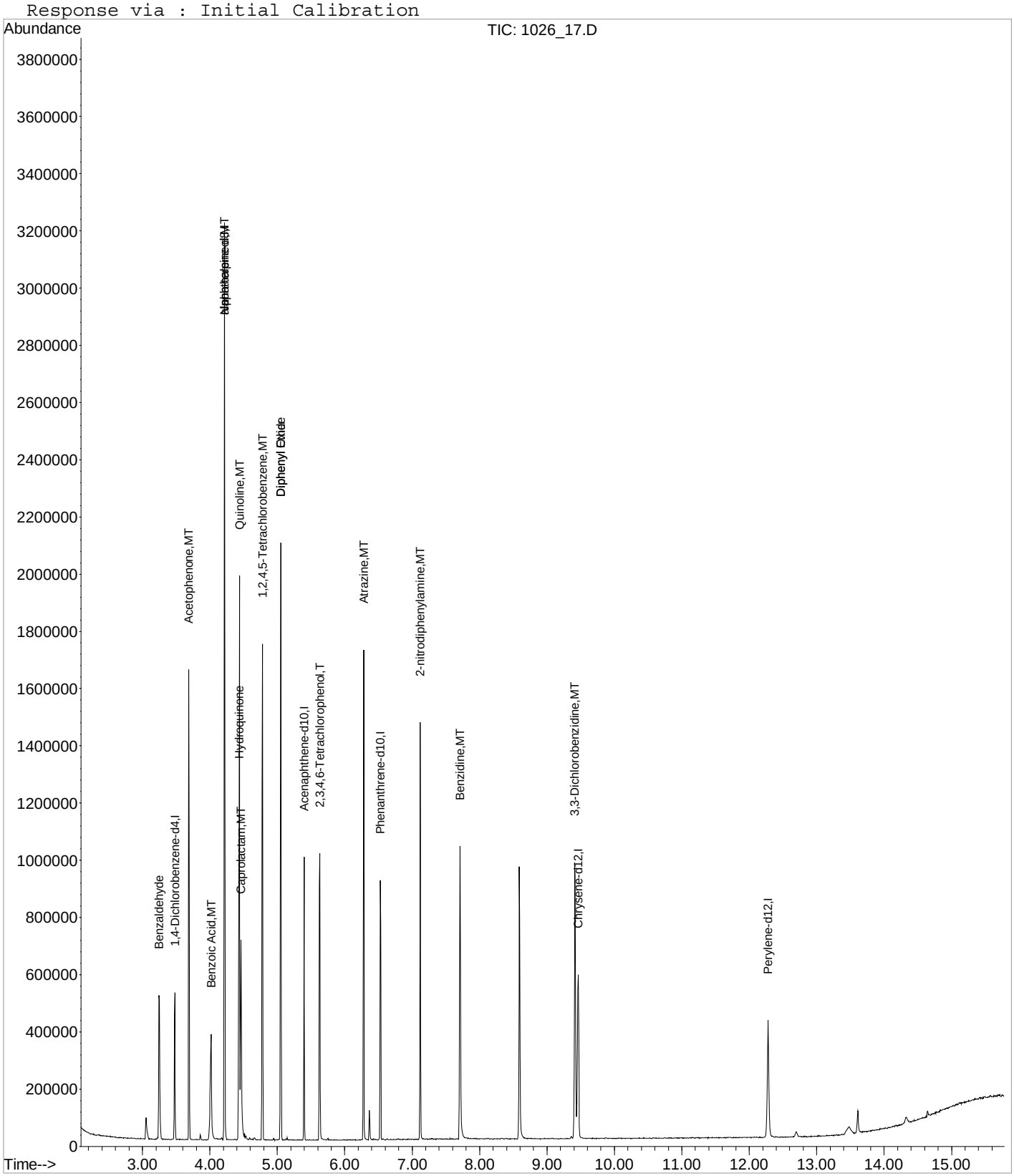
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79205	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	408557	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	156055	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	304090	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	286052	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	273147	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	101047	19341.6447967	ppb	99
22) Acetophenone	3.69	105	345613	20174.0701966	ppb	98
31) Benzoic Acid	4.02	105	133142	25627.0437077	ppb	97
33) alpha-terpineol	4.22	59	221931	16266.0532488	ppb	97
37) Hydroquinone	4.43	110	174523m	18213.8676880	ppb	
38) Quinoline	4.44	129	503653	16329.9149474	ppb	99
39) Caprolactam	4.46	113	62407	17733.7986190	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	253801	15362.6651414	ppb	99
44) Diphenyl Ether	5.05	170	339004	16107.0459037	ug/ml	99
45) Diphenyl Oxide	5.05	170	339004	16107.0459037	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	117988	21266.8491781	ppb	83
69) Atrazine	6.28	200	150025	21605.3350223	ppb	99
82) 2-nitrodiphenylamine	7.12	167	171072	27399.0010533	ppb	97
85) Benzidine	7.71	184	409142	28681.7128387	ppb	99
89) 3,3-Dichlorobenzidine	9.41	252	328381	22147.1882565	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_17.D S804J26V.M Thu Oct 27 11:35:44 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: S804J26V.RES

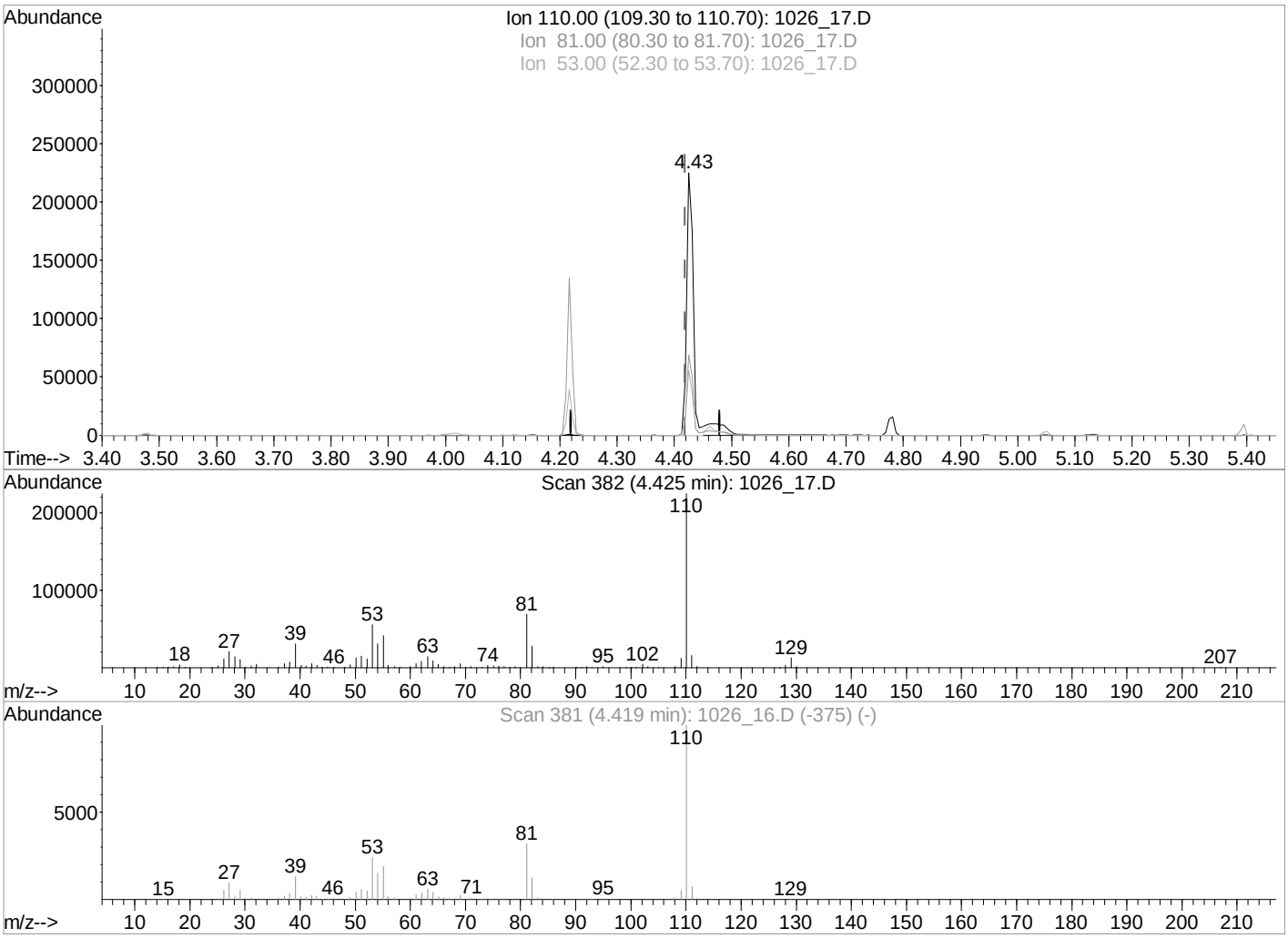
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Single Level Calibration



TIC: 1026_17.D

(37) Hydroquinone

4.43min (+0.006) 18501.2853442 ppb

Qvalue = 98

response 177277

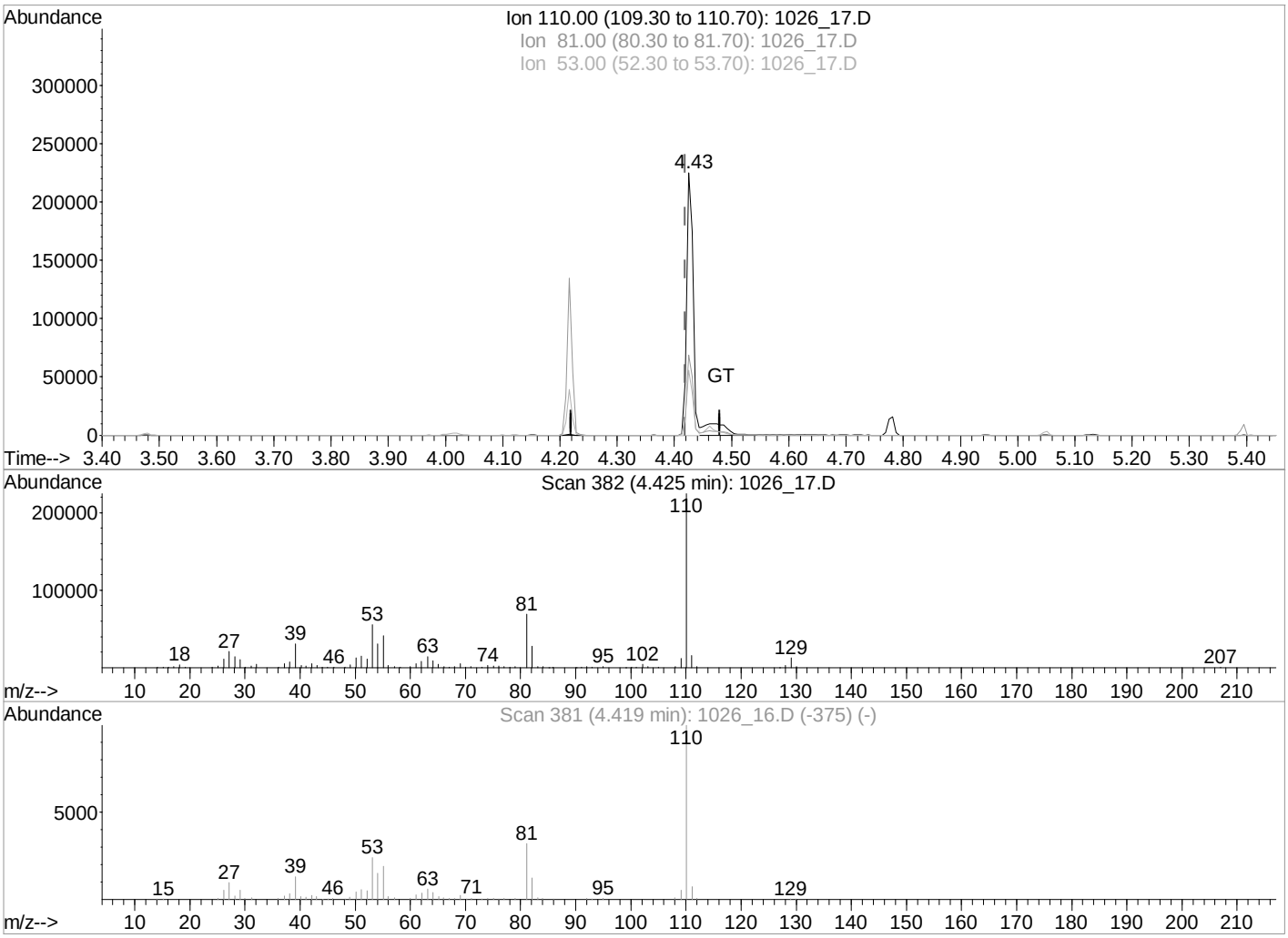
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.62
53.00	23.80	24.68
0.00	0.00	0.00

1026_17.D S804J26V.M Thu Oct 27 06:47:03 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Single Level Calibration



TIC: 1026_17.D

(37) Hydroquinone

4.43min (+0.006) 18213.8676880 ppb m

response 174523

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.62
53.00	23.80	24.68
0.00	0.00	0.00

1026_17.D S804J26V.M Thu Oct 27 06:47:08 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 18.D Vial: 15
Acq On : 27 Oct 2022 3:21 am Operator: 917
Sample : STD TCL 30K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:48 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:47:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

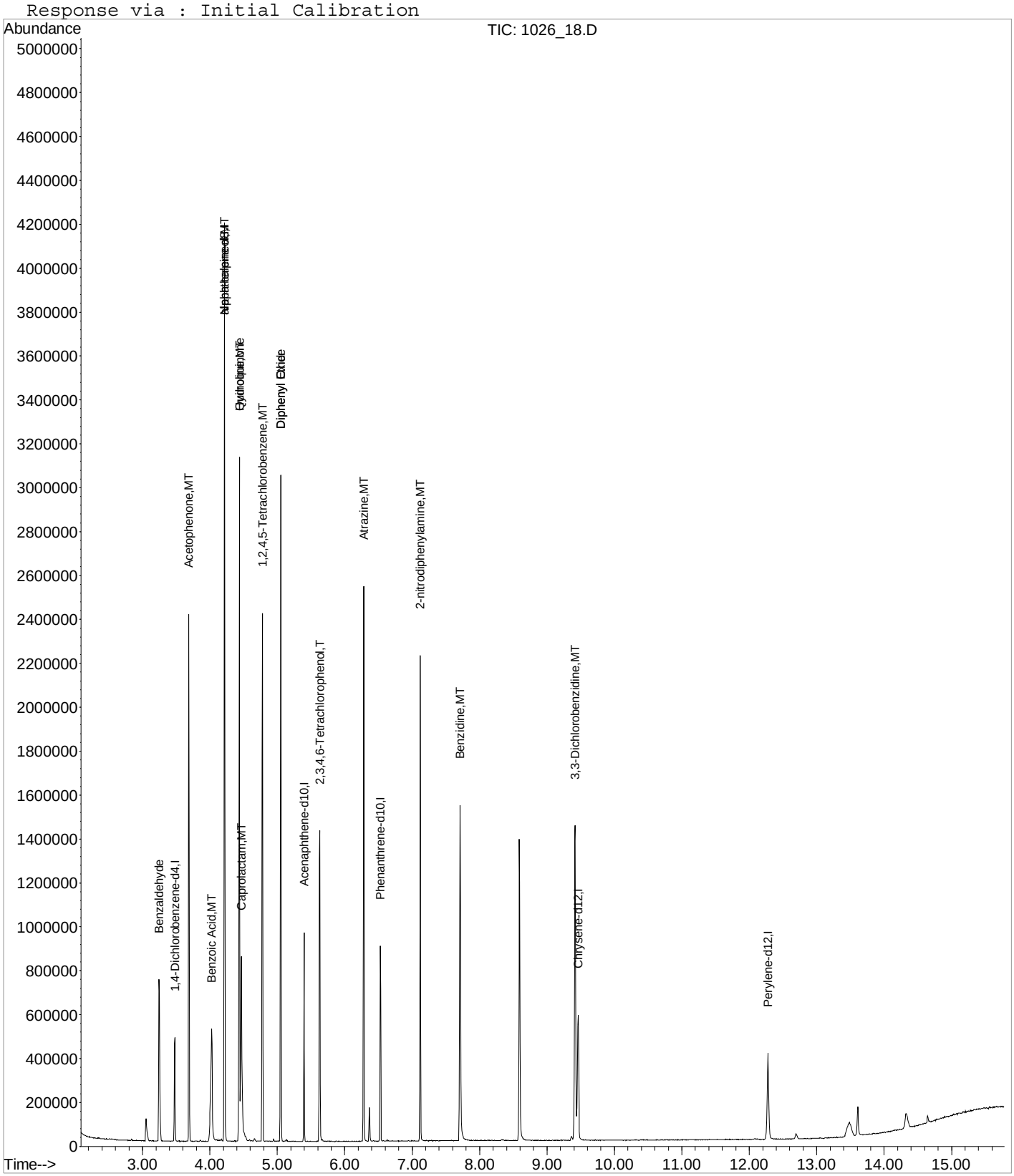
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	77084	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	443329	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	152617	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	294924	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	274135	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	259301	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	144982	28751.5464408	ppb	99
22) Acetophenone	3.69	105	493580	29539.6552227	ppb	98
31) Benzoic Acid	4.03	105	212443	35207.1937498	ppb	98
33) alpha-terpineol	4.22	59	322426	22844.3867677	ppb	98
37) Hydroquinone	4.43	110	264433	26013.4467196	ppb	96
38) Quinoline	4.44	129	725924	22733.4514153	ppb	98
39) Caprolactam	4.47	113	95080	25625.0221994	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	360244	21331.9346591	ppb	99
44) Diphenyl Ether	5.05	170	480422	22111.8763521	ug/ml	99
45) Diphenyl Oxide	5.05	170	480422	22111.8763521	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	168176	30512.7022480	ppb	84
69) Atrazine	6.28	200	218145	31491.1734070	ppb	99
82) 2-nitrodiphenylamine	7.12	167	260582	39389.0721448	ppb	97
85) Benzidine	7.71	184	619741	40895.7016385	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	477821	32747.9104690	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_18.D S804J26V.M Thu Oct 27 11:35:51 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 18.D Vial: 15
Acq On : 27 Oct 2022 3:21 am Operator: 917
Sample : STD TCL 30K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:48 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 19.D Vial: 16
Acq On : 27 Oct 2022 3:42 am Operator: 917
Sample : STD TCL 40K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:49 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:48:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

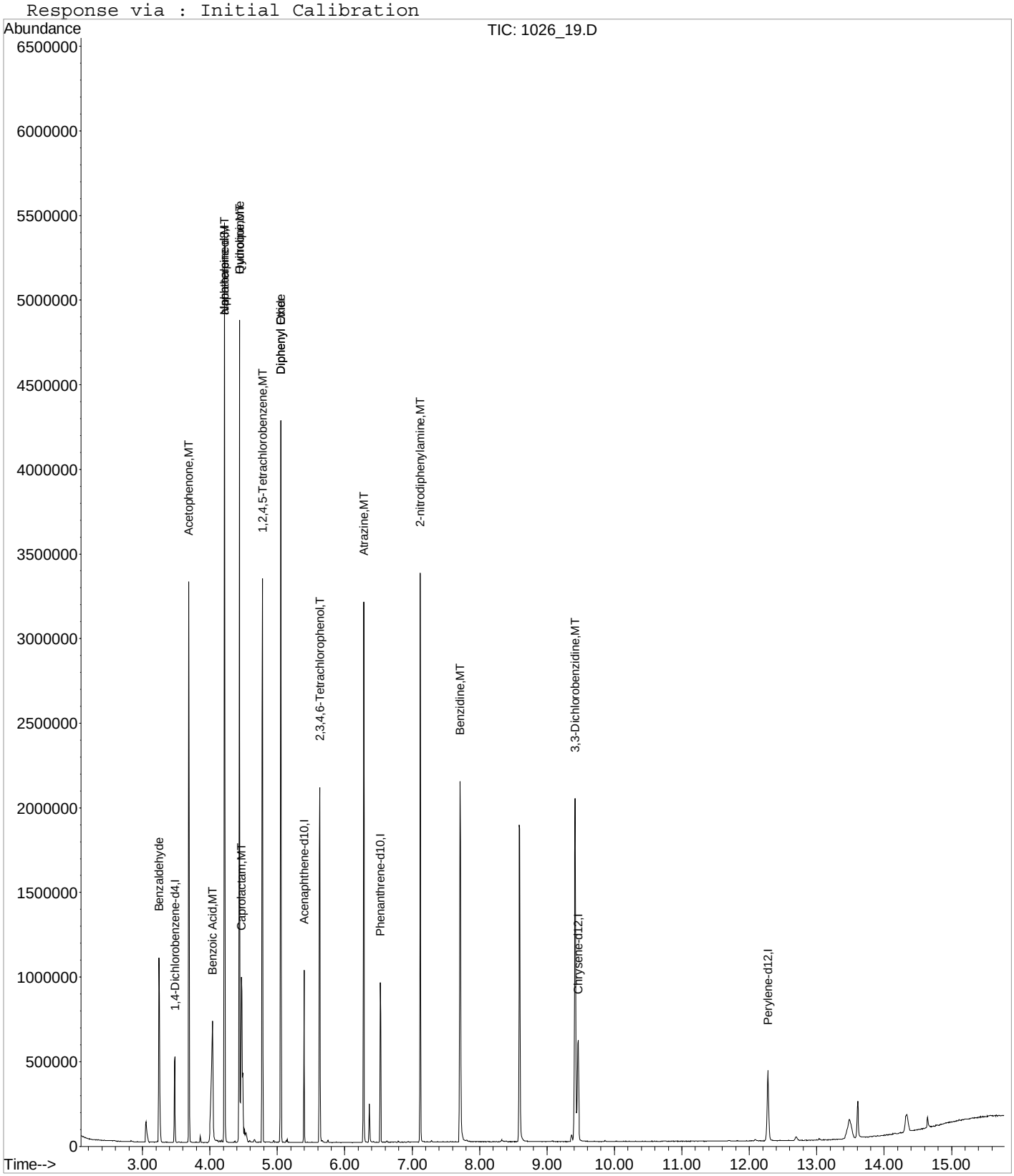
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	81768	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	516616	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	162233	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	311659	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	296007	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	282083	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	200315	37763.4123482	ppb	99
22) Acetophenone	3.69	105	693354	39239.0645438	ppb	99
31) Benzoic Acid	4.04	105	311437	42805.2357277	ppb	95
33) alpha-terpineol	4.22	59	450815	28782.8752713	ppb	97
37) Hydroquinone	4.44	110	385207	33406.6642613	ppb	95
38) Quinoline	4.44	129	1018632	28768.3740163	ppb	98
39) Caprolactam	4.47	113	135041	32170.2374008	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	502559	27103.7752426	ppb	99
44) Diphenyl Ether	5.05	170	670075	27934.7828359	ug/ml	99
45) Diphenyl Oxide	5.05	170	670075	27934.7828359	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	236201	40177.2496401	ppb	86
69) Atrazine	6.28	200	307721	41377.8916440	ppb	99
82) 2-nitrodiphenylamine	7.12	167	379848	51133.3611252	ppb	96
85) Benzidine	7.71	184	908431	51756.9533777	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	673981	42009.2088024	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_19.D S804J26V.M Thu Oct 27 11:35:58 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 19.D Vial: 16
Acq On : 27 Oct 2022 3:42 am Operator: 917
Sample : STD TCL 40K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:49 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 20.D Vial: 17
Acq On : 27 Oct 2022 4:03 am Operator: 917
Sample : STD TCL 50K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:50 2022 Quant Results File: S804J26V.RES

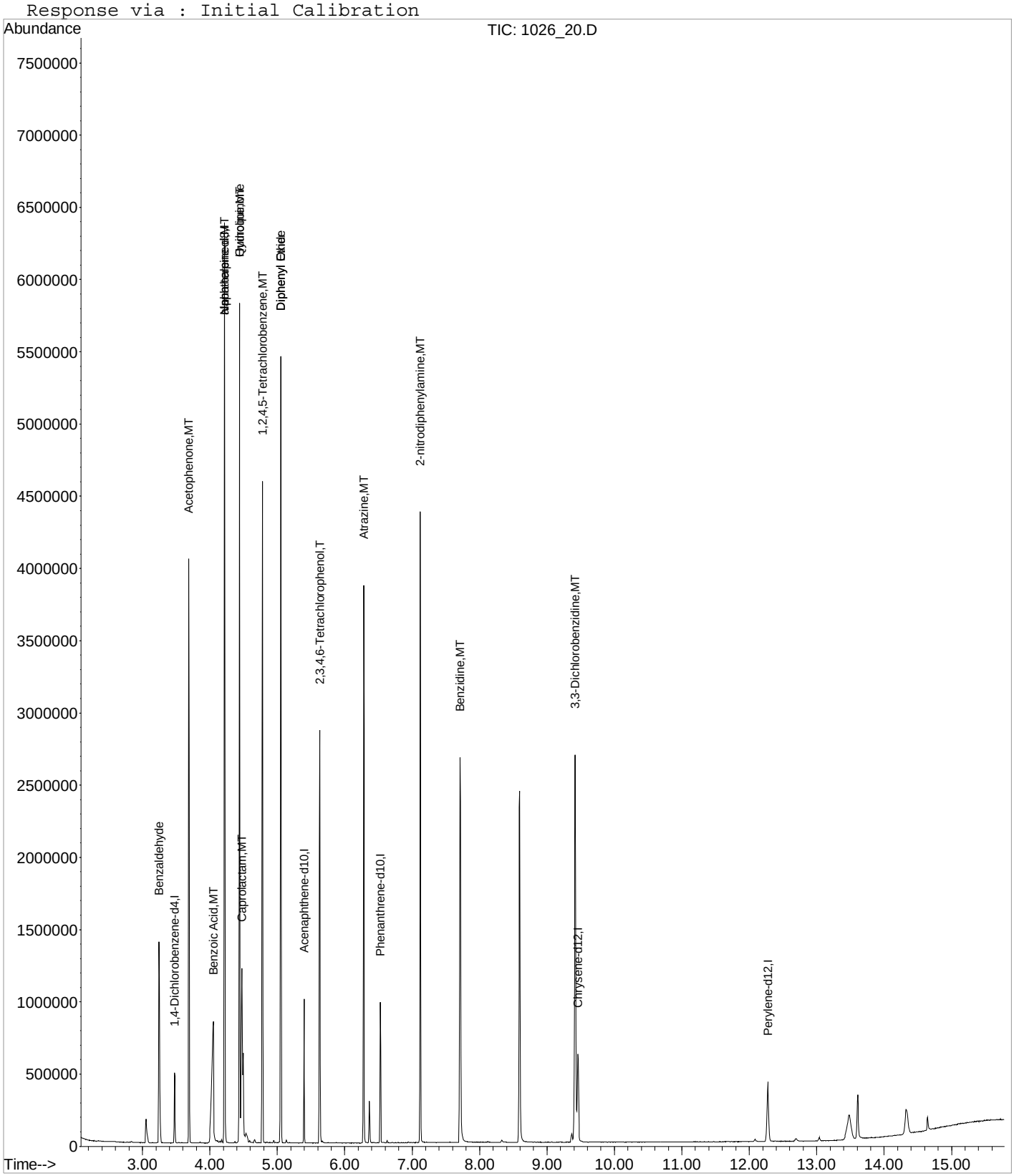
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:50:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	78832	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	563742	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157355	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	311846	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	287856	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	276090	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	257181	50762.5800155	ppb	99
22) Acetophenone	3.69	105	899003	52940.0975689	ppb	99
31) Benzoic Acid	4.05	105	414494	51604.2640726	ppb	95
33) alpha-terpineol	4.22	59	577892	35469.7141645	ppb	96
37) Hydroquinone	4.44	110	502209	41040.1447236	ppb	98
38) Quinoline	4.44	129	1317358	35768.8132386	ppb	98
39) Caprolactam	4.47	113	177238	39997.9393944	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	643024	33584.9157848	ppb	99
44) Diphenyl Ether	5.05	170	857259	34484.3493789	ug/ml	99
45) Diphenyl Oxide	5.05	170	857259	34484.3493789	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	307648	53912.6393938	ppb	86
69) Atrazine	6.28	200	407431	56161.3704392	ppb	100
82) 2-nitrodiphenylamine	7.12	167	508675	65400.5225237	ppb	96
85) Benzidine	7.71	184	1154314	64469.9277718	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	876013	55681.8229058	ppb	98

(#) = qualifier out of range (m) = manual integration
1026_20.D S804J26V.M Thu Oct 27 11:36:04 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 20.D Vial: 17
Acq On : 27 Oct 2022 4:03 am Operator: 917
Sample : STD TCL 50K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:50 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1026_22-1	**Analysis date/time:**	10/27/22 04:45
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.114506	0.08502465		25.70		10	7.425	74.30	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 22.D Vial: 19
Acq On : 27 Oct 2022 4:45 am Operator: 917
Sample : SSCV TCL 10K1 PPB 22J272830 EXP: 11/06/ Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:43 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

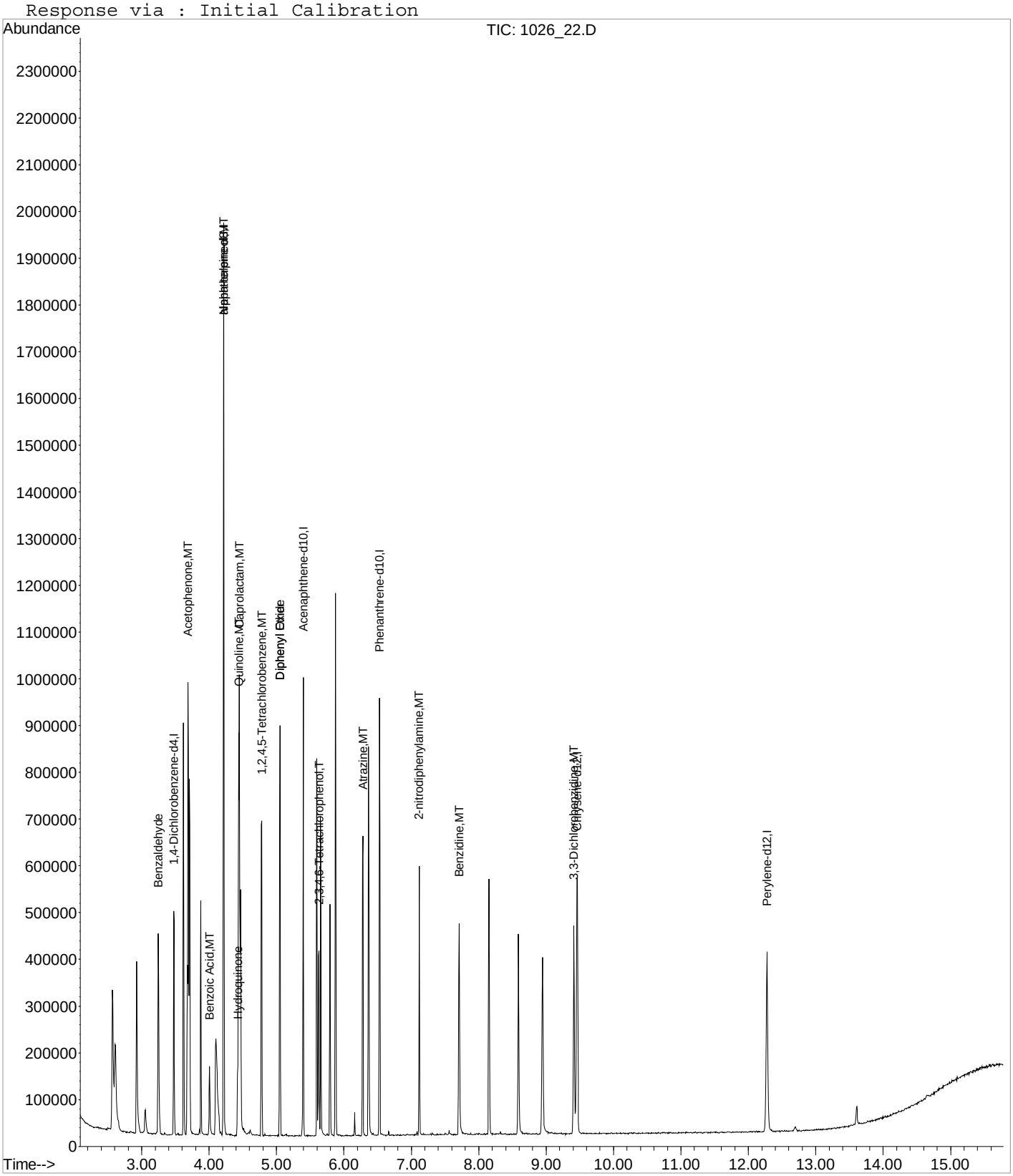
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	77918	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	351324	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	154268	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	298912	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	276094	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	264079	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	79066	16614.9021312	ppb	99
22) Acetophenone	3.69	105	158342	9355.1663395	ppb #	81
31) Benzoic Acid	4.01	105	37339	7425.3427876	ppb	95
33) alpha-terpineol	4.22	59	98515	11255.2563556	ppb	98
37) Hydroquinone	4.42	110	32324	4747.5512936	ppb	99
38) Quinoline	4.44	129	234242	11735.9356126	ppb	99
39) Caprolactam	4.46	113	31929	13139.9850546	ppb #	49
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	114266	10856.8985740	ppb	99
44) Diphenyl Ether	5.05	170	151573	10929.0592749	ug/ml	100
45) Diphenyl Oxide	5.05	170	151573	10929.0592749	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.63	232	49781	8799.8806880	ppb	85
69) Atrazine	6.28	200	66429	9178.4061265	ppb	100
82) 2-nitrodiphenylamine	7.12	167	71319	9595.7566297	ppb	99
85) Benzidine	7.71	184	190216	9664.1933766	ppb	99
89) 3,3-Dichlorobenzidine	9.41	252	139443	9093.3582633	ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 22.D Vial: 19
Acq On : 27 Oct 2022 4:45 am Operator: 917
Sample : SSCV TCL 10K1 PPB 22J272830 EXP: 11/06/ Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:43 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1026_25-1	**Analysis date/time:**	10/27/22 10:17
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.630728	0.66180030		4.93		10	10.49	105	50 - 150
2-METHYLNAPHTHALENE	0.663331	0.67598590		1.91		10	10.19	102	50 - 150
3&4-METHYL PHENOL	1.310460	1.346521		2.75		10	10.28	103	50 - 150
ACENAPHTHENE	1.237201	1.263491		2.12		10	10.21	102	80 - 120
ACENAPHTHYLENE	1.811284	1.861128		2.75		10	10.28	103	50 - 150
ANTHRACENE	1.093532	1.099580		0.5530		10	10.06	101	50 - 150
BENZO(A)ANTHRACENE	1.137290	1.125994		0.9930		10	9.901	99	50 - 150
BENZO(A)PYRENE	0.967529	1.070251		10.60		10	11.06	111	80 - 120
BENZO(B)FLUORANTHENE	1.156852	1.159030		0.1880		10	10.02	100	50 - 150
BENZO(G,H,I)PERYLENE	1.131717	1.183649		4.59		10	10.46	105	50 - 150
BENZO(K)FLUORANTHENE	1.205862	1.253048		3.91		10	10.39	104	50 - 150
BIS(2-ETHYLHEXYL)PHTHALATE	0.623139	0.65360830		4.89		10	9.141	91.40	50 - 150
CARBAZOLE	0.967635	1.020089		5.42		10	10.54	105	50 - 150
CHRYSENE	1.176685	1.225552		4.15		10	10.42	104	50 - 150
DI-N-BUTYL PHTHALATE	1.119355	1.170063		4.53		10	9.276	92.80	50 - 150
DI-N-OCTYL PHTHALATE	0.998390	0.97057650		2.79		10	8.843	88.40	80 - 120
DIBENZ(A,H)ANTHRACENE	1.133472	1.172769		3.47		10	10.35	104	50 - 150
DIBENZOFURAN	1.683731	1.695539		0.7010		10	10.07	101	50 - 150
FLUORANTHENE	1.157378	1.154334		0.2630		10	9.974	99.70	80 - 120
FLUORENE	1.399230	1.465246		4.72		10	10.47	105	50 - 150
INDENO(1,2,3-CD)PYRENE	1.013611	1.027802		1.40		10	10.14	101	50 - 150
NAPHTHALENE	1.018737	1.029480		1.05		10	10.11	101	50 - 150
PENTACHLOROPHENOL	0.137739	0.16414620		19.20		10	10.84	108	80 - 120
PHENANTHRENE	1.107688	1.108376		0.0621		10	10.01	100	50 - 150
PHENOL	1.583712	1.600367		1.05		10	10.11	101	80 - 120
PYRENE	1.256004	1.281748		2.05		10	10.20	102	50 - 150
2,4,6-TRIBROMOPHENOL	0.122213	0.10974170		10.20		10	8.980	89.80	50 - 150
2-FLUOROBIPHENYL	1.462951	1.3946		4.67		10	9.533	95.30	50 - 150
2-FLUOROPHENOL	1.212061	1.137623		6.14		10	9.386	93.90	50 - 150
NITROBENZENE-D5	0.342792	0.32707190		4.59		10	9.541	95.40	50 - 150
P-TERPHENYL-D14	1.092912	1.024757		6.24		10	9.376	93.80	50 - 150
PHENOL-D5	1.561757	1.441802		7.68		10	9.232	92.30	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	76355	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	297992	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	150372	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	290770	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	275480	8000.00	ppb		0.00
94) Perylene-d12	12.28	264	278976	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	108579	9385.8549625	ppb		0.00
Spiked Amount 20000.000			Recovery = 46.93%				
7) Phenol-d5	3.24	99	137611	9231.9234792	ppb		0.00
Spiked Amount 20000.000			Recovery = 46.16%				
24) Nitrobenzene-d5	3.78	82	121831m	9541.4154411	ppb		0.00
Spiked Amount 10000.000			Recovery = 95.41%				
50) 2-Fluorobiphenyl	4.91	172	262136	9532.7870931	ppb		0.00
Spiked Amount 10000.000			Recovery = 95.33%				
73) 2,4,6-Tribromophenol	5.98	330	39887	8979.5520078	ppb		0.00
Spiked Amount 20000.000			Recovery = 44.90%				
87) p-Terphenyl-d14	7.99	244	352875	9376.3878830	ppb		0.00
Spiked Amount 10000.000			Recovery = 93.76%				
Target Compounds							Qvalue
2) Pyridine	2.24	79	142499	11113.0186274	ppb		97
3) N-Nitrosodimethylamine	2.23	42	56954	9980.7439654	ppb		97
5) Aniline	3.29	66	68298	10349.8524468	ppb	#	94
6) bis(2-Chloroethyl)ether	3.31	93	118286m	9979.2405664	ppb		
8) Phenol	3.25	94	152745	10105.1608625	ppb		98
10) 2-Chlorophenol	3.36	128	130008	10505.4882349	ppb		97
11) n-Decane	3.36	41	64634	9182.9950321	ppb		99
12) 1,3-Dichlorobenzene	3.45	146	149878	10311.1229747	ppb		98
13) 1,4-Dichlorobenzene	3.49	146	147814	10171.5845977	ppb		98
14) Benzyl Alcohol	3.53	79	98364	10202.0991272	ppb		98
15) 1,2-Dichlorobenzene	3.57	146	144836	10582.2464586	ppb		98
16) bis(2-Chloroisopropyl)ethe	3.61	121	45465	10578.6122073	ppb		100
17) 2,2-oxybis(1-chloropropane	3.61	121	45465	10578.6122073	ppb		100
18) 2-Methylphenol	3.58	108	117800	10556.3640693	ppb		97
19) Hexachloroethane	3.77	117	53597	10179.1234684	ppb		99
20) N-Nitrosodi-n-propylamine	3.68	70	84140	9989.1066488	ppb		99
21) 3&4-Methyl phenol	3.66	107	128517	10275.1788296	ppb		98
25) Nitrobenzene	3.79	77	132893	10444.7057981	ppb		100
26) Isophorone	3.93	82	230980	10065.3605452	ppb		97
27) 2-Nitrophenol	3.98	139	65140	10160.9966184	ppb		96
28) 2,4-Dimethylphenol	3.98	107	126351	10690.6313592	ppb		98
29) bis(2-Chlorethoxy)methane	4.04	93	150753	10562.6346363	ppb		99
30) 2,4-Dichlorophenol	4.12	162	102438	10381.3405385	ppb		95
32) 1,2,4-Trichlorobenzene	4.17	180	121444	10356.1850237	ppb		98
34) Naphthalene	4.23	128	383471	10105.4536120	ppb		99
35) 4-Chloroaniline	4.25	65	41701	10378.7843420	ppb		97
36) Hexachloro-1,3-butadiene	4.30	225	74372	11109.0645023	ppb		98
40) 4-Chloro-3-methylphenol	4.54	107	94990	10125.6994867	ppb		98
41) 2-Methylnaphthalene	4.67	142	251798	10190.7823460	ppb		99
42) 1-Methylnaphthalene	4.74	142	246514	10492.6458180	ppb		99
47) Hexachlorocyclopentadiene	4.77	237	73978	9784.6194553	ppb		99
48) 2,4,6-Trichlorophenol	4.85	196	74186	10605.7413827	ppb		98
49) 2,4,5-Trichlorophenol	4.87	196	76097	10424.0795102	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

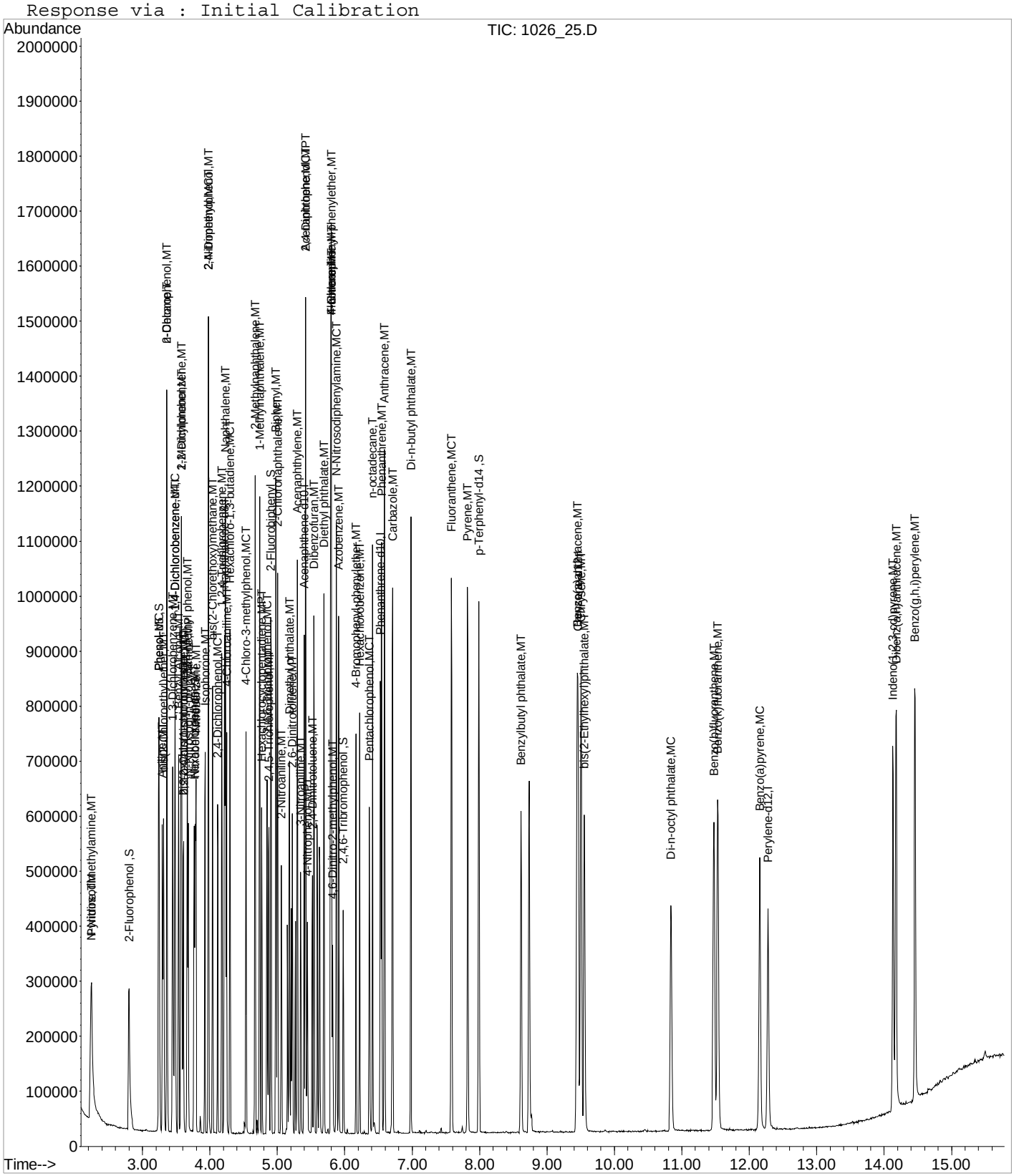
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.98	154	291218	9492.6091817 ppb		100
52)	2-Chloronaphthalene	5.00	162	235796	10426.3822924 ppb		99
53)	2-Nitroaniline	5.06	138	70434	10539.5956311 ppb		98
54)	Acenaphthylene	5.30	152	349827	10275.1857456 ppb		100
55)	Dimethyl phthalate	5.18	163	238793	10111.6844384 ppb		99
56)	2,6-Dinitrotoluene	5.22	165	58887	10939.1236332 ppb		97
57)	3-Nitroaniline	5.35	138	58922	10357.9504777 ppb		97
58)	Acenaphthene	5.42	153	237492	10212.4922826 ppb		98
59)	2,4-Dinitrophenol	5.42	184	26428	9492.2565031 ppb	#	84
60)	Dibenzofuran	5.54	168	318702	10070.1321269 ppb		100
61)	2,4-Dinitrotoluene	5.52	165	72432	10589.8229435 ppb		96
63)	4-Nitrophenol	5.44	139	50938	11123.2391831 ppb		92
64)	Fluorene	5.80	166	275415	10471.8044133 ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	130527	10428.8202011 ppb		98
66)	Diethyl phthalate	5.69	149	250726	10916.5993991 ppb		99
67)	4-Nitroaniline	5.80	138	59103	11378.8716888 ppb		99
68)	Azobenzene	5.91	77	260886	10628.5301238 ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	38403	8911.6685370 ppb		96
72)	N-Nitrosodiphenylamine	5.87	169	229897	10043.4210655 ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	80839	10526.4575035 ppb		93
75)	Hexachlorobenzene	6.22	284	98242	10066.3996965 ppb		99
76)	n-octadecane	6.42	55	34414	9071.8552955 ppb		98
77)	Pentachlorophenol	6.37	266	59661	10843.1263305 ppb		97
78)	Phenanthrene	6.55	178	402853	10006.2044101 ppb		100
79)	Anthracene	6.59	178	399656	10055.3075356 ppb		100
80)	Carbazole	6.71	167	370764	10542.0838835 ppb		100
81)	Di-n-butyl phthalate	6.98	149	425274	9275.9613638 ppb		99
83)	Fluoranthene	7.58	202	419557	9973.6957884 ppb		99
86)	Pyrene	7.82	202	441370	10204.9695284 ppb		99
88)	Benzylbutyl phthalate	8.61	149	158078	9445.6788390 ppb		96
90)	Benzo(a)anthracene	9.45	228	387736	9900.6714403 ppb		99
91)	Chrysene	9.50	228	422019	10415.2993927 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.55	149	225070	9141.3659237 ppb		98
93)	Di-n-octyl phthalate	10.84	149	334218	8842.5392656 ppb		98
95)	Benzo(b)fluoranthene	11.48	252	404177	10018.8265141 ppb		99
96)	Benzo(k)fluoranthene	11.53	252	436963	10391.3065092 ppb		98
97)	Benzo(a)pyrene	12.16	252	373218	11061.6972006 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	358415	10139.9998581 ppb		98
99)	Dibenz(a,h)anthracene	14.18	278	408968	10346.6983276 ppb		98
100)	Benzo(g,h,i)perylene	14.46	276	412762	10458.8804270 ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

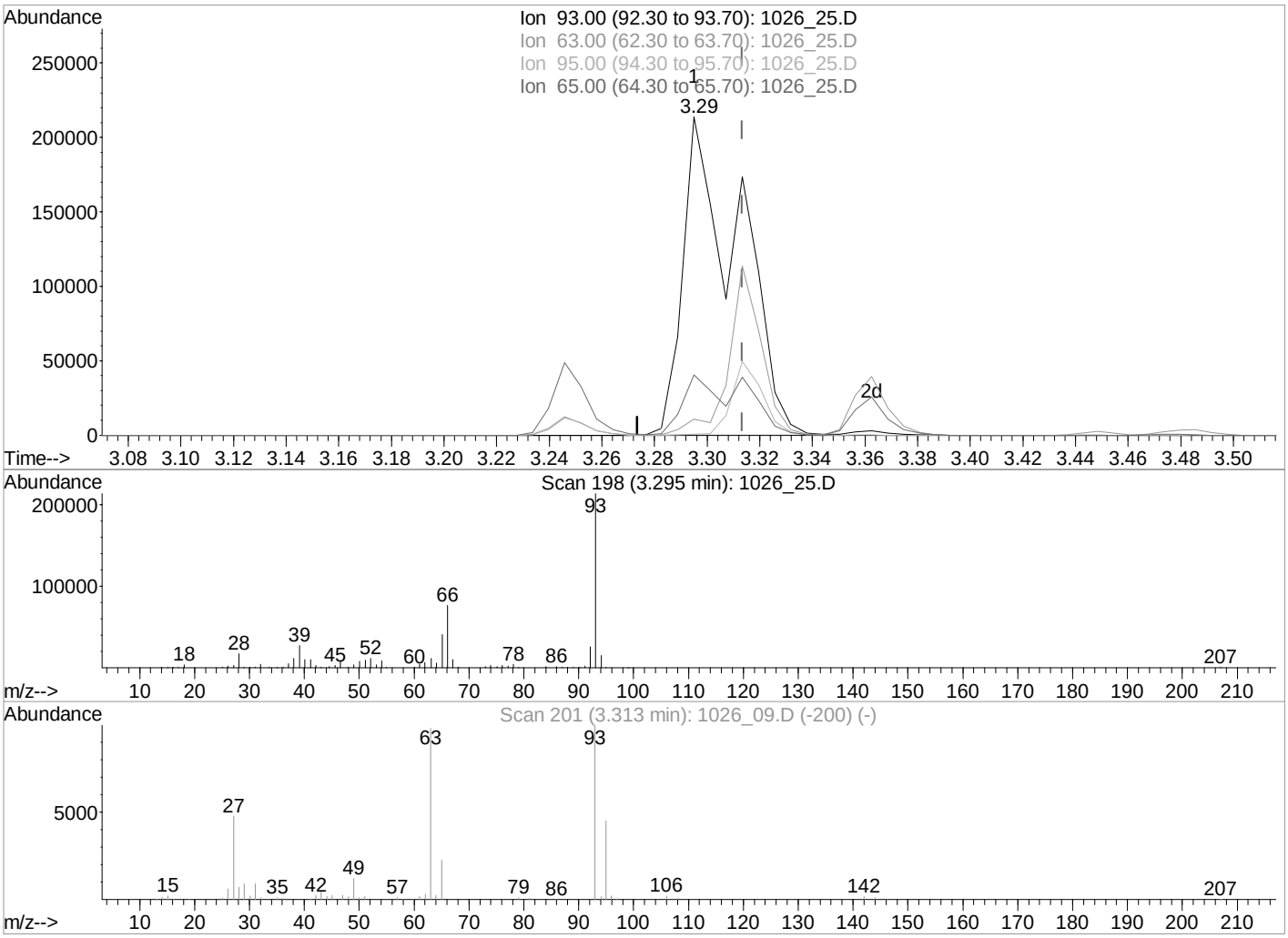
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.018) 26194.9370206 ppb

Qvalue = 42

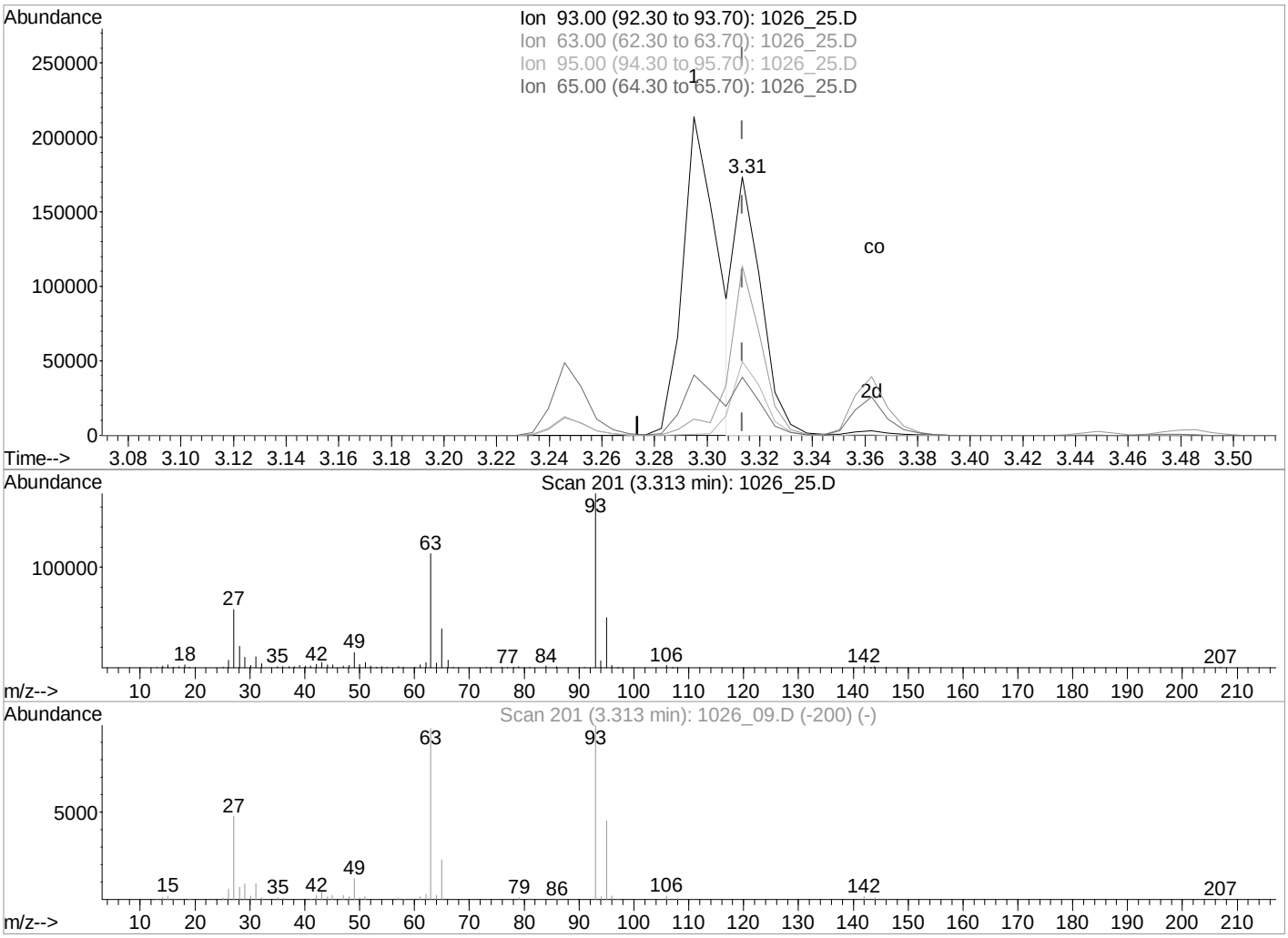
response 310494

Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.03#
95.00	28.70	0.28#
65.00	22.20	18.84

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.018) 26194.9370206 ppb

Qvalue = 42

response 310494

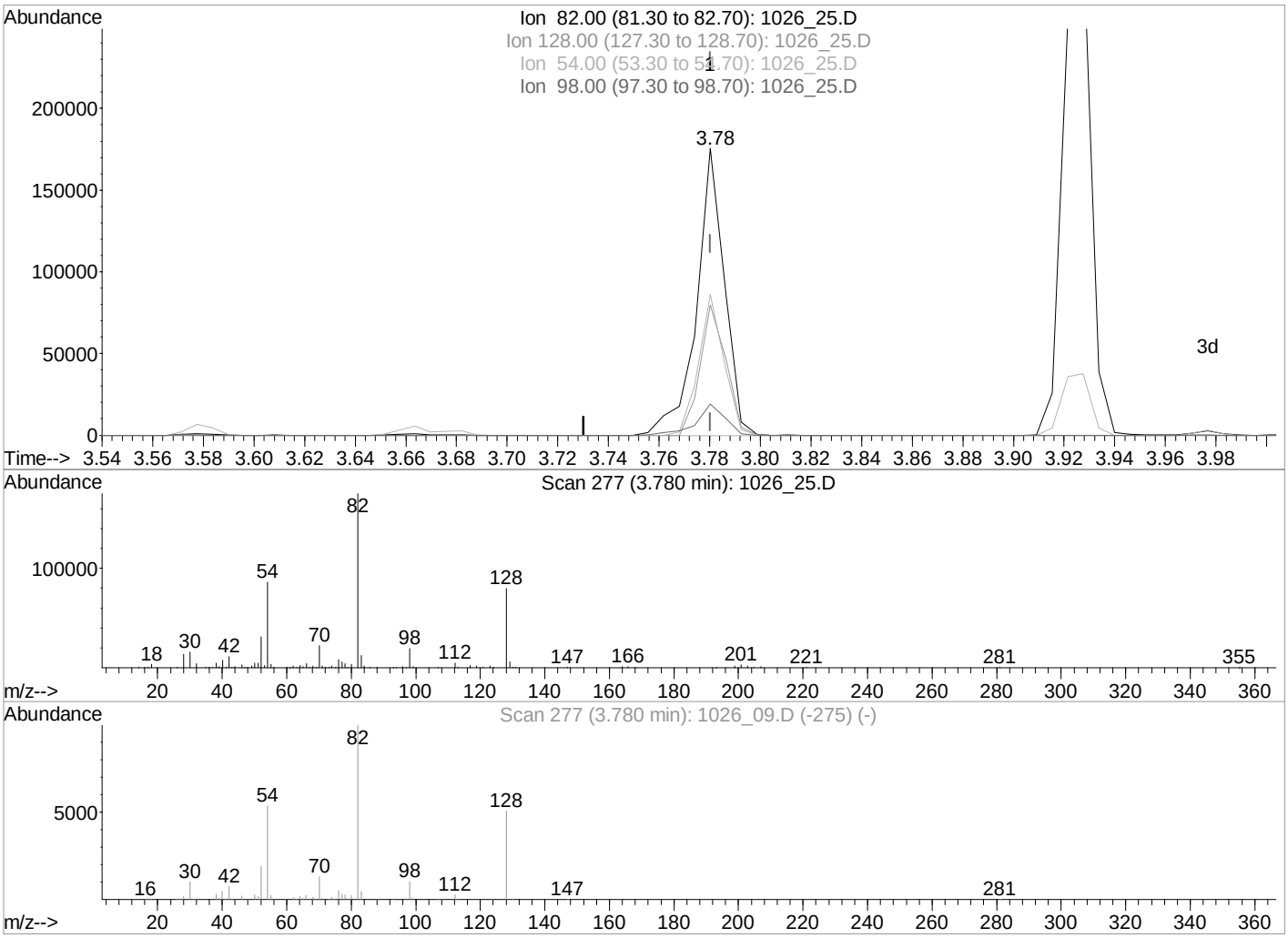
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.03#
95.00	28.70	0.28#
65.00	22.20	18.84

1026_25.D S804J26V.M Thu Oct 27 11:37:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 10448.2457995 ppb

Qvalue = 100

response 133410

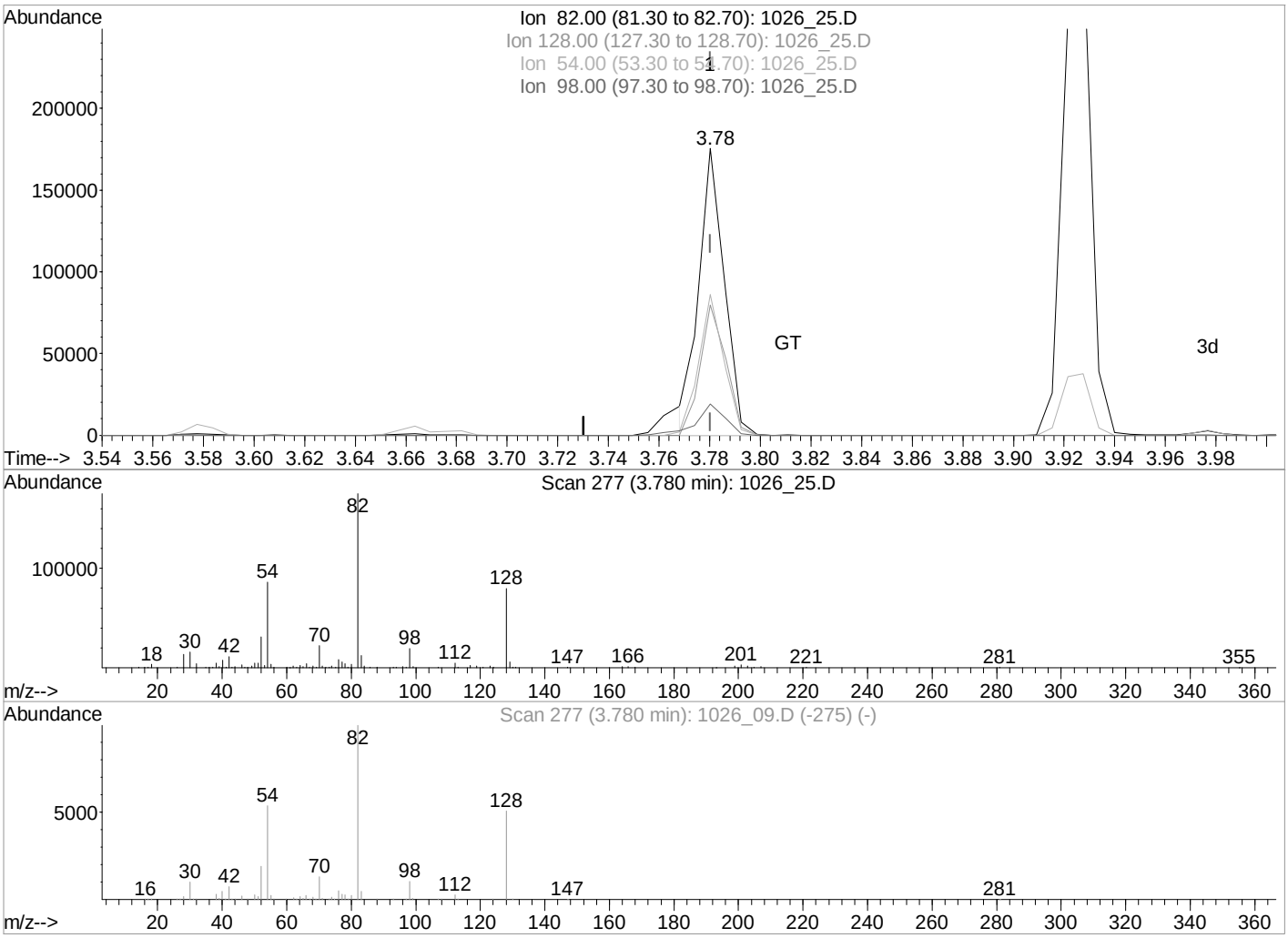
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.42
54.00	49.10	49.00
98.00	10.80	10.87

1026_25.D S804J26V.M Thu Oct 27 11:38:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:38 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 9541.4154411 ppb m

response 121831

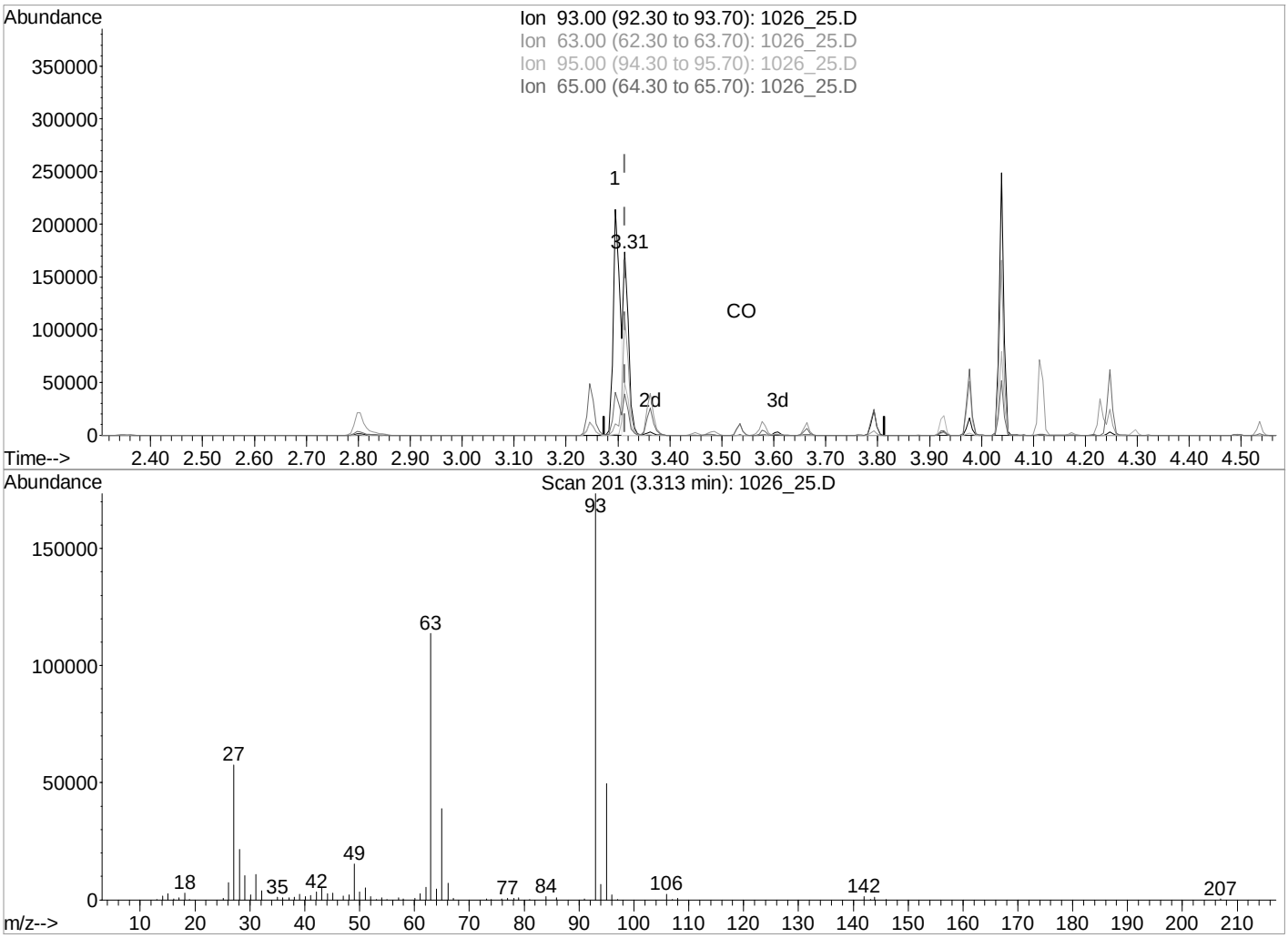
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.42
54.00	49.10	49.00
98.00	10.80	10.87

1026_25.D S804J26V.M Thu Oct 27 11:38:04 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 9979.2405664 ppb m

response 118286

Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.57
95.00	28.70	28.55
65.00	22.20	22.43

1026_25.D S804J26V.M Thu Oct 27 11:57:32 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1114A_03	**Analysis date/time:**	11/14/22 12:02
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.630728	0.65564940		3.95		10	10.40	104	
2-METHYLNAPHTHALENE	0.663331	0.69854630		5.31		10	10.53	105	
3&4-METHYL PHENOL	1.310460	1.331018		1.57		10	10.16	102	
ACENAPHTHENE	1.237201	1.253005		1.28	20	10	10.13	101	
ACENAPHTHYLENE	1.811284	1.898091		4.79		10	10.48	105	
ANTHRACENE	1.093532	1.129550		3.29		10	10.33	103	
BENZO(A)ANTHRACENE	1.137290	1.191690		4.78		10	10.48	105	
BENZO(A)PYRENE	0.967529	1.059314		9.49	20	10	10.95	110	
BENZO(B)FLUORANTHENE	1.156852	1.227670		6.12		10	10.61	106	
BENZO(G,H,I)PERYLENE	1.131717	1.143901		1.08		10	10.11	101	
BENZO(K)FLUORANTHENE	1.205862	1.274111		5.66		10	10.57	106	
BIS(2-ETHYLHEXYL)PHTHALATE	0.623139	0.69889940		12.20		10	9.749	97.50	
CARBAZOLE	0.967635	0.98542820		1.84		10	10.18	102	
CHRYSENE	1.176685	1.215614		3.31		10	10.33	103	
DI-N-BUTYL PHTHALATE	1.119355	1.153685		3.07		10	9.151	91.50	
DI-N-OCTYL PHTHALATE	0.998390	1.134804		13.70	20	10	10.20	102	80 - 120
DIBENZ(A,H)ANTHRACENE	1.133472	1.181871		4.27		10	10.43	104	
DIBENZOFURAN	1.683731	1.730883		2.80		10	10.28	103	
FLUORANTHENE	1.157378	1.179744		1.93	20	10	10.19	102	
FLUORENE	1.399230	1.450214		3.64		10	10.36	104	
INDENO(1,2,3-CD)PYRENE	1.013611	1.100923		8.61		10	10.86	109	
NAPHTHALENE	1.018737	1.032148		1.32		10	10.13	101	
PENTACHLOROPHENOL	0.137739	0.13532370		1.75	20	10	9.064	90.60	80 - 120
PHENANTHRENE	1.107688	1.123343		1.41		10	10.14	101	
PHENOL	1.583712	1.545443		2.42	20	10	9.758	97.60	
PYRENE	1.256004	1.251254		0.3780		10	9.962	99.60	
2,4,6-TRIBROMOPHENOL	0.122213	0.13504110		10.50		10	11.05	111	70 - 130
2-FLUOROBIPHENYL	1.462951	1.493071		2.06		10	10.21	102	70 - 130
2-FLUOROPHENOL	1.212061	1.183481		2.36		10	9.764	97.60	70 - 130
NITROBENZENE-D5	0.342792	0.304482		11.20		10	8.882	88.80	70 - 130
P-TERPHENYL-D14	1.092912	1.106553		1.25		10	10.12	101	70 - 130
PHENOL-D5	1.561757	1.517170		2.85		10	9.715	97.20	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:57 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	63127	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	244754	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	126372	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.50	188	251953	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	249961	8000.00	ppb	-0.04
94) Perylene-d12	12.23	264	264041	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.79	112	93387	9764.2020187	ppb	-0.02
Spiked Amount 20000.000			Recovery = 48.82%			
7) Phenol-d5	3.22	99	119718	9714.5084182	ppb	-0.02
Spiked Amount 20000.000			Recovery = 48.57%			
24) Nitrobenzene-d5	3.76	82	93154m	8882.4201448	ppb	-0.02
Spiked Amount 10000.000			Recovery = 88.82%			
50) 2-Fluorobiphenyl	4.88	172	235853	10205.8868087	ppb	-0.03
Spiked Amount 10000.000			Recovery = 102.06%			
73) 2,4,6-Tribromophenol	5.96	330	42530	11049.6556077	ppb	-0.02
Spiked Amount 20000.000			Recovery = 55.25%			
87) p-Terphenyl-d14	7.96	244	345744	10124.8161720	ppb	-0.03
Spiked Amount 10000.000			Recovery = 101.25%			
Target Compounds						Qvalue
2) Pyridine	2.23	79	101083	9534.9995983	ppb	95
3) N-Nitrosodimethylamine	2.21	42	40184	8517.5399619	ppb #	85
5) Aniline	3.28	66	51242	9392.3566400	ppb #	88
6) bis(2-Chloroethyl)ether	3.29	93	106463m	10863.8854328	ppb	
8) Phenol	3.23	94	121949	9758.3592555	ppb	90
10) 2-Chlorophenol	3.34	128	105409	10302.5845529	ppb	97
11) n-Decane	3.34	41	46424	7977.8929365	ppb	97
12) 1,3-Dichlorobenzene	3.42	146	123990	10317.5615429	ppb	98
13) 1,4-Dichlorobenzene	3.46	146	122589	10203.4462026	ppb	98
14) Benzyl Alcohol	3.51	79	76950	9653.4891493	ppb	96
15) 1,2-Dichlorobenzene	3.55	146	118470	10469.6477215	ppb	98
16) bis(2-Chloroisopropyl)ethe	3.58	121	36359	10232.5944592	ppb	98
17) 2,2-oxybis(1-chloropropane	3.58	121	36359	10232.5944592	ppb	98
18) 2-Methylphenol	3.56	108	94211	10211.5816383	ppb	97
19) Hexachloroethane	3.74	117	44180	10148.8759234	ppb	94
20) N-Nitrosodi-n-propylamine	3.66	70	68067	9774.2418945	ppb	93
21) 3&4-Methyl phenol	3.65	107	105029	10156.8811633	ppb	97
25) Nitrobenzene	3.77	77	101674	9729.2378887	ppb	97
26) Isophorone	3.90	82	190908	10128.7043325	ppb	97
27) 2-Nitrophenol	3.95	139	57834	10983.6475889	ppb	85
28) 2,4-Dimethylphenol	3.96	107	92209	9498.8884966	ppb	93
29) bis(2-Chlorethoxy)methane	4.01	93	115053	9814.7456317	ppb	98
30) 2,4-Dichlorophenol	4.09	162	88120	10872.8060722	ppb	97
32) 1,2,4-Trichlorobenzene	4.16	180	104495	10849.1085603	ppb	94
34) Naphthalene	4.20	128	315778	10131.6449808	ppb	99
35) 4-Chloroaniline	4.22	65	31081	9418.2412013	ppb	85
36) Hexachloro-1,3-butadiene	4.27	225	61666	11214.7246030	ppb	98
40) 4-Chloro-3-methylphenol	4.52	107	80472	10443.9972410	ppb	96
41) 2-Methylnaphthalene	4.65	142	213715	10530.8896433	ppb	98
42) 1-Methylnaphthalene	4.71	142	200591	10395.1240164	ppb	98
47) Hexachlorocyclopentadiene	4.74	237	57762	9090.7495504	ppb	96
48) 2,4,6-Trichlorophenol	4.82	196	63842	10860.2964113	ppb	98
49) 2,4,5-Trichlorophenol	4.85	196	70326	11463.1034855	ppb	94

(#) = qualifier out of range (m) = manual integration
1114A_03.D S804J26V.M Tue Nov 15 09:58:35 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:57 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

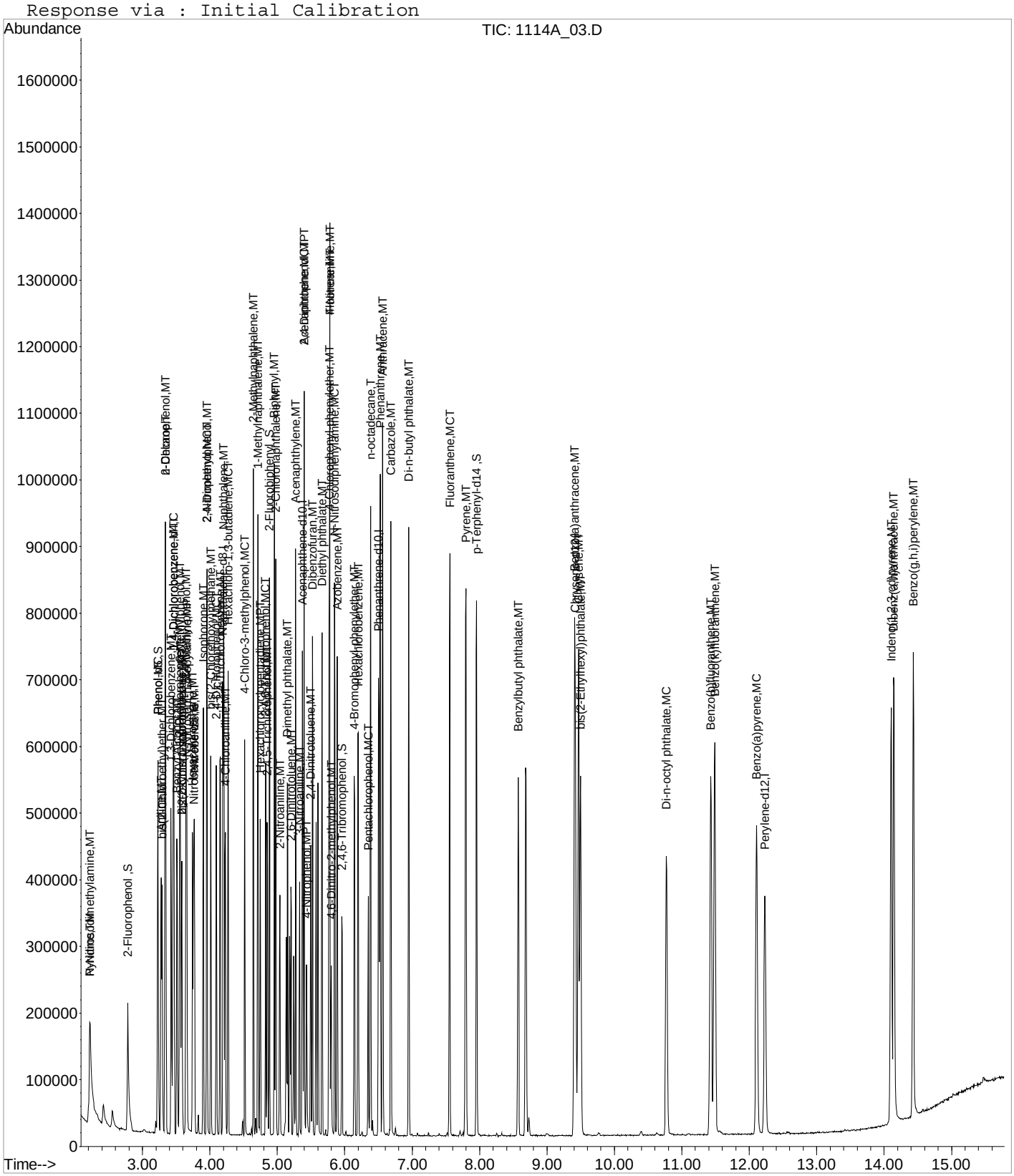
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.95	154	257617	9992.1287592 ppb		99
52)	2-Chloronaphthalene	4.98	162	198125	10424.4369733 ppb		98
53)	2-Nitroaniline	5.04	138	63352	11280.2322881 ppb		91
54)	Acenaphthylene	5.27	152	299832	10479.2561116 ppb		98
55)	Dimethyl phthalate	5.16	163	207747	10467.7368036 ppb		97
56)	2,6-Dinitrotoluene	5.21	165	51546	11393.9468074 ppb		79
57)	3-Nitroaniline	5.33	138	52419	10964.8122425 ppb	#	78
58)	Acenaphthene	5.40	153	197931	10127.7434742 ppb		97
59)	2,4-Dinitrophenol	5.40	184	20167	8850.7139032 ppb	#	20
60)	Dibenzofuran	5.52	168	273419	10280.0490713 ppb		99
61)	2,4-Dinitrotoluene	5.49	165	65345	11368.0690108 ppb		98
63)	4-Nitrophenol	5.43	139	40983	10649.0103750 ppb		88
64)	Fluorene	5.78	166	229083	10364.3700705 ppb		99
65)	4-Chlorophenyl-phenylether	5.76	204	112487	10694.3224660 ppb		96
66)	Diethyl phthalate	5.67	149	213053	11038.0351439 ppb		96
67)	4-Nitroaniline	5.78	138	54233	12424.2282287 ppb		93
68)	Azobenzene	5.89	77	193102	9361.0663358 ppb		94
71)	4,6-Dinitro-2-methylphenol	5.80	198	36280	9643.4386917 ppb		83
72)	N-Nitrosodiphenylamine	5.85	169	195712	9867.2443764 ppb		98
74)	4-Bromophenyl-phenylether	6.15	248	74283	11162.9969593 ppb		89
75)	Hexachlorobenzene	6.20	284	88177	10427.0716269 ppb		99
76)	n-octadecane	6.38	55	27361	8323.8259102 ppb	#	95
77)	Pentachlorophenol	6.35	266	42619	9063.5076886 ppb		94
78)	Phenanthrene	6.53	178	353787	10141.3250186 ppb		99
79)	Anthracene	6.56	178	355742	10329.3793030 ppb		99
80)	Carbazole	6.69	167	310352	10183.8857797 ppb		99
81)	Di-n-butyl phthalate	6.95	149	363343	9150.7691045 ppb		99
83)	Fluoranthene	7.56	202	371550	10193.2452707 ppb		99
86)	Pyrene	7.80	202	390956	9962.1850596 ppb		99
88)	Benzylbutyl phthalate	8.57	149	149780	9835.8692408 ppb		99
90)	Benzo(a)anthracene	9.41	228	372345	10478.3251297 ppb		99
91)	Chrysene	9.47	228	379820	10330.8345119 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	218372	9748.5817427 ppb		99
93)	Di-n-octyl phthalate	10.77	149	354571	10197.5360973 ppb		99
95)	Benzo(b)fluoranthene	11.43	252	405194	10612.1588054 ppb		98
96)	Benzo(k)fluoranthene	11.49	252	420522	10565.9776123 ppb		97
97)	Benzo(a)pyrene	12.11	252	349628	10948.6573636 ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.11	276	363361	10861.3937500 ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	390078	10427.0004077 ppb		97
100)	Benzo(g,h,i)perylene	14.43	276	377546	10107.6649459 ppb		97

(#) = qualifier out of range (m) = manual integration
1114A_03.D S804J26V.M Tue Nov 15 09:58:36 2022 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:57 2022 Quant Results File: S804J26V.RES

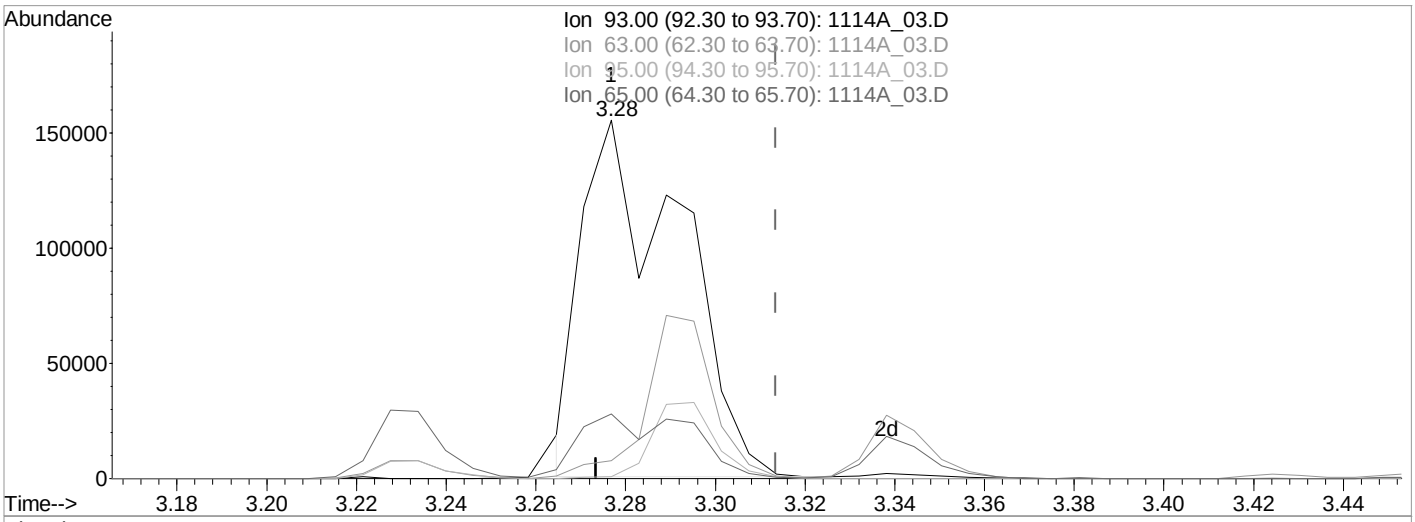
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

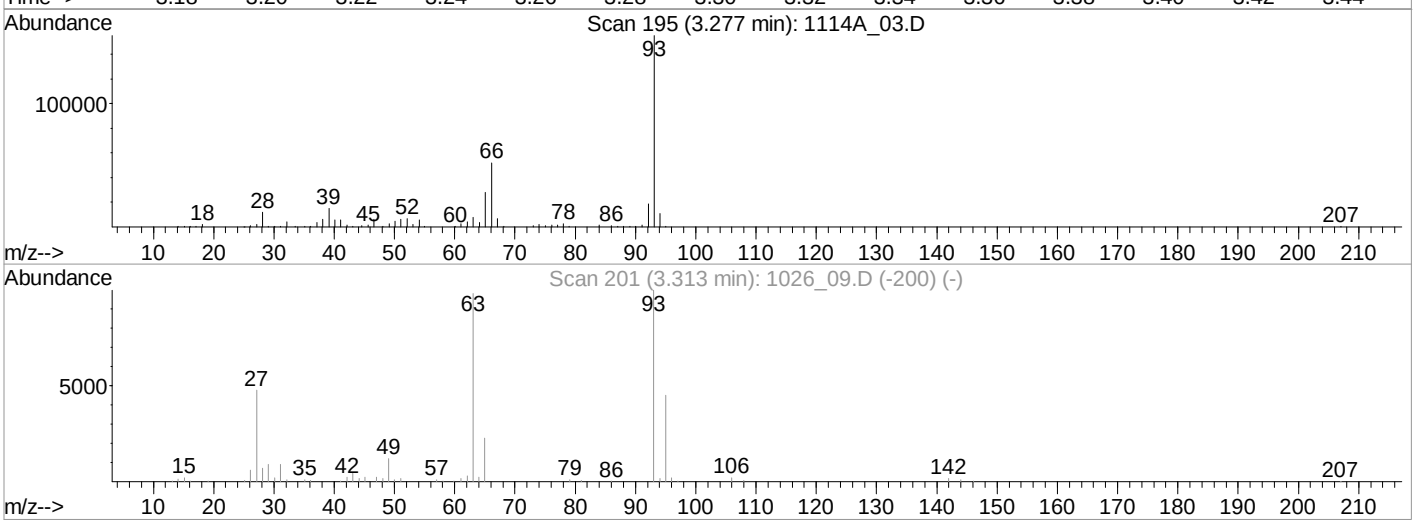


Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:24 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration





TIC: 1114A_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.28min (-0.037) 24234.3739274 ppb

Qvalue = 41

response 237490

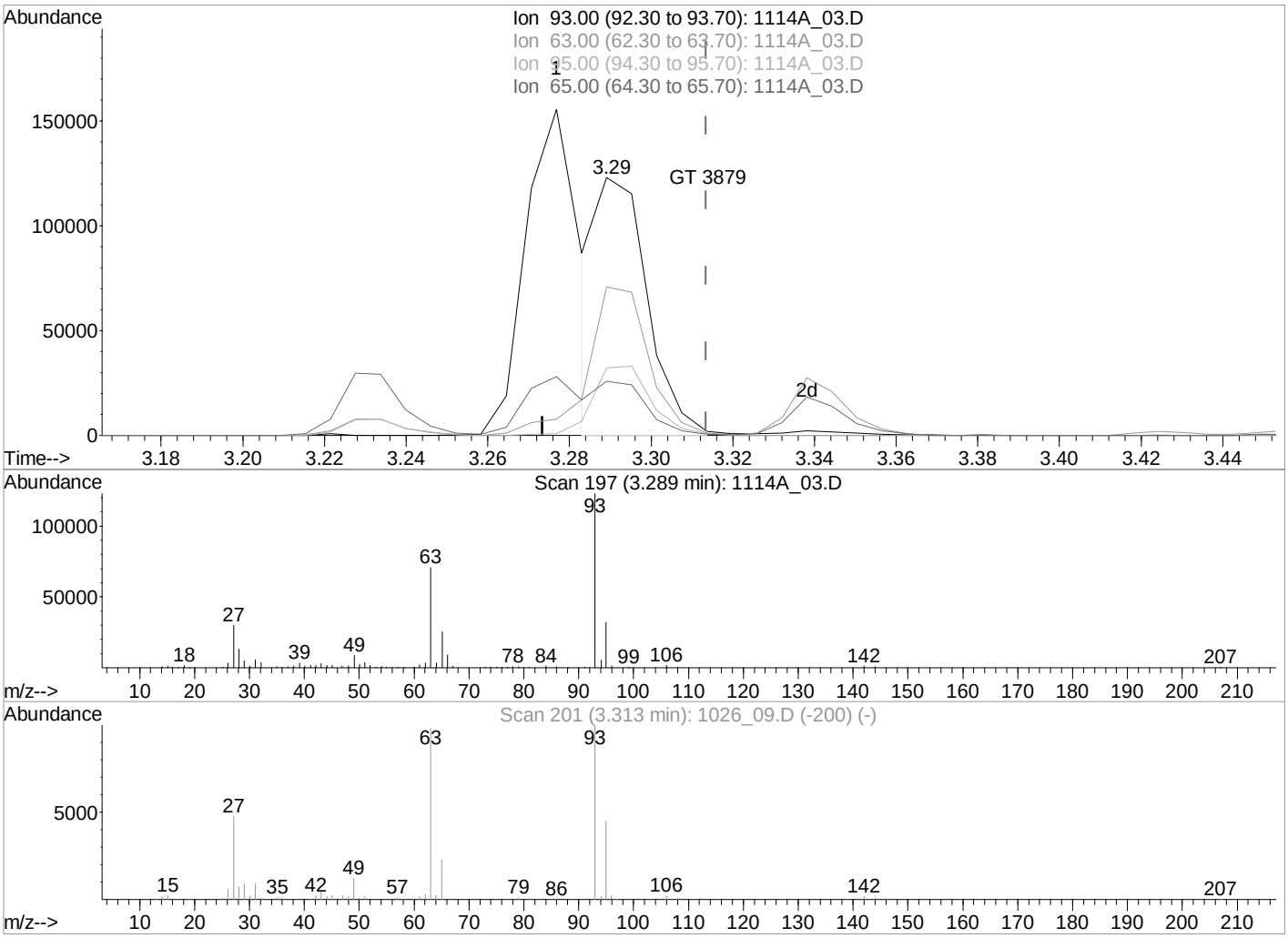
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.35#
95.00	28.70	0.40#
65.00	22.20	17.63

1114A_03.D S804J26V.M Mon Nov 14 12:24:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:24 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 10863.8854328 ppb m

response 106463

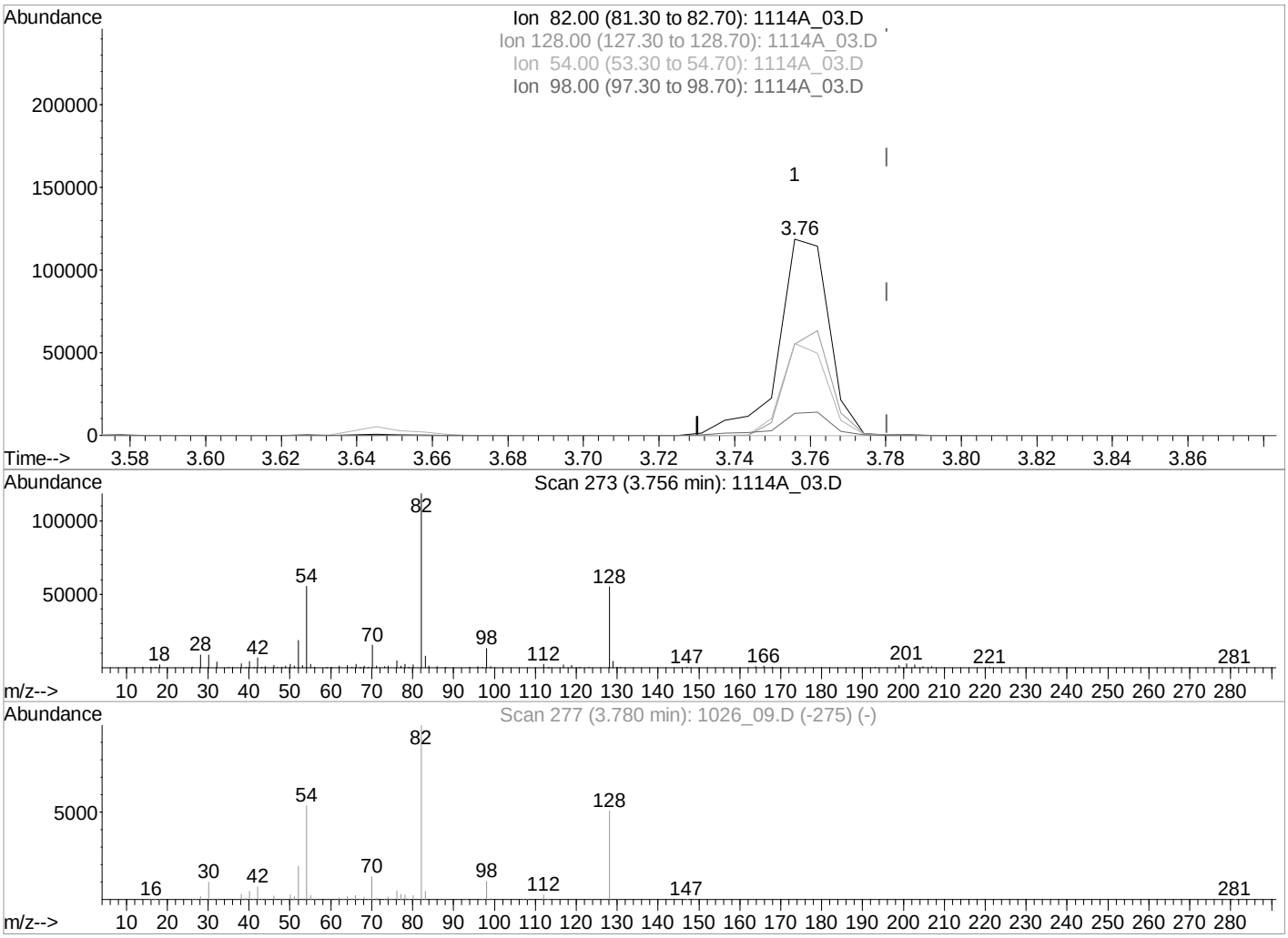
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.51
95.00	28.70	26.00
65.00	22.20	20.85

1114A_03.D S804J26V.M Mon Nov 14 12:25:03 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 10542.4031009 ppb

Qvalue = 98

response 110563

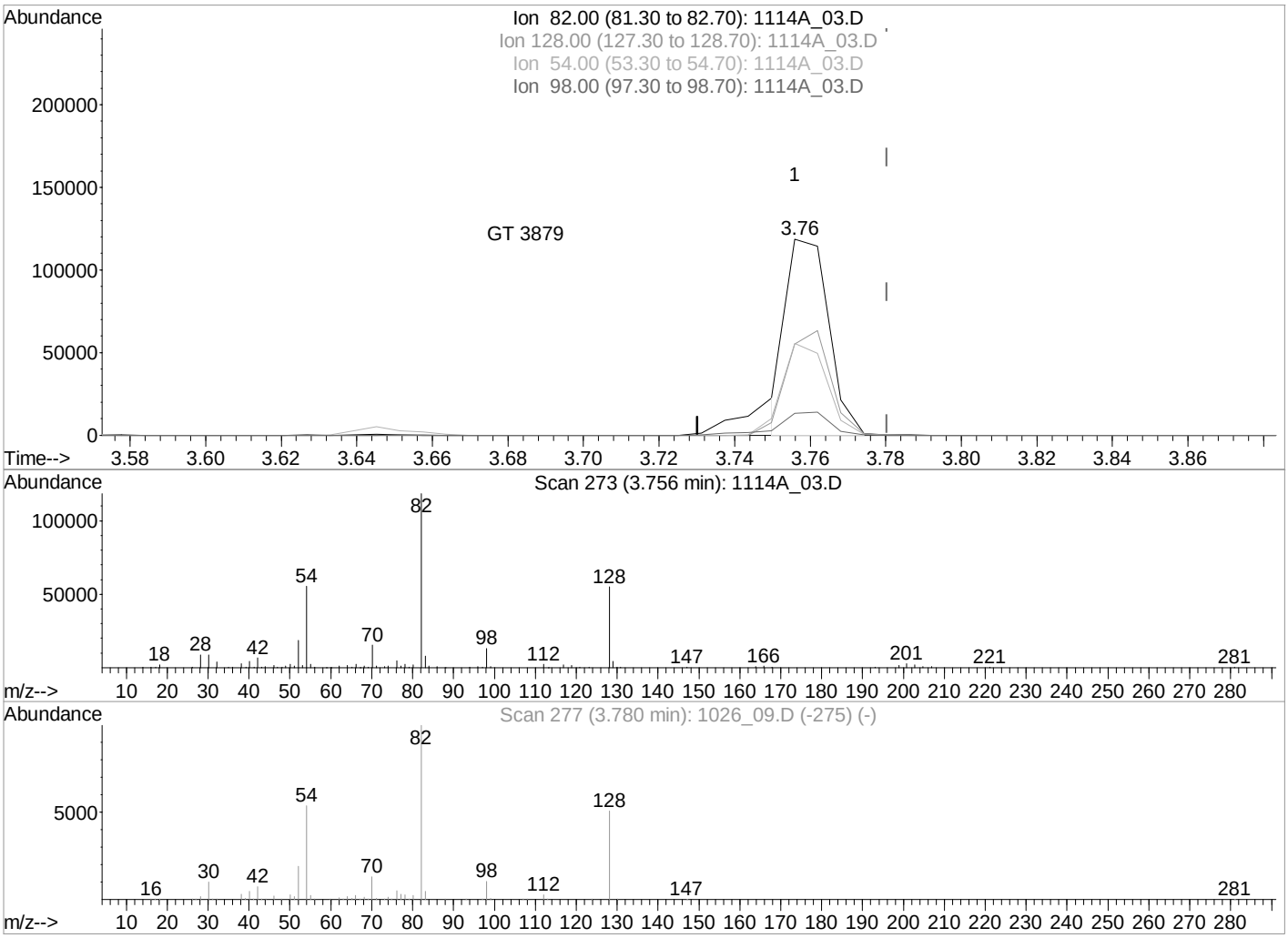
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.39
54.00	49.10	46.84
98.00	10.80	11.07

1114A_03.D S804J26V.M Mon Nov 14 12:25:54 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 10542.4031009 ppb

Qvalue = 98

response 110563

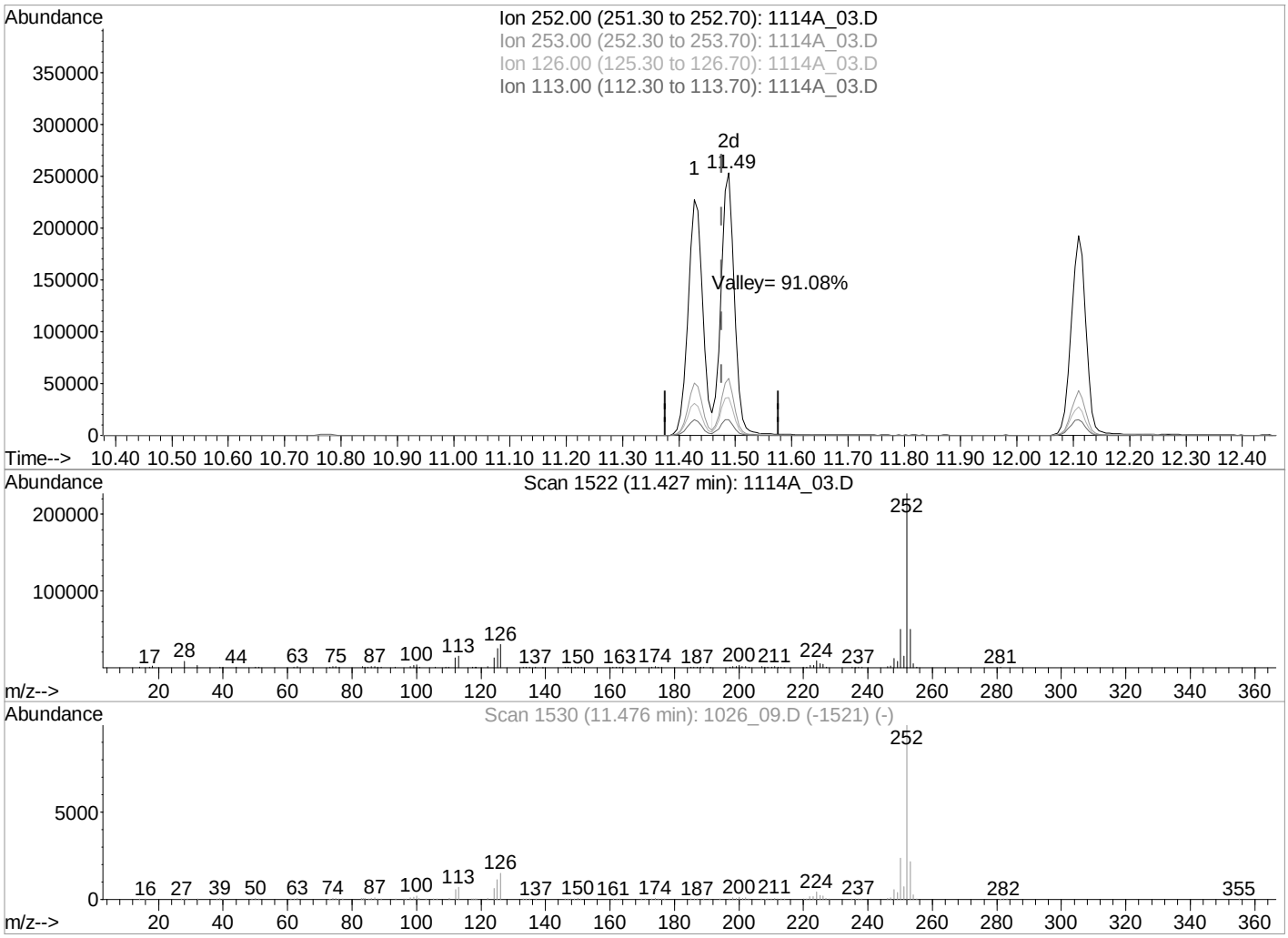
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.39
54.00	49.10	46.84
98.00	10.80	11.07

1114A_03.D S804J26V.M Mon Nov 14 12:26:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(95) Benzo(b)fluoranthene (MT)

11.43min (-0.049) 10612.1588054 ppb

Qvalue = 98

response 405194

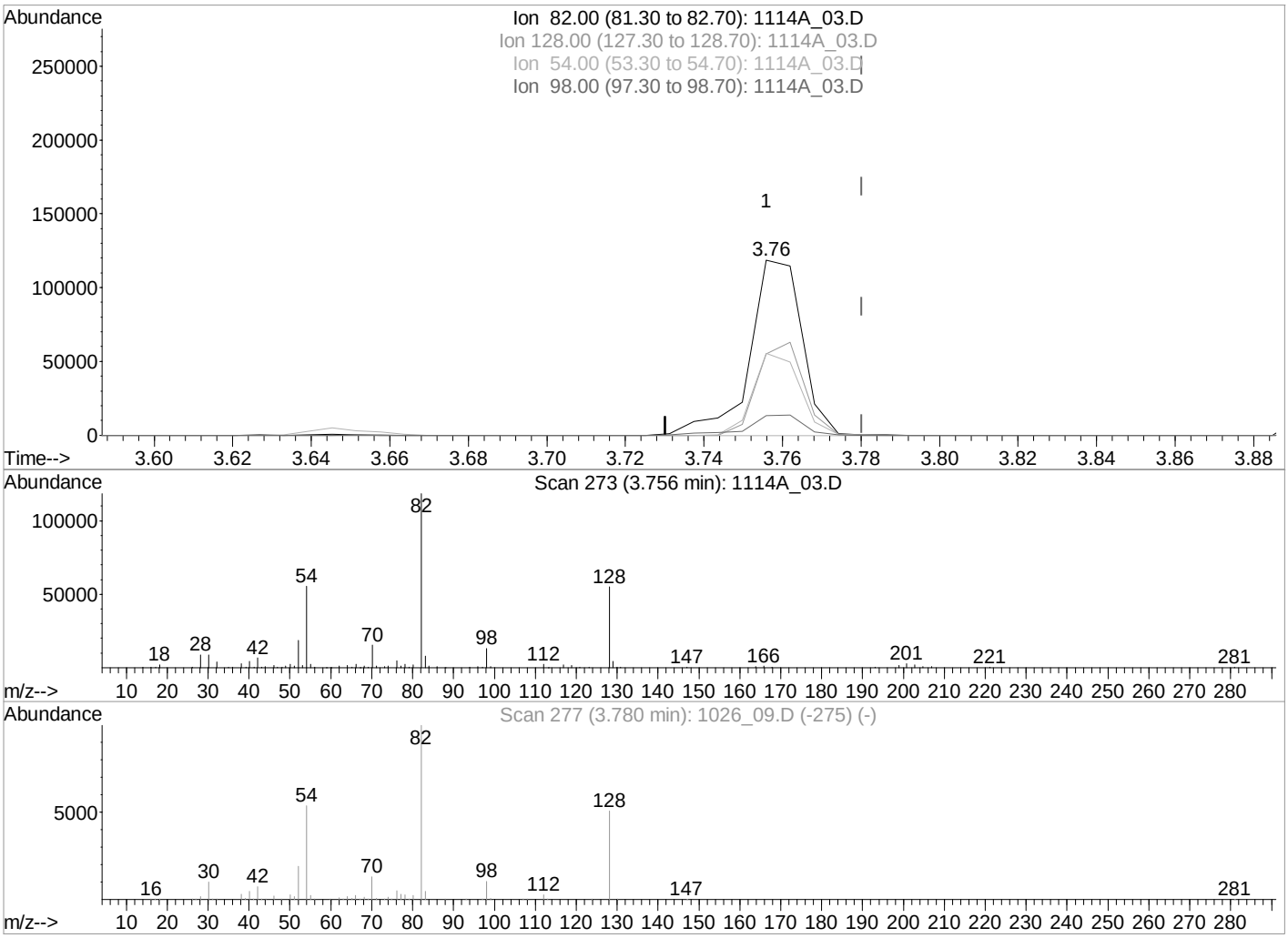
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.98
126.00	14.70	13.34
113.00	6.90	6.47

1114A_03.D S804J26V.M Mon Nov 14 12:27:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 10542.4031009 ppb

Qvalue = 98

response 110563

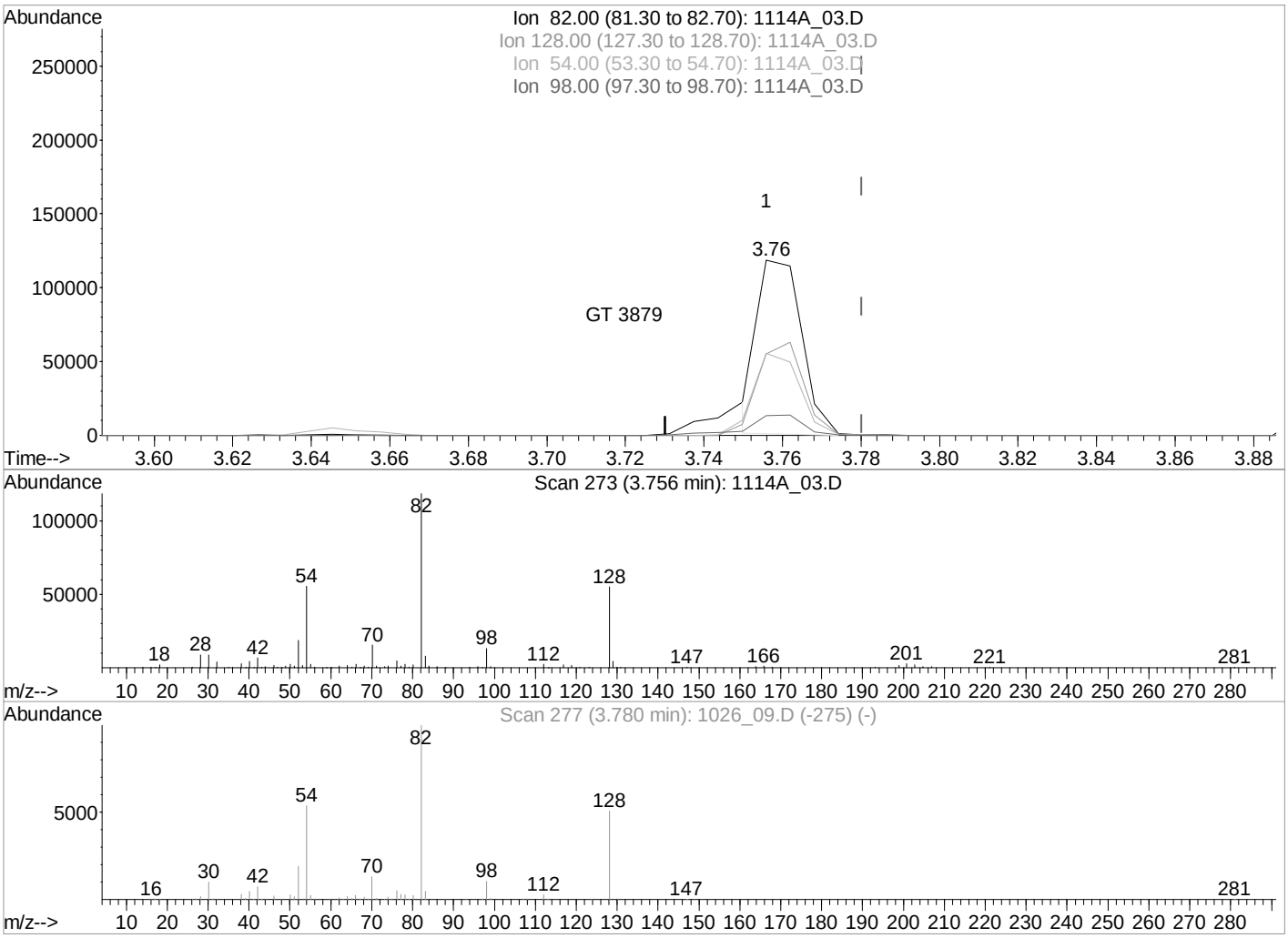
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.39
54.00	49.10	46.84
98.00	10.80	11.07

1114A_03.D S804J26V.M Tue Nov 15 09:57:24 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 8882.4201448 ppb m

response 93154

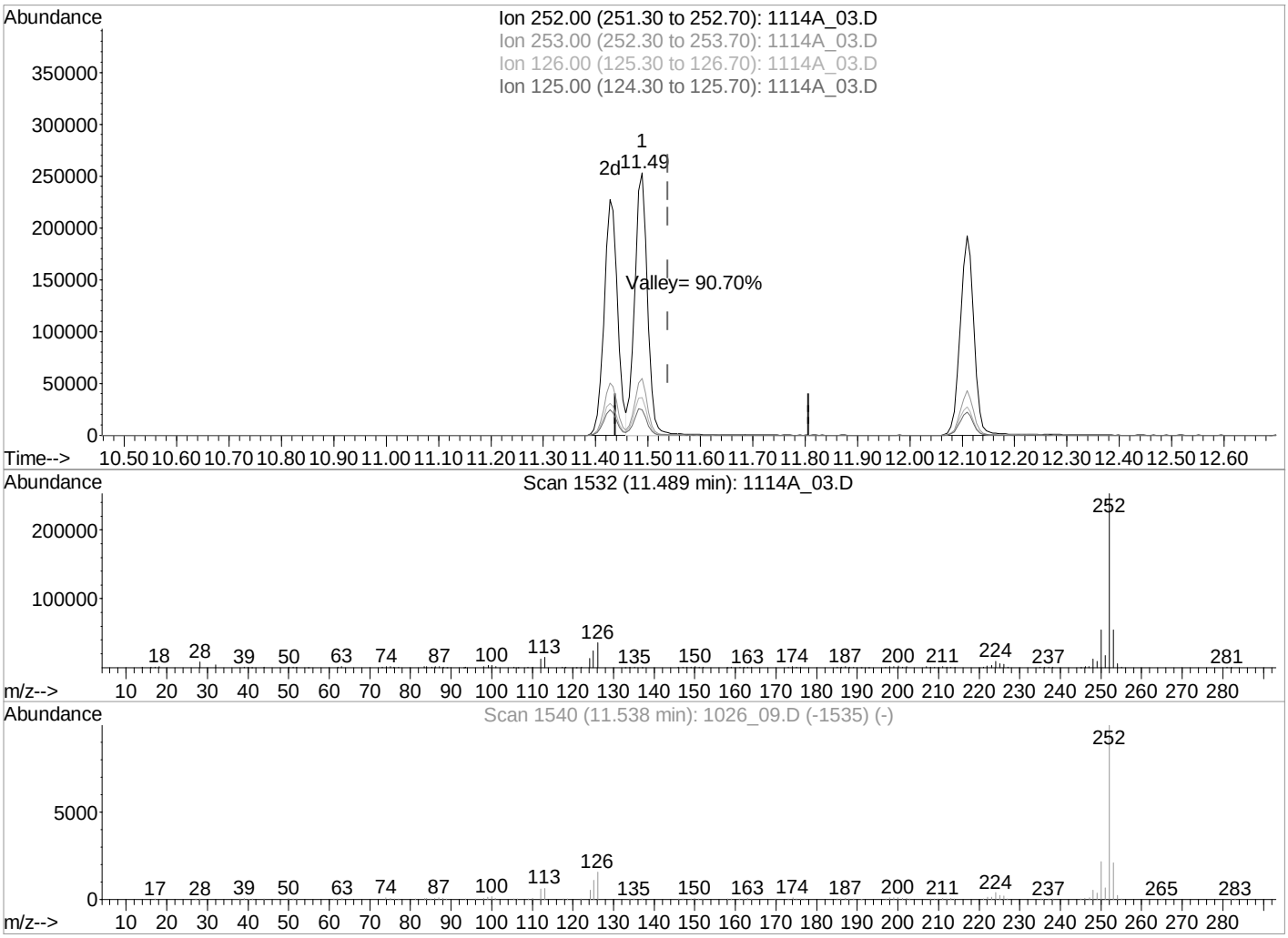
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.39
54.00	49.10	46.84
98.00	10.80	11.07

1114A_03.D S804J26V.M Tue Nov 15 09:57:32 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 03.D Vial: 3
Acq On : 14 Nov 2022 12:02 pm Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_03.D

(96) Benzo(k)fluoranthene (MT)

11.49min (-0.049) 10565.9776123 ppb

Qvalue = 97

response 420522

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	21.73
126.00	15.70	14.24
125.00	11.00	9.58

1114A_03.D S804J26V.M Tue Nov 15 09:58:23 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1114A_04	**Analysis date/time:**	11/14/22 12:23
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.114506	0.09894485		13.60		10	8.641	86.40	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:58 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

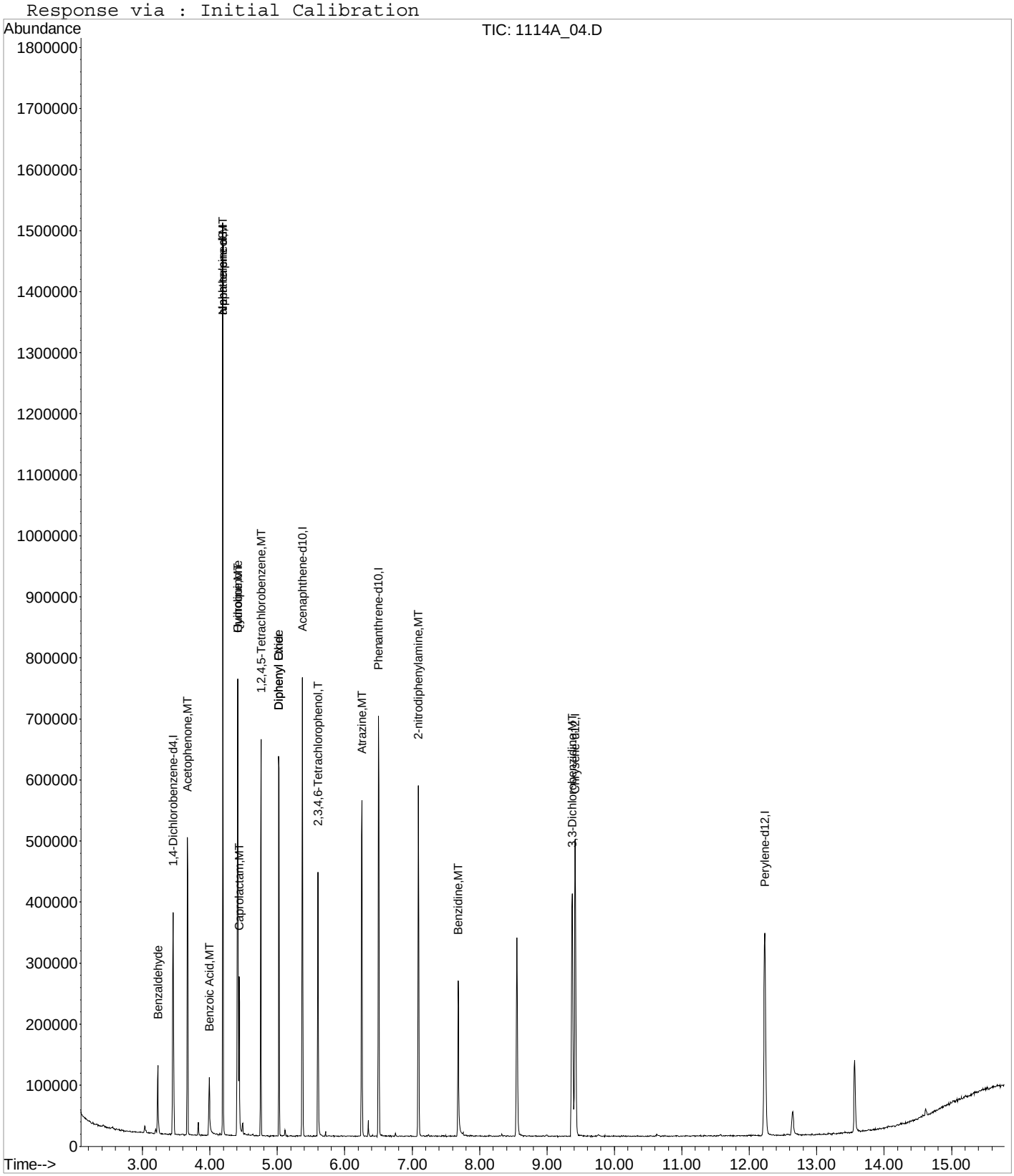
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	60941	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	273041	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	121685	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.50	188	240110	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	241729	8000.00	ppb	-0.04
94) Perylene-d12	12.23	264	245113	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.23	105	23939	6431.9438464	ppb	95
22) Acetophenone	3.66	105	125077	9448.4607625	ppb	97
31) Benzoic Acid	3.99	105	33770	8641.0165784	ppb	97
33) alpha-terpineol	4.19	59	76460	11240.0249714	ppb	96
37) Hydroquinone	4.41	110	63653m	12029.3842461	ppb	
38) Quinoline	4.41	129	186822	12043.7274996	ppb	99
39) Caprolactam	4.44	113	25174	13330.3556114	ppb	89
43) 1,2,4,5-Tetrachlorobenzene	4.76	216	102802	12568.1186697	ppb	99
44) Diphenyl Ether	5.03	170	131773	12225.5194595	ug/ml#	94
45) Diphenyl Oxide	5.03	170	131773	12225.5194595	ug/ml#	94
62) 2,3,4,6-Tetrachlorophenol	5.60	232	48661	10905.1840506	ppb	86
69) Atrazine	6.26	200	62693	10981.6452634	ppb	95
82) 2-nitrodiphenylamine	7.09	167	68900	11068.4834358	ppb	95
85) Benzidine	7.68	184	125789	7490.3568795	ppb	99
89) 3,3-Dichlorobenzidine	9.38	252	147354	10975.3335336	ppb	97

(#) = qualifier out of range (m) = manual integration
1114A_04.D S804J26V.M Tue Nov 15 09:59:19 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:58 2022 Quant Results File: S804J26V.RES

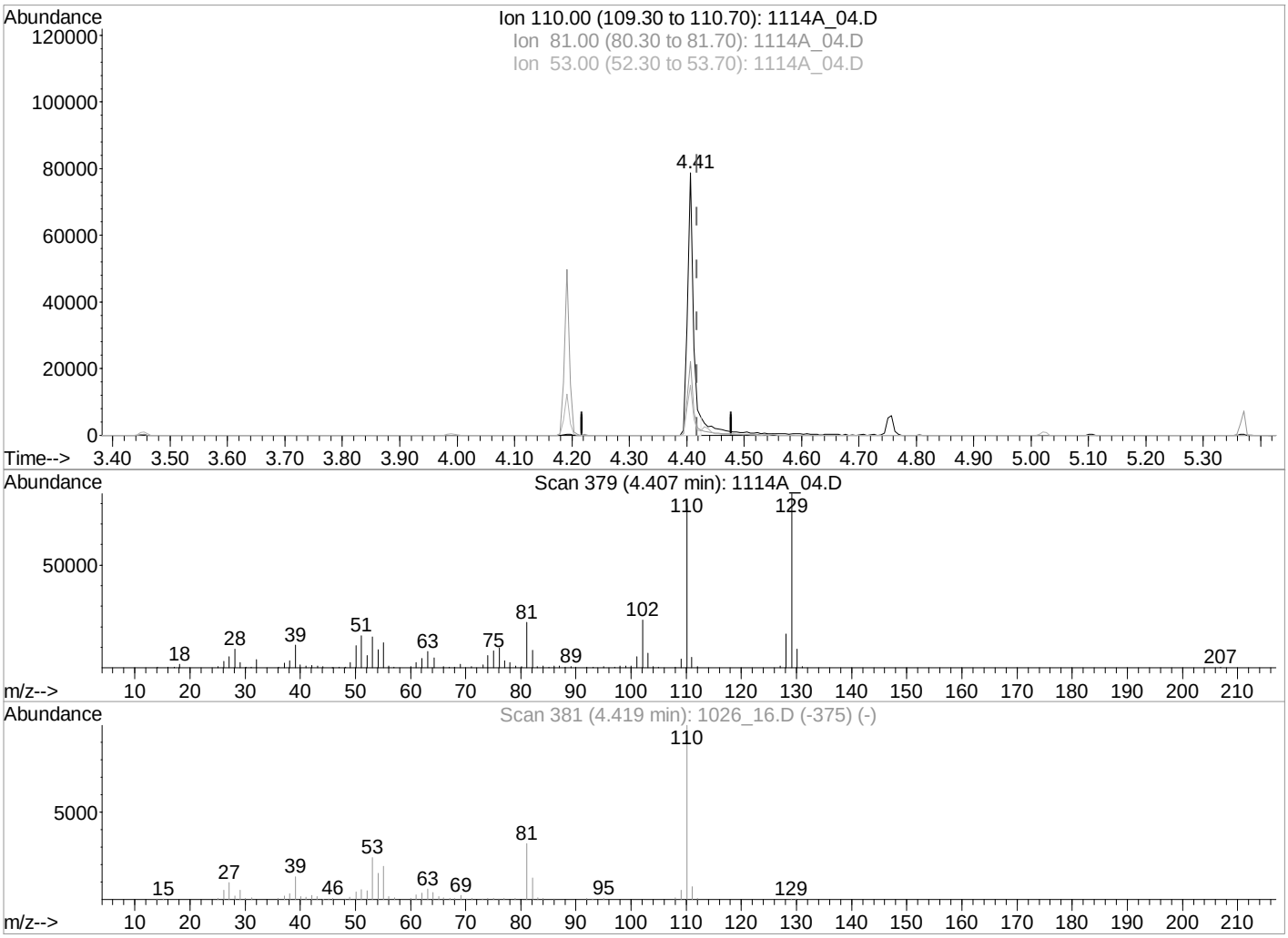
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1114A_04.D

(37) Hydroquinone

4.41min (-0.011) 10588.0049922 ppb

Qvalue = 92

response 56026

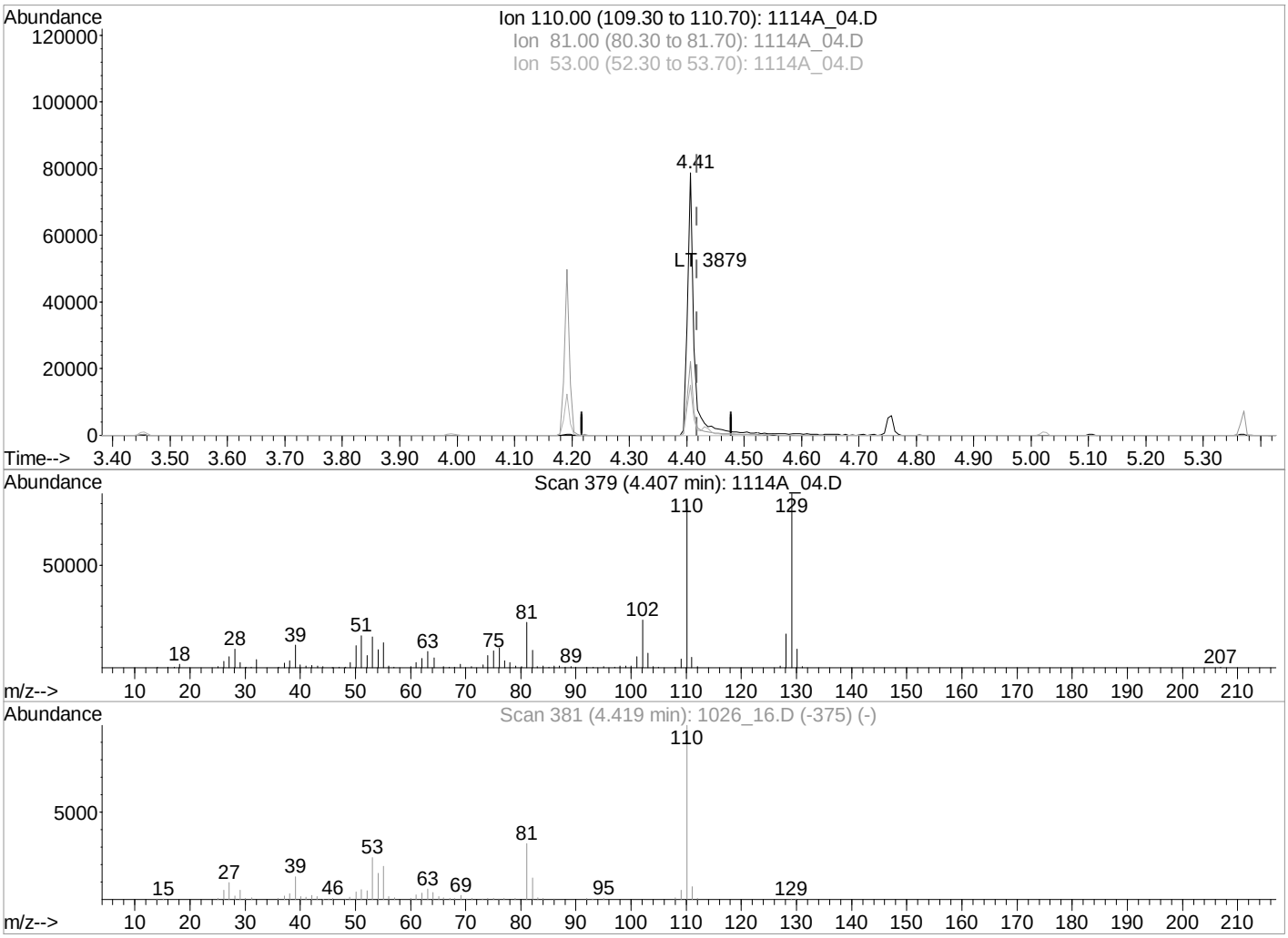
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.04
53.00	23.80	19.07
0.00	0.00	0.00

1114A_04.D S804J26V.M Mon Nov 14 12:44:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1114A_04.D

(37) Hydroquinone

4.41min (-0.011) 10588.0049922 ppb

Qvalue = 92

response 56026

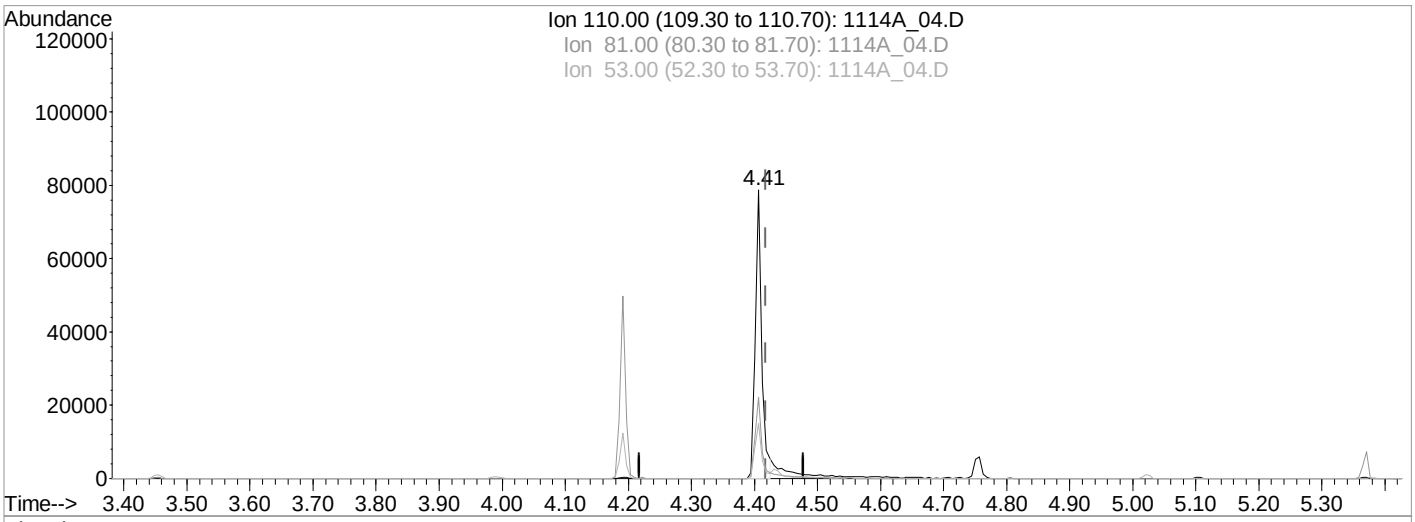
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.04
53.00	23.80	19.07
0.00	0.00	0.00

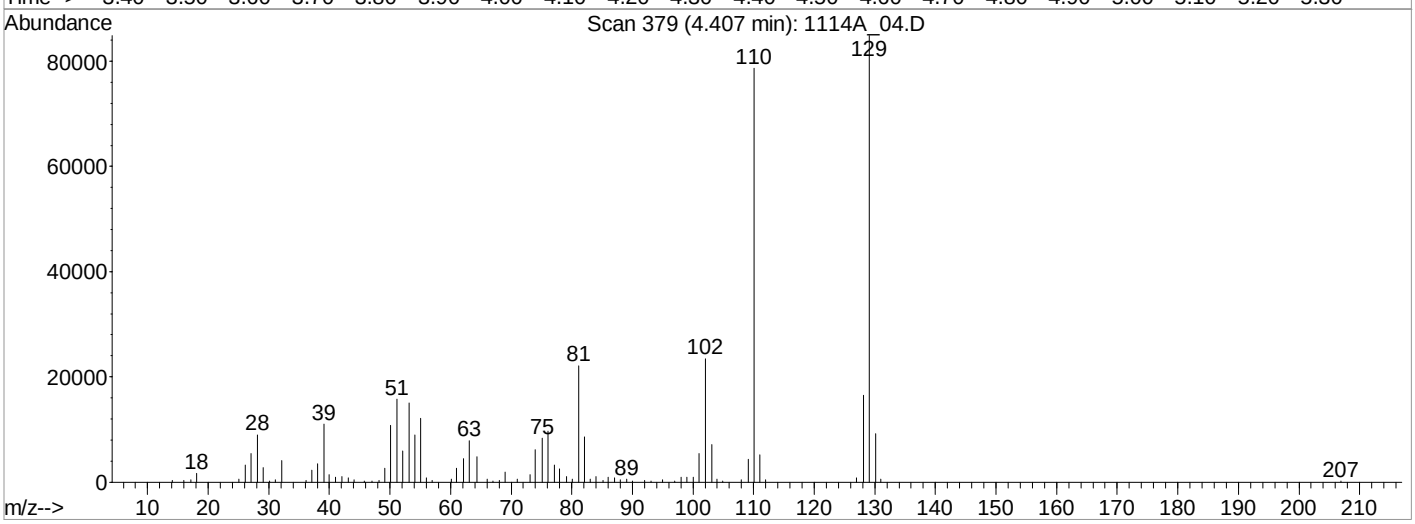
1114A_04.D S804J26V.M Mon Nov 14 12:44:19 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 12:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration





TIC: 1114A_04.D

(37) Hydroquinone

4.41min (-0.011) 10588.0049922 ppb

Qvalue = 92

response 56026

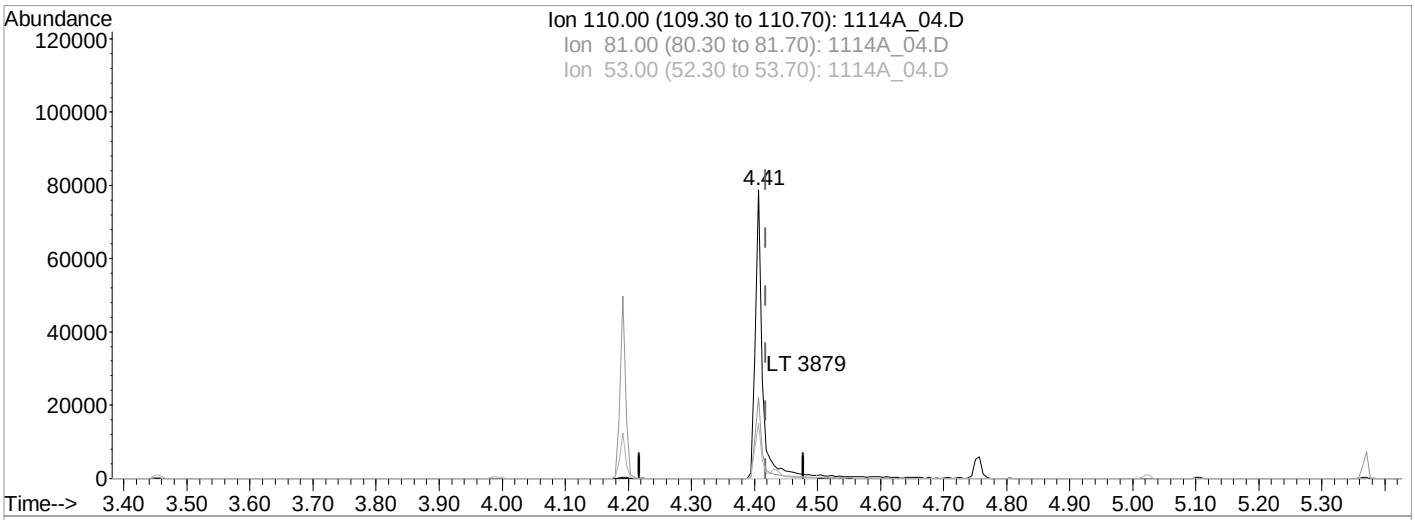
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.04
53.00	23.80	19.07
0.00	0.00	0.00

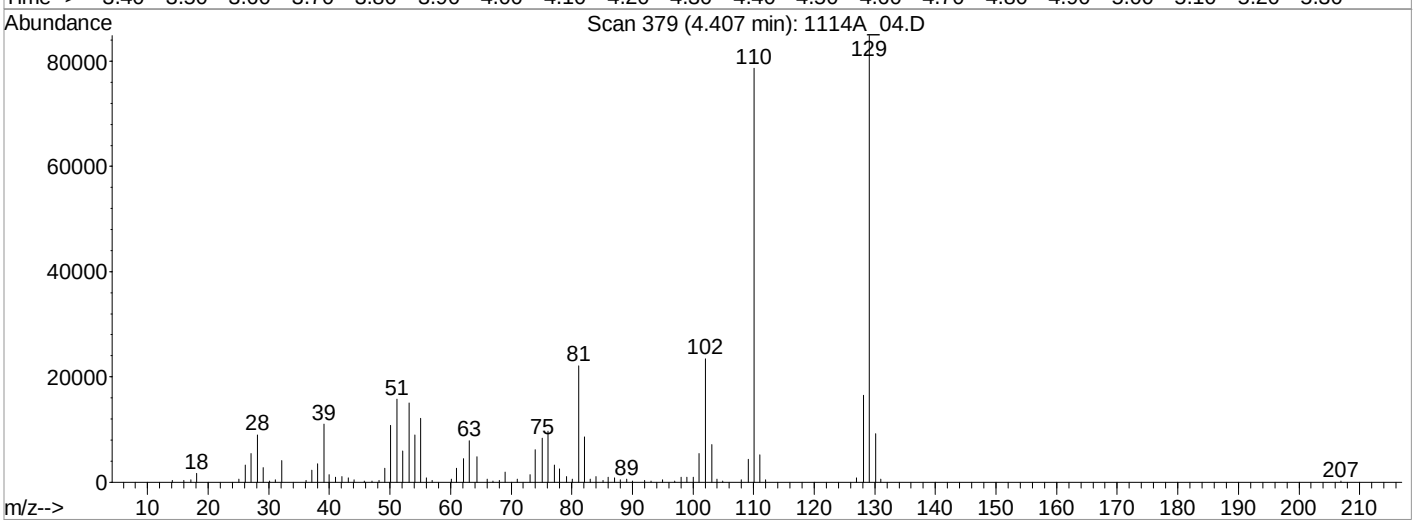
1114A_04.D S804J26V.M Tue Nov 15 09:58:54 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 04.D Vial: 4
Acq On : 14 Nov 2022 12:23 pm Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:58 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration





TIC: 1114A_04.D

(37) Hydroquinone

4.41min (-0.011) 12029.3842461 ppb m

response 63653

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.04
53.00	23.80	19.07
0.00	0.00	0.00

1114A_04.D S804J26V.M Tue Nov 15 09:59:03 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1115_03	**Analysis date/time:**	11/15/22 08:32
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.630728	0.65953080		4.57		10	10.46	105	
2-METHYLNAPHTHALENE	0.663331	0.70225420		5.87		10	10.59	106	
3&4-METHYL PHENOL	1.310460	1.350577		3.06		10	10.31	103	
ACENAPHTHENE	1.237201	1.246831		0.7780	20	10	10.08	101	
ACENAPHTHYLENE	1.811284	1.902945		5.06		10	10.51	105	
ANTHRACENE	1.093532	1.135908		3.88		10	10.39	104	
BENZO(A)ANTHRACENE	1.137290	1.213039		6.66		10	10.67	107	
BENZO(A)PYRENE	0.967529	1.081822		11.80	20	10	11.18	112	
BENZO(B)FLUORANTHENE	1.156852	1.240667		7.25		10	10.72	107	
BENZO(G,H,I)PERYLENE	1.131717	1.165115		2.95		10	10.30	103	
BENZO(K)FLUORANTHENE	1.205862	1.269682		5.29		10	10.53	105	
BIS(2-ETHYLHEXYL)PHTHALATE	0.623139	0.76428190		22.70		10	10.63	106	
CARBAZOLE	0.967635	0.98258540		1.55		10	10.15	102	
CHRYSENE	1.176685	1.209943		2.83		10	10.28	103	
DI-N-BUTYL PHTHALATE	1.119355	1.188843		6.21		10	9.420	94.20	
DI-N-OCTYL PHTHALATE	0.998390	1.272711		27.50	20	10	11.34	113	80 - 120
DIBENZ(A,H)ANTHRACENE	1.133472	1.222319		7.84		10	10.78	108	
DIBENZOFURAN	1.683731	1.727458		2.60		10	10.26	103	
FLUORANTHENE	1.157378	1.188016		2.65	20	10	10.26	103	
FLUORENE	1.399230	1.436884		2.69		10	10.27	103	
INDENO(1,2,3-CD)PYRENE	1.013611	1.127223		11.20		10	11.12	111	
NAPHTHALENE	1.018737	1.039709		2.06		10	10.21	102	
PENTACHLOROPHENOL	0.137739	0.14472090		5.07	20	10	9.644	96.40	80 - 120
PHENANTHRENE	1.107688	1.118772		1		10	10.10	101	
PHENOL	1.583712	1.544745		2.46	20	10	9.754	97.50	
PYRENE	1.256004	1.263854		0.6250		10	10.06	101	
2,4,6-TRIBROMOPHENOL	0.122213	0.13772960		12.70		10	11.27	113	70 - 130
2-FLUOROBIPHENYL	1.462951	1.476116		0.90		10	10.09	101	70 - 130
2-FLUOROPHENOL	1.212061	1.217820		0.4750		10	10.05	101	70 - 130
NITROBENZENE-D5	0.342792	0.32195960		6.08		10	9.392	93.90	70 - 130
P-TERPHENYL-D14	1.092912	1.098734		0.5330		10	10.05	101	70 - 130
PHENOL-D5	1.561757	1.528868		2.11		10	9.789	97.90	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:56 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	59911	8000.00 ppb	-0.02
23) Naphthalene-d8	4.19	136	234494	8000.00 ppb	-0.02
46) Acenaphthene-d10	5.37	164	124226	8000.00 ppb	-0.02
70) Phenanthrene-d10	6.51	188	248423	8000.00 ppb	-0.02
84) Chrysene-d12	9.43	240	246038	8000.00 ppb	-0.03
94) Perylene-d12	12.24	264	256119	8000.00 ppb	-0.04
System Monitoring Compounds					
4) 2-Fluorophenol	2.79	112	91201	10047.5115588 ppb	-0.02
Spiked Amount 20000.000			Recovery = 50.24%		
7) Phenol-d5	3.23	99	114495	9789.4091330 ppb	-0.01
Spiked Amount 20000.000			Recovery = 48.95%		
24) Nitrobenzene-d5	3.76	82	94372m	9392.2798882 ppb	-0.02
Spiked Amount 10000.000			Recovery = 93.92%		
50) 2-Fluorobiphenyl	4.89	172	229215	10089.9899756 ppb	-0.02
Spiked Amount 10000.000			Recovery = 100.90%		
73) 2,4,6-Tribromophenol	5.96	330	42769	11269.6437423 ppb	-0.02
Spiked Amount 20000.000			Recovery = 56.35%		
87) p-Terphenyl-d14	7.96	244	337913	10053.2726288 ppb	-0.03
Spiked Amount 10000.000			Recovery = 100.53%		
Target Compounds					Qvalue
2) Pyridine	2.23	79	96994	9640.4211835 ppb	96
3) N-Nitrosodimethylamine	2.22	42	36634	8181.8956791 ppb #	78
5) Aniline	3.28	66	50624	9777.1784618 ppb #	91
6) bis(2-Chloroethyl)ether	3.28	93	234467	25210.2287231 ppb #	41
8) Phenol	3.23	94	115684	9753.9480498 ppb	90
10) 2-Chlorophenol	3.34	128	101593	10462.6298581 ppb	94
11) n-Decane	3.34	41	43742	7920.5048557 ppb	94
12) 1,3-Dichlorobenzene	3.43	146	114867	10071.5025918 ppb	97
13) 1,4-Dichlorobenzene	3.47	146	117531	10307.5723074 ppb	95
14) Benzyl Alcohol	3.52	79	75167	9935.9978325 ppb	96
15) 1,2-Dichlorobenzene	3.55	146	111359	10369.4944842 ppb	94
16) bis(2-Chloroisopropyl)ethe	3.58	121	35527	10535.1555039 ppb	99
17) 2,2-oxybis(1-chloropropane	3.58	121	35527	10535.1555039 ppb	99
18) 2-Methylphenol	3.57	108	88951	10158.9966486 ppb	96
19) Hexachloroethane	3.74	117	41414	10024.1600628 ppb	96
20) N-Nitrosodi-n-propylamine	3.66	70	67406	10198.9065181 ppb	93
21) 3&4-Methyl phenol	3.65	107	101143	10306.1285184 ppb	97
25) Nitrobenzene	3.77	77	96332	9621.3841082 ppb	91
26) Isophorone	3.90	82	188186	10421.1378413 ppb	100
27) 2-Nitrophenol	3.96	139	57721	11441.8241617 ppb #	78
28) 2,4-Dimethylphenol	3.96	107	88974	9566.6669836 ppb	95
29) bis(2-Chlorethoxy)methane	4.01	93	113727	10126.1124869 ppb	98
30) 2,4-Dichlorophenol	4.10	162	85250	10978.9195944 ppb	94
32) 1,2,4-Trichlorobenzene	4.15	180	98773	10703.7227791 ppb	96
34) Naphthalene	4.21	128	304757	10205.8656436 ppb	99
35) 4-Chloroaniline	4.23	65	30524	9654.1564696 ppb	84
36) Hexachloro-1,3-butadiene	4.27	225	56833	10788.0134519 ppb	98
40) 4-Chloro-3-methylphenol	4.52	107	78296	10606.1946168 ppb	98
41) 2-Methylnaphthalene	4.65	142	205843	10586.7881521 ppb	98
42) 1-Methylnaphthalene	4.71	142	193320	10456.6622668 ppb	99
47) Hexachlorocyclopentadiene	4.74	237	56327	9018.0460665 ppb	97
48) 2,4,6-Trichlorophenol	4.83	196	66085	11436.0605605 ppb	94
49) 2,4,5-Trichlorophenol	4.86	196	67642	11216.0798956 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:56 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

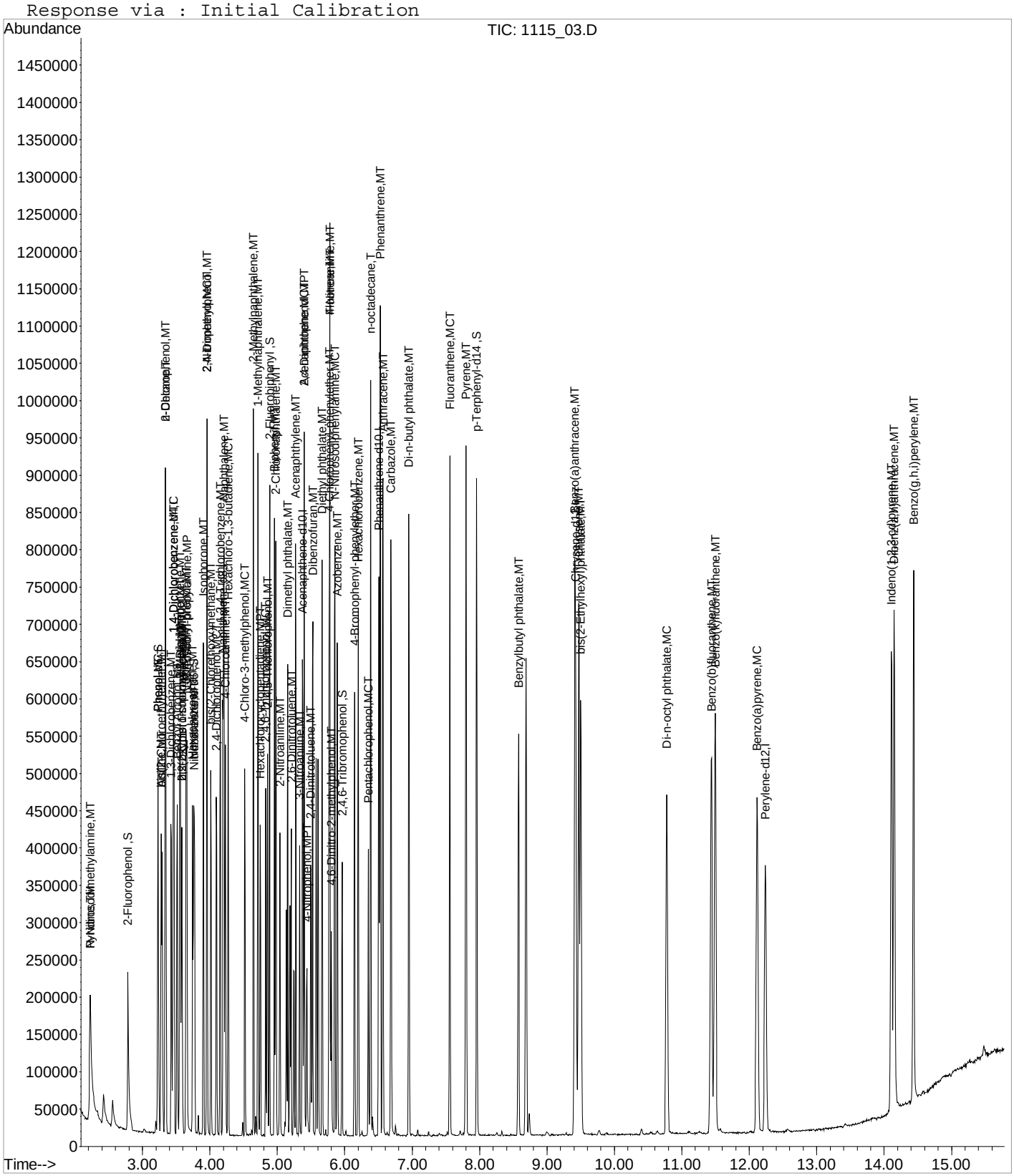
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.96	154	249719	9853.1126432 ppb		100
52)	2-Chloronaphthalene	4.98	162	193363	10349.6356525 ppb		99
53)	2-Nitroaniline	5.04	138	64079	11606.7811572 ppb		90
54)	Acenaphthylene	5.27	152	295494	10506.0508200 ppb		99
55)	Dimethyl phthalate	5.16	163	205537	10535.2878007 ppb		98
56)	2,6-Dinitrotoluene	5.21	165	50098	11265.1755524 ppb		82
57)	3-Nitroaniline	5.33	138	52797	11234.6635556 ppb	#	82
58)	Acenaphthene	5.40	153	193611	10077.8353627 ppb		97
59)	2,4-Dinitrophenol	5.40	184	24047	10199.5711073 ppb	#	74
60)	Dibenzofuran	5.52	168	268244	10259.7049422 ppb		98
61)	2,4-Dinitrotoluene	5.50	165	65496	11591.1752959 ppb		86
63)	4-Nitrophenol	5.44	139	42842	11324.3582079 ppb	#	79
64)	Fluorene	5.78	166	223123	10269.1086217 ppb		99
65)	4-Chlorophenyl-phenylether	5.76	204	111295	10763.7834540 ppb		93
66)	Diethyl phthalate	5.67	149	209684	11051.1575066 ppb		98
67)	4-Nitroaniline	5.78	138	55003	12818.3028077 ppb		93
68)	Azobenzene	5.89	77	190962	9417.2448614 ppb		93
71)	4,6-Dinitro-2-methylphenol	5.80	198	36884	9918.2721020 ppb		86
72)	N-Nitrosodiphenylamine	5.86	169	194384	9939.5489231 ppb		99
74)	4-Bromophenyl-phenylether	6.14	248	73550	11209.9010837 ppb		92
75)	Hexachlorobenzene	6.20	284	86304	10350.6040248 ppb		98
76)	n-octadecane	6.38	55	28312	8735.5308910 ppb		96
77)	Pentachlorophenol	6.35	266	44940	9643.7304484 ppb		97
78)	Phenanthrene	6.53	178	347411	10100.0640544 ppb		99
79)	Anthracene	6.57	178	352732	10387.5152790 ppb		99
80)	Carbazole	6.69	167	305121	10154.5060361 ppb		99
81)	Di-n-butyl phthalate	6.95	149	369170	9419.5171999 ppb		100
83)	Fluoranthene	7.56	202	368913	10264.7151007 ppb		100
86)	Pyrene	7.80	202	388695	10062.4964895 ppb		99
88)	Benzylbutyl phthalate	8.58	149	159377	10582.2584646 ppb		96
90)	Benzo(a)anthracene	9.41	228	373067	10666.0408781 ppb		99
91)	Chrysene	9.47	228	372115	10282.6444102 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	235053	10625.1606863 ppb		99
93)	Di-n-octyl phthalate	10.78	149	391419	11335.3634236 ppb		99
95)	Benzo(b)fluoranthene	11.44	252	397198	10724.5075418 ppb		99
96)	Benzo(k)fluoranthene	11.49	252	406487	10529.2441741 ppb		99
97)	Benzo(a)pyrene	12.11	252	346344	11181.2896696 ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.10	276	360879	11120.8613989 ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	391324	10783.8537360 ppb		99
100)	Benzo(g,h,i)perylene	14.44	276	373010	10295.1104489 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:56 2022 Quant Results File: S804J26V.RES

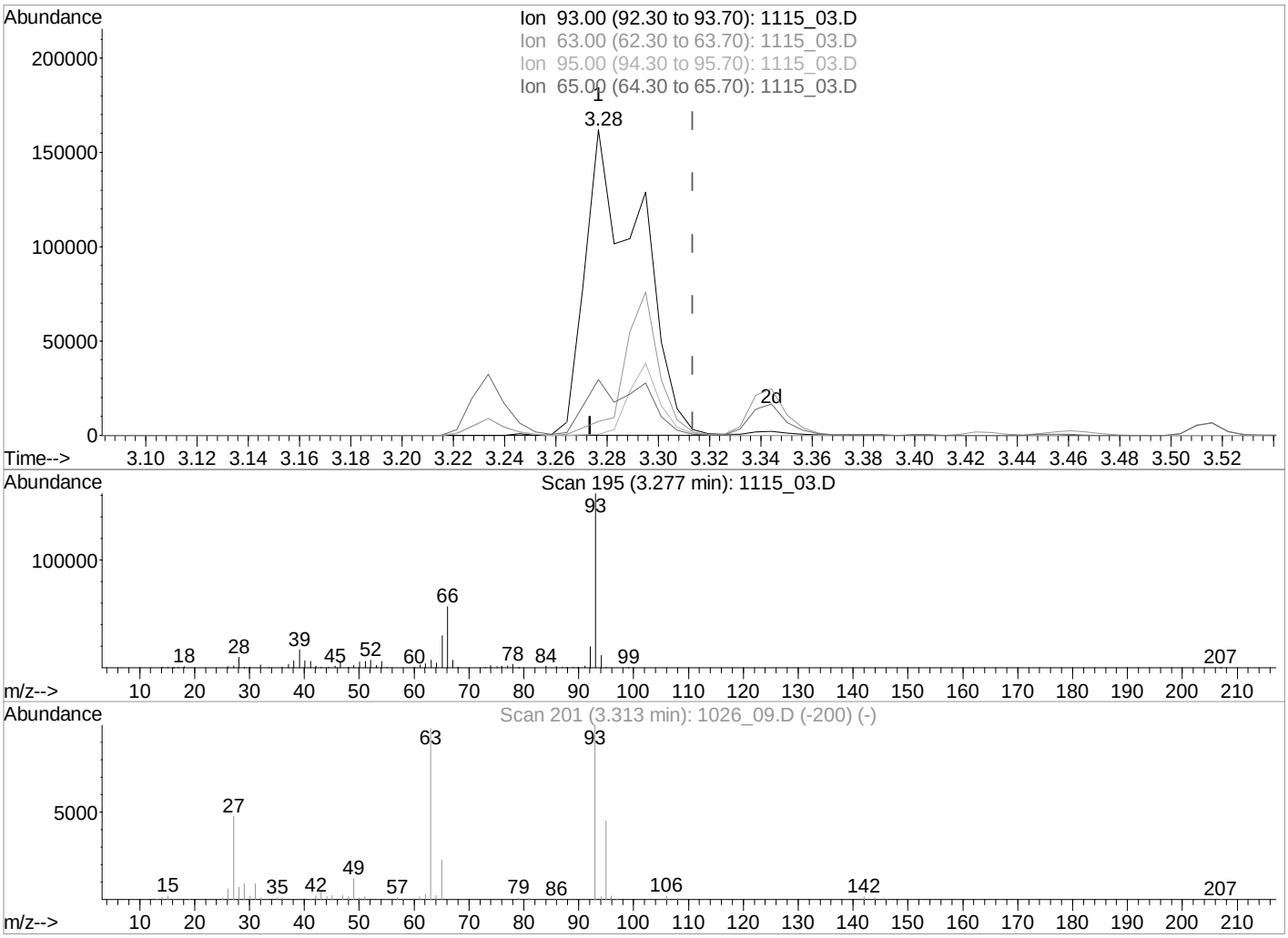
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1115_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.28min (-0.037) 25210.2287231 ppb

Qvalue = 41

response 234467

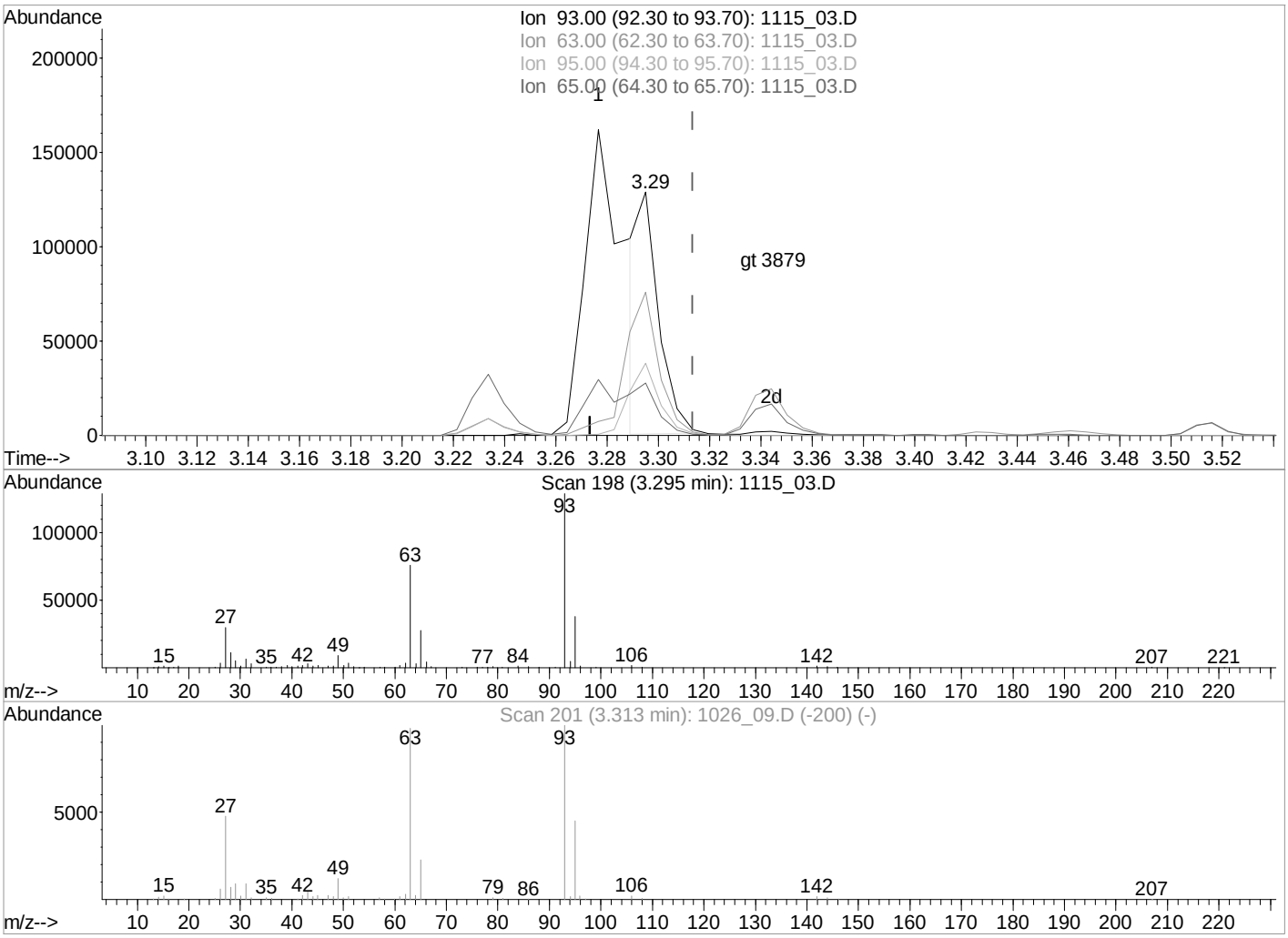
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.24#
95.00	28.70	0.33#
65.00	22.20	18.05

1115_03.D S804J26V.M Wed Nov 16 10:55:45 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1115_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.28min (-0.037) 25210.2287231 ppb

Qvalue = 41

response 234467

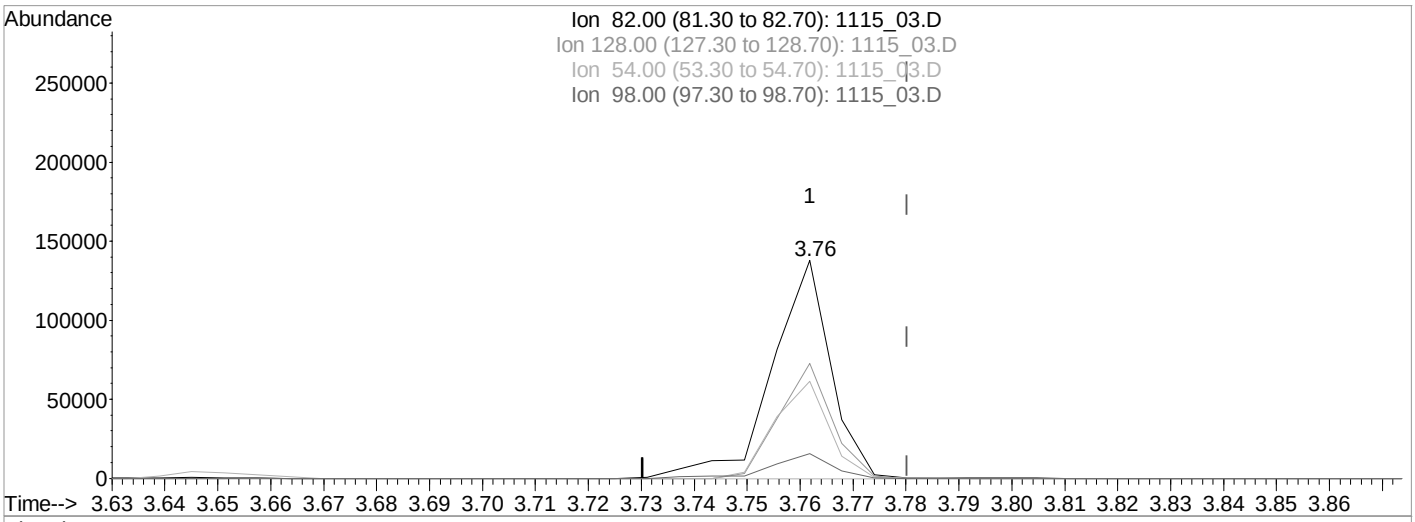
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.24#
95.00	28.70	0.33#
65.00	22.20	18.05

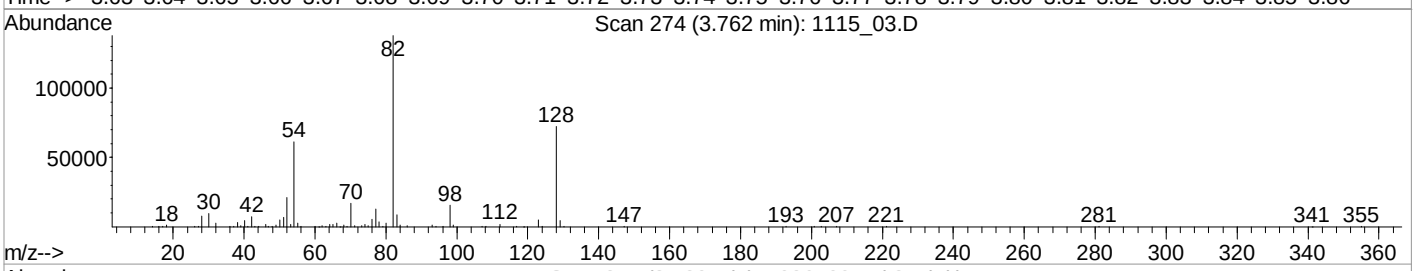
1115_03.D S804J26V.M Wed Nov 16 10:55:54 2022

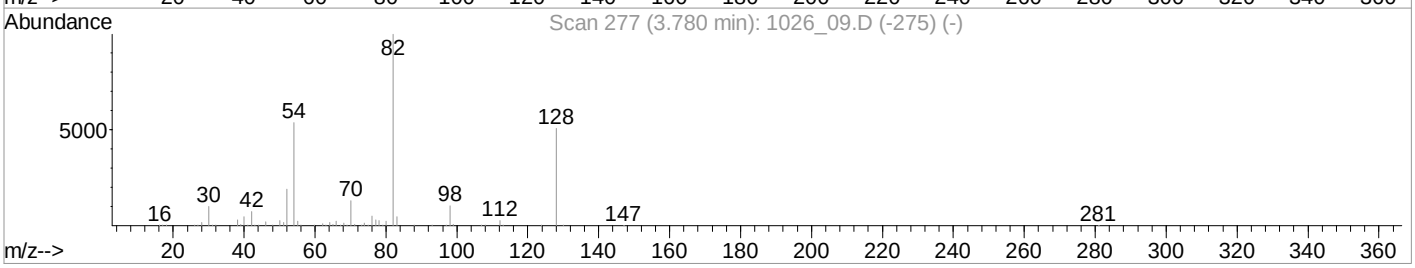
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration







TIC: 1115_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.018) 10617.7190255 ppb

Qvalue = 92

response 106685

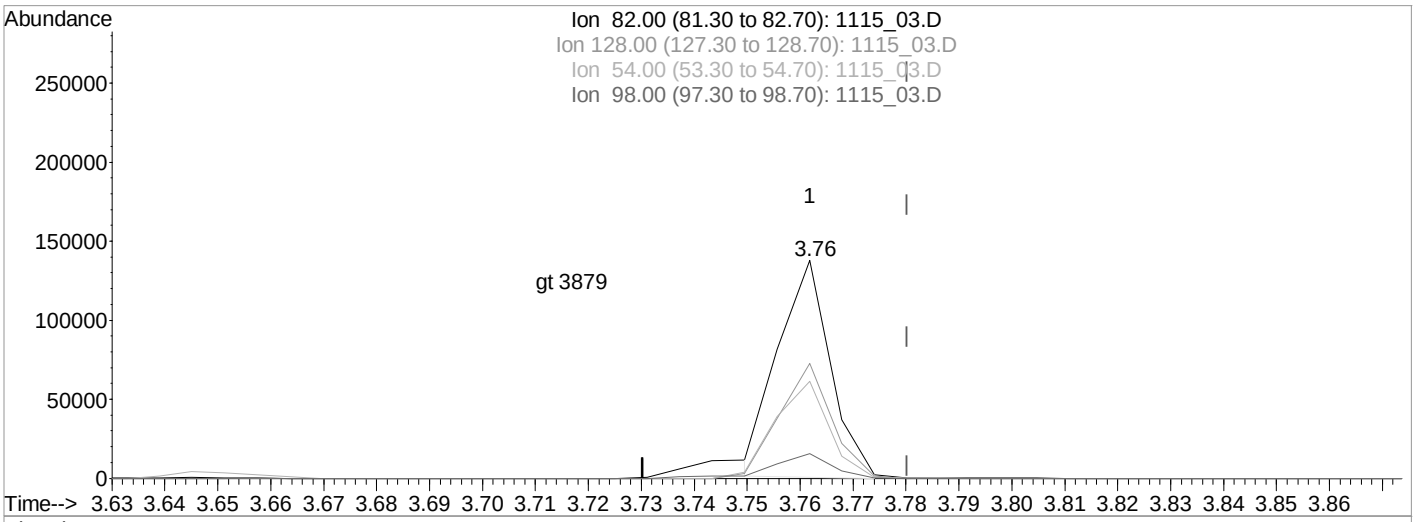
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	52.54
54.00	49.10	44.45
98.00	10.80	11.43

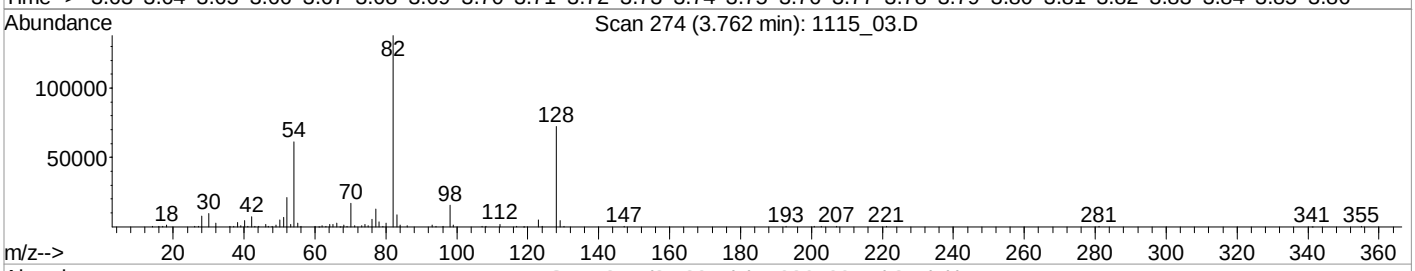
1115_03.D S804J26V.M Wed Nov 16 10:56:10 2022

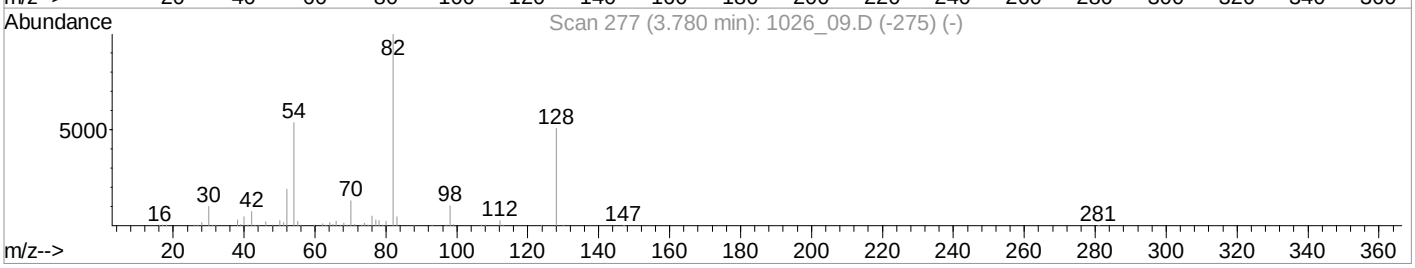
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:56 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration







TIC: 1115_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.018) 9392.2798882 ppb m

response 94372

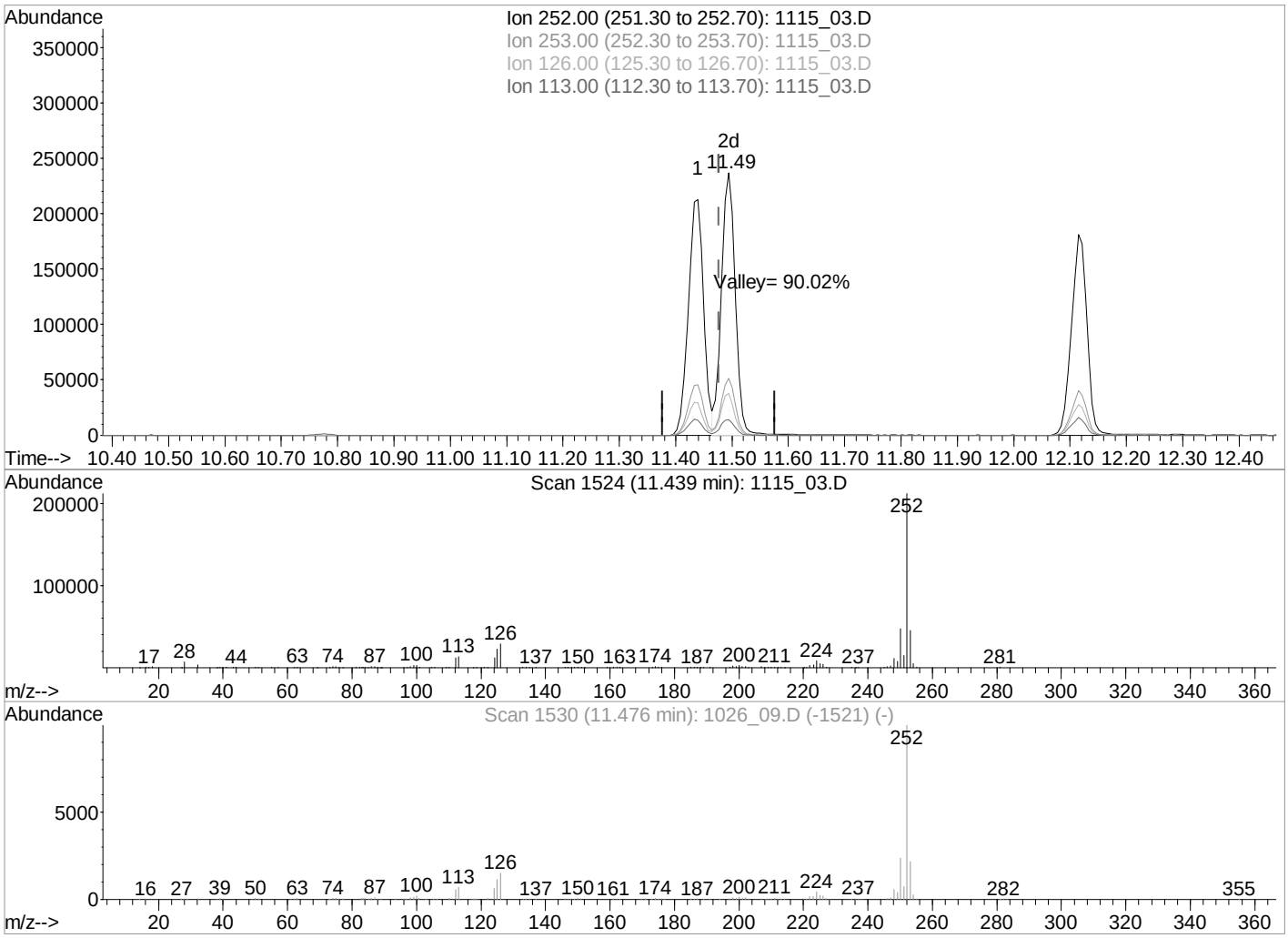
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	52.54
54.00	49.10	44.45
98.00	10.80	11.43

1115_03.D S804J26V.M Wed Nov 16 10:56:20 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 03.D Vial: 3
Acq On : 15 Nov 2022 8:32 am Operator: 917
Sample : ICV SVMS 10K PPB 22J20349 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:56 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1115_03.D

(95) Benzo(b)fluoranthene (MT)

11.44min (-0.037) 10724.5075418 ppb

Qvalue = 99

response 397198

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.35
126.00	14.70	13.57
113.00	6.90	6.38

1115_03.D S804J26V.M Wed Nov 16 10:57:25 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1556196	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1115_04	**Analysis date/time:**	11/15/22 08:55
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.114506	0.127656		11.50		10	11.15	112	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 04.D Vial: 4
Acq On : 15 Nov 2022 8:55 am Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:58 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

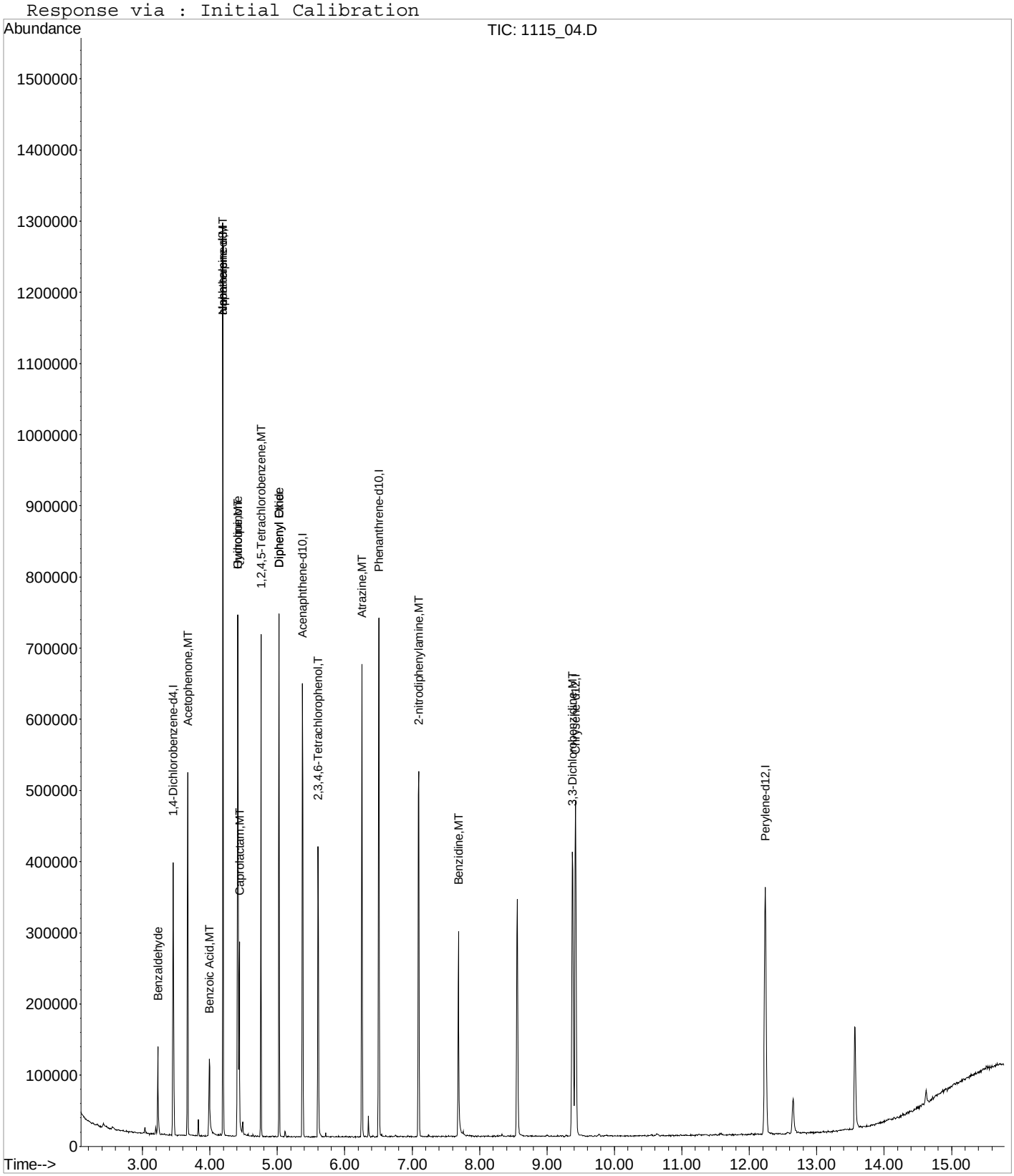
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	58294	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	263339	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	118128	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	237540	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	236332	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	245512	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.23	105	23678	6650.6941403	ppb	96
22) Acetophenone	3.67	105	122448	9669.8786405	ppb	96
31) Benzoic Acid	3.99	105	42021	11148.4077595	ppb	98
33) alpha-terpineol	4.19	59	74318	11327.6462989	ppb	98
37) Hydroquinone	4.41	110	57669	11300.0307405	ppb	93
38) Quinoline	4.41	129	182709	12212.5267512	ppb	99
39) Caprolactam	4.44	113	25219	13846.1825389	ppb	88
43) 1,2,4,5-Tetrachlorobenzene	4.76	216	98074	12431.8362553	ppb	100
44) Diphenyl Ether	5.03	170	127237	12239.5934469	ug/ml#	93
45) Diphenyl Oxide	5.03	170	127237	12239.5934469	ug/ml#	93
62) 2,3,4,6-Tetrachlorophenol	5.60	232	50375	11629.2370872	ppb	91
69) Atrazine	6.26	200	61489	11095.0683992	ppb	95
82) 2-nitrodiphenylamine	7.10	167	72231	11590.1118202	ppb	94
85) Benzidine	7.69	184	136921	8250.9816094	ppb	99
89) 3,3-Dichlorobenzidine	9.38	252	148281	11296.5942203	ppb	98

(#) = qualifier out of range (m) = manual integration
1115_04.D S804J26V.M Wed Nov 16 10:59:28 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 04.D Vial: 4
Acq On : 15 Nov 2022 8:55 am Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:58 2022 Quant Results File: S804J26V.RES

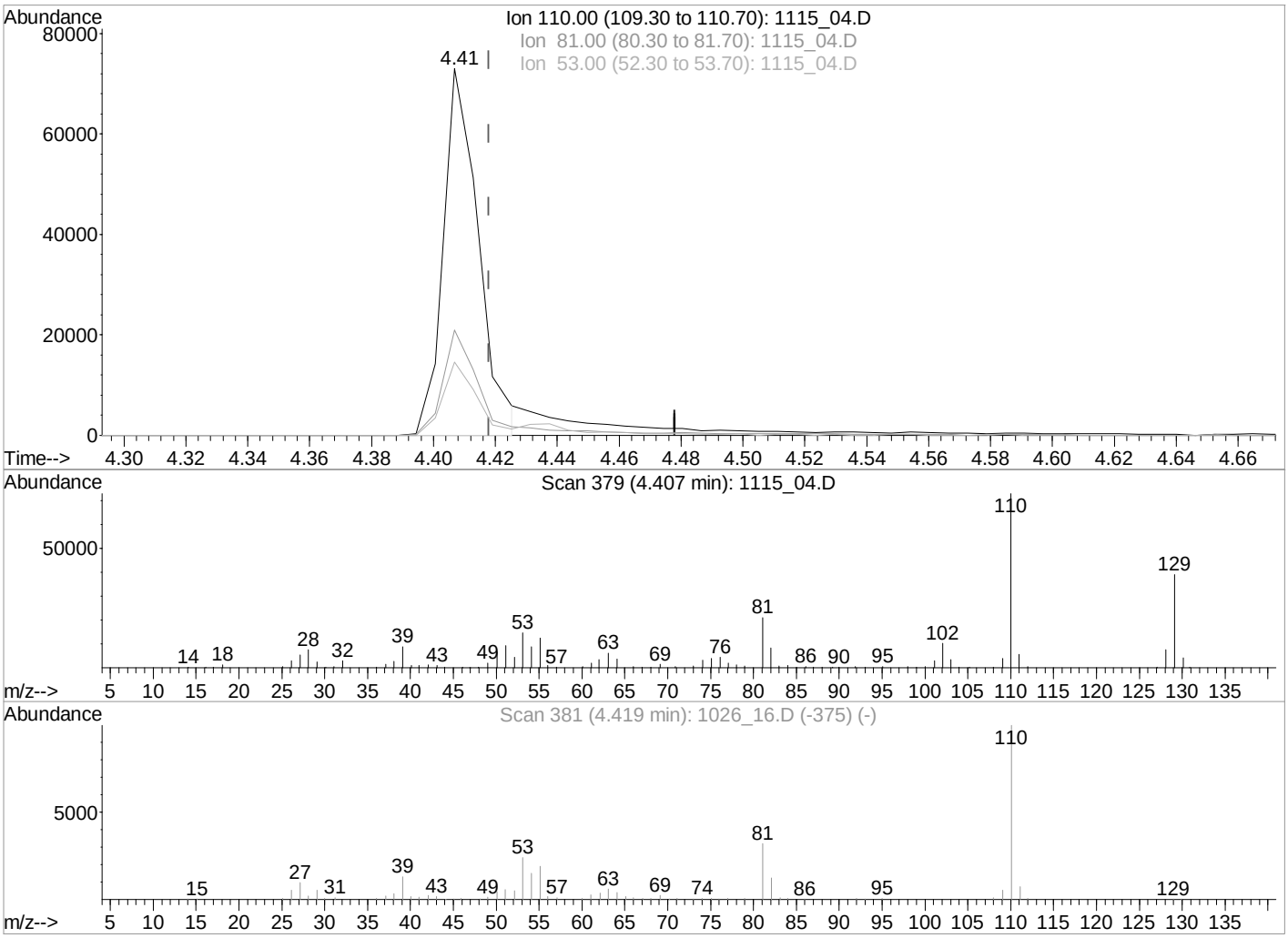
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 04.D Vial: 4
Acq On : 15 Nov 2022 8:55 am Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:58 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1115_04.D

(37) Hydroquinone

4.41min (-0.011) 11300.0307405 ppb

Qvalue = 93

response 57669

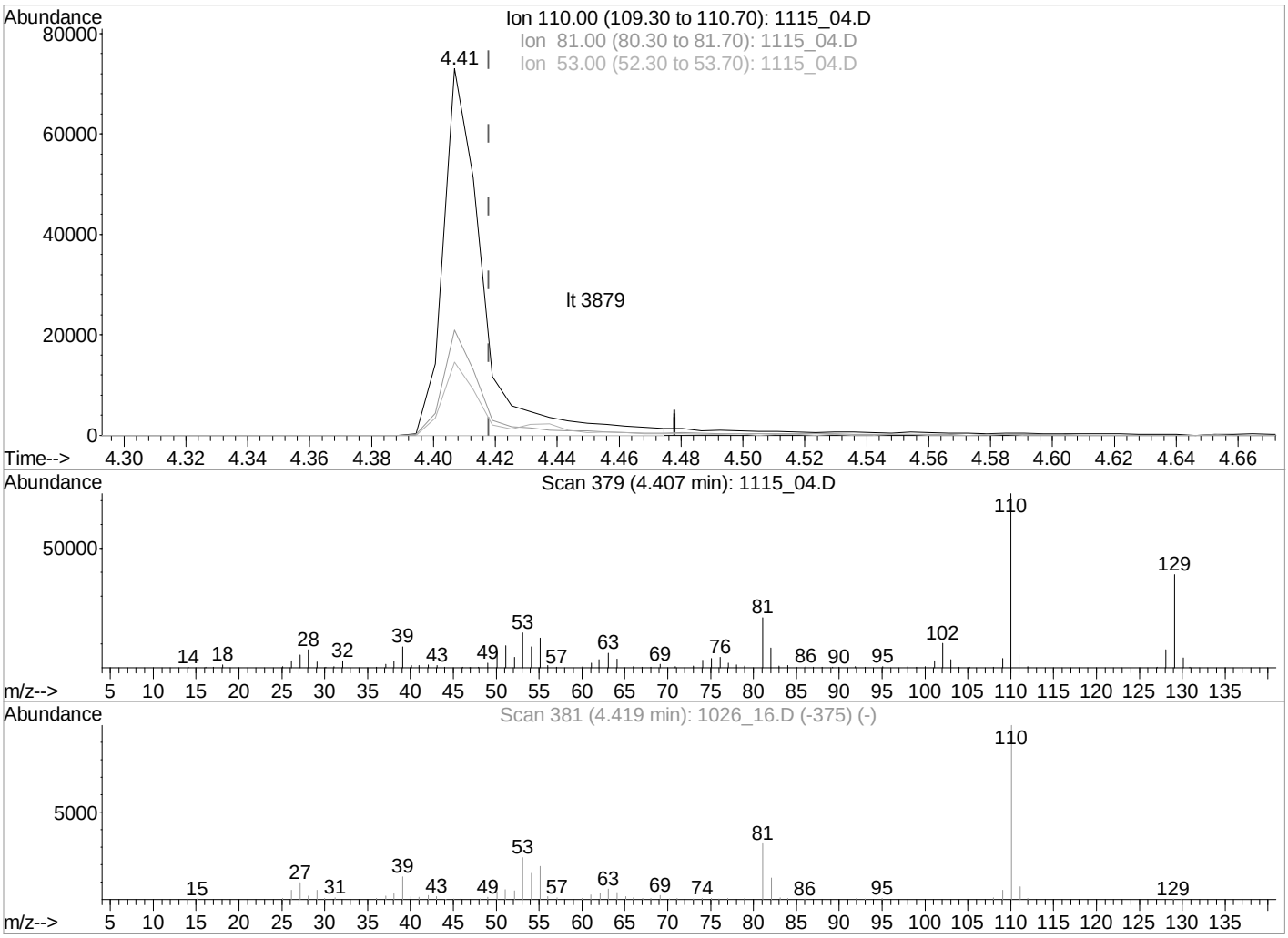
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.75
53.00	23.80	19.98
0.00	0.00	0.00

1115_04.D S804J26V.M Wed Nov 16 10:58:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111522\1115 04.D Vial: 4
Acq On : 15 Nov 2022 8:55 am Operator: 917
Sample : ICV TCL 10K1 PPB 22J20351 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:58 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1115_04.D

(37) Hydroquinone

4.41min (-0.011) 11300.0307405 ppb

Qvalue = 93

response 57669

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	28.75
53.00	23.80	19.98
0.00	0.00	0.00

1115_04.D S804J26V.M Wed Nov 16 10:59:01 2022

ANALYTICAL SEQUENCE

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
		Calibration End Date:	10/27/22 04:03

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS41026221026_05-1601635	1026_05-1	10/26/22 22:49		
CAL	500	1026_06	10/26/22 23:10		
CAL	1000	1026_07	10/26/22 23:31		
CAL	4000	1026_08	10/26/22 23:52		
CAL	10000	1026_09	10/27/22 00:13		
CAL	20000	1026_10	10/27/22 00:34		
CAL	30000	1026_11	10/27/22 00:55		
CAL	40000	1026_12	10/27/22 01:16		
CAL	50000	1026_13	10/27/22 01:37		
CAL	1K1	1026_14	10/27/22 01:58		
CAL	4K1	1026_15	10/27/22 02:19		
CAL	10K1	1026_16	10/27/22 02:39		
CAL	20K1	1026_17	10/27/22 03:00		
CAL	30K1	1026_18	10/27/22 03:21		
CAL	40K1	1026_19	10/27/22 03:42		
CAL	50K1	1026_20	10/27/22 04:03		
SSCV	BNAMS41026221026_22-1601635	1026_22-1	10/27/22 04:45		
TUNE	BNAMS41026221026_24-1601635	1026_24-1	10/27/22 09:56		
SSCV	BNAMS41026221026_25-1601635	1026_25-1	10/27/22 10:17		
TUNE	BNAMS4111422A1114A_02T601635	1114A_02T	11/14/22 11:41		
ICV	BNAMS4111422A1114A_03601635	1114A_03	11/14/22 12:02		
ICV	BNAMS4111422A1114A_04601635	1114A_04	11/14/22 12:23		
LCS	R3861170-1	1114A_05	11/14/22 12:44	1	WG1958443
BLANK	R3861170-2	1114A_06	11/14/22 13:05	1	WG1958443
OS	L1556406-01	1114A_07	11/14/22 13:25		
L1556406-01	L1556406-01	1114A_07	11/14/22 13:25	1	WG1958443
MS	R3861170-3	1114A_08	11/14/22 13:46	1	WG1958443
MSD	R3861170-4	1114A_09	11/14/22 14:07	1	WG1958443
L1556406-05	L1556406-05	1114A_10	11/14/22 14:28	1	WG1958443
L1556406-09	L1556406-09	1114A_11	11/14/22 14:49	1	WG1958443
L1555954-16	L1555954-16	1114A_12	11/14/22 15:10	1	WG1958443
L1556406-02	L1556406-02	1114A_13	11/14/22 15:31	1	WG1958443
L1555954-12	L1555954-12	1114A_14	11/14/22 16:16	1	WG1958443
L1556406-10	L1556406-10	1114A_15	11/14/22 16:37	1	WG1958443
L1555954-14	L1555954-14	1114A_16	11/14/22 16:58	1	WG1958443
L1556406-06	L1556406-06	1114A_17	11/14/22 17:19	1	WG1958443
BNSF-G020-SC-0.0-1.0-110422	L1556196-01	1114A_18	11/14/22 17:40	1	WG1958443
L1556406-04	L1556406-04	1114A_19	11/14/22 18:01	1	WG1958443
L1555954-13	L1555954-13	1114A_22	11/14/22 19:11	200	WG1958443
L1555954-17	L1555954-17	1114A_23	11/14/22 19:34	5	WG1958443
L1556406-03	L1556406-03	1114A_25	11/14/22 20:21	5	WG1958443
BNSF-F390-SC-6.2-7.2-110722	L1556196-02	1114A_28	11/14/22 21:30	10	WG1958443
TUNE	BNAMS41115221115_02T601635	1115_02T	11/15/22 08:09		
ICV	BNAMS41115221115_03601635	1115_03	11/15/22 08:32		
ICV	BNAMS41115221115_04601635	1115_04	11/15/22 08:55		
BLANK	R3861671-1	1115_05	11/15/22 12:38	1	WG1955942
L1554782-01	L1554782-01	1115_06	11/15/22 13:01	1	WG1955942
L1554782-02	L1554782-02	1115_07	11/15/22 13:24	1	WG1955942
L1554782-03	L1554782-03	1115_08	11/15/22 13:47	1	WG1955942
L1554782-04	L1554782-04	1115_09	11/15/22 14:11	1	WG1955942

ANALYTICAL SEQUENCE

SDG:	L1556196	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
		Calibration End Date:	10/27/22 04:03

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3861672-1	1115_10	11/15/22 14:34	1	WG1958443
L1555954-15	L1555954-15	1115_11	11/15/22 14:57	1	WG1958443
L1556406-07	L1556406-07	1115_12	11/15/22 15:20	2	WG1958443
L1556406-08	L1556406-08	1115_13	11/15/22 15:43	2	WG1958443

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1556196-01,02 **Analytical Method:** 8270E
Matrix: Solid **Prep Method:** 3546

Analyte	CAS	MDL	RDL
		mg/kg	*mg/kg*
Benzo(k)fluoranthene	207-08-9	0.005920	0.0333
Benzo(g,h,i)perylene	191-24-2	0.006090	0.0333
Benzo(a)pyrene	50-32-8	0.006190	0.0333
Carbazole	86-74-8	0.0103	0.3330
Acenaphthene	83-32-9	0.005390	0.0333
Chrysene	218-01-9	0.006620	0.0333
Dibenz(a,h)anthracene	53-70-3	0.009230	0.0333
Dibenzofuran	132-64-9	0.0109	0.3330
Fluoranthene	206-44-0	0.006010	0.0333
Acenaphthylene	208-96-8	0.004690	0.0333
Fluorene	86-73-7	0.005420	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0.009410	0.0333
1-Methylnaphthalene	90-12-0	0.004260	0.0333
2-Methylnaphthalene	91-57-6	0.004320	0.0333
Naphthalene	91-20-3	0.008360	0.0333
Phenanthrene	85-01-8	0.006610	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0.0422	0.3330
Di-n-butyl phthalate	84-74-2	0.0114	0.3330
Anthracene	120-12-7	0.005930	0.0333
Di-n-octyl phthalate	117-84-0	0.0225	0.3330
Pyrene	129-00-0	0.006480	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0104	0.3330
Pentachlorophenol	87-86-5	0.008960	0.3330
Phenol	108-95-2	0.0134	0.3330
Benzoic Acid	65-85-0	0.1180	1.67
Benzo(a)anthracene	56-55-3	0.005870	0.0333
Benzo(b)fluoranthene	205-99-2	0.006210	0.0333

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3861170-2	**SDG:**	L1556196
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	1114A_06	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:51
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 13:05
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	0	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	0	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	0	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	0	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	0	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	0	U		0.0225	0.333
Pyrene	129-00-0	0	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 06.D Vial: 59
Acq On : 14 Nov 2022 1:05 pm Operator: 917
Sample : BLANK 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:41 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	67902	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	267384	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	140923	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.50	188	277791	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	269313	8000.00	ppb	-0.04
94) Perylene-d12	12.23	264	290269	8000.00	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	121955	11854.4805133	ppb	0.00
Spiked Amount 20000.000			Recovery = 59.27%			
7) Phenol-d5	3.23	99	139983	10560.1298202	ppb	-0.01
Spiked Amount 20000.000			Recovery = 52.80%			
24) Nitrobenzene-d5	3.76	82	57338	5004.5695162	ppb	-0.02
Spiked Amount 10000.000			Recovery = 50.05%			
50) 2-Fluorobiphenyl	4.88	172	137590	5339.0648026	ppb	-0.03
Spiked Amount 10000.000			Recovery = 53.39%			
73) 2,4,6-Tribromophenol	5.95	330	44731	10540.5513800	ppb	-0.02
Spiked Amount 20000.000			Recovery = 52.70%			
87) p-Terphenyl-d14	7.95	244	220145	5983.5132417	ppb	-0.04
Spiked Amount 10000.000			Recovery = 59.84%			

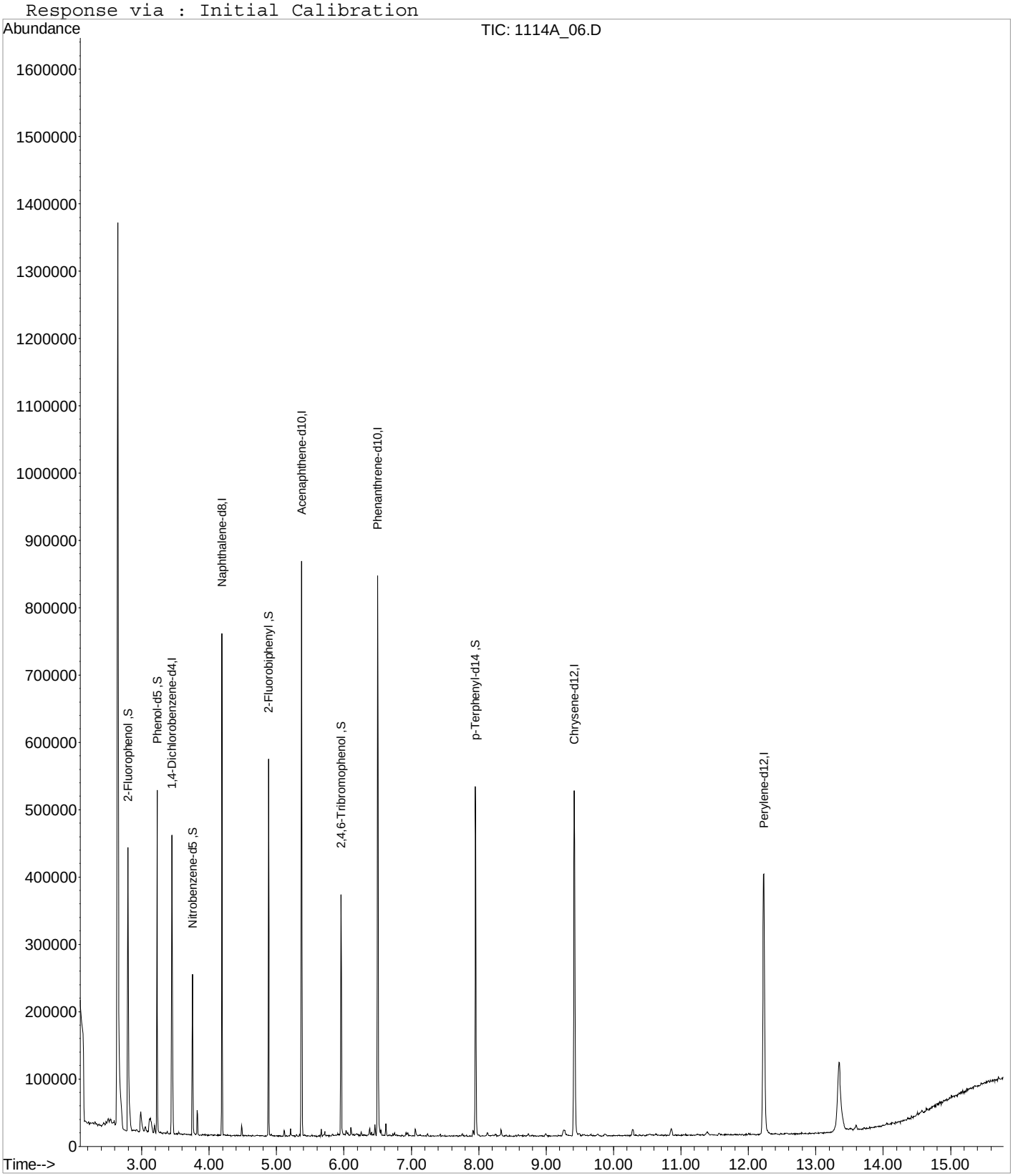
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 06.D Vial: 59
Acq On : 14 Nov 2022 1:05 pm Operator: 917
Sample : BLANK 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:41 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3861672-1	**SDG:**	L1556196
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	1115_10	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:51
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/15/22 14:34
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	0	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	0	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	0	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	0	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	0	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	0	U		0.0225	0.333
Pyrene	129-00-0	0	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 10.D Vial: 87
Acq On : 15 Nov 2022 2:34 pm Operator: 917
Sample : BLANK 1X WG1958443 Inst : BNAMS4
Misc : SOIL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:13 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	68976	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	268411	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	143133	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	292957	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	274636	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	284986	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	121562	11632.2924948	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 58.16%			
7) Phenol-d5	3.23	99	141101	10478.7290987	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 52.39%			
24) Nitrobenzene-d5	3.76	82	56951	4951.7720712	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 49.52%			
50) 2-Fluorobiphenyl	4.89	172	139418	5326.4674302	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 53.26%			
73) 2,4,6-Tribromophenol	5.96	330	44282	9894.5544183	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 49.47%			
87) p-Terphenyl-d14	7.96	244	225618	6013.4129446	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 60.13%			

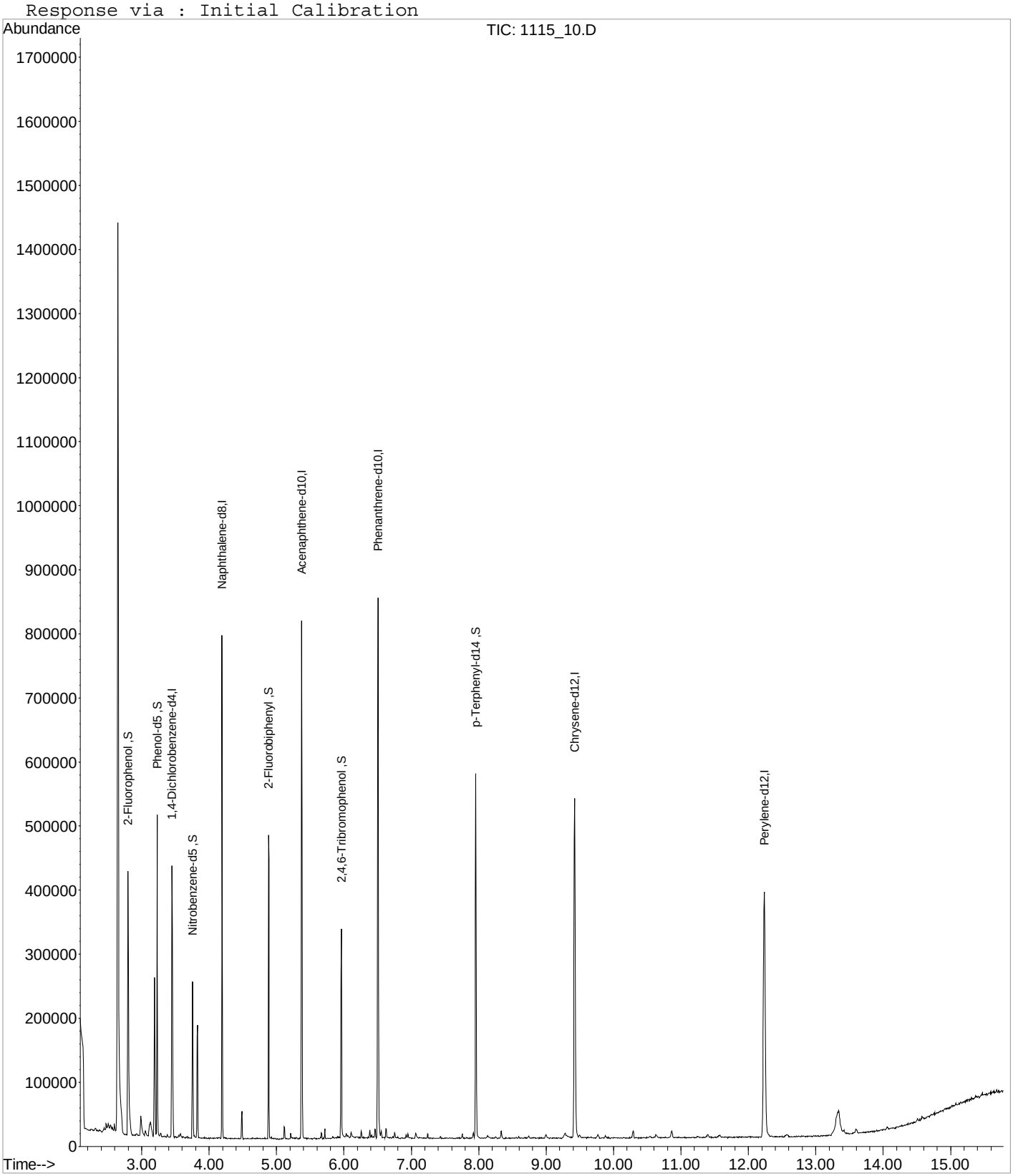
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1115_10.D S804J26V.M Wed Nov 16 13:18:54 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111522\1115 10.D Vial: 87
Acq On : 15 Nov 2022 2:34 pm Operator: 917
Sample : BLANK 1X WG1958443 Inst : BNAMS4
Misc : SOIL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:13 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3861170-1	**SDG:**	L1556196
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	1114A_05	**Received Date/Time:**	
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:51
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 12:44
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):		**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.473		0.00539	0.0333
Acenaphthylene	208-96-8	5.27	0.530		0.00469	0.0333
Anthracene	120-12-7	6.56	0.480		0.00593	0.0333
Benzoic Acid	65-85-0	4	0.473		0.0000100	1.67
Benzo(a)anthracene	56-55-3	9.41	0.537		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	11.43	0.507		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	11.49	0.488		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.43	0.498		0.00609	0.0333
Benzo(a)pyrene	50-32-8	12.11	0.567		0.00619	0.0333
Carbazole	86-74-8	6.69	0.497		0.0103	0.333
Chrysene	218-01-9	9.47	0.500		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	14.15	0.521		0.00923	0.0333
Dibenzofuran	132-64-9	5.52	0.492		0.0109	0.333
Fluoranthene	206-44-0	7.56	0.522		0.00601	0.0333
Fluorene	86-73-7	5.78	0.494		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	0.495		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.71	0.411		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.65	0.405		0.00432	0.0333
Naphthalene	91-20-3	4.20	0.386		0.00836	0.0333
Phenanthrene	85-01-8	6.53	0.487		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.49	0.504		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.95	0.470		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.77	0.521		0.0225	0.333
Pyrene	129-00-0	7.79	0.482		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.65	0.499		0.0104	0.333
Pentachlorophenol	87-86-5	6.35	0.458		0.00896	0.333
Phenol	108-95-2	3.23	0.467		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	57488	8000.00	ppb		-0.03
23) Naphthalene-d8	4.19	136	278984	8000.00	ppb		-0.02
46) Acenaphthene-d10	5.37	164	123958	8000.00	ppb		-0.02
70) Phenanthrene-d10	6.50	188	244171	8000.00	ppb		-0.02
84) Chrysene-d12	9.42	240	247576	8000.00	ppb		-0.04
94) Perylene-d12	12.23	264	267463	8000.00	ppb		-0.05
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	134458	15437.4274647	ppb		0.00
Spiked Amount 20000.000			Recovery = 77.19%				
7) Phenol-d5	3.23	99	158679	14139.0028417	ppb		-0.01
Spiked Amount 20000.000			Recovery = 70.70%				
24) Nitrobenzene-d5	3.76	82	64374m	5385.0631520	ppb		-0.02
Spiked Amount 10000.000			Recovery = 53.85%				
50) 2-Fluorobiphenyl	4.88	172	157761	6959.6162166	ppb		-0.03
Spiked Amount 10000.000			Recovery = 69.60%				
73) 2,4,6-Tribromophenol	5.96	330	59155	15858.7981060	ppb		-0.02
Spiked Amount 20000.000			Recovery = 79.29%				
87) p-Terphenyl-d14	7.95	244	249509	7377.0448158	ppb		-0.04
Spiked Amount 10000.000			Recovery = 73.77%				
Target Compounds							Qvalue
2) Pyridine	2.20	79	78370	8117.6505919	ppb		96
3) N-Nitrosodimethylamine	2.20	42	48392	11263.4785690	ppb	#	70
5) Aniline	3.27	66	47718	9604.3656655	ppb	#	61
6) bis(2-Chloroethyl)ether	3.29	93	150233m	16834.0947688	ppb		
8) Phenol	3.23	94	159472	14012.6718279	ppb		92
9) Benzaldehyde	3.22	105	21181	6032.7464982	ppb	#	89
10) 2-Chlorophenol	3.34	128	136153	14612.8073956	ppb		98
11) n-Decane	3.33	41	46925	8854.9859895	ppb	#	94
12) 1,3-Dichlorobenzene	3.42	146	146984	13430.6929657	ppb		99
13) 1,4-Dichlorobenzene	3.46	146	149818	13692.9594694	ppb		95
14) Benzyl Alcohol	3.51	79	103704	14285.9507140	ppb		97
15) 1,2-Dichlorobenzene	3.55	146	144481	14020.7863083	ppb		94
16) bis(2-Chloroisopropyl)ethe	3.58	121	46596	14399.9312878	ppb		100
17) 2,2-oxybis(1-chloropropane	3.58	121	46596	14399.9312878	ppb		100
18) 2-Methylphenol	3.57	108	120375	14327.3427689	ppb		95
19) Hexachloroethane	3.74	117	52843	13329.6162857	ppb		97
20) N-Nitrosodi-n-propylamine	3.65	70	90625	14290.0070625	ppb		95
21) 3&4-Methyl phenol	3.65	107	141192	14993.3673483	ppb		96
22) Acetophenone	3.66	105	174206	13950.1569339	ppb	#	86
25) Nitrobenzene	3.77	77	131033	11000.1877691	ppb		93
26) Isophorone	3.90	82	241278	11230.4715391	ppb		98
27) 2-Nitrophenol	3.95	139	76255	12705.2199025	ppb	#	78
28) 2,4-Dimethylphenol	3.96	107	124747	11274.0534421	ppb		93
29) bis(2-Chlorethoxy)methane	4.01	93	154881	11591.2359550	ppb		95
30) 2,4-Dichlorophenol	4.09	162	116982	12663.0026278	ppb		98
31) Benzoic Acid	4.00	105	56744	14210.2688184	ppb		90
32) 1,2,4-Trichlorobenzene	4.15	180	133777	12185.1393041	ppb		98
33) alpha-terpineol	4.19	59	105894	15235.3664632	ppb		92
34) Naphthalene	4.20	128	411343	11578.5108295	ppb		99
35) 4-Chloroaniline	4.22	65	34309	9120.8095314	ppb		80
36) Hexachloro-1,3-butadiene	4.27	225	78102	12461.0744637	ppb		98
37) Hydroquinone	4.41	110	12854	2377.4499618	ppb		94
38) Quinoline	4.41	129	260025	16405.7684521	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Caprolactam	4.44	113	41667	21593.8613739	ppb		87
40)	4-Chloro-3-methylphenol	4.52	107	107059	12189.7735324	ppb		97
41)	2-Methylnaphthalene	4.65	142	281415	12165.4394236	ppb		98
42)	1-Methylnaphthalene	4.71	142	271699	12352.5543343	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	134409	16082.2062626	ppb		99
44)	Diphenyl Ether	5.03	170	182273	16550.5259131	ug/ml		96
45)	Diphenyl Oxide	5.03	170	182273	16550.5259131	ug/ml		96
47)	Hexachlorocyclopentadiene	4.74	237	84086	13491.4137937	ppb		96
48)	2,4,6-Trichlorophenol	4.82	196	87659	15202.2547226	ppb		97
49)	2,4,5-Trichlorophenol	4.86	196	86017	14293.7731972	ppb		96
51)	Biphenyl	4.95	154	341855	13517.6668211	ppb		99
52)	2-Chloronaphthalene	4.98	162	267407	14343.7398009	ppb		98
53)	2-Nitroaniline	5.04	138	89144	16181.7739044	ppb		97
54)	Acenaphthylene	5.27	152	446619	15913.5094379	ppb		99
55)	Dimethyl phthalate	5.16	163	300298	15425.7671507	ppb		96
56)	2,6-Dinitrotoluene	5.21	165	71668	16150.3077185	ppb	#	71
57)	3-Nitroaniline	5.33	138	66559	14193.6978023	ppb	#	78
58)	Acenaphthene	5.40	153	271962	14186.7657681	ppb		97
59)	2,4-Dinitrophenol	5.40	184	21161	9292.2603110	ppb	#	20
60)	Dibenzofuran	5.52	168	385051	14759.1399581	ppb		97
61)	2,4-Dinitrotoluene	5.49	165	95997	17025.8302260	ppb		97
62)	2,3,4,6-Tetrachlorophenol	5.60	232	142938	31445.7644686	ppb		85
63)	4-Nitrophenol	5.43	139	62377	16523.6613691	ppb		87
64)	Fluorene	5.78	166	321828	14843.9736347	ppb		99
65)	4-Chlorophenyl-phenylether	5.76	204	162123	15713.4616769	ppb		99
66)	Diethyl phthalate	5.67	149	310954	16423.9103097	ppb		97
67)	4-Nitroaniline	5.78	138	81251	18976.2679820	ppb		90
68)	Azobenzene	5.89	77	279253	13801.0680300	ppb		93
69)	Atrazine	6.26	200	97444	16755.8300767	ppb		95
71)	4,6-Dinitro-2-methylphenol	5.80	198	47782	12816.5990977	ppb		82
72)	N-Nitrosodiphenylamine	5.85	169	231681	12052.9762351	ppb		98
74)	4-Bromophenyl-phenylether	6.14	248	109563	16989.5055220	ppb		95
75)	Hexachlorobenzene	6.20	284	123414	15059.0272254	ppb		99
76)	n-octadecane	6.38	55	39092	12271.6896800	ppb	#	96
77)	Pentachlorophenol	6.35	266	64402	13736.4449392	ppb		96
78)	Phenanthrene	6.53	178	494150	14616.2876948	ppb		99
79)	Anthracene	6.56	178	480846	14406.9000315	ppb		99
80)	Carbazole	6.69	167	440660	14920.6606616	ppb		99
81)	Di-n-butyl phthalate	6.95	149	550367	14115.7777032	ppb		99
82)	2-nitrodiphenylamine	7.09	167	111538	16241.3987579	ppb		93
83)	Fluoranthene	7.56	202	553868	15679.3095764	ppb		99
85)	Benzidine	7.68	184	103983	6196.1315406	ppb		100
86)	Pyrene	7.79	202	562864	14480.8450543	ppb		99
88)	Benzylbutyl phthalate	8.57	149	234318	15172.9843541	ppb		98
89)	3,3-Dichlorobenzidine	9.38	252	363899	26464.0844172	ppb		98
90)	Benzo(a)anthracene	9.41	228	567522	16124.7413404	ppb		99
91)	Chrysene	9.47	228	547309	15029.8233622	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.49	149	340939	15148.7243646	ppb		99
93)	Di-n-octyl phthalate	10.77	149	555906	15655.4843833	ppb		99
95)	Benzo(b)fluoranthene	11.43	252	589252	15235.2455099	ppb		99
96)	Benzo(k)fluoranthene	11.49	252	590630	14650.2192630	ppb		98
97)	Benzo(a)pyrene	12.11	252	551253	17041.7143796	ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.11	276	503212	14849.2969598	ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	592811	15643.4249967	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

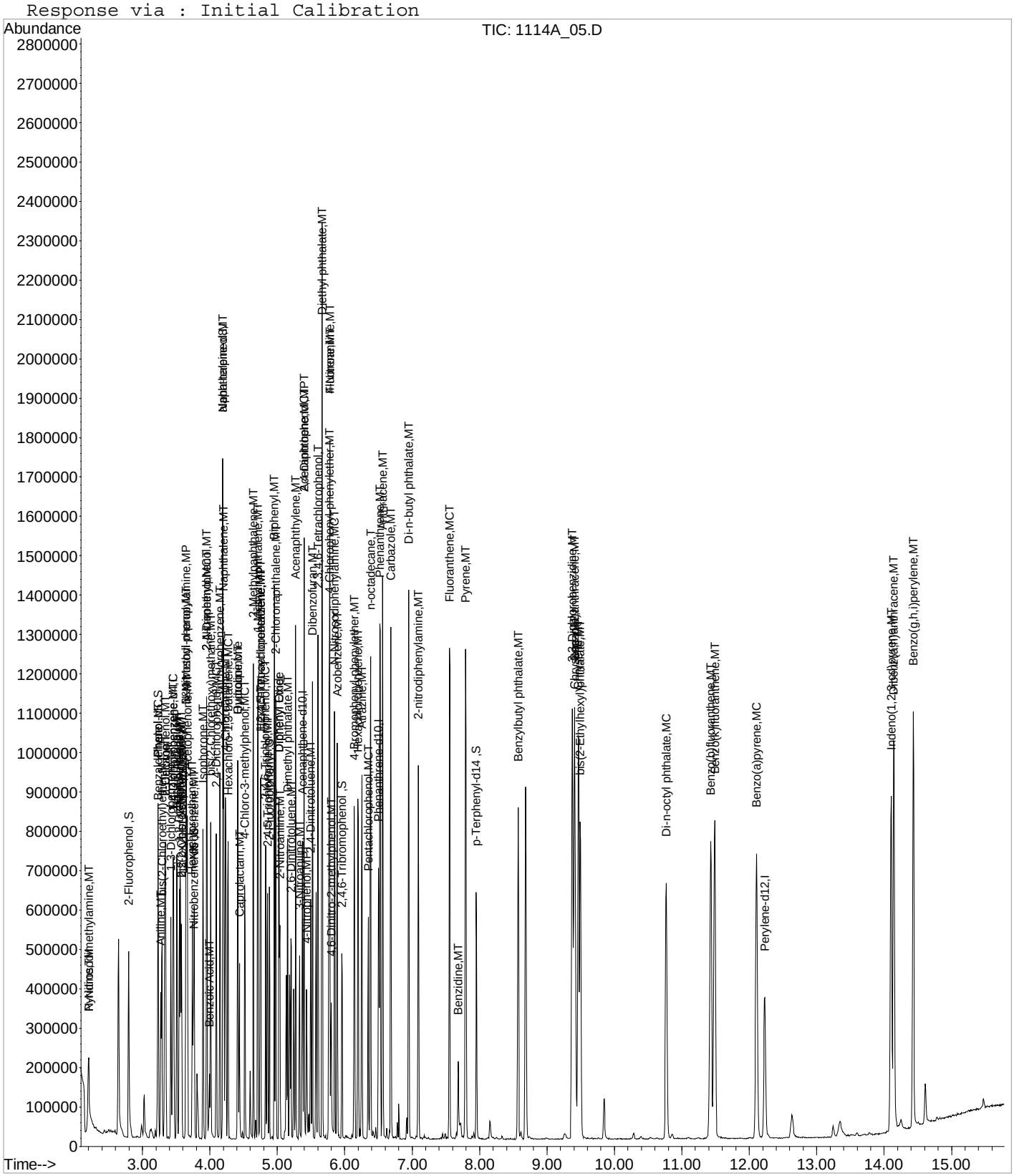
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100)	Benzo(g,h,i)perylene	14.43	276	565534	14946.7696360	ppb	99

(#) = qualifier out of range (m) = manual integration
1114A_05.D S804J26V.M Tue Nov 15 13:31:09 2022 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:30 2022 Quant Results File: S804J26V.RES

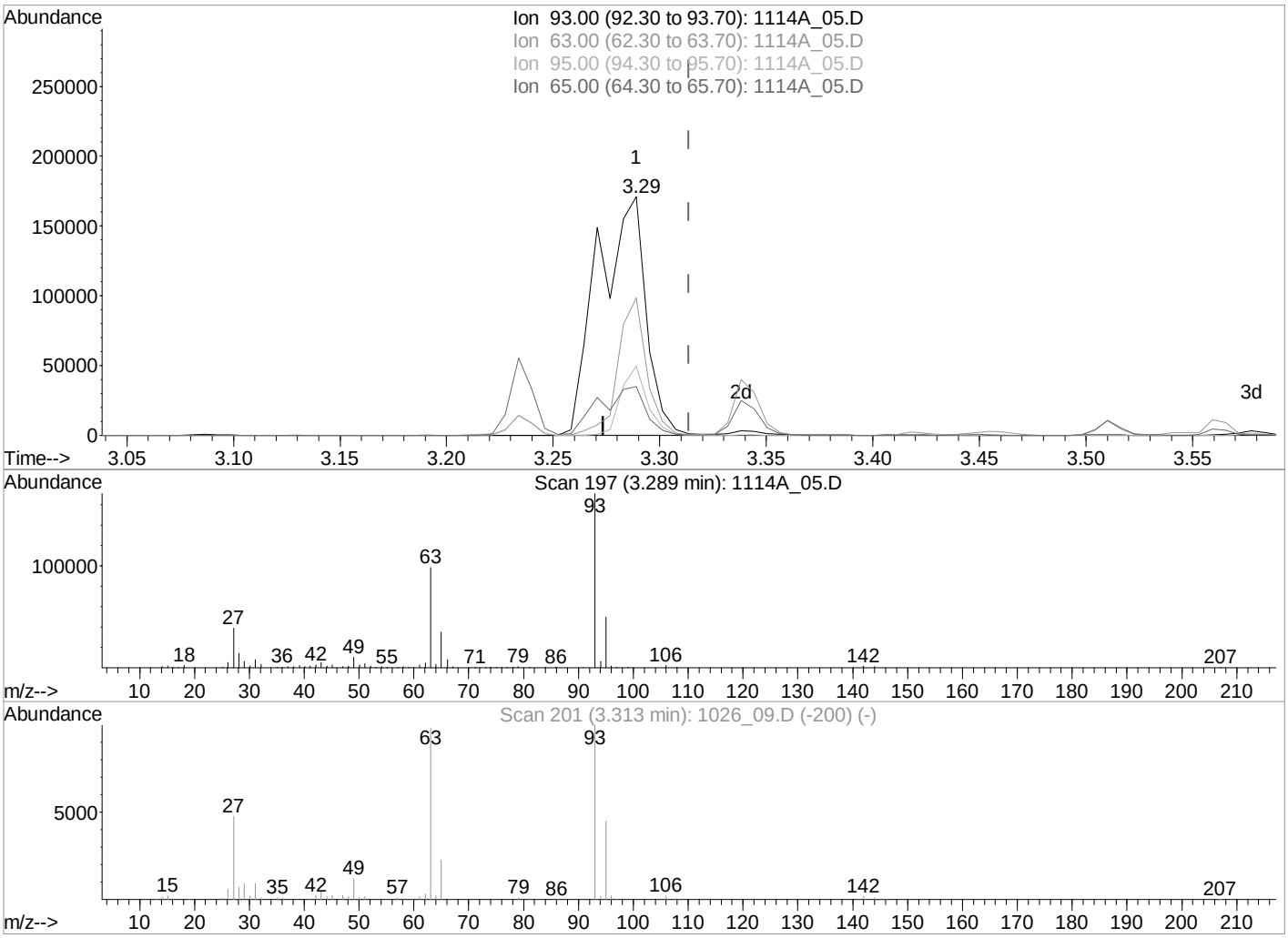
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:18 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_05.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 29510.0057645 ppb

Qvalue = 92

response 263357

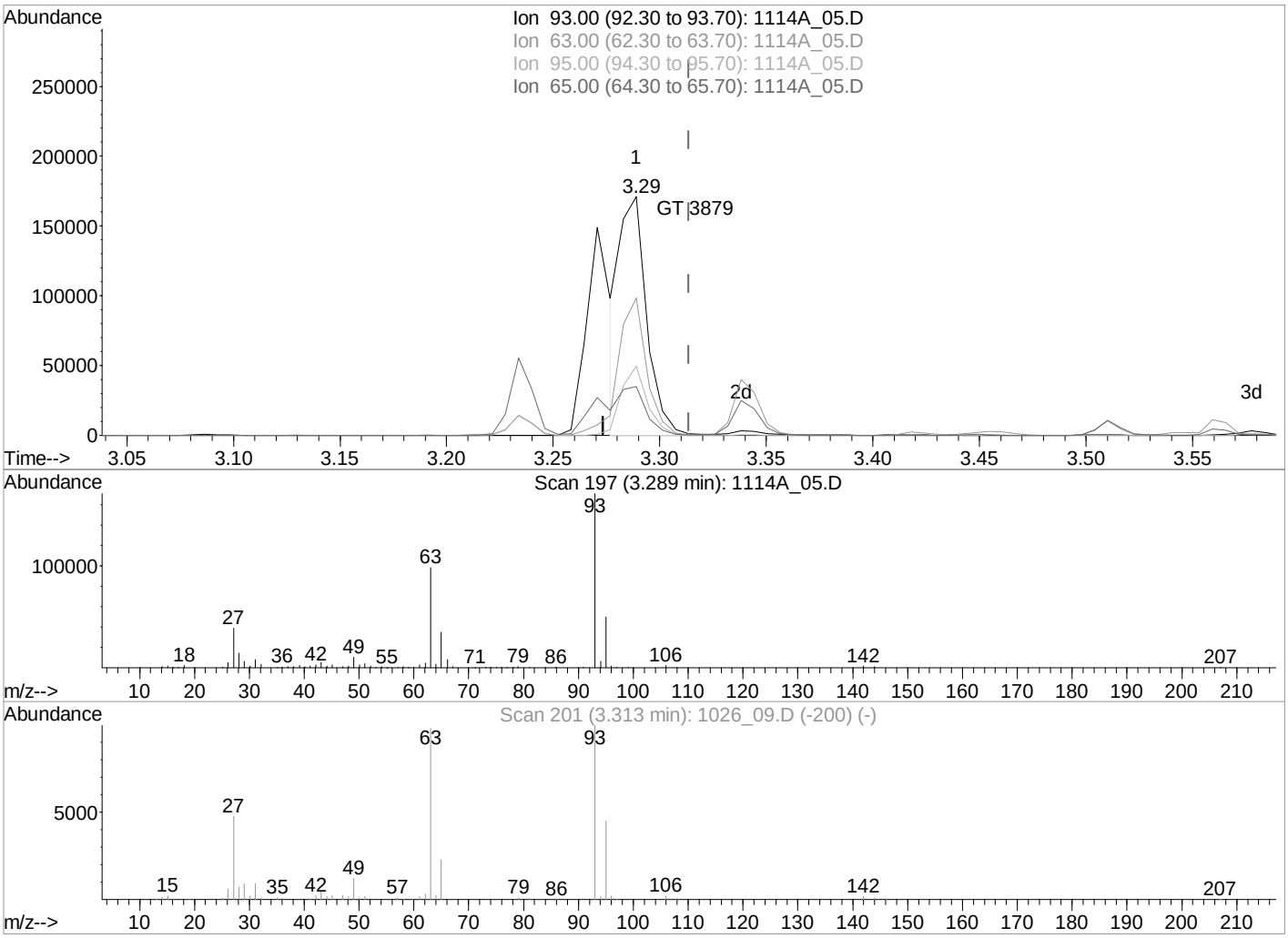
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.31
95.00	28.70	28.96
65.00	22.20	20.03

1114A_05.D S804J26V.M Tue Nov 15 13:29:31 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:29 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_05.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 16834.0947688 ppb m

response 150233

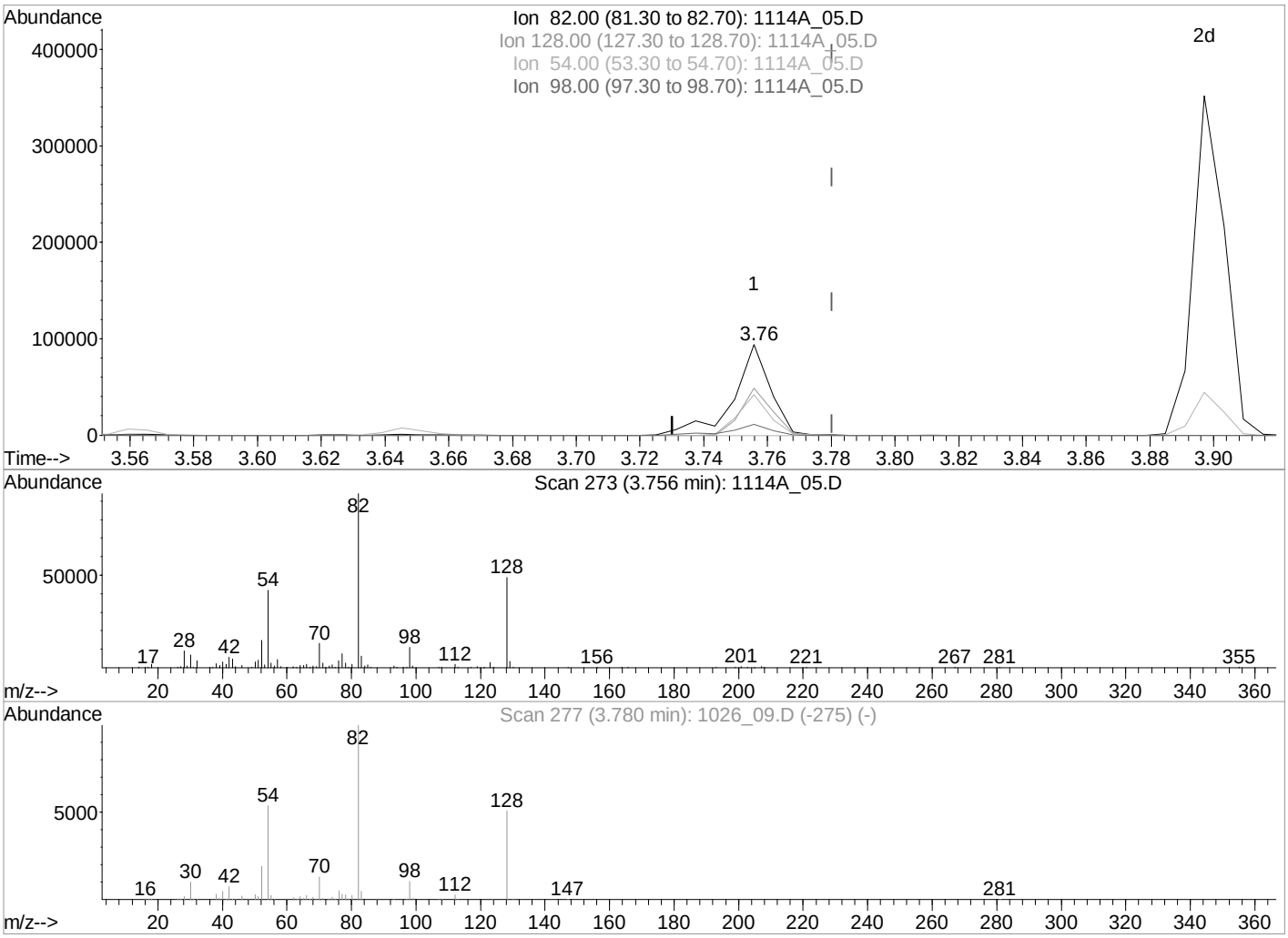
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.36
95.00	28.70	28.88
65.00	22.20	20.33

1114A_05.D S804J26V.M Tue Nov 15 13:29:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:29 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_05.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 6334.3547395 ppb

Qvalue = 92

response 75722

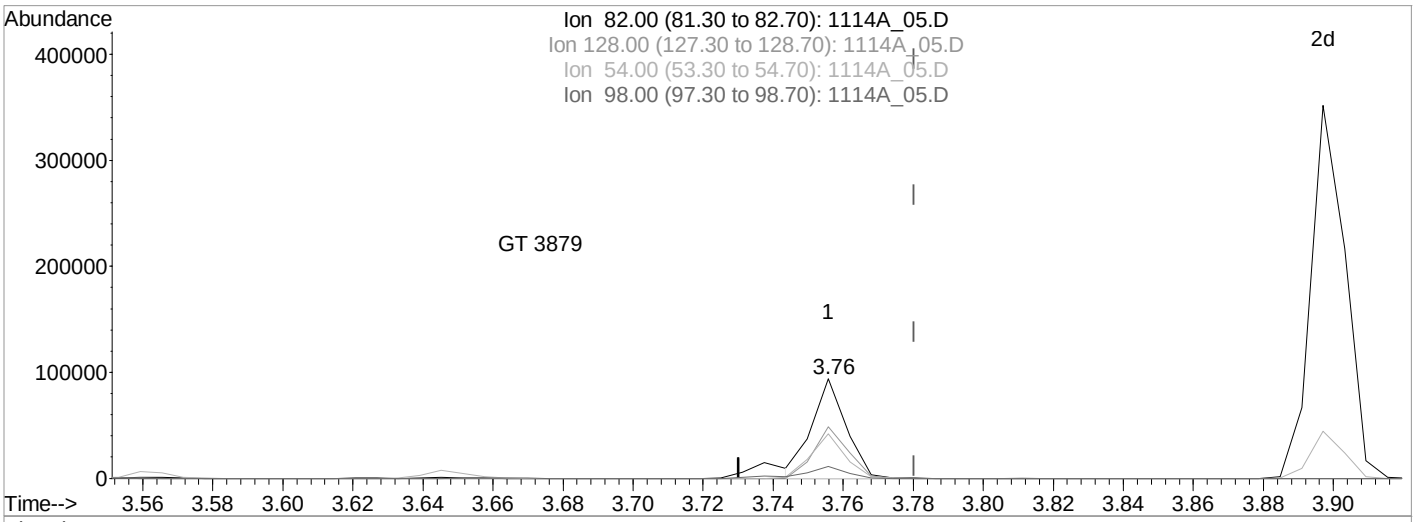
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	51.76
54.00	49.10	44.38
98.00	10.80	11.78

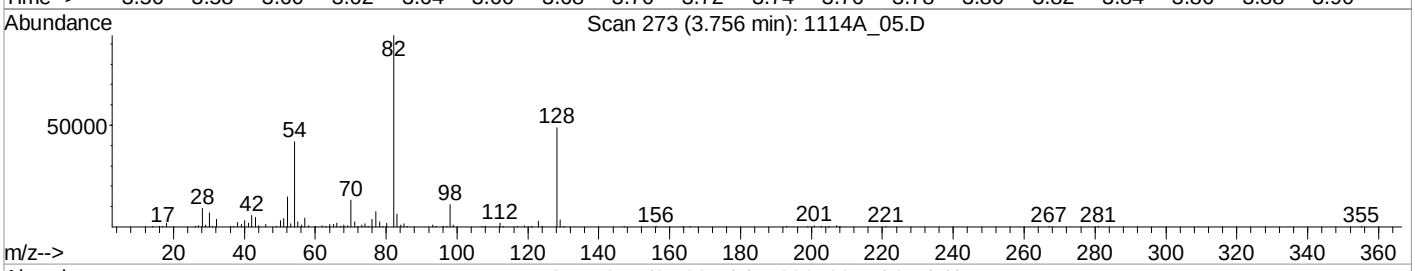
1114A_05.D S804J26V.M Tue Nov 15 13:29:58 2022

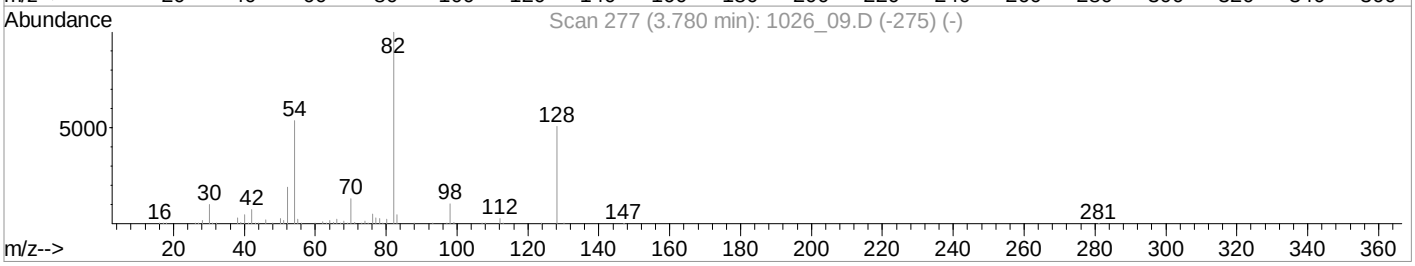
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 05.D Vial: 58
Acq On : 14 Nov 2022 12:44 pm Operator: 917
Sample : LCS 1X WG1958443 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration







TIC: 1114A_05.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 5385.0631520 ppb m

response 64374

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	51.76
54.00	49.10	44.38
98.00	10.80	11.78

1114A_05.D S804J26V.M Tue Nov 15 13:30:10 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3861170-3	**SDG:**	L1556196
Client Sample ID:	MS	**Collected Date/Time:**	11/07/22 11:00
Lab File ID:	1114A_08	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:53
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 13:46
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.17 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.370		0.00539	0.0333
Acenaphthylene	208-96-8	5.27	0.409		0.00469	0.0333
Anthracene	120-12-7	6.56	0.372		0.00593	0.0333
Benzoic Acid	65-85-0	4.01	0.999		0.118	1.67
Benzo(a)anthracene	56-55-3	9.41	0.423		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	11.43	0.392		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	11.49	0.386		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.43	0.386		0.00609	0.0333
Benzo(a)pyrene	50-32-8	12.11	0.446		0.00619	0.0333
Carbazole	86-74-8	6.69	0.385		0.0103	0.333
Chrysene	218-01-9	9.47	0.395		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	14.15	0.383		0.00923	0.0333
Dibenzofuran	132-64-9	5.52	0.386		0.0109	0.333
Fluoranthene	206-44-0	7.56	0.401		0.00601	0.0333
Fluorene	86-73-7	5.78	0.387		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	0.389		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.71	0.334		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.65	0.328		0.00432	0.0333
Naphthalene	91-20-3	4.20	0.319		0.00836	0.0333
Phenanthrene	85-01-8	6.53	0.381		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	0.397		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.95	0.361		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.77	0.416		0.0225	0.333
Pyrene	129-00-0	7.80	0.382		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.65	0.392		0.0104	0.333
Pentachlorophenol	87-86-5	6.35	0.406		0.00896	0.333
Phenol	108-95-2	3.23	0.357		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	66214	8000.00 ppb	-0.03
23) Naphthalene-d8	4.19	136	309299	8000.00 ppb	-0.02
46) Acenaphthene-d10	5.37	164	143689	8000.00 ppb	-0.02
70) Phenanthrene-d10	6.50	188	284619	8000.00 ppb	-0.02
84) Chrysene-d12	9.42	240	282401	8000.00 ppb	-0.04
94) Perylene-d12	12.23	264	308653	8000.00 ppb	-0.04
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	121606	12121.8990173 ppb	0.00
Spiked Amount 20000.000			Recovery = 60.61%		
7) Phenol-d5	3.23	99	141771	10967.6631878 ppb	-0.01
Spiked Amount 20000.000			Recovery = 54.84%		
24) Nitrobenzene-d5	3.76	82	57512m	4339.4986398 ppb	-0.02
Spiked Amount 10000.000			Recovery = 43.39%		
50) 2-Fluorobiphenyl	4.88	172	143562	5463.5658155 ppb	-0.03
Spiked Amount 10000.000			Recovery = 54.64%		
73) 2,4,6-Tribromophenol	5.96	330	55837	12841.9531601 ppb	-0.02
Spiked Amount 20000.000			Recovery = 64.21%		
87) p-Terphenyl-d14	7.96	244	225282	5839.3567775 ppb	-0.03
Spiked Amount 10000.000			Recovery = 58.39%		
Target Compounds					Qvalue
2) Pyridine	2.20	79	90499	8138.6367098 ppb	98
3) N-Nitrosodimethylamine	2.20	42	42080	8503.5852917 ppb #	76
5) Aniline	3.27	66	47523	8304.5800887 ppb #	69
6) bis(2-Chloroethyl)ether	3.29	93	135330m	13165.7585192 ppb	
8) Phenol	3.23	94	141634	10805.1650743 ppb	95
9) Benzaldehyde	3.22	105	43647	10793.2041078 ppb	96
10) 2-Chlorophenol	3.34	128	123274	11486.9652869 ppb	93
11) n-Decane	3.33	41	40988	6715.3352678 ppb #	93
12) 1,3-Dichlorobenzene	3.42	146	133118	10560.6954443 ppb	99
13) 1,4-Dichlorobenzene	3.46	146	135356	10740.8391947 ppb	95
14) Benzyl Alcohol	3.51	79	94428	11293.8445617 ppb	96
15) 1,2-Dichlorobenzene	3.55	146	130955	11033.4439124 ppb	95
16) bis(2-Chloroisopropyl)ethe	3.58	121	42617	11434.6278083 ppb	100
17) 2,2-oxybis(1-chloropropane	3.58	121	42617	11434.6278083 ppb	100
18) 2-Methylphenol	3.57	108	108509	11213.0171781 ppb	96
19) Hexachloroethane	3.74	117	48899	10709.2124812 ppb	98
20) N-Nitrosodi-n-propylamine	3.65	70	81259	11124.5710135 ppb	95
21) 3&4-Methyl phenol	3.65	107	128928	11886.7659798 ppb	97
22) Acetophenone	3.66	105	156029	10847.9752296 ppb #	84
25) Nitrobenzene	3.77	77	118998	9010.7275261 ppb	92
26) Isophorone	3.90	82	221242	9288.5649878 ppb	97
27) 2-Nitrophenol	3.95	139	69290	10413.2238182 ppb #	77
28) 2,4-Dimethylphenol	3.96	107	115268	9396.3571931 ppb	94
29) bis(2-Chlorethoxy)methane	4.01	93	142220	9600.4824432 ppb	94
30) 2,4-Dichlorophenol	4.09	162	106656	10413.6680017 ppb	98
31) Benzoic Acid	4.01	105	134069	30283.8786845 ppb	97
32) 1,2,4-Trichlorobenzene	4.15	180	121041	9944.4857541 ppb	97
33) alpha-terpineol	4.19	59	96278	12494.2270082 ppb	92
34) Naphthalene	4.20	128	380677	9665.0924835 ppb	99
35) 4-Chloroaniline	4.22	65	34051	8164.9960349 ppb #	61
36) Hexachloro-1,3-butadiene	4.27	225	70274	10113.2045462 ppb	98
37) Hydroquinone	4.41	110	51320	8561.7100927 ppb	96
38) Quinoline	4.41	129	250150	14235.8289391 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Caprolactam	4.44	113	41454	19377.8370848 ppb	#	84
40)	4-Chloro-3-methylphenol	4.52	107	98780	10144.7712184 ppb		98
41)	2-Methylnaphthalene	4.65	142	254736	9932.7993835 ppb		98
42)	1-Methylnaphthalene	4.71	142	247071	10131.9091466 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	123341	13311.4548666 ppb		100
44)	Diphenyl Ether	5.03	170	164818	13498.7911377 ug/ml		96
45)	Diphenyl Oxide	5.03	170	164818	13498.7911377 ug/ml		96
47)	Hexachlorocyclopentadiene	4.74	237	68838	9528.2479784 ppb		96
48)	2,4,6-Trichlorophenol	4.82	196	81232	12153.1729230 ppb		98
49)	2,4,5-Trichlorophenol	4.86	196	82289	11796.5610046 ppb		97
51)	Biphenyl	4.95	154	308234	10514.5667399 ppb		100
52)	2-Chloronaphthalene	4.98	162	244938	11334.3555552 ppb		98
53)	2-Nitroaniline	5.04	138	84940	13301.3985408 ppb		97
54)	Acenaphthylene	5.27	152	403243	12395.0032929 ppb		99
55)	Dimethyl phthalate	5.16	163	277042	12276.9640363 ppb		97
56)	2,6-Dinitrotoluene	5.21	165	66621	12951.4293846 ppb	#	74
57)	3-Nitroaniline	5.33	138	64826	11925.8413913 ppb	#	77
58)	Acenaphthene	5.40	153	248819	11197.2081230 ppb		97
59)	2,4-Dinitrophenol	5.40	184	23447	8993.3532993 ppb	#	18
60)	Dibenzofuran	5.52	168	353391	11685.5543197 ppb		97
61)	2,4-Dinitrotoluene	5.49	165	88393	13524.4480289 ppb		97
62)	2,3,4,6-Tetrachlorophenol	5.60	232	137702	26133.9913061 ppb		88
63)	4-Nitrophenol	5.43	139	59158	13519.0546492 ppb		89
64)	Fluorene	5.78	166	294660	11724.6144579 ppb		99
65)	4-Chlorophenyl-phenylether	5.76	204	146225	12226.4368024 ppb		97
66)	Diethyl phthalate	5.67	149	283101	12899.4994552 ppb		97
67)	4-Nitroaniline	5.78	138	76292	15371.3541377 ppb		92
68)	Azobenzene	5.89	77	252617	10770.3163736 ppb		93
69)	Atrazine	6.26	200	87399	12964.8753640 ppb		95
71)	4,6-Dinitro-2-methylphenol	5.80	198	47445	11036.8886097 ppb		82
72)	N-Nitrosodiphenylamine	5.85	169	212579	9487.5577923 ppb		99
74)	4-Bromophenyl-phenylether	6.15	248	97279	12940.9486677 ppb		91
75)	Hexachlorobenzene	6.20	284	110548	11572.1371773 ppb		99
76)	n-octadecane	6.38	55	36471	9821.8735655 ppb	#	96
77)	Pentachlorophenol	6.35	266	66835	12307.1929392 ppb		96
78)	Phenanthrene	6.53	178	454869	11542.3653383 ppb		99
79)	Anthracene	6.56	178	439001	11283.9262221 ppb		99
80)	Carbazole	6.69	167	401309	11657.1803694 ppb		99
81)	Di-n-butyl phthalate	6.95	149	493339	10931.6595960 ppb		99
82)	2-nitrodiphenylamine	7.09	167	101115	13148.9849004 ppb		93
83)	Fluoranthene	7.56	202	500897	12164.6406661 ppb		99
85)	Benzidine	7.68	184	258689	12592.3624622 ppb		100
86)	Pyrene	7.80	202	513894	11590.6099920 ppb		99
88)	Benzylbutyl phthalate	8.57	149	213210	12230.2069187 ppb		99
89)	3,3-Dichlorobenzidine	9.38	252	373681	23824.2555696 ppb		97
90)	Benzo(a)anthracene	9.41	228	514626	12818.7031582 ppb		99
91)	Chrysene	9.47	228	497324	11973.0009374 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	307133	12043.3478442 ppb		99
93)	Di-n-octyl phthalate	10.77	149	503250	12597.0763773 ppb		100
95)	Benzo(b)fluoranthene	11.43	252	529734	11868.5987916 ppb		99
96)	Benzo(k)fluoranthene	11.49	252	544476	11703.0907435 ppb		99
97)	Benzo(a)pyrene	12.11	252	503779	13495.7052724 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.11	276	461547	11802.2292123 ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	508314m	11623.6057433 ppb		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

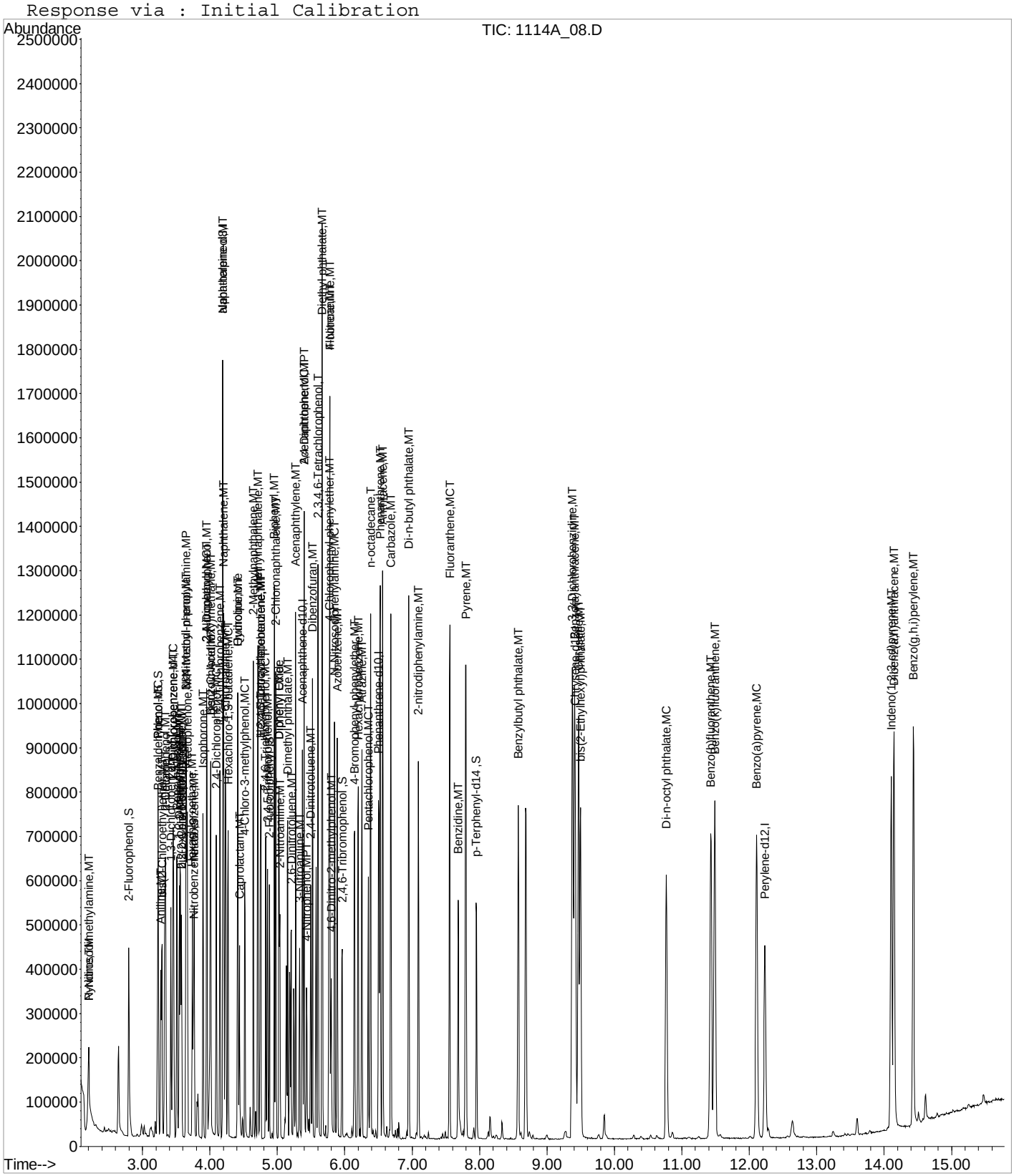
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100) Benzo(g,h,i)perylene	14.43	276	510489	11691.4457444	ppb	99

(#) = qualifier out of range (m) = manual integration
1114A_08.D S804J26V.M Tue Nov 15 13:36:14 2022 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: S804J26V.RES

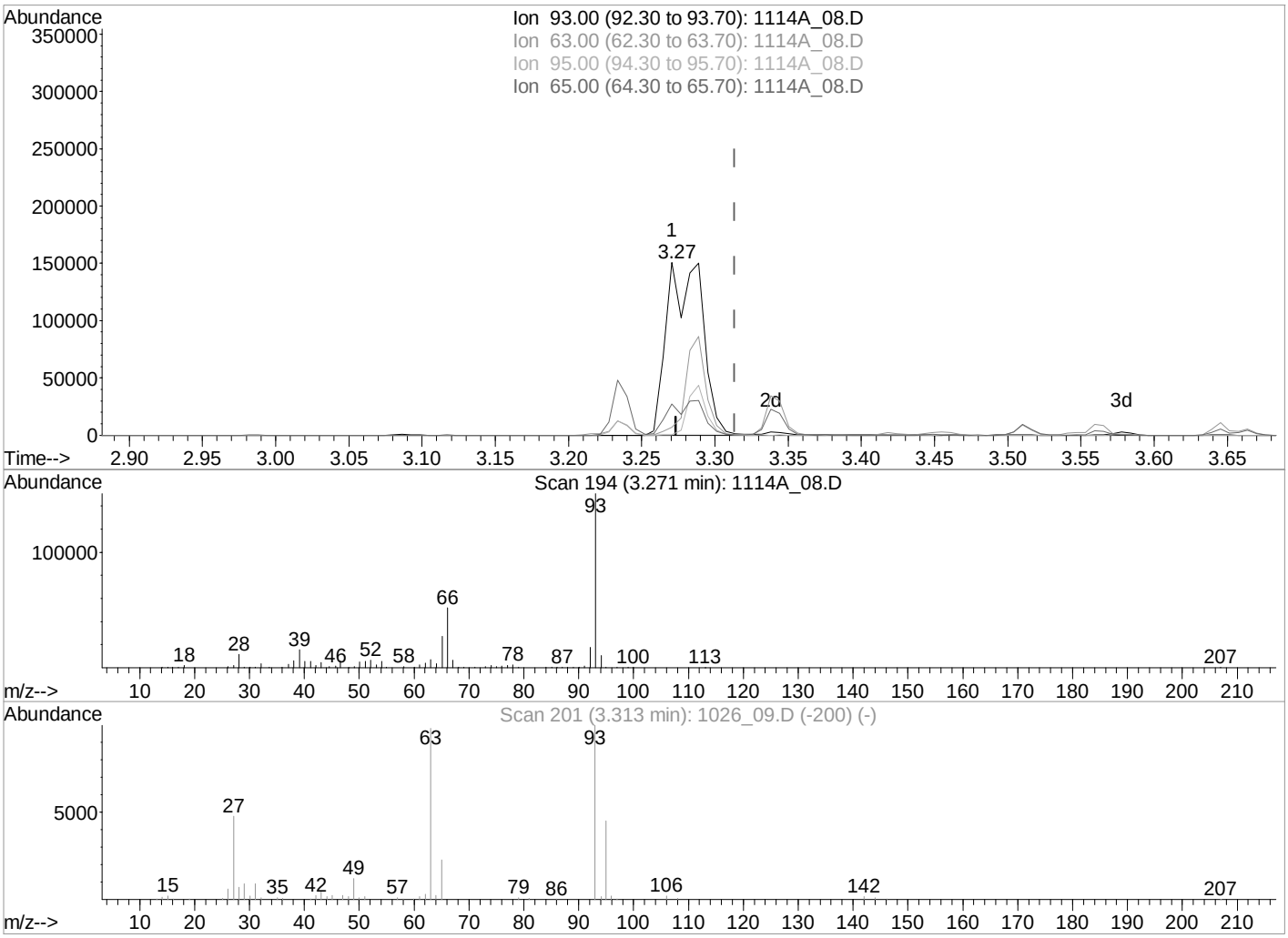
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:18 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.27min (-0.043) 24374.2134425 ppb

Qvalue = 41

response 250541

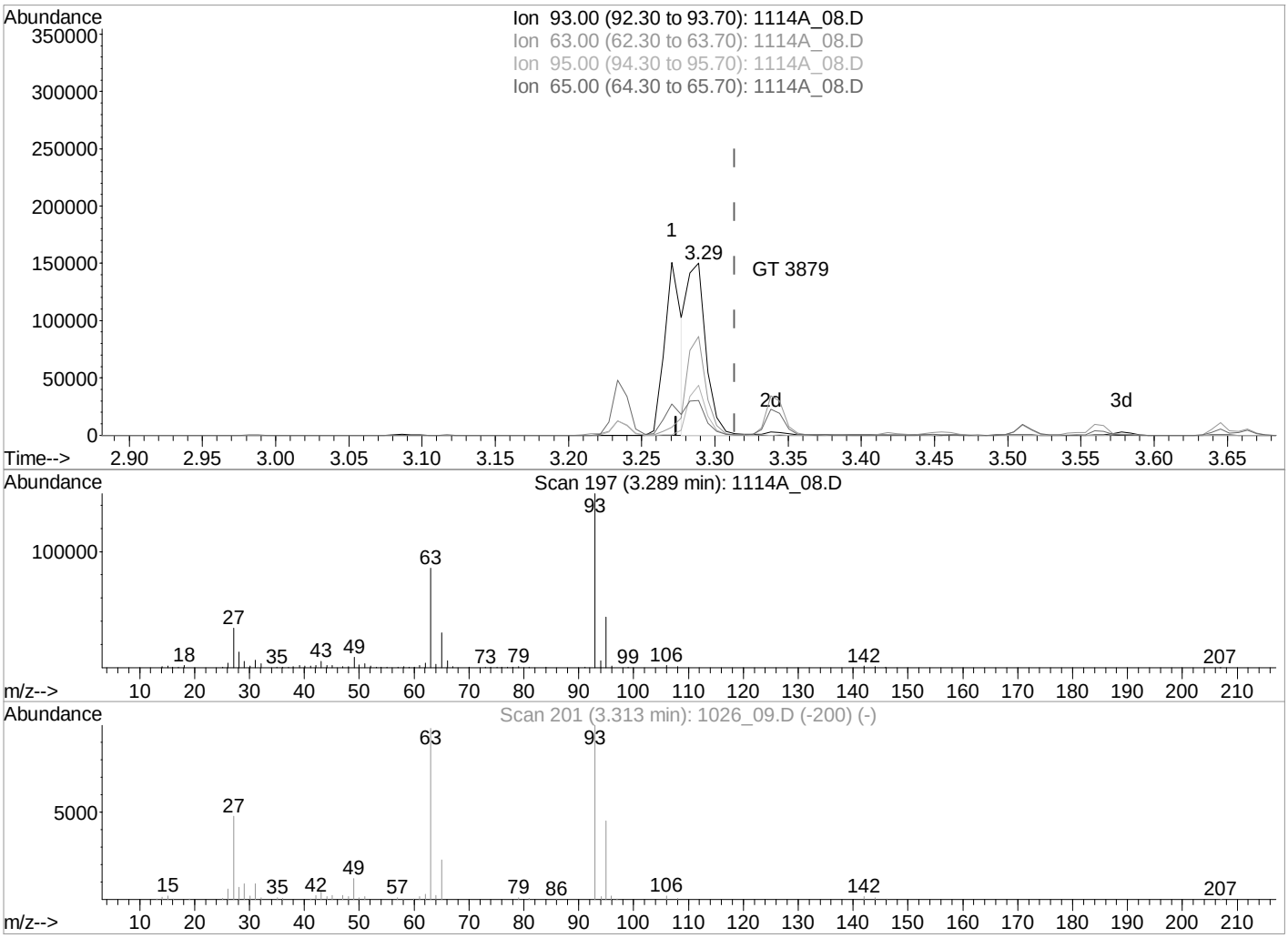
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.40#
95.00	28.70	0.34#
65.00	22.20	17.80

1114A_08.D S804J26V.M Tue Nov 15 13:34:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:34 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 13165.7585192 ppb m

response 135330

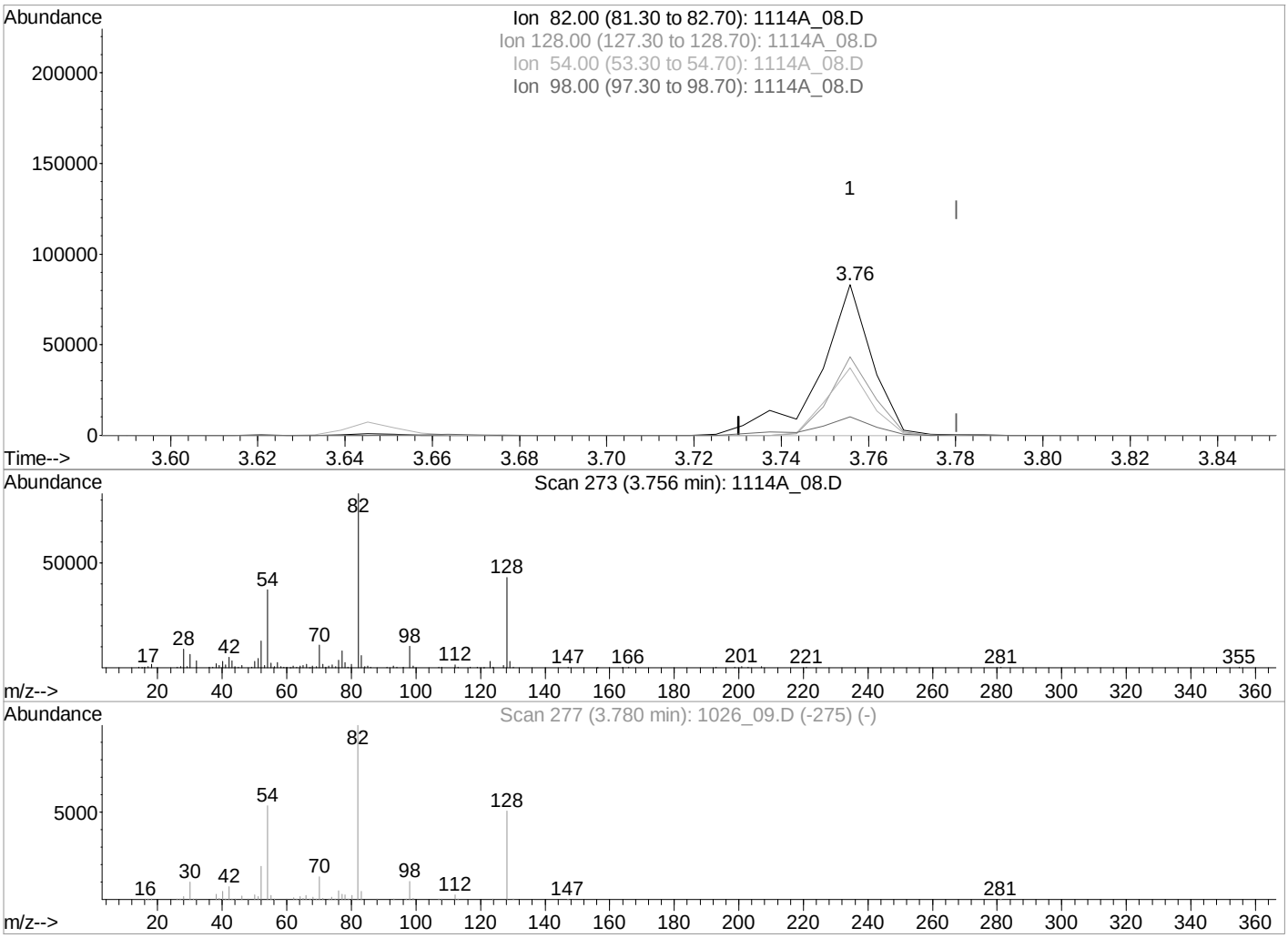
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.22
95.00	28.70	29.08
65.00	22.20	20.14

1114A_08.D S804J26V.M Tue Nov 15 13:34:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:34 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 5139.1579559 ppb

Qvalue = 93

response 68110

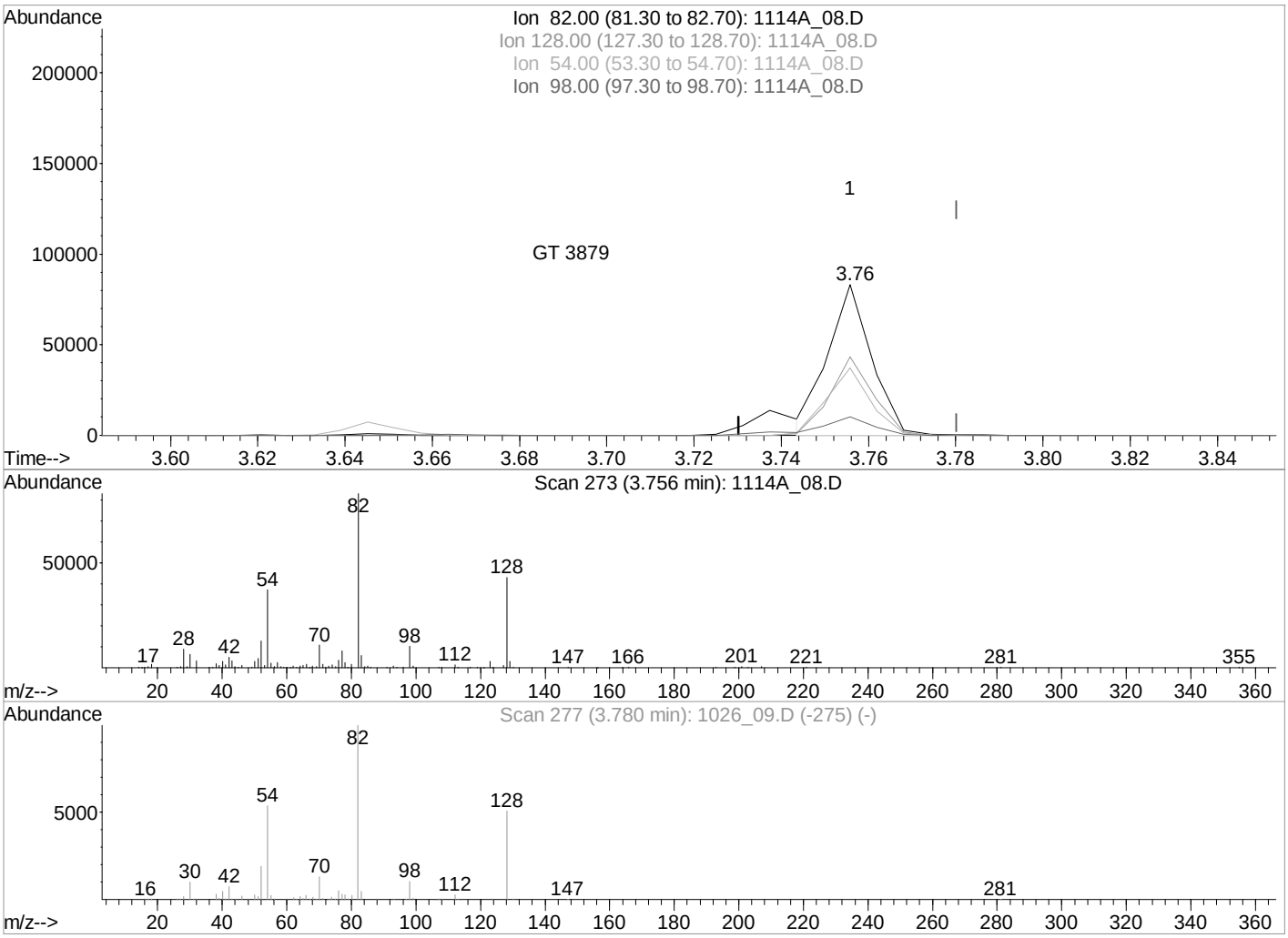
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	51.91
54.00	49.10	44.85
98.00	10.80	12.39

1114A_08.D S804J26V.M Tue Nov 15 13:34:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:34 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.024) 4339.4986398 ppb m

response 57512

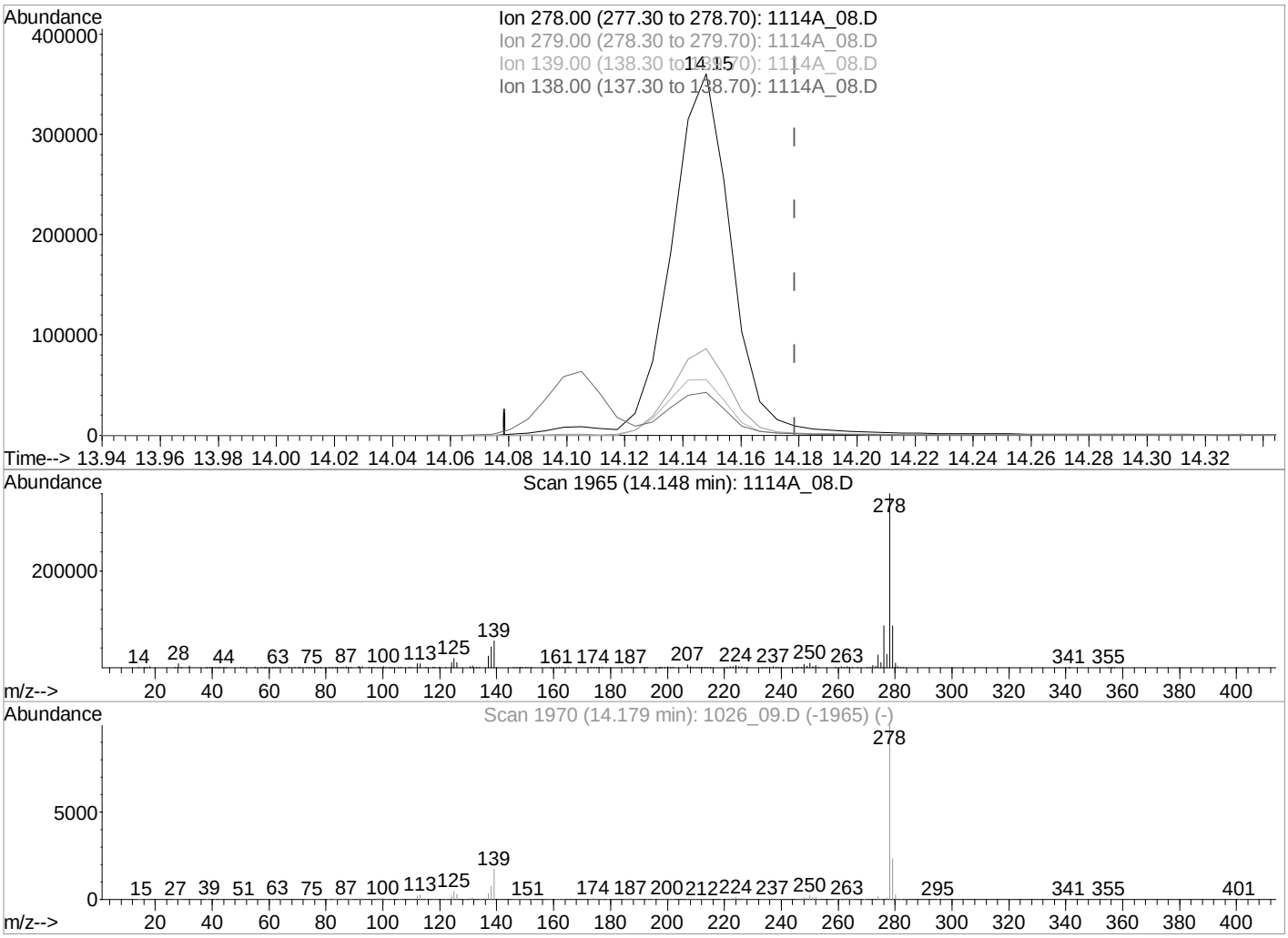
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	51.91
54.00	49.10	44.85
98.00	10.80	12.39

1114A_08.D S804J26V.M Tue Nov 15 13:34:49 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:34 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(99) Dibenz(a,h)anthracene (MT)

14.15min (-0.031) 12236.7837947 ppb

Qvalue = 98

response 535129

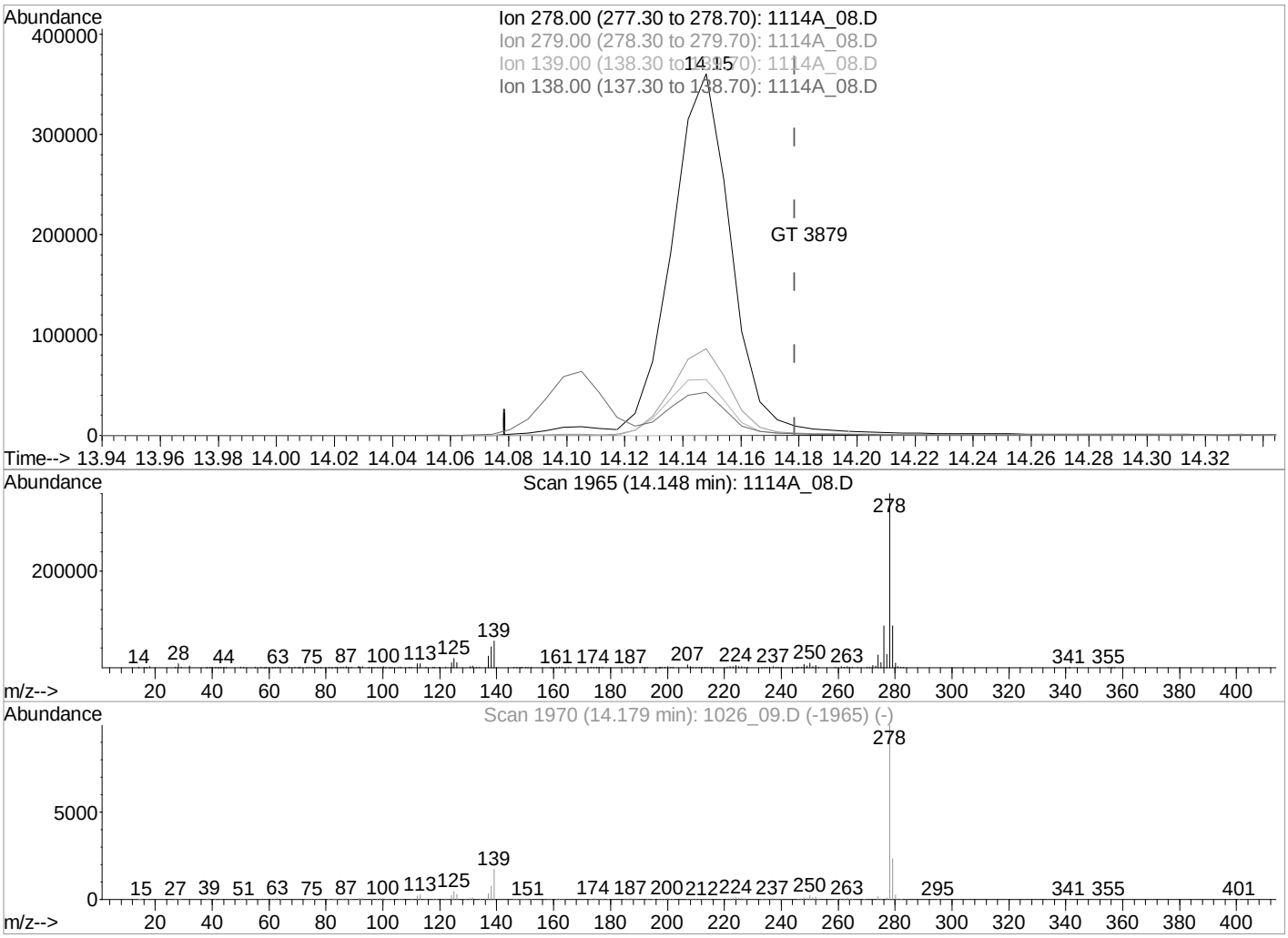
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	24.00
139.00	17.00	15.40
138.00	12.30	11.80

1114A_08.D S804J26V.M Tue Nov 15 13:35:57 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 08.D Vial: 61
Acq On : 14 Nov 2022 1:46 pm Operator: 917
Sample : MS 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_08.D

(99) Dibenz(a,h)anthracene (MT)

14.15min (-0.031) 11623.6057433 ppb m

response 508314

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	24.00
139.00	17.00	15.40
138.00	12.30	11.80

1114A_08.D S804J26V.M Tue Nov 15 13:36:09 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3861170-4	**SDG:**	L1556196
Client Sample ID:	MSD	**Collected Date/Time:**	11/07/22 11:00
Lab File ID:	1114A_09	**Received Date/Time:**	11/10/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/14/22 04:53
Analytical Batch:	WG1958443	**Analysis Date/Time:**	11/14/22 14:07
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.27 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.358		0.00539	0.0333
Acenaphthylene	208-96-8	5.27	0.397		0.00469	0.0333
Anthracene	120-12-7	6.56	0.370		0.00593	0.0333
Benzoic Acid	65-85-0	4.01	0.910		0.118	1.67
Benzo(a)anthracene	56-55-3	9.41	0.417		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	11.43	0.386		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	11.49	0.377		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.44	0.387		0.00609	0.0333
Benzo(a)pyrene	50-32-8	12.11	0.439		0.00619	0.0333
Carbazole	86-74-8	6.69	0.383		0.0103	0.333
Chrysene	218-01-9	9.47	0.388		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	14.15	0.388		0.00923	0.0333
Dibenzofuran	132-64-9	5.52	0.367		0.0109	0.333
Fluoranthene	206-44-0	7.56	0.400		0.00601	0.0333
Fluorene	86-73-7	5.78	0.373		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	0.391		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.71	0.325		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.65	0.315		0.00432	0.0333
Naphthalene	91-20-3	4.20	0.298		0.00836	0.0333
Phenanthrene	85-01-8	6.53	0.373		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	0.393		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.95	0.357		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.77	0.407		0.0225	0.333
Pyrene	129-00-0	7.79	0.376		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.65	0.372		0.0104	0.333
Pentachlorophenol	87-86-5	6.35	0.399		0.00896	0.333
Phenol	108-95-2	3.23	0.349		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:37 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	68346	8000.00	ppb		-0.03
23) Naphthalene-d8	4.19	136	318222	8000.00	ppb		-0.02
46) Acenaphthene-d10	5.37	164	147386	8000.00	ppb		-0.02
70) Phenanthrene-d10	6.50	188	288530	8000.00	ppb		-0.02
84) Chrysene-d12	9.42	240	289445	8000.00	ppb		-0.04
94) Perylene-d12	12.23	264	314617	8000.00	ppb		-0.04
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	123011	11879.4498817	ppb		0.00
Spiked Amount 20000.000			Recovery = 59.40%				
7) Phenol-d5	3.23	99	142962	10714.7992771	ppb		-0.01
Spiked Amount 20000.000			Recovery = 53.57%				
24) Nitrobenzene-d5	3.76	82	68570	5028.7905830	ppb		-0.02
Spiked Amount 10000.000			Recovery = 50.29%				
50) 2-Fluorobiphenyl	4.88	172	145144	5385.2151209	ppb		-0.03
Spiked Amount 10000.000			Recovery = 53.85%				
73) 2,4,6-Tribromophenol	5.96	330	56205	12751.3706516	ppb		-0.02
Spiked Amount 20000.000			Recovery = 63.76%				
87) p-Terphenyl-d14	7.96	244	231658	5858.4941275	ppb		-0.03
Spiked Amount 10000.000			Recovery = 58.58%				
Target Compounds							Qvalue
2) Pyridine	2.20	79	88606	7719.8299911	ppb		97
3) N-Nitrosodimethylamine	2.20	42	41769	8177.4357588	ppb	#	67
5) Aniline	3.27	66	49084	8309.7986112	ppb	#	75
6) bis(2-Chloroethyl)ether	3.29	93	136781m	12891.8219891	ppb		
8) Phenol	3.23	94	144270	10662.9319992	ppb		93
9) Benzaldehyde	3.22	105	44928	10763.4079180	ppb		96
10) 2-Chlorophenol	3.34	128	123755	11172.0609711	ppb		92
11) n-Decane	3.33	41	40080	6361.7325549	ppb	#	93
12) 1,3-Dichlorobenzene	3.42	146	130594	10037.2717113	ppb		99
13) 1,4-Dichlorobenzene	3.46	146	135410	10409.9384865	ppb		96
14) Benzyl Alcohol	3.51	79	93208	10800.1783256	ppb		97
15) 1,2-Dichlorobenzene	3.55	146	131918	10767.8695952	ppb		94
16) bis(2-Chloroisopropyl)ethe	3.58	121	41971	10910.0112300	ppb		99
17) 2,2-oxybis(1-chloropropane	3.58	121	41971	10910.0112300	ppb		99
18) 2-Methylphenol	3.57	108	109545	10966.9536576	ppb		96
19) Hexachloroethane	3.74	117	48329	10254.2072069	ppb		98
20) N-Nitrosodi-n-propylamine	3.65	70	80395	10662.9546224	ppb		97
21) 3&4-Methyl phenol	3.65	107	127386	11378.2347555	ppb		97
22) Acetophenone	3.66	105	156456	10538.3423923	ppb	#	84
25) Nitrobenzene	3.77	77	119499	8794.9379755	ppb		92
26) Isophorone	3.90	82	221623	9043.6592938	ppb		97
27) 2-Nitrophenol	3.95	139	68874	10060.4698289	ppb	#	77
28) 2,4-Dimethylphenol	3.96	107	115256	9131.9309293	ppb		95
29) bis(2-Chlorethoxy)methane	4.01	93	140806	9238.5084352	ppb		95
30) 2,4-Dichlorophenol	4.09	162	106413	10098.6062185	ppb		98
31) Benzoic Acid	4.01	105	126694	27815.5396827	ppb		99
32) 1,2,4-Trichlorobenzene	4.15	180	121405	9694.7076052	ppb		98
33) alpha-terpineol	4.19	59	95588	12056.8545636	ppb		93
34) Naphthalene	4.20	128	369718	9123.6430542	ppb		99
35) 4-Chloroaniline	4.22	65	32862	7658.9355292	ppb		78
36) Hexachloro-1,3-butadiene	4.27	225	71063	9939.9905067	ppb		98
37) Hydroquinone	4.41	110	42384	6872.6484014	ppb		95
38) Quinoline	4.41	129	247729	13702.7400224	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:37 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Caprolactam	4.44	113	39954	18152.9594495 ppb		86
40)	4-Chloro-3-methylphenol	4.52	107	98508	9833.1587871 ppb		98
41)	2-Methylnaphthalene	4.65	142	253864	9621.2338955 ppb		98
42)	1-Methylnaphthalene	4.71	142	248972	9923.5791230 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	123909	12997.7813160 ppb		100
44)	Diphenyl Ether	5.03	170	166048	13218.1964416 ug/ml		95
45)	Diphenyl Oxide	5.03	170	166048	13218.1964416 ug/ml		95
47)	Hexachlorocyclopentadiene	4.74	237	70510	9514.8689710 ppb		96
48)	2,4,6-Trichlorophenol	4.82	196	81333	11863.0568854 ppb		98
49)	2,4,5-Trichlorophenol	4.86	196	81585	11402.2679095 ppb		98
51)	Biphenyl	4.95	154	307241	10217.7976930 ppb		100
52)	2-Chloronaphthalene	4.98	162	242173	10925.3076811 ppb		99
53)	2-Nitroaniline	5.04	138	84139	12845.4607203 ppb		96
54)	Acenaphthylene	5.27	152	405253	12144.3237903 ppb		99
55)	Dimethyl phthalate	5.16	163	276321	11937.8619310 ppb		96
56)	2,6-Dinitrotoluene	5.21	165	66412	12586.9470090 ppb	#	75
57)	3-Nitroaniline	5.33	138	65912	11821.4727098 ppb	#	76
58)	Acenaphthene	5.40	153	249806	10959.6419347 ppb		97
59)	2,4-Dinitrophenol	5.40	184	26379	9620.3635180 ppb	#	1
60)	Dibenzofuran	5.52	168	348199	11225.0592766 ppb		98
61)	2,4-Dinitrotoluene	5.49	165	87081	12989.4981702 ppb		97
62)	2,3,4,6-Tetrachlorophenol	5.60	232	137610	25461.4292700 ppb		87
63)	4-Nitrophenol	5.43	139	58549	13044.2649768 ppb		87
64)	Fluorene	5.78	166	294364	11419.0341509 ppb		100
65)	4-Chlorophenyl-phenylether	5.76	204	146113	11910.6215366 ppb		99
66)	Diethyl phthalate	5.67	149	287610	12776.2301655 ppb		97
67)	4-Nitroaniline	5.78	138	76197	14967.1217315 ppb		92
68)	Azobenzene	5.89	77	256751	10671.9878245 ppb		93
69)	Atrazine	6.26	200	88509	12800.1956080 ppb		95
71)	4,6-Dinitro-2-methylphenol	5.80	198	48805	11187.5185112 ppb		81
72)	N-Nitrosodiphenylamine	5.85	169	214978	9464.5725693 ppb		99
74)	4-Bromophenyl-phenylether	6.15	248	97703	12821.1750207 ppb		88
75)	Hexachlorobenzene	6.20	284	112360	11602.3864437 ppb		99
76)	n-octadecane	6.38	55	34866	9262.3610592 ppb	#	93
77)	Pentachlorophenol	6.35	266	67135	12201.3269060 ppb		95
78)	Phenanthrene	6.53	178	455455	11400.5778160 ppb		98
79)	Anthracene	6.56	178	446045	11309.5758224 ppb		99
80)	Carbazole	6.69	167	408970	11718.6877080 ppb		99
81)	Di-n-butyl phthalate	6.95	149	499636	10921.4427389 ppb		99
82)	2-nitrodiphenylamine	7.09	167	102230	13120.0166505 ppb		94
83)	Fluoranthene	7.56	202	511024	12242.3576780 ppb		99
85)	Benzidine	7.68	184	263860	12535.2692803 ppb		99
86)	Pyrene	7.79	202	521983	11486.5414244 ppb		99
88)	Benzylbutyl phthalate	8.57	149	212290	11898.9441982 ppb		99
89)	3,3-Dichlorobenzidine	9.38	252	378573	23548.7651142 ppb		99
90)	Benzo(a)anthracene	9.41	228	525013	12759.1752476 ppb		99
91)	Chrysene	9.47	228	505417	11871.7193849 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	313997	12013.8183964 ppb		99
93)	Di-n-octyl phthalate	10.77	149	508839	12438.2746602 ppb		98
95)	Benzo(b)fluoranthene	11.43	252	536970	11802.6611970 ppb		99
96)	Benzo(k)fluoranthene	11.49	252	547014	11534.7607191 ppb		98
97)	Benzo(a)pyrene	12.11	252	511465	13441.8722052 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.11	276	477249	11972.4065655 ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	529443m	11877.2617434 ppb		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:37 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

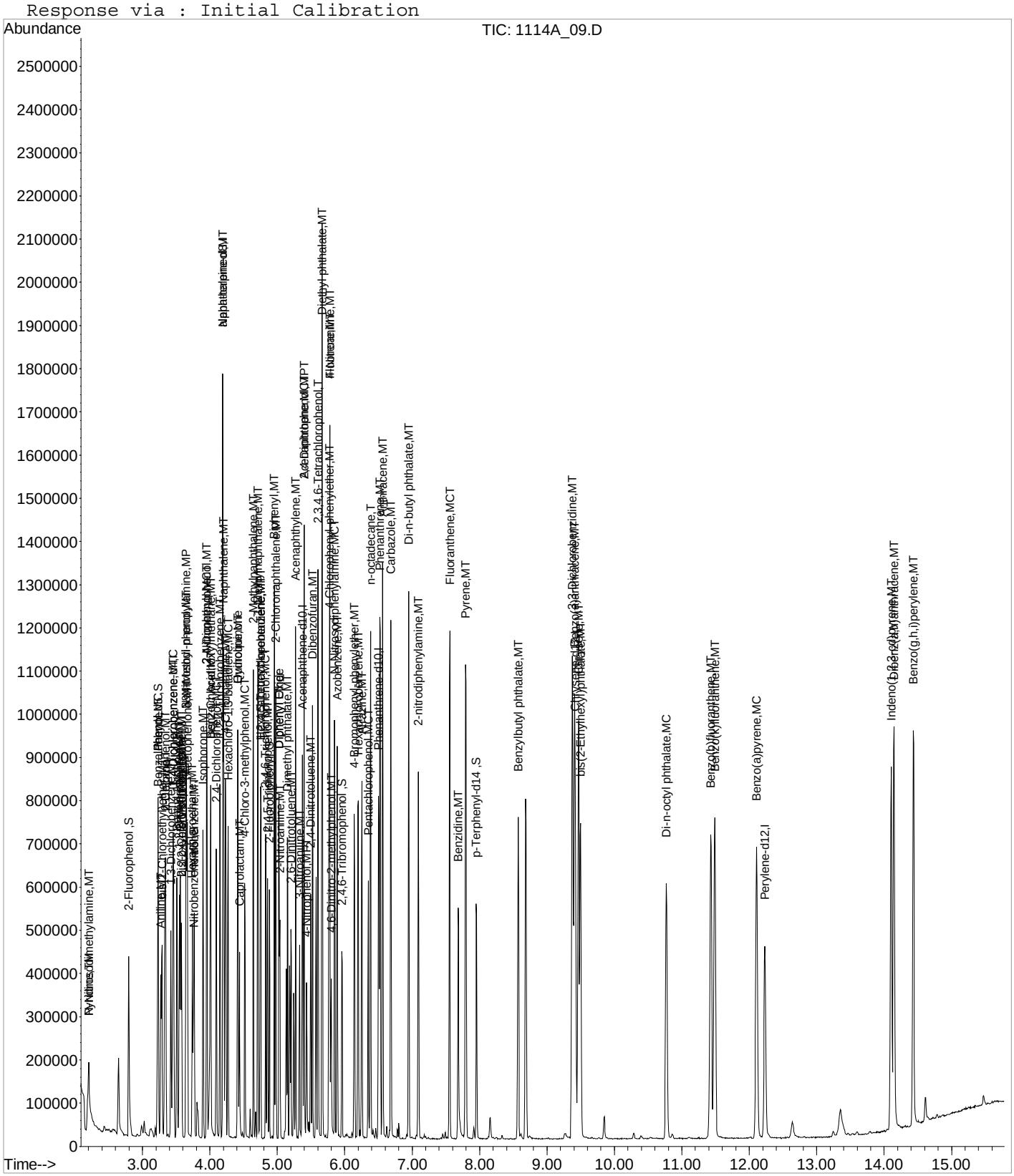
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100)	Benzo(g,h,i)perylene	14.44	276	526336	11825.8733294	ppb	95

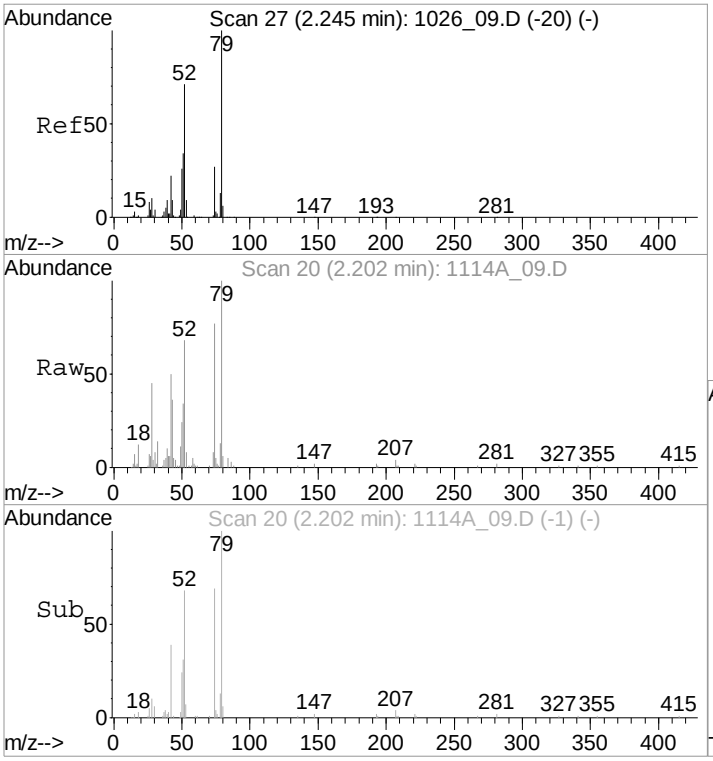
(#) = qualifier out of range (m) = manual integration
1114A_09.D S804J26V.M Tue Nov 15 14:40:20 2022 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:37 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

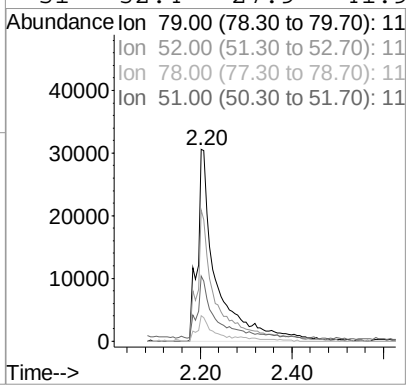


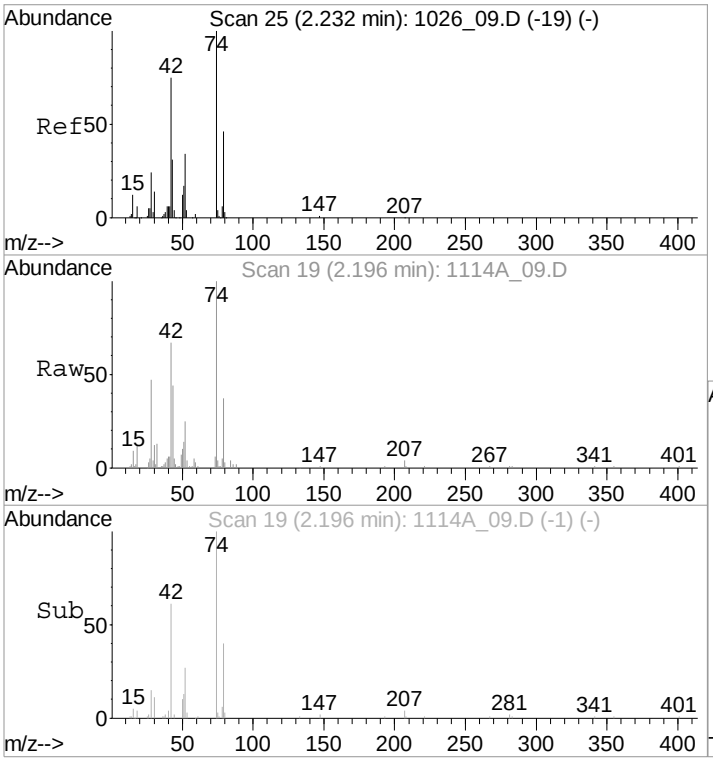


#2
Pyridine
Concen: 7719.8299911 ppb
RT: 2.20 min Scan# 20
Delta R.T. -0.04 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 79 Resp: 88606

Ion	Ratio	Lower	Upper
79	100		
52	68.2	56.6	84.8
78	13.0	10.1	15.1
51	32.4	27.9	41.9

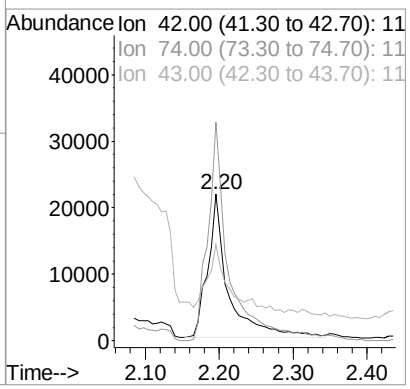


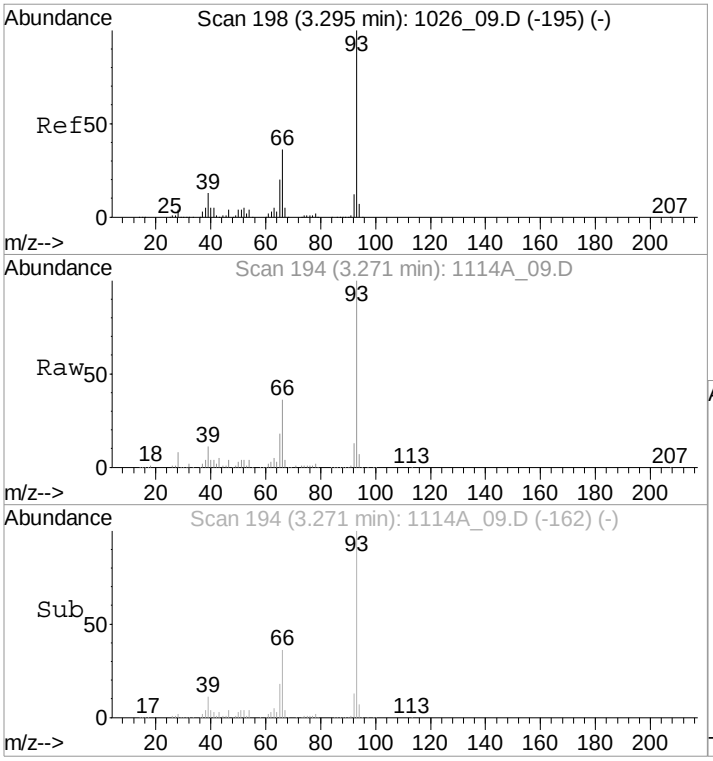


#3
N-Nitrosodimethylamine
Concen: 8177.4357588 ppb
RT: 2.20 min Scan# 19
Delta R.T. -0.04 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 42 Resp: 41769

Ion	Ratio	Lower	Upper
42	100		
74	160.4	109.3	149.3#
43	77.9	23.8	63.8#

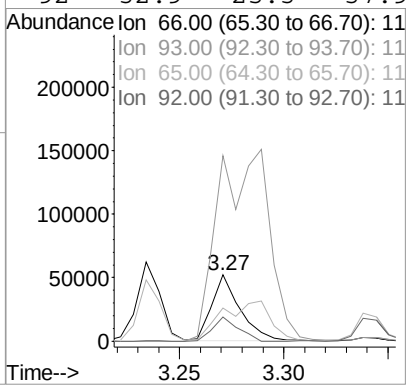


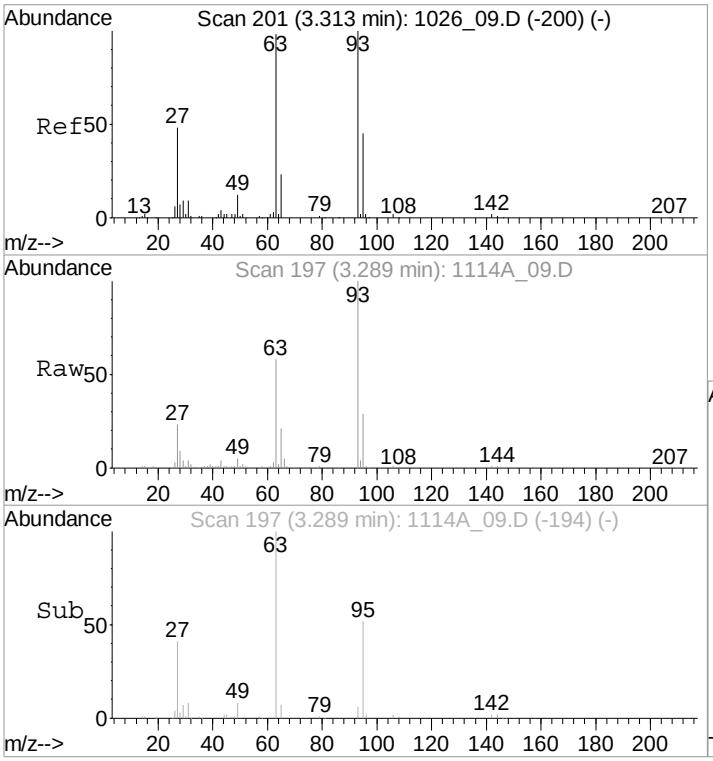


#5
Aniline
Concen: 8309.7986112 ppb
RT: 3.27 min Scan# 194
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 66 Resp: 49084

Ion	Ratio	Lower	Upper
66	100		
93	519.3	369.5	554.3
65	101.8	44.9	67.3#
92	32.9	25.3	37.9

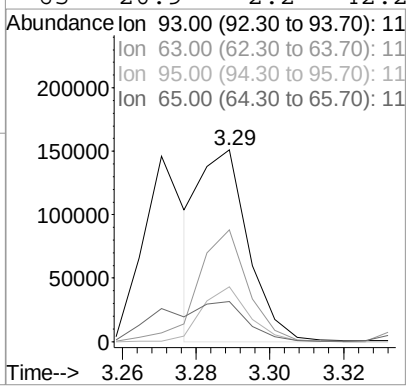


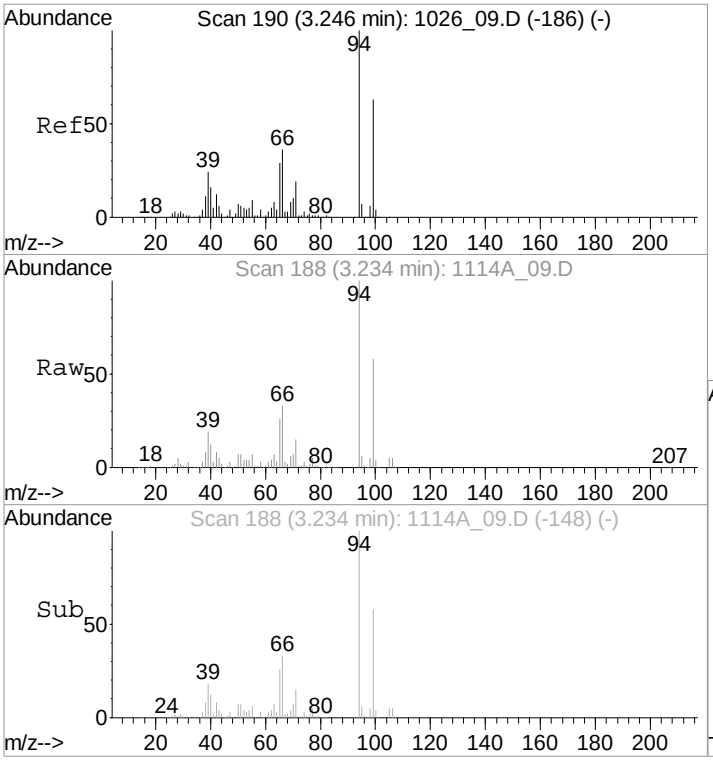


#6
bis(2-Chloroethyl)ether
Concen: 12891.8219891 ppb m
RT: 3.29 min Scan# 197
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 93 Resp: 136781

Ion	Ratio	Lower	Upper
93	100		
63	58.3	47.2	87.2
95	28.6	8.7	48.7
65	20.9	2.2	42.2

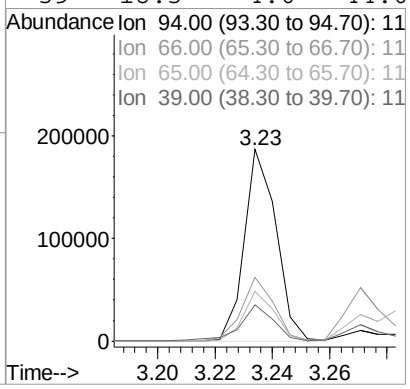


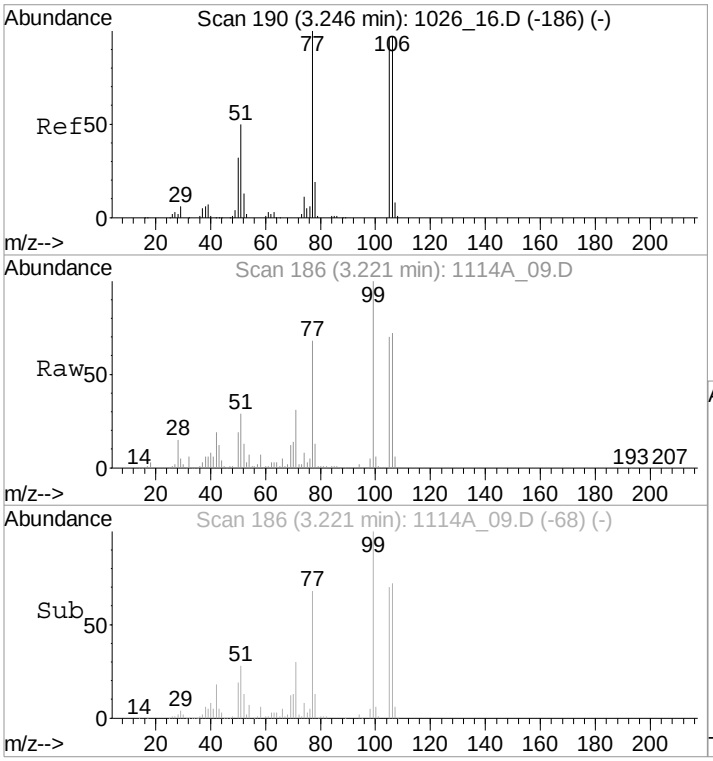


#8
Phenol
Concen: 10662.9319992 ppb
RT: 3.23 min Scan# 188
Delta R.T. -0.01 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 94 Resp: 144270

Ion	Ratio	Lower	Upper
94	100		
66	33.3	16.2	56.2
65	25.8	8.7	48.7
39	18.3	4.0	44.0

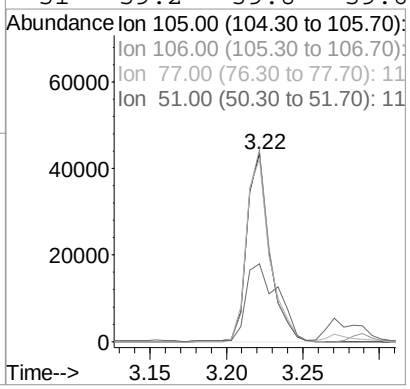


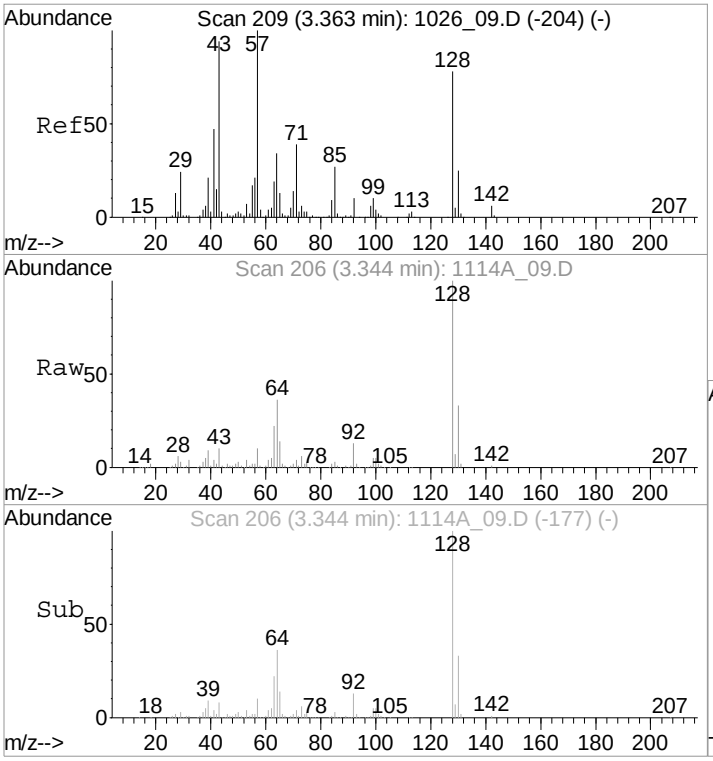


#9
Benzaldehyde
Concen: 10763.4079180 ppb
RT: 3.22 min Scan# 186
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:105 Resp: 44928

Ion	Ratio	Lower	Upper
105	100		
106	100.9	81.0	121.6
77	101.8	82.9	124.3
51	59.2	39.8	59.6

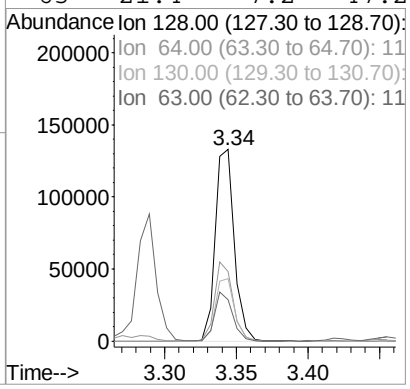


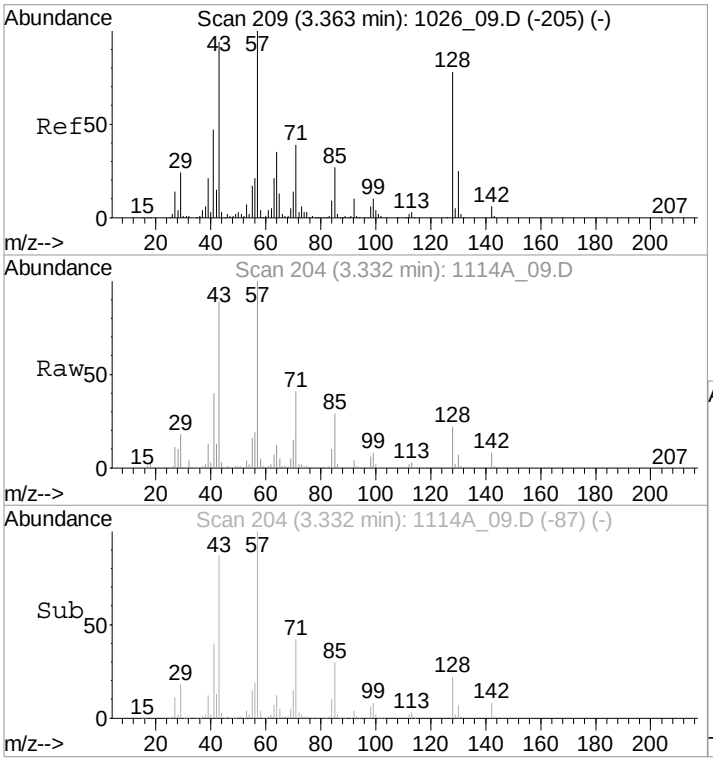


#10
2-Chlorophenol
Concen: 11172.0609711 ppb
RT: 3.34 min Scan# 206
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:128 Resp: 123755

Ion	Ratio	Lower	Upper
128	100		
64	36.2	24.5	64.5
130	32.5	12.5	52.5
63	21.4	7.2	47.2

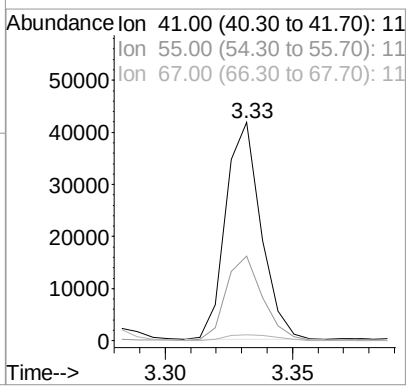


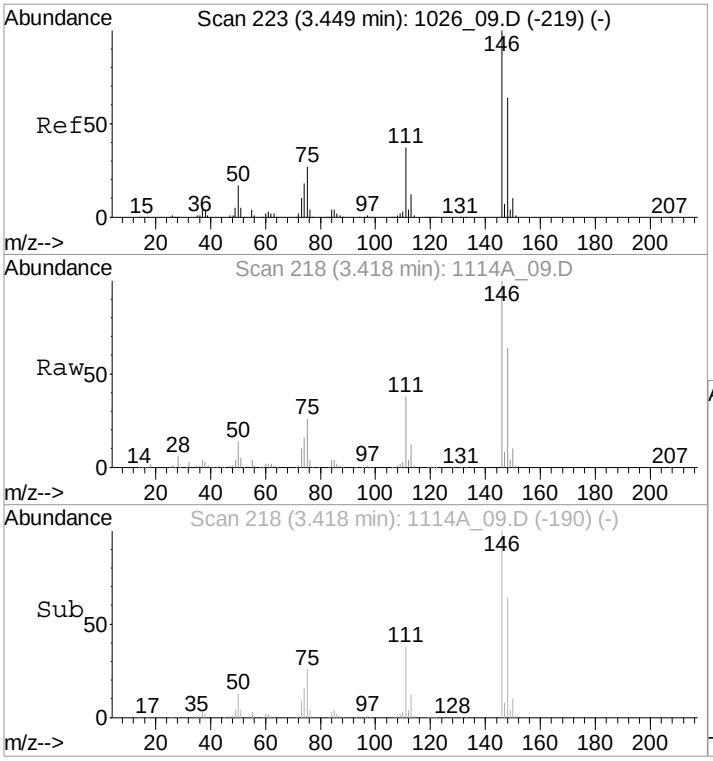


#11
n-Decane
Concen: 6361.7325549 ppb
RT: 3.33 min Scan# 204
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 41 Resp: 40080

Ion	Ratio	Lower	Upper
41	100		
55	41.2	29.3	43.9
67	4.0	2.2	3.2#

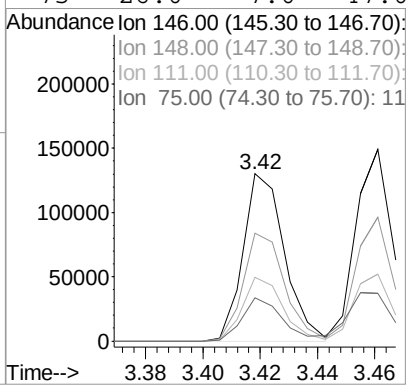


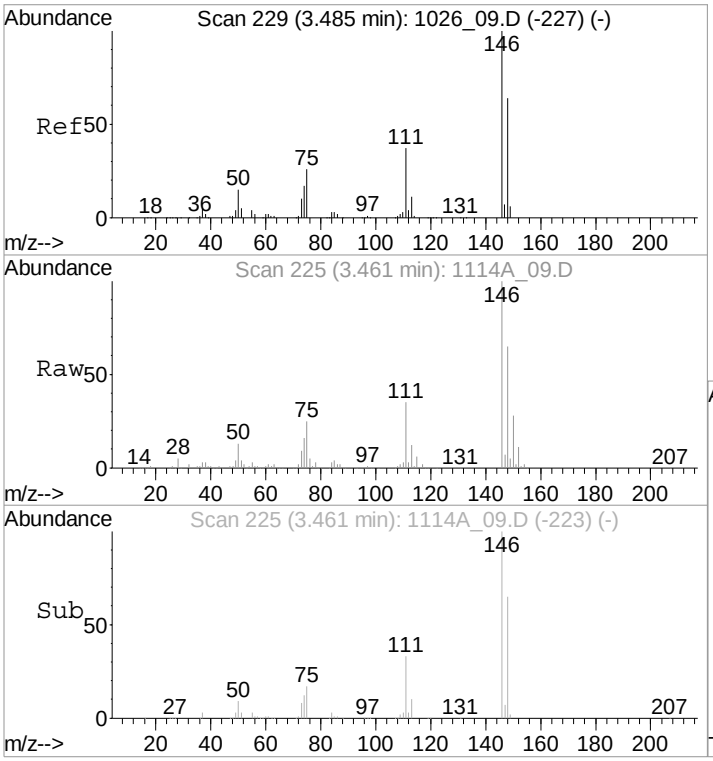


#12
1,3-Dichlorobenzene
Concen: 10037.2717113 ppb
RT: 3.42 min Scan# 218
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:146 Resp: 130594

Ion	Ratio	Lower	Upper
146	100		
148	64.4	44.0	84.0
111	38.2	17.2	57.2
75	26.0	7.0	47.0

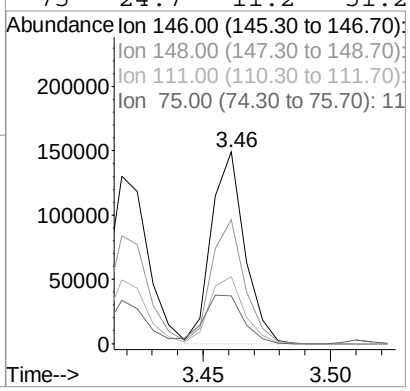


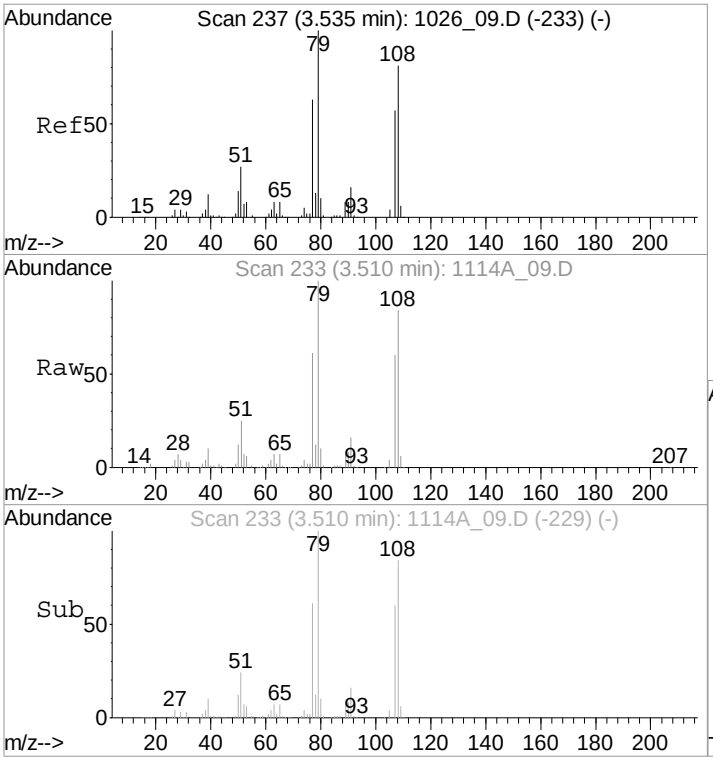


#13
1,4-Dichlorobenzene
Concen: 10409.9384865 ppb
RT: 3.46 min Scan# 225
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:146 Resp: 135410

Ion	Ratio	Lower	Upper
146	100		
148	64.8	44.1	84.1
111	35.1	17.5	57.5
75	24.7	11.2	51.2

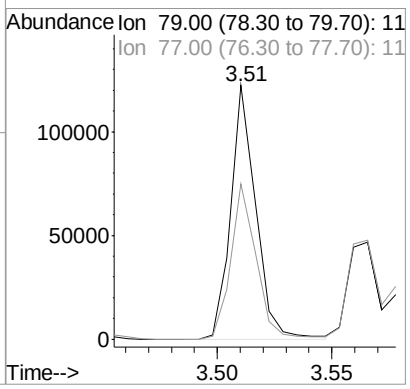


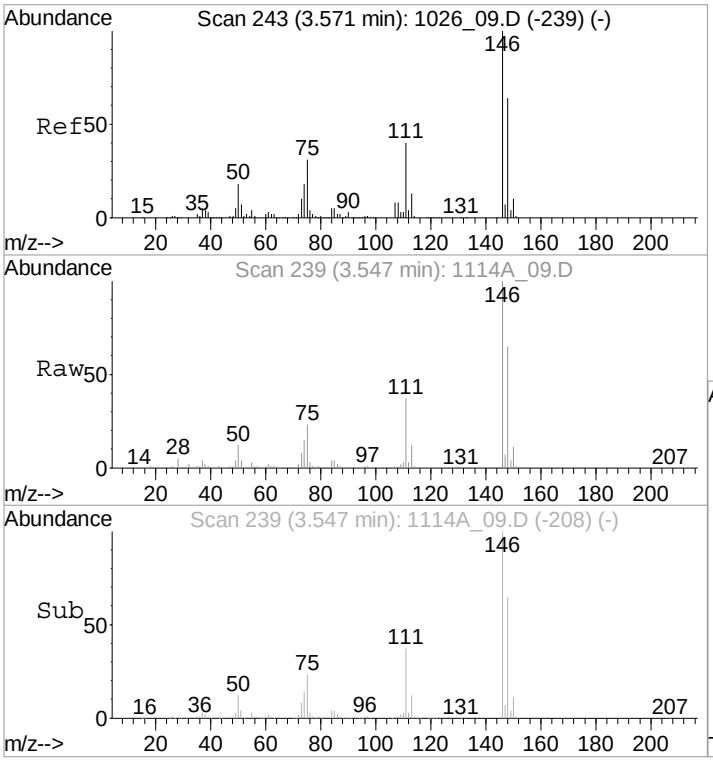


#14
Benzyl Alcohol
Concen: 10800.1783256 ppb
RT: 3.51 min Scan# 233
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 79 Resp: 93208

Ion	Ratio	Lower	Upper
79	100		
77	61.7	51.4	77.2

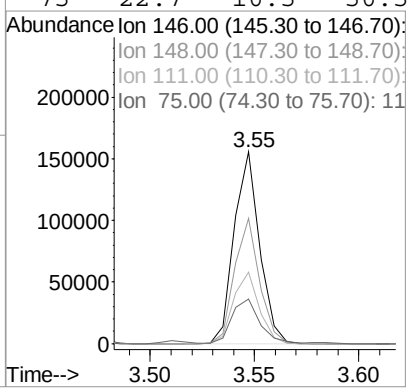


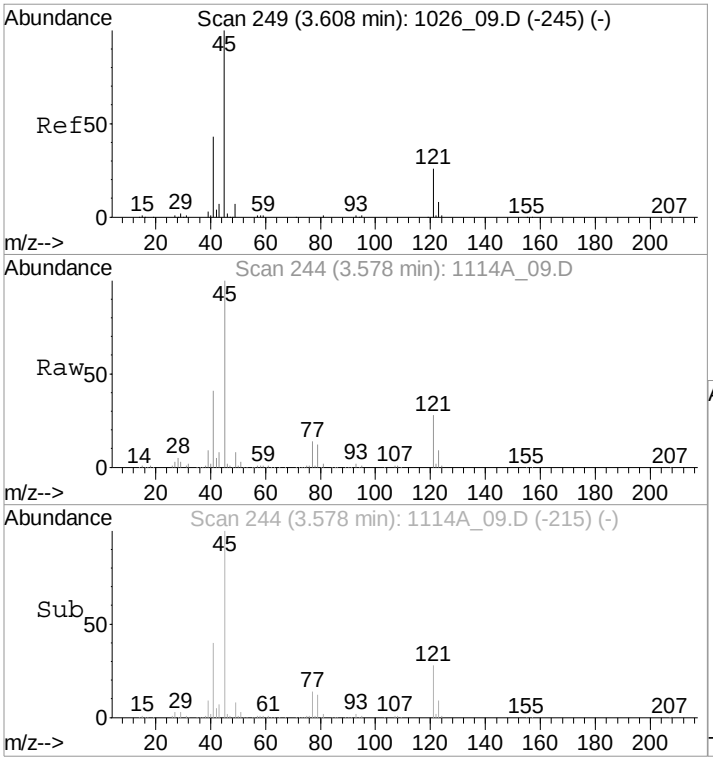


#15
1,2-Dichlorobenzene
Concen: 10767.8695952 ppb
RT: 3.55 min Scan# 239
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:146 Resp: 131918

Ion	Ratio	Lower	Upper
146	100		
148	65.3	43.5	83.5
111	37.4	20.3	60.3
75	22.7	10.5	50.5

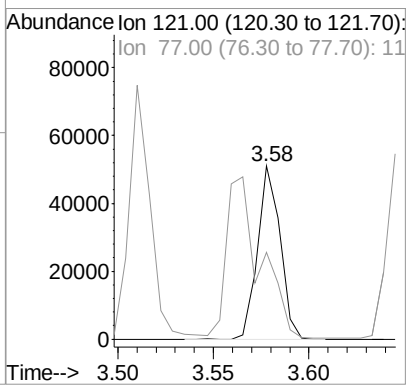


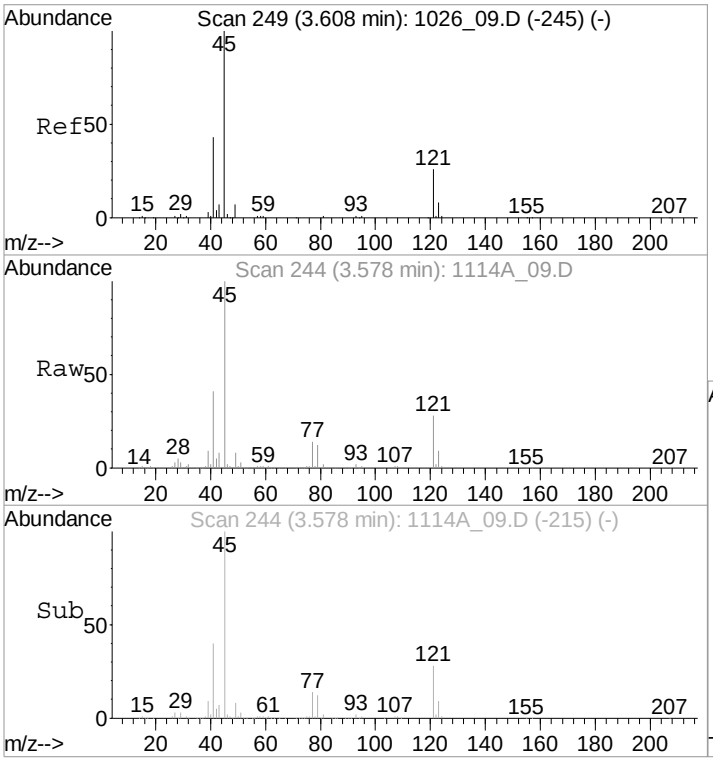


#16
bis(2-Chloroisopropyl)ether
Concen: 10910.0112300 ppb
RT: 3.58 min Scan# 244
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:121 Resp: 41971

Ion	Ratio	Lower	Upper
121	100		
77	49.5	29.9	69.9

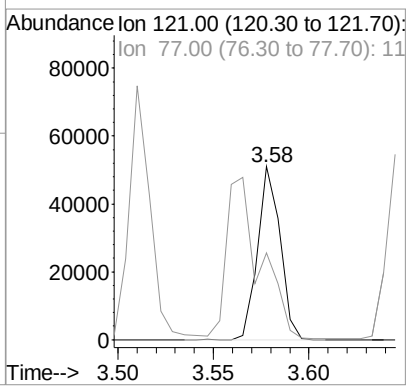


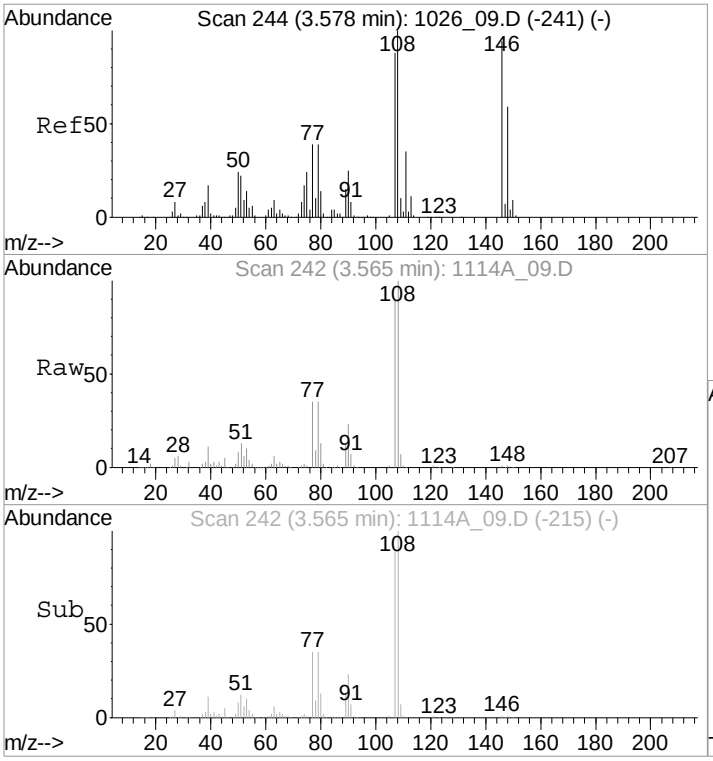


#17
2,2-oxybis(1-chloropropane)
Concen: 10910.0112300 ppb
RT: 3.58 min Scan# 244
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:121 Resp: 41971

Ion	Ratio	Lower	Upper
121	100		
77	49.5	29.9	69.9

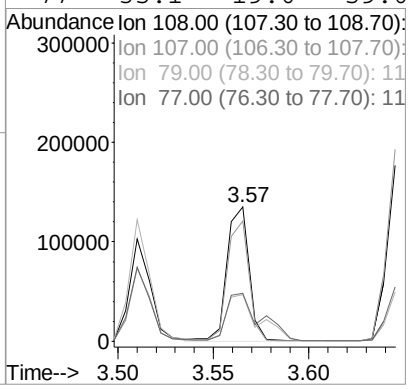


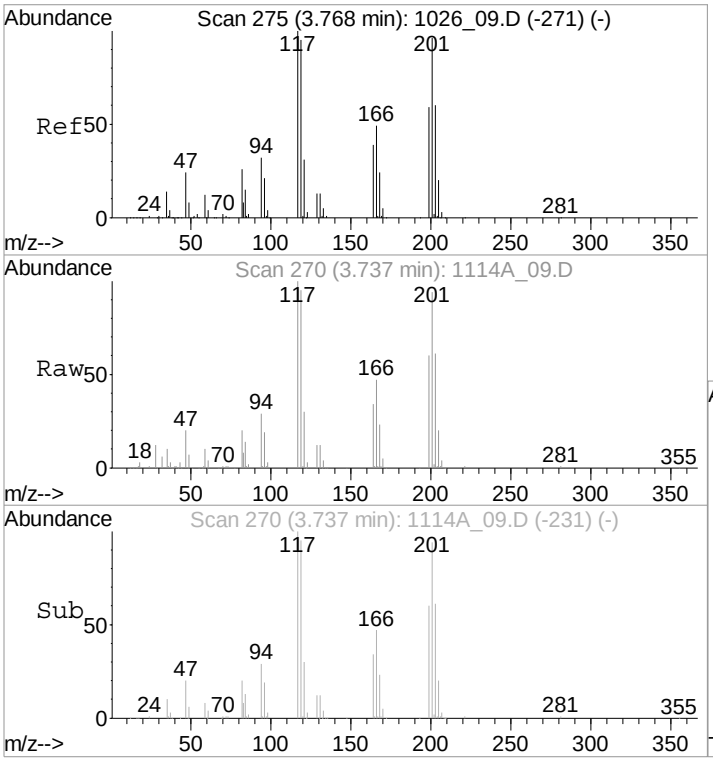


#18
2-Methylphenol
Concen: 10966.9536576 ppb
RT: 3.57 min Scan# 242
Delta R.T. -0.01 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:108 Resp: 109545

Ion	Ratio	Lower	Upper
108	100		
107	89.3	68.2	108.2
79	34.3	19.4	59.4
77	35.1	19.0	59.0

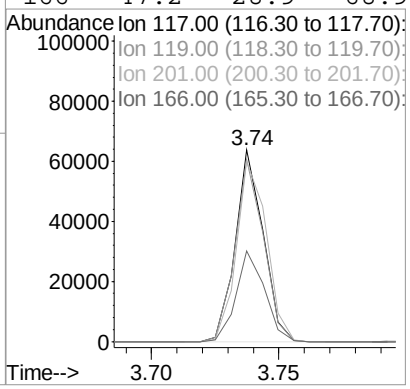


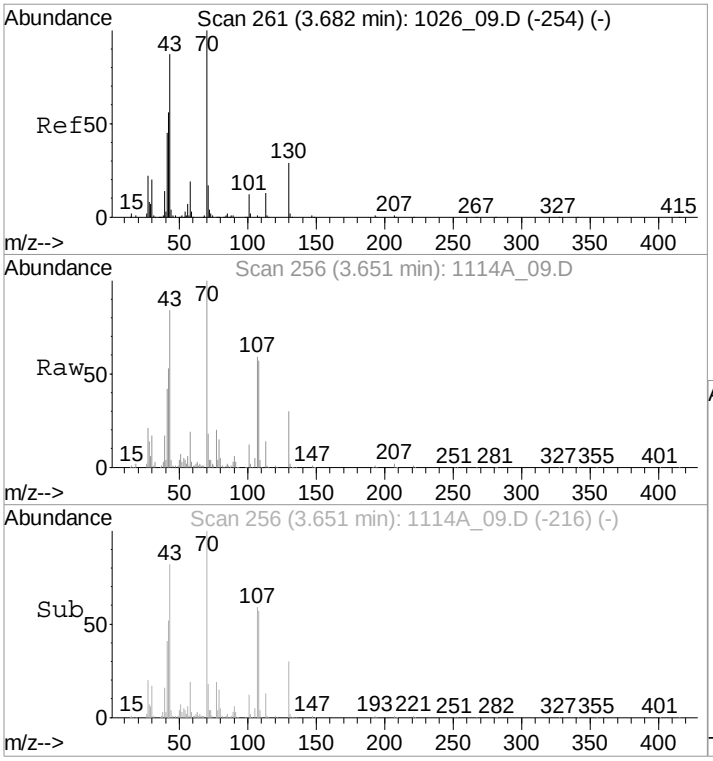


#19
Hexachloroethane
Concen: 10254.2072069 ppb
RT: 3.74 min Scan# 270
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:117 Resp: 48329

Ion	Ratio	Lower	Upper
117	100		
119	95.1	74.5	114.5
201	94.2	76.3	116.3
166	47.2	28.9	68.9

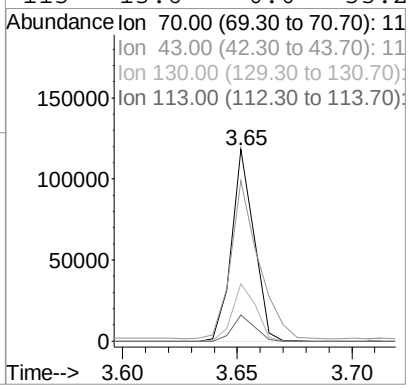


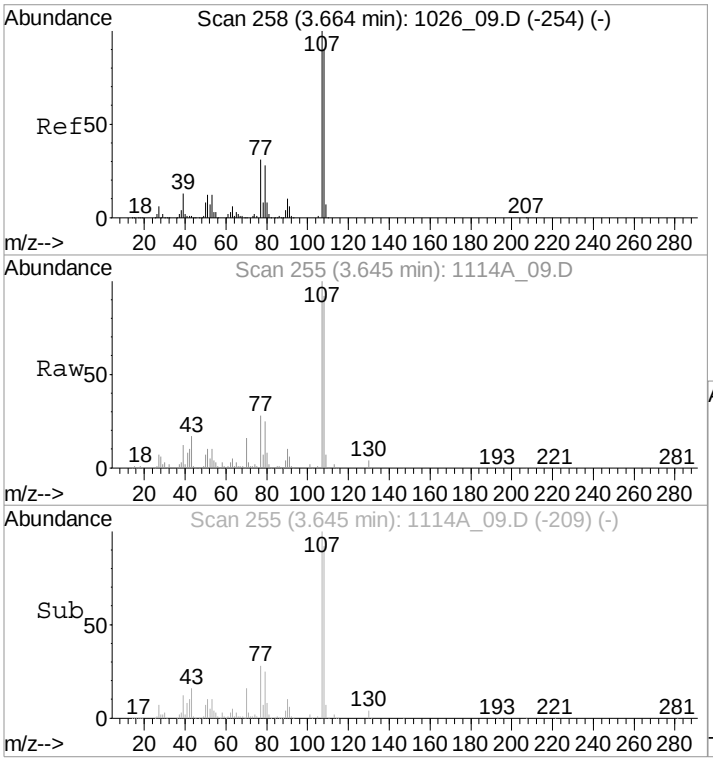


#20
N-Nitrosodi-n-propylamine
Concen: 10662.9546224 ppb
RT: 3.65 min Scan# 256
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 70 Resp: 80395

Ion	Ratio	Lower	Upper
70	100		
43	82.3	66.7	106.7
130	29.8	9.3	49.3
113	13.6	0.0	33.2

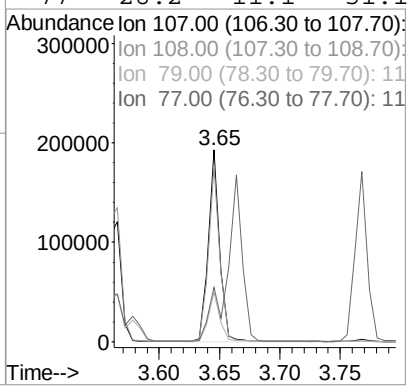


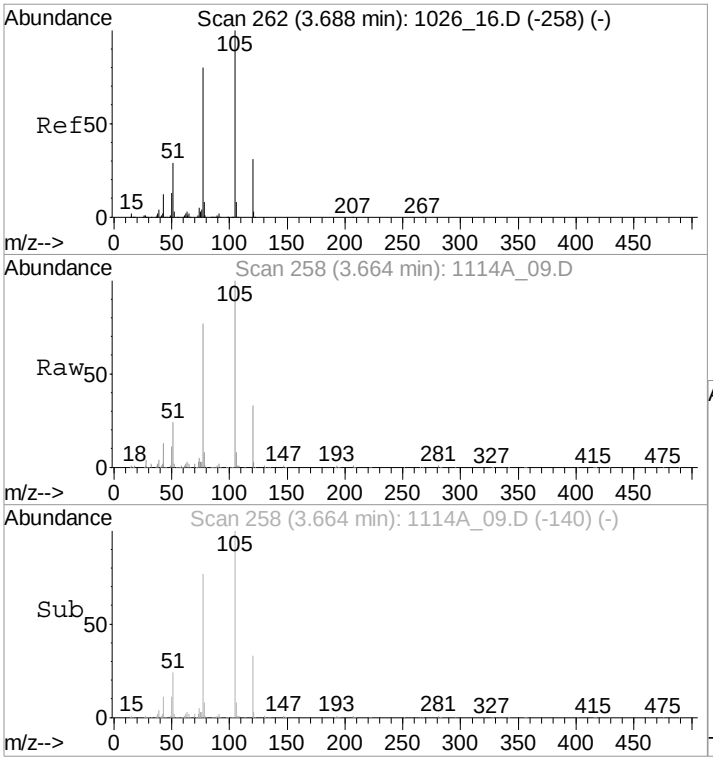


#21
3&4-Methyl phenol
Concen: 11378.2347555 ppb
RT: 3.65 min Scan# 255
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:107 Resp: 127386

Ion	Ratio	Lower	Upper
107	100		
108	91.6	69.7	109.7
79	25.5	7.6	47.6
77	28.2	11.1	51.1

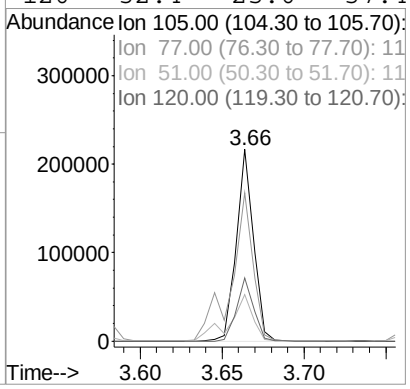


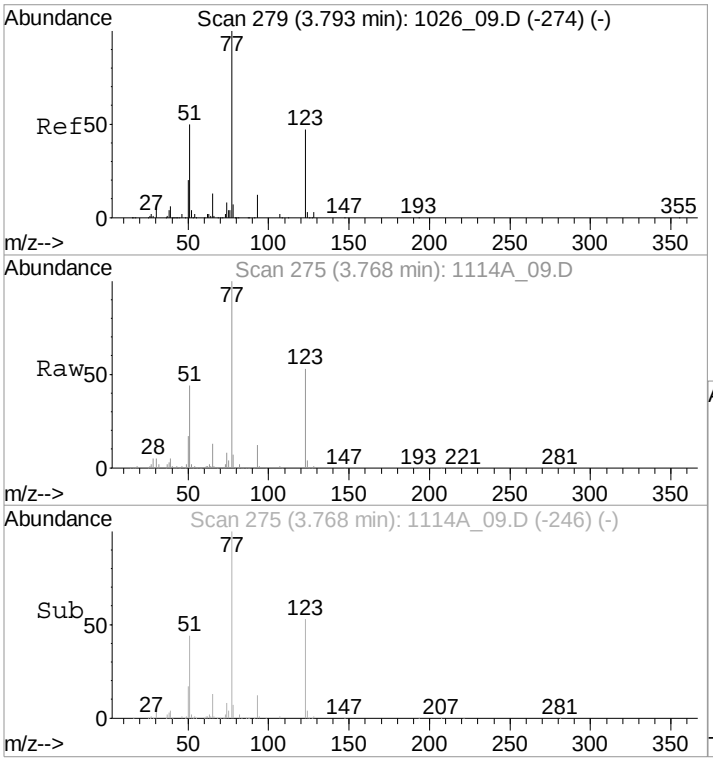


#22
Acetophenone
Concen: 10538.3423923 ppb
RT: 3.66 min Scan# 258
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:105 Resp: 156456

Ion	Ratio	Lower	Upper
105	100		
77	99.5	63.0	94.6#
51	33.6	22.9	34.3
120	32.4	25.0	37.4

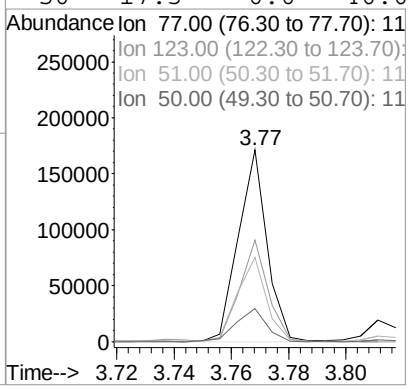


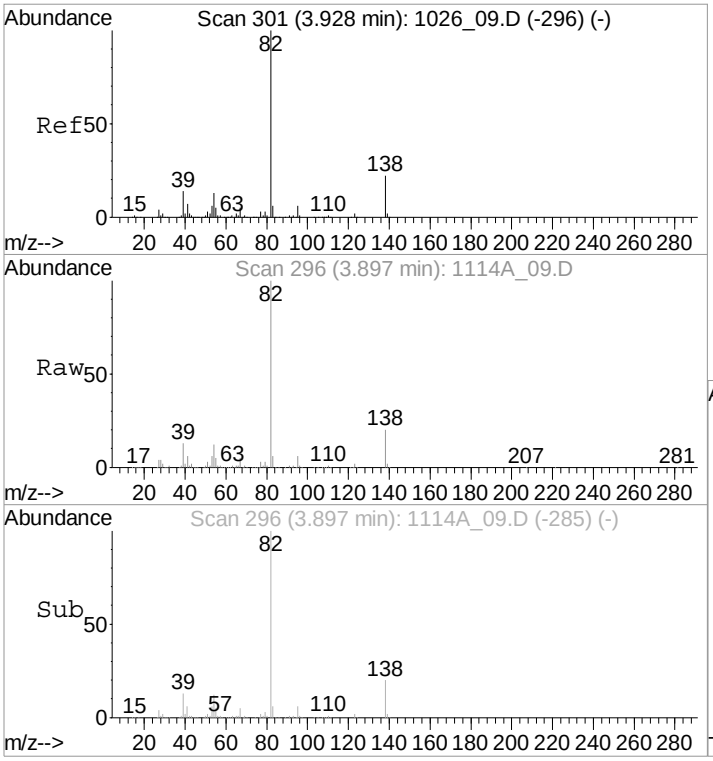


#25
Nitrobenzene
Concen: 8794.9379755 ppb
RT: 3.77 min Scan# 275
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 77 Resp: 119499

Ion	Ratio	Lower	Upper
77	100		
123	53.1	27.9	67.9
51	43.7	29.6	69.6
50	17.3	0.0	40.0

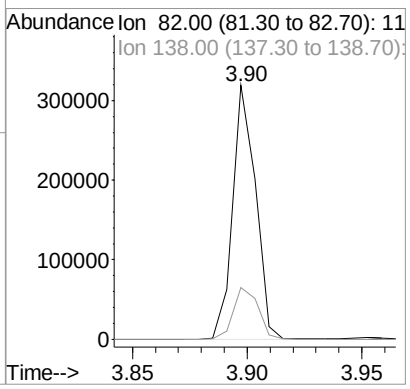


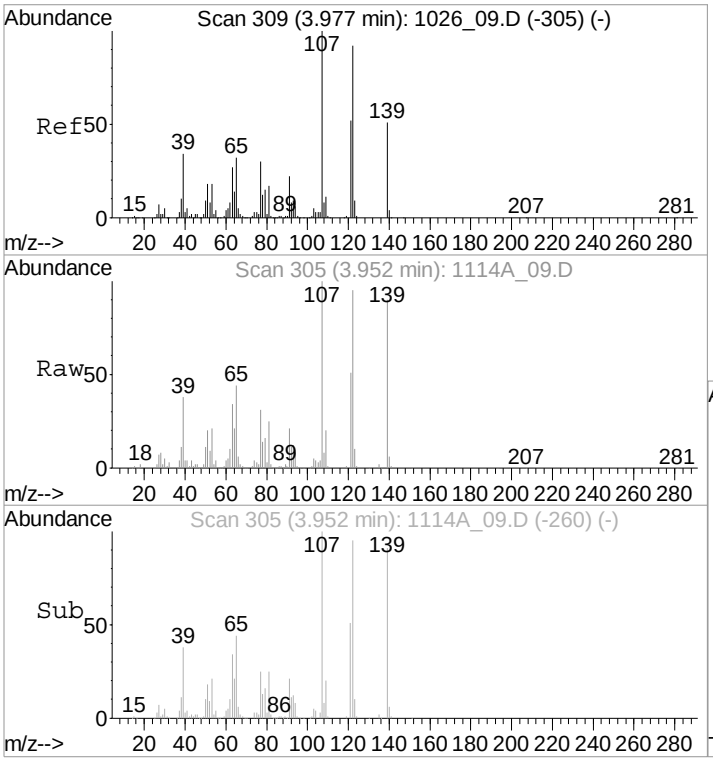


#26
Isophorone
Concen: 9043.6592938 ppb
RT: 3.90 min Scan# 296
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 82 Resp: 221623

Ion	Ratio	Lower	Upper
82	100		
138	20.4	1.6	41.6

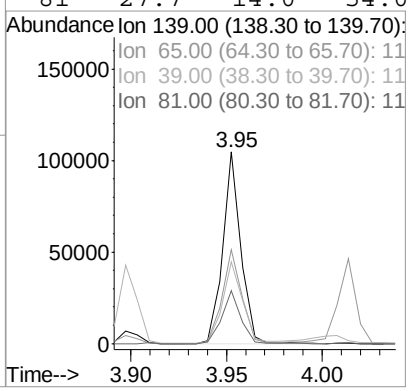


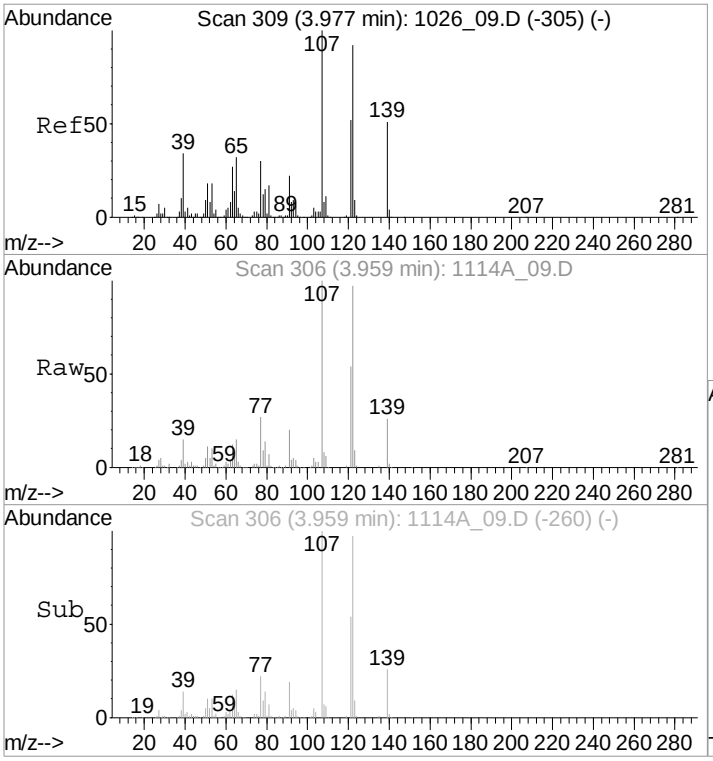


#27
2-Nitrophenol
Concen: 10060.4698289 ppb
RT: 3.95 min Scan# 305
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:139 Resp: 68874

Ion	Ratio	Lower	Upper
139	100		
65	48.9	44.1	84.1
39	42.6	47.8	87.8#
81	27.7	14.0	54.0

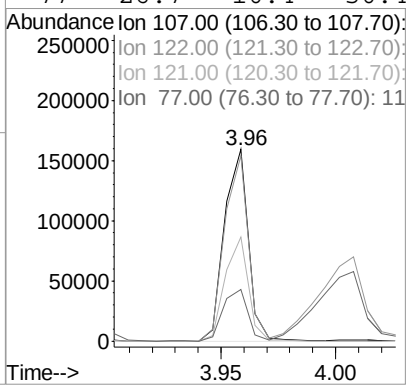


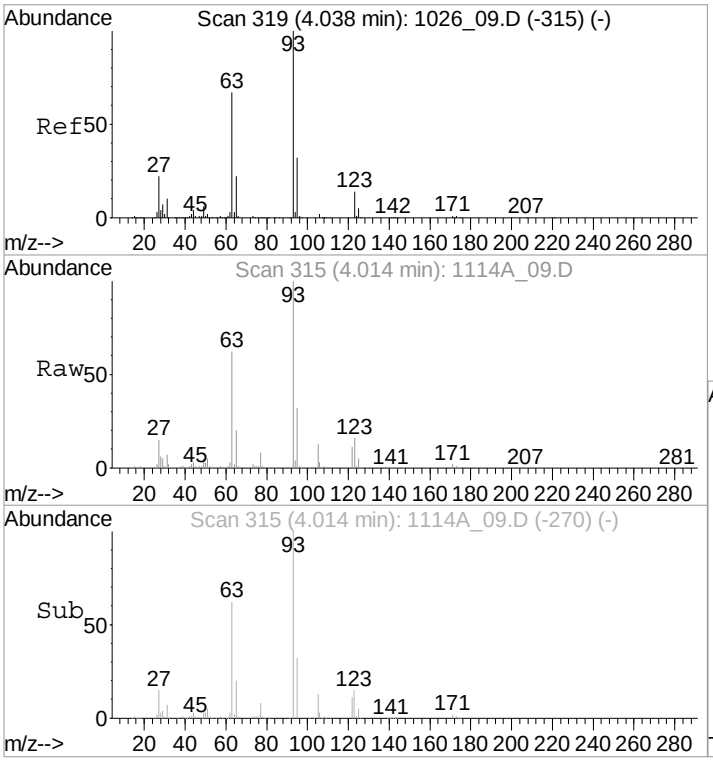


#28
2,4-Dimethylphenol
Concen: 9131.9309293 ppb
RT: 3.96 min Scan# 306
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:107 Resp: 115256

Ion	Ratio	Lower	Upper
107	100		
122	96.7	72.3	112.3
121	54.3	31.6	71.6
77	26.7	10.4	50.4

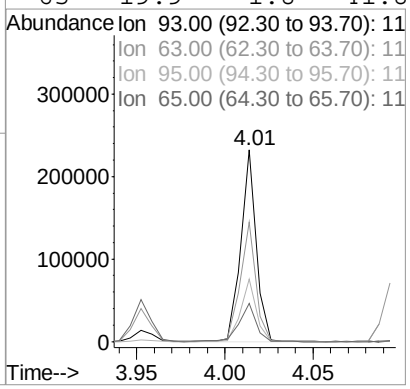


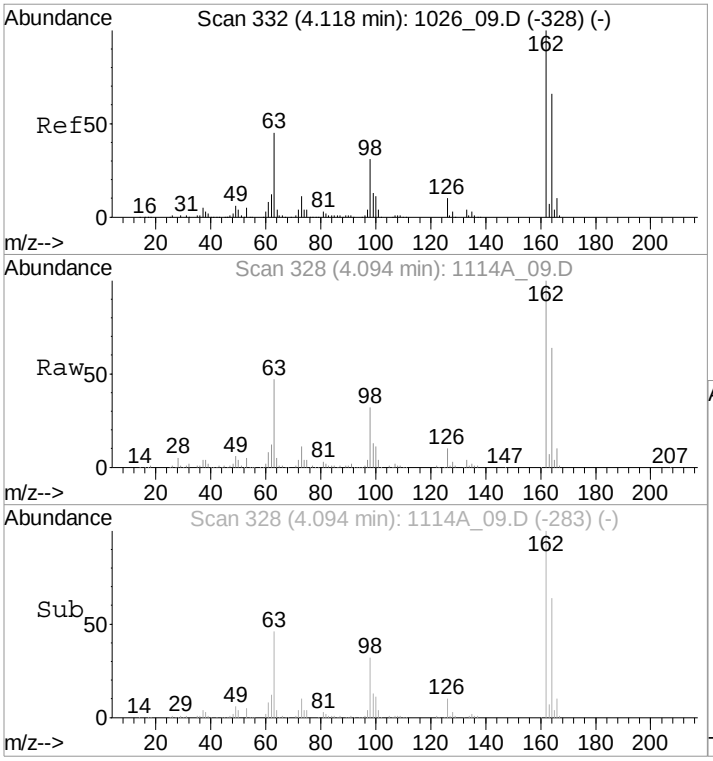


#29
bis(2-Chlorethoxy)methane
Concen: 9238.5084352 ppb
RT: 4.01 min Scan# 315
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 93 Resp: 140806

Ion	Ratio	Lower	Upper
93	100		
63	62.2	47.4	87.4
95	32.5	11.7	51.7
65	19.9	1.8	41.8

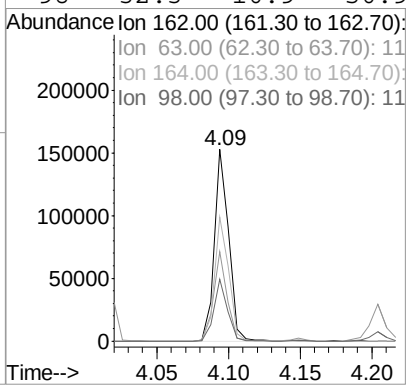


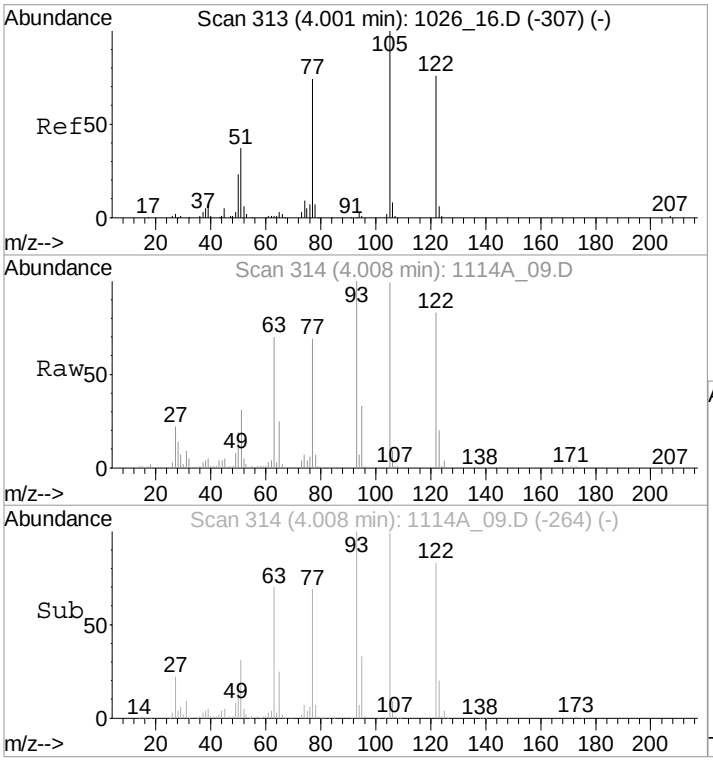


#30
2,4-Dichlorophenol
Concen: 10098.6062185 ppb
RT: 4.09 min Scan# 328
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:162 Resp: 106413

Ion	Ratio	Lower	Upper
162	100		
63	46.6	25.2	65.2
164	64.5	46.2	86.2
98	32.3	10.9	50.9

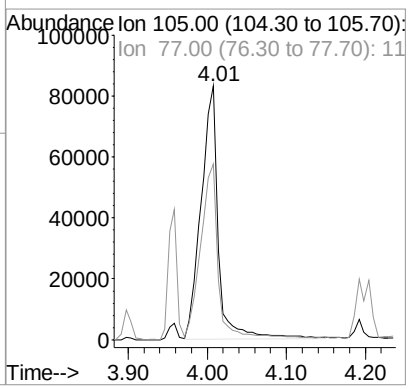


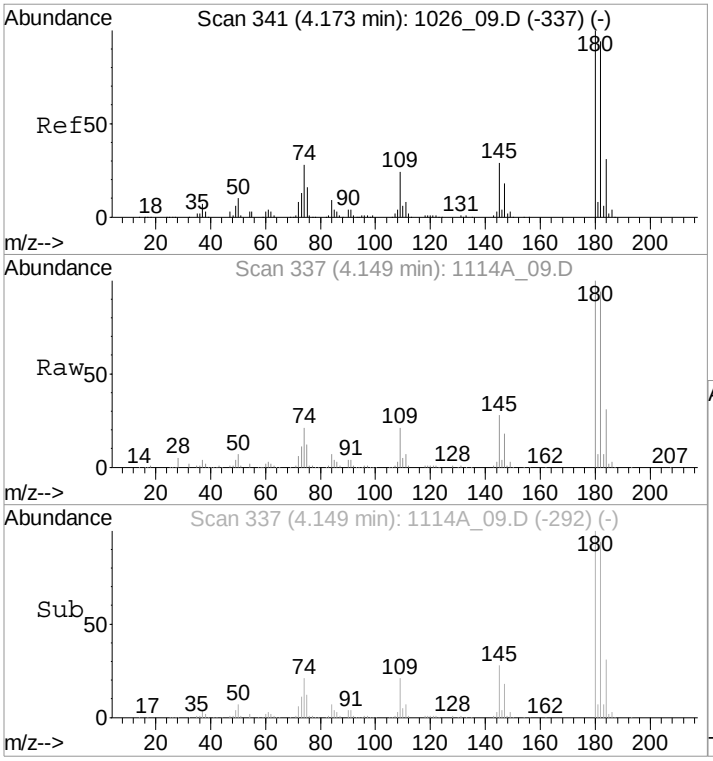


#31
Benzoic Acid
Concen: 27815.5396827 ppb
RT: 4.01 min Scan# 314
Delta R.T. 0.01 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:105 Resp: 126694

Ion	Ratio	Lower	Upper
105	100		
77	68.9	49.6	89.6

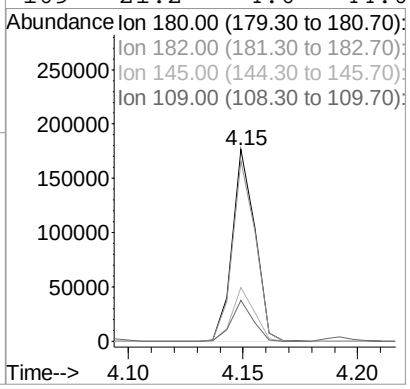


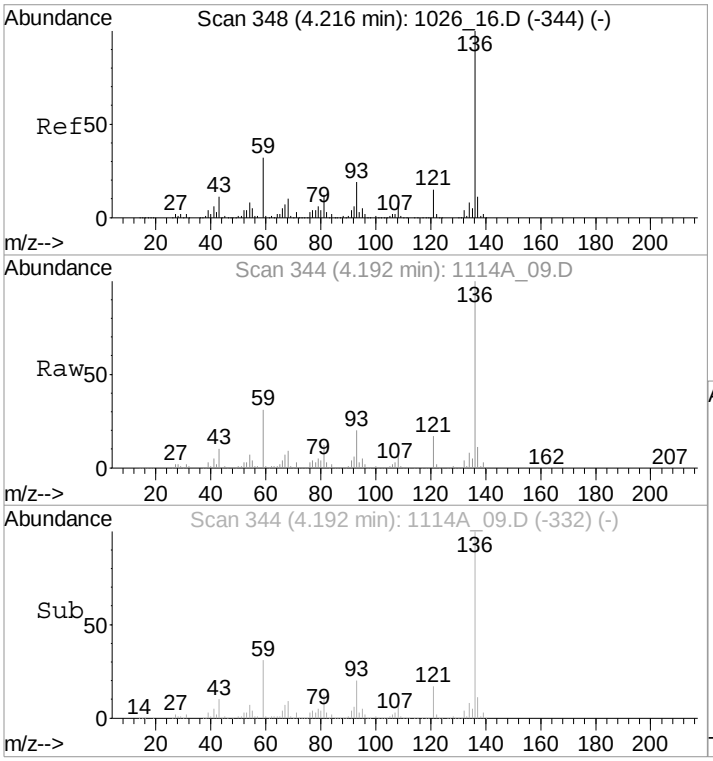


#32
1,2,4-Trichlorobenzene
Concen: 9694.7076052 ppb
RT: 4.15 min Scan# 337
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:180 Resp: 121405

Ion	Ratio	Lower	Upper
180	100		
182	94.0	73.6	113.6
145	28.0	9.0	49.0
109	21.2	4.0	44.0

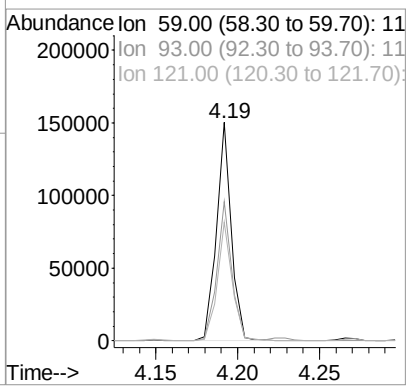


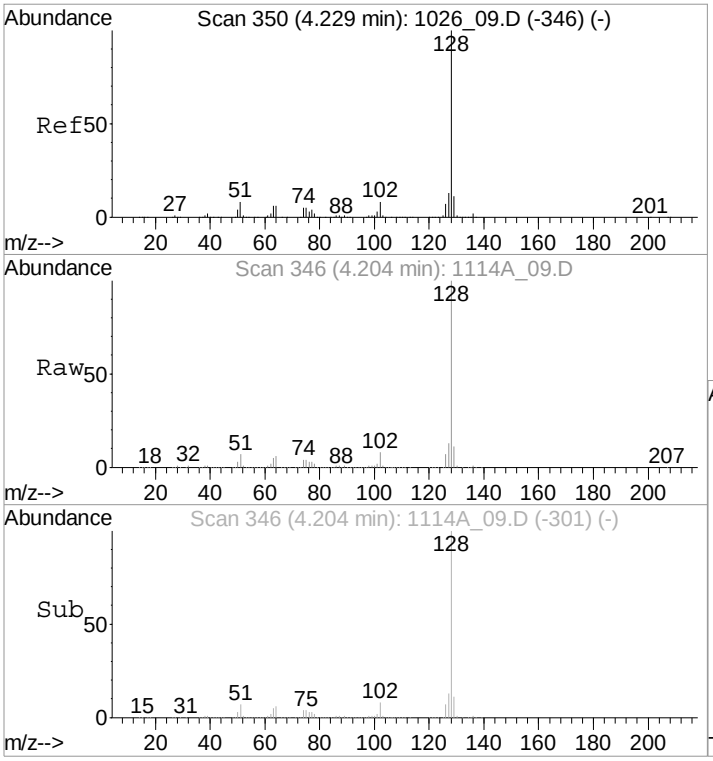


#33
alpha-terpineol
Concen: 12056.8545636 ppb
RT: 4.19 min Scan# 344
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 59 Resp: 95588

Ion	Ratio	Lower	Upper
59	100		
93	63.6	39.7	79.7
121	54.3	27.6	67.6

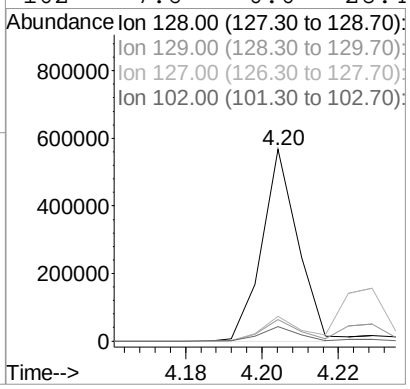


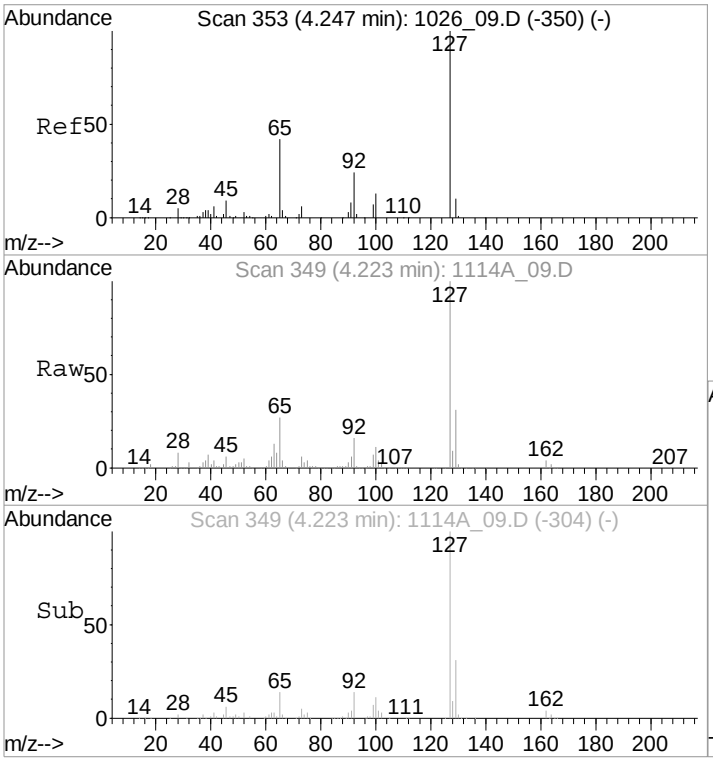


#34
Naphthalene
Concen: 9123.6430542 ppb
RT: 4.20 min Scan# 346
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:128 Resp: 369718

Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	30.7
127	13.0	0.0	32.9
102	7.6	0.0	28.4

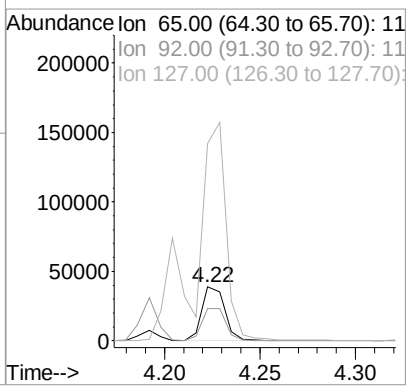


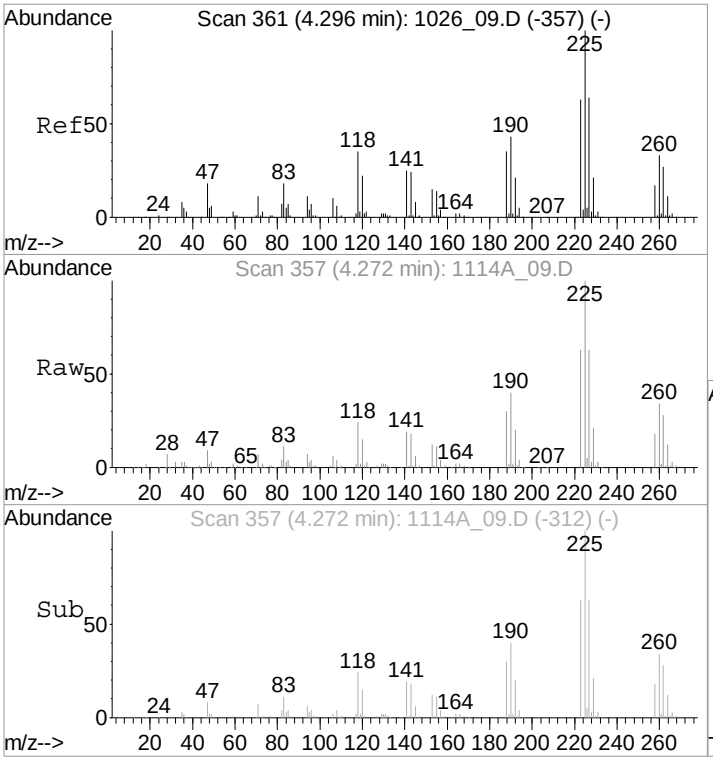


#35
4-Chloroaniline
Concen: 7658.9355292 ppb
RT: 4.22 min Scan# 349
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 65 Resp: 32862

Ion	Ratio	Lower	Upper
65	100		
92	62.1	46.9	70.3
127	546.2	384.7	577.1

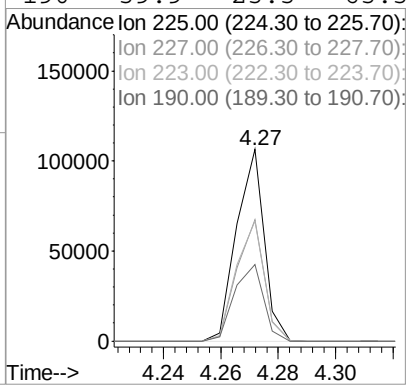


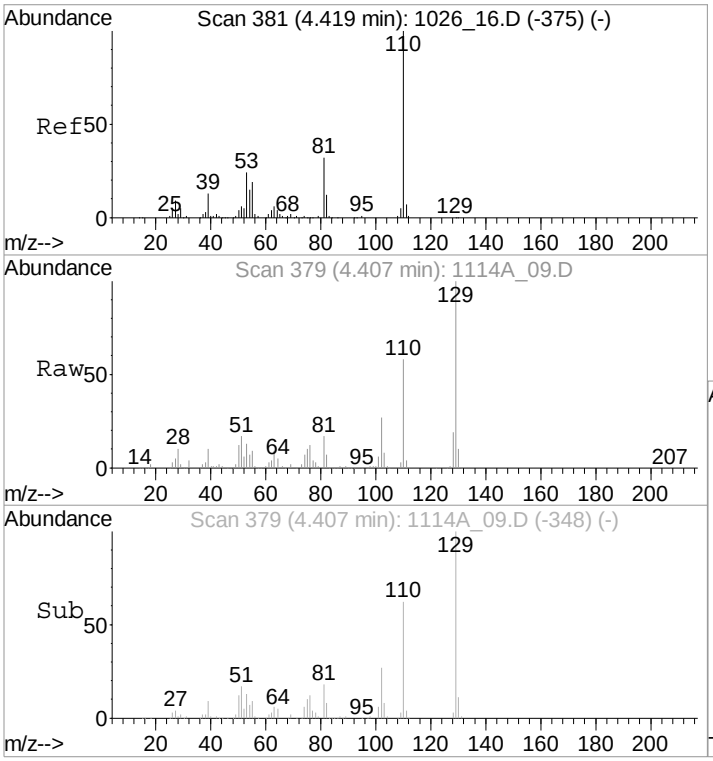


#36
Hexachloro-1,3-butadiene
Concen: 9939.9905067 ppb
RT: 4.27 min Scan# 357
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:225 Resp: 71063

Ion	Ratio	Lower	Upper
225	100		
227	63.2	43.5	83.5
223	62.7	42.7	82.7
190	39.9	23.3	63.3

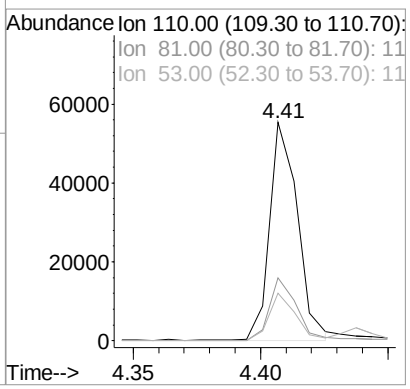


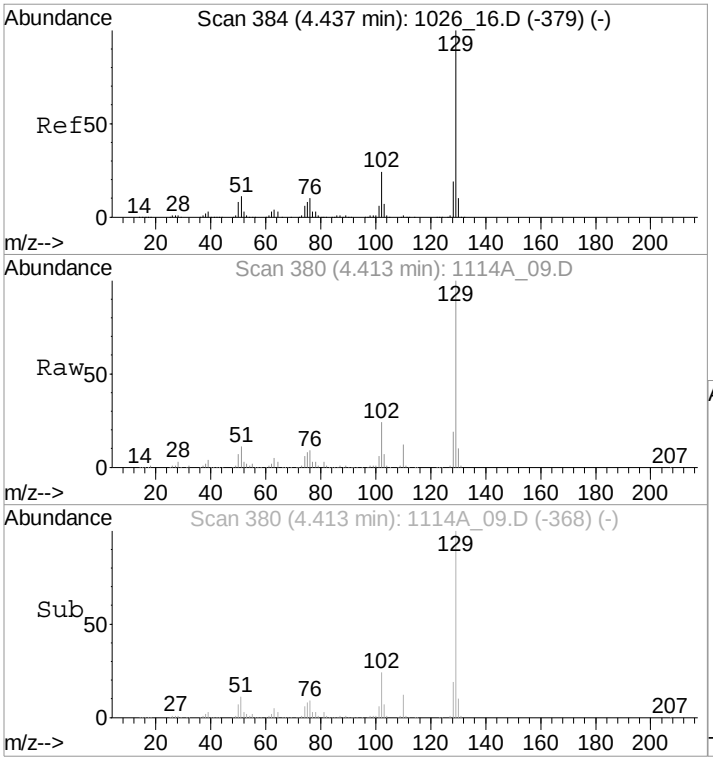


#37
Hydroquinone
Concen: 6872.6484014 ppb
RT: 4.41 min Scan# 379
Delta R.T. -0.01 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:110 Resp: 42384

Ion	Ratio	Lower	Upper
110	100		
81	28.9	12.0	52.0
53	21.8	3.8	43.8

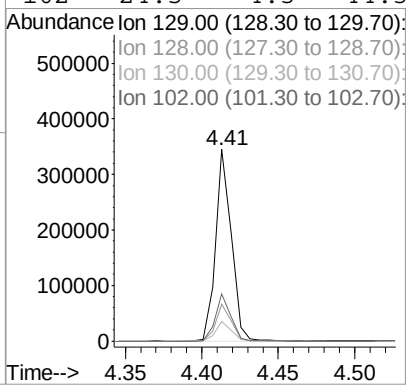


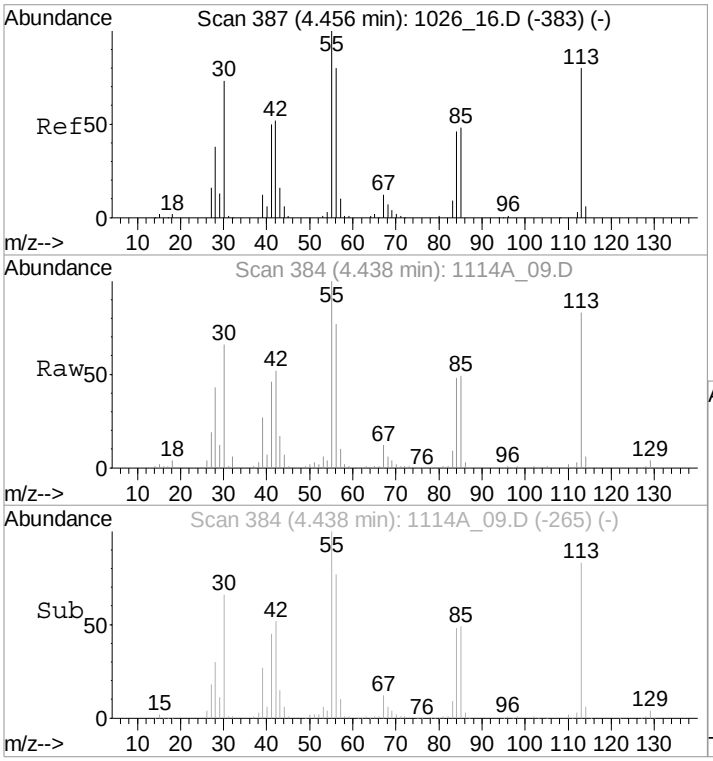


#38
Quinoline
Concen: 13702.7400224 ppb
RT: 4.41 min Scan# 380
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:129 Resp: 247729

Ion	Ratio	Lower	Upper
129	100		
128	19.1	0.0	38.9
130	10.1	0.0	30.0
102	24.5	4.3	44.3

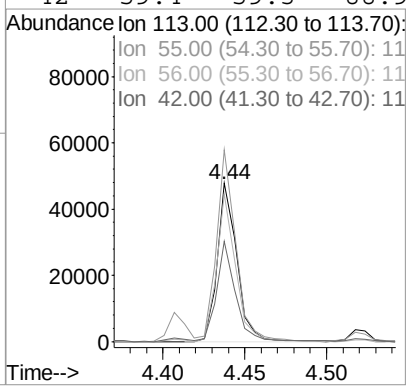


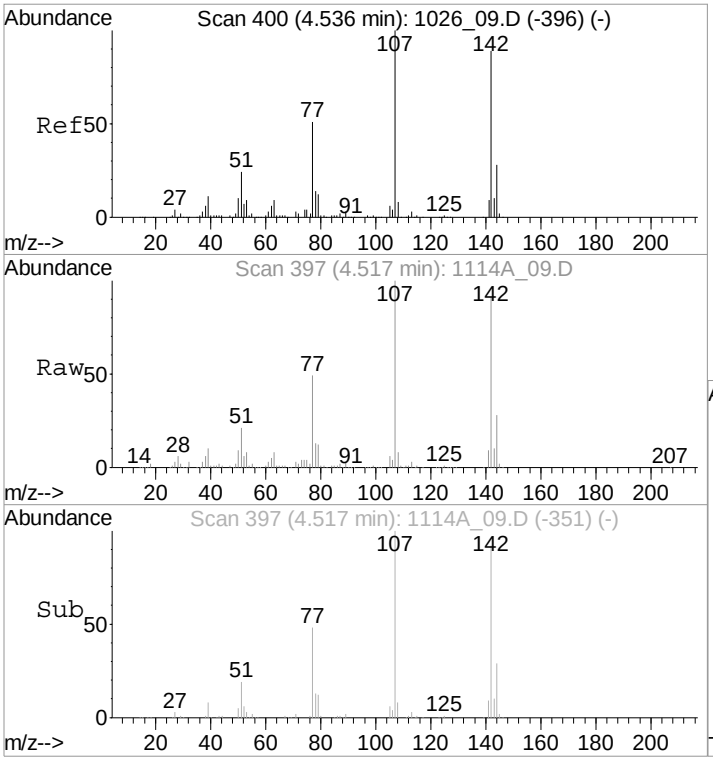


#39
Caprolactam
Concen: 18152.9594495 ppb
RT: 4.44 min Scan# 384
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:113 Resp: 39954

Ion	Ratio	Lower	Upper
113	100		
55	119.4	108.5	162.7
56	90.8	82.8	124.2
42	59.4	59.3	88.9

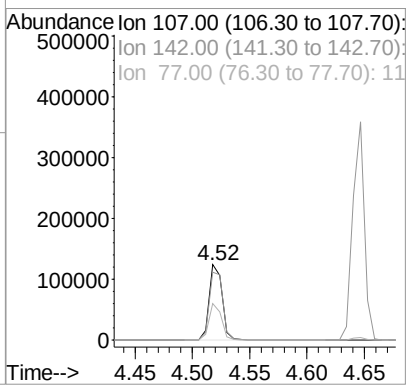


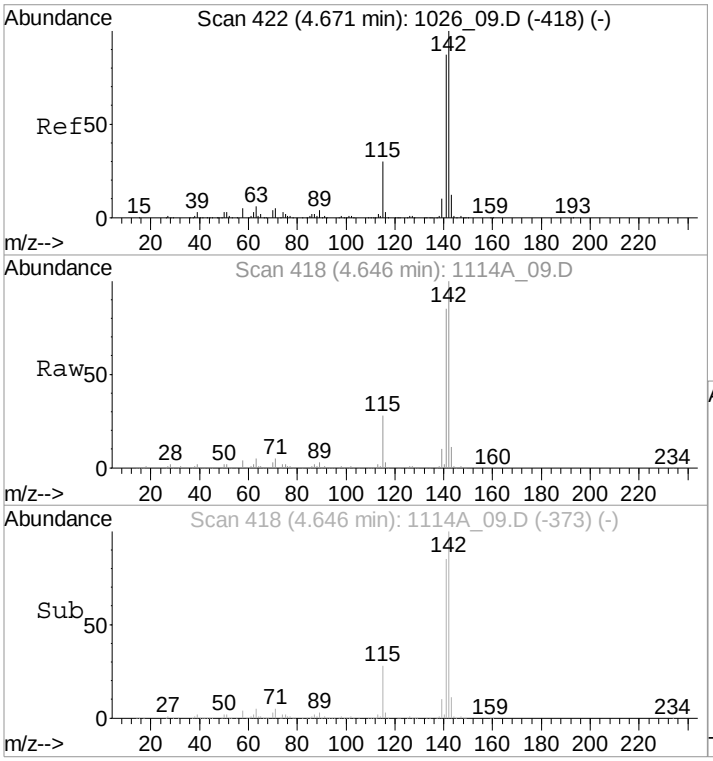


#40
4-Chloro-3-methylphenol
Concen: 9833.1587871 ppb
RT: 4.52 min Scan# 397
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:107 Resp: 98508

Ion	Ratio	Lower	Upper
107	100		
142	90.5	69.5	109.5
77	48.3	30.6	70.6

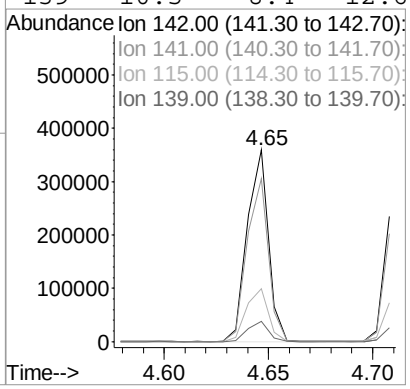


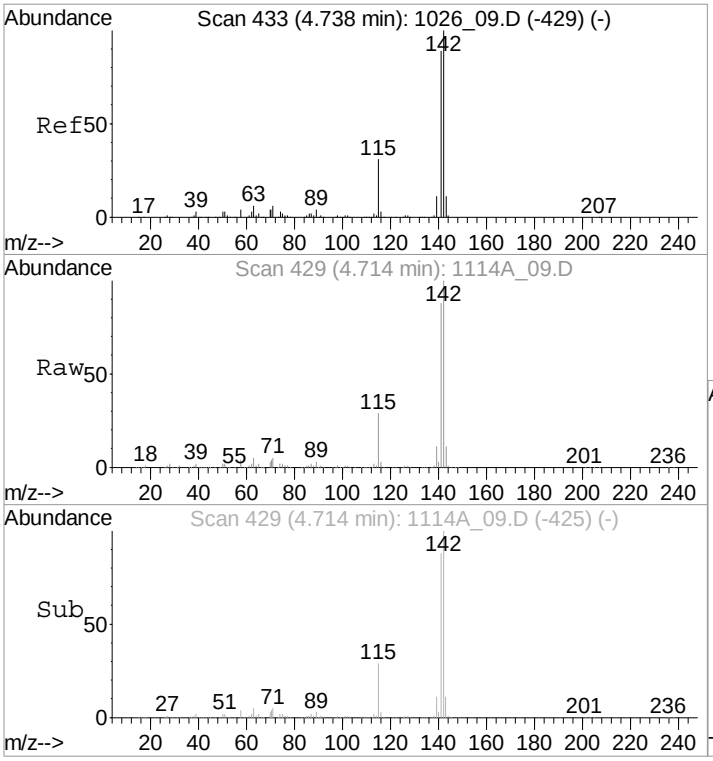


#41
2-Methylnaphthalene
Concen: 9621.2338955 ppb
RT: 4.65 min Scan# 418
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:142 Resp: 253864

Ion	Ratio	Lower	Upper
142	100		
141	85.8	69.5	104.3
115	28.6	24.3	36.5
139	10.5	8.4	12.6

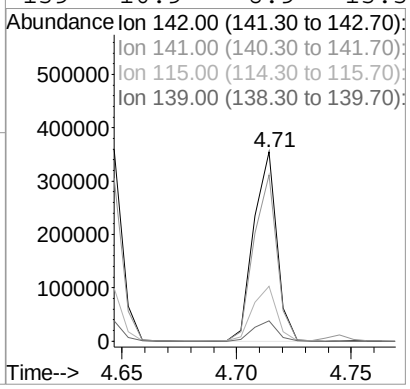


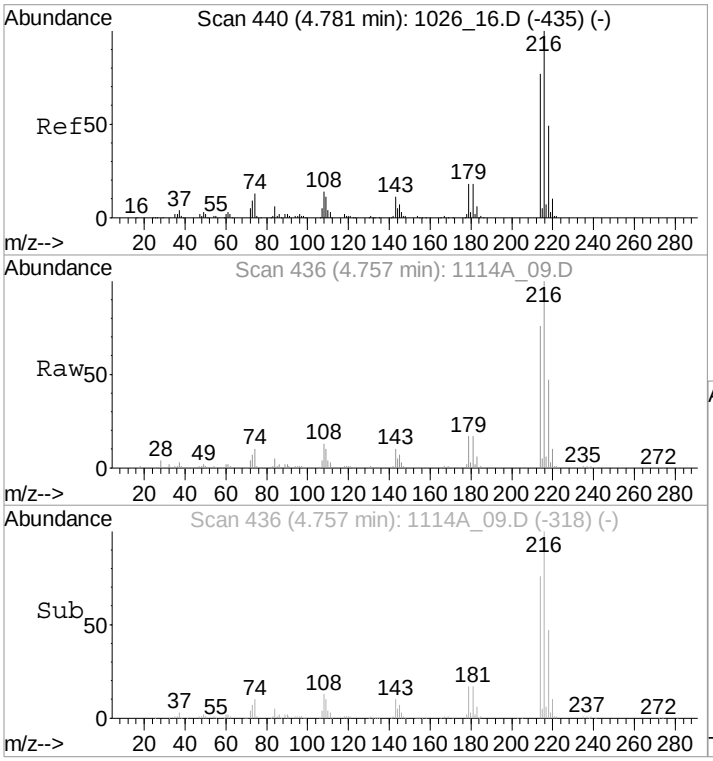


#42
1-Methylnaphthalene
Concen: 9923.5791230 ppb
RT: 4.71 min Scan# 429
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:142 Resp: 248972

Ion	Ratio	Lower	Upper
142	100		
141	87.5	71.1	106.7
115	29.8	25.5	38.3
139	10.9	8.9	13.3

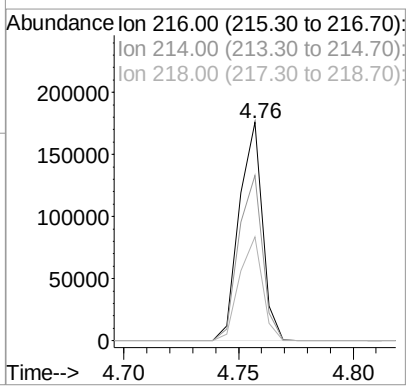


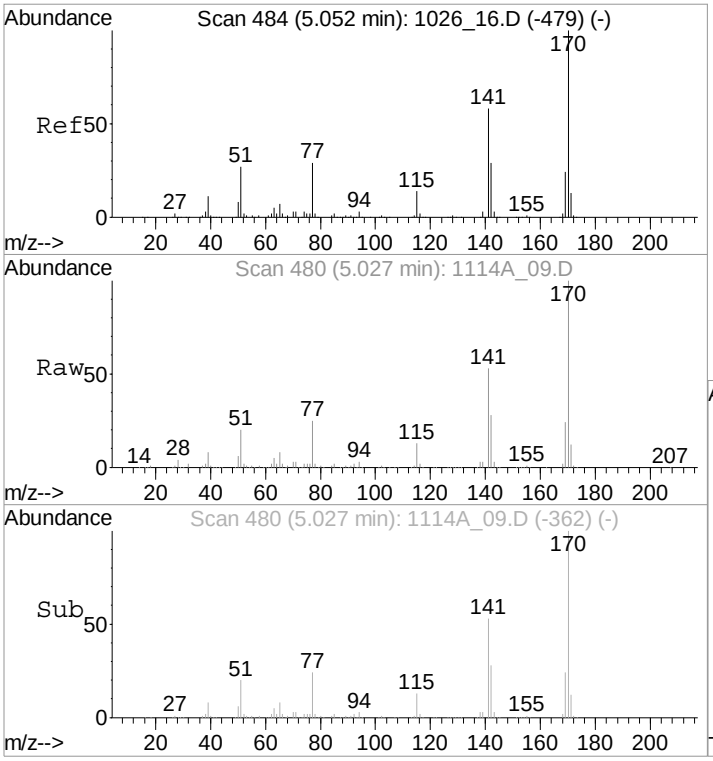


#43
1,2,4,5-Tetrachlorobenzene
Concen: 12997.7813160 ppb
RT: 4.76 min Scan# 436
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:216 Resp: 123909

Ion	Ratio	Lower	Upper
216	100		
214	77.6	62.1	93.1
218	47.5	38.1	57.1

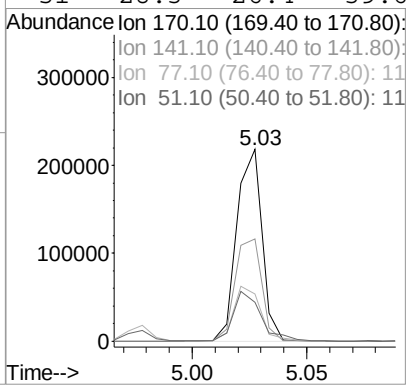


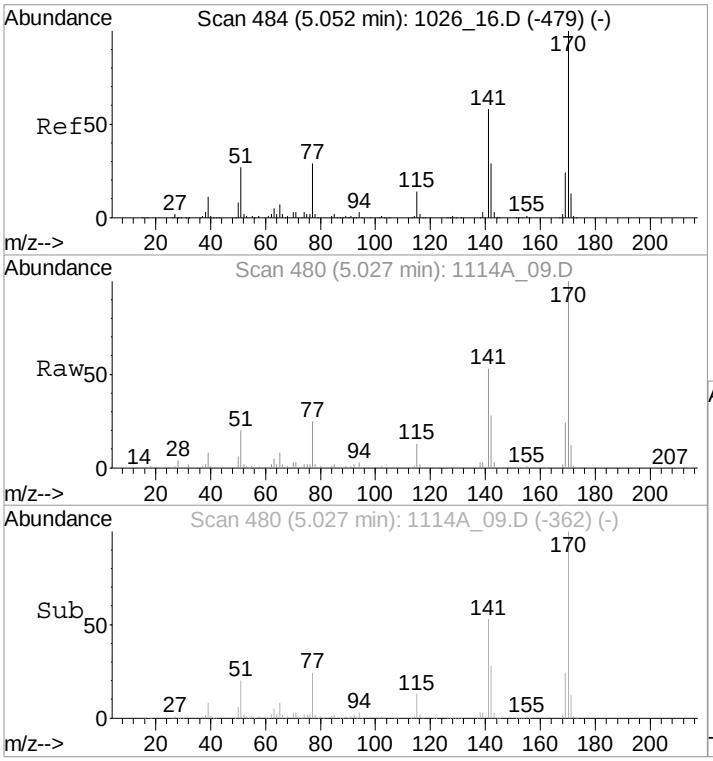


#44
Diphenyl Ether
Concen: 13218.1964416 ug/ml
RT: 5.03 min Scan# 480
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:170 Resp: 166048

Ion	Ratio	Lower	Upper
170	100		
141	56.6	47.5	71.3
77	30.2	26.4	39.6
51	28.3	26.4	39.6

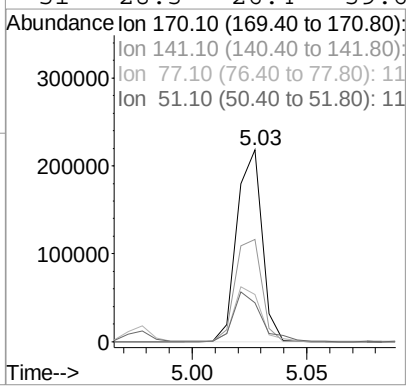


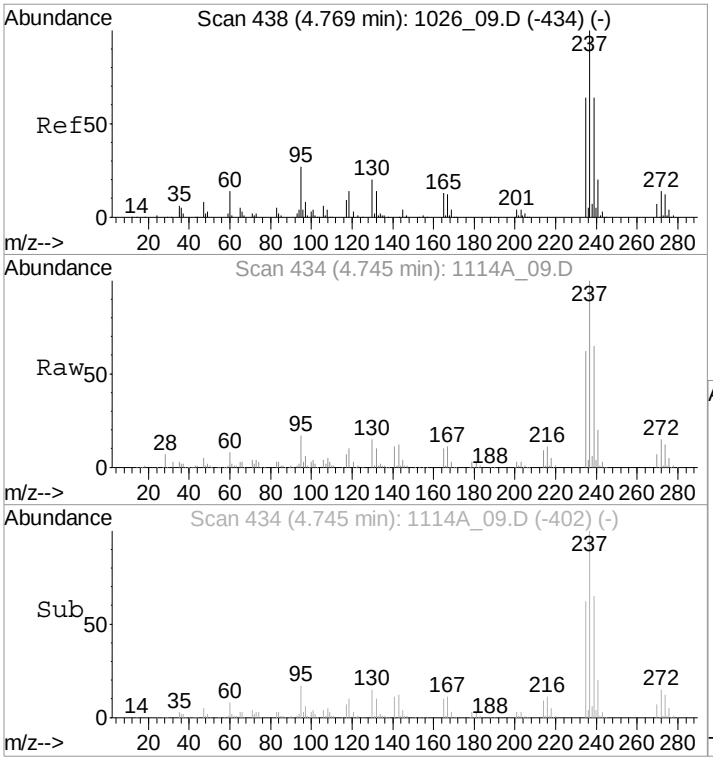


#45
Diphenyl Oxide
Concen: 13218.1964416 ug/ml
RT: 5.03 min Scan# 480
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:170 Resp: 166048

Ion	Ratio	Lower	Upper
170	100		
141	56.6	47.5	71.3
77	30.2	26.4	39.6
51	28.3	26.4	39.6

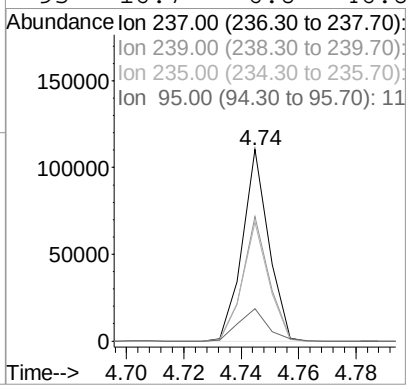


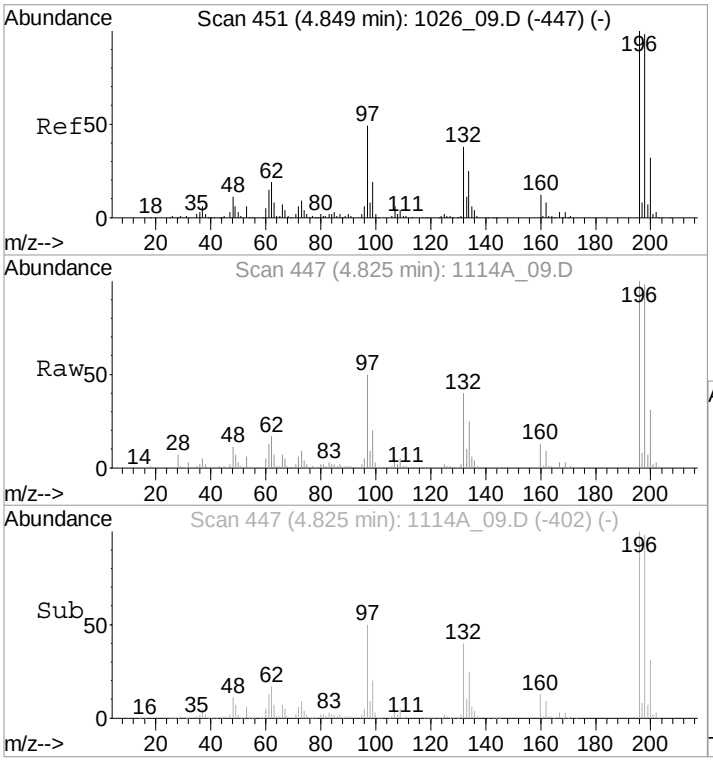


#47
Hexachlorocyclopentadiene
Concen: 9514.8689710 ppb
RT: 4.74 min Scan# 434
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:237 Resp: 70510

Ion	Ratio	Lower	Upper
237	100		
239	64.8	44.4	84.4
235	62.1	43.8	83.8
95	16.7	6.8	46.8

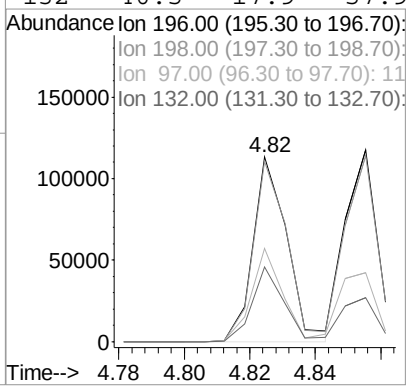


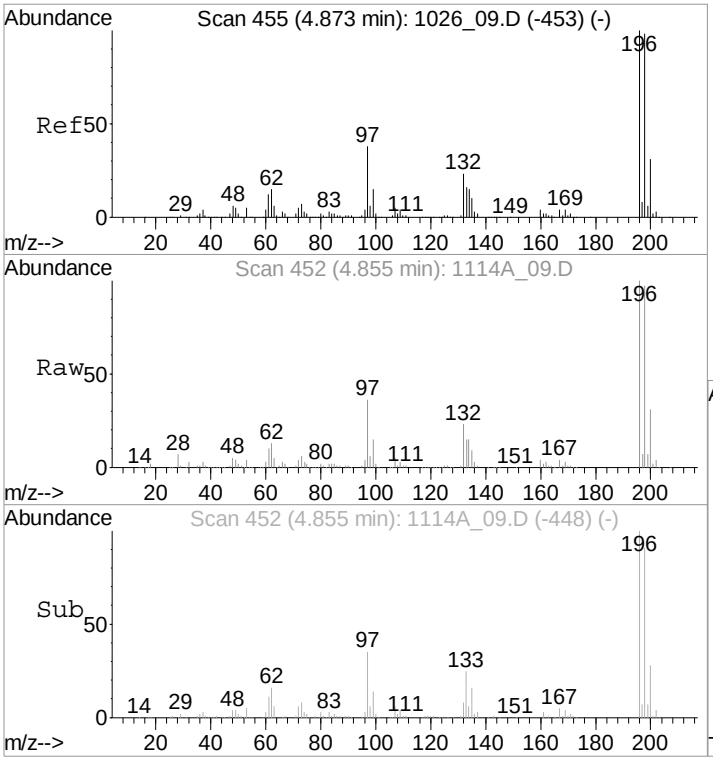


#48
2,4,6-Trichlorophenol
Concen: 11863.0568854 ppb
RT: 4.82 min Scan# 447
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:196 Resp: 81333

Ion	Ratio	Lower	Upper
196	100		
198	97.5	77.8	117.8
97	50.4	28.6	68.6
132	40.5	17.9	57.9

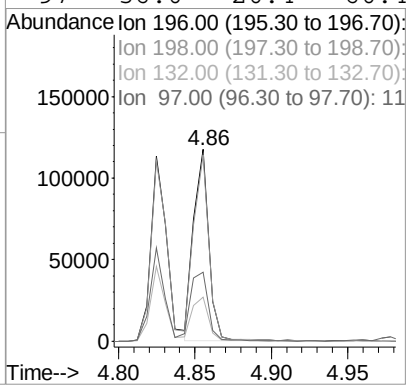


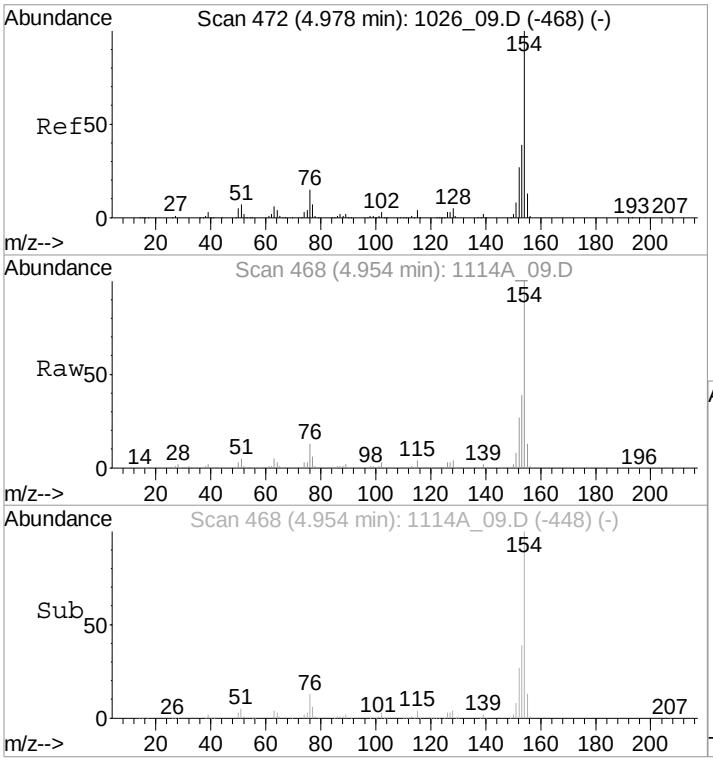


#49
2,4,5-Trichlorophenol
Concen: 11402.2679095 ppb
RT: 4.86 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:196 Resp: 81585

Ion	Ratio	Lower	Upper
196	100		
198	97.2	77.7	117.7
132	23.0	4.3	44.3
97	36.0	20.4	60.4

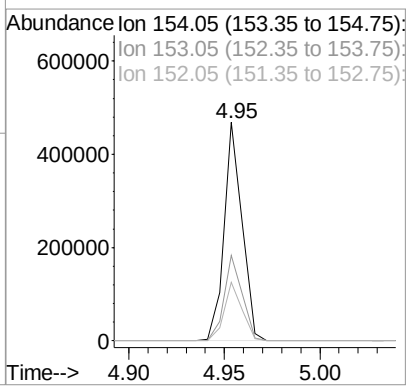


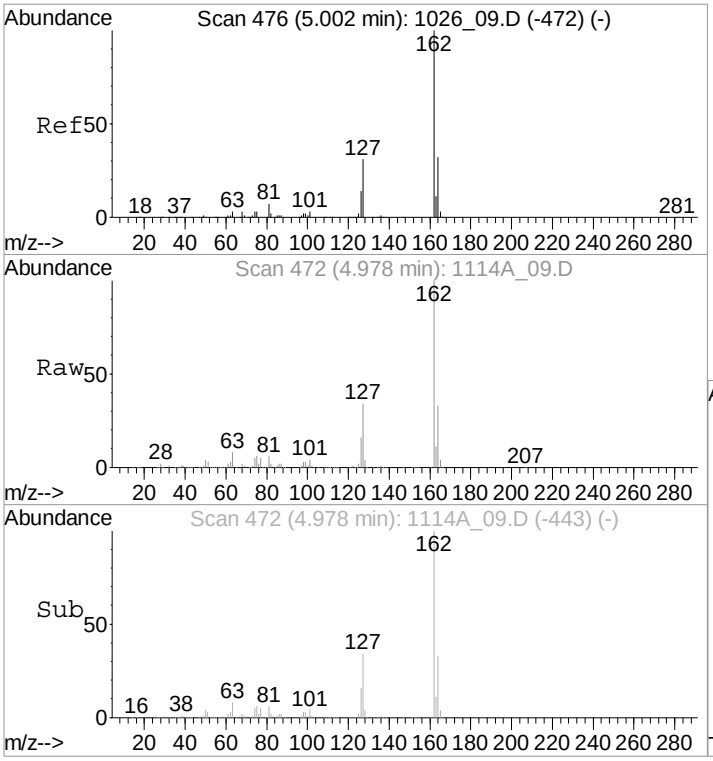


#51
Biphenyl
Concen: 10217.7976930 ppb
RT: 4.95 min Scan# 468
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:154 Resp: 307241

Ion	Ratio	Lower	Upper
154	100		
153	39.5	31.8	47.8
152	26.7	21.3	31.9

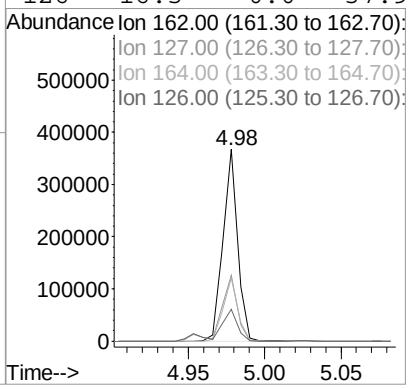


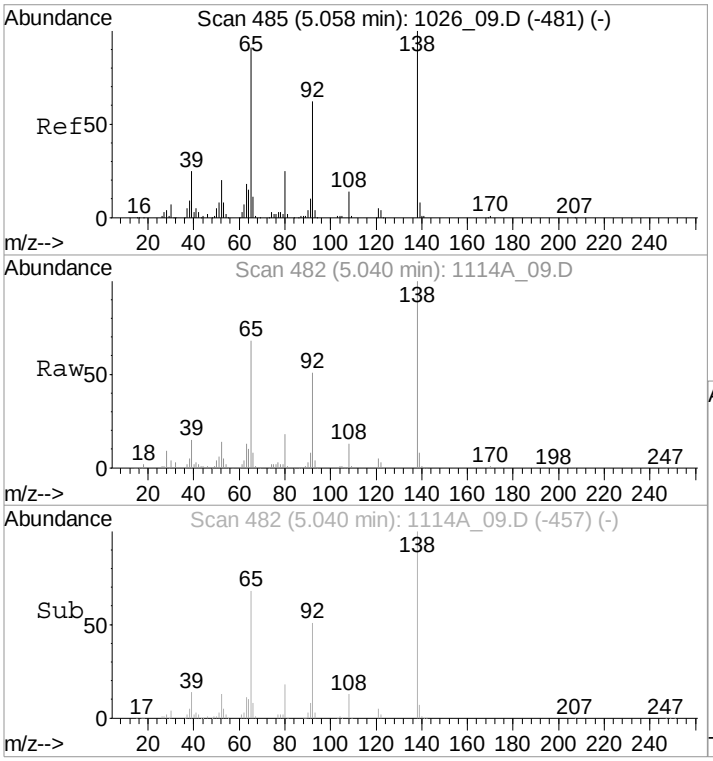


#52
2-Chloronaphthalene
Concen: 10925.3076811 ppb
RT: 4.98 min Scan# 472
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:162 Resp: 242173

Ion	Ratio	Lower	Upper
162	100		
127	34.1	14.4	54.4
164	32.8	12.4	52.4
126	16.5	0.0	37.9

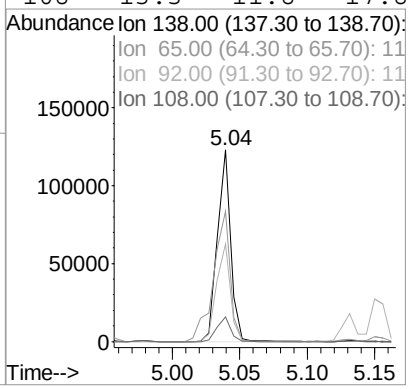


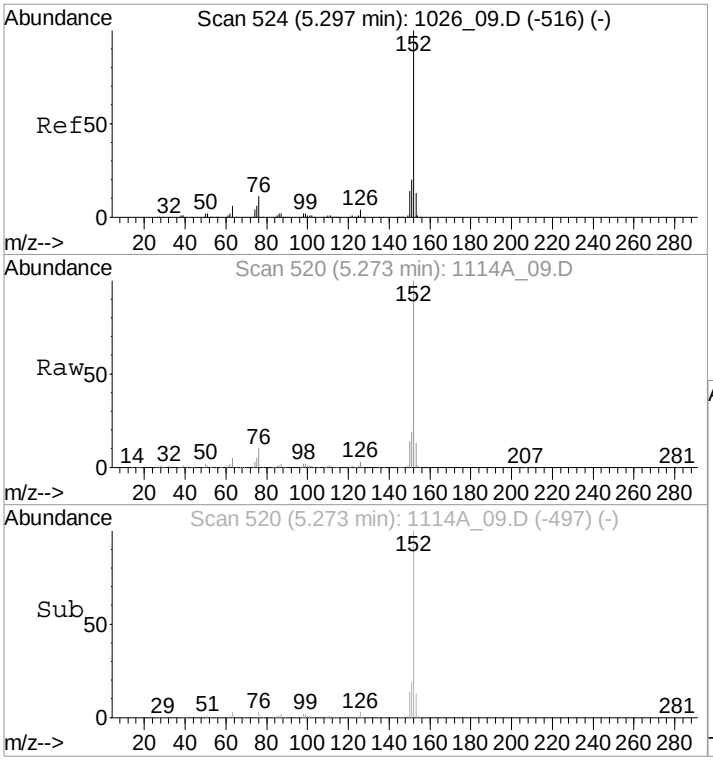


#53
2-Nitroaniline
Concen: 12845.4607203 ppb
RT: 5.04 min Scan# 482
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:138 Resp: 84139

Ion	Ratio	Lower	Upper
138	100		
65	86.4	68.3	102.5
92	53.7	47.3	70.9
108	13.3	11.8	17.8

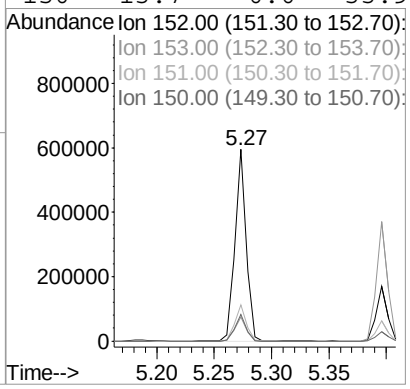


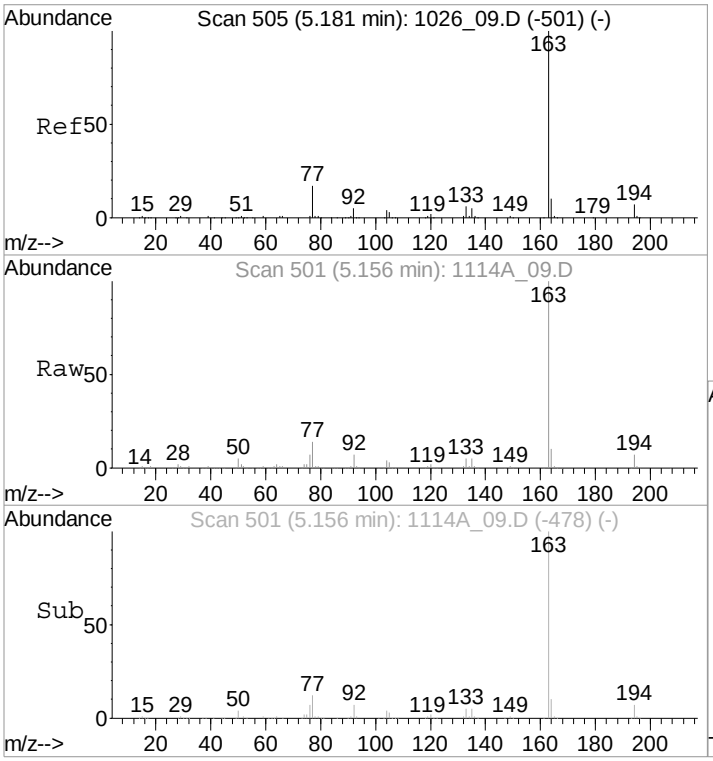


#54
Acenaphthylene
Concen: 12144.3237903 ppb
RT: 5.27 min Scan# 520
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:152 Resp: 405253

Ion	Ratio	Lower	Upper
152	100		
153	12.7	0.0	32.7
151	19.0	0.0	39.9
150	13.7	0.0	33.9

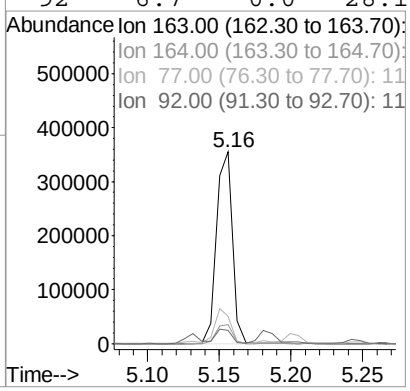


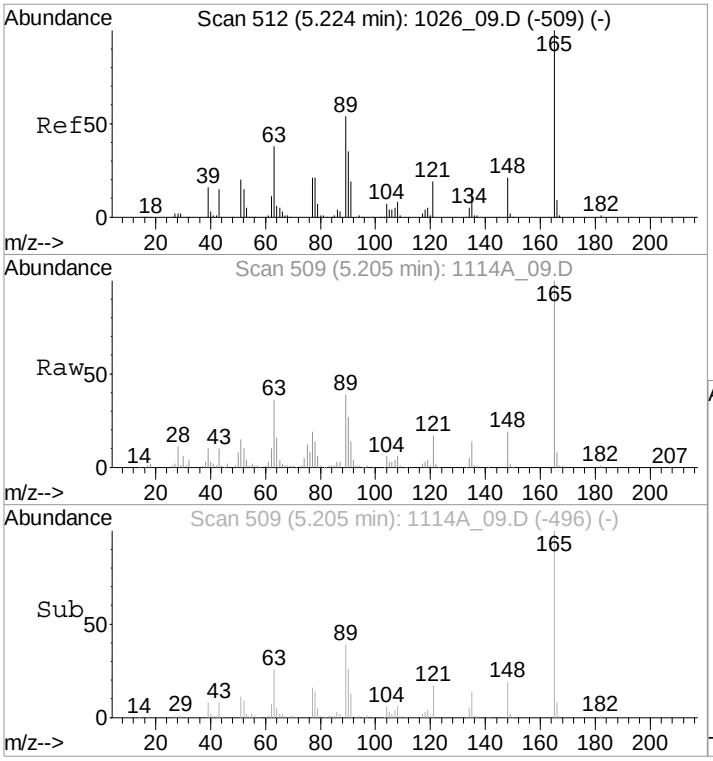


#55
Dimethyl phthalate
Concen: 11937.8619310 ppb
RT: 5.16 min Scan# 501
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:163 Resp: 276321

Ion	Ratio	Lower	Upper
163	100		
164	9.7	0.0	30.0
77	14.2	0.0	37.1
92	6.7	0.0	28.1

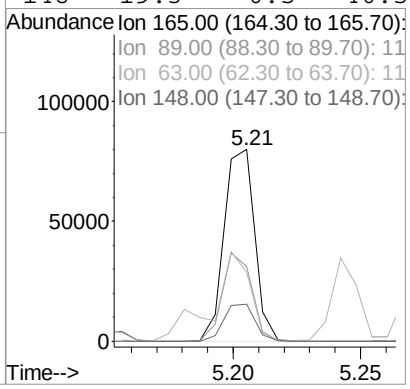


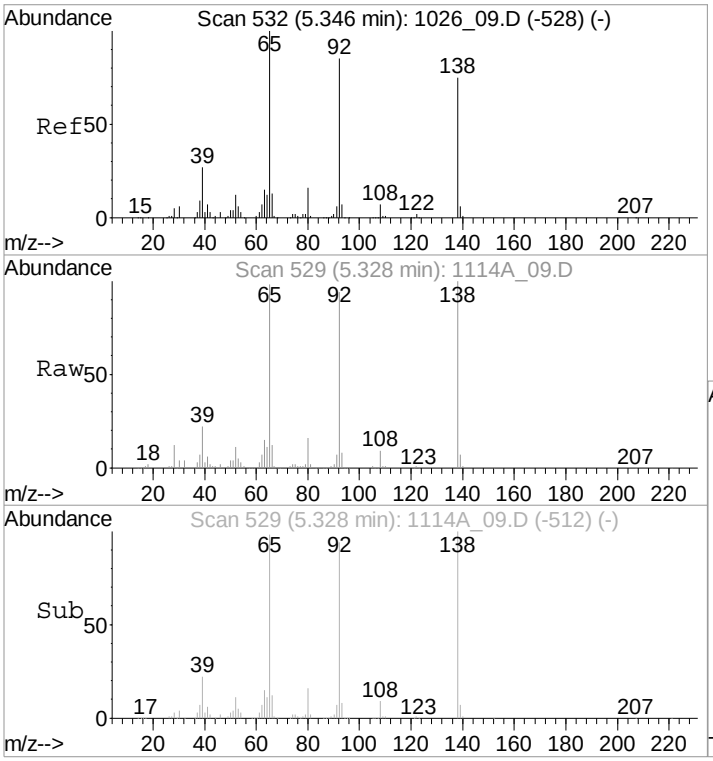


#56
2,6-Dinitrotoluene
Concen: 12586.9470090 ppb
RT: 5.21 min Scan# 509
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:165 Resp: 66412

Ion	Ratio	Lower	Upper
165	100		
89	38.9	33.8	73.8
63	25.9	32.4	72.4#
148	19.3	0.5	40.5

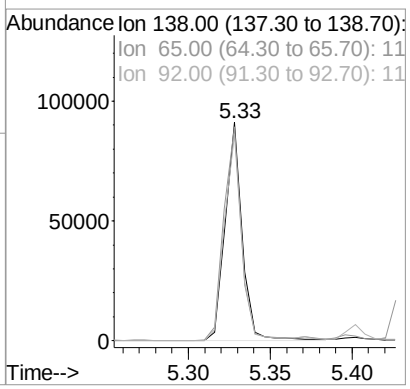


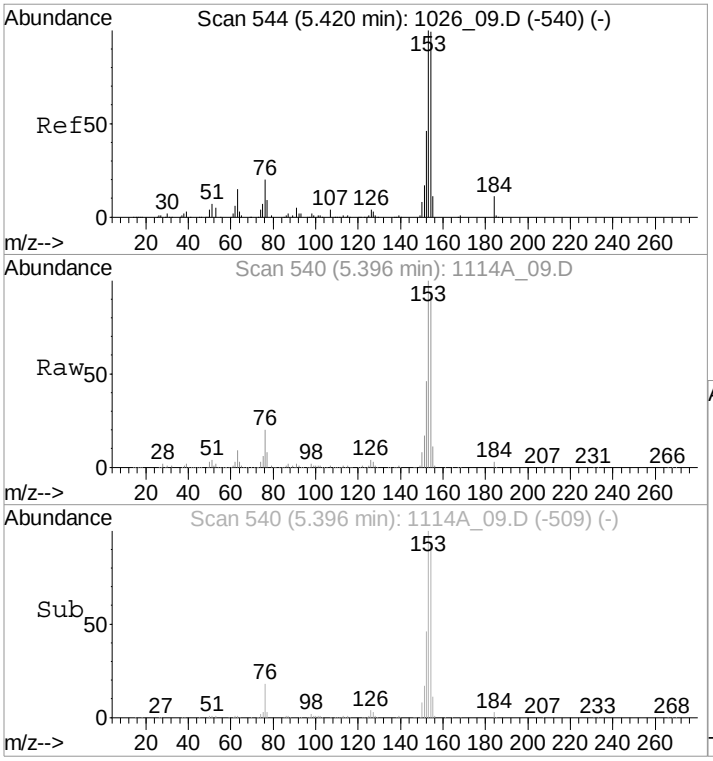


#57
3-Nitroaniline
Concen: 11821.4727098 ppb
RT: 5.33 min Scan# 529
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:138 Resp: 65912

Ion	Ratio	Lower	Upper
138	100		
65	97.9	113.6	153.6#
92	94.5	93.6	133.6

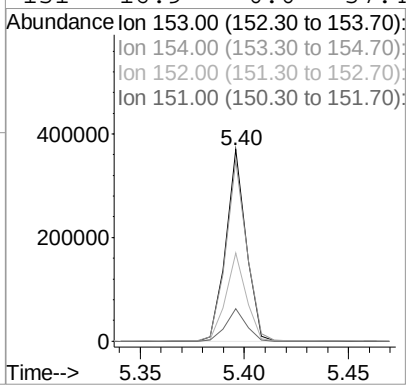


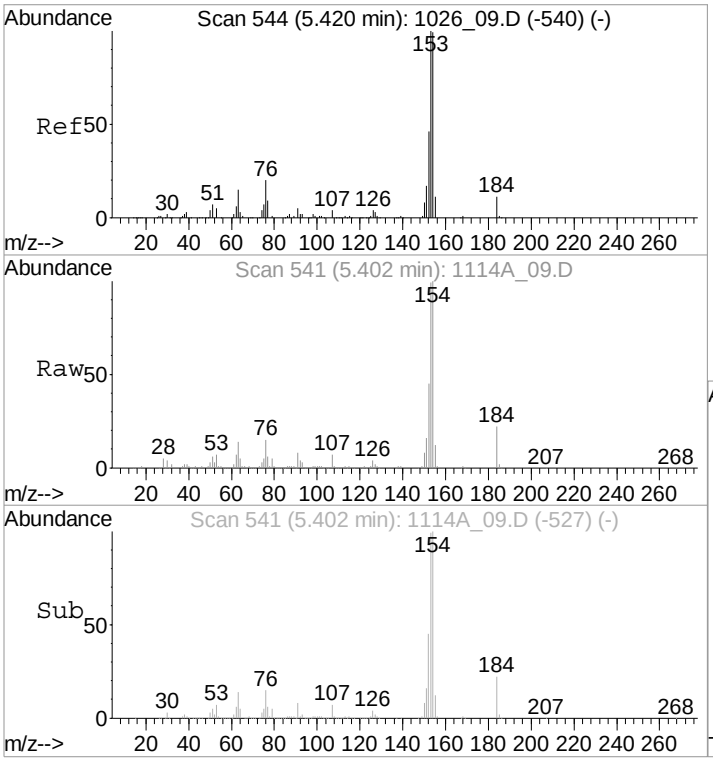


#58
Acenaphthene
Concen: 10959.6419347 ppb
RT: 5.40 min Scan# 540
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:153 Resp: 249806

Ion	Ratio	Lower	Upper
153	100		
154	94.4	79.2	119.2
152	46.0	26.4	66.4
151	16.9	0.0	37.4

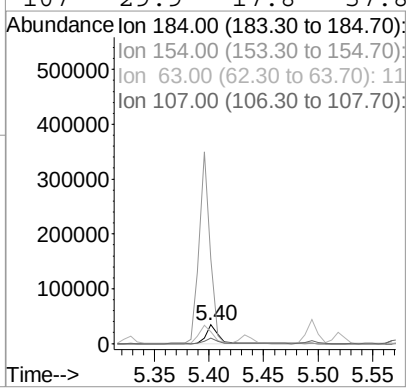


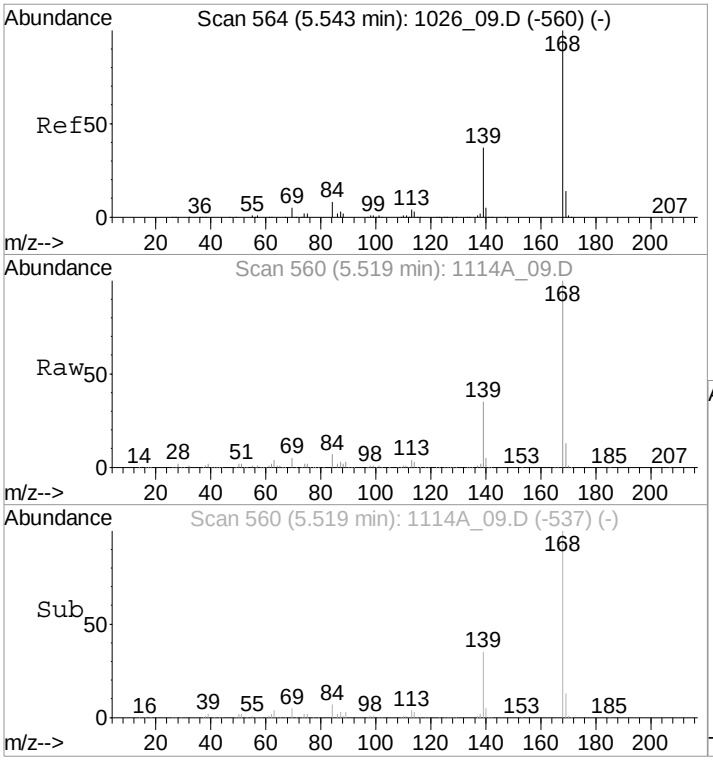


#59
2,4-Dinitrophenol
Concen: 9620.3635180 ppb
RT: 5.40 min Scan# 541
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:184 Resp: 26379

Ion	Ratio	Lower	Upper
184	100		
154	450.3	881.5	921.5#
63	63.9	113.2	153.2#
107	29.9	17.8	57.8

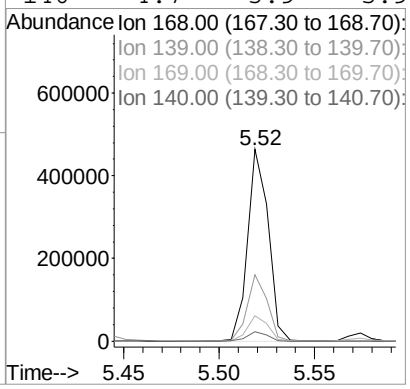


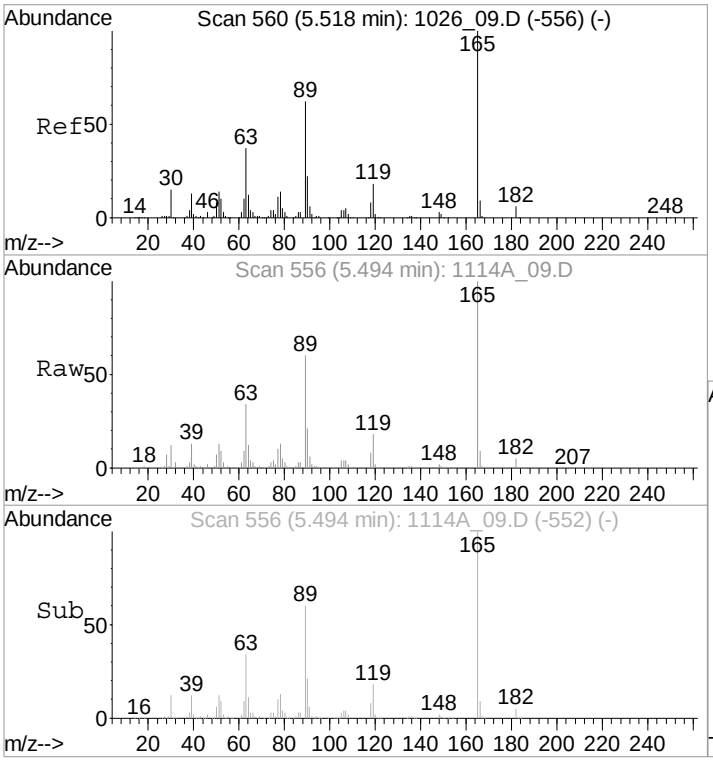


#60
Dibenzofuran
Concen: 11225.0592766 ppb
RT: 5.52 min Scan# 560
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:168 Resp: 348199

Ion	Ratio	Lower	Upper
168	100		
139	33.9	28.2	42.4
169	13.2	10.7	16.1
140	4.7	3.9	5.9

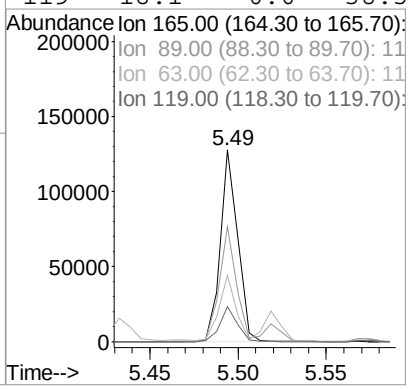


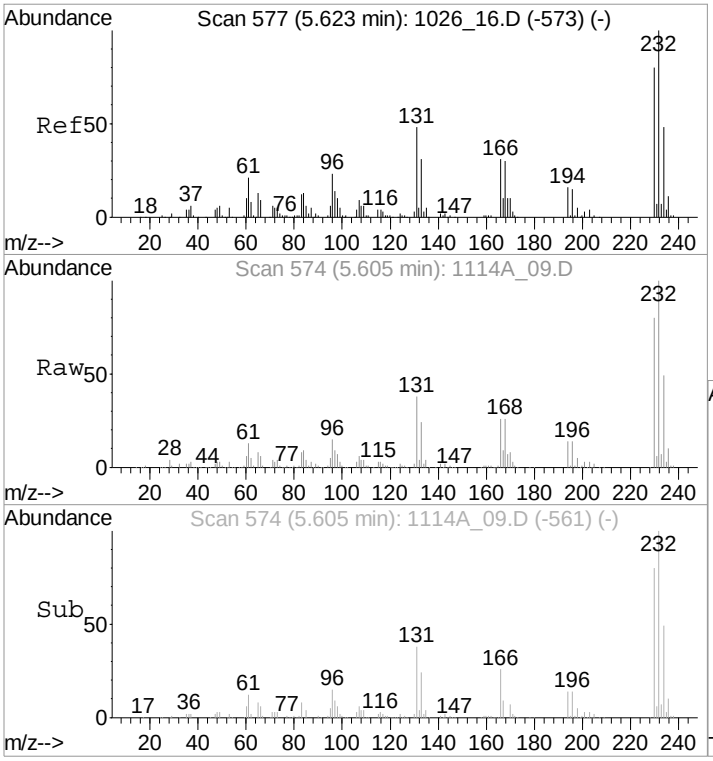


#61
2,4-Dinitrotoluene
Concen: 12989.4981702 ppb
RT: 5.49 min Scan# 556
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:165 Resp: 87081

Ion	Ratio	Lower	Upper
165	100		
89	59.8	42.3	82.3
63	34.2	17.1	57.1
119	18.1	0.0	38.3

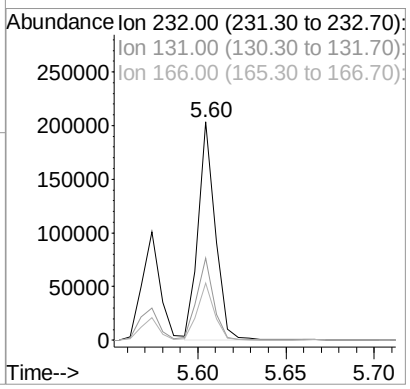


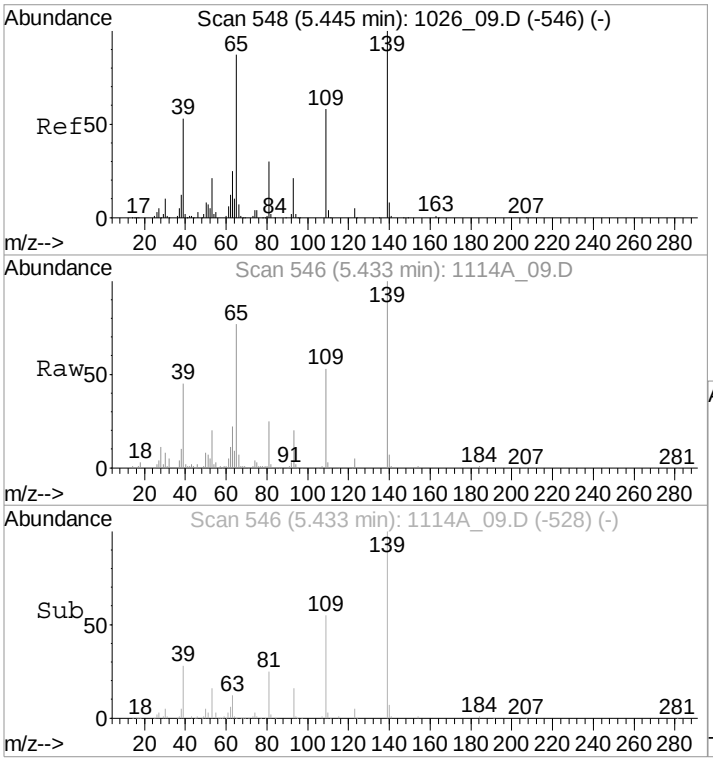


#62
2,3,4,6-Tetrachlorophenol
Concen: 25461.4292700 ppb
RT: 5.60 min Scan# 574
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:232 Resp: 137610

Ion	Ratio	Lower	Upper
232	100		
131	37.4	28.5	68.5
166	26.2	10.8	50.8

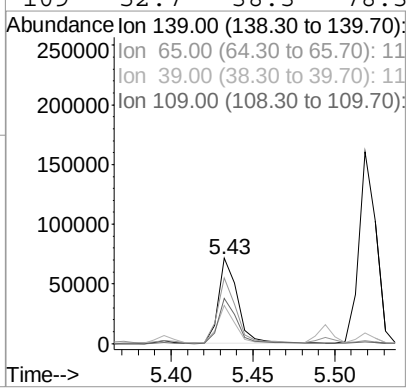


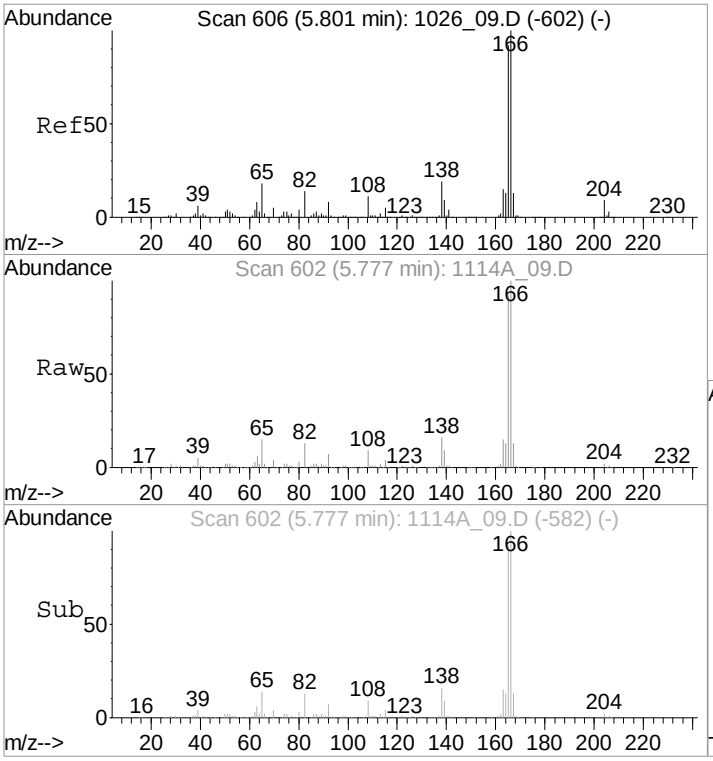


#63
4-Nitrophenol
Concen: 13044.2649768 ppb
RT: 5.43 min Scan# 546
Delta R.T. -0.01 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:139 Resp: 58549

Ion	Ratio	Lower	Upper
139	100		
65	75.9	68.7	108.7
39	43.3	34.8	74.8
109	52.7	38.3	78.3

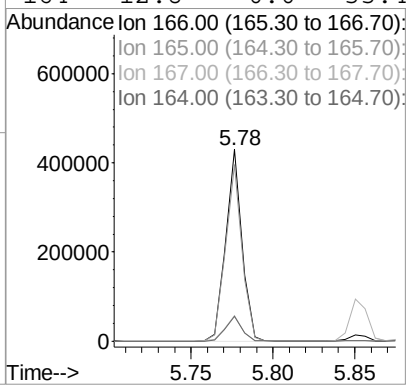


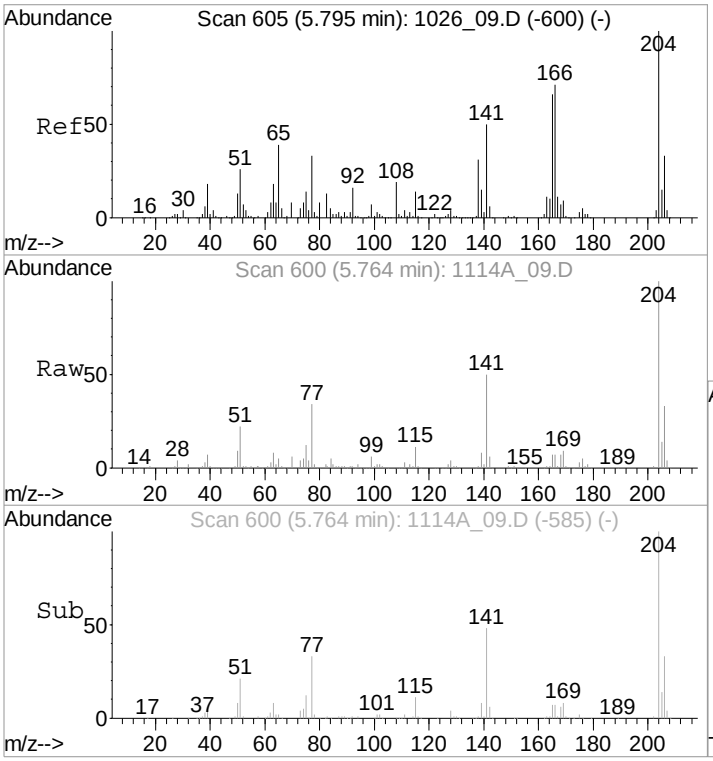


#64
Fluorene
Concen: 11419.0341509 ppb
RT: 5.78 min Scan# 602
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:166 Resp: 294364

Ion	Ratio	Lower	Upper
166	100		
165	92.0	71.8	111.8
167	13.1	0.0	32.9
164	12.8	0.0	33.4

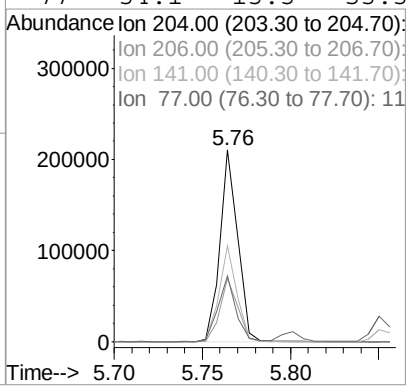


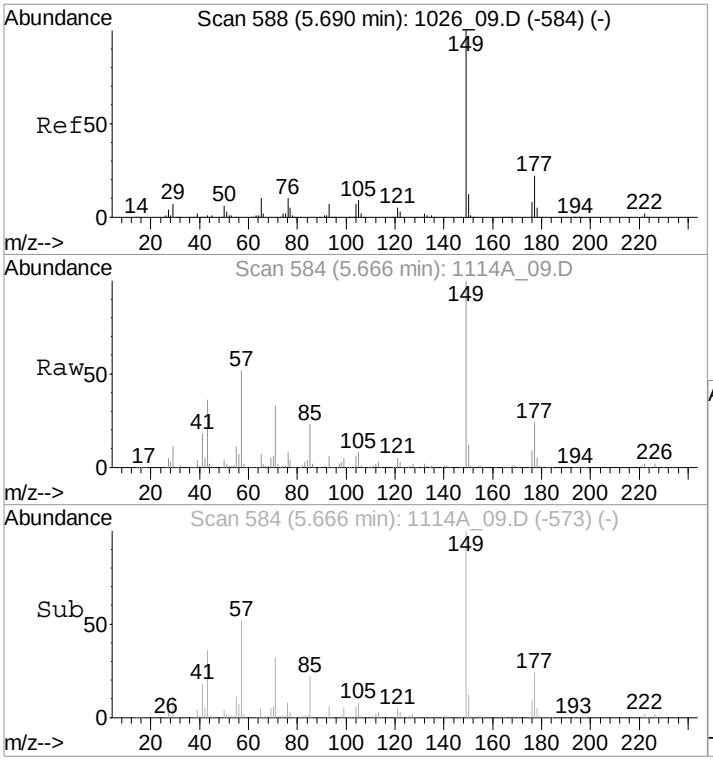


#65
4-Chlorophenyl-phenylether
Concen: 11910.6215366 ppb
RT: 5.76 min Scan# 600
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:204 Resp: 146113

Ion	Ratio	Lower	Upper
204	100		
206	32.9	12.6	52.6
141	50.0	30.0	70.0
77	34.1	13.3	53.3

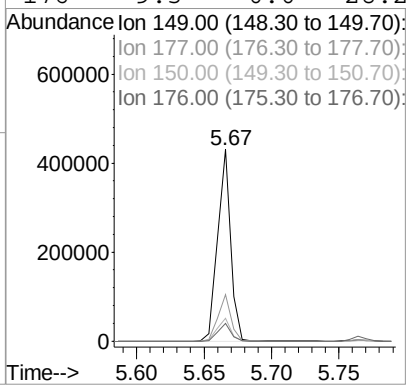


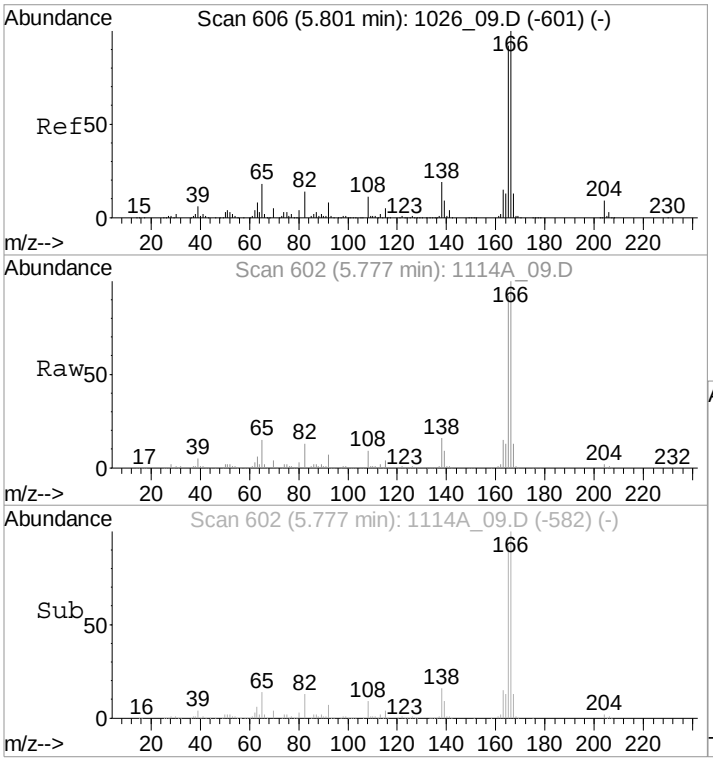


#66
Diethyl phthalate
Concen: 12776.2301655 ppb
RT: 5.67 min Scan# 584
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:149 Resp: 287610

Ion	Ratio	Lower	Upper
149	100		
177	24.2	2.0	42.0
150	11.9	0.0	32.0
176	9.3	0.0	28.2

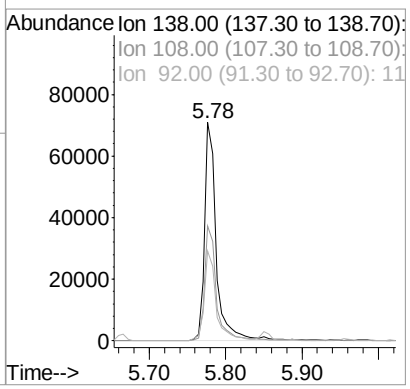


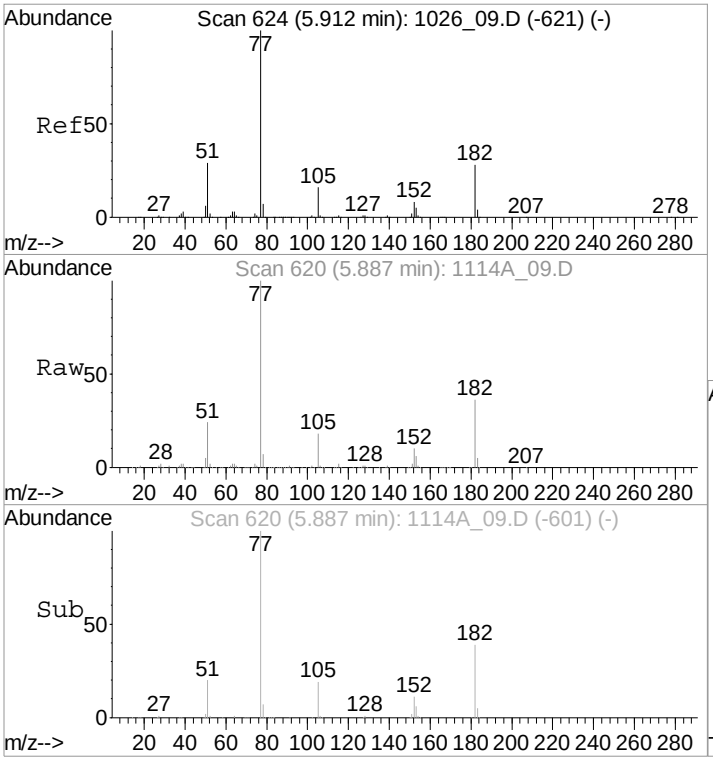


#67
4-Nitroaniline
Concen: 14967.1217315 ppb
RT: 5.78 min Scan# 602
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:138 Resp: 76197

Ion	Ratio	Lower	Upper
138	100		
108	53.2	47.8	71.6
92	41.2	37.2	55.8

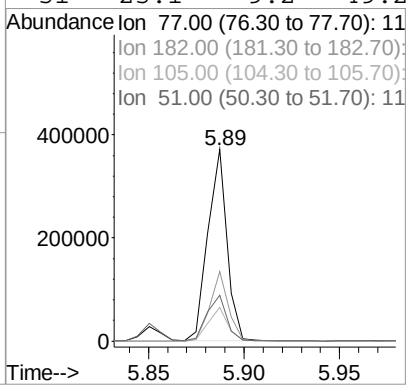


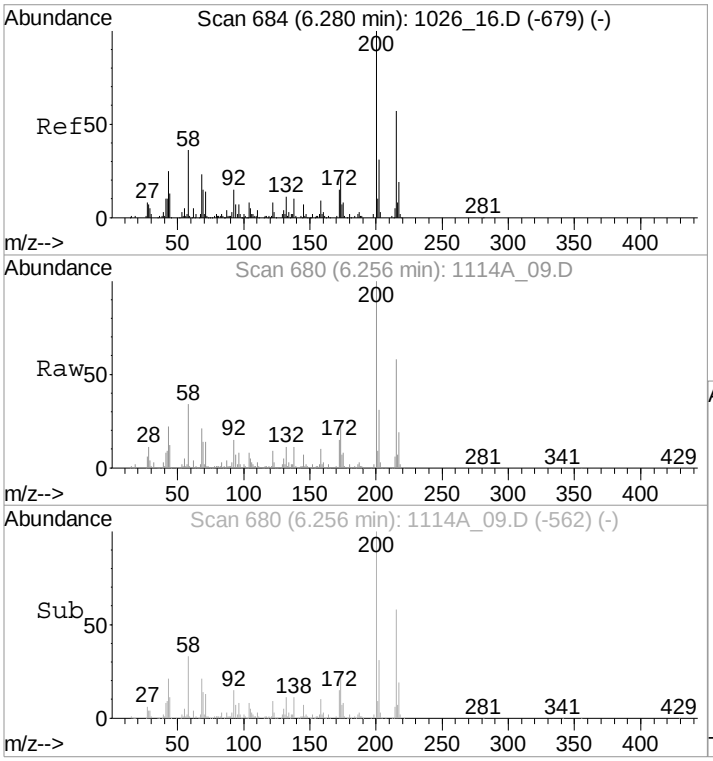


#68
Azobenzene
Concen: 10671.9878245 ppb
RT: 5.89 min Scan# 620
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 77 Resp: 256751

Ion	Ratio	Lower	Upper
77	100		
182	34.5	10.4	50.4
105	17.6	0.0	36.4
51	25.1	9.2	49.2

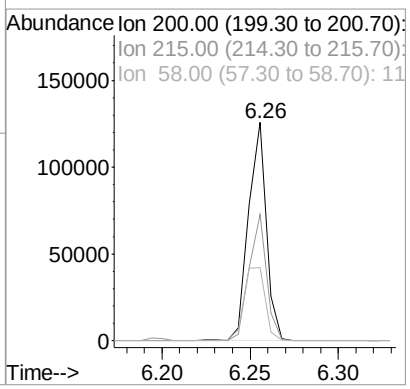


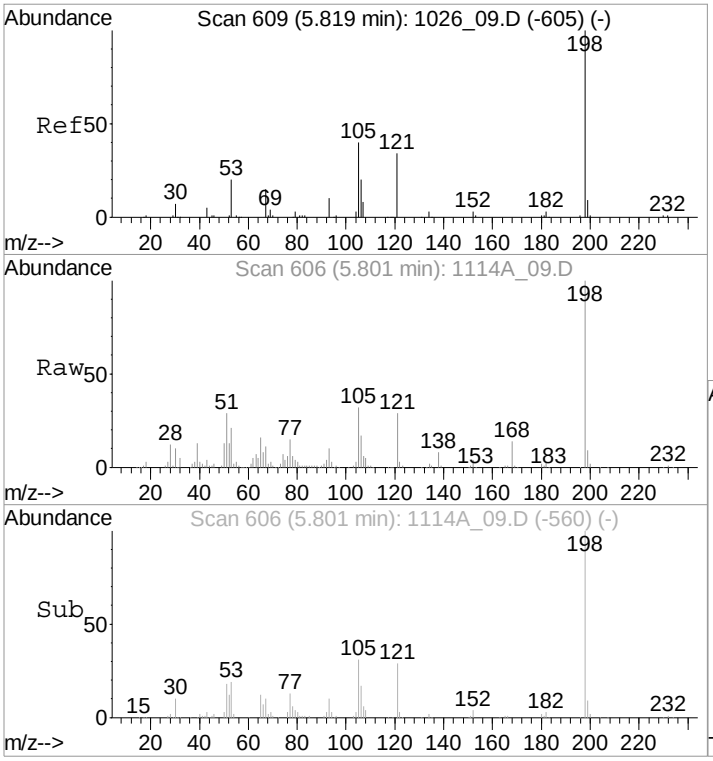


#69
Atrazine
Concen: 12800.1956080 ppb
RT: 6.26 min Scan# 680
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:200 Resp: 88509

Ion	Ratio	Lower	Upper
200	100		
215	56.6	44.3	66.5
58	40.6	37.2	55.8

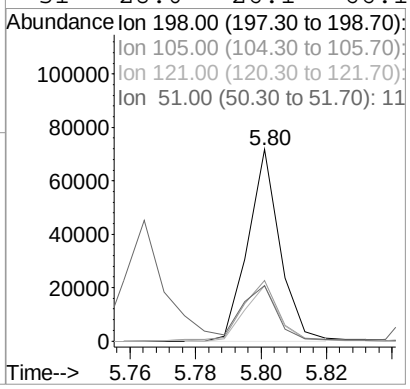


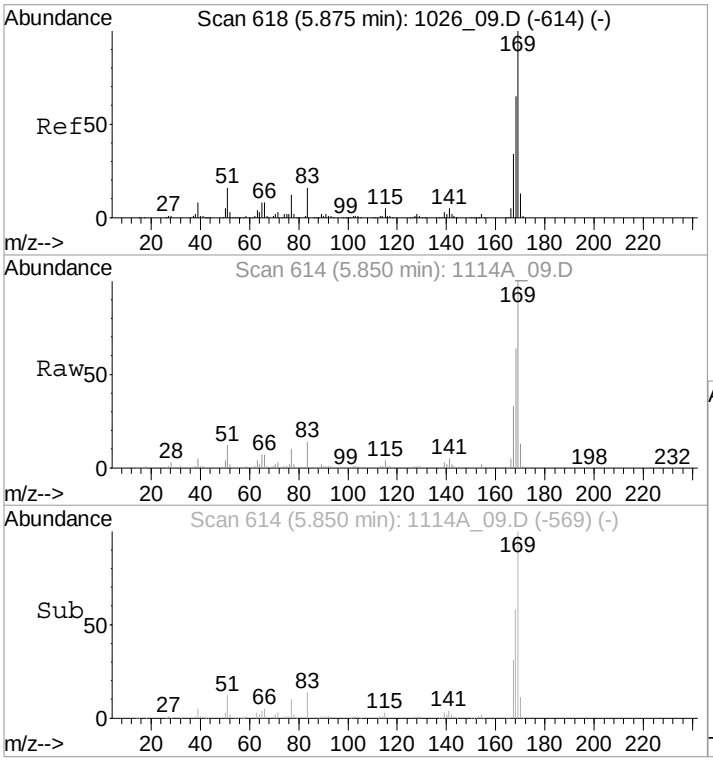


#71
4,6-Dinitro-2-methylphenol
Concen: 11187.5185112 ppb
RT: 5.80 min Scan# 606
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:198 Resp: 48805

Ion	Ratio	Lower	Upper
198	100		
105	30.8	20.9	60.9
121	28.5	14.5	54.5
51	28.0	26.1	66.1

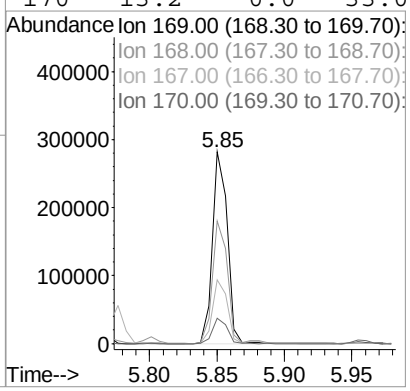


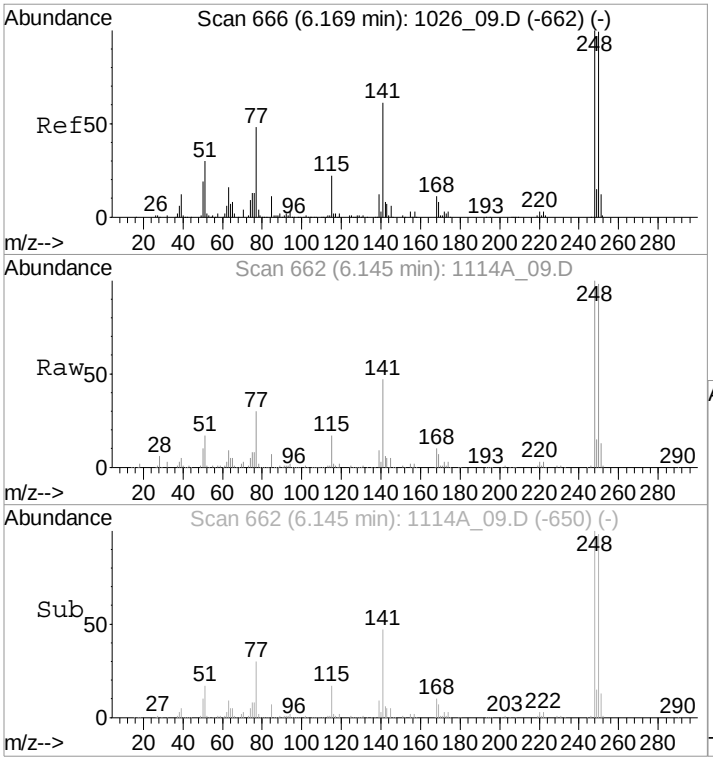


#72
N-Nitrosodiphenylamine
Concen: 9464.5725693 ppb
RT: 5.85 min Scan# 614
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:169 Resp: 214978

Ion	Ratio	Lower	Upper
169	100		
168	63.8	44.8	84.8
167	33.3	14.1	54.1
170	13.2	0.0	33.0

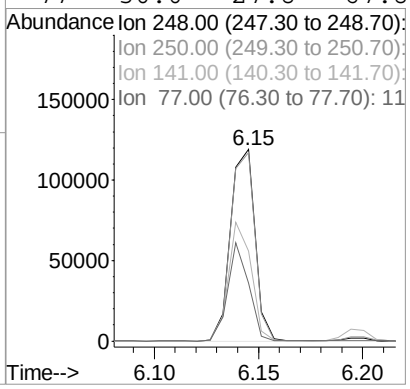


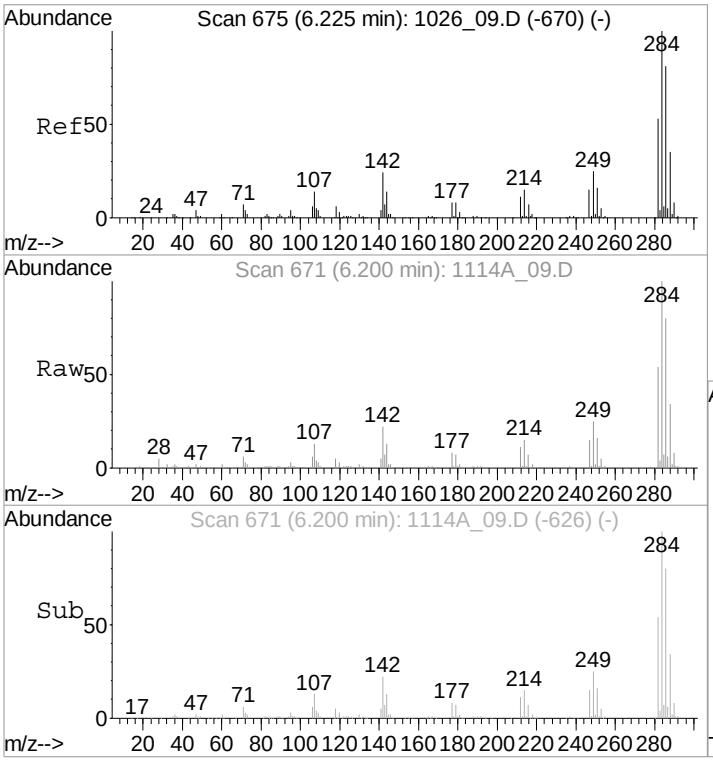


#74
4-Bromophenyl-phenylether
Concen: 12821.1750207 ppb
RT: 6.15 min Scan# 662
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:248 Resp: 97703

Ion	Ratio	Lower	Upper
248	100		
250	98.4	79.1	119.1
141	47.0	40.6	80.6
77	30.0	27.8	67.8

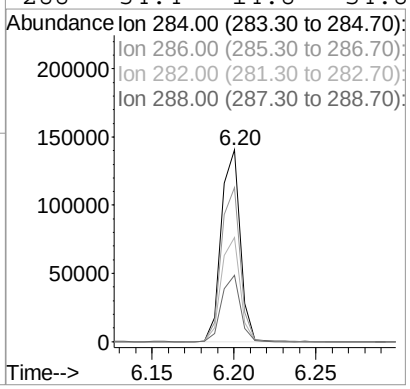


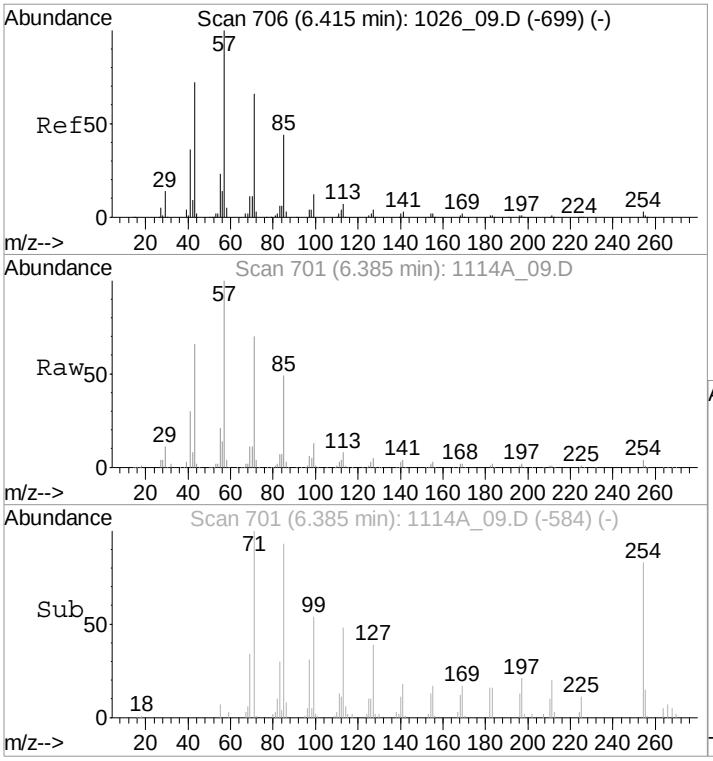


#75
Hexachlorobenzene
Concen: 11602.3864437 ppb
RT: 6.20 min Scan# 671
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:284 Resp: 112360

Ion	Ratio	Lower	Upper
284	100		
286	80.3	60.7	100.7
282	54.4	33.1	73.1
288	34.4	14.8	54.8

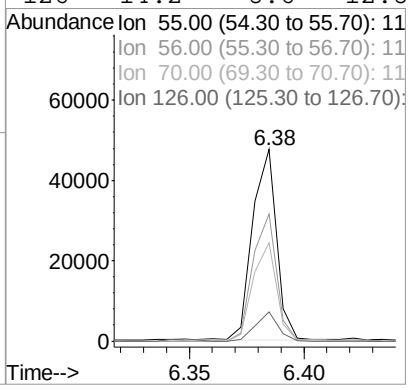


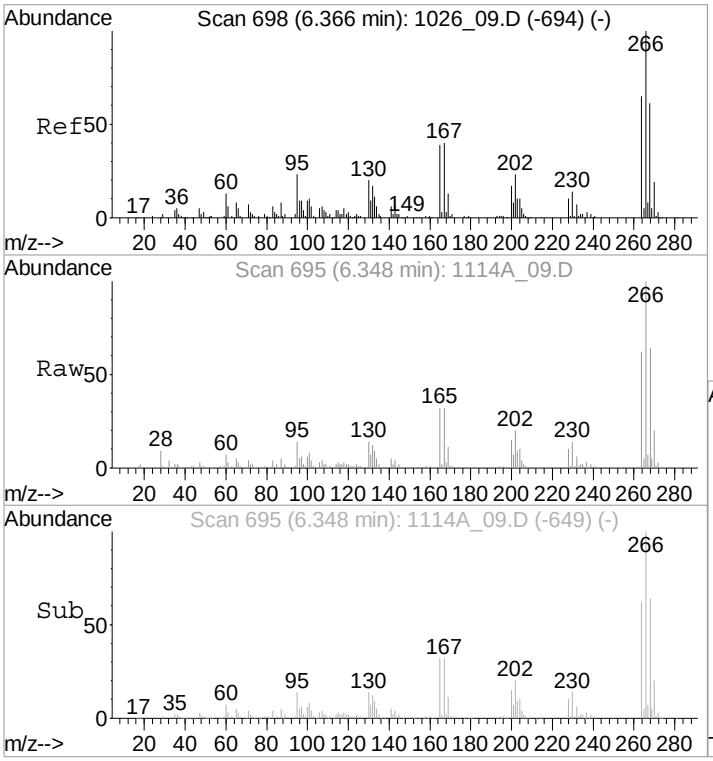


#76
n-octadecane
Concen: 9262.3610592 ppb
RT: 6.38 min Scan# 701
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion: 55 Resp: 34866

Ion	Ratio	Lower	Upper
55	100		
56	66.2	49.0	73.4
70	52.1	37.9	56.9
126	14.2	8.6	12.8#

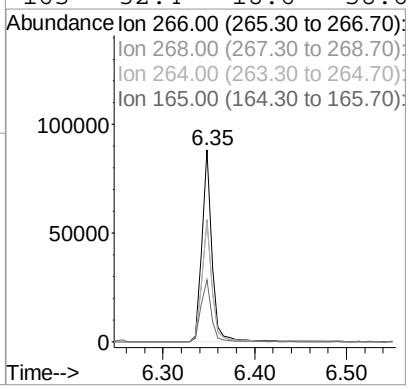


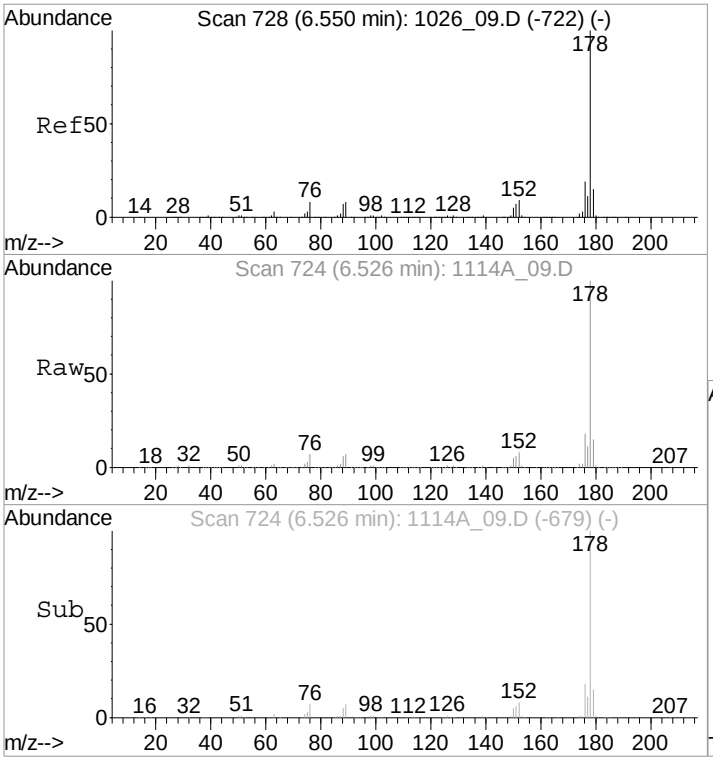


#77
Pentachlorophenol
Concen: 12201.3269060 ppb
RT: 6.35 min Scan# 695
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:266 Resp: 67135

Ion	Ratio	Lower	Upper
266	100		
268	63.6	41.1	81.1
264	62.5	45.4	85.4
165	32.4	18.6	58.6

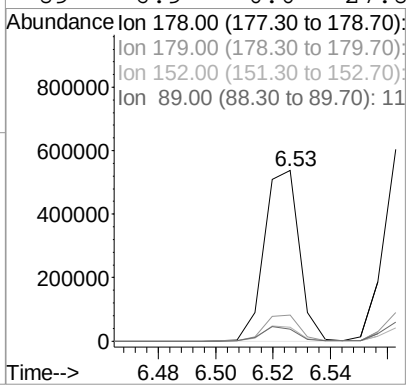


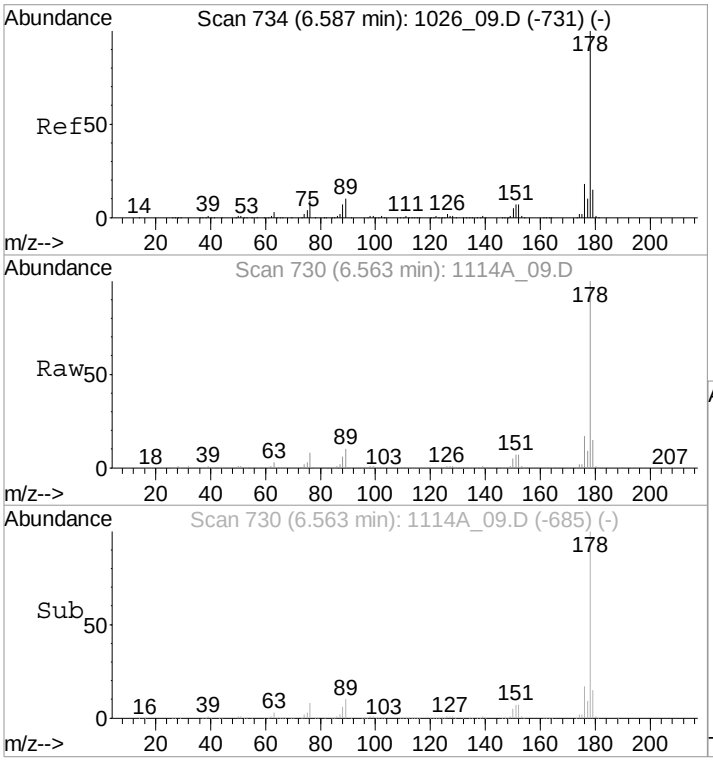


#78
Phenanthrene
Concen: 11400.5778160 ppb
RT: 6.53 min Scan# 724
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:178 Resp: 455455

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	34.9
152	8.0	0.0	28.9
89	6.9	0.0	27.8

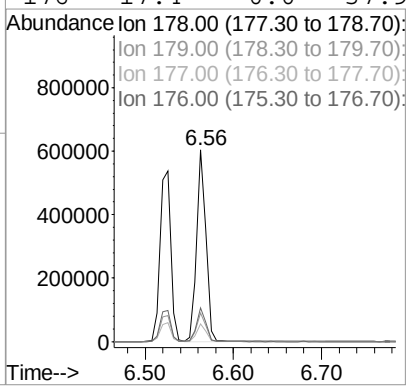


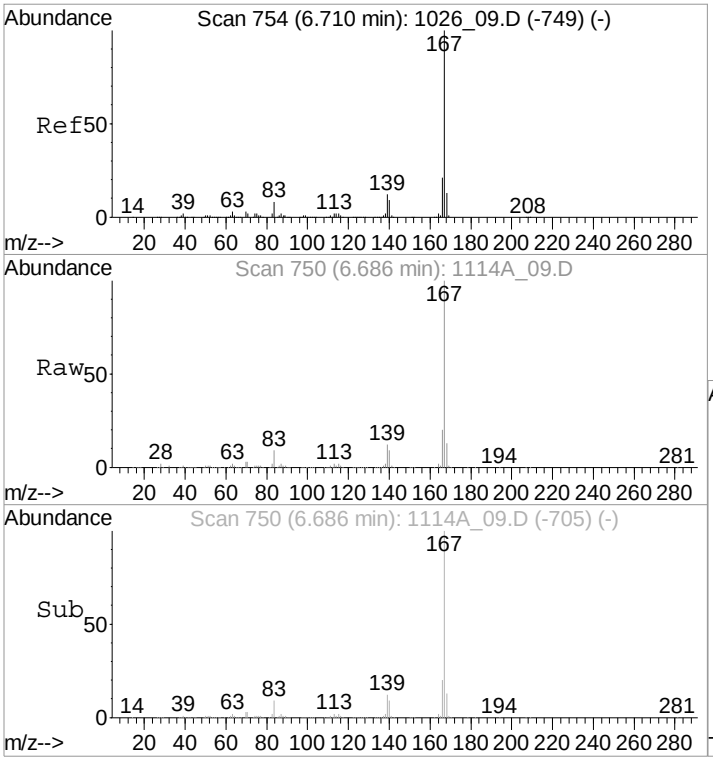


#79
Anthracene
Concen: 11309.5758224 ppb
RT: 6.56 min Scan# 730
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:178 Resp: 446045

Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	35.3
177	9.2	0.0	29.5
176	17.4	0.0	37.9

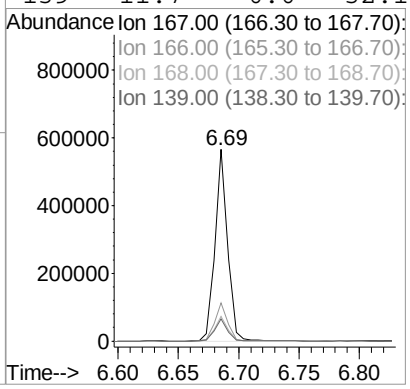


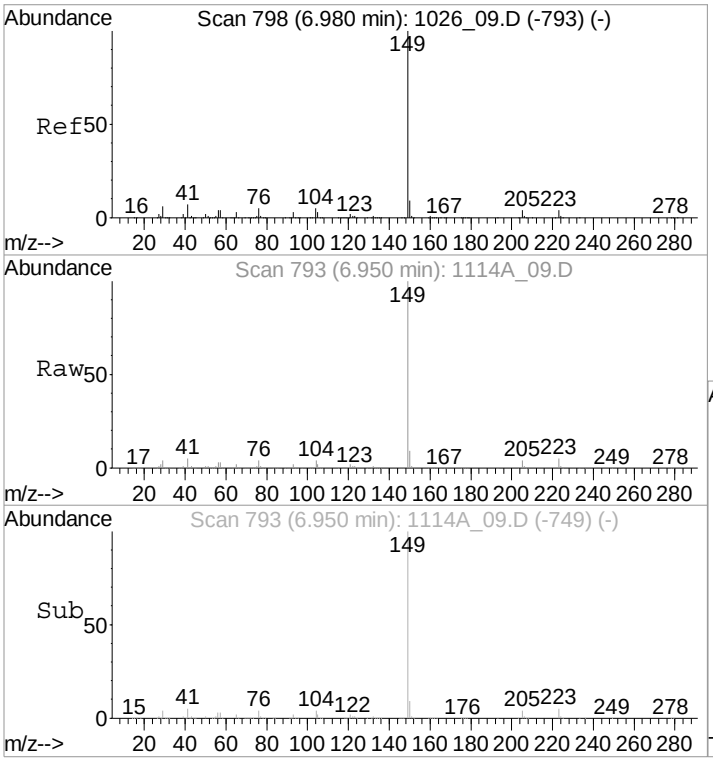


#80
Carbazole
Concen: 11718.6877080 ppb
RT: 6.69 min Scan# 750
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:167 Resp: 408970

Ion	Ratio	Lower	Upper
167	100		
166	20.3	0.7	40.7
168	13.3	0.0	33.2
139	11.7	0.0	32.1

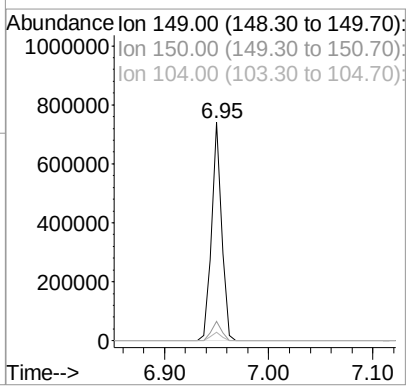


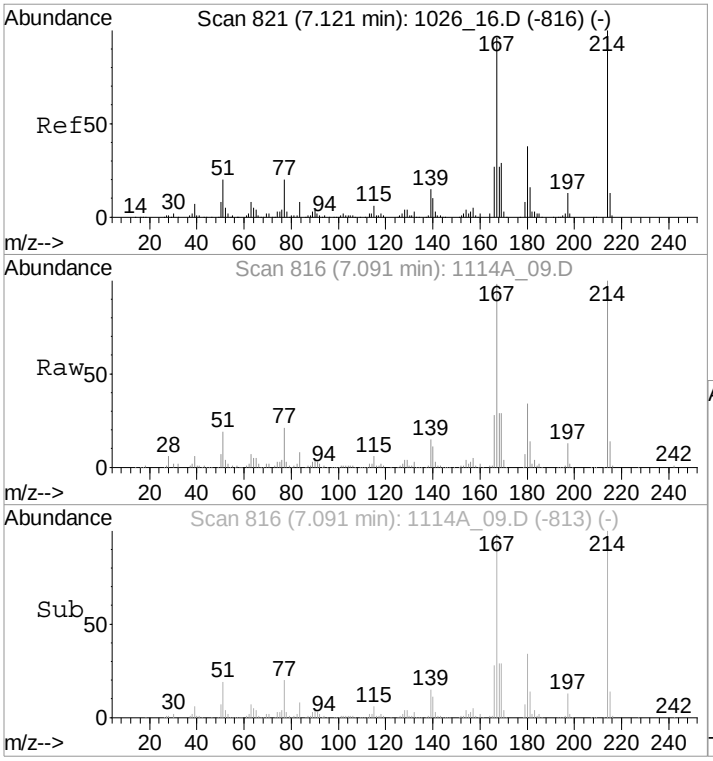


#81
Di-n-butyl phthalate
Concen: 10921.4427389 ppb
RT: 6.95 min Scan# 793
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:149 Resp: 499636

Ion	Ratio	Lower	Upper
149	100		
150	9.0	0.0	29.1
104	4.0	0.0	24.7

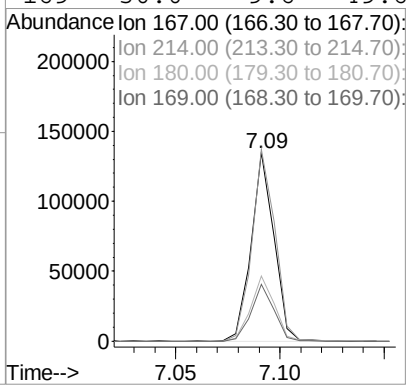


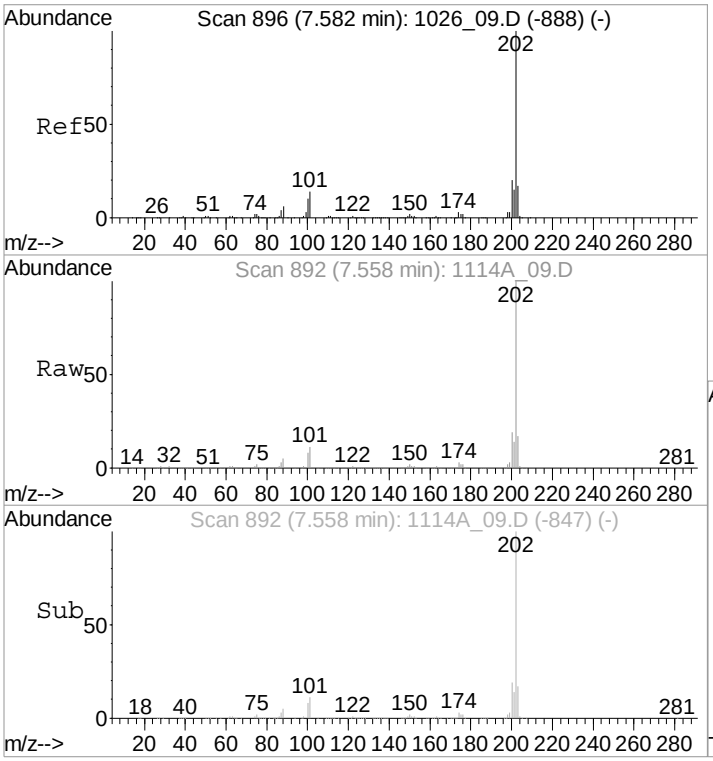


#82
2-nitrodiphenylamine
Concen: 13120.0166505 ppb
RT: 7.09 min Scan# 816
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:167 Resp: 102230

Ion	Ratio	Lower	Upper
167	100		
214	102.9	76.5	116.5
180	35.7	22.3	62.3
169	30.0	9.6	49.6

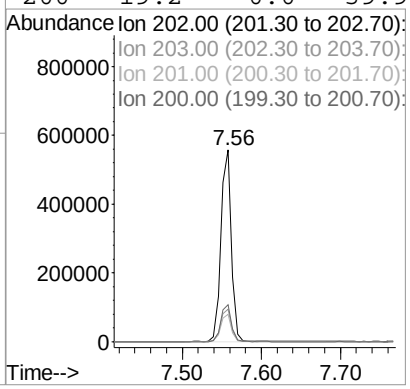


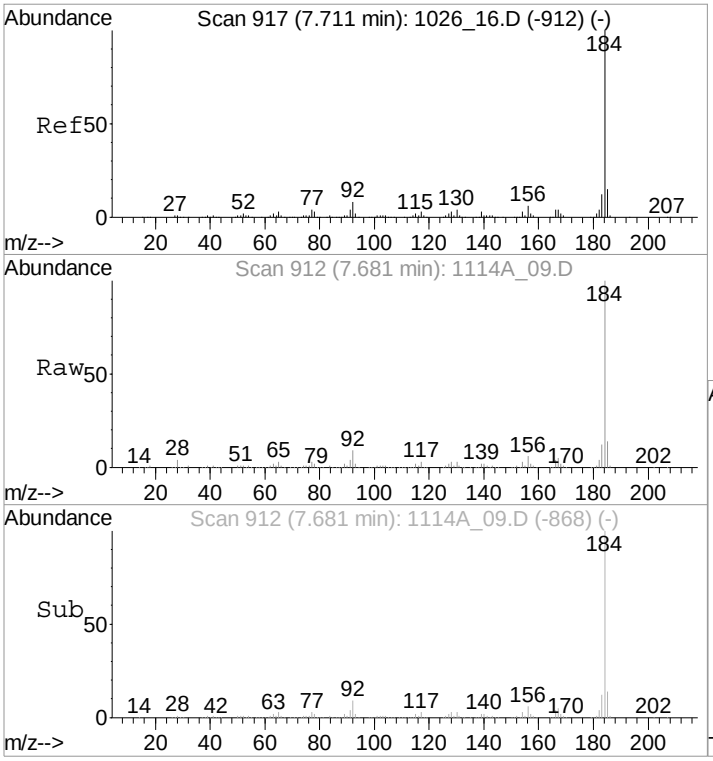


#83
Fluoranthene
Concen: 12242.3576780 ppb
RT: 7.56 min Scan# 892
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:202 Resp: 511024

Ion	Ratio	Lower	Upper
202	100		
203	16.9	0.0	37.4
201	14.4	0.0	34.6
200	19.2	0.0	39.9

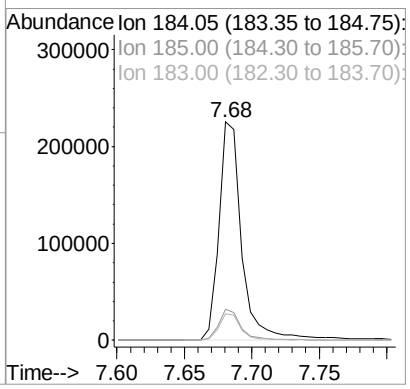


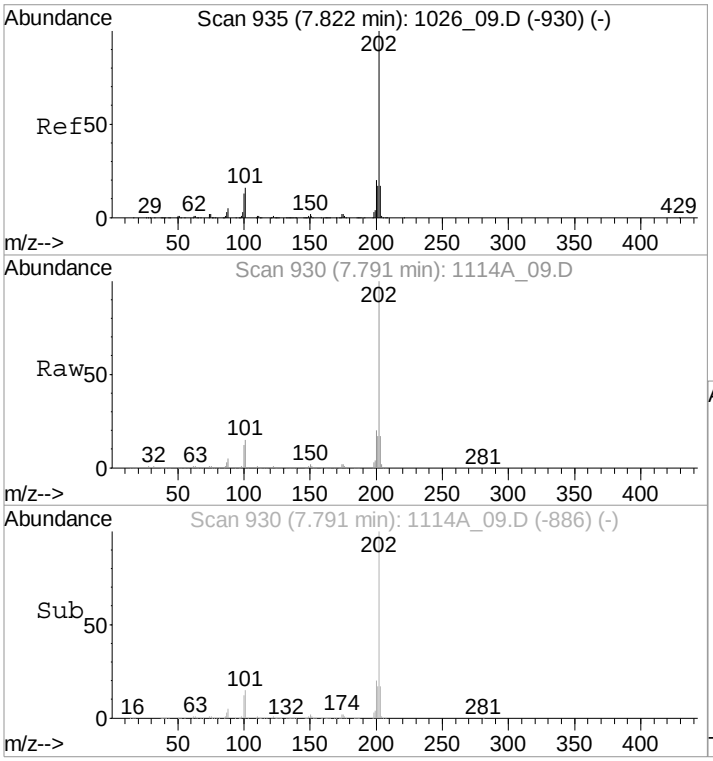


#85
Benzidine
Concen: 12535.2692803 ppb
RT: 7.68 min Scan# 912
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:184 Resp: 263860

Ion	Ratio	Lower	Upper
184	100		
185	14.0	0.0	34.5
183	12.0	0.0	31.7

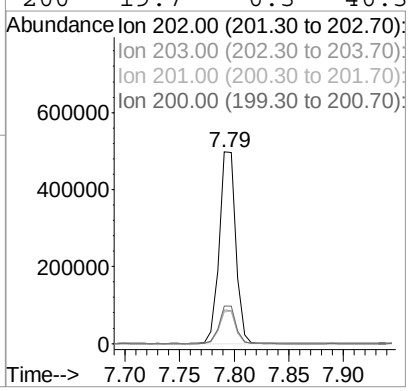


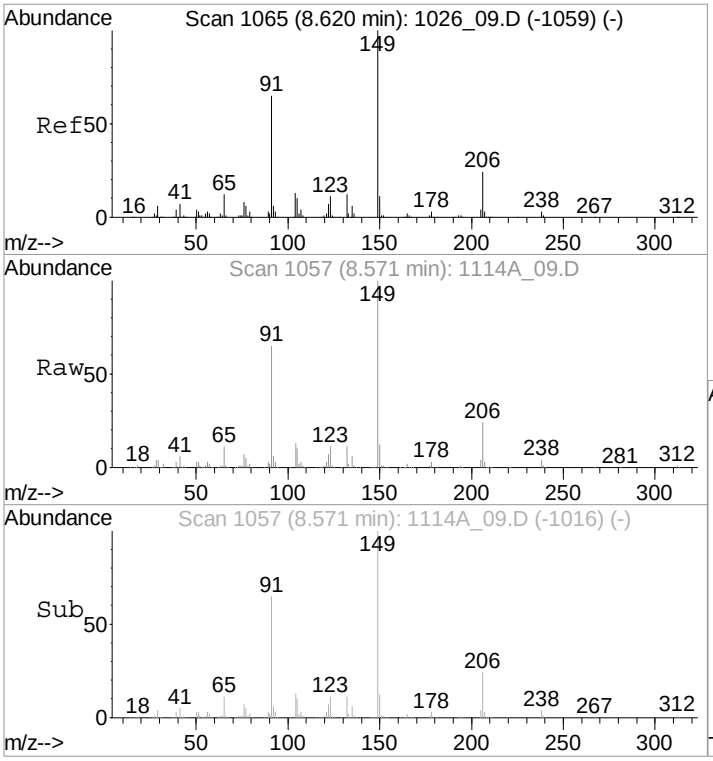


#86
Pyrene
Concen: 11486.5414244 ppb
RT: 7.79 min Scan# 930
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:202 Resp: 521983

Ion	Ratio	Lower	Upper
202	100		
203	17.4	0.0	37.1
201	16.5	0.0	37.2
200	19.7	0.3	40.3

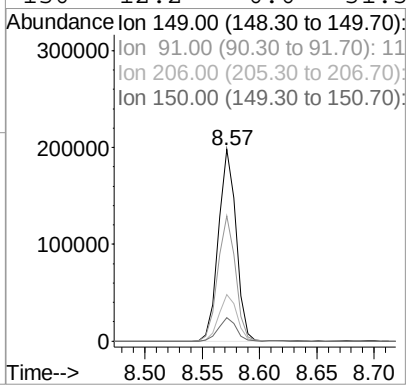


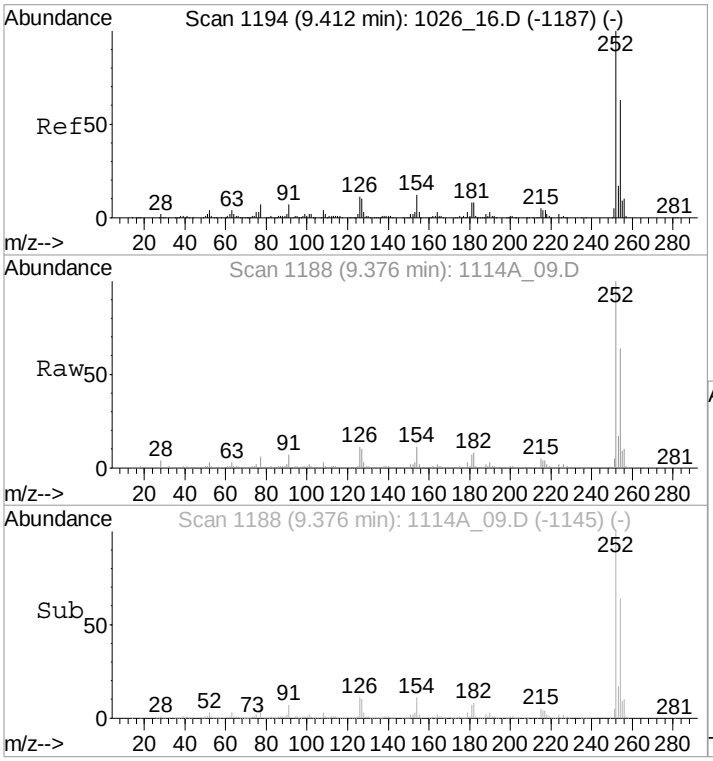


#88
Benzylbutyl phthalate
Concen: 11898.9441982 ppb
RT: 8.57 min Scan# 1057
Delta R.T. -0.05 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:149 Resp: 212290

Ion	Ratio	Lower	Upper
149	100		
91	65.2	45.4	85.4
206	24.3	3.5	43.5
150	12.2	0.0	31.3

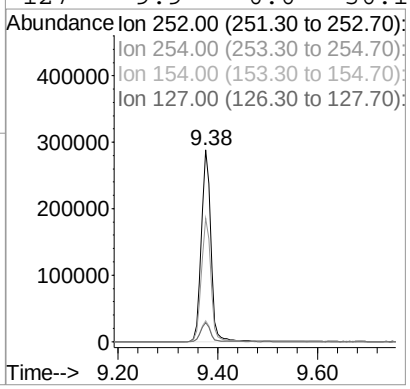


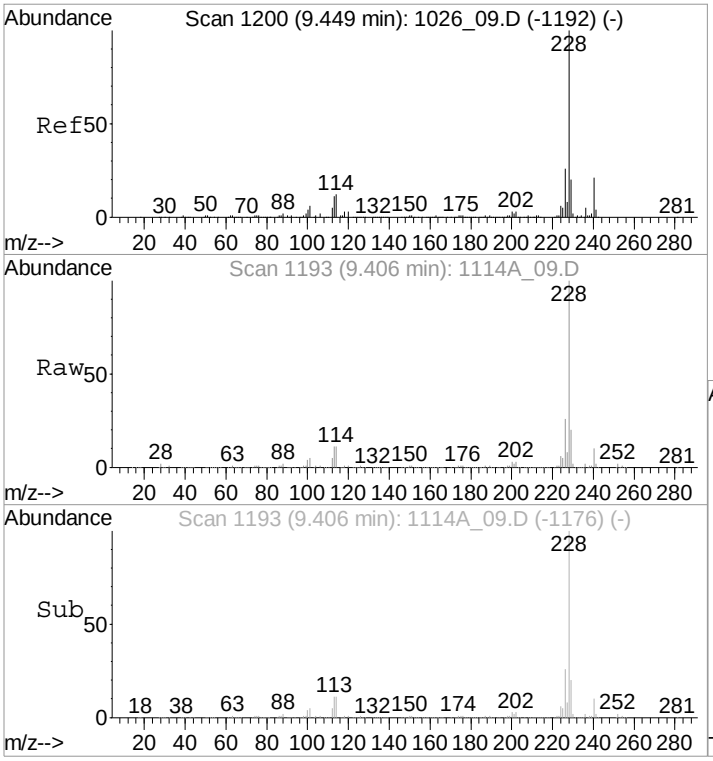


#89
3,3-Dichlorobenzidine
Concen: 23548.7651142 ppb
RT: 9.38 min Scan# 1188
Delta R.T. -0.04 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:252 Resp: 378573

Ion	Ratio	Lower	Upper
252	100		
254	64.4	43.3	83.3
154	10.8	0.0	31.6
127	9.9	0.0	30.1

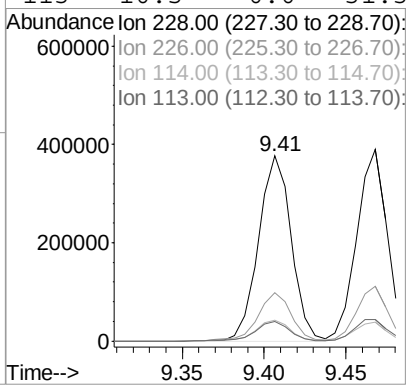


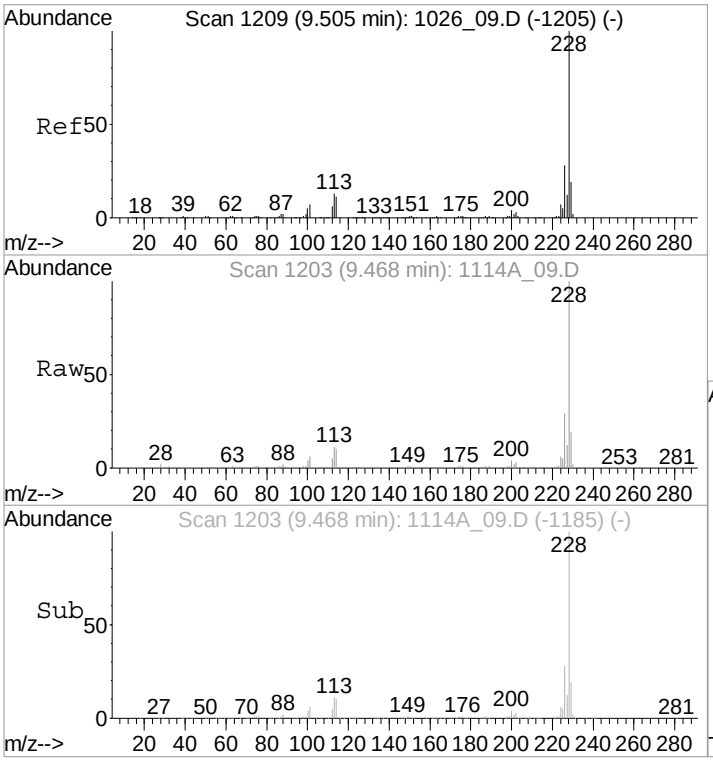


#90
Benzo(a)anthracene
Concen: 12759.1752476 ppb
RT: 9.41 min Scan# 1193
Delta R.T. -0.04 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:228 Resp: 525013

Ion	Ratio	Lower	Upper
228	100		
226	26.0	5.9	45.9
114	11.3	0.0	31.7
113	10.5	0.0	31.3

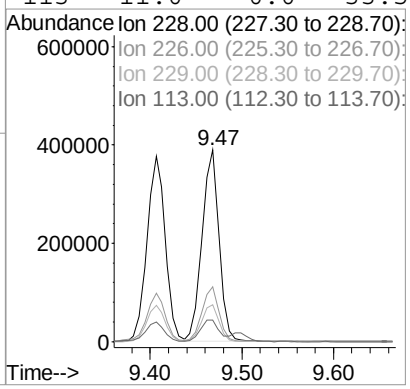


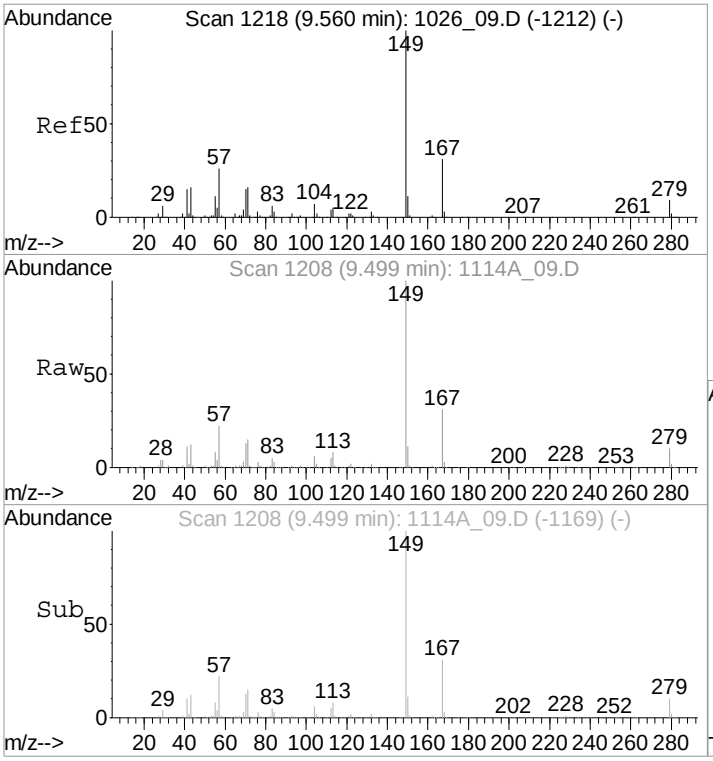


#91
Chrysene
Concen: 11871.7193849 ppb
RT: 9.47 min Scan# 1203
Delta R.T. -0.04 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:228 Resp: 505417

Ion	Ratio	Lower	Upper
228	100		
226	28.6	8.1	48.1
229	19.2	0.0	39.5
113	11.0	0.0	33.5

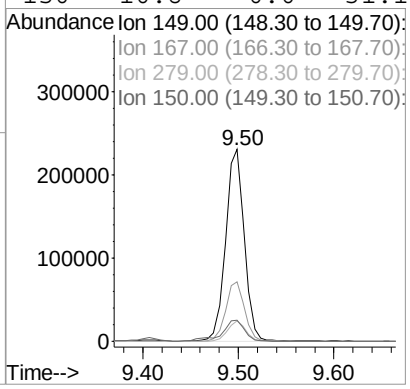


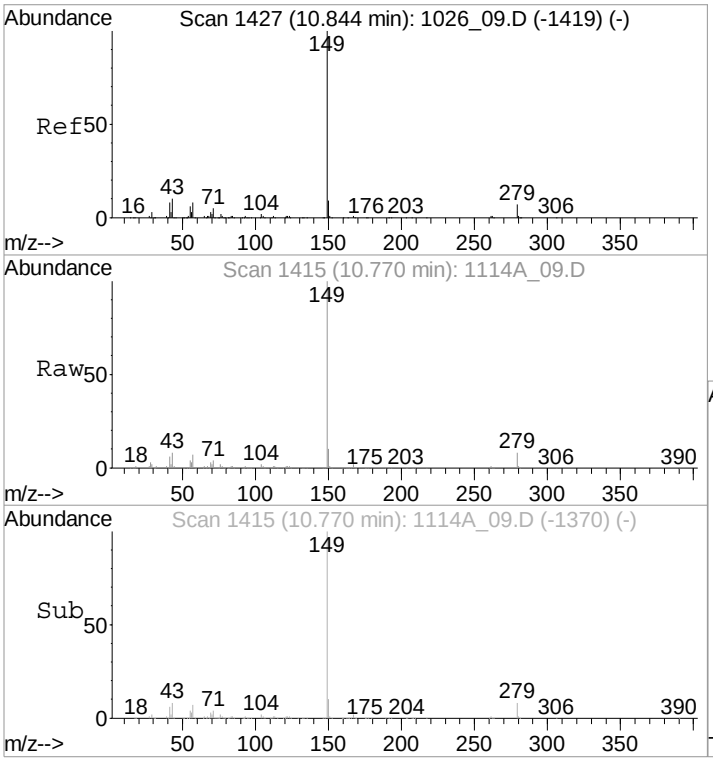


#92
bis(2-Ethylhexyl)phthalate
Concen: 12013.8183964 ppb
RT: 9.50 min Scan# 1208
Delta R.T. -0.06 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:149 Resp: 313997

Ion	Ratio	Lower	Upper
149	100		
167	31.0	11.2	51.2
279	10.5	0.0	28.5
150	10.8	0.0	31.1

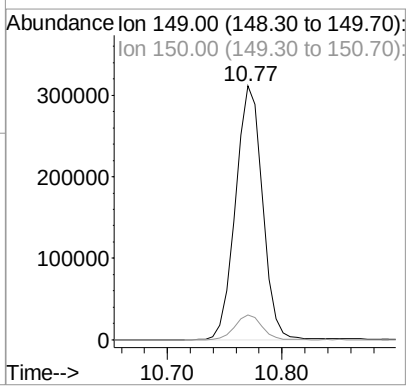


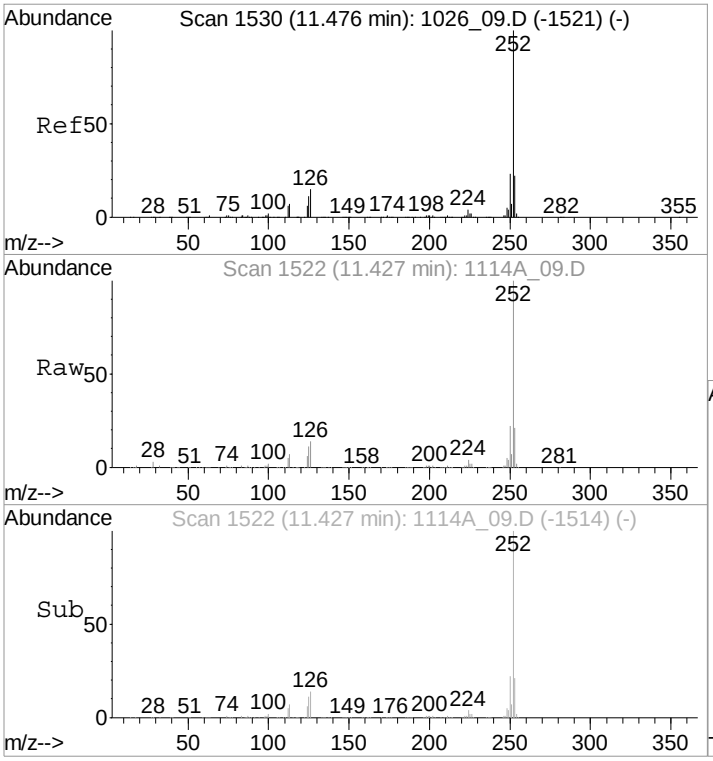


#93
Di-n-octyl phthalate
Concen: 12438.2746602 ppb
RT: 10.77 min Scan# 1415
Delta R.T. -0.07 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:149 Resp: 508839

Ion	Ratio	Lower	Upper
149	100		
150	9.7	0.0	29.2

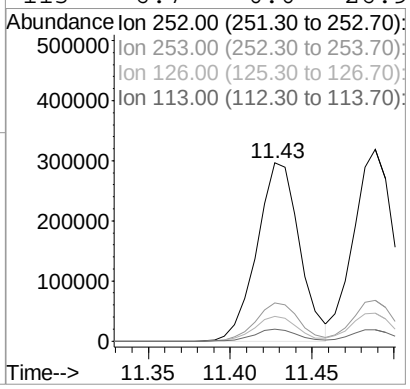


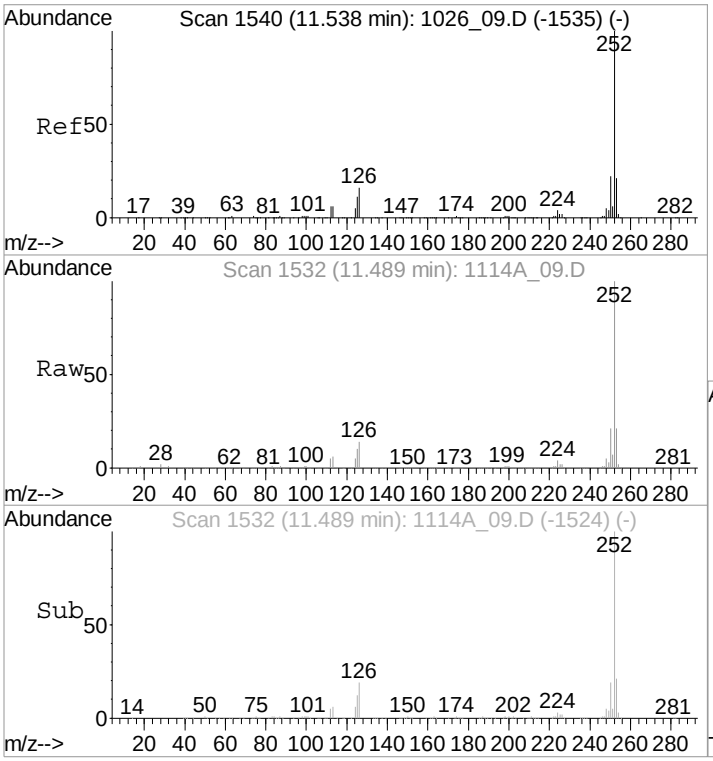


#95
Benzo(b)fluoranthene
Concen: 11802.6611970 ppb
RT: 11.43 min Scan# 1522
Delta R.T. -0.05 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:252 Resp: 536970

Ion	Ratio	Lower	Upper
252	100		
253	21.2	1.5	41.5
126	13.9	0.0	34.7
113	6.7	0.0	26.9

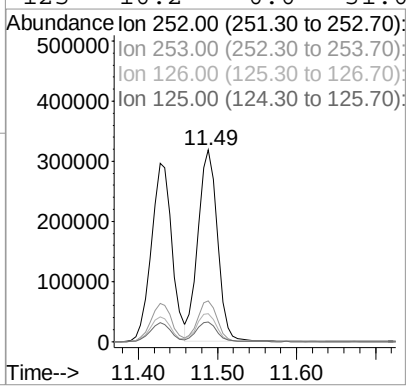


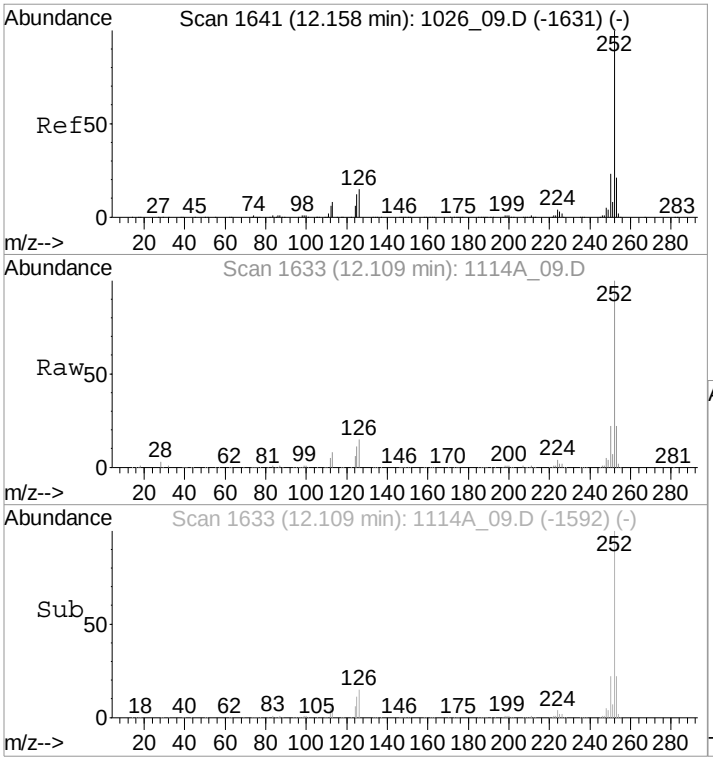


#96
Benzo(k)fluoranthene
Concen: 11534.7607191 ppb
RT: 11.49 min Scan# 1532
Delta R.T. -0.05 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:252 Resp: 547014

Ion	Ratio	Lower	Upper
252	100		
253	21.3	1.0	41.0
126	14.4	0.0	35.7
125	10.2	0.0	31.0

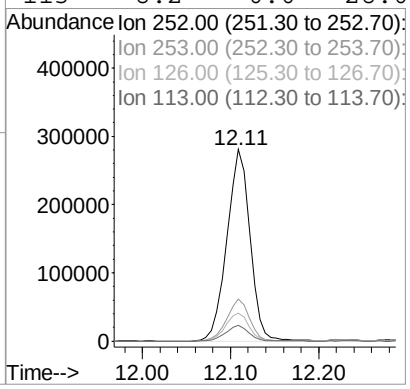


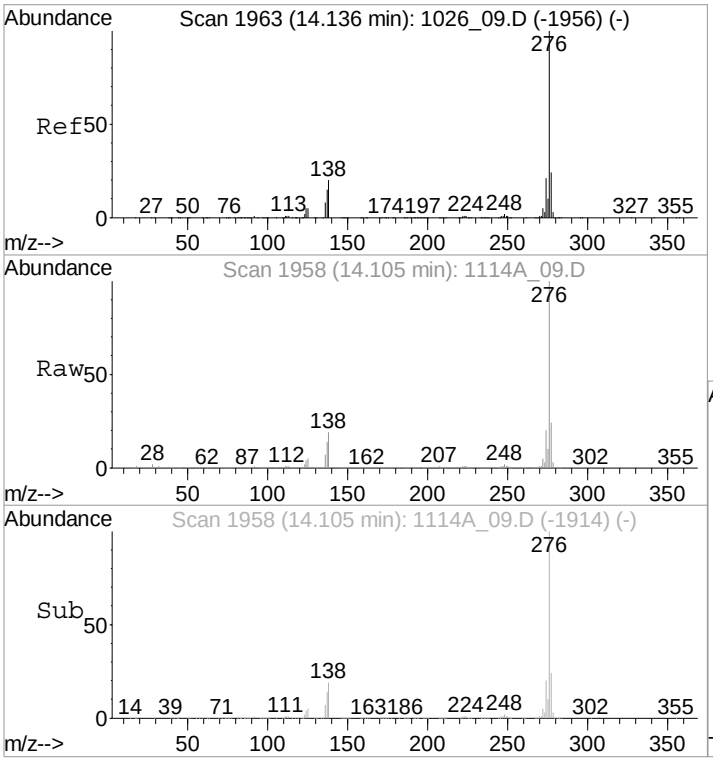


#97
Benzo(a)pyrene
Concen: 13441.8722052 ppb
RT: 12.11 min Scan# 1633
Delta R.T. -0.05 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:252 Resp: 511465

Ion	Ratio	Lower	Upper
252	100		
253	22.0	1.2	41.2
126	14.7	0.0	35.3
113	8.2	0.0	28.0

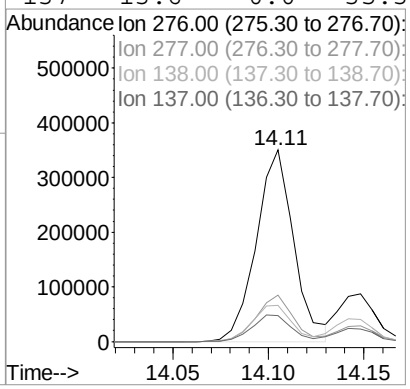


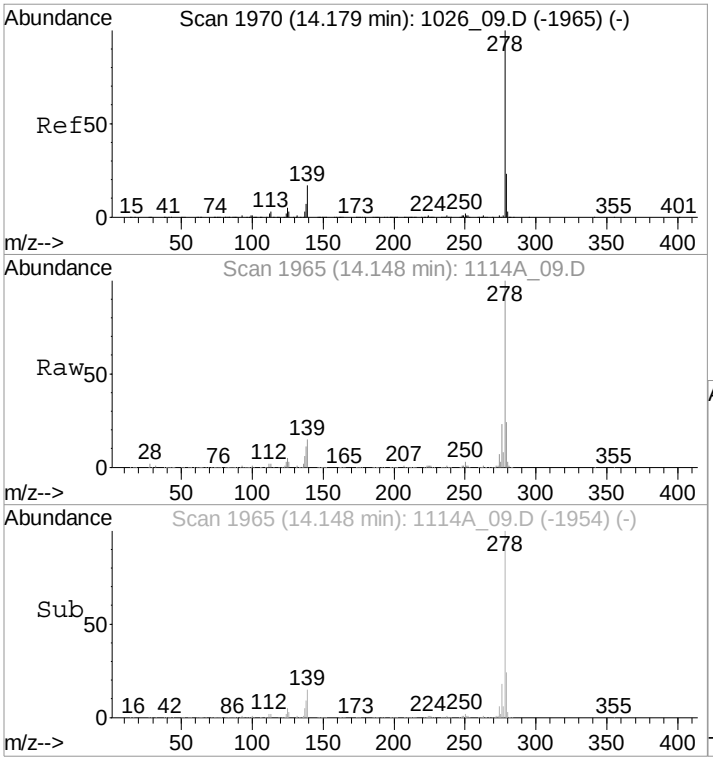


#98
Indeno(1,2,3-cd)pyrene
Concen: 11972.4065655 ppb
RT: 14.11 min Scan# 1958
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:276 Resp: 477249

Ion	Ratio	Lower	Upper
276	100		
277	24.1	4.1	44.1
138	18.9	0.2	40.2
137	13.6	0.0	35.3

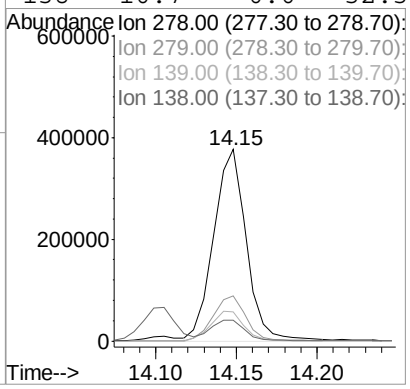


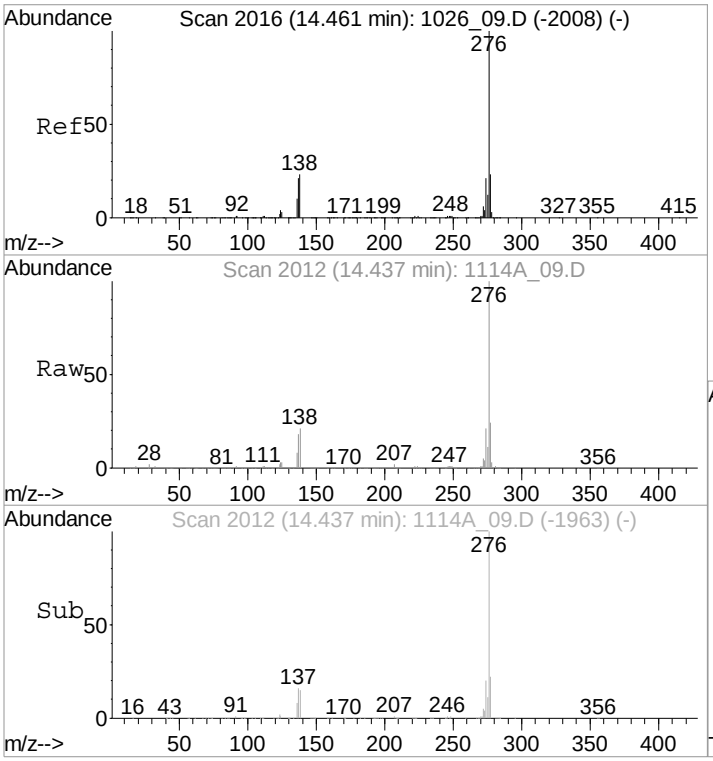


#99
Dibenz(a,h)anthracene
Concen: 11877.2617434 ppb m
RT: 14.15 min Scan# 1965
Delta R.T. -0.03 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:278 Resp: 529443

Ion	Ratio	Lower	Upper
278	100		
279	23.5	3.2	43.2
139	15.2	0.0	37.0
138	10.7	0.0	32.3

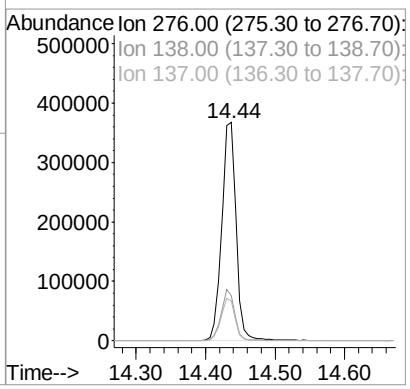




#100
Benzo(g,h,i)perylene
Concen: 11825.8733294 ppb
RT: 14.44 min Scan# 2012
Delta R.T. -0.02 min
Lab File: 1114A_09.D
Acq: 14 Nov 2022 2:07 pm

Tgt Ion:276 Resp: 526336

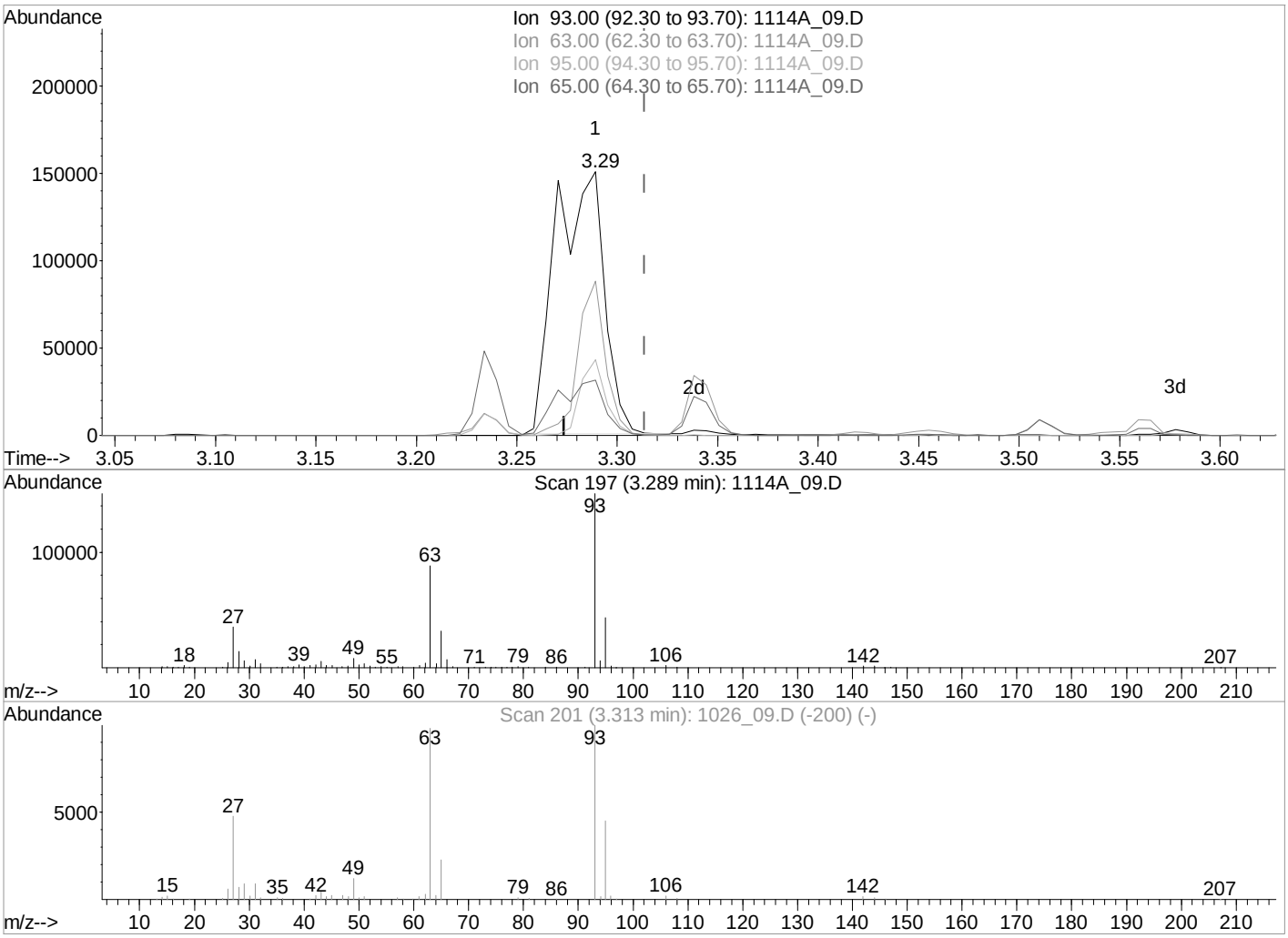
Ion	Ratio	Lower	Upper
276	100		
138	20.6	3.1	43.1
137	18.1	0.7	40.7



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:18 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 23588.9965125 ppb

Qvalue = 93

response 250277

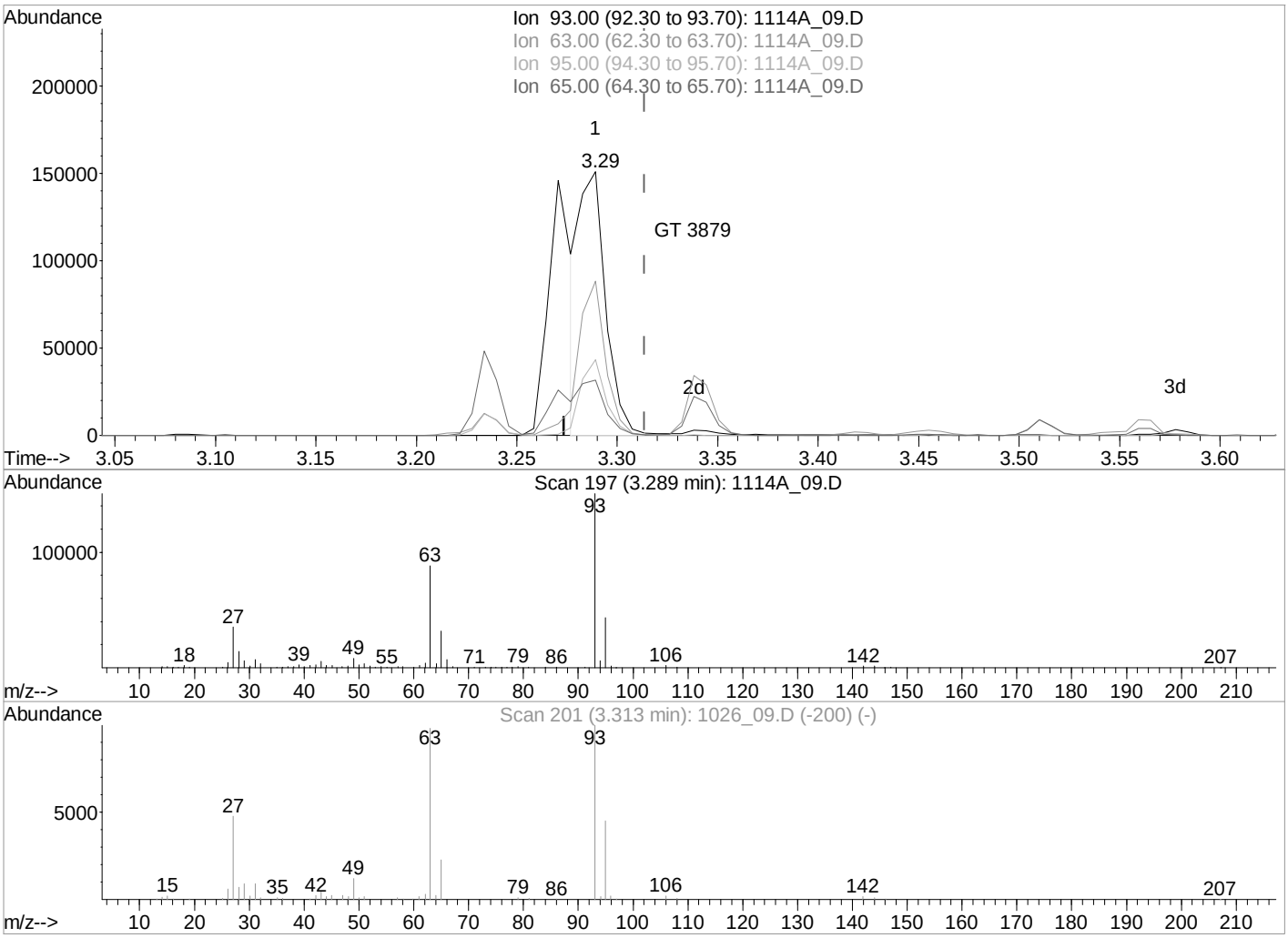
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	58.48
95.00	28.70	28.77
65.00	22.20	20.59

1114A_09.D S804J26V.M Tue Nov 15 13:36:38 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.024) 12891.8219891 ppb m

response 136781

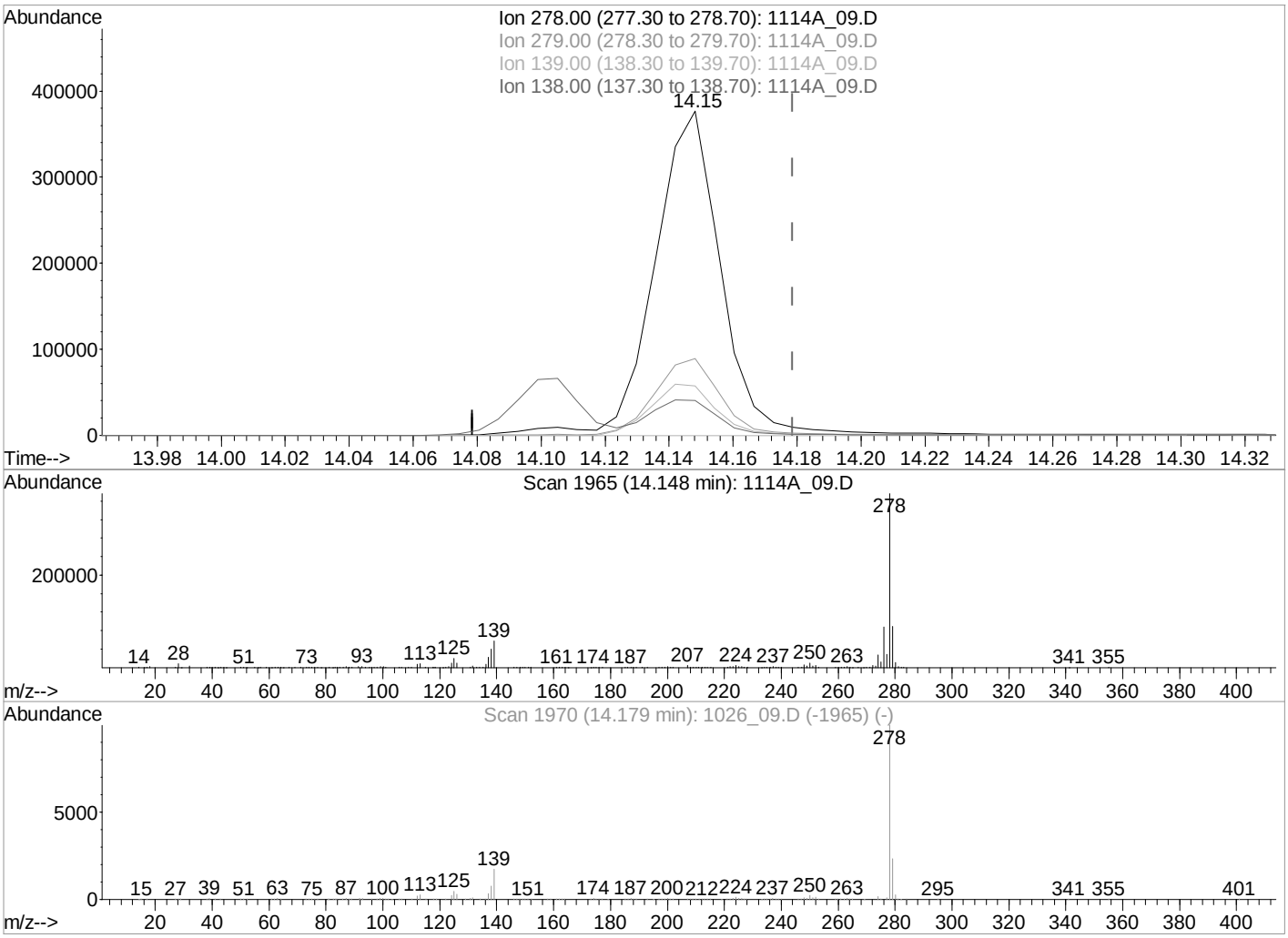
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	58.35
95.00	28.70	28.62
65.00	22.20	20.93

1114A_09.D S804J26V.M Tue Nov 15 13:36:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_09.D

(99) Dibenz(a,h)anthracene (MT)

14.15min (-0.031) 12362.1170688 ppb

Qvalue = 97

response 551056

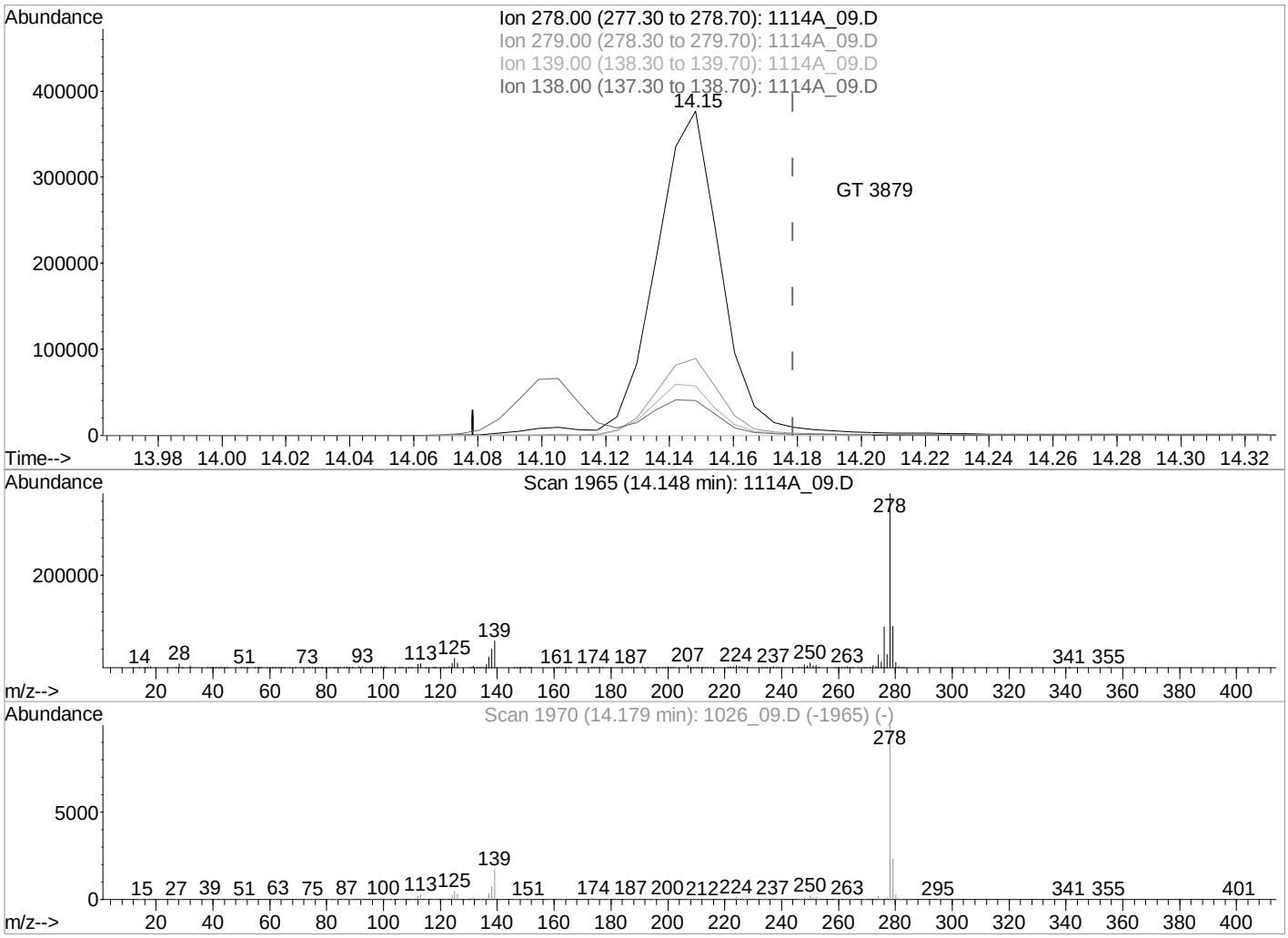
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.54
139.00	17.00	15.22
138.00	12.30	10.72

1114A_09.D S804J26V.M Tue Nov 15 13:37:43 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\111422A\1114A 09.D Vial: 62
Acq On : 14 Nov 2022 2:07 pm Operator: 917
Sample : MSD 1X WG1958443 L1556406-01 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 13:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1114A_09.D

(99) Dibenz(a,h)anthracene (MT)

14.15min (-0.031) 11877.2617434 ppb m

response 529443

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.54
139.00	17.00	15.22
138.00	12.30	10.72

1114A_09.D S804J26V.M Tue Nov 15 13:37:54 2022

BNA SS Extractions Benchsheet

Batch: WG1958443

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1555954	WG1957452	BJM688	PREPREPBAL4	10-NOV-22
L1556196	WG1957796	KMT967	PREPREPBAL1	10-NOV-22
L1556406	WG1957996	RT703	PREPREPBAL4	11-NOV-22
L1556476	WG1958217	BJM688	PREPREPBAL2	11-NOV-22
L1556481	WG1958197	BJM688	PREPREPBAL1	11-NOV-22

Process Analyst: MAB3514 **Transfer Analyst:** MAB3514 **Material Handler:** MAB3514 **Prep Start Date/Time:** 11/14/22 04:51-04:53
Prep End Date/Time: 11/14/22 10:43 **SOP:** MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17127444

Na2SO4: 22K01890 Amt. Used: 1 Exp. Date:05/01/23 **MeCL2:Acetone:** 22K04378 Amt. Used: 1 Exp. Date:05/01/23
Surrogate: 22K09913 Amt. Used: 0.50 mL Exp. Date:04/12/23 **LCS/MS Spike:** 22K11306 Amt. Used: 0.50 mL Exp. Date:11/25/22
MeCl2: 22K08770 Amt. Used: 1 Exp. Date:05/08/23 **Spike Syringe ID:** 22E29053 Amt. Used: 1 Exp. Date:11/29/22
Surrogate Syringe ID: 22I30685 Amt. Used: 1 Exp. Date:03/30/23

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	AO869	11/15/22 14:41:42
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	AO869	11/15/22 14:41:42
MS(L1556406-01)	15.17	25	0.5	Yellow		0.033	0.991	1	1	1	AO869	11/15/22 14:41:42
MSD(L1556406-01)	15.27	25	0.5	Yellow		0.0327	0.982	1	1	1	AO869	11/15/22 14:41:42
1. L1555954-12	15.40	25	0.5	Orange	1110 PP4 / Thu-1	0.0325	0.976	1	1	1	AO869	11/15/22 14:41:42
2. L1555954-13	15.37	25	5.0	Dark-brown	1110 PP4 / Thu-1	0.325	9.76	10	1	1	AO869	11/15/22 14:41:42
3. L1555954-14	15.46	25	0.5	Orange	1110 PP4 / Thu-1	0.0323	0.97	1	1	1	AO869	11/15/22 14:41:42
4. L1555954-15	15.32	25	0.5	Dark-brown	1110 PP4 / Thu-1	0.0326	0.979	1	1	1	AO869	11/15/22 14:41:42
5. L1555954-16	15.45	25	0.5	Yellow	1110 PP4 / Thu-1	0.0324	0.973	1	1	1	AO869	11/15/22 14:41:42
6. L1555954-17	15.27	25	0.5	Green	1110 PP4 / Thu-1	0.0327	0.982	1	1	1	AO869	11/15/22 14:41:42
7. L1556196-01	15.07	25	0.5	Brown	PP1 1110 Thur2	0.0332	0.997	1	1	1	AO869	11/15/22 14:41:42
8. L1556196-02	15.80	25	1.0	Dark-brown	PP1 1110 Thur2	0.0633	1.9	2	1	1	AO869	11/15/22 14:41:42
9. L1556406-01	15.31	25	0.5	Yellow	1111 PP4 / Fri-1	0.0327	0.982	1	1	1	AO869	11/15/22 14:41:42
10. L1556406-02	15.22	25	0.5	Yellow	1111 PP4 / Fri-1	0.0329	0.988	1	1	1	AO869	11/15/22 14:41:42
11. L1556406-03	15.57	25	0.5	Dark-brown	1111 PP4 / Fri-1	0.0321	0.964	1	1	1	AO869	11/15/22 14:41:42
12. L1556406-04	15.14	25	0.5	Dark-brown	1111 PP4 / Fri-1	0.033	0.991	1	1	1	AO869	11/15/22 14:41:42
13. L1556406-05	15.25	25	0.5	Yellow	1111 PP4 / Fri-1	0.0328	0.985	1	1	1	AO869	11/15/22 14:41:42
14. L1556406-06	15.18	25	0.5	Orange	1111 PP4 / Fri-1	0.0329	0.988	1	1	1	AO869	11/15/22 14:41:42
15. L1556406-07	15.38	25	1.0	Dark-brown	1111 PP4 / Fri-1	0.065	1.95	2	1	1	AO869	11/15/22 14:41:42
16. L1556406-08	15.26	25	1.0	Dark-brown	1111 PP4 / Fri-1	0.0655	1.97	2	1	1	AO869	11/15/22 14:41:42
17. L1556406-09	15.23	25	0.5	Yellow	1111 PP4 / Fri-1	0.0328	0.985	1	1	1	AO869	11/15/22 14:41:42
18. L1556406-10	15.37	25	0.5	Orange	1111 PP4 / Fri-1	0.0325	0.976	1	1	1	AO869	11/15/22 14:41:42
19. L1556476-01	15.99	25	0.5	Dark-brown	Fri03 / 1111PP02	0.0313	0.94	1	1	1	AO869	11/15/22 14:41:42
20. L1556481-05	15.45	25	5.0	Dark-brown	FRI 4/1111-PP1	0.324	9.73	10	1	1	AO869	11/15/22 14:41:42

Comments:

Reviewed By: AO869 on 11/15/22 14:41:42

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Mass	Mass of parameter.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical® www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: ☐ Yes ☐ No

Workorder: 10632887 Workorder Name: D3631600 Owner Received Date: 11/8/2022 Results Requested By: 12/1/2022

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

JGFU

Requested Analysis: 8270E SVOC

L1556196

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	8270E SVOC	LAB USE ONLY
1	BNSF-G020-SC-0.0-1.0-110422	PS	11/4/2022 10:20	10632887001	Solid	1	X	-01
2	BNSF-F390-SC-6.2-7.2-110722	PS	11/7/2022 10:30	10632887002	Solid	1	X	-02
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	CSM/Pace	11-9-22 14:50	Hana Mwechiwa	11/10/22 09:00	
2					
3					

Cooler Temperature on Receipt ____ °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Sample Receipt Checklist

COC Seal Present/Intact: ✓Y N
COC Signed/Accurate: ✓Y N
Bottles arrive intact: ✓Y N
Correct bottles used: ✓Y N
Sufficient volume sent: ✓Y N
RAD Screen <0.5 mR/hr: ✓Y N

If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

TRK 5466 8887 1553

Temp 4.9 to = 4.9 MMA2

Bottle 2

U5556196

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 10632887
(To be completed by sending lab)

Sending Project No:	10632887
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/09/22
REQUESTED COMPLETION DATE:	**12/1/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed _____

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
	JGFU		Unpreserved	2	$130.00	$260.00
					TOTAL	$260.00

Special Requirements: Report D, QC Limits, MDLs (D),Jacobs UPRR EQEDD (1579)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$260.00	$208.00	$52.00
	TOTAL	$260.00	$208.00	$52.00

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☐ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10632888

Table Of Contents

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

January 26, 2023

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10632888

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10632888

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10632888

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10632888001	**BNSF-G200-SC-4.0-5.0-110722**	Solid	11/07/22 14:00	11/08/22 08:50

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10632888

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10632888001	**BNSF-G200-SC-4.0-5.0-110722**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632888

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: January 26, 2023

General Information:
1 sample was analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

QC Batch: 852301

P3: Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
- BNSF-G200-SC-4.0-5.0-110722 (Lab ID: 10632888001)

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 852301

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- BNSF-G200-SC-4.0-5.0-110722 (Lab ID: 10632888001)
  - n-Triacontane (S)
  - o-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 852301

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10632887001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- MS (Lab ID: 4506604)
  - Diesel Fuel Range

Pace Analytical Services, LLC
1700 Elm Street
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10632888

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: January 26, 2023

QC Batch: 852301

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10632887001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- Motor Oil Range
- MSD (Lab ID: 4506605)
  - Diesel Fuel Range
  - Motor Oil Range

R1: RPD value was outside control limits.

- MSD (Lab ID: 4506605)
  - Diesel Fuel Range
  - Motor Oil Range

Additional Comments:

Analyte Comments:

QC Batch: 852301

- BNSF-G200-SC-4.0-5.0-110722 (Lab ID: 10632888001)
  - n-Triacontane (S)

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10632888

Sample: BNSF-G200-SC-4.0-5.0-110722 **Lab ID: 10632888001** Collected: 11/07/22 14:00 Received: 11/08/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**91100**	mg/kg	10200	4720	100	11/09/22 07:04	11/11/22 16:40	68334-30-5	
Motor Oil Range	**102000**	mg/kg	6830	3410	100	11/09/22 07:04	11/11/22 16:40		
Surrogates									
n-Triacontane (S)	0	%.	50-150		100	11/09/22 07:04	11/11/22 16:40		P3, S4
o-Terphenyl (S)	0	%.	50-150		100	11/09/22 07:04	11/11/22 16:40	84-15-1	S4
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**27.3**	%	0.10	0.10	1		01/13/23 10:20		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632888

QC Batch: 862526
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10632888001

SAMPLE DUPLICATE: 4555987

Parameter	Units	10639487098 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.2	14.0	6	30	N2

SAMPLE DUPLICATE: 4555988

Parameter	Units	10639487082 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.1	13.0	7	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10632888

QC Batch: 852301
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10632888001

METHOD BLANK: 4506602 Matrix: Solid
Associated Lab Samples: 10632888001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/11/22 15:31	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/11/22 15:31	
n-Triacontane (S)	%.	96	50-150		11/11/22 15:31	
o-Terphenyl (S)	%.	88	50-150		11/11/22 15:31	

LABORATORY CONTROL SAMPLE: 4506603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	43.5	87	50-150	
Motor Oil Range	mg/kg	50	49.6	99	50-150	
n-Triacontane (S)	%.			101	50-150	
o-Terphenyl (S)	%.			90	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4506604 4506605

Parameter	Units	10632887001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	154J	70.3	70.2	275	404	172	357	50-150	38	30	P6,R1
Motor Oil Range	mg/kg	392	70.3	70.2	555	771	232	541	50-150	33	30	P6,R1
n-Triacontane (S)	%.						86	84	50-150			
o-Terphenyl (S)	%.						100	107	50-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10632888

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P3	Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10632888

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10632888001	**BNSF-G200-SC-4.0-5.0-110722**	EPA 3550	852301	NWTPH-Dx	853256
10632888001	**BNSF-G200-SC-4.0-5.0-110722**	ASTM D2974	862526		

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here

WO# : 10632888

10632888

ALL SHADED AREAS ARE FOR LAB USE ONLY

Company: Jacobs

Address: 2020 SW 4th Ave suite 300 Portland, OR 97201

Billing Information: See contract Kris.Ivarson@Jacobs.com

Report To: Berney Kidd, Kris Ivarson

Email To: Bernice.Kidd@Jacobs.com

Copy To:

Site Collection Info/Address: Wishram, WA BNSF

Customer Project Name/Number: D3631600

State: County/City: / Time Zone Collected: [✓] PT [ ] MT [ ] CT [ ] ET

Phone:
Email:

Site/Facility ID #: BNSF Wishram

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Jennifer Ulrich

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature): Jennifer Ulrich

Turnaround Date Required: Standard

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [✓] No
Analysis: ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	~~TOC SW9060A~~	~~SVOC 8270E~~	~~PAH 8270 SIM~~	~~NWTPH-Dx~~	~~Grainsize~~	Archive	Lab Sample # / Comments
BNSF-G200-SC-4.0-5.0-110722	SL	Comp	—		11-7-22	1400		5	X	X	X	X	X	X	Archive (OC)

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips: ______
Sample pH Acceptable Y N NA
pH Strips: ______
Sulfide Present Y N NA
Lead Acetate Strips: ______

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: Archive Sample

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2743844

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#: ______
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 2.2

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature] / Jacobs	11/7/22 1700	[signature] / Pace	11/8/22 0850

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ______ of: ______

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: **WO#: 10632888**

PM: KV **Due Date: 12/01/22**

CLIENT: BNSF_Jacobs

Courier: ☑ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 540518247430 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☑ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☑ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710 **Type of Ice:** ☑ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 2.2 °C

Correction Factor: True **Cooler Temp Corrected w/temp blank:** 2.2 °C

Average Corrected Temp (no temp blank only): _____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil (☐ N/A, water sample/other: _____) **Date/Initials of Person Examining Contents:** KB 11/8/22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☑ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☑ Yes	☐ No		1.
Chain of Custody Relinquished?	☑ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☑ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other	☑ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Isaac Johnson **Date:** 11/9/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: KB **Line:** 3

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 1/24/2023

CLIENT: Pace Analytical - Minneapolis
Project: 10632888 D3631600
Lab Order: S2301161

CASE NARRATIVE

Report ID: S2301161001

Entire Report Reviewed by: John M. Jacobs
John Jacobs, Project Manager

Sample BNSF-G200-SC-4.0-5.0110722 was received on January 13, 2023.

All samples were received and analyzed within recommended holding times, except those noted below in this case narrative. Samples were analyzed using methods outlined in the following references:

Standard Methods for the Examination of Water and Wastewater, approved method versions
EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, online versions
EPA methods 40 CFR Parts 136 and 141EPA 600/2-78-054 methods
NDEP Mining Methods
40 CFR Part 50, Appendices B, J, L, O and FEM EQL-0310-189
IO Compendium Methods
Clean Water Act Methods Update Rule for the Analysis of Effluent, current version.
ASTM approved and recognized standards
ISO approved and recognized standards
USDA Handbook 60
Soil Survey Laboratory Manual Ver 4.0
ASA/SSSA 9 Methods of Analysis Part 2, 1982
ASA/SSSA Methods of Analysis Book 5 Part 3, 1996
Other industry approved methods

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical except as indicated in this case narrative:

Date: 1/24/2023

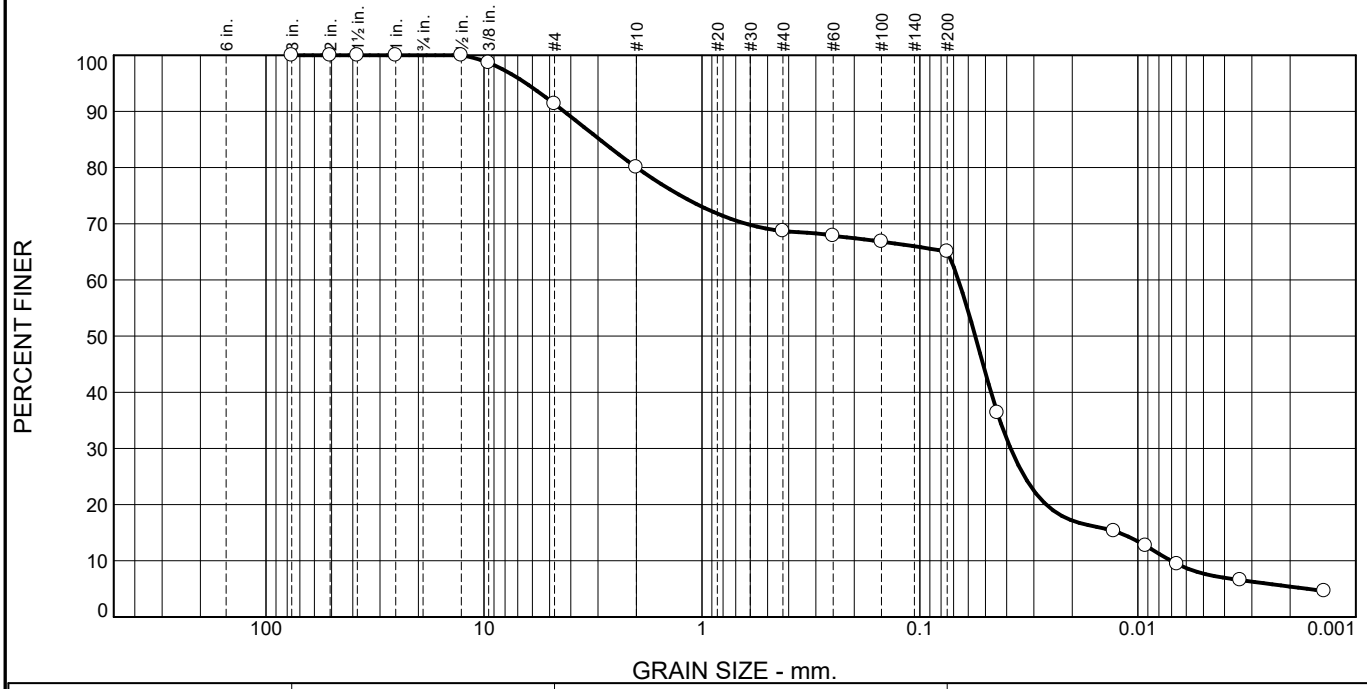
Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	8.7	11.2	11.4	3.6	57.4	7.7

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	98.7		
#4	91.3		
#10	80.1		
#40	68.7		
#60	67.8		
#100	66.8		
#200	65.1		
0.0441 mm.	36.4		
0.0129 mm.	15.3		
0.0092 mm.	12.7		
0.0066 mm.	9.4		
0.0034 mm.	6.6		
0.0014 mm.	4.6		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 4.2862 D_{85}= 2.9450 D_{60}= 0.0666
D_{50}= 0.0558 D_{30}= 0.0384 D_{15}= 0.0122
D_{10}= 0.0070 C_u= 9.45 C_c= 3.14

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 1/13/2023 **Date Tested:** 1/23/2023

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-G200-SC-4_0-5_0110722 **Date Sampled:** 11/7/2022
Sample Number: S2301161-001A

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10632888 D3631600

Project No: S2301161 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

1/23/2023

Client: Pace Analytical-Minneapolis
Project: 10632888 D3631600
Project Number: S2301161
Location: BNSF-G200-SC-4_0-5_0110722
Sample Number: S2301161-001A
Material Description: sandy silt
Sample Date: 11/7/2022 2:00
Date Received: 1/13/2023 **PL:** NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 1/23/2023
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
86.26	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	1.16	0.00	98.7
		#4	6.31	0.00	91.3
		#10	9.73	0.00	80.1
50.06	0.00	#40	7.10	0.00	68.7
		#60	0.54	0.00	67.8
		#100	0.64	0.00	66.8
		#200	1.10	0.00	65.1

Hydrometer Test Data

Hydrometer test uses material passing #200

Percent passing #200 based upon complete sample = 65.1

Weight of hydrometer sample =50.06

Automatic temperature correction

Composite correction (fluid density and meniscus height) at 20 deg. C = -6.20

Meniscus correction only = 0.0

Specific gravity of solids = 2.65

Hydrometer type = 152H

Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	21.0	34.0	28.0	0.0135	34.0	10.7	0.0441	36.4
15.00	20.0	18.0	11.8	0.0136	18.0	13.3	0.0129	15.3
30.00	20.0	16.0	9.8	0.0136	16.0	13.7	0.0092	12.7
60.00	20.0	13.5	7.3	0.0136	13.5	14.1	0.0066	9.4
240.00	19.0	11.5	5.1	0.0138	11.5	14.4	0.0034	6.6
1440.00	19.0	10.0	3.6	0.0138	10.0	14.7	0.0014	4.6

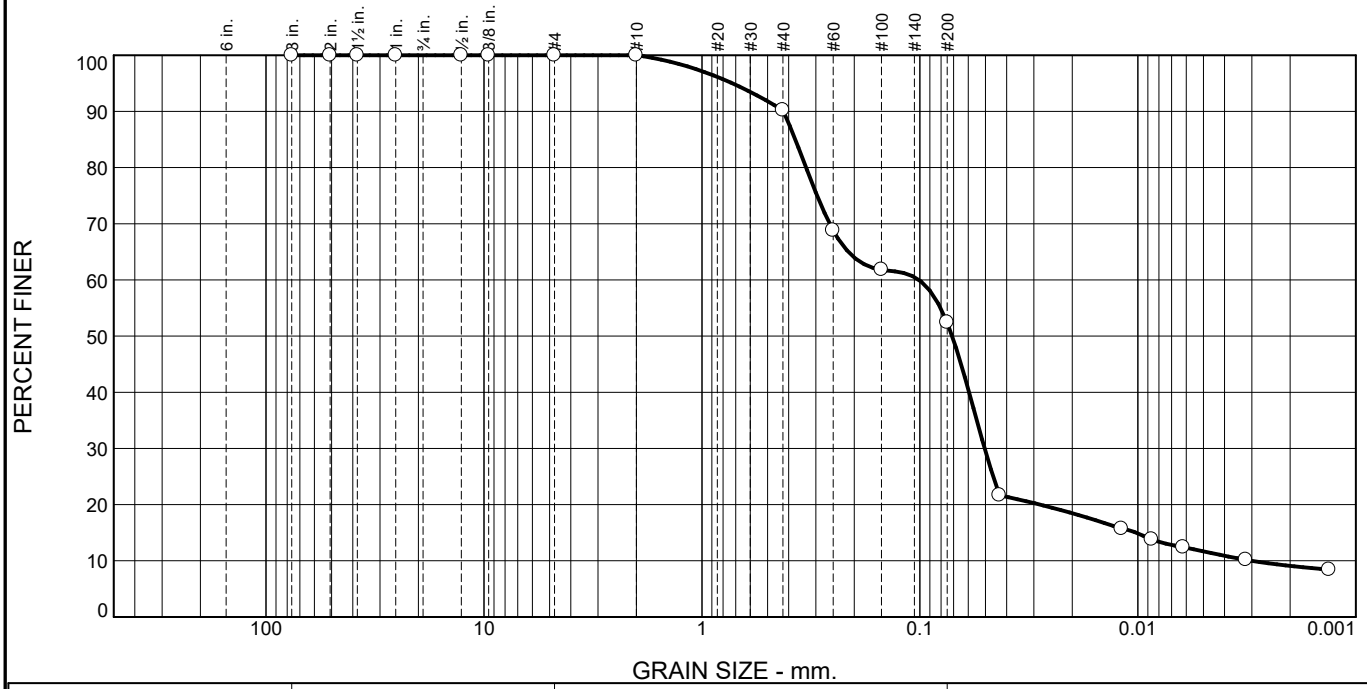
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	8.7	8.7	11.2	11.4	3.6	26.2	57.4	7.7	65.1

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0017	0.0070	0.0122	0.0263	0.0384	0.0472	0.0558	0.0666	1.9900	2.9450	4.2862	6.4098

Fineness Modulus	C_u	C_c
1.49	9.45	3.14

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	9.8	37.8	40.7	11.7

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	90.2		
#60	68.8		
#100	61.8		
#200	52.4		
0.0431 mm.	21.6		
0.0119 mm.	15.7		
0.0086 mm.	13.8		
0.0062 mm.	12.4		
0.0032 mm.	10.2		
0.0013 mm.	8.4		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.4227 D_{85}= 0.3732 D_{60}= 0.1010
D_{50}= 0.0711 D_{30}= 0.0504 D_{15}= 0.0102
D_{10}= 0.0030 C_u= 33.52 C_c= 8.37

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: **Date Tested:** 1/23/2023

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: LCS
Sample Number: LCS

Date Sampled:

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client:
Project:

Project No: **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

1/23/2023

Location: LCS
Sample Number: LCS
Material Description: sandy silt
PL: NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 1/23/2023
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.00	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
75.00	0.00	#40	7.35	0.00	90.2
		#60	16.04	0.00	68.8
		#100	5.25	0.00	61.8
		#200	7.05	0.00	52.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 52.4
Weight of hydrometer sample =75.0
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.20
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	21.0	37.0	31.0	0.0135	37.0	10.2	0.0431	21.6
15.00	21.0	28.5	22.5	0.0135	28.5	11.6	0.0119	15.7
30.00	20.0	26.0	19.8	0.0136	26.0	12.0	0.0086	13.8
60.00	20.0	24.0	17.8	0.0136	24.0	12.4	0.0062	12.4
240.00	19.0	21.0	14.6	0.0138	21.0	12.9	0.0032	10.2
1440.00	19.0	18.5	12.1	0.0138	18.5	13.3	0.0013	8.4

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	9.8	37.8	47.6	40.7	11.7	52.4

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0030	0.0102	0.0281	0.0504	0.0595	0.0711	0.1010	0.3327	0.3732	0.4227	0.7250

Fineness Modulus	C_u	C_c
0.71	33.52	8.37

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: ☐ Yes ☐ No
Owner Received Date: 11/8/2022 **Results Requested By:** 1/27/2023

Workorder: 10632888 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Sheridan WY 1673 Terra Avenue Sheridan, WY 82801 Phone (307) 672-8945

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: D422 Grain Size Hydrometer	LAB USE ONLY
1	BNSF-G200-SC-4.0-5.0-110722	PS	11/7/2022 14:00	10632888001	Solid	1	X	5230111601
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	1/12/23 15:05	[signature]	1/13/23
2				
3				

Comments: 11:27

Cooler Temperature on Receipt -1.5 °C | **Custody Seal** (Y) or (N) | **Received on Ice** (Y) or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Cust seal broken!

GC-FID DRO - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632888 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4506602	4506602BLANK	96	88
4506603	4506603LCS	101	90
10632888001	BNSF-G200-SC-4.0-5.0-	0*	0*

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4506603LCS
Date Extracted: 11/09/2022
Date Analyzed (1): 11/11/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 111122R.B\1111R0000027.D
SDG No.: 10632888

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	50.0	43.5	87	50-150
Motor Oil Range	50.0	49.6	99	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Minnesota

Matrix Spike - Sample No: 4506604MS

Date Extracted: 11/09/2022

Date Analyzed (1): 11/11/2022

Instrument: 10GCSF

Lab File ID: 111122R.B\1111R0000029.D

Parent Sample ID: 10632887001

SDG No.: 10632888

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Diesel Fuel Range	70.3	154J	275	172	50-150
Motor Oil Range	70.3	392	555	232	50-150

Spike Recovery: 2 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 10GCSF Matrix Spike Duplicate - Sample No: 4506605MSD

Lab File ID (2): 111122R.B\1111R0000030.D Date Analyzed (2): 11/11/2022

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	70.2	404	357	38	0-30	50-150
Motor Oil Range	70.2	771	541	33	0-30	50-150

RPD: 2 out of 2 outside limits.

Spike Recovery: 2 out of 2 outside limits.

01/27/2023 9:27

SAMPLE NO.

4506602BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10632888 Contract: D3631600

Instrument ID: 10GCSF Matrix: Solid Lab Sample ID: 4506602

Lab File ID: 111122R.B\1111R0000026.D Date Analyzed: 11/11/2022 Time: 15:31

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4506603LCS	4506603	111122R.B\1111R0000027.D	11/11/2022 15:43
BNSF-G200-SC-4.0-5.0-	10632888001	111122R.B\1111R0000032.D	11/11/2022 16:40

SAMPLE NO.

BNSF-G200-SC-4.0-5.0-110722

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/08/2022 08:50 Matrix: Solid SDG No.: 10632888

Date Extracted: 11/09/2022 07:04 Lab Sample ID: 10632888001

Date Analyzed: 11/11/2022 16:40 Lab File ID: 111122R.B\1111R0000032.D

Initial wt/vol: 10.07 g Final wt/vol: 5 mL Dilution: 100 Instrument: 10GCSF Percent Moisture: 27.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	91100	
	Motor Oil Range	102000	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000032.d
Lab Smp Id: 10632888001 Client Smp ID: BNSF-G200-SC-4.0-5.
Inj Date : 11-NOV-2022 16:40
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10632888001x100
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 26
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	5000.000	Volume of final extract (uL)
Ws	10.070	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	27.257	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880	- 3.600		6739004	1128.66	77000		(M)
$	2 o-Terphenyl (S)					CAS #:		
	Operator disabled compound identification.							
$	3 n-Triacontane (S)					CAS #:		
	Operator disabled compound identification.							
S	4 Residual Range Organics AK103					CAS #:		
	3.610	- 5.200		5863481	1597.67	109000		(M)
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880	- 4.210		8996360	1307.33	89200		
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450	- 5.200		6386562	1658.90	113000		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)	REVIEW CODE
S 7 C10-C36					CAS #:	
0.880	- 5.200		12440350	2580.82	176000	
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		6668461	1334.35	91100	RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		6668461	1334.35	91100	
S 10 Motor Oil Range					CAS #:	
3.660	- 6.000		6668966	1487.55	102000	RNG
S 11 Motor Oil Range SG					CAS #:	
3.660	- 6.000		6668966	1487.55	102000	

QC Flag Legend

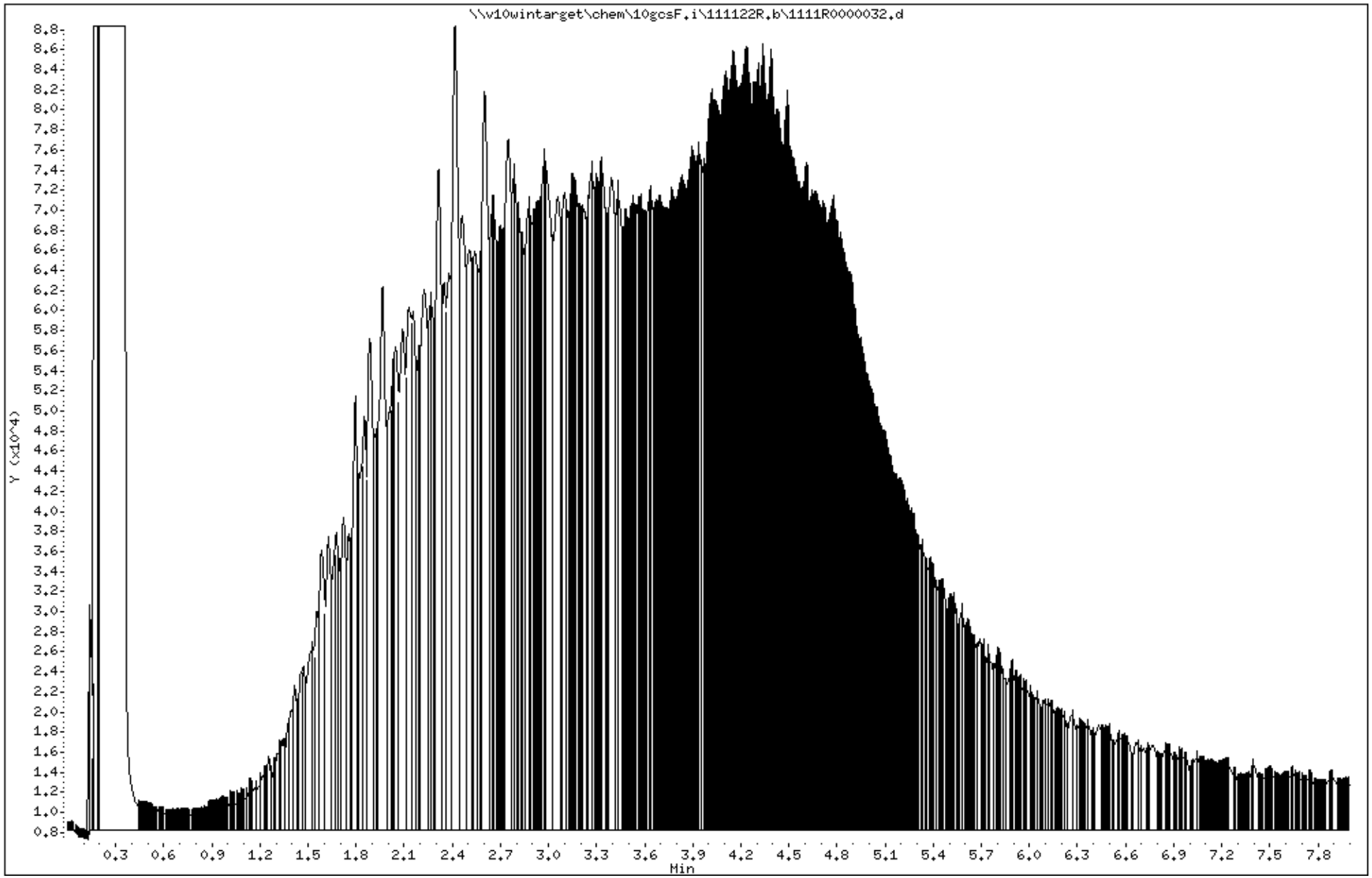
M - Compound response manually integrated.

Review Codes Legend

:
RNG: Indicates that the analyst integrated a surrogate within the range.

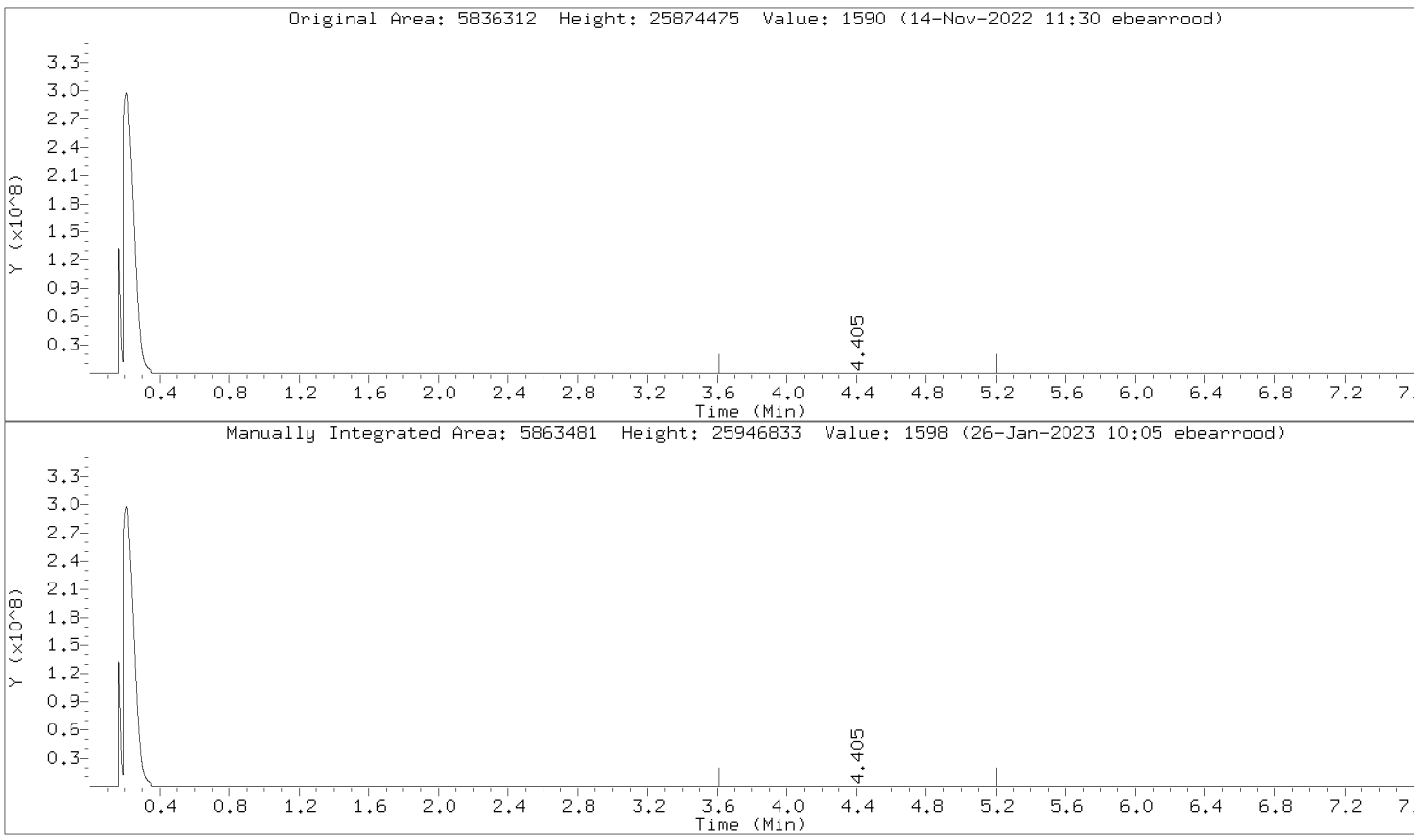
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000032.d
Date : 11-NOV-2022 16:40
Client ID: BNSF-G200-SC-4.0-5.
Sample Info: 10632888001X100
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



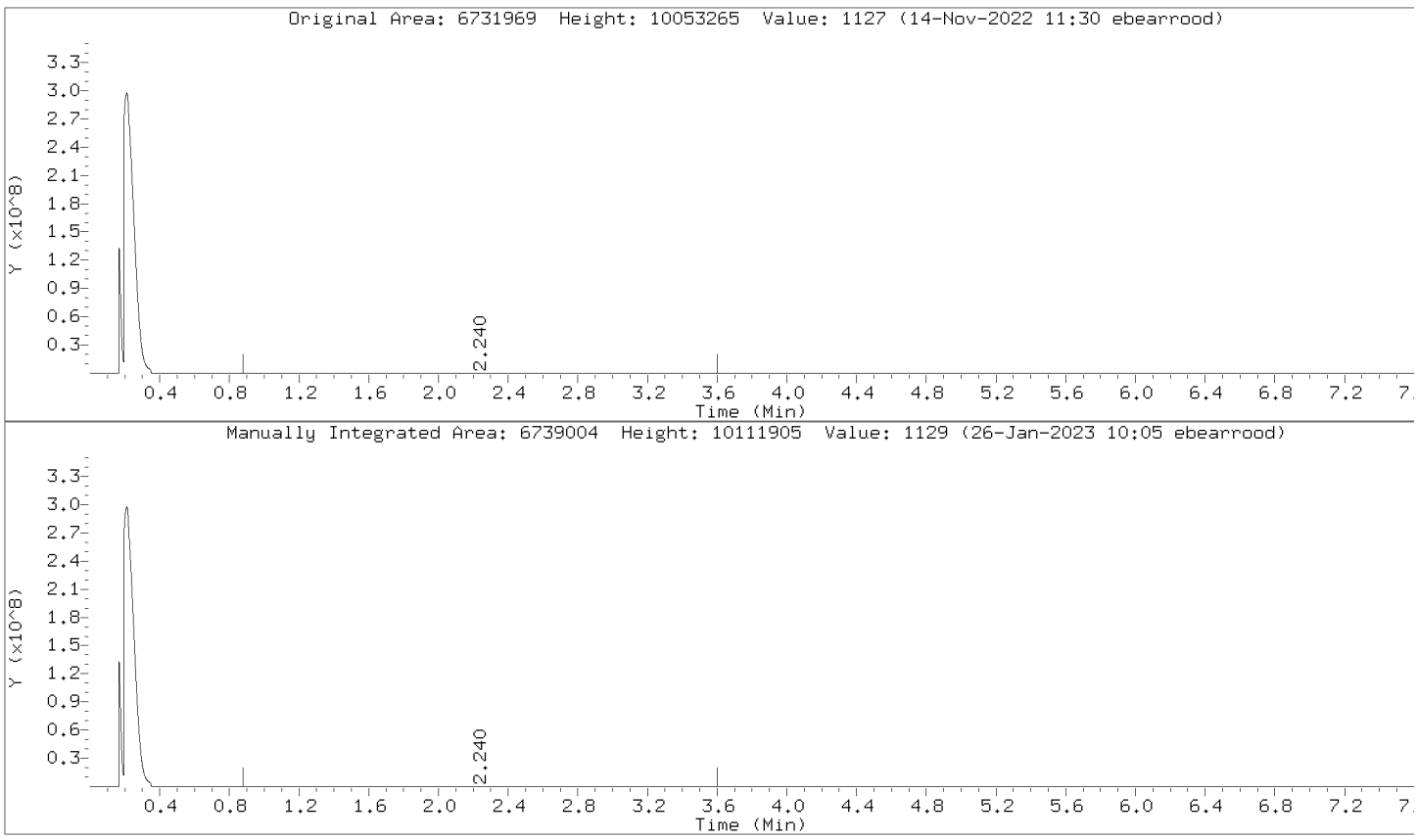
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000032.d
Injection Date: 11-NOV-2022 16:40
Instrument: 10gcsF.i
Lab Sample ID: 10632888001

Compound: Residual Range Organics AK103 Review Code:
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000032.d
Injection Date: 11-NOV-2022 16:40
Instrument: 10gcsF.i
Lab Sample ID: 10632888001

Compound: DRO by AK 102 Review Code:
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	5836312	5863481
DRO by AK 102	6731969	6739004
TPH-DRO (C10-C28)	9155668	8996360
Motor Oil Range (C24-C36)	6386562	6386562
Diesel Fuel Range	6827770	6668461
Motor Oil Range	6668966	6668966
Diesel Fuel Range SG	6827770	6668461
Motor Oil Range SG	6668966	6668966
C10-C36	12599658	12440350
n-Triacontane (S)	27168	0
o-Terphenyl (S)	7035	0

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632888

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632888

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10632888

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

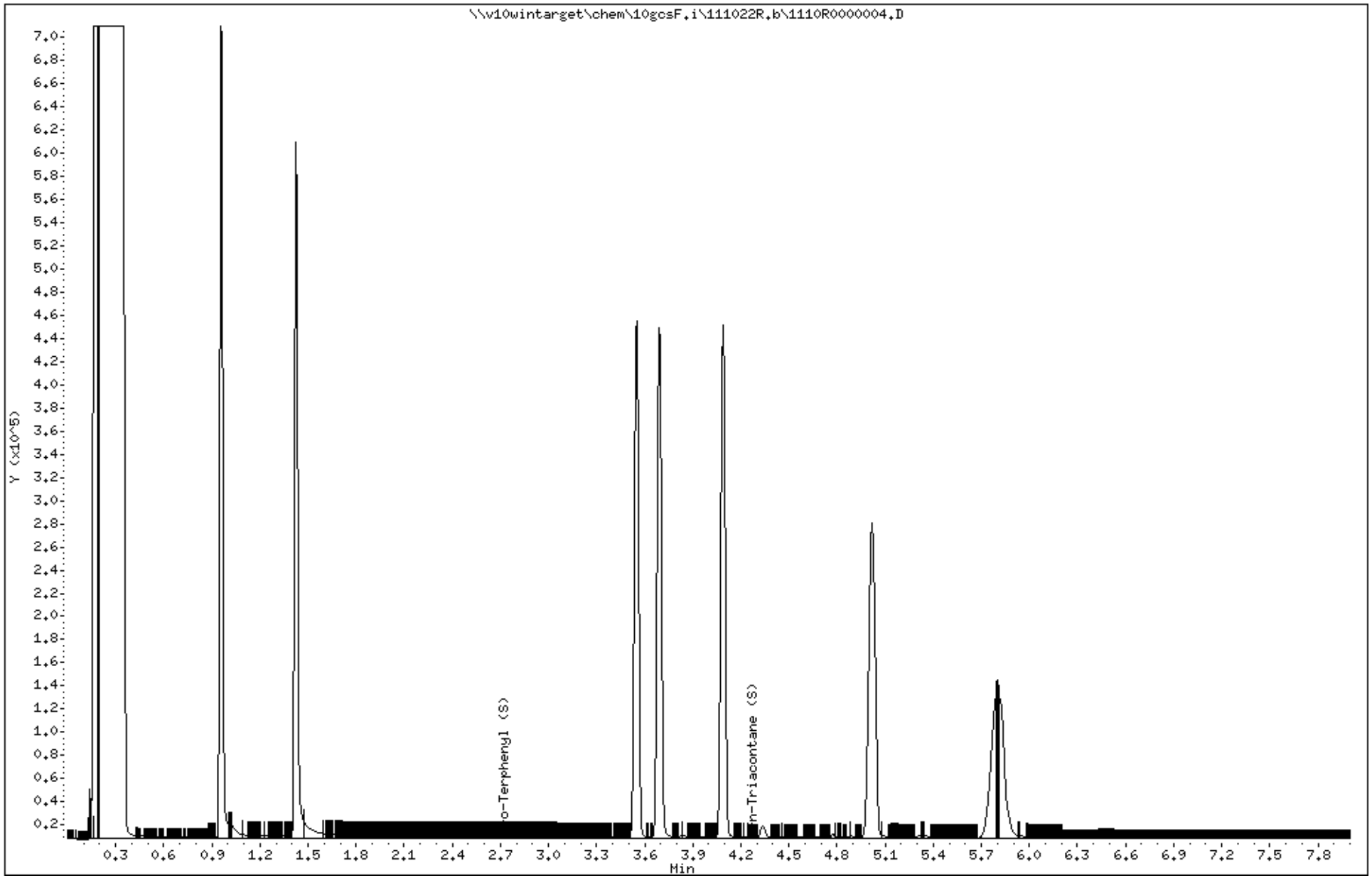
	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/mL)	REVIEW CODE
S 1 DRO by AK 102							CAS #:
	0.880	- 3.600		2108709			
$ 2 o-Terphenyl (S)							CAS #:
	2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)							CAS #:
	4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103							CAS #:
	3.610	- 5.200		2005315			
S 5 TPH-DRO (C10-C28)							CAS #:
	0.880	- 4.219		3399190			
S 6 Motor Oil Range (C24-C36)							CAS #:
	3.450	- 5.200		2635115			
S 7 C10-C36							CAS #:
	0.880	- 5.200		4114949			
S 8 Diesel Fuel Range							CAS #:
	1.350	- 3.650		1498770			
S 9 Diesel Fuel Range SG							CAS #:
	1.350	- 3.650		1498770			
S 10 Motor Oil Range							CAS #:
	3.660	- 6.000		2695751			
S 11 Motor Oil Range SG							CAS #:
	3.660	- 6.000		2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Column phase: DB-5-US21130002

Instrument: 10gcsF.i

Operator: TT2
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

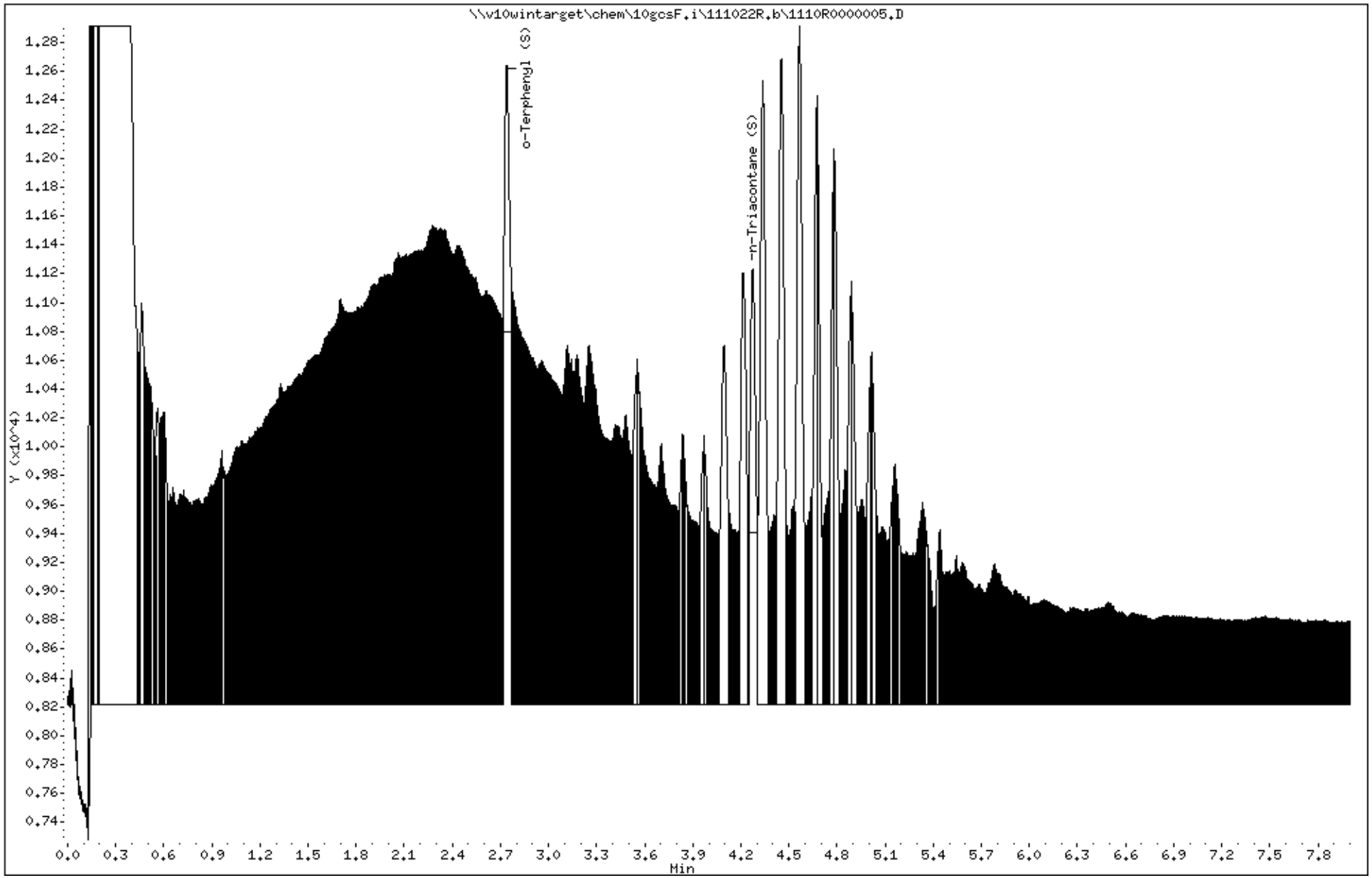
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

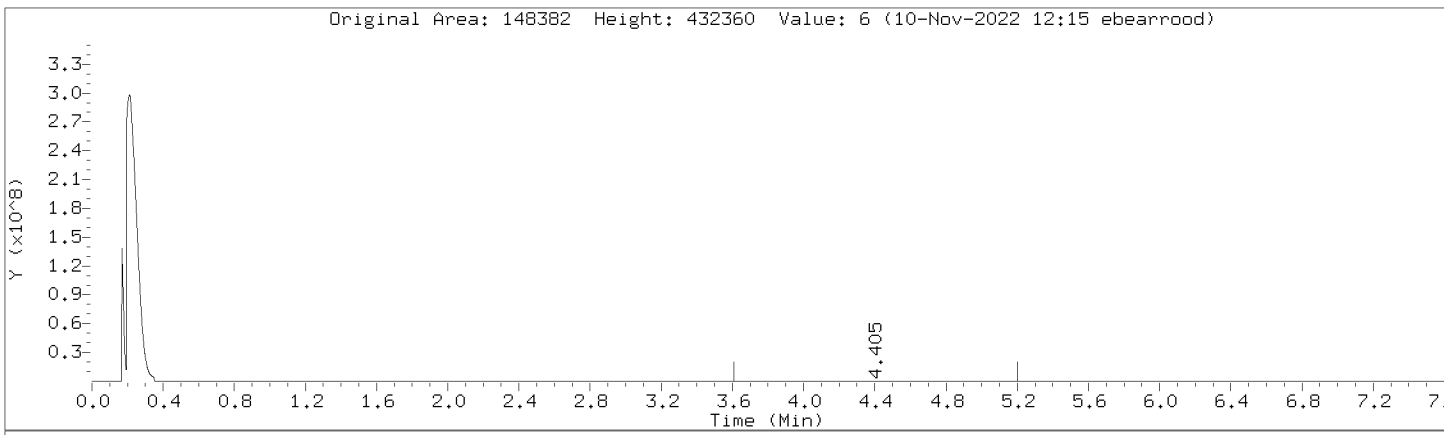
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

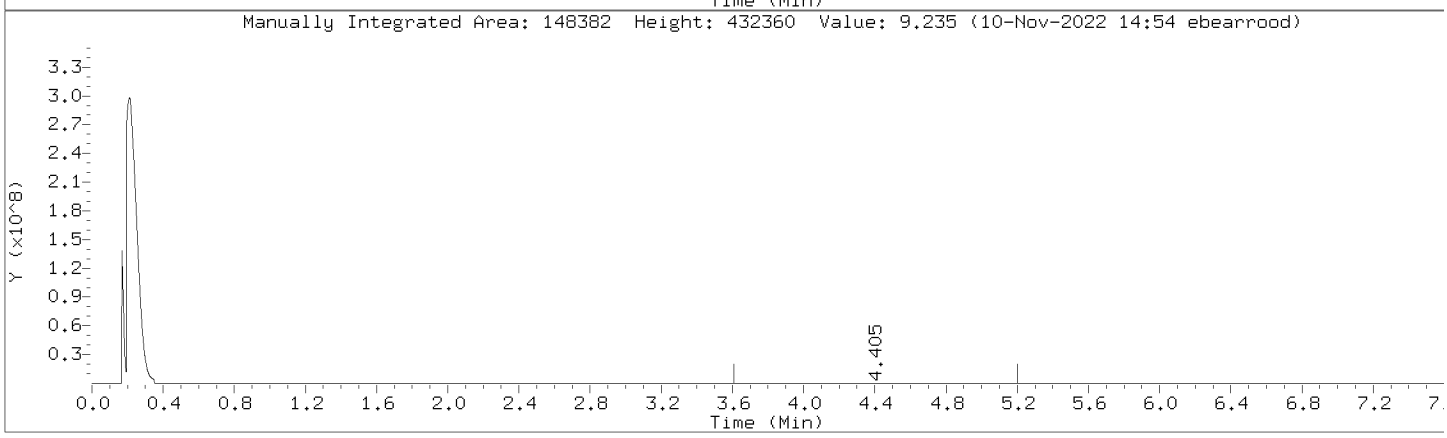
Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:





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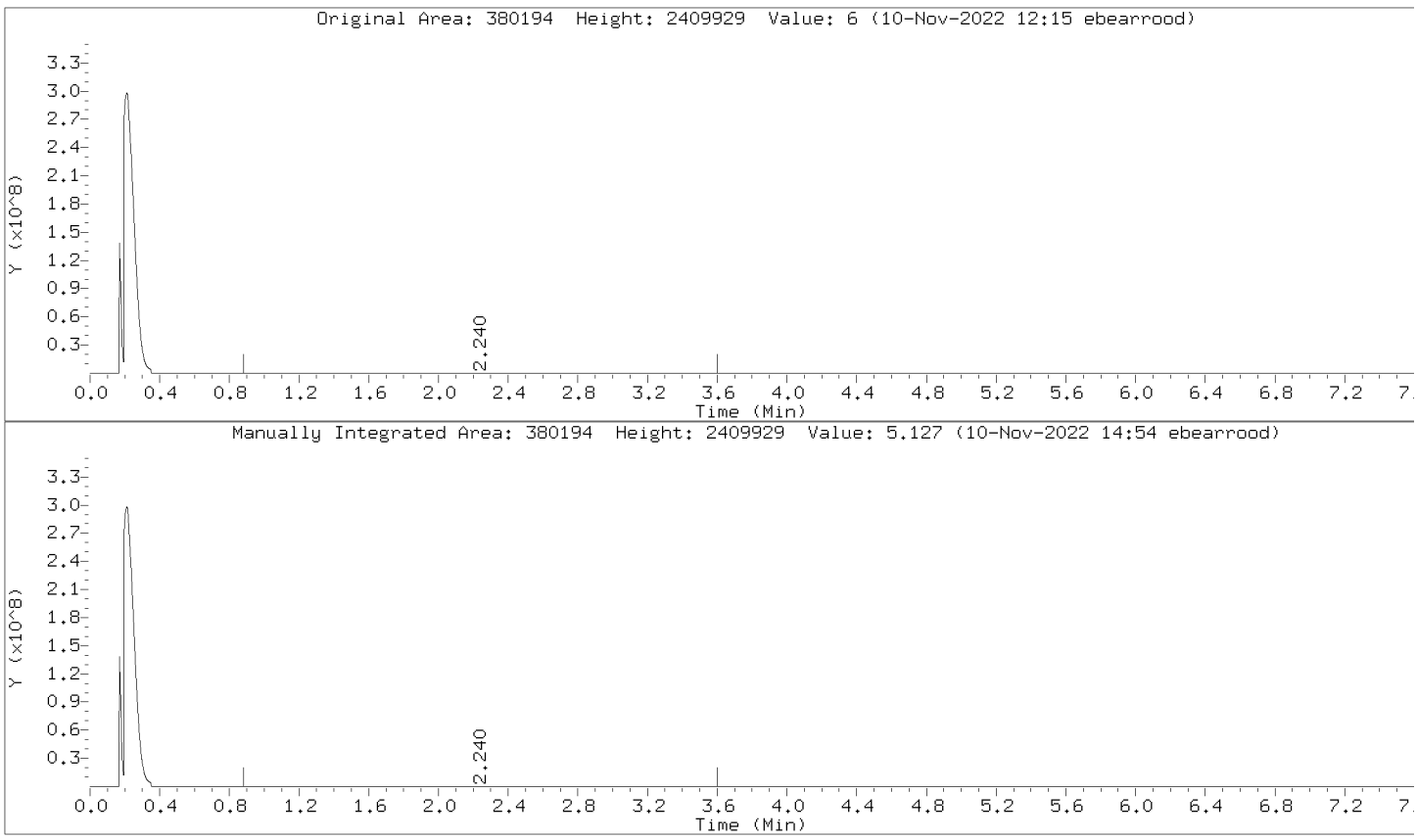
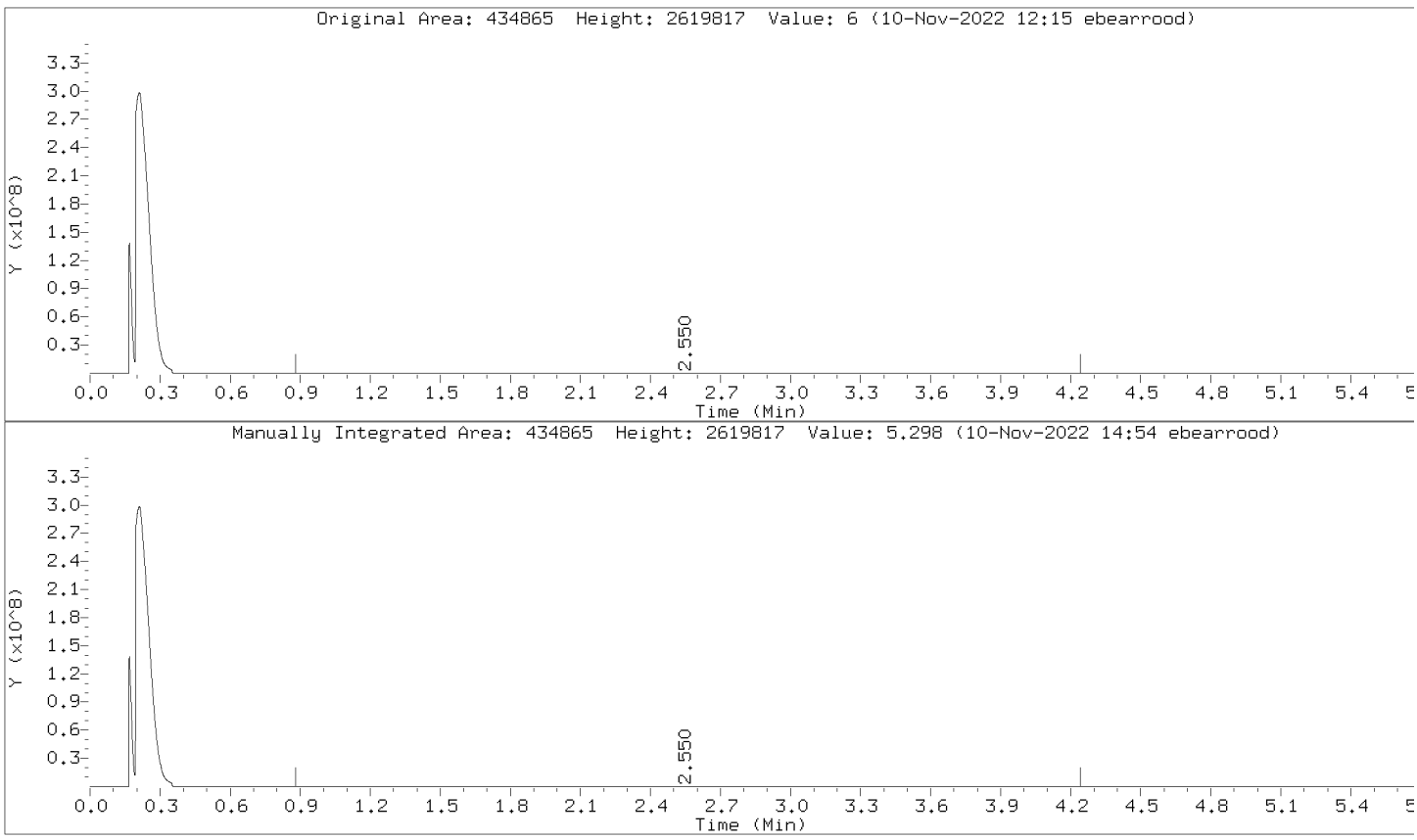
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



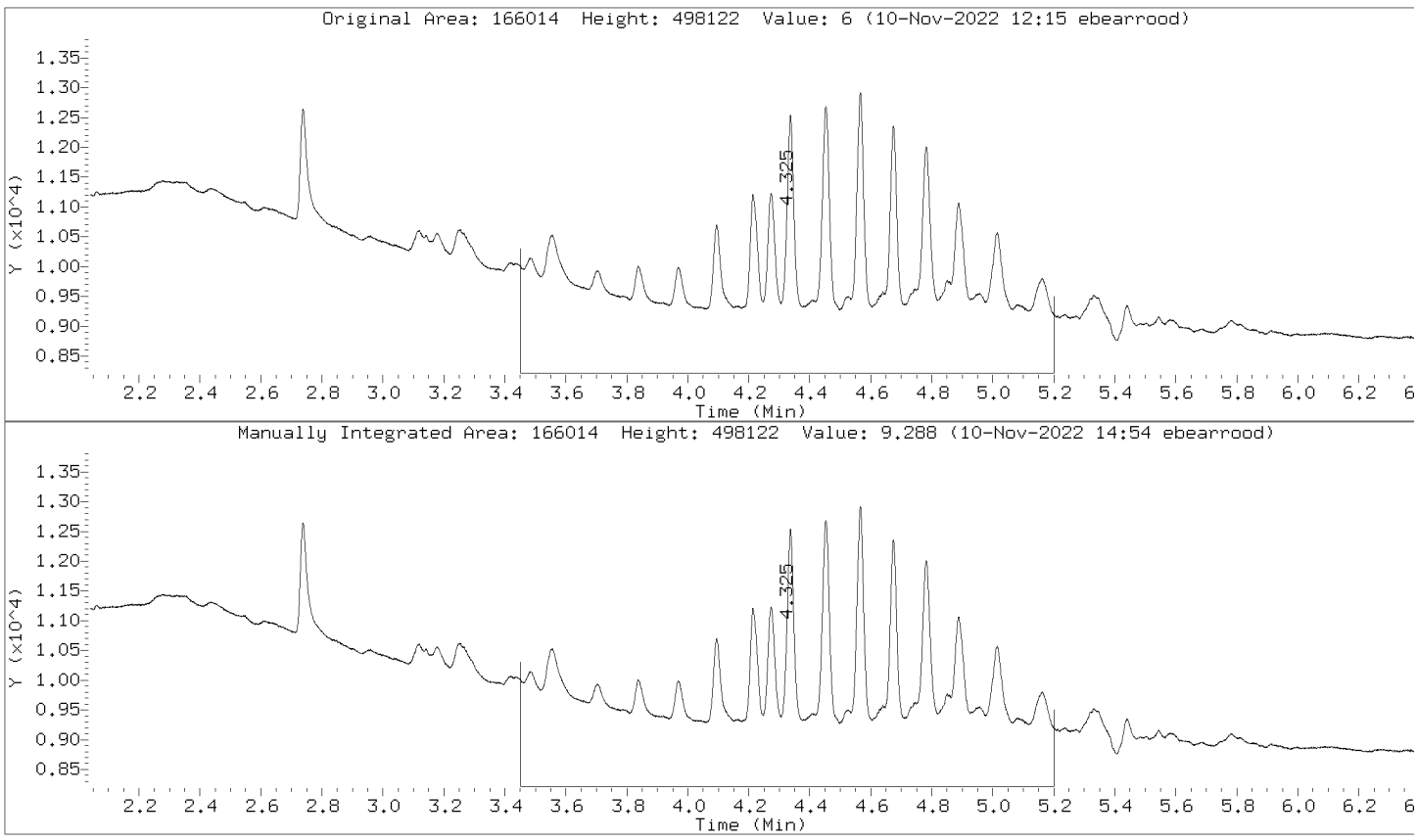
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



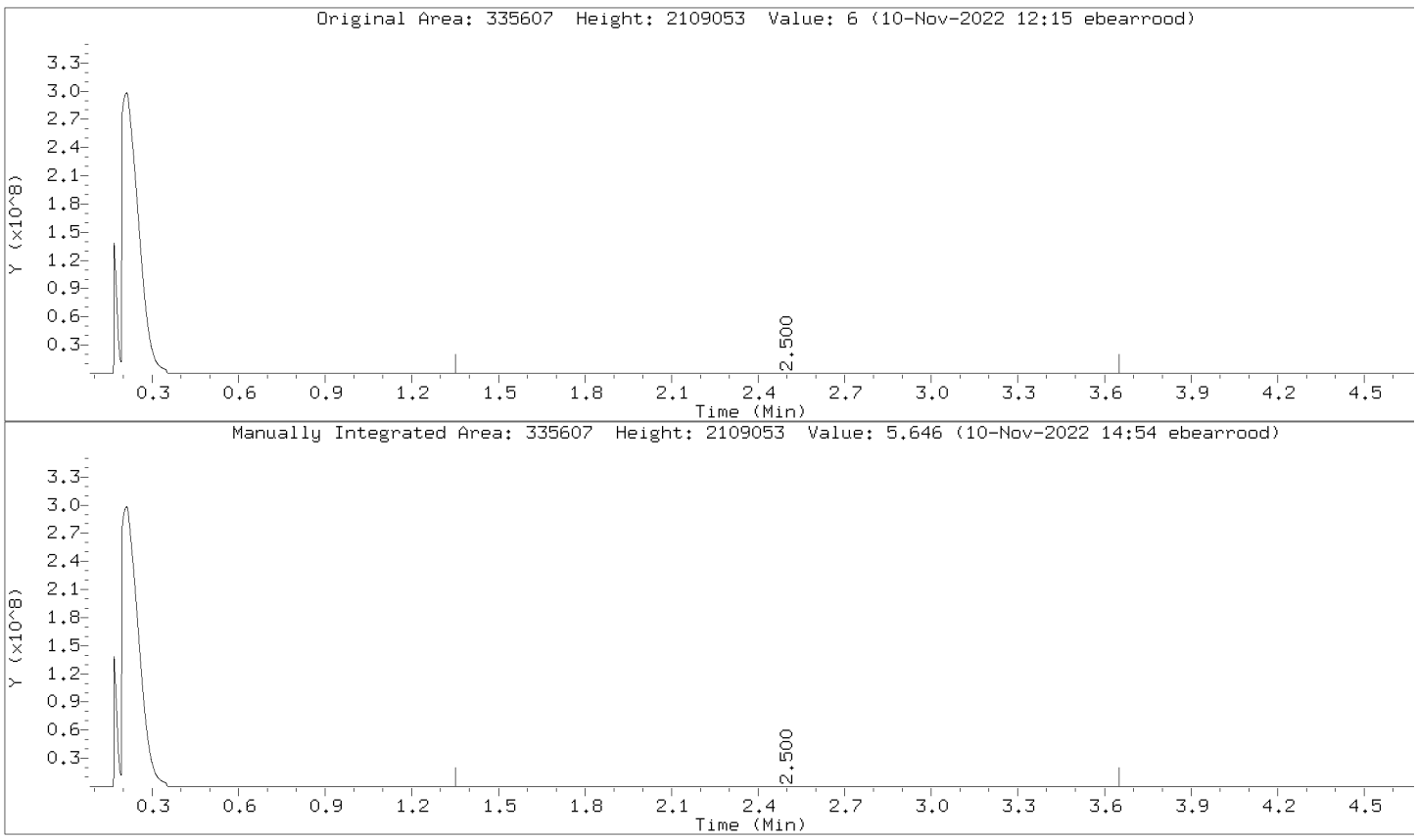
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



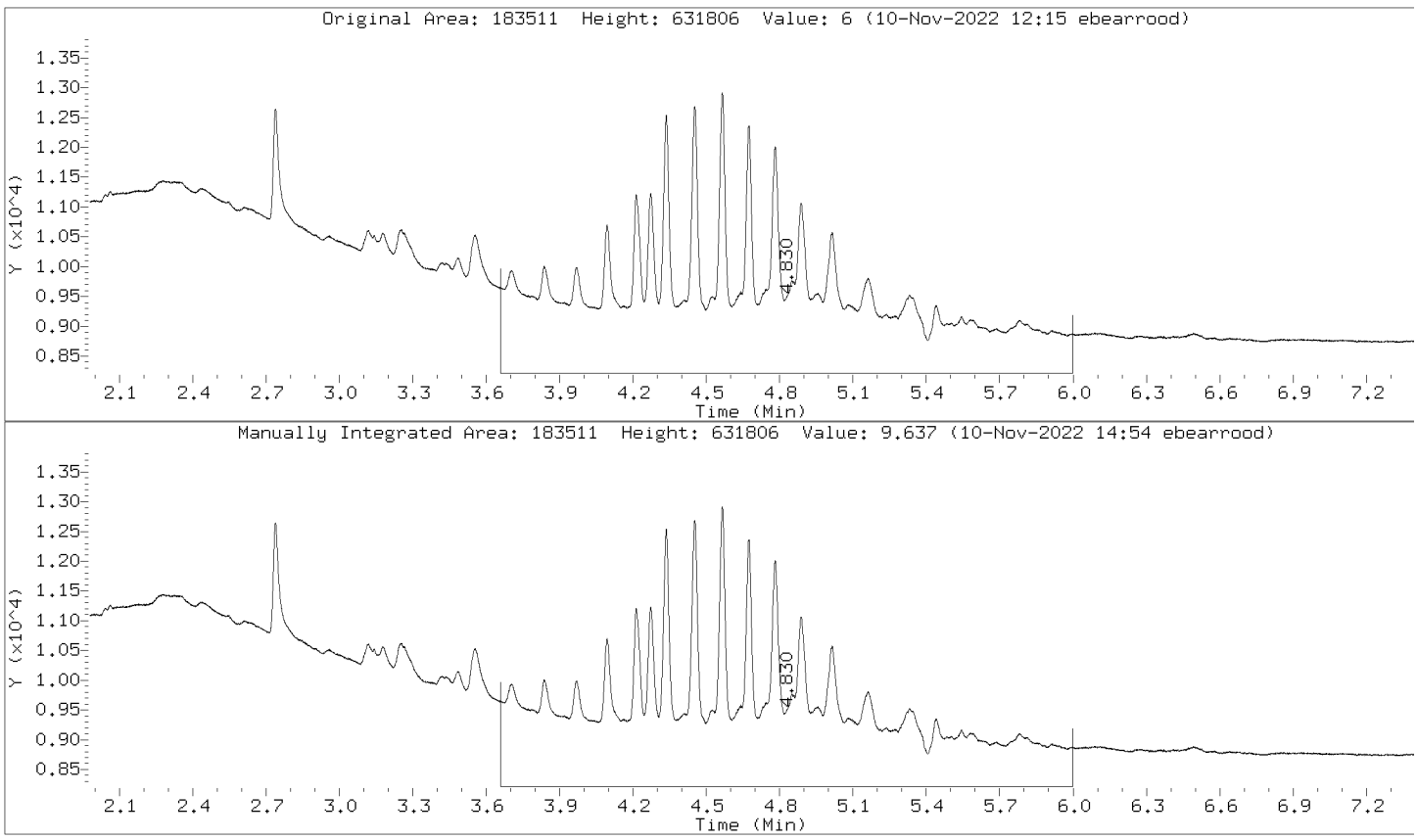
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



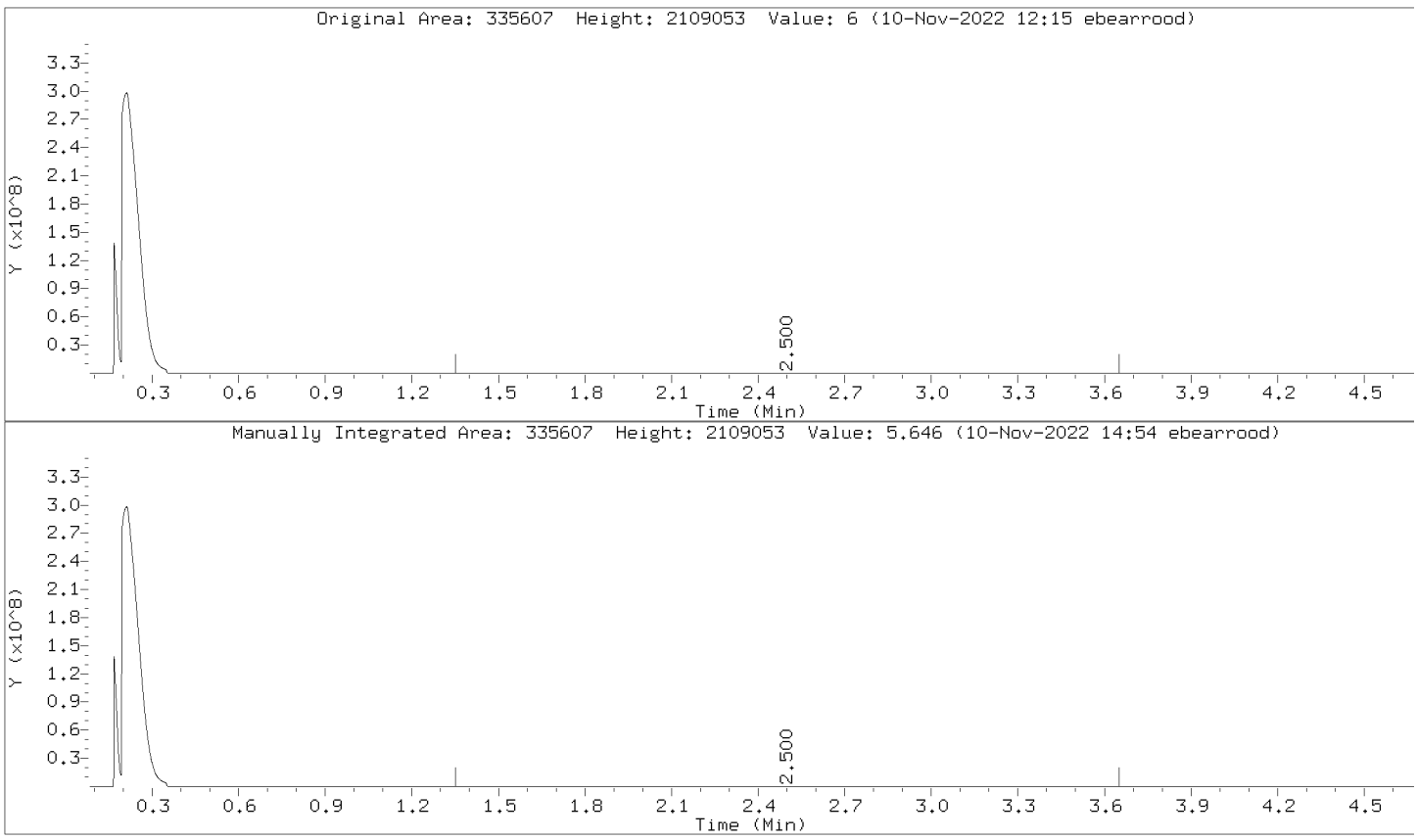
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



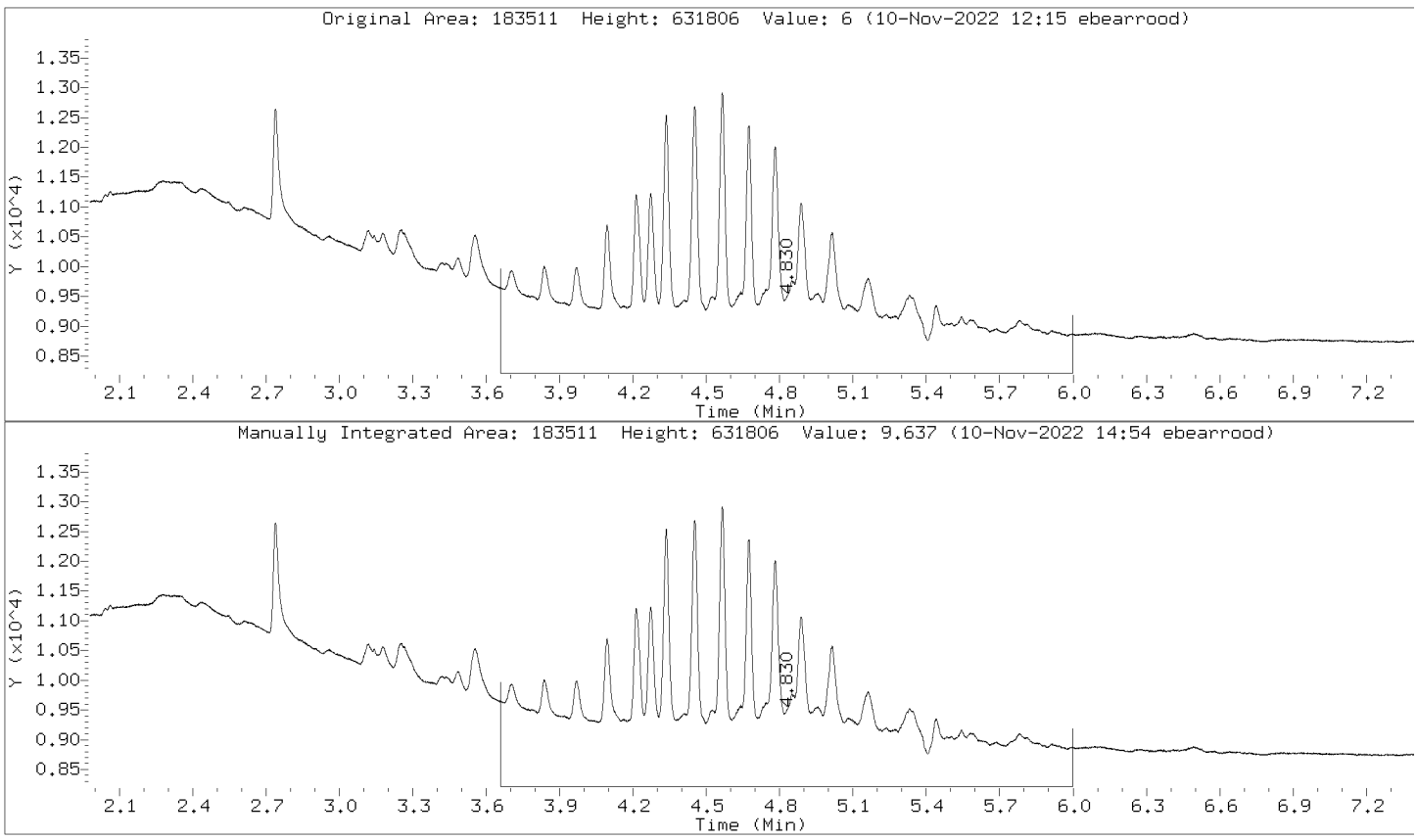
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



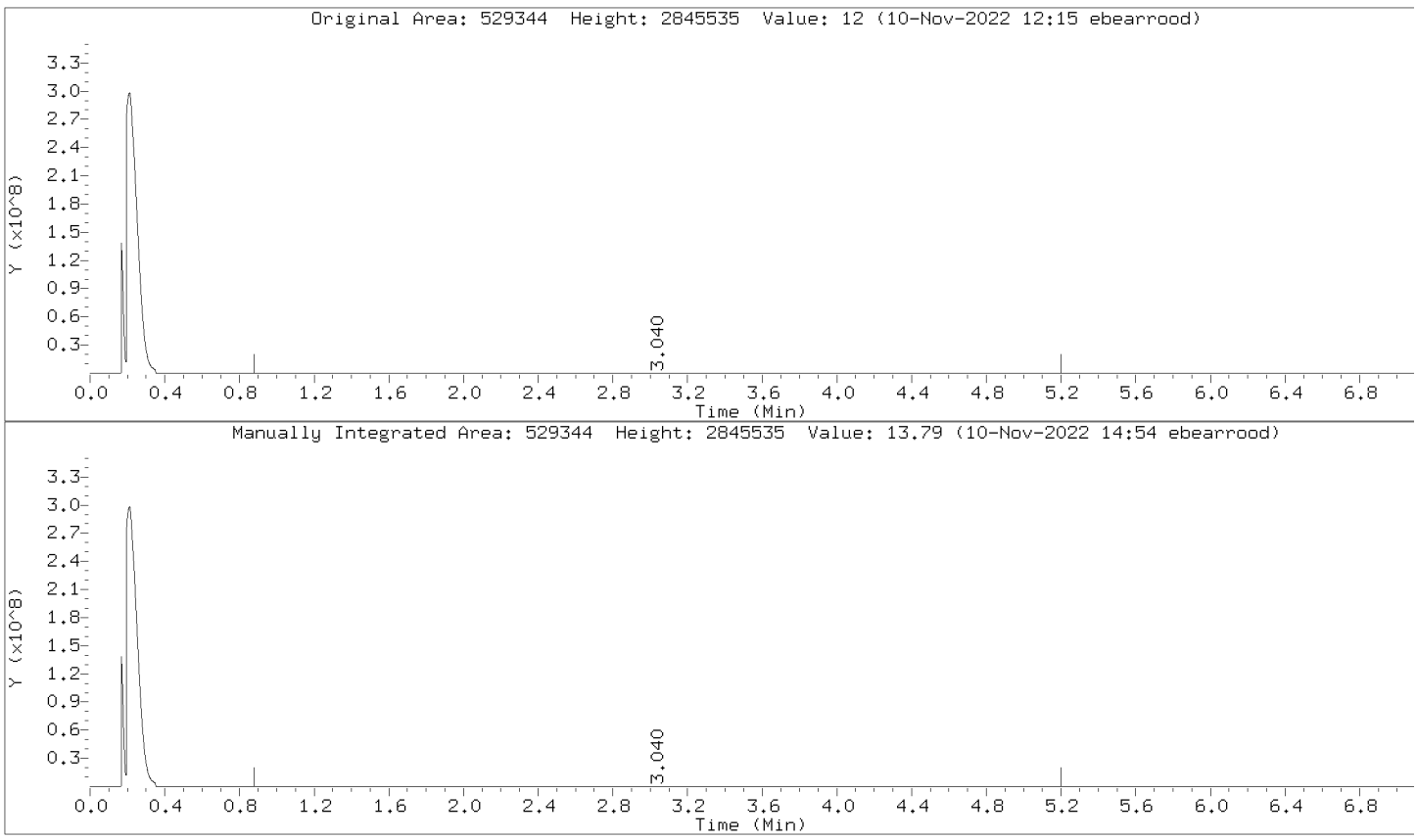
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



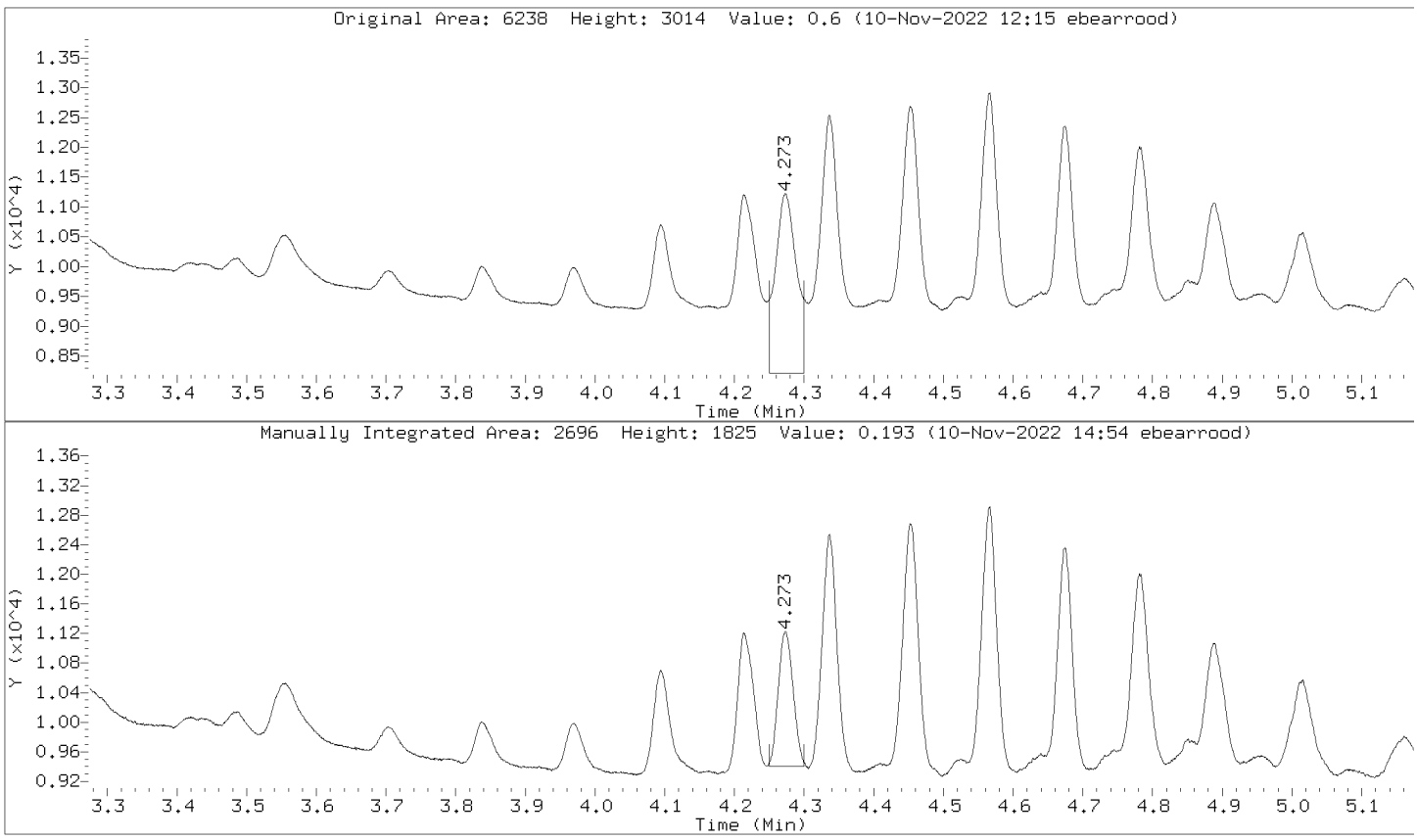
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



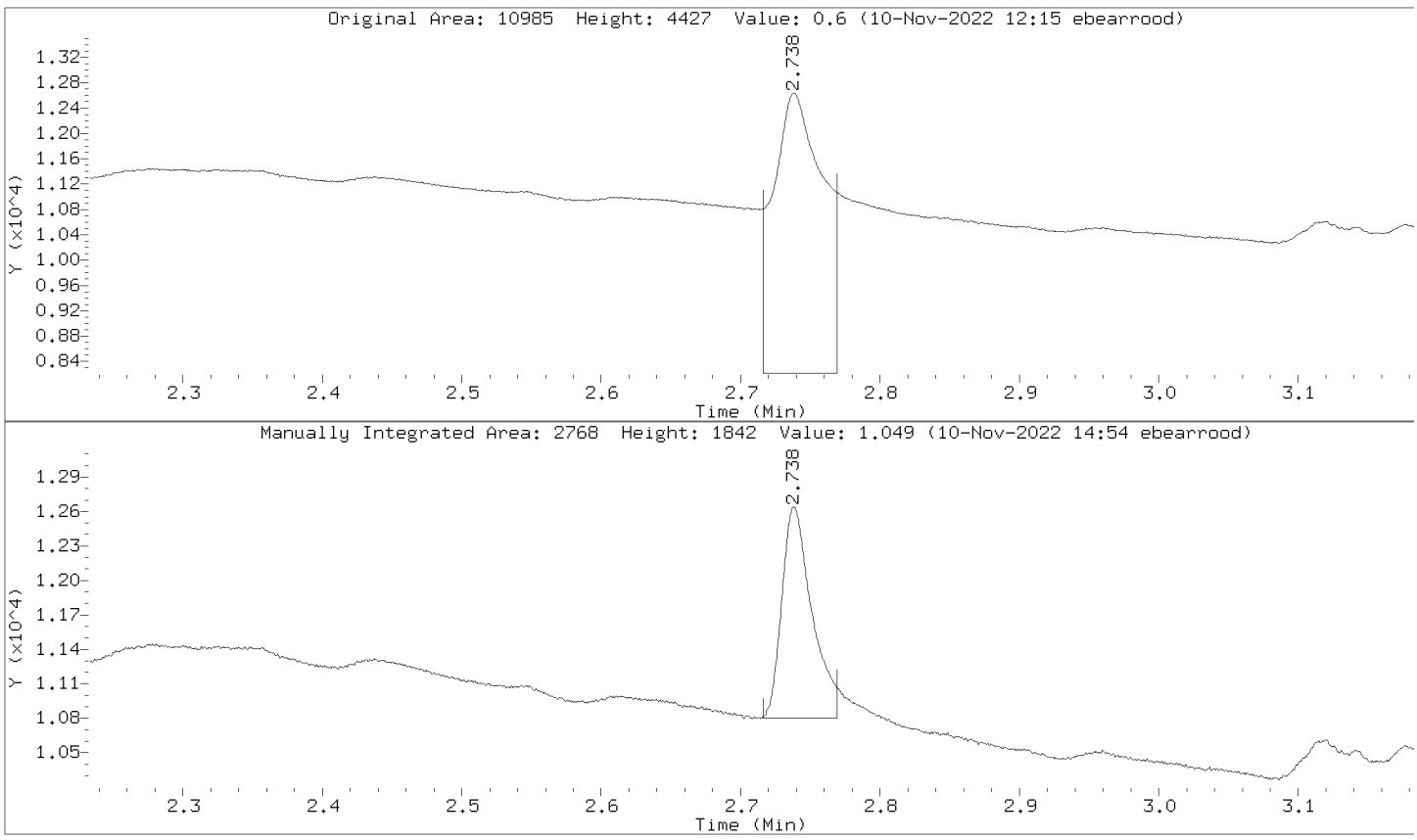
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		394088	10.0000	7.58	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		138206	10.0000	6.41	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		446339	10.0000	7.04	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		154886	10.0000	6.34	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		533232	20.0000	14.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG

QC Flag Legend

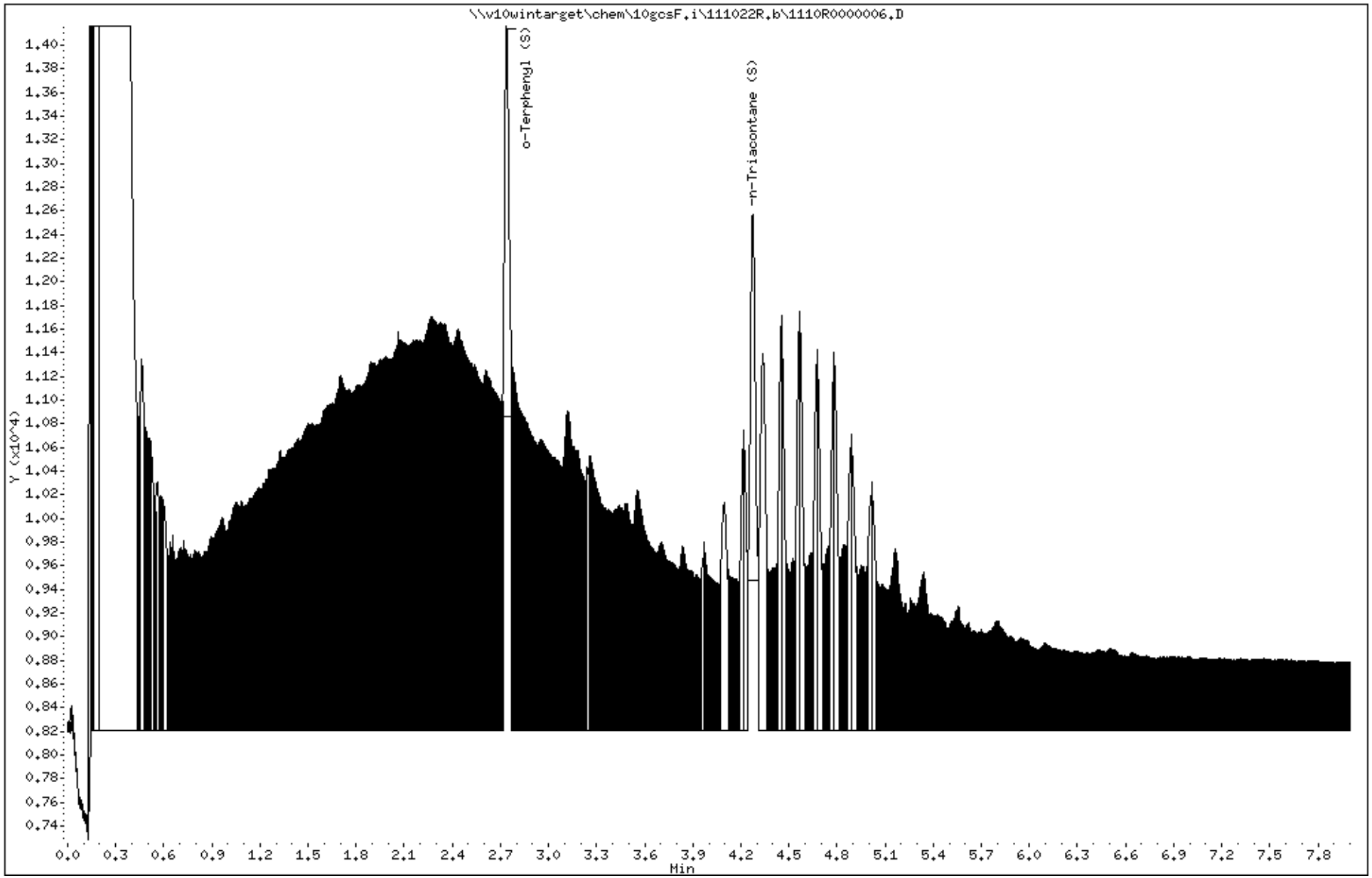
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

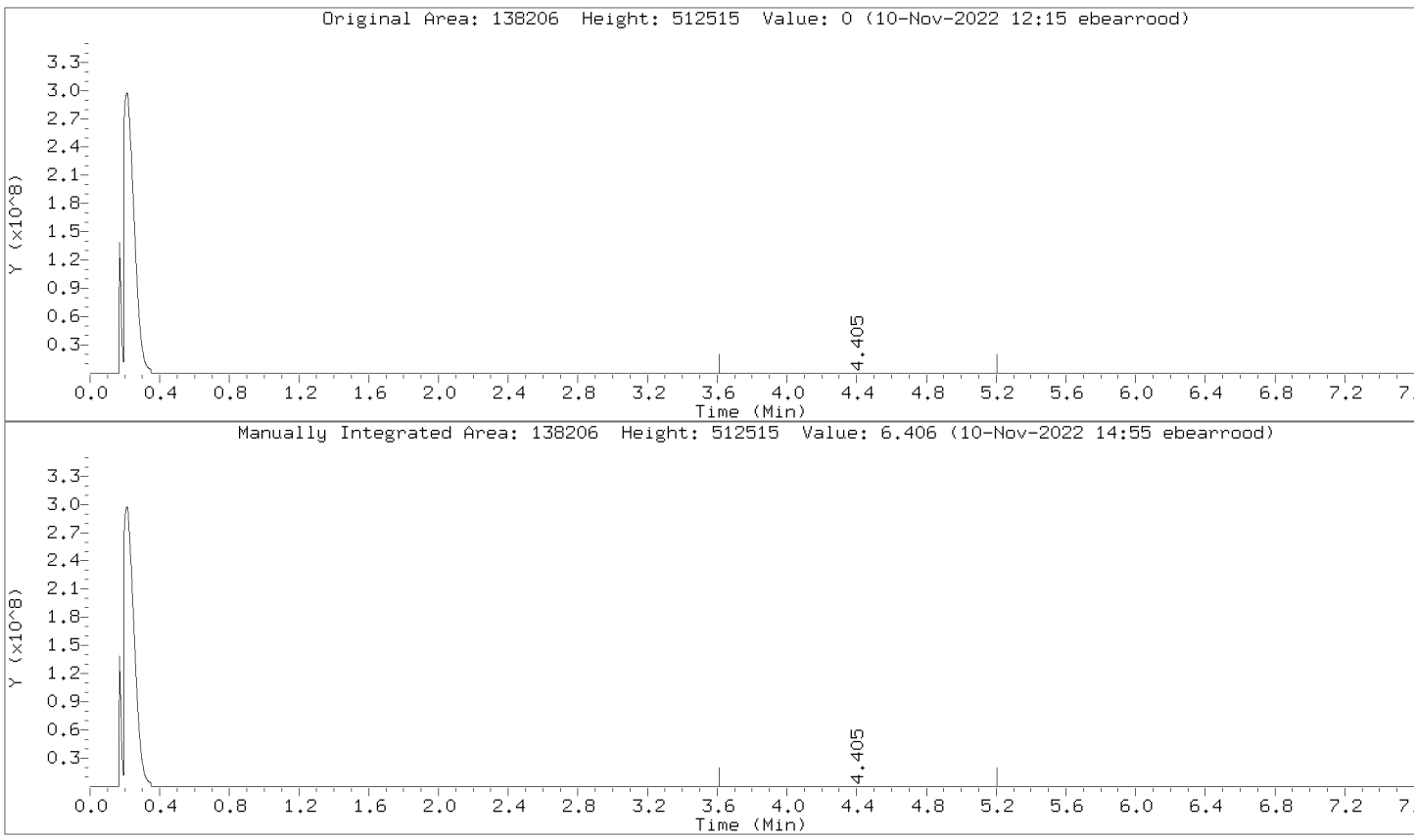
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



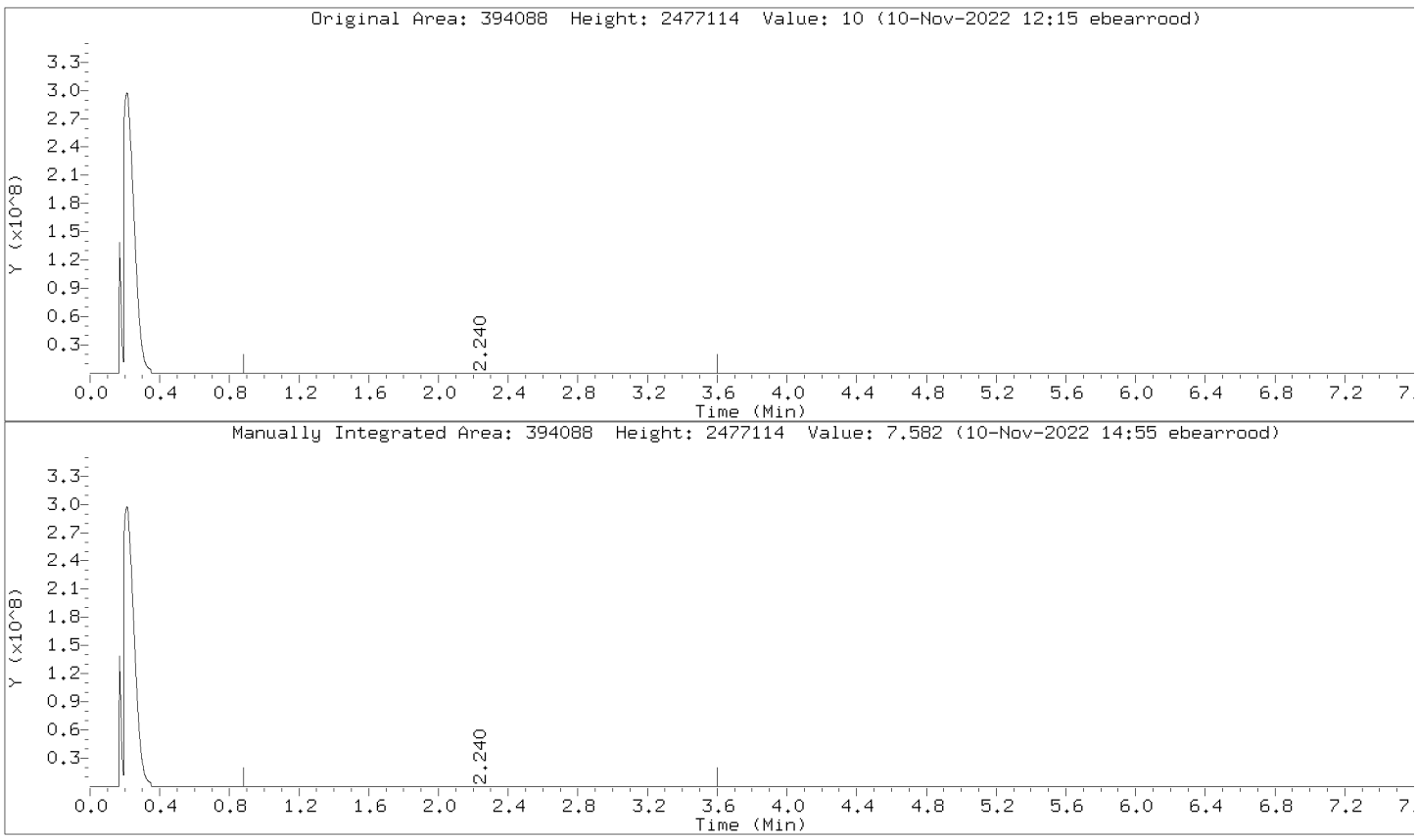
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



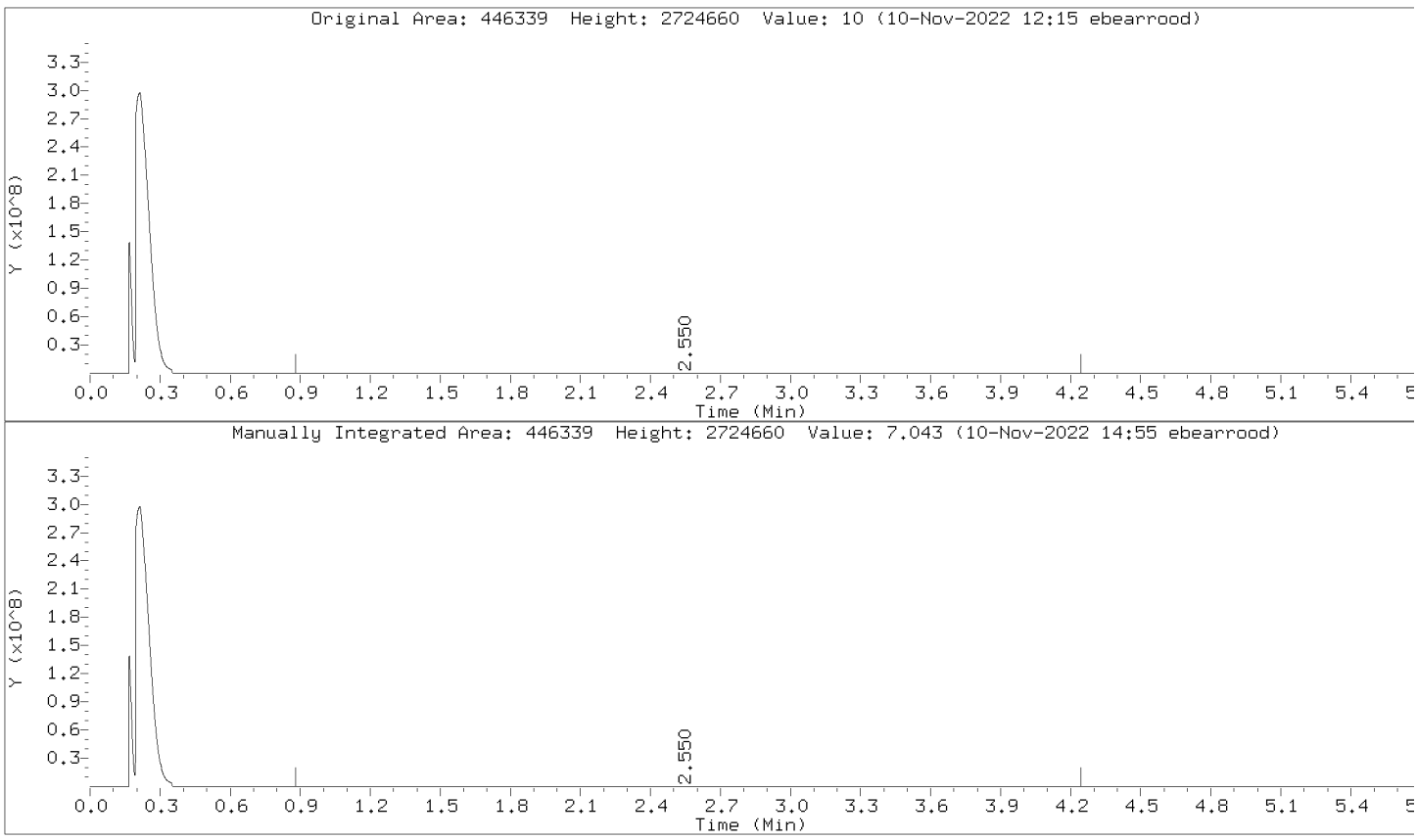
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



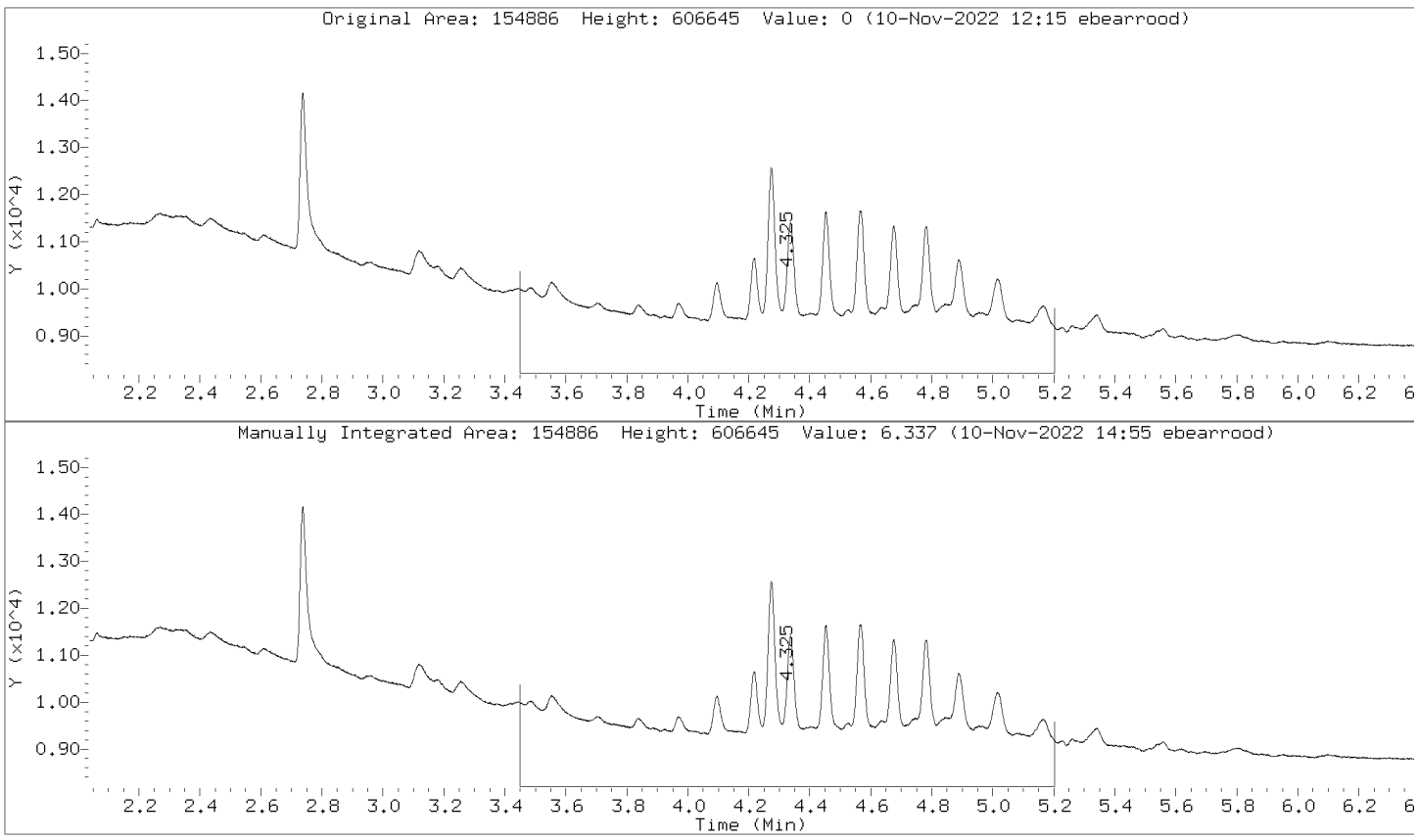
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



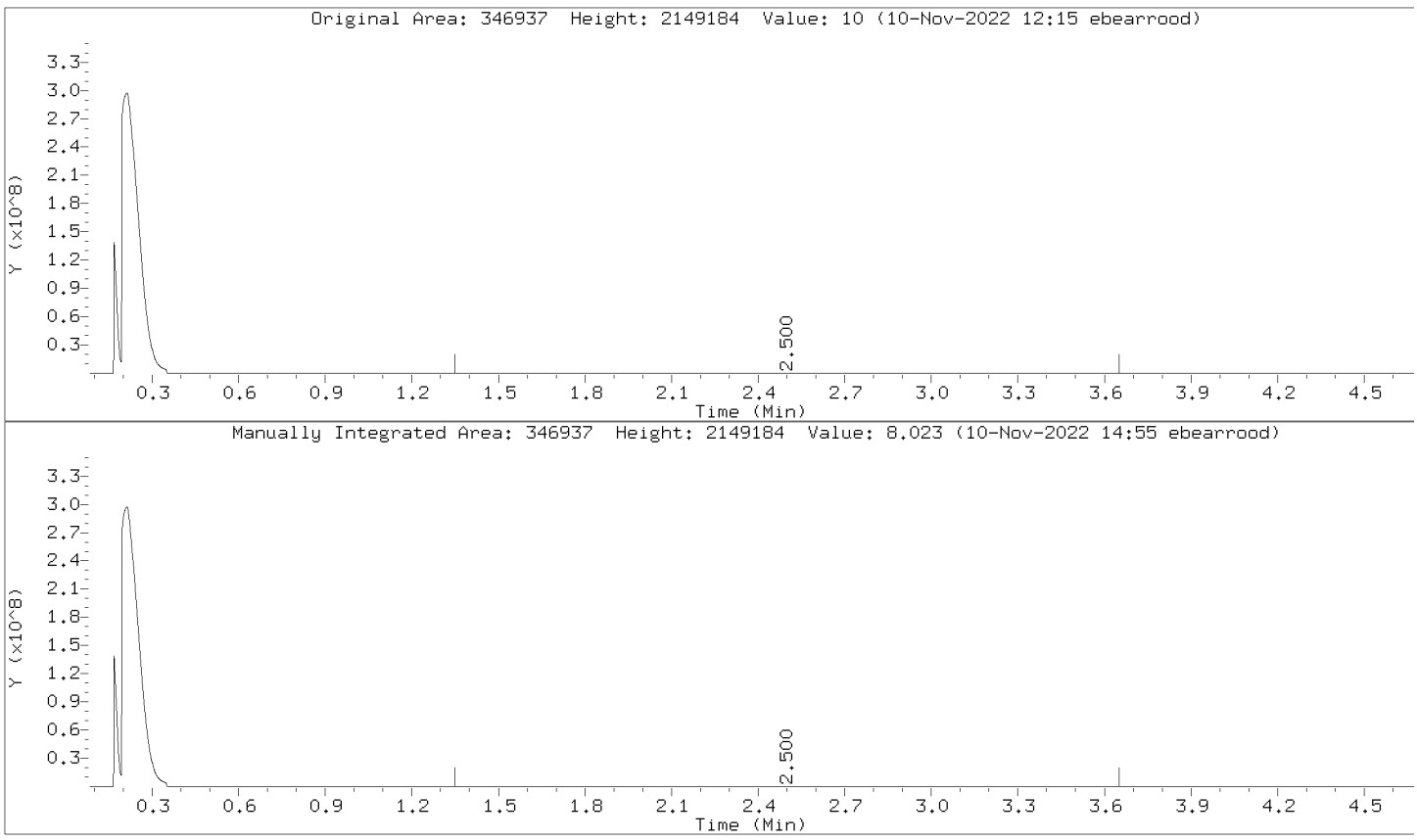
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



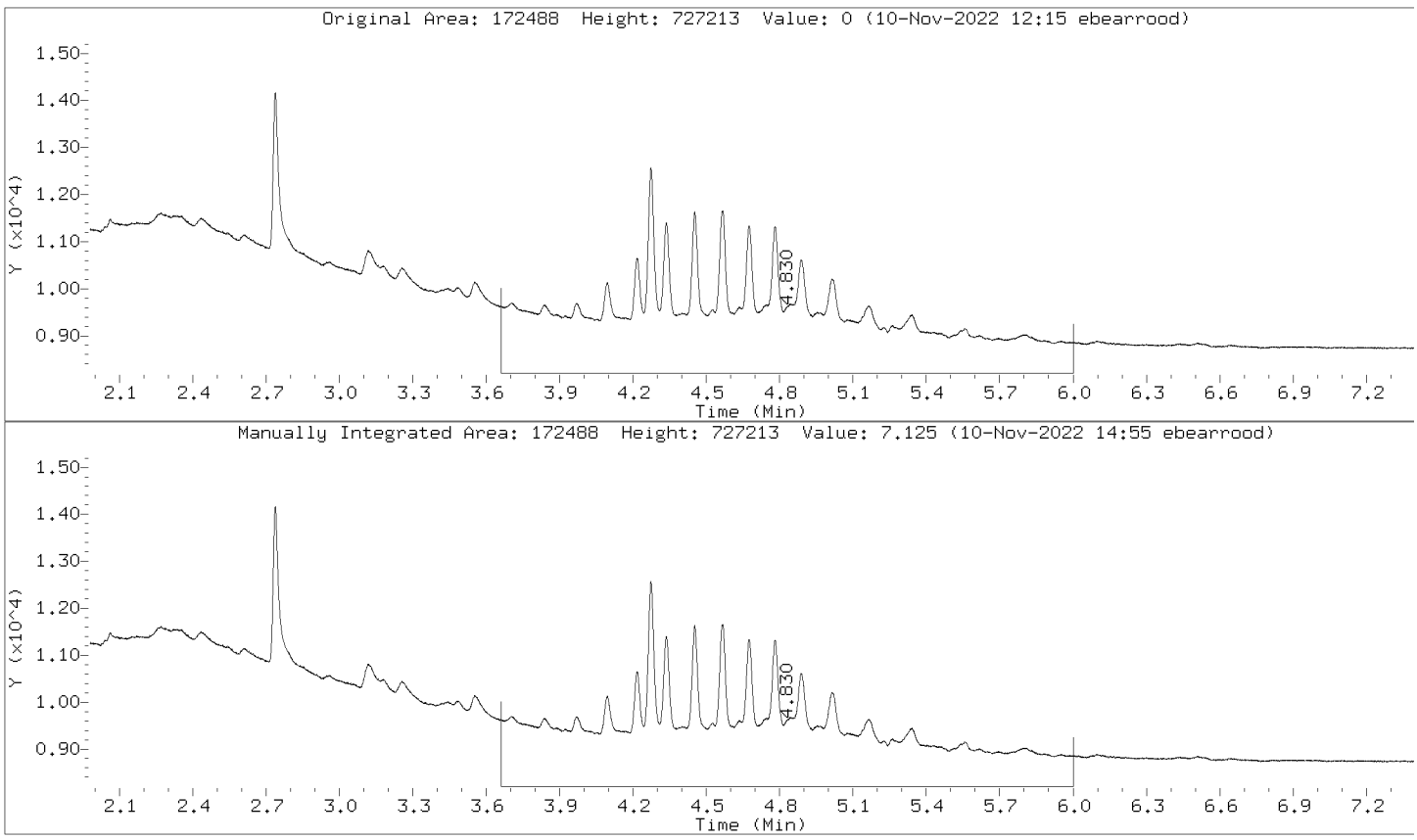
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



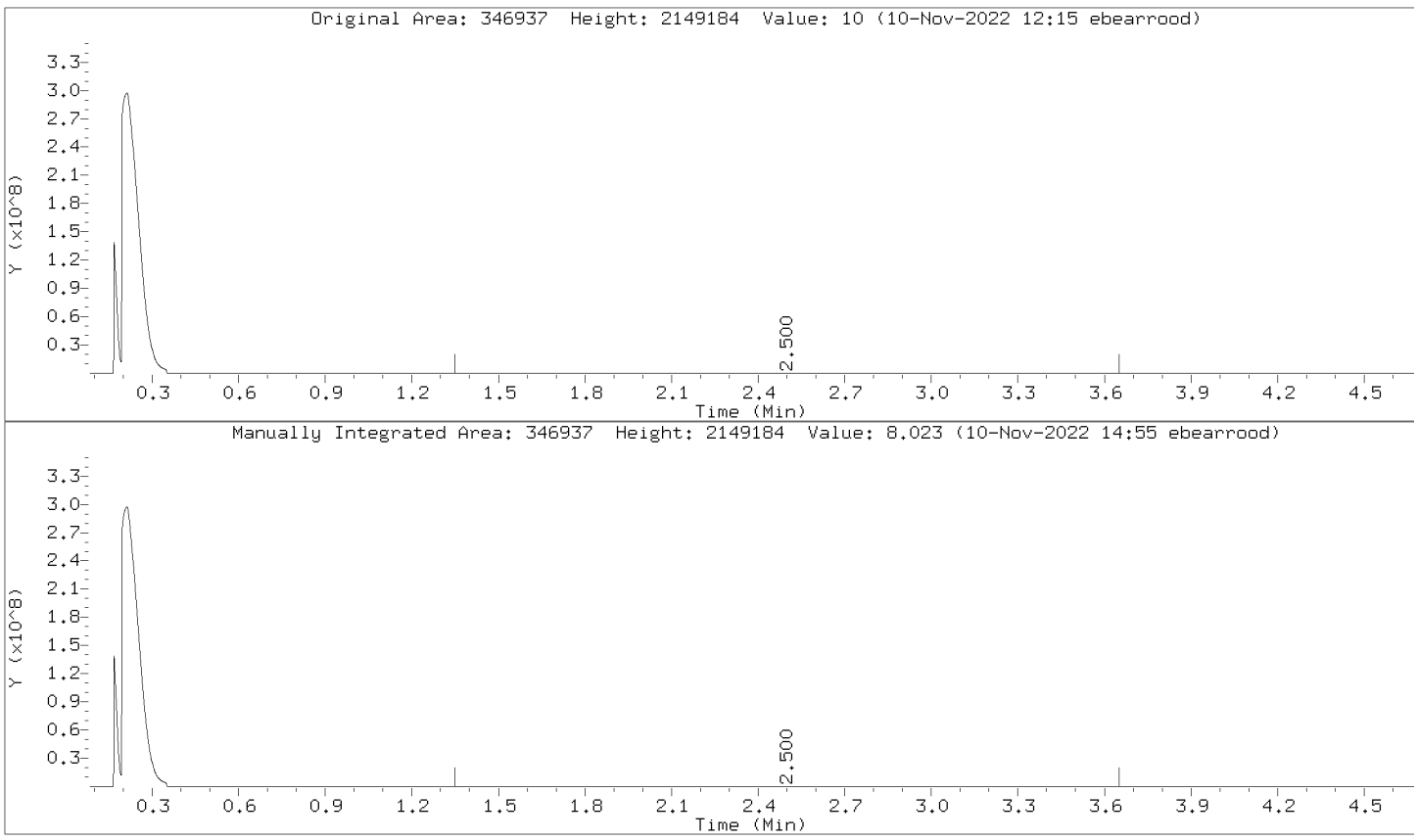
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



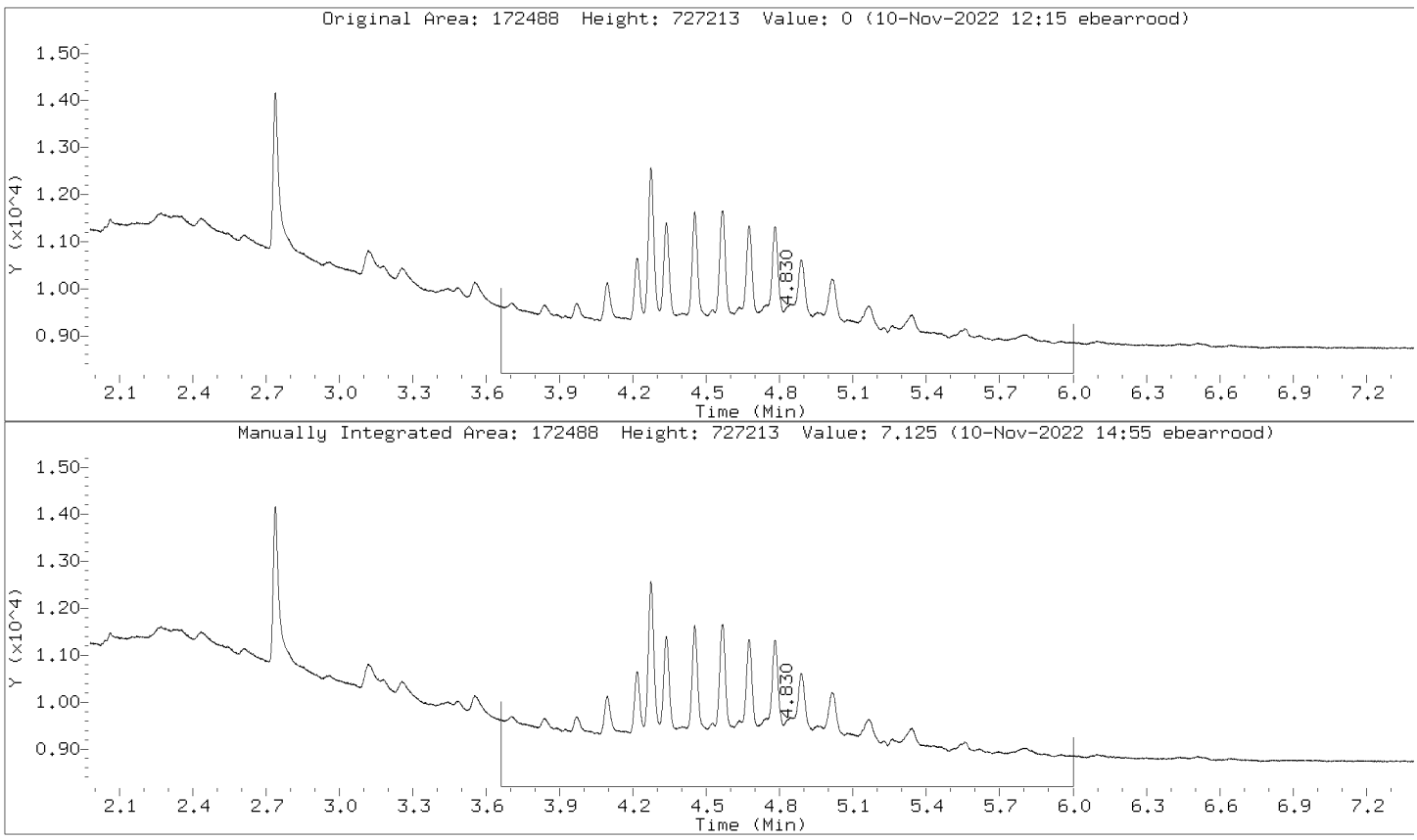
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



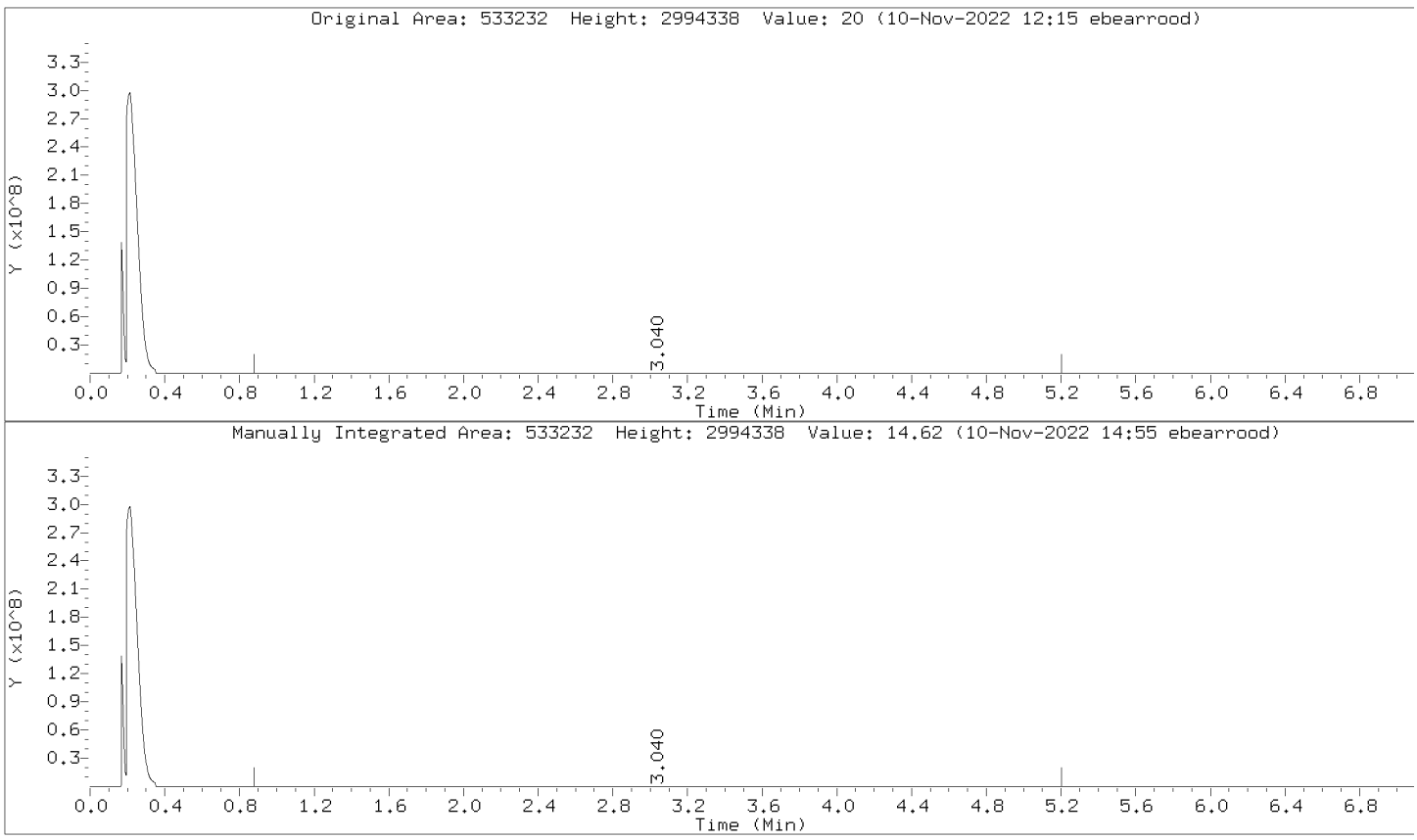
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



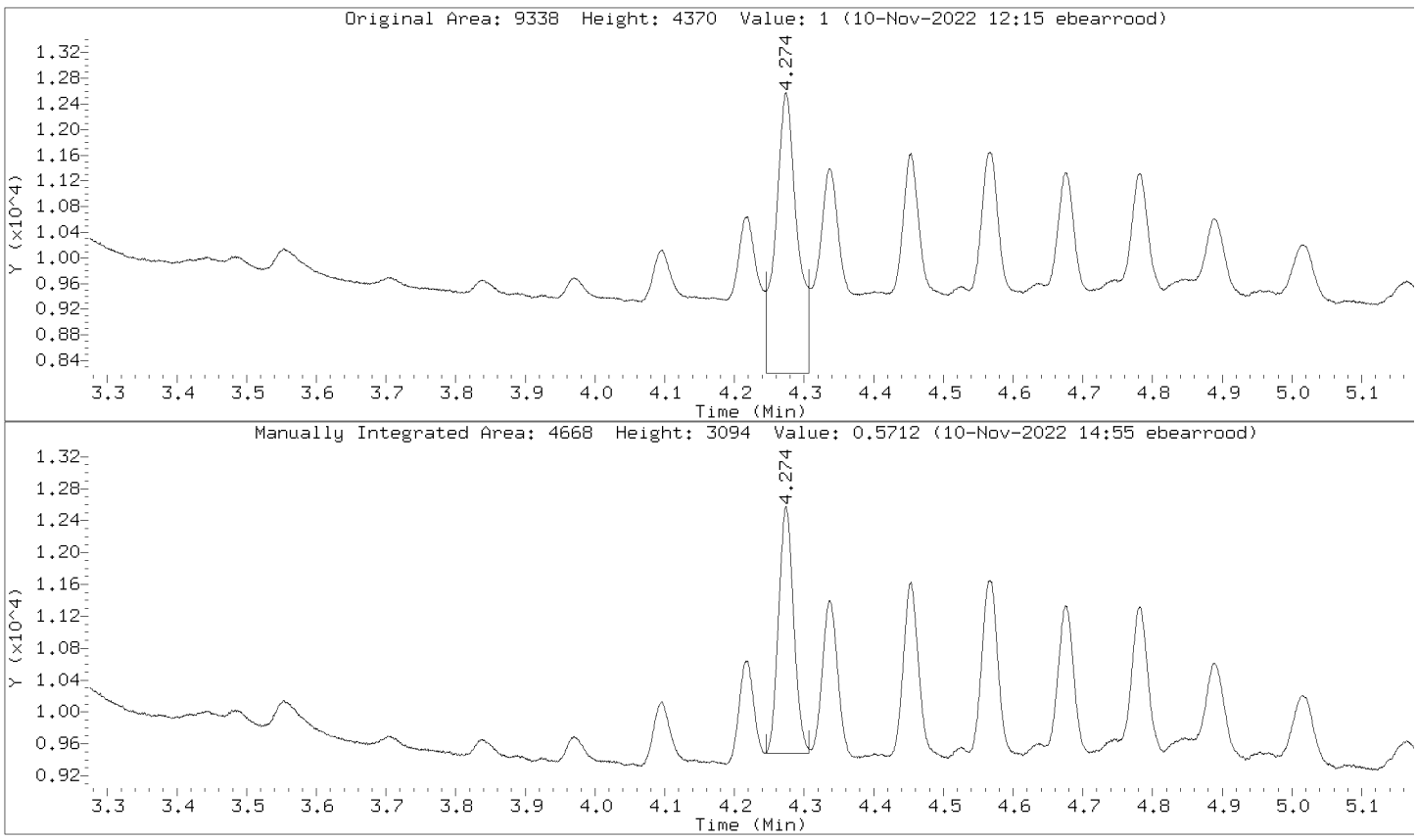
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



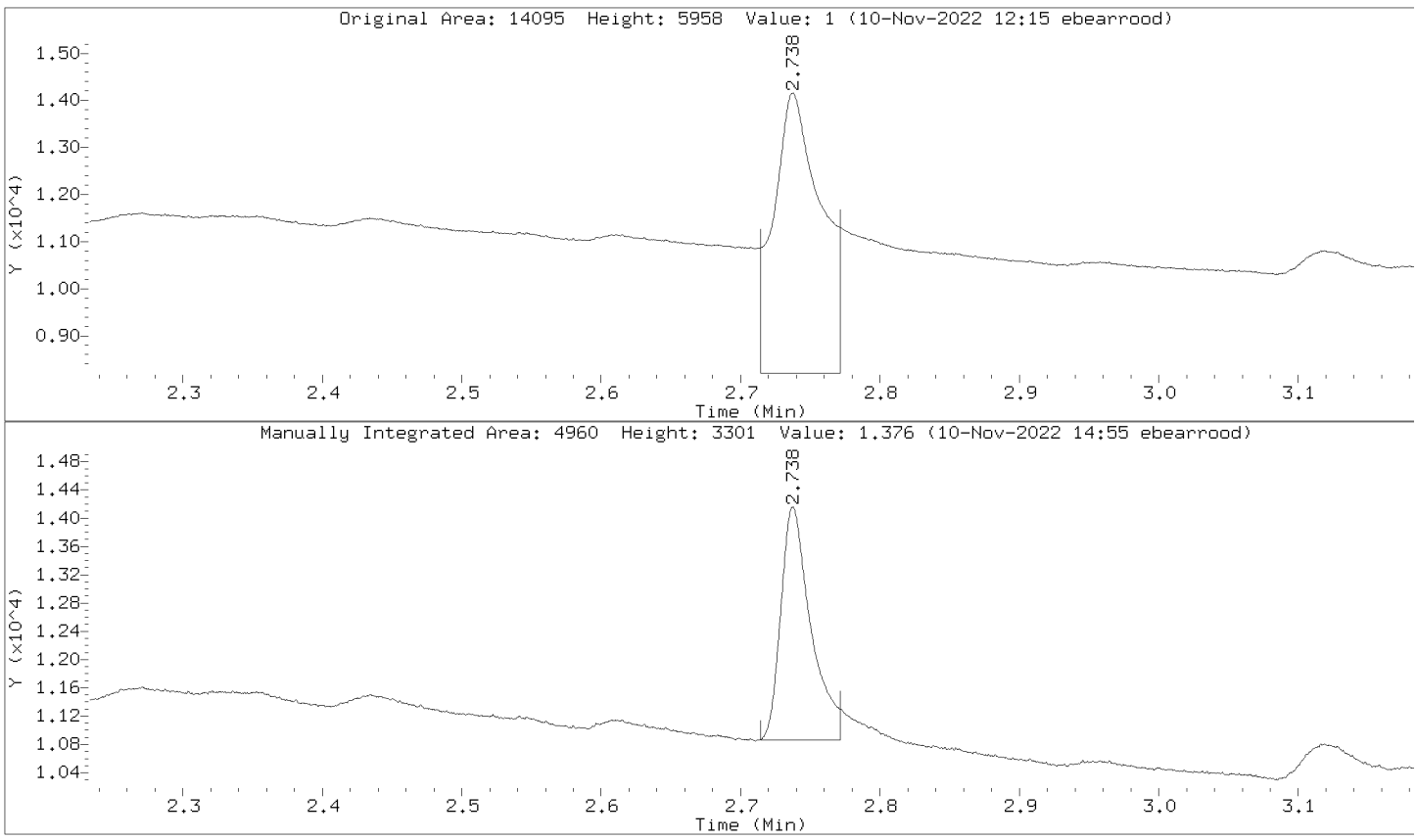
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW	CODE
S	1 DRO by AK 102					CAS #:		
	0.880 - 3.600			475588	25.0000	22.0	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.733	0.001	14599	2.50000	2.81	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	12458	2.50000	2.06	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610 - 5.200			195791	25.0000	22.4	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880 - 4.219			541580	25.0000	21.5	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.200			213550	25.0000	21.9	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880 - 5.200			672394	50.0000	44.6	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

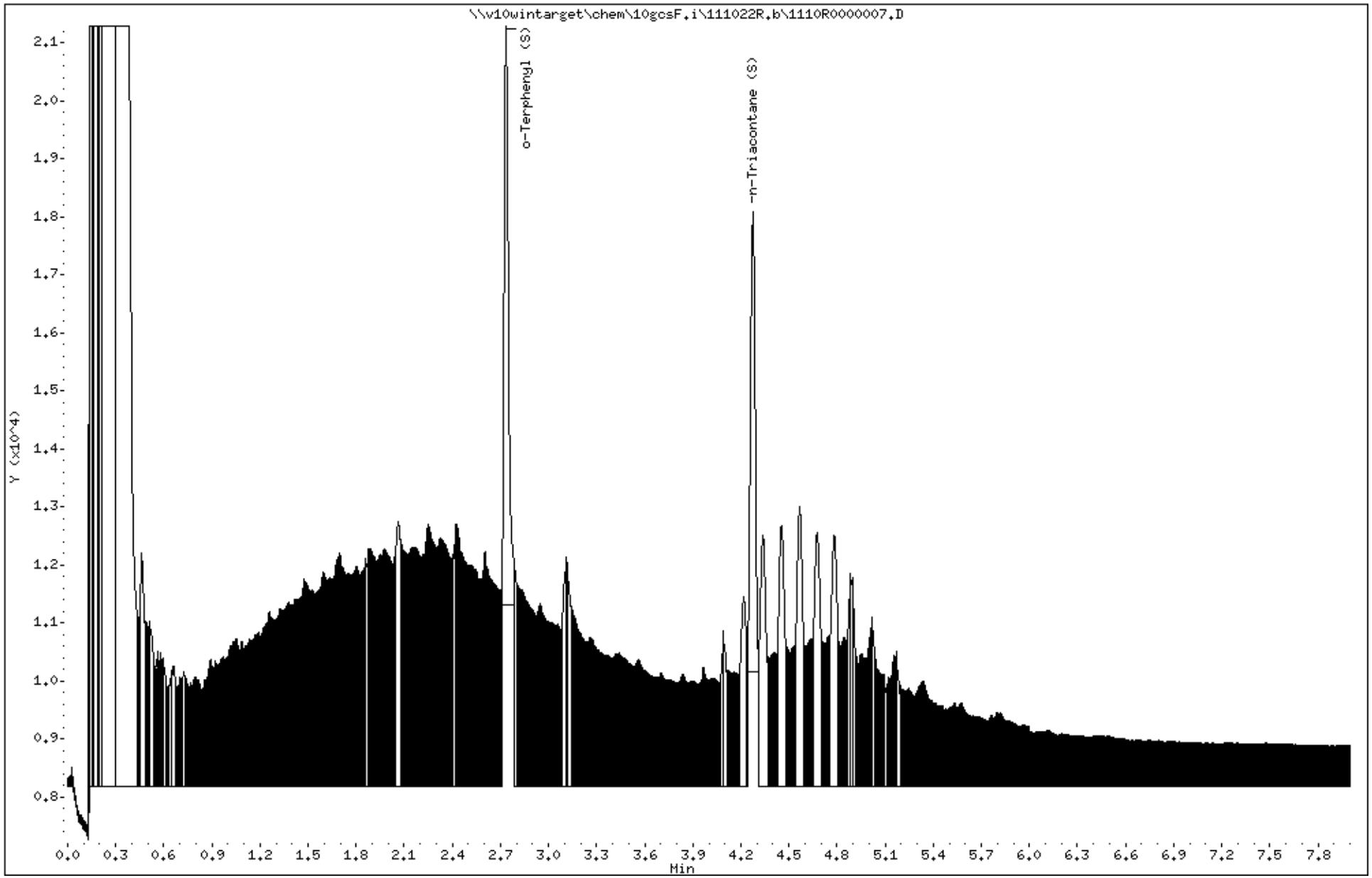
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

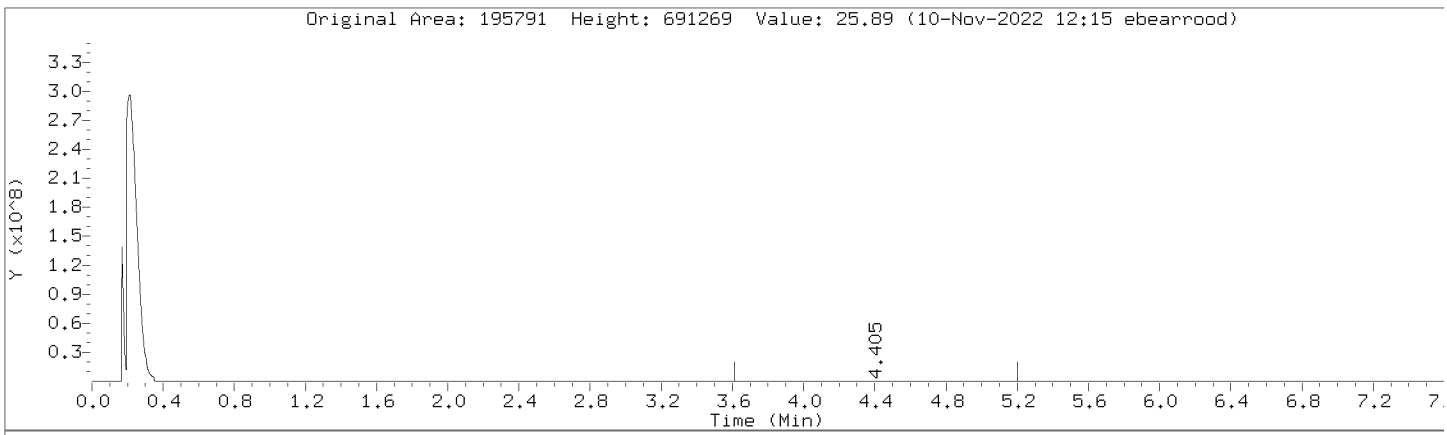
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

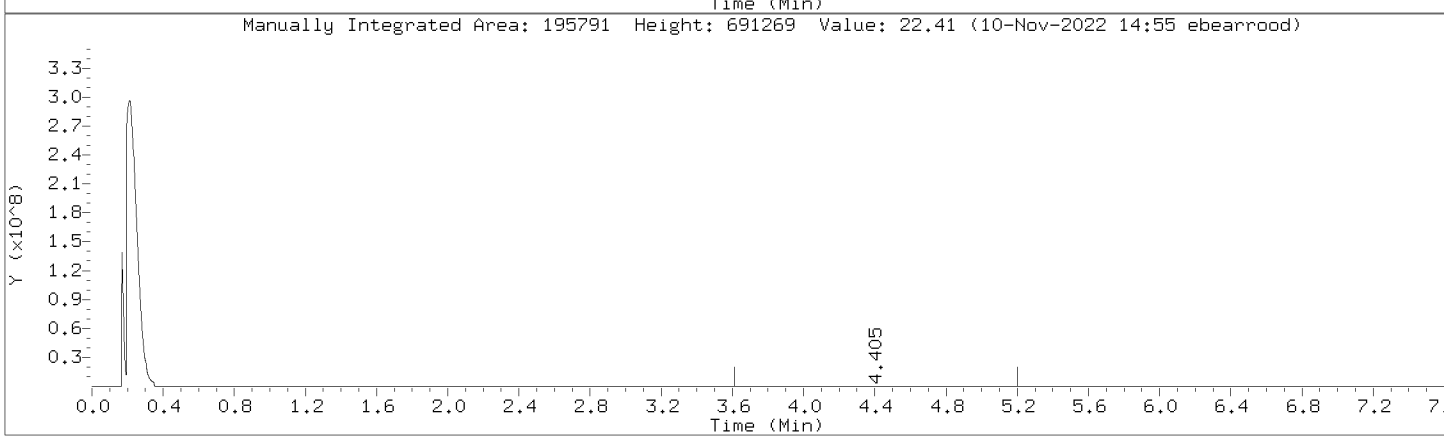
Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

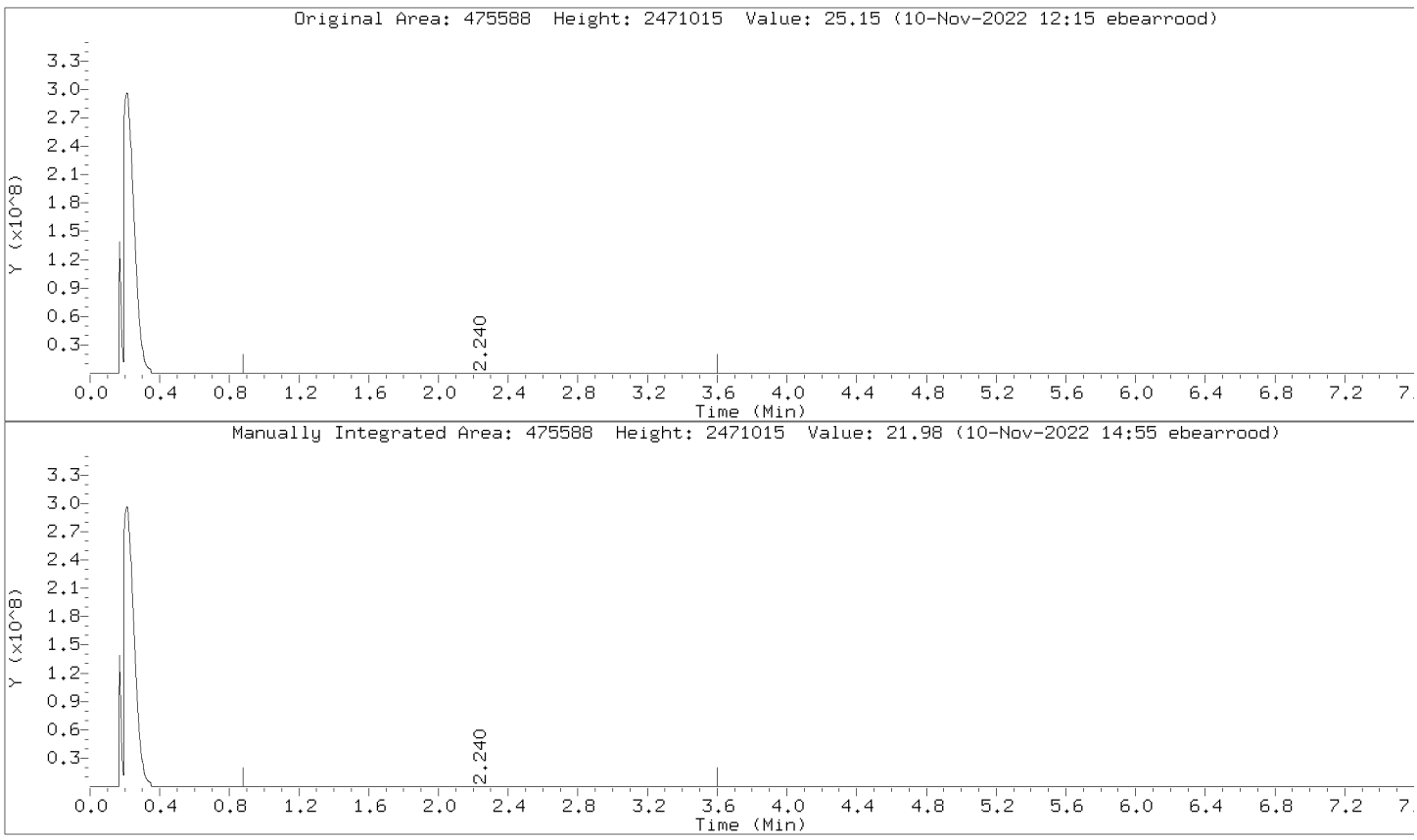
Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:





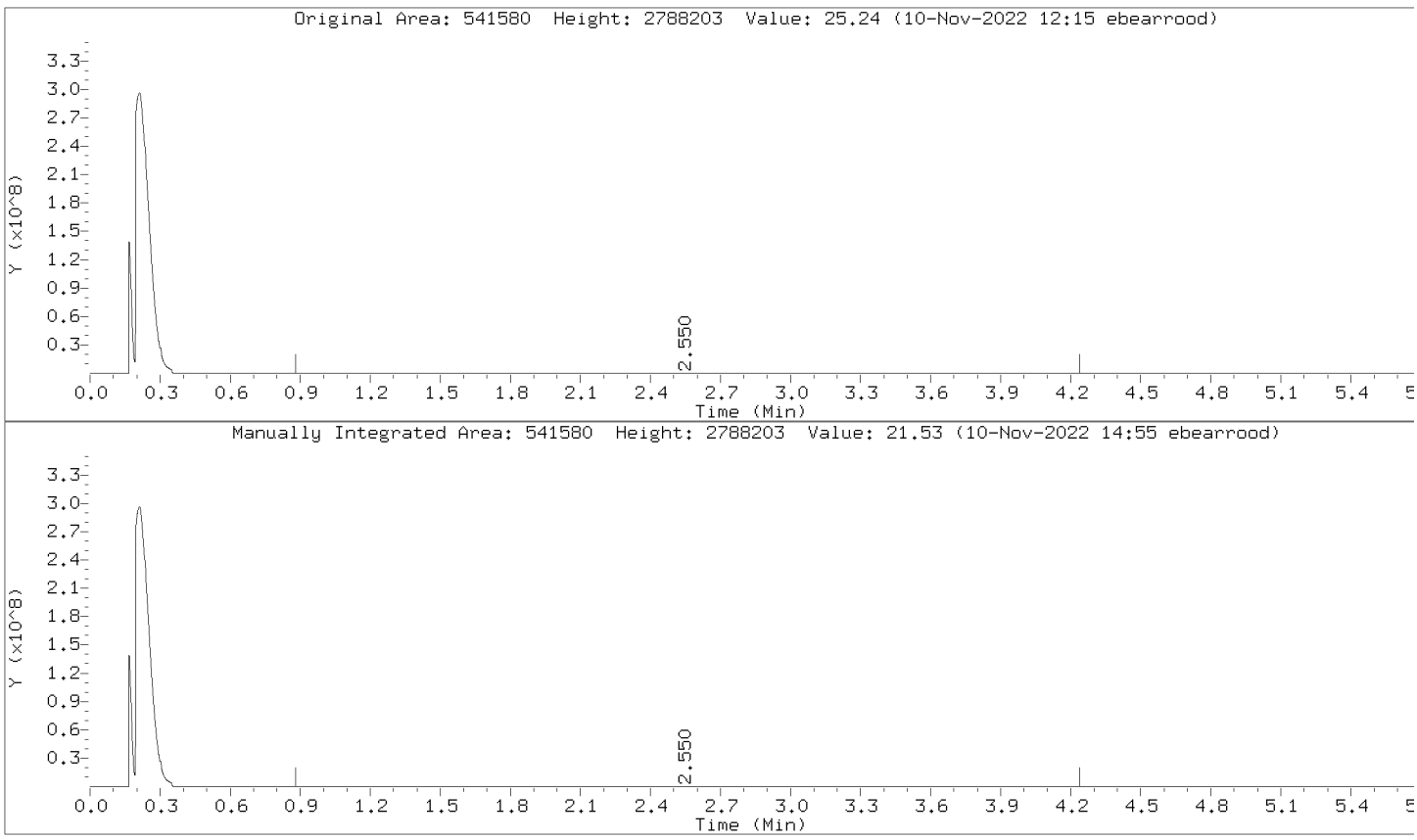
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



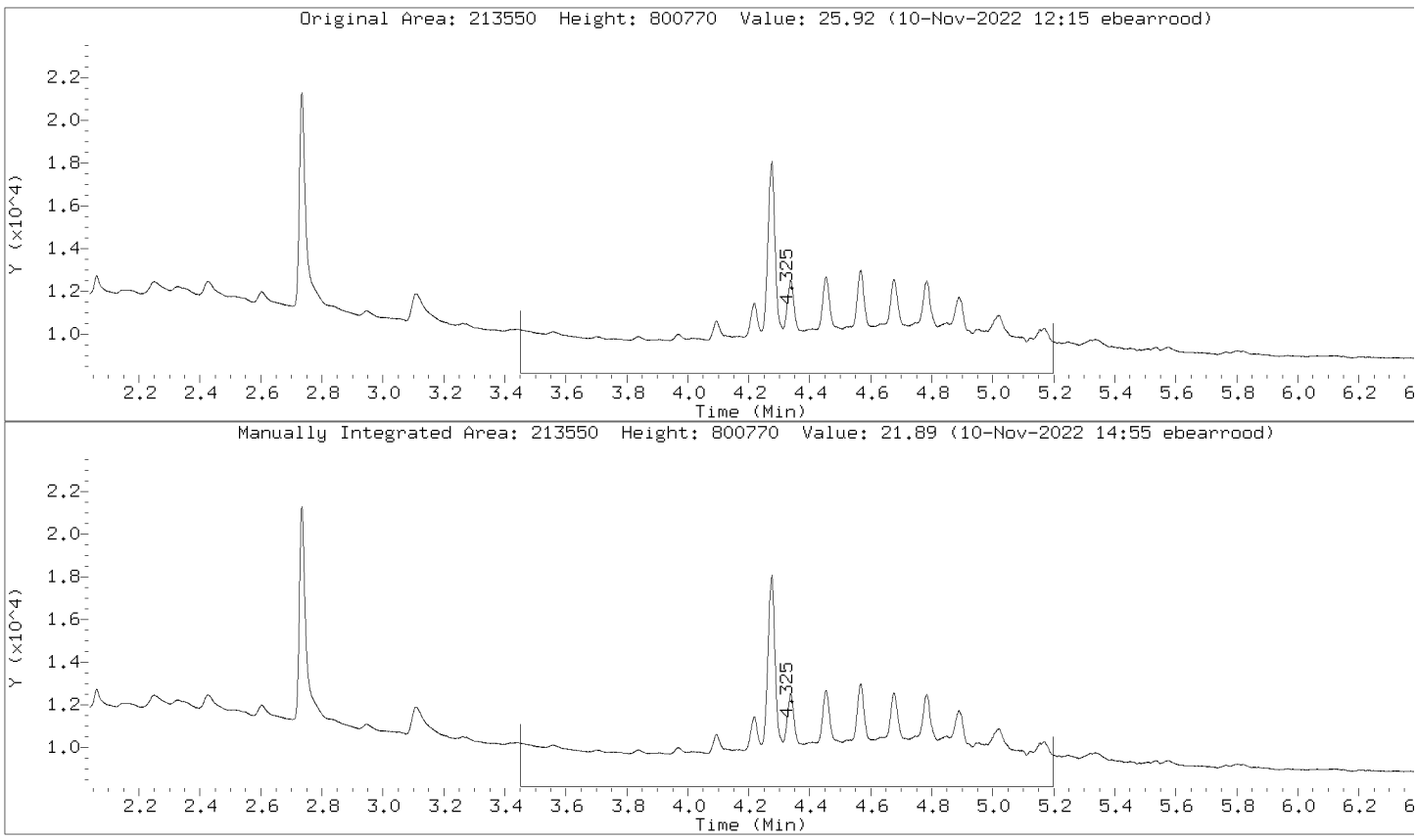
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



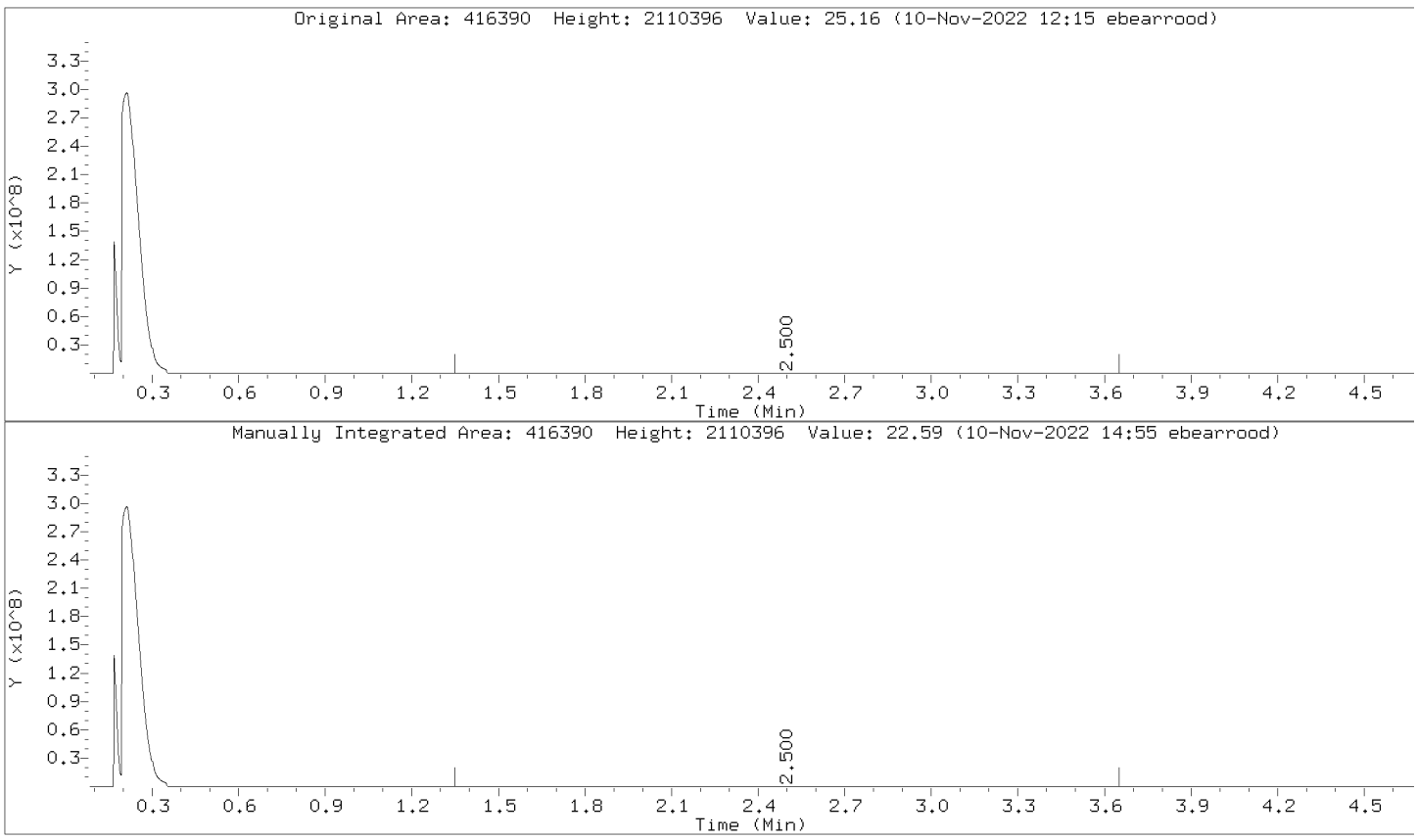
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



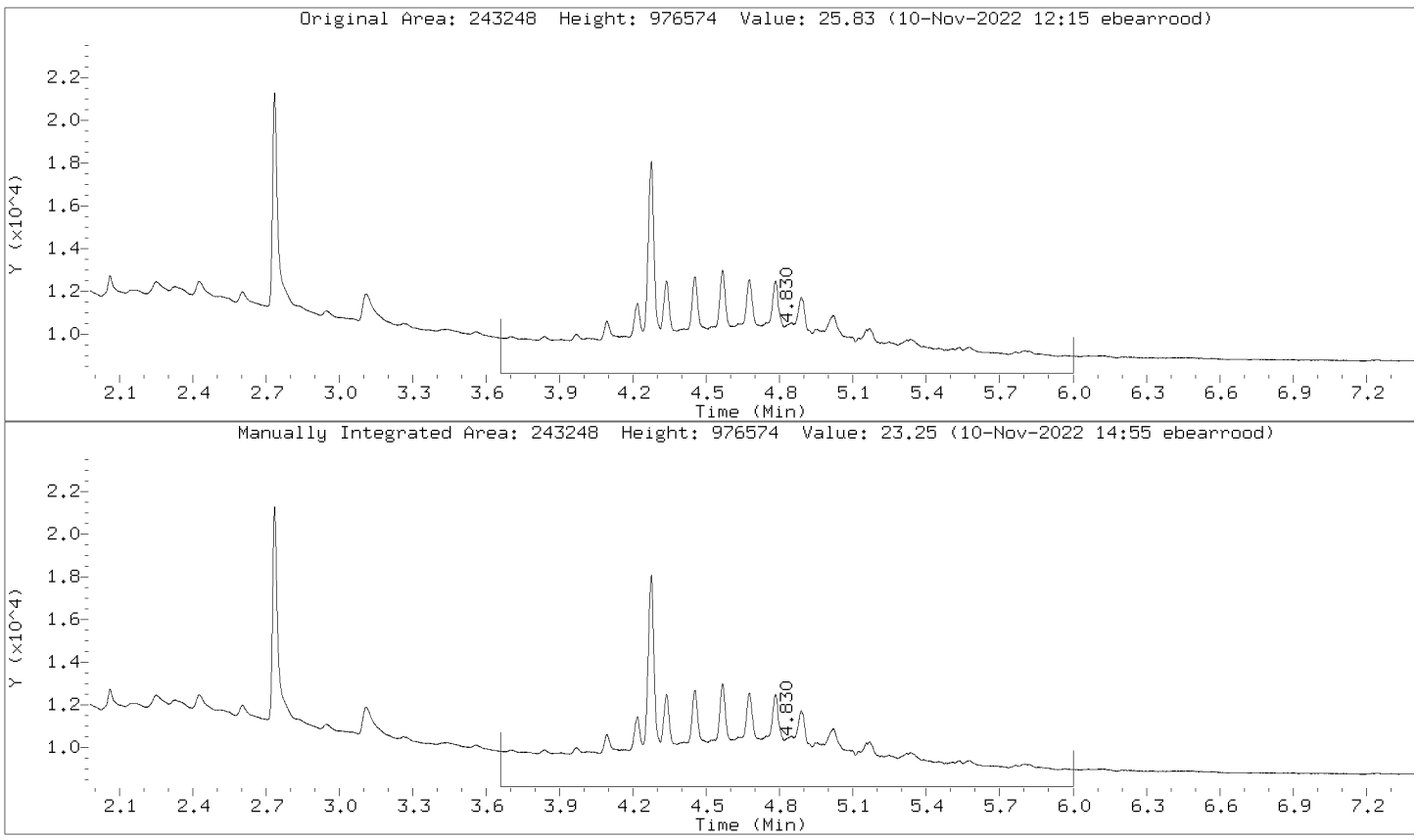
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



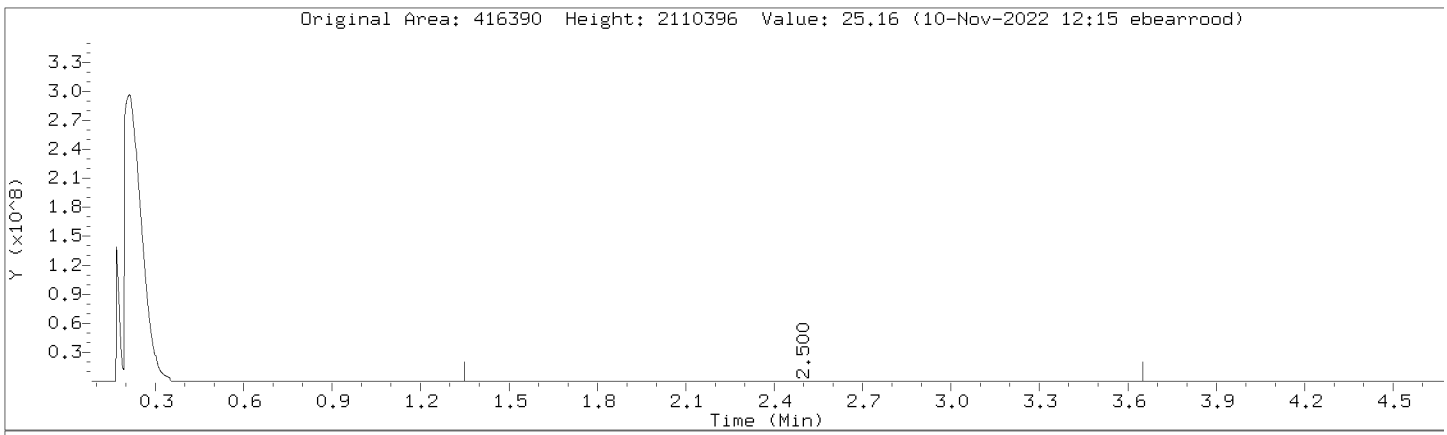
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

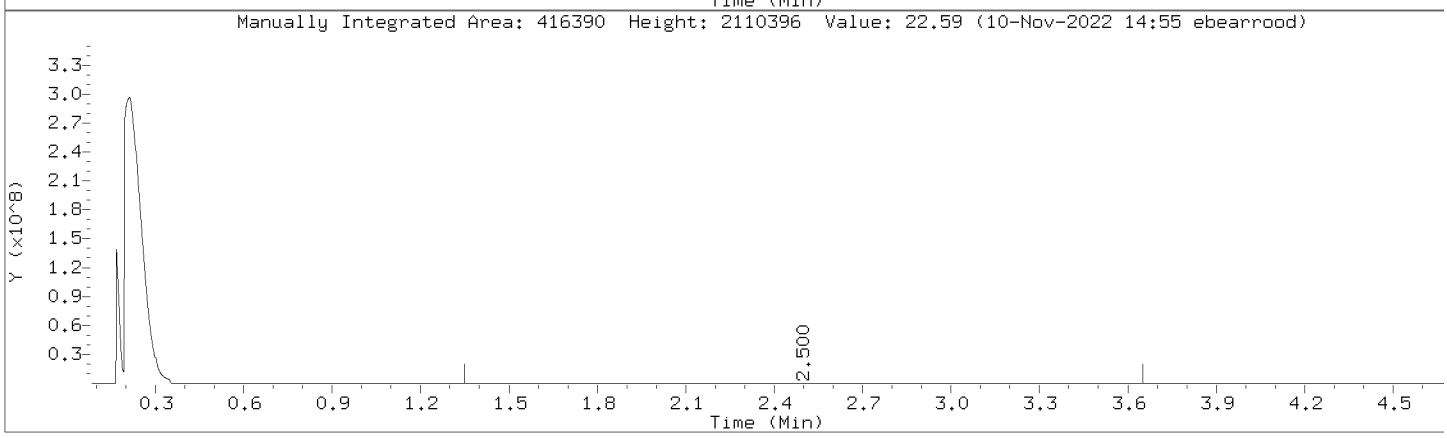
Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:





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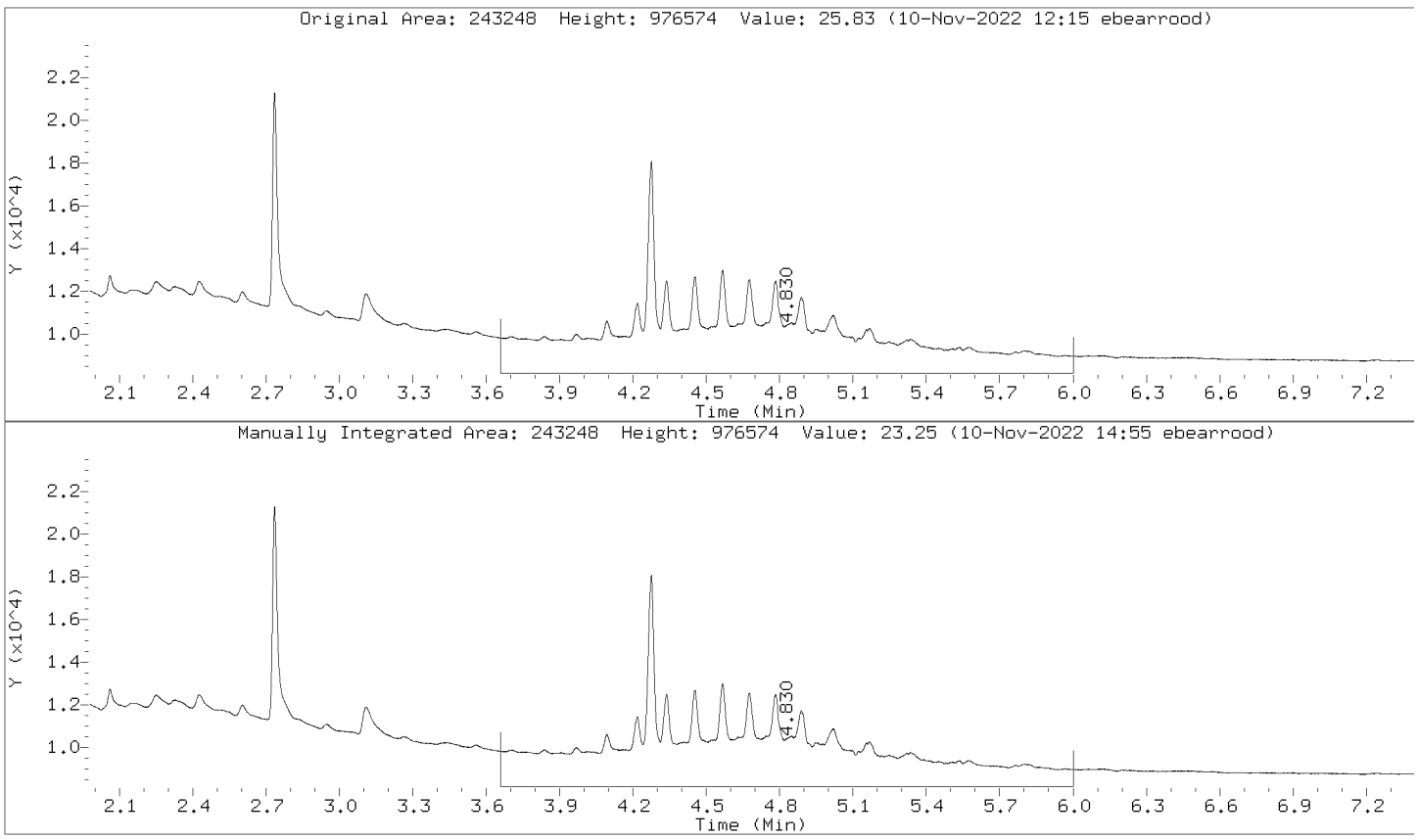
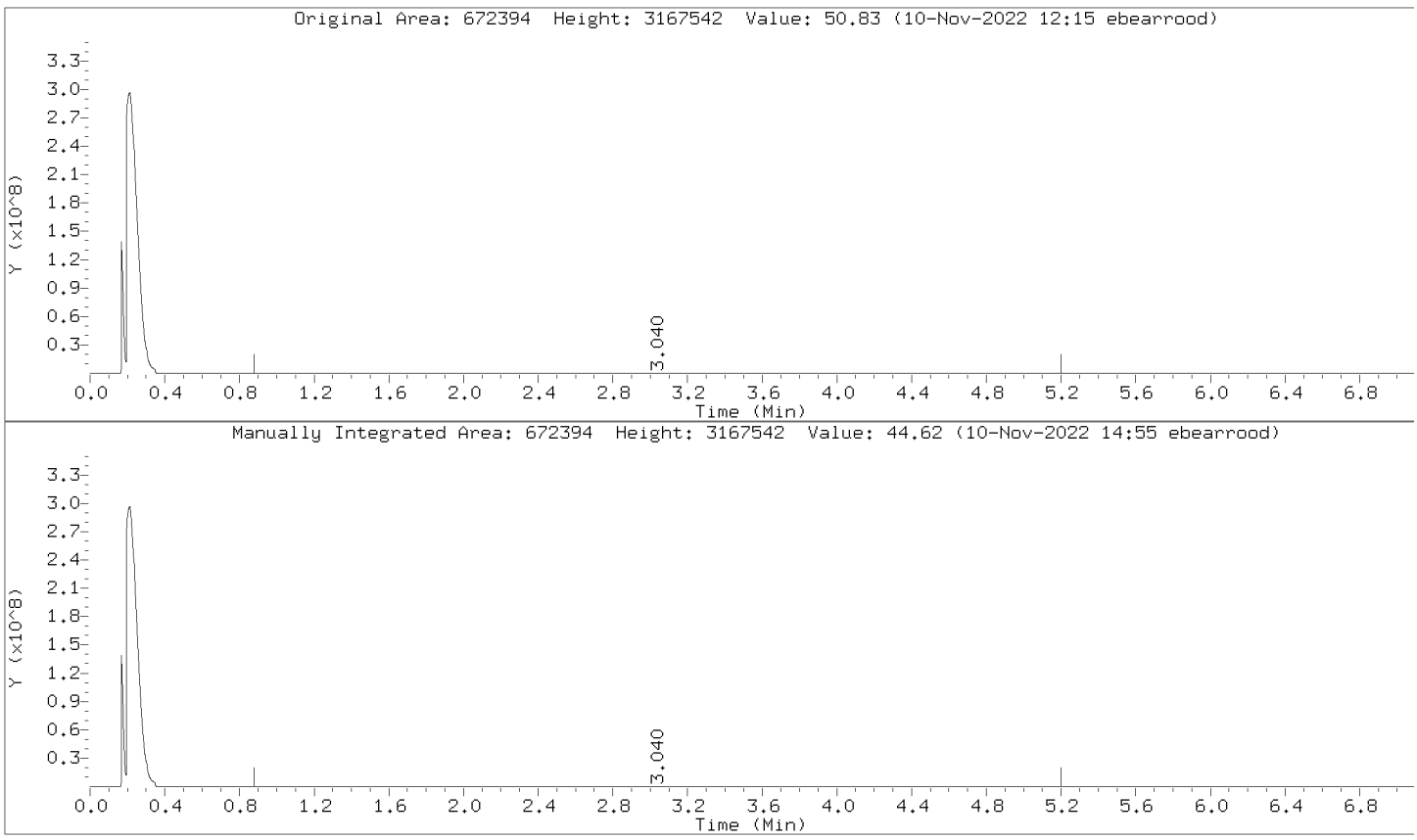
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



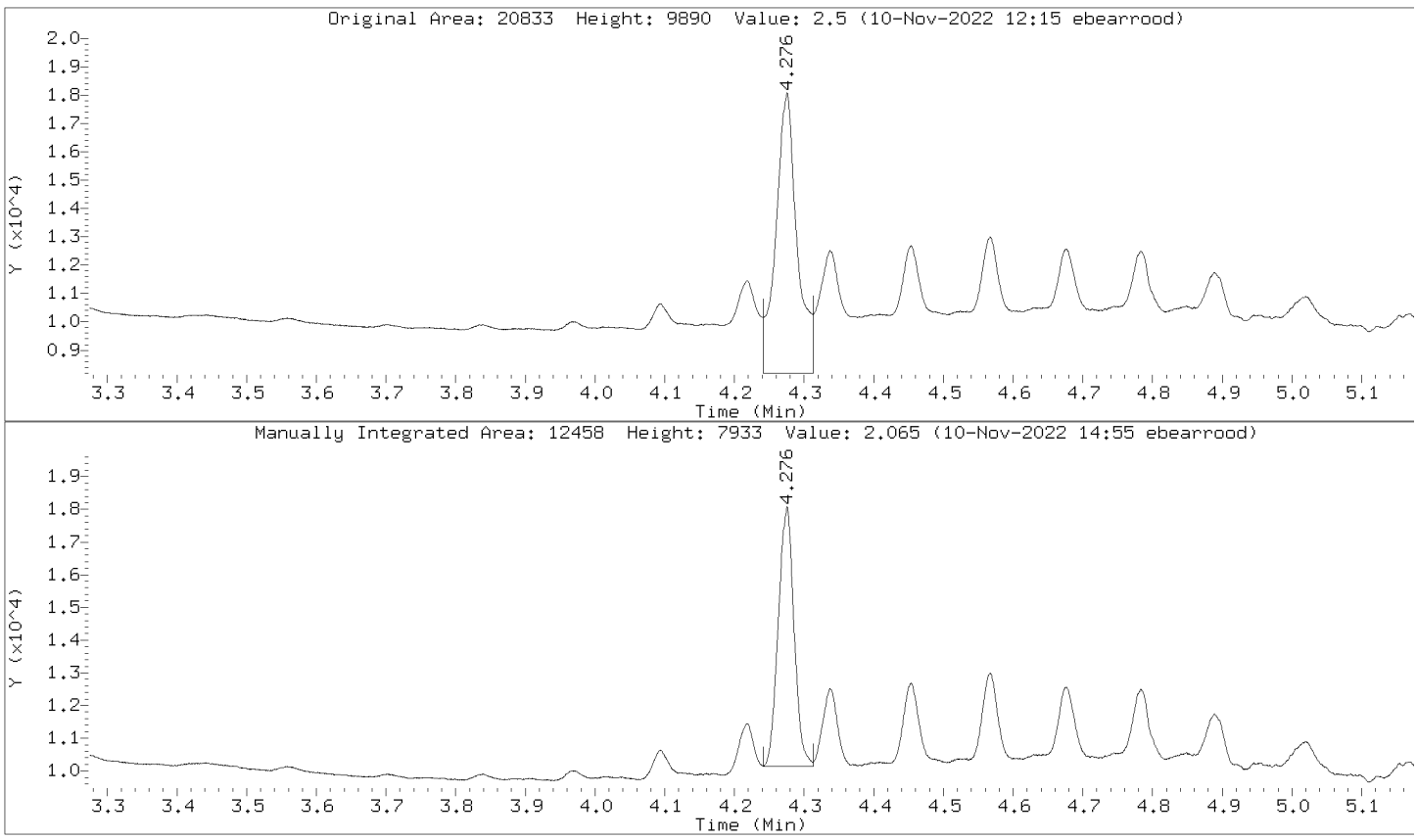
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



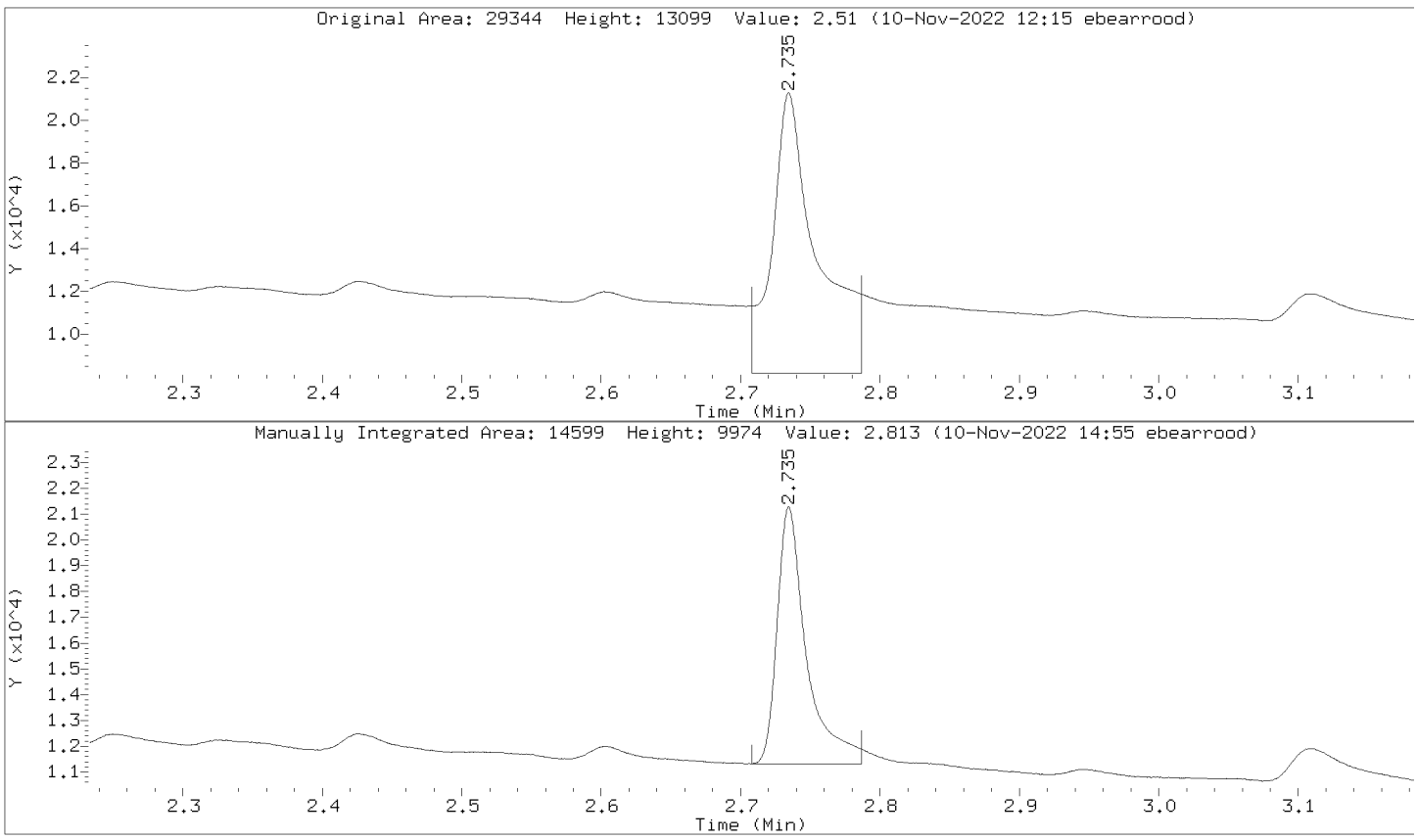
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

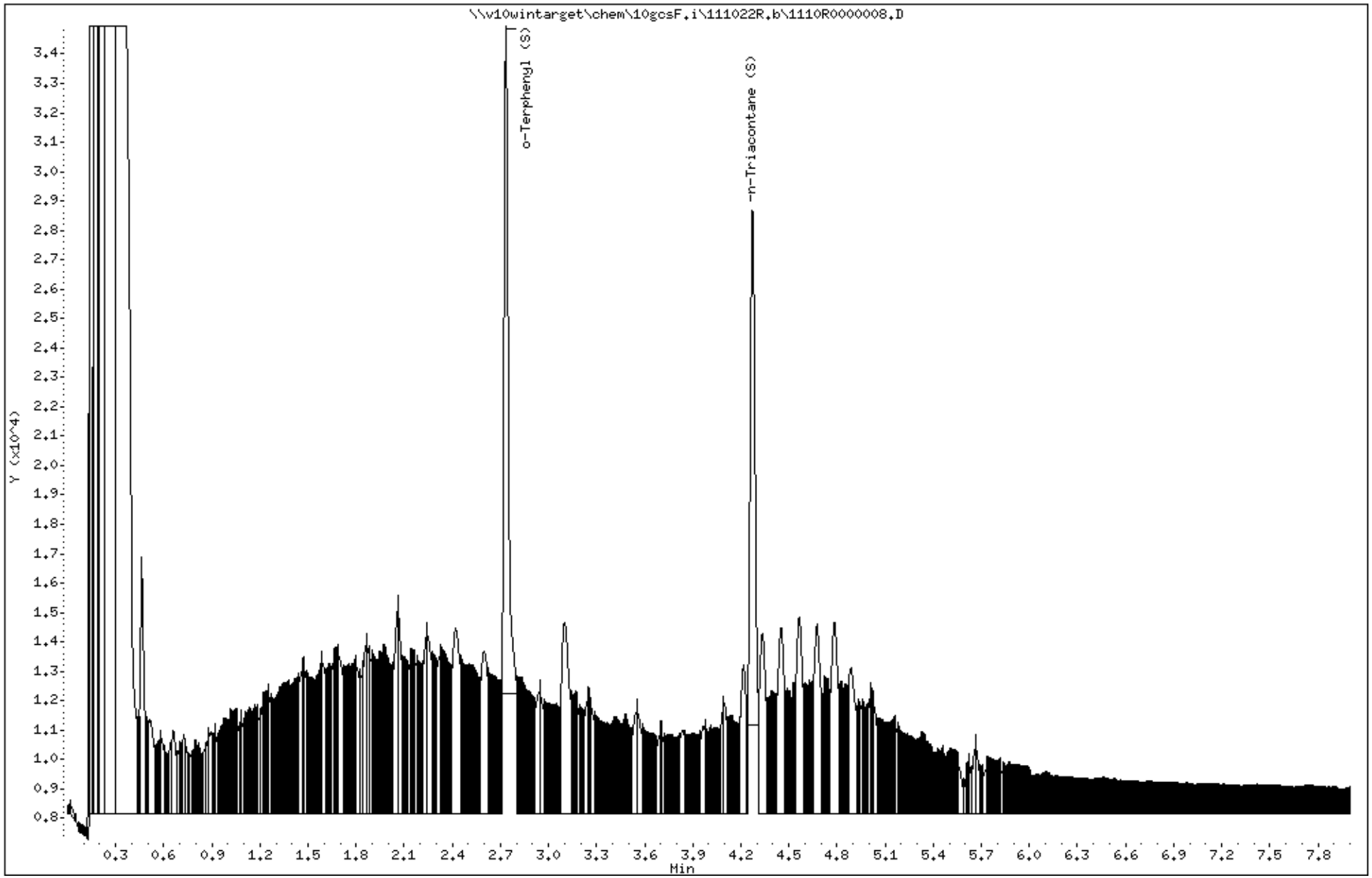
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

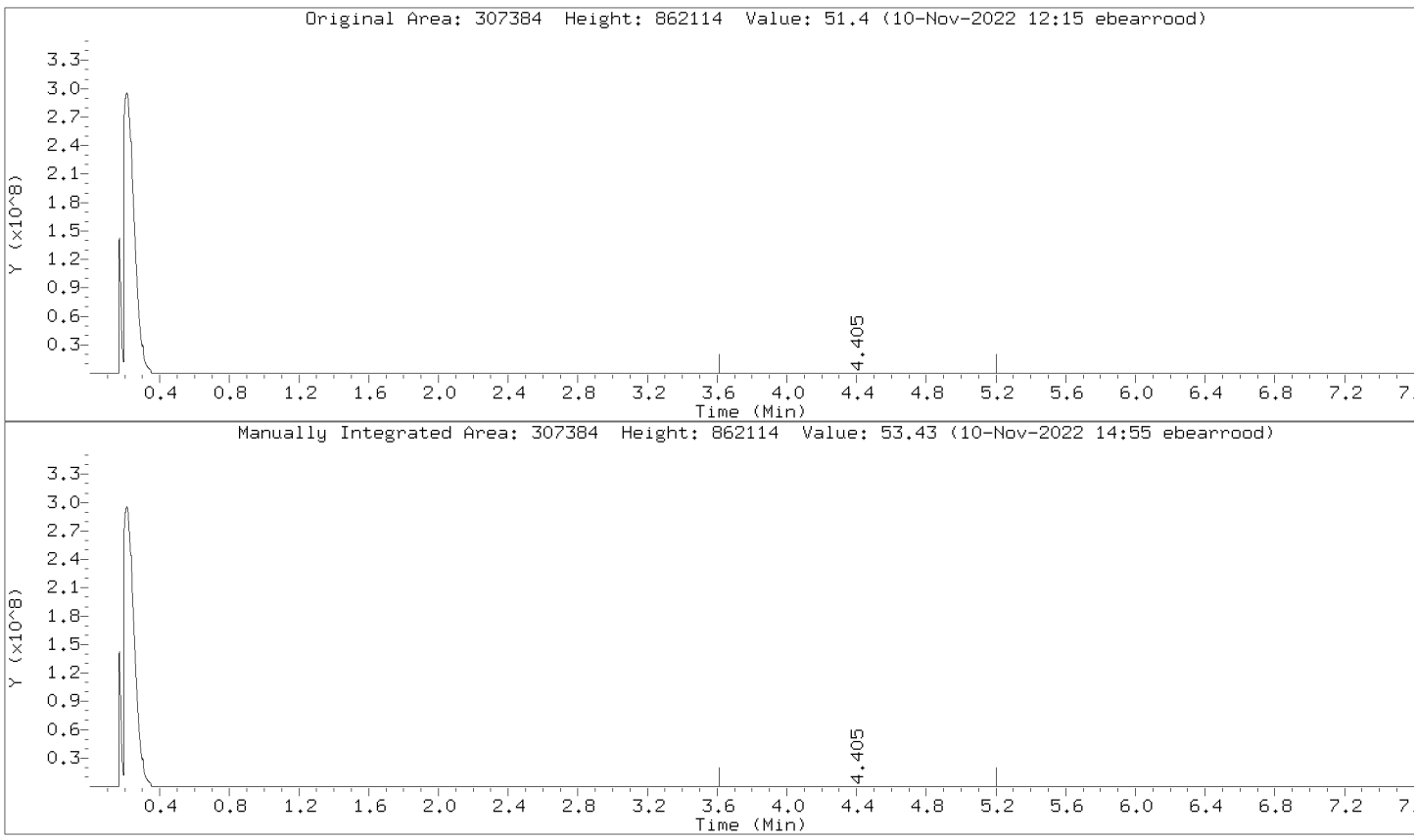
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



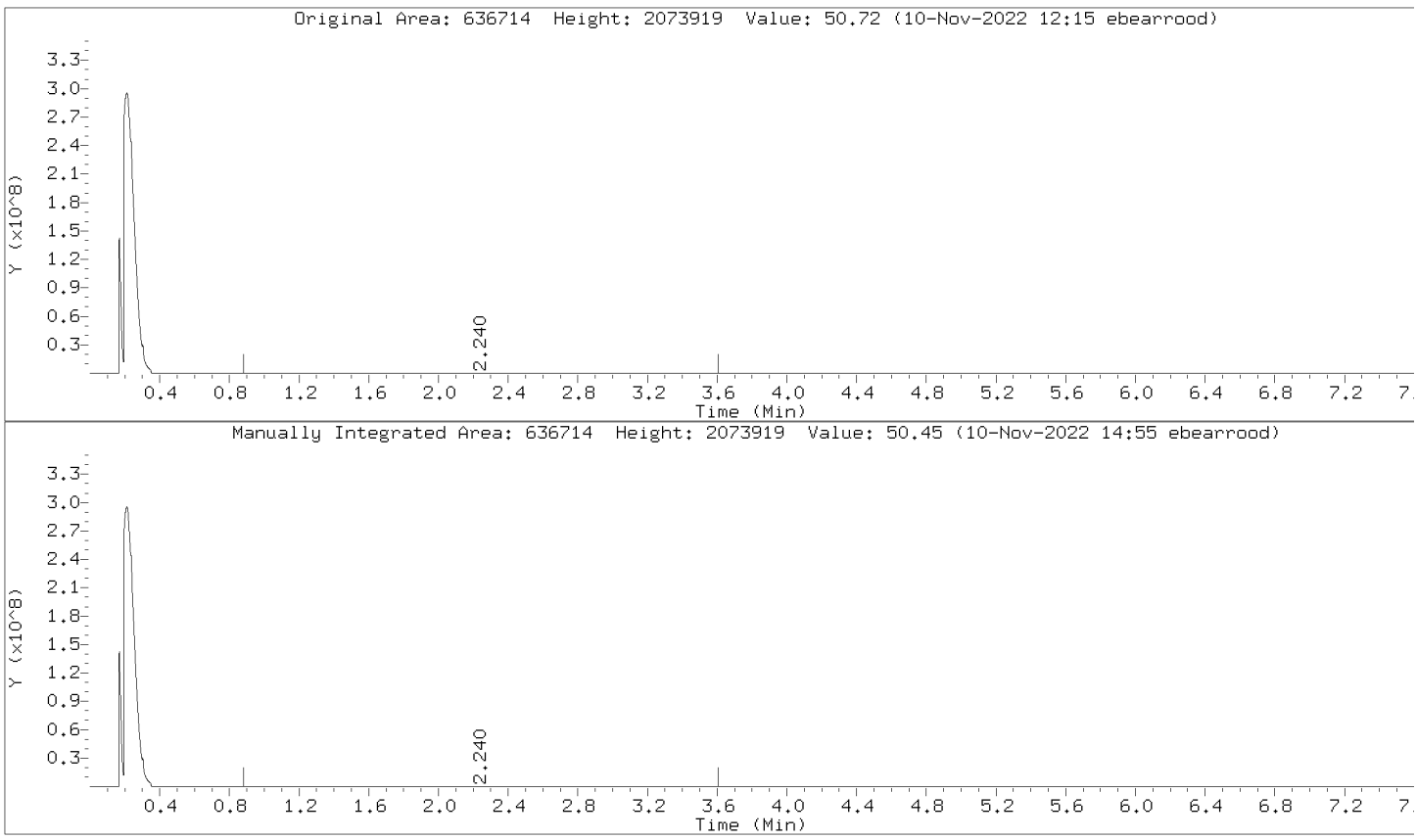
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



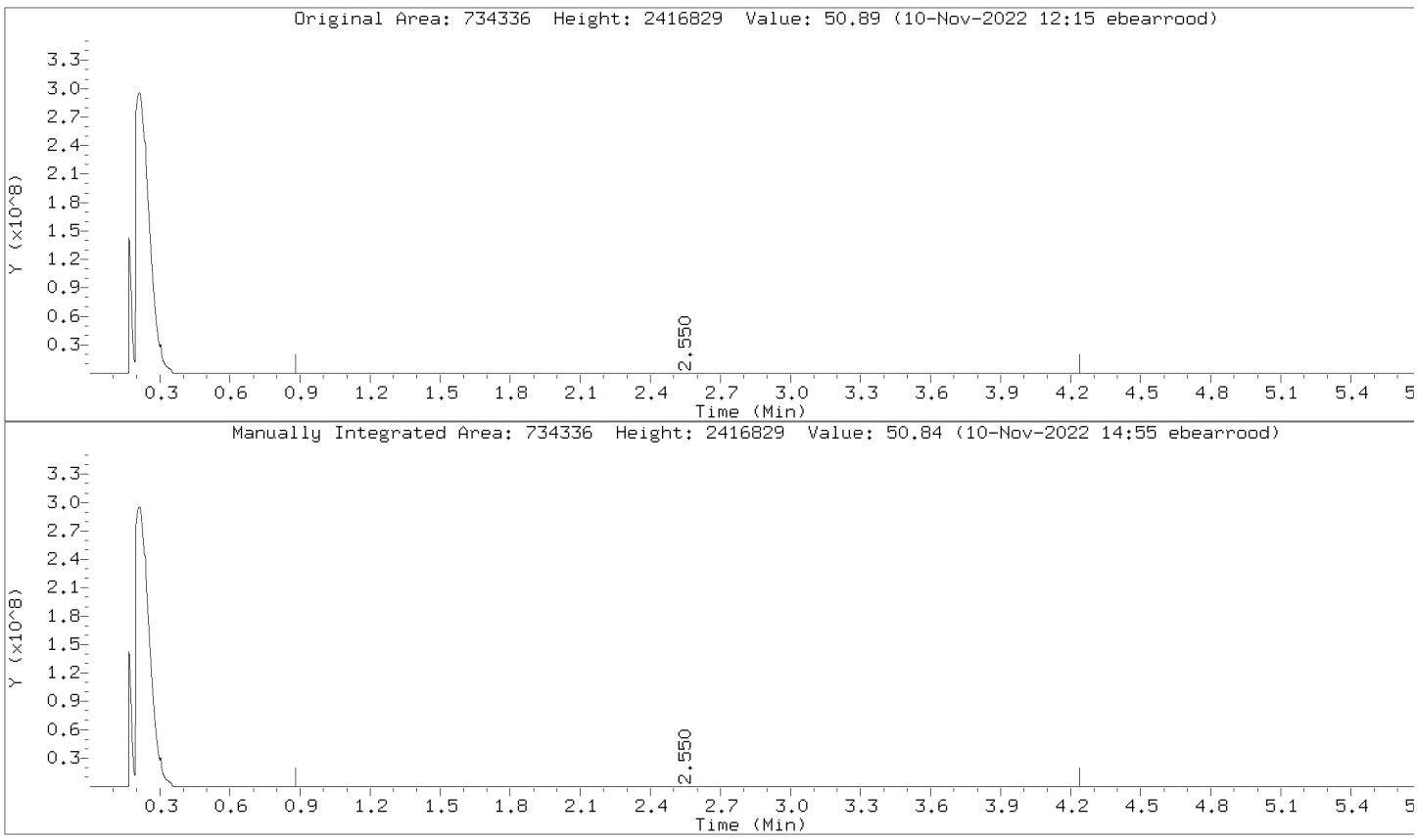
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



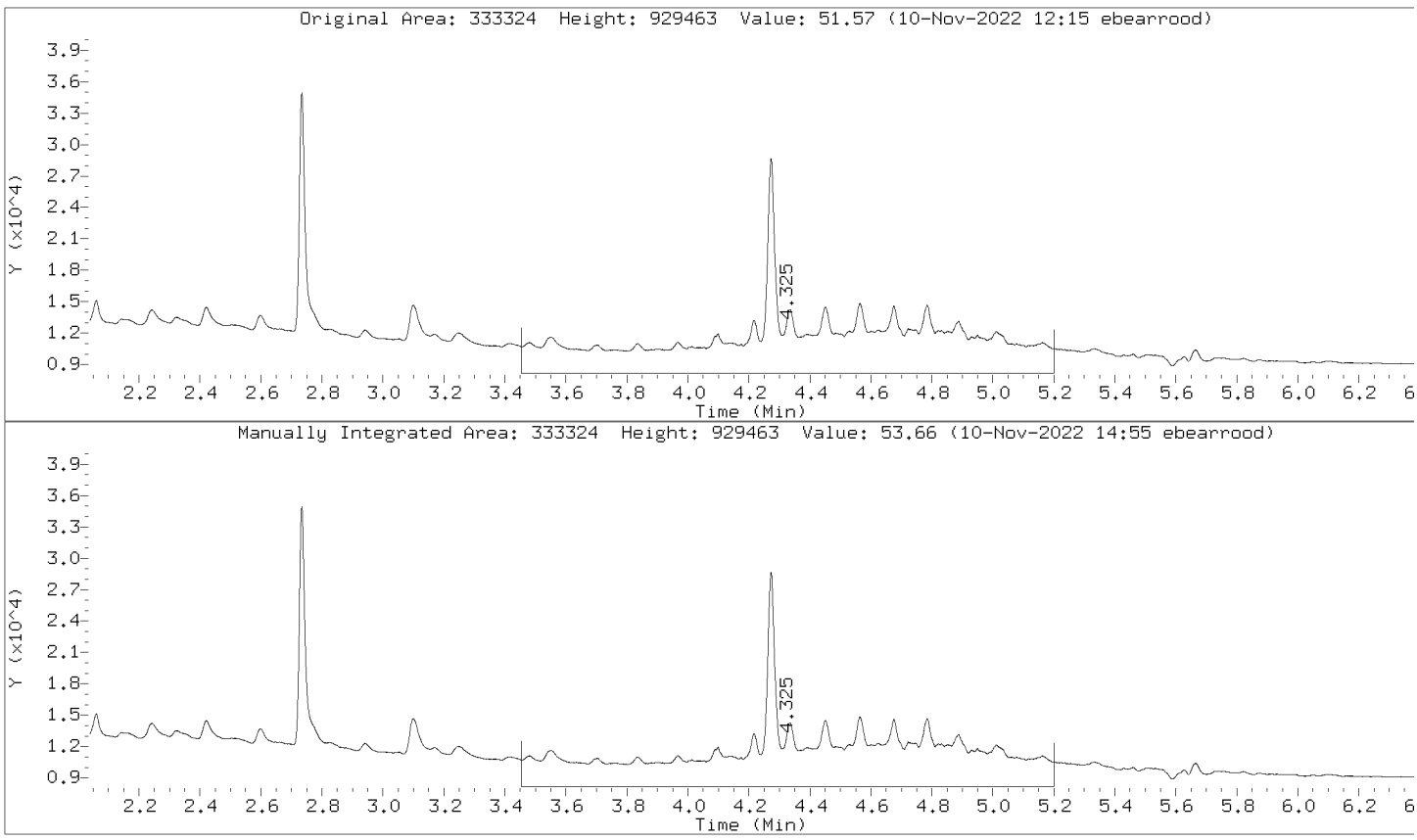
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



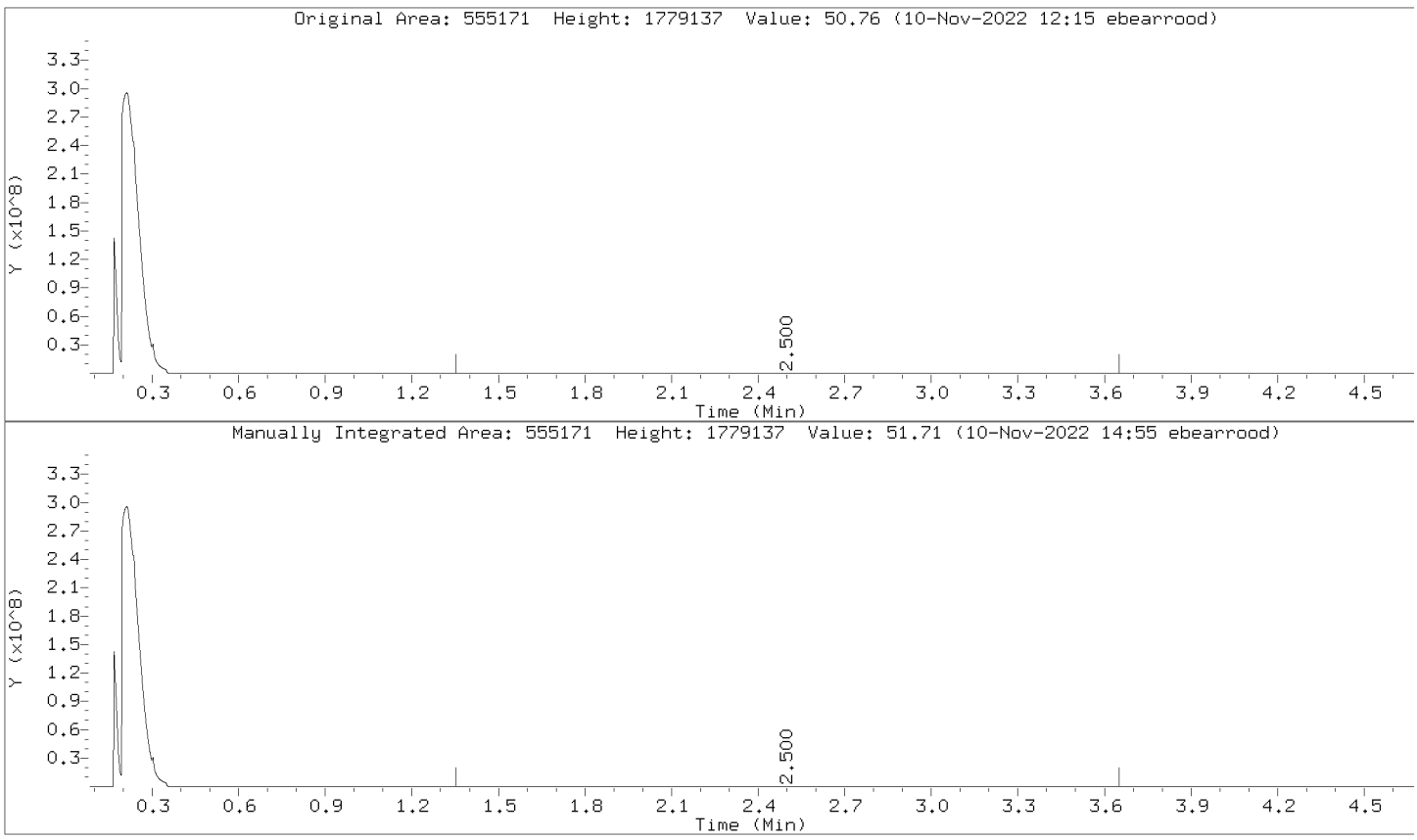
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



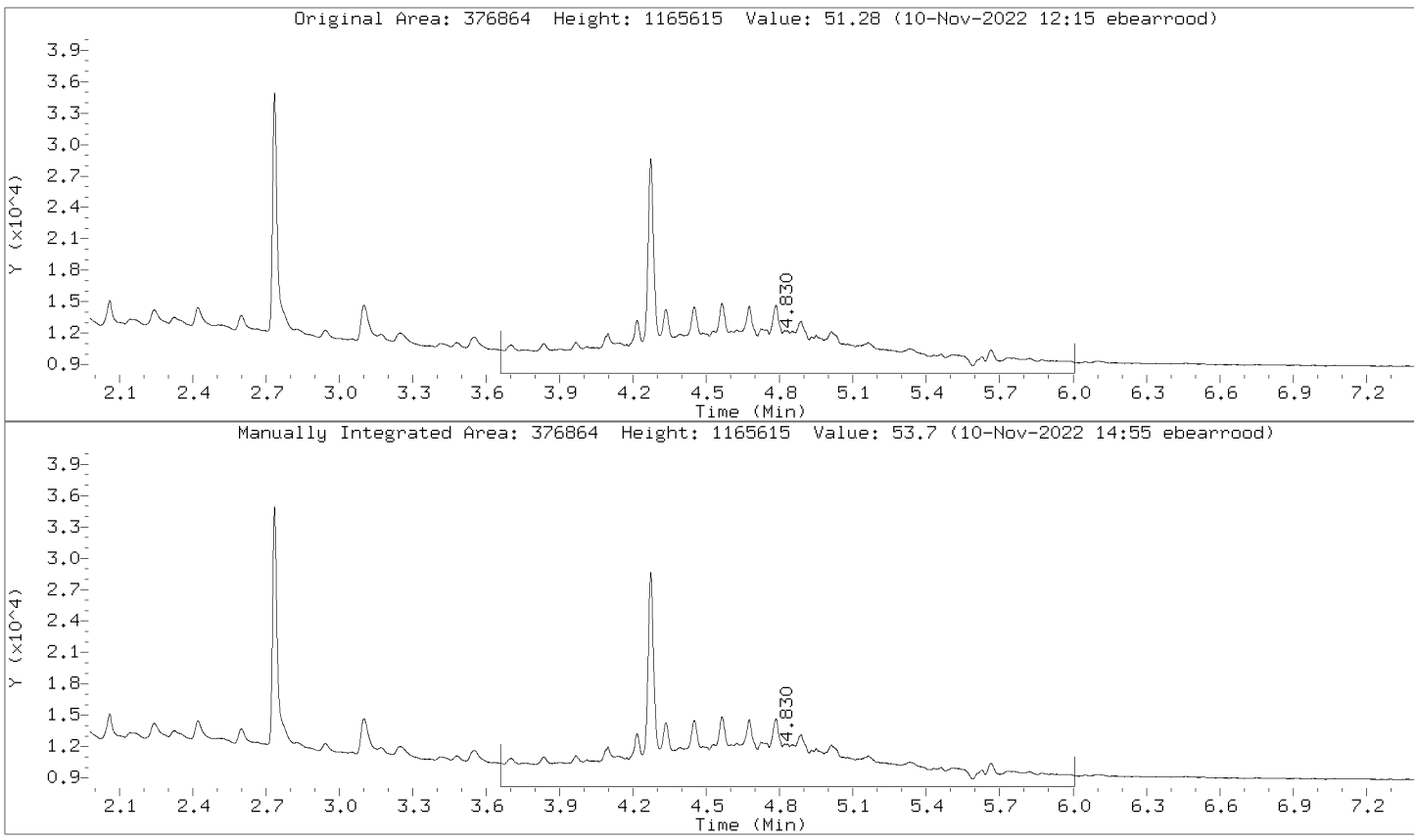
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



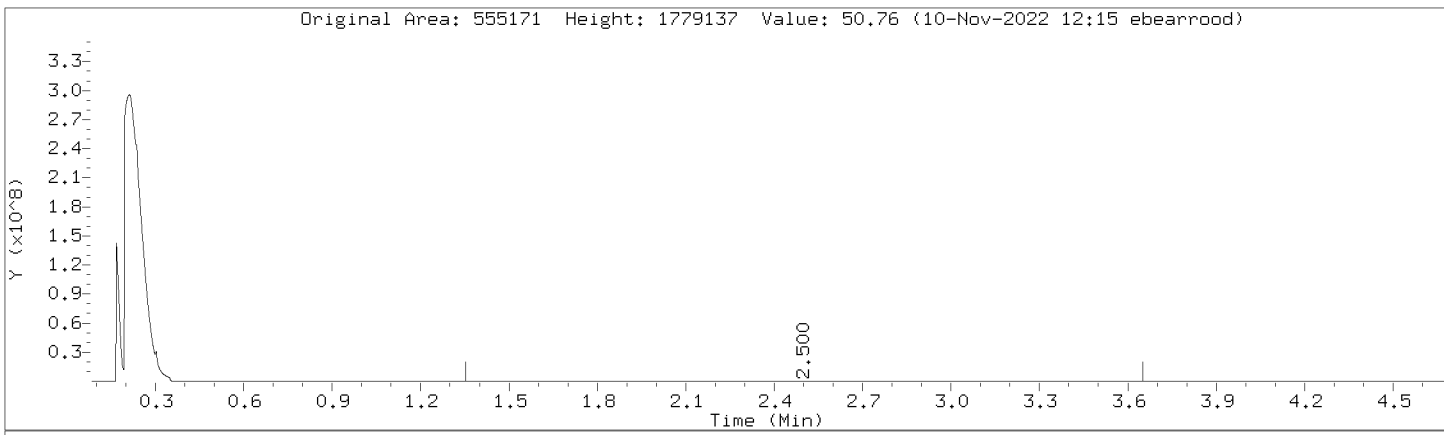
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

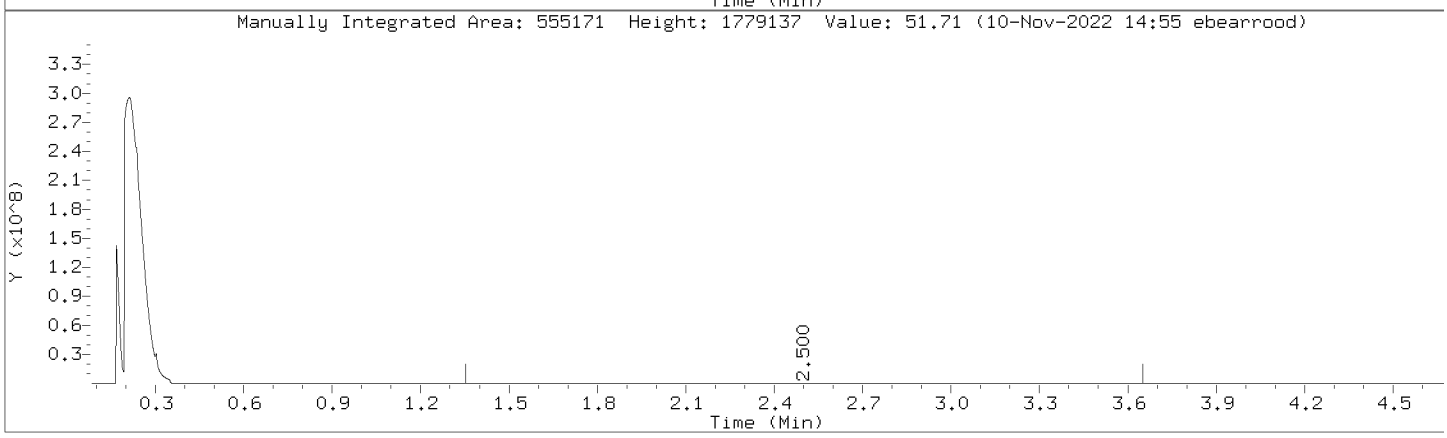
Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

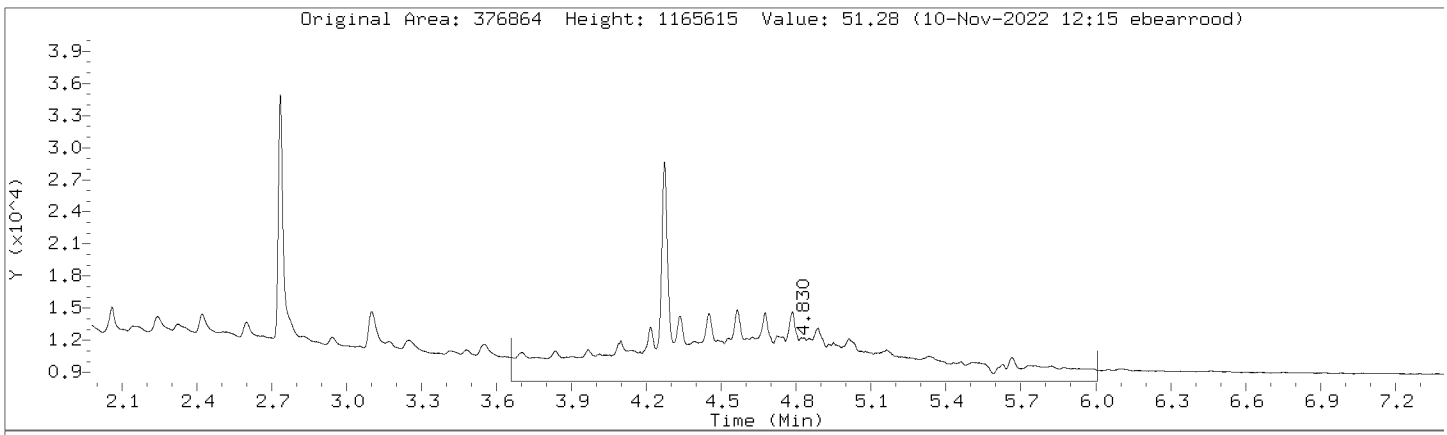
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:

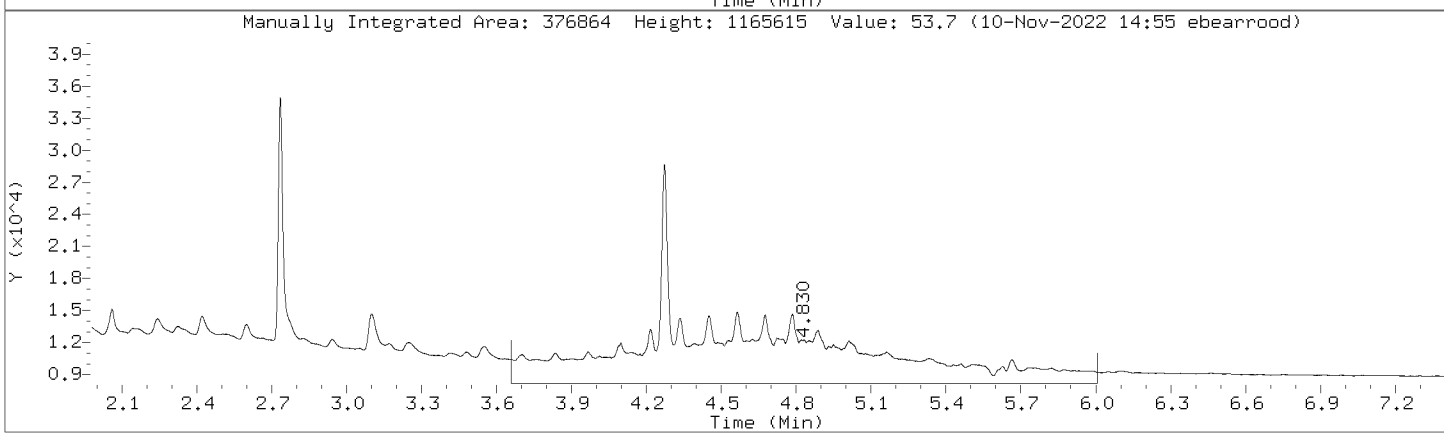




Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

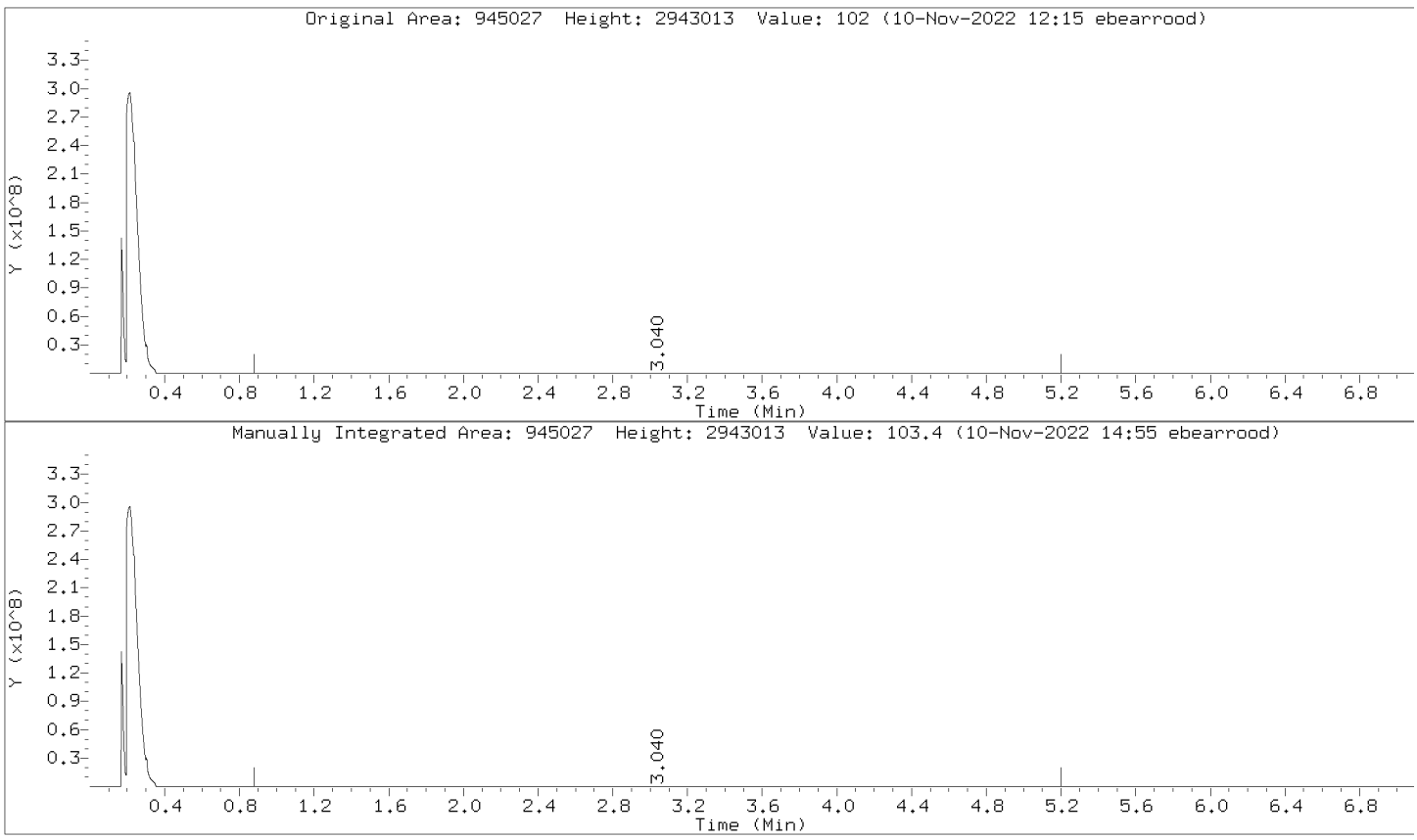
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





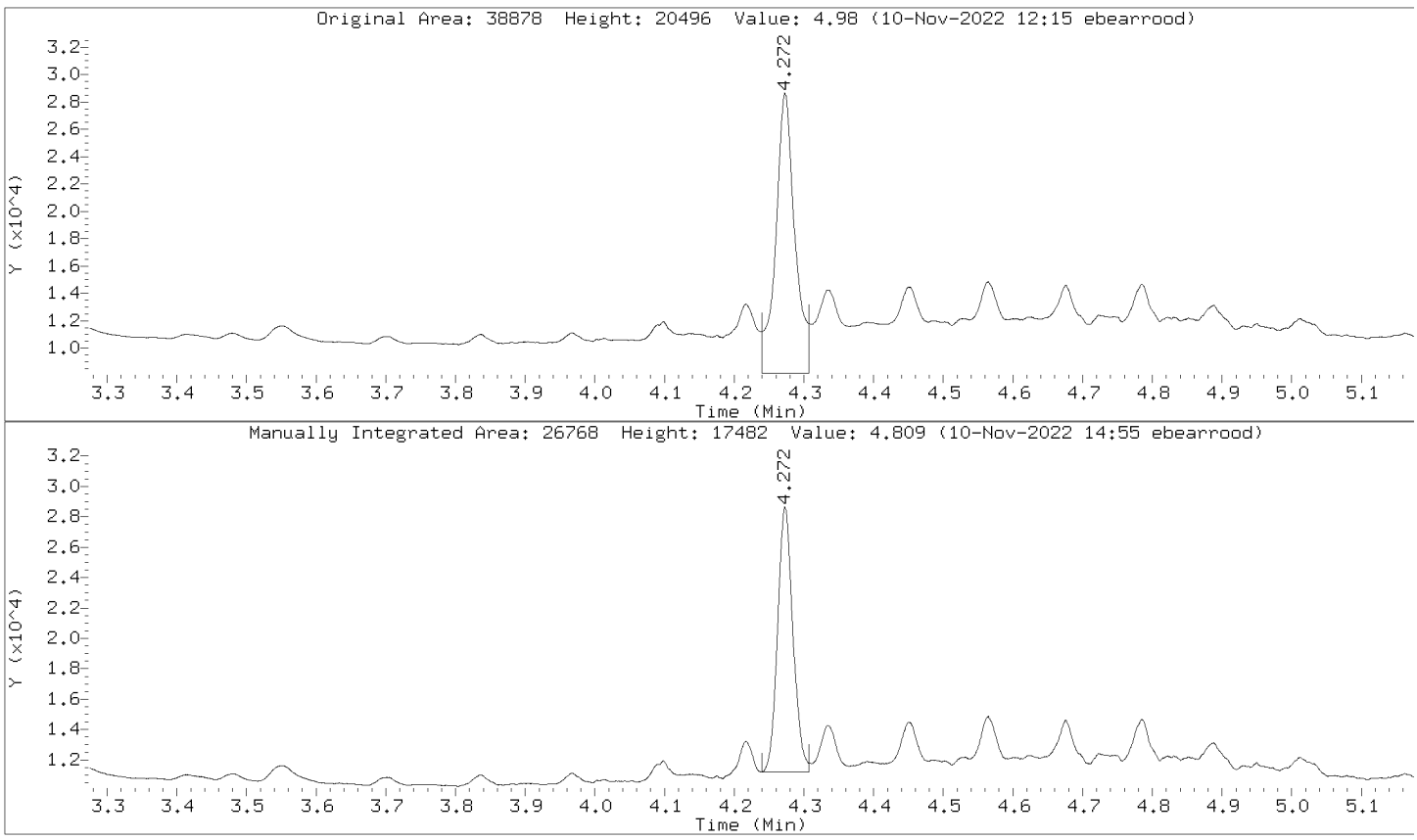
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



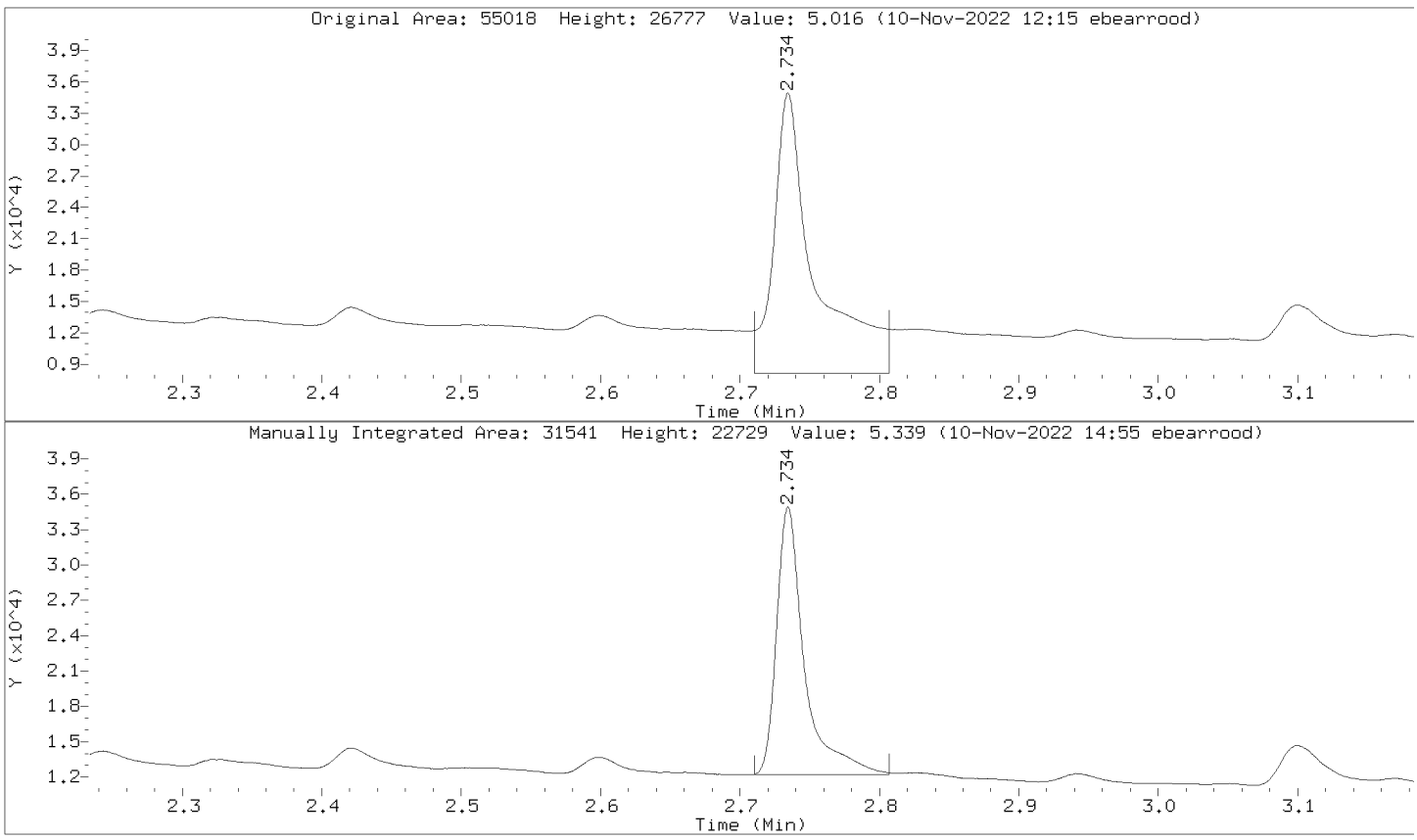
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)		REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		898996	100.000	96.8		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	63221	10.0000	10.1		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.272	4.275	-0.003	50954	10.0000	9.45		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		461790	100.000	96.3		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		1035387	100.000	96.6		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		493334	100.000	96.1		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		1362996	200.000	193		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG

QC Flag Legend

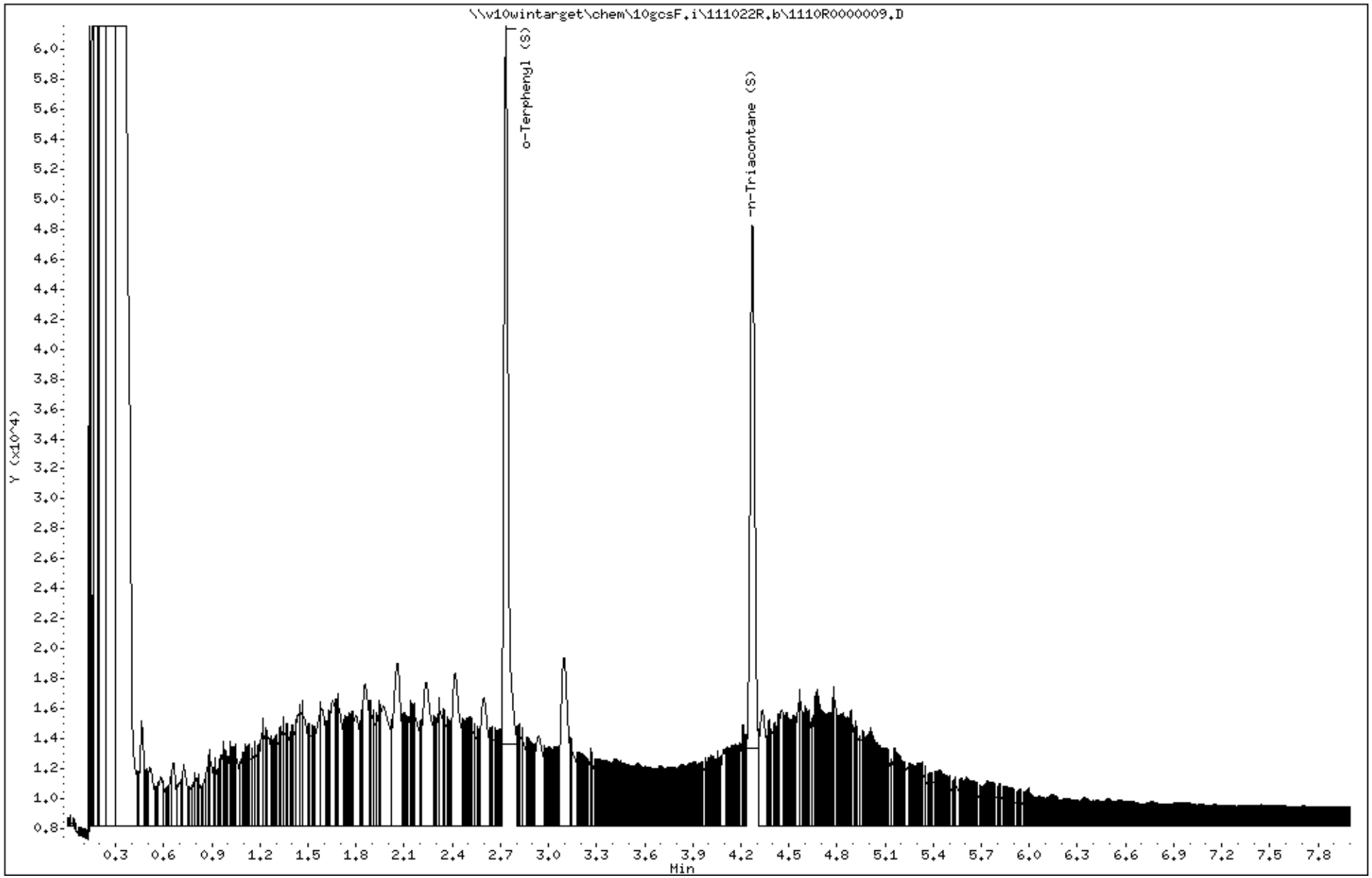
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

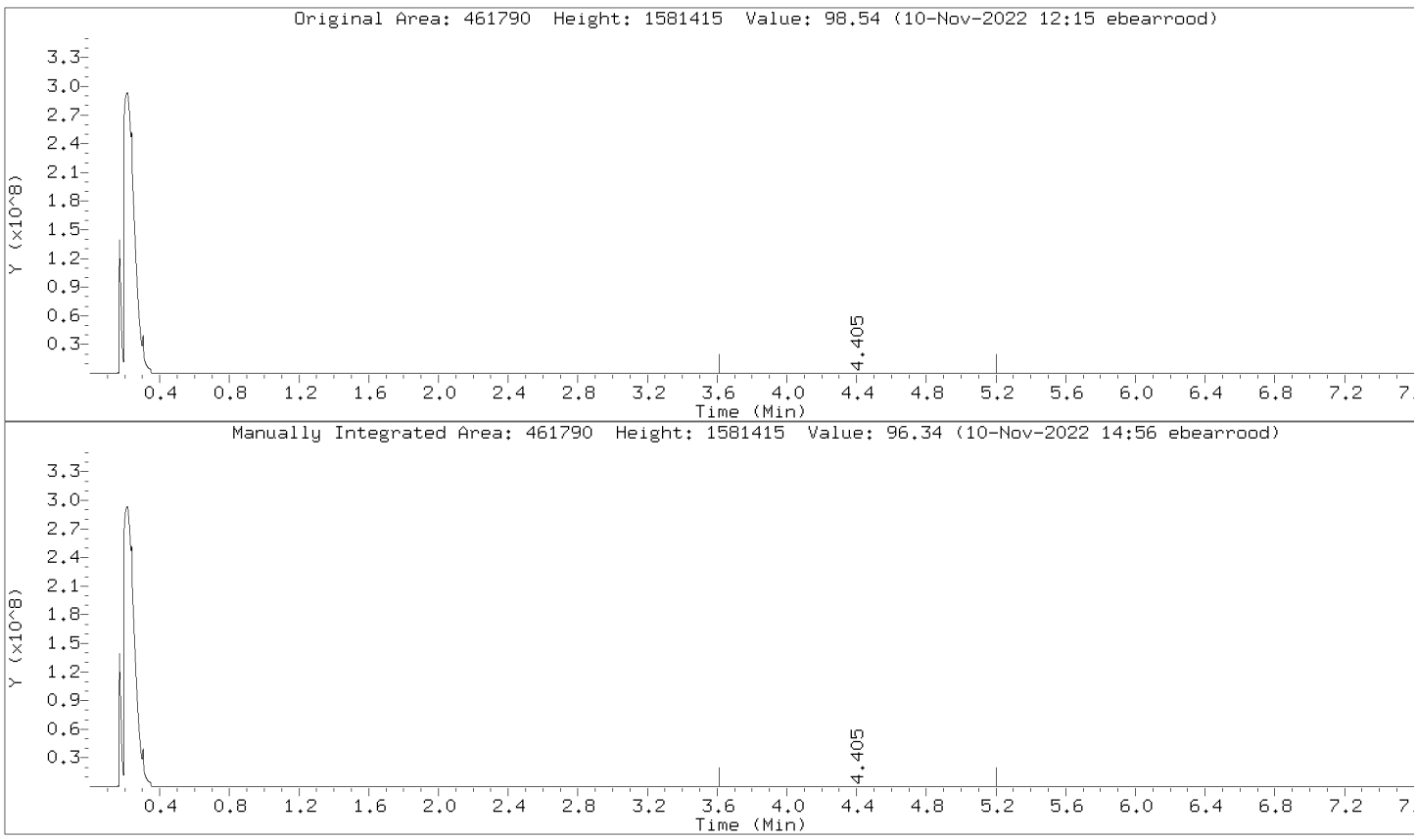
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



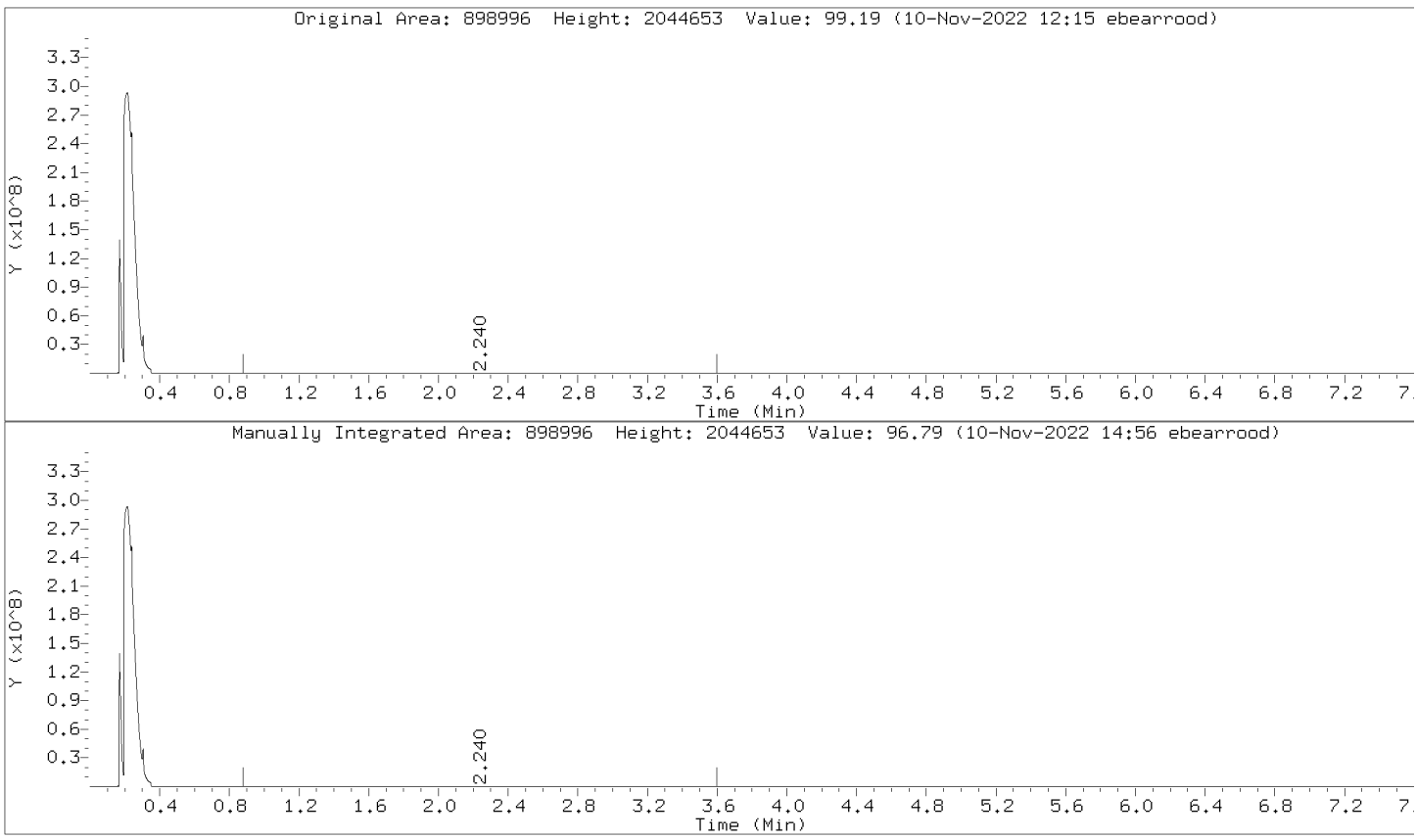
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



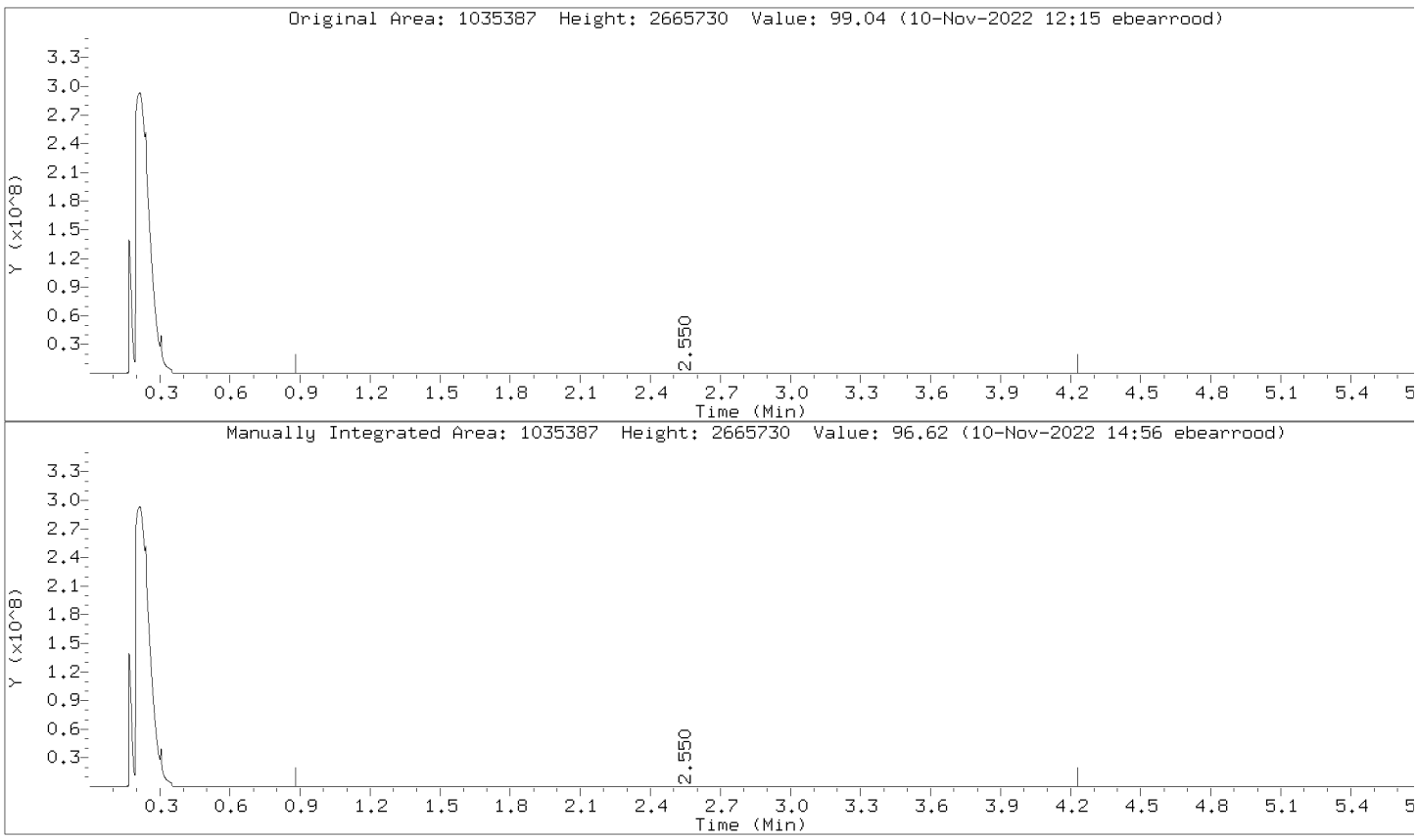
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



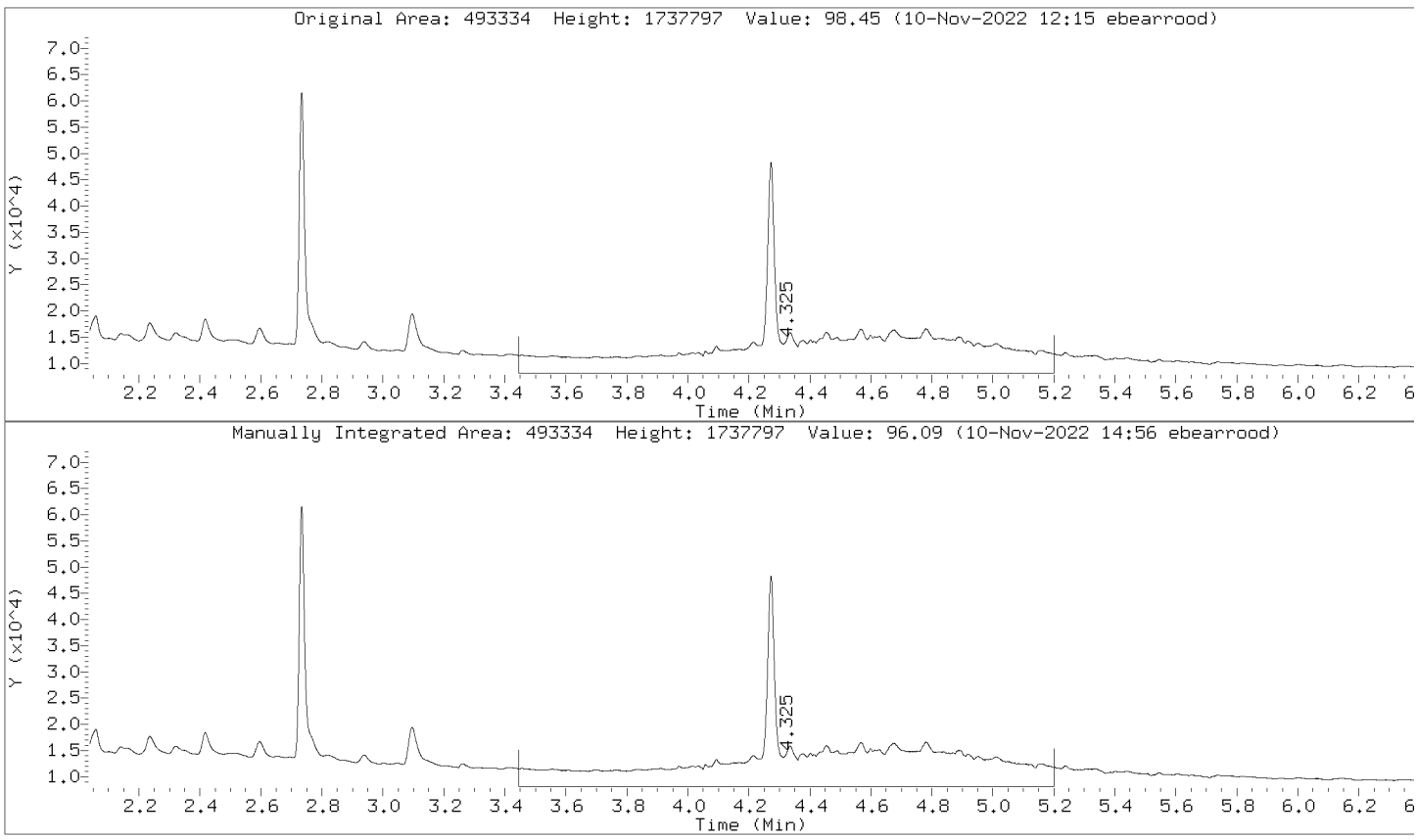
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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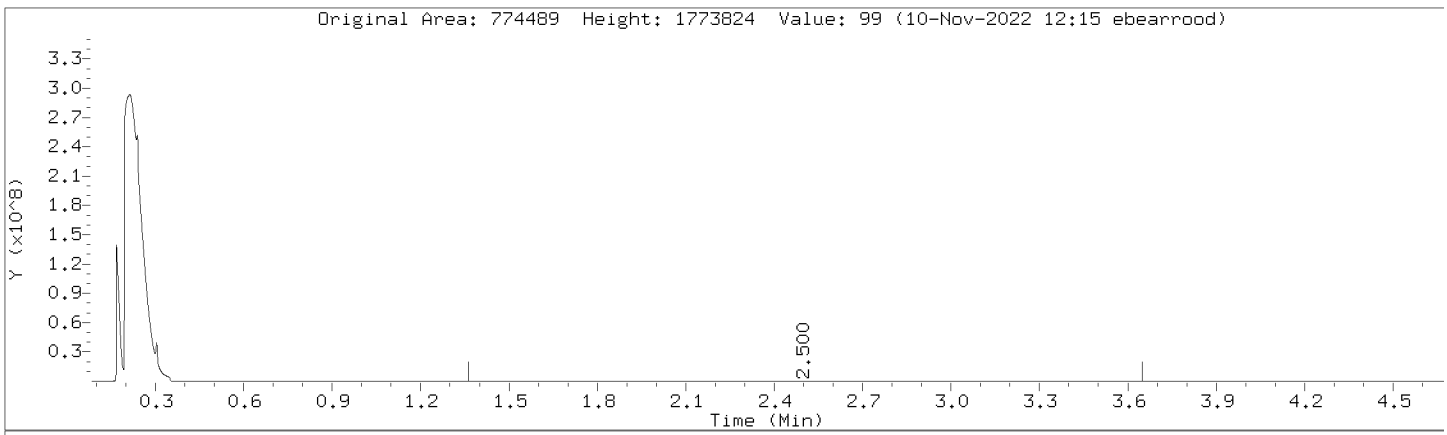
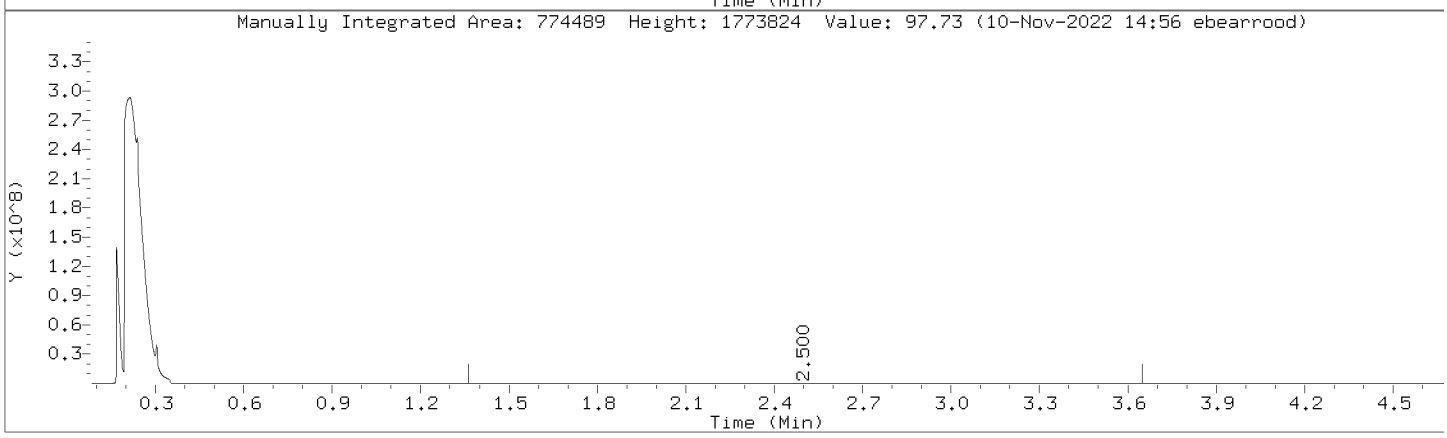
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

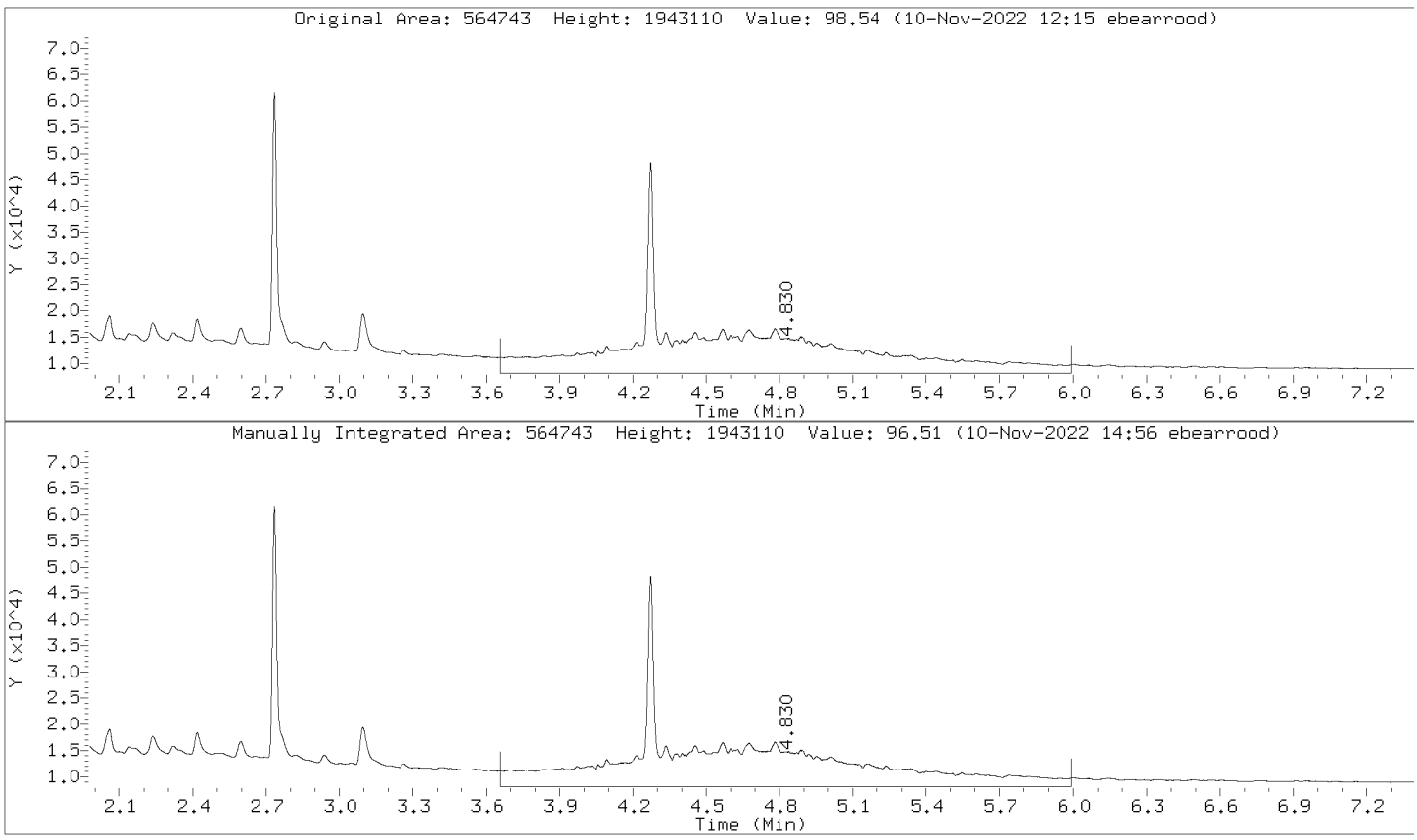
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





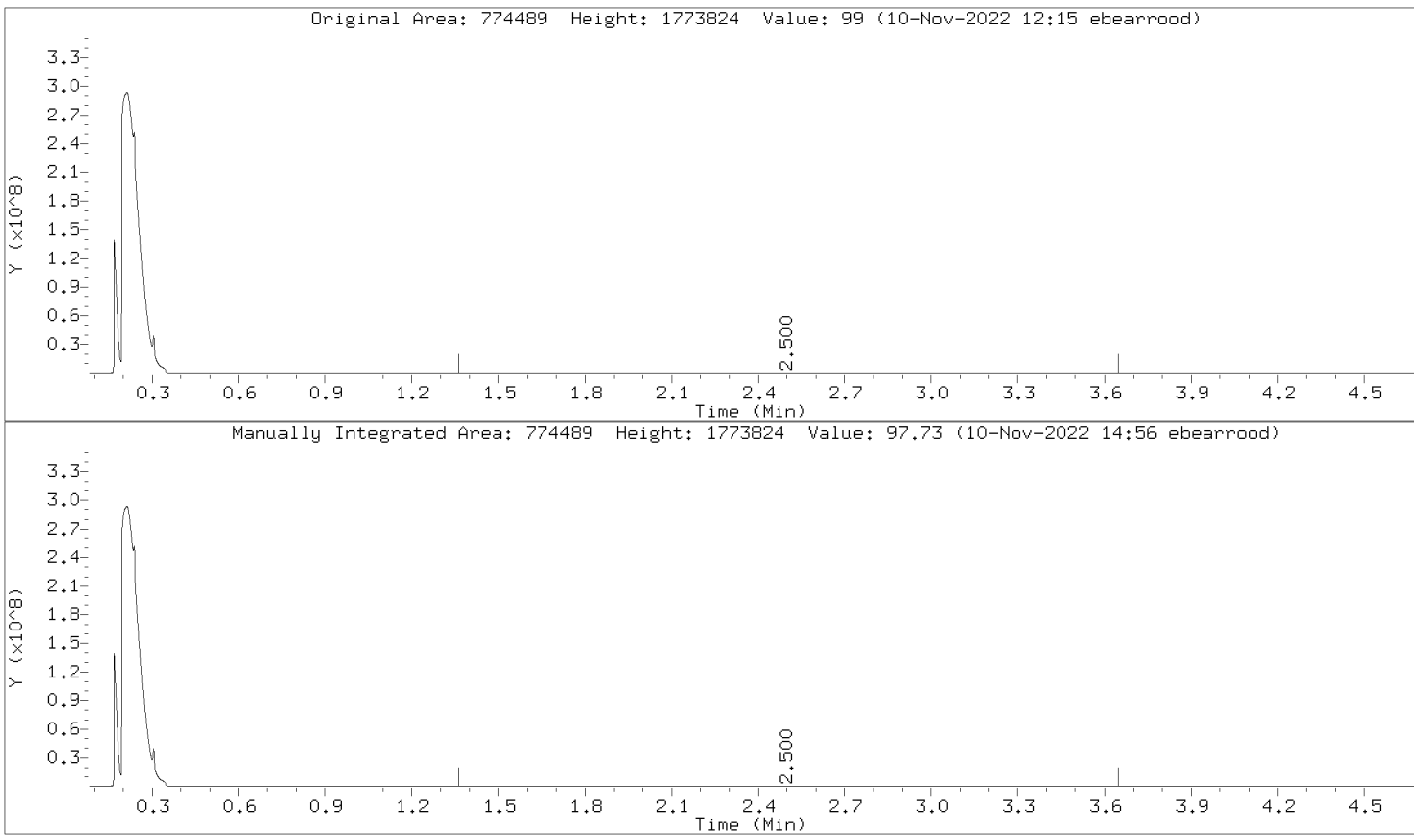
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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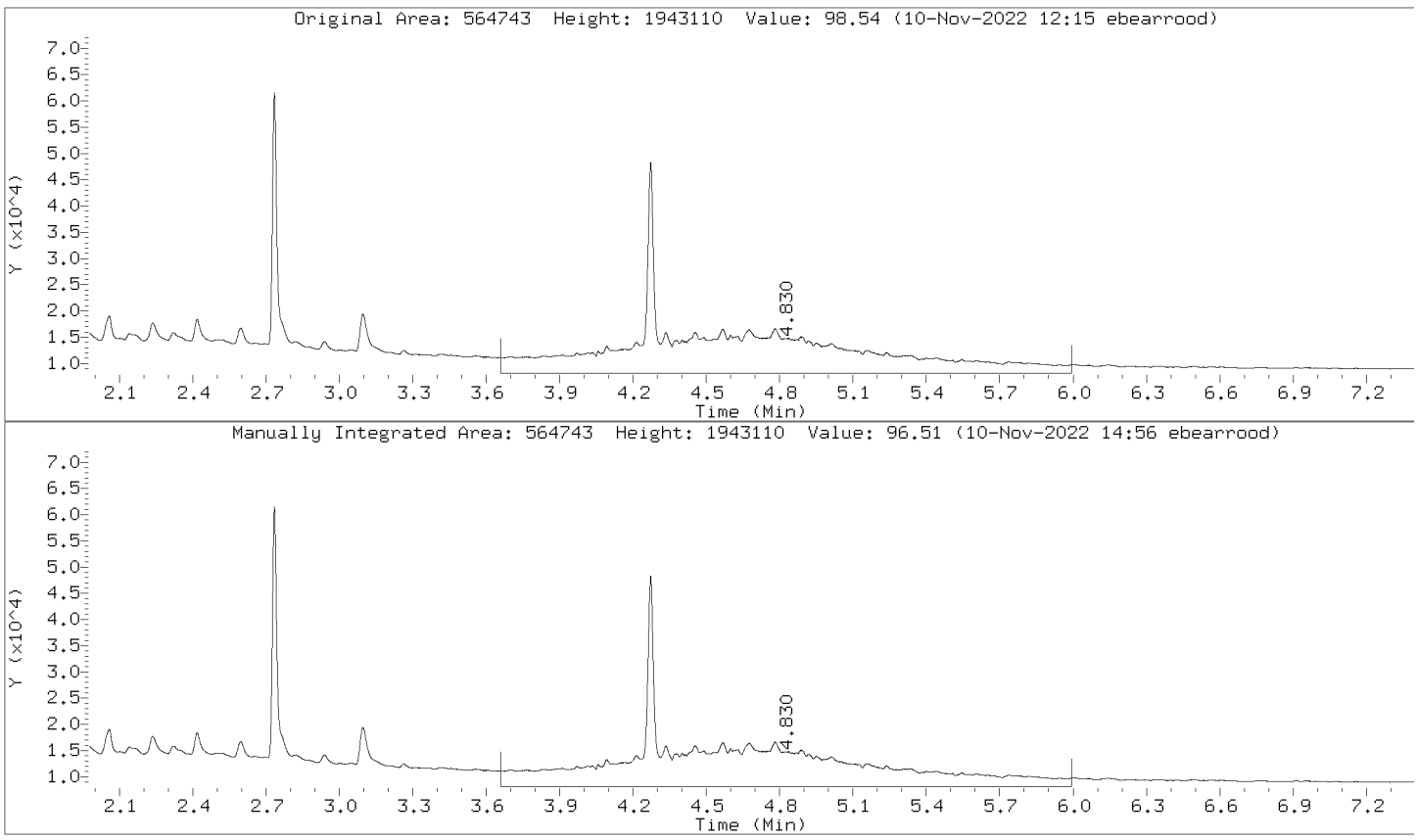
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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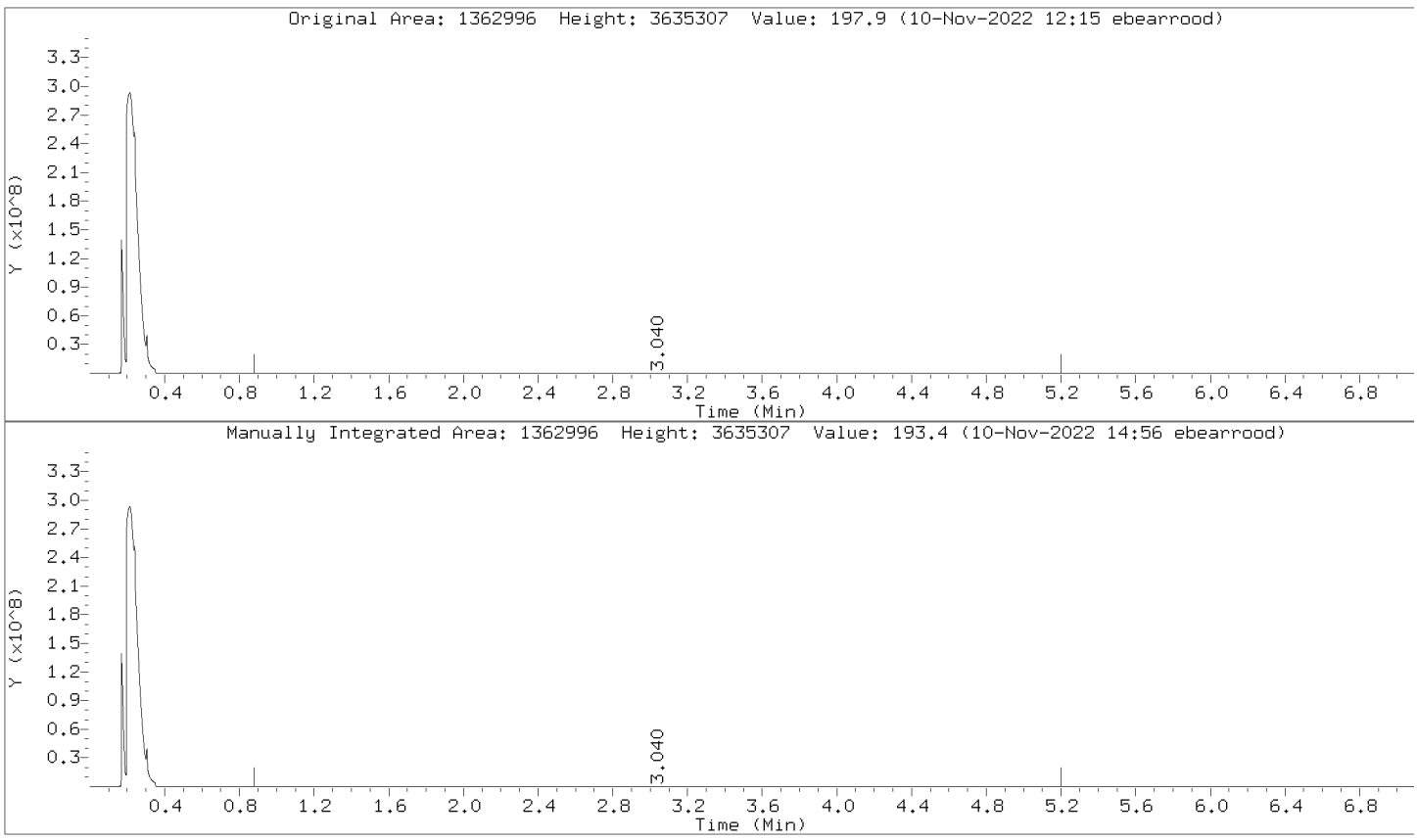
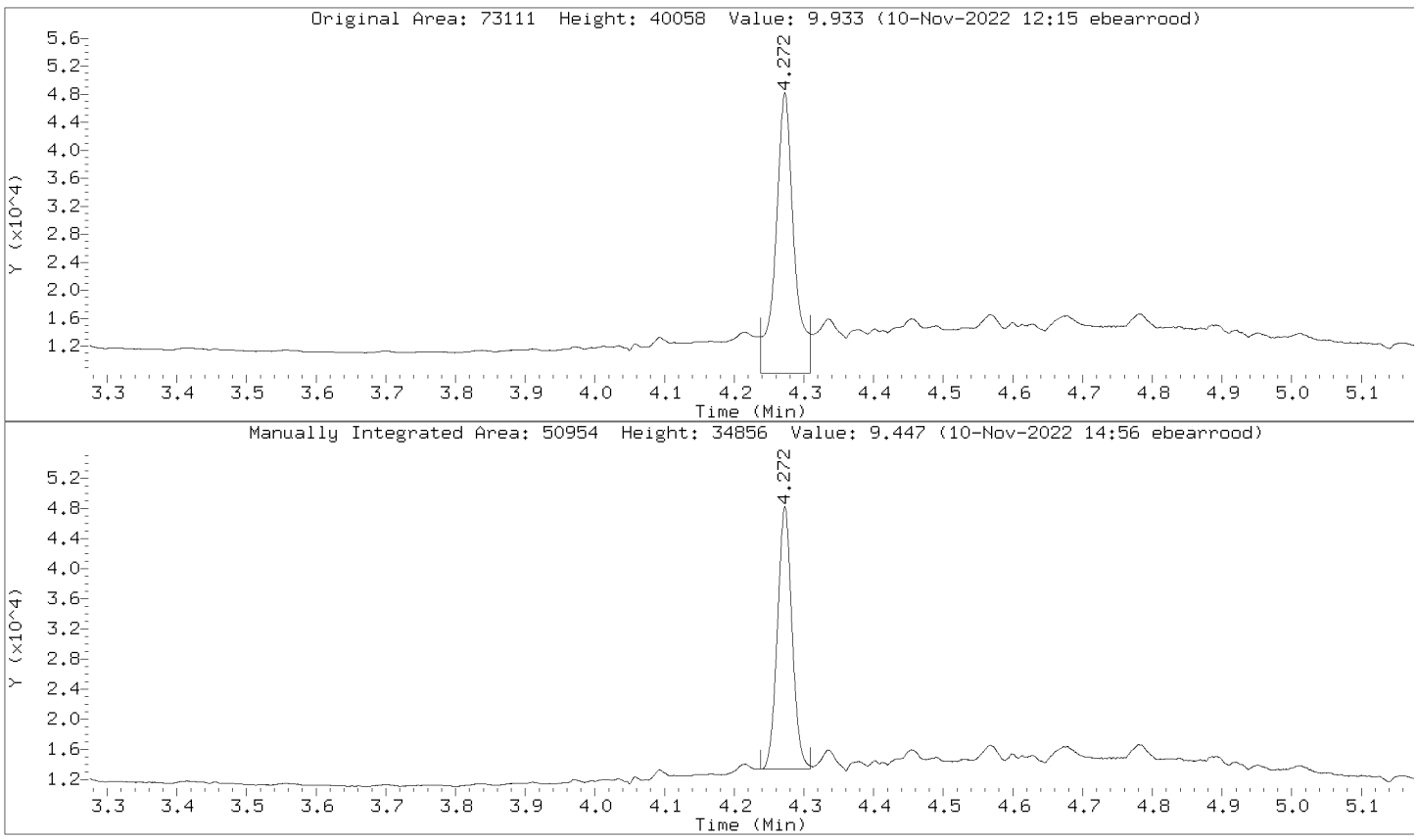
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



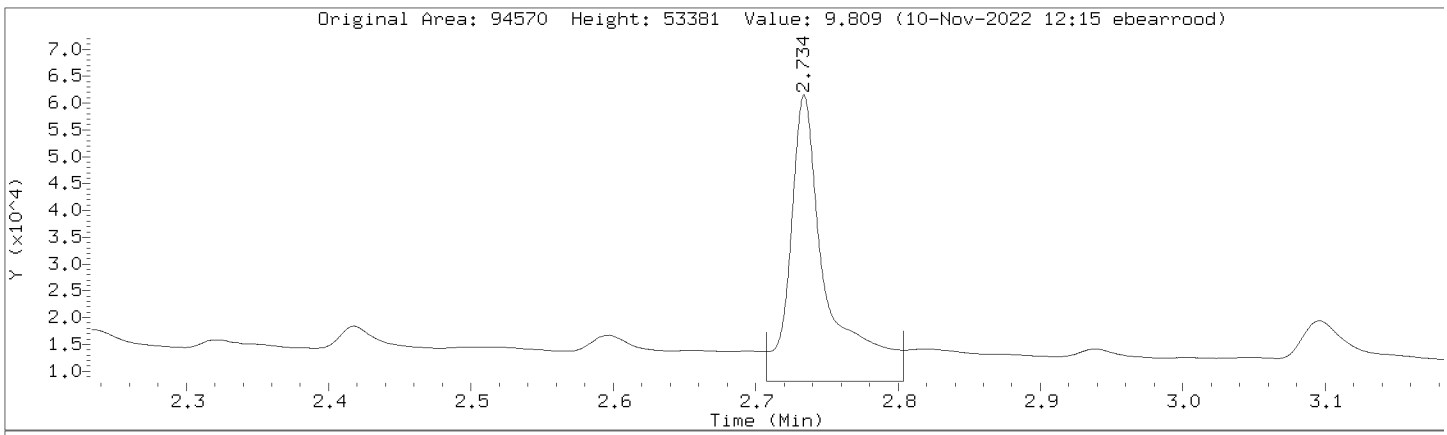
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

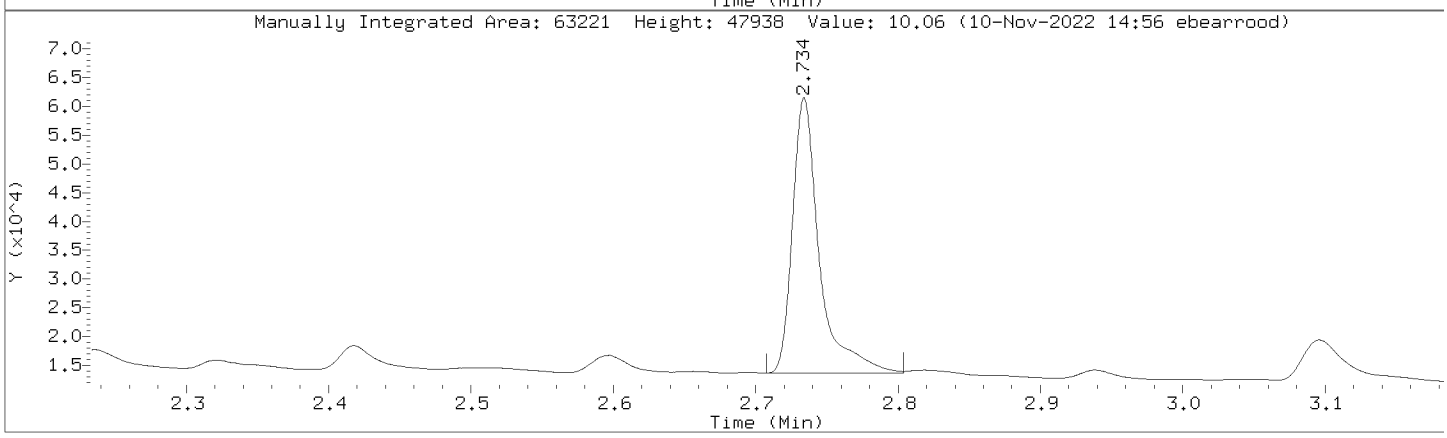
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1767895	250.000	250	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	162877	25.0000	24.9	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	134635	25.0000	25.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1016189	250.000	250	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		2040586	250.000	249	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1068936	250.000	249	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		2784418	500.000	500	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG

QC Flag Legend

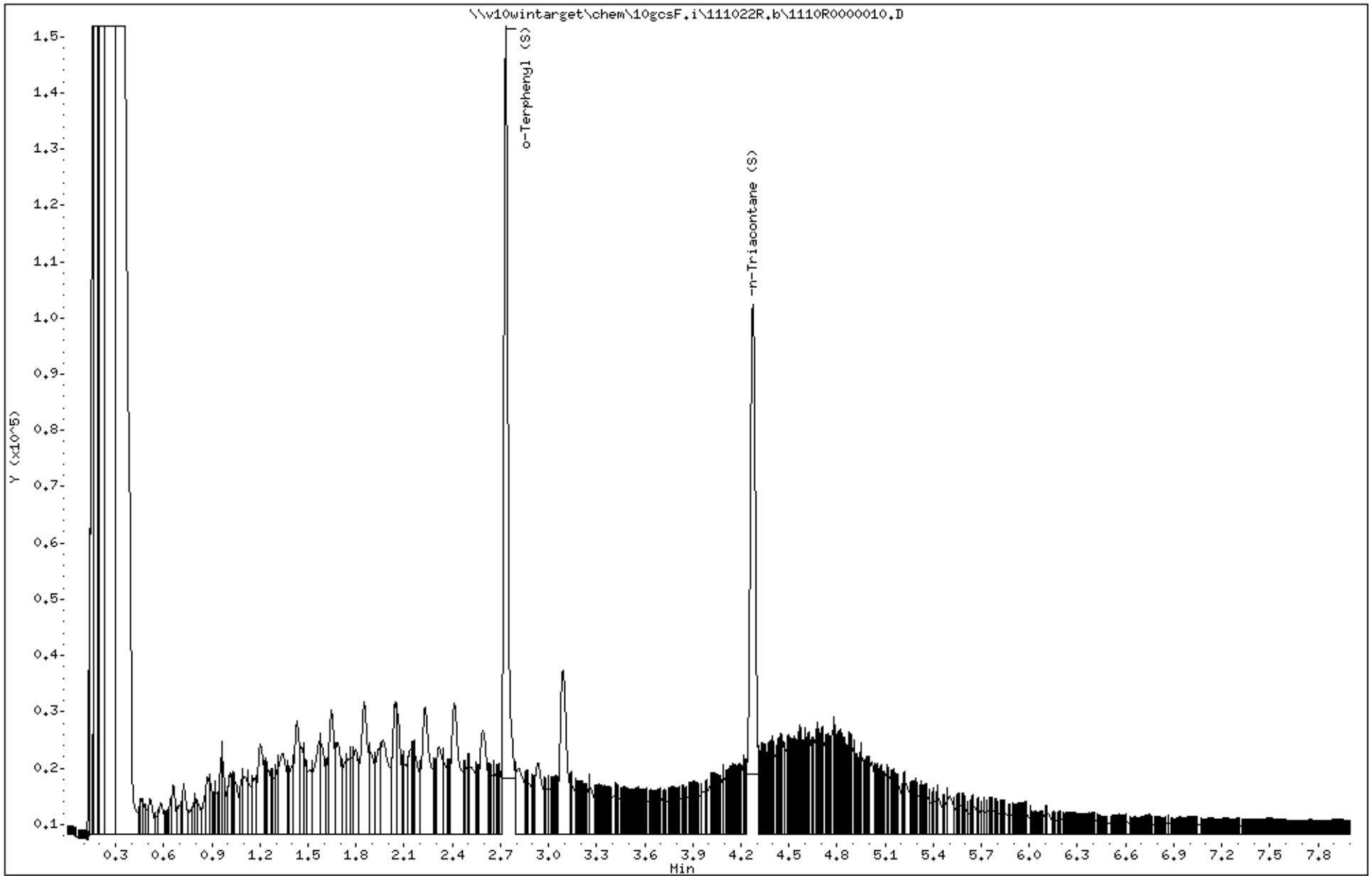
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

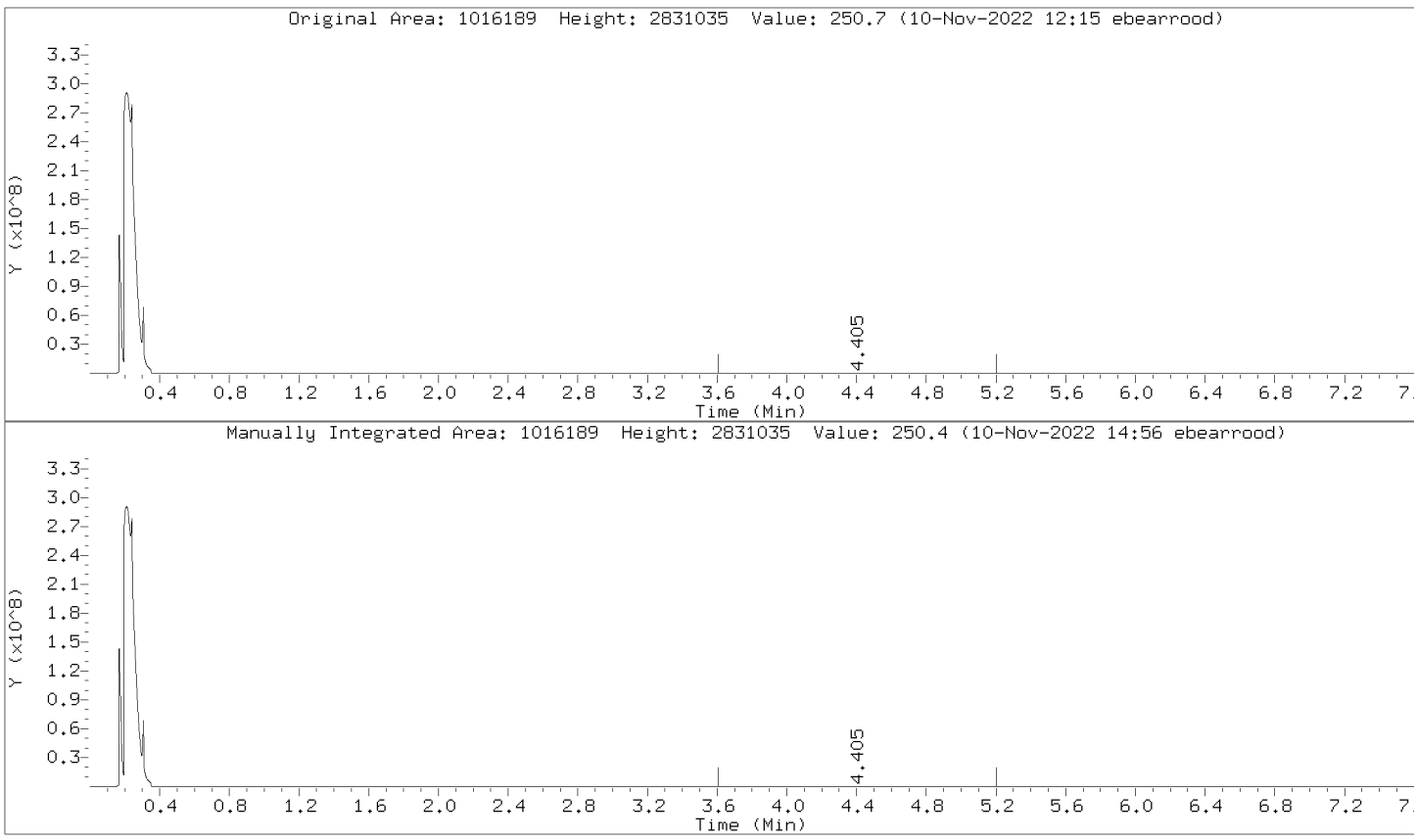
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



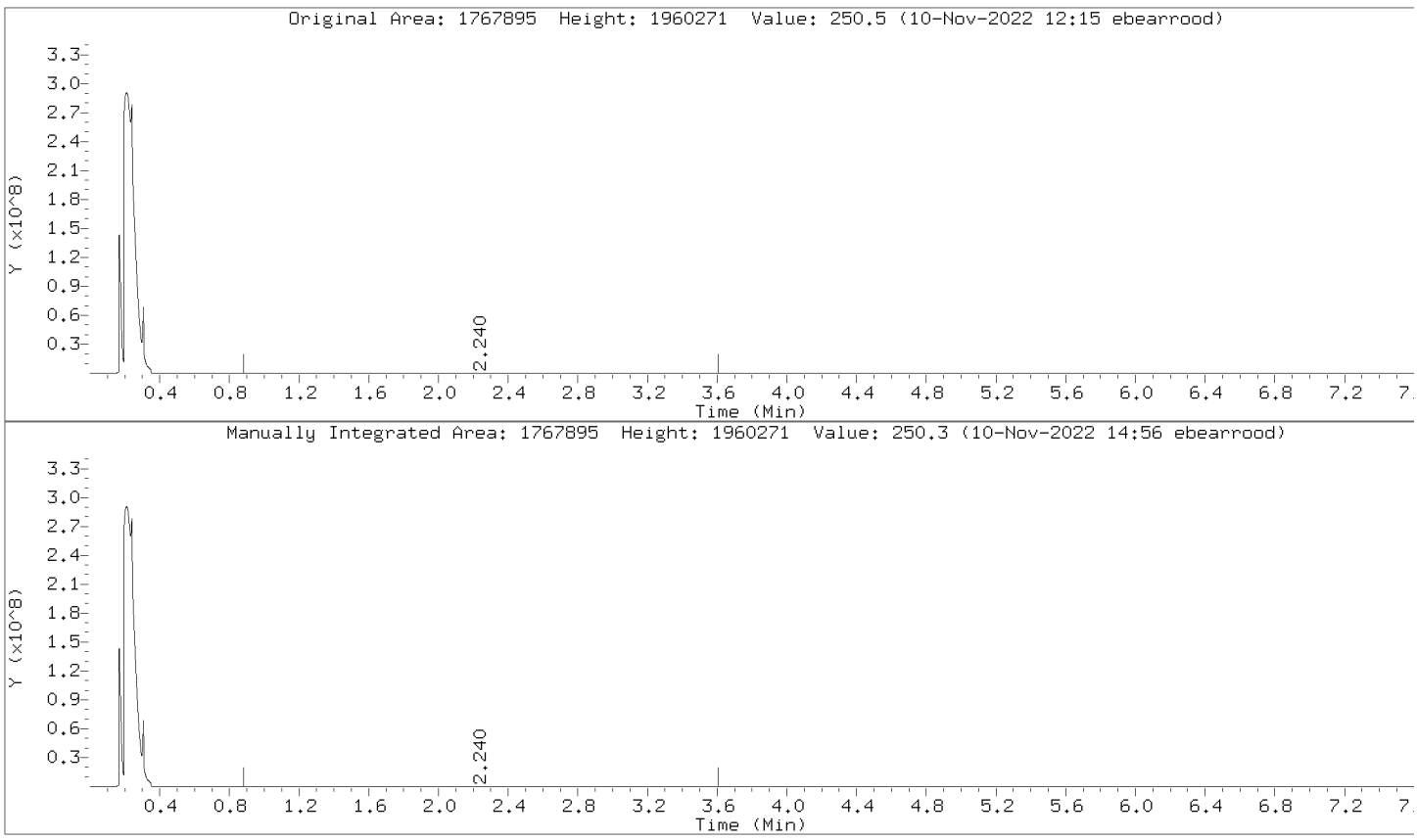
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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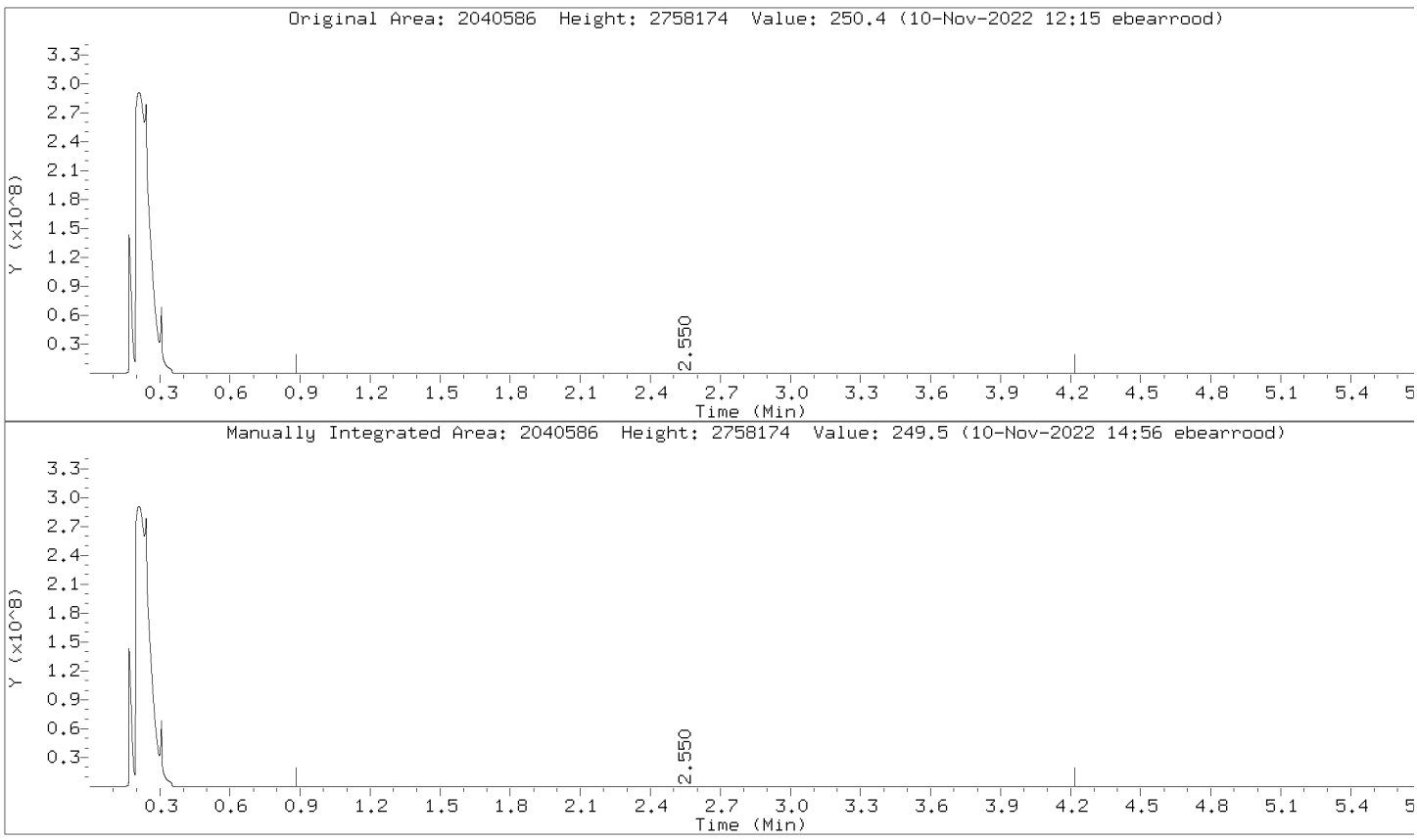
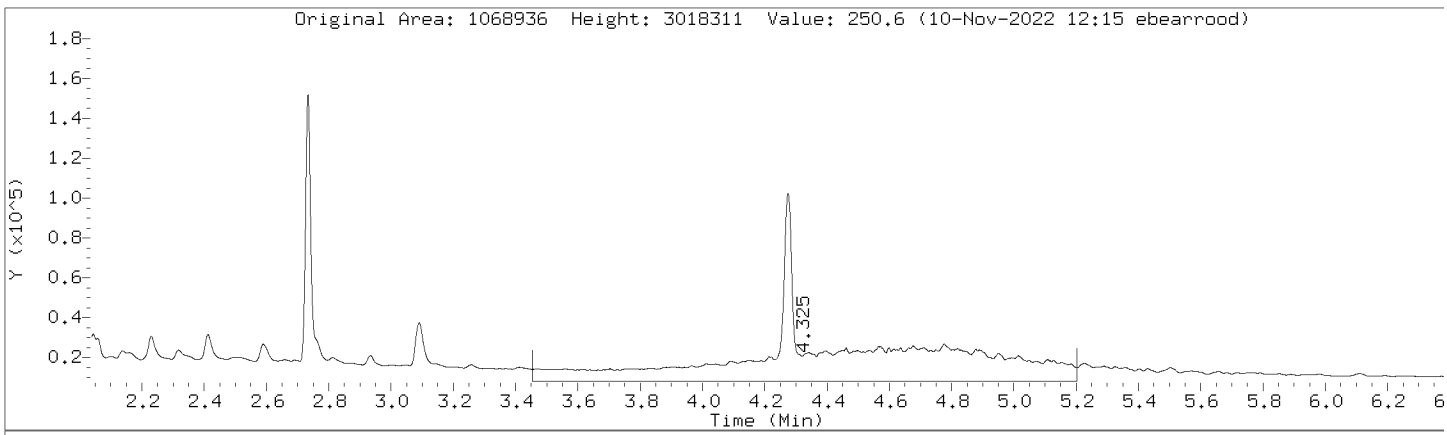
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

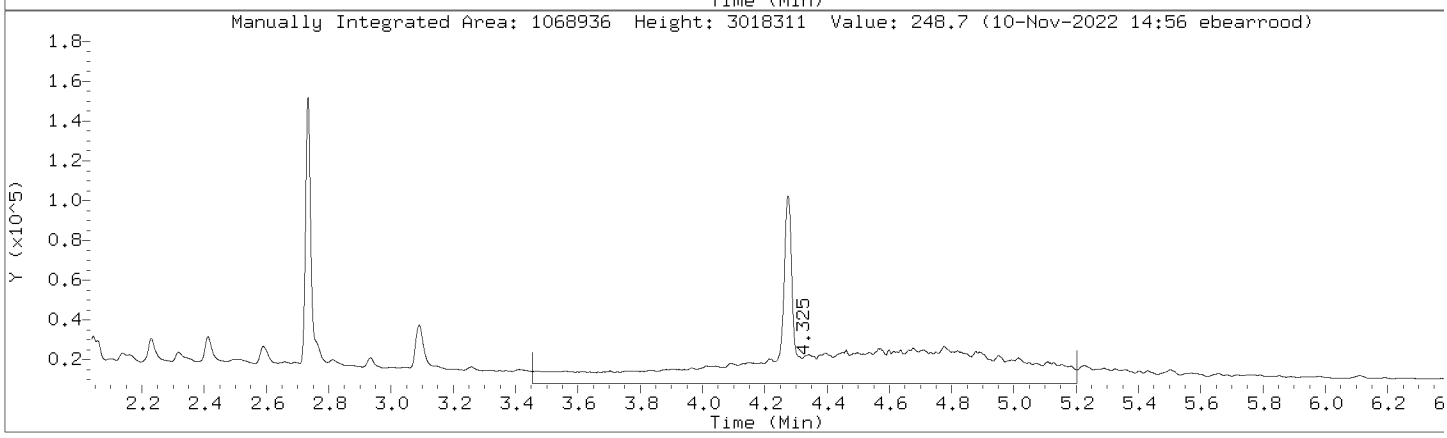
Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:





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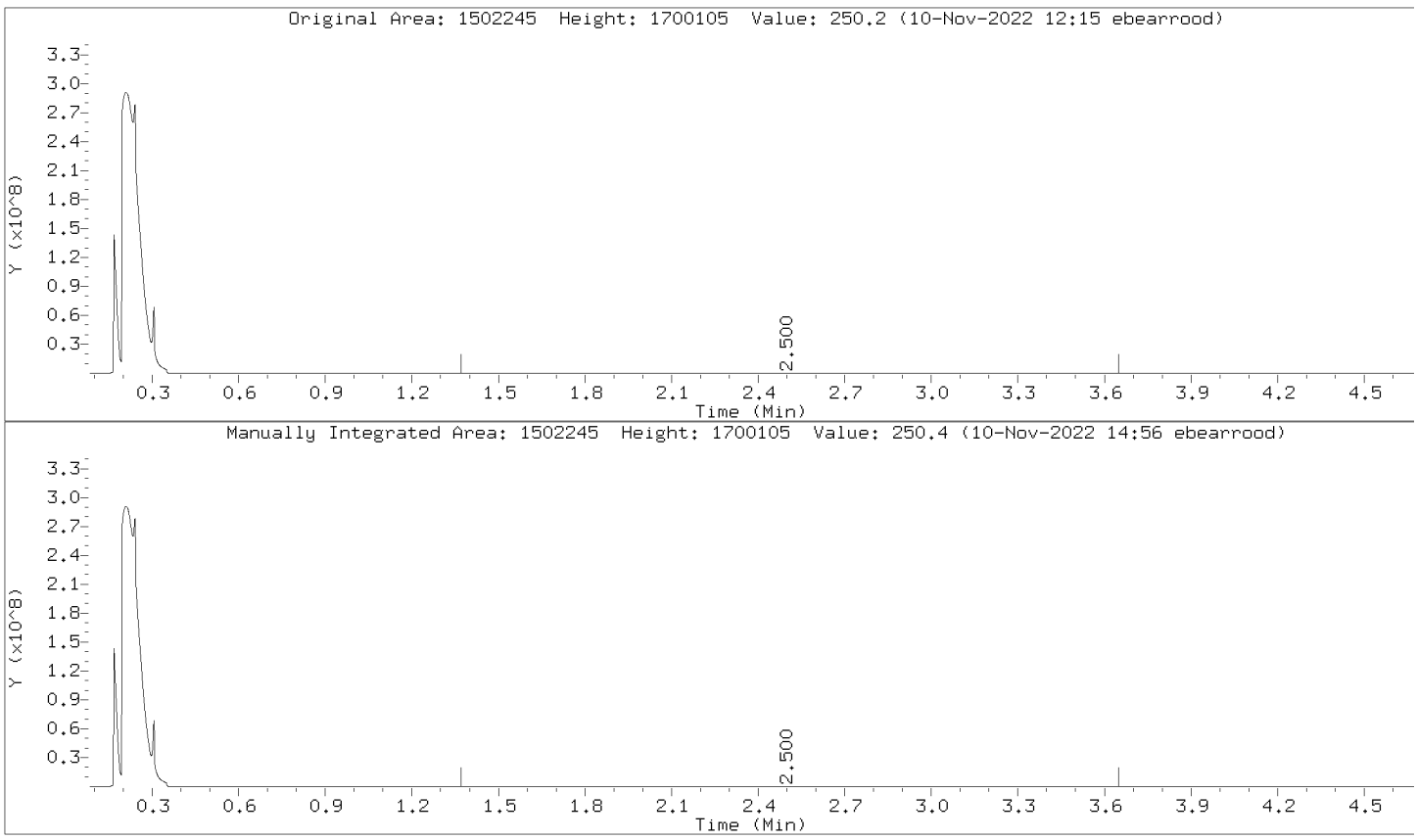
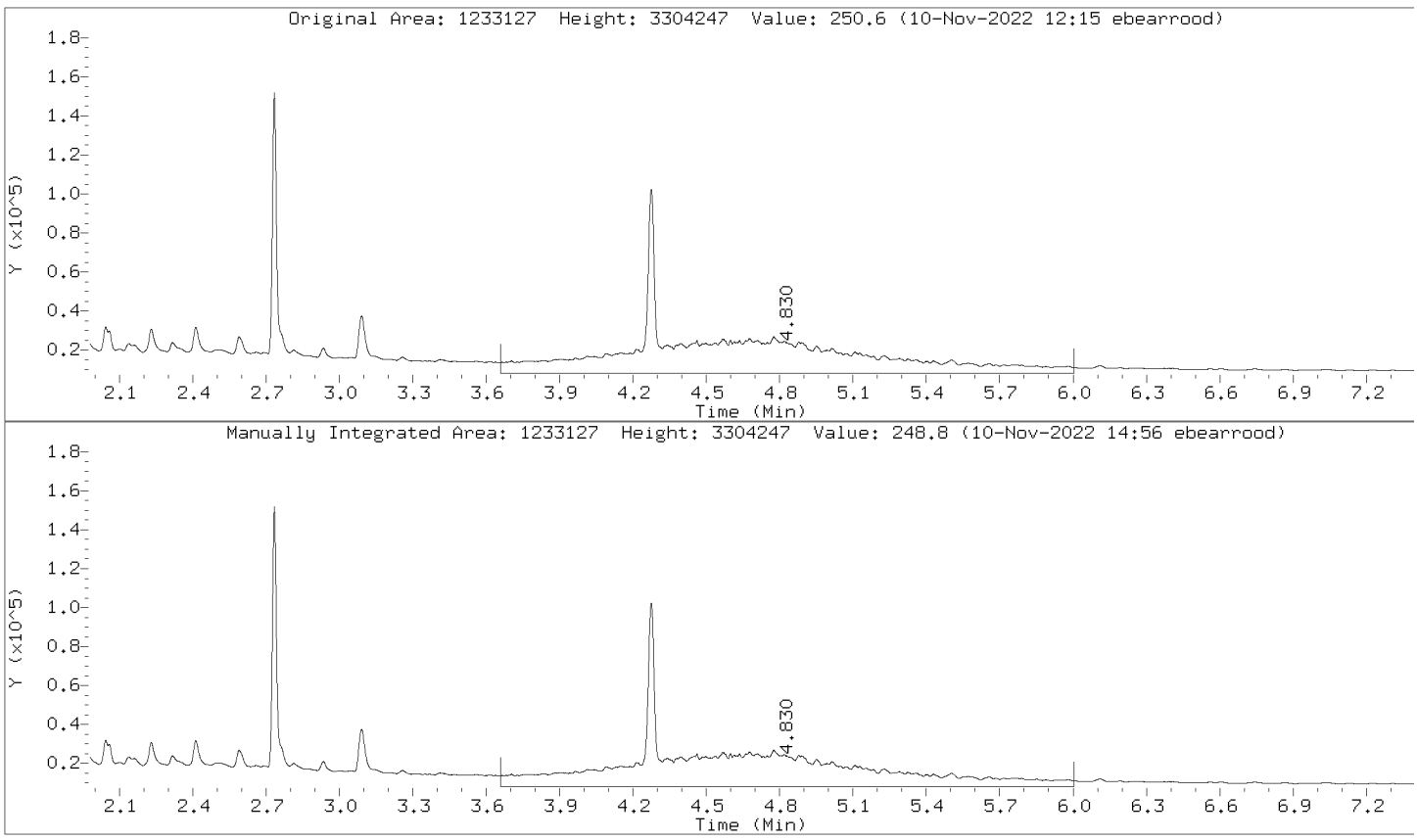
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



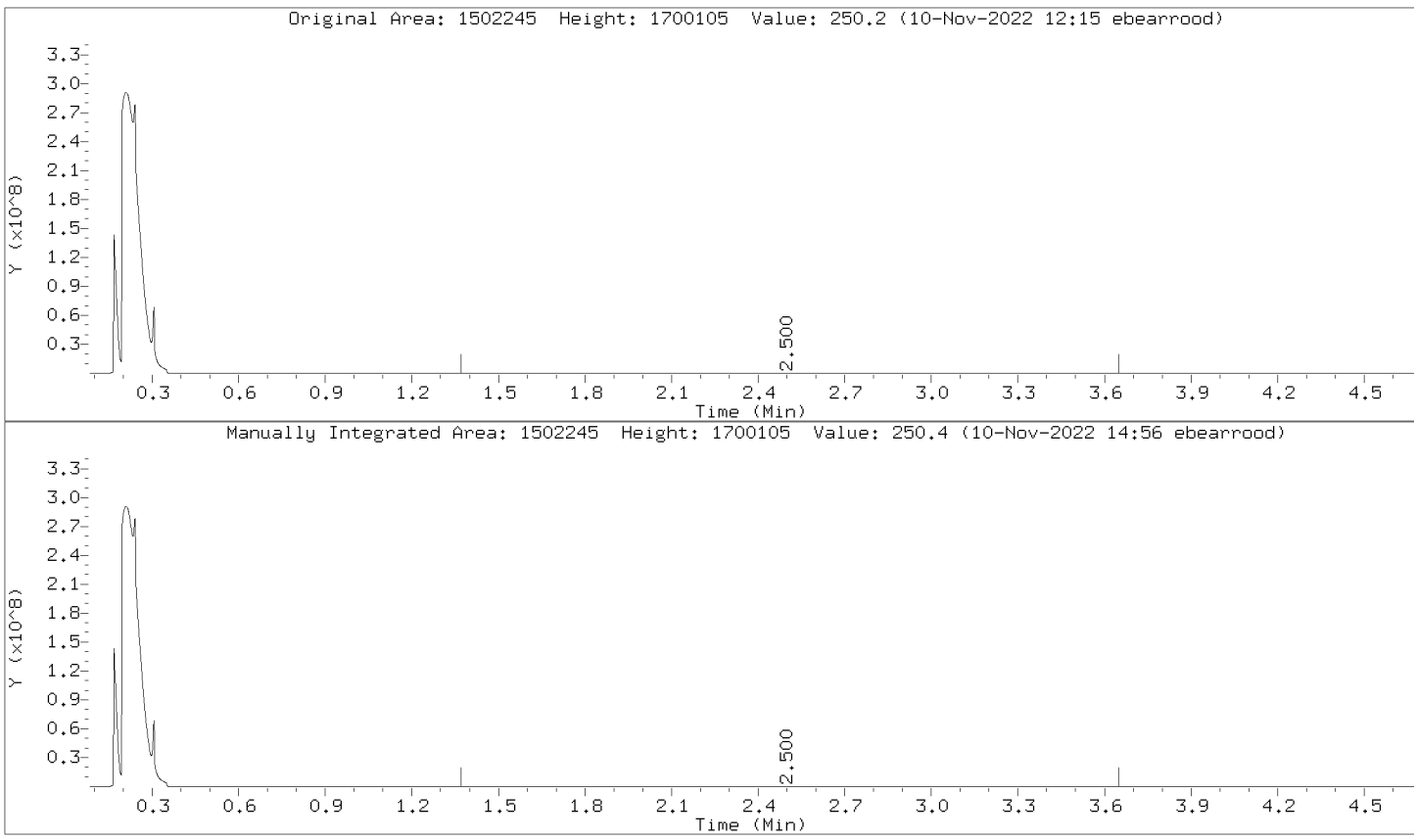
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



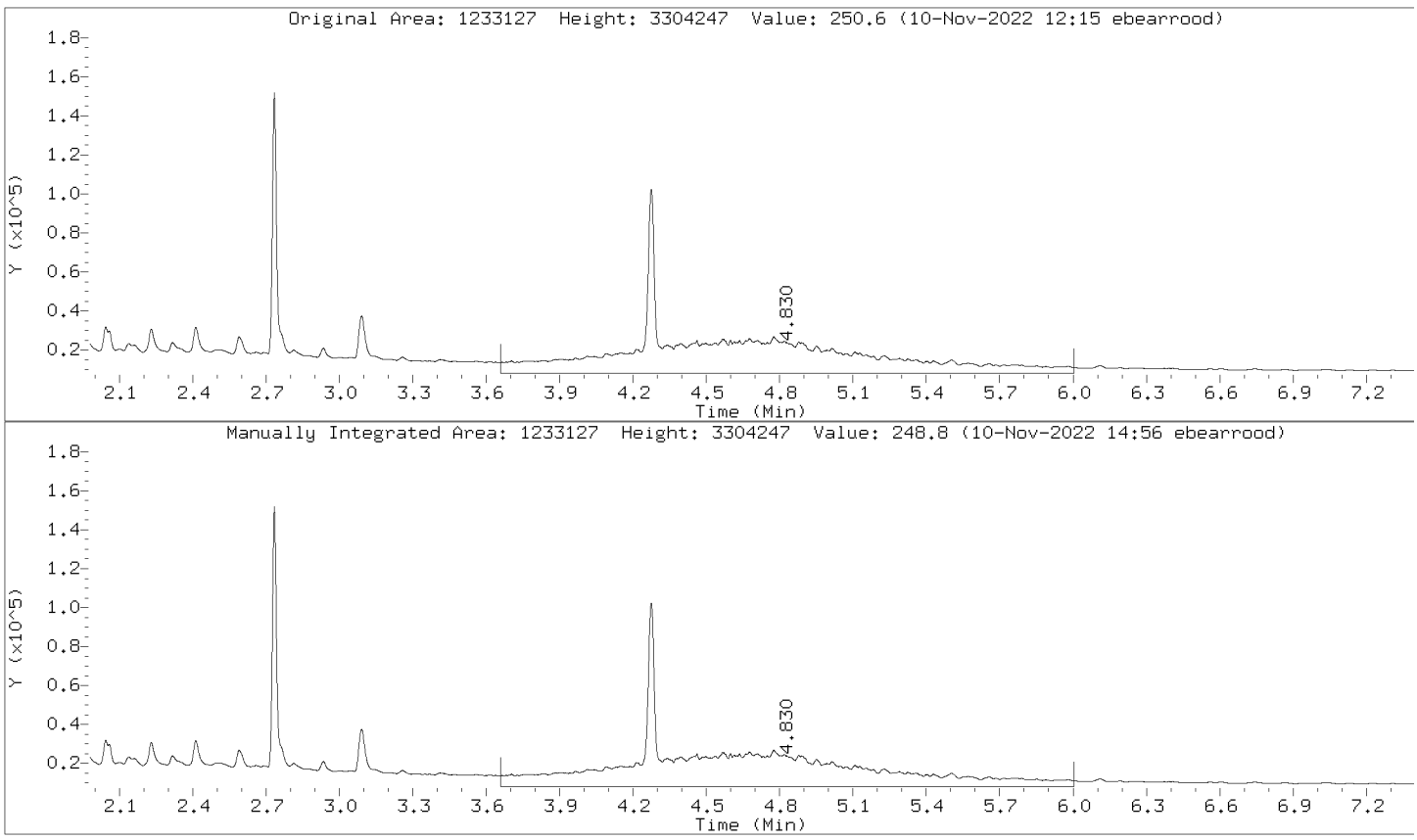
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



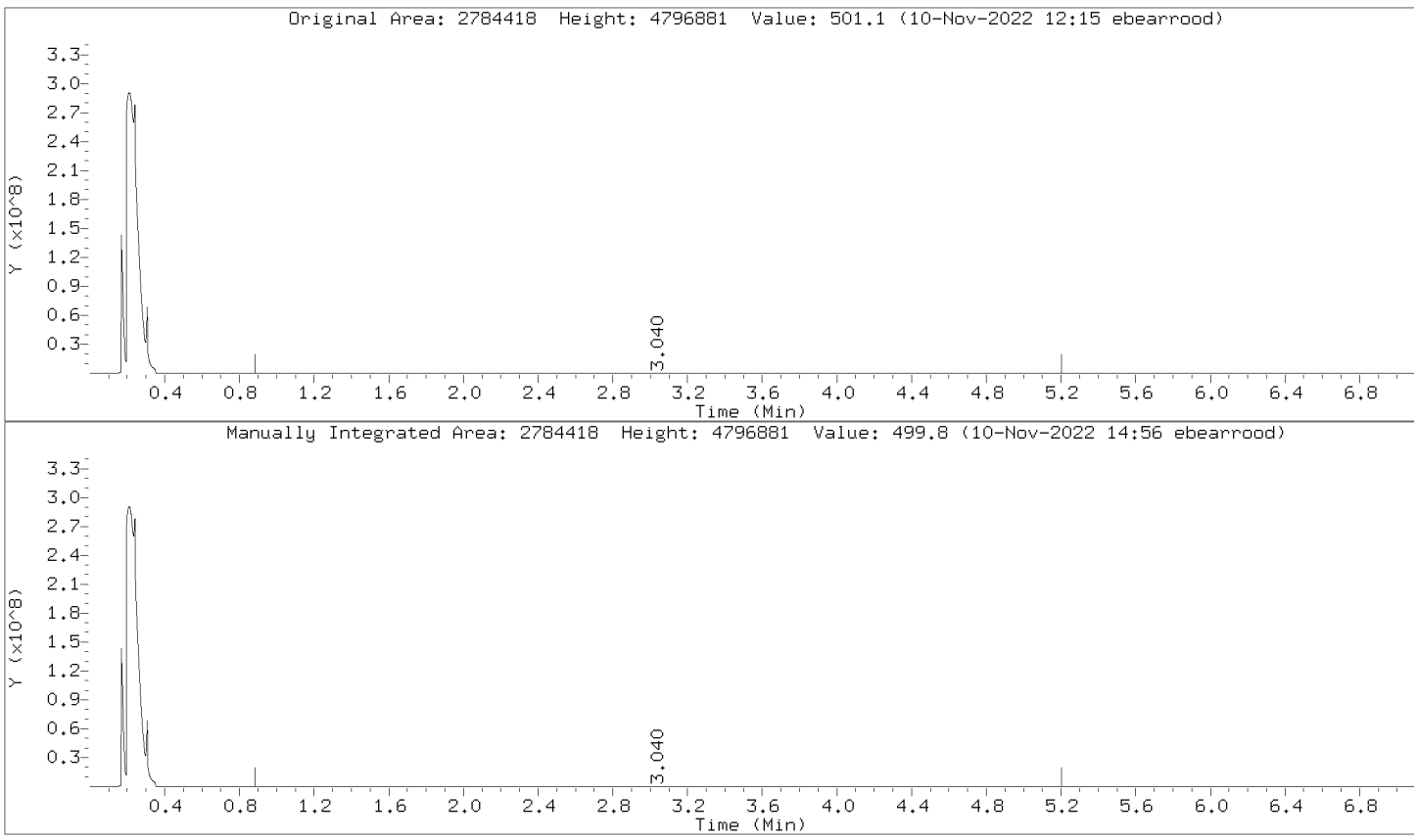
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



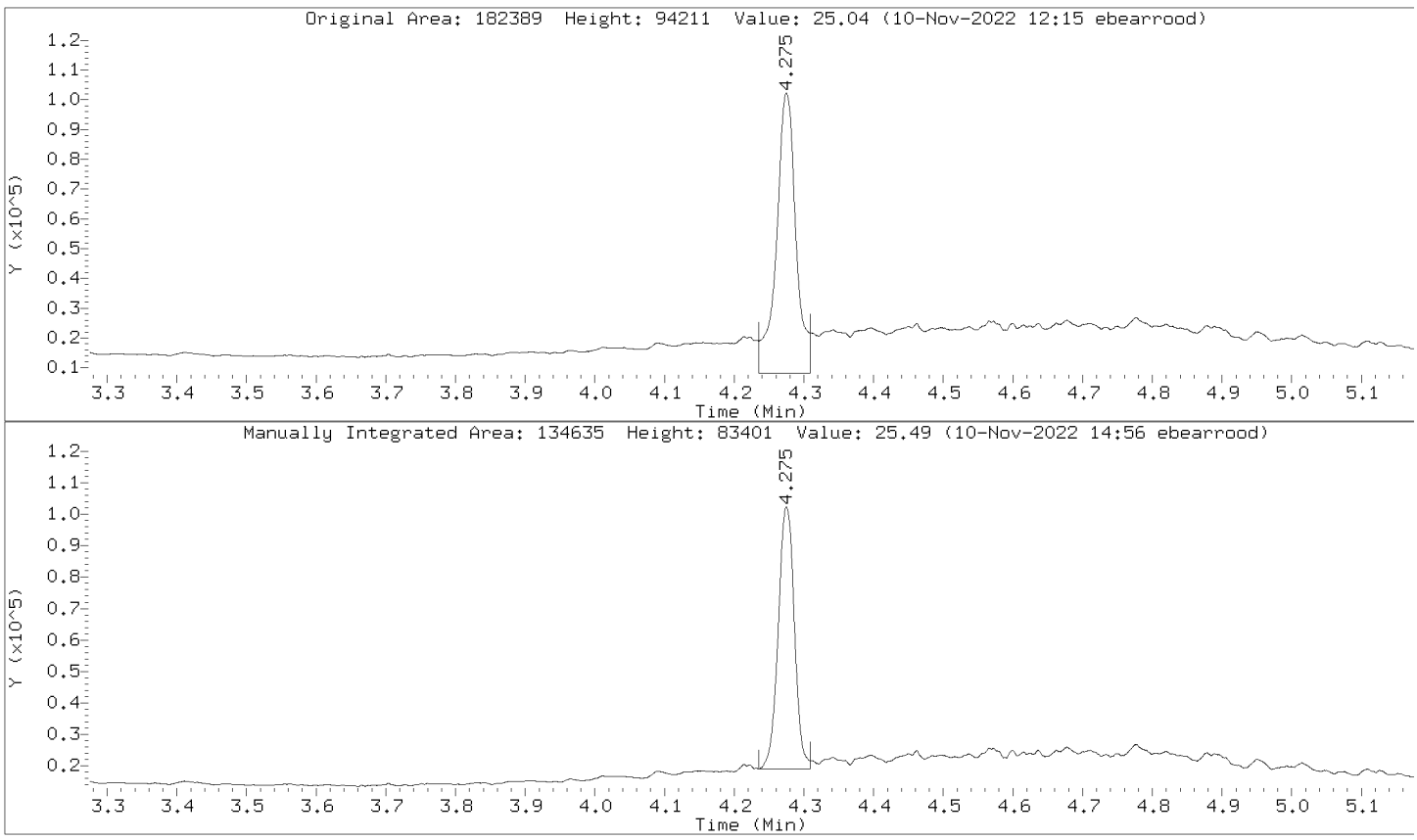
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



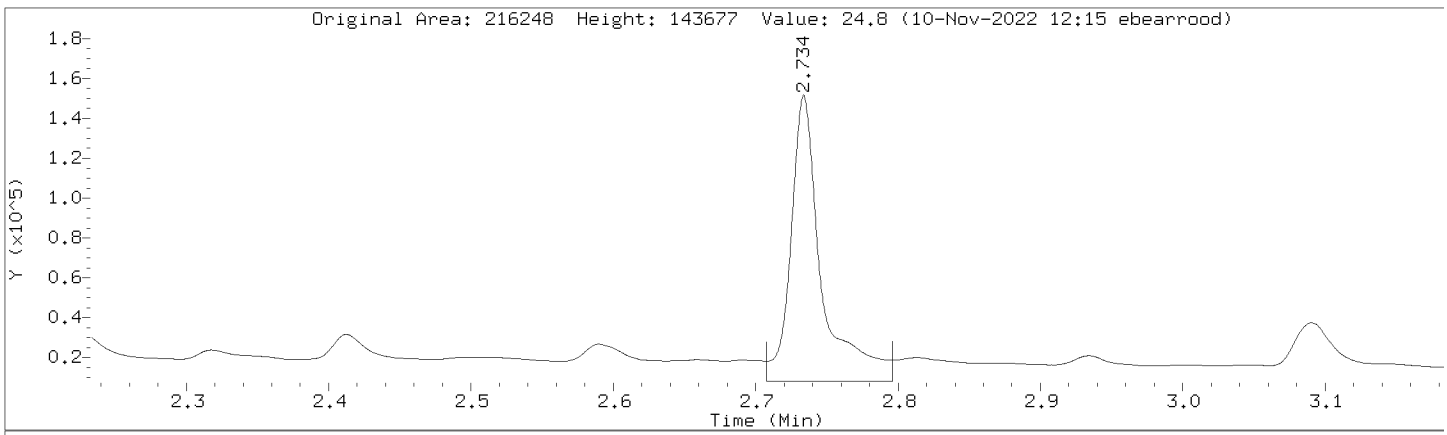
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

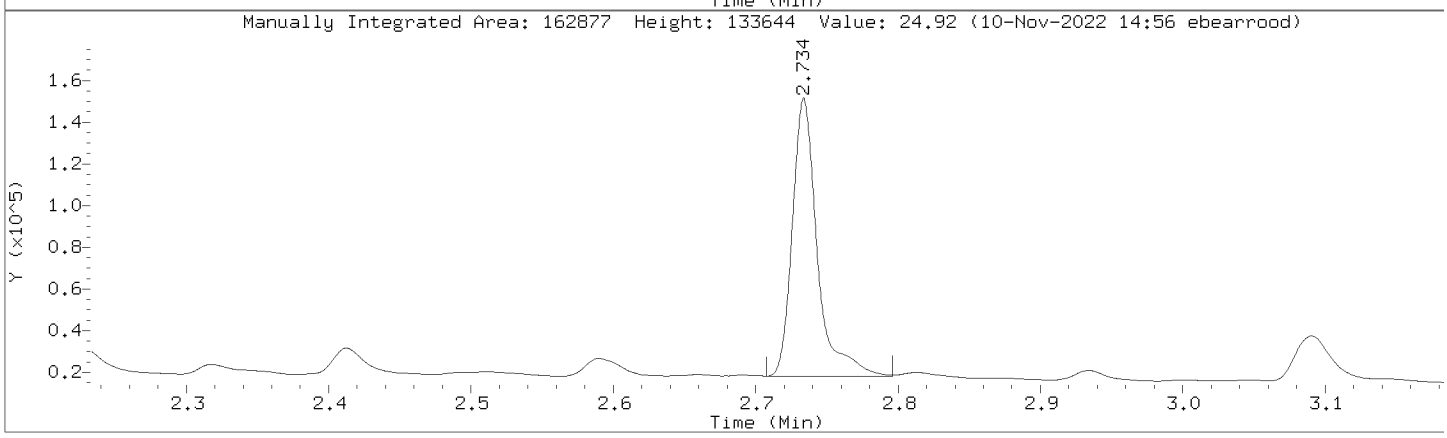
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE		(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		6099190	1000.00		1020	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.734	2.733	0.001	667884	100.000		100	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.275	4.275	0.000	532234	100.000		102	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		3764430	1000.00		1010	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		7097120	1000.00		1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		3964256	1000.00		1020	(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		9895685	2000.00		2030	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		5136881	1000.00		1010	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		5136881	1000.00		1010	(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		4575578	1000.00		1010	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		4575578	1000.00		1010	(M)	RNG

QC Flag Legend

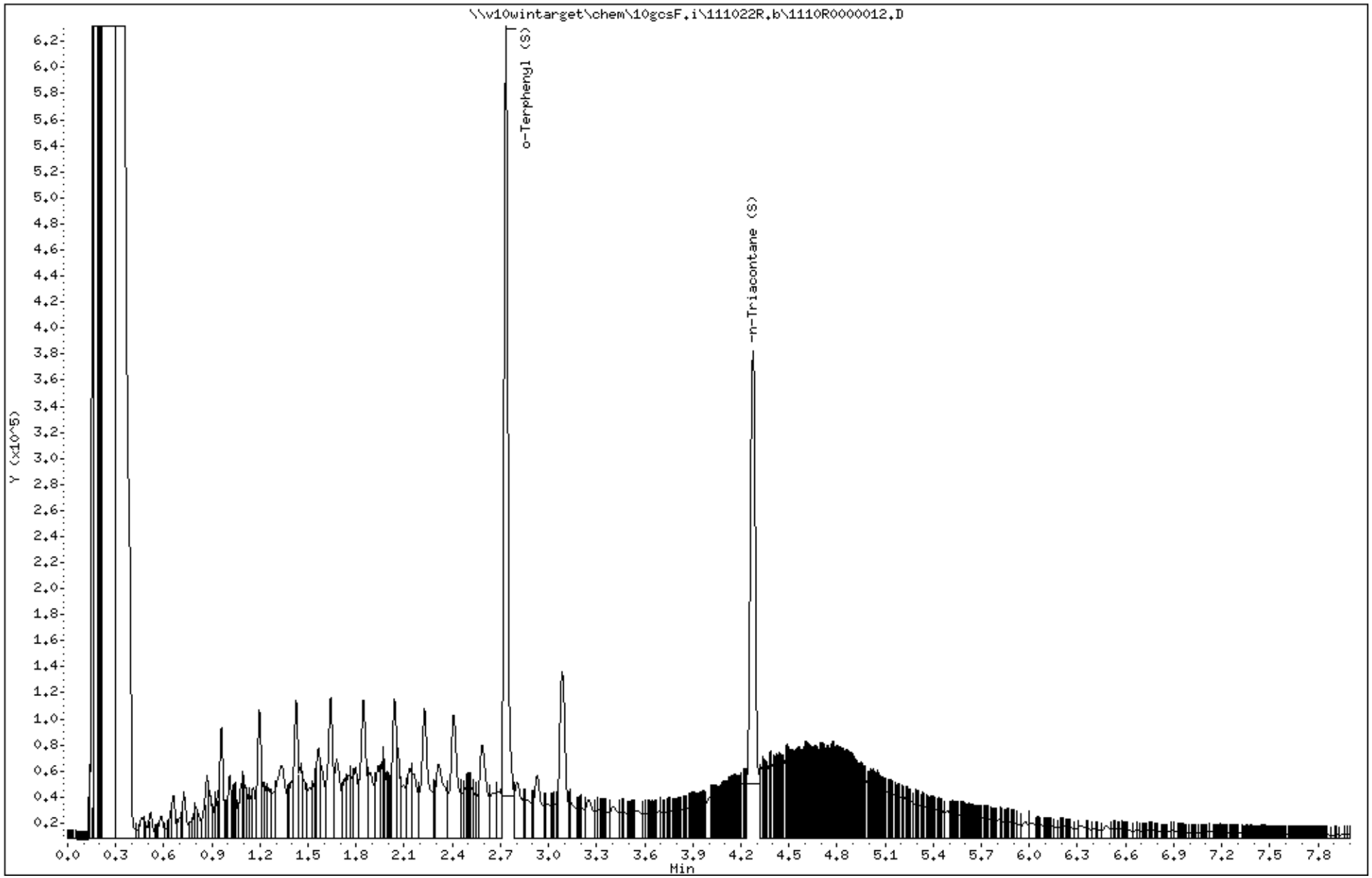
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

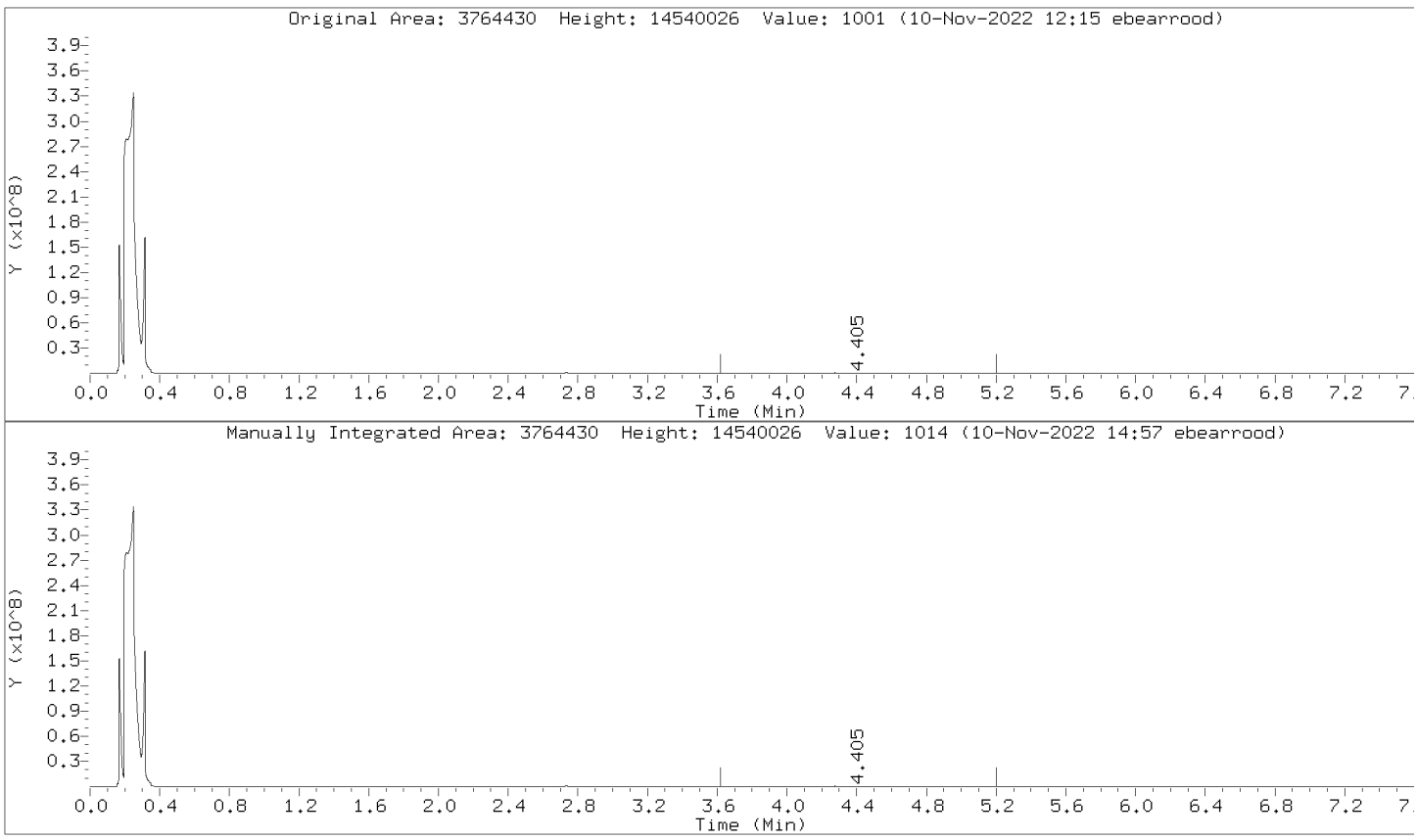
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



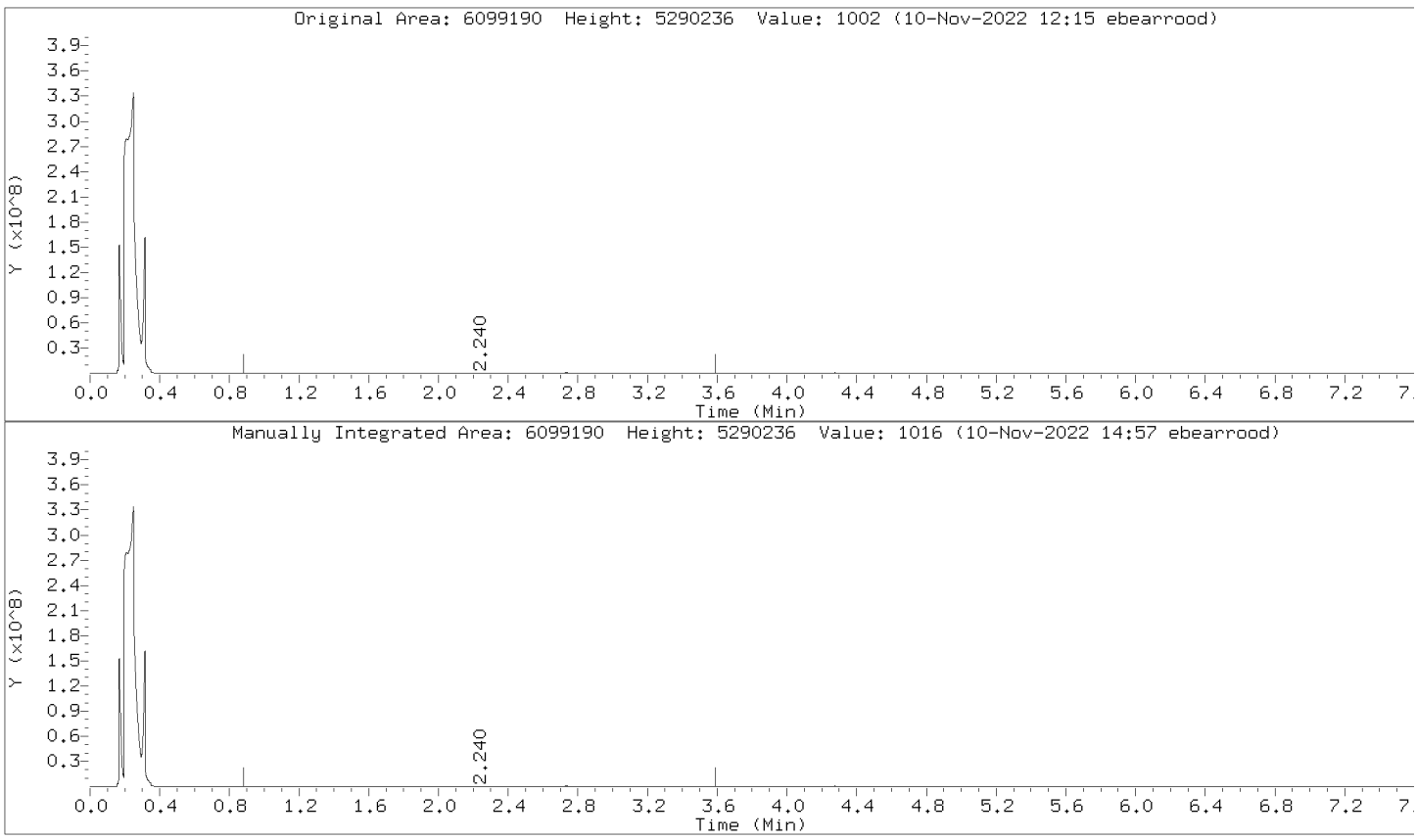
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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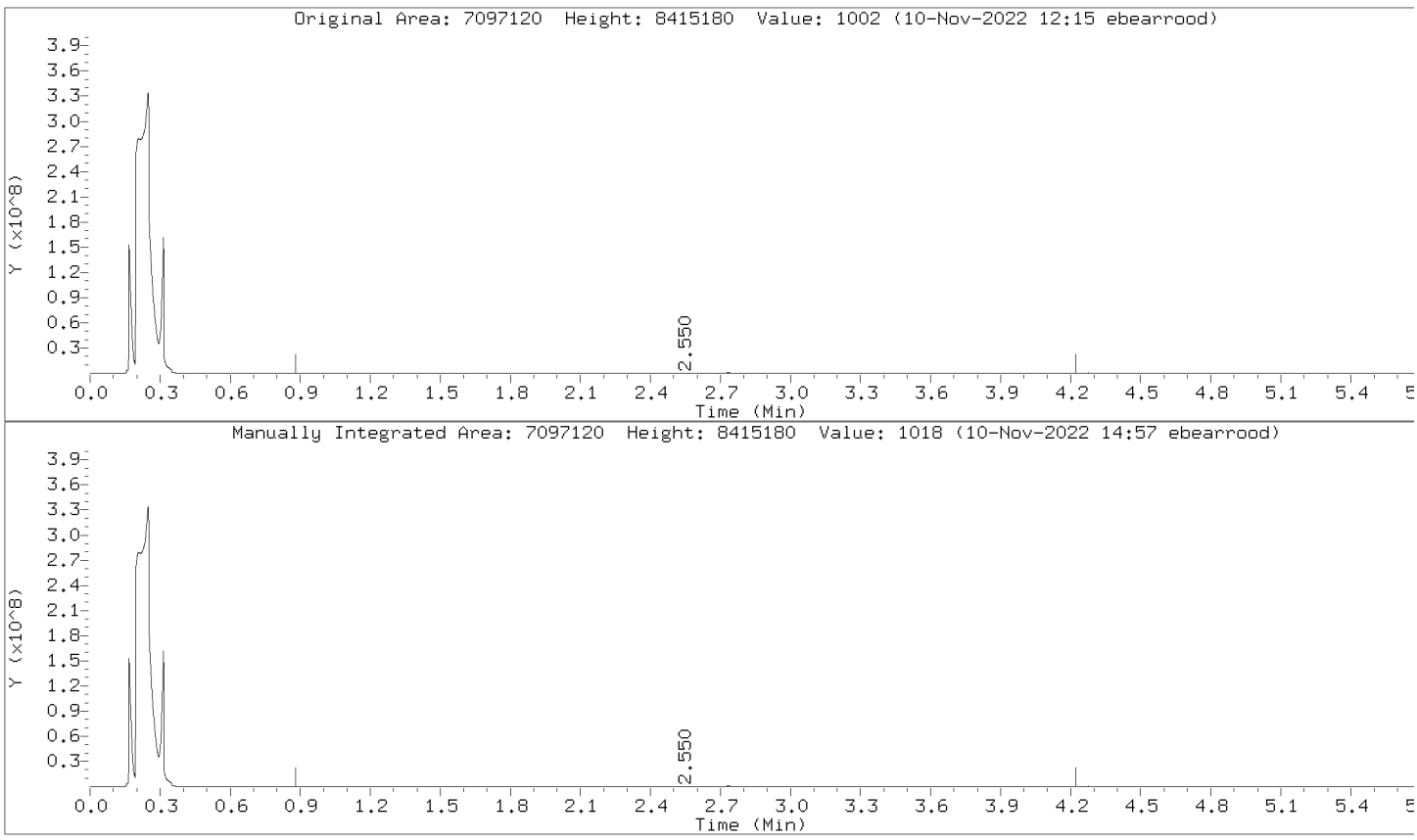
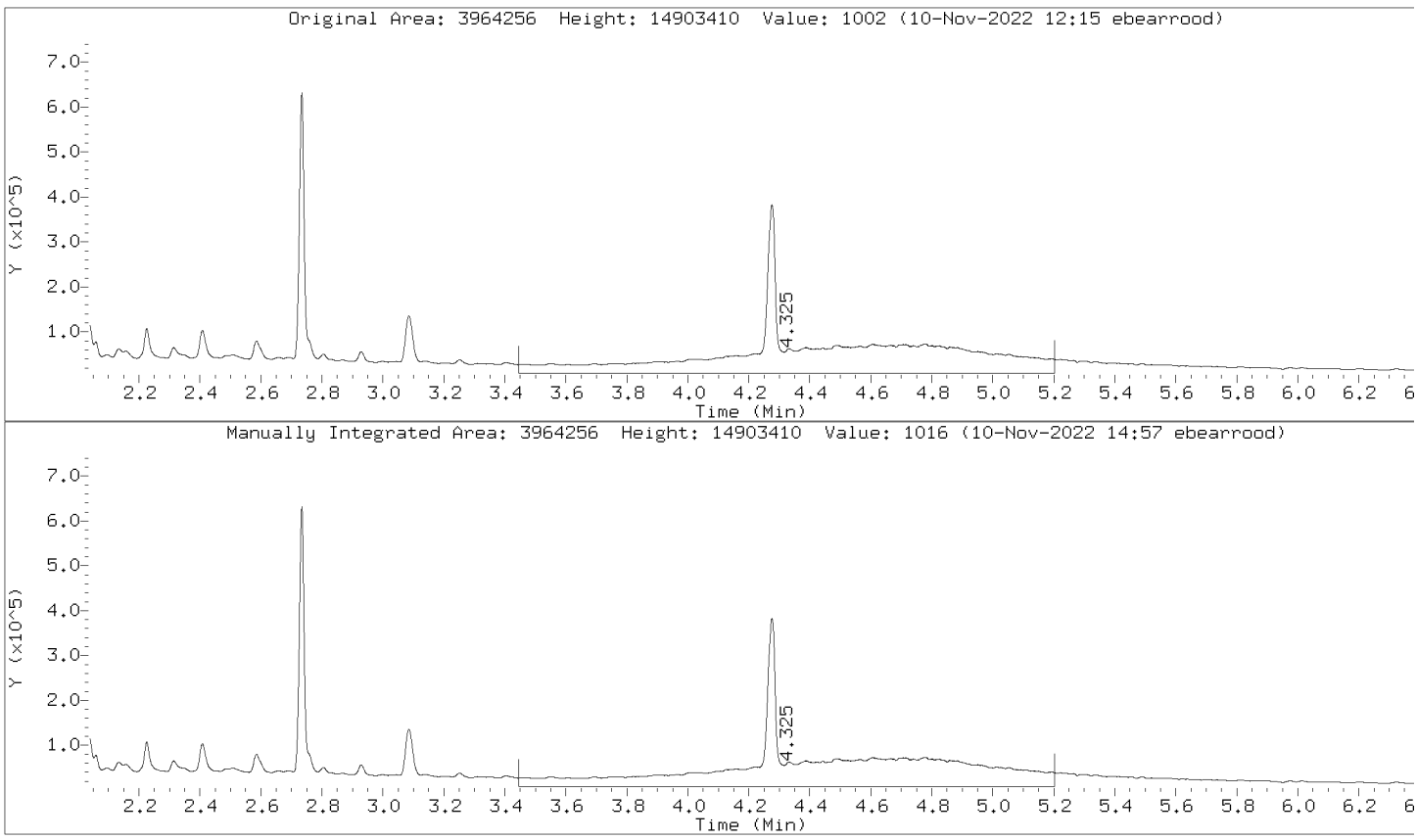
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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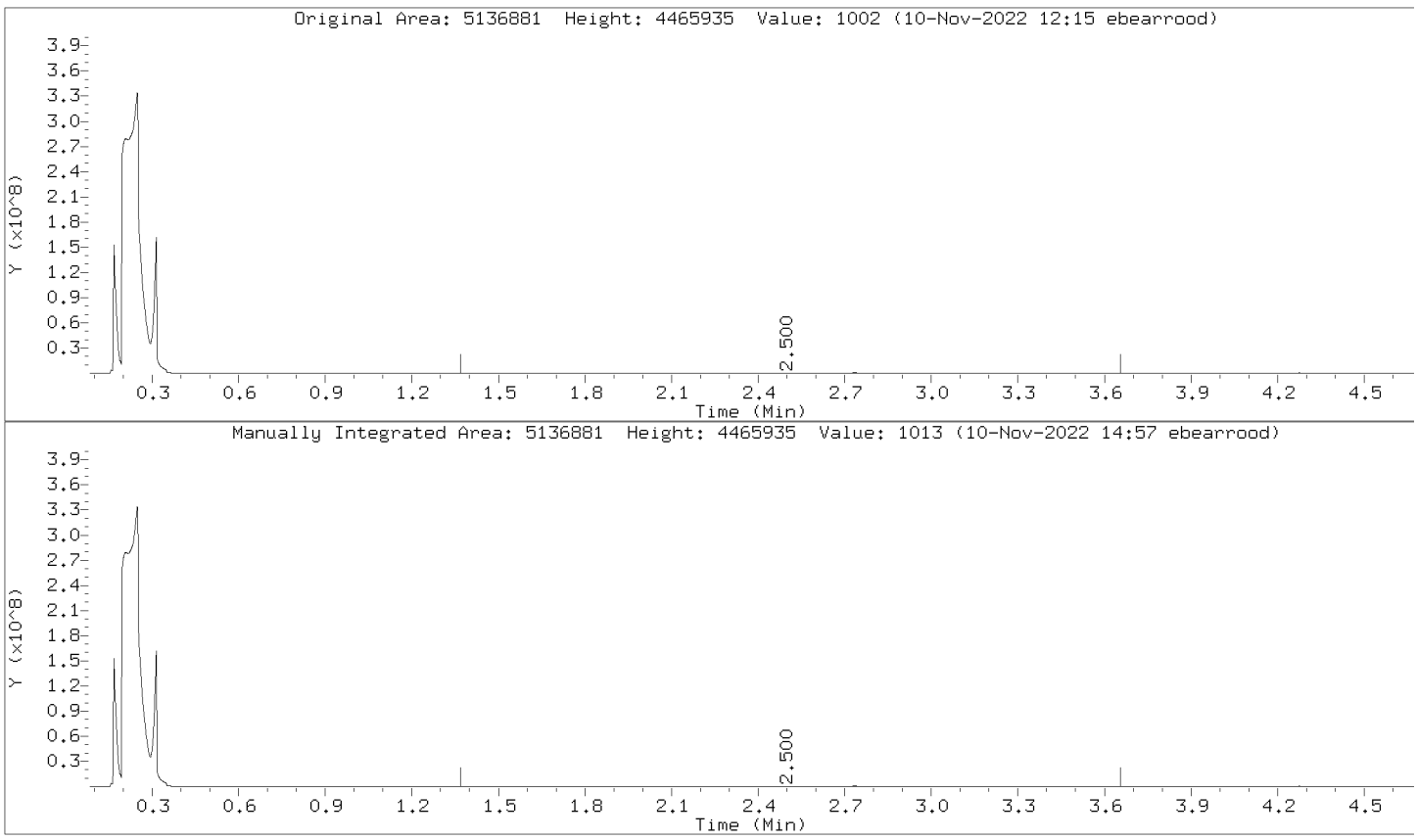
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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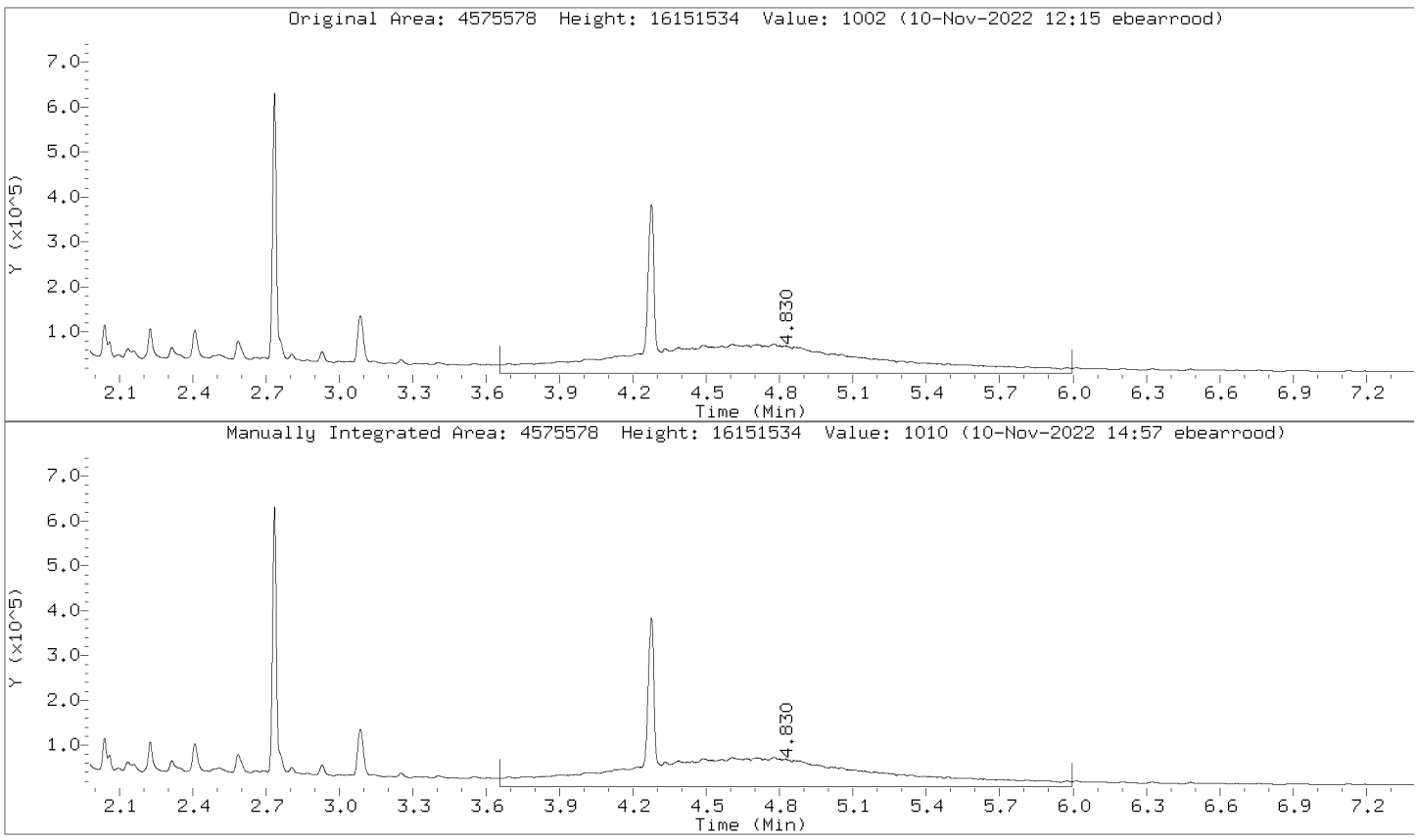
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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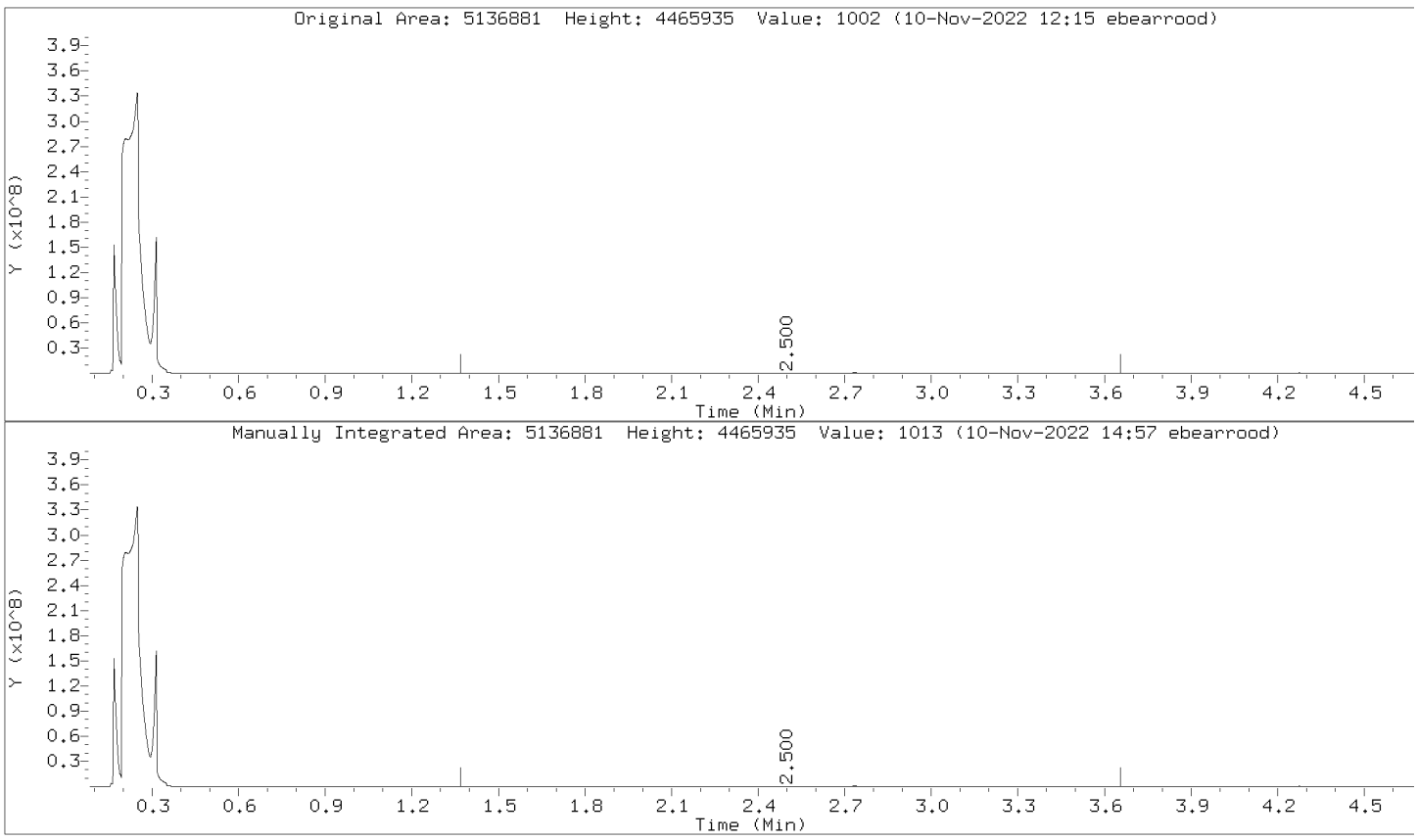
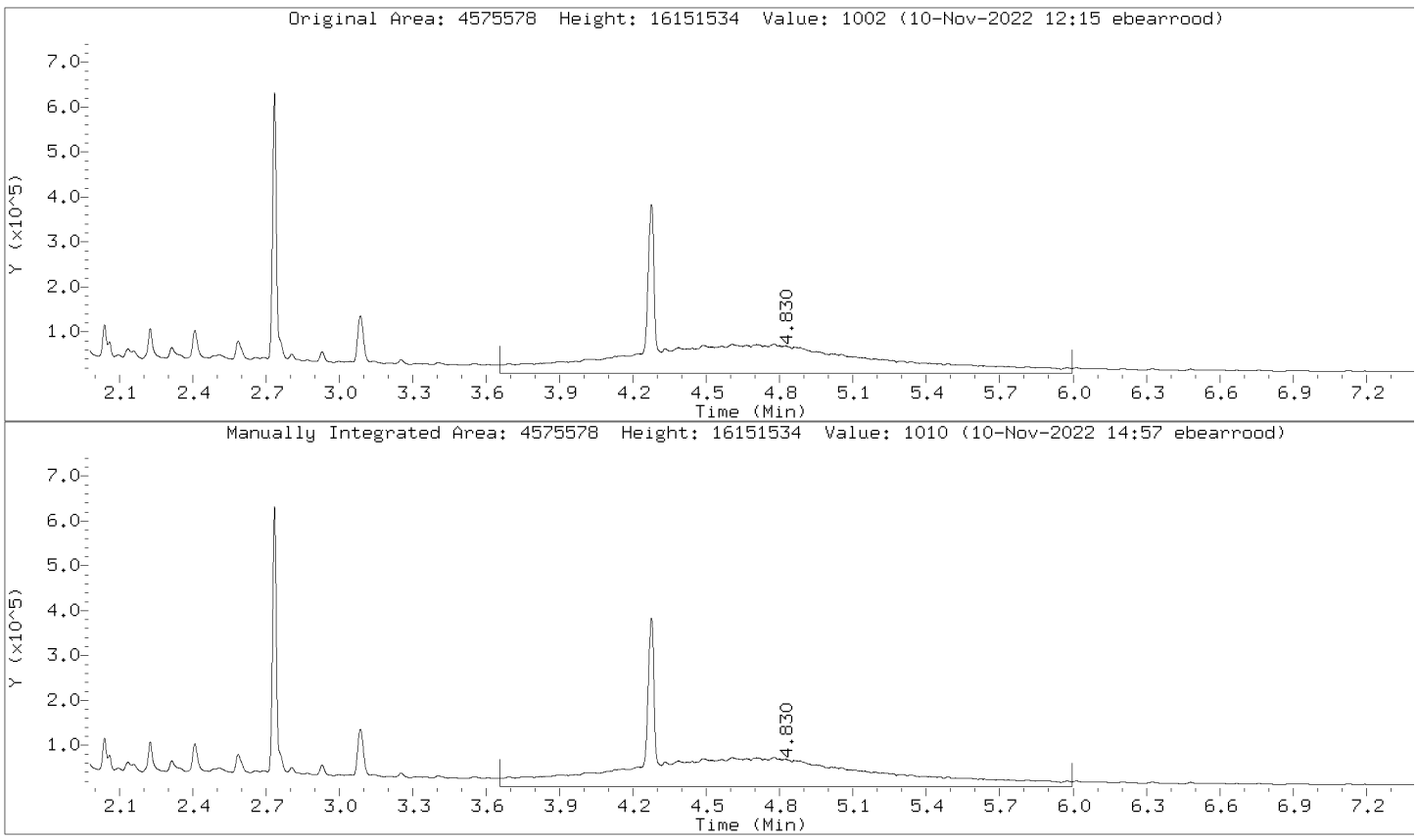
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



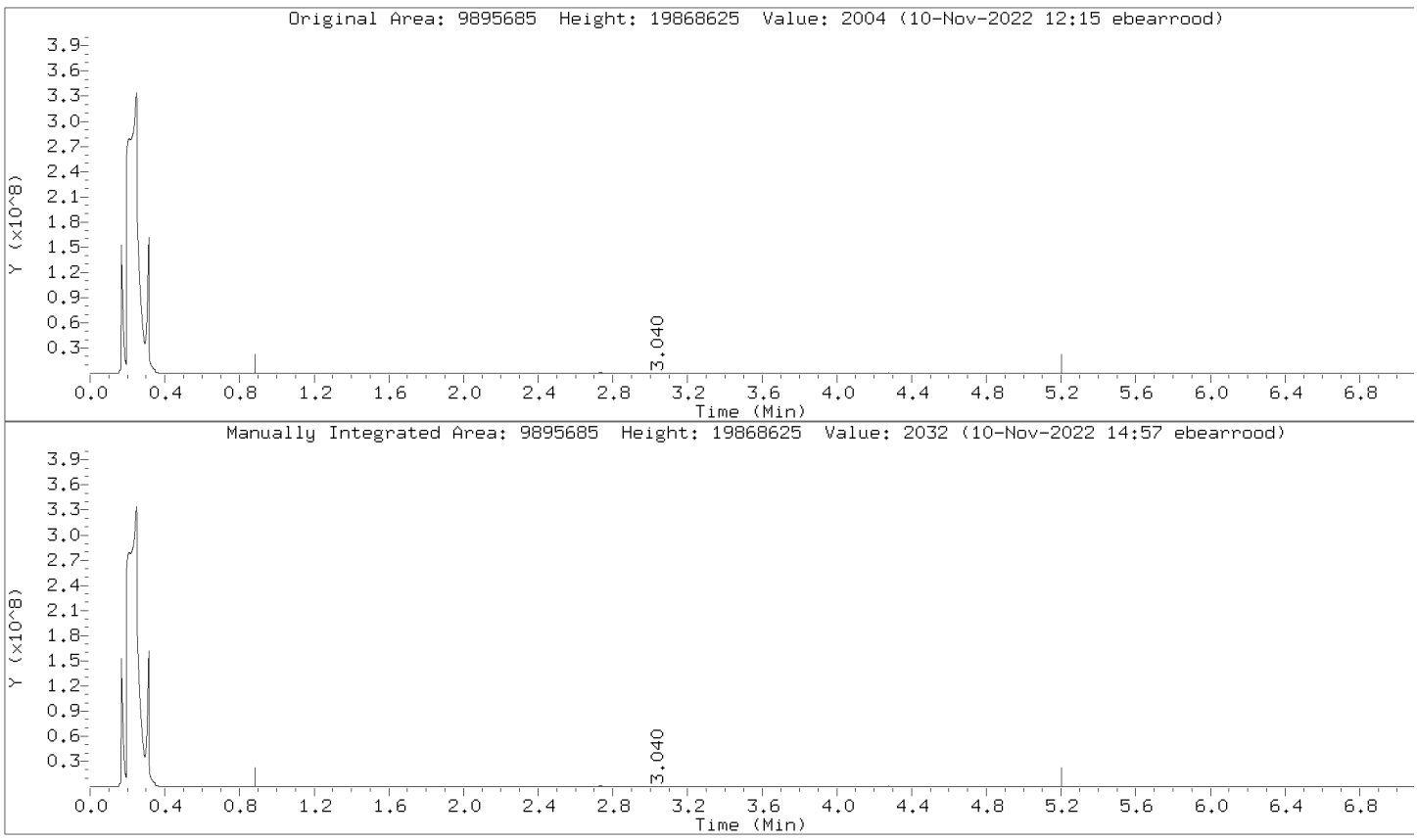
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



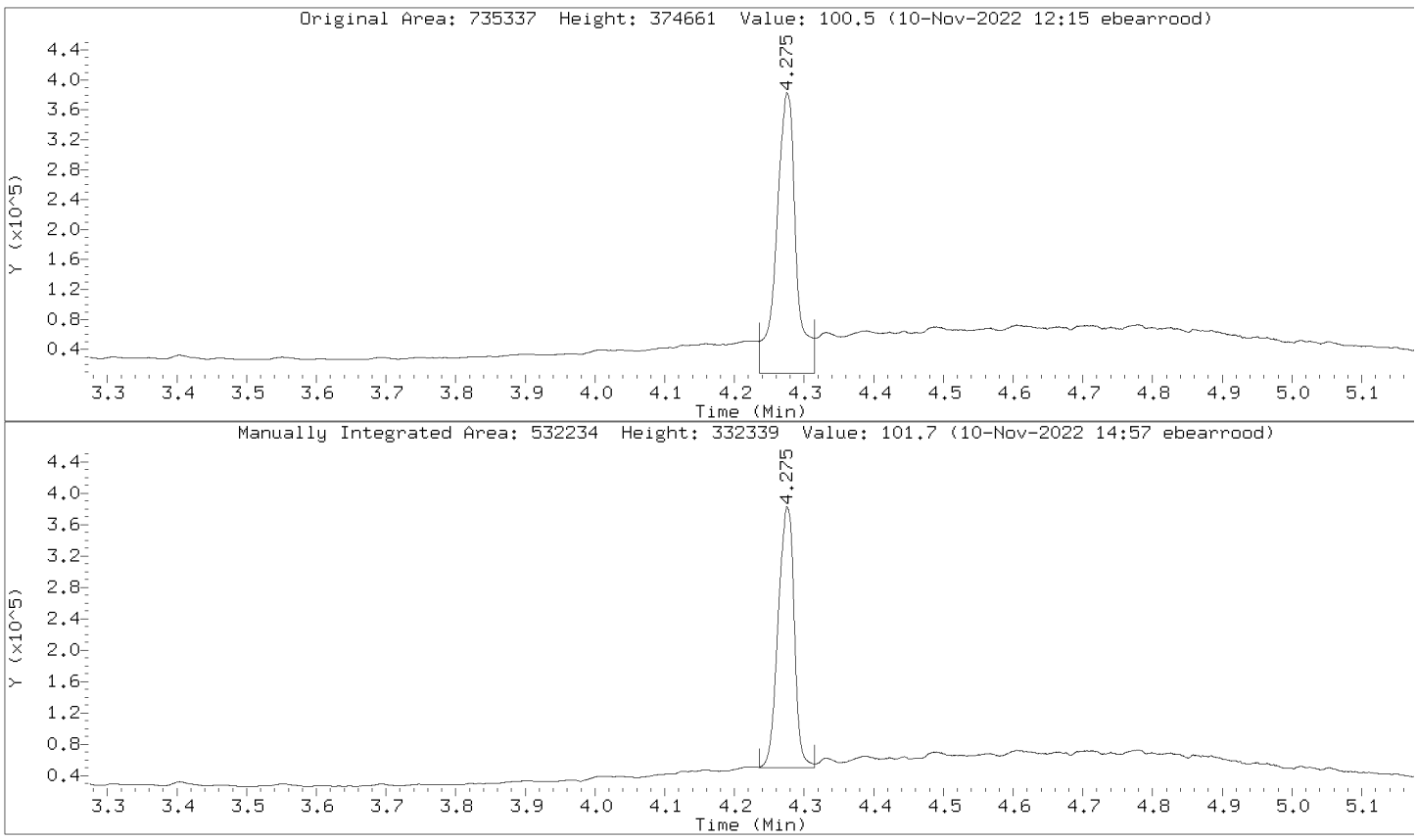
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



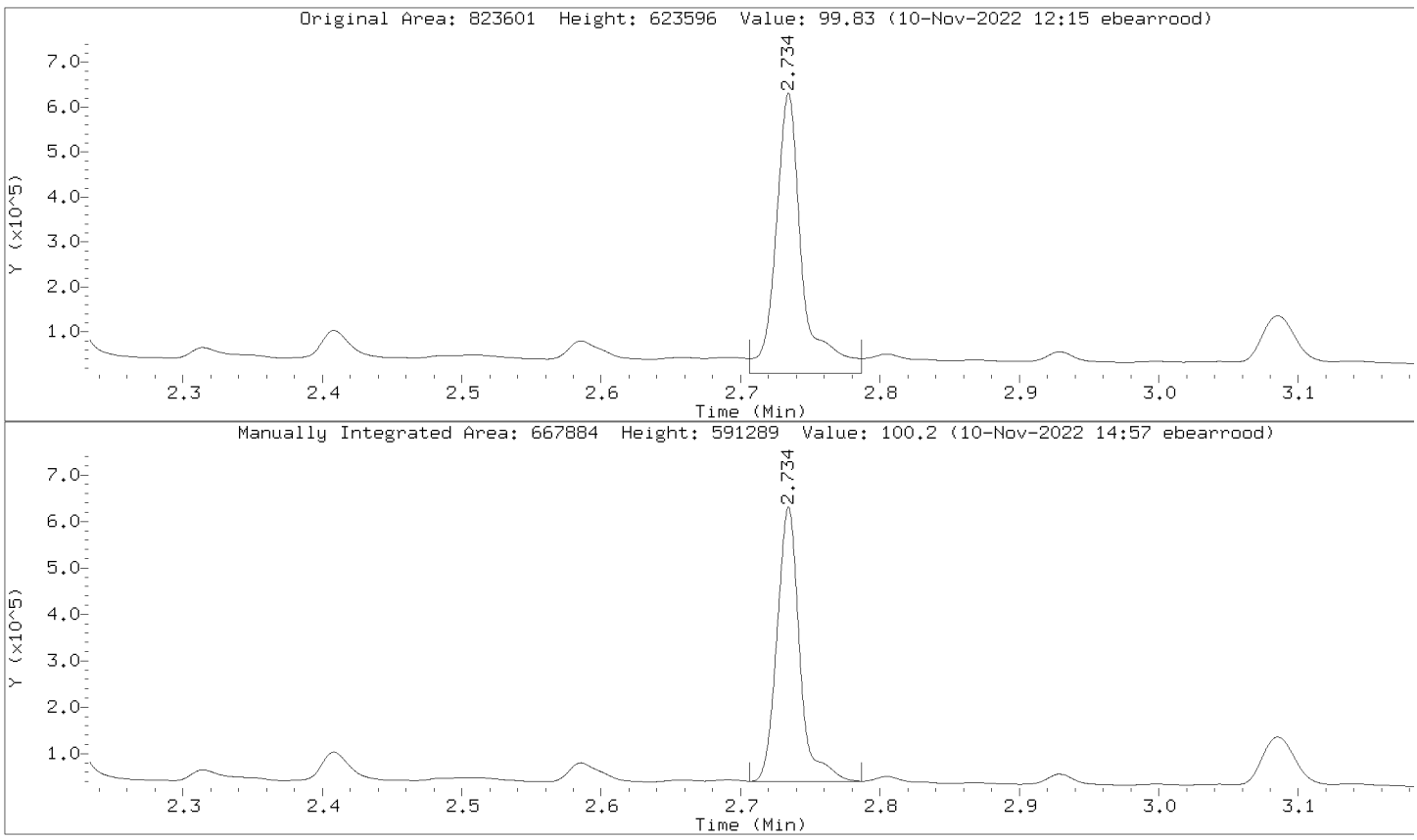
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

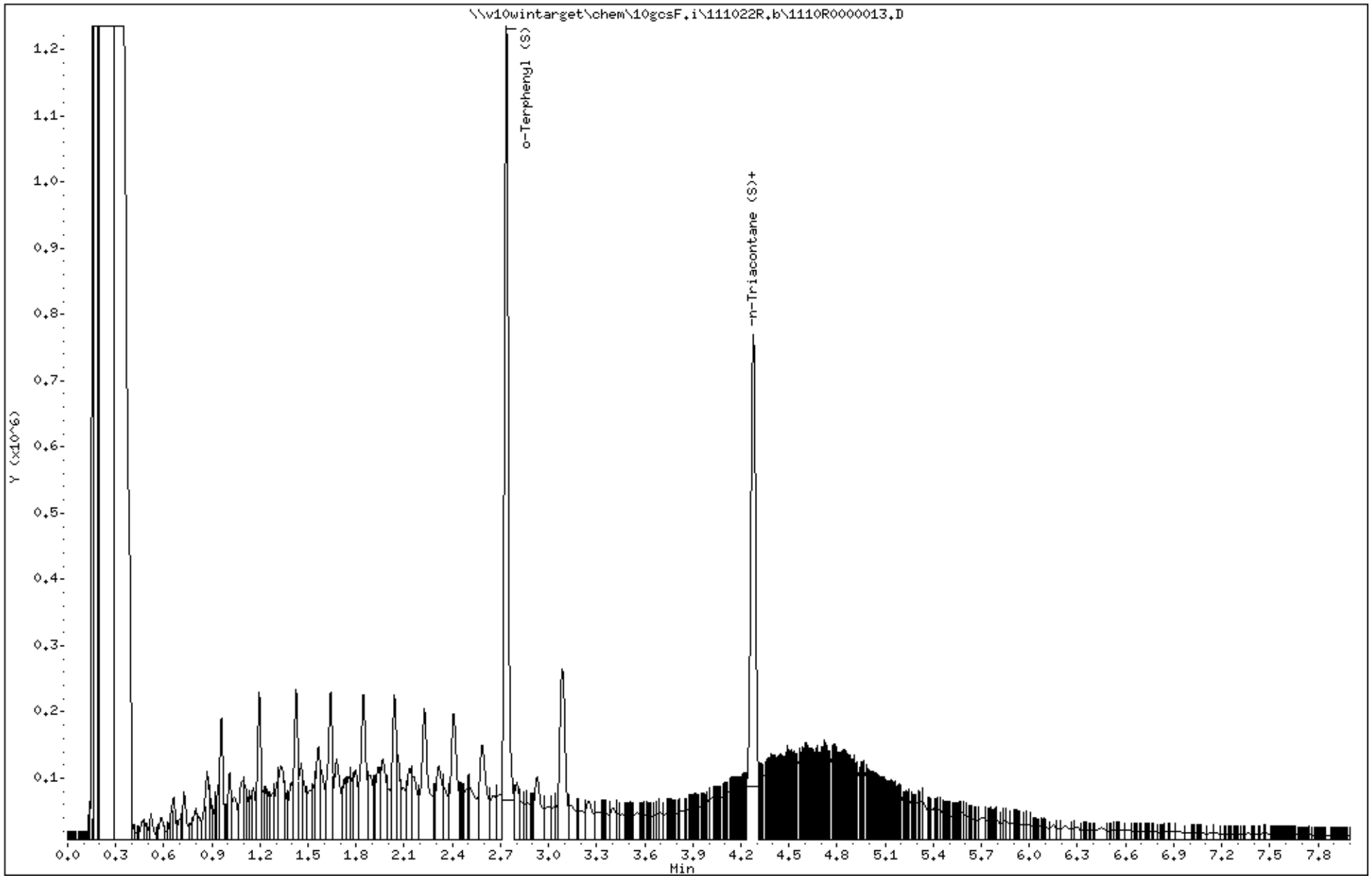
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

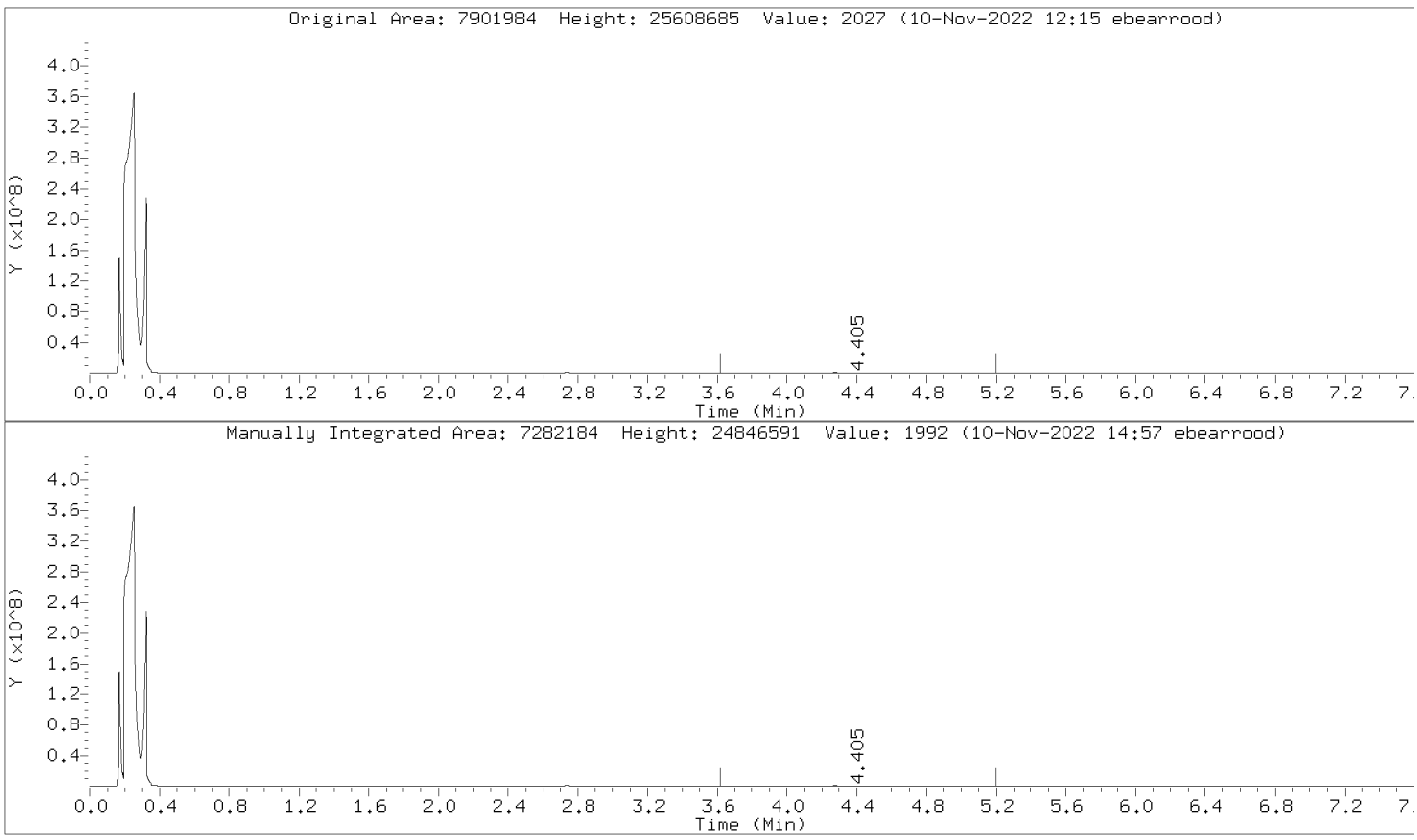
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



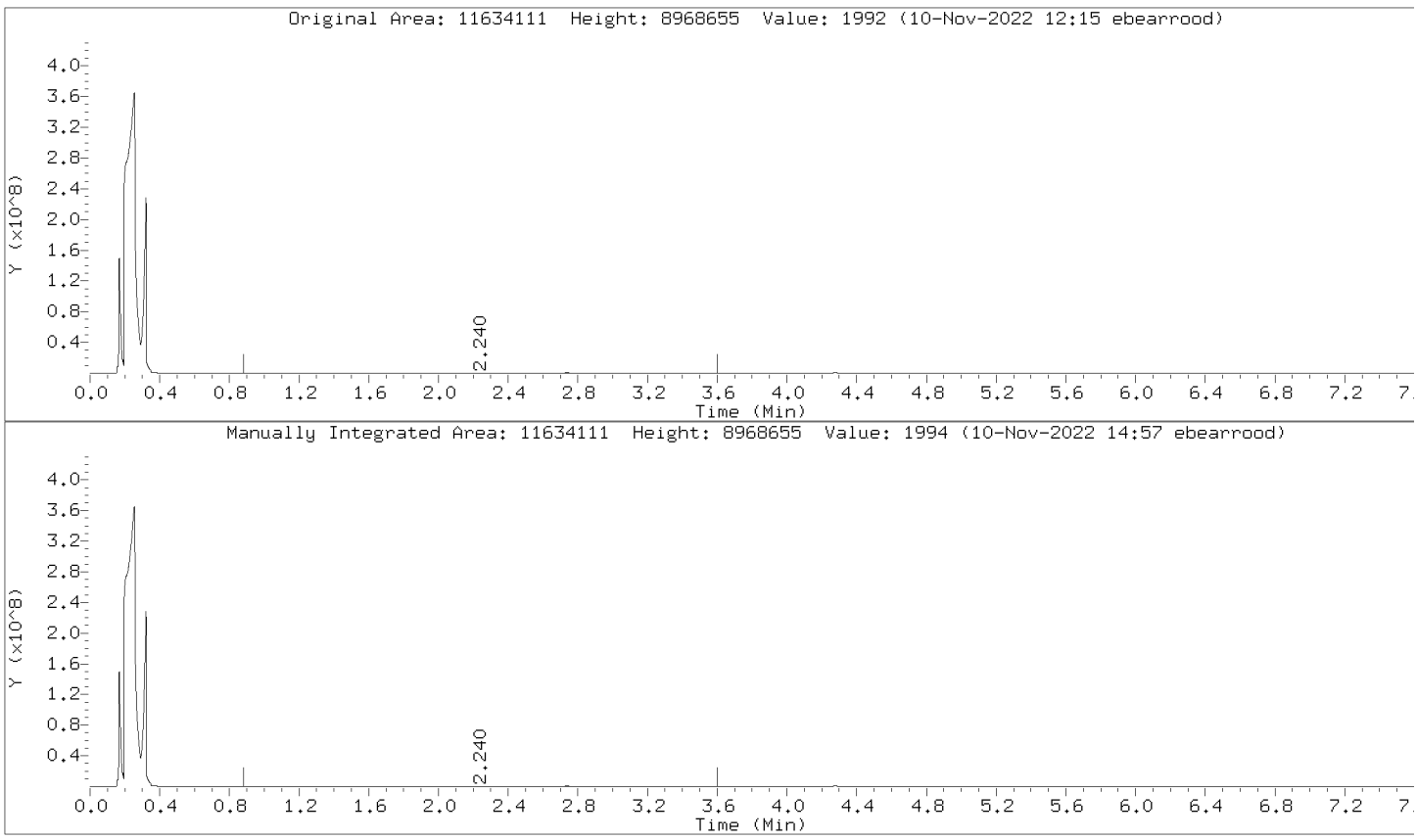
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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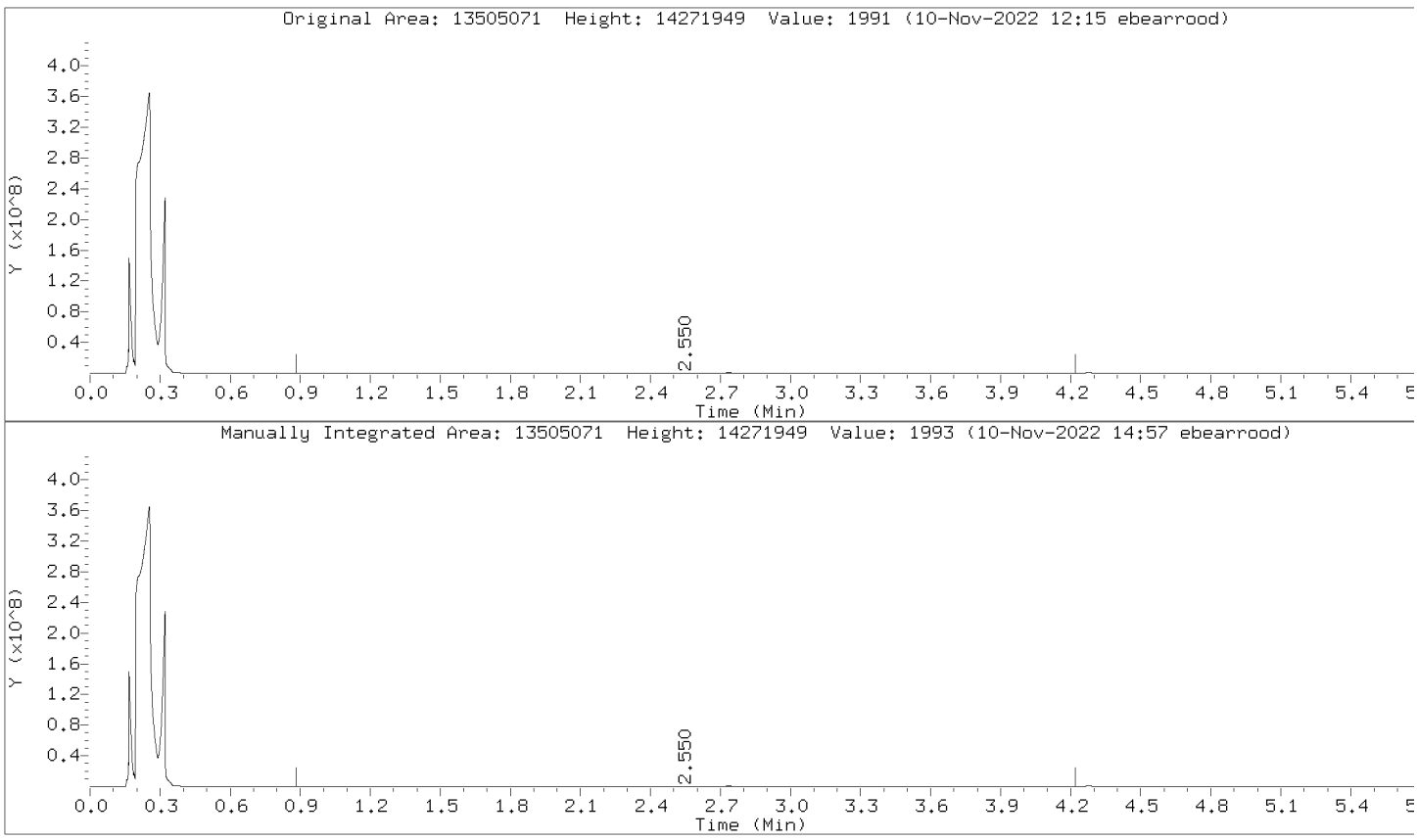
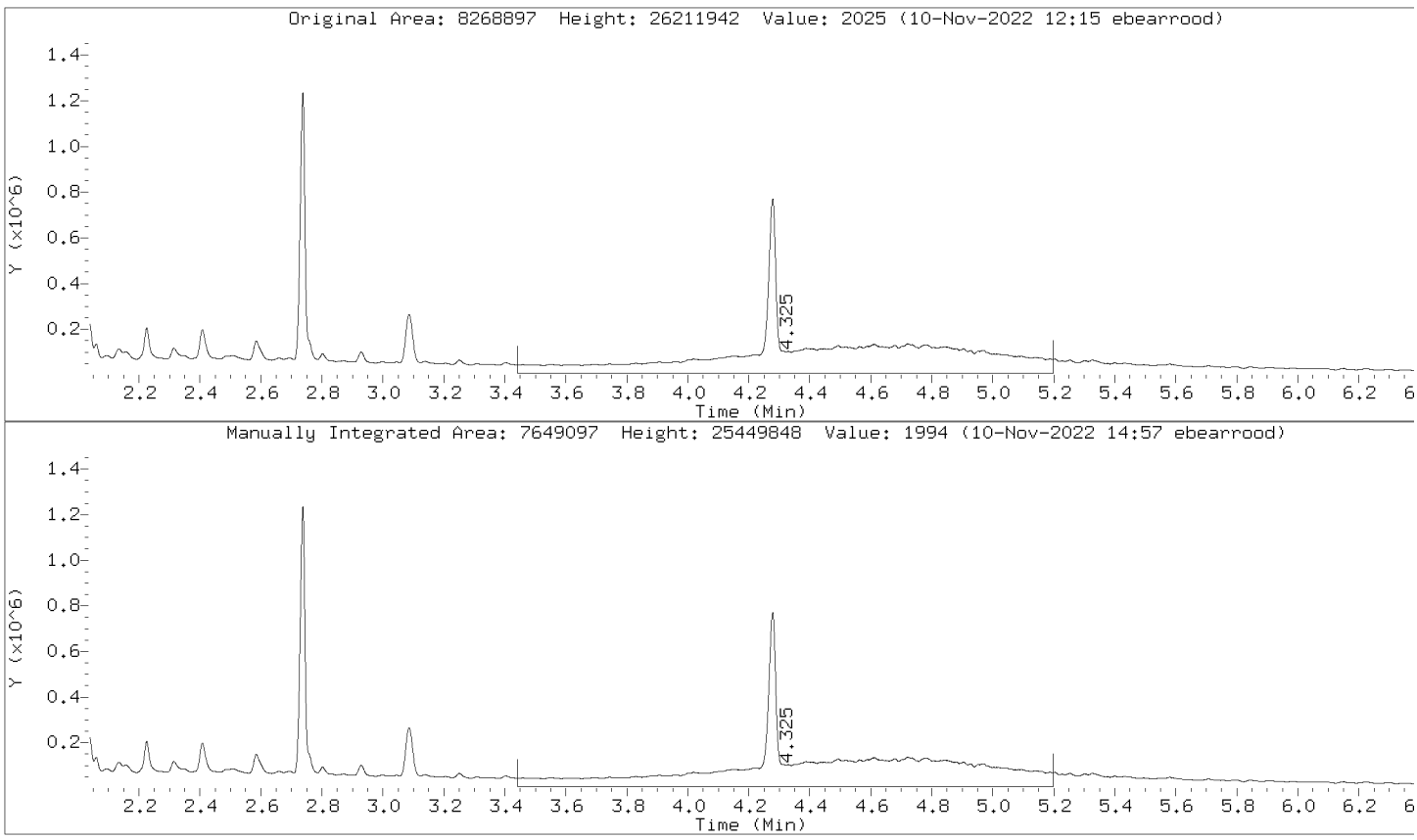
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



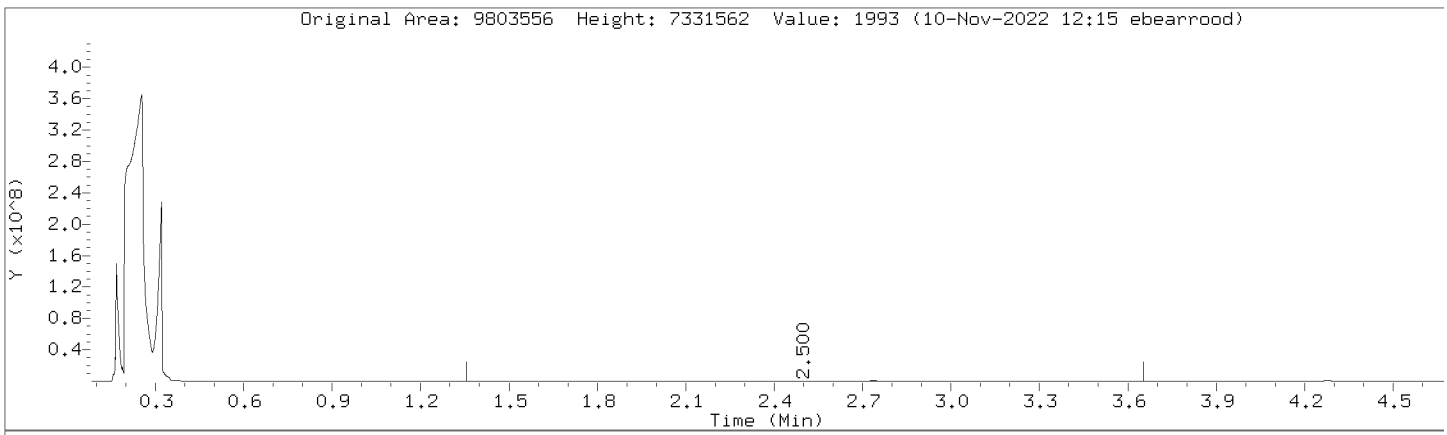
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

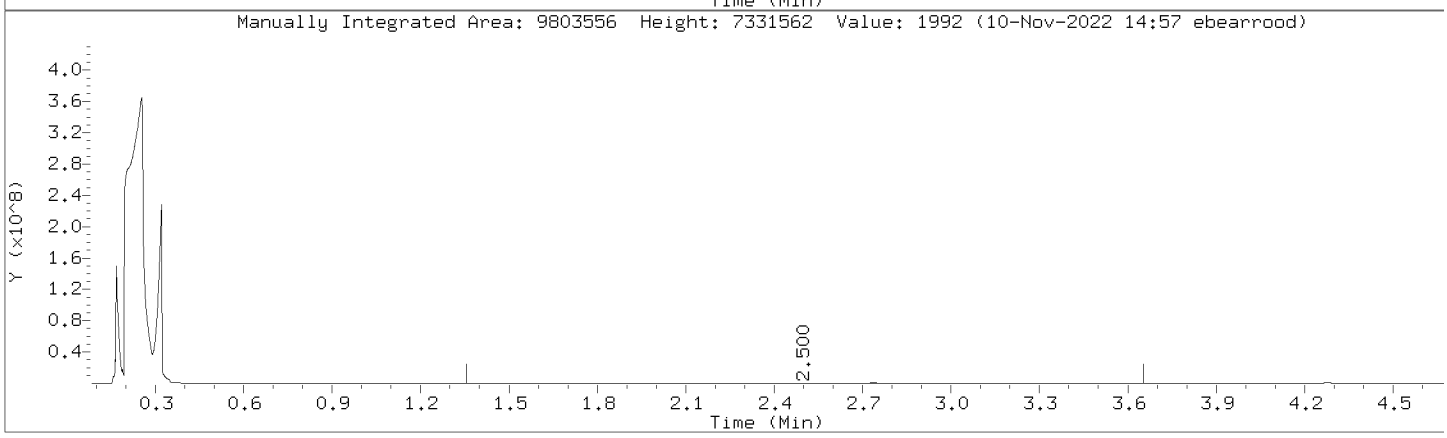
Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

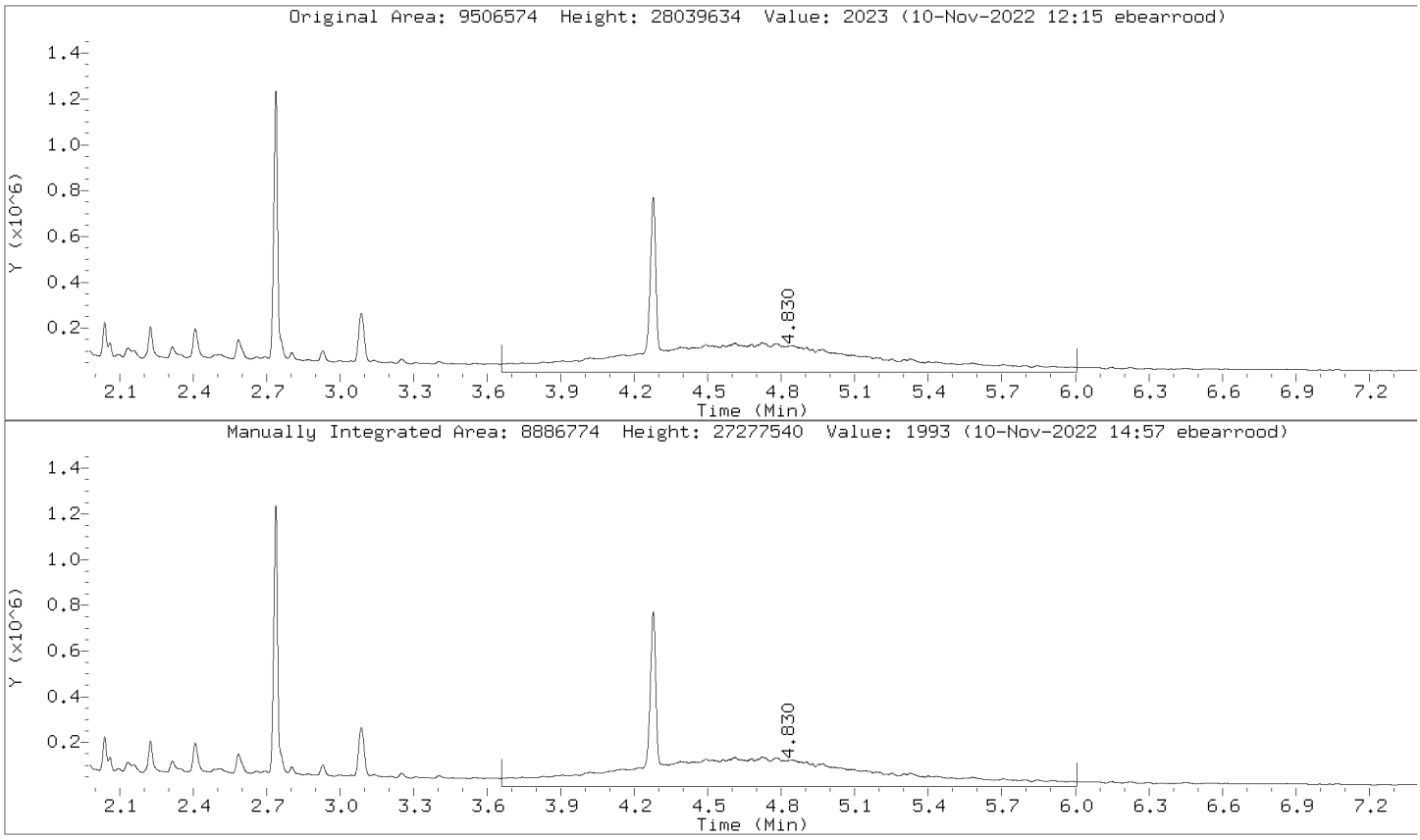
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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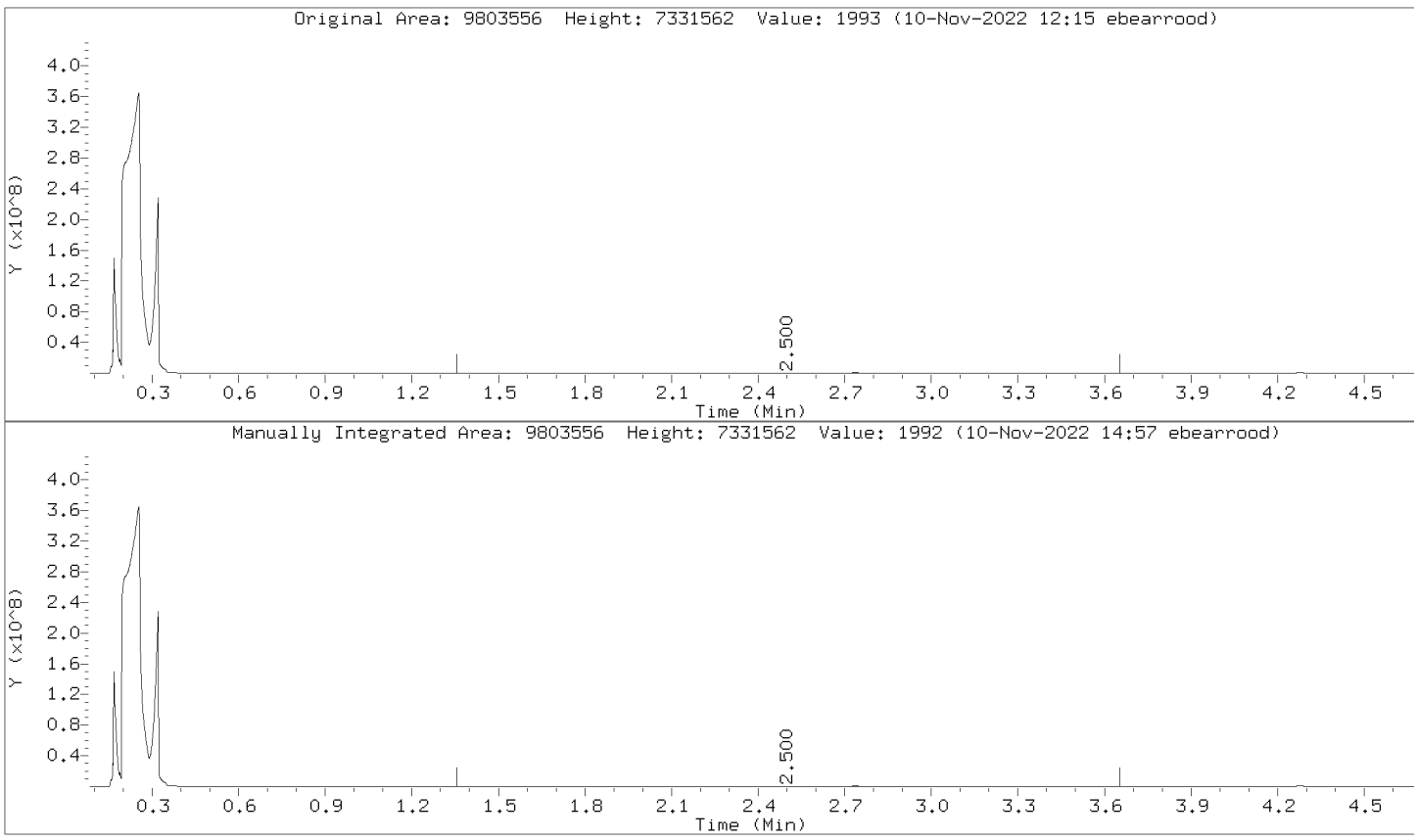
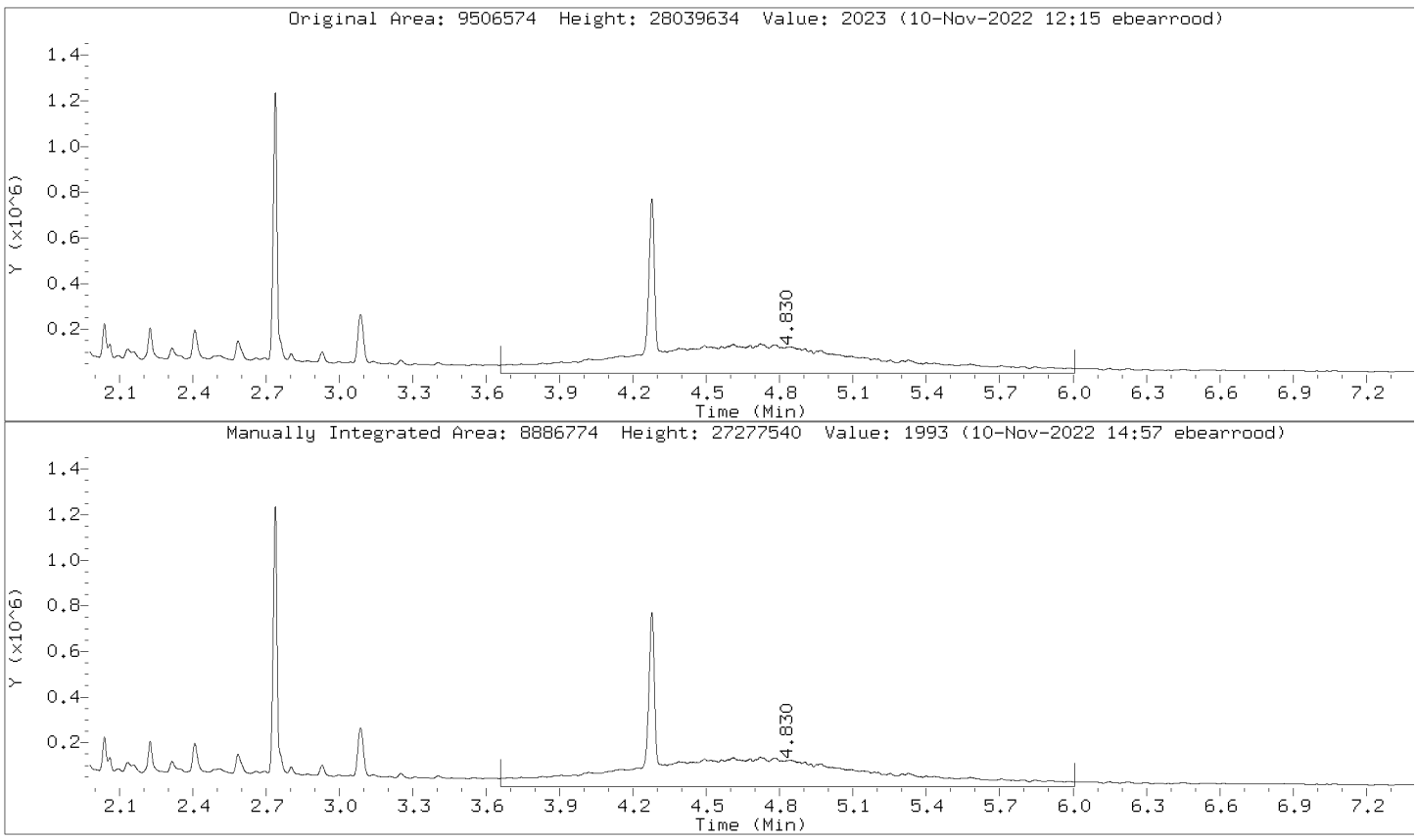
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



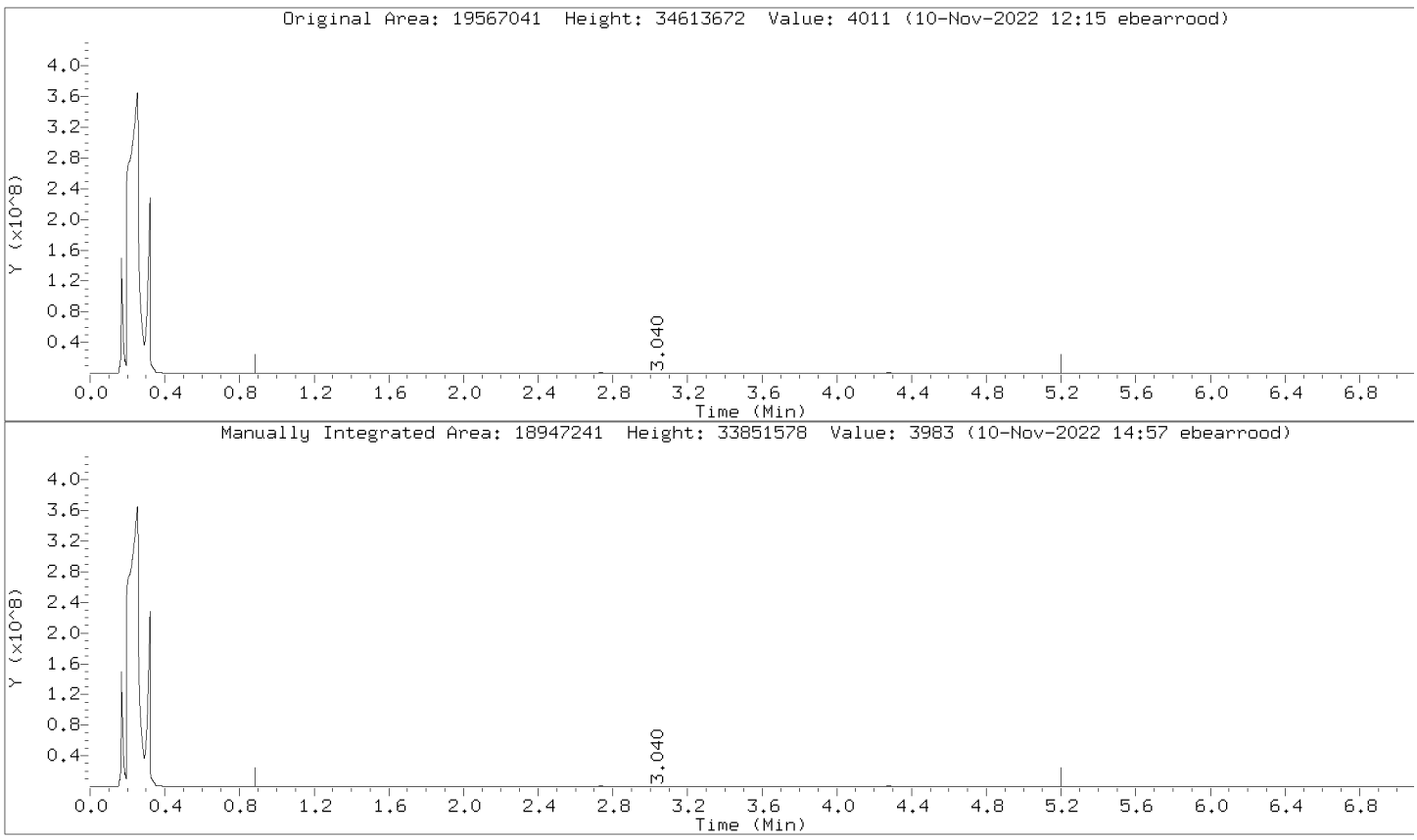
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



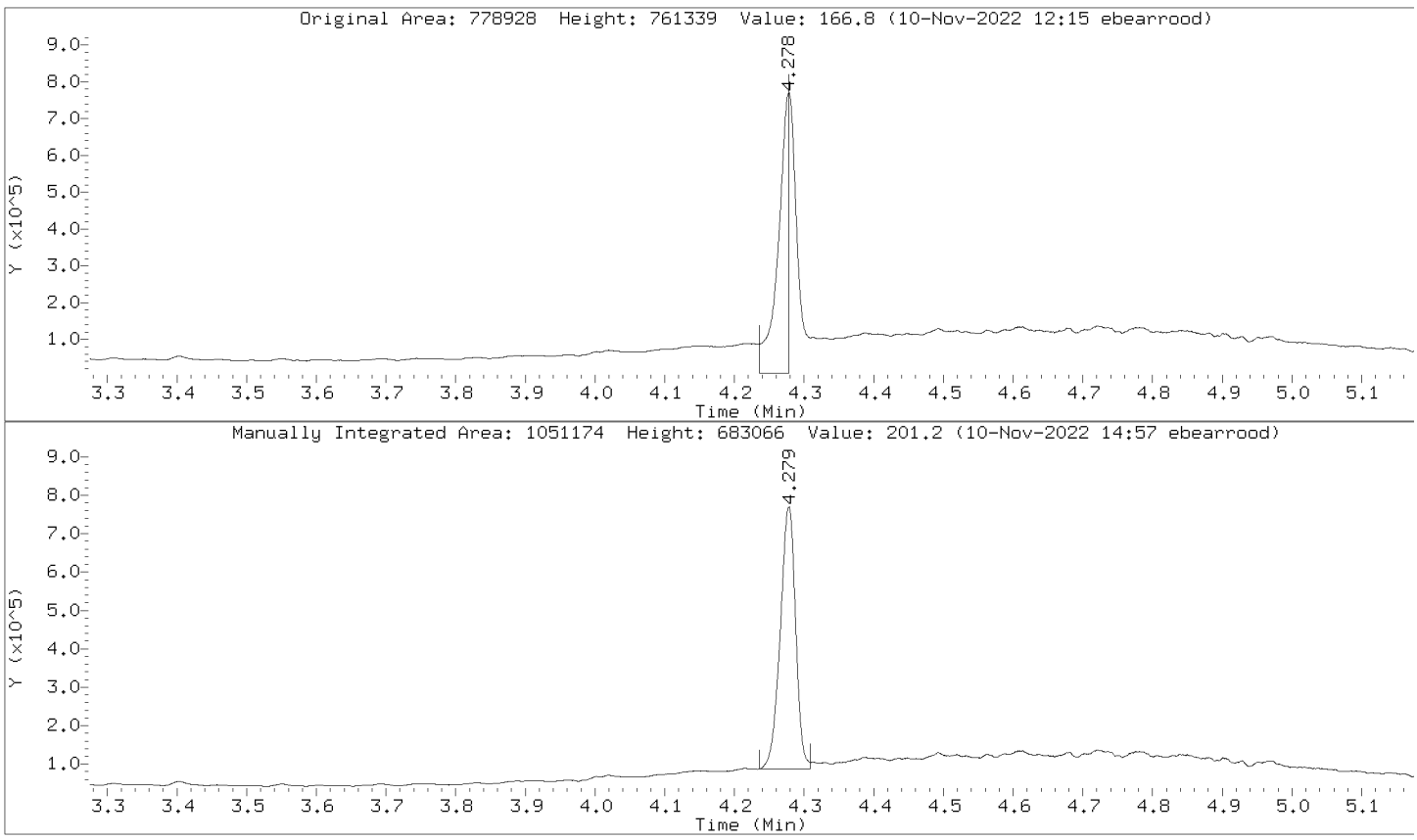
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: C10-C36 Review Code: RNG
CAS Number:



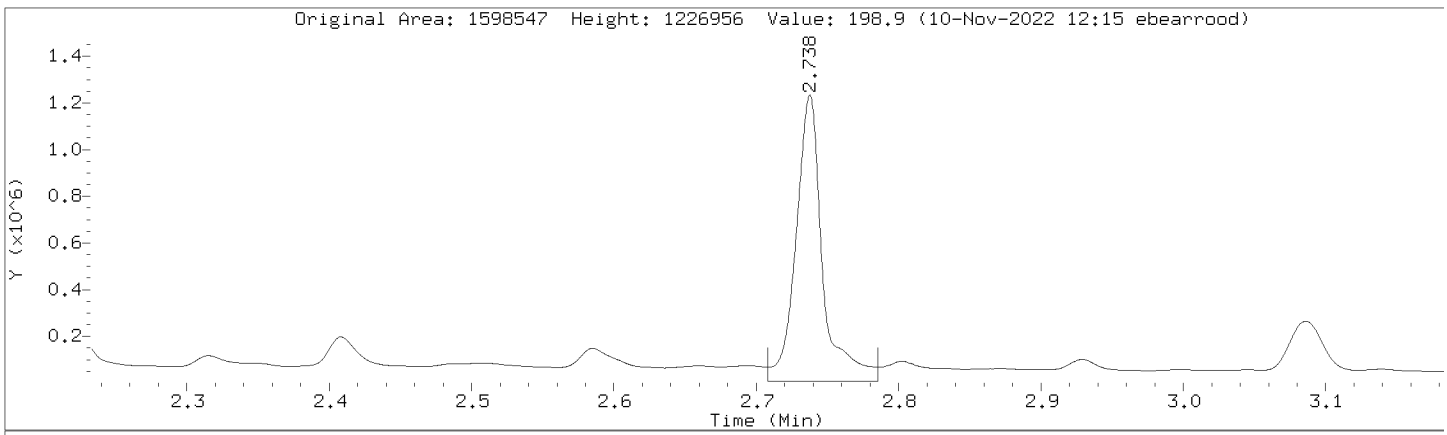
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

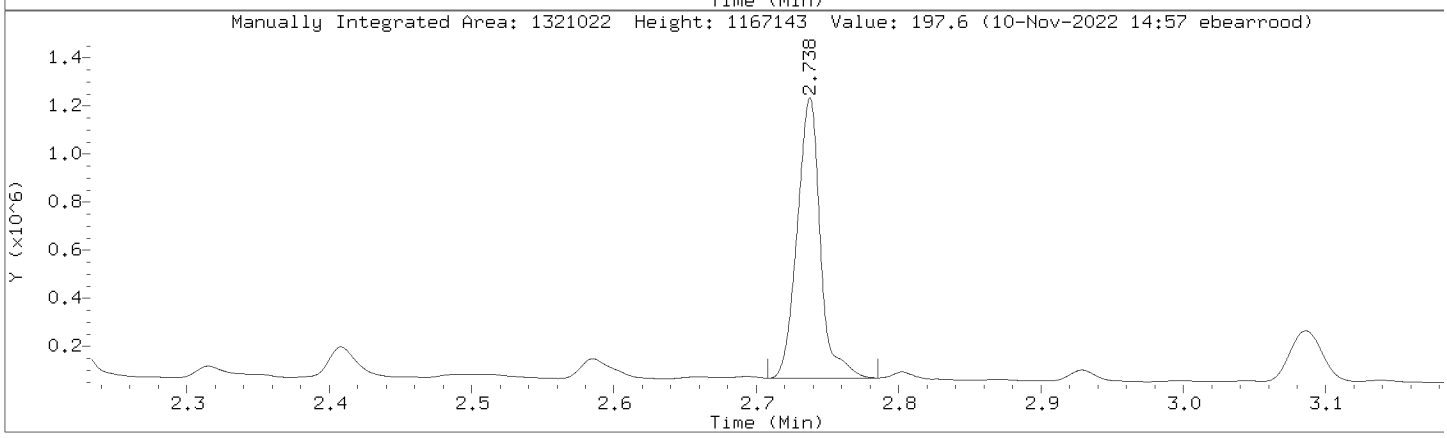
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102						CAS #:	
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:	
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)						CAS #:	
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103						CAS #:	
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:	
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:	
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36						CAS #:	
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range						CAS #:	
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG						CAS #:	
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range						CAS #:	
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG						CAS #:	
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

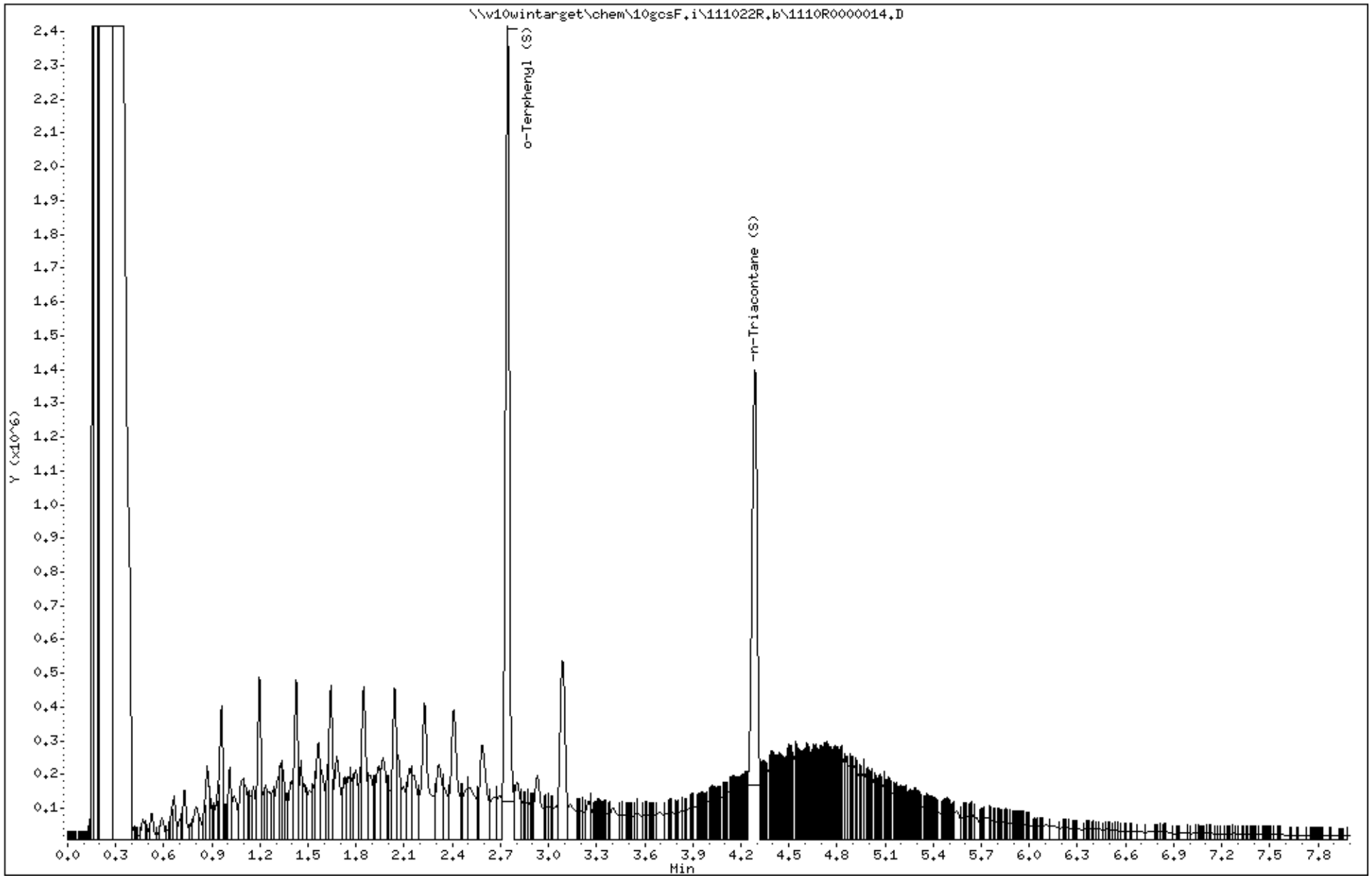
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

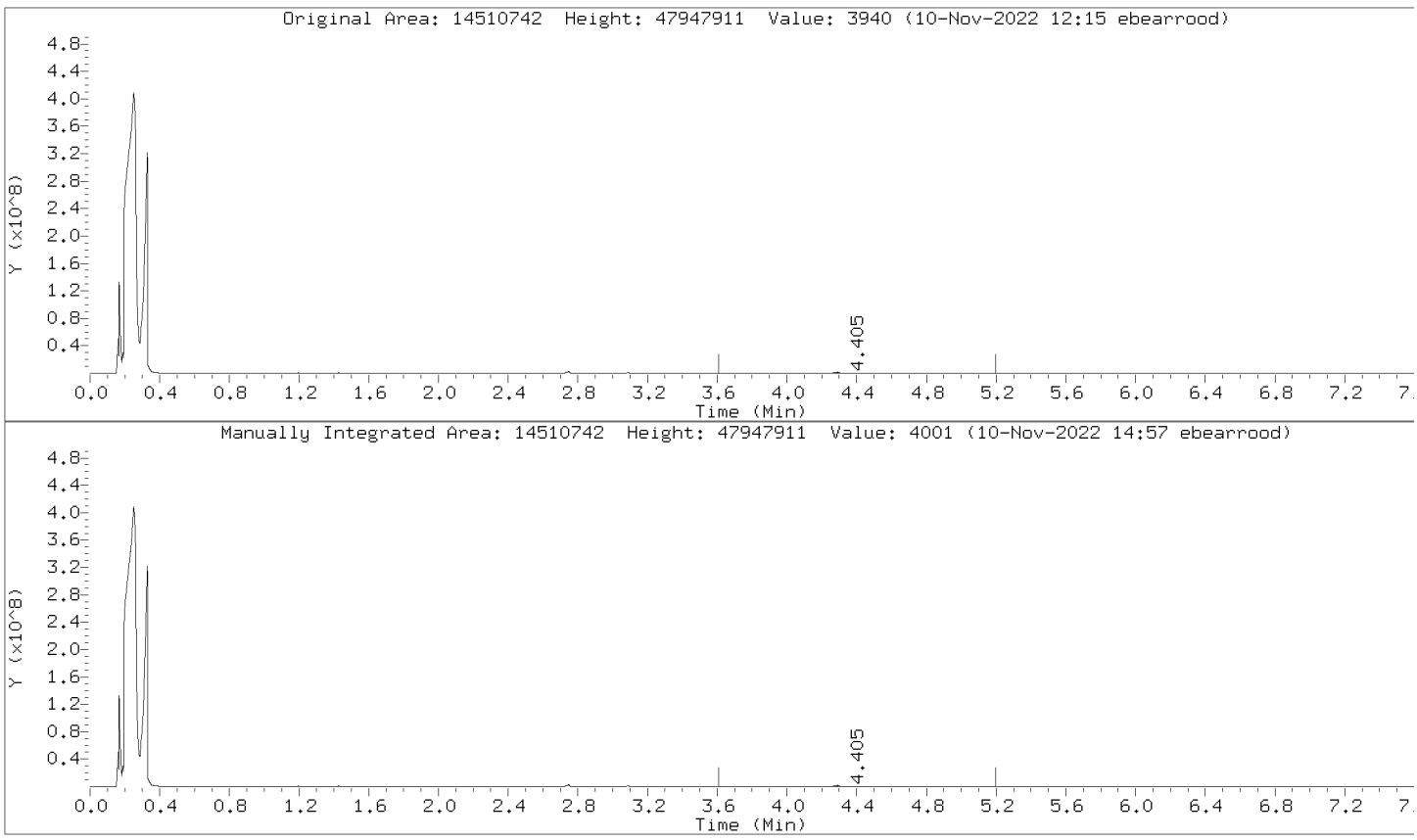
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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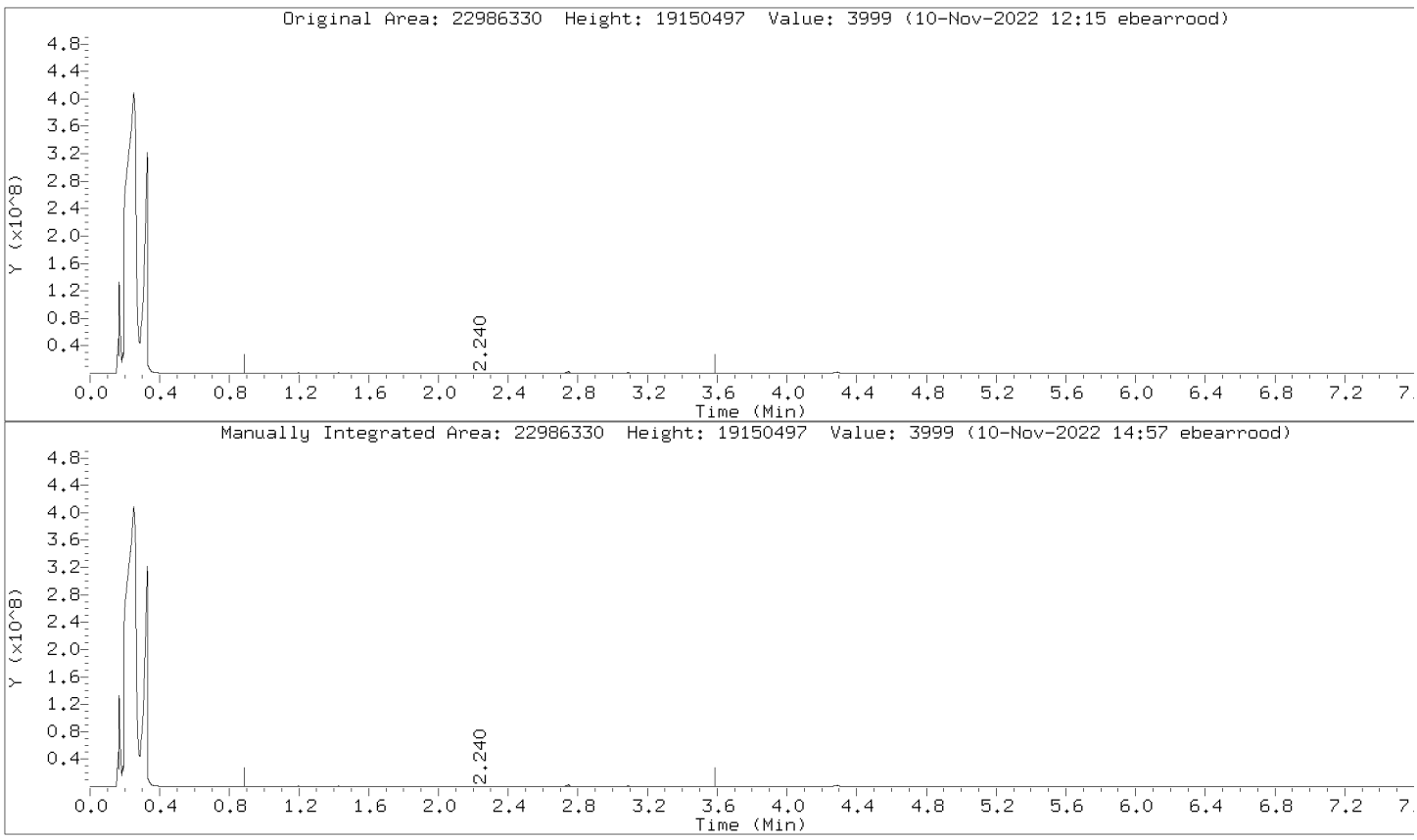
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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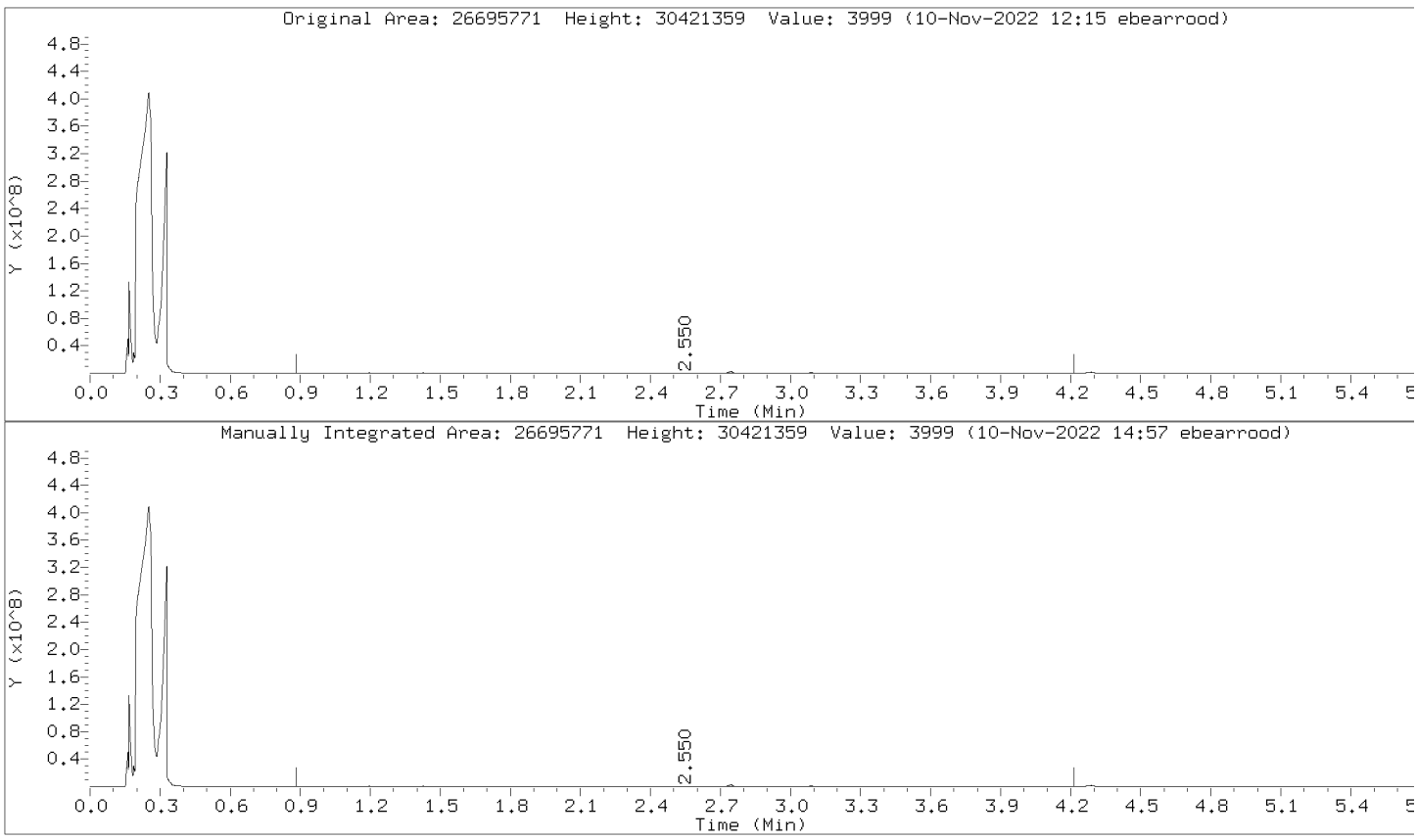
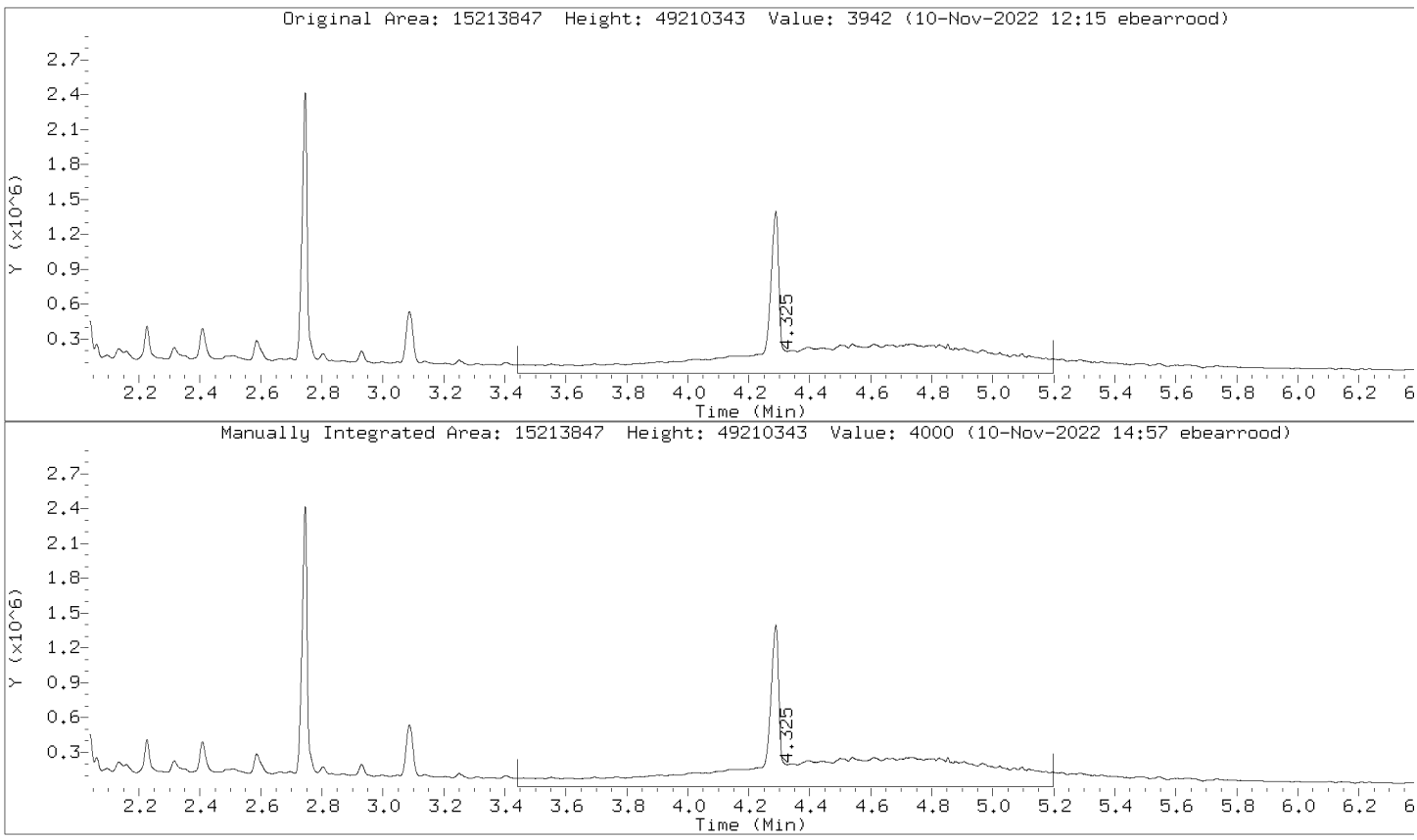
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



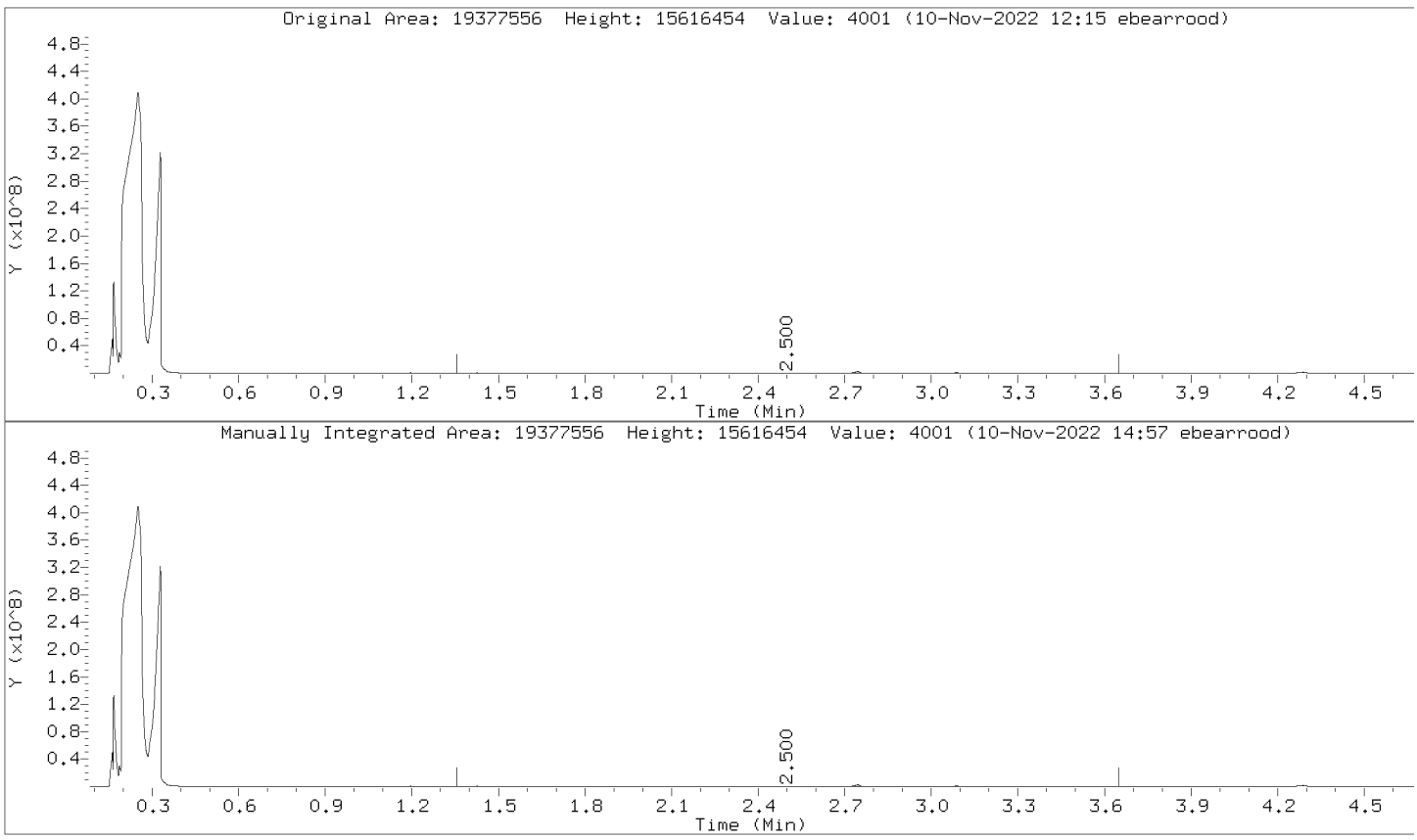
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



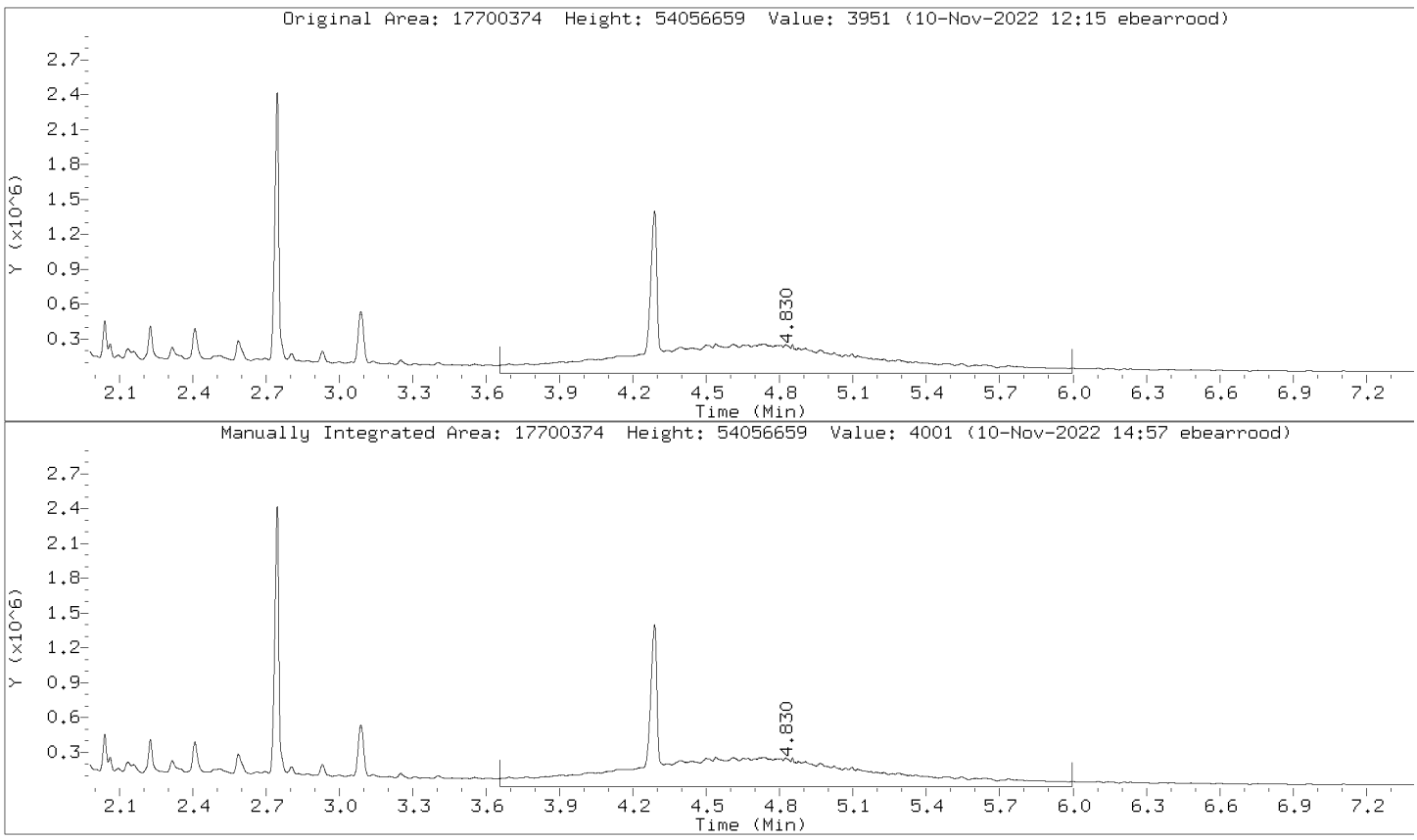
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



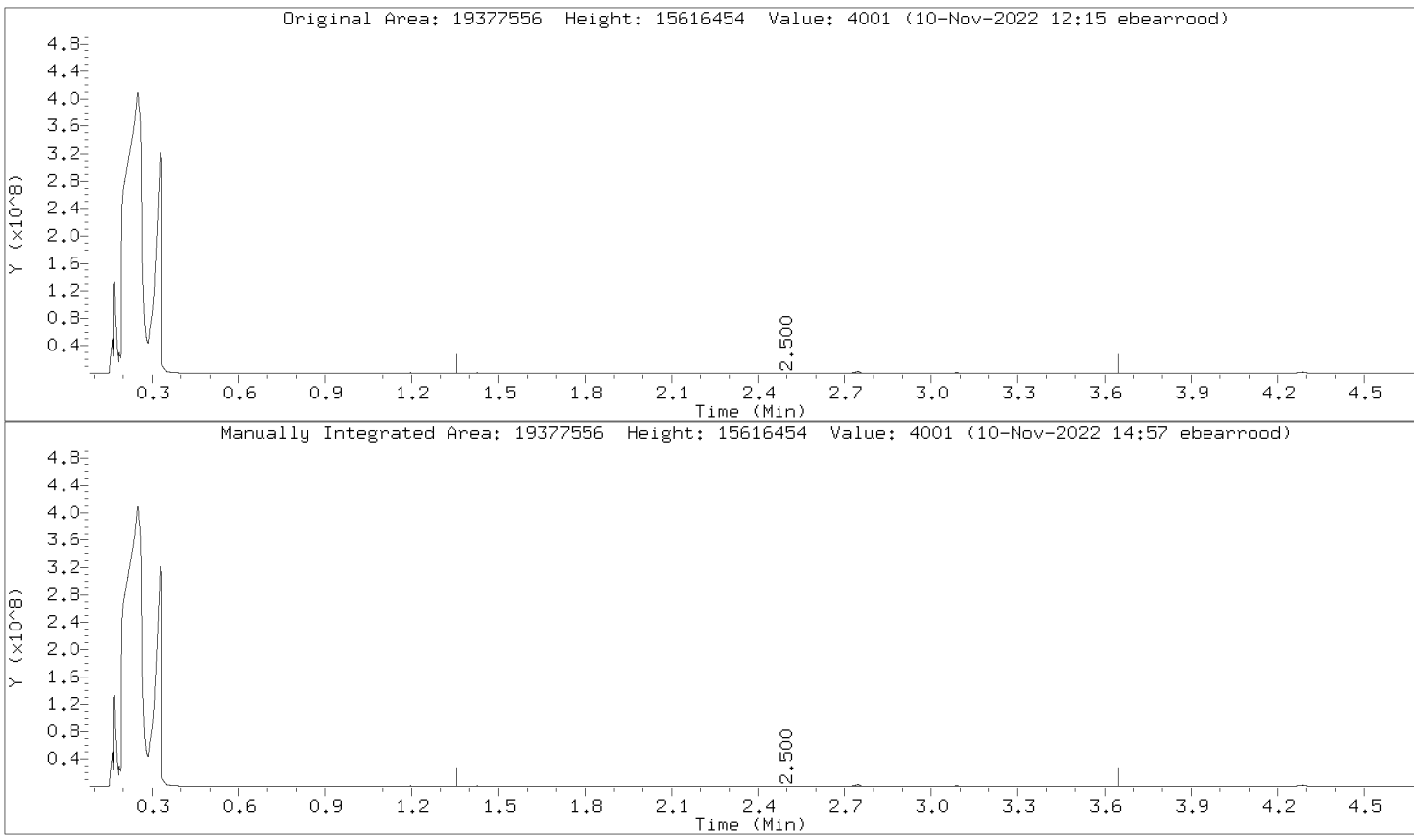
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



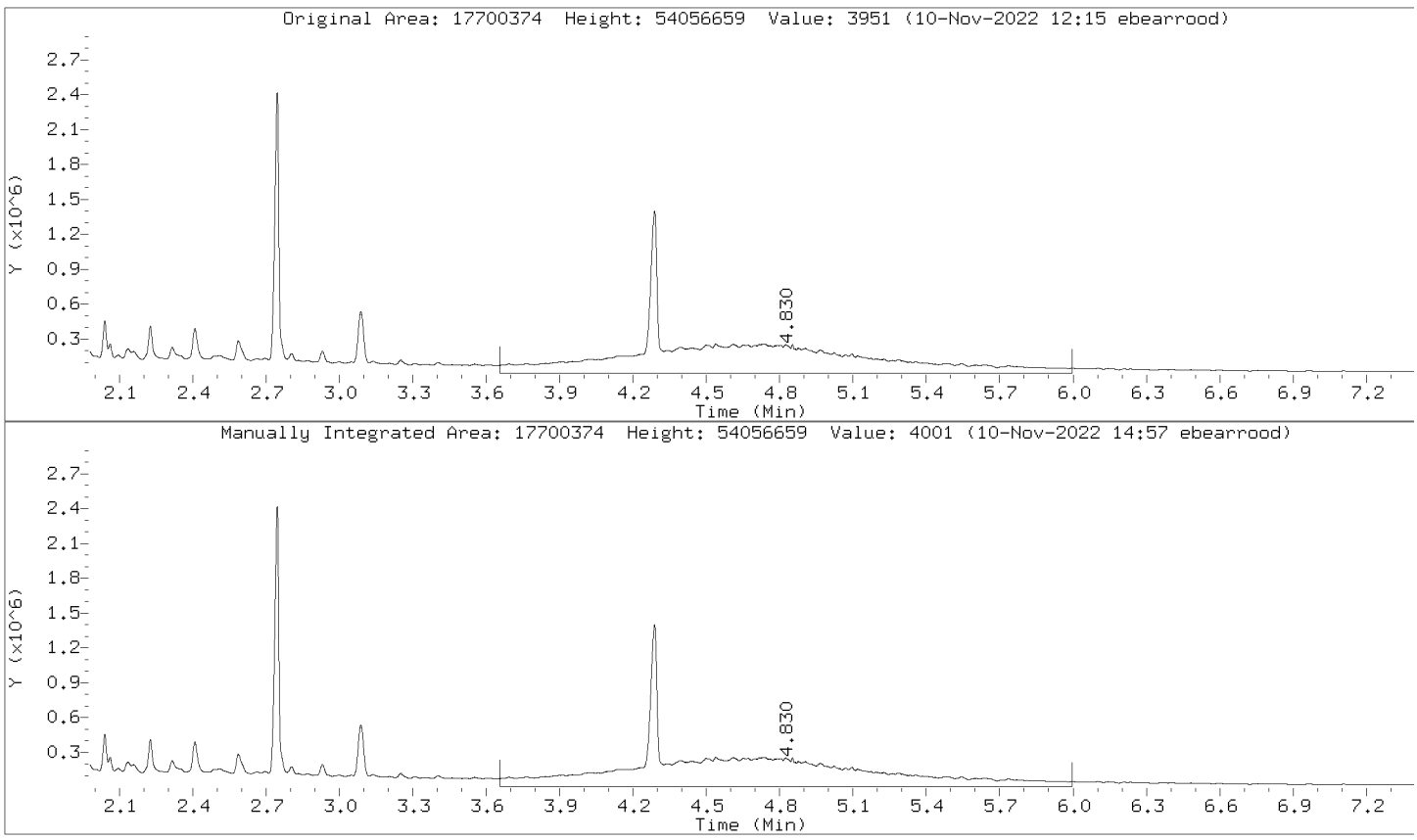
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



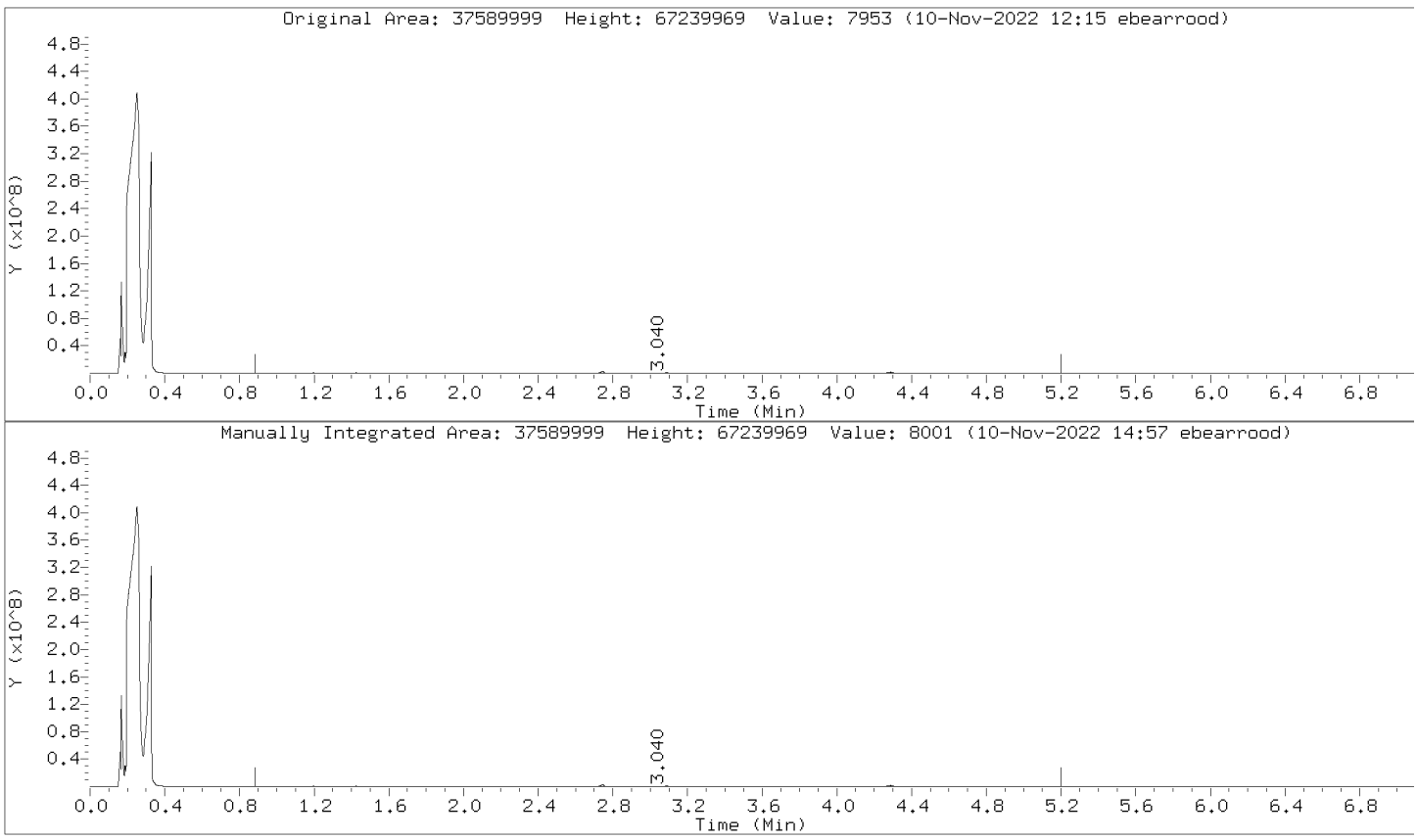
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



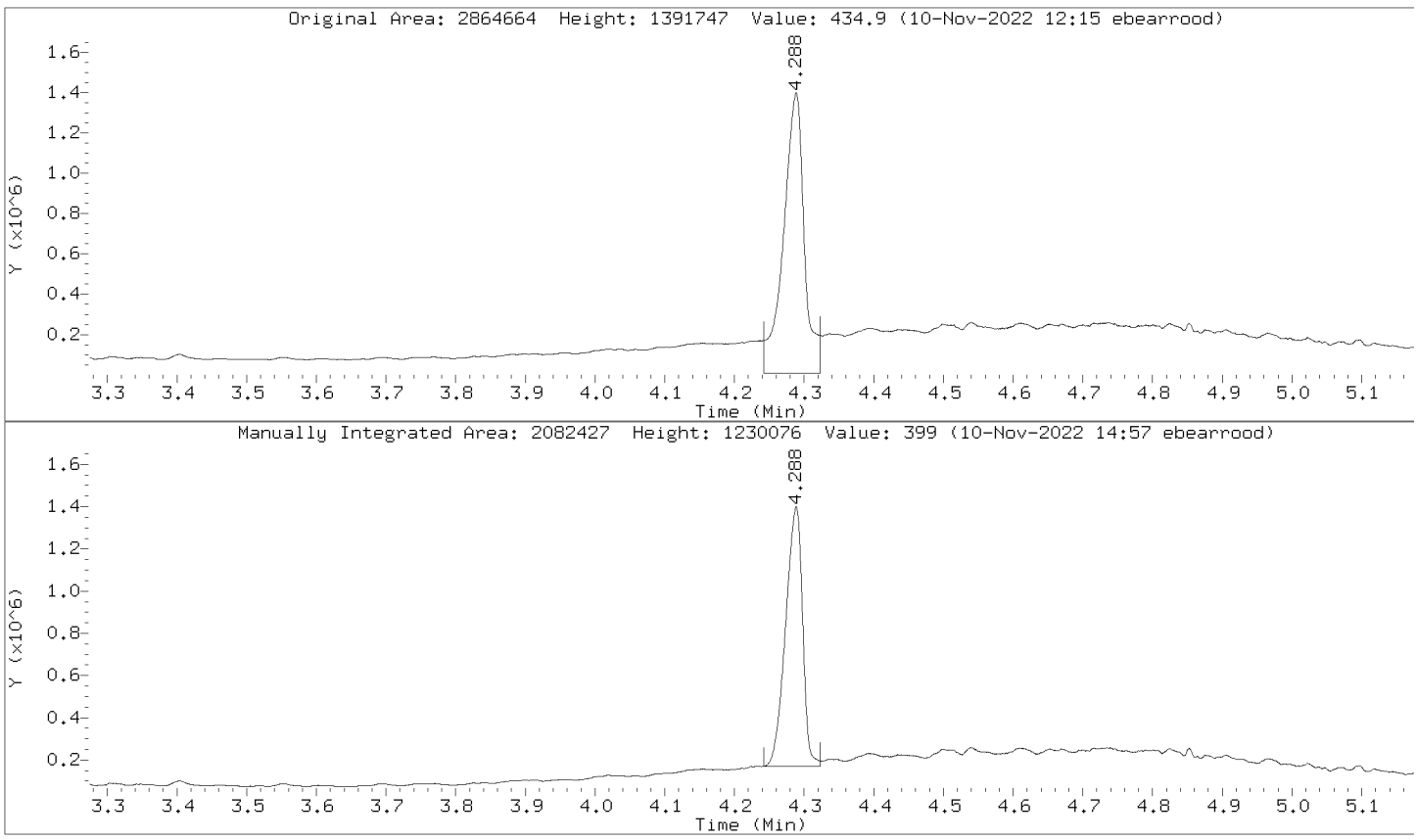
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



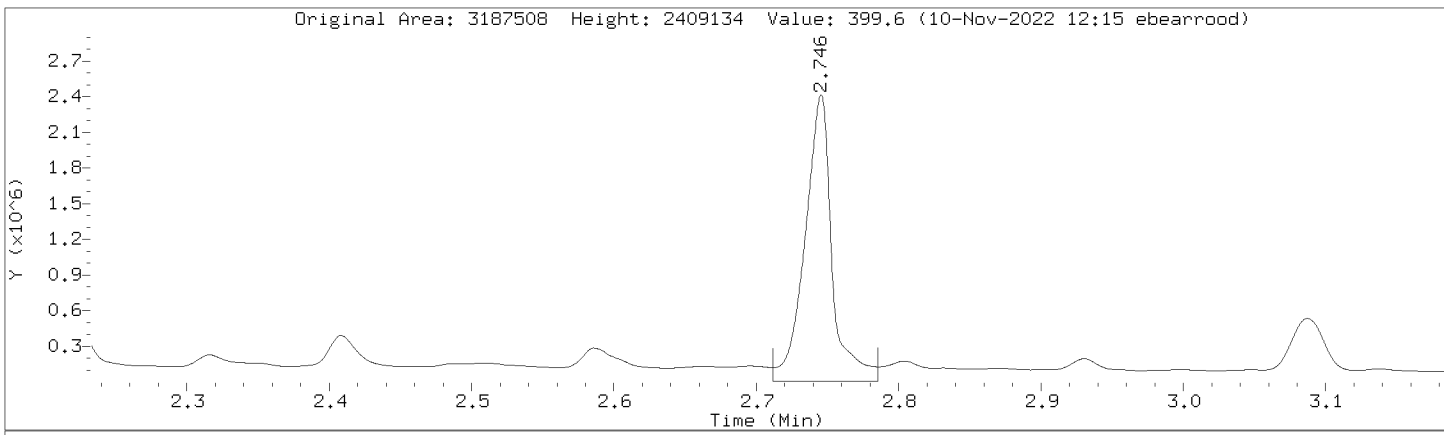
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

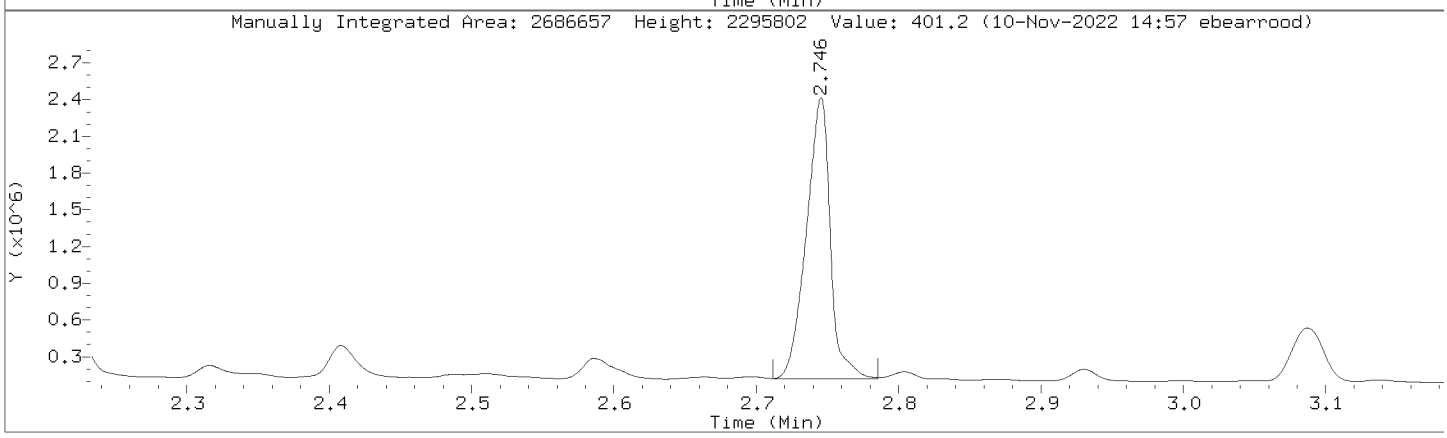
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

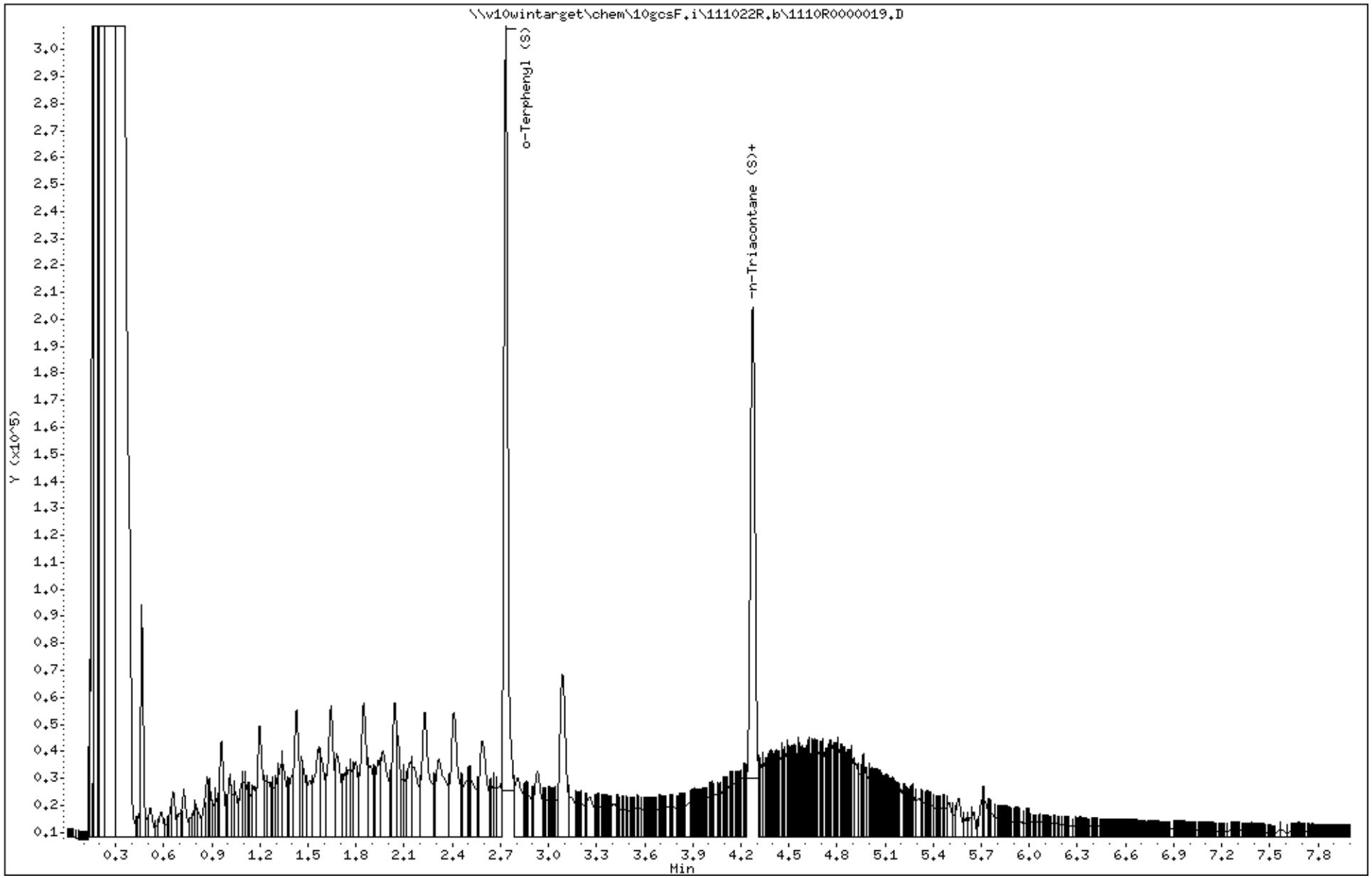
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

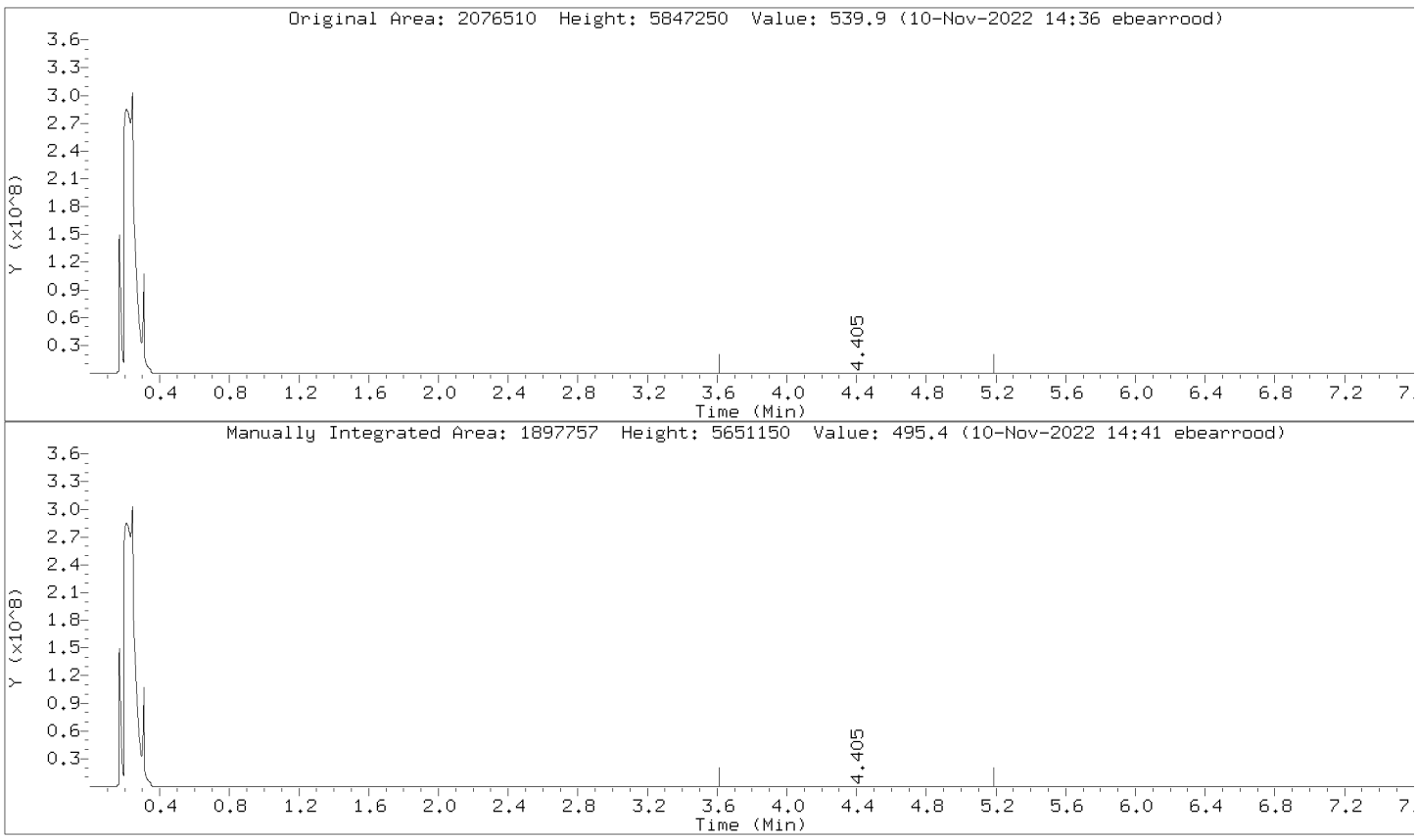
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



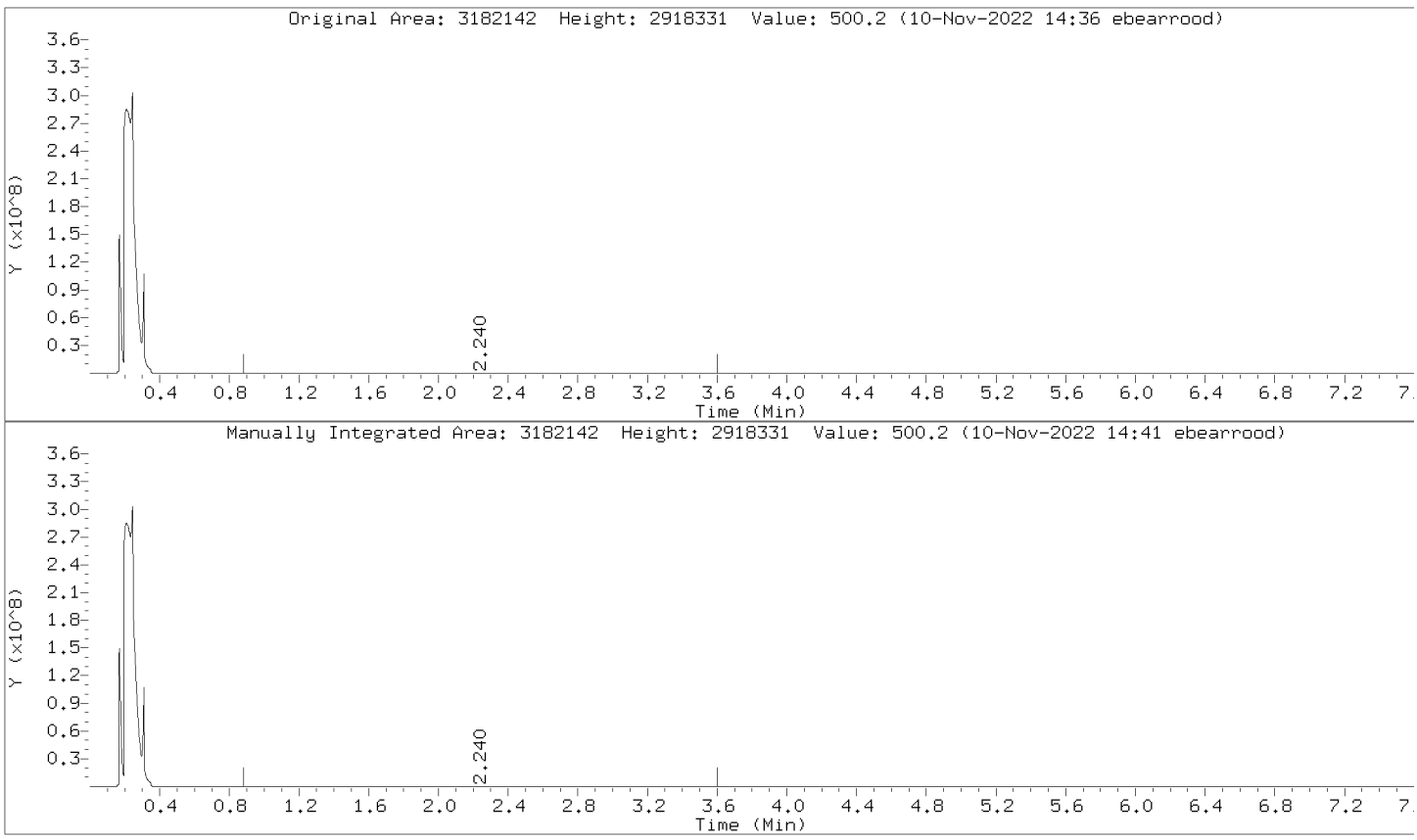
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



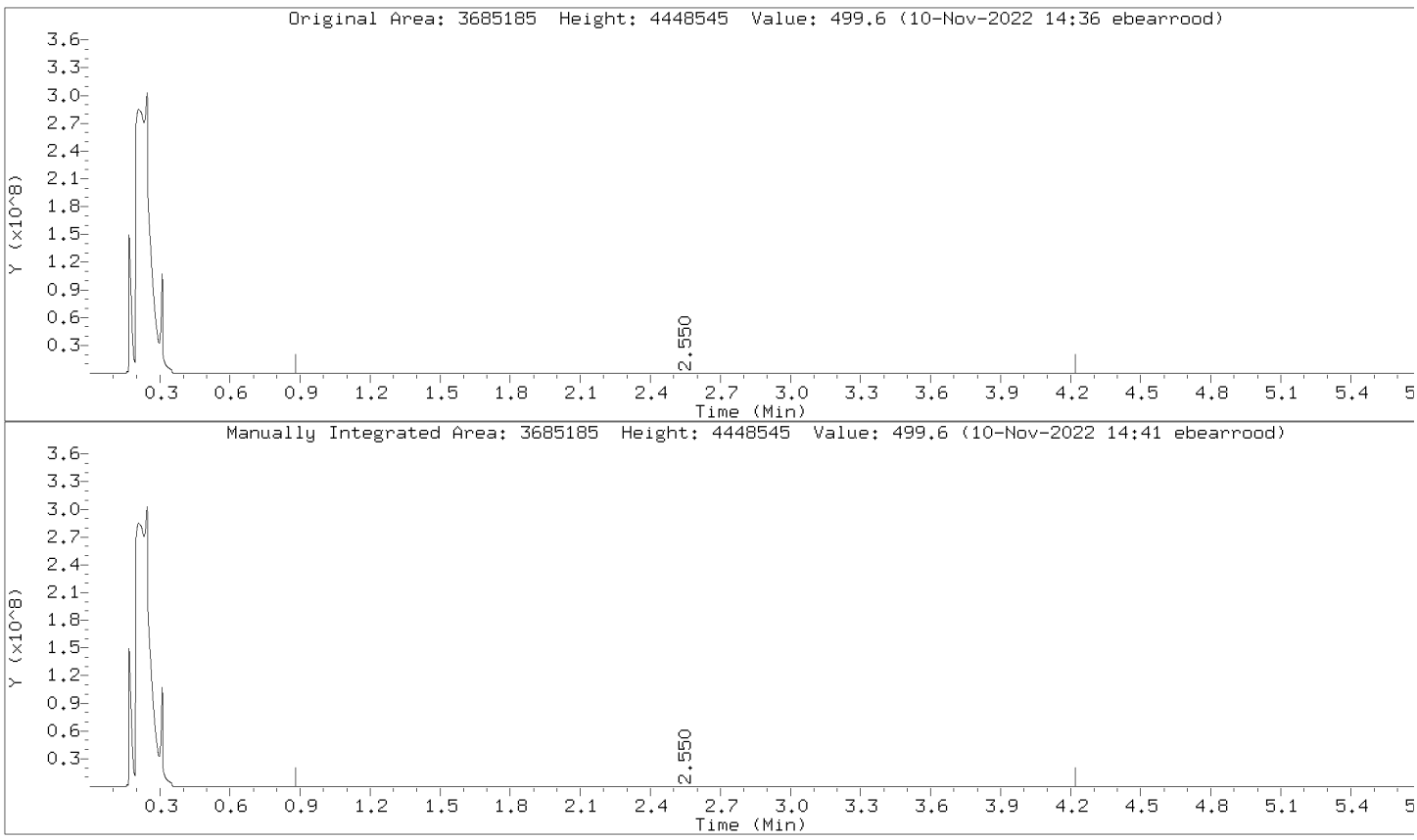
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



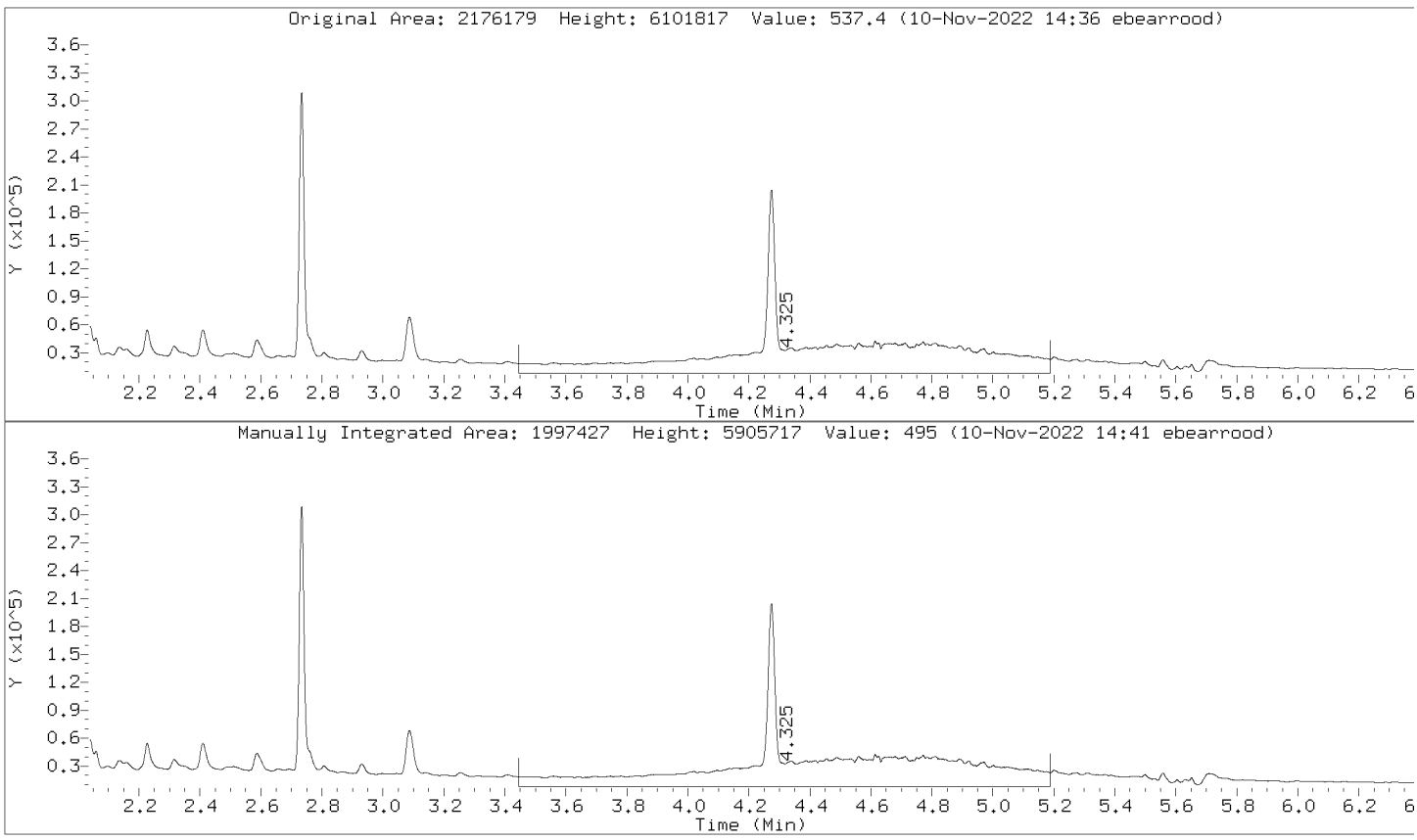
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



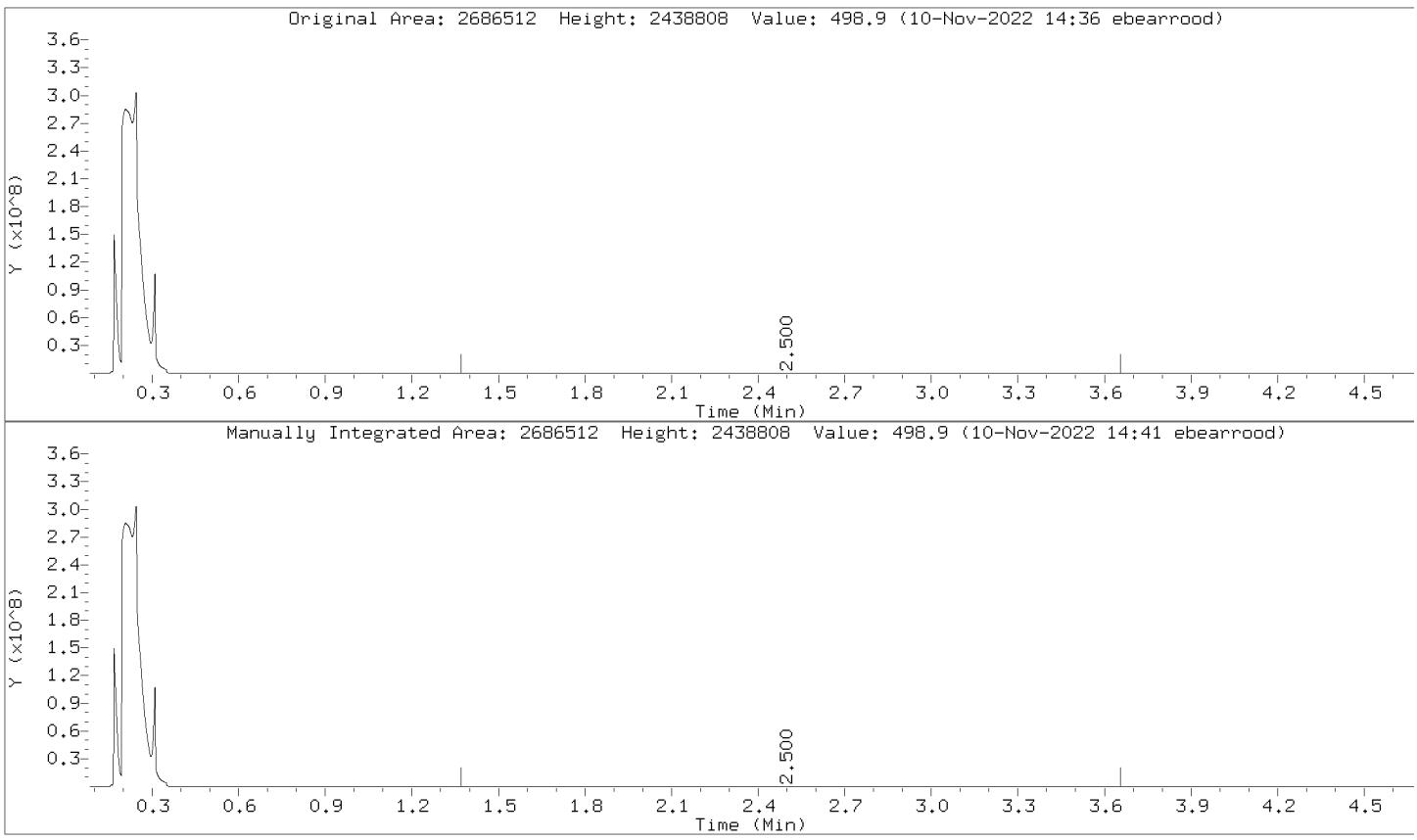
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



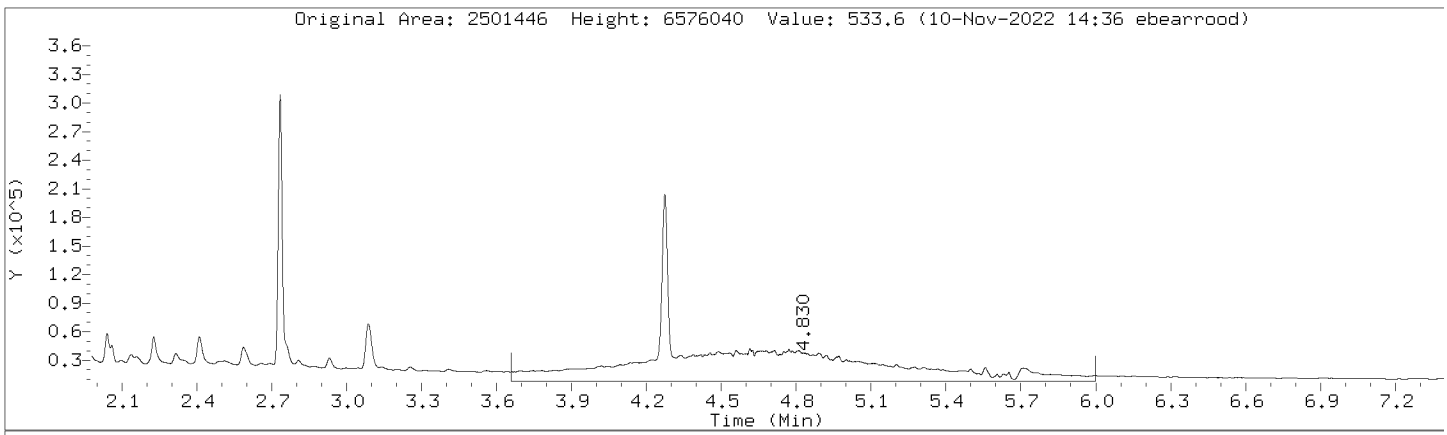
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

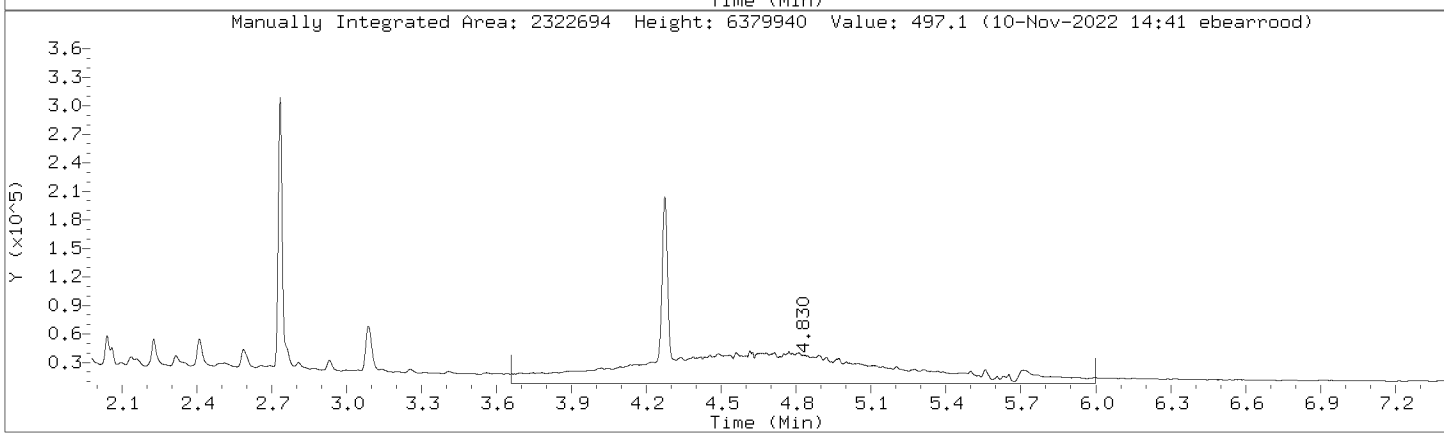
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

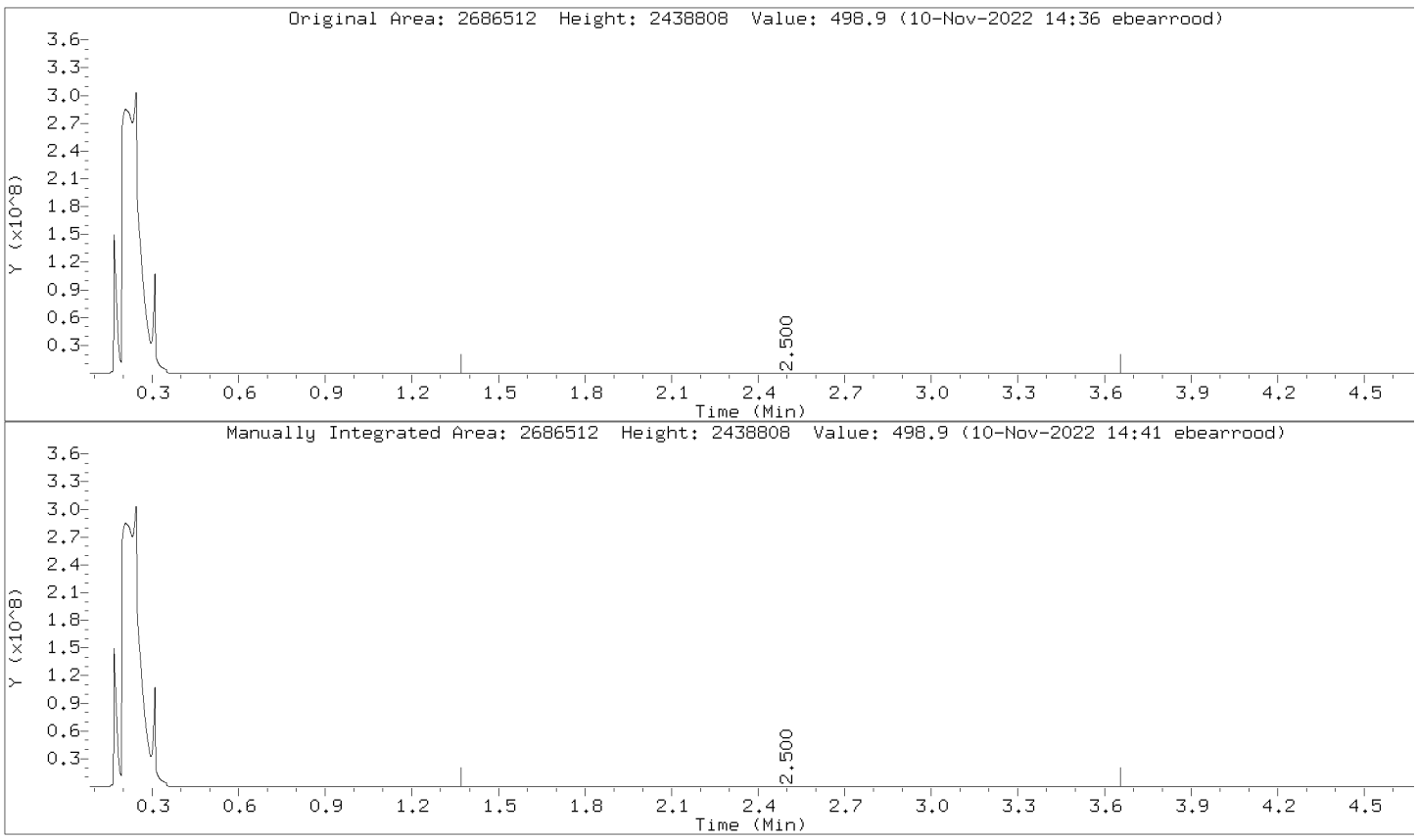
Compound: Motor Oil Range Review Code: RNG
CAS Number:





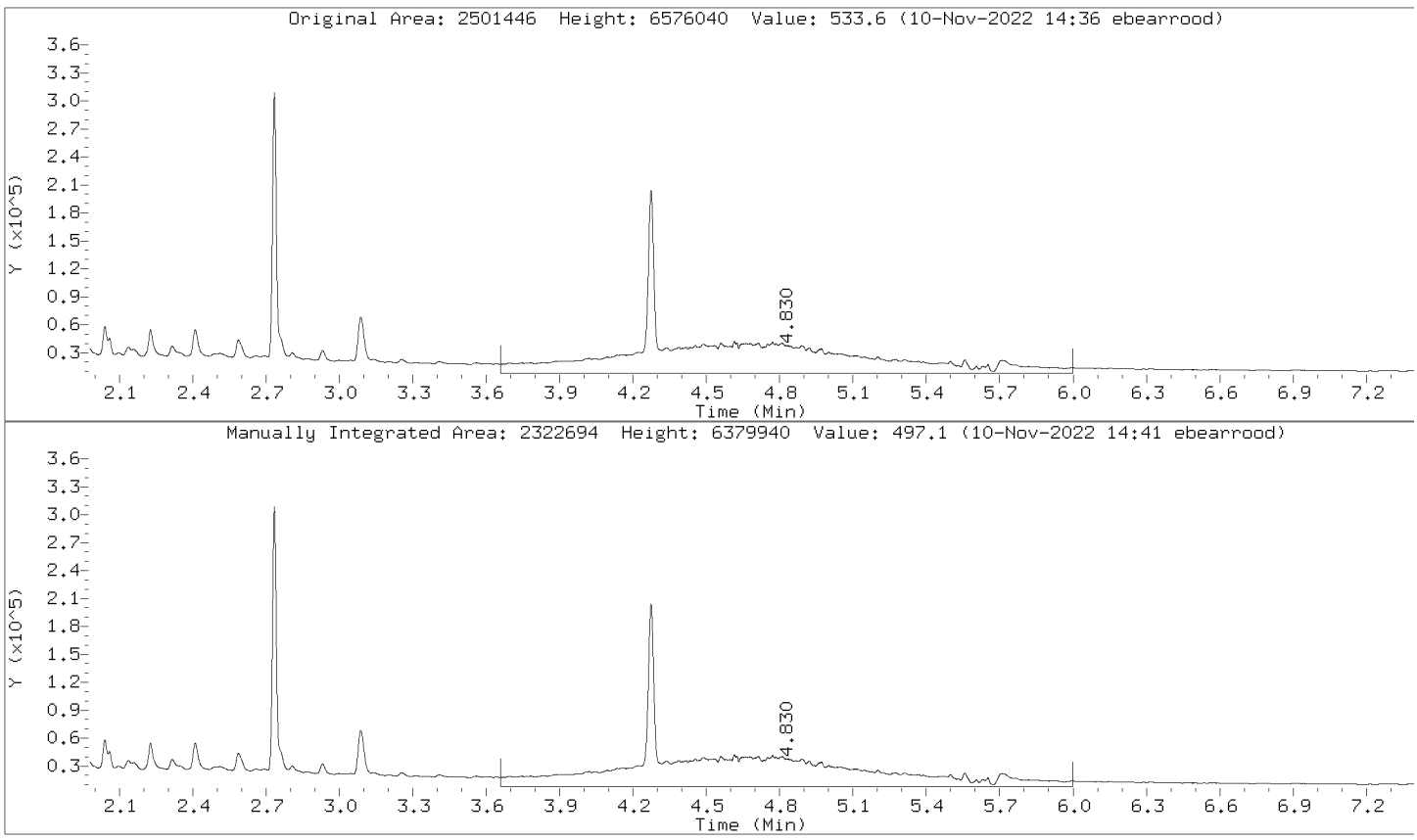
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



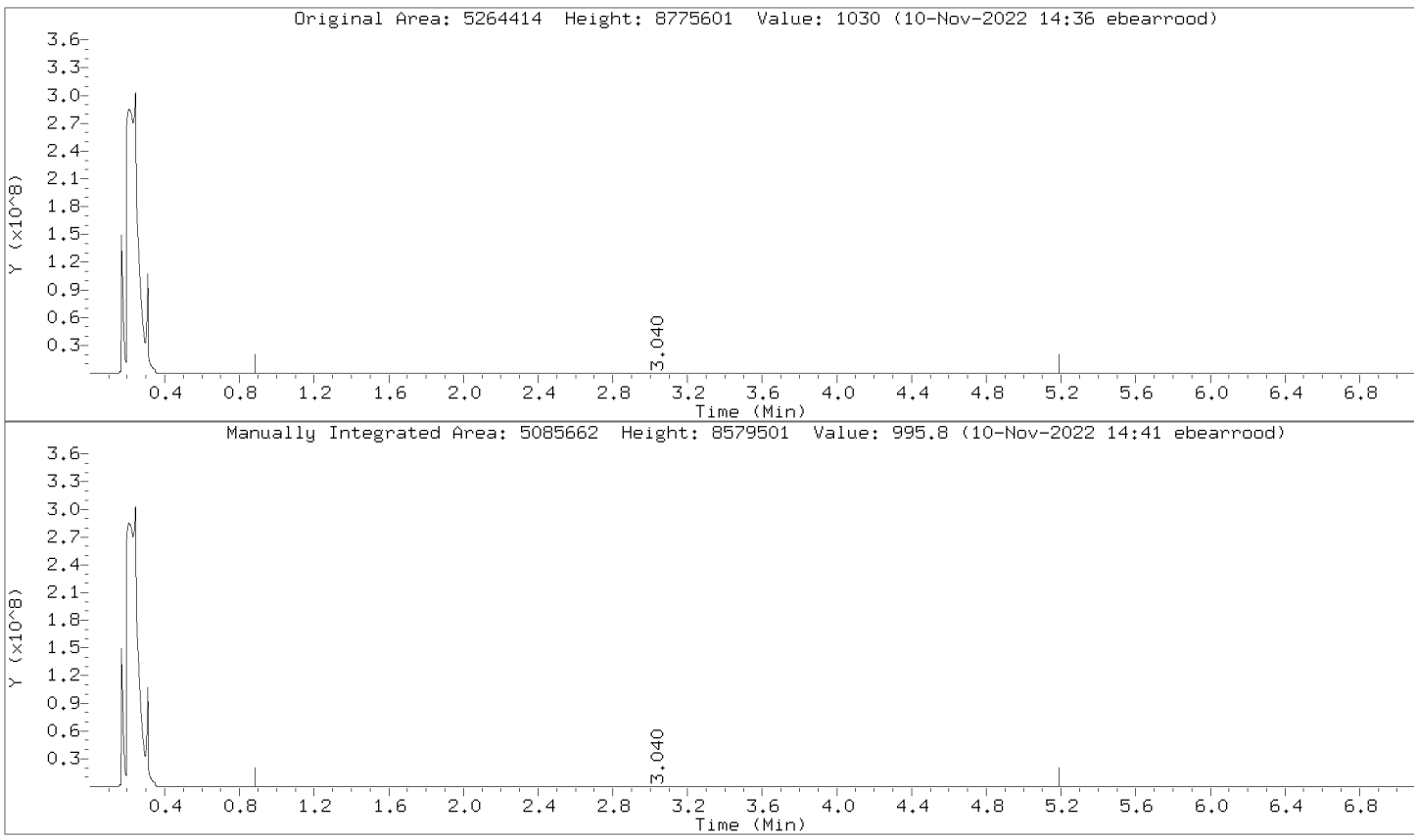
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



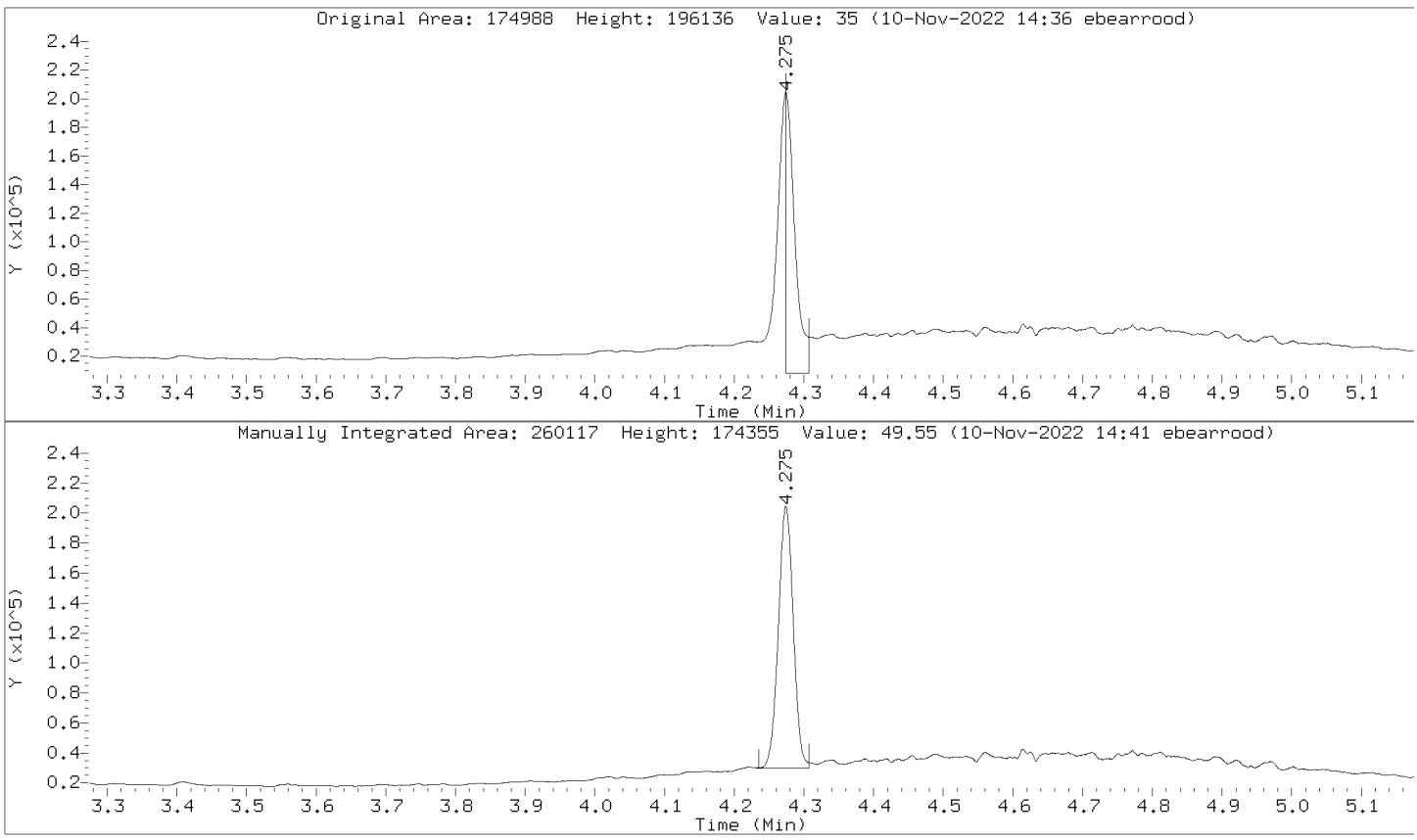
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



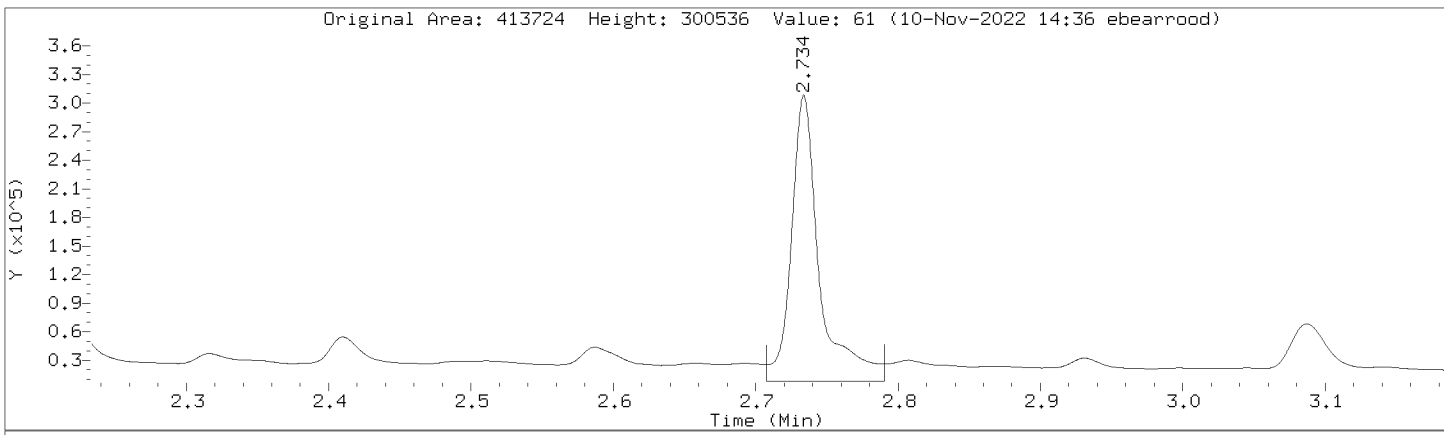
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

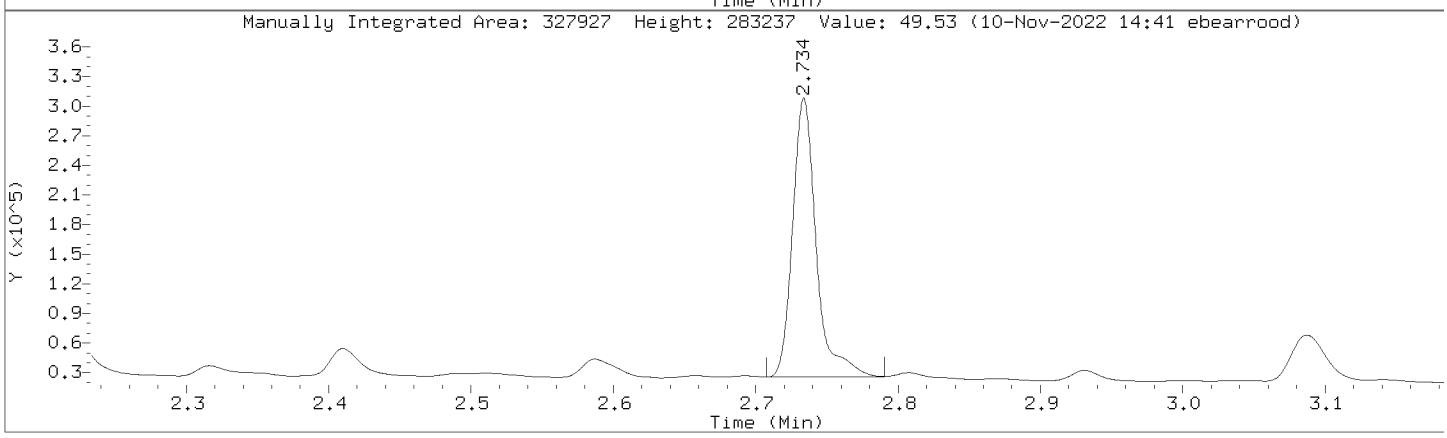
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

SAMPLE NO.

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

31472811ICV

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632888

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

31496997CCV

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 15:20

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000025C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632888

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	489.1500	0.0100	-2.1700	15.0000
Motor Oil Range	Linear	500	492.5002	0.0100	-1.5000	15.0000
n-Triacontane (S)	Linear	50	48.39756	0.0100	-3.2049	15.0000
o-Terphenyl (S)	Linear	50	48.83302	0.0100	-2.3339	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

31496998CCV

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/11/2022 Time: 16:51

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111122R.B\1111R0000033C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10632888

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	493.8546	0.0100	-1.2291	15.0000
Motor Oil Range	Linear	500	543.3317	0.0100	8.6663	15.0000
n-Triacontane (S)	Linear	50	49.66160	0.0100	-0.6768	15.0000
o-Terphenyl (S)	Linear	50	49.69882	0.0100	-0.6024	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880	- 3.600		3247087	500.000	512	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610	- 5.200		1975744	500.000	517	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880	- 4.219		3761077	500.000	511	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450	- 5.200		2073788	500.000	515	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350	- 3.650		2743983	500.000	511	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350	- 3.650		2743983	500.000	511	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660	- 6.000		2398484	500.000	514	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

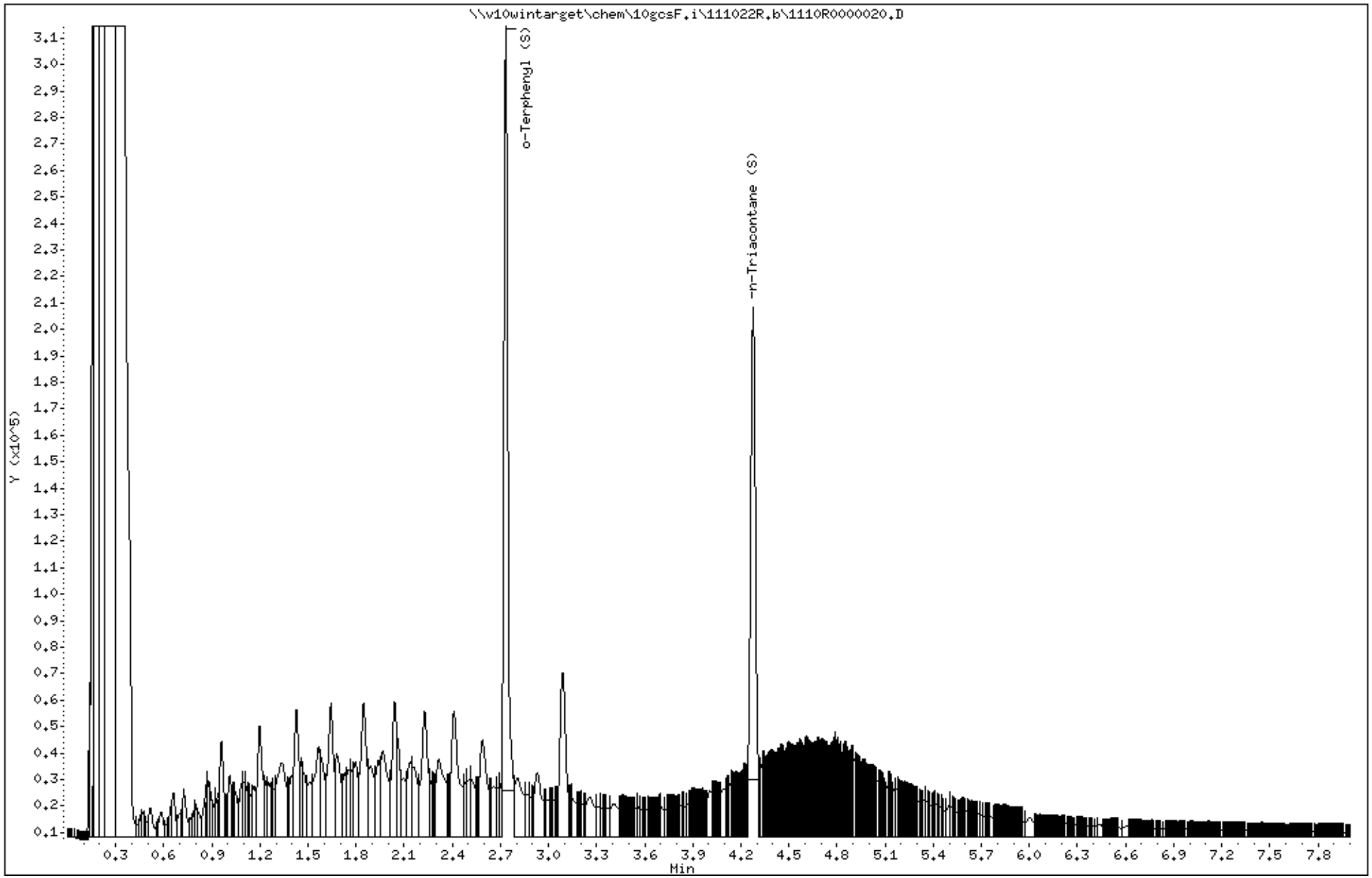
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

Column phase: DB-5-US21130002

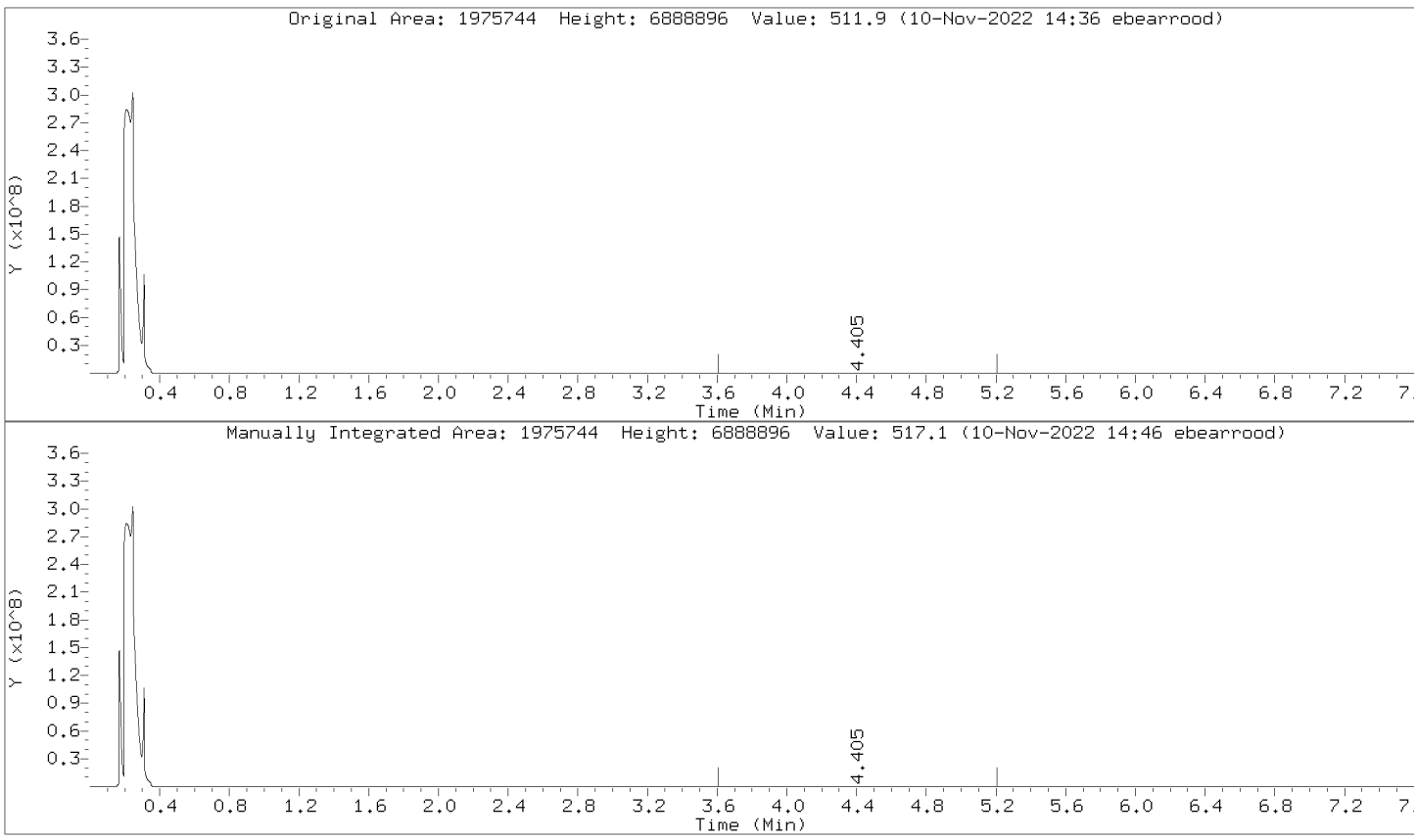
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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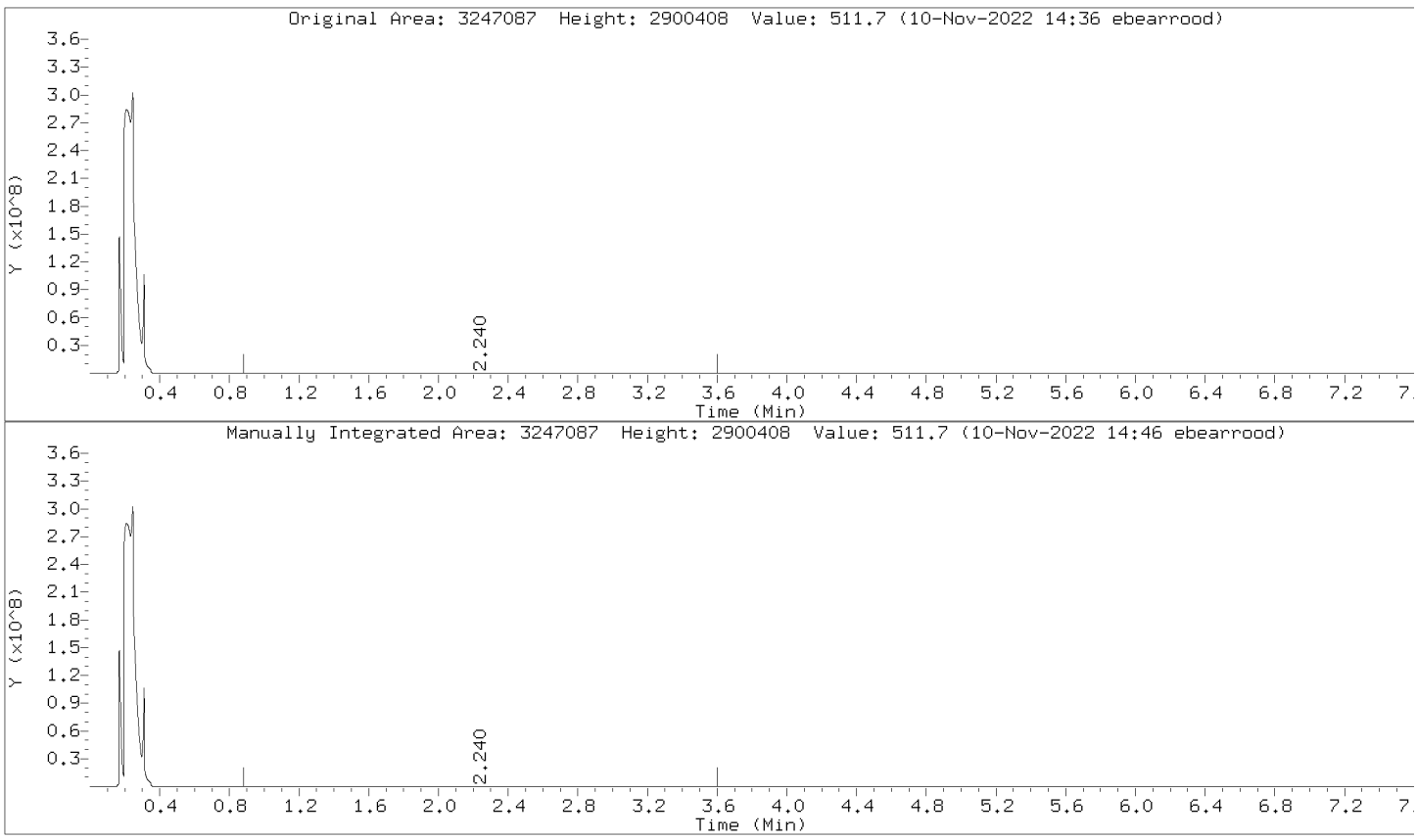
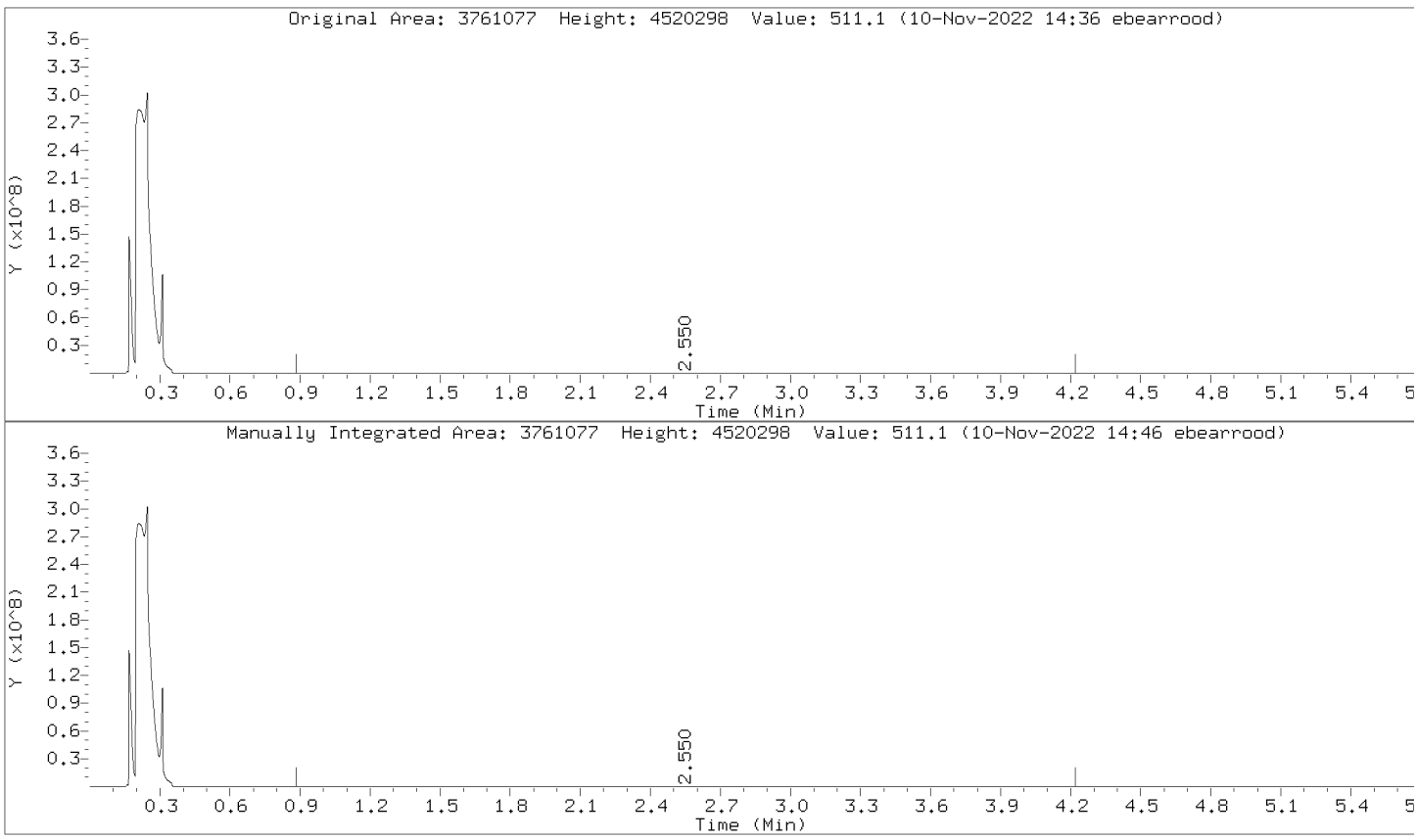
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



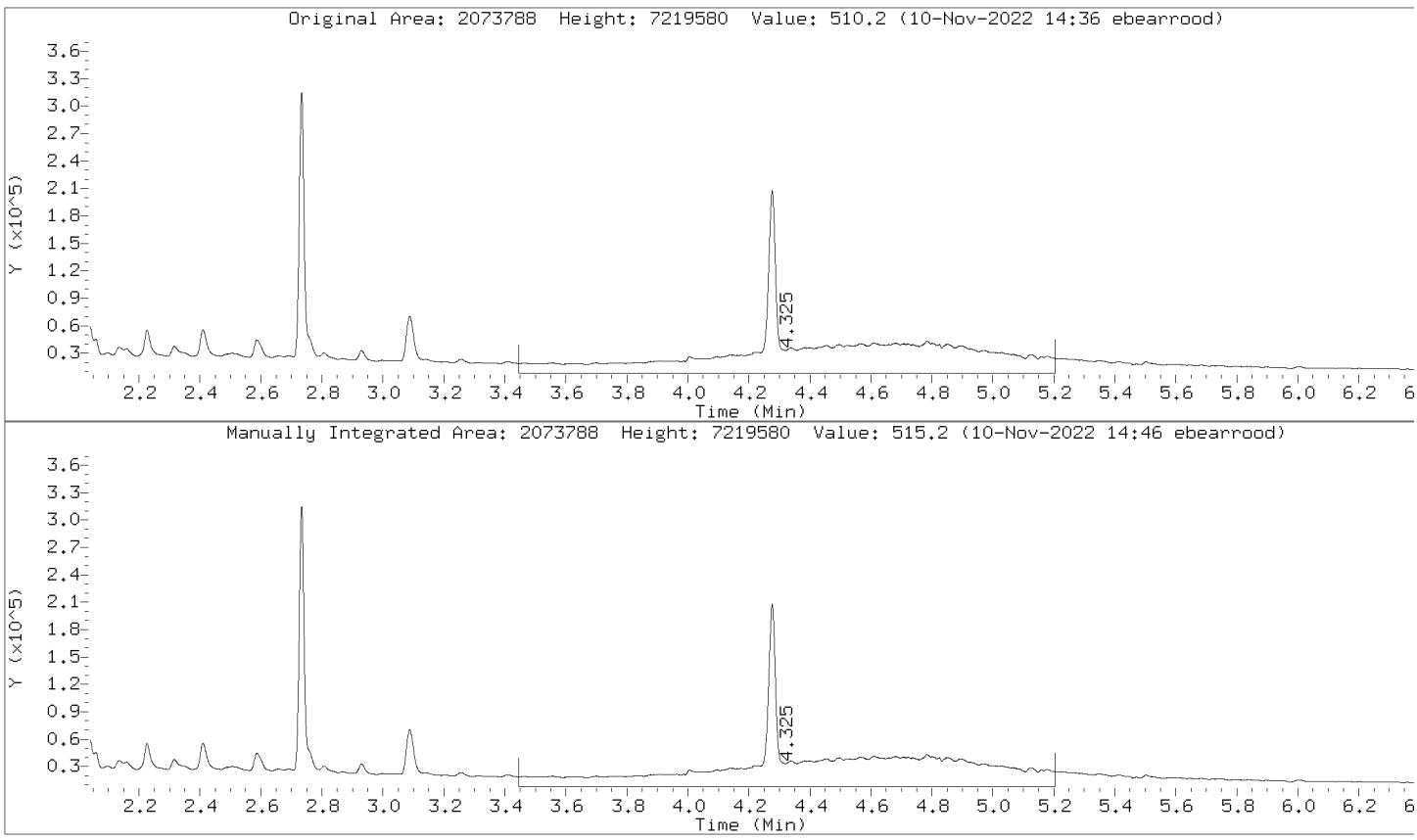
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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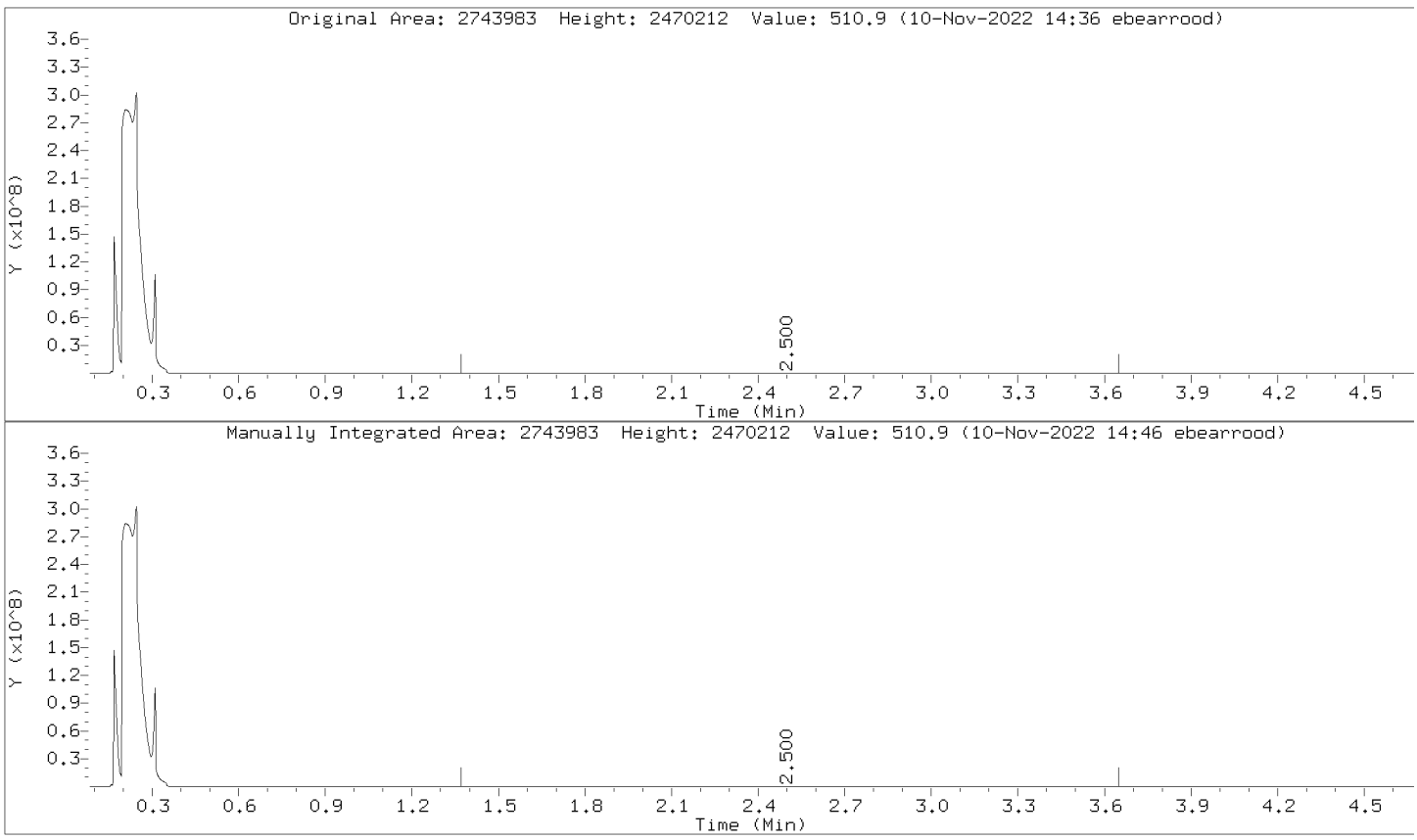
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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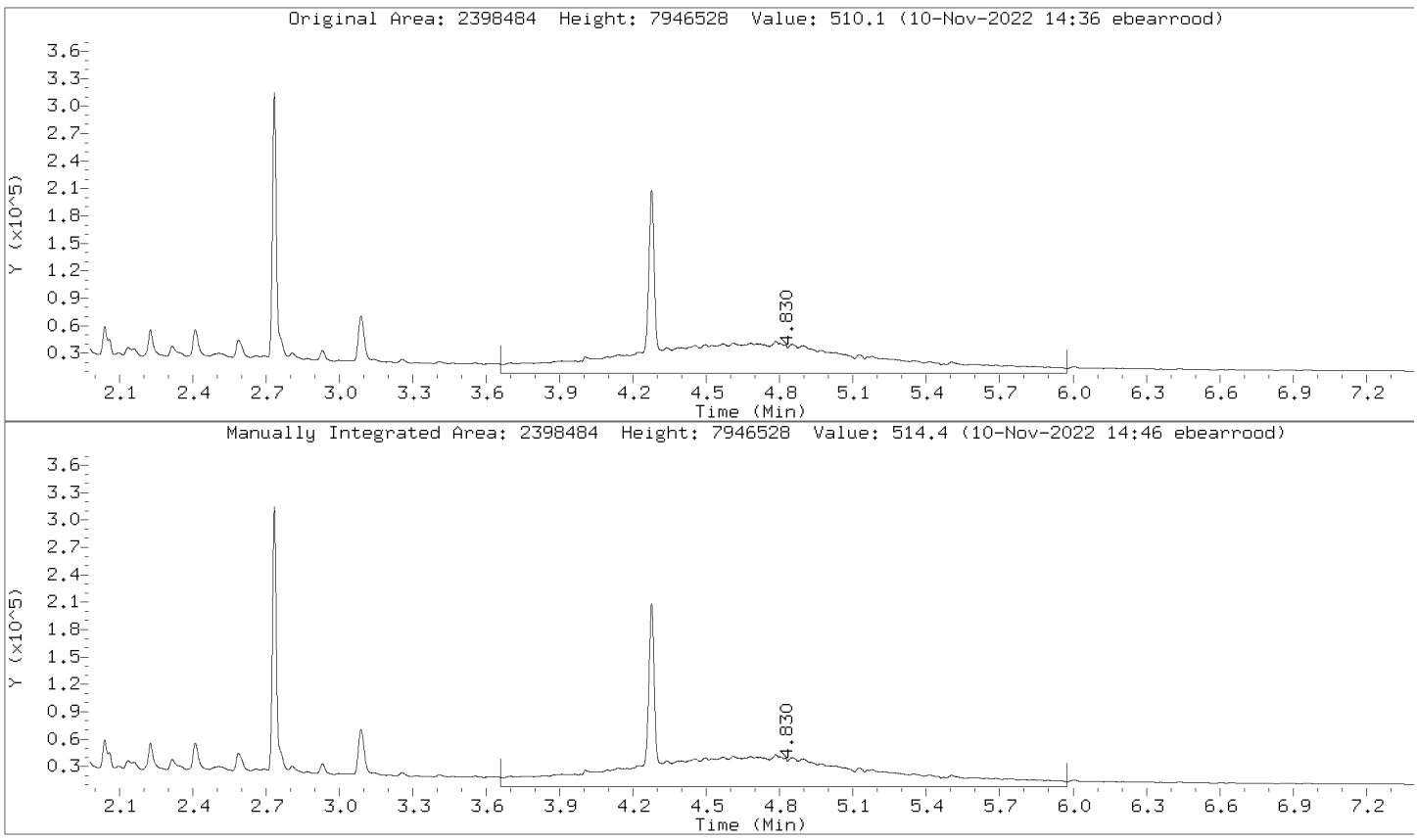
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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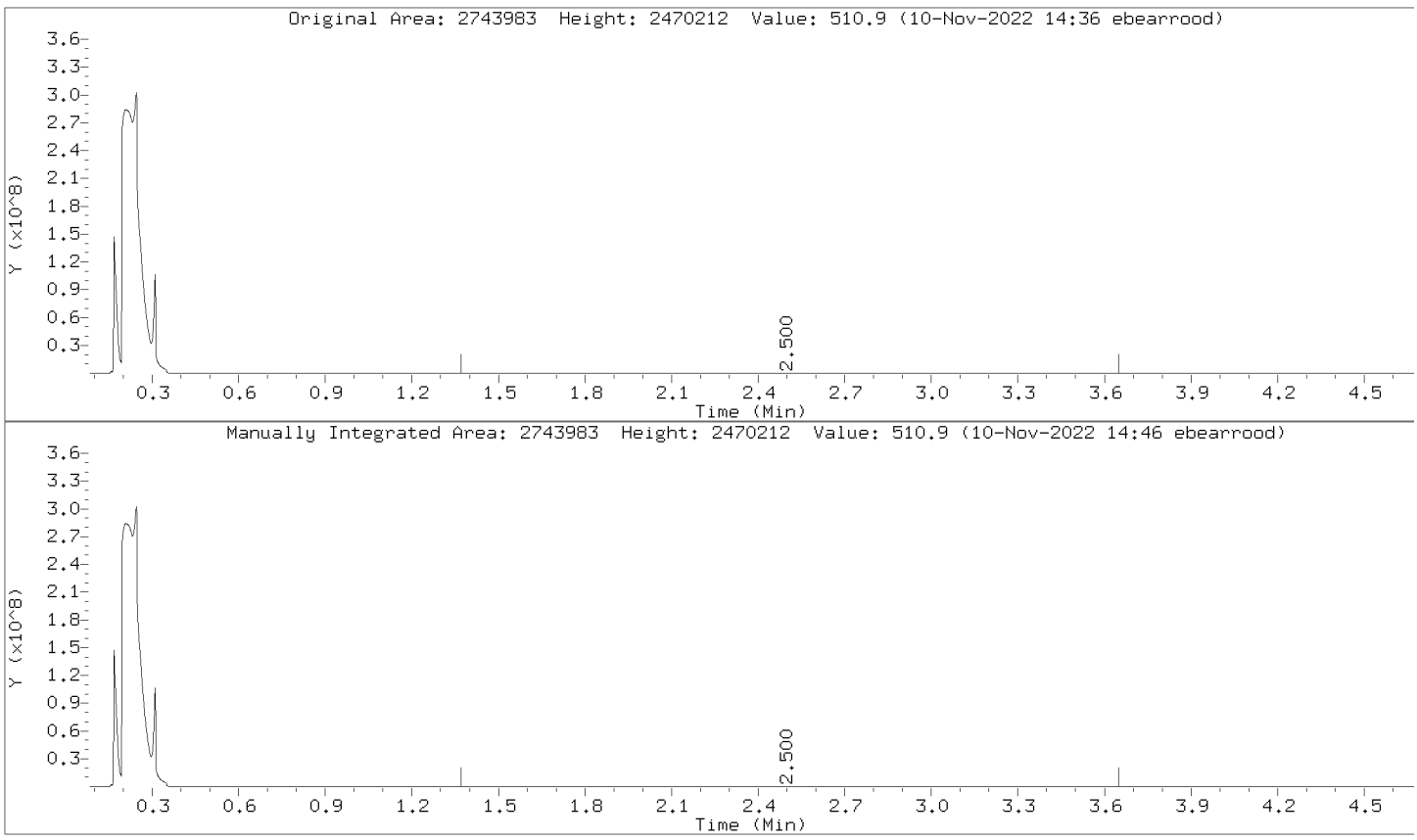
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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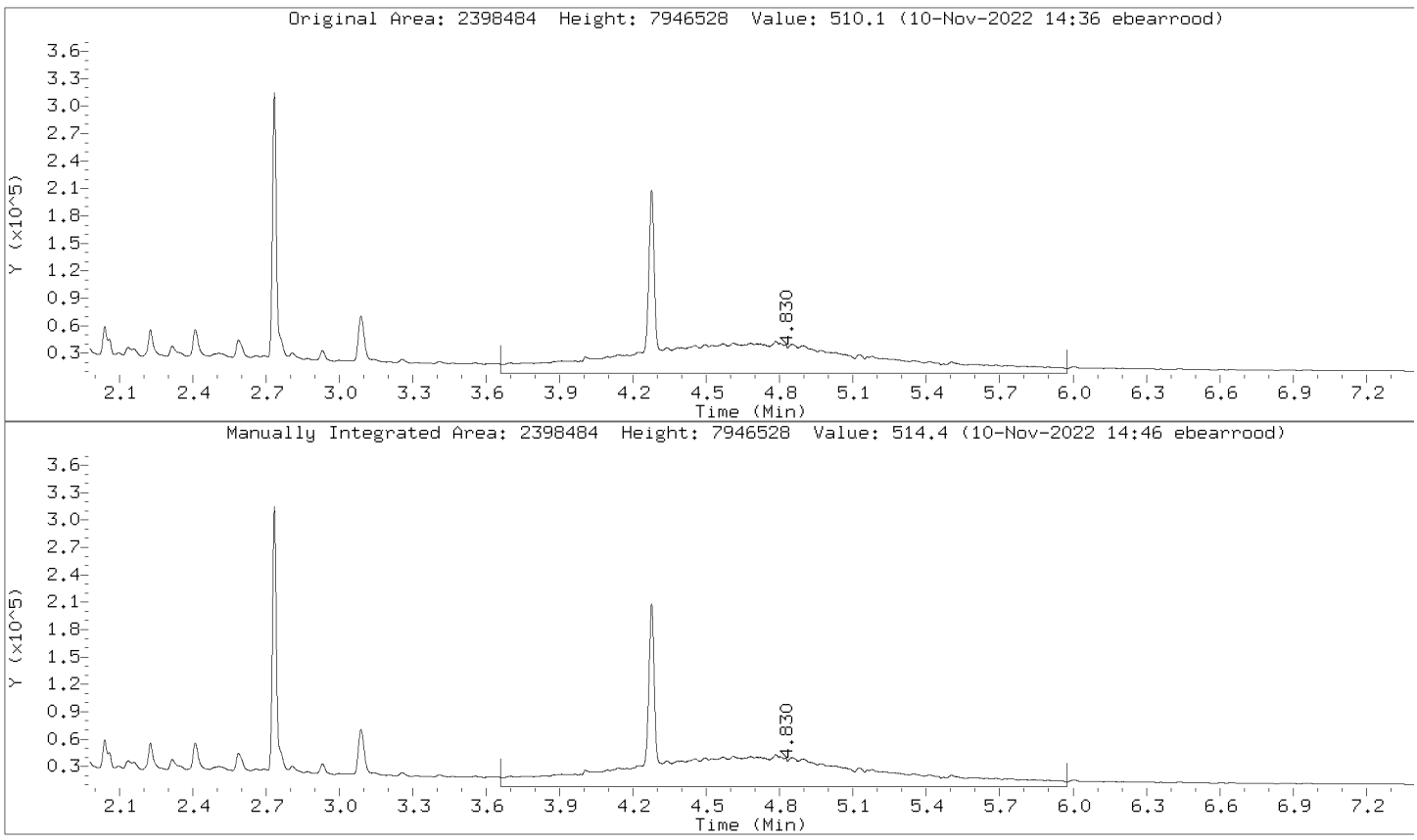
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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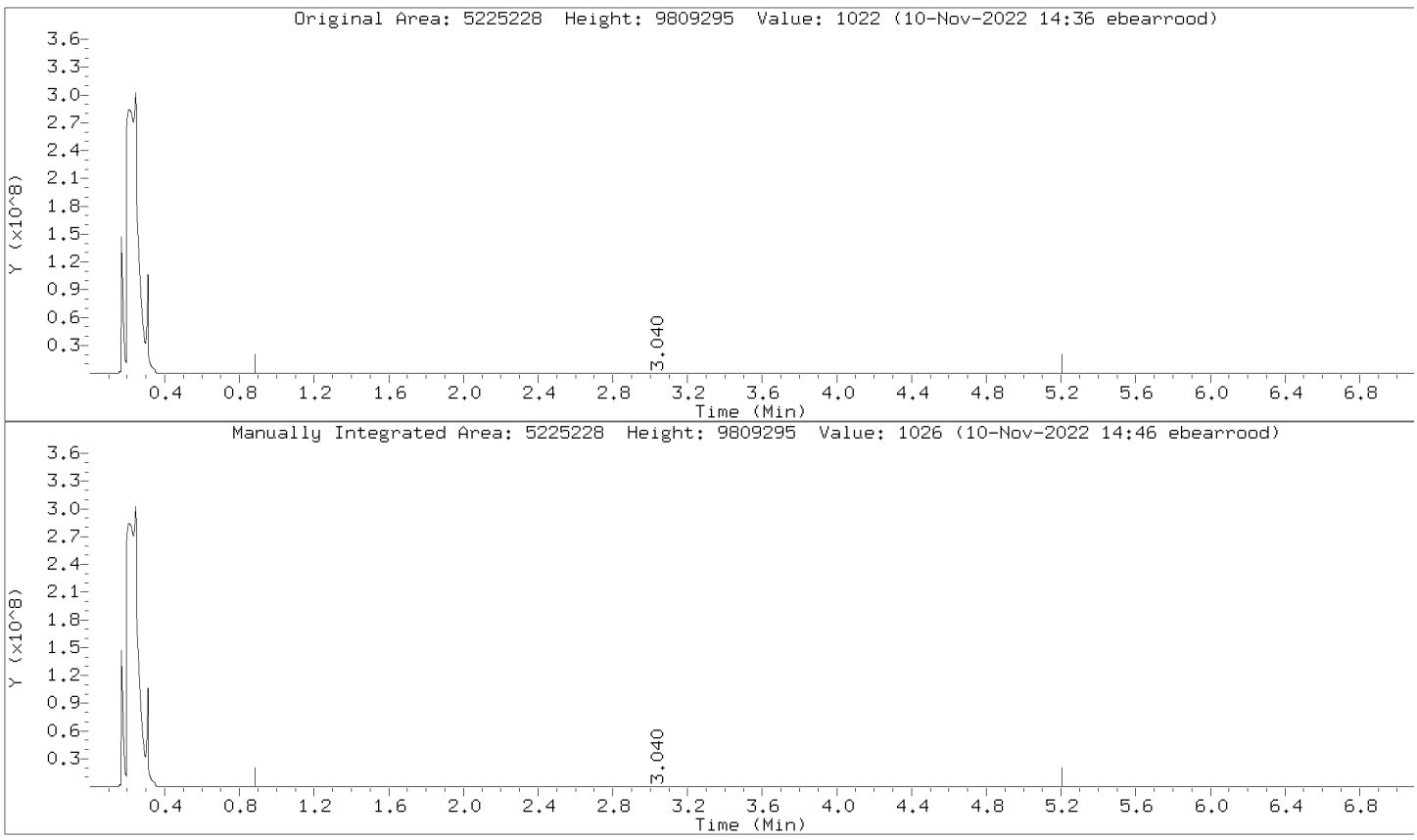
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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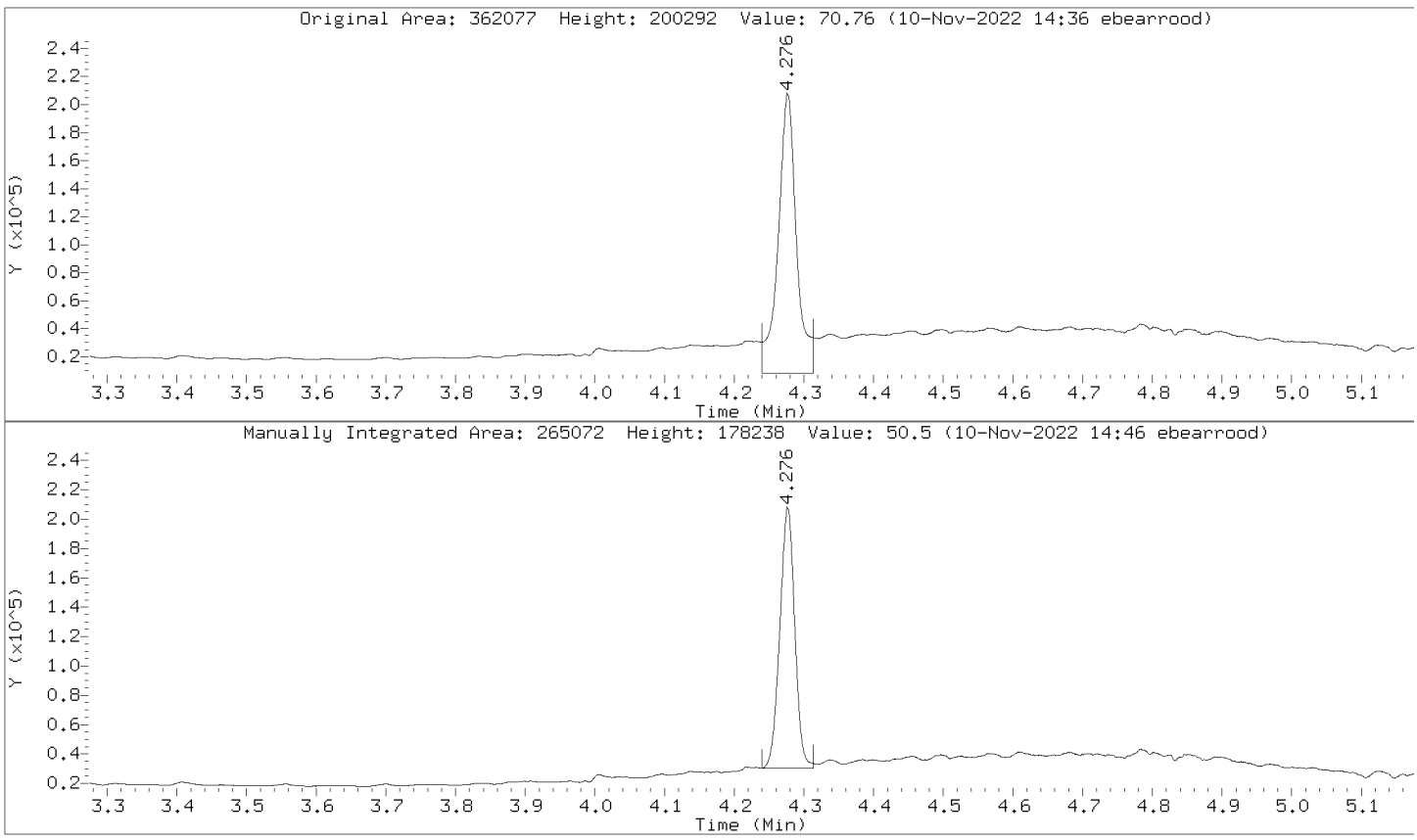
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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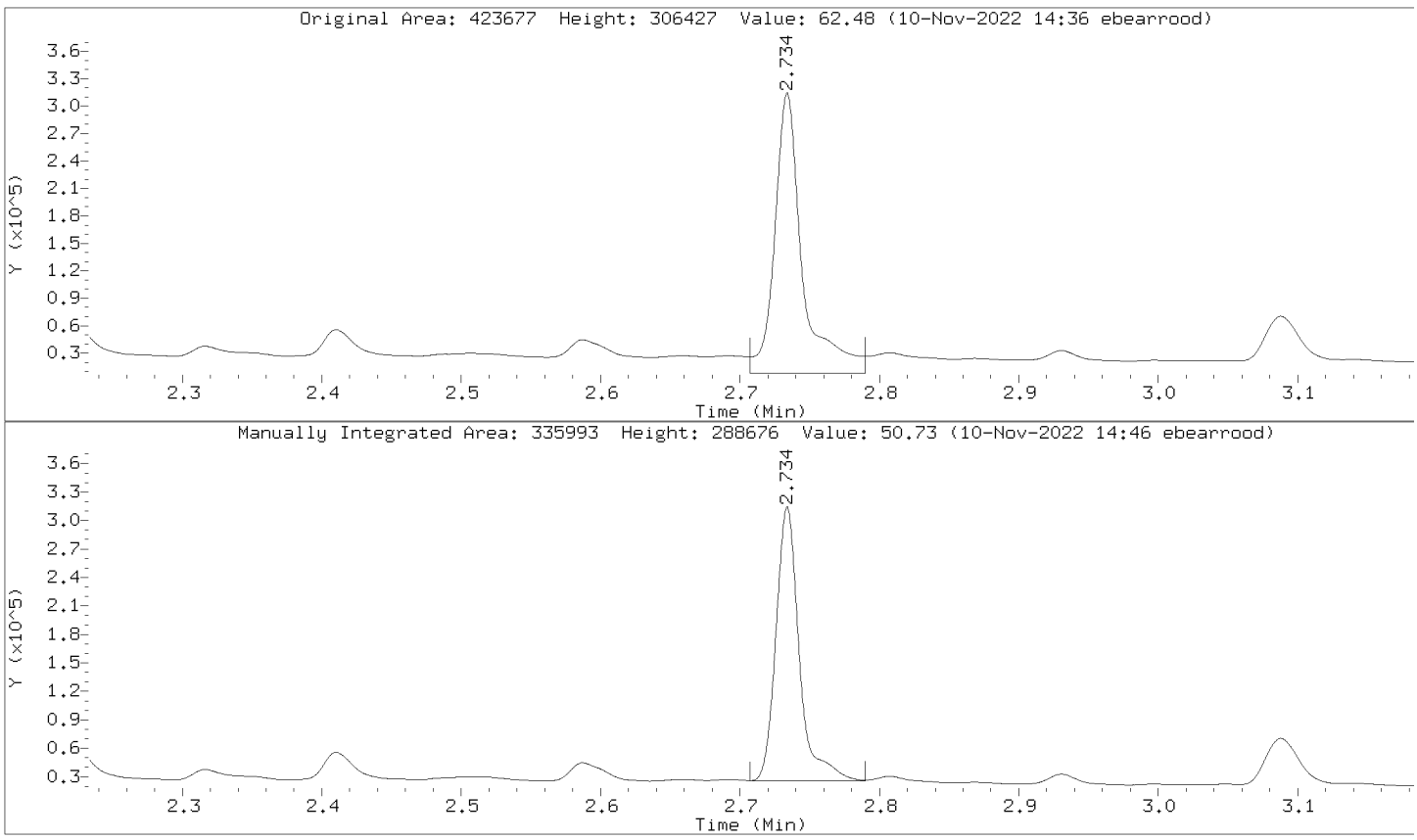
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000025C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 15:20
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3105257	500.000	487	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	323262	50.0000	48.8	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.276	4.274	0.002	254083	50.0000	48.4	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1892292	500.000	494	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		3583545	500.000	484	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1992618	500.000	494	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5007436	1000.00	979	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2640083	500.000	489	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2640083	500.000	489	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2302441	500.000	492	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2302441	500.000	492	(M)	RNG

QC Flag Legend

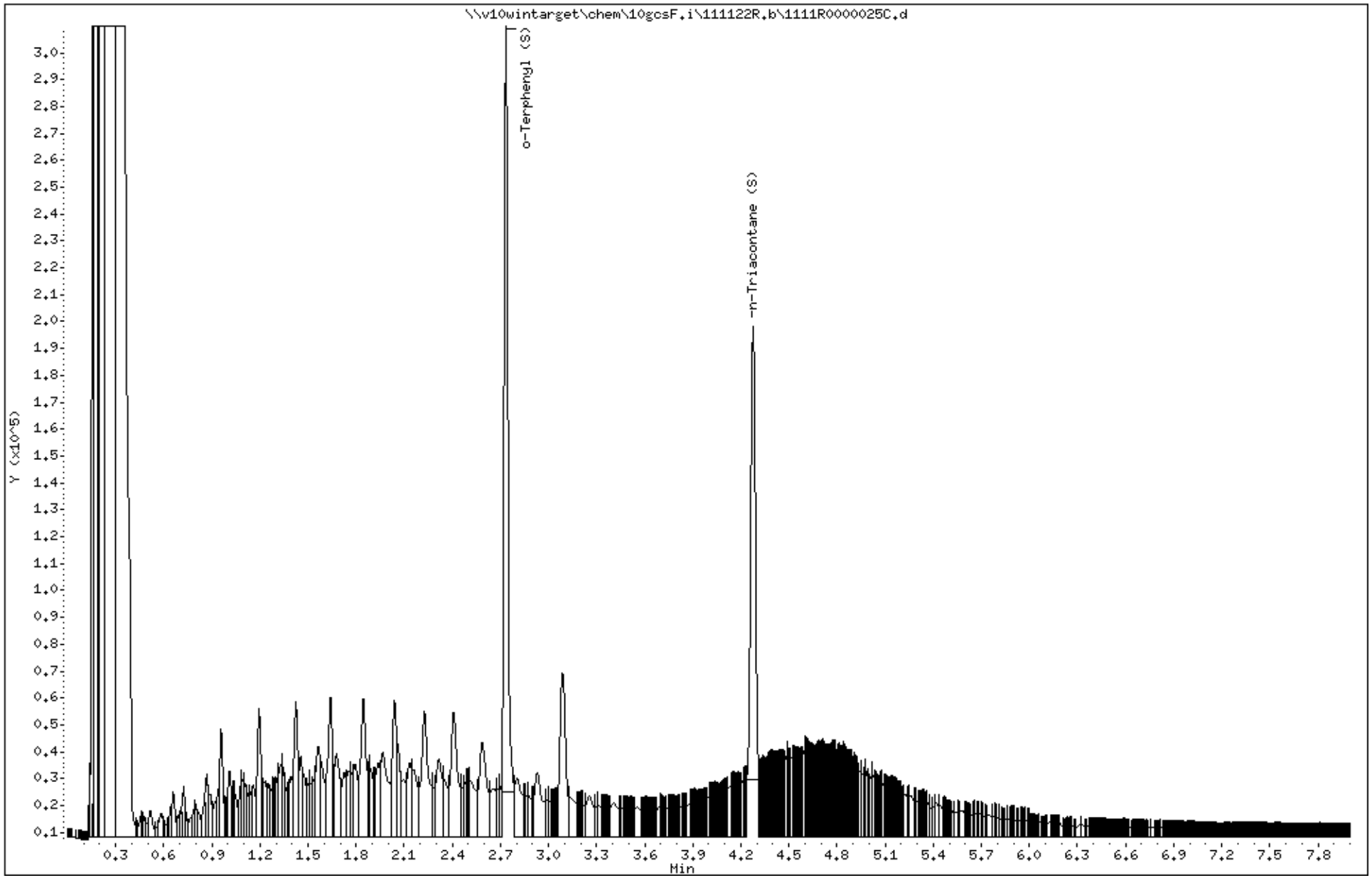
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

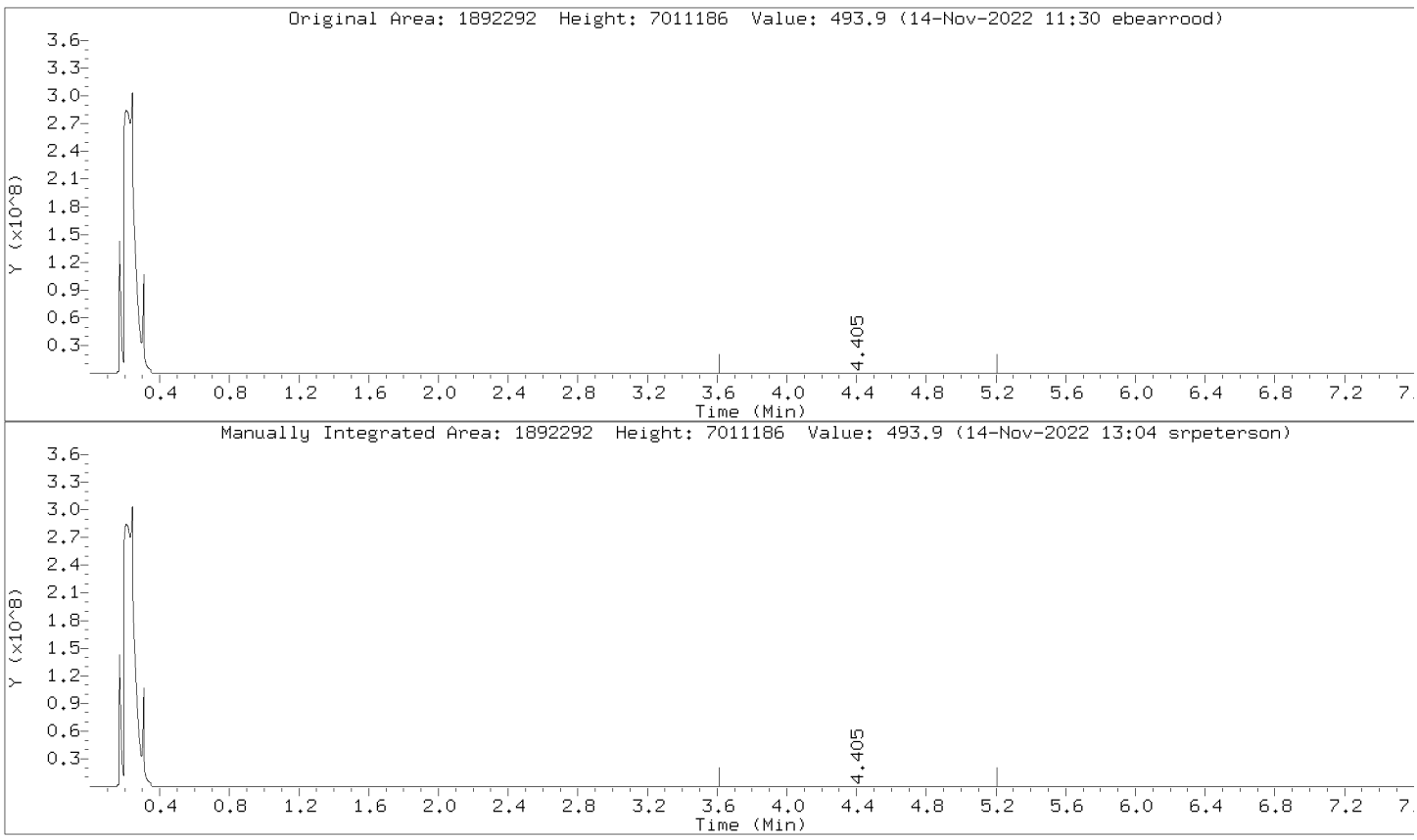
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000025C.d
Date : 11-NOV-2022 15:20
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



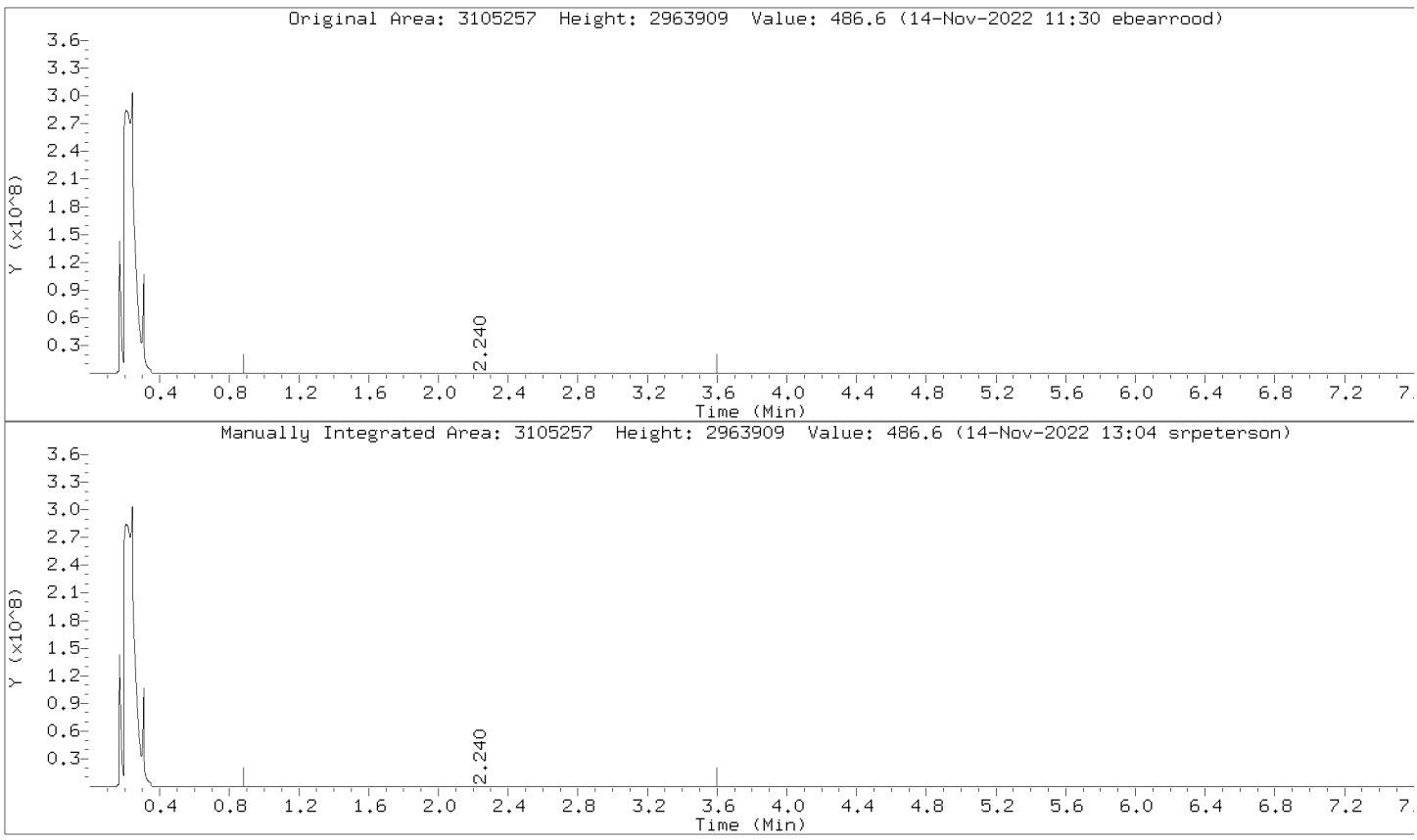
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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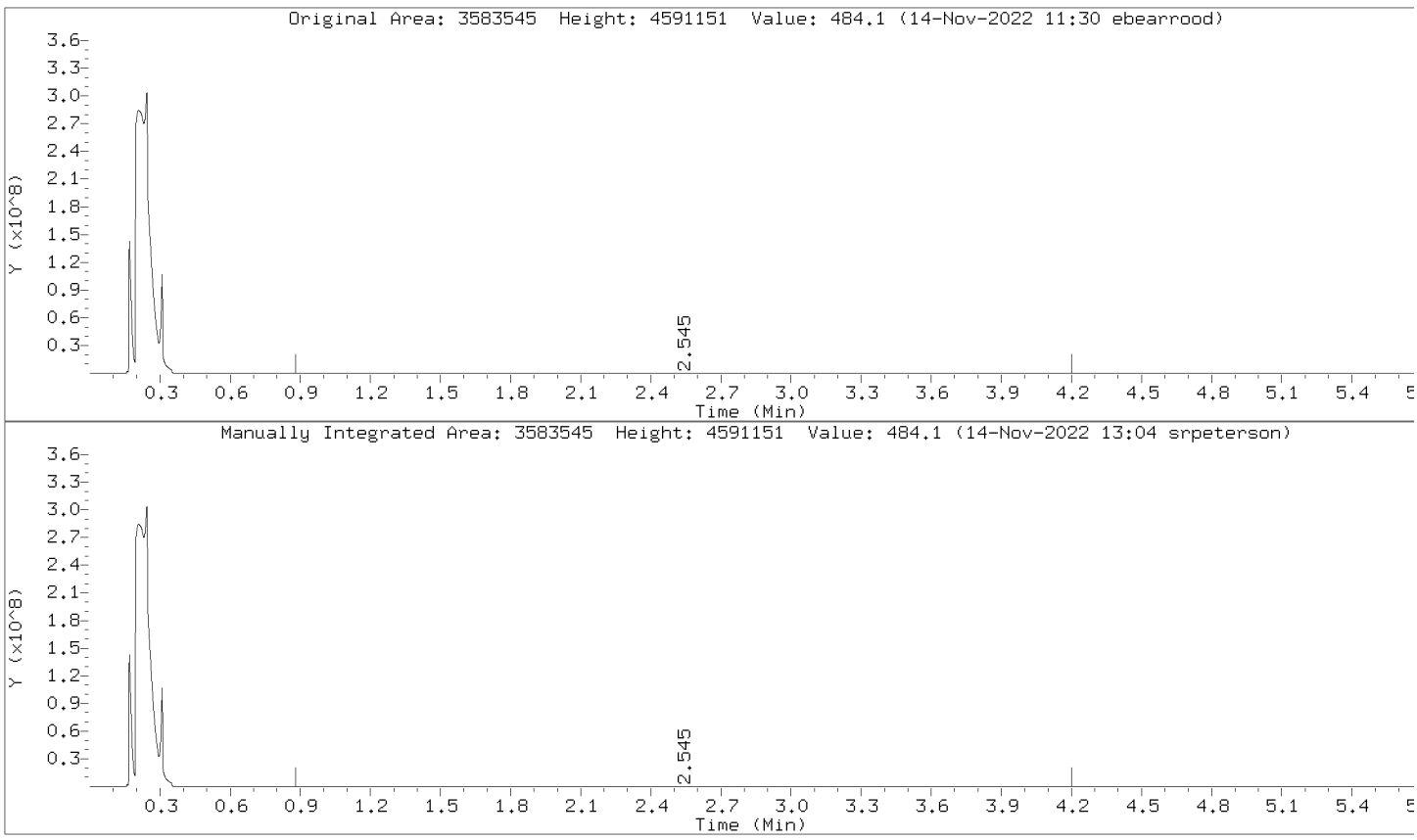
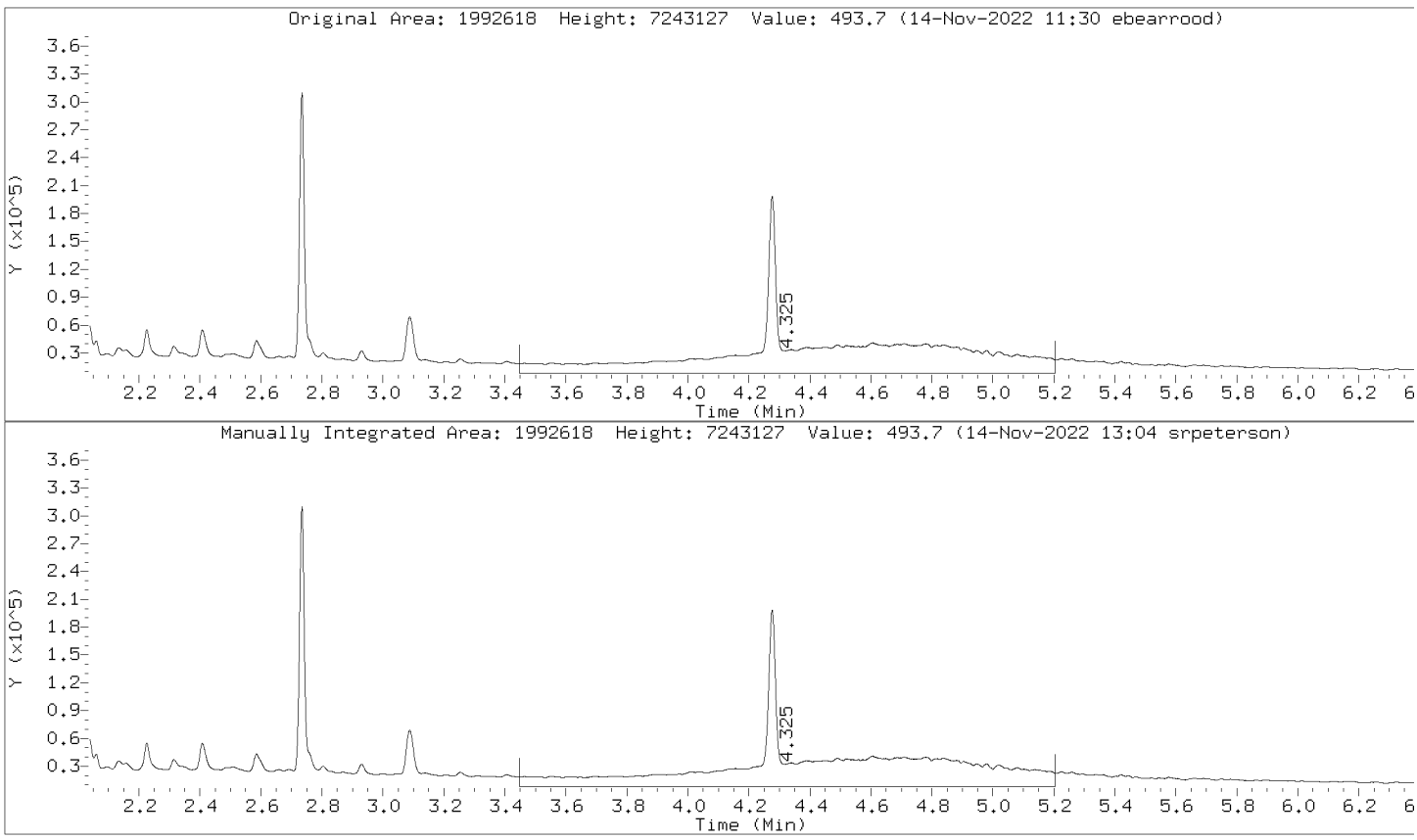
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



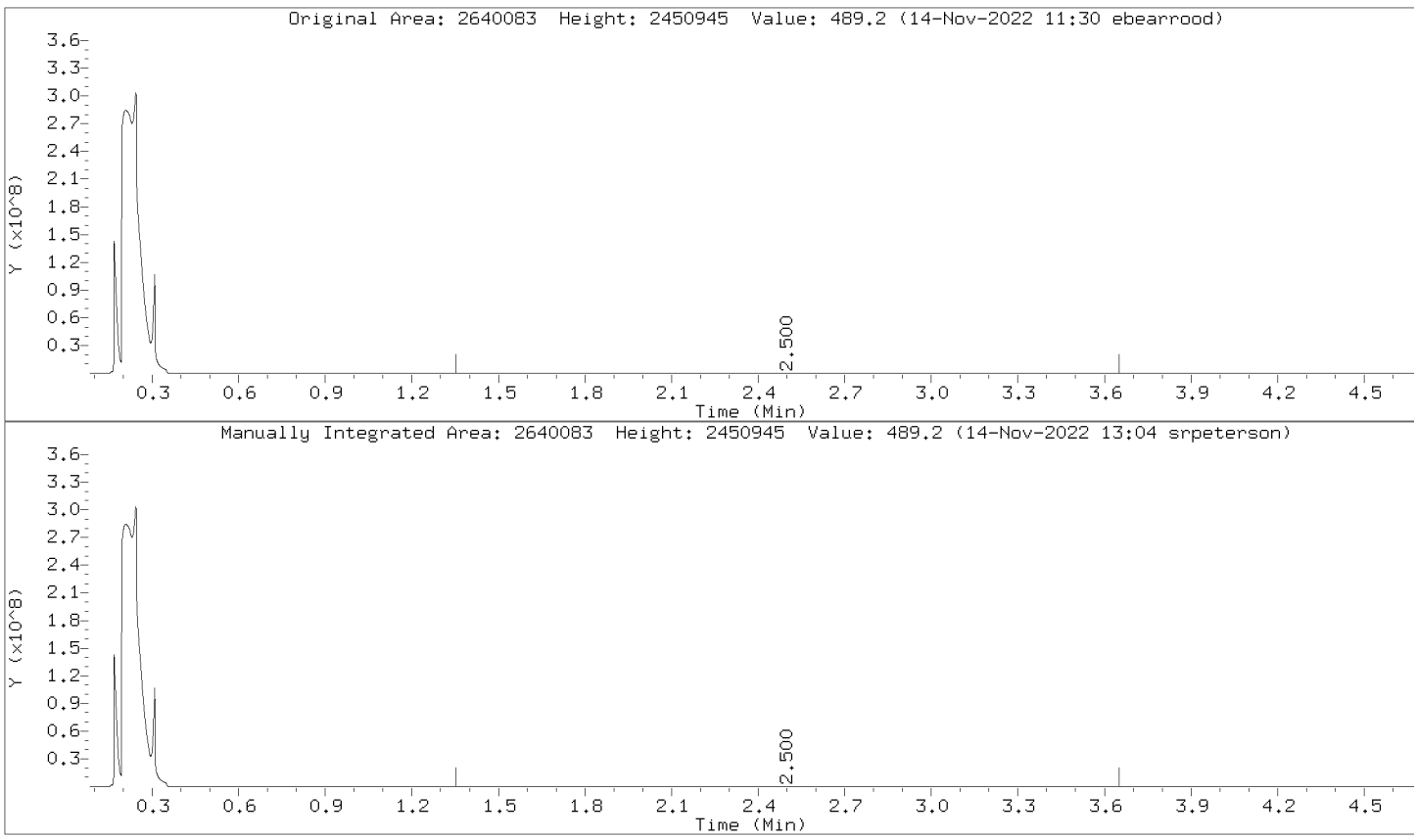
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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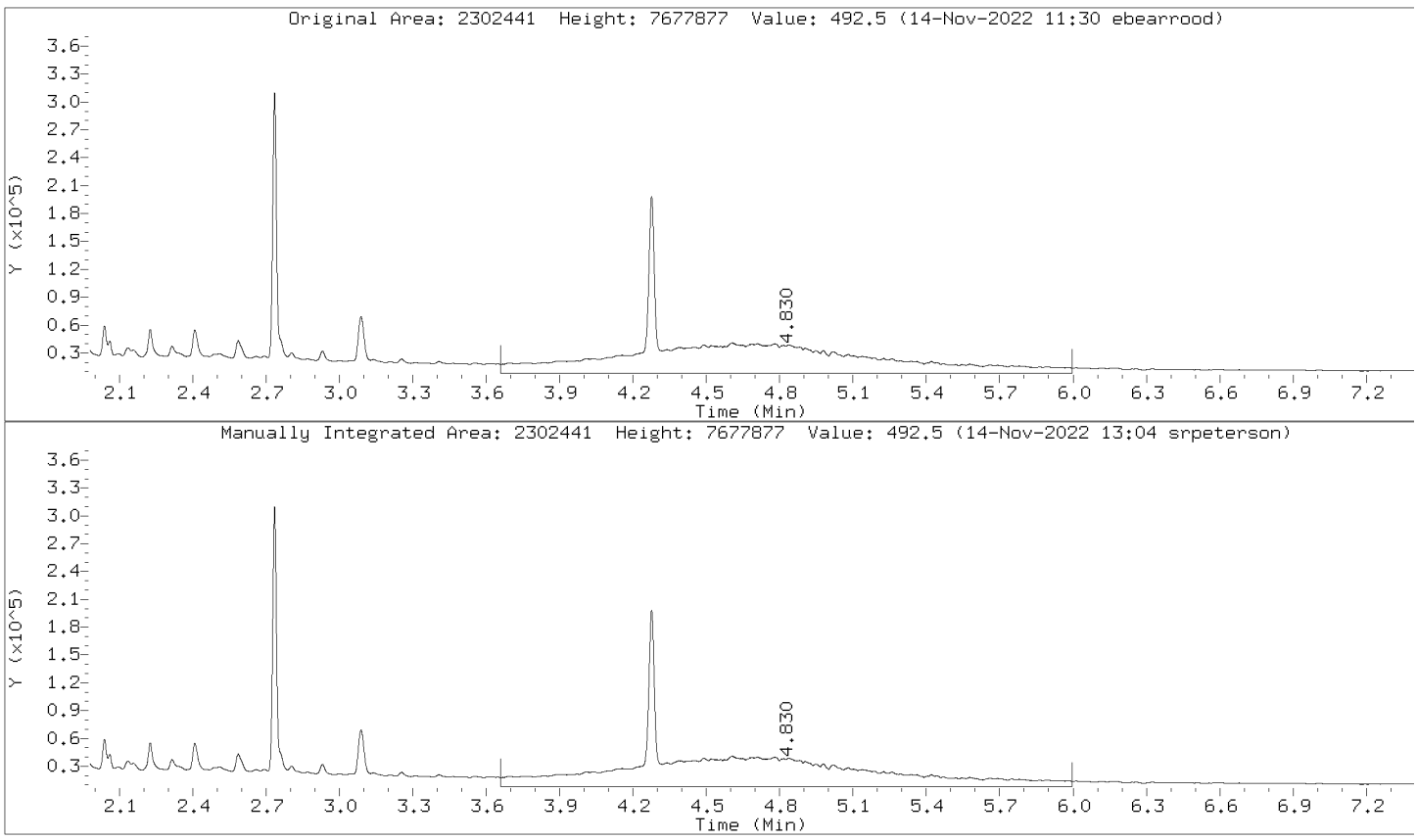
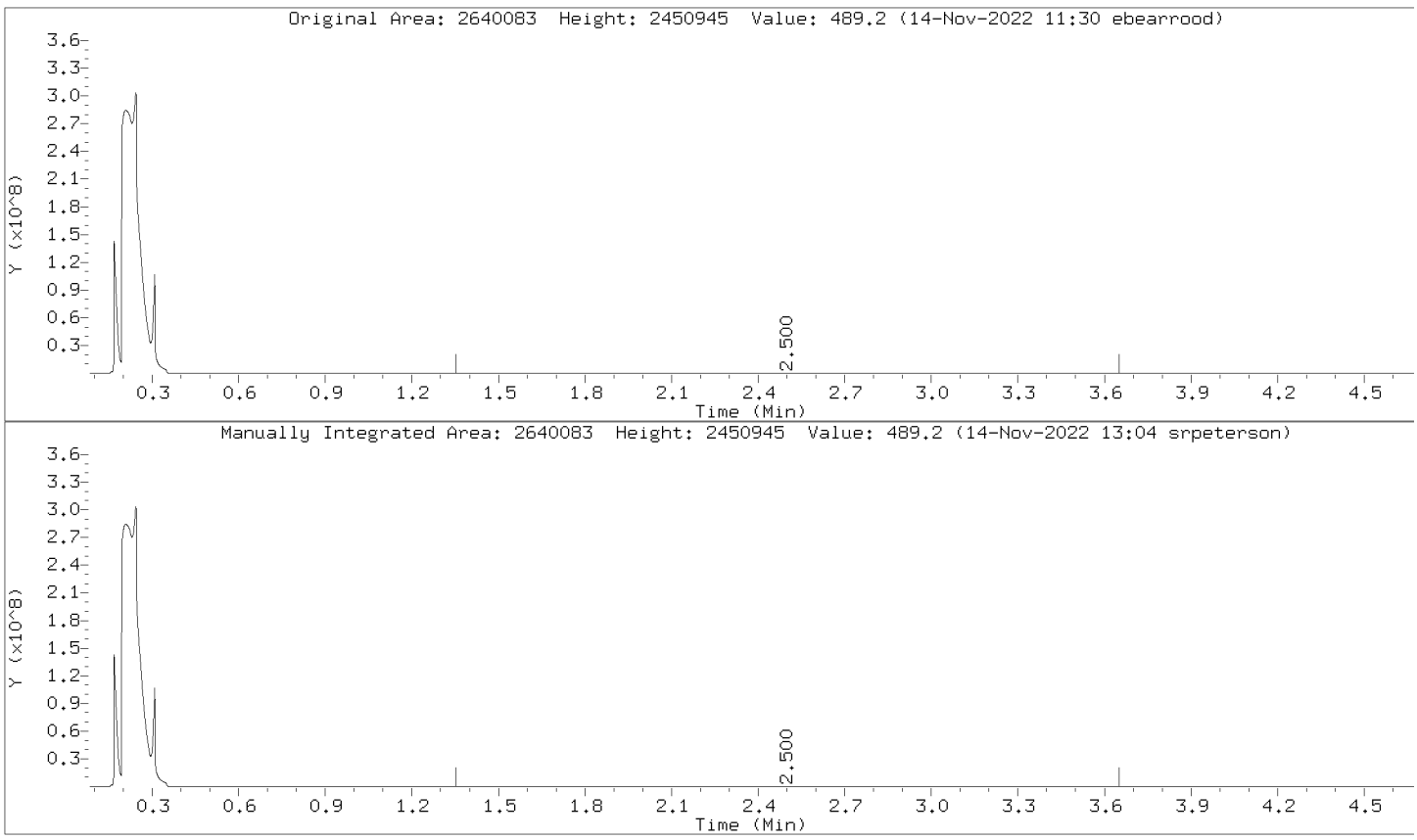
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



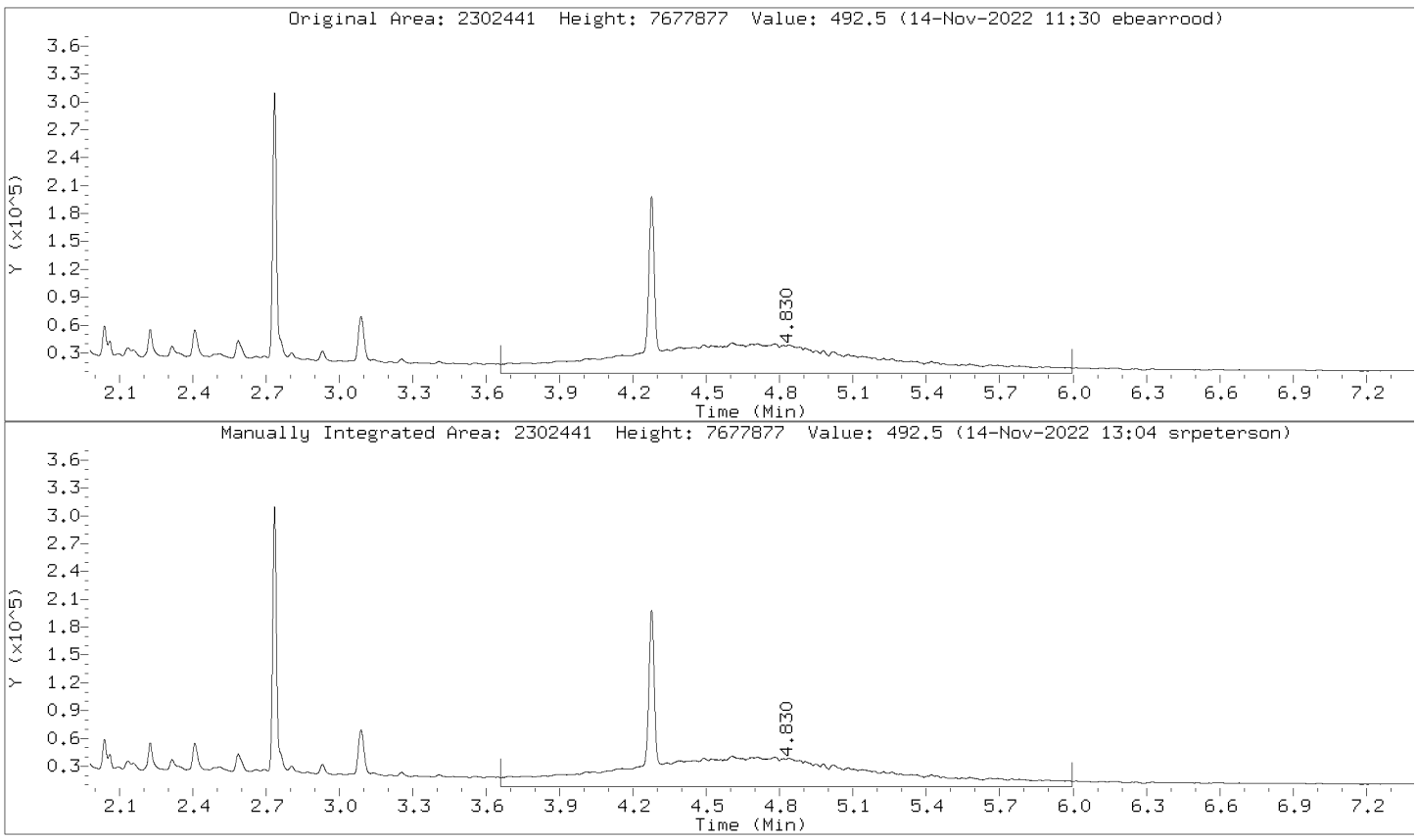
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



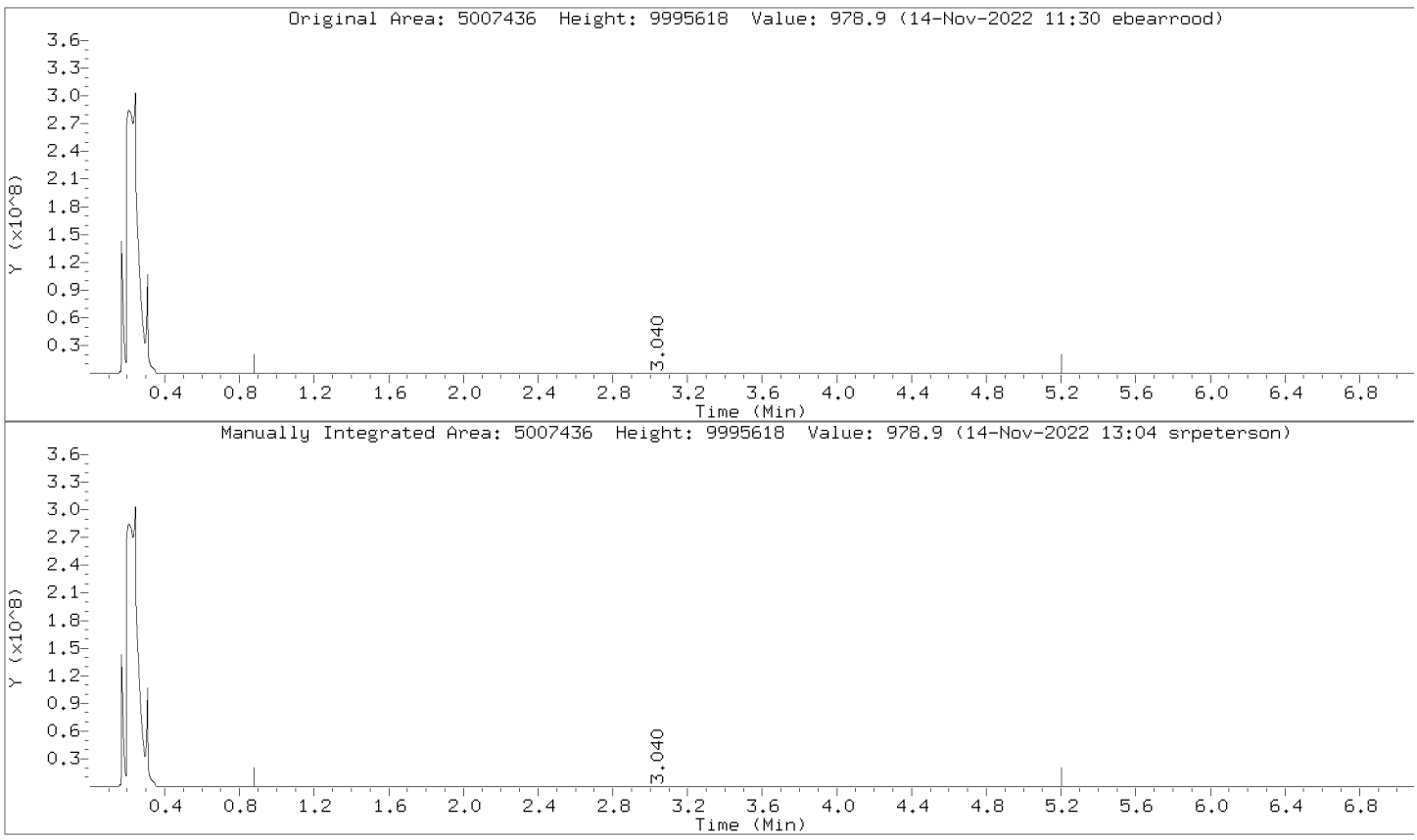
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



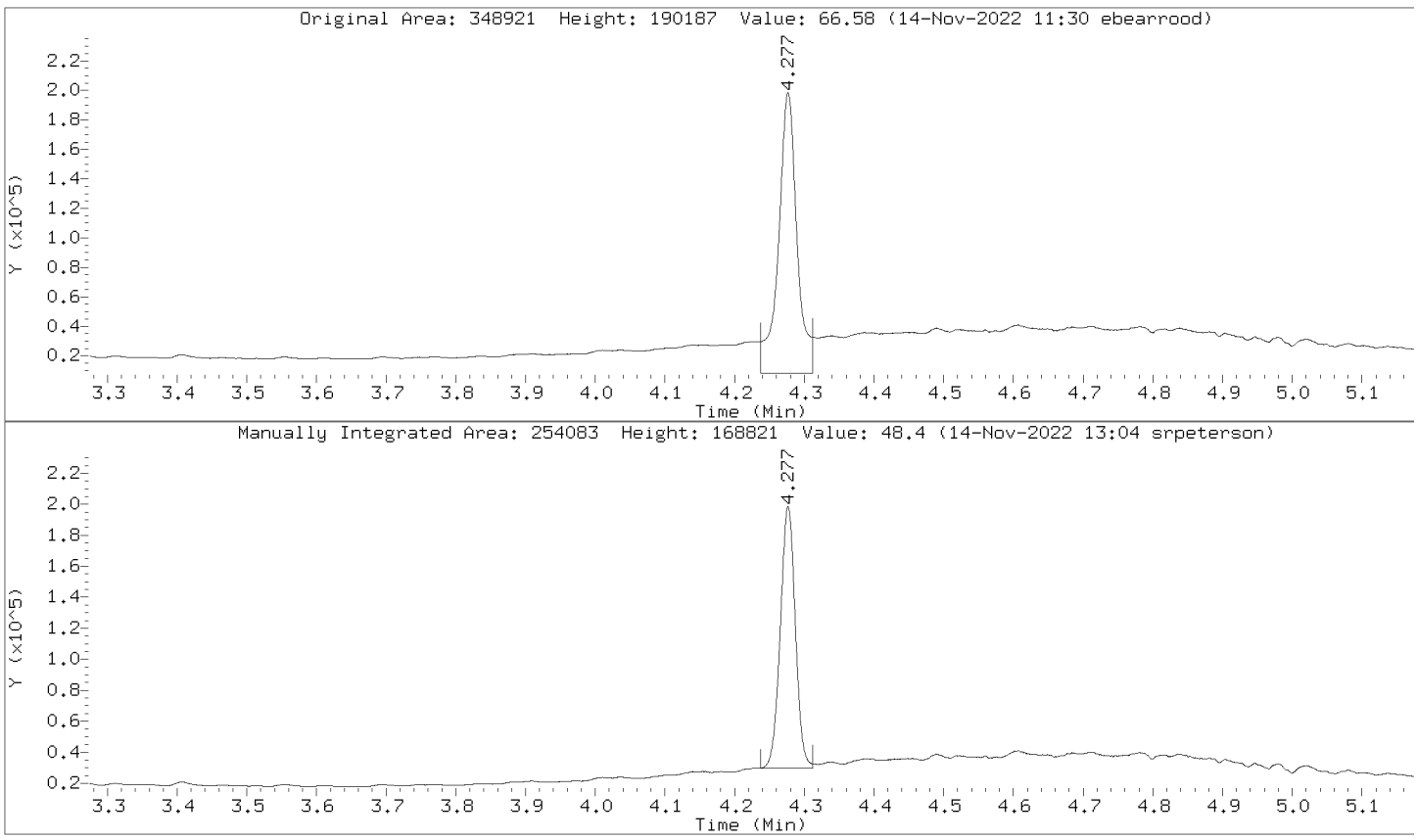
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000025C.d
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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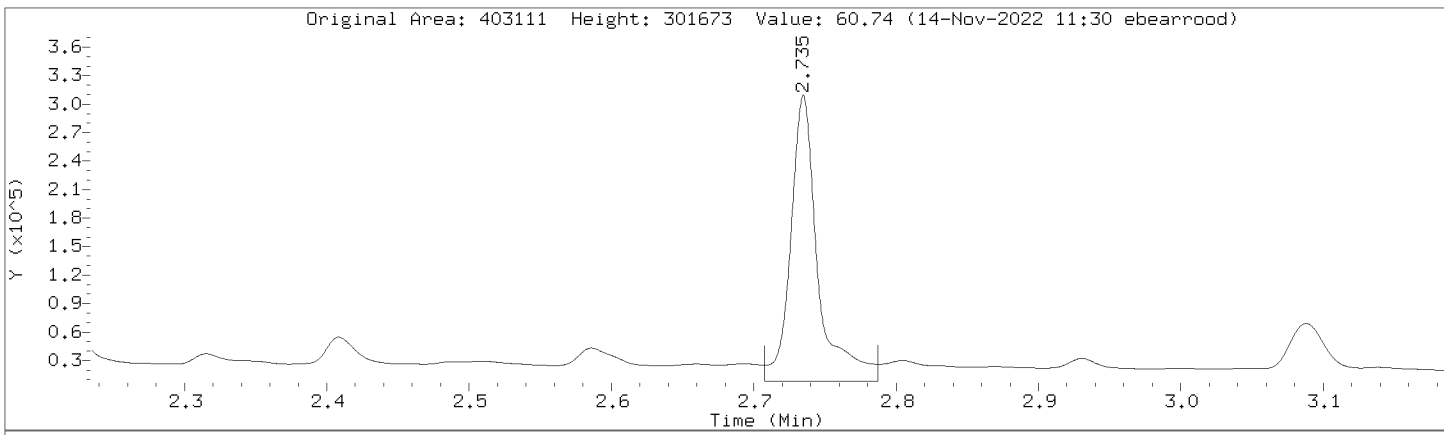
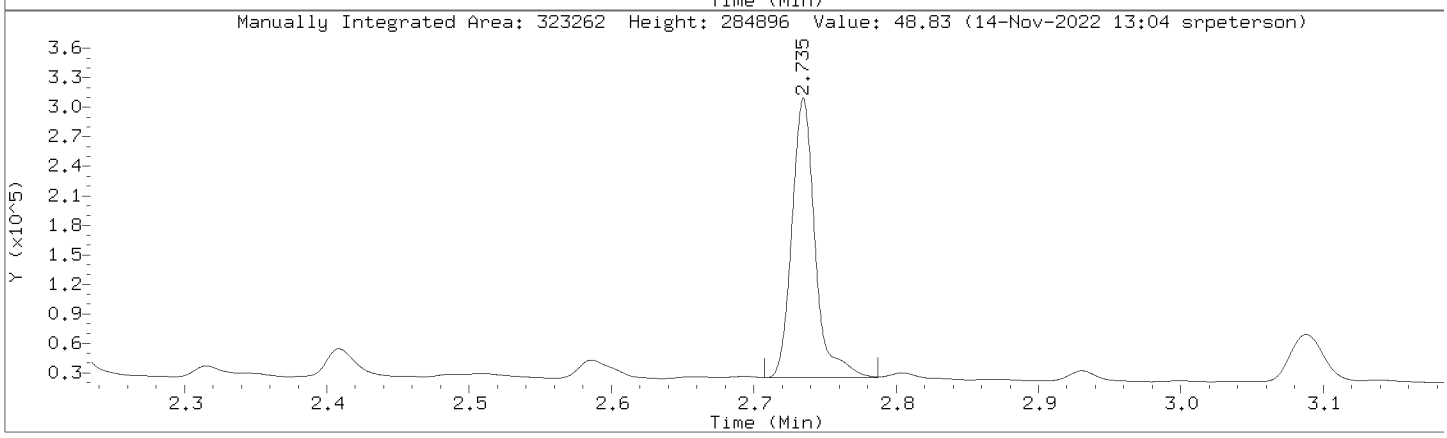
Injection Date: 11-NOV-2022 15:20
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1892292	1892292
DRO by AK 102	3105257	3105257
TPH-DRO (C10-C28)	3583545	3583545
Motor Oil Range (C24-C36)	1992618	1992618
Diesel Fuel Range	2640083	2640083
Motor Oil Range	2302441	2302441
Diesel Fuel Range SG	2640083	2640083
Motor Oil Range SG	2302441	2302441
C10-C36	5007436	5007436
n-Triacontane (S)	348921	254083
o-Terphenyl (S)	403111	323262

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 11-NOV-2022 16:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880	- 3.600		3135922	500.000	492	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.734	0.000	329069	50.0000	49.7	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.274	0.001	260675	50.0000	49.7	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610	- 5.200		2024087	500.000	530	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880	- 4.210		3624885	500.000	490	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450	- 5.200		2123483	500.000	528	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880	- 5.200		5170588	1000.00	1010	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350	- 3.650		2662506	500.000	494	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350	- 3.650		2662506	500.000	494	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660	- 6.000		2525503	500.000	543	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660	- 6.000		2525503	500.000	543	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

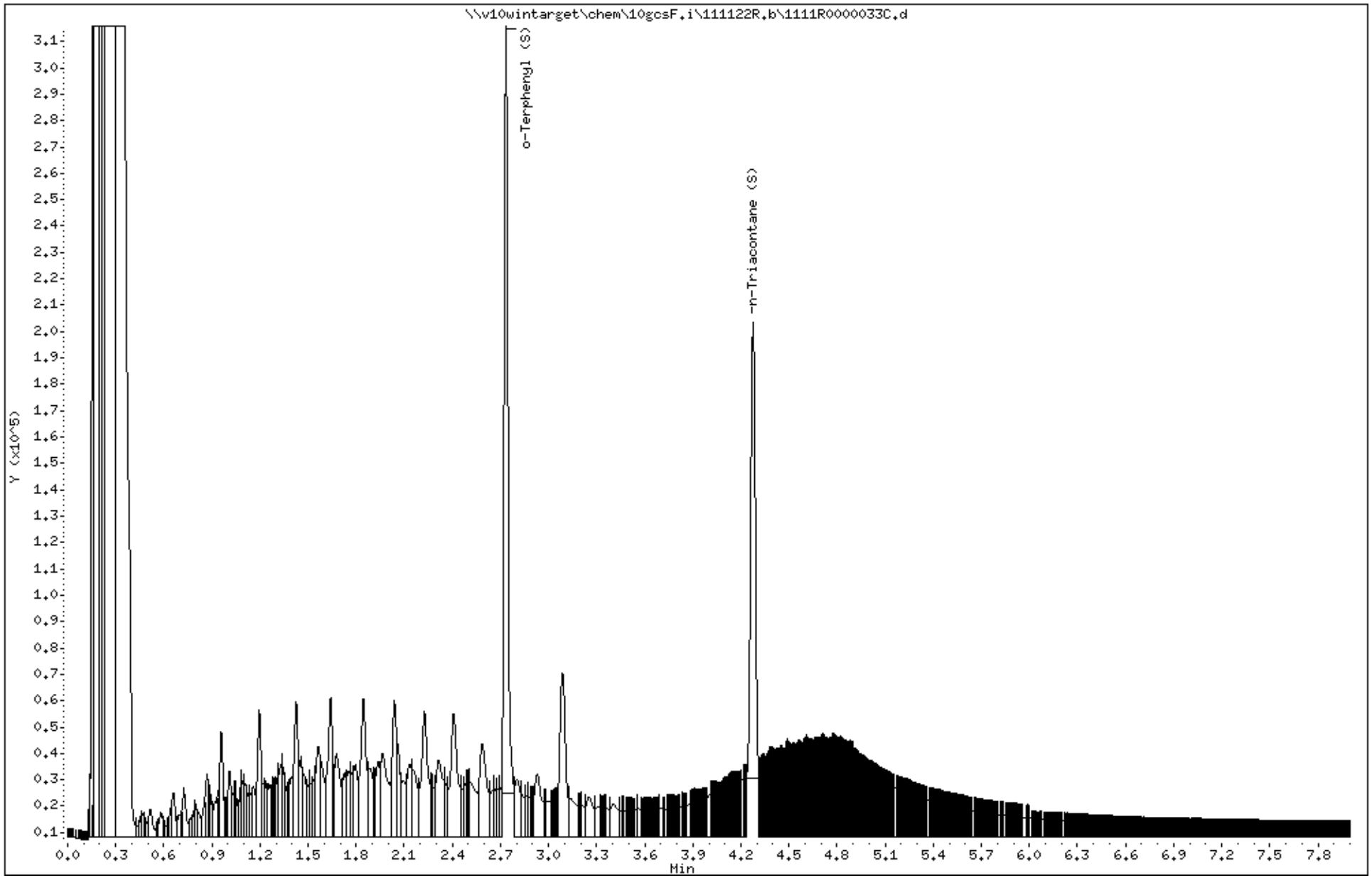
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000033C.d
Date : 11-NOV-2022 16:51
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

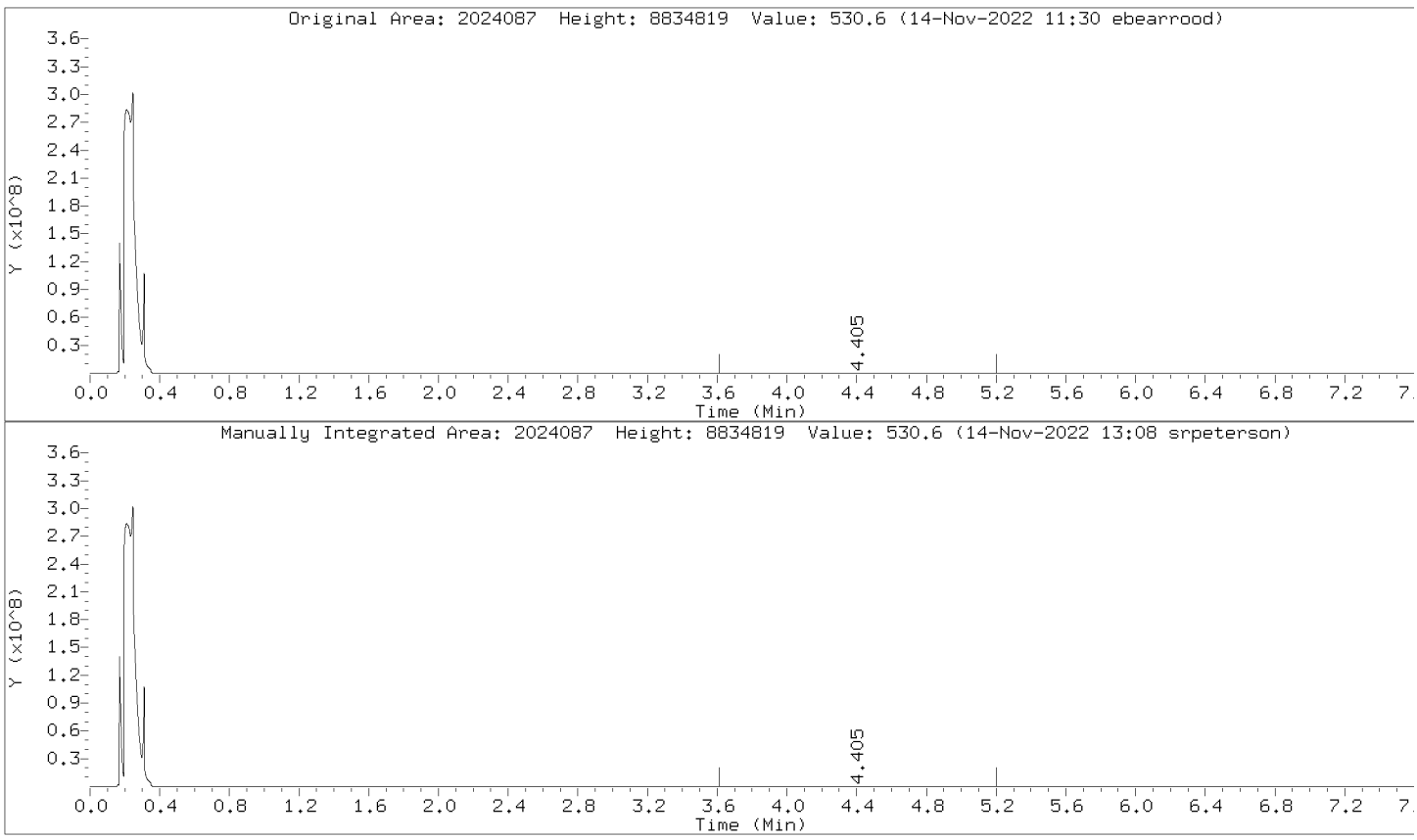
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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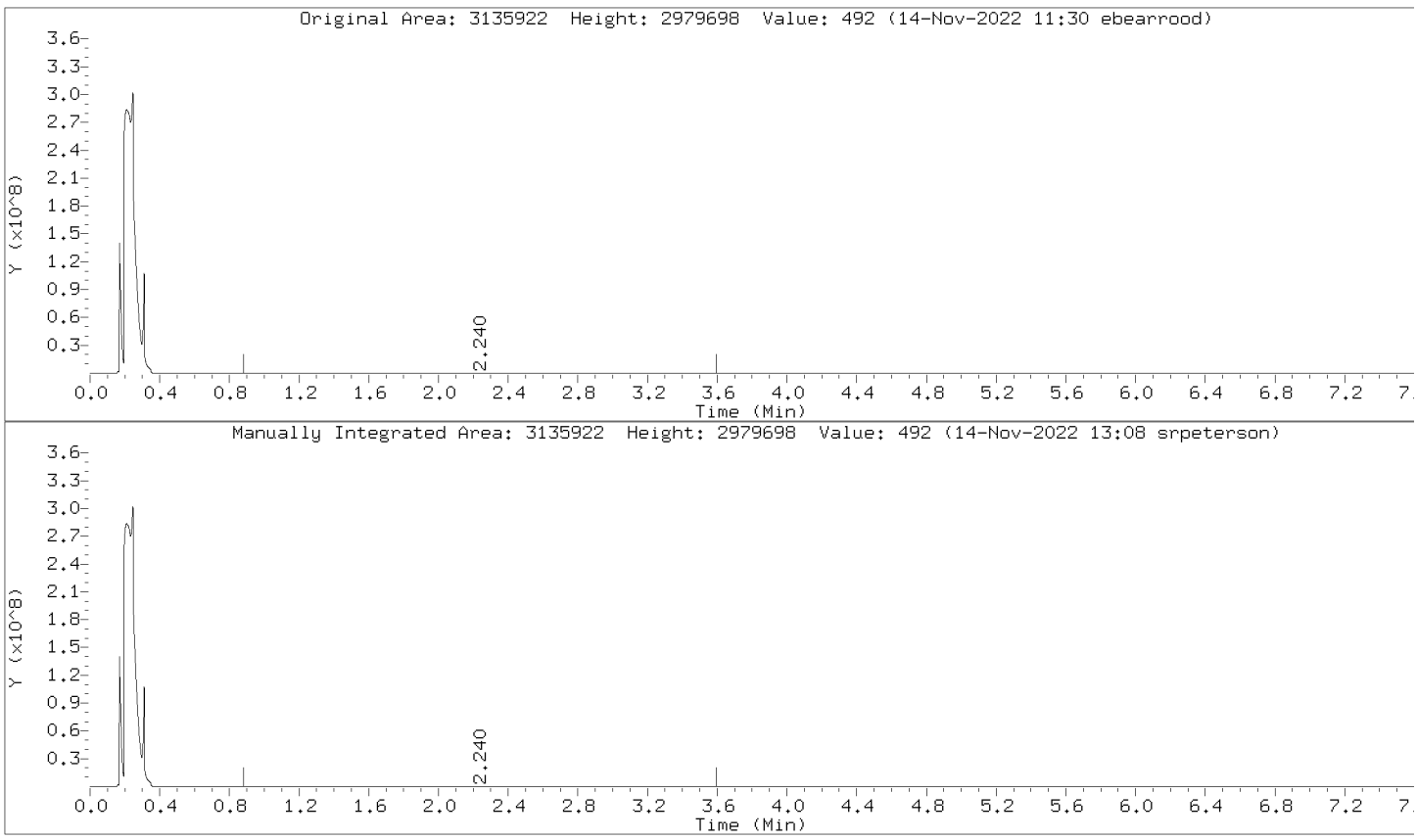
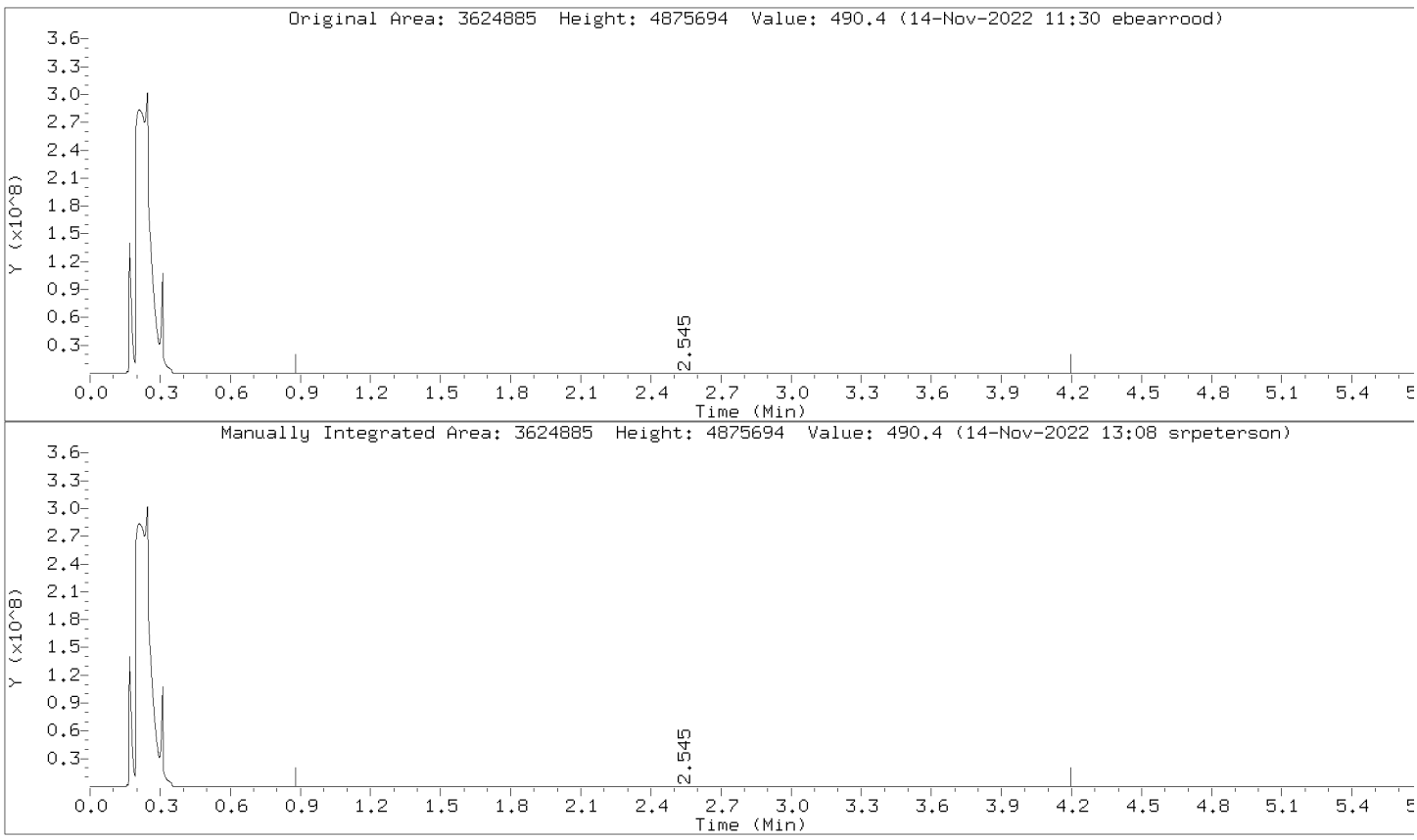
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



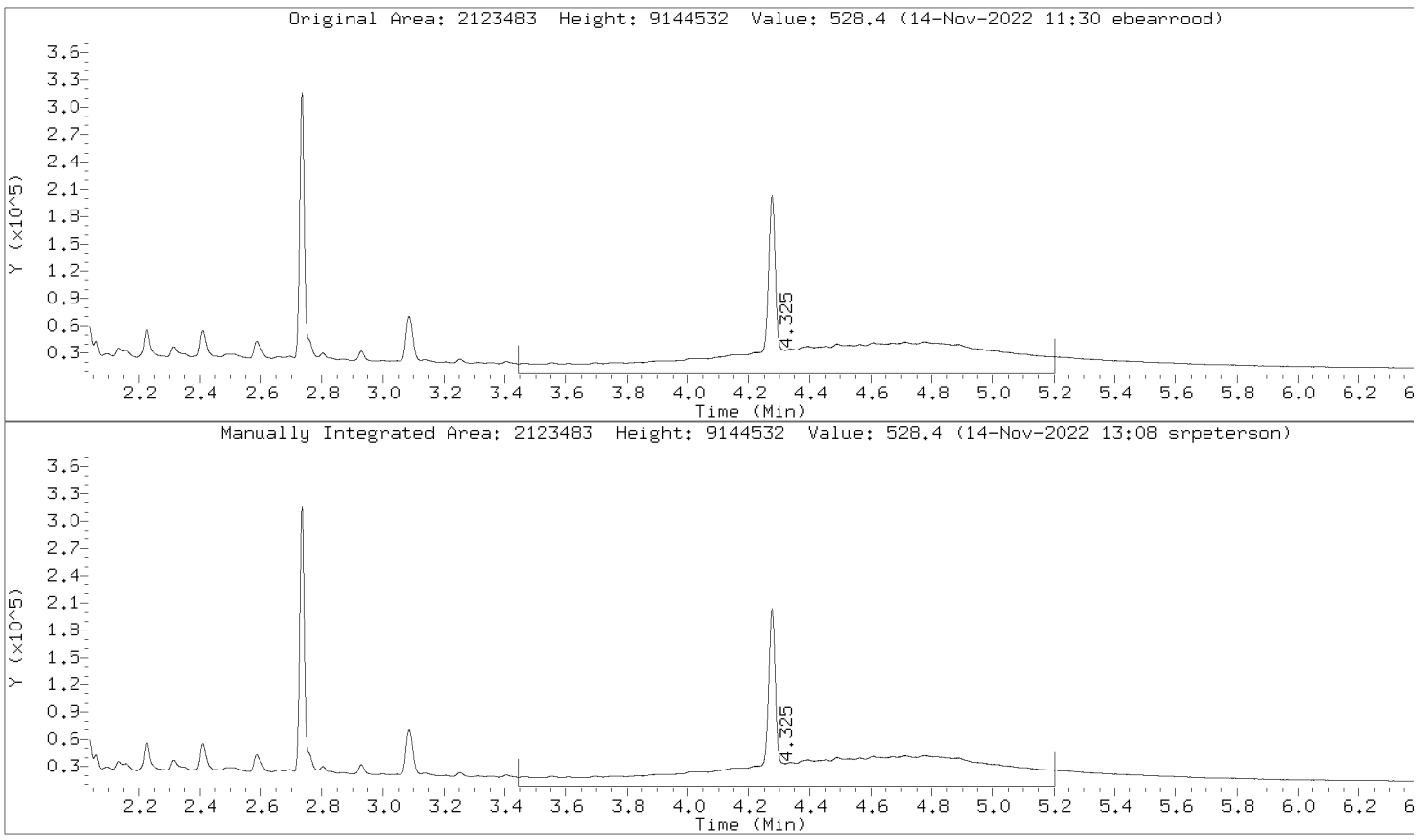
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



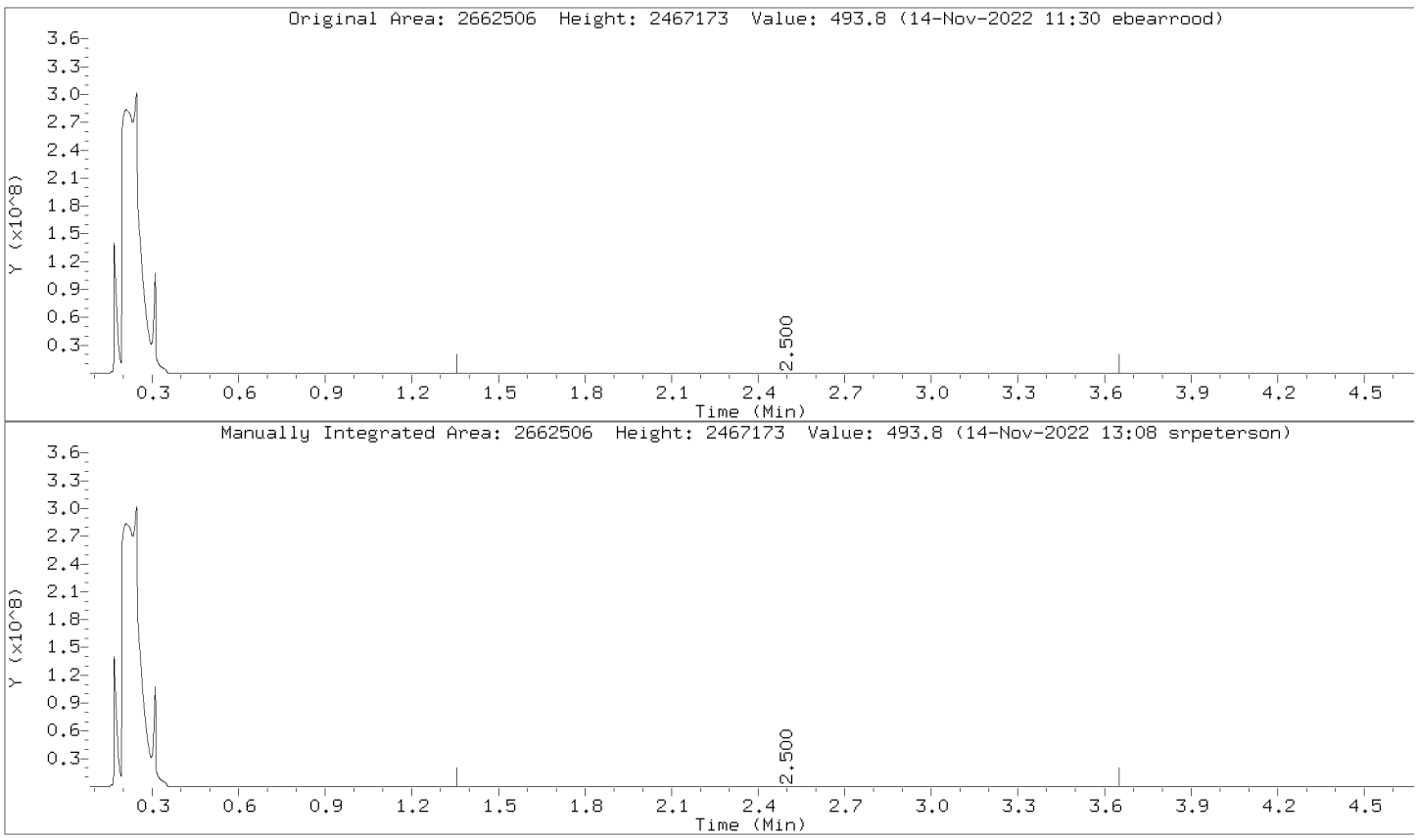
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



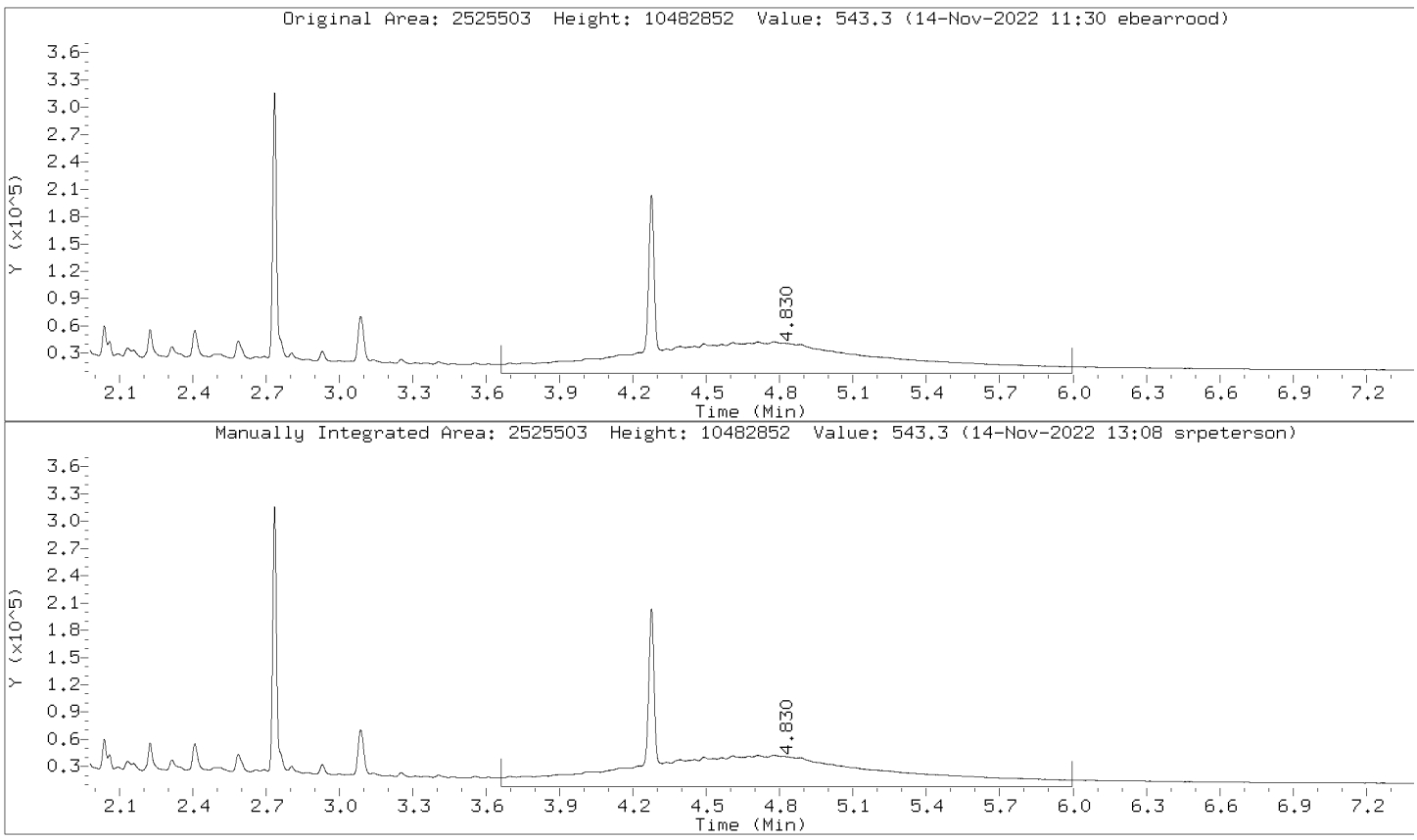
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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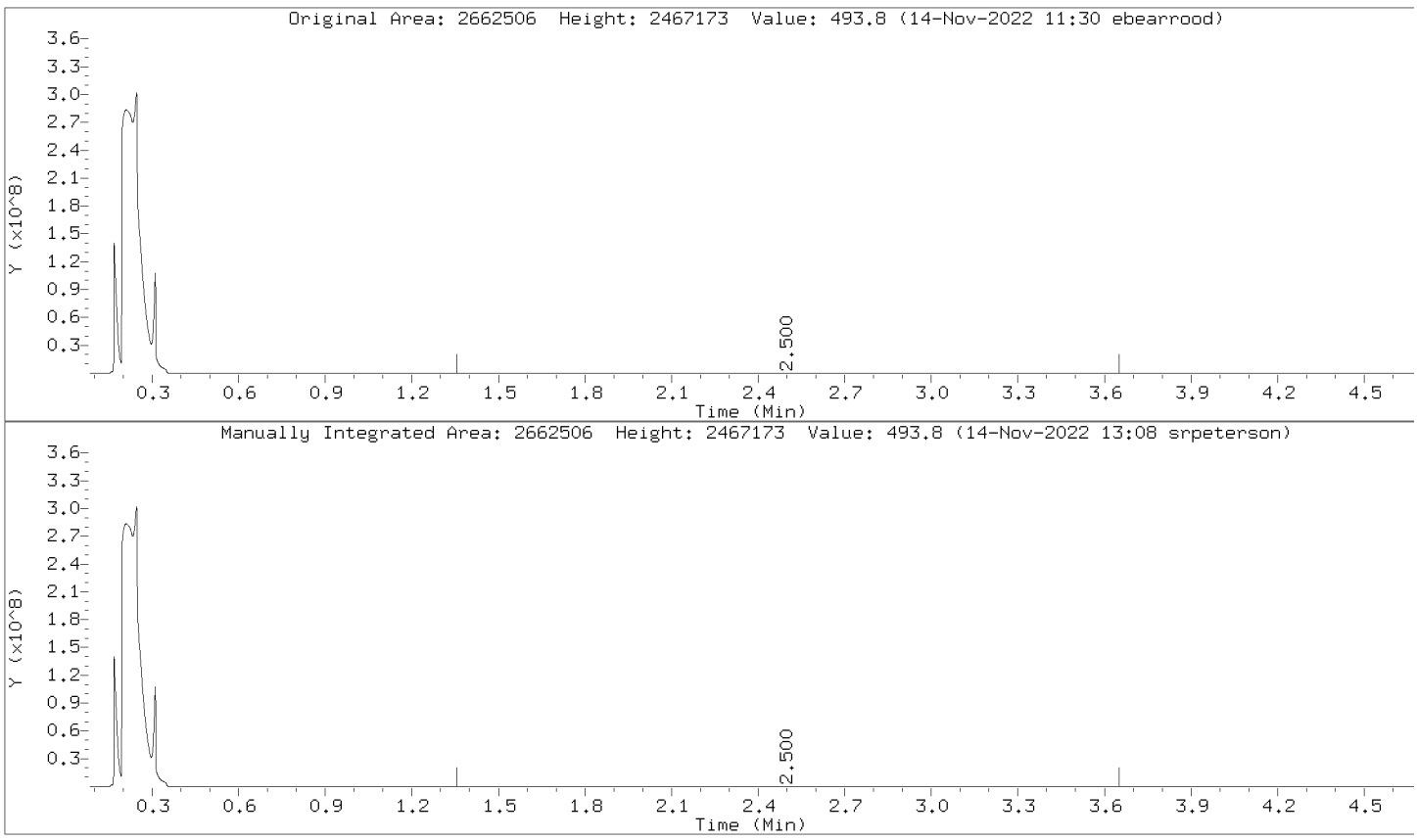
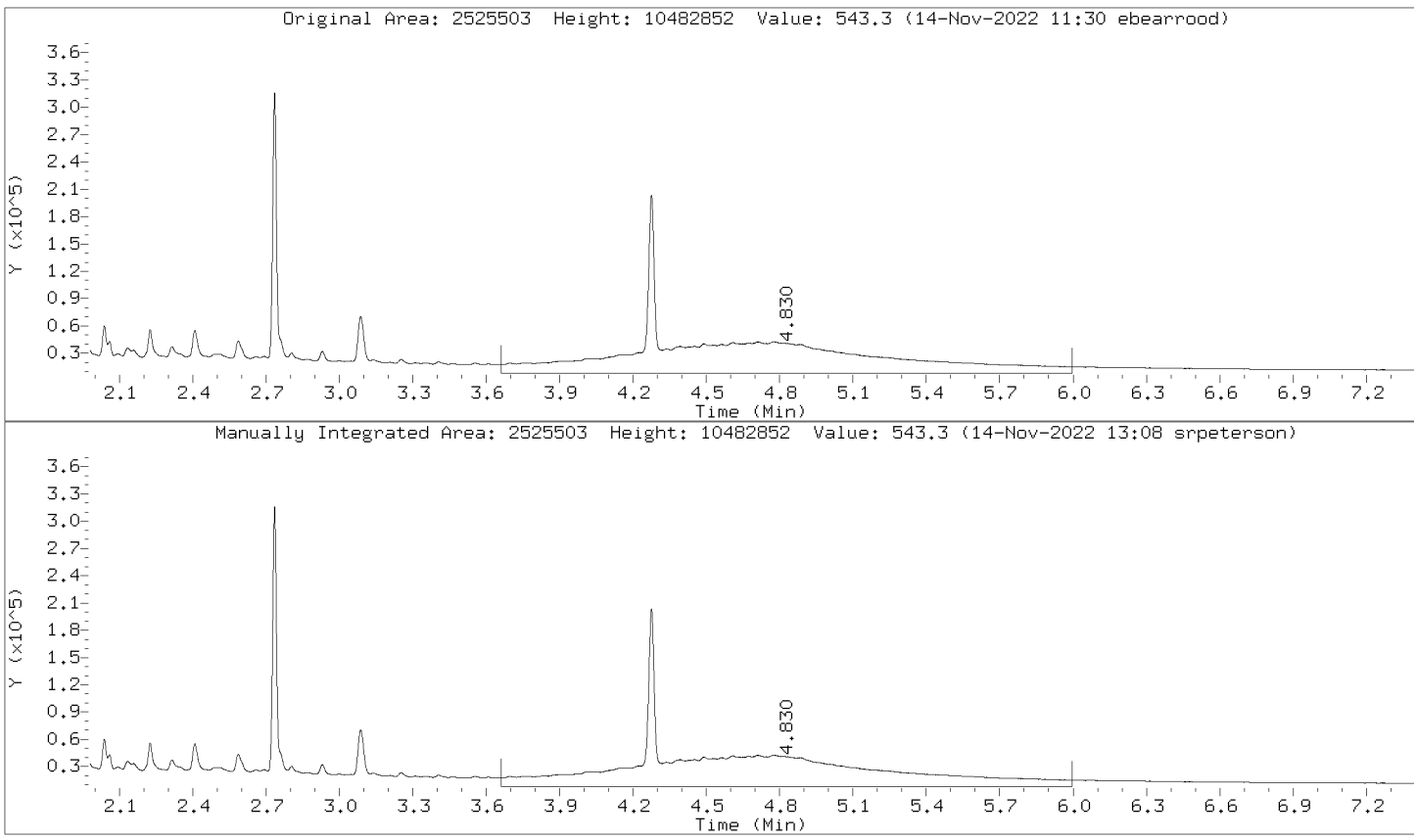
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



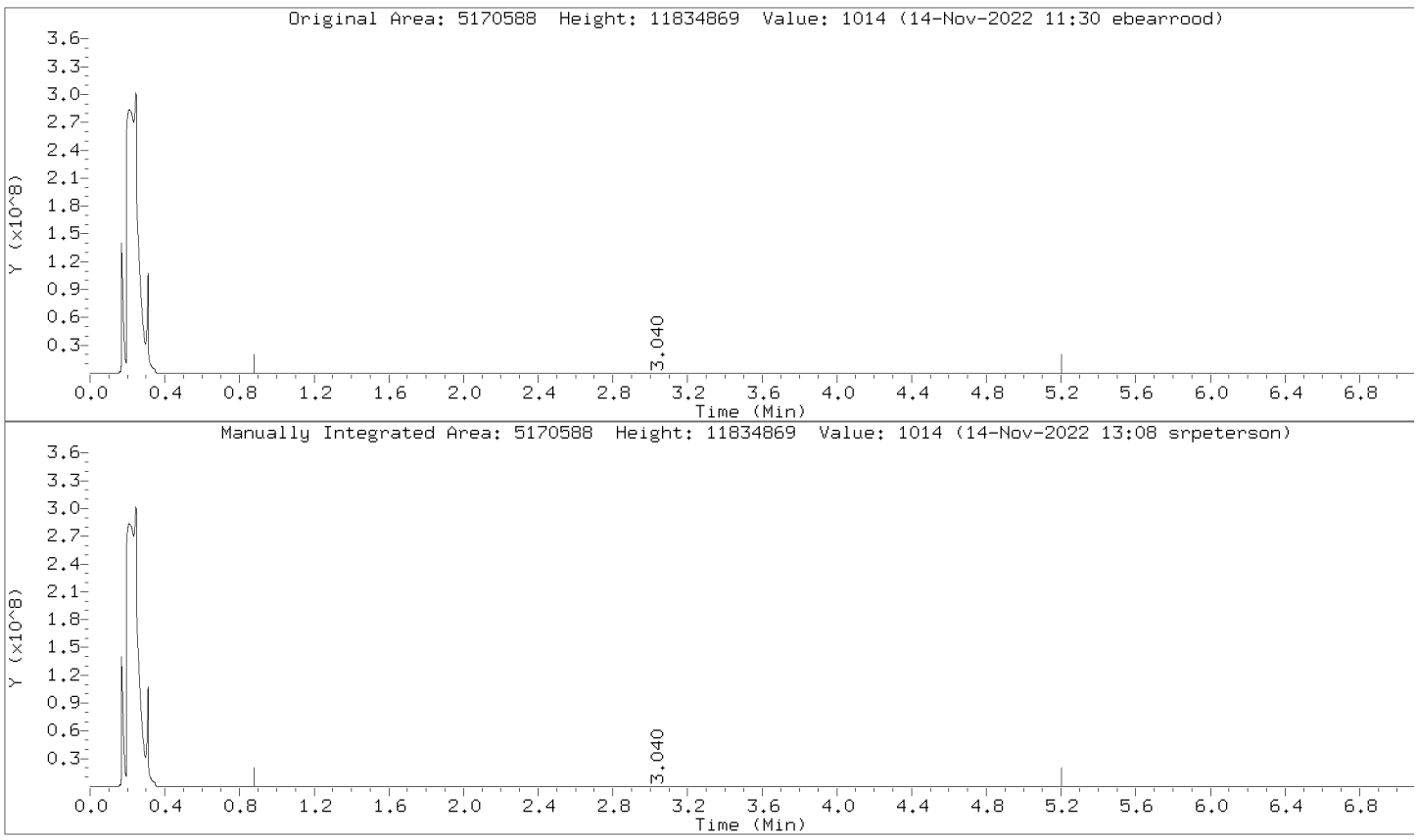
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



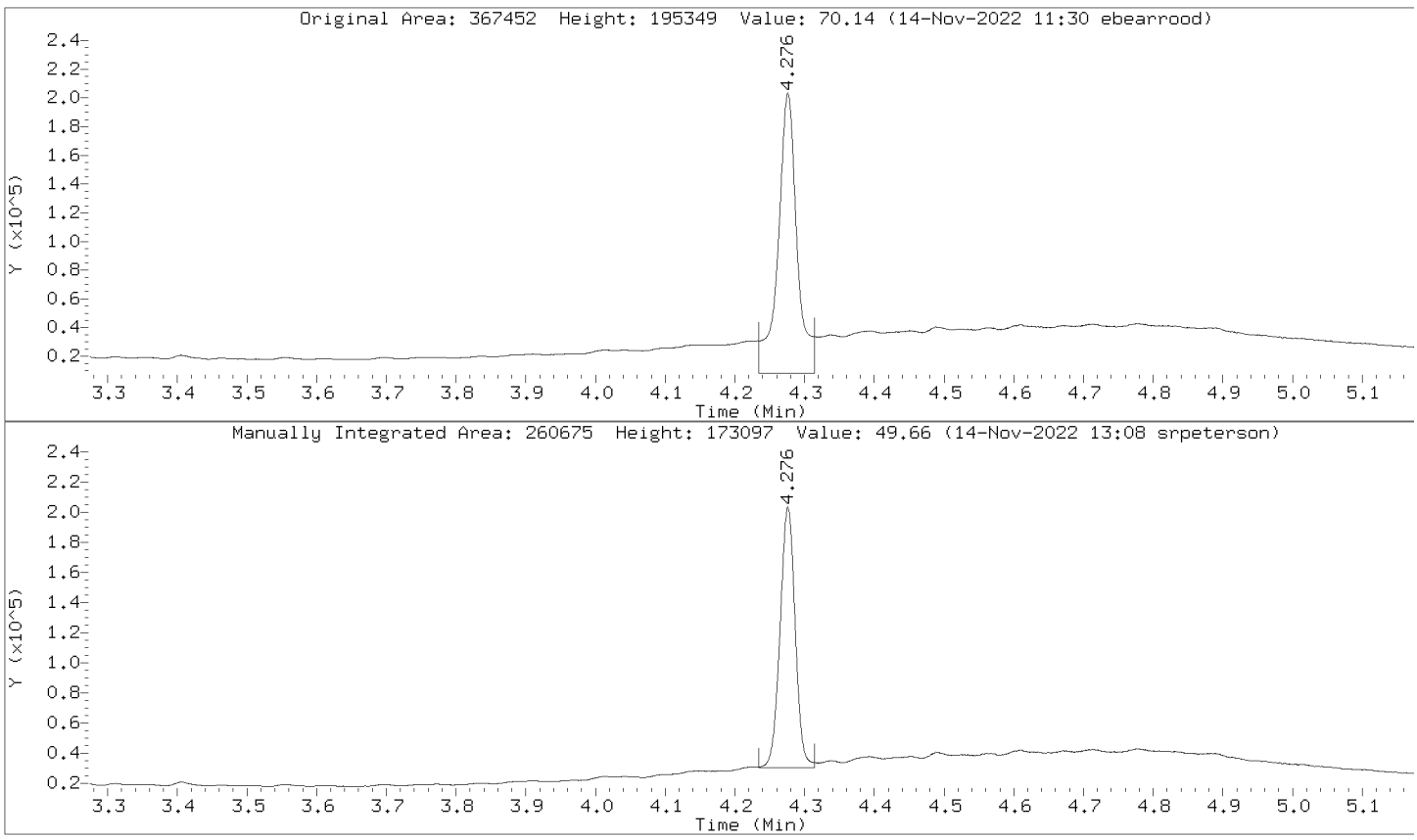
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



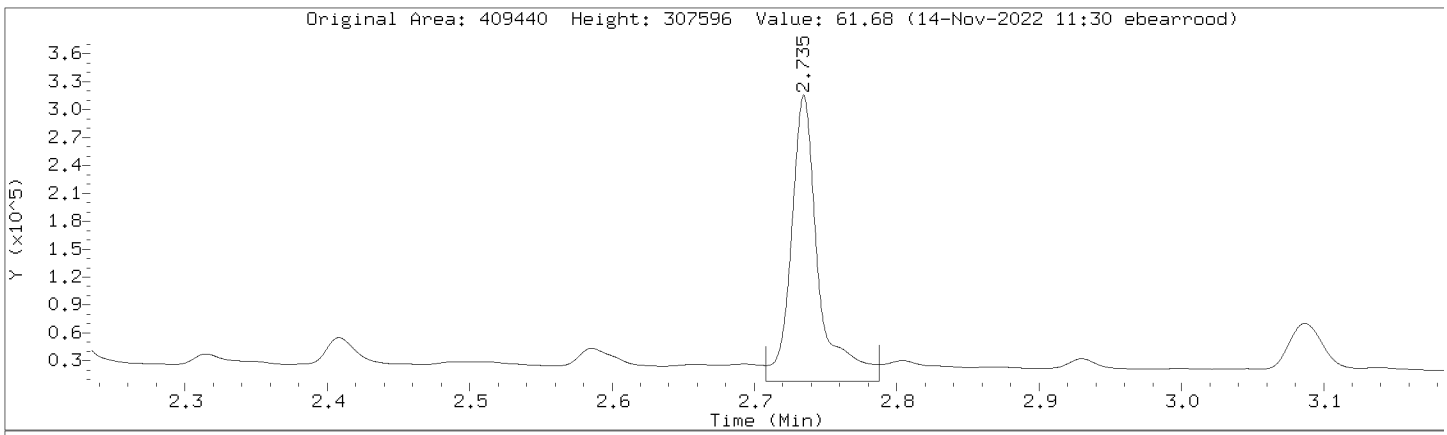
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

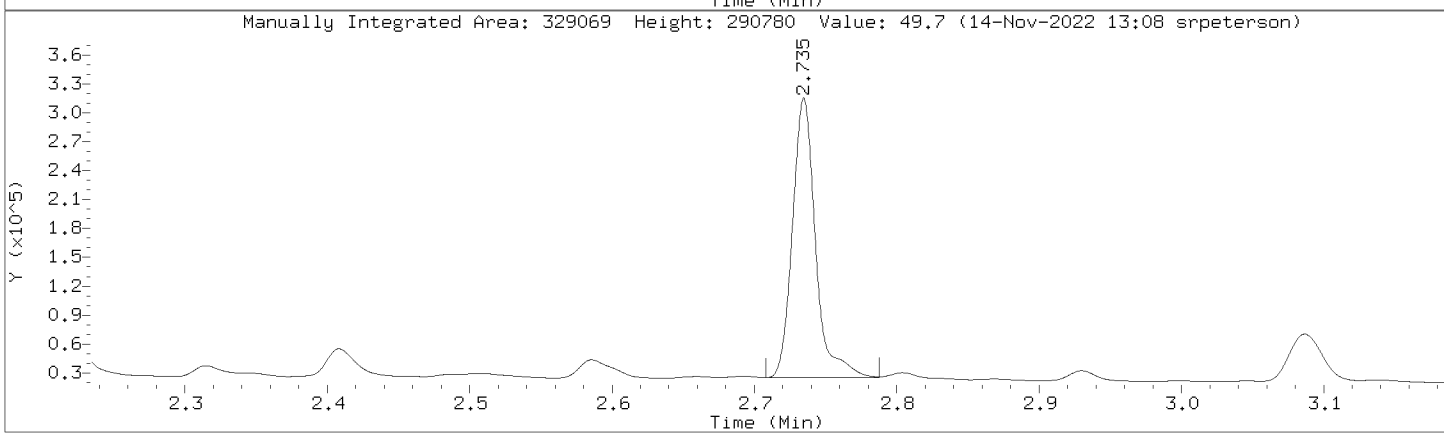
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000033C.d
Injection Date: 11-NOV-2022 16:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2024087	2024087
DRO by AK 102	3135922	3135922
TPH-DRO (C10-C28)	3624885	3624885
Motor Oil Range (C24-C36)	2123483	2123483
Diesel Fuel Range	2662506	2662506
Motor Oil Range	2525503	2525503
Diesel Fuel Range SG	2662506	2662506
Motor Oil Range SG	2525503	2525503
C10-C36	5170588	5170588
n-Triacontane (S)	367452	260675
o-Terphenyl (S)	409440	329069

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10632888
Date Extracted: 11/09/2022 07:04
Lab Sample ID: 4506602
Date Analyzed: 11/11/2022 15:31
Lab File ID: 111122R.B\1111R0000026.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000026.d
Lab Smp Id: 4506602 Client Smp ID: MB
Inj Date : 11-NOV-2022 15:31
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506602
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 20 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		455118	18.3657	1.84	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	290901	44.0082	4.40	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.274	-0.001	251567	47.9151	4.79	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		251114	37.7877	3.78	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.210		563516	24.8634	2.49	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		277918	38.9638	3.90	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.880	- 5.200		710879	52.9104	5.29	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		400583	19.2785	1.93	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		400583	19.2785	1.93	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		333671	43.8557	4.38	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		333671	43.8557	4.38	(M)	RNG

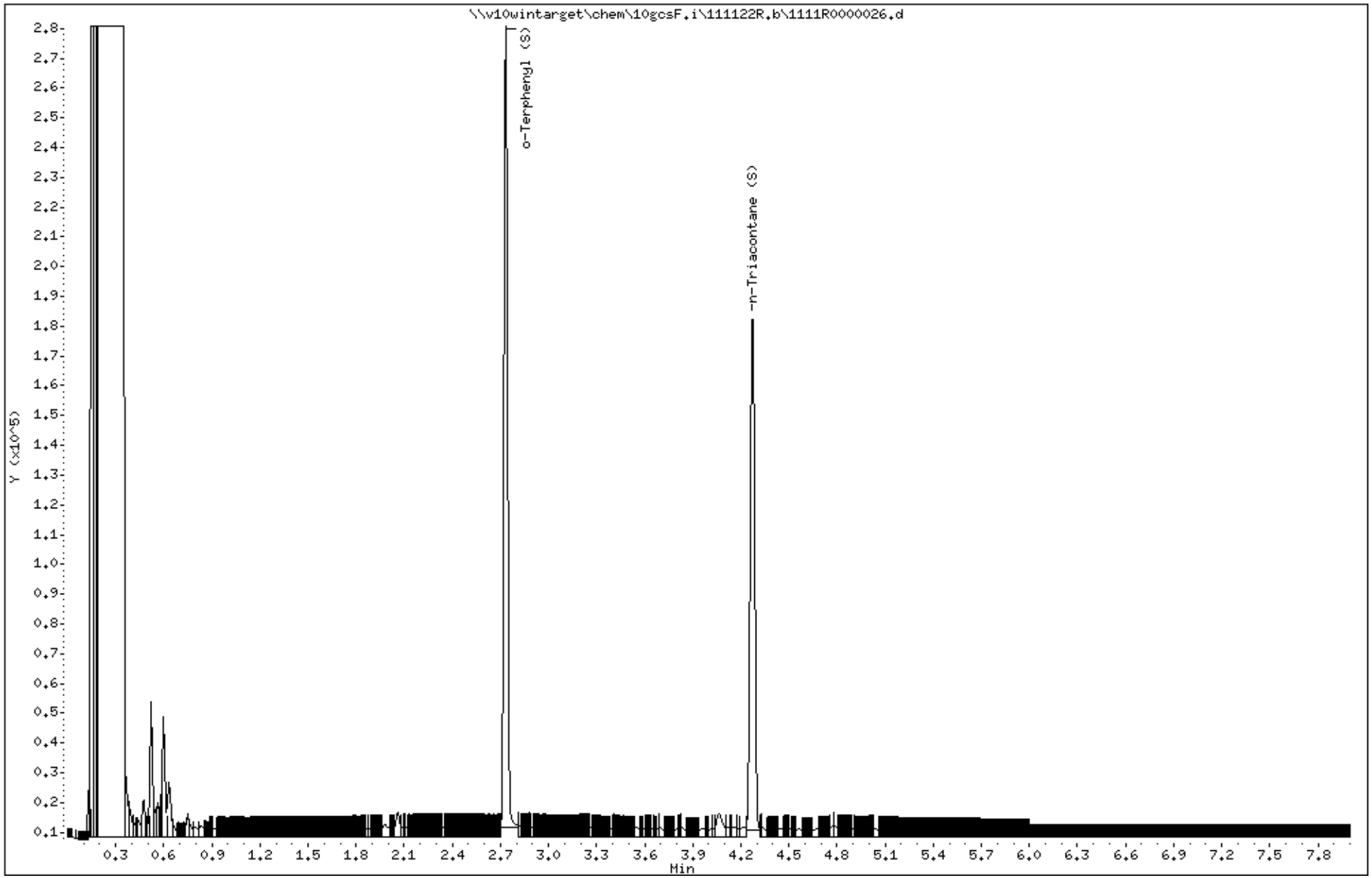
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

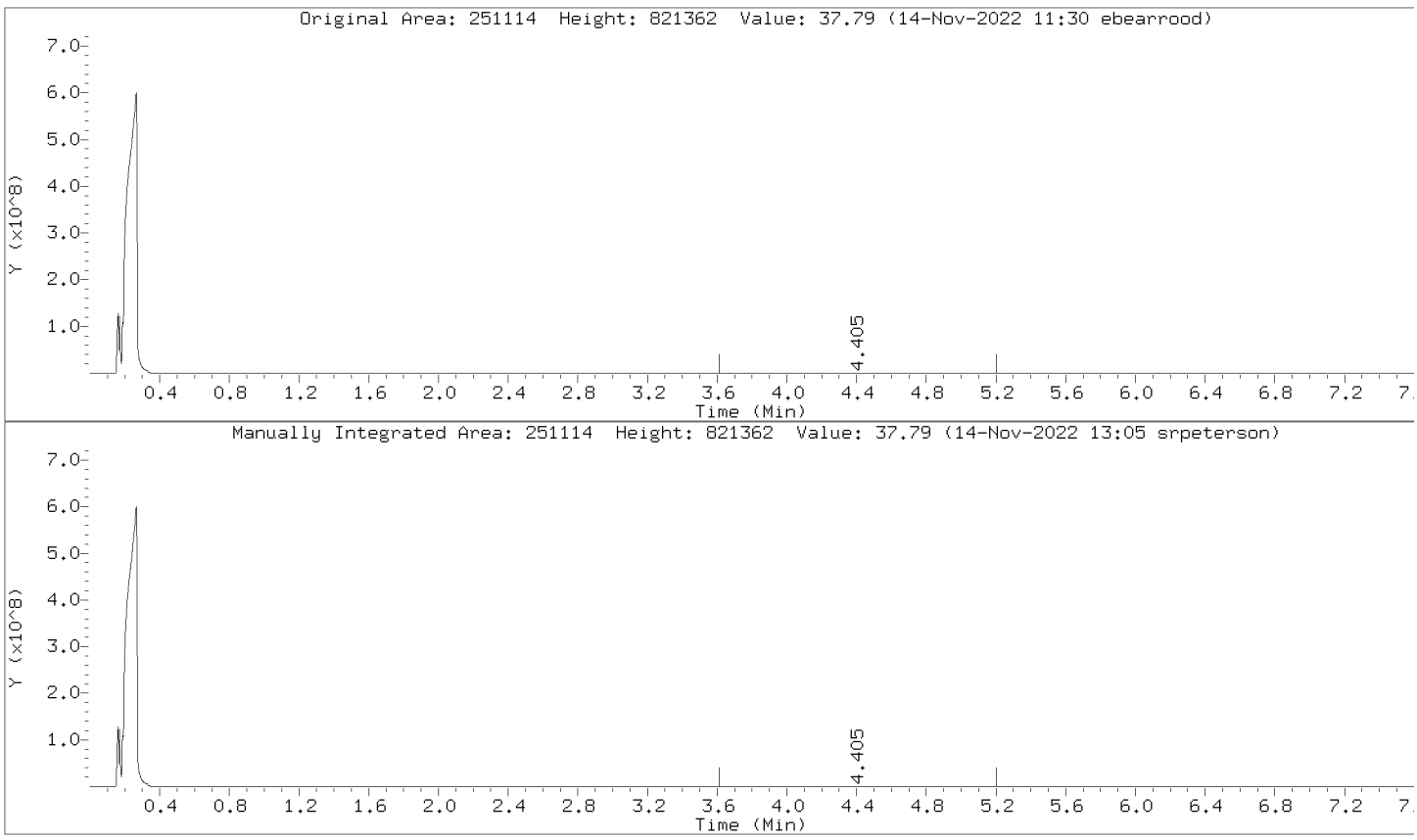
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000026.d
Date : 11-NOV-2022 15:31
Client ID: MB
Instrument: 10gcsF.i
Sample Info: 4506602
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



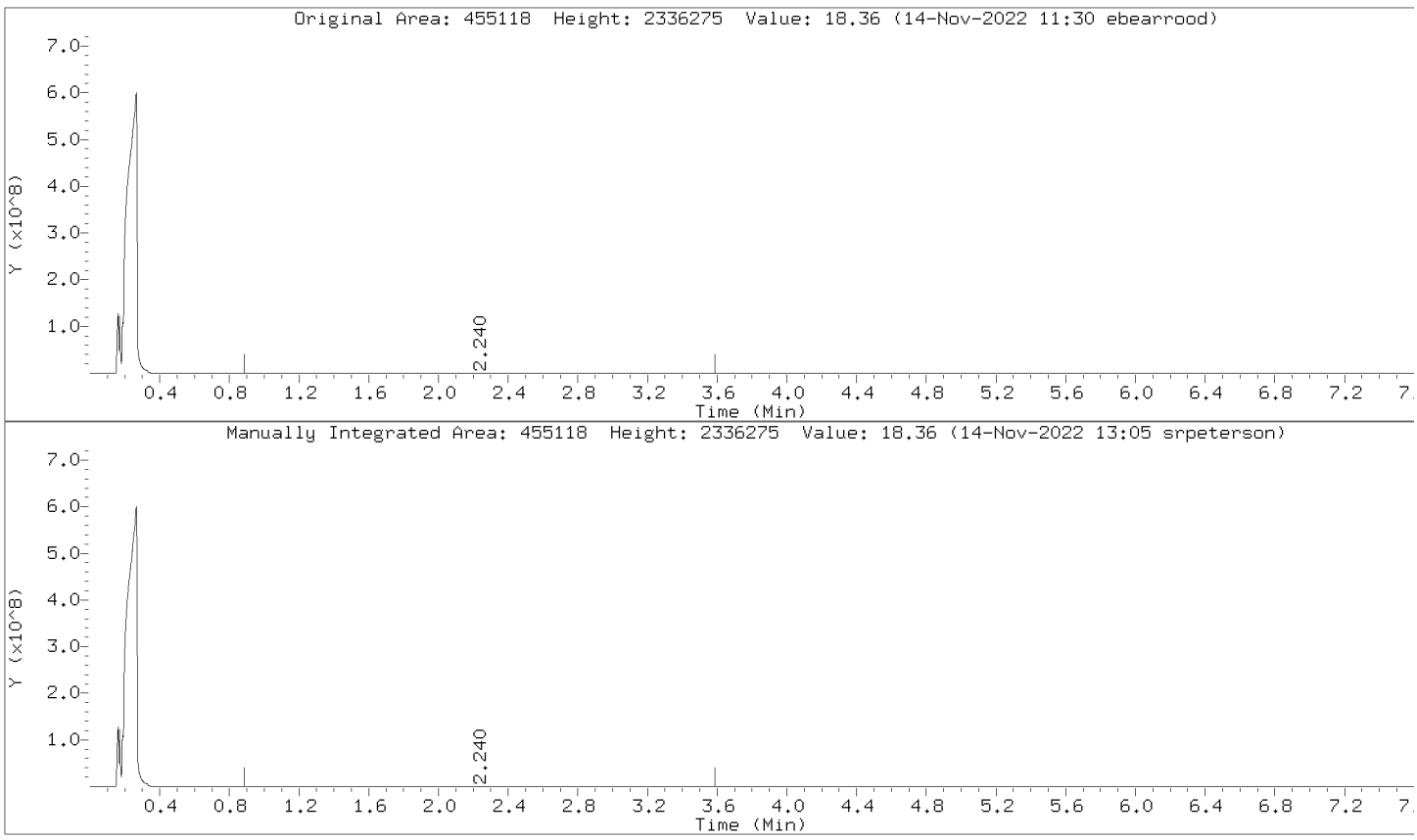
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



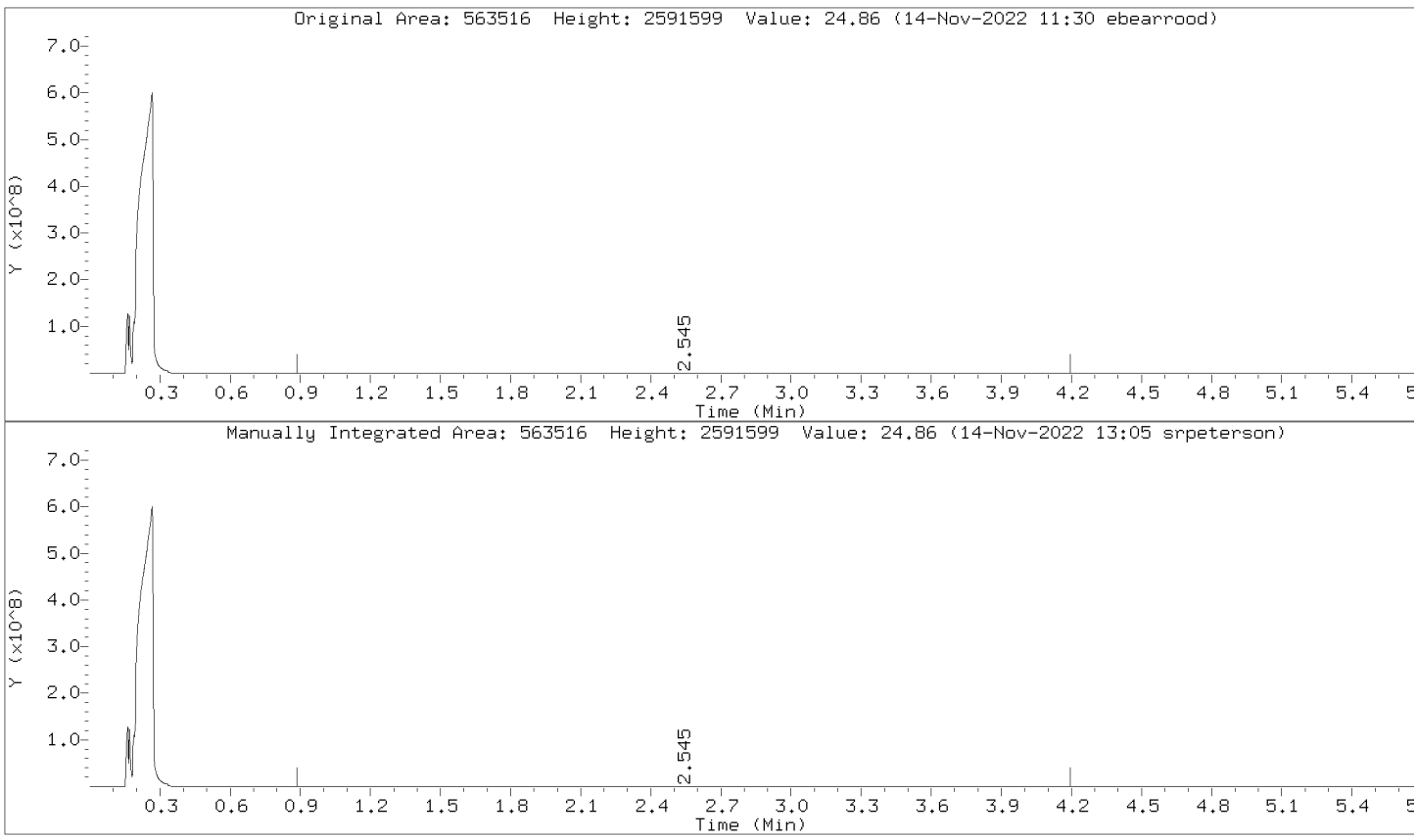
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



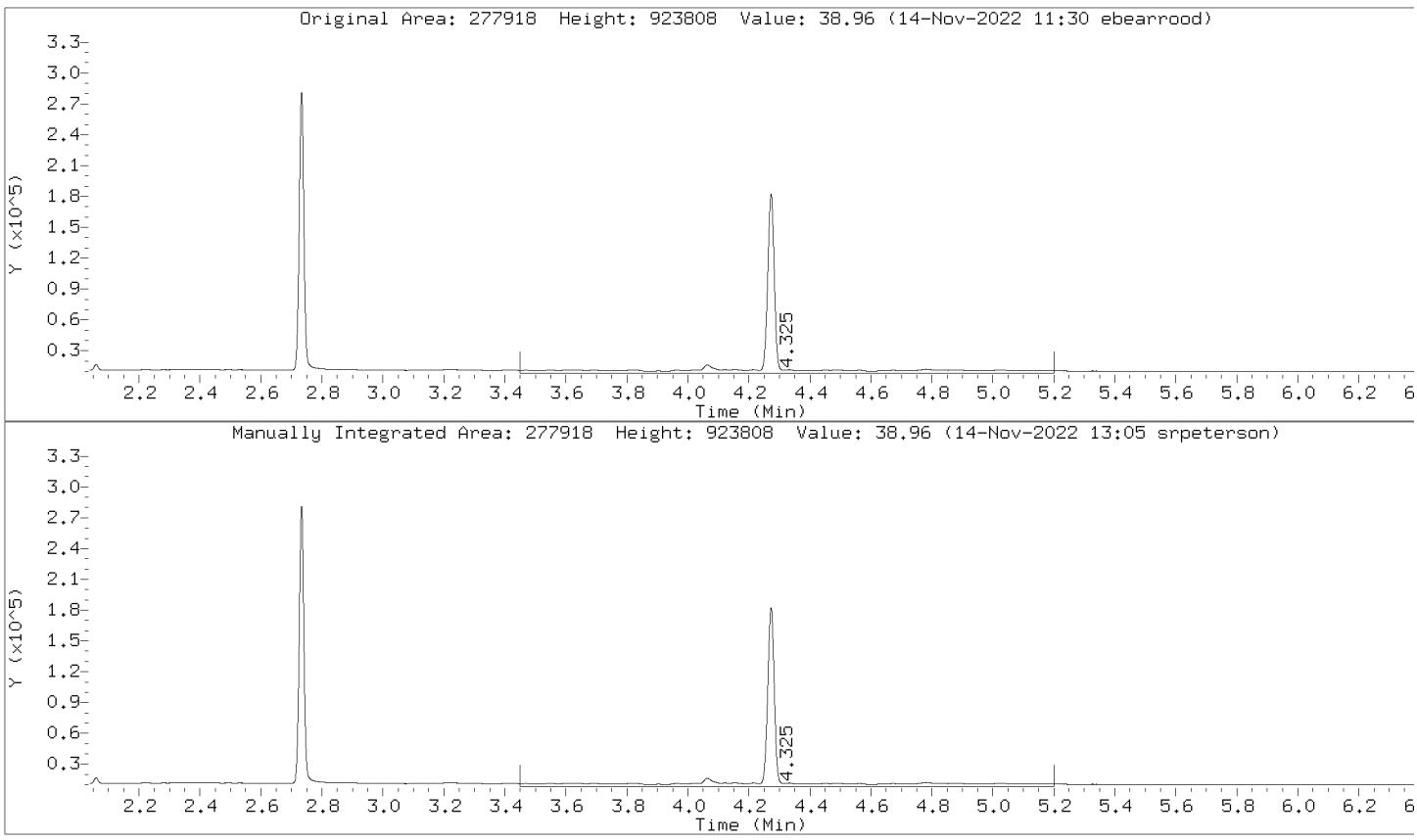
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



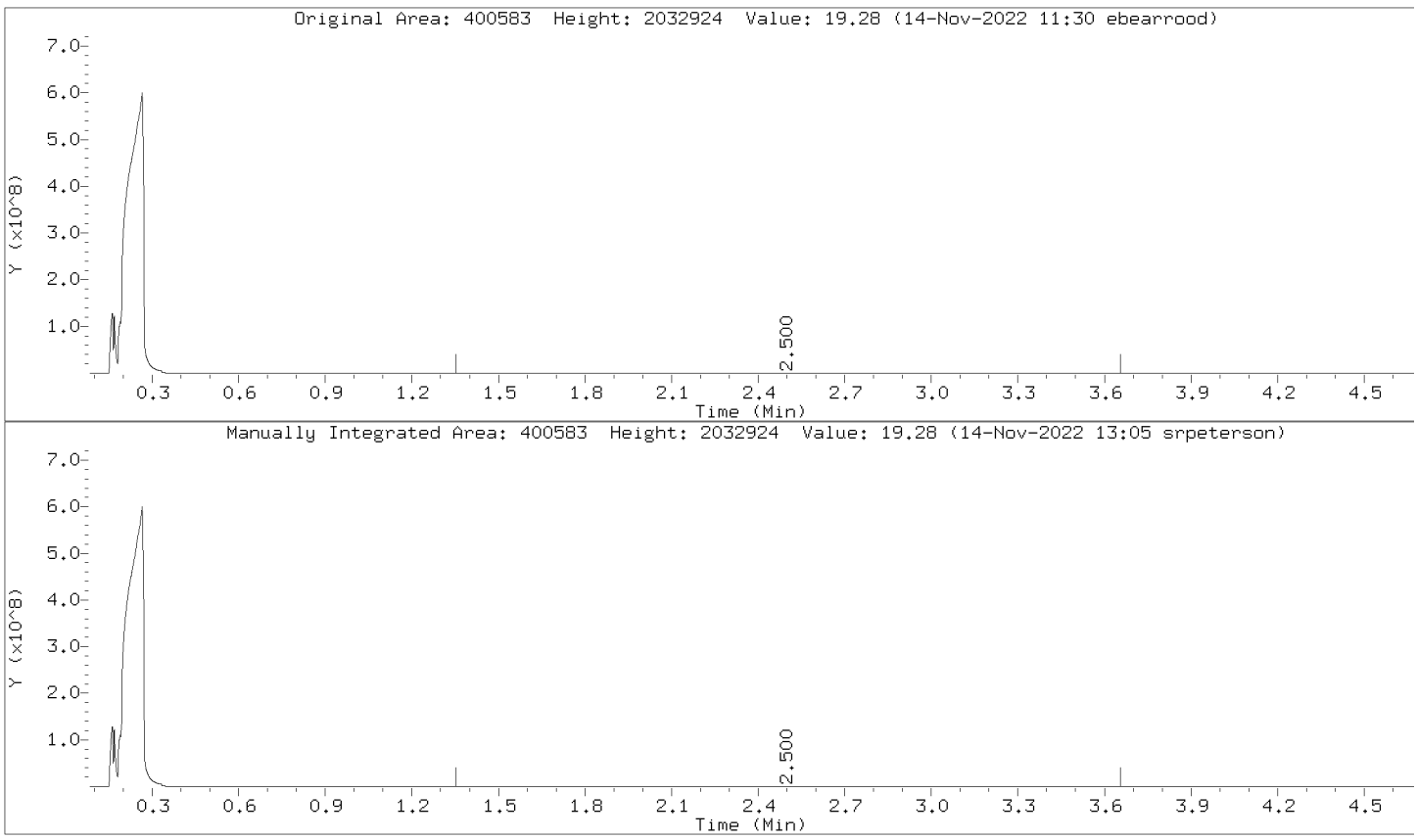
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



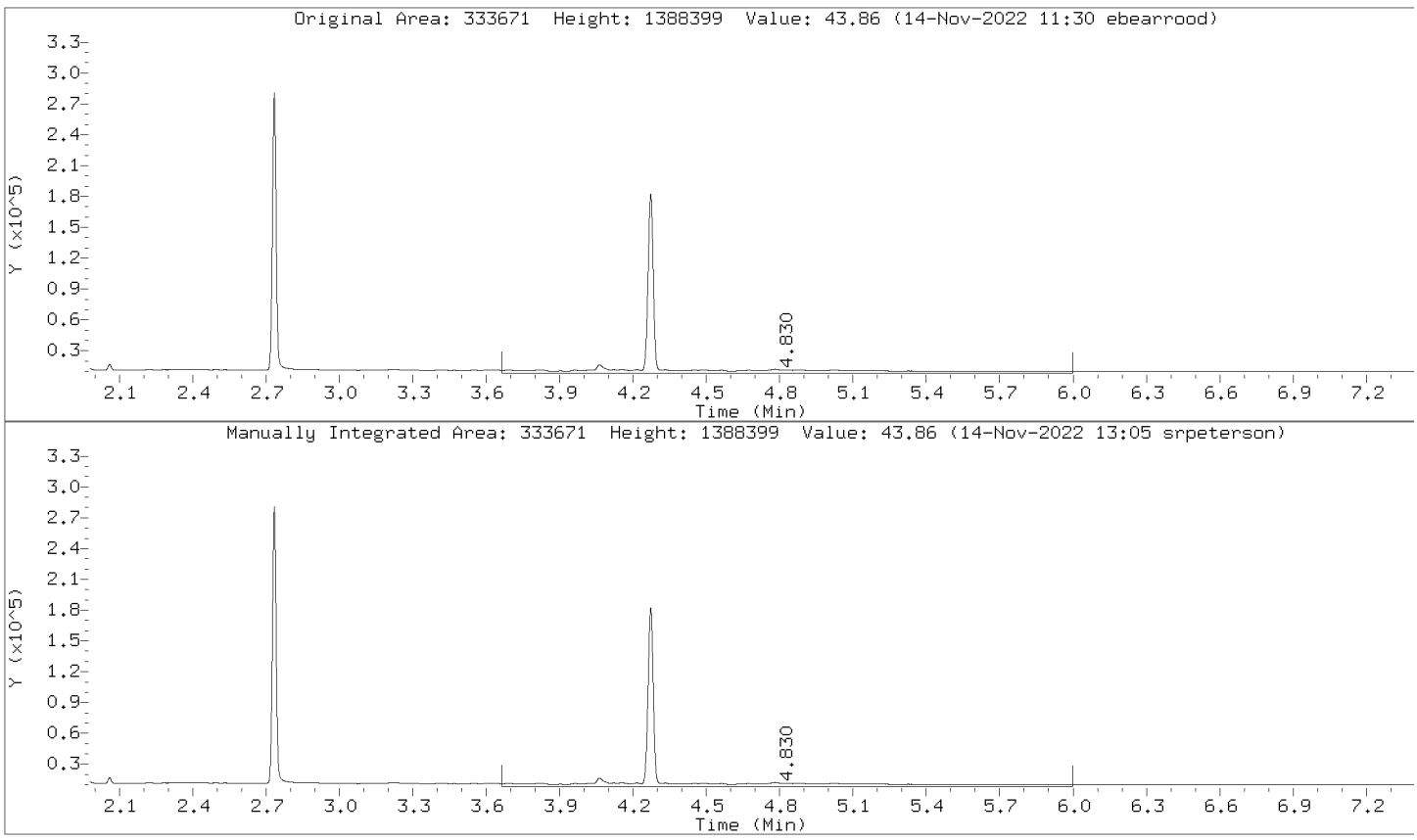
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



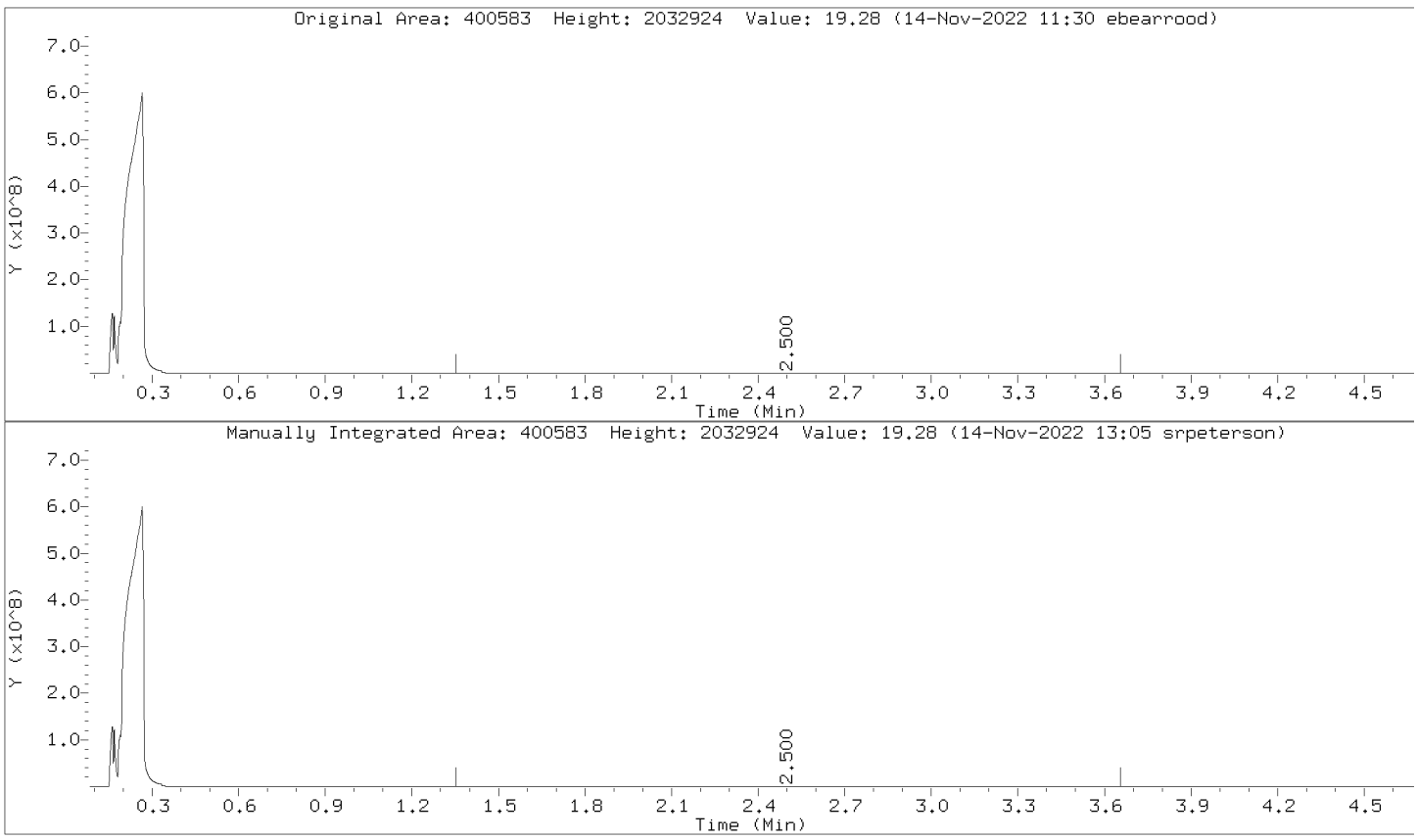
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range Review Code: RNG
CAS Number:



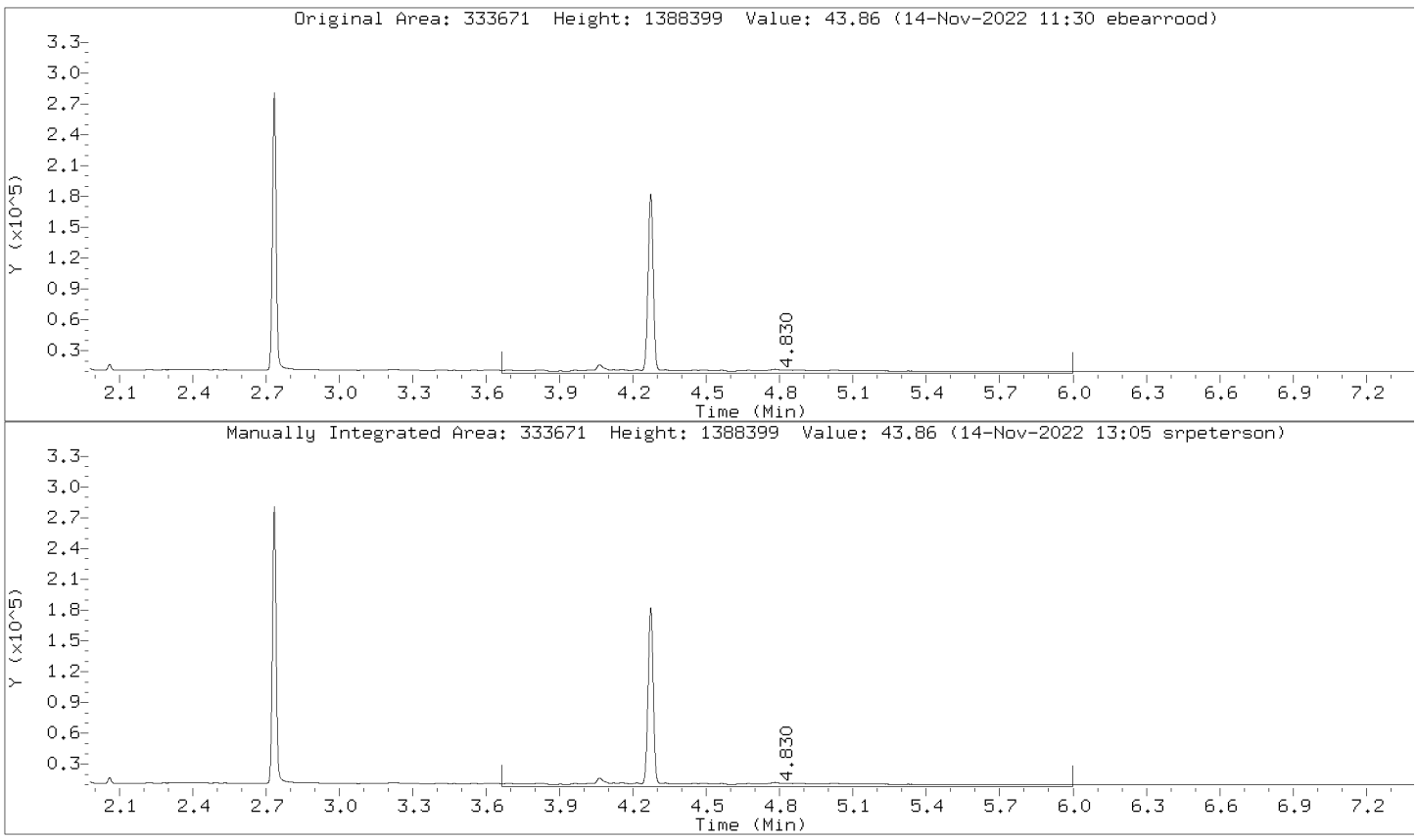
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



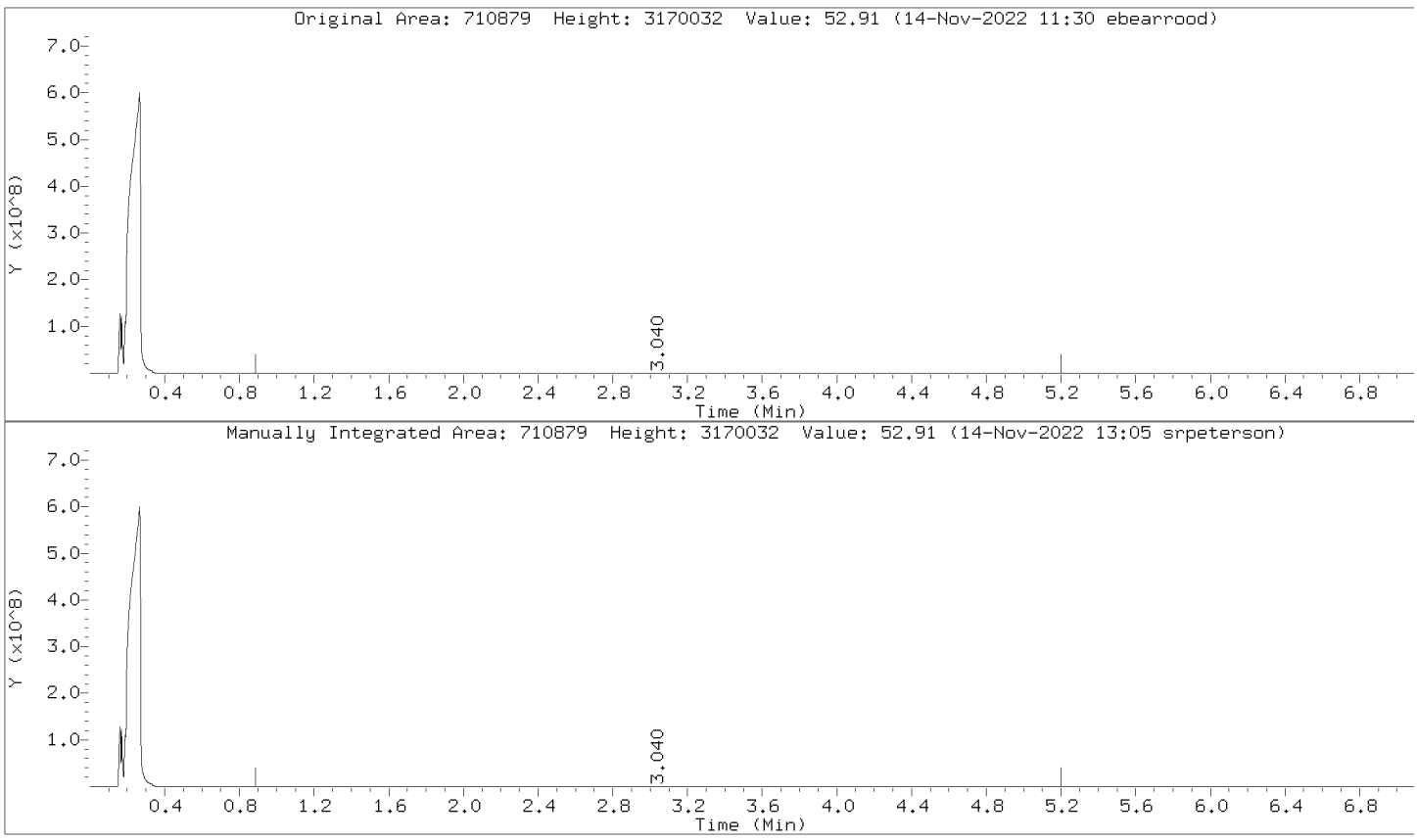
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



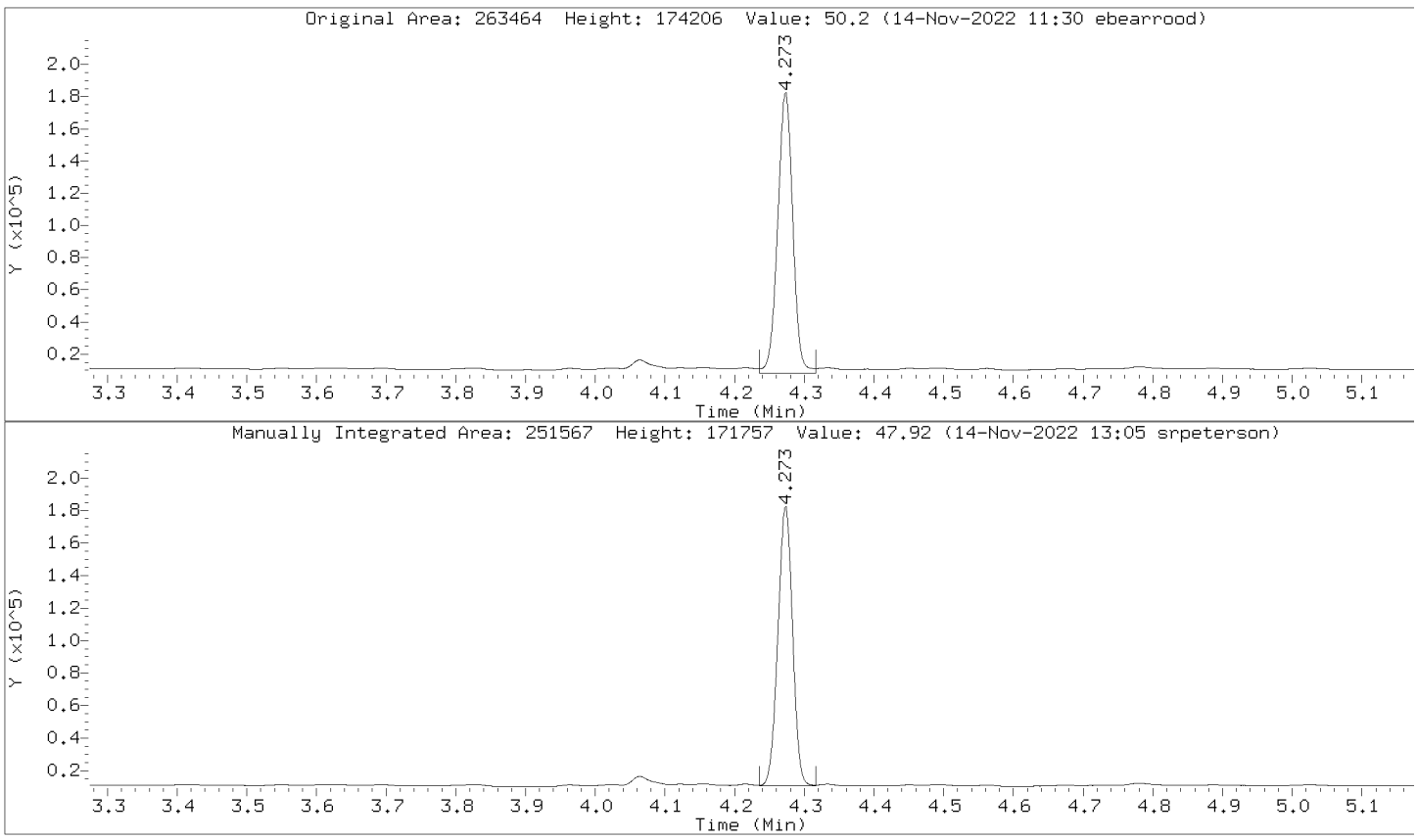
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: C10-C36 Review Code: RNG
CAS Number:



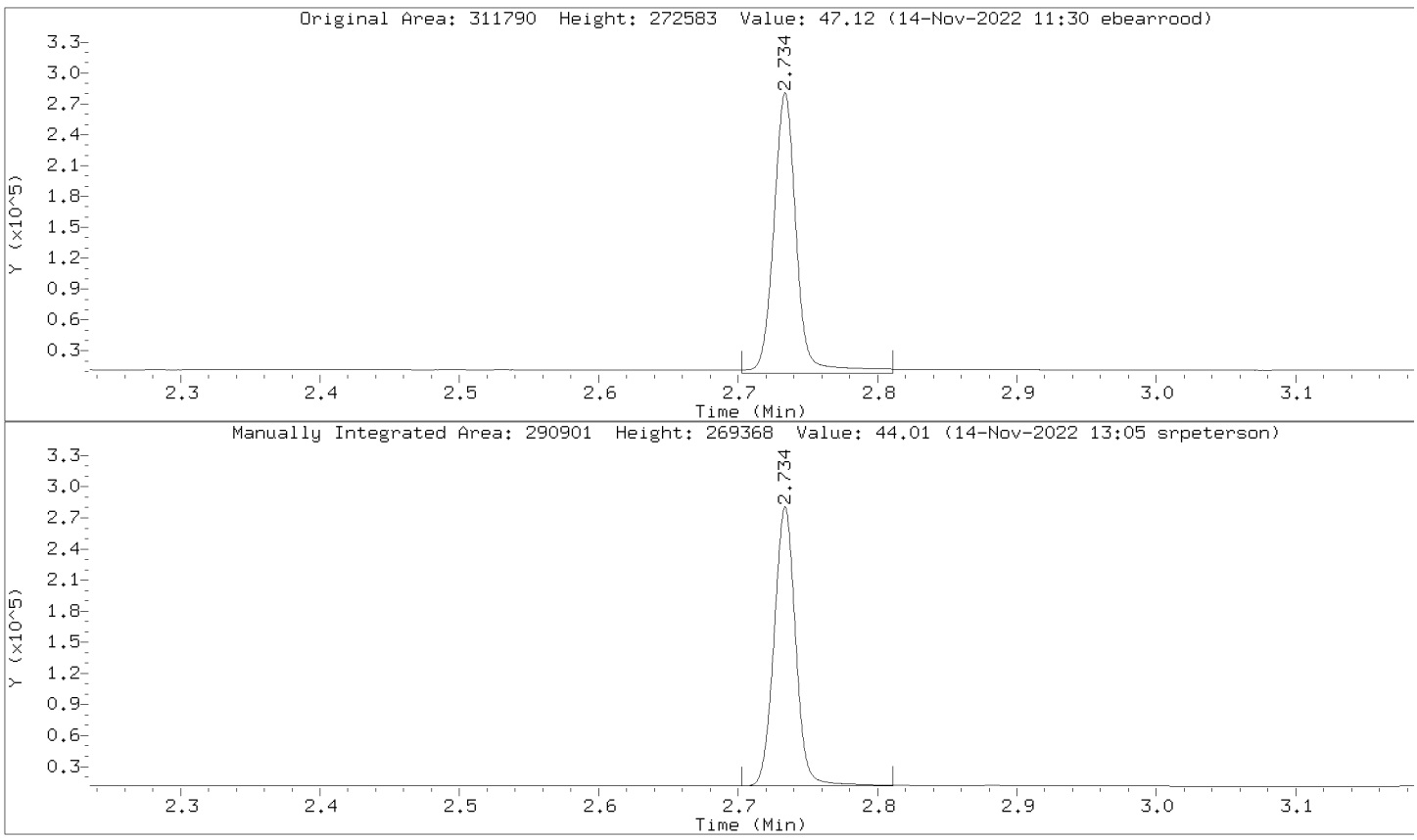
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000026.d
Injection Date: 11-NOV-2022 15:31
Instrument: 10gcsF.i
Lab Sample ID: 4506602

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	251114	251114
DRO by AK 102	455118	455118
TPH-DRO (C10-C28)	563516	563516
Motor Oil Range (C24-C36)	277918	277918
Diesel Fuel Range	400583	400583
Motor Oil Range	333671	333671
Diesel Fuel Range SG	400583	400583
Motor Oil Range SG	333671	333671
C10-C36	710879	710879
n-Triacontane (S)	263464	251567
o-Terphenyl (S)	311790	290901

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Solid SDG No.: 10632888
Date Extracted: 11/09/2022 07:04 Lab Sample ID: 4506603
Date Analyzed: 11/11/2022 15:43 Lab File ID: 111122R.B\1111R0000027.D
Initial wt/vol: 10 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	43.5	
	Motor Oil Range	49.6	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000027.d
Lab Smp Id: 4506603 Client Smp ID: MBLCS
Inj Date : 11-NOV-2022 15:43
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4506603
Misc Info : 41006
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111122R.b\GCSFakNW8015-111022_4098
Meth Date : 14-Nov-2022 11:31 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 21 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			2495772	378.926	37.9	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	298075	45.0778	4.51	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.274	0.000	265656	50.6167	5.06	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			1927091	503.603	50.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.210			3020288	398.489	39.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			2029563	503.479	50.3	(M)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.880	- 5.200		4434057	855.322	85.5	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2382698	435.148	43.5	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2382698	435.148	43.5	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2319054	496.286	49.6	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2319054	496.286	49.6	(M)	RNG

QC Flag Legend

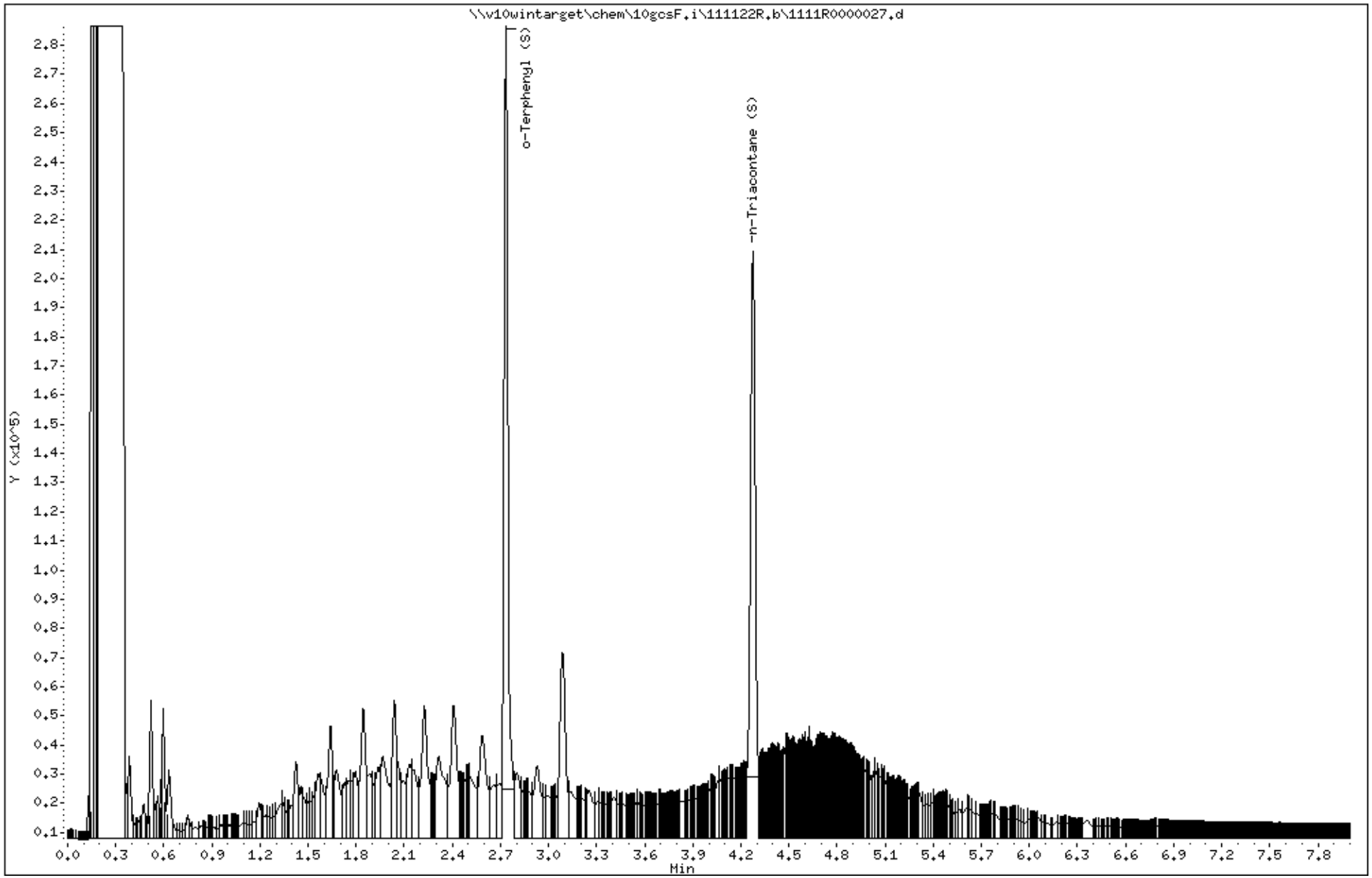
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

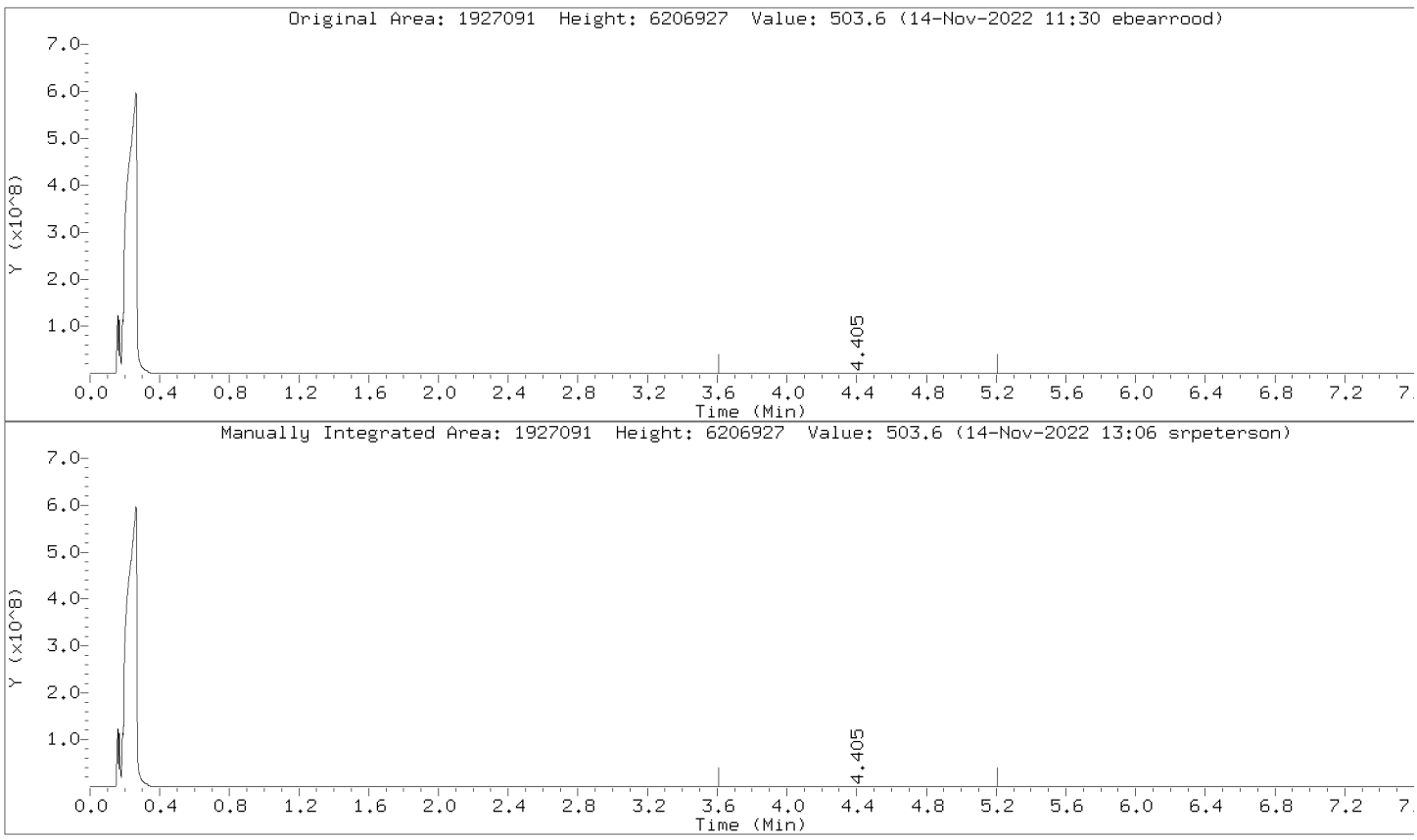
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b\1111R0000027.d
Date : 11-NOV-2022 15:43
Client ID: MBLCS
Sample Info: 4506603
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



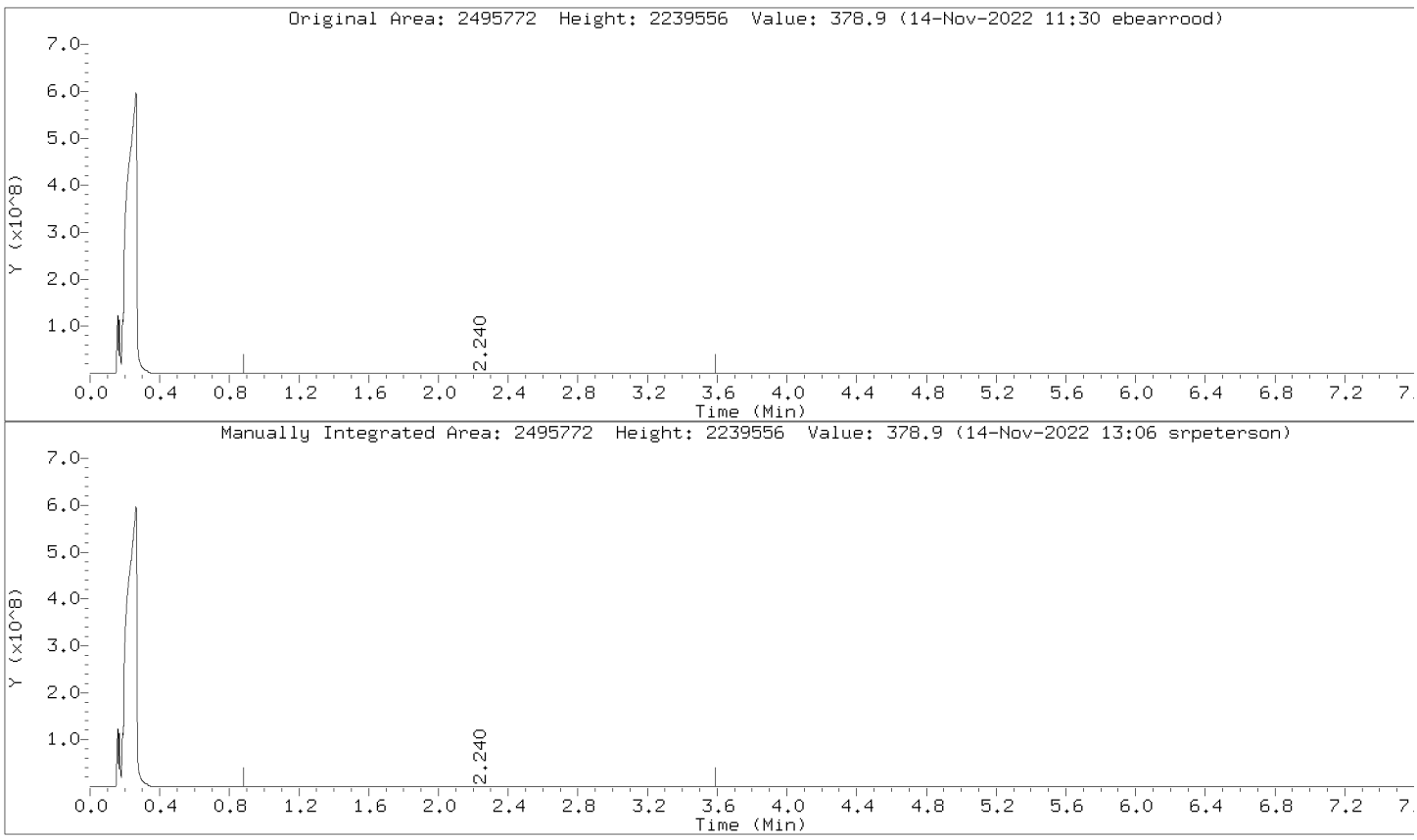
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



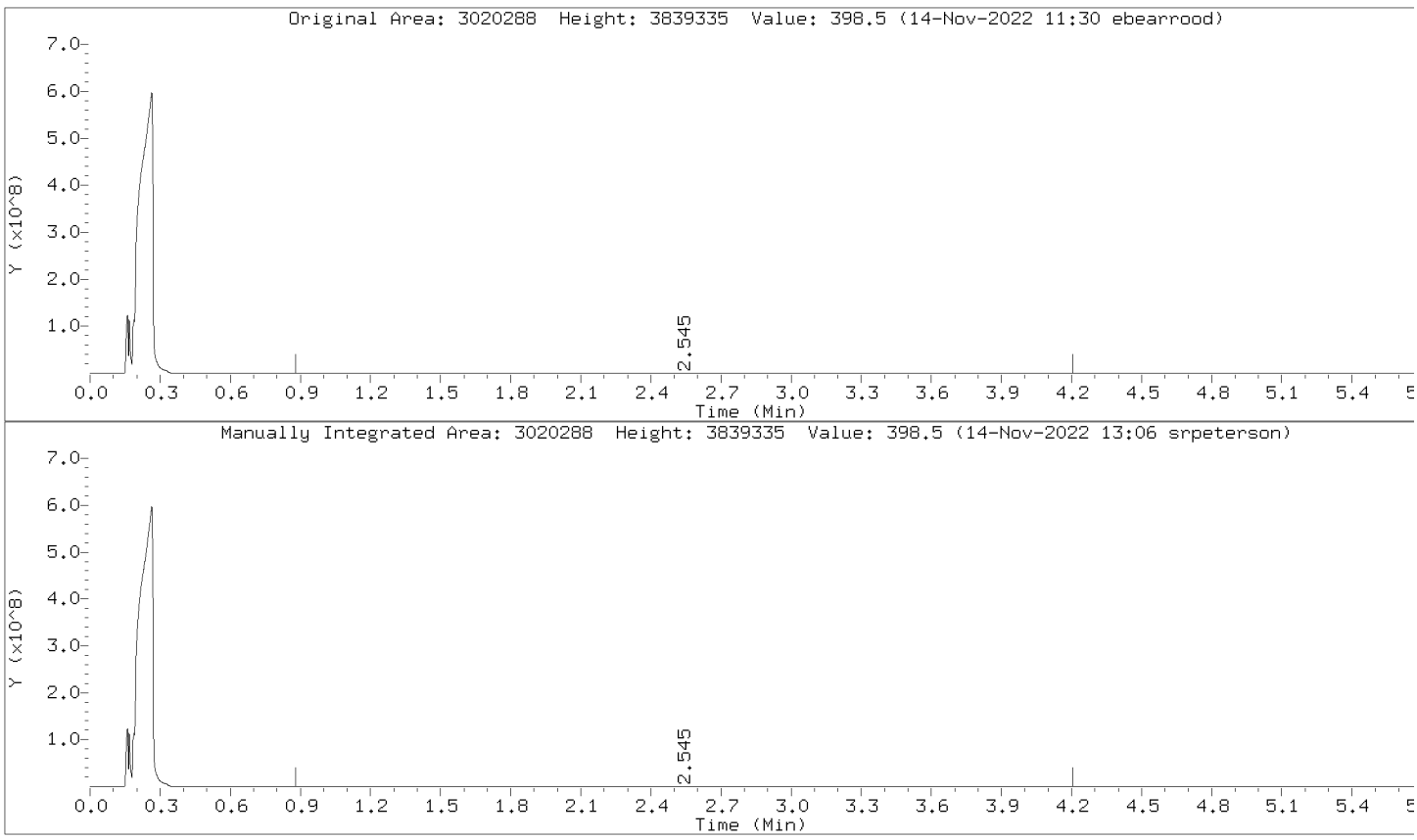
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



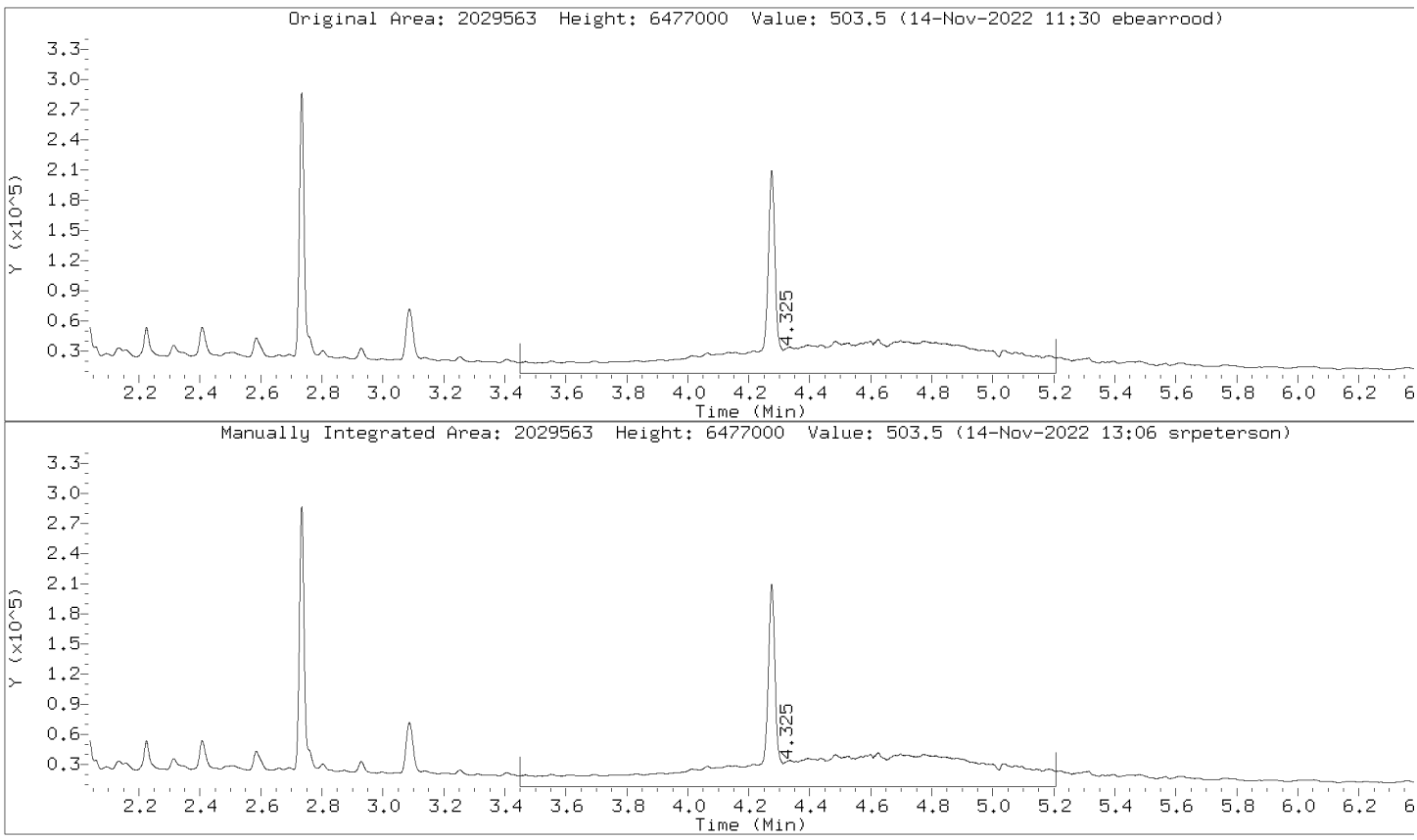
Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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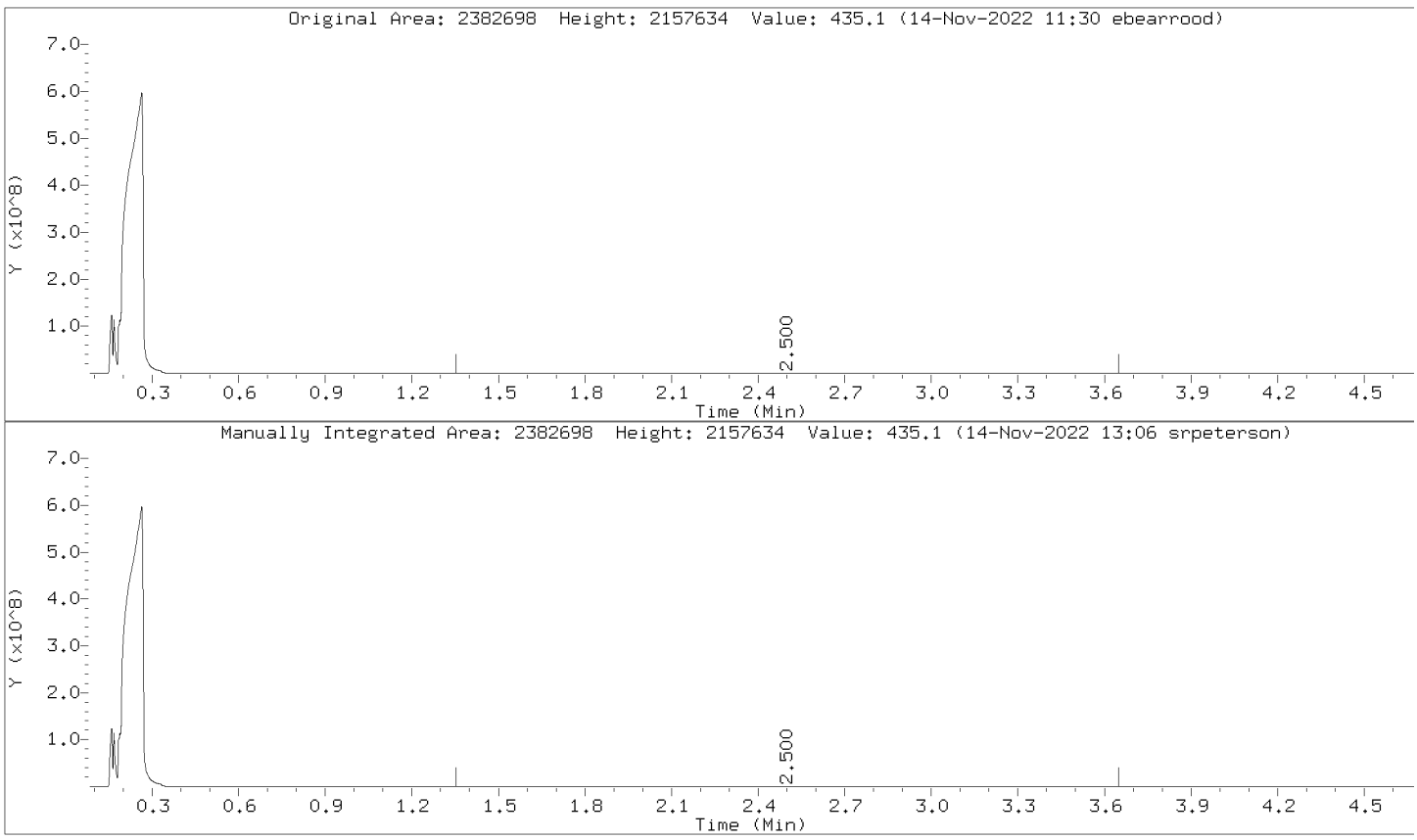
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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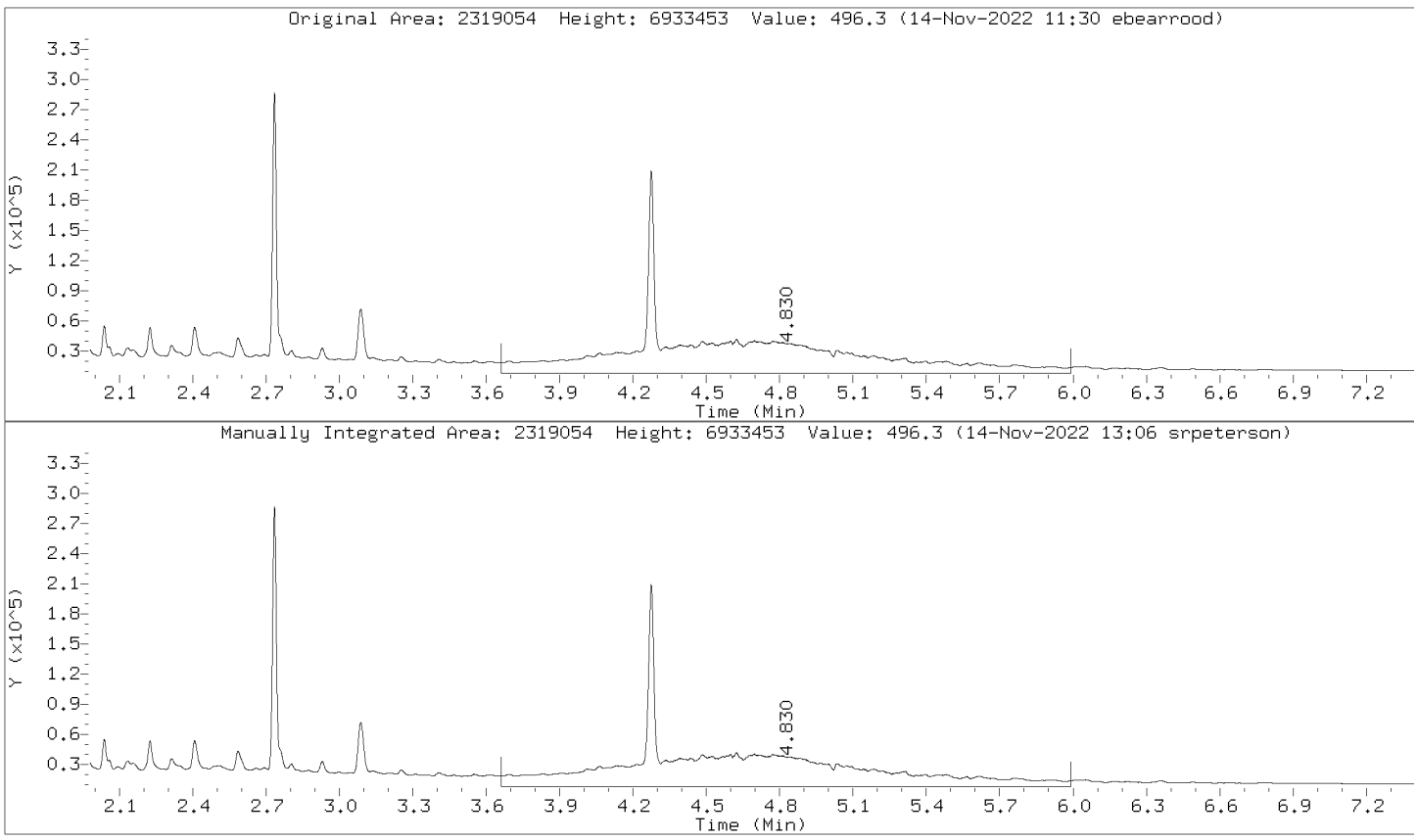
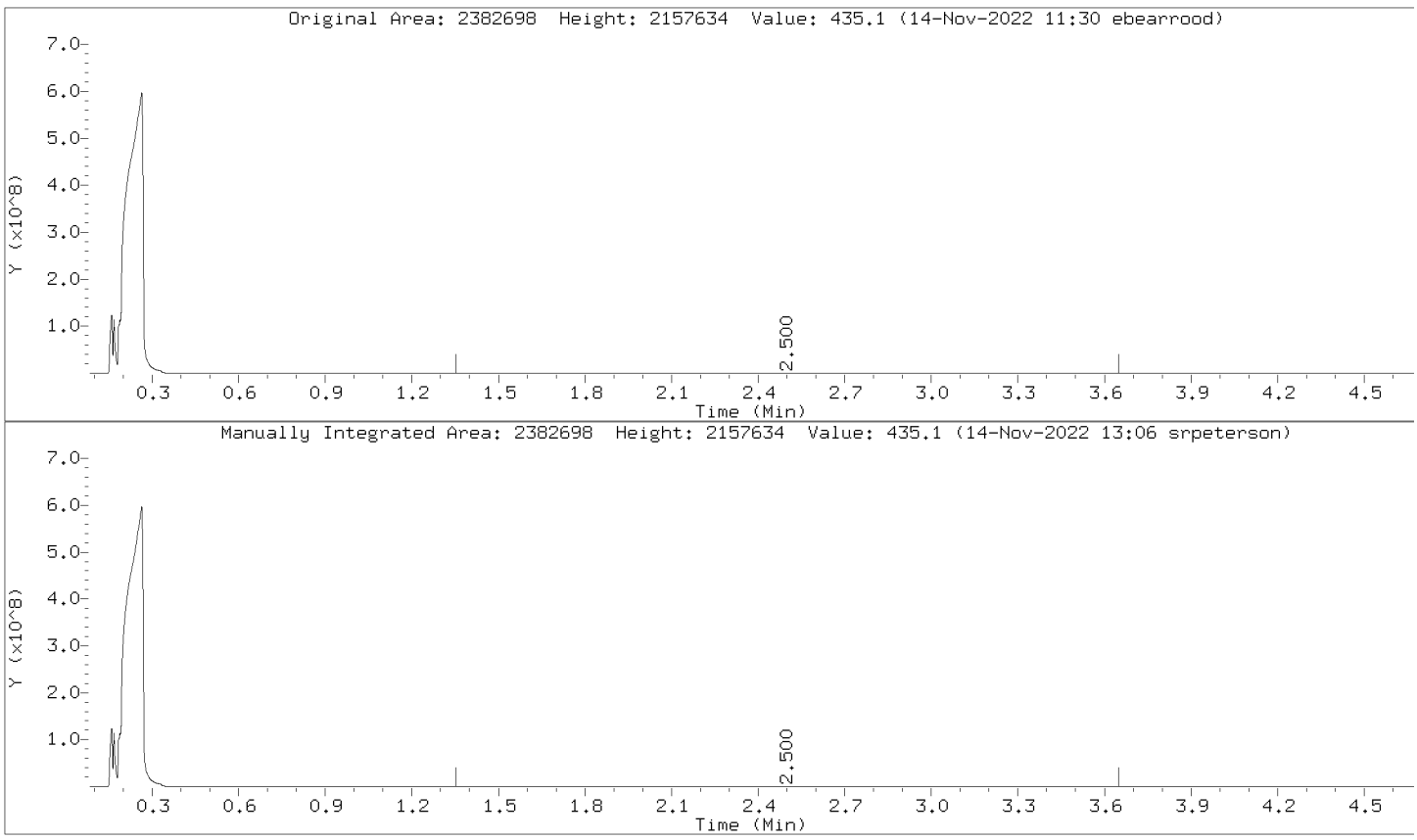
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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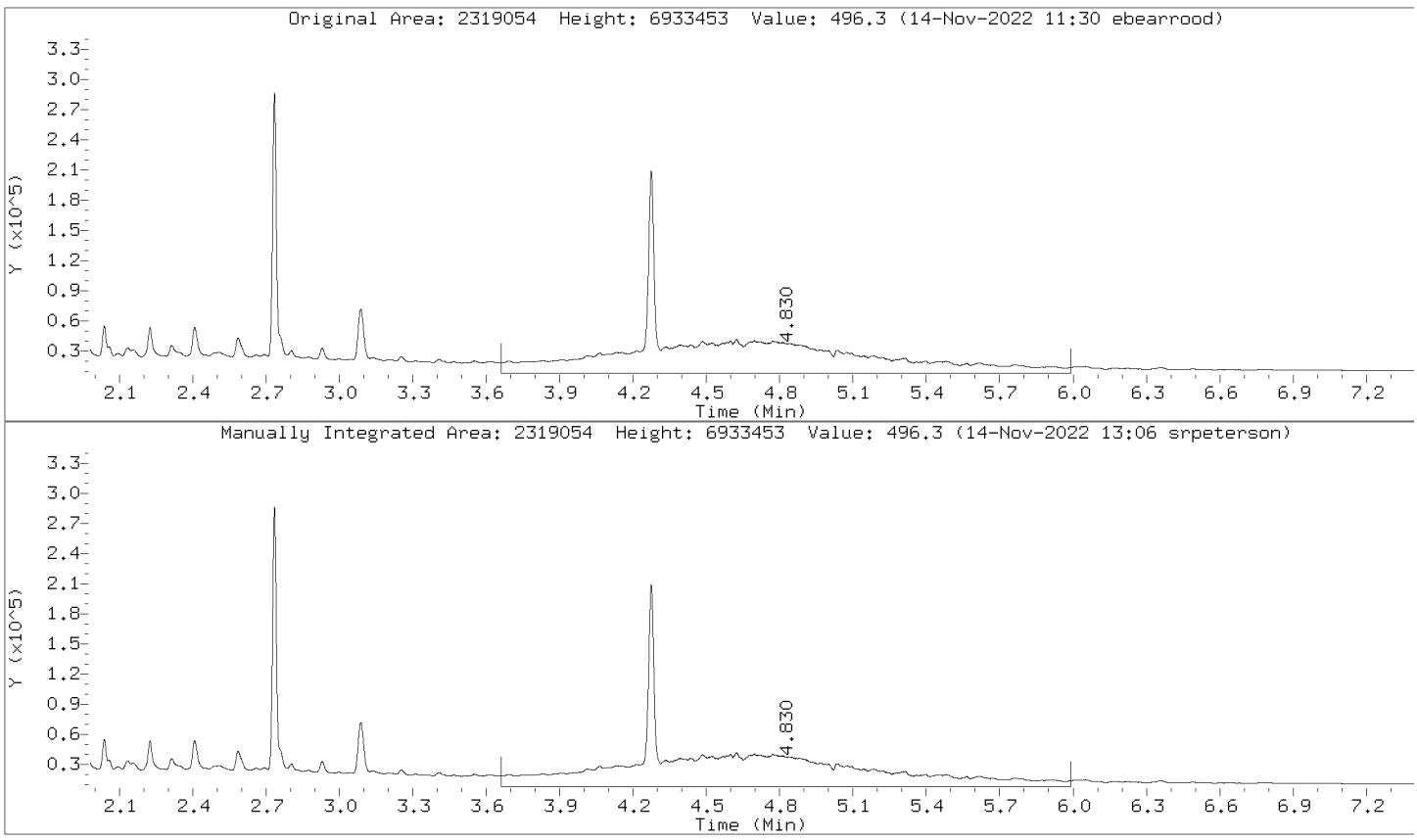
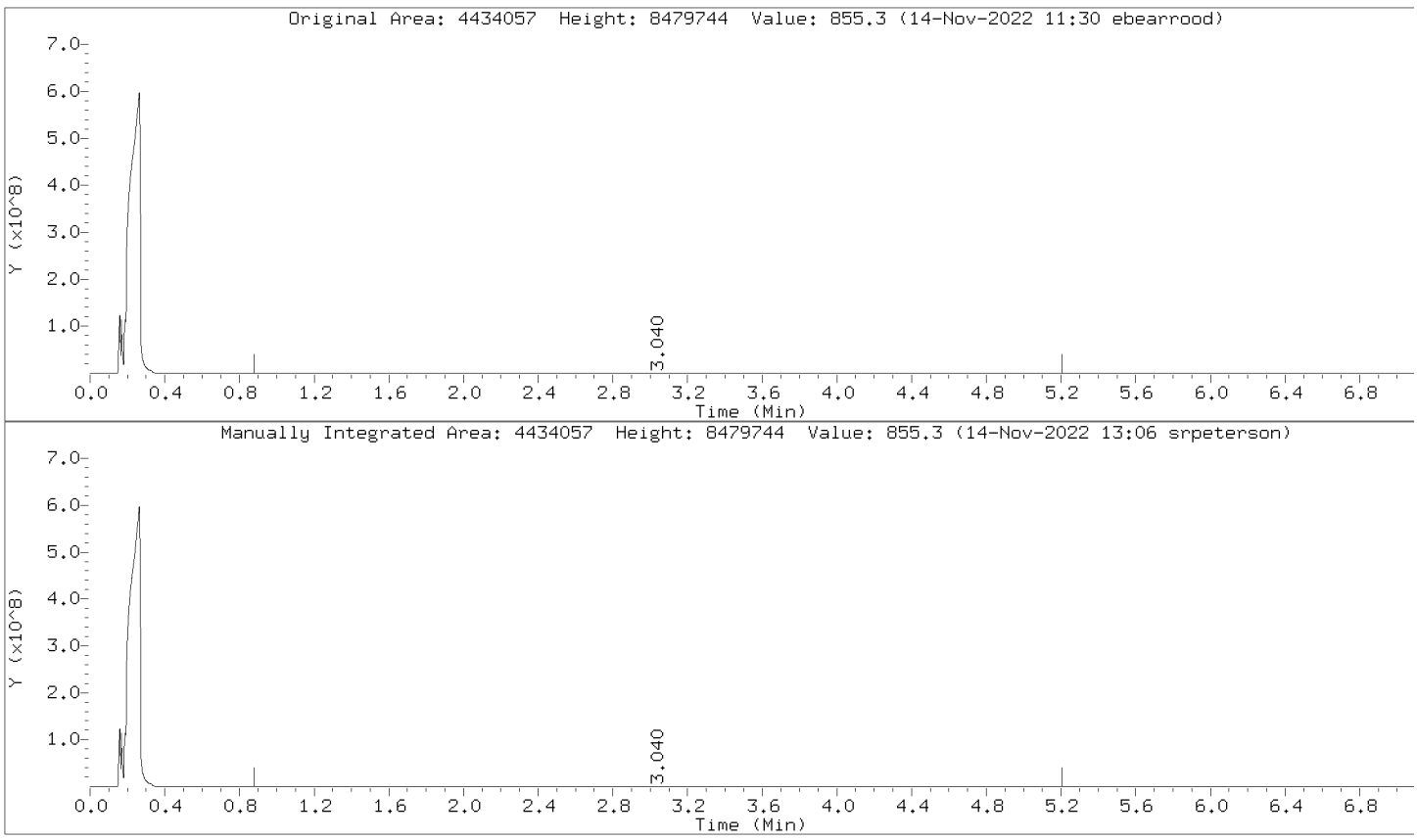
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: C10-C36 Review Code: RNG
CAS Number:



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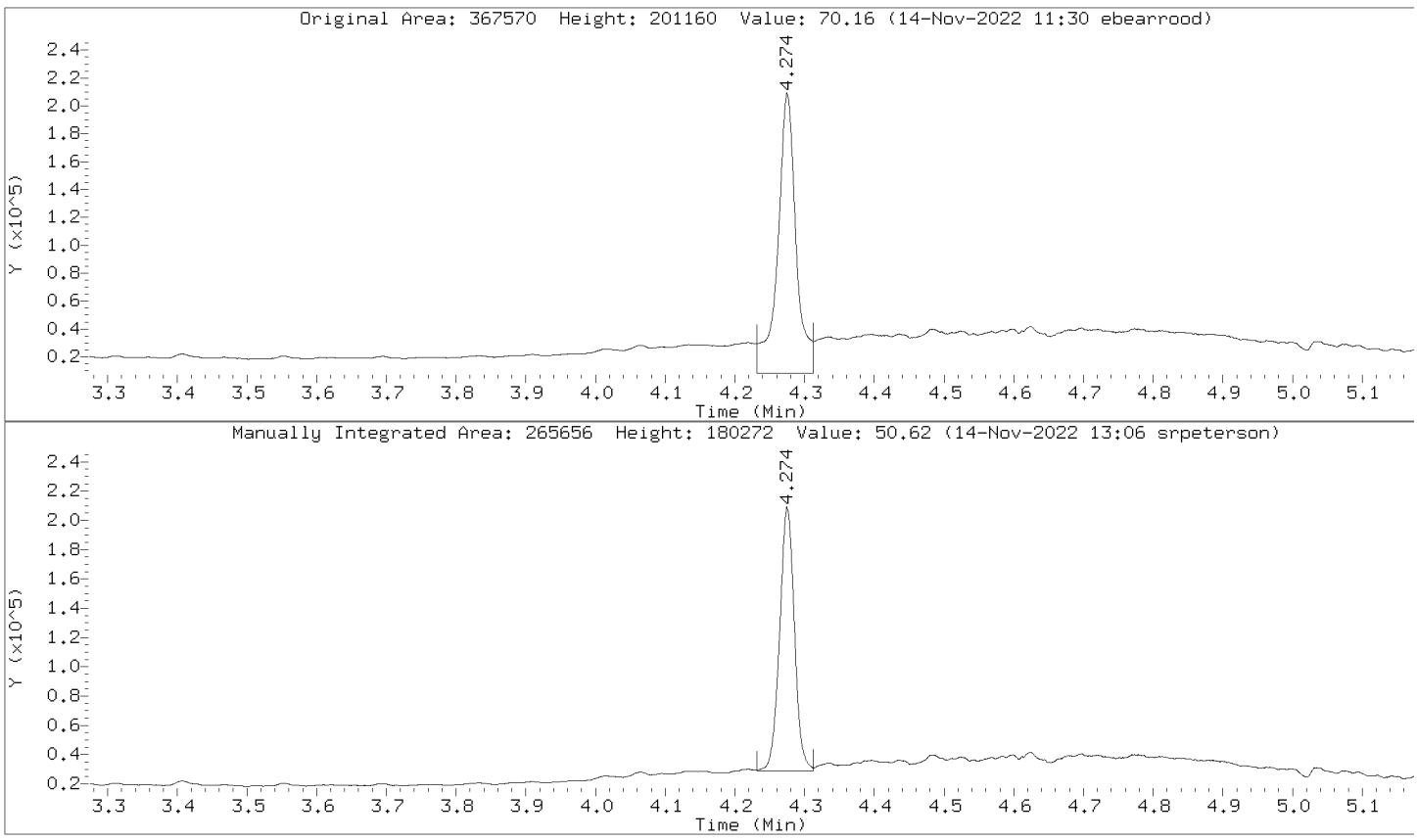
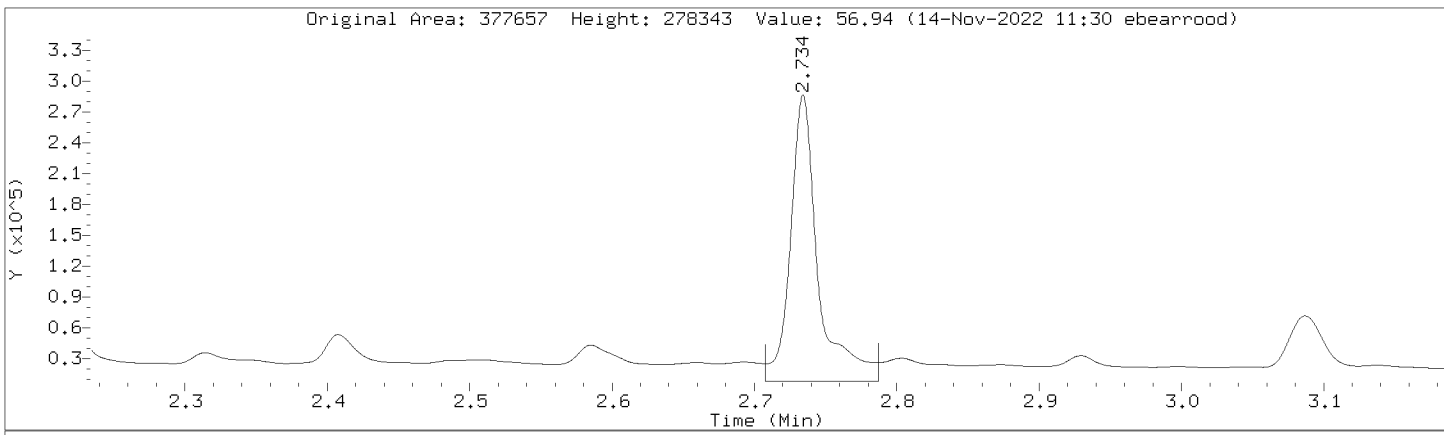
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

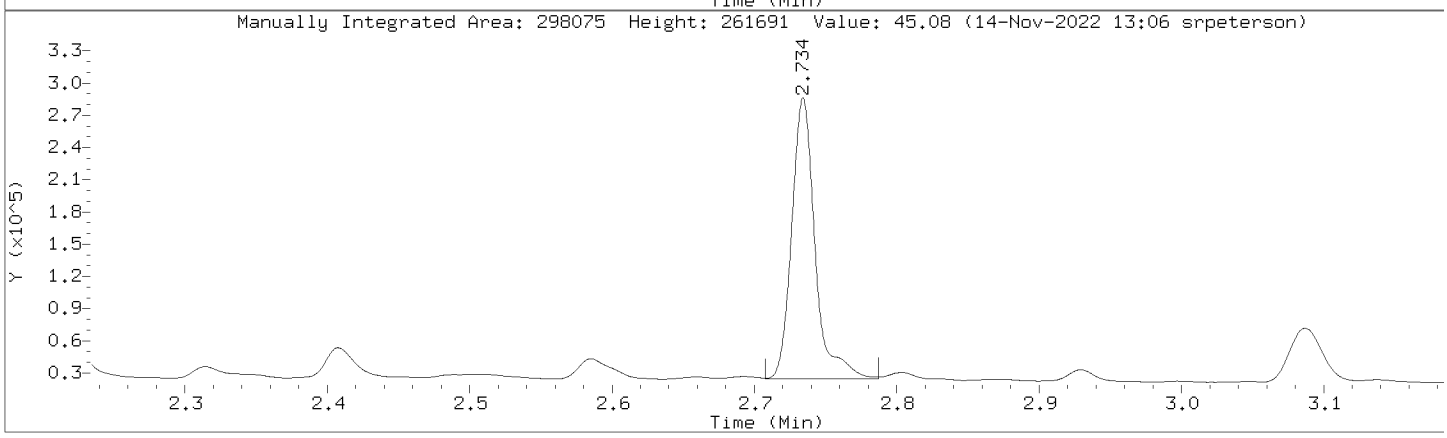
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111122R.b/1111R0000027.d
Injection Date: 11-NOV-2022 15:43
Instrument: 10gcsF.i
Lab Sample ID: 4506603

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1927091	1927091
DRO by AK 102	2495772	2495772
TPH-DRO (C10-C28)	3020288	3020288
Motor Oil Range (C24-C36)	2029563	2029563
Diesel Fuel Range	2382698	2382698
Motor Oil Range	2319054	2319054
Diesel Fuel Range SG	2382698	2382698
Motor Oil Range SG	2319054	2319054
C10-C36	4434057	4434057
n-Triacontane (S)	367570	265656
o-Terphenyl (S)	377657	298075

Prep Log Report

Batch Information: OEXT 67177 852301 NWDROS

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3550	Analysis Method	NWTPH-Dx	Prepared By	KG2	Extracted Date/Time	11/09/2022 07:04:17:202
Instrument	10BALW	Calibrated	Yes	Sonicator Tune Date	11/09/2022 07:04:12:009	Spiked By	KG2
Dispenser ID 1	Q617	Dispenser ID 2		Syringe ID 1	Q701	Syringe ID 2	Q628
Syringe ID 3	Q835	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	SC
Concentration Date/Time	11/10/2022 05:26:30:605	Methylene Chloride	394195	MeCl/Acetone 80:20	395153	Ottawa Sand	372714
Sodium Sulfate	393856	Glass Wool	392734	Gravity Filters	None Added	Vial Lot #	220211590
Reviewed By	FT1	Reviewed By Date	01/12/2023 14:57	Batch Notes	pipette PP5-13		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Spike Verified By	Container + Sample Wt (g)	Container Wt (g)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Sonicator ID	Water Bath ID	Water Bath Thermo ID	Correction Factor
NWDROS_P	BLANK	**4506602**	Y	Solid	scanner	no one to verify			10	1	10OP37	10OP29	210745396	1
NWDROS_P	LCS	**4506603**	Y	Solid	scanner	no one to verify			10	1	10OP04	10OP29	210745396	1
NWDROS_P	PS	**10632887001**	Y	Solid	scanner	no one to verify			10.07	1	10OP04	10OP29	210745396	1
NWDROS_P	MS	**4506604**	Y	Solid	scanner	no one to verify			10	1	10OP01	10OP29	210745396	1
NWDROS_P	MSD	**4506605**	Y	Solid	scanner	no one to verify			10.03	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10632887002**	Y	Solid	scanner	no one to verify			10.02	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10632888001**	Y	Solid	scanner	no one to verify			10.07	5	10OP37	10OP29	210745396	1

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	BLANK	**4506602**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	LCS	**4506603**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)
NWDROS_P	PS	**10632887001**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	MS	**4506604**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	MSD	**4506605**	98.00 | 99.00		389587 (250)	392918 (10)	386115 (25)
NWDROS_P	PS	**10632887002**	98.00 | 99.00			392918 (10)	386115 (25)
NWDROS_P	PS	**10632888001**	98.00 | 99.00	1*		392918 (10)	386115 (25)

Sample Notes:

1*: Finalized at 5ml

Standard Notes:

386115: received 9/9/22, Opened 11/7/22 KG2 **389587: 10GCSF 1005R000014.D** **392918: Recieved 10/20/22**

Pace Analytical™

Instrument Run Log

Instrument: 1110GCSF Method: 8015/AK/NW Solvent lot: 394317 Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:27	EB3	| PRL meeting criteria for everything except su
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_1	1/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_1	1/10/22 15:15	EB3	rx ooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_1	1/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_1	1/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_1	1/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_1	1/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_1	1/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_1	1/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_1	1/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_1	1/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_1	1/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_1	1/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_1	1/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_1	1/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_1	1/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_1	1/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_1	1/10/22 19:00	TT2	

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Instrument Run Log

Instrument 1110GCSF Method 8015/AK/NW Solvent lot 394317 Surrogate Lot See extract sheet
Column DB-5-US21130002 0.32mm Hy ISTD Lot NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022_1	1/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022_1	1/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022_1	1/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022_1	1/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022_1	1/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022_1	1/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022_1	1/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022_1	1/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_1	1/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022_1	1/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022_1	1/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_1	1/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022_1	1/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022_1	1/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022_1	1/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022_1	1/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_1	1/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022_1	1/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_1	1/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022_1	1/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_1	1/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022_1	1/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022_1	1/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022_1	1/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022_1	1/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022_1	1/11/22 01:50	TT2	

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Instrument Run Log

Instrument: 10GCSF Method: 8015/AK/NW Solvent lot: 394317 Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_1	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_1	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_1	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_1	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_1	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_1	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_1	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_1	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_1	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_1	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_1	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_1	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 12/23/2022 15:08
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:42	TT2	
1111R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 10:54	TT2	
1111R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:05	TT2	
1111R0000004.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 11:17	TT2	Pass 15% for all ranges
1111R0000005.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 11:29	TT2	OK
1111R0000006.D	10632809004	S/40992	Sample	5		GCSFAKNW8015-111022_	11/11/22 11:40	TT2	rr 1X
1111R0000007.D	10632809007	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 11:52	TT2	
1111R0000008.D	10632809003	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:04	TT2	
1111R0000009.D	10632809002	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:15	TT2	
1111R0000010.D	10632809006	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:27	TT2	
1111R0000011.D	10632809005	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 12:39	TT2	
1111R0000012.D	10631840002	S/40963	Sample	5		GCSFAKNW8015-111022_	11/11/22 12:51	TT2	rr 2X
1111R0000013.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:02	TT2	Pass 15% for all ranges
1111R0000014.D	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:14	TT2	OK
1111R0000015.D	10632809004	S/40992	Sample	1		GCSFAKNW8015-111022_	11/11/22 13:25	TT2	
1111R0000016.D	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 13:37	TT2	Pass 15% for all ranges
1111R0000017.D	4506646	L/41005	Blank	1		GCSFAKNW8015-111022_	11/11/22 13:48	EB3	
1111R0000018.D	4506647	L/41005	LCS	1		GCSFAKNW8015-111022_	11/11/22 14:00	EB3	
1111R0000019.D	10632588001	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:11	EB3	
1111R0000020.D	4506691	L/41005	Dupe	1		GCSFAKNW8015-111022_	11/11/22 14:23	EB3	
1111R0000021.D	10632881002	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 14:34	EB3	
1111R0000022.D	4507080	L/41005	MS	1		GCSFAKNW8015-111022_	11/11/22 14:46	EB3	
1111R0000023.D	4507081	L/41005	MSD	1		GCSFAKNW8015-111022_	11/11/22 14:57	EB3	
1111R0000024.D	10632881003	L/41005	Sample	1		GCSFAKNW8015-111022_	11/11/22 15:08	EB3	
1111R0000025C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 15:20	EB3	Pass 15% for all ranges
1111R0000026.D	4506602	S/41006	Blank	1		GCSFAKNW8015-111022_	11/11/22 15:31	EB3	
1111R0000027.D	4506603	S/41006	LCS	1		GCSFAKNW8015-111022_	11/11/22 15:43	EB3	
1111R0000028.D	10632887001	S/41006	Sample	10		GCSFAKNW8015-111022_	11/11/22 15:54	EB3	
1111R0000029.D	4506604	S/41006	MS	10		GCSFAKNW8015-111022_	11/11/22 16:06	EB3	
1111R0000030.D	4506605	S/41006	MSD	10		GCSFAKNW8015-111022_	11/11/22 16:17	EB3	
1111R0000031.D	10632887002	S/41006	Sample	50		GCSFAKNW8015-111022_	11/11/22 16:28	EB3	rr 20X
1111R0000032.D	10632888001	/41006	Sample	100		GCSFAKNW8015-111022_	11/11/22 16:40	EB3	CA'd by PM
1111R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 16:51	EB3	Pass 15% for all ranges
1111R0000034.D	4505696	L/41007	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000034B.	4505693	L/41008	Blank	1		GCSFAKNW8015-111022_	11/11/22 17:03	EB3	
1111R0000035.D	4505697	L/41007	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000035B.	4505694	L/41008	LCS	1		GCSFAKNW8015-111022_	11/11/22 17:14	EB3	
1111R0000036.D	4505698	L/41007	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000036B.	4505695	L/41008	LCSD	1		GCSFAKNW8015-111022_	11/11/22 17:26	EB3	
1111R0000037.D	10632749001	L/41007	Sample	10		GCSFAKNW8015-111022_	11/11/22 17:37	EB3	
1111R0000038.D	10632742001	L/41008	Sample	1		GCSFAKNW8015-111022_	11/11/22 17:48	EB3	
1111R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 18:00	EB3	Pass 15% for all ranges
1111R0000040.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000040B.	4504340	S/41009	Blank	1		GCSFAKNW8015-111022_	11/11/22 18:11	EB3	
1111R0000041.D	4504349	S/41010	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	
1111R0000041B.	4504341	S/41009	LCS	1		GCSFAKNW8015-111022_	11/11/22 18:23	EB3	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1111R0000042.D	10632396001	S/41009	Sample	100		GCSFAKNW8015-111022_	11/11/22 18:34	EB3	
1111R0000043.D	10632545001	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000043B.	10632656001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 18:45	EB3	
1111R0000044.D	4504350	S/41010	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000044B.	4504448	S/41009	MS	1		GCSFAKNW8015-111022_	11/11/22 18:57	EB3	
1111R0000045.D	4504351	S/41010	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000045B.	4504449	S/41009	MSD	1		GCSFAKNW8015-111022_	11/11/22 19:08	EB3	
1111R0000046.D	10632545002	S/41010	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:20	EB3	
1111R0000047.D	10632567001	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:31	EB3	
1111R0000048.D	10632567002	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:43	EB3	
1111R0000049.D	10632567003	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 19:54	EB3	
1111R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 20:05	EB3	Pass 15% for all ranges
1111R0000051.D	4504348	S/41010	Blank	1		GCSFAKNW8015-111022_	11/11/22 20:17	EB3	
1111R0000052.D	10632567004	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:28	EB3	
1111R0000053.D	10632567005	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:40	EB3	
1111R0000054.D	10632567006	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 20:51	EB3	
1111R0000055.D	10632567007	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:02	EB3	
1111R0000056.D	10632567008	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:14	EB3	
1111R0000057.D	10632567009	S/41009	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:25	EB3	
1111R0000058.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:37	EB3	
1111R0000059C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 21:48	EB3	Pass 15% for all ranges
1111R0000060.D	PBLK,4504348	/	Sample	1		GCSFAKNW8015-111022_	11/11/22 21:59	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111122R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/14/2022 11:44
ReviewedBy/Date:

SAMPLE NO.

BNSF-G200-SC-4.0-5.0-110722

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Lab Sample ID: 10632888001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	27.3		%	1	01/13/2023 10:20

SAMPLE NO.

4555987DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	13.2	14.0	6

SAMPLE NO.

4555988DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	12.1	13.0	7

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 131257

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4555987	4555987	01/13/2023	1	1
4555988	4555988	01/13/2023	1	1
10632888001	BNSF-G200-SC-4.0-5.0-	01/13/2023	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10632888 Contract: D3631600

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 01/13/2023 10:20 End Date: 01/13/2023 10:24

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BNSF-G200-SC-4.0-5.0-	10632888001	1	01/13/2023	10:20	X
10639487082	10639487082	1	01/13/2023	10:20	X
4555988DUP	4555988	1	01/13/2023	10:20	X
10639487098	10639487098	1	01/13/2023	10:24	X
4555987DUP	4555987	1	01/13/2023	10:24	X

Prep Log Report

Batch Information: 862526 131257 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 01/13/2023 10:44 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 01/14/2023 08:00 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 01/14/2023 08:00 | JDL	Desic. Out 1 Date/Time | Init	01/14/2023 08:30 | JDL	Reviewed By	RAM
Reviewed By Date	01/16/2023 13:28	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10632888001**	Y		72.74	27.26	01/13/2023 10:20:21	6.9248	1.2748	9.0419	6.9248	M	
DRY WEIGHT	PS	**10639487081**	Y		86.74	13.26	01/13/2023 10:20:33	8.1219	1.2794	9.1677	8.1219	M	
DRY WEIGHT	PS	**10639487082**	Y		87.91	12.09	01/13/2023 10:20:45	8.9108	1.2724	9.9616	8.9108	M	
DRY WEIGHT	DUP	**4555988**	Y		87.00	13.00	01/13/2023 10:20:57	8.6997	1.2821	9.8082	8.6997	M	
DRY WEIGHT	PS	**10639487083**	Y		84.18	15.82	01/13/2023 10:21:16	8.4262	1.2814	9.7689	8.4262	M	
DRY WEIGHT	PS	**10639487084**	Y		88.02	11.98	01/13/2023 10:21:30	8.8629	1.2732	9.8955	8.8629	M	
DRY WEIGHT	PS	**10639487085**	Y		86.42	13.58	01/13/2023 10:21:42	8.5201	1.2793	9.6582	8.5201	M	
DRY WEIGHT	PS	**10639487086**	Y		86.82	13.18	01/13/2023 10:21:55	8.4627	1.2862	9.5521	8.4627	M	
DRY WEIGHT	PS	**10639487087**	Y		86.35	13.65	01/13/2023 10:22:07	8.7552	1.2791	9.9366	8.7552	M	
DRY WEIGHT	PS	**10639487088**	Y		84.88	15.12	01/13/2023 10:22:20	8.4136	1.2837	9.6841	8.4136	M	
DRY WEIGHT	PS	**10639487089**	Y		88.60	11.40	01/13/2023 10:22:31	8.3625	1.2771	9.2739	8.3625	M	
DRY WEIGHT	PS	**10639487090**	Y		85.69	14.31	01/13/2023 10:22:51	8.2339	1.2823	9.3944	8.2339	M	
DRY WEIGHT	PS	**10639487091**	Y		79.88	20.12	01/13/2023 10:23:02	8.1081	1.2806	9.8275	8.1081	M	
DRY WEIGHT	PS	**10639487092**	Y		83.41	16.59	01/13/2023 10:23:18	8.0151	1.2811	9.3542	8.0151	M	
DRY WEIGHT	PS	**10639487093**	Y		83.37	16.63	01/13/2023 10:23:31	7.7449	1.2794	9.0349	7.7449	M	
DRY WEIGHT	PS	**10639487094**	Y		80.26	19.74	01/13/2023 10:23:44	7.7451	1.2767	9.3362	7.7451	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10639487095**	Y		84.80	15.20	01/13/2023 10:23:56	8.4056	1.2802	9.6825	8.4056	M	
DRY WEIGHT	PS	**10639487096**	Y		87.45	12.55	01/13/2023 10:24:07	8.2009	1.2778	9.1943	8.2009	M	
DRY WEIGHT	PS	**10639487097**	Y		87.64	12.36	01/13/2023 10:24:20	8.8537	1.2888	9.9209	8.8537	M	
DRY WEIGHT	PS	**10639487098**	Y		86.81	13.19	01/13/2023 10:24:34	8.8143	1.2757	9.9599	8.8143	M	
DRY WEIGHT	DUP	**4555987**	Y		85.97	14.03	01/13/2023 10:24:45	8.7022	1.2822	9.9129	8.7022	M	
DRY WEIGHT	PS	**10639487099**	Y		68.77	31.23	01/13/2023 10:24:56	6.7923	1.2774	9.2973	6.7923	M	

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 22, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10633565

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 11, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633565

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633565

Pace Analytical Services National

Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10633565

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	Solid	11/09/22 12:35	11/11/22 08:50
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	Solid	11/09/22 14:20	11/11/22 08:50
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	Solid	11/10/22 12:10	11/11/22 08:50
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	Solid	11/10/22 12:15	11/11/22 08:50
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	Solid	11/10/22 12:20	11/11/22 08:50

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10633565

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	CMK	1	PAN
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	CMK	1	PAN
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	CMK	1	PAN
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	CMK	1	PAN
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	CMK	1	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633565

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
5 samples were analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633565

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
5 samples were analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633565

Method: **SM 2540G**
Description: Total Solids 2540 G-2011
Client: BNSF_Jacobs_WA
Date: December 22, 2022

General Information:
5 samples were analyzed for SM 2540G by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-K200-SC-0.0-0.4-110922 **Lab ID: 10633565001** Collected: 11/09/22 12:35 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**14.7J**	mg/kg	19.1	8.8	1	11/22/22 15:47	11/28/22 21:58	68334-30-5	
Motor Oil Range	**58.8**	mg/kg	12.7	6.3	1	11/22/22 15:47	11/28/22 21:58		
Surrogates									
n-Triacontane (S)	79	%.	50-150		1	11/22/22 15:47	11/28/22 21:58		
o-Terphenyl (S)	64	%.	50-150		1	11/22/22 15:47	11/28/22 21:58	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**21.9**	%	0.10	0.10	1		11/15/22 15:07		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0421	0.00681	1	11/21/22 09:14	11/22/22 16:05	83-32-9	
Acenaphthylene	ND	mg/kg	0.0421	0.00592	1	11/21/22 09:14	11/22/22 16:05	208-96-8	
Anthracene	ND	mg/kg	0.0421	0.00749	1	11/21/22 09:14	11/22/22 16:05	120-12-7	
Benzoic acid	ND	mg/kg	2.11	0.149	1	11/21/22 09:14	11/22/22 16:05	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0421	0.00741	1	11/21/22 09:14	11/22/22 16:05	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0421	0.00784	1	11/21/22 09:14	11/22/22 16:05	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0421	0.00748	1	11/21/22 09:14	11/22/22 16:05	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0421	0.00769	1	11/21/22 09:14	11/22/22 16:05	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0421	0.00782	1	11/21/22 09:14	11/22/22 16:05	50-32-8	
Carbazole	ND	mg/kg	0.421	0.0130	1	11/21/22 09:14	11/22/22 16:05	86-74-8	
Chrysene	ND	mg/kg	0.0421	0.00836	1	11/21/22 09:14	11/22/22 16:05	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0421	0.0117	1	11/21/22 09:14	11/22/22 16:05	53-70-3	
Dibenzofuran	ND	mg/kg	0.421	0.0138	1	11/21/22 09:14	11/22/22 16:05	132-64-9	
Fluoranthene	ND	mg/kg	0.0421	0.00759	1	11/21/22 09:14	11/22/22 16:05	206-44-0	
Fluorene	ND	mg/kg	0.0421	0.00685	1	11/21/22 09:14	11/22/22 16:05	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0421	0.0119	1	11/21/22 09:14	11/22/22 16:05	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0421	0.00538	1	11/21/22 09:14	11/22/22 16:05	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0421	0.00546	1	11/21/22 09:14	11/22/22 16:05	91-57-6	
Naphthalene	ND	mg/kg	0.0421	0.0106	1	11/21/22 09:14	11/22/22 16:05	91-20-3	
Phenanthrene	ND	mg/kg	0.0421	0.00835	1	11/21/22 09:14	11/22/22 16:05	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.421	0.0533	1	11/21/22 09:14	11/22/22 16:05	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.421	0.0144	1	11/21/22 09:14	11/22/22 16:05	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.421	0.0284	1	11/21/22 09:14	11/22/22 16:05	117-84-0	
Pyrene	ND	mg/kg	0.0421	0.00818	1	11/21/22 09:14	11/22/22 16:05	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.421	0.0131	1	11/21/22 09:14	11/22/22 16:05		
Pentachlorophenol	ND	mg/kg	0.421	0.0113	1	11/21/22 09:14	11/22/22 16:05	87-86-5	
Phenol	ND	mg/kg	0.421	0.0169	1	11/21/22 09:14	11/22/22 16:05	108-95-2	
Surrogates									
2-Fluorophenol (S)	74.5	%	12.0-120		1	11/21/22 09:14	11/22/22 16:05	367-12-4	
Phenol-d5 (S)	66.2	%	10.0-120		1	11/21/22 09:14	11/22/22 16:05	4165-62-2	
Nitrobenzene-d5 (S)	61.5	%	10.0-122		1	11/21/22 09:14	11/22/22 16:05	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-K200-SC-0.0-0.4-110922 **Lab ID: 10633565001** Collected: 11/09/22 12:35 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	66.7	%	15.0-120		1	11/21/22 09:14	11/22/22 16:05	321-60-8	
2,4,6-Tribromophenol (S)	82.6	%	10.0-127		1	11/21/22 09:14	11/22/22 16:05	118-79-6	
p-Terphenyl-d14 (S)	69.1	%	10.0-120		1	11/21/22 09:14	11/22/22 16:05	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**79.2**	%			1	11/16/22 16:48	11/16/22 17:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF470-SC-11.0-12.0-110922 **Lab ID: 10633565002** Collected: 11/09/22 14:20 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550 Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	20.5	9.5	1	11/22/22 15:47	11/28/22 22:33	68334-30-5	
Motor Oil Range	ND	mg/kg	13.7	6.8	1	11/22/22 15:47	11/28/22 22:33		
Surrogates									
n-Triacontane (S)	81	%.	50-150		1	11/22/22 15:47	11/28/22 22:33		
o-Terphenyl (S)	58	%.	50-150		1	11/22/22 15:47	11/28/22 22:33	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**27.2**	%	0.10	0.10	1		11/15/22 15:07		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0485	0.00785	1	11/21/22 09:14	11/22/22 12:54	83-32-9	
Acenaphthylene	ND	mg/kg	0.0485	0.00683	1	11/21/22 09:14	11/22/22 12:54	208-96-8	
Anthracene	ND	mg/kg	0.0485	0.00864	1	11/21/22 09:14	11/22/22 12:54	120-12-7	
Benzoic acid	ND	mg/kg	2.43	0.172	1	11/21/22 09:14	11/22/22 12:54	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0485	0.00855	1	11/21/22 09:14	11/22/22 12:54	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0485	0.00905	1	11/21/22 09:14	11/22/22 12:54	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0485	0.00863	1	11/21/22 09:14	11/22/22 12:54	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0485	0.00887	1	11/21/22 09:14	11/22/22 12:54	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0485	0.00902	1	11/21/22 09:14	11/22/22 12:54	50-32-8	
Carbazole	ND	mg/kg	0.485	0.0150	1	11/21/22 09:14	11/22/22 12:54	86-74-8	
Chrysene	ND	mg/kg	0.0485	0.00965	1	11/21/22 09:14	11/22/22 12:54	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0485	0.0134	1	11/21/22 09:14	11/22/22 12:54	53-70-3	
Dibenzofuran	ND	mg/kg	0.485	0.0159	1	11/21/22 09:14	11/22/22 12:54	132-64-9	
Fluoranthene	ND	mg/kg	0.0485	0.00876	1	11/21/22 09:14	11/22/22 12:54	206-44-0	
Fluorene	ND	mg/kg	0.0485	0.00790	1	11/21/22 09:14	11/22/22 12:54	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0485	0.0137	1	11/21/22 09:14	11/22/22 12:54	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0485	0.00621	1	11/21/22 09:14	11/22/22 12:54	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0485	0.00629	1	11/21/22 09:14	11/22/22 12:54	91-57-6	
Naphthalene	ND	mg/kg	0.0485	0.0122	1	11/21/22 09:14	11/22/22 12:54	91-20-3	
Phenanthrene	ND	mg/kg	0.0485	0.00963	1	11/21/22 09:14	11/22/22 12:54	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.485	0.0615	1	11/21/22 09:14	11/22/22 12:54	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.485	0.0166	1	11/21/22 09:14	11/22/22 12:54	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.485	0.0328	1	11/21/22 09:14	11/22/22 12:54	117-84-0	
Pyrene	ND	mg/kg	0.0485	0.00944	1	11/21/22 09:14	11/22/22 12:54	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.485	0.0152	1	11/21/22 09:14	11/22/22 12:54		
Pentachlorophenol	ND	mg/kg	0.485	0.0131	1	11/21/22 09:14	11/22/22 12:54	87-86-5	
Phenol	ND	mg/kg	0.485	0.0195	1	11/21/22 09:14	11/22/22 12:54	108-95-2	
Surrogates									
2-Fluorophenol (S)	62.9	%	12.0-120		1	11/21/22 09:14	11/22/22 12:54	367-12-4	
Phenol-d5 (S)	55.5	%	10.0-120		1	11/21/22 09:14	11/22/22 12:54	4165-62-2	
Nitrobenzene-d5 (S)	54.9	%	10.0-122		1	11/21/22 09:14	11/22/22 12:54	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF470-SC-11.0-12.0-110922 **Lab ID: 10633565002** Collected: 11/09/22 14:20 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	59.2	%	15.0-120		1	11/21/22 09:14	11/22/22 12:54	321-60-8	
2,4,6-Tribromophenol (S)	67.9	%	10.0-127		1	11/21/22 09:14	11/22/22 12:54	118-79-6	
p-Terphenyl-d14 (S)	64.7	%	10.0-120		1	11/21/22 09:14	11/22/22 12:54	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**68.6**	%			1	11/16/22 16:48	11/16/22 17:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-1.0-2.0-111022 **Lab ID: 10633565003** Collected: 11/10/22 12:10 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	21.0	9.7	1	11/22/22 15:47	11/28/22 22:44	68334-30-5	
Motor Oil Range	**17.8**	mg/kg	14.0	7.0	1	11/22/22 15:47	11/28/22 22:44		
Surrogates									
n-Triacontane (S)	83	%.	50-150		1	11/22/22 15:47	11/28/22 22:44		
o-Terphenyl (S)	56	%.	50-150		1	11/22/22 15:47	11/28/22 22:44	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**29.6**	%	0.10	0.10	1		11/15/22 15:08		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0462	0.00748	1	11/21/22 09:14	11/22/22 15:41	83-32-9	
Acenaphthylene	ND	mg/kg	0.0462	0.00651	1	11/21/22 09:14	11/22/22 15:41	208-96-8	
Anthracene	ND	mg/kg	0.0462	0.00823	1	11/21/22 09:14	11/22/22 15:41	120-12-7	
Benzoic acid	ND	mg/kg	2.32	0.164	1	11/21/22 09:14	11/22/22 15:41	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0462	0.00814	1	11/21/22 09:14	11/22/22 15:41	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0462	0.00862	1	11/21/22 09:14	11/22/22 15:41	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0462	0.00821	1	11/21/22 09:14	11/22/22 15:41	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0462	0.00845	1	11/21/22 09:14	11/22/22 15:41	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0462	0.00859	1	11/21/22 09:14	11/22/22 15:41	50-32-8	
Carbazole	ND	mg/kg	0.462	0.0143	1	11/21/22 09:14	11/22/22 15:41	86-74-8	
Chrysene	ND	mg/kg	0.0462	0.00918	1	11/21/22 09:14	11/22/22 15:41	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0462	0.0128	1	11/21/22 09:14	11/22/22 15:41	53-70-3	
Dibenzofuran	ND	mg/kg	0.462	0.0151	1	11/21/22 09:14	11/22/22 15:41	132-64-9	
Fluoranthene	ND	mg/kg	0.0462	0.00834	1	11/21/22 09:14	11/22/22 15:41	206-44-0	
Fluorene	ND	mg/kg	0.0462	0.00752	1	11/21/22 09:14	11/22/22 15:41	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0462	0.0131	1	11/21/22 09:14	11/22/22 15:41	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0462	0.00591	1	11/21/22 09:14	11/22/22 15:41	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0462	0.00599	1	11/21/22 09:14	11/22/22 15:41	91-57-6	
Naphthalene	ND	mg/kg	0.0462	0.0116	1	11/21/22 09:14	11/22/22 15:41	91-20-3	
Phenanthrene	**0.0165J**	mg/kg	0.0462	0.00917	1	11/21/22 09:14	11/22/22 15:41	85-01-8	J
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.462	0.0585	1	11/21/22 09:14	11/22/22 15:41	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.462	0.0158	1	11/21/22 09:14	11/22/22 15:41	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.462	0.0312	1	11/21/22 09:14	11/22/22 15:41	117-84-0	
Pyrene	**0.0153J**	mg/kg	0.0462	0.00899	1	11/21/22 09:14	11/22/22 15:41	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.462	0.0144	1	11/21/22 09:14	11/22/22 15:41		
Pentachlorophenol	ND	mg/kg	0.462	0.0124	1	11/21/22 09:14	11/22/22 15:41	87-86-5	
Phenol	ND	mg/kg	0.462	0.0186	1	11/21/22 09:14	11/22/22 15:41	108-95-2	
Surrogates									
2-Fluorophenol (S)	60.8	%	12.0-120		1	11/21/22 09:14	11/22/22 15:41	367-12-4	
Phenol-d5 (S)	54.7	%	10.0-120		1	11/21/22 09:14	11/22/22 15:41	4165-62-2	
Nitrobenzene-d5 (S)	50.5	%	10.0-122		1	11/21/22 09:14	11/22/22 15:41	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-1.0-2.0-111022 **Lab ID: 10633565003** Collected: 11/10/22 12:10 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	52.9	%	15.0-120		1	11/21/22 09:14	11/22/22 15:41	321-60-8	
2,4,6-Tribromophenol (S)	69.1	%	10.0-127		1	11/21/22 09:14	11/22/22 15:41	118-79-6	
p-Terphenyl-d14 (S)	53.8	%	10.0-120		1	11/21/22 09:14	11/22/22 15:41	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**72.1**	%			1	11/16/22 16:48	11/16/22 17:02		

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-1.0-2.0-111022-1 **Lab ID: 10633565004** Collected: 11/10/22 12:15 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**151J**	mg/kg	220	101	10	11/22/22 15:47	11/28/22 21:24	68334-30-5	
Motor Oil Range	**241**	mg/kg	147	73.1	10	11/22/22 15:47	11/28/22 21:24		
Surrogates									
n-Triacontane (S)	69	%.	50-150		10	11/22/22 15:47	11/28/22 21:24		
o-Terphenyl (S)	68	%.	50-150		10	11/22/22 15:47	11/28/22 21:24	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**32.8**	%	0.10	0.10	1		11/15/22 15:08		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0473	0.00765	1	11/21/22 09:14	11/22/22 14:06	83-32-9	
Acenaphthylene	ND	mg/kg	0.0473	0.00666	1	11/21/22 09:14	11/22/22 14:06	208-96-8	
Anthracene	ND	mg/kg	0.0473	0.00842	1	11/21/22 09:14	11/22/22 14:06	120-12-7	
Benzoic acid	ND	mg/kg	2.37	0.168	1	11/21/22 09:14	11/22/22 14:06	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0473	0.00833	1	11/21/22 09:14	11/22/22 14:06	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0473	0.00882	1	11/21/22 09:14	11/22/22 14:06	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0473	0.00840	1	11/21/22 09:14	11/22/22 14:06	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0473	0.00864	1	11/21/22 09:14	11/22/22 14:06	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0473	0.00879	1	11/21/22 09:14	11/22/22 14:06	50-32-8	
Carbazole	ND	mg/kg	0.473	0.0146	1	11/21/22 09:14	11/22/22 14:06	86-74-8	
Chrysene	ND	mg/kg	0.0473	0.00940	1	11/21/22 09:14	11/22/22 14:06	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0473	0.0131	1	11/21/22 09:14	11/22/22 14:06	53-70-3	
Dibenzofuran	ND	mg/kg	0.473	0.0155	1	11/21/22 09:14	11/22/22 14:06	132-64-9	
Fluoranthene	ND	mg/kg	0.0473	0.00853	1	11/21/22 09:14	11/22/22 14:06	206-44-0	
Fluorene	ND	mg/kg	0.0473	0.00769	1	11/21/22 09:14	11/22/22 14:06	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0473	0.0134	1	11/21/22 09:14	11/22/22 14:06	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0473	0.00605	1	11/21/22 09:14	11/22/22 14:06	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0473	0.00613	1	11/21/22 09:14	11/22/22 14:06	91-57-6	
Naphthalene	ND	mg/kg	0.0473	0.0119	1	11/21/22 09:14	11/22/22 14:06	91-20-3	
Phenanthrene	**0.0145J**	mg/kg	0.0473	0.00938	1	11/21/22 09:14	11/22/22 14:06	85-01-8	J
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.473	0.0599	1	11/21/22 09:14	11/22/22 14:06	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.473	0.0162	1	11/21/22 09:14	11/22/22 14:06	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.473	0.0319	1	11/21/22 09:14	11/22/22 14:06	117-84-0	
Pyrene	**0.0130J**	mg/kg	0.0473	0.00920	1	11/21/22 09:14	11/22/22 14:06	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.473	0.0148	1	11/21/22 09:14	11/22/22 14:06		
Pentachlorophenol	ND	mg/kg	0.473	0.0127	1	11/21/22 09:14	11/22/22 14:06	87-86-5	
Phenol	ND	mg/kg	0.473	0.0190	1	11/21/22 09:14	11/22/22 14:06	108-95-2	
Surrogates									
2-Fluorophenol (S)	61.3	%	12.0-120		1	11/21/22 09:14	11/22/22 14:06	367-12-4	
Phenol-d5 (S)	56.5	%	10.0-120		1	11/21/22 09:14	11/22/22 14:06	4165-62-2	
Nitrobenzene-d5 (S)	52.1	%	10.0-122		1	11/21/22 09:14	11/22/22 14:06	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-1.0-2.0-111022-1 **Lab ID: 10633565004** Collected: 11/10/22 12:15 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	56.0	%	15.0-120		1	11/21/22 09:14	11/22/22 14:06	321-60-8	
2,4,6-Tribromophenol (S)	71.5	%	10.0-127		1	11/21/22 09:14	11/22/22 14:06	118-79-6	
p-Terphenyl-d14 (S)	57.8	%	10.0-120		1	11/21/22 09:14	11/22/22 14:06	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**70.4**	%			1	11/16/22 16:48	11/16/22 17:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-3.0-4.0-111022 **Lab ID: 10633565005** Collected: 11/10/22 12:20 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**21.2**	mg/kg	20.0	9.2	1	11/22/22 15:47	11/29/22 14:15	68334-30-5	
Motor Oil Range	**98.6**	mg/kg	13.3	6.6	1	11/22/22 15:47	11/29/22 14:15		
Surrogates									
n-Triacontane (S)	87	%.	50-150		1	11/22/22 15:47	11/29/22 14:15		
o-Terphenyl (S)	54	%.	50-150		1	11/22/22 15:47	11/29/22 14:15	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**25.7**	%	0.10	0.10	1		11/15/22 15:08		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0923	0.0150	2	11/21/22 09:14	11/22/22 17:41	83-32-9	
Acenaphthylene	ND	mg/kg	0.0923	0.0130	2	11/21/22 09:14	11/22/22 17:41	208-96-8	
Anthracene	ND	mg/kg	0.0923	0.0165	2	11/21/22 09:14	11/22/22 17:41	120-12-7	
Benzoic acid	ND	mg/kg	4.63	0.327	2	11/21/22 09:14	11/22/22 17:41	65-85-0	
Benzo(a)anthracene	**0.0199J**	mg/kg	0.0923	0.0162	2	11/21/22 09:14	11/22/22 17:41	56-55-3	J
Benzo(b)fluoranthene	ND	mg/kg	0.0923	0.0172	2	11/21/22 09:14	11/22/22 17:41	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0923	0.0163	2	11/21/22 09:14	11/22/22 17:41	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0923	0.0169	2	11/21/22 09:14	11/22/22 17:41	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0923	0.0172	2	11/21/22 09:14	11/22/22 17:41	50-32-8	
Carbazole	ND	mg/kg	0.923	0.0285	2	11/21/22 09:14	11/22/22 17:41	86-74-8	
Chrysene	ND	mg/kg	0.0923	0.0183	2	11/21/22 09:14	11/22/22 17:41	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0923	0.0256	2	11/21/22 09:14	11/22/22 17:41	53-70-3	
Dibenzofuran	ND	mg/kg	0.923	0.0302	2	11/21/22 09:14	11/22/22 17:41	132-64-9	
Fluoranthene	ND	mg/kg	0.0923	0.0166	2	11/21/22 09:14	11/22/22 17:41	206-44-0	
Fluorene	ND	mg/kg	0.0923	0.0150	2	11/21/22 09:14	11/22/22 17:41	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0923	0.0260	2	11/21/22 09:14	11/22/22 17:41	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0923	0.0118	2	11/21/22 09:14	11/22/22 17:41	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0923	0.0120	2	11/21/22 09:14	11/22/22 17:41	91-57-6	
Naphthalene	ND	mg/kg	0.0923	0.0231	2	11/21/22 09:14	11/22/22 17:41	91-20-3	
Phenanthrene	ND	mg/kg	0.0923	0.0183	2	11/21/22 09:14	11/22/22 17:41	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.923	0.117	2	11/21/22 09:14	11/22/22 17:41	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.923	0.0316	2	11/21/22 09:14	11/22/22 17:41	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.923	0.0623	2	11/21/22 09:14	11/22/22 17:41	117-84-0	
Pyrene	ND	mg/kg	0.0923	0.0180	2	11/21/22 09:14	11/22/22 17:41	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.923	0.0288	2	11/21/22 09:14	11/22/22 17:41		
Pentachlorophenol	ND	mg/kg	0.923	0.0248	2	11/21/22 09:14	11/22/22 17:41	87-86-5	
Phenol	ND	mg/kg	0.923	0.0371	2	11/21/22 09:14	11/22/22 17:41	108-95-2	
Surrogates									
2-Fluorophenol (S)	63.4	%	12.0-120		2	11/21/22 09:14	11/22/22 17:41	367-12-4	
Phenol-d5 (S)	59.0	%	10.0-120		2	11/21/22 09:14	11/22/22 17:41	4165-62-2	
Nitrobenzene-d5 (S)	53.0	%	10.0-122		2	11/21/22 09:14	11/22/22 17:41	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633565

Sample: BNSF-EF240-SC-3.0-4.0-111022 **Lab ID: 10633565005** Collected: 11/10/22 12:20 Received: 11/11/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	54.2	%	15.0-120		2	11/21/22 09:14	11/22/22 17:41	321-60-8	
2,4,6-Tribromophenol (S)	73.2	%	10.0-127		2	11/21/22 09:14	11/22/22 17:41	118-79-6	
p-Terphenyl-d14 (S)	58.3	%	10.0-120		2	11/21/22 09:14	11/22/22 17:41	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**72.2**	%			1	11/16/22 15:59	11/16/22 16:18		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

QC Batch: 853434
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004, 10633565005

SAMPLE DUPLICATE: 4512623

Parameter	Units	10632545001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	28.8	29.0	1	30	N2

SAMPLE DUPLICATE: 4512624

Parameter	Units	10633646003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	30.8	28.9	6	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

QC Batch: 1962624
QC Batch Method: 3546
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004, 10633565005

METHOD BLANK: R3863963-2 Matrix: Solid
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004, 10633565005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/22/22 10:54	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/22/22 10:54	
Anthracene	mg/kg	ND	0.0333	0.00593	11/22/22 10:54	
Benzoic acid	mg/kg	ND	1.67	0.118	11/22/22 10:54	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/22/22 10:54	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/22/22 10:54	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/22/22 10:54	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/22/22 10:54	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/22/22 10:54	
Carbazole	mg/kg	ND	0.333	0.0103	11/22/22 10:54	
Chrysene	mg/kg	ND	0.0333	0.00662	11/22/22 10:54	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/22/22 10:54	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/22/22 10:54	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/22/22 10:54	
Fluorene	mg/kg	ND	0.0333	0.00542	11/22/22 10:54	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/22/22 10:54	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/22/22 10:54	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/22/22 10:54	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/22/22 10:54	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/22/22 10:54	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/22/22 10:54	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/22/22 10:54	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/22/22 10:54	
Pyrene	mg/kg	ND	0.0333	0.00648	11/22/22 10:54	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/22/22 10:54	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/22/22 10:54	
Phenol	mg/kg	ND	0.333	0.0134	11/22/22 10:54	
2-Fluorophenol (S)	%	76.6	12.0-120		11/22/22 10:54	
Phenol-d5 (S)	%	70.3	10.0-120		11/22/22 10:54	
Nitrobenzene-d5 (S)	%	65.2	10.0-122		11/22/22 10:54	
2-Fluorobiphenyl (S)	%	74.2	15.0-120		11/22/22 10:54	
2,4,6-Tribromophenol (S)	%	72.1	10.0-127		11/22/22 10:54	
p-Terphenyl-d14 (S)	%	87.1	10.0-120		11/22/22 10:54	

LABORATORY CONTROL SAMPLE: R3863963-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.666	0.441	66.2	38.0-120	
Acenaphthylene	mg/kg	0.666	0.494	74.2	40.0-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

LABORATORY CONTROL SAMPLE: R3863963-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	mg/kg	0.666	0.448	67.3	42.0-120	
Benzoic acid	mg/kg	1.33	0.387	29.1	10.0-120	
Benzo(a)anthracene	mg/kg	0.666	0.514	77.2	44.0-120	
Benzo(b)fluoranthene	mg/kg	0.666	0.486	73.0	43.0-120	
Benzo(k)fluoranthene	mg/kg	0.666	0.477	71.6	44.0-120	
Benzo(g,h,i)perylene	mg/kg	0.666	0.447	67.1	43.0-120	
Benzo(a)pyrene	mg/kg	0.666	0.543	81.5	45.0-120	
Carbazole	mg/kg	0.666	0.464	69.7	48.0-120	
Chrysene	mg/kg	0.666	0.481	72.2	43.0-120	
Dibenz(a,h)anthracene	mg/kg	0.666	0.462	69.4	44.0-120	
Dibenzofuran	mg/kg	0.666	0.464	69.7	44.0-120	
Fluoranthene	mg/kg	0.666	0.498	74.8	44.0-120	
Fluorene	mg/kg	0.666	0.459	68.9	41.0-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.666	0.449	67.4	45.0-120	
1-Methylnaphthalene	mg/kg	0.666	0.394	59.2	34.0-120	
2-Methylnaphthalene	mg/kg	0.666	0.388	58.3	34.0-120	
Naphthalene	mg/kg	0.666	0.360	54.1	18.0-120	
Phenanthrene	mg/kg	0.666	0.454	68.2	42.0-120	
bis(2-Ethylhexyl)phthalate	mg/kg	0.666	0.464	69.7	41.0-120	
Di-n-butylphthalate	mg/kg	0.666	0.426	64.0	43.0-120	
Di-n-octylphthalate	mg/kg	0.666	0.484	72.7	40.0-120	
Pyrene	mg/kg	0.666	0.458	68.8	41.0-120	
3&4-Methylphenol(m&p Cresol)	mg/kg	0.666	0.445	66.8	42.0-120	
Pentachlorophenol	mg/kg	0.666	0.456	68.5	29.0-120	
Phenol	mg/kg	0.666	0.405	60.8	28.0-120	
2-Fluorophenol (S)	%			69.8	12.0-120	
Phenol-d5 (S)	%			64.9	10.0-120	
Nitrobenzene-d5 (S)	%			50.8	10.0-122	
2-Fluorobiphenyl (S)	%			68.2	15.0-120	
2,4,6-Tribromophenol (S)	%			83.0	10.0-127	
p-Terphenyl-d14 (S)	%			73.3	10.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3863963-3 R3863963-4

Parameter	Units	10633565001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	mg/kg	ND	0.834	0.823	0.548	0.580	65.8	70.4	18.0-120	5.60	32	
Acenaphthylene	mg/kg	ND	0.834	0.823	0.609	0.652	73.0	79.1	25.0-120	6.81	32	
Anthracene	mg/kg	ND	0.834	0.823	0.567	0.594	68.0	72.1	22.0-120	4.57	29	
Benzoic acid	mg/kg	ND	1.67	1.64	1.21	1.44	72.6	87.7	10.0-152	17.3	40	
Benzo(a)anthracene	mg/kg	ND	0.834	0.823	0.652	0.672	78.2	81.6	25.0-120	3.05	29	
Benzo(b)fluoranthene	mg/kg	ND	0.834	0.823	0.658	0.673	78.9	81.7	19.0-122	2.28	31	
Benzo(k)fluoranthene	mg/kg	ND	0.834	0.823	0.605	0.652	72.6	79.1	23.0-120	7.44	30	
Benzo(g,h,i)perylene	mg/kg	ND	0.834	0.823	0.357	0.308	42.9	37.4	10.0-120	14.8	33	
Benzo(a)pyrene	mg/kg	ND	0.834	0.823	0.697	0.722	83.6	87.7	24.0-120	3.56	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		R3863963-3			R3863963-4							
Parameter	Units	10633565001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Carbazole	mg/kg	ND	0.834	0.823	0.582	0.613	69.8	74.4	31.0-120	5.07	24	
Chrysene	mg/kg	ND	0.834	0.823	0.616	0.629	73.9	76.4	21.0-120	2.03	29	
Dibenz(a,h)anthracene	mg/kg	ND	0.834	0.823	0.450	0.402	53.9	48.8	10.0-120	11.3	32	
Dibenzofuran	mg/kg	ND	0.834	0.823	0.563	0.601	67.6	73.0	24.0-120	6.51	30	
Fluoranthene	mg/kg	ND	0.834	0.823	0.637	0.664	76.4	80.7	18.0-126	4.27	32	
Fluorene	mg/kg	ND	0.834	0.823	0.572	0.602	68.6	73.2	25.0-120	5.16	30	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.834	0.823	0.426	0.380	51.1	46.2	10.0-120	11.3	32	
1-Methylnaphthalene	mg/kg	ND	0.834	0.823	0.485	0.510	58.2	62.0	10.0-120	5.08	36	
2-Methylnaphthalene	mg/kg	ND	0.834	0.823	0.471	0.503	56.5	61.0	10.0-120	6.49	37	
Naphthalene	mg/kg	ND	0.834	0.823	0.436	0.464	52.3	56.3	10.0-120	6.18	35	
Phenanthrene	mg/kg	ND	0.834	0.823	0.565	0.602	67.7	73.2	17.0-120	6.49	31	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.834	0.823	0.624	0.642	74.8	77.9	17.0-126	2.79	30	
Di-n-butylphthalate	mg/kg	ND	0.834	0.823	0.553	0.572	66.4	69.5	30.0-120	3.37	29	
Di-n-octylphthalate	mg/kg	ND	0.834	0.823	0.700	0.700	83.9	85.0	21.0-123	0.00	29	
Pyrene	mg/kg	ND	0.834	0.823	0.573	0.594	68.8	72.1	16.0-121	3.46	32	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.834	0.823	0.515	0.563	61.8	68.4	12.0-123	8.90	38	
Pentachlorophenol	mg/kg	ND	0.834	0.823	0.661	0.693	79.2	84.2	10.0-160	4.85	31	
Phenol	mg/kg	ND	0.834	0.823	0.498	0.532	59.7	64.6	12.0-120	6.63	38	
2-Fluorophenol (S)	%						71.8	75.0	12.0-120			
Phenol-d5 (S)	%						67.1	68.7	10.0-120			
Nitrobenzene-d5 (S)	%						51.2	52.1	10.0-122			
2-Fluorobiphenyl (S)	%						69.4	72.7	15.0-120			
2,4,6-Tribromophenol (S)	%						87.6	89.6	10.0-127			
p-Terphenyl-d14 (S)	%						78.5	77.6	10.0-120			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

QC Batch: 854980
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004, 10633565005

METHOD BLANK: 4519770 Matrix: Solid
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004, 10633565005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/28/22 21:01	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/28/22 21:01	
n-Triacontane (S)	%.	81	50-150		11/28/22 21:01	
o-Terphenyl (S)	%.	92	50-150		11/28/22 21:01	

LABORATORY CONTROL SAMPLE: 4519771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	47.1	94	50-150	
Motor Oil Range	mg/kg	50	47.0	94	50-150	
n-Triacontane (S)	%.			90	50-150	
o-Terphenyl (S)	%.			95	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4519772 4519773

Parameter	Units	10633565001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	14.7J	63.8	63.4	61.4	56.6	73	66	50-150	8	30	
Motor Oil Range	mg/kg	58.8	63.8	63.4	117	99.2	91	64	50-150	16	30	
n-Triacontane (S)	%.						81	82	50-150			
o-Terphenyl (S)	%.						72	68	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

QC Batch: 1960382
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004

METHOD BLANK: R3862170-1 Matrix: Solid
Associated Lab Samples: 10633565001, 10633565002, 10633565003, 10633565004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			11/16/22 17:02	

LABORATORY CONTROL SAMPLE: R3862170-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3862170-3

Parameter	Units	10633565001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	79.2	79.2	0.0399	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633565

QC Batch: 1960384
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633565005

METHOD BLANK: R3862160-1 Matrix: Solid
Associated Lab Samples: 10633565005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00300			11/16/22 16:18	

LABORATORY CONTROL SAMPLE: R3862160-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3862160-3

Parameter	Units	L1558011-08 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	88.6	88.2	0.458	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10633565

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10633565

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	EPA 3550	854980	NWTPH-Dx	855659
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	EPA 3550	854980	NWTPH-Dx	855659
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	EPA 3550	854980	NWTPH-Dx	855659
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	EPA 3550	854980	NWTPH-Dx	855659
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	EPA 3550	854980	NWTPH-Dx	855659
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	ASTM D2974	853434		
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	ASTM D2974	853434		
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	ASTM D2974	853434		
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	ASTM D2974	853434		
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	ASTM D2974	853434		
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	3546	1962624	EPA 8270E	1962624
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	3546	1962624	EPA 8270E	1962624
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	3546	1962624	EPA 8270E	1962624
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	3546	1962624	EPA 8270E	1962624
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	3546	1962624	EPA 8270E	1962624
10633565001	**BNSF-K200-SC-0.0-0.4-110922**	SM 2540 G	1960382	SM 2540G	1960382
10633565002	**BNSF-EF470-SC-11.0-12.0-110922**	SM 2540 G	1960382	SM 2540G	1960382
10633565003	**BNSF-EF240-SC-1.0-2.0-111022**	SM 2540 G	1960382	SM 2540G	1960382
10633565004	**BNSF-EF240-SC-1.0-2.0-111022-1**	SM 2540 G	1960382	SM 2540G	1960382
10633565005	**BNSF-EF240-SC-3.0-4.0-111022**	SM 2540 G	1960384	SM 2540G	1960384

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or

WO# : 10633565

10633565

10633565

Company: JACOBS	Billing Information: SEE CONTRACT
Address: 2020 SW 4th Ave, Suite 300 PDX OR 97201	
Report To: Berney Kidd	Email To: BERNICE.KIDD@JACOBS.COM KRIS.IVARSON@JACOBS.COM
Copy To: Kris Ivarson	Site Collection Info/Address: WISHRAM BNSF PH2
Customer Project Name/Number: DB631600	State: WA County/City: WISHRAM Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Jennifer Ulrich	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: STANDARD Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservation Codes: U U U U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TOC SW 9060A	SVOC 8270E	PAH 8270 SIM	NWTPH - Dx	GRAIN SIZE					Lab Sample # / Comments
BNSF-B200-SC-0.0-0.4-110922	SL	Comp			11/9/22	1235		3	X	X	X	X						01
BNSF-EF420-SC-11.0-12.0-110922	SL	Comp			11/9/22	1420		2		X	X	X						02
BNSF-EF240-SC-1.0-2.0-111022	SL	Comp			11/10/22	1210		5	X	X	X	X	X					03
BNSF-EF240-SC-1.0-2.0-111022-1	SL	Comp			11/10/22	1215		4	X	X	X	X						04
BNSF-EF240-SC-3.0-4.0-111022	SL	Comp			11/10/22	1220		5	X	X	X	X	X					05

Lab Profile/Line: 444461

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: NAPL

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2855340

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: T2
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: 3.5 oC
Comments:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Jennifer Ulrich / JACOBS	11/10/22 1700	Pace	11/11/22 8:50
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Sample Condition Upon Receipt

Client Name: Jacobs

Project # WO#: 10633565

PM: KV Due Date: 12/06/22
CLIENT: BNSF_Jacobs

Courier: ☑ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 340197631456 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☑ Yes ☐ No

Thermometer: ☐ T1 (0461) ☑ T2 (1336) ☐ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☑ Wet ☐ Blue ☐ Dry ☐ None ☑ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 3.5 °C

Correction Factor: true **Cooler Temp Corrected w/temp blank:** 3.5 °C

Average Corrected Temp (no temp blank only): ____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: ☑ N/A, water sample/other: ____) ADC

Date/Initials of Person Examining Contents: 11/11/22 ADC

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☑ Minneapolis ☐ Virginia

				COMMENTS
Chain of Custody Present and Filled Out?	☑ Yes	☐ No		1.
Chain of Custody Relinquished?	☑ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☑ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☐ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: ____ Date/Time: ____

Comments/Resolution: ____

Project Manager Review: [signature] **Date:** 11/14/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: ADC **Line:** 17

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, Minnesota 55414

Generated 12/22/2022 12:39:44 PM Revision 1

JOB DESCRIPTION

D3631600 10633565

JOB NUMBER

580-120040-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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12/22/2022 12:39:44 PM
Revision 1

Authorized for release by
Pauline Matlock, Project Manager
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(253)922-2310

Table of Contents

Job ID: 580-120040-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-120040-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 12/19/2022. The report (revision 1) is being revised due to: COC was not scanned into job files properly, it has been re-scanned.

Receipt
The samples were received on 11/15/2022 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

General Chemistry
Method 9060A: The following samples were prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-K200-SC-0.0-0.4-110922 (580-120040-1), BNSF-EF240-SC-1.0-2.0-111022 (580-120040-2), BNSF-EF240-SC-1.0-2.0-111022-1 (580-120040-3) and BNSF-EF240-SC-3.0-4.0-111022 (580-120040-4).

Method 9060A: The sample duplicate (DUP) precision for analytical batch 580-413230 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922
Date Collected: 11/09/22 12:35
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	71.5		0.1	0.1	%			11/16/22 14:51	1
Percent Moisture (SM22 2540G)	28.5		0.1	0.1	%			11/16/22 14:51	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922
Date Collected: 11/09/22 12:35
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-1
Matrix: Solid
Percent Solids: 71.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	2300	J H	2800	140	mg/Kg	☼		12/17/22 02:03	1

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022
Date Collected: 11/10/22 12:10
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	68.1		0.1	0.1	%			11/16/22 14:51	1
Percent Moisture (SM22 2540G)	31.9		0.1	0.1	%			11/16/22 14:51	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022
Date Collected: 11/10/22 12:10
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-2
Matrix: Solid
Percent Solids: 68.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000	H	2900	140	mg/Kg	☼		12/17/22 02:08	1

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1
Date Collected: 11/10/22 12:15
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	60.8		0.1	0.1	%			11/16/22 14:51	1
Percent Moisture (SM22 2540G)	39.2		0.1	0.1	%			11/16/22 14:51	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1
Date Collected: 11/10/22 12:15
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-3
Matrix: Solid
Percent Solids: 60.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000	H	3300	160	mg/Kg	☼		12/17/22 02:13	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022
Date Collected: 11/10/22 12:20
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	75.4		0.1	0.1	%			11/16/22 14:51	1
Percent Moisture (SM22 2540G)	24.6		0.1	0.1	%			11/16/22 14:51	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022
Date Collected: 11/10/22 12:20
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-4
Matrix: Solid
Percent Solids: 75.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	22000	H	2700	130	mg/Kg	☼		12/17/22 02:19	1

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Method: 2540G - SM 2540G

Lab Sample ID: 580-120040-4 DU
Matrix: Solid
Analysis Batch: 410222

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	75.4			78.2		%				4	20
Percent Moisture	24.6			21.8		%				12	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/5
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/16/22 22:15	1

Lab Sample ID: LCS 580-413230/6
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	132000		mg/Kg		110	80 - 120		

Lab Sample ID: LCSD 580-413230/7
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	131000		mg/Kg		109	80 - 120	0	20

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922 — **Lab Sample ID: 580-120040-1**
Date Collected: 11/09/22 12:35 — **Matrix: Solid**
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922 — **Lab Sample ID: 580-120040-1**
Date Collected: 11/09/22 12:35 — **Matrix: Solid**
Date Received: 11/15/22 13:20 — **Percent Solids: 71.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:03

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022 — **Lab Sample ID: 580-120040-2**
Date Collected: 11/10/22 12:10 — **Matrix: Solid**
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022 — **Lab Sample ID: 580-120040-2**
Date Collected: 11/10/22 12:10 — **Matrix: Solid**
Date Received: 11/15/22 13:20 — **Percent Solids: 68.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:08

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1 — **Lab Sample ID: 580-120040-3**
Date Collected: 11/10/22 12:15 — **Matrix: Solid**
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1 — **Lab Sample ID: 580-120040-3**
Date Collected: 11/10/22 12:15 — **Matrix: Solid**
Date Received: 11/15/22 13:20 — **Percent Solids: 60.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:13

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022 — **Lab Sample ID: 580-120040-4**
Date Collected: 11/10/22 12:20 — **Matrix: Solid**
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022
Date Collected: 11/10/22 12:20
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-4
Matrix: Solid
Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:19

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-120040-1	BNSF-K200-SC-0.0-0.4-110922	Solid	11/09/22 12:35	11/15/22 13:20
580-120040-2	BNSF-EF240-SC-1.0-2.0-111022	Solid	11/10/22 12:10	11/15/22 13:20
580-120040-3	BNSF-EF240-SC-1.0-2.0-111022-1	Solid	11/10/22 12:15	11/15/22 13:20
580-120040-4	BNSF-EF240-SC-3.0-4.0-111022	Solid	11/10/22 12:20	11/15/22 13:20

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 10633565 **Workorder Name:** D3631600 **Results Requested By:** 12/6/2022 120040

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 9060A TOC	LAB USE ONLY
1	BNSF-K200-SC-0.0-0.4-110922	11/9/2022 12:35	10633565001	Solid	1	X	
2	BNSF-EF240-SC-1.0-2.0-111022	11/10/2022 12:10	10633565003	Solid	1	X	
3	BNSF-EF240-SC-1.0-2.0-111022-1	11/10/2022 12:15	10633565004	Solid	1	X	
4	BNSF-EF240-SC-3.0-4.0-111022	11/10/2022 12:20	10633565005	Solid	1	X	
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-14-22 15:40	KH	11/15/22 1320
2				
3				

Comments

Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N

580-120040 Chain of Custody

Therm. ID: R3 Cor: 2.8 ° Unc: 2.7
Cooler Dsc: SMR FedEx: 09
Packing: Bubble UPS:
Cust. Seal: Yes X No Lab Cour:
Blue Ice, Wet, Dry, None Other:

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-120040-1

Login Number: 120040
List Number: 1
Creator: Holdener, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 11/30/2022

CLIENT: Pace Analytical - Minneapolis
Project: 10633565 D3631600
Lab Order: S2211231

CASE NARRATIVE

Report ID: S2211231001

Entire Report Reviewed by: John M. Jacobs
John Jacobs, Project Manager

Samples BNSF-EF240-SC-1.0-2.0-111022 and BNSF-EF240-SC-3.0-4.0-111022 were received on November 15, 2022.

All samples were received and analyzed within recommended holding times, except those noted below in this case narrative. Samples were analyzed using methods outlined in the following references:

Standard Methods for the Examination of Water and Wastewater, approved method versions
EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, online versions
EPA methods 40 CFR Parts 136 and 141EPA 600/2-78-054 methods
NDEP Mining Methods
40 CFR Part 50, Appendices B, J, L, O and FEM EQL-0310-189
IO Compendium Methods
Clean Water Act Methods Update Rule for the Analysis of Effluent, current version.
ASTM approved and recognized standards
ISO approved and recognized standards
USDA Handbook 60
Soil Survey Laboratory Manual Ver 4.0
ASA/SSSA 9 Methods of Analysis Part 2, 1982
ASA/SSSA Methods of Analysis Book 5 Part 3, 1996
Other industry approved methods

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical except as indicated in this case narrative:

Date: 11/30/2022

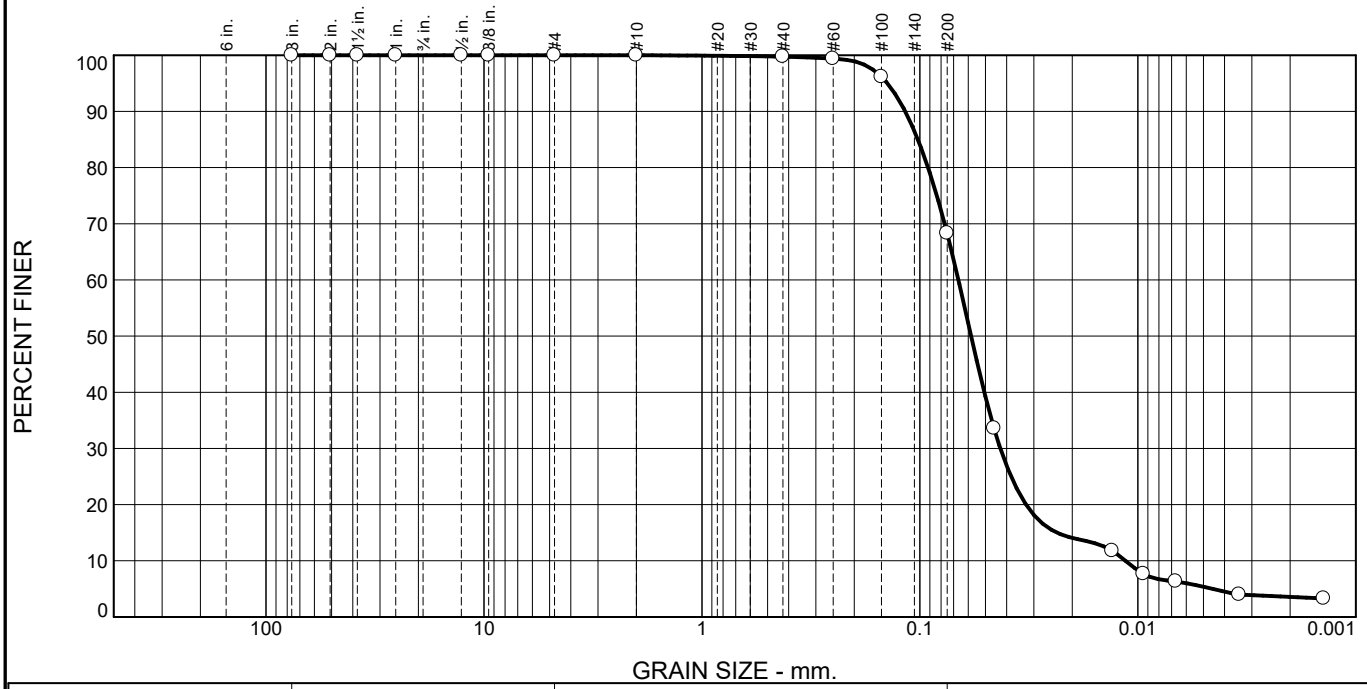
Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	31.5	62.9	5.4

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	99.8		
#60	99.4		
#100	96.2		
#200	68.3		
0.0457 mm.	33.6		
0.0131 mm.	11.8		
0.0094 mm.	7.7		
0.0067 mm.	6.3		
0.0034 mm.	4.0		
0.0014 mm.	3.3		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.1167 D_{85}= 0.1022 D_{60}= 0.0666
D_{50}= 0.0582 D_{30}= 0.0427 D_{15}= 0.0235
D_{10}= 0.0114 C_u= 5.85 C_c= 2.41

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/15/2022 **Date Tested:** 11/28/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-EF240-SC-1_0-2_0-111022
Sample Number: S2211231-001A

Date Sampled: 11/10/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10633565 D3631600

Project No: S2211231 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/28/2022

Client: Pace Analytical-Minneapolis
Project: 10633565 D3631600
Project Number: S2211231
Location: BNSF-EF240-SC-1_0-2_0-111022
Sample Number: S2211231-001A
Material Description: sandy silt
Sample Date: 11/10/2022 12:10
Date Received: 11/15/2022 **PL:** NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/28/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
126.88	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
50.11	0.00	#40	0.12	0.00	99.8
		#60	0.19	0.00	99.4
		#100	1.61	0.00	96.2
		#200	13.96	0.00	68.3

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 68.3
Weight of hydrometer sample =50.11
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	20.0	31.0	24.6	0.0136	31.0	11.2	0.0457	33.6
15.00	20.0	15.0	8.6	0.0136	15.0	13.8	0.0131	11.8
30.00	20.0	12.0	5.6	0.0136	12.0	14.3	0.0094	7.7
60.00	20.0	11.0	4.6	0.0136	11.0	14.5	0.0067	6.3
240.00	19.0	9.5	2.9	0.0138	9.5	14.7	0.0034	4.0
1440.00	19.0	9.0	2.4	0.0138	9.0	14.8	0.0014	3.3

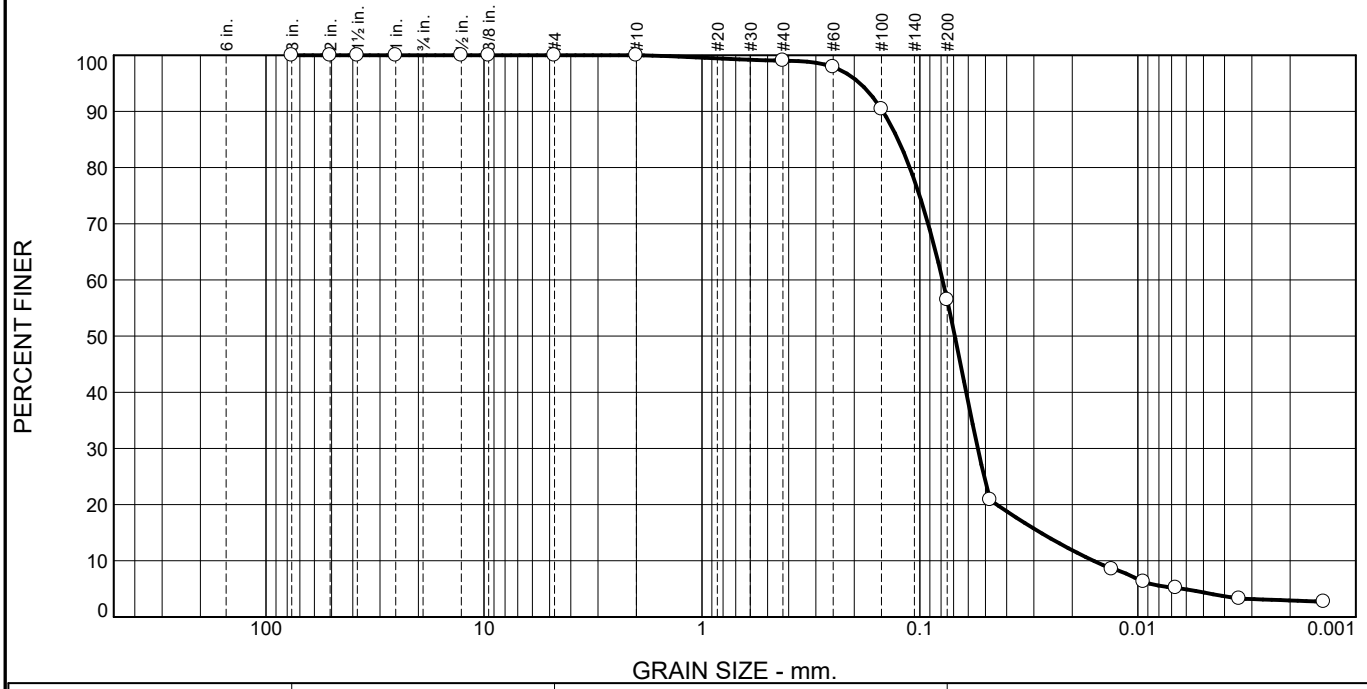
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	31.5	31.7	62.9	5.4	68.3

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0045	0.0114	0.0235	0.0326	0.0427	0.0506	0.0582	0.0666	0.0917	0.1022	0.1167	0.1409

Fineness Modulus	C_u	C_c
0.04	5.85	2.41

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.0	42.6	52.0	4.4

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	99.0		
#60	97.9		
#100	90.4		
#200	56.4		
0.0477 mm.	20.8		
0.0132 mm.	8.5		
0.0094 mm.	6.3		
0.0067 mm.	5.2		
0.0034 mm.	3.3		
0.0014 mm.	2.7		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.1478 D_{85}= 0.1260 D_{60}= 0.0787
D_{50}= 0.0691 D_{30}= 0.0542 D_{15}= 0.0279
D_{10}= 0.0160 C_u= 4.92 C_c= 2.34

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: 11/15/2022 **Date Tested:** 11/28/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: BNSF-EF240-SC-3_0-4_0-111022
Sample Number: S2211231-002A

Date Sampled: 11/10/2022

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client: Pace Analytical-Minneapolis
Project: 10633565 D3631600

Project No: S2211231 **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/28/2022

Client: Pace Analytical-Minneapolis
Project: 10633565 D3631600
Project Number: S2211231
Location: BNSF-EF240-SC-3_0-4_0-111022
Sample Number: S2211231-002A
Material Description: sandy silt
Sample Date: 11/10/2022 12:20
Date Received: 11/15/2022 **PL:** NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/28/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
135.96	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
50.47	0.00	#40	0.49	0.00	99.0
		#60	0.57	0.00	97.9
		#100	3.79	0.00	90.4
		#200	17.13	0.00	56.4

Pace Analytical Services, Inc.

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 56.4
Weight of hydrometer sample =50.47
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	20.0	25.0	18.6	0.0136	25.0	12.2	0.0477	20.8
15.00	20.0	14.0	7.6	0.0136	14.0	14.0	0.0132	8.5
30.00	20.0	12.0	5.6	0.0136	12.0	14.3	0.0094	6.3
60.00	20.0	11.0	4.6	0.0136	11.0	14.5	0.0067	5.2
240.00	19.0	9.5	2.9	0.0138	9.5	14.7	0.0034	3.3
1440.00	19.0	9.0	2.4	0.0138	9.0	14.8	0.0014	2.7

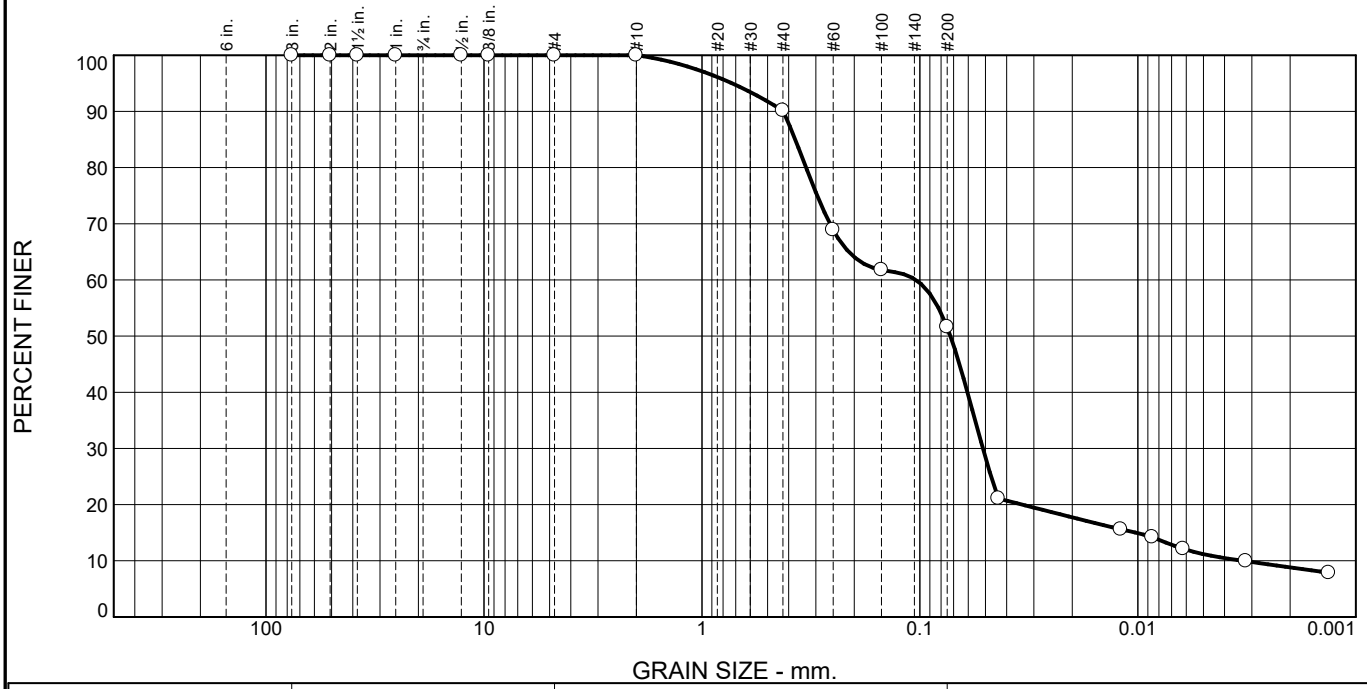
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.0	42.6	43.6	52.0	4.4	56.4

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0062	0.0160	0.0279	0.0444	0.0542	0.0613	0.0691	0.0787	0.1113	0.1260	0.1478	0.1883

Fineness Modulus	C_u	C_c
0.12	4.92	2.34

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	9.9	38.5	40.4	11.2

TEST RESULTS (ASTM D 422)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.5"	100.0		
0.375	100.0		
#4	100.0		
#10	100.0		
#40	90.1		
#60	68.9		
#100	61.8		
#200	51.6		
0.0436 mm.	21.1		
0.0120 mm.	15.6		
0.0086 mm.	14.2		
0.0062 mm.	12.1		
0.0032 mm.	9.9		
0.0013 mm.	7.9		

* (no specification provided)

Material Description

sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=**

Classification

USCS (D 2487)= ML **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.4233 D_{85}= 0.3733 D_{60}= 0.1044
D_{50}= 0.0724 D_{30}= 0.0514 D_{15}= 0.0102
D_{10}= 0.0033 C_u= 31.66 C_c= 7.68

Remarks

SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)

Date Received: **Date Tested:** 11/28/2022

Tested By: Steve Holzerland

Checked By: John Jacobs

Title: Project Manager 2

Location: LCS
Sample Number: LCS

Date Sampled:

Pace Analytical Services, Inc.

Sheridan, Wyoming

Client:
Project:

Project No: **Figure**

GRAIN SIZE DISTRIBUTION TEST DATA

11/28/2022

Location: LCS
Sample Number: LCS
Material Description: sandy silt
PL: NP **LL:** NV
USCS Classification: ML **AASHTO Classification:** A-4(0)
Grain Size Test Method: ASTM D 422
Testing Remarks: SAND TRUE VALUE: 48.08 (+/-10% 52.88/43.27)
SILT TRUE VALUE: 38.73 (+/-10% 42.6/34.86)
Tested By: Steve Holzerland **Test Date:** 11/28/2022
Checked By: John Jacobs **Title:** Project Manager 2

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.00	0.00	3"	0.00	0.00	100.0
		2"	0.00	0.00	100.0
		1.5"	0.00	0.00	100.0
		1"	0.00	0.00	100.0
		0.5"	0.00	0.00	100.0
		0.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.00	0.00	100.0
75.00	0.00	#40	7.39	0.00	90.1
		#60	15.94	0.00	68.9
		#100	5.33	0.00	61.8
		#200	7.62	0.00	51.6

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 51.6
Weight of hydrometer sample =75.0
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = -6.33
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 **-** 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
1.00	20.0	37.0	30.6	0.0136	37.0	10.2	0.0436	21.1
15.00	20.0	29.0	22.6	0.0136	29.0	11.5	0.0120	15.6
30.00	20.0	27.0	20.6	0.0136	27.0	11.9	0.0086	14.2
60.00	20.0	24.0	17.6	0.0136	24.0	12.4	0.0062	12.1
240.00	19.0	21.0	14.4	0.0138	21.0	12.9	0.0032	9.9
1440.00	19.0	18.0	11.4	0.0138	18.0	13.3	0.0013	7.9

Pace Analytical Services, Inc.

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	9.9	38.5	48.4	40.4	11.2	51.6

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0033	0.0102	0.0340	0.0514	0.0605	0.0724	0.1044	0.3326	0.3733	0.4233	0.7276

Fineness Modulus	C_u	C_c
0.71	31.66	7.68

10633565

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [X] Yes ☐ No
Owner Received Date: 11/11/2022 **Results Requested By:** 12/6/2022

Workorder: 10633565 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Sheridan WY 1673 Terra Avenue Sheridan, WY 82801 Phone (307) 672-8945

Requested Analysis

JGFU

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	D422 Grain Size - Hydrometer	LAB USE ONLY
1	BNSF-EF240-SC-1.0-2.0-111022	PS	11/10/2022 12:10	10633565003	Solid	1	X	S221123-001
2	BNSF-EF240-SC-3.0-4.0-111022	PS	11/10/2022 12:20	10633565005	Solid	1	X	002
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-14-22 15:35	[signature]	11/15/22
2				
3				

Comments

Standard EDD formats
14:29
DS 11/15/22

Cooler Temperature on Receipt -0.3 °C | **Custody Seal** Y or N | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Cust. Seal ripped up from lid

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10633565

Table Of Contents

GC-FID DRO - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633565 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4519770	4519770BLANK	81	92
4519771	4519771LCS	90	95
4519772	4519772MS	81	72
4519773	4519773MSD	82	68
10633565001	BNSF-K200-SC-0.0-0.4-	79	64
10633565002	BNSF-EF470-SC-11.0-12.0-	81	58
10633565003	BNSF-EF240-SC-1.0-2.0-	83	56
10633565004	BNSF-EF240-SC-1.0-2.0-	69	68
10633565005	BNSF-EF240-SC-3.0-4.0-	87	54

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4519771LCS
Date Extracted: 11/22/2022
Date Analyzed (1): 11/28/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 112822R.B\1128R0000051.D
SDG No.: 10633565

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	50.0	47.1	94	50-150
Motor Oil Range	50.0	47.0	94	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Minnesota

Date Extracted: 11/22/2022

Instrument: 10GCSF

Parent Sample ID: BNSF-K200-SC-0.0-0.4-

Matrix Spike - Sample No: 4519772MS

Date Analyzed (1): 11/28/2022

Lab File ID: 112822R.B\1128R0000056.D

SDG No.: 10633565

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Diesel Fuel Range	63.8	14.7J	61.4	73	50-150
Motor Oil Range	63.8	58.8	117	91	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 10GCSF

Matrix Spike Duplicate - Sample No: 4519773MSD

Lab File ID (2): 112822R.B\1128R0000057.D

Date Analyzed (2): 11/28/2022

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	63.4	56.6	66	8	0-30	50-150
Motor Oil Range	63.4	99.2	64	16	0-30	50-150

RPD: 0 out of 2 outside limits.

Spike Recovery: 0 out of 2 outside limits.

SAMPLE NO.

4519770BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633565 Contract: D3631600

Instrument ID: 10GCSF Matrix: Solid Lab Sample ID: 4519770

Lab File ID: 112822R.B\1128R0000050.D Date Analyzed: 11/28/2022 Time: 21:01

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4519771LCS	4519771	112822R.B\1128R0000051.D	11/28/2022 21:13
BNSF-EF240-SC-1.0-2.0-	10633565004	112822R.B\1128R0000052.D	11/28/2022 21:24
BNSF-K200-SC-0.0-0.4-	10633565001	112822R.B\1128R0000055.D	11/28/2022 21:58
4519772MS	4519772	112822R.B\1128R0000056.D	11/28/2022 22:10
4519773MSD	4519773	112822R.B\1128R0000057.D	11/28/2022 22:21
BNSF-EF470-SC-11.0-12.0-	10633565002	112822R.B\1128R0000058.D	11/28/2022 22:33
BNSF-EF240-SC-1.0-2.0-	10633565003	112822R.B\1128R0000059.D	11/28/2022 22:44
BNSF-EF240-SC-3.0-4.0-	10633565005	112922R.B\1129R0000012.D	11/29/2022 14:15

SAMPLE NO.

BNSF-K200-SC-0.0-0.4-110922

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/11/2022 08:50 Matrix: Solid SDG No.: 10633565

Date Extracted: 11/22/2022 15:47 Lab Sample ID: 10633565001

Date Analyzed: 11/28/2022 21:58 Lab File ID: 112822R.B\1128R0000055.D

Initial wt/vol: 10.07 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 21.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	14.7	J
	Motor Oil Range	58.8	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000055.d
Lab Smp Id: 10633565001 Client Smp ID: BNSF-K200-SC-0.0-0.
Inj Date : 28-NOV-2022 21:58
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633565001
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.070	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	21.941	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE
S	1 DRO by AK 102					CAS #:	
	0.885	- 3.605		880863	93.5899	11.9	(M) RNG
$	2 o-Terphenyl (S)					CAS #:	
	2.733	2.734	-0.001	208842	31.7736	4.04	(RM) BA
$	3 n-Triacontane (S)					CAS #:	
	4.278	4.278	0.000	208700	39.6952	5.05	(M) BA
S	4 Residual Range Organics AK103					CAS #:	
	3.606	- 5.170		1720888	446.291	56.8	(M) RNG
S	5 TPH-DRO (C10-C28)					CAS #:	
	0.885	- 4.200		1478105	163.954	20.8	(M) RNG
S	6 Motor Oil Range (C24-C36)					CAS #:	
	3.460	- 5.170		1823942	448.951	57.1	(M) RNG

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.885	- 5.170		2601751	460.427	58.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		861019	115.883	14.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		861019	115.883	14.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		2169800	462.274	58.8	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		2169800	462.274	58.8	(M)	RNG

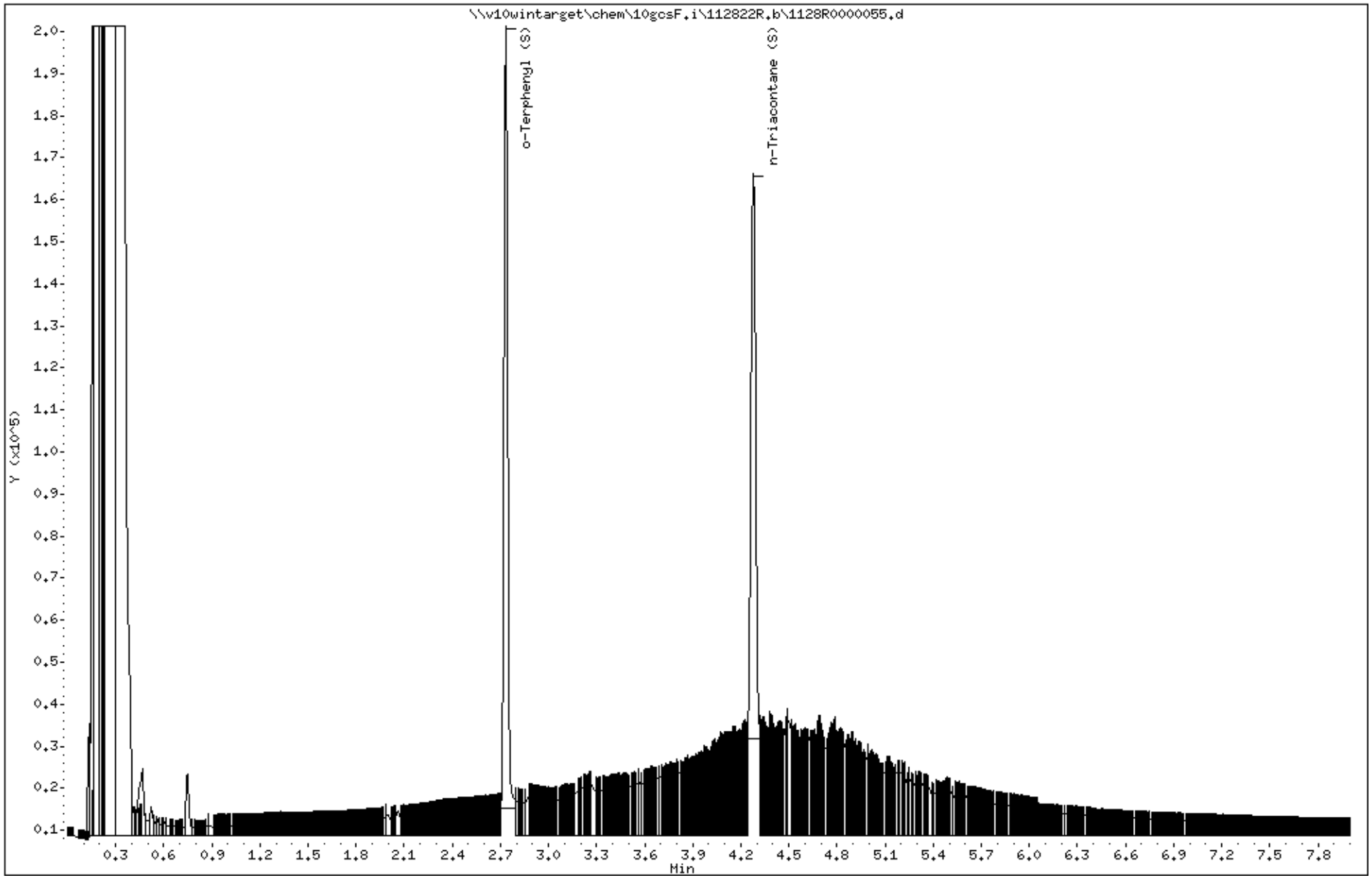
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

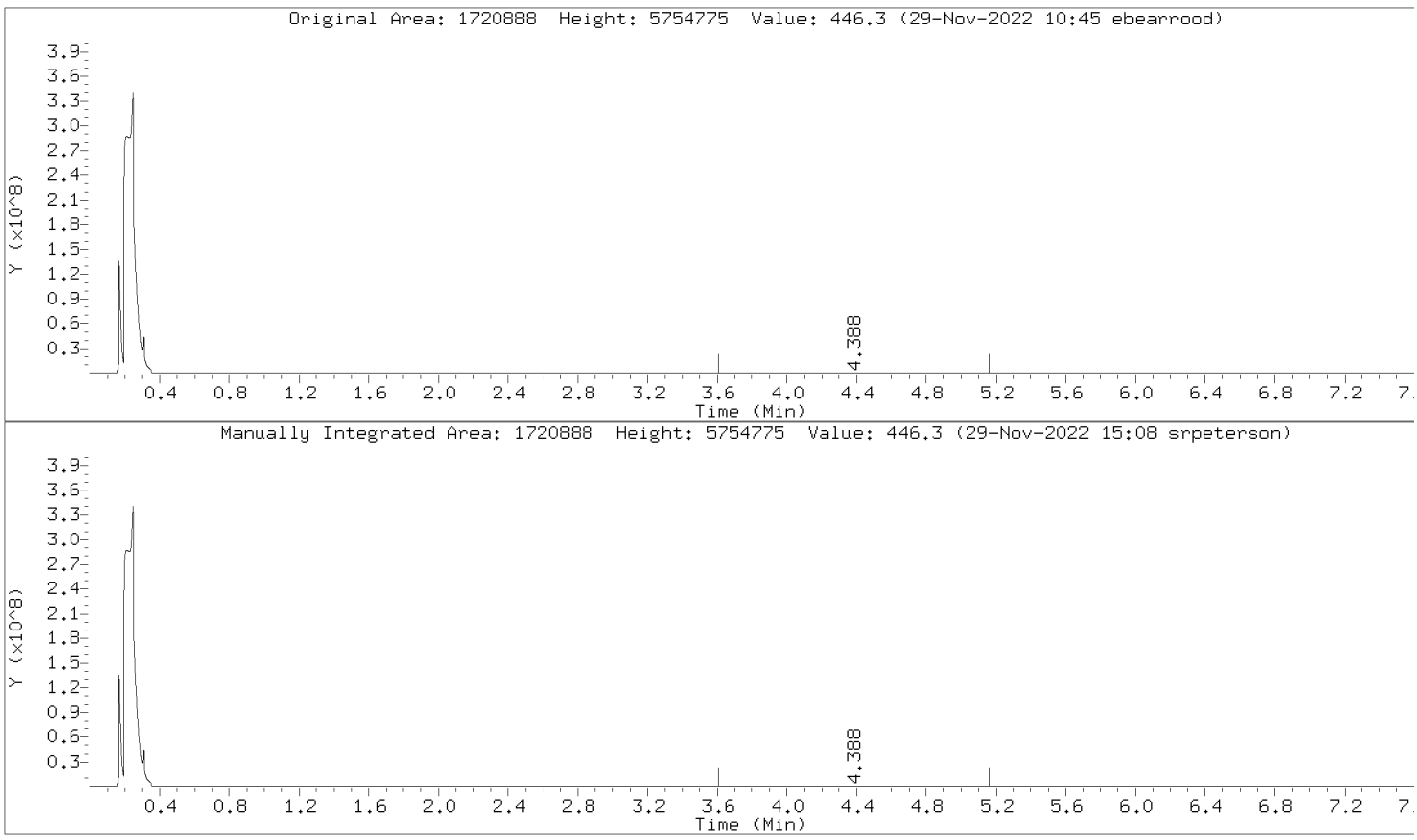
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000055.d
Date : 28-NOV-2022 21:58
Client ID: BNSF-K200-SC-0.0-0.
Instrument: 10gcsF.i
Sample Info: 10633565001
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



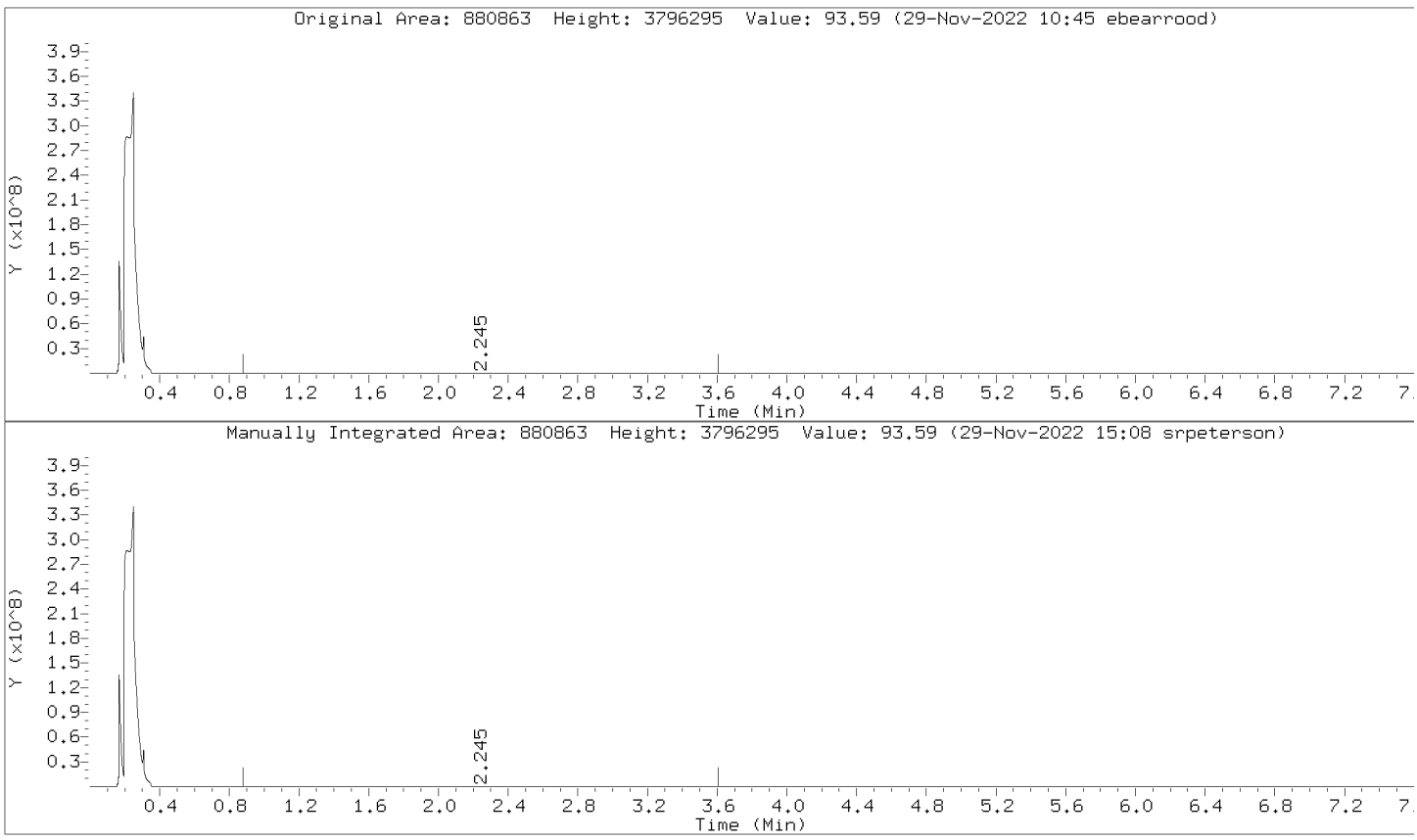
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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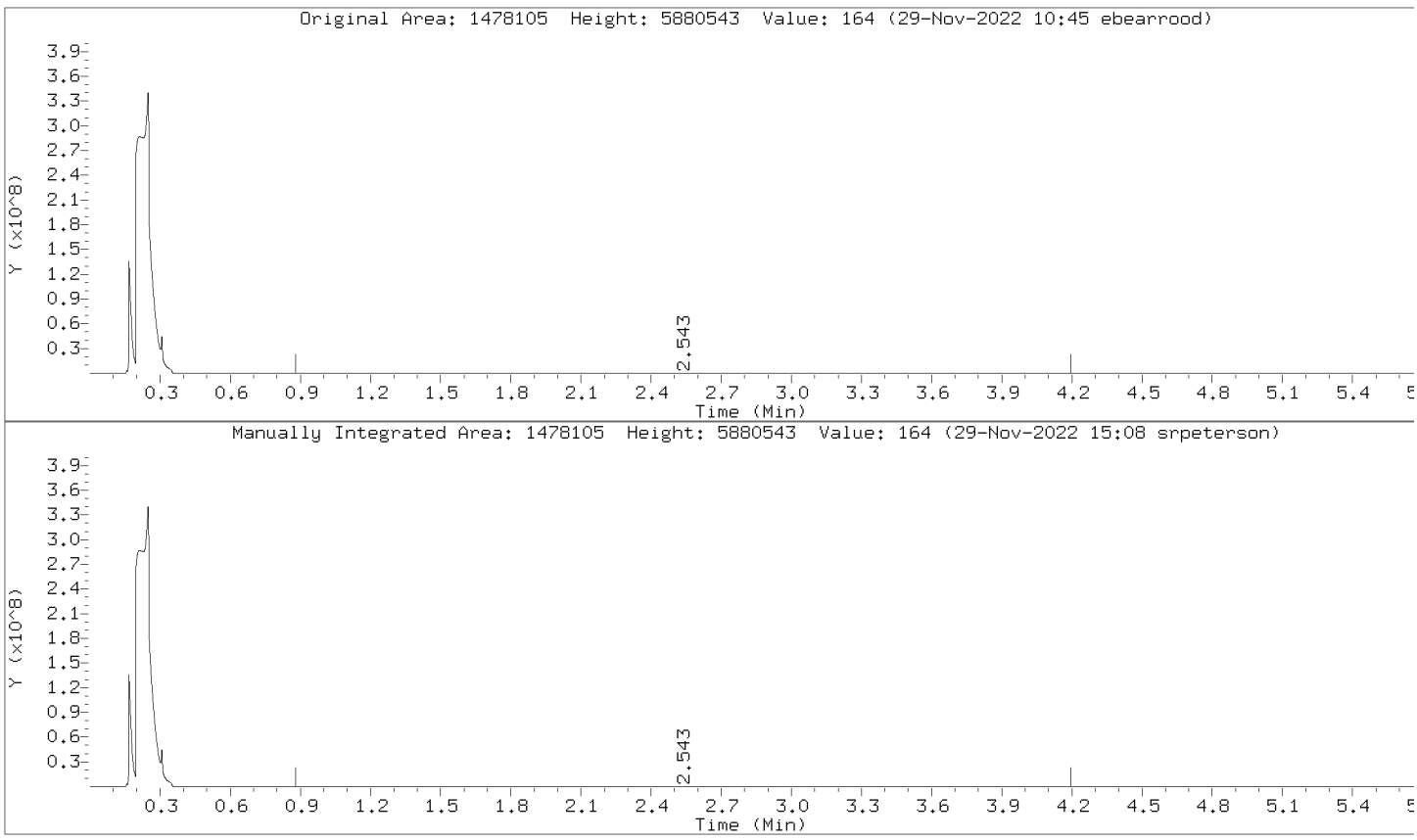
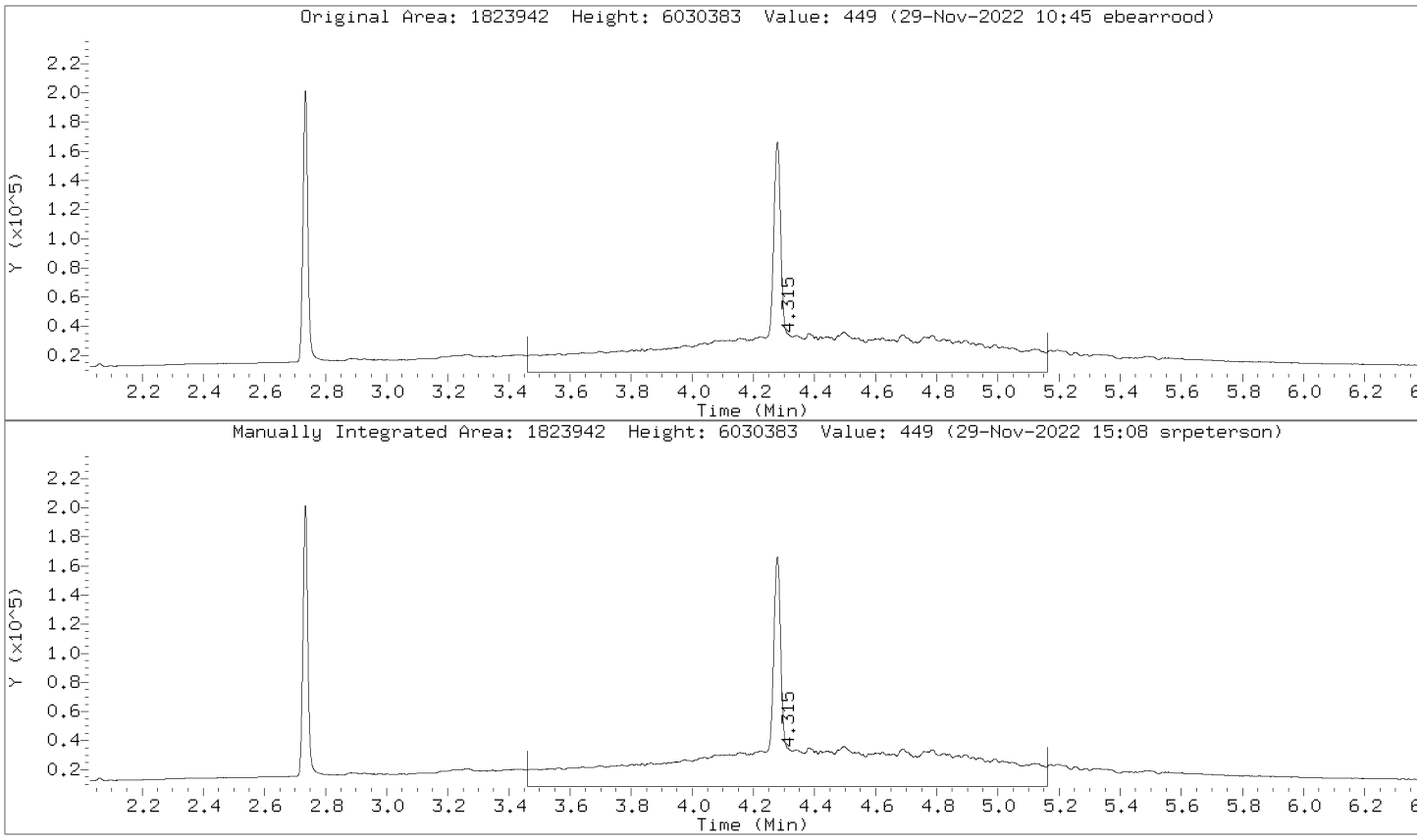
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



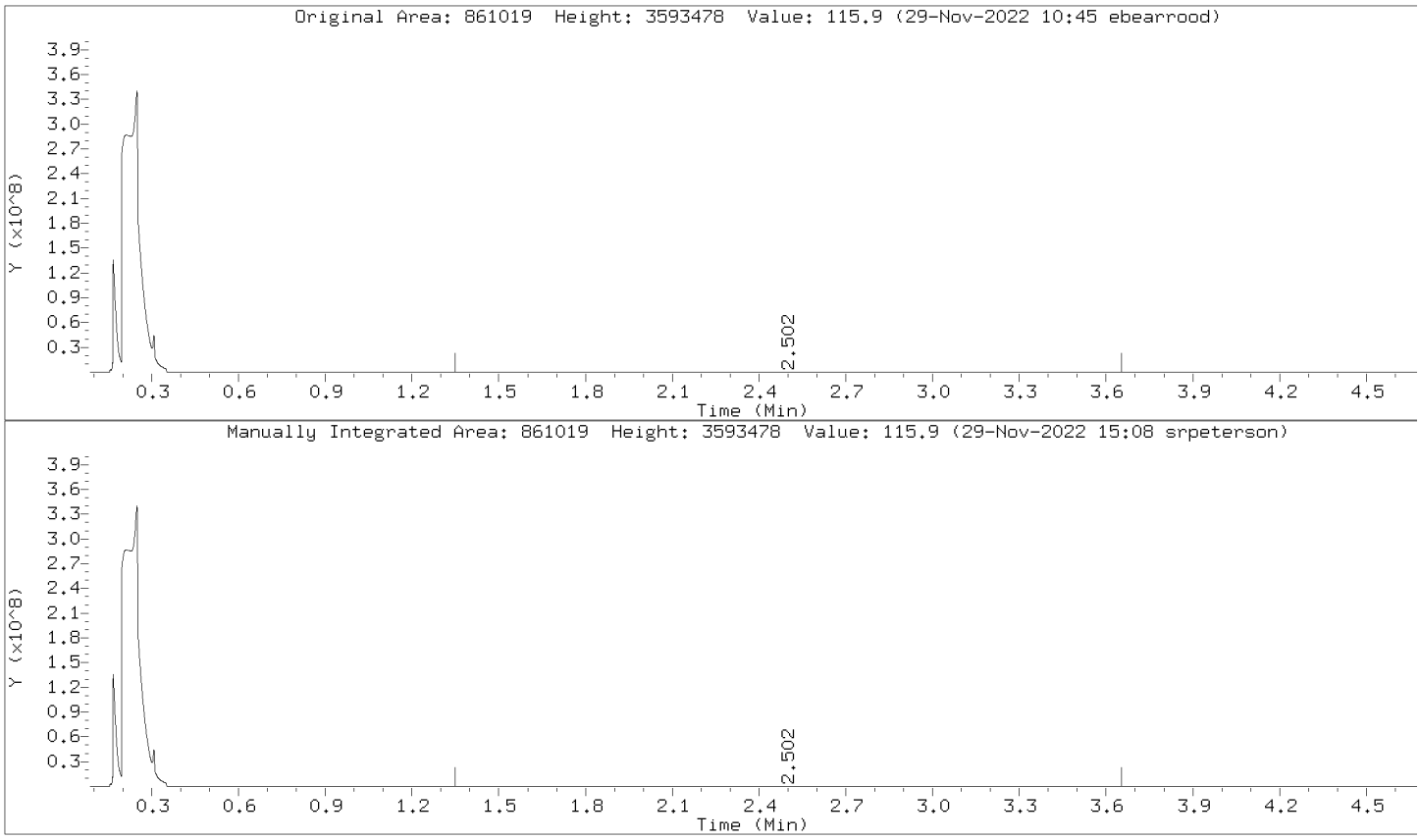
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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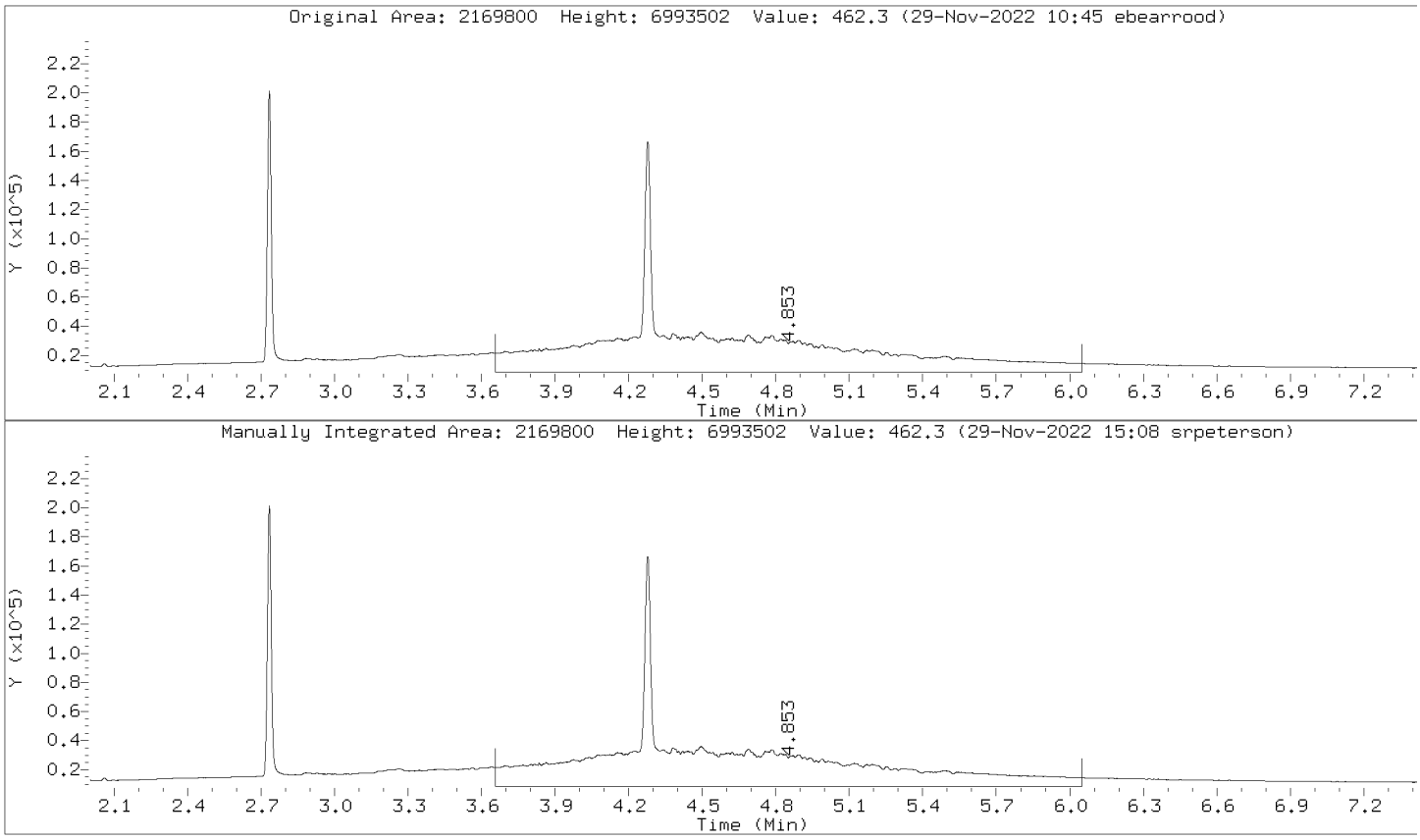
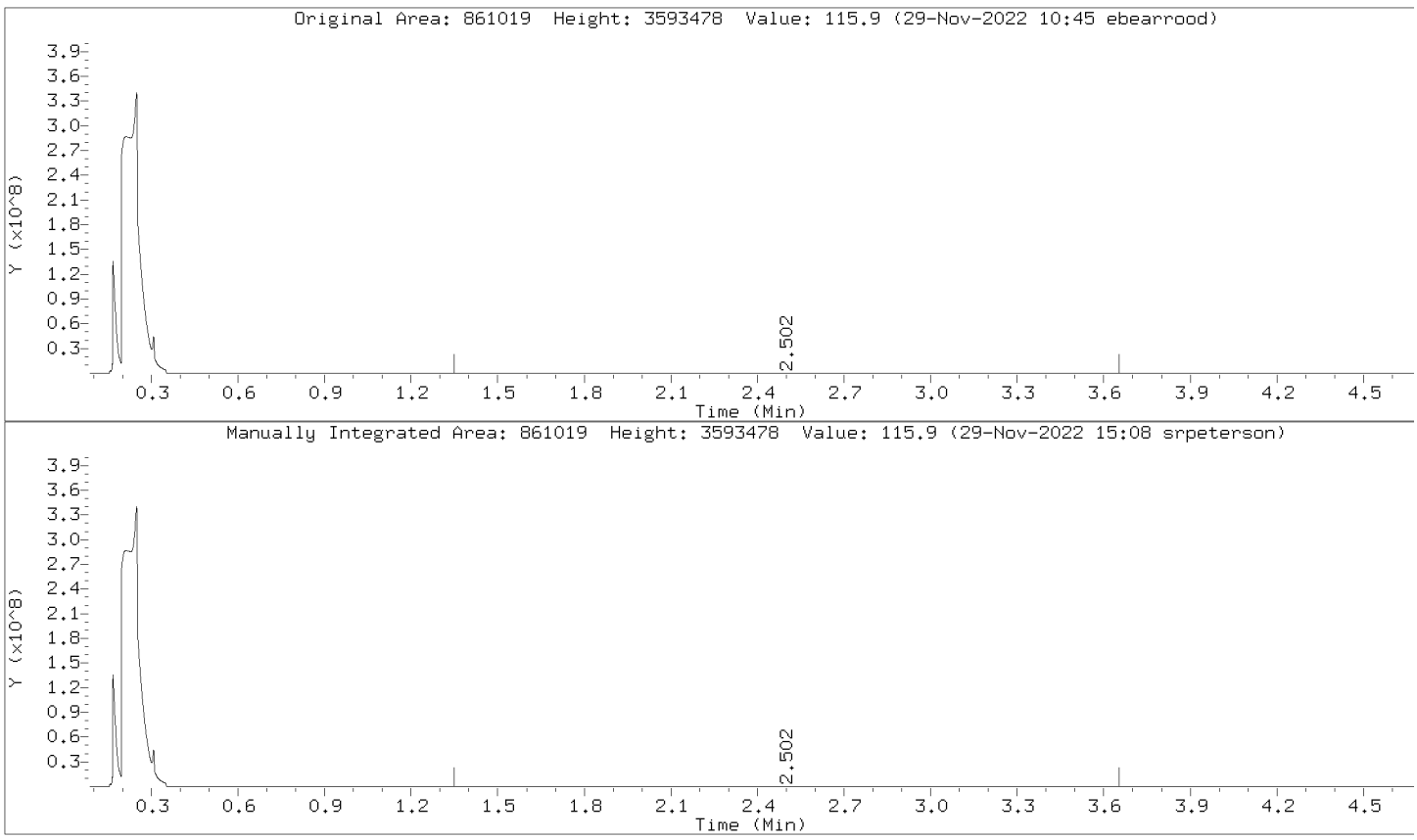
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Motor Oil Range Review Code: RNG
CAS Number:



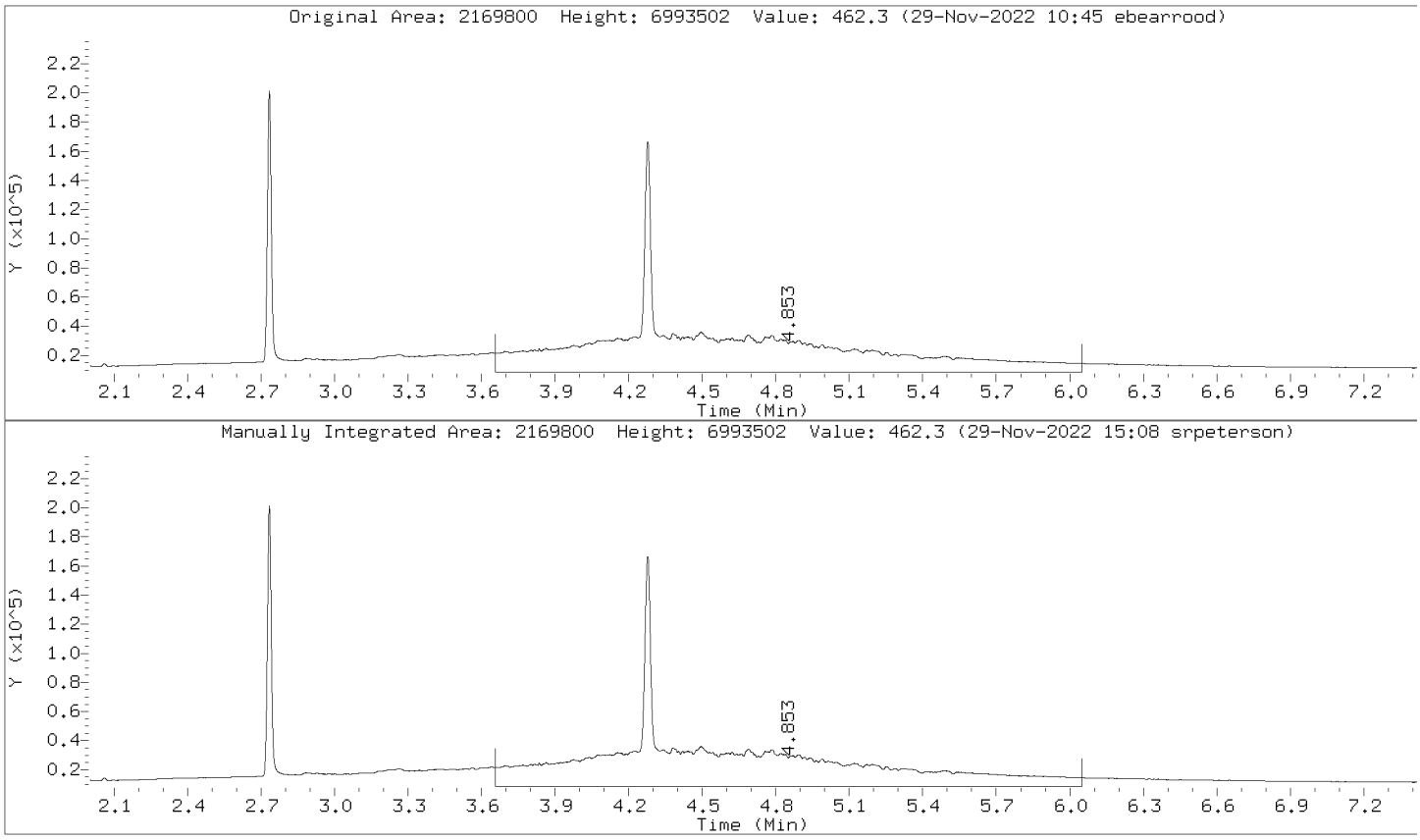
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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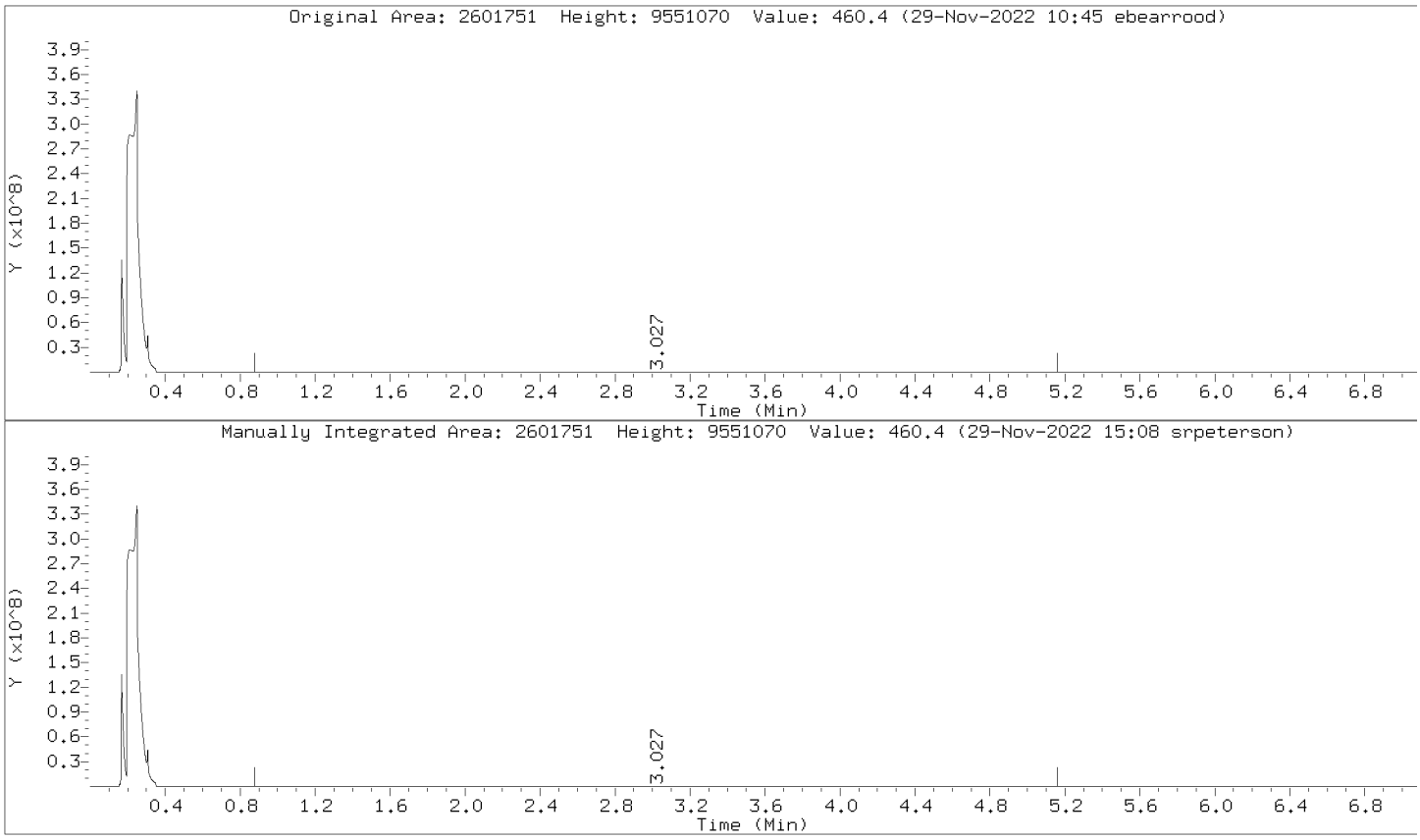
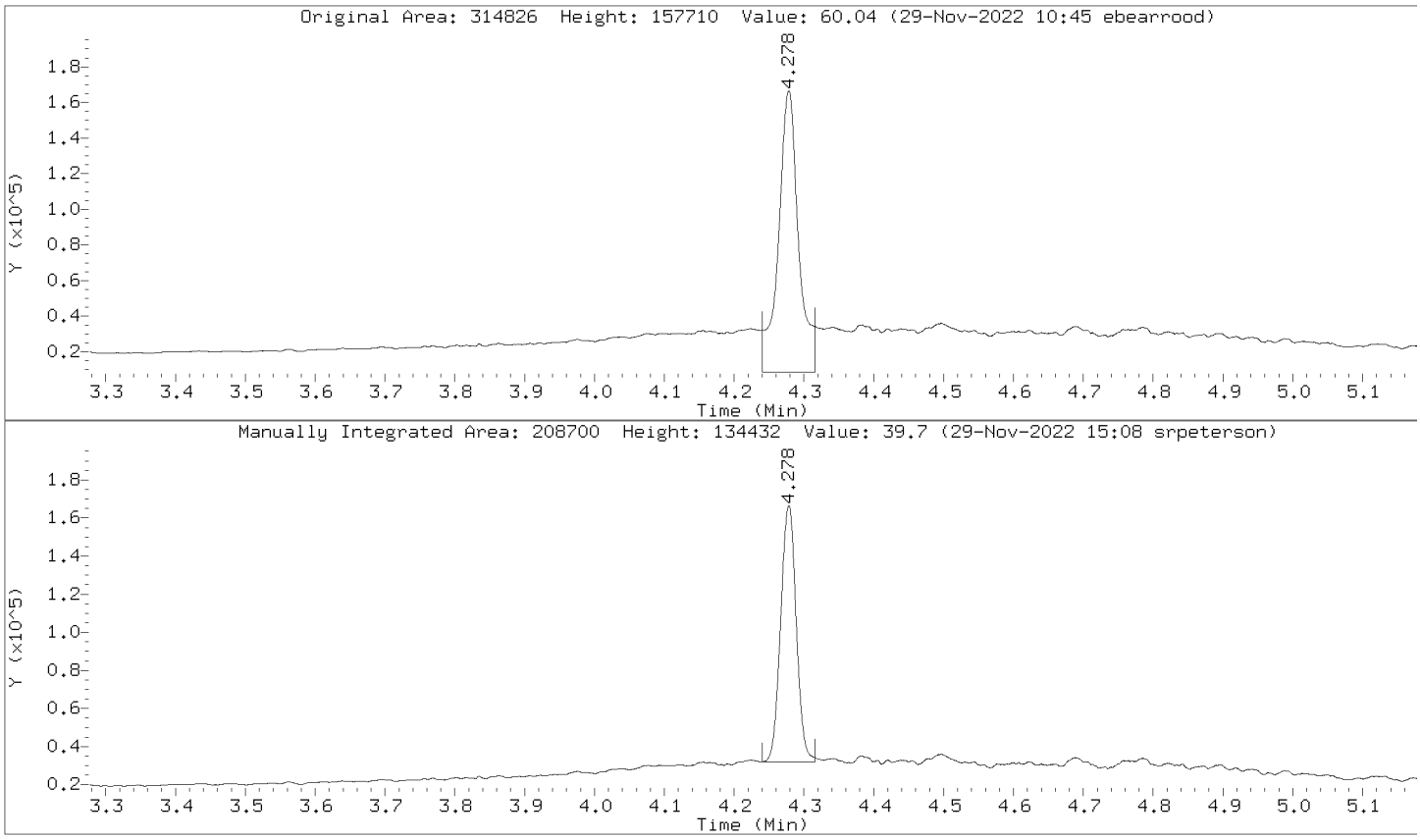
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: C10-C36 Review Code: RNG
CAS Number:



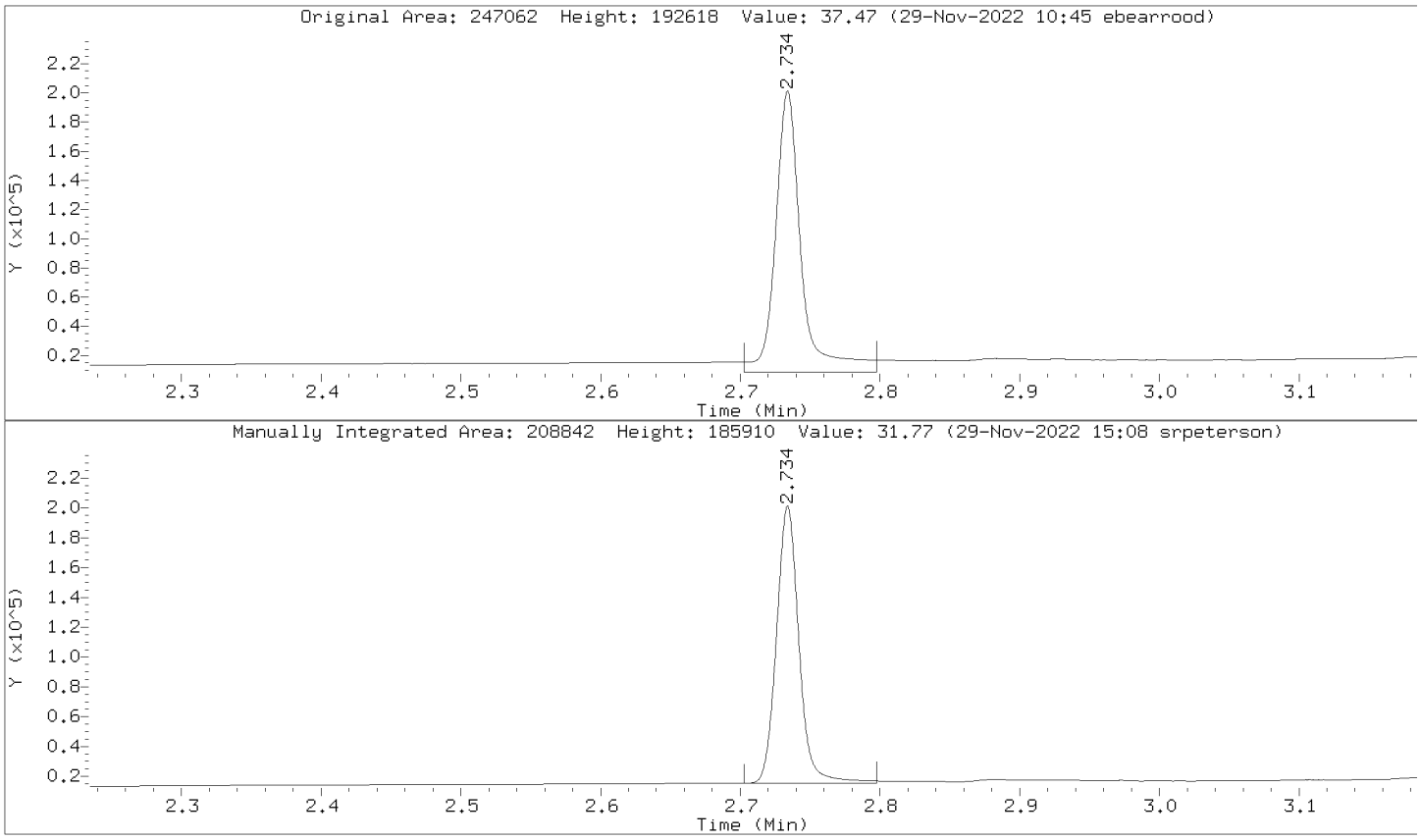
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000055.d
Injection Date: 28-NOV-2022 21:58
Instrument: 10gcsF.i
Lab Sample ID: 10633565001

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1720888	1720888
DRO by AK 102	880863	880863
TPH-DRO (C10-C28)	1478105	1478105
Motor Oil Range (C24-C36)	1823942	1823942
Diesel Fuel Range	861019	861019
Motor Oil Range	2169800	2169800
Diesel Fuel Range SG	861019	861019
Motor Oil Range SG	2169800	2169800
C10-C36	2601751	2601751
n-Triacontane (S)	314826	208700
o-Terphenyl (S)	247062	208842

SAMPLE NO.

BNSF-EF470-SC-11.0-12.0-110922

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/11/2022 08:50 Matrix: Solid SDG No.: 10633565

Date Extracted: 11/22/2022 15:47 Lab Sample ID: 10633565002

Date Analyzed: 11/28/2022 22:33 Lab File ID: 112822R.B\1128R0000058.D

Initial wt/vol: 10.06 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 27.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000058.d
Lab Smp Id: 10633565002 Client Smp ID: BNSF-EF470-SC-11.0-
Inj Date : 28-NOV-2022 22:33
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633565002
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.060	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	27.244	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE
S	1 DRO by AK 102					CAS #:	
	0.885	- 3.605		379513	5.00715	0.684	(M) RNG
$	2 o-Terphenyl (S)					CAS #:	
	2.733	2.734	-0.001	191264	29.1528	3.98	(RM) BA
$	3 n-Triacontane (S)					CAS #:	
	4.278	4.278	0.000	213465	40.6089	5.55	(M) BA
S	4 Residual Range Organics AK103					CAS #:	
	3.606	- 5.170		232025	32.4822	4.44	(M) RNG
S	5 TPH-DRO (C10-C28)					CAS #:	
	0.885	- 4.200		451595	7.84245	1.07	(M) RNG
S	6 Motor Oil Range (C24-C36)					CAS #:	
	3.460	- 5.170		248129	31.0641	4.24	(M) RNG

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.885	- 5.170		611538	31.5006	4.30	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		332587	5.01220	0.685	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		332587	5.01220	0.685	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		354935	48.7014	6.65	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		354935	48.7014	6.65	(M)	RNG

QC Flag Legend

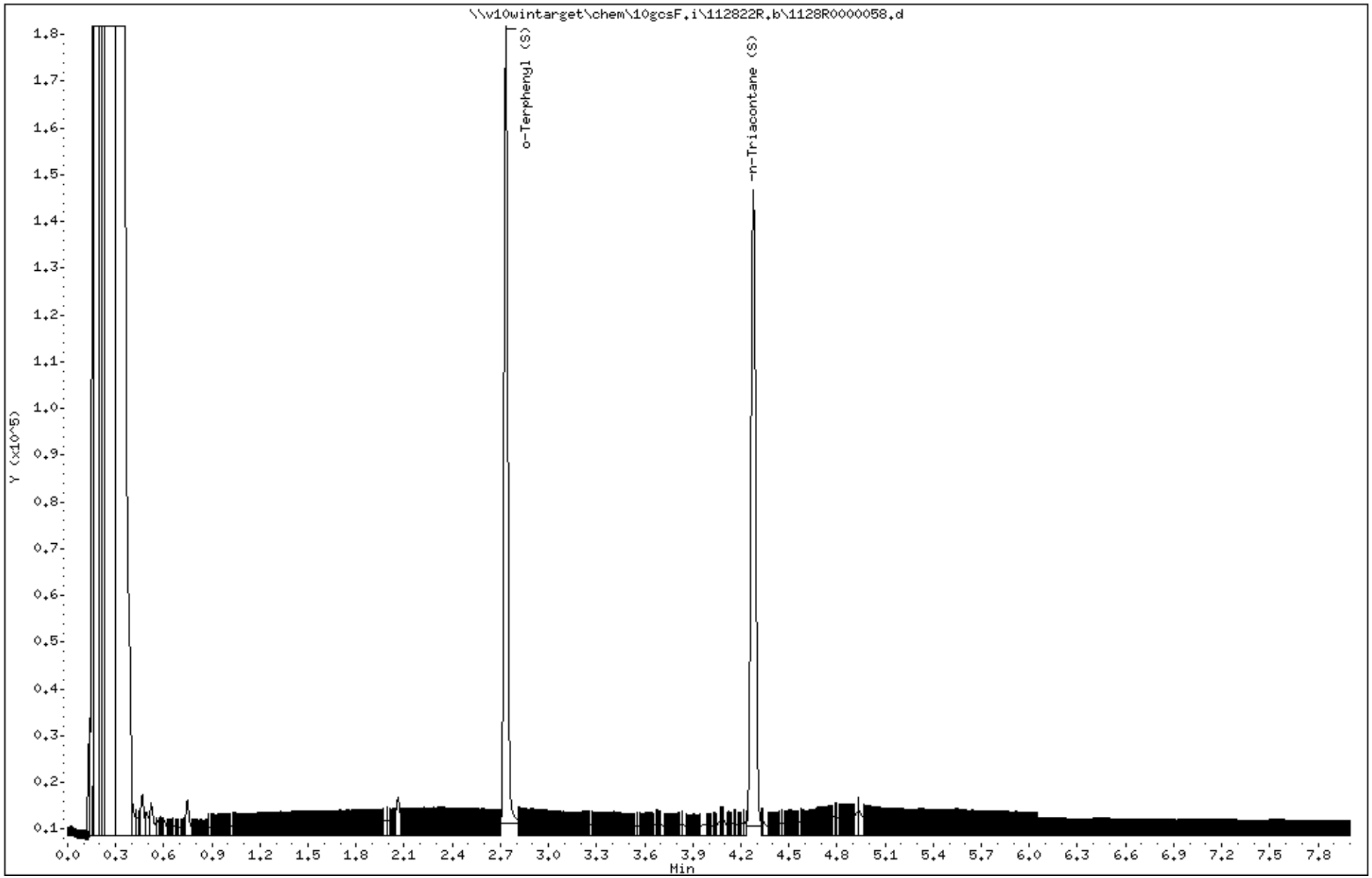
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

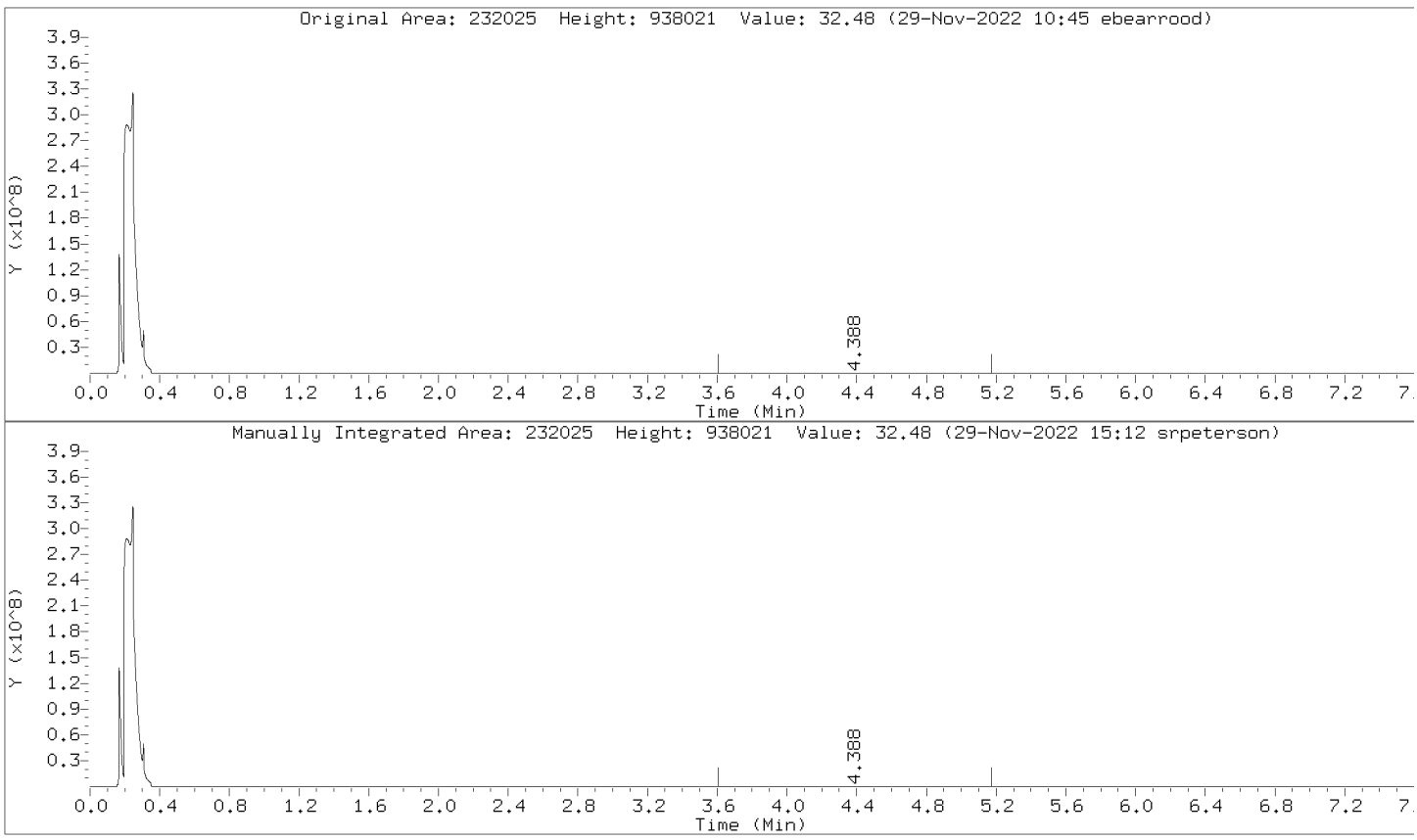
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000058.d
Date : 28-NOV-2022 22:33
Client ID: BNSF-EF470-SC-11.0-
Sample Info: 10633565002
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



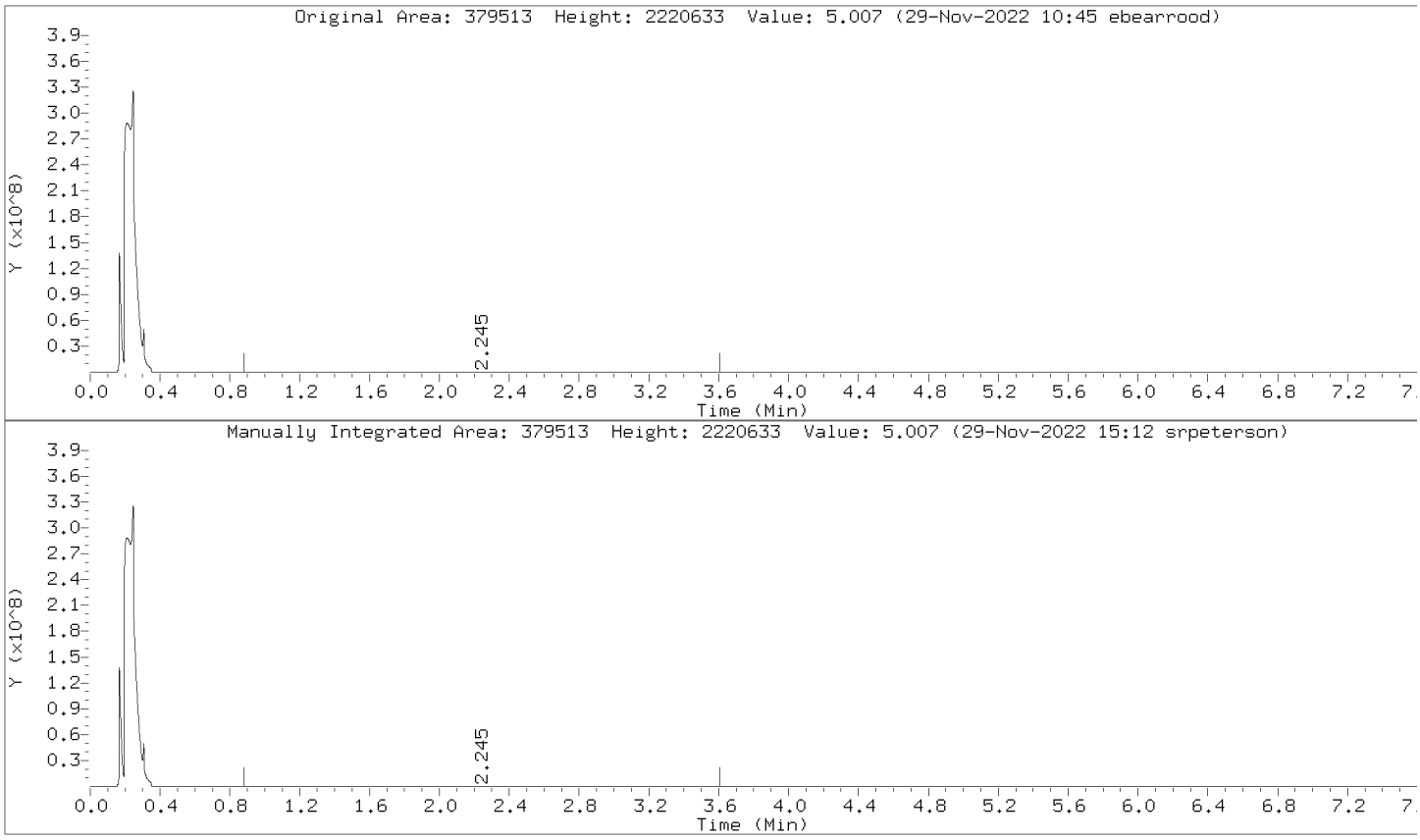
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



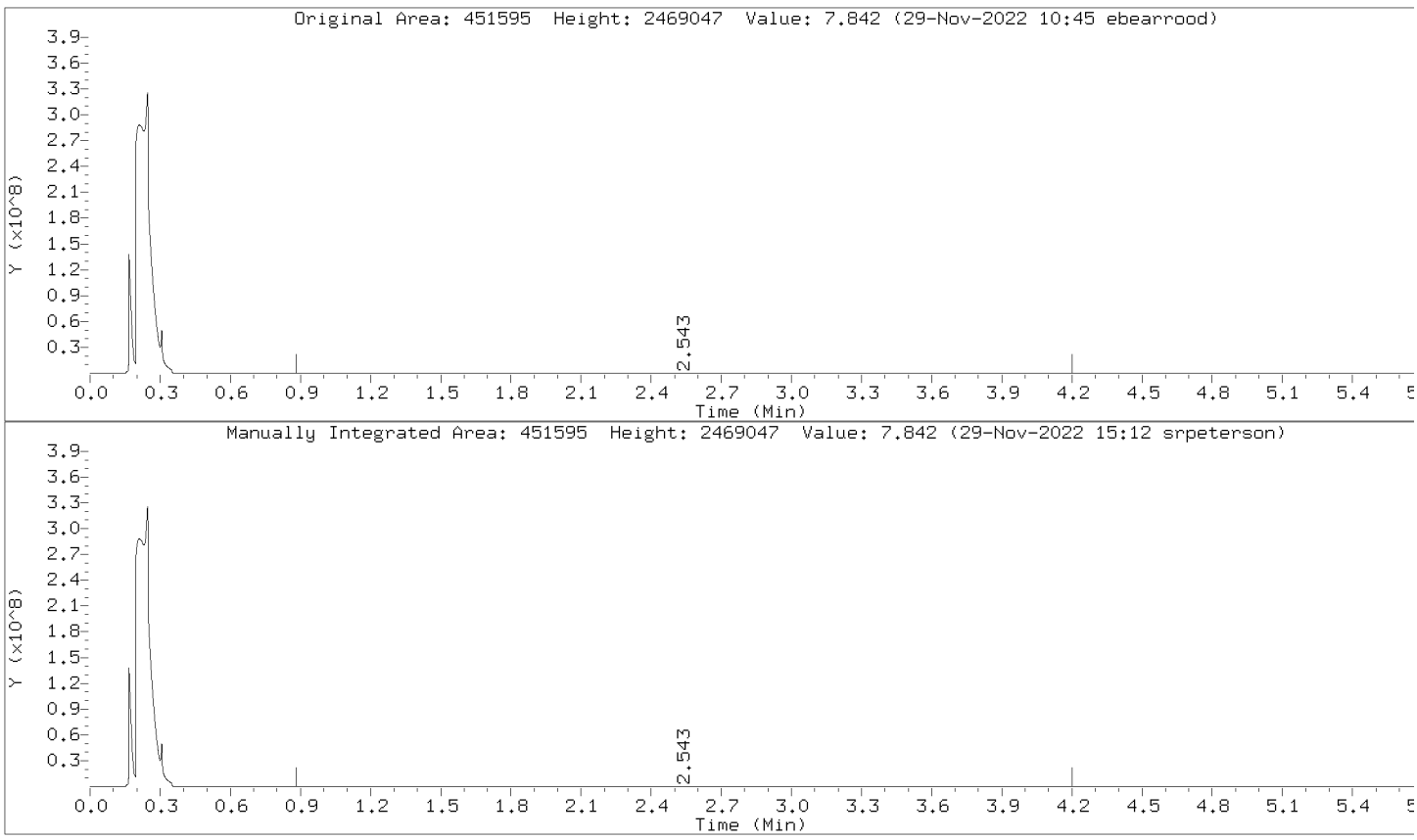
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



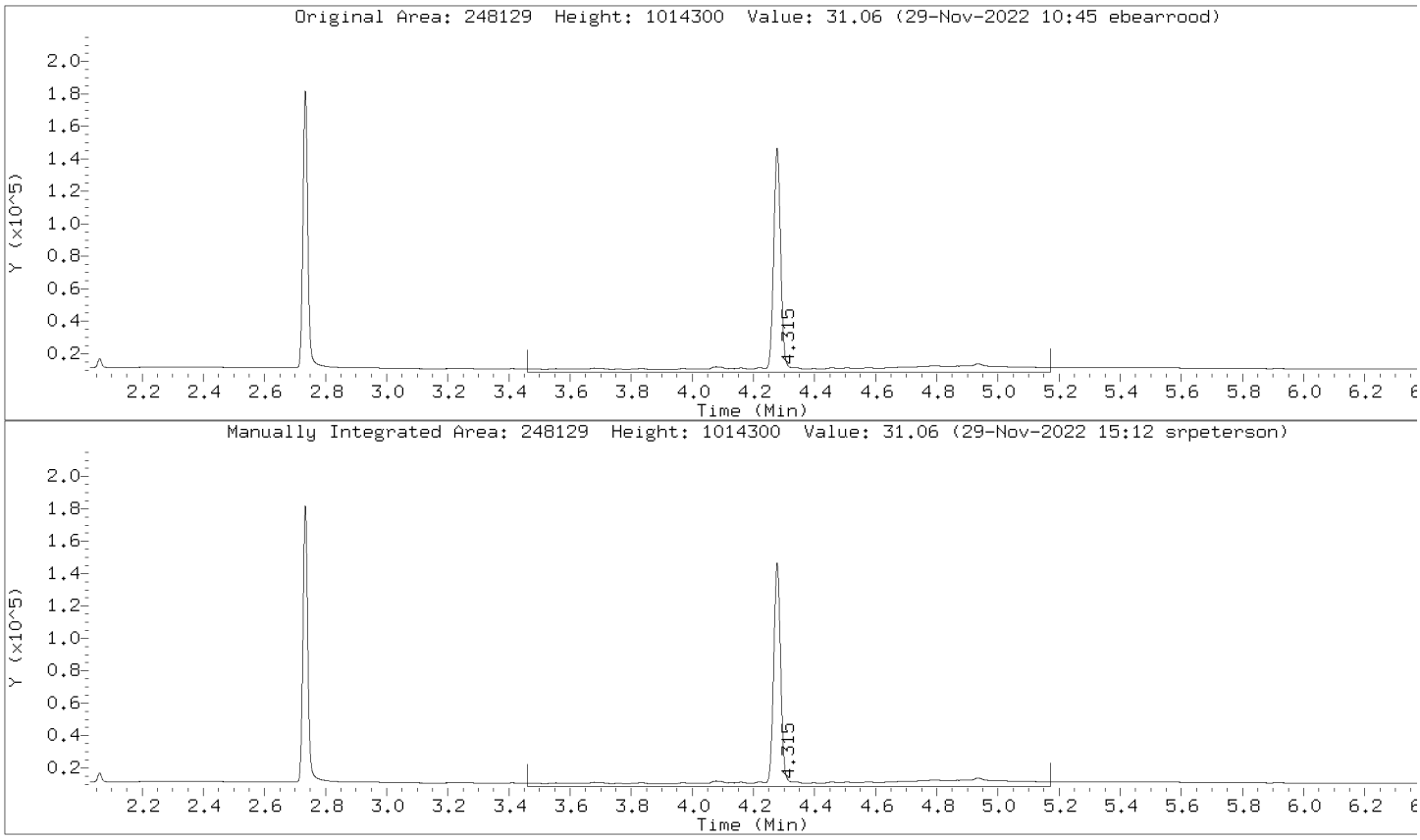
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



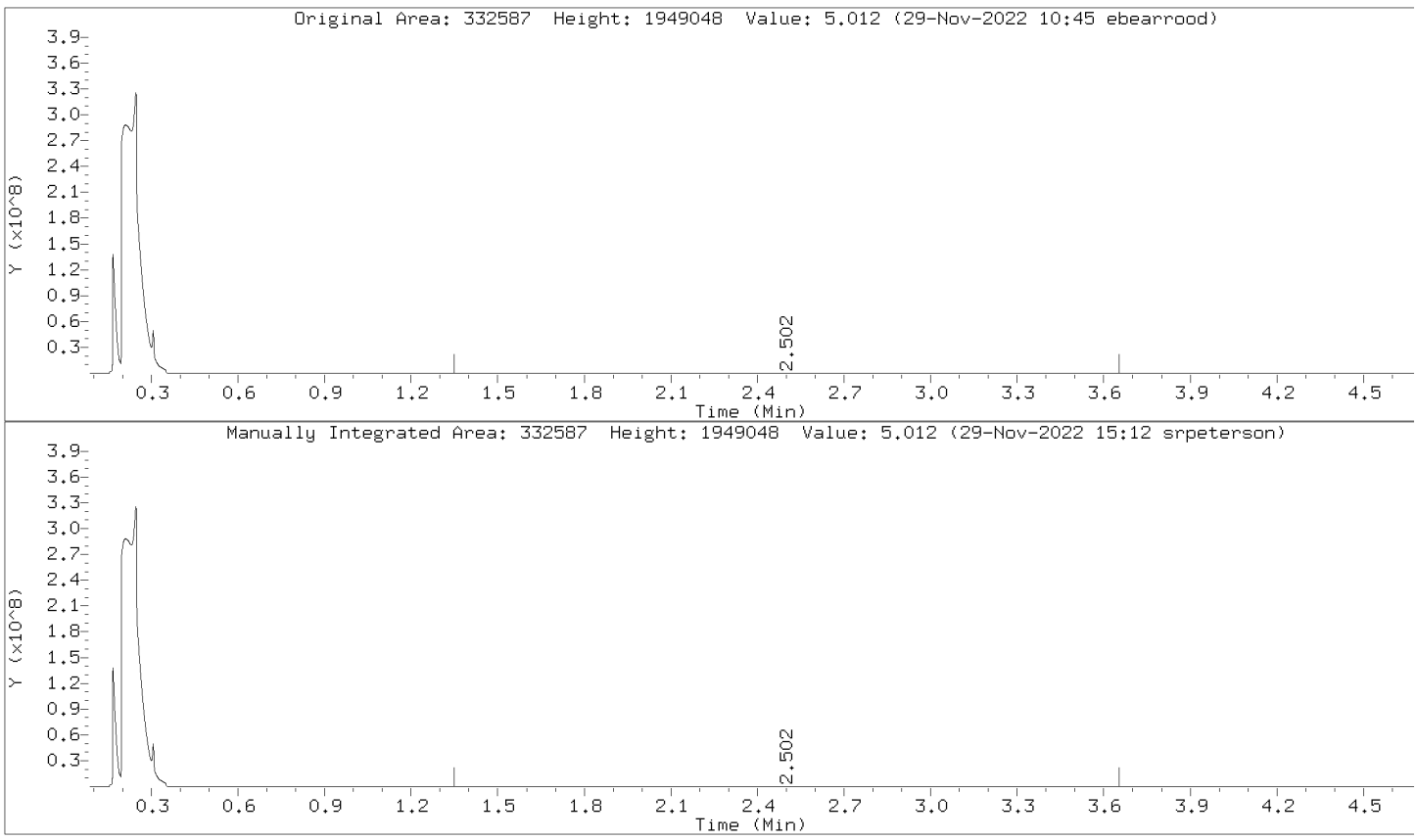
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



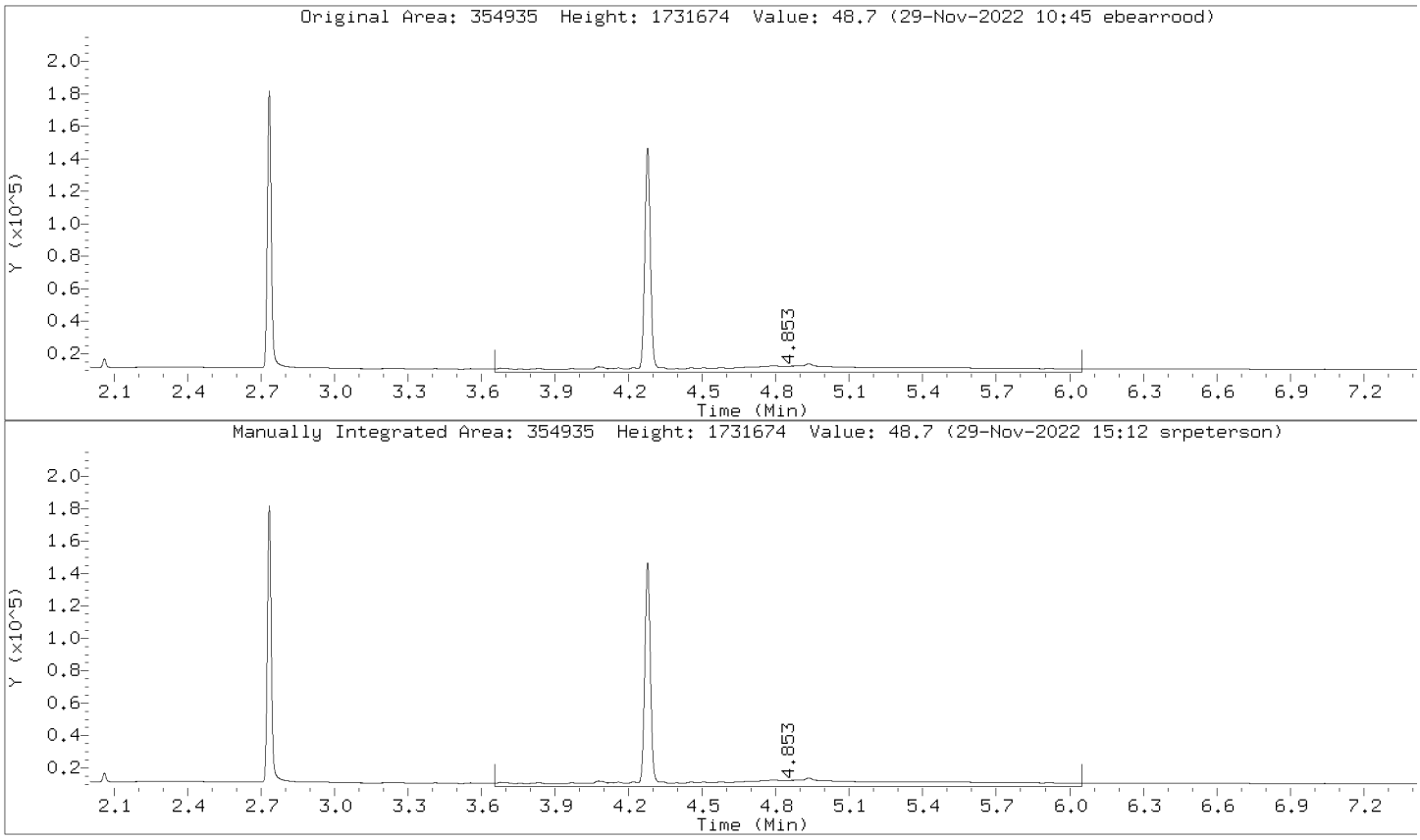
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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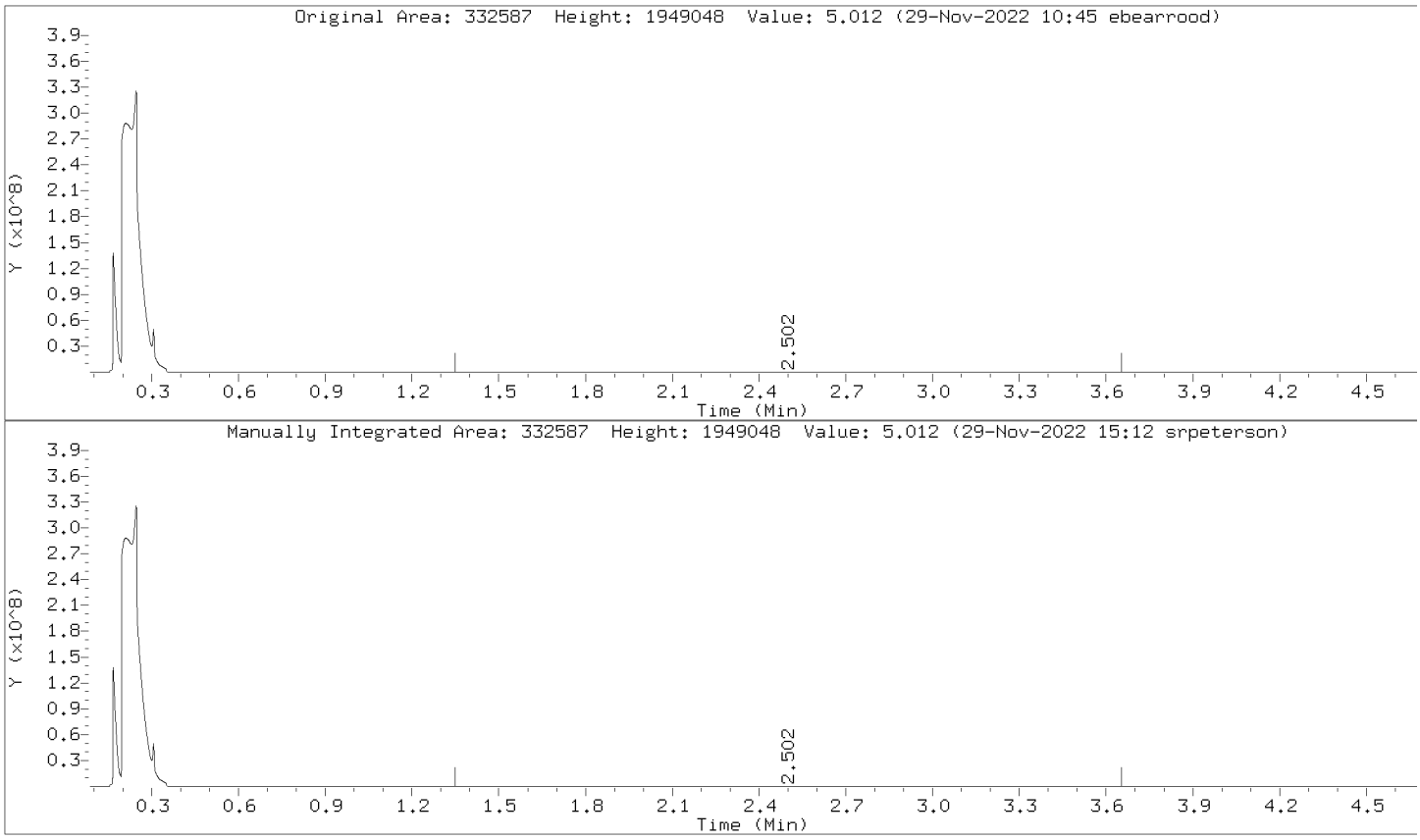
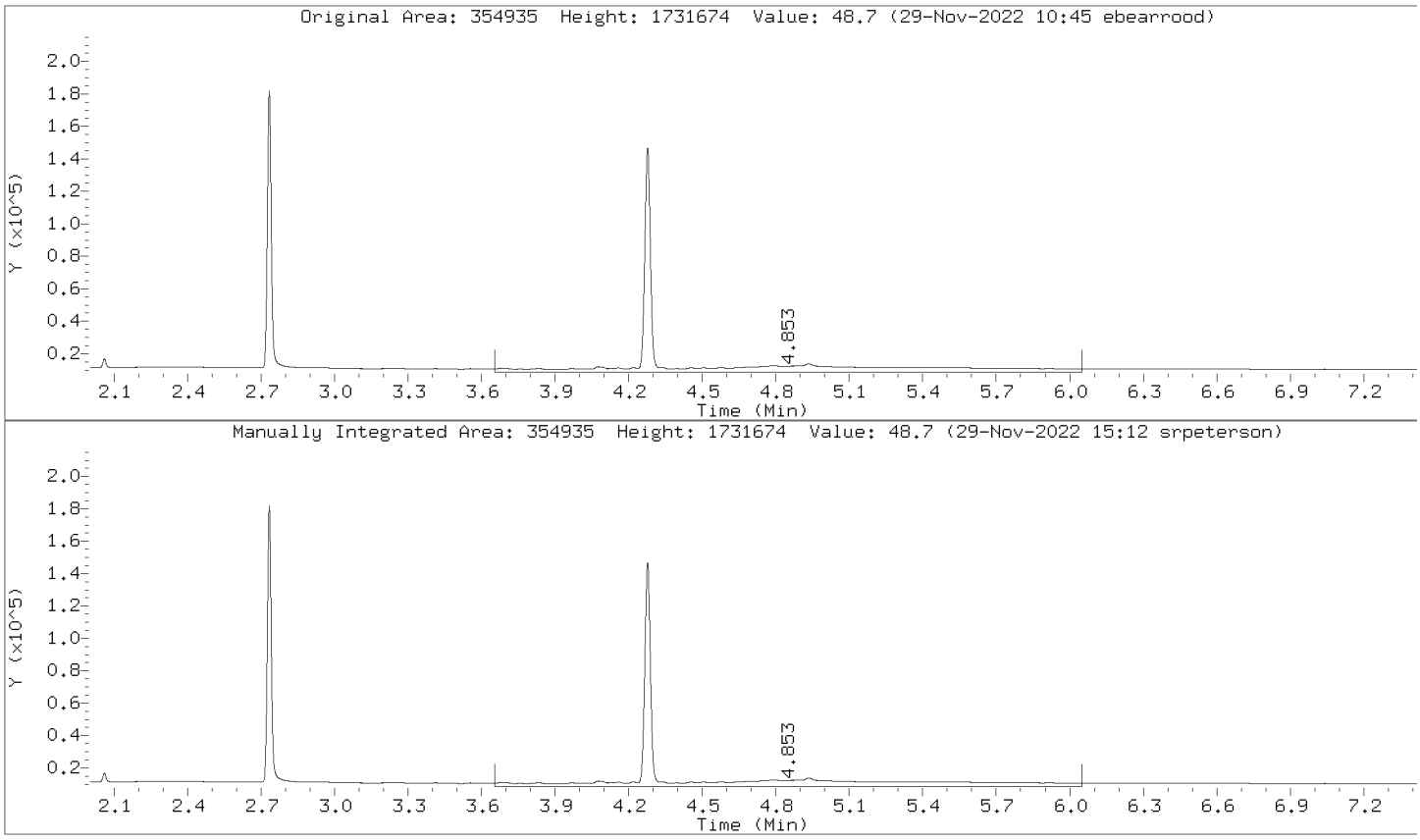
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



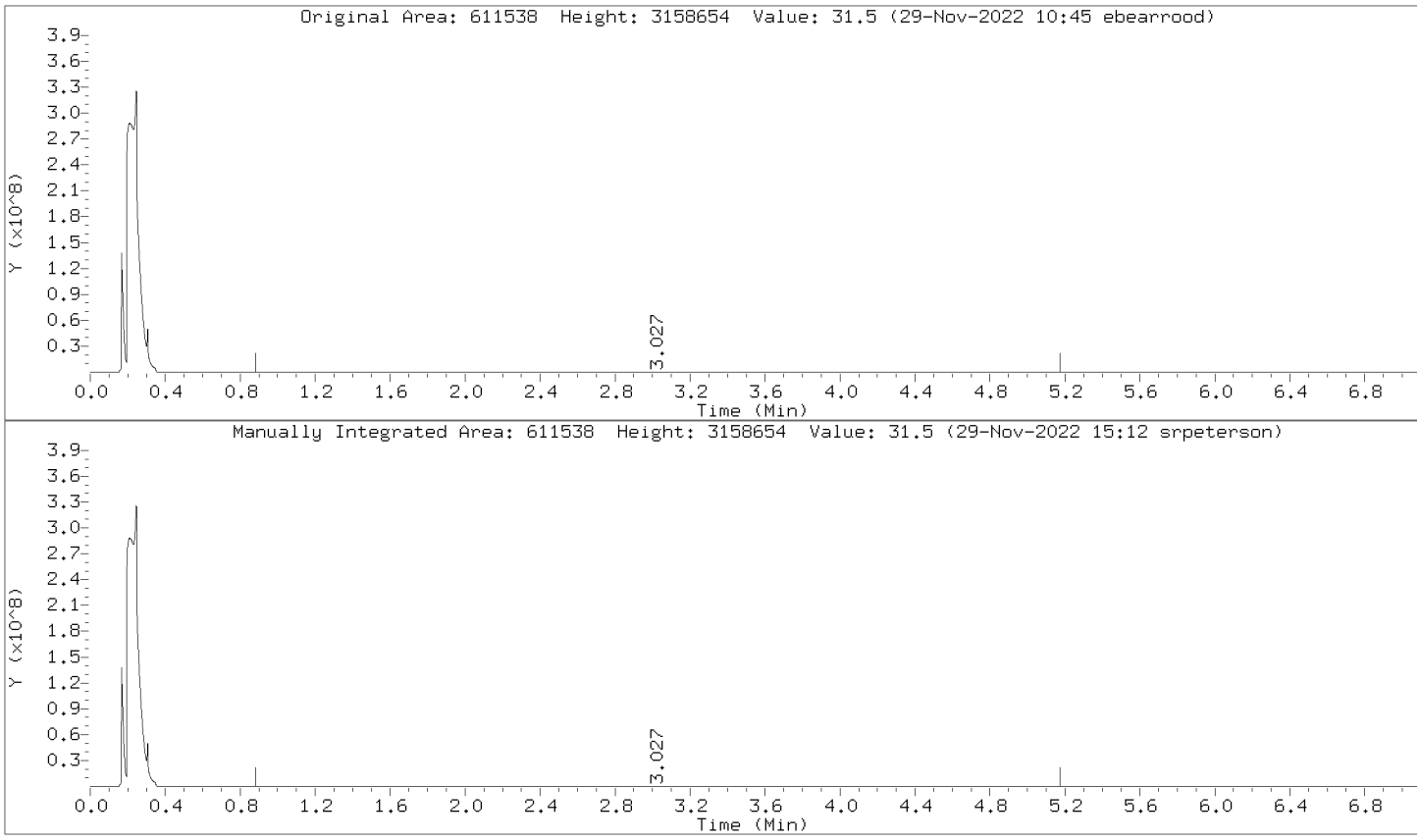
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



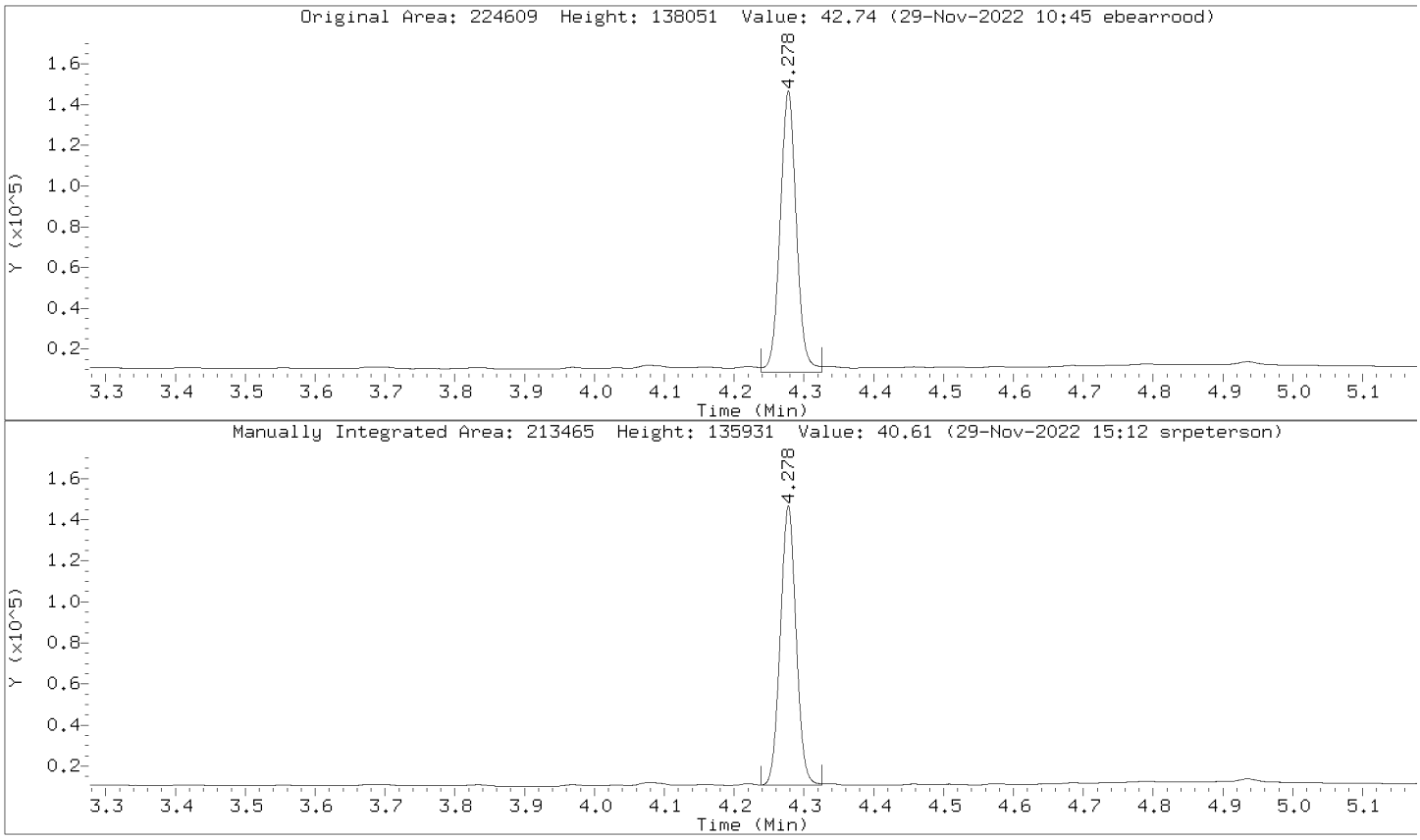
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: C10-C36 Review Code: RNG
CAS Number:



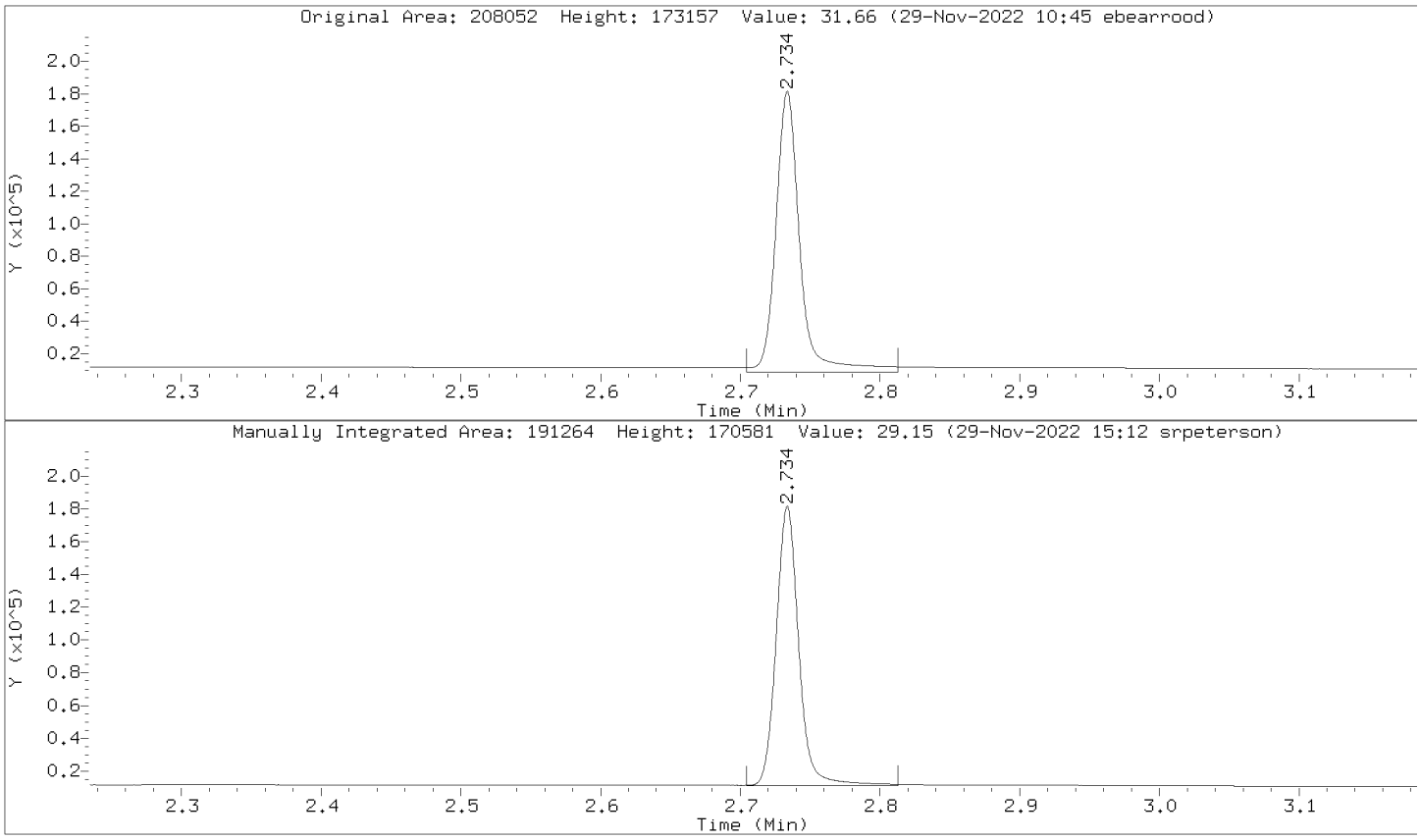
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000058.d
Injection Date: 28-NOV-2022 22:33
Instrument: 10gcsF.i
Lab Sample ID: 10633565002

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	232025	232025
DRO by AK 102	379513	379513
TPH-DRO (C10-C28)	451595	451595
Motor Oil Range (C24-C36)	248129	248129
Diesel Fuel Range	332587	332587
Motor Oil Range	354935	354935
Diesel Fuel Range SG	332587	332587
Motor Oil Range SG	354935	354935
C10-C36	611538	611538
n-Triacontane (S)	224609	213465
o-Terphenyl (S)	208052	191264

SAMPLE NO.

BNSF-EF240-SC-1.0-2.0-111022

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/11/2022 08:50 Matrix: Solid SDG No.: 10633565

Date Extracted: 11/22/2022 15:47 Lab Sample ID: 10633565003

Date Analyzed: 11/28/2022 22:44 Lab File ID: 112822R.B\1128R0000059.D

Initial wt/vol: 10.12 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 29.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	17.8	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000059.d
Lab Smp Id: 10633565003 Client Smp ID: BNSF-EF240-SC-1.0-2
Inj Date : 28-NOV-2022 22:44
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633565003
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.120	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	29.575	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885	- 3.605		672647	56.8006	7.97	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.732	2.734	-0.002	183582	28.0074	3.93	(RM)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.275	4.278	-0.003	216967	41.2804	5.79	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.606	- 5.170		565980	125.300	17.6	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885	- 4.200		918041	78.7795	11.0	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.460	- 5.170		619812	129.630	18.2	(M)	RNG

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.885	- 5.170		1239473	166.832	23.4	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		636421	68.7599	9.65	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		636421	68.7599	9.65	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		698302	126.948	17.8	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		698302	126.948	17.8	(M)	RNG

QC Flag Legend

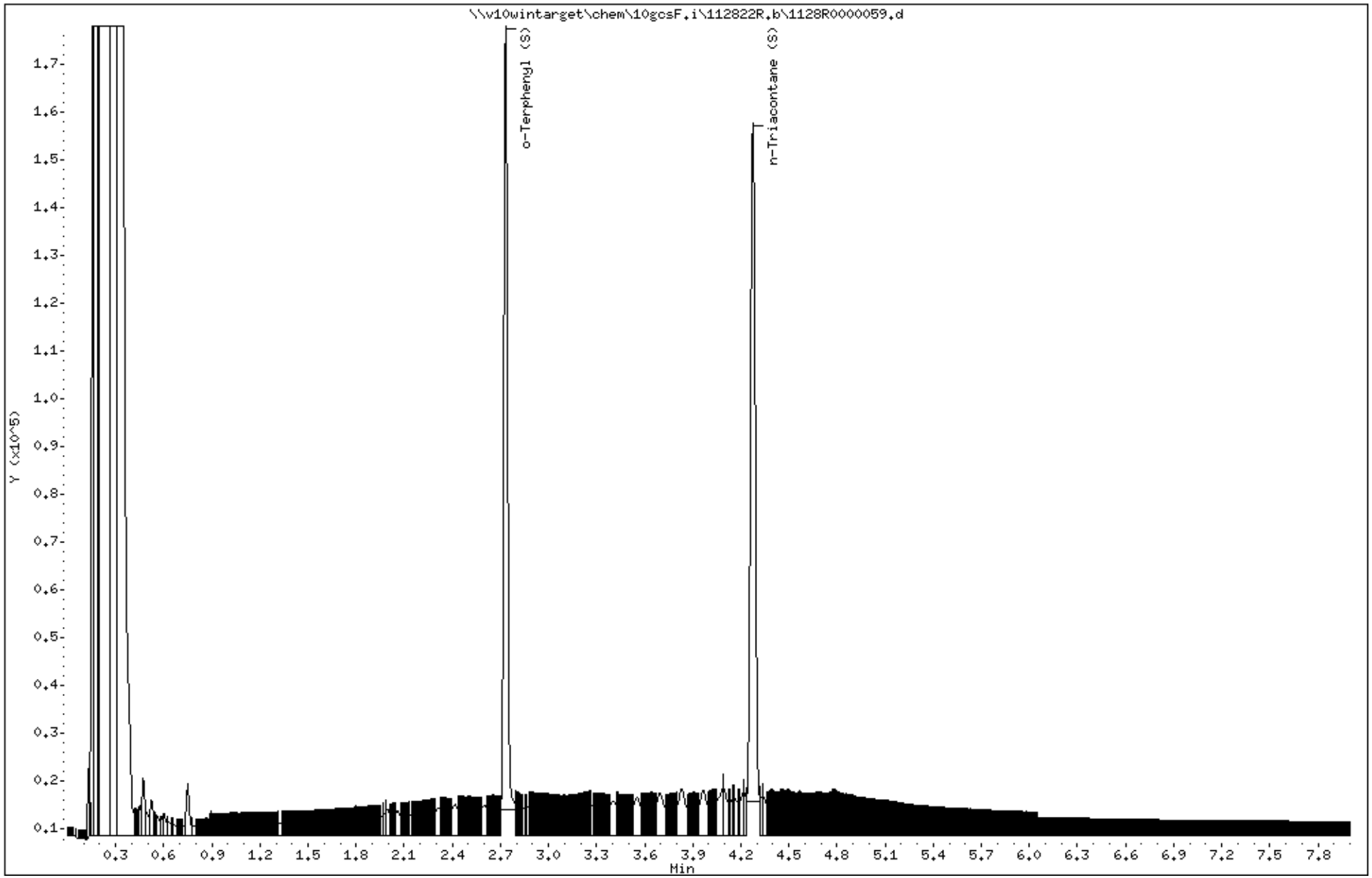
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000059.d
Date : 28-NOV-2022 22:44
Client ID: BNSF-EF240-SC-1.0-2
Sample Info: 10633565003
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



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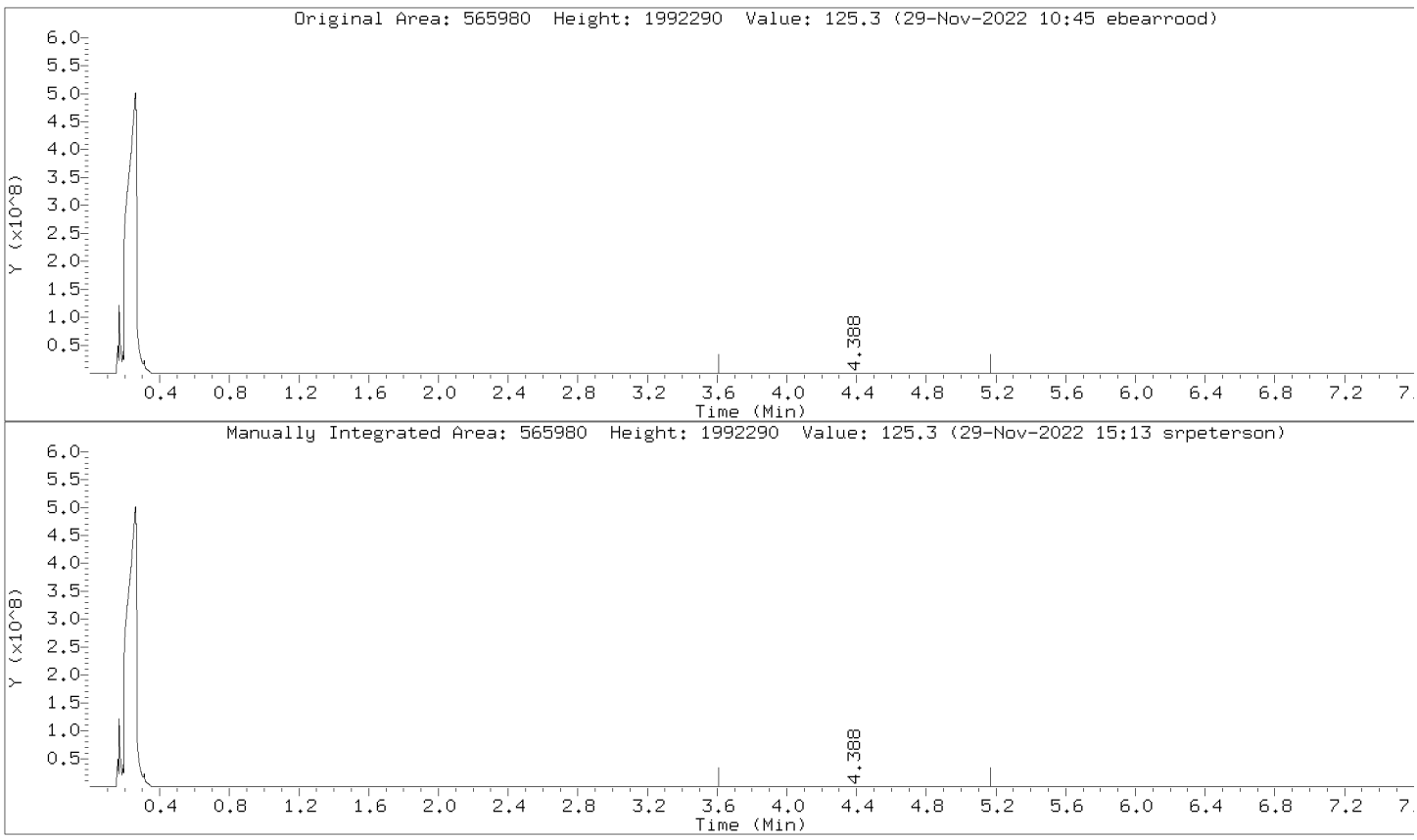
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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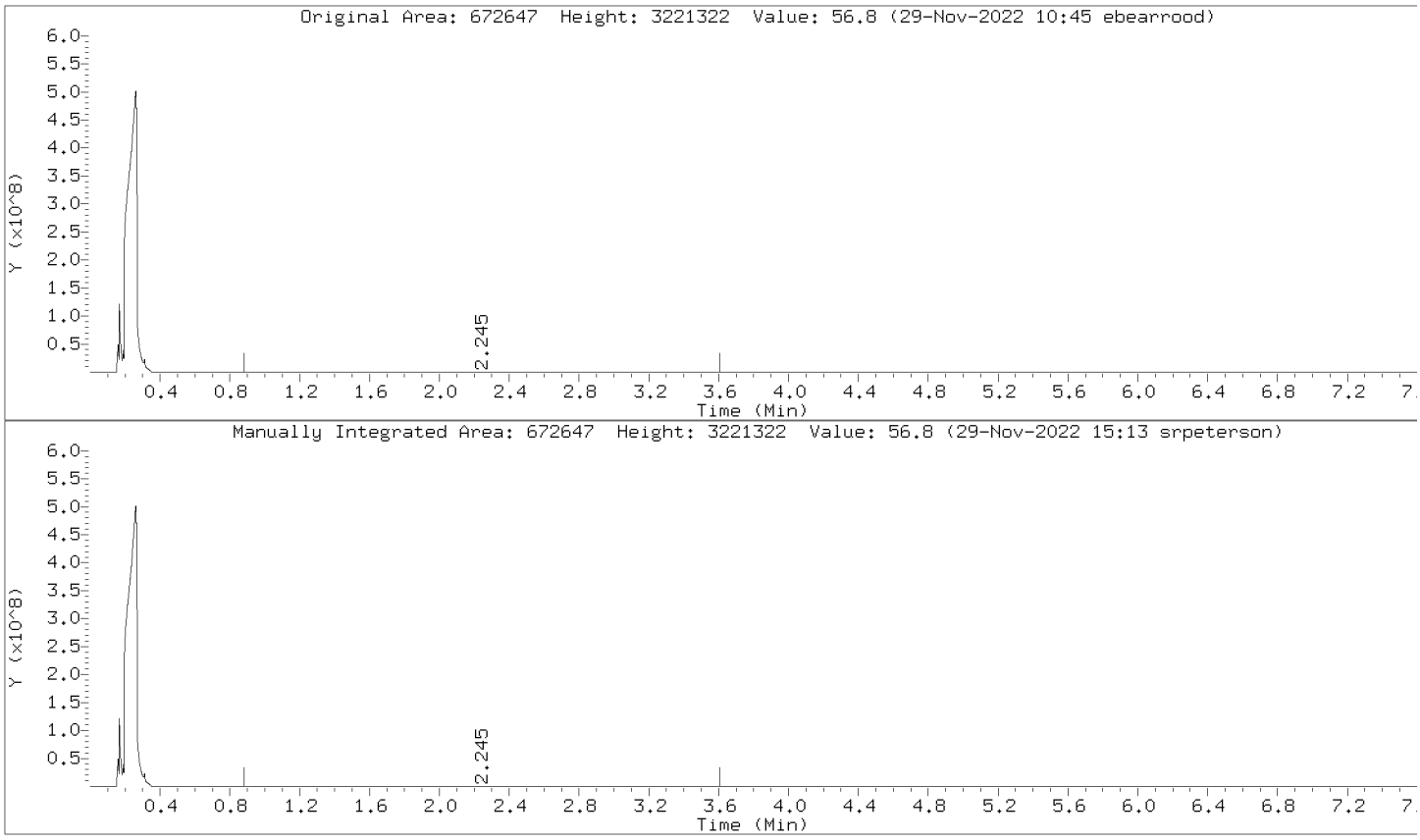
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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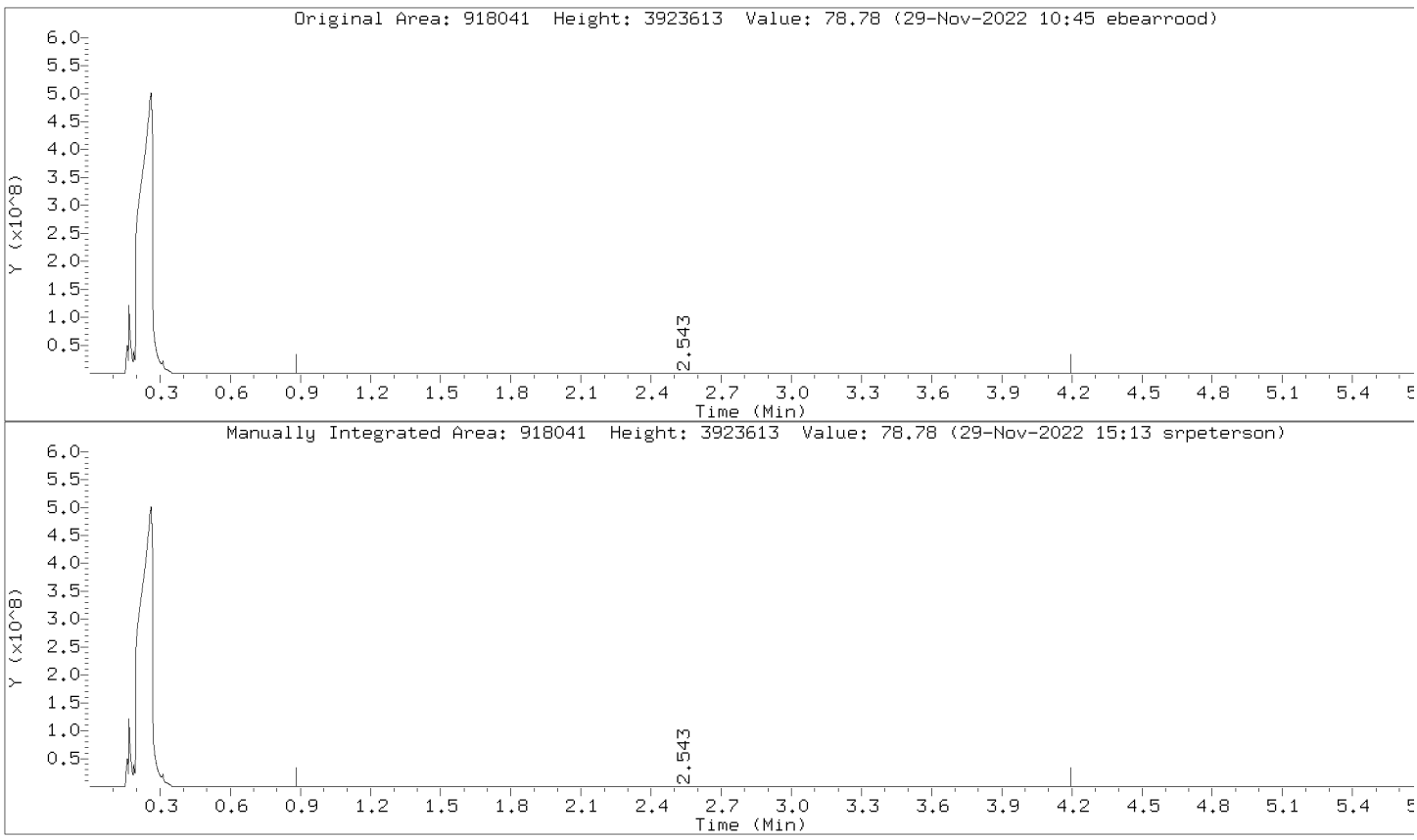
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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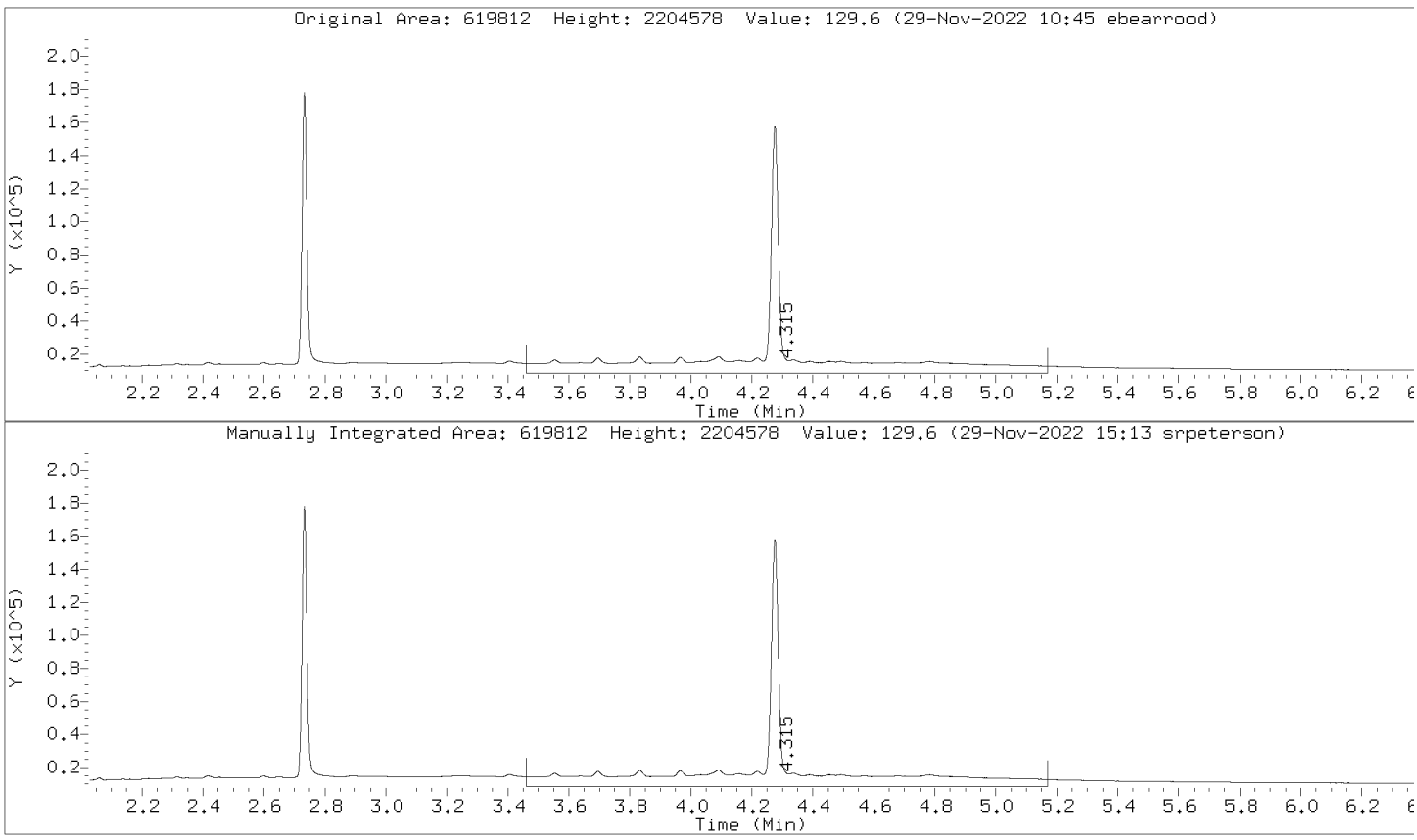
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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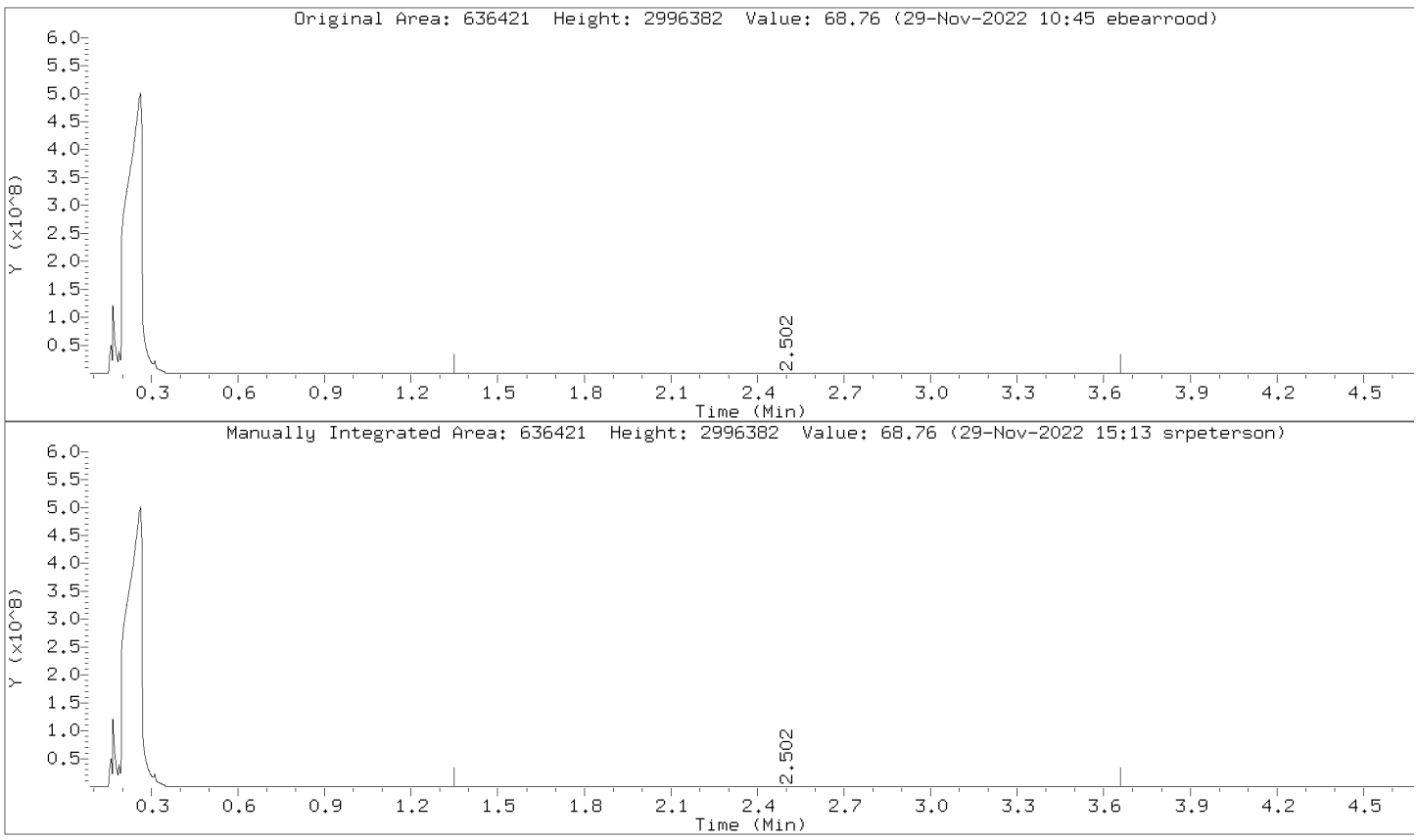
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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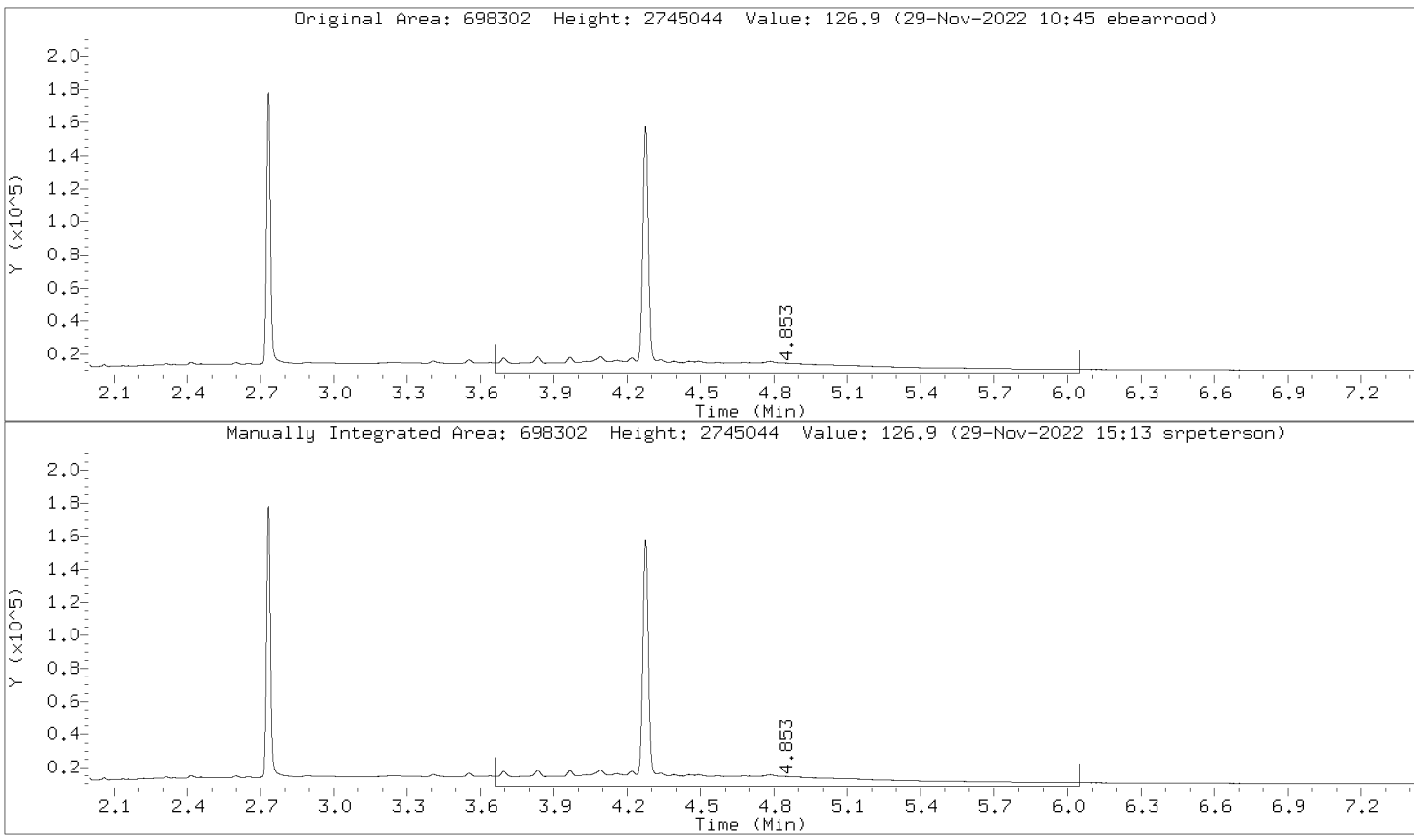
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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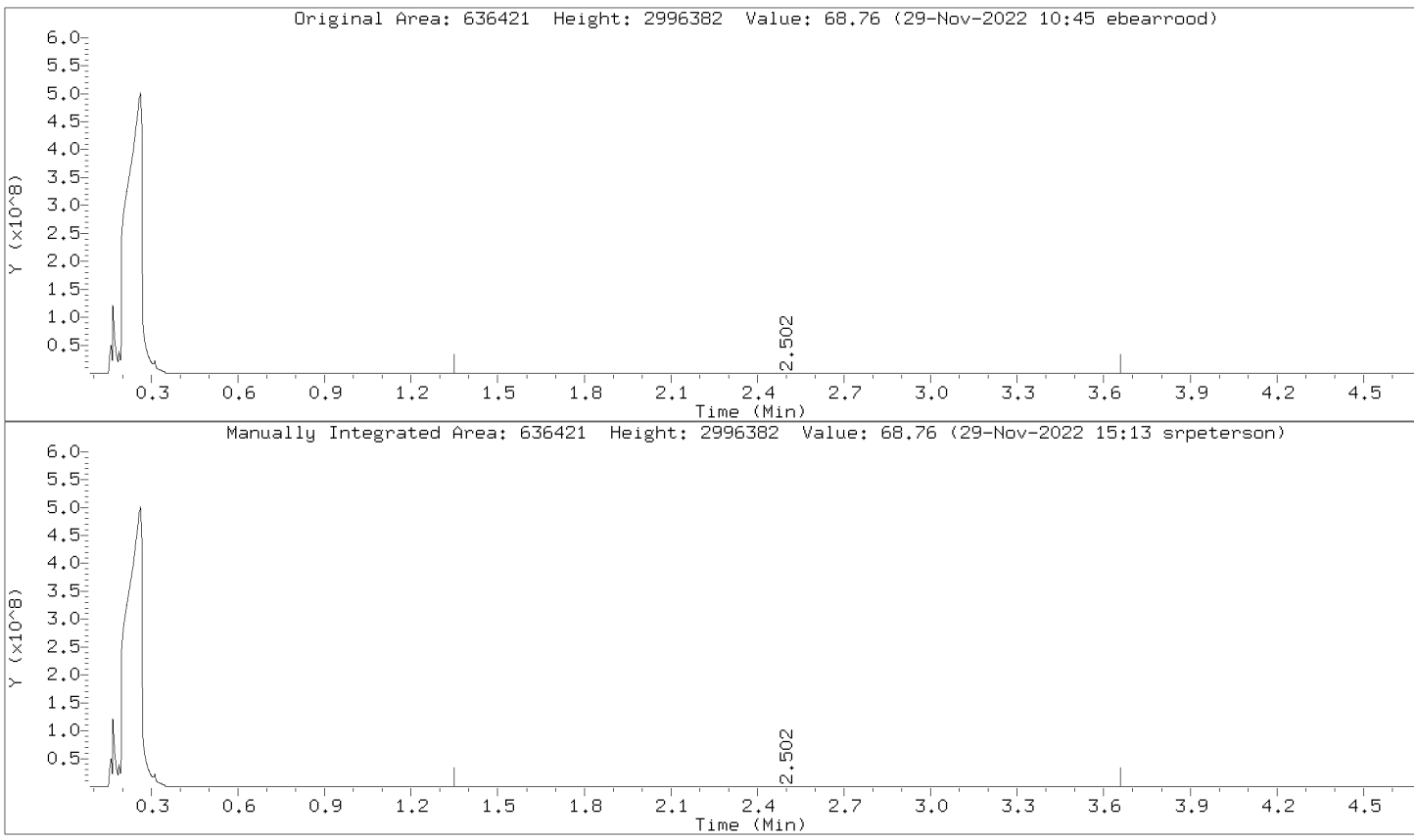
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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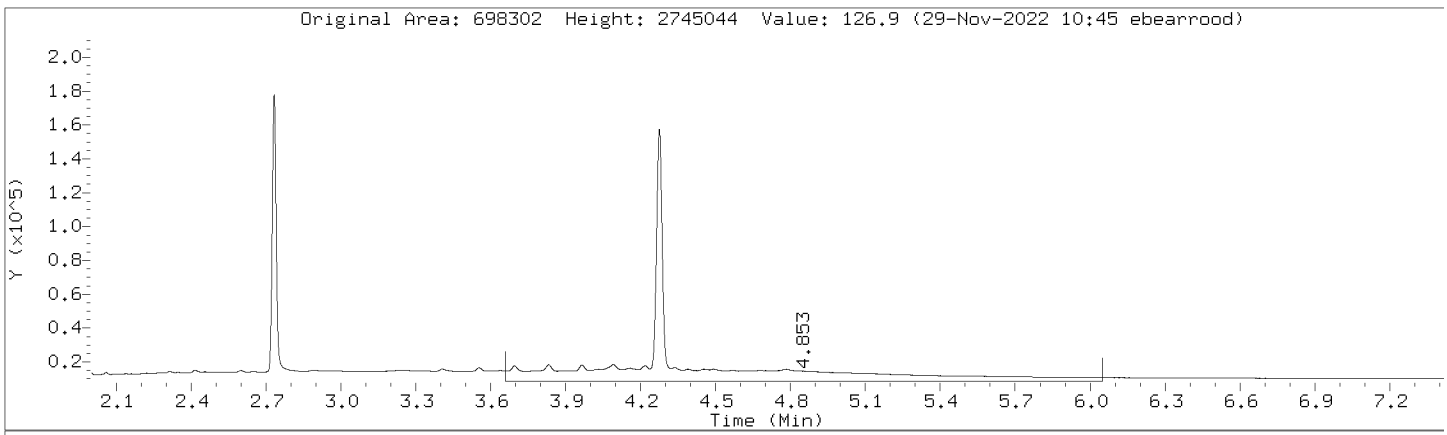
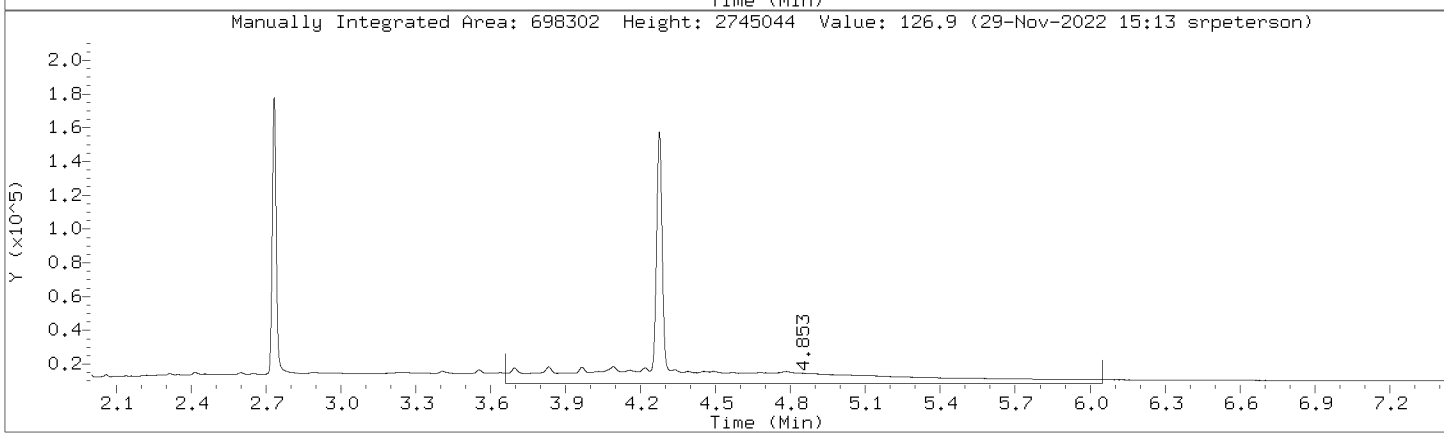
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

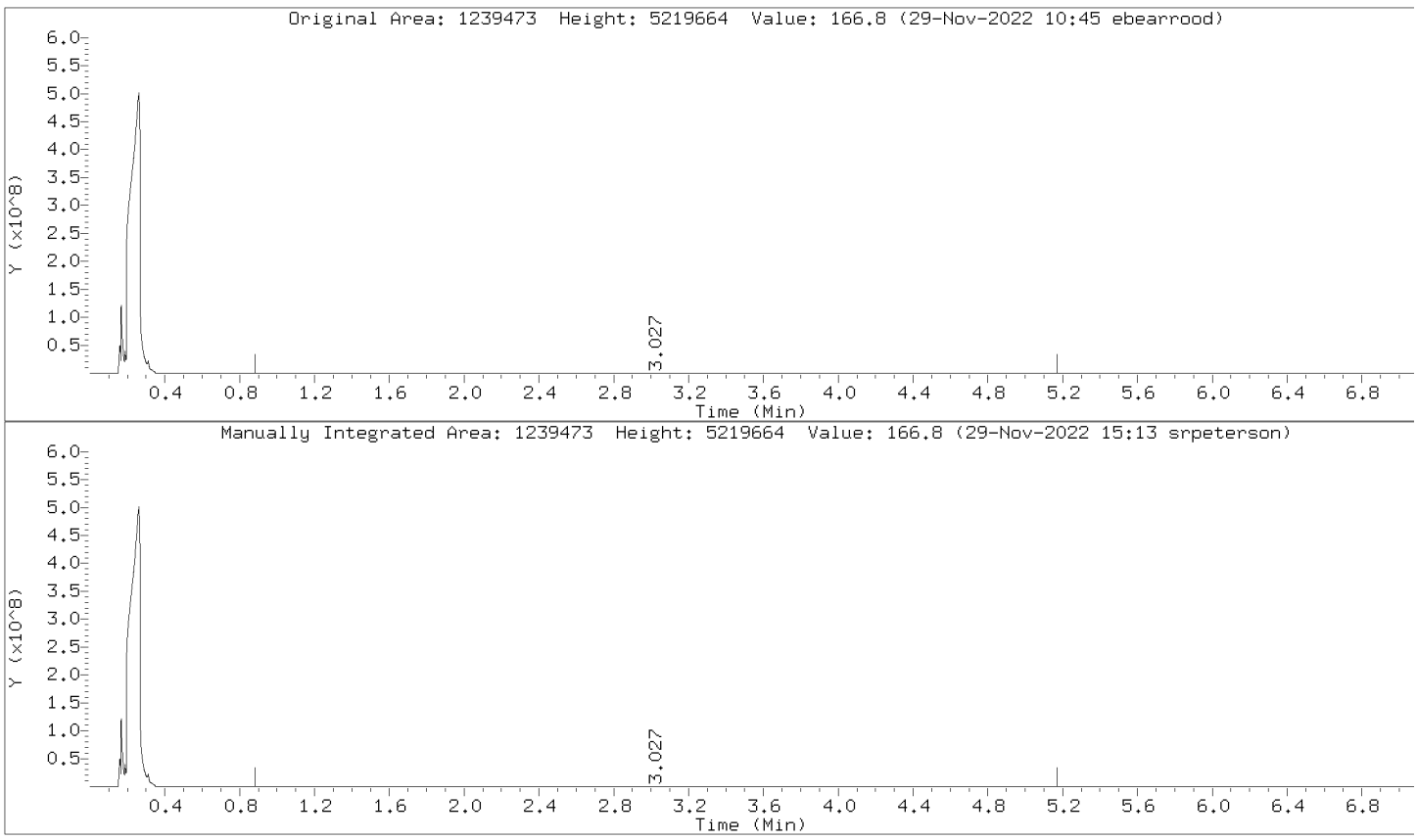
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000059.d
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: C10-C36 Review Code: RNG
CAS Number:



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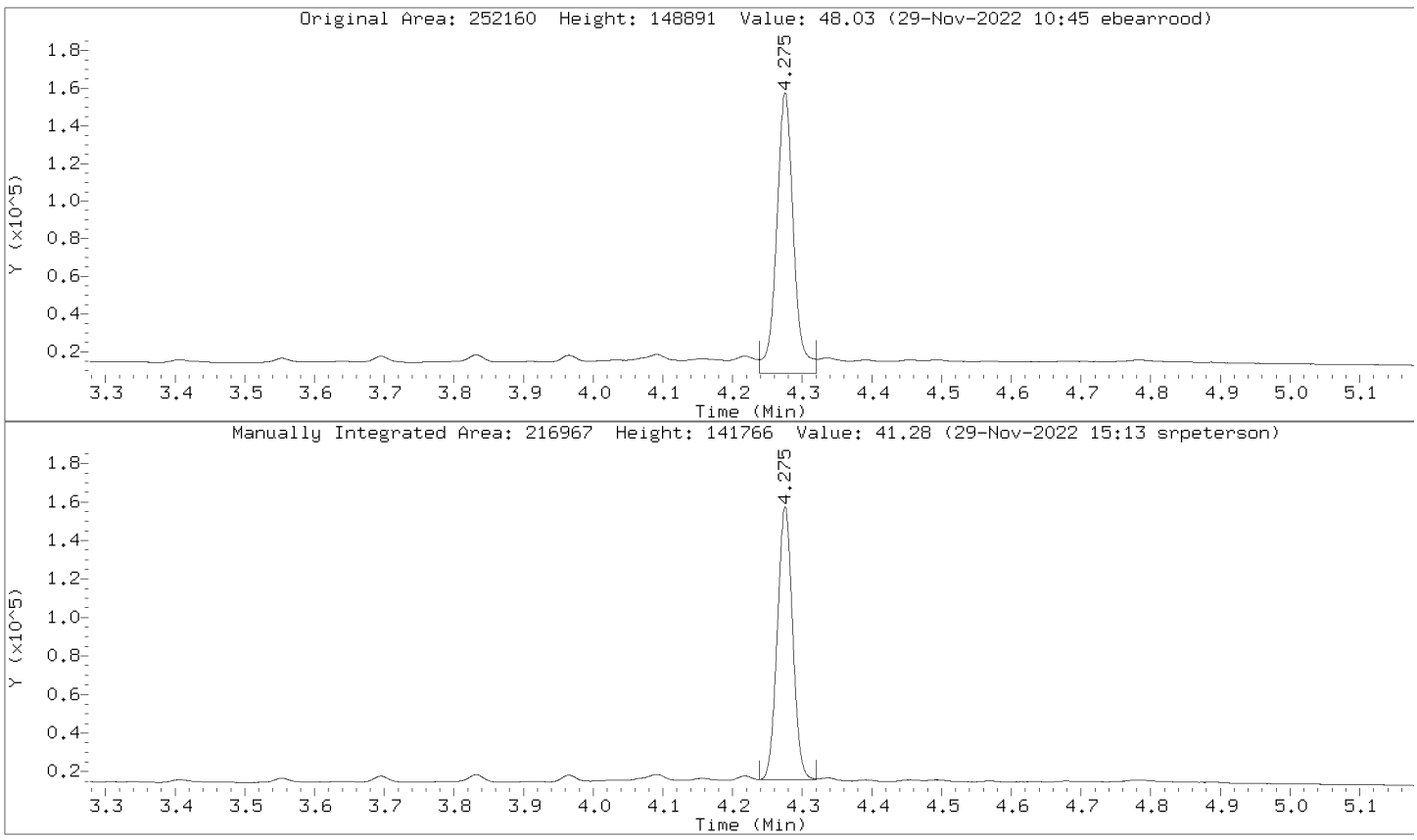
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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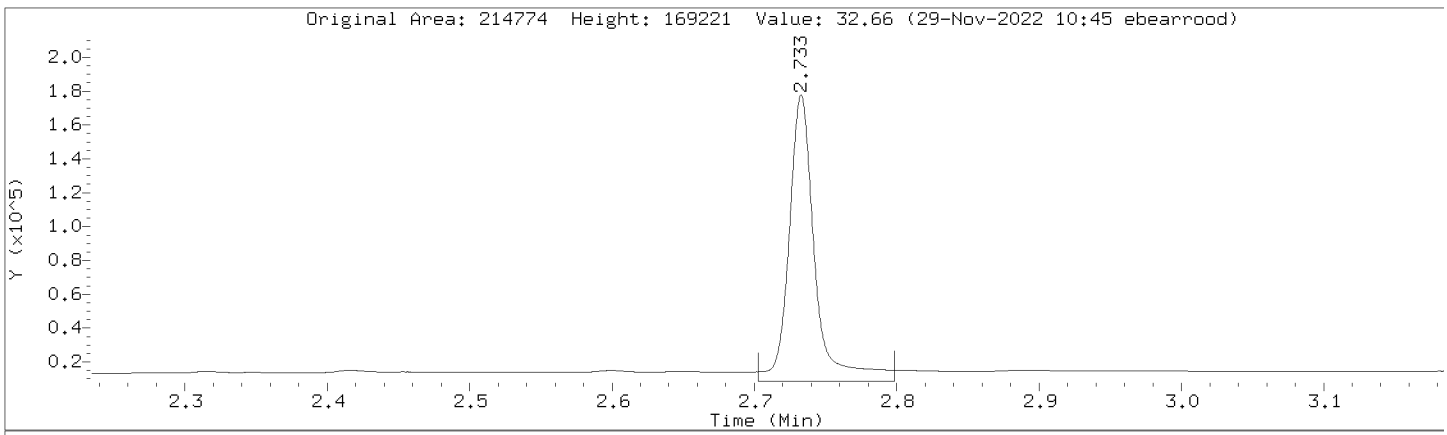
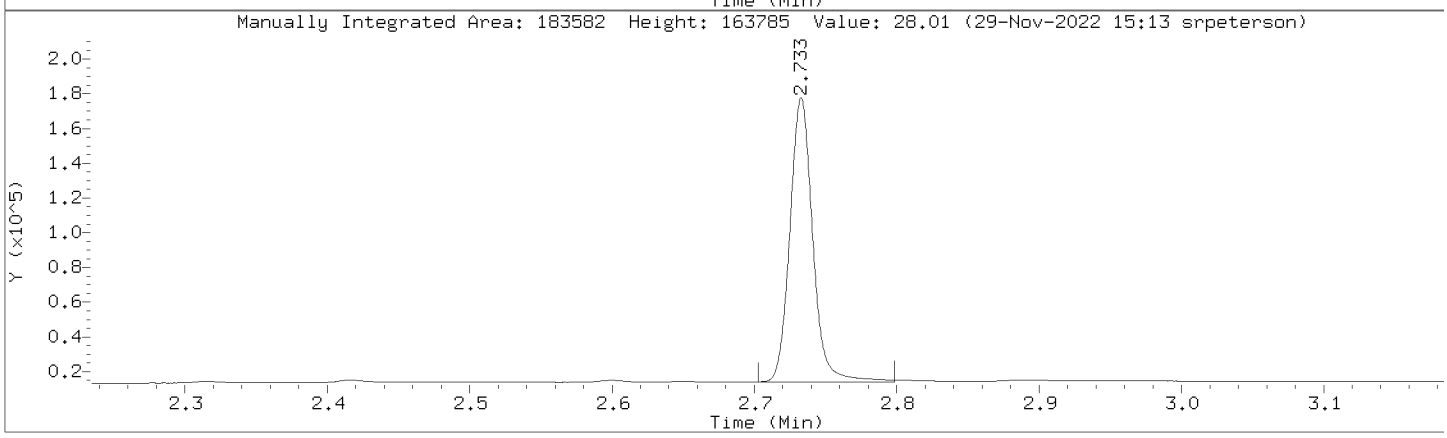
Injection Date: 28-NOV-2022 22:44
Instrument: 10gcsF.i
Lab Sample ID: 10633565003

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	565980	565980
DRO by AK 102	672647	672647
TPH-DRO (C10-C28)	918041	918041
Motor Oil Range (C24-C36)	619812	619812
Diesel Fuel Range	636421	636421
Motor Oil Range	698302	698302
Diesel Fuel Range SG	636421	636421
Motor Oil Range SG	698302	698302
C10-C36	1239473	1239473
n-Triacontane (S)	252160	216967
o-Terphenyl (S)	214774	183582

SAMPLE NO.

BNSF-EF240-SC-1.0-2.0-111022-1

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/11/2022 08:50 Matrix: Solid SDG No.: 10633565

Date Extracted: 11/22/2022 15:47 Lab Sample ID: 10633565004

Date Analyzed: 11/28/2022 21:24 Lab File ID: 112822R.B\1128R0000052.D

Initial wt/vol: 10.15 g Final wt/vol: 1 mL Dilution: 10 Instrument: 10GCSF Percent Moisture: 32.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	151	J
	Motor Oil Range	241	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000052.d
Lab Smp Id: 10633565004 Client Smp ID: BNSF-EF240-SC-1.0-2
Inj Date : 28-NOV-2022 21:24
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633565004x10
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 40
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.150	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	32.785	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.605			818715	82.6091	121	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	18693	3.42326	5.02	(RM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.276	4.278	-0.002	19689	3.45151	5.06	(RM)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.606 - 5.170			722127	168.699	247	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.200			1127101	110.573	162	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.460 - 5.170			796999	176.618	259	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE
S 7 C10-C36					CAS #:	
0.885	- 5.170		1542489	232.137	340	(M) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.655		799283	102.930	151	(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.655		799283	102.930	151	(M) RNG
S 10 Motor Oil Range					CAS #:	
3.656	- 6.050		862361	164.334	241	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.656	- 6.050		862361	164.334	241	(M) RNG

QC Flag Legend

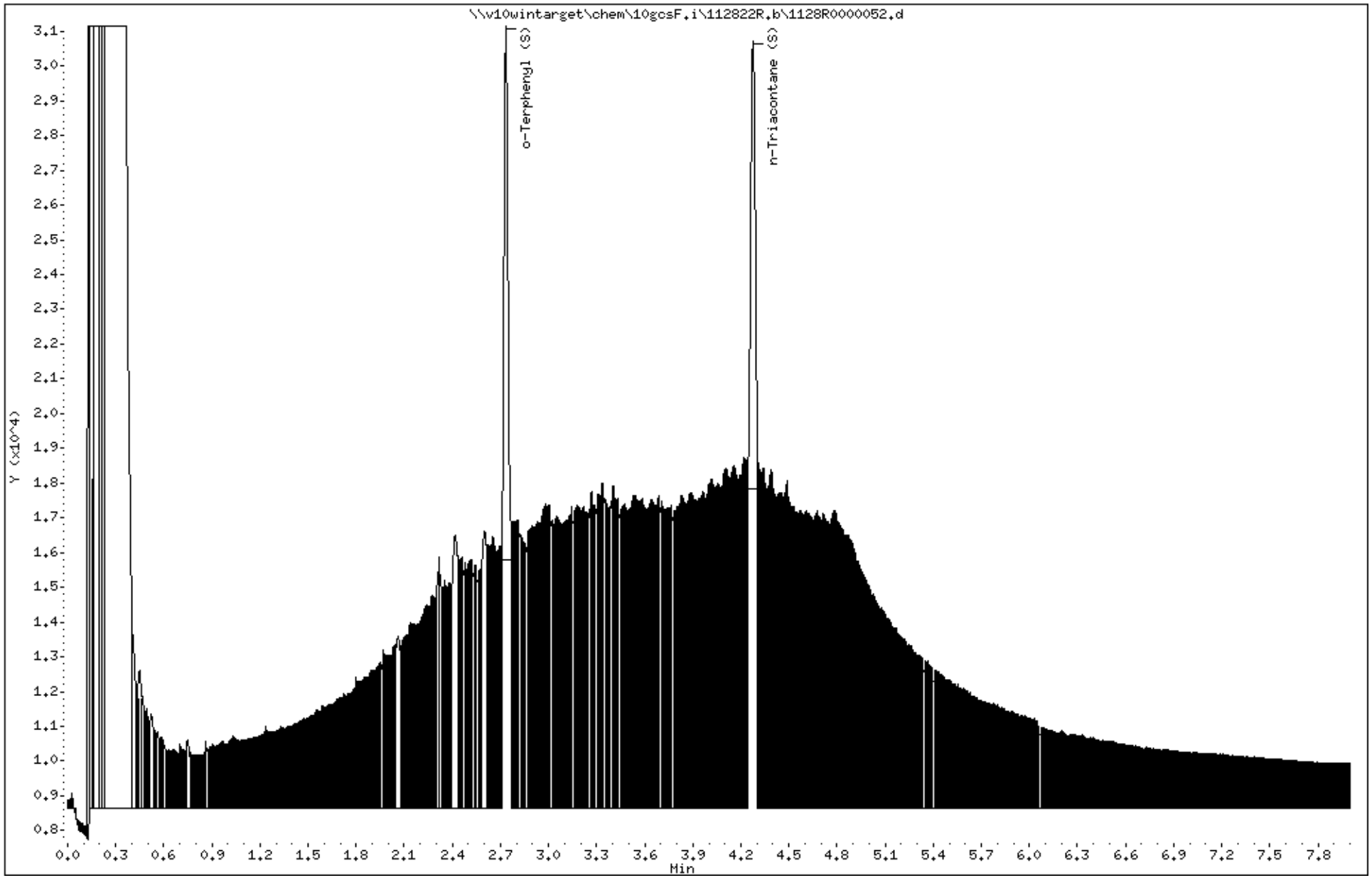
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

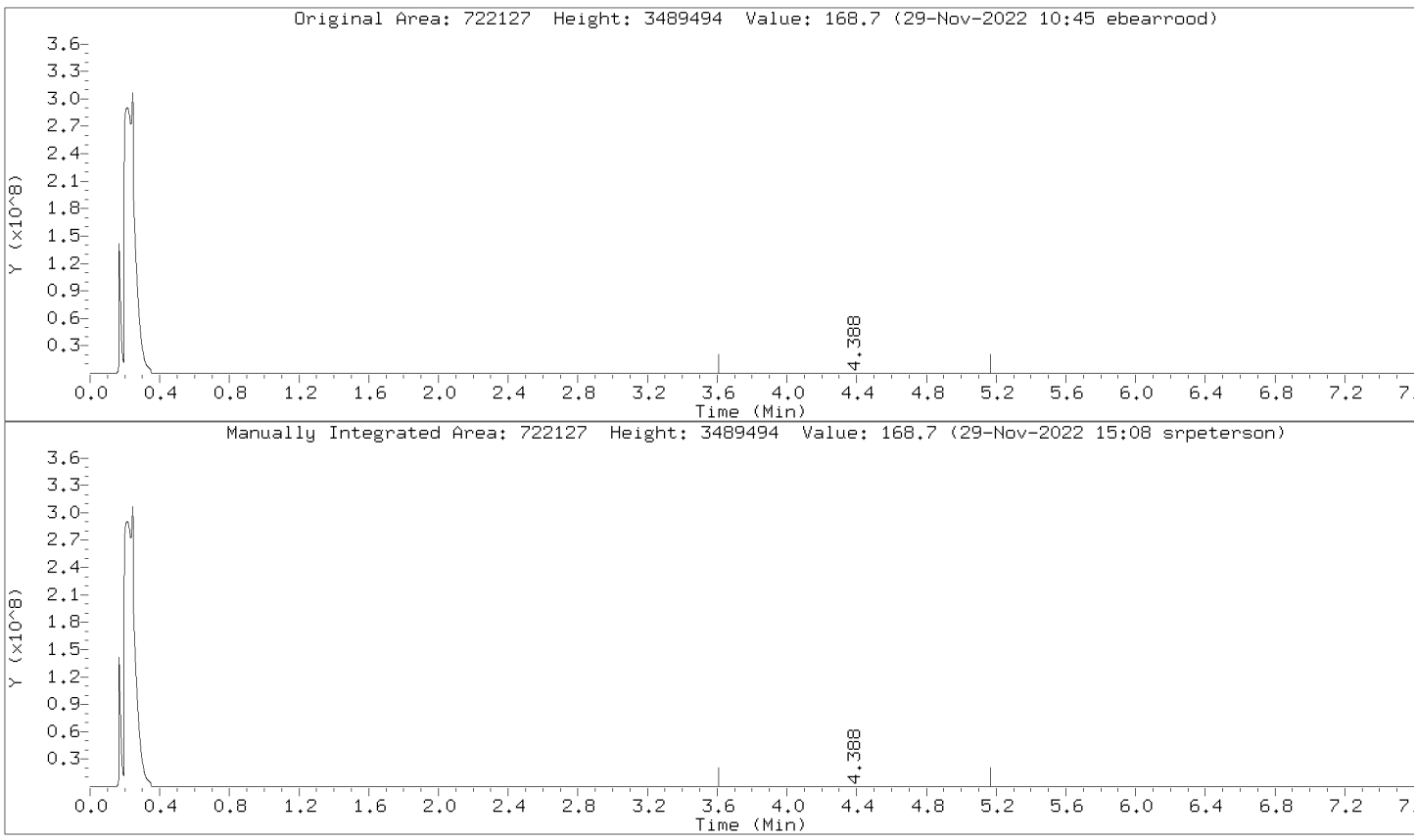
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000052.d
Date : 28-NOV-2022 21:24
Client ID: BNSF-EF240-SC-1.0-2
Sample Info: 10633565004X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



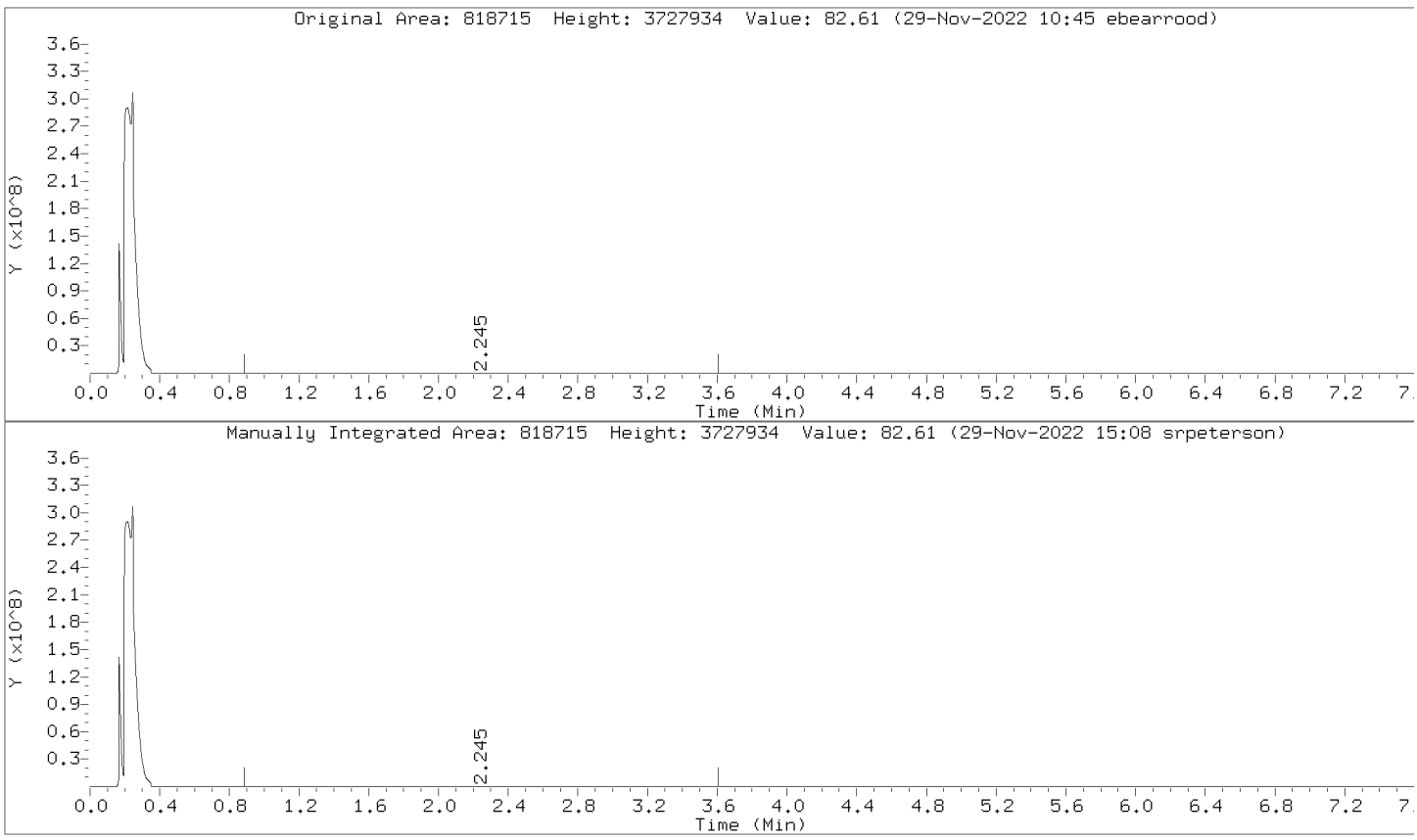
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



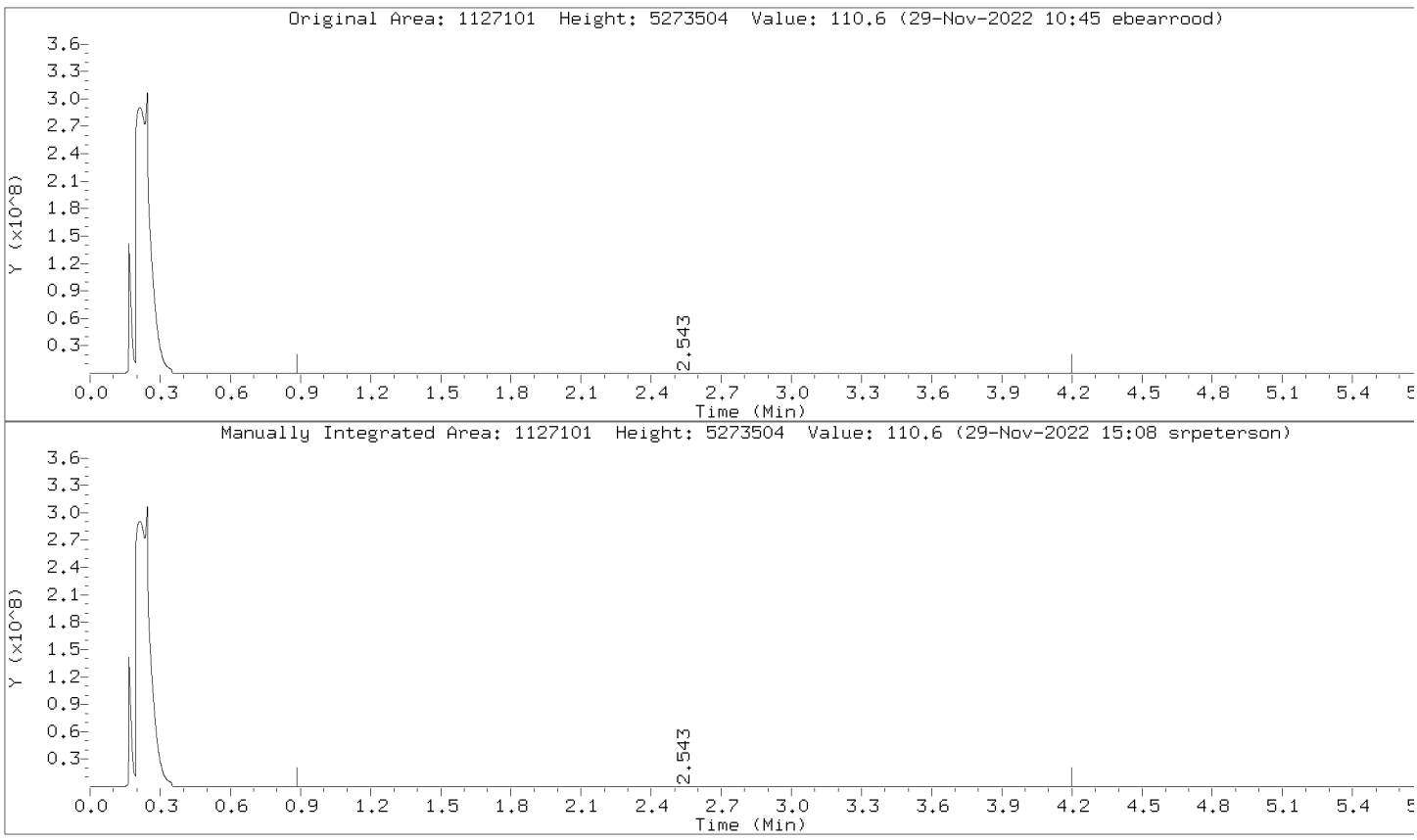
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



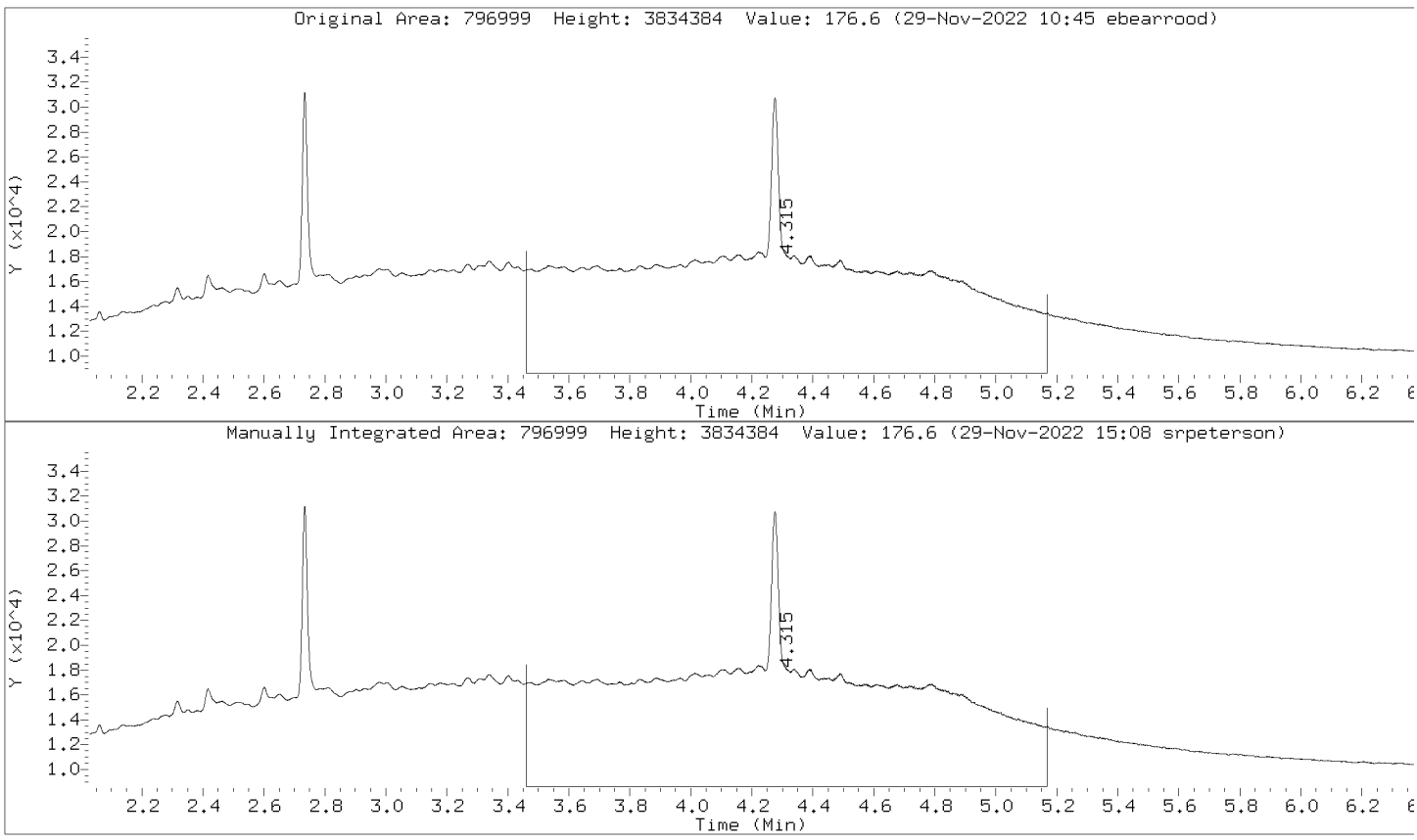
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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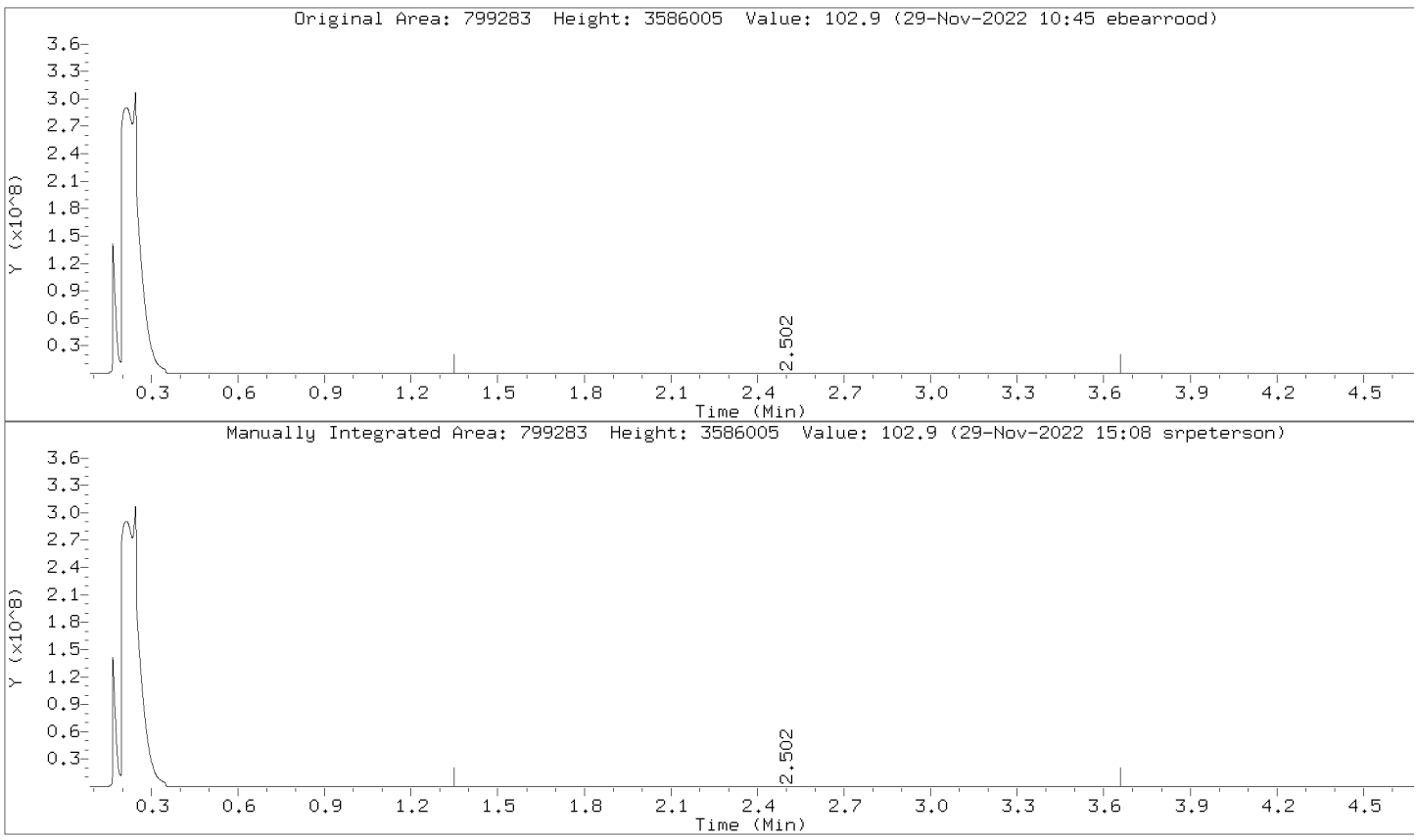
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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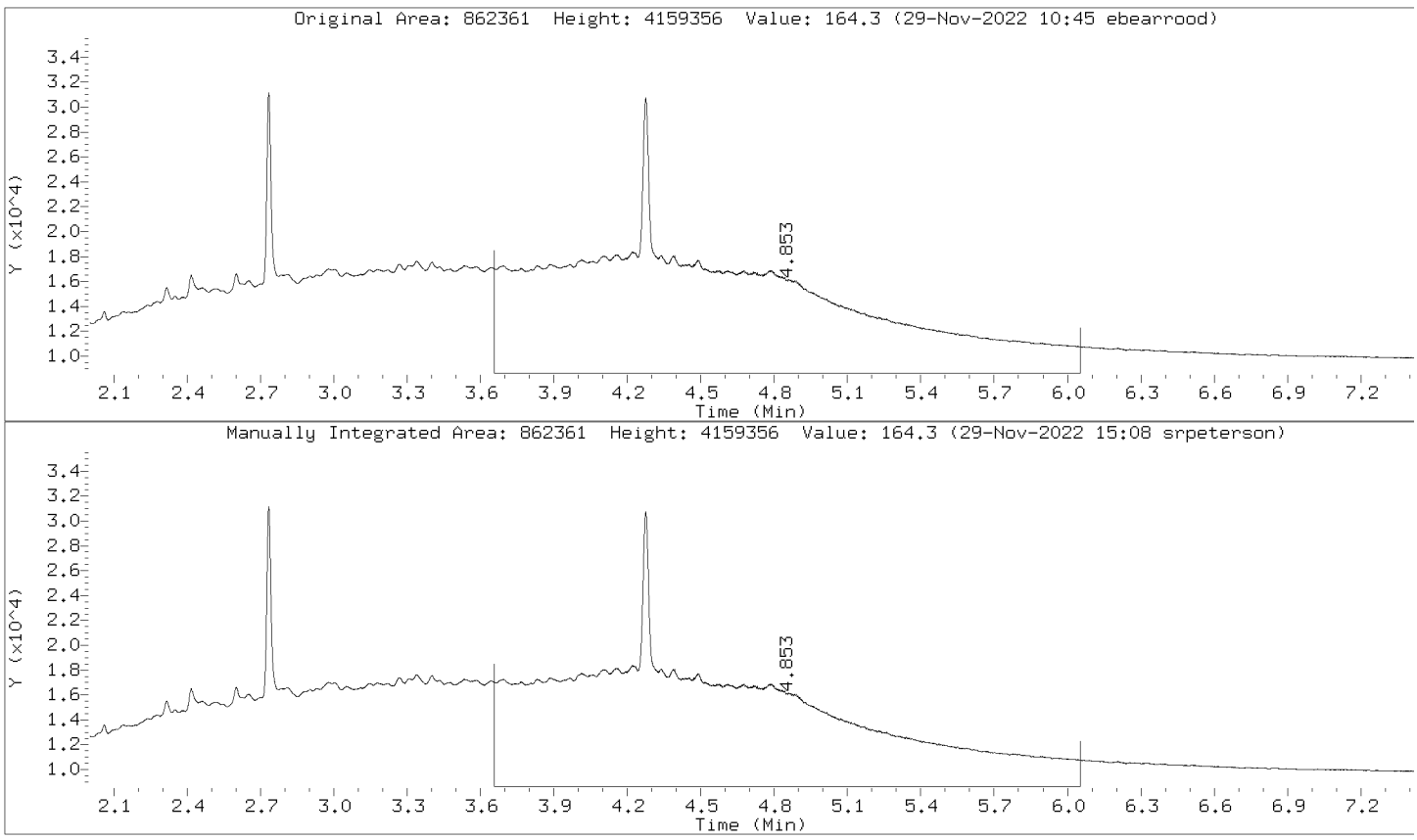
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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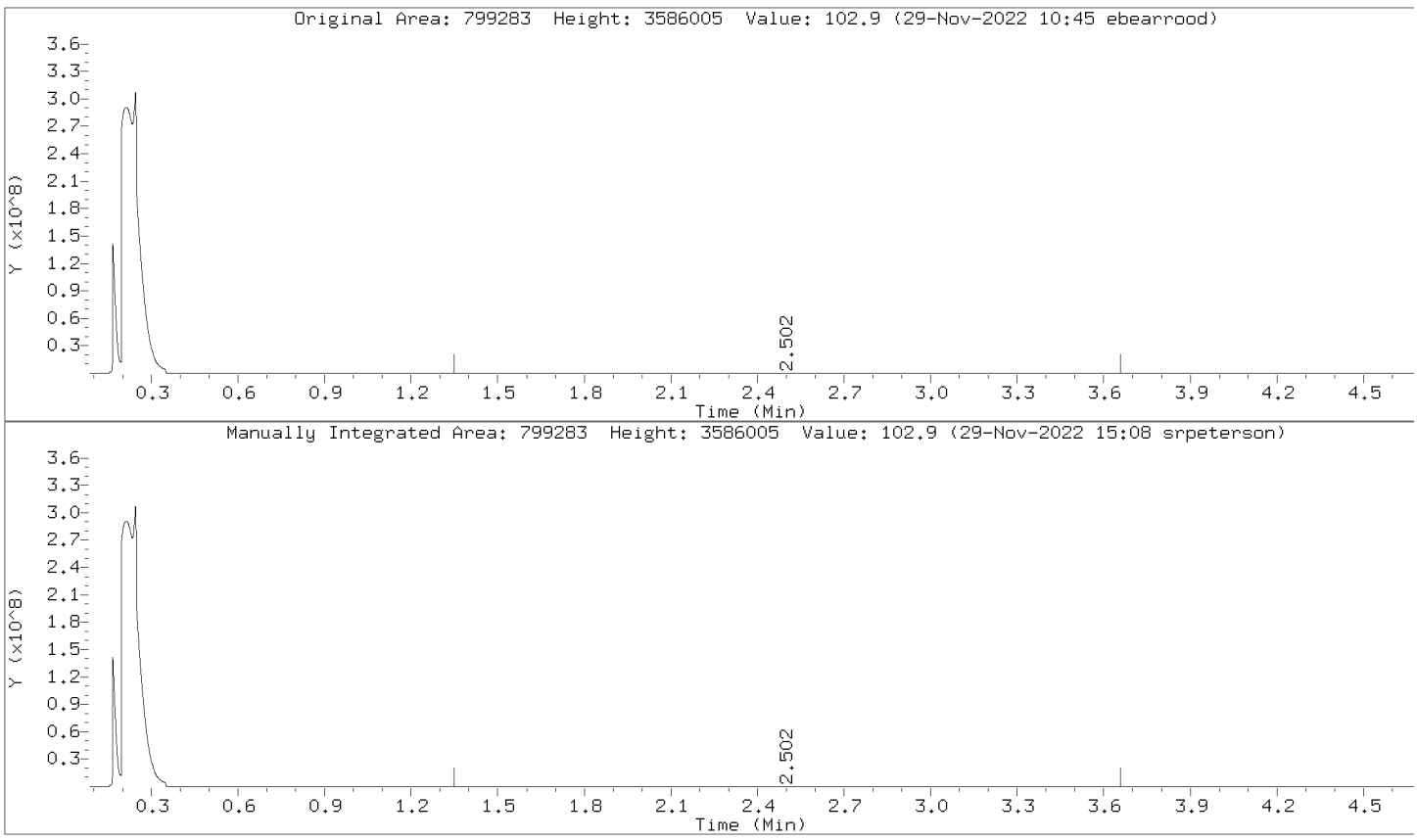
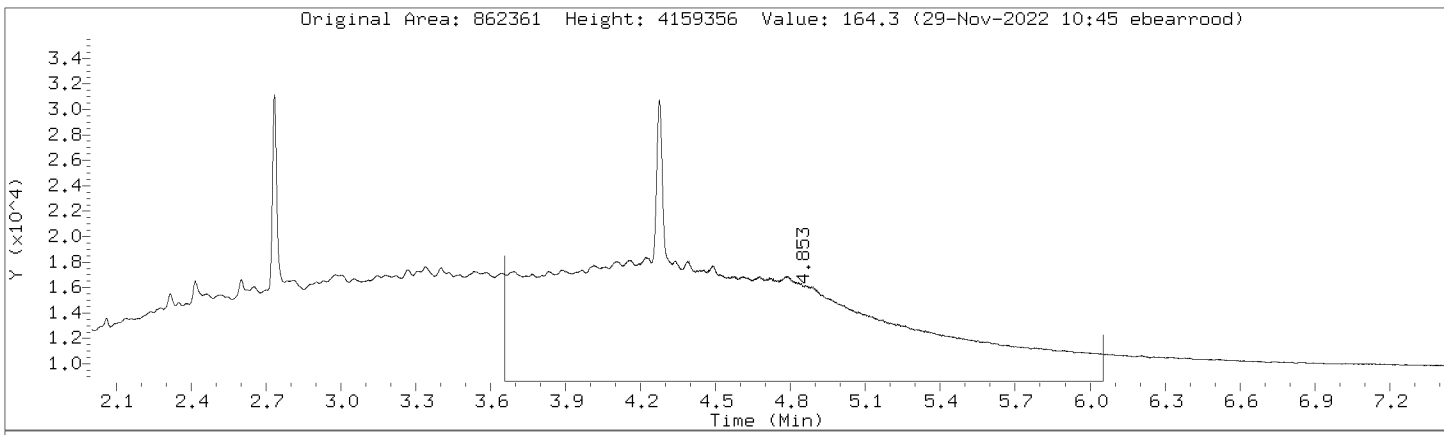
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

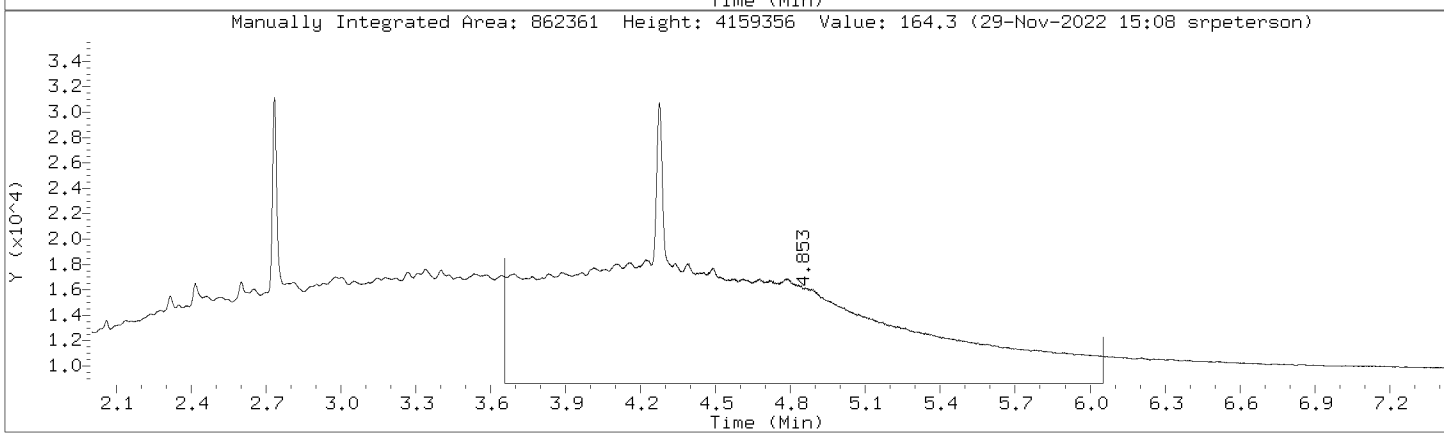
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

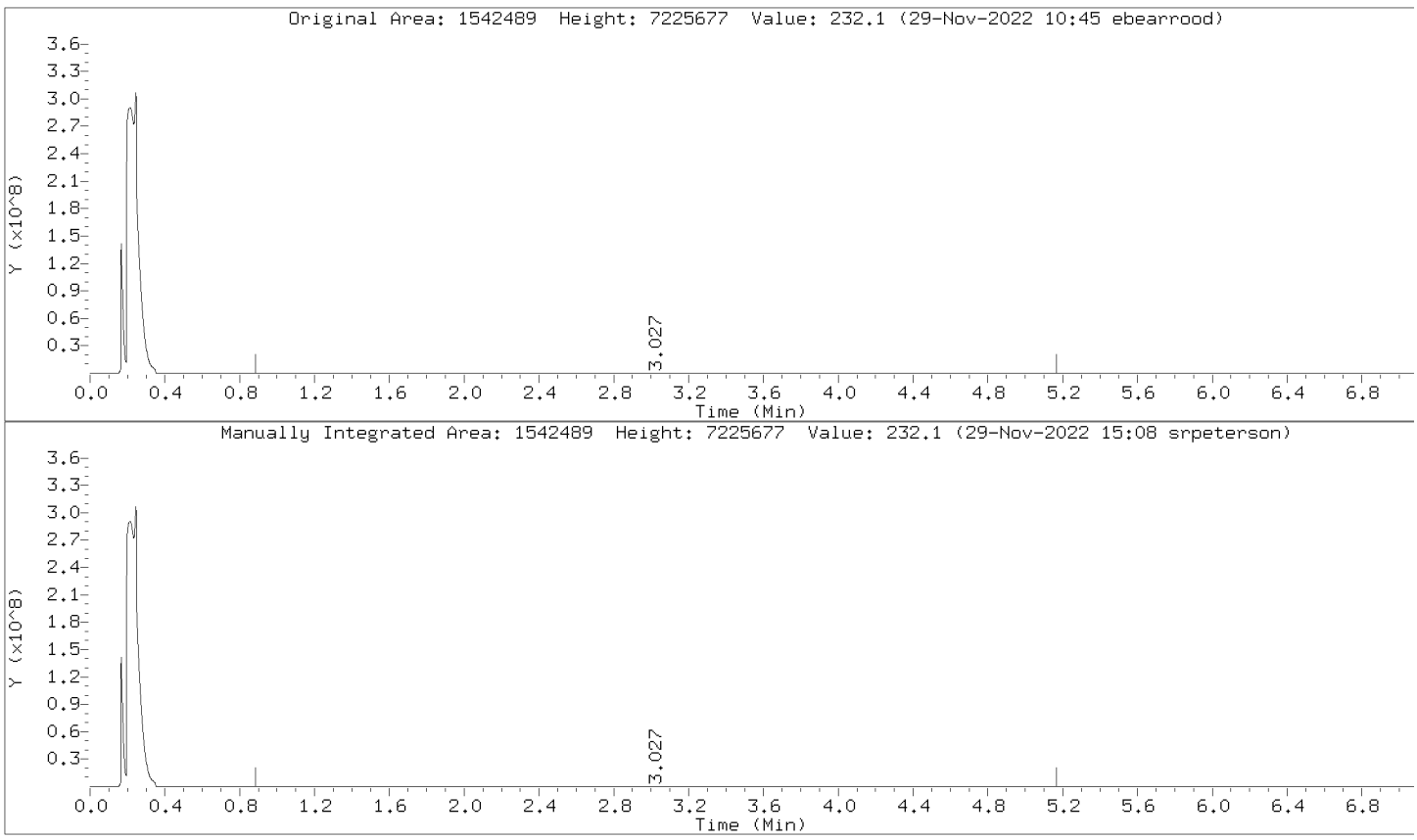
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





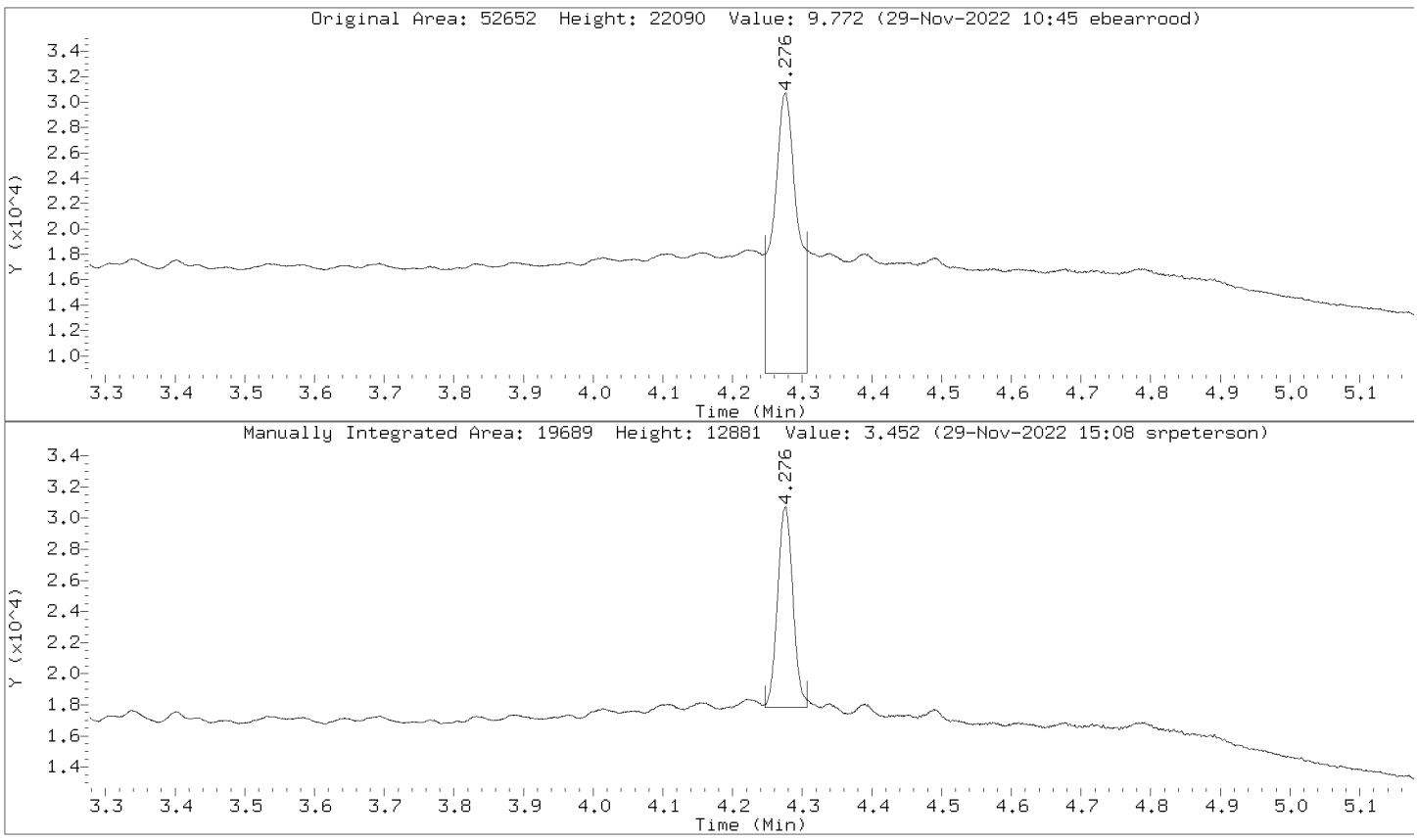
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: C10-C36 Review Code: RNG
CAS Number:



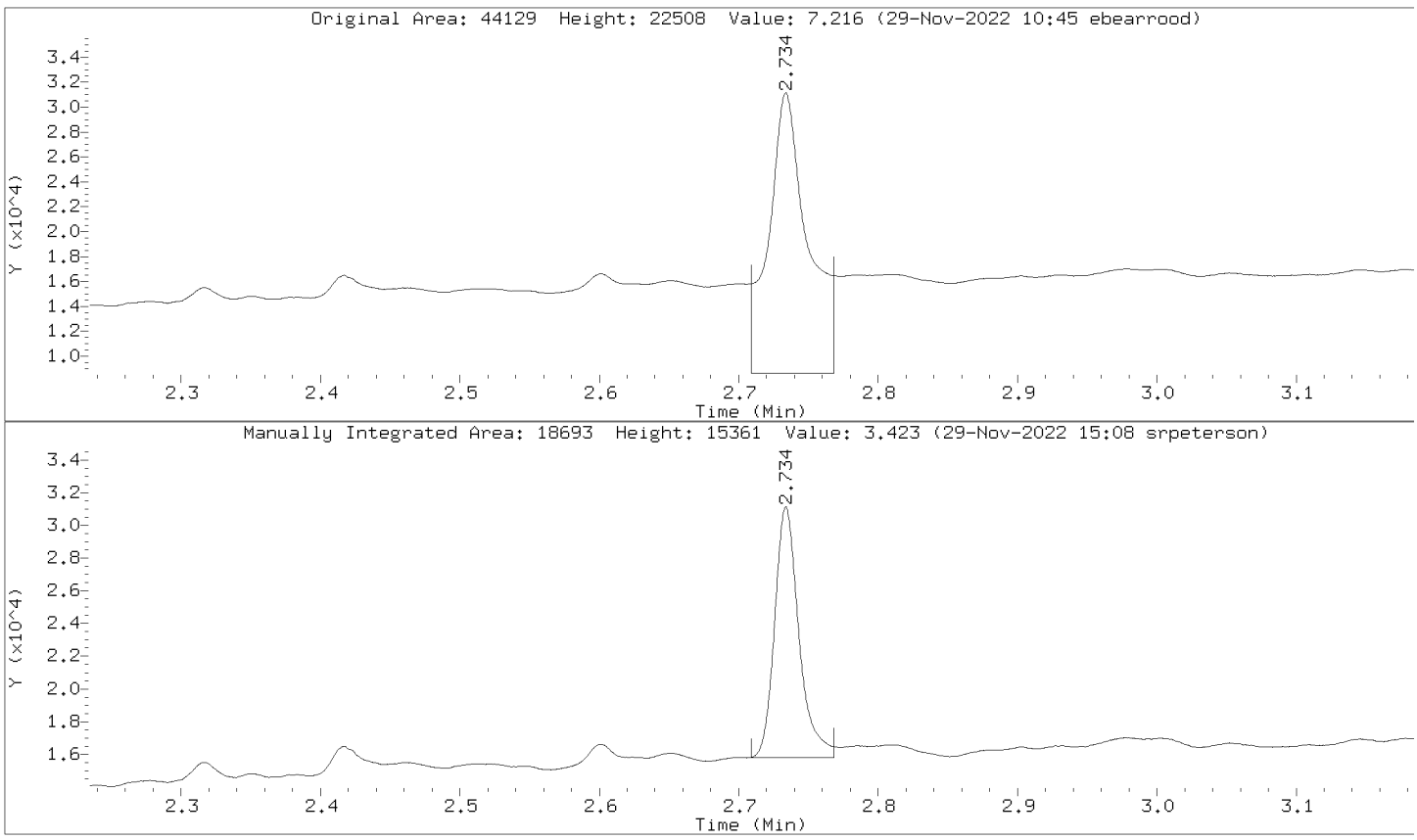
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000052.d
Injection Date: 28-NOV-2022 21:24
Instrument: 10gcsF.i
Lab Sample ID: 10633565004

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	722127	722127
DRO by AK 102	818715	818715
TPH-DRO (C10-C28)	1127101	1127101
Motor Oil Range (C24-C36)	796999	796999
Diesel Fuel Range	799283	799283
Motor Oil Range	862361	862361
Diesel Fuel Range SG	799283	799283
Motor Oil Range SG	862361	862361
C10-C36	1542489	1542489
n-Triacontane (S)	52652	19689
o-Terphenyl (S)	44129	18693

SAMPLE NO.

BNSF-EF240-SC-3.0-4.0-111022

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/11/2022 08:50 Matrix: Solid SDG No.: 10633565

Date Extracted: 11/22/2022 15:47 Lab Sample ID: 10633565005

Date Analyzed: 11/29/2022 14:15 Lab File ID: 112922R.B\1129R0000012.D

Initial wt/vol: 10.1 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 25.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	21.2	
	Motor Oil Range	98.6	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000012.D
Lab Smp Id: 10633565005 Client Smp ID: BNSF-EF240-SC-3.0-4
Inj Date : 29-NOV-2022 14:15
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633565005
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112922R.b\GCSFakNW8015-111022_4098
Meth Date : 30-Nov-2022 09:39 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.100	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	25.665	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE		
S 1 DRO by AK 102					CAS #:			
0.885	- 3.610		1005248	115.567	15.4	(M)		
$ 2 o-Terphenyl (S)					CAS #:			
2.732	2.768	-0.036	177775	27.1416	3.62	(RM)	BA	
$ 3 n-Triacontane (S)					CAS #:			
4.275	4.333	-0.058	229239	43.6336	5.81	(M)	BA	
S 4 Residual Range Organics AK103					CAS #:			
3.611	- 5.170		2724708	725.289	96.6	(M)		
S 5 TPH-DRO (C10-C28)					CAS #:			
0.885	- 4.200		1868365	223.305	29.7	(M)		
S 6 Motor Oil Range (C24-C36)					CAS #:			
3.460	- 5.170		2911514	737.362	98.2	(M)		

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		
RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE	
S 7 C10-C36					CAS #:		
0.885	- 5.170		3729956	703.576	93.7	(M)	
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.660		1068879	159.494	21.2	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.660		1068879	159.494	21.2	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.661	- 6.050		3390666	740.486	98.6	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.661	- 6.050		3390666	740.486	98.6	(M)	RNG

QC Flag Legend

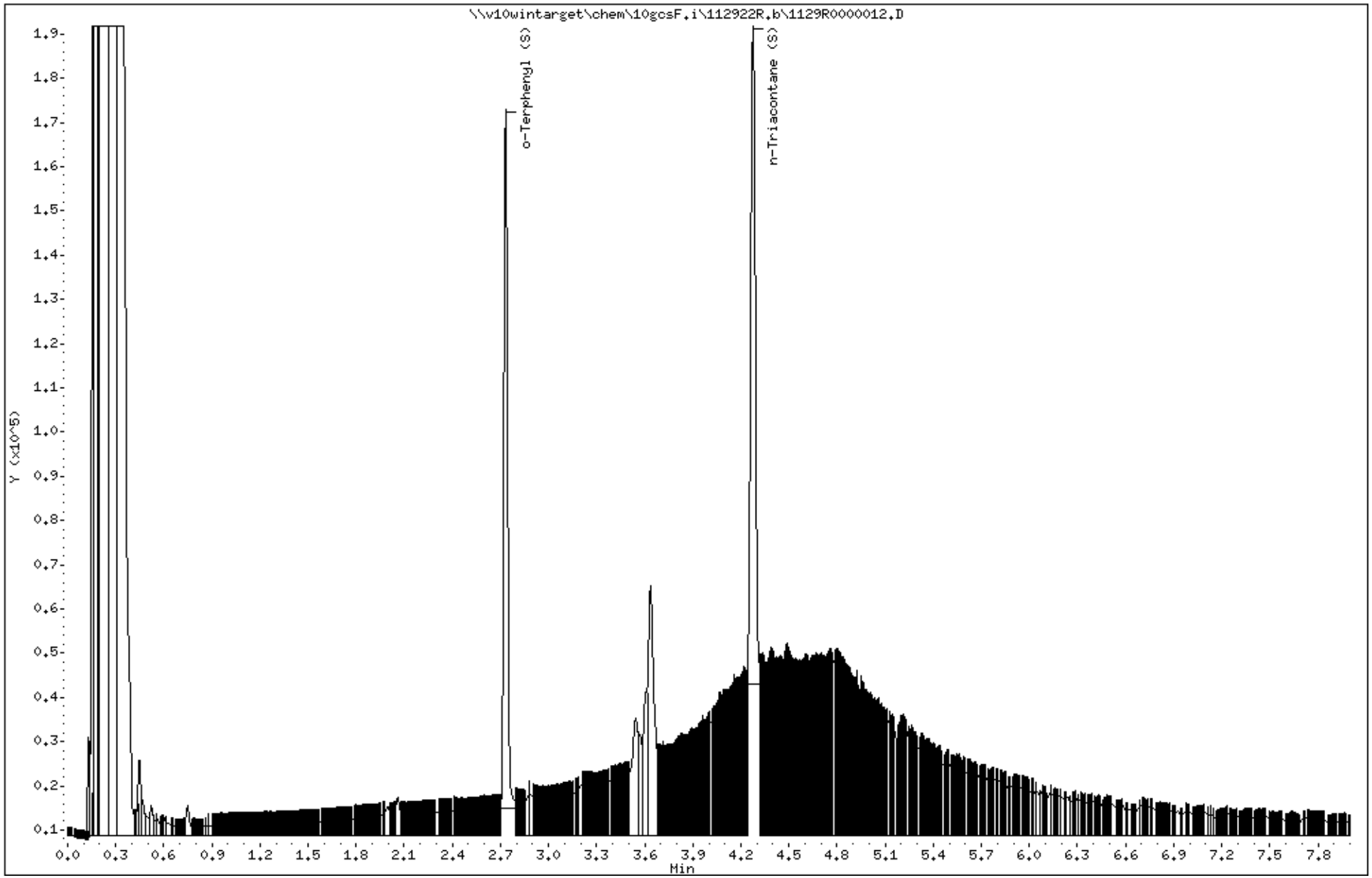
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
RNG: Indicates that the analyst integrated a surrogate within the range.

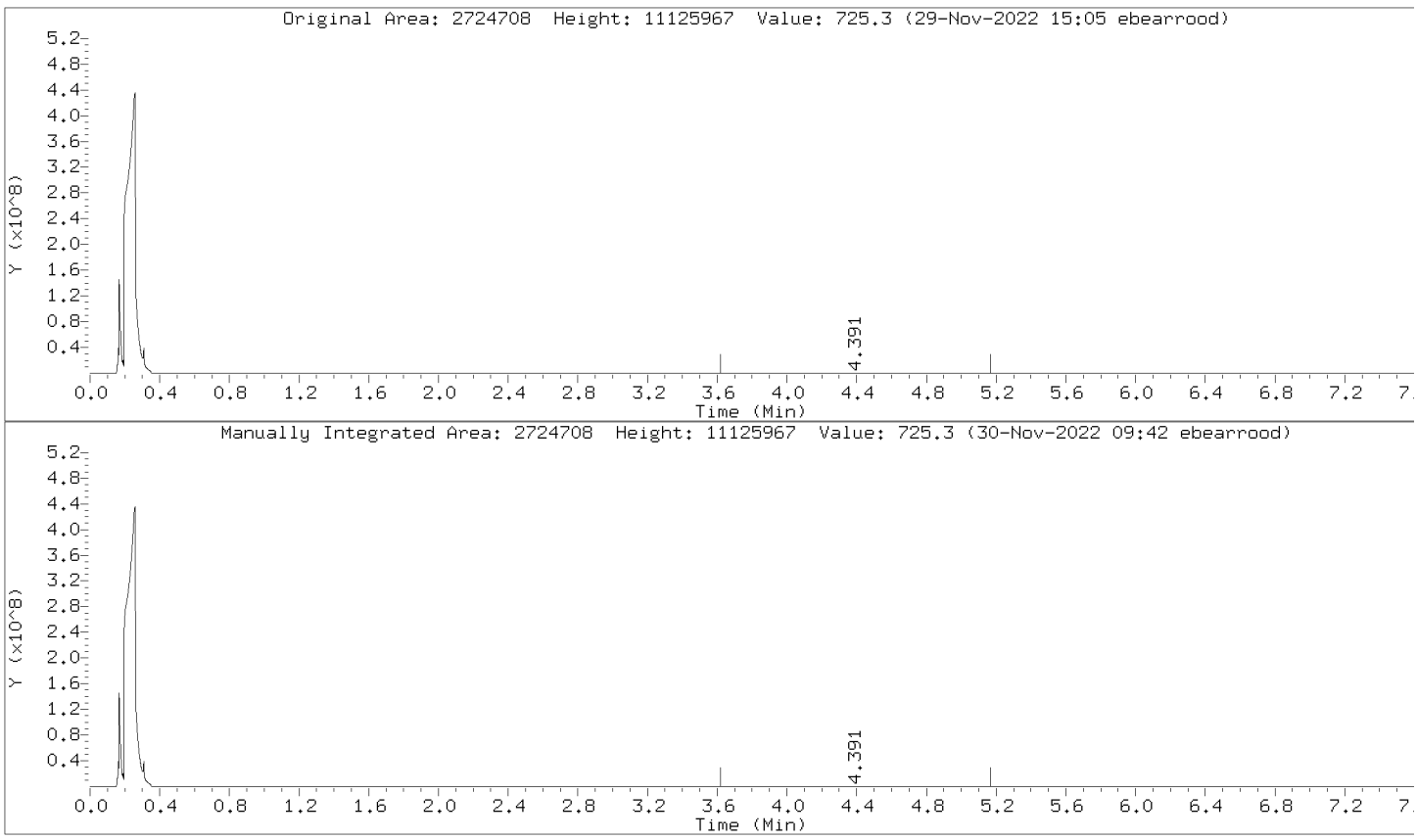
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000012.D
Date : 29-NOV-2022 14:15
Client ID: BNSF-EF240-SC-3.0-4
Sample Info: 10633565005
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



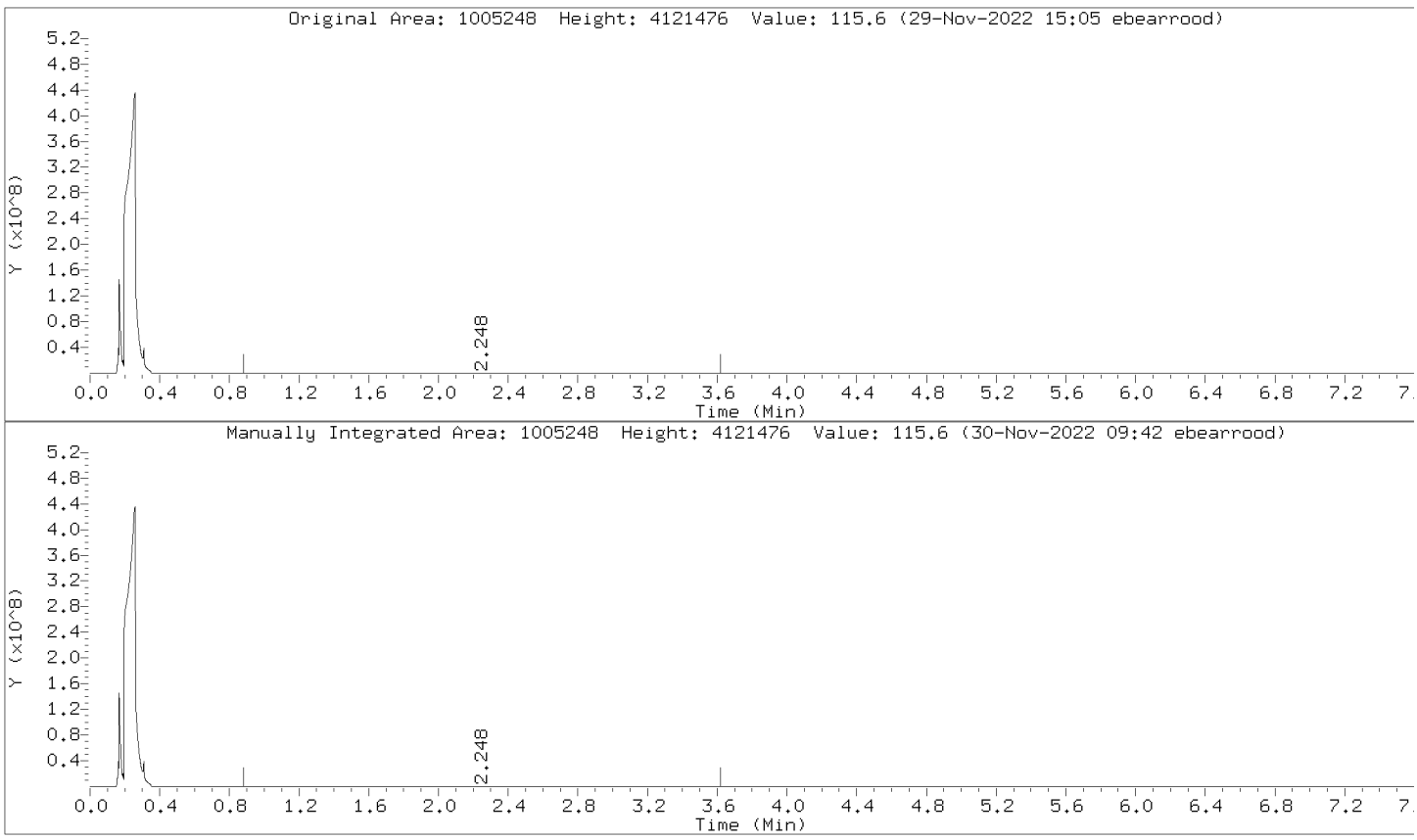
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Residual Range Organics AK103 Review Code:
CAS Number:



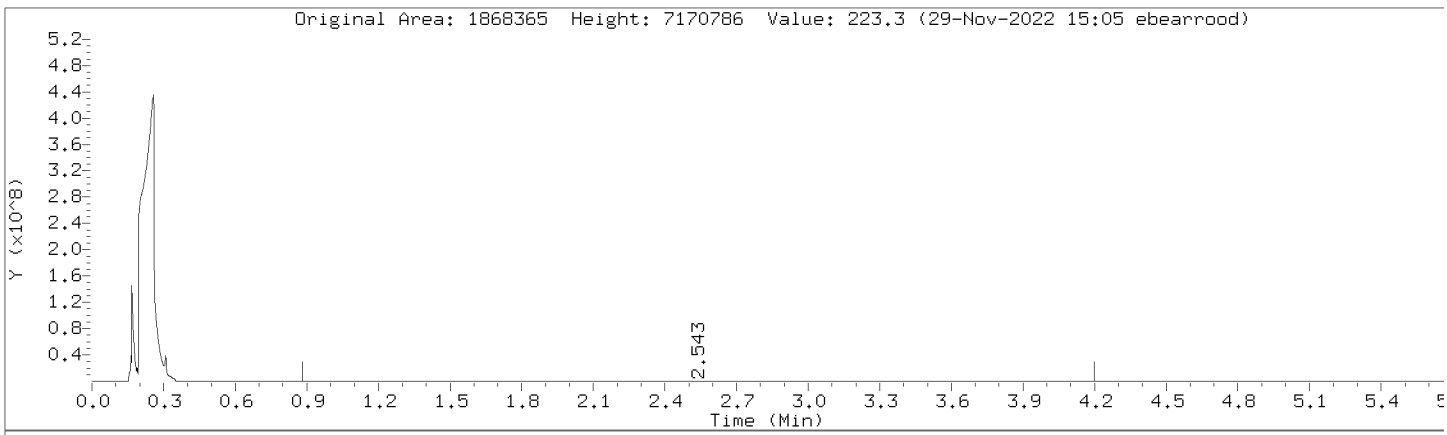
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

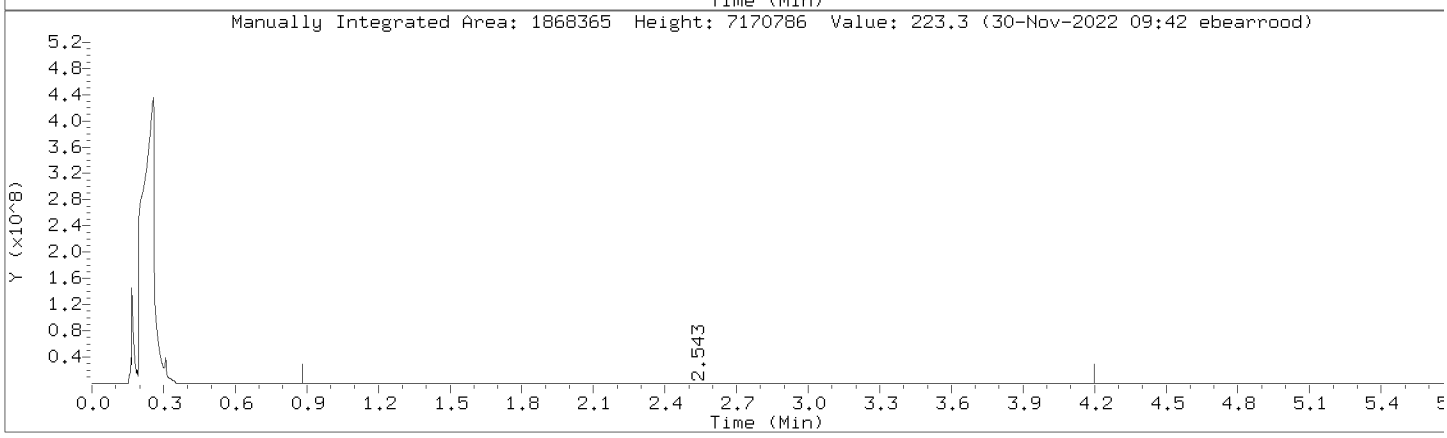
Compound: DRO by AK 102 Review Code:
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

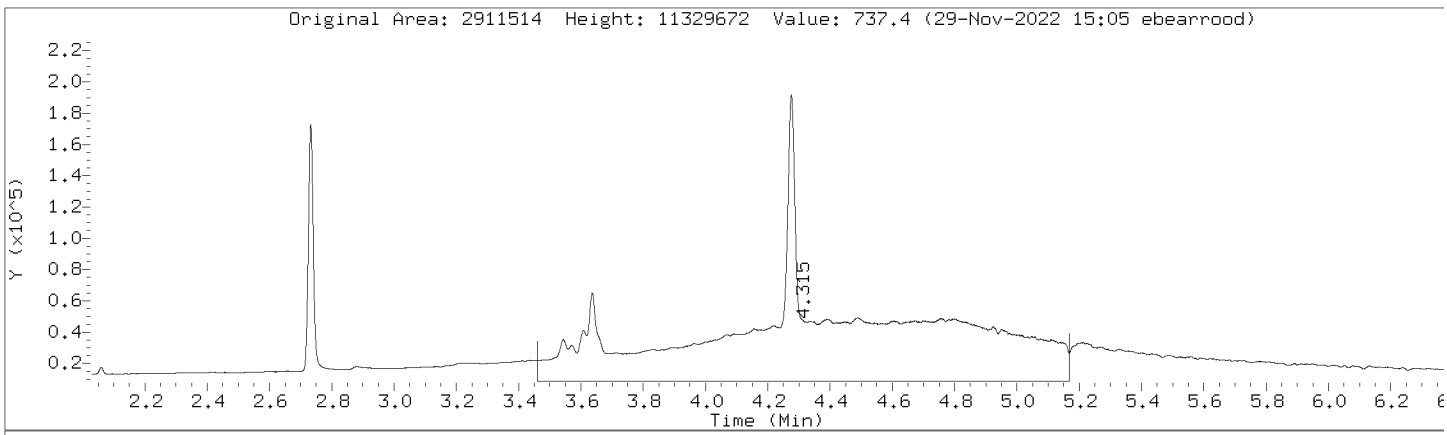
Compound: TPH-DRO (C10-C28) Review Code:
CAS Number:

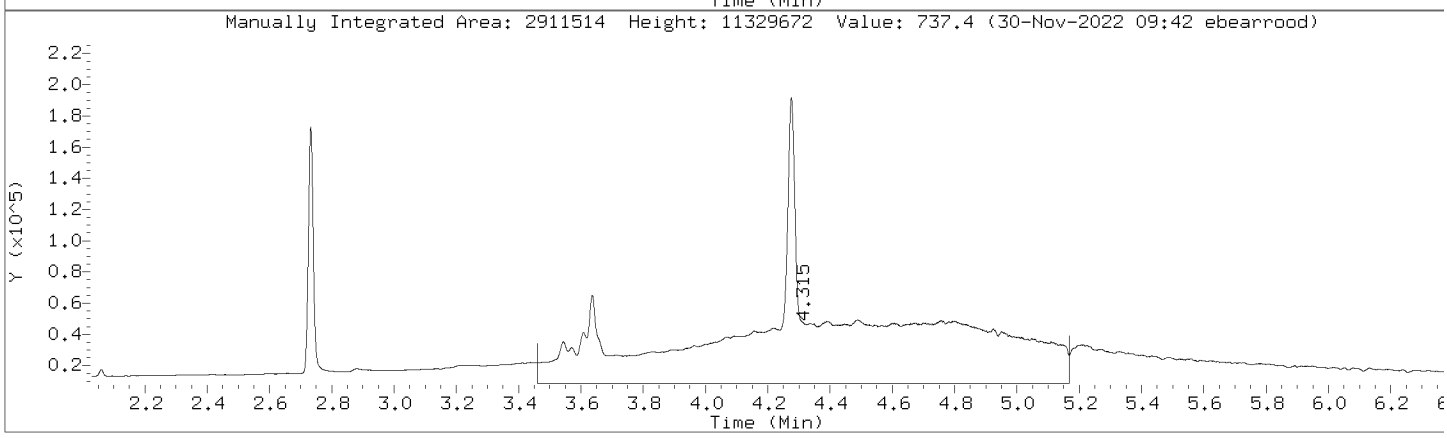




Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Motor Oil Range (C24-C36) Review Code:
CAS Number:





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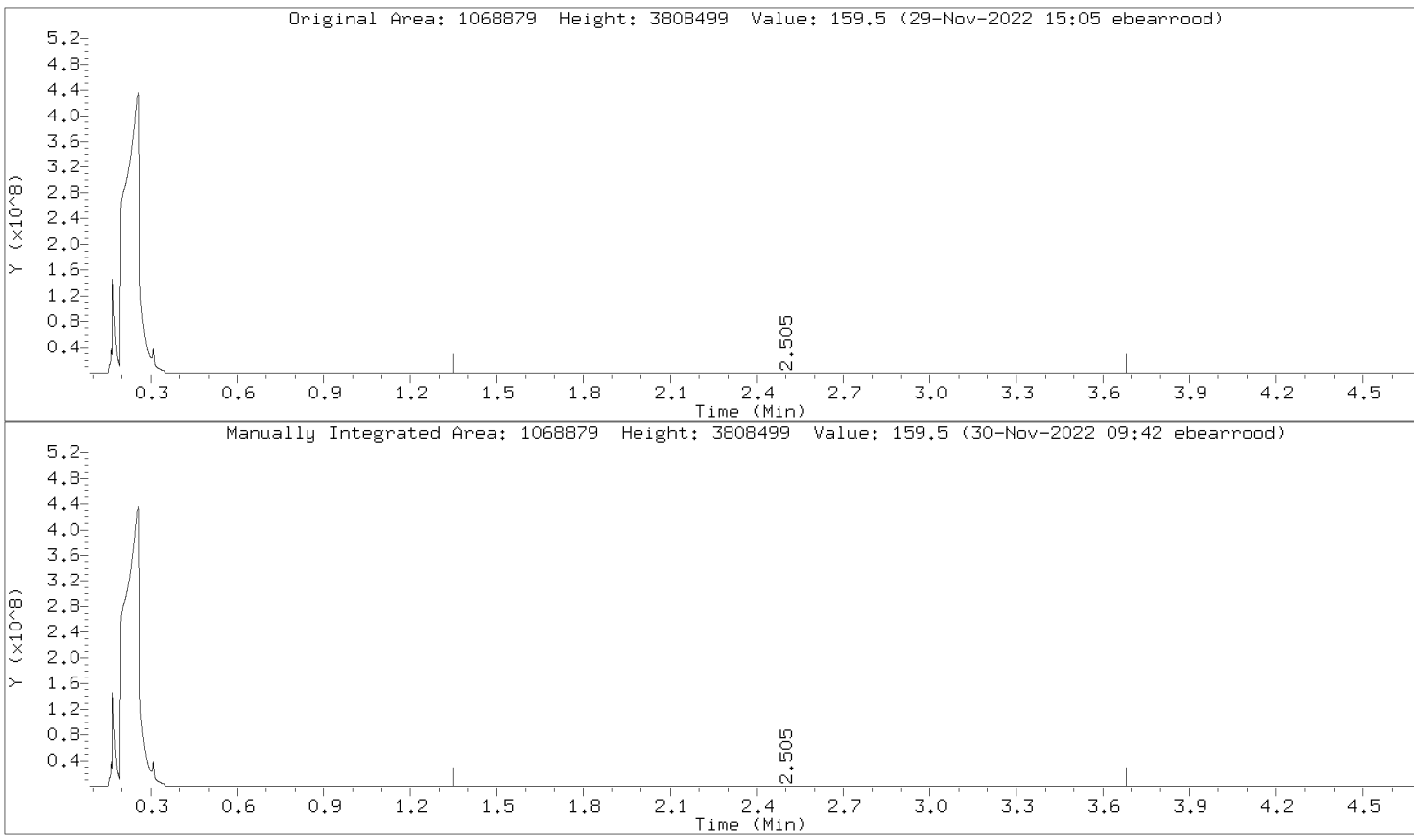
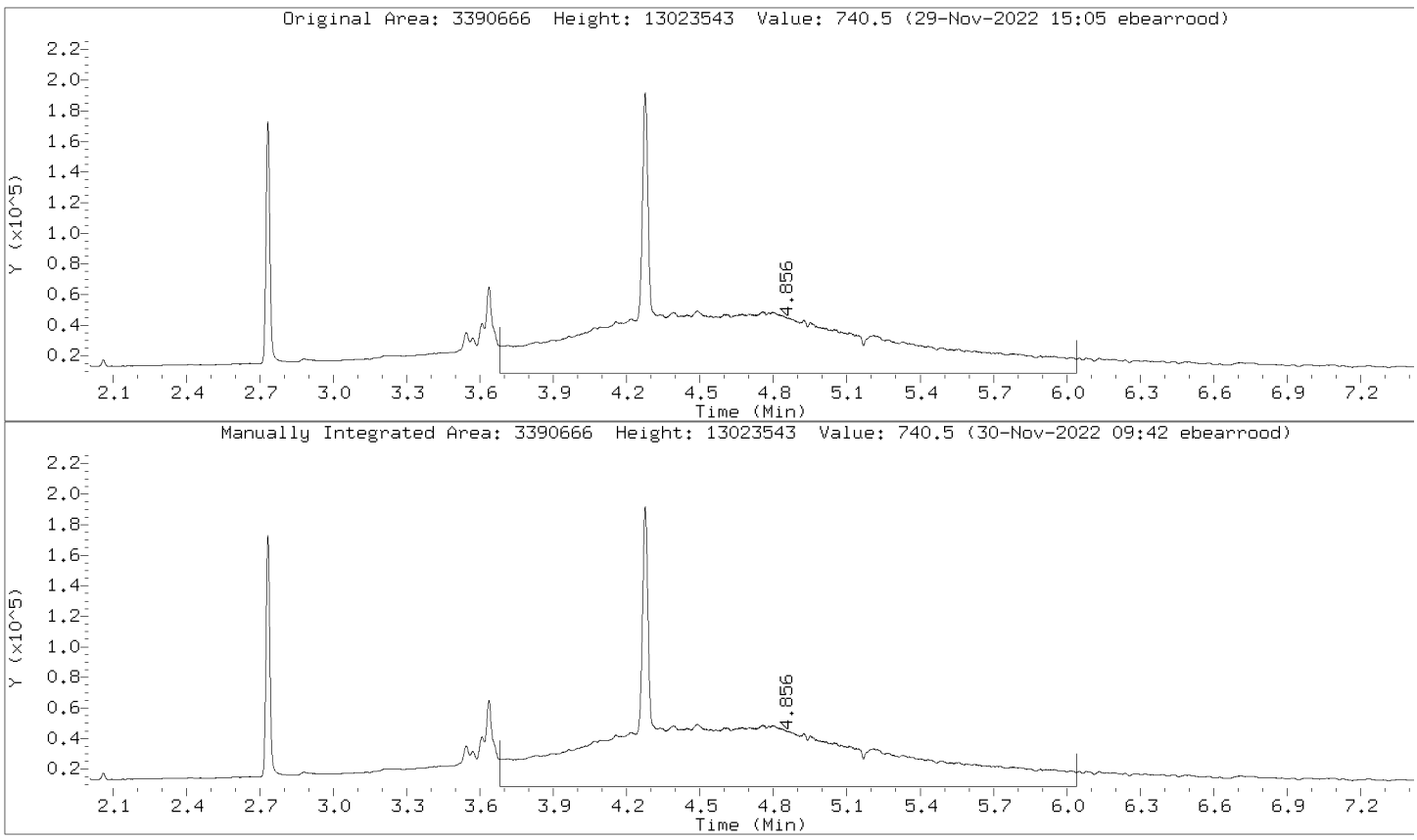
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



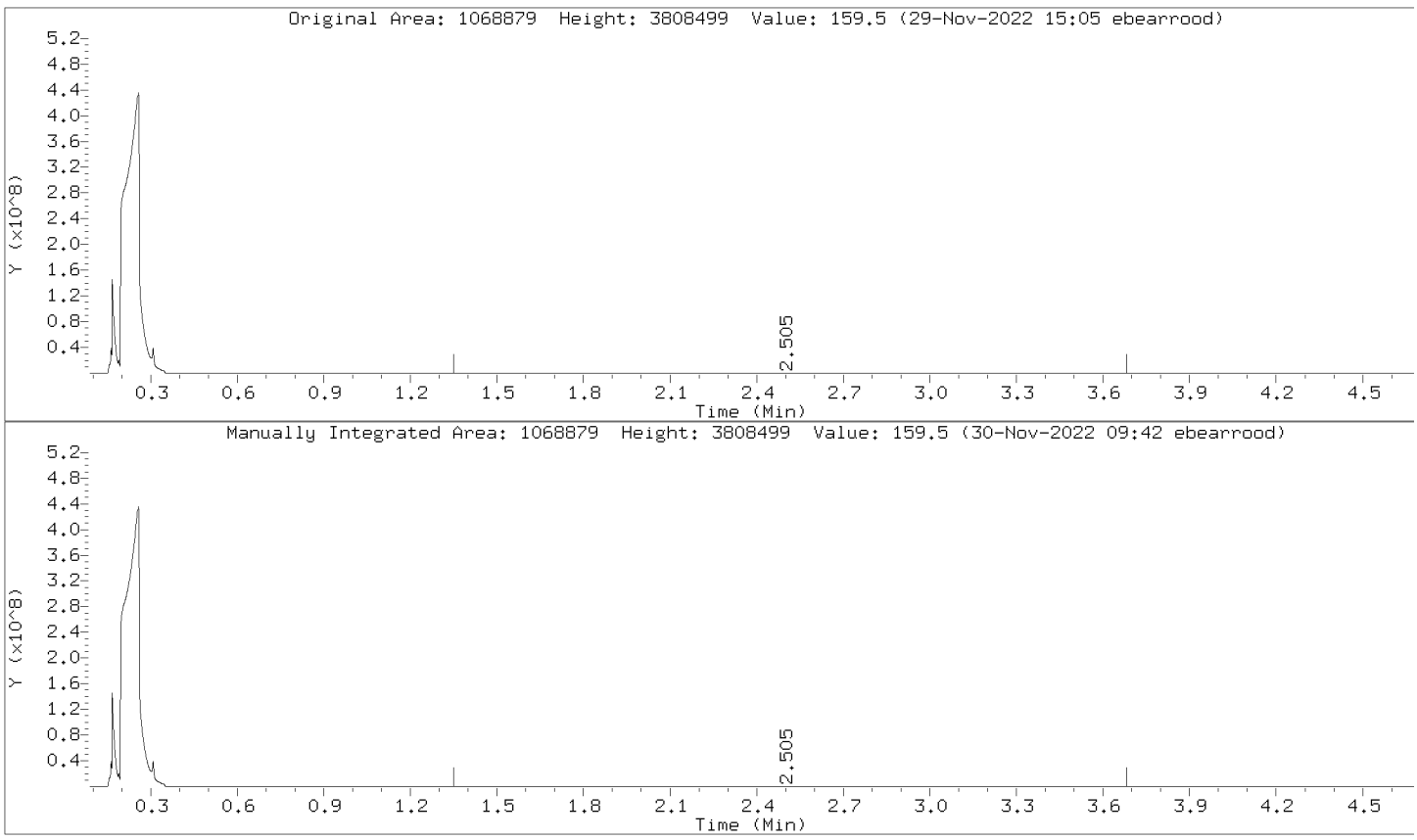
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Motor Oil Range Review Code: RNG
CAS Number:



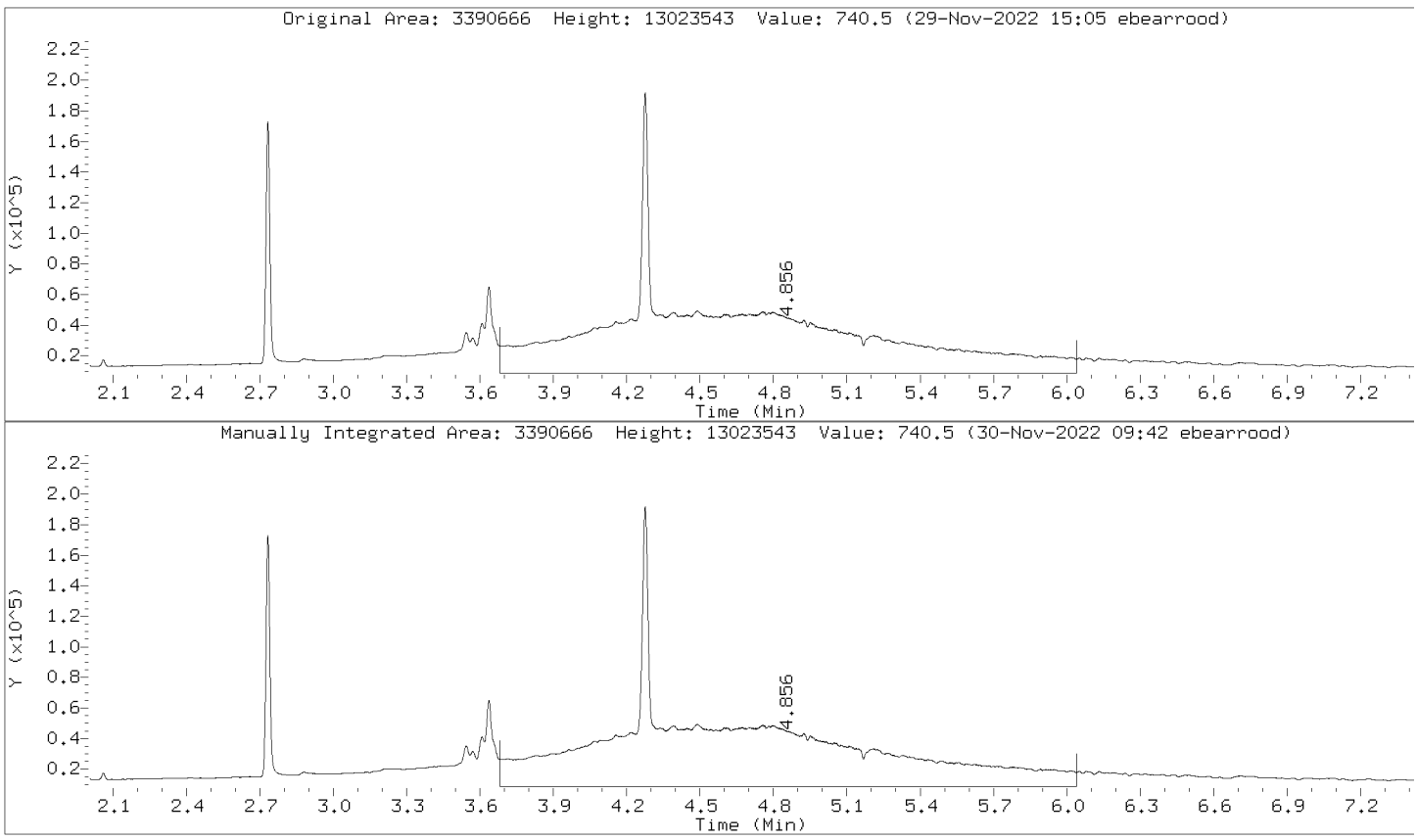
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



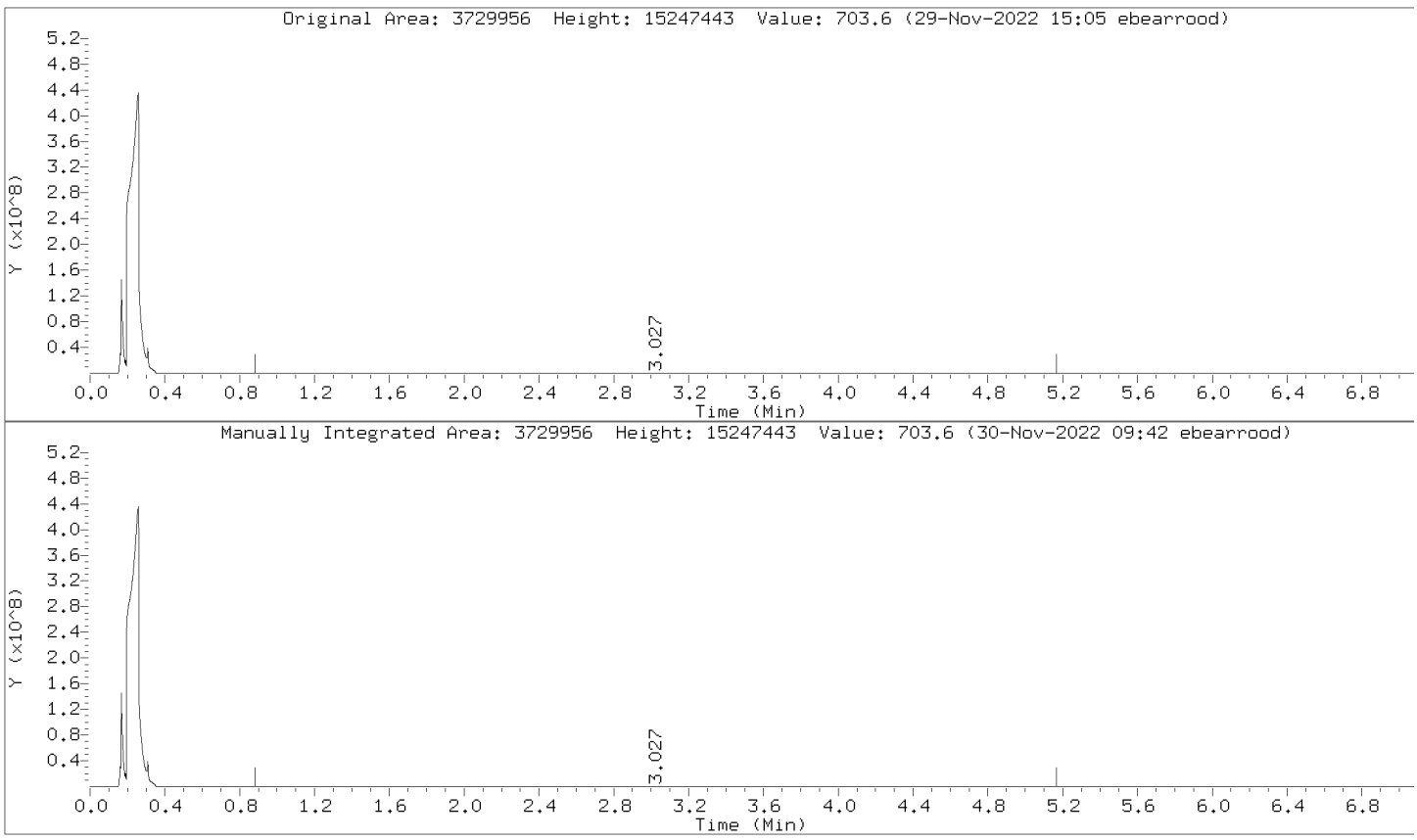
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



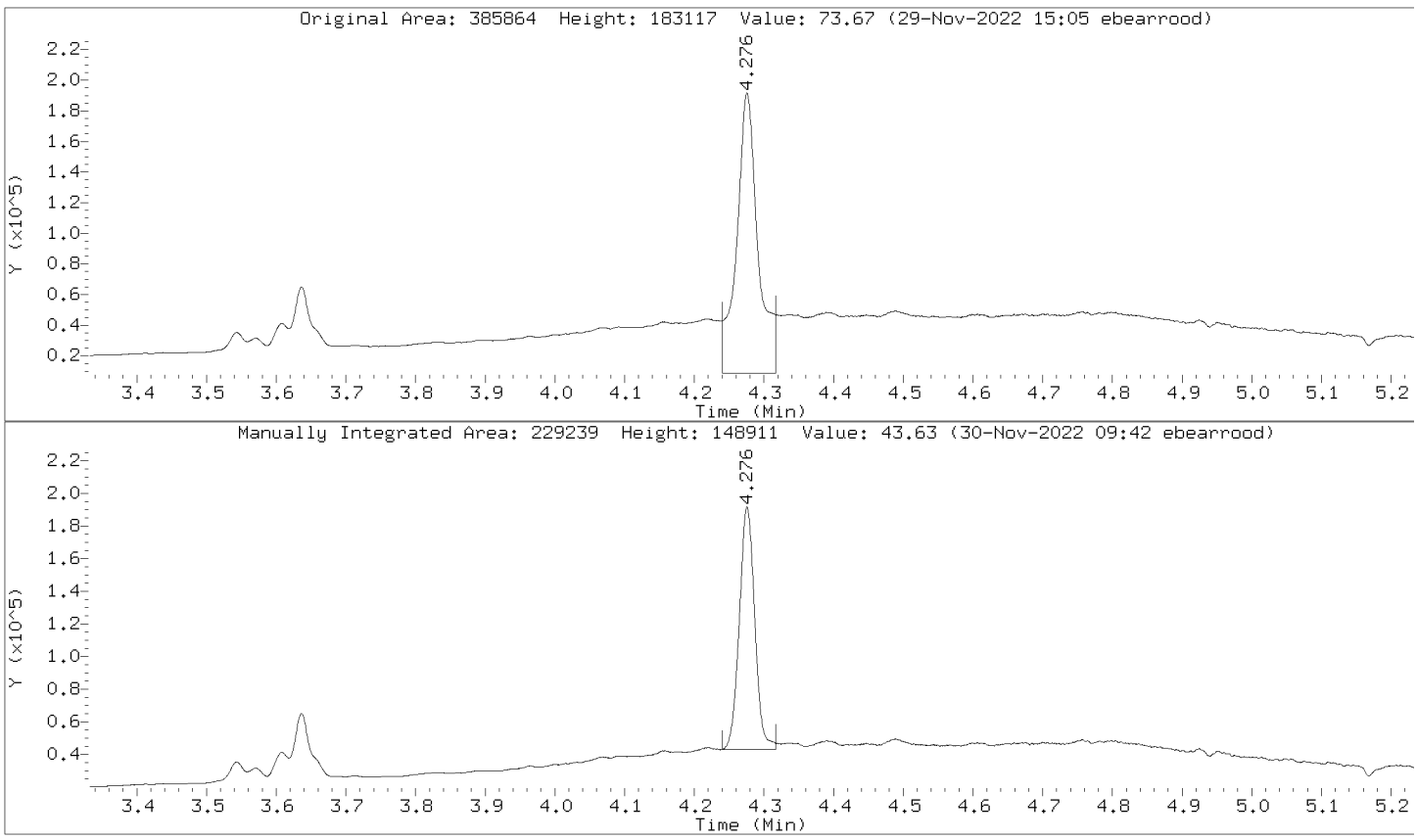
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: C10-C36 Review Code:
CAS Number:



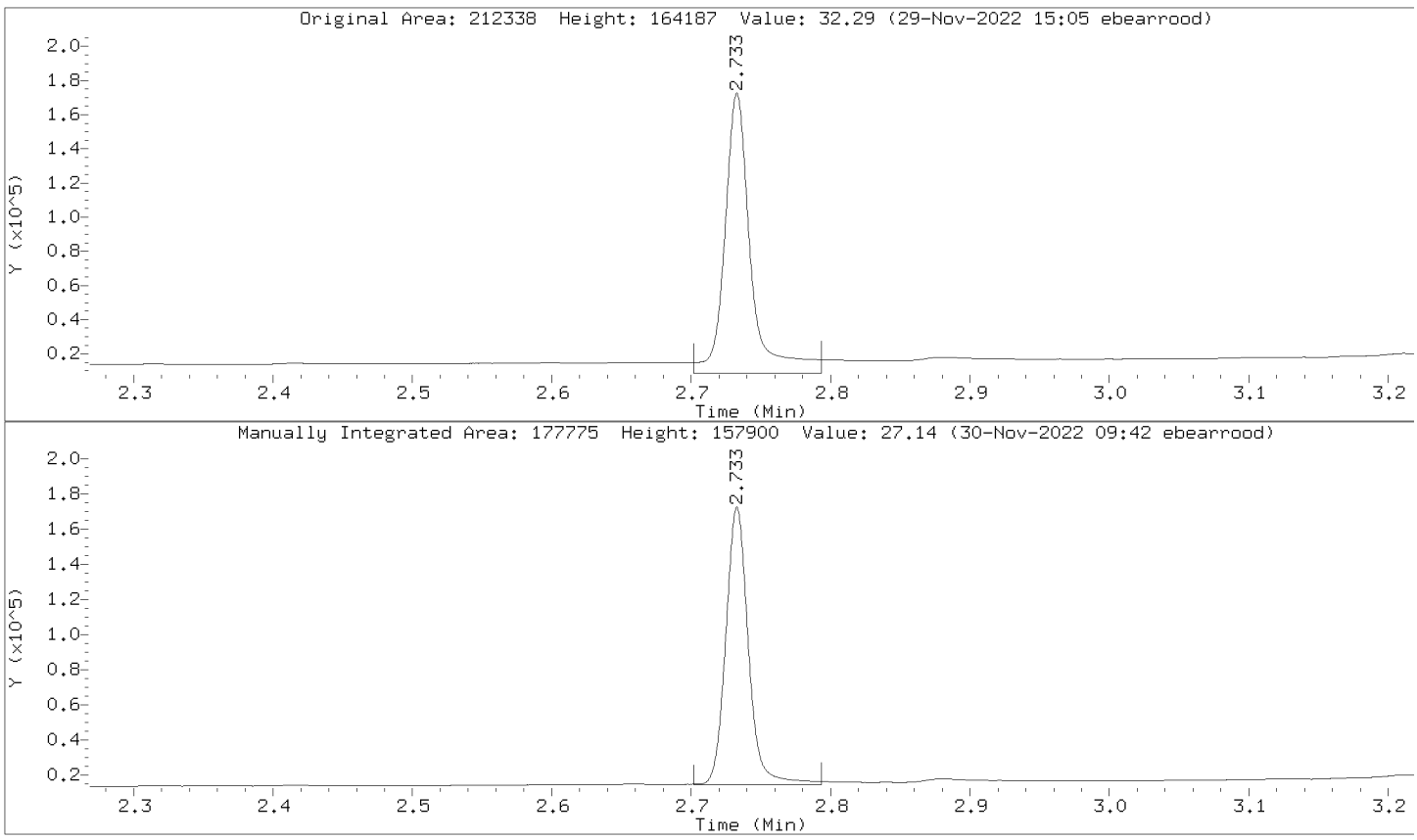
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000012.D
Injection Date: 29-NOV-2022 14:15
Instrument: 10gcsF.i
Lab Sample ID: 10633565005

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2724708	2724708
DRO by AK 102	1005248	1005248
TPH-DRO (C10-C28)	1868365	1868365
Motor Oil Range (C24-C36)	2911514	2911514
Diesel Fuel Range	1068879	1068879
Motor Oil Range	3390666	3390666
Diesel Fuel Range SG	1068879	1068879
Motor Oil Range SG	3390666	3390666
C10-C36	3729956	3729956
n-Triacontane (S)	385864	229239
o-Terphenyl (S)	212338	177775

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633565

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633565

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633565

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D

CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D

CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D

CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

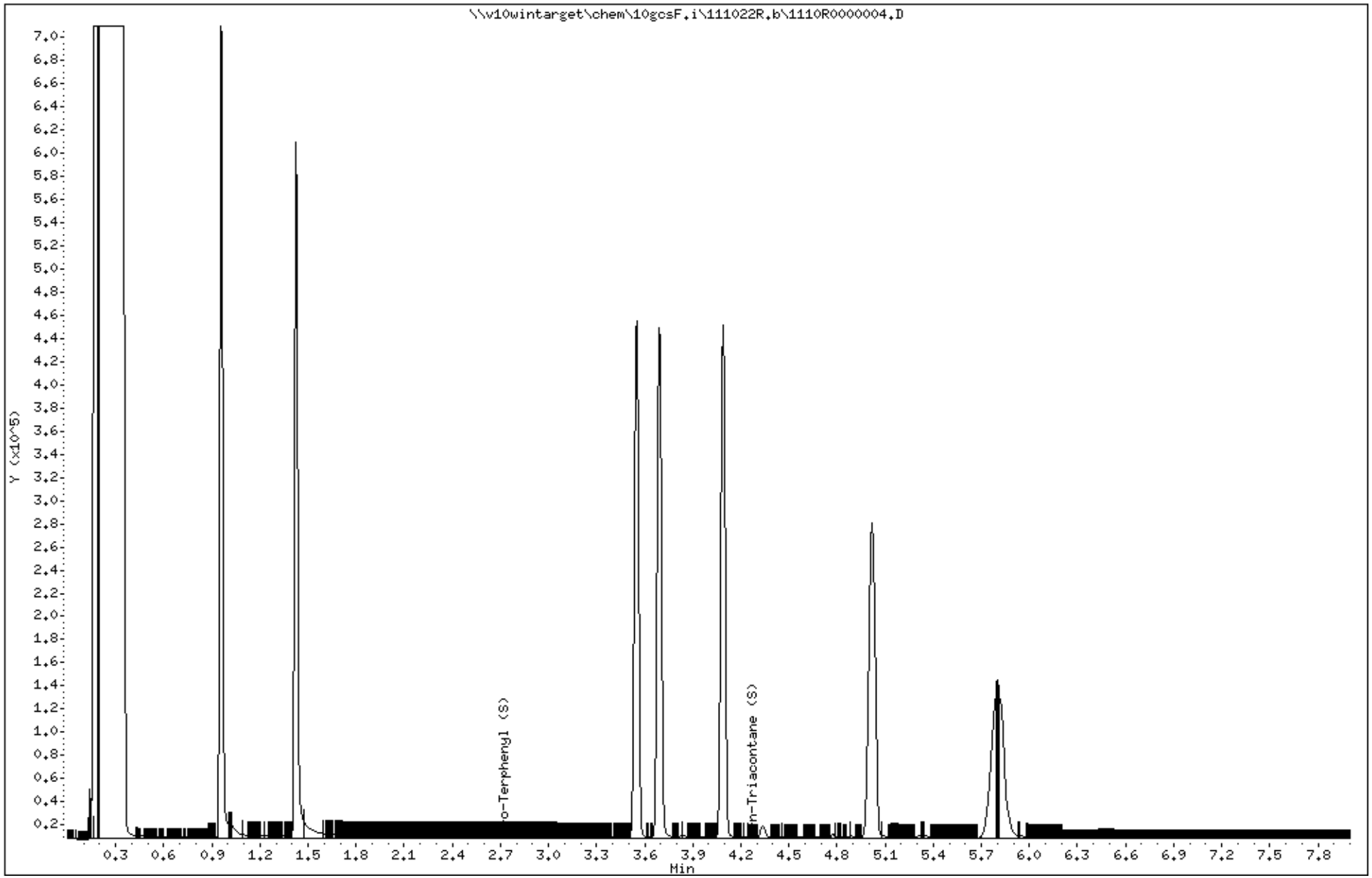
AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

				CONCENTRATIONS ON-COL	FINAL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.880 - 3.600			2108709			
$ 2 o-Terphenyl (S)					CAS #:	
2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)					CAS #:	
4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103					CAS #:	
3.610 - 5.200			2005315			
S 5 TPH-DRO (C10-C28)					CAS #:	
0.880 - 4.219			3399190			
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450 - 5.200			2635115			
S 7 C10-C36					CAS #:	
0.880 - 5.200			4114949			
S 8 Diesel Fuel Range					CAS #:	
1.350 - 3.650			1498770			
S 9 Diesel Fuel Range SG					CAS #:	
1.350 - 3.650			1498770			
S 10 Motor Oil Range					CAS #:	
3.660 - 6.000			2695751			
S 11 Motor Oil Range SG					CAS #:	
3.660 - 6.000			2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

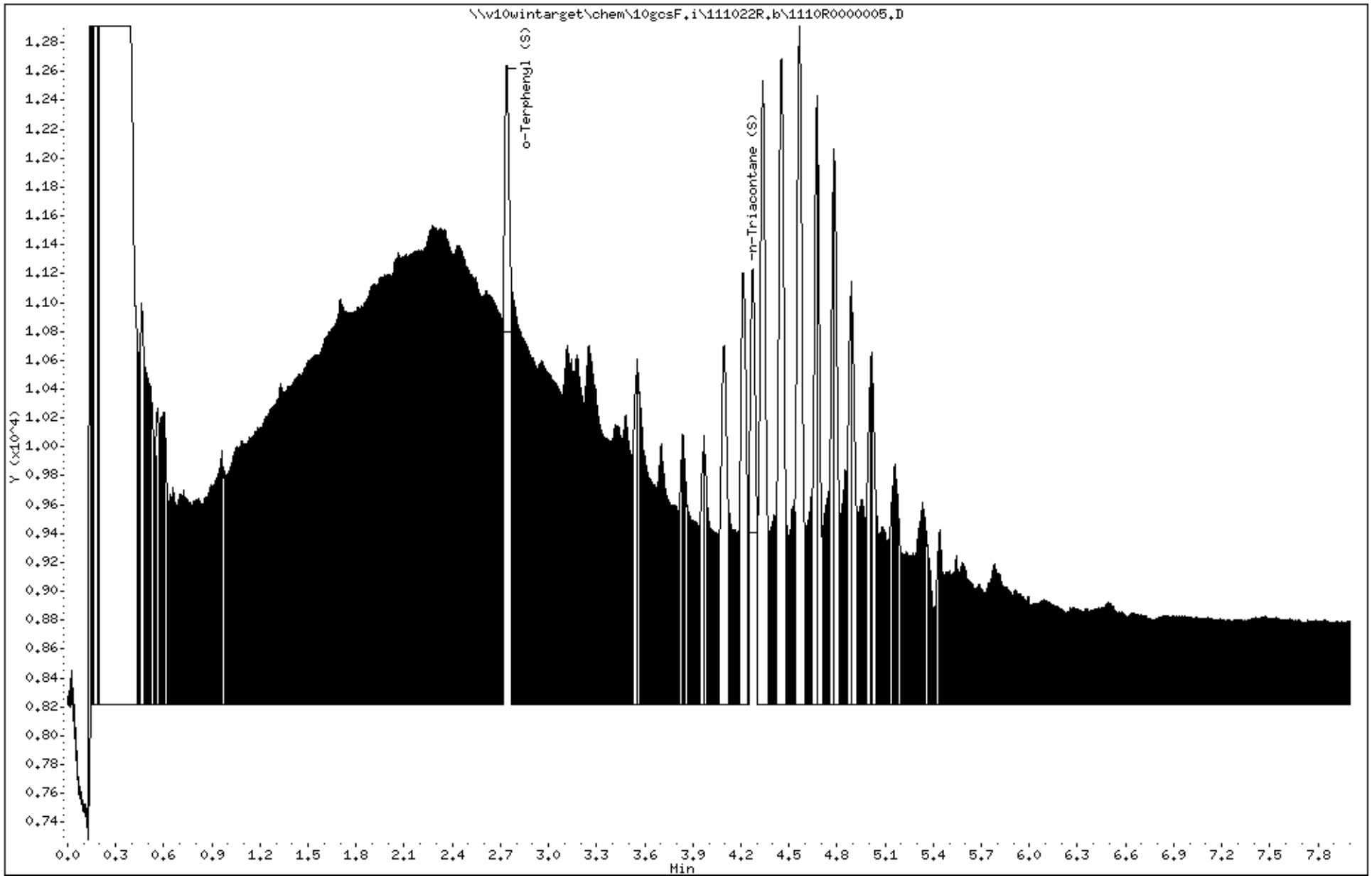
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

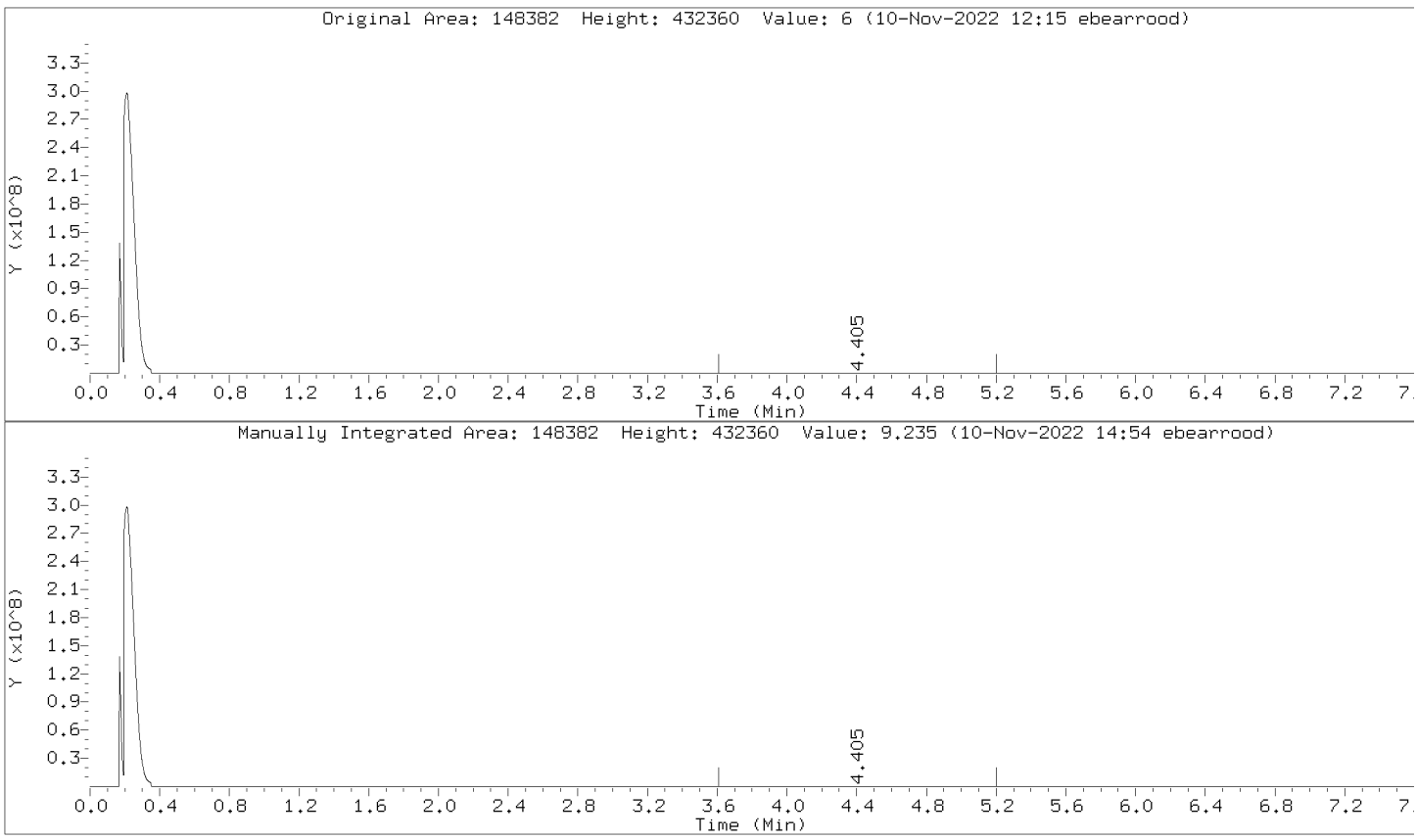
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



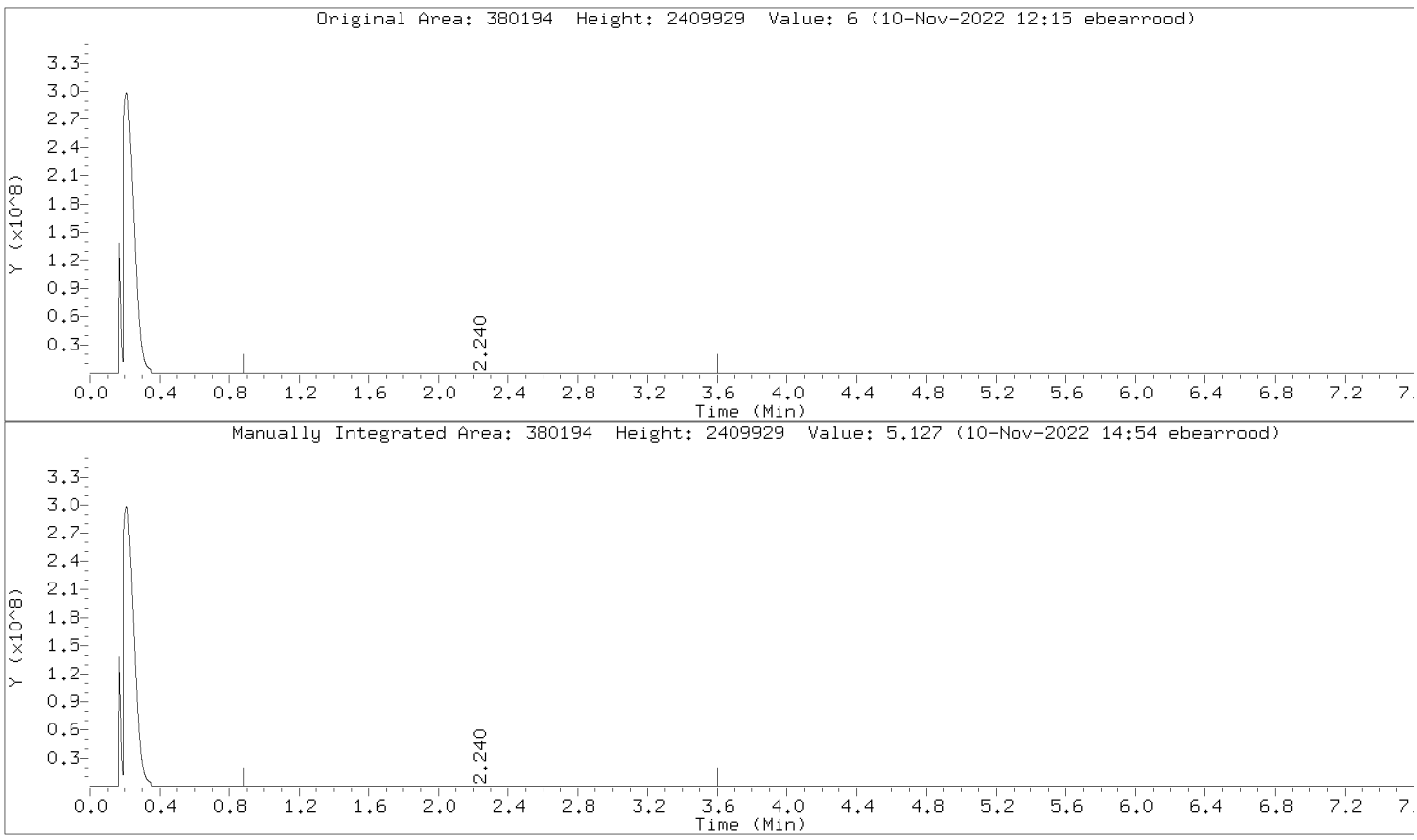
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



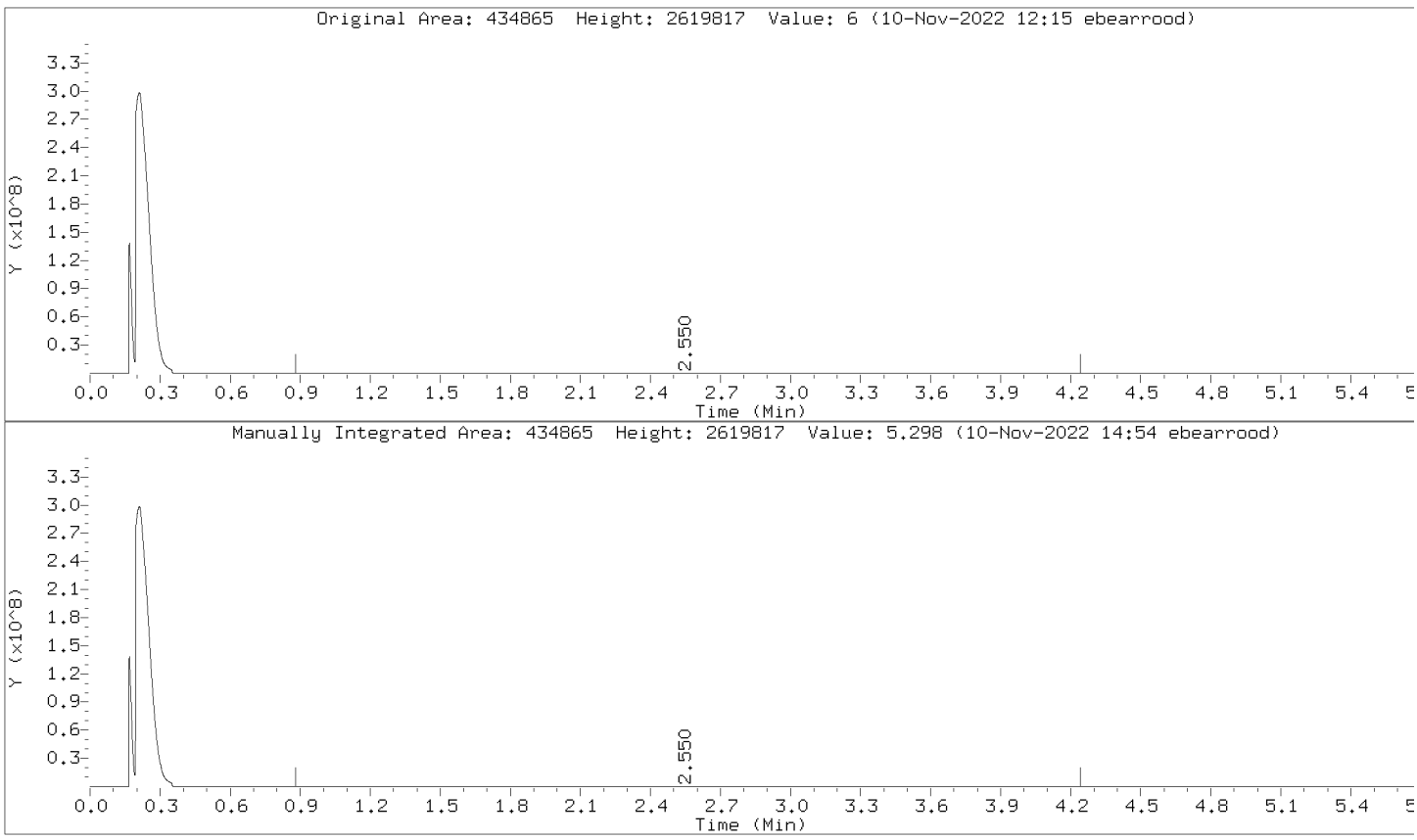
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



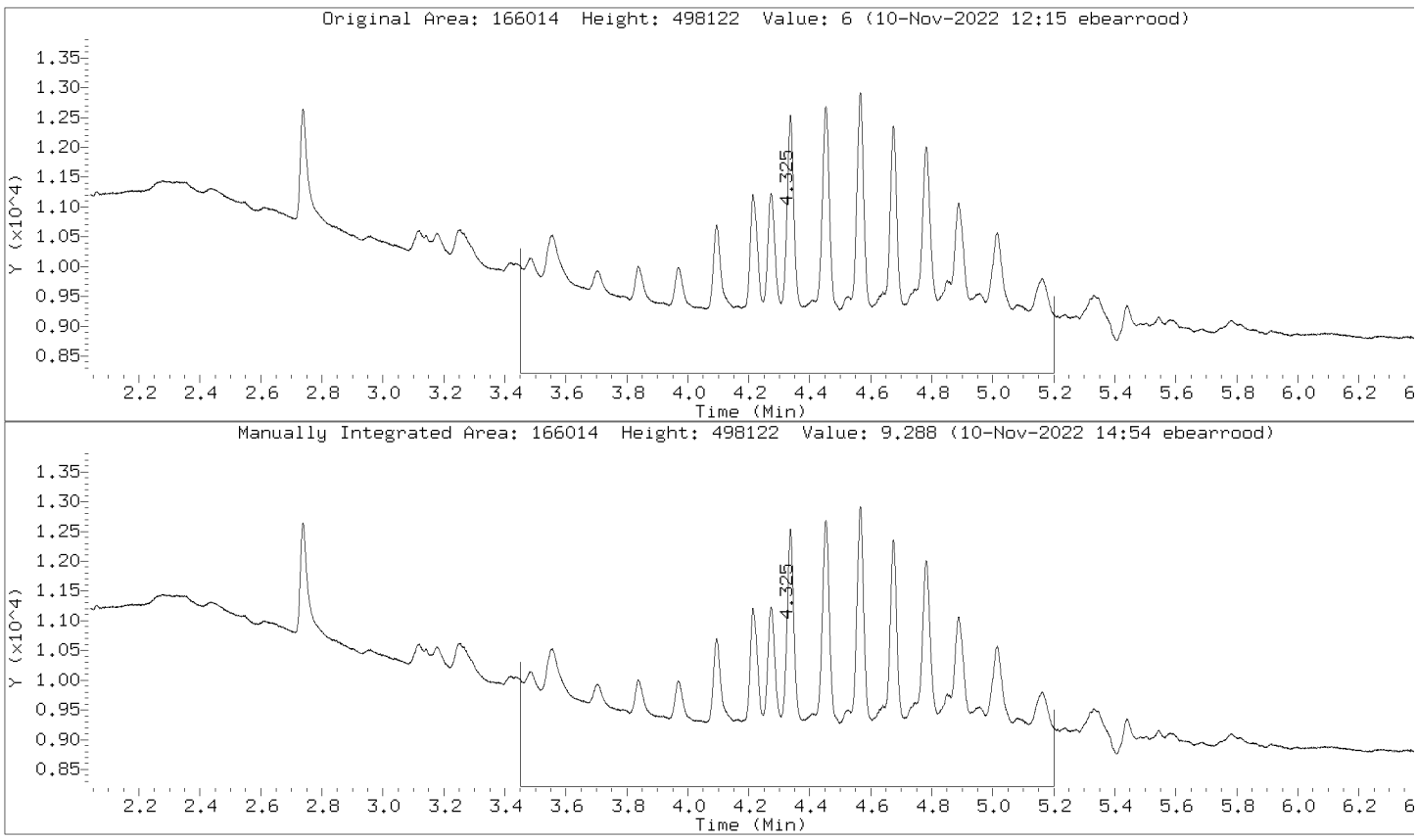
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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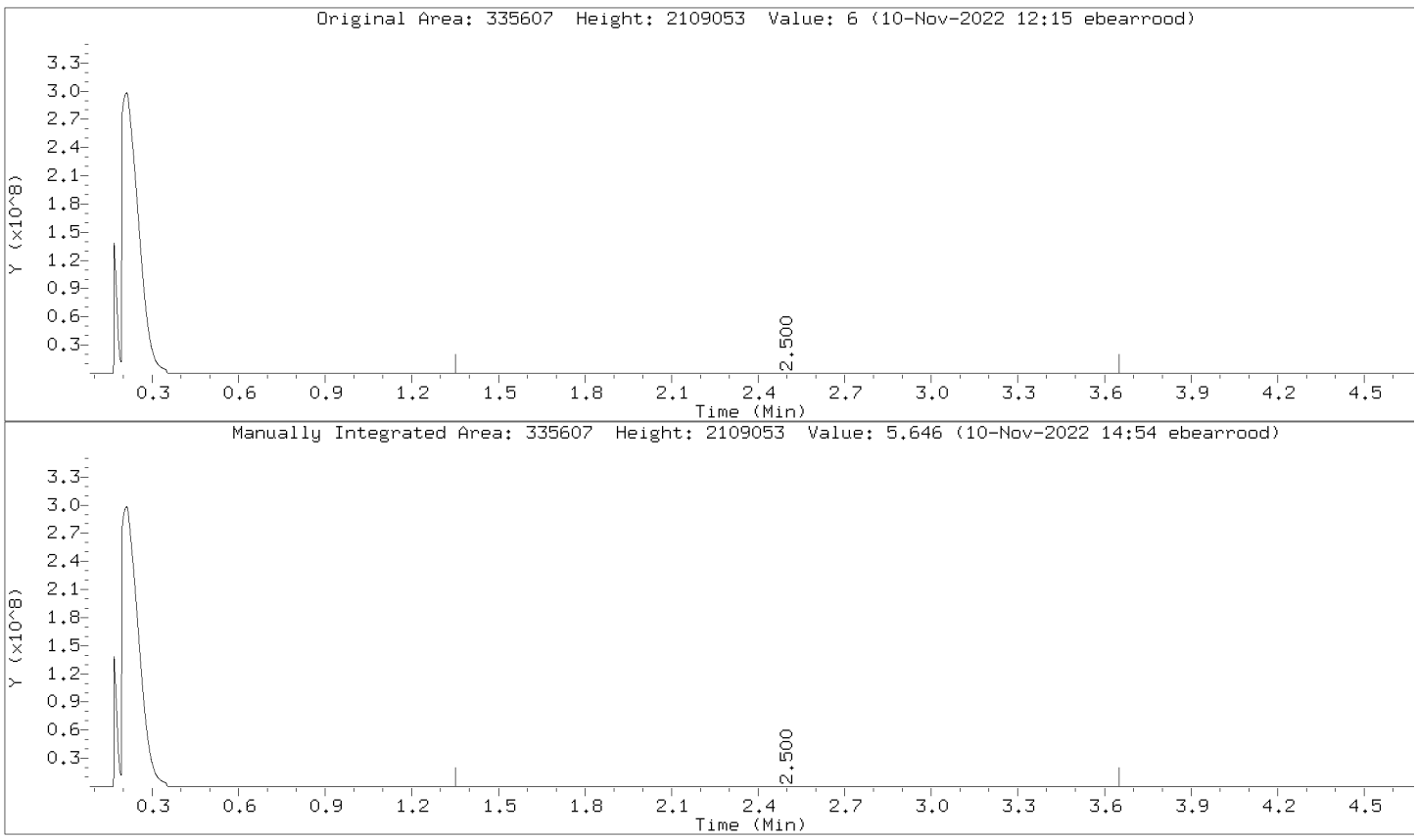
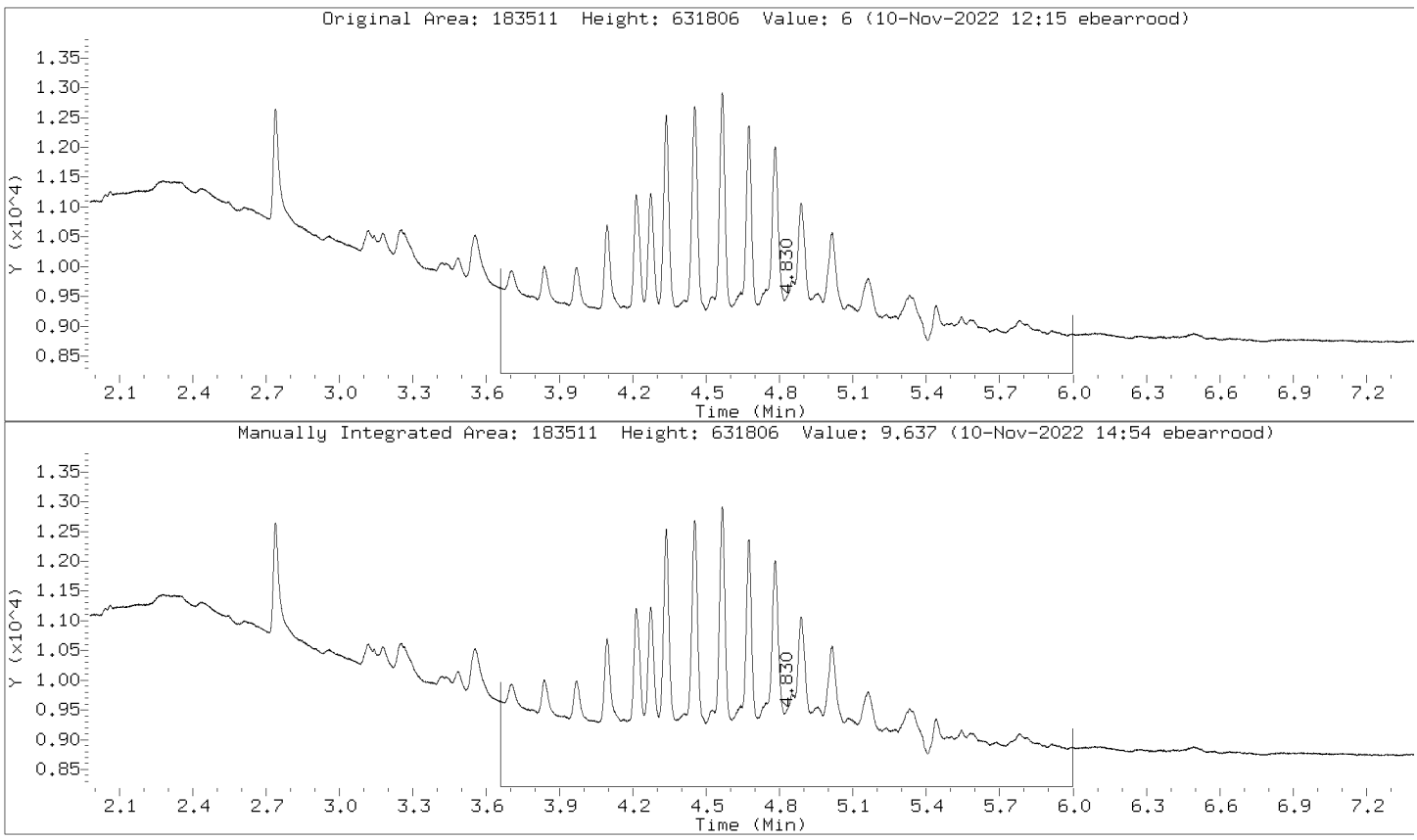
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



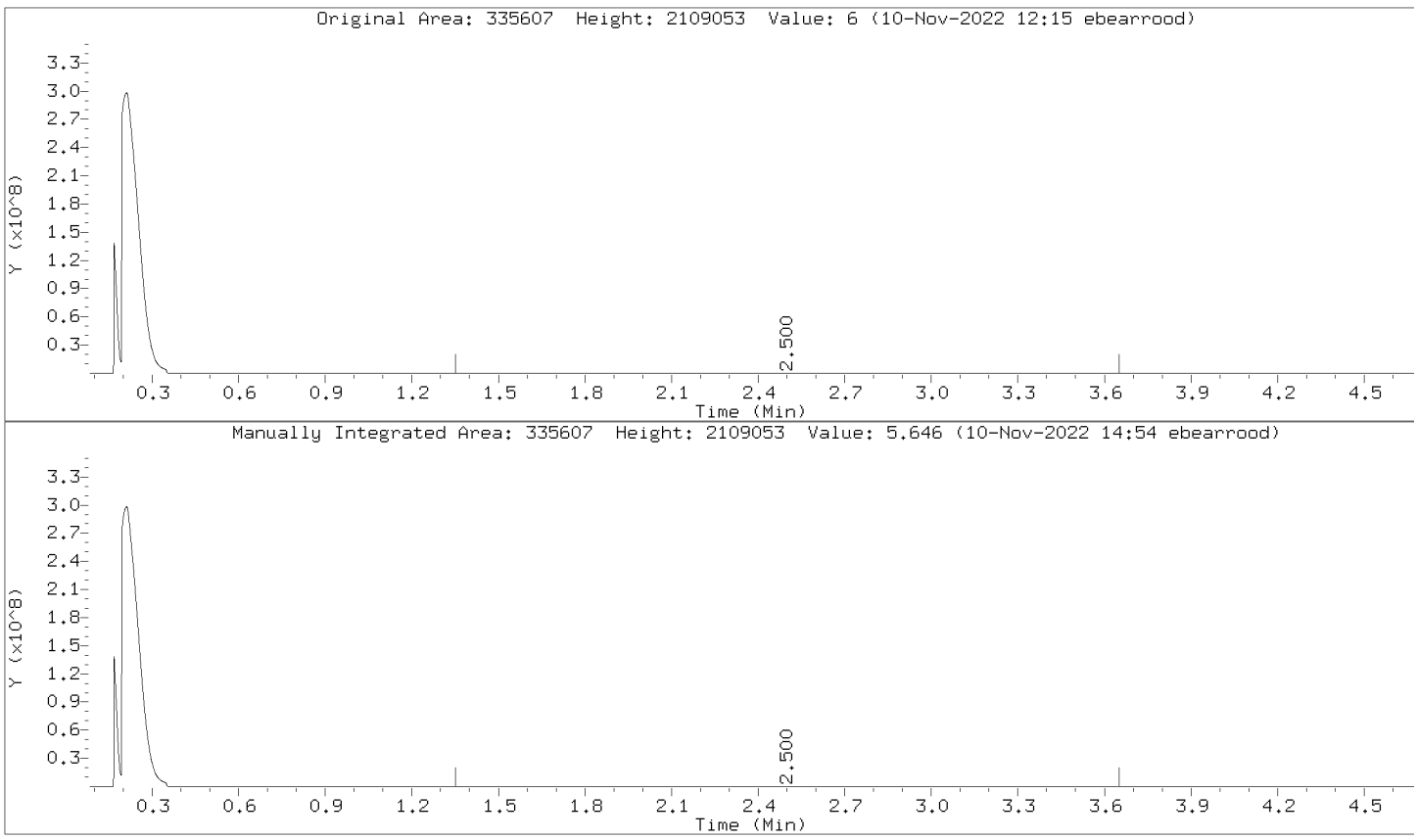
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



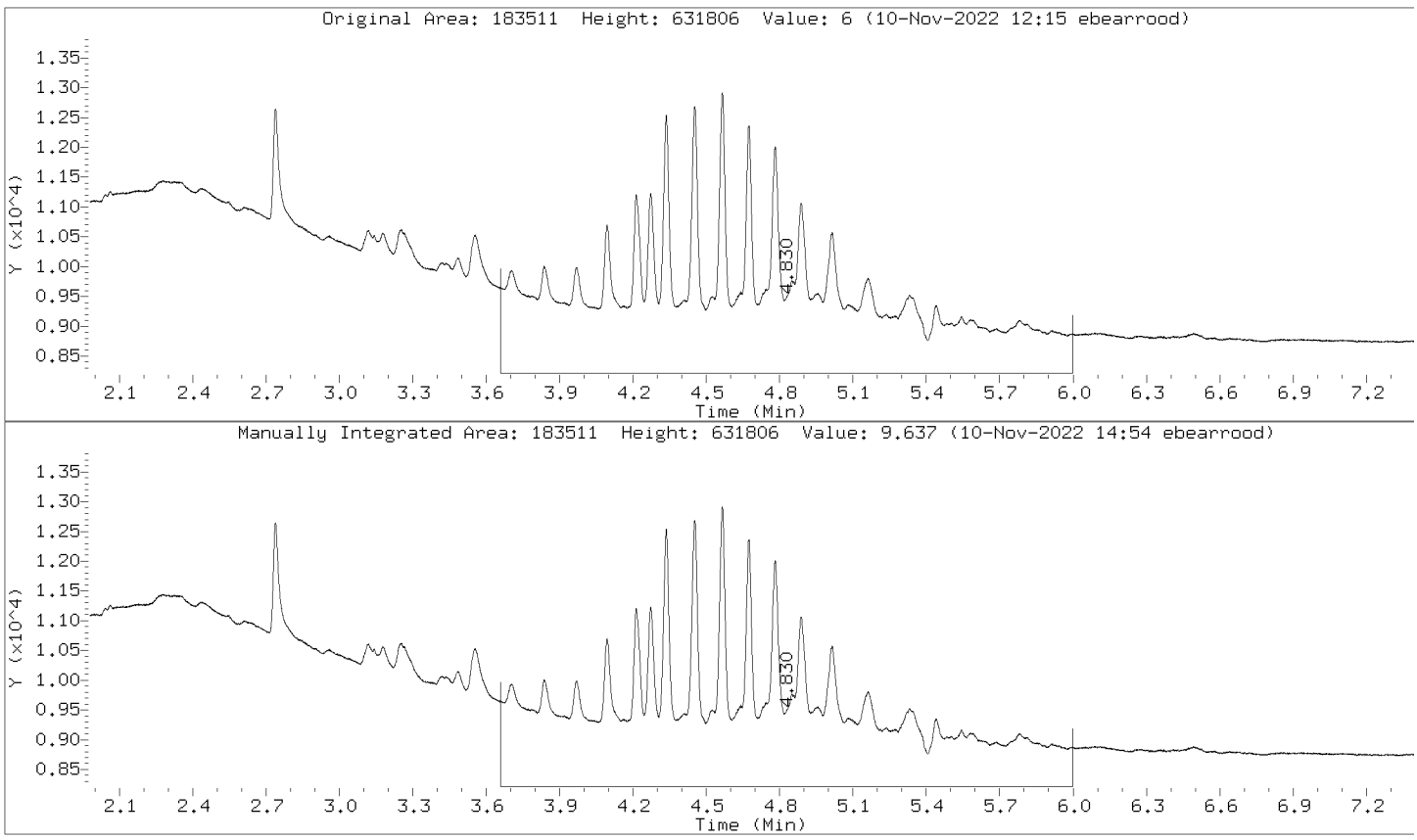
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



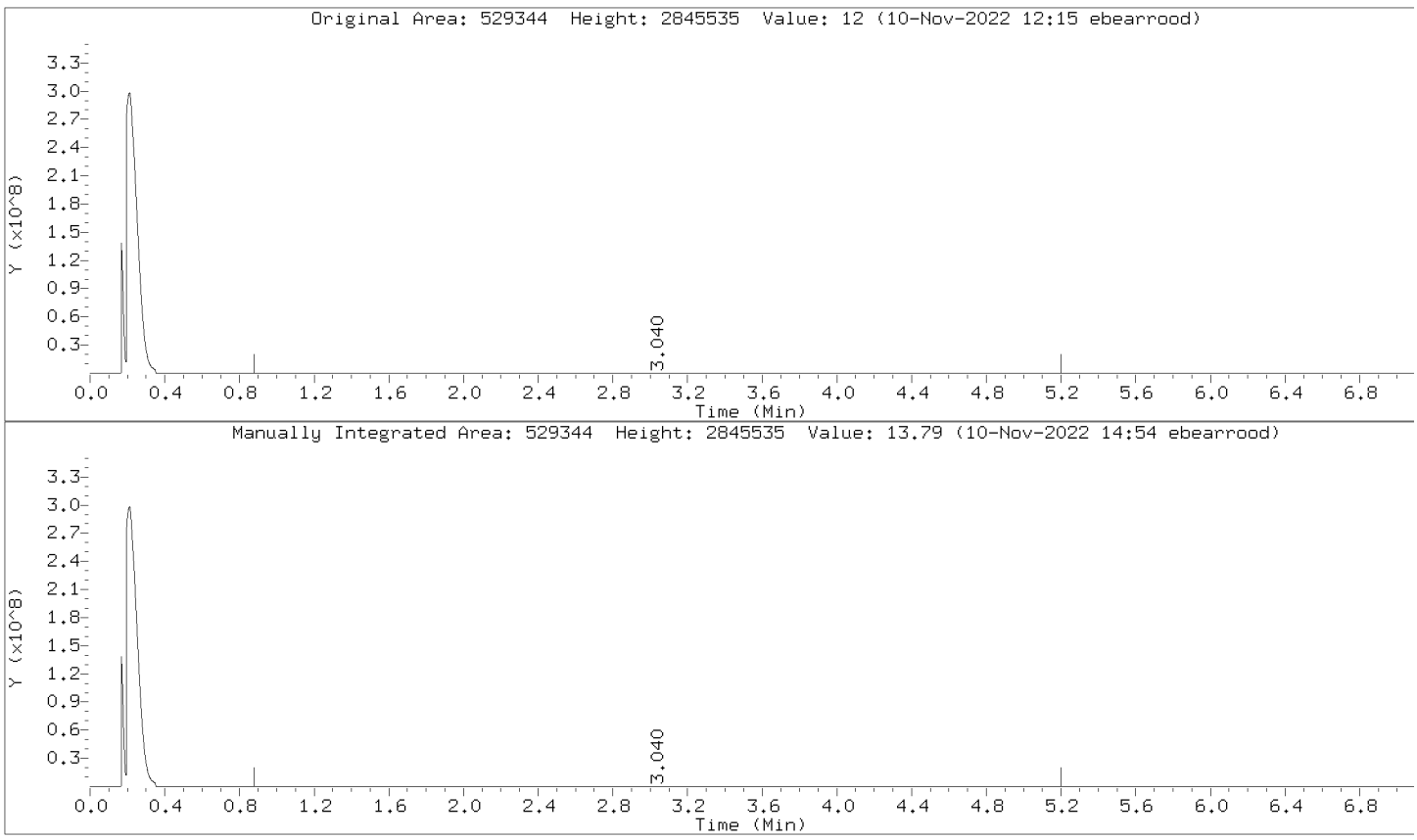
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



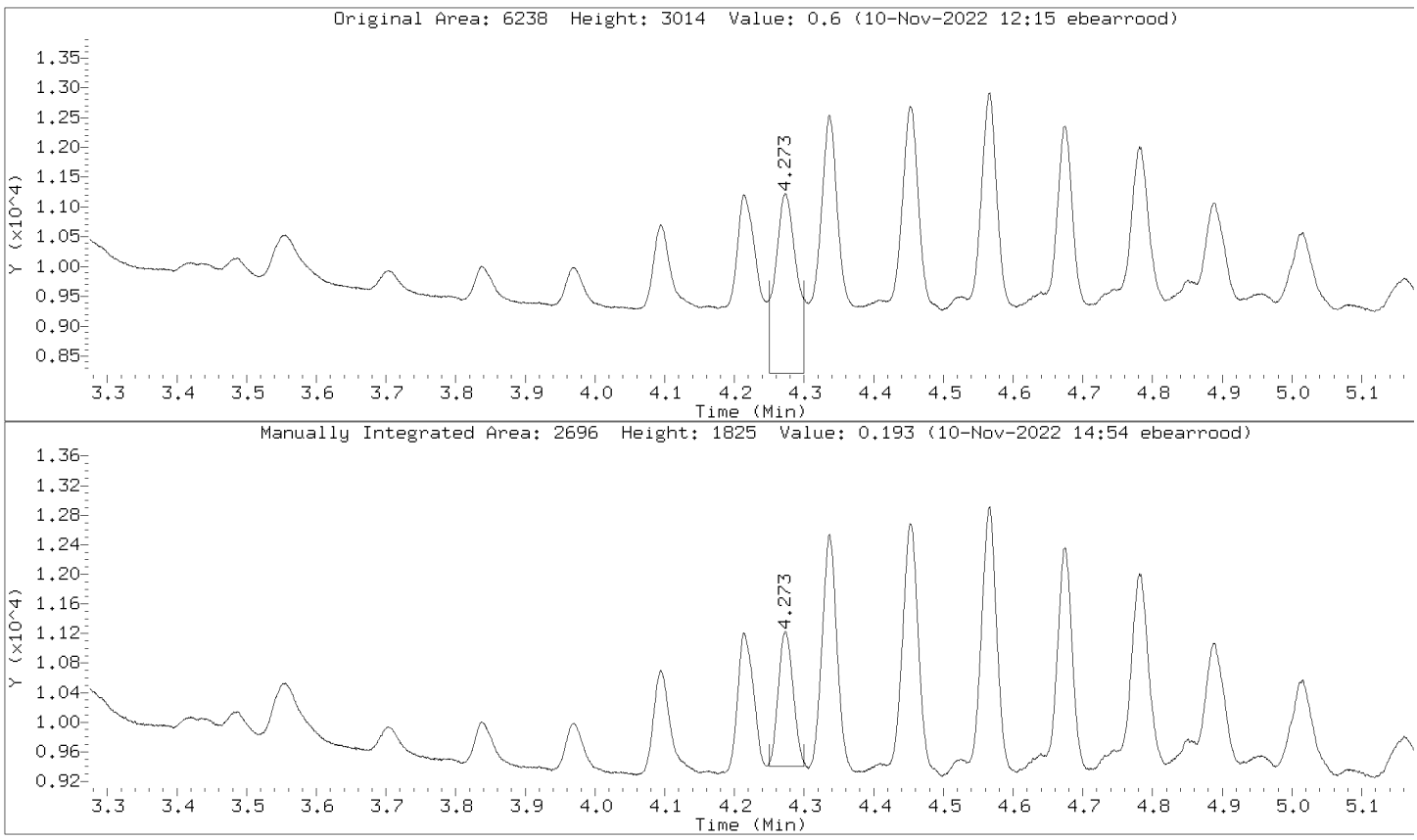
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



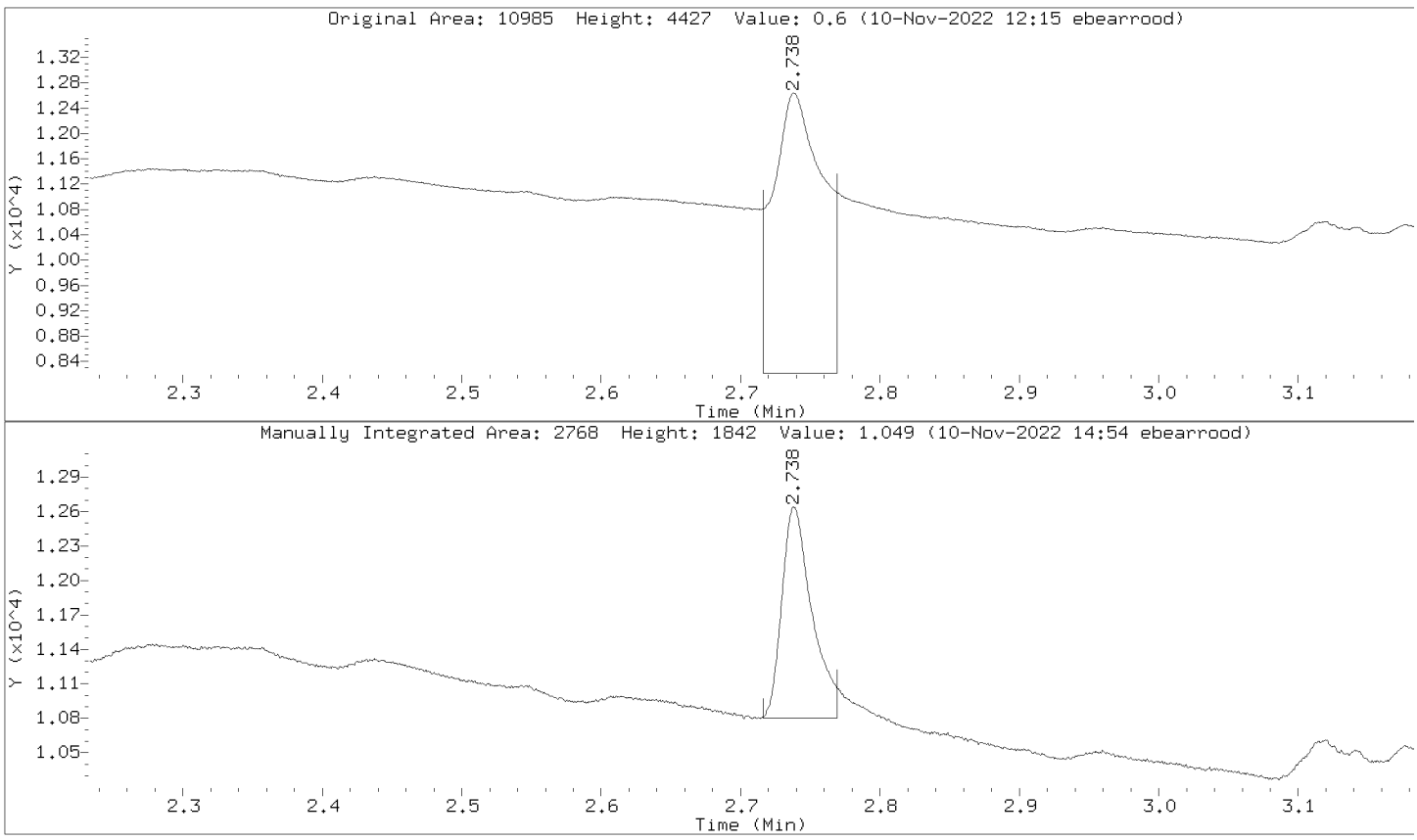
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		394088	10.0000	7.58	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		138206	10.0000	6.41	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		446339	10.0000	7.04	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		154886	10.0000	6.34	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		533232	20.0000	14.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

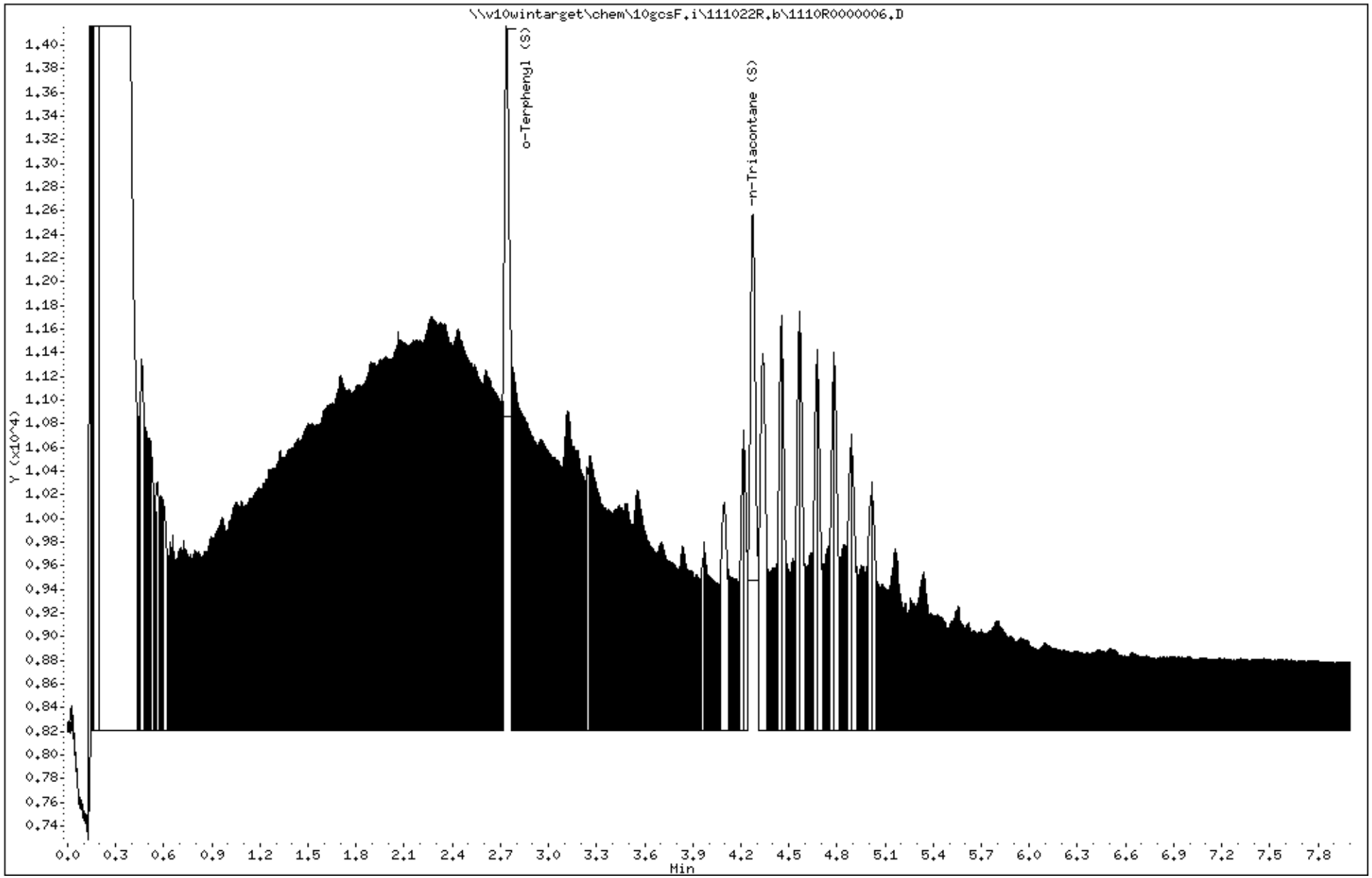
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

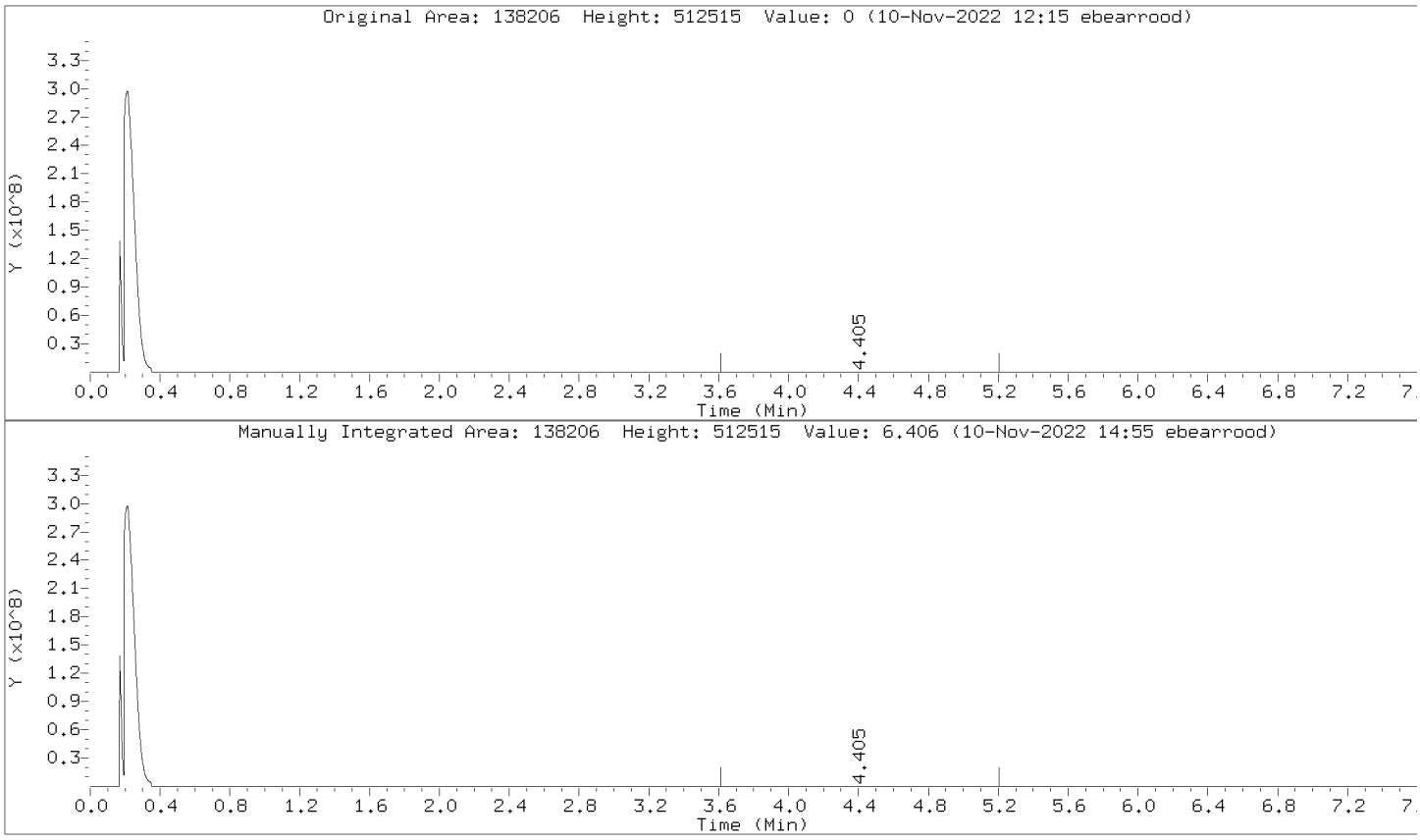
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



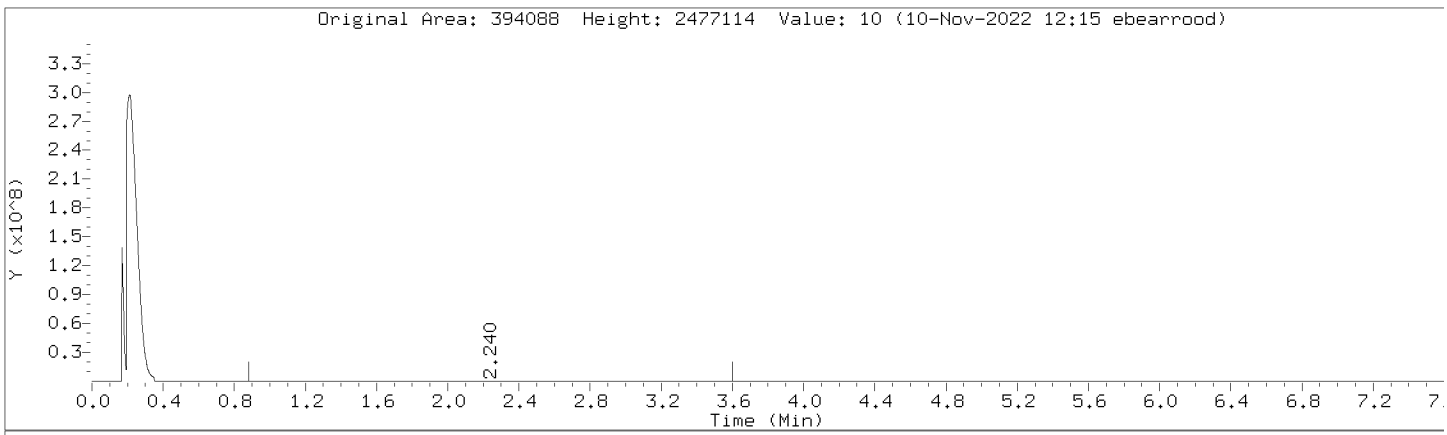
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

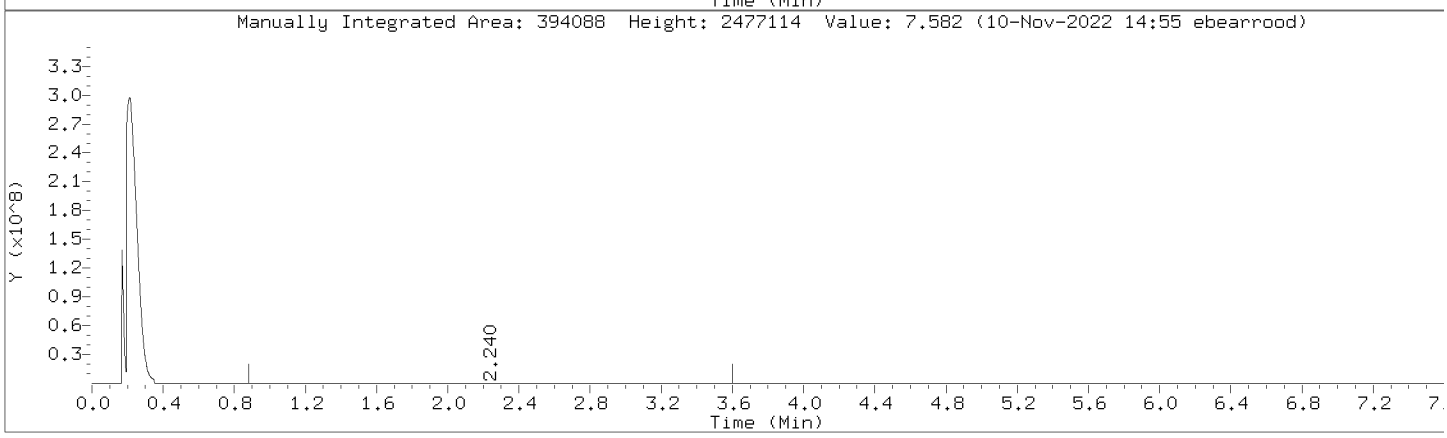
Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

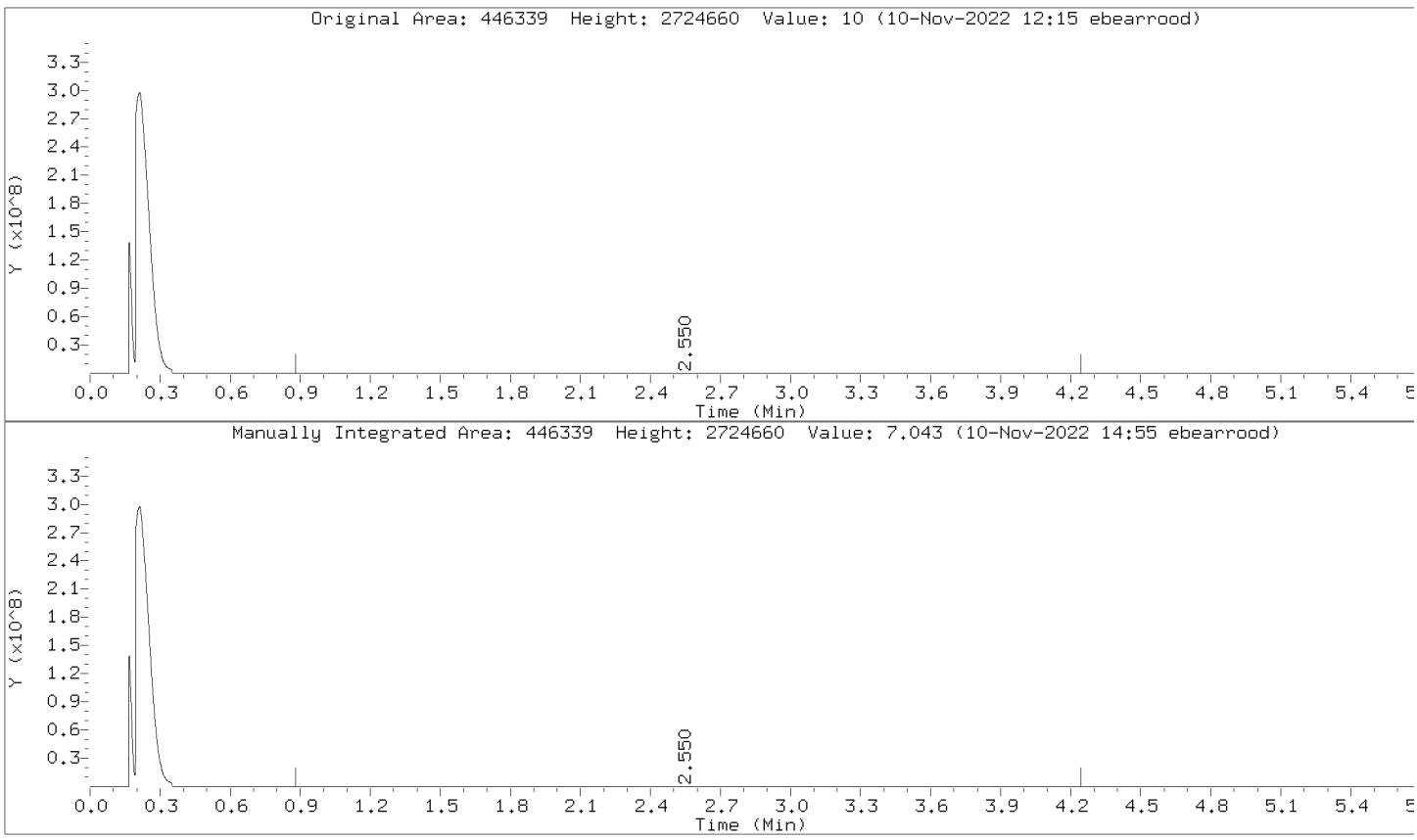
Compound: DRO by AK 102 Review Code: RNG
CAS Number:





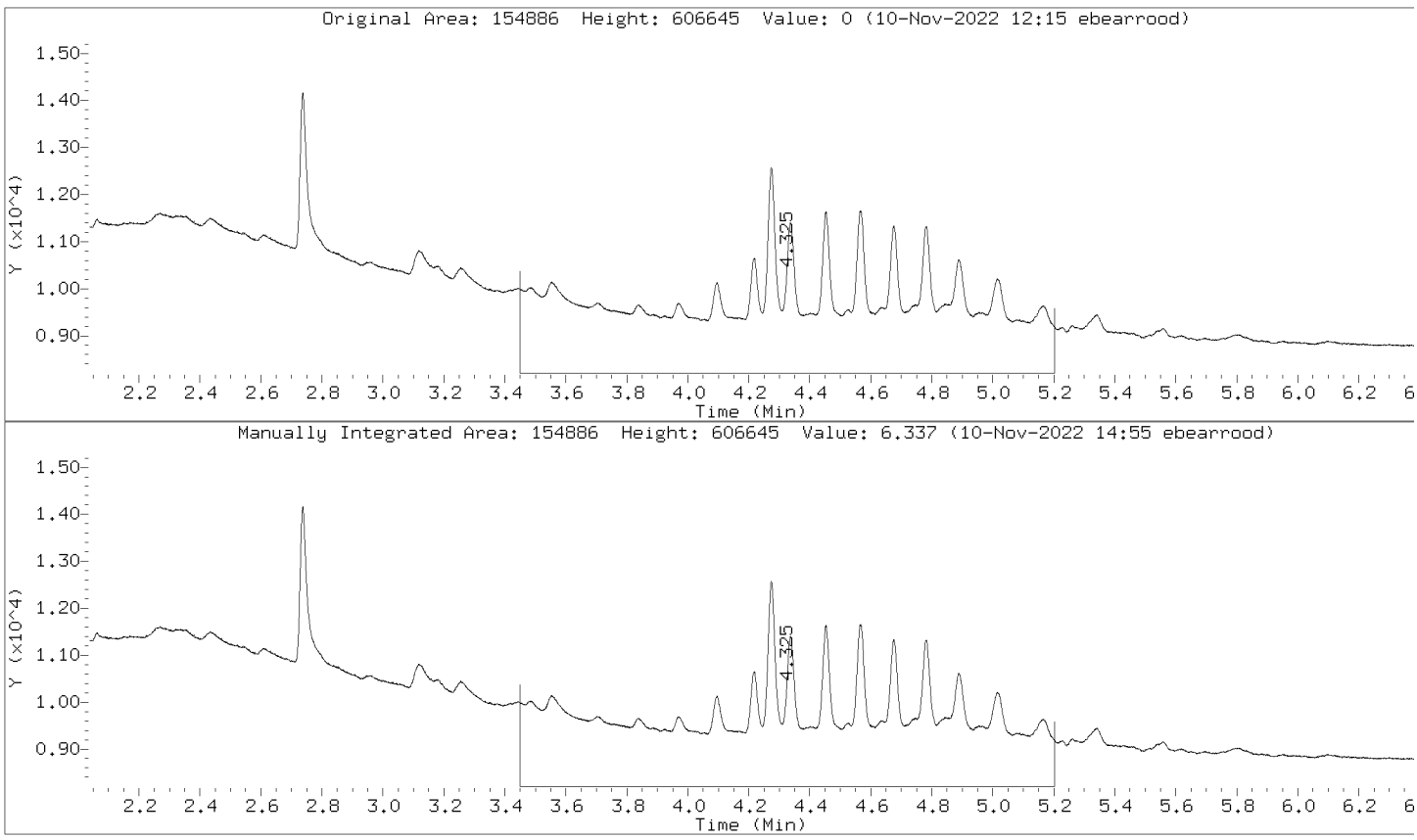
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



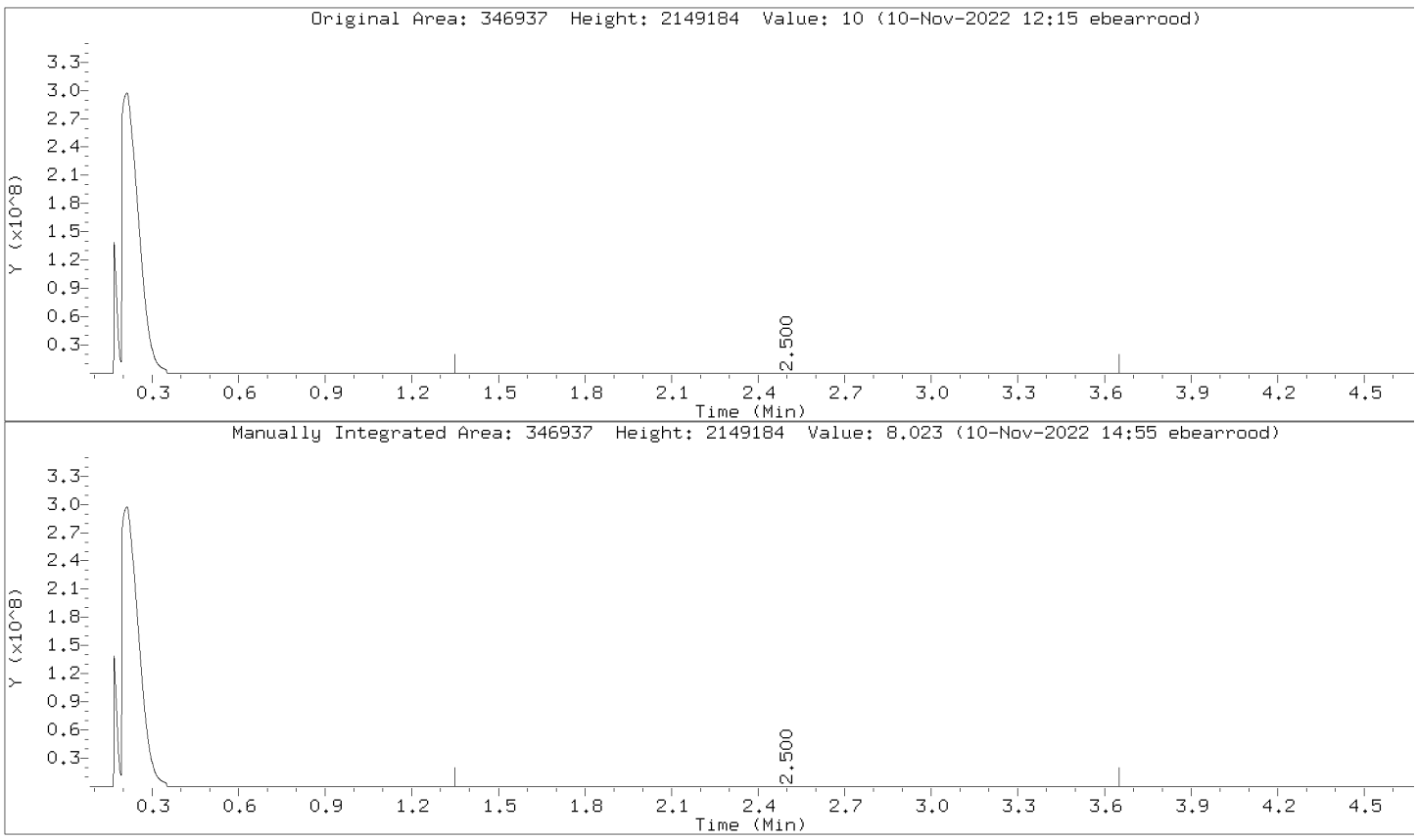
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



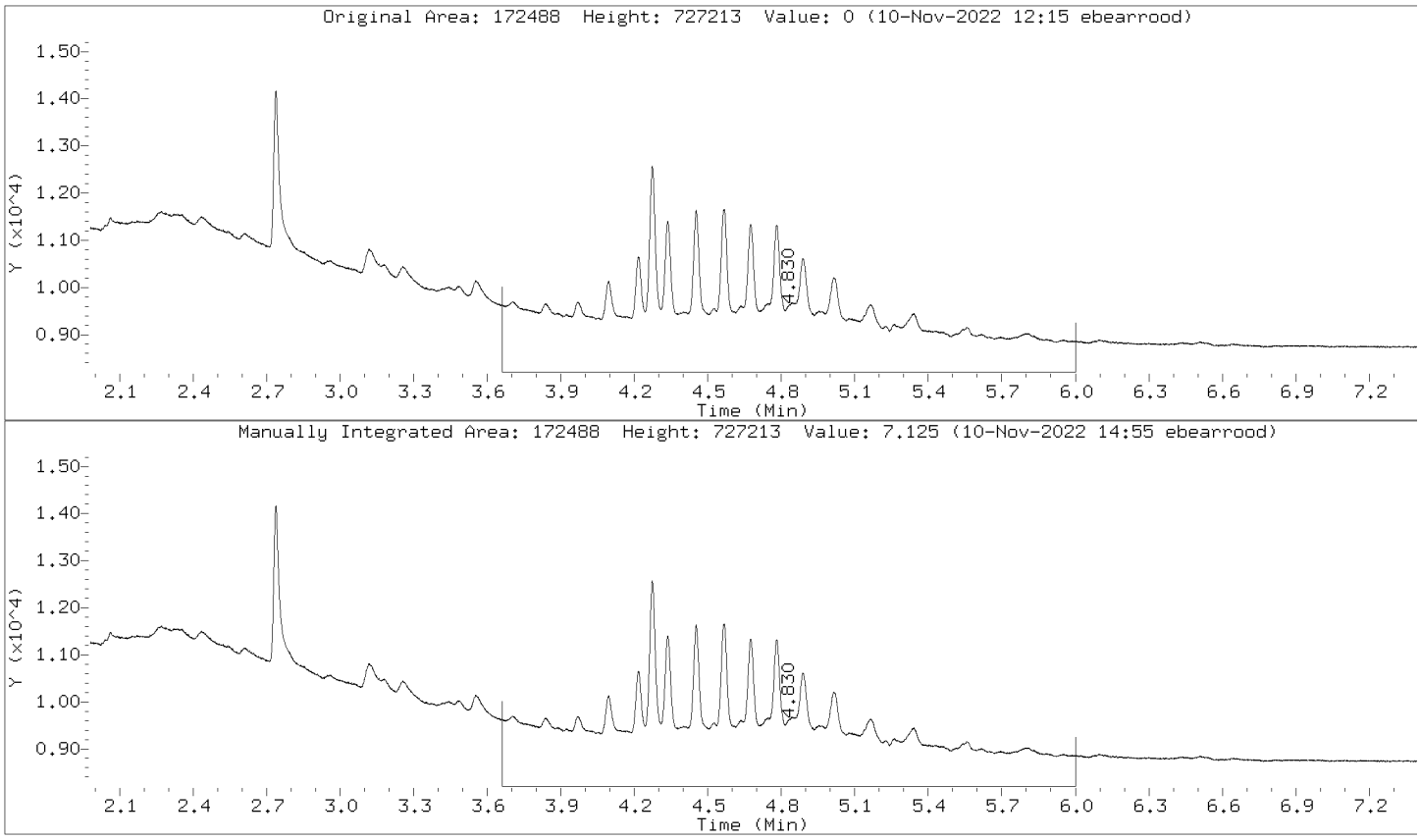
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



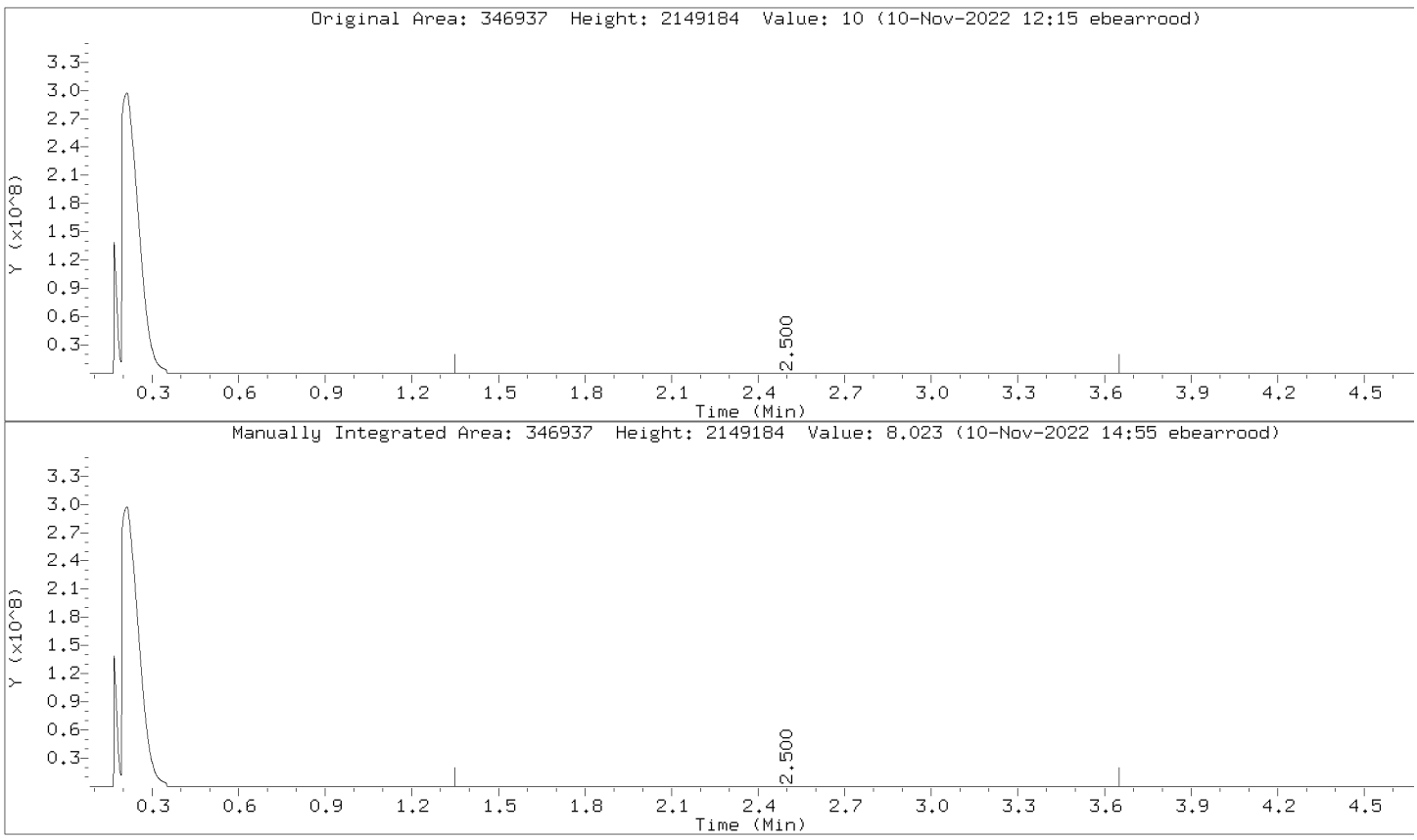
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



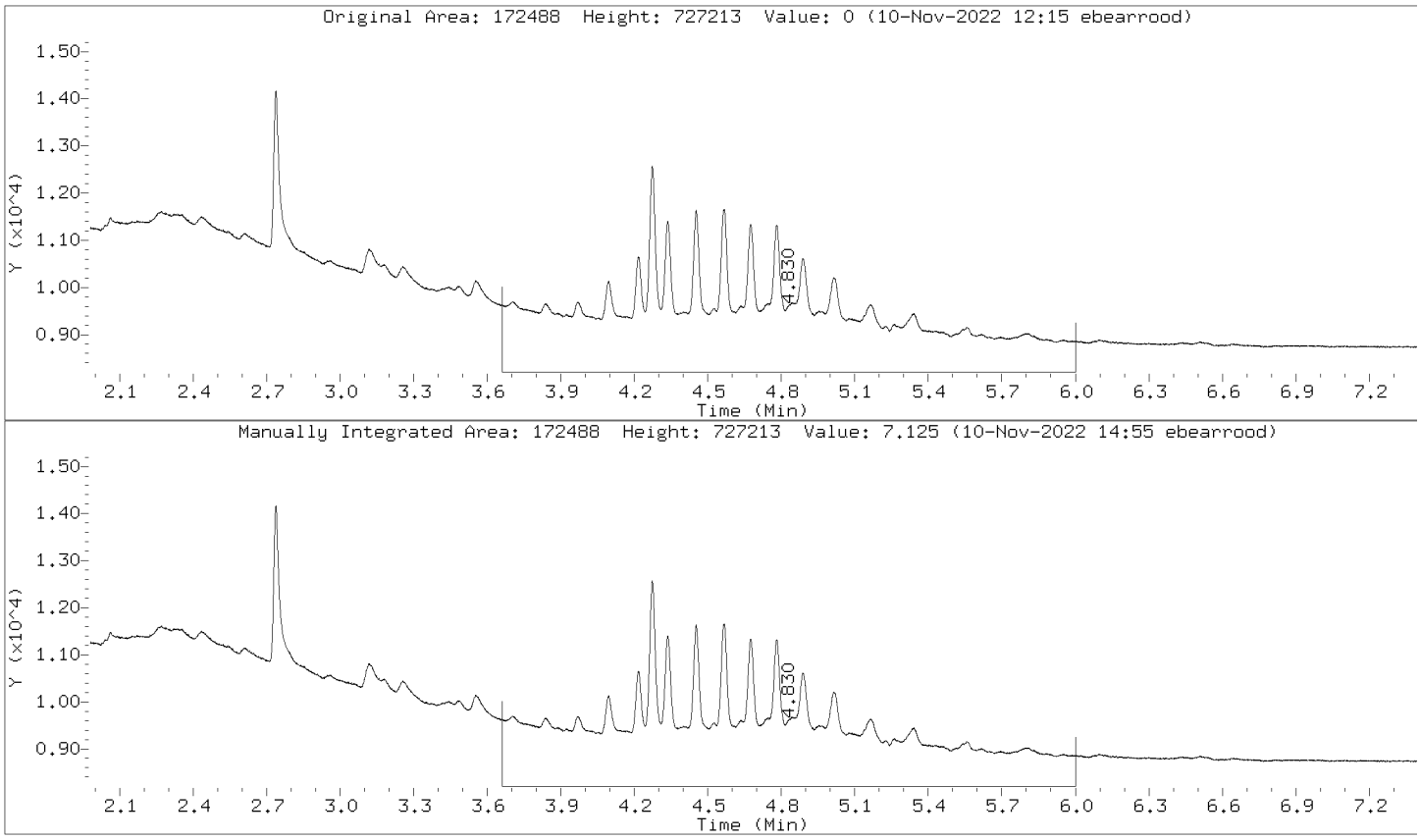
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



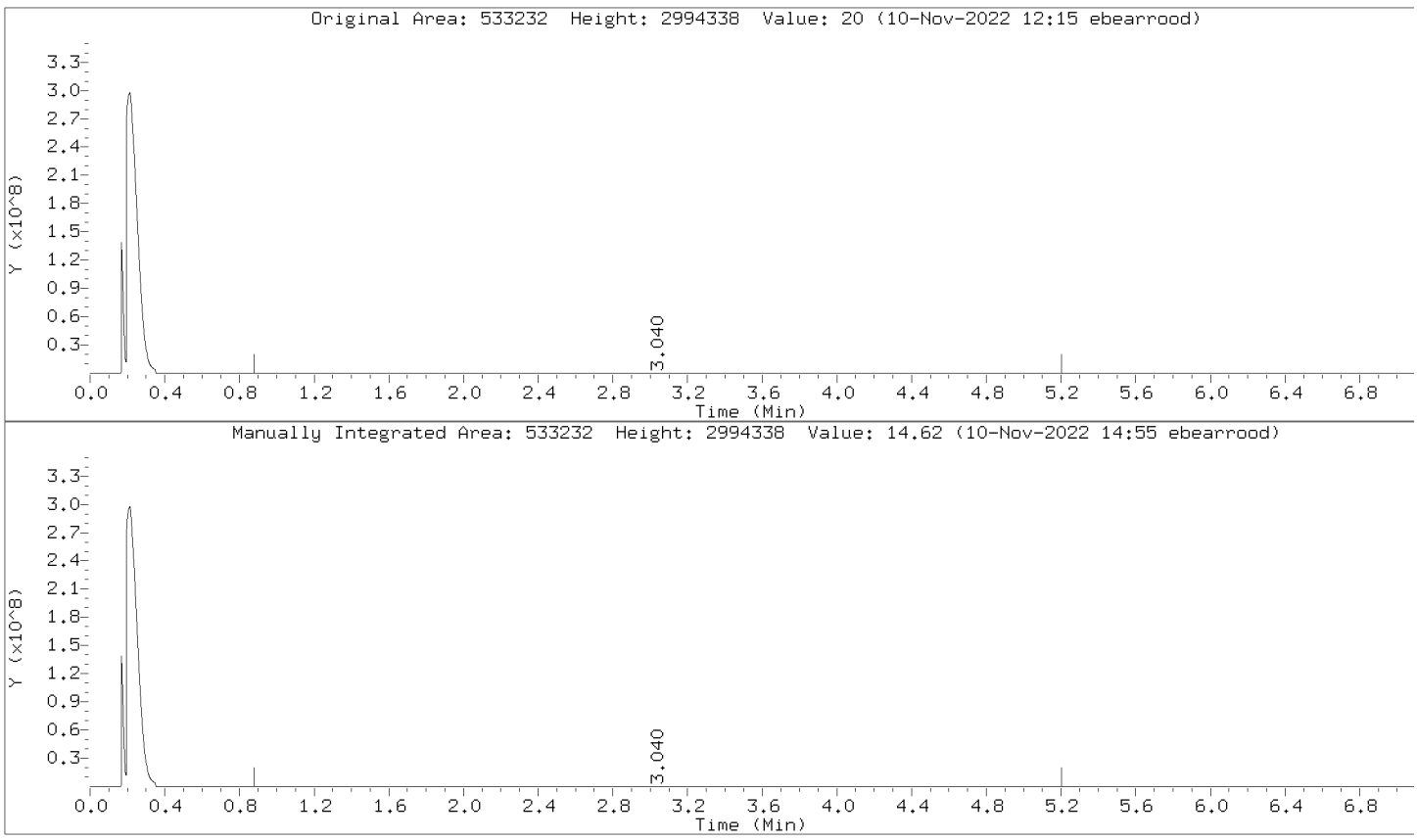
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



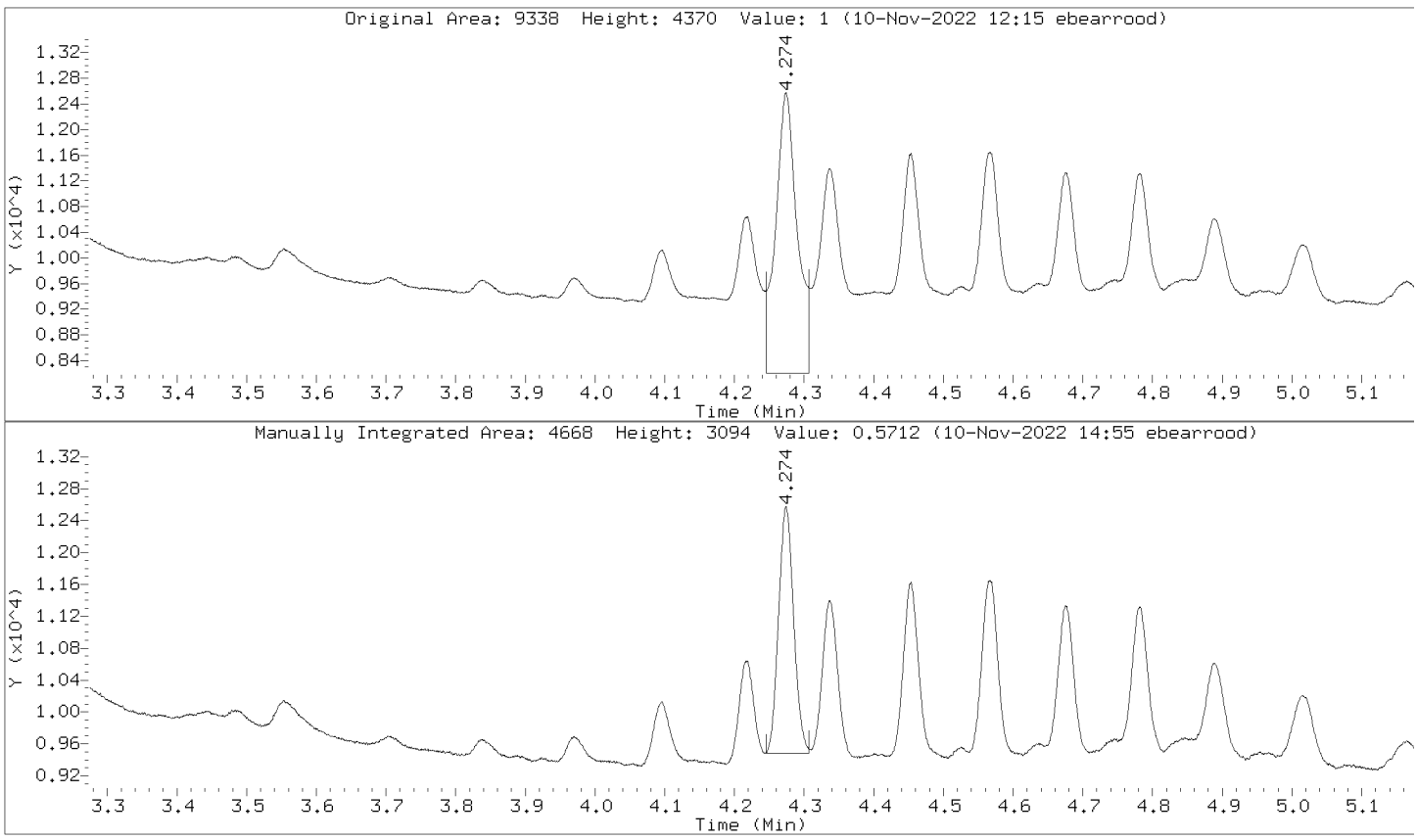
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



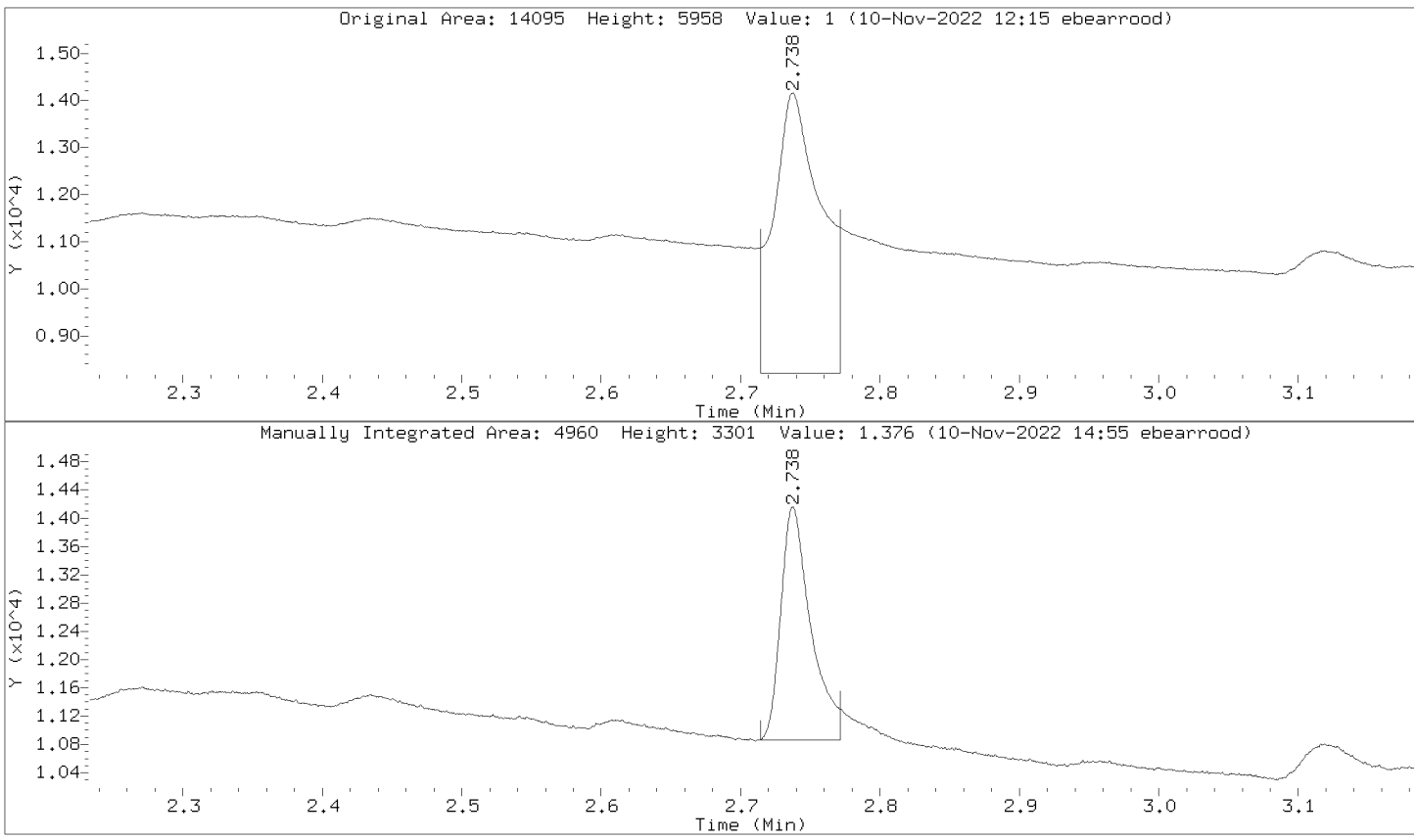
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880 - 3.600			475588	25.0000	22.0	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.733	0.001	14599	2.50000	2.81	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	12458	2.50000	2.06	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610 - 5.200			195791	25.0000	22.4	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880 - 4.219			541580	25.0000	21.5	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.200			213550	25.0000	21.9	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880 - 5.200			672394	50.0000	44.6	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG

QC Flag Legend

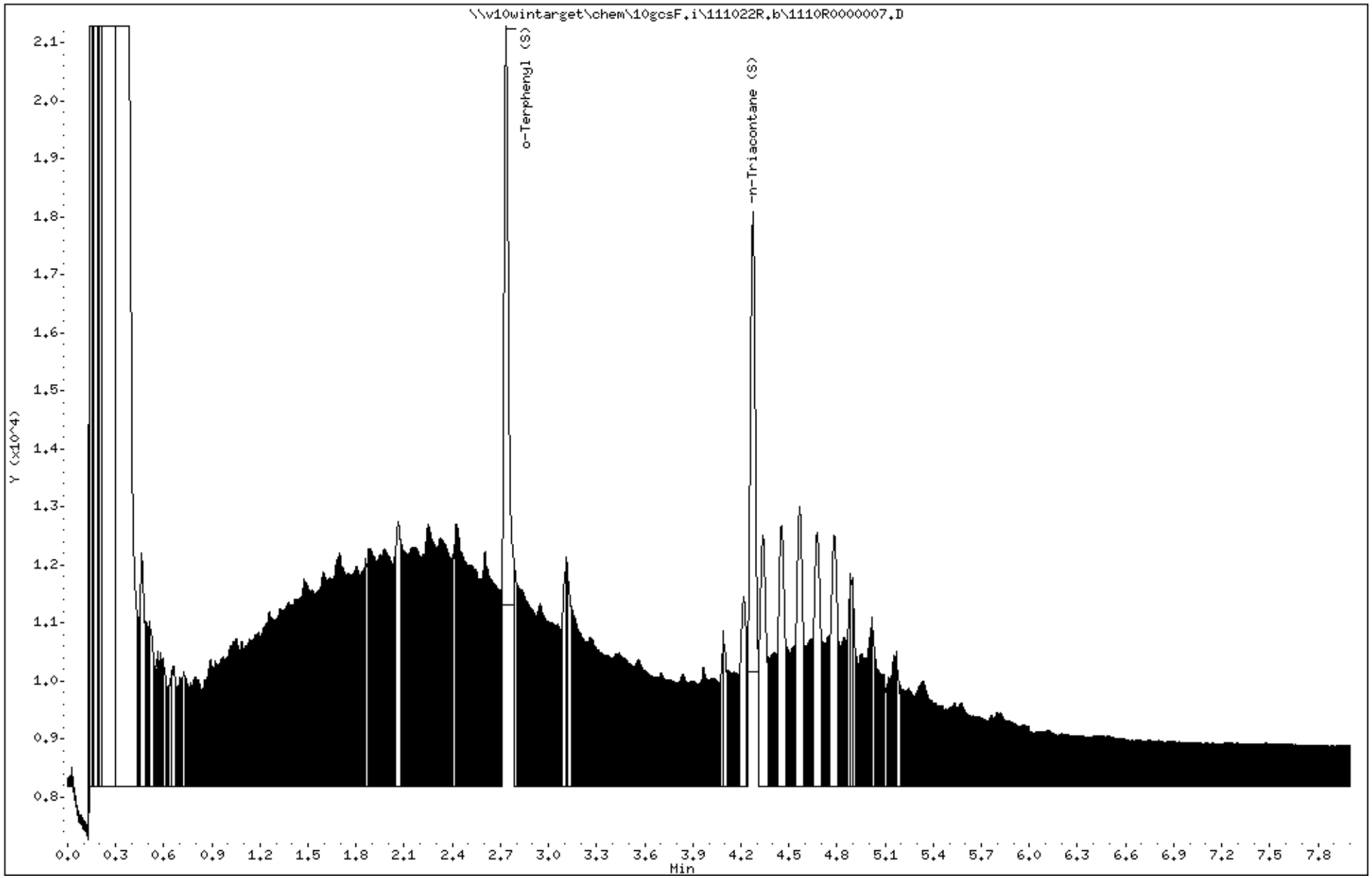
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



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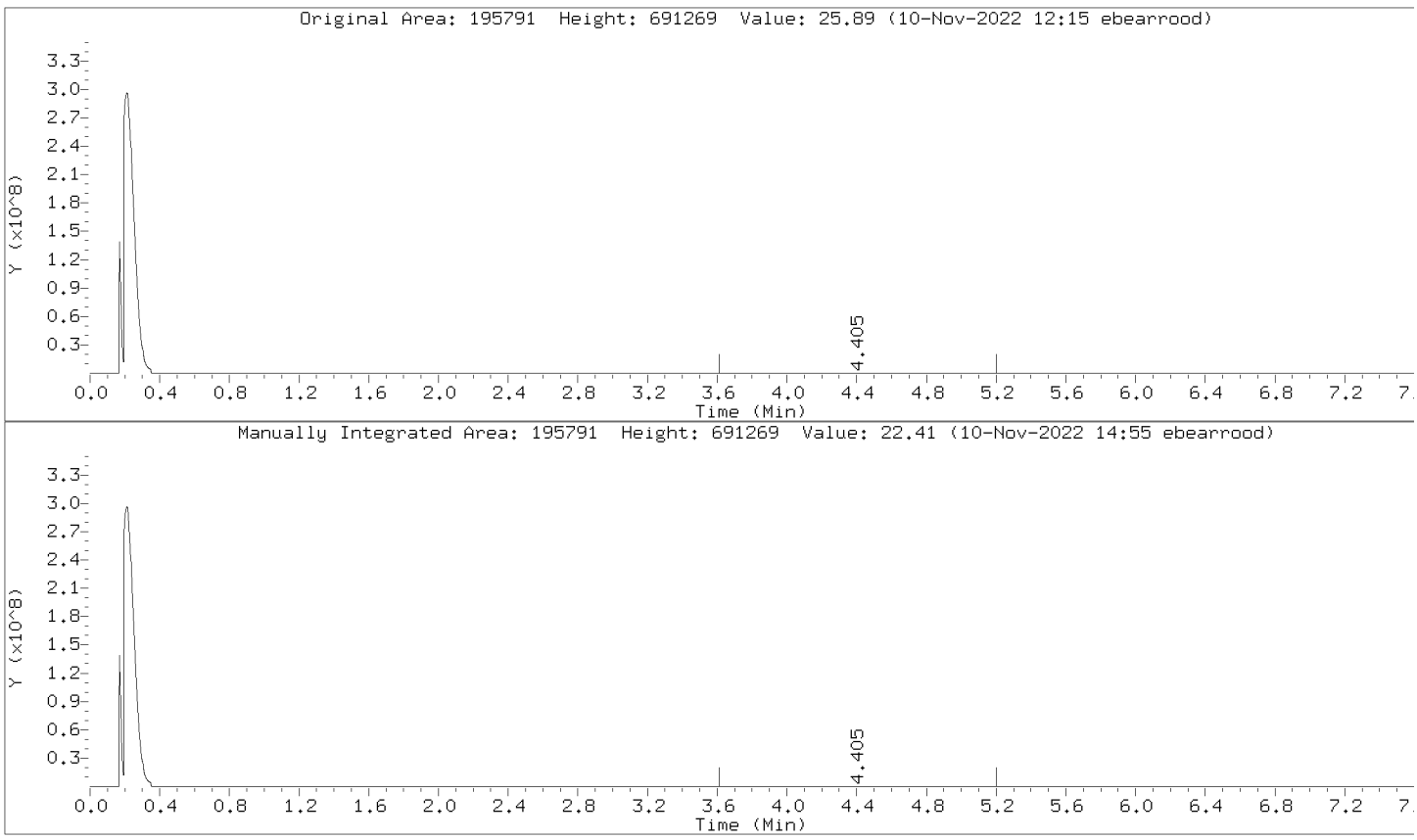
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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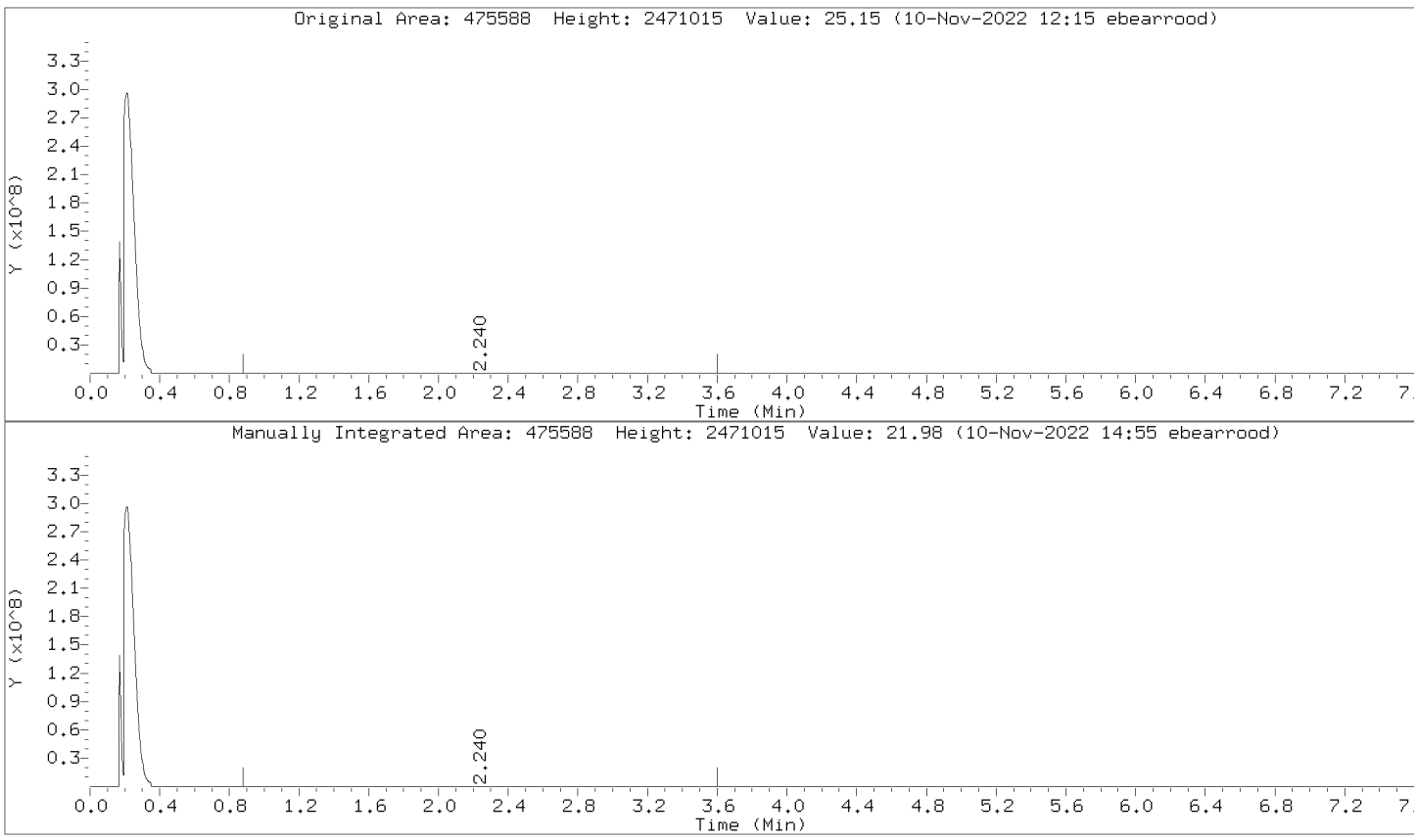
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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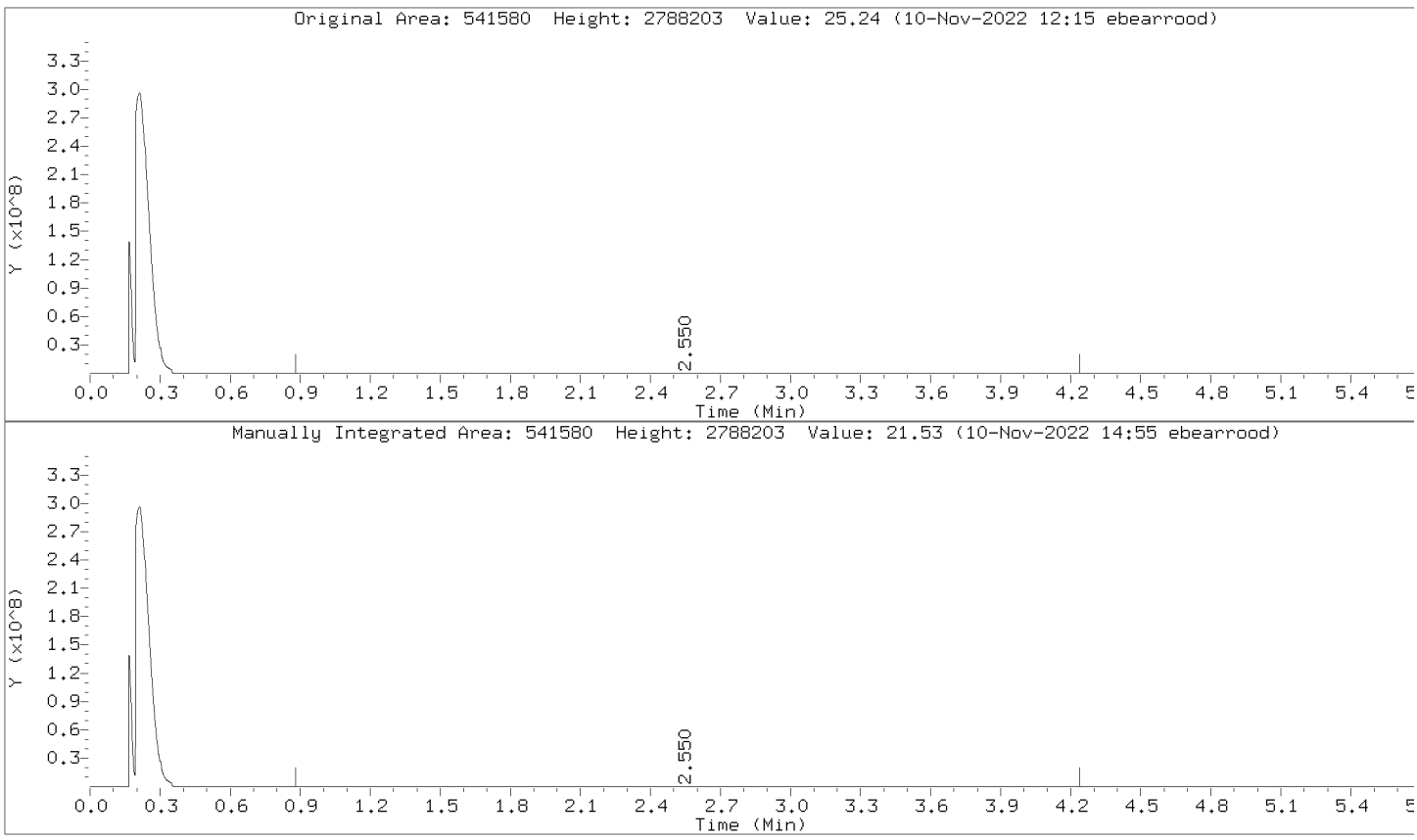
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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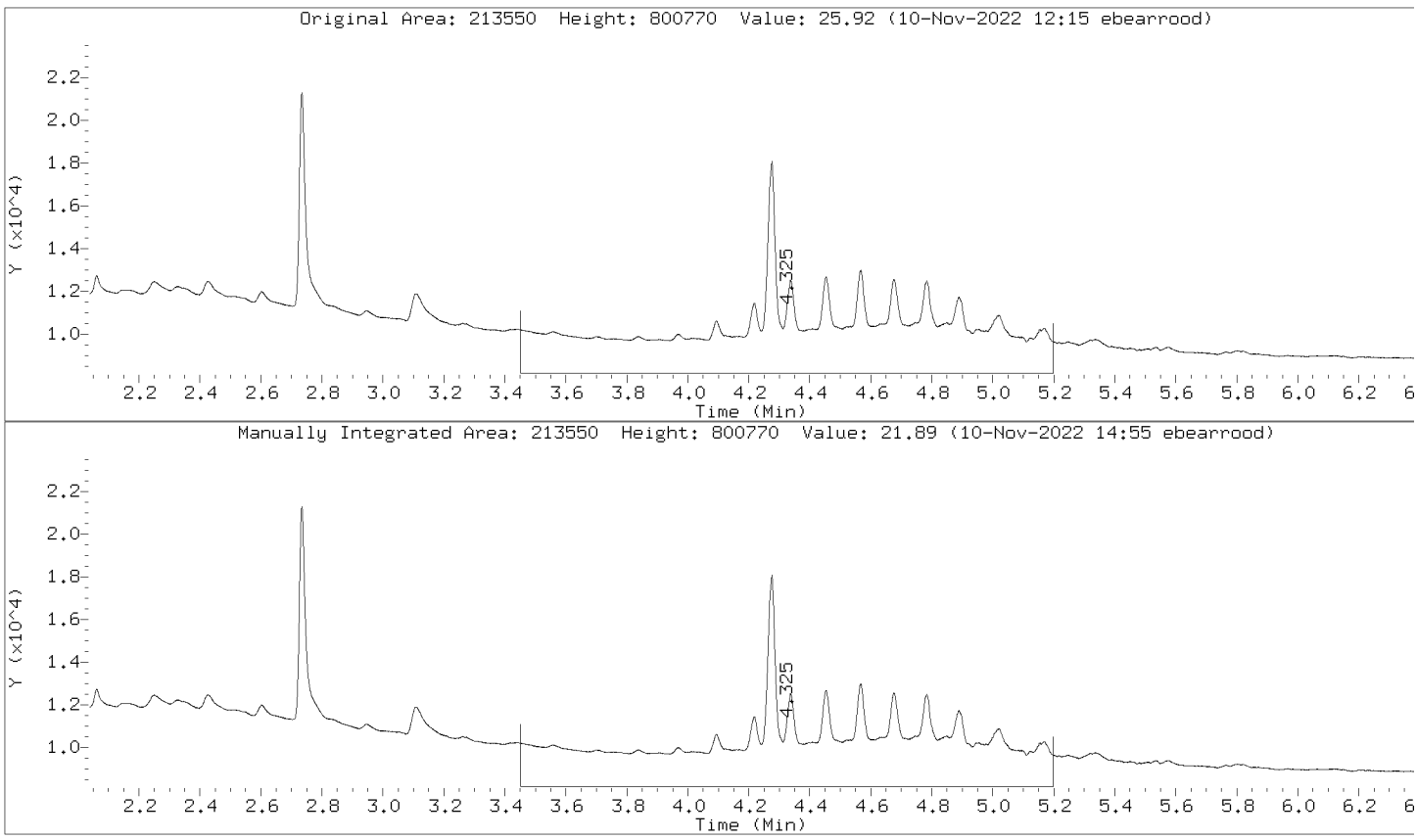
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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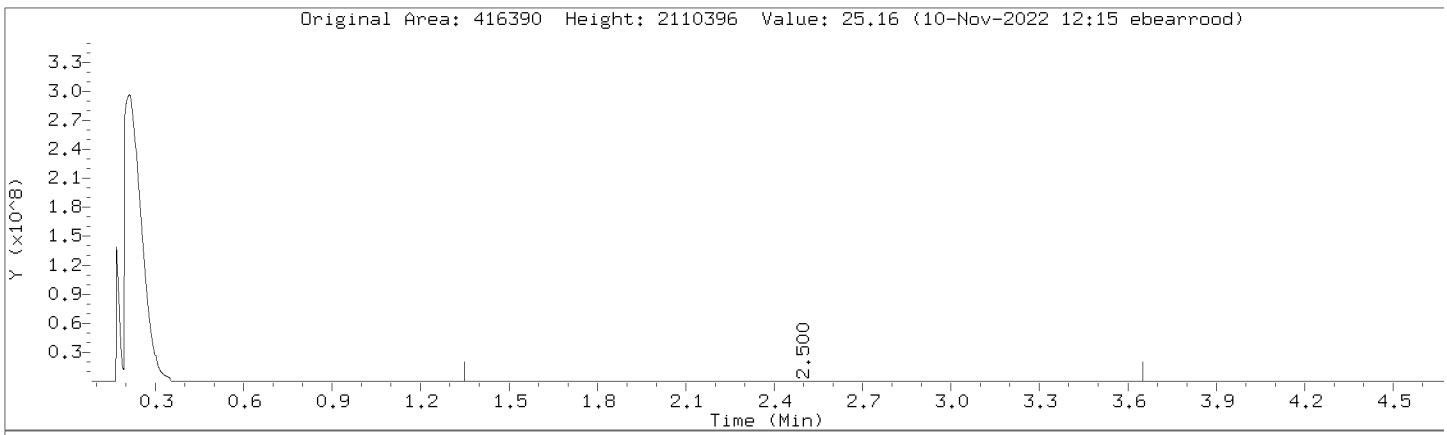
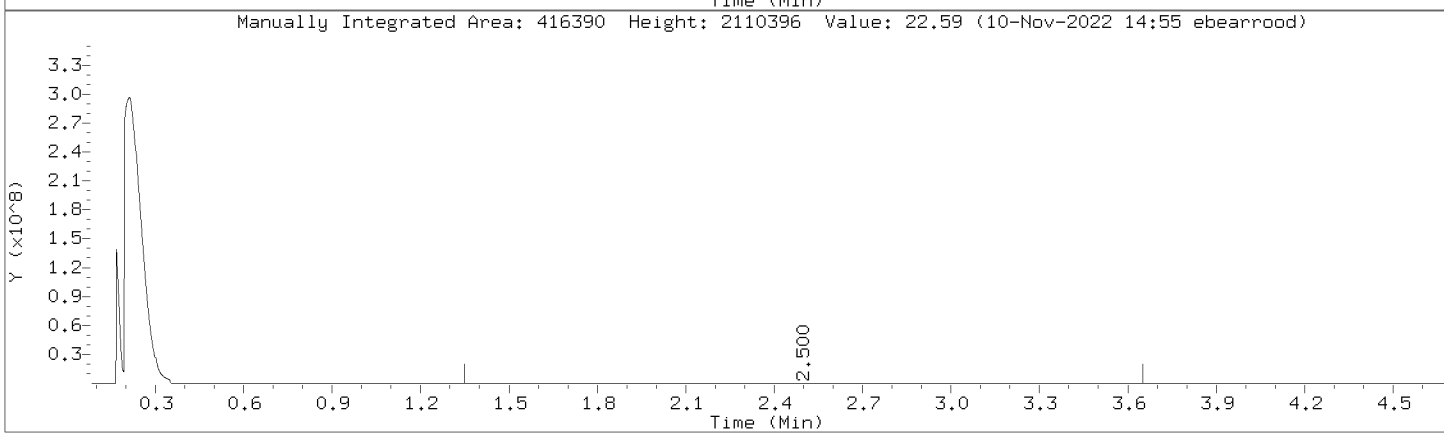
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





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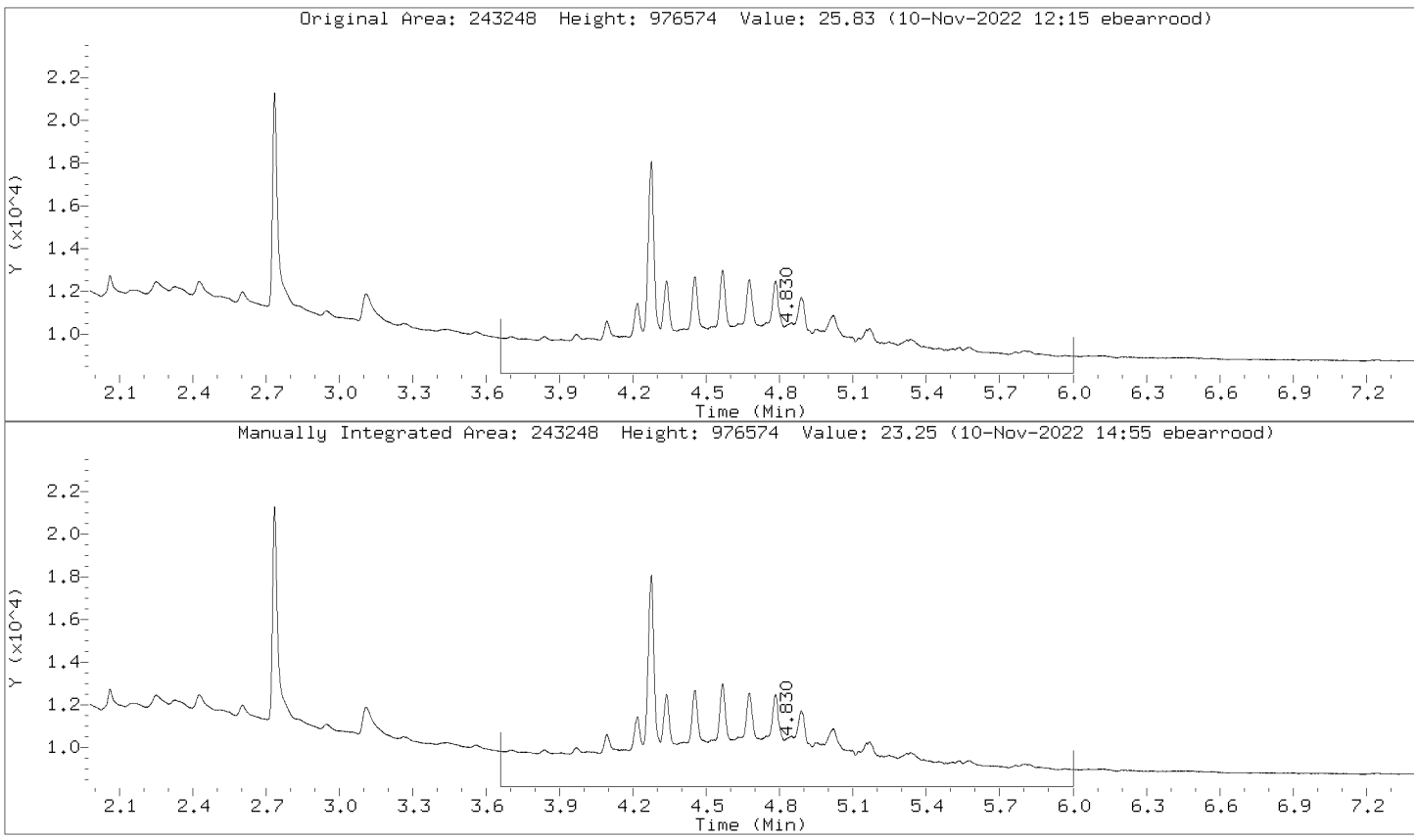
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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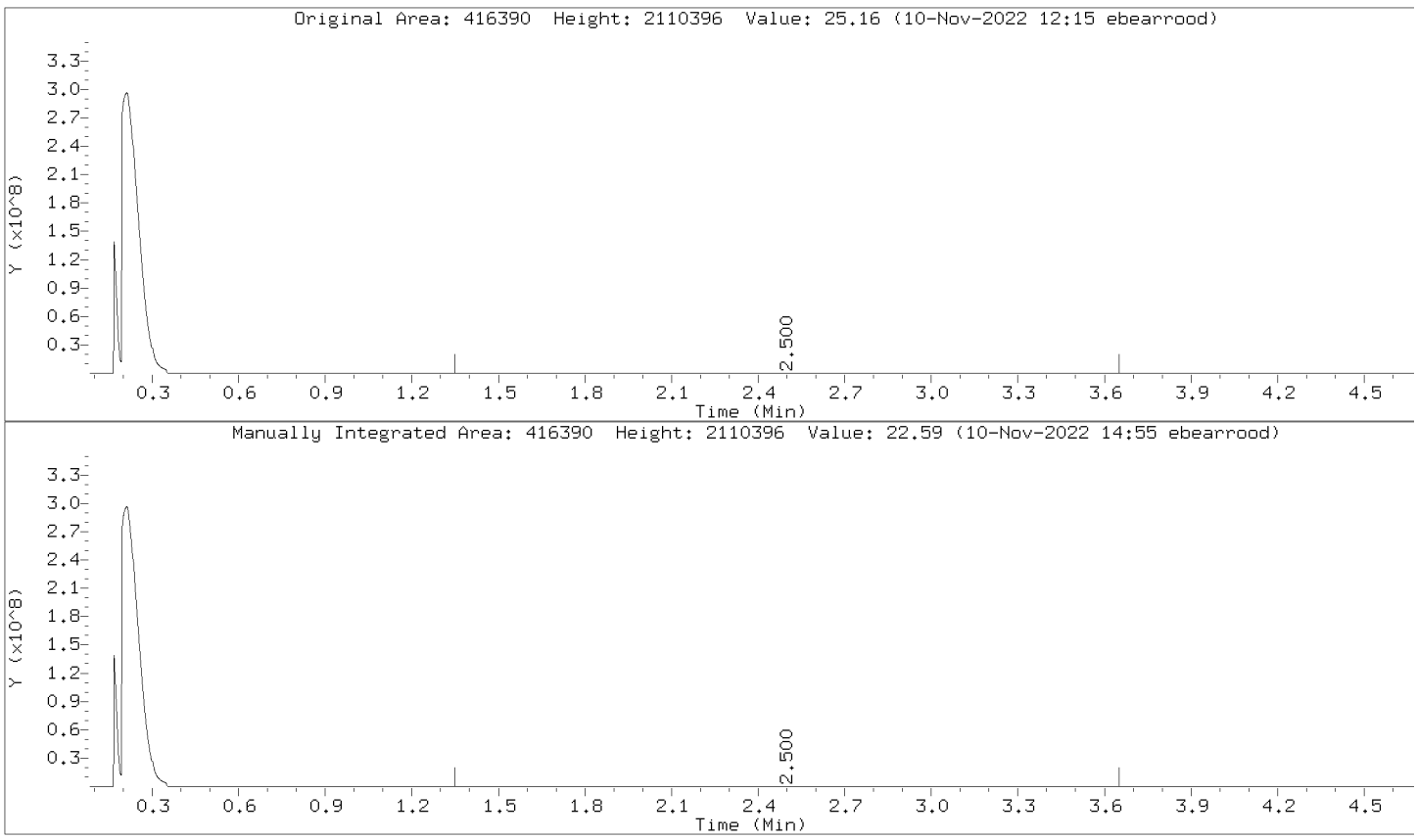
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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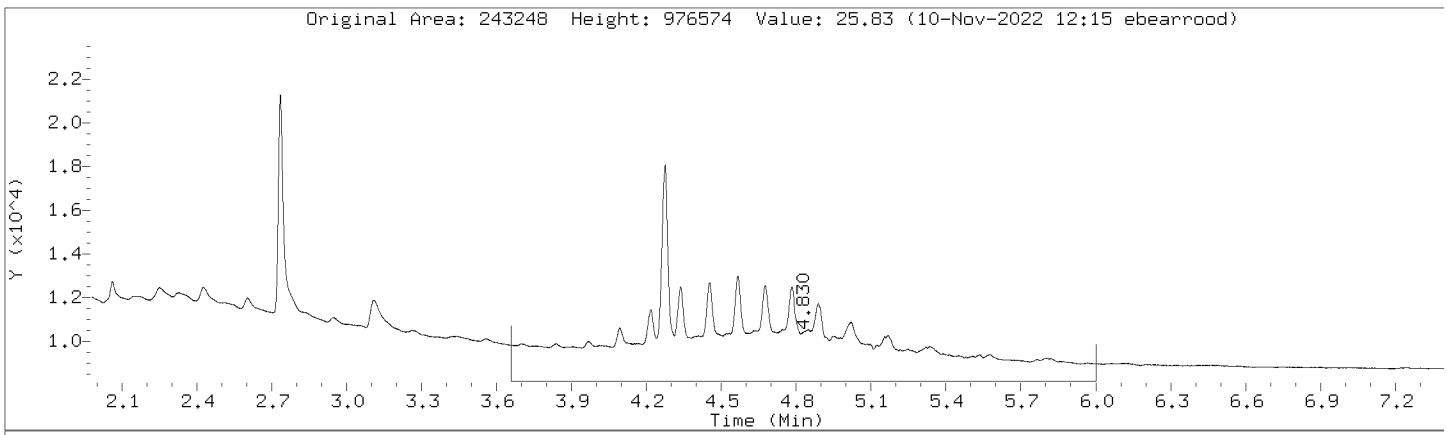
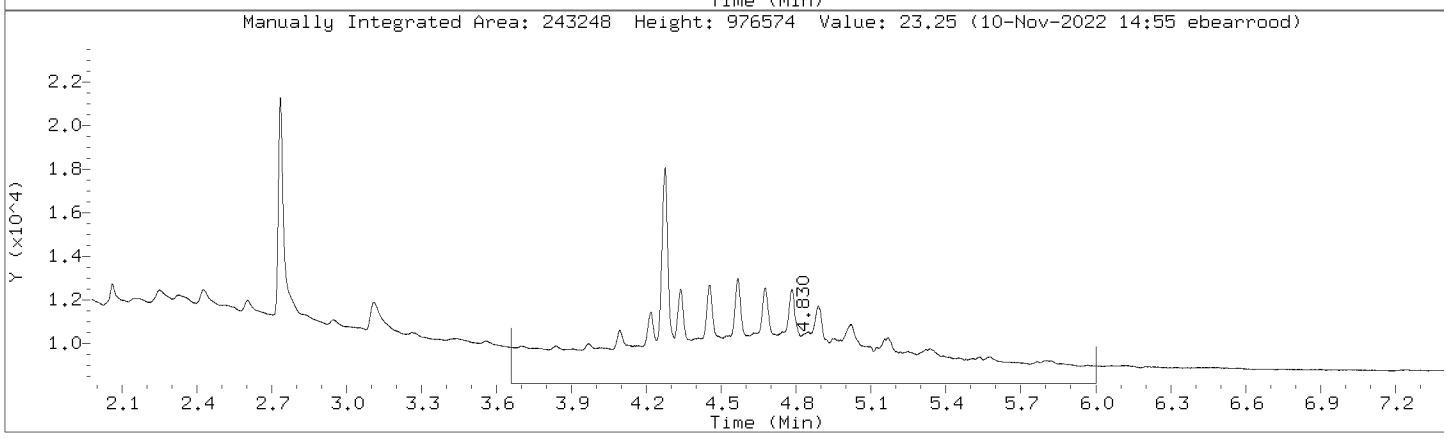
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





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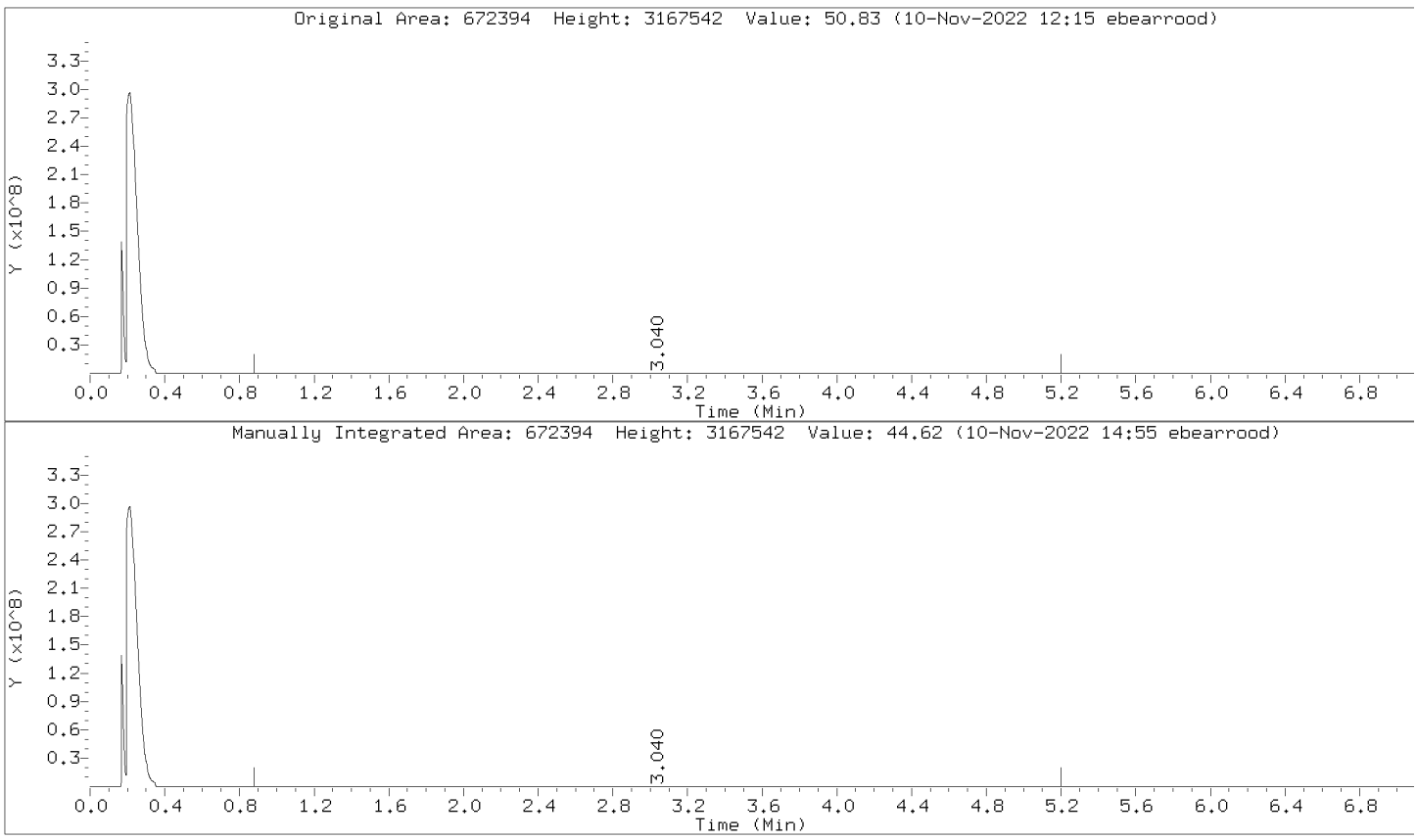
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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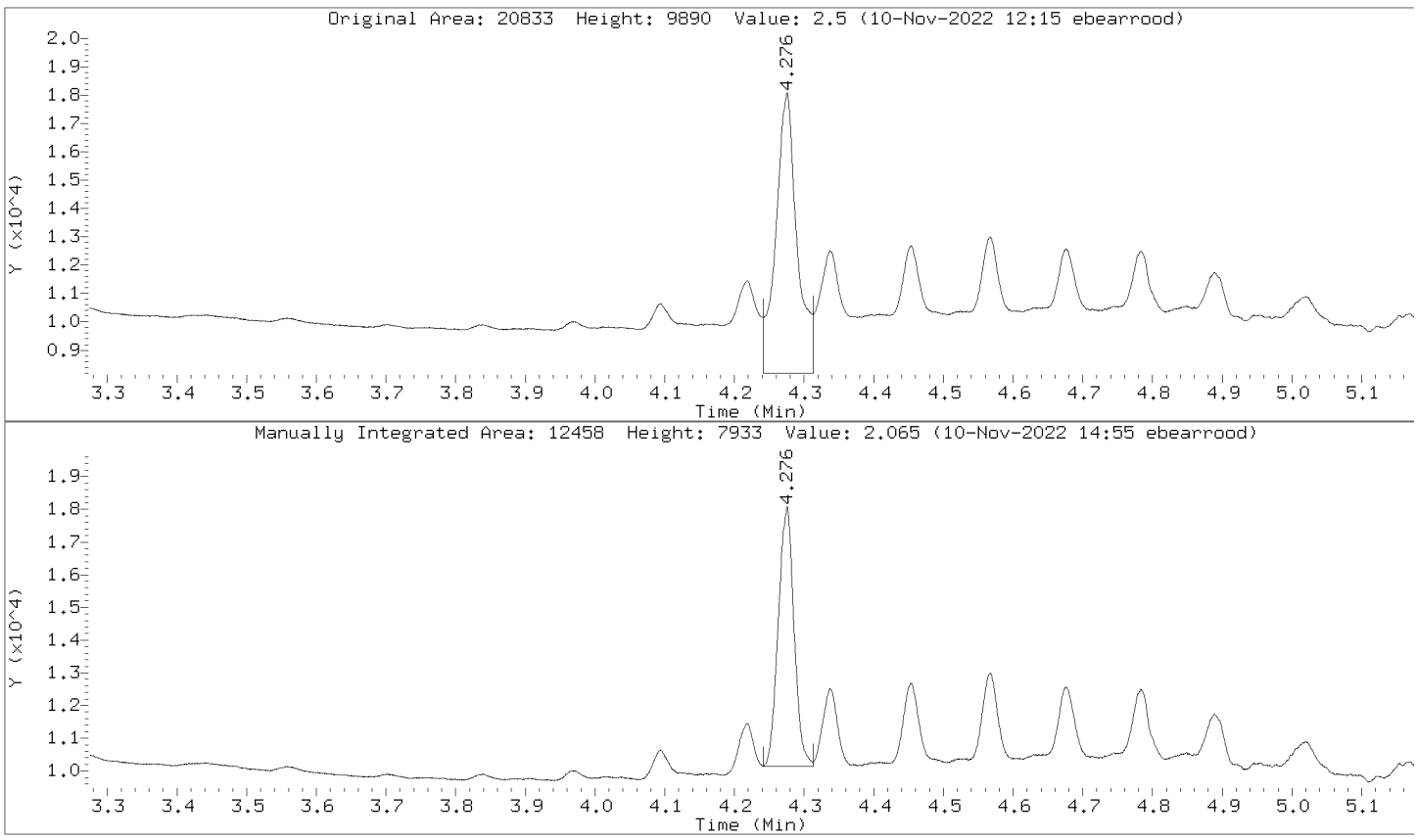
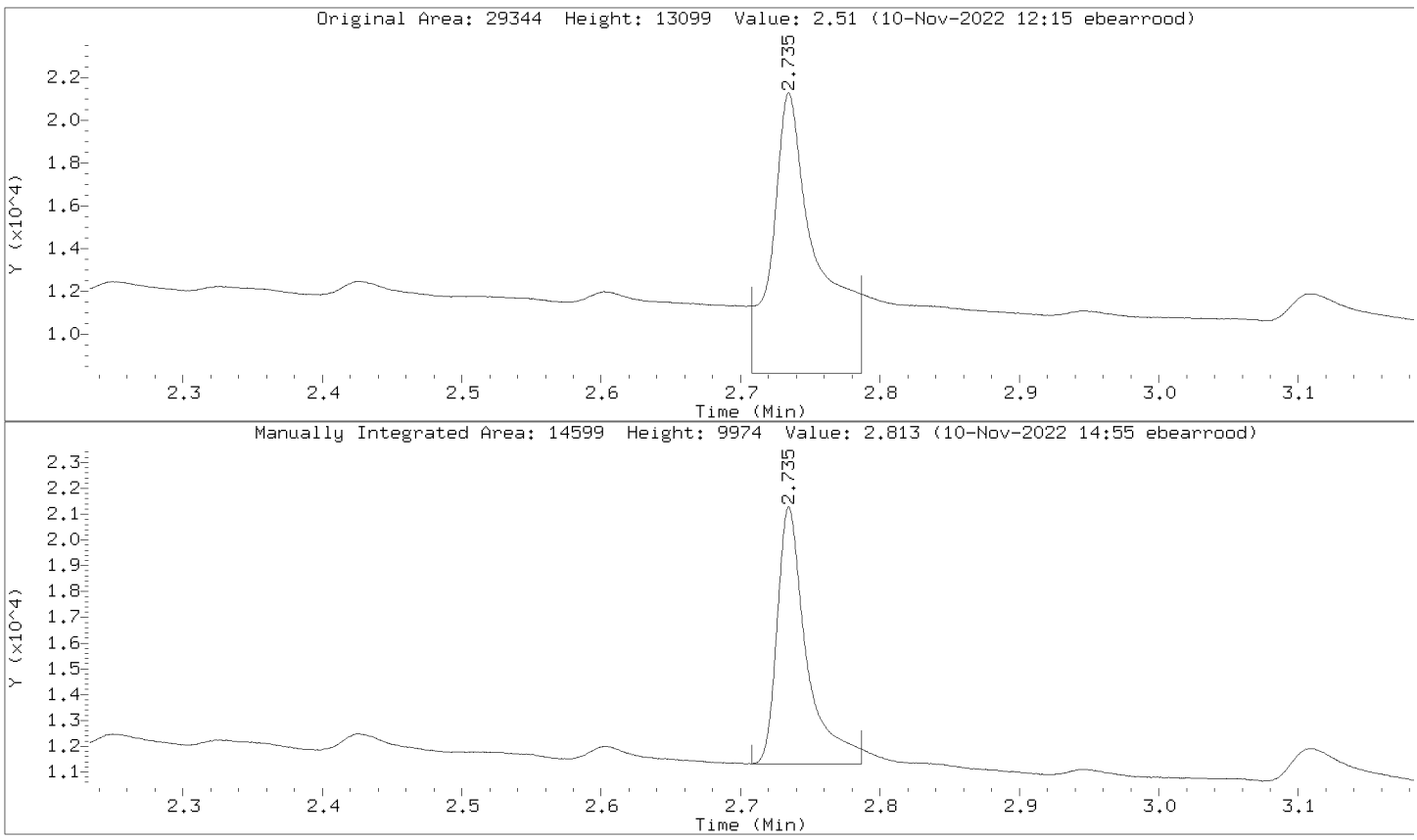
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

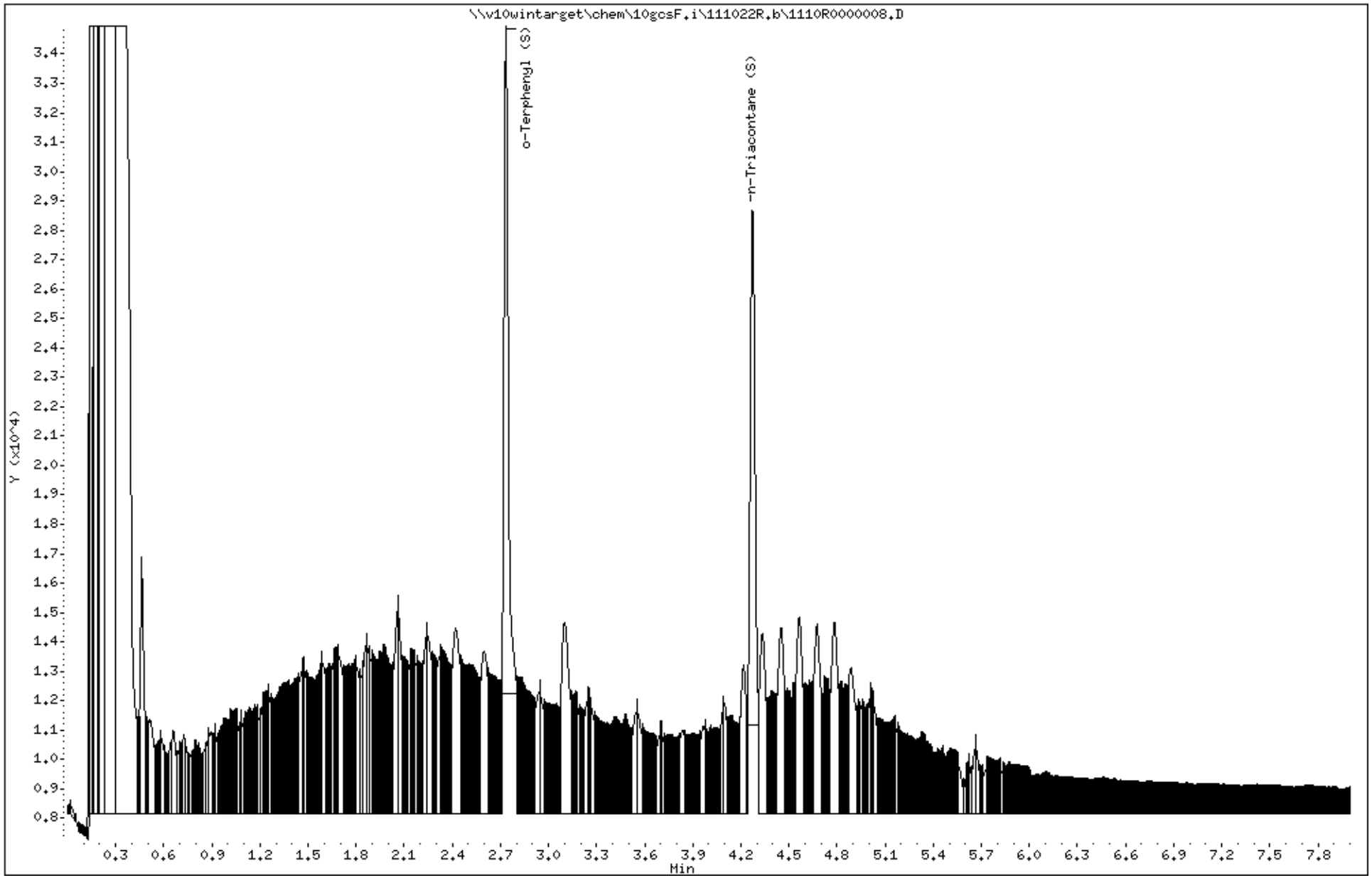
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

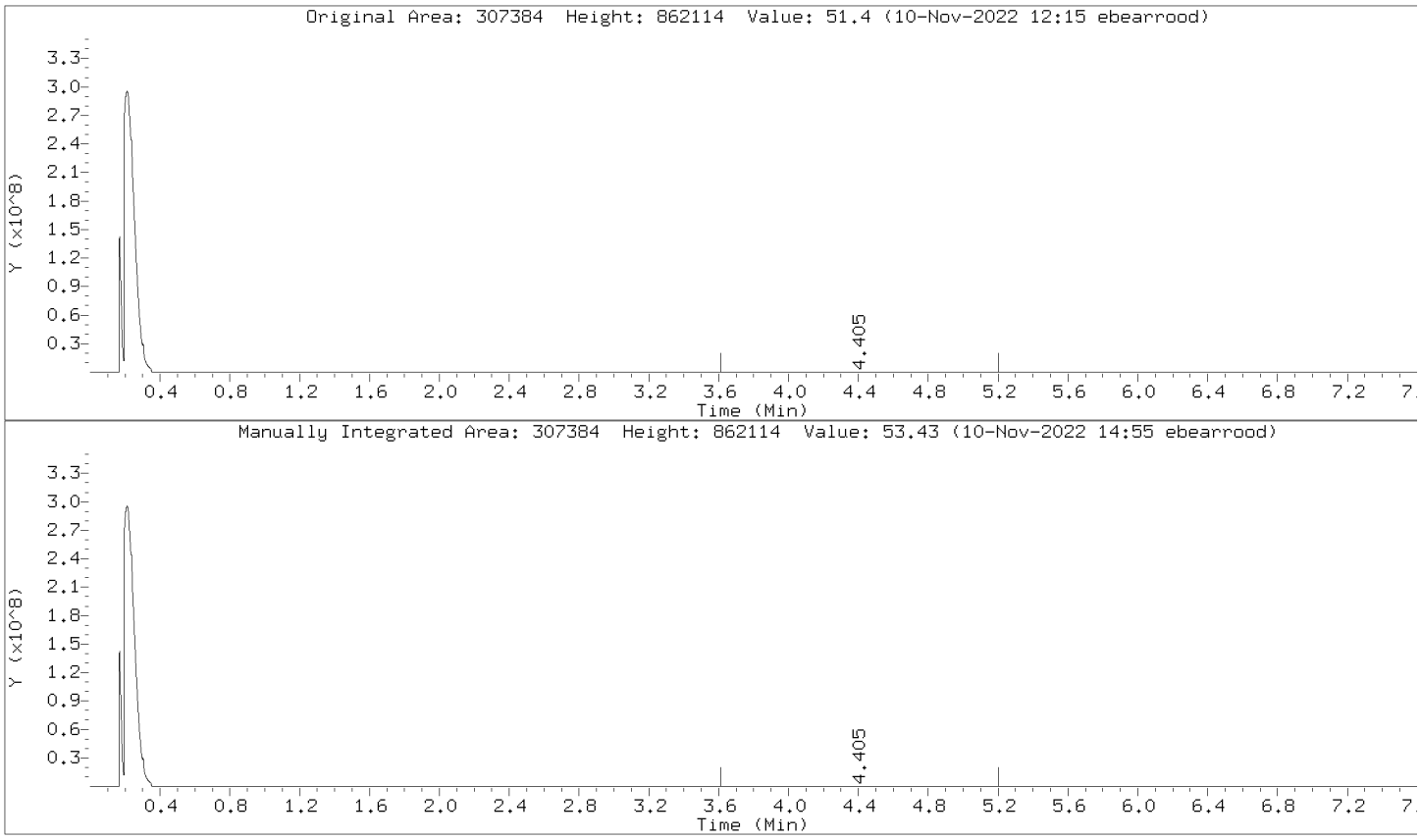
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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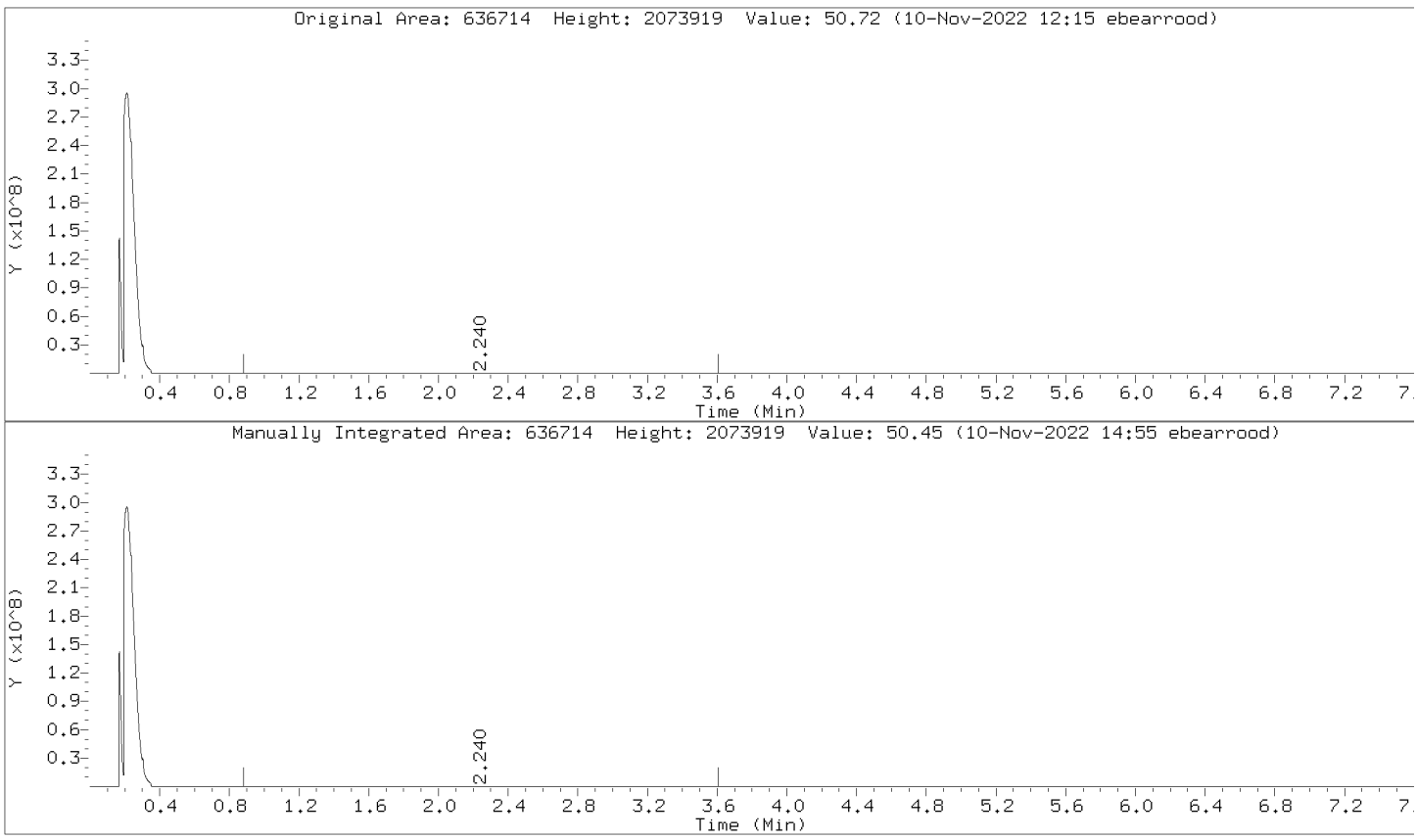
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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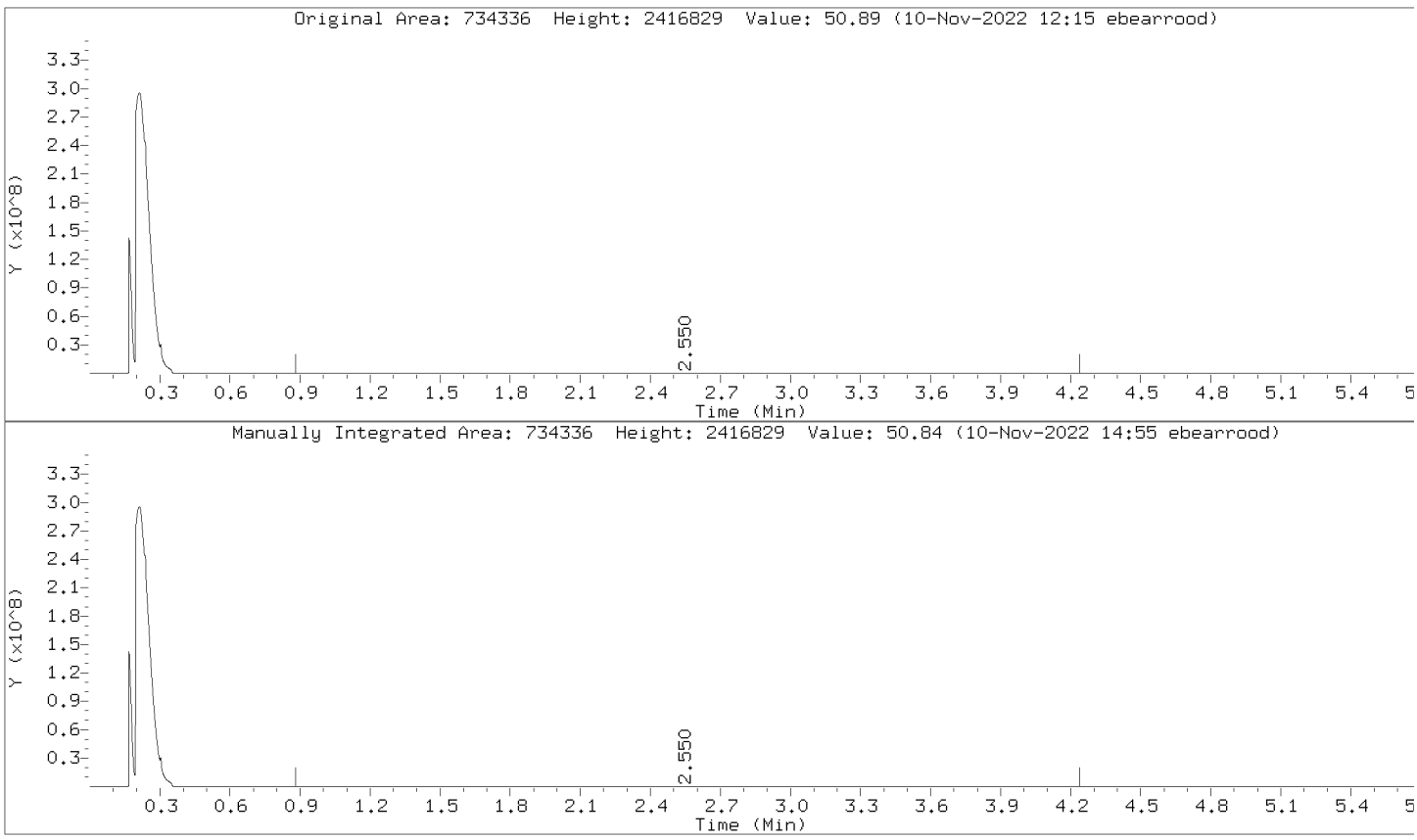
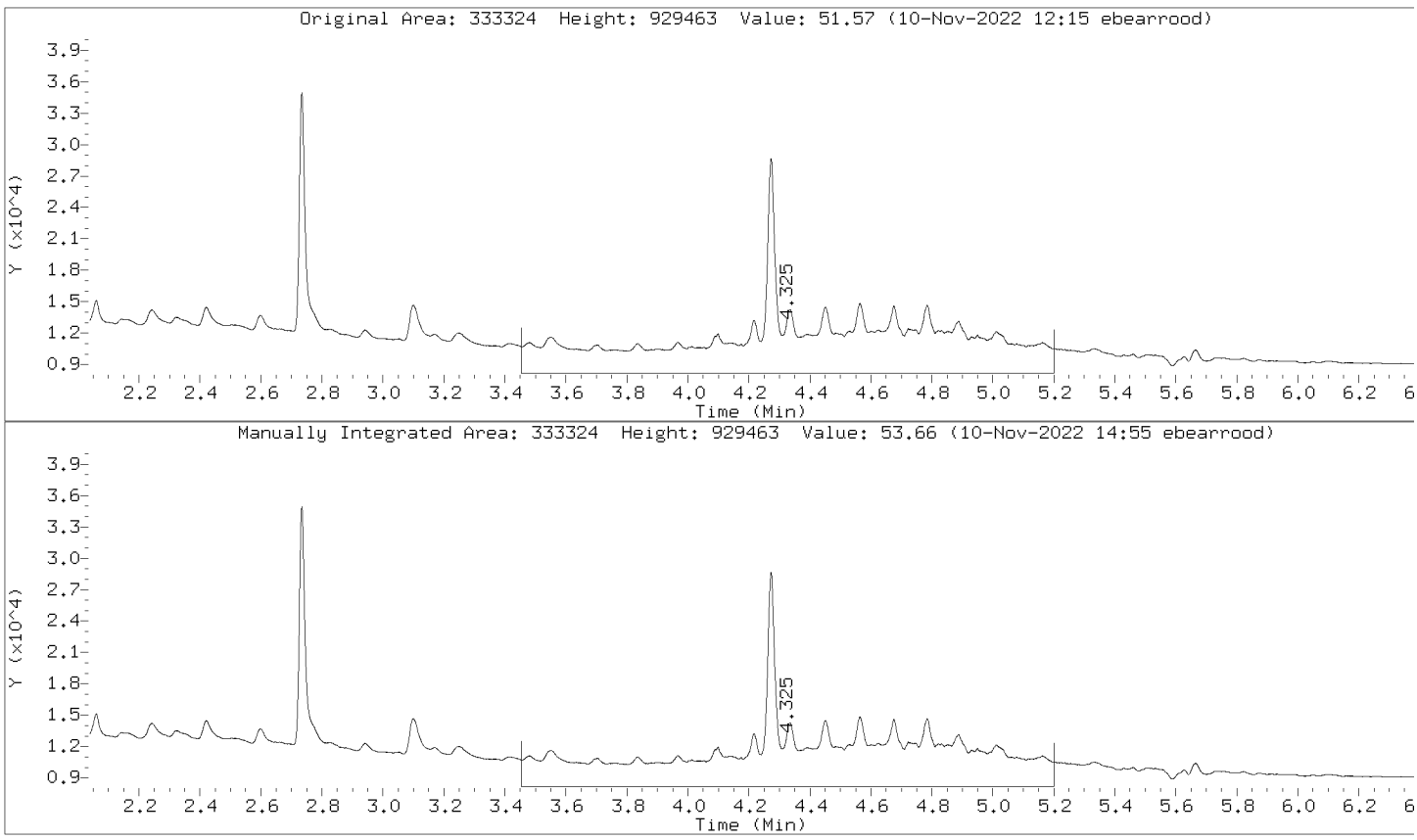
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



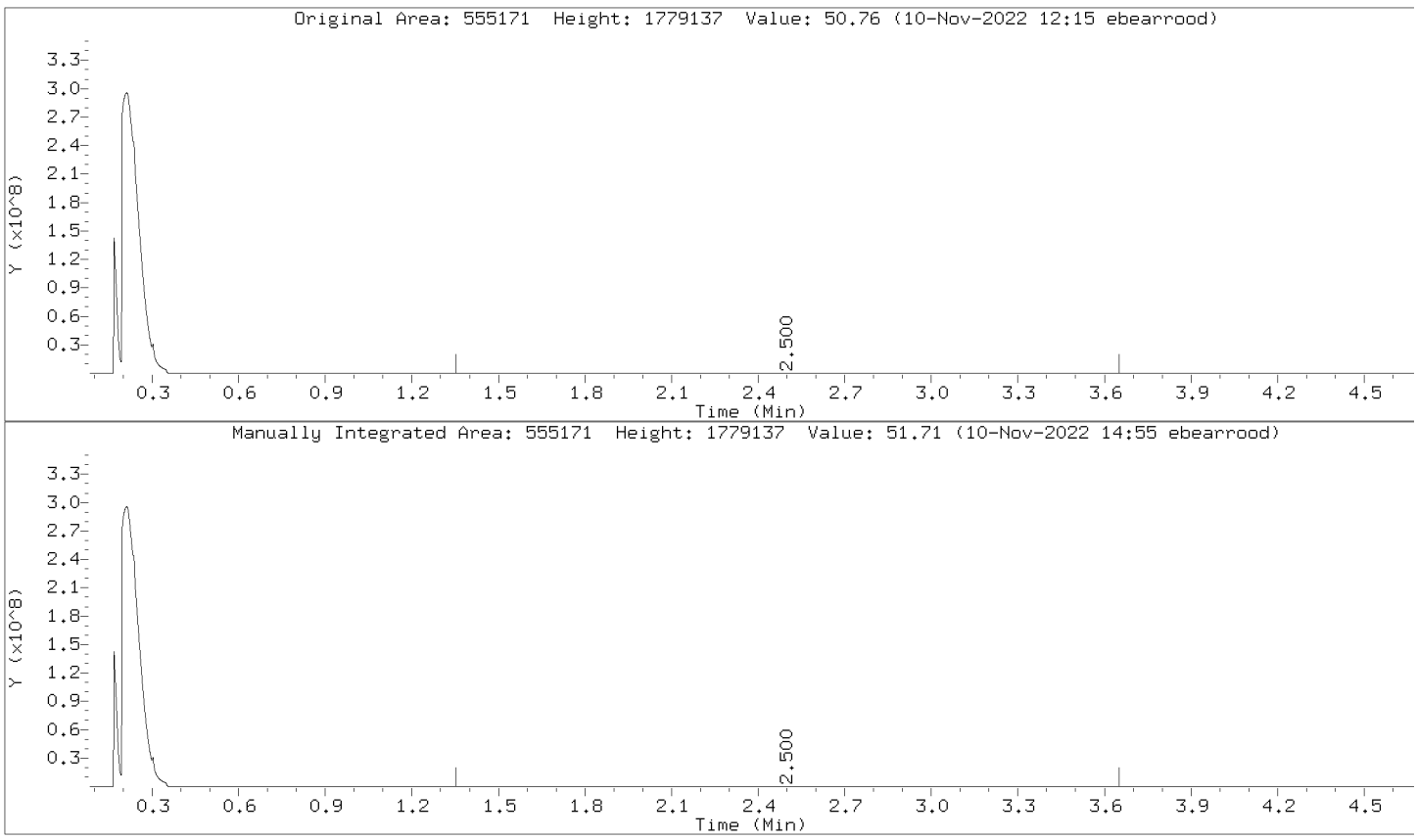
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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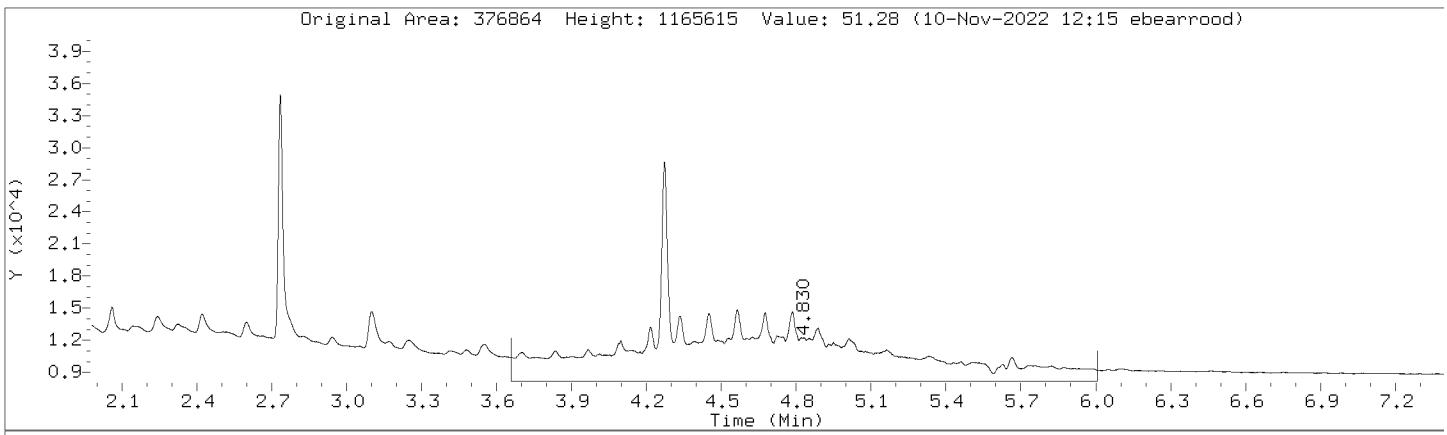
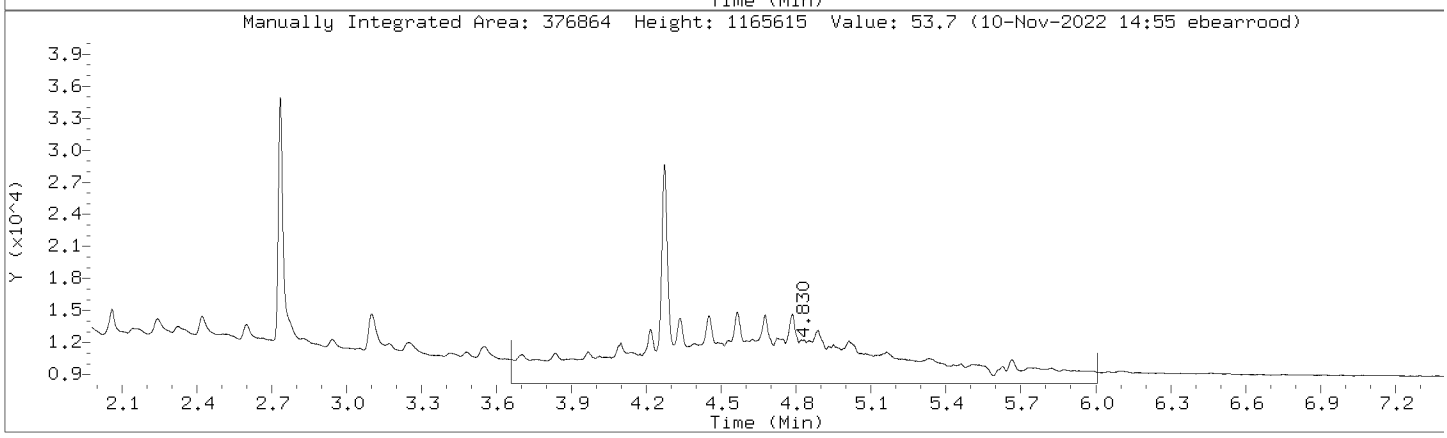
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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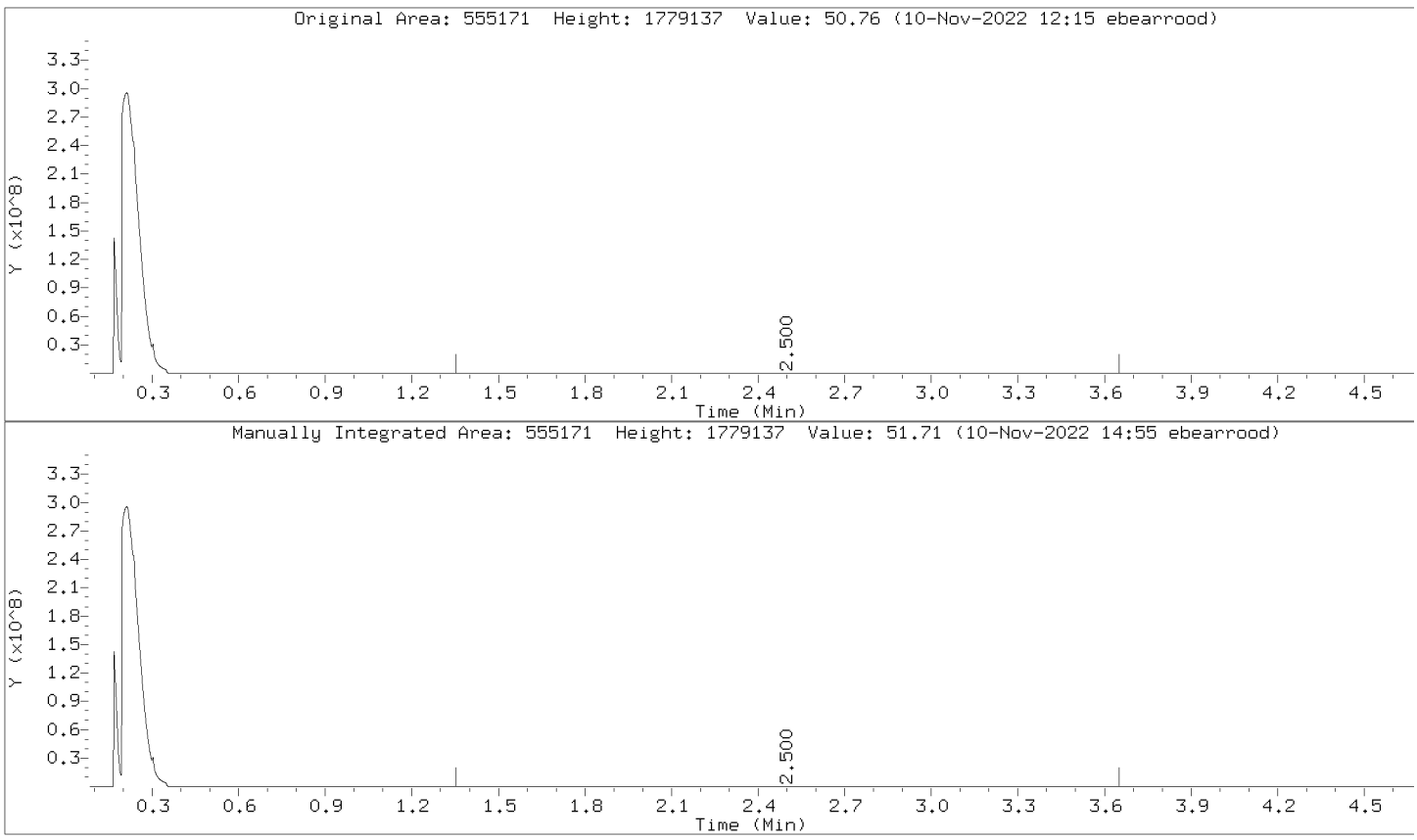
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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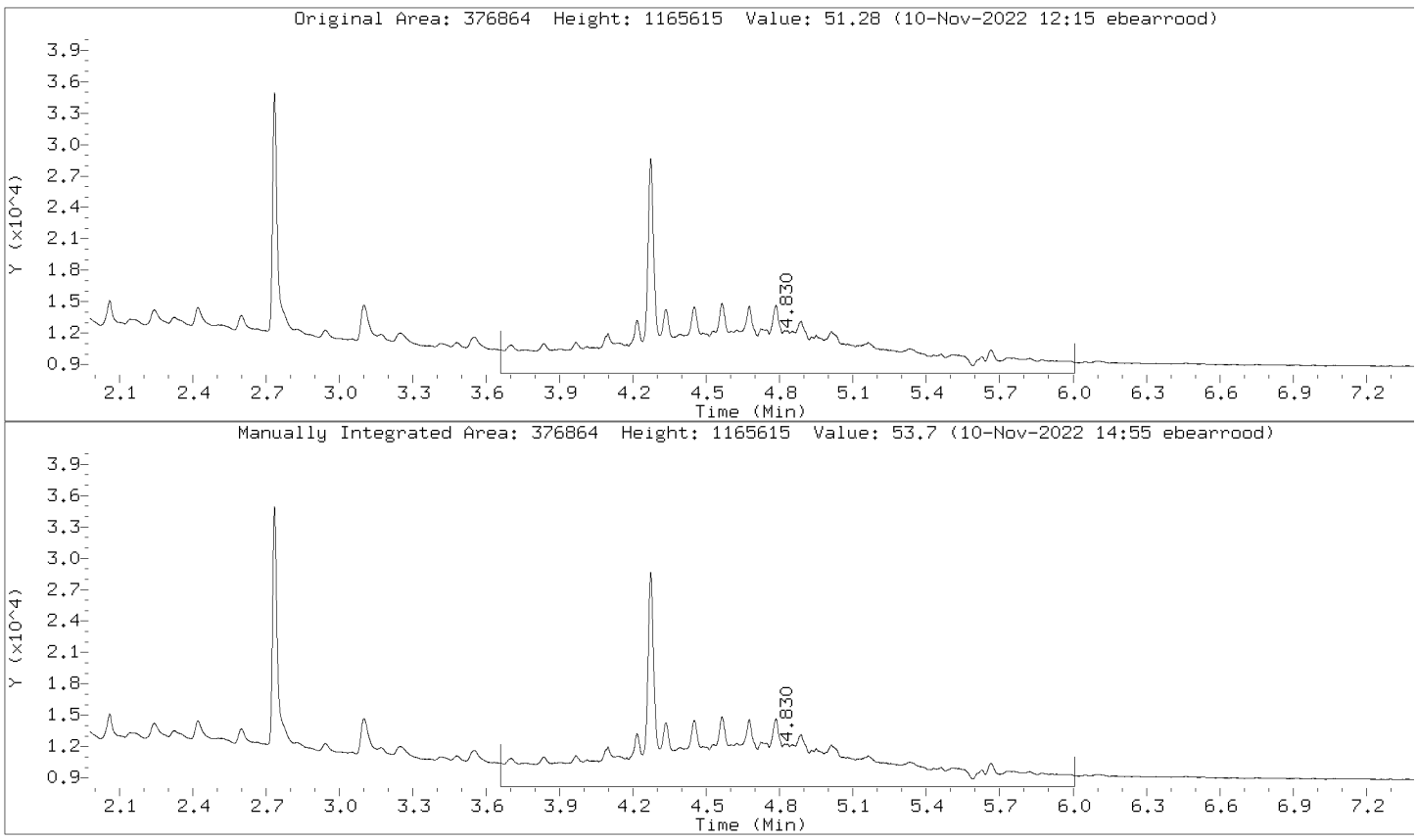
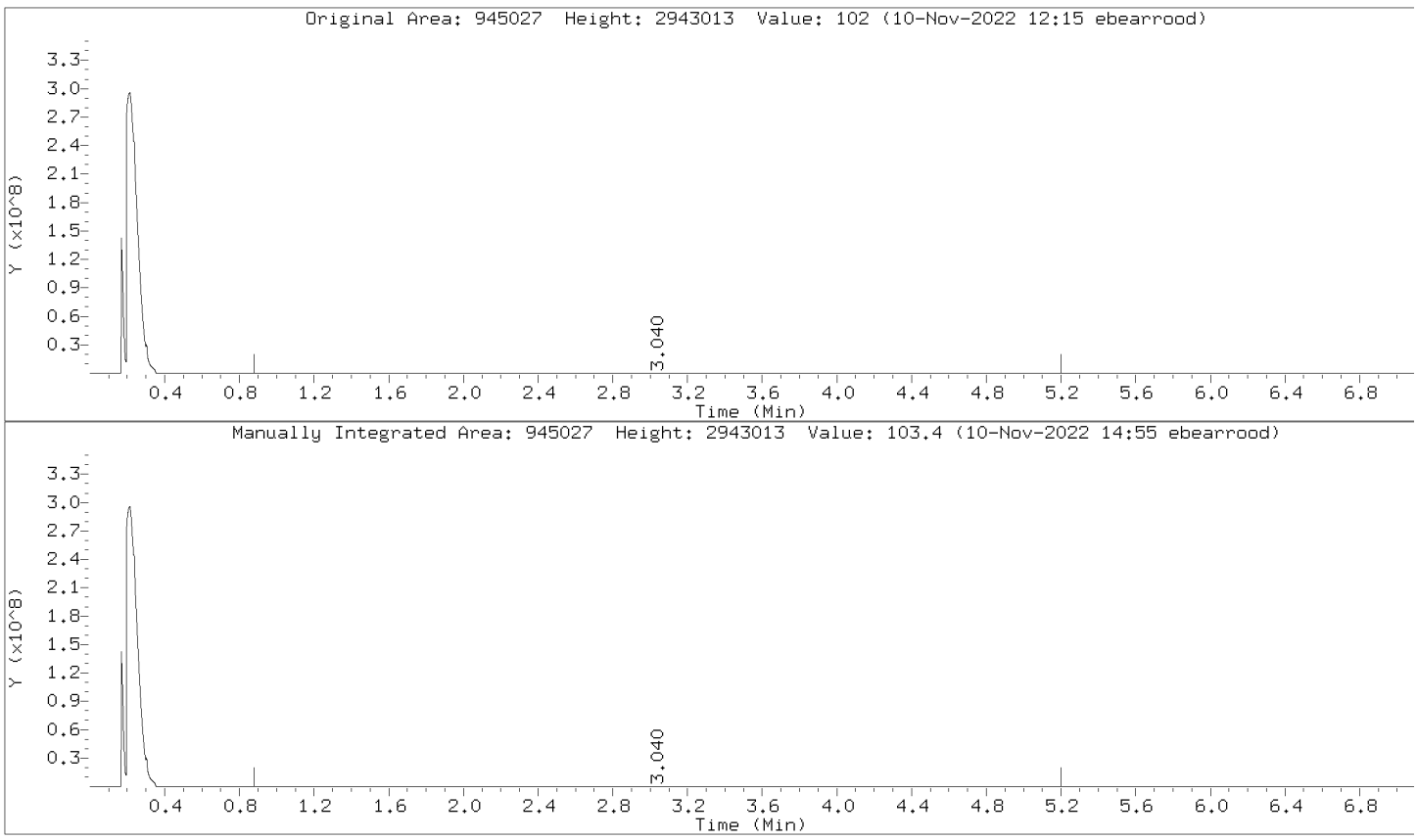
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



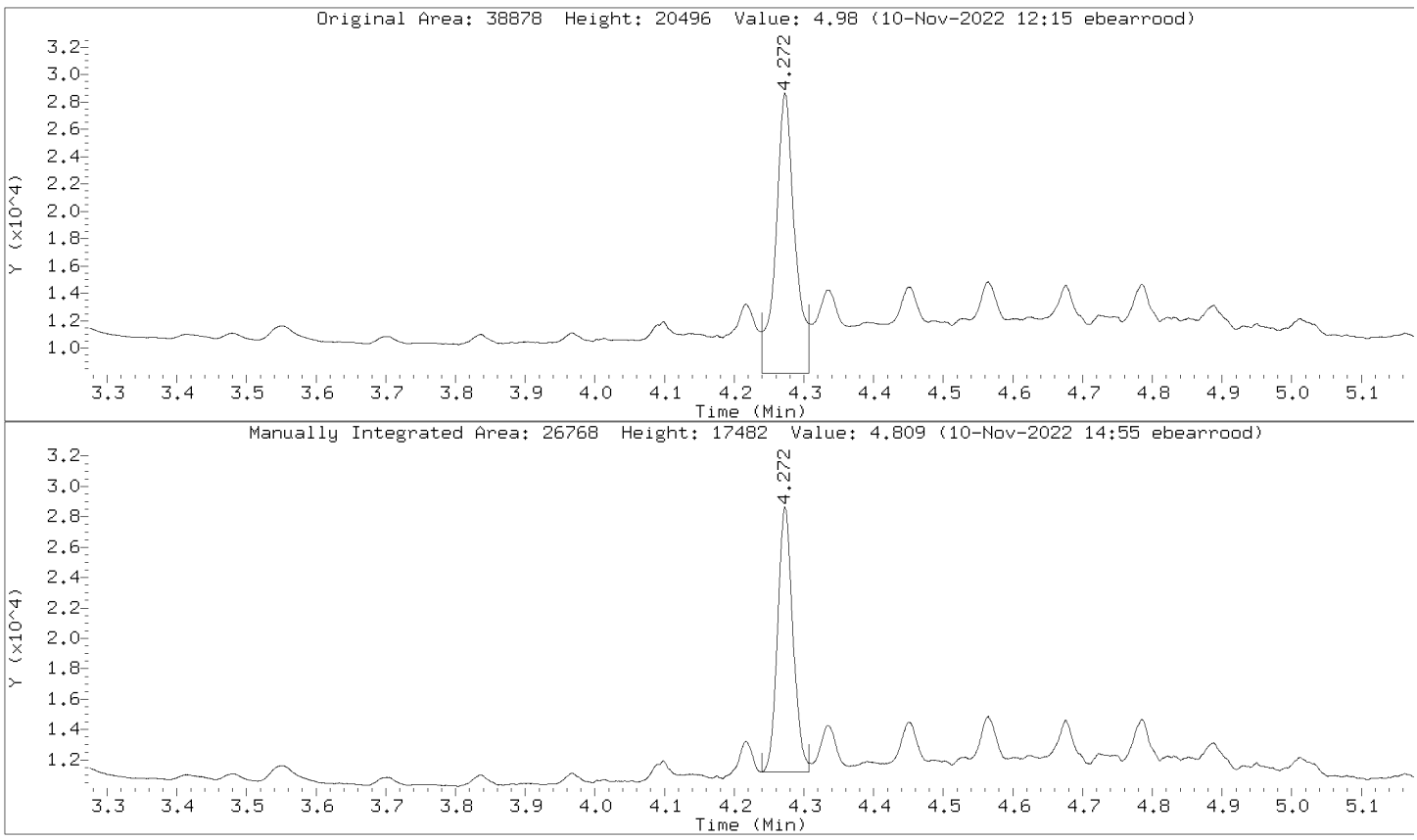
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



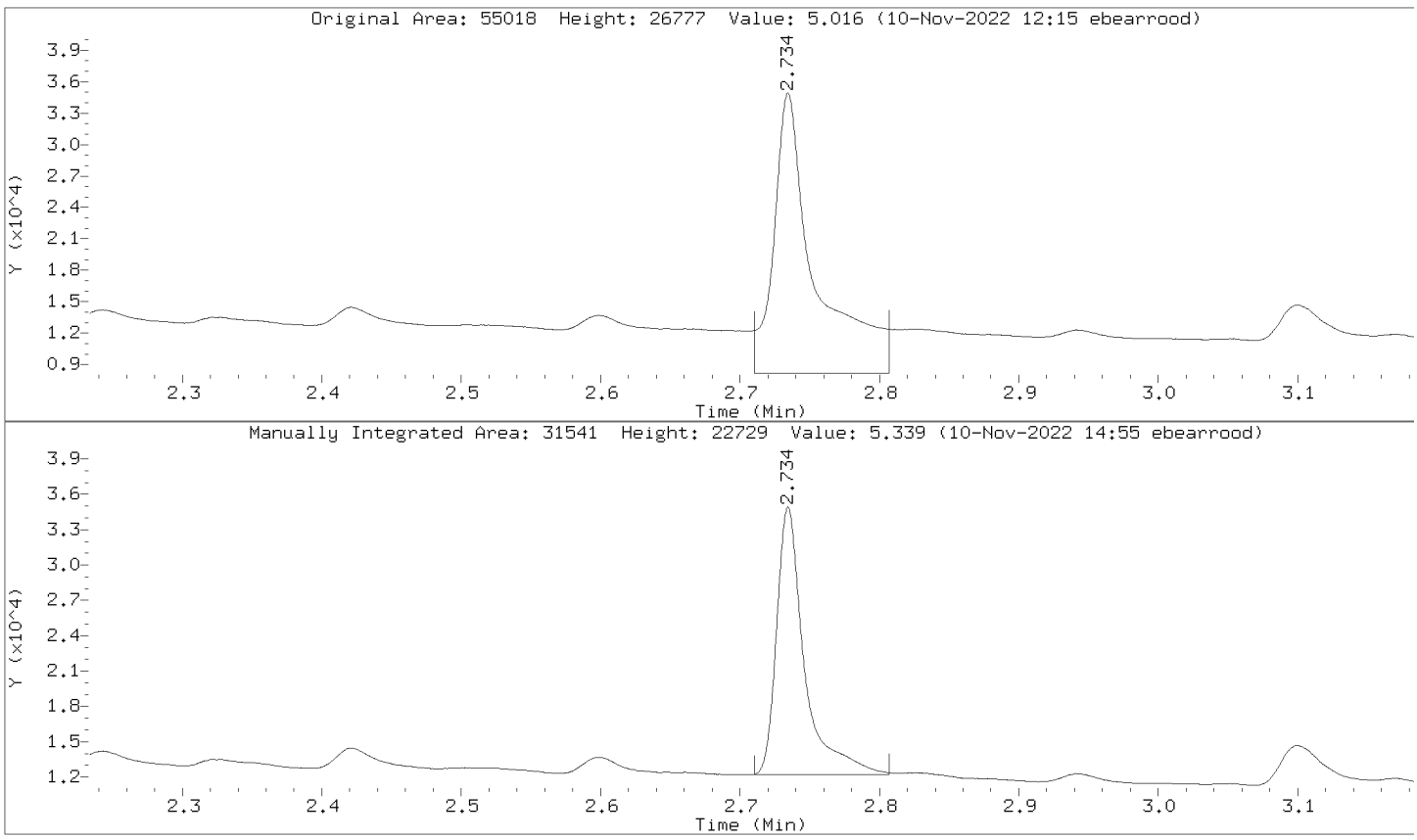
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102					CAS #:			
0.880	- 3.600		898996	100.000	96.8		(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:			
2.733	2.733	0.000	63221	10.0000	10.1		(M)	BA
$ 3 n-Triacontane (S)					CAS #:			
4.272	4.275	-0.003	50954	10.0000	9.45		(M)	BA
S 4 Residual Range Organics AK103					CAS #:			
3.610	- 5.200		461790	100.000	96.3		(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:			
0.880	- 4.219		1035387	100.000	96.6		(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:			
3.450	- 5.200		493334	100.000	96.1		(M)	RNG
S 7 C10-C36					CAS #:			
0.880	- 5.200		1362996	200.000	193		(M)	RNG
S 8 Diesel Fuel Range					CAS #:			
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:			
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 10 Motor Oil Range					CAS #:			
3.660	- 6.000		564743	100.000	96.5		(M)	RNG
S 11 Motor Oil Range SG					CAS #:			
3.660	- 6.000		564743	100.000	96.5		(M)	RNG

QC Flag Legend

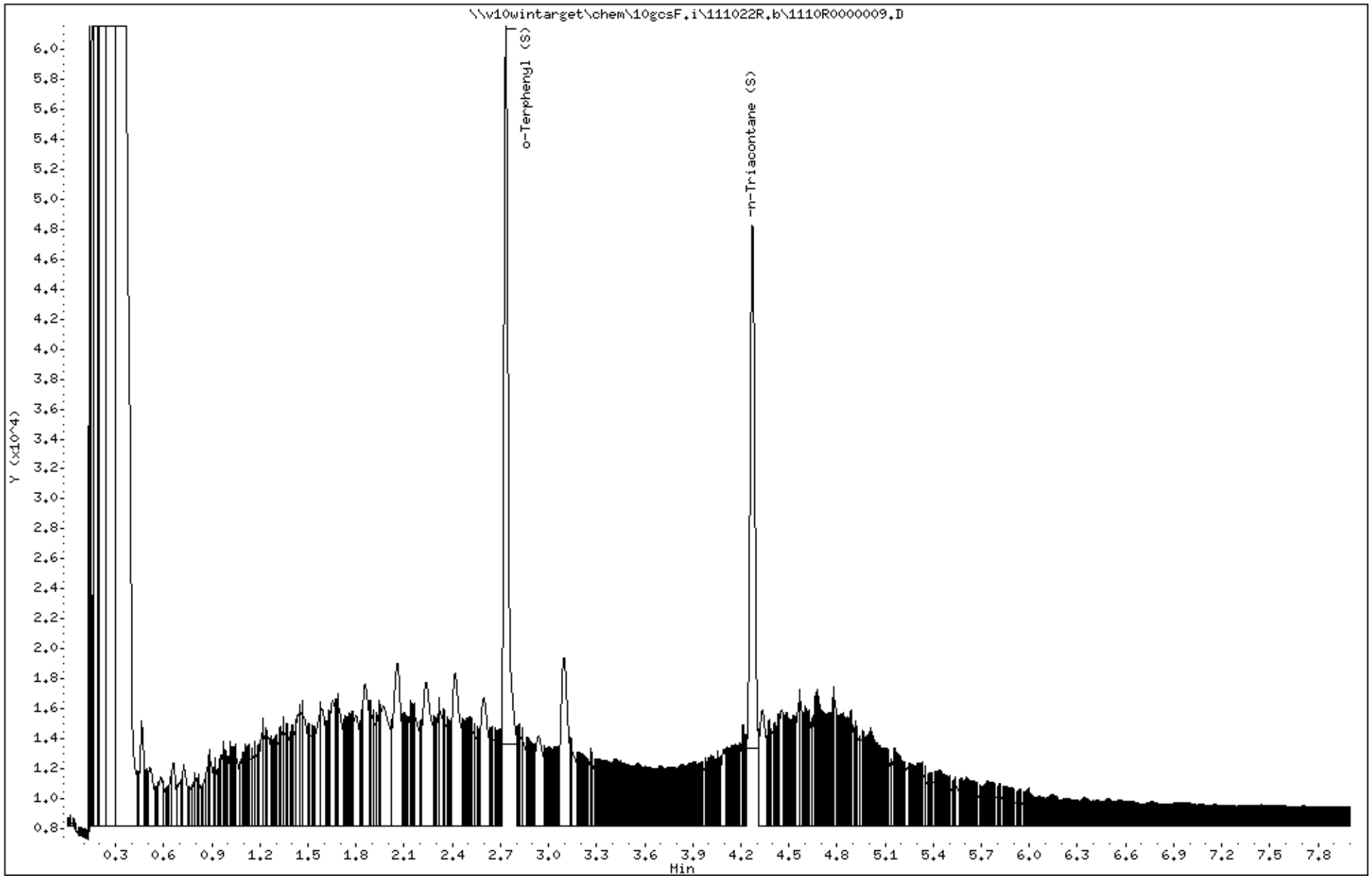
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



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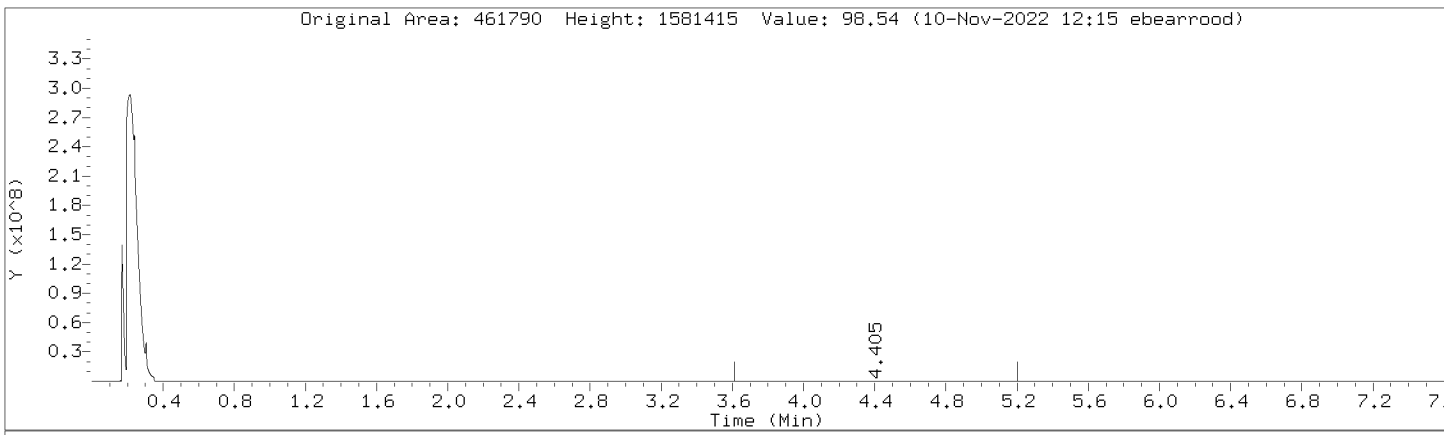
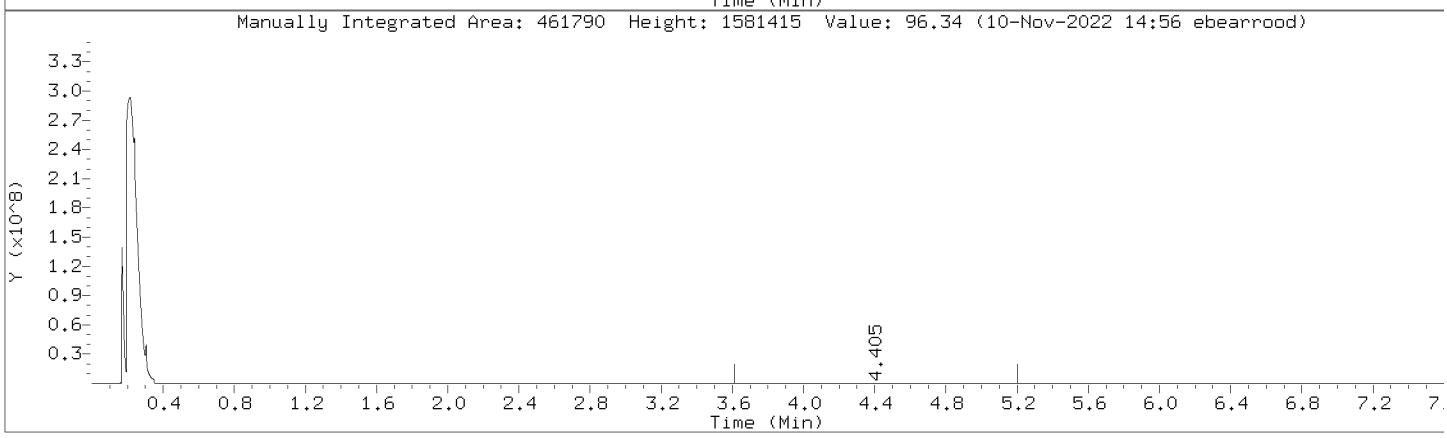
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:





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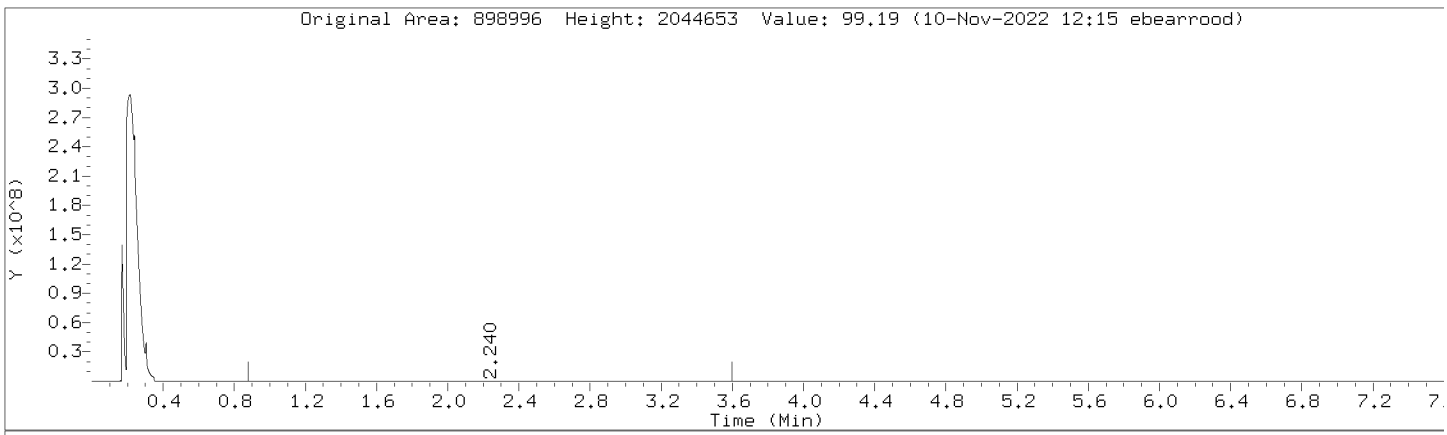
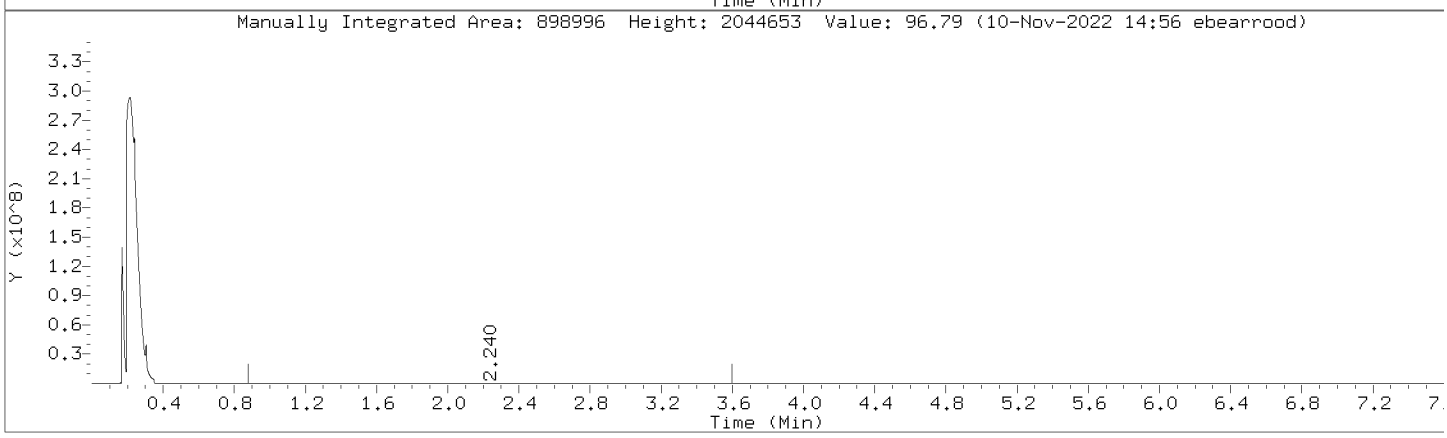
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:





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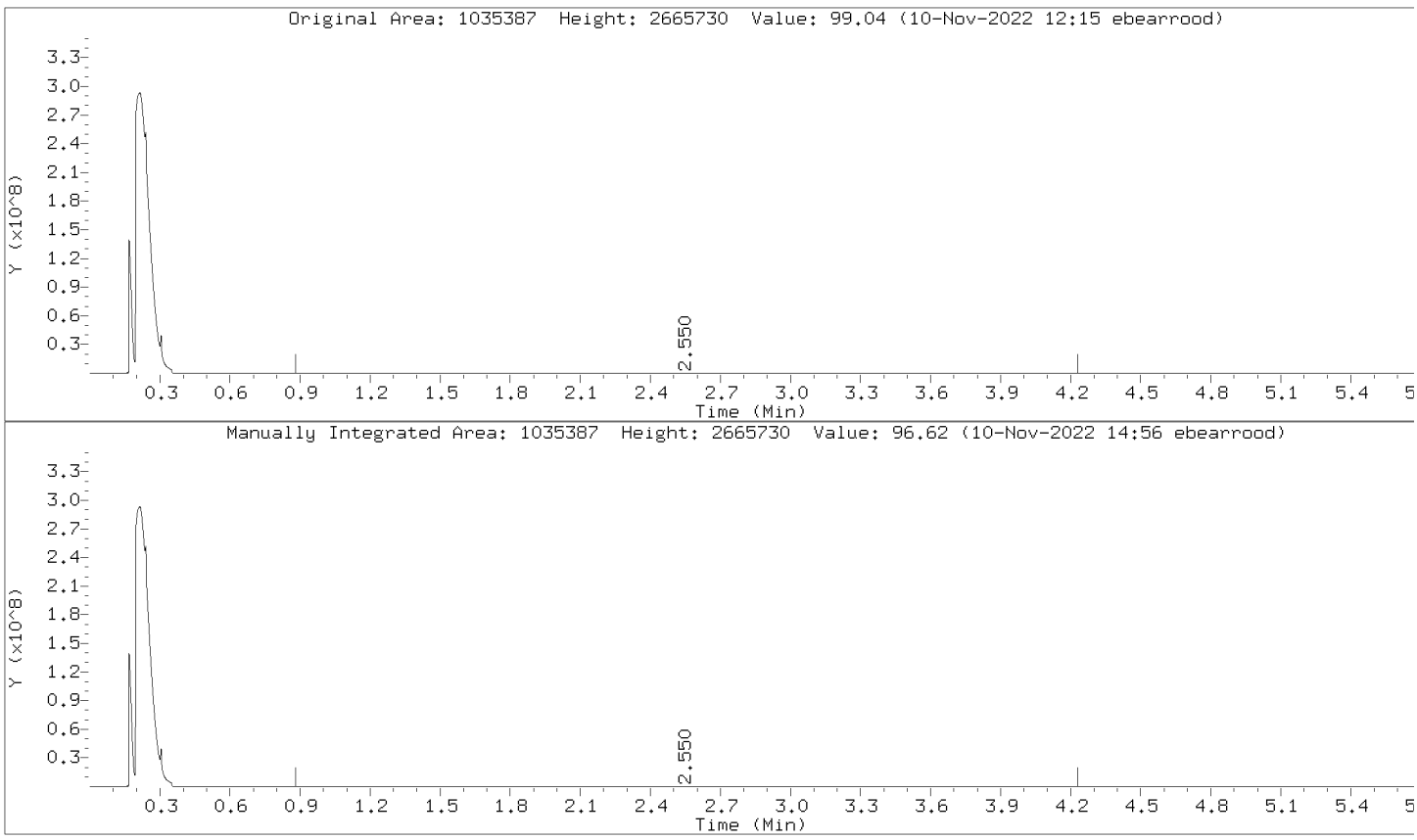
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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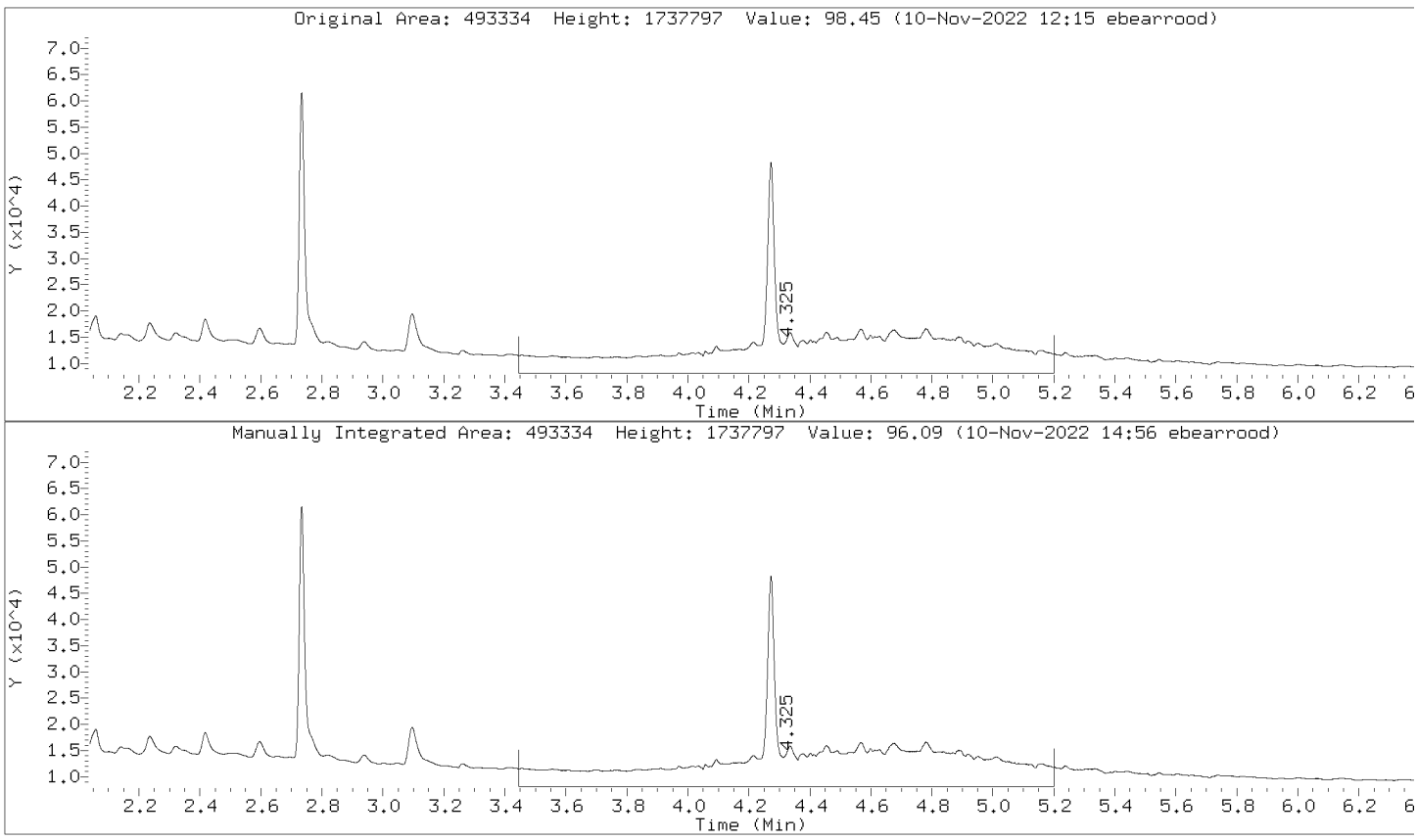
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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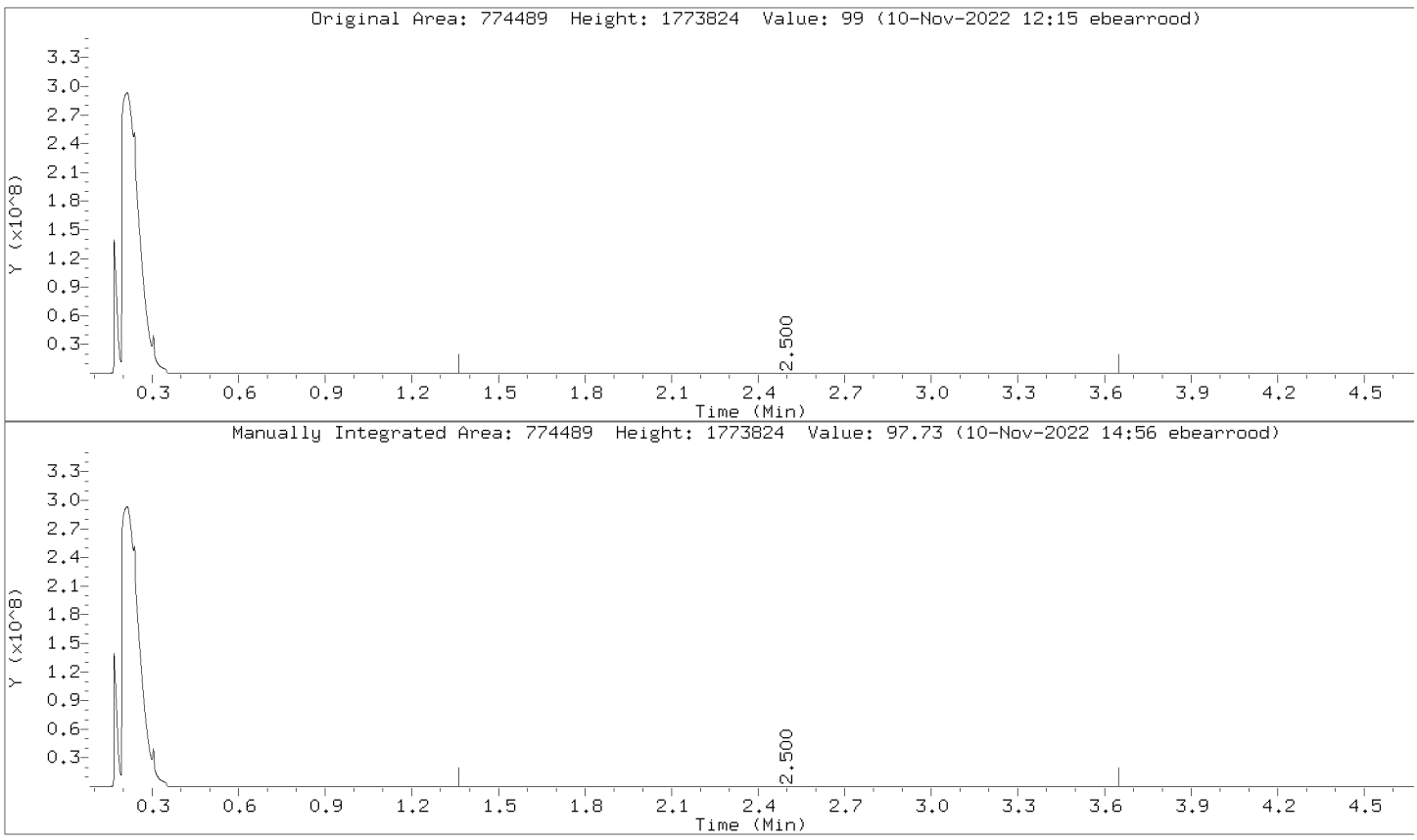
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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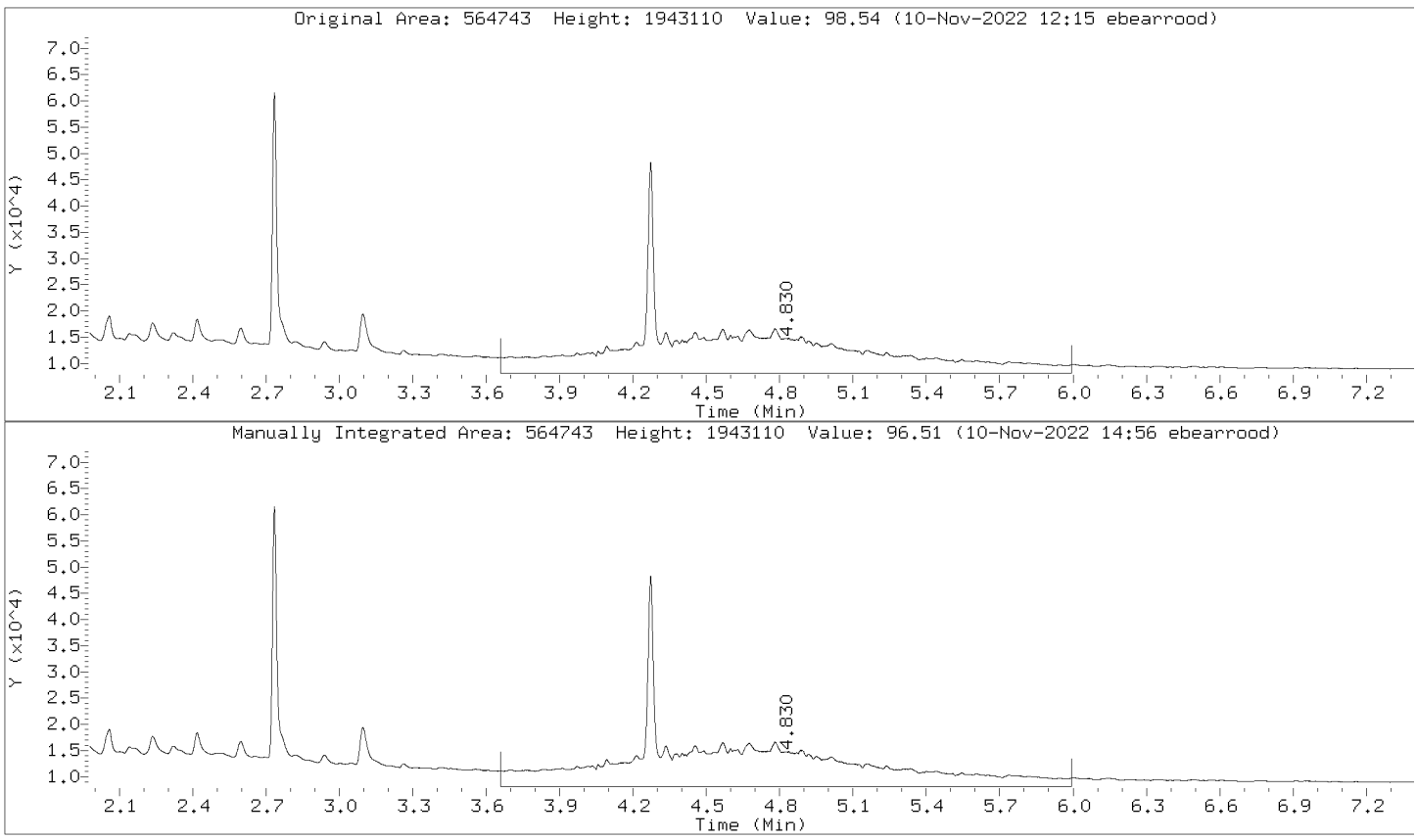
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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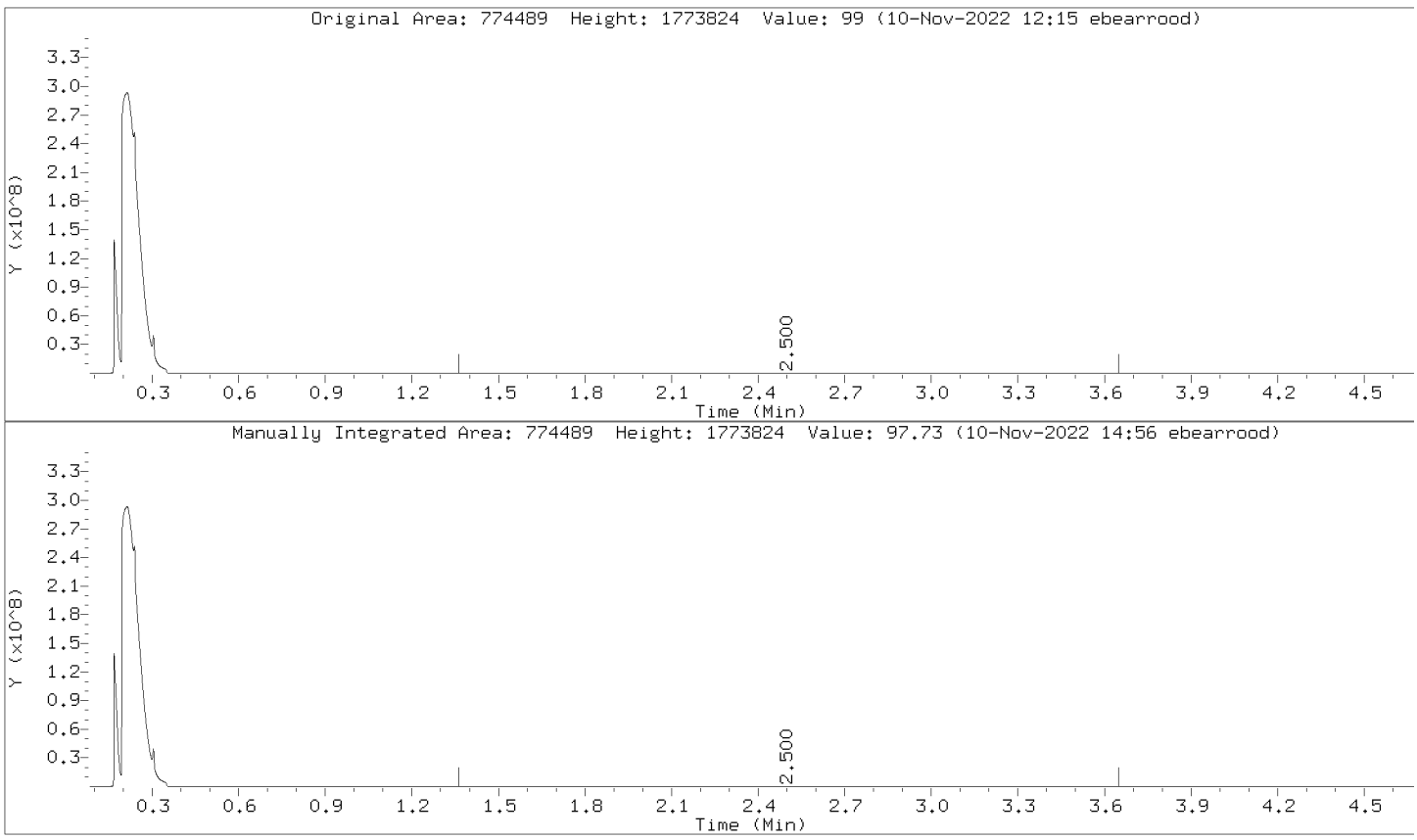
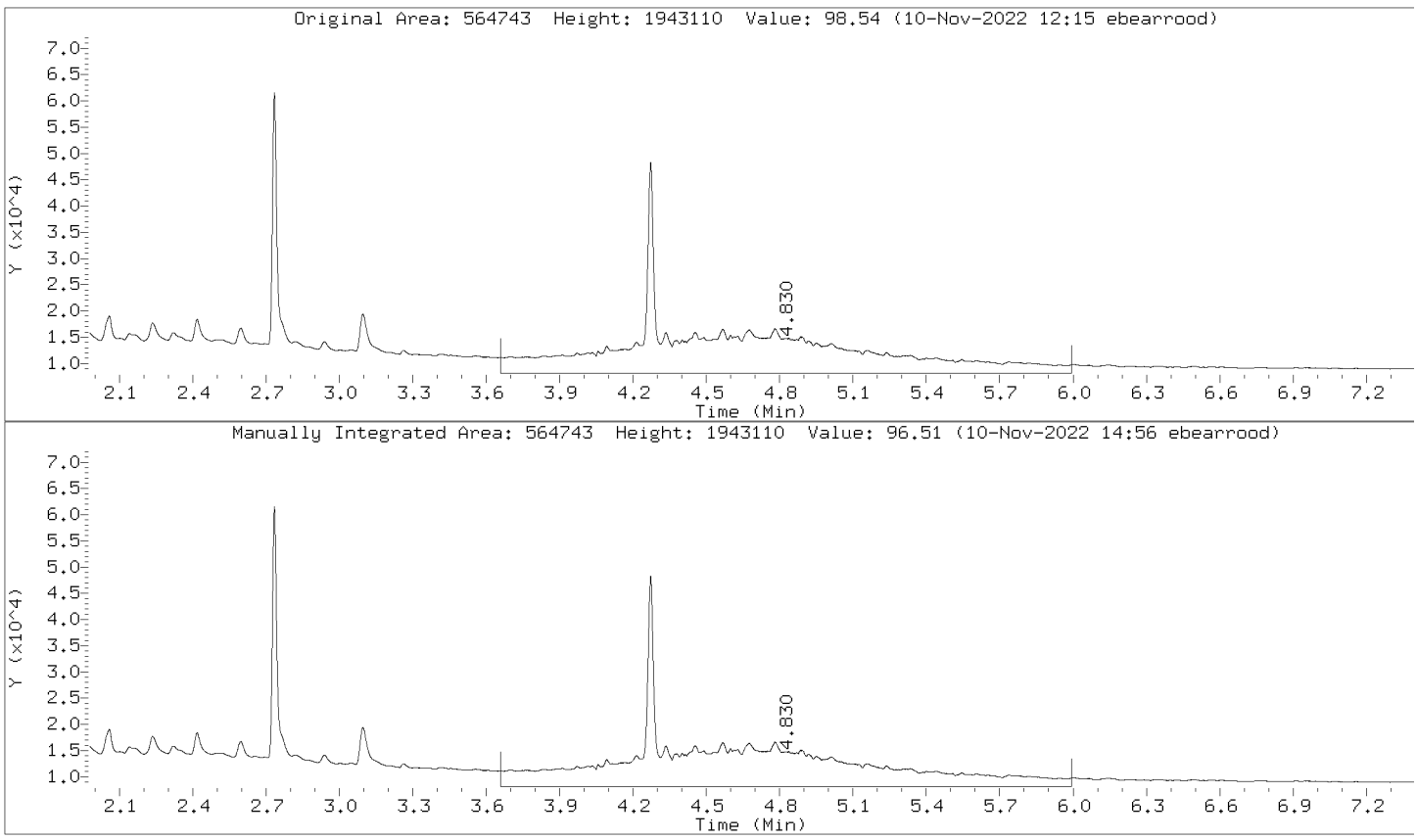
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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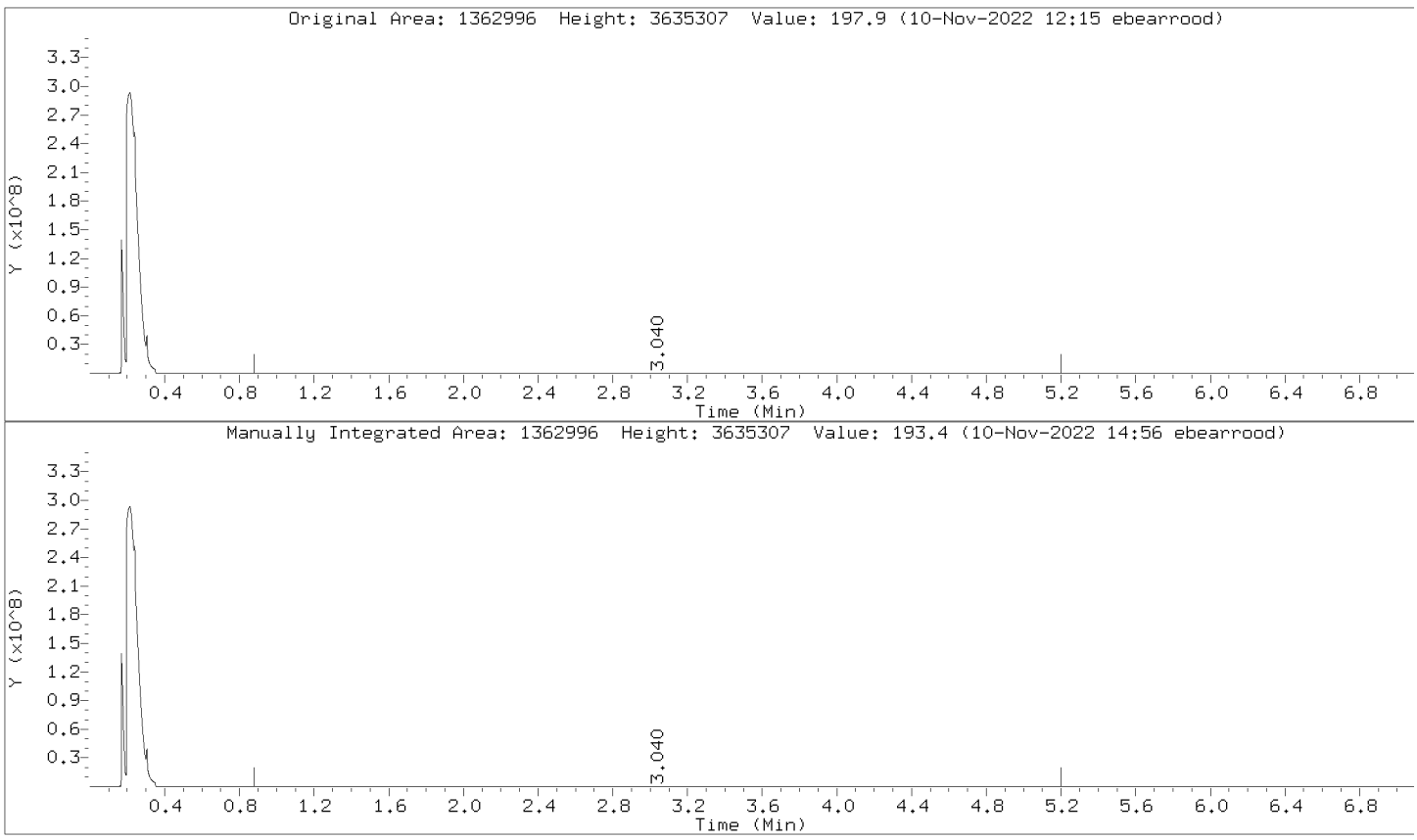
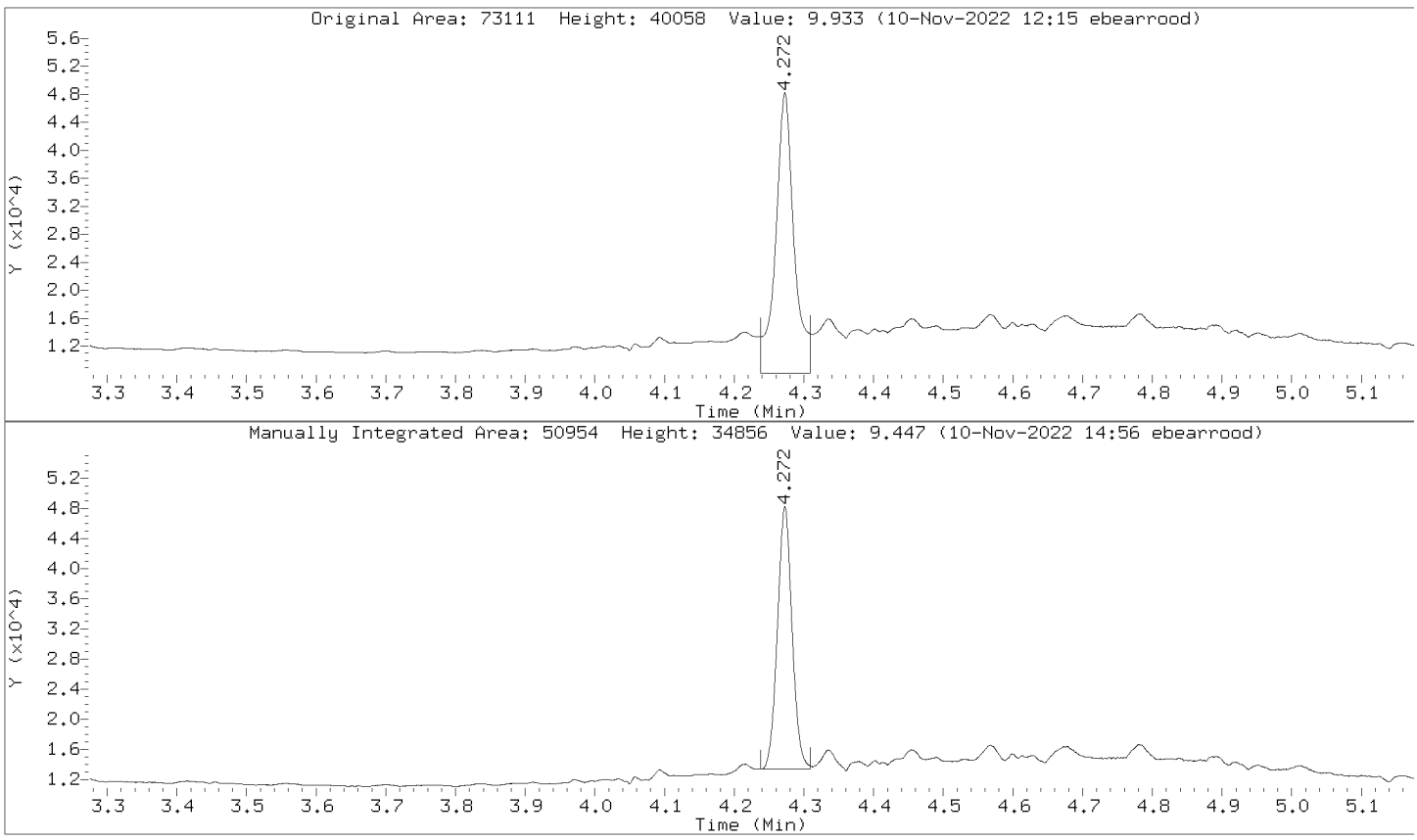
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



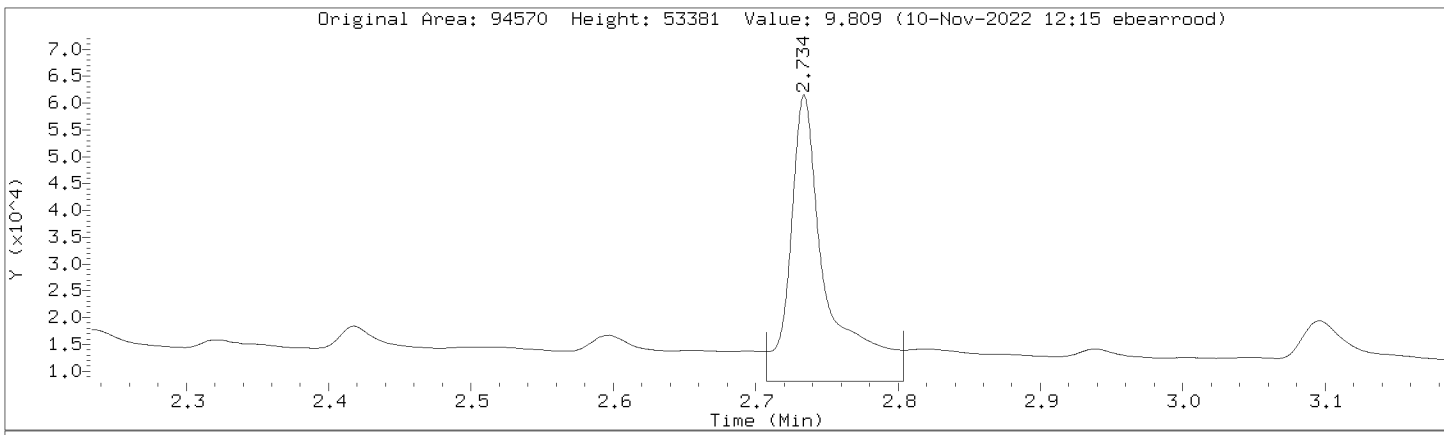
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

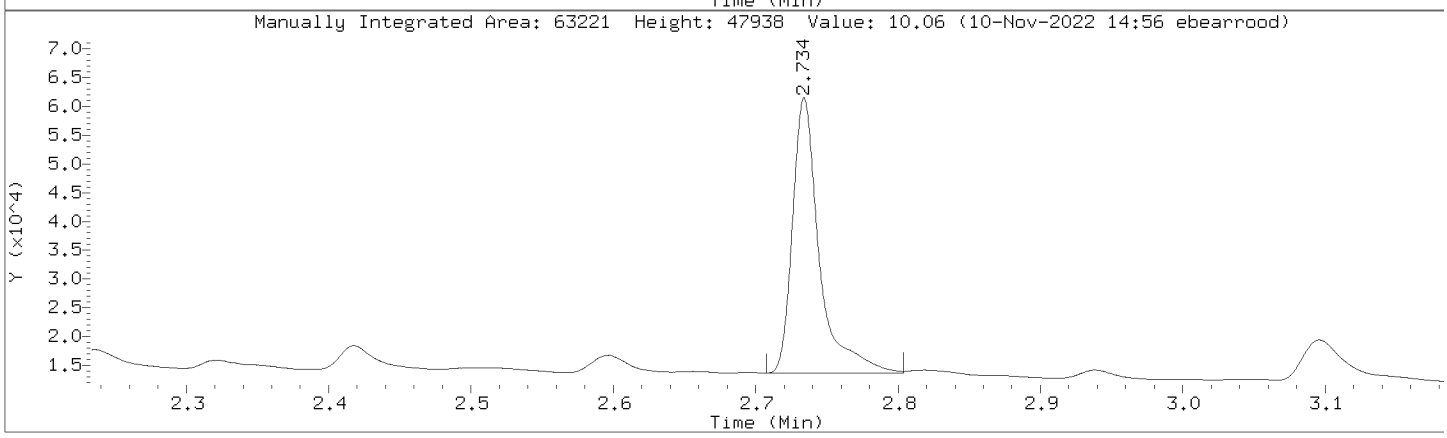
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		1767895	250.000	250	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	162877	25.0000	24.9	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	134635	25.0000	25.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1016189	250.000	250	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		2040586	250.000	249	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1068936	250.000	249	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		2784418	500.000	500	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1502245	250.000	250	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		1233127	250.000	249	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

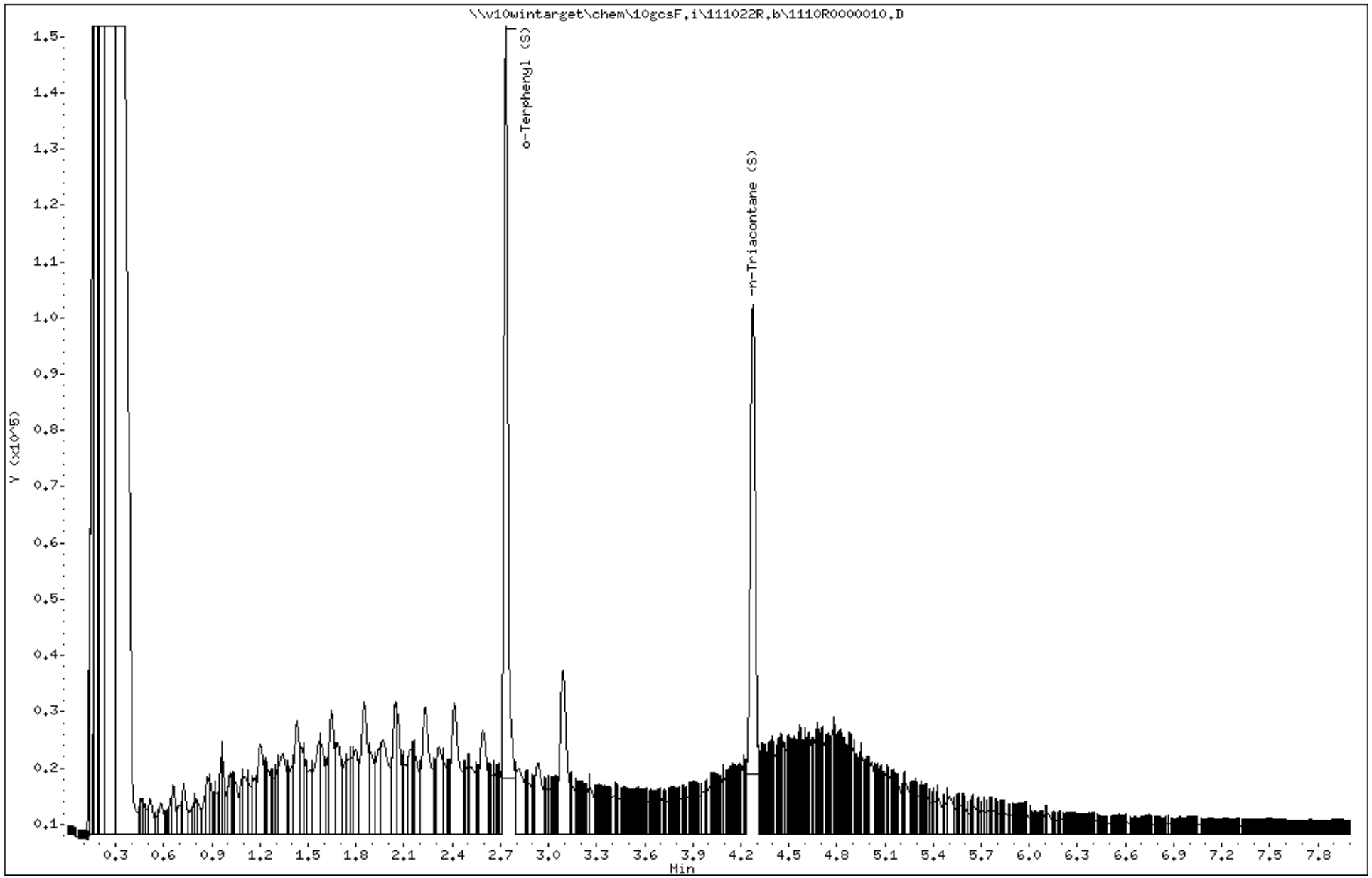
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Column phase: DB-5-US21130002

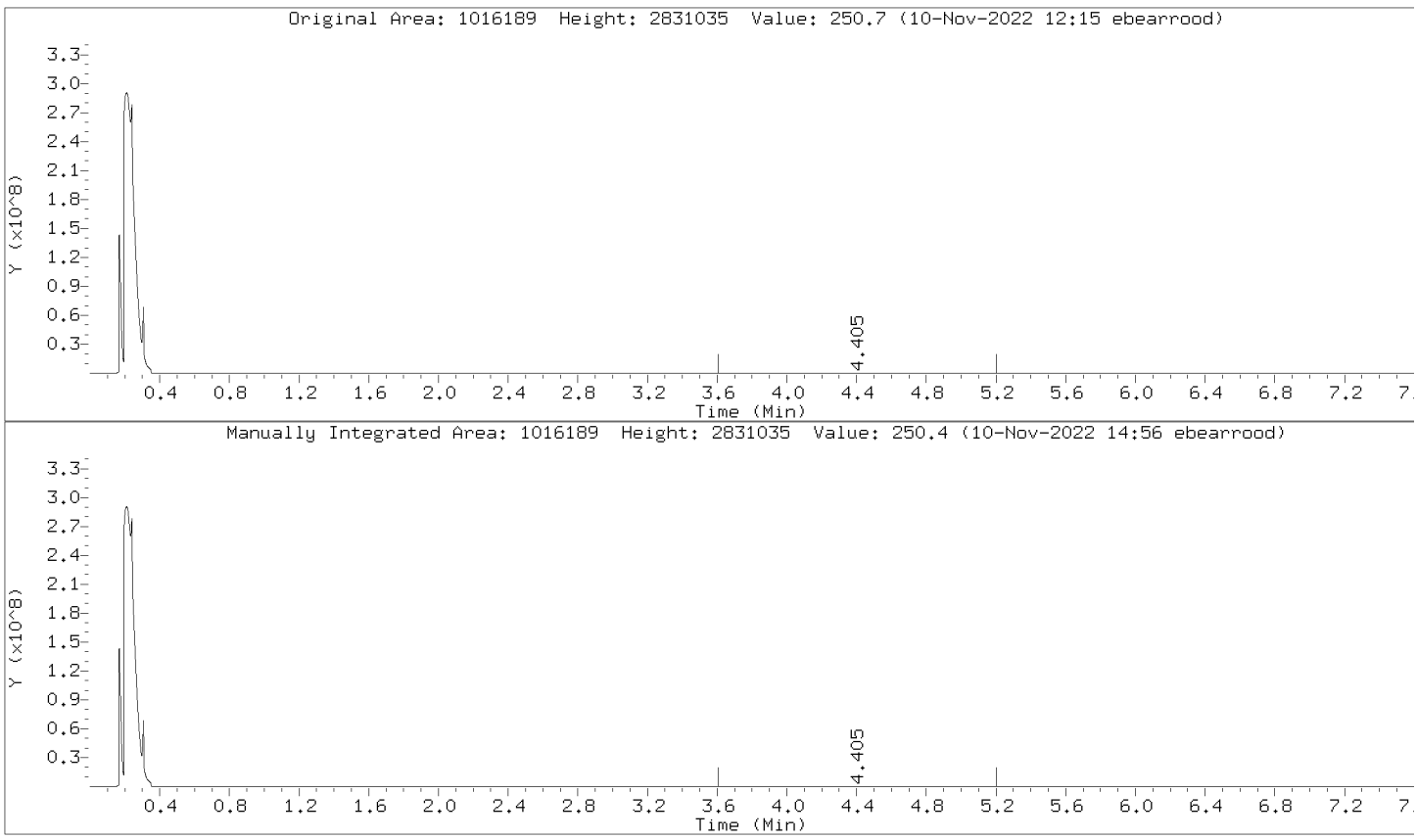
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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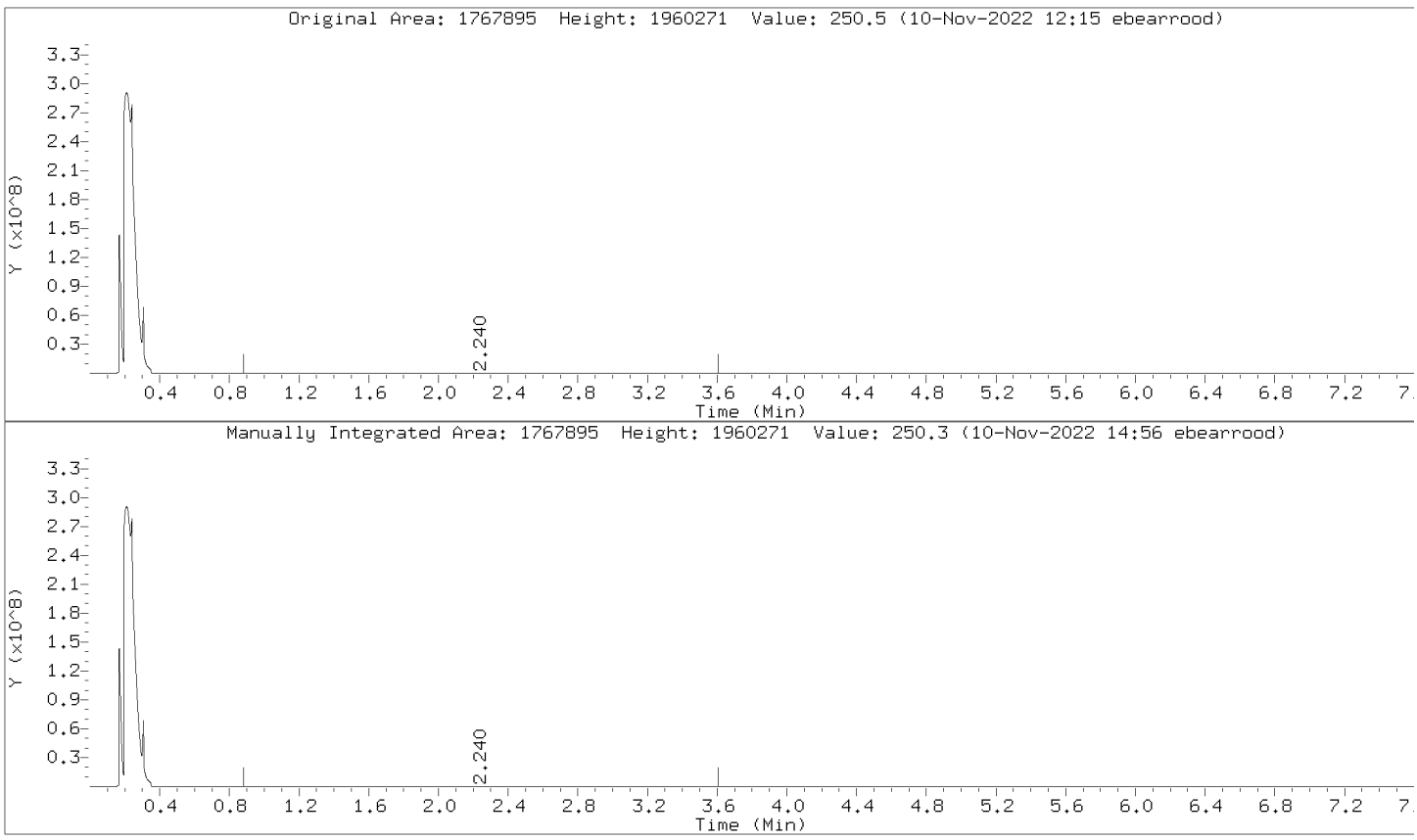
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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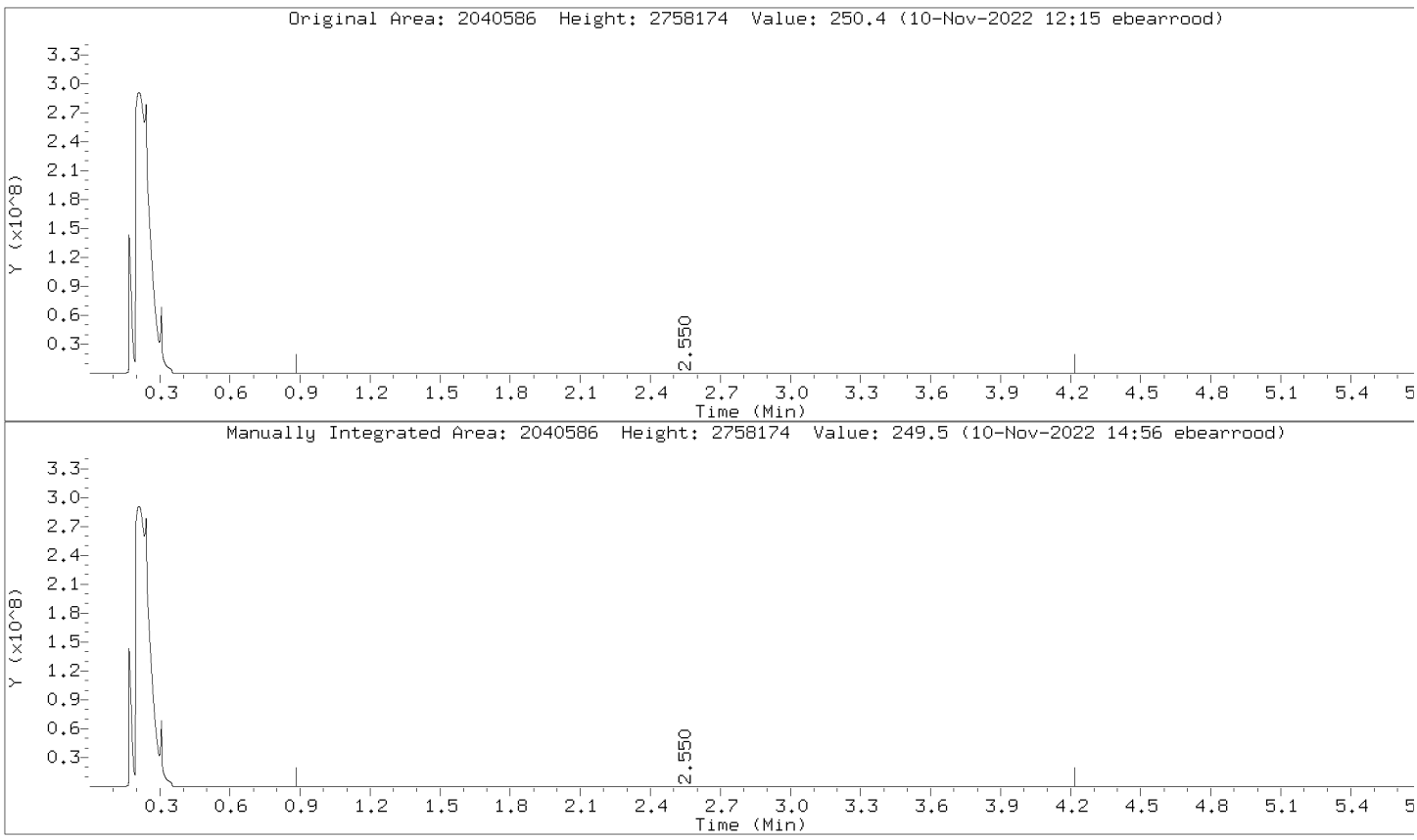
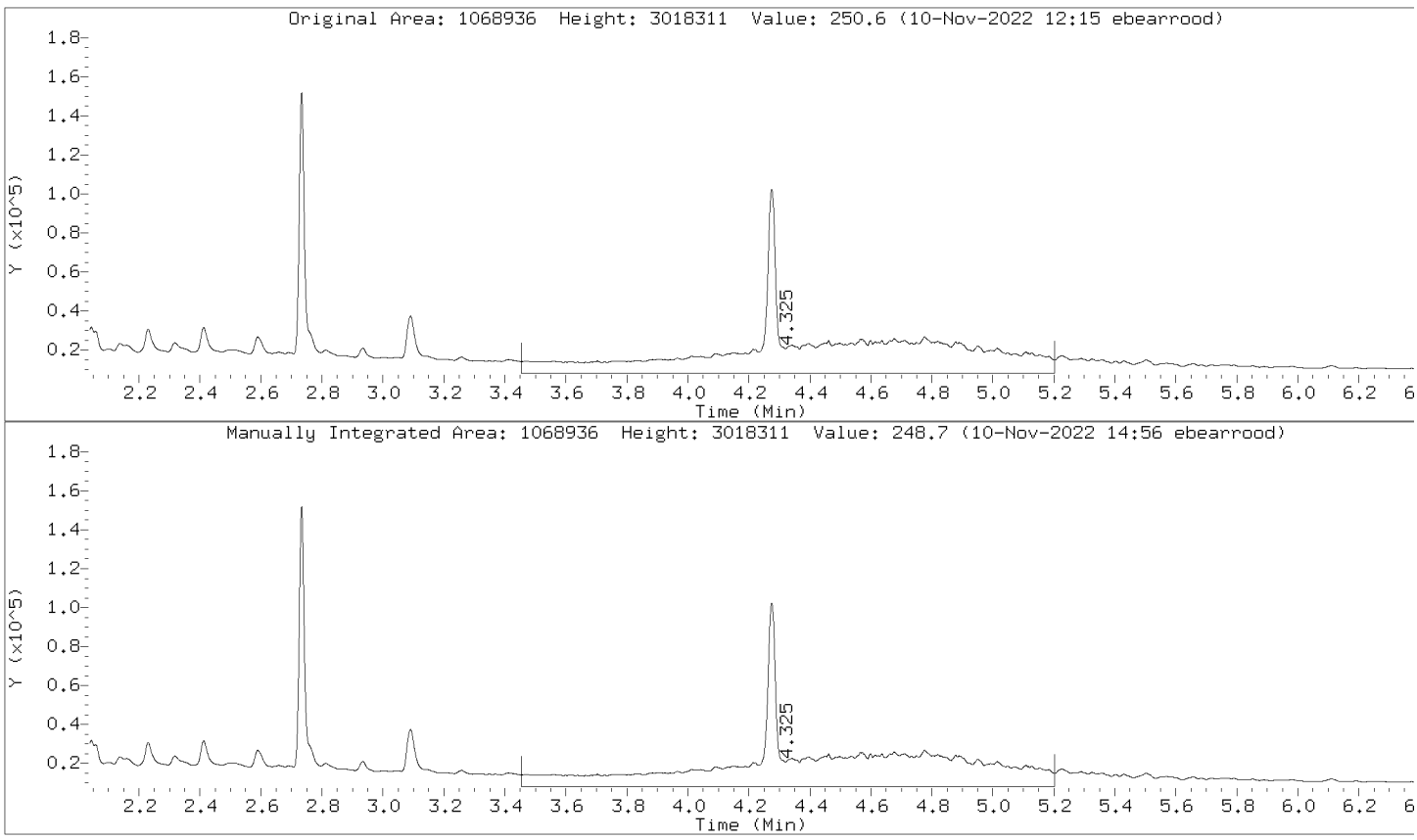
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



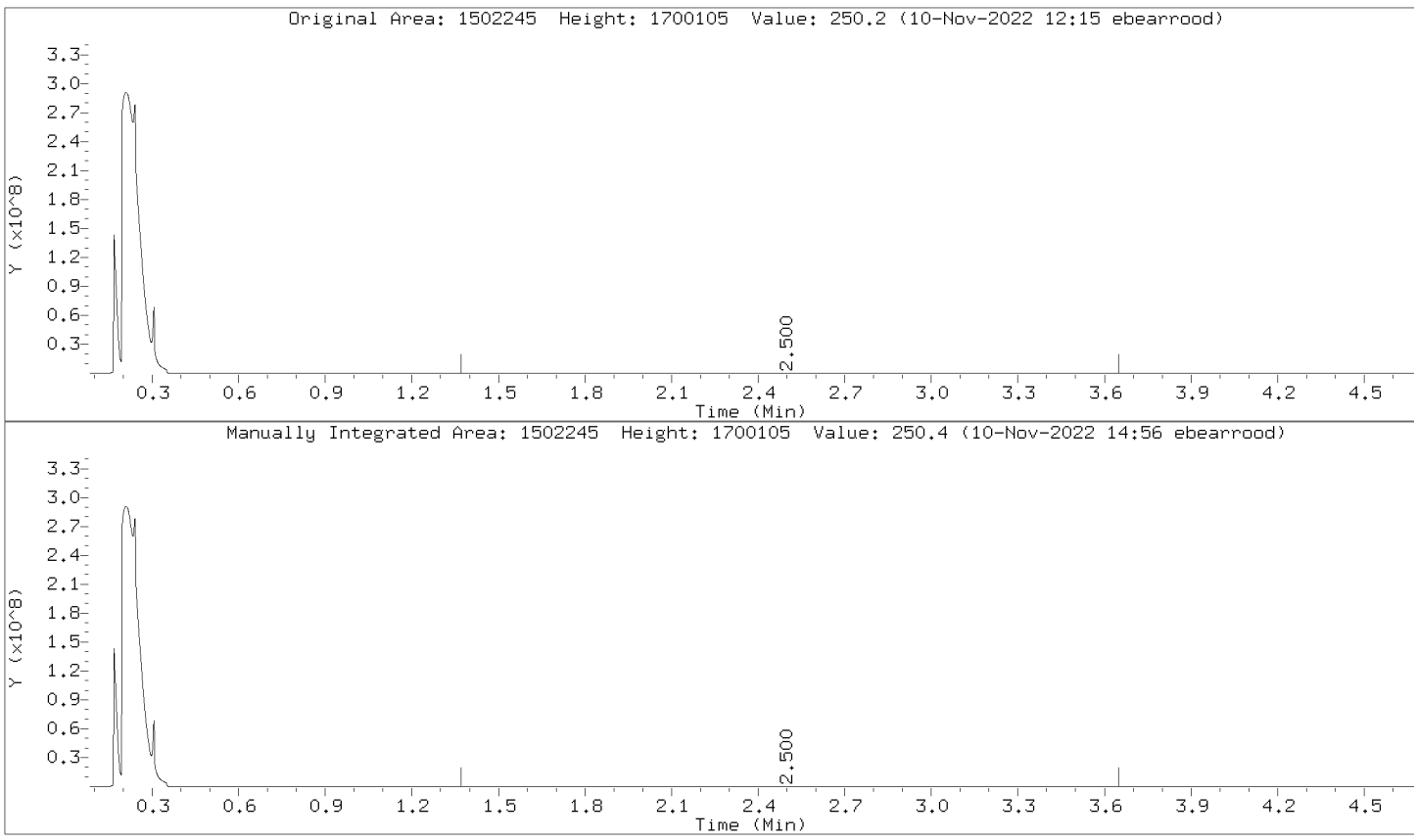
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



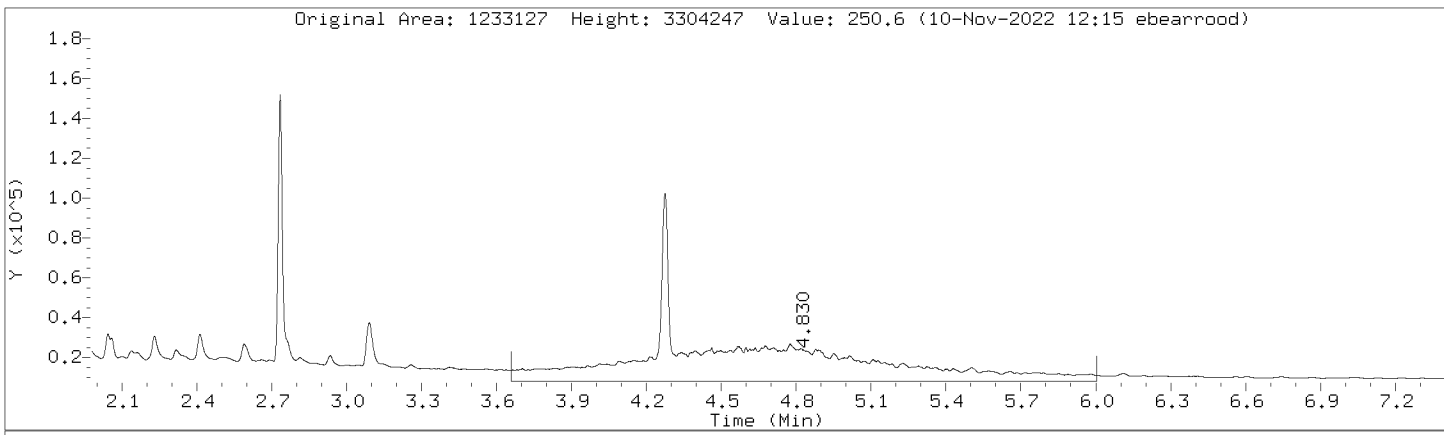
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

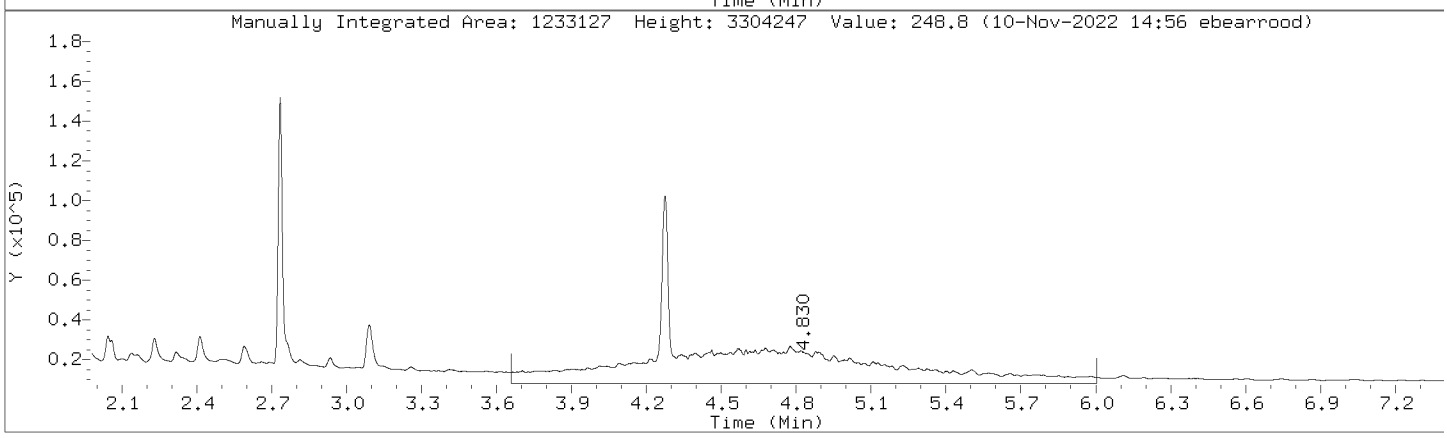
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

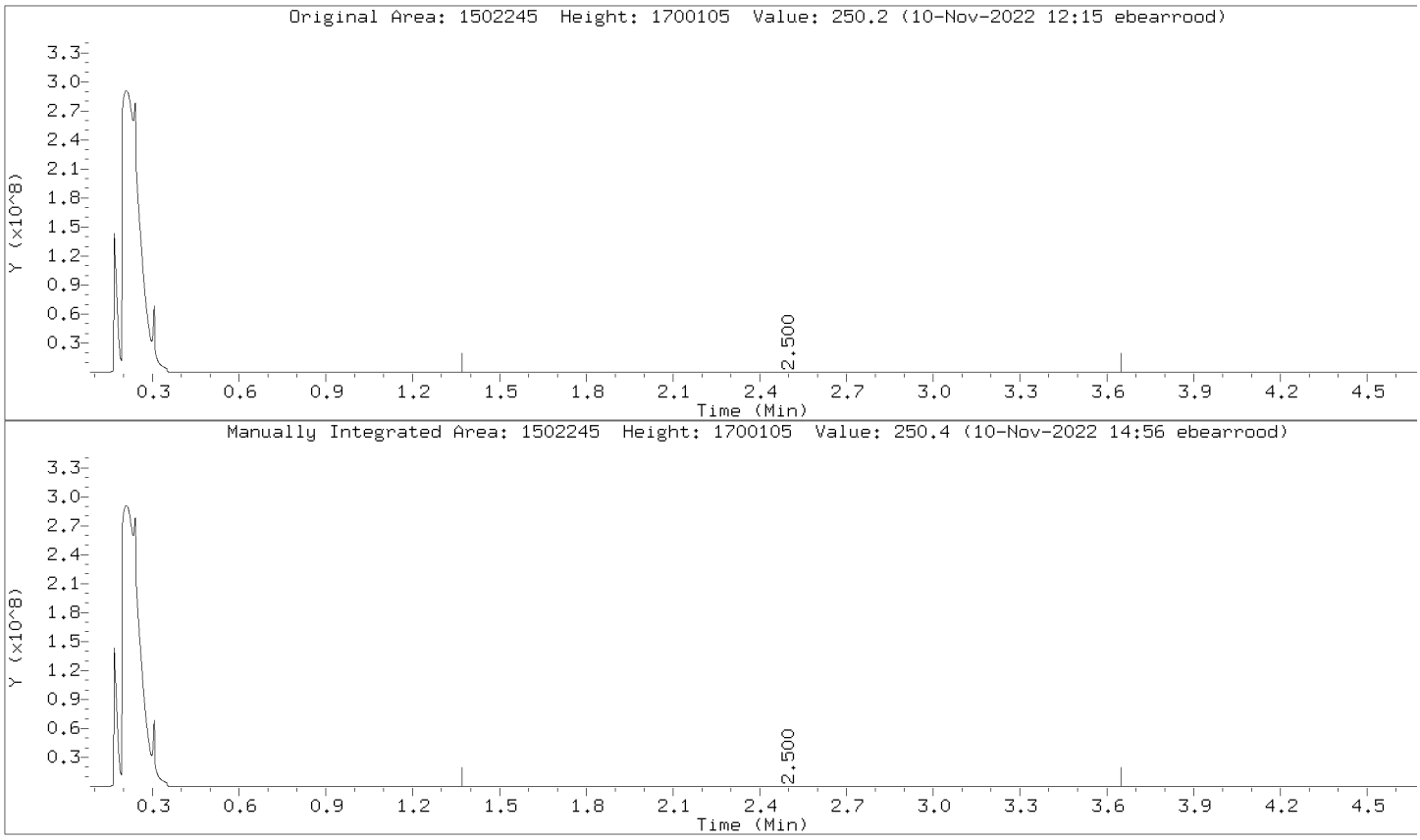
Compound: Motor Oil Range Review Code: RNG
CAS Number:





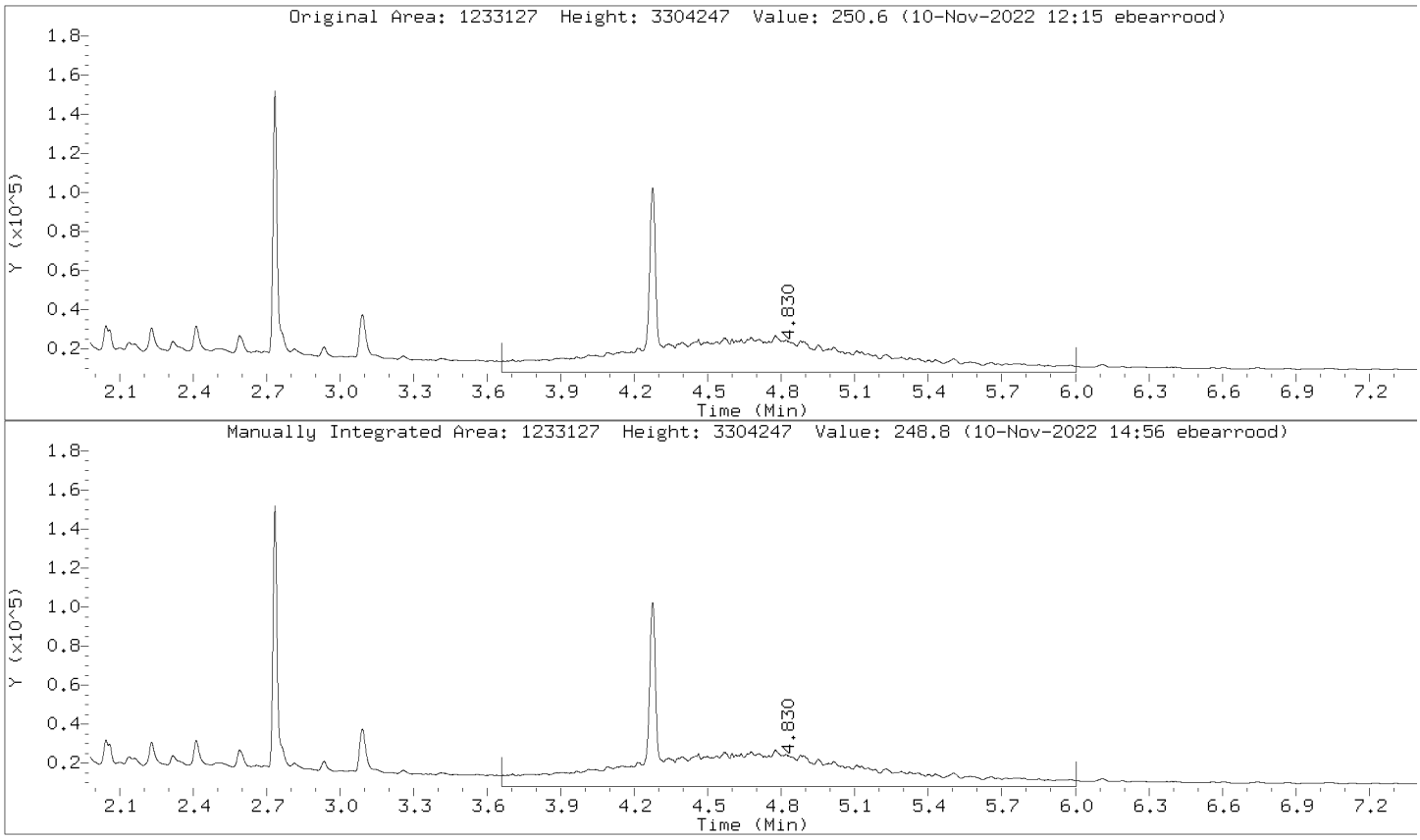
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



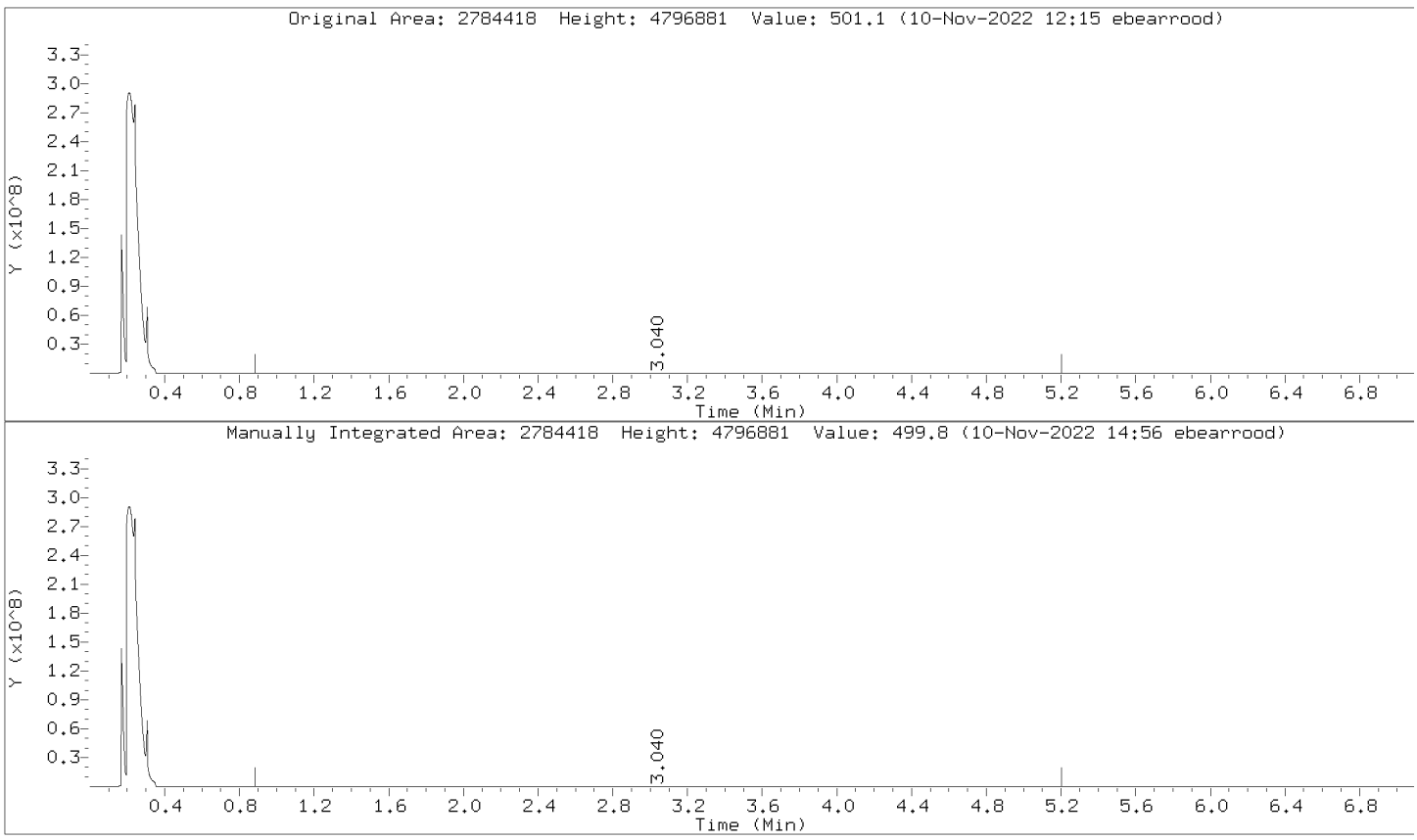
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



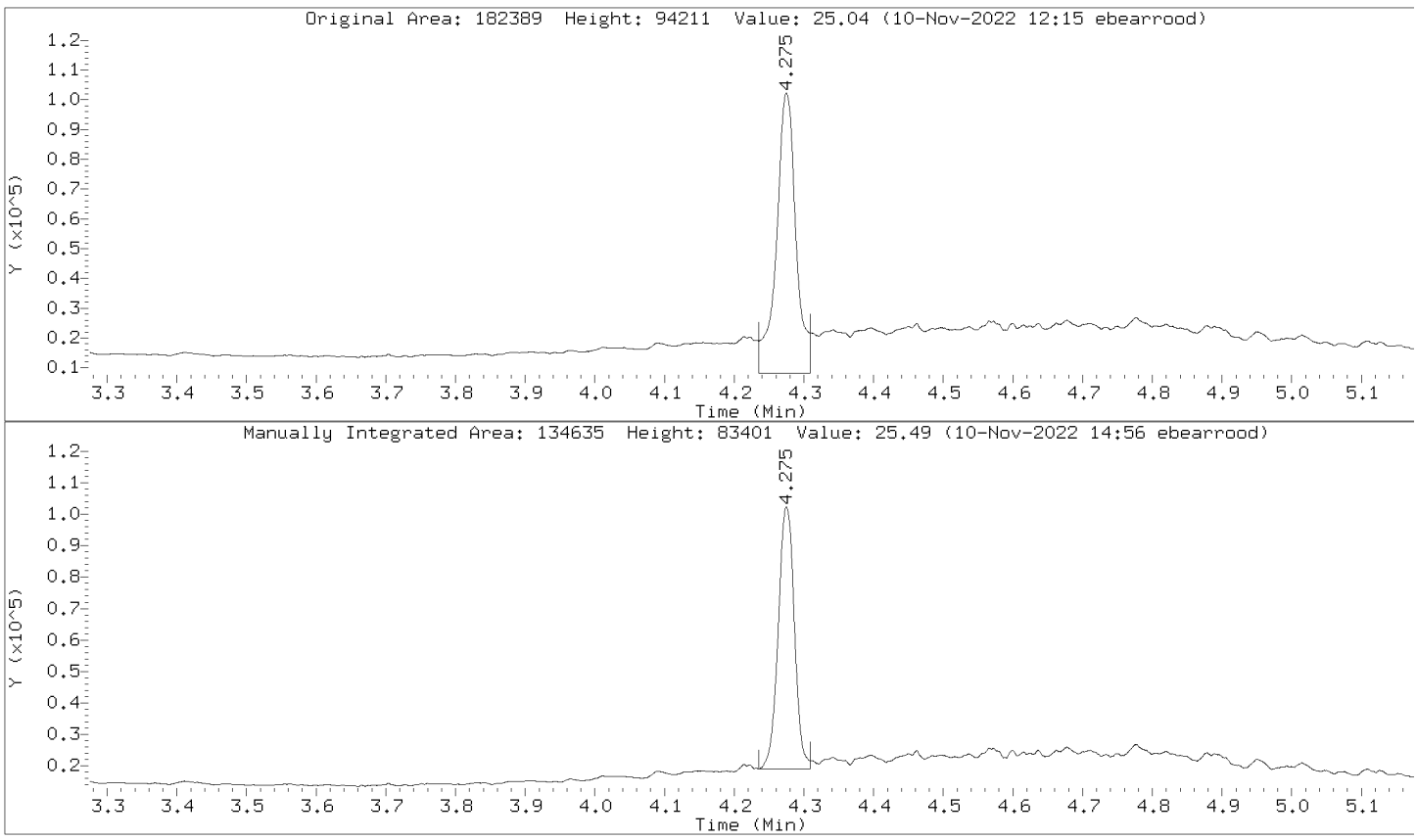
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



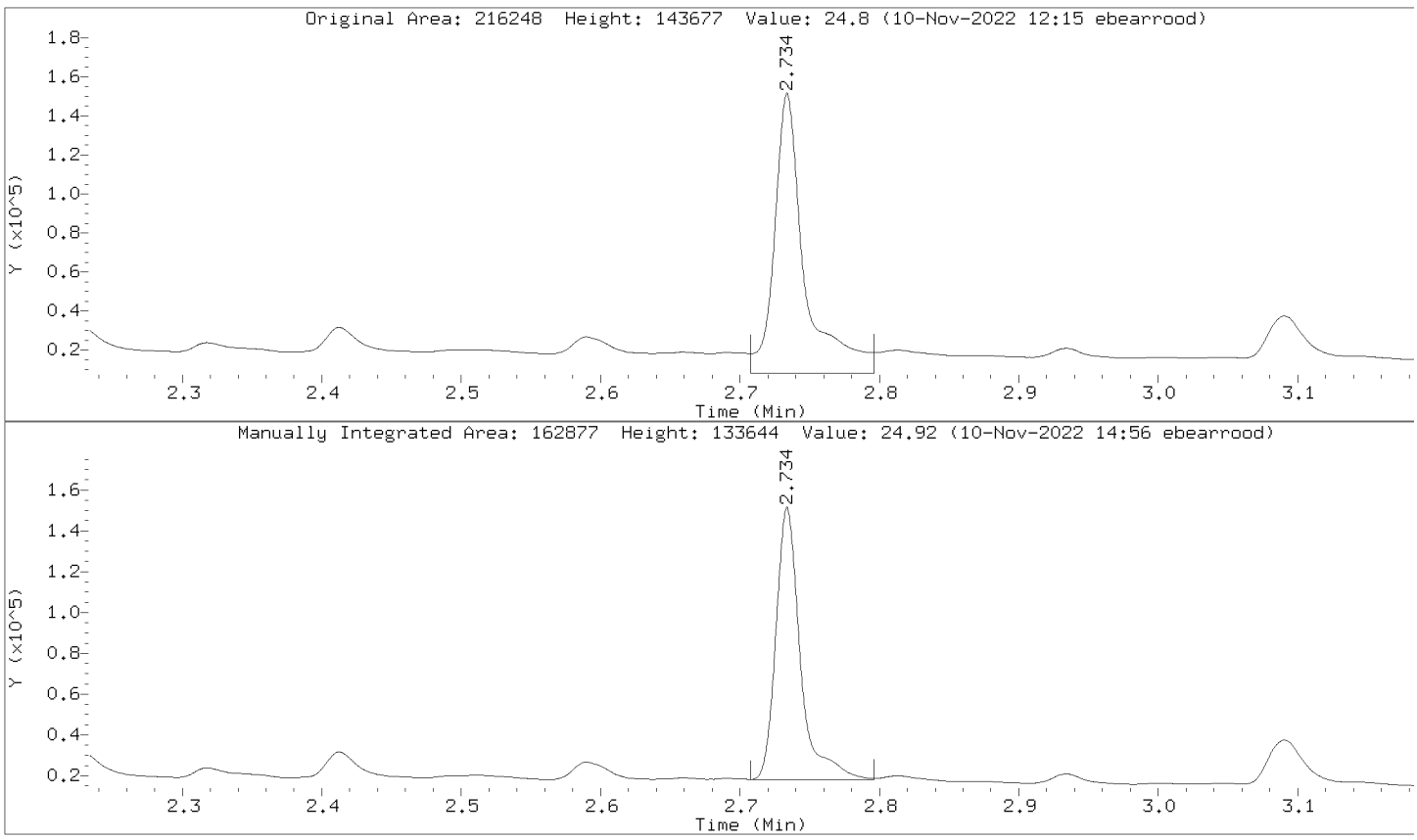
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		6099190	1000.00	1020	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	667884	100.000	100	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	532234	100.000	102	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		3764430	1000.00	1010	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		7097120	1000.00	1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		3964256	1000.00	1020	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		9895685	2000.00	2030	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		5136881	1000.00	1010	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		5136881	1000.00	1010	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		4575578	1000.00	1010	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		4575578	1000.00	1010	(M)	RNG

QC Flag Legend

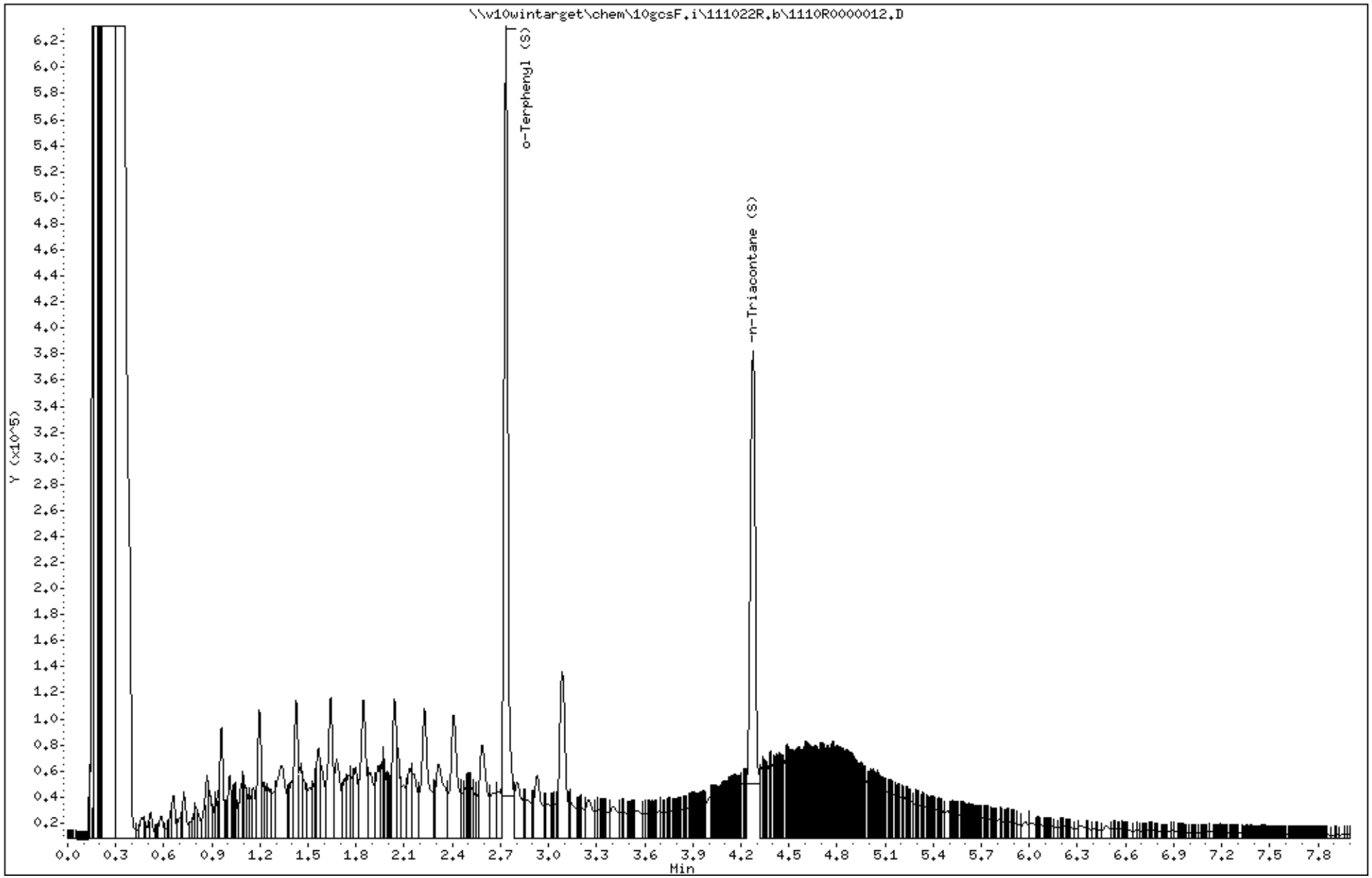
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

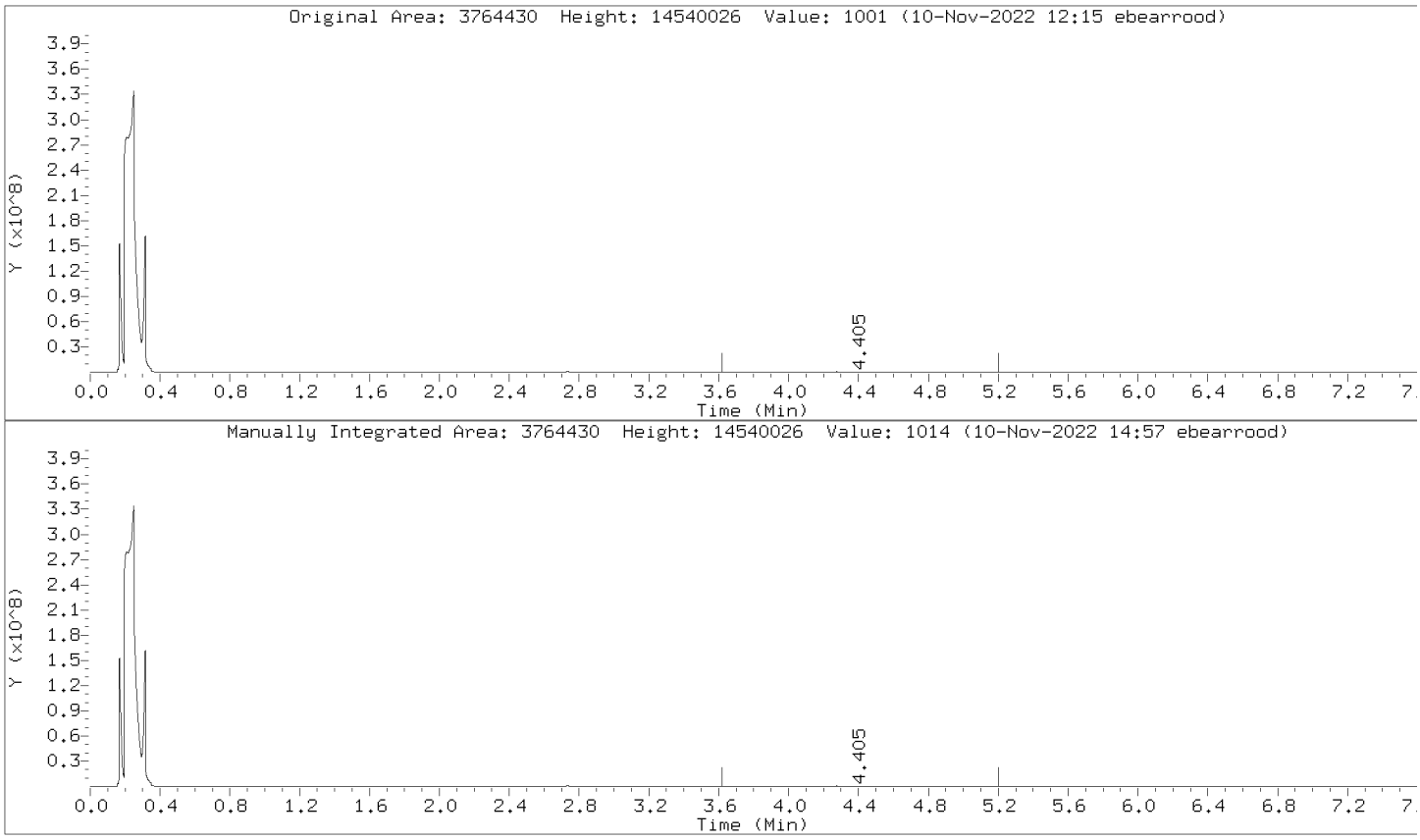
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



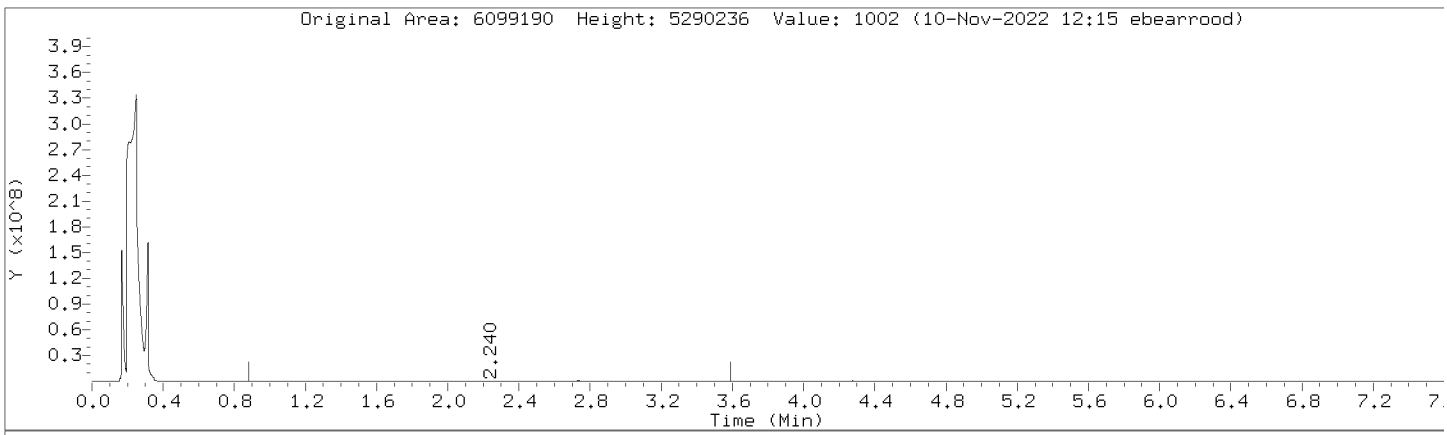
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

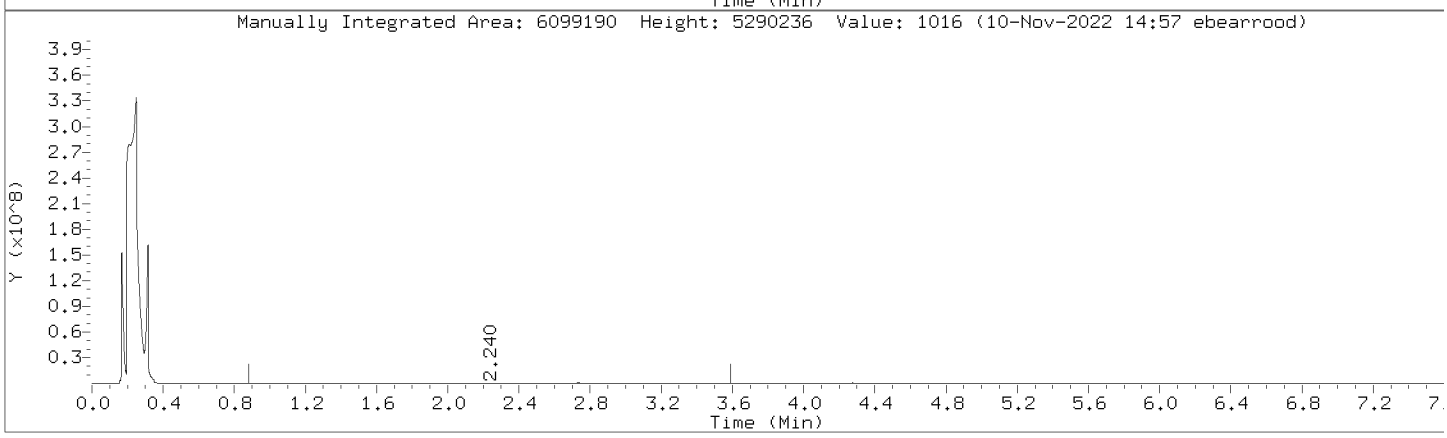
Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

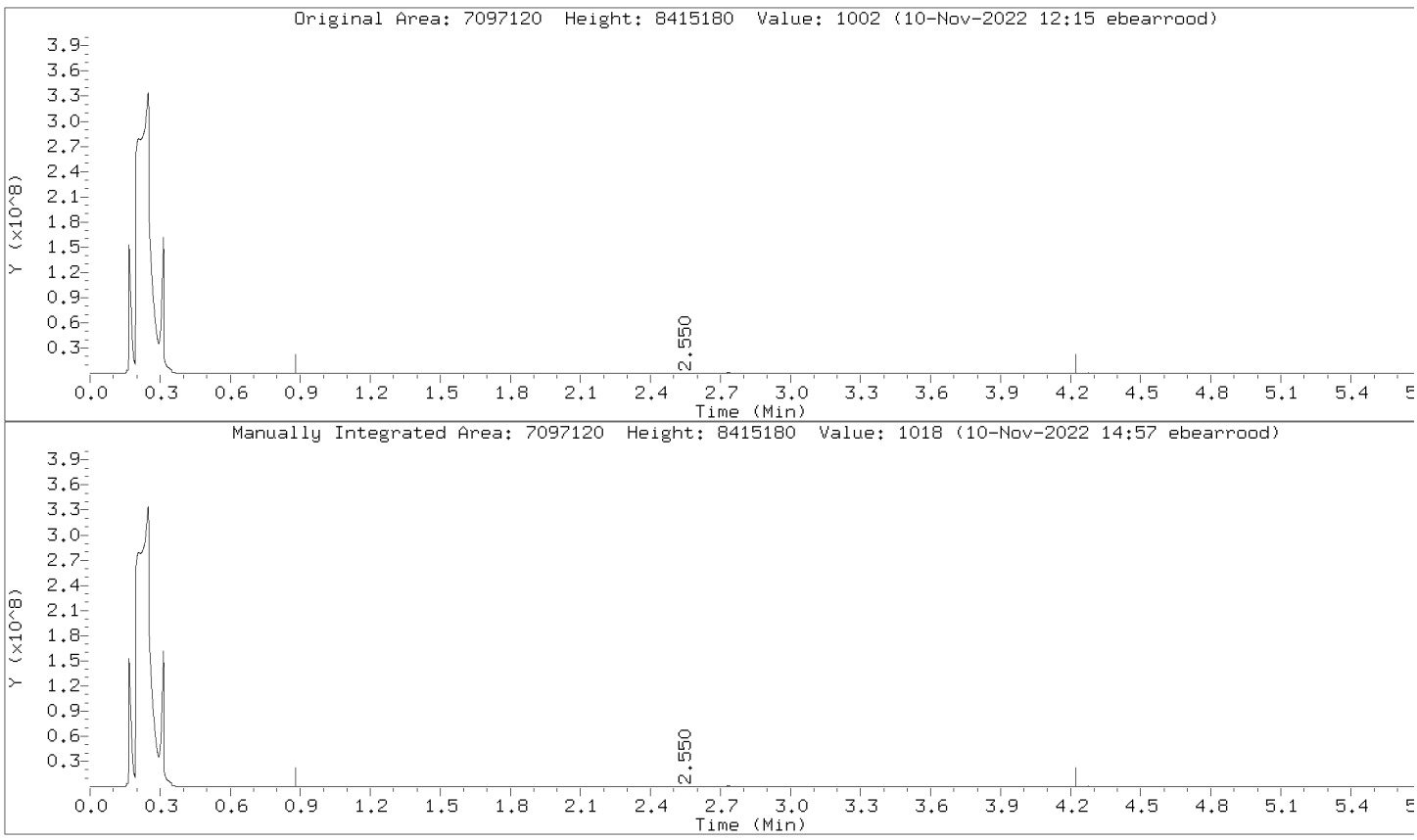
Compound: DRO by AK 102 Review Code: RNG
CAS Number:





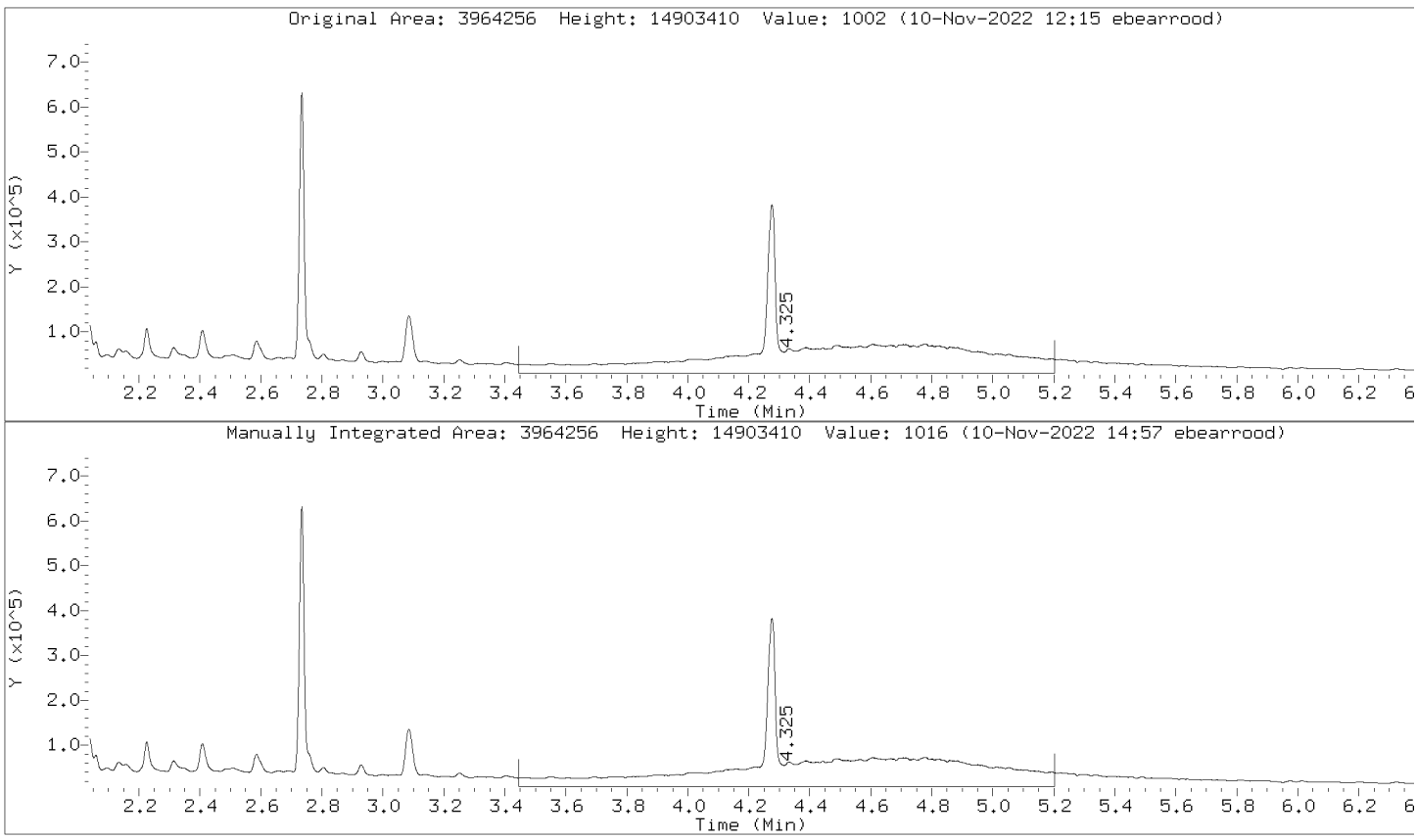
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



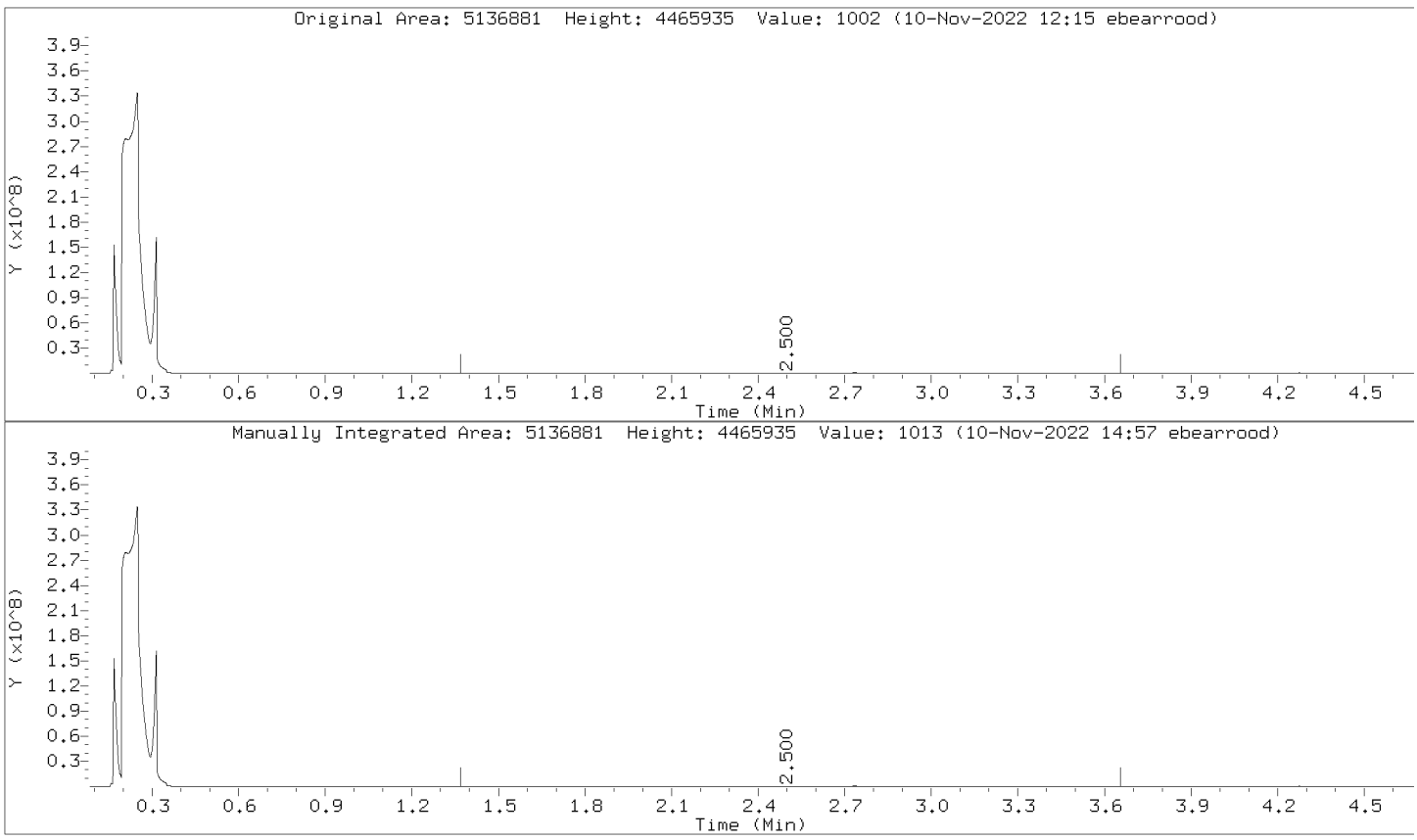
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



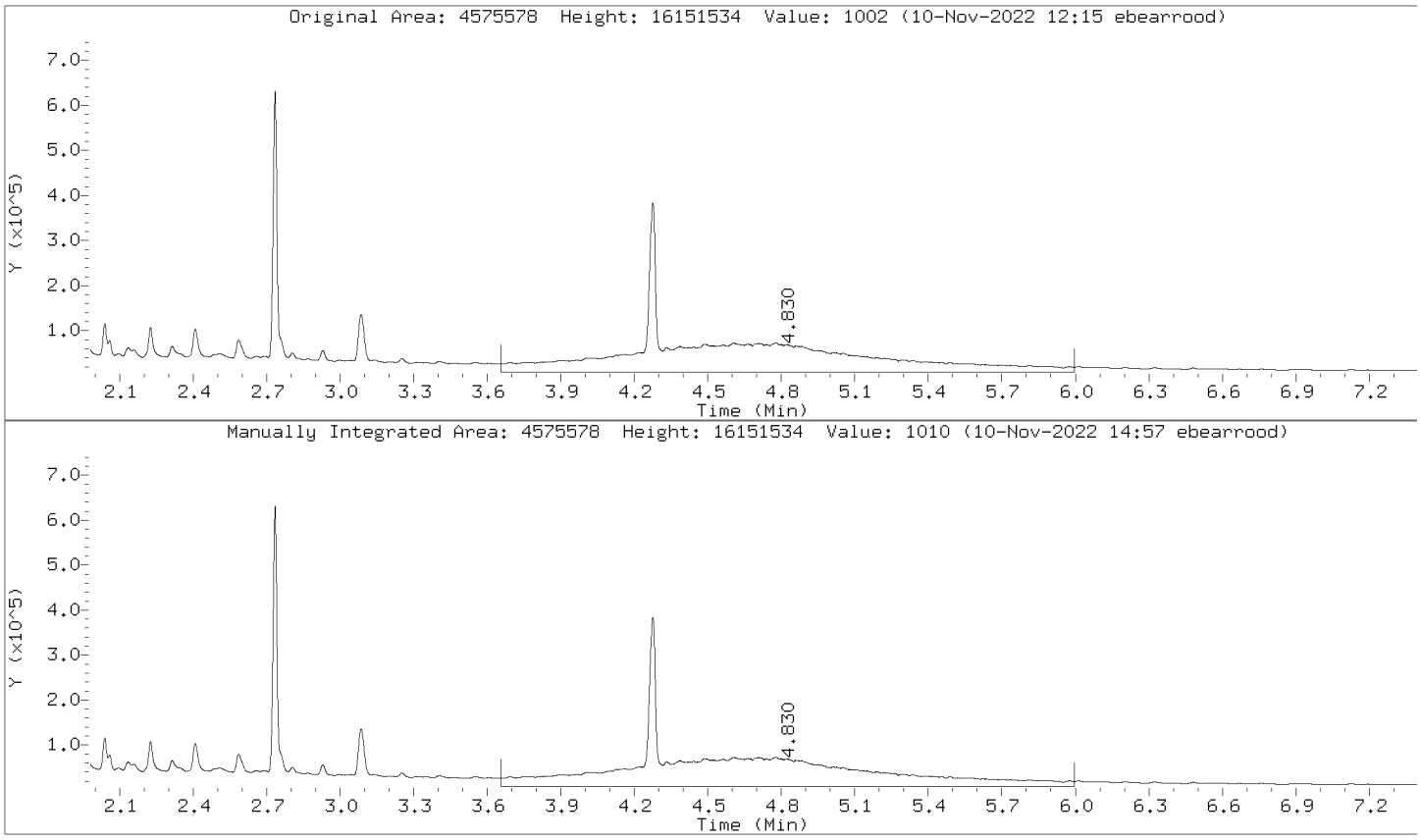
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



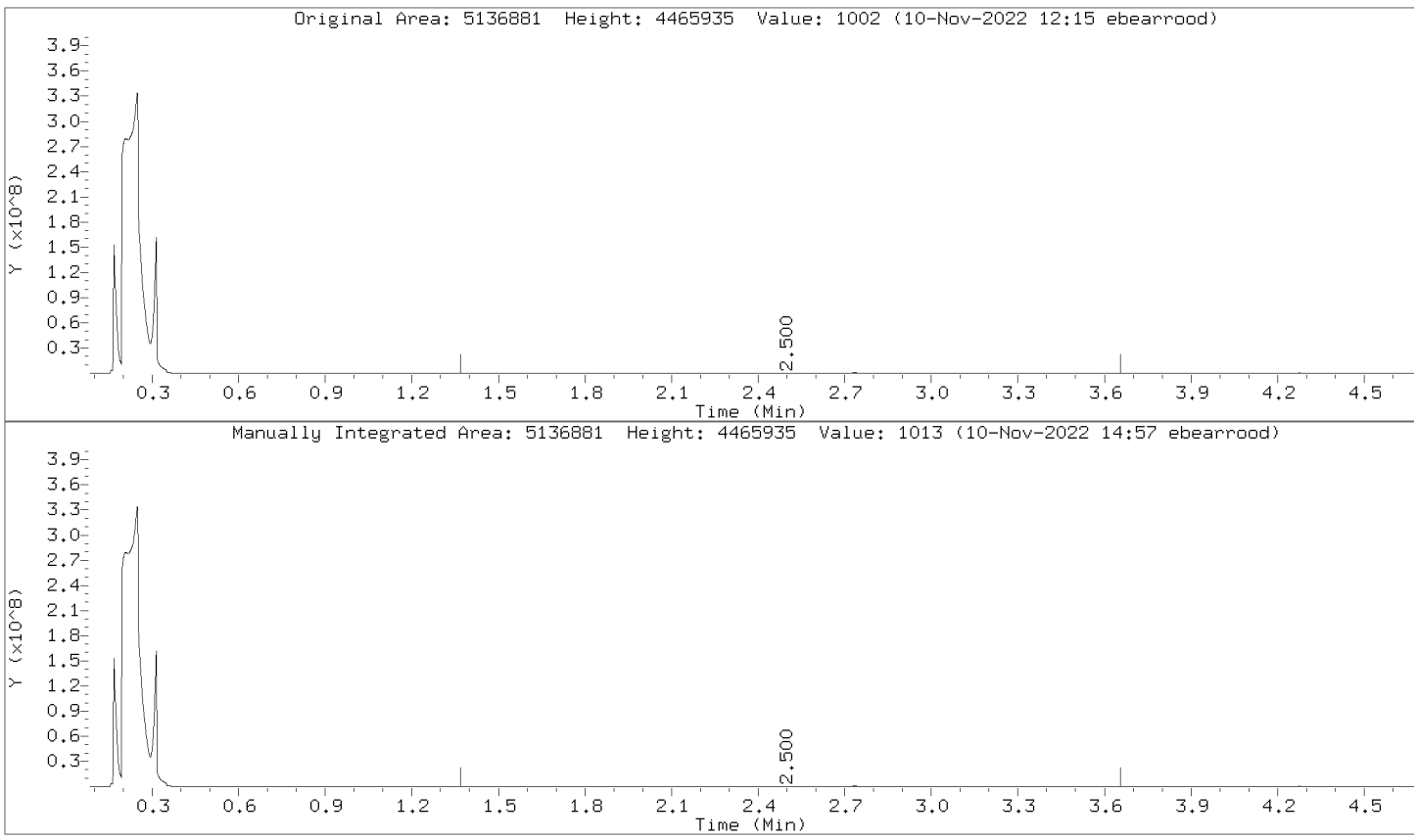
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



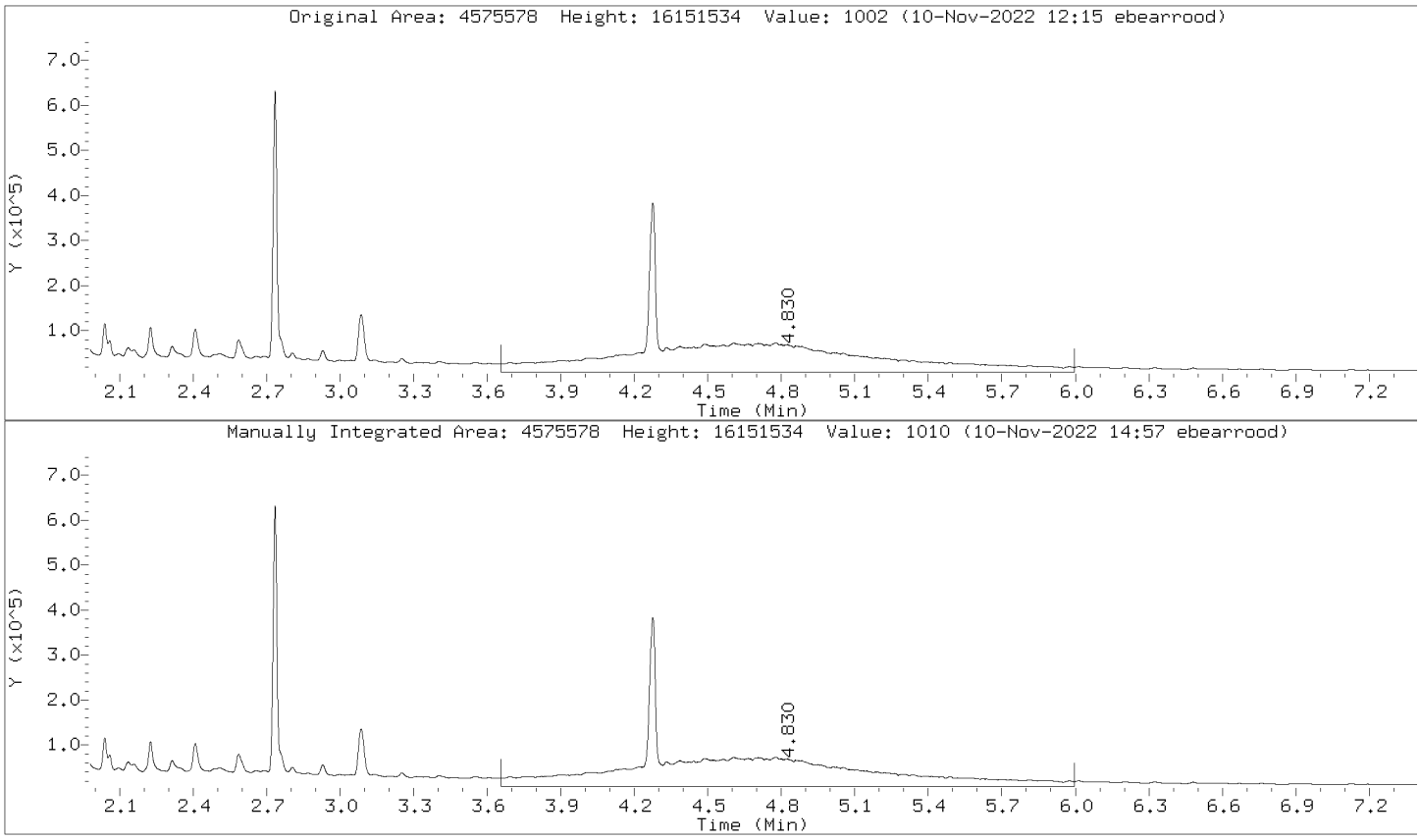
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



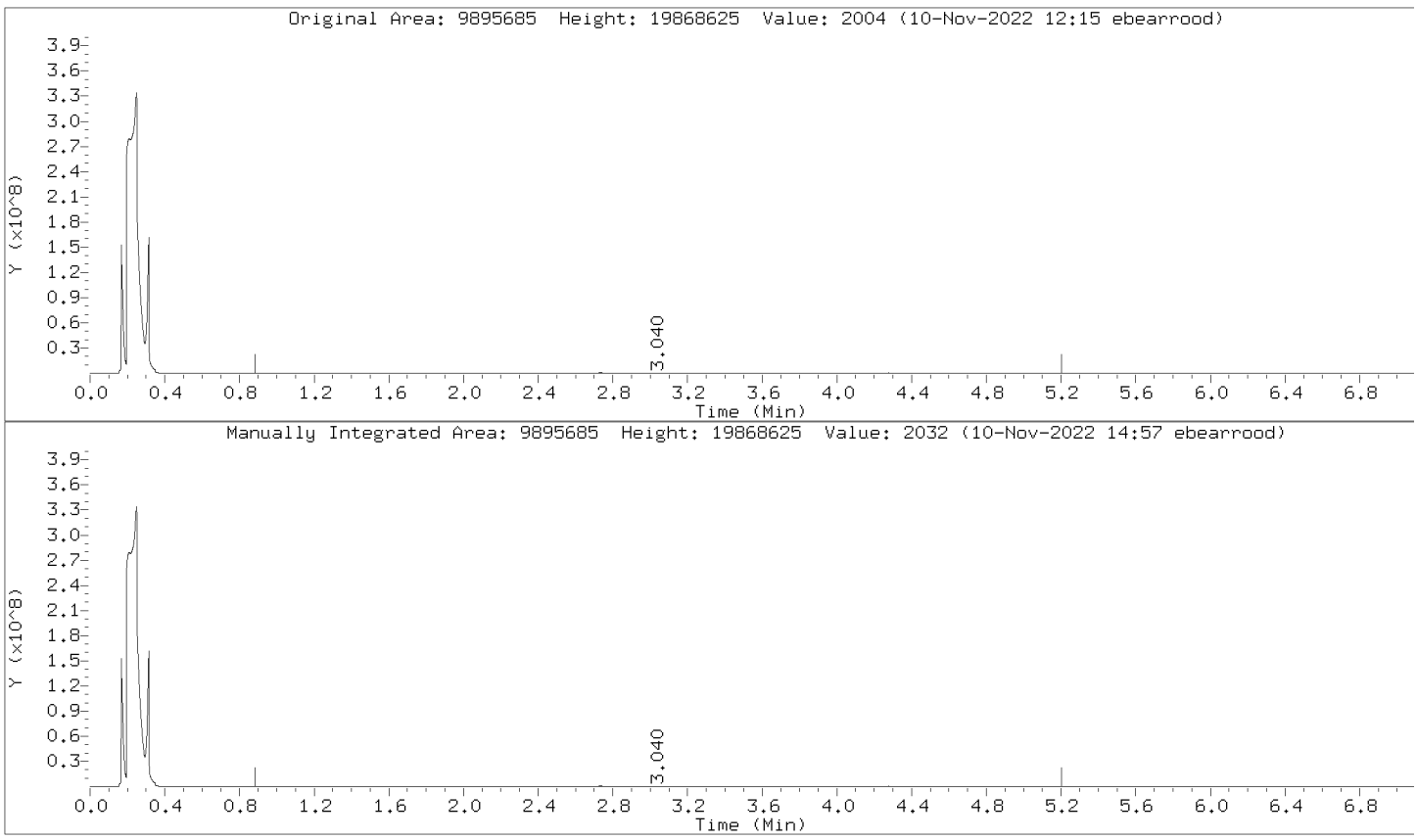
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



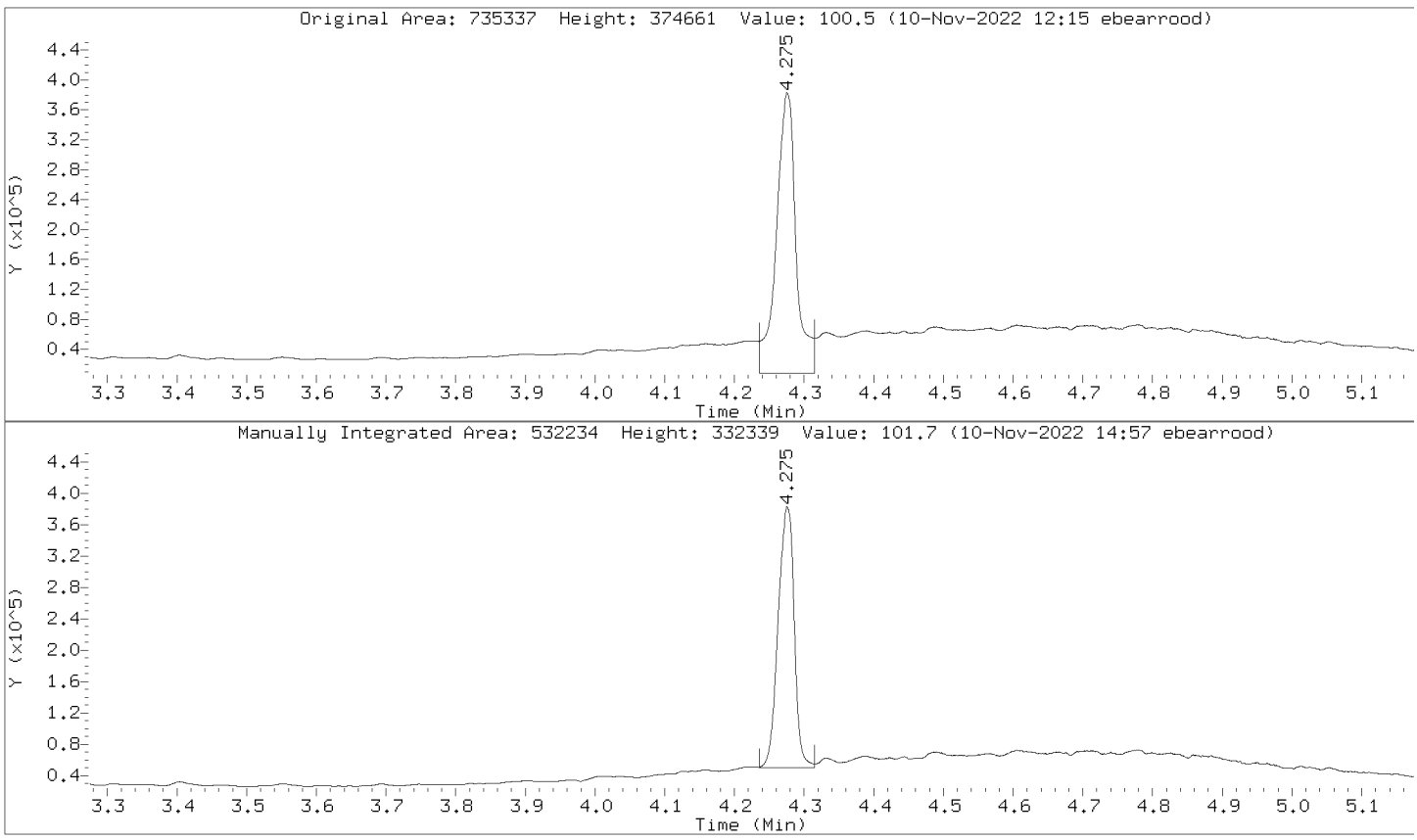
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



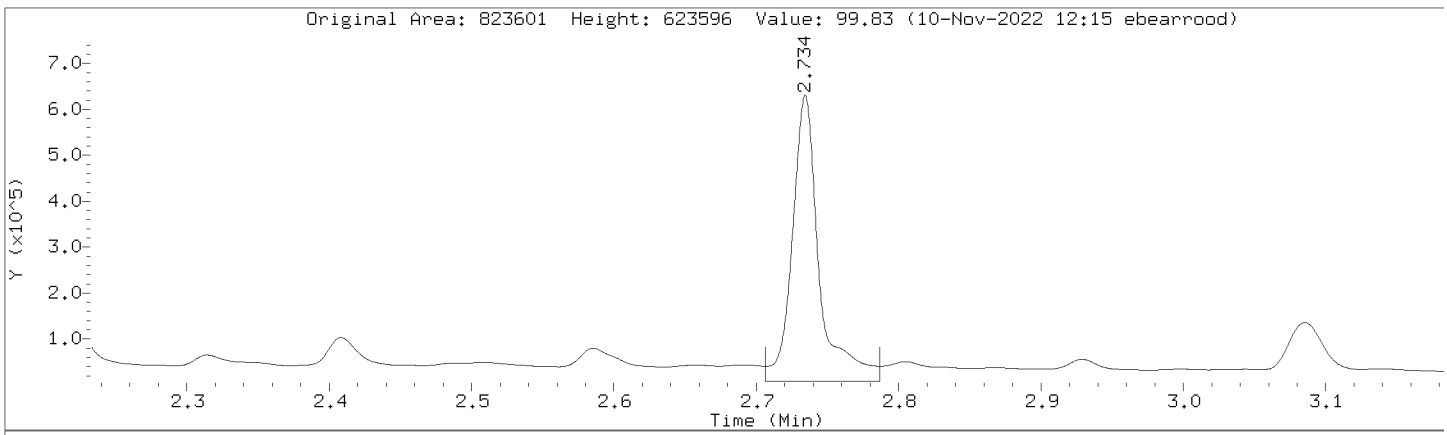
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

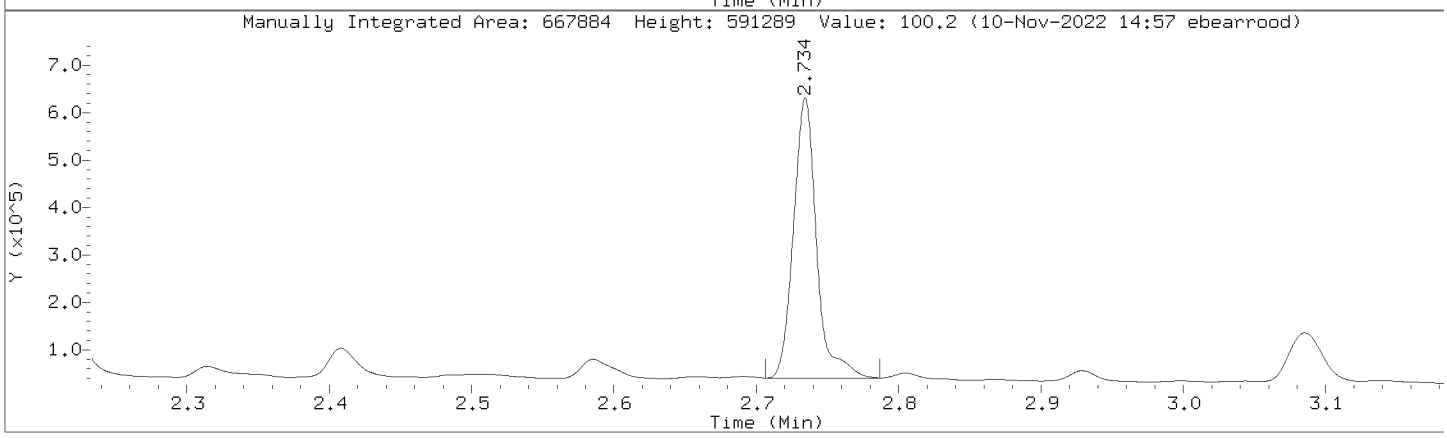
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

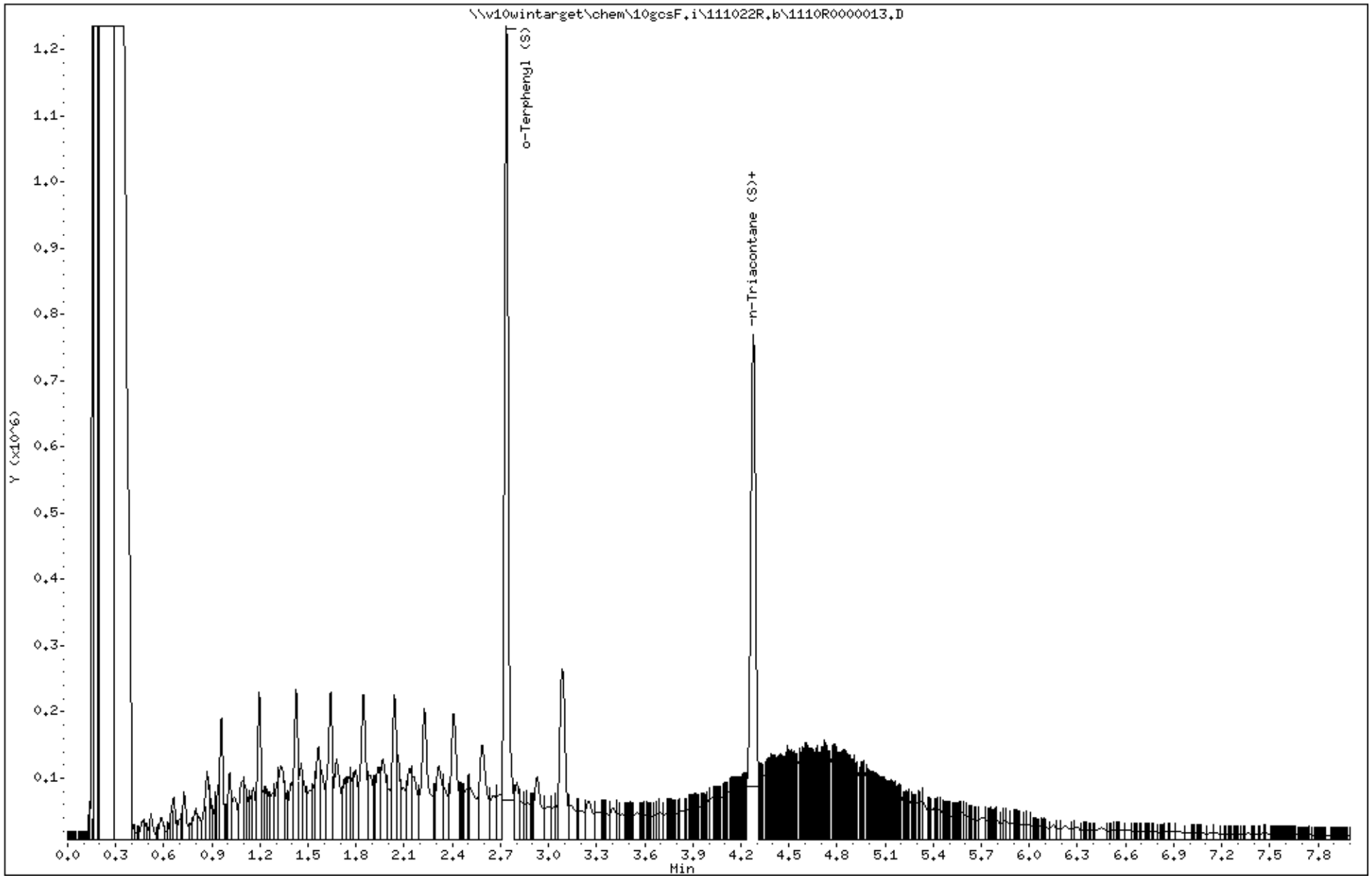
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

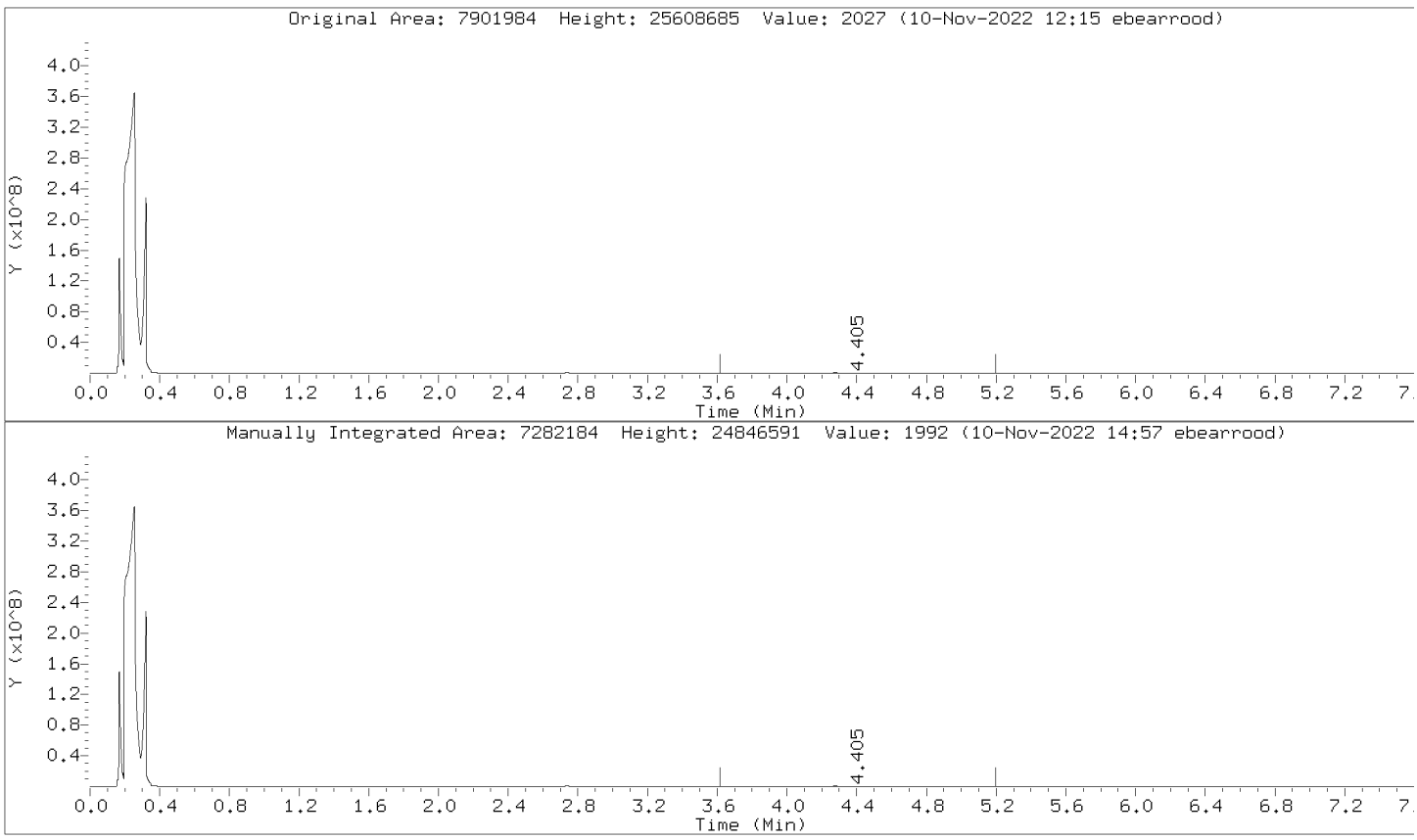
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



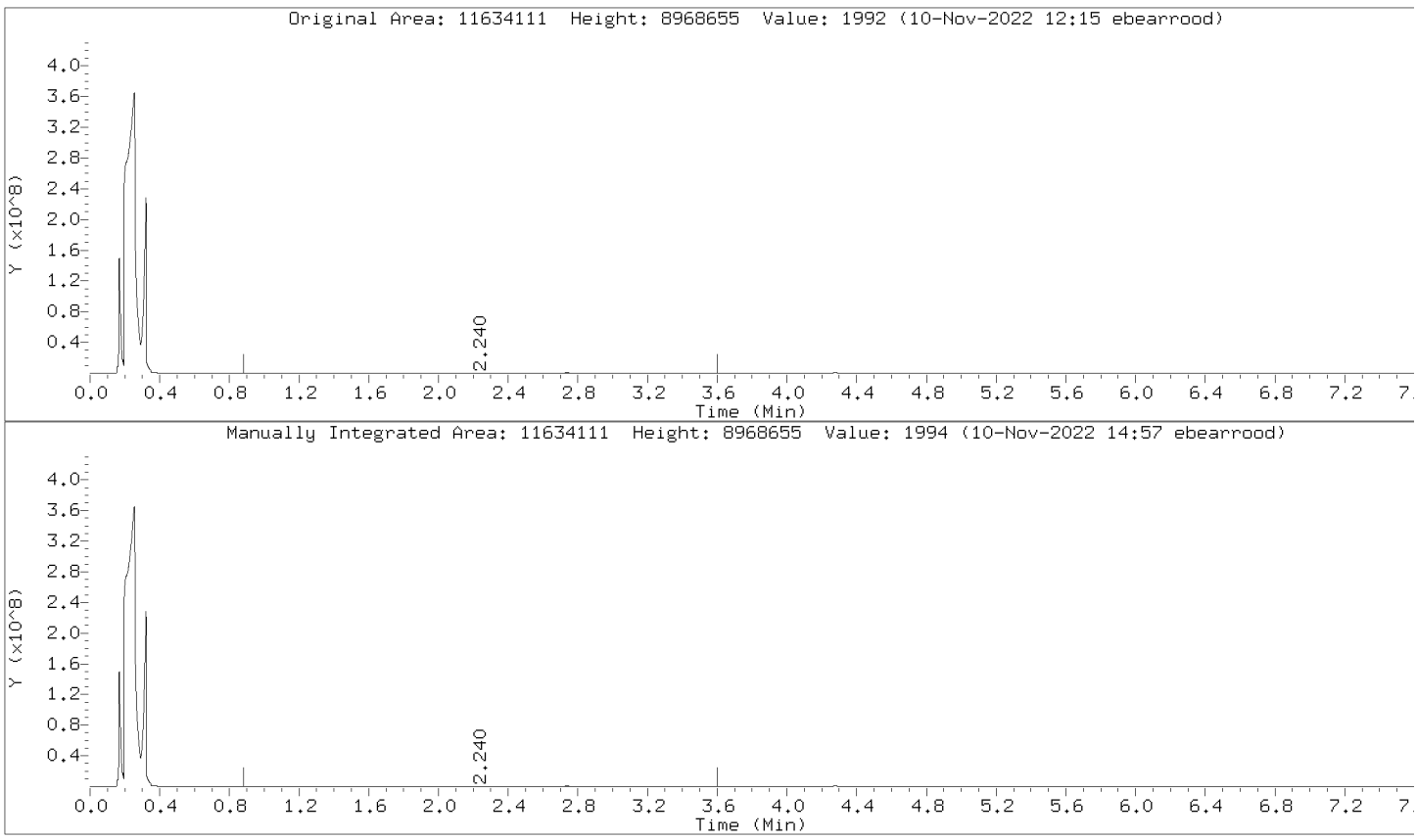
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



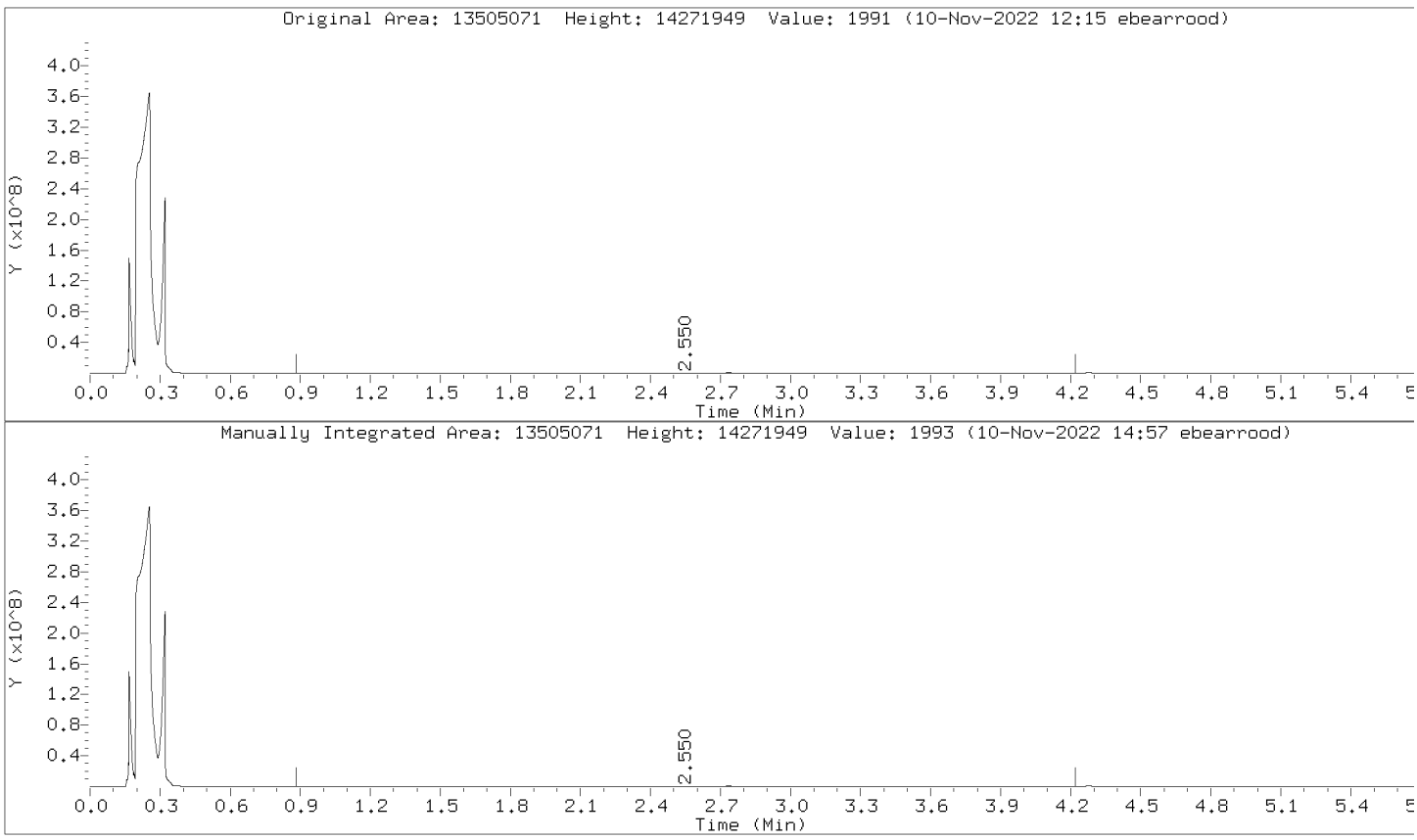
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



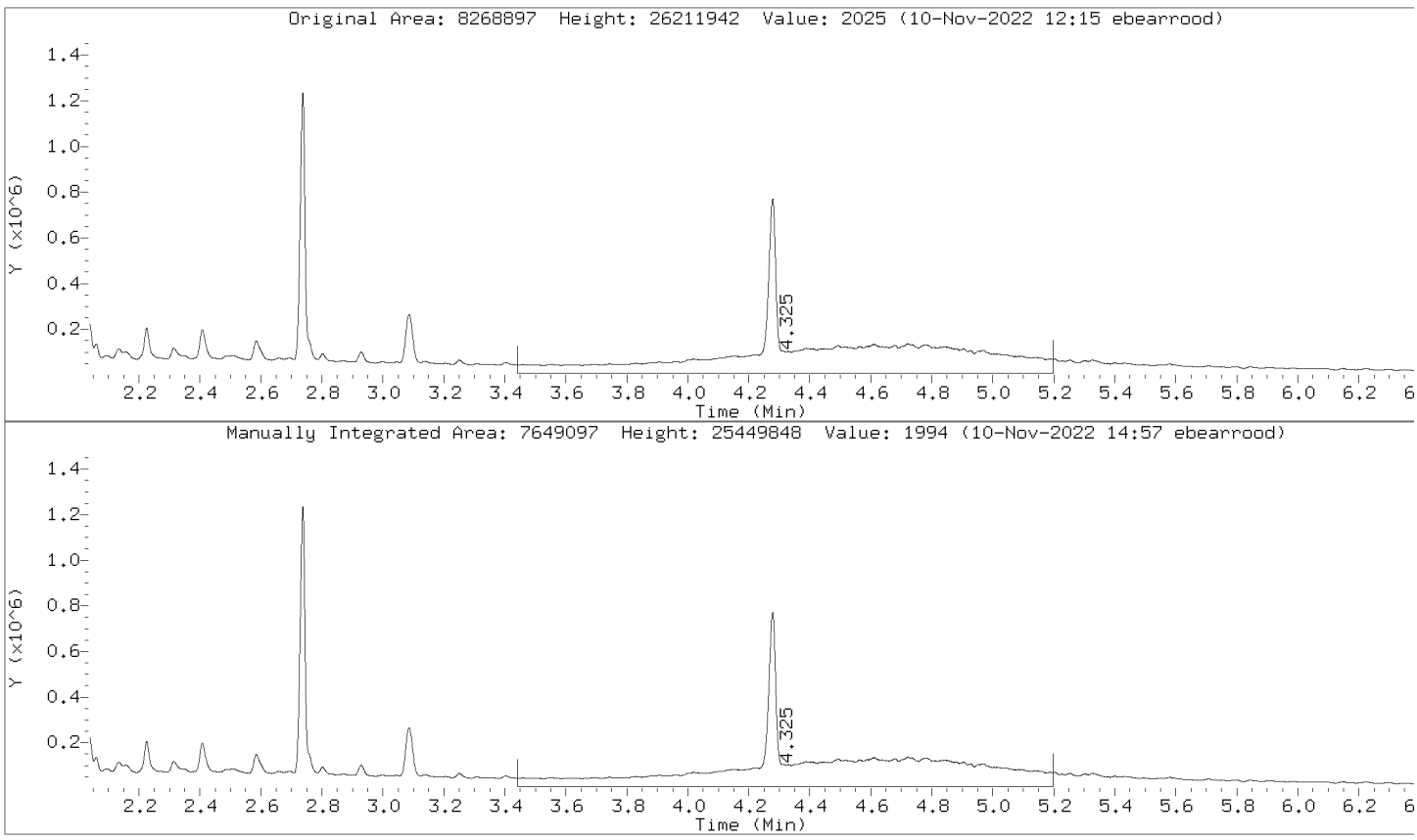
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



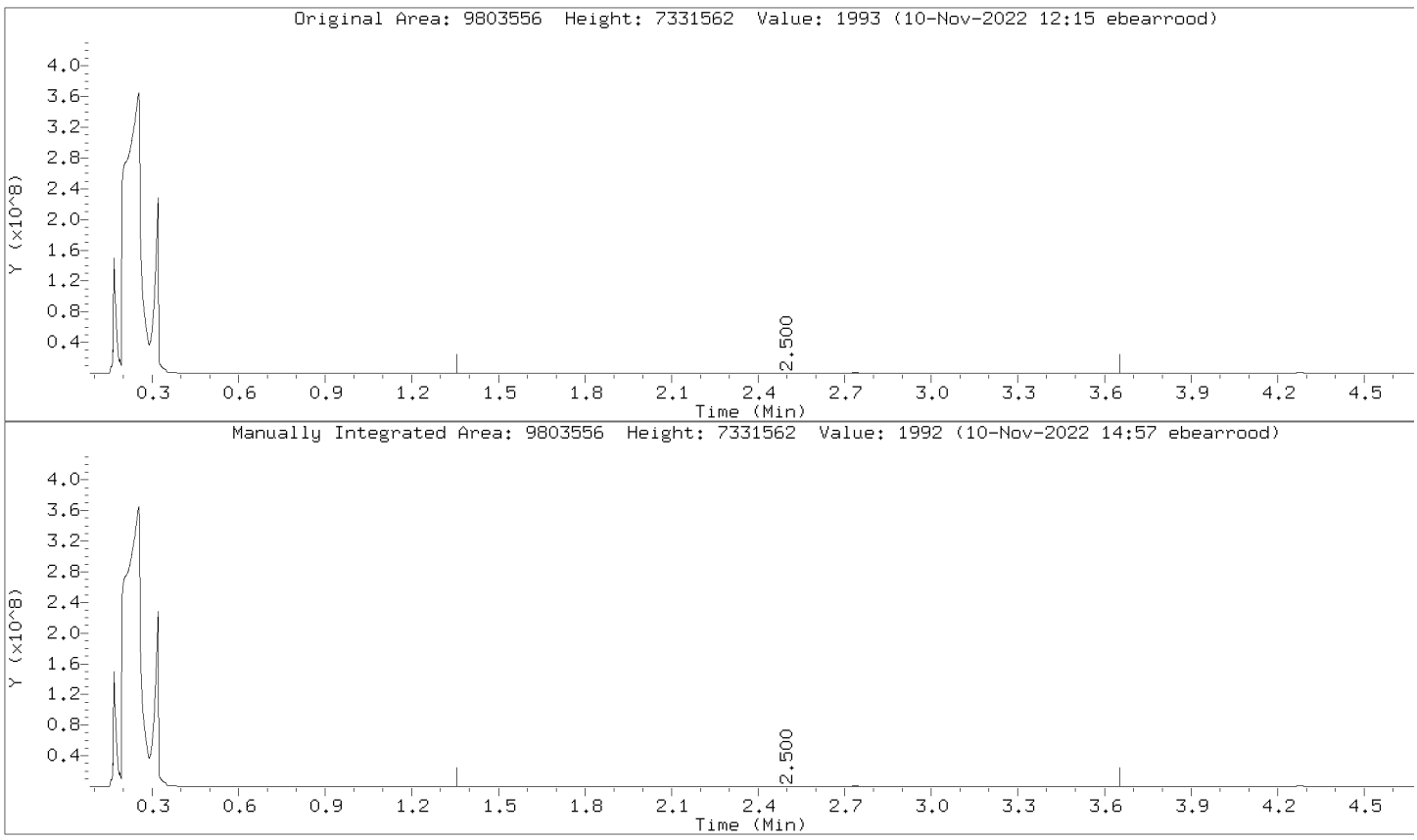
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



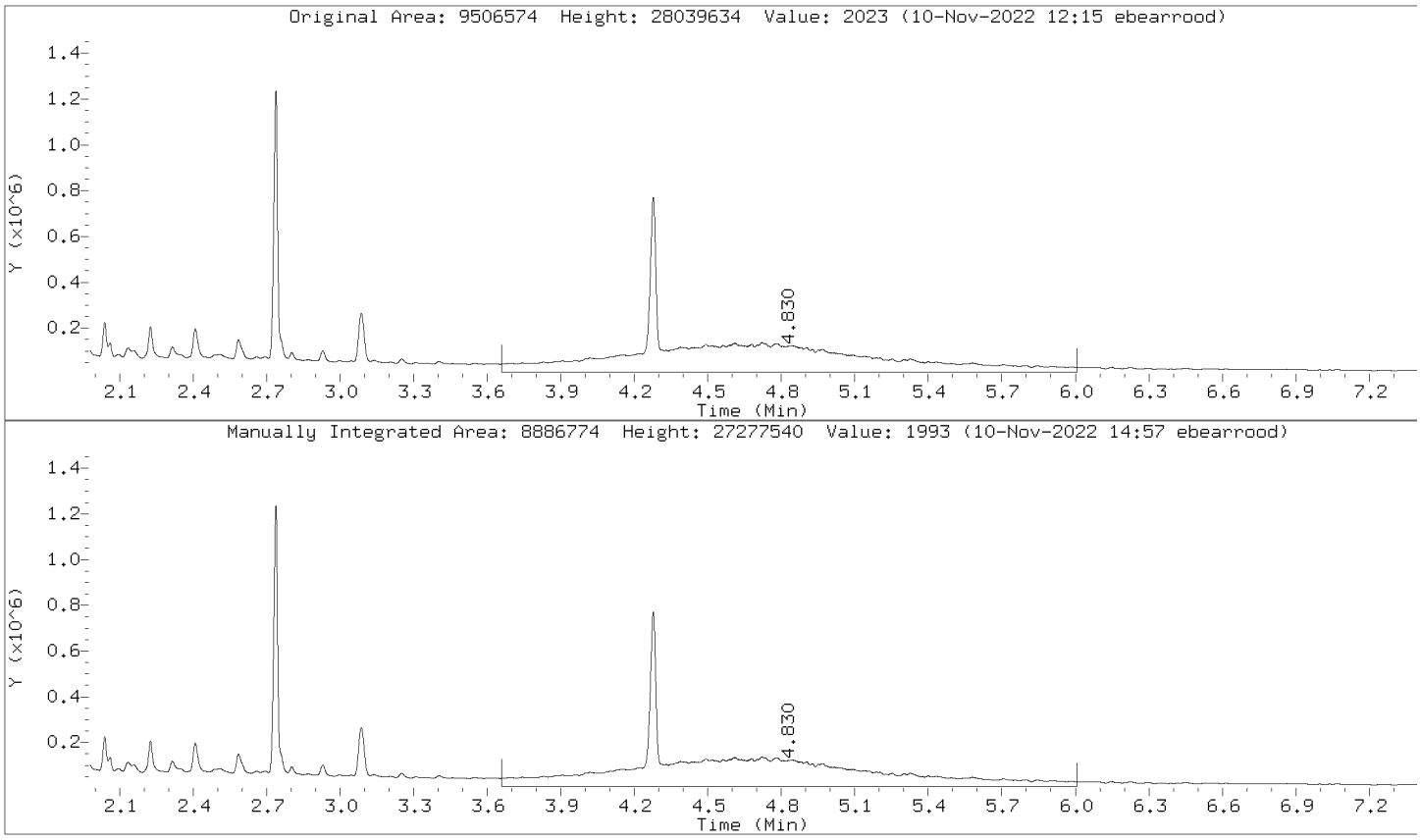
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



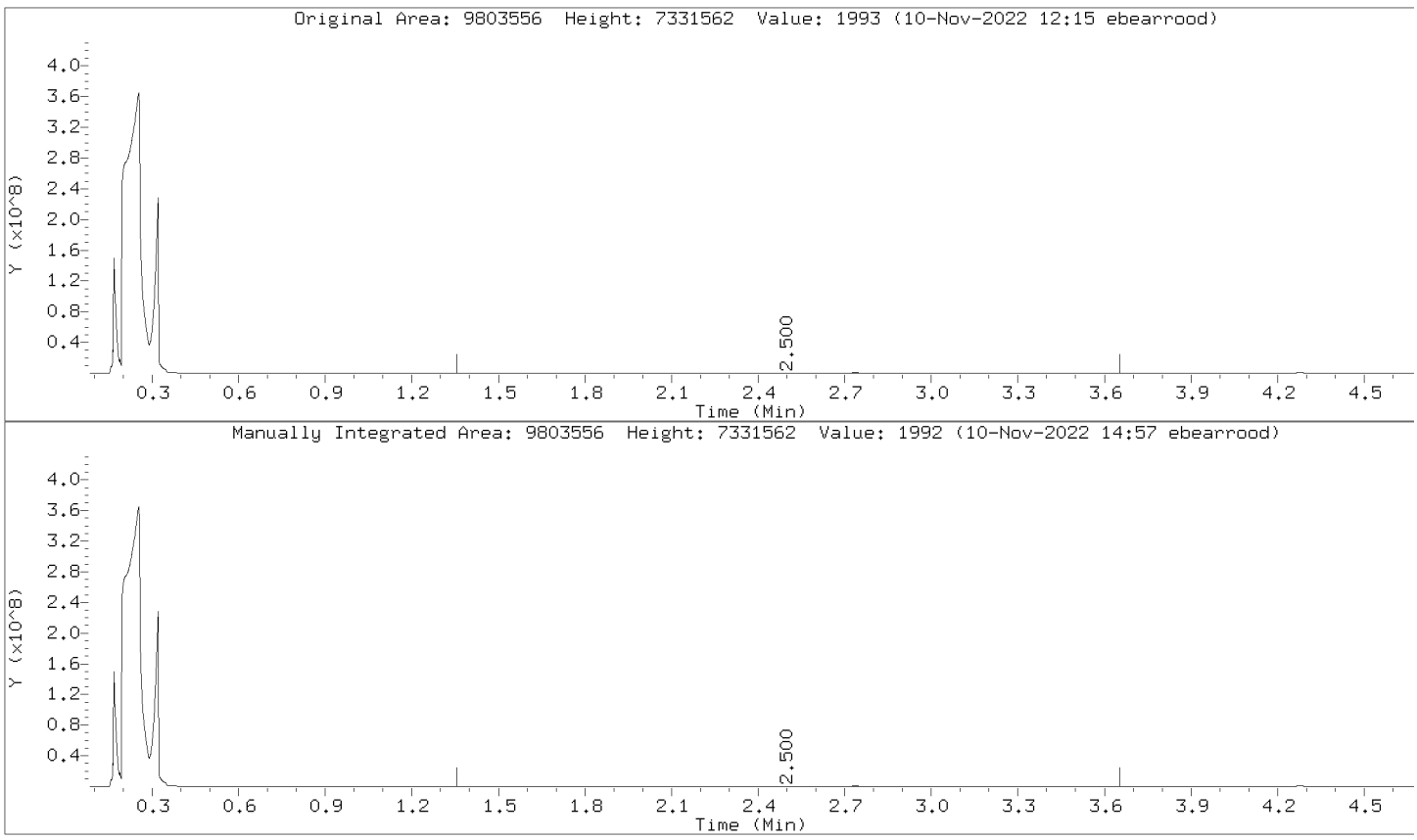
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



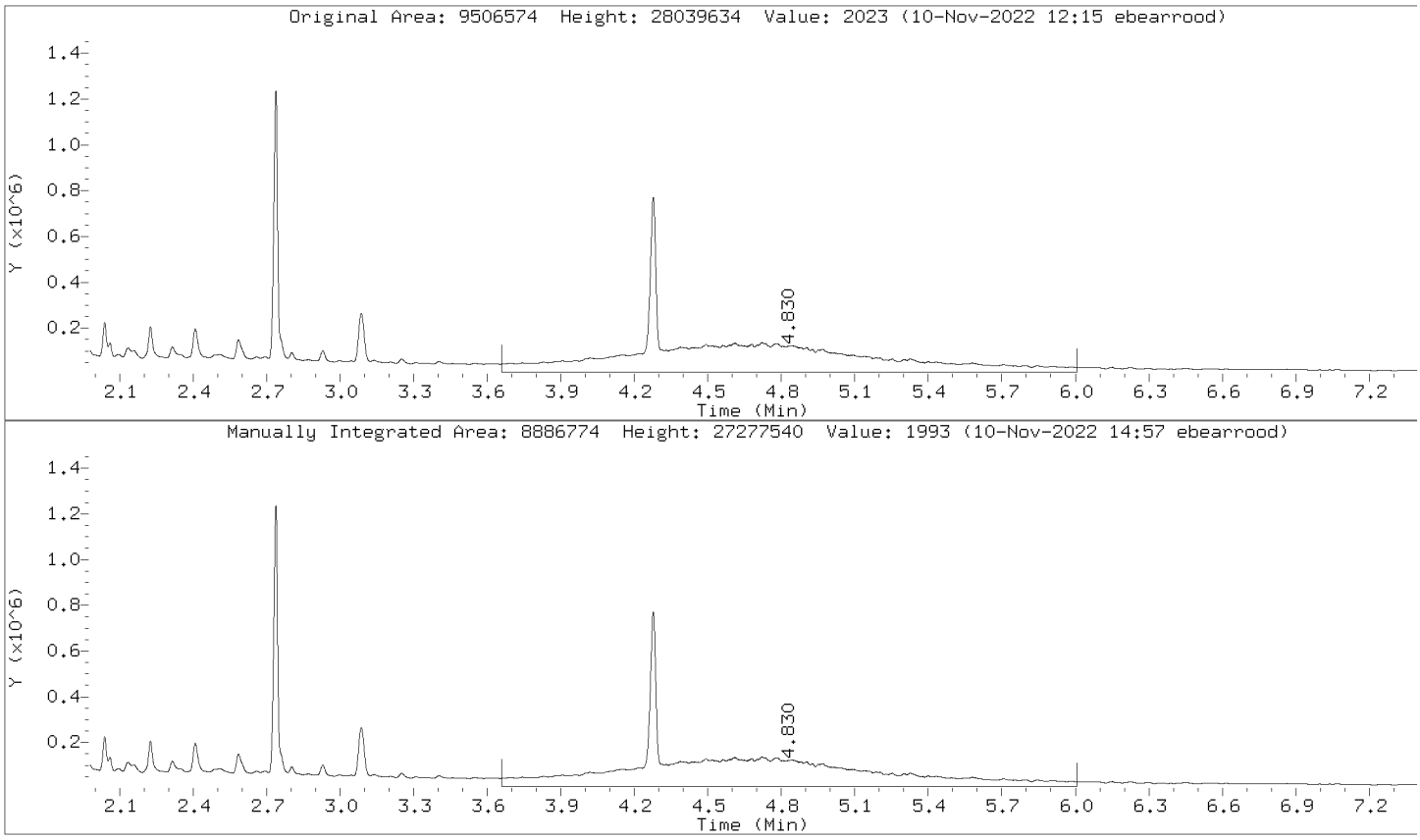
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



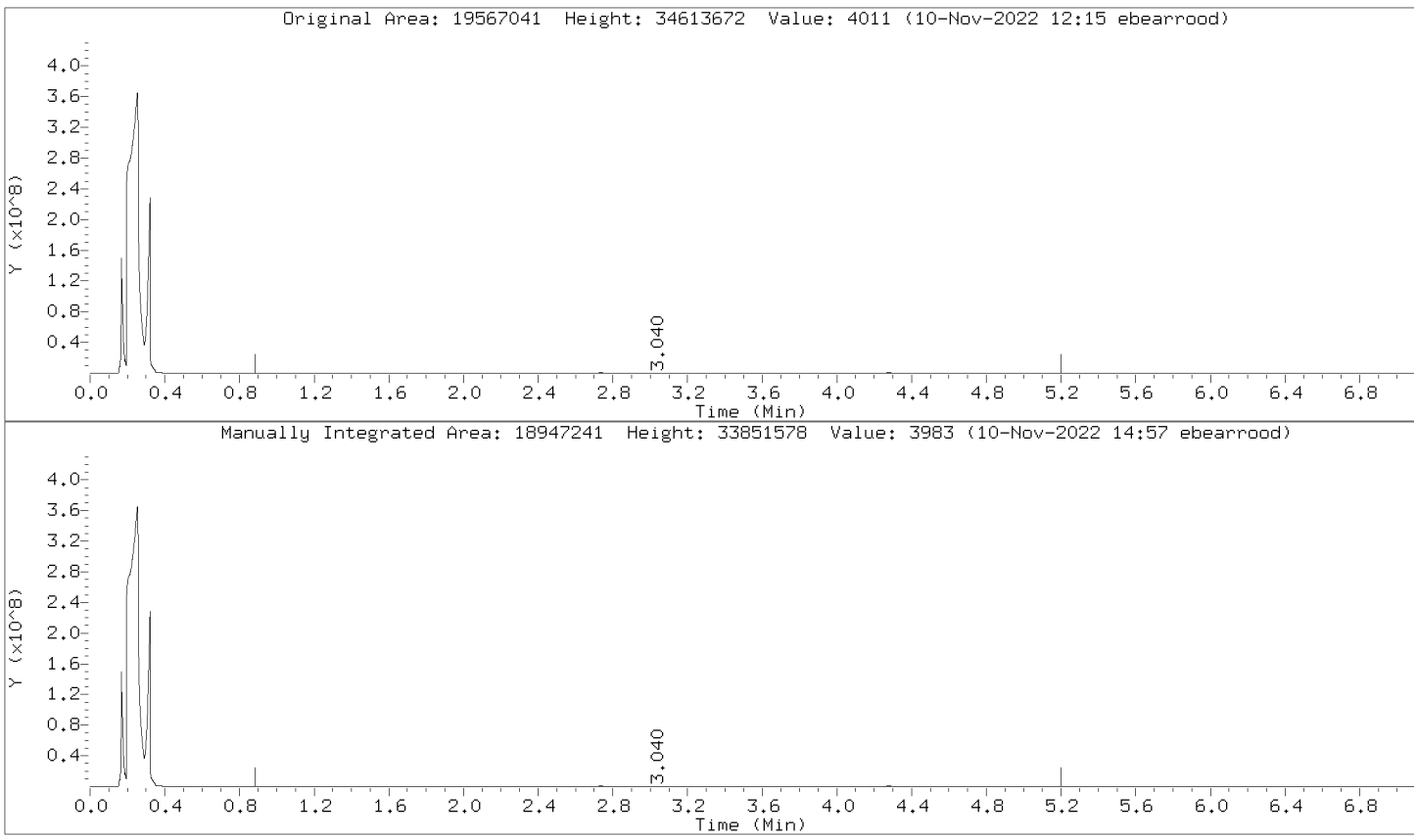
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



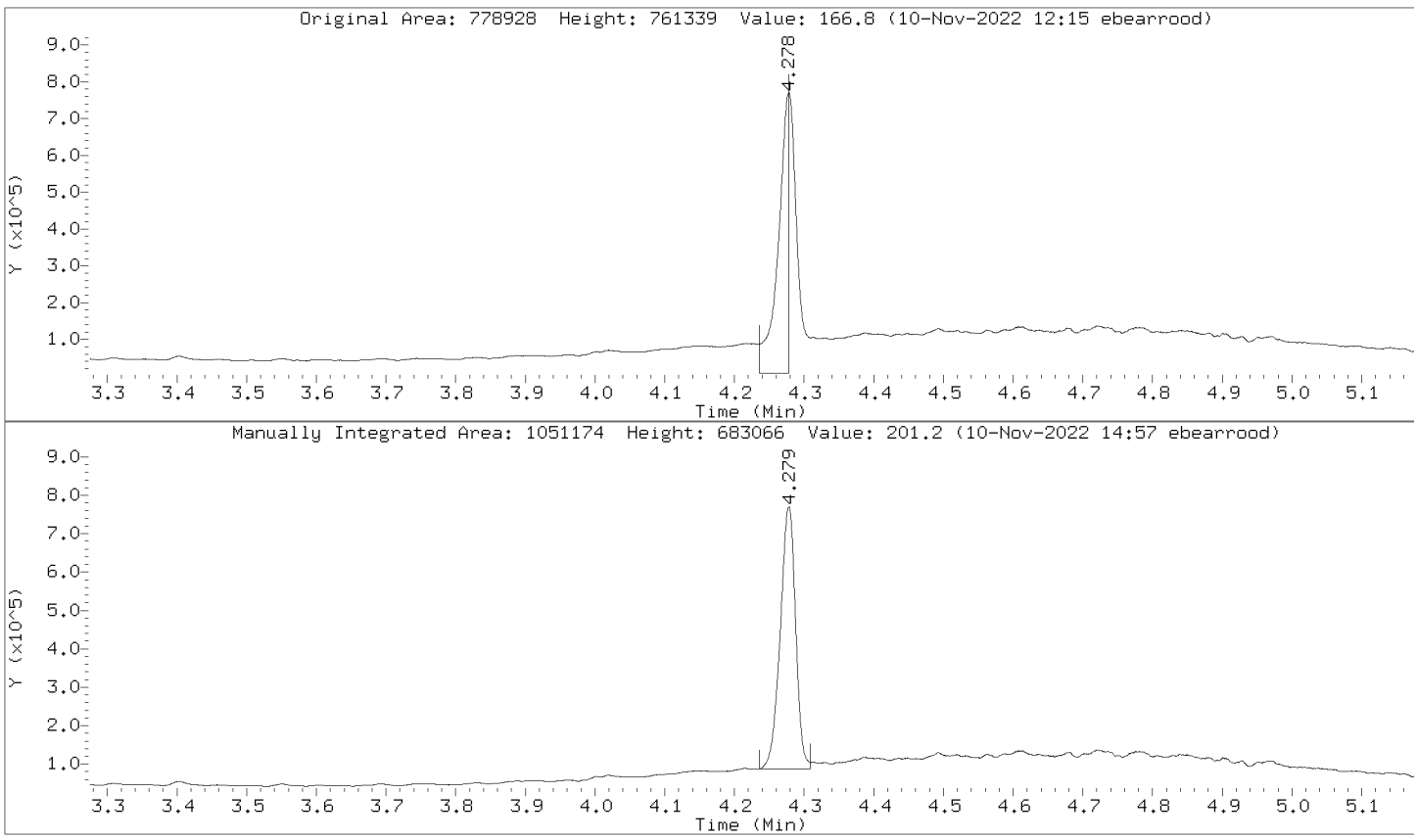
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: C10-C36 Review Code: RNG
CAS Number:



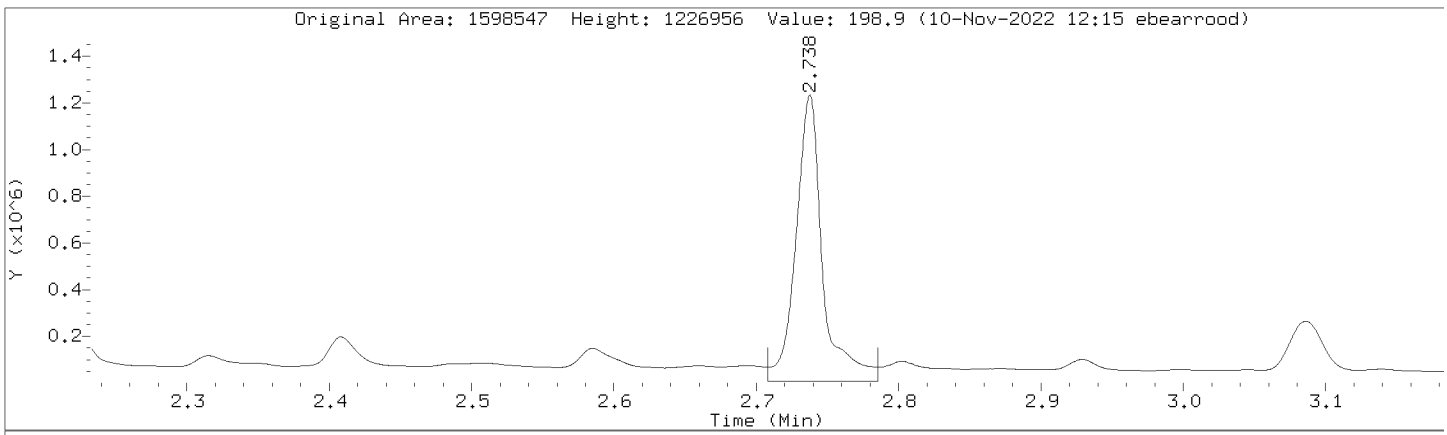
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

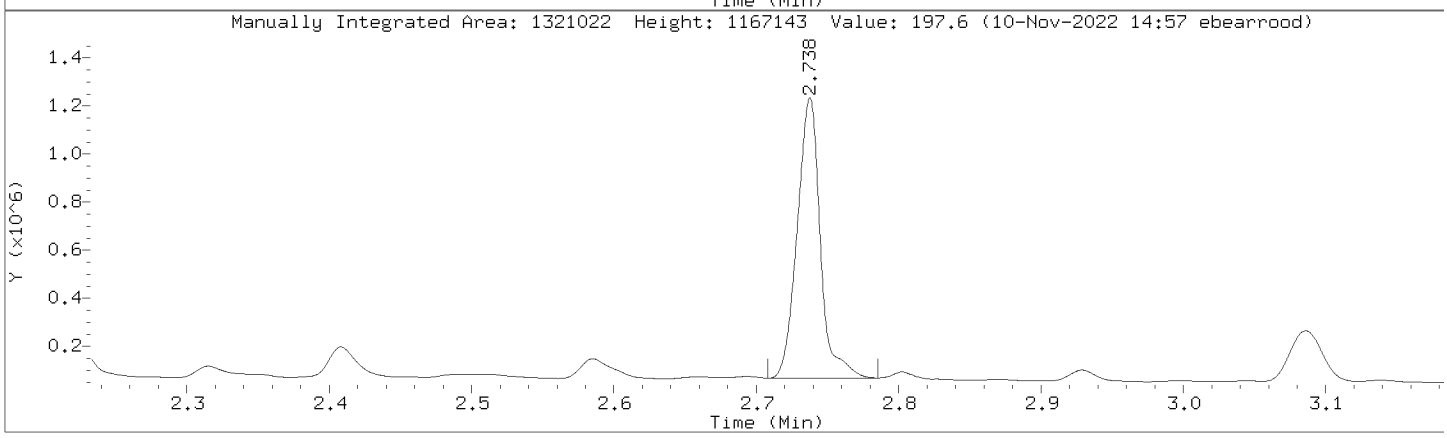
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW	CODE
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

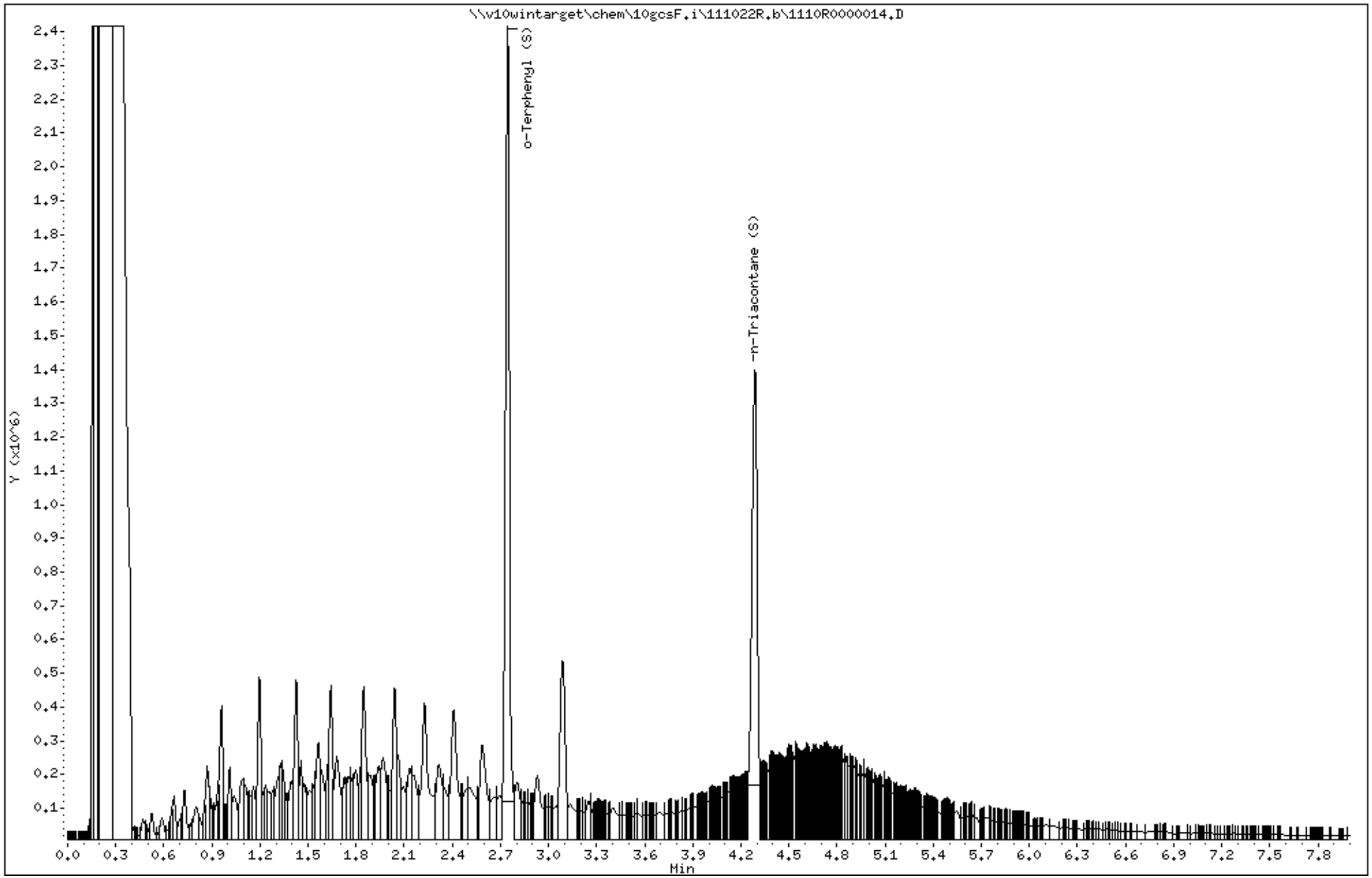
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

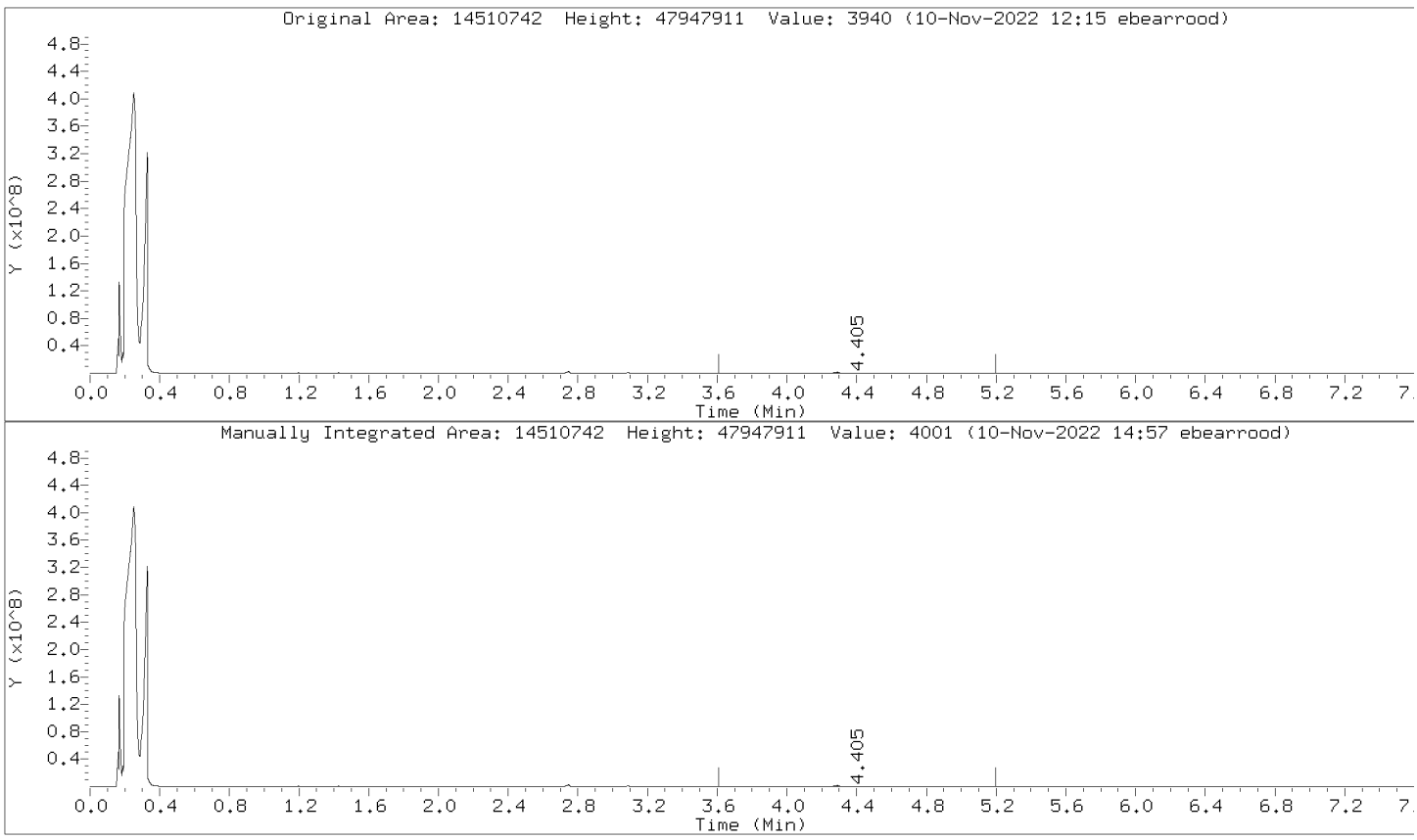
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



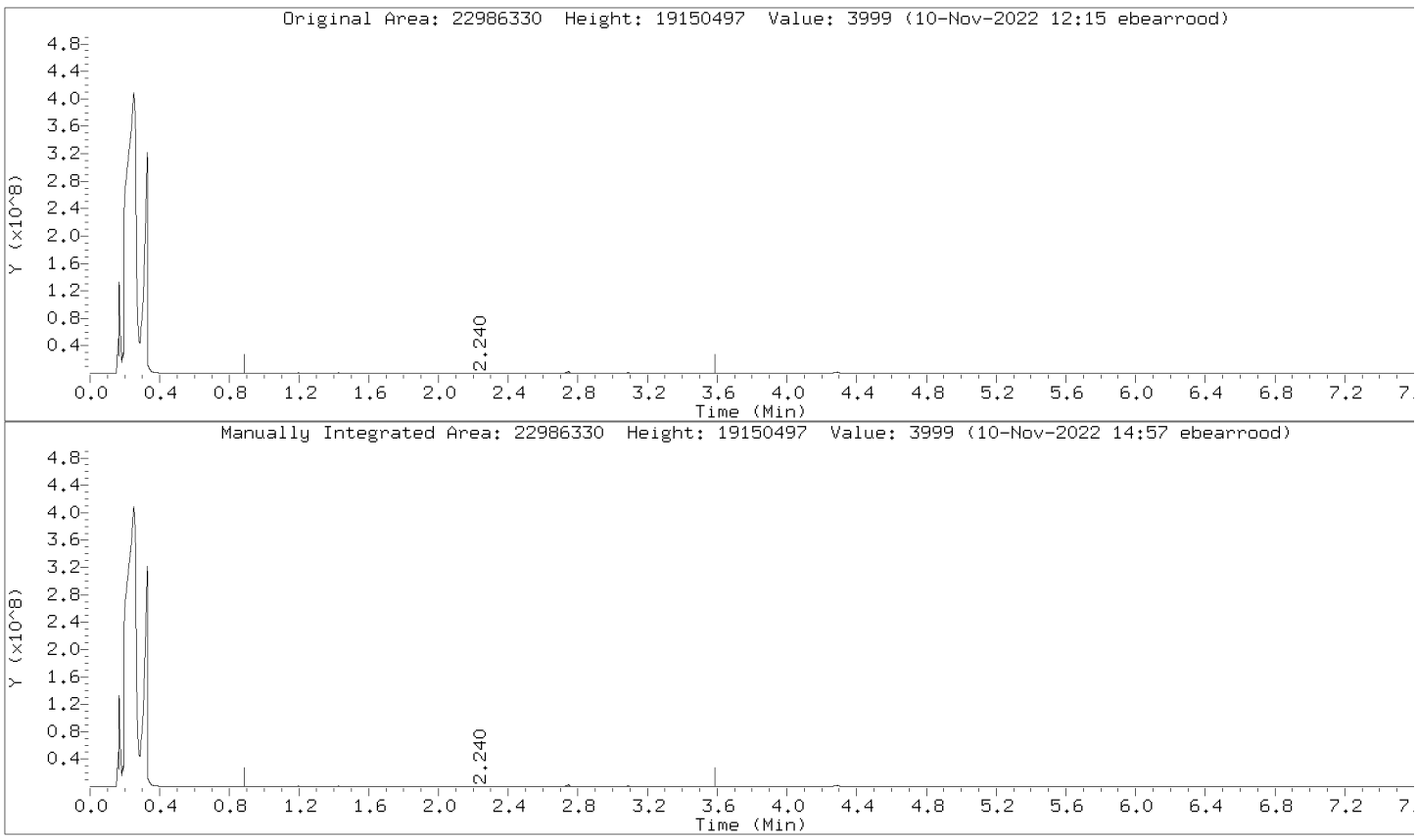
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



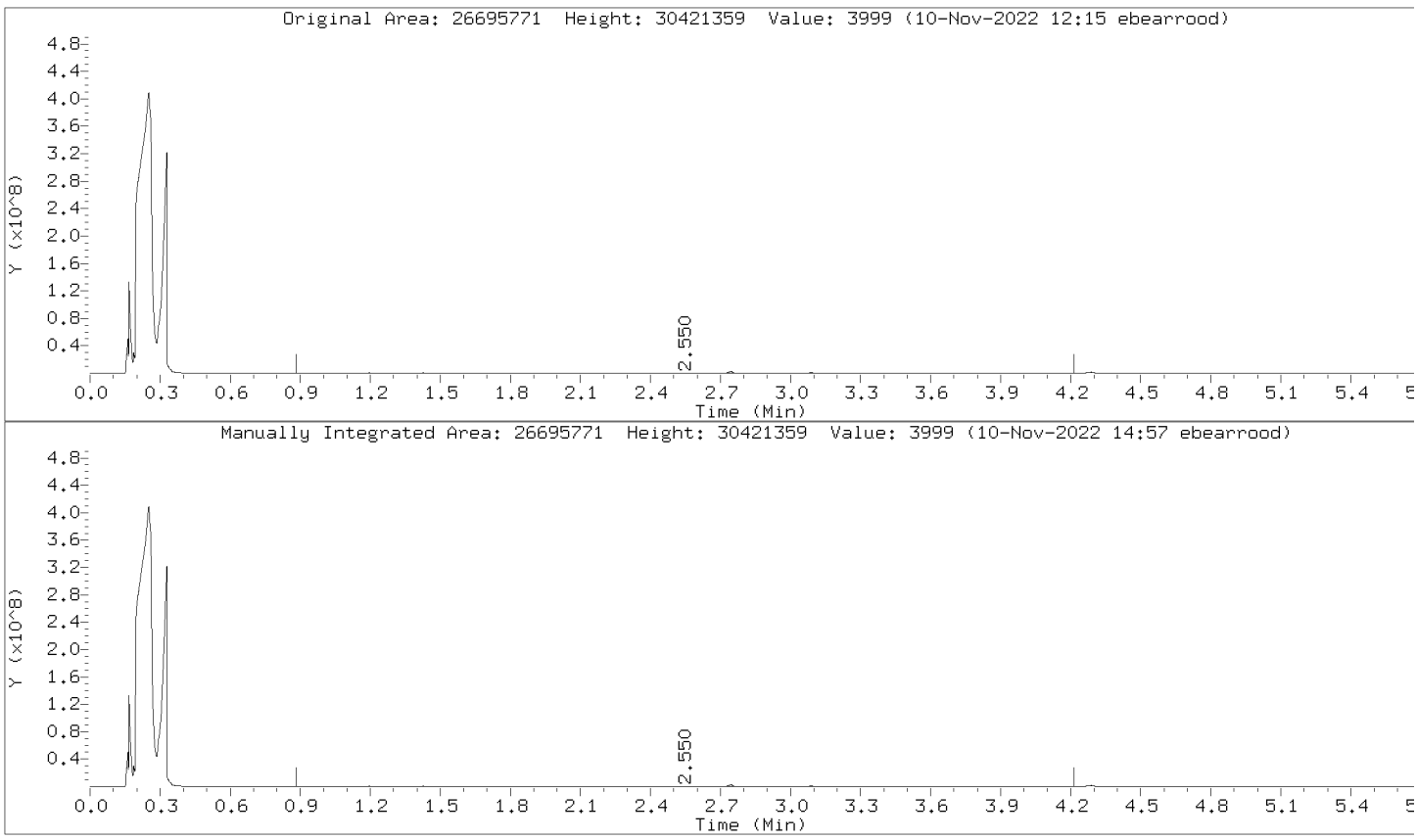
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



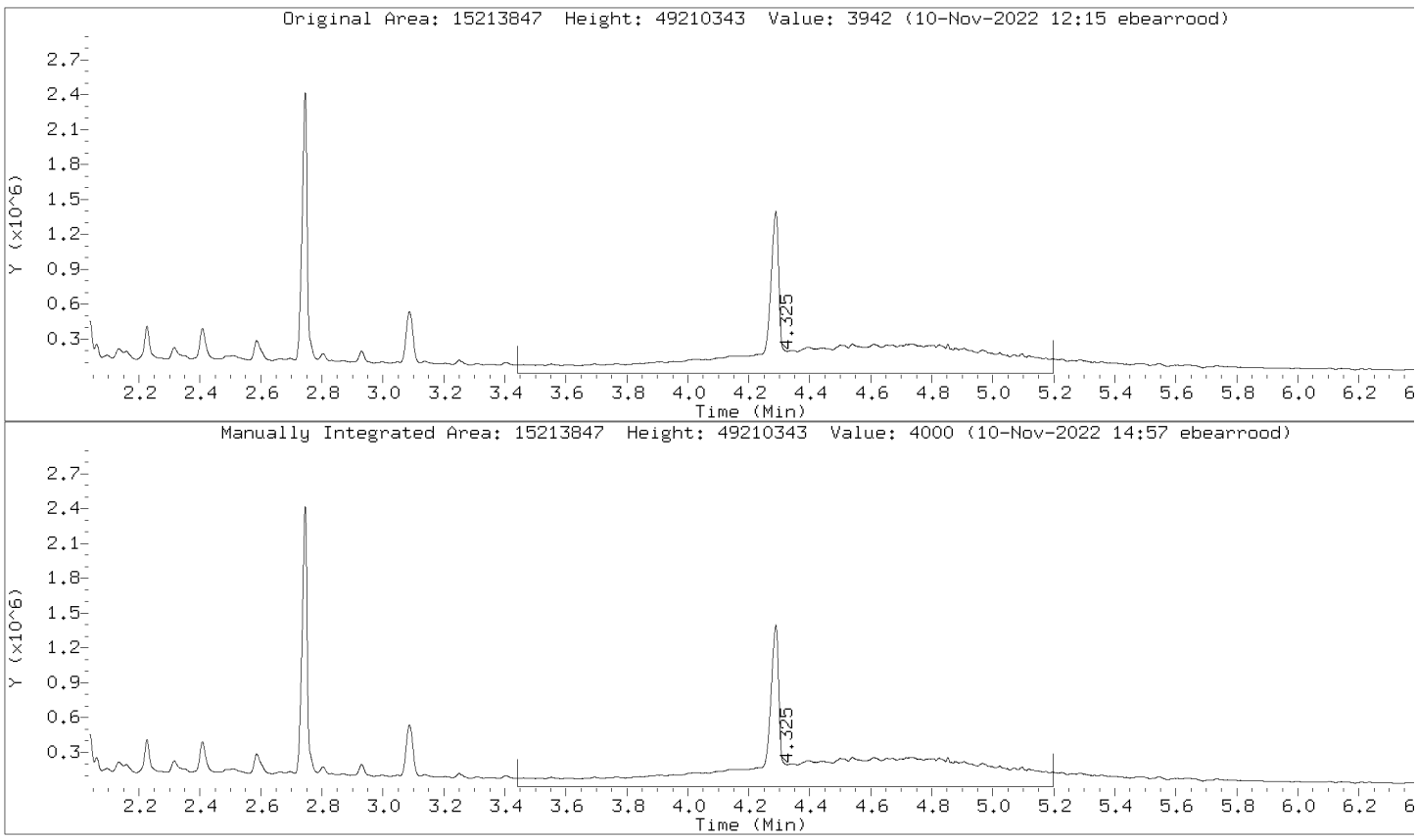
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



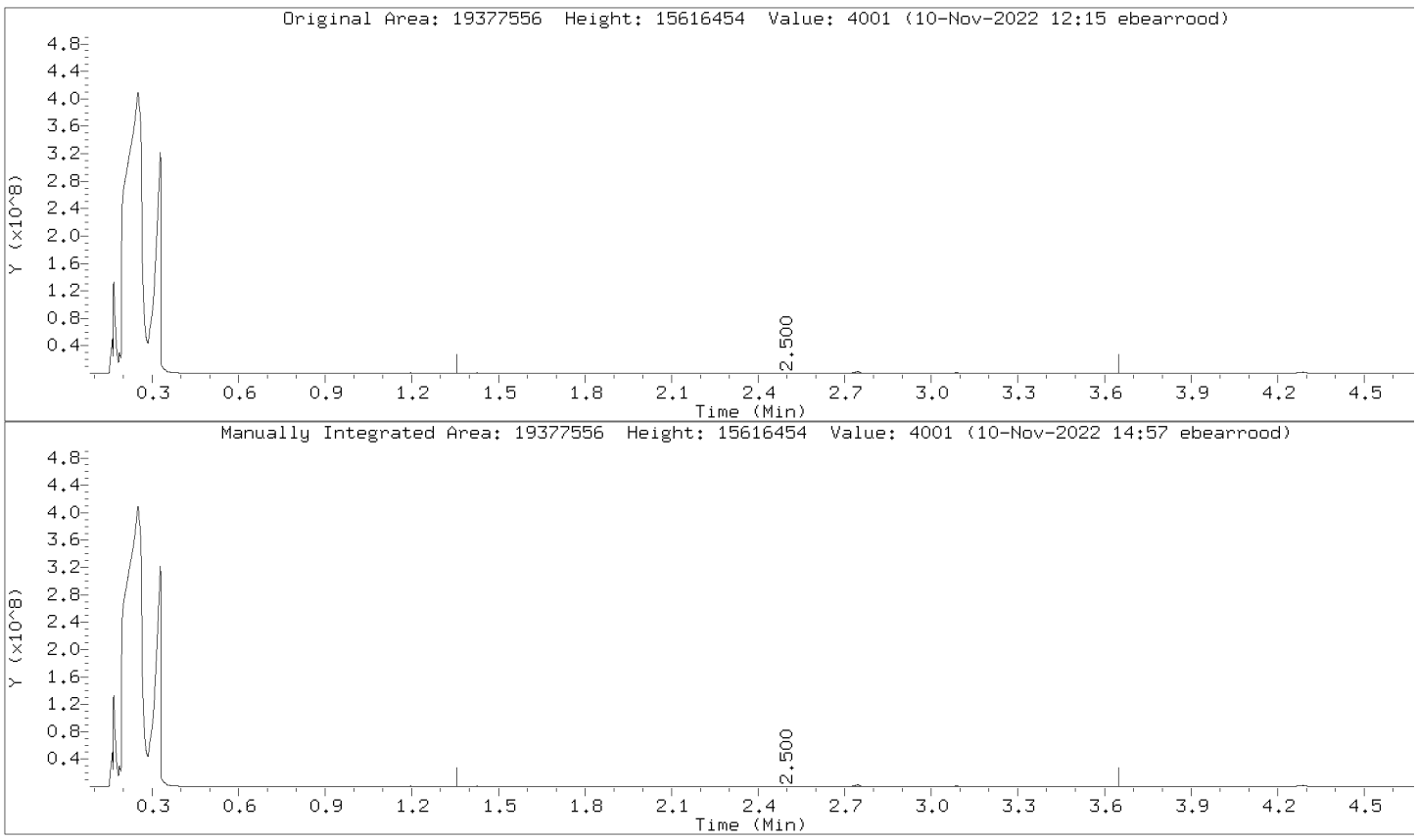
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



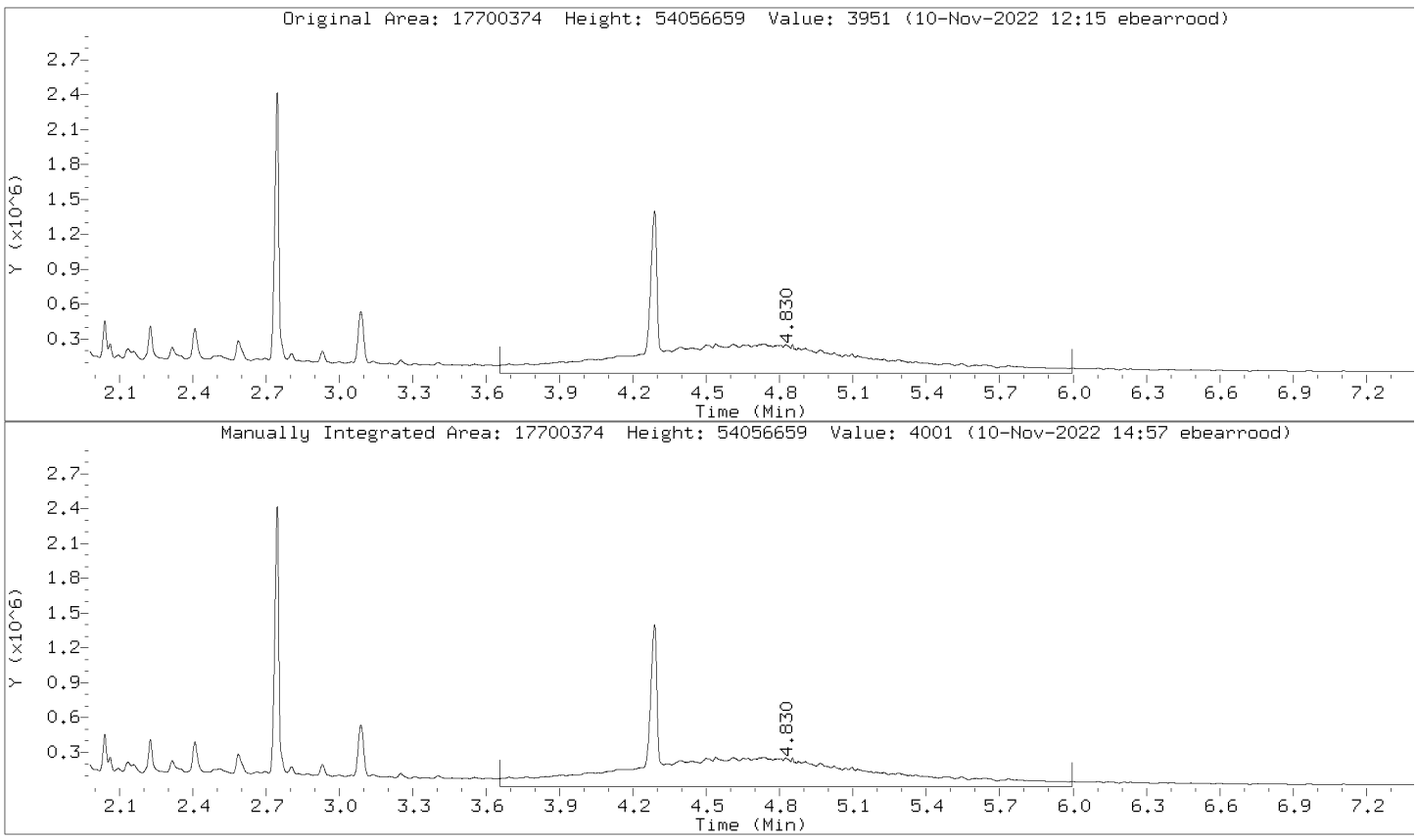
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



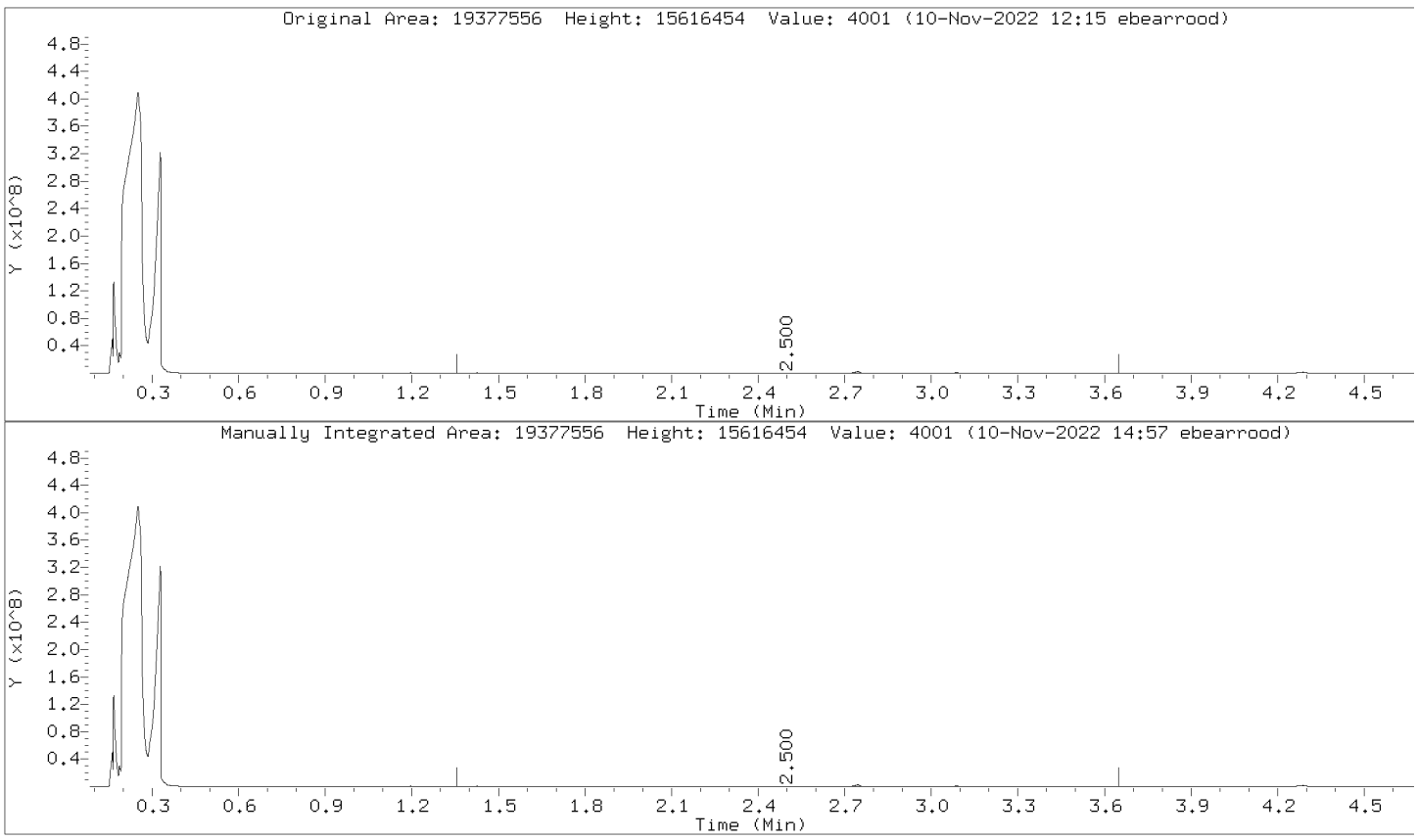
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



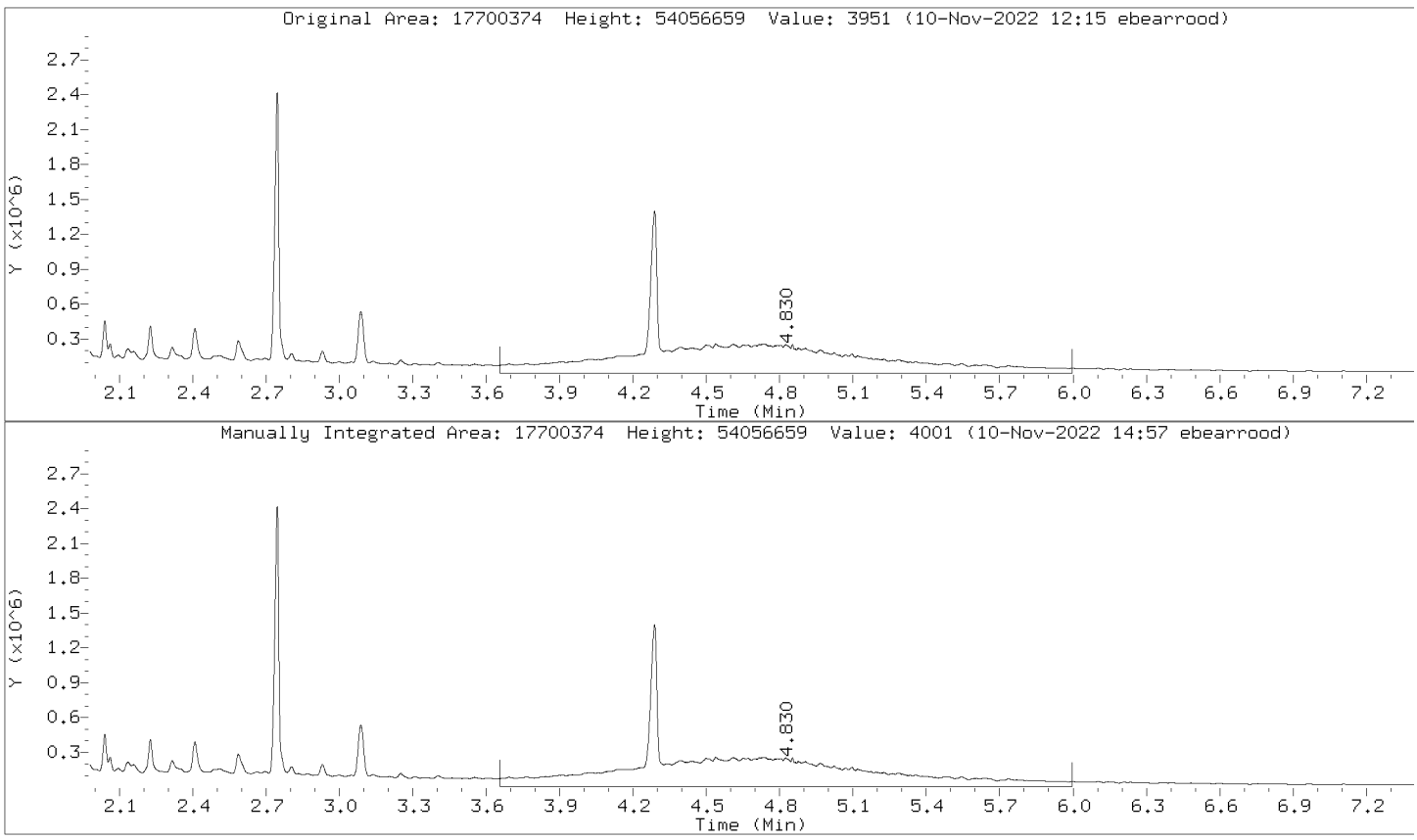
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



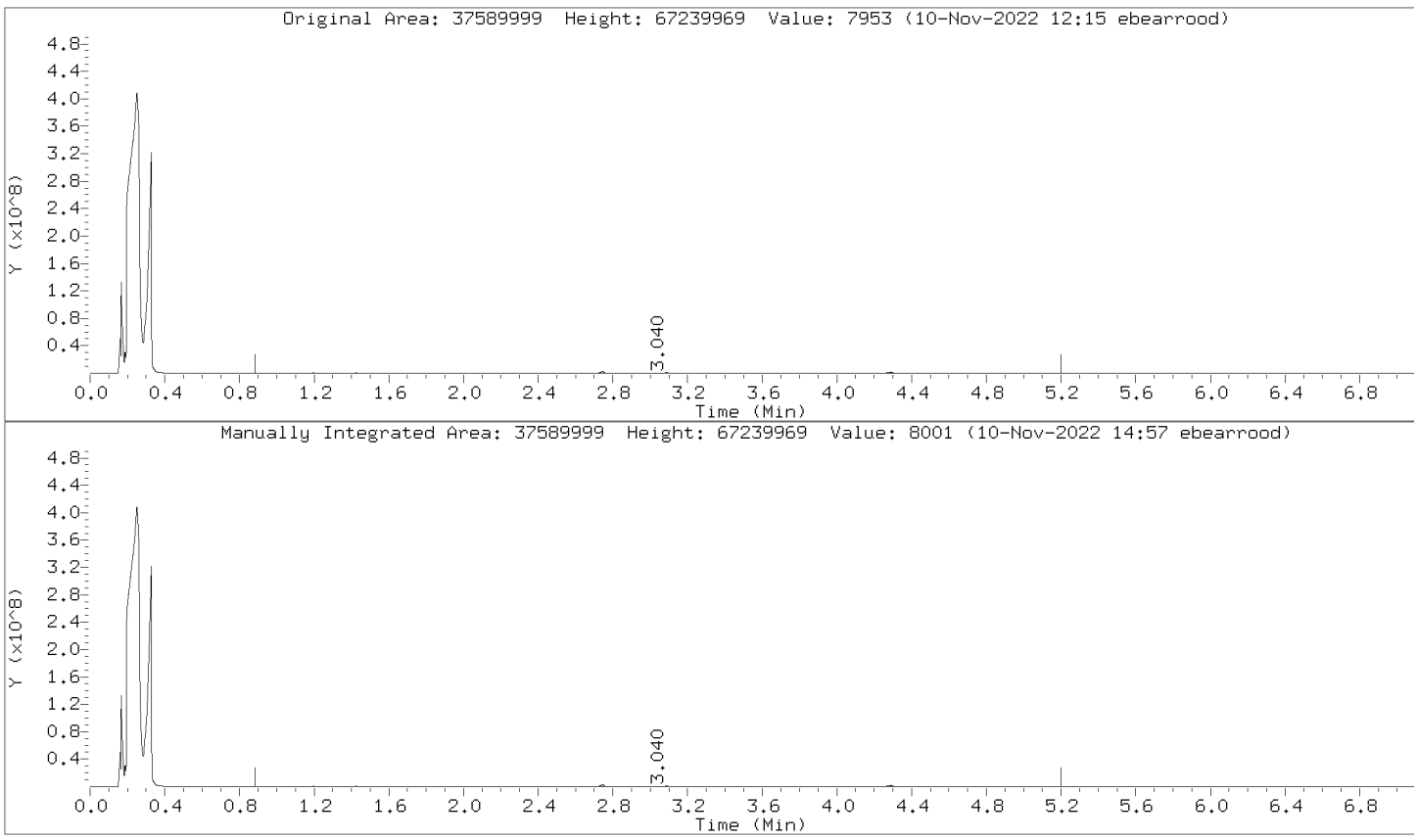
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



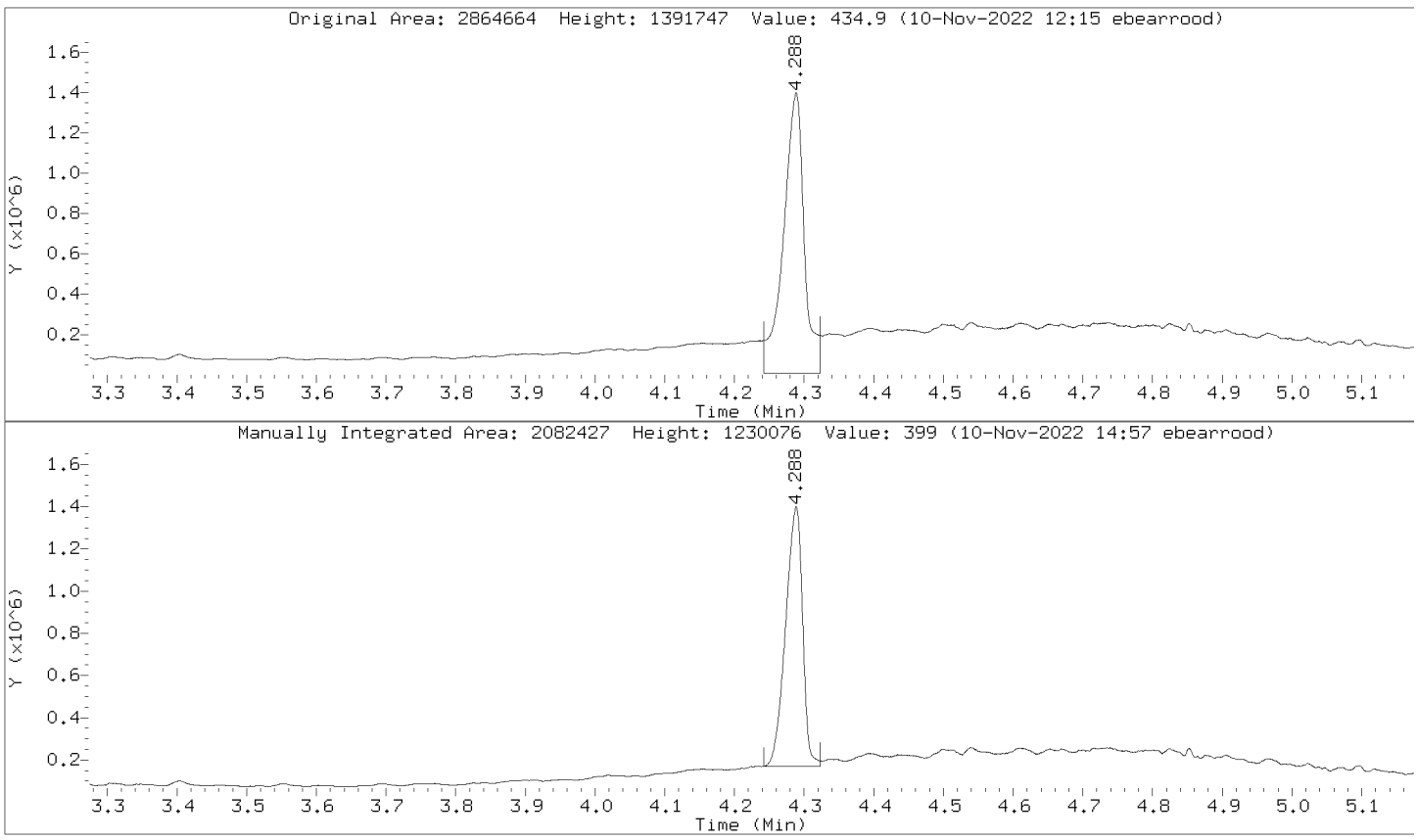
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



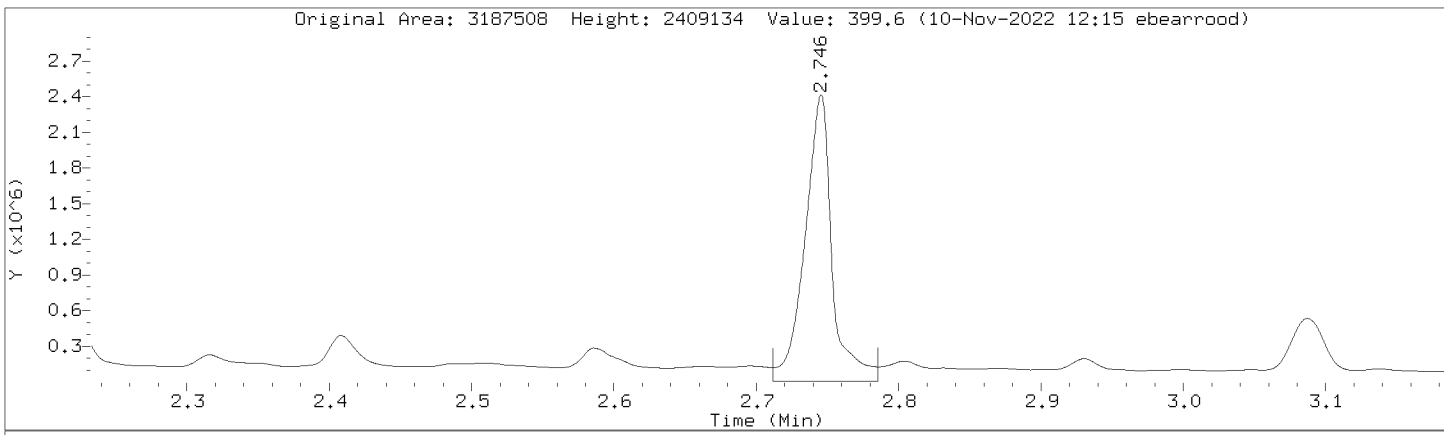
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

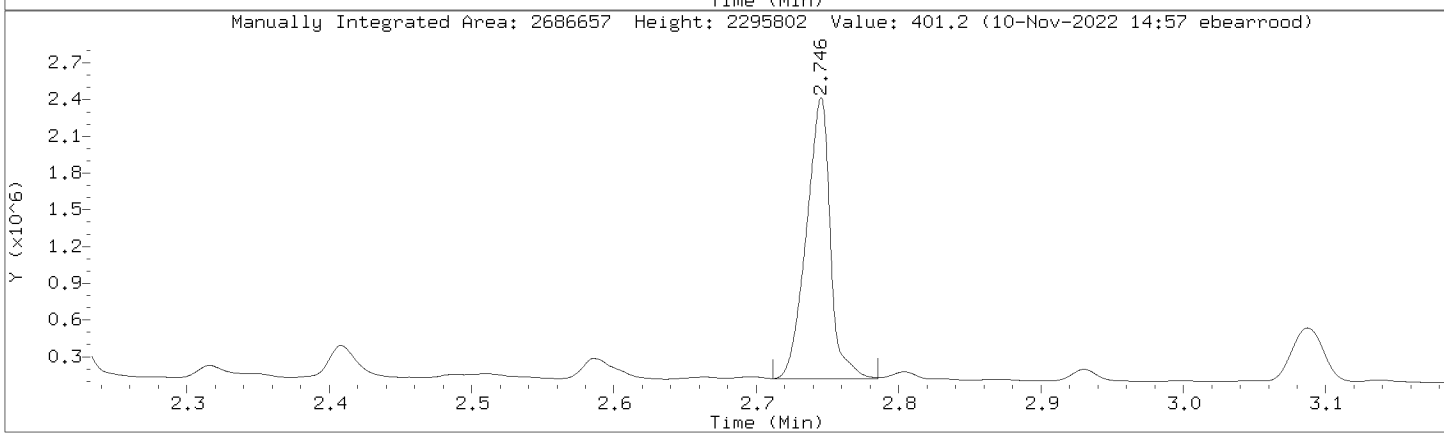
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

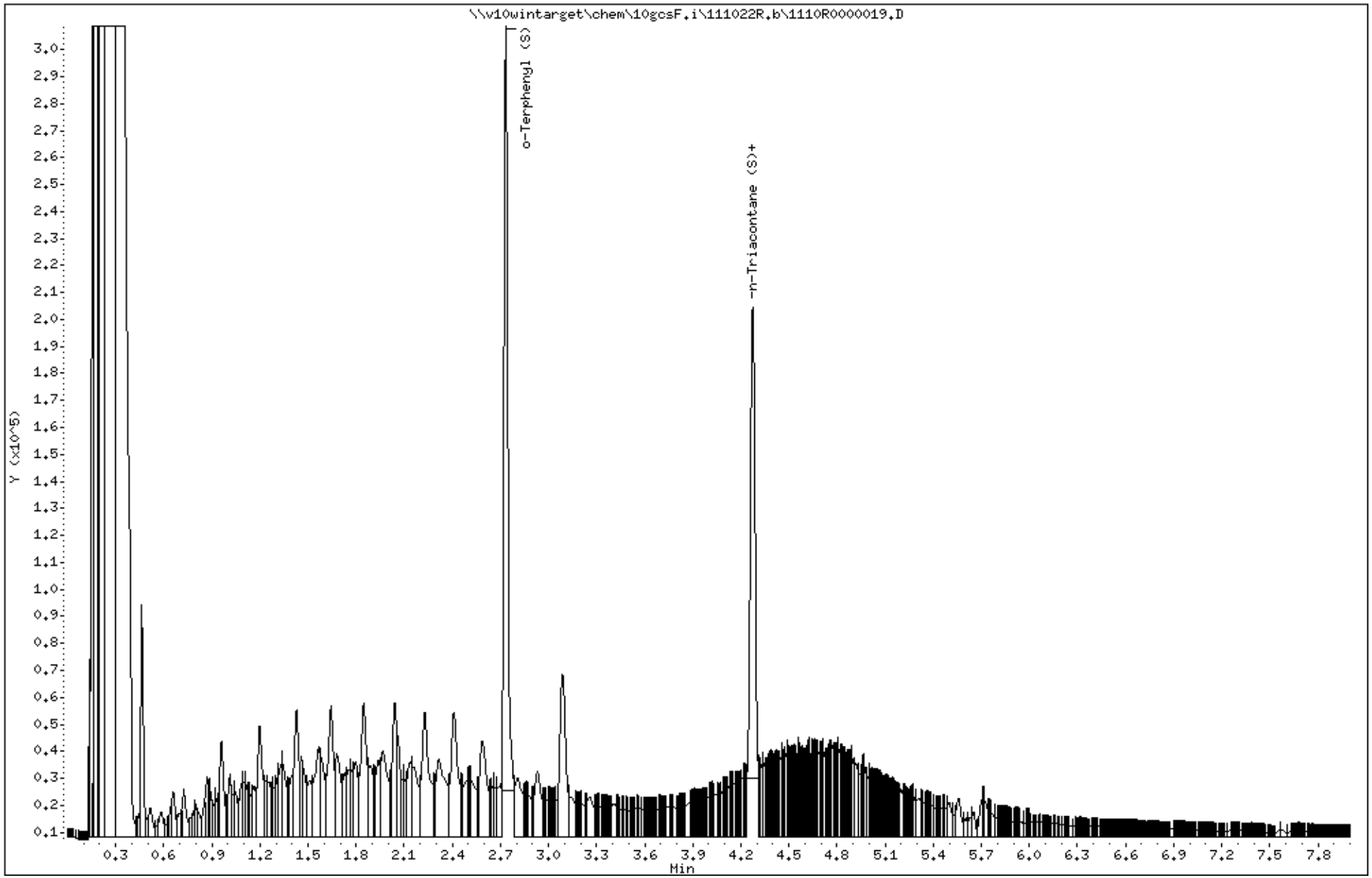
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

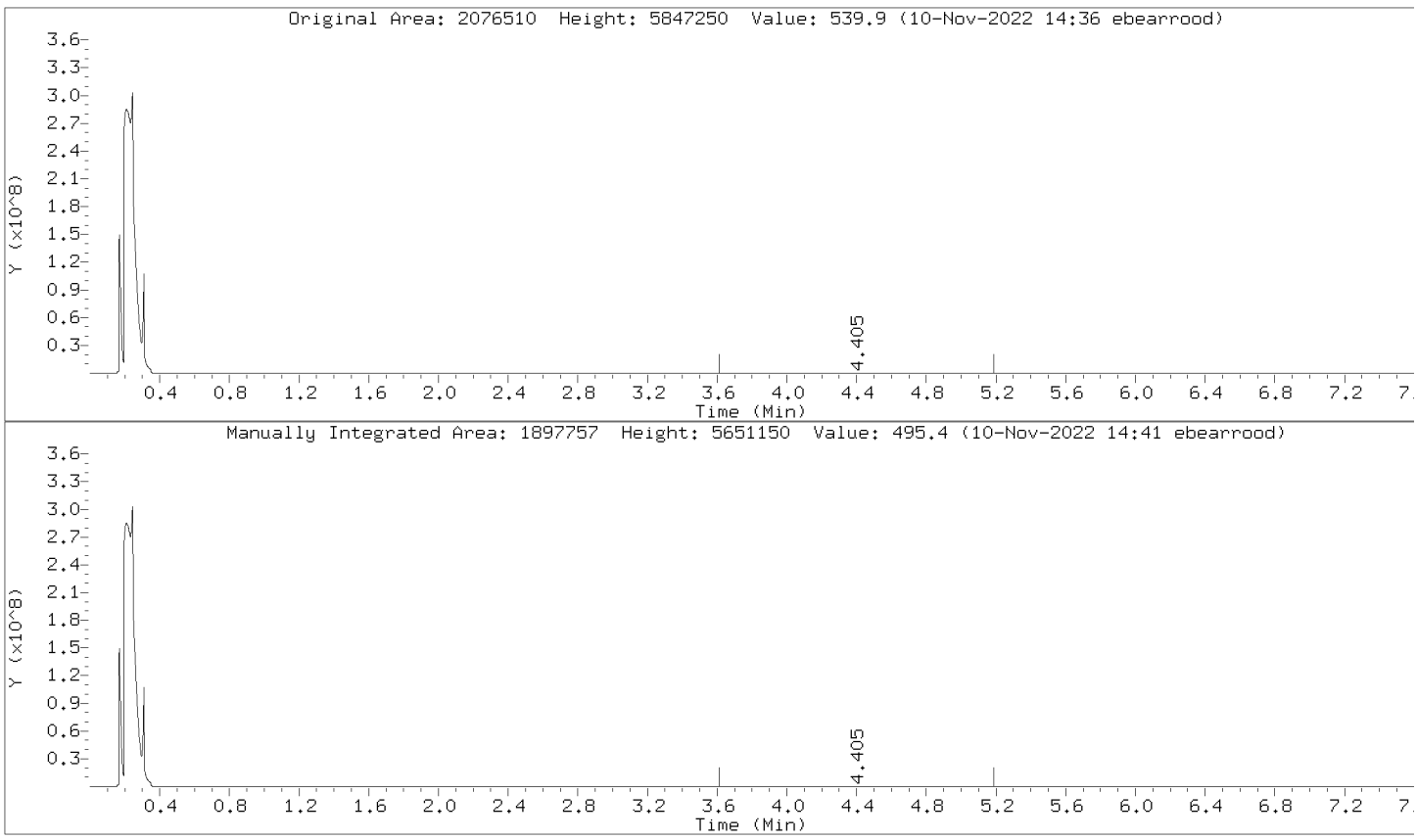
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



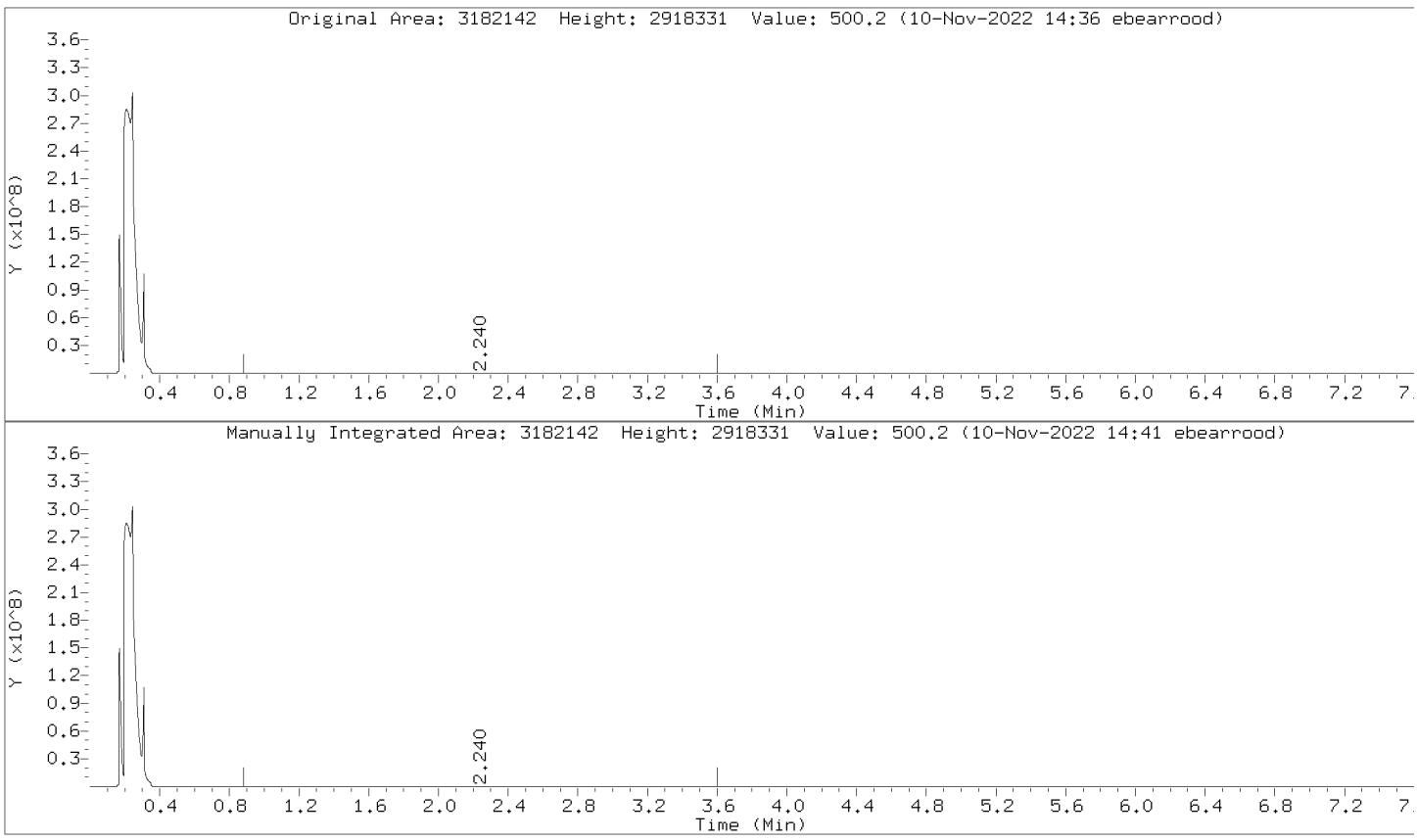
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



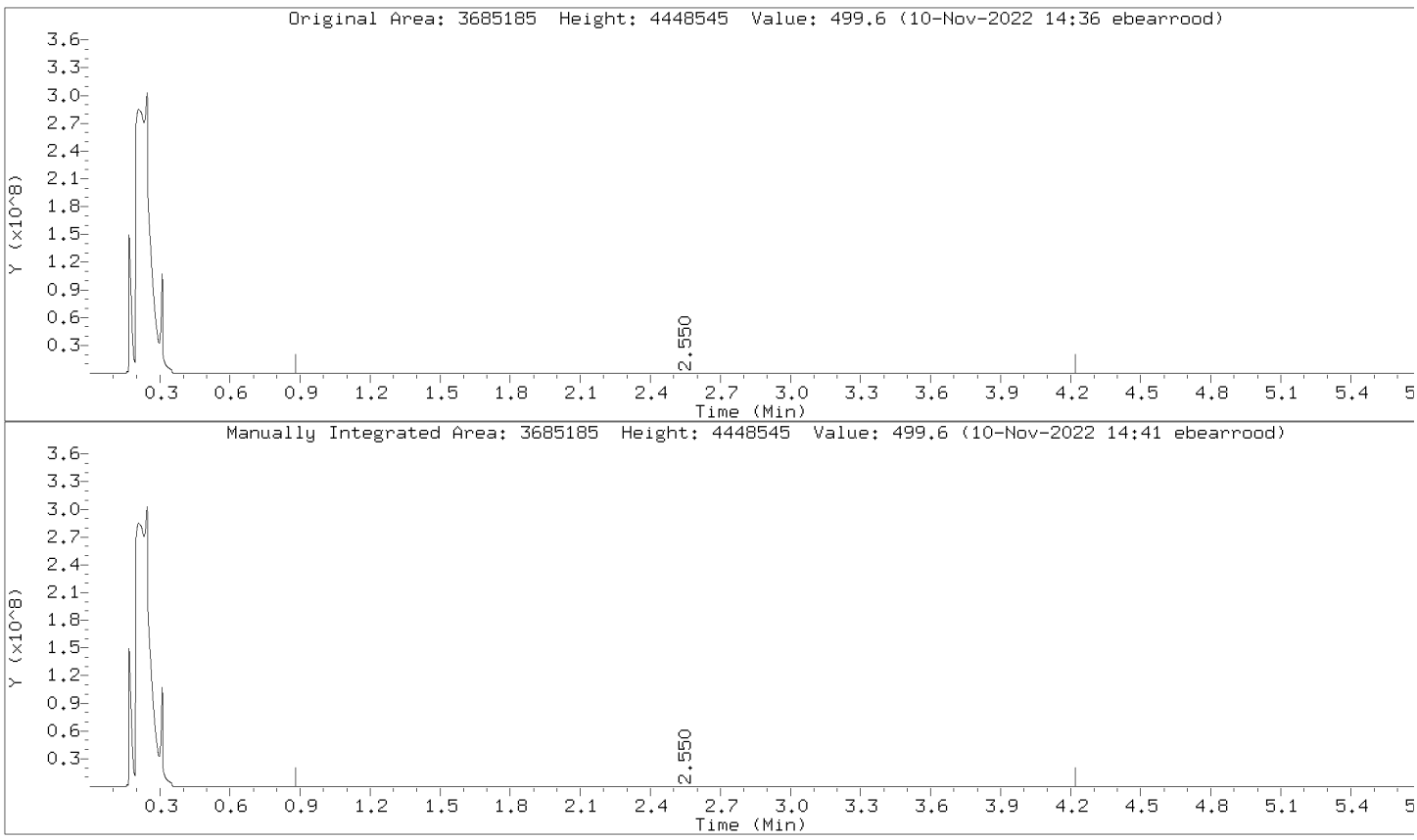
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



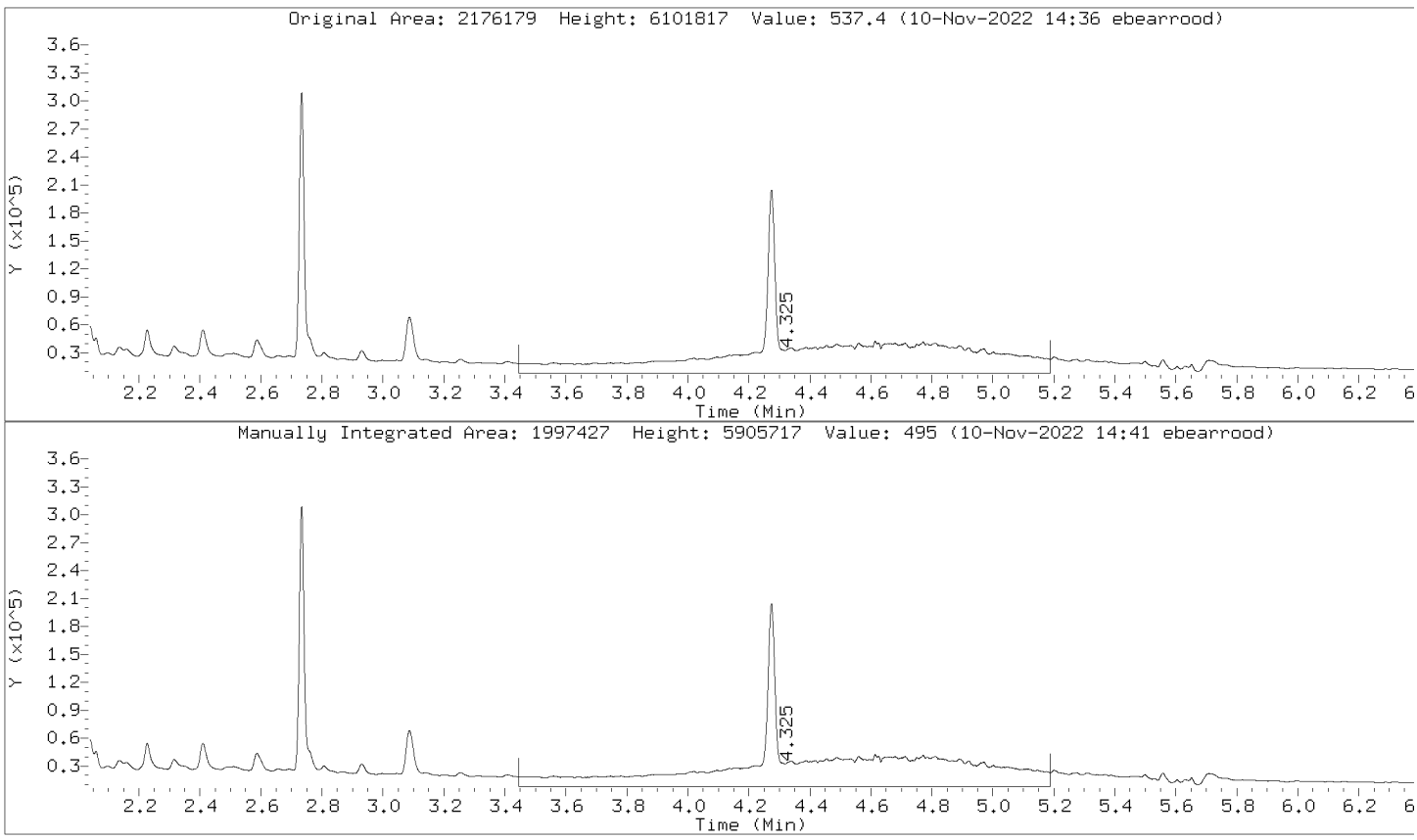
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



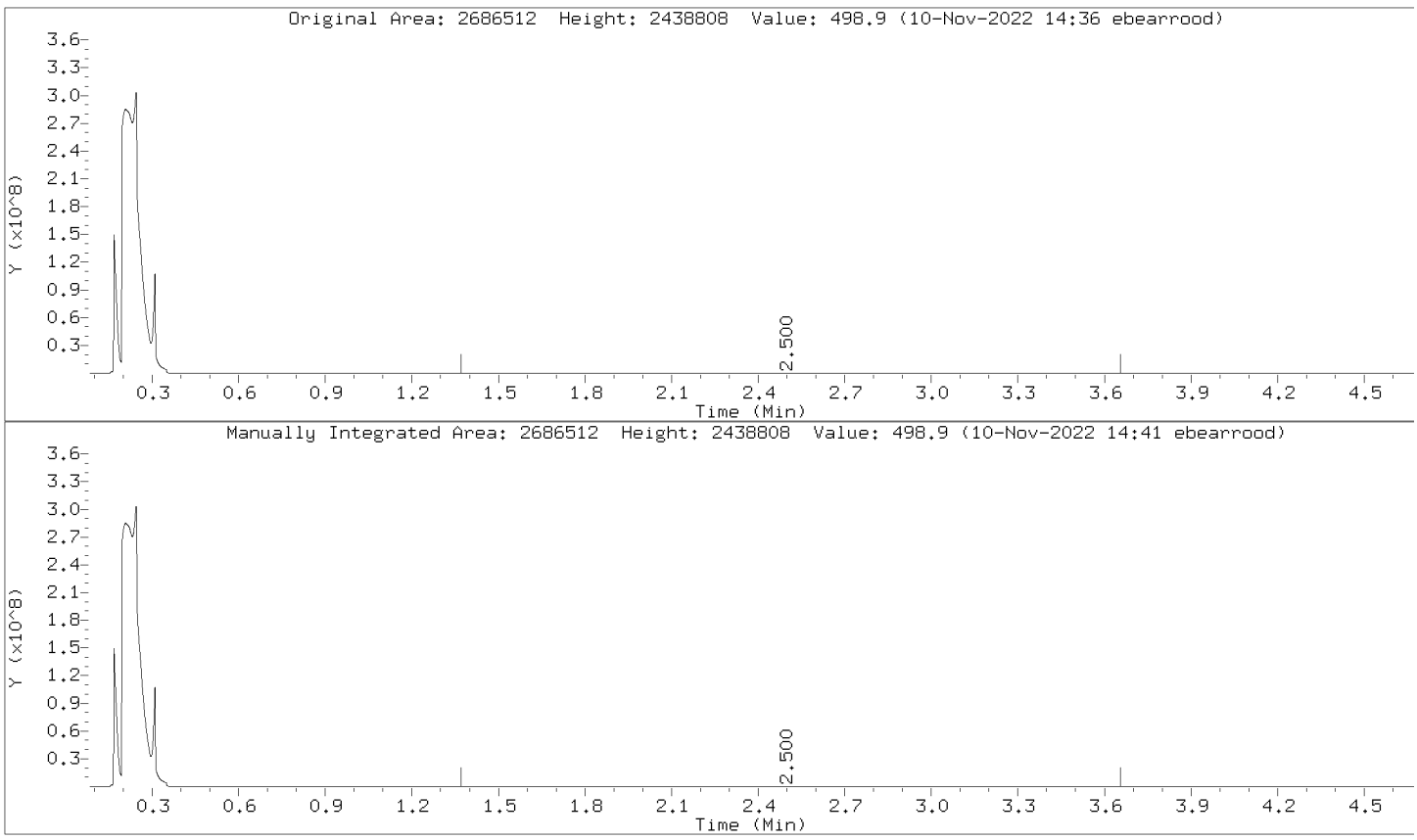
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



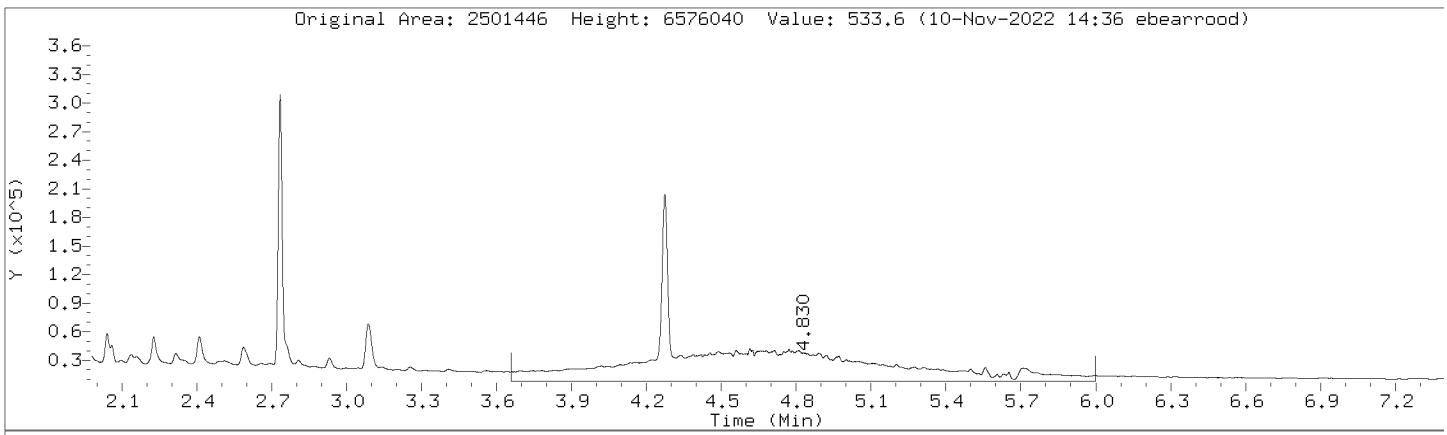
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

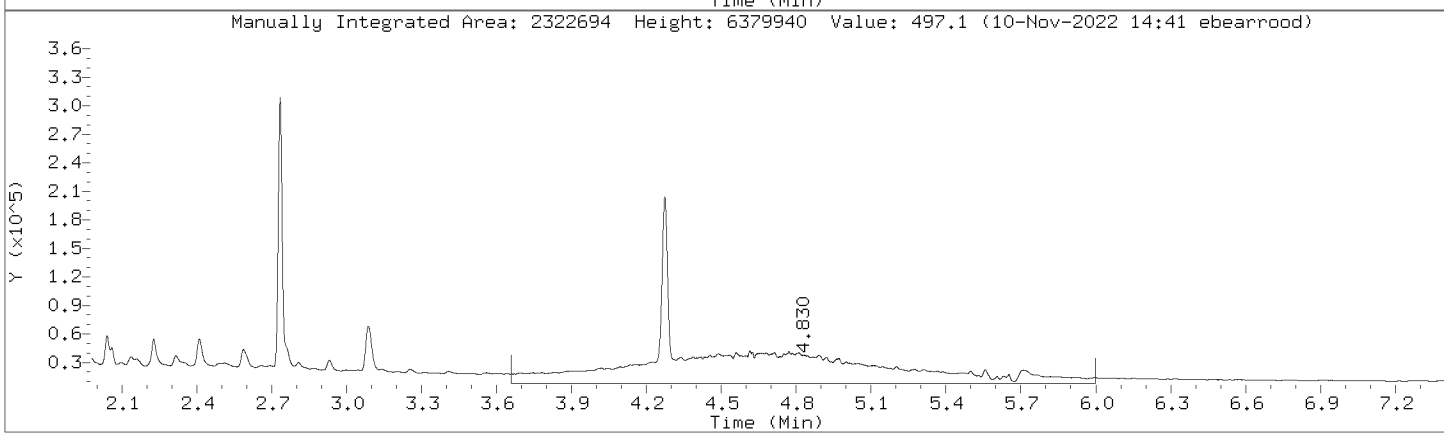
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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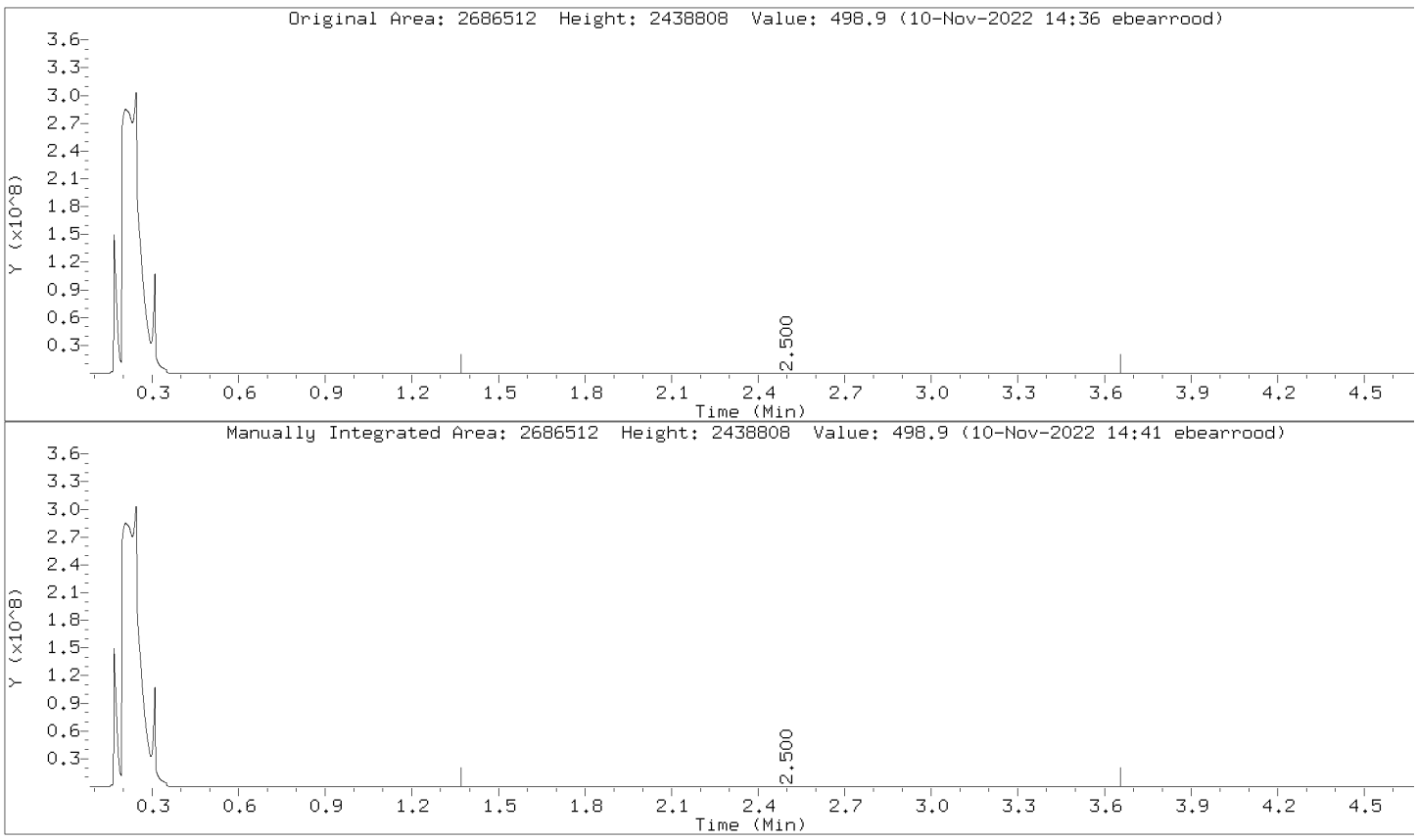
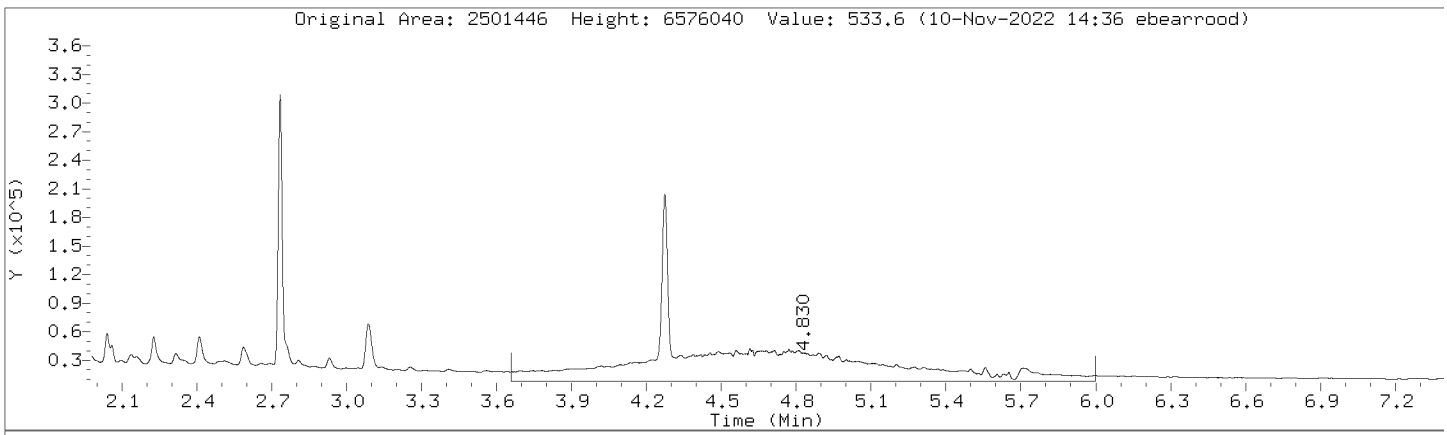
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

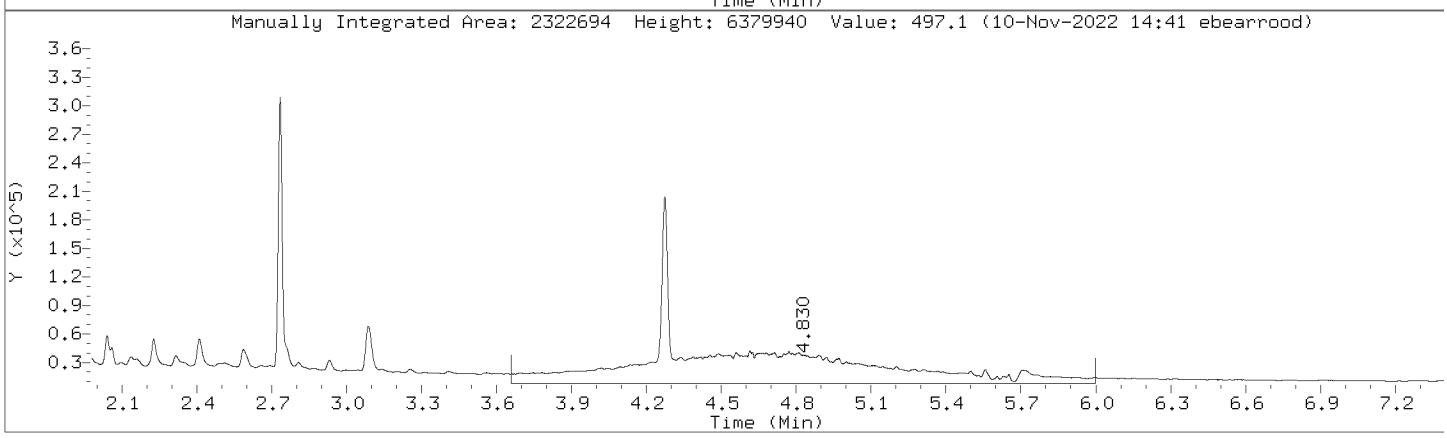
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





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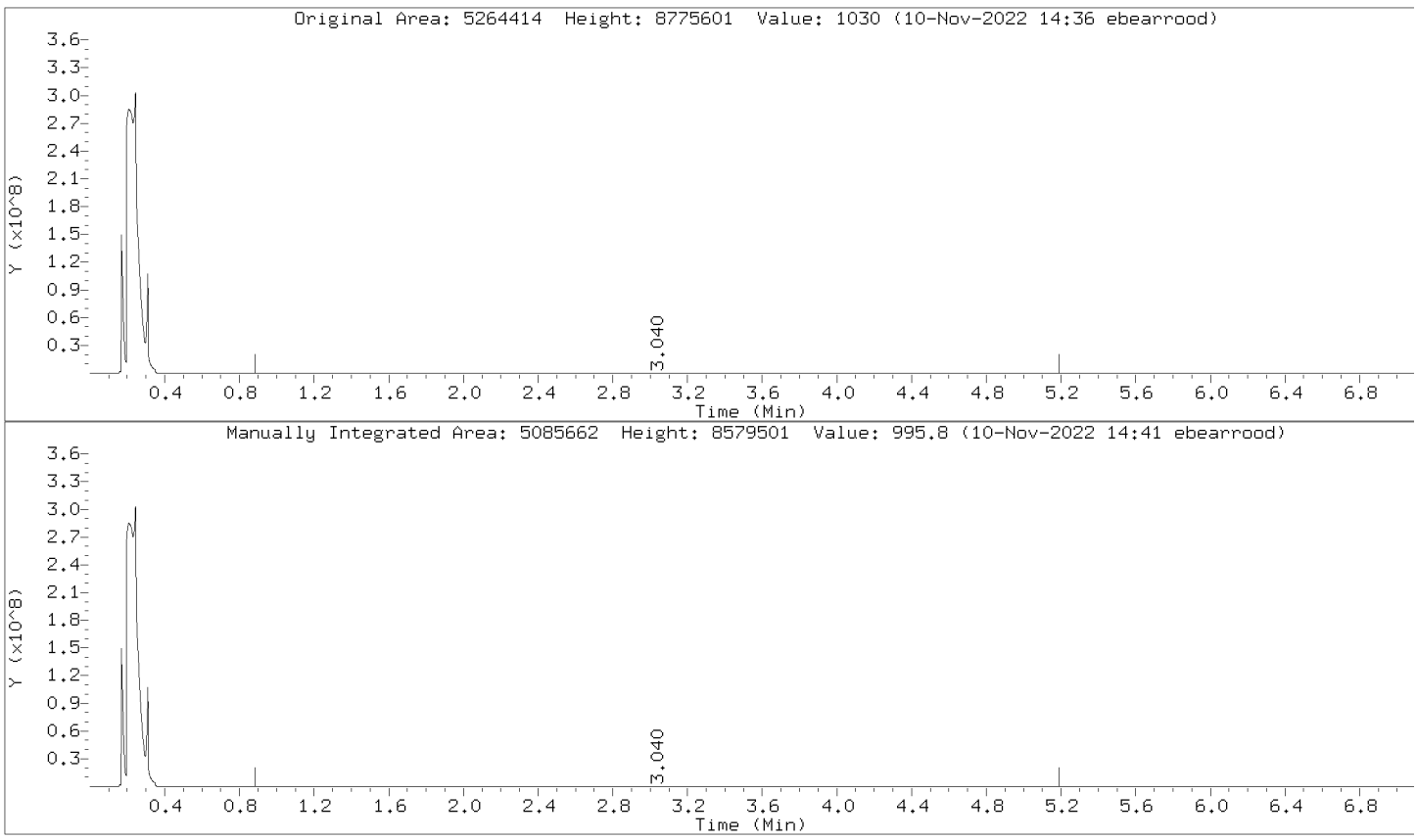
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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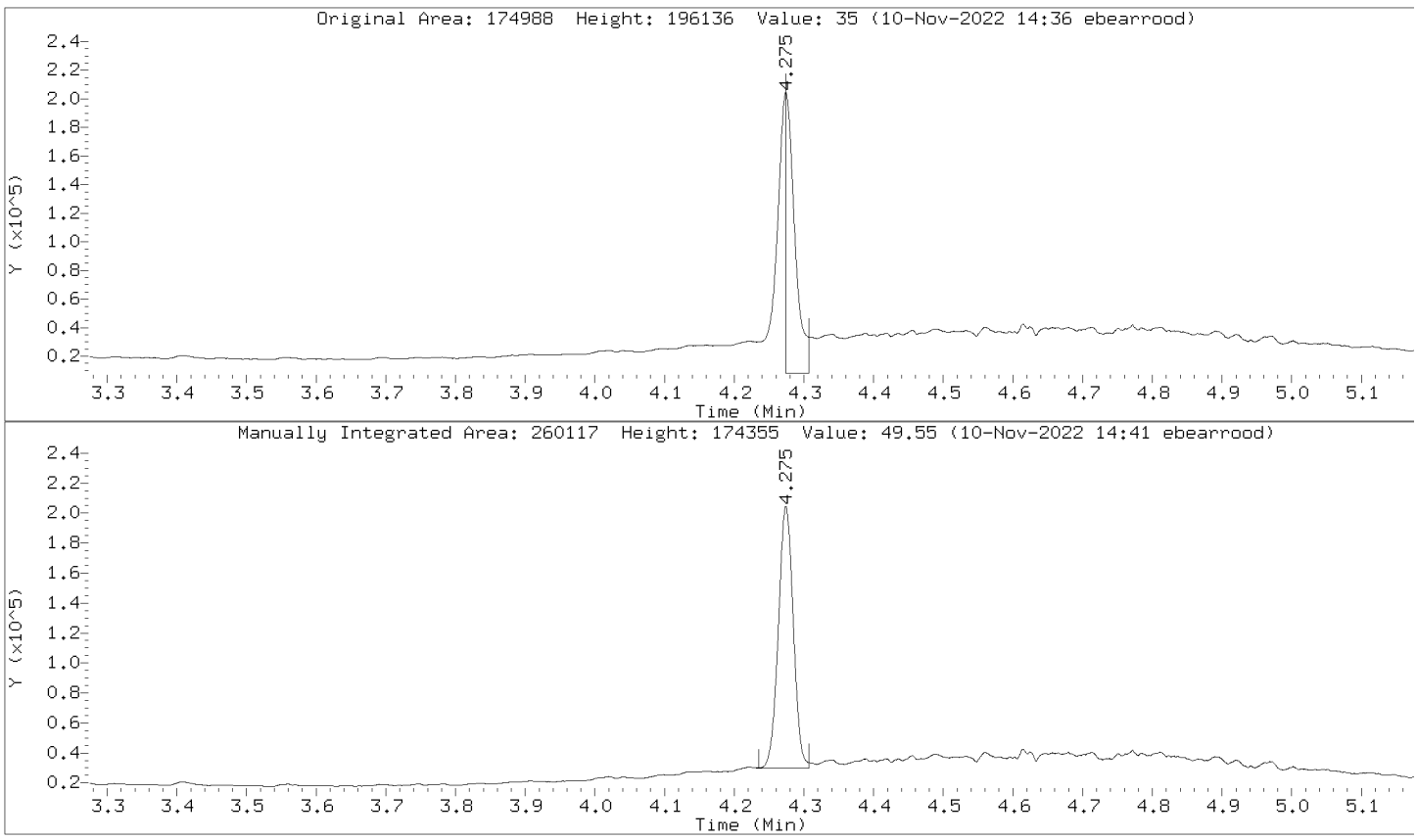
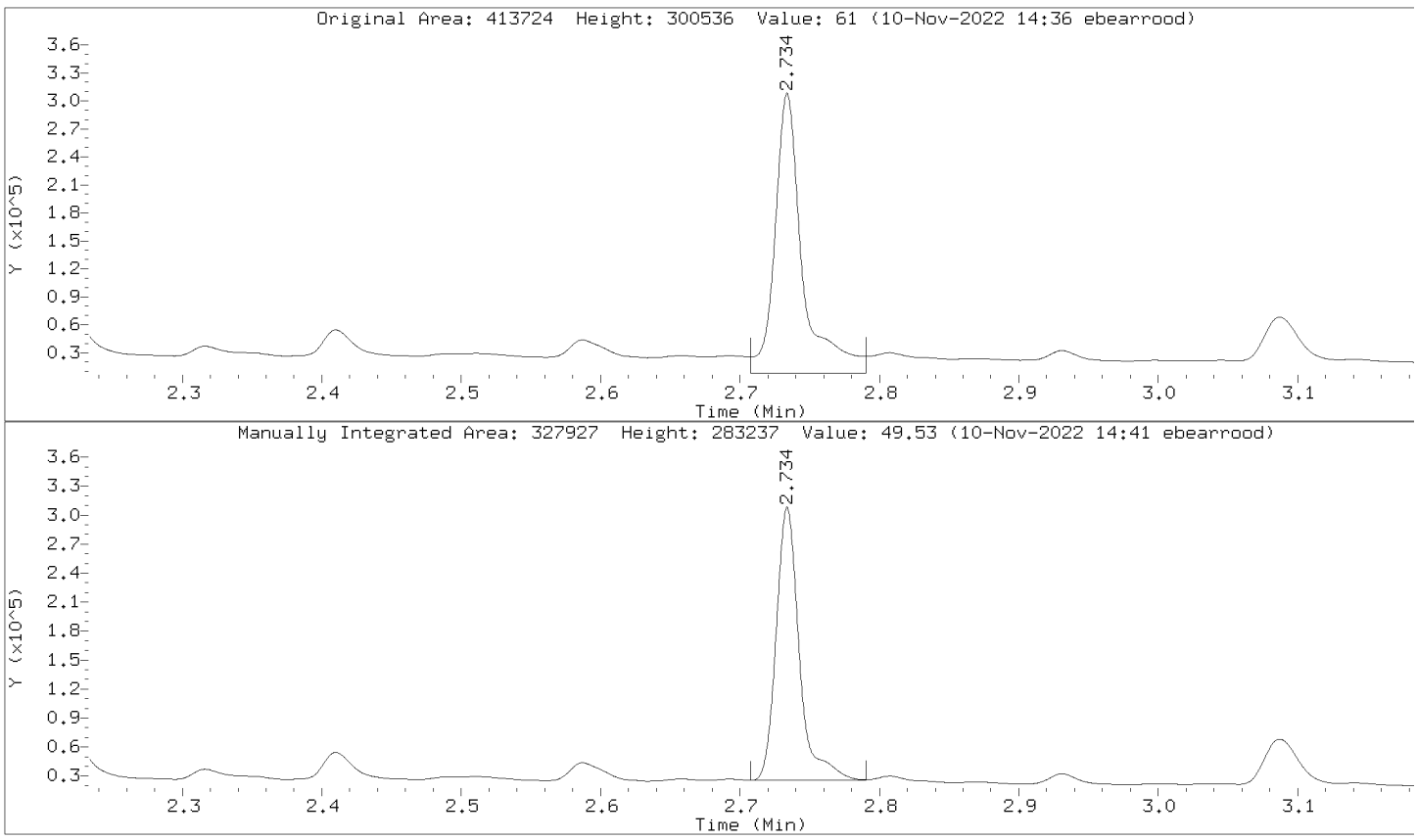
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000003.D
Lab Smp Id: DMO-RTM,395211:2 Client Smp ID: DMO-RTM,395211:2
Inj Date : 28-NOV-2022 11:59
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395211:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 28-Nov-2022 13:40 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

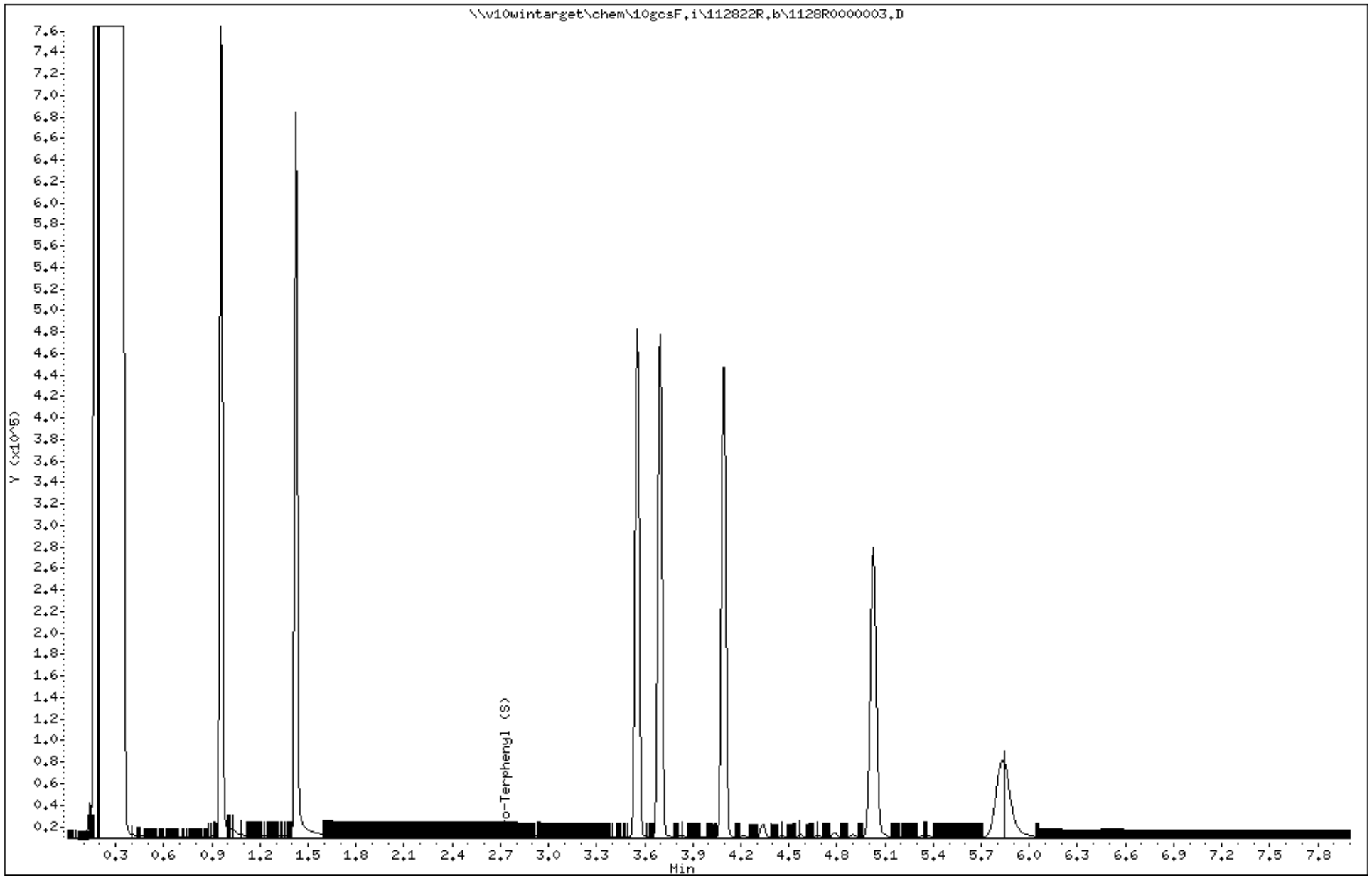
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.885	- 3.605		2194278	325.655	326	
$ 2 o-Terphenyl (S)					CAS #:	
2.733	2.732	0.001	361	0.69004	0.690	(R)
$ 3 n-Triacontane (S)					CAS #:	
Compound Not Detected.						
S 4 Residual Range Organics AK103					CAS #:	
3.606	- 5.170		2024070	530.556	530	
S 5 TPH-DRO (C10-C28)					CAS #:	
0.885	- 4.200		3532480	476.383	476	
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.460	- 5.170		2683936	677.011	677	
S 7 C10-C36					CAS #:	
0.885	- 5.170		4218348	808.833	809	
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.655		1555067	261.502	262	
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.655		1555067	261.502	262	
S 10 Motor Oil Range					CAS #:	
3.656	- 6.050		2505005	538.661	539	
S 11 Motor Oil Range SG					CAS #:	
3.656	- 6.050		2505005	538.661	539	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000003.D
Date : 28-NOV-2022 11:59
Client ID: DMO-RTM,395211:2
Sample Info: DMO-RTM,395211:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000003.D
Injection Date: 28-NOV-2022 11:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395211:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2024070	2024070
DRO by AK 102	2194278	2194278
TPH-DRO (C10-C28)	3532480	3532480
Motor Oil Range (C24-C36)	2683936	2683936
Diesel Fuel Range	1555067	1555067
Motor Oil Range	2505005	2505005
Diesel Fuel Range SG	1555067	1555067
Motor Oil Range SG	2505005	2505005
C10-C36	4218348	4218348
n-Triacontane (S)	0	0
o-Terphenyl (S)	361	361

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000003.D
Lab Smp Id: DMO-RTM,395211:2 Client Smp ID: DMO-RTM,395211:2
Inj Date : 29-NOV-2022 12:29
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395211:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112922R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 15:05 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

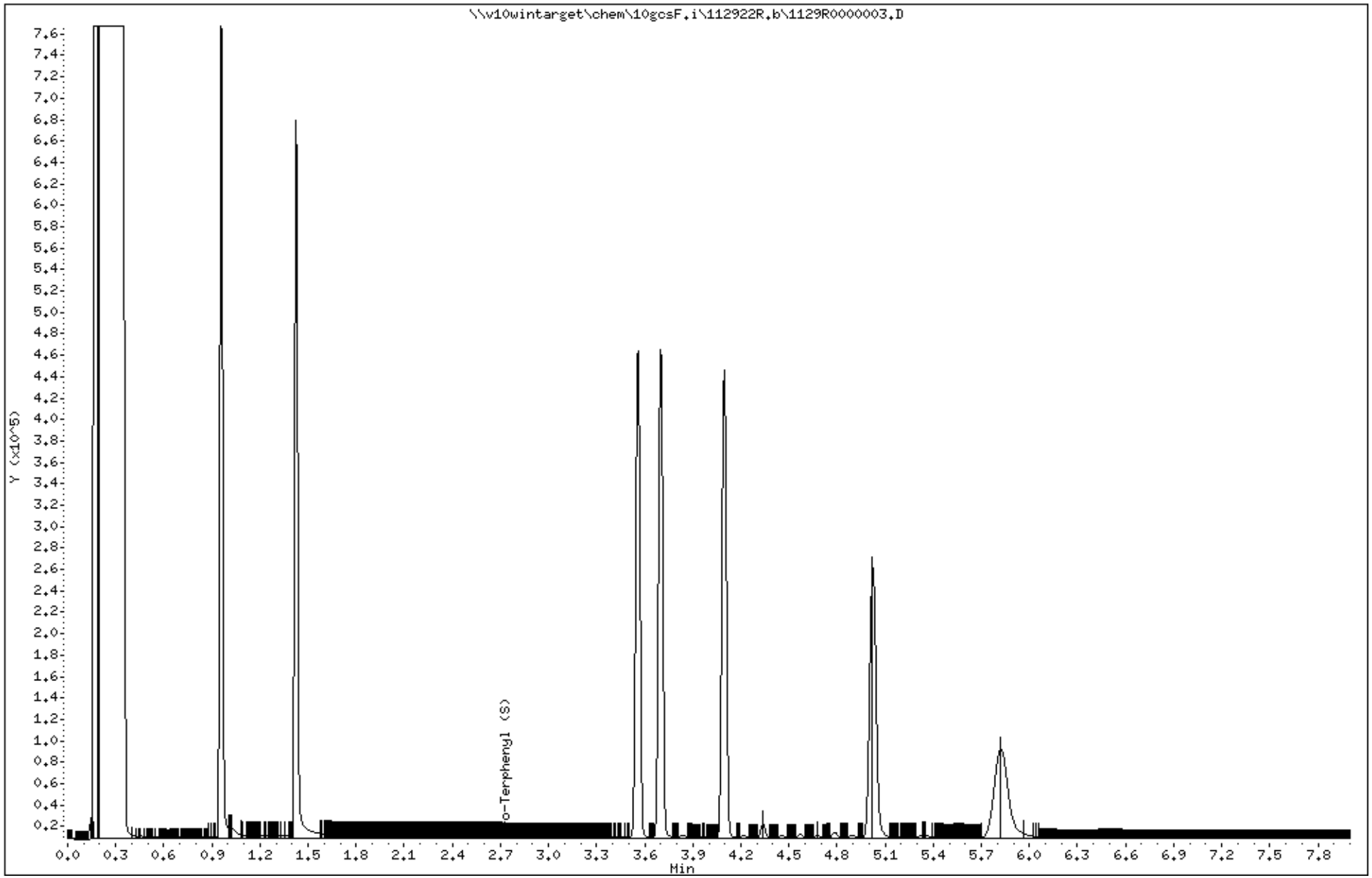
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.610		2191214	325.114	325		
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	671	0.73626	0.736		(R)
$ 3 n-Triacontane (S)					CAS #:		
Compound Not Detected.							
S 4 Residual Range Organics AK103					CAS #:		
3.611	- 5.170		2028258	531.720	532		
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.200		3518435	474.247	474		
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.460	- 5.170		2684283	677.103	677		
S 7 C10-C36					CAS #:		
0.885	- 5.170		4219472	809.075	809		
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.660		1549883	260.414	260		
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.660		1549883	260.414	260		
S 10 Motor Oil Range					CAS #:		
3.661	- 6.050		2561310	551.491	551		
S 11 Motor Oil Range SG					CAS #:		
3.661	- 6.050		2561310	551.491	551		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000003.D
Date : 29-NOV-2022 12:29
Client ID: DMO-RTM,395211:2
Sample Info: DMO-RTM,395211:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000003.D
Injection Date: 29-NOV-2022 12:29
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395211:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2028258	2028258
DRO by AK 102	2191214	2191214
TPH-DRO (C10-C28)	3518435	3518435
Motor Oil Range (C24-C36)	2684283	2684283
Diesel Fuel Range	1549883	1549883
Motor Oil Range	2561310	2561310
Diesel Fuel Range SG	1549883	1549883
Motor Oil Range SG	2561310	2561310
C10-C36	4219472	4219472
n-Triacontane (S)	0	0
o-Terphenyl (S)	671	671

SAMPLE NO.

31472811ICV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota
Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID
Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D
Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31588016CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/28/2022 Time: 20:50

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 112822R.B\1128R0000049C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	501.9159	0.0100	0.3832	15.0000
Motor Oil Range	Linear	500	473.8839	0.0100	-5.2232	15.0000
n-Triacontane (S)	Linear	50	47.02728	0.0100	-5.9454	15.0000
o-Terphenyl (S)	Linear	50	49.40167	0.0100	-1.1967	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31584630CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/28/2022 Time: 22:55

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 112822R.B\1128R0000060C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	500.5377	0.0100	0.1075	15.0000
Motor Oil Range	Linear	500	495.2297	0.0100	-0.9540	15.0000
n-Triacontane (S)	Linear	50	49.02191	0.0100	-1.9562	15.0000
o-Terphenyl (S)	Linear	50	49.65126	0.0100	-0.6975	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31584631CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/28/2022 Time: 23:41

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 112822R.B\1128R0000064C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	504.6191	0.0100	0.9238	15.0000
Motor Oil Range	Linear	500	501.6589	0.0100	0.3318	15.0000
n-Triacontane (S)	Linear	50	48.67272	0.0100	-2.6545	15.0000
o-Terphenyl (S)	Linear	50	49.85894	0.0100	-0.2821	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31592334CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/29/2022 Time: 13:51

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 112922R.B\1129R0000010C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	497.2579	0.0100	-0.5484	15.0000
Motor Oil Range	Linear	500	471.8560	0.0100	-5.6288	15.0000
n-Triacontane (S)	Linear	50	46.58701	0.0100	-6.8260	15.0000
o-Terphenyl (S)	Linear	50	49.45445	0.0100	-1.0911	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31592336CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/29/2022 Time: 14:38

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 112922R.B\1129R0000014C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633565

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	499.6949	0.0100	-0.0610	15.0000
Motor Oil Range	Linear	500	490.7628	0.0100	-1.8474	15.0000
n-Triacontane (S)	Linear	50	47.17416	0.0100	-5.6517	15.0000
o-Terphenyl (S)	Linear	50	49.23752	0.0100	-1.5250	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880	- 3.600		3247087	500.000	512	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610	- 5.200		1975744	500.000	517	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880	- 4.219		3761077	500.000	511	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450	- 5.200		2073788	500.000	515	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350	- 3.650		2743983	500.000	511	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350	- 3.650		2743983	500.000	511	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660	- 6.000		2398484	500.000	514	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

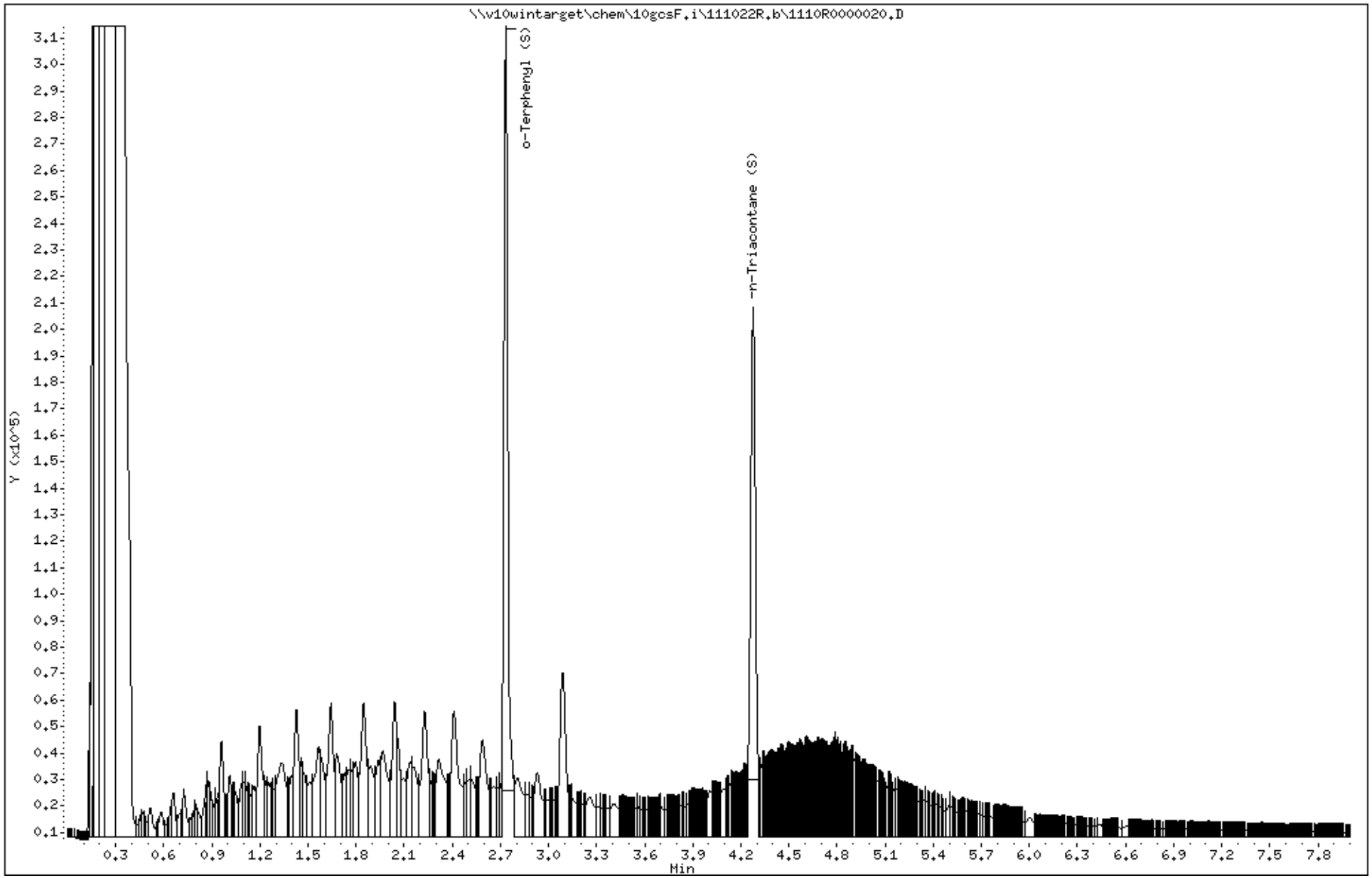
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

Column phase: DB-5-US21130002

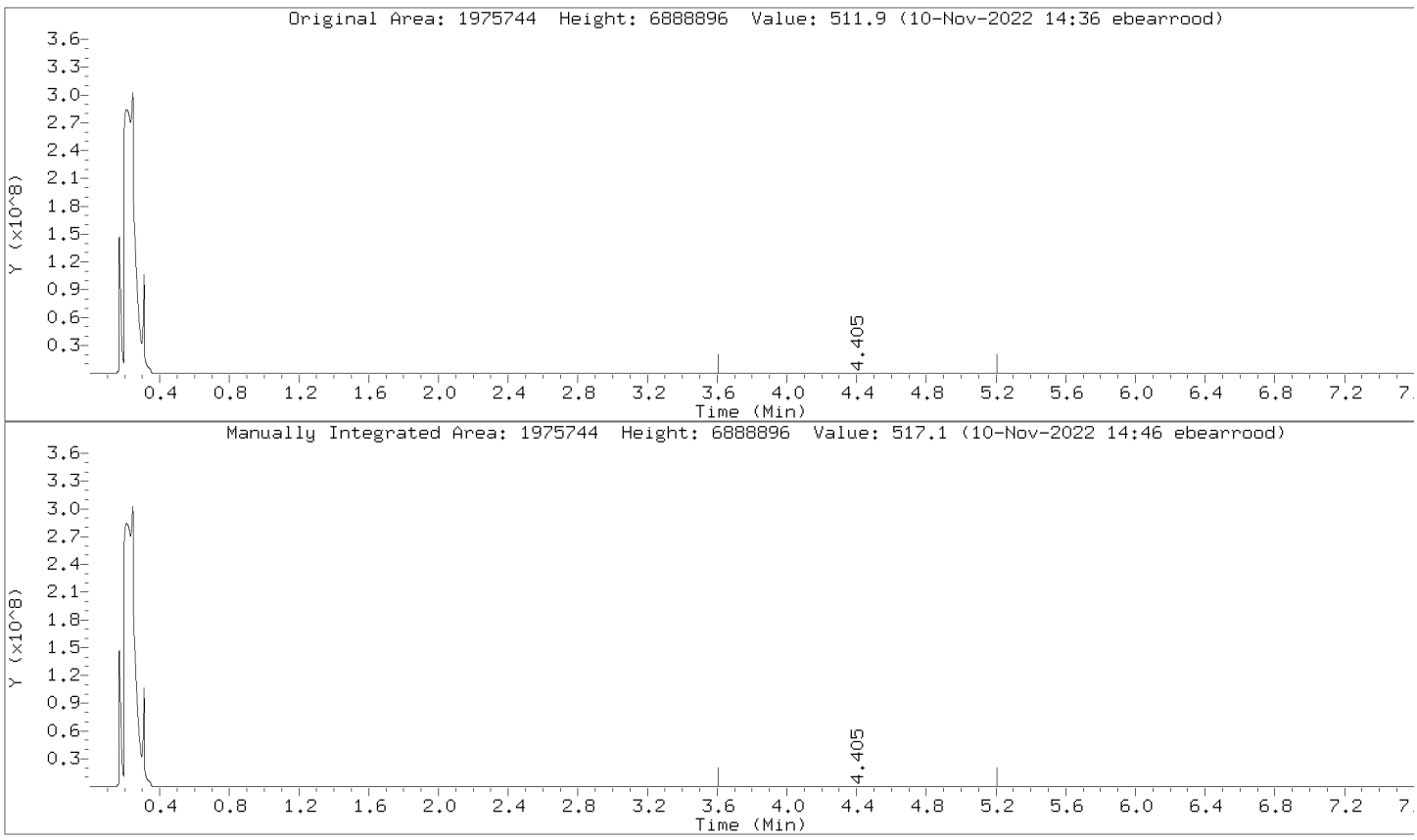
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



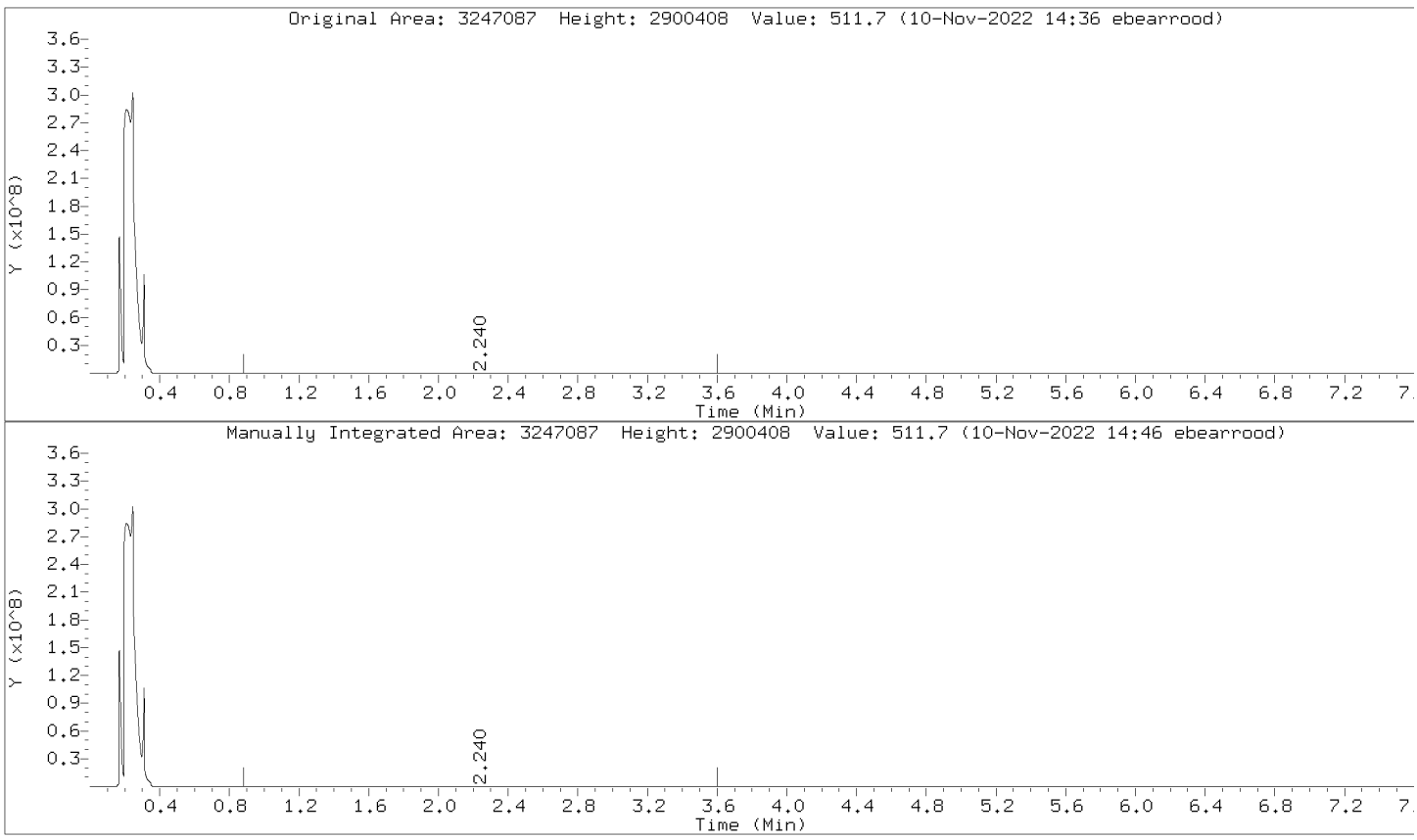
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



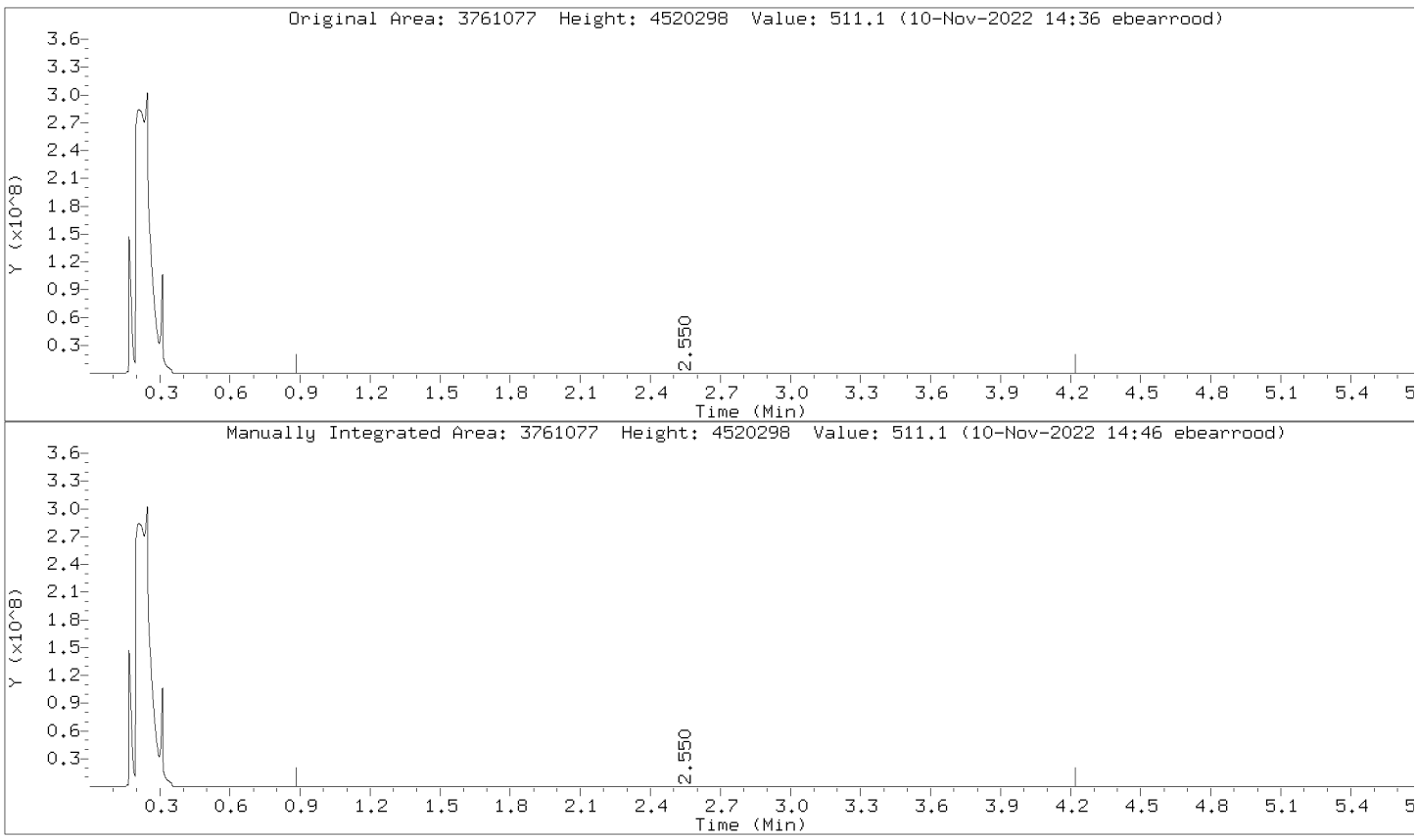
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



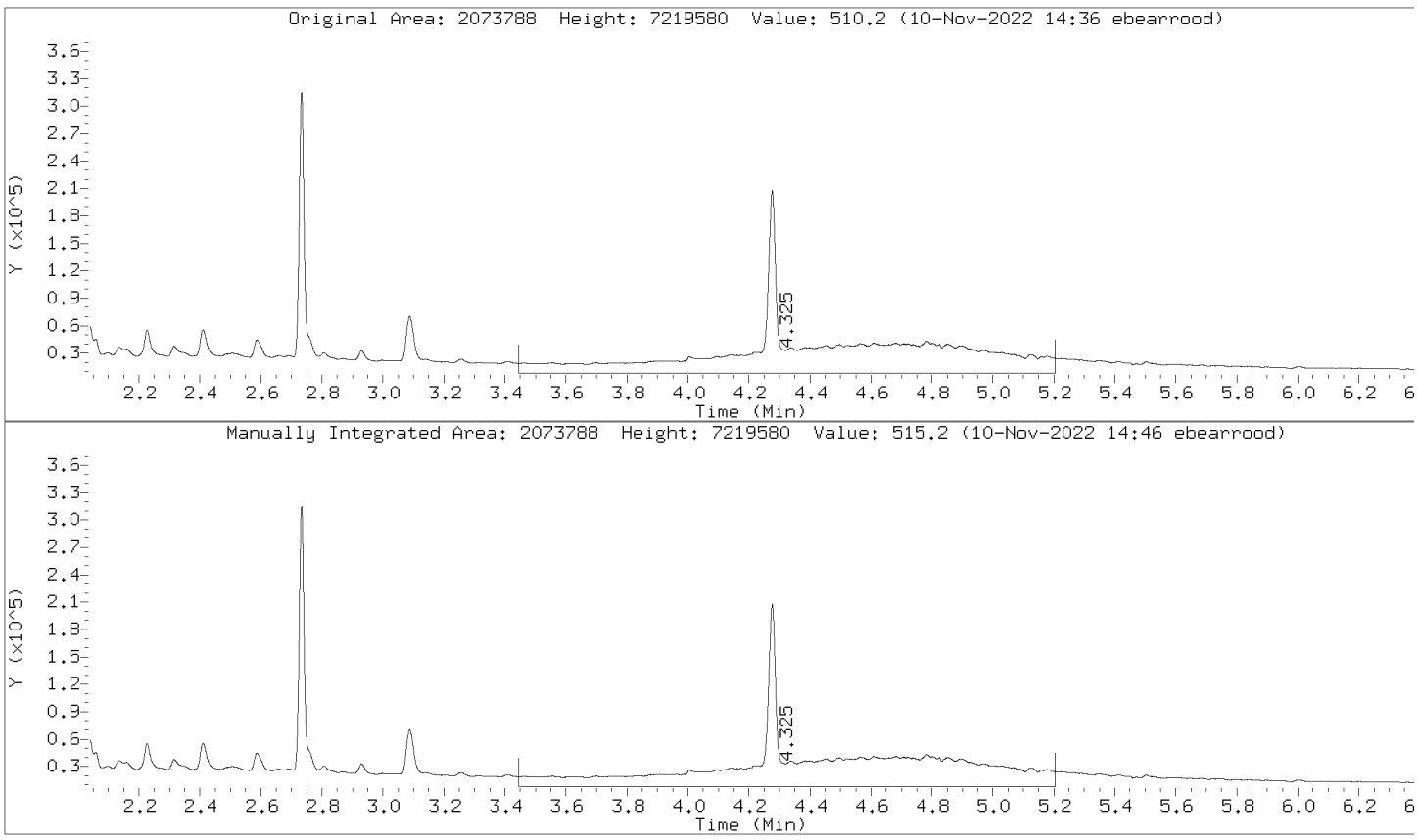
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



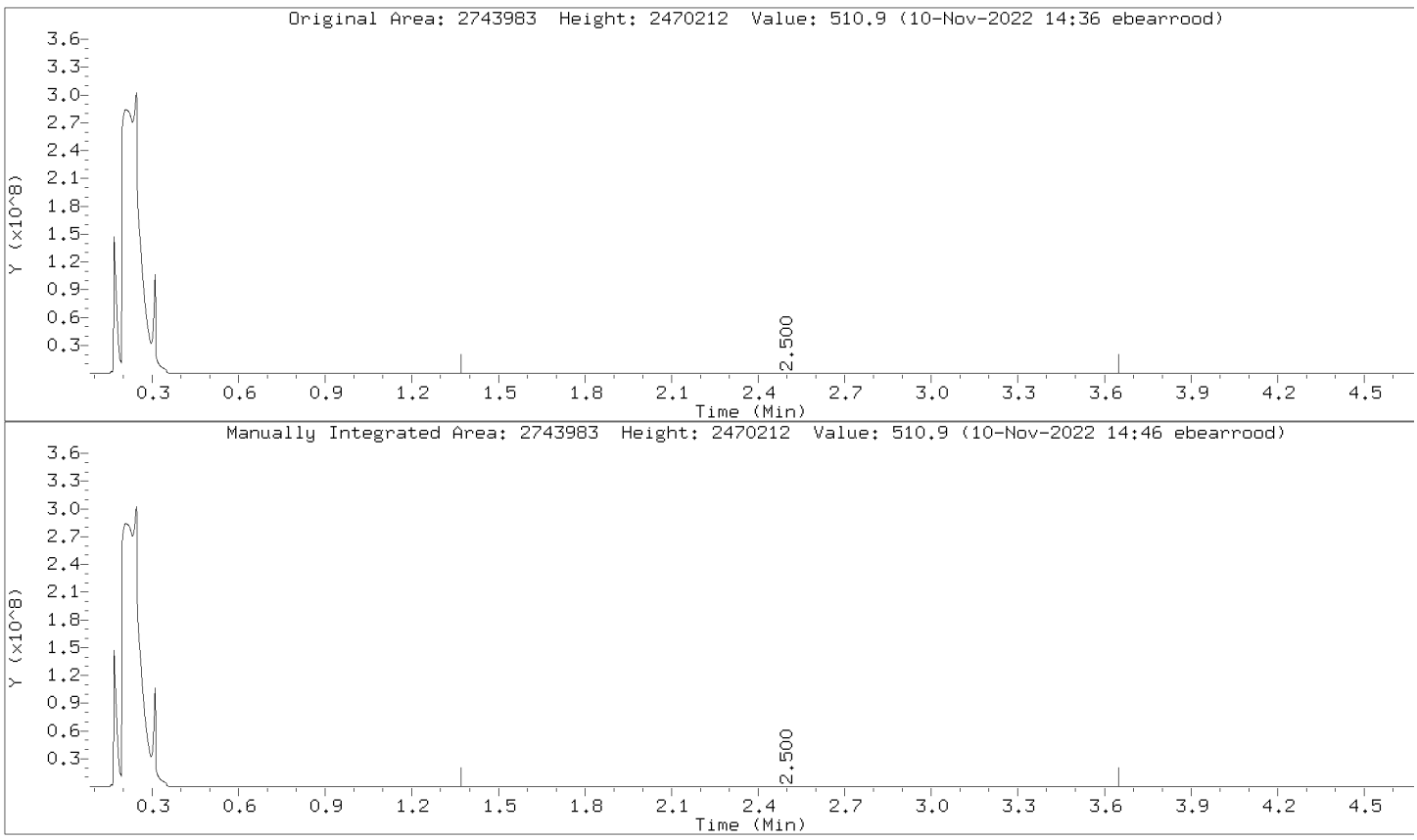
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



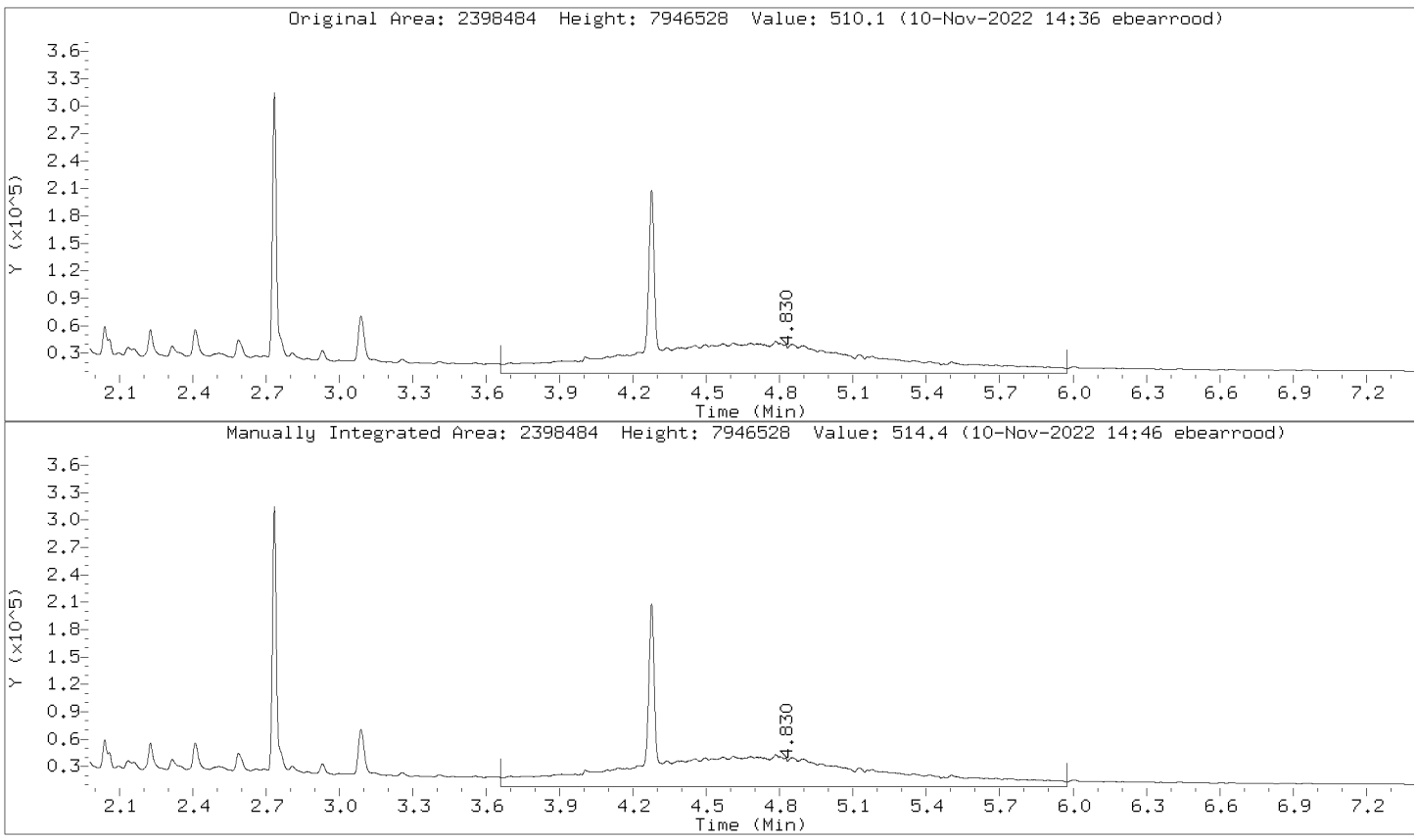
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



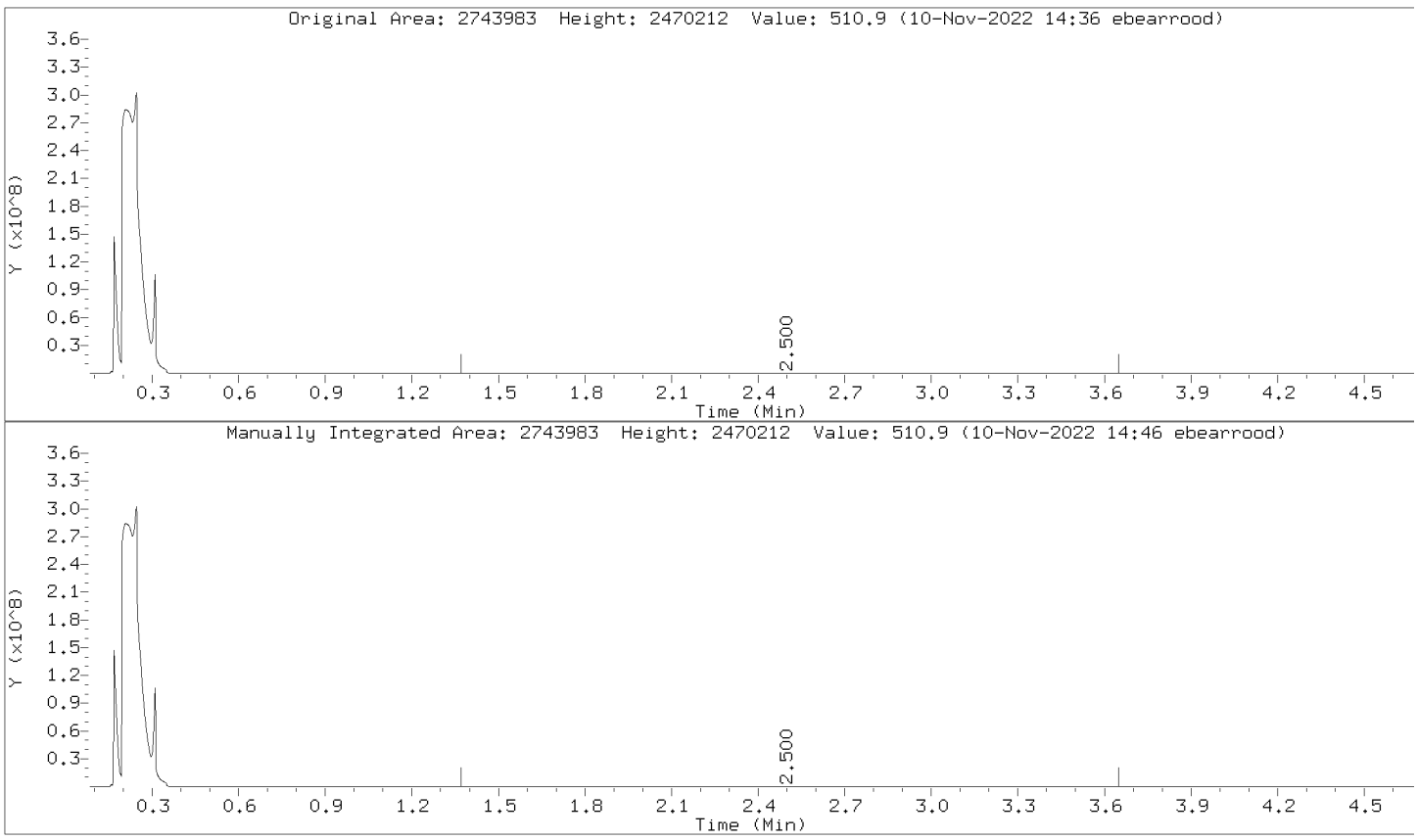
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



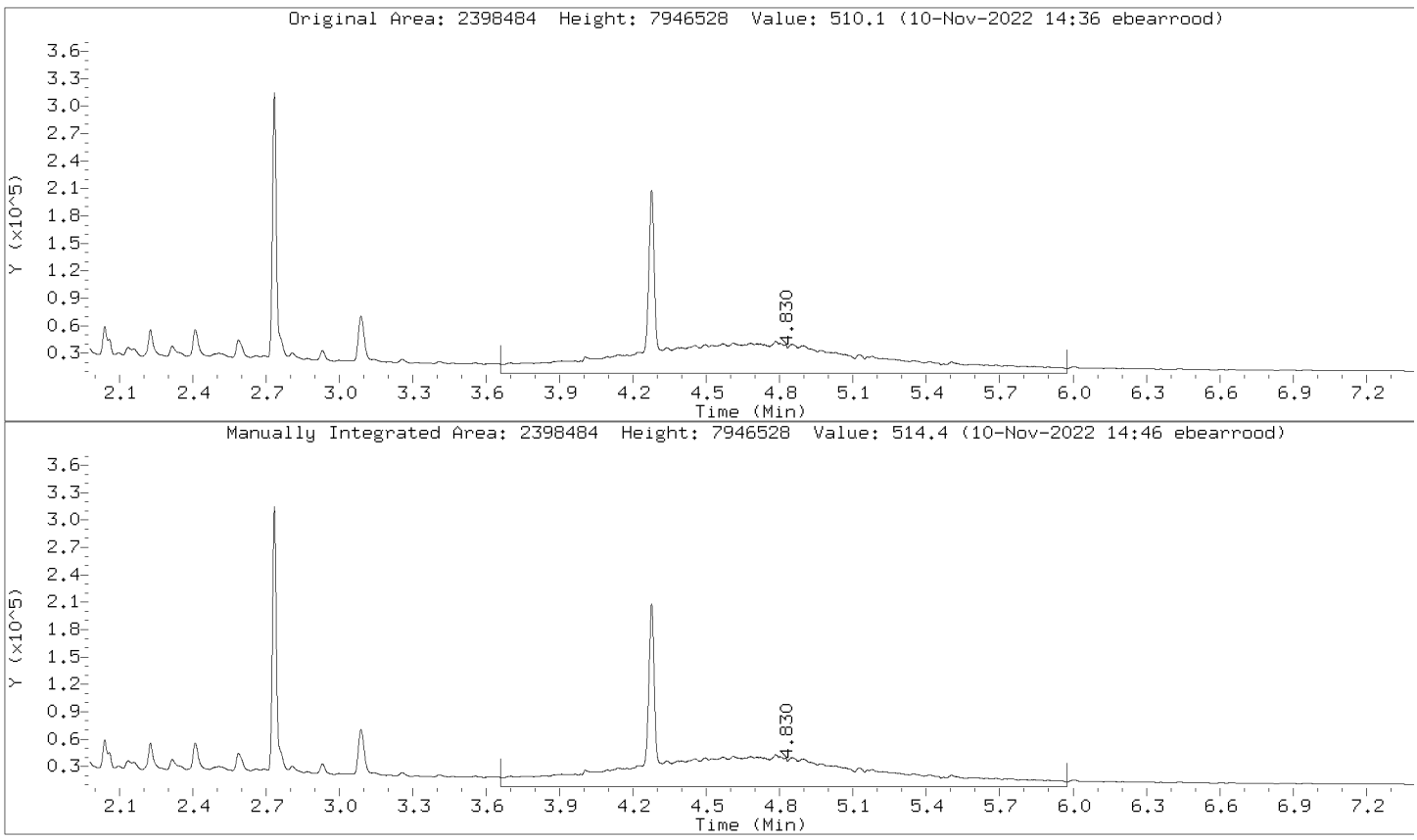
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



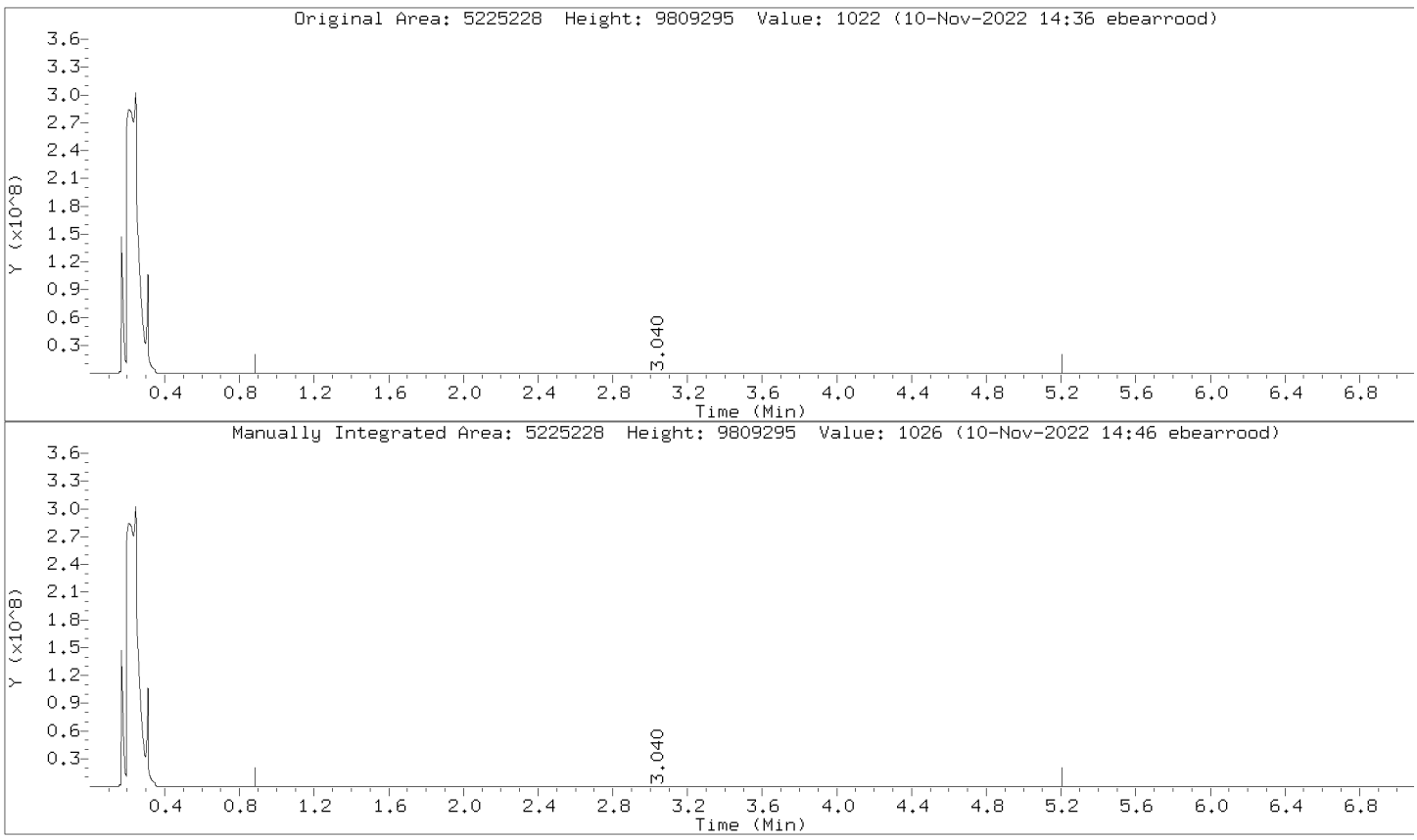
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



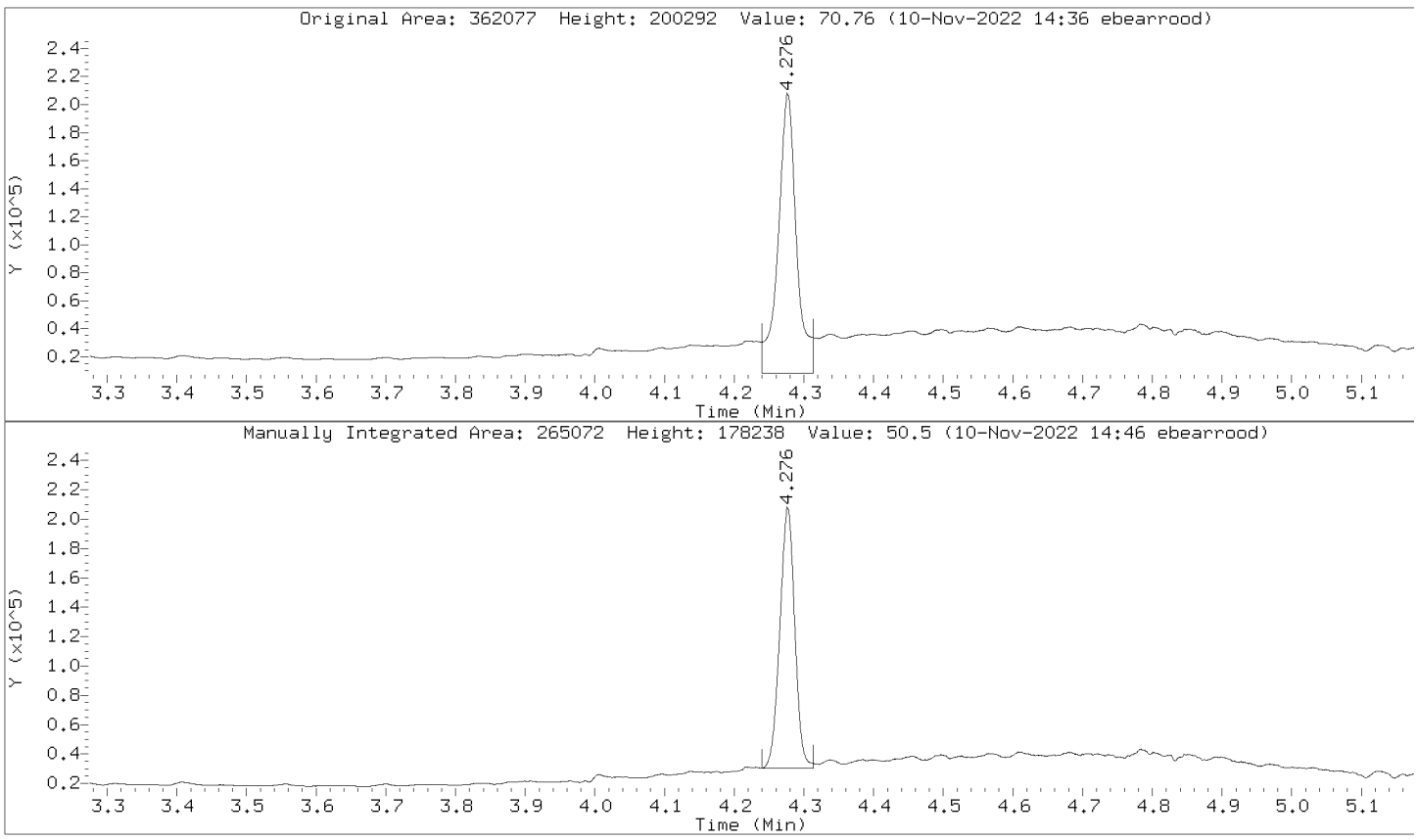
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



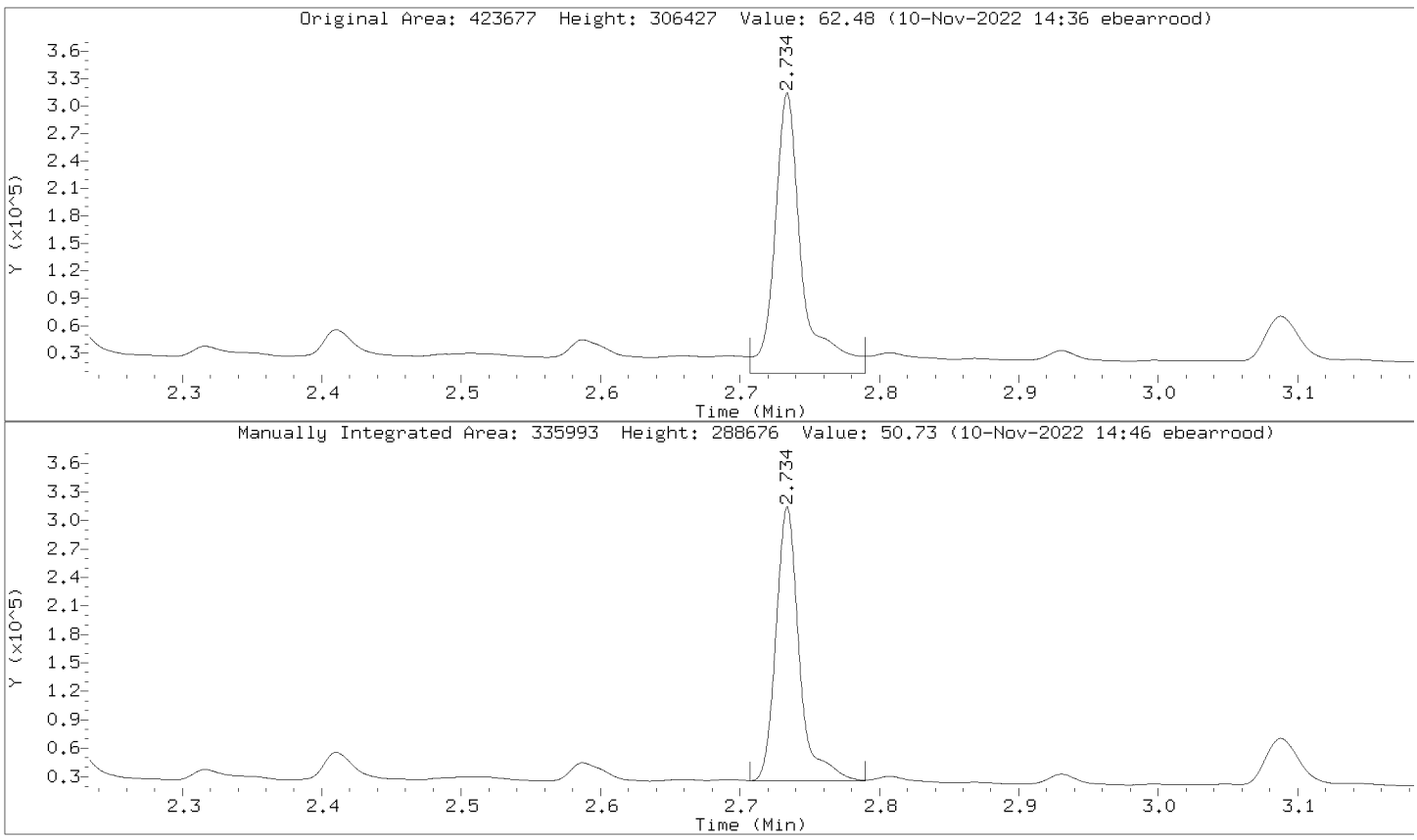
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000049C.d
Lab Smp Id: DMO-CCV,397498:2 Client Smp ID: DMO-CCV,397498:2
Inj Date : 28-NOV-2022 20:50
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,397498:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.605		3197521	500.000	503	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.734	-0.001	327076	50.0000	49.4	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.277	4.278	-0.001	246937	50.0000	47.0	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.606	- 5.170		1814495	500.000	472	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.200		3669806	500.000	497	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.460	- 5.170		1910685	500.000	472	(M)	RNG
S 7 C10-C36					CAS #:		
0.885	- 5.170		5013033	1000.00	980	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		2700928	500.000	502	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		2700928	500.000	502	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		2220748	500.000	474	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		2220748	500.000	474	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

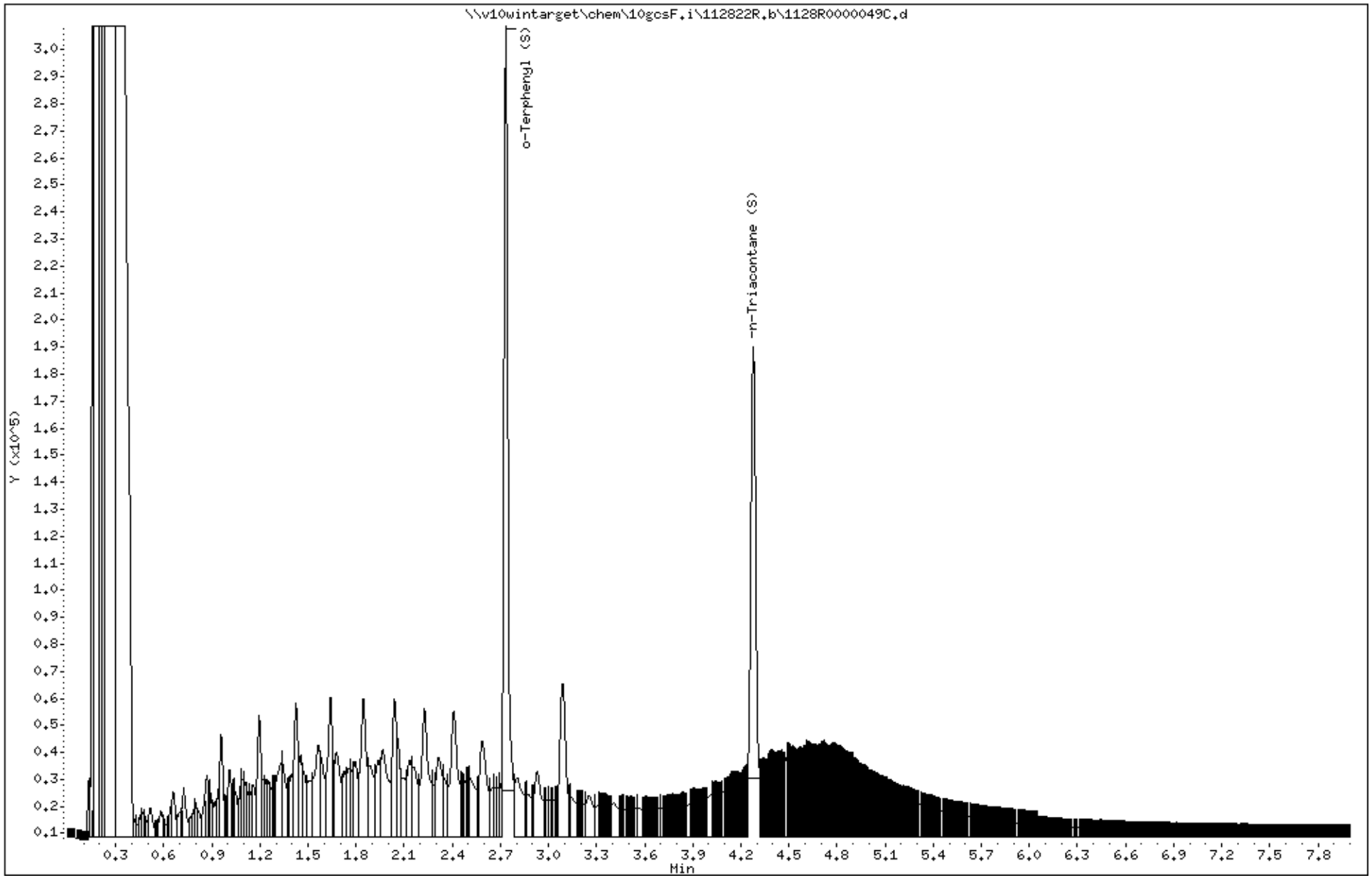
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000049C.d
Date : 28-NOV-2022 20:50
Client ID: DMO-CCV,397498:2
Sample Info: DMO-CCV,397498:2

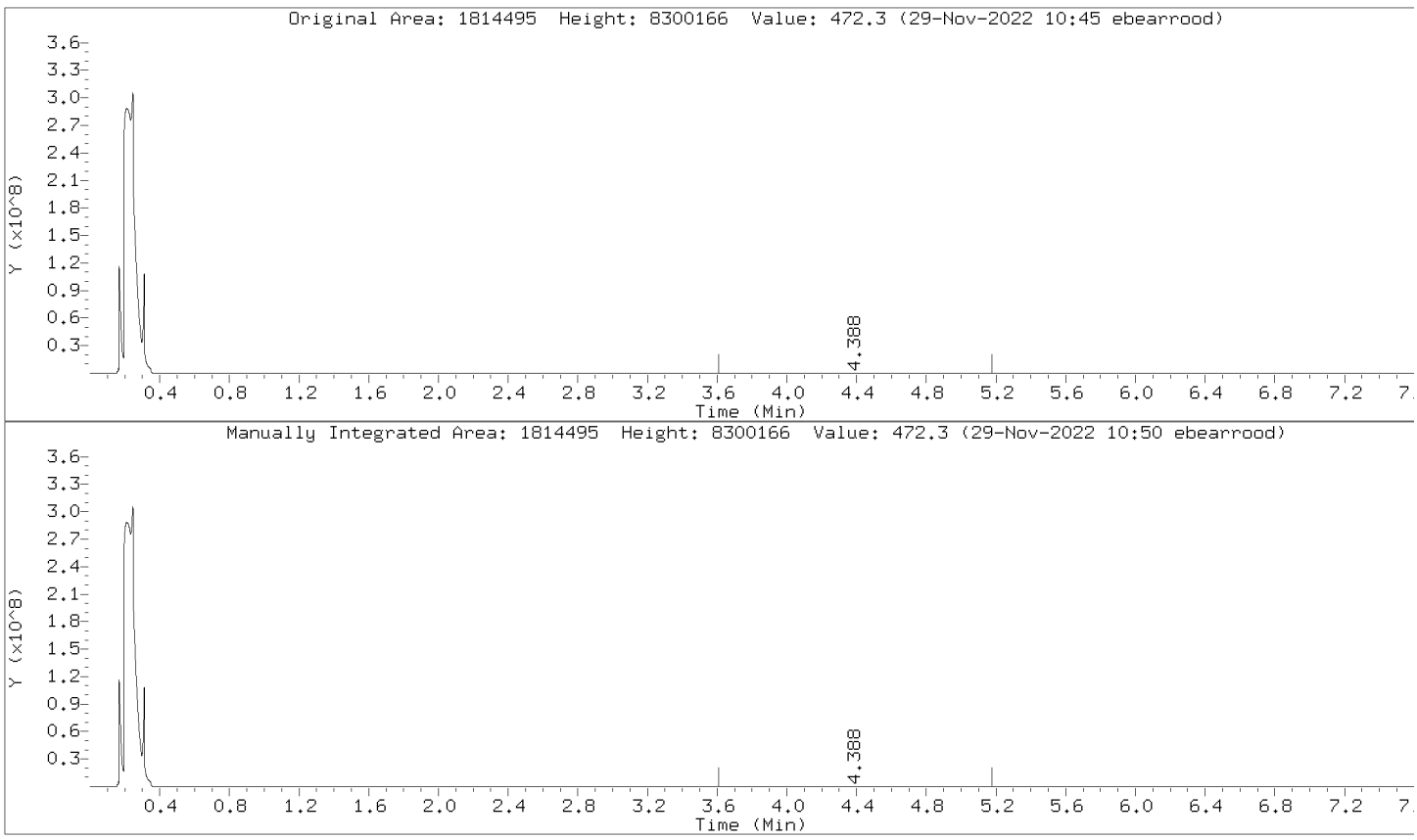
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



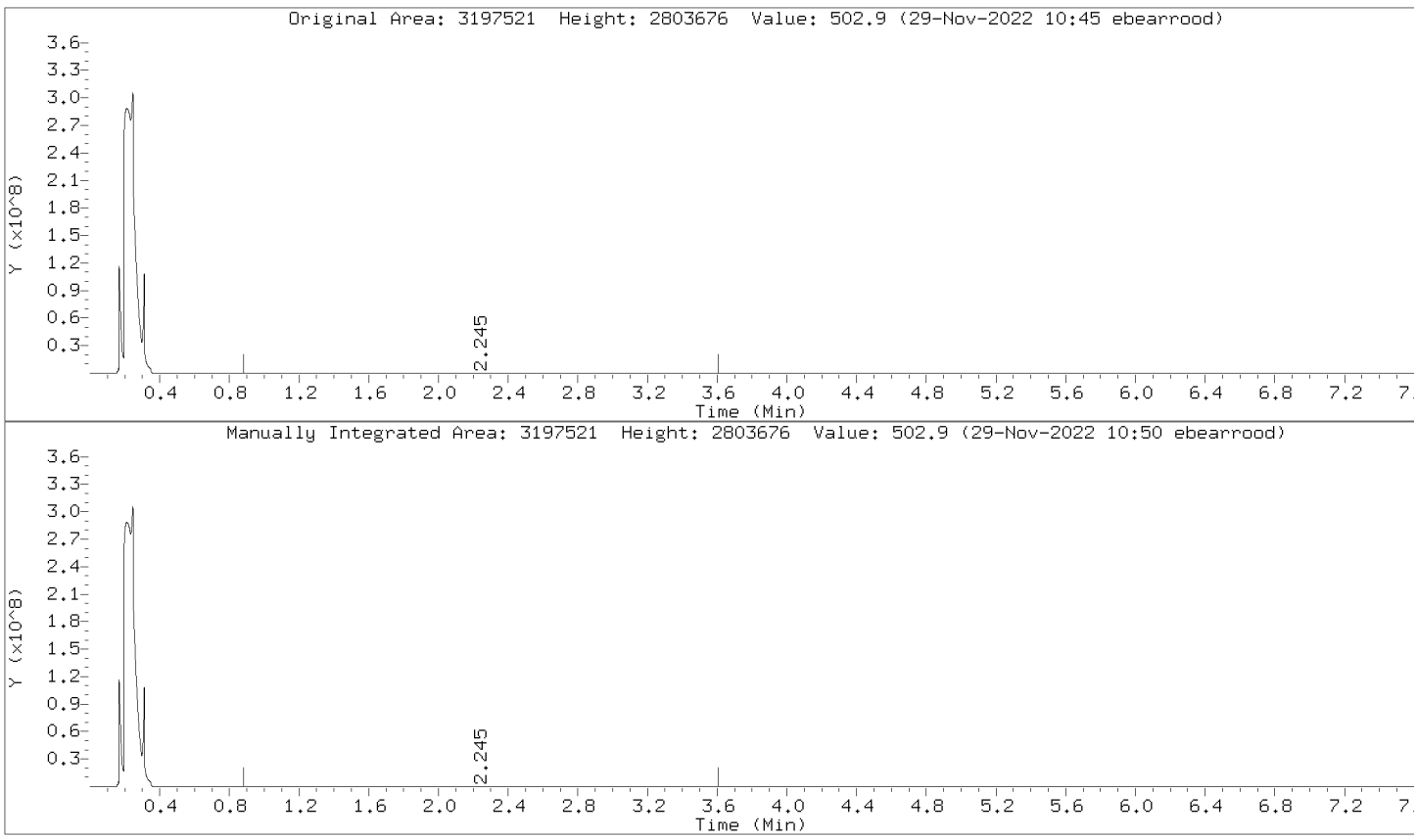
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



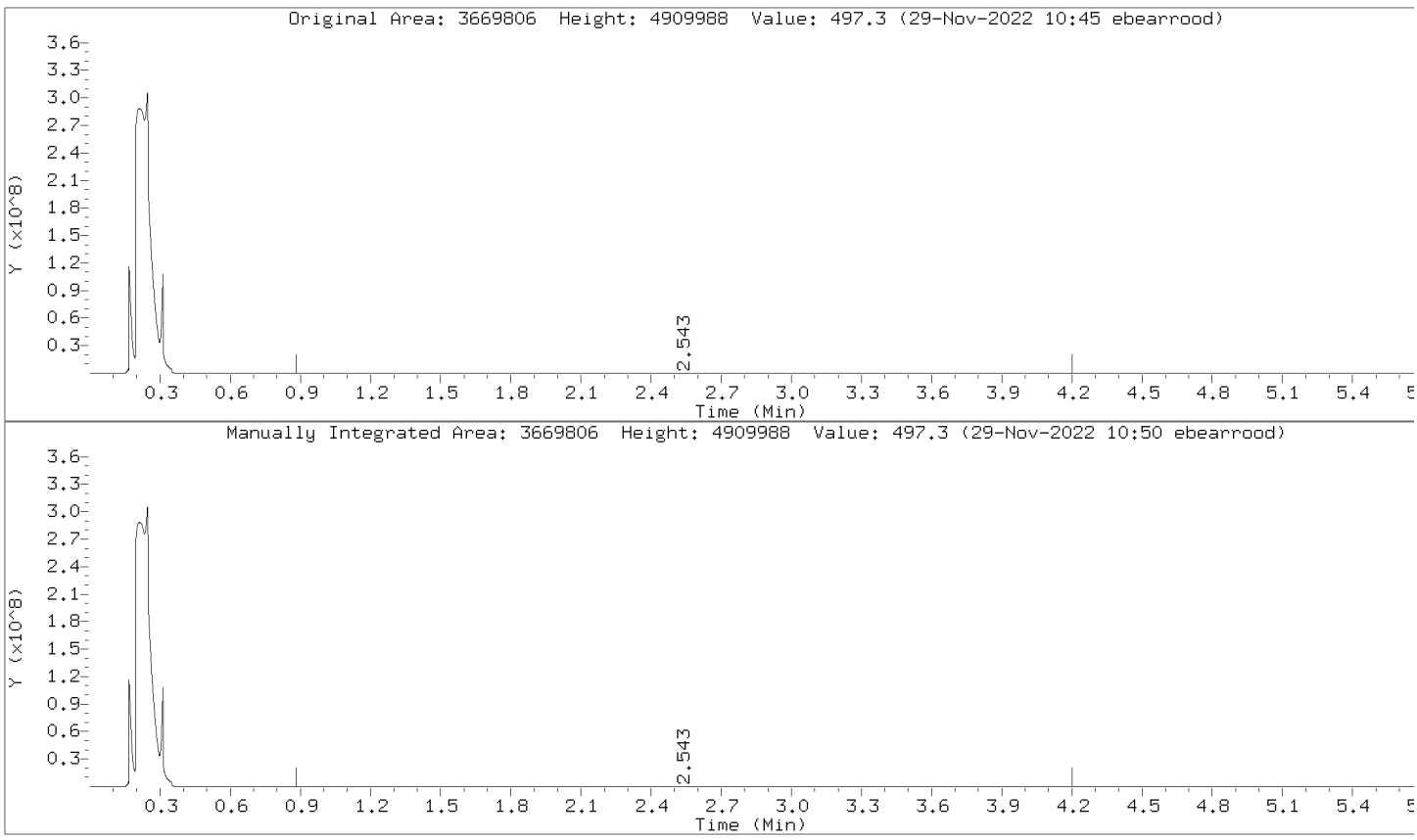
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



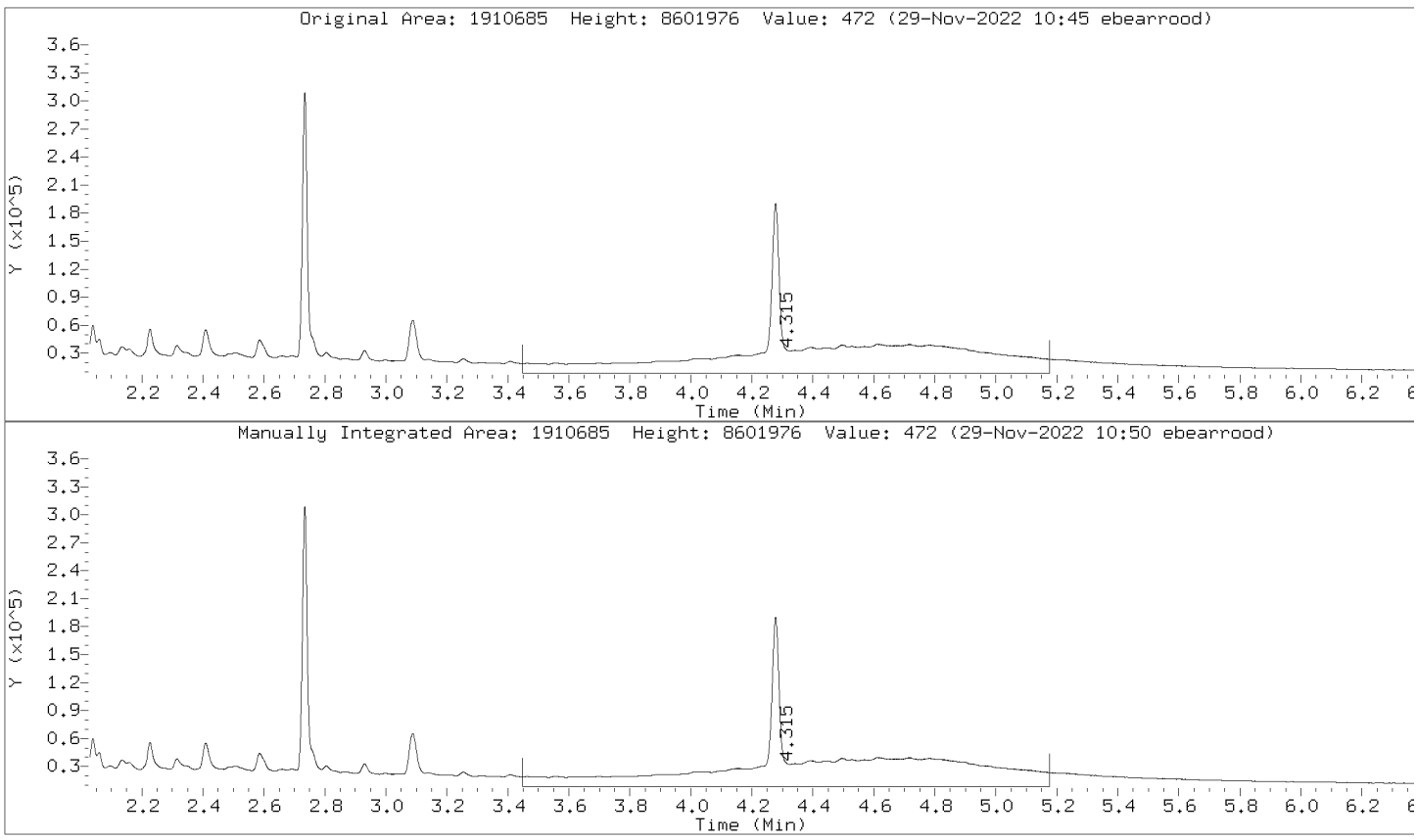
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



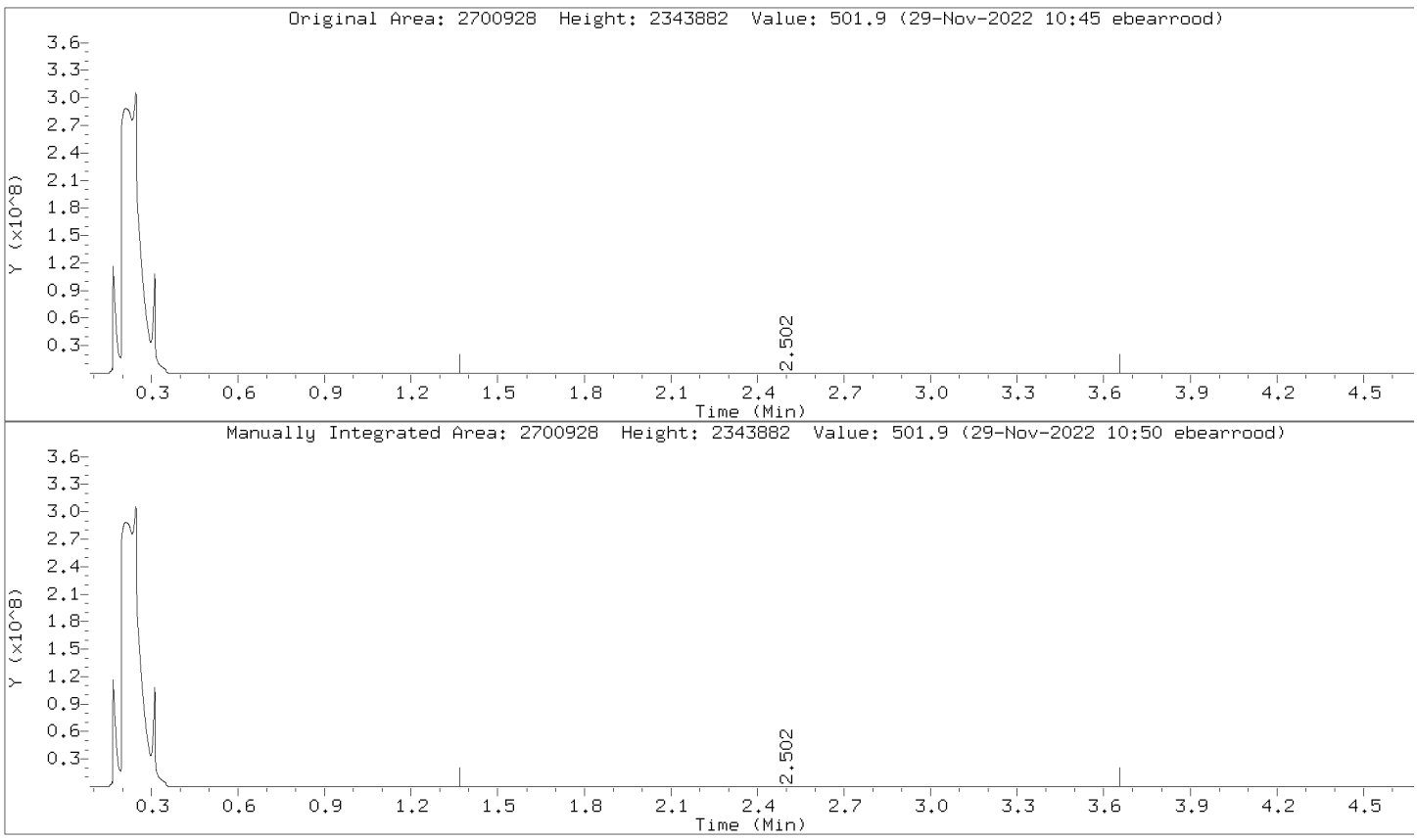
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



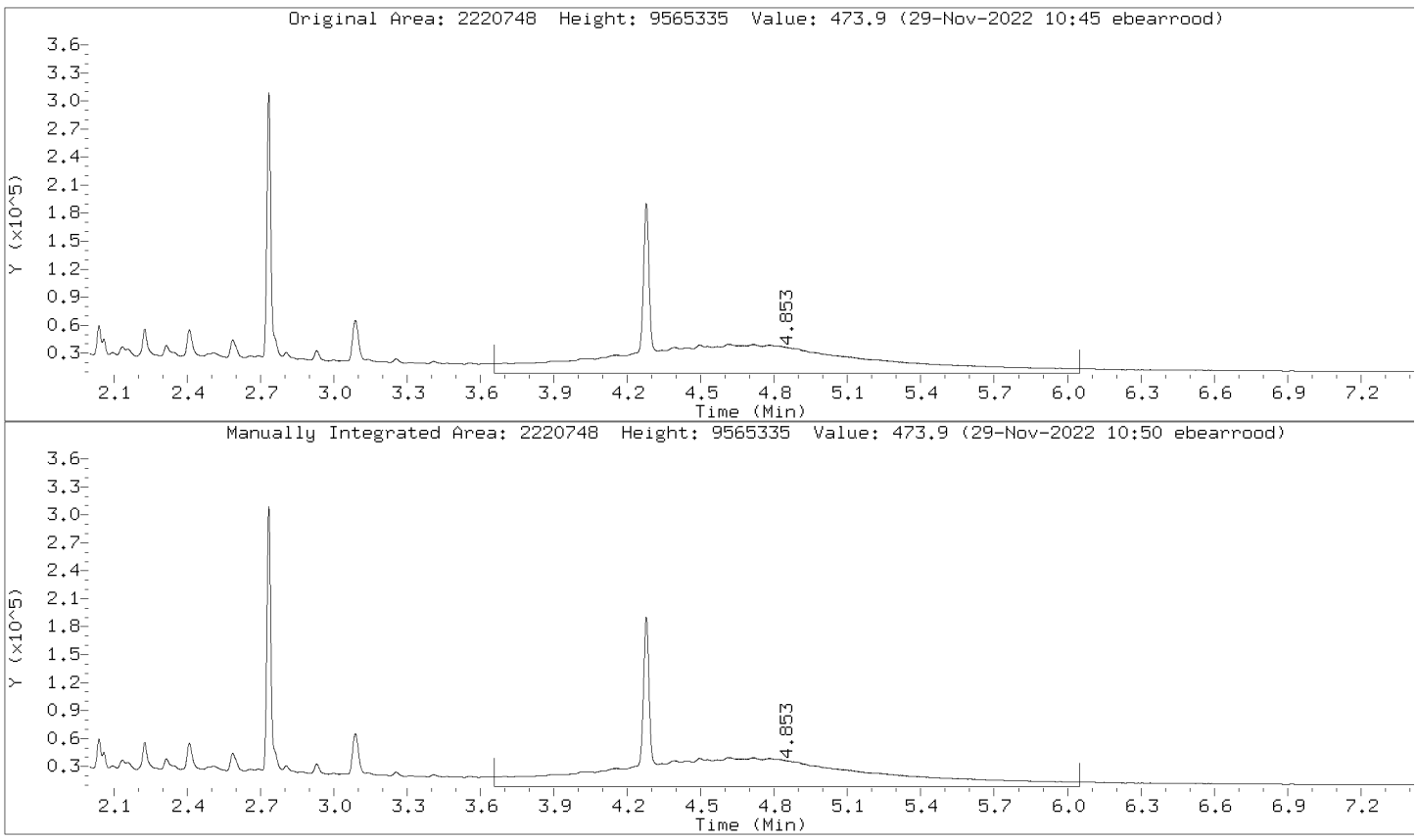
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



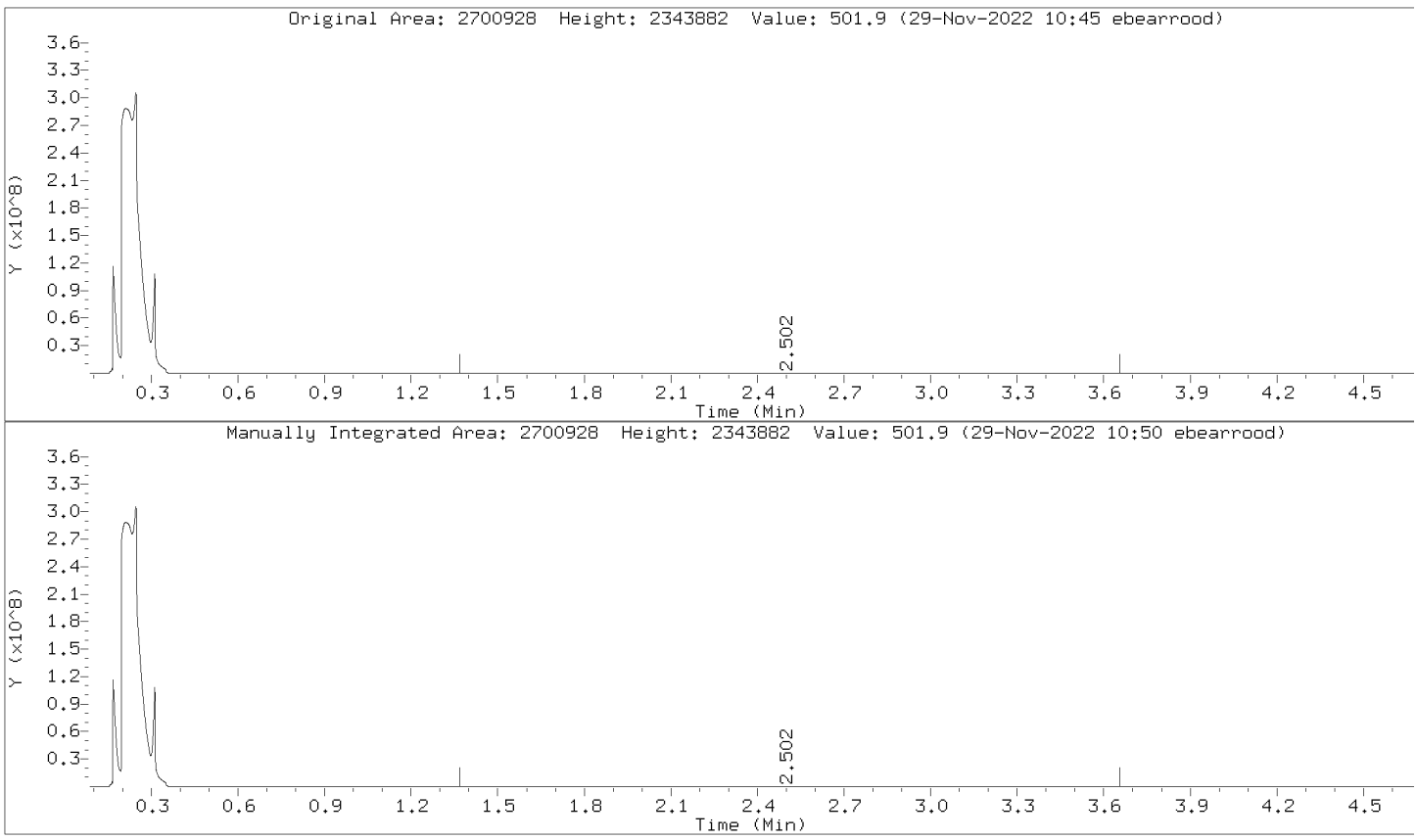
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



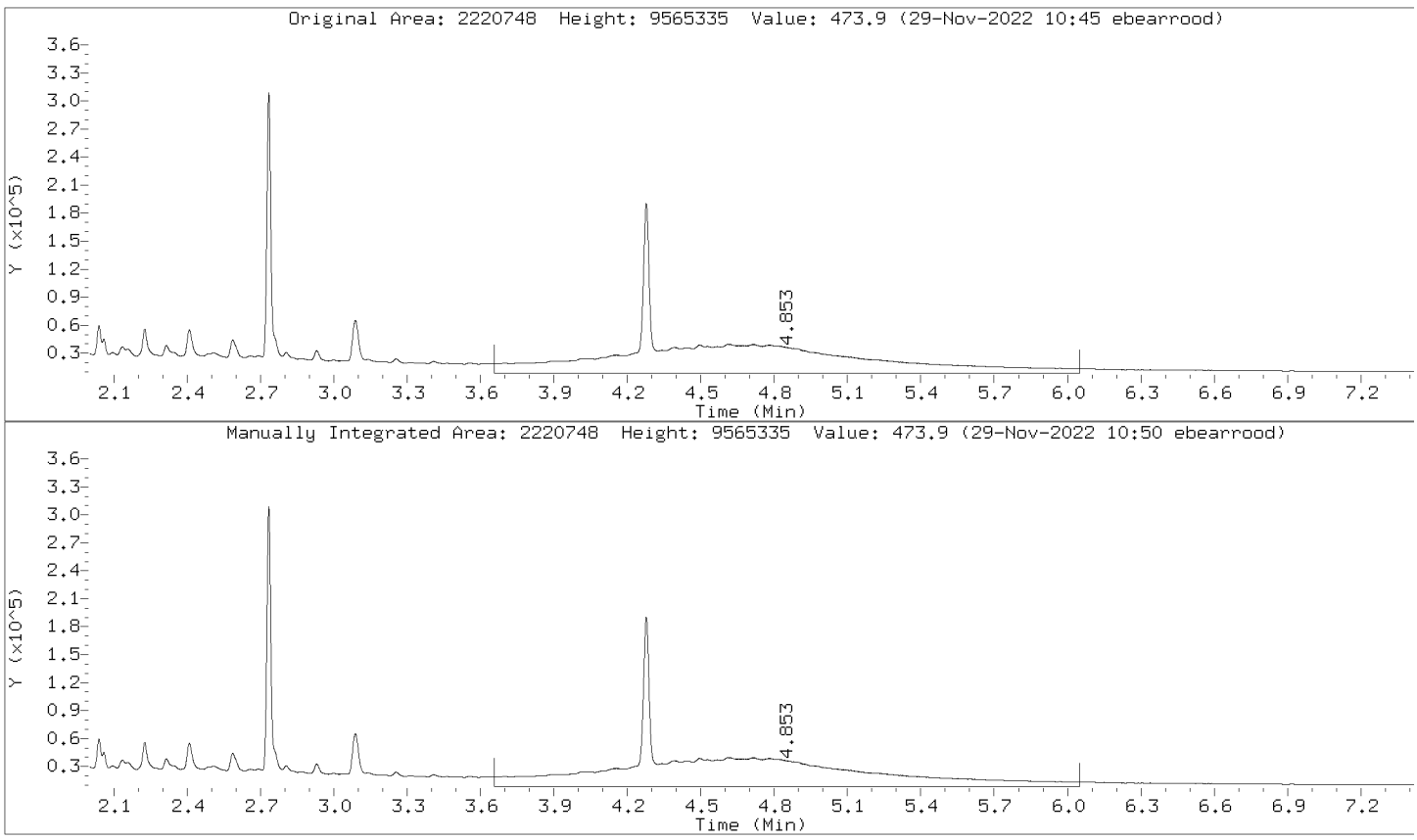
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



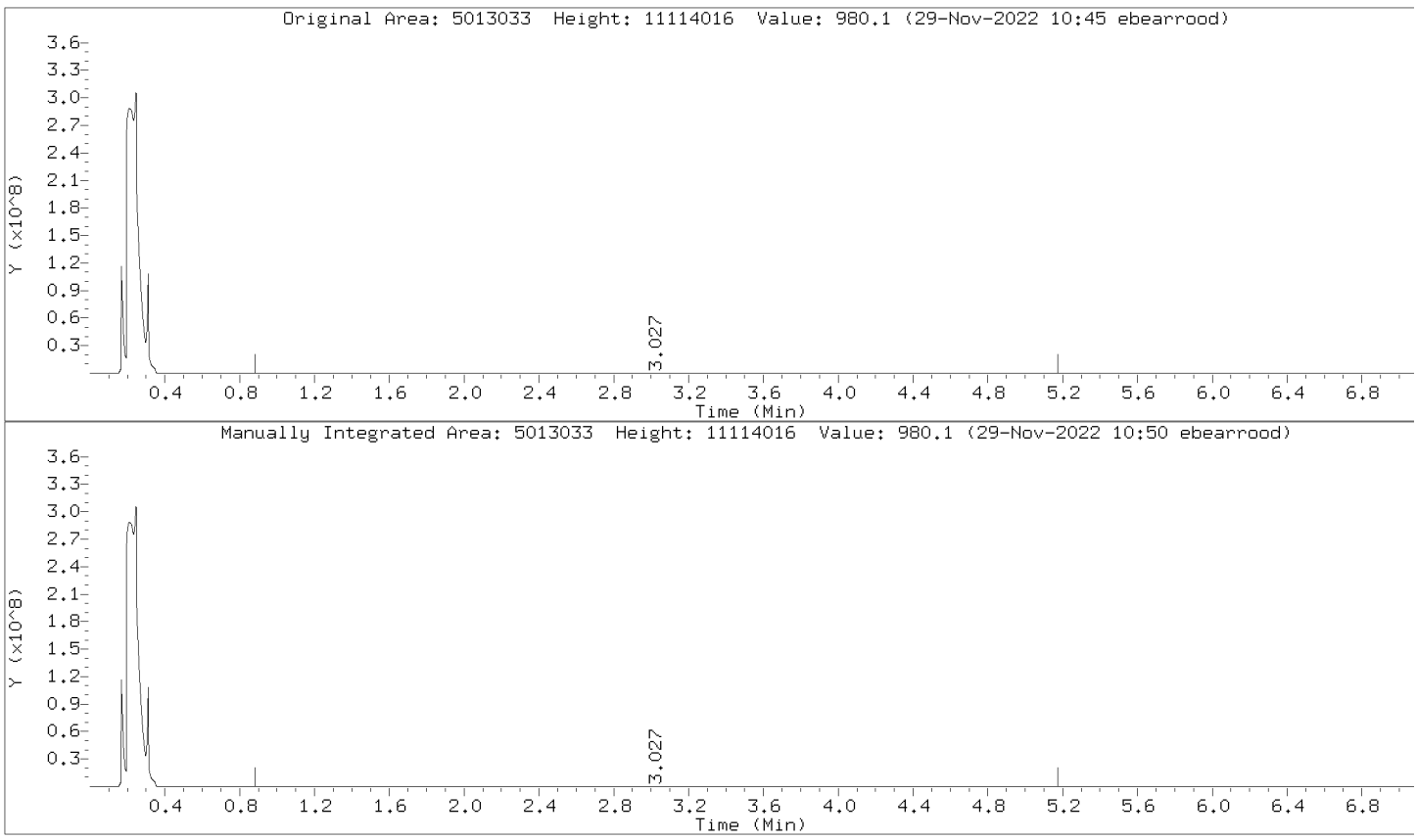
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



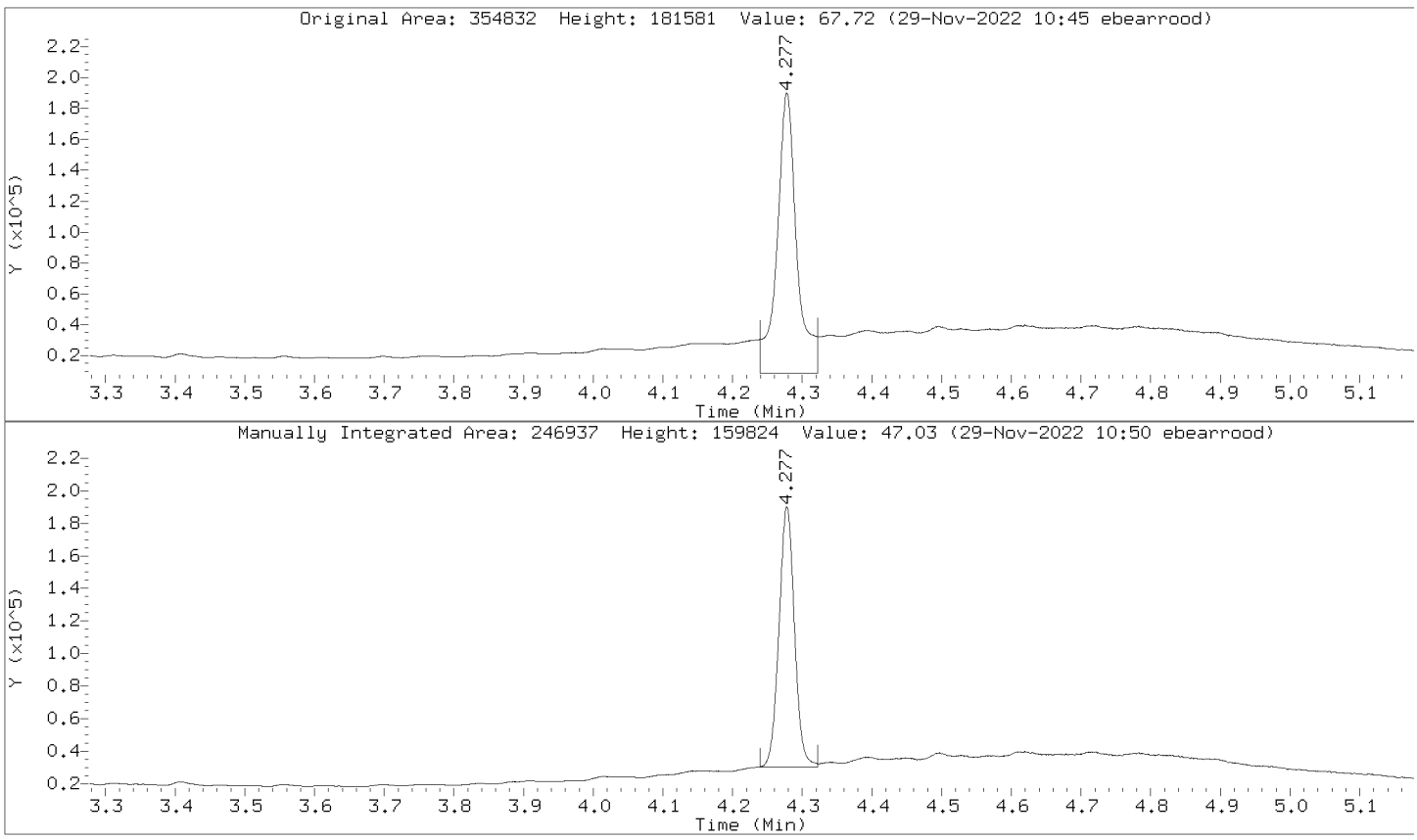
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: C10-C36 Review Code: RNG
CAS Number:



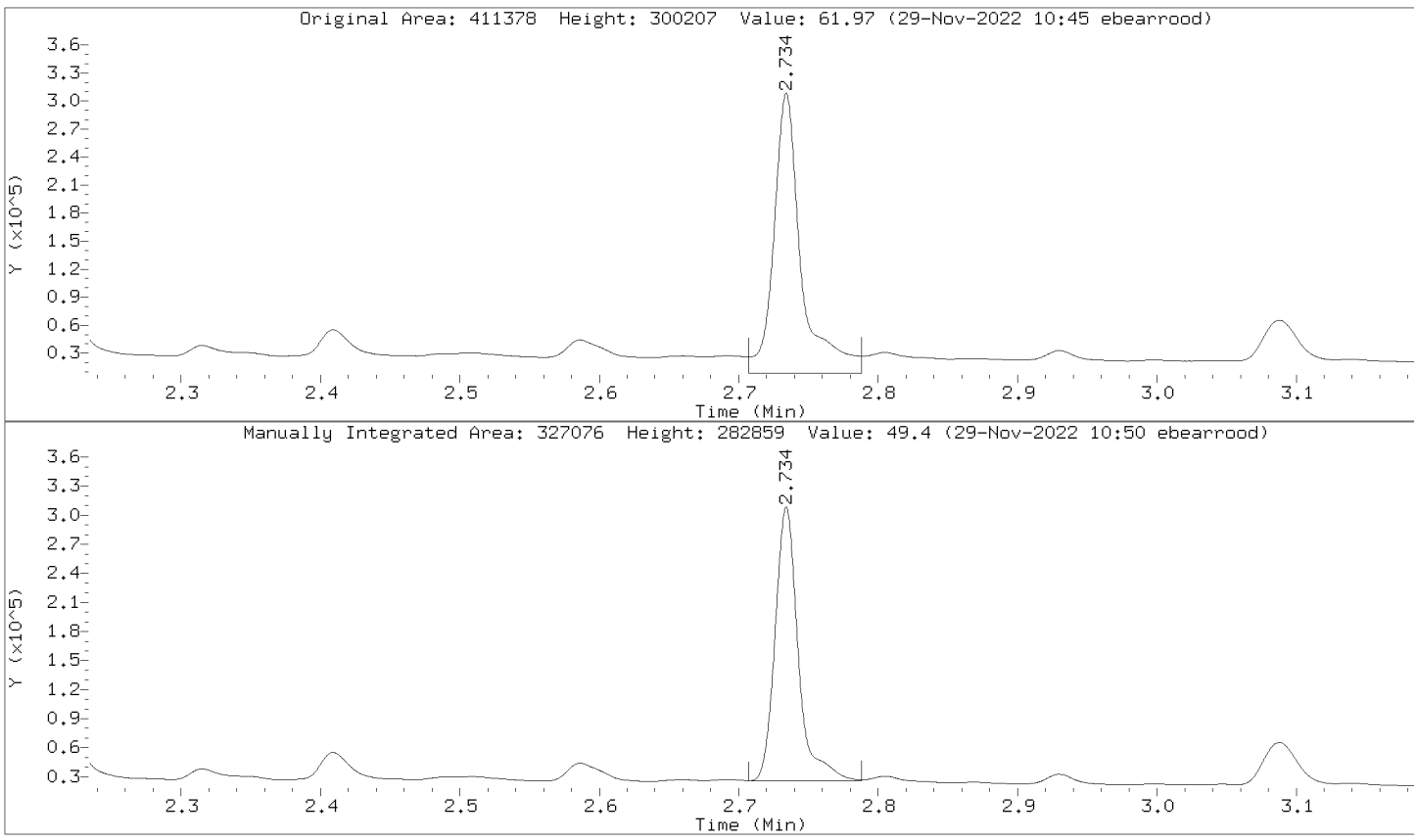
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000049C.d
Injection Date: 28-NOV-2022 20:50
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1814495	1814495
DRO by AK 102	3197521	3197521
TPH-DRO (C10-C28)	3669806	3669806
Motor Oil Range (C24-C36)	1910685	1910685
Diesel Fuel Range	2700928	2700928
Motor Oil Range	2220748	2220748
Diesel Fuel Range SG	2700928	2700928
Motor Oil Range SG	2220748	2220748
C10-C36	5013033	5013033
n-Triacontane (S)	354832	246937
o-Terphenyl (S)	411378	327076

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000060C.d
Lab Smp Id: DMO-CCV,397498:2 Client Smp ID: DMO-CCV,397498:2
Inj Date : 28-NOV-2022 22:55
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,397498:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.605		3190785	500.000	502	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	328750	50.0000	49.6	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.279	4.278	0.001	257339	50.0000	49.0	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.606	- 5.170		1862951	500.000	486	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.200		3663536	500.000	496	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.460	- 5.170		1951140	500.000	483	(M)	RNG
S 7 C10-C36					CAS #:		
0.885	- 5.170		5053736	1000.00	989	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		2694359	500.000	500	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		2694359	500.000	500	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		2314419	500.000	495	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		2314419	500.000	495	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

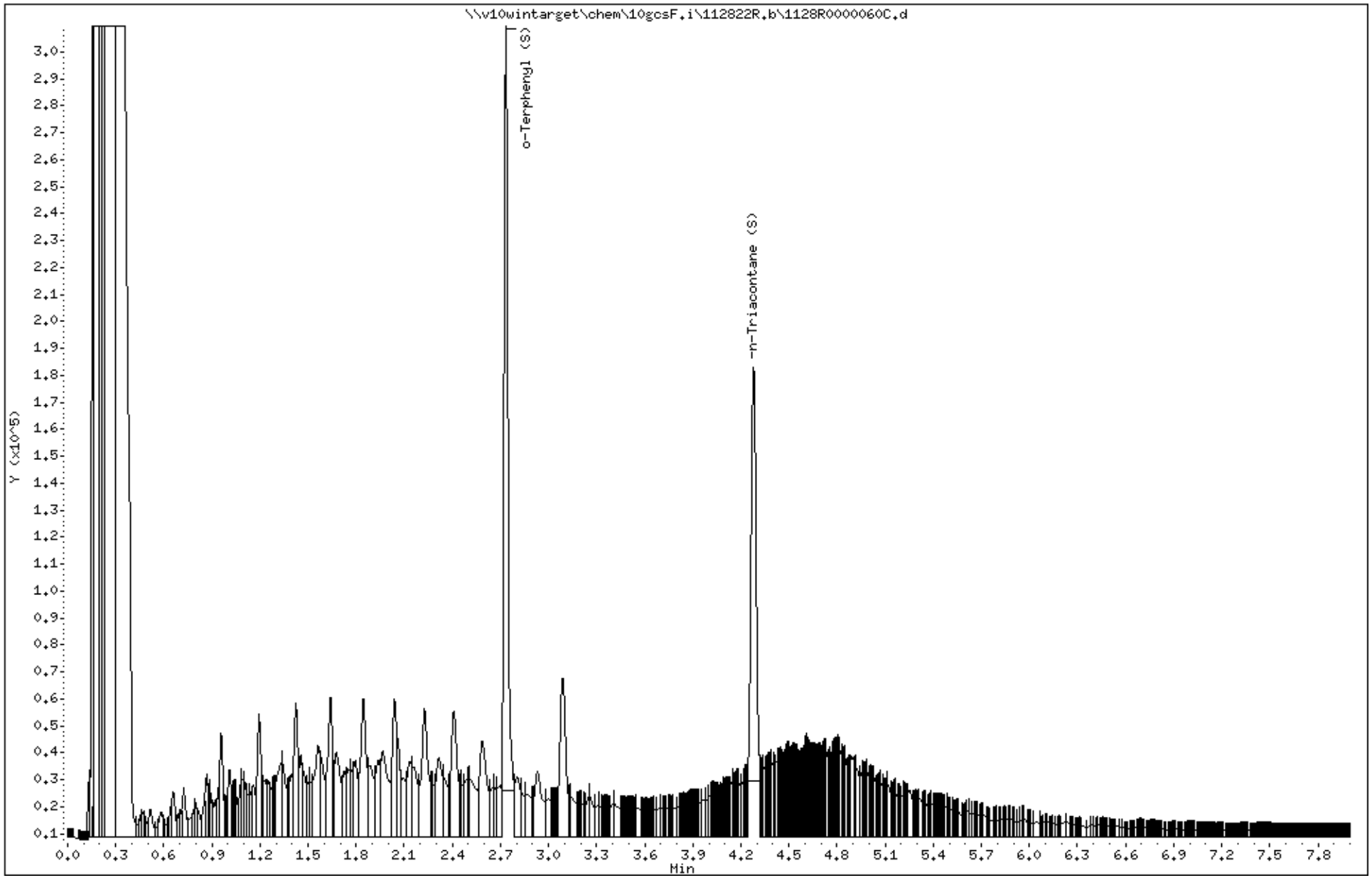
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000060C.d
Date : 28-NOV-2022 22:55
Client ID: DMO-CCV,397498:2
Sample Info: DMO-CCV,397498:2

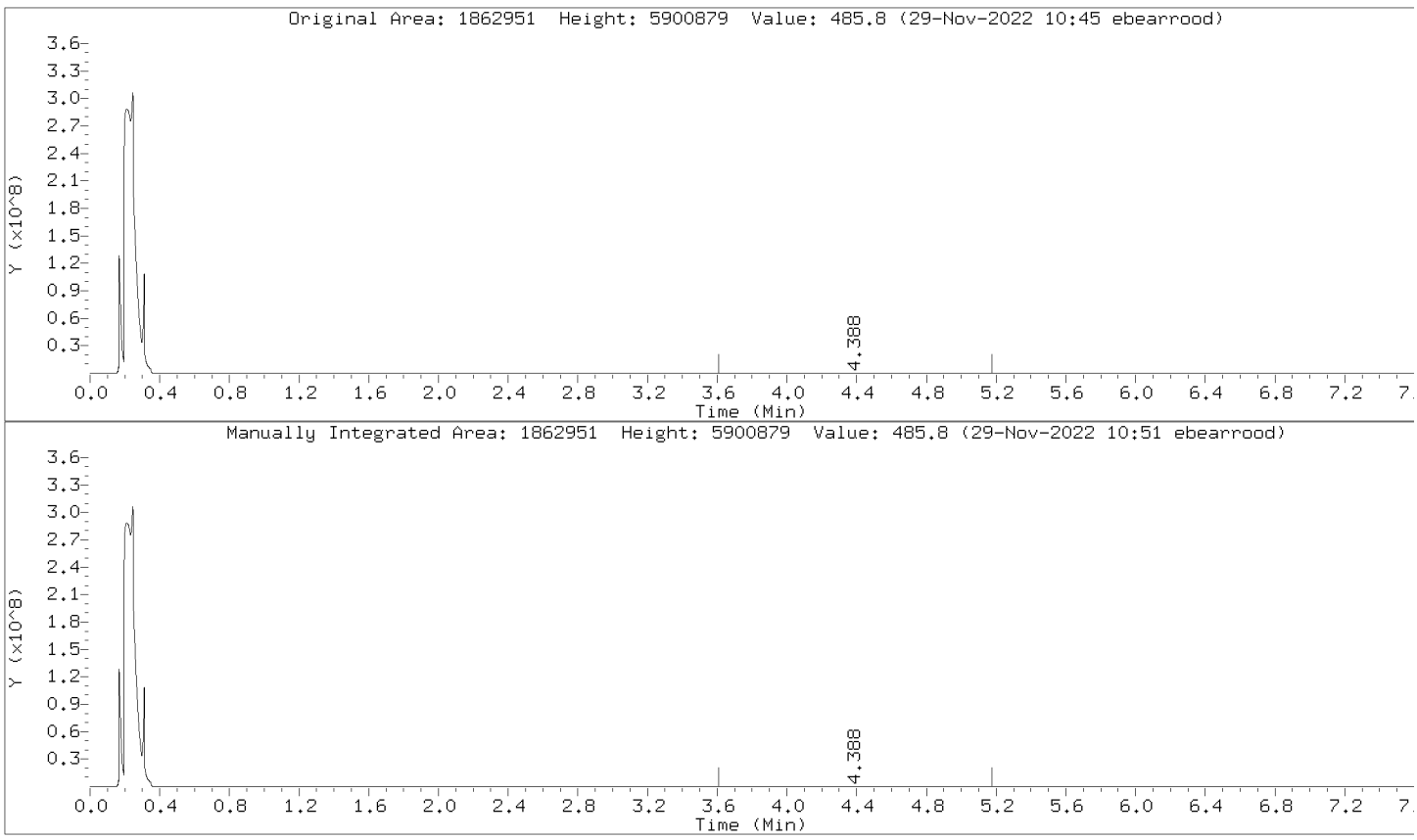
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



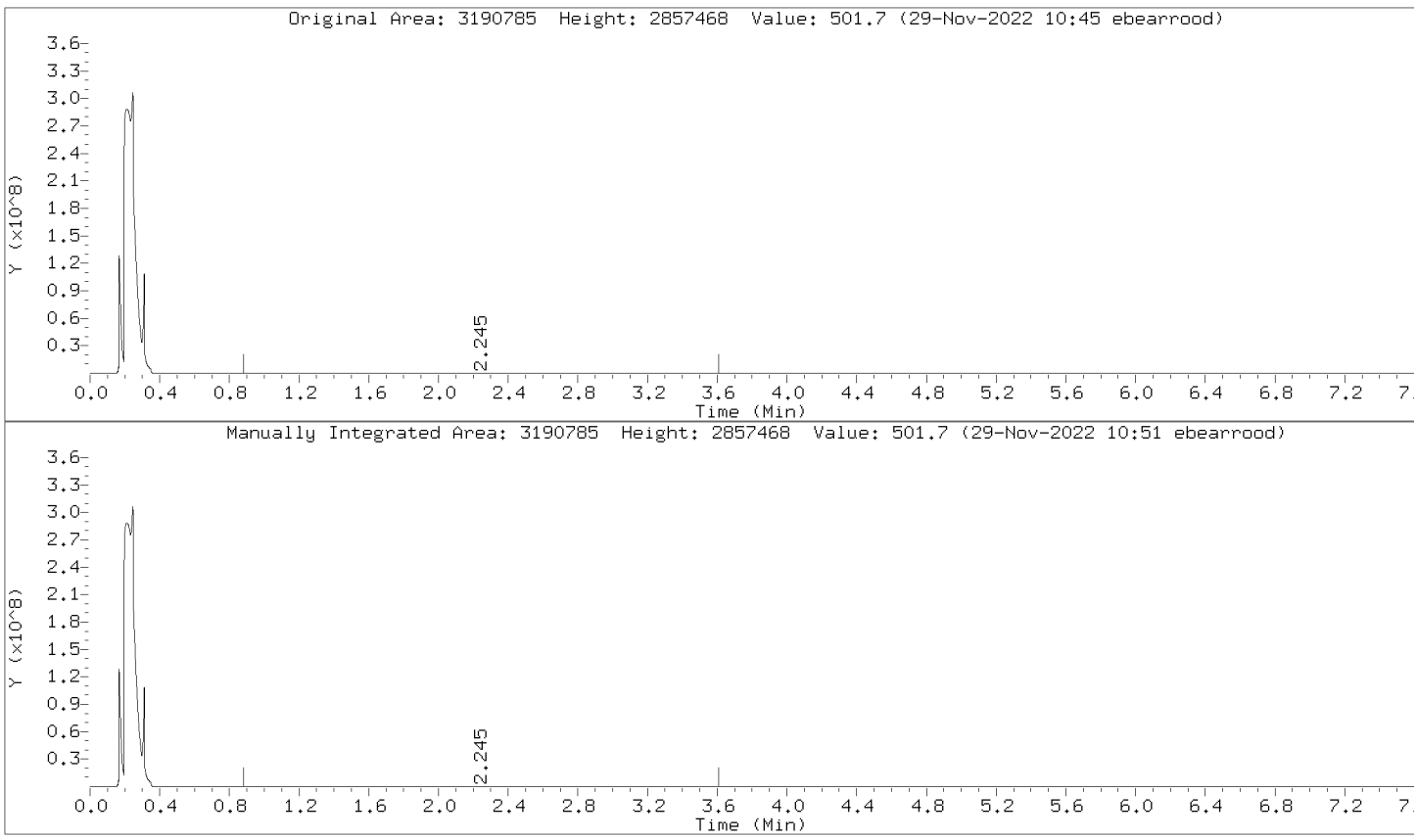
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



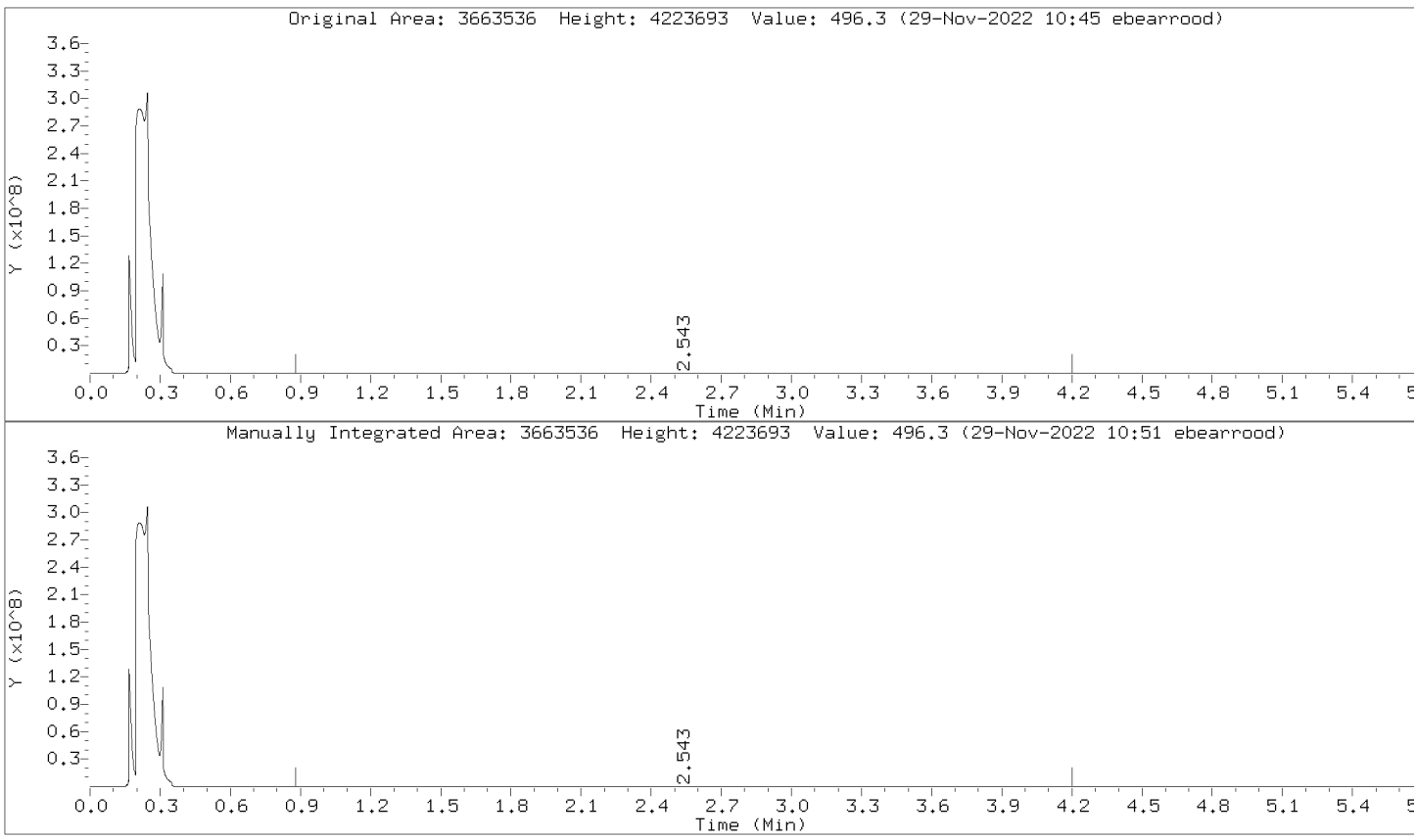
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



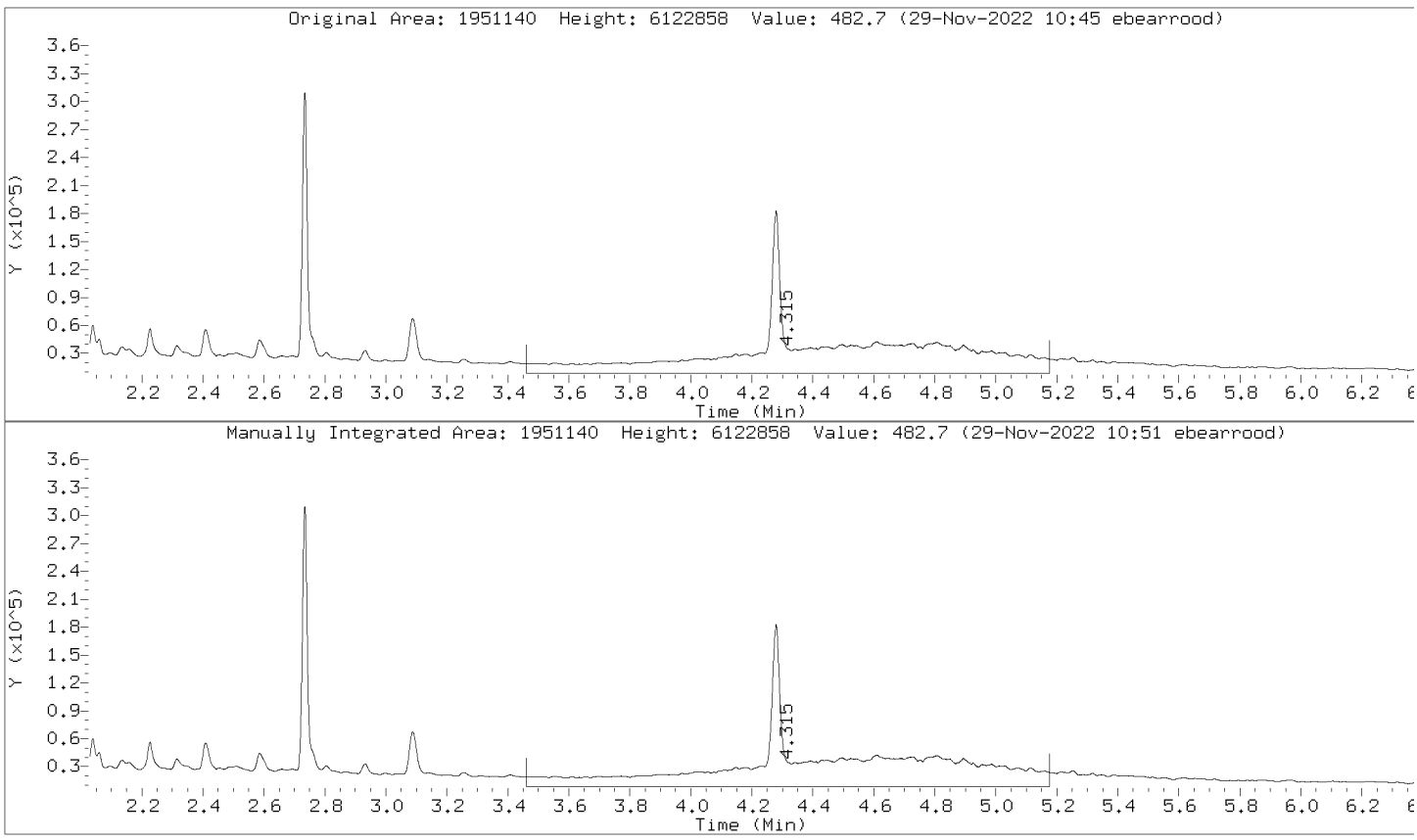
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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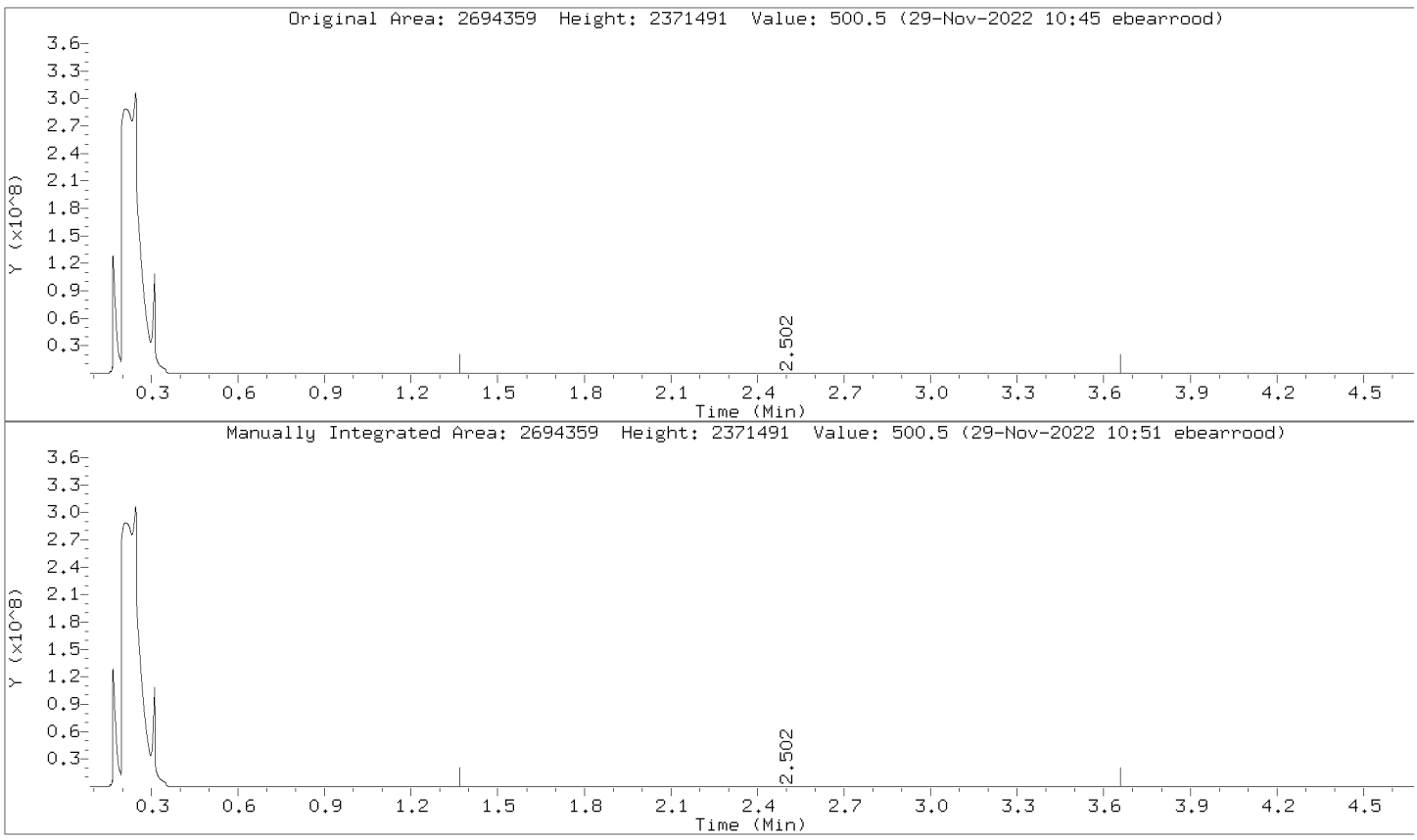
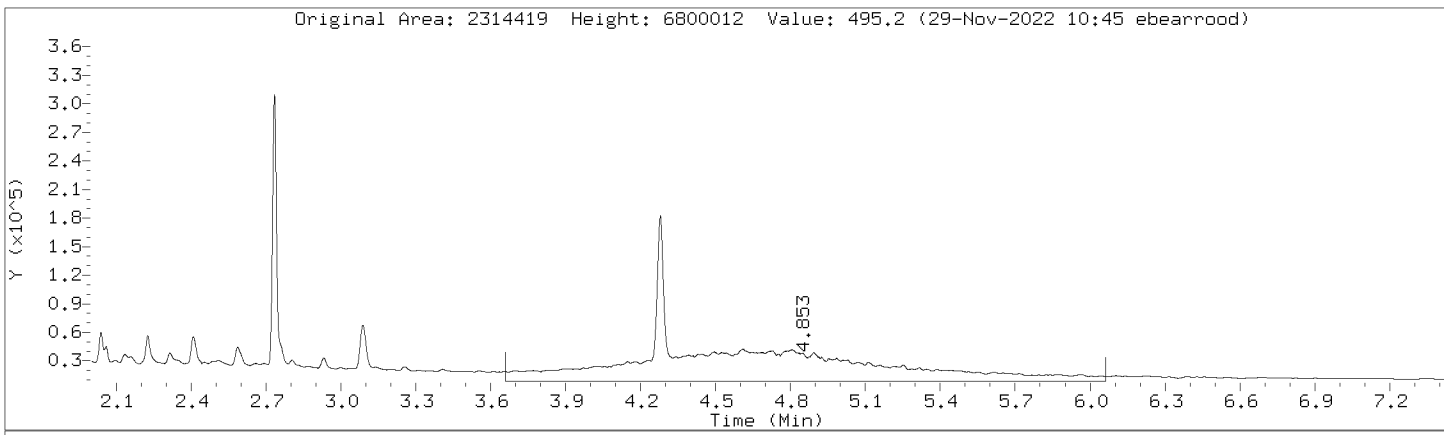
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

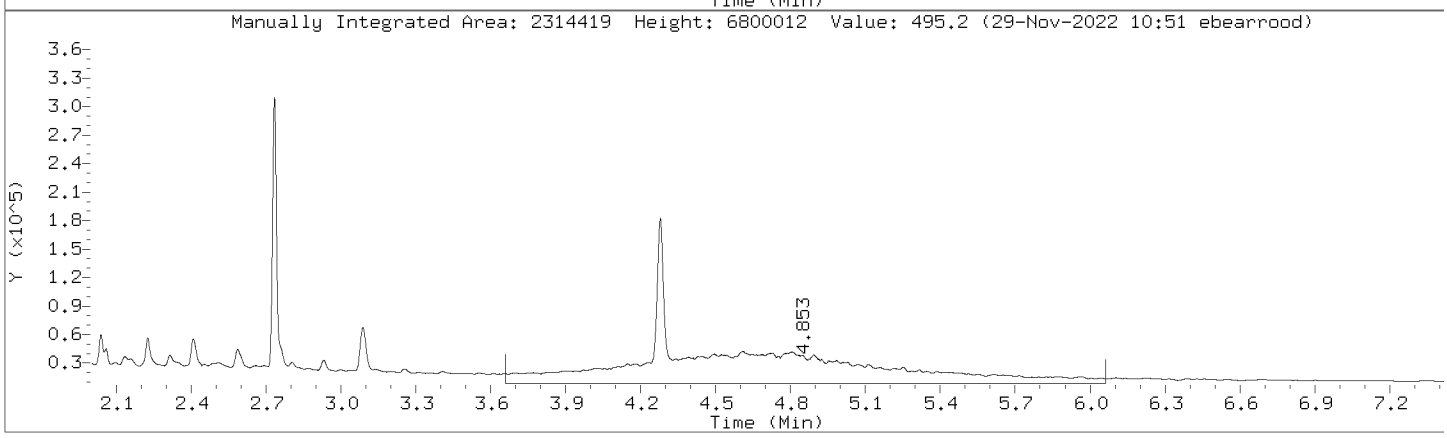
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

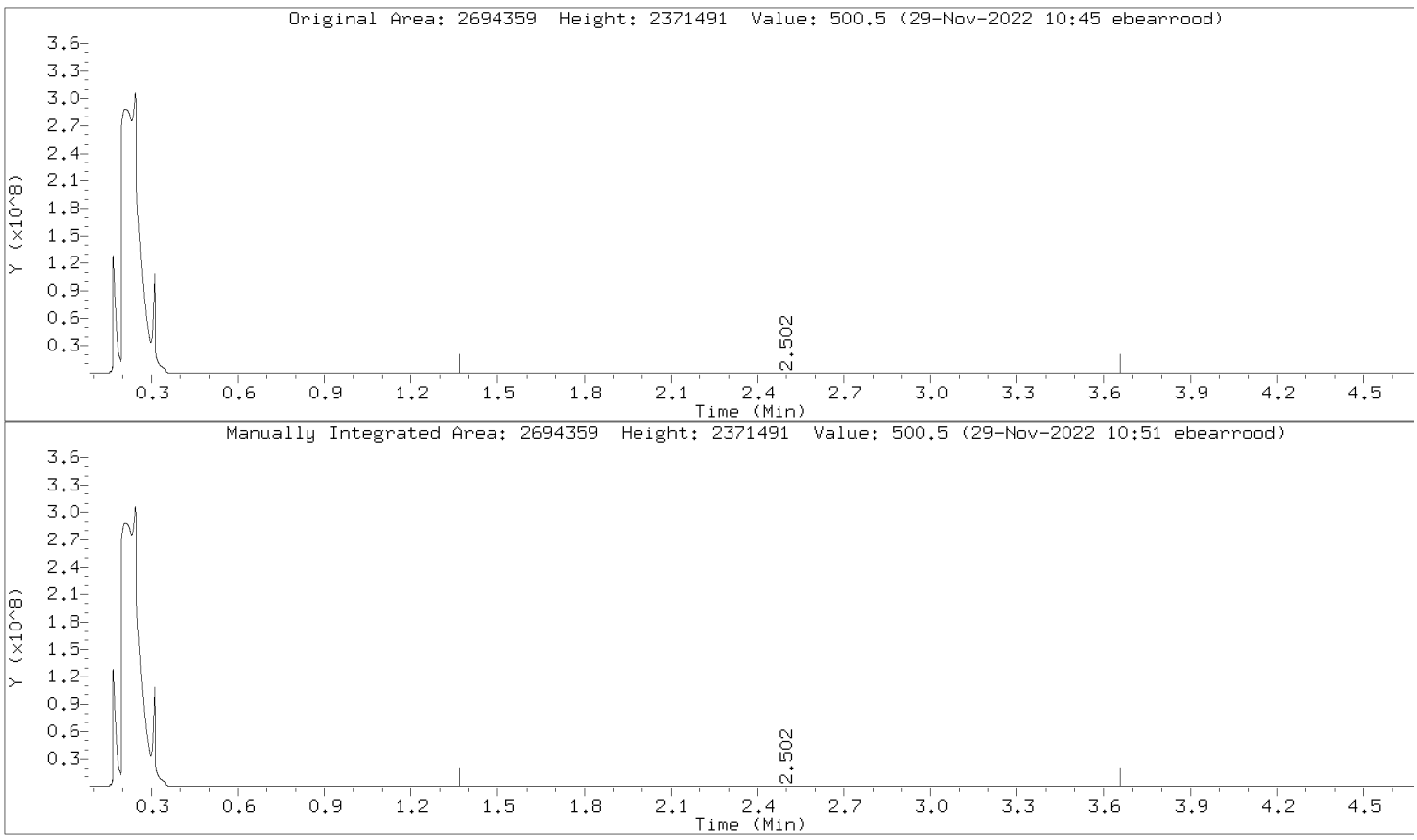
Compound: Motor Oil Range Review Code: RNG
CAS Number:





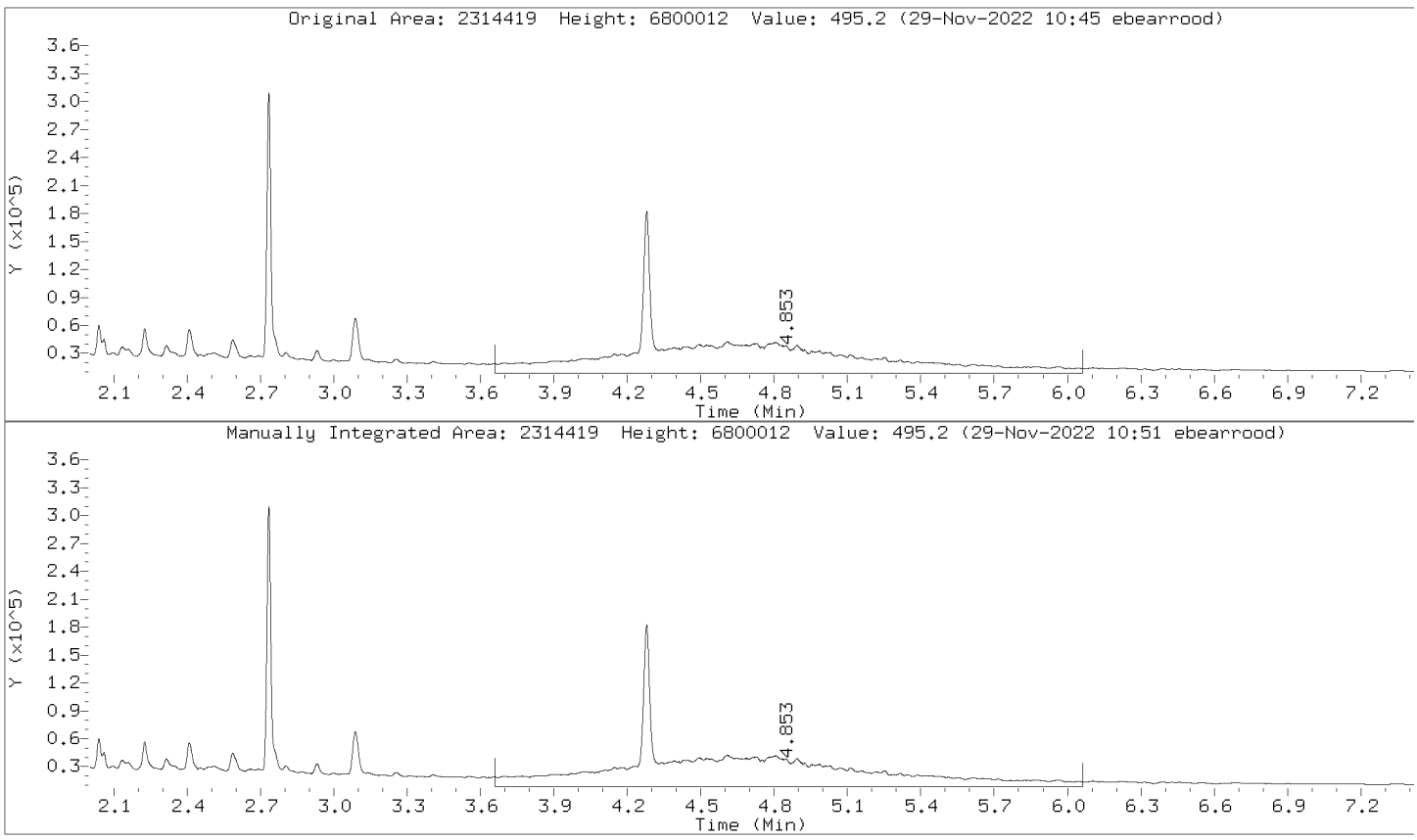
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



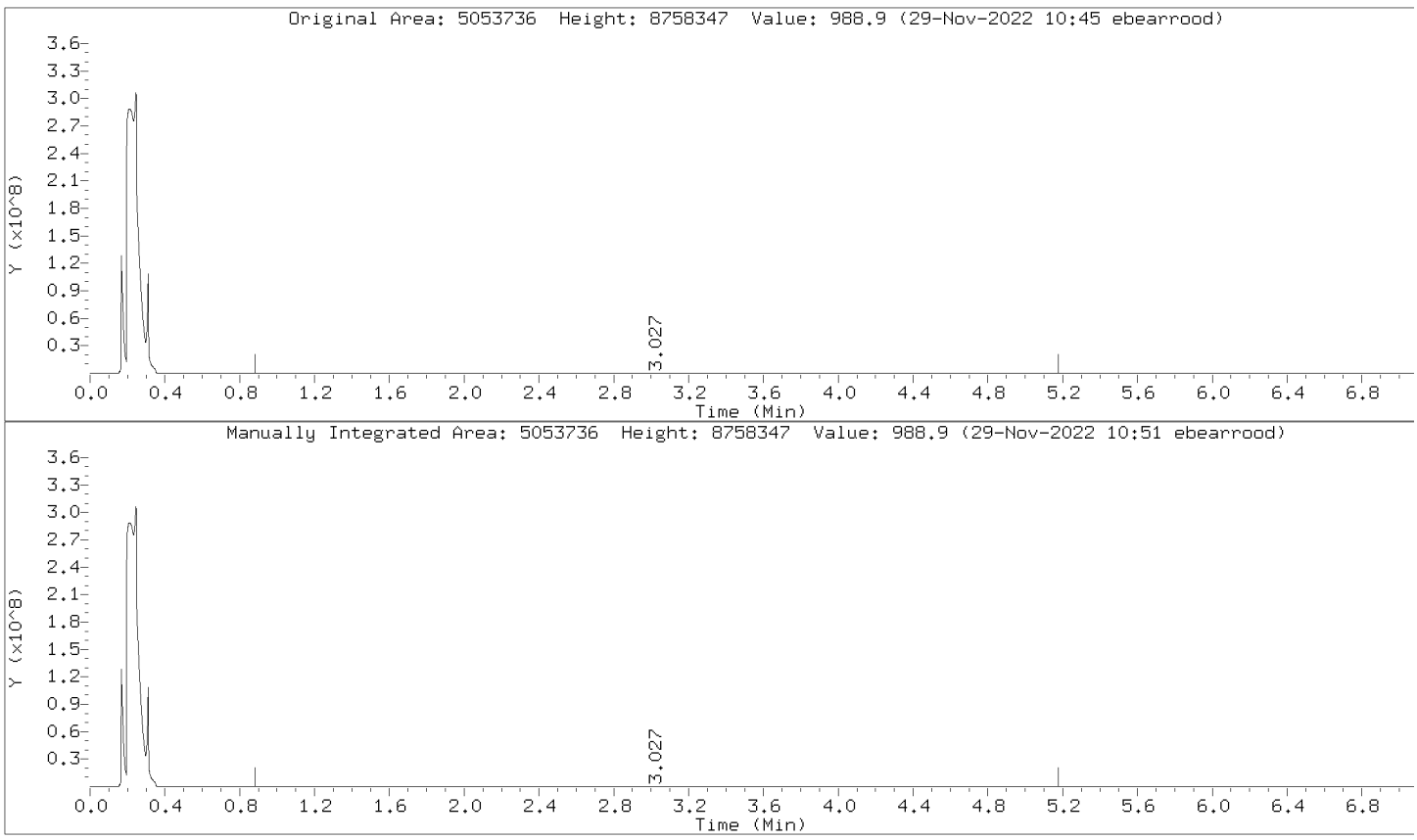
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



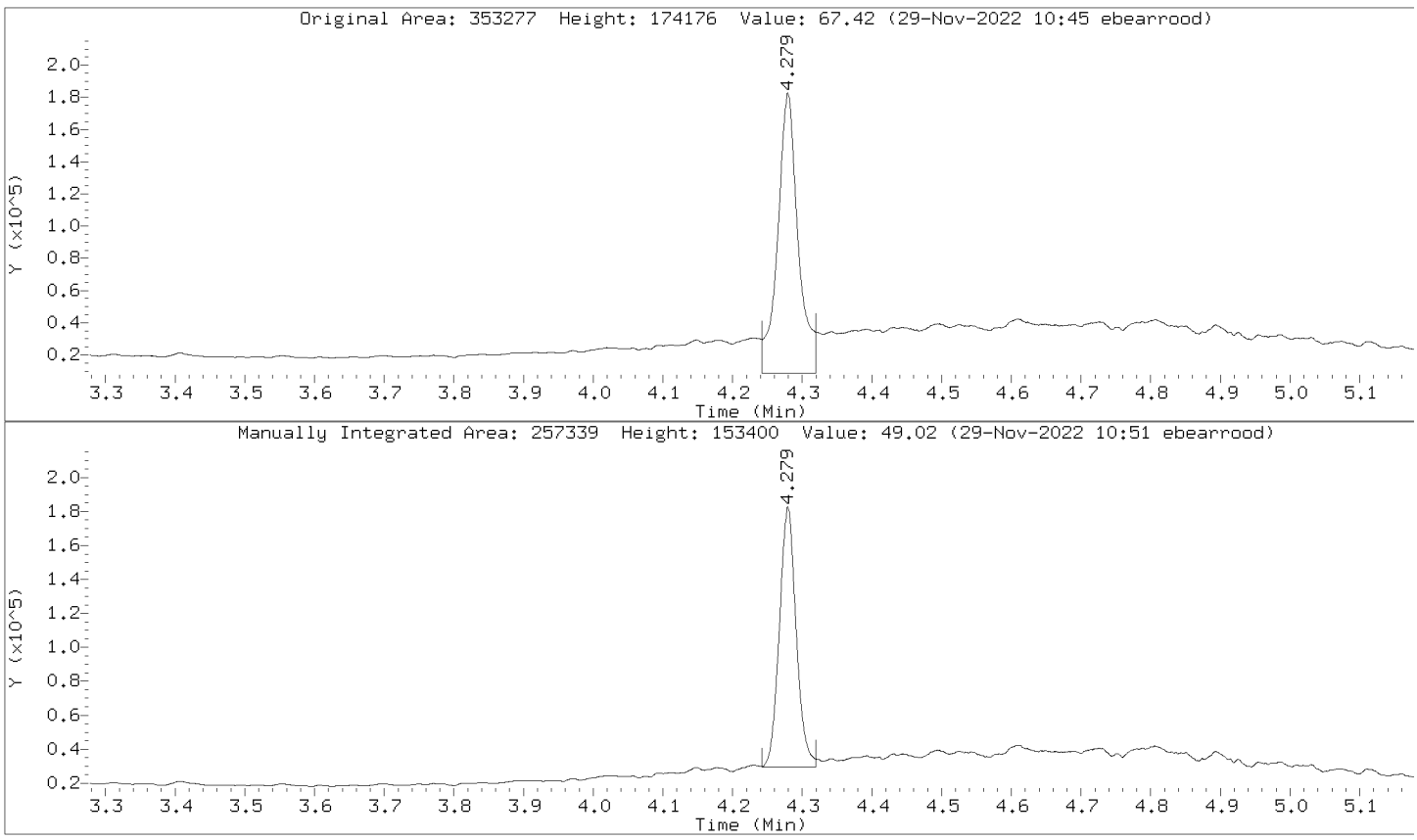
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: C10-C36 Review Code: RNG
CAS Number:



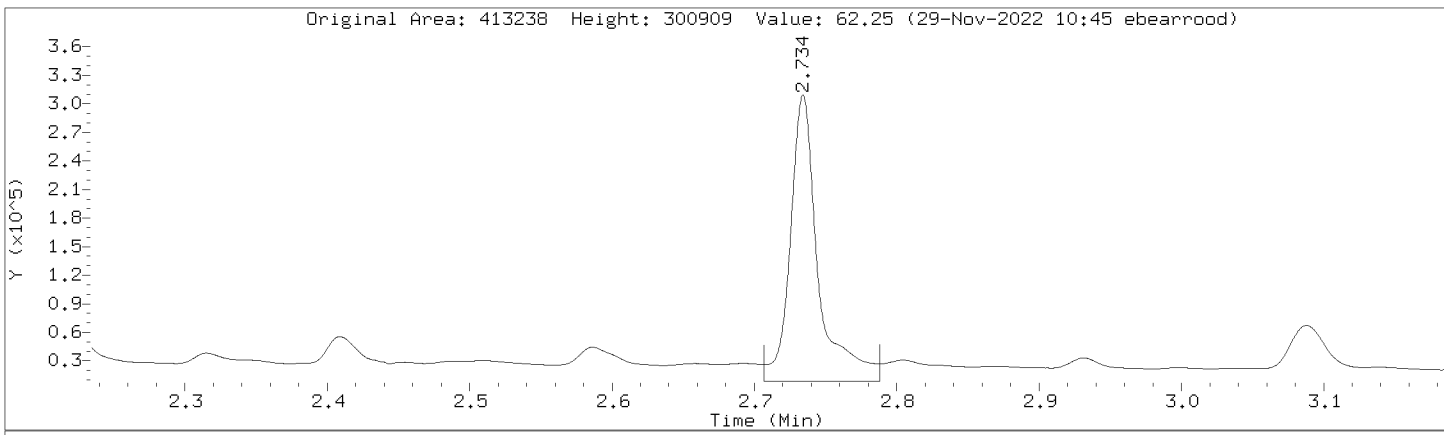
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

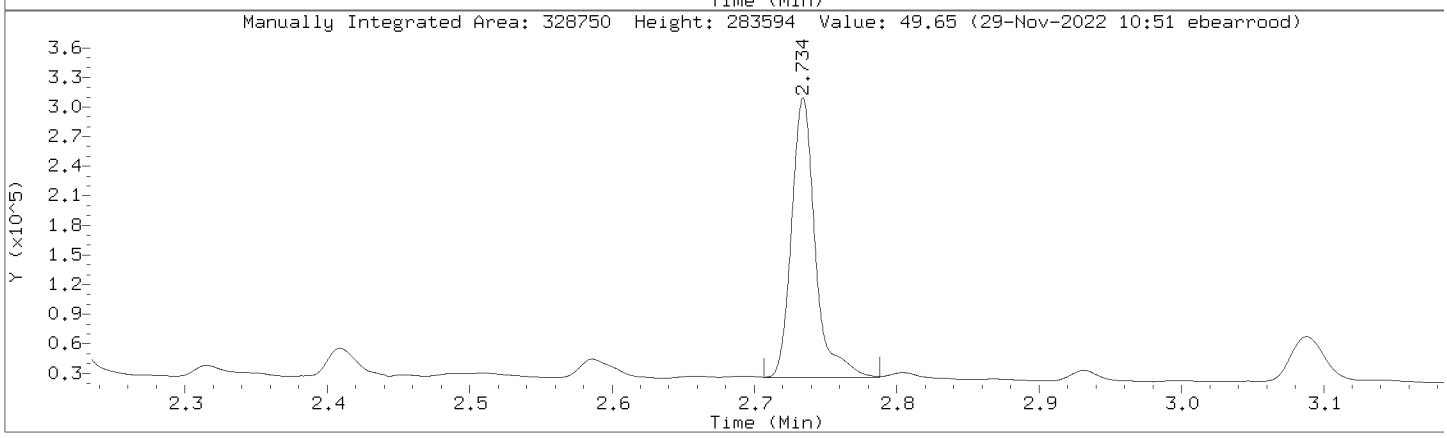
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000060C.d
Injection Date: 28-NOV-2022 22:55
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1862951	1862951
DRO by AK 102	3190785	3190785
TPH-DRO (C10-C28)	3663536	3663536
Motor Oil Range (C24-C36)	1951140	1951140
Diesel Fuel Range	2694359	2694359
Motor Oil Range	2314419	2314419
Diesel Fuel Range SG	2694359	2694359
Motor Oil Range SG	2314419	2314419
C10-C36	5053736	5053736
n-Triacontane (S)	353277	257339
o-Terphenyl (S)	413238	328750

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000064C.d
Lab Smp Id: DMO-CCV,397498:2 Client Smp ID: DMO-CCV,397498:2
Inj Date : 28-NOV-2022 23:41
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,397498:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.605		3209558	500.000	505	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.734	0.000	330143	50.0000	49.8	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.278	4.278	0.000	255518	50.0000	48.7	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.606	- 5.170		1875937	500.000	489	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.200		3691410	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.460	- 5.170		1968656	500.000	487	(M)	RNG
S 7 C10-C36					CAS #:		
0.885	- 5.170		5085496	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		2713812	500.000	505	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		2713812	500.000	505	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		2342632	500.000	502	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		2342632	500.000	502	(M)	RNG

QC Flag Legend

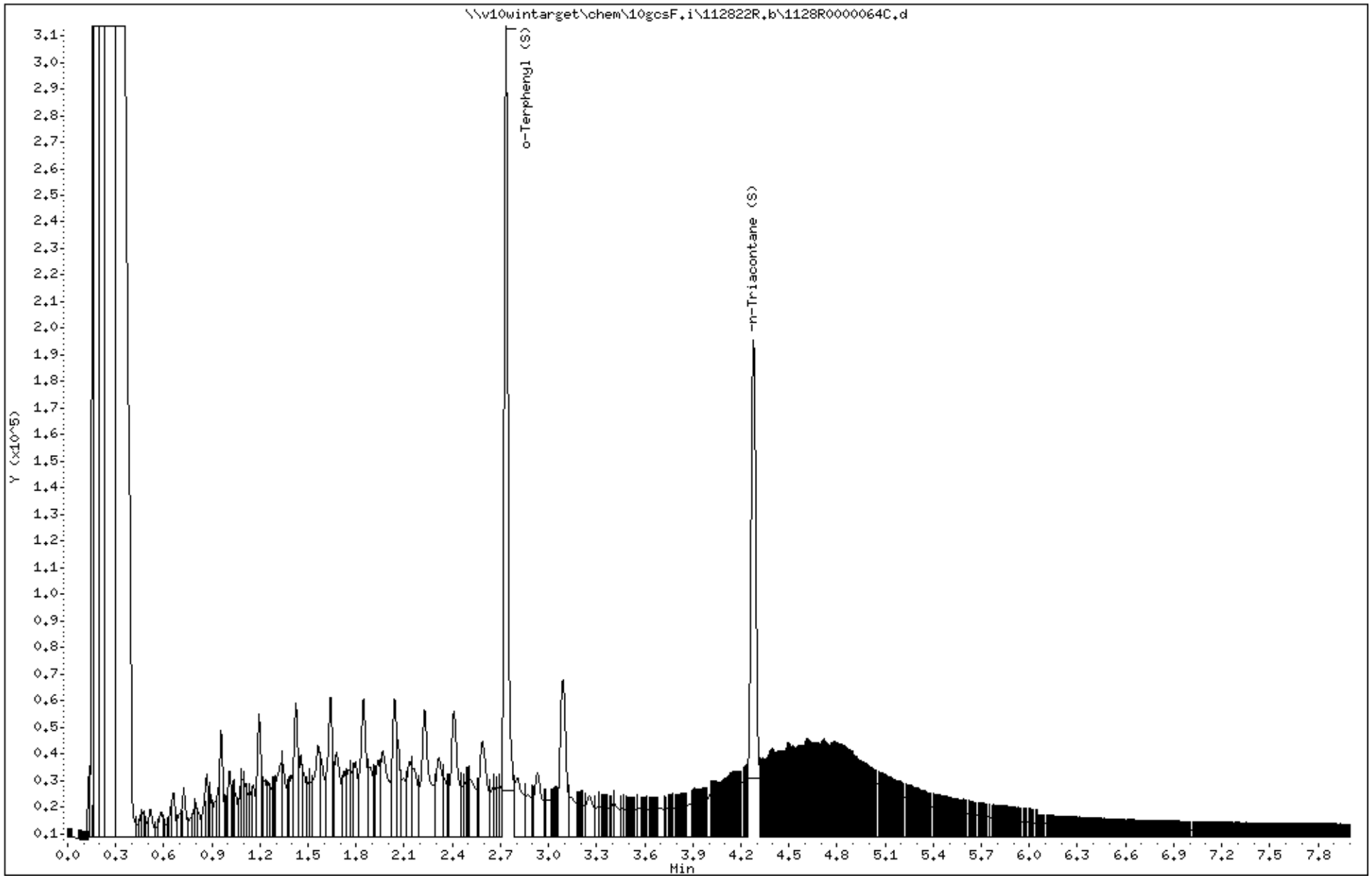
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

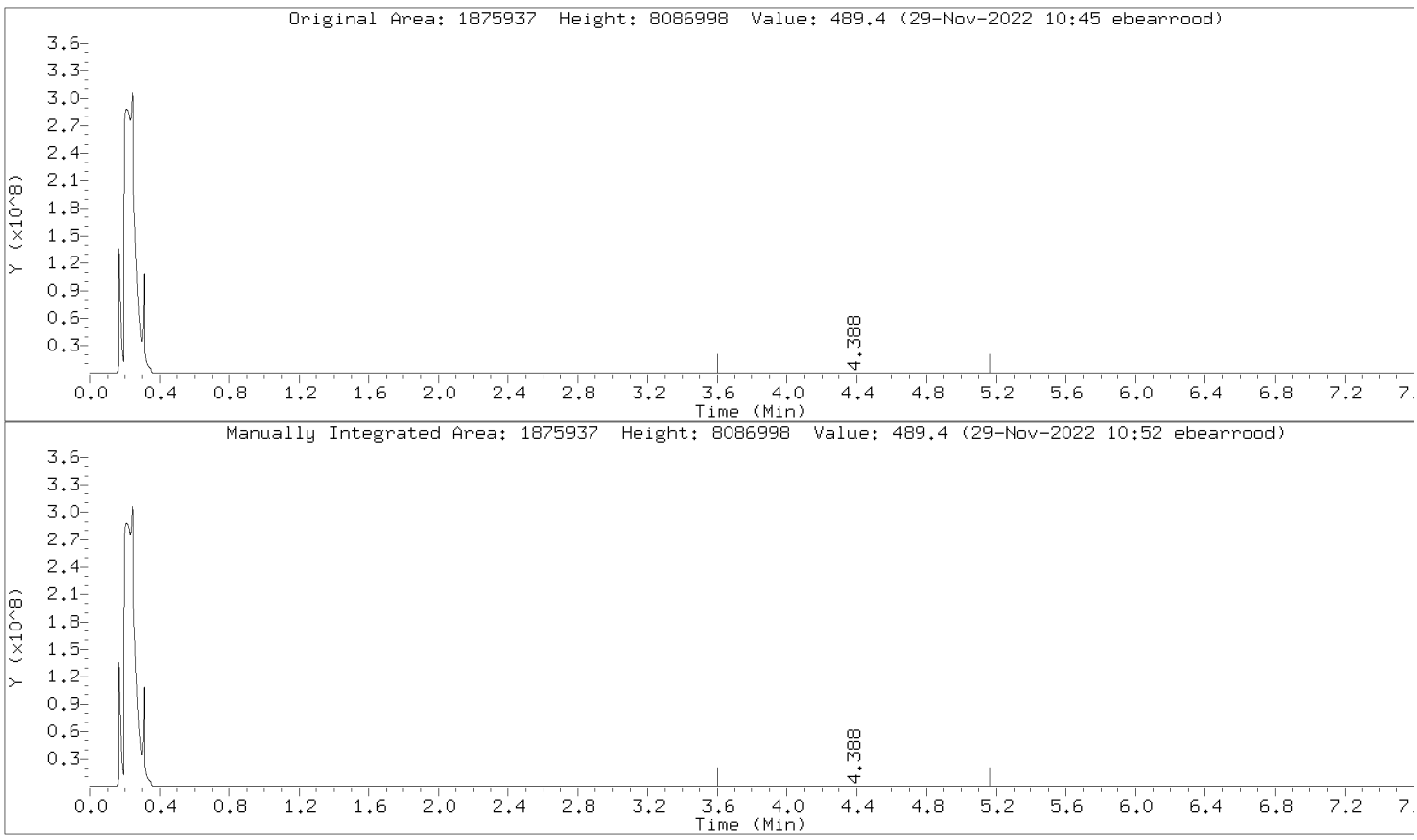
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000064C.d
Date : 28-NOV-2022 23:41
Client ID: DMO-CCV,397498:2
Sample Info: DMO-CCV,397498:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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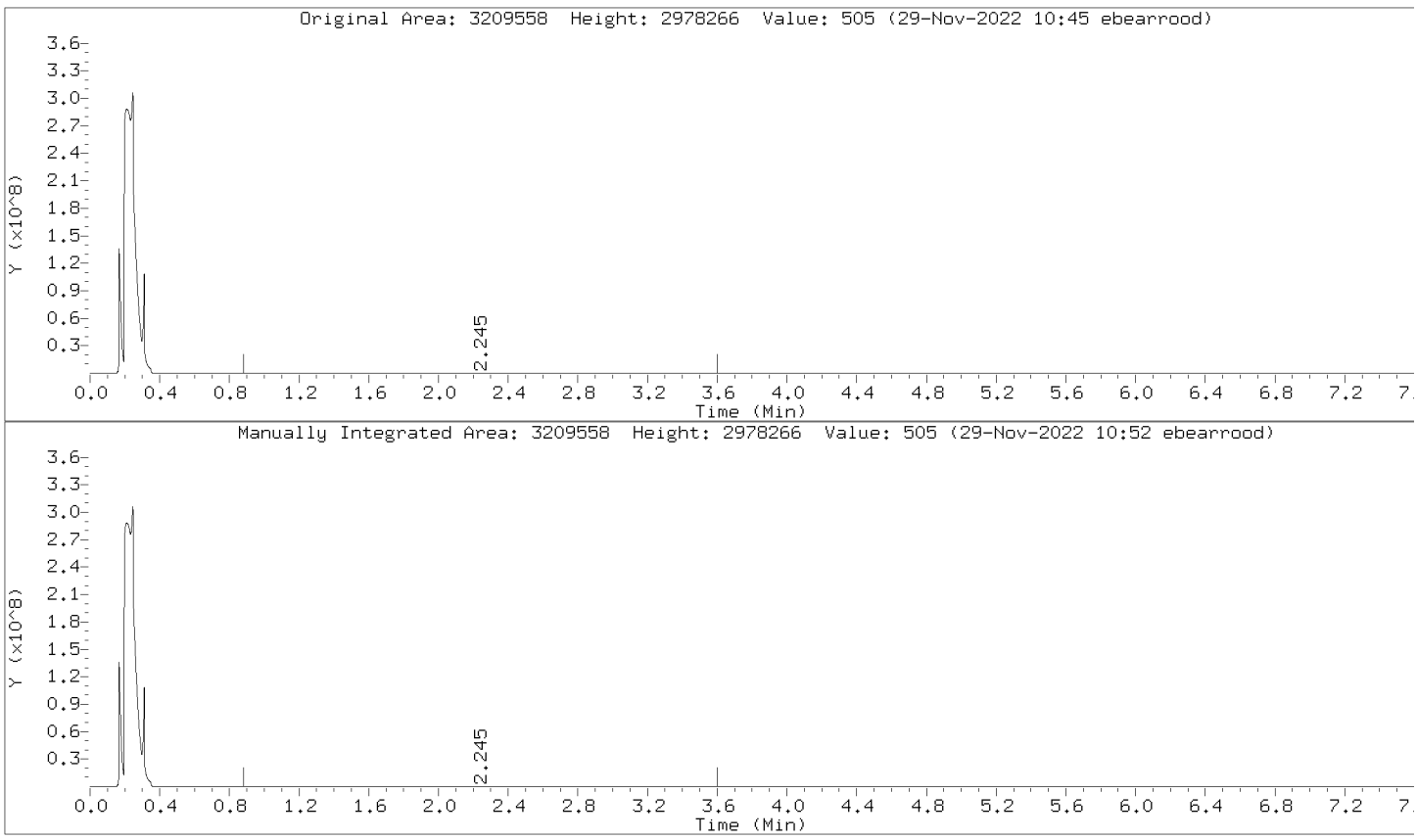
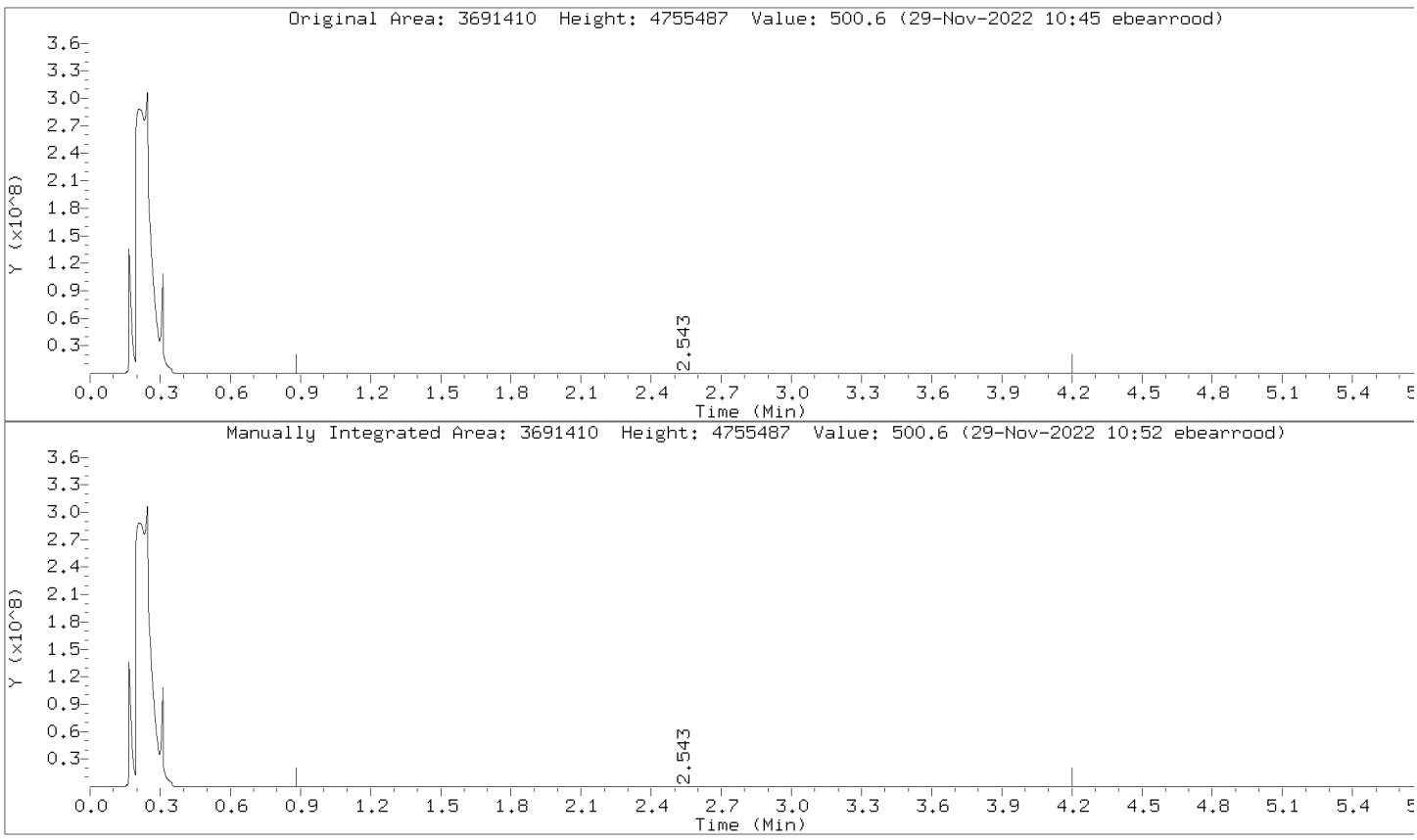
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



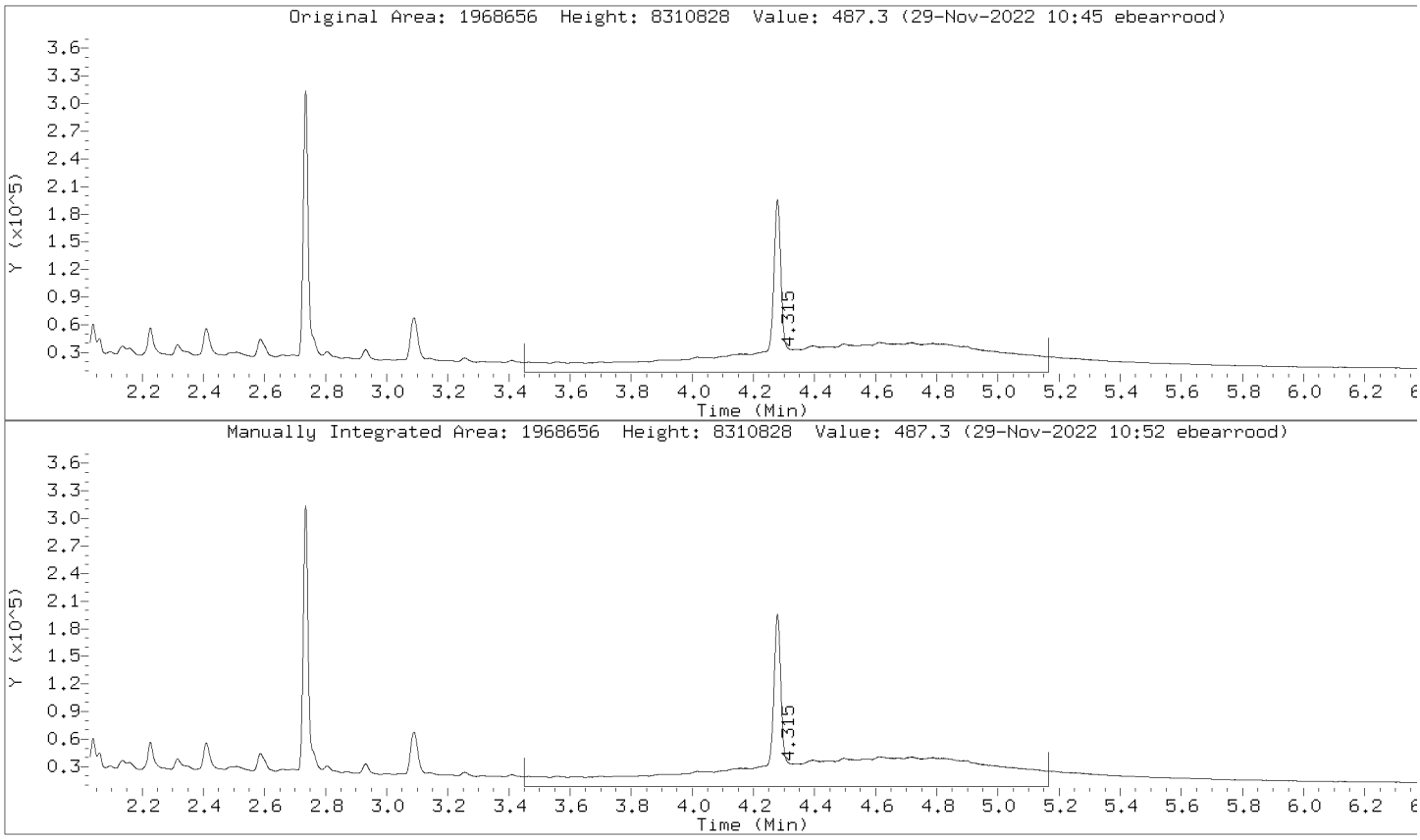
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



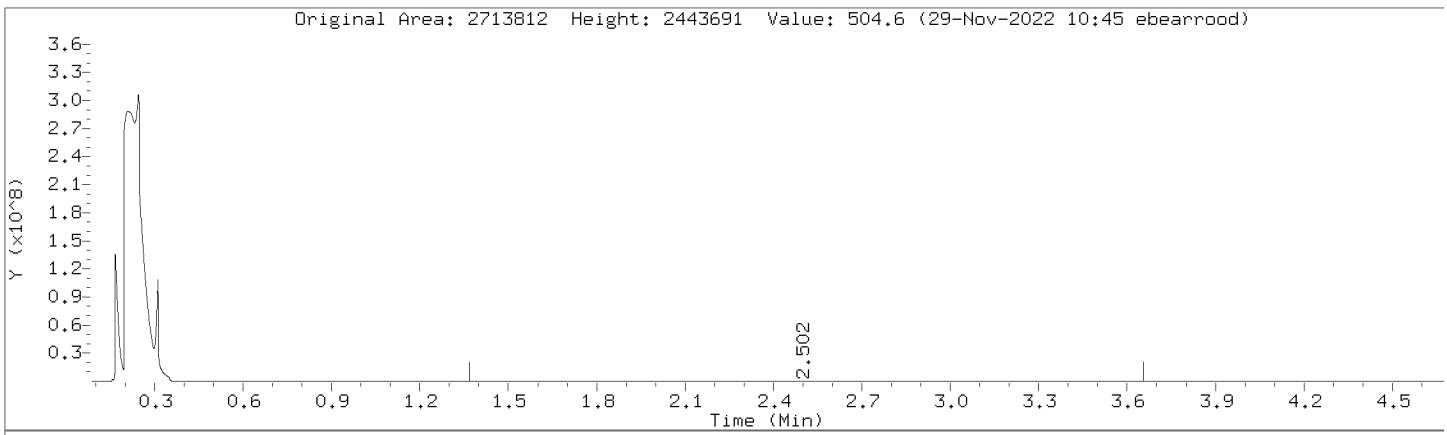
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

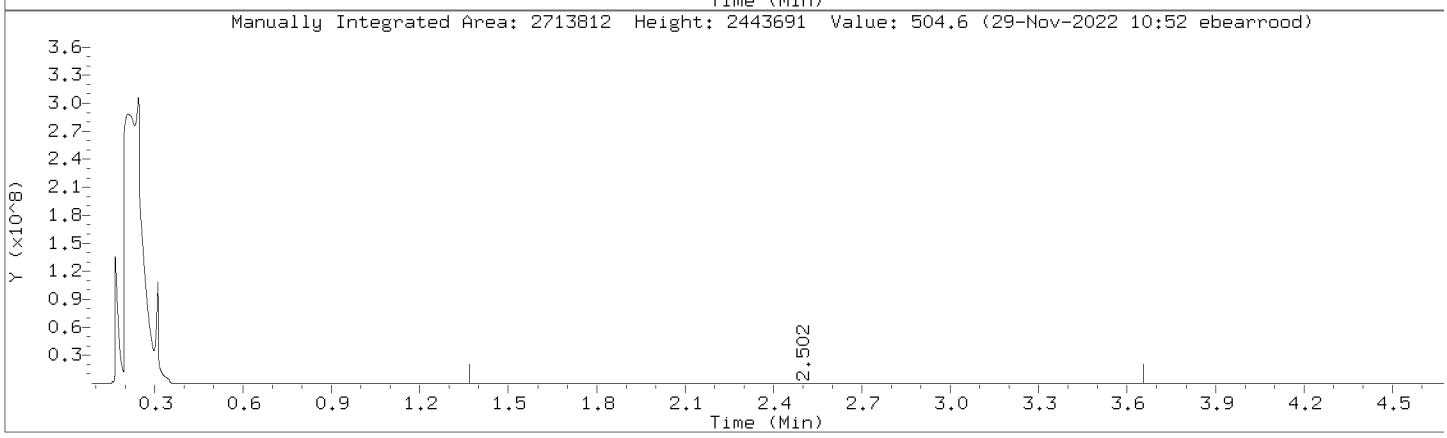
Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

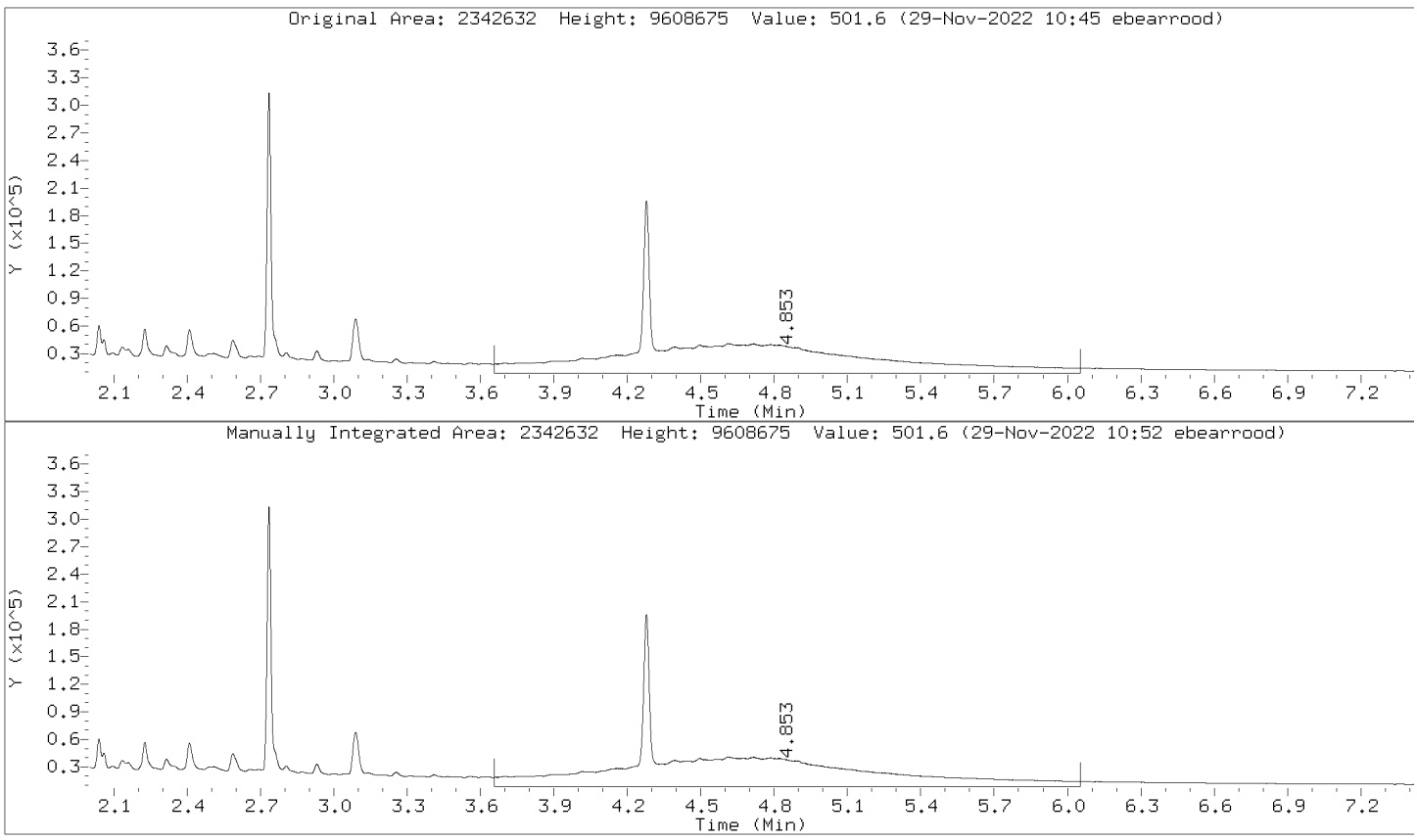
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





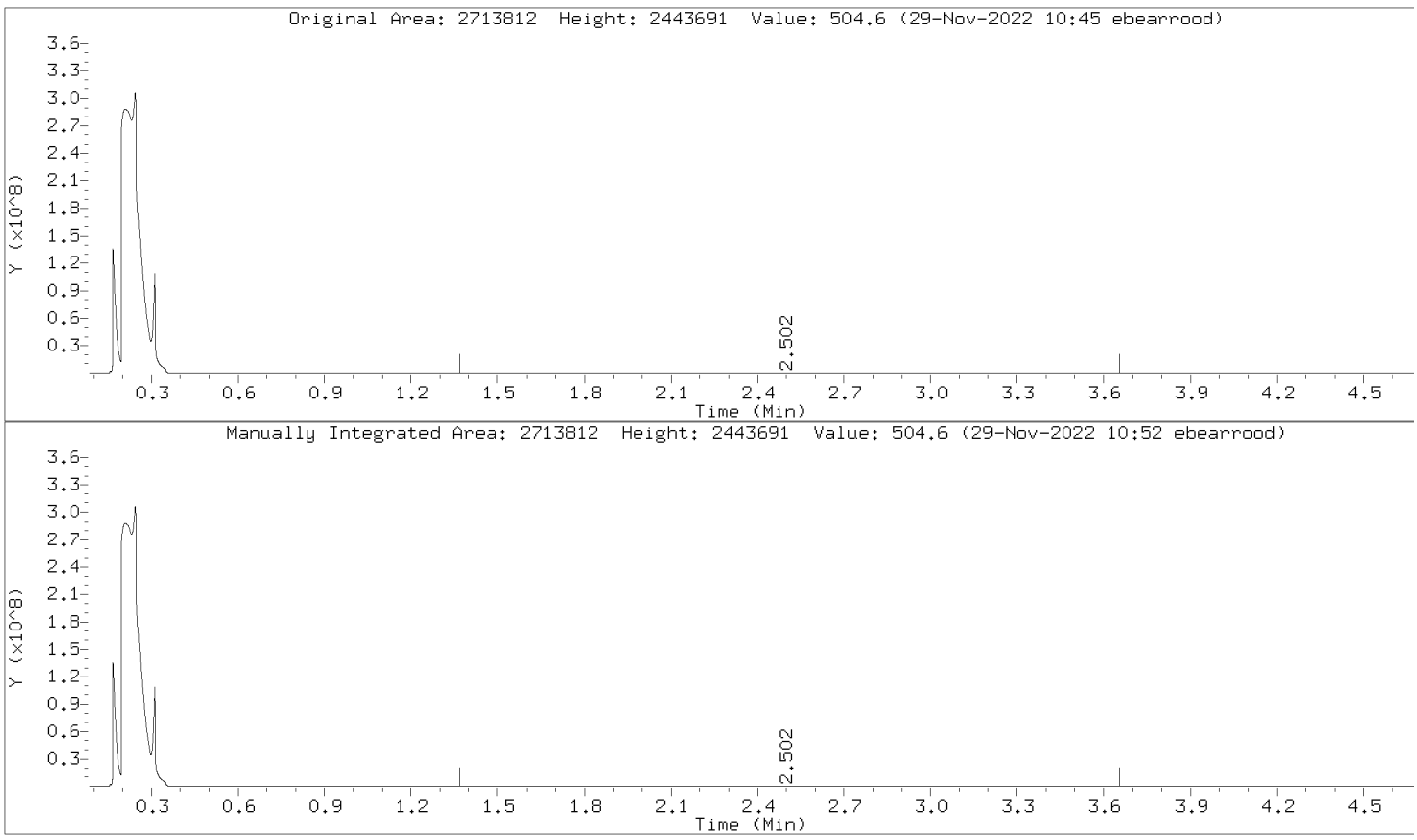
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



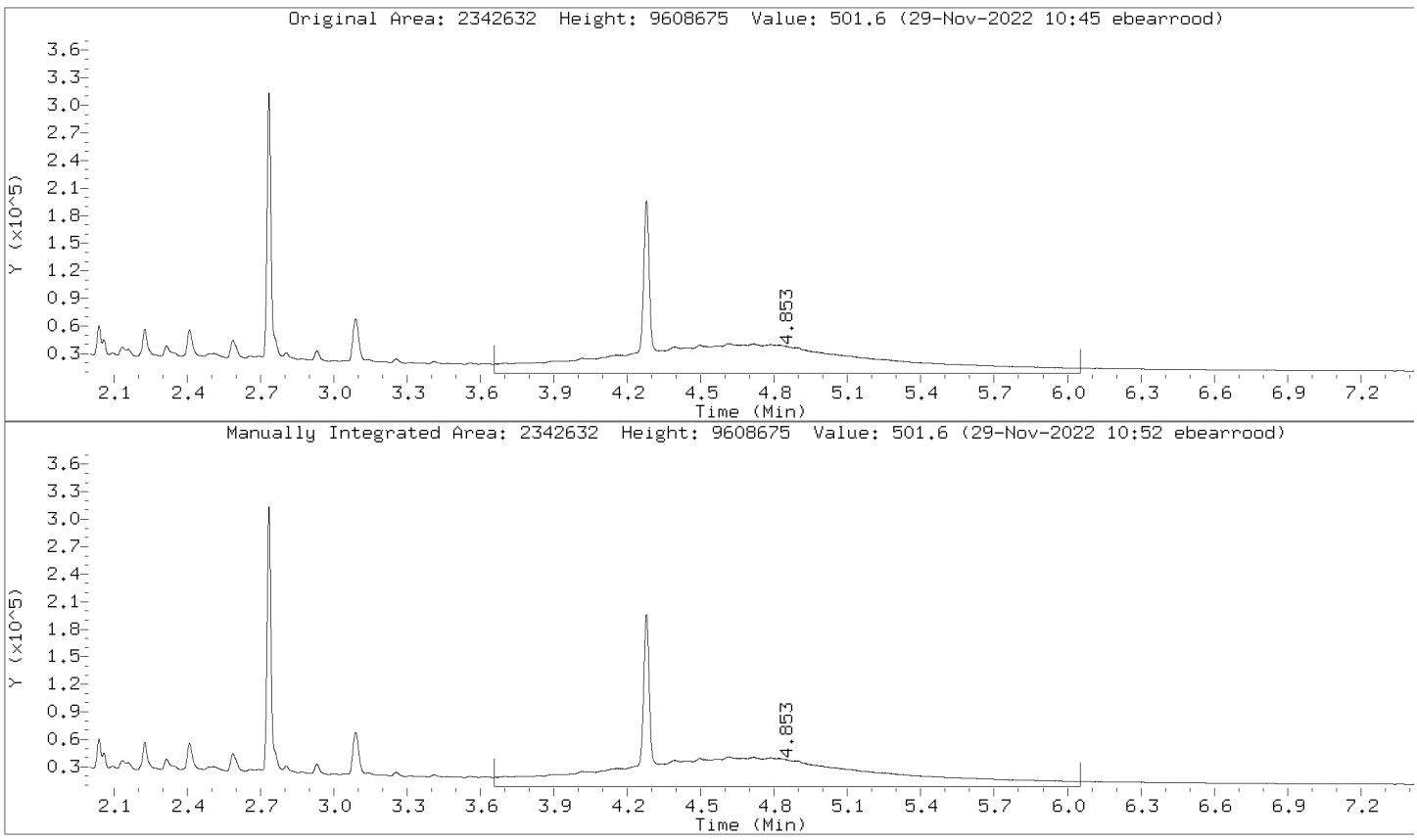
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



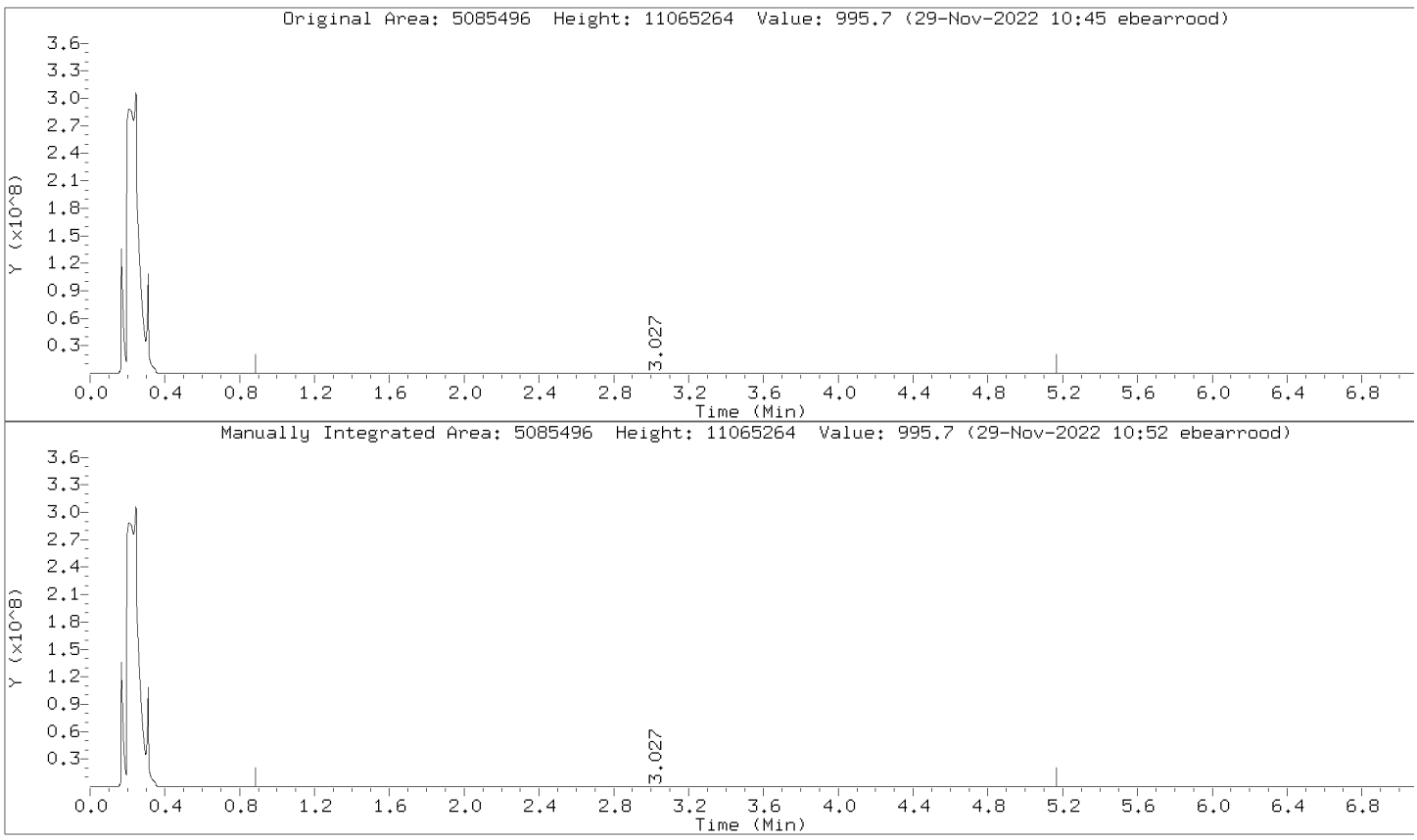
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



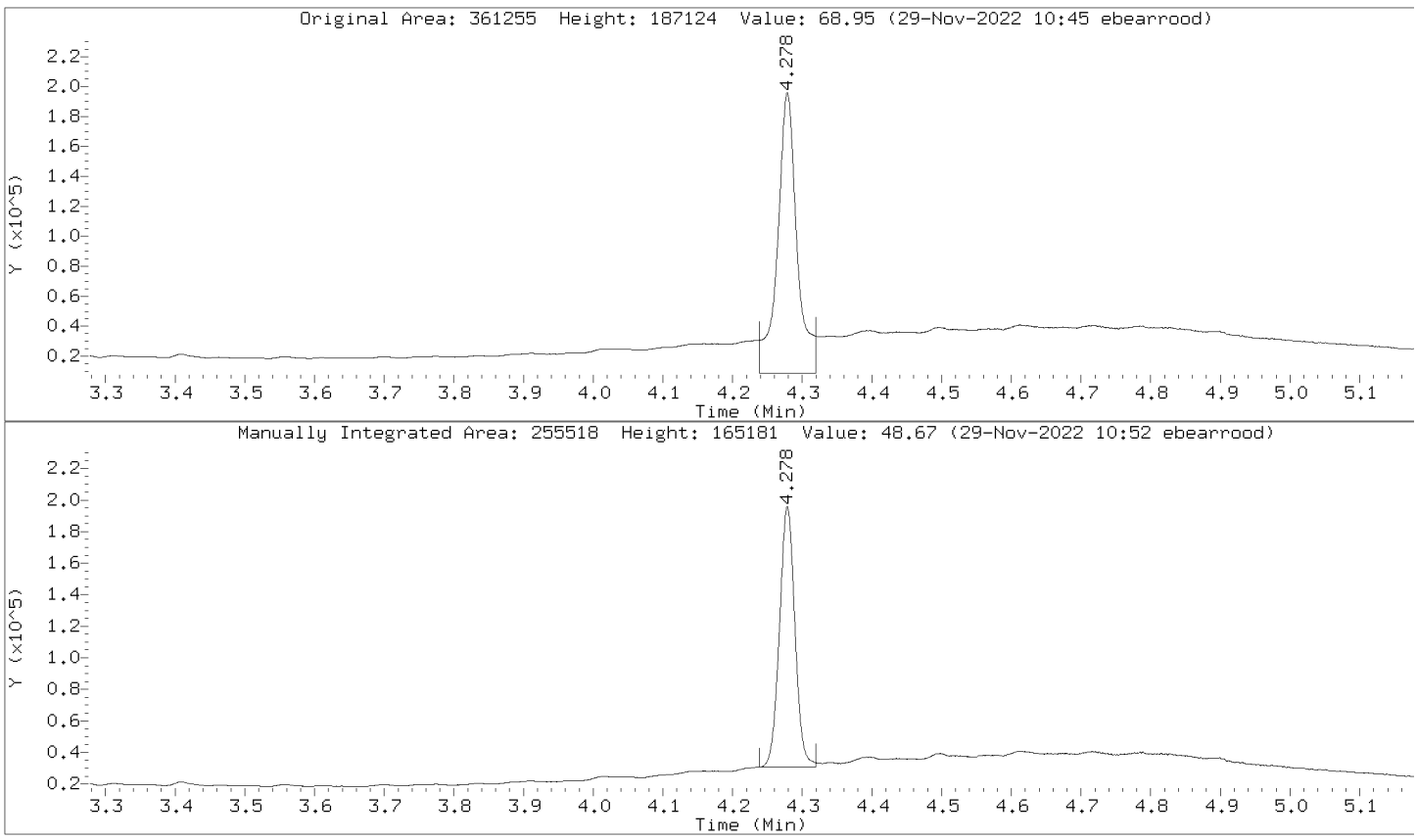
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: C10-C36 Review Code: RNG
CAS Number:



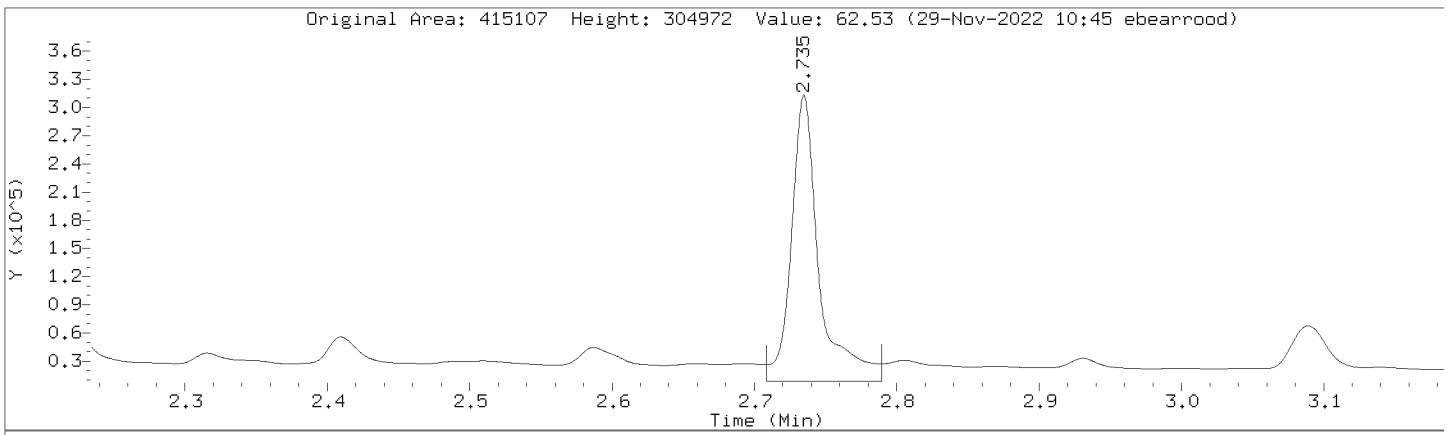
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

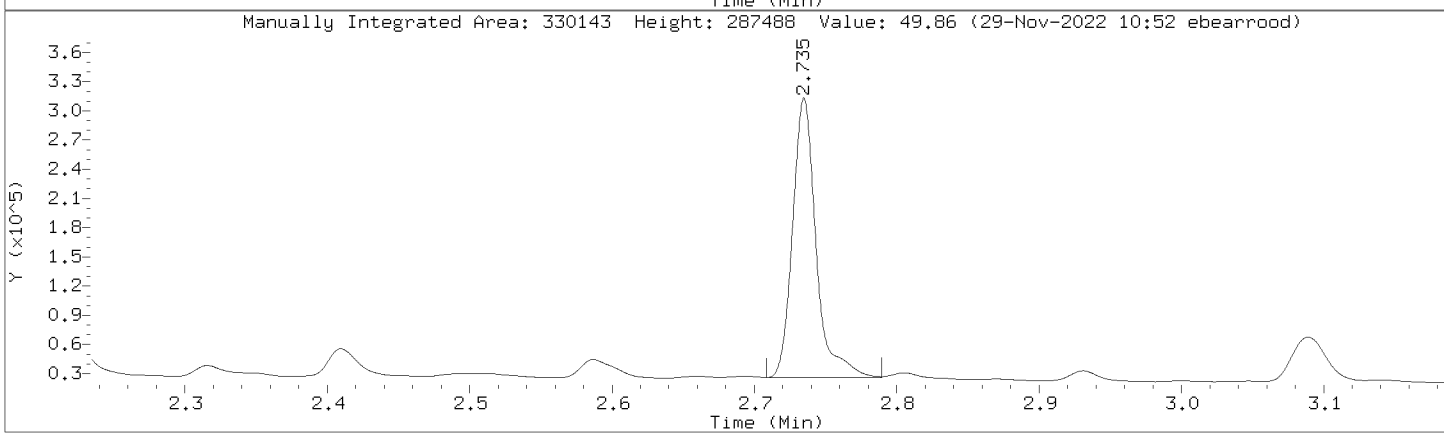
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000064C.d
Injection Date: 28-NOV-2022 23:41
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1875937	1875937
DRO by AK 102	3209558	3209558
TPH-DRO (C10-C28)	3691410	3691410
Motor Oil Range (C24-C36)	1968656	1968656
Diesel Fuel Range	2713812	2713812
Motor Oil Range	2342632	2342632
Diesel Fuel Range SG	2713812	2713812
Motor Oil Range SG	2342632	2342632
C10-C36	5085496	5085496
n-Triacontane (S)	361255	255518
o-Terphenyl (S)	415107	330143

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000010C.D
Lab Smp Id: DMO-CCV,397498:2 Client Smp ID: DMO-CCV,397498:2
Inj Date : 29-NOV-2022 13:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,397498:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112922R.b\GCSFakNW8015-111022_4098
Meth Date : 30-Nov-2022 09:39 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885	- 3.610		3172441	500.000	498	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.734	2.768	-0.034	327430	50.0000	49.4	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.275	4.333	-0.058	244641	50.0000	46.6	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.611	- 5.170		1792754	500.000	466	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885	- 4.200		3633566	500.000	492	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.460	- 5.170		1883989	500.000	465	(M)	RNG
S 7 C10-C36						CAS #:		
	0.885	- 5.170		4965196	1000.00	970	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
	1.350	- 3.660		2678727	500.000	497	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
	1.350	- 3.660		2678727	500.000	497	(M)	RNG
S 10 Motor Oil Range						CAS #:		
	3.661	- 6.050		2211849	500.000	472	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
	3.661	- 6.050		2211849	500.000	472	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

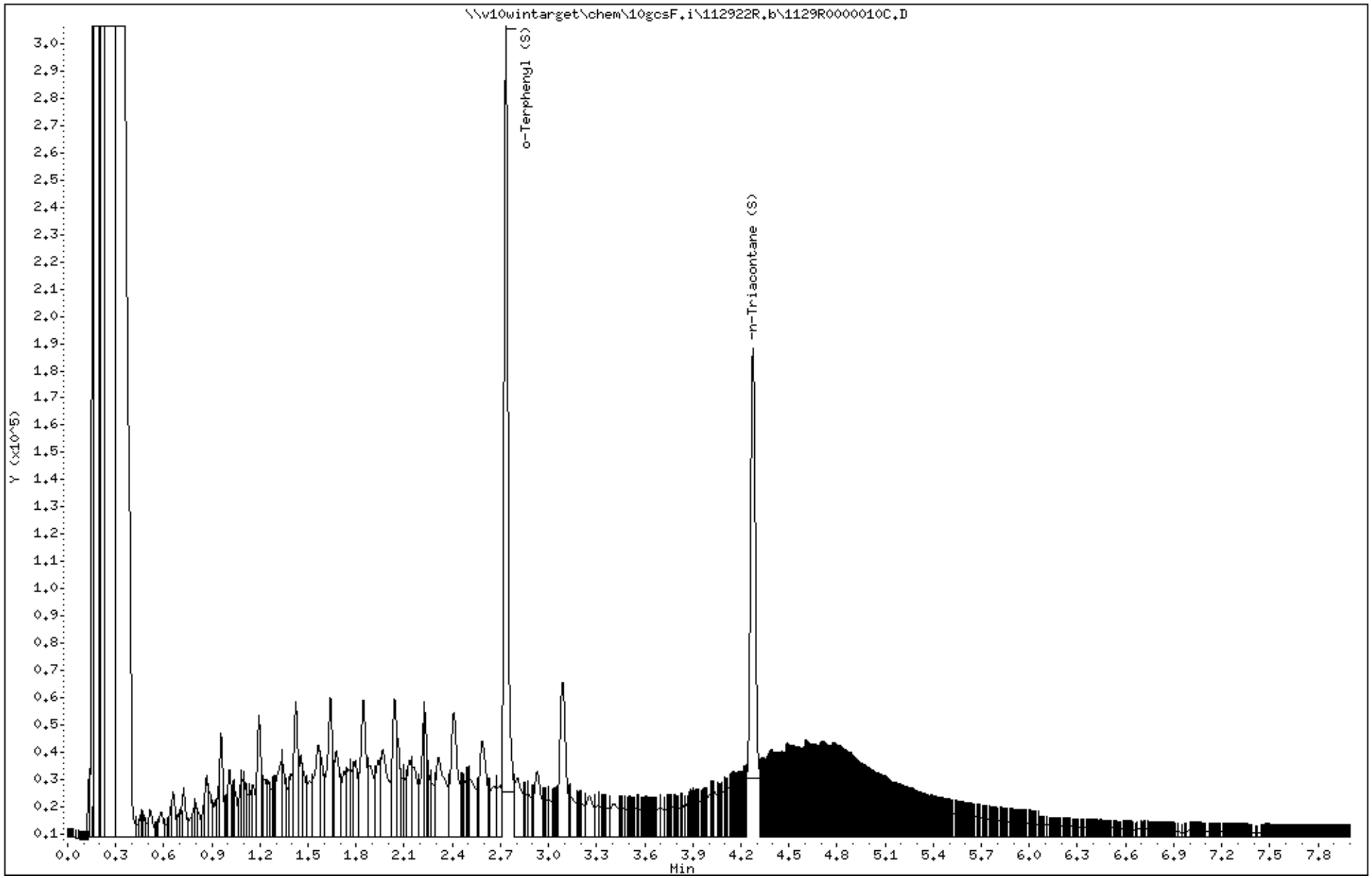
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000010C.D
Date : 29-NOV-2022 13:51
Client ID: DMO-CCV,397498:2
Sample Info: DMO-CCV,397498:2

Column phase: DB-5-US21130002

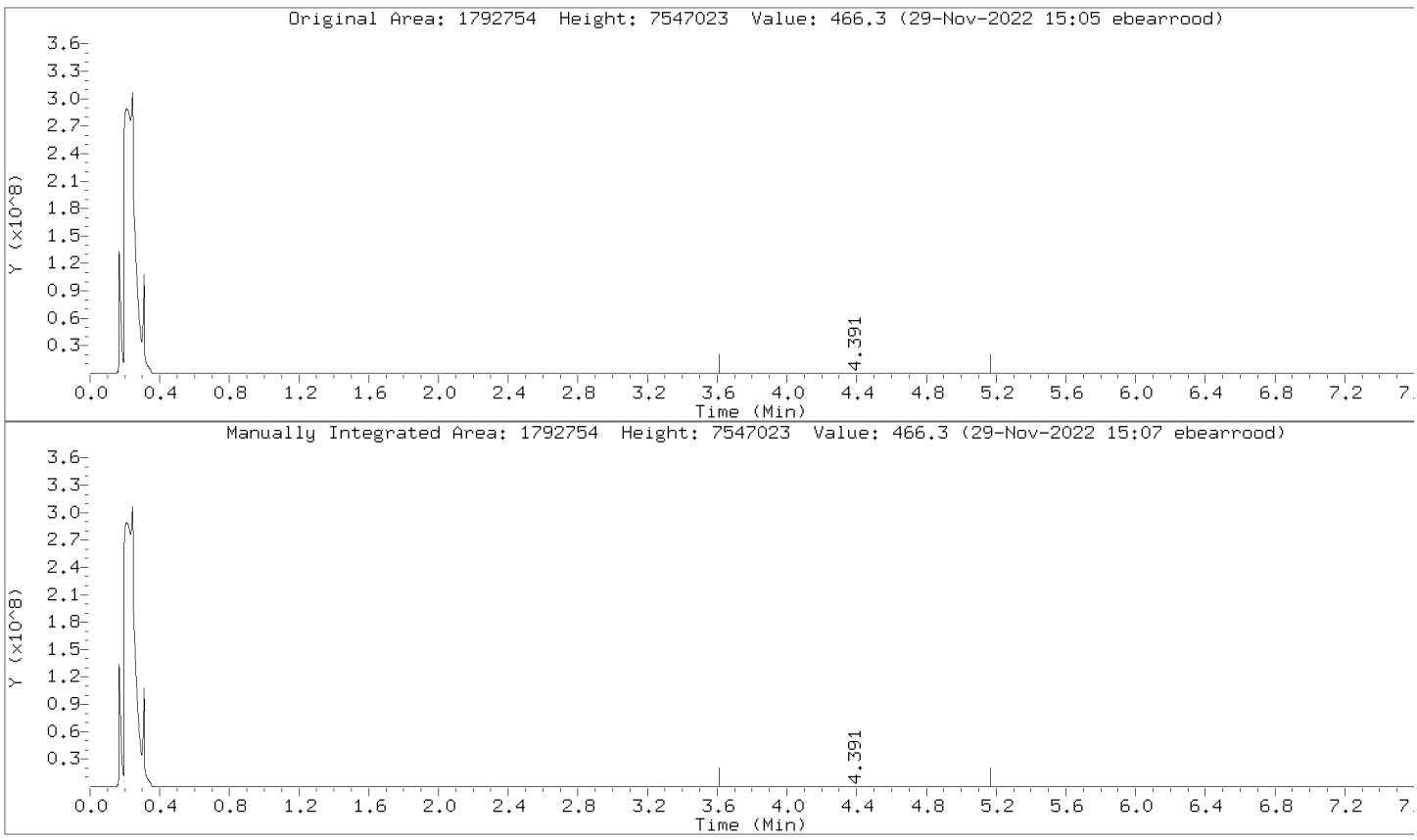
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



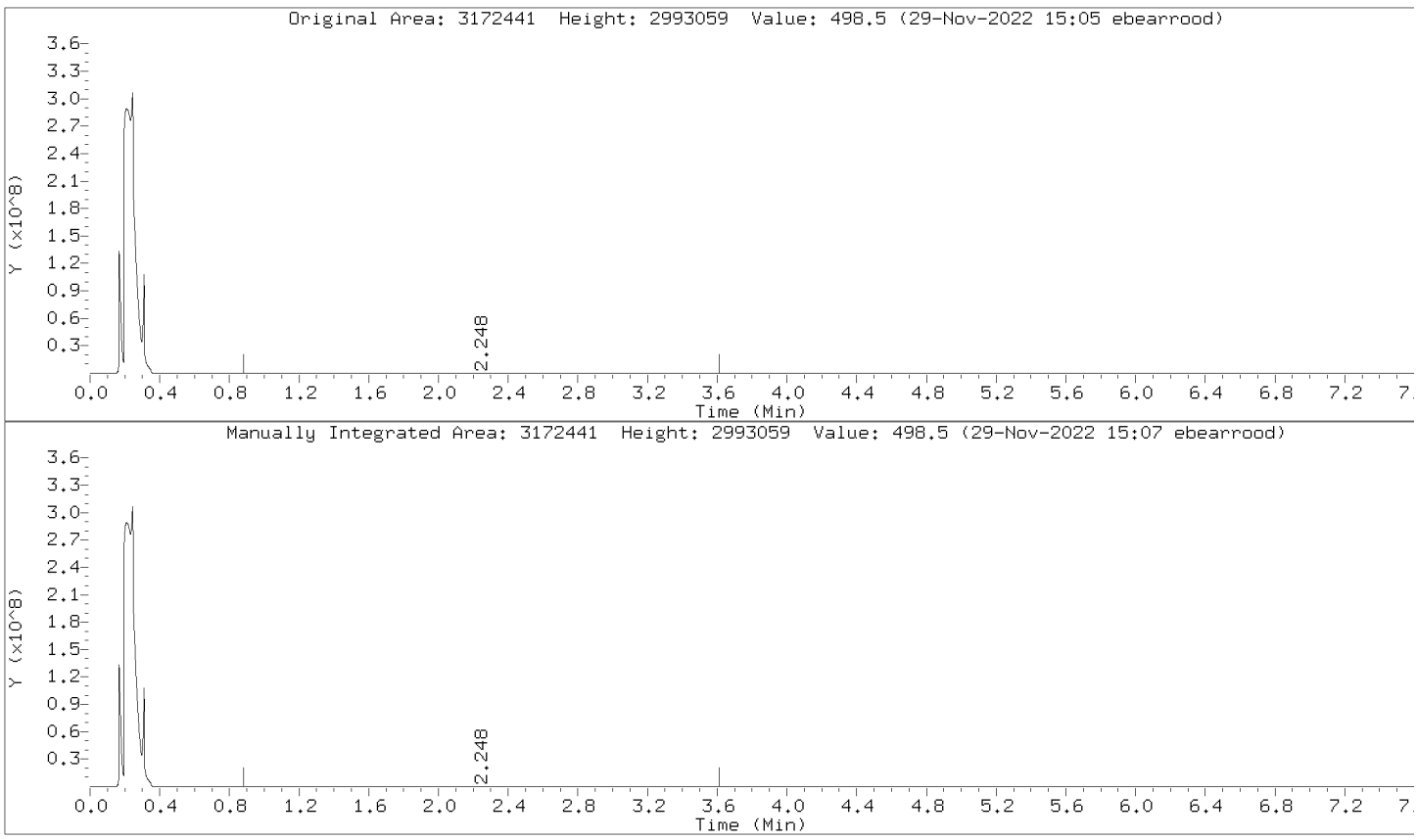
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



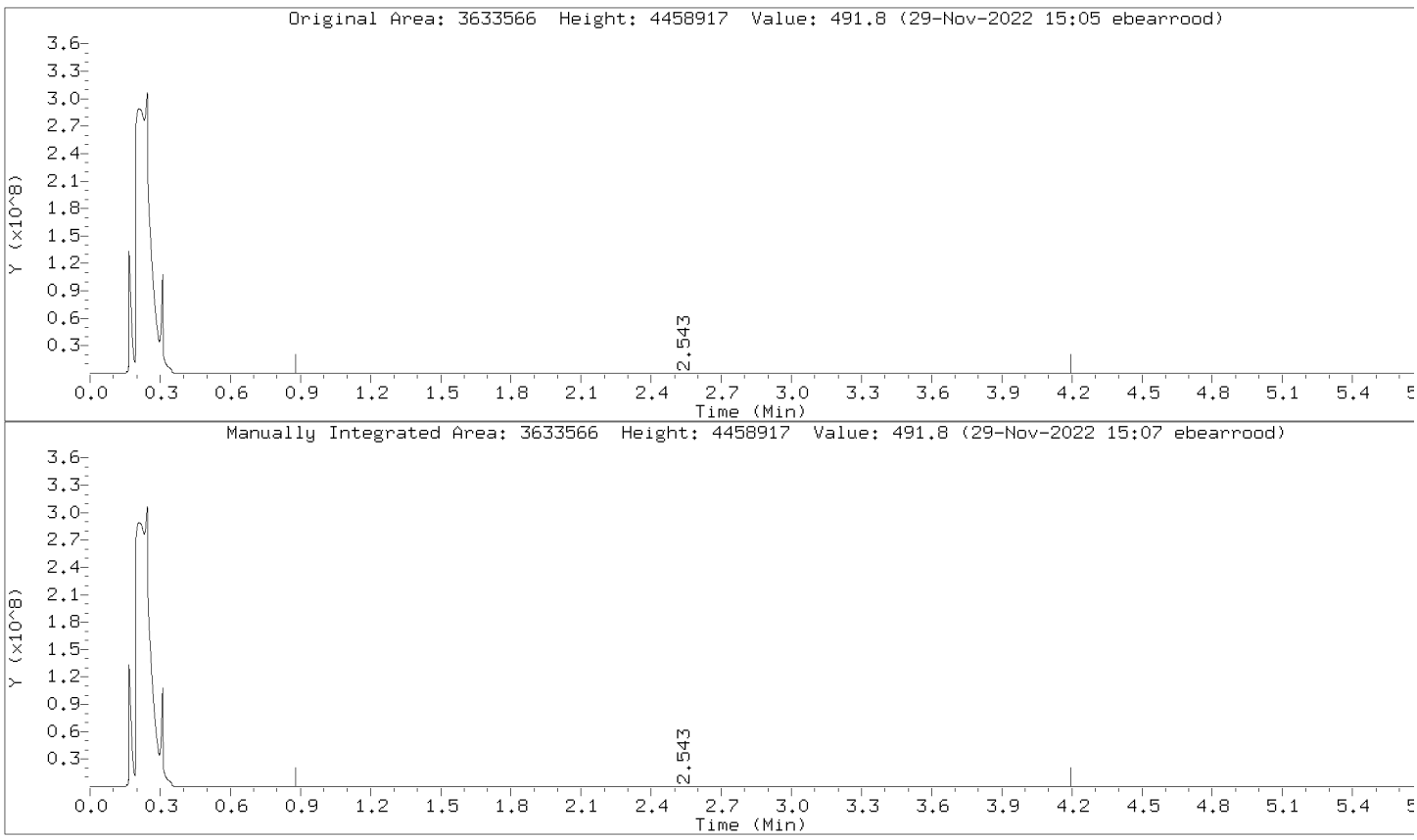
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



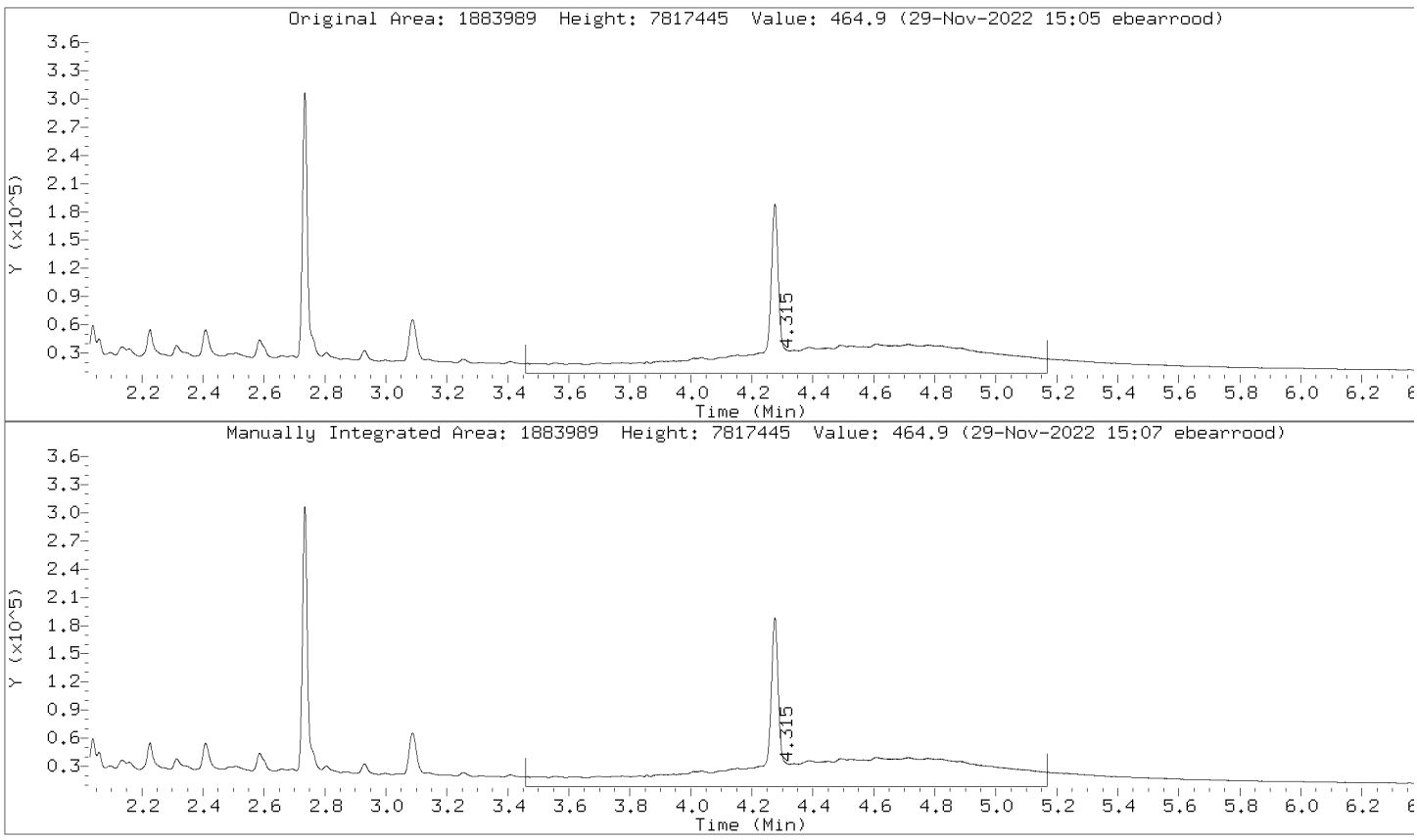
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



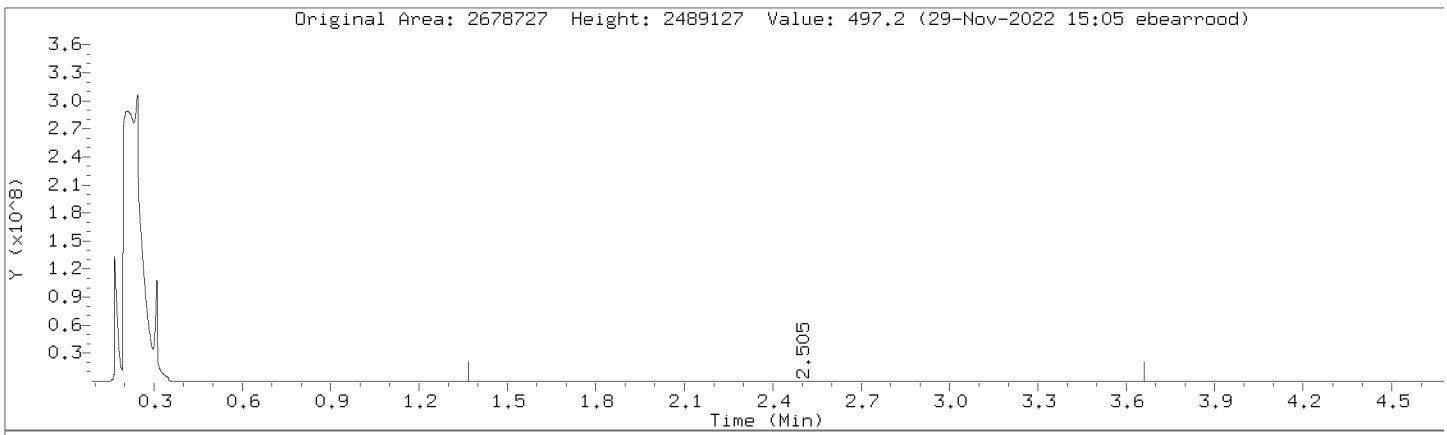
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

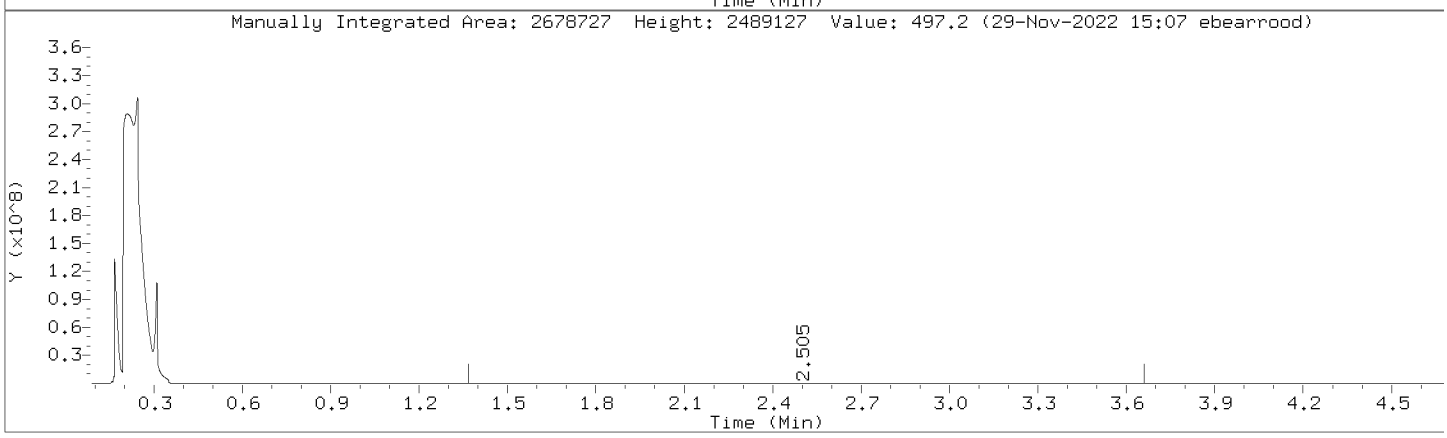
Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





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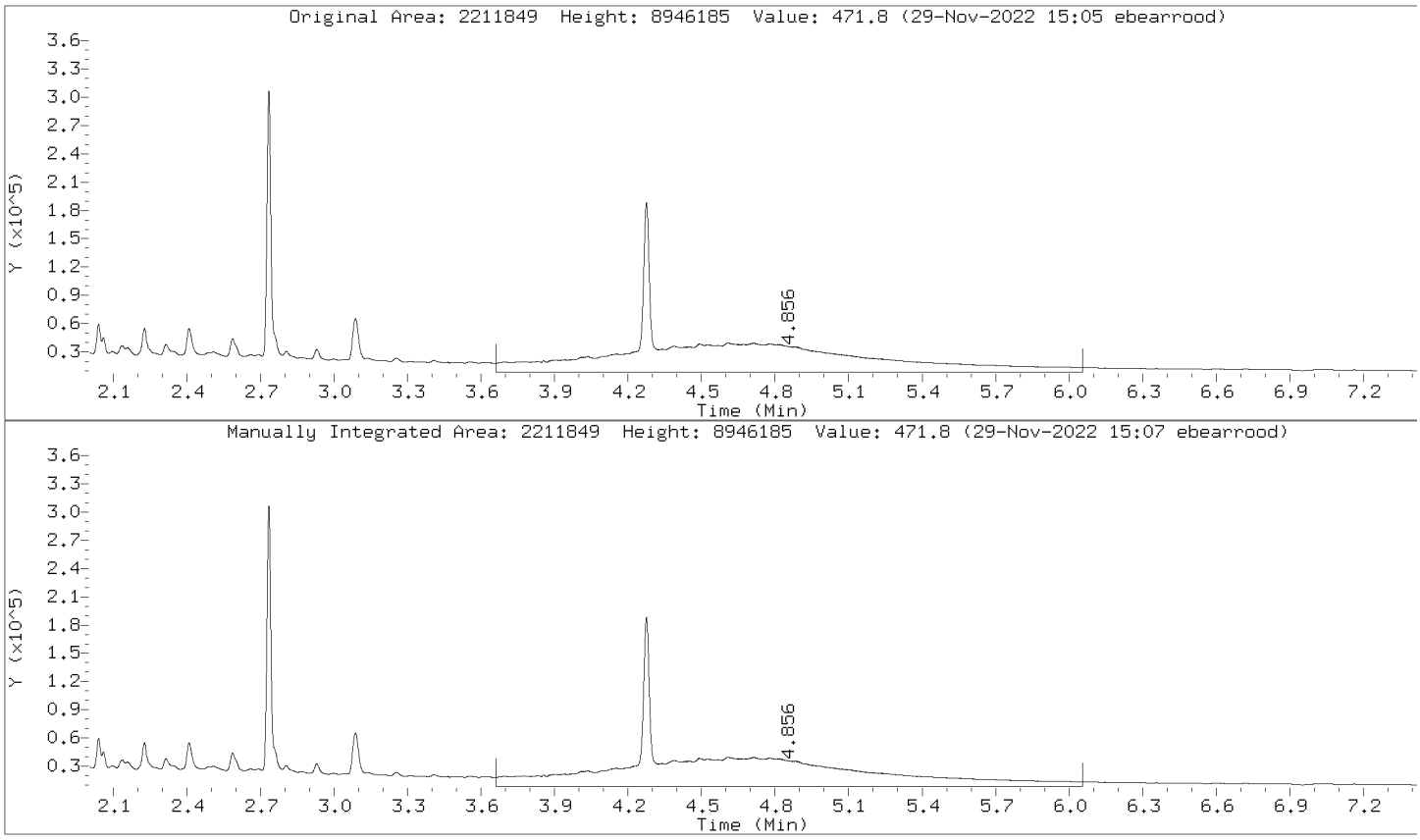
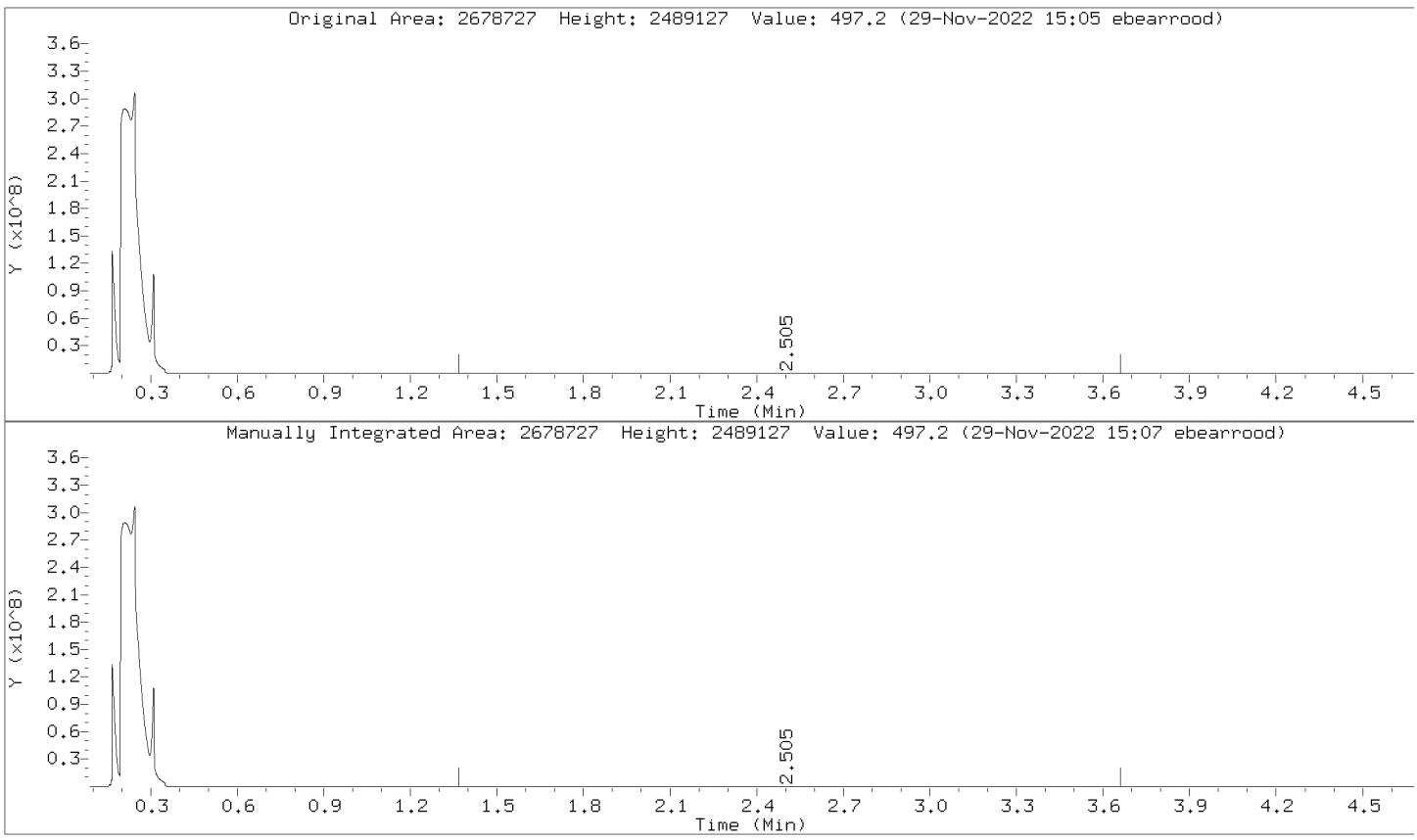
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



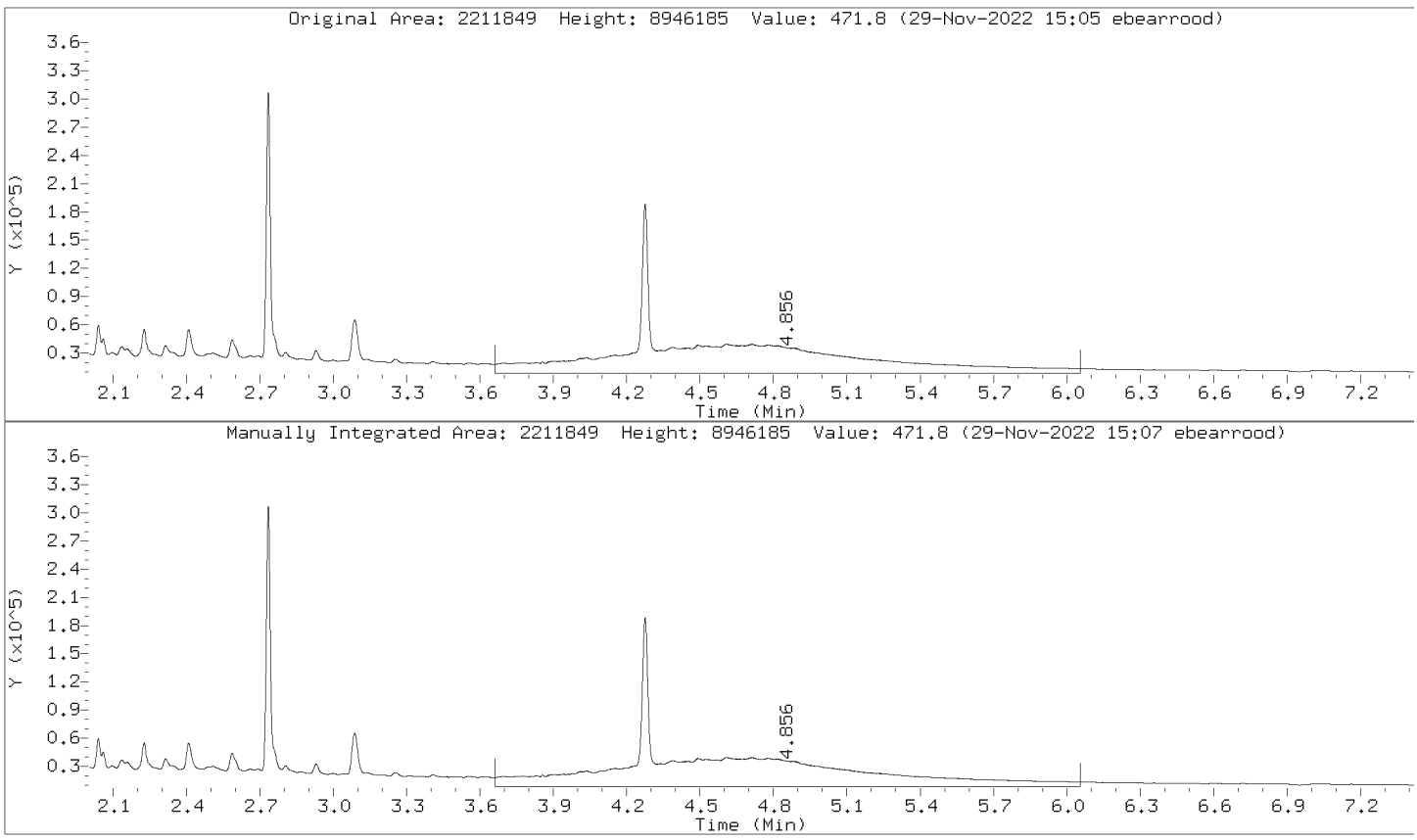
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



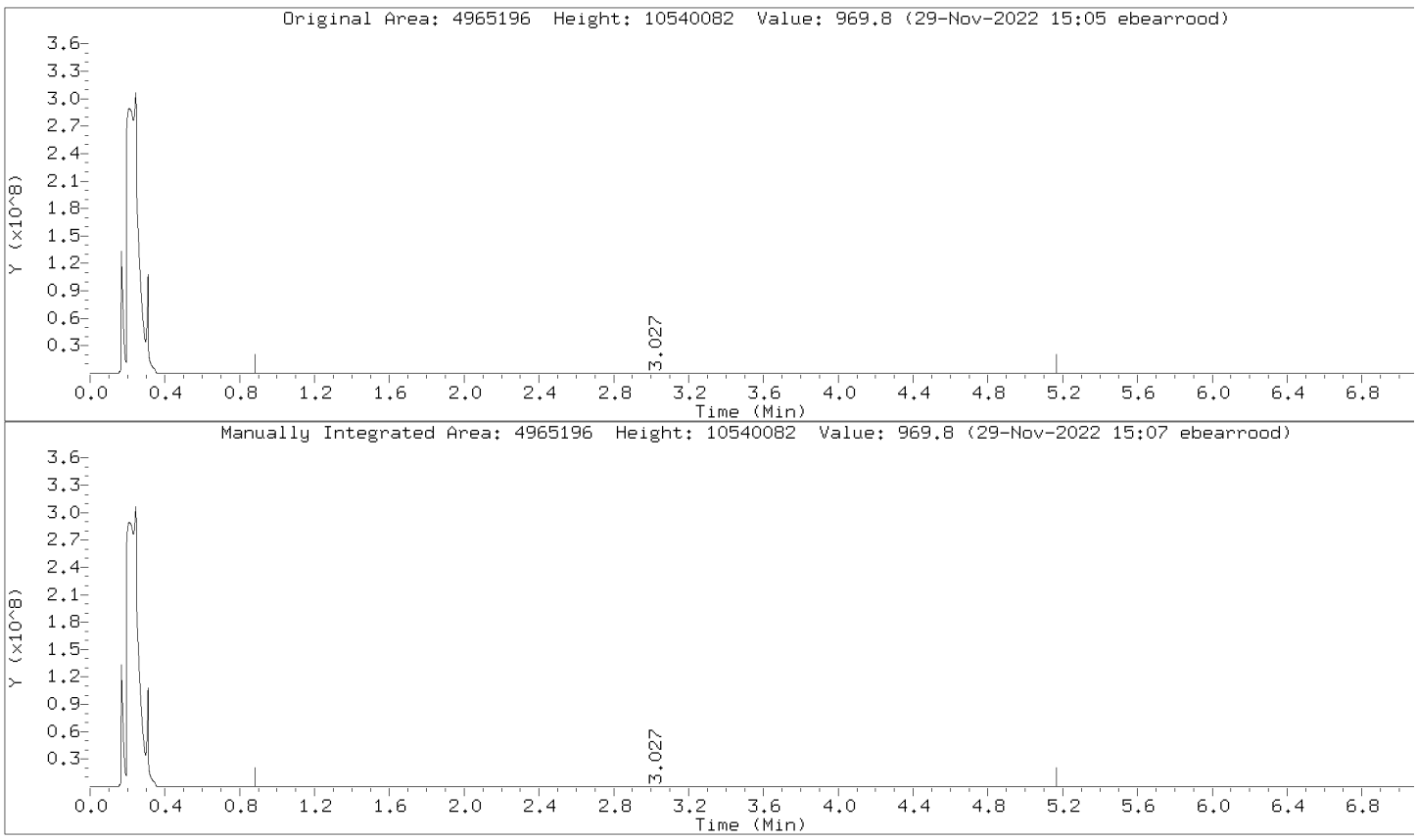
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



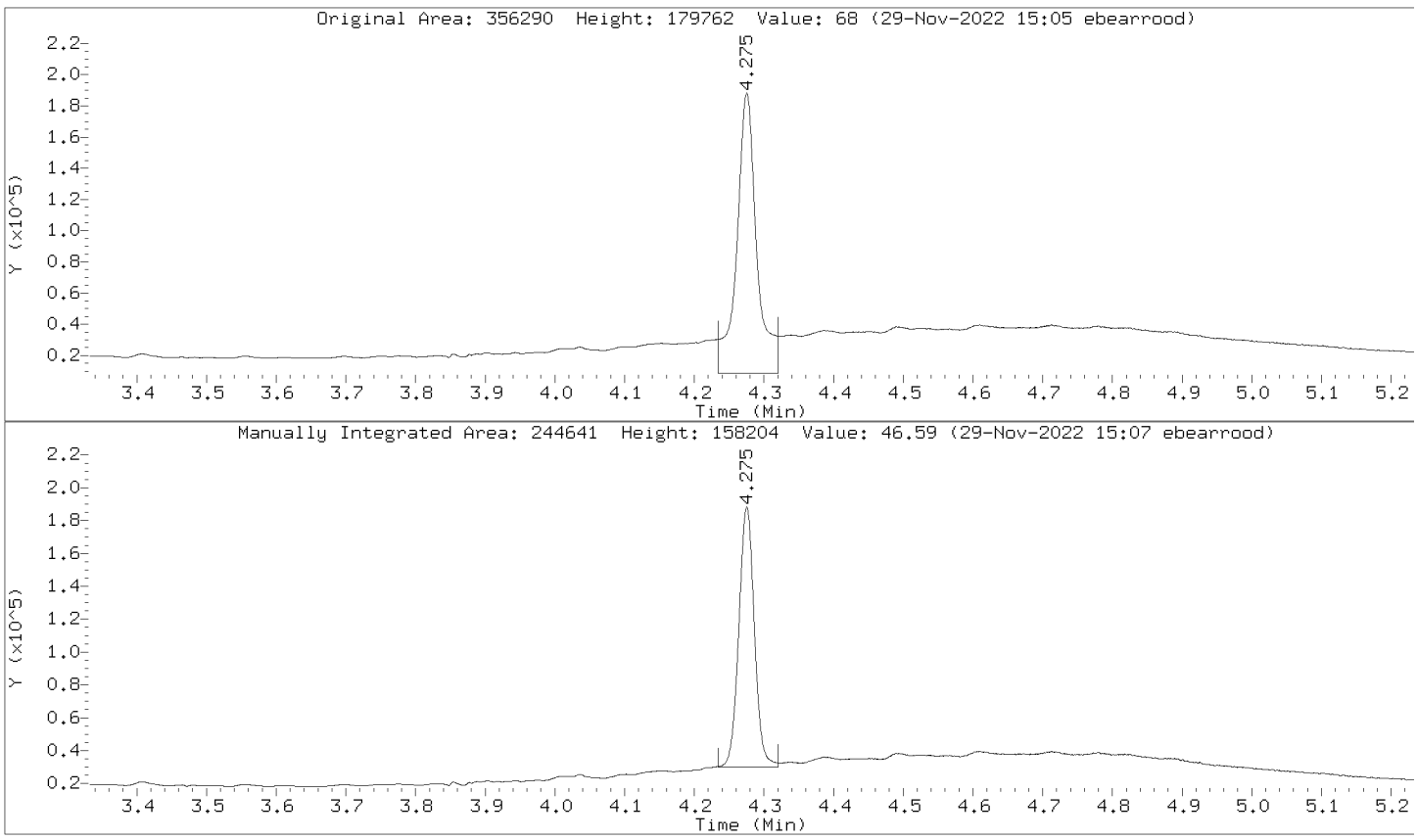
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: C10-C36 Review Code: RNG
CAS Number:



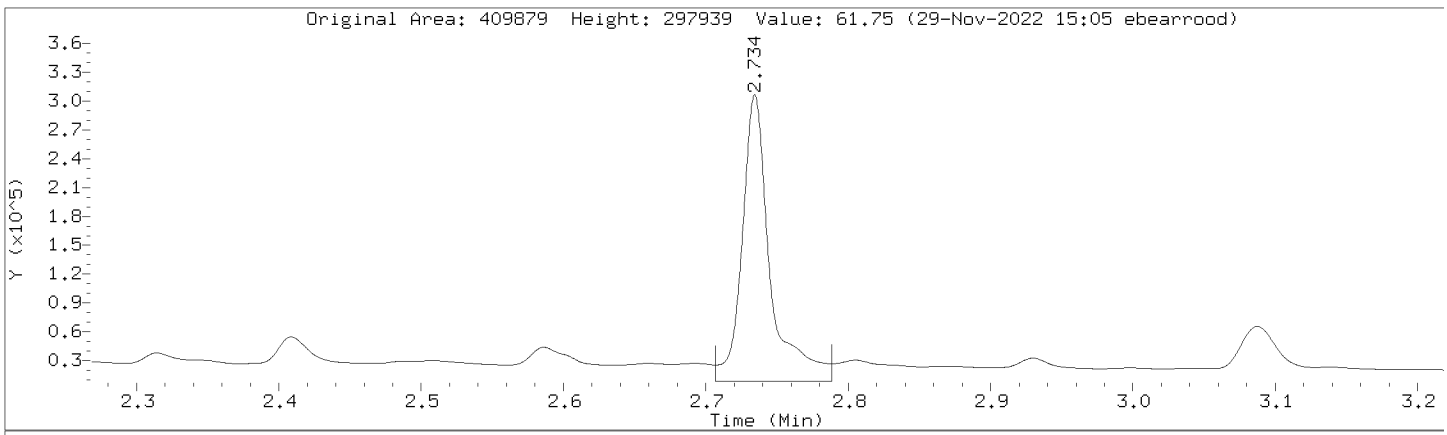
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

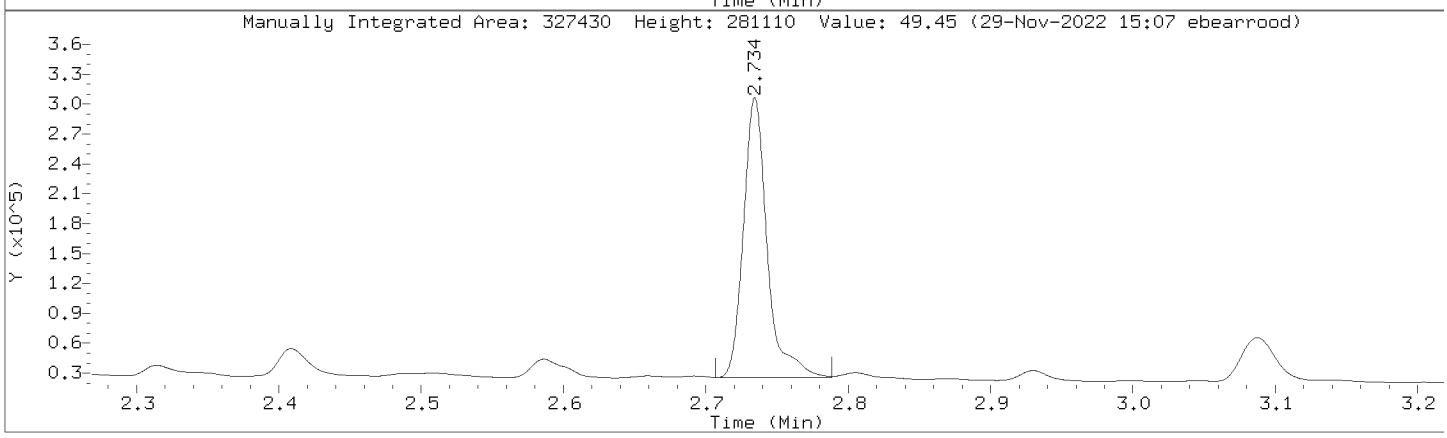
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000010C.D
Injection Date: 29-NOV-2022 13:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1792754	1792754
DRO by AK 102	3172441	3172441
TPH-DRO (C10-C28)	3633566	3633566
Motor Oil Range (C24-C36)	1883989	1883989
Diesel Fuel Range	2678727	2678727
Motor Oil Range	2211849	2211849
Diesel Fuel Range SG	2678727	2678727
Motor Oil Range SG	2211849	2211849
C10-C36	4965196	4965196
n-Triacontane (S)	356290	244641
o-Terphenyl (S)	409879	327430

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000014C.D
Lab Smp Id: DMO-CCV,397498:2 Client Smp ID: DMO-CCV,397498:2
Inj Date : 29-NOV-2022 14:38
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,397498:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112922R.b\GCSFakNW8015-111022_4098
Meth Date : 30-Nov-2022 09:39 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885	- 3.610		3167253	500.000	498	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.734	2.768	-0.034	325975	50.0000	49.2	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.275	4.333	-0.058	247703	50.0000	47.2	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.611	- 5.170		1838793	500.000	479	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885	- 4.200		3635163	500.000	492	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.460	- 5.170		1928138	500.000	476	(M)	RNG
S 7 C10-C36						CAS #:		
	0.885	- 5.170		5006047	1000.00	978	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
	1.350	- 3.660		2690342	500.000	500	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
	1.350	- 3.660		2690342	500.000	500	(M)	RNG
S 10 Motor Oil Range						CAS #:		
	3.661	- 6.050		2294817	500.000	491	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
	3.661	- 6.050		2294817	500.000	491	(M)	RNG

QC Flag Legend

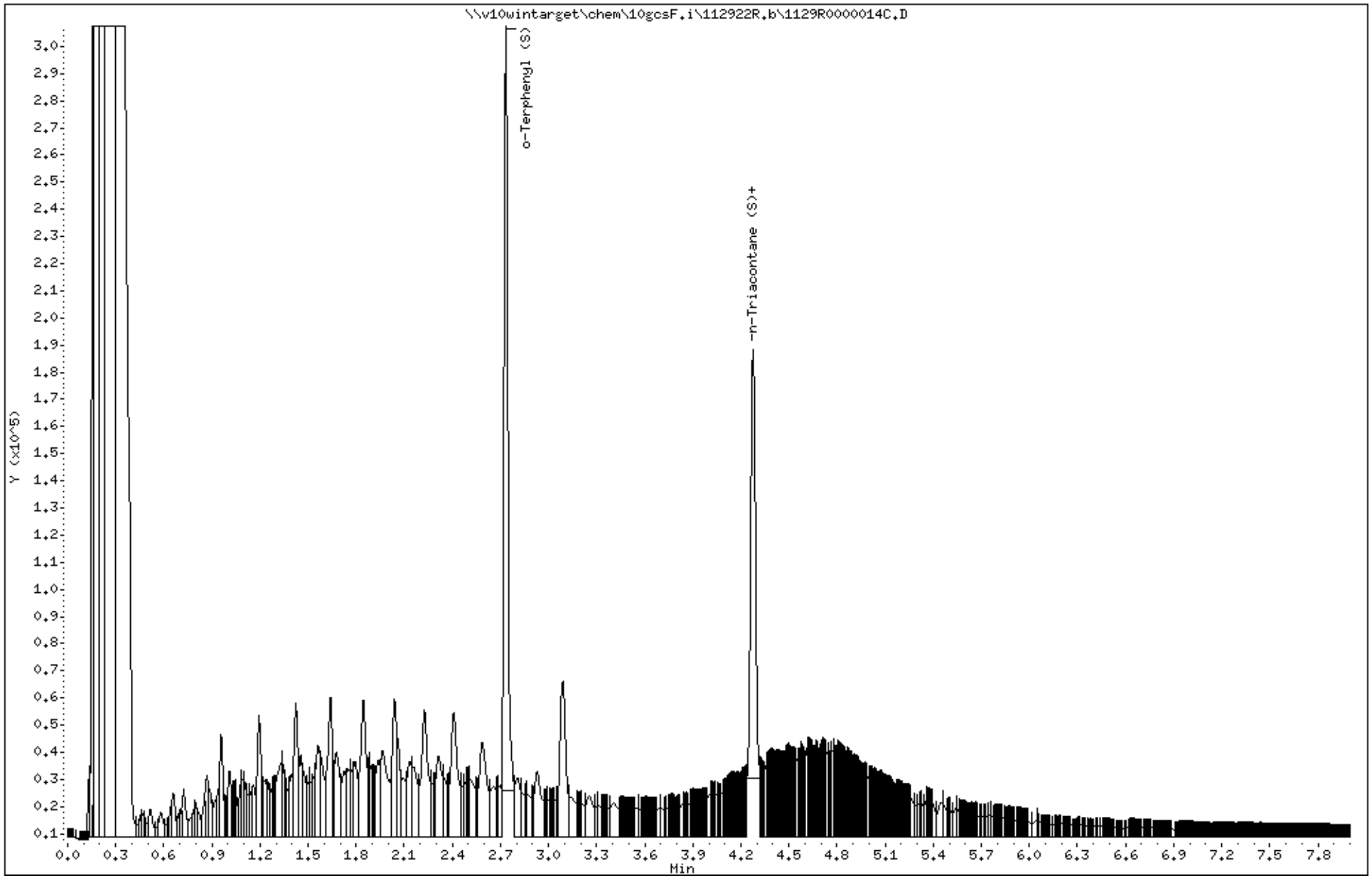
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

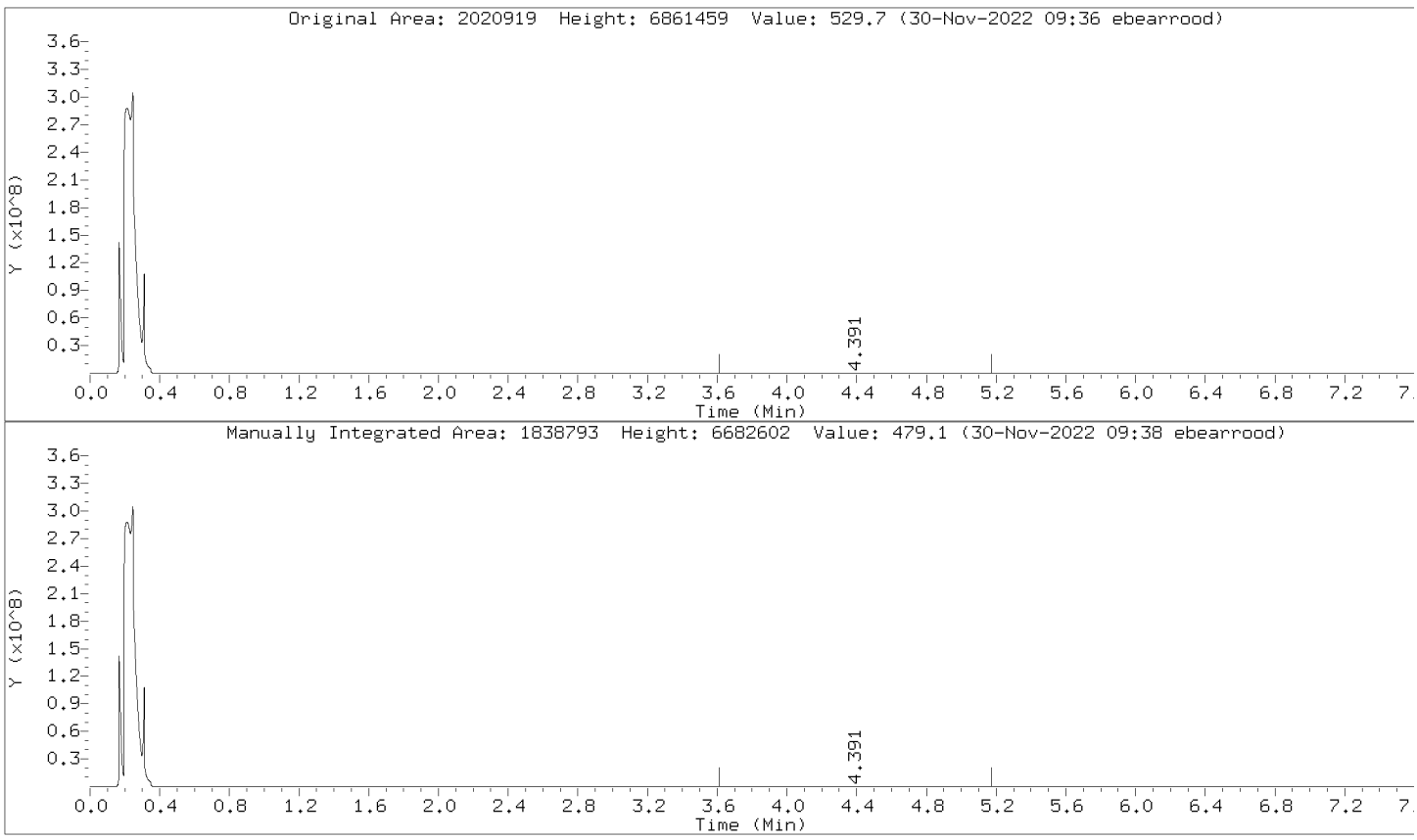
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b\1129R0000014C.D
Date : 29-NOV-2022 14:38
Client ID: DMO-CCV,397498:2
Sample Info: DMO-CCV,397498:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



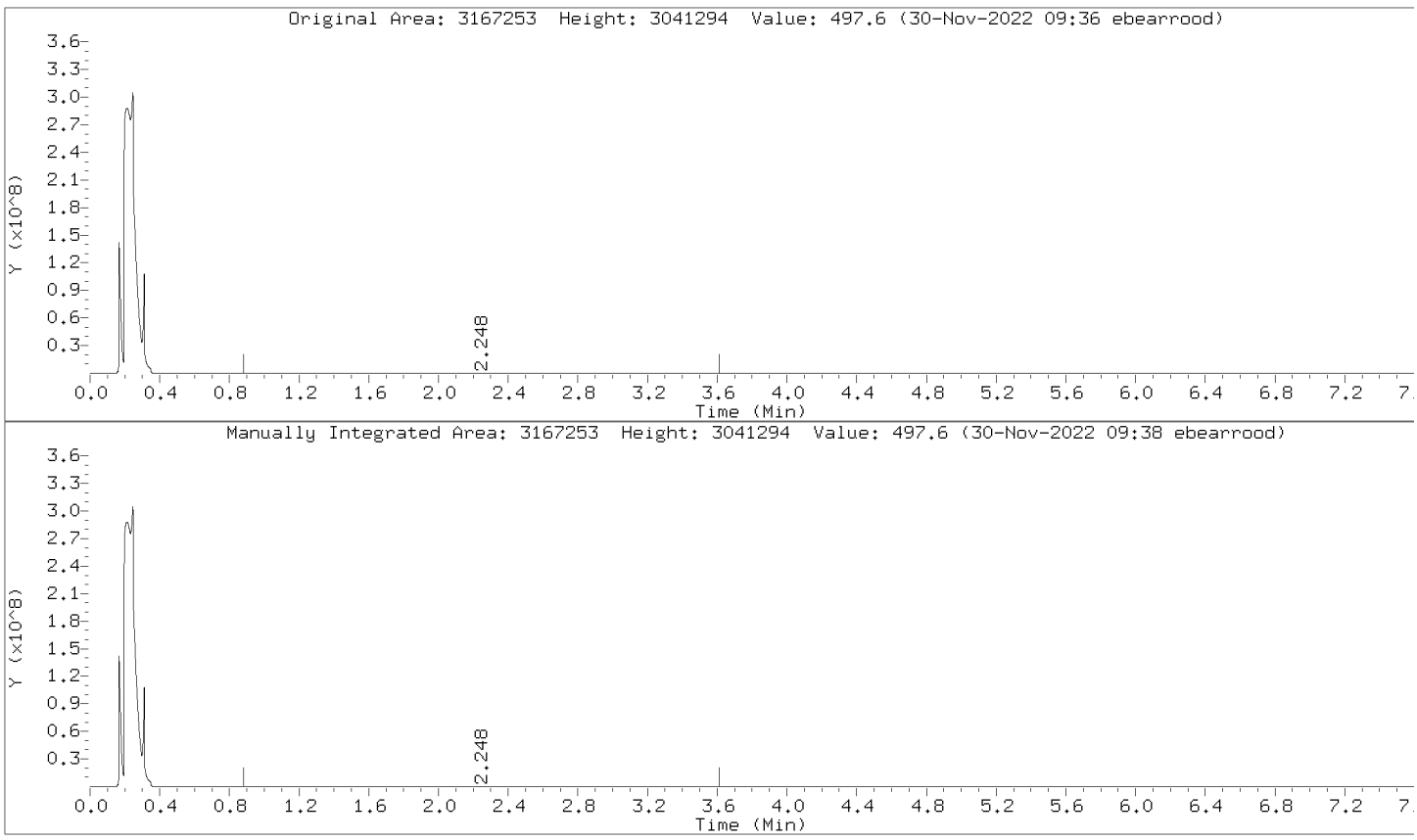
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



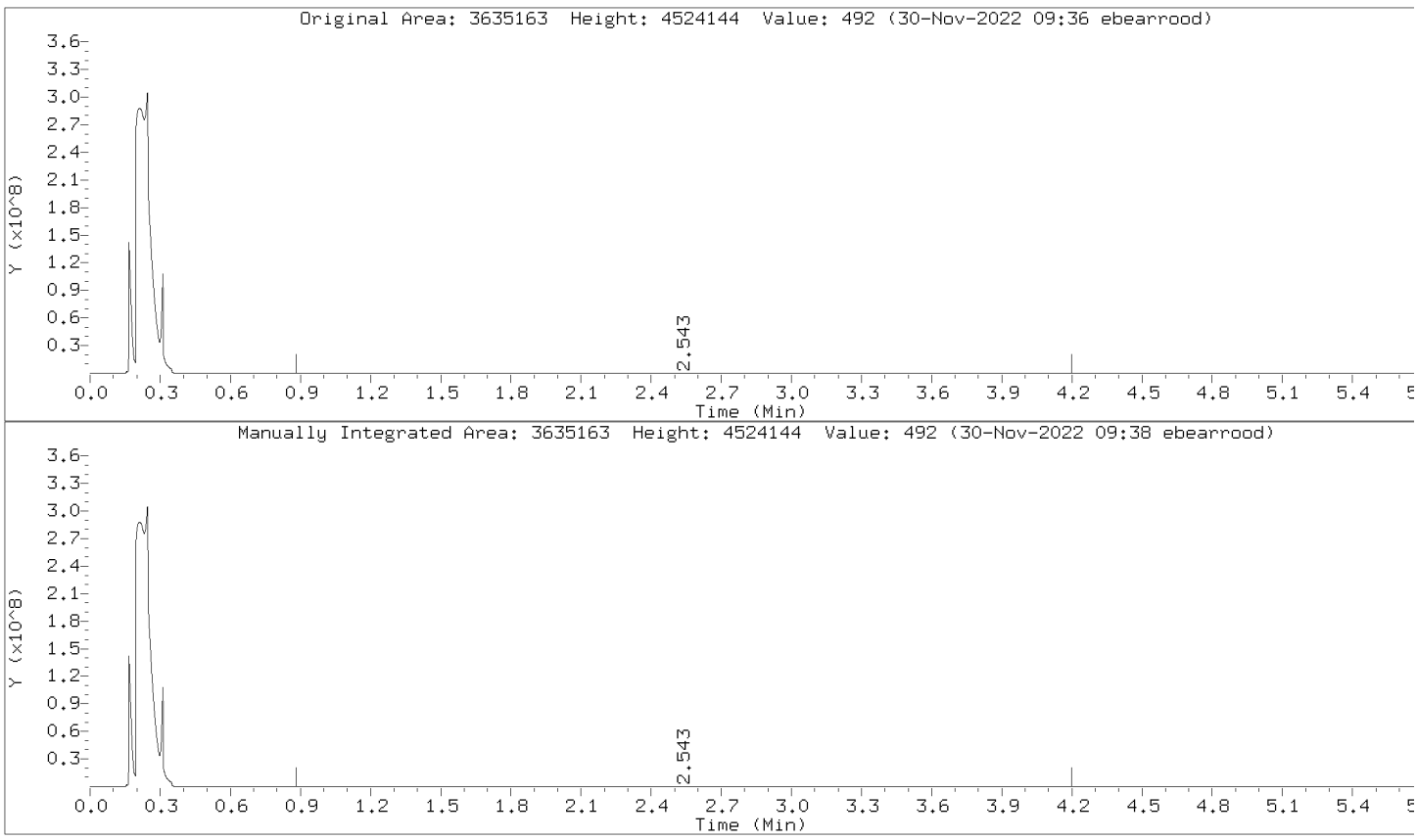
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



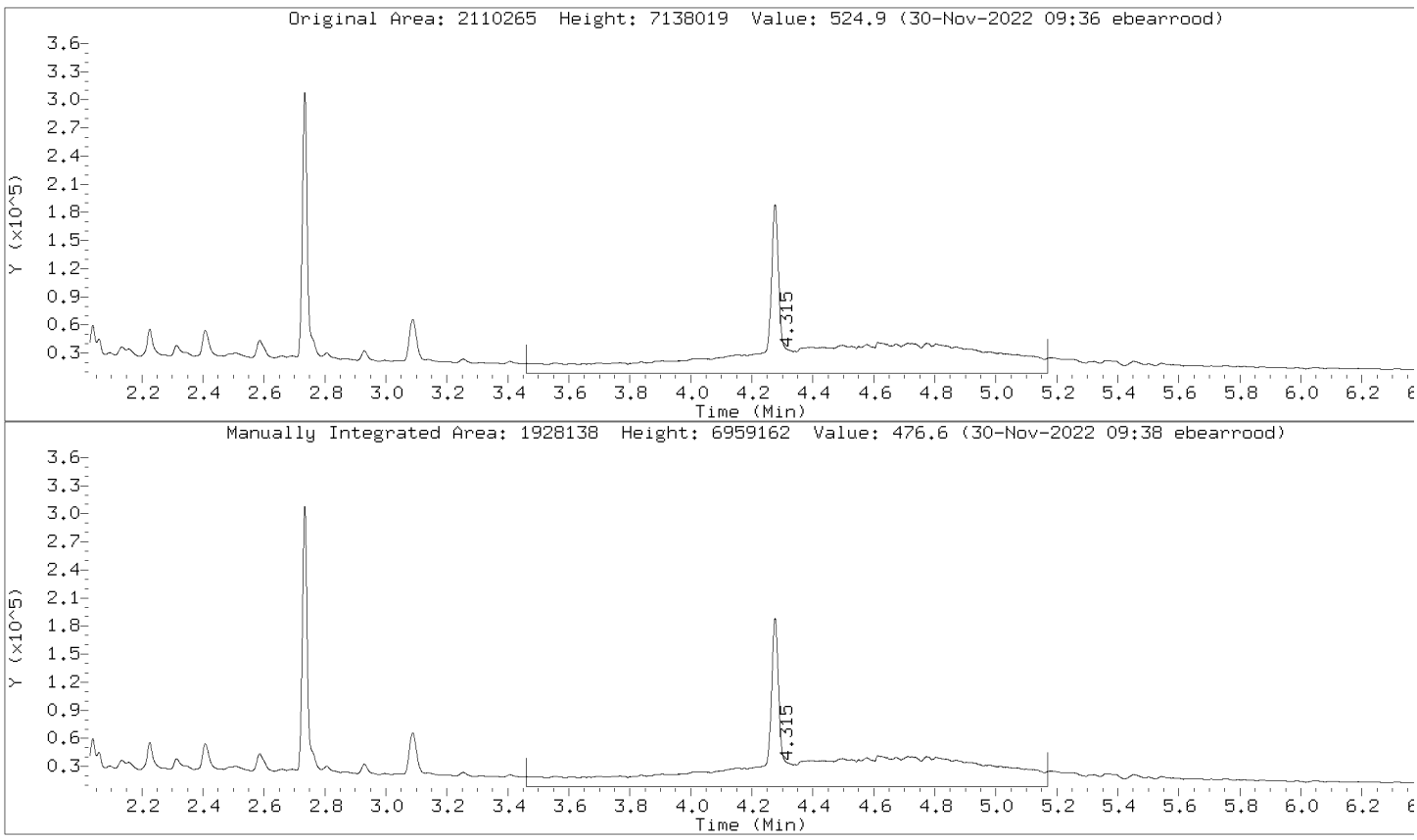
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



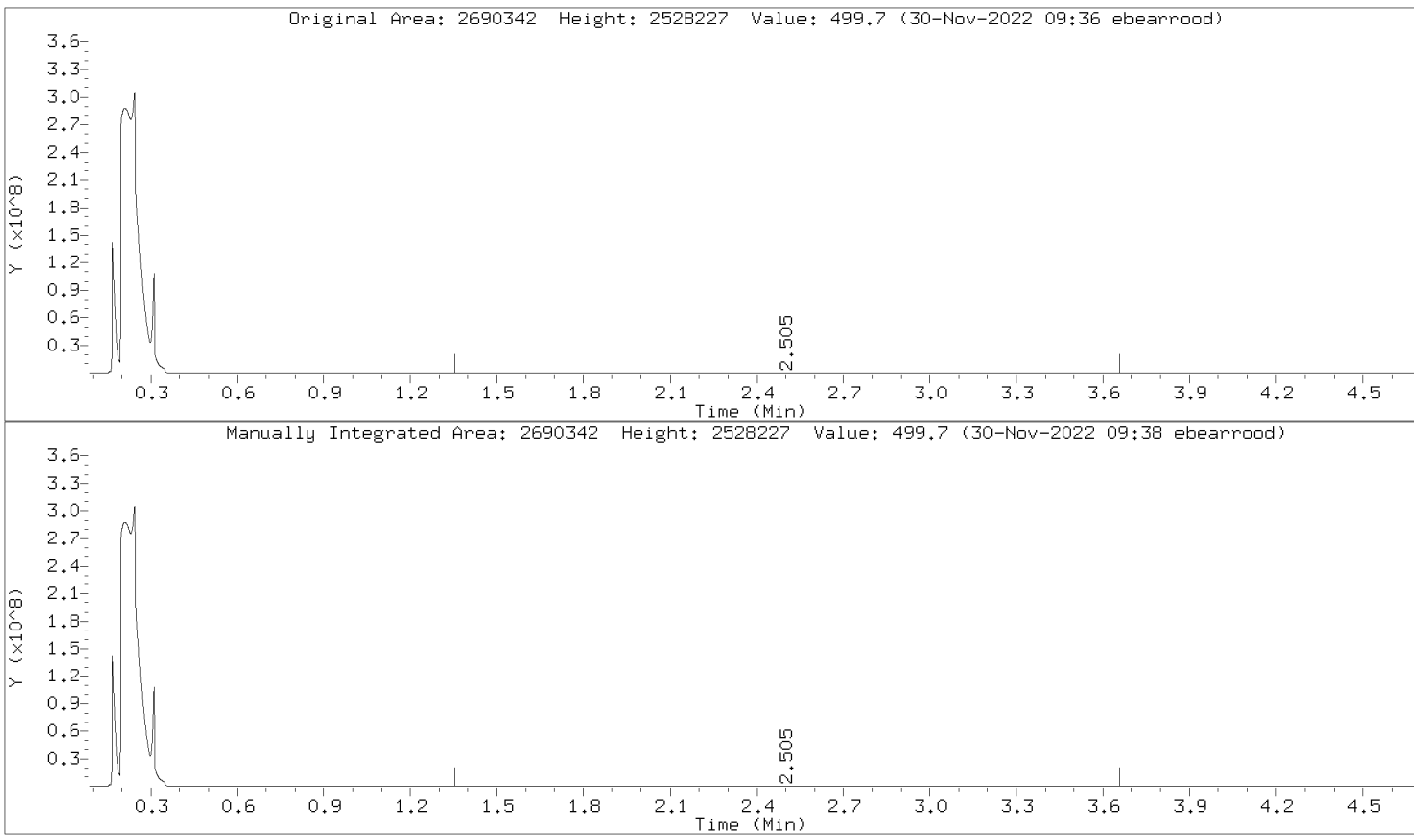
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



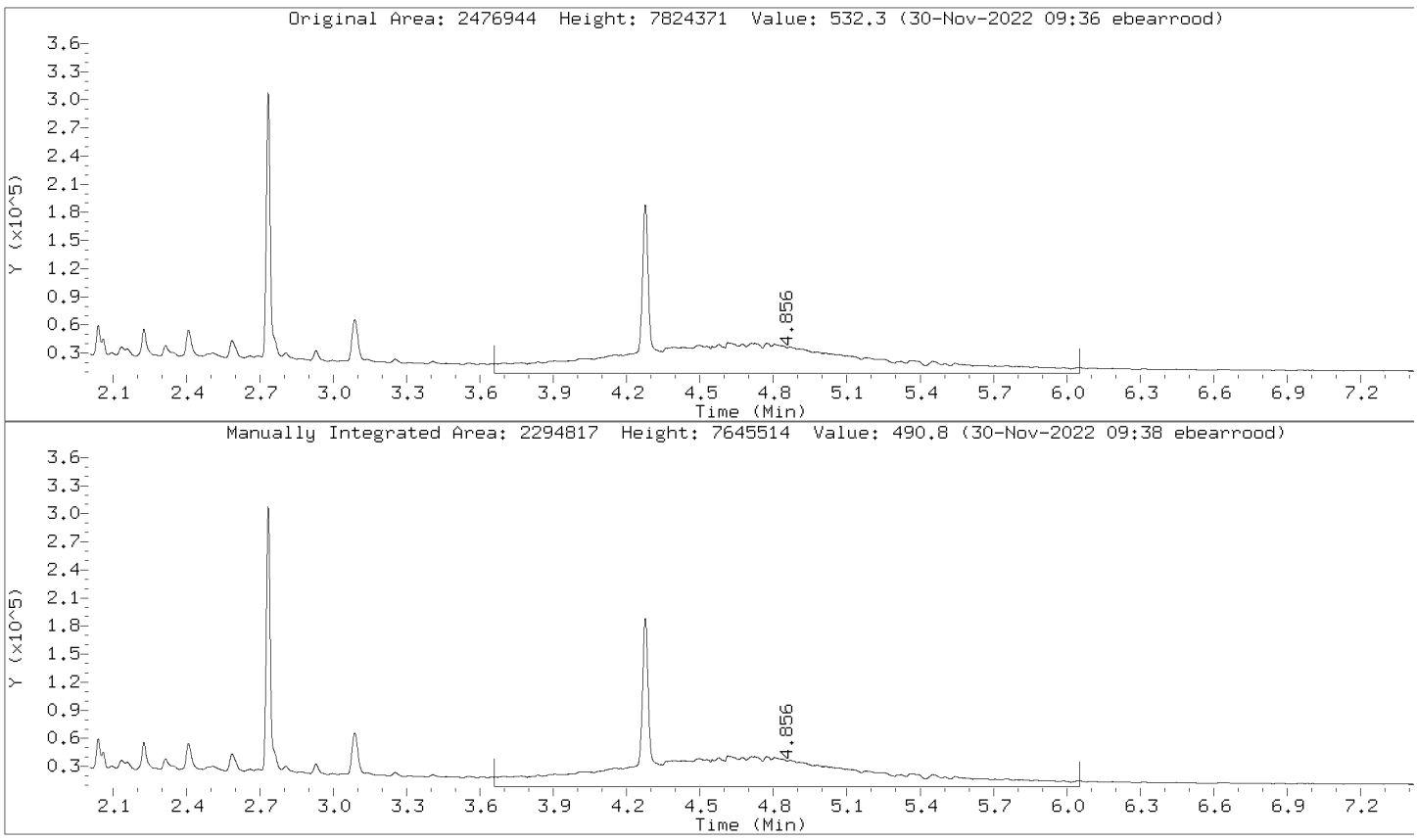
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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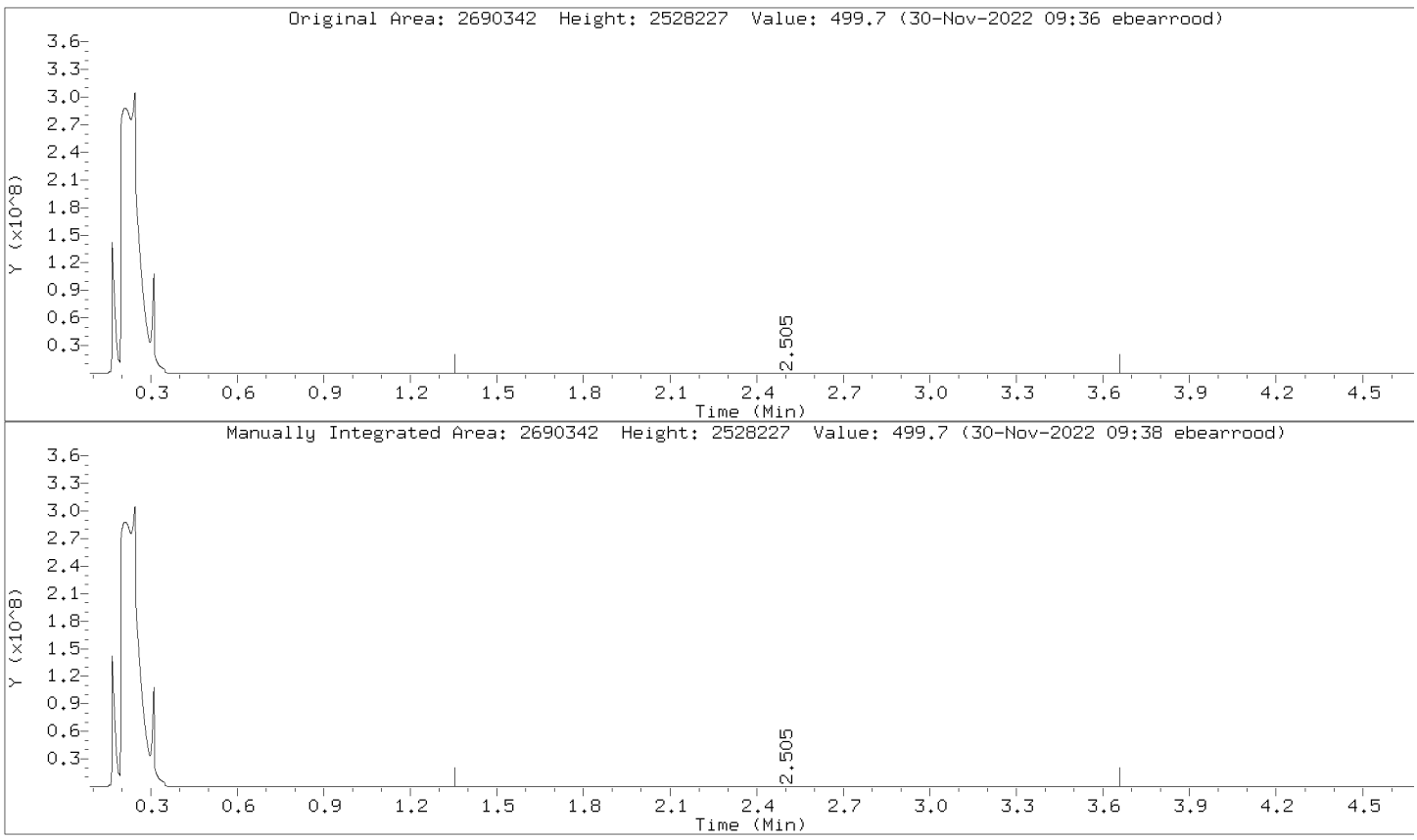
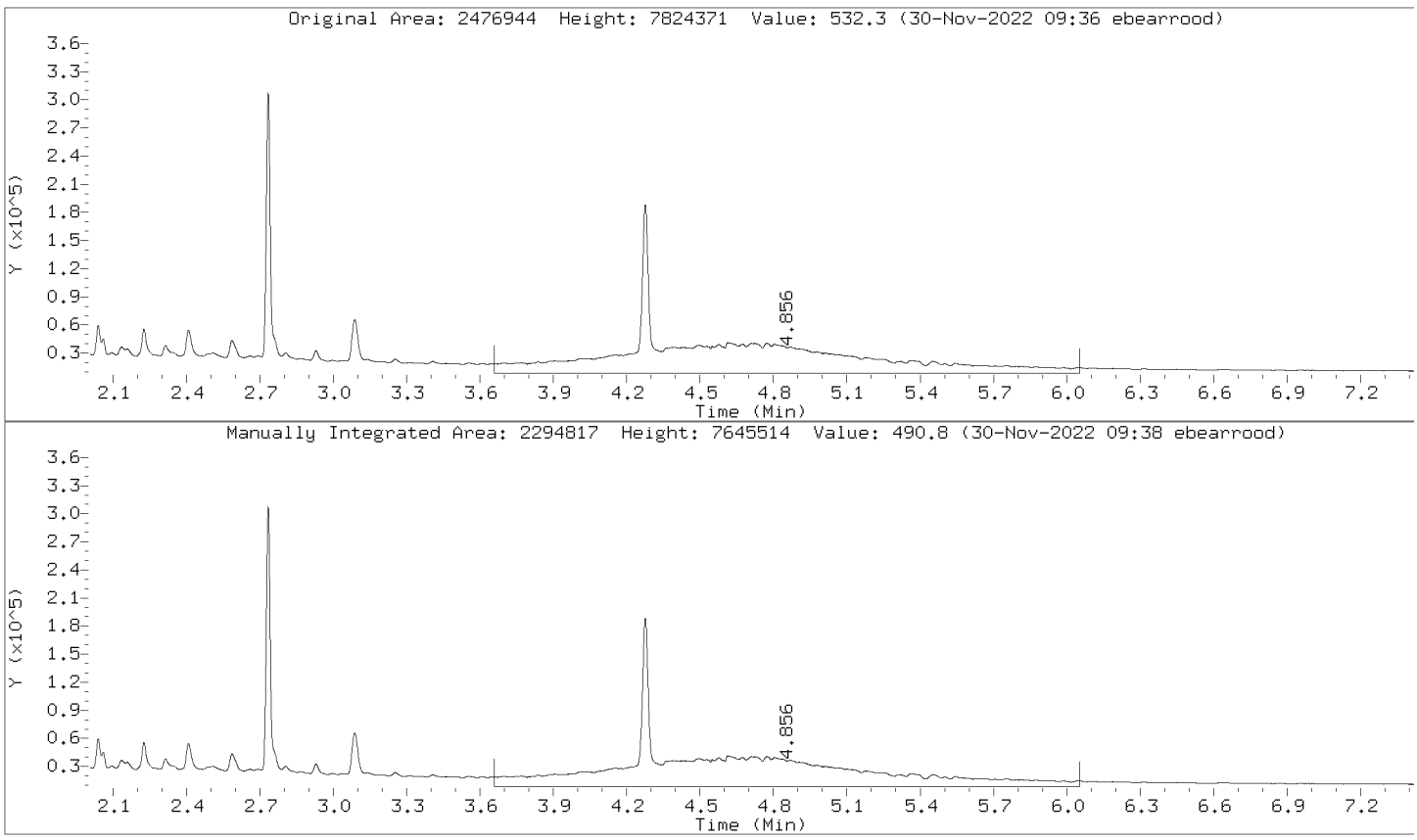
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



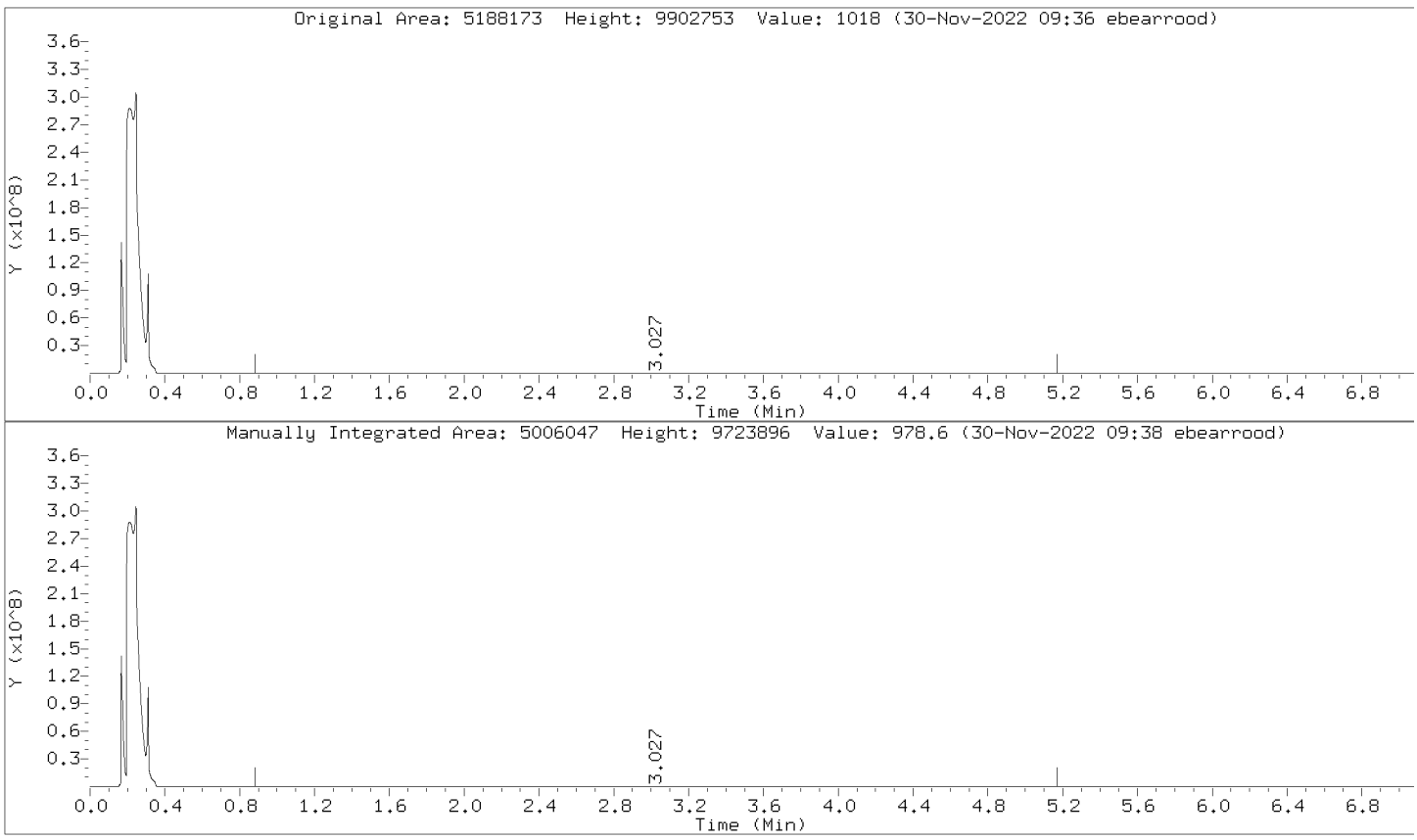
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



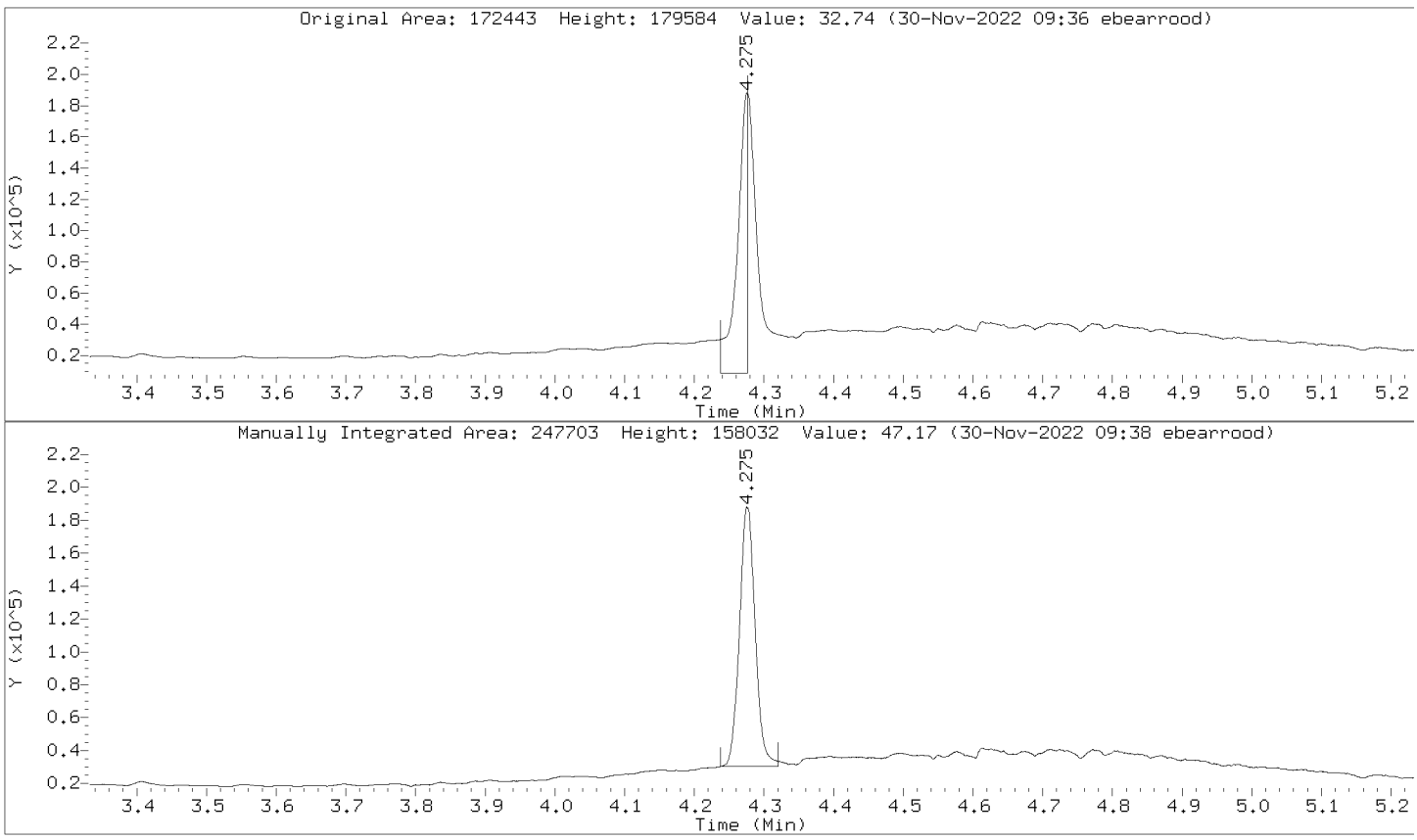
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: C10-C36 Review Code: RNG
CAS Number:



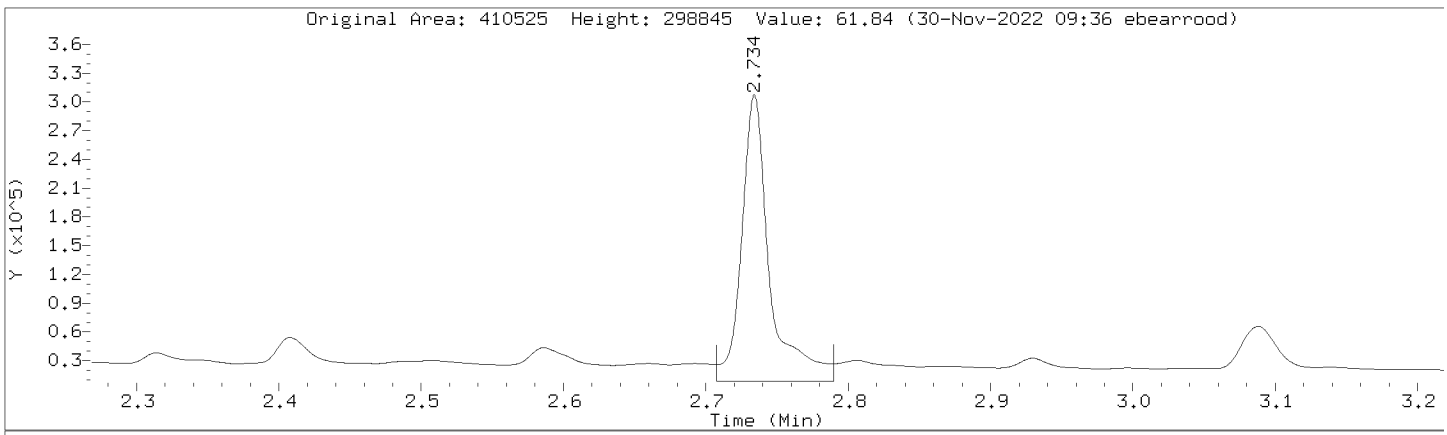
Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

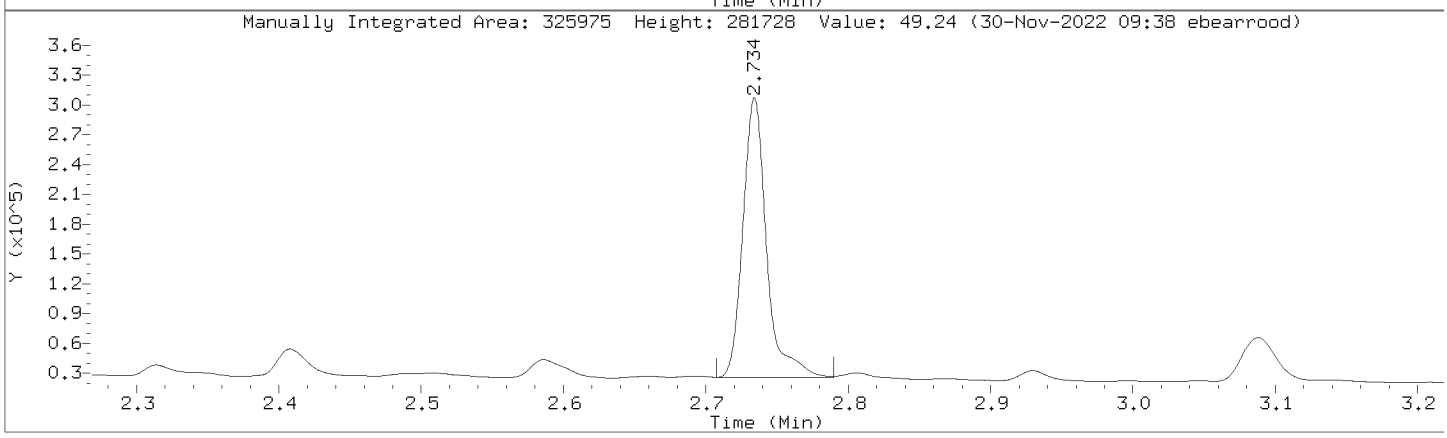
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112922R.b/1129R0000014C.D
Injection Date: 29-NOV-2022 14:38
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,397498:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2020919	1838793
DRO by AK 102	3167253	3167253
TPH-DRO (C10-C28)	3635163	3635163
Motor Oil Range (C24-C36)	2110265	1928138
Diesel Fuel Range	2690342	2690342
Motor Oil Range	2476944	2294817
Diesel Fuel Range SG	2690342	2690342
Motor Oil Range SG	2476944	2294817
C10-C36	5188173	5006047
n-Triacontane (S)	172443	247703
o-Terphenyl (S)	410525	325975

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10633565
Date Extracted: 11/22/2022 15:47
Lab Sample ID: 4519770
Date Analyzed: 11/28/2022 21:01
Lab File ID: 112822R.B\1128R0000050.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000050.d
Lab Smp Id: 4519770 Client Smp ID: MB
Inj Date : 28-NOV-2022 21:01
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4519770
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 38 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S	1 DRO by AK 102					CAS #:		
	0.885 - 3.605			427785	13.5363	1.35	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.734	0.000	304960	46.1043	4.61	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.278	4.278	0.000	213754	40.6643	4.07	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.606 - 5.170			167823	14.6381	1.46	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.885 - 4.200			512724	17.1389	1.71	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.460 - 5.170			188905	15.3586	1.54	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.170		595815	28.1120	2.81	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		379522	14.8597	1.48	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		379522	14.8597	1.48	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		217468	17.3753	1.74	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		217468	17.3753	1.74	(M)	RNG

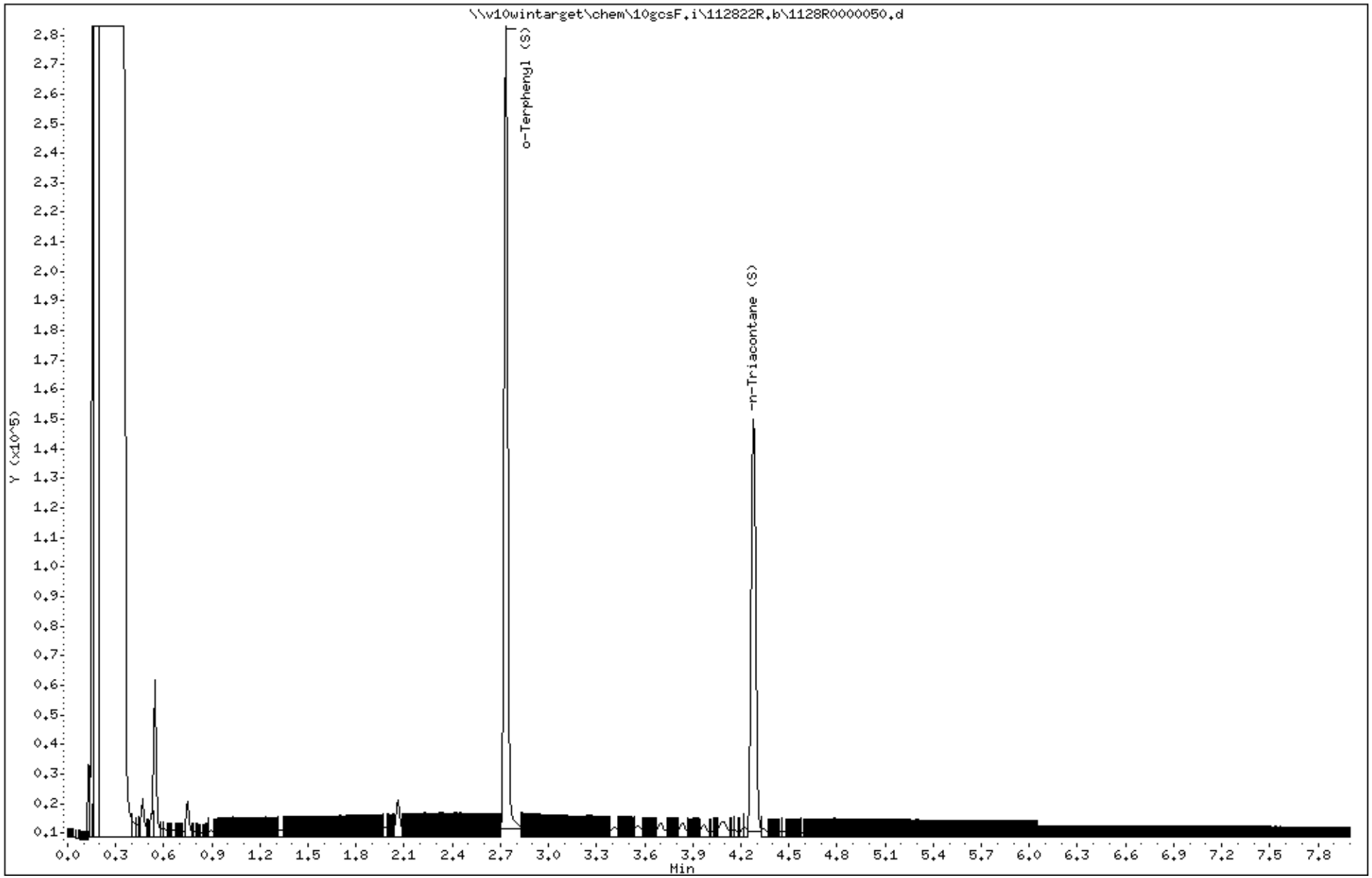
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

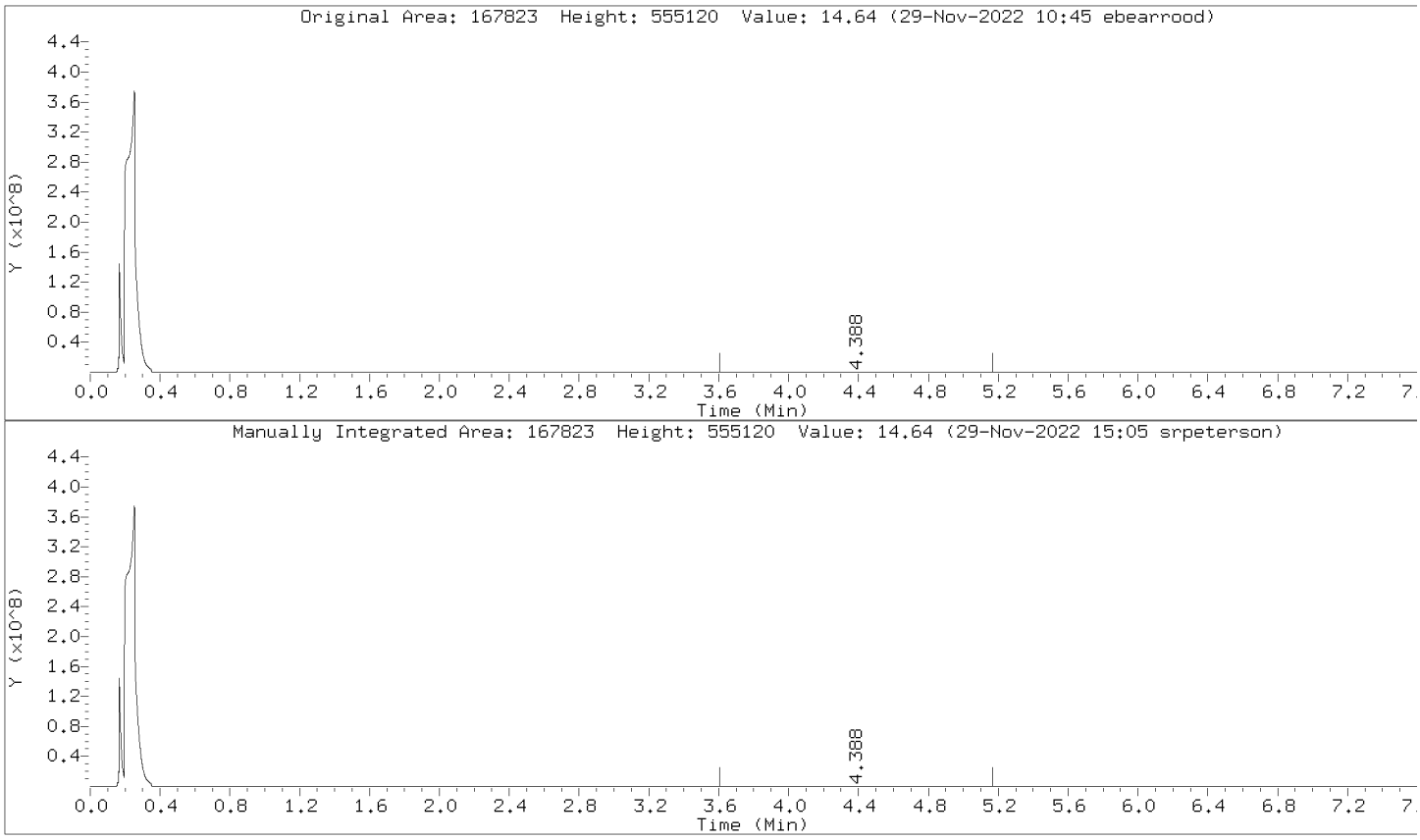
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000050.d
Date : 28-NOV-2022 21:01
Client ID: MB
Instrument: 10gcsF.i
Sample Info: 4519770
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



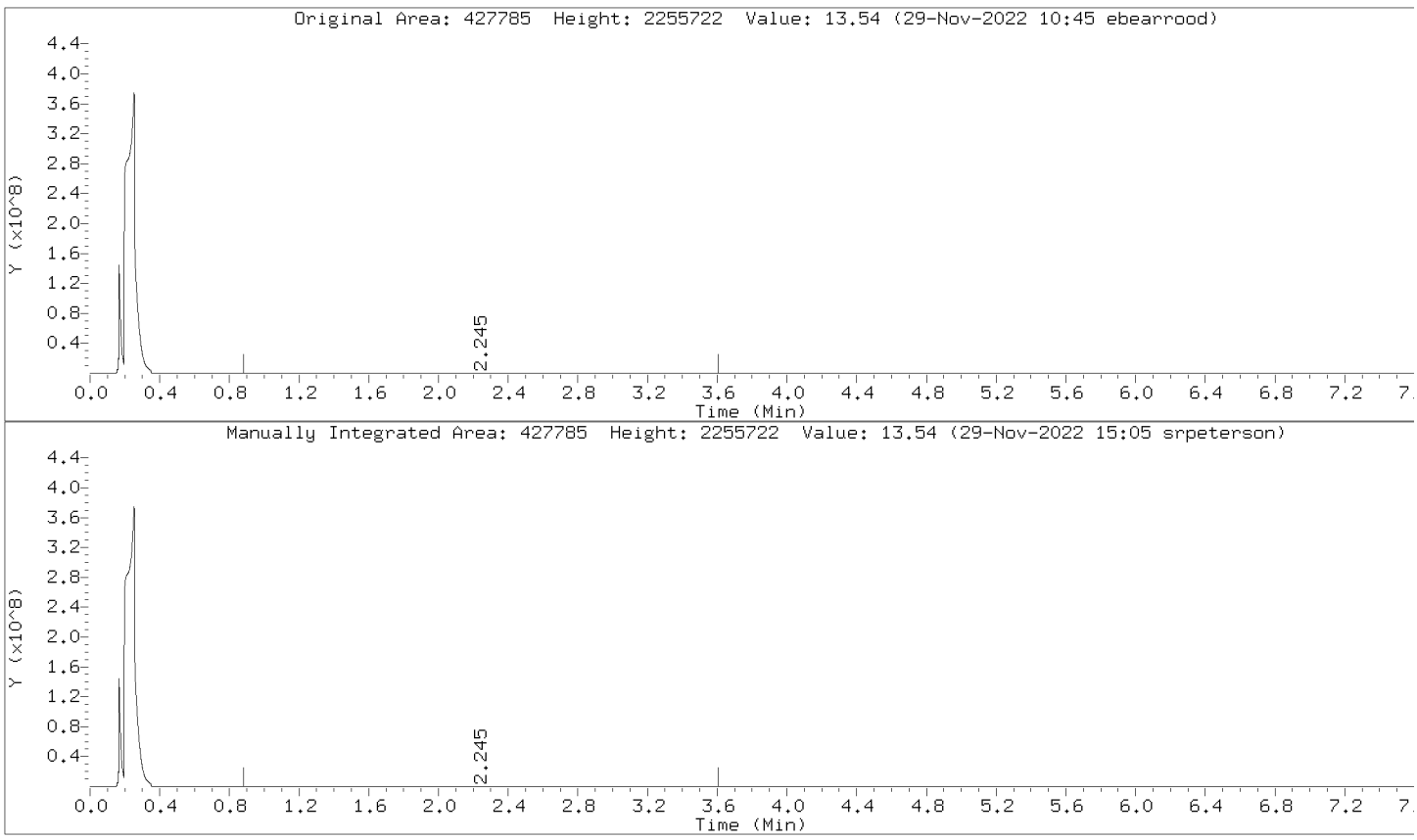
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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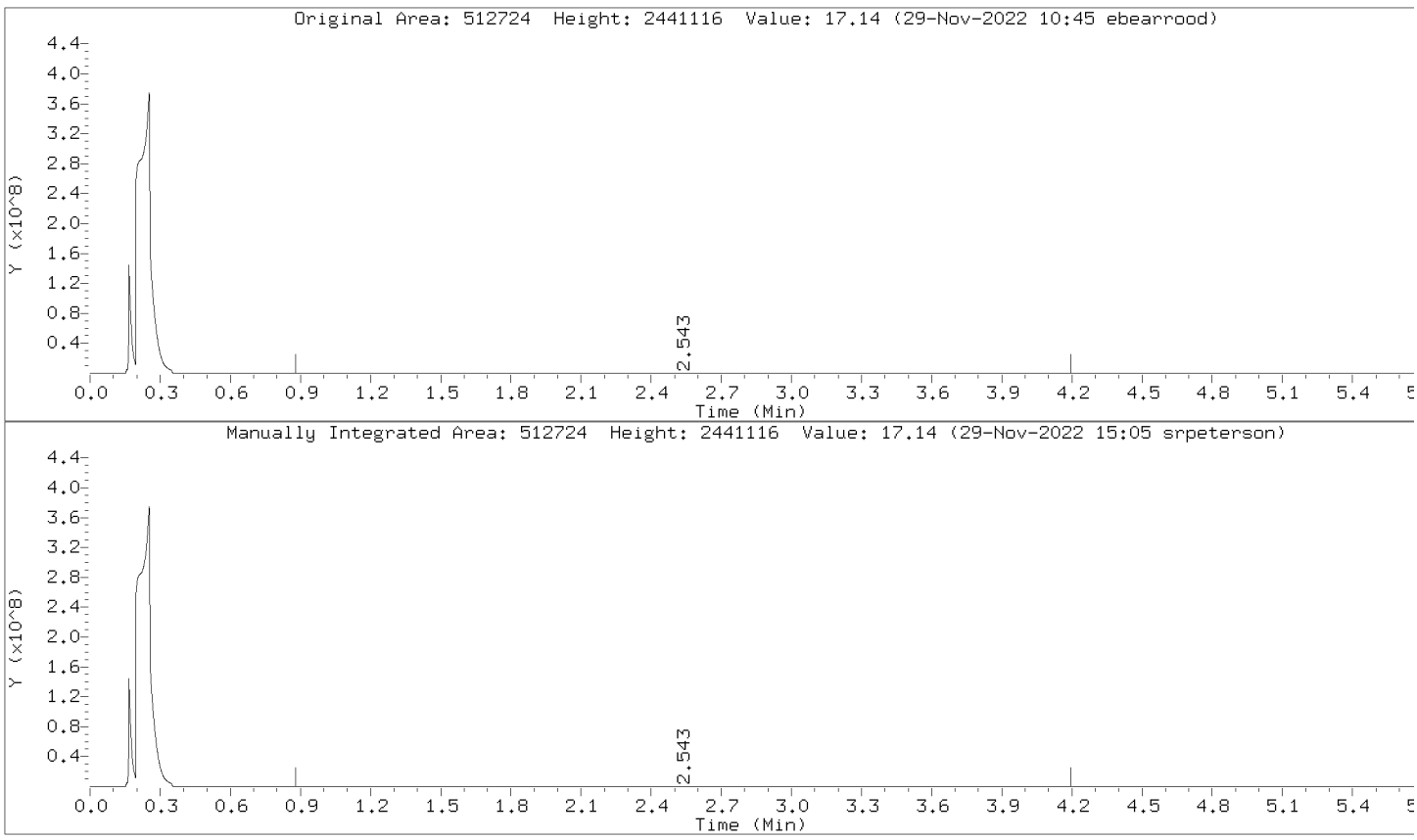
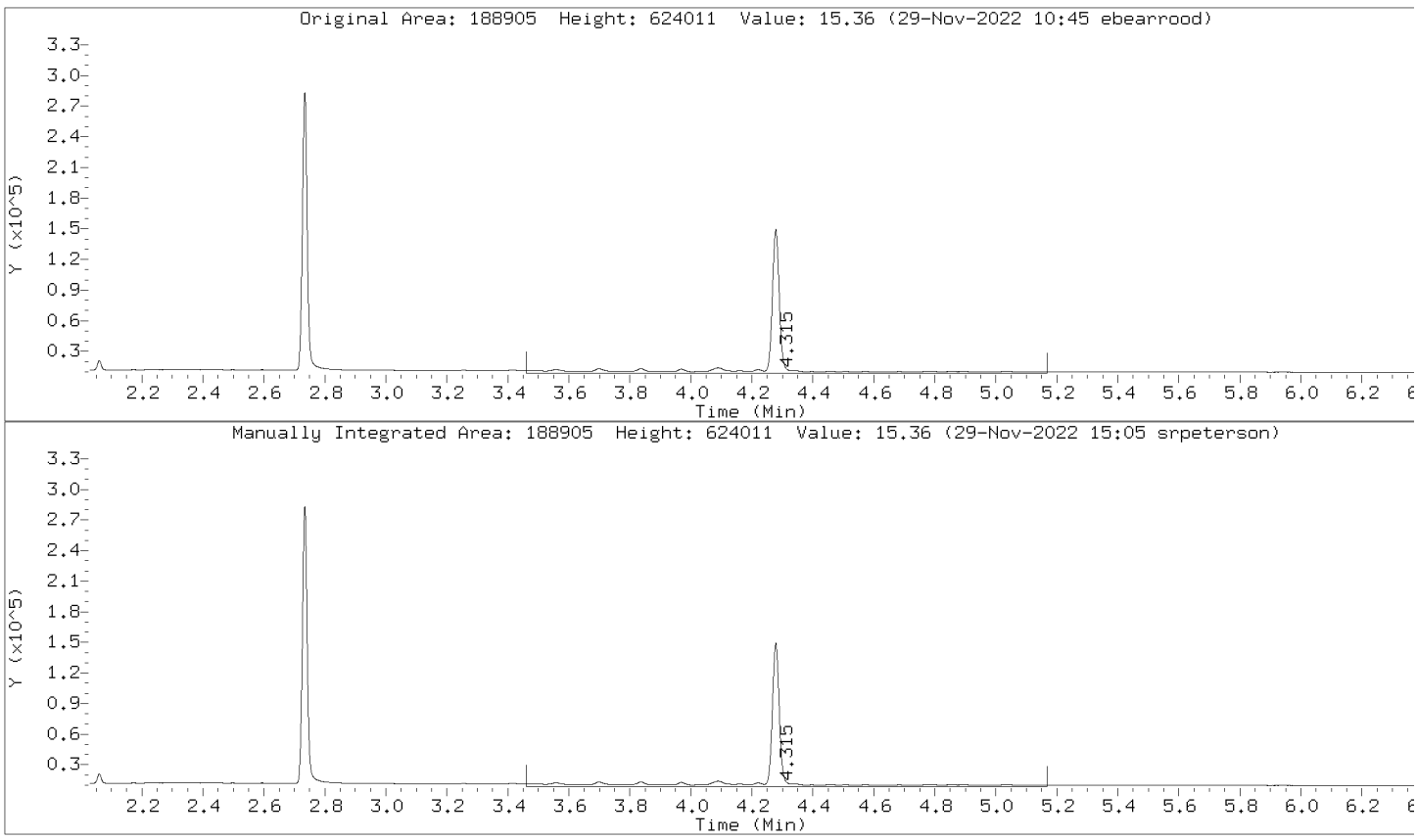
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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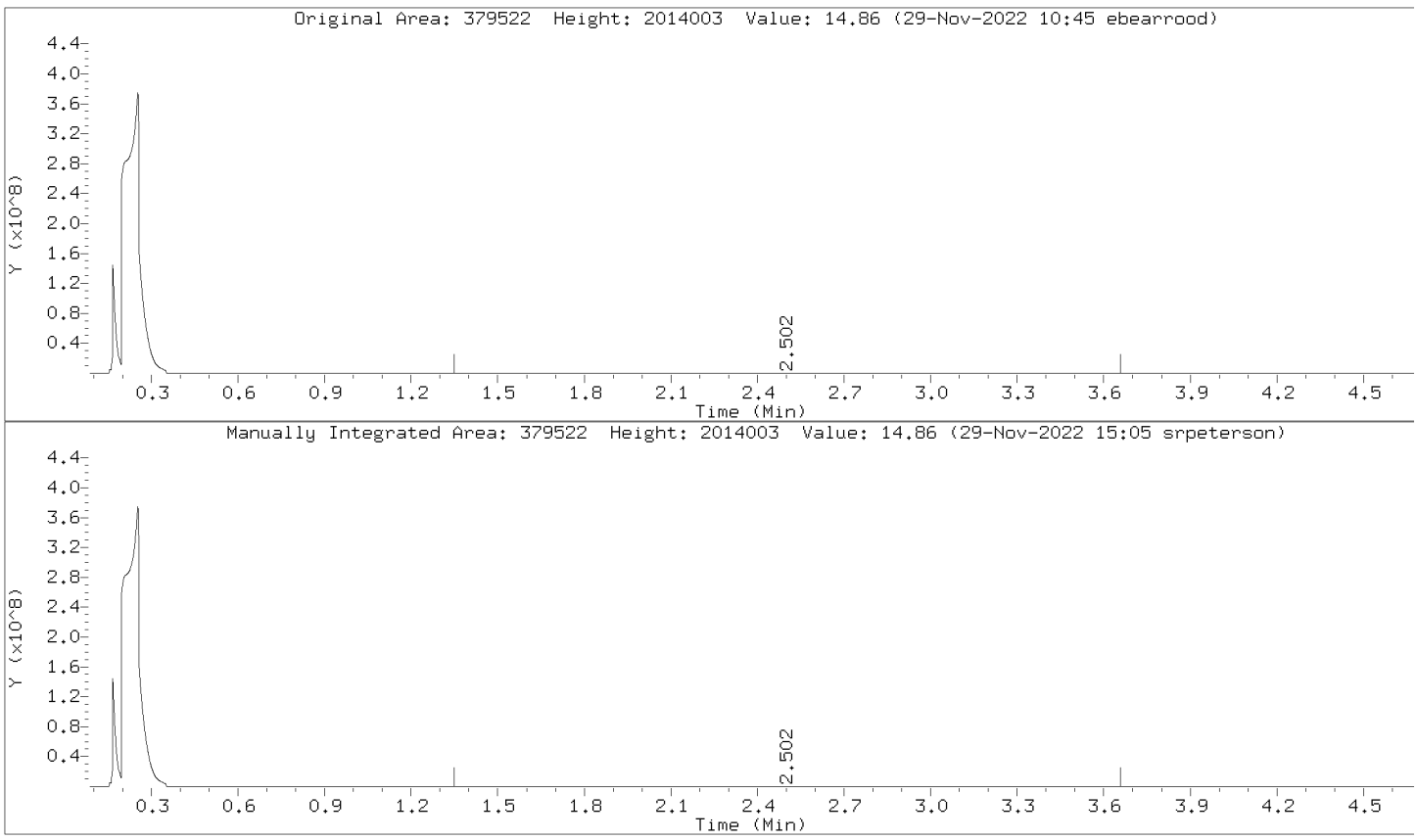
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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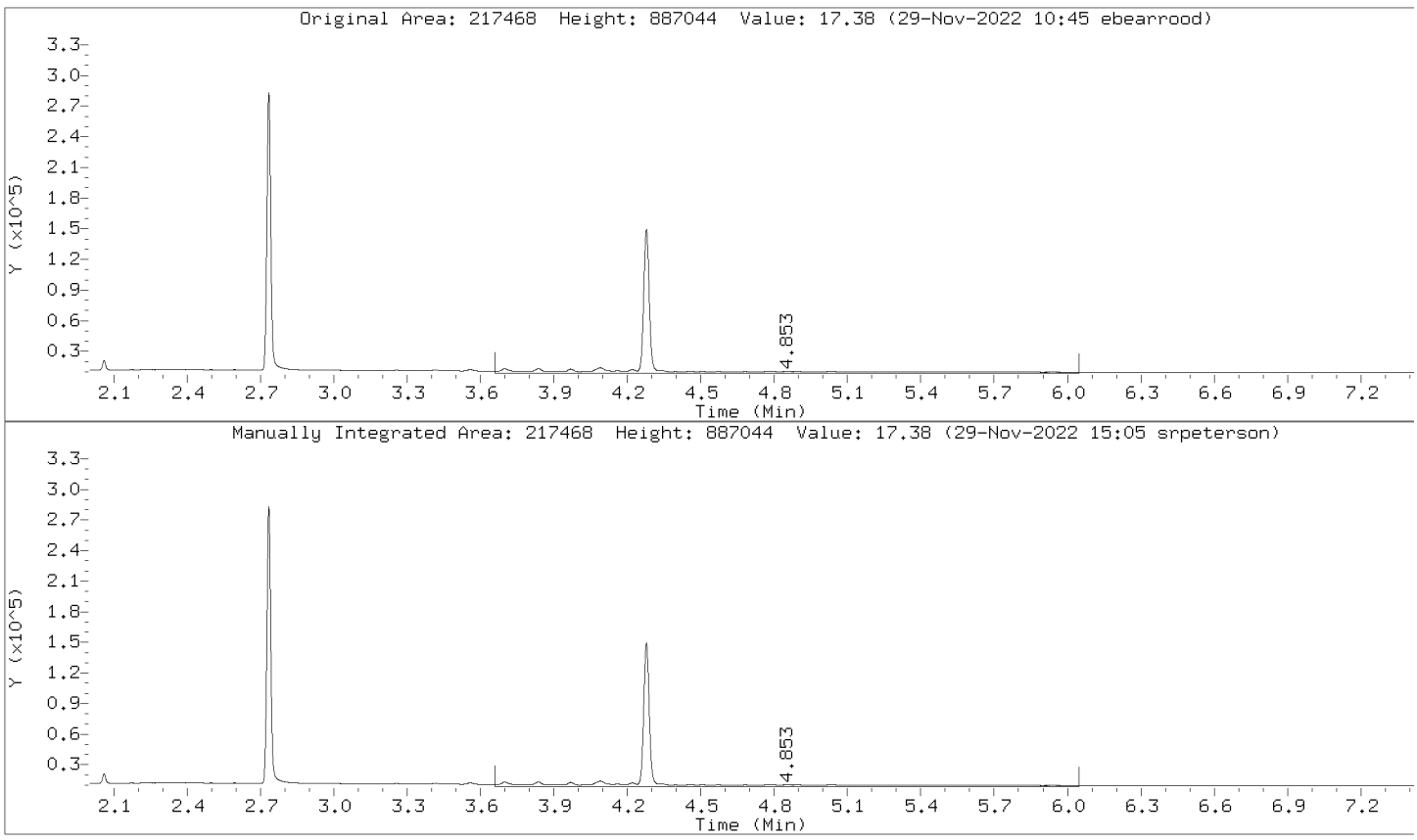
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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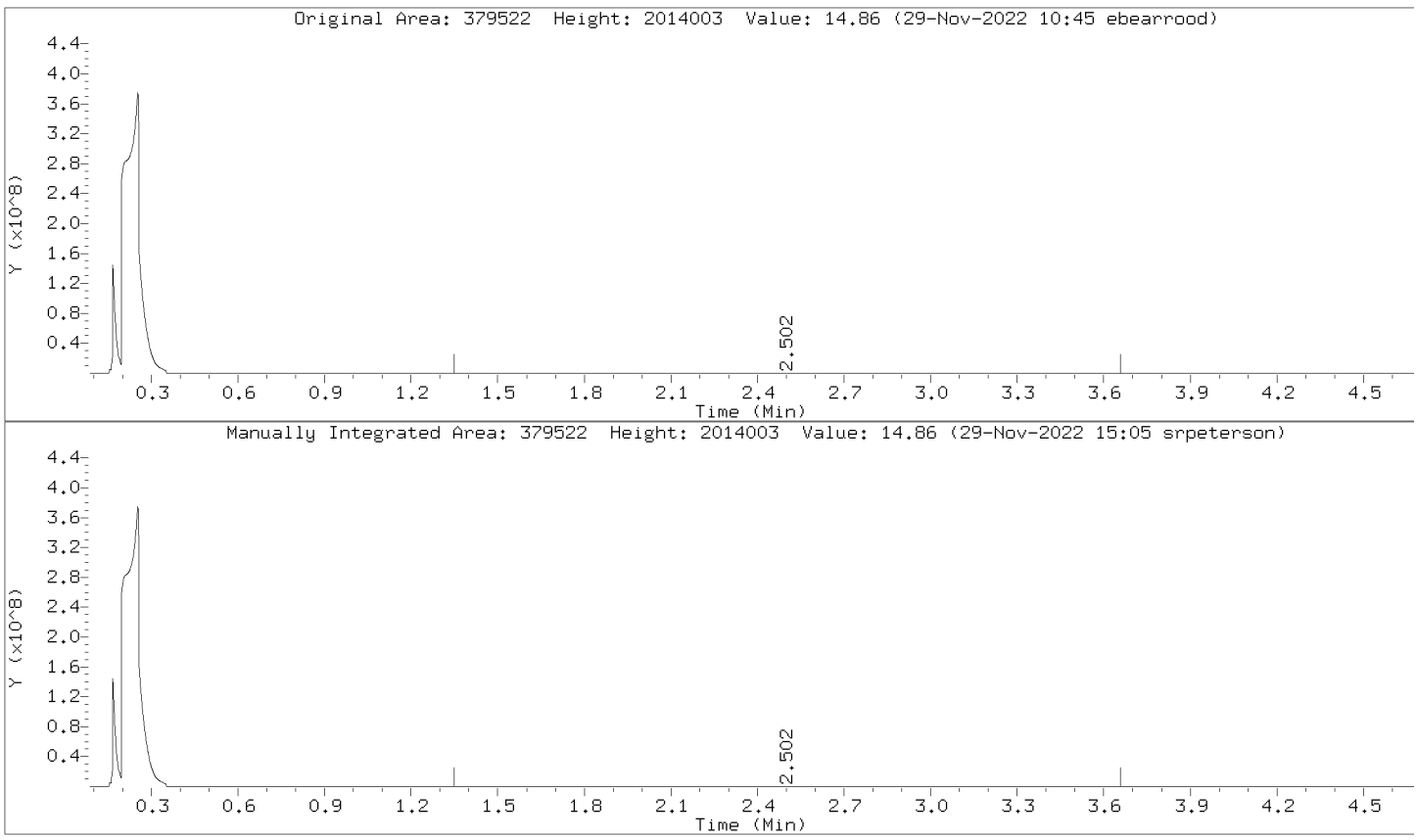
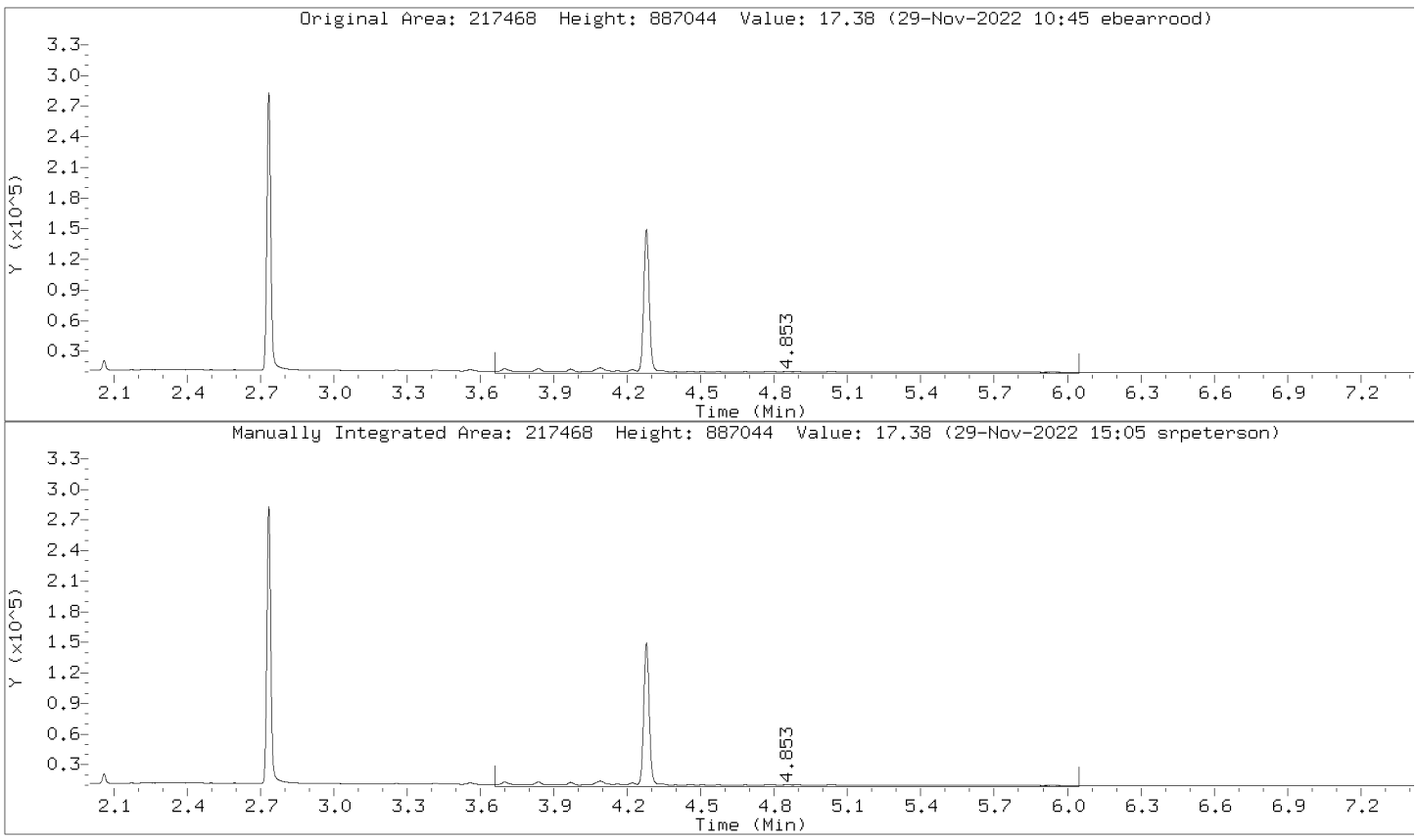
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



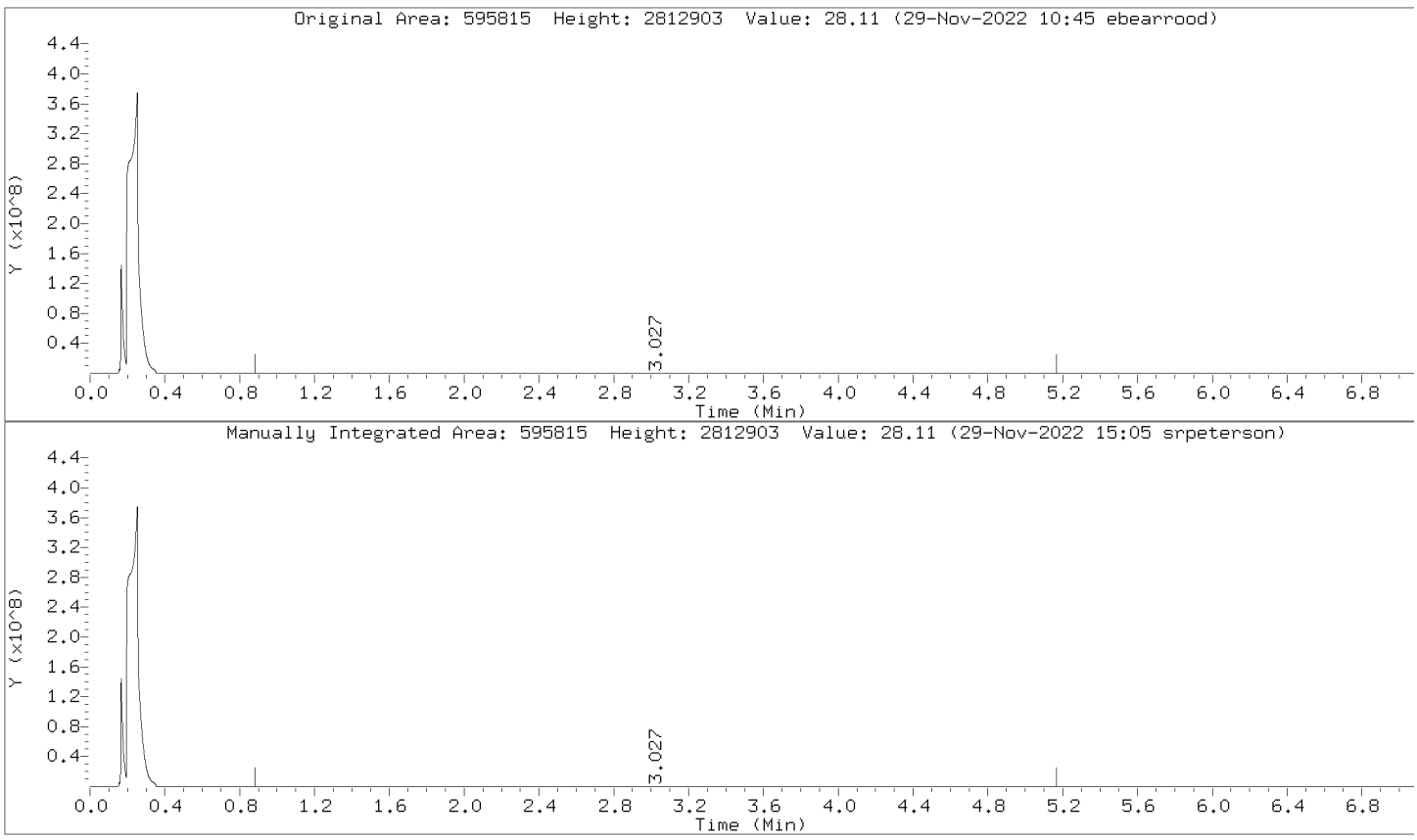
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: C10-C36 Review Code: RNG
CAS Number:



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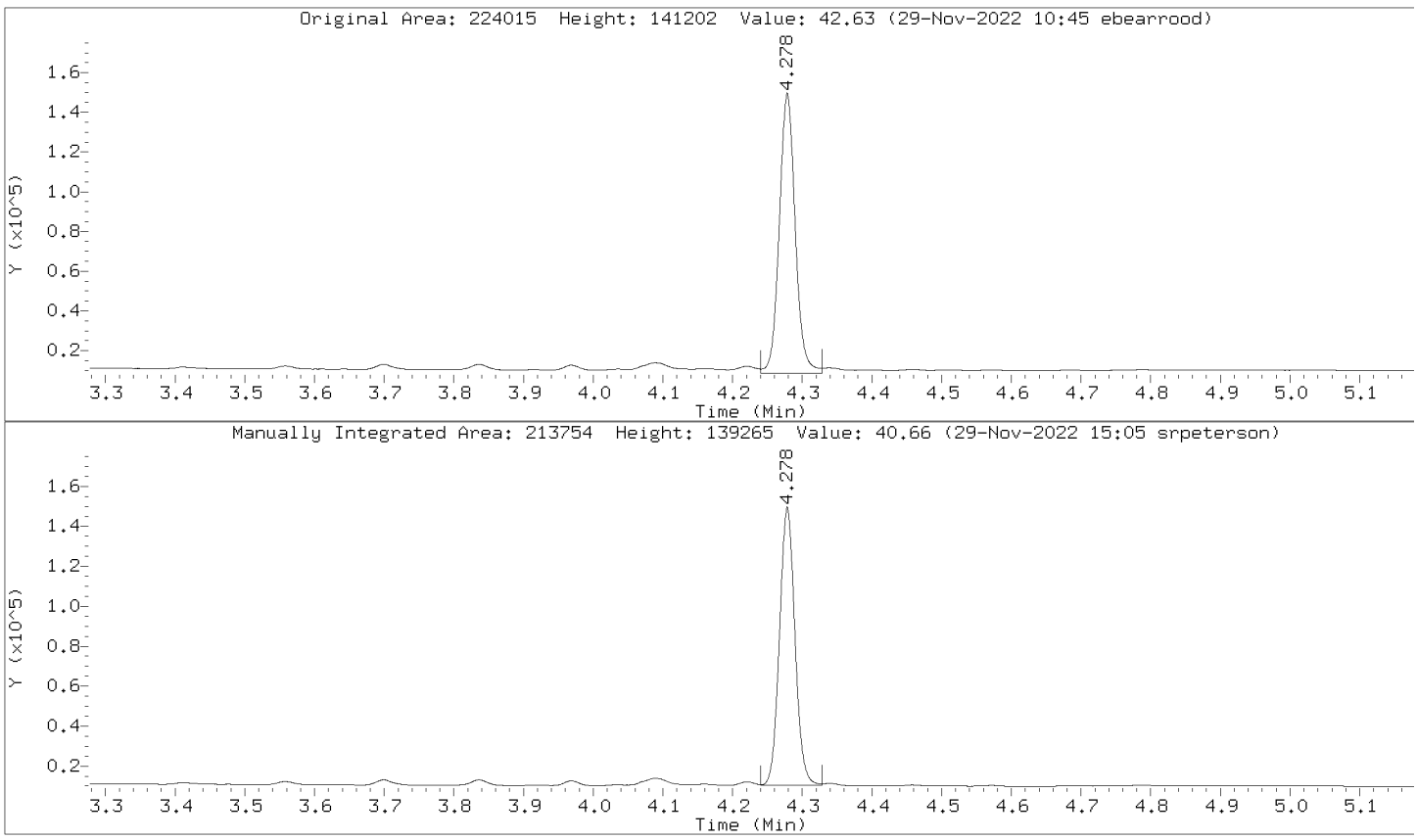
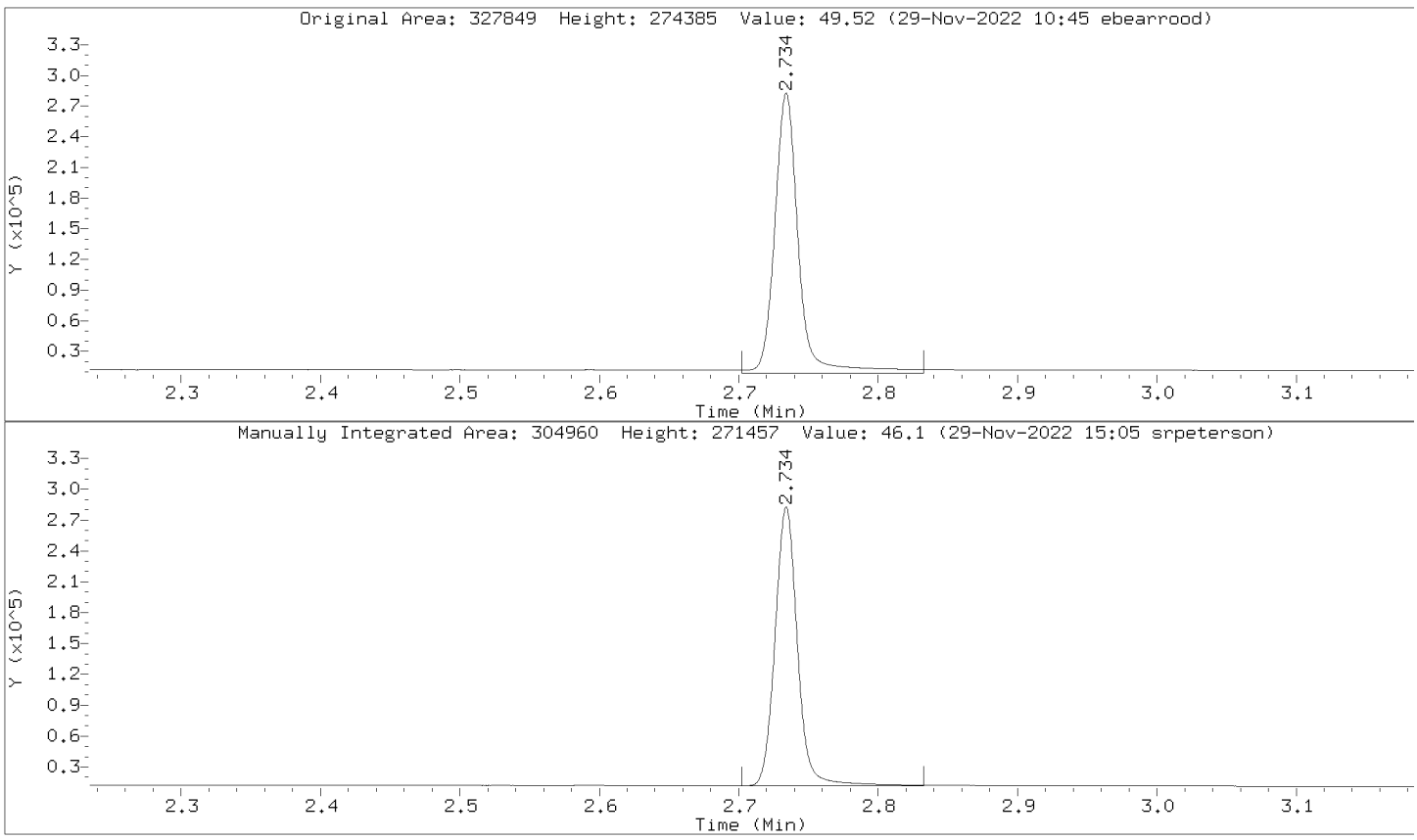
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000050.d
Injection Date: 28-NOV-2022 21:01
Instrument: 10gcsF.i
Lab Sample ID: 4519770

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	167823	167823
DRO by AK 102	427785	427785
TPH-DRO (C10-C28)	512724	512724
Motor Oil Range (C24-C36)	188905	188905
Diesel Fuel Range	379522	379522
Motor Oil Range	217468	217468
Diesel Fuel Range SG	379522	379522
Motor Oil Range SG	217468	217468
C10-C36	595815	595815
n-Triacontane (S)	224015	213754
o-Terphenyl (S)	327849	304960

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10633565
Date Extracted: 11/22/2022 15:47
Lab Sample ID: 4519771
Date Analyzed: 11/28/2022 21:13
Lab File ID: 112822R.B\1128R0000051.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	47.1	
	Motor Oil Range	47.0	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000051.d
Lab Smp Id: 4519771 Client Smp ID: MBLCS
Inj Date : 28-NOV-2022 21:13
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4519771
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 39 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S	1 DRO by AK 102					CAS #:		
	0.885	- 3.605		2809243	434.312	43.4	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.733	2.734	-0.001	314746	47.5633	4.76	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.278	4.278	0.000	237414	45.2012	4.52	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.606	- 5.170		1800640	468.457	46.8	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.885	- 4.200		3302592	441.422	44.1	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.460	- 5.170		1900290	469.198	46.9	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.170		4609883	893.216	89.3	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.655		2554418	471.177	47.1	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.655		2554418	471.177	47.1	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.656	- 6.050		2205675	470.449	47.0	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.656	- 6.050		2205675	470.449	47.0	(M)	RNG

QC Flag Legend

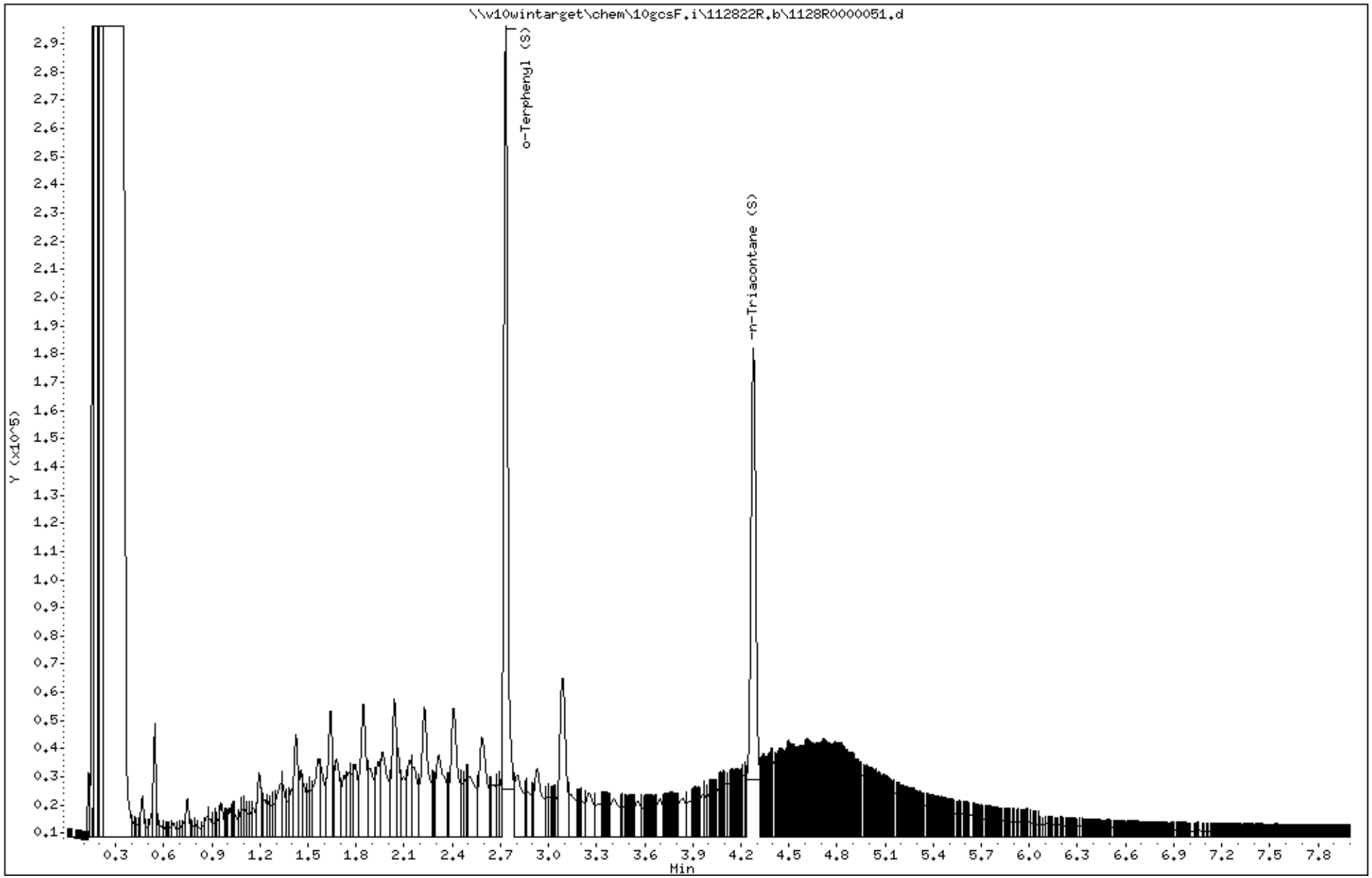
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

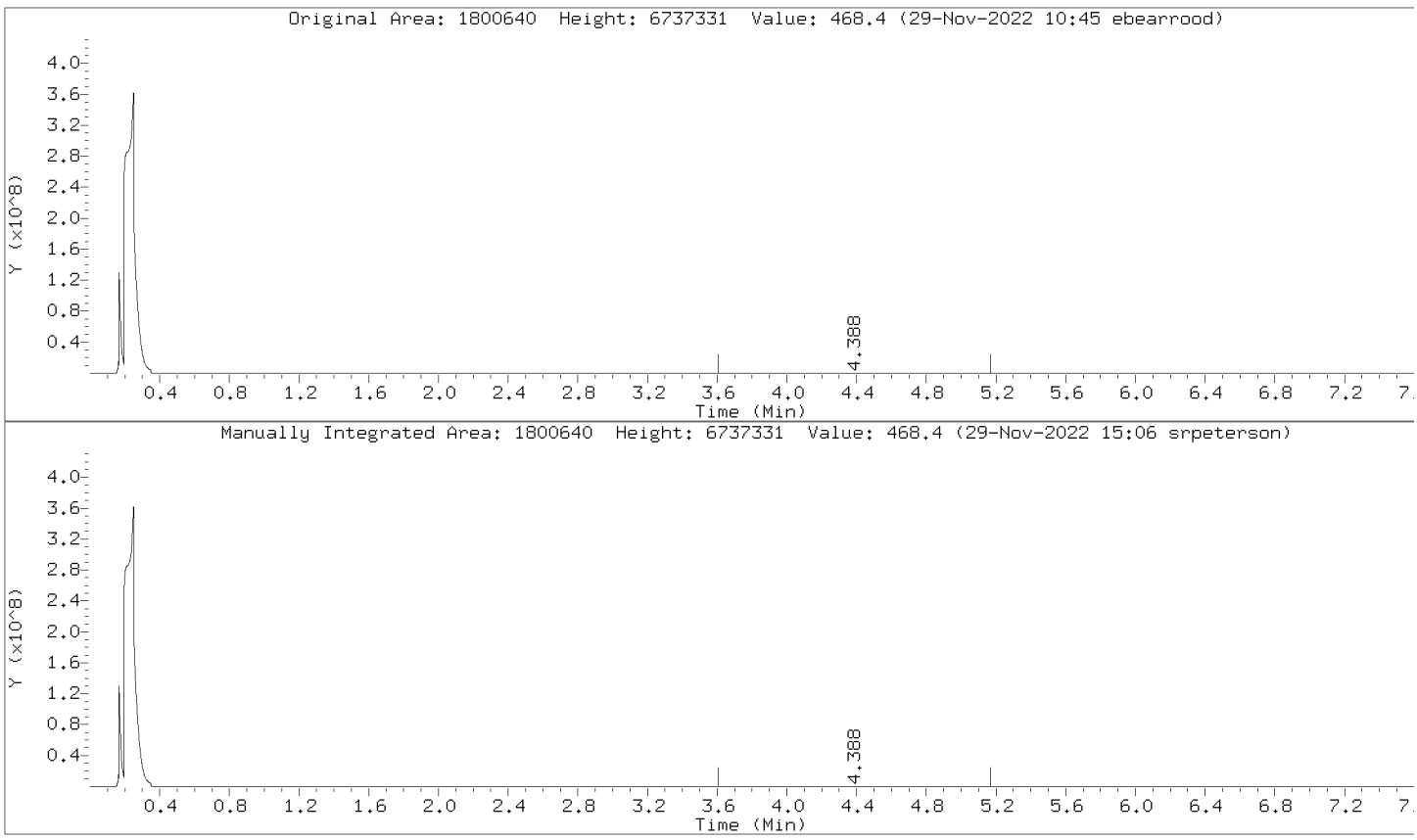
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000051.d
Date : 28-NOV-2022 21:13
Client ID: MBLCS
Sample Info: 4519771
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



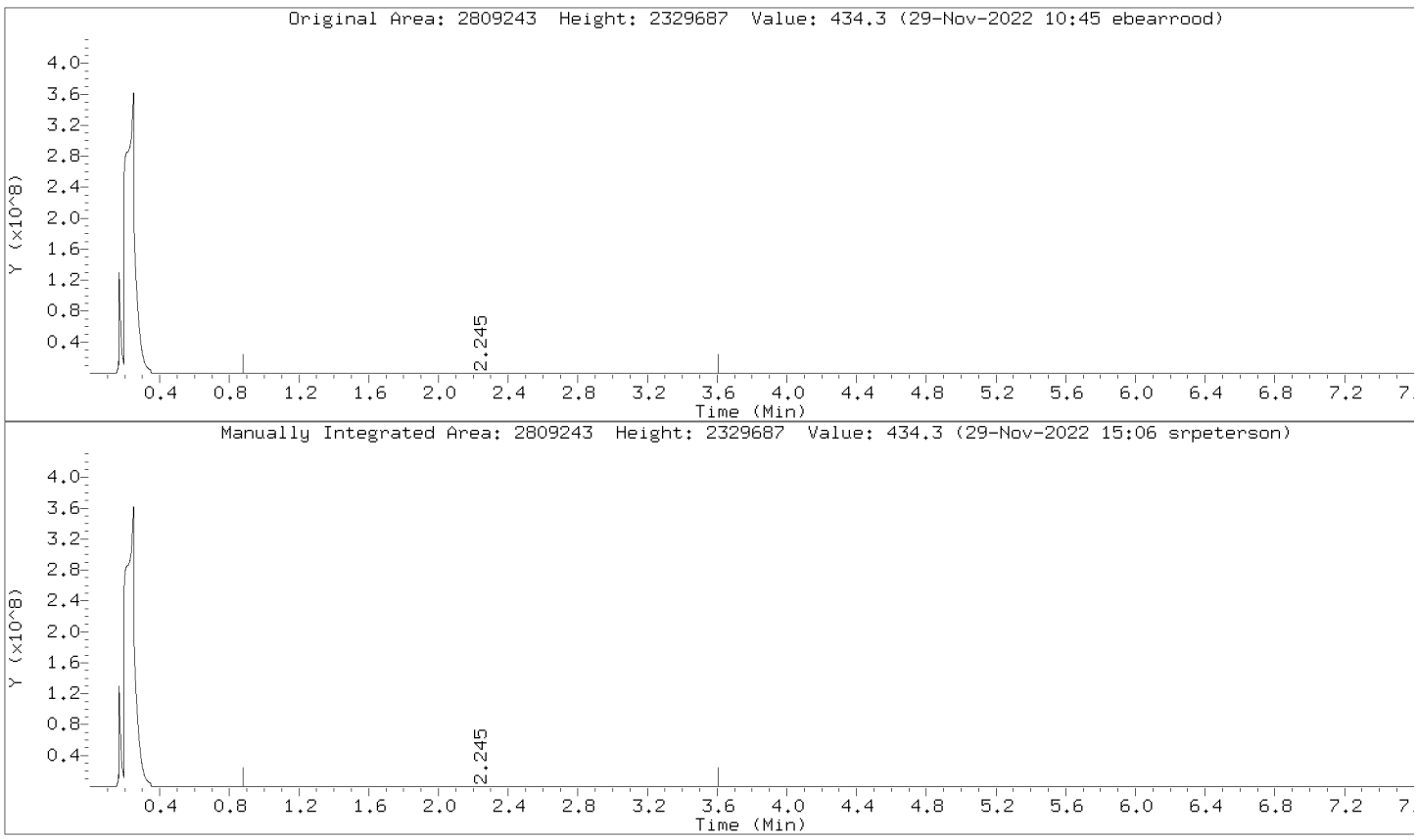
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



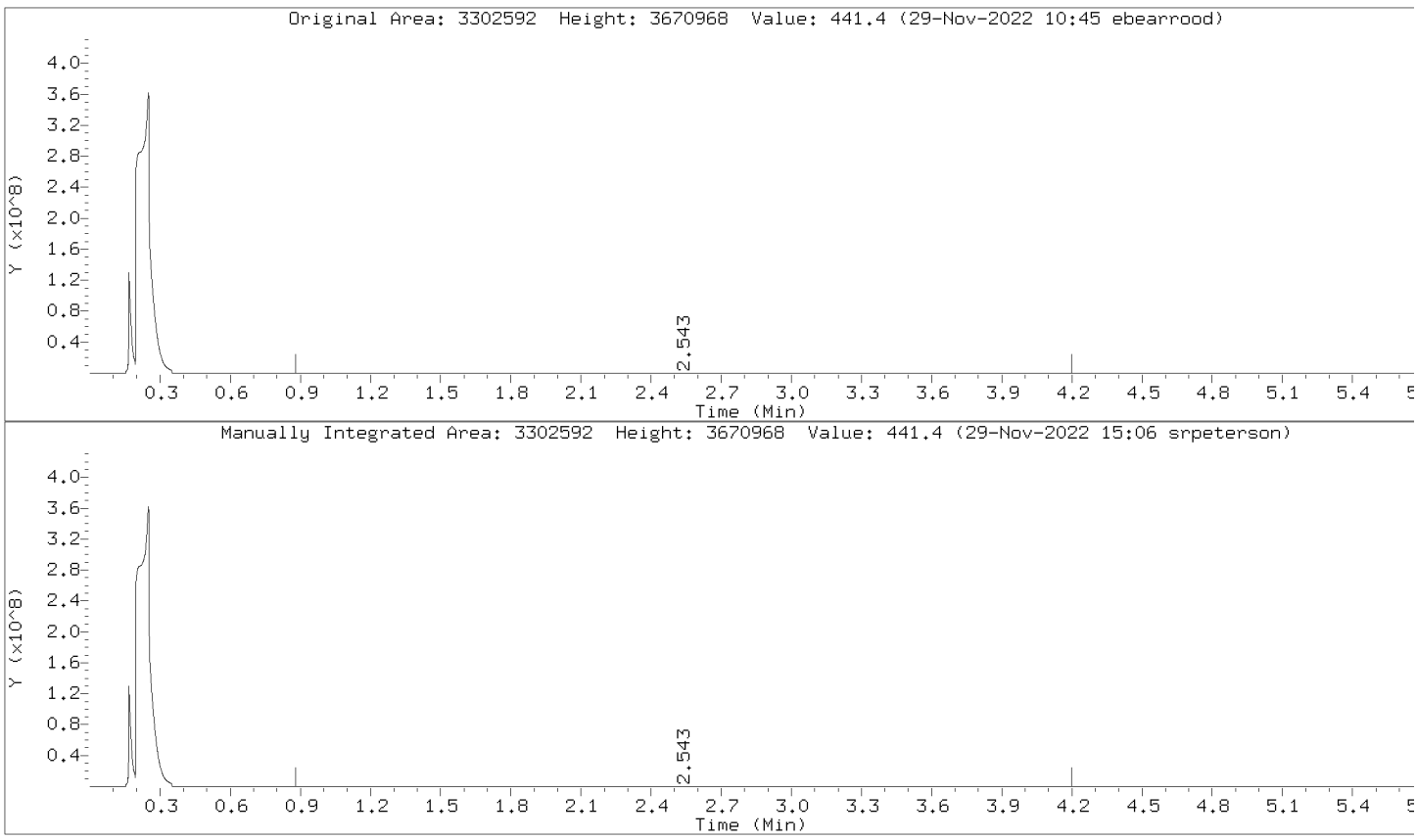
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



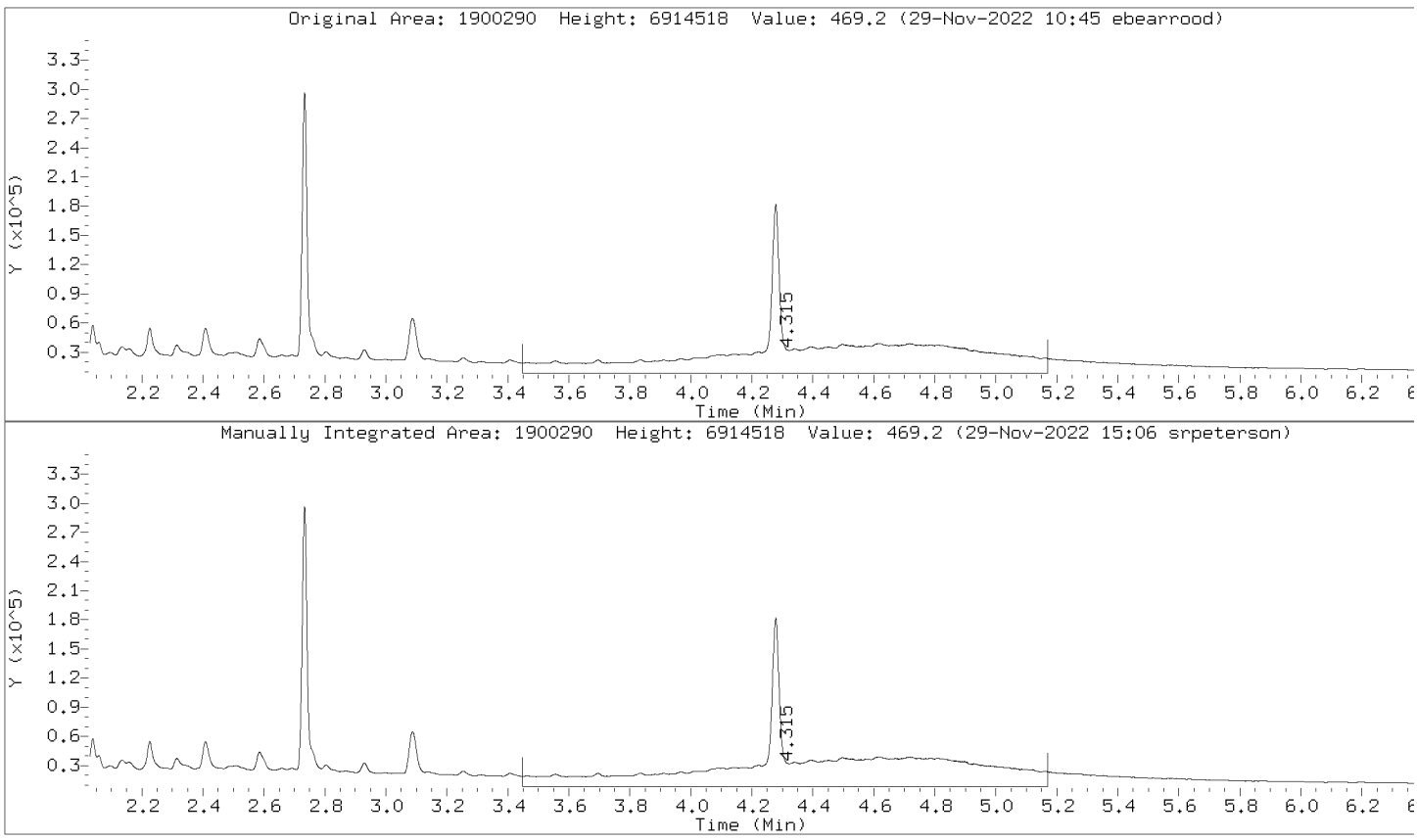
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



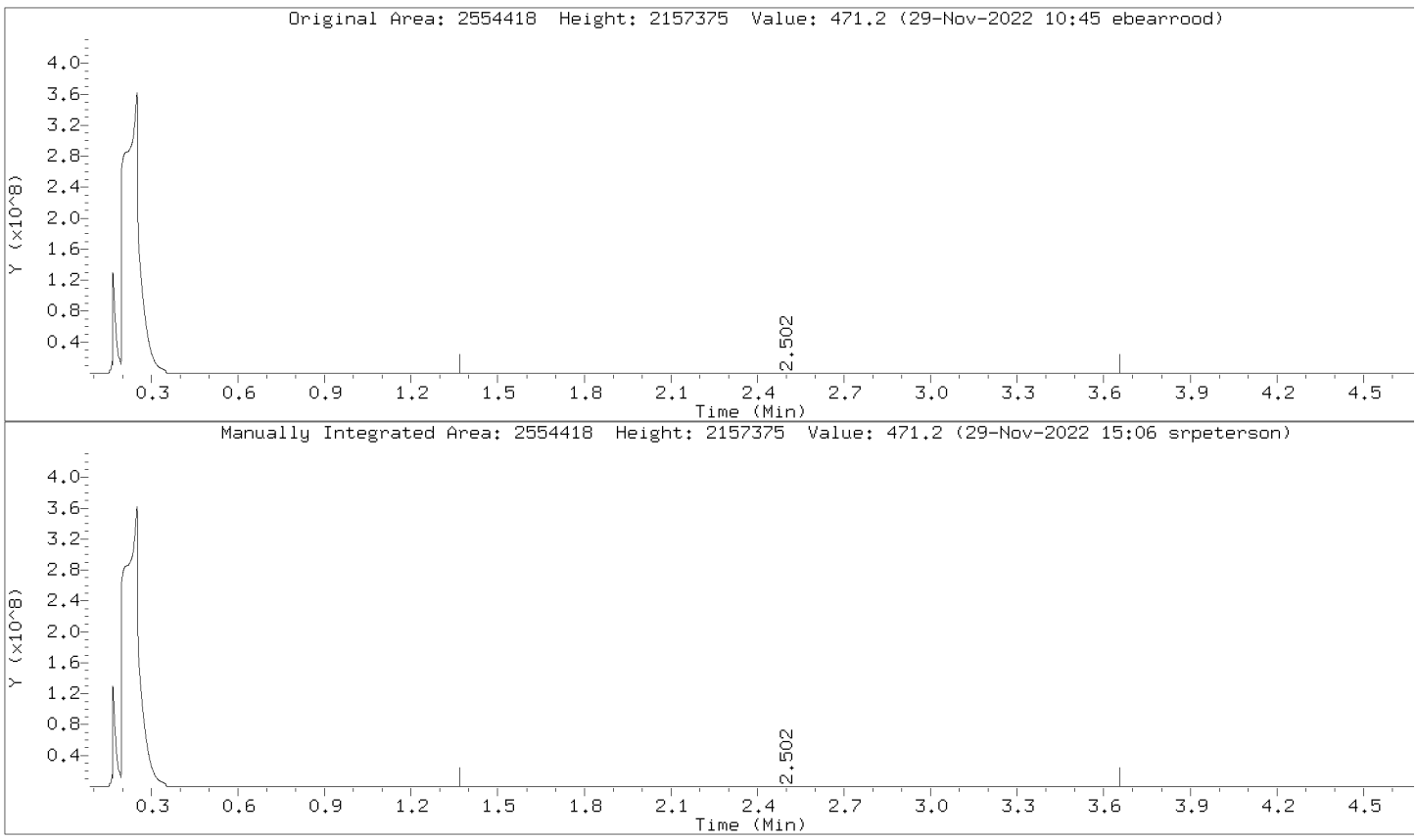
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



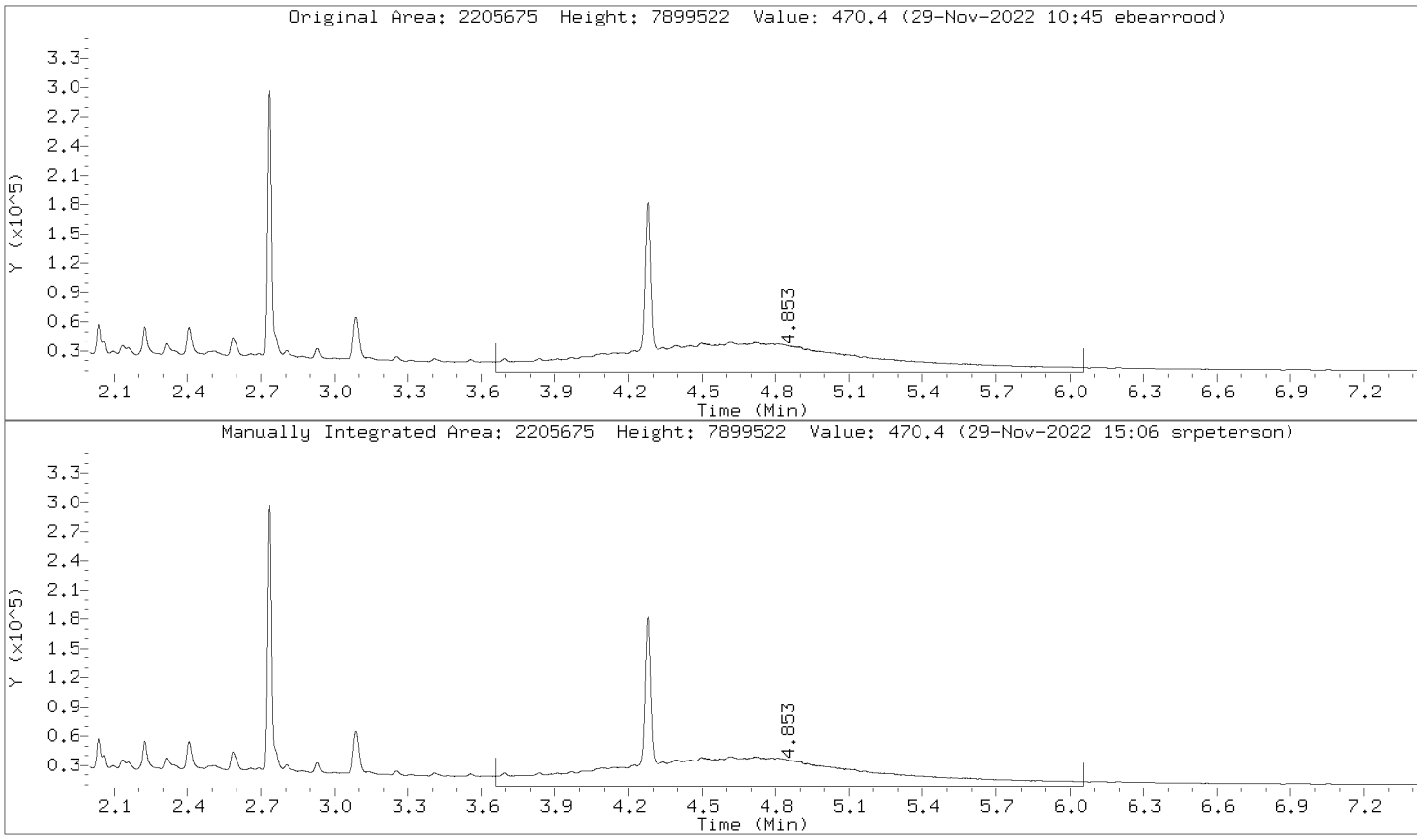
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



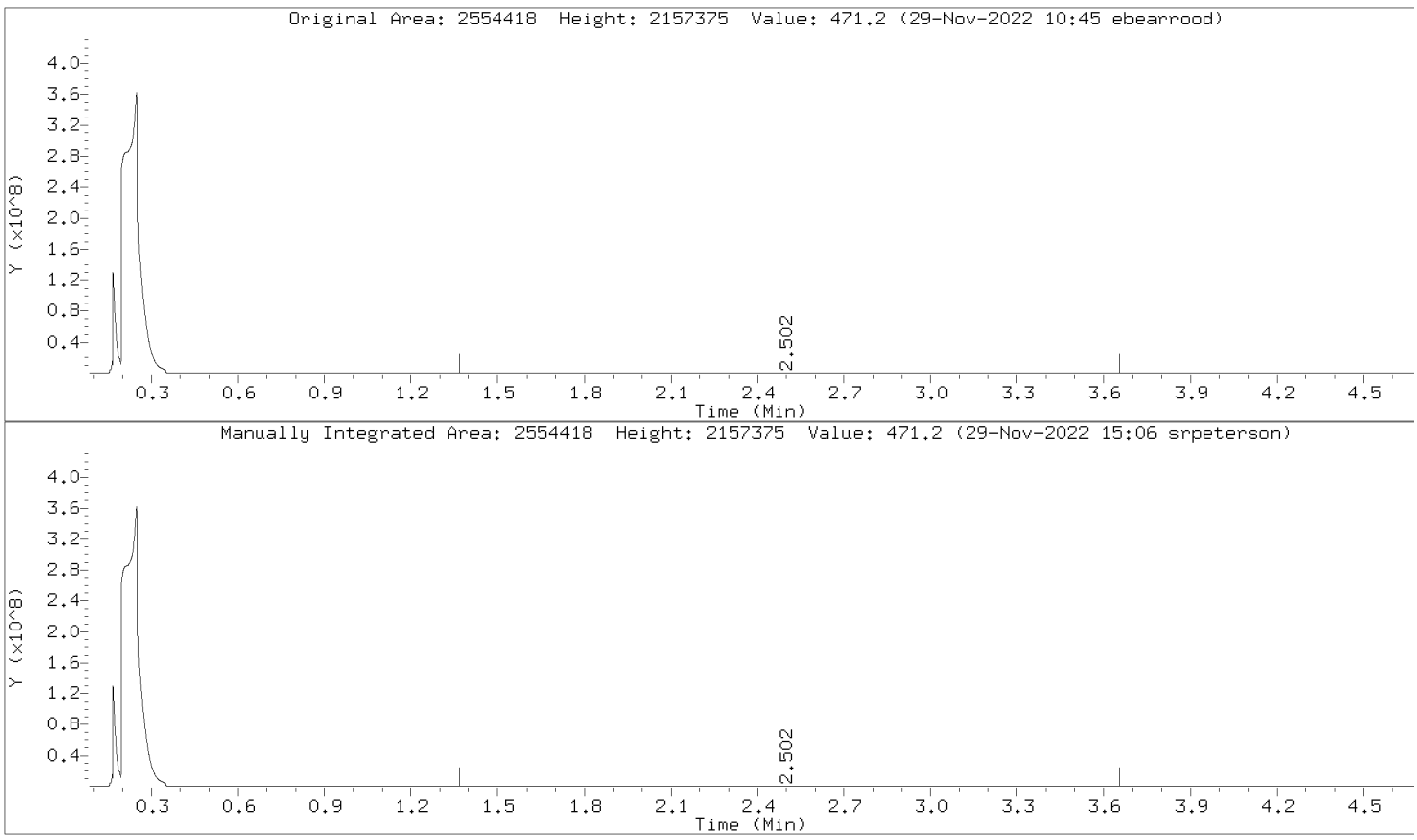
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Motor Oil Range Review Code: RNG
CAS Number:



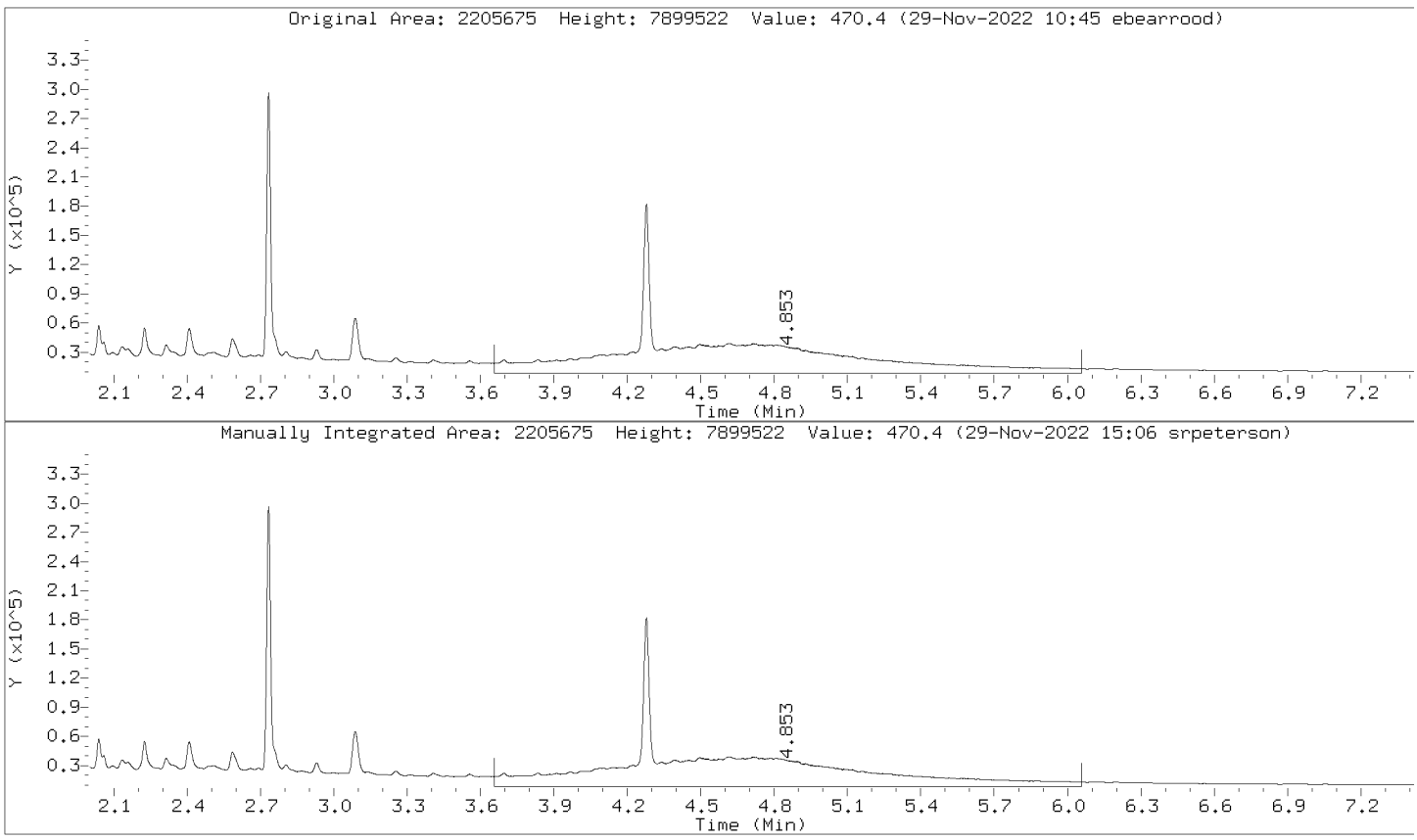
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



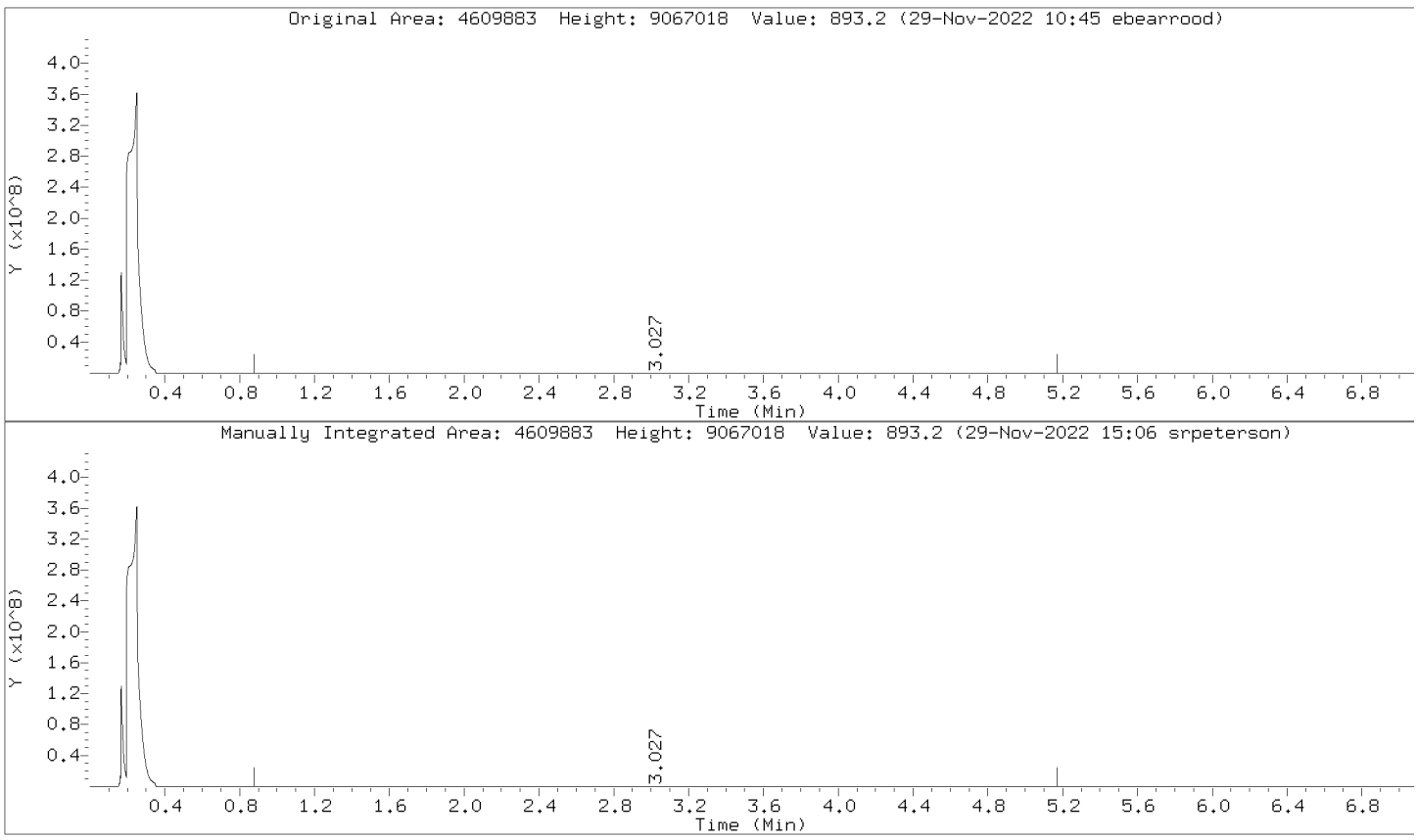
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



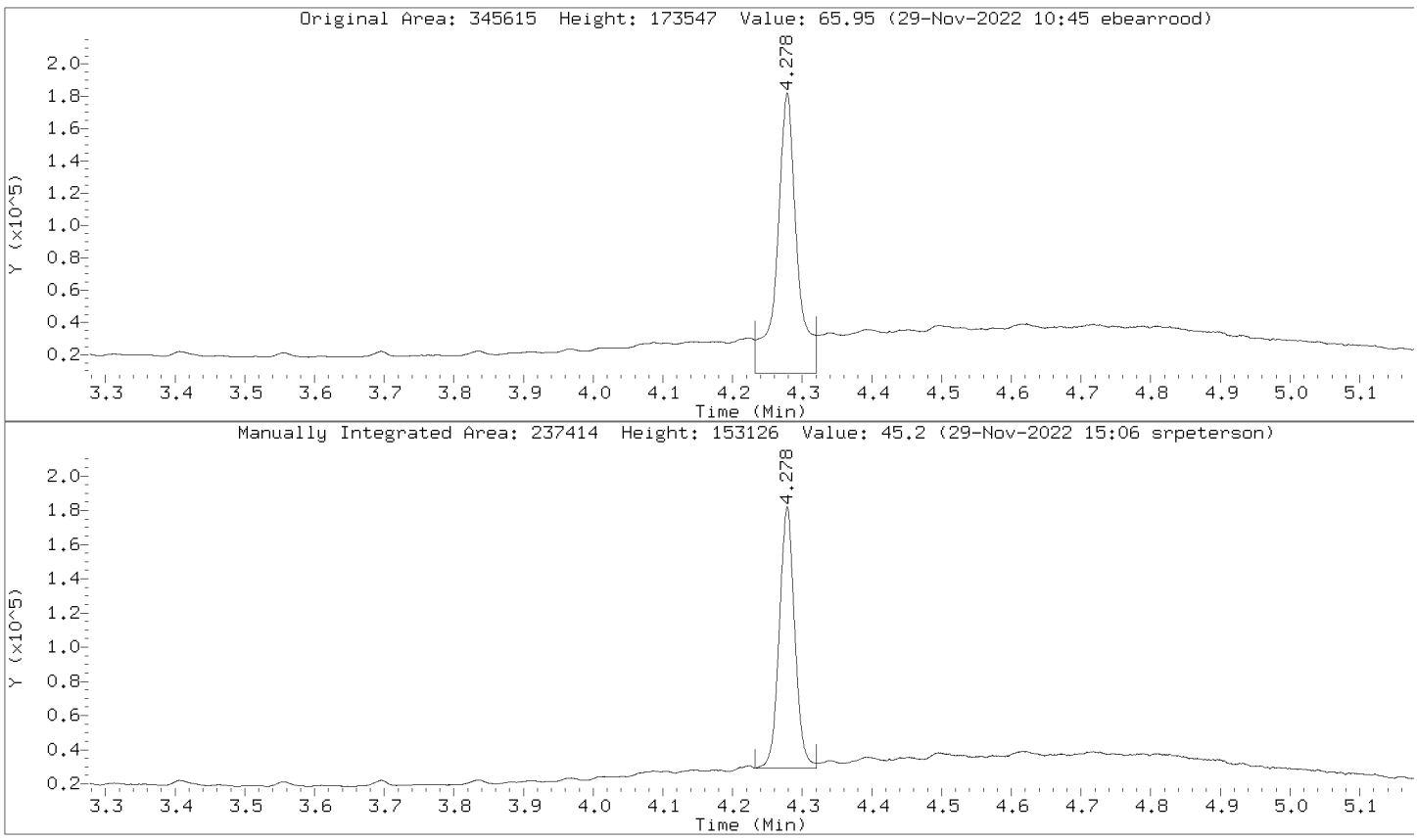
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: C10-C36 Review Code: RNG
CAS Number:



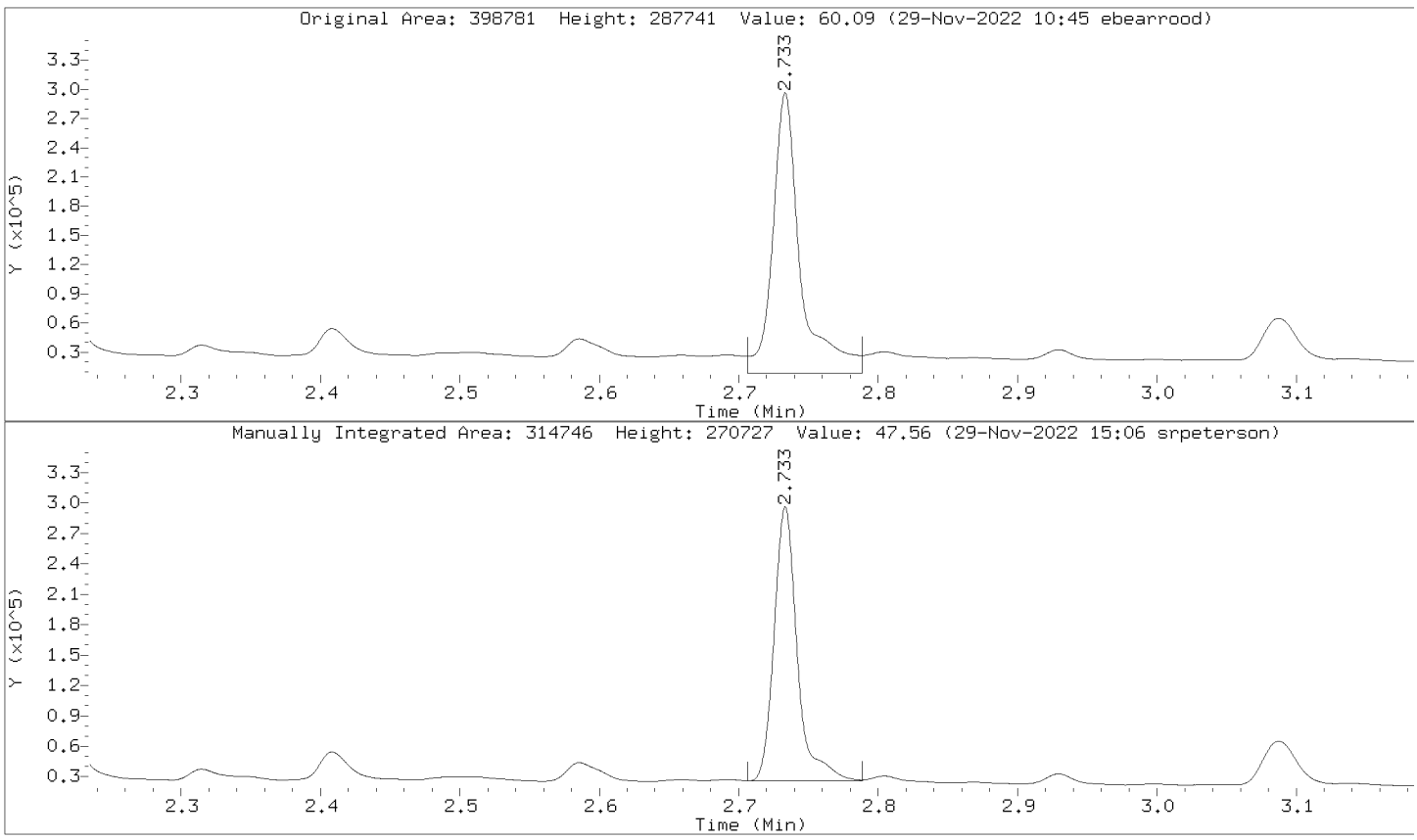
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000051.d
Injection Date: 28-NOV-2022 21:13
Instrument: 10gcsF.i
Lab Sample ID: 4519771

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1800640	1800640
DRO by AK 102	2809243	2809243
TPH-DRO (C10-C28)	3302592	3302592
Motor Oil Range (C24-C36)	1900290	1900290
Diesel Fuel Range	2554418	2554418
Motor Oil Range	2205675	2205675
Diesel Fuel Range SG	2554418	2554418
Motor Oil Range SG	2205675	2205675
C10-C36	4609883	4609883
n-Triacontane (S)	345615	237414
o-Terphenyl (S)	398781	314746

SAMPLE NO.

MS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/11/2022 08:50
Matrix: Solid
SDG No.: 10633565
Date Extracted: 11/22/2022 15:47
Lab Sample ID: 4519772
Date Analyzed: 11/28/2022 22:10
Lab File ID: 112822R.B\1128R0000056.D
Initial wt/vol: 10.05 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture: 21.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	61.4	
	Motor Oil Range	117	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000056.d
Lab Smp Id: 4519772 Client Smp ID: BNSF-K200-SC-0.0-0.
Inj Date : 28-NOV-2022 22:10
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4519772
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 44 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.050	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	21.941	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885	- 3.605		2717671	418.133	53.3	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.733	2.734	-0.001	238525	36.1991	4.61	(RM)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.275	4.278	-0.003	212773	40.4762	5.16	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.606	- 5.170		3342838	897.090	114	(RM)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885	- 4.200		3724218	505.543	64.4	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.460	- 5.170		3515213	897.456	114	(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE		
S 7 C10-C36					CAS #:			
0.885	- 5.170		6060509	1205.85	154		(M)	RNG
S 8 Diesel Fuel Range					CAS #:			
1.350	- 3.655		2605274	481.847	61.4		(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:			
1.350	- 3.655		2605274	481.847	61.4		(M)	RNG
S 10 Motor Oil Range					CAS #:			
3.656	- 6.050		4152493	914.091	116		(RM)	RNG
S 11 Motor Oil Range SG					CAS #:			
3.656	- 6.050		4152493	914.091	116		(RM)	RNG

QC Flag Legend

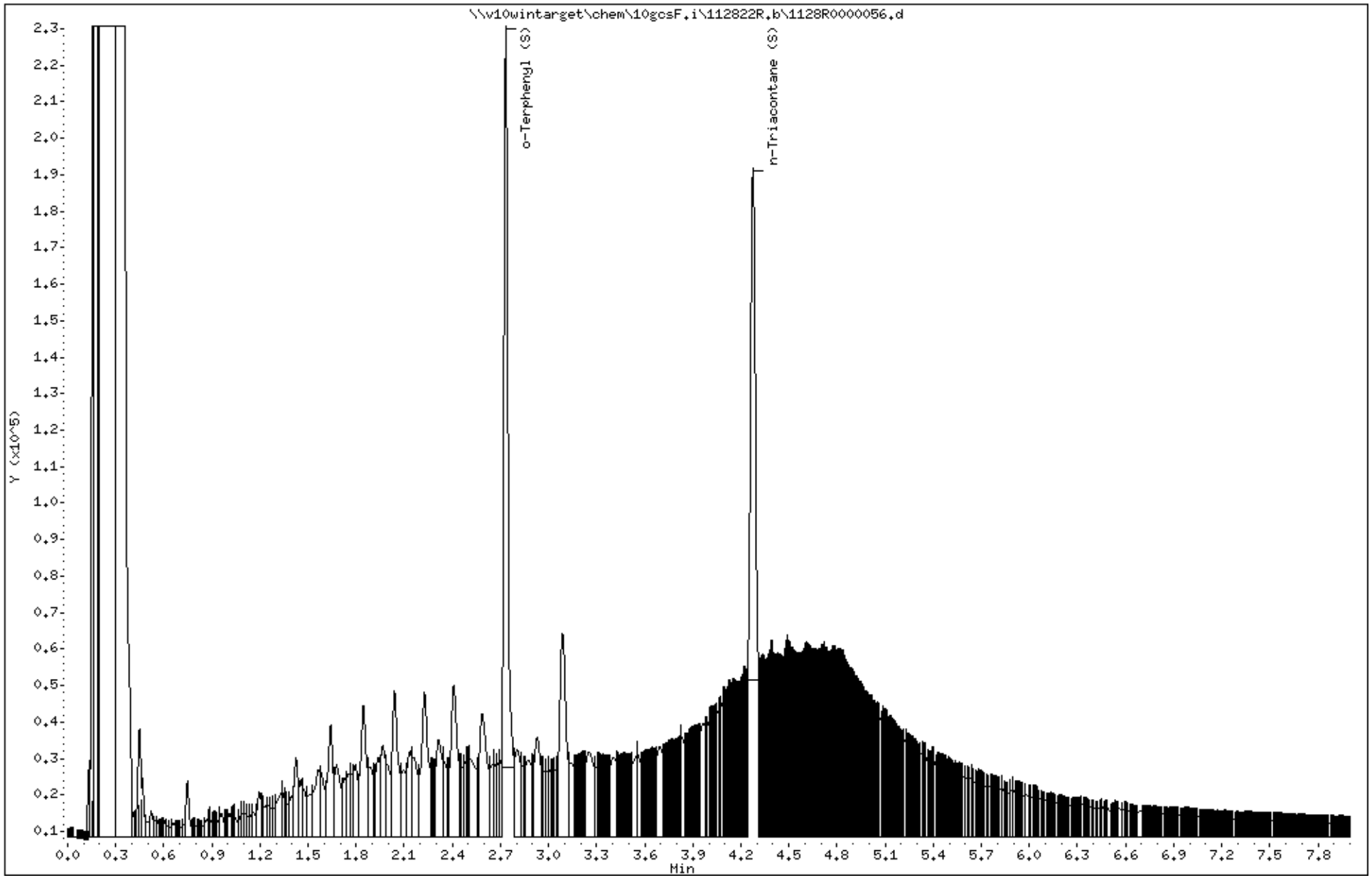
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000056.d
Date : 28-NOV-2022 22:10
Client ID: BNSF-K200-SC-0.0-0.
Sample Info: 4519772
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



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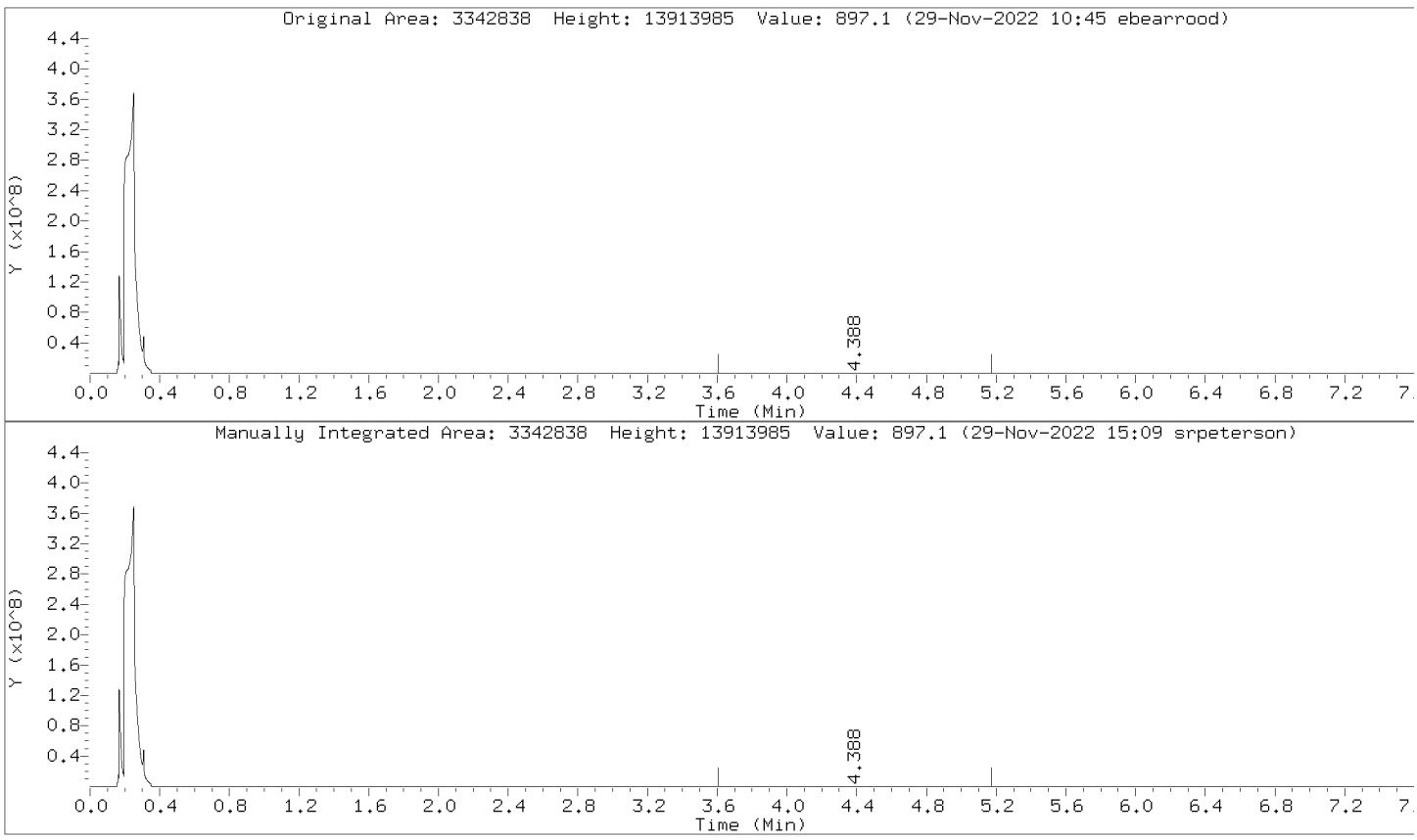
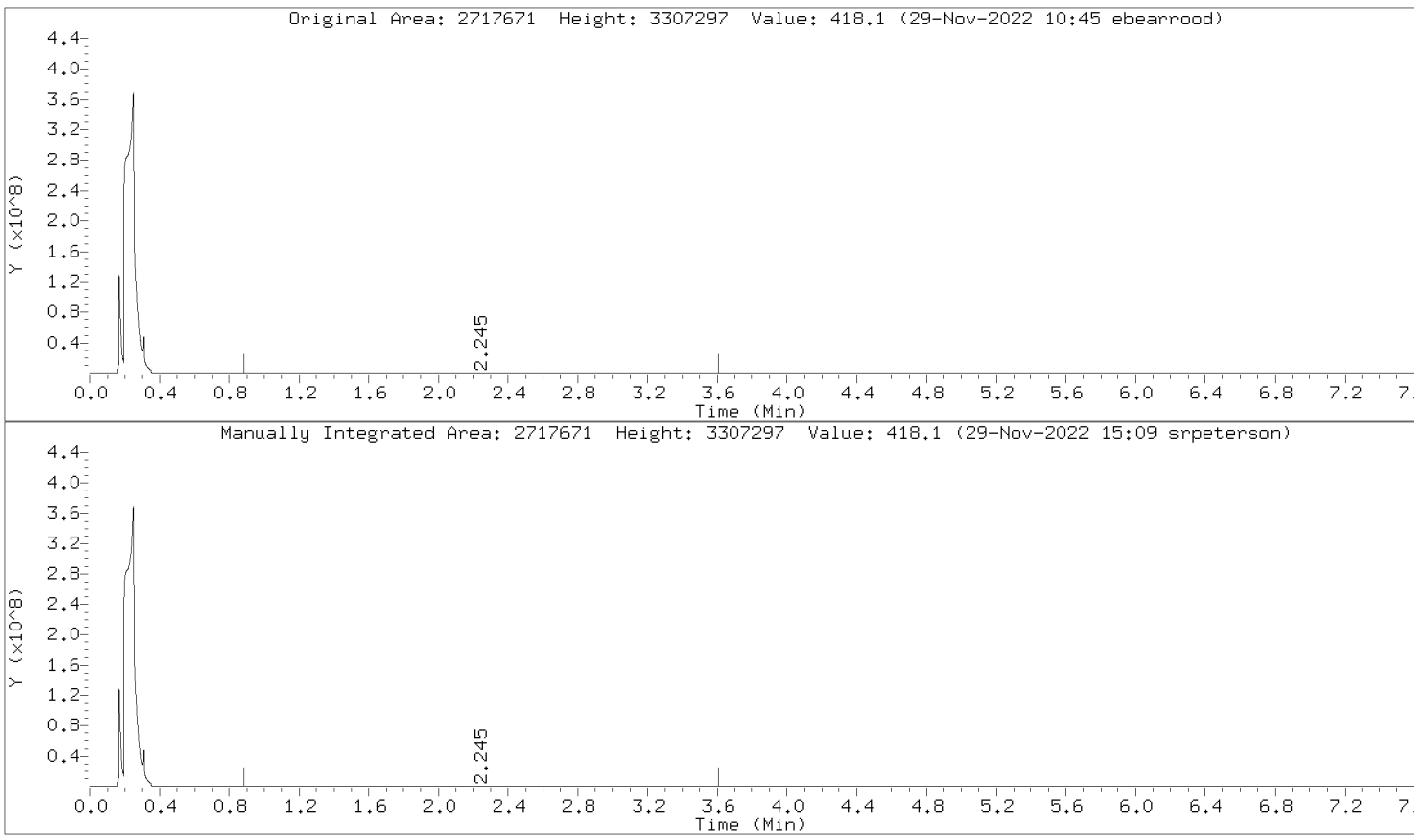
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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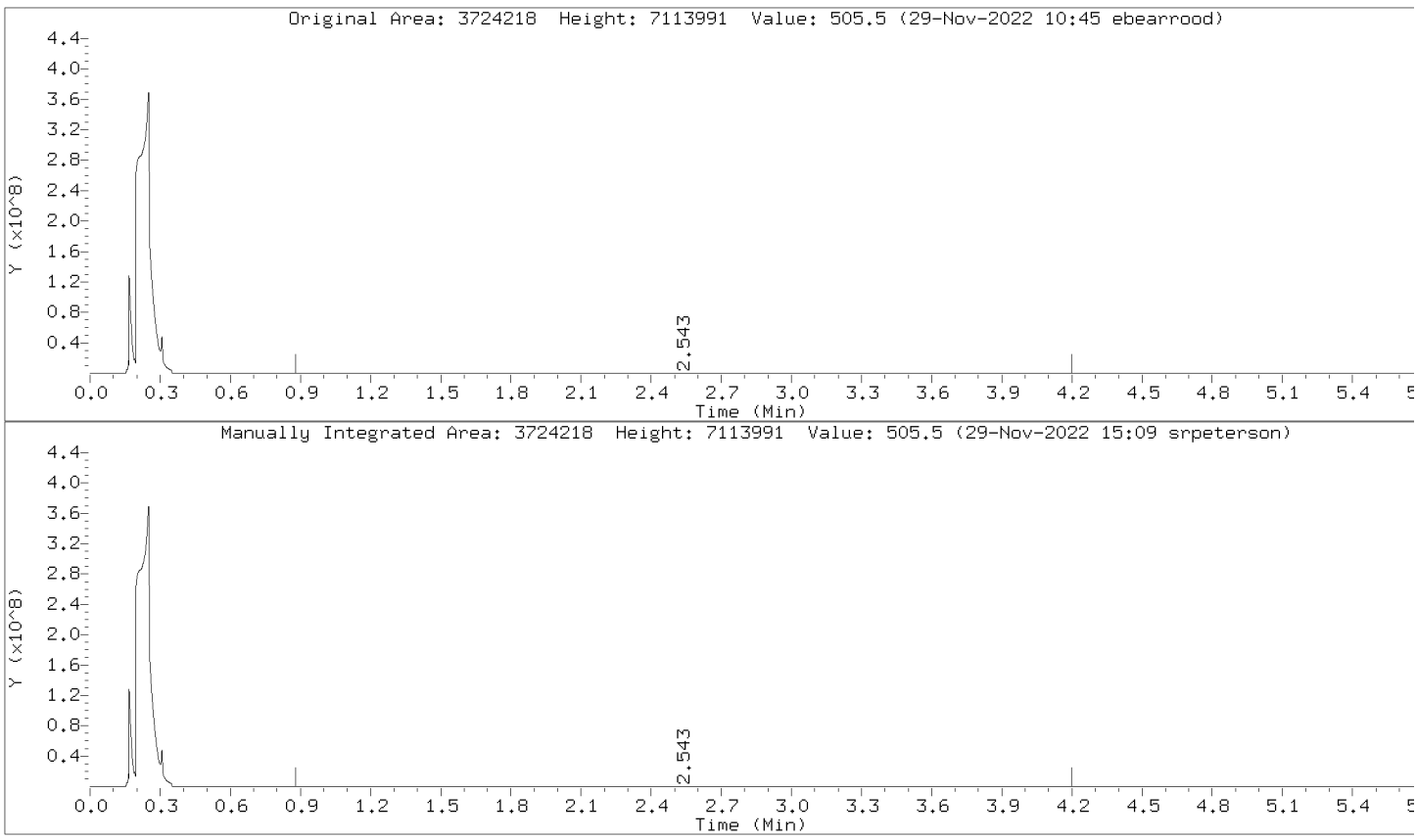
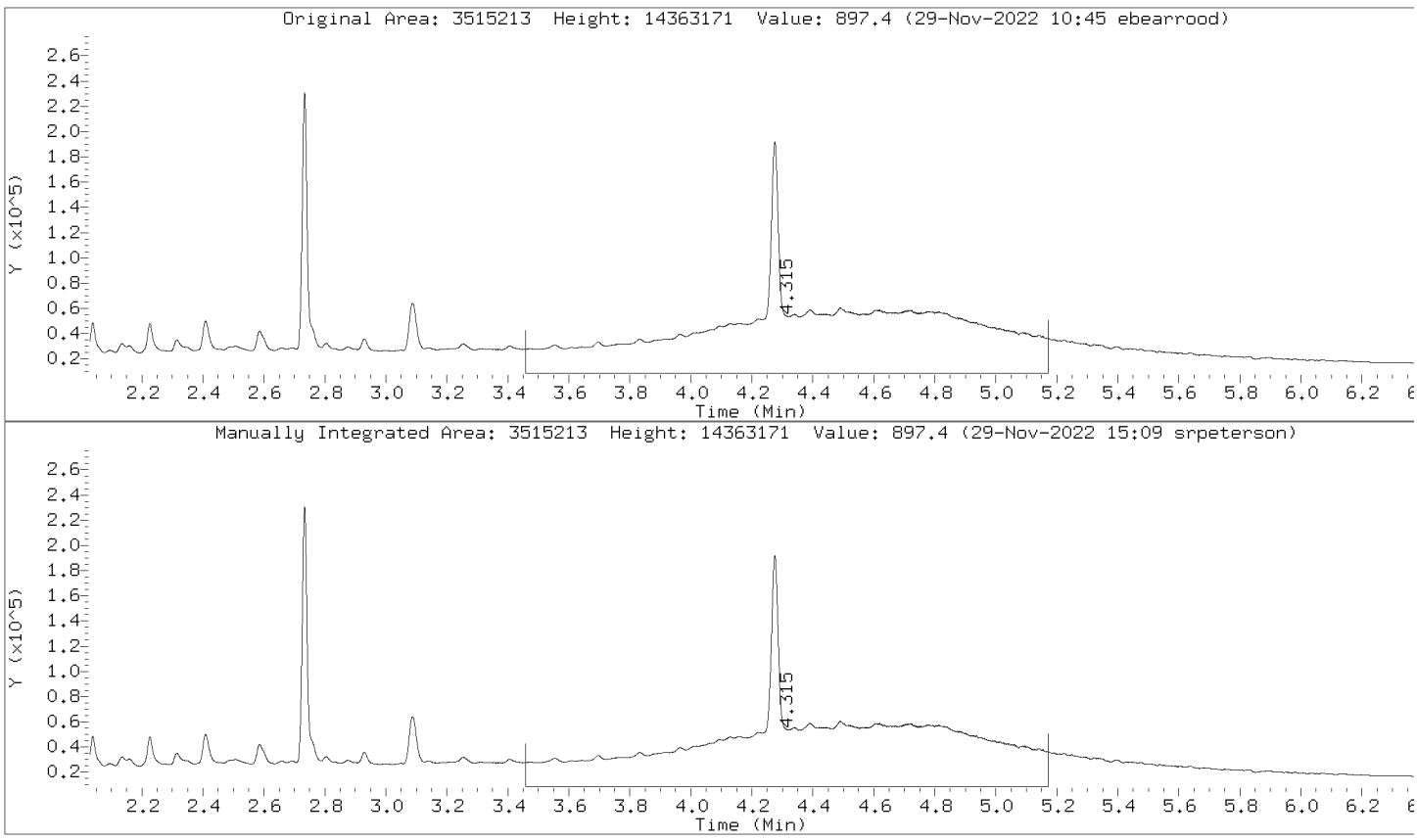
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



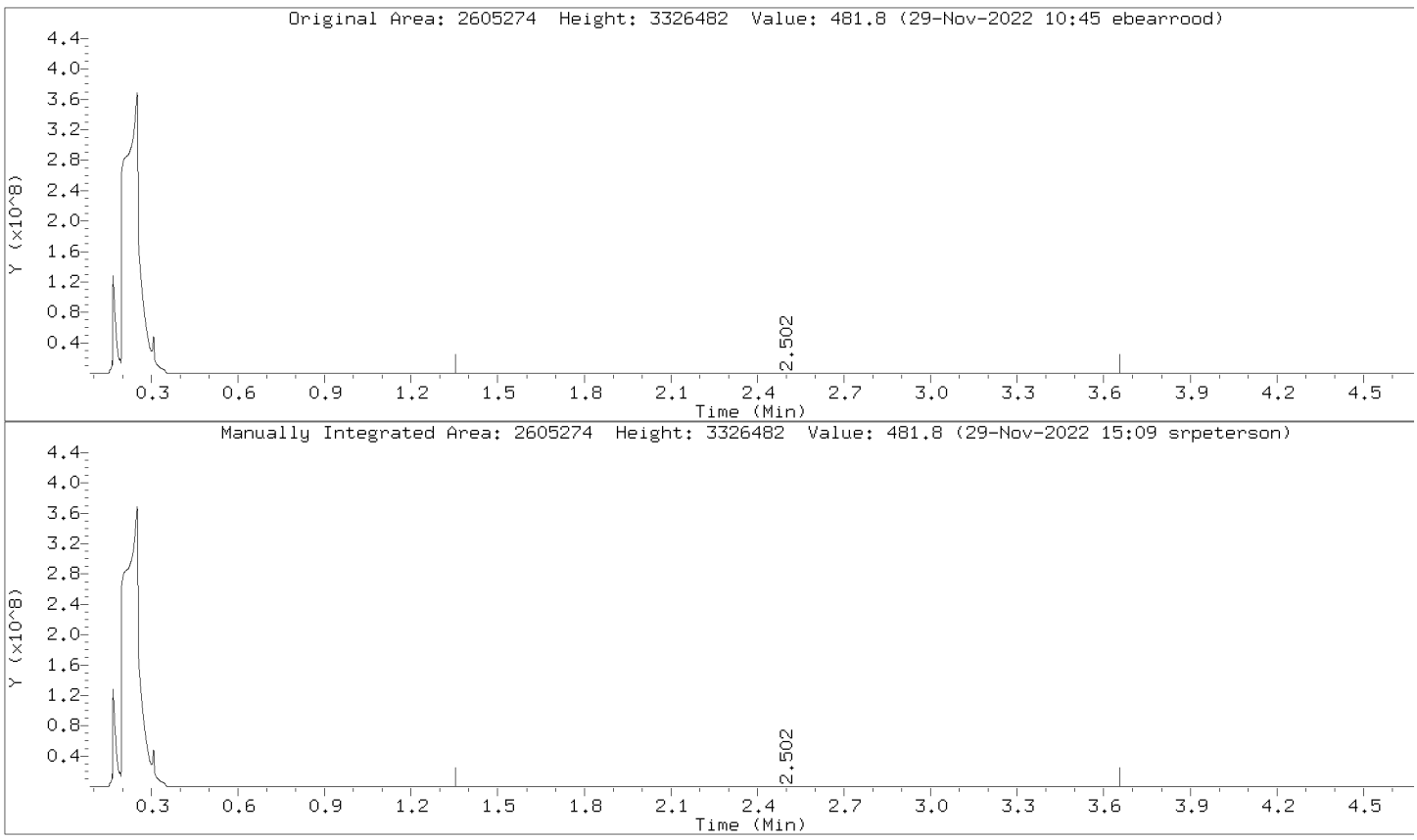
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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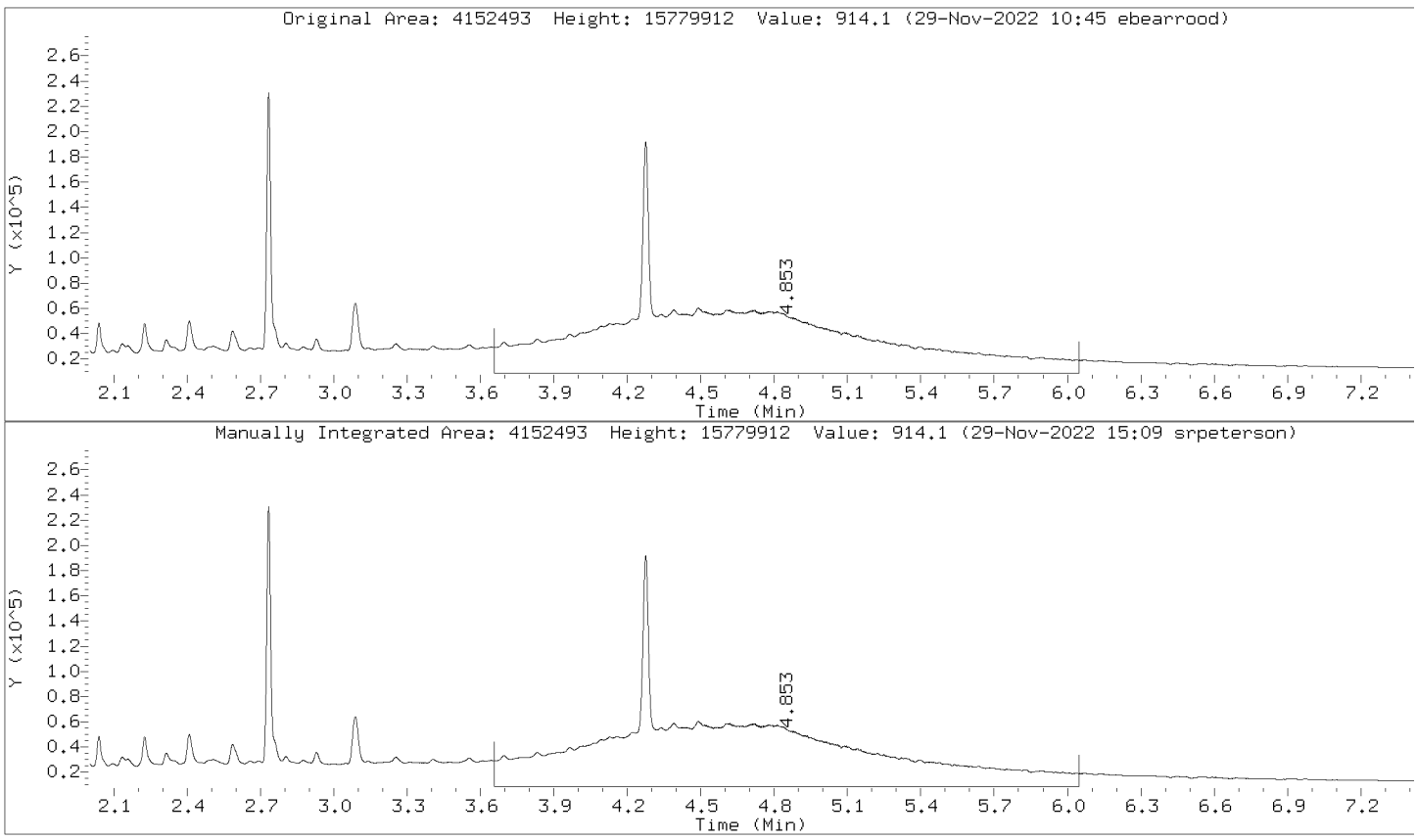
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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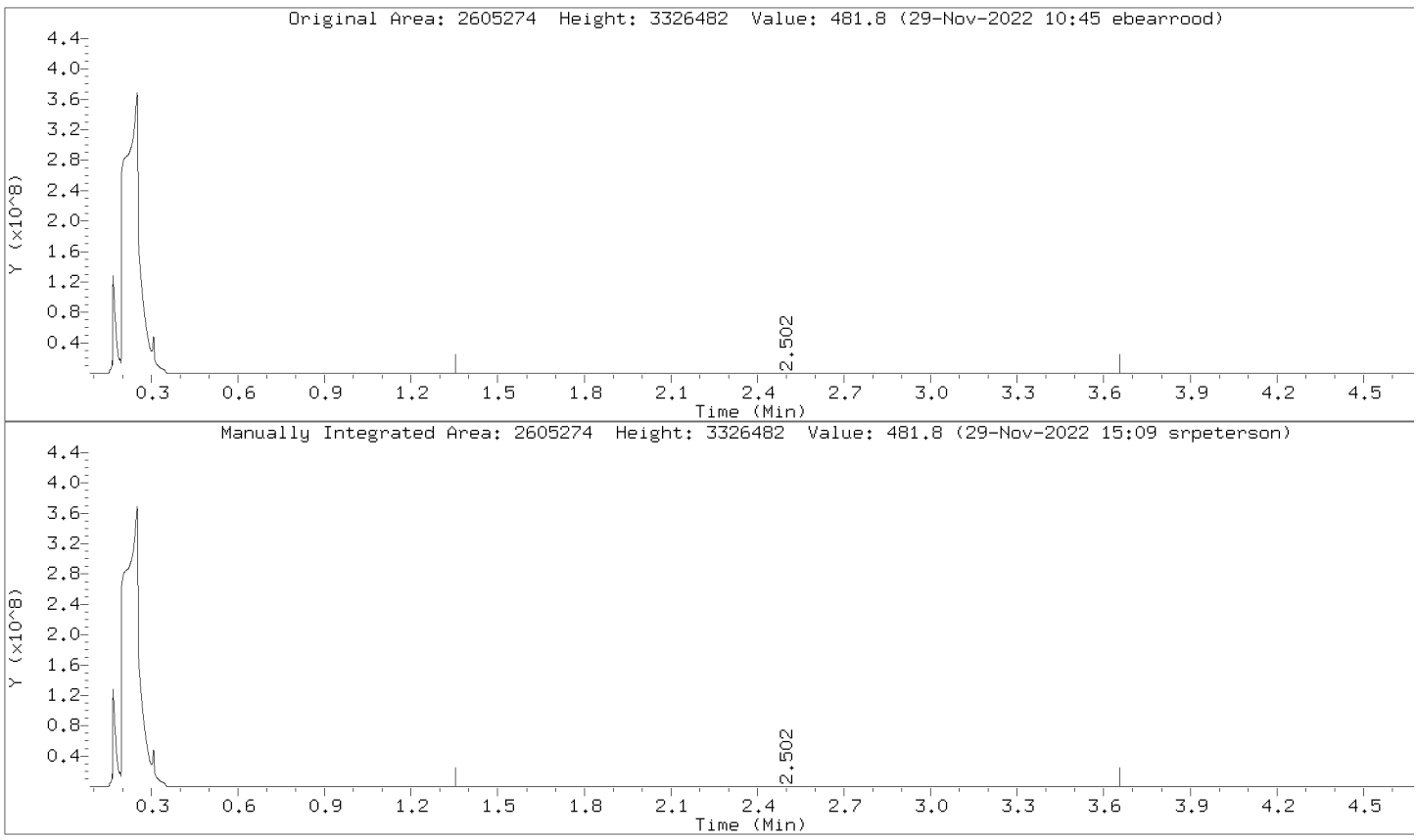
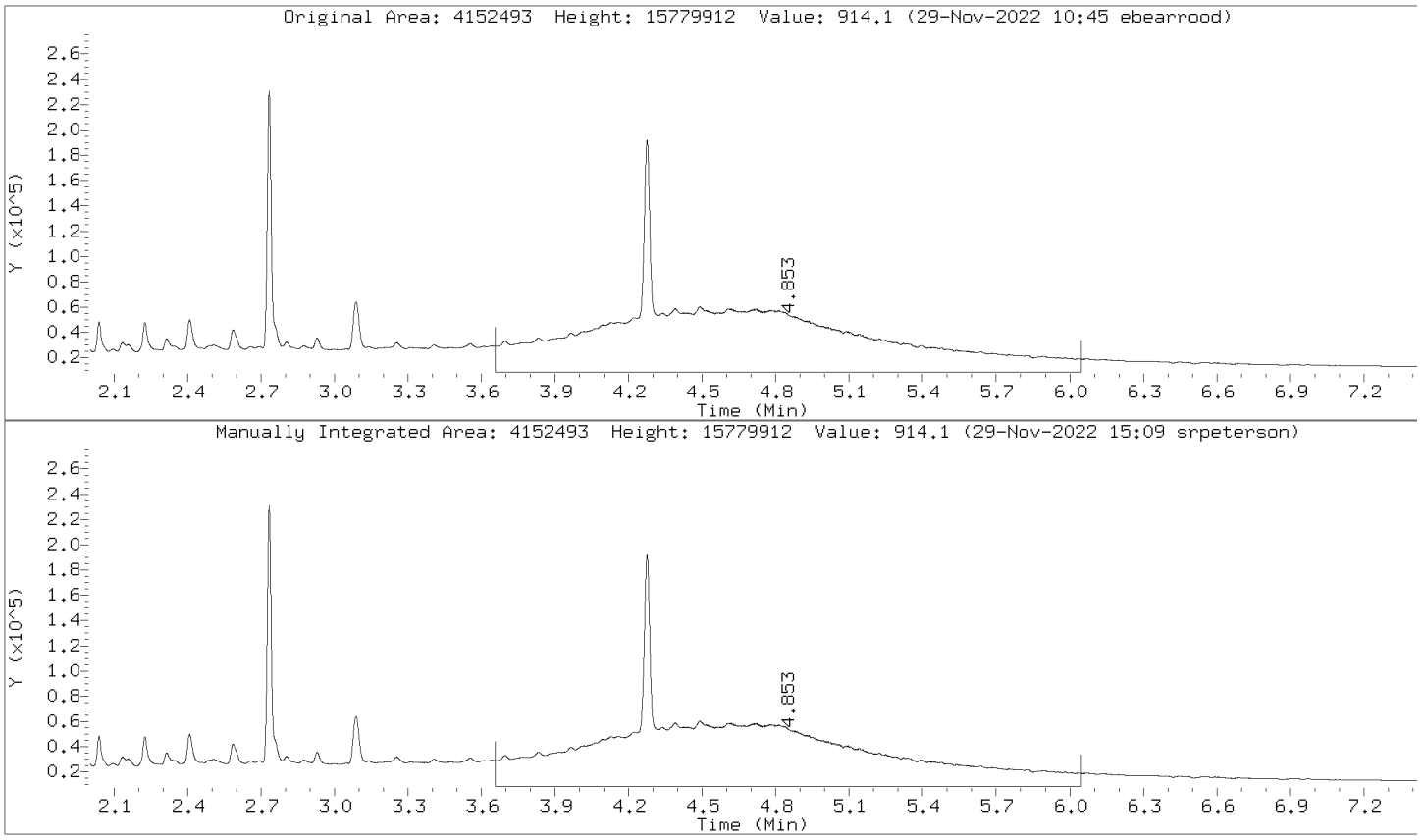
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



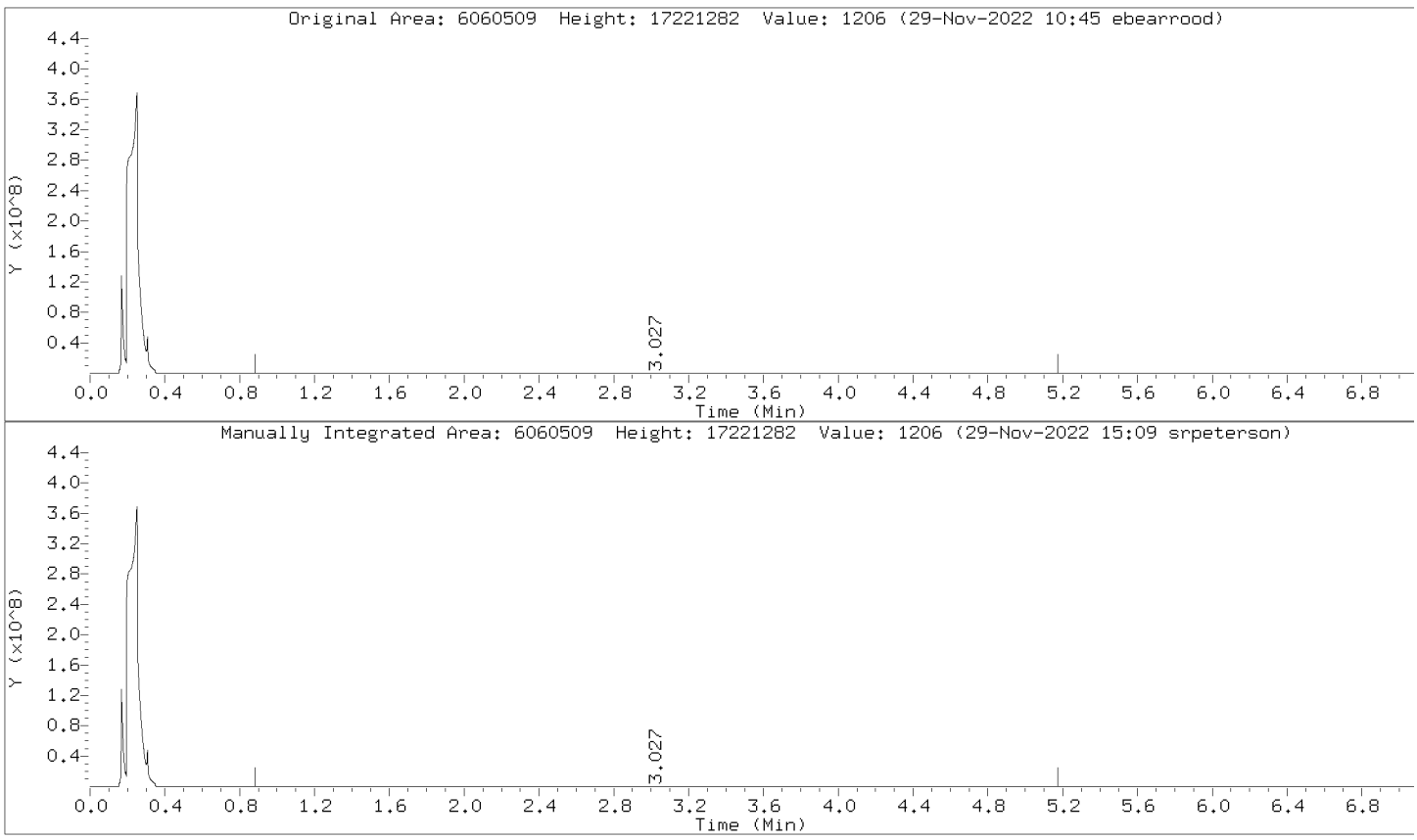
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: C10-C36 Review Code: RNG
CAS Number:



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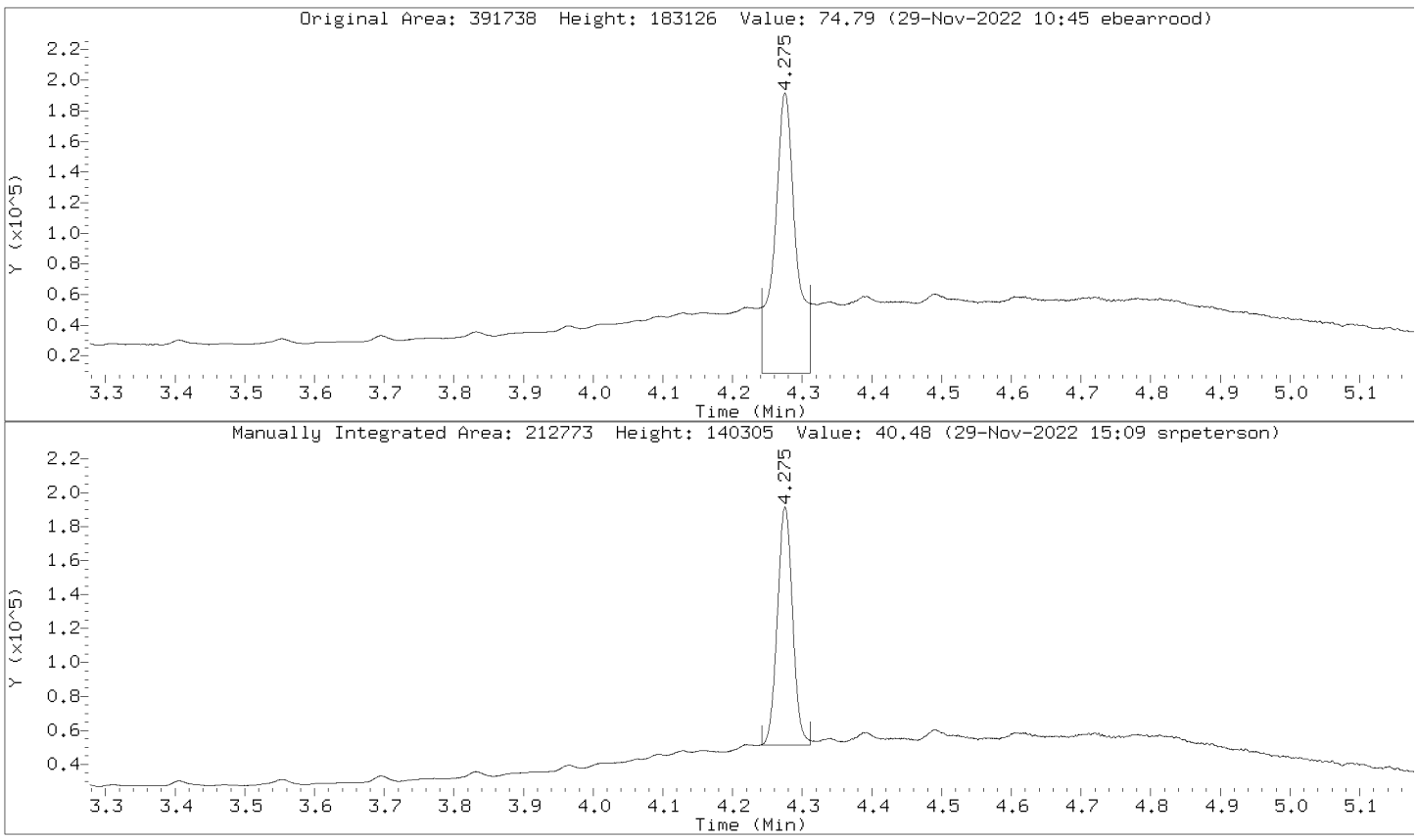
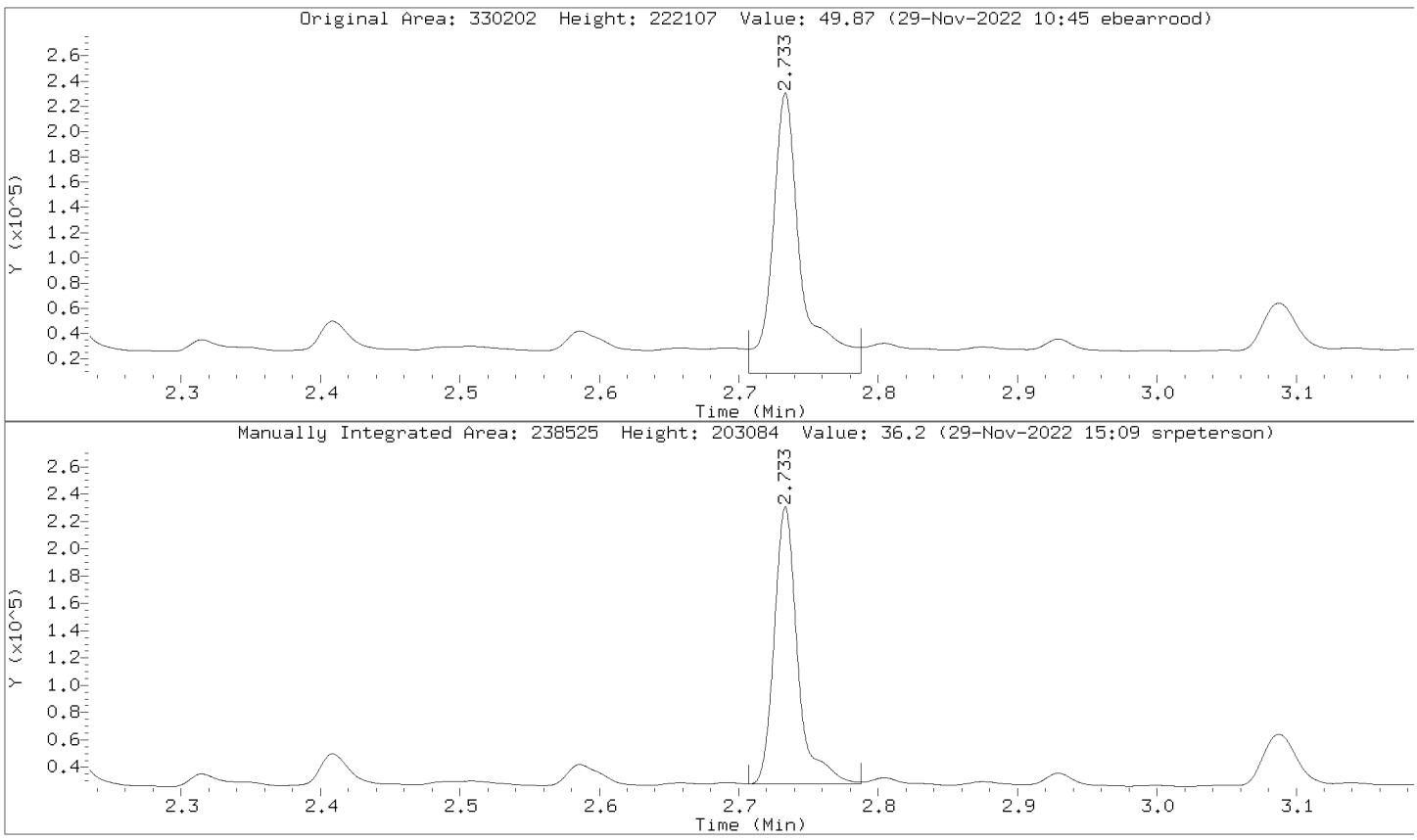
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000056.d
Injection Date: 28-NOV-2022 22:10
Instrument: 10gcsF.i
Lab Sample ID: 4519772

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3342838	3342838
DRO by AK 102	2717671	2717671
TPH-DRO (C10-C28)	3724218	3724218
Motor Oil Range (C24-C36)	3515213	3515213
Diesel Fuel Range	2605274	2605274
Motor Oil Range	4152493	4152493
Diesel Fuel Range SG	2605274	2605274
Motor Oil Range SG	4152493	4152493
C10-C36	6060509	6060509
n-Triacontane (S)	391738	212773
o-Terphenyl (S)	330202	238525

SAMPLE NO.

MSD

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/11/2022 08:50
Matrix: Solid
SDG No.: 10633565
Date Extracted: 11/22/2022 15:47
Lab Sample ID: 4519773
Date Analyzed: 11/28/2022 22:21
Lab File ID: 112822R.B\1128R0000057.D
Initial wt/vol: 10.11 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture: 21.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	56.6	
	Motor Oil Range	99.2	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000057.d
Lab Smp Id: 4519773 Client Smp ID: BNSF-K200-SC-0.0-0.
Inj Date : 28-NOV-2022 22:21
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4519773
Misc Info : 41118
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\112822R.b\GCSFakNW8015-111022_4098
Meth Date : 29-Nov-2022 10:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 45 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.110	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	21.941	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885	- 3.605		2521267	383.430	48.6	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.733	2.734	-0.001	224198	34.0631	4.32	(RM)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.278	4.278	0.000	214356	40.7797	5.17	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.606	- 5.170		2865693	764.474	96.9	(RM)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885	- 4.200		3375175	452.460	57.3	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.460	- 5.170		2996133	759.802	96.3	(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE		
S 7 C10-C36					CAS #:			
0.885	- 5.170		5386960	1060.69	134		(M)	RNG
S 8 Diesel Fuel Range					CAS #:			
1.350	- 3.655		2438576	446.872	56.6		(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:			
1.350	- 3.655		2438576	446.872	56.6		(M)	RNG
S 10 Motor Oil Range					CAS #:			
3.656	- 6.050		3575998	782.719	99.2		(RM)	RNG
S 11 Motor Oil Range SG					CAS #:			
3.656	- 6.050		3575998	782.719	99.2		(RM)	RNG

QC Flag Legend

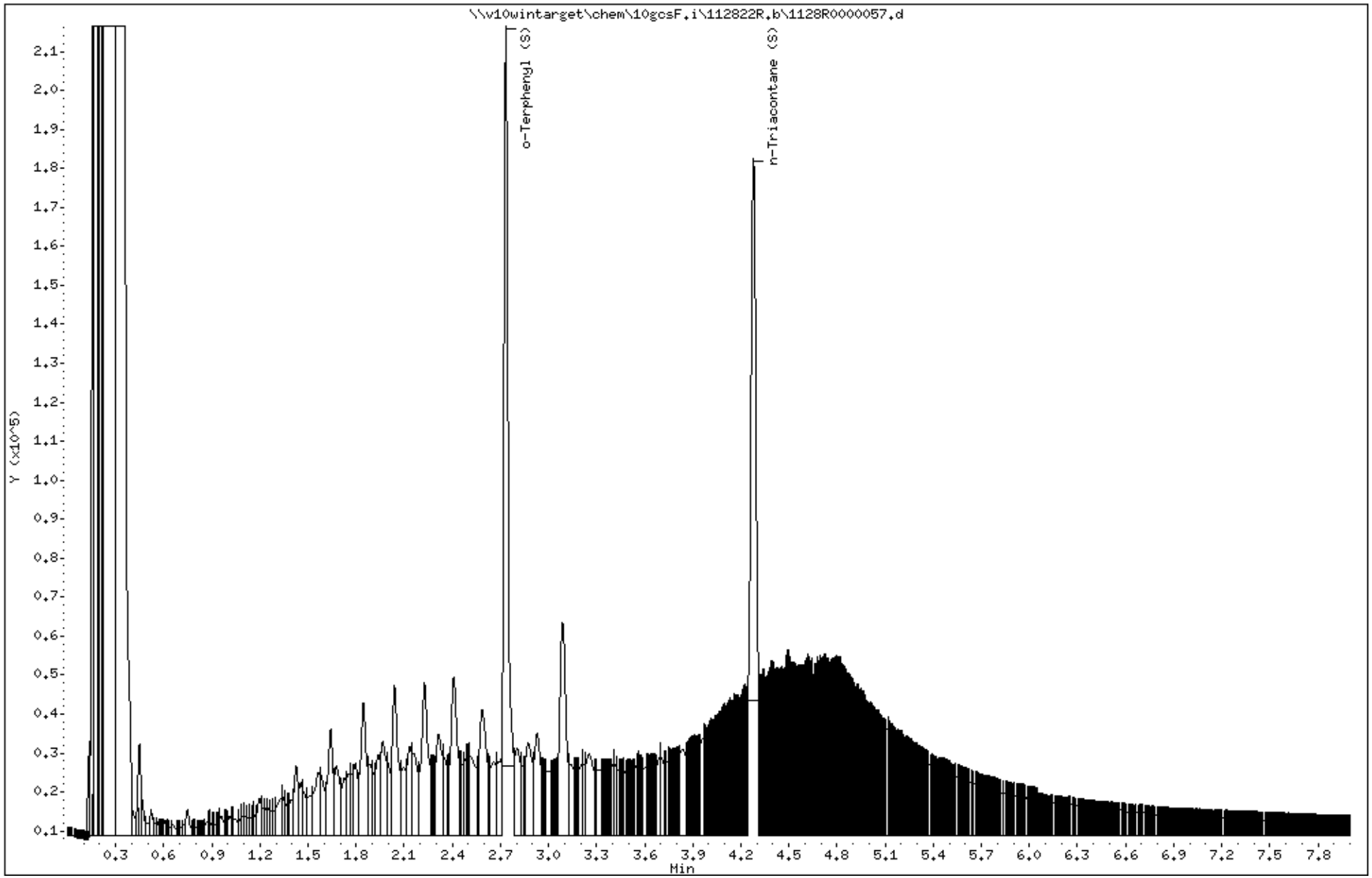
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

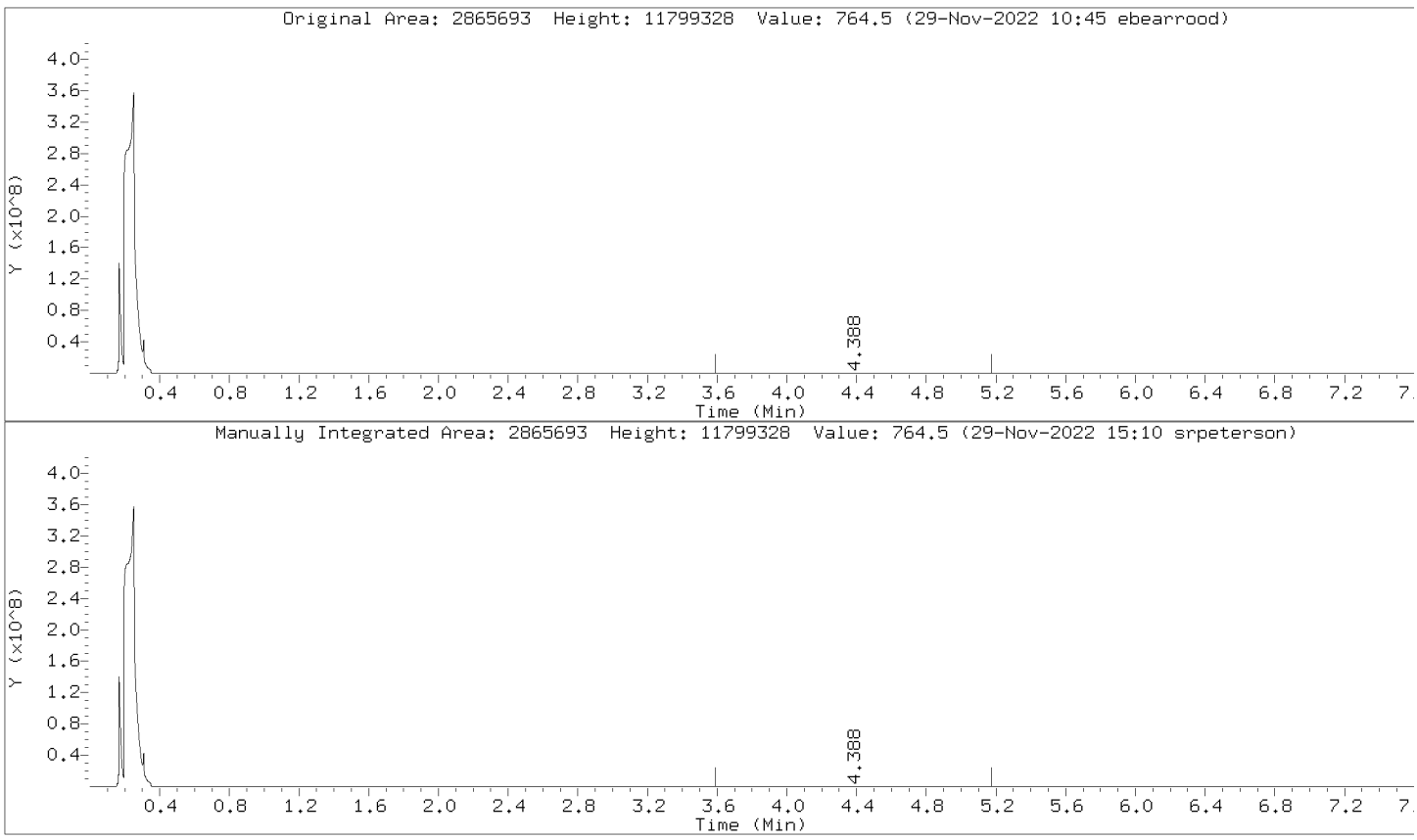
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b\1128R0000057.d
Date : 28-NOV-2022 22:21
Client ID: BNSF-K200-SC-0.0-0.
Sample Info: 4519773
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



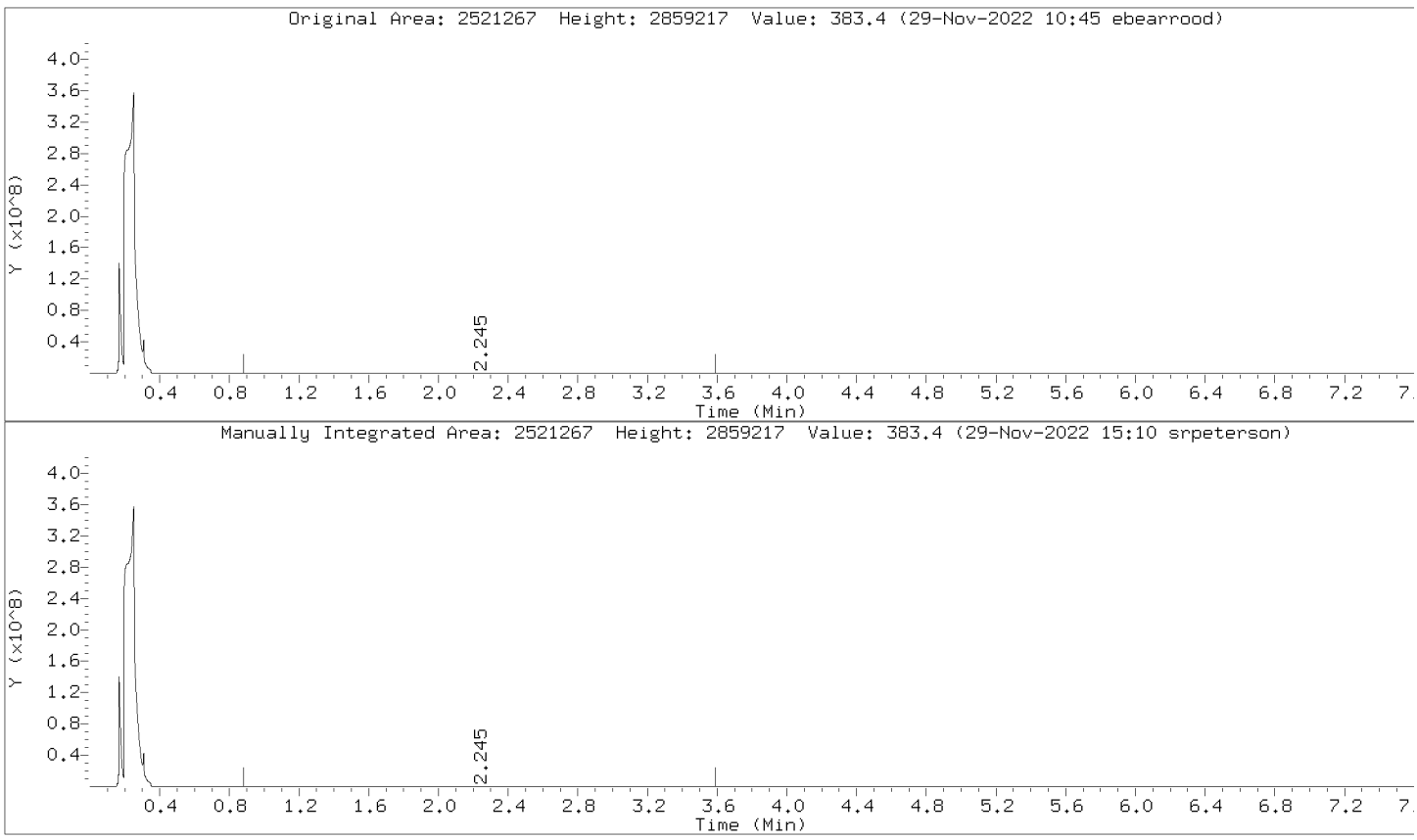
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



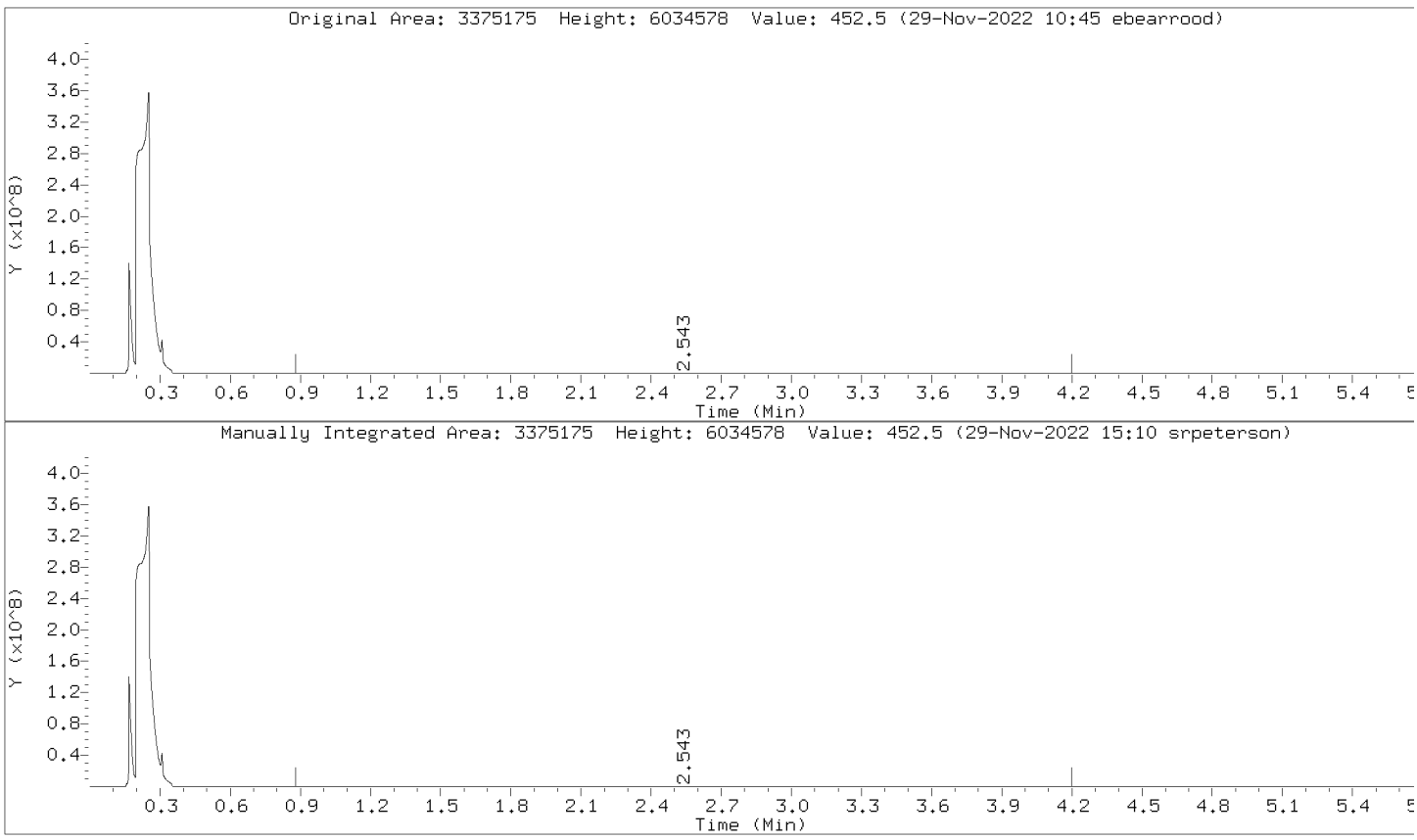
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



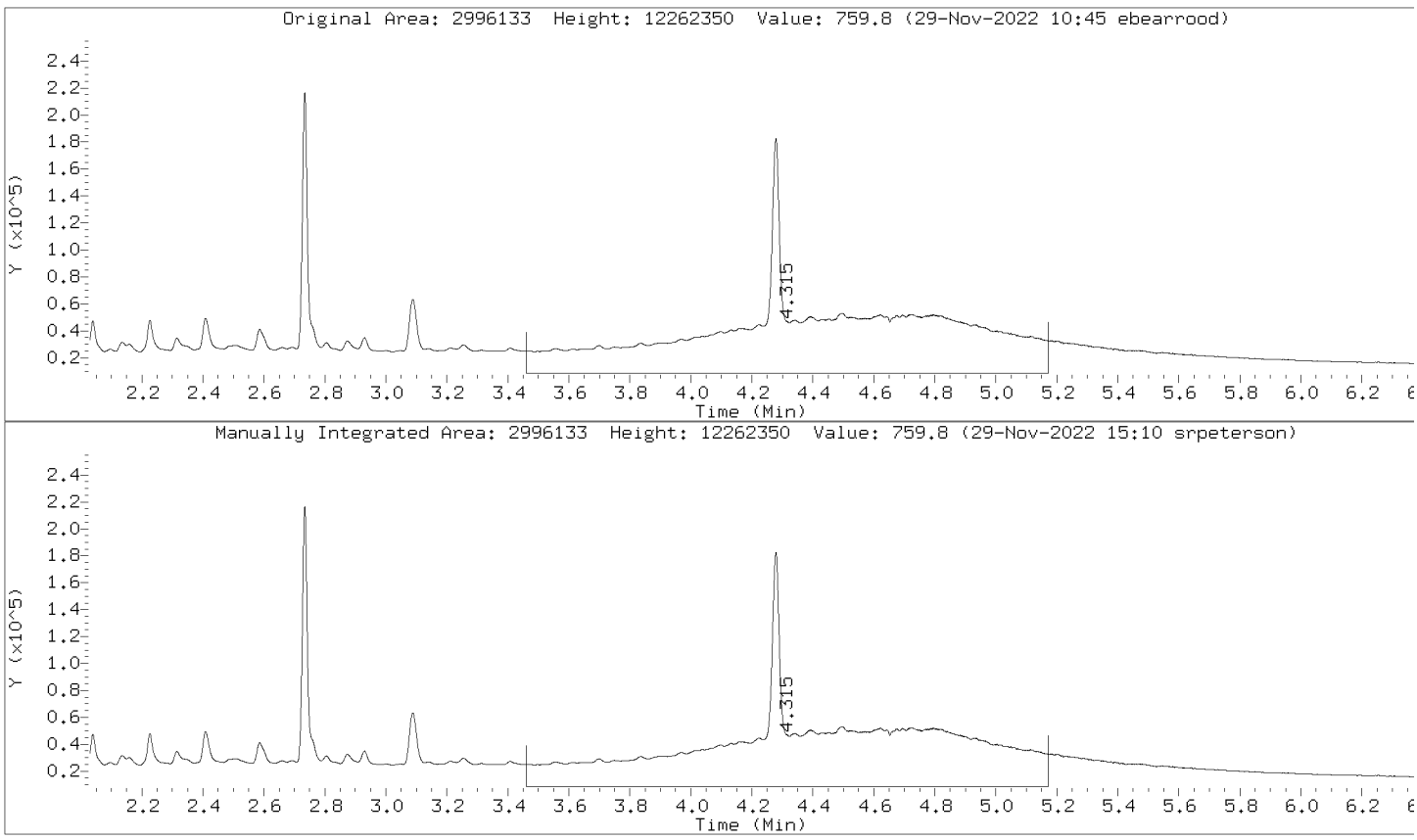
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



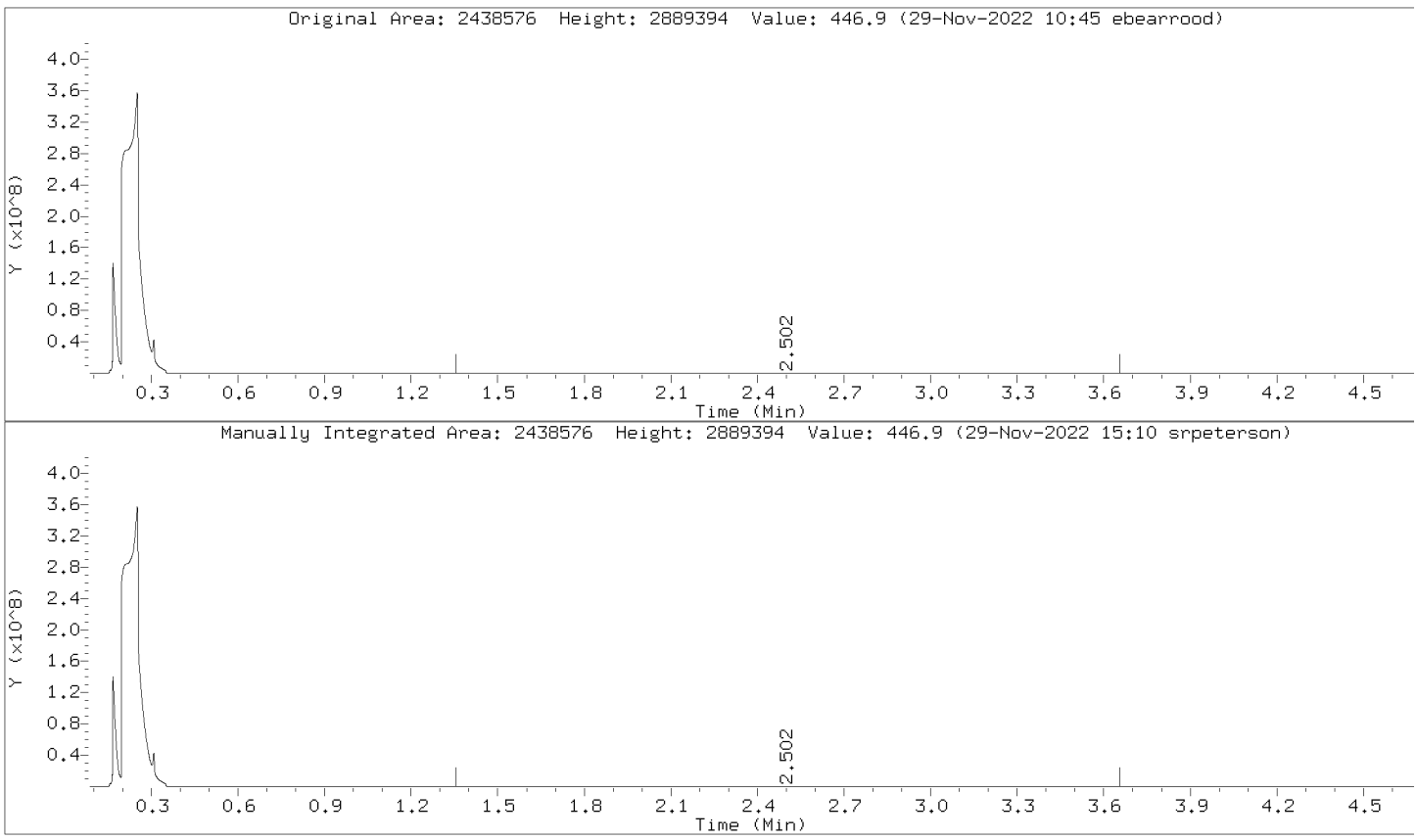
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



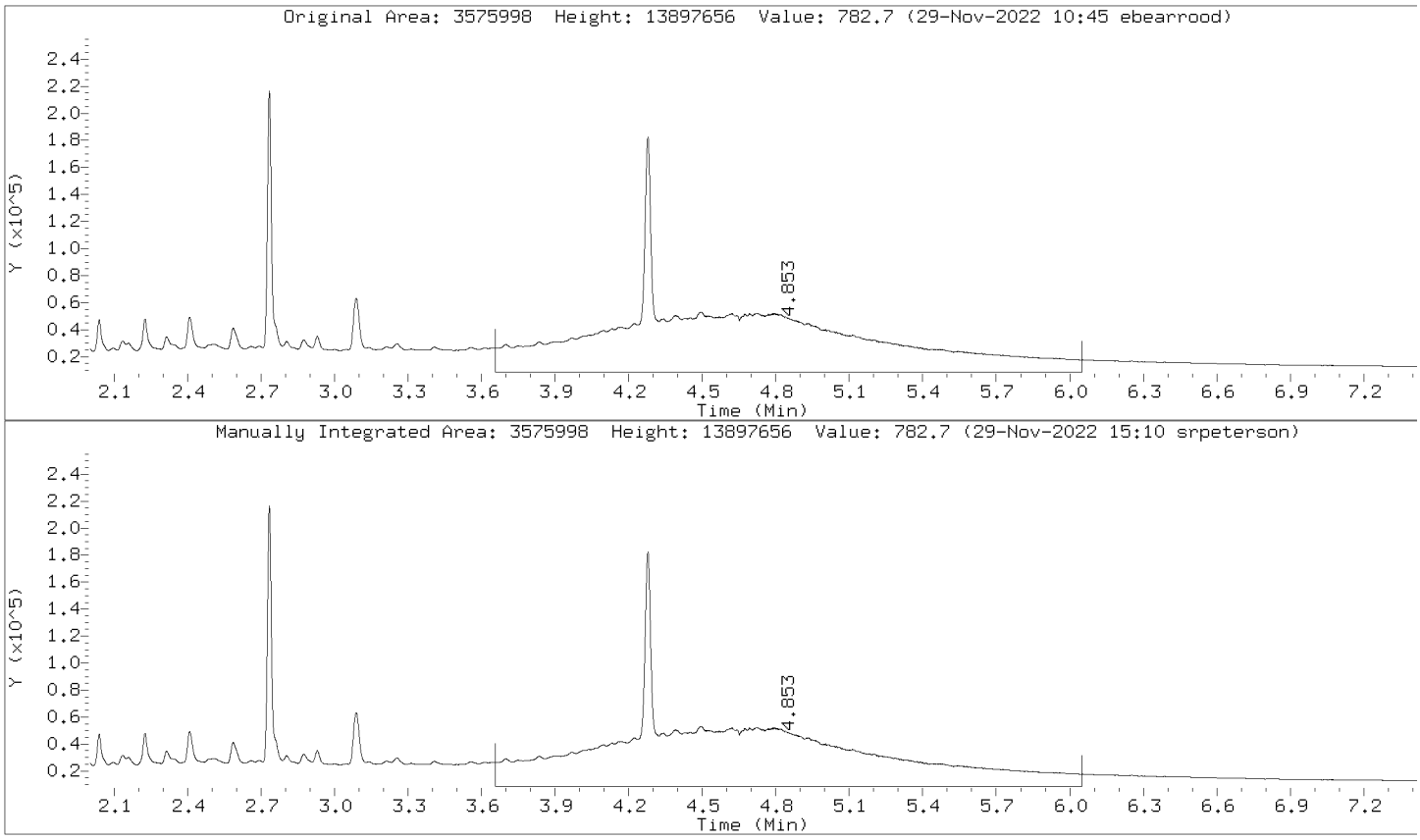
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



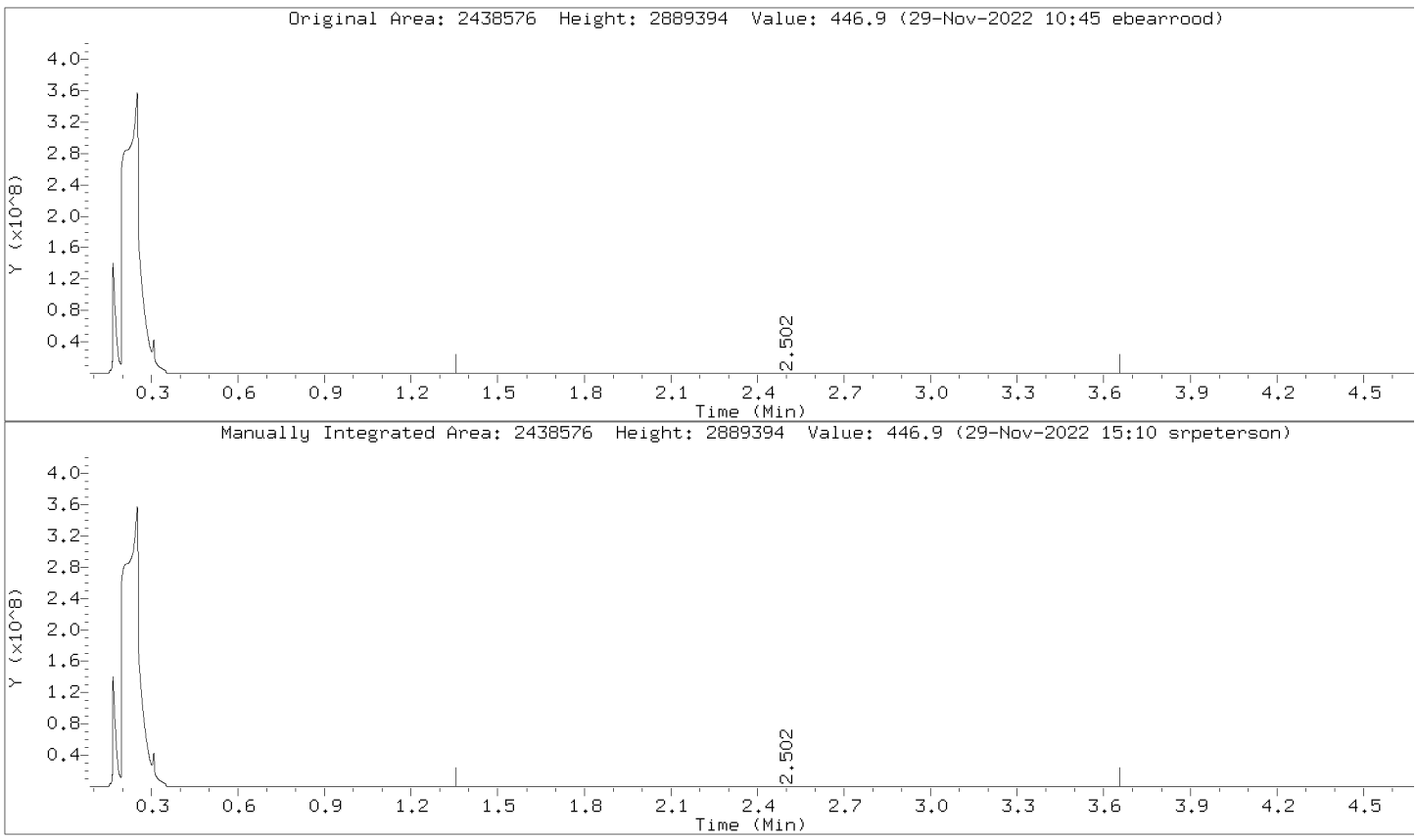
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: Motor Oil Range Review Code: RNG
CAS Number:



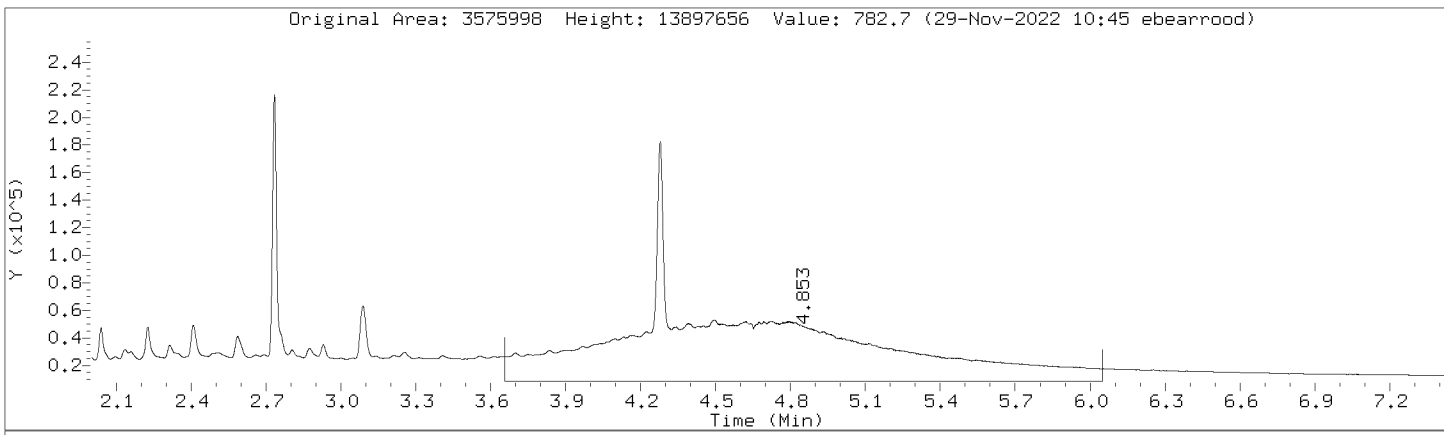
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

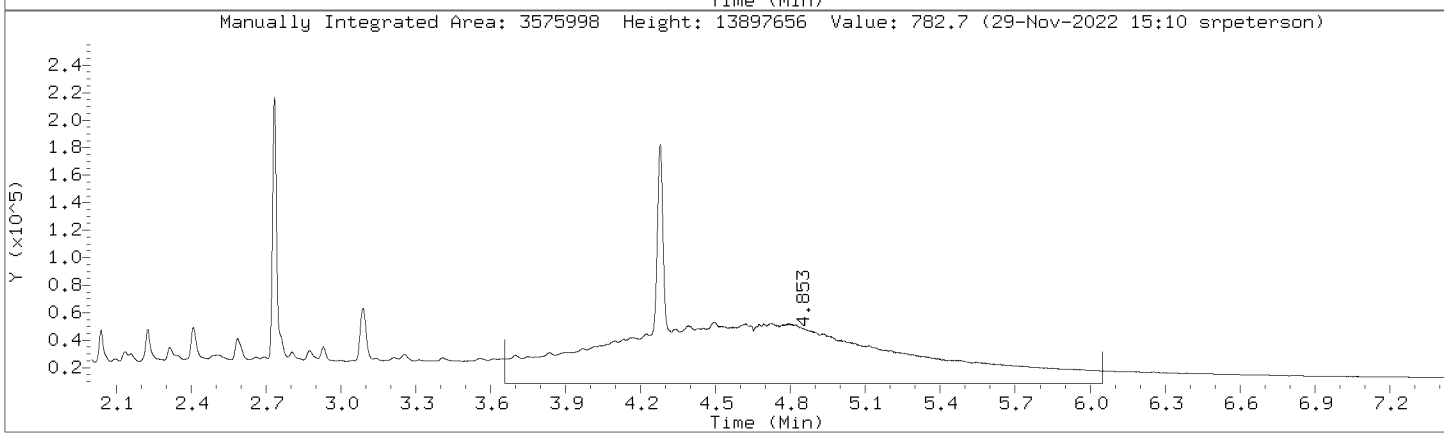
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

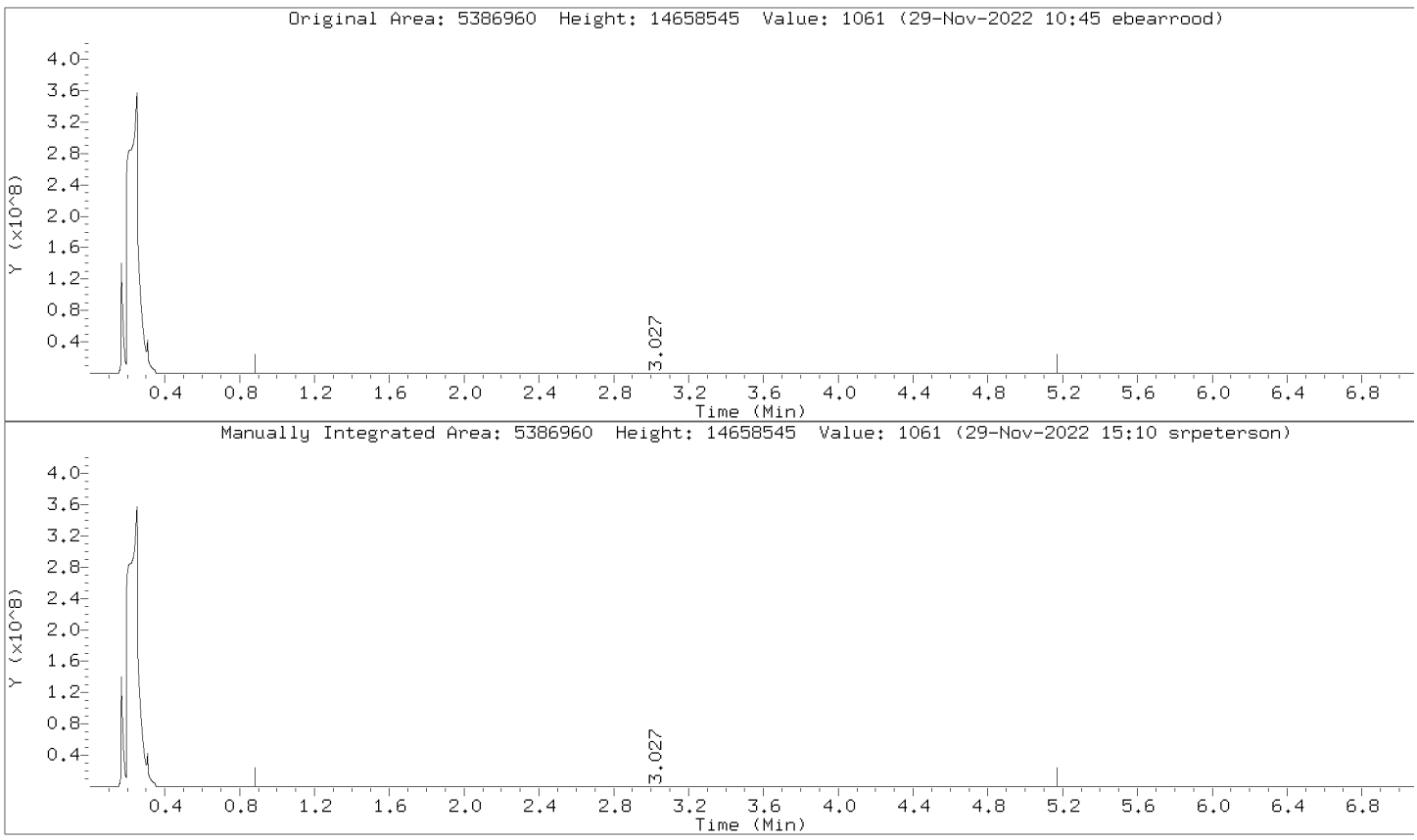
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





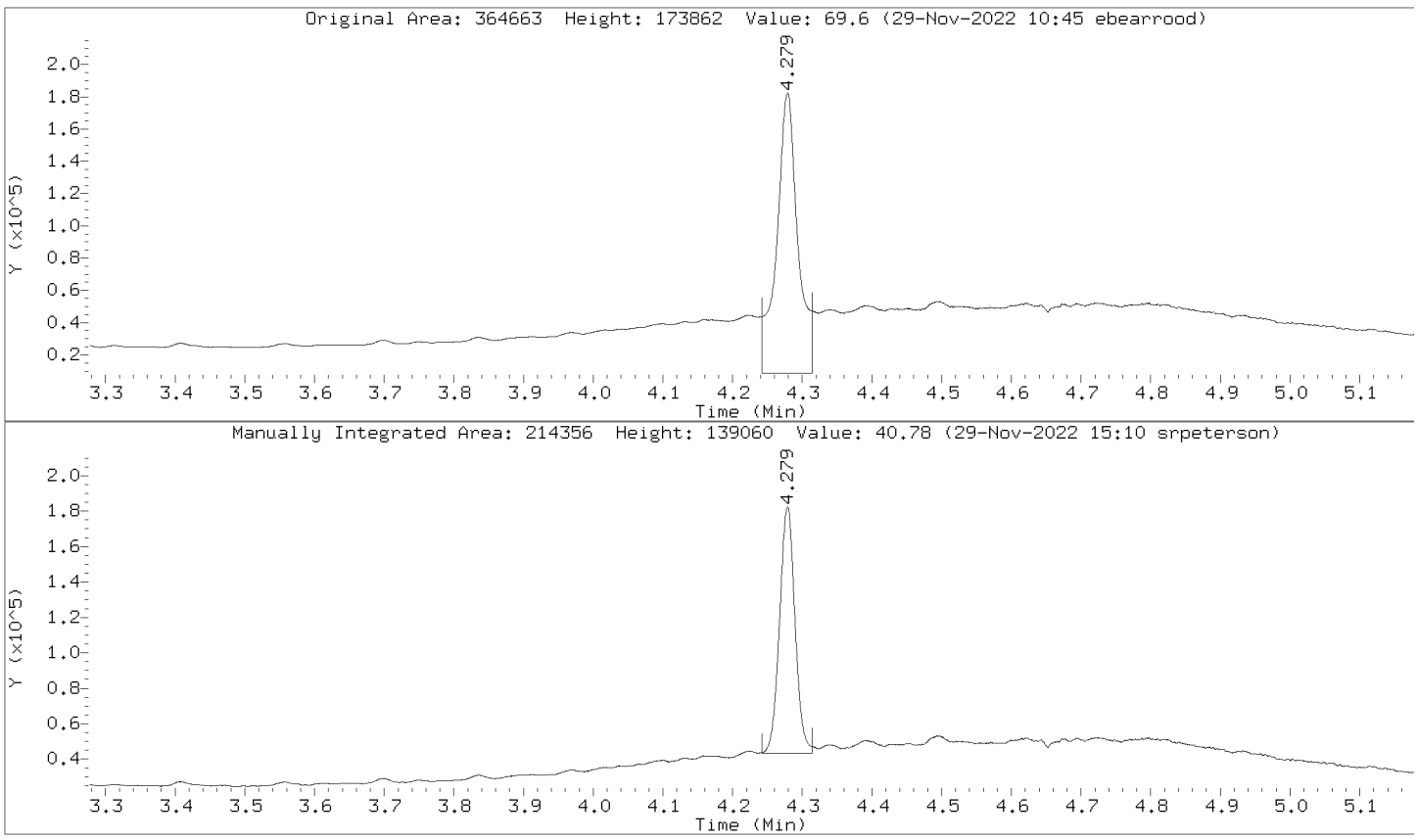
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: C10-C36 Review Code: RNG
CAS Number:



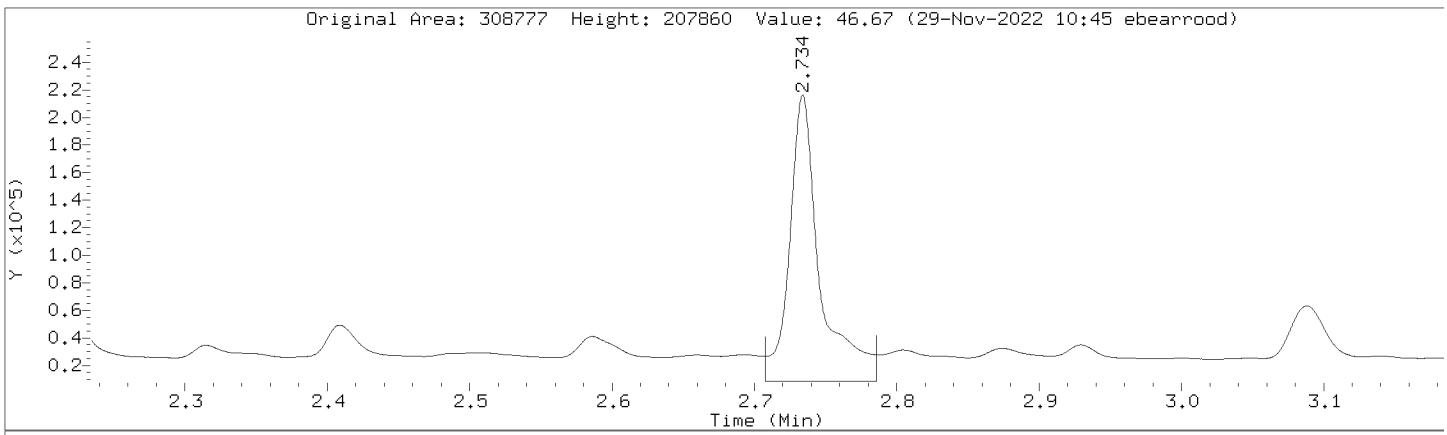
Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

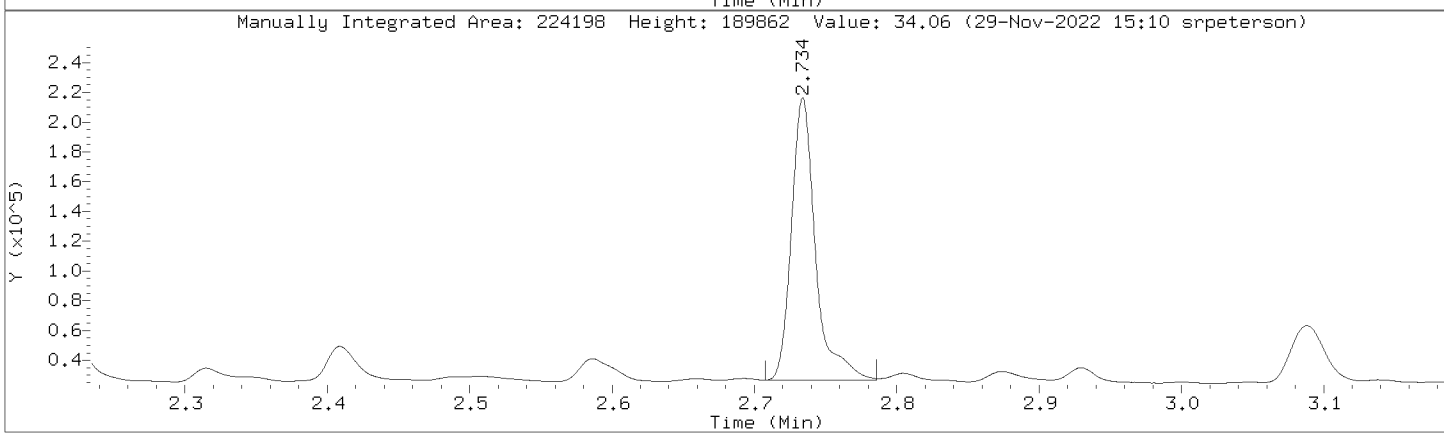
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\112822R.b/1128R0000057.d
Injection Date: 28-NOV-2022 22:21
Instrument: 10gcsF.i
Lab Sample ID: 4519773

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2865693	2865693
DRO by AK 102	2521267	2521267
TPH-DRO (C10-C28)	3375175	3375175
Motor Oil Range (C24-C36)	2996133	2996133
Diesel Fuel Range	2438576	2438576
Motor Oil Range	3575998	3575998
Diesel Fuel Range SG	2438576	2438576
Motor Oil Range SG	3575998	3575998
C10-C36	5386960	5386960
n-Triacontane (S)	364663	214356
o-Terphenyl (S)	308777	224198

Prep Log Report

Batch Information: OEXT 67357 854980 NWDROS

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3550	Analysis Method	NWTPH-Dx	Prepared By	GY1	Extracted Date/Time	11/22/2022 15:47:46:789
Instrument	10BALW	Calibrated	Yes	Sonicator Tune Date	11/22/2022 14:43:03:213	Spiked By	GY1
Dispenser ID 1	Q617	Dispenser ID 2		Syringe ID 1	Q418	Syringe ID 2	Q701
Syringe ID 3	Q835	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	SC
Concentration Date/Time	11/22/2022 22:19:31:825	Methylene Chloride	397148	MeCl/Acetone 80:20	397133	Ottawa Sand	372714
Sodium Sulfate	396334	Glass Wool	395359	Gravity Filters	None Added	Vial Lot #	18111165
Reviewed By	FT1	Reviewed By Date	11/23/2022 06:25	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Spike Verified By	Container + Sample Wt (g)	Container Wt (g)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Sonicator ID	Water Bath ID	Water Bath Thermo ID	Correction Factor
NWDROS_P	BLANK	**4519770**	Y	Solid	Scanner	No one to verify			10	1	10OP04	10OP29	210745396	1
NWDROS_P	LCS	**4519771**	Y	Solid	Scanner	No one to verify			10	1	10OP04	10OP29	210745396	1
NWDROS_P	PS	**10633565001**	Y	Solid	Scanner	No one to verify			10.07	1	10OP37	10OP29	210745396	1
NWDROS_P	MS	**4519772**	Y	Solid	Scanner	No one to verify			10.05	1	10OP01	10OP29	210745396	1
NWDROS_P	MSD	**4519773**	Y	Solid	Scanner	No one to verify			10.11	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10633565002**	Y	Solid	Scanner	No one to verify			10.06	1	10OP02	10OP29	210745396	1
NWDROS_P	PS	**10633565003**	Y	Solid	Scanner	No one to verify			10.12	1	10OP37	10OP29	210745396	1
NWDROS_P	PS	**10633565004**	Y	Solid	Scanner	No one to verify			10.15	1	10OP04	10OP29	210745396	1
NWDROS_P	PS	**10633565005**	Y	Solid	Scanner	No one to verify			10.1	1	10OP04	10OP29	210745396	1
NWDROS_P	PS	**10634621001**	Y	Solid	Scanner	No one to verify			10.15	1	10OP01	10OP29	210745396	1

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	BLANK	**4519770**	98.00 | 99.00			394617 (10)	389287 (25)

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	LCS	**4519771**	98.00 | 99.00		389587 (250)	394617 (10)	389287 (25)
NWDROS_P	PS	**10633565001**	98.00 | 99.00			394617 (10)	389287 (25)
NWDROS_P	MS	**4519772**	98.00 | 99.00		389587 (250)	394617 (10)	389287 (25)
NWDROS_P	MSD	**4519773**	98.00 | 99.00		389587 (250)	394617 (10)	389287 (25)
NWDROS_P	PS	**10633565002**	98.00 | 99.00			394617 (10)	389287 (25)
NWDROS_P	PS	**10633565003**	98.00 | 99.00			394617 (10)	389287 (25)
NWDROS_P	PS	**10633565004**	98.00 | 99.00			394617 (10)	389287 (25)
NWDROS_P	PS	**10633565005**	98.00 | 99.00			394617 (10)	389287 (25)
NWDROS_P	PS	**10634621001**	98.00 | 99.00			394617 (10)	389287 (25)

Standard Notes:

389287: received 10/4/22 **389587: 10GCSF 1005R000014.D** **394617: Recieved 11/04/22 opened 11/17/22**

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Instrument Run Log

Instrument 1110GCSF Method 8015/AK/NW Solvent lot 394317 Surrogate Lot See extract sheet
Column DB-5-US21130002 0.32mm Hy ISTD Lot NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_1	1/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:27	EB3	| PRL meeting criteria for everything except su
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	1/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_1	1/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_1	1/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_1	1/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_1	1/10/22 15:15	EB3	rx ooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_1	1/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_1	1/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_1	1/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_1	1/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_1	1/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_1	1/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_1	1/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_1	1/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_1	1/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	1/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_1	1/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_1	1/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_1	1/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_1	1/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_1	1/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_1	1/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_1	1/10/22 19:00	TT2	

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Instrument Run Log

Instrument 1110GCSF Method 8015/AK/NW Solvent lot 394317 Surrogate Lot See extract sheet
Column DB-5-US21130002 0.32mm Hy ISTD Lot NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022	11/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022	11/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022	11/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022	11/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022	11/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022	11/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022	11/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022	11/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022	11/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022	11/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022	11/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022	11/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022	11/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022	11/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022	11/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022	11/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022	11/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022	11/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022	11/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022	11/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022	11/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022	11/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022	11/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022	11/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022	11/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022	11/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022	11/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022	11/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022	11/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022	11/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022	11/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022	11/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022	11/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022	11/11/22 01:50	TT2	

Instrument Run Log

Pace Analytical™

Instrument: 10GCSF Method: 8015/AK/NW Solvent lot: 394317 Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_1	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_1	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_1	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_1	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_1	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_1	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_1	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_1	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_1	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_1	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_1	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_1	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_1	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_1	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one
Run order verified: EB3

Report Date: 12/23/2022 15:08
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1128R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/28/22 11:36	EB3	
1128R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/28/22 11:47	EB3	
1128R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_	11/28/22 11:59	EB3	
1128R0000004C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 12:10	EB3	Pass 15% for all ranges
1128R0000005.D	4518566	L/41092	Blank	1		GCSFAKNW8015-111022_	11/28/22 12:22	EB3	clean
1128R0000006.D	10634487005	L/41092	Sample	1		GCSFAKNW8015-111022_	11/28/22 12:34	EB3	confirms n-tri double spiked
1128R0000007C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 12:46	EB3	Pass 15% for all ranges
1128R0000008.D	4520495	L/41111	Blank	1		GCSFAKNW8015-111022_	11/28/22 12:57	EB3	clean
1128R0000009.D	4520496	L/41111	LCS	1		GCSFAKNW8015-111022_	11/28/22 13:09	EB3	pass
1128R0000010.D	4520497	L/41111	LCSD	1		GCSFAKNW8015-111022_	11/28/22 13:21	EB3	pass
1128R0000011.D	10634745001	L/41111	Sample	1		GCSFAKNW8015-111022_	11/28/22 13:33	EB3	rr potentially wrong vial injected (LCSD twice?)
1128R0000012.D	4520535	L/41111	Dupe	1		GCSFAKNW8015-111022_	11/28/22 13:45	EB3	
1128R0000013.D	10634745002	L/41111	Sample	1		GCSFAKNW8015-111022_	11/28/22 13:56	EB3	
1128R0000014C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 14:08	EB3	Pass 15% for all ranges
1128R0000015.D	4520699	L/41112	Blank	1		GCSFAKNW8015-111022_	11/28/22 14:20	EB3	clean
1128R0000016.D	4520700	L/41112	LCS	1		GCSFAKNW8015-111022_	11/28/22 14:32	EB3	pass
1128R0000017.D	4520701	L/41112	LCSD	1		GCSFAKNW8015-111022_	11/28/22 14:44	EB3	pass
1128R0000018.D	10634795001	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 14:55	EB3	
1128R0000019.D	10634795002	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 15:07	EB3	
1128R0000020.D	10634795003	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 15:18	EB3	
1128R0000021.D	10634795004	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 15:30	EB3	
1128R0000022.D	10634795005	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 15:42	EB3	
1128R0000023.D	10634795006	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 15:54	EB3	
1128R0000024.D	10634795007	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 16:05	EB3	
1128R0000025C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 16:17	EB3	Pass 15% for all ranges
1128R0000026.D	4520699	L/41112	Blank	1		GCSFAKNW8015-111022_	11/28/22 16:28	EB3	clean
1128R0000027.D	10634795008	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 16:40	EB3	
1128R0000028.D	10634795009	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 16:51	EB3	
1128R0000029.D	10634795010	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 17:03	EB3	
1128R0000030.D	10634795011	L/41112	Sample	1		GCSFAKNW8015-111022_	11/28/22 17:14	EB3	
1128R0000031C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 17:25	EB3	Pass 15% for all ranges
1128R0000032.D	4518464	S/41082	Blank	1		GCSFAKNW8015-111022_	11/28/22 17:37	EB3	clean
1128R0000033.D	10634485001	S/41082	Sample	100		GCSFAKNW8015-111022_	11/28/22 17:48	EB3	
1128R0000034C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 18:00	EB3	Pass 15% for all ranges
1128R0000035.D	4520740	S/41113	Blank	1		GCSFAKNW8015-111022_	11/28/22 18:11	EB3	clean
1128R0000036.D	4520741	S/41113	LCS	1		GCSFAKNW8015-111022_	11/28/22 18:22	EB3	pass
1128R0000037.D	10634822001	S/41113	Sample	1		GCSFAKNW8015-111022_	11/28/22 18:34	EB3	
1128R0000038.D	4520742	S/41113	MS	1		GCSFAKNW8015-111022_	11/28/22 18:45	EB3	
1128R0000039.D	4520743	S/41113	MSD	1		GCSFAKNW8015-111022_	11/28/22 18:57	EB3	
1128R0000040.D	10634822002	S/41113	Sample	1		GCSFAKNW8015-111022_	11/28/22 19:08	EB3	
1128R0000041C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 19:19	EB3	Pass 15% for all ranges
1128R0000042.D	4519657	L/41117	Blank	1		GCSFAKNW8015-111022_	11/28/22 19:31	EB3	clean
1128R0000043.D	4519658	L/41117	LCS	1		GCSFAKNW8015-111022_	11/28/22 19:42	EB3	n-tri failing low, rr to confirm
1128R0000044.D	4519659	L/41117	LCSD	1		GCSFAKNW8015-111022_	11/28/22 19:53	EB3	pass
1128R0000045.D	10634268001	L/41117	Sample	1		GCSFAKNW8015-111022_	11/28/22 20:05	EB3	
1128R0000046.D	10634268003	L/41117	Sample	1		GCSFAKNW8015-111022_	11/28/22 20:16	EB3	n-tri failing low, rr to confirm

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot:

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1128R0000047.D	10634268004	L/41117	Sample	1		GCSFAKNW8015-111022_	11/28/22 20:27	EB3	
1128R0000048.D	10634268005	L/41081	Sample	1		GCSFAKNW8015-111022_	11/28/22 20:39	EB3	this is rx ooh
1128R0000049C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 20:50	EB3	Pass 15% for all ranges
1128R0000050.D	4519770	S/41118	Blank	1		GCSFAKNW8015-111022_	11/28/22 21:01	EB3	clean
1128R0000051.D	4519771	S/41118	LCS	1		GCSFAKNW8015-111022_	11/28/22 21:13	EB3	pass
1128R0000052.D	10633565004	S/41118	Sample	10		GCSFAKNW8015-111022_	11/28/22 21:24	EB3	
1128R0000053.D	10633565005	S/41118	Sample	10		GCSFAKNW8015-111022_	11/28/22 21:36	EB3	rr 1X
1128R0000054.D	10634621001	S/41118	Sample	20		GCSFAKNW8015-111022_	11/28/22 21:47	EB3	rr 400X for DFR
1128R0000055.D	10633565001	S/41118	Sample	1		GCSFAKNW8015-111022_	11/28/22 21:58	EB3	
1128R0000056.D	4519772	S/41118	MS	1		GCSFAKNW8015-111022_	11/28/22 22:10	EB3	
1128R0000057.D	4519773	S/41118	MSD	1		GCSFAKNW8015-111022_	11/28/22 22:21	EB3	
1128R0000058.D	10633565002	S/41118	Sample	1		GCSFAKNW8015-111022_	11/28/22 22:33	EB3	
1128R0000059.D	10633565003	S/41118	Sample	1		GCSFAKNW8015-111022_	11/28/22 22:44	EB3	
1128R0000060C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 22:55	EB3	Pass 15% for all ranges
1128R0000061.D	4519770	S/41118	Blank	1		GCSFAKNW8015-111022_	11/28/22 23:07	EB3	clean
1128R0000062.D	10634745001	L/41111	Sample	1		GCSFAKNW8015-111022_	11/28/22 23:18	EB3	
1128R0000063.D	4520535	L/41111	Dupe	1		GCSFAKNW8015-111022_	11/28/22 23:30	EB3	confirms surr failing low
1128R0000064C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_	11/28/22 23:41	EB3	Pass 15% for all ranges
1128R0000065.D	PBLK,4518464	/	Sample	1		GCSFAKNW8015-111022_	11/28/22 23:53	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\112822R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/30/2022 10:59
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF Method: 8015/AK/NW Solvent lot: Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
1129R0000017.D		/		0			12/30/99 00:00		gd error
1129R0000021.D		/		0			12/30/99 00:00		gd error
1129R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	11/29/22 12:05	EB3	
1129R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	11/29/22 12:17	EB3	
1129R0000003.D	DMO-RTM,395211	/40988	Sample	1		GCSFAKNW8015-111022_1	11/29/22 12:29	EB3	
1129R0000004C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_1	11/29/22 12:41	EB3	Pass 15% for all ranges
1129R0000005.D	4521993	L/41126	Blank	1		GCSFAKNW8015-111022_1	11/29/22 12:52	EB3	clean
1129R0000006.D	4521994	L/41126	LCS	1		GCSFAKNW8015-111022_1	11/29/22 13:04	EB3	pass
1129R0000007.D	4521995	L/41126	LCSD	1		GCSFAKNW8015-111022_1	11/29/22 13:16	EB3	pass
1129R0000008.D	10634914001	L/41126	Sample	1		GCSFAKNW8015-111022_1	11/29/22 13:28	EB3	
1129R0000009.D	10634914002	L/41126	Sample	1		GCSFAKNW8015-111022_1	11/29/22 13:40	EB3	
1129R0000010C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_1	11/29/22 13:51	EB3	Pass 15% for all ranges
1129R0000011.D	4519770	S/41118	Blank	1		GCSFAKNW8015-111022_1	11/29/22 14:03	EB3	clean
1129R0000012.D	10633565005	S/41118	Sample	1		GCSFAKNW8015-111022_1	11/29/22 14:15	EB3	
1129R0000013.D	10634621001	S/41118	Sample	400		GCSFAKNW8015-111022_1	11/29/22 14:26	EB3	
1129R0000014C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_1	11/29/22 14:38	EB3	Pass 15% for all ranges
1129R0000015.D	PBLK,4519770	/	Sample	1		GCSFAKNW8015-111022_1	11/29/22 14:50	EB3	clean
1129R0000016.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_1	11/29/22 17:23	EB3	ran to stabilize baseline
1129R0000017C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_1	11/29/22 17:32	EB3	Pass 15% for all ranges
1129R0000018.D	4519657	L/41117	Blank	1		GCSFAKNW8015-111022_1	11/29/22 17:42	EB3	clean
1129R0000019.D	4519658	L/41117	LCS	1		GCSFAKNW8015-111022_1	11/29/22 17:51	EB3	confirms surr failing low
1129R0000020.D	10634268003	L/41117	Sample	1		GCSFAKNW8015-111022_1	11/29/22 18:00	EB3	confirms surr failing low
1129R0000021C.	DMO-CCV,397498	/40988	CCal	1		GCSFAKNW8015-111022_1	11/29/22 18:10	EB3	Pass 15% for all ranges
1129R0000022.D	PBLK,4519770	/	Sample	1		GCSFAKNW8015-111022_1	11/29/22 18:19	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path: \\V10WINTARGET\CHEM\10GCSF.I\112922R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 12/01/2022 12:34
Reviewed By/Date:

SAMPLE NO.

BNSF-K200-SC-0.0-0.4-110922

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Lab Sample ID: 10633565001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.9		%	1	11/15/2022 15:07

SAMPLE NO.

BNSF-EF470-SC-11.0-12.0-110922

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Lab Sample ID: 10633565002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	27.2		%	1	11/15/2022 15:07

SAMPLE NO.

BNSF-EF240-SC-1.0-2.0-111022

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Lab Sample ID: 10633565003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	29.6		%	1	11/15/2022 15:08

SAMPLE NO.

BNSF-EF240-SC-1.0-2.0-111022-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Lab Sample ID: 10633565004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	32.8		%	1	11/15/2022 15:08

SAMPLE NO.

BNSF-EF240-SC-3.0-4.0-111022

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Lab Sample ID: 10633565005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	25.7		%	1	11/15/2022 15:08

SAMPLE NO.

4512623DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	28.8	29.0	1

SAMPLE NO.

4512624DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	30.8	28.9	6

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 129972

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4512623	4512623	11/15/2022	1	1
4512624	4512624	11/15/2022	1	1
10633565001	BNSF-K200-SC-0.0-0.4-	11/15/2022	1	1
10633565002	BNSF-EF470-SC-11.0-12.0-	11/15/2022	1	1
10633565003	BNSF-EF240-SC-1.0-2.0-	11/15/2022	1	1
10633565004	BNSF-EF240-SC-1.0-2.0-	11/15/2022	1	1
10633565005	BNSF-EF240-SC-3.0-4.0-	11/15/2022	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10633565 Contract: D3631600

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 11/15/2022 15:04 End Date: 11/15/2022 15:08

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
10632545001	10632545001	1	11/15/2022	15:04	X
4512623DUP	4512623	1	11/15/2022	15:05	X
10633646003	10633646003	1	11/15/2022	15:06	X
4512624DUP	4512624	1	11/15/2022	15:06	X
BNSF-K200-SC-0.0-0.4-	10633565001	1	11/15/2022	15:07	X
BNSF-EF470-SC-11.0-12.0-	10633565002	1	11/15/2022	15:07	X
BNSF-EF240-SC-1.0-2.0-	10633565003	1	11/15/2022	15:08	X
BNSF-EF240-SC-1.0-2.0-	10633565004	1	11/15/2022	15:08	X
BNSF-EF240-SC-3.0-4.0-	10633565005	1	11/15/2022	15:08	X

Prep Log Report

Batch Information: 853434 129972 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/15/2022 15:25 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/16/2022 09:00 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 11/16/2022 09:00 | JDL	Desic. Out 1 Date/Time | Init	11/16/2022 09:30 | JDL	Reviewed By	RAM
Reviewed By Date	11/16/2022 13:29	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10633655001**	Y		75.84	24.16	11/15/2022 15:04:20	7.5331	1.2546	9.5333	7.5331	M	
DRY WEIGHT	PS	**10633655002**	Y		73.63	26.37	11/15/2022 15:04:32	7.5631	1.2457	9.8252	7.5631	M	
DRY WEIGHT	PS	**10633655003**	Y		80.35	19.65	11/15/2022 15:04:45	8.0317	1.2456	9.6914	8.0317	M	
DRY WEIGHT	RQS	**10632545001**	Y		71.21	28.79	11/15/2022 15:04:57	7.4379	1.2473	9.9403	7.4379	M	
DRY WEIGHT	DUP	**4512623**	Y		71.01	28.99	11/15/2022 15:05:11	7.3885	1.2495	9.8948	7.3885	M	
DRY WEIGHT	PS	**10633645001**	Y		81.82	18.18	11/15/2022 15:05:22	7.6364	1.2471	9.0559	7.6364	M	
DRY WEIGHT	PS	**10633645002**	Y		82.38	17.62	11/15/2022 15:05:34	7.7715	1.2473	9.1672	7.7715	M	
DRY WEIGHT	PS	**10633645003**	Y		77.89	22.11	11/15/2022 15:05:47	7.9446	1.2706	9.8391	7.9446	M	
DRY WEIGHT	PS	**10633645004**	Y		81.38	18.62	11/15/2022 15:05:58	7.9719	1.2694	9.5053	7.9719	M	
DRY WEIGHT	PS	**10633646001**	Y		80.87	19.13	11/15/2022 15:06:08	8.1258	1.2664	9.7486	8.1258	M	
DRY WEIGHT	PS	**10633646002**	Y		75.65	24.35	11/15/2022 15:06:20	7.3309	1.2692	9.2815	7.3309	M	
DRY WEIGHT	PS	**10633646003**	Y		69.20	30.80	11/15/2022 15:06:31	7.2725	1.2621	9.9477	7.2725	M	
DRY WEIGHT	DUP	**4512624**	Y		71.13	28.87	11/15/2022 15:06:43	7.4139	1.2709	9.9073	7.4139	M	
DRY WEIGHT	PS	**10633654001**	Y		44.29	55.71	11/15/2022 15:06:54	4.9667	1.2645	9.6244	4.9667	M	
DRY WEIGHT	PS	**10633472001**	Y		67.06	32.94	11/15/2022 15:07:05	7.0424	1.2724	9.8762	7.0424	M	
DRY WEIGHT	PS	**10633286001**	Y		90.34	9.665	11/15/2022 15:07:17	8.9451	1.2638	9.7669	8.9451	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10633287001**	Y		90.57	9.426	11/15/2022 15:07:28	9.0034	1.2694	9.8083	9.0034	M	
DRY WEIGHT	PS	**10633565001**	Y		78.06	21.94	11/15/2022 15:07:38	7.7302	1.2678	9.5467	7.7302	M	
DRY WEIGHT	PS	**10633565002**	Y		72.76	27.24	11/15/2022 15:07:50	6.9496	1.2708	9.0761	6.9496	M	
DRY WEIGHT	PS	**10633565003**	Y		70.43	29.57	11/15/2022 15:08:02	7.1235	1.2687	9.5822	7.1235	M	
DRY WEIGHT	PS	**10633565004**	Y		67.22	32.78	11/15/2022 15:08:15	6.8417	1.2685	9.5601	6.8417	M	
DRY WEIGHT	PS	**10633565005**	Y		74.34	25.66	11/15/2022 15:08:27	7.5762	1.2664	9.7547	7.5762	M	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis MN 55414

Generated 12/22/2022 12:41 PM Revision 1

JOB DESCRIPTION

D3631600 10633565

JOB NUMBER

580-120040-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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Revision 1

Authorized for release by
Pauline M Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
253 922-2310

Table of Contents

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Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
580-120040-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 12/19/2022. The report (revision 1) is being revised due to: COC was not scanned into job files properly, it has been re-scanned.

Receipt
The samples were received on 11/15/2022 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

General Chemistry
Method 9060A: The following samples were prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-K200-SC-0.0-0.4-110922 (580-120040-1), BNSF-EF240-SC-1.0-2.0-111022 (580-120040-2), BNSF-EF240-SC-1.0-2.0-111022-1 (580-120040-3) and BNSF-EF240-SC-3.0-4.0-111022 (580-120040-4).

Method 9060A: The sample duplicate (DUP) precision for analytical batch 580-413230 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922 — Lab Sample ID: 580-120040-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	2300	J H	2800	140	mg/Kg	1	☼	9060A	Total/NA

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022 — Lab Sample ID: 580-120040-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	13000	H	2900	140	mg/Kg	1	☼	9060A	Total/NA

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1 — Lab Sample ID: 580-120040-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	13000	H	3300	160	mg/Kg	1	☼	9060A	Total/NA

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022 — Lab Sample ID: 580-120040-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	22000	H	2700	130	mg/Kg	1	☼	9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922

Lab Sample ID: 580-120040-1
Date Collected: 11/09/22 12:35
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 71.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	2300	J H	2800	140	mg/Kg	☼		12/17/22 02:03	1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022

Lab Sample ID: 580-120040-2
Date Collected: 11/10/22 12:10
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 68.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000	H	2900	140	mg/Kg	☼		12/17/22 02:08	1

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1

Lab Sample ID: 580-120040-3
Date Collected: 11/10/22 12:15
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 60.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	13000	H	3300	160	mg/Kg	☼		12/17/22 02:13	1

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022

Lab Sample ID: 580-120040-4
Date Collected: 11/10/22 12:20
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 75.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	22000	H	2700	130	mg/Kg	☼		12/17/22 02:19	1

Default Detection Limits

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

General Chemistry

Analyte	RL	MDL	Units
Total Organic Carbon - Duplicates	2000	97	mg/Kg

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/5
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/16/22 22:15	1

Lab Sample ID: LCS 580-413230/6
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	132000		mg/Kg		110	80 - 120		

Lab Sample ID: LCSD 580-413230/7
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	131000		mg/Kg		109	80 - 120	0	20

QC Association Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

General Chemistry

Analysis Batch: 410222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-120040-1	BNSF-K200-SC-0.0-0.4-110922	Total/NA	Solid	2540G	
580-120040-2	BNSF-EF240-SC-1.0-2.0-111022	Total/NA	Solid	2540G	
580-120040-3	BNSF-EF240-SC-1.0-2.0-111022-1	Total/NA	Solid	2540G	
580-120040-4	BNSF-EF240-SC-3.0-4.0-111022	Total/NA	Solid	2540G	
580-120040-4 DU	BNSF-EF240-SC-3.0-4.0-111022	Total/NA	Solid	2540G	

Analysis Batch: 413230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-120040-1	BNSF-K200-SC-0.0-0.4-110922	Total/NA	Solid	9060A	
580-120040-2	BNSF-EF240-SC-1.0-2.0-111022	Total/NA	Solid	9060A	
580-120040-3	BNSF-EF240-SC-1.0-2.0-111022-1	Total/NA	Solid	9060A	
580-120040-4	BNSF-EF240-SC-3.0-4.0-111022	Total/NA	Solid	9060A	
MB 580-413230/5	Method Blank	Total/NA	Solid	9060A	
LCS 580-413230/6	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-413230/7	Lab Control Sample Dup	Total/NA	Solid	9060A	

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922
Lab Sample ID: 580-120040-1
Date Collected: 11/09/22 12:35
Matrix: Solid
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922
Lab Sample ID: 580-120040-1
Date Collected: 11/09/22 12:35
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 71.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:03

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022
Lab Sample ID: 580-120040-2
Date Collected: 11/10/22 12:10
Matrix: Solid
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022
Lab Sample ID: 580-120040-2
Date Collected: 11/10/22 12:10
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 68.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:08

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1
Lab Sample ID: 580-120040-3
Date Collected: 11/10/22 12:15
Matrix: Solid
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1
Lab Sample ID: 580-120040-3
Date Collected: 11/10/22 12:15
Matrix: Solid
Date Received: 11/15/22 13:20
Percent Solids: 60.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:13

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022
Lab Sample ID: 580-120040-4
Date Collected: 11/10/22 12:20
Matrix: Solid
Date Received: 11/15/22 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410222	BNM	EET SEA	11/16/22 14:51

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022

Date Collected: 11/10/22 12:20
Date Received: 11/15/22 13:20

Lab Sample ID: 580-120040-4

Matrix: Solid
Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 02:19

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Job ID: 580-120040-1
Project/Site: D3631600 10633565

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Method	Method Description	Protocol	Laboratory
2540G	SM 2540G	SM22	EET SEA
9060A	Organic Carbon, Total (TOC)	SW846	EET SEA

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633565

Job ID: 580-120040-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-120040-1	BNSF-K200-SC-0.0-0.4-110922	Solid	11/09/22 12:35	11/15/22 13:20
580-120040-2	BNSF-EF240-SC-1.0-2.0-111022	Solid	11/10/22 12:10	11/15/22 13:20
580-120040-3	BNSF-EF240-SC-1.0-2.0-111022-1	Solid	11/10/22 12:15	11/15/22 13:20
580-120040-4	BNSF-EF240-SC-3.0-4.0-111022	Solid	11/10/22 12:20	11/15/22 13:20

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CaCO3_00004_00009	07/16/25	LECO, Lot 1001			(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00012	03/31/23	Alfa Aesar, Lot X15E030			(Purchased Reagent)		Total Organic Carbon - Duplicates	120000 mg/Kg
TOCS_LCS_00012	07/26/23	ERA, Lot D108-542			(Purchased Reagent)		TOC Result 1	4300 mg/Kg
							Total Organic Carbon - Duplicates	4300 mg/Kg

Reagent

CaCO3_00004_00009

Version	00
Molecular weight	100.09
Quality Test / Release Date	07/31/2020
Molecular Formula	C Ca O3
CAS No	471-34-1
Linear Formula	CaCO3
Flash Point (°C)	

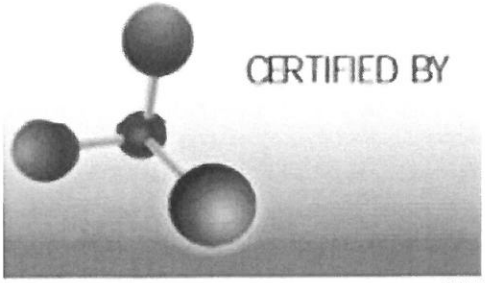
Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	42351	**Quality Test / Release Date**	07/31/2020
Lot Number	A0421160	**Suggested retest date**	07/31/2025
Description	Calcium carbonate,99+%,ACS reagent		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Crystalline powder	Crystalline powder
Titration Complexometric	>=99.0 % (on dried substance)	99.4 % (on dried substance)
Heavy metals (ICP-OES)	=<0.001 %	=<0.001 %
Insoluble matter	=<0.01 % (in dilute HCl)	0.008 % (in dilute HCl)
Chloride (Cl)	=<0.001 %	=<0.001 %
Fluoride (F)	=<0.0015 %	=<0.0015 %
Sulfate (SO4)	=<0.01 %	=<0.01 %
Ammonium (NH4)	=<0.003 %	=<0.003 %
Barium (Ba)	=<0.01 %	0.00164 %
Iron (Fe)	=<0.003 %	=<0.003 %
Magnesium (Mg)	=<0.02 %	0.010341 %
Potassium (K)	=<0.01 %	0.001048 %
Sodium (Na)	=<0.1 %	0.07061 %
Strontium (Sr)	=<0.1 %	0.007741 %



C. Wygaerts, QA Manager

Issued: 08-03-2020

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet:http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

3092515

ID: CaCO3_00004_00009

Exp 07/16/25 Prpd:R1K Opn:03/04/22

CaCO3-12%TC Second Source

FCG 3/4/22

Reagent

CaCO3_00012

Certificate of analysis

2450156
ID: CaCO3_00012
Exp:03/31/23 Prpd:JKM Opn:08/14/19
CaCO3-12%TC Second Source

Product No.: 36337

Product: Calcium carbonate, ACS, low in alkalies, 99.0% min

Lot No.: X15E030

Test	Limits	Results
Assay	99.5 % min	99.1 %
Insoluble in dilute HCl	0.01 % max	< 0.01 %
Chloride	0.001 % max	< 0.001 %
Fluoride	0.0015 % max	< 0.0008 %
Sulfate	0.005 % max	< 0.01 %
Ammonium	0.003 % max	< 0.003 %
Barium	0.01 %	< 0.01 %
Heavy metals (as Pb)	0.001 % max	< 0.001 %
Iron	0.002 % max	< 0.003 %
Magnesium	0.01 % max	0.003 %
Potassium	0.01 % max	< 0.01 %
Sodium	0.01 % max	< 0.1 %
Strontium	0.1 % max	< 0.1 %

This document has been electronically generated and does not require a signature.

Reagent

TOCS_LCS_00012

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D108-542
Certificate Issue Date: December 26, 2019
Expiration Date: July 26, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	853	795	5.50	523 - 1070	456 - 1130
Total Kjeldahl Nitrogen	1510	1500	12.3	976 - 2030	827 - 2180
Total Organic Carbon (TOC)	4300	4370	6.86	1580 - 7150	1530 - 7200
Total Phosphorus	911	815	10.8	422 - 1210	185 - 1440

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	853	795	93.3	39	-	-
Total Kjeldahl Nitrogen	1510	1500	99.7	33	-	-
Total Organic Carbon (TOC)	4300	4370	102	24	-	-
Total Phosphorus	911	815	89.4	55	-	-

2735864
ID: TOCS_LCS_00012
Exp: 01/31/22 Prpd: R1K
1540-7000 mg/kg TOC

Rev.1 10/21/20

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120040-1

SDG No.:

Project: D3631600 10633565

Client Sample ID	Lab Sample ID
BNSF-K200-SC-0.0-0.4-110922	580-120040-1
BNSF-EF240-SC-1.0-2.0-111022	580-120040-2
BNSF-EF240-SC-1.0-2.0-111022-1	580-120040-3
BNSF-EF240-SC-3.0-4.0-111022	580-120040-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-K200-SC-0.0-0.4-110922 Lab Sample ID: 580-120040-1

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG ID.:

Matrix: Solid Date Sampled: 11/09/2022 12:35

Reporting Basis: DRY Date Received: 11/15/2022 13:20

% Solids: 71.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	2300	2800	140	mg/Kg	J	H	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022 Lab Sample ID: 580-120040-2

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG ID.:

Matrix: Solid Date Sampled: 11/10/2022 12:10

Reporting Basis: DRY Date Received: 11/15/2022 13:20

% Solids: 68.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	13000	2900	140	mg/Kg		H	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-EF240-SC-1.0-2.0-111022-1 Lab Sample ID: 580-120040-3

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG ID.:

Matrix: Solid Date Sampled: 11/10/2022 12:15

Reporting Basis: DRY Date Received: 11/15/2022 13:20

% Solids: 60.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	13000	3300	160	mg/Kg		H	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-EF240-SC-3.0-4.0-111022 Lab Sample ID: 580-120040-4

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG ID.:

Matrix: Solid Date Sampled: 11/10/2022 12:20

Reporting Basis: DRY Date Received: 11/15/2022 13:20

% Solids: 75.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	22000	2700	130	mg/Kg		H	1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Analyst: FCG Batch Start Date: 11/11/2022

Reporting Units: mg/Kg Analytical Batch No.: 413230

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	20:33	Total Organic Carbon - Duplicates	4220	4300	98	80-120		TOCS_LCS_00012
2	ICB	20:35	Total Organic Carbon - Duplicates	ND					
3	CCV	22:10	Total Organic Carbon - Duplicates	138000	120000	115	80-120		CaCO3_00004_00009
4	CCB	22:12	Total Organic Carbon - Duplicates	ND					
15	CCV	23:16	Total Organic Carbon - Duplicates	137000	120000	114	80-120		CaCO3_00004_00009
16	CCB	23:18	Total Organic Carbon - Duplicates	ND					
27	CCV	01:35	Total Organic Carbon - Duplicates	137000	120000	115	80-120		CaCO3_00004_00009
28	CCB	01:37	Total Organic Carbon - Duplicates	104				J	
35	CCV	02:24	Total Organic Carbon - Duplicates	134000	120000	112	80-120		CaCO3_00004_00009
36	CCB	02:27	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 413230 Date: 12/16/2022 22:15							
9060A	MB 580-413230/5	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/16/2022 22:18											
						LCS Source: CaCO3_00012					
9060A	LCS 580-413230/6	Total Organic Carbon - Duplicates	132000		mg/Kg	120000	110	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230	Date: 12/16/2022 22:21										
						LCSD Source: CaCO3_00012					
9060A	LCSD 580-413230/7	Total Organic Carbon - Duplicates	131000		mg/Kg	120000	109	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120040-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120040-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120040-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle   Job No.: 580-120040-1

SDG No.:

Instrument ID: NOEQUIP   Analysis Method: 2540G

Start Date: 11/16/2022 14:51   End Date: 11/16/2022 14:51

Lab Sample Id	D/F	Type	Time	Analytes: %Sol	Moist
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
580-120040-1	1	T	14:51	X	X
580-120040-2	1	T	14:51	X	X
580-120040-3	1	T	14:51	X	X
580-120040-4	1	T	14:51	X	X
580-120040-4 DU	1	T	14:51	X	X
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		
ZZZZZZ			14:51		

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCD																								
ICV 580-413230/1	1		20:33	X																								
ICB 580-413230/2	1		20:35	X																								
CCV 580-413230/3	1		22:10	X																								
CCB 580-413230/4	1		22:12	X																								
MB 580-413230/5	1	T	22:15	X																								
LCS 580-413230/6	1	T	22:18	X																								
LCSD 580-413230/7	1	T	22:21	X																								
ZZZZZZ			22:23																									
ZZZZZZ			22:33																									
ZZZZZZ			22:42																									
ZZZZZZ			22:45																									
ZZZZZZ			22:47																									
ZZZZZZ			22:57																									
ZZZZZZ			23:06																									
CCV 580-413230/15	1		23:16	X																								
CCB 580-413230/16	1		23:18	X																								
ZZZZZZ			23:20																									
ZZZZZZ			23:29																									
ZZZZZZ			23:34																									
ZZZZZZ			23:39																									
ZZZZZZ			23:50																									
ZZZZZZ			00:00																									
ZZZZZZ			00:12																									
ZZZZZZ			01:00																									
ZZZZZZ			01:11																									
ZZZZZZ			01:22																									
CCV 580-413230/27	1		01:35	X																								
CCB 580-413230/28	1		01:37	X																								
ZZZZZZ			01:40																									
ZZZZZZ			01:51																									
580-120040-1	1	T	02:03	X																								
580-120040-2	1	T	02:08	X																								
580-120040-3	1	T	02:13	X																								
580-120040-4	1	T	02:19	X																								
CCV 580-413230/35	1		02:24	X																								
CCB 580-413230/36	1		02:27	X																								
CCV 580-413230/37			23:41																									
CCB 580-413230/38			23:43																									
ZZZZZZ			23:46																									
ZZZZZZ			23:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes
				TOCD
ZZZZZZ			23:52	
ZZZZZZ			23:54	
ZZZZZZ			23:59	
ZZZZZZ			00:04	
ZZZZZZ			00:07	
ZZZZZZ			00:09	
ZZZZZZ			00:14	
ZZZZZZ			00:19	
CCV 580-413230/49			00:25	
CCB 580-413230/50			00:27	
ZZZZZZ			00:29	
ZZZZZZ			00:34	
ZZZZZZ			00:38	
ZZZZZZ			00:43	
ZZZZZZ			00:47	
ZZZZZZ			00:52	
ZZZZZZ			00:57	
ZZZZZZ			01:02	
ZZZZZZ			01:07	
ZZZZZZ			01:11	
CCV 580-413230/61			01:22	
CCB 580-413230/62			01:24	
ZZZZZZ			01:27	
ZZZZZZ			01:32	
ZZZZZZ			01:36	
ZZZZZZ			01:41	
ZZZZZZ			01:46	
ZZZZZZ			01:52	
CCV 580-413230/69			01:58	
CCB 580-413230/70			02:00	
CCV 580-413230/71			02:03	
CCB 580-413230/72			02:05	
ZZZZZZ			02:07	
ZZZZZZ			02:10	
ZZZZZZ			02:13	
ZZZZZZ			02:15	
ZZZZZZ			02:20	
ZZZZZZ			02:25	
ZZZZZZ			02:28	
ZZZZZZ			02:31	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCD																									
ZZZZZZ			02:36																										
ZZZZZZ			02:41																										
CCV 580-413230/83			02:46																										
CCB 580-413230/84			02:49																										
ZZZZZZ			02:51																										
ZZZZZZ			02:56																										
ZZZZZZ			03:00																										
ZZZZZZ			03:05																										
ZZZZZZ			03:10																										
ZZZZZZ			03:14																										
ZZZZZZ			03:19																										
CCV 580-413230/92			03:24																										
CCB 580-413230/93			03:27																										

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Batch Number: 410222 Batch Start Date: 11/16/22 14:51 Batch Analyst: Mautz, Brady N

Batch Method: 2540G Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	
580-120040-A-1	BNSF-K200-SC-0.0 -0.4-110922	2540G	T	0.825 g	7.570 g	5.651 g	28.450704225352 1 %	71.549295774647 9 %	
580-120040-A-2	BNSF-EF240-SC-1. 0-2.0-111022	2540G	T	0.824 g	4.674 g	3.447 g	31.870129870129 9 %	68.129870129870 1 %	
580-120040-A-3	BNSF-EF240-SC-1. 0-2.0-111022-1	2540G	T	0.820 g	4.783 g	3.231 g	39.162250820085 8 %	60.837749179914 2 %	
580-120040-A-4	BNSF-EF240-SC-3. 0-4.0-111022	2540G	T	0.818 g	5.161 g	4.093 g	24.591296338936 2 %	75.408703661063 8 %	
580-120040-A-4 DU	BNSF-EF240-SC-3. 0-4.0-111022	2540G	T	0.821 g	6.560 g	5.307 g	21.833071963756 8 %	78.166928036243 2 %	

Batch Notes	
Balance ID	SEA230
Oven ID	Oven 2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	11/16/2022
Time samples were place in the oven	15:31
Temperature - Start - Uncorrected	110.0 Degrees C
Oven Temp In	109.6 Degrees C
Date samples were removed from oven	11/17/2022
Time Samples were removed from oven	10:28
Temperature - End - Uncorrected	110.4 Degrees C
Oven Temp Out	110.0 Degrees C
Batch Comment	desiccator n/a

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-120040-1

SDG No.:

Batch Number: 413230 Batch Start Date: 12/16/22 22:10 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 12/18/22 03:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00141	Baked Sand 00149	CaCO3 00012	CaCO3_00004 00009	TOCS_LCS 00012	
ICV 580-413230/1		9060A						# g	
ICB 580-413230/2		9060A			# g				
CCV 580-413230/3		9060A					# g		
CCB 580-413230/4		9060A		# g					
MB 580-413230/5		9060A			# g				
LCS 580-413230/6		9060A				# g			
LCSD 580-413230/7		9060A				# g			
CCV 580-413230/15		9060A					# g		
CCB 580-413230/16		9060A		# g					
CCV 580-413230/27		9060A					# g		
CCB 580-413230/28		9060A		# g					
CCV 580-413230/35		9060A					# g		
CCB 580-413230/36		9060A		# g					

Batch Notes	
Phosphoric Acid ID	3157753
Pipette/Syringe/Dispenser ID	SEA224
Oven ID	oven 4
Temperature	70.3 Deg. C
Drying Time	12+ hours min
Batch Comment	ALum dish: 20200416

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 580-120040-1

Batch: 410222 **Analyst Initials: BNM**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-120040-A-1 **Analysis Date: Nov 16, 2022 14:51**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	71.5492957746479	%
Percent Moisture	None	1	28.4507042253521	%

Lab Sample ID: 580-120040-A-2 **Analysis Date: Nov 16, 2022 14:51**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	68.1298701298701	%
Percent Moisture	None	1	31.8701298701299	%

Lab Sample ID: 580-120040-A-3 **Analysis Date: Nov 16, 2022 14:51**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	60.8377491799142	%
Percent Moisture	None	1	39.1622508200858	%

Lab Sample ID: 580-120040-A-4 **Analysis Date: Nov 16, 2022 14:51**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	75.4087036610638	%
Percent Moisture	None	1	24.5912963389362	%

Lab Sample ID: 580-120040-A-4 DU **Analysis Date: Nov 16, 2022 14:51**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	78.1669280362432	%
Percent Moisture	None	1	21.8330719637568	%

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV 3092515	1928393		0.2048	TA SOIL LINNEAR	12/16/2022 10:10:04 PM	13.78	A01
CCV 3092515	1921327		0.2050	TA SOIL LINNEAR	12/16/2022 11:16:07 PM	13.72	C08
CCV 3092515	1940994		0.2067	TA SOIL LINNEAR	12/17/2022 1:35:16 AM	13.74	B06
CCV 3092515	1900140		0.2069	TA SOIL LINNEAR	12/17/2022 2:24:36 AM	13.44	D04
CCV 3092515	1745241		0.2031	TA SOIL LINNEAR	12/17/2022 11:41:32 PM	12.57	A01
CCV 3092515	1815018		0.2053	TA SOIL LINNEAR	12/18/2022 12:25:06 AM	12.94	B08
CCV 3092515	1850831		0.2062	TA SOIL LINNEAR	12/18/2022 1:22:25 AM	13.13	D10
CCV 3092515	1778178		0.2026	TA SOIL LINNEAR	12/18/2022 1:58:23 AM	12.84	A04
CCV 3092515	1829472		0.2068	TA SOIL LINNEAR	12/18/2022 2:03:45 AM	12.94	A06
CCV 3092515	1824452		0.2054	TA SOIL LINNEAR	12/18/2022 2:46:40 AM	13.00	C03
CCV 3092515	1817433		0.2042	TA SOIL LINNEAR	12/18/2022 3:24:58 AM	13.02	D09
Average			0.2052			13.19	
Std. Deviation			0.001			0.411	
RSD			0.708			3.116	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3508.7		0.2050	TA SOIL LINNEAR	12/16/2022 10:12:47 PM	-0.01641	A02
CCB 3049570	3414.5		0.2086	TA SOIL LINNEAR	12/16/2022 11:18:18 PM	-0.01679	C09
CCB 3049570	7228.9		0.2025	TA SOIL LINNEAR	12/17/2022 1:37:47 AM	0.01035	B07
CCB 3049570	3849.4		0.2061	TA SOIL LINNEAR	12/17/2022 2:27:17 AM	-0.01390	D05
CCB 3049570	2618.3		0.2008	TA SOIL LINNEAR	12/17/2022 11:43:55 PM	-0.02326	A02

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3200.0		0.2080	TA SOIL LINNEAR	12/18/2022 12:27:17 AM	-0.01835	B09
CCB 3049570	5209.5		0.2042	TA SOIL LINNEAR	12/18/2022 1:24:57 AM	-0.004249	E01
CCB 3049570	2279.2		0.2008	TA SOIL LINNEAR	12/18/2022 2:00:34 AM	-0.02574	A05
CCB 3049570	4798.6		0.2064	TA SOIL LINNEAR	12/18/2022 2:05:43 AM	-0.007125	A07
CCB 3049570	4108.3		0.2000	TA SOIL LINNEAR	12/18/2022 2:49:12 AM	-0.01242	C04
CCB 3049570	4340.2		0.2019	TA SOIL LINNEAR	12/18/2022 3:27:10 AM	-0.01062	D10
Average			0.2040			-0.01259	
Std. Deviation			0.003			0.009918	
RSD			1.483			78.77	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB 3117971	1689.4		0.2019	TA SOIL LINNEAR	12/16/2022 10:15:04 PM	-0.02989	A03
MB 3117971	2466.7		0.2042	TA SOIL LINNEAR	12/17/2022 11:46:07 PM	-0.02396	A03
MB 3117971	4104.7		0.2013	TA SOIL LINNEAR	12/18/2022 2:07:54 AM	-0.01237	A08
Average			0.2025			-0.02207	
Std. Deviation			0.002			0.008913	
RSD			0.756			40.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS 2450156	1823044		0.2022	TA SOIL LINNEAR	12/16/2022 10:18:02 PM	13.19	A04
LCS 2450156	1714809		0.2052	TA SOIL LINNEAR	12/17/2022 11:48:48 PM	12.23	A04
LCS 2450156	1761308		0.2076	TA SOIL LINNEAR	12/18/2022 2:10:32 AM	12.41	A09
Average			0.2050			12.61	
Std. Deviation			0.003			0.513	
RSD			1.320			4.067	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD 2450156	1841658		0.2052	TA SOIL LINNEAR	12/16/2022 10:21:00 PM	13.13	A05
LCSD 2450156	1721468		0.2055	TA SOIL LINNEAR	12/17/2022 11:52:05 PM	12.25	A05
LCSD 2450156	1748637		0.2071	TA SOIL LINNEAR	12/18/2022 2:13:43 AM	12.35	A10

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Average			0.2059			12.58	
Std. Deviation			0.001			0.481	
RSD			0.496			3.823	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-1	9932.1		0.2029	TA SOIL LINNEAR	12/16/2022 10:23:15 PM	0.02989	A06
570-116140-B-1	11513		0.2059	TA SOIL LINNEAR	12/16/2022 10:25:50 PM	0.04073	A07
570-116140-B-1	13827		0.2057	TA SOIL LINNEAR	12/16/2022 10:28:17 PM	0.05728	A08
570-116140-B-1	14078		0.2018	TA SOIL LINNEAR	12/16/2022 10:30:35 PM	0.06021	A09
Average			0.2041			0.04703	
Std. Deviation			0.002			0.014286	
RSD			1.001			30.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 570-116140-B-1	12906		0.2055	TA SOIL LINNEAR	12/16/2022 10:33:01 PM	0.05075	A10
DU 570-116140-B-1	16055		0.2019	TA SOIL LINNEAR	12/16/2022 10:35:20 PM	0.07455	B01
DU 570-116140-B-1	10511		0.2026	TA SOIL LINNEAR	12/16/2022 10:37:38 PM	0.03413	B02
DU 570-116140-B-1	15974		0.2077	TA SOIL LINNEAR	12/16/2022 10:40:00 PM	0.07190	B03
Average			0.2044			0.05783	
Std. Deviation			0.003			0.019056	
RSD			1.312			32.95	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 570-116140-B-1	944674	0.1033	0.1050	TA SOIL LINNEAR	12/16/2022 10:42:46 PM	13.13	B04

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 570-116140-B-1	940461	0.1035	0.1049	TA SOIL LINNEAR	12/16/2022 10:45:36 PM	13.08	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-2	22614		0.2053	TA SOIL LINNEAR	12/16/2022 10:47:52 PM	0.1202	B06
570-116140-B-2	20284		0.2006	TA SOIL LINNEAR	12/16/2022 10:50:15 PM	0.1060	B07
570-116140-B-2	19379		0.2019	TA SOIL LINNEAR	12/16/2022 10:52:32 PM	0.09872	B08
570-116140-B-2	36855		0.2074	TA SOIL LINNEAR	12/16/2022 10:54:52 PM	0.2198	B09
Average			0.2038			0.1362	
Std. Deviation			0.003			0.05645	
RSD			1.527			41.45	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-3	6431.3		0.1985	TA SOIL LINNEAR	12/16/2022 10:57:12 PM	0.004664	B10
570-116140-B-3	8272.4		0.2091	TA SOIL LINNEAR	12/16/2022 10:59:29 PM	0.01735	C01
570-116140-B-3	93022		0.2034	TA SOIL LINNEAR	12/16/2022 11:01:58 PM	0.6294	C02
570-116140-B-3	5461.7		0.2074	TA SOIL LINNEAR	12/16/2022 11:04:11 PM	-0.002398	C03
Average			0.2046			0.1623	
Std. Deviation			0.005			0.31156	
RSD			2.305			192.0	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-4	23302		0.2041	TA SOIL LINNEAR	12/16/2022 11:06:31 PM	0.1259	C04
570-116140-B-4	33569		0.2001	TA SOIL LINNEAR	12/16/2022 11:08:43 PM	0.2037	C05
570-116140-B-4	27017		0.2069	TA SOIL LINNEAR	12/16/2022 11:10:56 PM	0.1505	C06
570-116140-B-4	17782		0.2000	TA SOIL LINNEAR	12/16/2022 11:13:14 PM	0.08793	C07
Average			0.2028			0.1420	
Std. Deviation			0.003			0.04852	
RSD			1.651			34.17	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-5	22299		0.2062	TA SOIL LINNEAR	12/16/2022 11:20:44 PM	0.1174	C10
570-116140-B-5	17106		0.2024	TA SOIL LINNEAR	12/16/2022 11:22:56 PM	0.08199	D01
570-116140-B-5	24456		0.2075	TA SOIL LINNEAR	12/16/2022 11:25:07 PM	0.1320	D02
570-116140-B-5	18981		0.2030	TA SOIL LINNEAR	12/16/2022 11:27:18 PM	0.09530	D03
Average			0.2048			0.1067	
Std. Deviation			0.002			0.02232	
RSD			1.204			20.92	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-1	101628		0.2055	TA SOIL LINNEAR	12/16/2022 11:29:40 PM	0.6845	D04
580-119923-A-1	100997		0.2046	TA SOIL LINNEAR	12/16/2022 11:32:11 PM	0.6830	D05
Average			0.2051			0.6837	
Std. Deviation			0.0006			0.00107	
RSD			0.310			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-2	353162		0.2025	TA SOIL LINNEAR	12/16/2022 11:34:22 PM	2.518	D06
580-119923-A-2	338148		0.2049	TA SOIL LINNEAR	12/16/2022 11:36:37 PM	2.381	D07
Average			0.2037			2.449	
Std. Deviation			0.002			0.0969	
RSD			0.833			3.956	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148318-A-1	13813		0.1991	TA SOIL LINNEAR	12/16/2022 11:39:20 PM	0.05907	D08
180-148318-A-1	17780		0.2058	TA SOIL LINNEAR	12/16/2022 11:41:57 PM	0.08544	D09
180-148318-A-1	19470		0.2054	TA SOIL LINNEAR	12/16/2022 11:44:45 PM	0.09768	D10
180-148318-A-1	18303		0.2061	TA SOIL LINNEAR	12/16/2022 11:47:20 PM	0.08904	E01
Average			0.2041			0.08281	
Std. Deviation			0.003			0.016637	
RSD			1.639			20.09	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-1	36361		0.2018	TA SOIL LINNEAR	12/16/2022 11:50:00 PM	0.2223	E02
180-148319-A-1	36599		0.2045	TA SOIL LINNEAR	12/16/2022 11:52:49 PM	0.2211	E03
180-148319-A-1	36353		0.2014	TA SOIL LINNEAR	12/16/2022 11:55:33 PM	0.2227	E04
180-148319-A-1	35751		0.2016	TA SOIL LINNEAR	12/16/2022 11:58:19 PM	0.2181	E05
Average			0.2023			0.2210	
Std. Deviation			0.001			0.00209	
RSD			0.721			0.945	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-2	40258		0.2009	TA SOIL LINNEAR	12/17/2022 12:00:59 AM	0.2518	E06
180-148319-A-2	43927		0.1971	TA SOIL LINNEAR	12/17/2022 12:04:10 AM	0.2839	E07
180-148319-A-2	41649		0.2019	TA SOIL LINNEAR	12/17/2022 12:06:49 AM	0.2606	E08
180-148319-A-2	45358		0.1999	TA SOIL LINNEAR	12/17/2022 12:09:41 AM	0.2905	E09
Average			0.1999			0.2717	
Std. Deviation			0.002			0.01846	
RSD			1.034			6.793	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-1	25791		0.2071	TA SOIL LINNEAR	12/17/2022 12:12:10 AM	0.1417	E10
180-148320-A-1	26095		0.2041	TA SOIL LINNEAR	12/17/2022 12:52:55 AM	0.1460	A01
180-148320-A-1	25934		0.2053	TA SOIL LINNEAR	12/17/2022 12:55:21 AM	0.1440	A02
180-148320-A-1	32938		0.2080	TA SOIL LINNEAR	12/17/2022 12:57:44 AM	0.1915	A03
Average			0.2061			0.1558	
Std. Deviation			0.002			0.02389	
RSD			0.852			15.33	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	123060		0.2074	TA SOIL LINNEAR	12/17/2022 1:00:29 AM	0.8299	A04
180-148320-A-2	120778		0.1992	TA SOIL LINNEAR	12/17/2022 1:03:19 AM	0.8472	A05
180-148320-A-2	122644		0.2004	TA SOIL LINNEAR	12/17/2022 1:06:01 AM	0.8558	A06

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	125711		0.2054	TA SOIL LINNEAR	12/17/2022 1:08:47 AM	0.8569	A07
Average			0.2031			0.8475	
Std. Deviation			0.004			0.01249	
RSD			1.934			1.474	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148321-A-1	8238.1		0.2060	TA SOIL LINNEAR	12/17/2022 1:11:30 AM	0.01737	A08
180-148321-A-1	6082.7		0.2087	TA SOIL LINNEAR	12/17/2022 1:14:00 AM	0.001985	A09
180-148321-A-1	9335.3		0.2044	TA SOIL LINNEAR	12/17/2022 1:16:39 AM	0.02538	A10
180-148321-A-1	26.074		0.2022	TA SOIL LINNEAR	12/17/2022 1:19:20 AM	-0.04192	B01
Average			0.2053			0.0007045	
Std. Deviation			0.003			0.030029	
RSD			1.333			4.262E+3	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-1	98003		0.2046	TA SOIL LINNEAR	12/17/2022 1:22:41 AM	0.6615	B02
180-148322-A-1	115920		0.2039	TA SOIL LINNEAR	12/17/2022 1:25:41 AM	0.7927	B03
180-148322-A-1	106683		0.2018	TA SOIL LINNEAR	12/17/2022 1:28:35 AM	0.7338	B04
180-148322-A-1	106572		0.2011	TA SOIL LINNEAR	12/17/2022 1:31:50 AM	0.7355	B05
Average			0.2028			0.7309	
Std. Deviation			0.002			0.05377	
RSD			0.821			7.356	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-2	118451		0.2052	TA SOIL LINNEAR	12/17/2022 1:40:34 AM	0.8058	B08
180-148322-A-2	107362		0.2040	TA SOIL LINNEAR	12/17/2022 1:43:20 AM	0.7308	B09
180-148322-A-2	116247		0.2035	TA SOIL LINNEAR	12/17/2022 1:46:07 AM	0.7967	B10
180-148322-A-2	116916		0.2079	TA SOIL LINNEAR	12/17/2022 1:49:02 AM	0.7845	C01
Average			0.2052			0.7794	
Std. Deviation			0.002			0.03360	
RSD			0.959			4.311	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-3	143102		0.2085	TA SOIL LINNEAR	12/17/2022 1:51:47 AM	0.9666	C02
180-148322-A-3	179812		0.2068	TA SOIL LINNEAR	12/17/2022 1:54:36 AM	1.235	C03
180-148322-A-3	133592		0.2072	TA SOIL LINNEAR	12/17/2022 1:57:18 AM	0.9053	C04
180-148322-A-3	160271		0.2040	TA SOIL LINNEAR	12/17/2022 2:00:13 AM	1.111	C05
Average			0.2066			1.055	
Std. Deviation			0.002			0.1482	
RSD			0.917			14.05	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-1	29742		0.2083	TA SOIL LINNEAR	12/17/2022 2:03:13 AM	0.1687	C06
580-120040-A-1	27576		0.2079	TA SOIL LINNEAR	12/17/2022 2:06:02 AM	0.1537	C07
Average			0.2081			0.1612	
Std. Deviation			0.0003			0.01058	
RSD			0.136			6.565	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-2	125374		0.2002	TA SOIL LINNEAR	12/17/2022 2:08:40 AM	0.8767	C08
580-120040-A-2	129250		0.2058	TA SOIL LINNEAR	12/17/2022 2:11:24 AM	0.8805	C09
Average			0.2030			0.8786	
Std. Deviation			0.004			0.00268	
RSD			1.951			0.305	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-3	118575		0.2082	TA SOIL LINNEAR	12/17/2022 2:13:58 AM	0.7951	C10
580-120040-A-3	109232		0.2017	TA SOIL LINNEAR	12/17/2022 2:16:30 AM	0.7527	D01
Average			0.2050			0.7739	
Std. Deviation			0.005			0.02996	
RSD			2.243			3.872	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-4	250449		0.2063	TA SOIL LINNEAR	12/17/2022 2:19:04 AM	1.741	D02
580-120040-A-4	223372		0.1989	TA SOIL LINNEAR	12/17/2022 2:21:38 AM	1.606	D03
Average			0.2026			1.673	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.005			0.0955	
RSD			2.583			5.708	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120212-A-1	9734.6		0.2035	TA SOIL LINNEAR	12/17/2022 11:54:24 PM	0.02838	A06
580-120212-A-1	9752.0		0.2022	TA SOIL LINNEAR	12/17/2022 11:56:59 PM	0.02869	A07
Average			0.2028			0.02853	
Std. Deviation			0.0009			0.000218	
RSD			0.453			0.766	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-120212-A-1	8819.3		0.2034	TA SOIL LINNEAR	12/17/2022 11:59:31 PM	0.02178	A08
DU 580-120212-A-1	9379.4		0.2025	TA SOIL LINNEAR	12/18/2022 12:01:58 AM	0.02594	A09
Average			0.2030			0.02386	
Std. Deviation			0.0006			0.002939	
RSD			0.314			12.32	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-120212-A-1	894038	0.1025	0.1022	TA SOIL LINNEAR	12/18/2022 12:04:48 AM	12.76	A10

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-120212-A-1	923969	0.1060	0.1042	TA SOIL LINNEAR	12/18/2022 12:07:33 AM	12.93	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-1	290184		0.2063	TA SOIL LINNEAR	12/18/2022 12:09:44 AM	2.023	B02
580-119976-A-1	332503		0.2003	TA SOIL LINNEAR	12/18/2022 12:11:56 AM	2.394	B03
Average			0.2033			2.209	
Std. Deviation			0.004			0.2621	
RSD			2.087			11.87	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-2	82513		0.2040	TA SOIL LINNEAR	12/18/2022 12:14:23 AM	0.5520	B04
580-119976-A-2	76533		0.2068	TA SOIL LINNEAR	12/18/2022 12:16:56 AM	0.5021	B05
Average			0.2054			0.5270	
Std. Deviation			0.002			0.03530	
RSD			0.964			6.698	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-3	264768		0.2020	TA SOIL LINNEAR	12/18/2022 12:19:11 AM	1.882	B06
580-119976-A-3	282077		0.2065	TA SOIL LINNEAR	12/18/2022 12:21:25 AM	1.964	B07
Average			0.2042			1.923	
Std. Deviation			0.003			0.0580	
RSD			1.558			3.016	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-4	343337		0.1991	TA SOIL LINNEAR	12/18/2022 12:29:14 AM	2.488	B10
580-119976-A-4	340680		0.2004	TA SOIL LINNEAR	12/18/2022 12:31:32 AM	2.453	C01
Average			0.1997			2.471	
Std. Deviation			0.0009			0.0252	
RSD			0.460			1.019	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-5	28357		0.2021	TA SOIL LINNEAR	12/18/2022 12:34:12 AM	0.1638	C02
580-119976-A-5	39203		0.2025	TA SOIL LINNEAR	12/18/2022 12:36:44 AM	0.2421	C03
Average			0.2023			0.2030	
Std. Deviation			0.0003			0.05536	
RSD			0.140			27.27	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-6	448592		0.2073	TA SOIL LINNEAR	12/18/2022 12:38:55 AM	3.135	C04
580-119976-A-6	445955		0.2015	TA SOIL LINNEAR	12/18/2022 12:41:07 AM	3.206	C05
Average			0.2044			3.171	
Std. Deviation			0.004			0.0502	
RSD			2.006			1.584	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-7	361807		0.1032	TA SOIL LINNEAR	12/18/2022 12:43:21 AM	5.064	C06
580-119976-A-7	389508		0.1059	TA SOIL LINNEAR	12/18/2022 12:45:37 AM	5.318	C07
Average			0.1046			5.191	
Std. Deviation			0.002			0.1802	
RSD			1.826			3.472	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-8	256825		0.2050	TA SOIL LINNEAR	12/18/2022 12:47:56 AM	1.797	C08
580-119976-A-8	252142		0.2072	TA SOIL LINNEAR	12/18/2022 12:50:15 AM	1.745	C09
Average			0.2061			1.771	
Std. Deviation			0.002			0.0370	
RSD			0.755			2.086	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-9	66829		0.2022	TA SOIL LINNEAR	12/18/2022 12:52:57 AM	0.4430	C10
580-119976-A-9	74279		0.2069	TA SOIL LINNEAR	12/18/2022 12:55:38 AM	0.4858	D01
Average			0.2046			0.4644	
Std. Deviation			0.003			0.03026	
RSD			1.625			6.515	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-10	628252		0.2009	TA SOIL LINNEAR	12/18/2022 12:57:49 AM	4.548	D02
580-119976-A-10	518016		0.2050	TA SOIL LINNEAR	12/18/2022 1:00:01 AM	3.668	D03
Average			0.2029			4.108	
Std. Deviation			0.003			0.6224	
RSD			1.428			15.15	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-11	75280		0.2034	TA SOIL LINNEAR	12/18/2022 1:02:17 AM	0.5014	D04
580-119976-A-11	187913		0.2005	TA SOIL LINNEAR	12/18/2022 1:04:32 AM	1.333	D05
Average			0.2020			0.9173	
Std. Deviation			0.002			0.58820	
RSD			1.015			64.12	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-12	41691		0.2062	TA SOIL LINNEAR	12/18/2022 1:07:02 AM	0.2555	D06
580-119976-A-12	47423		0.2032	TA SOIL LINNEAR	12/18/2022 1:09:28 AM	0.3007	D07
Average			0.2047			0.2781	
Std. Deviation			0.002			0.03195	
RSD			1.036			11.49	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-13	77779		0.2058	TA SOIL LINNEAR	12/18/2022 1:11:51 AM	0.5134	D08
580-119976-A-13	76126		0.2073	TA SOIL LINNEAR	12/18/2022 1:14:17 AM	0.4980	D09
Average			0.2066			0.5057	
Std. Deviation			0.001			0.01090	
RSD			0.514			2.155	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-14	284848		0.2080	TA SOIL LINNEAR	12/18/2022 1:27:08 AM	1.969	E02
580-119976-A-14	253416		0.2087	TA SOIL LINNEAR	12/18/2022 1:29:19 AM	1.742	E03
Average			0.2083			1.855	
Std. Deviation			0.0005			0.1610	
RSD			0.238			8.677	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-15	26092		0.2059	TA SOIL LINNEAR	12/18/2022 1:32:01 AM	0.1447	E04
580-119976-A-15	24881		0.2023	TA SOIL LINNEAR	12/18/2022 1:34:38 AM	0.1384	E05
Average			0.2041			0.1416	
Std. Deviation			0.003			0.00439	
RSD			1.247			3.105	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-16	223688		0.2043	TA SOIL LINNEAR	12/18/2022 1:36:50 AM	1.565	E06
580-119976-A-16	236123		0.2071	TA SOIL LINNEAR	12/18/2022 1:39:02 AM	1.632	E07
Average			0.2057			1.599	
Std. Deviation			0.002			0.0474	
RSD			0.963			2.962	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-17	15251		0.2030	TA SOIL LINNEAR	12/18/2022 1:41:38 AM	0.06834	E08
580-119976-A-17	13846		0.2048	TA SOIL LINNEAR	12/18/2022 1:44:02 AM	0.05767	E09
Average			0.2039			0.06300	
Std. Deviation			0.001			0.007546	
RSD			0.624			11.98	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-18	52973		0.2049	TA SOIL LINNEAR	12/18/2022 1:46:39 AM	0.3379	E10
580-119976-A-18	54241		0.2030	TA SOIL LINNEAR	12/18/2022 1:49:49 AM	0.3503	A01
Average			0.2040			0.3441	
Std. Deviation			0.001			0.00872	
RSD			0.659			2.535	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-19	61150		0.2029	TA SOIL LINNEAR	12/18/2022 1:52:28 AM	0.4004	A02
580-119976-A-19	66462		0.2020	TA SOIL LINNEAR	12/18/2022 1:55:04 AM	0.4408	A03
Average			0.2025			0.4206	
Std. Deviation			0.0006			0.02855	
RSD			0.314			6.788	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-20	317725		0.2052	TA SOIL LINNEAR	12/18/2022 2:15:54 AM	2.231	B01
580-119976-A-20	311724		0.2017	TA SOIL LINNEAR	12/18/2022 2:18:05 AM	2.226	B02
Average			0.2034			2.229	
Std. Deviation			0.002			0.0035	
RSD			1.216			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-119976-A-20	317573		0.2036	TA SOIL LINNEAR	12/18/2022 2:20:20 AM	2.248	B03
DU 580-119976-A-20	309506		0.1991	TA SOIL LINNEAR	12/18/2022 2:22:35 AM	2.239	B04
Average			0.2014			2.243	
Std. Deviation			0.003			0.0061	
RSD			1.580			0.273	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-119976-A-20	1114088	0.1080	0.1018	TA SOIL LINNEAR	12/18/2022 2:25:24 AM	15.98	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-119976-A-20	1098477	0.1071	0.1021	TA SOIL LINNEAR	12/18/2022 2:28:22 AM	15.71	B06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-21	24420		0.2068	TA SOIL LINNEAR	12/18/2022 2:31:10 AM	0.1322	B07
580-119976-A-21	22768		0.2038	TA SOIL LINNEAR	12/18/2022 2:34:05 AM	0.1222	B08
Average			0.2053			0.1272	
Std. Deviation			0.002			0.00704	
RSD			1.033			5.533	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-22	173333		0.2046	TA SOIL LINNEAR	12/18/2022 2:36:34 AM	1.202	B09
580-119976-A-22	168984		0.2068	TA SOIL LINNEAR	12/18/2022 2:39:02 AM	1.158	B10
Average			0.2057			1.180	
Std. Deviation			0.002			0.0309	
RSD			0.756			2.616	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-23	124975		0.2033	TA SOIL LINNEAR	12/18/2022 2:41:20 AM	0.8605	C01
580-119976-A-23	148893		0.2063	TA SOIL LINNEAR	12/18/2022 2:43:40 AM	1.018	C02
Average			0.2048			0.9393	
Std. Deviation			0.002			0.11148	
RSD			1.036			11.87	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-24	56879		0.2025	TA SOIL LINNEAR	12/18/2022 2:51:27 AM	0.3703	C05
580-119976-A-24	52313		0.2073	TA SOIL LINNEAR	12/18/2022 2:53:49 AM	0.3293	C06
Average			0.2049			0.3498	
Std. Deviation			0.003			0.02892	
RSD			1.656			8.268	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-25	216436		0.2049	TA SOIL LINNEAR	12/18/2022 2:56:00 AM	1.509	C07
580-119976-A-25	227871		0.2000	TA SOIL LINNEAR	12/18/2022 2:58:15 AM	1.630	C08
Average			0.2025			1.569	
Std. Deviation			0.003			0.0855	
RSD			1.711			5.447	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-26	162714		0.2023	TA SOIL LINNEAR	12/18/2022 3:00:39 AM	1.139	C09
580-119976-A-26	208820		0.2053	TA SOIL LINNEAR	12/18/2022 3:02:59 AM	1.452	C10
Average			0.2038			1.295	
Std. Deviation			0.002			0.2213	
RSD			1.041			17.09	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-27	103846		0.1971	TA SOIL LINNEAR	12/18/2022 3:05:21 AM	0.7302	D01
580-119976-A-27	93093		0.2072	TA SOIL LINNEAR	12/18/2022 3:07:47 AM	0.6184	D02
Average			0.2021			0.6743	
Std. Deviation			0.007			0.07903	
RSD			3.533			11.72	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-28	258528		0.1992	TA SOIL LINNEAR	12/18/2022 3:10:13 AM	1.862	D03
580-119976-A-28	263877		0.2056	TA SOIL LINNEAR	12/18/2022 3:12:34 AM	1.843	D04
Average			0.2024			1.852	
Std. Deviation			0.005			0.0140	
RSD			2.236			0.755	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-29	260776		0.2016	TA SOIL LINNEAR	12/18/2022 3:14:54 AM	1.856	D05
580-119976-A-29	289727		0.1989	TA SOIL LINNEAR	12/18/2022 3:17:13 AM	2.095	D06
Average			0.2002			1.976	
Std. Deviation			0.002			0.1689	
RSD			0.953			8.548	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-30	189258		0.2051	TA SOIL LINNEAR	12/18/2022 3:19:28 AM	1.313	D07
580-119976-A-30	265114		0.2049	TA SOIL LINNEAR	12/18/2022 3:21:45 AM	1.858	D08
Average			0.2050			1.585	
Std. Deviation			0.0001			0.3852	
RSD			0.069			24.30	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	5800.6		1.0000	TA SOIL LINNEAR	11/11/2022 8:11:21 PM	0.000000008319	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
2450155	207376		0.0250	TA SOIL LINNEAR	11/11/2022 8:13:53 PM	12.04	A04
2450155	403472		0.0498	TA SOIL LINNEAR	11/11/2022 8:16:25 PM	11.82	A05
2450155	613484		0.0753	TA SOIL LINNEAR	11/11/2022 8:19:09 PM	11.91	A06
2450155	818286		0.1007	TA SOIL LINNEAR	11/11/2022 8:21:56 PM	11.89	A07
2450155	1225915		0.1506	TA SOIL LINNEAR	11/11/2022 8:24:50 PM	11.93	A08
2450155	1651543		0.2001	TA SOIL LINNEAR	11/11/2022 8:27:46 PM	12.10	A09
2450155	2061584		0.2505	TA SOIL LINNEAR	11/11/2022 8:31:03 PM	12.07	A10
Average			0.1217			11.96	
Std. Deviation			0.08			0.102	
RSD			67.66			0.855	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Shipping and Receiving Documents

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 10633565 **Workorder Name:** D3631600 **Results Requested By:** 12/6/2022 120040

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424 JGFU

State of Sample Origin: WA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	9060A TOC	LAB USE ONLY
1	BNSF-K200-SC-0.0-0.4-110922	11/9/2022 12:35	10633565001	Solid	1	X	
2	BNSF-EF240-SC-1.0-2.0-111022	11/10/2022 12:10	10633565003	Solid	1	X	
3	BNSF-EF240-SC-1.0-2.0-111022-1	11/10/2022 12:15	10633565004	Solid	1	X	
4	BNSF-EF240-SC-3.0-4.0-111022	11/10/2022 12:20	10633565005	Solid	1	X	
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-14-22 15:40	KH	11/15/22 1320
2				
3				

Comments
Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

580-120040 Chain of Custody

Therm. ID: A3 Cor: 2.8 ° Unc: 2.7
Cooler Dsc: SM
Packing: Bubble
Cust. Seal: Yes No
Blue Ice, Wet, Dry, None
FedEx: 09
UPS:
Lab Cour:
Other:

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-120040-1

Login Number: 120040
List Number: 1
Creator: Holdener, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

November 23, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1557921
Samples Received:	11/15/2022
Project Number:	10633565
Description:	D3631600
Site:	001
Report To:	Kongmeng Vang
	1700 Elm Street Suite 200
	Minneapolis, MN 55414

Entire Report Reviewed By:

Nancy McLain
Project Manager

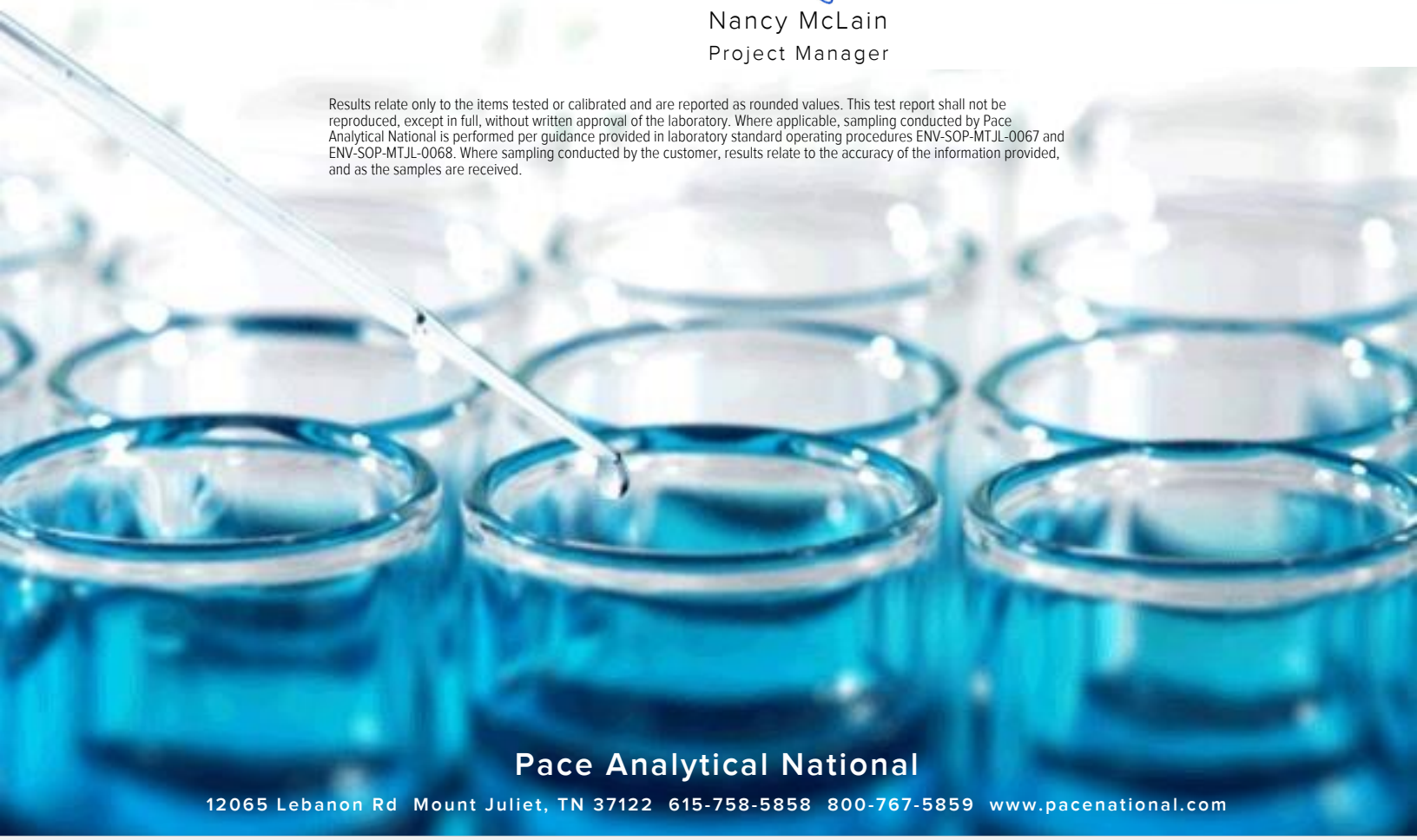


TABLE OF CONTENTS

BNSF-K200-SC-0.0-0.4-110922 L1557921-01 Solid

Collected by	Collected date/time	Received date/time
	11/09/22 12:35	11/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1960382	1	11/16/22 16:48	11/16/22 17:02	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962624	1	11/21/22 09:14	11/22/22 16:05	JRM	Mt. Juliet, TN

BNSF-EF470-SC-11.0-120-110922 L1557921-02 Solid

Collected by	Collected date/time	Received date/time
	11/09/22 14:20	11/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1960382	1	11/16/22 16:48	11/16/22 17:02	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962624	1	11/21/22 09:14	11/22/22 12:54	JRM	Mt. Juliet, TN

BNSF-EF240-SC-1.0-2.0-110922 L1557921-03 Solid

Collected by	Collected date/time	Received date/time
	11/10/22 12:10	11/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1960382	1	11/16/22 16:48	11/16/22 17:02	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962624	1	11/21/22 09:14	11/22/22 15:41	JRM	Mt. Juliet, TN

BNSF-EF240-SC-1.0-2.0-110922 L1557921-04 Solid

Collected by	Collected date/time	Received date/time
	11/10/22 12:15	11/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1960382	1	11/16/22 16:48	11/16/22 17:02	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962624	1	11/21/22 09:14	11/22/22 14:06	JRM	Mt. Juliet, TN

BNSF-EF240-SC-3.0-4.0-110922 L1557921-05 Solid

Collected by	Collected date/time	Received date/time
	11/10/22 12:20	11/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1960384	1	11/16/22 15:59	11/16/22 16:18	CMK	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962624	2	11/21/22 09:14	11/22/22 17:41	JRM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 11/23/22 13:11

2540 G-2011 Total Solids

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-K200-SC-0.0-0.4-110922

Lab Sample ID:	L1557921-01	**SDG:**	L1557921
Client Sample ID:	BNSF-K200-SC-0.0-0.4-110922	**Collected Date/Time:**	11/09/22 12:35
Lab File ID:	10	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:48
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	14.651 g
Total Solids (%):	79.2	**Final Wt/Vol:**	11.866 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	79.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF470-SC-11.0-120-110922

Lab Sample ID:	L1557921-02	**SDG:**	L1557921
Client Sample ID:	BNSF-EF470-SC-11.0-120-110922	**Collected Date/Time:**	11/09/22 14:20
Lab File ID:	11	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:48
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	7.742 g
Total Solids (%):	68.6	**Final Wt/Vol:**	5.713 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	68.6	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-1.0-2.0-110922

Lab Sample ID:	L1557921-03	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-1.0-2.0-110922	**Collected Date/Time:**	11/10/22 12:10
Lab File ID:	12	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:48
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	12.225 g
Total Solids (%):	72.1	**Final Wt/Vol:**	9.172 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	72.1	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-1.0-2.0-110922

Lab Sample ID:	L1557921-04	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-1.0-2.0-110922	**Collected Date/Time:**	11/10/22 12:15
Lab File ID:	13	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:48
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	7.47 g
Total Solids (%):	70.4	**Final Wt/Vol:**	5.638 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	70.4	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-3.0-4.0-110922

Lab Sample ID:	L1557921-05	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-3.0-4.0-110922	**Collected Date/Time:**	11/10/22 12:20
Lab File ID:	04	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 15:59
Analytical Batch:	WG1960384	**Analysis Date/Time:**	11/16/22 16:18
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	10.699 g
Total Solids (%):	72.2	**Final Wt/Vol:**	8.076 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	72.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862160-1	**SDG:**	L1557921
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 15:50
Analytical Batch:	WG1960384	**Analysis Date/Time:**	11/16/22 16:18
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.291 g
Total Solids (%):		**Final Wt/Vol:**	1.288 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00300	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862170-1	**SDG:**	L1557921
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:47
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.271 g
Total Solids (%):		**Final Wt/Vol:**	1.27 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00100	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862160-2	**SDG:**	L1557921
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	03	**Received Date/Time:**	_____
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 15:50
Analytical Batch:	WG1960384	**Analysis Date/Time:**	11/16/22 16:18
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.284 g
Total Solids (%):	_____	**Final Wt/Vol:**	6.281 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862160-3	**SDG:**	L1557921
Client Sample ID:	DUP	**Collected Date/Time:**	11/11/22 08:45
Lab File ID:	02	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 15:50
Analytical Batch:	WG1960384	**Analysis Date/Time:**	11/16/22 16:18
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.773 g
Total Solids (%):	88.6	**Final Wt/Vol:**	10.535 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	88.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862170-3	**SDG:**	L1557921
Client Sample ID:	DUP	**Collected Date/Time:**	11/09/22 12:35
Lab File ID:	02	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:47
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	13.429 g
Total Solids (%):	79.2	**Final Wt/Vol:**	10.905 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	79.2	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3862170-2	**SDG:**	L1557921
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	03	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/16/22 16:47
Analytical Batch:	WG1960382	**Analysis Date/Time:**	11/16/22 17:02
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	11.286 g
Total Solids (%):		**Final Wt/Vol:**	6.286 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SDG:	L1557921	**Calibration (begin) date/time:**	
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1960384

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.00300	

SDG:	L1557921	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1960382

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.00100	

DUP Sample / File ID:	R3862160-3 / 02	**SDG:**	L1557921
OS Sample / File ID:	L1558011-08 / 13	**Analytical Batch:**	WG1960384
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	88.6	88.2	0.458	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DUP Sample / File ID:	R3862170-3 / 02	**SDG:**	L1557921
OS Sample / File ID:	L1557921-01 / 10	**Analytical Batch:**	WG1960382
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	79.2	79.2	0.0399	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1557921-05

SAMPLE NO.:
R3862160-2

LCS Sample / File ID:	R3862160-2 / 03	**SDG:**	L1557921
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1960384
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1557921-01,02,03,04

SAMPLE NO.:
R3862170-2

LCS Sample / File ID:	R3862170-2 / 03	**SDG:**	L1557921
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1960382
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1557921-01,02,03,04,05 **Analytical Method:** 2540 G-2011

Matrix: Solid **Prep Method:** SM 2540 G

Analyte	CAS	Wavelength	Mass	MDL	RDL
				%	%
Total Solids	TSOLIDS				

ANALYSIS LOG

SDG:	L1557921	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	
Analytical Run:	WG1960384	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3862160-1	01	11/16/22 16:18	1	WG1960384
DUP	R3862160-3	02	11/16/22 16:18	1	WG1960384
LCS	R3862160-2	03	11/16/22 16:18	1	WG1960384
OS	L1558011-08	13	11/16/22 16:18		
BNSF-EF240-SC-3.0-4.0-110922	L1557921-05	04	11/16/22 16:18	1	WG1960384

ANALYSIS LOG

SDG:	L1557921	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	
Analytical Run:	WG1960382	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3862170-1	01	11/16/22 17:02	1	WG1960382
DUP	R3862170-3	02	11/16/22 17:02	1	WG1960382
LCS	R3862170-2	03	11/16/22 17:02	1	WG1960382
BNSF-K200-SC-0.0-0.4-110922	L1557921-01	10	11/16/22 17:02	1	WG1960382
BNSF-EF470-SC-11.0-120-110922	L1557921-02	11	11/16/22 17:02	1	WG1960382
BNSF-EF240-SC-1.0-2.0-110922	L1557921-03	12	11/16/22 17:02	1	WG1960382
BNSF-EF240-SC-1.0-2.0-110922	L1557921-04	13	11/16/22 17:02	1	WG1960382

Total Solids WetChem Prep Benchsheet

Batch: WG1960382

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1557921	WG1960262	BJM688	PREPREPBAL3	15-NOV-22

Analyst: MT3521 **Prep Start Date/Time:** 11/16/22 16:47-16:48 **Prep End Date/Time:** 11/17/22 12:33 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				RR1	1.271	1.271	1.269	1.270	0.001	0.001	99.999						CMK3616	11/17/22 12:33:45
LCS				RR2	1.285	11.286	6.284	6.286	0.002	50.005	49.995	100.01	99.99				CMK3616	11/17/22 12:33:45
DUP(L1557921-01)				RR3	1.289	13.429	10.896	10.905	0.009	79.2092	20.7908			0.04	0.15	11/15 TUES 4	CMK3616	11/17/22 12:33:45
1. L1557892-02	SS	TX	11/09/22 16:25	RR4	1.268	10.328	10.011	10.032	0.021	96.7329	3.2671						CMK3616	11/17/22 12:33:45
2. L1557892-03	SS	TX	11/09/22 16:30	RR5	1.265	6.130	6.024	6.034	0.01	98.0267	1.9733						CMK3616	11/17/22 12:33:45
3. L1557892-04	SS	TX	11/09/22 16:35	RR6	1.294	10.156	9.925	9.951	0.026	97.6868	2.3132						CMK3616	11/17/22 12:33:45
4. L1557905-01	SS	TX	11/09/22 11:30	RR7	1.267	9.612	9.131	9.138	0.007	94.32	5.68						CMK3616	11/17/22 12:33:45
5. L1557911-01	SS	VA	11/08/22 12:15	RR8	1.292	9.297	2.844	2.864	0.02	19.6377	80.3623						CMK3616	11/17/22 12:33:45
6. L1557915-01	SS	TX	11/09/22 11:31	RR9	1.292	12.011	11.124	11.131	0.007	91.7903	8.2097						CMK3616	11/17/22 12:33:45
7. L1557921-01	SS	WA	11/09/22 12:35	RR10	1.276	14.651	11.858	11.866	0.008	79.1776	20.8224						CMK3616	11/17/22 12:33:45
8. L1557921-02	SS	WA	11/09/22 14:20	RR11	1.274	7.742	5.701	5.713	0.012	68.6302	31.3698					11/15 TUES 4	CMK3616	11/17/22 12:33:45
9. L1557921-03	SS	WA	11/10/22 12:10	RR12	1.290	12.225	9.153	9.172	0.019	72.0805	27.9195					11/15 TUES 4	CMK3616	11/17/22 12:33:45
10. L1557921-04	SS	WA	11/10/22 12:15	RR13	1.271	7.470	5.628	5.638	0.01	70.4468	29.5532					11/15 TUES 4	CMK3616	11/17/22 12:33:45

Comments:

Reviewed By:CMK3616 on 11/17/22 12:33:45

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/16/22 17:02:57	104	104	11/17/22 06:10:12	104	104	BLANK, LCS, DUP(L1557921-01), L1557892-02, L1557921-04, L1557921-03, L1557921-02, L1557921-01, L1557915-01, L1557911-01, L1557905-01, L1557892-04, L1557892-03
2	Oven-1hr	11/17/22 06:12:07	104	104	11/17/22 12:30:39	104	104	BLANK, LCS, DUP(L1557921-01), L1557892-02, L1557892-03, L1557892-04, L1557905-01, L1557911-01, L1557915-01, L1557921-01, L1557921-02, L1557921-03, L1557921-04

Total Solids WetChem Prep Benchsheet

Batch: WG1960384

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1557921	WG1960262	BJM688	PREPREPBAL3	15-NOV-22
L1557957	WG1960182	BJM688	PREPREPBAL4	15-NOV-22
L1558011	WG1960258	BJM688	PREPREPBAL4	15-NOV-22

Analyst: MT3521 **Prep Start Date/Time:** 11/16/22 15:50-15:59 **Prep End Date/Time:** 11/17/22 12:23 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				PP1	1.291	1.291	1.290	1.288	0.002	0.003	99.997						CMK3616	11/17/22 12:23:18
LCS				PP2	1.282	11.284	6.284	6.281	0.003	49.98	50.02	99.96	100.04				CMK3616	11/17/22 12:23:18
DUP(L1558011-08)				PP3	1.292	11.773	10.535	10.535	0	88.1881	11.8119			0.46	3.49	Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
1. L1557921-05	SS	WA	11/10/22 12:20	PP4	1.268	10.699	8.069	8.076	0.007	72.1875	27.8125					11/15 TUES 4	CMK3616	11/17/22 12:23:18
2. L1557957-01	SS	WA	11/10/22 13:55	PP5	1.292	10.652	7.634	7.637	0.003	67.7885	32.2115					Tue 03 / 1115PP4	CMK3616	11/17/22 12:23:18
3. L1558011-01	SS	OR	11/09/22 14:45	PP6	1.270	9.722	6.774	6.779	0.005	65.1798	34.8202					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
4. L1558011-02	SS	OR	11/09/22 15:00	PP7	1.296	10.888	9.930	9.929	0.001	90.0021	9.9979					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
5. L1558011-03	SS	OR	11/09/22 15:15	PP8	1.287	11.130	8.165	8.177	0.012	69.999	30.001					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
6. L1558011-04	SS	OR	11/10/22 11:00	PP9	1.294	10.420	9.365	9.368	0.003	88.4725	11.5275					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
7. L1558011-05	SS	OR	11/10/22 11:45	PP10	1.292	15.826	14.594	14.615	0.021	91.6678	8.3322					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
8. L1558011-06	SS	OR	11/10/22 16:00	PP11	1.296	11.085	9.589	9.593	0.004	84.7584	15.2416					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
9. L1558011-07	SS	OR	11/10/22 16:15	PP12	1.292	10.502	9.694	9.697	0.003	91.2595	8.7405					Tue 04 / 1115PP4	CMK3616	11/17/22 12:23:18
10. L1558011-08	SS	OR	11/11/22 08:45	PP13	1.294	9.175	8.255	8.276	0.021	88.5928	11.4072						CMK3616	11/17/22 12:23:18

Comments:

Reviewed By:CMK3616 on 11/17/22 12:23:18

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/16/22 16:18:09	104	104	11/17/22 06:03:20	104	104	BLANK, LCS, DUP(L1558011-08), L1557921-05, L1558011-08, L1558011-07, L1558011-06, L1558011-05, L1558011-04, L1558011-03, L1558011-02, L1558011-01, L1557957-01
2	Oven-1hr	11/17/22 06:05:09	104	104	11/17/22 12:18:56	104	104	BLANK, LCS, DUP(L1558011-08), L1557921-05, L1557957-01, L1558011-01, L1558011-02, L1558011-03, L1558011-04, L1558011-05, L1558011-06, L1558011-07, L1558011-08

8270E Semi Volatile Organic Compounds (GC/MS)

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1557921
Matrix: Solid

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	% Rec.	% Rec.	% Rec.	% Rec.	% Rec.	
BNSF-K200-SC-0.0-0.4-110922	L1557921-01	BNAMS4	1122_19	74.5	66.2	61.5	66.7	82.6	69.1	0
BNSF-EF470-SC-11.0-120-110922	L1557921-02	BNAMS4	1122_11	62.9	55.5	54.9	59.2	67.9	64.7	0
BNSF-EF240-SC-1.0-2.0-110922	L1557921-03	BNAMS4	1122_18	60.8	54.7	50.5	52.9	69.1	53.8	0
BNSF-EF240-SC-1.0-2.0-110922	L1557921-04	BNAMS4	1122_14	61.3	56.5	52.1	56.0	71.5	57.8	0
BNSF-EF240-SC-3.0-4.0-110922	L1557921-05	BNAMS4	1122_23	63.4	59.0	53.0	54.2	73.2	58.3	0
MS	R3863963-3	BNAMS4	1122_20	71.8	67.1	51.2	69.4	87.6	78.5	0
MSD	R3863963-4	BNAMS4	1122_21	75.0	68.7	52.1	72.7	89.6	77.6	0
BLANK	R3863963-2	BNAMS4	1122_06	76.6	70.3	65.2	74.2	72.1	87.1	0
LCS	R3863963-1	BNAMS4	1122_05	69.8	64.9	50.8	68.2	83.0	73.3	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	12.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 122
DMC-4	2-Fluorobiphenyl	15.0 - 120
DMC-5	2,4,6-Tribromophenol	10.0 - 127
DMC-6	p-Terphenyl-d14	10.0 - 120

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1557921-01,02,03,04,05

SAMPLE NO.:
R3863963-3
R3863963-4

MS Sample / File ID: R3863963-3 / 1122_20
MSD Sample / File ID: R3863963-4 / 1122_21
OS Sample / File ID: L1557921-01 / 1122_19
Instrument ID: BNAMS4
Analytical Method: 8270E

SDG: L1557921
Analytical Batch: WG1962624
Matrix: Solid

Analyte	Spike Amount (dry)	OS Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*	*%*	*%*		*%*	*%*	*%*
Acenaphthene	0.834	U	0.548	0.580	65.8	70.4	1	18.0 - 120	5.60	32
Acenaphthylene	0.834	U	0.609	0.652	73.0	79.1	1	25.0 - 120	6.81	32
Anthracene	0.834	U	0.567	0.594	68.0	72.1	1	22.0 - 120	4.57	29
Benzoic Acid	1.67	U	1.21	1.44	72.6	87.7	1	10.0 - 152	17.3	40
Benzo(a)anthracene	0.834	U	0.652	0.672	78.2	81.6	1	25.0 - 120	3.05	29
Benzo(b)fluoranthene	0.834	U	0.658	0.673	78.9	81.7	1	19.0 - 122	2.28	31
Benzo(k)fluoranthene	0.834	U	0.605	0.652	72.6	79.1	1	23.0 - 120	7.44	30
Benzo(g,h,i)perylene	0.834	U	0.357	0.308	42.9	37.4	1	10.0 - 120	14.8	33
Benzo(a)pyrene	0.834	U	0.697	0.722	83.6	87.7	1	24.0 - 120	3.56	30
Carbazole	0.834	U	0.582	0.613	69.8	74.4	1	31.0 - 120	5.07	24
Chrysene	0.834	U	0.616	0.629	73.9	76.4	1	21.0 - 120	2.03	29
Dibenz(a,h)anthracene	0.834	U	0.450	0.402	53.9	48.8	1	10.0 - 120	11.3	32
Dibenzofuran	0.834	U	0.563	0.601	67.6	73.0	1	24.0 - 120	6.51	30
Fluoranthene	0.834	U	0.637	0.664	76.4	80.7	1	18.0 - 126	4.27	32
Fluorene	0.834	U	0.572	0.602	68.6	73.2	1	25.0 - 120	5.16	30
Indeno(1,2,3-cd)pyrene	0.834	U	0.426	0.380	51.1	46.2	1	10.0 - 120	11.3	32
1-Methylnaphthalene	0.834	U	0.485	0.510	58.2	62.0	1	10.0 - 120	5.08	36
2-Methylnaphthalene	0.834	U	0.471	0.503	56.5	61.0	1	10.0 - 120	6.49	37
Naphthalene	0.834	U	0.436	0.464	52.3	56.3	1	10.0 - 120	6.18	35
Phenanthrene	0.834	U	0.565	0.602	67.7	73.2	1	17.0 - 120	6.49	31
Bis(2-ethylhexyl)phthalate	0.834	U	0.624	0.642	74.8	77.9	1	17.0 - 126	2.79	30
Di-n-butyl phthalate	0.834	U	0.553	0.572	66.4	69.5	1	30.0 - 120	3.37	29
Di-n-octyl phthalate	0.834	U	0.700	0.700	83.9	85.0	1	21.0 - 123	0.000	29
Pyrene	0.834	U	0.573	0.594	68.8	72.1	1	16.0 - 121	3.46	32
3&4-Methyl Phenol	0.834	U	0.515	0.563	61.8	68.4	1	12.0 - 123	8.90	38
Pentachlorophenol	0.834	U	0.661	0.693	79.2	84.2	1	10.0 - 160	4.85	31
Phenol	0.834	U	0.498	0.532	59.7	64.6	1	12.0 - 120	6.63	38

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1557921-01,02,03,04,05

SAMPLE NO.:
R3863963-1

LCS Sample / File ID:	R3863963-1 / 1122_05	**SDG:**	L1557921
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1962624
Instrument ID:	BNAMS4	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.441		66.2		38.0 - 120		
Acenaphthylene	0.666	0.494		74.2		40.0 - 120		
Anthracene	0.666	0.448		67.3		42.0 - 120		
Benzoic Acid	1.33	0.387		29.1		10.0 - 120		
Benzo(a)anthracene	0.666	0.514		77.2		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.486		73.0		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.477		71.6		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.447		67.1		43.0 - 120		
Benzo(a)pyrene	0.666	0.543		81.5		45.0 - 120		
Carbazole	0.666	0.464		69.7		48.0 - 120		
Chrysene	0.666	0.481		72.2		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.462		69.4		44.0 - 120		
Dibenzofuran	0.666	0.464		69.7		44.0 - 120		
Fluoranthene	0.666	0.498		74.8		44.0 - 120		
Fluorene	0.666	0.459		68.9		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.449		67.4		45.0 - 120		
1-Methylnaphthalene	0.666	0.394		59.2		34.0 - 120		
2-Methylnaphthalene	0.666	0.388		58.3		34.0 - 120		
Naphthalene	0.666	0.360		54.1		18.0 - 120		
Phenanthrene	0.666	0.454		68.2		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.464		69.7		41.0 - 120		
Di-n-butyl phthalate	0.666	0.426		64.0		43.0 - 120		
Di-n-octyl phthalate	0.666	0.484		72.7		40.0 - 120		
Pyrene	0.666	0.458		68.8		41.0 - 120		
3&4-Methyl Phenol	0.666	0.445		66.8		42.0 - 120		
Pentachlorophenol	0.666	0.456		68.5		29.0 - 120		
Phenol	0.666	0.405		60.8		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3863963-2	**SDG:**	L1557921
Lab File ID:	1122_06	**Preparation Date/Time:**	11/21/22 09:09
Instrument ID:	BNAMS4	**Analysis Date/Time:**	11/22/22 10:54
Analytical Batch:	WG1962624	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3863963-1	BNAMS4	1122_05	11/22/22 10:30
BNSF-EF470-SC-11.0-120-1 10922	L1557921-02	BNAMS4	1122_11	11/22/22 12:54
BNSF-EF240-SC-1.0-2.0-11 0922	L1557921-04	BNAMS4	1122_14	11/22/22 14:06
BNSF-EF240-SC-1.0-2.0-11 0922	L1557921-03	BNAMS4	1122_18	11/22/22 15:41
BNSF-K200-SC-0.0-0.4-11 0922	L1557921-01	BNAMS4	1122_19	11/22/22 16:05
MS	R3863963-3	BNAMS4	1122_20	11/22/22 16:29
MSD	R3863963-4	BNAMS4	1122_21	11/22/22 16:53
BNSF-EF240-SC-3.0-4.0-11 0922	L1557921-05	BNAMS4	1122_23	11/22/22 17:41

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

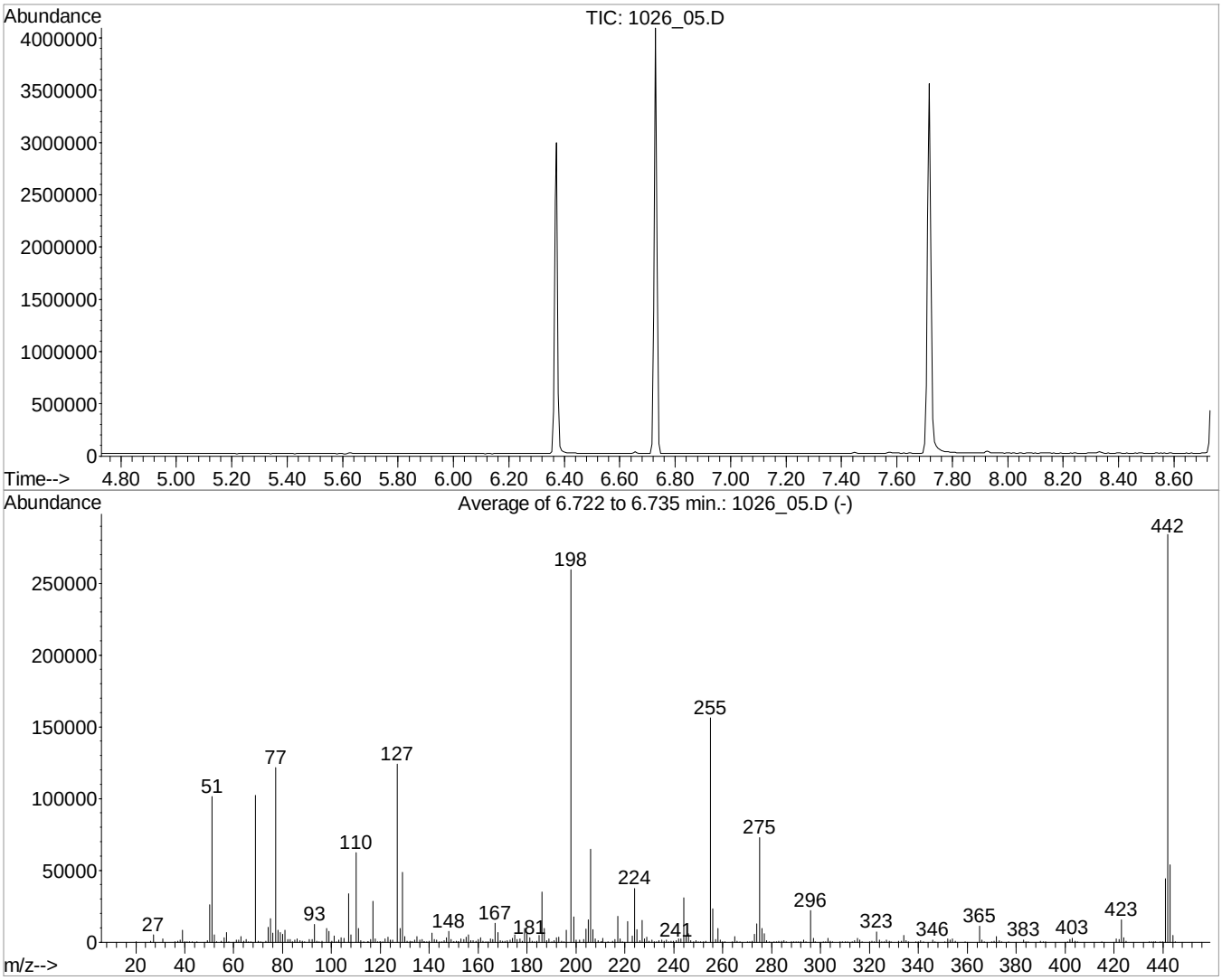
Lab File ID: 1026_05-1
Instrument ID: BNAMS4
Analysis Date/Time: 10/26/22 22:49

SDG: L1557921
Analytical Method: 8270E

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	36
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	442	10	80	44
197	198	0	2	0
198	442	50	100	91
199	198	5	9	7
275	442	10	60	26
365	198	1	100	4
441	442	0.0001	24	16
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	1026_06	10/26/22 23:10
STD-1000	1000	1026_07	10/26/22 23:31
STD-4000	4000	1026_08	10/26/22 23:52
STD-10000	10000	1026_09	10/27/22 00:13
STD-20000	20000	1026_10	10/27/22 00:34
STD-30000	30000	1026_11	10/27/22 00:55
STD-40000	40000	1026_12	10/27/22 01:16
STD-50000	50000	1026_13	10/27/22 01:37
STD-1K1	1K1	1026_14	10/27/22 01:58
STD-4K1	4K1	1026_15	10/27/22 02:19
STD-10K1	10K1	1026_16	10/27/22 02:39
STD-20K1	20K1	1026_17	10/27/22 03:00
STD-30K1	30K1	1026_18	10/27/22 03:21
STD-40K1	40K1	1026_19	10/27/22 03:42
STD-50K1	50K1	1026_20	10/27/22 04:03
SSCV	BNAMS41026221026_22-1601635	1026_22-1	10/27/22 04:45

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.722 to 6.735 min.

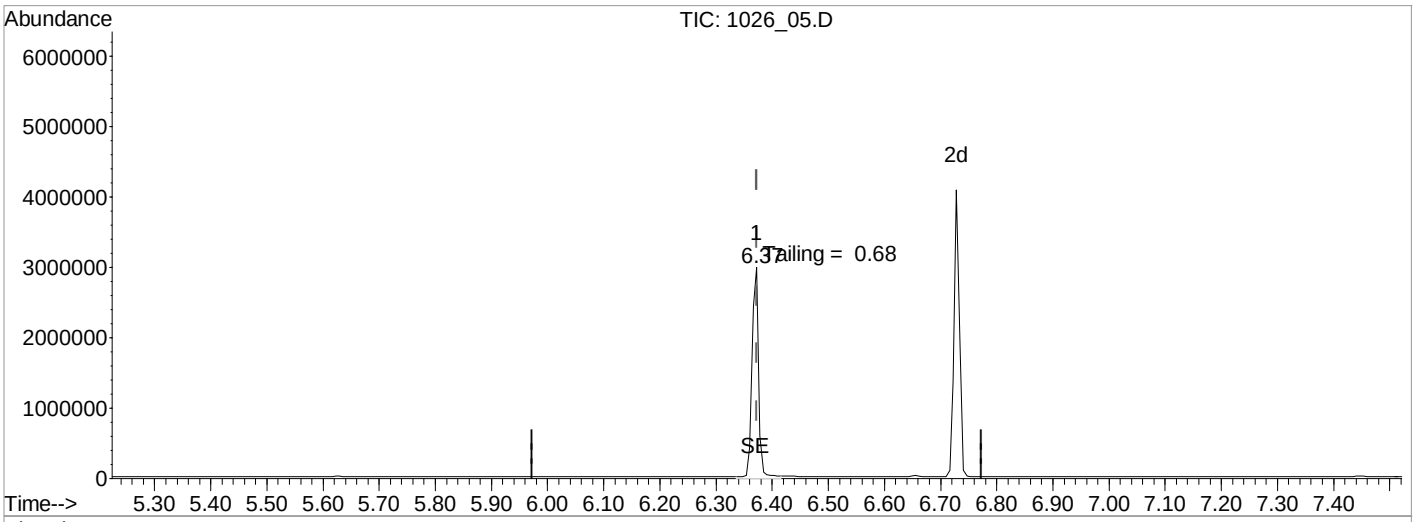
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	35.7	101621	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	102362	PASS
70	69	0.00	2	0.6	563	PASS
127	442	10	80	43.6	123936	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	91.4	259712	PASS
199	198	5	9	6.8	17554	PASS
275	442	10	60	25.7	72973	PASS
365	198	1	100	4.3	11166	PASS
441	442	0.01	24	15.5	43990	PASS
442	442	50	100	100.0	284269	PASS
443	442	15	24	18.9	53807	PASS

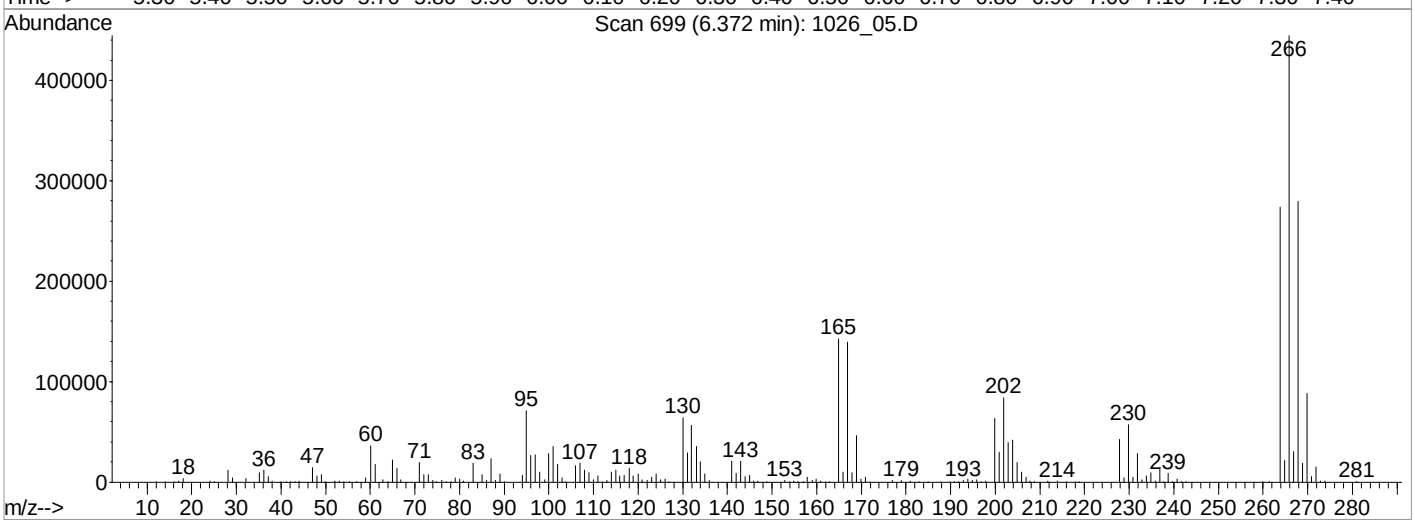
1026_05.D TUNED.M Wed Oct 26 23:43:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_05.D

(1) Pentachlorophenol (TM)

6.37min (-0.000) 417.3905443 ug/mL

Qvalue = 100

response 2435574

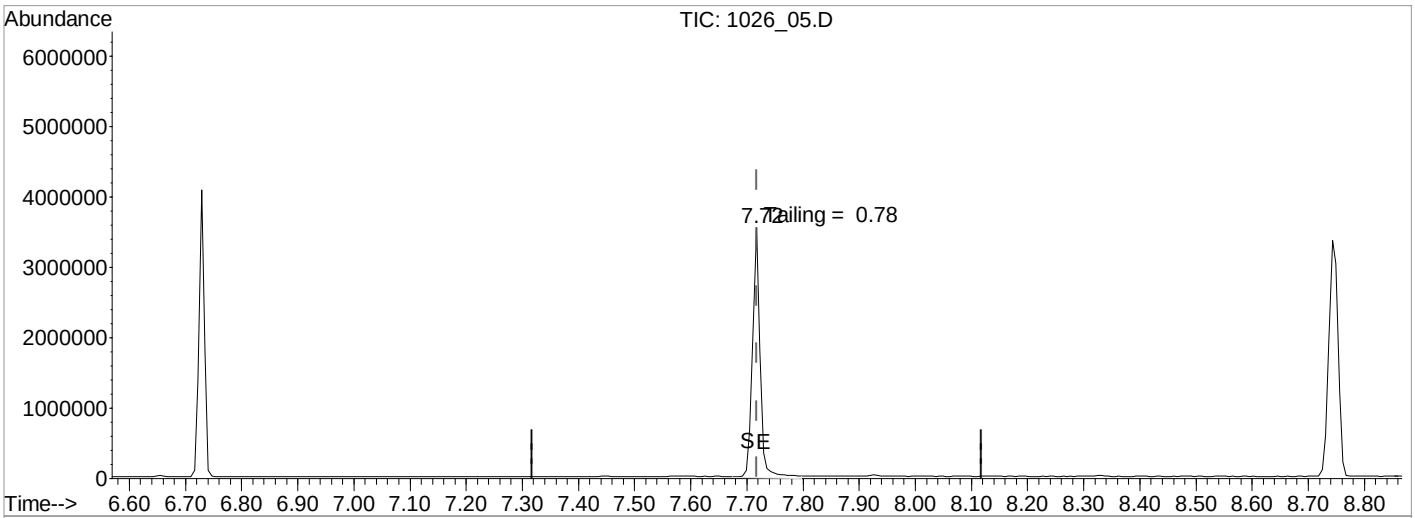
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

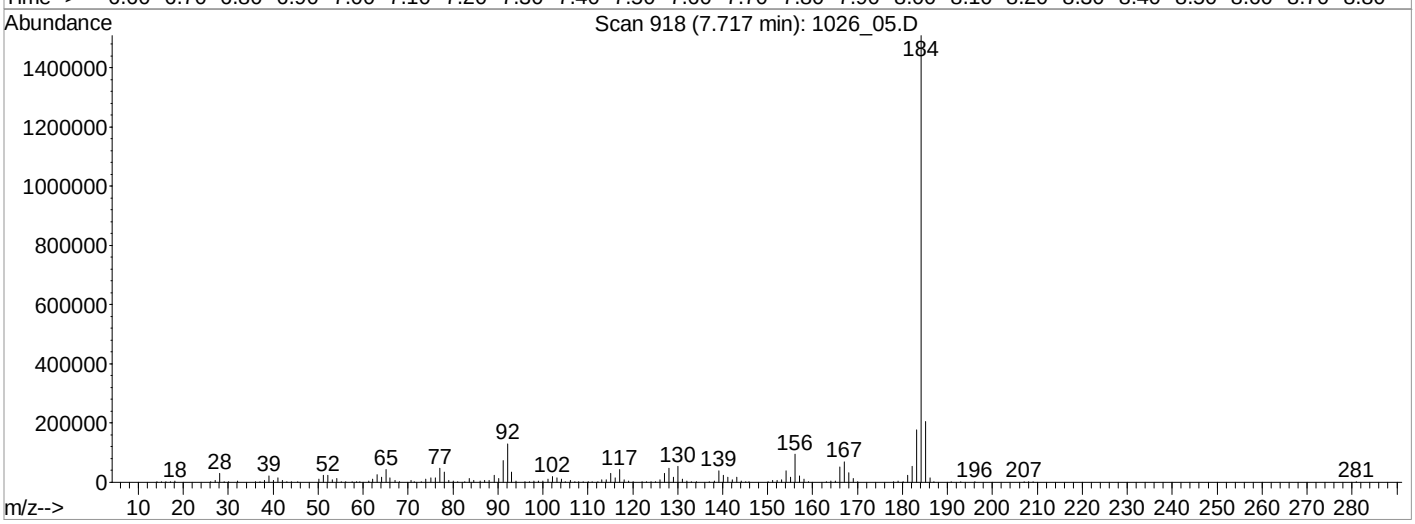
1026_05.D TUNED.M Wed Oct 26 23:43:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_05.D

(3) Benzidine (MT)

7.72min (-0.000) 139.3152301 ug/mL

Qvalue = 100

response 3343794

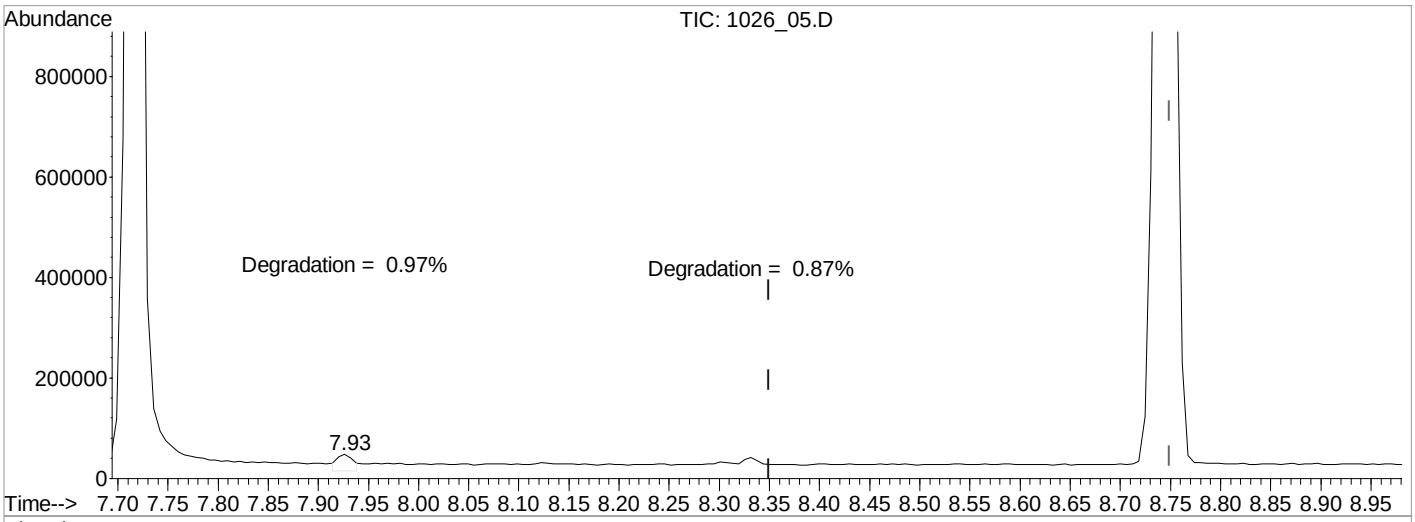
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

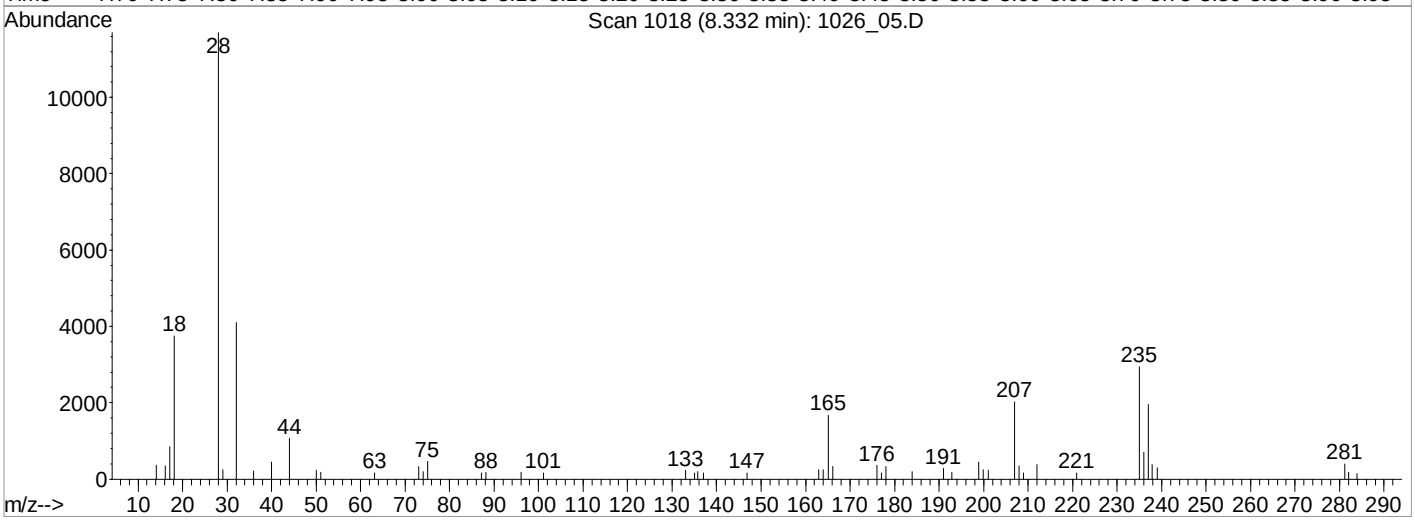
1026_05.D TUNED.M Wed Oct 26 23:44:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 05.D Vial: 2
Acq On : 26 Oct 2022 10:49 pm Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 26 23:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_05.D

(4) DDT (MT)

8.74min (-0.006) 285.5792340 ug/ml

Qvalue = 100

response 3842817

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_05.D TUNED.M Wed Oct 26 23:44:27 2022

5A-OR

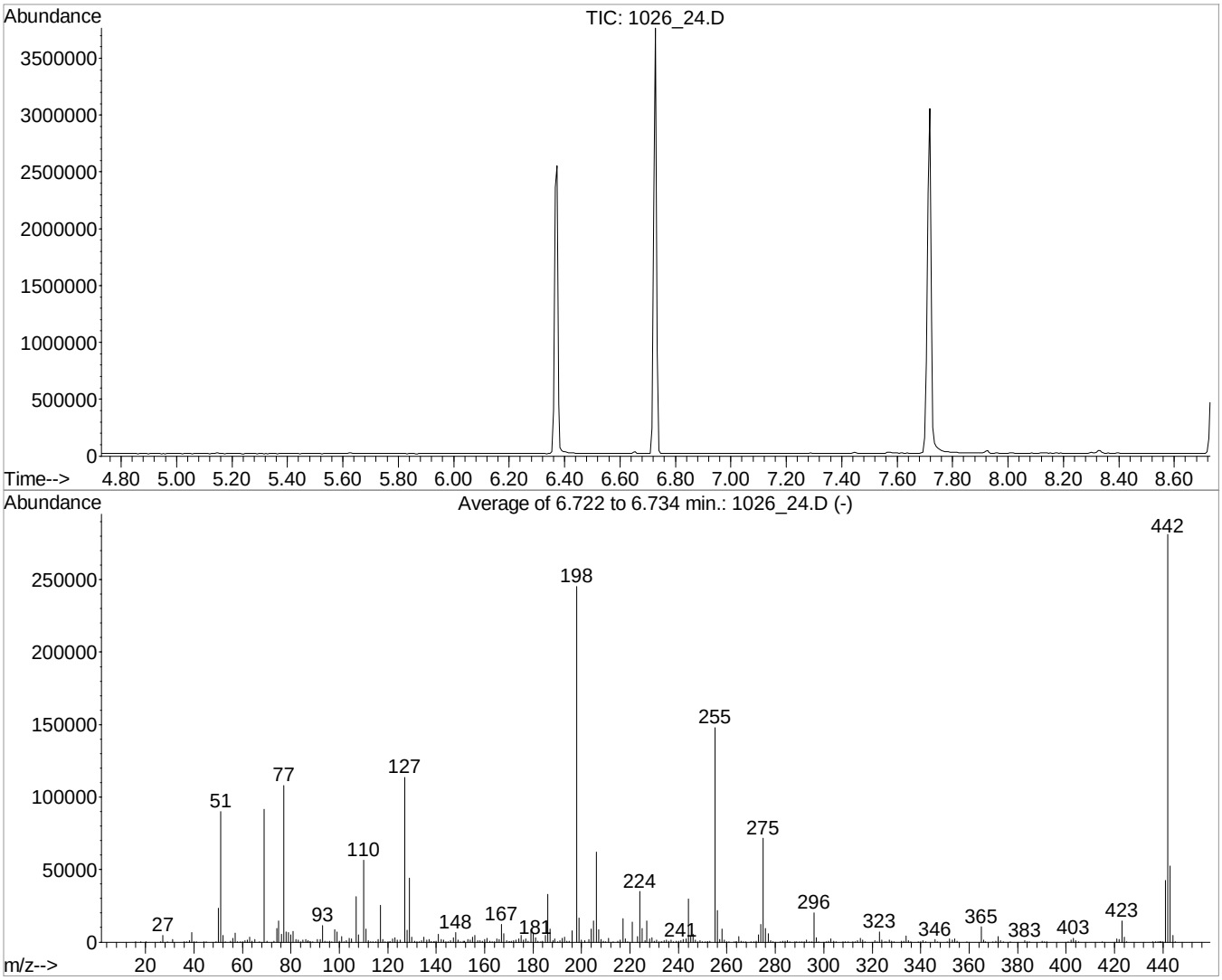
GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1026_24-1	**SDG:**	L1557921
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	10/27/22 09:56		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	40
197	198	0	2	0
198	442	50	100	87
199	198	5	9	7
275	442	10	60	26
365	198	1	100	4
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
SSCV	BNAMS41026221026_25-1601635	1026_25-1	10/27/22 10:17

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.722 to 6.734 min.

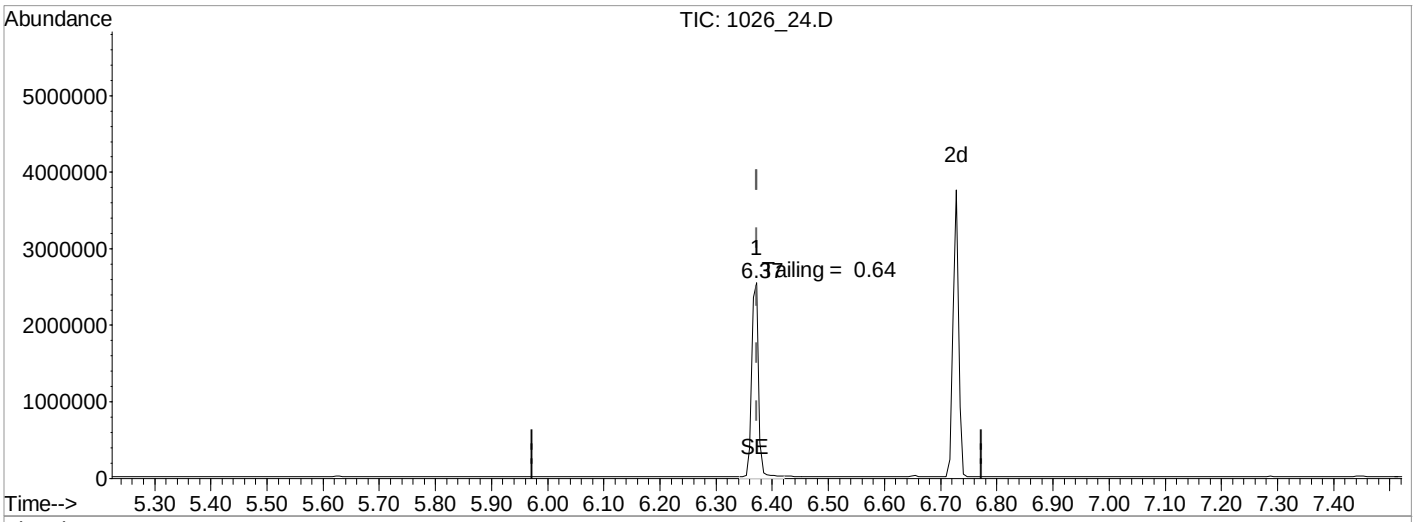
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	32.0	90110	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	91545	PASS
70	69	0.00	2	0.5	453	PASS
127	442	10	80	40.3	113408	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	87.2	245416	PASS
199	198	5	9	6.7	16430	PASS
275	442	10	60	25.5	71789	PASS
365	198	1	100	4.3	10571	PASS
441	442	0.01	24	15.2	42704	PASS
442	442	50	100	100.0	281301	PASS
443	442	15	24	18.7	52541	PASS

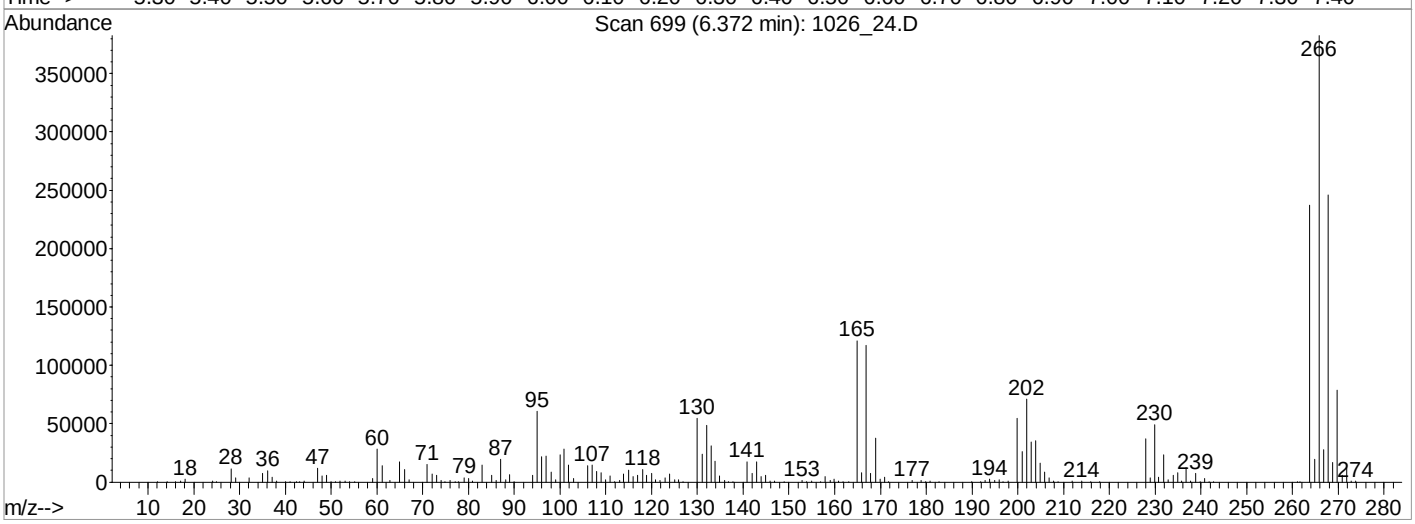
1026_24.D TUNED.M Thu Oct 27 10:54:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1026_24.D

(1) Pentachlorophenol (TM)

6.37min (-0.000) 372.7084062 ug/mL

Qvalue = 100

response 2174843

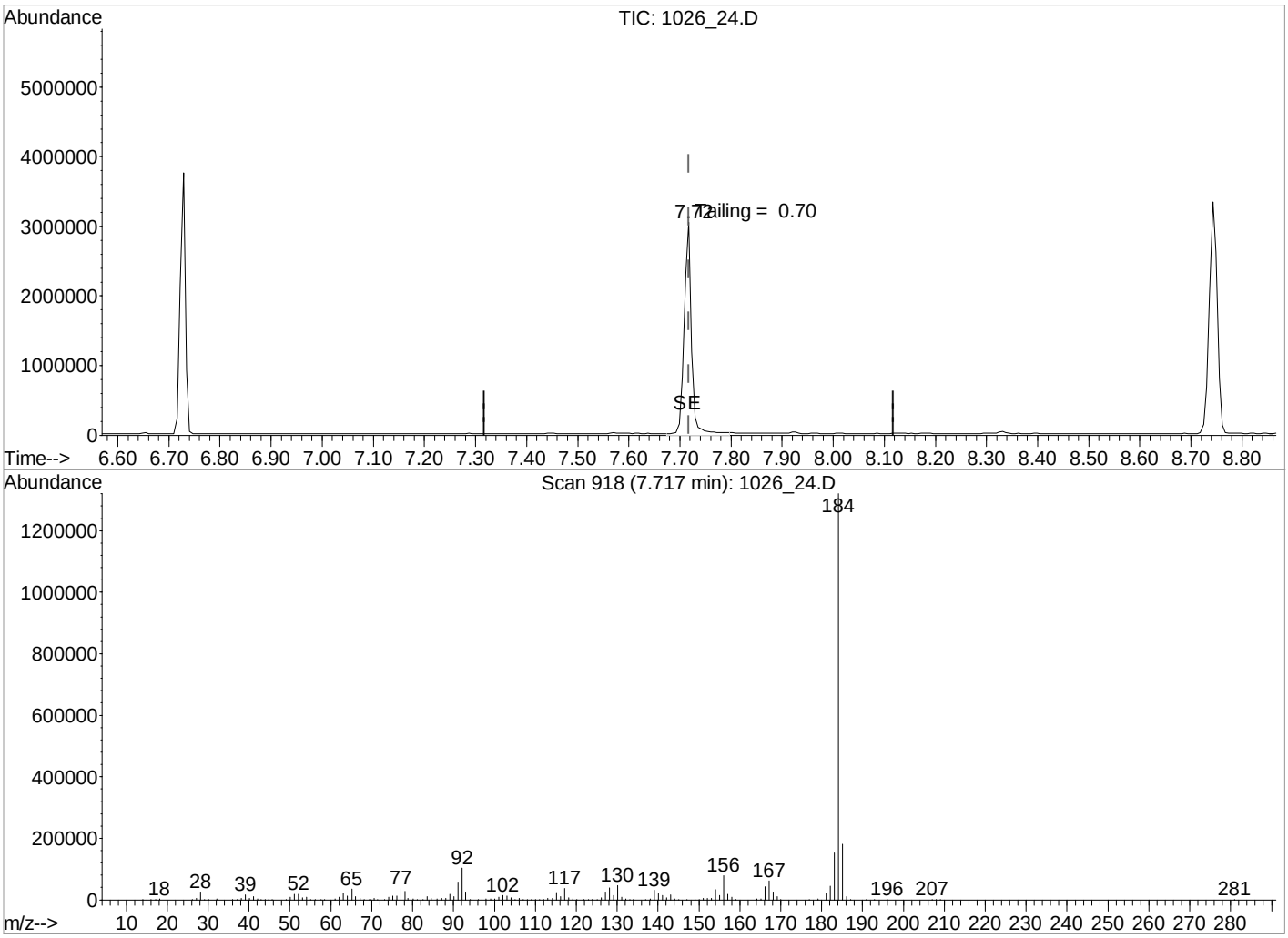
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1026_24.D

(3) Benzidine (MT)

7.72min (-0.000) 123.8737436 ug/mL

Qvalue = 100

response 2973173

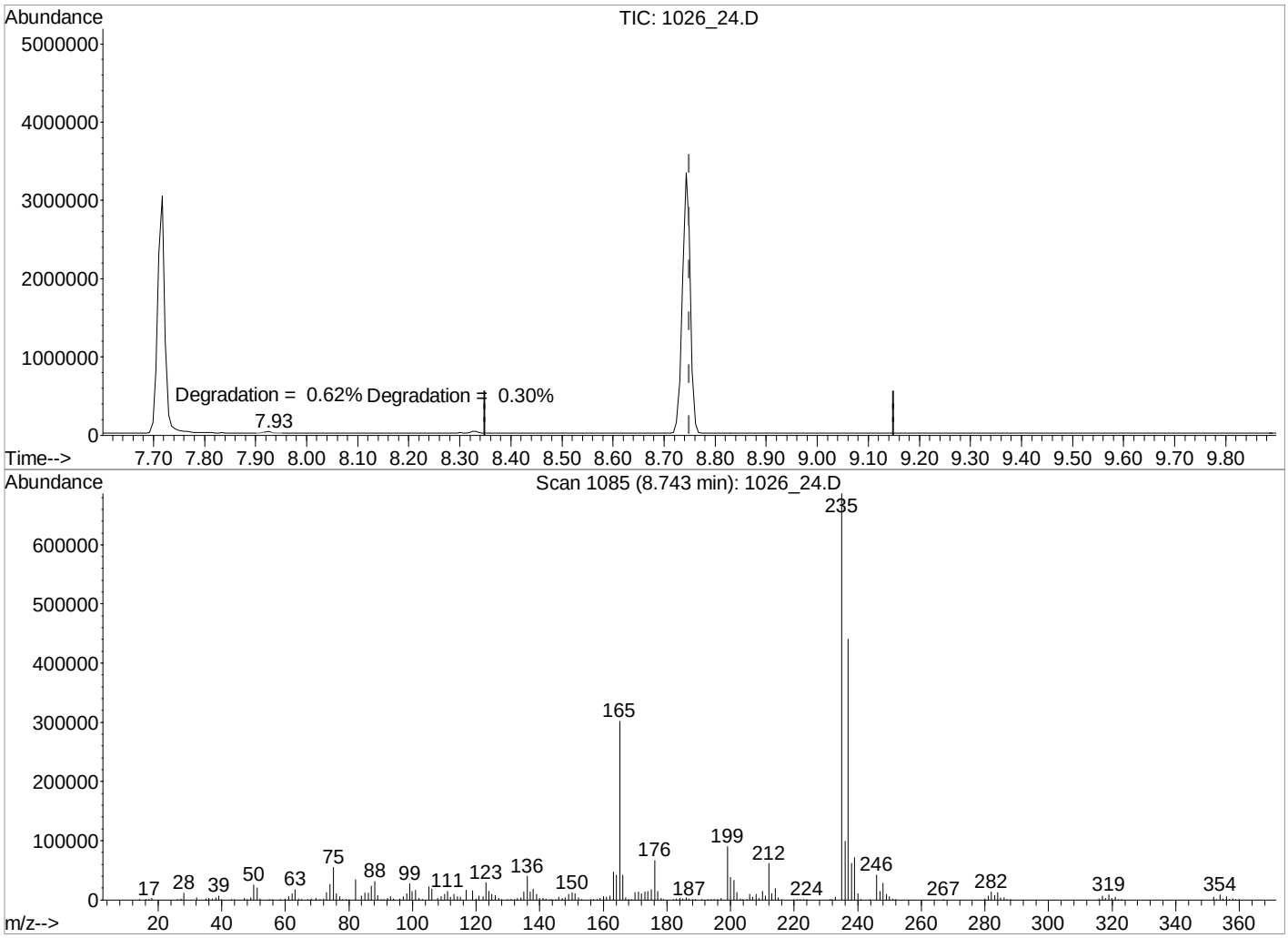
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 24.D Vial: 2
Acq On : 27 Oct 2022 9:56 am Operator: 917
Sample : TUNE 50 PPM 22J19529 EXP: 04/13/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 10:54 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1026_24.D

(4) DDT (MT)

8.74min (-0.006) 265.6078007 ug/ml

Qvalue = 100

response 3574077

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1026_24.D TUNED.M Thu Oct 27 10:55:45 2022

5A-OR

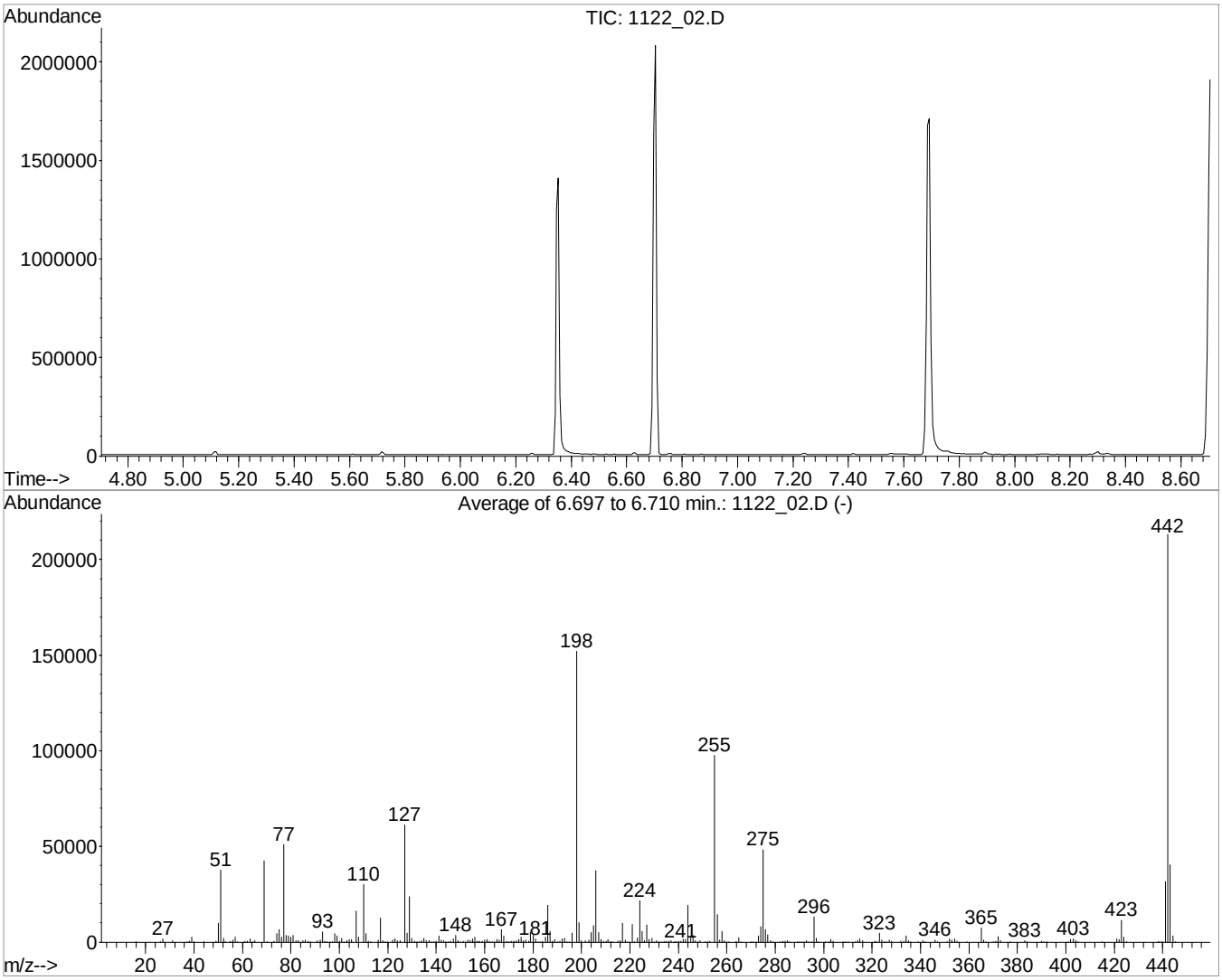
GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1122_02T	**SDG:**	L1557921
Instrument ID:	BNAMS4	**Analytical Method:**	8270E
Analysis Date/Time:	11/22/22 09:19		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	18
68	69	0	2	0
69	69	100	100	100
70	69	0	2	1
127	442	10	80	29
197	198	0	2	0
198	442	50	100	71
199	198	5	9	7
275	442	10	60	23
365	198	1	100	5
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS41122221122_03-1601635	1122_03-1	11/22/22 09:43
ICV	BNAMS41122221122_04-1601635	1122_04-1	11/22/22 10:07
LCS	R3863963-1	1122_05	11/22/22 10:30
BLANK	R3863963-2	1122_06	11/22/22 10:54
BNSF-EF470-SC-11.0-120-1 10922	L1557921-02	1122_11	11/22/22 12:54
BNSF-EF240-SC-1.0-2.0-11 0922	L1557921-04	1122_14	11/22/22 14:06
BNSF-EF240-SC-1.0-2.0-11 0922	L1557921-03	1122_18	11/22/22 15:41
OS	L1557921-01	1122_19	11/22/22 16:05
BNSF-K200-SC-0.0-0.4-11 0922	L1557921-01	1122_19	11/22/22 16:05
MS	R3863963-3	1122_20	11/22/22 16:29
MSD	R3863963-4	1122_21	11/22/22 16:53
BNSF-EF240-SC-3.0-4.0-11 0922	L1557921-05	1122_23	11/22/22 17:41

Data File : C:\MSDCHEM\1\DATA\112222\1122 02.D Vial: 2
Acq On : 22 Nov 2022 9:19 am Operator: 917
Sample : TUNE 50 PPM 22K14643 EXP: 05/05/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.697 to 6.710 min.

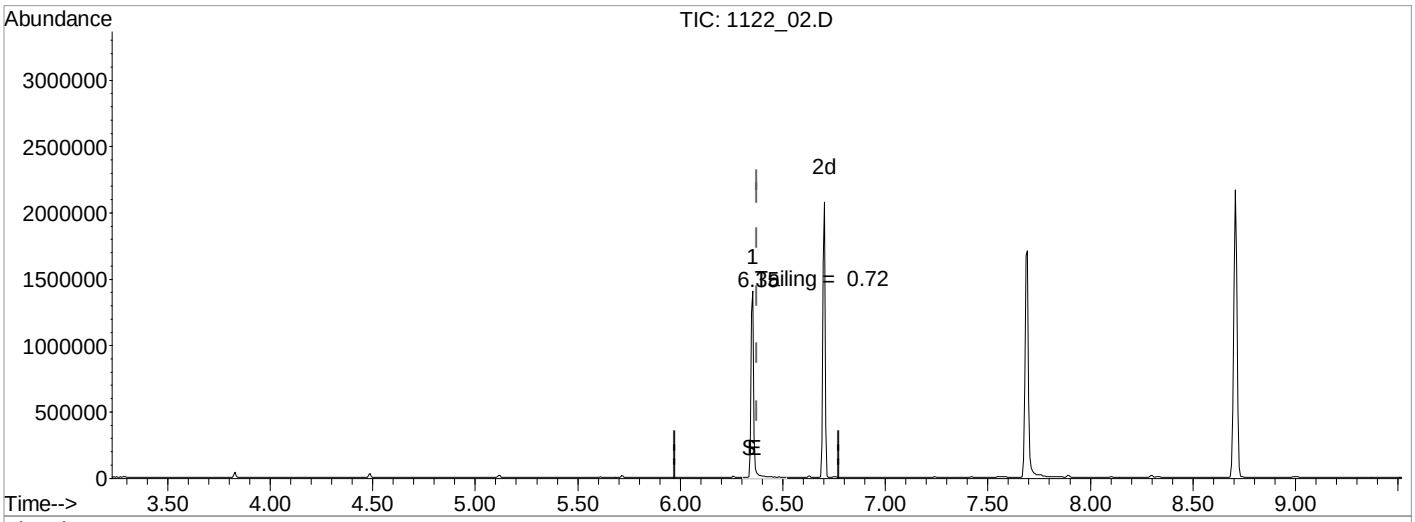
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	17.7	37697	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	42646	PASS
70	69	0.00	2	0.6	265	PASS
127	442	10	80	28.7	61174	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	71.3	151986	PASS
199	198	5	9	6.6	10090	PASS
275	442	10	60	22.7	48318	PASS
365	198	1	100	4.8	7295	PASS
441	442	0.01	24	14.9	31669	PASS
442	442	50	100	100.0	213221	PASS
443	442	15	24	18.9	40274	PASS

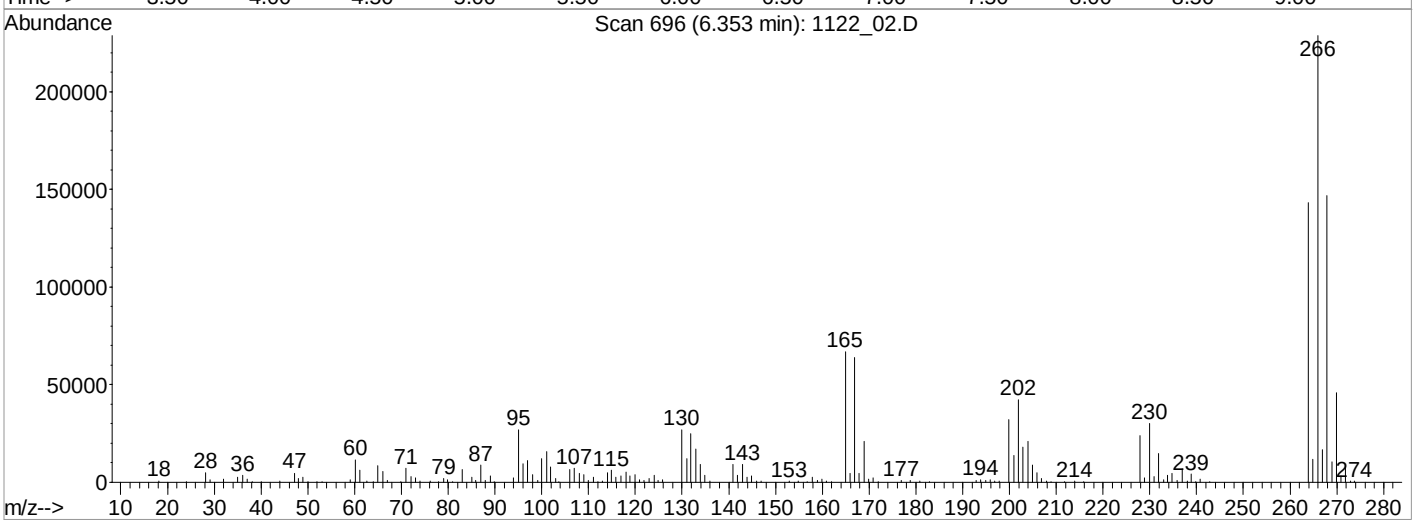
1122_02.D TUNED.M Tue Nov 22 10:07:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 02.D Vial: 2
Acq On : 22 Nov 2022 9:19 am Operator: 917
Sample : TUNE 50 PPM 22K14643 EXP: 05/05/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:07 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1122_02.D

(1) Pentachlorophenol (TM)

6.35min (-0.019) 213.1250814 ug/mL
Qvalue = 100
response 1243636

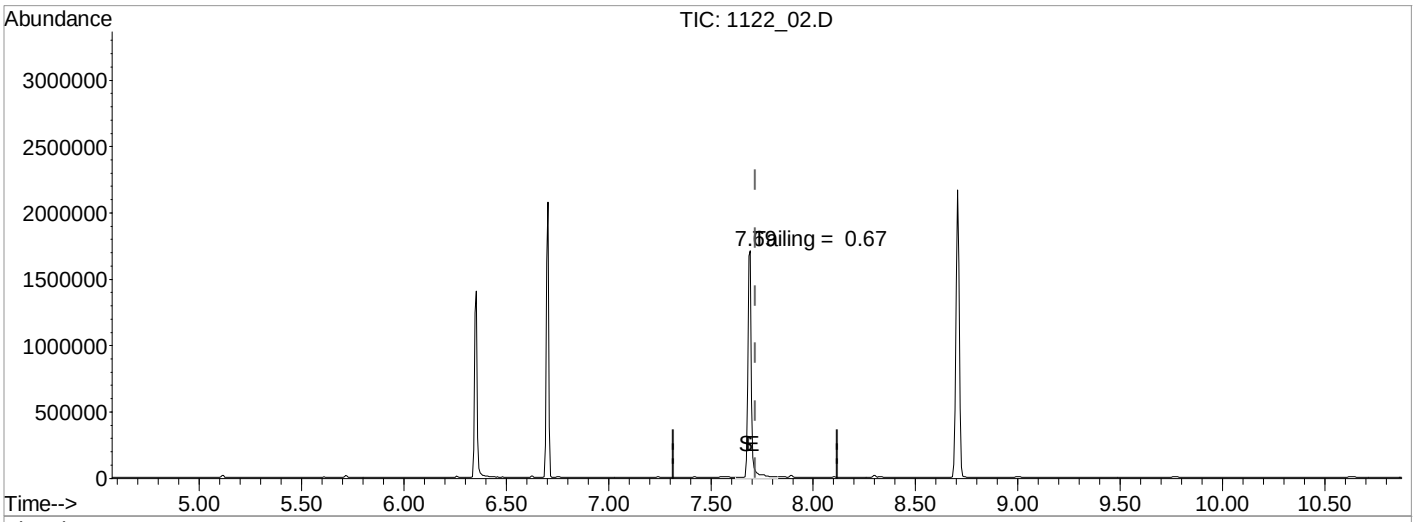
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

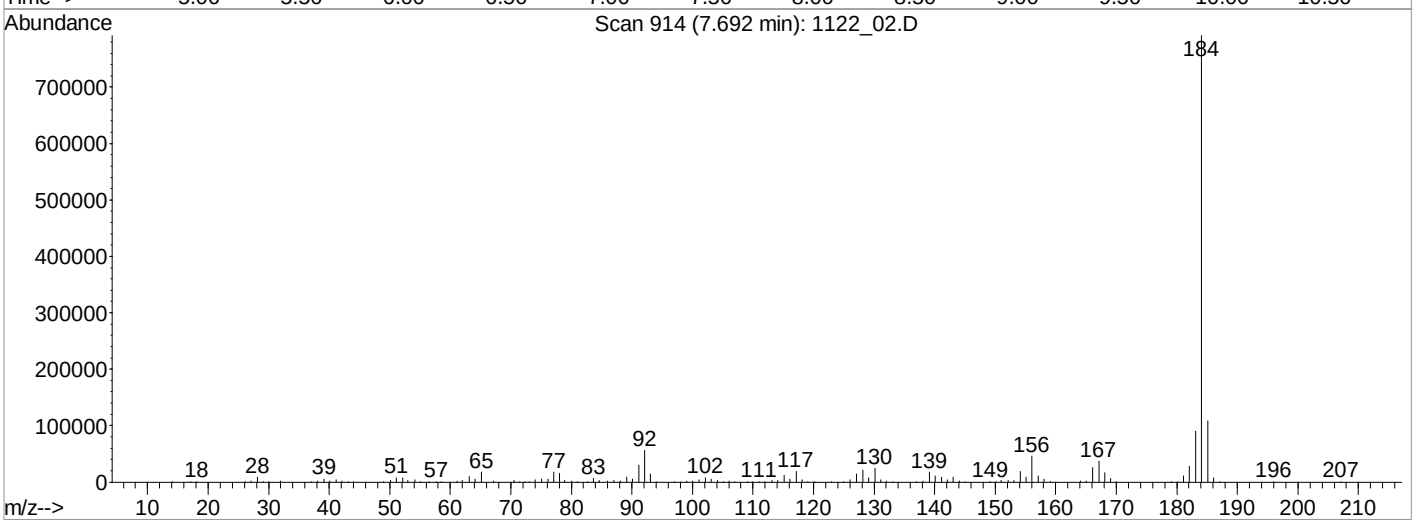
1122_02.D TUNED.M Tue Nov 22 10:08:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 02.D Vial: 2
Acq On : 22 Nov 2022 9:19 am Operator: 917
Sample : TUNE 50 PPM 22K14643 EXP: 05/05/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:07 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration





TIC: 1122_02.D

(3) Benzidine (MT)

7.69min (-0.025) 80.6100750 ug/mL
Qvalue = 100
response 1934774

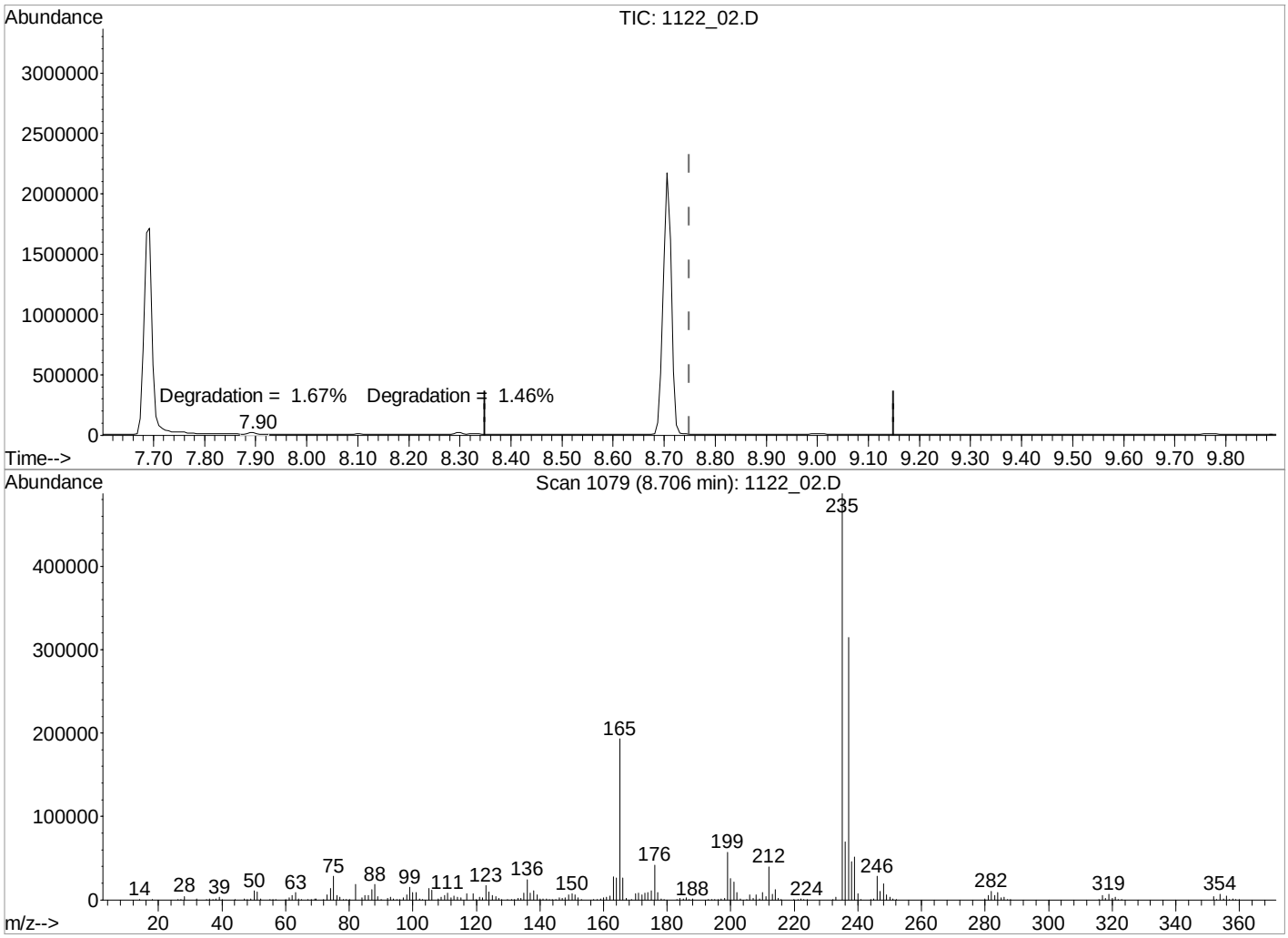
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1122_02.D TUNED.M Tue Nov 22 10:08:19 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 02.D Vial: 2
Acq On : 22 Nov 2022 9:19 am Operator: 917
Sample : TUNE 50 PPM 22K14643 EXP: 05/05/23 Inst : BNAMS4
Misc : DFTTP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:07 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\TUNED.M (RTE Integrator)
Title : 8270 BNA
Last Update : Tue Oct 25 05:39:02 2022
Response via : Single Level Calibration



TIC: 1122_02.D

(4) DDT (MT)

8.71min (-0.043) 176.7859770 ug/ml

Qvalue = 100

response 2378871

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1122_02.D TUNED.M Tue Nov 22 10:08:44 2022

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1557921	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1122_03-1	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/22/22 09:43

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		52873	3.45	106795	5.37	214937	9.43	200682	4.19
UPPER LIMIT		105746		213590		429874		401364	
LOWER LIMIT		26437		53398		107469		100341	
LCS R3863963-1 WG1962624 1x	1122_05	56164	3.45	119085	5.38	239743	9.43	259253	4.19
BLANK R3863963-2 WG1962624 1x	1122_06	51026	3.45	104788	5.37	199671	9.42	195473	4.19
L1557921-02 WG1962624 1x	1122_11	54634	3.45	111631	5.37	220306	9.42	207968	4.19
L1557921-04 WG1962624 1x	1122_14	57850	3.45	121818	5.37	253416	9.42	221646	4.19
L1557921-03 WG1962624 1x	1122_18	52450	3.45	112113	5.37	236972	9.43	202297	4.19
OS L1557921-01 WG1962624 1x	1122_19	53794	3.45	114349	5.37	240528	9.42	211352	4.19
L1557921-01 WG1962624 1x	1122_19	53794	3.45	114349	5.37	240528	9.42	211352	4.19
MS R3863963-3 WG1962624 1x	1122_20	56082	3.45	122745	5.37	254995	9.43	267134	4.19
MSD R3863963-4 WG1962624 1x	1122_21	55007	3.45	118732	5.38	252039	9.43	259305	4.19
L1557921-05 WG1962624 2x	1122_23	50546	3.45	110515	5.37	230035	9.43	198120	4.19

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1557921	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
Std File:	1122_03-1	**Calibration End Date:**	10/27/22 04:03
		Std Analysis Date:	11/22/22 09:43

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		215470	12.24	212899	6.51
UPPER LIMIT		430940		425798	
LOWER LIMIT		107735		106450	
LCS R3863963-1 WG1962624 1x	1122_05	252332	12.24	235486	6.51
BLANK R3863963-2 WG1962624 1x	1122_06	191708	12.24	210104	6.51
L1557921-02 WG1962624 1x	1122_11	231202	12.24	224159	6.51
L1557921-04 WG1962624 1x	1122_14	279408	12.24	244318	6.51
L1557921-03 WG1962624 1x	1122_18	251923	12.24	223129	6.51
OS L1557921-01 WG1962624 1x	1122_19	254717	12.24	233414	6.51
L1557921-01 WG1962624 1x	1122_19	254717	12.24	233414	6.51
MS R3863963-3 WG1962624 1x	1122_20	259176	12.24	244288	6.51
MSD R3863963-4 WG1962624 1x	1122_21	240325	12.25	238164	6.51
L1557921-05 WG1962624 2x	1122_23	189213	12.25	221758	6.51

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-K200-SC-0.0-0.4-110922

Lab Sample ID:	L1557921-01	**SDG:**	L1557921
Client Sample ID:	BNSF-K200-SC-0.0-0.4-110922	**Collected Date/Time:**	11/09/22 12:35
Lab File ID:	1122_19	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:14
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 16:05
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.30 g
Total Solids (%):	79.2	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00681	0.0421
Acenaphthylene	208-96-8	0	U		0.00592	0.0421
Anthracene	120-12-7	6.53	U		0.00749	0.0421
Benzoic Acid	65-85-0	0	U		0.149	2.11
Benzo(a)anthracene	56-55-3	9.47	U		0.00741	0.0421
Benzo(b)fluoranthene	205-99-2	11.44	U		0.00784	0.0421
Benzo(k)fluoranthene	207-08-9	11.49	U		0.00748	0.0421
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.00769	0.0421
Benzo(a)pyrene	50-32-8	12.12	U		0.00782	0.0421
Carbazole	86-74-8	0	U		0.0130	0.421
Chrysene	218-01-9	9.47	U		0.00836	0.0421
Dibenz(a,h)anthracene	53-70-3	0	U		0.0117	0.0421
Dibenzofuran	132-64-9	0	U		0.0138	0.421
Fluoranthene	206-44-0	7.56	U		0.00759	0.0421
Fluorene	86-73-7	0	U		0.00685	0.0421
Indeno(1,2,3-cd)pyrene	193-39-5	14.10	U		0.0119	0.0421
1-Methylnaphthalene	90-12-0	0	U		0.00538	0.0421
2-Methylnaphthalene	91-57-6	0	U		0.00546	0.0421
Naphthalene	91-20-3	0	U		0.0106	0.0421
Phenanthrene	85-01-8	6.53	U		0.00835	0.0421
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	U		0.0533	0.421
Di-n-butyl phthalate	84-74-2	0	U		0.0144	0.421
Di-n-octyl phthalate	117-84-0	0	U		0.0284	0.421
Pyrene	129-00-0	7.80	U		0.00818	0.0421
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0131	0.421
Pentachlorophenol	87-86-5	0	U		0.0113	0.421
Phenol	108-95-2	0	U		0.0169	0.421

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 19.D Vial: 42
Acq On : 22 Nov 2022 4:05 pm Operator: 917
Sample : L1557921-01 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:41 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	53794	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	211352	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	114349	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	233414	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	240528	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	254717	8000.00	ppb	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	121438	14899.9993776	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 74.50%			
7) Phenol-d5	3.23	99	139091	13244.6875541	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 66.22%			
24) Nitrobenzene-d5	3.76	82	55729	6153.6740711	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 61.54%			
50) 2-Fluorobiphenyl	4.89	172	139185	6656.1065309	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 66.56%			
73) 2,4,6-Tribromophenol	5.96	330	58855	16505.5255163	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 82.53%			
87) p-Terphenyl-d14	7.96	244	227322	6918.0002976	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 69.18%			

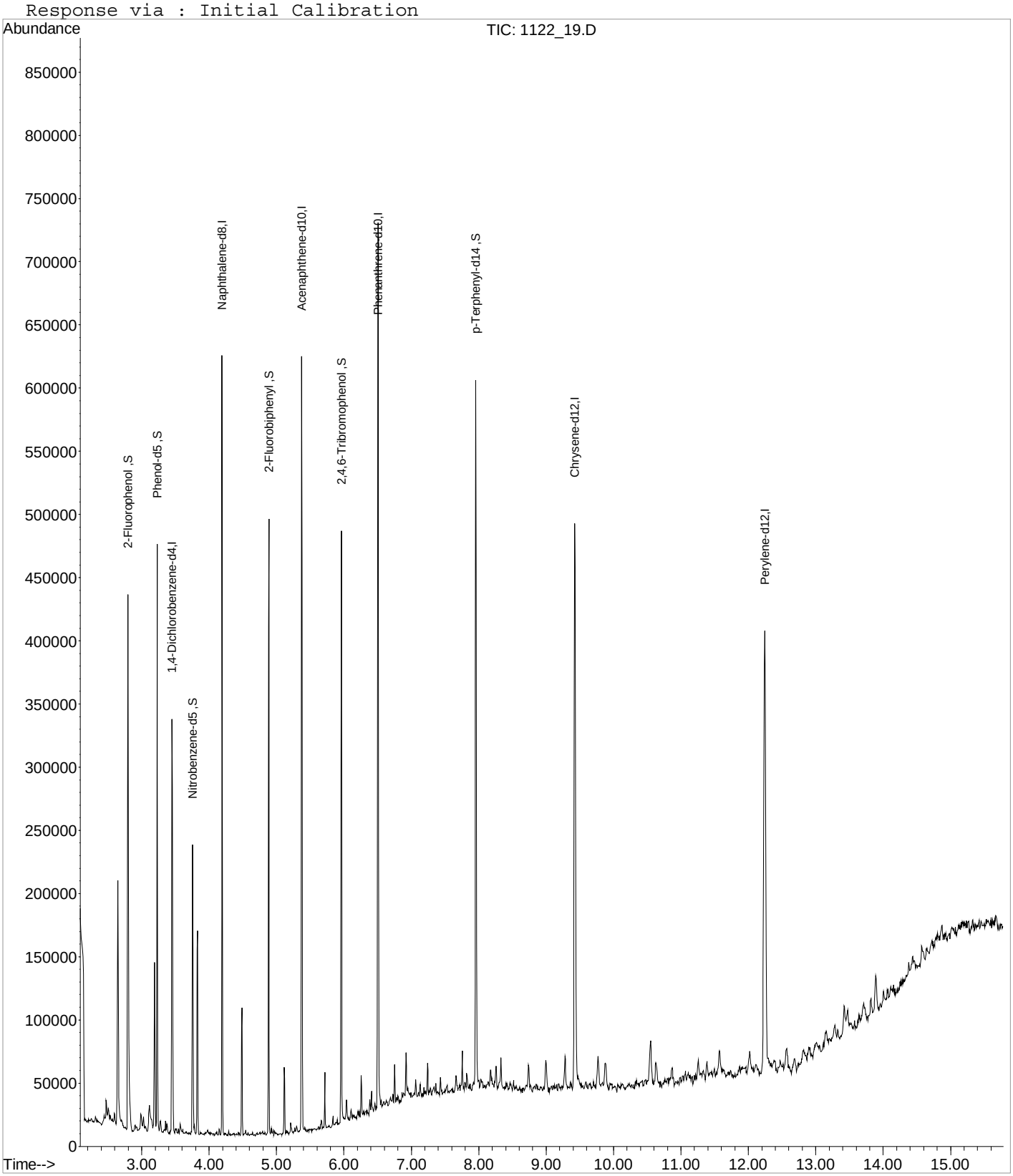
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1122_19.D S804J26V.M Wed Nov 23 09:41:42 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 19.D Vial: 42
Acq On : 22 Nov 2022 4:05 pm Operator: 917
Sample : L1557921-01 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:41 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF470-SC-11.0-120-110922

Lab Sample ID:	L1557921-02	**SDG:**	L1557921
Client Sample ID:	BNSF-EF470-SC-11.0-120-110922	**Collected Date/Time:**	11/09/22 14:20
Lab File ID:	1122_11	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:14
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 12:54
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.32 g
Total Solids (%):	68.6	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00785	0.0485
Acenaphthylene	208-96-8	0	U		0.00683	0.0485
Anthracene	120-12-7	0	U		0.00864	0.0485
Benzoic Acid	65-85-0	0	U		0.172	2.43
Benzo(a)anthracene	56-55-3	0	U		0.00855	0.0485
Benzo(b)fluoranthene	205-99-2	0	U		0.00905	0.0485
Benzo(k)fluoranthene	207-08-9	0	U		0.00863	0.0485
Benzo(g,h,i)perylene	191-24-2	0	U		0.00887	0.0485
Benzo(a)pyrene	50-32-8	0	U		0.00902	0.0485
Carbazole	86-74-8	0	U		0.0150	0.485
Chrysene	218-01-9	0	U		0.00965	0.0485
Dibenz(a,h)anthracene	53-70-3	0	U		0.0134	0.0485
Dibenzofuran	132-64-9	0	U		0.0159	0.485
Fluoranthene	206-44-0	0	U		0.00876	0.0485
Fluorene	86-73-7	0	U		0.00790	0.0485
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.0137	0.0485
1-Methylnaphthalene	90-12-0	0	U		0.00621	0.0485
2-Methylnaphthalene	91-57-6	0	U		0.00629	0.0485
Naphthalene	91-20-3	0	U		0.0122	0.0485
Phenanthrene	85-01-8	0	U		0.00963	0.0485
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0615	0.485
Di-n-butyl phthalate	84-74-2	0	U		0.0166	0.485
Di-n-octyl phthalate	117-84-0	0	U		0.0328	0.485
Pyrene	129-00-0	0	U		0.00944	0.0485
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0152	0.485
Pentachlorophenol	87-86-5	0	U		0.0131	0.485
Phenol	108-95-2	0	U		0.0195	0.485

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 11.D Vial: 34
Acq On : 22 Nov 2022 12:54 pm Operator: 917
Sample : L1557921-02 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:27 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	54634	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	207968	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	111631	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	224159	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	220306	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	231202	8000.00	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	104107	12577.1550911	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 62.89%			
7) Phenol-d5	3.23	99	118380	11099.2047768	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 55.50%			
24) Nitrobenzene-d5	3.76	82	48796	5475.7966181	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 54.76%			
50) 2-Fluorobiphenyl	4.89	172	121150	5934.7004714	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 59.35%			
73) 2,4,6-Tribromophenol	5.96	330	46555	13595.1199553	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 67.98%			
87) p-Terphenyl-d14	7.96	244	194866	6474.6231148	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 64.75%			

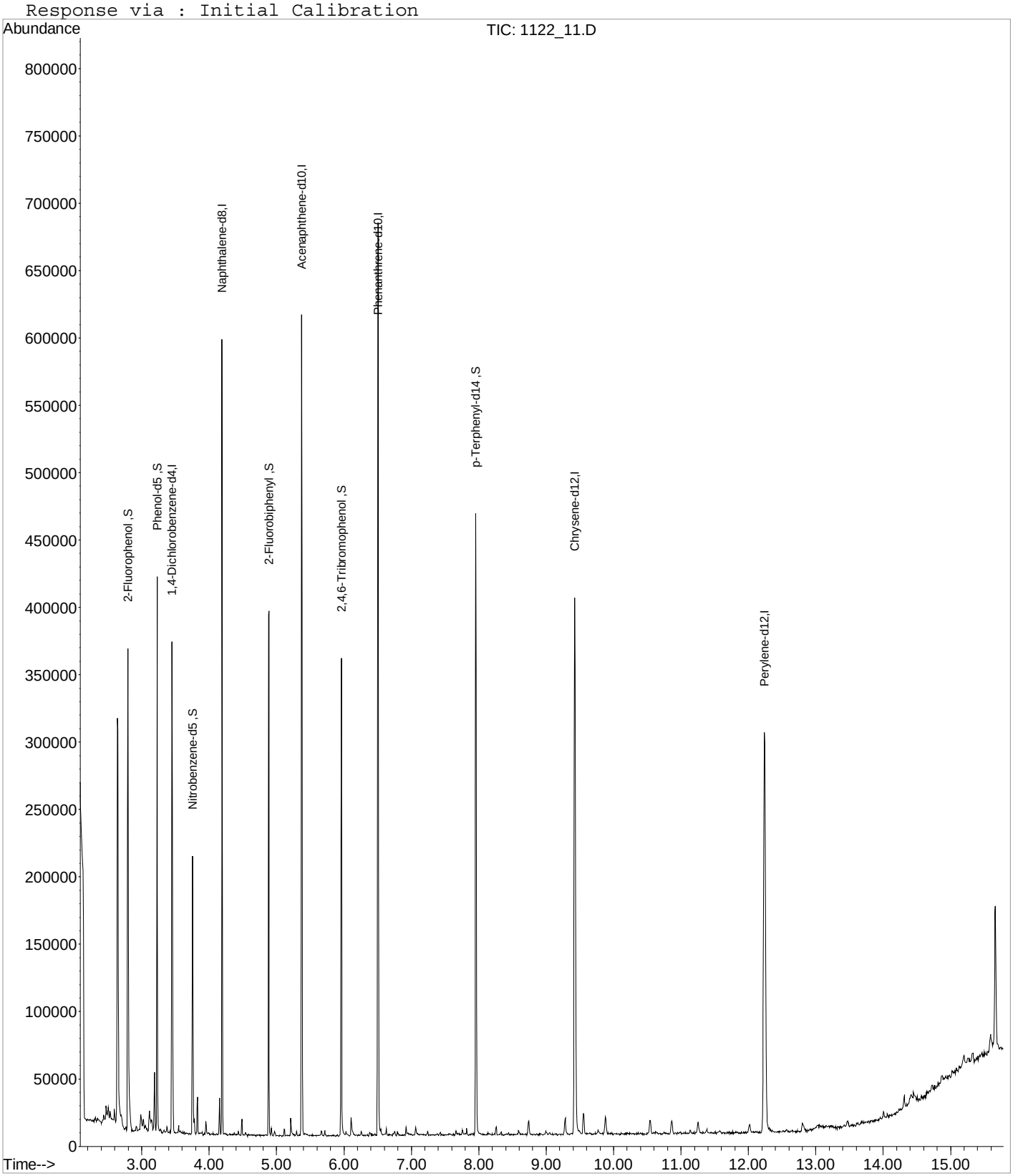
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1122_11.D S804J26V.M Wed Nov 23 09:27:12 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 11.D Vial: 34
Acq On : 22 Nov 2022 12:54 pm Operator: 917
Sample : L1557921-02 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:27 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-1.0-2.0-110922

Lab Sample ID:	L1557921-03	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-1.0-2.0-110922	**Collected Date/Time:**	11/10/22 12:10
Lab File ID:	1122_18	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:14
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 15:41
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.20 g
Total Solids (%):	72.1	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.51	U		0.00748	0.0462
Acenaphthylene	208-96-8	5.40	U		0.00651	0.0462
Anthracene	120-12-7	6.56	U		0.00823	0.0462
Benzoic Acid	65-85-0	0	U		0.164	2.32
Benzo(a)anthracene	56-55-3	9.41	U		0.00814	0.0462
Benzo(b)fluoranthene	205-99-2	11.44	U		0.00862	0.0462
Benzo(k)fluoranthene	207-08-9	11.44	U		0.00821	0.0462
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.00845	0.0462
Benzo(a)pyrene	50-32-8	12.12	U		0.00859	0.0462
Carbazole	86-74-8	6.61	U		0.0143	0.462
Chrysene	218-01-9	9.47	U		0.00918	0.0462
Dibenz(a,h)anthracene	53-70-3	0	U		0.0128	0.0462
Dibenzofuran	132-64-9	0	U		0.0151	0.462
Fluoranthene	206-44-0	7.56	U		0.00834	0.0462
Fluorene	86-73-7	0	U		0.00752	0.0462
Indeno(1,2,3-cd)pyrene	193-39-5	14.10	U		0.0131	0.0462
1-Methylnaphthalene	90-12-0	0	U		0.00591	0.0462
2-Methylnaphthalene	91-57-6	0	U		0.00599	0.0462
Naphthalene	91-20-3	0	U		0.0116	0.0462
Phenanthrene	85-01-8	6.53	0.0165	J	0.00917	0.0462
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	U		0.0585	0.462
Di-n-butyl phthalate	84-74-2	0	U		0.0158	0.462
Di-n-octyl phthalate	117-84-0	0	U		0.0312	0.462
Pyrene	129-00-0	7.80	0.0153	J	0.00899	0.0462
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0144	0.462
Pentachlorophenol	87-86-5	0	U		0.0124	0.462
Phenol	108-95-2	0	U		0.0186	0.462

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:40 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

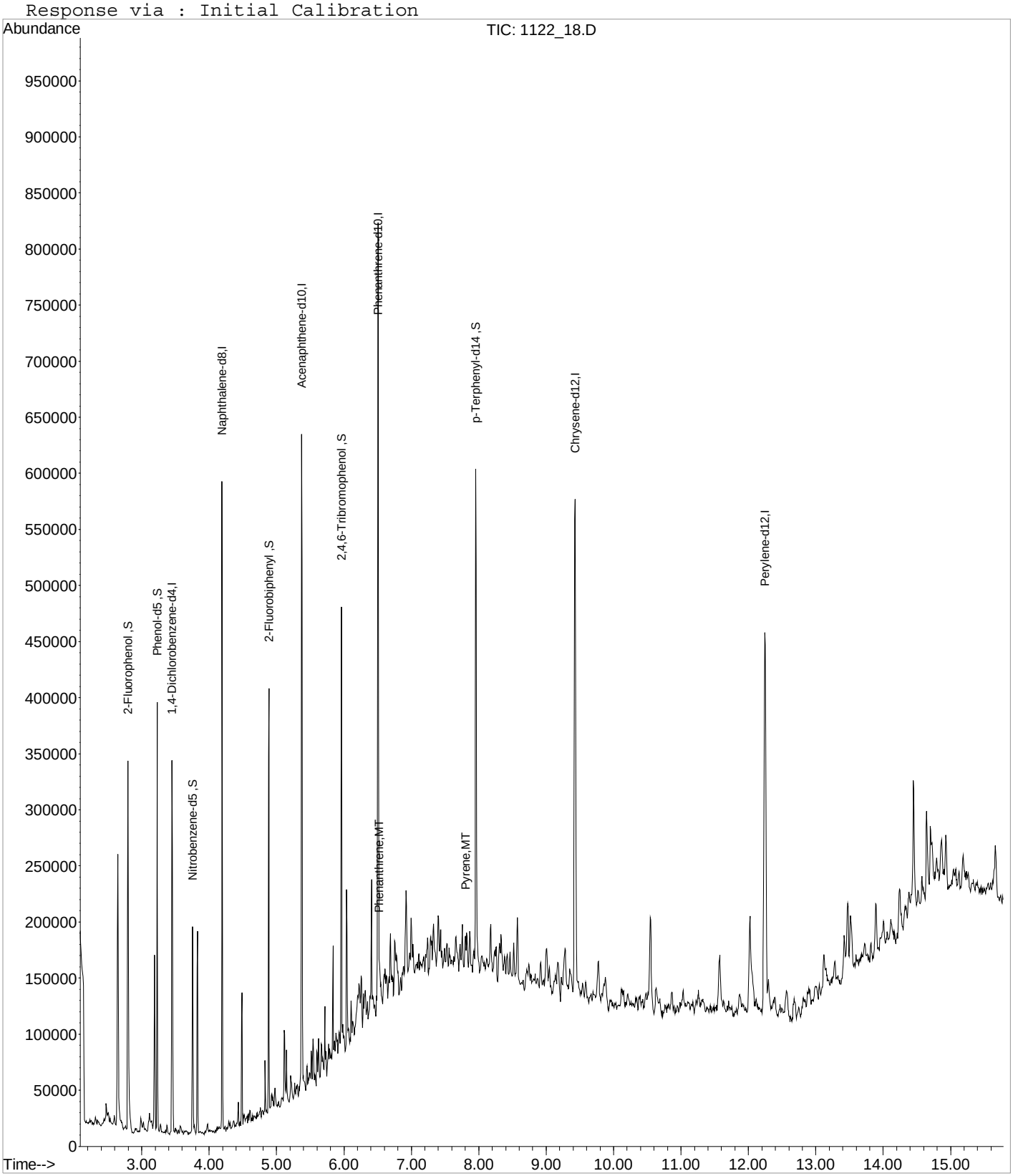
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	52450	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	202297	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	112113	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	223129	8000.00	ppb	-0.02
84) Chrysene-d12	9.43	240	236972	8000.00	ppb	-0.03
94) Perylene-d12	12.24	264	251923	8000.00	ppb	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	96710	12170.0222879	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 60.85%			
7) Phenol-d5	3.23	99	111906	10929.1001754	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 54.65%			
24) Nitrobenzene-d5	3.76	82	43785	5051.2110375	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 50.51%			
50) 2-Fluorobiphenyl	4.89	172	108368	5285.7337803	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 52.86%			
73) 2,4,6-Tribromophenol	5.96	330	47138	13828.9124273	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 69.14%			
87) p-Terphenyl-d14	7.96	244	174573	5392.4333931	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 53.92%			
Target Compounds						Qvalue
78) Phenanthrene	6.53	178	11209	362.8133133	ppb	95
86) Pyrene	7.80	202	12427m	334.0167456	ppb	

(#) = qualifier out of range (m) = manual integration
1122_18.D S804J26V.M Wed Nov 23 09:40:51 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:40 2022 Quant Results File: S804J26V.RES

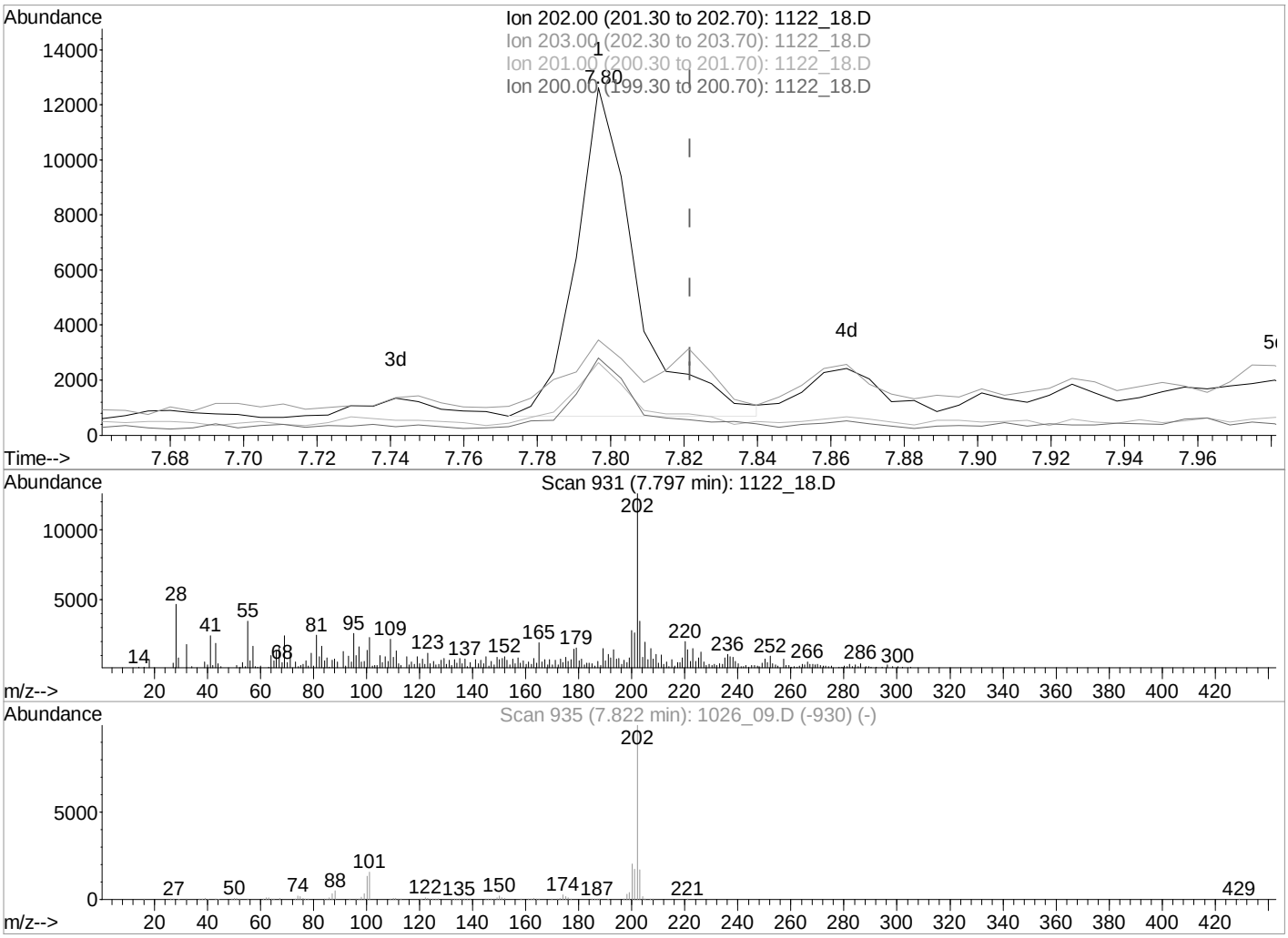
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_18.D

(86) Pyrene (MT)

7.80min (-0.025) 362.4271181 ppb

Qvalue = 96

response 13484 Limit = 194.0000000

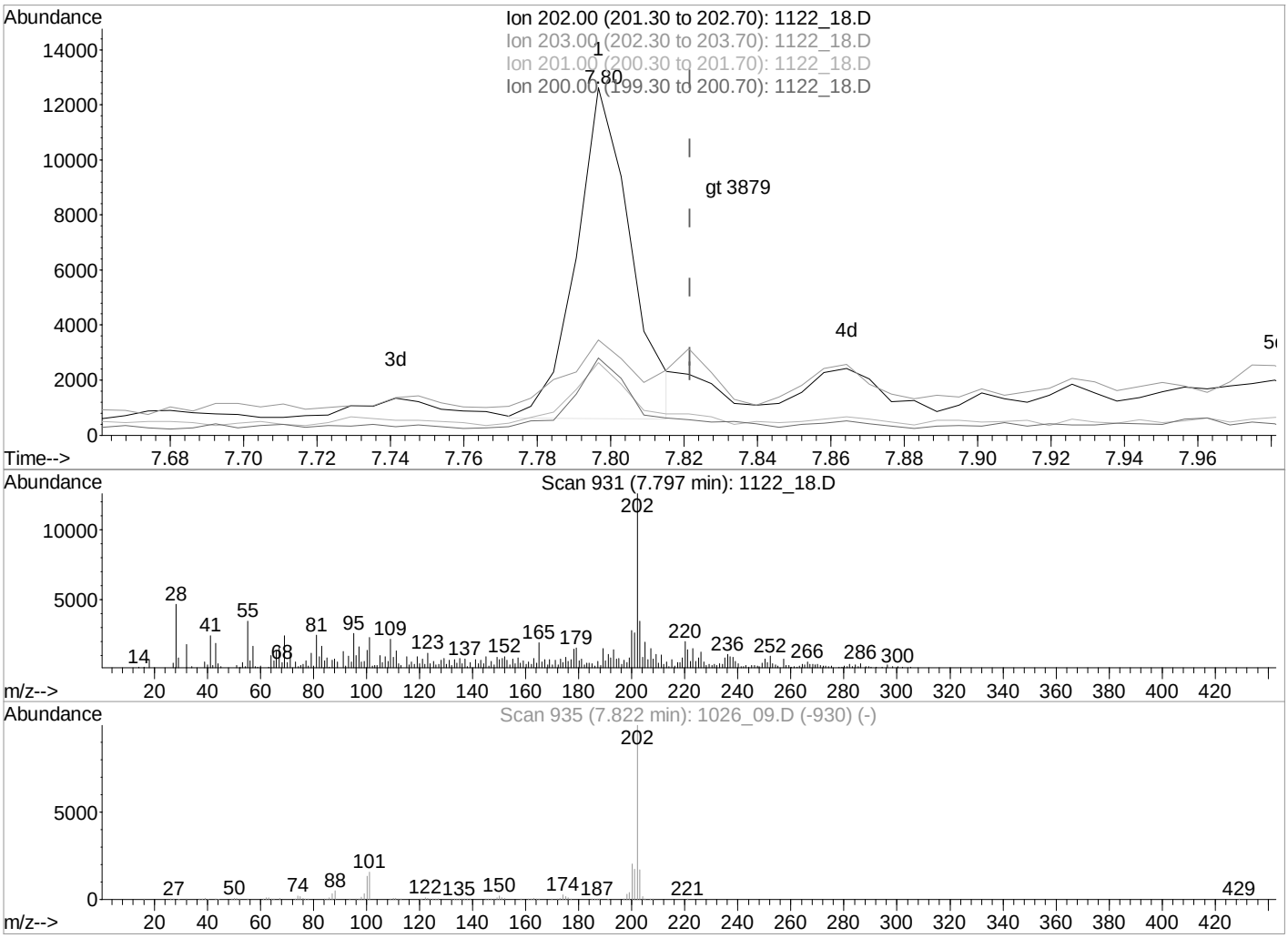
Ion	Exp%	Act%
202.00	100	100
203.00	17.10	20.20
201.00	17.20	18.52
200.00	20.30	21.04

1122_18.D S804J26V.M Wed Nov 23 09:39:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_18.D

(86) Pyrene (MT)

7.80min (-0.025) 334.0167456 ppb m

response 12427 Limit = 194.0000000

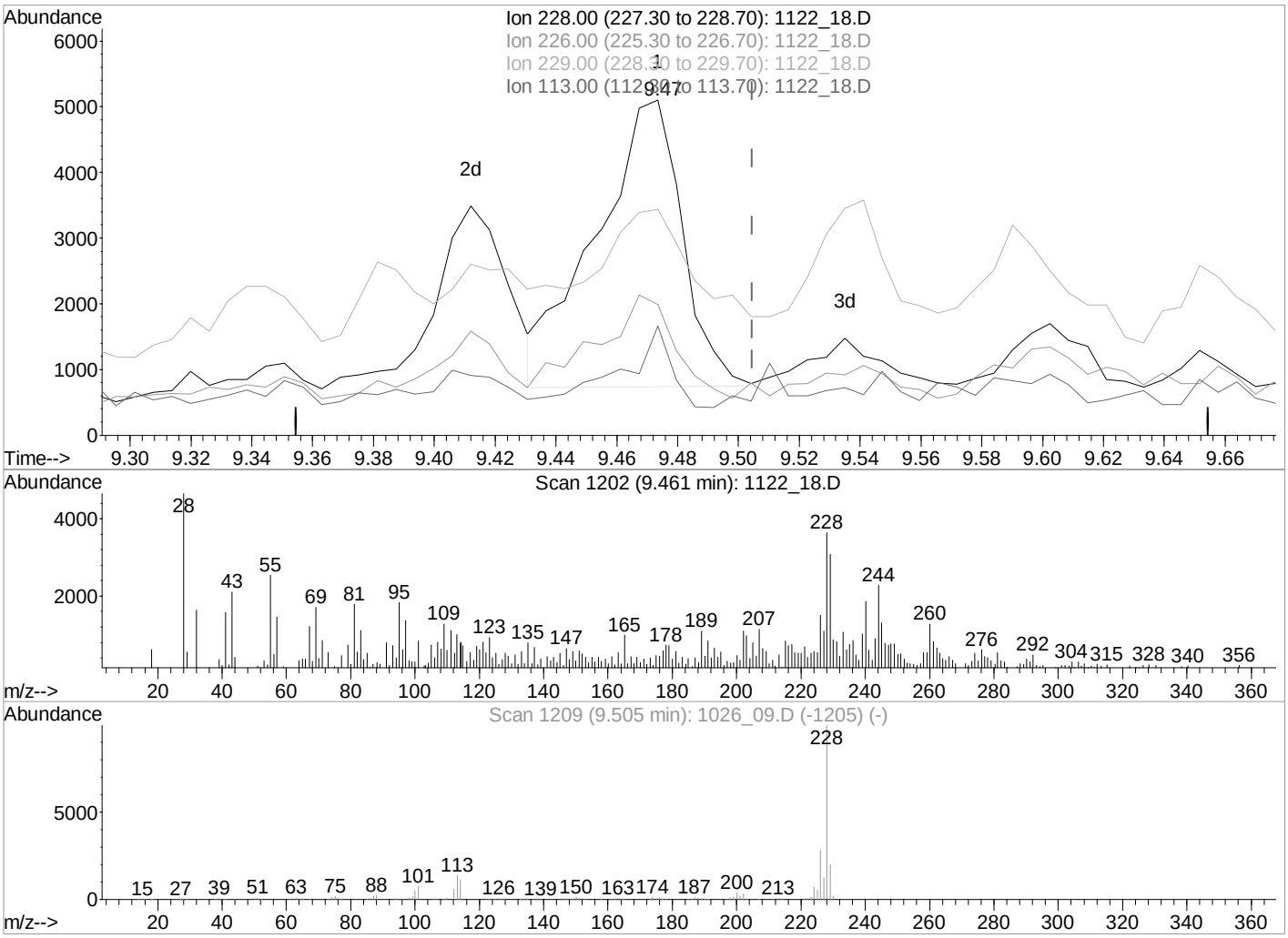
Ion	Exp%	Act%
202.00	100	100
203.00	17.10	27.34
201.00	17.20	20.92
200.00	20.30	22.29

1122_18.D S804J26V.M Wed Nov 23 09:39:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_18.D

(91) Chrysene (MT)

9.47min (-0.031) 246.7065862 ppb

Qvalue = 79

response 8599 Limit = 199.0000000

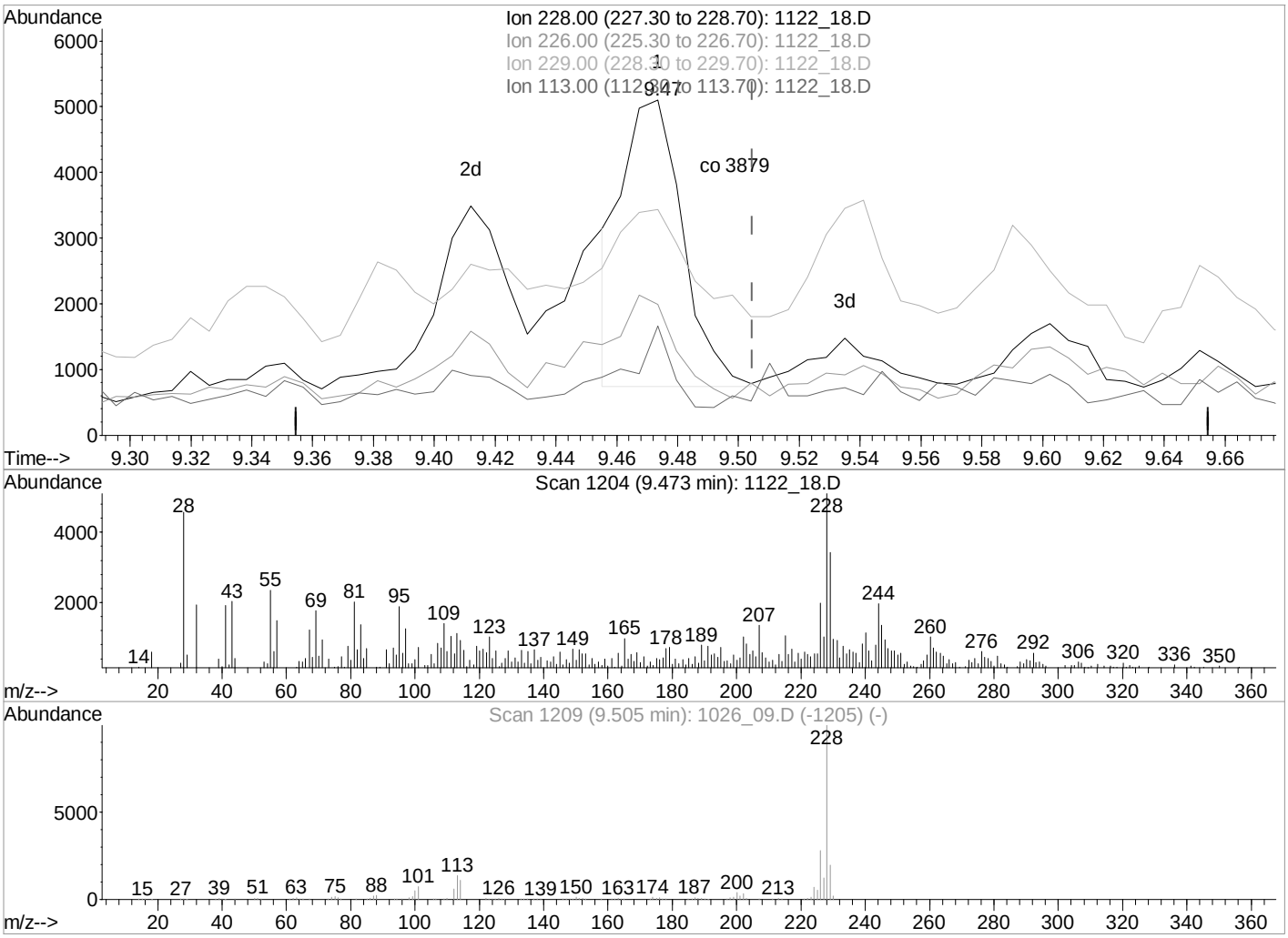
Ion	Exp%	Act%
228.00	100	100
226.00	28.10	29.25
229.00	19.50	37.71
113.00	13.50	26.35

1122_18.D S804J26V.M Wed Nov 23 09:40:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 18.D Vial: 41
Acq On : 22 Nov 2022 3:41 pm Operator: 917
Sample : L1557921-03 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_18.D

(91) Chrysene (MT)

9.47min (-0.031) 173.2024259 ppb m

response 6037 Limit = 199.0000000

Ion	Exp%	Act%
228.00	100	100
226.00	28.10	38.94
229.00	19.50	67.21#
113.00	13.50	21.82

1122_18.D S804J26V.M Wed Nov 23 09:40:42 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-1.0-2.0-110922

Lab Sample ID:	L1557921-04	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-1.0-2.0-110922	**Collected Date/Time:**	11/10/22 12:15
Lab File ID:	1122_14	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:14
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 14:06
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.07 g
Total Solids (%):	70.4	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	U		0.00765	0.0473
Acenaphthylene	208-96-8	0	U		0.00666	0.0473
Anthracene	120-12-7	6.56	U		0.00842	0.0473
Benzoic Acid	65-85-0	3.97	U		0.168	2.37
Benzo(a)anthracene	56-55-3	9.41	U		0.00833	0.0473
Benzo(b)fluoranthene	205-99-2	11.44	U		0.00882	0.0473
Benzo(k)fluoranthene	207-08-9	11.50	U		0.00840	0.0473
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.00864	0.0473
Benzo(a)pyrene	50-32-8	12.12	U		0.00879	0.0473
Carbazole	86-74-8	6.54	U		0.0146	0.473
Chrysene	218-01-9	9.47	U		0.00940	0.0473
Dibenz(a,h)anthracene	53-70-3	0	U		0.0131	0.0473
Dibenzofuran	132-64-9	0	U		0.0155	0.473
Fluoranthene	206-44-0	7.56	U		0.00853	0.0473
Fluorene	86-73-7	5.84	U		0.00769	0.0473
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	U		0.0134	0.0473
1-Methylnaphthalene	90-12-0	0	U		0.00605	0.0473
2-Methylnaphthalene	91-57-6	0	U		0.00613	0.0473
Naphthalene	91-20-3	0	U		0.0119	0.0473
Phenanthrene	85-01-8	6.53	0.0145	J	0.00938	0.0473
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	U		0.0599	0.473
Di-n-butyl phthalate	84-74-2	0	U		0.0162	0.473
Di-n-octyl phthalate	117-84-0	0	U		0.0319	0.473
Pyrene	129-00-0	7.80	0.0130	J	0.00920	0.0473
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0148	0.473
Pentachlorophenol	87-86-5	0	U		0.0127	0.473
Phenol	108-95-2	0	U		0.0190	0.473

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 14.D Vial: 37
Acq On : 22 Nov 2022 2:06 pm Operator: 917
Sample : L1557921-04 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:31 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

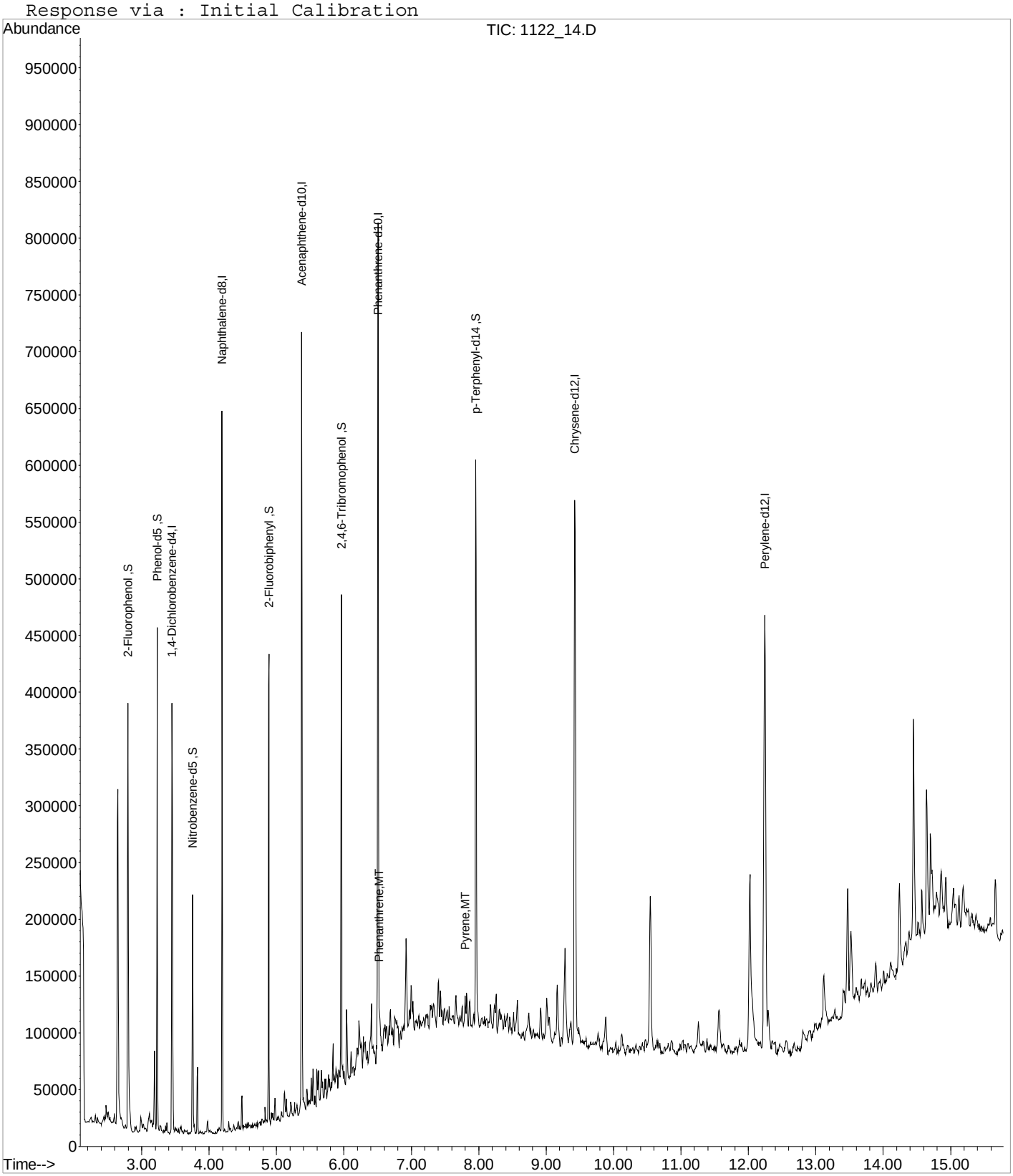
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	57850	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	221646	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	121818	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	244318	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	253416	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	279408	8000.00	ppb	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	107477	12262.4614485	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 61.31%			
7) Phenol-d5	3.23	99	127668	11304.6004802	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 56.52%			
24) Nitrobenzene-d5	3.76	82	49369	5198.2125591	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 51.98%			
50) 2-Fluorobiphenyl	4.89	172	124655	5595.7517534	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 55.96%			
73) 2,4,6-Tribromophenol	5.96	330	53423	14313.4953510	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 71.57%			
87) p-Terphenyl-d14	7.96	244	200578	5793.6734470	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 57.94%			
Target Compounds						Qvalue
78) Phenanthrene	6.53	178	10347	305.8661027	ppb	95
86) Pyrene	7.80	202	10982m	276.0237067	ppb	

(#) = qualifier out of range (m) = manual integration
1122_14.D S804J26V.M Wed Nov 23 09:32:05 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 14.D Vial: 37
Acq On : 22 Nov 2022 2:06 pm Operator: 917
Sample : L1557921-04 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:31 2022 Quant Results File: S804J26V.RES

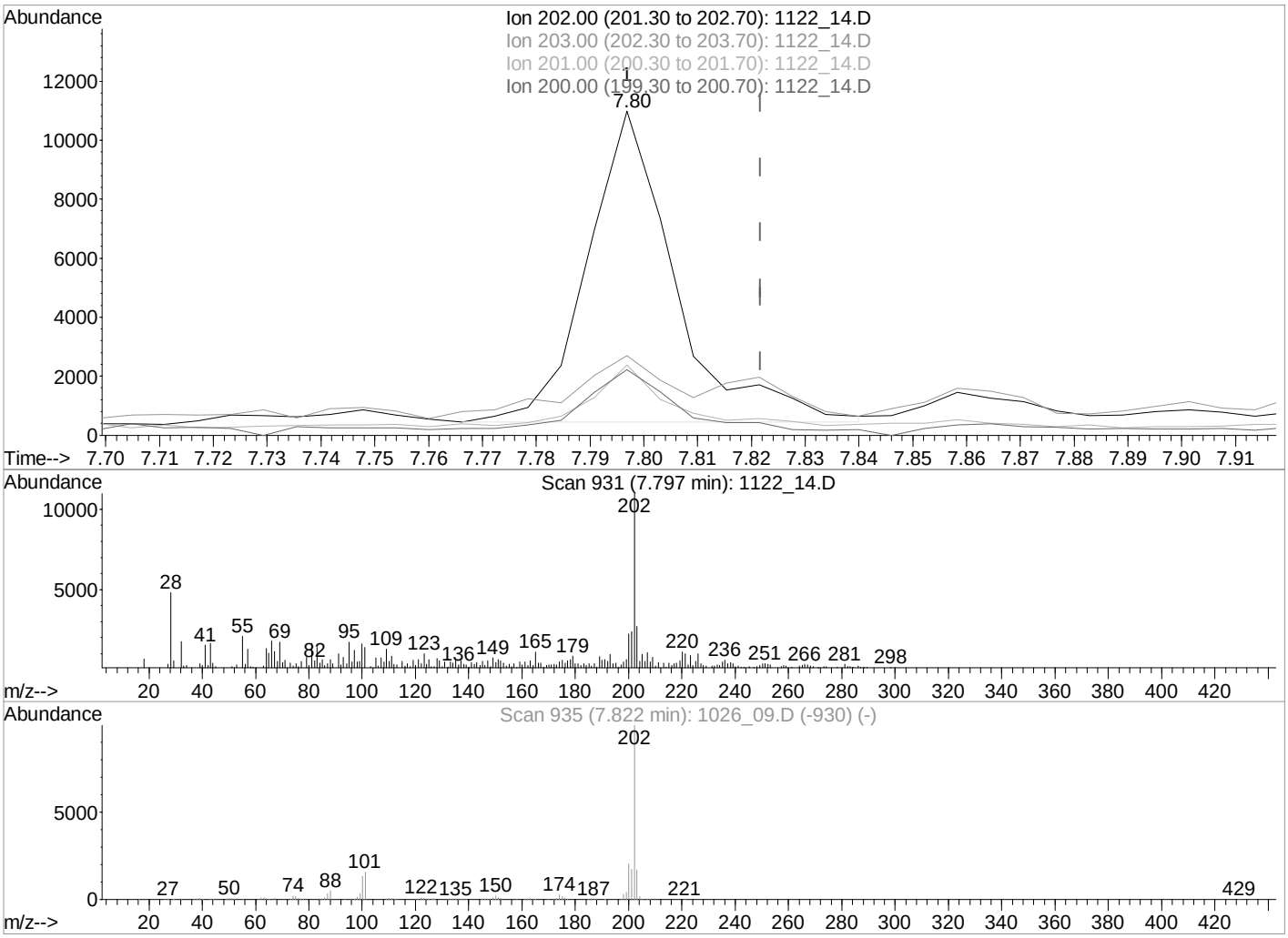
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 14.D Vial: 37
Acq On : 22 Nov 2022 2:06 pm Operator: 917
Sample : L1557921-04 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_14.D

(86) Pyrene (MT)

7.80min (-0.025) 300.8814235 ppb

Qvalue = 96

response 11971 Limit = 194.0000000

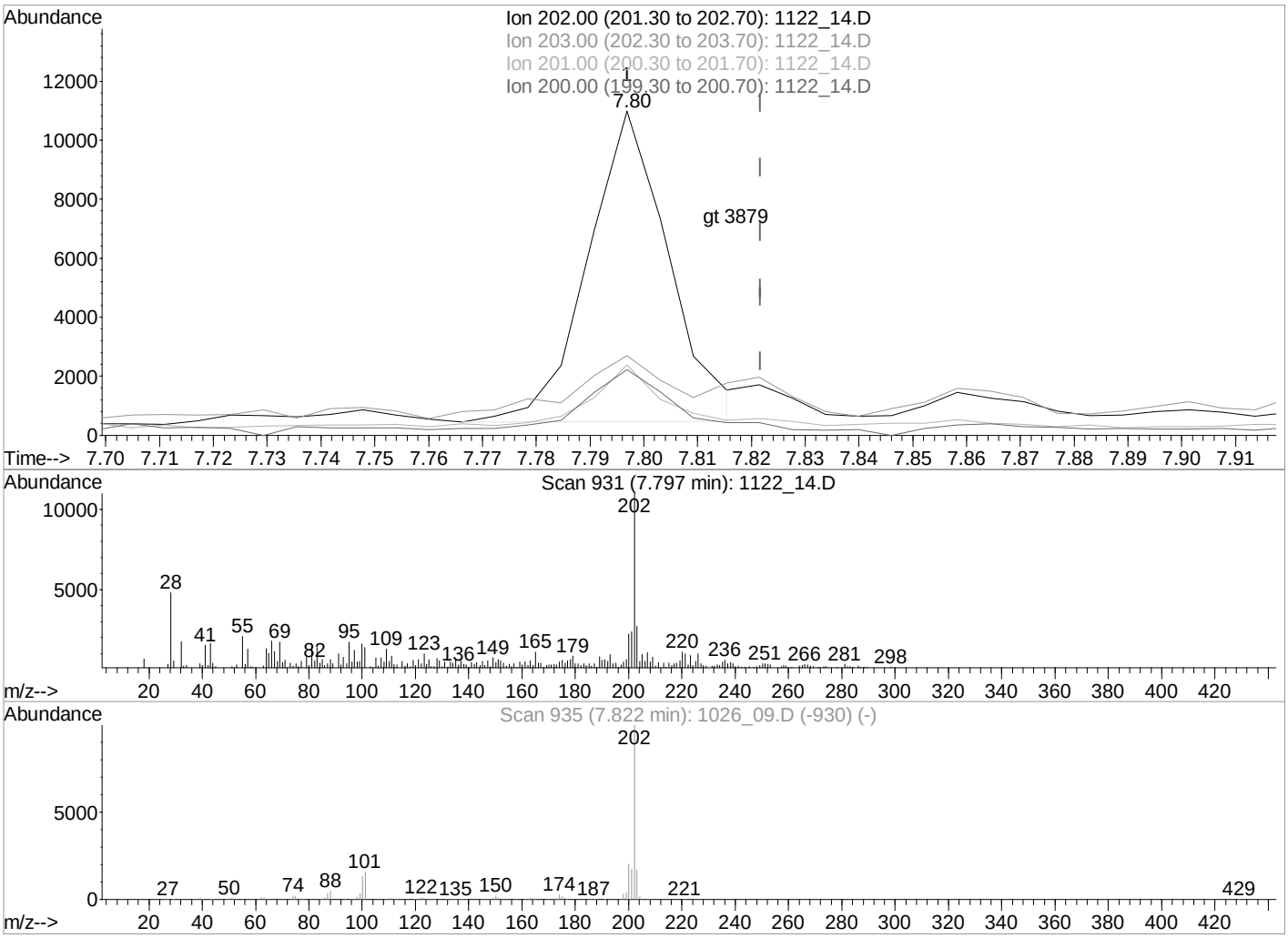
Ion	Exp%	Act%
202.00	100	100
203.00	17.10	19.59
201.00	17.20	19.18
200.00	20.30	19.24

1122_14.D S804J26V.M Wed Nov 23 09:31:41 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 14.D Vial: 37
Acq On : 22 Nov 2022 2:06 pm Operator: 917
Sample : L1557921-04 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_14.D

(86) Pyrene (MT)

7.80min (-0.025) 276.0237067 ppb m

response 10982 Limit = 194.0000000

Ion	Exp%	Act%
202.00	100	100
203.00	17.10	24.61
201.00	17.20	21.66
200.00	20.30	20.19

1122_14.D S804J26V.M Wed Nov 23 09:31:53 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-EF240-SC-3.0-4.0-110922

Lab Sample ID:	L1557921-05	**SDG:**	L1557921
Client Sample ID:	BNSF-EF240-SC-3.0-4.0-110922	**Collected Date/Time:**	11/10/22 12:20
Lab File ID:	1122_23	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:14
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 17:41
Dilution Factor:	2	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.69 g
Total Solids (%):	72.2	**Final Wt/Vol:**	1 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.0150	0.0923
Acenaphthylene	208-96-8	0	U		0.0130	0.0923
Anthracene	120-12-7	6.53	U		0.0165	0.0923
Benzoic Acid	65-85-0	0	U		0.327	4.63
Benzo(a)anthracene	56-55-3	9.45	0.0199	J	0.0162	0.0923
Benzo(b)fluoranthene	205-99-2	11.45	U		0.0172	0.0923
Benzo(k)fluoranthene	207-08-9	11.45	U		0.0163	0.0923
Benzo(g,h,i)perylene	191-24-2	14.44	U		0.0169	0.0923
Benzo(a)pyrene	50-32-8	12.13	U		0.0172	0.0923
Carbazole	86-74-8	0	U		0.0285	0.923
Chrysene	218-01-9	9.47	U		0.0183	0.0923
Dibenz(a,h)anthracene	53-70-3	14.15	U		0.0256	0.0923
Dibenzofuran	132-64-9	0	U		0.0302	0.923
Fluoranthene	206-44-0	7.56	U		0.0166	0.0923
Fluorene	86-73-7	0	U		0.0150	0.0923
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	U		0.0260	0.0923
1-Methylnaphthalene	90-12-0	0	U		0.0118	0.0923
2-Methylnaphthalene	91-57-6	0	U		0.0120	0.0923
Naphthalene	91-20-3	0	U		0.0231	0.0923
Phenanthrene	85-01-8	6.53	U		0.0183	0.0923
Bis(2-ethylhexyl)phthalate	117-81-7	9.32	U		0.117	0.923
Di-n-butyl phthalate	84-74-2	0	U		0.0316	0.923
Di-n-octyl phthalate	117-84-0	0	U		0.0623	0.923
Pyrene	129-00-0	7.80	U		0.0180	0.0923
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0288	0.923
Pentachlorophenol	87-86-5	0	U		0.0248	0.923
Phenol	108-95-2	0	U		0.0371	0.923

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:58 2022 Quant Results File: S804J26V.RES

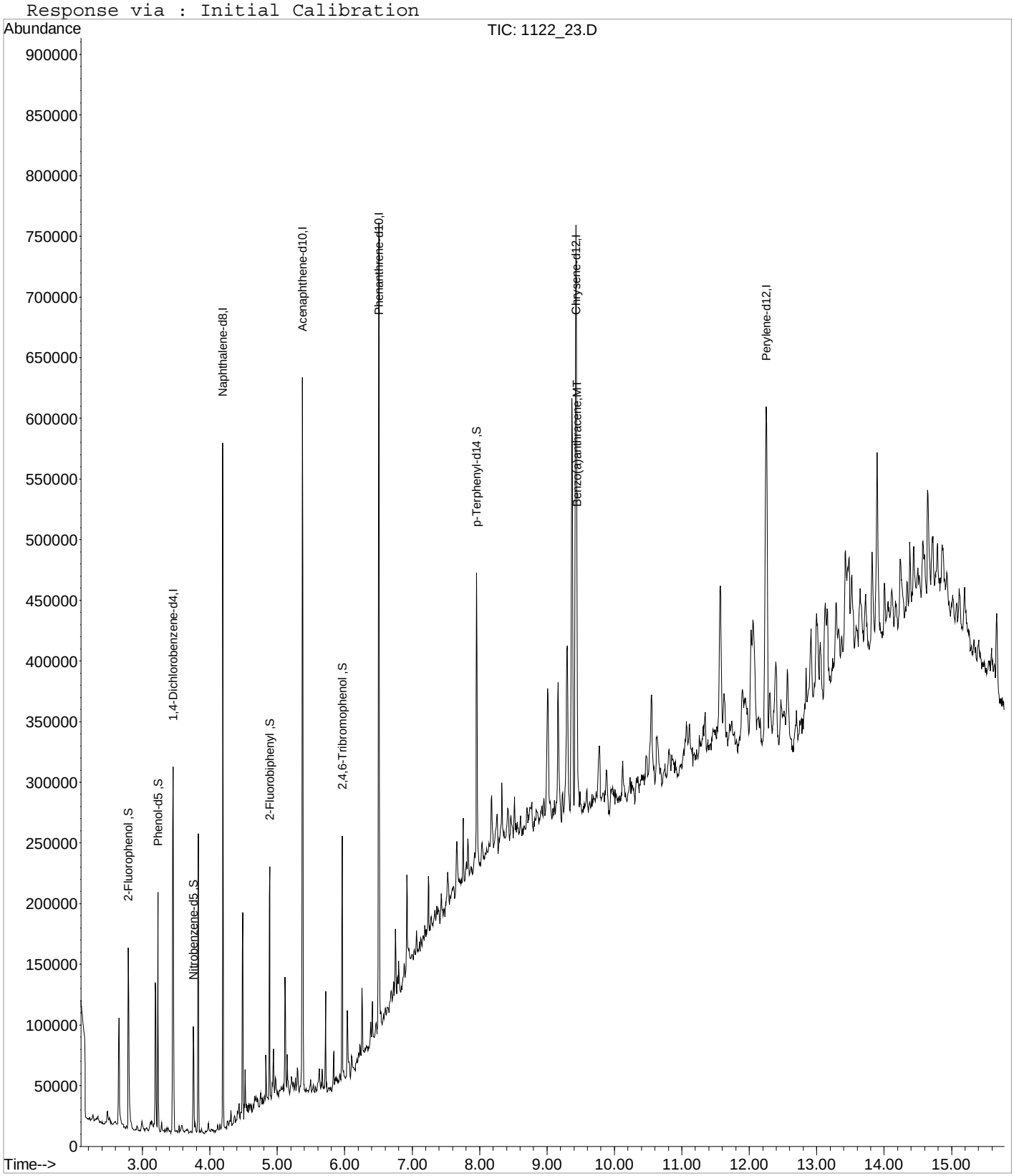
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

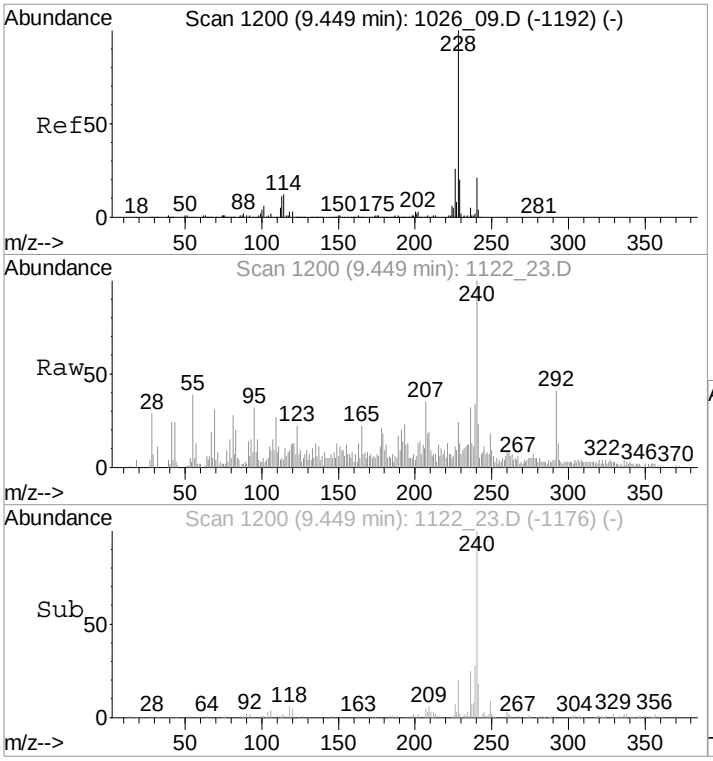
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	50546	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	198120	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	110515	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	221758	8000.00	ppb	-0.02
84) Chrysene-d12	9.43	240	230035	8000.00	ppb	-0.03
94) Perylene-d12	12.25	264	189213	8000.00	ppb	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.79	112	48624	6349.3515330	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 31.75%			
7) Phenol-d5	3.23	99	58199	5898.0066272	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 29.49%			
24) Nitrobenzene-d5	3.76	82	22543	2655.4797477	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 26.55%			
50) 2-Fluorobiphenyl	4.89	172	54781	2710.6218152	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 27.11%#			
73) 2,4,6-Tribromophenol	5.96	330	24803	7321.4619653	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 36.61%			
87) p-Terphenyl-d14	7.96	244	91668	2916.9473138	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 29.17%			
Target Compounds						Qvalue
90) Benzo(a)anthracene	9.45	228	7375	225.5208514	ppb	92

(#) = qualifier out of range (m) = manual integration
1122_23.D S804J26V.M Wed Nov 23 09:58:18 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:58 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

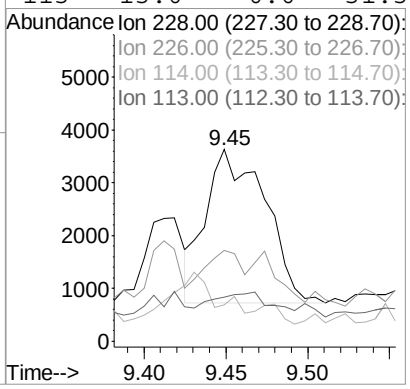




#90
Benzo(a)anthracene
Concen: 225.5208514 ppb
RT: 9.45 min Scan# 1200
Delta R.T. -0.00 min
Lab File: 1122_23.D
Acq: 22 Nov 2022 5:41 pm

Tgt Ion:228 Resp: 7375

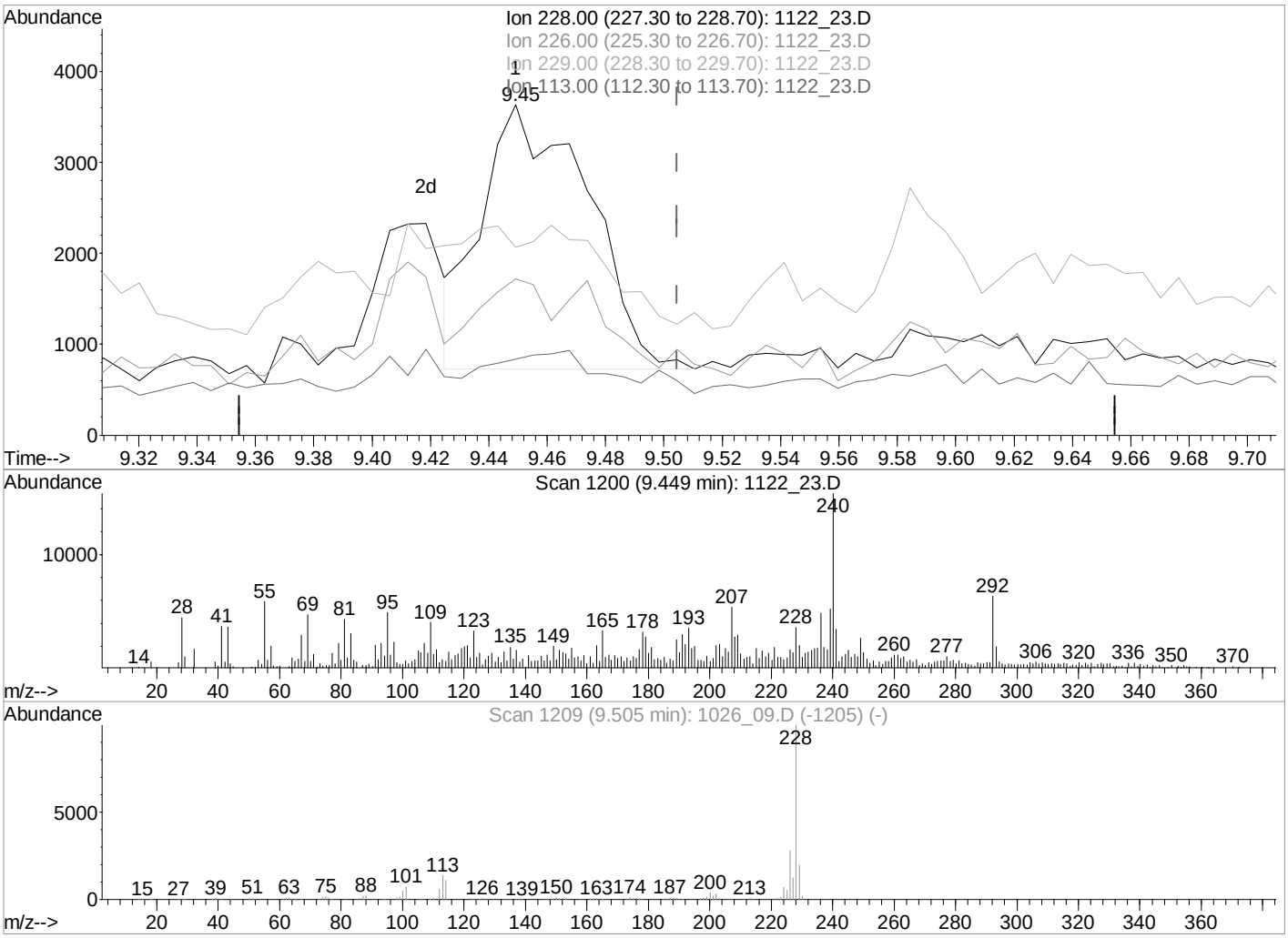
Ion	Ratio	Lower	Upper
228	100		
226	32.3	5.9	45.9
114	11.4	0.0	31.7
113	13.0	0.0	31.3



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_23.D

(91) Chrysene (MT)

9.45min (-0.055) 217.9706072 ppb

Qvalue = 92

response 7375 Limit = 199.0000000

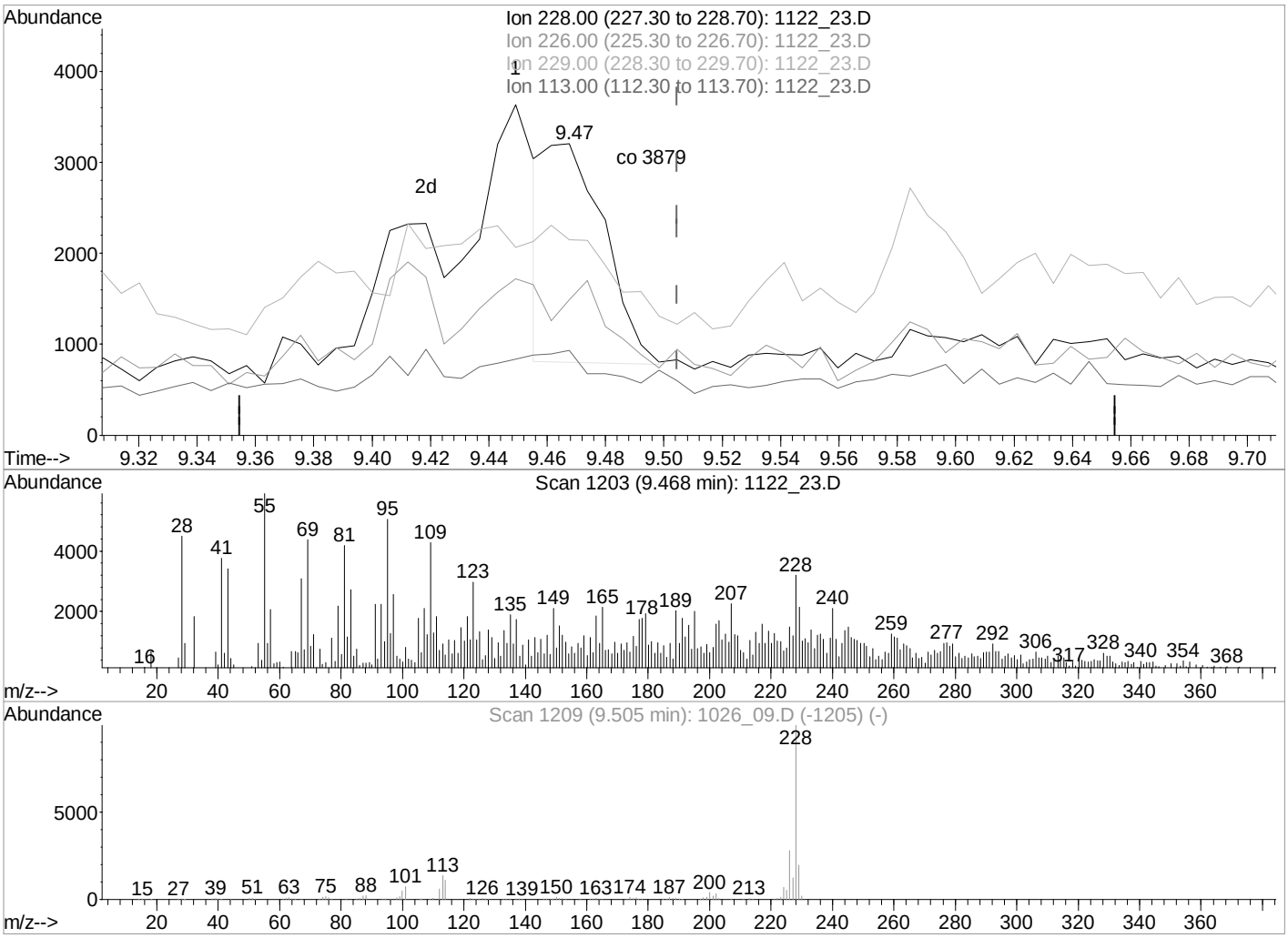
Ion	Exp%	Act%
228.00	100	100
226.00	28.10	32.30
229.00	19.50	24.66
113.00	13.50	13.02

1122_23.D S804J26V.M Wed Nov 23 09:57:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_23.D

(91) Chrysene (MT)

9.47min (-0.037) 99.7197056 ppb m

response 3374 Limit = 199.0000000

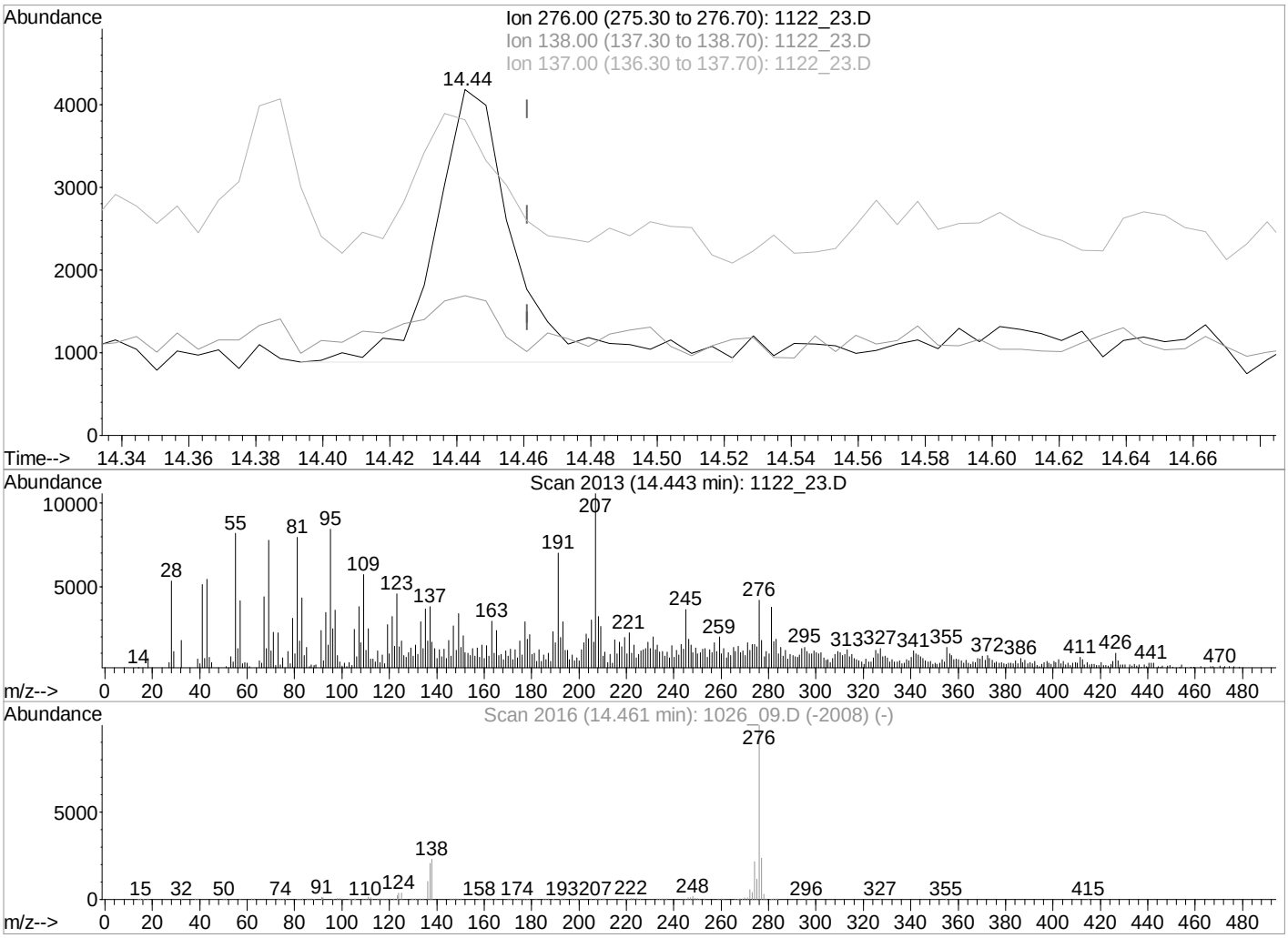
Ion	Exp%	Act%
228.00	100	100
226.00	28.10	46.51
229.00	19.50	66.94#
113.00	13.50	29.04

1122_23.D S804J26V.M Wed Nov 23 09:57:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_23.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.019) 206.4487424 ppb

Qvalue = 66

response 5526 Limit = 183.0000000

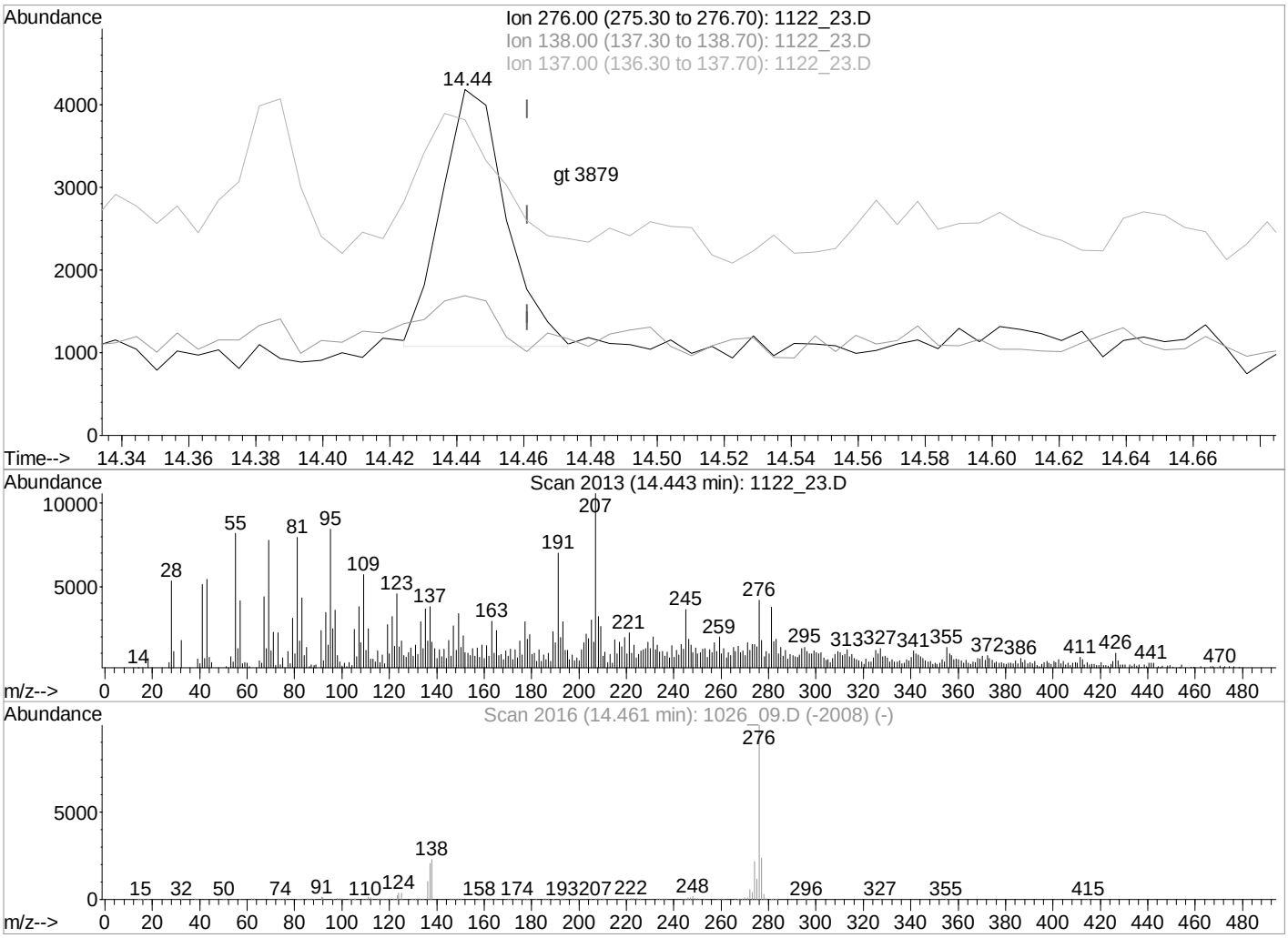
Ion	Exp%	Act%
276.00	100	100
138.00	23.10	21.18
137.00	20.70	52.63#
0.00	0.00	0.00

1122_23.D S804J26V.M Wed Nov 23 09:58:04 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 23.D Vial: 46
Acq On : 22 Nov 2022 5:41 pm Operator: 917
Sample : L1557921-05 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:58 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_23.D

(100) Benzo(g,h,i)perylene (MT)

14.44min (-0.019) 155.4529890 ppb m

response 4161 Limit = 183.0000000

Ion	Exp%	Act%
276.00	100	100
138.00	23.10	40.32
137.00	20.70	91.25#
0.00	0.00	0.00

1122_23.D S804J26V.M Wed Nov 23 09:58:15 2022

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1557921 **Analytical Method:** 8270E

Instrument ID: BNAMS4

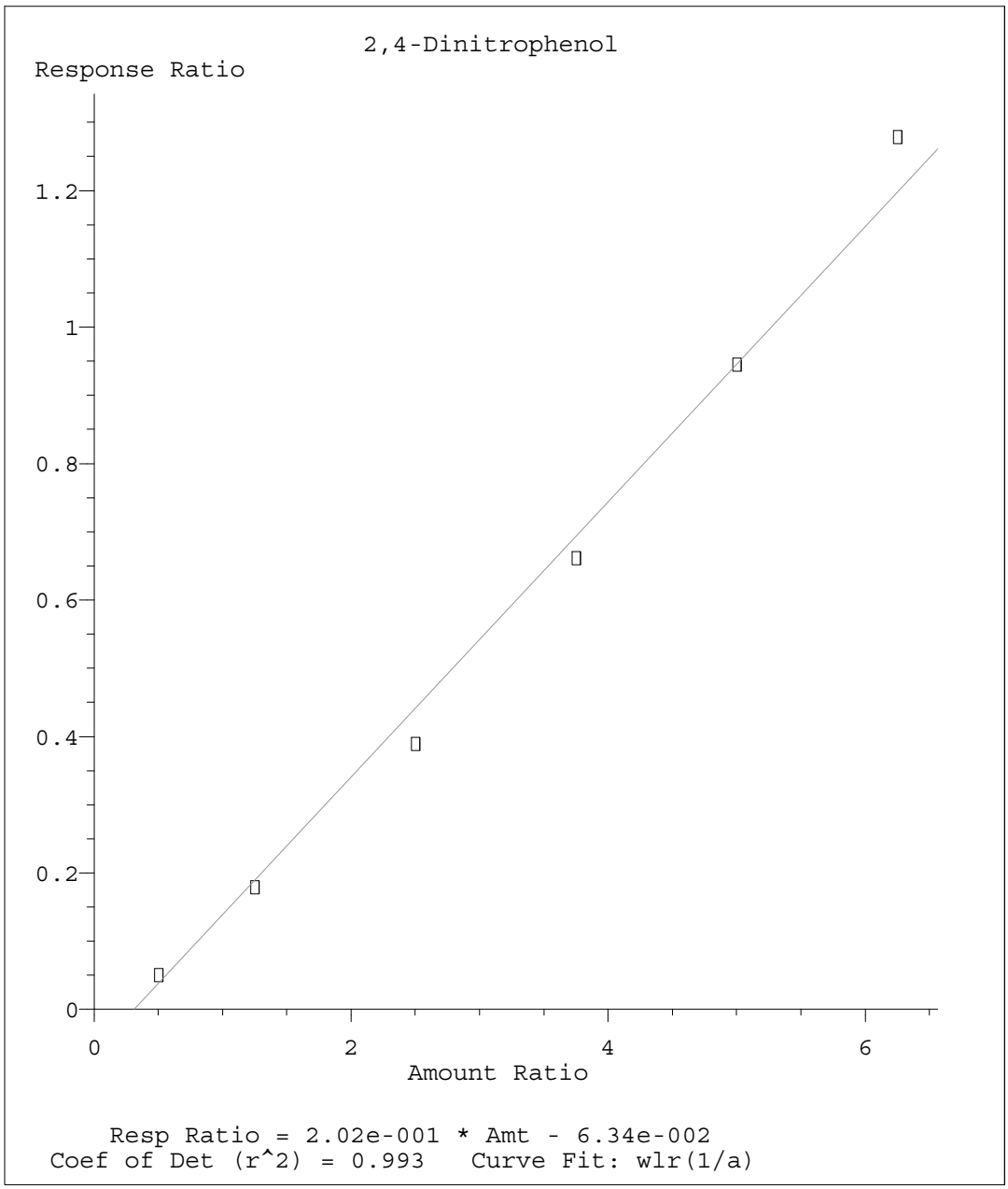
Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 1K1**	**RRF: 4K1**
Analysis date/time	10/26/22 23:10	10/26/22 23:31	10/26/22 23:52	10/27/22 00:13	10/27/22 00:34	10/27/22 00:55	10/27/22 01:16	10/27/22 01:37	10/27/22 01:58	10/27/22 02:19
PHENOL	1.6470	1.6360	1.3760	1.5710	1.5010	1.6130	1.6240	1.7010		
3&4-METHYL PHENOL	1.3580	1.3160	1.0370	1.3150	1.2710	1.3660	1.3740	1.4460		
NAPHTHALENE	1.1180	1.0780	0.8770	0.9930	0.96	1.02	1.0290	1.0750		
2-METHYLNAPHTHALENE	0.6880	0.6780	0.5760	0.6510	0.6360	0.6750	0.6790	0.7240		
1-METHYLNAPHTHALENE	0.6660	0.6570	0.5480	0.6160	0.5970	0.6350	0.6450	0.6810		
ACENAPHTHYLENE	1.8380	1.7940	1.5330	1.7970	1.7780	1.87	1.8860	1.9940		
ACENAPHTHENE	1.3410	1.3010	1.0590	1.1830	1.1710	1.2410	1.2570	1.3440		
DIBENZOFURAN	1.85	1.7920	1.4640	1.6360	1.5810	1.6650	1.6970	1.7850		
FLUORENE	1.4470	1.4350	1.2010	1.3780	1.3450	1.4140	1.4350	1.5380		
PHENANTHRENE	1.1840	1.1870	0.9480	1.0620	1.0570	1.1170	1.1270	1.18		
ANTHRACENE	1.0360	1.0630	0.9250	1.0750	1.0860	1.1630	1.1710	1.2310		
CARBAZOLE	0.8920	0.9110	0.7970	0.9430	0.9670	1.0350	1.0580	1.1380		
DI-N-BUTYL PHTHALATE	0.8940	0.9480	0.8710	1.0760	1.1590	1.2910	1.3370	1.3790		
FLUORANTHENE	1.0720	1.1030	0.9410	1.10	1.1380	1.2510	1.2890	1.3660		
PYRENE	1.2930	1.3010	1.0830	1.2270	1.2290	1.2820	1.28	1.3540		
BENZO(A)ANTHRACENE	1.1550	1.1450	0.9510	1.0970	1.1130	1.1880	1.1890	1.26		
CHRYSENE	1.2570	1.2880	1.0390	1.1370	1.1280	1.1670	1.1610	1.2380		
BIS(2-ETHYLHEXYL)PHTHALATE	0.4660	0.4760	0.4810	0.6250	0.6690	0.7250	0.7450	0.7990		
BENZO(B)FLUORANTHENE	1.0940	1.0960	0.9680	1.1350	1.1640	1.2420	1.2330	1.3240		
BENZO(K)FLUORANTHENE	1.1690	1.2050	1.0510	1.1820	1.18	1.2640	1.2680	1.3280		
BENZO(A)PYRENE	0.8280	0.8660	0.8010	0.9710	0.9850	1.0650	1.0860	1.1390		
INDENO(1,2,3-CD)PYRENE	0.9270	0.9560	0.8760	1.0350	1.0320	1.0930	1.0920	1.0970		
DIBENZ(A,H)ANTHRACENE	1.0850	1.1360	0.9630	1.1430	1.1590	1.2020	1.18	1.2010		
BENZO(G,H,I)PERYLENE	1.1660	1.1680	1.0130	1.1560	1.1380	1.18	1.1260	1.1070		
2-FLUOROPHENOL	1.3040	1.3220	0.9890	1.1980	1.1550	1.2270	1.22	1.2810		
PHENOL-D5	1.6440	1.6040	1.3390	1.55	1.4860	1.5940	1.5960	1.68		
NITROBENZENE-D5	0.3630	0.34	0.2990	0.3410	0.3380	0.36	0.3360	0.3660		
2-FLUOROBIPHENYL	1.58	1.5740	1.2820	1.4380	1.3870	1.4460	1.4630	1.5340		
P-TERPHENYL-D14	1.1780	1.1270	0.9410	1.0640	1.06	1.1020	1.0980	1.1730		
PENTACHLOROPHENOL		0.10	0.1020	0.1350	0.1420	0.1550	0.1590	0.1720		
DI-N-OCTYL PHTHALATE		0.6860	0.6740	0.9390	1.0480	1.1580	1.1890	1.2950		
2,4,6-TRIBROMOPHENOL			0.0920	0.1130	0.1190	0.1310	0.1340	0.1440		
BENZOIC ACID									0.1030	0.08
File ID:	1026_06	1026_07	1026_08	1026_09	1026_10	1026_11	1026_12	1026_13	1026_14	1026_15

GC/MS INITIAL CALIBRATION DATA

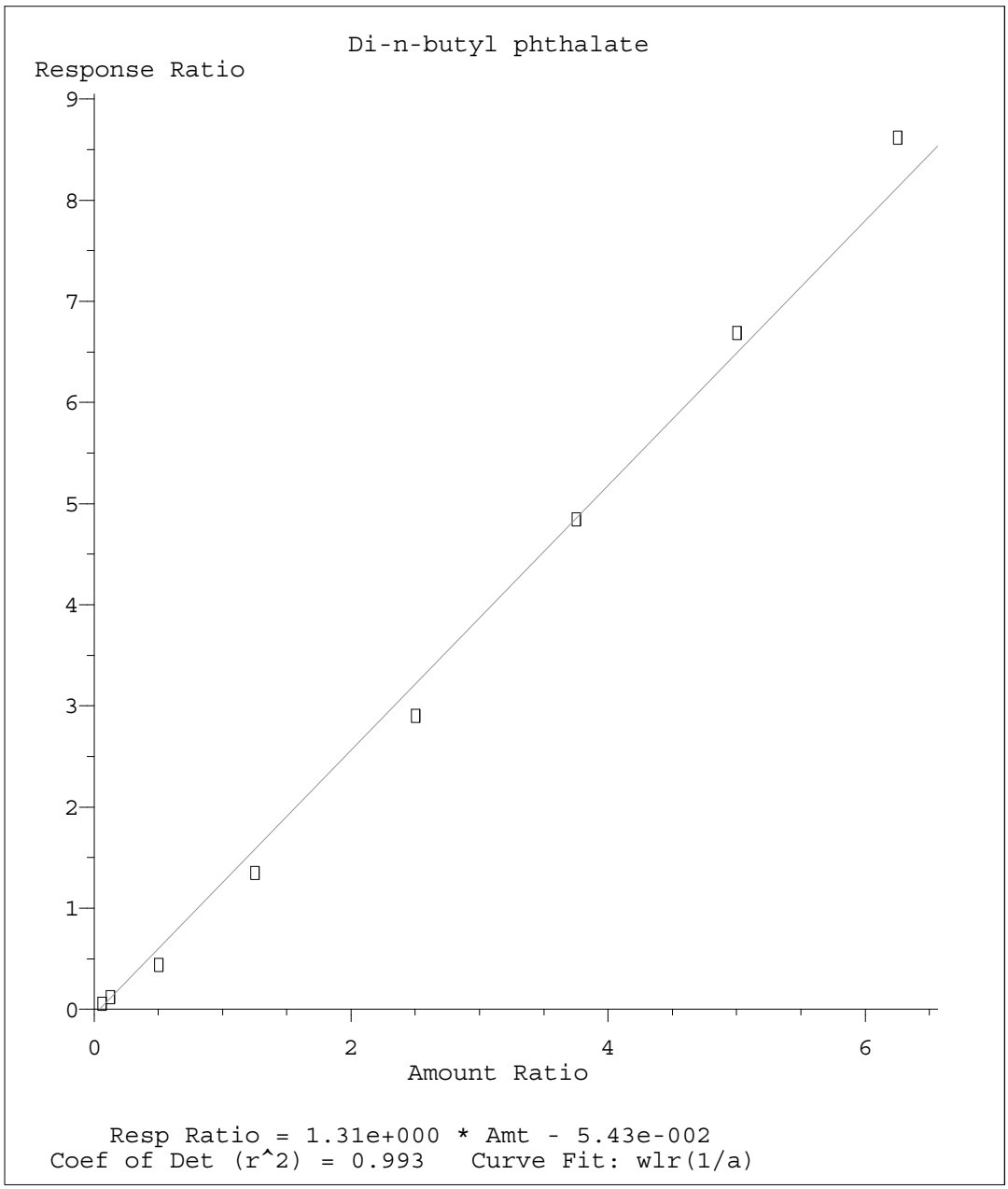
SDG: L1557921 **Analytical Method:** 8270E

Instrument ID: BNAMS4

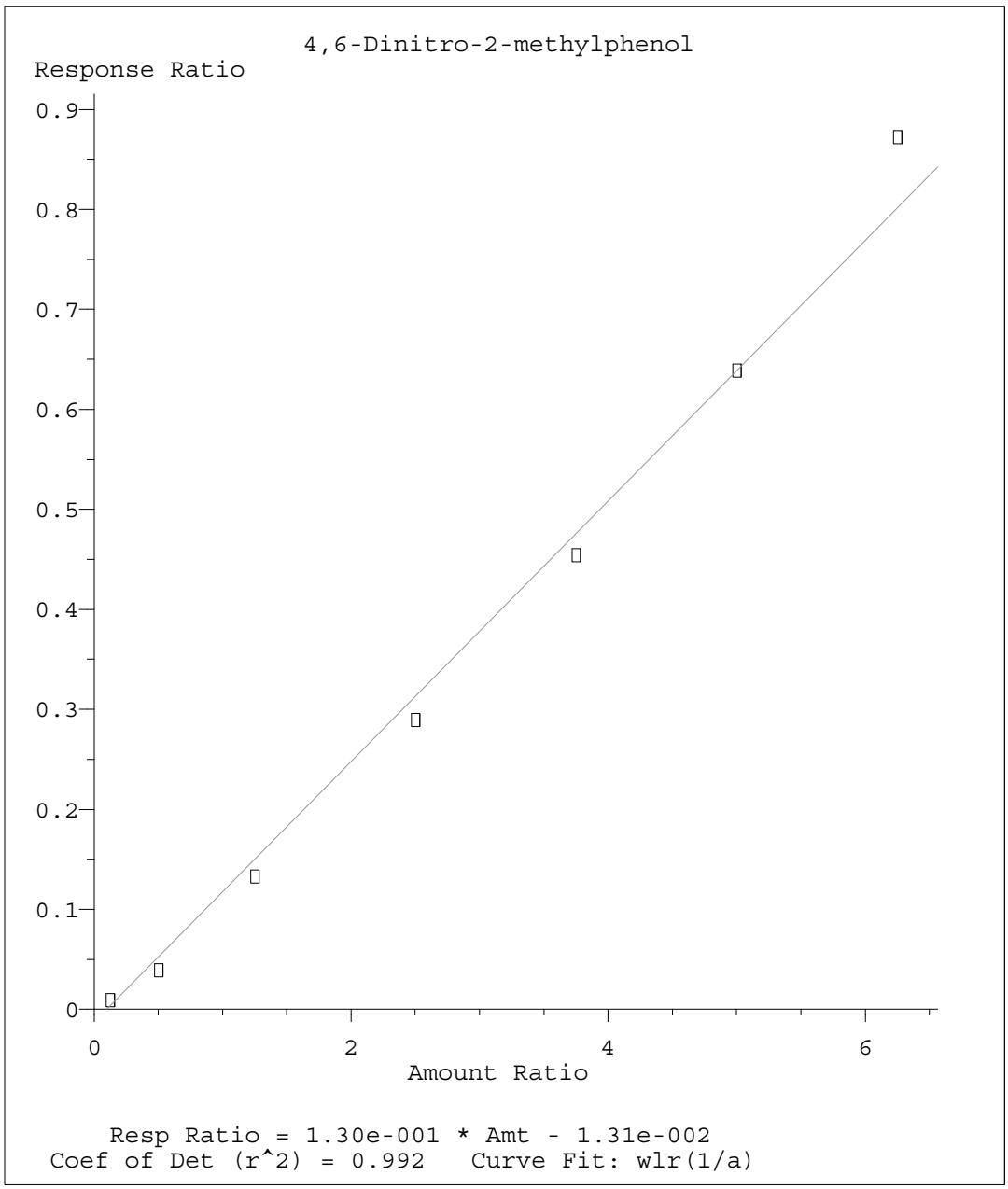
Analyte	**RRF: 10K1**	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	10/27/22 02:39	10/27/22 03:00	10/27/22 03:21	10/27/22 03:42	10/27/22 04:03			
PHENOL						1.583712	6.45	
3&4-METHYL PHENOL						1.31046	9.3	
NAPHTHALENE						1.018737	7.51	
2-METHYLNAPHTHALENE						0.663331	6.58	
1-METHYLNAPHTHALENE						0.630728	6.8	
ACENAPHTHYLENE						1.811284	7.29	
ACENAPHTHENE						1.237201	7.84	
DIBENZOFURAN						1.683731	7.5	
FLUORENE						1.39923	6.99	
PHENANTHRENE						1.107688	7.47	
ANTHRACENE						1.093532	8.64	
CARBAZOLE						0.967635	11.08	
DI-N-BUTYL PHTHALATE						1.119355	18.15	0.993
FLUORANTHENE						1.157378	11.78	
PYRENE						1.256004	6.45	
BENZO(A)ANTHRACENE						1.13729	7.95	
CHRYSENE						1.176685	6.87	
BIS(2-ETHYLHEXYL)PHTHALATE						0.623139	21.4	0.993
BENZO(B)FLUORANTHENE						1.156852	9.52	
BENZO(K)FLUORANTHENE						1.205862	6.92	
BENZO(A)PYRENE						0.967529	12.99	
INDENO(1,2,3-CD)PYRENE						1.013611	8.34	
DIBENZ(A,H)ANTHRACENE						1.133472	6.95	
BENZO(G,H,I)PERYLENE						1.131717	4.74	
2-FLUOROPHENOL						1.212061	8.73	
PHENOL-D5						1.561757	6.86	
NITROBENZENE-D5						0.342792	6.24	
2-FLUOROBIPHENYL						1.462951	6.86	
P-TERPHENYL-D14						1.092912	6.91	
PENTACHLOROPHENOL						0.137739	20.22	0.993
DI-N-OCTYL PHTHALATE						0.99839	24.49	0.991
2,4,6-TRIBROMOPHENOL						0.122213	15.08	
BENZOIC ACID	0.1220	0.13	0.1280	0.1210	0.1180	0.114506	15.29	
File ID:	1026_16	1026_17	1026_18	1026_19	1026_20			



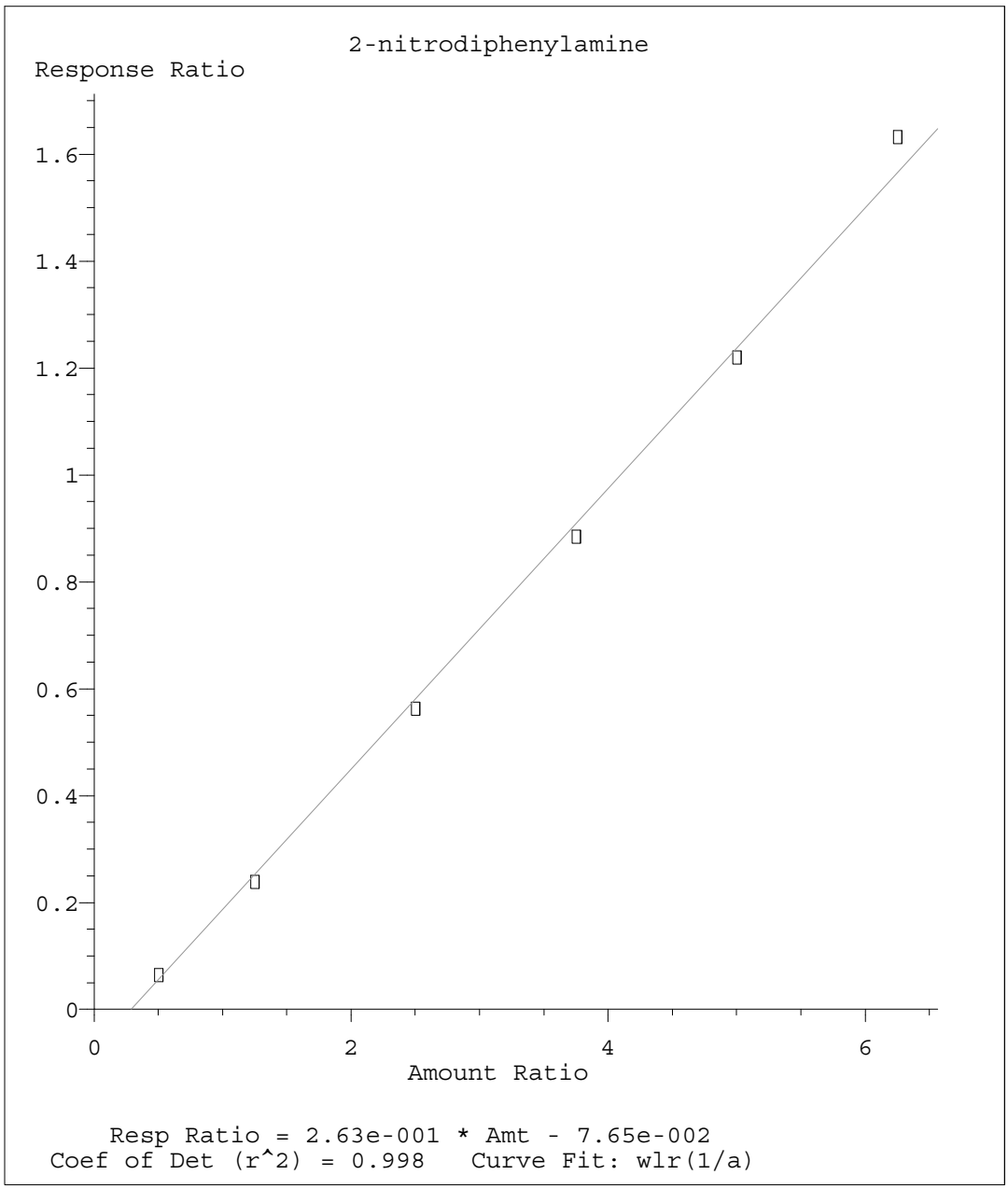
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



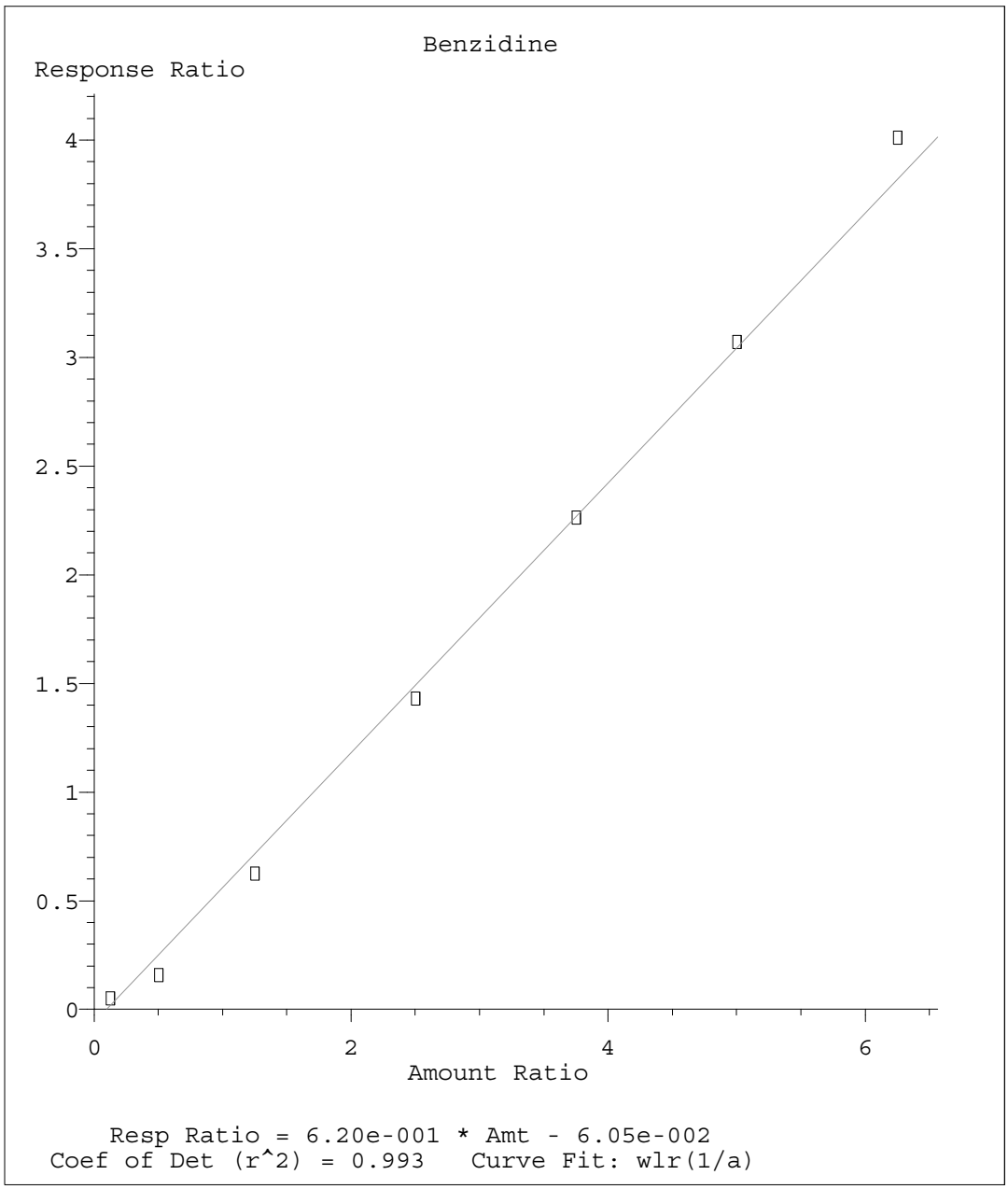
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



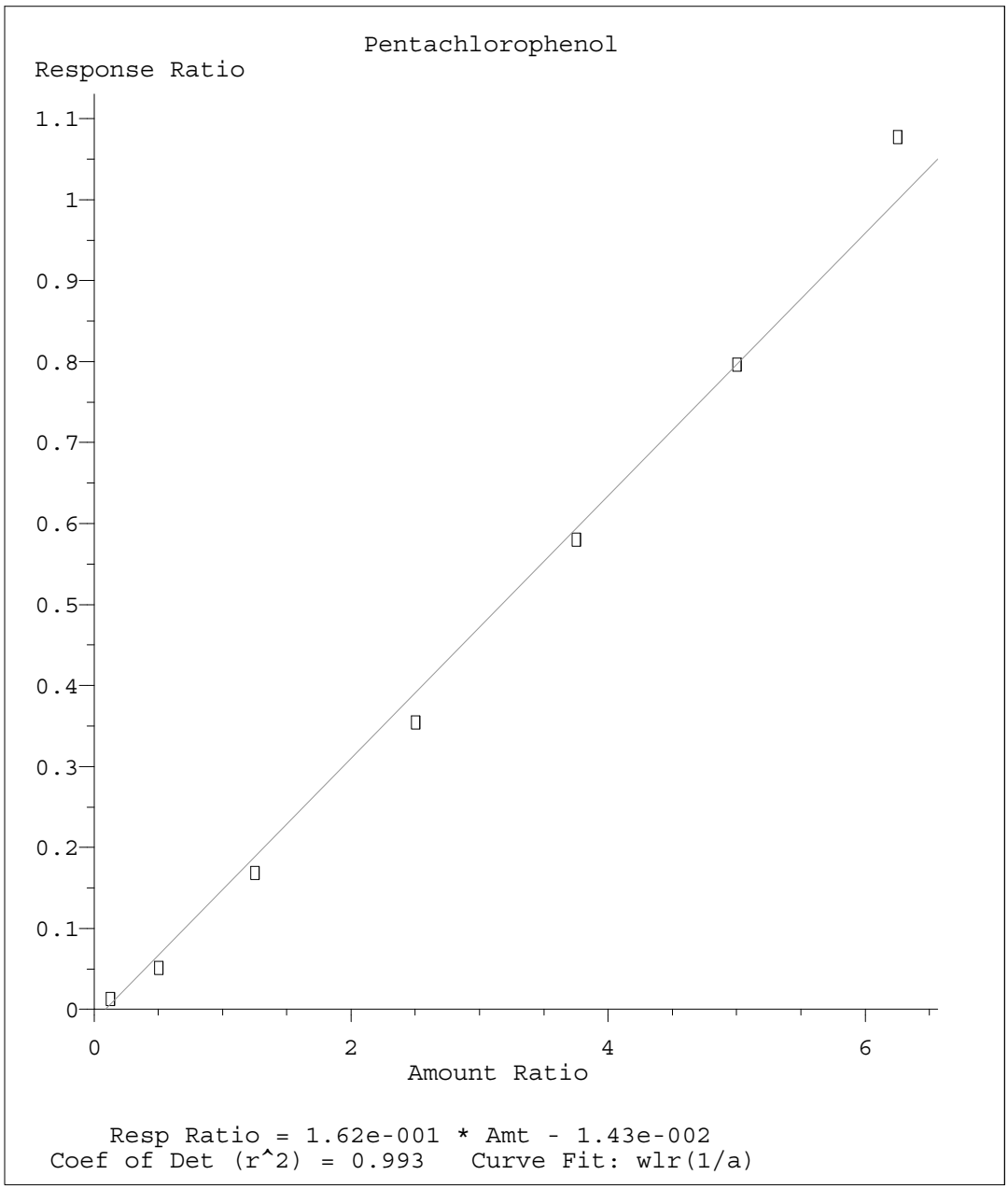
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



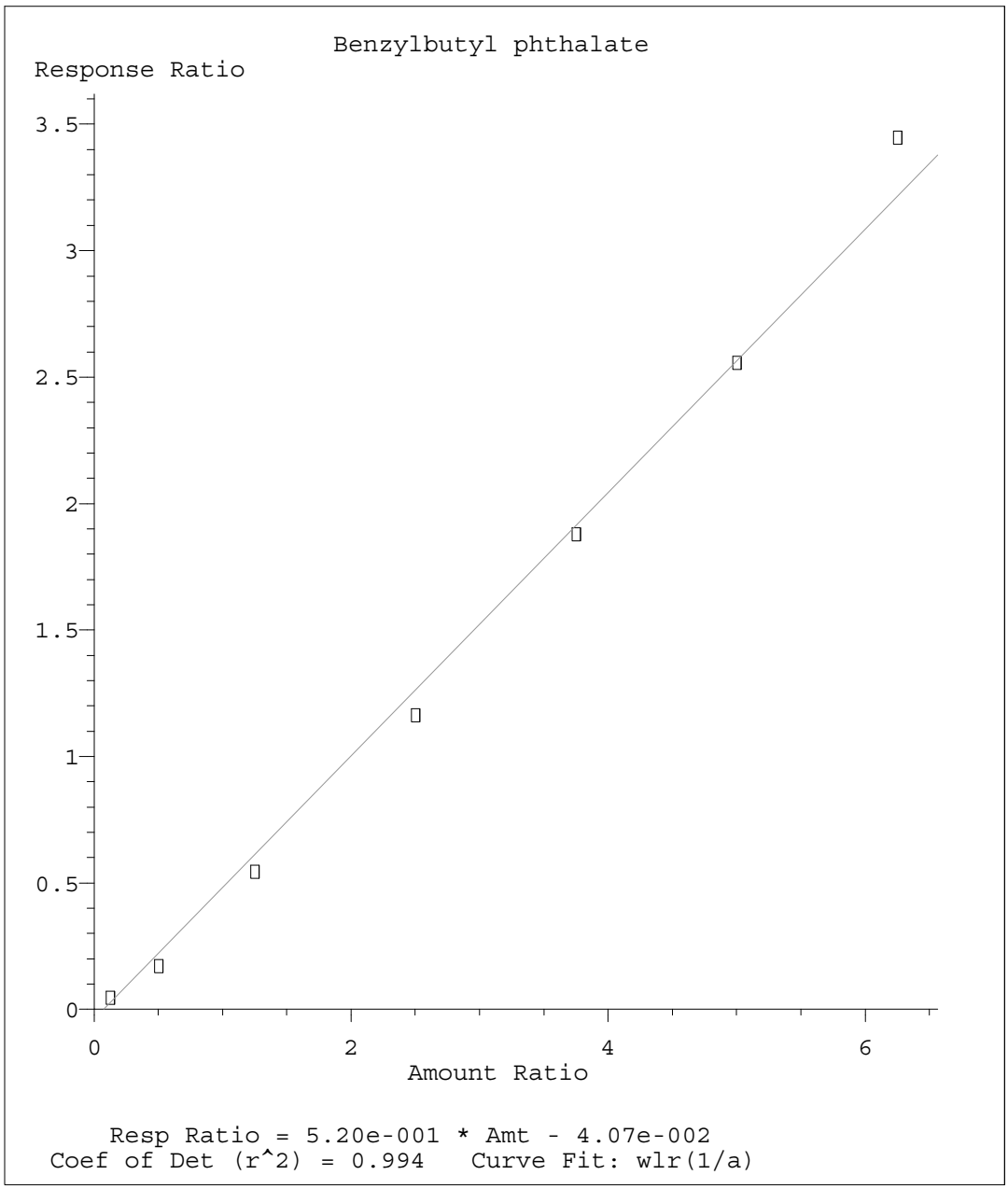
Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M



Method Name: C:\MSDCHEM\1\METHODS\S804J26V.M

Response Factor Report BNAMS4

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

Calibration Files
500 =1026 06.D 1K =1026 07.D 4K =1026 08.D
10K =1026_09.D 20K =1026_10.D 30K =1026_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	TM	Pyridine	1.488	1.460	1.074	1.337	1.279	1.353	1.343	9.58
3)	MT	N-Nitrosodimeth			0.499	0.618	0.598	0.624	0.598	8.40
4)	S	2-Fluorophenol	1.304	1.322	0.989	1.198	1.155	1.227	1.212	8.73
5)	MT	Aniline	0.708	0.745	0.586	0.686	0.661	0.706	0.691	7.24
6)	MT	bis(2-Chloroeth	1.406	1.357	1.089	1.241	1.201	1.349	1.242	12.88
7)	S	Phenol-d5	1.644	1.604	1.339	1.550	1.486	1.594	1.562	6.86
8)	MC	Phenol	1.647	1.636	1.376	1.571	1.501	1.613	1.584	6.45
9)		Benzaldehyde							0.489	7.83
10)	MT	2-Chlorophenol	1.243	1.344	1.152	1.294	1.250	1.341	1.297	6.17
11)	T	n-Decane	0.861	0.847	0.662	0.725	0.671	0.712	0.737	10.22
12)	MT	1,3-Dichloroben	1.685	1.660	1.354	1.497	1.411	1.508	1.523	7.43
13)	MTC	1,4-Dichloroben	1.705	1.689	1.208	1.502	1.428	1.522	1.523	10.43
14)	MT	Benzyl Alcohol	1.027	1.017	0.780	1.001	0.976	1.063	1.010	10.52
15)	MT	1,2-Dichloroben	1.543	1.612	1.147	1.425	1.348	1.444	1.434	9.87
16)	MT	bis(2-Chloroiso	0.481	0.491	0.360	0.461	0.432	0.452	0.450	9.13
17)	MT	2,2-oxybis(1-ch	0.481	0.491	0.360	0.461	0.432	0.452	0.450	9.13
18)	MT	2-Methylphenol	1.214	1.216	0.901	1.172	1.133	1.208	1.169	10.02
19)	MT	Hexachloroethan	0.612	0.606	0.438	0.543	0.516	0.554	0.552	10.22
20)	MP	N-Nitrosodi-n-p	0.897	0.861	0.683	0.903	0.865	0.931	0.883	10.19
21)	MT	3&4-Methyl phen	1.358	1.316	1.037	1.315	1.271	1.366	1.310	9.30
22)	MT	Acetophenone							1.738	12.10
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.363	0.340	0.299	0.341	0.338	0.360	0.343	6.24
25)	MT	Nitrobenzene	0.344	0.354	0.296	0.342	0.329	0.351	0.342	6.36
26)	MT	Isophorone	0.590	0.603	0.520	0.618	0.608	0.658	0.616	8.08
27)	MCT	2-Nitrophenol	0.161	0.161	0.144	0.170	0.171	0.186	0.172	10.13
28)	MT	2,4-Dimethylphe	0.322	0.317	0.272	0.317	0.307	0.327	0.317	6.83
29)	MT	bis(2-Chloretho	0.393	0.406	0.340	0.375	0.368	0.386	0.383	5.89
30)	MCT	2,4-Dichlorophe	0.266	0.259	0.229	0.265	0.259	0.274	0.265	6.89
31)	MT	Benzoic Acid							0.115	15.29
32)	MT	1,2,4-Trichloro	0.346	0.340	0.279	0.309	0.295	0.311	0.315	7.16
33)	MT	alpha-terpineol							0.199	13.77
34)	MT	Naphthalene	1.118	1.078	0.877	0.993	0.960	1.020	1.019	7.51
35)	MT	4-Chloroaniline	0.105	0.108	0.093	0.107	0.106	0.112	0.108	7.23
36)	MCT	Hexachloro-1,3-	0.203	0.188	0.160	0.177	0.167	0.179	0.180	7.45
37)		Hydroquinone							0.155	6.21
38)	MT	Quinoline							0.454	14.16
39)	MT	Caprolactam							0.055	7.56
40)	MCT	4-Chloro-3-meth	0.251	0.243	0.204	0.250	0.248	0.265	0.252	9.51
41)	MT	2-Methylnaphtha	0.688	0.678	0.576	0.651	0.636	0.675	0.663	6.58
42)	MT	1-Methylnaphtha	0.666	0.657	0.548	0.616	0.597	0.635	0.631	6.80
43)	MT	1,2,4,5-Tetrach							0.240	14.01
44)		Diphenyl Ether							0.316	13.16
45)		Diphenyl Oxide							0.316	13.16
46)	I	Acenaphthene-d10	----------ISTD----------							
47)	MPT	Hexachlorocyclo	0.397	0.408	0.337	0.396	0.397	0.412	0.402	7.98
48)	MCT	2,4,6-Trichloro	0.341	0.366	0.322	0.377	0.377	0.388	0.372	7.82
49)	MT	2,4,5-Trichloro	0.351	0.368	0.324	0.395	0.389	0.416	0.388	10.18
50)	S	2-Fluorobipheny	1.580	1.574	1.282	1.438	1.387	1.446	1.463	6.86
51)	MT	Biphenyl	1.762	1.766	1.409	1.601	1.542	1.629	1.632	7.33
52)	MT	2-Chloronaphtha	1.270	1.290	1.042	1.193	1.144	1.204	1.203	6.79
53)	MT	2-Nitroaniline	0.306	0.300	0.288	0.358	0.372	0.397	0.356	14.49
54)	MT	Acenaphthylene	1.838	1.794	1.533	1.797	1.778	1.870	1.811	7.29

(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration

Calibration Files
500 =1026 06.D 1K =1026 07.D 4K =1026 08.D
10K =1026_09.D 20K =1026_10.D 30K =1026_11.D

		Compound	500	1K	4K	10K	20K	30K	Avg	%RSD
55)	MT	Dimethyl phthal	1.286	1.251	1.082	1.230	1.215	1.276	1.256	7.32
56)	MT	2,6-Dinitrotolu	0.249	0.267	0.248	0.297	0.290	0.303	0.286	10.23
57)	MT	3-Nitroaniline	0.258	0.273	0.257	0.305	0.312	0.327	0.303	12.06
58)	MCT	Acenaphthene	1.341	1.301	1.059	1.183	1.171	1.241	1.237	7.84
59)	MPT	2,4-Dinitrophen			0.099	0.143	0.156	0.176	0.161	23.41
60)	MT	Dibenzofuran	1.850	1.792	1.464	1.636	1.581	1.665	1.684	7.50
61)	MT	2,4-Dinitrotolu	0.292	0.322	0.304	0.377	0.382	0.403	0.364	13.97
62)	T	2,3,4,6-Tetrach							0.293	12.30
63)	MPT	4-Nitrophenol		0.199	0.208	0.249	0.257	0.259	0.244	11.60
64)	MT	Fluorene	1.447	1.435	1.201	1.378	1.345	1.414	1.399	6.99
65)	MT	4-Chlorophenyl-	0.718	0.700	0.575	0.657	0.635	0.666	0.666	6.93
66)	MT	Diethyl phthala	1.229	1.237	1.078	1.290	1.239	1.249	1.222	5.21
67)	MT	4-Nitroaniline	0.257	0.246	0.262	0.304	0.303	0.243	0.276	10.34
68)	MT	Azobenzene	1.233	1.289	1.144	1.330	1.287	1.353	1.306	6.97
69)	MT	Atrazine							0.375	14.07
70)	I	Phenanthrene-d10	----------	ISTD	----------					
71)	MT	4,6-Dinitro-2-m		0.069	0.078	0.106	0.116	0.121	0.108	23.89
72)	MCT	N-Nitrosodiphen	0.607	0.605	0.520	0.606	0.618	0.666	0.630	10.11
73)	S	2,4,6-Tribromop			0.092	0.113	0.119	0.131	0.122	15.08
74)	MT	4-Bromophenyl-p	0.213	0.208	0.175	0.204	0.209	0.220	0.211	8.54
75)	MT	Hexachlorobenze	0.288	0.286	0.228	0.254	0.254	0.272	0.269	8.16
76)	T	n-octadecane	0.095	0.097	0.087	0.100	0.104	0.113	0.104	11.41
77)	MCT	Pentachlorophen		0.100	0.102	0.135	0.142	0.155	0.138	20.22#
78)	MT	Phenanthrene	1.184	1.187	0.948	1.062	1.057	1.117	1.108	7.47
79)	MT	Anthracene	1.036	1.063	0.925	1.075	1.086	1.163	1.094	8.64
80)	MT	Carbazole	0.892	0.911	0.797	0.943	0.967	1.035	0.968	11.08
81)	MT	Di-n-butyl phth	0.894	0.948	0.871	1.076	1.159	1.291	1.119	18.15
82)	MT	2-nitrodiphenyl							0.214	22.58
83)	MCT	Fluoranthene	1.072	1.103	0.941	1.100	1.138	1.251	1.157	11.78
84)	I	Chrysene-d12	----------	ISTD	----------					
85)	MT	Benzidine							0.518	24.26
86)	MT	Pyrene	1.293	1.301	1.083	1.227	1.229	1.282	1.256	6.45
87)	S	p-Terphenyl-d14	1.178	1.127	0.941	1.064	1.060	1.102	1.093	6.91
88)	MT	Benzylbutyl pht		0.359	0.340	0.435	0.465	0.501	0.452	17.47
89)	MT	3,3-Dichloroben							0.444	12.37
90)	MT	Benzo(a)anthrac	1.155	1.145	0.951	1.097	1.113	1.188	1.137	7.95
91)	MT	Chrysene	1.257	1.288	1.039	1.137	1.128	1.167	1.177	6.87
92)	MT	bis(2-Ethylhexy	0.466	0.476	0.481	0.625	0.669	0.725	0.623	21.40
93)	MC	Di-n-octyl phth		0.686	0.674	0.939	1.048	1.158	0.998	24.49
94)	I	Perylene-d12	----------	ISTD	----------					
95)	MT	Benzo(b)fluoran	1.094	1.096	0.968	1.135	1.164	1.242	1.157	9.52
96)	MT	Benzo(k)fluoran	1.169	1.205	1.051	1.182	1.180	1.264	1.206	6.92
97)	MC	Benzo(a)pyrene	0.828	0.866	0.801	0.971	0.985	1.065	0.968	12.99
98)	MT	Indeno(1,2,3-cd	0.927	0.956	0.876	1.035	1.032	1.093	1.014	8.34
99)	MT	Dibenz(a,h)anth	1.085	1.136	0.963	1.143	1.159	1.202	1.133	6.95
100)	MT	Benzo(g,h,i)per	1.166	1.168	1.013	1.156	1.138	1.180	1.132	4.74

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	81735	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	319593	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	161195	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	310894	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	268780	8000.00	ppb		0.00
94) Perylene-d12	12.28	264	277468	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	6663	544.2149668	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.72%				
7) Phenol-d5	3.24	99	8400	530.6017545	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.65%				
24) Nitrobenzene-d5	3.78	82	7245m	531.6846867	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.32%				
50) 2-Fluorobiphenyl	4.91	172	15916	549.4602312	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.49%				
73) 2,4,6-Tribromophenol	5.98	330	1894	429.5057290	ppb		0.00
Spiked Amount 20000.000			Recovery = 2.15%				
87) p-Terphenyl-d14	7.99	244	19791	553.7164322	ppb		0.00
Spiked Amount 10000.000			Recovery = 5.54%				
Target Compounds							Qvalue
2) Pyridine	2.25	79	7603m	556.7903751	ppb		
3) N-Nitrosodimethylamine	2.23	42	3418	541.0832743	ppb	#	85
5) Aniline	3.29	66	3618	515.9941438	ppb		90
6) bis(2-Chloroethyl)ether	3.31	93	7185m	566.9066616	ppb		
8) Phenol	3.25	94	8414	524.0471929	ppb		97
10) 2-Chlorophenol	3.36	128	6351	480.3222212	ppb		91
11) n-Decane	3.36	41	4398	593.5704582	ppb	#	99
12) 1,3-Dichlorobenzene	3.45	146	8610	562.9632603	ppb		97
13) 1,4-Dichlorobenzene	3.49	146	8711	567.7717948	ppb	#	84
14) Benzyl Alcohol	3.53	79	5245	513.0447250	ppb		100
15) 1,2-Dichlorobenzene	3.57	146	7883	541.4602051	ppb		98
16) bis(2-Chloroisopropyl)ethe	3.61	121	2457	522.1079498	ppb		87
17) 2,2-oxybis(1-chloropropane	3.61	121	2457	522.1079498	ppb		87
18) 2-Methylphenol	3.58	108	6204	518.2363813	ppb		94
19) Hexachloroethane	3.77	117	3127	563.6036231	ppb		96
20) N-Nitrosodi-n-propylamine	3.68	70	4582	496.8329228	ppb		94
21) 3&4-Methyl phenol	3.66	107	6935	516.2381981	ppb		95
25) Nitrobenzene	3.79	77	6878	503.5671361	ppb		95
26) Isophorone	3.93	82	11790	477.6549774	ppb		96
27) 2-Nitrophenol	3.98	139	3224	473.4120742	ppb		99
28) 2,4-Dimethylphenol	3.98	107	6437	508.5445943	ppb		94
29) bis(2-Chlorethoxy)methane	4.04	93	7854	524.5168063	ppb		95
30) 2,4-Dichlorophenol	4.12	162	5316	502.6661500	ppb		94
32) 1,2,4-Trichlorobenzene	4.17	180	6916	560.1959946	ppb		97
34) Naphthalene	4.23	128	22336	562.9199547	ppb		98
35) 4-Chloroaniline	4.25	65	2099	492.4946646	ppb		92
36) Hexachloro-1,3-butadiene	4.30	225	4059	574.8486284	ppb		97
40) 4-Chloro-3-methylphenol	4.54	107	5006	501.2714606	ppb		96
41) 2-Methylnaphthalene	4.67	142	13740	528.3339817	ppb		98
42) 1-Methylnaphthalene	4.74	142	13311	540.9049228	ppb		99
47) Hexachlorocyclopentadiene	4.77	237	3998	500.9161650	ppb		97
48) 2,4,6-Trichlorophenol	4.85	196	3438	452.2662370	ppb		94
49) 2,4,5-Trichlorophenol	4.87	196	3539	444.7799532	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

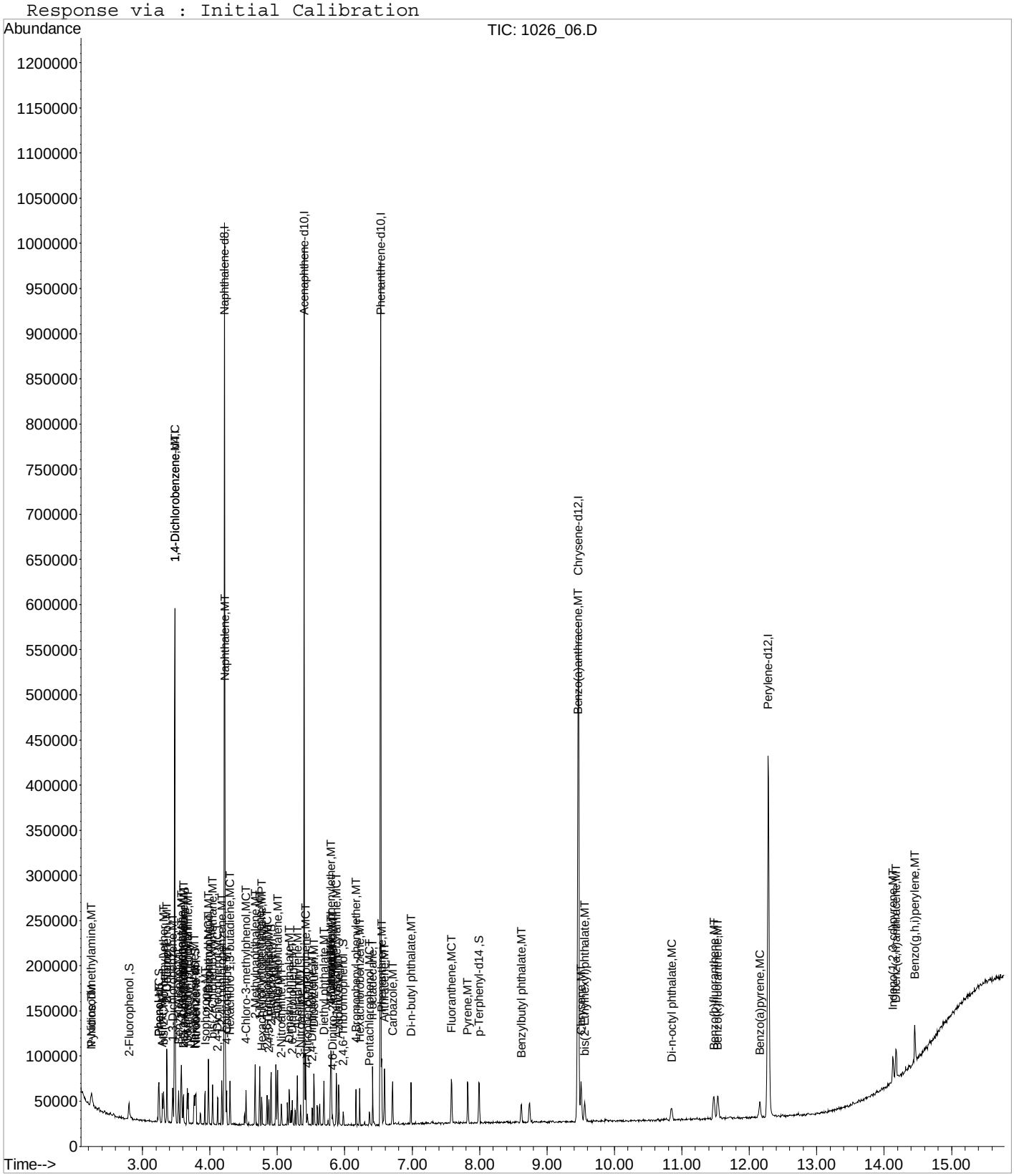
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	17749	550.1344665	ppb		97
52)	2-Chloronaphthalene	5.00	162	12796	532.3064022	ppb		99
53)	2-Nitroaniline	5.06	138	3085	427.3562499	ppb	#	92
54)	Acenaphthylene	5.30	152	18519	511.5275957	ppb		98
55)	Dimethyl phthalate	5.17	163	12957	522.6154735	ppb		93
56)	2,6-Dinitrotoluene	5.22	165	2510	419.8270643	ppb		93
57)	3-Nitroaniline	5.35	138	2604	424.3235687	ppb	#	89
58)	Acenaphthene	5.42	153	13512	566.6357798	ppb		97
60)	Dibenzofuran	5.54	168	18642	565.6375481	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	2938	386.5382052	ppb		98
63)	4-Nitrophenol	5.44	139	1641	327.2813235	ppb		83
64)	Fluorene	5.80	166	14577	524.9954911	ppb		97
65)	4-Chlorophenyl-phenylether	5.79	204	7235	546.8663608	ppb		96
66)	Diethyl phthalate	5.69	149	12383	476.5811448	ppb		97
67)	4-Nitroaniline	5.79	138	2591	422.4855028	ppb		94
68)	Azobenzene	5.91	77	12426	463.7093377	ppb		97
71)	4,6-Dinitro-2-methylphenol	5.82	198	1171	283.8129901	ppb		90
72)	N-Nitrosodiphenylamine	5.87	169	11791	500.5336720	ppb		98
74)	4-Bromophenyl-phenylether	6.17	248	4140	522.2665326	ppb		95
75)	Hexachlorobenzene	6.22	284	5593	567.3305630	ppb		95
76)	n-octadecane	6.42	55	1845	472.5692474	ppb	#	69
77)	Pentachlorophenol	6.37	266	1907	364.7538700	ppb		90
78)	Phenanthrene	6.55	178	22998	557.3582331	ppb		97
79)	Anthracene	6.59	178	20126	481.9044322	ppb		98
80)	Carbazole	6.71	167	17323	472.5642530	ppb		100
81)	Di-n-butyl phthalate	6.98	149	17380	415.6140952	ppb		99
83)	Fluoranthene	7.58	202	20823	487.2889097	ppb		99
86)	Pyrene	7.82	202	21716	526.9170398	ppb		96
88)	Benzylbutyl phthalate	8.62	149	6237	426.8355283	ppb		97
90)	Benzo(a)anthracene	9.45	228	19399	526.1217032	ppb		98
91)	Chrysene	9.50	228	21111	552.5162755	ppb		96
92)	bis(2-Ethylhexyl)phthalate	9.56	149	7821	372.5048427	ppb		96
93)	Di-n-octyl phthalate	10.84	149	11583	367.0226271	ppb		97
95)	Benzo(b)fluoranthene	11.48	252	18966	481.8470427	ppb		98
96)	Benzo(k)fluoranthene	11.53	252	20266	494.3799334	ppb		97
97)	Benzo(a)pyrene	12.16	252	14360	426.4069924	ppb		97
98)	Indeno(1,2,3-cd)pyrene	14.13	276	16078	447.8065433	ppb		98
99)	Dibenz(a,h)anthracene	14.17	278	18808	474.3901296	ppb		99
100)	Benzo(g,h,i)perylene	14.45	276	20217	504.2318621	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: S804J26V.RES

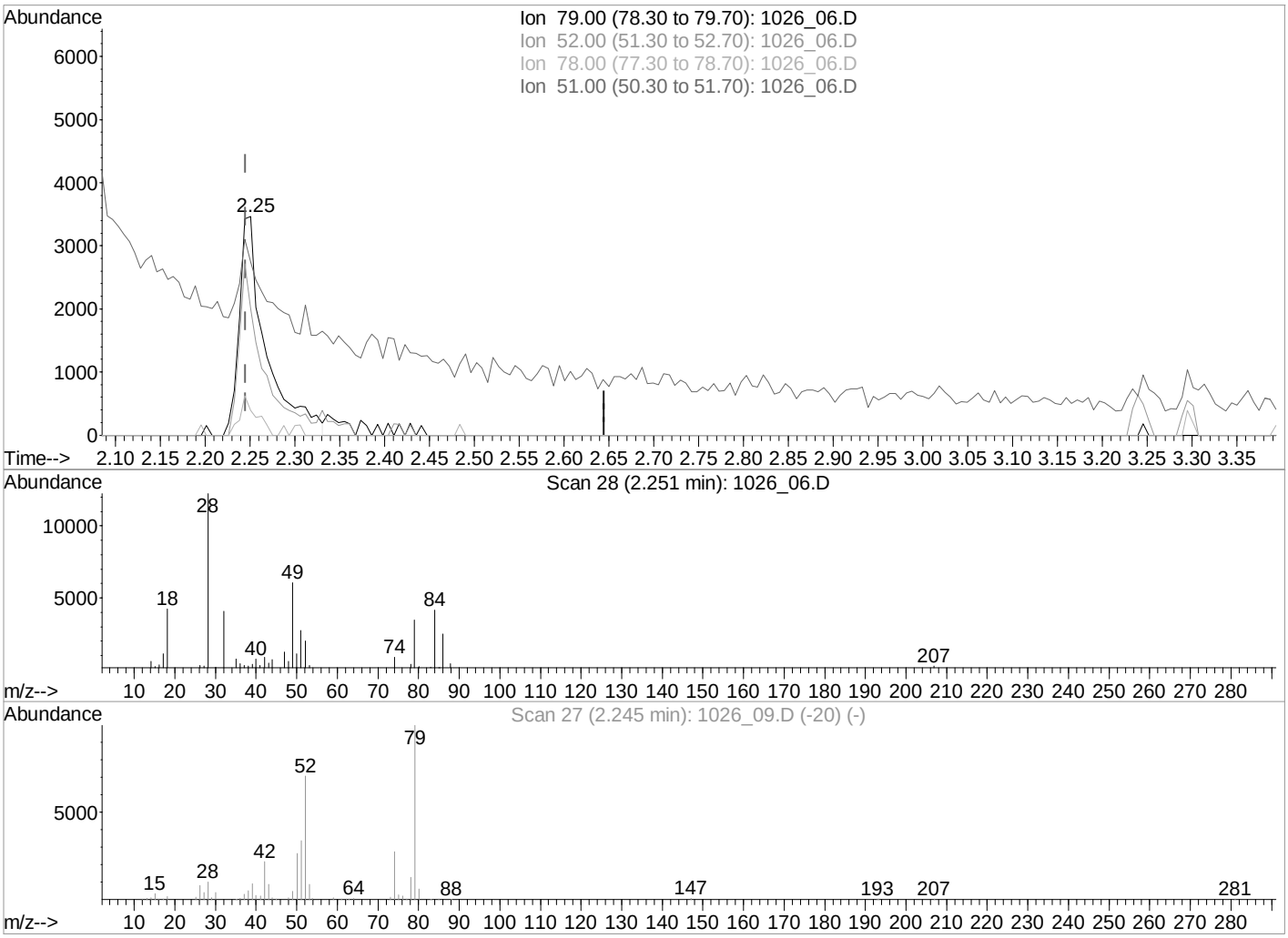
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(2) Pyridine (TM)

2.25min (+0.006) 525.0804932 ppb

Qvalue = 89

response 7170

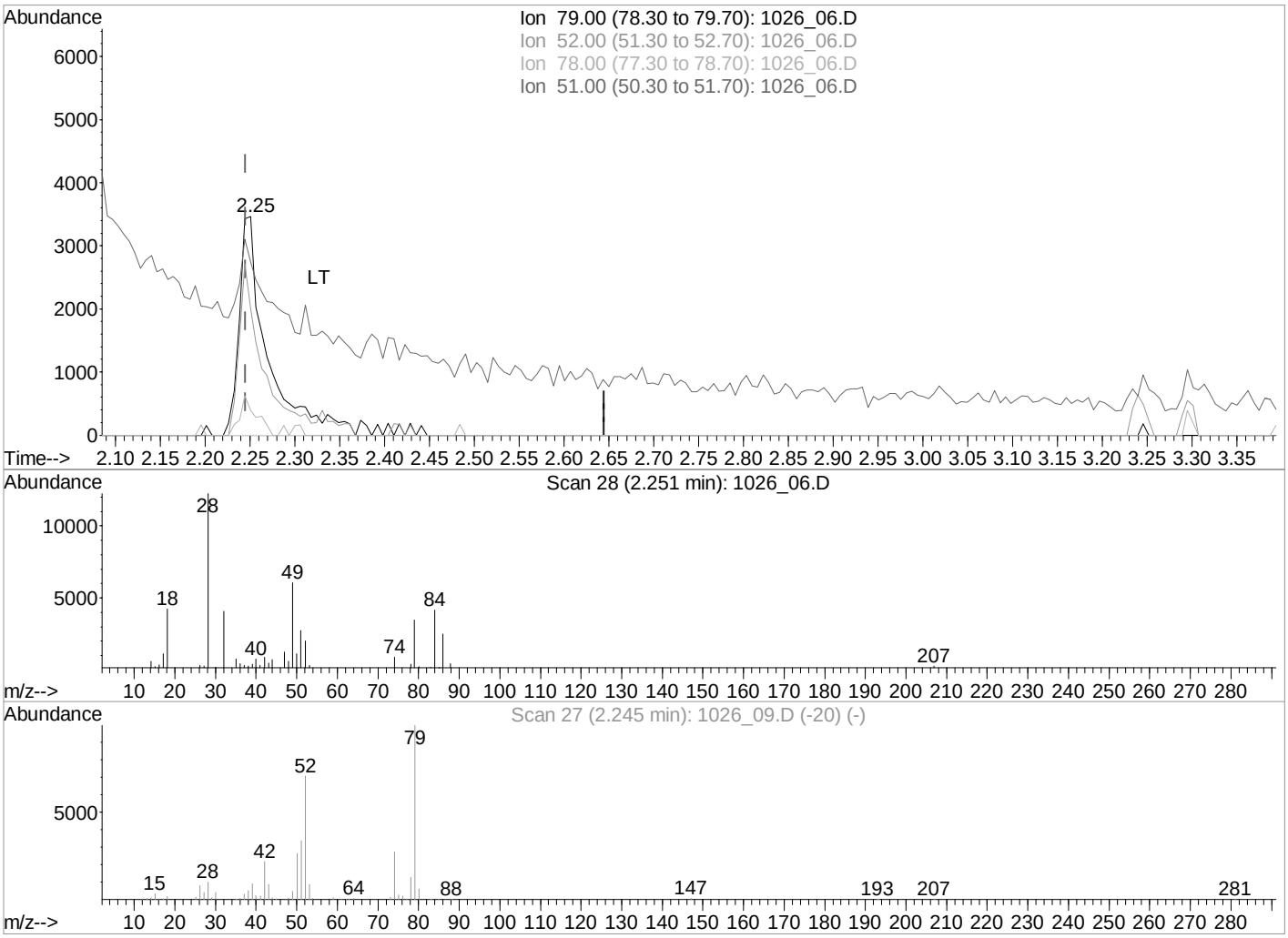
Ion	Exp%	Act%
79.00	100	100
52.00	70.70	58.02
78.00	12.60	11.38
51.00	34.90	31.84

1026_06.D S804J26V.M Thu Oct 27 06:26:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(2) Pyridine (TM)

2.25min (+0.006) 556.7903751 ppb m

response 7603

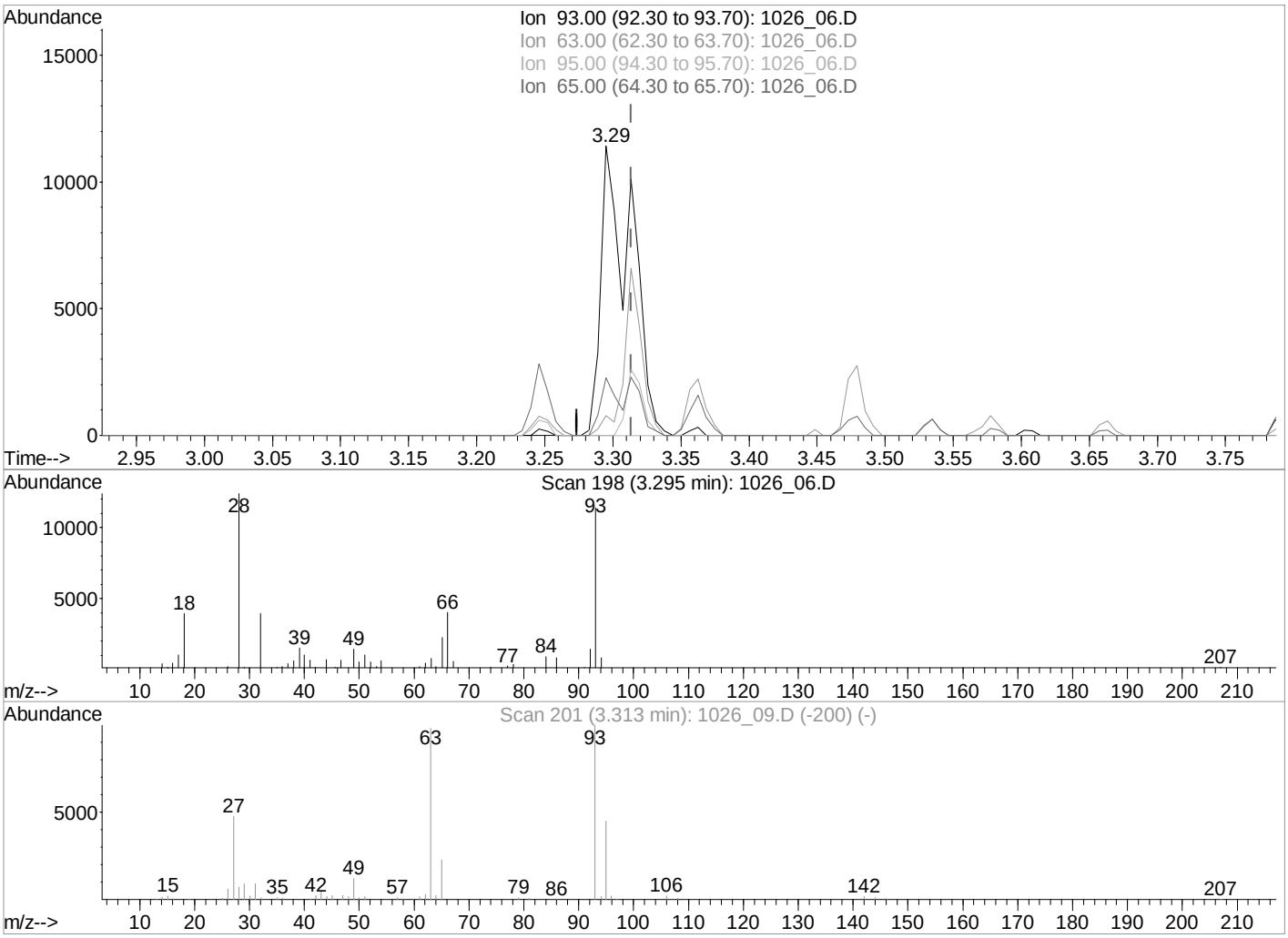
Ion	Exp%	Act%
79.00	100	100
52.00	70.70	58.02
78.00	12.60	11.38
51.00	34.90	79.37#

1026_06.D S804J26V.M Thu Oct 27 06:26:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.019) 1395.4504128 ppb

Qvalue = 43

response 17686

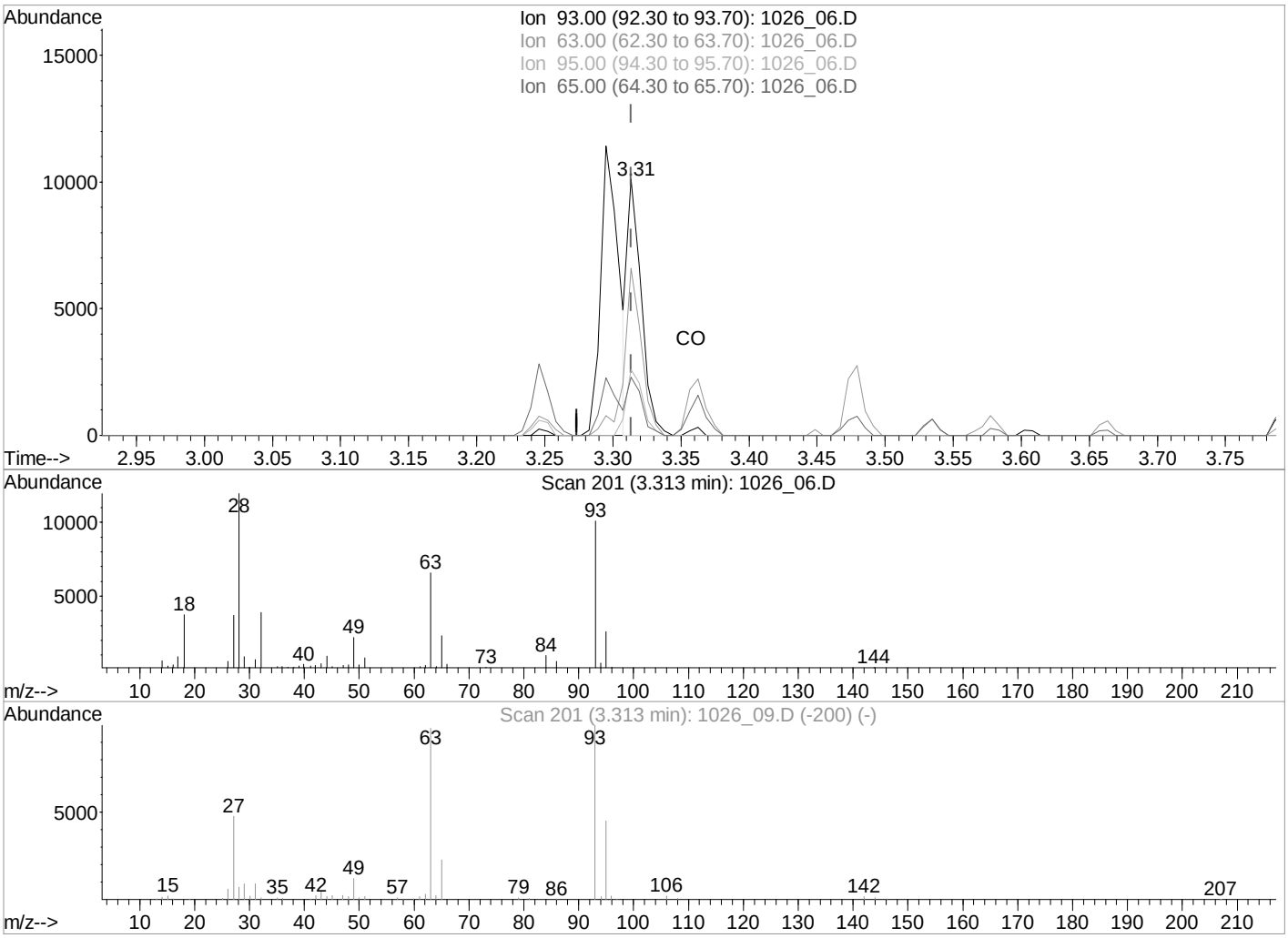
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	6.79#
95.00	28.70	0.00#
65.00	22.20	19.90

1026_06.D S804J26V.M Thu Oct 27 06:26:41 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 566.9066616 ppb m

response 7185

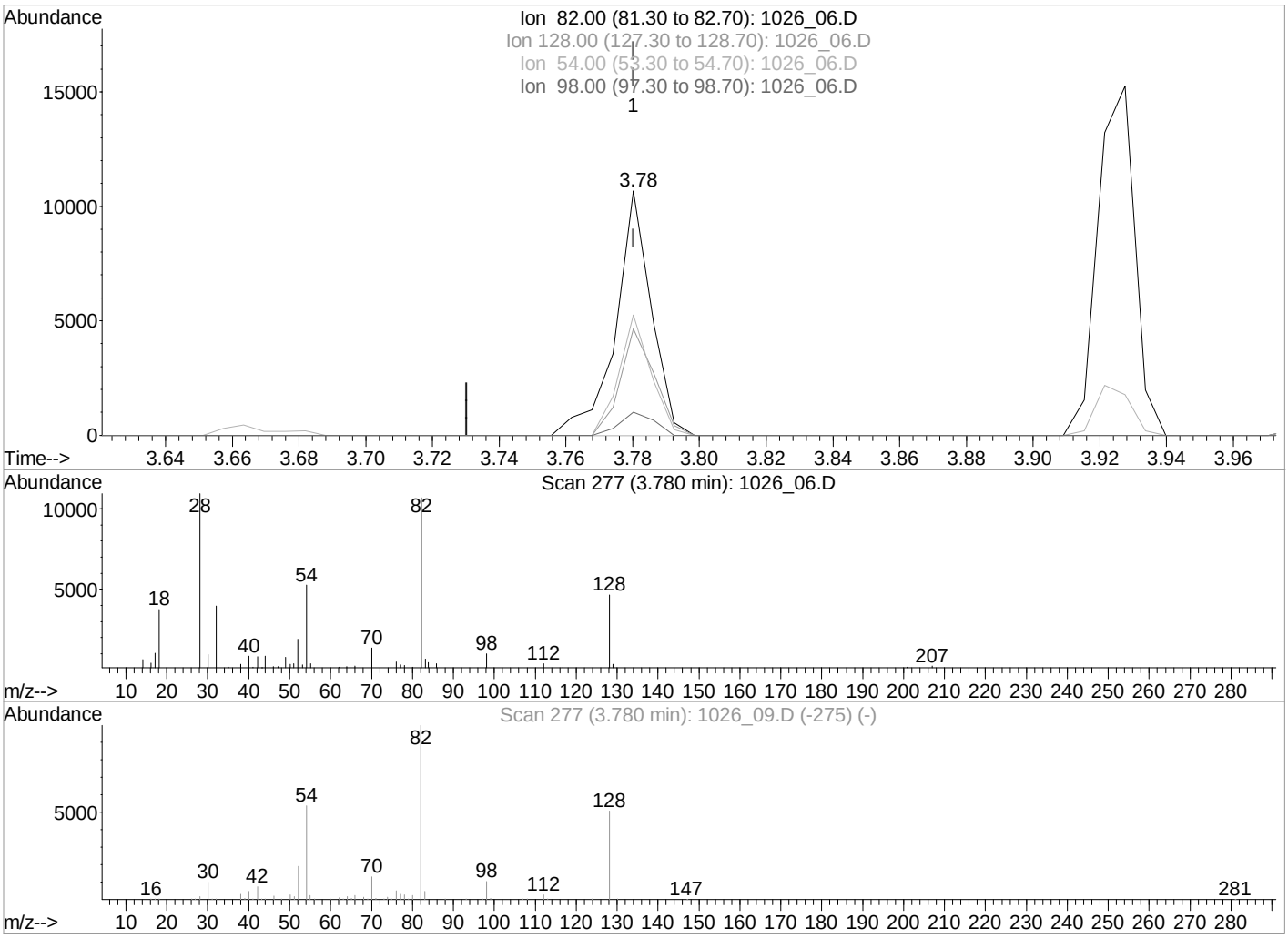
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.21
95.00	28.70	25.67
65.00	22.20	22.69

1026_06.D S804J26V.M Thu Oct 27 06:26:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 582.1745507 ppb

Qvalue = 98

response 7933

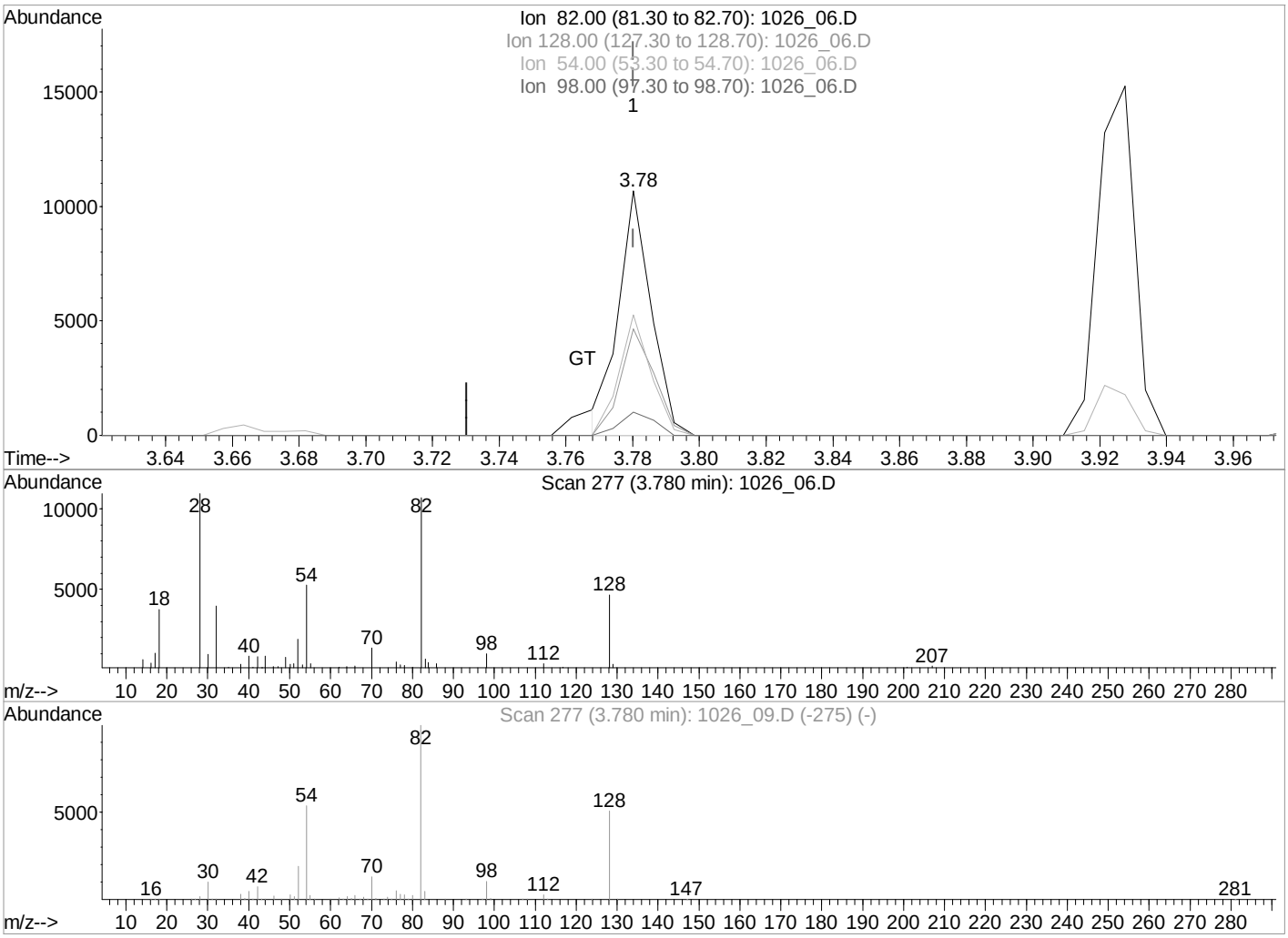
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.53
54.00	49.10	49.23
98.00	10.80	9.42

1026_06.D S804J26V.M Thu Oct 27 06:27:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 06.D Vial: 3
Acq On : 26 Oct 2022 11:10 pm Operator: 917
Sample : STD SVMS 500 PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:27 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:25:46 2022
Response via : Multiple Level Calibration



TIC: 1026_06.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 531.6846867 ppb m

response 7245

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.53
54.00	49.10	49.23
98.00	10.80	9.42

1026_06.D S804J26V.M Thu Oct 27 06:27:06 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	78102	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	304420	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	154171	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	294546	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	259969	8000.00	ppb		0.00
94) Perylene-d12	12.28	264	264035	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	12902	1056.1210620	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.28%				
7) Phenol-d5	3.24	99	15663	1004.6606163	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.02%				
24) Nitrobenzene-d5	3.78	82	12927m	965.3628984	ppb		0.00
Spiked Amount 10000.000			Recovery = 9.65%				
50) 2-Fluorobiphenyl	4.91	172	30333	1043.2793001	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.43%				
73) 2,4,6-Tribromophenol	5.98	330	3509	903.6068095	ppb		0.00
Spiked Amount 20000.000			Recovery = 4.52%				
87) p-Terphenyl-d14	7.99	244	36628	1005.5056422	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.06%				
Target Compounds							Qvalue
2) Pyridine	2.24	79	14258	1034.0044354	ppb		99
3) N-Nitrosodimethylamine	2.23	42	8781	1397.3219158	ppb	#	72
5) Aniline	3.30	66	7273	1068.4261398	ppb	#	40
6) bis(2-Chloroethyl)ether	3.31	93	13250m	1025.4633682	ppb		
8) Phenol	3.25	94	15970	1016.4797887	ppb		98
10) 2-Chlorophenol	3.36	128	13125	1059.6609810	ppb		94
11) n-Decane	3.36	41	8267	1067.7366074	ppb	#	97
12) 1,3-Dichlorobenzene	3.45	146	16206	1043.2307842	ppb		97
13) 1,4-Dichlorobenzene	3.49	146	16490	1053.4014774	ppb		92
14) Benzyl Alcohol	3.53	79	9933	1003.7081760	ppb		98
15) 1,2-Dichlorobenzene	3.57	146	15742	1086.5210803	ppb		99
16) bis(2-Chloroisopropyl)ethe	3.61	121	4797	1043.6959868	ppb		100
17) 2,2-oxybis(1-chloropropane	3.61	121	4797	1043.6959868	ppb		100
18) 2-Methylphenol	3.58	108	11870	1019.0702645	ppb		99
19) Hexachloroethane	3.77	117	5917	1049.3335726	ppb		97
20) N-Nitrosodi-n-propylamine	3.68	70	8405	956.7898032	ppb		92
21) 3&4-Methyl phenol	3.66	107	12843	984.5109482	ppb		97
25) Nitrobenzene	3.79	77	13458	1030.7500812	ppb		96
26) Isophorone	3.92	82	22928	997.4821594	ppb		95
27) 2-Nitrophenol	3.98	139	6109	967.4794970	ppb		97
28) 2,4-Dimethylphenol	3.98	107	12066	992.2881957	ppb		96
29) bis(2-Chlorethoxy)methane	4.04	93	15462	1058.1303469	ppb		97
30) 2,4-Dichlorophenol	4.11	162	9862	976.3991435	ppb		91
32) 1,2,4-Trichlorobenzene	4.17	180	12944	1038.2248909	ppb		99
34) Naphthalene	4.23	128	41019	1021.0566264	ppb		99
35) 4-Chloroaniline	4.25	65	4107	1019.3179927	ppb		94
36) Hexachloro-1,3-butadiene	4.30	225	7172	992.0909759	ppb		96
40) 4-Chloro-3-methylphenol	4.54	107	9237	969.8070051	ppb		97
41) 2-Methylnaphthalene	4.67	142	25788	1012.3469132	ppb		99
42) 1-Methylnaphthalene	4.74	142	24995	1024.4161252	ppb		98
47) Hexachlorocyclopentadiene	4.77	237	7872	1030.2877036	ppb		90
48) 2,4,6-Trichlorophenol	4.85	196	7049	1018.1371785	ppb		97
49) 2,4,5-Trichlorophenol	4.87	196	7090	986.1184512	ppb		93

(#) = qualifier out of range (m) = manual integration
1026_07.D S804J26V.M Thu Oct 27 11:34:03 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

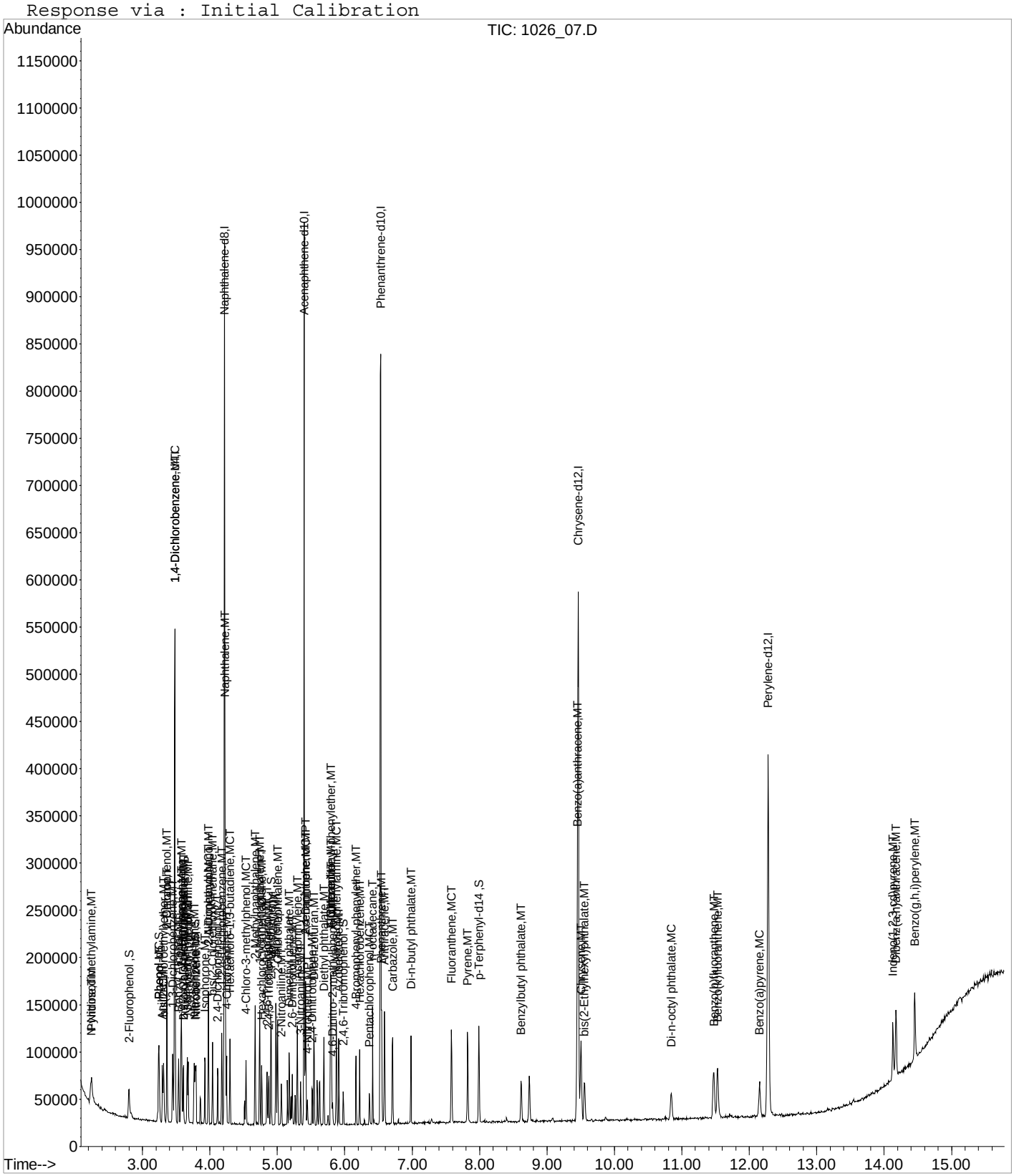
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	34038	1050.4199558	ppb		98
52)	2-Chloronaphthalene	5.00	162	24853	1047.1443033	ppb		98
53)	2-Nitroaniline	5.06	138	5781	902.9010014	ppb	#	94
54)	Acenaphthylene	5.30	152	34565	986.8683917	ppb		99
55)	Dimethyl phthalate	5.17	163	24101	993.9153214	ppb		94
56)	2,6-Dinitrotoluene	5.22	165	5152	979.5243992	ppb		98
57)	3-Nitroaniline	5.35	138	5262	969.9109649	ppb		93
58)	Acenaphthene	5.42	153	25070	1030.5555845	ppb		98
59)	2,4-Dinitrophenol	5.42	184	1482	539.0547479	ppb	#	1
60)	Dibenzofuran	5.54	168	34531	1028.0026767	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	6200	962.0192112	ppb		96
63)	4-Nitrophenol	5.44	139	3842	968.4242581	ppb		93
64)	Fluorene	5.80	166	27656	1016.0233959	ppb		97
65)	4-Chlorophenyl-phenylether	5.79	204	13492	1018.5365991	ppb		97
66)	Diethyl phthalate	5.69	149	23843	982.4544504	ppb		98
67)	4-Nitroaniline	5.79	138	4739	875.8312446	ppb		98
68)	Azobenzene	5.91	77	24841	1005.7415145	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	2555	833.8981937	ppb		96
72)	N-Nitrosodiphenylamine	5.87	169	22267	997.1761228	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	7653	996.8243478	ppb		98
75)	Hexachlorobenzene	6.22	284	10538	1057.0847825	ppb		94
76)	n-octadecane	6.42	55	3583	995.9890695	ppb	#	96
77)	Pentachlorophenol	6.37	266	3689	861.2407443	ppb		96
78)	Phenanthrene	6.55	178	43705	1057.3348228	ppb		99
79)	Anthracene	6.59	178	39121	1006.9395305	ppb		98
80)	Carbazole	6.71	167	33536	992.8643805	ppb		99
81)	Di-n-butyl phthalate	6.98	149	34902	962.1384075	ppb		98
83)	Fluoranthene	7.58	202	40598	1015.6938438	ppb		98
86)	Pyrene	7.82	202	42273	1032.6793809	ppb		97
88)	Benzylbutyl phthalate	8.61	149	11671	890.9751660	ppb		93
90)	Benzo(a)anthracene	9.44	228	37199	1016.5170142	ppb		97
91)	Chrysene	9.50	228	41849	1075.8901225	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	15477	873.5021126	ppb		94
93)	Di-n-octyl phthalate	10.84	149	22286	842.0712962	ppb		100
95)	Benzo(b)fluoranthene	11.47	252	36177	983.7246839	ppb		97
96)	Benzo(k)fluoranthene	11.53	252	39774	1025.3948170	ppb		97
97)	Benzo(a)pyrene	12.15	252	28576	962.5446723	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	31554	974.4162844	ppb		97
99)	Dibenz(a,h)anthracene	14.17	278	37501	1020.1273815	ppb		95
100)	Benzo(g,h,i)perylene	14.46	276	38537	1005.7936380	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: S804J26V.RES

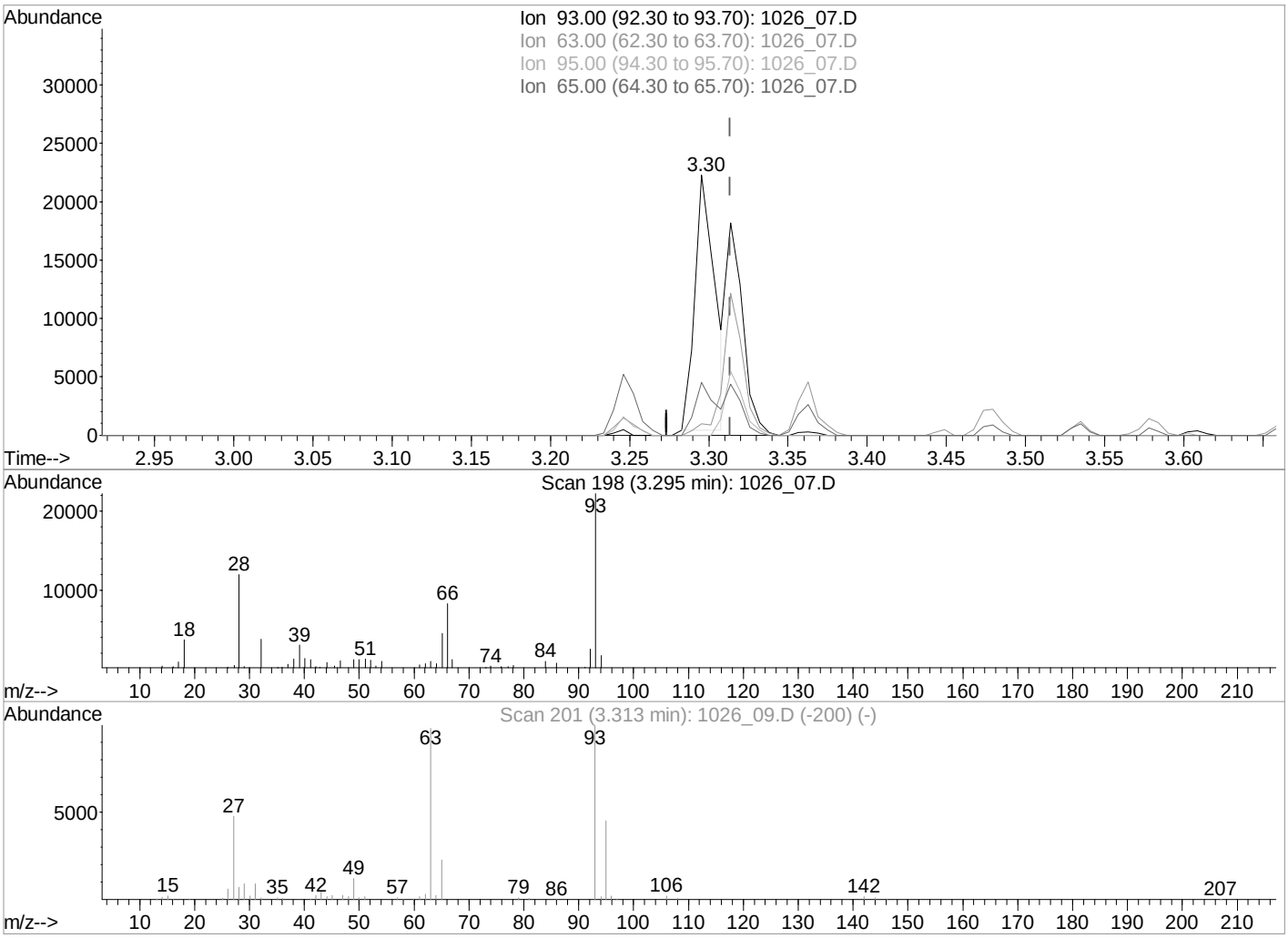
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 1498.3374195 ppb

Qvalue = 42

response 19360

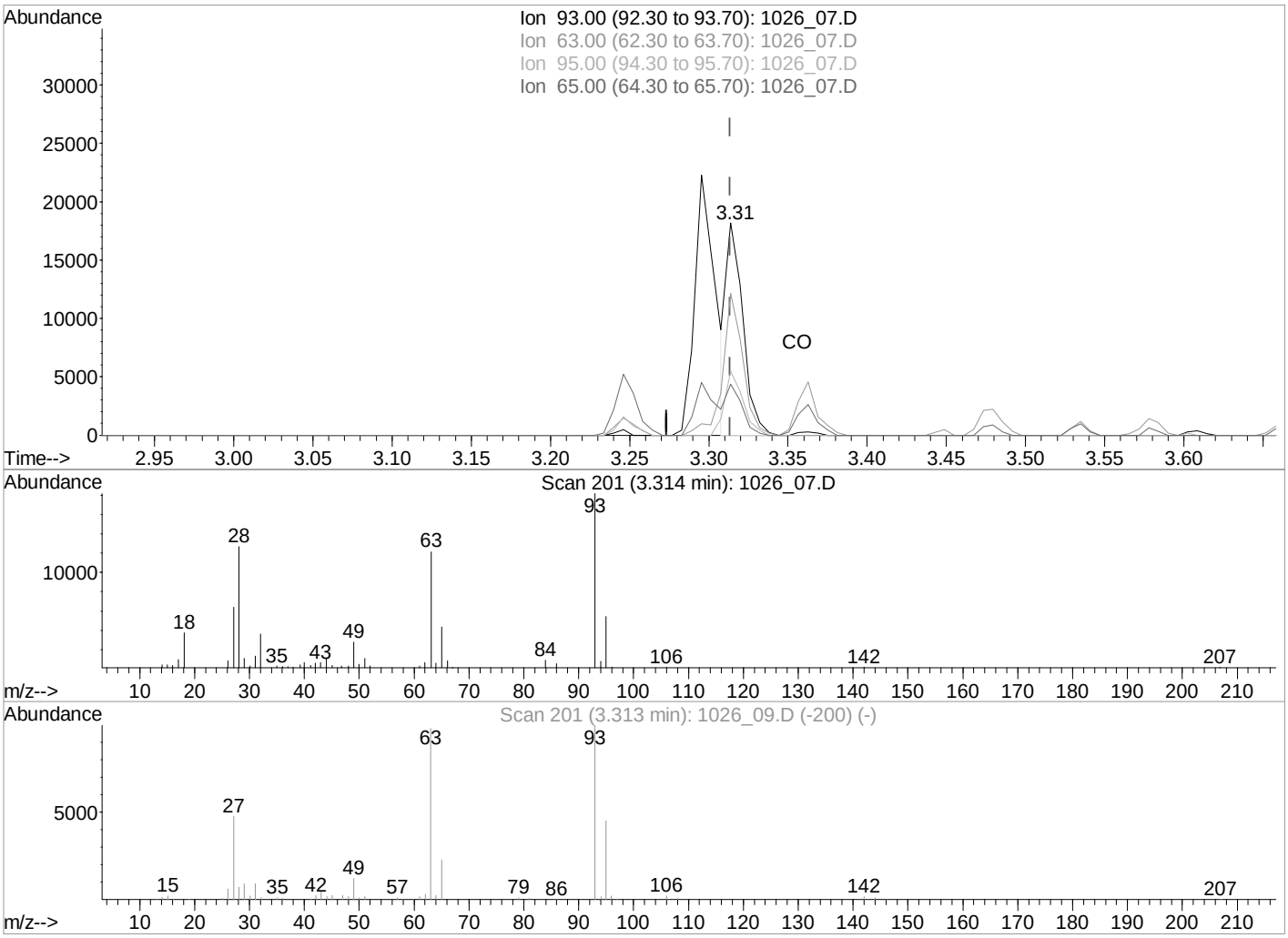
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.54#
95.00	28.70	0.00#
65.00	22.20	20.58

1026_07.D S804J26V.M Thu Oct 27 06:28:43 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 1025.4633682 ppb m

response 13250

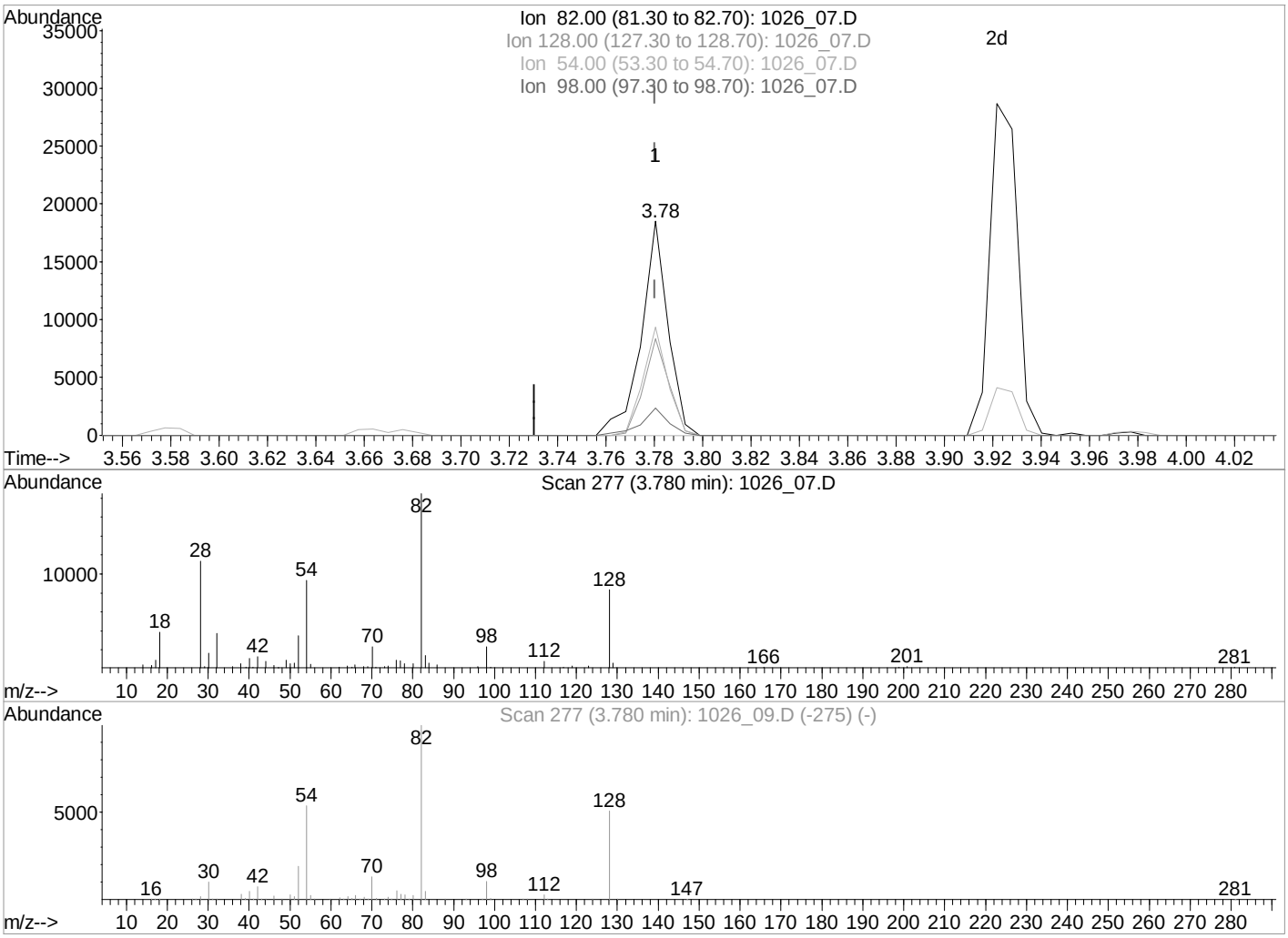
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	66.85
95.00	28.70	29.95
65.00	22.20	23.97

1026_07.D S804J26V.M Thu Oct 27 06:28:48 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:28 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration



TIC: 1026_07.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 1060.2039970 ppb

Qvalue = 98

response 14197

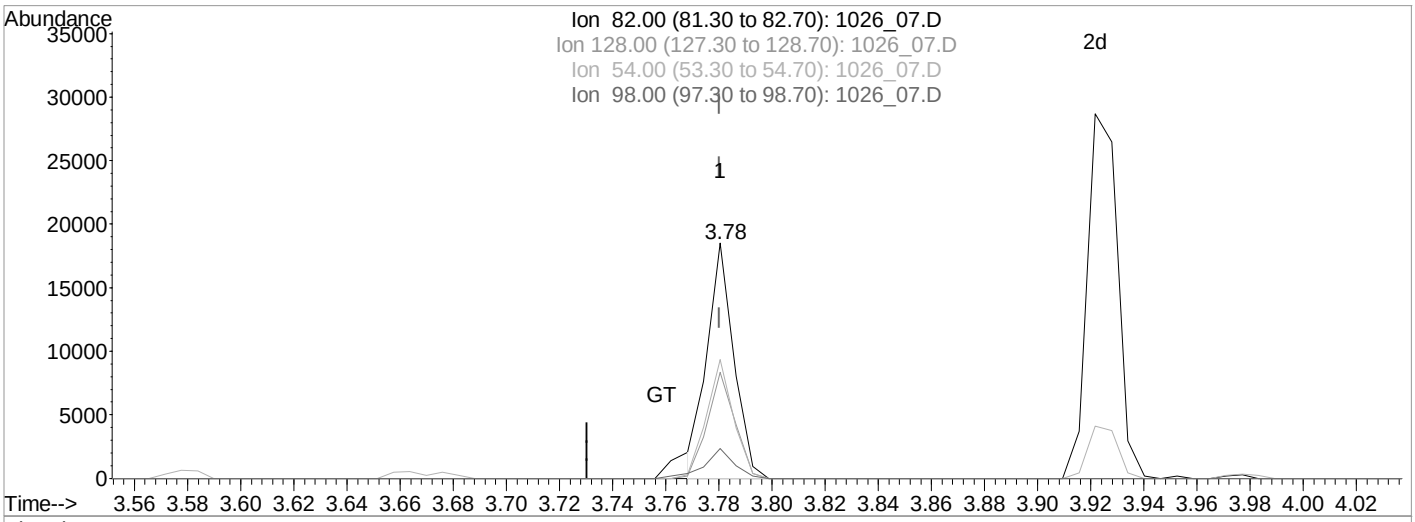
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.14
54.00	49.10	50.41
98.00	10.80	12.64

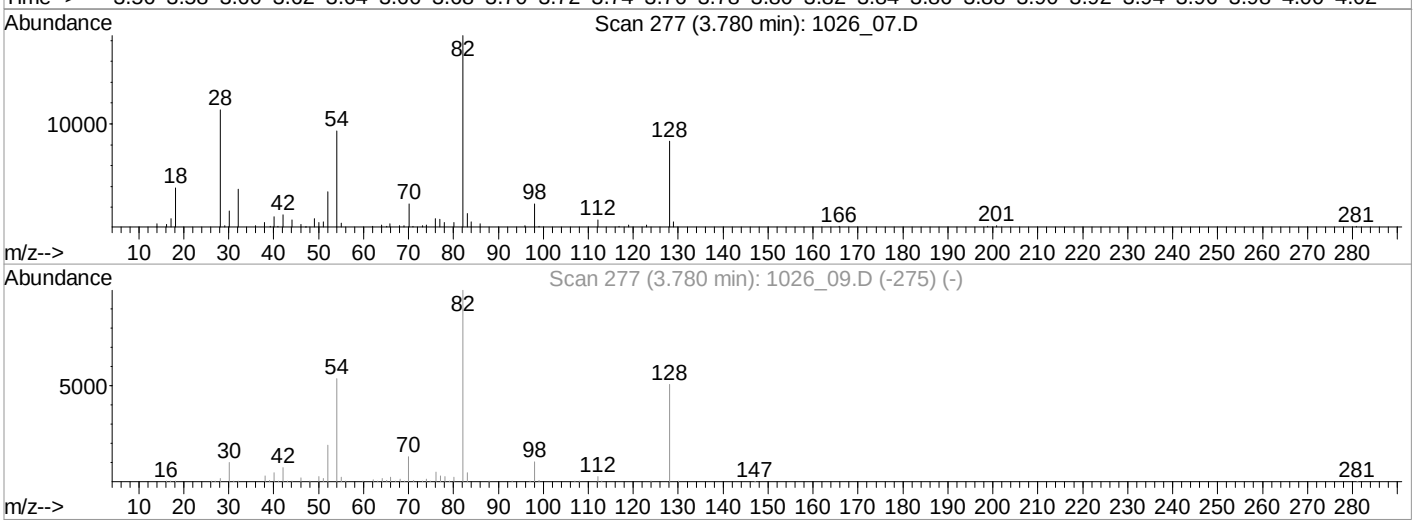
1026_07.D S804J26V.M Thu Oct 27 06:28:59 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 07.D Vial: 4
Acq On : 26 Oct 2022 11:31 pm Operator: 917
Sample : STD SVMS 1K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:29 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:28:07 2022
Response via : Multiple Level Calibration





TIC: 1026_07.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 965.3628984 ppb m

response 12927

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.14
54.00	49.10	50.41
98.00	10.80	12.64

1026_07.D S804J26V.M Thu Oct 27 06:29:03 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	89979	8000.00	ppb		0.00
23) Naphthalene-d8	4.22	136	313905	8000.00	ppb		0.00
46) Acenaphthene-d10	5.40	164	158211	8000.00	ppb		0.00
70) Phenanthrene-d10	6.53	188	304175	8000.00	ppb		0.00
84) Chrysene-d12	9.46	240	275578	8000.00	ppb		0.00
94) Perylene-d12	12.27	264	280512	8000.00	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.80	112	44517	3104.9474157	ppb		0.00
Spiked Amount 20000.000			Recovery = 15.52%				
7) Phenol-d5	3.24	99	60237	3348.5330328	ppb		0.00
Spiked Amount 20000.000			Recovery = 16.74%				
24) Nitrobenzene-d5	3.78	82	46940m	3439.1751459	ppb		0.00
Spiked Amount 10000.000			Recovery = 34.39%				
50) 2-Fluorobiphenyl	4.91	172	101410	3350.5142137	ppb		0.00
Spiked Amount 10000.000			Recovery = 33.51%				
73) 2,4,6-Tribromophenol	5.98	330	13989	3604.0919137	ppb		0.00
Spiked Amount 20000.000			Recovery = 18.02%				
87) p-Terphenyl-d14	7.99	244	129712	3352.9894647	ppb		0.00
Spiked Amount 10000.000			Recovery = 33.53%				
Target Compounds							Qvalue
2) Pyridine	2.24	79	48306	3006.7055878	ppb		96
3) N-Nitrosodimethylamine	2.23	42	22459	2739.3558729	ppb		99
5) Aniline	3.30	66	26382	3289.0100999	ppb		96
6) bis(2-Chloroethyl)ether	3.31	93	49001m	3264.0707571	ppb		
8) Phenol	3.25	94	61901	3401.2090389	ppb		99
10) 2-Chlorophenol	3.36	128	51813	3560.2074890	ppb		98
11) n-Decane	3.36	41	29804	3267.4949782	ppb	#	99
12) 1,3-Dichlorobenzene	3.45	146	60929	3356.1083163	ppb		99
13) 1,4-Dichlorobenzene	3.49	146	54335	2960.1333454	ppb		98
14) Benzyl Alcohol	3.53	79	35081	3073.1481843	ppb		99
15) 1,2-Dichlorobenzene	3.57	146	51621	3005.9216913	ppb		99
16) bis(2-Chloroisopropyl)ethe	3.61	121	16215	3018.2987517	ppb		99
17) 2,2-oxybis(1-chloropropane	3.61	121	16215	3018.2987517	ppb		99
18) 2-Methylphenol	3.58	108	40523	3000.7100104	ppb		99
19) Hexachloroethane	3.77	117	19685	2981.1561893	ppb		96
20) N-Nitrosodi-n-propylamine	3.68	70	30739	3081.6999500	ppb		88
21) 3&4-Methyl phenol	3.66	107	46670	3121.4827534	ppb		97
25) Nitrobenzene	3.79	77	46400	3411.4335149	ppb		97
26) Isophorone	3.93	82	81611	3446.0951074	ppb		99
27) 2-Nitrophenol	3.98	139	22626	3513.0789008	ppb		97
28) 2,4-Dimethylphenol	3.98	107	42763	3419.2861945	ppb		98
29) bis(2-Chlorethoxy)methane	4.04	93	53343	3472.8909643	ppb		100
30) 2,4-Dichlorophenol	4.11	162	35892	3473.4822407	ppb		88
32) 1,2,4-Trichlorobenzene	4.17	180	43829	3366.3617217	ppb		99
34) Naphthalene	4.23	128	137588	3298.2430394	ppb		99
35) 4-Chloroaniline	4.25	65	14534	3475.8217079	ppb		98
36) Hexachloro-1,3-butadiene	4.30	225	25083	3373.7438447	ppb		97
40) 4-Chloro-3-methylphenol	4.54	107	32016	3292.9824801	ppb		99
41) 2-Methylnaphthalene	4.67	142	90453	3429.4612056	ppb		98
42) 1-Methylnaphthalene	4.74	142	86009	3390.9533979	ppb		99
47) Hexachlorocyclopentadiene	4.77	237	26633	3362.7681486	ppb		99
48) 2,4,6-Trichlorophenol	4.85	196	25480	3564.7288664	ppb		96
49) 2,4,5-Trichlorophenol	4.87	196	25593	3484.8515618	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

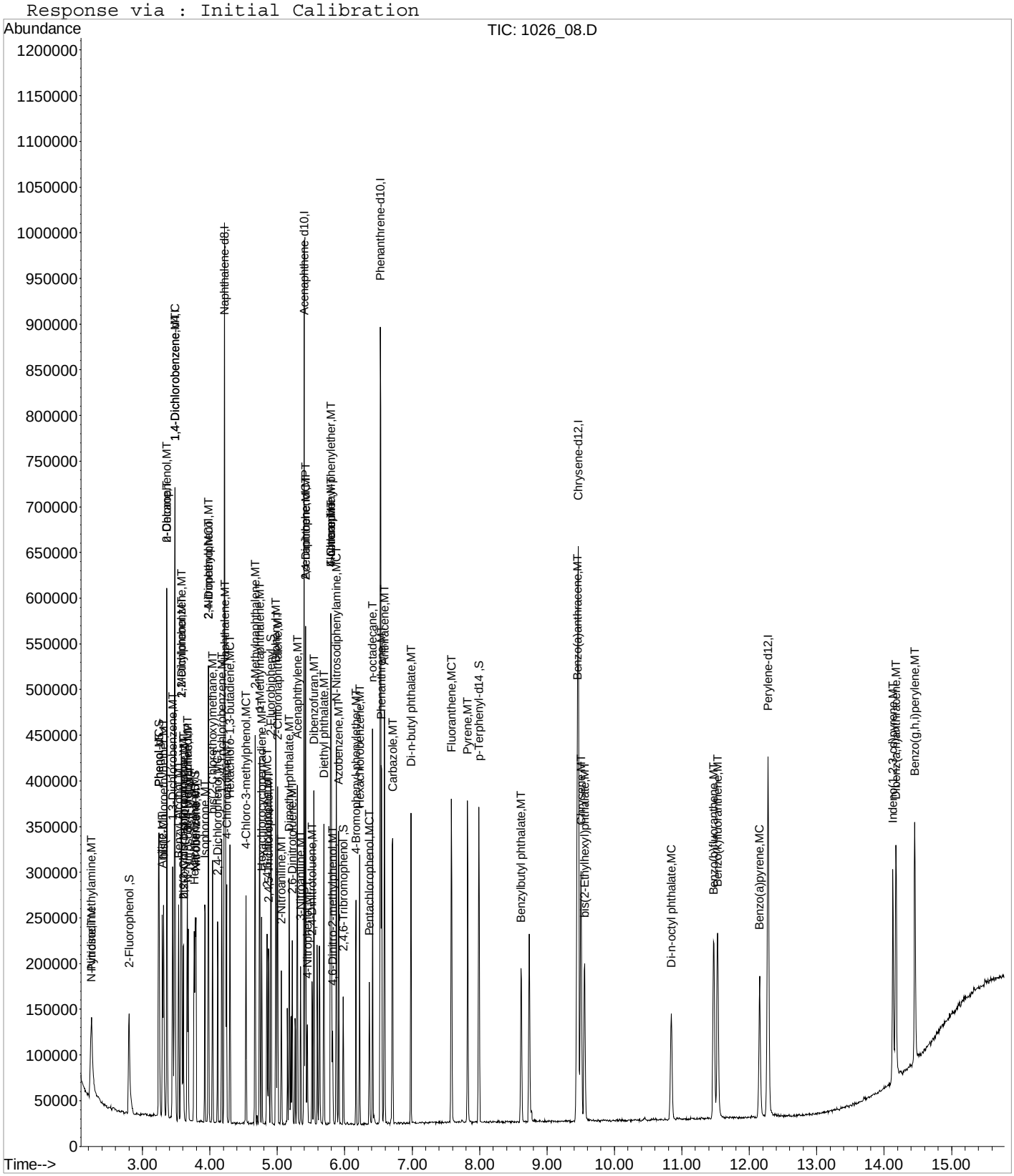
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	111435	3295.7038733	ppb		98
52)	2-Chloronaphthalene	5.00	162	82450	3332.8258536	ppb		99
53)	2-Nitroaniline	5.06	138	22813	3588.1832053	ppb		98
54)	Acenaphthylene	5.30	152	121276	3388.9777994	ppb		99
55)	Dimethyl phthalate	5.17	163	85579	3446.1111884	ppb		97
56)	2,6-Dinitrotoluene	5.22	165	19588	3654.0107586	ppb		99
57)	3-Nitroaniline	5.35	138	20331	3688.7872187	ppb		88
58)	Acenaphthene	5.42	153	83754	3321.1436398	ppb		98
59)	2,4-Dinitrophenol	5.42	184	7827	3605.1384368	ppb	#	62
60)	Dibenzofuran	5.54	168	115808	3328.5467817	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	24051	3683.1939722	ppb		97
63)	4-Nitrophenol	5.44	139	16489	4093.2089358	ppb		86
64)	Fluorene	5.80	166	95021	3383.6583141	ppb		98
65)	4-Chlorophenyl-phenylether	5.79	204	45485	3325.5181942	ppb		84
66)	Diethyl phthalate	5.69	149	85252	3443.2578849	ppb		98
67)	4-Nitroaniline	5.79	138	20740	3896.4252435	ppb		99
68)	Azobenzene	5.91	77	90490	3563.3093652	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	11845	3962.9976666	ppb		93
72)	N-Nitrosodiphenylamine	5.87	169	79059	3431.6270431	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	26606	3359.3564629	ppb		96
75)	Hexachlorobenzene	6.22	284	34658	3303.6840614	ppb		98
76)	n-octadecane	6.42	55	13216	3562.2011279	ppb		98
77)	Pentachlorophenol	6.37	266	15501	3674.2786998	ppb		98
78)	Phenanthrene	6.55	178	144189	3314.5258115	ppb		99
79)	Anthracene	6.59	178	140728	3499.4527302	ppb		98
80)	Carbazole	6.71	167	121255	3484.5135301	ppb		100
81)	Di-n-butyl phthalate	6.98	149	132502	3582.2442229	ppb		99
83)	Fluoranthene	7.58	202	143182	3450.7239906	ppb		100
86)	Pyrene	7.82	202	149162	3400.4188096	ppb		99
88)	Benzylbutyl phthalate	8.61	149	46840	3500.4858780	ppb		92
90)	Benzo(a)anthracene	9.44	228	131094	3360.9240408	ppb		99
91)	Chrysene	9.50	228	143109	3385.1447152	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.56	149	66334	3687.2290536	ppb		98
93)	Di-n-octyl phthalate	10.84	149	92852	3493.5849359	ppb		99
95)	Benzo(b)fluoranthene	11.48	252	135705	3492.2830119	ppb		98
96)	Benzo(k)fluoranthene	11.53	252	147440	3547.7778850	ppb		98
97)	Benzo(a)pyrene	12.15	252	112400	3608.7115600	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	122872	3602.2396264	ppb		99
99)	Dibenz(a,h)anthracene	14.17	278	135076	3435.5462275	ppb		98
100)	Benzo(g,h,i)perylene	14.46	276	142075	3483.5399470	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: S804J26V.RES

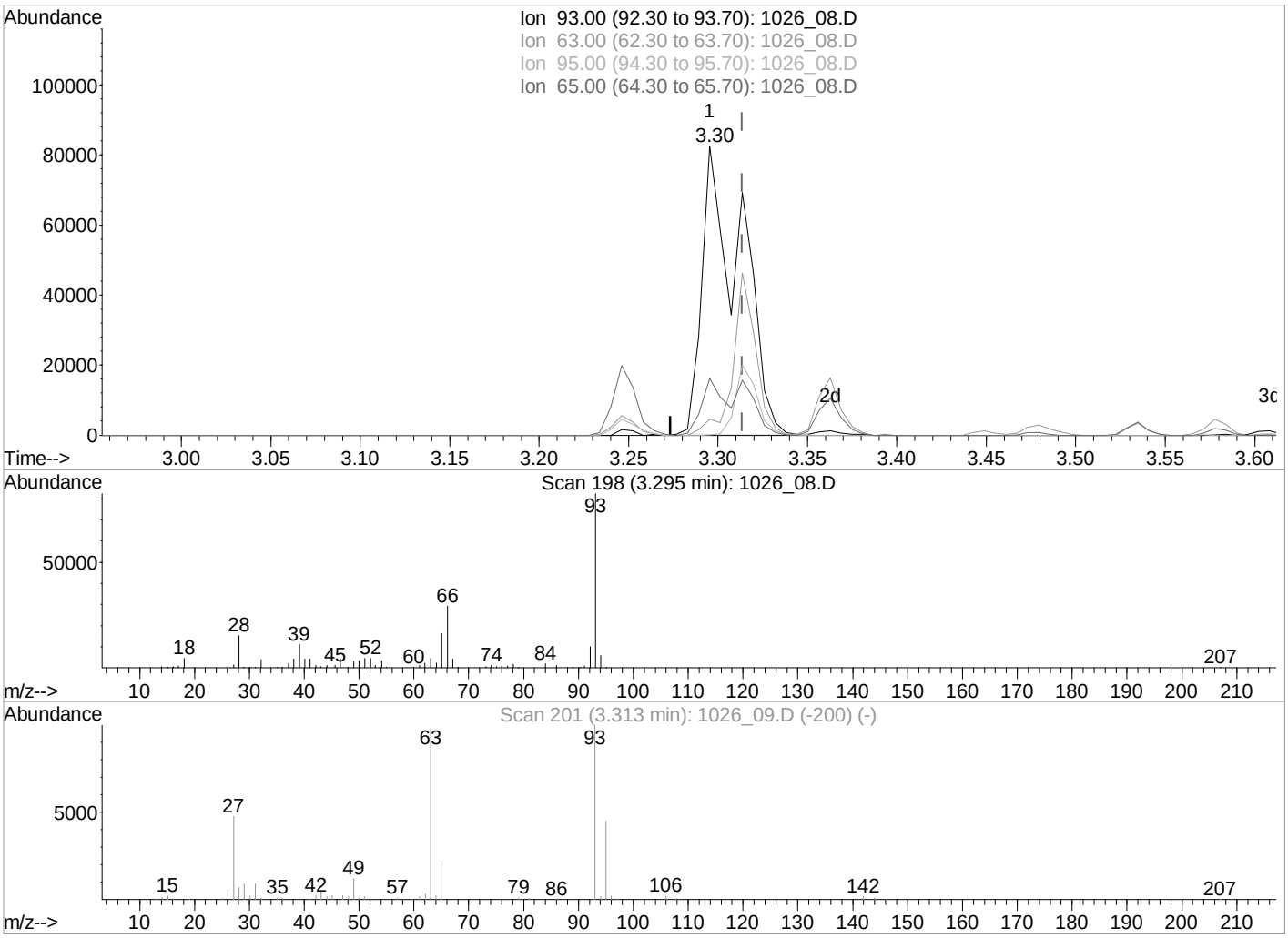
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration



TIC: 1026_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 8181.5927567 ppb

Qvalue = 42

response 122824

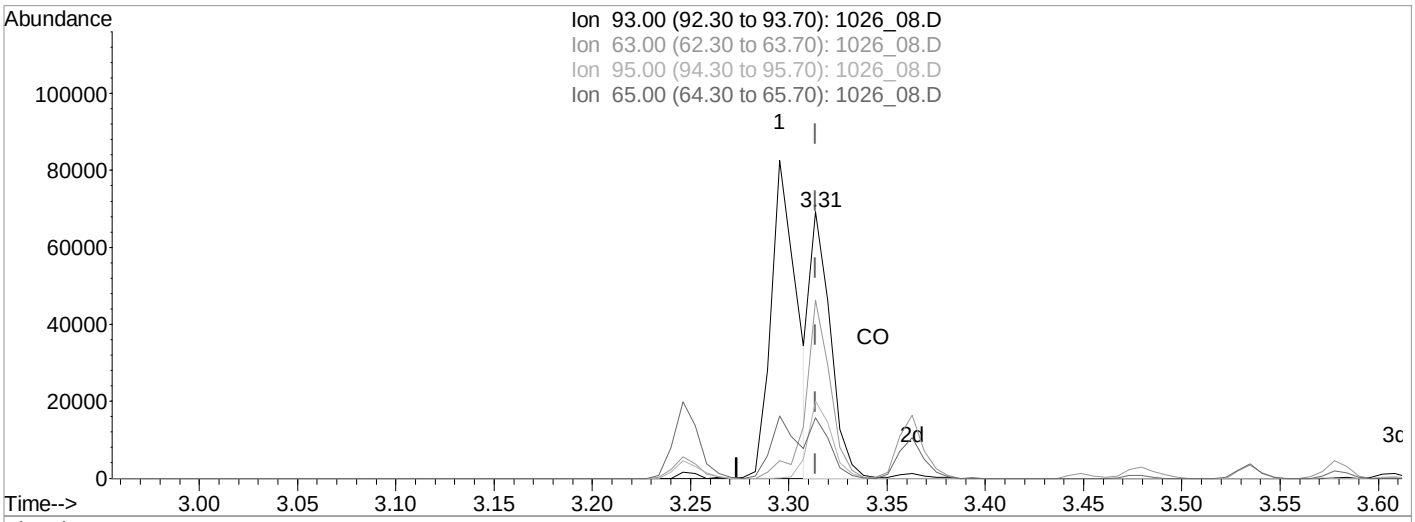
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.55#
95.00	28.70	0.20#
65.00	22.20	19.09

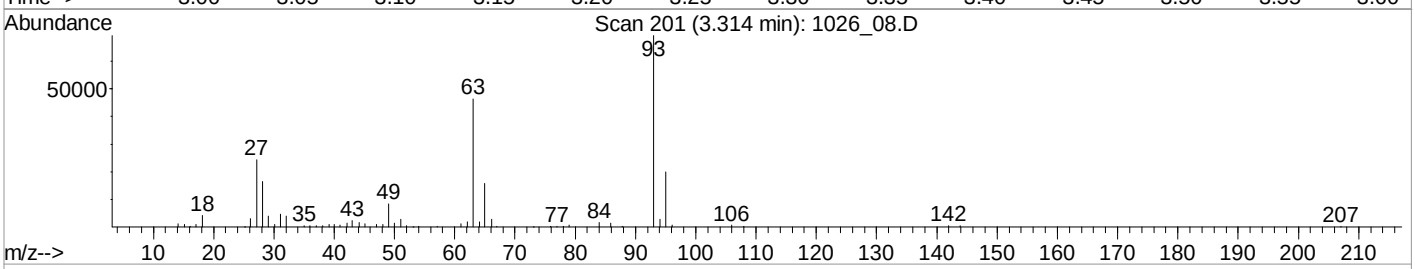
1026_08.D S804J26V.M Thu Oct 27 06:30:28 2022

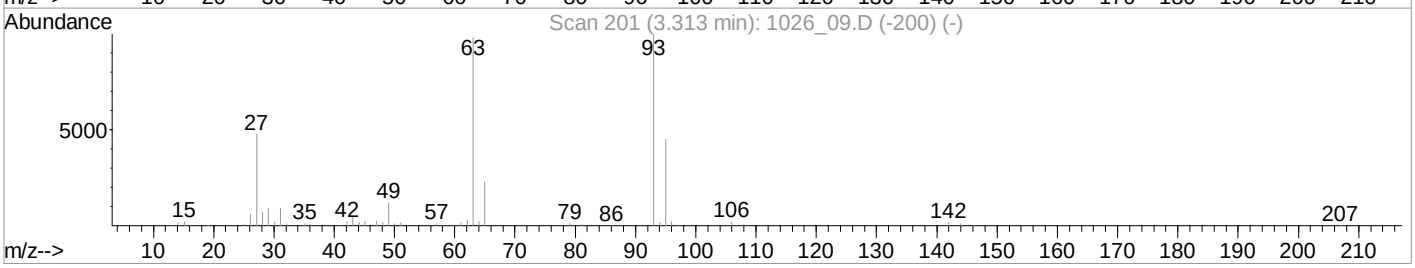
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration







TIC: 1026_08.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 3264.0707571 ppb m

response 49001

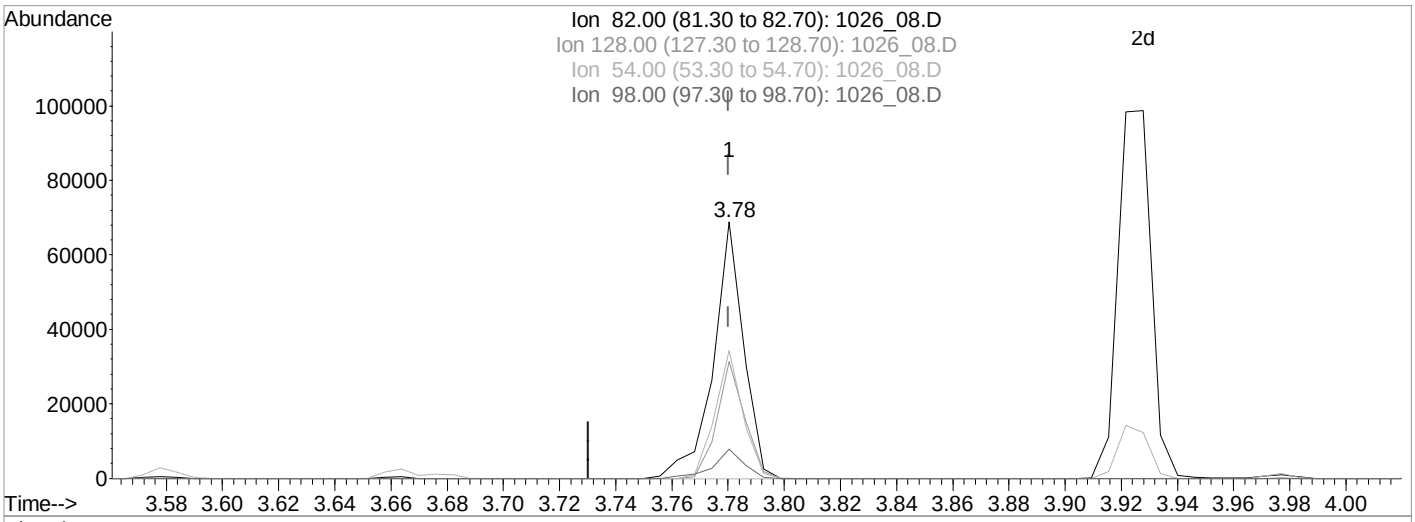
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	66.77
95.00	28.70	28.94
65.00	22.20	22.80

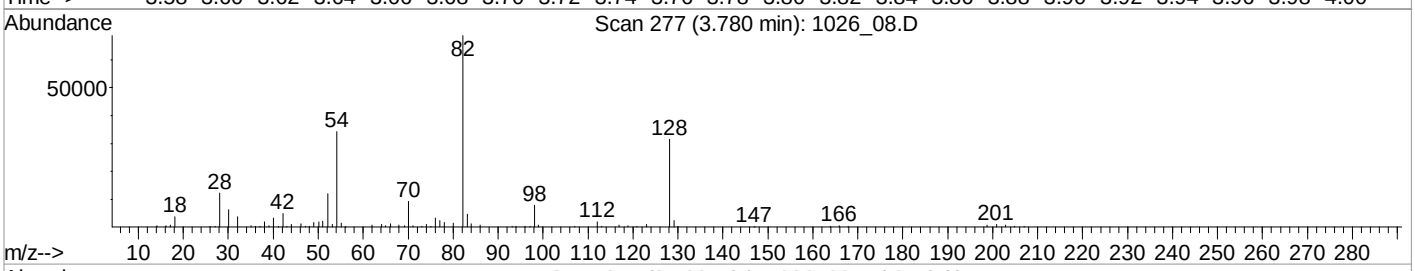
1026_08.D S804J26V.M Thu Oct 27 06:30:34 2022

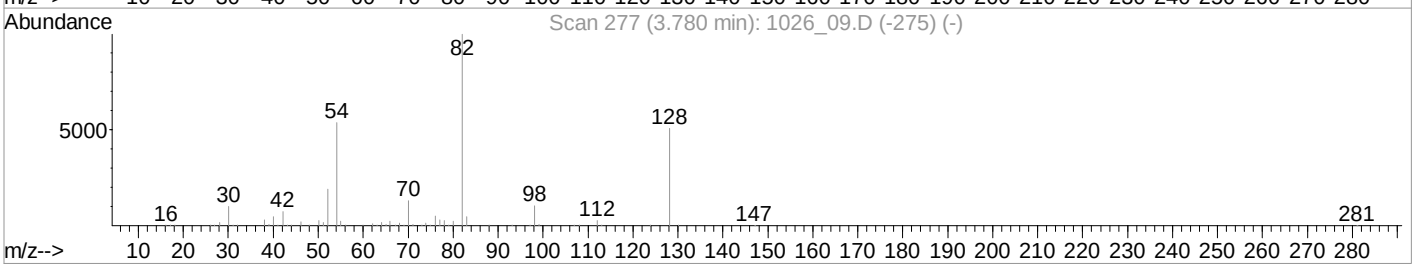
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration







TIC: 1026_08.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 3781.9936484 ppb

Qvalue = 99

response 51619

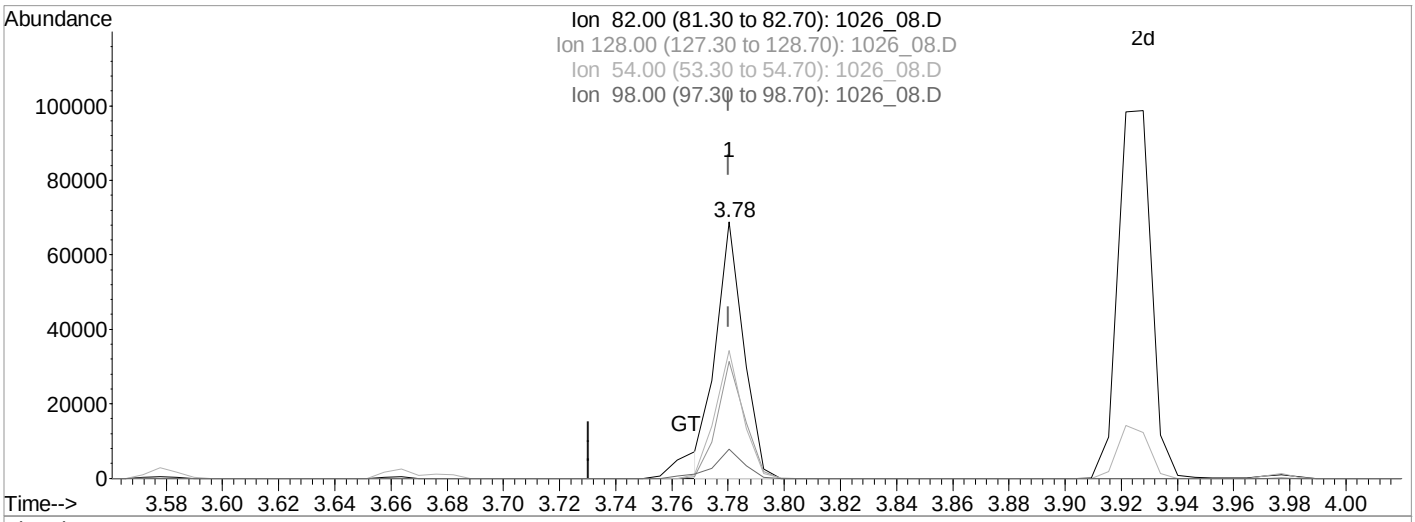
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.68
54.00	49.10	49.76
98.00	10.80	11.40

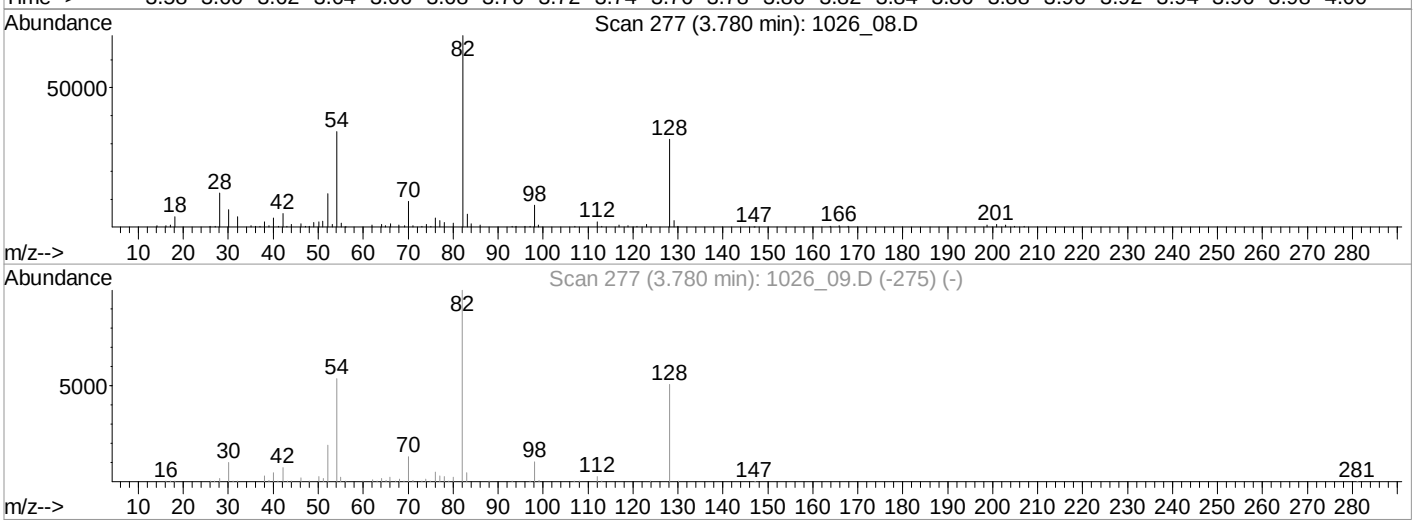
1026_08.D S804J26V.M Thu Oct 27 06:30:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 08.D Vial: 5
Acq On : 26 Oct 2022 11:52 pm Operator: 917
Sample : STD SVMS 4K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:30 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:29:50 2022
Response via : Multiple Level Calibration





TIC: 1026_08.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 3439.1751459 ppb m

response 46940

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.68
54.00	49.10	49.76
98.00	10.80	11.40

1026_08.D S804J26V.M Thu Oct 27 06:30:48 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79435	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	313026	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	158368	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	305894	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	288131	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	289945	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	118988	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
7) Phenol-d5	3.24	99	153856	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
24) Nitrobenzene-d5	3.78	82	133465m	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
50) 2-Fluorobiphenyl	4.91	172	284586	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
73) 2,4,6-Tribromophenol	5.98	330	43388	10000.0000000	ppb	0.00
Spiked Amount 20000.000			Recovery = 50.00%			
87) p-Terphenyl-d14	7.99	244	383154	10000.0000000	ppb	0.00
Spiked Amount 10000.000			Recovery = 100.00%			
Target Compounds						Qvalue
2) Pyridine	2.24	79	132708	10000.0000000	ppb	100
3) N-Nitrosodimethylamine	2.23	42	61392	10000.0000000	ppb	100
5) Aniline	3.30	66	68144	10000.0000000	ppb	100
6) bis(2-Chloroethyl)ether	3.31	93	123174m	10023.5179233	ppb	
8) Phenol	3.25	94	156040	10000.0000000	ppb	100
10) 2-Chlorophenol	3.36	128	128503	10000.0000000	ppb	100
11) n-Decane	3.36	41	72009	10000.0000000	ppb	100
12) 1,3-Dichlorobenzene	3.45	146	148637	10000.0000000	ppb	100
13) 1,4-Dichlorobenzene	3.49	146	149107	10000.0000000	ppb	100
14) Benzyl Alcohol	3.53	79	99356	10000.0000000	ppb	100
15) 1,2-Dichlorobenzene	3.57	146	141491	10000.0000000	ppb	100
16) bis(2-Chloroisopropyl)ethe	3.61	121	45735	10000.0000000	ppb	100
17) 2,2-oxybis(1-chloropropane	3.61	121	45735	10000.0000000	ppb	100
18) 2-Methylphenol	3.58	108	116345	10000.0000000	ppb	100
19) Hexachloroethane	3.77	117	53921	10000.0000000	ppb	100
20) N-Nitrosodi-n-propylamine	3.68	70	89629	10000.0000000	ppb	100
21) 3&4-Methyl phenol	3.66	107	130557	10000.0000000	ppb	100
25) Nitrobenzene	3.79	77	133779	10000.0000000	ppb	100
26) Isophorone	3.93	82	241759	10000.0000000	ppb	100
27) 2-Nitrophenol	3.98	139	66702	10000.0000000	ppb	100
28) 2,4-Dimethylphenol	3.98	107	123976	10000.0000000	ppb	100
29) bis(2-Chlorethoxy)methane	4.04	93	146661	10000.0000000	ppb	100
30) 2,4-Dichlorophenol	4.12	162	103583	10000.0000000	ppb	100
32) 1,2,4-Trichlorobenzene	4.17	180	120920	10000.0000000	ppb	100
34) Naphthalene	4.23	128	388635	10000.0000000	ppb	100
35) 4-Chloroaniline	4.25	65	41744	10000.0000000	ppb	100
36) Hexachloro-1,3-butadiene	4.30	225	69159	10000.0000000	ppb	100
40) 4-Chloro-3-methylphenol	4.54	107	97814	10000.0000000	ppb	100
41) 2-Methylnaphthalene	4.67	142	254719	10000.0000000	ppb	100
42) 1-Methylnaphthalene	4.74	142	241031	10000.0000000	ppb	100
47) Hexachlorocyclopentadiene	4.77	237	78414	10000.0000000	ppb	100
48) 2,4,6-Trichlorophenol	4.85	196	74684	10000.0000000	ppb	100
49) 2,4,5-Trichlorophenol	4.87	196	78172	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration
1026_09.D S804J26V.M Thu Oct 27 11:34:24 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

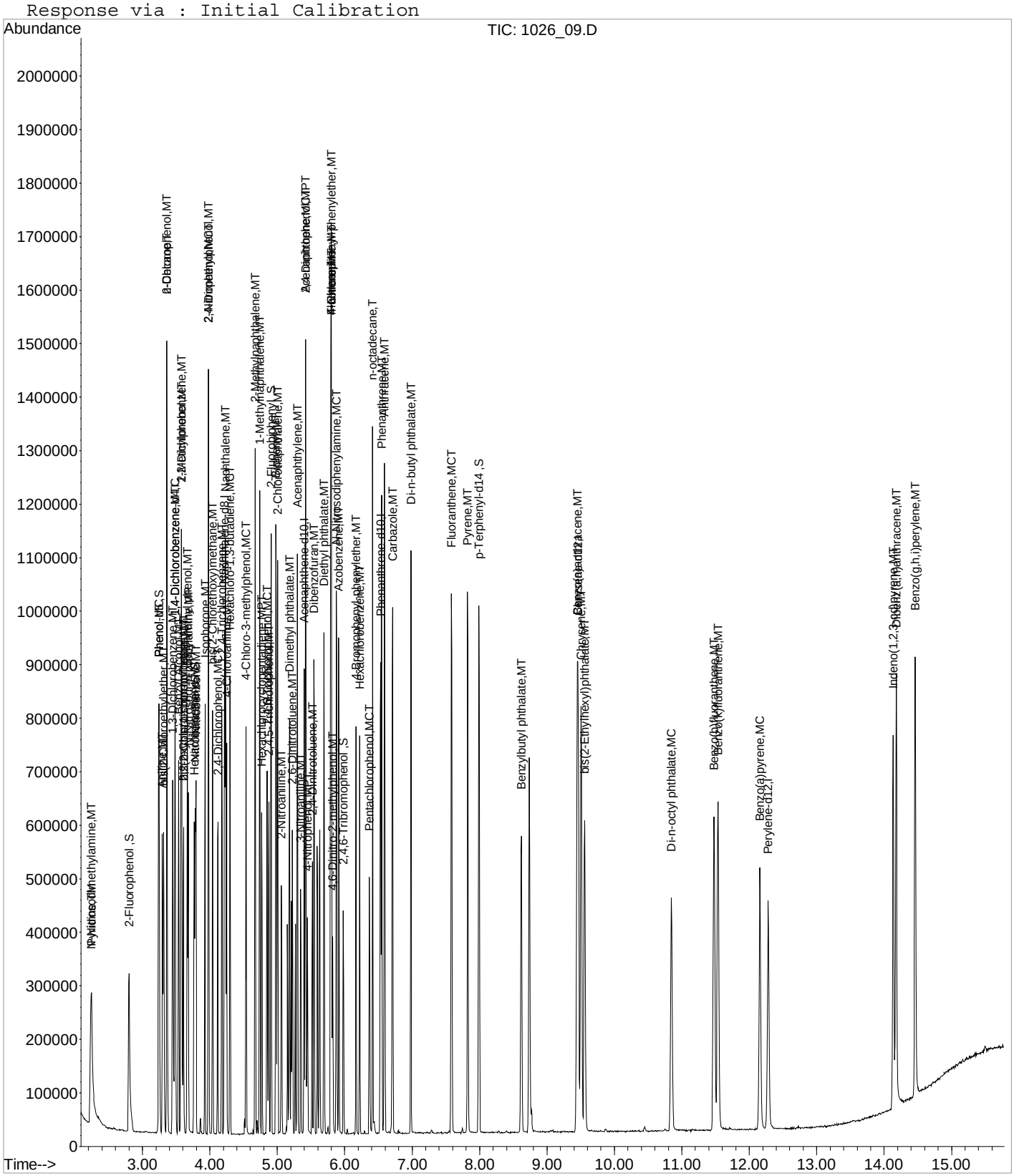
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	Biphenyl	4.98	154	316972	10000.0000000	ppb	100
52)	2-Chloronaphthalene	5.00	162	236172	10000.0000000	ppb	100
53)	2-Nitroaniline	5.06	138	70922	10000.0000000	ppb	100
54)	Acenaphthylene	5.30	152	355684	10000.0000000	ppb	100
55)	Dimethyl phthalate	5.18	163	243578	10000.0000000	ppb	100
56)	2,6-Dinitrotoluene	5.22	165	58738	10000.0000000	ppb	100
57)	3-Nitroaniline	5.35	138	60292	10000.0000000	ppb	100
58)	Acenaphthene	5.42	153	234278	10000.0000000	ppb	100
59)	2,4-Dinitrophenol	5.42	184	28241	10000.0000000	ppb	100
60)	Dibenzofuran	5.54	168	323795	10000.0000000	ppb	100
61)	2,4-Dinitrotoluene	5.52	165	74675	10000.0000000	ppb	100
63)	4-Nitrophenol	5.44	139	49261m	10000.0000000	ppb	
64)	Fluorene	5.80	166	272790	10000.0000000	ppb	100
65)	4-Chlorophenyl-phenylether	5.79	204	129979	10000.0000000	ppb	100
66)	Diethyl phthalate	5.69	149	255273	10000.0000000	ppb	100
67)	4-Nitroaniline	5.80	138	60252	10000.0000000	ppb	100
68)	Azobenzene	5.91	77	263270	10000.0000000	ppb	100
71)	4,6-Dinitro-2-methylphenol	5.82	198	40596	10000.0000000	ppb	100
72)	N-Nitrosodiphenylamine	5.87	169	231780	10000.0000000	ppb	100
74)	4-Bromophenyl-phenylether	6.17	248	77995	10000.0000000	ppb	100
75)	Hexachlorobenzene	6.22	284	96999	10000.0000000	ppb	100
76)	n-octadecane	6.42	55	38414	10000.0000000	ppb	100
77)	Pentachlorophenol	6.37	266	51441	10000.0000000	ppb	100
78)	Phenanthrene	6.55	178	405989	10000.0000000	ppb	100
79)	Anthracene	6.59	178	410918	10000.0000000	ppb	100
80)	Carbazole	6.71	167	360679	10000.0000000	ppb	100
81)	Di-n-butyl phthalate	6.98	149	411451	10000.0000000	ppb	100
83)	Fluoranthene	7.58	202	420451	10000.0000000	ppb	100
86)	Pyrene	7.82	202	441805	10000.0000000	ppb	100
88)	Benzylbutyl phthalate	8.62	149	156642	10000.0000000	ppb	100
90)	Benzo(a)anthracene	9.45	228	395263	10000.0000000	ppb	100
91)	Chrysene	9.50	228	409597	10000.0000000	ppb	100
92)	bis(2-Ethylhexyl)phthalate	9.56	149	225073	10000.0000000	ppb	100
93)	Di-n-octyl phthalate	10.84	149	338315	10000.0000000	ppb	100
95)	Benzo(b)fluoranthene	11.48	252	411310	10000.0000000	ppb	100
96)	Benzo(k)fluoranthene	11.54	252	428361	10000.0000000	ppb	100
97)	Benzo(a)pyrene	12.16	252	351911	10000.0000000	ppb	100
98)	Indeno(1,2,3-cd)pyrene	14.14	276	375184	10000.0000000	ppb	100
99)	Dibenz(a,h)anthracene	14.18	278	414295	10000.0000000	ppb	100
100)	Benzo(g,h,i)perylene	14.46	276	418976	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: S804J26V.RES

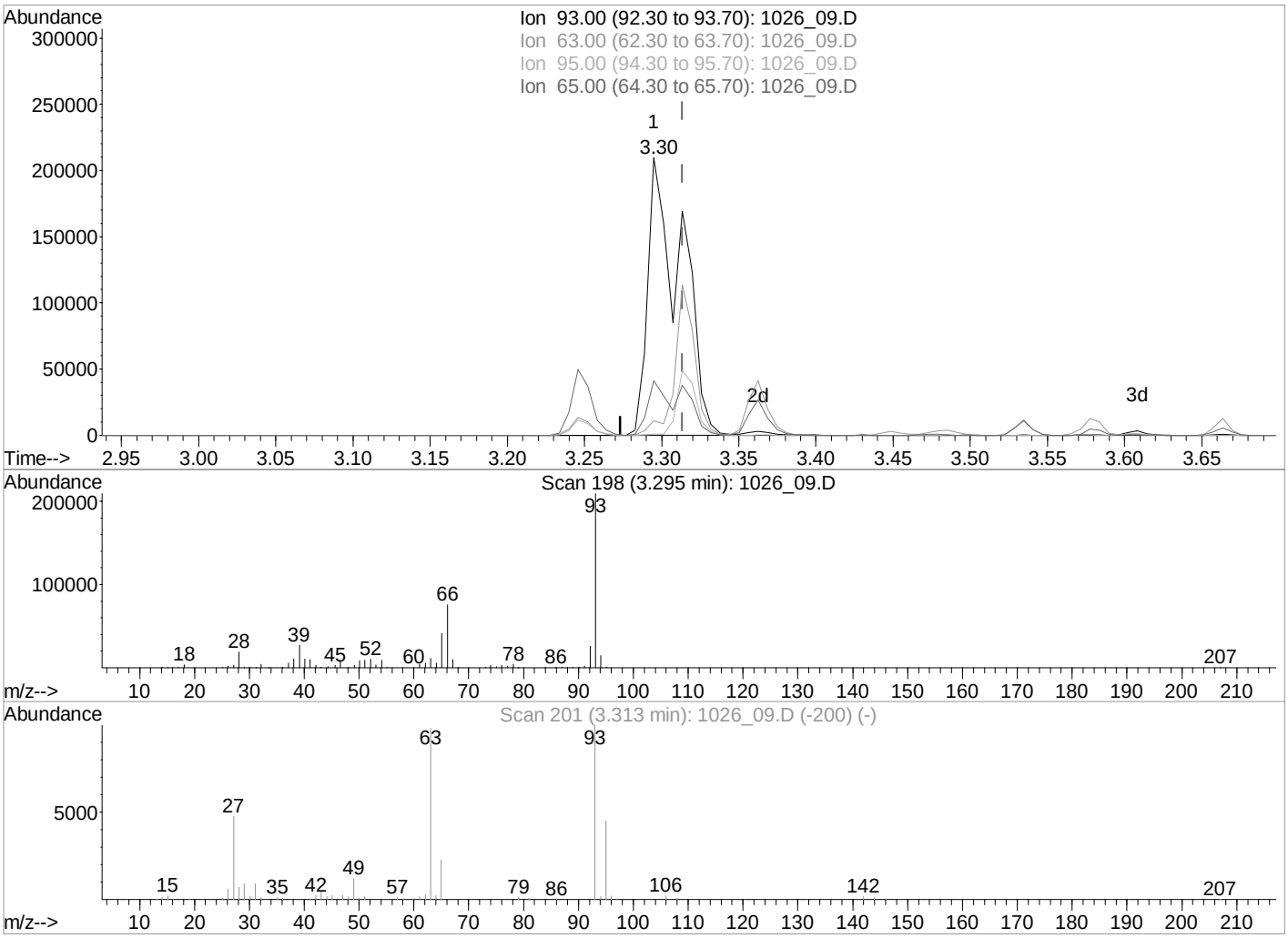
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.018) 25294.2181715 ppb

Qvalue = 42

response 310828

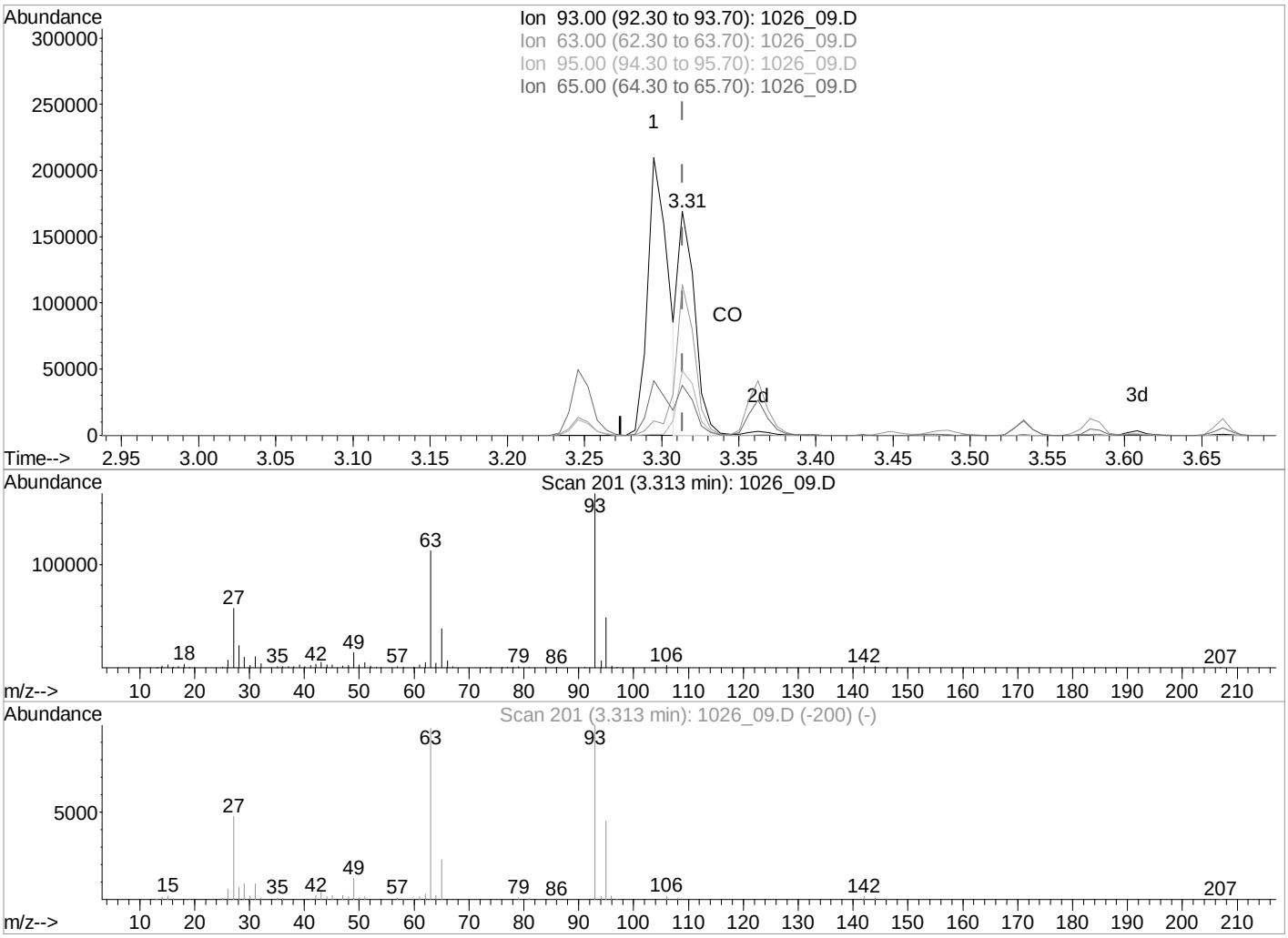
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.09#
95.00	28.70	0.28#
65.00	22.20	19.58

1026_09.D S804J26V.M Thu Oct 27 06:20:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (0.000) 10023.5179233 ppb m

response 123174

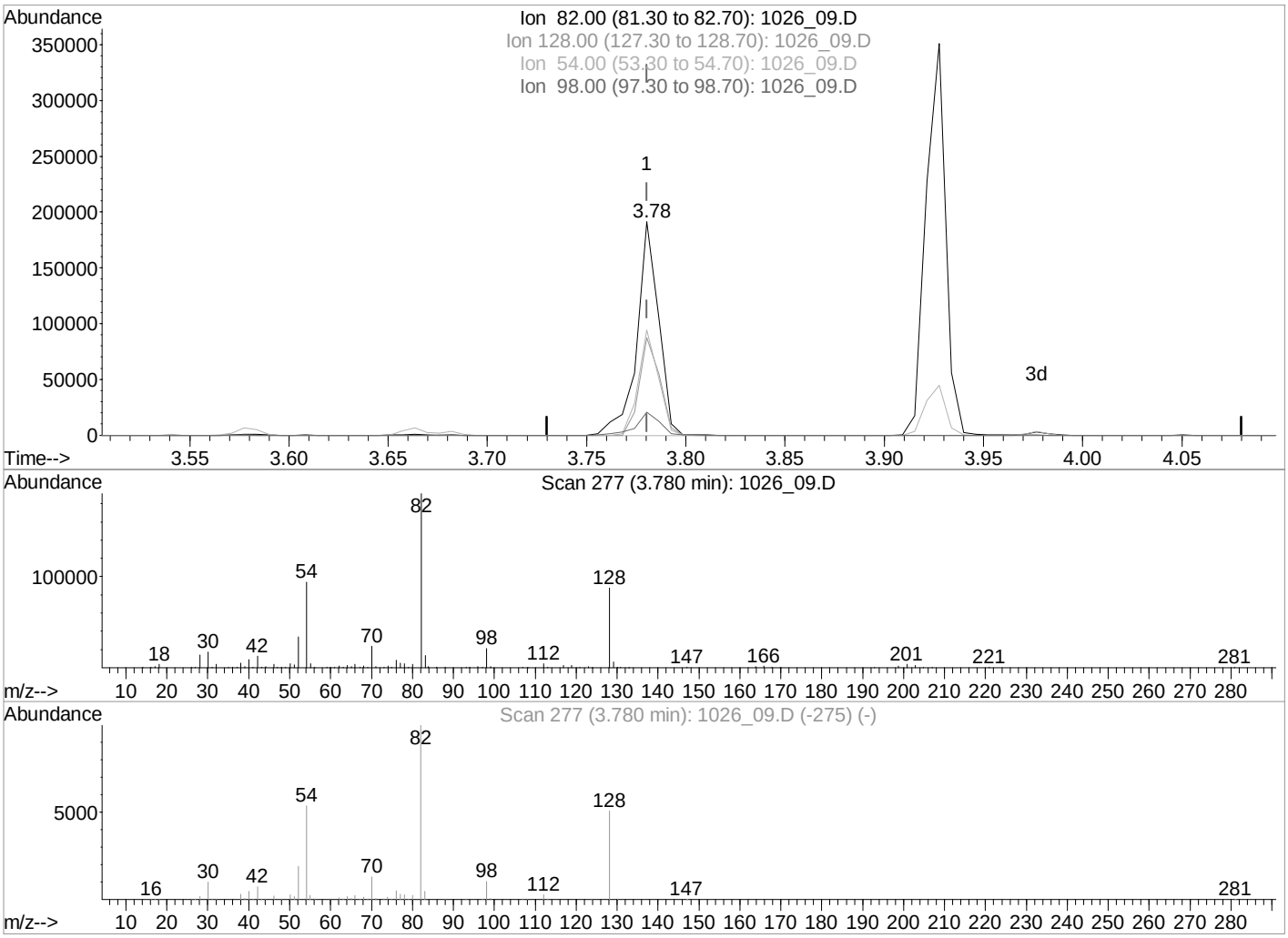
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	67.17
95.00	28.70	28.73
65.00	22.20	22.18

1026_09.D S804J26V.M Thu Oct 27 06:20:22 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(24) Nitrobenzene-d5 (S)

3.78min (0.000) 10878.9570299 ppb

Qvalue = 100

response 145196

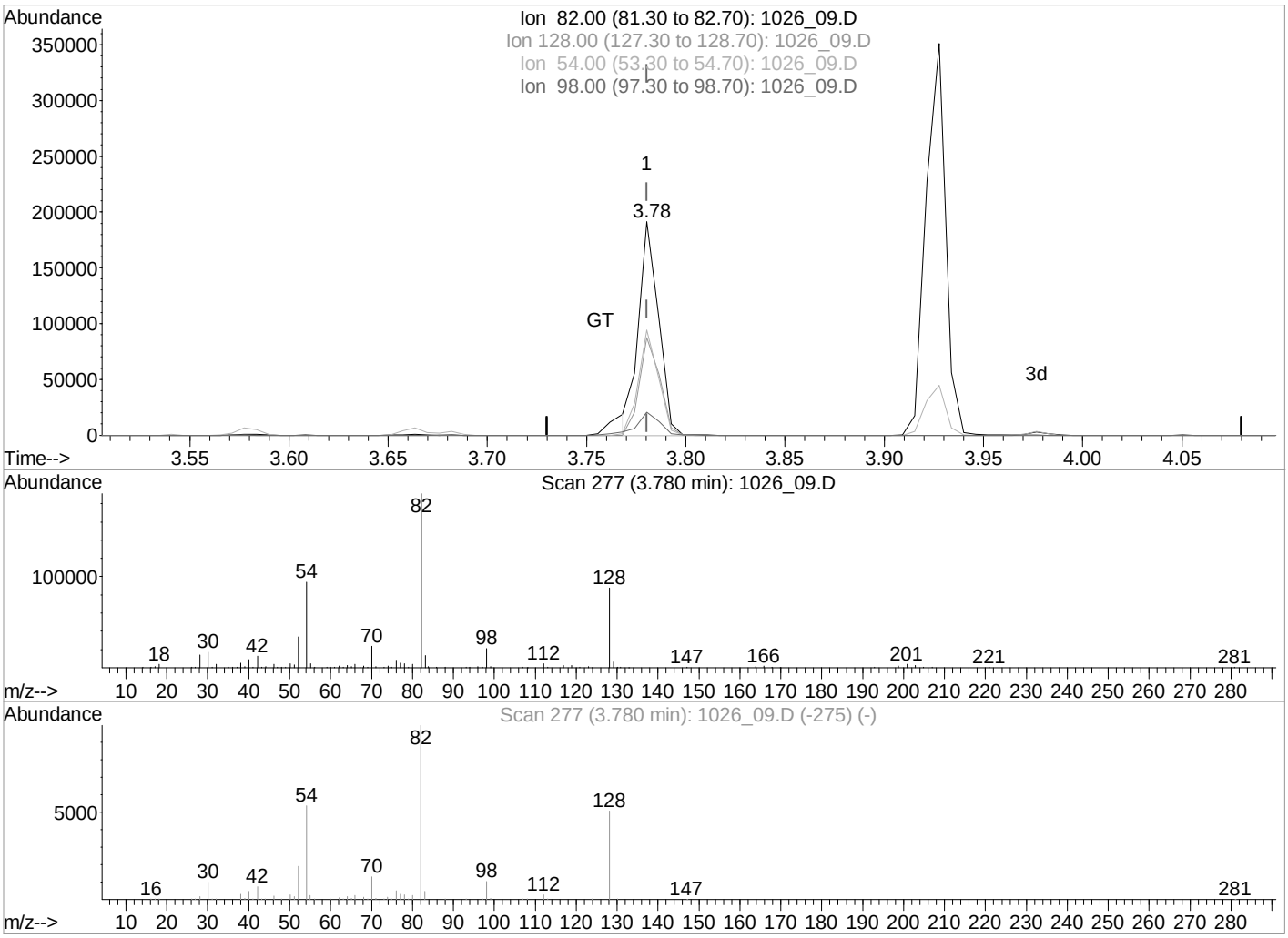
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.63
54.00	49.10	49.10
98.00	10.80	10.79

1026_09.D S804J26V.M Thu Oct 27 06:20:31 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(24) Nitrobenzene-d5 (S)

3.78min (0.000) 10000.0000000 ppb m

response 133465

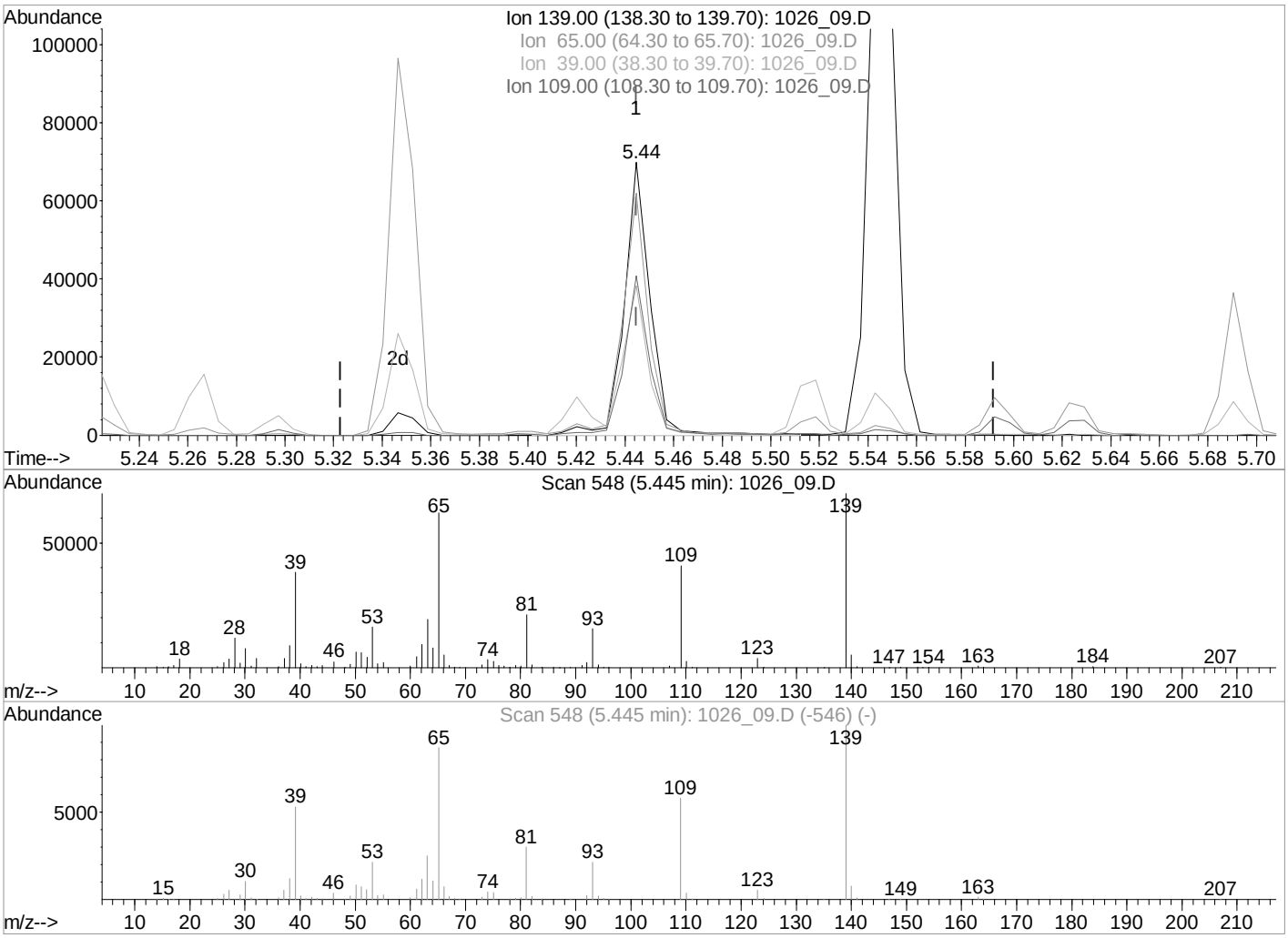
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.63
54.00	49.10	49.10
98.00	10.80	10.79

1026_09.D S804J26V.M Thu Oct 27 06:20:36 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:20 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(63) 4-Nitrophenol (MPT)

5.44min (0.000) 10562.1079556 ppb

Qvalue = 99

response 52030

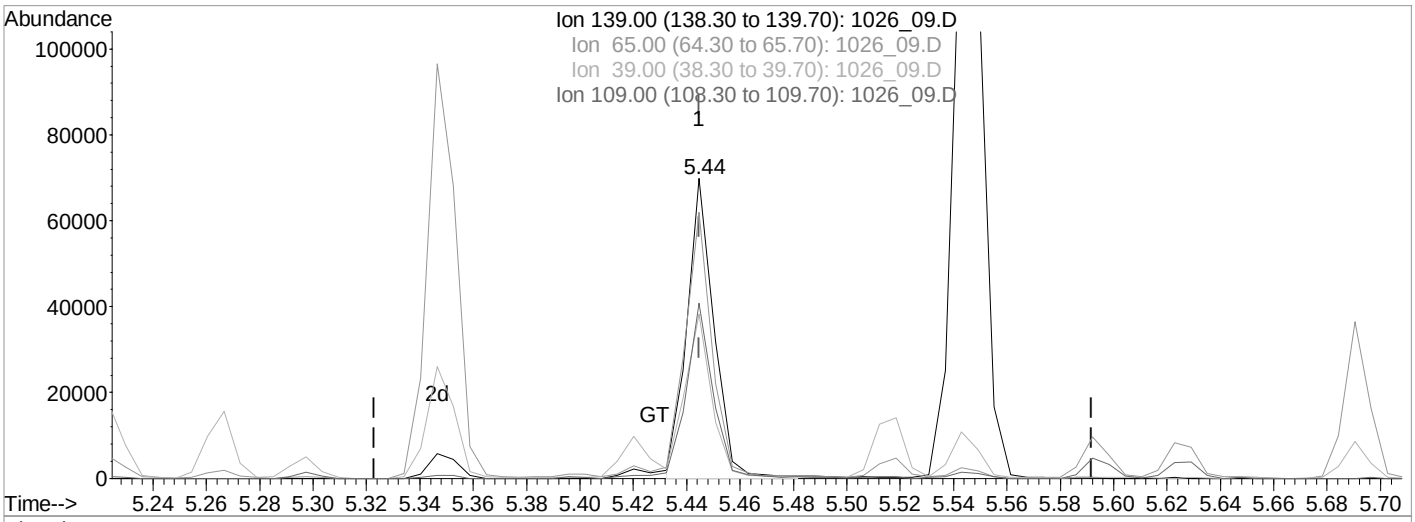
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	87.38
39.00	54.80	54.47
109.00	58.30	58.05

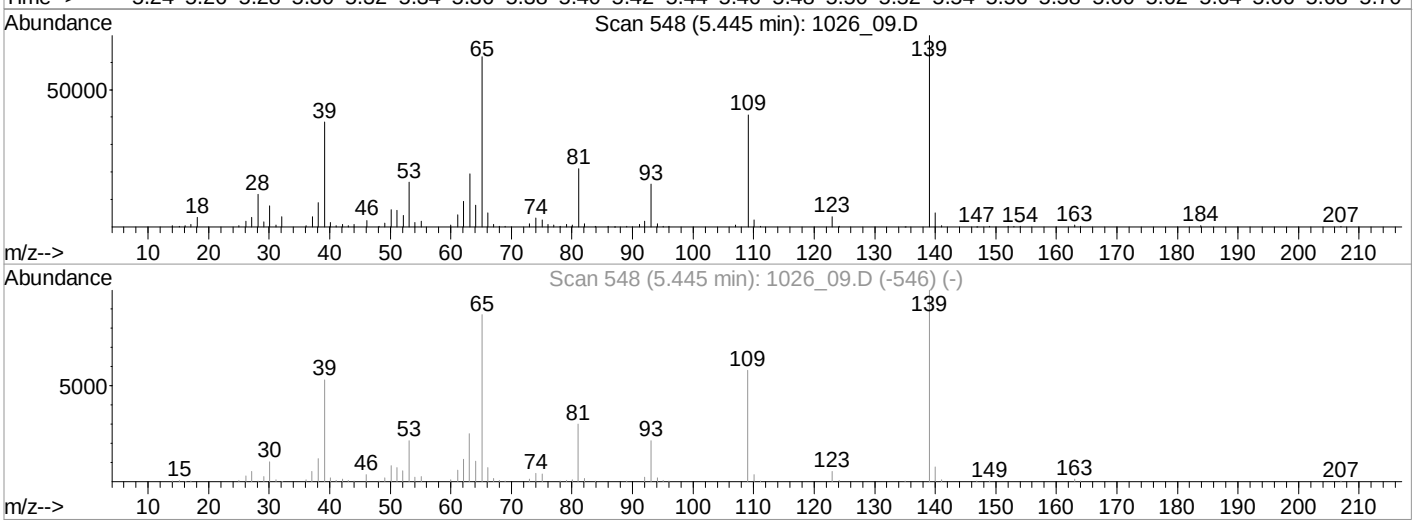
1026_09.D S804J26V.M Thu Oct 27 06:21:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration





TIC: 1026_09.D

(63) 4-Nitrophenol (MPT)

5.44min (0.000) 10000.0000000 ppb m

response 49261

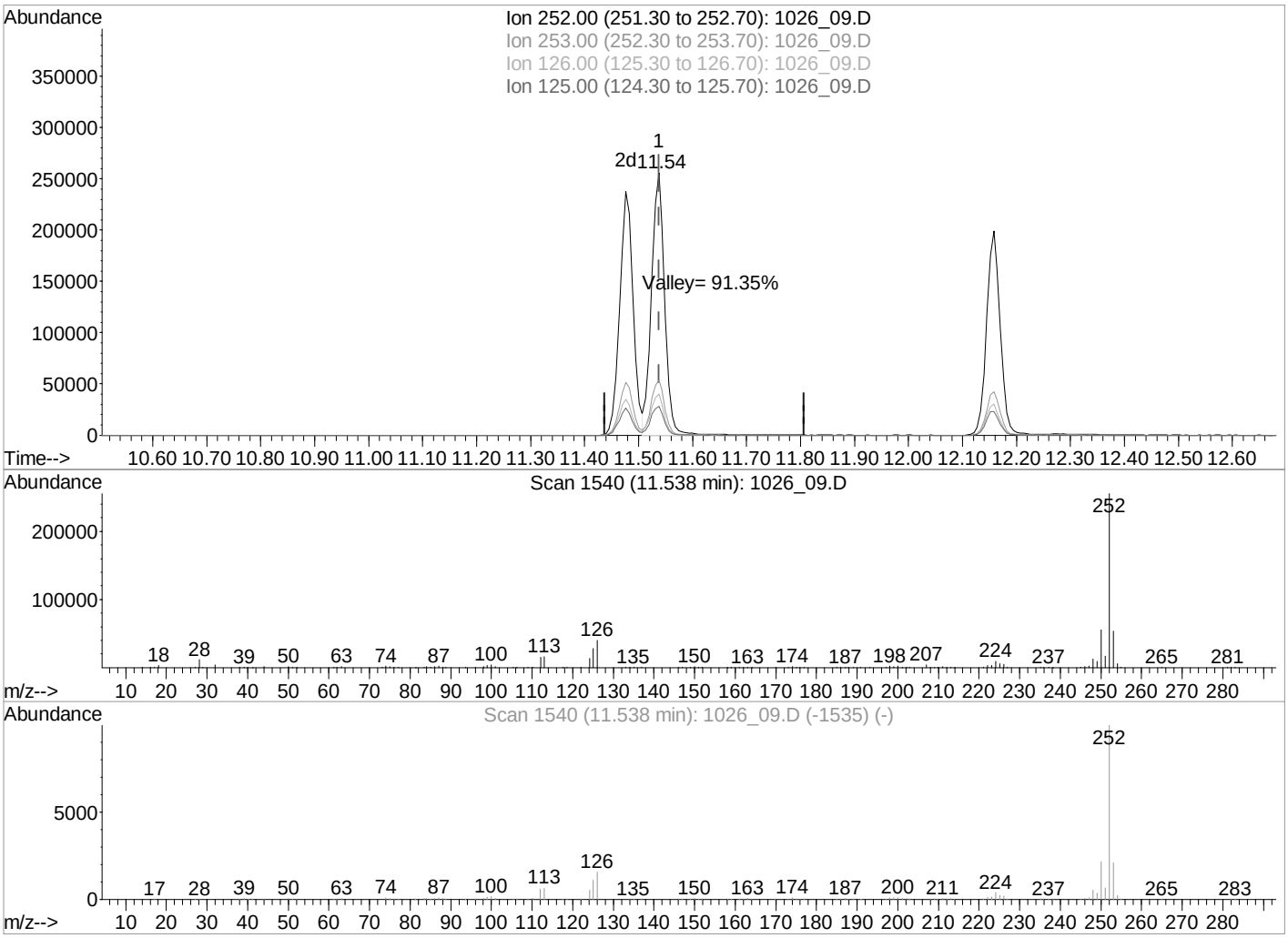
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	88.67
39.00	54.80	54.79
109.00	58.30	58.33

1026_09.D S804J26V.M Thu Oct 27 06:21:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 09.D Vial: 6
Acq On : 27 Oct 2022 12:13 am Operator: 917
Sample : STD SVMS 10K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:21 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:19:13 2022
Response via : Multiple Level Calibration



TIC: 1026_09.D

(96) Benzo(k)fluoranthene (MT)

11.54min (0.000) 10000.0000000 ppb

Qvalue = 100

response 428361

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	21.04
126.00	15.70	15.68
125.00	11.00	11.04

1026_09.D S804J26V.M Thu Oct 27 06:21:25 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84991	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	331372	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	168410	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	309383	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	299248	8000.00 ppb	0.00
94) Perylene-d12	12.28	264	303375	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	245508	19202.7309202 ppb	0.00
Spiked Amount 20000.000			Recovery = 96.01%		
7) Phenol-d5	3.24	99	315807	19374.6710538 ppb	0.00
Spiked Amount 20000.000			Recovery = 96.87%		
24) Nitrobenzene-d5	3.78	82	279777m	20123.4078988 ppb	0.00
Spiked Amount 10000.000			Recovery = 201.23%		
50) 2-Fluorobiphenyl	4.91	172	583976	18892.5915427 ppb	0.00
Spiked Amount 10000.000			Recovery = 188.93%		
73) 2,4,6-Tribromophenol	5.99	330	91816	23847.1294801 ppb	0.00
Spiked Amount 20000.000			Recovery = 119.24%		
87) p-Terphenyl-d14	7.99	244	793063	19674.3339999 ppb	0.00
Spiked Amount 10000.000			Recovery = 196.74%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	271801	19096.0578355 ppb	98
3) N-Nitrosodimethylamine	2.23	42	127114	17818.0891156 ppb	98
5) Aniline	3.30	66	140441	19398.1468372 ppb #	93
6) bis(2-Chloroethyl)ether	3.31	93	255280m	18870.7537707 ppb	
8) Phenol	3.25	94	318992	19277.4169709 ppb	99
10) 2-Chlorophenol	3.36	128	265698	19874.5670980 ppb	99
11) n-Decane	3.36	41	142594	17344.5104295 ppb	98
12) 1,3-Dichlorobenzene	3.45	146	299712	18210.5511187 ppb	99
13) 1,4-Dichlorobenzene	3.49	146	303330	18711.1168130 ppb	99
14) Benzyl Alcohol	3.53	79	207444	20421.9238501 ppb	98
15) 1,2-Dichlorobenzene	3.57	146	286314	18819.9889175 ppb	99
16) bis(2-Chloroisopropyl)ethe	3.61	121	91726	19257.7344006 ppb	99
17) 2,2-oxybis(1-chloropropane	3.61	121	91726	19257.7344006 ppb	99
18) 2-Methylphenol	3.58	108	240748	20130.8223220 ppb	96
19) Hexachloroethane	3.77	117	109606	18768.3681503 ppb	98
20) N-Nitrosodi-n-propylamine	3.68	70	183848	20701.2912508 ppb	97
21) 3&4-Methyl phenol	3.66	107	270151	20240.6076095 ppb	100
25) Nitrobenzene	3.79	77	272577	19709.1324717 ppb	99
26) Isophorone	3.93	82	504061	20885.5231863 ppb	98
27) 2-Nitrophenol	3.98	139	141342	21441.5293584 ppb	97
28) 2,4-Dimethylphenol	3.98	107	254092	19970.8438961 ppb	100
29) bis(2-Chlorethoxy)methane	4.04	93	304730	19433.8955944 ppb	99
30) 2,4-Dichlorophenol	4.12	162	214281	20312.5961638 ppb	98
32) 1,2,4-Trichlorobenzene	4.17	180	244351	18511.6313744 ppb	99
34) Naphthalene	4.23	128	795306	18888.4885240 ppb	100
35) 4-Chloroaniline	4.25	65	87739	20550.0888993 ppb	97
36) Hexachloro-1,3-butadiene	4.30	225	138610	18380.1883293 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	205560	20954.2042996 ppb	98
41) 2-Methylnaphthalene	4.67	142	527174	19633.9892165 ppb	99
42) 1-Methylnaphthalene	4.74	142	494905	19214.8345074 ppb	100
47) Hexachlorocyclopentadiene	4.77	237	167109	20644.1013505 ppb	98
48) 2,4,6-Trichlorophenol	4.85	196	158630	21431.8482785 ppb	98
49) 2,4,5-Trichlorophenol	4.87	196	163750	21643.4321874 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

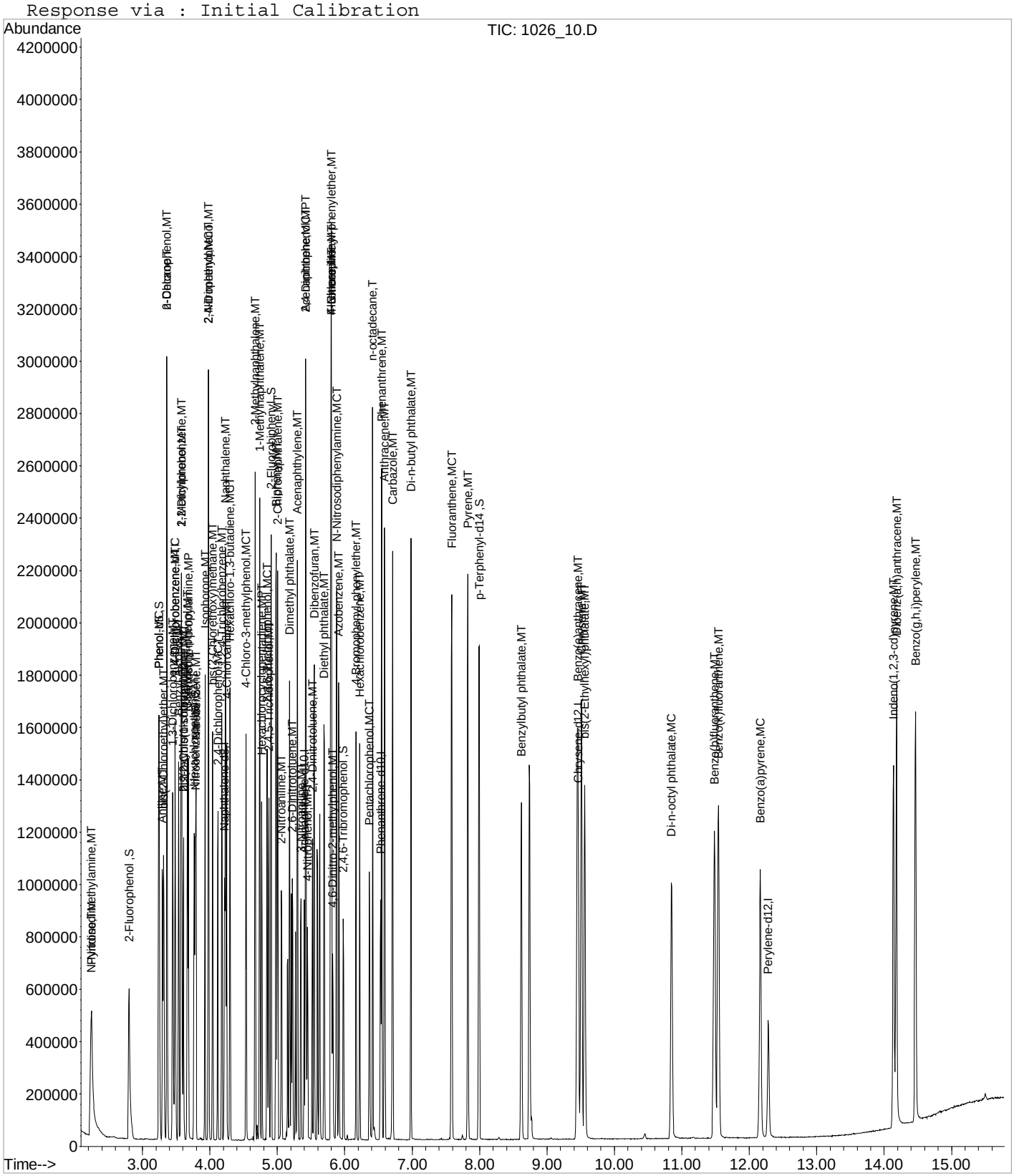
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	649100	18865.0295362	ppb		100
52)	2-Chloronaphthalene	5.00	162	481740	19089.7943186	ppb		99
53)	2-Nitroaniline	5.06	138	156566	23745.5889641	ppb		99
54)	Acenaphthylene	5.30	152	748687	20434.9303110	ppb		99
55)	Dimethyl phthalate	5.18	163	511440	20041.3233669	ppb		97
56)	2,6-Dinitrotoluene	5.23	165	121949	21843.4445352	ppb	#	78
57)	3-Nitroaniline	5.35	138	131257	22816.3803221	ppb	#	82
58)	Acenaphthene	5.42	153	493122	19183.7752723	ppb		99
59)	2,4-Dinitrophenol	5.42	184	65500	29306.7481823	ppb	#	90
60)	Dibenzofuran	5.55	168	665655	18760.8754830	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	160797	23600.6336359	ppb		98
63)	4-Nitrophenol	5.44	139	108242m	25096.4062774	ppb		
64)	Fluorene	5.80	166	566355	19705.3793765	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	267391	19173.9472829	ppb		99
66)	Diethyl phthalate	5.70	149	521627	20505.7140045	ppb		96
67)	4-Nitroaniline	5.80	138	127616	22670.0268542	ppb		98
68)	Azobenzene	5.91	77	541814	20605.8244563	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.83	198	89412	29479.2998014	ppb		83
72)	N-Nitrosodiphenylamine	5.88	169	477928	21146.8933136	ppb		100
74)	4-Bromophenyl-phenylether	6.17	248	161804	20923.7628823	ppb		97
75)	Hexachlorobenzene	6.22	284	196301	19233.9545046	ppb		98
76)	n-octadecane	6.42	55	80819	22019.5230828	ppb		99
77)	Pentachlorophenol	6.37	266	109457	26038.4667797	ppb		97
78)	Phenanthrene	6.55	178	817717	19307.9337965	ppb		99
79)	Anthracene	6.59	178	839822	21195.2016240	ppb		99
80)	Carbazole	6.71	167	747917	21834.6075856	ppb		100
81)	Di-n-butyl phthalate	6.98	149	896080	24456.6285649	ppb		99
83)	Fluoranthene	7.59	202	880386	21601.9593798	ppb		99
86)	Pyrene	7.83	202	919691	20059.3514315	ppb		100
88)	Benzylbutyl phthalate	8.62	149	347644	24696.4278323	ppb		99
90)	Benzo(a)anthracene	9.45	228	833026	20485.6791881	ppb		100
91)	Chrysene	9.51	228	844096	19122.0222497	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	500365	26123.8924175	ppb		99
93)	Di-n-octyl phthalate	10.84	149	783718	28042.7898760	ppb		99
95)	Benzo(b)fluoranthene	11.48	252	882906	21697.2286685	ppb		99
96)	Benzo(k)fluoranthene	11.54	252	894619	20483.4227247	ppb		99
97)	Benzo(a)pyrene	12.16	252	746762	22724.4118935	ppb		100
98)	Indeno(1,2,3-cd)pyrene	14.14	276	782711m	21758.3422395	ppb		
99)	Dibenz(a,h)anthracene	14.18	278	878674m	21419.7805079	ppb		
100)	Benzo(g,h,i)perylene	14.47	276	862791	20212.9692660	ppb		98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: S804J26V.RES

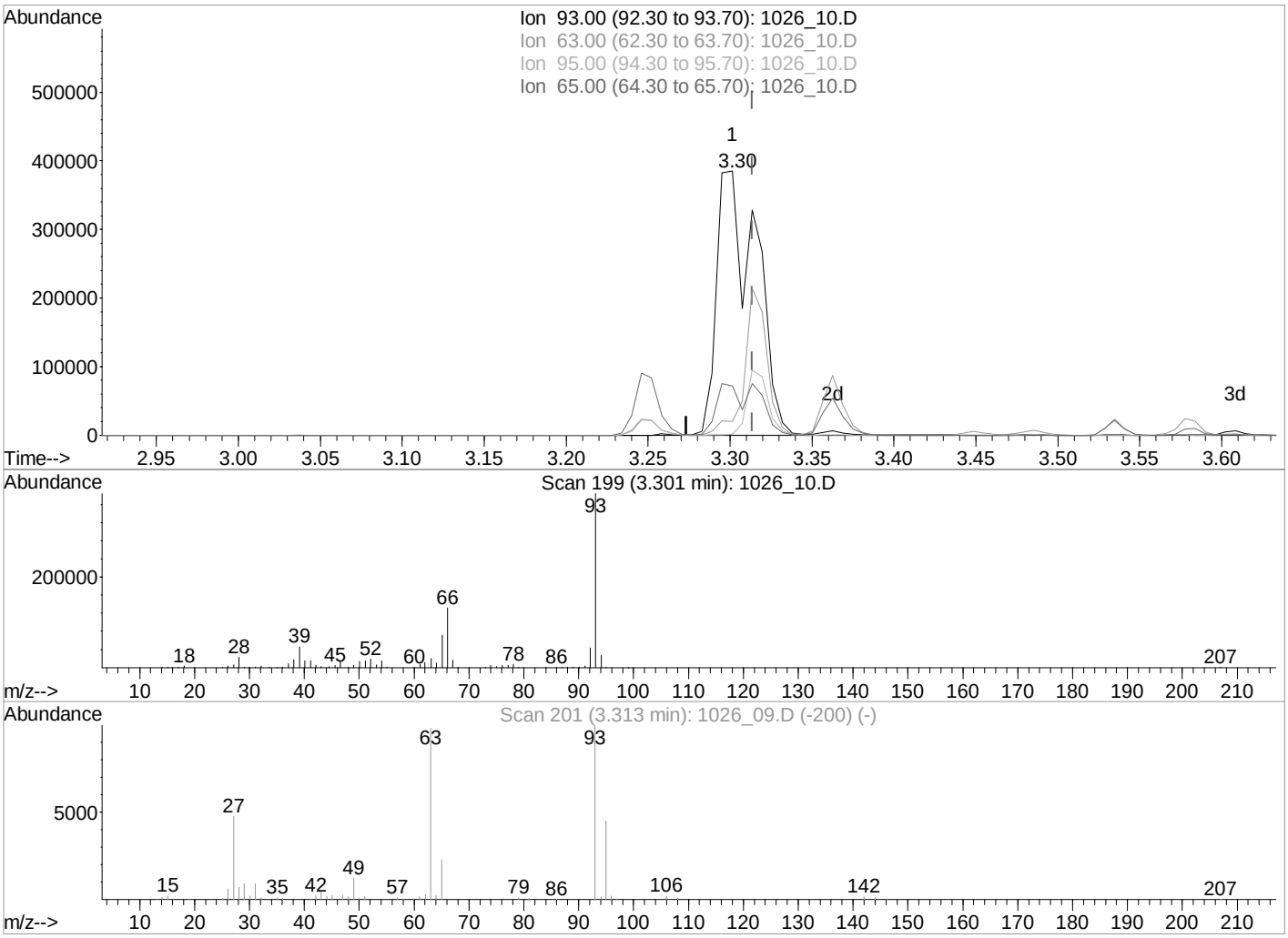
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:31 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 47018.5439590 ppb

Qvalue = 42

response 636058

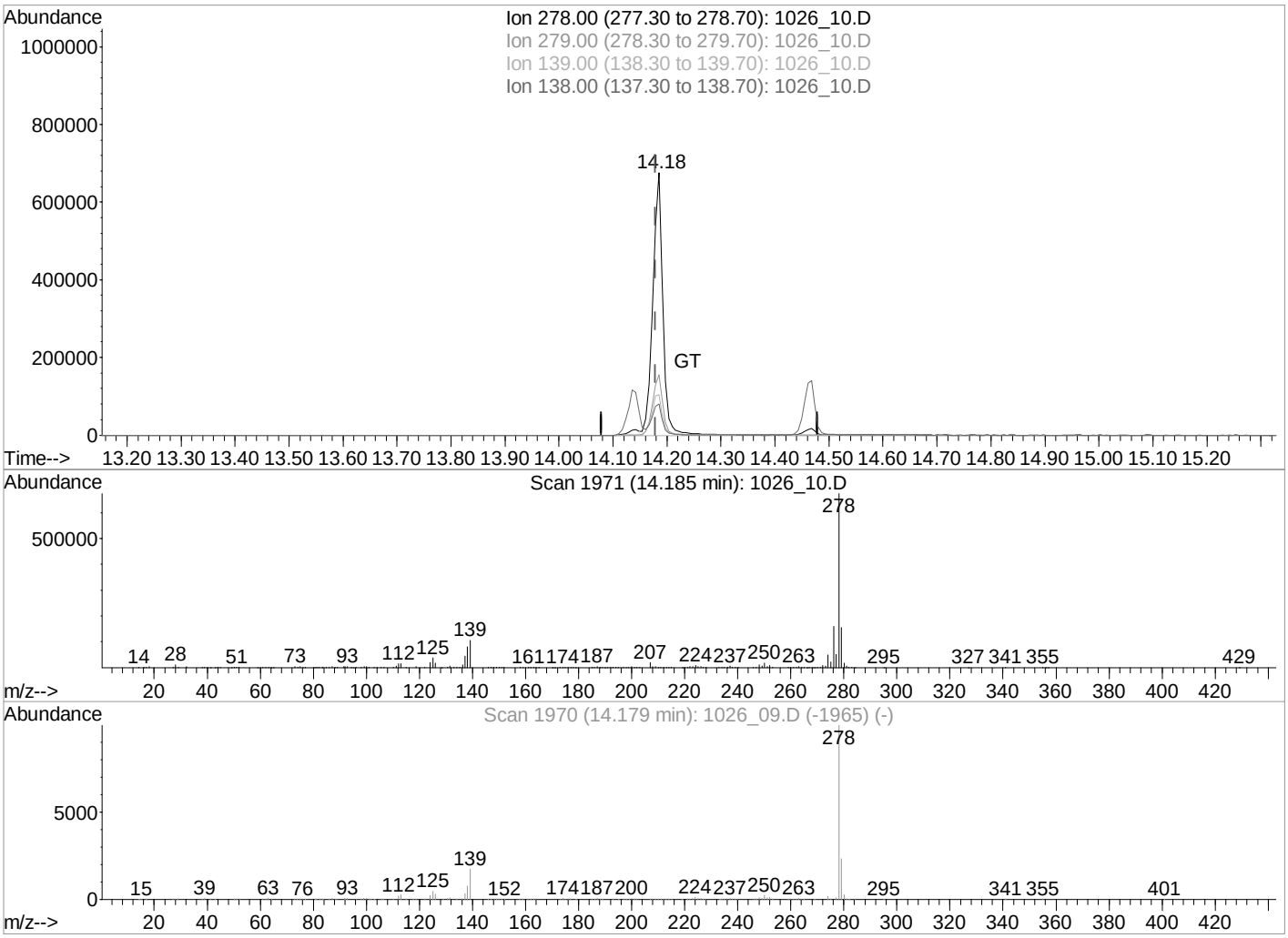
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.02#
95.00	28.70	0.32#
65.00	22.20	18.53

1026_10.D S804J26V.M Thu Oct 27 06:32:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(99) Dibenz(a,h)anthracene (MT)

14.18min (+0.006) 21419.7805079 ppb m

response 878674

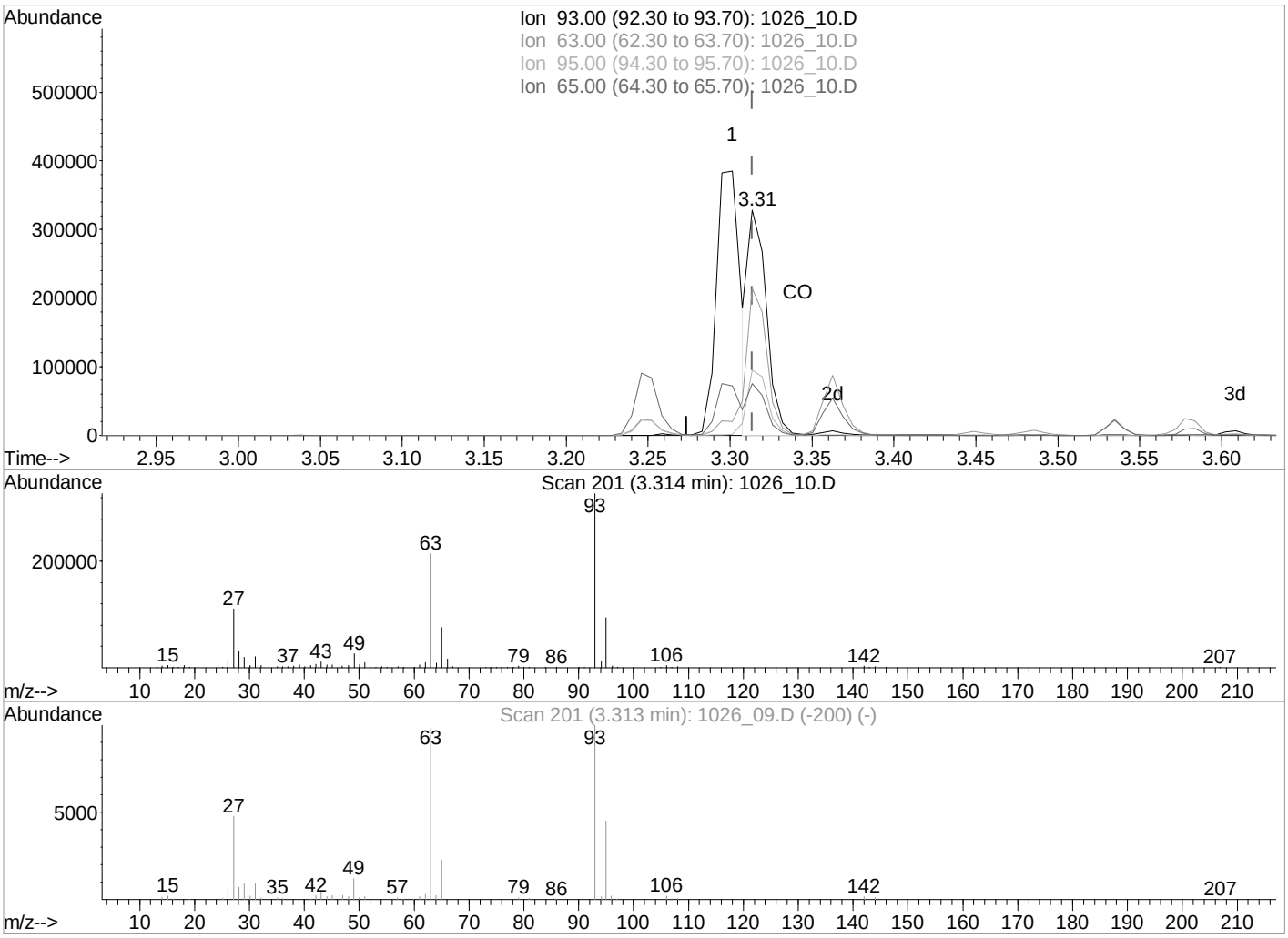
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.07
139.00	17.00	15.43
138.00	12.30	11.99

1026_10.D S804J26V.M Thu Oct 27 06:33:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (+0.000) 18870.7537707 ppb m

response 255280

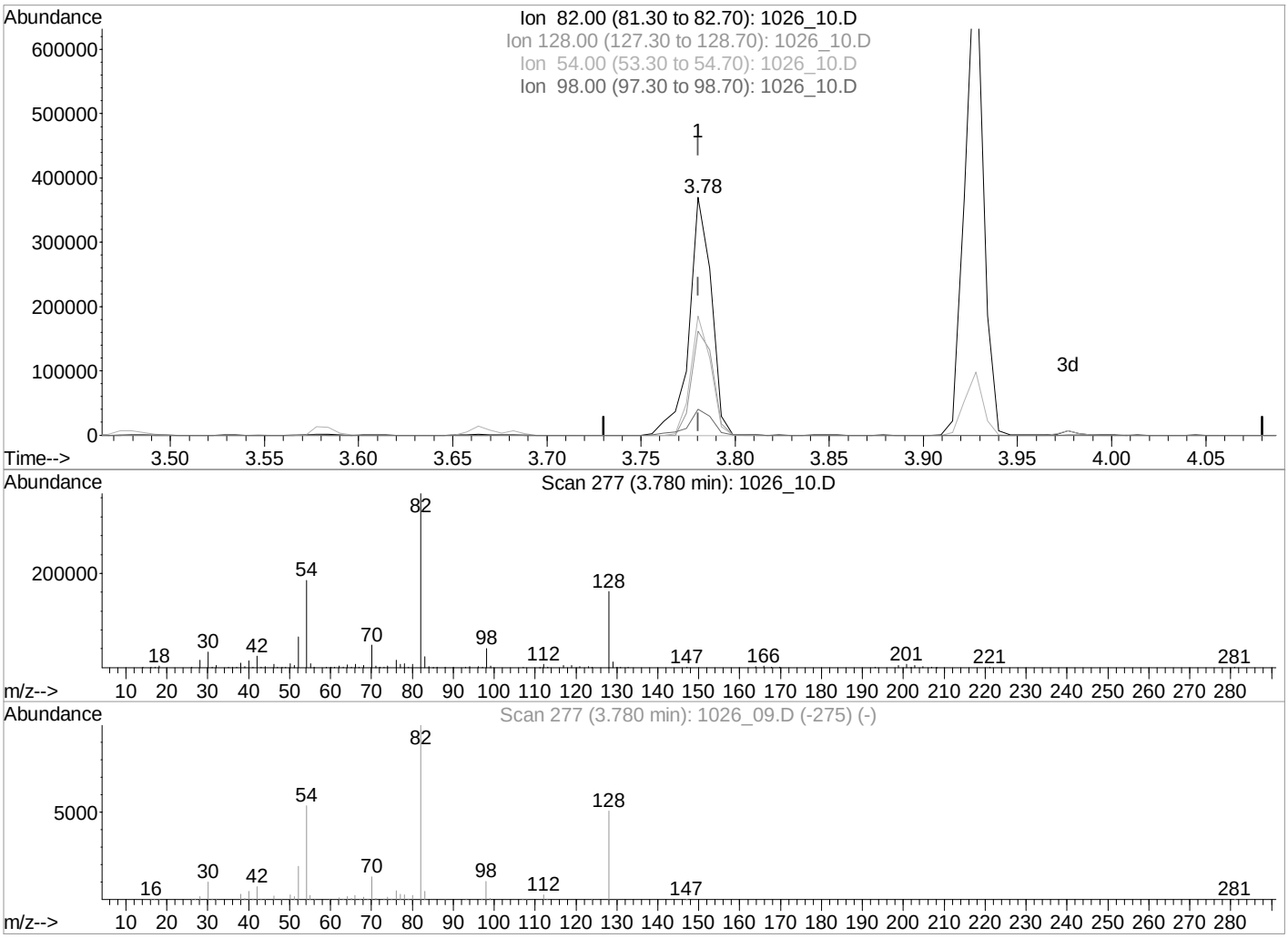
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.29
95.00	28.70	28.71
65.00	22.20	22.98

1026_10.D S804J26V.M Thu Oct 27 06:32:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 21736.1460864 ppb

Qvalue = 98

response 302199

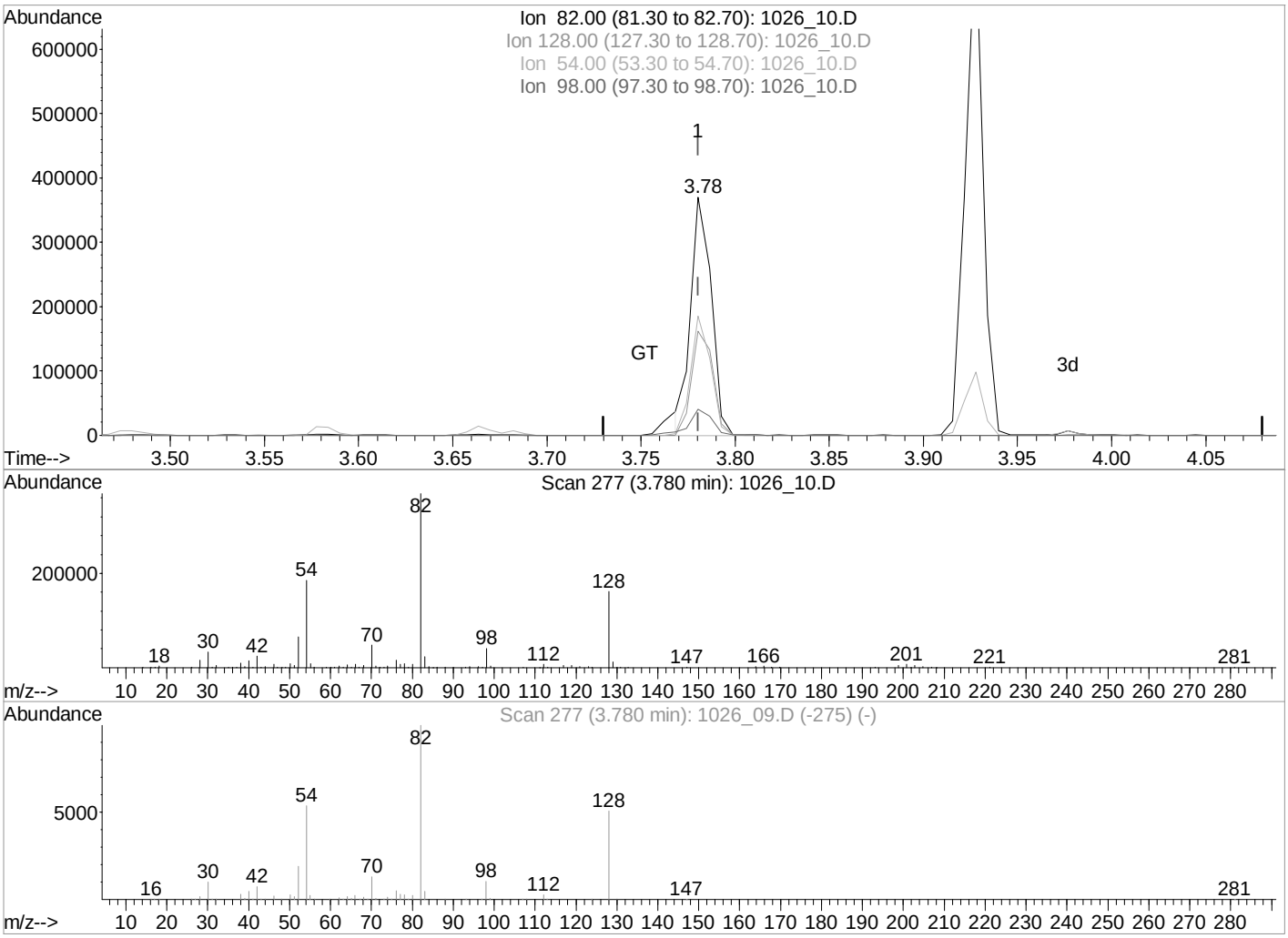
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.68
54.00	49.10	50.05
98.00	10.80	10.93

1026_10.D S804J26V.M Thu Oct 27 06:32:23 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(24) Nitrobenzene-d5 (S)

3.78min (+0.000) 20123.4078988 ppb m

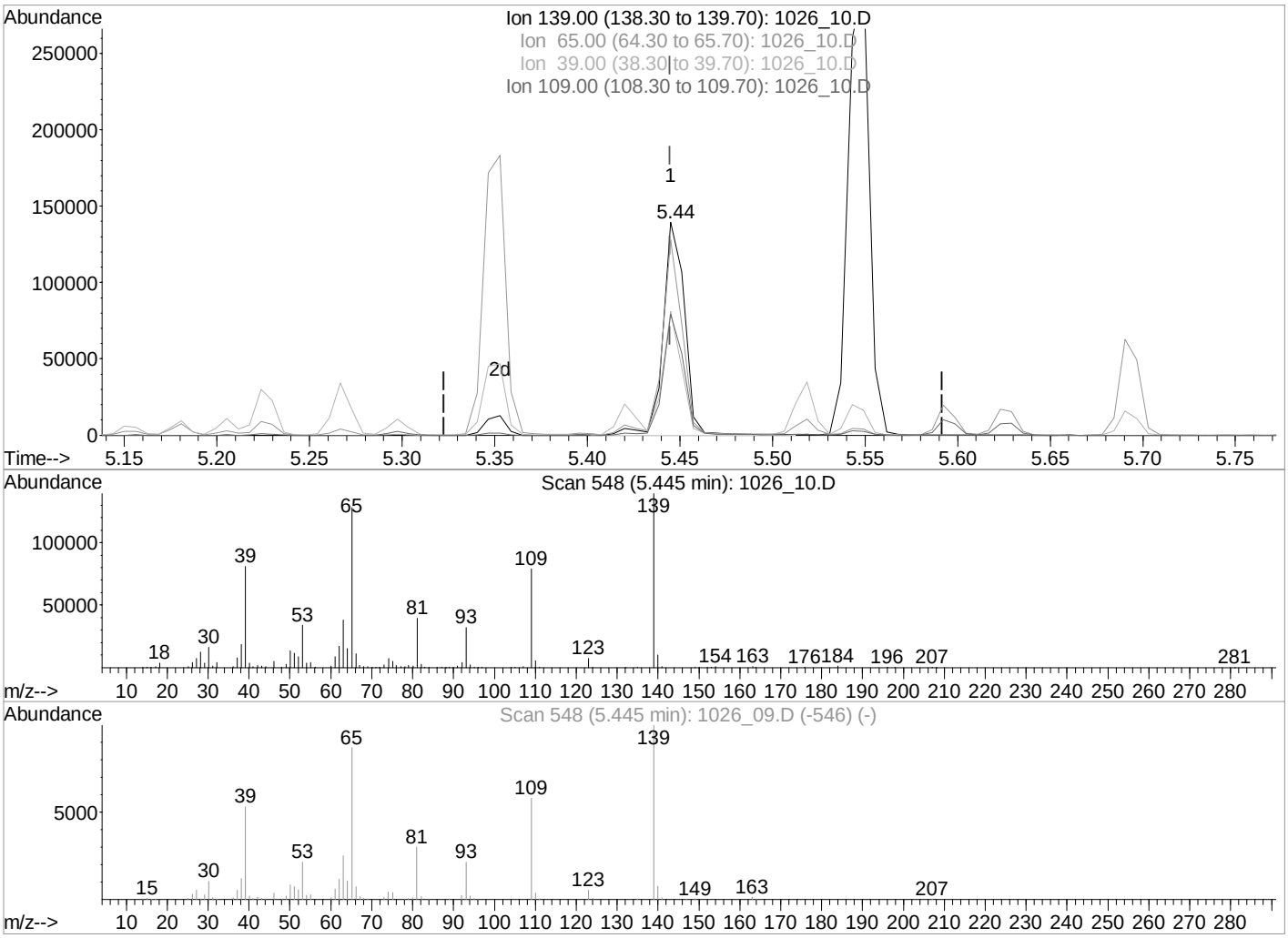
response 279777

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	43.68
54.00	49.10	50.05
98.00	10.80	10.93

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(63) 4-Nitrophenol (MPT)

5.44min (+0.000) 26224.8426455 ppb

Qvalue = 97

response 113109

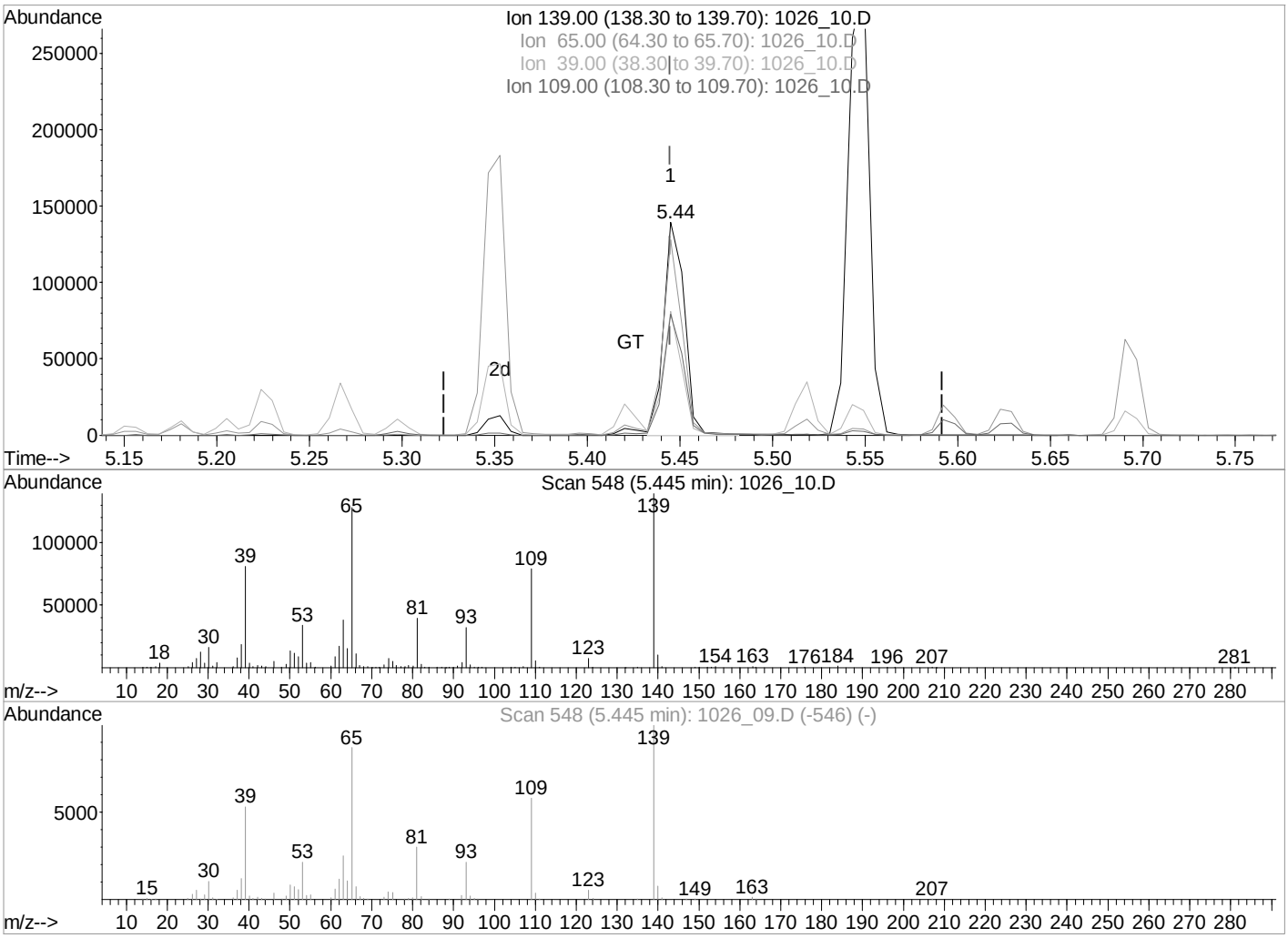
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	90.97
39.00	54.80	58.05
109.00	58.30	56.45

1026_10.D S804J26V.M Thu Oct 27 06:32:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(63) 4-Nitrophenol (MPT)

5.44min (+0.000) 25096.4062774 ppb m

response 108242

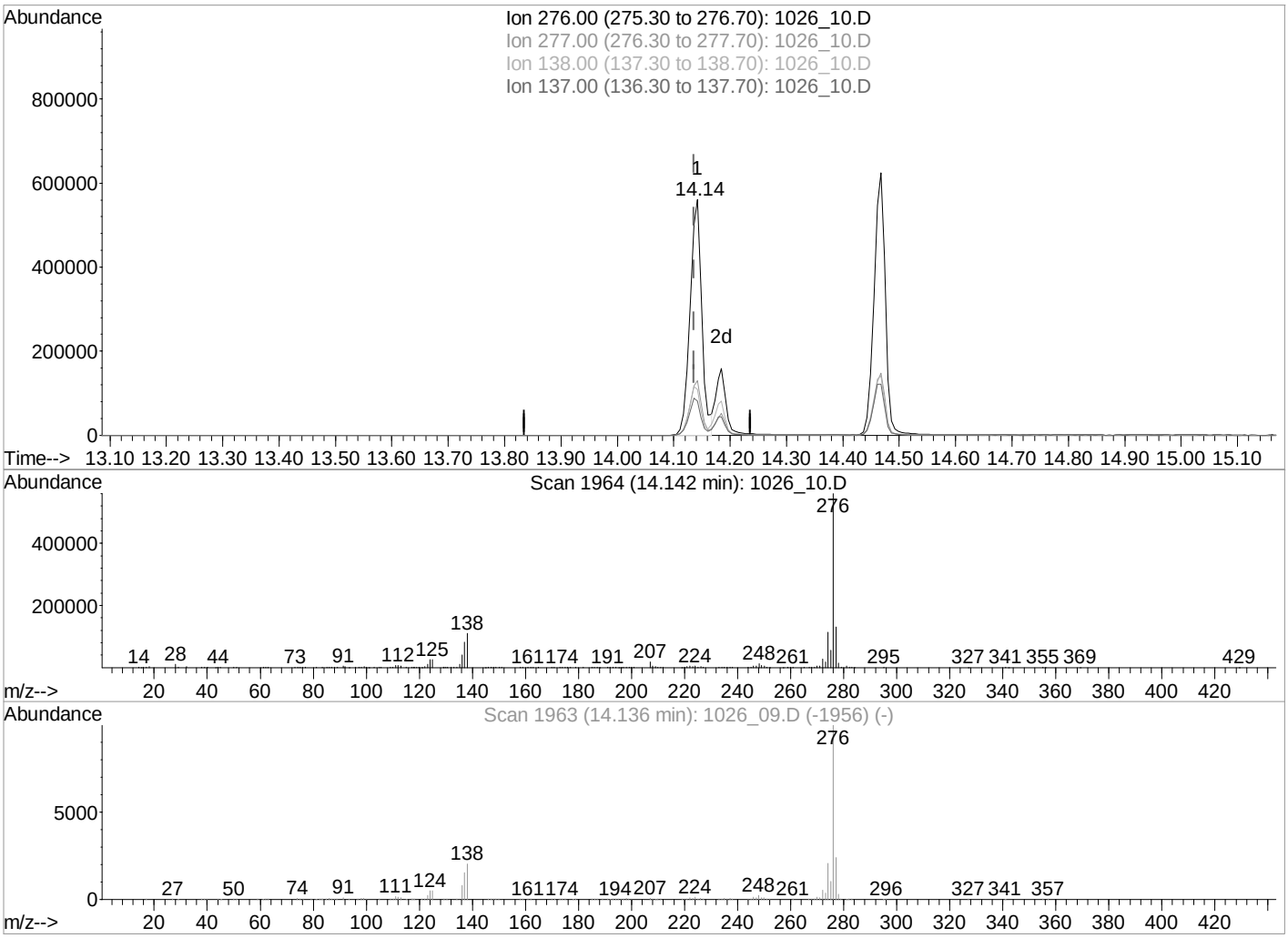
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	91.79
39.00	54.80	58.24
109.00	58.30	56.69

1026_10.D S804J26V.M Thu Oct 27 06:32:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:32 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.14min (+0.006) 22258.1071294 ppb

Qvalue = 98

response 800689

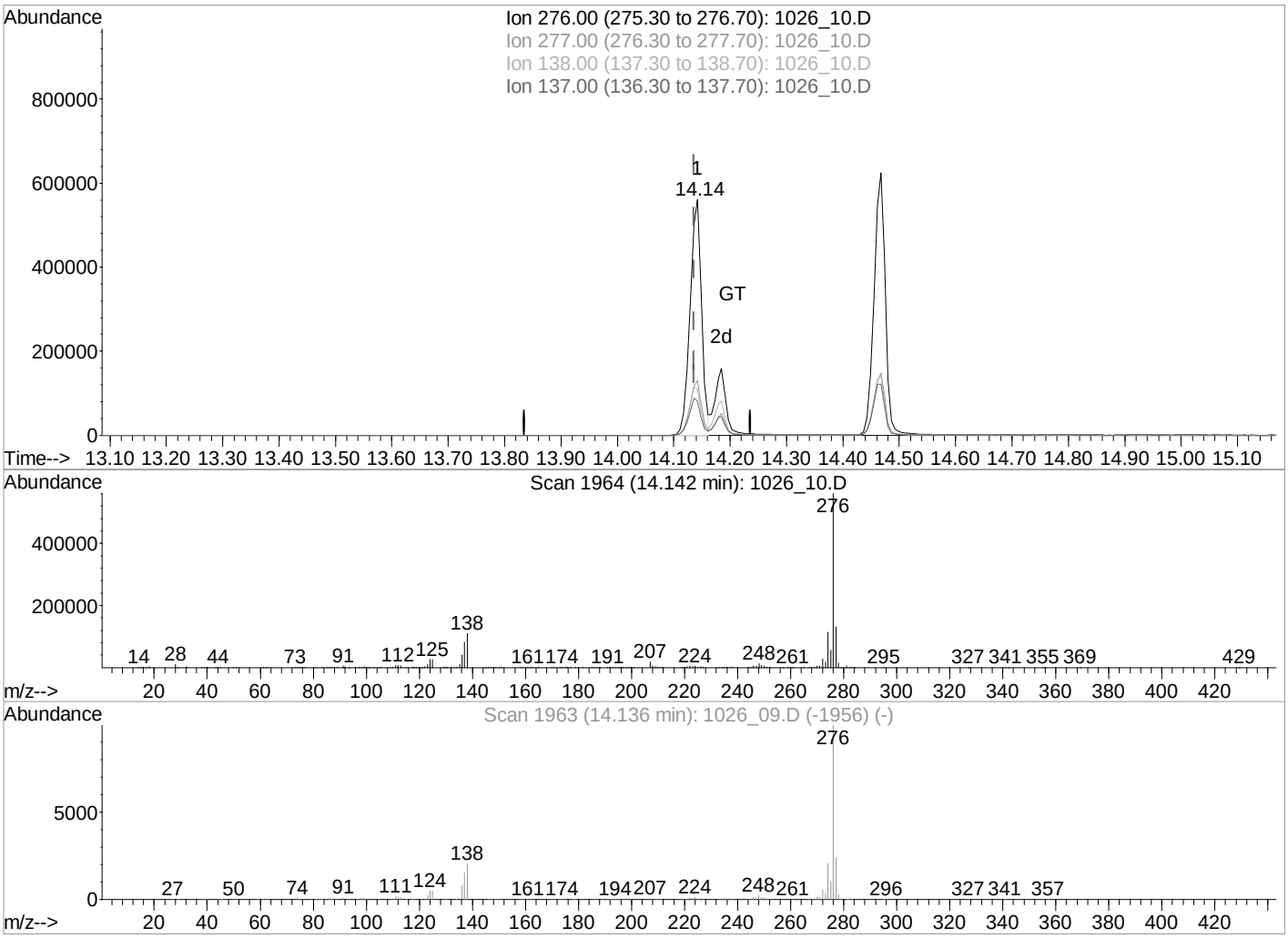
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.19
138.00	20.20	19.52
137.00	15.30	14.43

1026_10.D S804J26V.M Thu Oct 27 06:33:09 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(98) Indeno(1,2,3-cd)pyrene (MT)

14.14min (+0.006) 21758.3422395 ppb m

response 782711

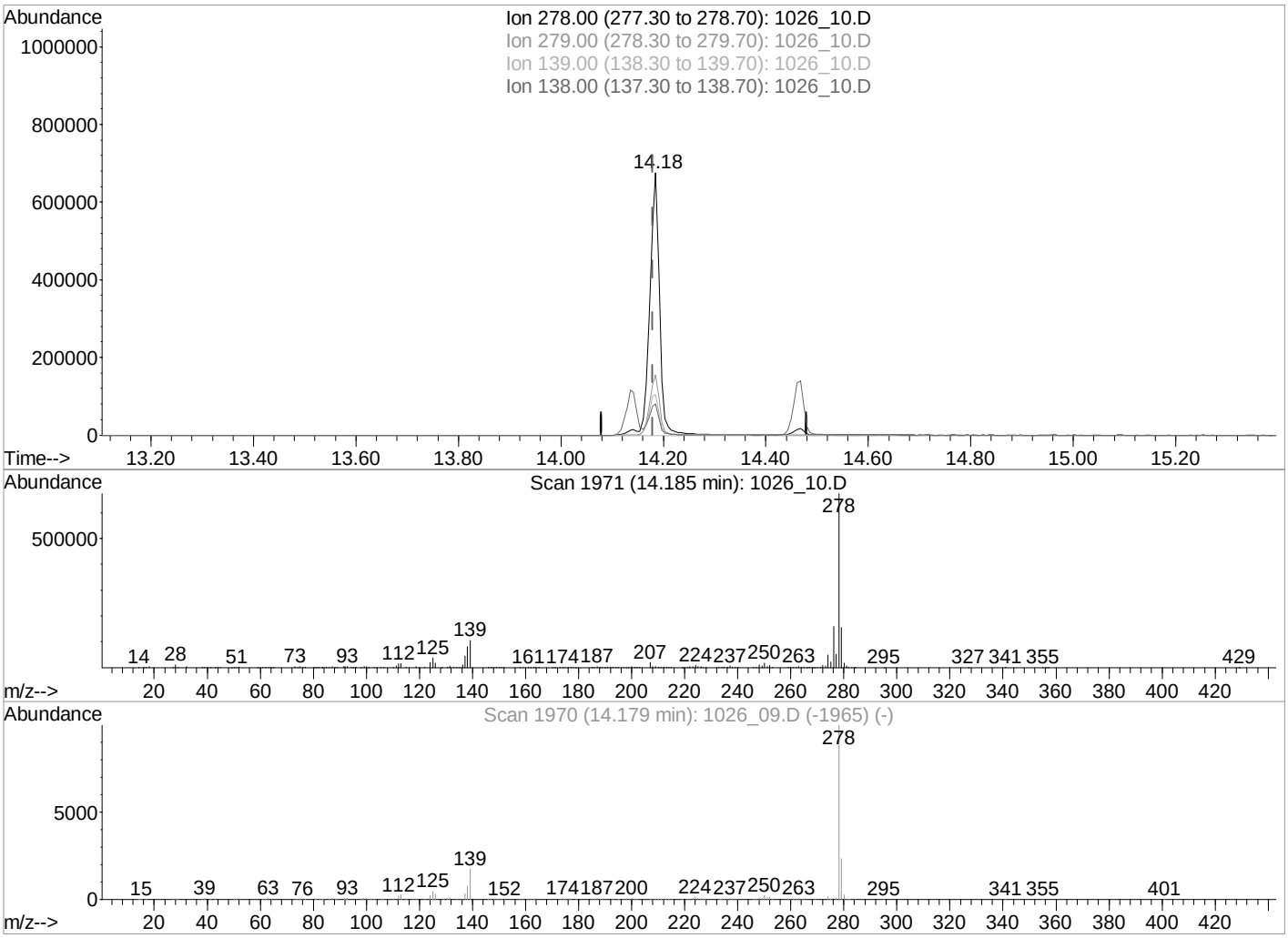
Ion	Exp%	Act%
276.00	100	100
277.00	24.10	23.19
138.00	20.20	19.52
137.00	15.30	14.43

1026_10.D S804J26V.M Thu Oct 27 06:33:15 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 10.D Vial: 7
Acq On : 27 Oct 2022 12:34 am Operator: 917
Sample : STD SVMS 20K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:33 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:31:28 2022
Response via : Multiple Level Calibration



TIC: 1026_10.D

(99) Dibenz(a,h)anthracene (MT)

14.18min (+0.006) 21974.8537230 ppb

Qvalue = 98

response 901444

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.07
139.00	17.00	15.43
138.00	12.30	11.95

1026_10.D S804J26V.M Thu Oct 27 06:33:20 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	82302	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	324359	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	167921	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	297499	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	300333	8000.00 ppb	0.00
94) Perylene-d12	12.29	264	296882	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	378681	30832.5742165 ppb	0.00
Spiked Amount 20000.000			Recovery = 154.16%		
7) Phenol-d5	3.25	99	491983	31365.3059420 ppb	0.00
Spiked Amount 20000.000			Recovery = 156.83%		
24) Nitrobenzene-d5	3.79	82	437804m	32130.9435740 ppb	0.00
Spiked Amount 10000.000			Recovery = 321.31%		
50) 2-Fluorobiphenyl	4.91	172	910635	29877.2059276 ppb	0.00
Spiked Amount 10000.000			Recovery = 298.77%		
73) 2,4,6-Tribromophenol	5.99	330	145998	37973.5401929 ppb	0.00
Spiked Amount 20000.000			Recovery = 189.87%		
87) p-Terphenyl-d14	7.99	244	1241039	30776.7417723 ppb	0.00
Spiked Amount 10000.000			Recovery = 307.77%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	417469	30564.9067245 ppb	99
3) N-Nitrosodimethylamine	2.23	42	192645	28508.1384059 ppb	99
5) Aniline	3.30	66	217747	31246.6003062 ppb #	94
6) bis(2-Chloroethyl)ether	3.31	93	416231m	32136.7226077 ppb	
8) Phenol	3.25	94	497926	31300.1151367 ppb	94
10) 2-Chlorophenol	3.36	128	413977	32017.9296196 ppb	98
11) n-Decane	3.36	41	219821	28364.8870181 ppb	99
12) 1,3-Dichlorobenzene	3.45	146	465340	29729.9203099 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	469844	30320.3712622 ppb	98
14) Benzyl Alcohol	3.53	79	328038	33208.8581223 ppb	97
15) 1,2-Dichlorobenzene	3.57	146	445708	30615.7538518 ppb	99
16) bis(2-Chloroisopropyl)ethe	3.61	121	139556	30483.1218948 ppb	97
17) 2,2-oxybis(1-chloropropane	3.61	121	139556	30483.1218948 ppb	97
18) 2-Methylphenol	3.58	108	372927	32160.1023785 ppb	98
19) Hexachloroethane	3.77	117	171030	30620.2796304 ppb	97
20) N-Nitrosodi-n-propylamine	3.68	70	287347	33179.7190213 ppb	94
21) 3&4-Methyl phenol	3.67	107	421704	32549.4418836 ppb	97
25) Nitrobenzene	3.79	77	426849	31623.3218398 ppb	97
26) Isophorone	3.93	82	800885	33604.1896868 ppb	95
27) 2-Nitrophenol	3.98	139	226401	34588.9147143 ppb	98
28) 2,4-Dimethylphenol	3.98	107	398289	31990.4416215 ppb	99
29) bis(2-Chlorethoxy)methane	4.04	93	469908	30790.2272363 ppb	97
30) 2,4-Dichlorophenol	4.12	162	332982	32146.7381818 ppb	97
32) 1,2,4-Trichlorobenzene	4.18	180	378446	29732.8703498 ppb	95
34) Naphthalene	4.23	128	1241009	30449.6283364 ppb	99
35) 4-Chloroaniline	4.25	65	136647	32518.3516703 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	217313	29924.2522689 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	322245	33241.7744494 ppb	97
41) 2-Methylnaphthalene	4.67	142	820629	31338.9010004 ppb	99
42) 1-Methylnaphthalene	4.74	142	772788	30895.0157081 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	259567	31953.6267167 ppb	95
48) 2,4,6-Trichlorophenol	4.85	196	244595	32674.6091735 ppb	96
49) 2,4,5-Trichlorophenol	4.87	196	261974	34165.4037127 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

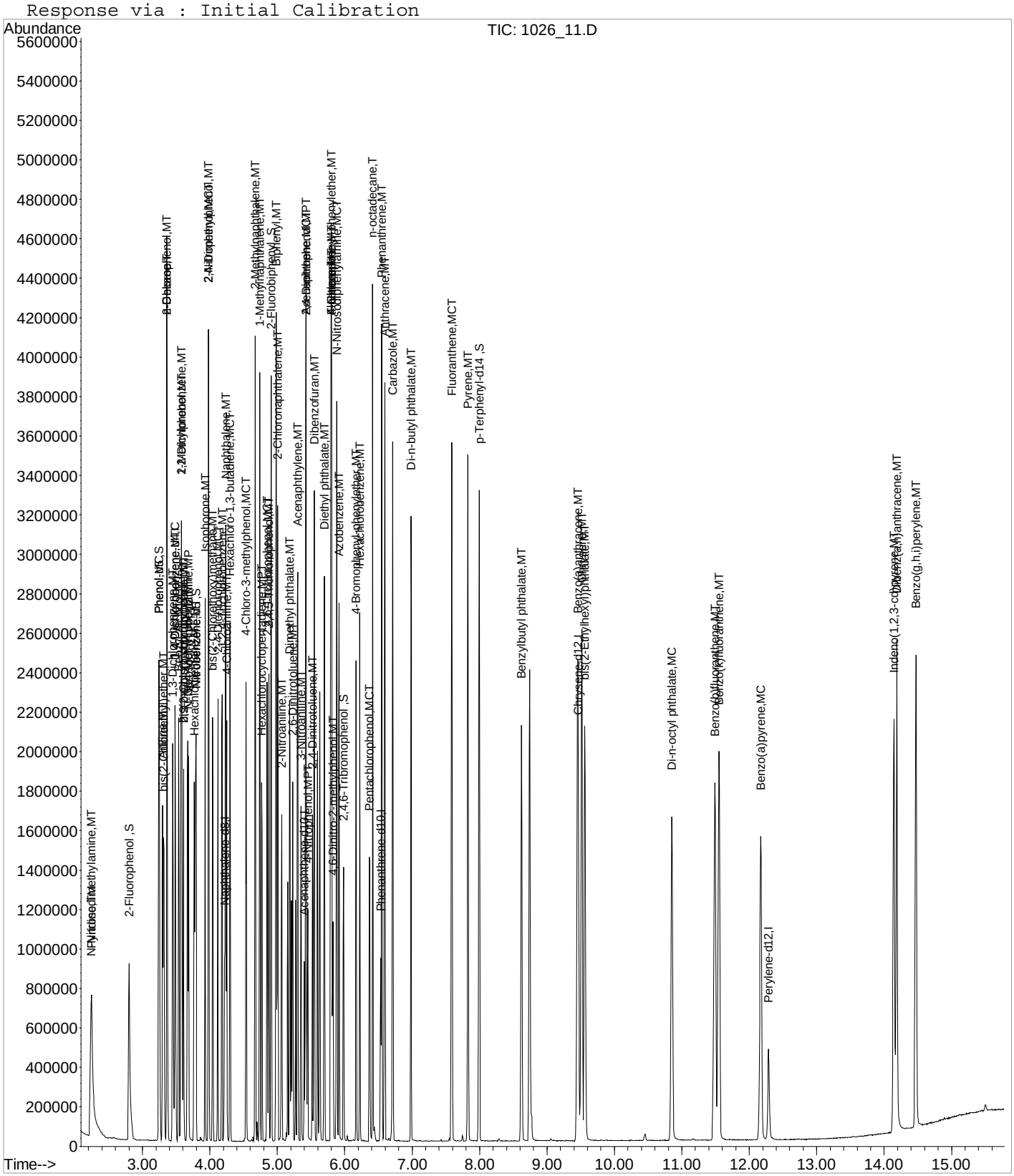
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1025905	30246.3651131	ppb		100
52)	2-Chloronaphthalene	5.00	162	758241	30410.9328321	ppb		98
53)	2-Nitroaniline	5.06	138	249822	36627.6785415	ppb		98
54)	Acenaphthylene	5.30	152	1177813	32101.6454384	ppb		100
55)	Dimethyl phthalate	5.19	163	803435	31562.0996665	ppb		96
56)	2,6-Dinitrotoluene	5.23	165	190926	33677.3367183	ppb		86
57)	3-Nitroaniline	5.35	138	205851	34904.2096291	ppb		91
58)	Acenaphthene	5.43	153	781574	30744.8254974	ppb		99
59)	2,4-Dinitrophenol	5.43	184	110963	44603.9270909	ppb	#	42
60)	Dibenzofuran	5.55	168	1048186	29999.9264600	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	254036	36094.5340247	ppb		89
63)	4-Nitrophenol	5.45	139	163359m	36143.7985185	ppb		
64)	Fluorene	5.81	166	890669	31171.4261150	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	419418	30414.2473280	ppb		97
66)	Diethyl phthalate	5.70	149	786370	30847.0672756	ppb		99
67)	4-Nitroaniline	5.81	138	153264	26595.3831173	ppb		97
68)	Azobenzene	5.92	77	852003	32301.3472486	ppb		99
71)	4,6-Dinitro-2-methylphenol	5.83	198	135088	42307.4696278	ppb		90
72)	N-Nitrosodiphenylamine	5.88	169	743493	33823.5643026	ppb		100
74)	4-Bromophenyl-phenylether	6.17	248	245884	32764.1048555	ppb		93
75)	Hexachlorobenzene	6.22	284	303617	31176.1724334	ppb		99
76)	n-octadecane	6.42	55	125544	34867.2780331	ppb		97
77)	Pentachlorophenol	6.37	266	172451	40233.2467643	ppb		95
78)	Phenanthrene	6.55	178	1245714	30801.9427818	ppb		99
79)	Anthracene	6.59	178	1297253	33645.4239337	ppb		99
80)	Carbazole	6.71	167	1154780	34427.6026515	ppb		100
81)	Di-n-butyl phthalate	6.98	149	1439992	39127.7445543	ppb		100
83)	Fluoranthene	7.59	202	1395218	35040.5521315	ppb		99
86)	Pyrene	7.83	202	1443621	31354.4119700	ppb		99
88)	Benzylbutyl phthalate	8.62	149	563984	38129.6240618	ppb		96
90)	Benzo(a)anthracene	9.46	228	1337839	32622.6842582	ppb		99
91)	Chrysene	9.52	228	1314062	29923.7406479	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	816179	40008.4209381	ppb		99
93)	Di-n-octyl phthalate	10.85	149	1304502	43046.5705735	ppb		100
95)	Benzo(b)fluoranthene	11.49	252	1382715	34143.5973458	ppb		99
96)	Benzo(k)fluoranthene	11.55	252	1407551	32774.0455070	ppb		100
97)	Benzo(a)pyrene	12.17	252	1185295	35880.5551138	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	1217303	33982.0017274	ppb		99
99)	Dibenz(a,h)anthracene	14.19	278	1337774m	32858.1605619	ppb		
100)	Benzo(g,h,i)perylene	14.47	276	1313974	31389.4187111	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: S804J26V.RES

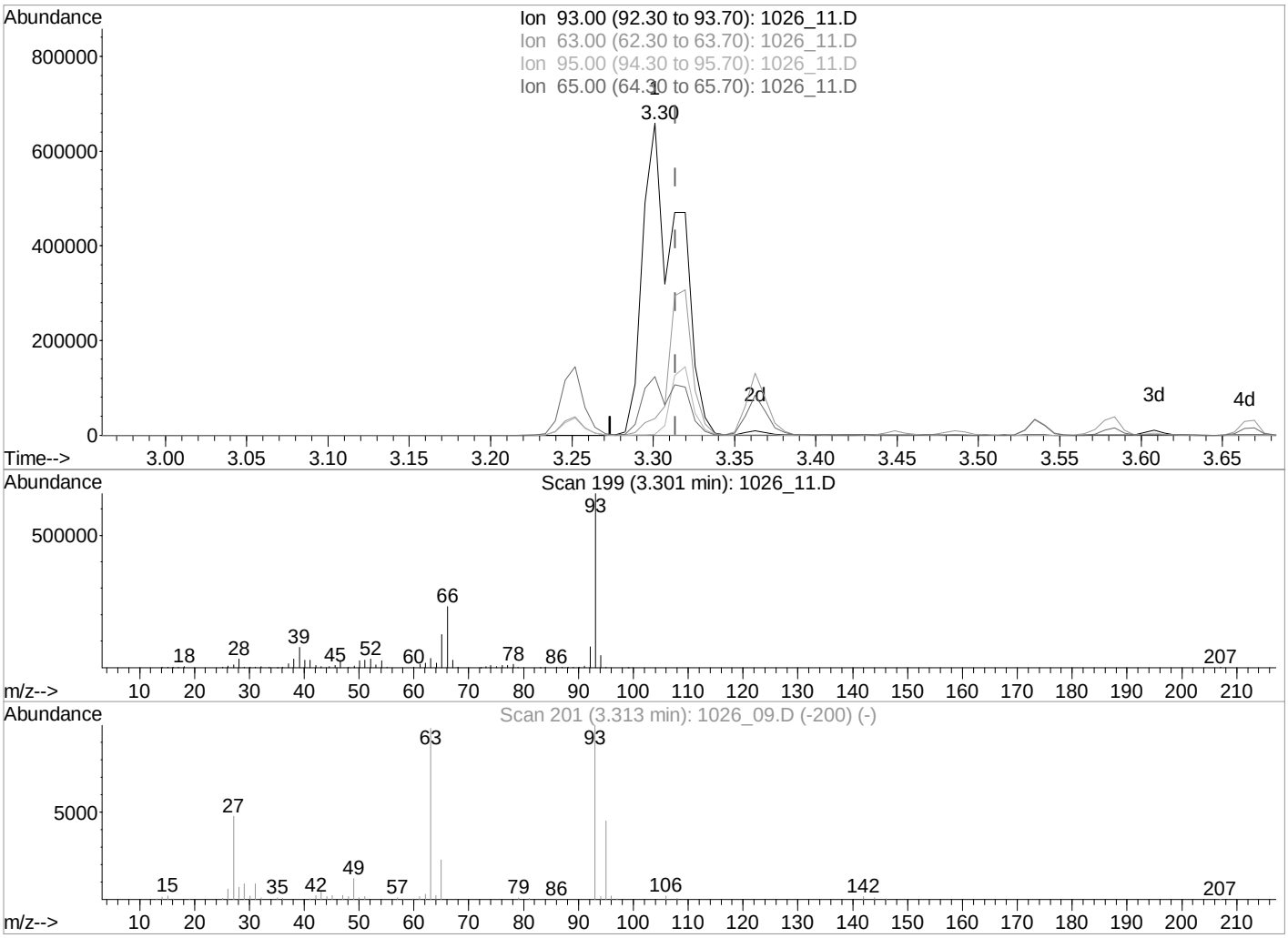
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 76652.2651471 ppb

Qvalue = 42

response 992791

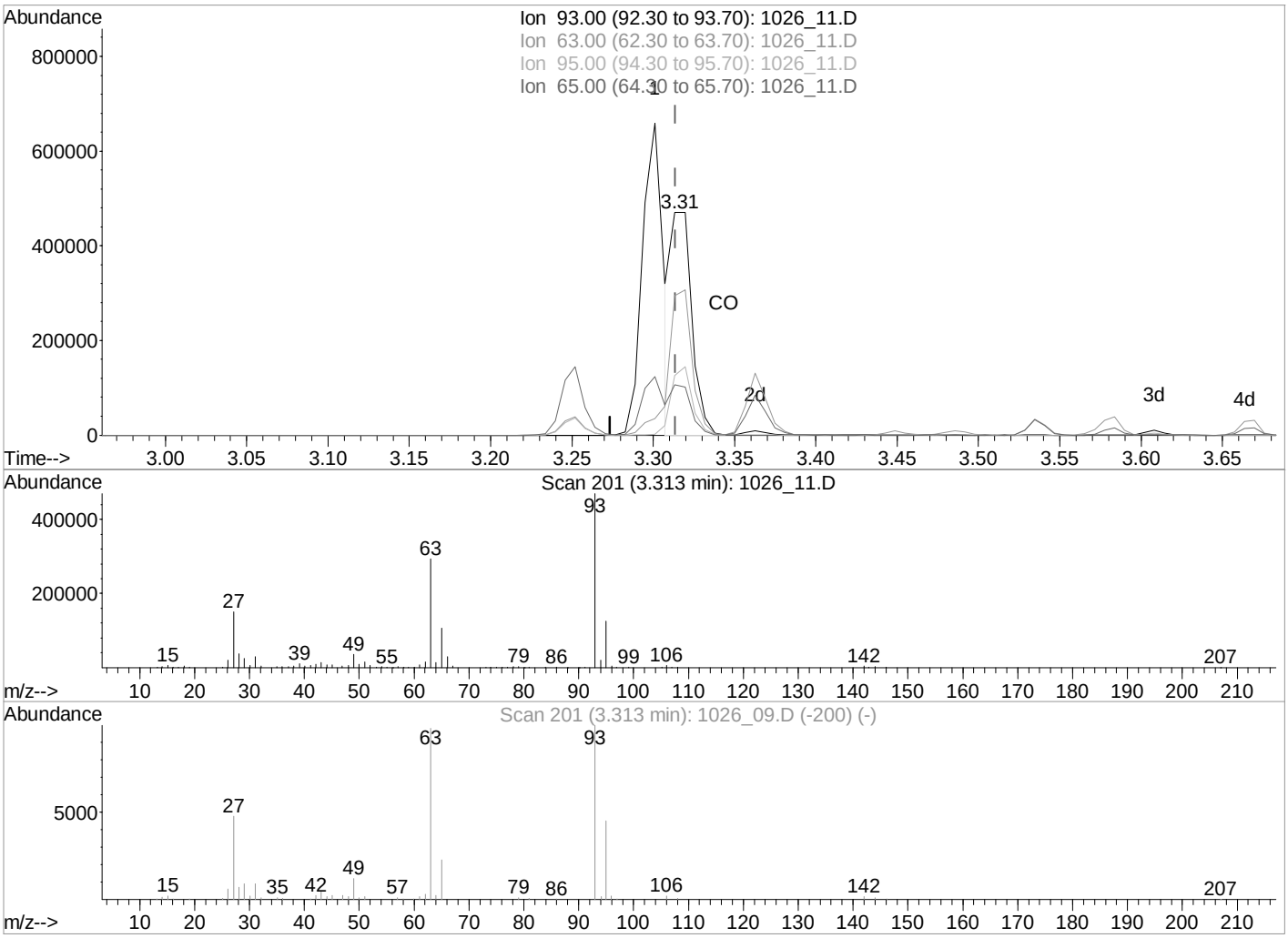
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.21#
95.00	28.70	0.26#
65.00	22.20	18.64

1026_11.D S804J26V.M Thu Oct 27 06:35:28 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 32136.7226077 ppb m

response 416231

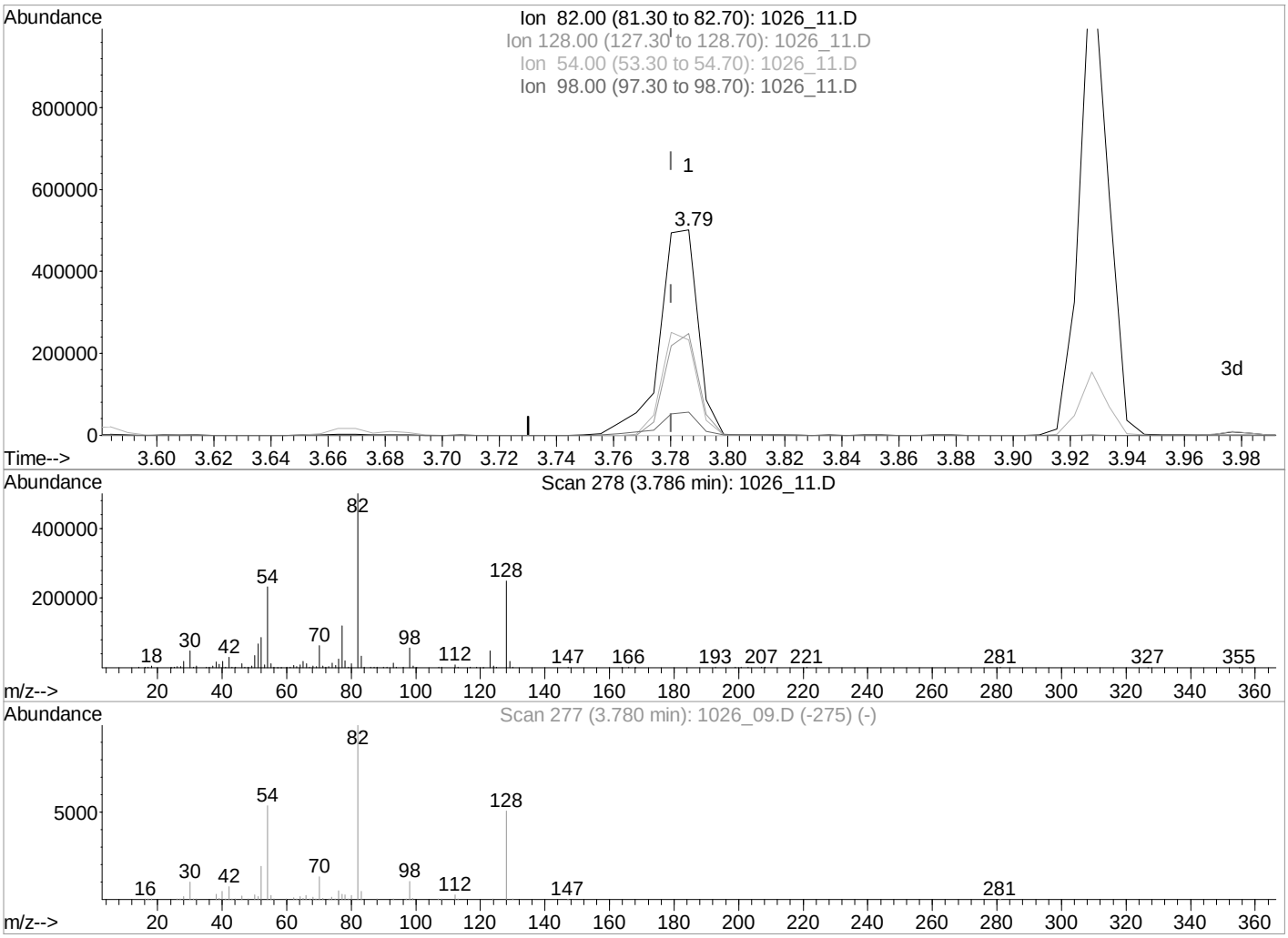
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	62.54
95.00	28.70	26.76
65.00	22.20	22.58

1026_11.D S804J26V.M Thu Oct 27 06:35:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 34523.6421844 ppb

Qvalue = 95

response 470406

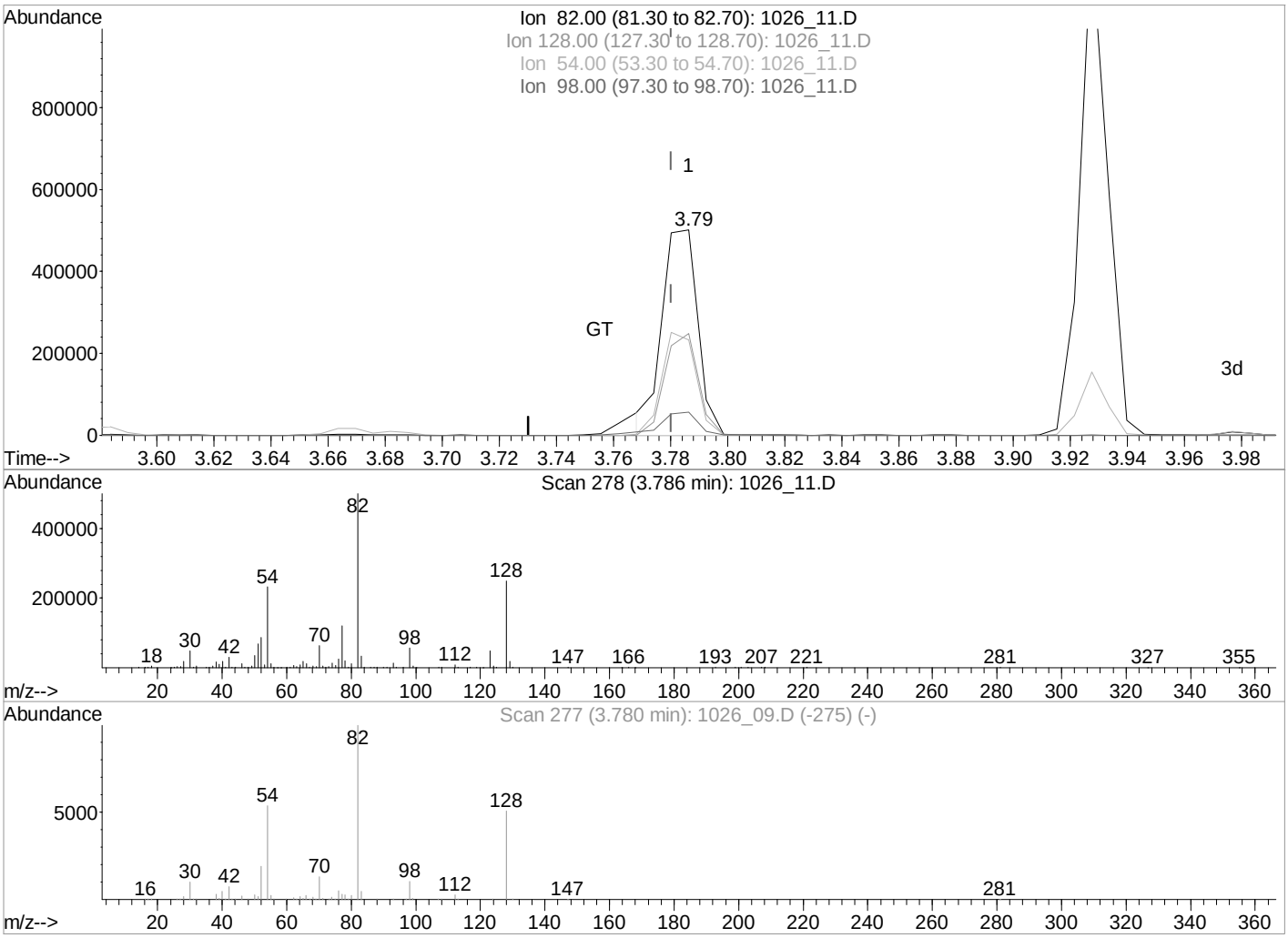
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.53
54.00	49.10	46.47
98.00	10.80	11.32

1026_11.D S804J26V.M Thu Oct 27 06:35:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 32130.9435740 ppb m

response 437804

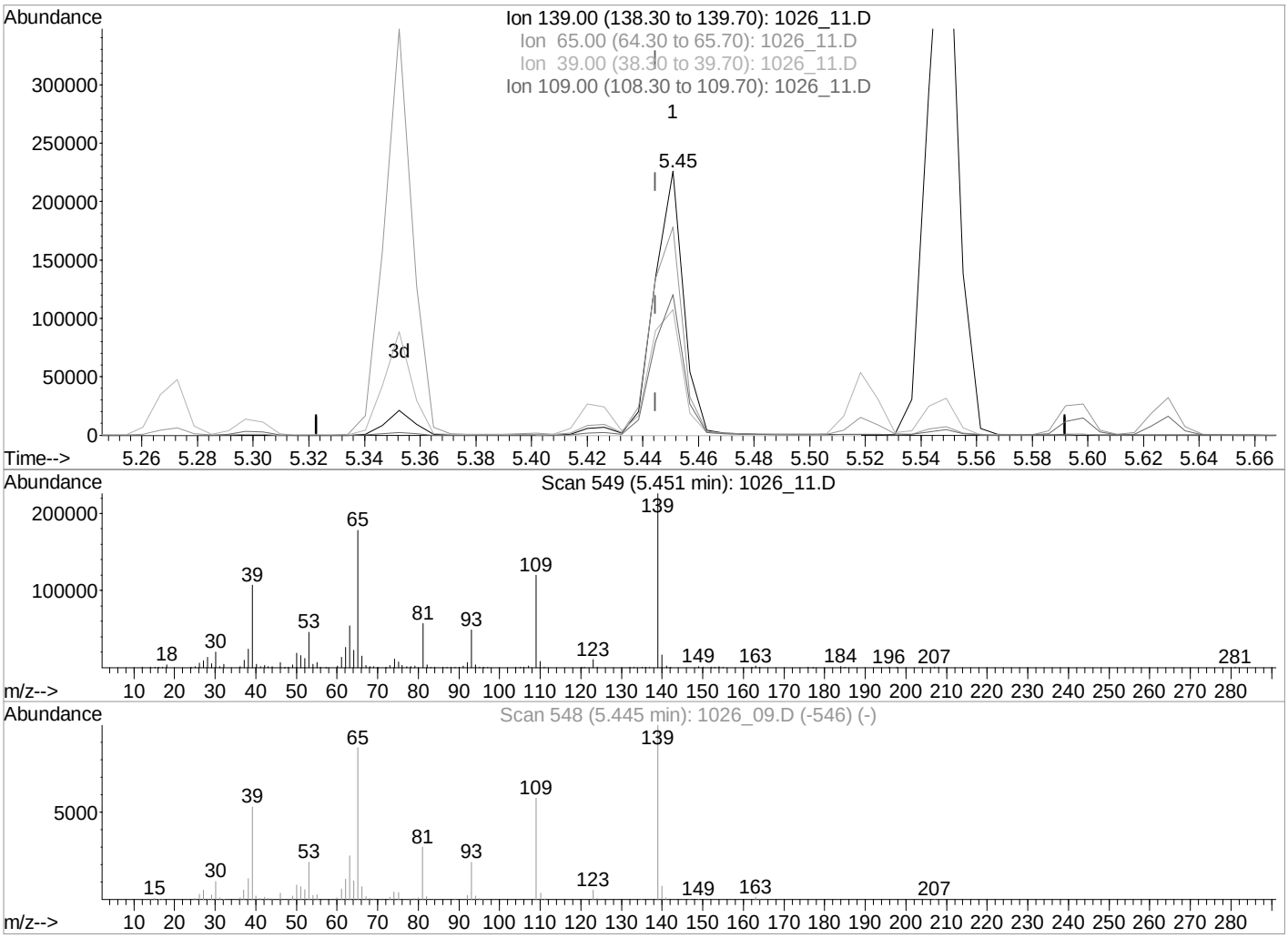
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.53
54.00	49.10	46.47
98.00	10.80	11.32

1026_11.D S804J26V.M Thu Oct 27 06:35:52 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:35 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 37659.8295143 ppb

Qvalue = 90

response 170211

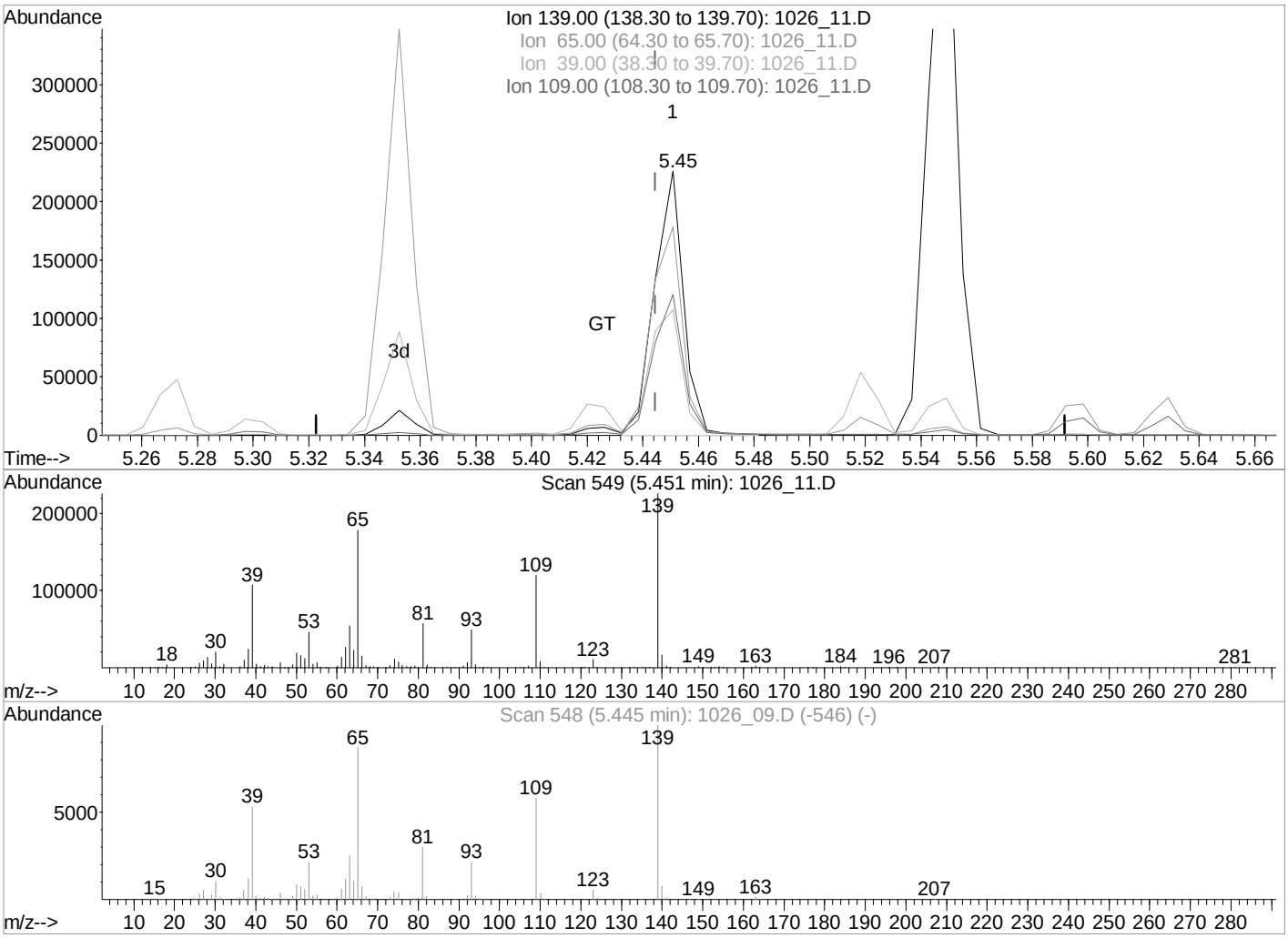
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	77.98
39.00	54.80	47.30
109.00	58.30	53.01

1026_11.D S804J26V.M Thu Oct 27 06:36:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 36143.7985185 ppb m

response 163359

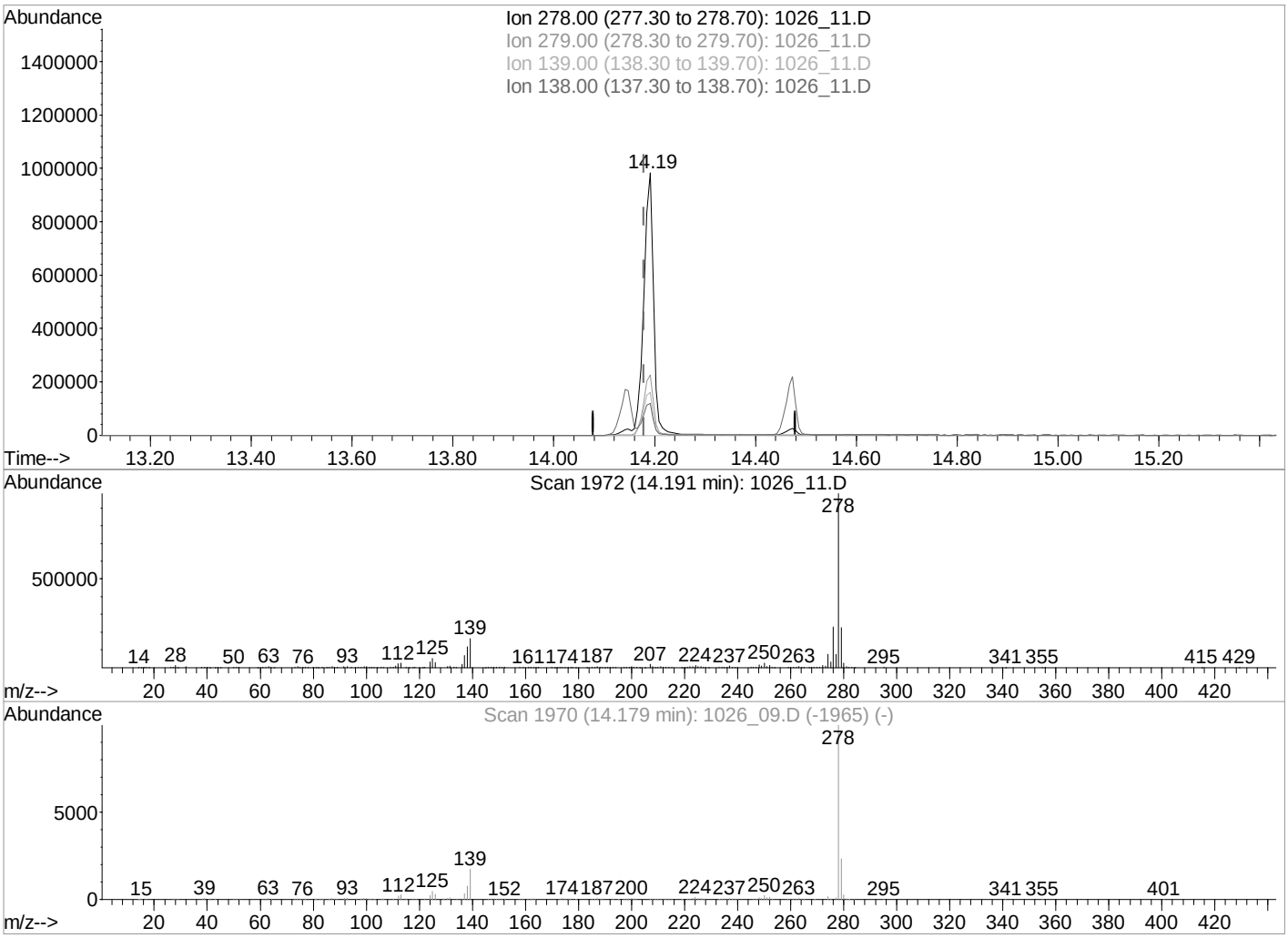
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	78.77
39.00	54.80	47.46
109.00	58.30	53.17

1026_11.D S804J26V.M Thu Oct 27 06:36:20 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 33787.5306045 ppb

Qvalue = 99

response 1375612

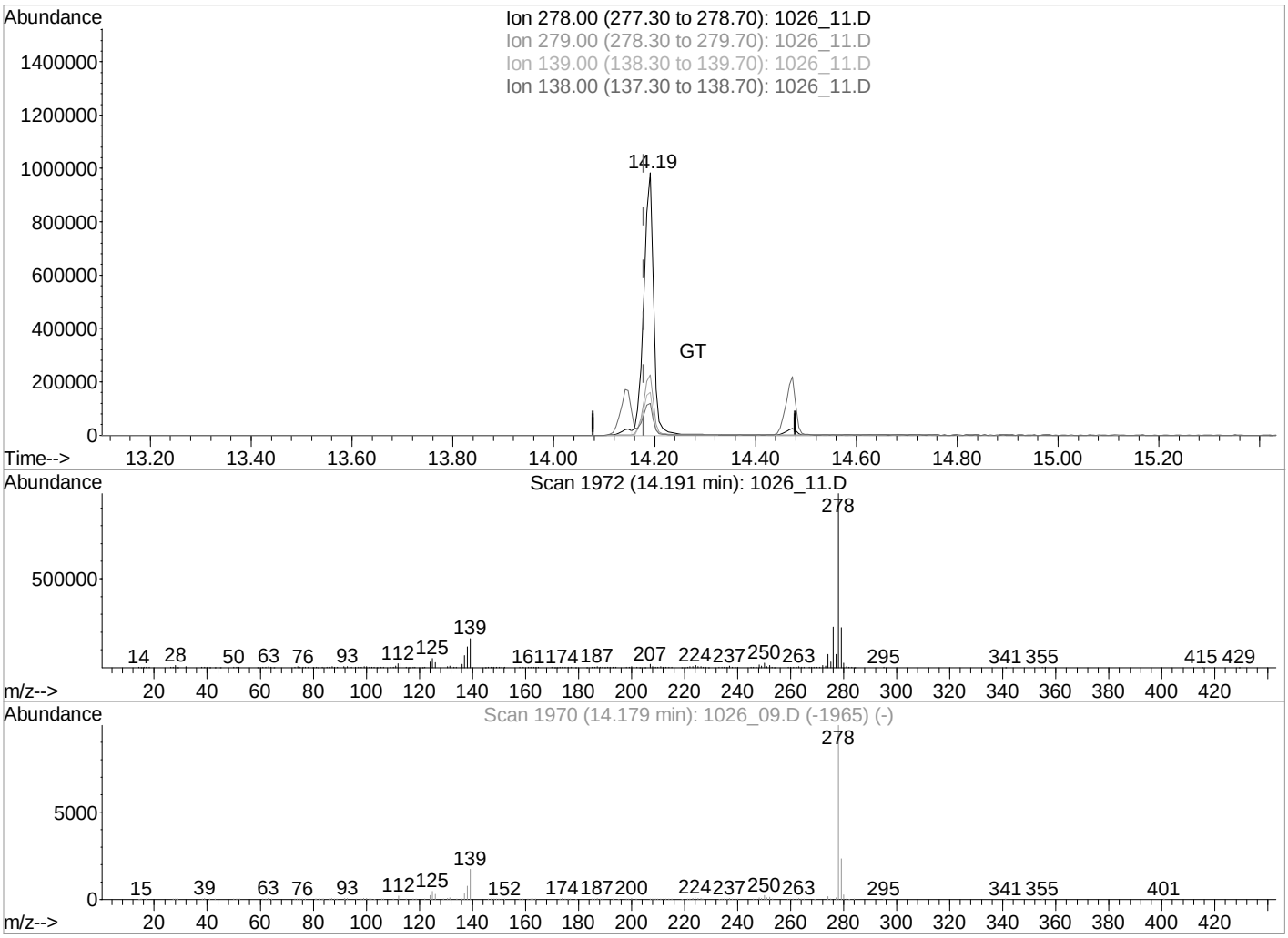
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	22.99
139.00	17.00	16.43
138.00	12.30	11.99

1026_11.D S804J26V.M Thu Oct 27 06:36:40 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 11.D Vial: 8
Acq On : 27 Oct 2022 12:55 am Operator: 917
Sample : STD SVMS 30K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:36 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:33:36 2022
Response via : Multiple Level Calibration



TIC: 1026_11.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 32858.1605619 ppb m

response 1337774

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	22.99
139.00	17.00	16.43
138.00	12.30	12.03

1026_11.D S804J26V.M Thu Oct 27 06:36:46 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84476	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	335930	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	174068	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	302662	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	315653	8000.00 ppb	0.01
94) Perylene-d12	12.29	264	308379	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	515190	40679.5914699 ppb	0.00
Spiked Amount 20000.000			Recovery = 203.40%		
7) Phenol-d5	3.25	99	674185	41559.8390598 ppb	0.00
Spiked Amount 20000.000			Recovery = 207.80%		
24) Nitrobenzene-d5	3.79	82	565151m	39579.8537449 ppb	0.00
Spiked Amount 10000.000			Recovery = 395.80%		
50) 2-Fluorobiphenyl	4.91	172	1273555	40336.2752613 ppb	0.00
Spiked Amount 10000.000			Recovery = 403.36%		
73) 2,4,6-Tribromophenol	5.99	330	203157	49735.8298836 ppb	0.00
Spiked Amount 20000.000			Recovery = 248.68%		
87) p-Terphenyl-d14	7.99	244	1732338	40699.8610574 ppb	0.00
Spiked Amount 10000.000			Recovery = 407.00%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	569740	40512.7532753 ppb	99
3) N-Nitrosodimethylamine	2.23	42	257284	37403.7743054 ppb	98
5) Aniline	3.30	66	296336	41144.7748120 ppb #	94
6) bis(2-Chloroethyl)ether	3.32	93	570494m	42410.1958450 ppb	
8) Phenol	3.25	94	685821	41700.7036013 ppb	95
10) 2-Chlorophenol	3.36	128	564767	42084.4569583 ppb	98
11) n-Decane	3.36	41	295012	37427.5802480 ppb	97
12) 1,3-Dichlorobenzene	3.45	146	634385	39546.2616999 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	642366	40315.1365639 ppb	99
14) Benzyl Alcohol	3.53	79	454667	44058.1549561 ppb	97
15) 1,2-Dichlorobenzene	3.57	146	606523	40451.6021458 ppb	98
16) bis(2-Chloroisopropyl)ethe	3.61	121	189678	40256.9482598 ppb	99
17) 2,2-oxybis(1-chloropropane	3.61	121	189678	40256.9482598 ppb	99
18) 2-Methylphenol	3.58	108	515722	42815.9460205 ppb	98
19) Hexachloroethane	3.77	117	235837	40995.0896729 ppb	97
20) N-Nitrosodi-n-propylamine	3.69	70	395381	43707.3017350 ppb	99
21) 3&4-Methyl phenol	3.67	107	580402	43036.1853402 ppb	99
25) Nitrobenzene	3.79	77	584613	41445.7250569 ppb	96
26) Isophorone	3.93	82	1091348	43346.4570047 ppb	93
27) 2-Nitrophenol	3.98	139	308952	44442.0063692 ppb	98
28) 2,4-Dimethylphenol	3.98	107	550748	42245.0609590 ppb	95
29) bis(2-Chlorethoxy)methane	4.04	93	649713	40925.7200551 ppb	95
30) 2,4-Dichlorophenol	4.12	162	463445	42691.6191232 ppb	96
32) 1,2,4-Trichlorobenzene	4.18	180	519437	39462.8055294 ppb	96
34) Naphthalene	4.23	128	1727611m	40826.9278842 ppb	
35) 4-Chloroaniline	4.25	65	189622	42969.4974923 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	296208	39399.8297565 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	450226	44050.7961043 ppb	96
41) 2-Methylnaphthalene	4.67	142	1139804	41718.2197567 ppb	99
42) 1-Methylnaphthalene	4.74	142	1082961	41597.1843532 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	365341	42920.7155930 ppb	95
48) 2,4,6-Trichlorophenol	4.85	196	340826	43278.8721992 ppb	95
49) 2,4,5-Trichlorophenol	4.87	196	365793	44979.4648640 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

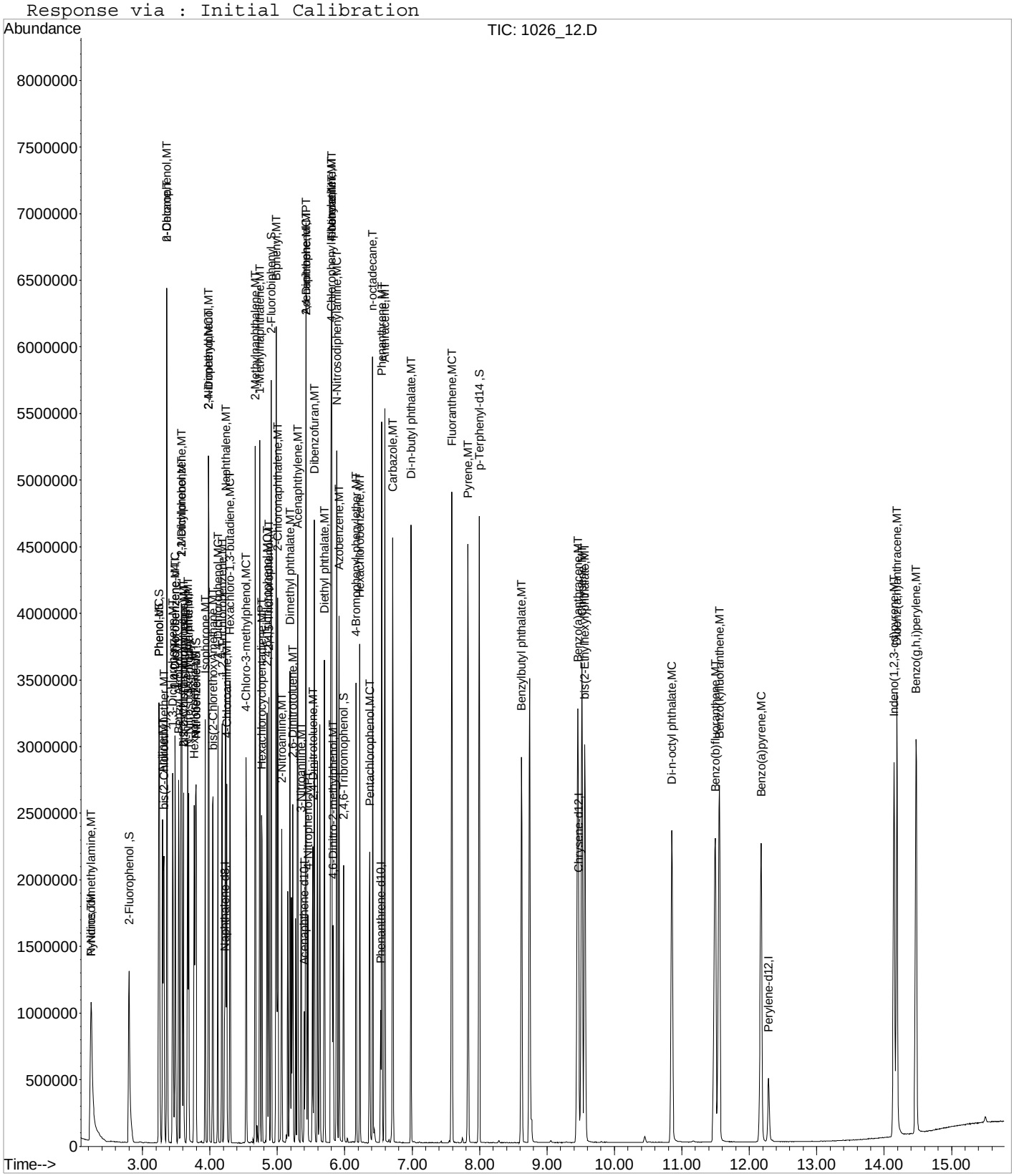
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1424023	40445.9564503	ppb		100
52)	2-Chloronaphthalene	5.00	162	1049668	40520.0675748	ppb		98
53)	2-Nitroaniline	5.06	138	346696	47294.4378589	ppb		98
54)	Acenaphthylene	5.30	152	1641775	42668.6886666	ppb		99
55)	Dimethyl phthalate	5.19	163	1134902	42638.9873989	ppb		99
56)	2,6-Dinitrotoluene	5.23	165	267541	44613.4711913	ppb		98
57)	3-Nitroaniline	5.35	138	291081	46350.0774719	ppb		95
58)	Acenaphthene	5.43	153	1093684	41332.0068035	ppb		99
59)	2,4-Dinitrophenol	5.43	184	164439	58108.1265507	ppb	#	40
60)	Dibenzofuran	5.55	168	1476990	40779.8515185	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	355549	47137.9395991	ppb		98
63)	4-Nitrophenol	5.45	139	224872m	46412.6231365	ppb		
64)	Fluorene	5.81	166	1248622	41883.2324851	ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	582128	40629.0103812	ppb		96
66)	Diethyl phthalate	5.70	149	1042709	39273.2799305	ppb		99
67)	4-Nitroaniline	5.81	138	241755	41249.6997999	ppb		96
68)	Azobenzene	5.92	77	1188077	42903.5076812	ppb		98
71)	4,6-Dinitro-2-methylphenol	5.83	198	193157	55656.3466452	ppb		97
72)	N-Nitrosodiphenylamine	5.88	169	1041244	45592.5553727	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	339818	43835.2644798	ppb		90
75)	Hexachlorobenzene	6.22	284	416122	41726.9291672	ppb		99
76)	n-octadecane	6.42	55	174418	46361.0705950	ppb		98
77)	Pentachlorophenol	6.37	266	240850	52261.2402490	ppb		94
78)	Phenanthrene	6.55	178	1705200	41260.2745416	ppb		99
79)	Anthracene	6.59	178	1771805	44272.8266292	ppb		99
80)	Carbazole	6.71	167	1600765	45783.5332259	ppb		100
81)	Di-n-butyl phthalate	6.98	149	2023818	51444.7503225	ppb		100
83)	Fluoranthene	7.59	202	1950289	46833.9775639	ppb		99
86)	Pyrene	7.83	202	2019757	41426.8683151	ppb		99
88)	Benzylbutyl phthalate	8.62	149	806655	49646.8868078	ppb		96
90)	Benzo(a)anthracene	9.46	228	1876253	42906.0126498	ppb		100
91)	Chrysene	9.52	228	1831592	39701.4098947	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.56	149	1175115	51920.5343930	ppb		98
93)	Di-n-octyl phthalate	10.85	149	1875880	54916.4441611	ppb		99
95)	Benzo(b)fluoranthene	11.49	252	1900923	44172.9171439	ppb		99
96)	Benzo(k)fluoranthene	11.56	252	1955168	43162.5450944	ppb		100
97)	Benzo(a)pyrene	12.18	252	1674074	47243.8158571	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	1683093	44254.2123814	ppb		99
99)	Dibenz(a,h)anthracene	14.19	278	1819536m	42352.4344229	ppb		
100)	Benzo(g,h,i)perylene	14.48	276	1736411	39628.5933678	ppb		93

(#) = qualifier out of range (m) = manual integration
1026_12.D S804J26V.M Thu Oct 27 11:34:52 2022 Page 2

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: S804J26V.RES

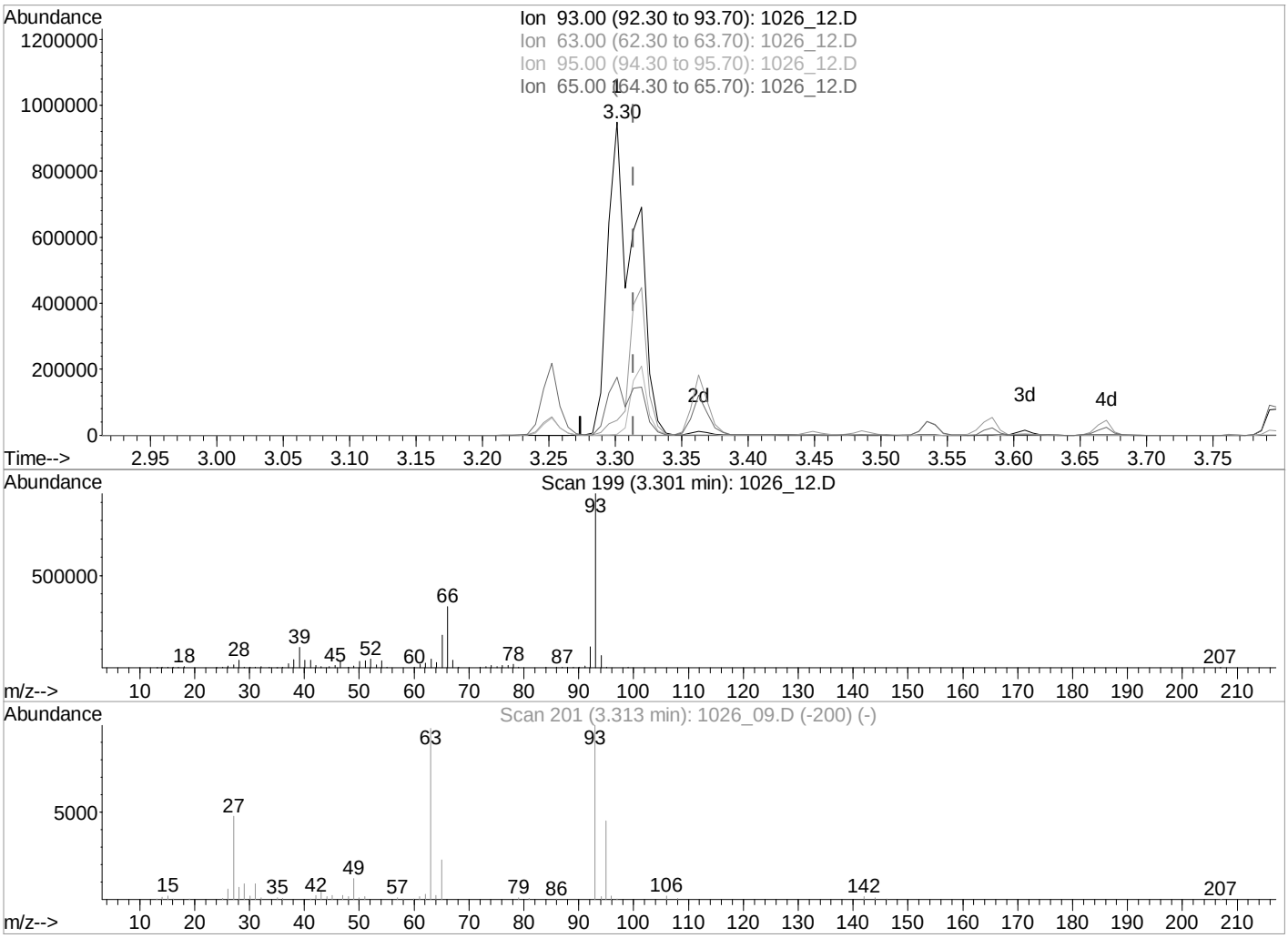
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 101399.2728642 ppb

Qvalue = 41

response 1364004

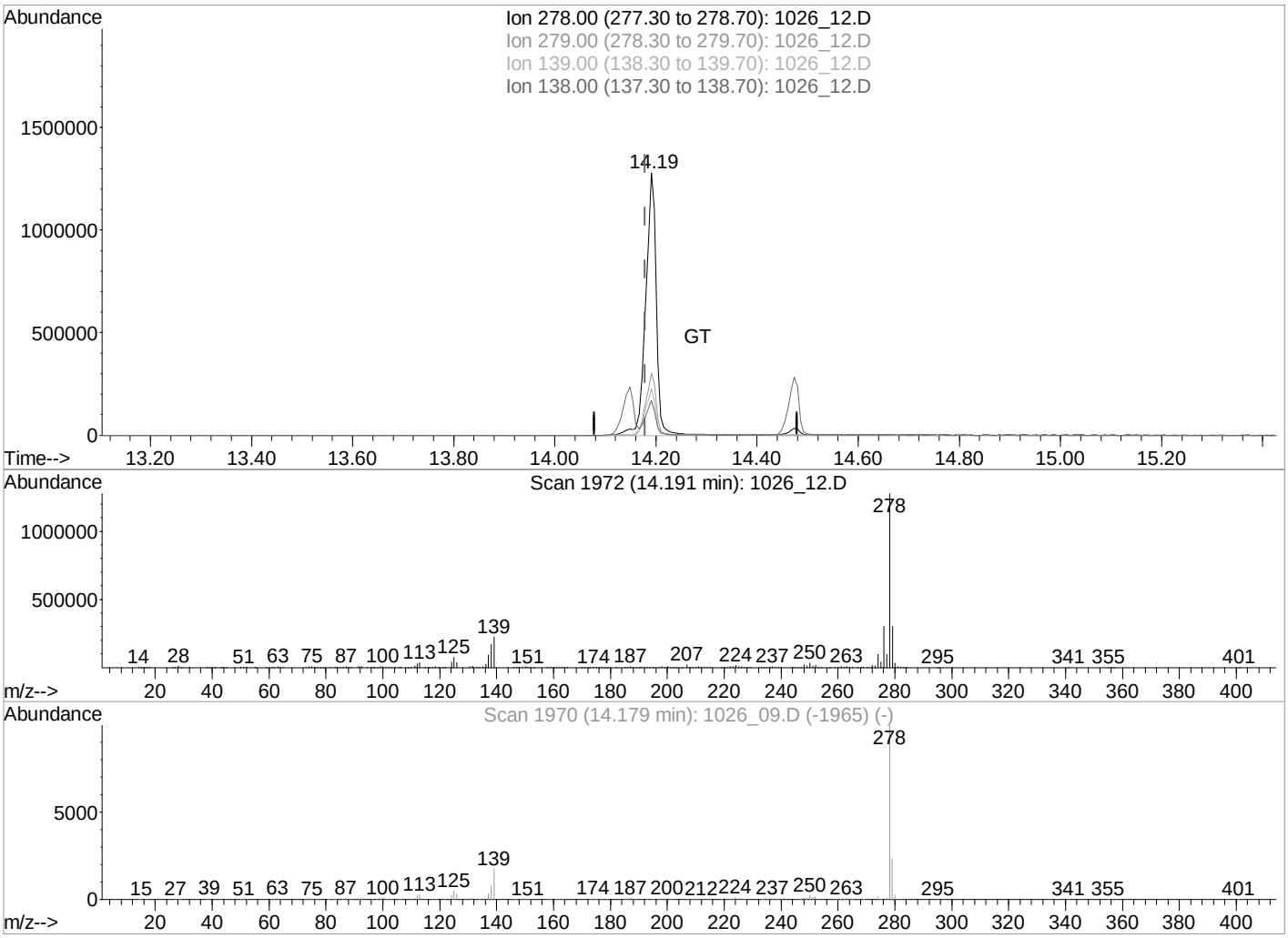
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.77#
95.00	28.70	0.25#
65.00	22.20	18.56

1026_12.D S804J26V.M Thu Oct 27 06:39:18 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 42352.4344229 ppb m

response 1819536

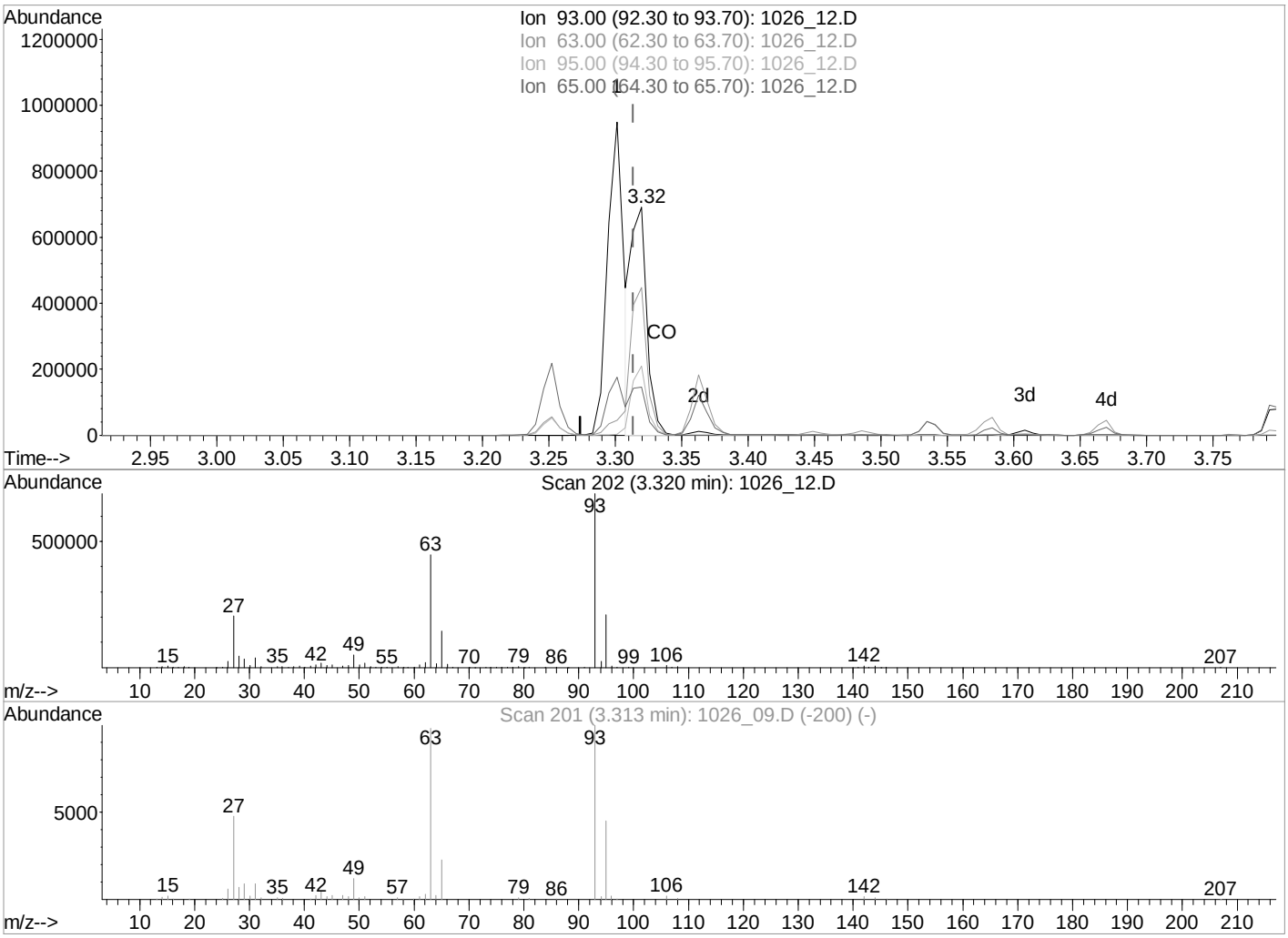
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.59
139.00	17.00	17.58
138.00	12.30	13.16

1026_12.D S804J26V.M Thu Oct 27 06:40:34 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(6) bis(2-Chloroethyl)ether (MT)

3.32min (+0.006) 42410.1958450 ppb m

response 570494

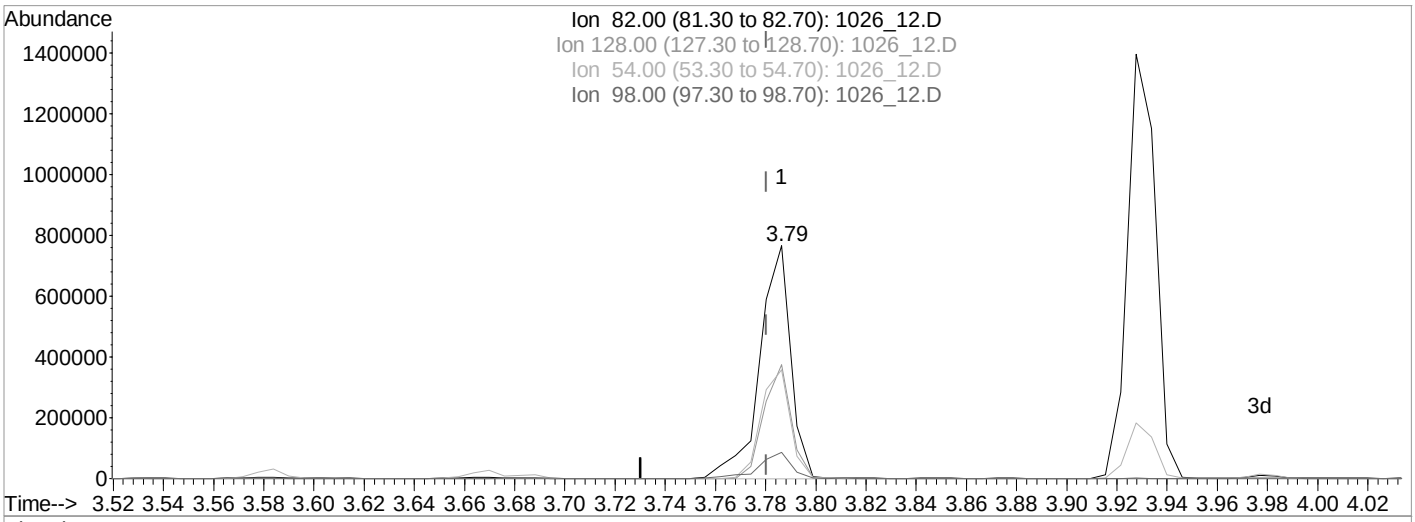
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	64.80
95.00	28.70	30.35
65.00	22.20	21.08

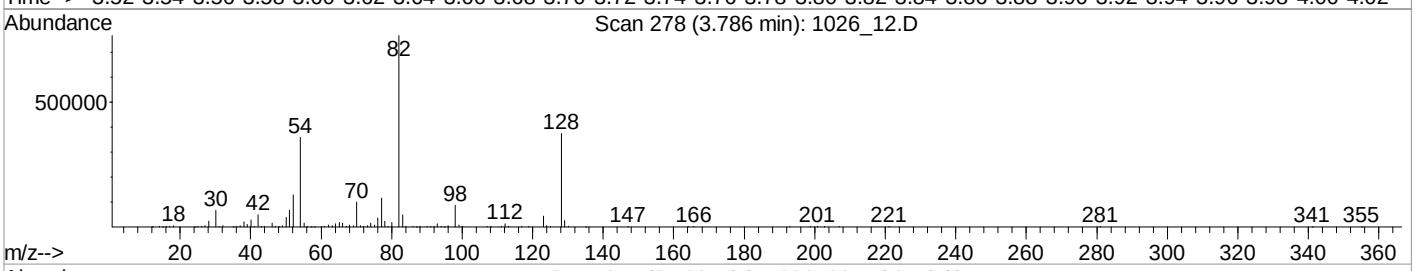
1026_12.D S804J26V.M Thu Oct 27 06:39:24 2022

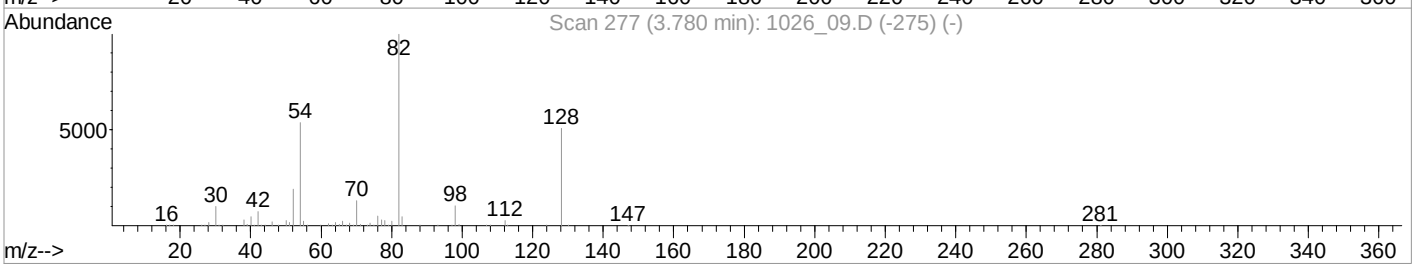
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration







TIC: 1026_12.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 45878.1623509 ppb

Qvalue = 96

response 655083

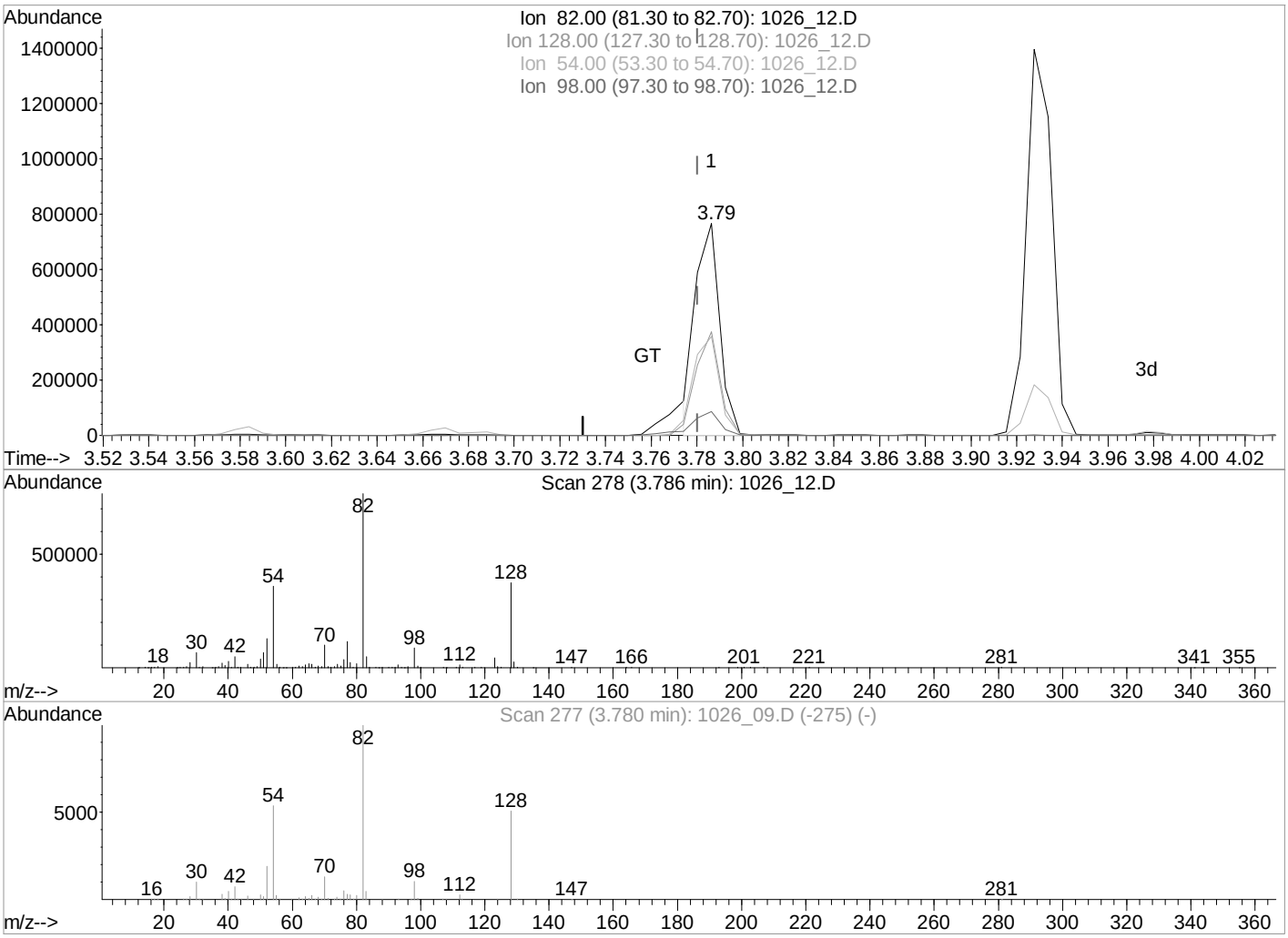
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	48.72
54.00	49.10	46.72
98.00	10.80	11.19

1026_12.D S804J26V.M Thu Oct 27 06:39:35 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 39579.8537449 ppb m

response 565151

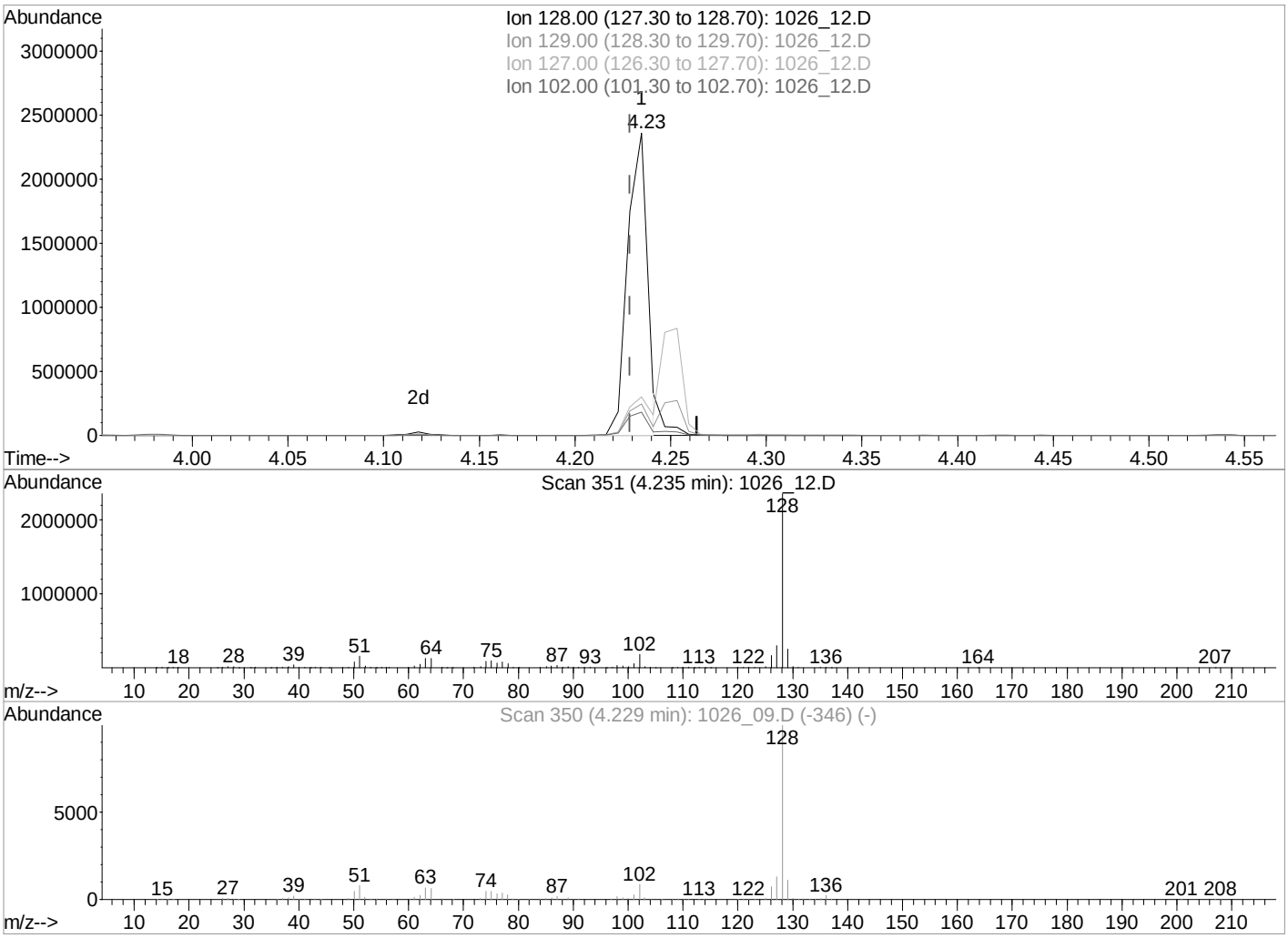
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	48.72
54.00	49.10	46.72
98.00	10.80	11.19

1026_12.D S804J26V.M Thu Oct 27 06:39:39 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(34) Naphthalene (MT)

4.23min (+0.006) 40263.1625507 ppb

Qvalue = 99

response 1703755

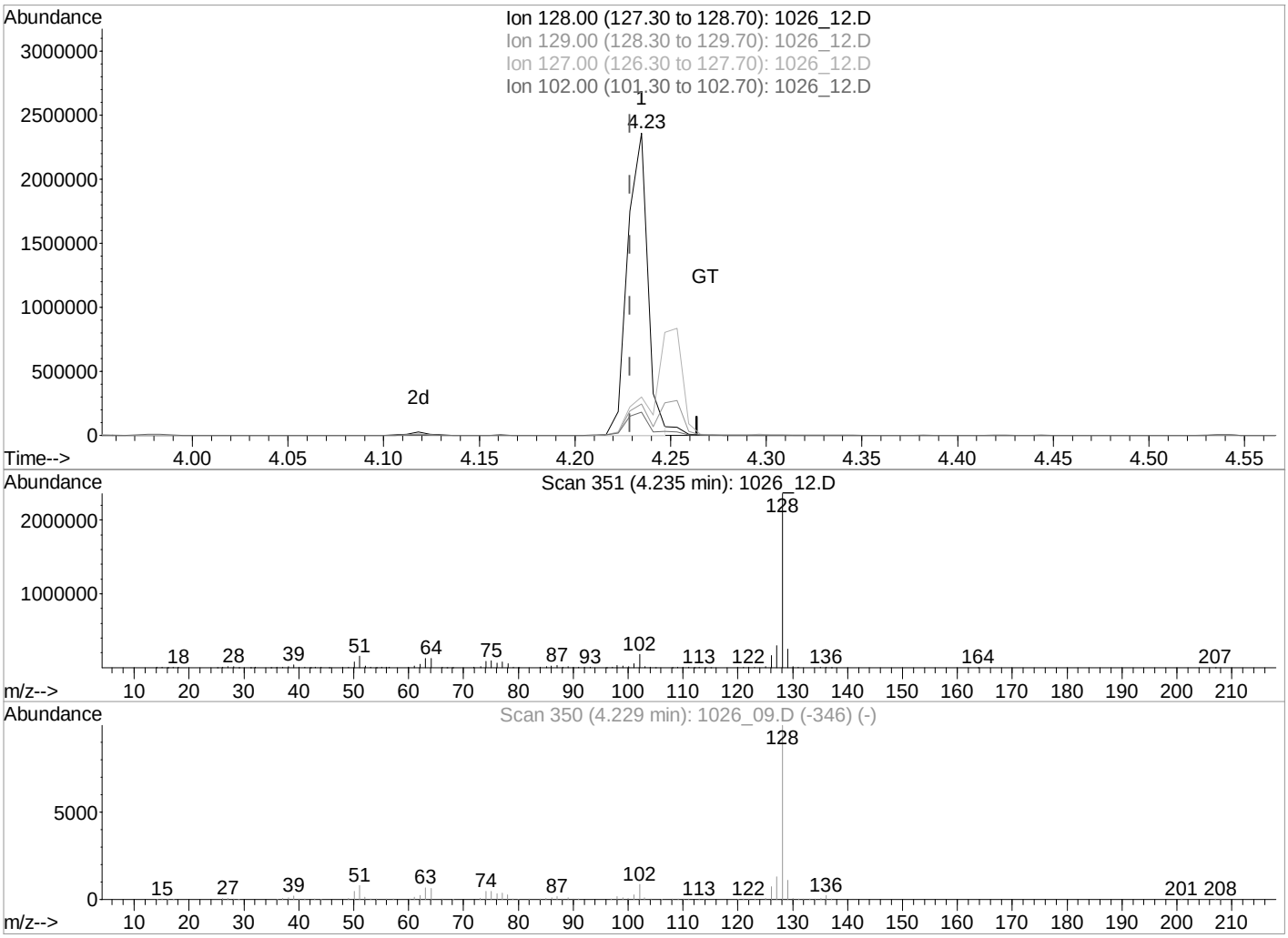
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.40
127.00	12.90	12.63
102.00	8.40	7.54

1026_12.D S804J26V.M Thu Oct 27 06:39:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(34) Naphthalene (MT)

4.23min (+0.006) 40826.9278842 ppb m

response 1727611

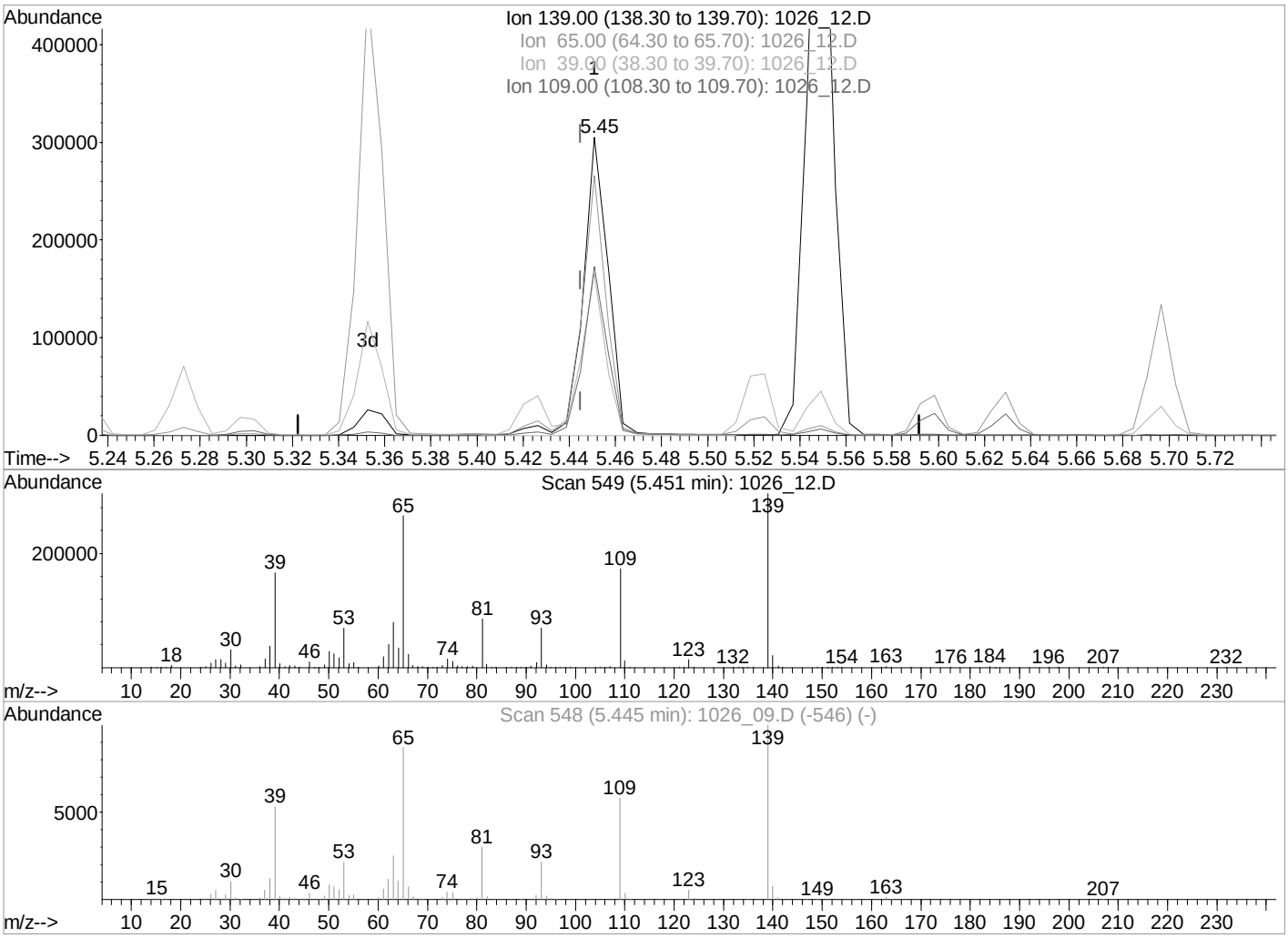
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.40
127.00	12.90	12.63
102.00	8.40	7.54

1026_12.D S804J26V.M Thu Oct 27 06:39:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:39 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 48218.5858728 ppb

Qvalue = 98

response 233622

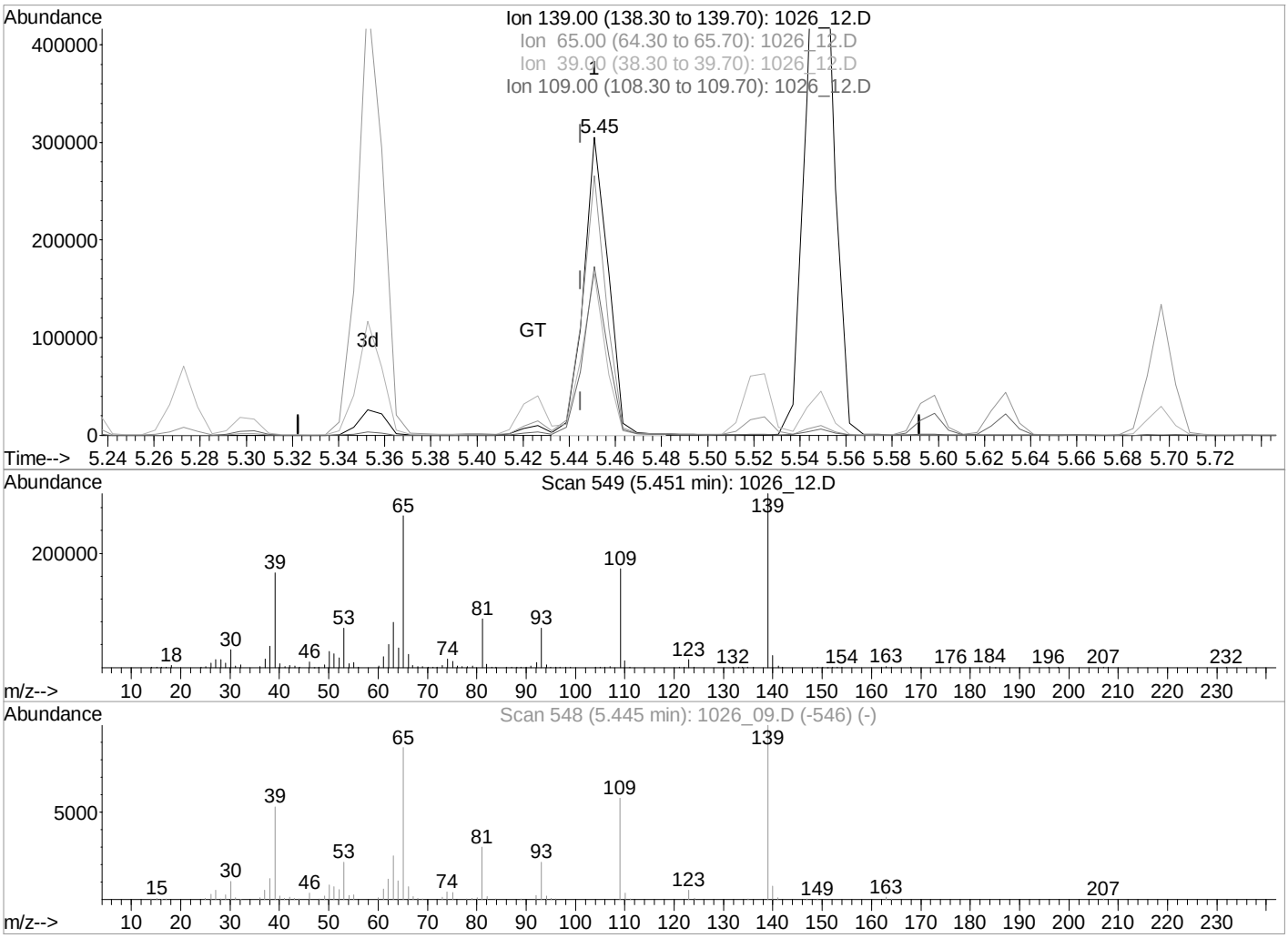
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	86.60
39.00	54.80	54.22
109.00	58.30	56.52

1026_12.D S804J26V.M Thu Oct 27 06:40:07 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(63) 4-Nitrophenol (MPT)

5.45min (+0.006) 46412.6231365 ppb m

response 224872

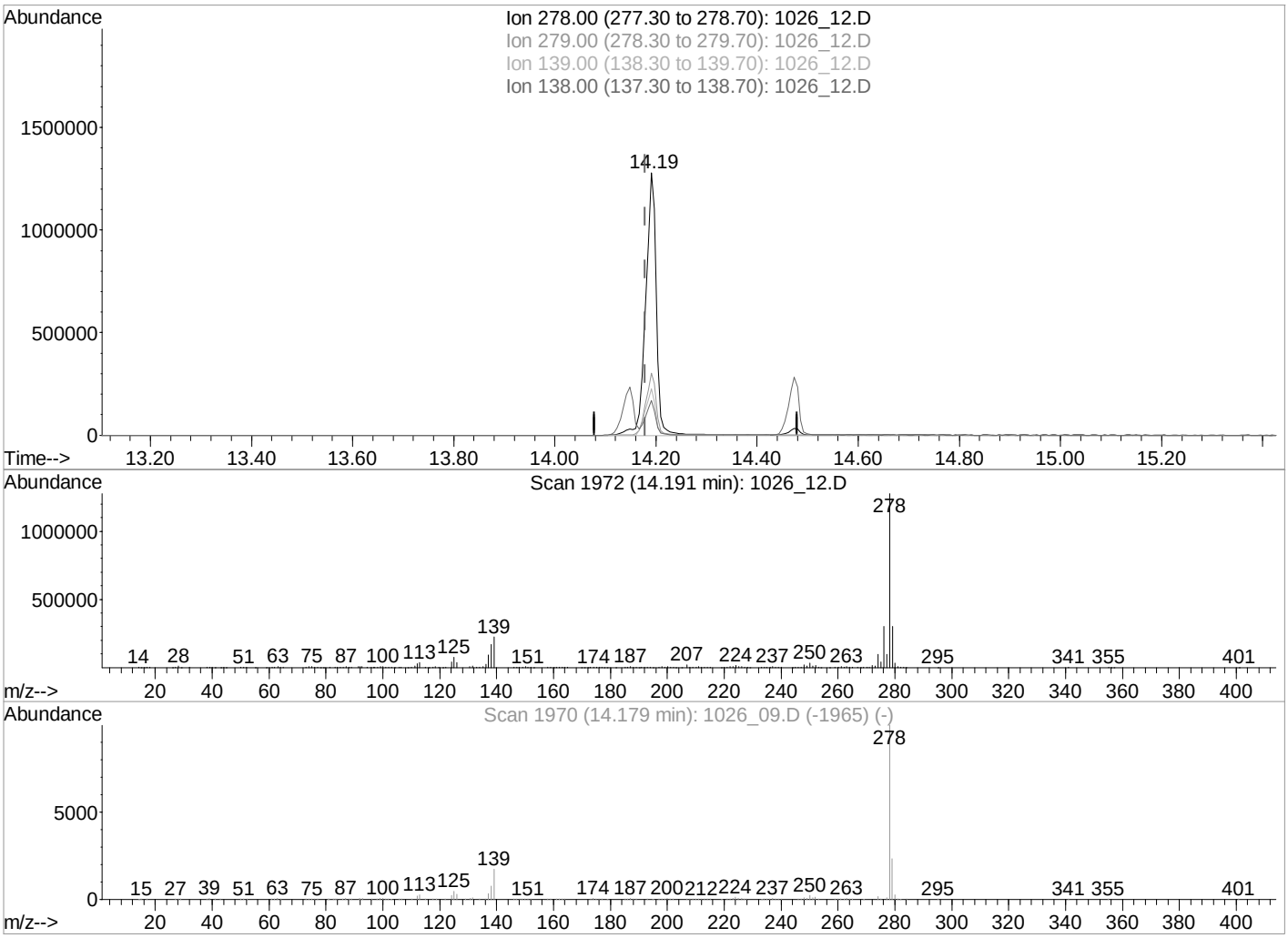
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	87.14
39.00	54.80	54.32
109.00	58.30	56.65

1026_12.D S804J26V.M Thu Oct 27 06:40:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 12.D Vial: 9
Acq On : 27 Oct 2022 1:16 am Operator: 917
Sample : STD SVMS 40K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:40 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:36:57 2022
Response via : Multiple Level Calibration



TIC: 1026_12.D

(99) Dibenz(a,h)anthracene (MT)

14.19min (+0.012) 43552.6407261 ppb

Qvalue = 99

response 1871099

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.59
139.00	17.00	17.58
138.00	12.30	13.14

1026_12.D S804J26V.M Thu Oct 27 06:40:28 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	84823	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	335625	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	174075	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	301511	8000.00 ppb	0.00
84) Chrysene-d12	9.47	240	314997	8000.00 ppb	0.01
94) Perylene-d12	12.29	264	309482	8000.00 ppb	0.01
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	678919	53259.1253245 ppb	0.00
Spiked Amount 20000.000			Recovery = 266.30%		
7) Phenol-d5	3.25	99	890853	54388.5968099 ppb	0.00
Spiked Amount 20000.000			Recovery = 271.94%		
24) Nitrobenzene-d5	3.79	82	766940m	53841.5704248 ppb	0.00
Spiked Amount 10000.000			Recovery = 538.42%		
50) 2-Fluorobiphenyl	4.91	172	1668739	52787.0960374 ppb	0.00
Spiked Amount 10000.000			Recovery = 527.87%		
73) 2,4,6-Tribromophenol	5.99	330	271366	64447.1287906 ppb	0.00
Spiked Amount 20000.000			Recovery = 322.24%		
87) p-Terphenyl-d14	7.99	244	2309697	54241.8685813 ppb	0.00
Spiked Amount 10000.000			Recovery = 542.42%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	746516	52769.0531793 ppb	99
3) N-Nitrosodimethylamine	2.24	42	338349	49446.2003996 ppb	98
5) Aniline	3.30	66	390811	53820.1349680 ppb #	95
6) bis(2-Chloroethyl)ether	3.32	93	498938m	36623.7786961 ppb	
8) Phenol	3.25	94	901816	54280.0641876 ppb	96
10) 2-Chlorophenol	3.36	128	747729	55080.1643396 ppb	98
11) n-Decane	3.36	41	382956	48834.7599357 ppb	97
12) 1,3-Dichlorobenzene	3.45	146	830557	51647.1104690 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	851504	53162.2650767 ppb	98
14) Benzyl Alcohol	3.54	79	605033	57554.9150751 ppb	97
15) 1,2-Dichlorobenzene	3.58	146	803954	53313.7795869 ppb	97
16) bis(2-Chloroisopropyl)ethe	3.61	121	252403	53301.5398909 ppb	97
17) 2,2-oxybis(1-chloropropane	3.61	121	252403	53301.5398909 ppb	97
18) 2-Methylphenol	3.58	108	683020	55910.9869479 ppb	98
19) Hexachloroethane	3.77	117	310793	53613.0039211 ppb	97
20) N-Nitrosodi-n-propylamine	3.69	70	521696	56684.3196872 ppb	98
21) 3&4-Methyl phenol	3.67	107	766843	56020.5164867 ppb	98
25) Nitrobenzene	3.80	77	774211	54654.8205140 ppb	96
26) Isophorone	3.93	82	1429146	56143.7837881 ppb	98
27) 2-Nitrophenol	3.98	139	418673	59338.4756586 ppb	86
28) 2,4-Dimethylphenol	3.98	107	729223	55540.4683675 ppb	97
29) bis(2-Chlorethoxy)methane	4.04	93	860182	54053.7885648 ppb	96
30) 2,4-Dichlorophenol	4.12	162	612950	55976.9278321 ppb	93
32) 1,2,4-Trichlorobenzene	4.18	180	689134	52503.3792597 ppb	97
34) Naphthalene	4.23	128	2255010m	53181.7938738 ppb	
35) 4-Chloroaniline	4.25	65	250636	56250.6956192 ppb	98
36) Hexachloro-1,3-butadiene	4.30	225	392795	52407.0716696 ppb	99
40) 4-Chloro-3-methylphenol	4.54	107	600651	57983.1629372 ppb	96
41) 2-Methylnaphthalene	4.67	142	1519052	55310.2745838 ppb	99
42) 1-Methylnaphthalene	4.74	142	1428676	54614.6402619 ppb	99
47) Hexachlorocyclopentadiene	4.78	237	490571	57035.6284697 ppb	94
48) 2,4,6-Trichlorophenol	4.85	196	450317	56518.1505519 ppb	94
49) 2,4,5-Trichlorophenol	4.87	196	483240	58380.6289952 ppb	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

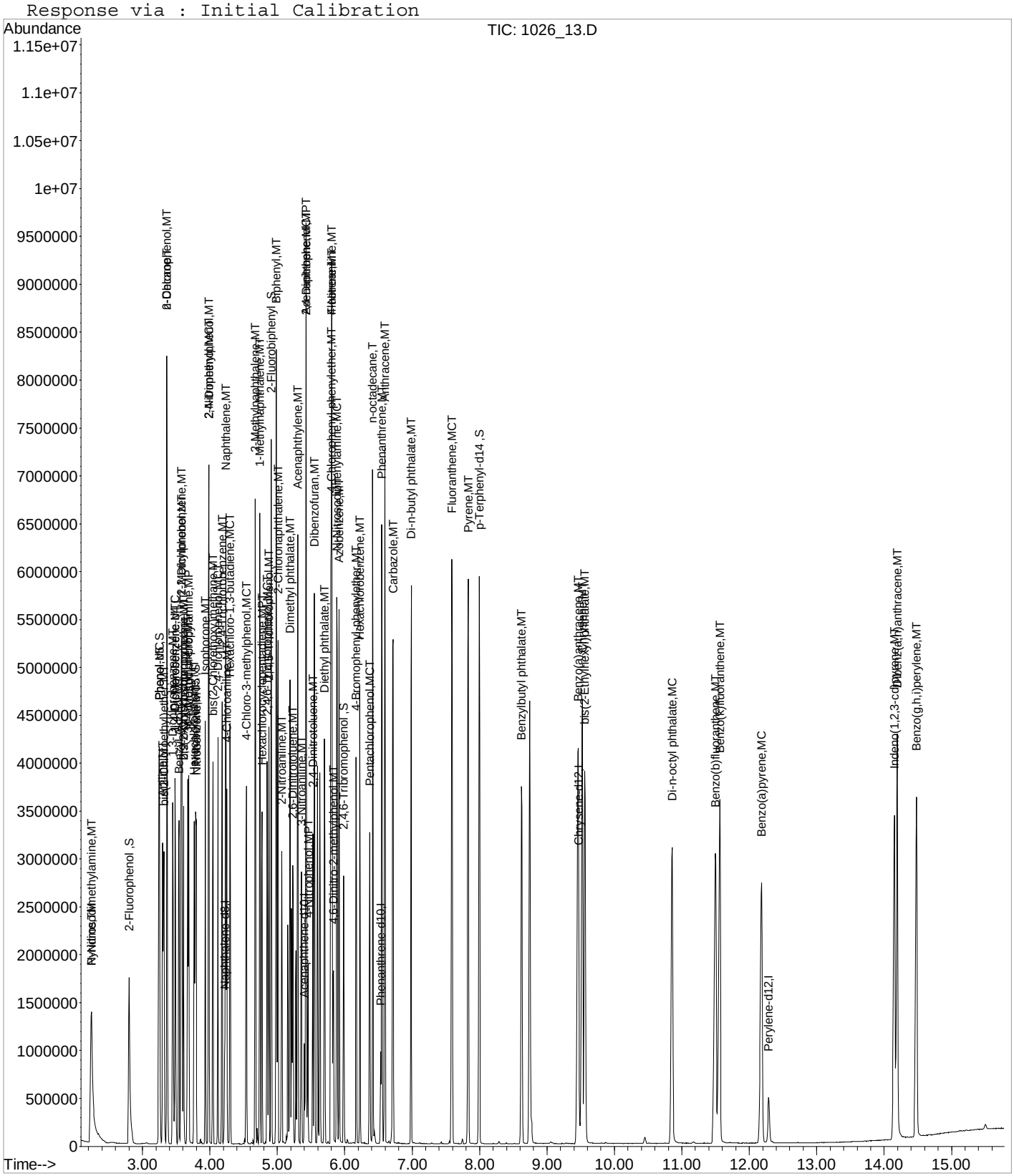
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Biphenyl	4.98	154	1862742	52820.4622140	ppb		99
52)	2-Chloronaphthalene	5.01	162	1388144	53484.6743291	ppb		98
53)	2-Nitroaniline	5.06	138	461829	61398.2207813	ppb		98
54)	Acenaphthylene	5.30	152	2169018	55836.9485751	ppb		100
55)	Dimethyl phthalate	5.19	163	1531254	56990.7346870	ppb		97
56)	2,6-Dinitrotoluene	5.24	165	359107	58909.4075237	ppb		84
57)	3-Nitroaniline	5.36	138	386147	60121.8773381	ppb	#	86
58)	Acenaphthene	5.43	153	1462525	55007.1766897	ppb		99
59)	2,4-Dinitrophenol	5.43	184	222431	73083.5205264	ppb	#	68
60)	Dibenzofuran	5.55	168	1942436	53479.7576501	ppb		99
61)	2,4-Dinitrotoluene	5.52	165	459803	59441.9327144	ppb		94
63)	4-Nitrophenol	5.46	139	297979m	60122.1914733	ppb		
64)	Fluorene	5.81	166	1673754	55766.3424748	ppb		98
65)	4-Chlorophenyl-phenylether	5.79	204	769320	53571.3733622	ppb		93
66)	Diethyl phthalate	5.70	149	1366311	51593.4770187	ppb		99
67)	4-Nitroaniline	5.81	138	344629	58539.0468029	ppb		97
68)	Azobenzene	5.92	77	1572941	56216.3804244	ppb		98
71)	4,6-Dinitro-2-methylphenol	5.83	198	262859	72003.3423828	ppb		86
72)	N-Nitrosodiphenylamine	5.89	169	1372391	59140.5241351	ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	445353	56888.9671866	ppb		87
75)	Hexachlorobenzene	6.22	284	549415	54964.2955323	ppb		98
76)	n-octadecane	6.42	55	231898	60500.3584322	ppb		99
77)	Pentachlorophenol	6.37	266	324646	67746.1567343	ppb		96
78)	Phenanthrene	6.55	178	2224402	53786.6428017	ppb		99
79)	Anthracene	6.59	178	2318872	57289.5649517	ppb		100
80)	Carbazole	6.72	167	2145038	60338.1905133	ppb		100
81)	Di-n-butyl phthalate	6.99	149	2597726	63682.4086893	ppb		100
83)	Fluoranthene	7.59	202	2574247	60575.1446720	ppb		99
86)	Pyrene	7.83	202	2666394	54525.9551867	ppb		100
88)	Benzylbutyl phthalate	8.62	149	1085408	64712.7534094	ppb		94
90)	Benzo(a)anthracene	9.46	228	2480164	56250.5163561	ppb		99
91)	Chrysene	9.52	228	2436387	52977.3639593	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.56	149	1572730	66789.7541006	ppb		99
93)	Di-n-octyl phthalate	10.86	149	2550075	71025.2638014	ppb		100
95)	Benzo(b)fluoranthene	11.49	252	2560315	58413.0257176	ppb		100
96)	Benzo(k)fluoranthene	11.56	252	2568986	55879.9909669	ppb		100
97)	Benzo(a)pyrene	12.18	252	2203107	60389.6693800	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.15	276	2122805	54784.4274209	ppb		99
99)	Dibenz(a,h)anthracene	14.20	278	2322266m	53412.8295804	ppb		
100)	Benzo(g,h,i)perylene	14.48	276	2141863	48772.3488717	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J27279 EXP: 04/21/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: S804J26V.RES

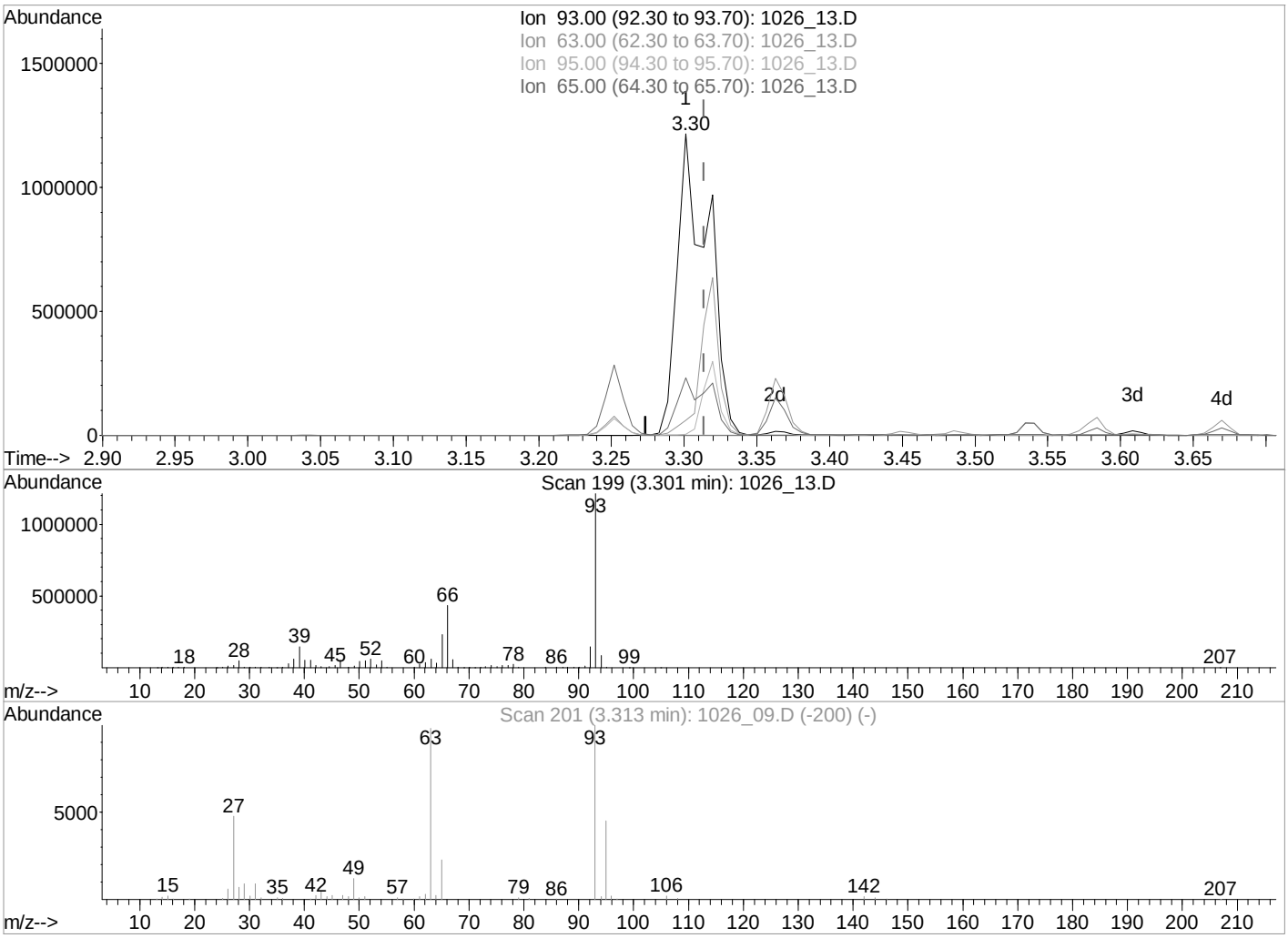
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.30min (-0.012) 131896.9270097 ppb

Qvalue = 42

response 1796876

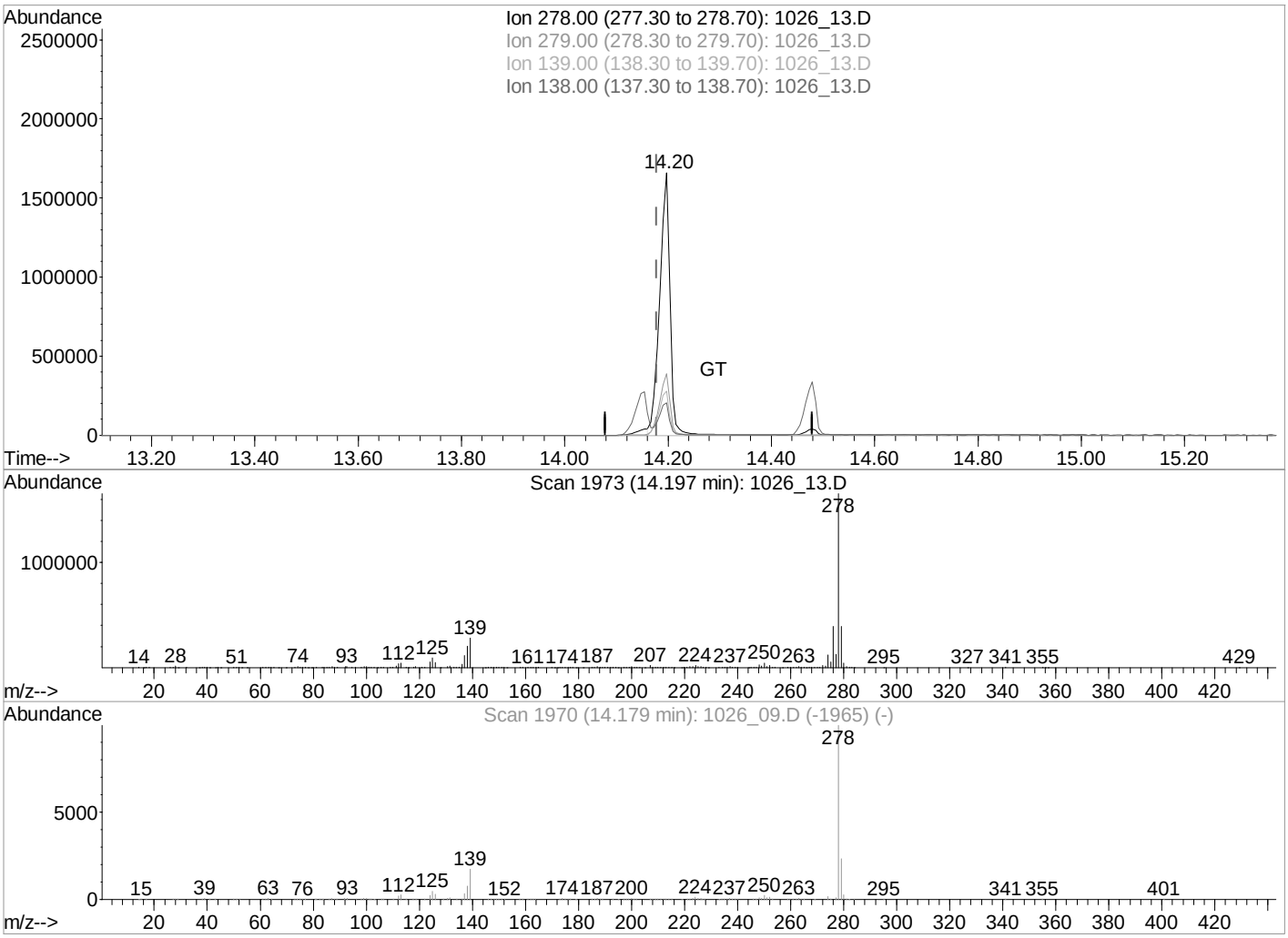
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.93#
95.00	28.70	0.24#
65.00	22.20	19.07

1026_13.D S804J26V.M Thu Oct 27 06:41:25 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(99) Dibenz(a,h)anthracene (MT)

14.20min (+0.018) 53412.8295804 ppb m

response 2322266

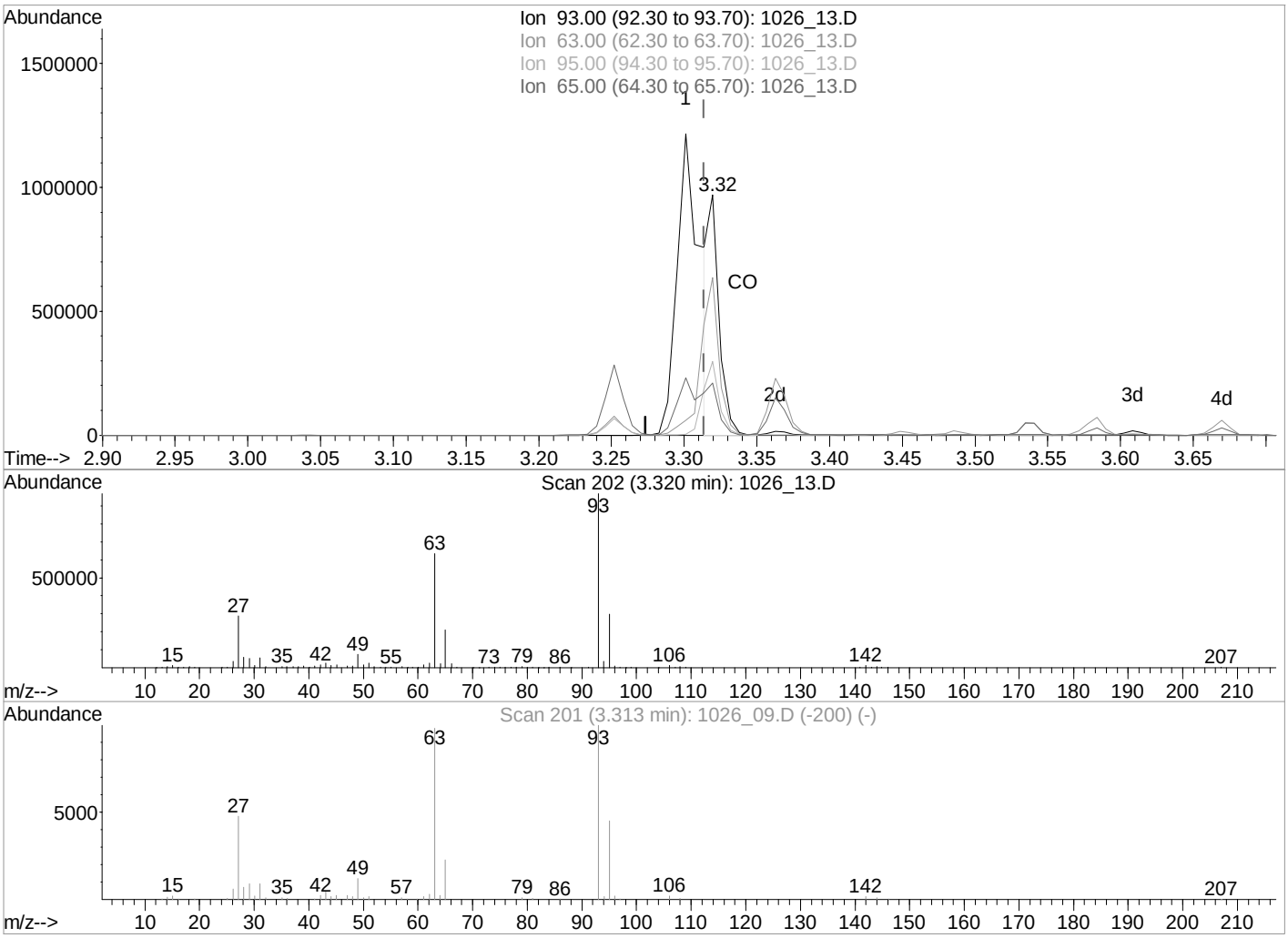
Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.43
139.00	17.00	16.75
138.00	12.30	12.35

1026_13.D S804J26V.M Thu Oct 27 06:42:58 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(6) bis(2-Chloroethyl)ether (MT)

3.32min (+0.006) 36623.7786961 ppb m

response 498938

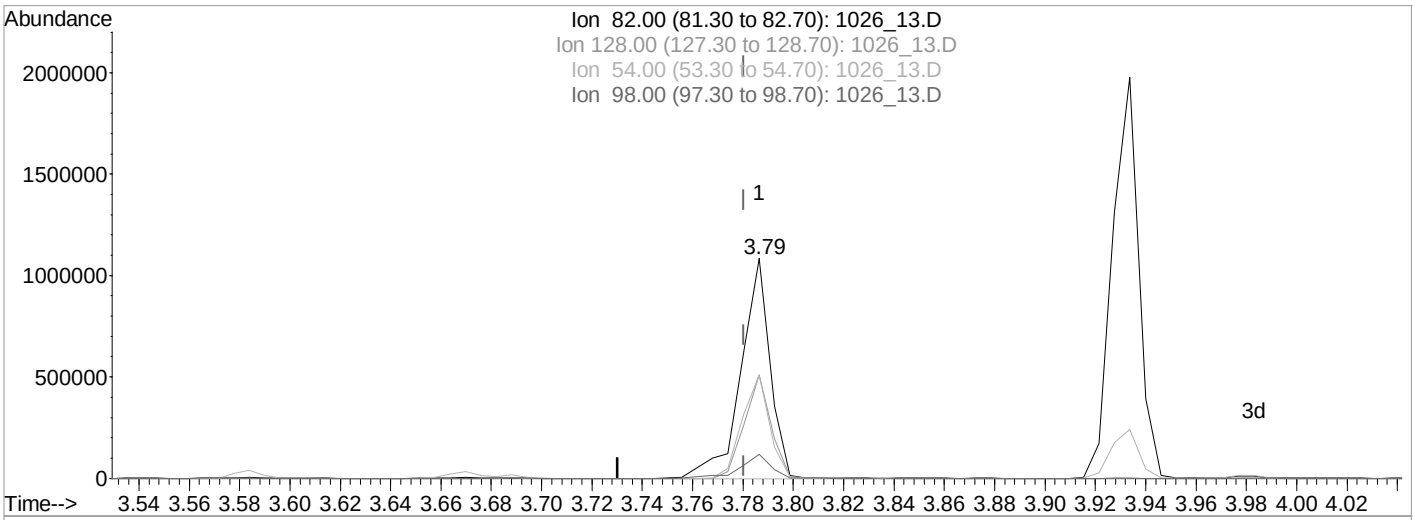
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.54
95.00	28.70	30.57
65.00	22.20	21.66

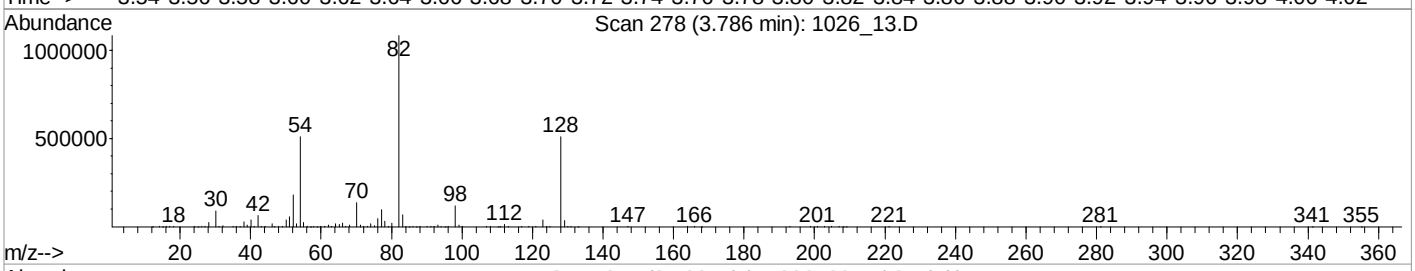
1026_13.D S804J26V.M Thu Oct 27 06:41:30 2022

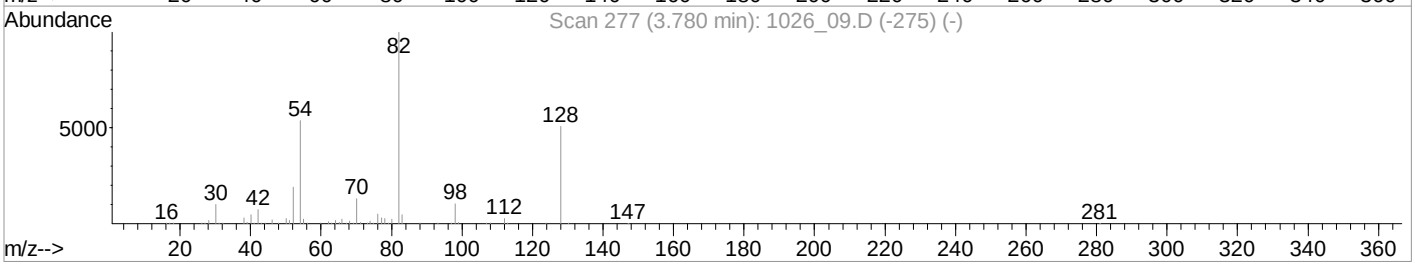
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration







TIC: 1026_13.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 61060.6962624 ppb

Qvalue = 98

response 869772

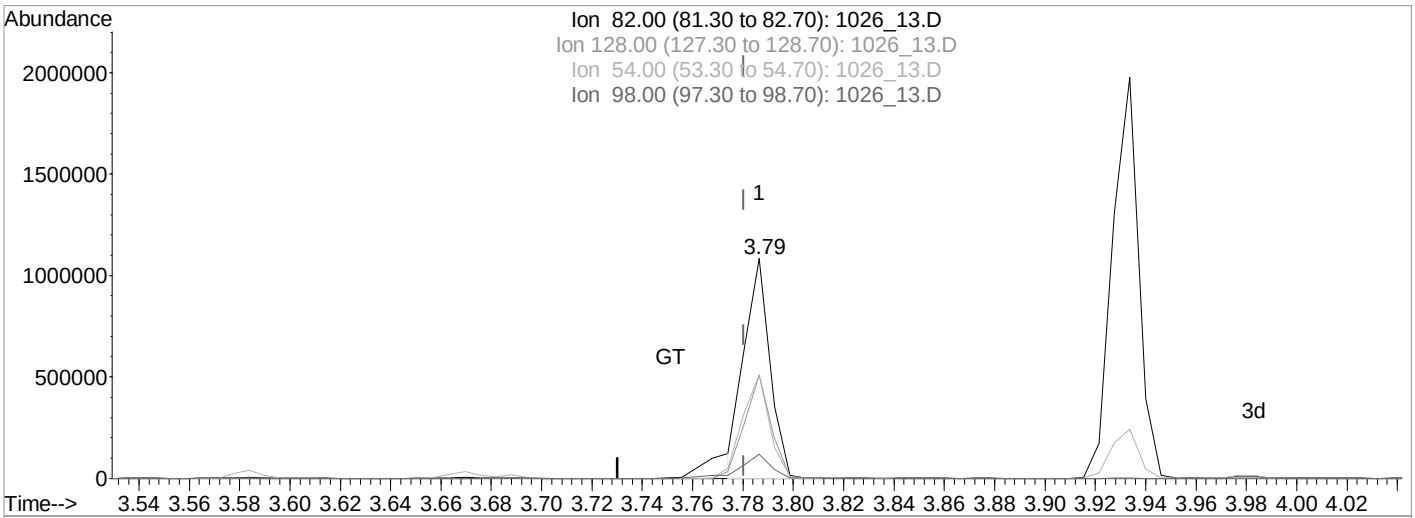
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.94
54.00	49.10	46.93
98.00	10.80	10.90

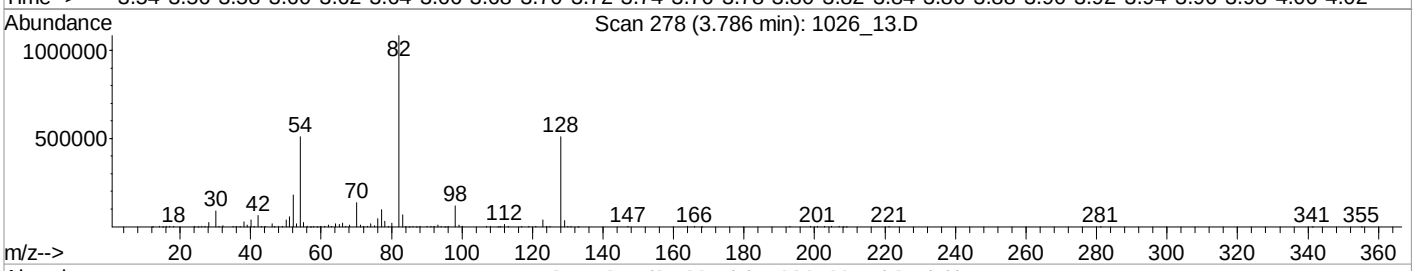
1026_13.D S804J26V.M Thu Oct 27 06:41:40 2022

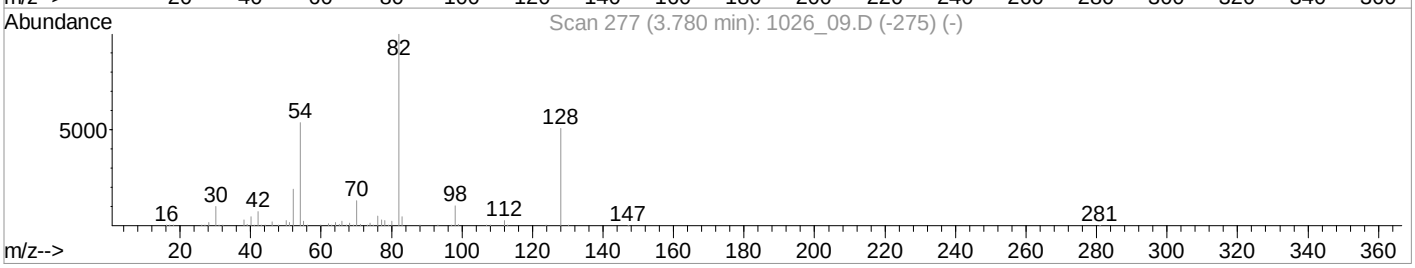
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration







TIC: 1026_13.D

(24) Nitrobenzene-d5 (S)

3.79min (+0.006) 53841.5704248 ppb m

response 766940

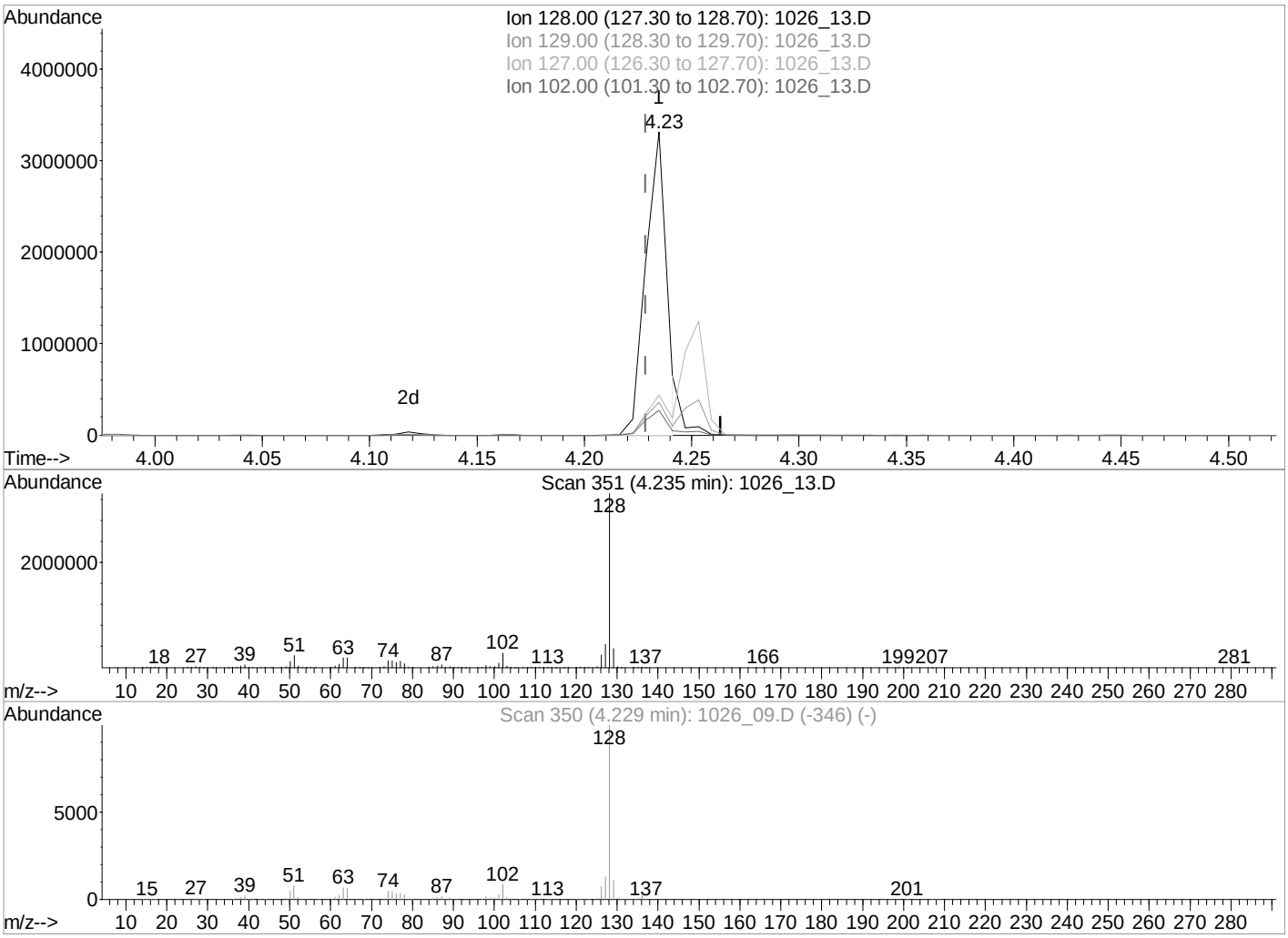
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	46.94
54.00	49.10	46.93
98.00	10.80	10.90

1026_13.D S804J26V.M Thu Oct 27 06:41:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(34) Naphthalene (MT)

4.23min (+0.006) 52460.1991372 ppb

Qvalue = 100

response 2224413

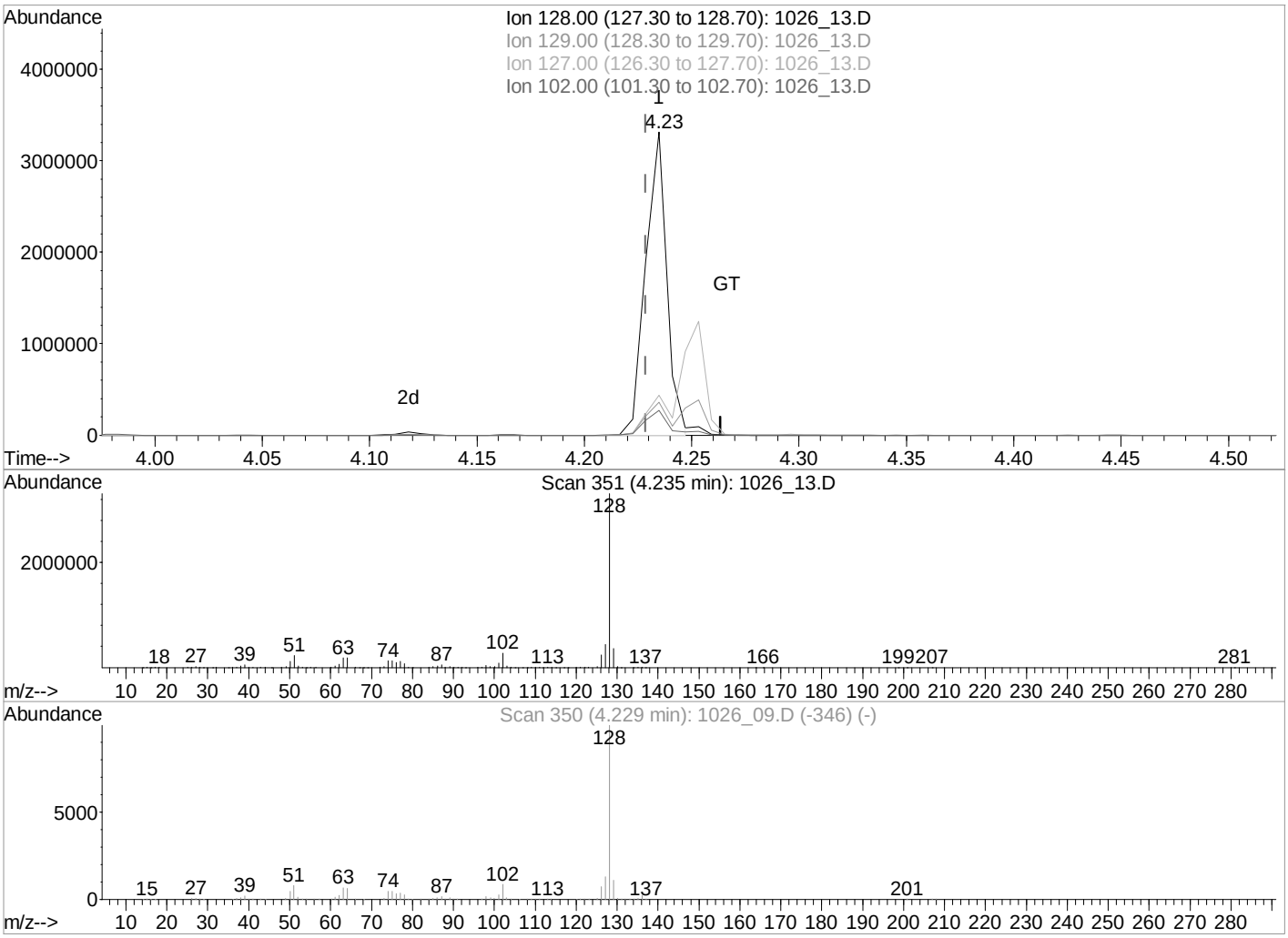
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.78
127.00	12.90	13.09
102.00	8.40	8.19

1026_13.D S804J26V.M Thu Oct 27 06:41:50 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(34) Naphthalene (MT)

4.23min (+0.006) 53181.7938738 ppb m

response 2255010

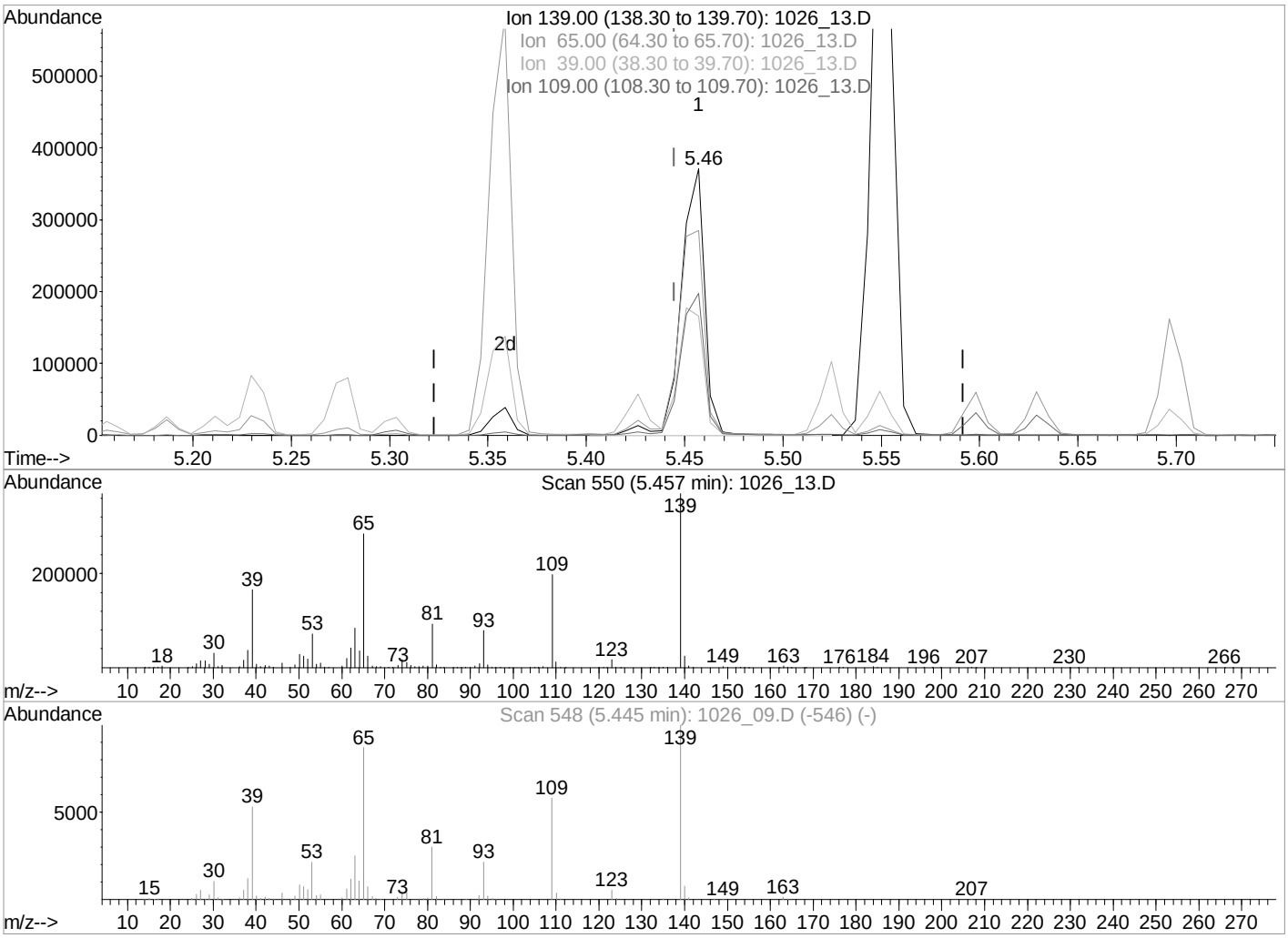
Ion	Exp%	Act%
128.00	100	100
129.00	10.70	10.78
127.00	12.90	13.09
102.00	8.40	8.19

1026_13.D S804J26V.M Thu Oct 27 06:41:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:41 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(63) 4-Nitrophenol (MPT)

5.46min (+0.012) 62764.7278323 ppb

Qvalue = 88

response 311076

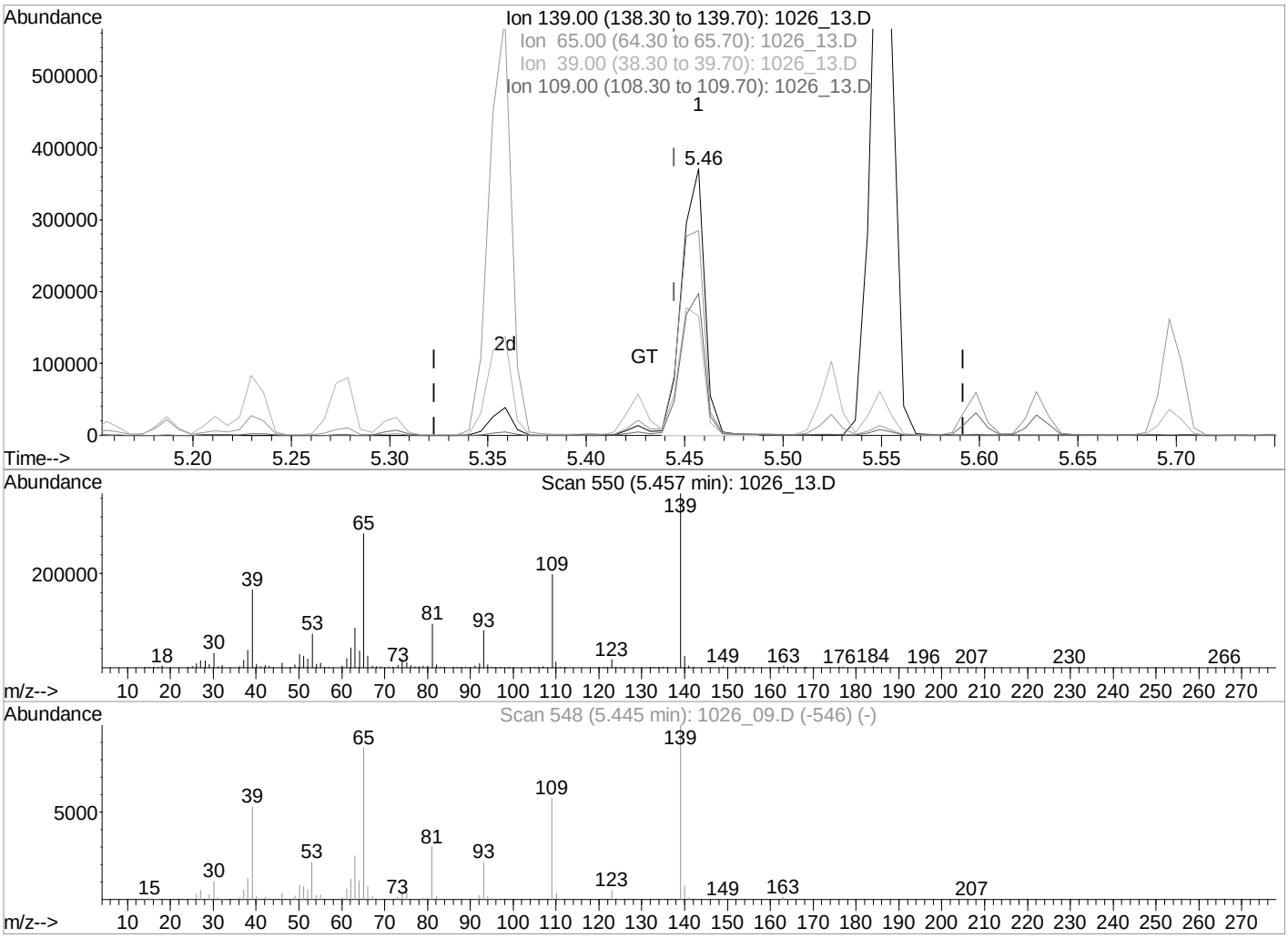
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	76.42
39.00	54.80	44.59
109.00	58.30	53.20

1026_13.D S804J26V.M Thu Oct 27 06:42:08 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(63) 4-Nitrophenol (MPT)

5.46min (+0.012) 60122.1914733 ppb m

response 297979

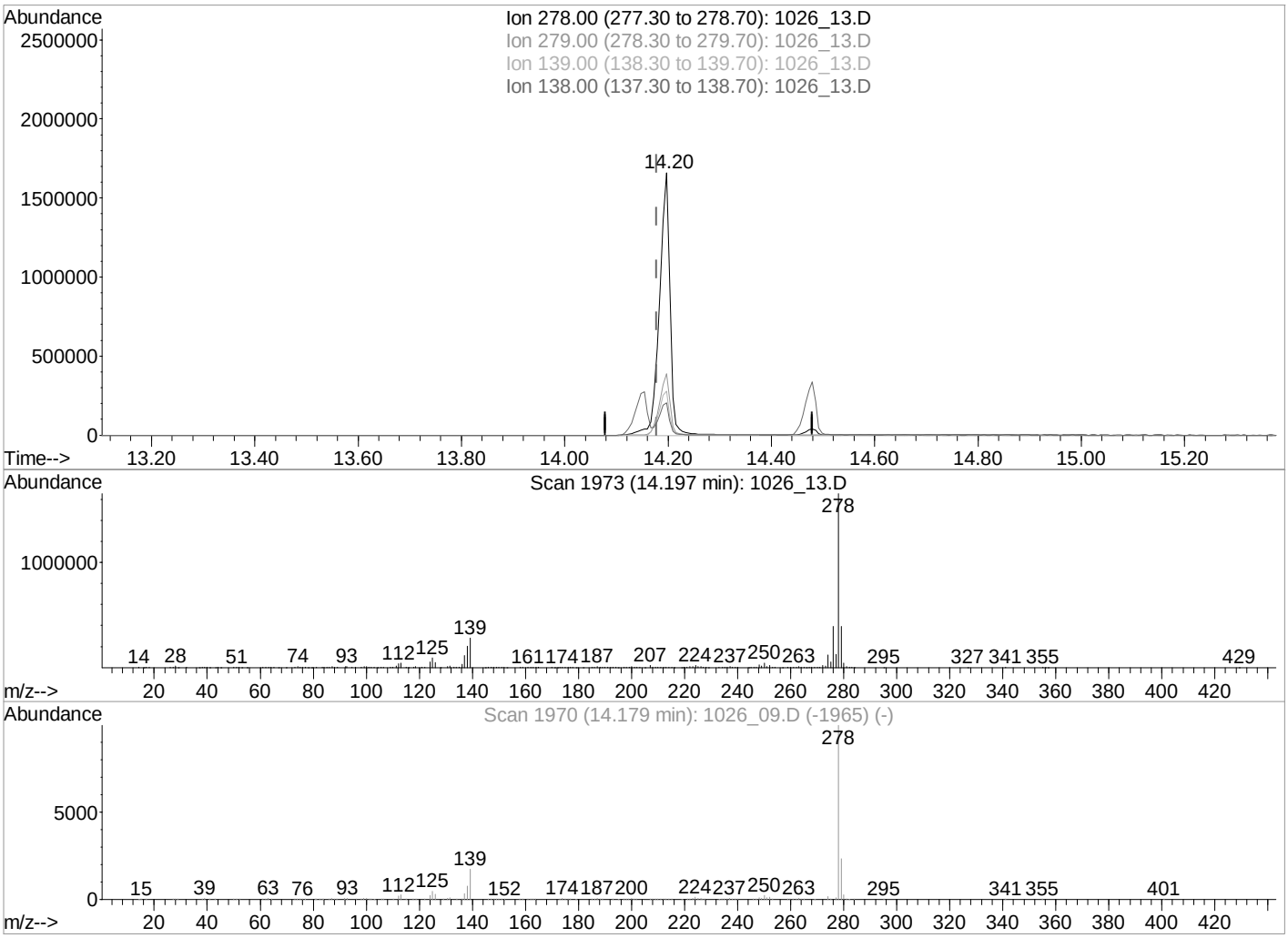
Ion	Exp%	Act%
139.00	100	100
65.00	88.70	76.92
39.00	54.80	44.73
109.00	58.30	53.32

1026_13.D S804J26V.M Thu Oct 27 06:42:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 13.D Vial: 10
Acq On : 27 Oct 2022 1:37 am Operator: 917
Sample : STD SVMS 50K PPB 22J20311 EXP: 04/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:40:46 2022
Response via : Multiple Level Calibration



TIC: 1026_13.D

(99) Dibenz(a,h)anthracene (MT)

14.20min (+0.018) 54939.6819216 ppb

Qvalue = 100

response 2388650

Ion	Exp%	Act%
278.00	100	100
279.00	23.20	23.43
139.00	17.00	16.75
138.00	12.30	12.34

1026_13.D S804J26V.M Thu Oct 27 06:42:51 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

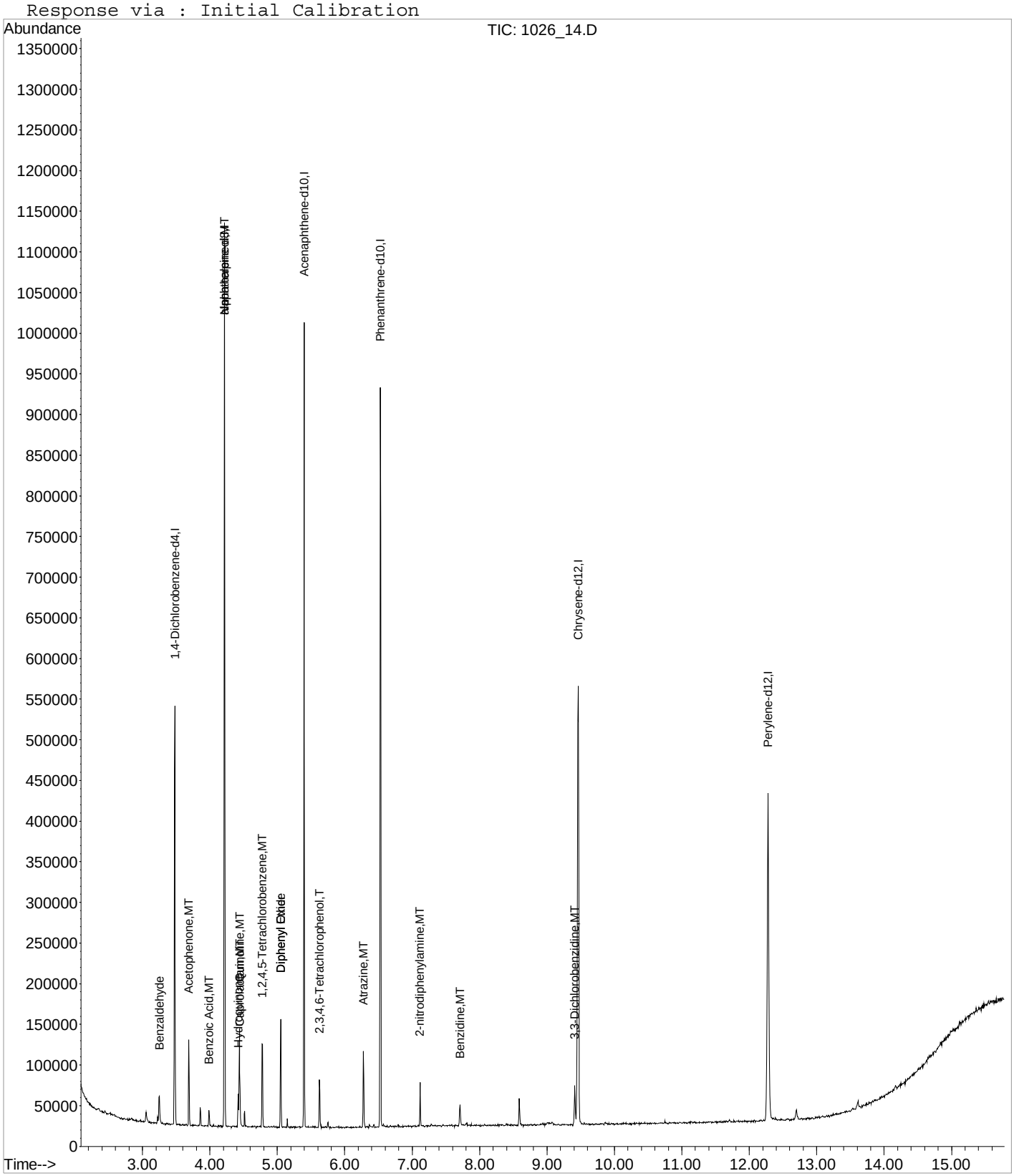
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	80901	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	321562	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157041	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	306565	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	270316	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	275137	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	6829	1368.2609368	ppb	97
22) Acetophenone	3.69	105	21235	1232.4095802	ppb	96
31) Benzoic Acid	3.98	105	4126	840.2418948	ppb	93
33) alpha-terpineol	4.22	59	14285	1495.0742181	ppb	98
37) Hydroquinone	4.42	110	10219m	1663.6881505	ppb	
38) Quinoline	4.44	129	31465	1442.6279684	ppb	97
39) Caprolactam	4.45	113	3843	1637.5497152	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	17361	1559.6106772	ppb	98
44) Diphenyl Ether	5.05	170	21610	1472.7298004	ug/ml	98
45) Diphenyl Oxide	5.05	170	21610	1472.7298004	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.62	232	6757	1212.0828252	ppb	99
69) Atrazine	6.27	200	8531	1190.2878215	ppb	97
82) 2-nitrodiphenylamine	7.12	167	6697	919.3656485	ppb	91
85) Benzidine	7.71	184	13094m	777.8599027	ppb	
89) 3,3-Dichlorobenzidine	9.41	252	16279	1103.6063959	ppb	94

(#) = qualifier out of range (m) = manual integration
1026_14.D S804J26V.M Thu Oct 27 11:35:16 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: S804J26V.RES

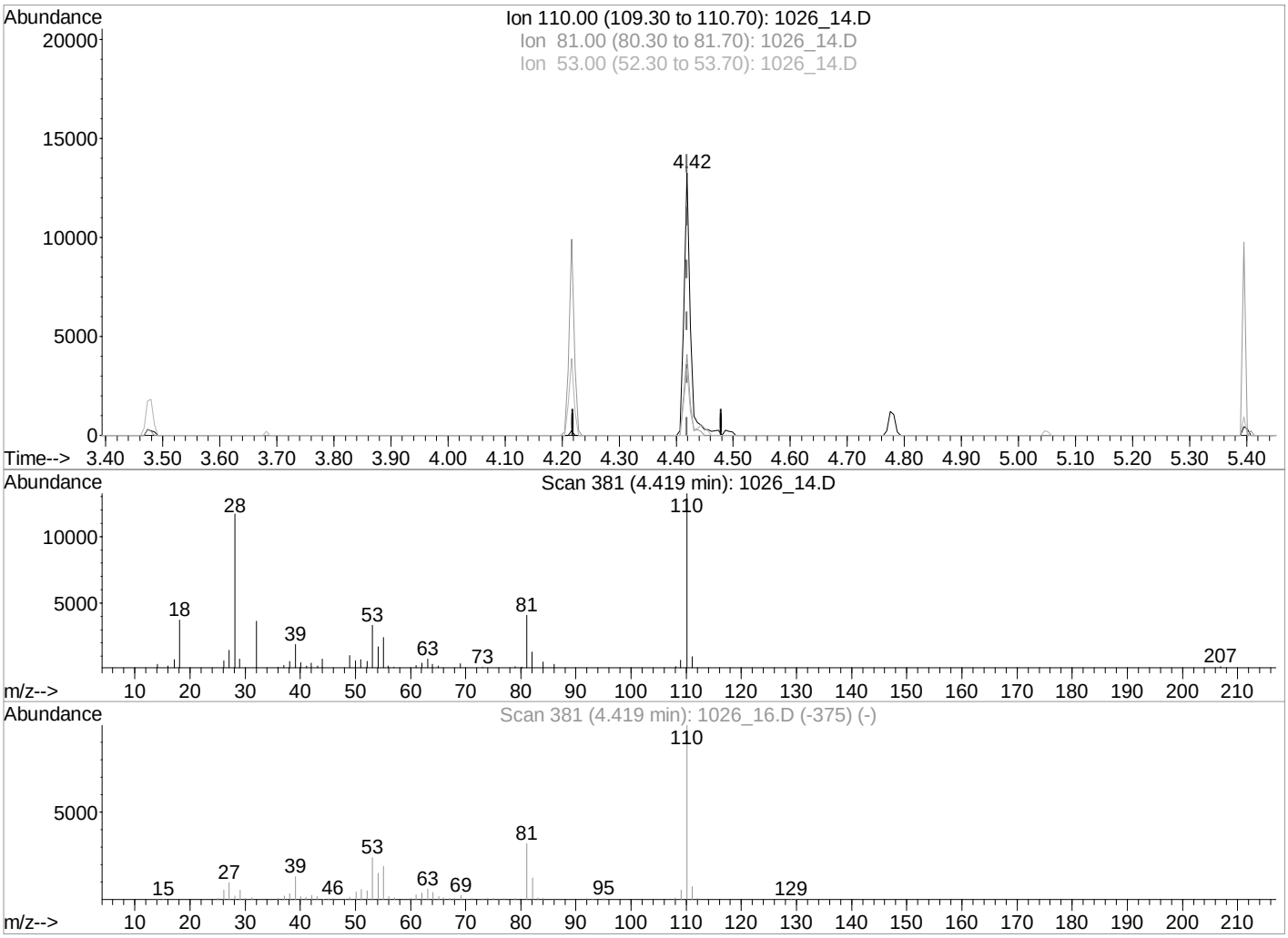
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(37) Hydroquinone

4.42min (-0.000) 1607.5209706 ppb

Qvalue = 98

response 9874

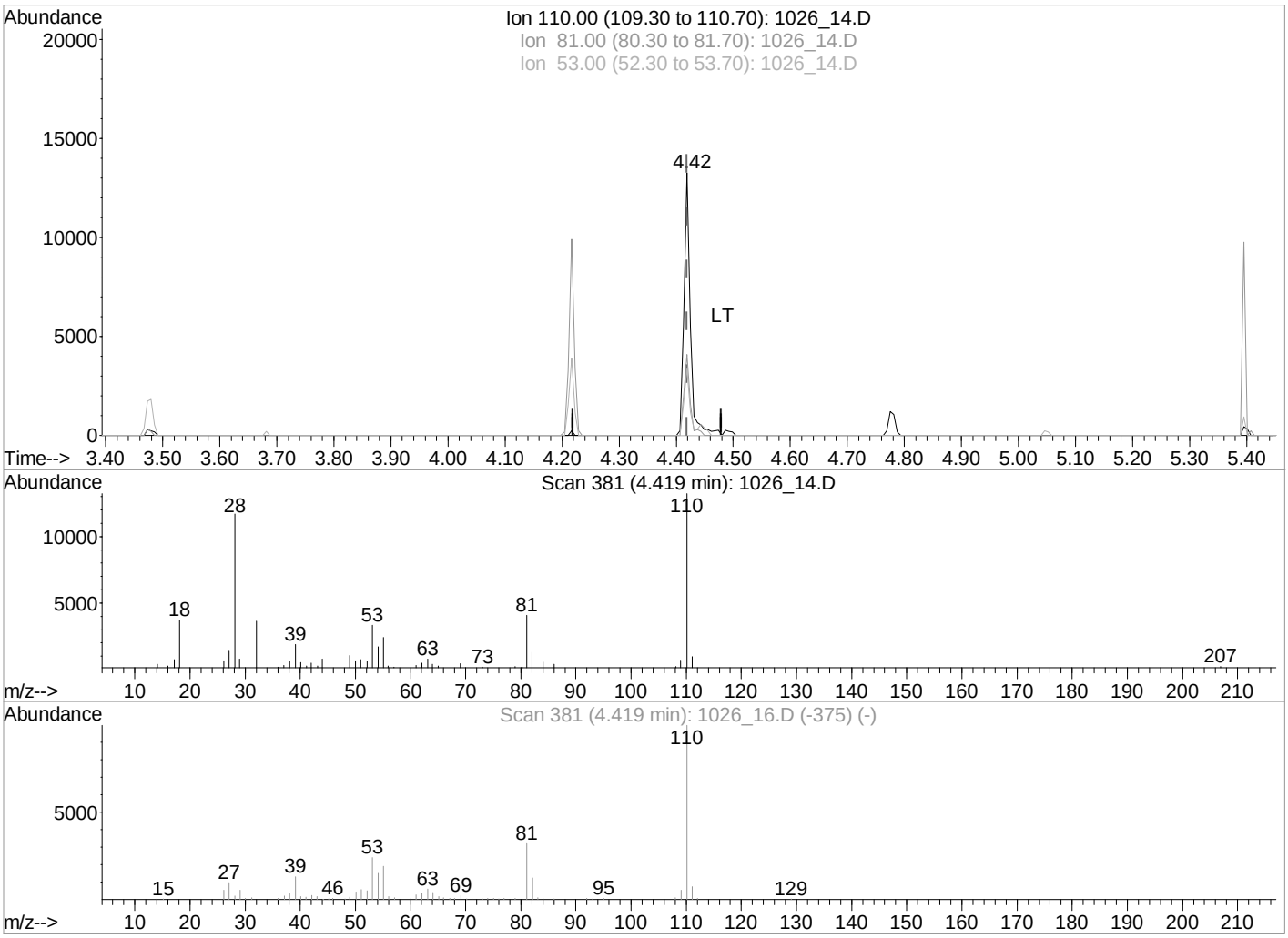
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.75
53.00	23.80	25.17
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(37) Hydroquinone

4.42min (-0.000) 1663.6881505 ppb m

response 10219

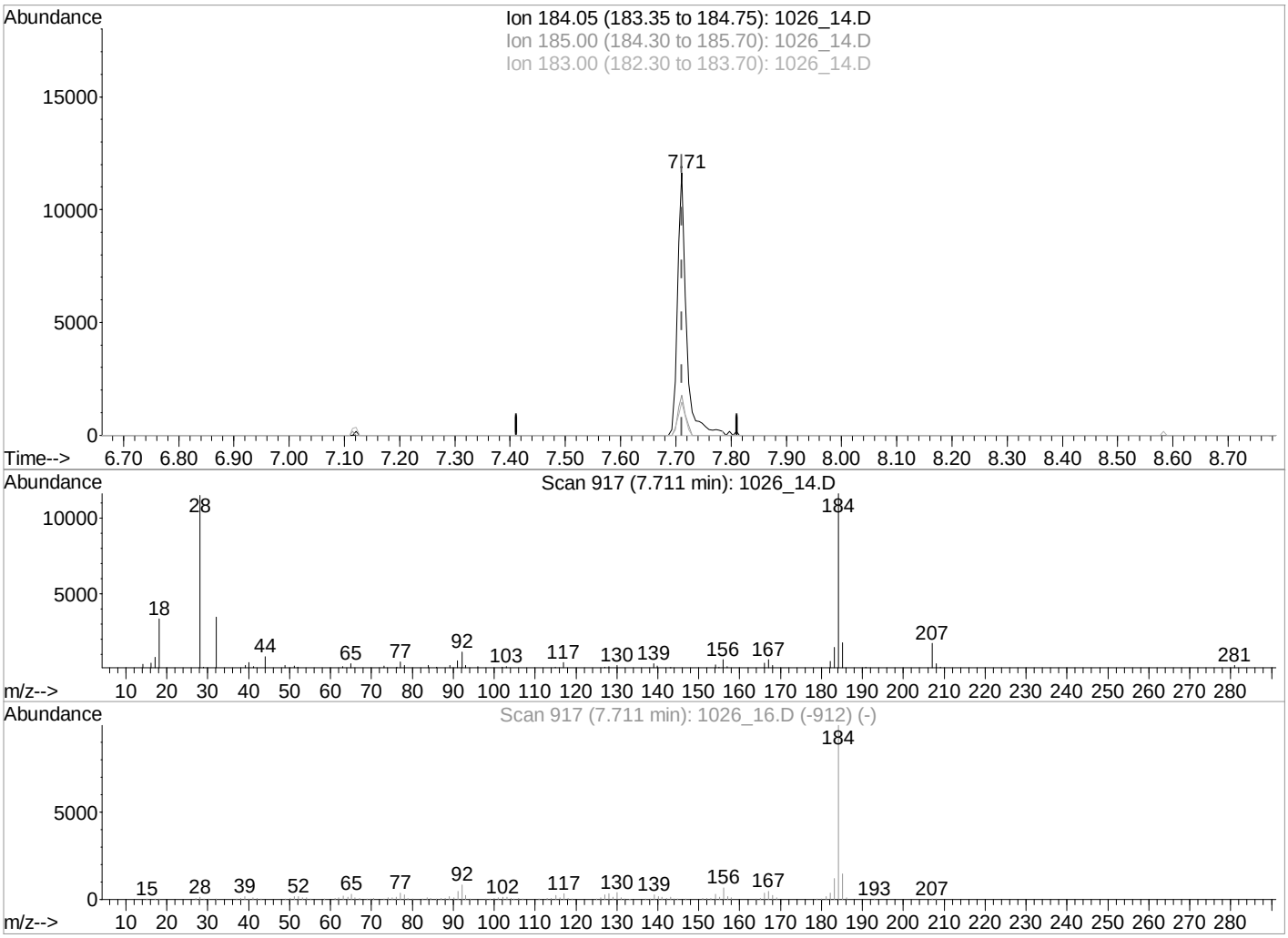
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.75
53.00	23.80	25.17
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:11 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(85) Benzidine (MT)

7.71min (-0.000) 777.7410910 ppb

Qvalue = 97

response 13092

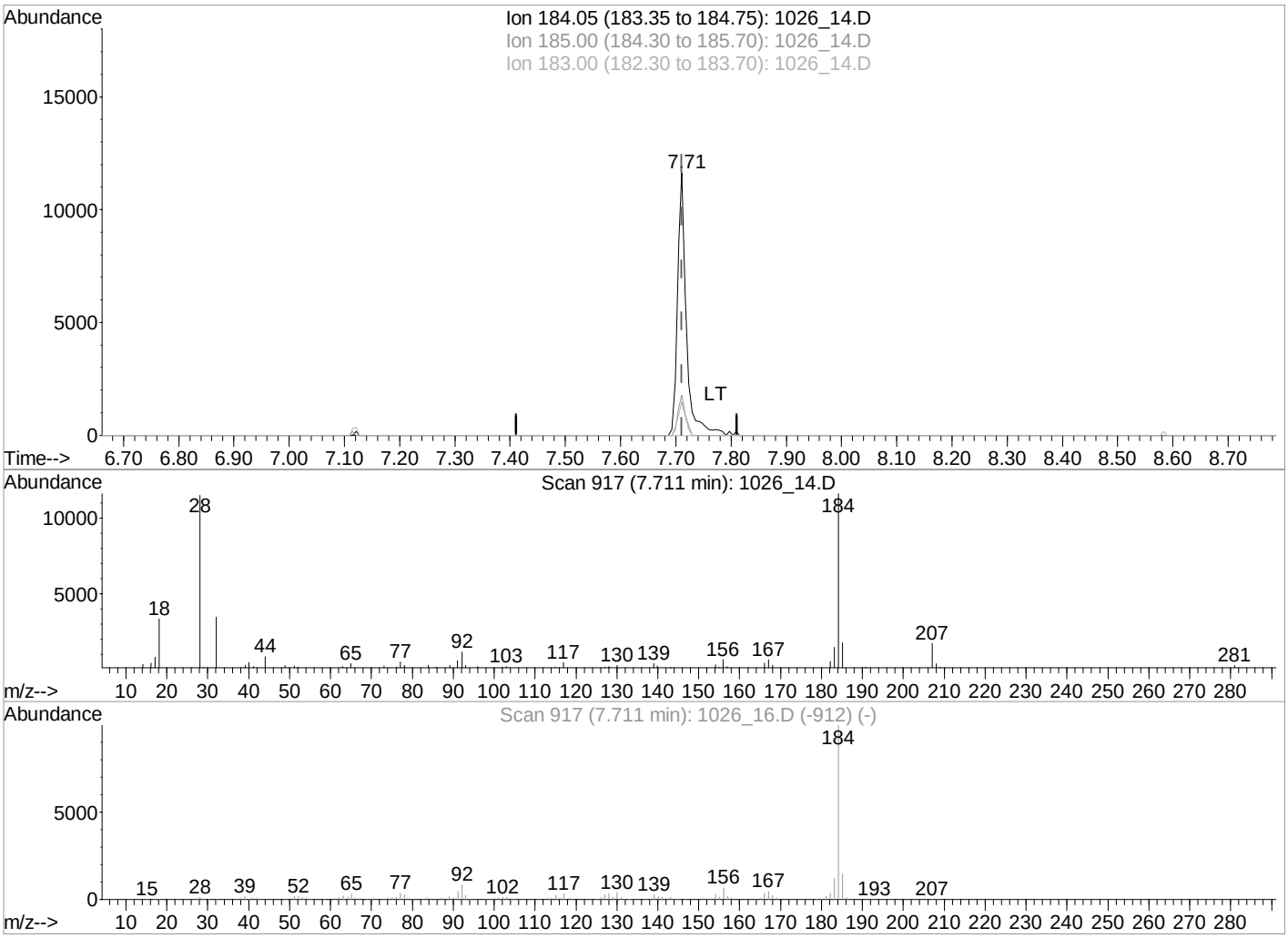
Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.01
183.00	11.70	10.77
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:26 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 14.D Vial: 11
Acq On : 27 Oct 2022 1:58 am Operator: 917
Sample : STD TCL 1K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:43:09 2022
Response via : Single Level Calibration



TIC: 1026_14.D

(85) Benzidine (MT)

7.71min (-0.000) 777.8599027 ppb m

response 13094

Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.01
183.00	11.70	10.77
0.00	0.00	0.00

1026_14.D S804J26V.M Thu Oct 27 06:44:32 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

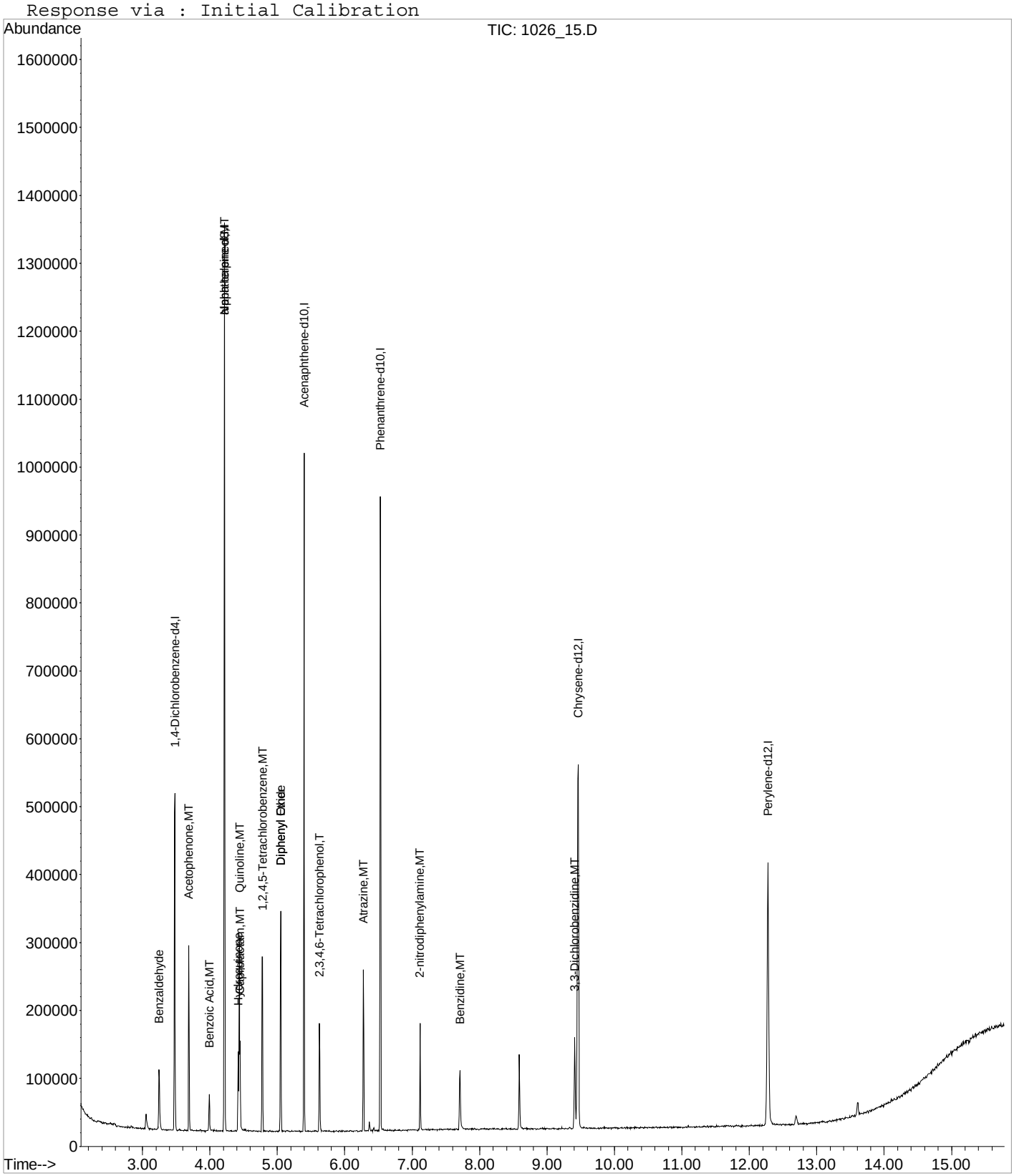
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79963	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	332029	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	158298	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	306704	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	274856	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	269464	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	16560	2834.8977718	ppb	97
22) Acetophenone	3.69	105	55468	2917.8719953	ppb	97
31) Benzoic Acid	3.99	105	13344	2860.2561449	ppb	95
33) alpha-terpineol	4.22	59	34595	2810.8073037	ppb	98
37) Hydroquinone	4.42	110	25869	3062.5168420	ppb	96
38) Quinoline	4.44	129	80742	2935.5365240	ppb	98
39) Caprolactam	4.45	113	8754	2739.3573932	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	43433	2952.6099360	ppb	99
44) Diphenyl Ether	5.05	170	55397	2957.3082227	ug/ml	98
45) Diphenyl Oxide	5.05	170	55397	2957.3082227	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.62	232	17811	2865.7144807	ppb	98
69) Atrazine	6.27	200	21229	2683.1689323	ppb	95
82) 2-nitrodiphenylamine	7.12	167	19618	2805.0338875	ppb	93
85) Benzidine	7.71	184	42759m	2810.3187390	ppb	
89) 3,3-Dichlorobenzidine	9.41	252	44759	2837.2584892	ppb	96

(#) = qualifier out of range (m) = manual integration
1026_15.D S804J26V.M Thu Oct 27 11:35:22 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: S804J26V.RES

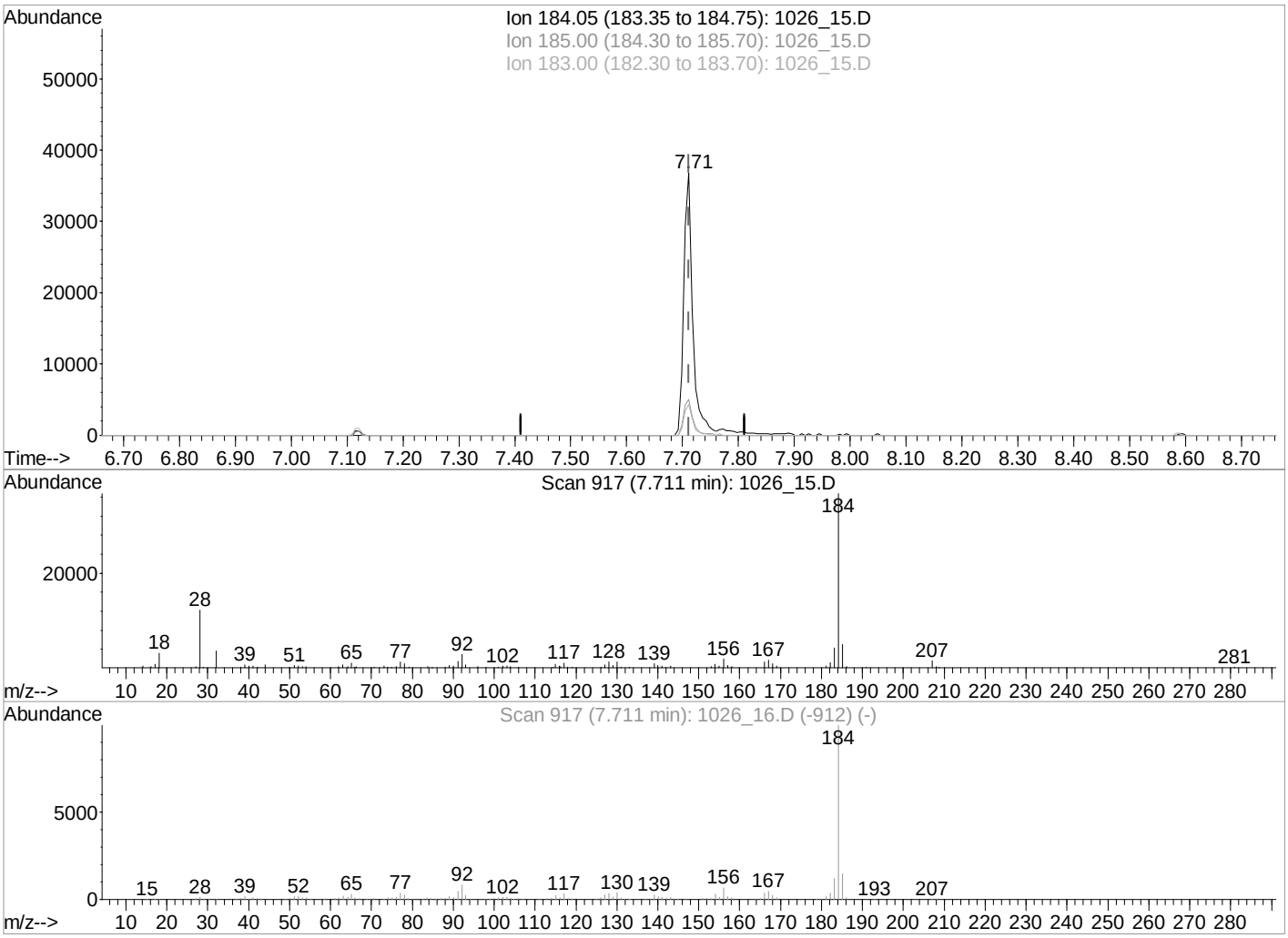
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Single Level Calibration



TIC: 1026_15.D

(85) Benzidine (MT)

7.71min (+0.000) 2663.4899529 ppb

Qvalue = 100

response 40525

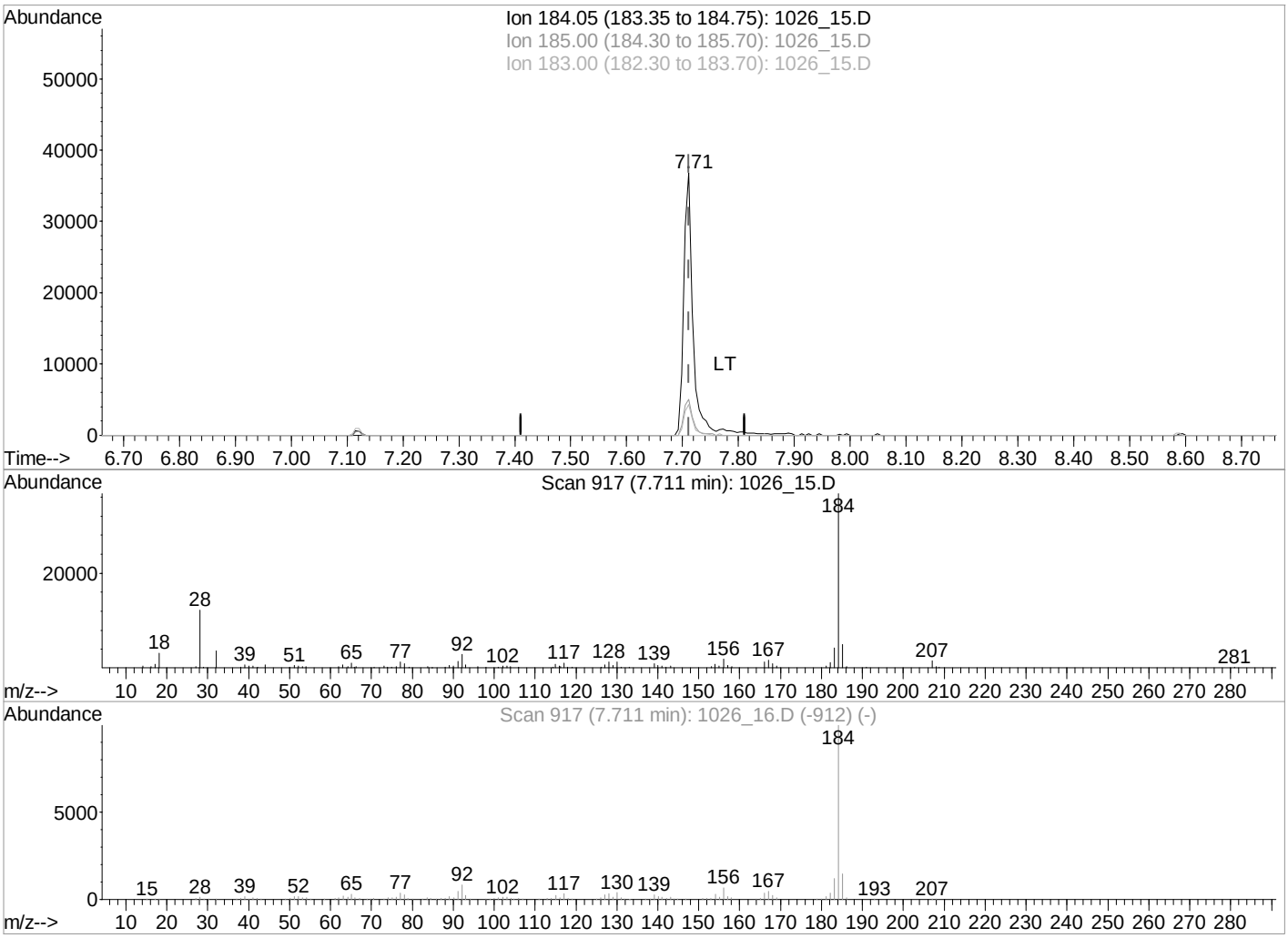
Ion	Exp%	Act%
184.05	100	100
185.00	14.50	14.31
183.00	11.70	11.56
0.00	0.00	0.00

1026_15.D S804J26V.M Thu Oct 27 06:45:53 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 15.D Vial: 12
Acq On : 27 Oct 2022 2:19 am Operator: 917
Sample : STD TCL 4K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:45 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:44:44 2022
Response via : Single Level Calibration



TIC: 1026_15.D

(85) Benzidine (MT)

7.71min (+0.000) 2810.3187390 ppb m

response 42759

Ion	Exp%	Act%
184.05	100	100
185.00	14.50	13.56
183.00	11.70	10.95
0.00	0.00	0.00

1026_15.D S804J26V.M Thu Oct 27 06:45:58 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: S804J26V.RES

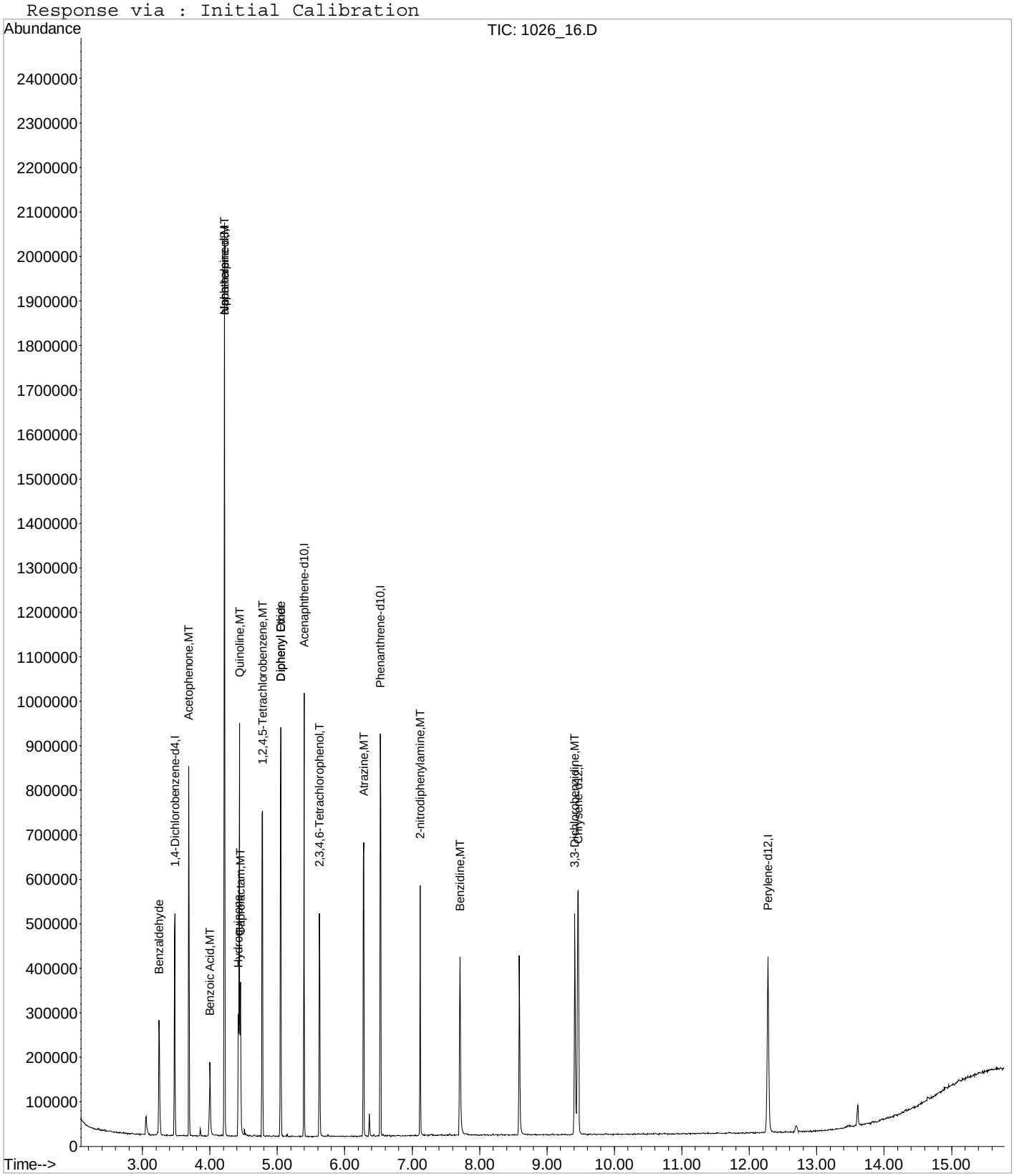
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79609	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	360120	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157379	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	304079	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	280072	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	269964	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	49113	10000.0000000	ppb	100
22) Acetophenone	3.69	105	169553	10000.0000000	ppb	100
31) Benzoic Acid	4.00	105	54993	10000.0000000	ppb	100
33) alpha-terpineol	4.22	59	107004	10000.0000000	ppb	100
37) Hydroquinone	4.42	110	68789m	9998.4011628	ppb	
38) Quinoline	4.44	129	244262	10000.0000000	ppb	100
39) Caprolactam	4.46	113	26282	10000.0000000	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	124664	10000.0000000	ppb	100
44) Diphenyl Ether	5.05	170	164329	10000.0000000	ug/ml	100
45) Diphenyl Oxide	5.05	170	164329	10000.0000000	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.62	232	55867	10000.0000000	ppb	100
69) Atrazine	6.28	200	71826	10000.0000000	ppb	100
82) 2-nitrodiphenylamine	7.12	167	72253	10008.1724243	ppb	100
85) Benzidine	7.71	184	174409	10000.0000000	ppb	100
89) 3,3-Dichlorobenzidine	9.41	252	152831	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration
1026_16.D S804J26V.M Thu Oct 27 11:35:28 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: S804J26V.RES

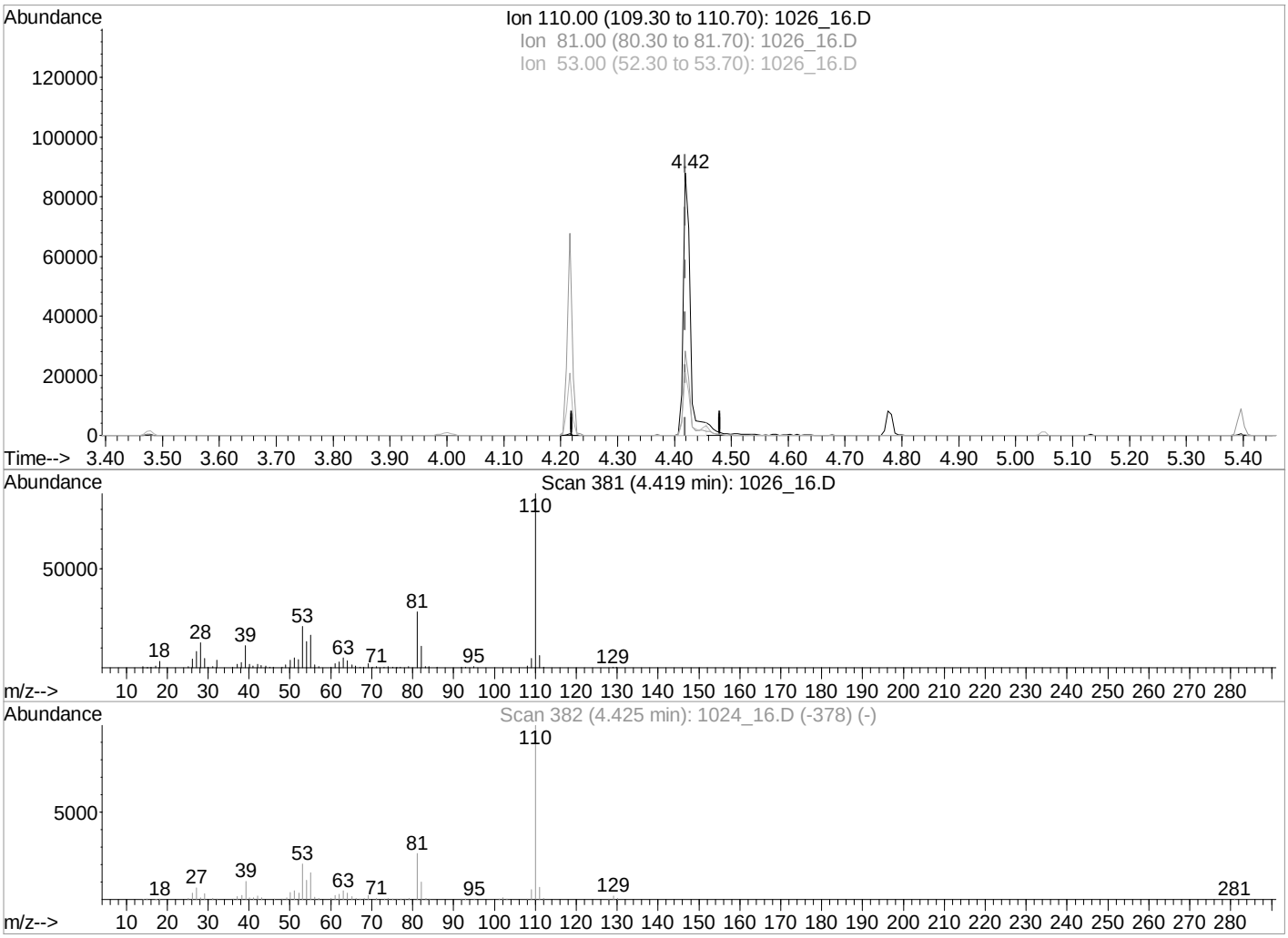
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:24 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Single Level Calibration



TIC: 1026_16.D

(37) Hydroquinone

4.42min (0.000) 10710.0290698 ppb

Qvalue = 100

response 73685

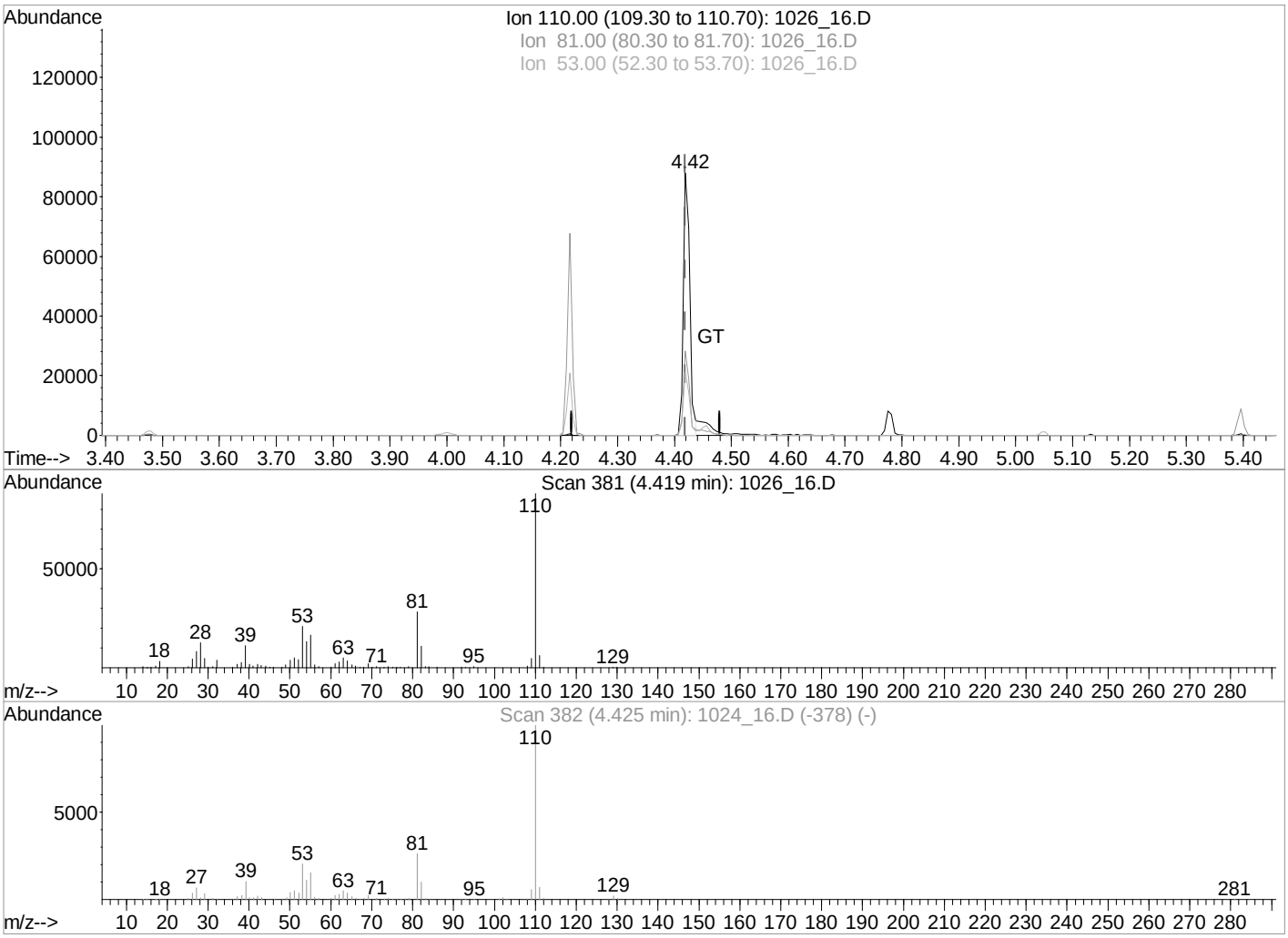
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	32.03
53.00	23.80	23.79
0.00	0.00	0.00

1026_16.D S804J26V.M Thu Oct 27 06:25:12 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 16.D Vial: 13
Acq On : 27 Oct 2022 2:39 am Operator: 917
Sample : STD TCL 10K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:25 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:24:01 2022
Response via : Single Level Calibration



TIC: 1026_16.D

(37) Hydroquinone

4.42min (0.000) 9998.4011628 ppb m

response 68789

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	32.03
53.00	23.80	23.79
0.00	0.00	0.00

1026_16.D S804J26V.M Thu Oct 27 06:25:18 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

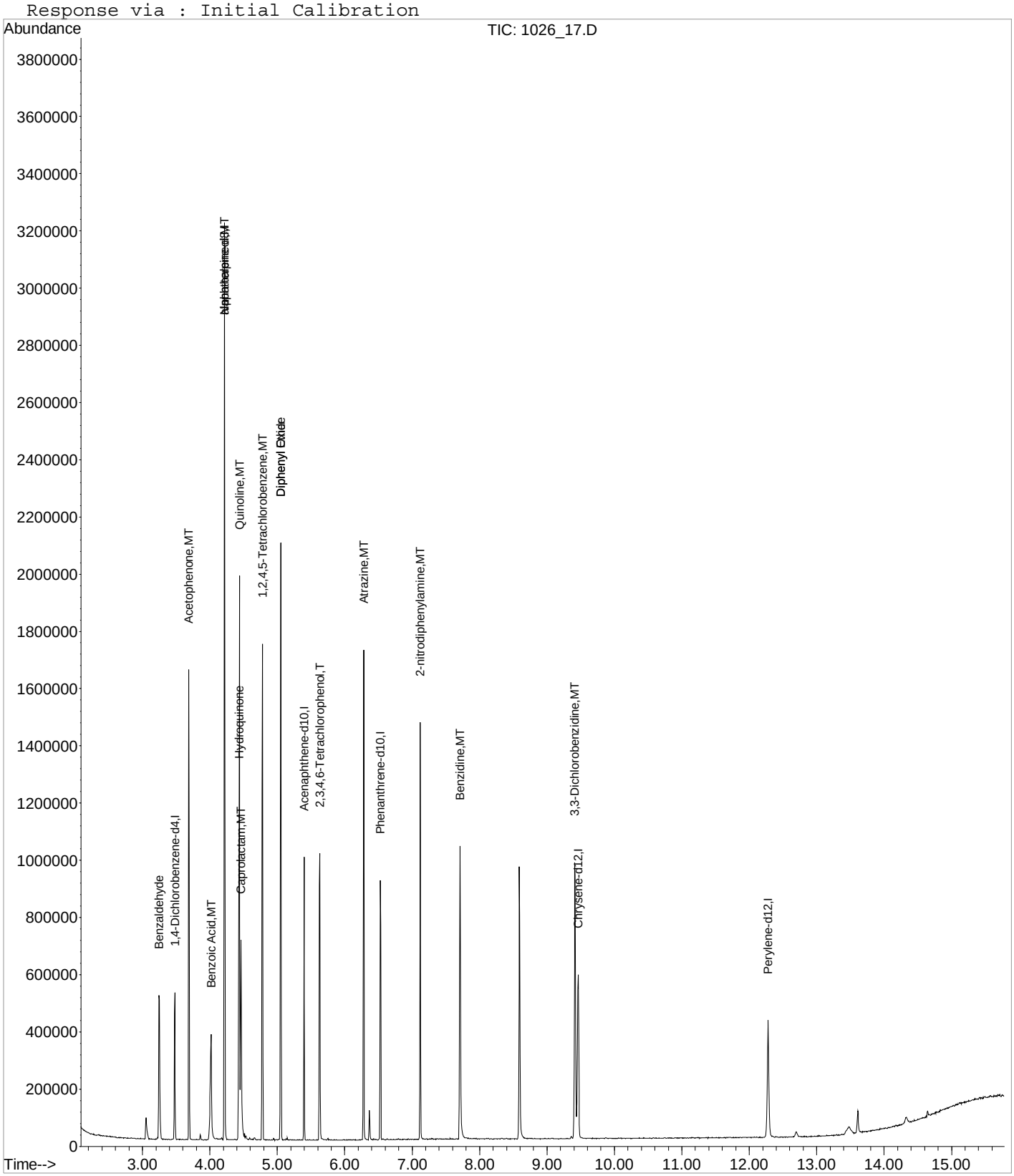
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	79205	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	408557	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	156055	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	304090	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	286052	8000.00	ppb	0.00
94) Perylene-d12	12.28	264	273147	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	101047	19341.6447967	ppb	99
22) Acetophenone	3.69	105	345613	20174.0701966	ppb	98
31) Benzoic Acid	4.02	105	133142	25627.0437077	ppb	97
33) alpha-terpineol	4.22	59	221931	16266.0532488	ppb	97
37) Hydroquinone	4.43	110	174523m	18213.8676880	ppb	
38) Quinoline	4.44	129	503653	16329.9149474	ppb	99
39) Caprolactam	4.46	113	62407	17733.7986190	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	253801	15362.6651414	ppb	99
44) Diphenyl Ether	5.05	170	339004	16107.0459037	ug/ml	99
45) Diphenyl Oxide	5.05	170	339004	16107.0459037	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	117988	21266.8491781	ppb	83
69) Atrazine	6.28	200	150025	21605.3350223	ppb	99
82) 2-nitrodiphenylamine	7.12	167	171072	27399.0010533	ppb	97
85) Benzidine	7.71	184	409142	28681.7128387	ppb	99
89) 3,3-Dichlorobenzidine	9.41	252	328381	22147.1882565	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_17.D S804J26V.M Thu Oct 27 11:35:44 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: S804J26V.RES

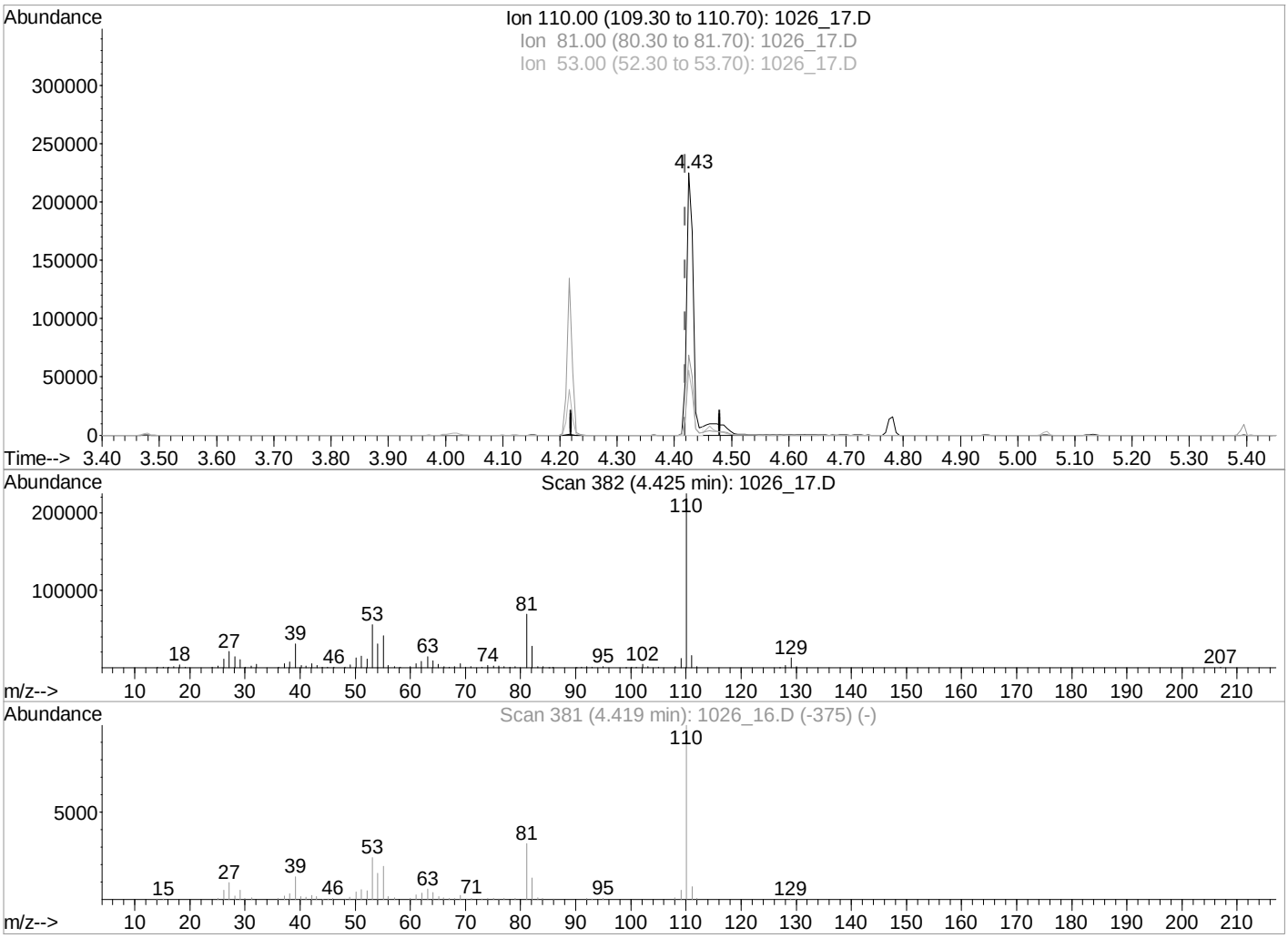
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:46 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Single Level Calibration



TIC: 1026_17.D

(37) Hydroquinone

4.43min (+0.006) 18501.2853442 ppb

Qvalue = 98

response 177277

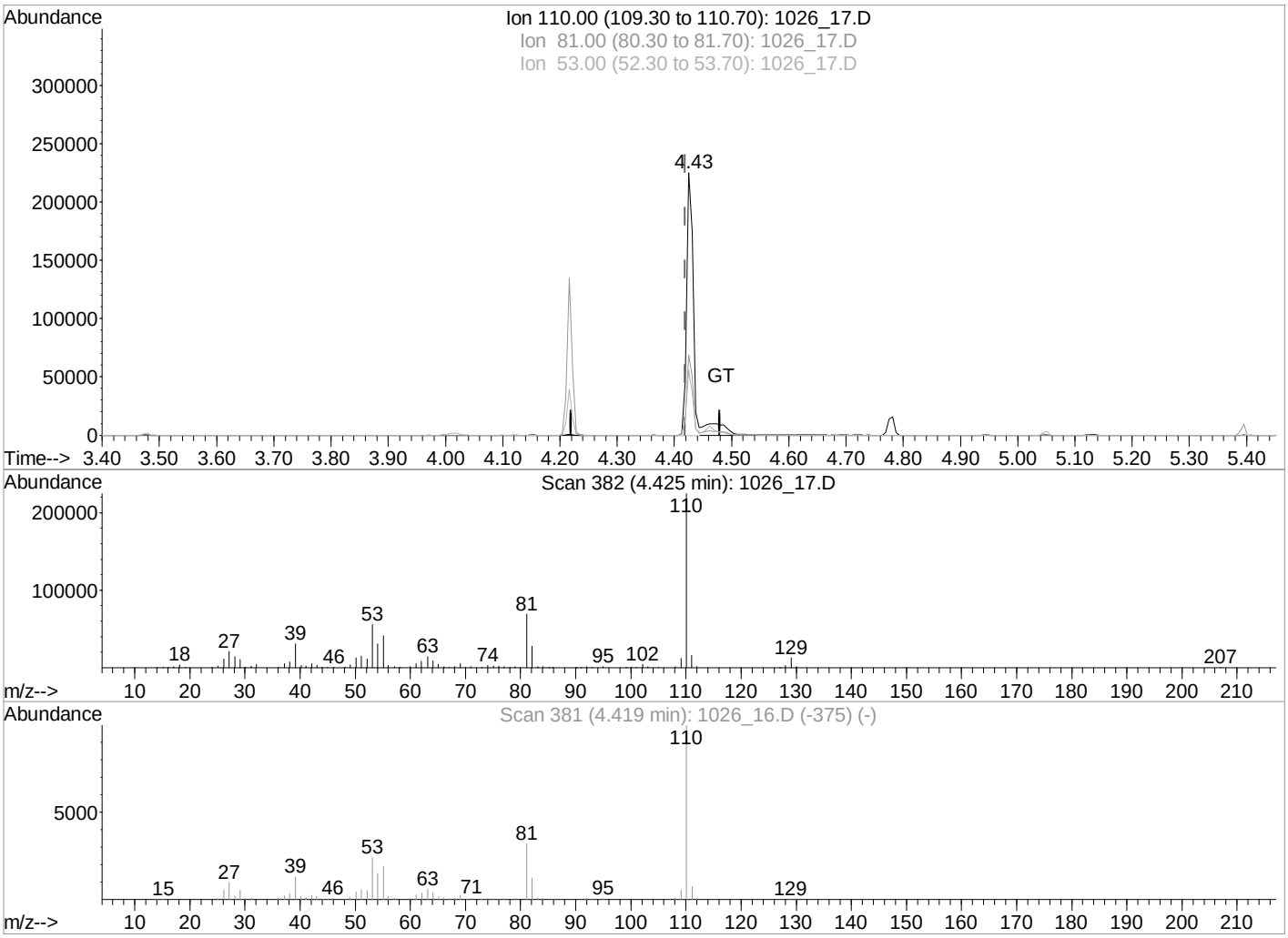
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.62
53.00	23.80	24.68
0.00	0.00	0.00

1026_17.D S804J26V.M Thu Oct 27 06:47:03 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 17.D Vial: 14
Acq On : 27 Oct 2022 3:00 am Operator: 917
Sample : STD TCL 20K1 PPB 22J20312 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:47 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:46:07 2022
Response via : Single Level Calibration



TIC: 1026_17.D

(37) Hydroquinone

4.43min (+0.006) 18213.8676880 ppb m

response 174523

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	30.62
53.00	23.80	24.68
0.00	0.00	0.00

1026_17.D S804J26V.M Thu Oct 27 06:47:08 2022

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 18.D Vial: 15
Acq On : 27 Oct 2022 3:21 am Operator: 917
Sample : STD TCL 30K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:48 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:47:28 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

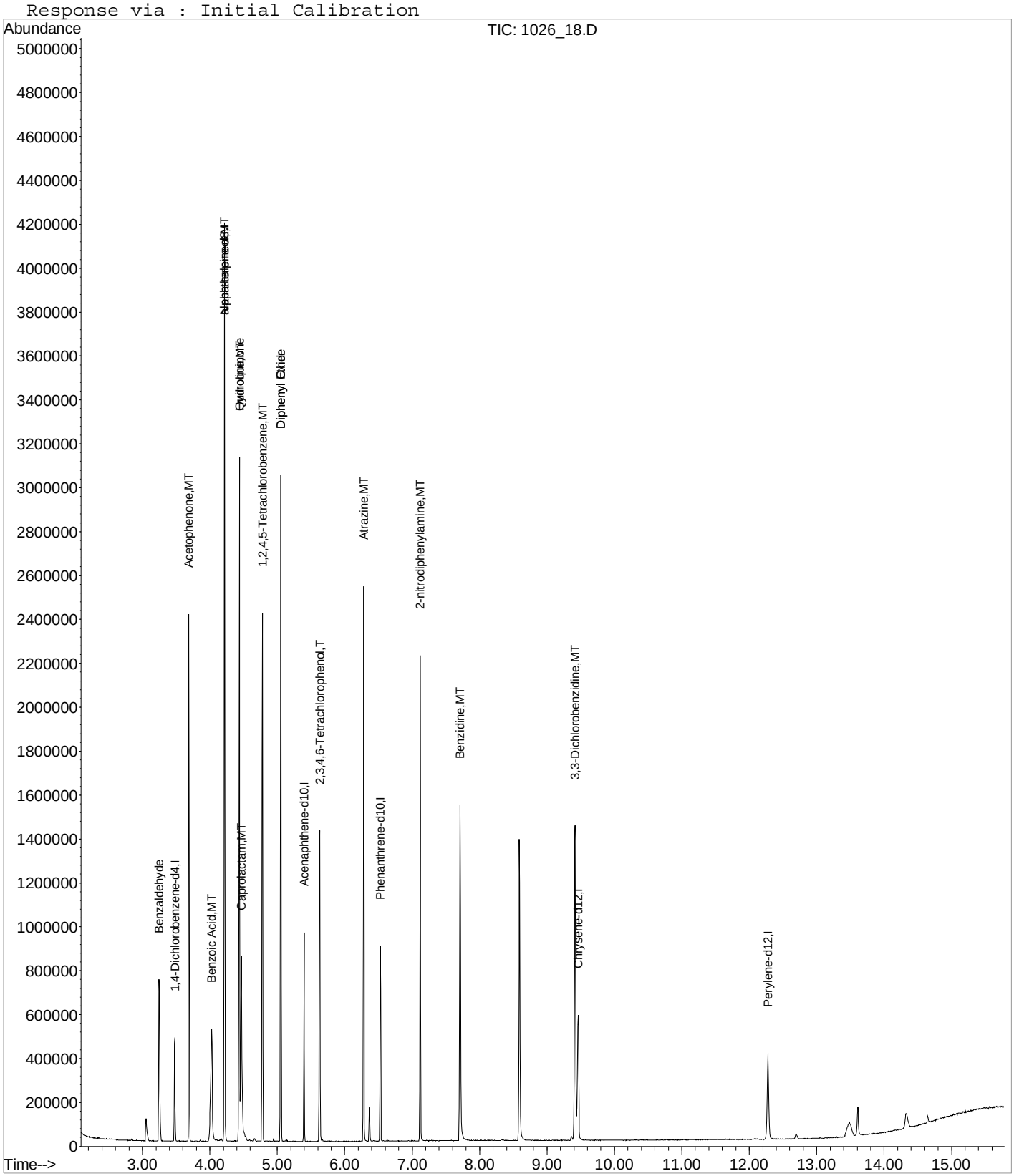
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	77084	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	443329	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	152617	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	294924	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	274135	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	259301	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	144982	28751.5464408	ppb	99
22) Acetophenone	3.69	105	493580	29539.6552227	ppb	98
31) Benzoic Acid	4.03	105	212443	35207.1937498	ppb	98
33) alpha-terpineol	4.22	59	322426	22844.3867677	ppb	98
37) Hydroquinone	4.43	110	264433	26013.4467196	ppb	96
38) Quinoline	4.44	129	725924	22733.4514153	ppb	98
39) Caprolactam	4.47	113	95080	25625.0221994	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	360244	21331.9346591	ppb	99
44) Diphenyl Ether	5.05	170	480422	22111.8763521	ug/ml	99
45) Diphenyl Oxide	5.05	170	480422	22111.8763521	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	168176	30512.7022480	ppb	84
69) Atrazine	6.28	200	218145	31491.1734070	ppb	99
82) 2-nitrodiphenylamine	7.12	167	260582	39389.0721448	ppb	97
85) Benzidine	7.71	184	619741	40895.7016385	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	477821	32747.9104690	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_18.D S804J26V.M Thu Oct 27 11:35:51 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 18.D Vial: 15
Acq On : 27 Oct 2022 3:21 am Operator: 917
Sample : STD TCL 30K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:48 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 19.D Vial: 16
Acq On : 27 Oct 2022 3:42 am Operator: 917
Sample : STD TCL 40K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:49 2022 Quant Results File: S804J26V.RES

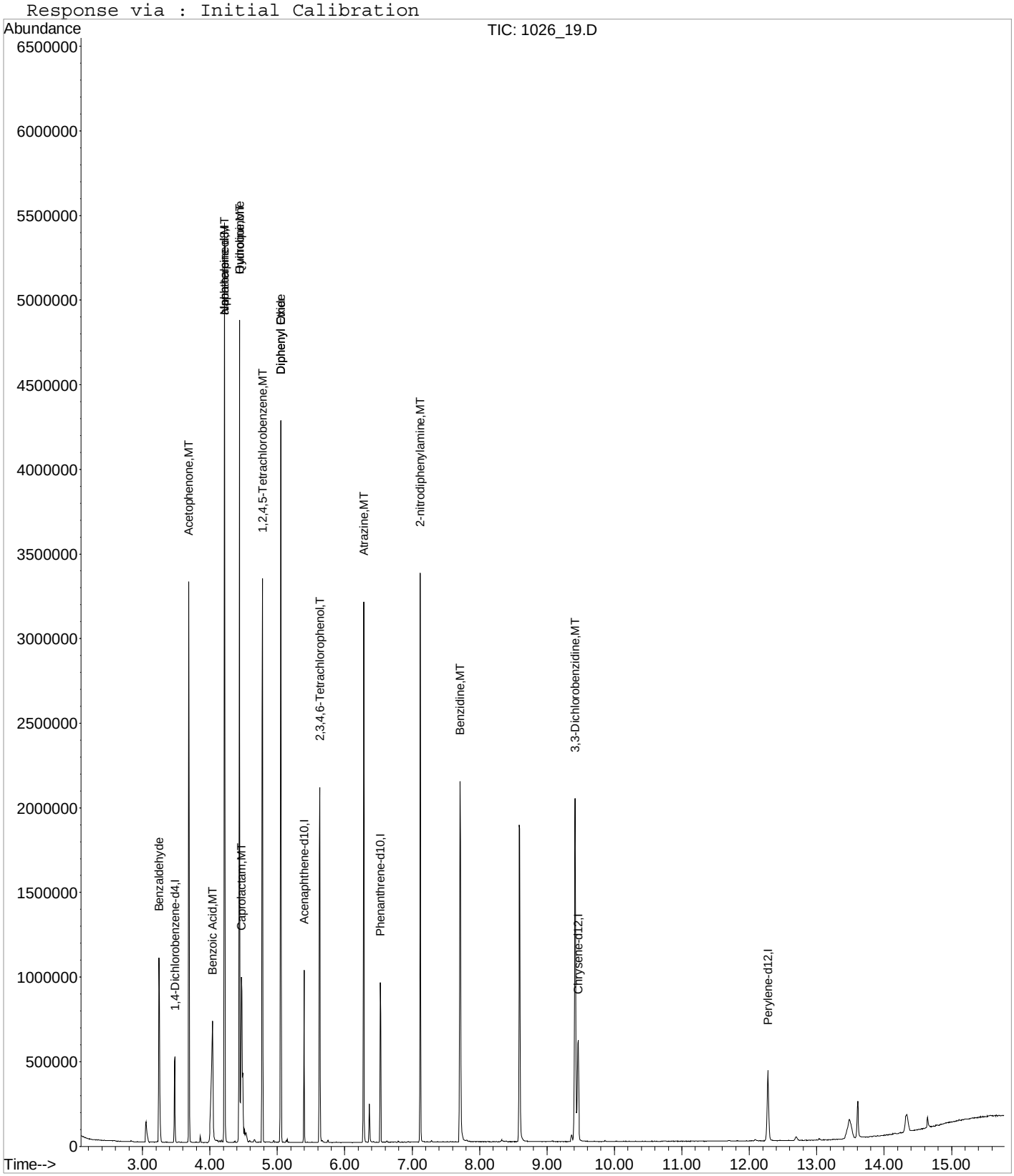
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:48:50 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	81768	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	516616	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	162233	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	311659	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	296007	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	282083	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	200315	37763.4123482	ppb	99
22) Acetophenone	3.69	105	693354	39239.0645438	ppb	99
31) Benzoic Acid	4.04	105	311437	42805.2357277	ppb	95
33) alpha-terpineol	4.22	59	450815	28782.8752713	ppb	97
37) Hydroquinone	4.44	110	385207	33406.6642613	ppb	95
38) Quinoline	4.44	129	1018632	28768.3740163	ppb	98
39) Caprolactam	4.47	113	135041	32170.2374008	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	502559	27103.7752426	ppb	99
44) Diphenyl Ether	5.05	170	670075	27934.7828359	ug/ml	99
45) Diphenyl Oxide	5.05	170	670075	27934.7828359	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	236201	40177.2496401	ppb	86
69) Atrazine	6.28	200	307721	41377.8916440	ppb	99
82) 2-nitrodiphenylamine	7.12	167	379848	51133.3611252	ppb	96
85) Benzidine	7.71	184	908431	51756.9533777	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	673981	42009.2088024	ppb	99

(#) = qualifier out of range (m) = manual integration
1026_19.D S804J26V.M Thu Oct 27 11:35:58 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 19.D Vial: 16
Acq On : 27 Oct 2022 3:42 am Operator: 917
Sample : STD TCL 40K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:49 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 20.D Vial: 17
Acq On : 27 Oct 2022 4:03 am Operator: 917
Sample : STD TCL 50K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:50 2022 Quant Results File: S804J26V.RES

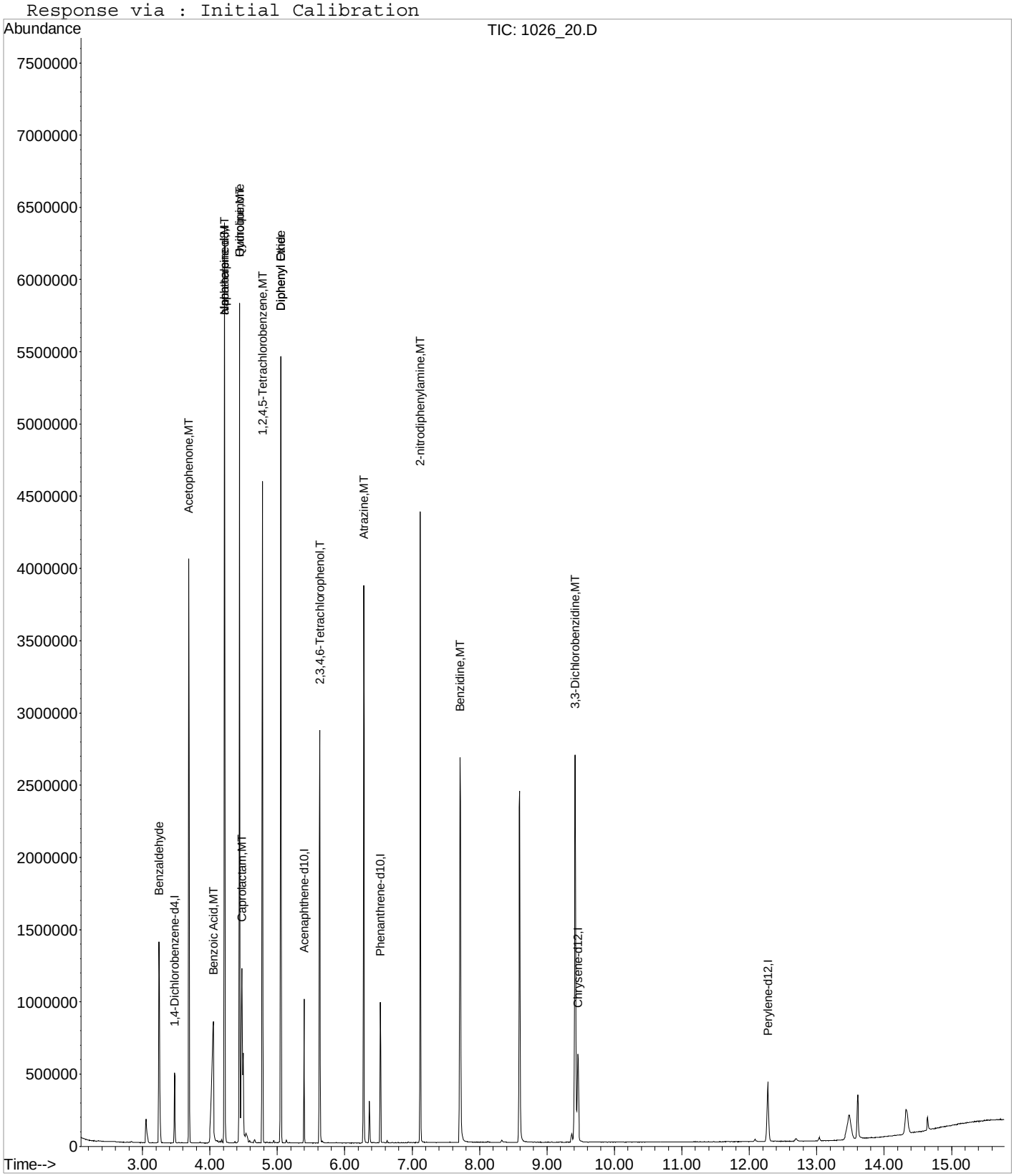
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 06:50:07 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	78832	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	563742	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	157355	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	311846	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	287856	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	276090	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	257181	50762.5800155	ppb	99
22) Acetophenone	3.69	105	899003	52940.0975689	ppb	99
31) Benzoic Acid	4.05	105	414494	51604.2640726	ppb	95
33) alpha-terpineol	4.22	59	577892	35469.7141645	ppb	96
37) Hydroquinone	4.44	110	502209	41040.1447236	ppb	98
38) Quinoline	4.44	129	1317358	35768.8132386	ppb	98
39) Caprolactam	4.47	113	177238	39997.9393944	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	643024	33584.9157848	ppb	99
44) Diphenyl Ether	5.05	170	857259	34484.3493789	ug/ml	99
45) Diphenyl Oxide	5.05	170	857259	34484.3493789	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.63	232	307648	53912.6393938	ppb	86
69) Atrazine	6.28	200	407431	56161.3704392	ppb	100
82) 2-nitrodiphenylamine	7.12	167	508675	65400.5225237	ppb	96
85) Benzidine	7.71	184	1154314	64469.9277718	ppb	99
89) 3,3-Dichlorobenzidine	9.42	252	876013	55681.8229058	ppb	98

(#) = qualifier out of range (m) = manual integration
1026_20.D S804J26V.M Thu Oct 27 11:36:04 2022

Data File : C:\MSDCHEM\1\DATA\102622\1026 20.D Vial: 17
Acq On : 27 Oct 2022 4:03 am Operator: 917
Sample : STD TCL 50K1 PPB 22J27280 EXP: 04/21/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 2J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 6:50 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1557921	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1026_22-1	**Analysis date/time:**	10/27/22 04:45
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.114506	0.08502465		25.70		10	7.425	74.30	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 22.D Vial: 19
Acq On : 27 Oct 2022 4:45 am Operator: 917
Sample : SSCV TCL 10K1 PPB 22J272830 EXP: 11/06/ Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:43 2022 Quant Results File: S804J26V.RES

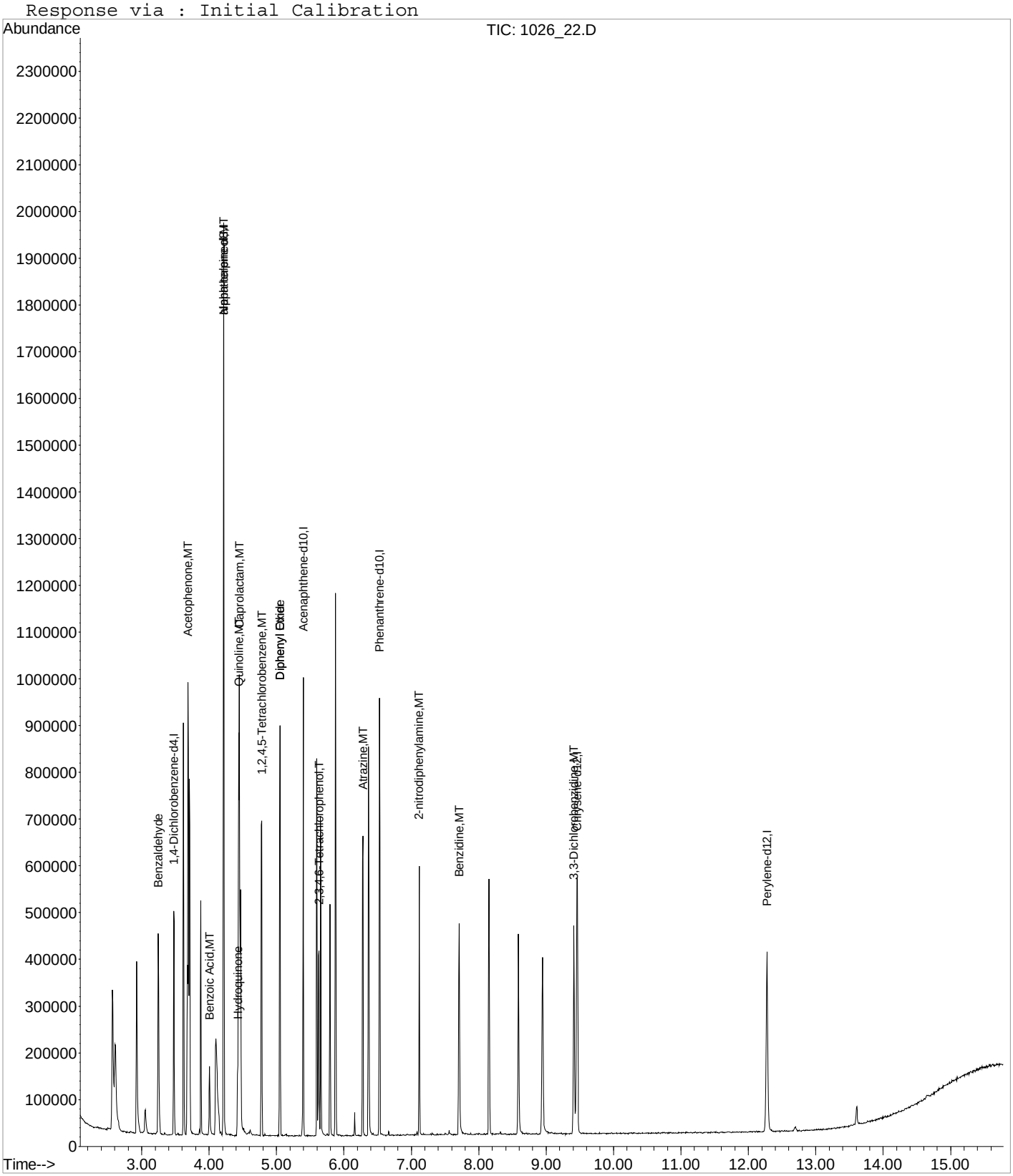
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	77918	8000.00	ppb	0.00
23) Naphthalene-d8	4.22	136	351324	8000.00	ppb	0.00
46) Acenaphthene-d10	5.40	164	154268	8000.00	ppb	0.00
70) Phenanthrene-d10	6.53	188	298912	8000.00	ppb	0.00
84) Chrysene-d12	9.46	240	276094	8000.00	ppb	0.00
94) Perylene-d12	12.27	264	264079	8000.00	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.25	105	79066	16614.9021312	ppb	99
22) Acetophenone	3.69	105	158342	9355.1663395	ppb #	81
31) Benzoic Acid	4.01	105	37339	7425.3427876	ppb	95
33) alpha-terpineol	4.22	59	98515	11255.2563556	ppb	98
37) Hydroquinone	4.42	110	32324	4747.5512936	ppb	99
38) Quinoline	4.44	129	234242	11735.9356126	ppb	99
39) Caprolactam	4.46	113	31929	13139.9850546	ppb #	49
43) 1,2,4,5-Tetrachlorobenzene	4.78	216	114266	10856.8985740	ppb	99
44) Diphenyl Ether	5.05	170	151573	10929.0592749	ug/ml	100
45) Diphenyl Oxide	5.05	170	151573	10929.0592749	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.63	232	49781	8799.8806880	ppb	85
69) Atrazine	6.28	200	66429	9178.4061265	ppb	100
82) 2-nitrodiphenylamine	7.12	167	71319	9595.7566297	ppb	99
85) Benzidine	7.71	184	190216	9664.1933766	ppb	99
89) 3,3-Dichlorobenzidine	9.41	252	139443	9093.3582633	ppb	97

(#) = qualifier out of range (m) = manual integration
1026_22.D S804J26V.M Thu Oct 27 11:43:37 2022 Page 1

Data File : C:\MSDCHEM\1\DATA\102622\1026 22.D Vial: 19
Acq On : 27 Oct 2022 4:45 am Operator: 917
Sample : SSCV TCL 10K1 PPB 22J272830 EXP: 11/06/ Inst : BNAMS4
Misc : TCL ICAL ISTD 22J19160 EXP:04/19/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:43 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1557921	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1026_25-1	**Analysis date/time:**	10/27/22 10:17
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.630728	0.66180030		4.93		10	10.49	105	50 - 150
2-METHYLNAPHTHALENE	0.663331	0.67598590		1.91		10	10.19	102	50 - 150
3&4-METHYL PHENOL	1.310460	1.346521		2.75		10	10.28	103	50 - 150
ACENAPHTHENE	1.237201	1.263491		2.12		10	10.21	102	80 - 120
ACENAPHTHYLENE	1.811284	1.861128		2.75		10	10.28	103	50 - 150
ANTHRACENE	1.093532	1.099580		0.5530		10	10.06	101	50 - 150
BENZO(A)ANTHRACENE	1.137290	1.125994		0.9930		10	9.901	99	50 - 150
BENZO(A)PYRENE	0.967529	1.070251		10.60		10	11.06	111	80 - 120
BENZO(B)FLUORANTHENE	1.156852	1.159030		0.1880		10	10.02	100	50 - 150
BENZO(G,H,I)PERYLENE	1.131717	1.183649		4.59		10	10.46	105	50 - 150
BENZO(K)FLUORANTHENE	1.205862	1.253048		3.91		10	10.39	104	50 - 150
BIS(2-ETHYLHEXYL)PHTHALATE	0.623139	0.65360830		4.89		10	9.141	91.40	50 - 150
CARBAZOLE	0.967635	1.020089		5.42		10	10.54	105	50 - 150
CHRYSENE	1.176685	1.225552		4.15		10	10.42	104	50 - 150
DI-N-BUTYL PHTHALATE	1.119355	1.170063		4.53		10	9.276	92.80	50 - 150
DI-N-OCTYL PHTHALATE	0.998390	0.97057650		2.79		10	8.843	88.40	80 - 120
DIBENZ(A,H)ANTHRACENE	1.133472	1.172769		3.47		10	10.35	104	50 - 150
DIBENZOFURAN	1.683731	1.695539		0.7010		10	10.07	101	50 - 150
FLUORANTHENE	1.157378	1.154334		0.2630		10	9.974	99.70	80 - 120
FLUORENE	1.399230	1.465246		4.72		10	10.47	105	50 - 150
INDENO(1,2,3-CD)PYRENE	1.013611	1.027802		1.40		10	10.14	101	50 - 150
NAPHTHALENE	1.018737	1.029480		1.05		10	10.11	101	50 - 150
PENTACHLOROPHENOL	0.137739	0.16414620		19.20		10	10.84	108	80 - 120
PHENANTHRENE	1.107688	1.108376		0.0621		10	10.01	100	50 - 150
PHENOL	1.583712	1.600367		1.05		10	10.11	101	80 - 120
PYRENE	1.256004	1.281748		2.05		10	10.20	102	50 - 150
2,4,6-TRIBROMOPHENOL	0.122213	0.10974170		10.20		10	8.980	89.80	50 - 150
2-FLUOROBIPHENYL	1.462951	1.3946		4.67		10	9.533	95.30	50 - 150
2-FLUOROPHENOL	1.212061	1.137623		6.14		10	9.386	93.90	50 - 150
NITROBENZENE-D5	0.342792	0.32707190		4.59		10	9.541	95.40	50 - 150
P-TERPHENYL-D14	1.092912	1.024757		6.24		10	9.376	93.80	50 - 150
PHENOL-D5	1.561757	1.441802		7.68		10	9.232	92.30	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.48	152	76355	8000.00 ppb	0.00
23) Naphthalene-d8	4.22	136	297992	8000.00 ppb	0.00
46) Acenaphthene-d10	5.40	164	150372	8000.00 ppb	0.00
70) Phenanthrene-d10	6.53	188	290770	8000.00 ppb	0.00
84) Chrysene-d12	9.46	240	275480	8000.00 ppb	0.00
94) Perylene-d12	12.28	264	278976	8000.00 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	108579	9385.8549625 ppb	0.00
Spiked Amount 20000.000			Recovery = 46.93%		
7) Phenol-d5	3.24	99	137611	9231.9234792 ppb	0.00
Spiked Amount 20000.000			Recovery = 46.16%		
24) Nitrobenzene-d5	3.78	82	121831m	9541.4154411 ppb	0.00
Spiked Amount 10000.000			Recovery = 95.41%		
50) 2-Fluorobiphenyl	4.91	172	262136	9532.7870931 ppb	0.00
Spiked Amount 10000.000			Recovery = 95.33%		
73) 2,4,6-Tribromophenol	5.98	330	39887	8979.5520078 ppb	0.00
Spiked Amount 20000.000			Recovery = 44.90%		
87) p-Terphenyl-d14	7.99	244	352875	9376.3878830 ppb	0.00
Spiked Amount 10000.000			Recovery = 93.76%		
Target Compounds					Qvalue
2) Pyridine	2.24	79	142499	11113.0186274 ppb	97
3) N-Nitrosodimethylamine	2.23	42	56954	9980.7439654 ppb	97
5) Aniline	3.29	66	68298	10349.8524468 ppb #	94
6) bis(2-Chloroethyl)ether	3.31	93	118286m	9979.2405664 ppb	
8) Phenol	3.25	94	152745	10105.1608625 ppb	98
10) 2-Chlorophenol	3.36	128	130008	10505.4882349 ppb	97
11) n-Decane	3.36	41	64634	9182.9950321 ppb	99
12) 1,3-Dichlorobenzene	3.45	146	149878	10311.1229747 ppb	98
13) 1,4-Dichlorobenzene	3.49	146	147814	10171.5845977 ppb	98
14) Benzyl Alcohol	3.53	79	98364	10202.0991272 ppb	98
15) 1,2-Dichlorobenzene	3.57	146	144836	10582.2464586 ppb	98
16) bis(2-Chloroisopropyl)ethe	3.61	121	45465	10578.6122073 ppb	100
17) 2,2-oxybis(1-chloropropane	3.61	121	45465	10578.6122073 ppb	100
18) 2-Methylphenol	3.58	108	117800	10556.3640693 ppb	97
19) Hexachloroethane	3.77	117	53597	10179.1234684 ppb	99
20) N-Nitrosodi-n-propylamine	3.68	70	84140	9989.1066488 ppb	99
21) 3&4-Methyl phenol	3.66	107	128517	10275.1788296 ppb	98
25) Nitrobenzene	3.79	77	132893	10444.7057981 ppb	100
26) Isophorone	3.93	82	230980	10065.3605452 ppb	97
27) 2-Nitrophenol	3.98	139	65140	10160.9966184 ppb	96
28) 2,4-Dimethylphenol	3.98	107	126351	10690.6313592 ppb	98
29) bis(2-Chlorethoxy)methane	4.04	93	150753	10562.6346363 ppb	99
30) 2,4-Dichlorophenol	4.12	162	102438	10381.3405385 ppb	95
32) 1,2,4-Trichlorobenzene	4.17	180	121444	10356.1850237 ppb	98
34) Naphthalene	4.23	128	383471	10105.4536120 ppb	99
35) 4-Chloroaniline	4.25	65	41701	10378.7843420 ppb	97
36) Hexachloro-1,3-butadiene	4.30	225	74372	11109.0645023 ppb	98
40) 4-Chloro-3-methylphenol	4.54	107	94990	10125.6994867 ppb	98
41) 2-Methylnaphthalene	4.67	142	251798	10190.7823460 ppb	99
42) 1-Methylnaphthalene	4.74	142	246514	10492.6458180 ppb	99
47) Hexachlorocyclopentadiene	4.77	237	73978	9784.6194553 ppb	99
48) 2,4,6-Trichlorophenol	4.85	196	74186	10605.7413827 ppb	98
49) 2,4,5-Trichlorophenol	4.87	196	76097	10424.0795102 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

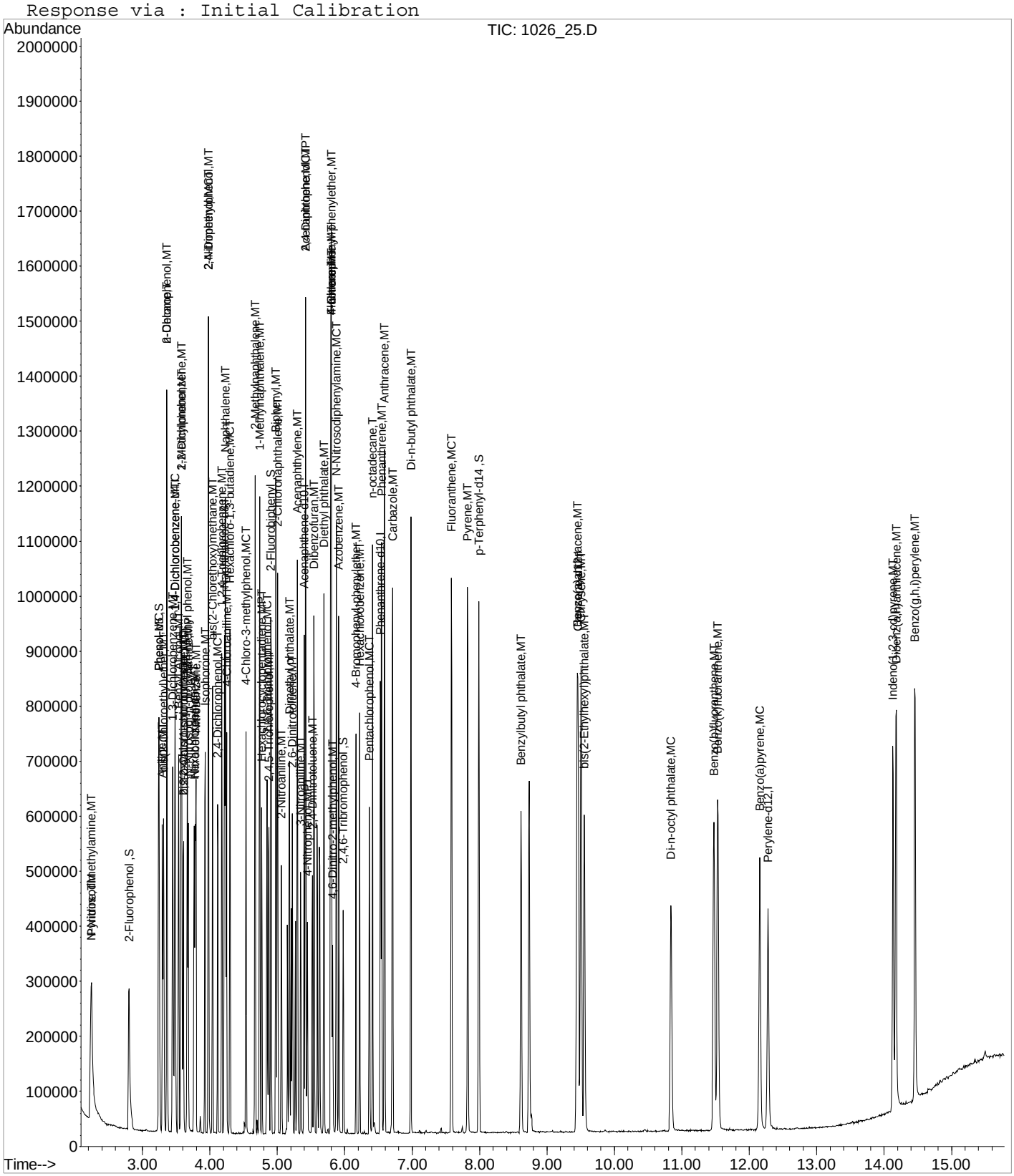
Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.98	154	291218	9492.6091817 ppb		100
52)	2-Chloronaphthalene	5.00	162	235796	10426.3822924 ppb		99
53)	2-Nitroaniline	5.06	138	70434	10539.5956311 ppb		98
54)	Acenaphthylene	5.30	152	349827	10275.1857456 ppb		100
55)	Dimethyl phthalate	5.18	163	238793	10111.6844384 ppb		99
56)	2,6-Dinitrotoluene	5.22	165	58887	10939.1236332 ppb		97
57)	3-Nitroaniline	5.35	138	58922	10357.9504777 ppb		97
58)	Acenaphthene	5.42	153	237492	10212.4922826 ppb		98
59)	2,4-Dinitrophenol	5.42	184	26428	9492.2565031 ppb	#	84
60)	Dibenzofuran	5.54	168	318702	10070.1321269 ppb		100
61)	2,4-Dinitrotoluene	5.52	165	72432	10589.8229435 ppb		96
63)	4-Nitrophenol	5.44	139	50938	11123.2391831 ppb		92
64)	Fluorene	5.80	166	275415	10471.8044133 ppb		99
65)	4-Chlorophenyl-phenylether	5.79	204	130527	10428.8202011 ppb		98
66)	Diethyl phthalate	5.69	149	250726	10916.5993991 ppb		99
67)	4-Nitroaniline	5.80	138	59103	11378.8716888 ppb		99
68)	Azobenzene	5.91	77	260886	10628.5301238 ppb		99
71)	4,6-Dinitro-2-methylphenol	5.82	198	38403	8911.6685370 ppb		96
72)	N-Nitrosodiphenylamine	5.87	169	229897	10043.4210655 ppb		99
74)	4-Bromophenyl-phenylether	6.17	248	80839	10526.4575035 ppb		93
75)	Hexachlorobenzene	6.22	284	98242	10066.3996965 ppb		99
76)	n-octadecane	6.42	55	34414	9071.8552955 ppb		98
77)	Pentachlorophenol	6.37	266	59661	10843.1263305 ppb		97
78)	Phenanthrene	6.55	178	402853	10006.2044101 ppb		100
79)	Anthracene	6.59	178	399656	10055.3075356 ppb		100
80)	Carbazole	6.71	167	370764	10542.0838835 ppb		100
81)	Di-n-butyl phthalate	6.98	149	425274	9275.9613638 ppb		99
83)	Fluoranthene	7.58	202	419557	9973.6957884 ppb		99
86)	Pyrene	7.82	202	441370	10204.9695284 ppb		99
88)	Benzylbutyl phthalate	8.61	149	158078	9445.6788390 ppb		96
90)	Benzo(a)anthracene	9.45	228	387736	9900.6714403 ppb		99
91)	Chrysene	9.50	228	422019	10415.2993927 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.55	149	225070	9141.3659237 ppb		98
93)	Di-n-octyl phthalate	10.84	149	334218	8842.5392656 ppb		98
95)	Benzo(b)fluoranthene	11.48	252	404177	10018.8265141 ppb		99
96)	Benzo(k)fluoranthene	11.53	252	436963	10391.3065092 ppb		98
97)	Benzo(a)pyrene	12.16	252	373218	11061.6972006 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.13	276	358415	10139.9998581 ppb		98
99)	Dibenz(a,h)anthracene	14.18	278	408968	10346.6983276 ppb		98
100)	Benzo(g,h,i)perylene	14.46	276	412762	10458.8804270 ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: S804J26V.RES

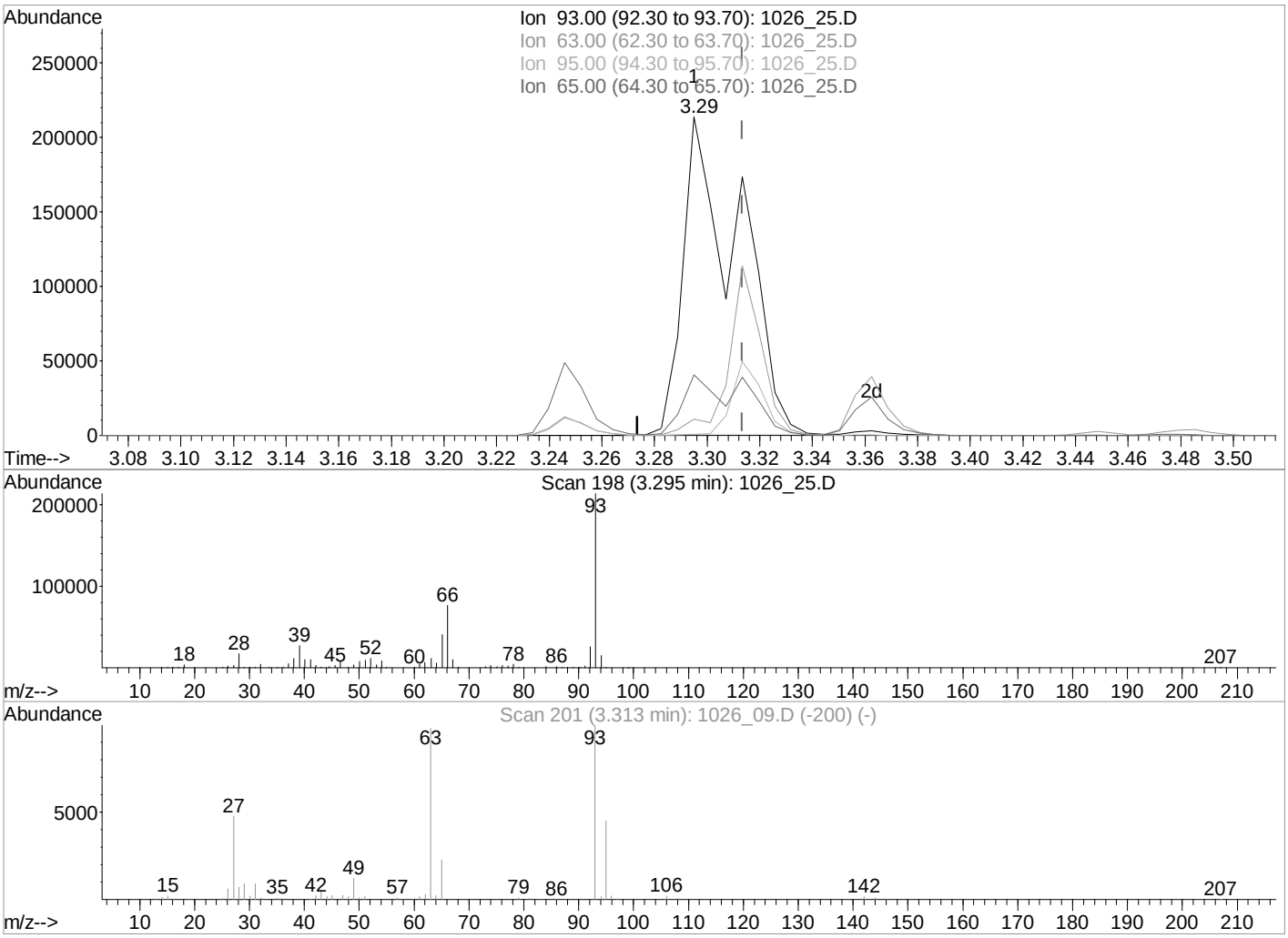
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.018) 26194.9370206 ppb

Qvalue = 42

response 310494

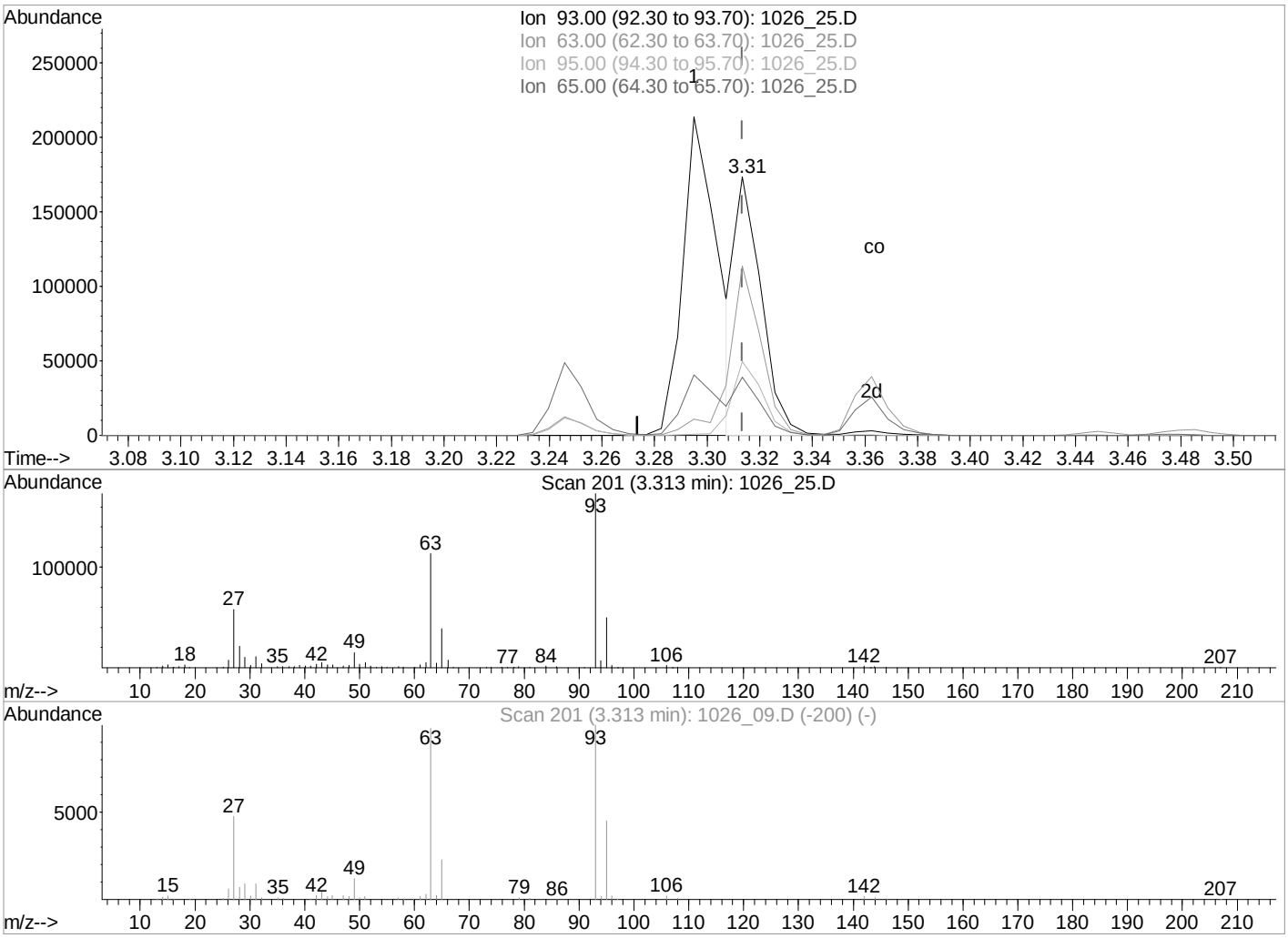
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.03#
95.00	28.70	0.28#
65.00	22.20	18.84

1026_25.D S804J26V.M Thu Oct 27 11:37:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.018) 26194.9370206 ppb

Qvalue = 42

response 310494

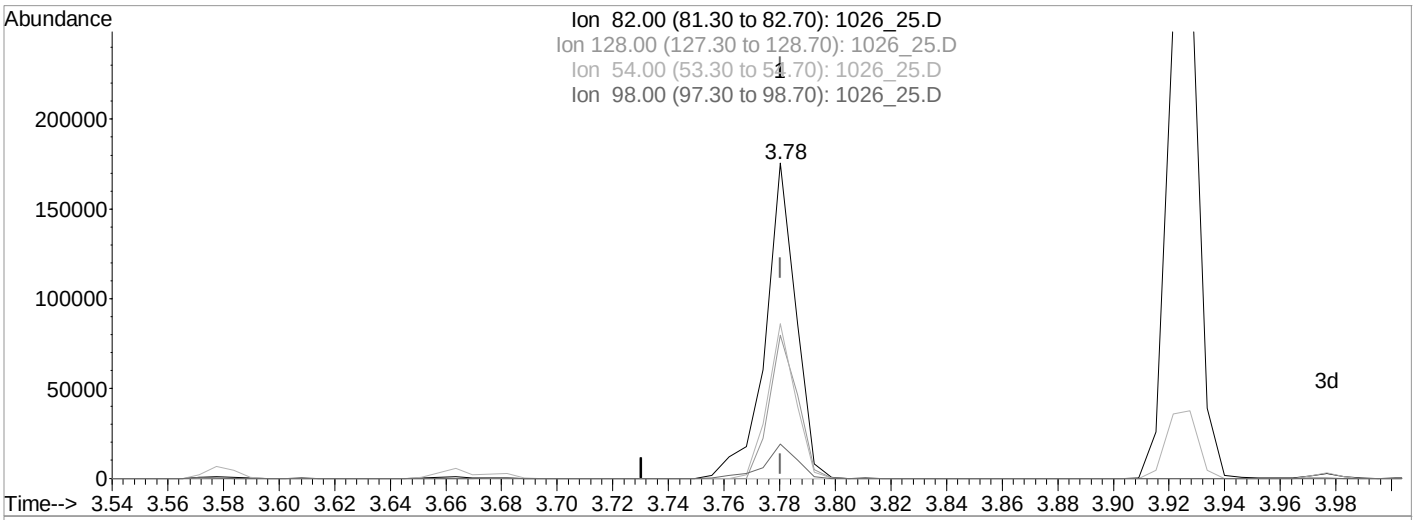
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	5.03#
95.00	28.70	0.28#
65.00	22.20	18.84

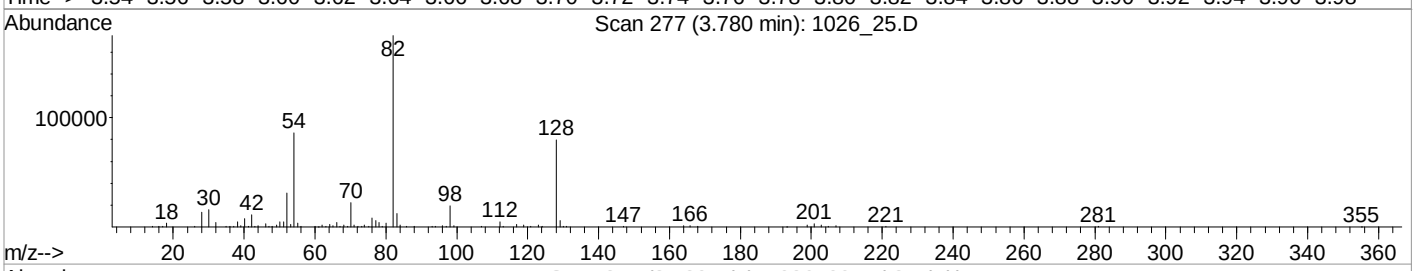
1026_25.D S804J26V.M Thu Oct 27 11:37:52 2022

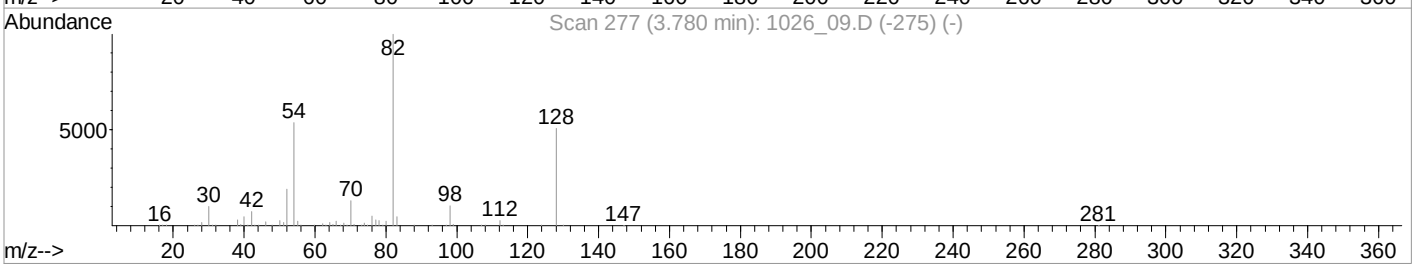
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:37 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration







TIC: 1026_25.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 10448.2457995 ppb

Qvalue = 100

response 133410

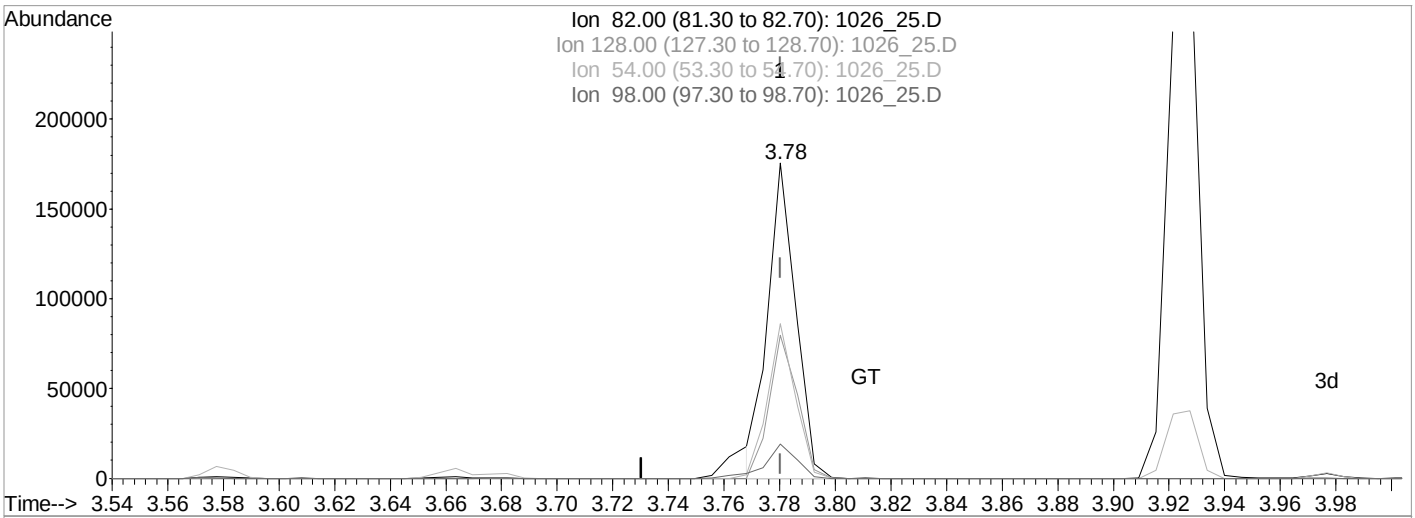
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.42
54.00	49.10	49.00
98.00	10.80	10.87

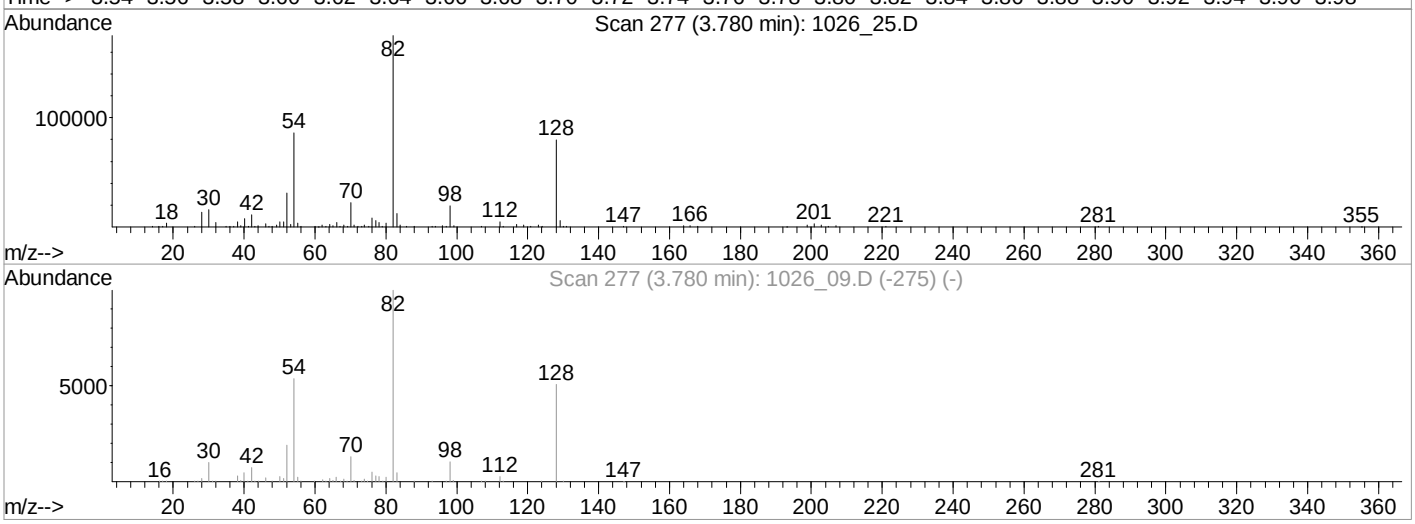
1026_25.D S804J26V.M Thu Oct 27 11:38:02 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:38 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration





TIC: 1026_25.D

(24) Nitrobenzene-d5 (S)

3.78min (-0.000) 9541.4154411 ppb m

response 121831

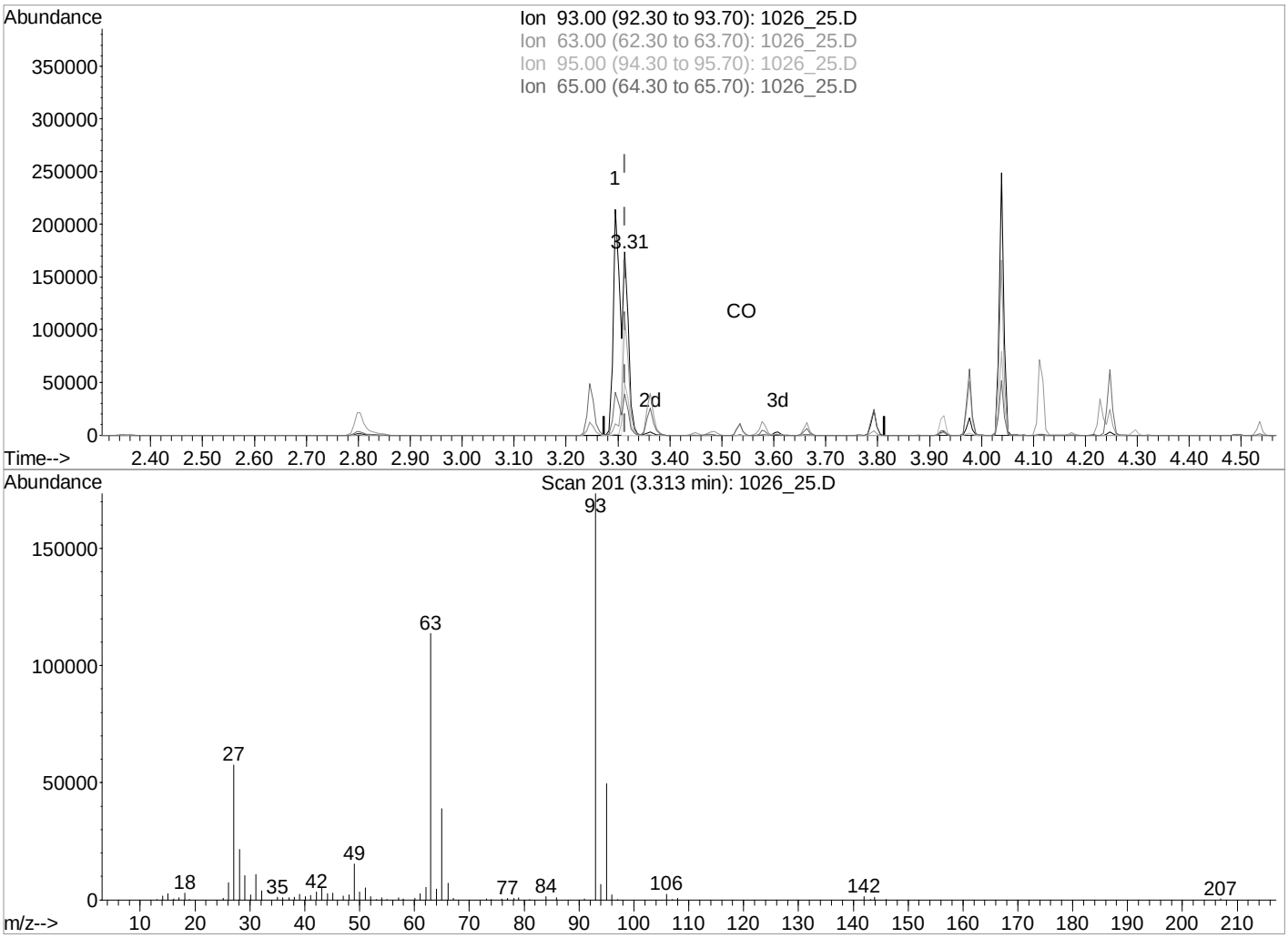
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	45.42
54.00	49.10	49.00
98.00	10.80	10.87

1026_25.D S804J26V.M Thu Oct 27 11:38:04 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\102622\1026 25.D Vial: 100
Acq On : 27 Oct 2022 10:17 am Operator: 917
Sample : SSCV SVMS 10K PPB 22J27284 EXP: 04/21/2 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22J26169 EXP:04/26/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 27 11:57 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1026_25.D

(6) bis(2-Chloroethyl)ether (MT)

3.31min (-0.000) 9979.2405664 ppb m

response 118286

Ion	Exp%	Act%
93.00	100	100
63.00	67.20	65.57
95.00	28.70	28.55
65.00	22.20	22.43

1026_25.D S804J26V.M Thu Oct 27 11:57:32 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1557921	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1122_03-1	**Analysis date/time:**	11/22/22 09:43
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.630728	0.65516980		3.88		10	10.39	104	
2-METHYLNAPHTHALENE	0.663331	0.70326980		6.02		10	10.60	106	
3&4-METHYL PHENOL	1.310460	1.259607		3.88		10	9.612	96.10	
ACENAPHTHENE	1.237201	1.204476		2.65	20	10	9.735	97.30	
ACENAPHTHYLENE	1.811284	1.855008		2.41		10	10.24	102	
ANTHRACENE	1.093532	1.093040		0.0450		10	9.996	100	
BENZO(A)ANTHRACENE	1.137290	1.187079		4.38		10	10.44	104	
BENZO(A)PYRENE	0.967529	1.065099		10.10	20	10	11.01	110	
BENZO(B)FLUORANTHENE	1.156852	1.240963		7.27		10	10.73	107	
BENZO(G,H,I)PERYLENE	1.131717	1.106712		2.21		10	9.779	97.80	
BENZO(K)FLUORANTHENE	1.205862	1.331987		10.50		10	11.05	111	
BIS(2-ETHYLHEXYL)PHTHALATE	0.623139	0.67540910		8.39		10	9.434	94.30	
CARBAZOLE	0.967635	0.981750		1.46		10	10.15	102	
CHRYSENE	1.176685	1.219438		3.63		10	10.36	104	
DI-N-BUTYL PHTHALATE	1.119355	1.123594		0.3790		10	8.921	89.20	
DI-N-OCTYL PHTHALATE	0.998390	1.106691		10.80	20	10	9.966	99.70	80 - 120
DIBENZ(A,H)ANTHRACENE	1.133472	1.118920		1.28		10	9.872	98.70	
DIBENZOFURAN	1.683731	1.716657		1.96		10	10.20	102	
FLUORANTHENE	1.157378	1.190134		2.83	20	10	10.28	103	
FLUORENE	1.399230	1.416306		1.22		10	10.12	101	
INDENO(1,2,3-CD)PYRENE	1.013611	1.038671		2.47		10	10.25	103	
NAPHTHALENE	1.018737	1.024498		0.5660		10	10.06	101	
PENTACHLOROPHENOL	0.137739	0.136771		0.7030	20	10	9.153	91.50	80 - 120
PHENANTHRENE	1.107688	1.112073		0.3960		10	10.04	100	
PHENOL	1.583712	1.486021		6.17	20	10	9.383	93.80	
PYRENE	1.256004	1.242221		1.10		10	9.890	98.90	
2,4,6-TRIBROMOPHENOL	0.122213	0.13818760		13.10		10	11.31	113	70 - 130
2-FLUOROBIPHENYL	1.462951	1.476698		0.94		10	10.09	101	70 - 130
2-FLUOROPHENOL	1.212061	1.152134		4.94		10	9.506	95.10	70 - 130
NITROBENZENE-D5	0.342792	0.30418270		11.30		10	8.874	88.70	70 - 130
P-TERPHENYL-D14	1.092912	1.106158		1.21		10	10.12	101	70 - 130
PHENOL-D5	1.561757	1.457803		6.66		10	9.334	93.30	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	52873	8000.00	ppb		-0.02
23) Naphthalene-d8	4.19	136	200682	8000.00	ppb		-0.02
46) Acenaphthene-d10	5.37	164	106795	8000.00	ppb		-0.02
70) Phenanthrene-d10	6.51	188	212899	8000.00	ppb		-0.02
84) Chrysene-d12	9.43	240	214937	8000.00	ppb		-0.03
94) Perylene-d12	12.24	264	215470	8000.00	ppb		-0.03
System Monitoring Compounds							
4) 2-Fluorophenol	2.79	112	76146	9505.5800699	ppb		-0.02
Spiked Amount 20000.000			Recovery = 47.53%				
7) Phenol-d5	3.23	99	96348	9334.3757216	ppb		-0.01
Spiked Amount 20000.000			Recovery = 46.67%				
24) Nitrobenzene-d5	3.76	82	76305m	8873.6884736	ppb		-0.02
Spiked Amount 10000.000			Recovery = 88.74%				
50) 2-Fluorobiphenyl	4.89	172	197130	10093.9698515	ppb		-0.02
Spiked Amount 10000.000			Recovery = 100.94%				
73) 2,4,6-Tribromophenol	5.96	330	36775	11307.1187508	ppb		-0.02
Spiked Amount 20000.000			Recovery = 56.54%				
87) p-Terphenyl-d14	7.96	244	297193	10121.2031317	ppb		-0.03
Spiked Amount 10000.000			Recovery = 101.21%				
Target Compounds							Qvalue
2) Pyridine	2.23	79	79728	8979.1375419	ppb		92
3) N-Nitrosodimethylamine	2.21	42	30484	7714.6133686	ppb	#	76
5) Aniline	3.28	66	38750	8480.1084726	ppb	#	82
6) bis(2-Chloroethyl)ether	3.29	93	85763m	10448.8294205	ppb		
8) Phenol	3.23	94	98213	9383.1516261	ppb		88
10) 2-Chlorophenol	3.34	128	86340	10075.3869956	ppb		88
11) n-Decane	3.34	41	32814	6732.6496868	ppb	#	96
12) 1,3-Dichlorobenzene	3.42	146	102038	10137.5624724	ppb		98
13) 1,4-Dichlorobenzene	3.47	146	104012	10336.1790020	ppb		93
14) Benzyl Alcohol	3.52	79	59283	8879.4703082	ppb		94
15) 1,2-Dichlorobenzene	3.55	146	97533	10290.9735313	ppb		93
16) bis(2-Chloroisopropyl)ethe	3.58	121	29748	9995.6905586	ppb		93
17) 2,2-oxybis(1-chloropropane	3.58	121	29748	9995.6905586	ppb		93
18) 2-Methylphenol	3.57	108	73689	9536.1980263	ppb		92
19) Hexachloroethane	3.74	117	35973	9866.2039109	ppb		95
20) N-Nitrosodi-n-propylamine	3.66	70	53214	9123.3340359	ppb		88
21) 3&4-Methyl phenol	3.65	107	83249	9611.9469225	ppb		97
25) Nitrobenzene	3.77	77	79292	9253.7904906	ppb		94
26) Isophorone	3.90	82	148263	9593.6512542	ppb		94
27) 2-Nitrophenol	3.96	139	48307	11189.0909619	ppb	#	68
28) 2,4-Dimethylphenol	3.96	107	51219	6435.0503633	ppb		93
29) bis(2-Chlorethoxy)methane	4.01	93	91481	9517.7300343	ppb		95
30) 2,4-Dichlorophenol	4.10	162	72742	10946.4618724	ppb		92
32) 1,2,4-Trichlorobenzene	4.15	180	87490	11078.4330831	ppb		96
34) Naphthalene	4.21	128	256998	10056.5545771	ppb		99
35) 4-Chloroaniline	4.23	65	23120	8544.4484226	ppb		69
36) Hexachloro-1,3-butadiene	4.27	225	50461	11192.3186199	ppb		99
40) 4-Chloro-3-methylphenol	4.52	107	62446	9884.3463690	ppb		96
41) 2-Methylnaphthalene	4.65	142	176417	10602.0992823	ppb		97
42) 1-Methylnaphthalene	4.71	142	164351	10387.5220817	ppb		98
47) Hexachlorocyclopentadiene	4.74	237	42957	8000.0251718	ppb		95
48) 2,4,6-Trichlorophenol	4.83	196	53790	10827.7115545	ppb		93
49) 2,4,5-Trichlorophenol	4.85	196	57067	11007.0585821	ppb		97

(#) = qualifier out of range (m) = manual integration
1122_03.D S804J26V.M Tue Nov 22 10:11:59 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

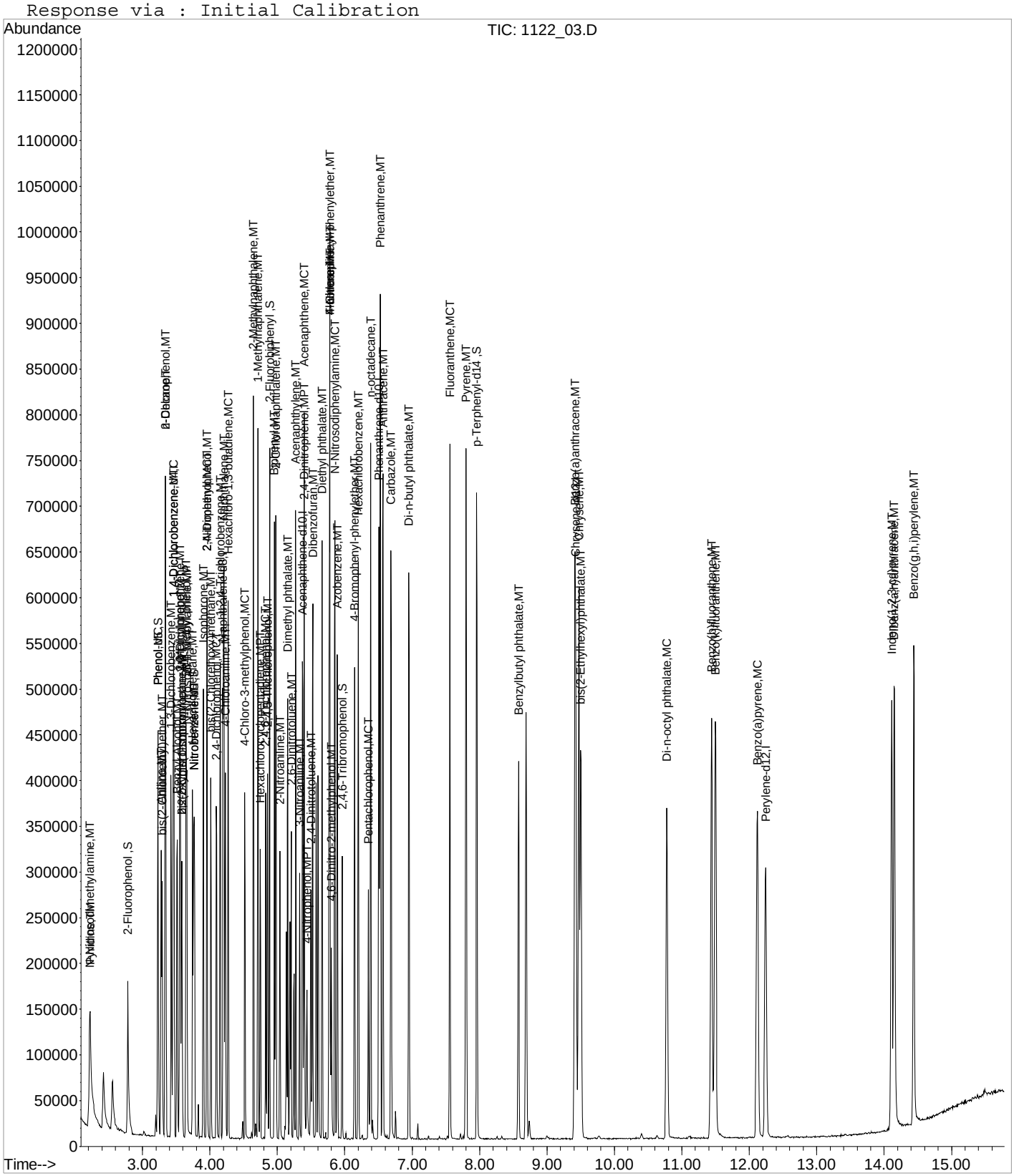
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
51)	Biphenyl	4.96	154	211976	9729.0432658 ppb		100
52)	2-Chloronaphthalene	4.98	162	166494	10366.0155121 ppb		98
53)	2-Nitroaniline	5.04	138	52121	10981.7206303 ppb		87
54)	Acenaphthylene	5.27	152	247632	10241.3964181 ppb		99
55)	Dimethyl phthalate	5.16	163	171998	10255.1346978 ppb		94
56)	2,6-Dinitrotoluene	5.21	165	43099	11273.1776396 ppb	#	76
57)	3-Nitroaniline	5.33	138	43219	10697.6188569 ppb	#	77
58)	Acenaphthene	5.40	153	160790	9735.4907319 ppb		98
59)	2,4-Dinitrophenol	5.41	184	19260	9674.5918536 ppb	#	1
60)	Dibenzofuran	5.52	168	229163	10195.5564820 ppb		98
61)	2,4-Dinitrotoluene	5.50	165	55749	11476.5501660 ppb		83
63)	4-Nitrophenol	5.44	139	32839	10097.0699865 ppb	#	77
64)	Fluorene	5.78	166	189068	10122.0392858 ppb		99
65)	4-Chlorophenyl-phenylether	5.77	204	95004	10687.9095692 ppb		90
66)	Diethyl phthalate	5.67	149	176192	10801.6535255 ppb		97
67)	4-Nitroaniline	5.78	138	45790	12412.9890987 ppb		90
68)	Azobenzene	5.89	77	147852	8481.3638202 ppb		89
71)	4,6-Dinitro-2-methylphenol	5.80	198	31736	9954.6974325 ppb		85
72)	N-Nitrosodiphenylamine	5.86	169	163547	9758.1372812 ppb		98
74)	4-Bromophenyl-phenylether	6.14	248	64041	11389.2568879 ppb		91
75)	Hexachlorobenzene	6.20	284	76453	10699.1057948 ppb		98
76)	n-octadecane	6.38	55	19628	7066.6402718 ppb	#	92
77)	Pentachlorophenol	6.35	266	36398	9152.8699787 ppb		96
78)	Phenanthrene	6.53	178	295949	10039.5817442 ppb		100
79)	Anthracene	6.57	178	290884	9995.5070305 ppb		99
80)	Carbazole	6.69	167	261267	10145.8734748 ppb		99
81)	Di-n-butyl phthalate	6.95	149	299015	8920.7530854 ppb		99
83)	Fluoranthene	7.56	202	316723	10283.0210172 ppb		99
86)	Pyrene	7.80	202	333749	9890.2613064 ppb		99
88)	Benzylbutyl phthalate	8.58	149	122087	9356.3074089 ppb		95
90)	Benzo(a)anthracene	9.41	228	318934	10437.7822842 ppb		98
91)	Chrysene	9.47	228	327628	10363.3378479 ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	181463	9433.6481322 ppb		98
93)	Di-n-octyl phthalate	10.78	149	297336	9965.5801479 ppb		98
95)	Benzo(b)fluoranthene	11.44	252	334238	10727.0700256 ppb		98
96)	Benzo(k)fluoranthene	11.50	252	358754	11045.9296807 ppb		97
97)	Benzo(a)pyrene	12.12	252	286871	11008.4421234 ppb		97
98)	Indeno(1,2,3-cd)pyrene	14.11	276	279753	10247.2316908 ppb		97
99)	Dibenz(a,h)anthracene	14.15	278	301367	9871.6144582 ppb		97
100)	Benzo(g,h,i)perylene	14.44	276	298079	9779.0552916 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: S804J26V.RES

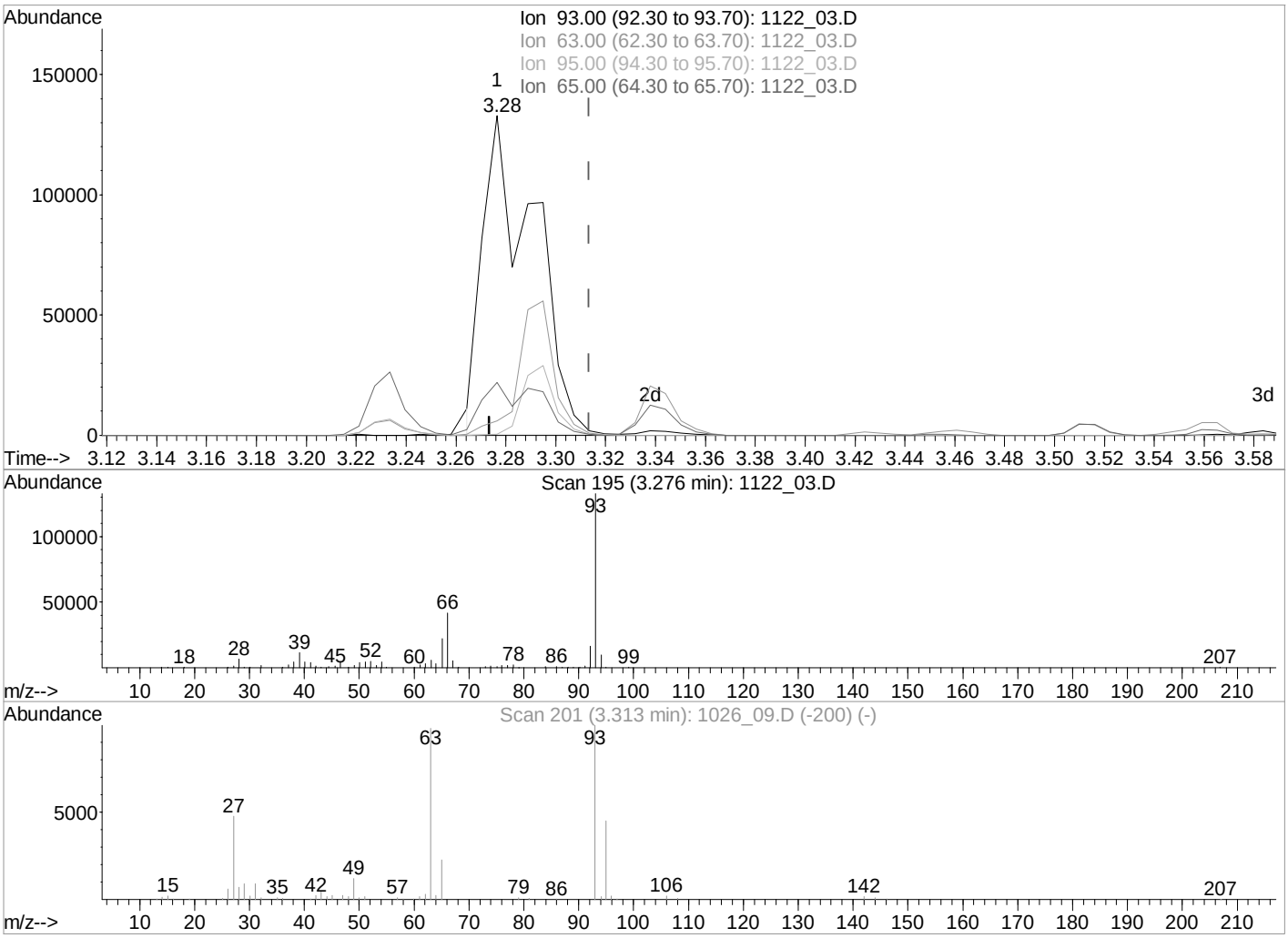
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.28min (-0.037) 23082.3819636 ppb

Qvalue = 40

response 189458

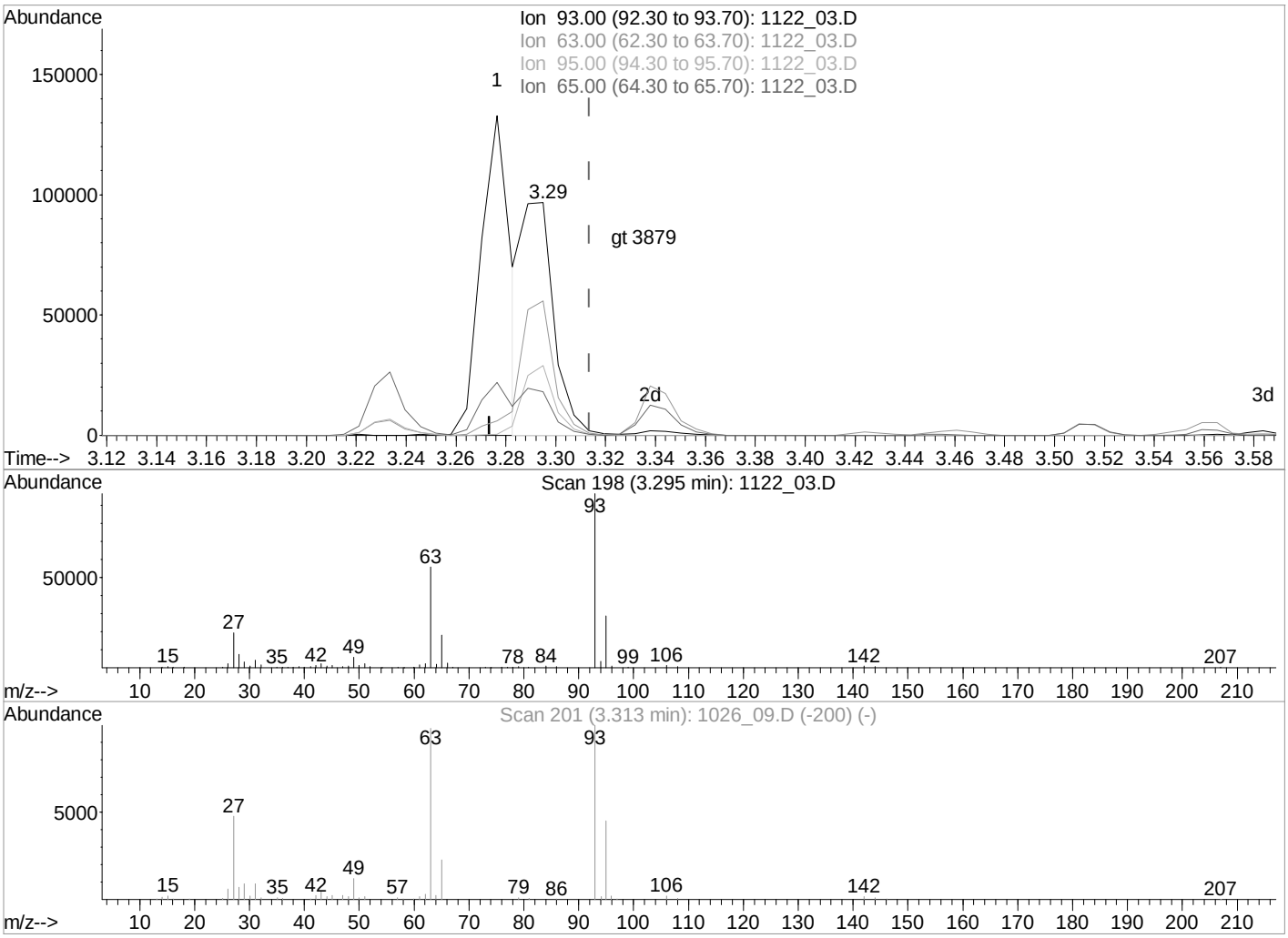
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	4.21#
95.00	28.70	0.31#
65.00	22.20	16.35

1122_03.D S804J26V.M Tue Nov 22 10:10:01 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_03.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.019) 10448.8294205 ppb m

response 85763

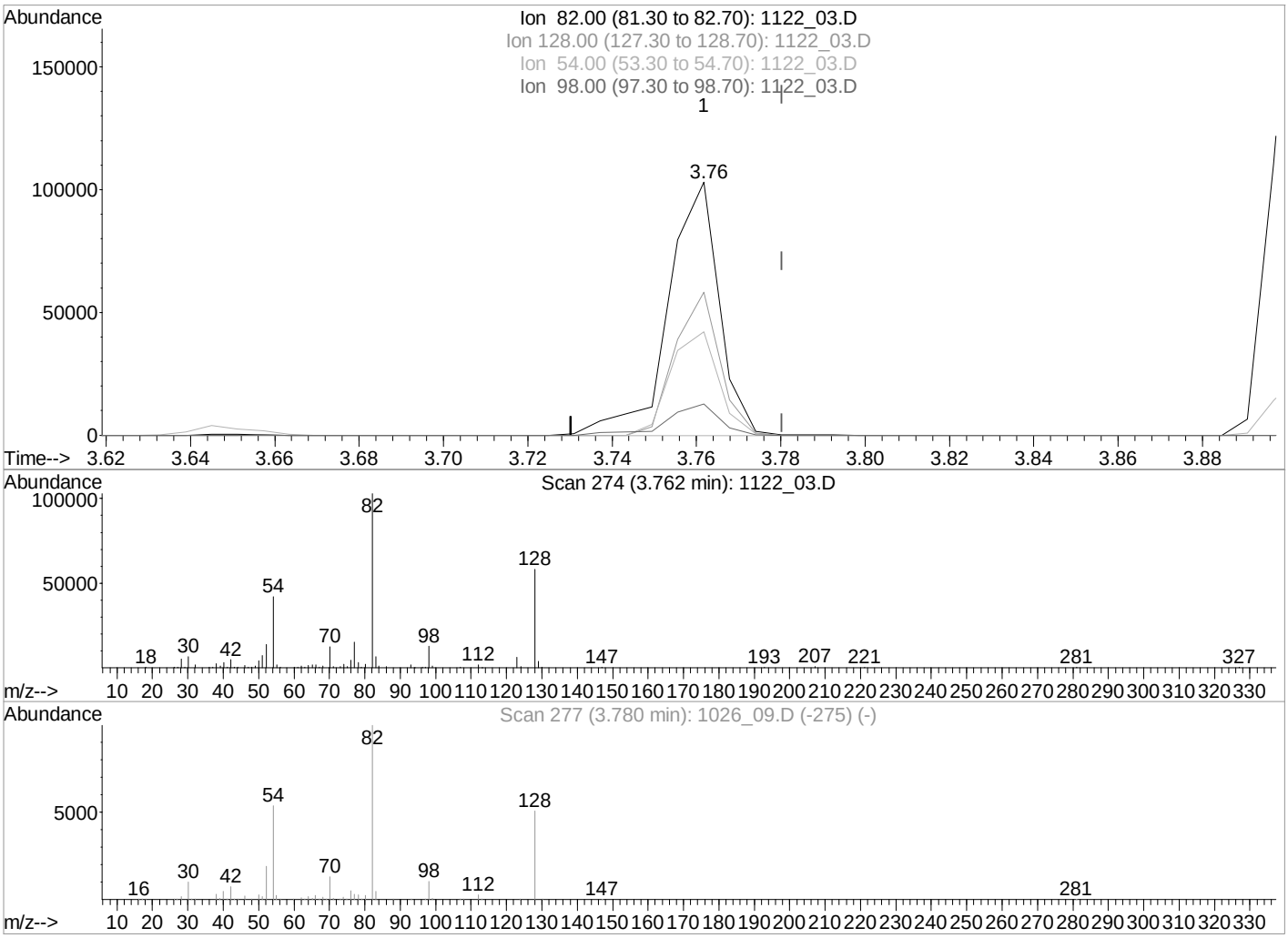
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.78
95.00	28.70	29.88
65.00	22.20	18.60

1122_03.D S804J26V.M Tue Nov 22 10:10:16 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.019) 10042.3103919 ppb

Qvalue = 87

response 86354

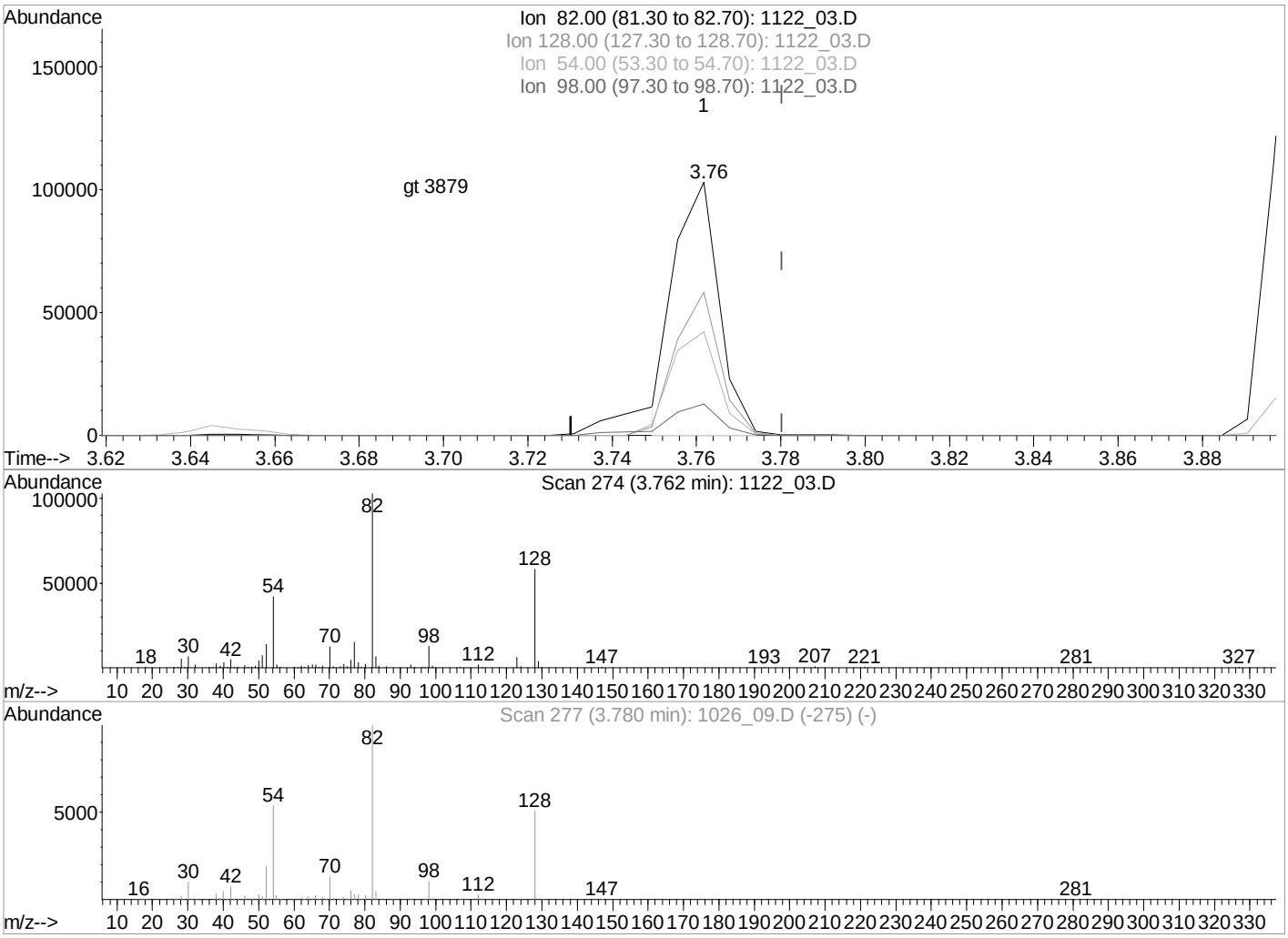
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	56.54
54.00	49.10	40.75
98.00	10.80	12.40

1122_03.D S804J26V.M Tue Nov 22 10:10:37 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_03.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.019) 8873.6884736 ppb m

response 76305

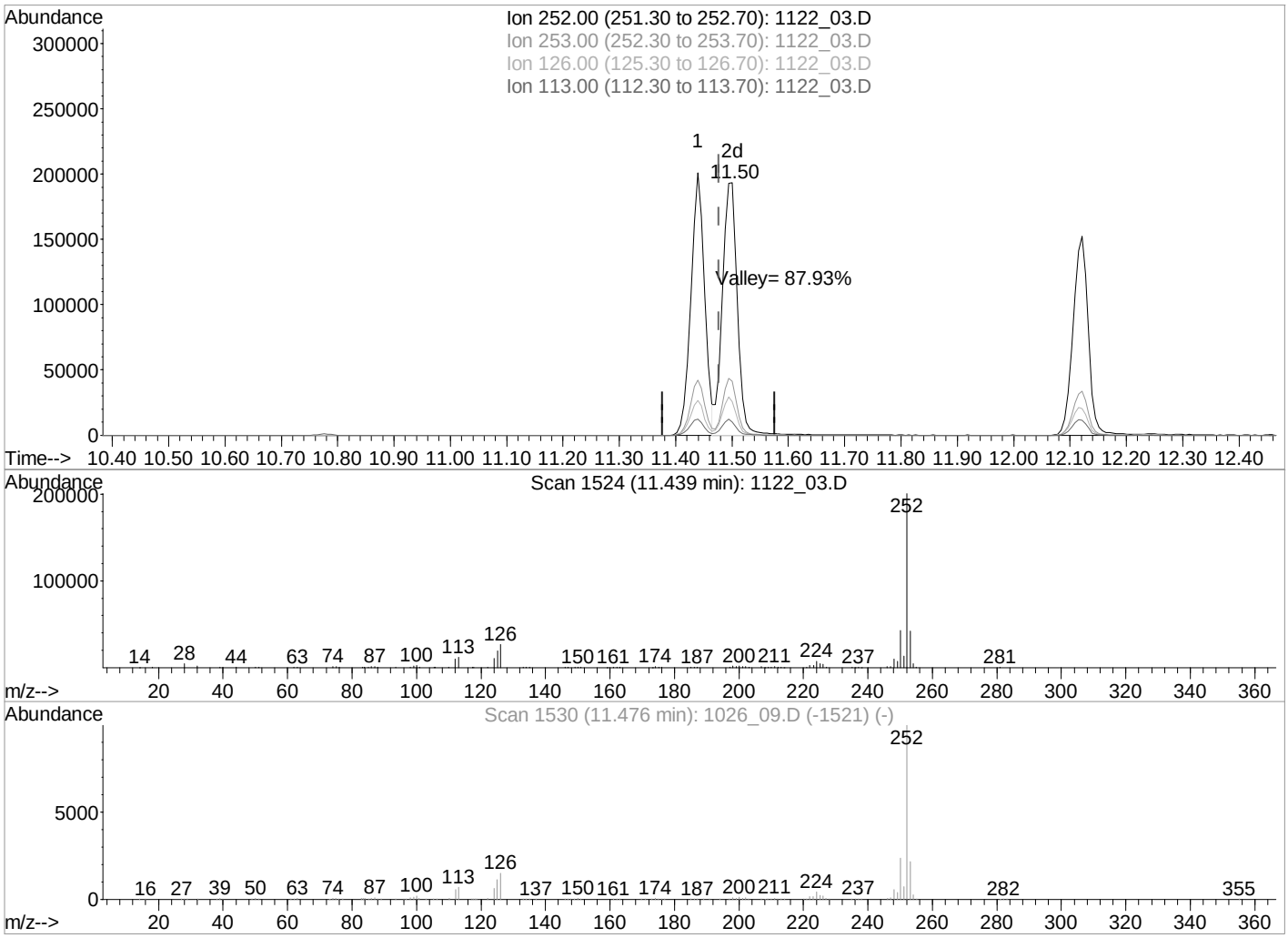
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	56.54
54.00	49.10	40.75
98.00	10.80	12.40

1122_03.D S804J26V.M Tue Nov 22 10:10:48 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 03.D Vial: 3
Acq On : 22 Nov 2022 9:43 am Operator: 917
Sample : ICV SVMS 10K PPB 22K02952 EXP: 01/13/23 Inst : BNAMS4
Misc : SVMS ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:10 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_03.D

(95) Benzo(b)fluoranthene (MT)

11.44min (-0.037) 10727.0700256 ppb

Qvalue = 98

response 334238

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.01
126.00	14.70	13.30
113.00	6.90	6.14

1122_03.D S804J26V.M Tue Nov 22 10:11:52 2022

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1557921	**Calibration (begin) date/time:**	10/26/22 23:10
Instrument ID:	BNAMS4	**Calibration (end) date/time:**	10/27/22 04:03
Lab File ID:	1122_04-1	**Analysis date/time:**	11/22/22 10:07
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.114506	0.09199791		19.70		10	8.034	80.30	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 04.D Vial: 4
Acq On : 22 Nov 2022 10:07 am Operator: 917
Sample : ICV TCL 10K1 PPB 22K02953 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:26 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

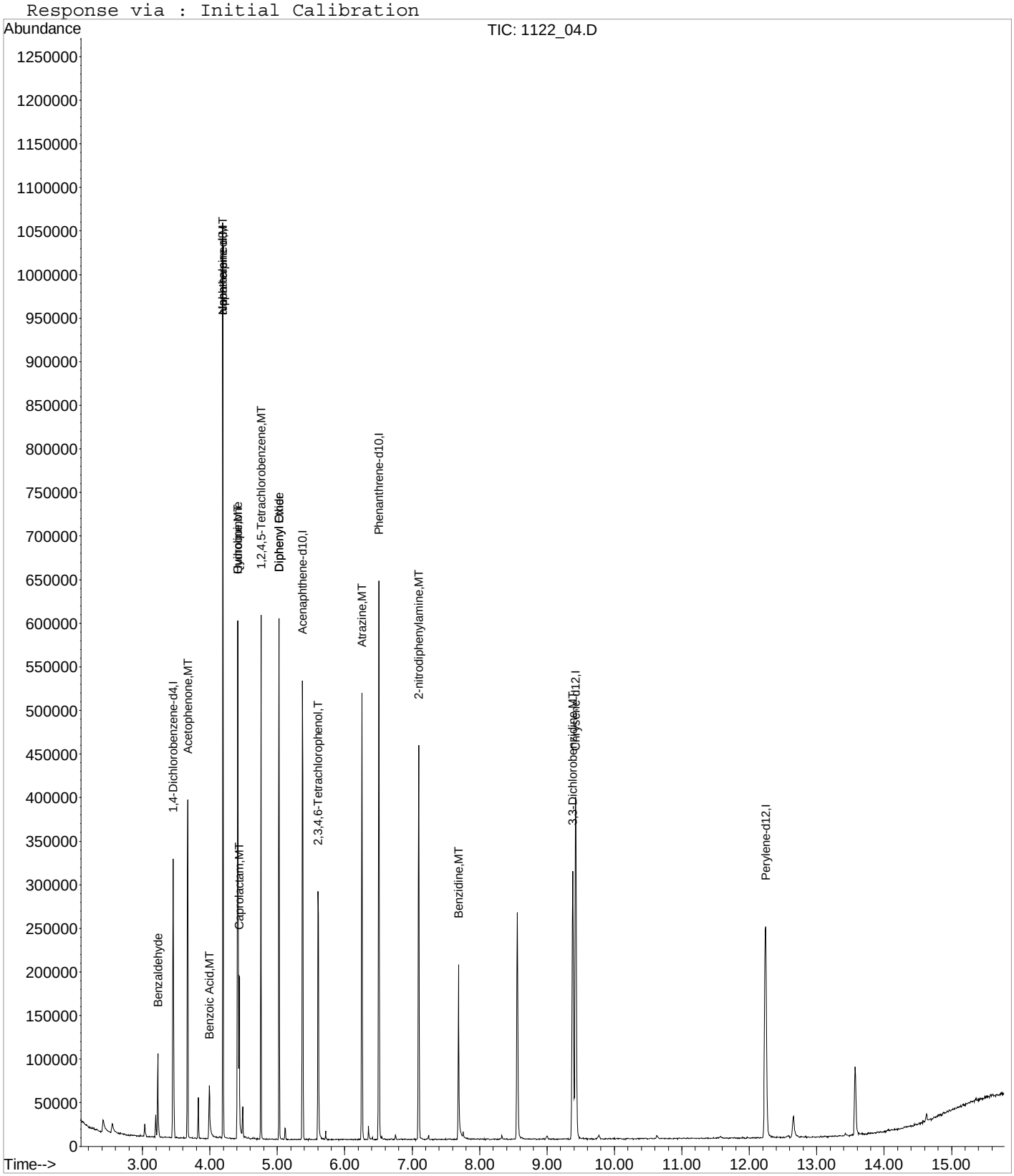
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	49611	8000.00	ppb	-0.02
23) Naphthalene-d8	4.19	136	220405	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	100417	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	202028	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	203088	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	191547	8000.00	ppb	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.00	99	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.00	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.00	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.00	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.23	105	19538	6448.3401734	ppb #	94
22) Acetophenone	3.67	105	100004	9279.6709034	ppb #	93
31) Benzoic Acid	3.99	105	25346	8034.3293667	ppb	93
33) alpha-terpineol	4.19	59	54880	9994.3259332	ppb	92
37) Hydroquinone	4.41	110	42787	10017.1177974	ppb	91
38) Quinoline	4.41	129	150442	12014.5753464	ppb	99
39) Caprolactam	4.44	113	20647	13544.1853519	ppb #	79
43) 1,2,4,5-Tetrachlorobenzene	4.76	216	84609	12814.2057915	ppb	98
44) Diphenyl Ether	5.03	170	107979	12410.4238008	ug/ml#	90
45) Diphenyl Oxide	5.03	170	107979	12410.4238008	ug/ml#	90
62) 2,3,4,6-Tetrachlorophenol	5.61	232	41590	11294.5958262	ppb	75
69) Atrazine	6.26	200	51872	11010.6043082	ppb #	92
82) 2-nitrodiphenylamine	7.10	167	56816	10894.1717083	ppb	93
85) Benzidine	7.69	184	97953	6999.6566027	ppb	99
89) 3,3-Dichlorobenzidine	9.38	252	116726	10348.2733842	ppb	99

(#) = qualifier out of range (m) = manual integration
1122_04.D S804J26V.M Tue Nov 22 10:27:34 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 04.D Vial: 4
Acq On : 22 Nov 2022 10:07 am Operator: 917
Sample : ICV TCL 10K1 PPB 22K02953 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:26 2022 Quant Results File: S804J26V.RES

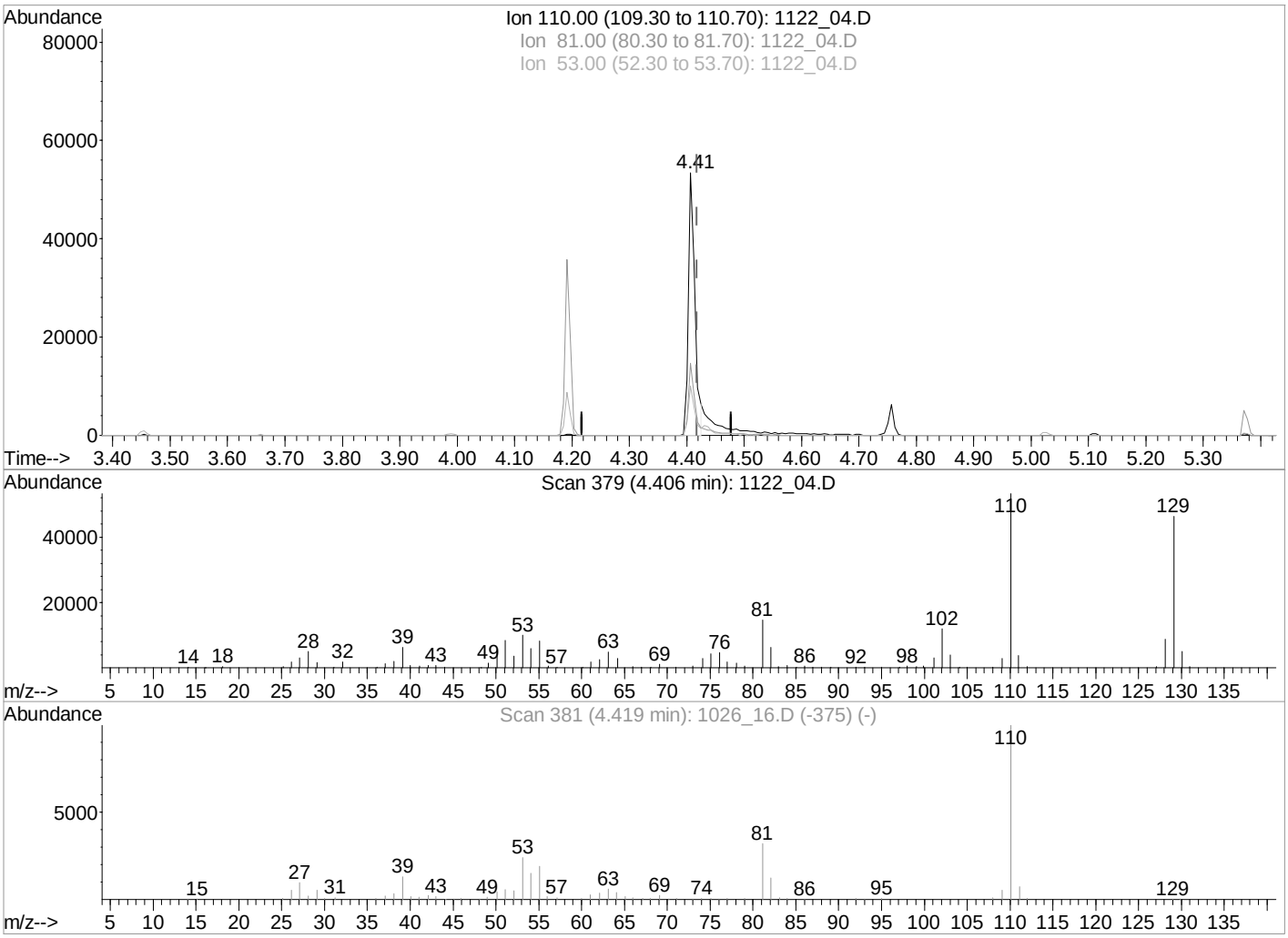
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 04.D Vial: 4
Acq On : 22 Nov 2022 10:07 am Operator: 917
Sample : ICV TCL 10K1 PPB 22K02953 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1122_04.D

(37) Hydroquinone

4.41min (-0.012) 10017.1177974 ppb

Qvalue = 91

response 42787

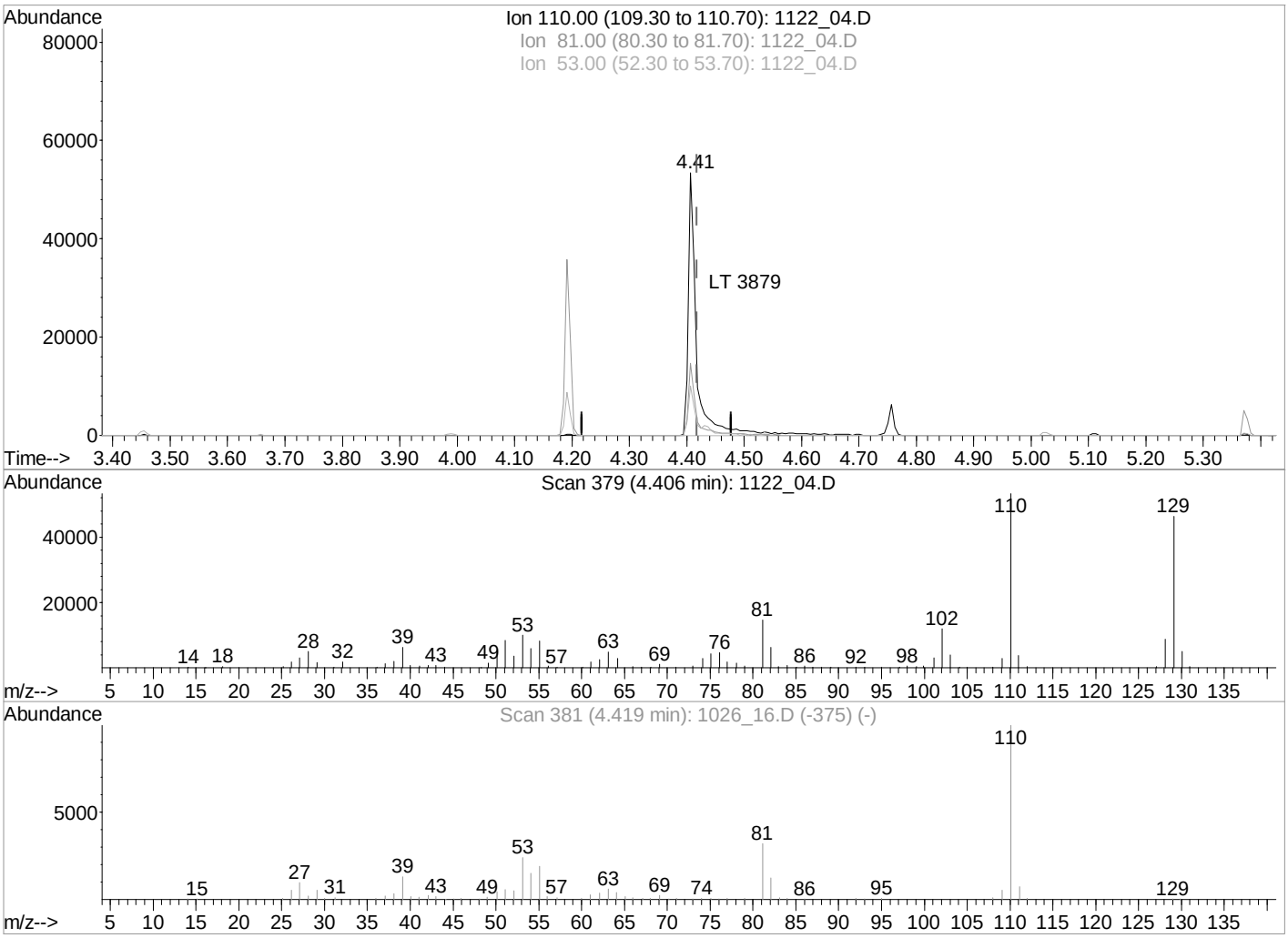
Ion	Exp%	Act%
110.00	100	100
81.00	32.00	27.35
53.00	23.80	18.83
0.00	0.00	0.00

1122_04.D S804J26V.M Tue Nov 22 10:27:06 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 04.D Vial: 4
Acq On : 22 Nov 2022 10:07 am Operator: 917
Sample : ICV TCL 10K1 PPB 22K02953 EXP: 04/13/23 Inst : BNAMS4
Misc : TCL ICAL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:26 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1122_04.D

(37) Hydroquinone

4.41min (-0.012) 10017.1177974 ppb

Qvalue = 91

response 42787

Ion	Exp%	Act%
110.00	100	100
81.00	32.00	27.35
53.00	23.80	18.83
0.00	0.00	0.00

1122_04.D S804J26V.M Tue Nov 22 10:27:15 2022

ANALYTICAL SEQUENCE

SDG:	L1557921	**Analytical Method:**	8270E
Instrument ID:	BNAMS4	**Calibration Start Date:**	10/26/22 23:10
		Calibration End Date:	10/27/22 04:03

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS41026221026_05-1601635	1026_05-1	10/26/22 22:49		
CAL	500	1026_06	10/26/22 23:10		
CAL	1000	1026_07	10/26/22 23:31		
CAL	4000	1026_08	10/26/22 23:52		
CAL	10000	1026_09	10/27/22 00:13		
CAL	20000	1026_10	10/27/22 00:34		
CAL	30000	1026_11	10/27/22 00:55		
CAL	40000	1026_12	10/27/22 01:16		
CAL	50000	1026_13	10/27/22 01:37		
CAL	1K1	1026_14	10/27/22 01:58		
CAL	4K1	1026_15	10/27/22 02:19		
CAL	10K1	1026_16	10/27/22 02:39		
CAL	20K1	1026_17	10/27/22 03:00		
CAL	30K1	1026_18	10/27/22 03:21		
CAL	40K1	1026_19	10/27/22 03:42		
CAL	50K1	1026_20	10/27/22 04:03		
SSCV	BNAMS41026221026_22-1601635	1026_22-1	10/27/22 04:45		
TUNE	BNAMS41026221026_24-1601635	1026_24-1	10/27/22 09:56		
SSCV	BNAMS41026221026_25-1601635	1026_25-1	10/27/22 10:17		
TUNE	BNAMS41122221122_02T601635	1122_02T	11/22/22 09:19		
ICV	BNAMS41122221122_03-1601635	1122_03-1	11/22/22 09:43		
ICV	BNAMS41122221122_04-1601635	1122_04-1	11/22/22 10:07		
LCS	R3863963-1	1122_05	11/22/22 10:30	1	WG1962624
BLANK	R3863963-2	1122_06	11/22/22 10:54	1	WG1962624
L1558072-02	L1558072-02	1122_07	11/22/22 11:18	1	WG1962624
L1558072-01	L1558072-01	1122_08	11/22/22 11:42	1	WG1962624
BNSF-EF470-SC-11.0-120-110922	L1557921-02	1122_11	11/22/22 12:54	1	WG1962624
BNSF-EF240-SC-1.0-2.0-110922	L1557921-04	1122_14	11/22/22 14:06	1	WG1962624
L1558175-01	L1558175-01	1122_16	11/22/22 14:53	1	WG1962624
BNSF-EF240-SC-1.0-2.0-110922	L1557921-03	1122_18	11/22/22 15:41	1	WG1962624
BNSF-K200-SC-0.0-0.4-110922	L1557921-01	1122_19	11/22/22 16:05	1	WG1962624
MS	R3863963-3	1122_20	11/22/22 16:29	1	WG1962624
MSD	R3863963-4	1122_21	11/22/22 16:53	1	WG1962624
BNSF-EF240-SC-3.0-4.0-110922	L1557921-05	1122_23	11/22/22 17:41	2	WG1962624
L1557931-01	L1557931-01	1122_28	11/22/22 19:40	10	WG1962624

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1557921-01,02,03,04,05 **Analytical Method:** 8270E
Matrix: Solid **Prep Method:** 3546

Analyte	CAS	MDL	RDL
		mg/kg	*mg/kg*
Benzo(k)fluoranthene	207-08-9	0.005920	0.0333
Benzo(g,h,i)perylene	191-24-2	0.006090	0.0333
Benzo(a)pyrene	50-32-8	0.006190	0.0333
Carbazole	86-74-8	0.0103	0.3330
Acenaphthene	83-32-9	0.005390	0.0333
Chrysene	218-01-9	0.006620	0.0333
Dibenz(a,h)anthracene	53-70-3	0.009230	0.0333
Dibenzofuran	132-64-9	0.0109	0.3330
Fluoranthene	206-44-0	0.006010	0.0333
Acenaphthylene	208-96-8	0.004690	0.0333
Fluorene	86-73-7	0.005420	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0.009410	0.0333
1-Methylnaphthalene	90-12-0	0.004260	0.0333
2-Methylnaphthalene	91-57-6	0.004320	0.0333
Naphthalene	91-20-3	0.008360	0.0333
Phenanthrene	85-01-8	0.006610	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0.0422	0.3330
Di-n-butyl phthalate	84-74-2	0.0114	0.3330
Anthracene	120-12-7	0.005930	0.0333
Di-n-octyl phthalate	117-84-0	0.0225	0.3330
Pyrene	129-00-0	0.006480	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0104	0.3330
Pentachlorophenol	87-86-5	0.008960	0.3330
Phenol	108-95-2	0.0134	0.3330
Benzoic Acid	65-85-0	0.1180	1.67
Benzo(a)anthracene	56-55-3	0.005870	0.0333
Benzo(b)fluoranthene	205-99-2	0.006210	0.0333

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863963-2	**SDG:**	L1557921
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	1122_06	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:09
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 10:54
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	0	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	0	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	0	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	0	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	0	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	0	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	0	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	0	U		0.0225	0.333
Pyrene	129-00-0	0	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 06.D Vial: 29
Acq On : 22 Nov 2022 10:54 am Operator: 917
Sample : BLANK 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:30 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	51026	8000.00	ppb	-0.03
23) Naphthalene-d8	4.19	136	195473	8000.00	ppb	-0.02
46) Acenaphthene-d10	5.37	164	104788	8000.00	ppb	-0.02
70) Phenanthrene-d10	6.51	188	210104	8000.00	ppb	-0.02
84) Chrysene-d12	9.42	240	199671	8000.00	ppb	-0.04
94) Perylene-d12	12.24	264	191708	8000.00	ppb	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	118366	15310.9073913	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 76.55%			
7) Phenol-d5	3.23	99	139869	14041.2726329	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 70.21%			
24) Nitrobenzene-d5	3.76	82	54493	6505.9922455	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 65.06%			
50) 2-Fluorobiphenyl	4.89	172	142043	7412.5645137	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 74.13%			
73) 2,4,6-Tribromophenol	5.96	330	46263	14413.5966514	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 72.07%			
87) p-Terphenyl-d14	7.96	244	237445	8704.6794729	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 87.05%			

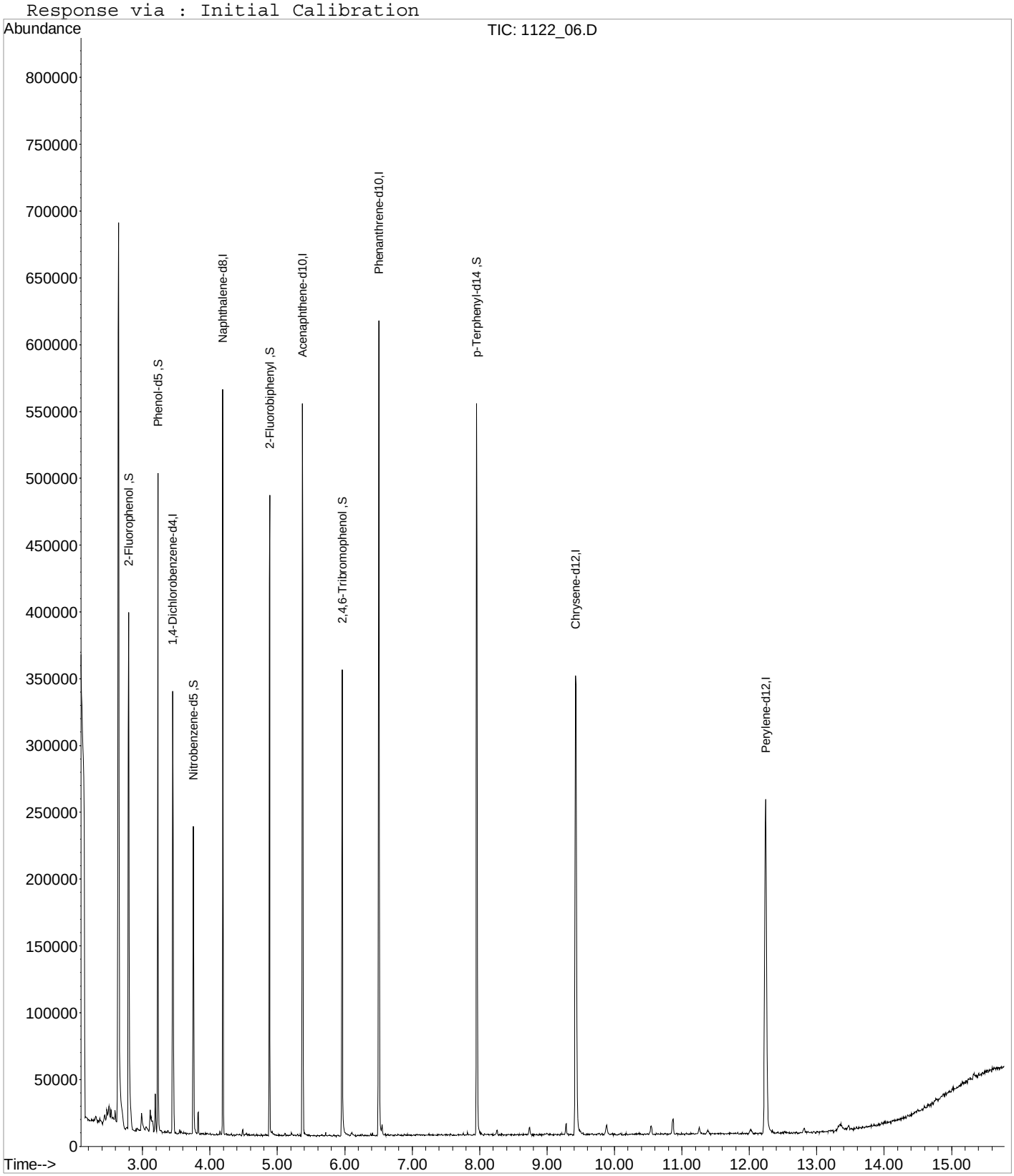
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1122_06.D S804J26V.M Tue Nov 22 12:30:22 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 06.D Vial: 29
Acq On : 22 Nov 2022 10:54 am Operator: 917
Sample : BLANK 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:30 2022 Quant Results File: S804J26V.RES

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863963-1	**SDG:**	L1557921
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	1122_05	**Received Date/Time:**	_____
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:09
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 10:30
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.441		0.00539	0.0333
Acenaphthylene	208-96-8	5.27	0.494		0.00469	0.0333
Anthracene	120-12-7	6.57	0.448		0.00593	0.0333
Benzoic Acid	65-85-0	3.99	0.387		0.0000100	1.67
Benzo(a)anthracene	56-55-3	9.42	0.514		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	11.45	0.486		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	11.50	0.477		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	14.44	0.447		0.00609	0.0333
Benzo(a)pyrene	50-32-8	12.12	0.543		0.00619	0.0333
Carbazole	86-74-8	6.69	0.464		0.0103	0.333
Chrysene	218-01-9	9.47	0.481		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	14.15	0.462		0.00923	0.0333
Dibenzofuran	132-64-9	5.52	0.464		0.0109	0.333
Fluoranthene	206-44-0	7.56	0.498		0.00601	0.0333
Fluorene	86-73-7	5.78	0.459		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	14.11	0.449		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.71	0.394		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.65	0.388		0.00432	0.0333
Naphthalene	91-20-3	4.20	0.360		0.00836	0.0333
Phenanthrene	85-01-8	6.53	0.454		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	0.464		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.96	0.426		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.78	0.484		0.0225	0.333
Pyrene	129-00-0	7.80	0.458		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.64	0.445		0.0104	0.333
Pentachlorophenol	87-86-5	6.35	0.456		0.00896	0.333
Phenol	108-95-2	3.23	0.405		0.0134	0.333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:17 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	56164	8000.00 ppb	-0.03
23) Naphthalene-d8	4.19	136	259253	8000.00 ppb	-0.02
46) Acenaphthene-d10	5.38	164	119085	8000.00 ppb	-0.02
70) Phenanthrene-d10	6.51	188	235486	8000.00 ppb	-0.02
84) Chrysene-d12	9.43	240	239743	8000.00 ppb	-0.03
94) Perylene-d12	12.24	264	252332	8000.00 ppb	-0.03
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	118745	13954.7732472 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 69.77%		
7) Phenol-d5	3.23	99	142117	12961.7764603 ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 64.81%		
24) Nitrobenzene-d5	3.76	82	56499m	5086.0025357 ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 50.86%		
50) 2-Fluorobiphenyl	4.89	172	148727	6829.5636705 ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 68.30%		
73) 2,4,6-Tribromophenol	5.96	330	59802	16623.5398677 ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 83.12%		
87) p-Terphenyl-d14	7.96	244	239863	7323.5571297 ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 73.24%		
Target Compounds					Qvalue
2) Pyridine	2.20	79	70544	7479.2794117 ppb	90
3) N-Nitrosodimethylamine	2.19	42	38209	9102.9845639 ppb #	65
5) Aniline	3.27	66	36638	7548.0954111 ppb #	52
6) bis(2-Chloroethyl)ether	3.29	93	90458m	10375.0590828 ppb	
8) Phenol	3.23	94	135270	12166.2621301 ppb	93
9) Benzaldehyde	3.22	105	61107	17814.7096344 ppb	98
10) 2-Chlorophenol	3.34	128	118990	13071.8205962 ppb	90
11) n-Decane	3.33	41	35401	6837.8299532 ppb	92
12) 1,3-Dichlorobenzene	3.42	146	128345	12004.0137007 ppb	96
13) 1,4-Dichlorobenzene	3.46	146	131636	12314.7946315 ppb	95
14) Benzyl Alcohol	3.51	79	85063	11994.2612475 ppb	97
15) 1,2-Dichlorobenzene	3.55	146	127870	12701.3377773 ppb	95
16) bis(2-Chloroisopropyl)ethe	3.58	121	40488	12807.2909775 ppb	97
17) 2,2-oxybis(1-chloropropane	3.58	121	40488	12807.2909775 ppb	97
18) 2-Methylphenol	3.56	108	104636	12747.6358640 ppb	96
19) Hexachloroethane	3.74	117	45801	11825.6306852 ppb	97
20) N-Nitrosodi-n-propylamine	3.66	70	73981	11940.5351225 ppb	87
21) 3&4-Methyl phenol	3.64	107	123015	13371.0752113 ppb	97
22) Acetophenone	3.66	105	146428	12002.1564660 ppb #	88
25) Nitrobenzene	3.77	77	107804	9738.8975159 ppb	91
26) Isophorone	3.90	82	204186	10227.3174141 ppb	91
27) 2-Nitrophenol	3.95	139	67076	12026.4243298 ppb #	74
28) 2,4-Dimethylphenol	3.96	107	108653	10566.8905030 ppb	94
29) bis(2-Chlorethoxy)methane	4.01	93	131613	10599.5126448 ppb	94
30) 2,4-Dichlorophenol	4.10	162	105780	12321.8728727 ppb	91
31) Benzoic Acid	3.99	105	43076	11608.4228998 ppb	88
32) 1,2,4-Trichlorobenzene	4.15	180	121031	11863.1814691 ppb	96
33) alpha-terpineol	4.19	59	84036	13010.7529360 ppb	90
34) Naphthalene	4.20	128	356966	10812.6203391 ppb	99
35) 4-Chloroaniline	4.23	65	27222	7787.5502572 ppb #	64
36) Hexachloro-1,3-butadiene	4.27	225	71300	12241.6052825 ppb	99
37) Hydroquinone	4.41	110	3184	633.7261888 ppb	88
38) Quinoline	4.41	129	237933	16154.4307630 ppb	99

(#) = qualifier out of range (m) = manual integration
1122_05.D S804J26V.M Tue Nov 22 12:34:25 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:17 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Caprolactam	4.44	113	37593	20965.2751862	ppb	#	77
40)	4-Chloro-3-methylphenol	4.52	107	92970	11391.2344860	ppb		89
41)	2-Methylnaphthalene	4.65	142	250302	11643.9513972	ppb		97
42)	1-Methylnaphthalene	4.71	142	241906	11835.0713189	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	124479	16027.6140090	ppb		100
44)	Diphenyl Ether	5.03	170	166650	16283.5945835	ug/ml	#	91
45)	Diphenyl Oxide	5.03	170	166650	16283.5945835	ug/ml	#	91
47)	Hexachlorocyclopentadiene	4.74	237	75644	12633.5602166	ppb		97
48)	2,4,6-Trichlorophenol	4.83	196	79388	14331.2427923	ppb		95
49)	2,4,5-Trichlorophenol	4.85	196	81659	14124.8599956	ppb		98
51)	Biphenyl	4.96	154	306603	12619.8357074	ppb		99
52)	2-Chloronaphthalene	4.98	162	243710	13607.5668280	ppb		99
53)	2-Nitroaniline	5.04	138	82093	15511.6371663	ppb		93
54)	Acenaphthylene	5.27	152	399996	14835.4908169	ppb		99
55)	Dimethyl phthalate	5.16	163	269829	14427.8113483	ppb		98
56)	2,6-Dinitrotoluene	5.20	165	66474	15592.8258614	ppb		82
57)	3-Nitroaniline	5.33	138	61066	13555.1940443	ppb	#	82
58)	Acenaphthene	5.40	153	243660	13230.5199324	ppb		98
59)	2,4-Dinitrophenol	5.41	184	23231	10259.2764613	ppb	#	1
60)	Dibenzofuran	5.52	168	349469	13943.4085373	ppb		97
61)	2,4-Dinitrotoluene	5.50	165	87736	16197.4246138	ppb		87
62)	2,3,4,6-Tetrachlorophenol	5.61	232	136286	31209.2405586	ppb		78
63)	4-Nitrophenol	5.44	139	54585	15051.2516343	ppb	#	78
64)	Fluorene	5.78	166	287015	13779.9753892	ppb		98
65)	4-Chlorophenyl-phenylether	5.77	204	145938	14723.5701154	ppb		93
66)	Diethyl phthalate	5.67	149	273723	15049.0542447	ppb		98
67)	4-Nitroaniline	5.78	138	71540	17391.9598976	ppb		89
68)	Azobenzene	5.89	77	229599	11811.4262053	ppb		89
69)	Atrazine	6.26	200	85708	15340.8599366	ppb	#	91
71)	4,6-Dinitro-2-methylphenol	5.81	198	49564	13724.1037360	ppb	#	71
72)	N-Nitrosodiphenylamine	5.86	169	211082	11386.3379786	ppb		97
74)	4-Bromophenyl-phenylether	6.14	248	99620	16017.4121256	ppb		94
75)	Hexachlorobenzene	6.20	284	113478	14357.3124546	ppb		98
76)	n-octadecane	6.38	55	30045	9779.5229876	ppb	#	92
77)	Pentachlorophenol	6.35	266	61825	13676.3987742	ppb		93
78)	Phenanthrene	6.53	178	444737	13639.8795213	ppb		99
79)	Anthracene	6.57	178	433349	13462.6737945	ppb		99
80)	Carbazole	6.69	167	396950	13936.3555800	ppb		99
81)	Di-n-butyl phthalate	6.96	149	479786	12791.2694149	ppb		99
82)	2-nitrodiphenylamine	7.10	167	100431	15318.0194101	ppb		91
83)	Fluoranthene	7.56	202	509602	14958.2495247	ppb		98
85)	Benzidine	7.69	184	67092	4388.8580102	ppb		100
86)	Pyrene	7.80	202	517554	13750.1903314	ppb		99
88)	Benzylbutyl phthalate	8.58	149	206988	13896.1073236	ppb		96
89)	3,3-Dichlorobenzidine	9.39	252	307361	23082.7409665	ppb		97
90)	Benzo(a)anthracene	9.42	228	525851	15428.9142618	ppb		98
91)	Chrysene	9.47	228	508777	14428.1737409	ppb		98
92)	bis(2-Ethylhexyl)phthalate	9.50	149	302937	13931.1834303	ppb		97
93)	Di-n-octyl phthalate	10.78	149	497387	14528.5824283	ppb		98
95)	Benzo(b)fluoranthene	11.45	252	532549	14594.8402923	ppb		98
96)	Benzo(k)fluoranthene	11.50	252	544202	14308.0397280	ppb		98
97)	Benzo(a)pyrene	12.12	252	498002	16318.6709266	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.11	276	430683	13471.1296062	ppb		99
99)	Dibenz(a,h)anthracene	14.15	278	495361	13855.7099558	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:17 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

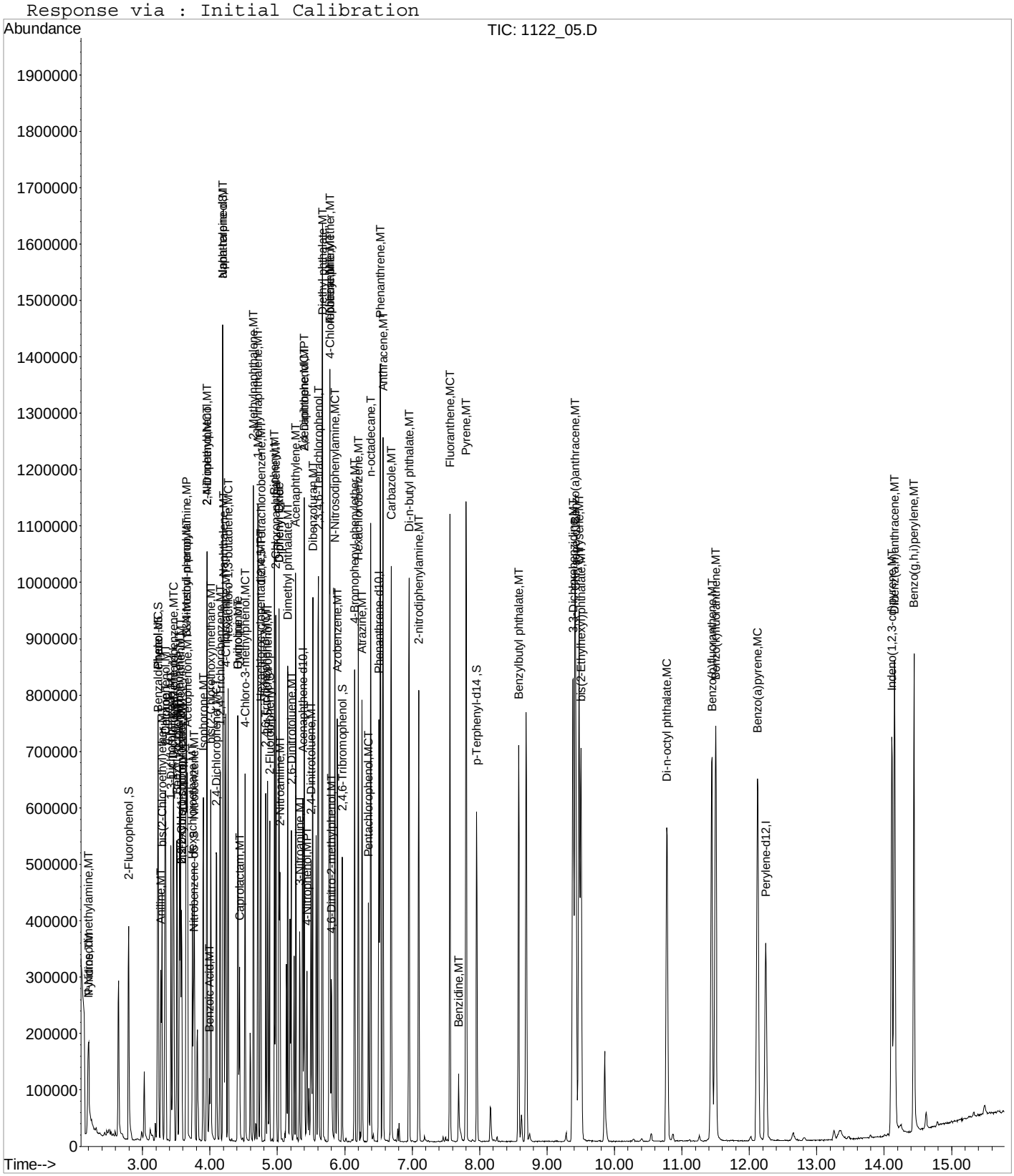
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100) Benzo(g,h,i)perylene	14.44	276	479237	13425.4961275	ppb	96

(#) = qualifier out of range (m) = manual integration
1122_05.D S804J26V.M Tue Nov 22 12:34:25 2022 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:17 2022 Quant Results File: S804J26V.RES

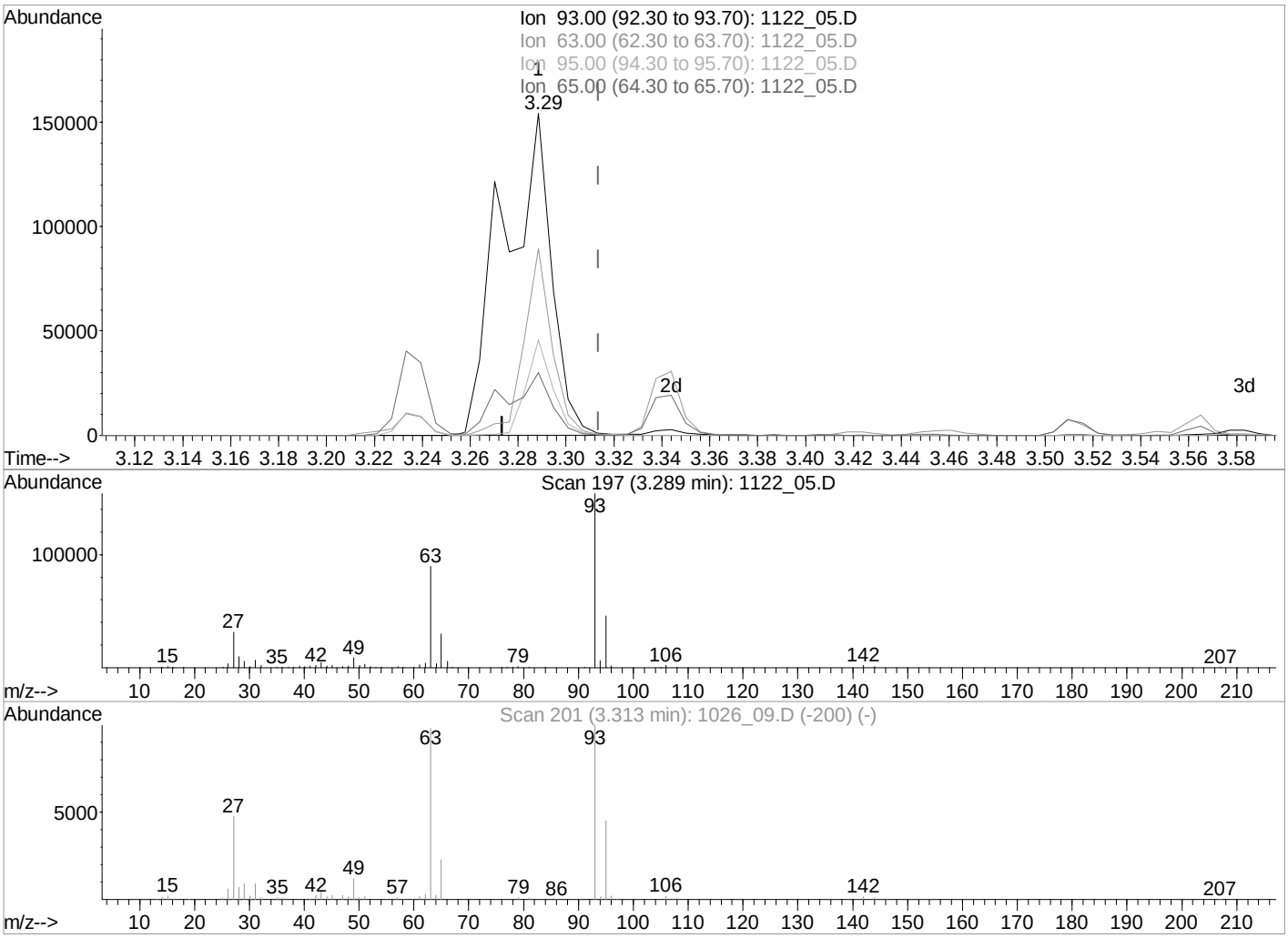
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:09 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_05.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 24368.8527067 ppb

Qvalue = 92

response 212467

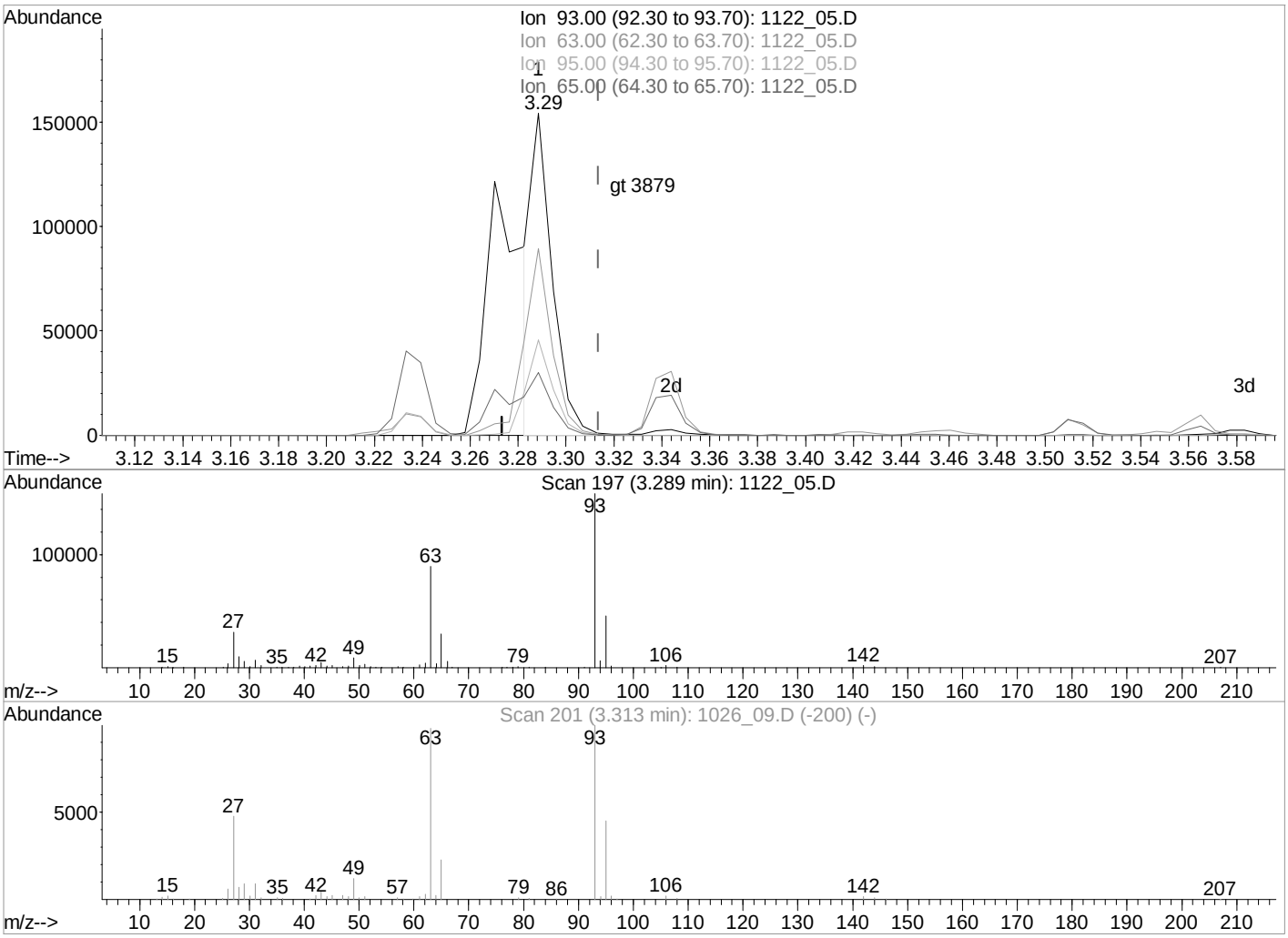
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	58.13
95.00	28.70	29.66
65.00	22.20	19.30

1122_05.D S804J26V.M Tue Nov 22 12:16:47 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_05.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 10375.0590828 ppb m

response 90458

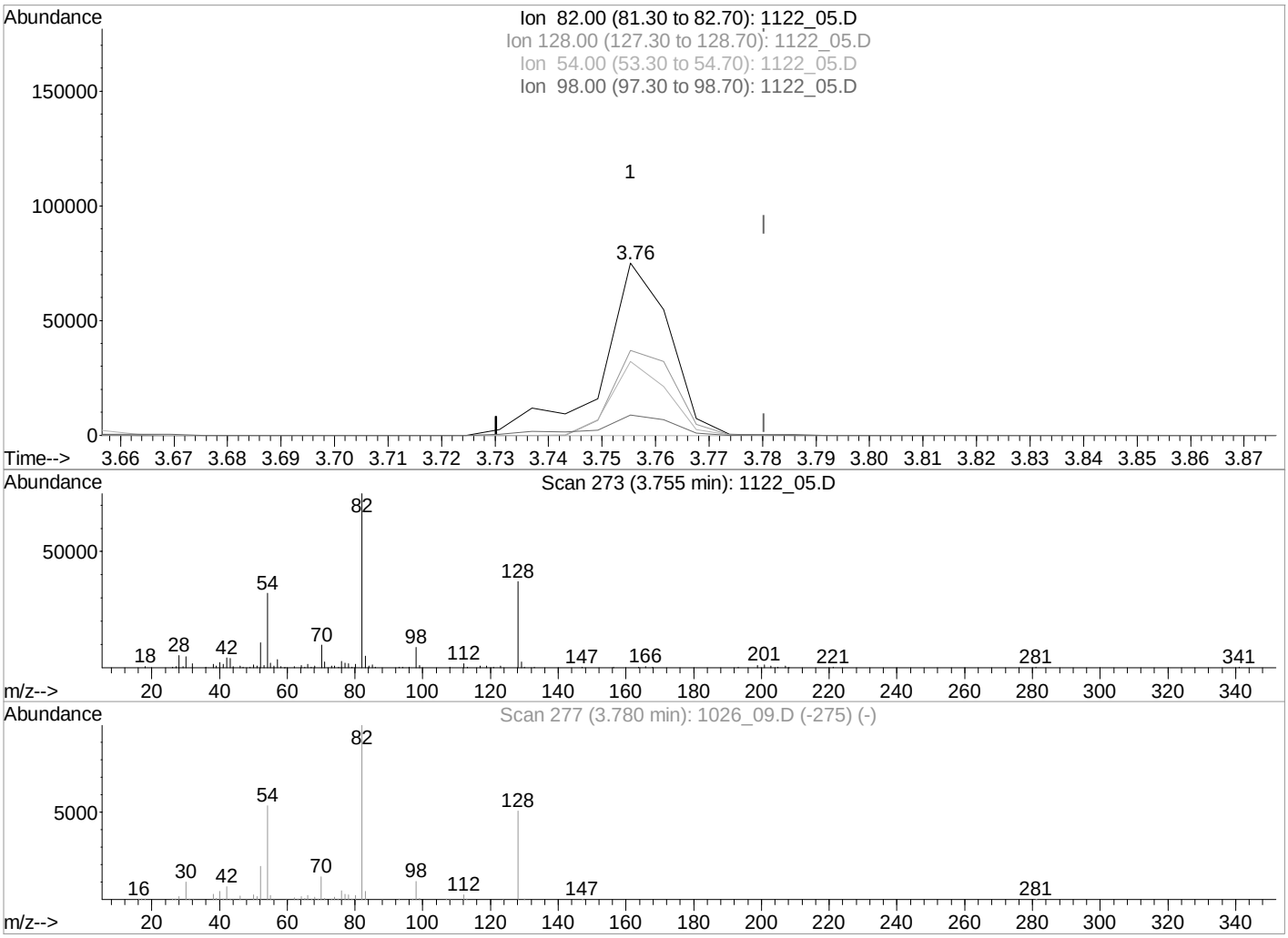
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.94
95.00	28.70	29.57
65.00	22.20	19.47

1122_05.D S804J26V.M Tue Nov 22 12:16:55 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:16 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_05.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5877.7226068 ppb

Qvalue = 93

response 65294

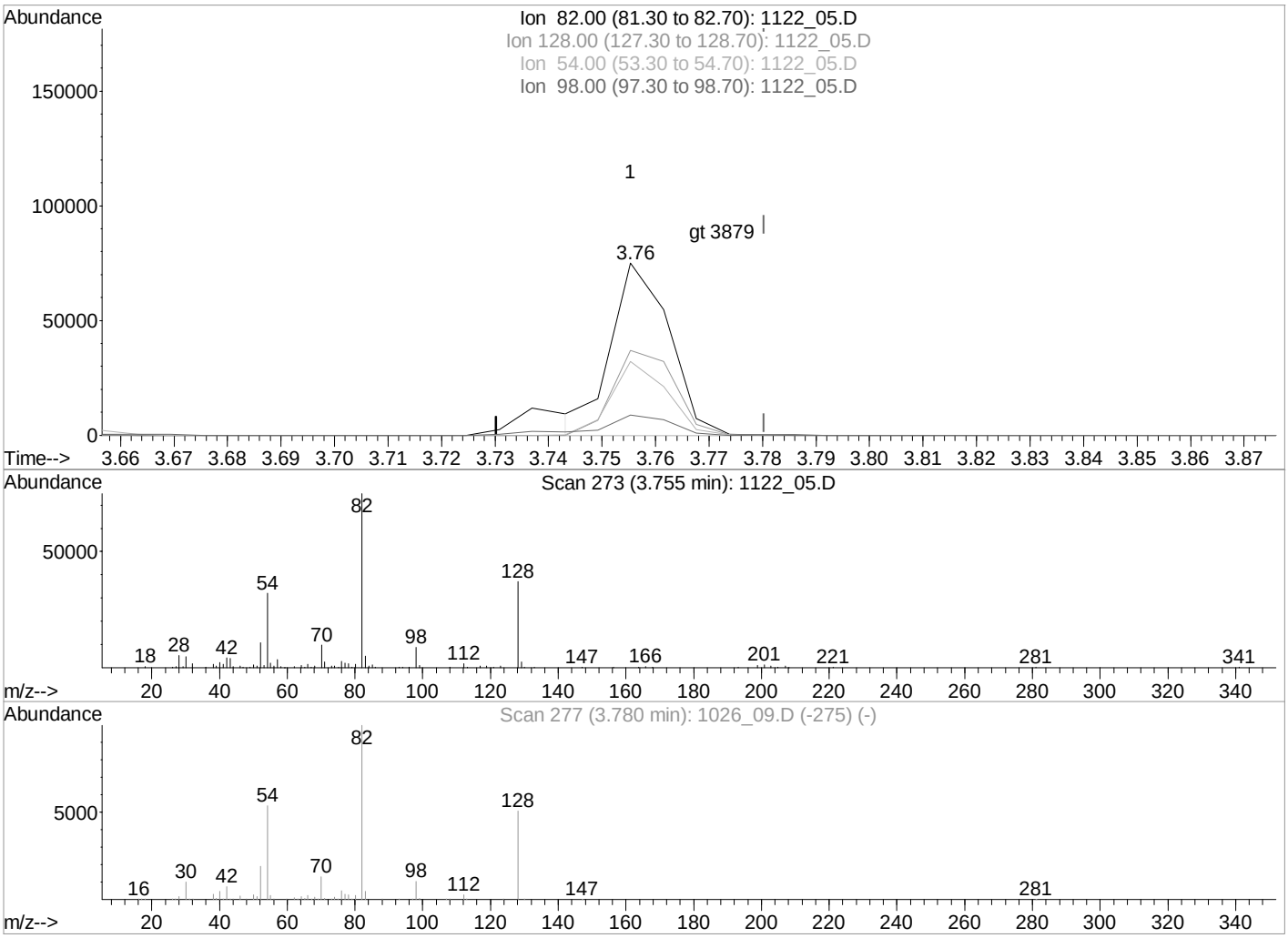
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.39
54.00	49.10	42.86
98.00	10.80	11.64

1122_05.D S804J26V.M Tue Nov 22 12:17:10 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 05.D Vial: 28
Acq On : 22 Nov 2022 10:30 am Operator: 917
Sample : LCS 1X WG1962624 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:17 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_05.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5086.0025357 ppb m

response 56499

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.39
54.00	49.10	42.86
98.00	10.80	11.64

1122_05.D S804J26V.M Tue Nov 22 12:17:21 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863963-3	**SDG:**	L1557921
Client Sample ID:	MS	**Collected Date/Time:**	11/09/22 12:35
Lab File ID:	1122_20	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:09
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 16:29
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.17 g
Total Solids (%):	79.2	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.548		0.00681	0.0421
Acenaphthylene	208-96-8	5.27	0.609		0.00592	0.0421
Anthracene	120-12-7	6.57	0.567		0.00749	0.0421
Benzoic Acid	65-85-0	4.01	1.21		0.149	2.11
Benzo(a)anthracene	56-55-3	9.41	0.652		0.00741	0.0421
Benzo(b)fluoranthene	205-99-2	11.45	0.658		0.00784	0.0421
Benzo(k)fluoranthene	207-08-9	11.50	0.605		0.00748	0.0421
Benzo(g,h,i)perylene	191-24-2	14.44	0.357		0.00769	0.0421
Benzo(a)pyrene	50-32-8	12.13	0.697		0.00782	0.0421
Carbazole	86-74-8	6.69	0.582		0.0130	0.421
Chrysene	218-01-9	9.47	0.616		0.00836	0.0421
Dibenz(a,h)anthracene	53-70-3	14.15	0.450		0.0117	0.0421
Dibenzofuran	132-64-9	5.52	0.563		0.0138	0.421
Fluoranthene	206-44-0	7.56	0.637		0.00759	0.0421
Fluorene	86-73-7	5.78	0.572		0.00685	0.0421
Indeno(1,2,3-cd)pyrene	193-39-5	14.12	0.426		0.0119	0.0421
1-Methylnaphthalene	90-12-0	4.71	0.485		0.00538	0.0421
2-Methylnaphthalene	91-57-6	4.65	0.471		0.00546	0.0421
Naphthalene	91-20-3	4.20	0.436		0.0106	0.0421
Phenanthrene	85-01-8	6.53	0.565		0.00835	0.0421
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	0.624		0.0533	0.421
Di-n-butyl phthalate	84-74-2	6.96	0.553		0.0144	0.421
Di-n-octyl phthalate	117-84-0	10.78	0.700		0.0284	0.421
Pyrene	129-00-0	7.80	0.573		0.00818	0.0421
3&4-Methyl Phenol	3&4-Methyl Phenol	3.64	0.515		0.0131	0.421
Pentachlorophenol	87-86-5	6.35	0.661		0.0113	0.421
Phenol	108-95-2	3.24	0.498		0.0169	0.421

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:43 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	56082	8000.00 ppb		-0.03
23) Naphthalene-d8	4.19	136	267134	8000.00 ppb		-0.02
46) Acenaphthene-d10	5.37	164	122745	8000.00 ppb		-0.02
70) Phenanthrene-d10	6.51	188	244288	8000.00 ppb		-0.02
84) Chrysene-d12	9.43	240	254995	8000.00 ppb		-0.03
94) Perylene-d12	12.24	264	259176	8000.00 ppb		-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	2.80	112	122132	14373.7954027 ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 71.87%			
7) Phenol-d5	3.23	99	147045	13430.8437091 ppb		-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 67.15%			
24) Nitrobenzene-d5	3.76	82	58477m	5108.7602126 ppb		-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 51.09%			
50) 2-Fluorobiphenyl	4.89	172	155977	6948.9142777 ppb		-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 69.49%			
73) 2,4,6-Tribromophenol	5.96	330	65369	17516.3091178 ppb		-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 87.58%			
87) p-Terphenyl-d14	7.96	244	273361	7847.1081447 ppb		-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 78.47%			
Target Compounds						Qvalue
2) Pyridine	2.21	79	70247	7458.6803583 ppb		91
3) N-Nitrosodimethylamine	2.20	42	35092	8372.6086695 ppb	#	73
5) Aniline	3.27	66	26206	5406.8073707 ppb	#	14
6) bis(2-Chloroethyl)ether	3.29	93	90485m	10393.3302072 ppb		
8) Phenol	3.24	94	132722	11954.5472929 ppb		86
9) Benzaldehyde	3.22	105	78447	22903.3316857 ppb		96
10) 2-Chlorophenol	3.34	128	115390	12694.8719672 ppb		90
11) n-Decane	3.33	41	32401	6267.5198490 ppb	#	88
12) 1,3-Dichlorobenzene	3.42	146	122433	11467.8117971 ppb		96
13) 1,4-Dichlorobenzene	3.46	146	125953	11800.3679802 ppb		96
14) Benzyl Alcohol	3.51	79	87809	12399.5629436 ppb		95
15) 1,2-Dichlorobenzene	3.55	146	123592	12294.3535589 ppb		95
16) bis(2-Chloroisopropyl)ethe	3.58	121	38992	12352.1057693 ppb		99
17) 2,2-oxybis(1-chloropropane	3.58	121	38992	12352.1057693 ppb		99
18) 2-Methylphenol	3.57	108	95090	11601.6004646 ppb		95
19) Hexachloroethane	3.74	117	29211	7553.1883369 ppb		98
20) N-Nitrosodi-n-propylamine	3.66	70	73616	11898.9967680 ppb		87
21) 3&4-Methyl phenol	3.64	107	113410	12345.0868261 ppb		97
22) Acetophenone	3.66	105	146292	12008.5416443 ppb		89
25) Nitrobenzene	3.77	77	107132	9392.6633425 ppb		92
26) Isophorone	3.90	82	202361	9836.8763827 ppb		92
27) 2-Nitrophenol	3.95	139	69923	12167.0150019 ppb	#	70
28) 2,4-Dimethylphenol	3.96	107	78053	7366.9836929 ppb		95
29) bis(2-Chlorethoxy)methane	4.01	93	130864	10228.2638575 ppb		94
30) 2,4-Dichlorophenol	4.10	162	105287	11902.6190989 ppb		92
31) Benzoic Acid	4.01	105	110948	29016.9628836 ppb		91
32) 1,2,4-Trichlorobenzene	4.15	180	120470	11459.8276453 ppb		94
33) alpha-terpineol	4.19	59	83700	12576.4230833 ppb		88
34) Naphthalene	4.20	128	355308	10444.8861537 ppb		99
35) 4-Chloroaniline	4.23	65	22450	6232.9235704 ppb		74
36) Hexachloro-1,3-butadiene	4.27	225	70648	11771.8125337 ppb		98
37) Hydroquinone	4.41	110	16320	3152.4149143 ppb		92
38) Quinoline	4.42	129	237148	15626.1168862 ppb		99

(#) = qualifier out of range (m) = manual integration
1122_20.D S804J26V.M Wed Nov 23 09:44:04 2022 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:43 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

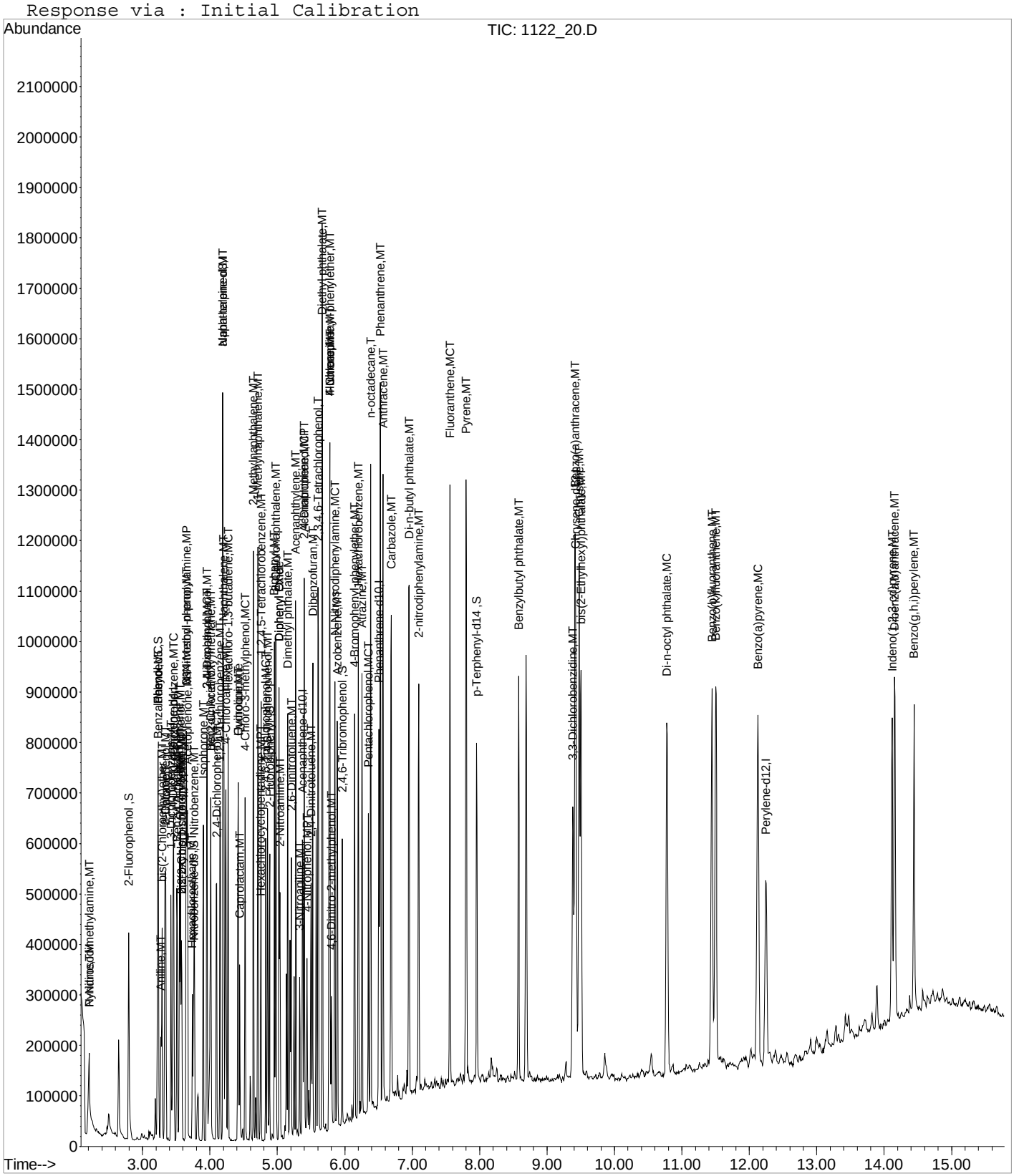
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Caprolactam	4.44	113	36746	19888.3281311 ppb	#	78
40)	4-Chloro-3-methylphenol	4.52	107	95434	11348.1668202 ppb		91
41)	2-Methylnaphthalene	4.65	142	250363	11303.1849665 ppb		98
42)	1-Methylnaphthalene	4.71	142	245115	11638.2786609 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	126163	15765.1974679 ppb		100
44)	Diphenyl Ether	5.03	170	166702	15808.1262901 ug/ml	#	91
45)	Diphenyl Oxide	5.03	170	166702	15808.1262901 ug/ml	#	91
47)	Hexachlorocyclopentadiene	4.74	237	7405	1199.8572565 ppb		99
48)	2,4,6-Trichlorophenol	4.83	196	77997	13660.2970103 ppb		94
49)	2,4,5-Trichlorophenol	4.85	196	87097	14616.2694845 ppb		98
51)	Biphenyl	4.96	154	308892	12334.9448618 ppb		99
52)	2-Chloronaphthalene	4.98	162	245644	13306.5827062 ppb		99
53)	2-Nitroaniline	5.04	138	83409	15290.3587791 ppb		92
54)	Acenaphthylene	5.27	152	406057	14611.2214540 ppb		99
55)	Dimethyl phthalate	5.16	163	269323	13971.3549217 ppb		95
56)	2,6-Dinitrotoluene	5.20	165	66154	15055.0560146 ppb		83
57)	3-Nitroaniline	5.33	138	50589	10894.7084085 ppb	#	81
58)	Acenaphthene	5.40	153	249818	13160.4169677 ppb		96
59)	2,4-Dinitrophenol	5.41	184	21102	9340.1324350 ppb	#	1
60)	Dibenzofuran	5.52	168	349564	13531.3225325 ppb		97
61)	2,4-Dinitrotoluene	5.50	165	90506	16210.5876554 ppb		86
62)	2,3,4,6-Tetrachlorophenol	5.61	232	142940	31756.9645402 ppb		76
63)	4-Nitrophenol	5.44	139	61641	16490.0597145 ppb	#	80
64)	Fluorene	5.78	166	295054	13743.5398145 ppb		99
65)	4-Chlorophenyl-phenylether	5.77	204	149455	14628.7911038 ppb		92
66)	Diethyl phthalate	5.67	149	281578	15019.3067424 ppb		98
67)	4-Nitroaniline	5.78	138	64356	15178.9553449 ppb		89
68)	Azobenzene	5.89	77	232155	11586.8034817 ppb		89
69)	Atrazine	6.26	200	89569	15553.9006348 ppb	#	92
71)	4,6-Dinitro-2-methylphenol	5.80	198	40300	10930.8632539 ppb		88
72)	N-Nitrosodiphenylamine	5.86	169	200268	10413.7558113 ppb		97
74)	4-Bromophenyl-phenylether	6.14	248	103404	16026.7739141 ppb		91
75)	Hexachlorobenzene	6.20	284	118461	14447.7371642 ppb		98
76)	n-octadecane	6.38	55	36318	11395.4202647 ppb	#	97
77)	Pentachlorophenol	6.35	266	74843	15841.3791117 ppb		97
78)	Phenanthrene	6.53	178	458091	13543.2217774 ppb		99
79)	Anthracene	6.57	178	454315	13605.4703105 ppb		99
80)	Carbazole	6.69	167	412552	13962.2390077 ppb		99
81)	Di-n-butyl phthalate	6.96	149	516796	13268.8056448 ppb		99
82)	2-nitrodiphenylamine	7.10	167	106960	15663.9921845 ppb		89
83)	Fluoranthene	7.56	202	539148	15255.2948914 ppb		99
86)	Pyrene	7.80	202	550350	13746.9477463 ppb		99
88)	Benzylbutyl phthalate	8.58	149	235284	14807.9652081 ppb		95
89)	3,3-Dichlorobenzidine	9.38	252	201587	14233.6214047 ppb		98
90)	Benzo(a)anthracene	9.41	228	567010	15641.4730465 ppb		98
91)	Chrysene	9.47	228	554326	14779.6249363 ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.50	149	347045	14975.8181218 ppb		98
93)	Di-n-octyl phthalate	10.78	149	616455	16791.5924232 ppb		98
95)	Benzo(b)fluoranthene	11.45	252	591761	15789.3284894 ppb		98
96)	Benzo(k)fluoranthene	11.50	252	567160	14517.8780741 ppb		99
97)	Benzo(a)pyrene	12.13	252	524829	16743.6088324 ppb		98
98)	Indeno(1,2,3-cd)pyrene	14.12	276	335654	10221.5241507 ppb		98
99)	Dibenz(a,h)anthracene	14.15	278	396269	10791.3211718 ppb		98
100)	Benzo(g,h,i)perylene	14.44	276	314448	8576.4268282 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:43 2022 Quant Results File: S804J26V.RES

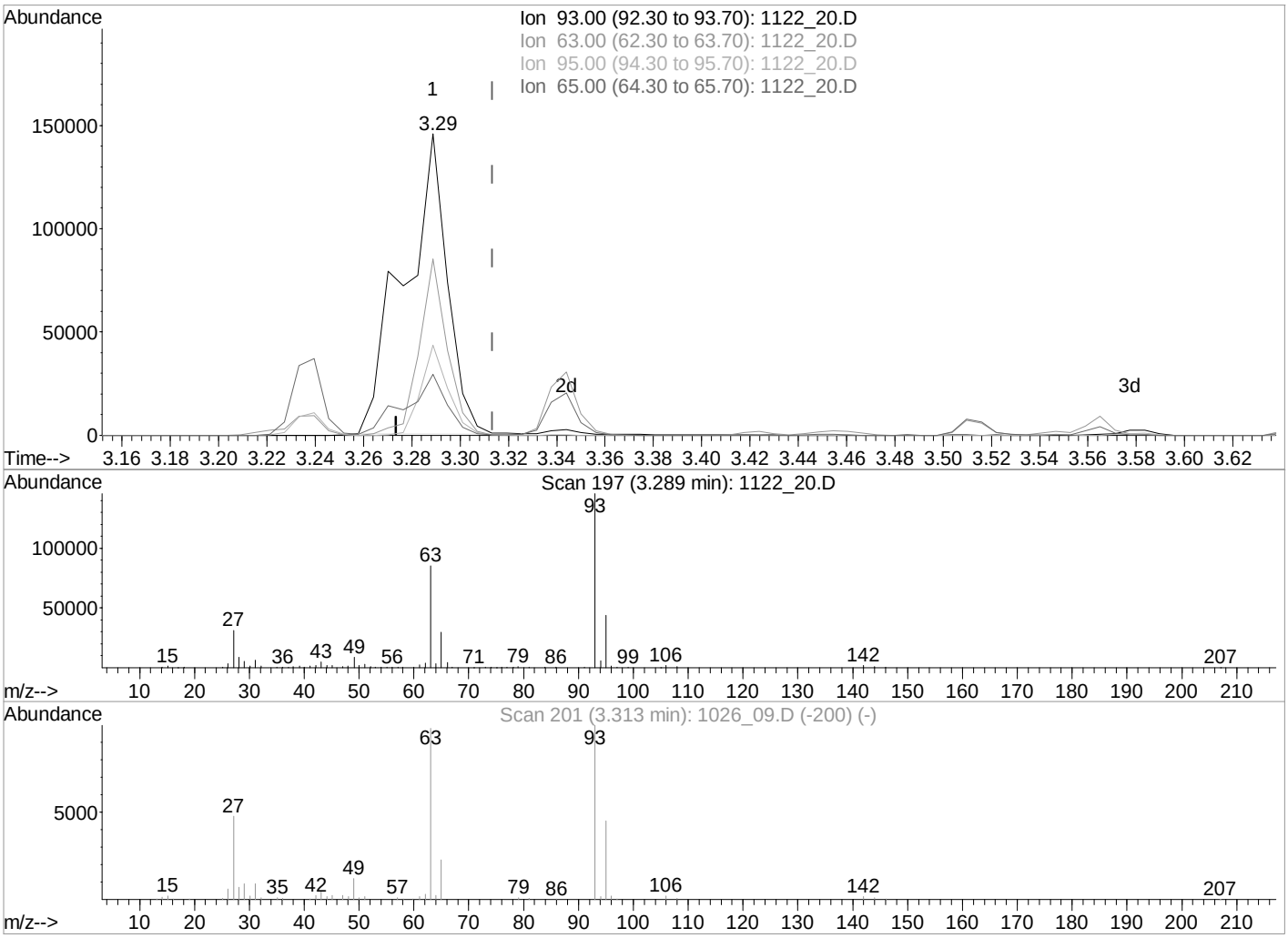
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:12 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_20.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 20688.3381438 ppb

Qvalue = 93

response 180114

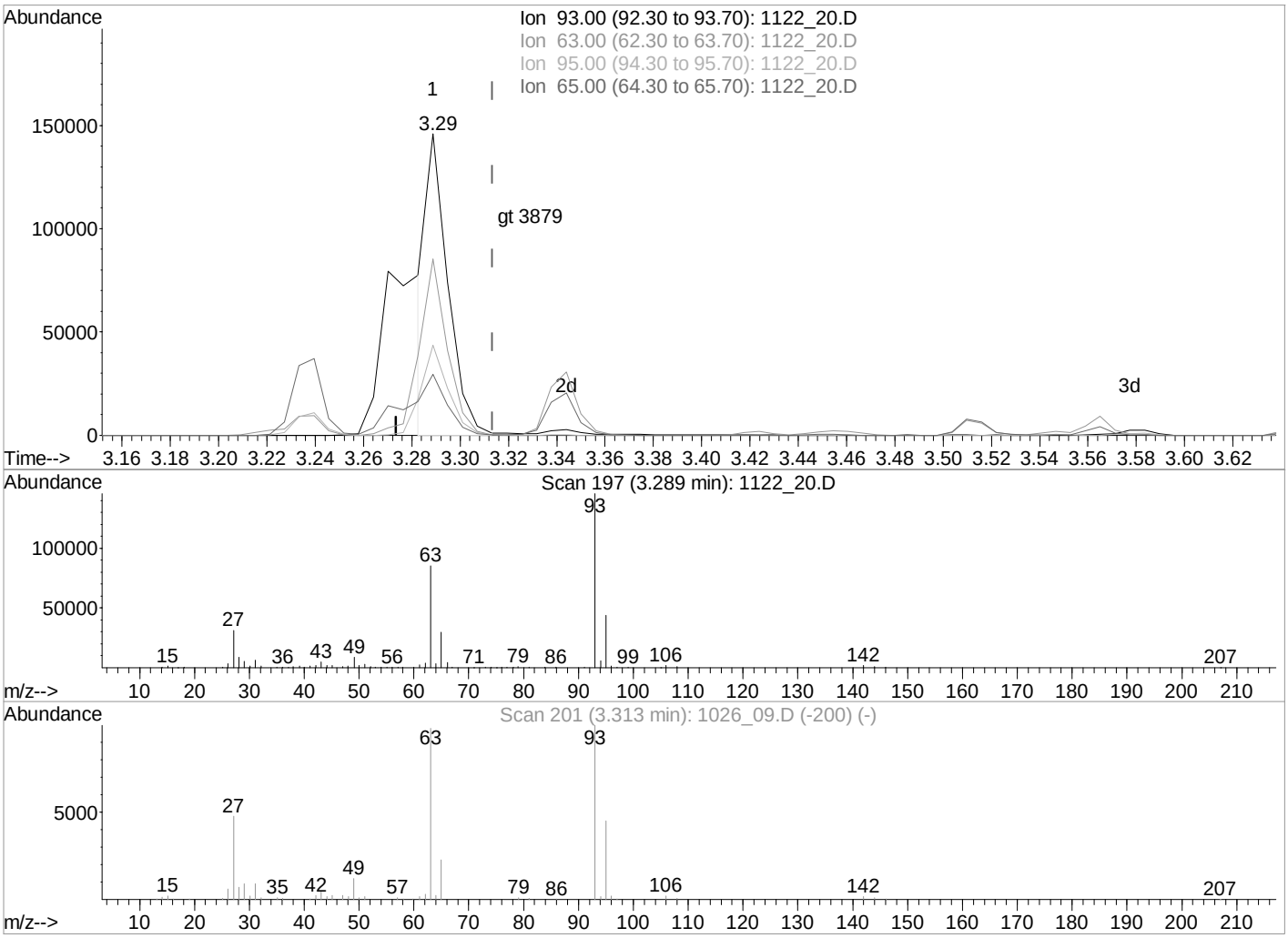
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	58.73
95.00	28.70	30.04
65.00	22.20	20.05

1122_20.D S804J26V.M Wed Nov 23 09:42:10 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_20.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 10393.3302072 ppb m

response 90485

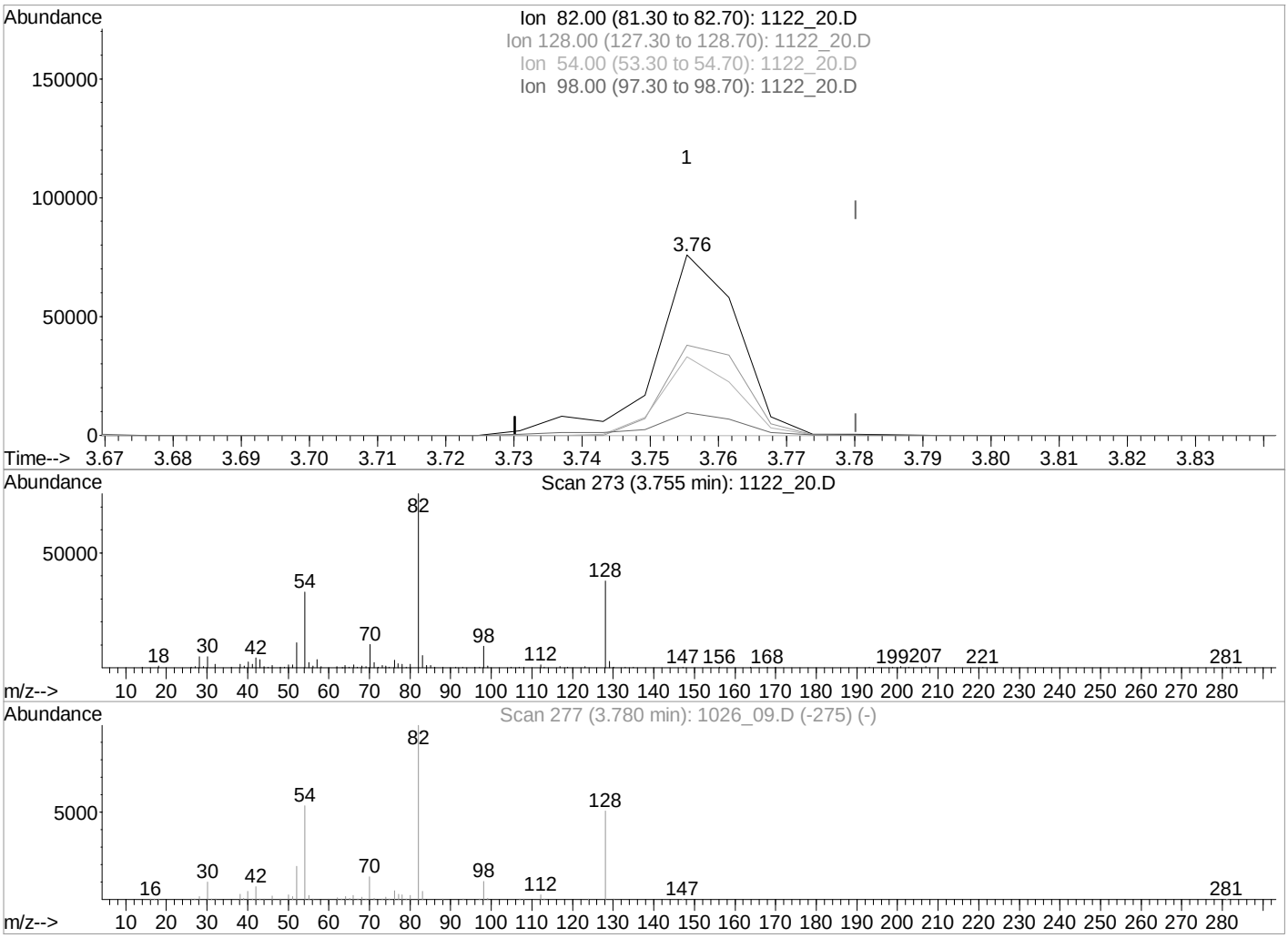
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	58.49
95.00	28.70	29.91
65.00	22.20	20.18

1122_20.D S804J26V.M Wed Nov 23 09:42:21 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_20.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5624.4674400 ppb

Qvalue = 93

response 64380

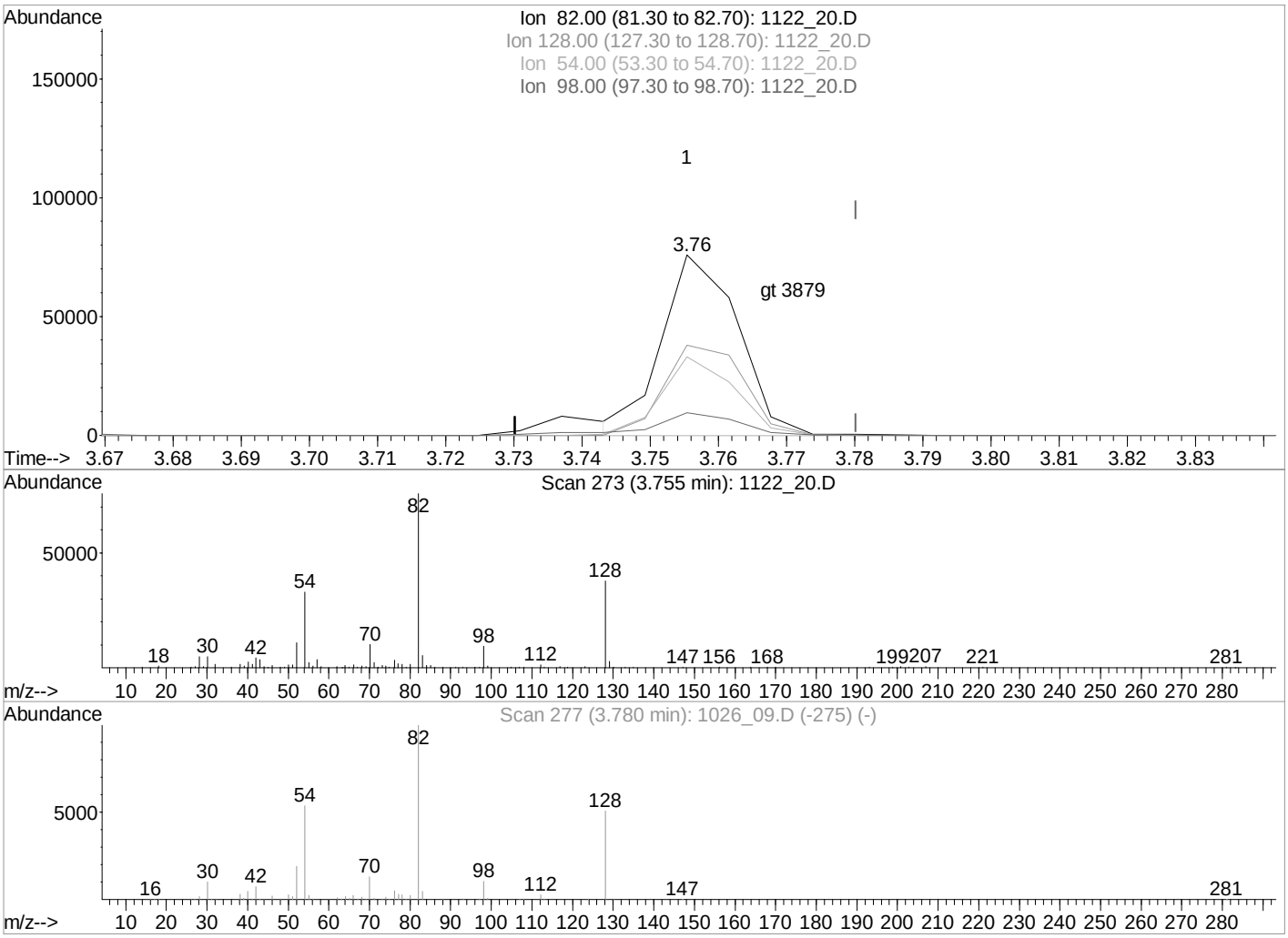
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.75
54.00	49.10	43.55
98.00	10.80	12.44

1122_20.D S804J26V.M Wed Nov 23 09:42:36 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_20.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5108.7602126 ppb m

response 58477

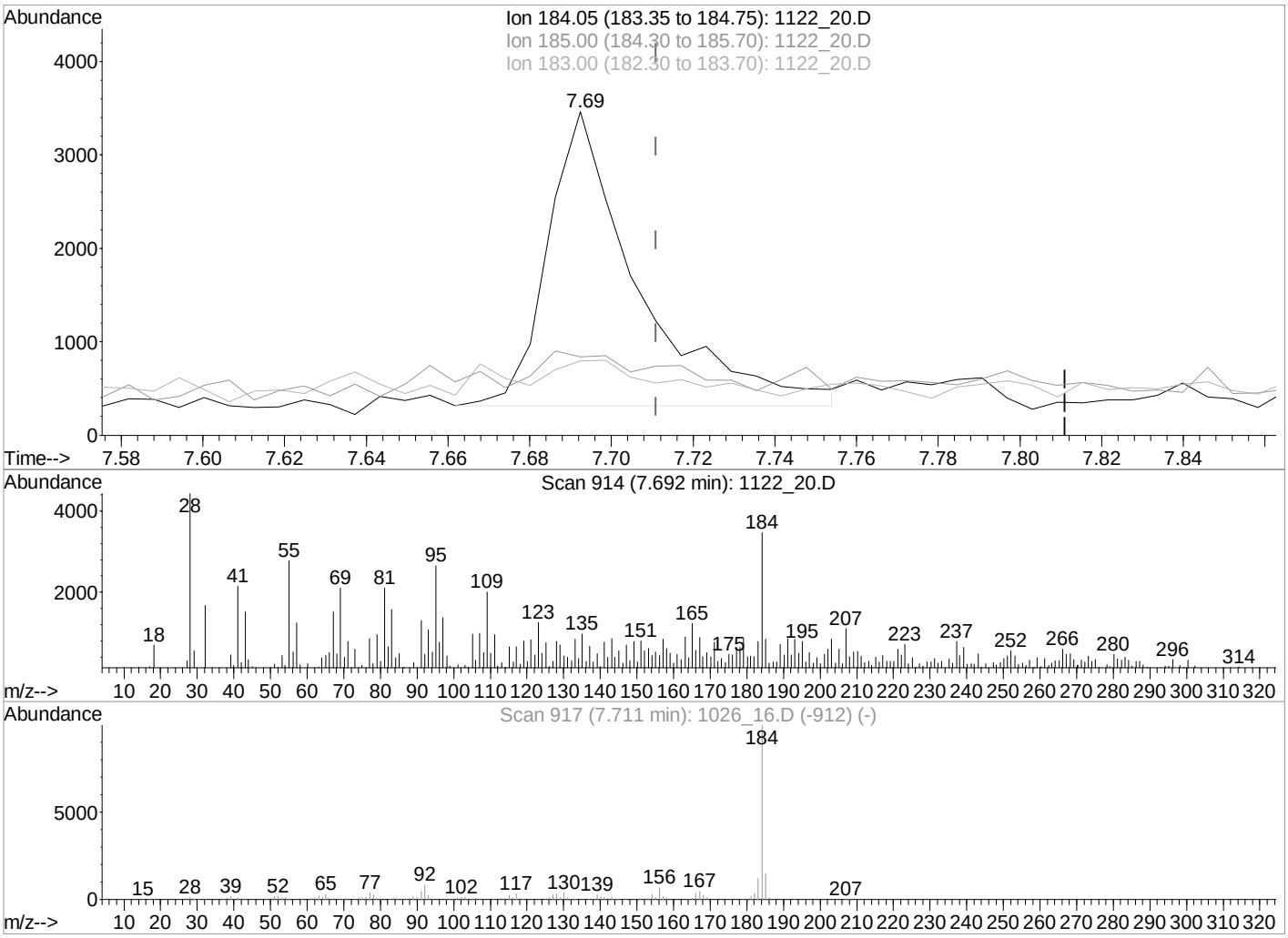
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	49.75
54.00	49.10	43.55
98.00	10.80	12.44

1122_20.D S804J26V.M Wed Nov 23 09:42:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:42 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1122_20.D

(85) Benzidine (MT)

7.69min (-0.019) 1024.8917559 ppb

Qvalue = 67

response 4838

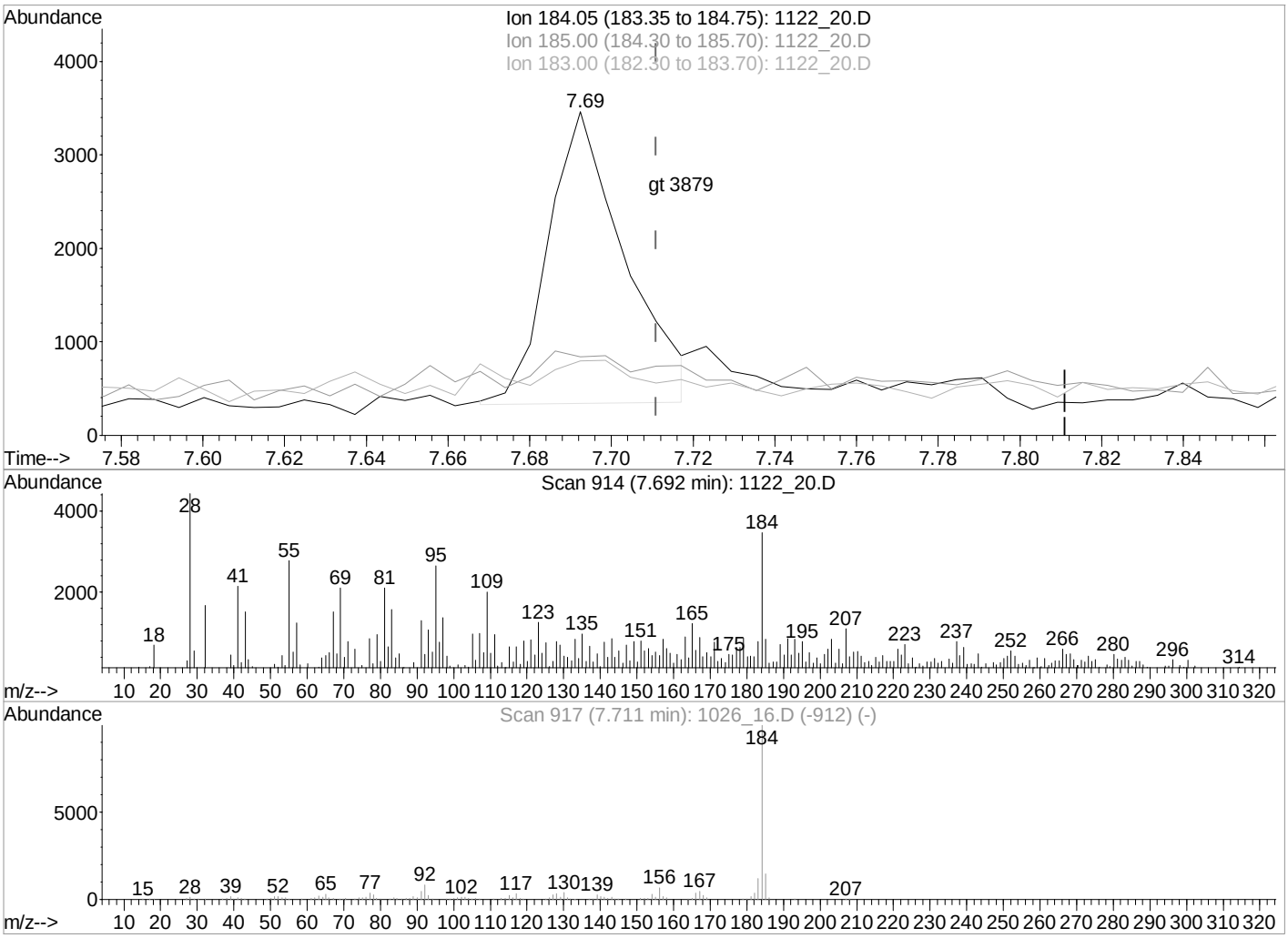
Ion	Exp%	Act%
184.05	100	100
185.00	14.50	0.00
183.00	11.70	0.00
0.00	0.00	0.00

1122_20.D S804J26V.M Wed Nov 23 09:43:44 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 20.D Vial: 43
Acq On : 22 Nov 2022 4:29 pm Operator: 917
Sample : MS 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:43 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Single Level Calibration



TIC: 1122_20.D

(85) Benzidine (MT)

7.69min (-0.019) 985.7007608 ppb m

response 4063

Ion	Exp%	Act%
184.05	100	100
185.00	14.50	0.00
183.00	11.70	0.00
0.00	0.00	0.00

1122_20.D S804J26V.M Wed Nov 23 09:43:52 2022

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863963-4	**SDG:**	L1557921
Client Sample ID:	MSD	**Collected Date/Time:**	11/09/22 12:35
Lab File ID:	1122_21	**Received Date/Time:**	11/15/22 09:00
Instrument ID:	BNAMS4	**Preparation Date/Time:**	11/21/22 09:09
Analytical Batch:	WG1962624	**Analysis Date/Time:**	11/22/22 16:53
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.35 g
Total Solids (%):	79.2	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.40	0.580		0.00681	0.0421
Acenaphthylene	208-96-8	5.27	0.652		0.00592	0.0421
Anthracene	120-12-7	6.57	0.594		0.00749	0.0421
Benzoic Acid	65-85-0	4.01	1.44		0.149	2.11
Benzo(a)anthracene	56-55-3	9.42	0.672		0.00741	0.0421
Benzo(b)fluoranthene	205-99-2	11.45	0.673		0.00784	0.0421
Benzo(k)fluoranthene	207-08-9	11.51	0.652		0.00748	0.0421
Benzo(g,h,i)perylene	191-24-2	14.44	0.308		0.00769	0.0421
Benzo(a)pyrene	50-32-8	12.13	0.722		0.00782	0.0421
Carbazole	86-74-8	6.69	0.613		0.0130	0.421
Chrysene	218-01-9	9.47	0.629		0.00836	0.0421
Dibenz(a,h)anthracene	53-70-3	14.15	0.402		0.0117	0.0421
Dibenzofuran	132-64-9	5.52	0.601		0.0138	0.421
Fluoranthene	206-44-0	7.56	0.664		0.00759	0.0421
Fluorene	86-73-7	5.78	0.602		0.00685	0.0421
Indeno(1,2,3-cd)pyrene	193-39-5	14.12	0.380		0.0119	0.0421
1-Methylnaphthalene	90-12-0	4.71	0.510		0.00538	0.0421
2-Methylnaphthalene	91-57-6	4.65	0.503		0.00546	0.0421
Naphthalene	91-20-3	4.20	0.464		0.0106	0.0421
Phenanthrene	85-01-8	6.53	0.602		0.00835	0.0421
Bis(2-ethylhexyl)phthalate	117-81-7	9.50	0.642		0.0533	0.421
Di-n-butyl phthalate	84-74-2	6.96	0.572		0.0144	0.421
Di-n-octyl phthalate	117-84-0	10.78	0.700		0.0284	0.421
Pyrene	129-00-0	7.80	0.594		0.00818	0.0421
3&4-Methyl Phenol	3&4-Methyl Phenol	3.64	0.563		0.0131	0.421
Pentachlorophenol	87-86-5	6.35	0.693		0.0113	0.421
Phenol	108-95-2	3.24	0.532		0.0169	0.421

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.45	152	55007	8000.00 ppb	-0.03
23) Naphthalene-d8	4.19	136	259305	8000.00 ppb	-0.02
46) Acenaphthene-d10	5.38	164	118732	8000.00 ppb	-0.02
70) Phenanthrene-d10	6.51	188	238164	8000.00 ppb	-0.02
84) Chrysene-d12	9.43	240	252039	8000.00 ppb	-0.03
94) Perylene-d12	12.25	264	240325	8000.00 ppb	-0.02
System Monitoring Compounds					
4) 2-Fluorophenol	2.80	112	125078	15008.1945659 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 75.04%		
7) Phenol-d5	3.23	99	147624	13747.2406646 ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 68.74%		
24) Nitrobenzene-d5	3.76	82	57951m	5215.6644748 ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 52.16%		
50) 2-Fluorobiphenyl	4.89	172	158008	7277.3203648 ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 72.77%		
73) 2,4,6-Tribromophenol	5.96	330	65114	17896.6256076 ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 89.48%		
87) p-Terphenyl-d14	7.96	244	266979	7753.7912092 ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 77.54%		
Target Compounds					Qvalue
2) Pyridine	2.21	79	79973	8657.3133134 ppb	88
3) N-Nitrosodimethylamine	2.20	42	35296	8585.8578987 ppb #	61
5) Aniline	3.27	66	30846	6488.5035709 ppb #	28
6) bis(2-Chloroethyl)ether	3.29	93	93563m	10956.9027395 ppb	
8) Phenol	3.24	94	140479	12900.5182437 ppb	87
9) Benzaldehyde	3.22	105	83855	24960.7033766 ppb	95
10) 2-Chlorophenol	3.34	128	122621	13754.0480957 ppb	90
11) n-Decane	3.33	41	33285	6564.3450056 ppb #	88
12) 1,3-Dichlorobenzene	3.42	146	128346	12256.5978597 ppb	95
13) 1,4-Dichlorobenzene	3.46	146	132163	12624.1590002 ppb	95
14) Benzyl Alcohol	3.51	79	92603	13332.0807665 ppb	95
15) 1,2-Dichlorobenzene	3.55	146	127411	12921.9422489 ppb	95
16) bis(2-Chloroisopropyl)ethe	3.58	121	41373	13362.5097903 ppb	98
17) 2,2-oxybis(1-chloropropane	3.58	121	41373	13362.5097903 ppb	98
18) 2-Methylphenol	3.57	108	104401	12986.5337817 ppb	95
19) Hexachloroethane	3.74	117	29475	7770.3975027 ppb	96
20) N-Nitrosodi-n-propylamine	3.65	70	77302	12738.9723291 ppb	92
21) 3&4-Methyl phenol	3.64	107	123173	13669.8532029 ppb	96
22) Acetophenone	3.66	105	150376	12585.0154442 ppb #	87
25) Nitrobenzene	3.77	77	112701	10179.2455185 ppb	91
26) Isophorone	3.90	82	211733	10603.2066112 ppb	92
27) 2-Nitrophenol	3.95	139	72093	12923.3576875 ppb #	70
28) 2,4-Dimethylphenol	3.96	107	97741	9503.7534842 ppb	94
29) bis(2-Chlorethoxy)methane	4.01	93	136480	10989.2745094 ppb	94
30) 2,4-Dichlorophenol	4.10	162	111045	12932.5768879 ppb	91
31) Benzoic Acid	4.01	105	129698	34944.9184777 ppb	90
32) 1,2,4-Trichlorobenzene	4.15	180	123406	12093.5478518 ppb	98
33) alpha-terpineol	4.19	59	87894	13605.3333348 ppb	90
34) Naphthalene	4.20	128	371448	11249.0287073 ppb	99
35) 4-Chloroaniline	4.23	65	26120	7470.7964704 ppb #	64
36) Hexachloro-1,3-butadiene	4.27	225	73428	12604.4366834 ppb	98
37) Hydroquinone	4.41	110	19175	3815.7232464 ppb	93
38) Quinoline	4.42	129	250846	17027.7418941 ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: S804J26V.RES

Quant Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration
DataAcq Meth : BNA4PS

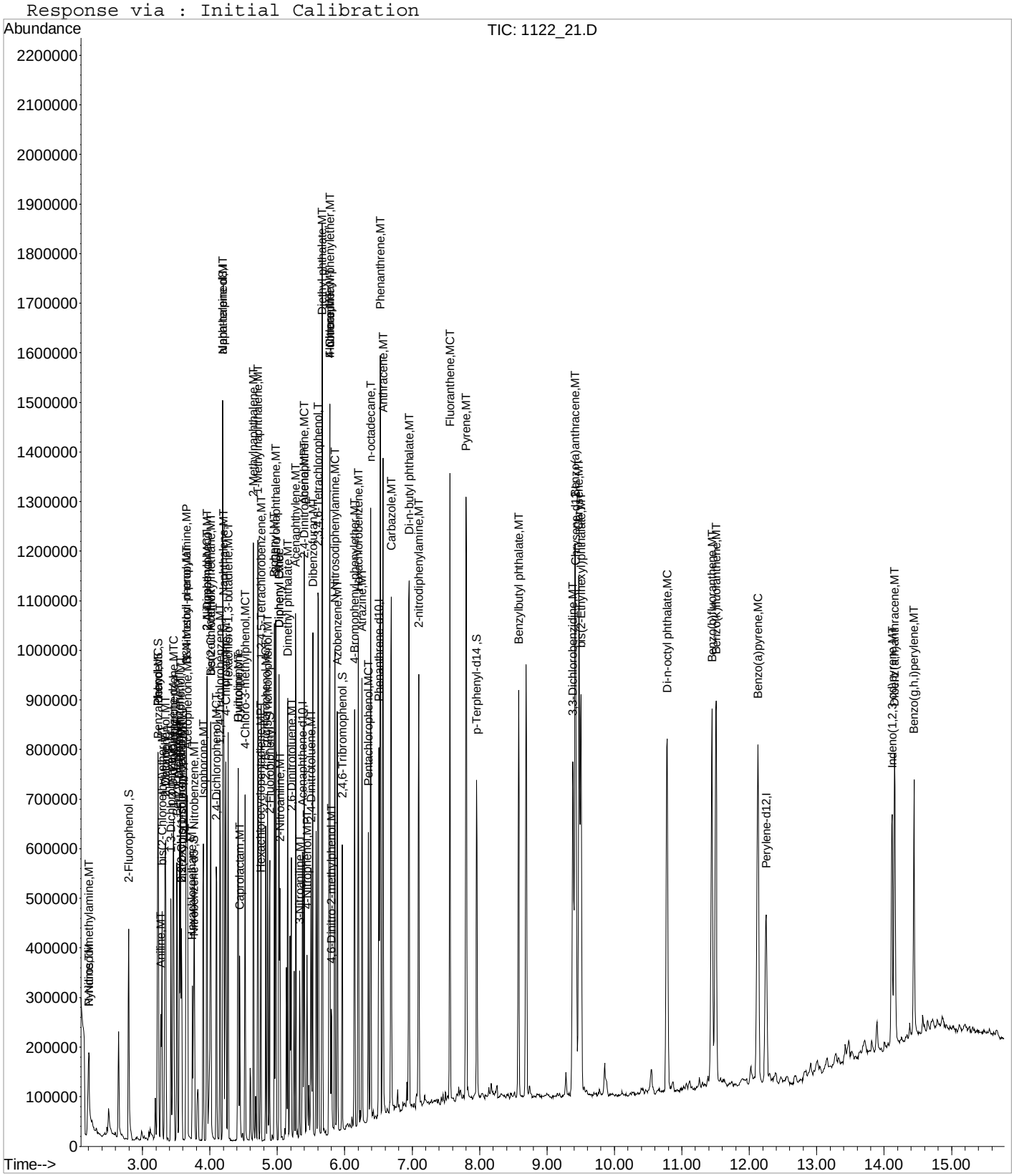
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Caprolactam	4.44	113	40786	22741.4209409	ppb	#	76
40)	4-Chloro-3-methylphenol	4.52	107	100537	12315.9178176	ppb		92
41)	2-Methylnaphthalene	4.65	142	262776	12221.7856110	ppb		96
42)	1-Methylnaphthalene	4.71	142	253396	12394.7249444	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	4.76	216	130400	16786.6206047	ppb		100
44)	Diphenyl Ether	5.03	170	175989	17192.6723330	ug/ml	#	91
45)	Diphenyl Oxide	5.03	170	175989	17192.6723330	ug/ml	#	91
47)	Hexachlorocyclopentadiene	4.74	237	7891	1321.8208248	ppb		96
48)	2,4,6-Trichlorophenol	4.83	196	86058	15581.5091492	ppb		94
49)	2,4,5-Trichlorophenol	4.85	196	90600	15718.0103302	ppb		99
51)	Biphenyl	4.96	154	320965	13250.2555860	ppb		99
52)	2-Chloronaphthalene	4.98	162	255303	14297.2437654	ppb		98
53)	2-Nitroaniline	5.04	138	87820	16643.0999432	ppb		92
54)	Acenaphthylene	5.27	152	425437	15825.9870437	ppb		99
55)	Dimethyl phthalate	5.16	163	284975	15282.9738888	ppb		96
56)	2,6-Dinitrotoluene	5.21	165	69230	16287.5823765	ppb		82
57)	3-Nitroaniline	5.33	138	55302	12312.2203962	ppb	#	81
58)	Acenaphthene	5.40	153	258529	14079.6291364	ppb		96
59)	2,4-Dinitrophenol	5.41	184	24098	10572.0691281	ppb	#	1
60)	Dibenzofuran	5.52	168	364862	14600.8522745	ppb		97
61)	2,4-Dinitrotoluene	5.50	165	95531	17688.9371287	ppb		85
62)	2,3,4,6-Tetrachlorophenol	5.61	232	149675	34377.1999357	ppb		78
63)	4-Nitrophenol	5.44	139	64509	17840.5767094	ppb		83
64)	Fluorene	5.78	166	303999	14638.7933502	ppb		98
65)	4-Chlorophenyl-phenylether	5.77	204	154795	15663.5769429	ppb		91
66)	Diethyl phthalate	5.67	149	291313	16063.7545531	ppb		97
67)	4-Nitroaniline	5.78	138	72608	17704.0791011	ppb	#	89
68)	Azobenzene	5.89	77	242787	12526.9993567	ppb		89
69)	Atrazine	6.26	200	96061	17245.0605990	ppb	#	92
71)	4,6-Dinitro-2-methylphenol	5.81	198	43287	11961.0734694	ppb	#	71
72)	N-Nitrosodiphenylamine	5.86	169	217399	11595.2305814	ppb		97
74)	4-Bromophenyl-phenylether	6.14	248	105816	16822.3293042	ppb		93
75)	Hexachlorobenzene	6.20	284	122542	15329.7622763	ppb		98
76)	n-octadecane	6.38	55	33545	10795.9841122	ppb	#	93
77)	Pentachlorophenol	6.35	266	77807	16845.2393168	ppb		93
78)	Phenanthrene	6.53	178	482177	14621.8639840	ppb		100
79)	Anthracene	6.57	178	469002	14406.4572828	ppb		99
80)	Carbazole	6.69	167	428551	14876.6416643	ppb		100
81)	Di-n-butyl phthalate	6.96	149	528162	13893.2903464	ppb		98
82)	2-nitrodiphenylamine	7.10	167	113153	16798.8147932	ppb		90
83)	Fluoranthene	7.56	202	556083	16139.0603400	ppb		100
86)	Pyrene	7.80	202	571025	14430.6651855	ppb		99
88)	Benzylbutyl phthalate	8.58	149	245216	15579.9906363	ppb		95
89)	3,3-Dichlorobenzidine	9.38	252	247192	17658.3945614	ppb		98
90)	Benzo(a)anthracene	9.42	228	584372	16309.4850096	ppb		97
91)	Chrysene	9.47	228	565950	15266.5233093	ppb		99
92)	bis(2-Ethylhexyl)phthalate	9.50	149	356928	15567.5927798	ppb		99
93)	Di-n-octyl phthalate	10.78	149	616488	16979.6058775	ppb		99
95)	Benzo(b)fluoranthene	11.45	252	567712	16335.8308045	ppb		98
96)	Benzo(k)fluoranthene	11.51	252	573076	15819.9681098	ppb		97
97)	Benzo(a)pyrene	12.13	252	510347	17558.7114930	ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.12	276	281003	9228.4894574	ppb		97
99)	Dibenz(a,h)anthracene	14.15	278	332163	9755.0972984	ppb		98
100)	Benzo(g,h,i)perylene	14.44	276	254511	7486.1743789	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: S804J26V.RES

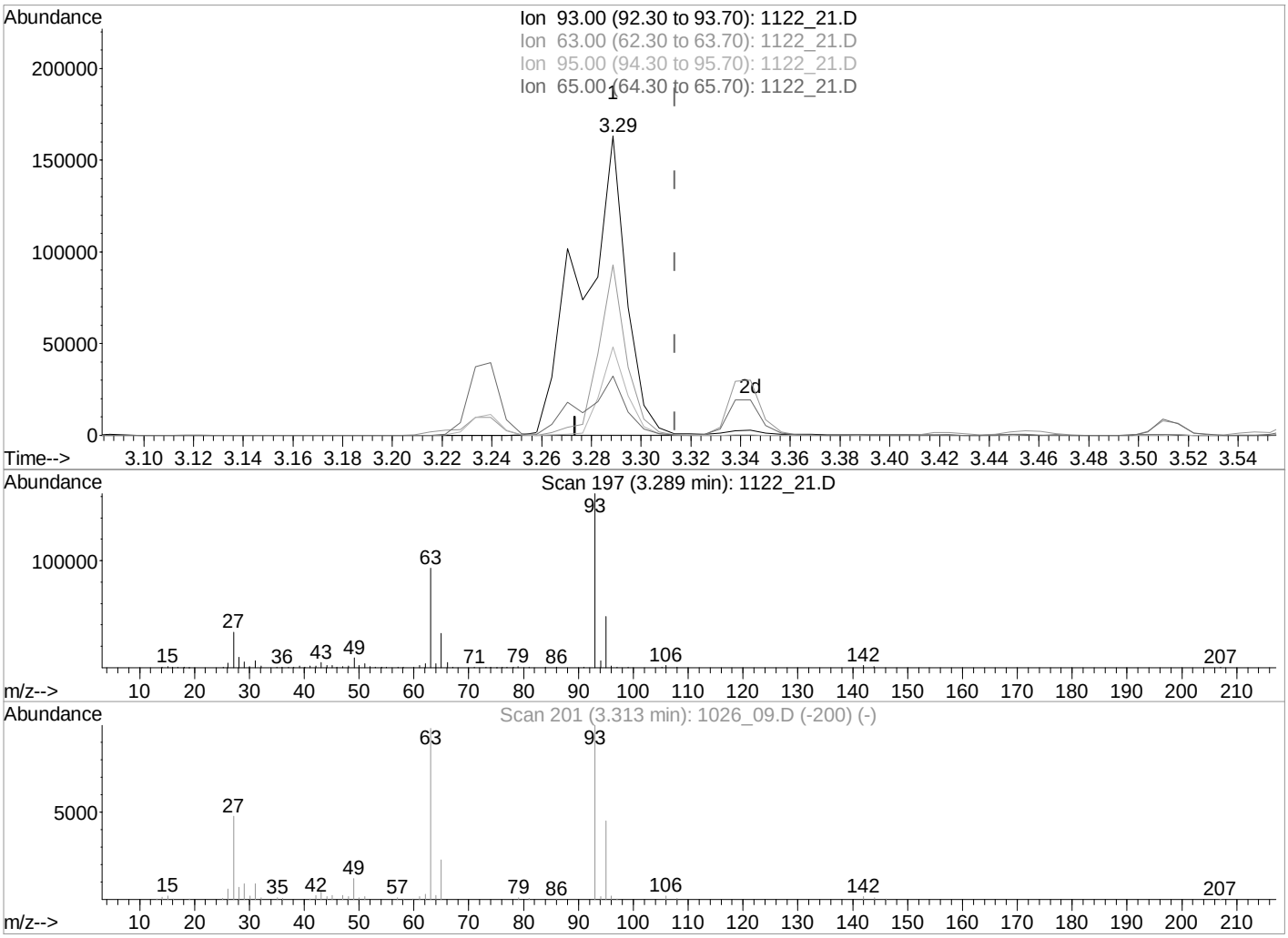
Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:12 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_21.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 23381.8615775 ppb

Qvalue = 91

response 199662

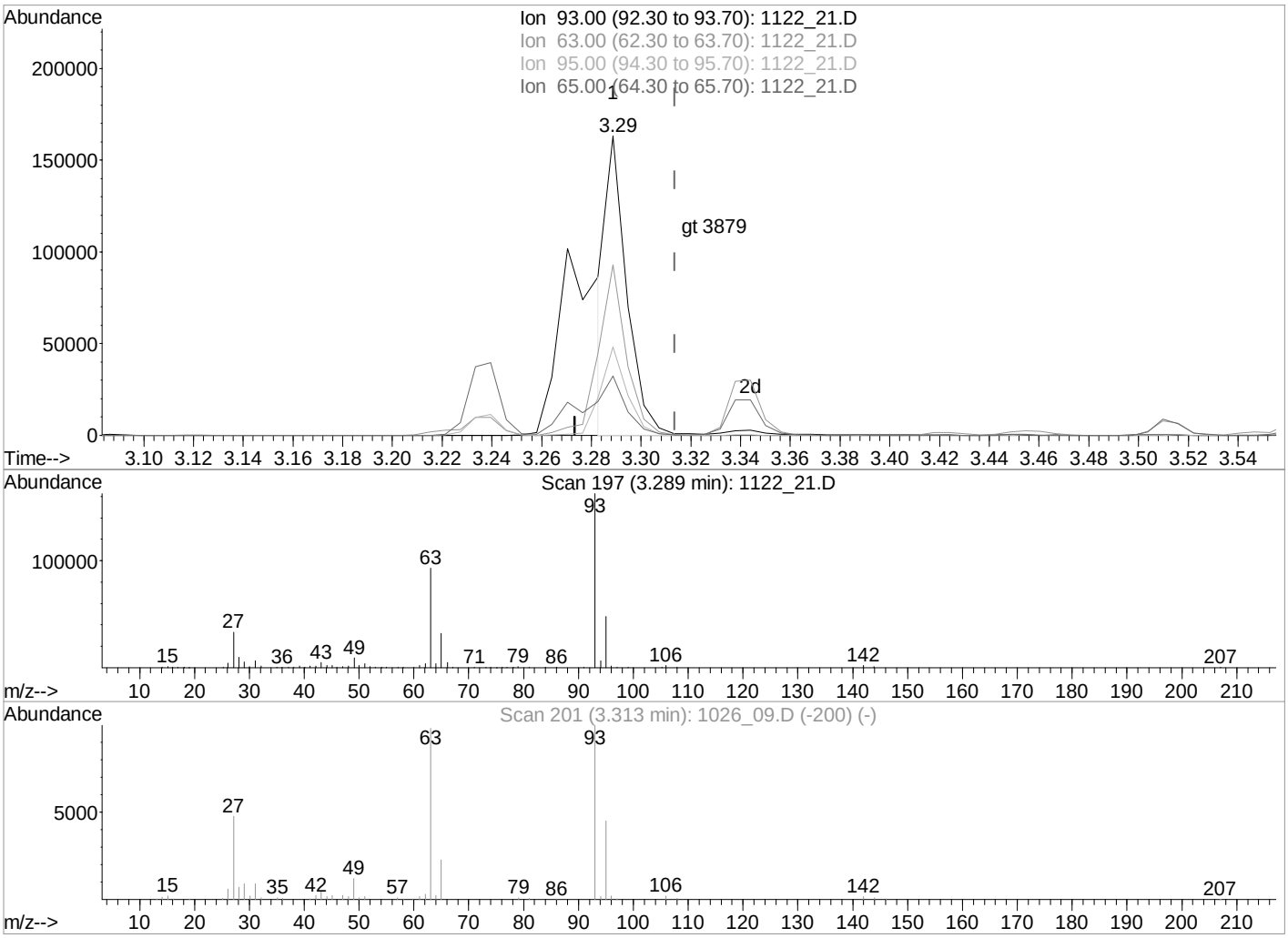
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.21
95.00	28.70	29.55
65.00	22.20	19.51

1122_21.D S804J26V.M Wed Nov 23 09:44:24 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_21.D

(6) bis(2-Chloroethyl)ether (MT)

3.29min (-0.025) 10956.9027395 ppb m

response 93563

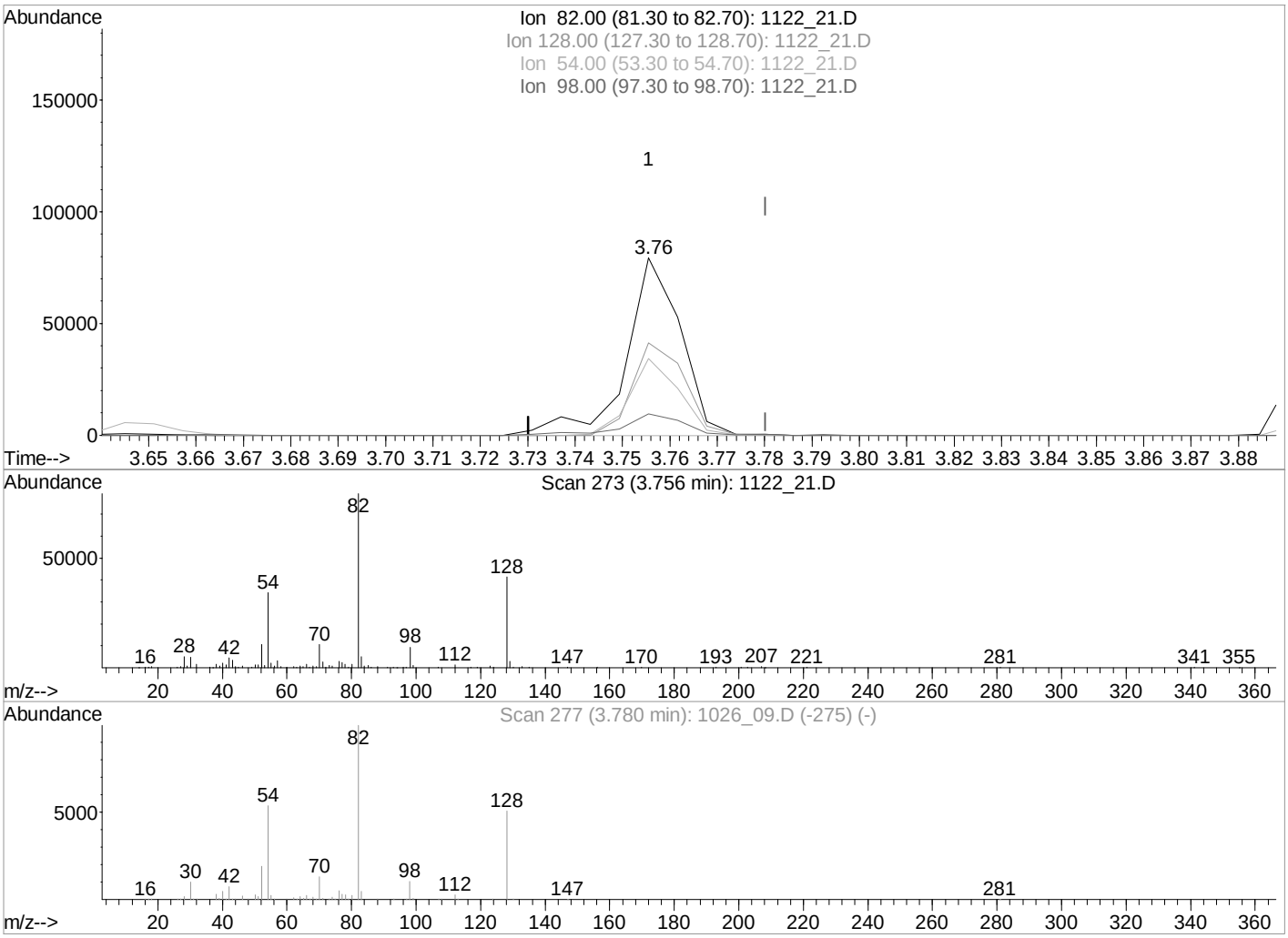
Ion	Exp%	Act%
93.00	100	100
63.00	67.20	57.00
95.00	28.70	29.44
65.00	22.20	19.69

1122_21.D S804J26V.M Wed Nov 23 09:44:33 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_21.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5746.3120520 ppb

Qvalue = 91

response 63847

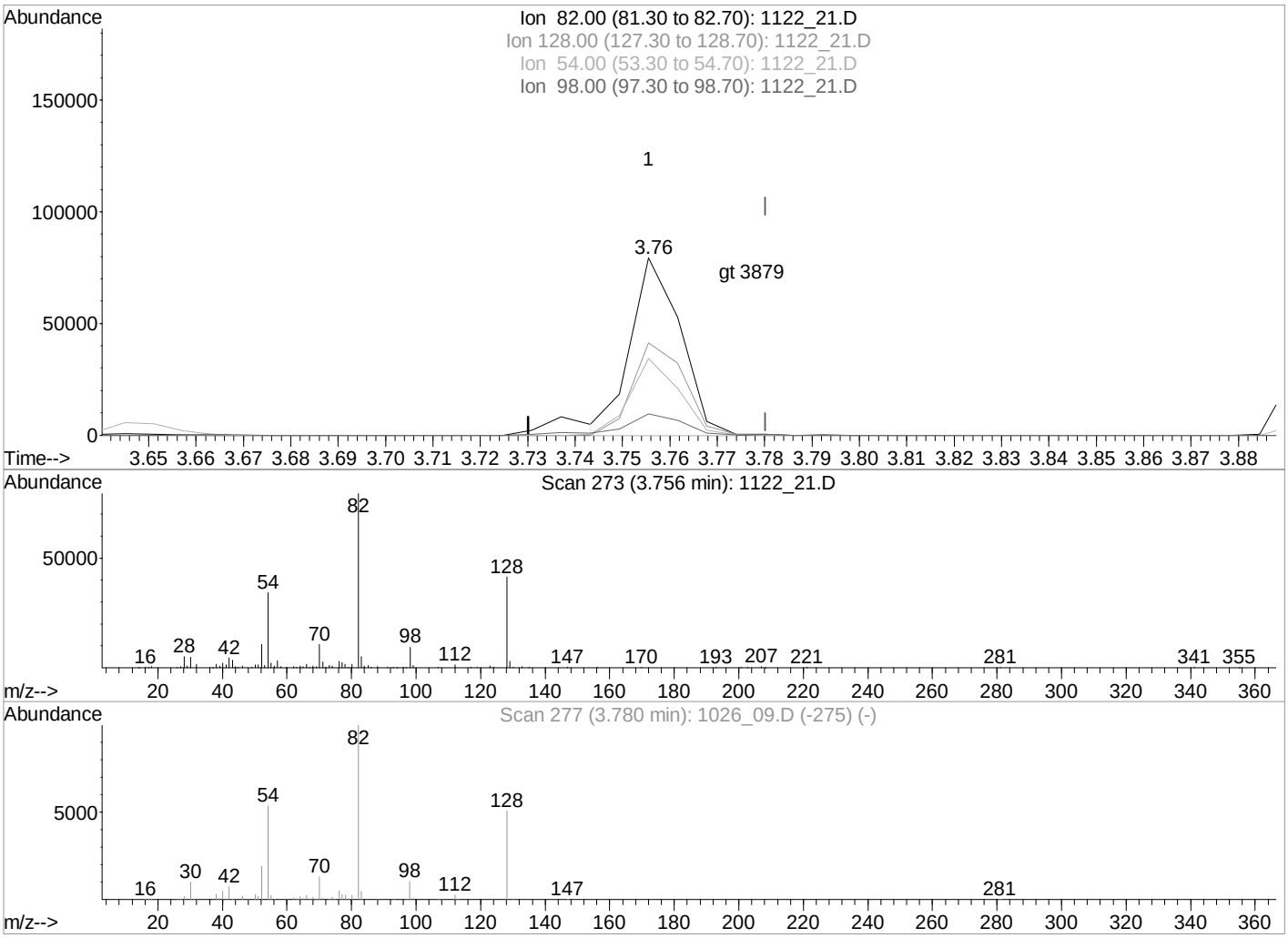
Ion	Exp%	Act%
82.00	100	100
128.00	45.60	52.05
54.00	49.10	43.05
98.00	10.80	11.88

1122_21.D S804J26V.M Wed Nov 23 09:44:46 2022

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\112222\1122 21.D Vial: 44
Acq On : 22 Nov 2022 4:53 pm Operator: 917
Sample : MSD 1X WG1962624 L1557921-01 Inst : BNAMS4
Misc : SOIL ISTD 22K02941 EXP:05/02/23 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 9:44 2022 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\S804J26V.M (RTE Integrator)
Title : 8270 BNA
Last Update : Thu Oct 27 07:56:25 2022
Response via : Multiple Level Calibration



TIC: 1122_21.D

(24) Nitrobenzene-d5 (S)

3.76min (-0.025) 5215.6644748 ppb m

response 57951

Ion	Exp%	Act%
82.00	100	100
128.00	45.60	52.05
54.00	49.10	43.05
98.00	10.80	11.88

1122_21.D S804J26V.M Wed Nov 23 09:44:54 2022

BNA SS Extractions Benchsheet

Batch: WG1962624

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1557921	WG1960262	BJM688	PREPREPBAL3	15-NOV-22
L1557931	WG1960262	BJM688	PREPREPBAL3	15-NOV-22
L1558071	WG1960295	KMT967	PREPREPBAL2	15-NOV-22
L1558072	WG1960295	KMT967	PREPREPBAL2	15-NOV-22
L1558175	WG1960712	BJM688	PREPREPBAL1	16-NOV-22
L1558177	WG1960706	BJM688	PREPREPBAL2	16-NOV-22
L1558771	WG1961289	RT703	PREPREPBAL2	17-NOV-22

Process Analyst: GAM3878 **Transfer Analyst:** GAM3878 **Material Handler:** GAM3878 **Prep Start Date/Time:** 11/21/22 09:09-09:14
Prep End Date/Time: 11/21/22 18:25 **SOP:** MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17596847

Na2SO4: 22K18413 Amt. Used: 1 Exp. Date:05/18/23 **MeCL2:Acetone:** 22K04378 Amt. Used: 1 Exp. Date:05/01/23
Surrogate: 22K09913 Amt. Used: 0.50 mL Exp. Date:04/12/23 **LCS/MS Spike:** 22K11306 Amt. Used: 0.50 mL Exp. Date:12/02/22
MeCl2: 22K04368 Amt. Used: 1 Exp. Date:05/04/23 **Spike Syringe ID:** 22E29053 Amt. Used: 1 Exp. Date:11/29/22
Surrogate Syringe ID: 22I30685 Amt. Used: 1 Exp. Date:03/30/23

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	JRM3879	11/22/22 09:04:13
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	JRM3879	11/22/22 09:04:13
MS(L1557921-01)	15.17	25	0.5	Yellow	11/15 TUES 4	0.033	0.991	1	1	1	JRM3879	11/22/22 09:04:13
MSD(L1557921-01)	15.35	25	0.5	Yellow	11/15 TUES 4	0.0326	0.979	1	1	1	JRM3879	11/22/22 09:04:13
1. L1557921-01	15.30	25	0.5	Brown	11/15 TUES 4	0.0327	0.982	1	1	1	JRM3879	11/22/22 09:04:13
2. L1557921-02	15.32	25	0.5	Colorless	11/15 TUES 4	0.0326	0.979	1	1	1	JRM3879	11/22/22 09:04:13
3. L1557921-03	15.20	25	0.5	Brown	11/15 TUES 4	0.0329	0.988	1	1	1	JRM3879	11/22/22 09:04:13
4. L1557921-04	15.07	25	0.5	Brown	11/15 TUES 4	0.0332	0.997	1	1	1	JRM3879	11/22/22 09:04:13
5. L1557921-05	15.69	25	1	Black	11/15 TUES 4	0.0637	1.91	2	1	1	JRM3879	11/22/22 09:04:13
6. L1557931-01	15.52	25	1	Black	11/15 TUES 4	0.0644	1.93	2	1	1	JRM3879	11/22/22 09:04:13
7. L1558071-01	15.03	25	1	Black	Tues-5/PP2 1115	0.0665	2	2	1	1	JRM3879	11/22/22 09:04:13
8. L1558071-02	15.43	25	0.5	Brown	Tues-5/PP2 1115	0.0324	0.973	1	1	1	JRM3879	11/22/22 09:04:13
9. L1558071-03	15.85	25	0.5	Yellow	Tues-5/PP2 1115	0.0315	0.946	1	1	1	JRM3879	11/22/22 09:04:13
10. L1558071-04	15.99	25	0.5	Colorless	Tues-5/PP2 1115	0.0313	0.94	1	1	1	JRM3879	11/22/22 09:04:13
11. L1558071-05	15.66	25	0.5	Yellow	Tues-5/PP2 1115	0.0319	0.958	1	1	1	JRM3879	11/22/22 09:04:13
12. L1558071-06	15.38	25	5	Black	Tues-5/PP2 1115	0.325	9.76	10	1	1	JRM3879	11/22/22 09:04:13
13. L1558071-07	15.55	25	1	Black	Tues-5/PP2 1115	0.0643	1.93	2	1	1	JRM3879	11/22/22 09:04:13
14. L1558071-08	15.58	25	0.5	Brown	Tues-5/PP2 1115	0.0321	0.964	1	1	1	JRM3879	11/22/22 09:04:13
15. L1558071-09	15.71	25	1	Black	Tues-5/PP2 1115	0.0637	1.91	2	1	1	JRM3879	11/22/22 09:04:13
16. L1558072-01	15.19	25	0.5	Brown	Tues-5/PP2 1115	0.0329	0.988	1	1	1	JRM3879	11/22/22 09:04:13
17. L1558072-02	15.40	25	0.5	Yellow	Tues-5/PP2 1115	0.0325	0.976	1	1	1	JRM3879	11/22/22 09:04:13
18. L1558175-01	15.31	25	0.5	Brown	WED 2/1116-PP1	0.0327	0.982	1	1	1	JRM3879	11/22/22 09:04:13
19. L1558177-01	15.59	25	1	Black	Wed03 / 1116PP02	0.0641	1.92	2	1	1	JRM3879	11/22/22 09:04:13
20. L1558771-01	15.26	25	0.5	Brown	Thu02 / 1117PP02	0.0328	0.985	1	1	1	JRM3879	11/22/22 09:04:13

Comments:

Reviewed By:JRM3879 on 11/22/22 09:04:13

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Mass	Mass of parameter.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

G135

Pace Analytical
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [x] Yes ☐ No
Owner Received Date: 11/11/2022 Results Requested By: 12/6/2022

Workorder: 10633565 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 8270 SVOC	LAB USE ONLY
1	BNSF-K200-SC-0.0-0.4-110922	PS	11/9/2022 12:35	10633565001	Solid	1	X	-01
2	BNSF-EF470-SC-11.0-12.0-110922	PS	11/9/2022 14:20	10633565002	Solid	1	X	-02
3	BNSF-EF240-SC-1.0-2.0-111022	PS	11/10/2022 12:10	10633565003	Solid	1	X	-03
4	BNSF-EF240-SC-1.0-2.0-111022-1	PS	11/10/2022 12:15	10633565004	Solid	1	X	-04
5	BNSF-EF240-SC-3.0-4.0-111022	PS	11/10/2022 12:20	10633565005	Solid	1	X	-05

4155792

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-14-22 15:55		11-15-22 0900
2				
3				

Comments
See attached 8270 list
Lvl 4 data package
Report to MDL, non-detects as ND
OK

Cooler Temperature on Receipt 5.4 °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist
COC Seal Present/Intact: Y N If Applicable
COC Signed/Accurate: Y N VOA Zero Headspace: Y N
Bottles arrive intact: Y N Pres.Correct/Check: Y N
Correct bottles used: Y N MS46
Sufficient volume sent: Y N 5.4+0=5.4
RAD Screen <0.5 mR/hr: Y N

546688872089

10633565

455721

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 10633565
(To be completed by sending lab)

Sending Project No:	10633565
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/14/22
REQUESTED COMPLETION DATE:	**12/6/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed yes

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8270 SVOC	JGFU		Unpreserved	5	$135.00	$675.00
					TOTAL	$675.00

Special Requirements: Report D, QC Limits, MDLs (D),Jacobs UPRR EQEDD (1579)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$675.00	$540.00	$135.00
* Custom Revenue Allocation	**TOTAL**	$675.00	$540.00	$135.00

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

792 of 793

8270 SVOC List

Semi-volatile Organic Compounds and Polycy
3&4-Methylphenol
Benzoic acid
Bis(2-ethylhexyl) phthalate
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Di-n-octyl phthalate
Pentachlorophenol
Phenol
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Benz(a)anthracene
Benzo(a)pyrene
Benzo(ghi)perylene
Chrysene
Dibenz(ah)anthracene
Fluoranthene
Fluorene
Indeno(123-cd)pyrene
Naphthalene
Phenanthrene
Pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 20, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10633981

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633981

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633981

Pace Analytical Services National

Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	Solid	11/13/22 11:40	11/16/22 08:50
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	Solid	11/13/22 11:50	11/16/22 08:50
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	Solid	11/13/22 15:00	11/16/22 08:50
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	Solid	11/14/22 10:20	11/16/22 08:50
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	Solid	11/14/22 10:30	11/16/22 08:50

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 853840

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 4514592)
  - n-Triacontane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 853840

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10633981001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 4514592)
  - Diesel Fuel Range
  - Motor Oil Range
- MSD (Lab ID: 4514593)
  - Diesel Fuel Range
  - Motor Oil Range

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 20, 2022

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **SM 2540G**
Description: Total Solids 2540 G-2011
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for SM 2540G by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-I500-SC-0.0-0.8-111322 **Lab ID: 10633981001** Collected: 11/13/22 11:40 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**199**	mg/kg	188	86.7	10	11/16/22 13:13	11/17/22 18:02	68334-30-5	P6
Motor Oil Range	**905**	mg/kg	125	62.5	10	11/16/22 13:13	11/17/22 18:02		P6
Surrogates									
n-Triacontane (S)	52	%.	50-150		10	11/16/22 13:13	11/17/22 18:02		
o-Terphenyl (S)	86	%.	50-150		10	11/16/22 13:13	11/17/22 18:02	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**20.6**	%	0.10	0.10	1		11/17/22 13:01		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0413	0.00669	1	11/22/22 05:49	11/22/22 21:48	83-32-9	
Acenaphthylene	ND	mg/kg	0.0413	0.00582	1	11/22/22 05:49	11/22/22 21:48	208-96-8	
Anthracene	ND	mg/kg	0.0413	0.00736	1	11/22/22 05:49	11/22/22 21:48	120-12-7	
Benzoic acid	ND	mg/kg	2.07	0.147	1	11/22/22 05:49	11/22/22 21:48	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0413	0.00729	1	11/22/22 05:49	11/22/22 21:48	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0413	0.00771	1	11/22/22 05:49	11/22/22 21:48	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0413	0.00735	1	11/22/22 05:49	11/22/22 21:48	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0413	0.00756	1	11/22/22 05:49	11/22/22 21:48	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0413	0.00769	1	11/22/22 05:49	11/22/22 21:48	50-32-8	
Carbazole	ND	mg/kg	0.413	0.0128	1	11/22/22 05:49	11/22/22 21:48	86-74-8	
Chrysene	ND	mg/kg	0.0413	0.00822	1	11/22/22 05:49	11/22/22 21:48	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0413	0.0115	1	11/22/22 05:49	11/22/22 21:48	53-70-3	
Dibenzofuran	ND	mg/kg	0.413	0.0135	1	11/22/22 05:49	11/22/22 21:48	132-64-9	
Fluoranthene	ND	mg/kg	0.0413	0.00746	1	11/22/22 05:49	11/22/22 21:48	206-44-0	
Fluorene	ND	mg/kg	0.0413	0.00673	1	11/22/22 05:49	11/22/22 21:48	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0413	0.0117	1	11/22/22 05:49	11/22/22 21:48	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0413	0.00529	1	11/22/22 05:49	11/22/22 21:48	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0413	0.00536	1	11/22/22 05:49	11/22/22 21:48	91-57-6	
Naphthalene	ND	mg/kg	0.0413	0.0104	1	11/22/22 05:49	11/22/22 21:48	91-20-3	
Phenanthrene	ND	mg/kg	0.0413	0.00821	1	11/22/22 05:49	11/22/22 21:48	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.413	0.0524	1	11/22/22 05:49	11/22/22 21:48	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.413	0.0142	1	11/22/22 05:49	11/22/22 21:48	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.413	0.0279	1	11/22/22 05:49	11/22/22 21:48	117-84-0	
Pyrene	ND	mg/kg	0.0413	0.00805	1	11/22/22 05:49	11/22/22 21:48	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.413	0.0129	1	11/22/22 05:49	11/22/22 21:48		
Pentachlorophenol	ND	mg/kg	0.413	0.0111	1	11/22/22 05:49	11/22/22 21:48	87-86-5	
Phenol	ND	mg/kg	0.413	0.0166	1	11/22/22 05:49	11/22/22 21:48	108-95-2	
Surrogates									
2-Fluorophenol (S)	41.8	%	12.0-120		1	11/22/22 05:49	11/22/22 21:48	367-12-4	
Phenol-d5 (S)	40.2	%	10.0-120		1	11/22/22 05:49	11/22/22 21:48	4165-62-2	
Nitrobenzene-d5 (S)	39.1	%	10.0-122		1	11/22/22 05:49	11/22/22 21:48	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-I500-SC-0.0-0.8-111322 **Lab ID: 10633981001** Collected: 11/13/22 11:40 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	43.3	%	15.0-120		1	11/22/22 05:49	11/22/22 21:48	321-60-8	
2,4,6-Tribromophenol (S)	47.7	%	10.0-127		1	11/22/22 05:49	11/22/22 21:48	118-79-6	
p-Terphenyl-d14 (S)	47.9	%	10.0-120		1	11/22/22 05:49	11/22/22 21:48	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**80.5**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-O280-SC-0.0-0.7-111322 **Lab ID: 10633981002** Collected: 11/13/22 11:50 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	19.7	9.1	1	11/16/22 13:13	11/17/22 18:59	68334-30-5	
Motor Oil Range	**12.1J**	mg/kg	13.1	6.5	1	11/16/22 13:13	11/17/22 18:59		
Surrogates									
n-Triacontane (S)	77	%.	50-150		1	11/16/22 13:13	11/17/22 18:59		
o-Terphenyl (S)	80	%.	50-150		1	11/16/22 13:13	11/17/22 18:59	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**24.2**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0437	0.00708	1	11/22/22 05:49	11/22/22 18:23	83-32-9	
Acenaphthylene	ND	mg/kg	0.0437	0.00616	1	11/22/22 05:49	11/22/22 18:23	208-96-8	
Anthracene	ND	mg/kg	0.0437	0.00779	1	11/22/22 05:49	11/22/22 18:23	120-12-7	
Benzoic acid	ND	mg/kg	2.19	0.155	1	11/22/22 05:49	11/22/22 18:23	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0437	0.00771	1	11/22/22 05:49	11/22/22 18:23	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0437	0.00816	1	11/22/22 05:49	11/22/22 18:23	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0437	0.00778	1	11/22/22 05:49	11/22/22 18:23	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0437	0.00800	1	11/22/22 05:49	11/22/22 18:23	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0437	0.00813	1	11/22/22 05:49	11/22/22 18:23	50-32-8	
Carbazole	ND	mg/kg	0.437	0.0135	1	11/22/22 05:49	11/22/22 18:23	86-74-8	
Chrysene	ND	mg/kg	0.0437	0.00869	1	11/22/22 05:49	11/22/22 18:23	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0437	0.0121	1	11/22/22 05:49	11/22/22 18:23	53-70-3	
Dibenzofuran	ND	mg/kg	0.437	0.0143	1	11/22/22 05:49	11/22/22 18:23	132-64-9	
Fluoranthene	ND	mg/kg	0.0437	0.00789	1	11/22/22 05:49	11/22/22 18:23	206-44-0	
Fluorene	ND	mg/kg	0.0437	0.00712	1	11/22/22 05:49	11/22/22 18:23	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0437	0.0124	1	11/22/22 05:49	11/22/22 18:23	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0437	0.00559	1	11/22/22 05:49	11/22/22 18:23	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0437	0.00567	1	11/22/22 05:49	11/22/22 18:23	91-57-6	
Naphthalene	ND	mg/kg	0.0437	0.0110	1	11/22/22 05:49	11/22/22 18:23	91-20-3	
Phenanthrene	ND	mg/kg	0.0437	0.00868	1	11/22/22 05:49	11/22/22 18:23	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.437	0.0554	1	11/22/22 05:49	11/22/22 18:23	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.437	0.0150	1	11/22/22 05:49	11/22/22 18:23	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.437	0.0296	1	11/22/22 05:49	11/22/22 18:23	117-84-0	
Pyrene	ND	mg/kg	0.0437	0.00851	1	11/22/22 05:49	11/22/22 18:23	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.437	0.0137	1	11/22/22 05:49	11/22/22 18:23		
Pentachlorophenol	ND	mg/kg	0.437	0.0118	1	11/22/22 05:49	11/22/22 18:23	87-86-5	
Phenol	ND	mg/kg	0.437	0.0176	1	11/22/22 05:49	11/22/22 18:23	108-95-2	
Surrogates									
2-Fluorophenol (S)	39.0	%	12.0-120		1	11/22/22 05:49	11/22/22 18:23	367-12-4	
Phenol-d5 (S)	36.9	%	10.0-120		1	11/22/22 05:49	11/22/22 18:23	4165-62-2	
Nitrobenzene-d5 (S)	36.6	%	10.0-122		1	11/22/22 05:49	11/22/22 18:23	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-O280-SC-0.0-0.7-111322 **Lab ID: 10633981002** Collected: 11/13/22 11:50 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	40.9	%	15.0-120		1	11/22/22 05:49	11/22/22 18:23	321-60-8	
2,4,6-Tribromophenol (S)	32.0	%	10.0-127		1	11/22/22 05:49	11/22/22 18:23	118-79-6	
p-Terphenyl-d14 (S)	43.0	%	10.0-120		1	11/22/22 05:49	11/22/22 18:23	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**76.1**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-HN300-SC-1.0-2.0-111322 **Lab ID: 10633981003** Collected: 11/13/22 15:00 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550 Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	19.5	9.0	1	11/16/22 13:13	11/17/22 18:36	68334-30-5	
Motor Oil Range	**46.0**	mg/kg	13.0	6.5	1	11/16/22 13:13	11/17/22 18:36		
Surrogates									
n-Triacontane (S)	72	%.	50-150		1	11/16/22 13:13	11/17/22 18:36		
o-Terphenyl (S)	74	%.	50-150		1	11/16/22 13:13	11/17/22 18:36	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**23.6**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0440	0.00712	1	11/22/22 05:49	11/22/22 18:44	83-32-9	
Acenaphthylene	ND	mg/kg	0.0440	0.00620	1	11/22/22 05:49	11/22/22 18:44	208-96-8	
Anthracene	ND	mg/kg	0.0440	0.00783	1	11/22/22 05:49	11/22/22 18:44	120-12-7	
Benzoic acid	ND	mg/kg	2.21	0.156	1	11/22/22 05:49	11/22/22 18:44	65-85-0	
Benzo(a)anthracene	**0.00778J**	mg/kg	0.0440	0.00775	1	11/22/22 05:49	11/22/22 18:44	56-55-3	J
Benzo(b)fluoranthene	**0.00847J**	mg/kg	0.0440	0.00820	1	11/22/22 05:49	11/22/22 18:44	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0440	0.00782	1	11/22/22 05:49	11/22/22 18:44	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0440	0.00804	1	11/22/22 05:49	11/22/22 18:44	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0440	0.00818	1	11/22/22 05:49	11/22/22 18:44	50-32-8	
Carbazole	ND	mg/kg	0.440	0.0136	1	11/22/22 05:49	11/22/22 18:44	86-74-8	
Chrysene	ND	mg/kg	0.0440	0.00874	1	11/22/22 05:49	11/22/22 18:44	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0440	0.0122	1	11/22/22 05:49	11/22/22 18:44	53-70-3	
Dibenzofuran	ND	mg/kg	0.440	0.0144	1	11/22/22 05:49	11/22/22 18:44	132-64-9	
Fluoranthene	**0.0108J**	mg/kg	0.0440	0.00794	1	11/22/22 05:49	11/22/22 18:44	206-44-0	J
Fluorene	ND	mg/kg	0.0440	0.00716	1	11/22/22 05:49	11/22/22 18:44	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0440	0.0124	1	11/22/22 05:49	11/22/22 18:44	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0440	0.00563	1	11/22/22 05:49	11/22/22 18:44	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0440	0.00571	1	11/22/22 05:49	11/22/22 18:44	91-57-6	
Naphthalene	ND	mg/kg	0.0440	0.0110	1	11/22/22 05:49	11/22/22 18:44	91-20-3	
Phenanthrene	ND	mg/kg	0.0440	0.00873	1	11/22/22 05:49	11/22/22 18:44	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.440	0.0557	1	11/22/22 05:49	11/22/22 18:44	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.440	0.0151	1	11/22/22 05:49	11/22/22 18:44	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.440	0.0297	1	11/22/22 05:49	11/22/22 18:44	117-84-0	
Pyrene	**0.0112J**	mg/kg	0.0440	0.00856	1	11/22/22 05:49	11/22/22 18:44	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.440	0.0137	1	11/22/22 05:49	11/22/22 18:44		
Pentachlorophenol	ND	mg/kg	0.440	0.0118	1	11/22/22 05:49	11/22/22 18:44	87-86-5	
Phenol	ND	mg/kg	0.440	0.0177	1	11/22/22 05:49	11/22/22 18:44	108-95-2	
Surrogates									
2-Fluorophenol (S)	42.9	%	12.0-120		1	11/22/22 05:49	11/22/22 18:44	367-12-4	
Phenol-d5 (S)	40.2	%	10.0-120		1	11/22/22 05:49	11/22/22 18:44	4165-62-2	
Nitrobenzene-d5 (S)	39.7	%	10.0-122		1	11/22/22 05:49	11/22/22 18:44	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-HN300-SC-1.0-2.0-111322 **Lab ID: 10633981003** Collected: 11/13/22 15:00 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	44.6	%	15.0-120		1	11/22/22 05:49	11/22/22 18:44	321-60-8	
2,4,6-Tribromophenol (S)	43.4	%	10.0-127		1	11/22/22 05:49	11/22/22 18:44	118-79-6	
p-Terphenyl-d14 (S)	48.0	%	10.0-120		1	11/22/22 05:49	11/22/22 18:44	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**75.7**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-0.5-1.5-111422 **Lab ID: 10633981004** Collected: 11/14/22 10:20 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	21.4	9.9	1	11/16/22 13:13	11/17/22 18:48	68334-30-5	
Motor Oil Range	**29.9**	mg/kg	14.3	7.1	1	11/16/22 13:13	11/17/22 18:48		
Surrogates									
n-Triacontane (S)	73	%.	50-150		1	11/16/22 13:13	11/17/22 18:48		
o-Terphenyl (S)	78	%.	50-150		1	11/16/22 13:13	11/17/22 18:48	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**30.6**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0458	0.00742	1	11/22/22 05:49	11/22/22 19:04	83-32-9	
Acenaphthylene	ND	mg/kg	0.0458	0.00645	1	11/22/22 05:49	11/22/22 19:04	208-96-8	
Anthracene	ND	mg/kg	0.0458	0.00816	1	11/22/22 05:49	11/22/22 19:04	120-12-7	
Benzoic acid	ND	mg/kg	2.30	0.162	1	11/22/22 05:49	11/22/22 19:04	65-85-0	
Benzo(a)anthracene	**0.00973J**	mg/kg	0.0458	0.00808	1	11/22/22 05:49	11/22/22 19:04	56-55-3	J
Benzo(b)fluoranthene	**0.0112J**	mg/kg	0.0458	0.00855	1	11/22/22 05:49	11/22/22 19:04	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0458	0.00815	1	11/22/22 05:49	11/22/22 19:04	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0458	0.00838	1	11/22/22 05:49	11/22/22 19:04	191-24-2	
Benzo(a)pyrene	**0.00979J**	mg/kg	0.0458	0.00852	1	11/22/22 05:49	11/22/22 19:04	50-32-8	J
Carbazole	ND	mg/kg	0.458	0.0142	1	11/22/22 05:49	11/22/22 19:04	86-74-8	
Chrysene	**0.00922J**	mg/kg	0.0458	0.00911	1	11/22/22 05:49	11/22/22 19:04	218-01-9	J
Dibenz(a,h)anthracene	ND	mg/kg	0.0458	0.0127	1	11/22/22 05:49	11/22/22 19:04	53-70-3	
Dibenzofuran	ND	mg/kg	0.458	0.0150	1	11/22/22 05:49	11/22/22 19:04	132-64-9	
Fluoranthene	**0.0206J**	mg/kg	0.0458	0.00827	1	11/22/22 05:49	11/22/22 19:04	206-44-0	J
Fluorene	ND	mg/kg	0.0458	0.00746	1	11/22/22 05:49	11/22/22 19:04	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0458	0.0130	1	11/22/22 05:49	11/22/22 19:04	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0458	0.00586	1	11/22/22 05:49	11/22/22 19:04	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0458	0.00595	1	11/22/22 05:49	11/22/22 19:04	91-57-6	
Naphthalene	ND	mg/kg	0.0458	0.0115	1	11/22/22 05:49	11/22/22 19:04	91-20-3	
Phenanthrene	**0.0172J**	mg/kg	0.0458	0.00910	1	11/22/22 05:49	11/22/22 19:04	85-01-8	J
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.458	0.0581	1	11/22/22 05:49	11/22/22 19:04	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.458	0.0157	1	11/22/22 05:49	11/22/22 19:04	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.458	0.0310	1	11/22/22 05:49	11/22/22 19:04	117-84-0	
Pyrene	**0.0195J**	mg/kg	0.0458	0.00892	1	11/22/22 05:49	11/22/22 19:04	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.458	0.0143	1	11/22/22 05:49	11/22/22 19:04		
Pentachlorophenol	ND	mg/kg	0.458	0.0123	1	11/22/22 05:49	11/22/22 19:04	87-86-5	
Phenol	ND	mg/kg	0.458	0.0184	1	11/22/22 05:49	11/22/22 19:04	108-95-2	
Surrogates									
2-Fluorophenol (S)	50.8	%	12.0-120		1	11/22/22 05:49	11/22/22 19:04	367-12-4	
Phenol-d5 (S)	47.5	%	10.0-120		1	11/22/22 05:49	11/22/22 19:04	4165-62-2	
Nitrobenzene-d5 (S)	48.6	%	10.0-122		1	11/22/22 05:49	11/22/22 19:04	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-0.5-1.5-111422 **Lab ID: 10633981004** Collected: 11/14/22 10:20 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	52.4	%	15.0-120		1	11/22/22 05:49	11/22/22 19:04	321-60-8	
2,4,6-Tribromophenol (S)	52.7	%	10.0-127		1	11/22/22 05:49	11/22/22 19:04	118-79-6	
p-Terphenyl-d14 (S)	55.2	%	10.0-120		1	11/22/22 05:49	11/22/22 19:04	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**72.7**	%			1	11/19/22 09:54	11/19/22 10:10		

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-8.5-9.5-111422 **Lab ID: 10633981005** Collected: 11/14/22 10:30 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	18.6	8.6	1	11/16/22 13:13	11/17/22 19:33	68334-30-5	
Motor Oil Range	ND	mg/kg	12.4	6.2	1	11/16/22 13:13	11/17/22 19:33		
Surrogates									
n-Triacontane (S)	76	%.	50-150		1	11/16/22 13:13	11/17/22 19:33		
o-Terphenyl (S)	79	%.	50-150		1	11/16/22 13:13	11/17/22 19:33	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**20.1**	%	0.10	0.10	1		11/17/22 13:07		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0425	0.00687	1	11/22/22 05:49	11/22/22 18:03	83-32-9	
Acenaphthylene	ND	mg/kg	0.0425	0.00598	1	11/22/22 05:49	11/22/22 18:03	208-96-8	
Anthracene	ND	mg/kg	0.0425	0.00756	1	11/22/22 05:49	11/22/22 18:03	120-12-7	
Benzoic acid	ND	mg/kg	2.13	0.150	1	11/22/22 05:49	11/22/22 18:03	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0425	0.00749	1	11/22/22 05:49	11/22/22 18:03	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0425	0.00792	1	11/22/22 05:49	11/22/22 18:03	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0425	0.00755	1	11/22/22 05:49	11/22/22 18:03	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0425	0.00777	1	11/22/22 05:49	11/22/22 18:03	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0425	0.00789	1	11/22/22 05:49	11/22/22 18:03	50-32-8	
Carbazole	ND	mg/kg	0.425	0.0131	1	11/22/22 05:49	11/22/22 18:03	86-74-8	
Chrysene	ND	mg/kg	0.0425	0.00844	1	11/22/22 05:49	11/22/22 18:03	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0425	0.0118	1	11/22/22 05:49	11/22/22 18:03	53-70-3	
Dibenzofuran	ND	mg/kg	0.425	0.0139	1	11/22/22 05:49	11/22/22 18:03	132-64-9	
Fluoranthene	ND	mg/kg	0.0425	0.00766	1	11/22/22 05:49	11/22/22 18:03	206-44-0	
Fluorene	ND	mg/kg	0.0425	0.00691	1	11/22/22 05:49	11/22/22 18:03	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0425	0.0120	1	11/22/22 05:49	11/22/22 18:03	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0425	0.00543	1	11/22/22 05:49	11/22/22 18:03	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0425	0.00551	1	11/22/22 05:49	11/22/22 18:03	91-57-6	
Naphthalene	ND	mg/kg	0.0425	0.0107	1	11/22/22 05:49	11/22/22 18:03	91-20-3	
Phenanthrene	ND	mg/kg	0.0425	0.00843	1	11/22/22 05:49	11/22/22 18:03	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.425	0.0538	1	11/22/22 05:49	11/22/22 18:03	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.425	0.0145	1	11/22/22 05:49	11/22/22 18:03	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.425	0.0287	1	11/22/22 05:49	11/22/22 18:03	117-84-0	
Pyrene	ND	mg/kg	0.0425	0.00826	1	11/22/22 05:49	11/22/22 18:03	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.425	0.0133	1	11/22/22 05:49	11/22/22 18:03		
Pentachlorophenol	ND	mg/kg	0.425	0.0114	1	11/22/22 05:49	11/22/22 18:03	87-86-5	
Phenol	ND	mg/kg	0.425	0.0171	1	11/22/22 05:49	11/22/22 18:03	108-95-2	
Surrogates									
2-Fluorophenol (S)	36.5	%	12.0-120		1	11/22/22 05:49	11/22/22 18:03	367-12-4	
Phenol-d5 (S)	33.4	%	10.0-120		1	11/22/22 05:49	11/22/22 18:03	4165-62-2	
Nitrobenzene-d5 (S)	34.5	%	10.0-122		1	11/22/22 05:49	11/22/22 18:03	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-8.5-9.5-111422 **Lab ID: 10633981005** Collected: 11/14/22 10:30 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	36.9	%	15.0-120		1	11/22/22 05:49	11/22/22 18:03	321-60-8	
2,4,6-Tribromophenol (S)	30.5	%	10.0-127		1	11/22/22 05:49	11/22/22 18:03	118-79-6	
p-Terphenyl-d14 (S)	36.9	%	10.0-120		1	11/22/22 05:49	11/22/22 18:03	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**78.4**	%			1	11/19/22 11:33	11/19/22 11:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 854009
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

SAMPLE DUPLICATE: 4515868

Parameter	Units	10633981001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.6	20.9	2	30	N2

SAMPLE DUPLICATE: 4515869

Parameter	Units	10634104010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	80.6	80.5	0	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962881
QC Batch Method: 3546
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

METHOD BLANK: R3864551-2 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/22/22 17:01	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/22/22 17:01	
Anthracene	mg/kg	ND	0.0333	0.00593	11/22/22 17:01	
Benzoic acid	mg/kg	ND	1.67	0.118	11/22/22 17:01	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/22/22 17:01	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/22/22 17:01	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/22/22 17:01	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/22/22 17:01	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/22/22 17:01	
Carbazole	mg/kg	ND	0.333	0.0103	11/22/22 17:01	
Chrysene	mg/kg	ND	0.0333	0.00662	11/22/22 17:01	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/22/22 17:01	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/22/22 17:01	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/22/22 17:01	
Fluorene	mg/kg	ND	0.0333	0.00542	11/22/22 17:01	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/22/22 17:01	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/22/22 17:01	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/22/22 17:01	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/22/22 17:01	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/22/22 17:01	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/22/22 17:01	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/22/22 17:01	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/22/22 17:01	
Pyrene	mg/kg	ND	0.0333	0.00648	11/22/22 17:01	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/22/22 17:01	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/22/22 17:01	
Phenol	mg/kg	ND	0.333	0.0134	11/22/22 17:01	
2-Fluorophenol (S)	%	53.3	12.0-120		11/22/22 17:01	
Phenol-d5 (S)	%	50	10.0-120		11/22/22 17:01	
Nitrobenzene-d5 (S)	%	50.8	10.0-122		11/22/22 17:01	
2-Fluorobiphenyl (S)	%	56.2	15.0-120		11/22/22 17:01	
2,4,6-Tribromophenol (S)	%	44.7	10.0-127		11/22/22 17:01	
p-Terphenyl-d14 (S)	%	62.8	10.0-120		11/22/22 17:01	

LABORATORY CONTROL SAMPLE: R3864551-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.666	0.399	59.9	38.0-120	
Acenaphthylene	mg/kg	0.666	0.430	64.6	40.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

LABORATORY CONTROL SAMPLE: R3864551-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	mg/kg	0.666	0.393	59.0	42.0-120	
Benzoic acid	mg/kg	1.33	0.189	14.2	10.0-120	
Benzo(a)anthracene	mg/kg	0.666	0.451	67.7	44.0-120	
Benzo(b)fluoranthene	mg/kg	0.666	0.457	68.6	43.0-120	
Benzo(k)fluoranthene	mg/kg	0.666	0.470	70.6	44.0-120	
Benzo(g,h,i)perylene	mg/kg	0.666	0.356	53.5	43.0-120	
Benzo(a)pyrene	mg/kg	0.666	0.479	71.9	45.0-120	
Carbazole	mg/kg	0.666	0.400	60.1	48.0-120	
Chrysene	mg/kg	0.666	0.450	67.6	43.0-120	
Dibenz(a,h)anthracene	mg/kg	0.666	0.367	55.1	44.0-120	
Dibenzofuran	mg/kg	0.666	0.405	60.8	44.0-120	
Fluoranthene	mg/kg	0.666	0.420	63.1	44.0-120	
Fluorene	mg/kg	0.666	0.406	61.0	41.0-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.666	0.331	49.7	45.0-120	
1-Methylnaphthalene	mg/kg	0.666	0.364	54.7	34.0-120	
2-Methylnaphthalene	mg/kg	0.666	0.351	52.7	34.0-120	
Naphthalene	mg/kg	0.666	0.334	50.2	18.0-120	
Phenanthrene	mg/kg	0.666	0.414	62.2	42.0-120	
bis(2-Ethylhexyl)phthalate	mg/kg	0.666	0.395	59.3	41.0-120	
Di-n-butylphthalate	mg/kg	0.666	0.379	56.9	43.0-120	
Di-n-octylphthalate	mg/kg	0.666	0.396	59.5	40.0-120	
Pyrene	mg/kg	0.666	0.437	65.6	41.0-120	
3&4-Methylphenol(m&p Cresol)	mg/kg	0.666	0.386	58.0	42.0-120	
Pentachlorophenol	mg/kg	0.666	0.398	59.8	29.0-120	
Phenol	mg/kg	0.666	0.363	54.5	28.0-120	
2-Fluorophenol (S)	%			58.4	12.0-120	
Phenol-d5 (S)	%			54.8	10.0-120	
Nitrobenzene-d5 (S)	%			46.5	10.0-122	
2-Fluorobiphenyl (S)	%			61.3	15.0-120	
2,4,6-Tribromophenol (S)	%			61.4	10.0-127	
p-Terphenyl-d14 (S)	%			65.5	10.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 853840
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

METHOD BLANK: 4514590 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/17/22 17:16	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/17/22 17:16	
n-Triacontane (S)	%.	88	50-150		11/17/22 17:16	
o-Terphenyl (S)	%.	84	50-150		11/17/22 17:16	

LABORATORY CONTROL SAMPLE: 4514591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	43.0	86	50-150	
Motor Oil Range	mg/kg	50	46.8	94	50-150	
n-Triacontane (S)	%.			85	50-150	
o-Terphenyl (S)	%.			85	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4514592 4514593

Parameter	Units	10633981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	199	62.6	62.6	158J	195	-65	-6	50-150		30	P6
Motor Oil Range	mg/kg	905	62.6	62.6	587	756	-507	-238	50-150	25	30	P6
n-Triacontane (S)	%.						49	69	50-150			S4
o-Terphenyl (S)	%.						97	98	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962054
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004

METHOD BLANK: R3863242-1 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			11/19/22 10:10	

LABORATORY CONTROL SAMPLE: R3863242-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3863242-3

Parameter	Units	10633981003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	75.7	75.8	0.180	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962356
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981005

METHOD BLANK: R3863246-1 Matrix: Solid
Associated Lab Samples: 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			11/19/22 11:57	

LABORATORY CONTROL SAMPLE: R3863246-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3863246-3

Parameter	Units	L1559177-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	81.8	82.9	1.24	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10633981

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	EPA 3550	853840	NWTPH-Dx	854347
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	EPA 3550	853840	NWTPH-Dx	854347
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	ASTM D2974	854009		
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	ASTM D2974	854009		
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	ASTM D2974	854009		
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	ASTM D2974	854009		
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	ASTM D2974	854009		
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	3546	1962881	EPA 8270E	1962881
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	3546	1962881	EPA 8270E	1962881
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	3546	1962881	EPA 8270E	1962881
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	3546	1962881	EPA 8270E	1962881
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	3546	1962881	EPA 8270E	1962881
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	SM 2540 G	1962054	SM 2540G	1962054
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	SM 2540 G	1962356	SM 2540G	1962356

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: JACOBS	Billing Information: SEE CONTRACT
Address: 2020 SW 4th AVE STE 300 PDX OR 97201	
Report To: BERNEY KIDD	Email To: BERNIE.KIDD@JACOBS.COM KRIS.IVARSON@JACOBS.COM
Copy To: KRIS IVARSON	Site Collection Info/Address: WISHRAM BNSF PH 2
Customer Project Name/Number: D3631600	State: WA / County/City: WISHRAM Time Zone Collected: [✓] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): LAURA TOMKO	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: STD Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Container Preservative Type **: IN U U

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TOC SW9060A (1)	NWTPH-DX	SVOC 8270E	PAH 8270SIM	TOC SW9060A	Analyses	Lab Profile/Line:
BNSF-I508-SC-0.0-0.8 -111322	SL	comp	—		11/13/22	1140		2		X	X				001
BNSF-0280-SC-0.6-0.7 -111322	SL	comp	—		11/13/22	1150		2		X	X				002
~~BNSF-HN300-SC-0.7-1.7 -111322~~ (2)	SL	comp	—		11/13/22	1500		2		X	X				003
BNSF-HN300-SC-1.0-2.0 -111322															
BNSF-J060-SC-0.5-1.5 -111422	SL	comp	—		11/14/22	1020		2		X	X				004
BNSF-J060-SC-0.5-1.5 -111422	SL	comp	—		11/14/22	1030		3		X	X	X			005

WO#: 10633981

10633981

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
pH Strips: _____
Sulfide Present Y N NA
Lead Acetate Strips: _____

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Cooler 1 Temp Upon Receipt: _____ oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments: 1.2

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
LAURA TOMKO JACOBS	11/14/22 1700	PACE	11.16.22 8:50
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
			Date/Time:

MTJL LAB USE ONLY

Table #:
Acctnum:
Template:
Prelogin:
PM:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): Page: _____

DC#_Title: ENV-FRM-MIN4-0150 v10_Sample Condition Upon Receipt (SCUR)
Effective Date:

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: WO#: 10633981

PM: KV Due Date: 12/09/22
CLIENT: BNSF_Jacobs

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 390637117650

☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Temp Blank? ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☒ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No

Were All Container Temps Taken? ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C

Cooler temp Read w/Temp Blank: 1.1 °C

Correction Factor: +0.1

Cooler Temp Corrected w/temp blank: 1.2 °C

Average Corrected Temp (no temp blank only): _____ °C

☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☐ N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: ED 11.16.22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☒ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 11/17/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: ED **Line:** 2

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, Minnesota 55414

Generated 12/19/2022 11:13:08 PM

JOB DESCRIPTION

D3631600 10633981

JOB NUMBER

580-120212-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
12/19/2022 11:13:08 PM

Authorized for release by
Pauline Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
(253)922-2310

Table of Contents

Job ID: 580-120212-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-120212-1

Comments
No additional comments.

Receipt
The sample was received on 11/17/2022 5:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9º C.

General Chemistry
Method 9060A: The following sample was prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-J060-SC-8.5-9.5-111422 (580-120212-1).

Method 9060A: The sample duplicate (DUP) precision for analytical batch 580-413230 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	77.6		0.1	0.1	%			11/21/22 19:41	1
Percent Moisture (SM22 2540G)	22.4		0.1	0.1	%			11/21/22 19:41	1

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid
Percent Solids: 77.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	370	J H	2600	120	mg/Kg	☼		12/17/22 23:54	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/39
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/17/22 23:46	1

Lab Sample ID: LCS 580-413230/40
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	122000		mg/Kg		102	80 - 120		

Lab Sample ID: LCSD 580-413230/41
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	123000		mg/Kg		102	80 - 120	0	20

Lab Sample ID: 580-120212-1 MS
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	370	J H	155000	164000		mg/Kg	☼	106	75 - 125		

Lab Sample ID: 580-120212-1 MSD
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H	155000	167000		mg/Kg	☼	108	75 - 125	1	20

Lab Sample ID: 580-120212-1 DU
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H		307	J	mg/Kg	☼			18	20

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422

Lab Sample ID: 580-120212-1

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/17/22 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410736	JLS	EET SEA	11/21/22 19:41

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422

Lab Sample ID: 580-120212-1

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/17/22 17:40

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 23:54

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-120212-1	BNSF-J060-SC-8.5-9.5-111422	Solid	11/14/22 10:30	11/17/22 17:40

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 10633981 **Workorder Name:** D3631600 **Results Requested By:** 12/2/2022

Report / Invoice To	Subcontract To	Requested Analysis
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424	

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						9060A TOC												LAB USE ONLY
1	BNSF-J060-SC-8.5-9.5-111422	11/14/2022 10:30	10633981005	Solid	1						X												
2																							
3																							
4																							
5																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-16-22 15:55	KHasa	11/16/22 1740
2				
3				

Comments

Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N

A3 1.9/1.8
SB Bubbles
Fed Ex

580-120212 Chain of Custody

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-120212-1

Login Number: 120212
List Number: 1
Creator: Groves, Elizabeth

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10633981

Table Of Contents

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 20, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10633981

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633981

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633981

Pace Analytical Services National

Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	Solid	11/13/22 11:40	11/16/22 08:50
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	Solid	11/13/22 11:50	11/16/22 08:50
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	Solid	11/13/22 15:00	11/16/22 08:50
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	Solid	11/14/22 10:20	11/16/22 08:50
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	Solid	11/14/22 10:30	11/16/22 08:50

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SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	NWTPH-Dx	EB3	4	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E	JRM	33	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 853840

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 4514592)
  - n-Triacontane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 853840

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10633981001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 4514592)
  - Diesel Fuel Range
  - Motor Oil Range
- MSD (Lab ID: 4514593)
  - Diesel Fuel Range
  - Motor Oil Range

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: BNSF_Jacobs_WA
Date: December 20, 2022

Additional Comments:

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633981

Method: **SM 2540G**
Description: Total Solids 2540 G-2011
Client: BNSF_Jacobs_WA
Date: December 20, 2022

General Information:
5 samples were analyzed for SM 2540G by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-I500-SC-0.0-0.8-111322 **Lab ID: 10633981001** Collected: 11/13/22 11:40 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	**199**	mg/kg	188	86.7	10	11/16/22 13:13	11/17/22 18:02	68334-30-5	P6
Motor Oil Range	**905**	mg/kg	125	62.5	10	11/16/22 13:13	11/17/22 18:02		P6
Surrogates									
n-Triacontane (S)	52	%.	50-150		10	11/16/22 13:13	11/17/22 18:02		
o-Terphenyl (S)	86	%.	50-150		10	11/16/22 13:13	11/17/22 18:02	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**20.6**	%	0.10	0.10	1		11/17/22 13:01		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0413	0.00669	1	11/22/22 05:49	11/22/22 21:48	83-32-9	
Acenaphthylene	ND	mg/kg	0.0413	0.00582	1	11/22/22 05:49	11/22/22 21:48	208-96-8	
Anthracene	ND	mg/kg	0.0413	0.00736	1	11/22/22 05:49	11/22/22 21:48	120-12-7	
Benzoic acid	ND	mg/kg	2.07	0.147	1	11/22/22 05:49	11/22/22 21:48	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0413	0.00729	1	11/22/22 05:49	11/22/22 21:48	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0413	0.00771	1	11/22/22 05:49	11/22/22 21:48	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0413	0.00735	1	11/22/22 05:49	11/22/22 21:48	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0413	0.00756	1	11/22/22 05:49	11/22/22 21:48	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0413	0.00769	1	11/22/22 05:49	11/22/22 21:48	50-32-8	
Carbazole	ND	mg/kg	0.413	0.0128	1	11/22/22 05:49	11/22/22 21:48	86-74-8	
Chrysene	ND	mg/kg	0.0413	0.00822	1	11/22/22 05:49	11/22/22 21:48	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0413	0.0115	1	11/22/22 05:49	11/22/22 21:48	53-70-3	
Dibenzofuran	ND	mg/kg	0.413	0.0135	1	11/22/22 05:49	11/22/22 21:48	132-64-9	
Fluoranthene	ND	mg/kg	0.0413	0.00746	1	11/22/22 05:49	11/22/22 21:48	206-44-0	
Fluorene	ND	mg/kg	0.0413	0.00673	1	11/22/22 05:49	11/22/22 21:48	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0413	0.0117	1	11/22/22 05:49	11/22/22 21:48	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0413	0.00529	1	11/22/22 05:49	11/22/22 21:48	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0413	0.00536	1	11/22/22 05:49	11/22/22 21:48	91-57-6	
Naphthalene	ND	mg/kg	0.0413	0.0104	1	11/22/22 05:49	11/22/22 21:48	91-20-3	
Phenanthrene	ND	mg/kg	0.0413	0.00821	1	11/22/22 05:49	11/22/22 21:48	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.413	0.0524	1	11/22/22 05:49	11/22/22 21:48	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.413	0.0142	1	11/22/22 05:49	11/22/22 21:48	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.413	0.0279	1	11/22/22 05:49	11/22/22 21:48	117-84-0	
Pyrene	ND	mg/kg	0.0413	0.00805	1	11/22/22 05:49	11/22/22 21:48	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.413	0.0129	1	11/22/22 05:49	11/22/22 21:48		
Pentachlorophenol	ND	mg/kg	0.413	0.0111	1	11/22/22 05:49	11/22/22 21:48	87-86-5	
Phenol	ND	mg/kg	0.413	0.0166	1	11/22/22 05:49	11/22/22 21:48	108-95-2	
Surrogates									
2-Fluorophenol (S)	41.8	%	12.0-120		1	11/22/22 05:49	11/22/22 21:48	367-12-4	
Phenol-d5 (S)	40.2	%	10.0-120		1	11/22/22 05:49	11/22/22 21:48	4165-62-2	
Nitrobenzene-d5 (S)	39.1	%	10.0-122		1	11/22/22 05:49	11/22/22 21:48	4165-60-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-I500-SC-0.0-0.8-111322 **Lab ID: 10633981001** Collected: 11/13/22 11:40 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	43.3	%	15.0-120		1	11/22/22 05:49	11/22/22 21:48	321-60-8	
2,4,6-Tribromophenol (S)	47.7	%	10.0-127		1	11/22/22 05:49	11/22/22 21:48	118-79-6	
p-Terphenyl-d14 (S)	47.9	%	10.0-120		1	11/22/22 05:49	11/22/22 21:48	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**80.5**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-O280-SC-0.0-0.7-111322 **Lab ID: 10633981002** Collected: 11/13/22 11:50 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	19.7	9.1	1	11/16/22 13:13	11/17/22 18:59	68334-30-5	
Motor Oil Range	**12.1J**	mg/kg	13.1	6.5	1	11/16/22 13:13	11/17/22 18:59		
Surrogates									
n-Triacontane (S)	77	%.	50-150		1	11/16/22 13:13	11/17/22 18:59		
o-Terphenyl (S)	80	%.	50-150		1	11/16/22 13:13	11/17/22 18:59	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**24.2**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0437	0.00708	1	11/22/22 05:49	11/22/22 18:23	83-32-9	
Acenaphthylene	ND	mg/kg	0.0437	0.00616	1	11/22/22 05:49	11/22/22 18:23	208-96-8	
Anthracene	ND	mg/kg	0.0437	0.00779	1	11/22/22 05:49	11/22/22 18:23	120-12-7	
Benzoic acid	ND	mg/kg	2.19	0.155	1	11/22/22 05:49	11/22/22 18:23	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0437	0.00771	1	11/22/22 05:49	11/22/22 18:23	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0437	0.00816	1	11/22/22 05:49	11/22/22 18:23	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0437	0.00778	1	11/22/22 05:49	11/22/22 18:23	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0437	0.00800	1	11/22/22 05:49	11/22/22 18:23	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0437	0.00813	1	11/22/22 05:49	11/22/22 18:23	50-32-8	
Carbazole	ND	mg/kg	0.437	0.0135	1	11/22/22 05:49	11/22/22 18:23	86-74-8	
Chrysene	ND	mg/kg	0.0437	0.00869	1	11/22/22 05:49	11/22/22 18:23	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0437	0.0121	1	11/22/22 05:49	11/22/22 18:23	53-70-3	
Dibenzofuran	ND	mg/kg	0.437	0.0143	1	11/22/22 05:49	11/22/22 18:23	132-64-9	
Fluoranthene	ND	mg/kg	0.0437	0.00789	1	11/22/22 05:49	11/22/22 18:23	206-44-0	
Fluorene	ND	mg/kg	0.0437	0.00712	1	11/22/22 05:49	11/22/22 18:23	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0437	0.0124	1	11/22/22 05:49	11/22/22 18:23	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0437	0.00559	1	11/22/22 05:49	11/22/22 18:23	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0437	0.00567	1	11/22/22 05:49	11/22/22 18:23	91-57-6	
Naphthalene	ND	mg/kg	0.0437	0.0110	1	11/22/22 05:49	11/22/22 18:23	91-20-3	
Phenanthrene	ND	mg/kg	0.0437	0.00868	1	11/22/22 05:49	11/22/22 18:23	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.437	0.0554	1	11/22/22 05:49	11/22/22 18:23	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.437	0.0150	1	11/22/22 05:49	11/22/22 18:23	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.437	0.0296	1	11/22/22 05:49	11/22/22 18:23	117-84-0	
Pyrene	ND	mg/kg	0.0437	0.00851	1	11/22/22 05:49	11/22/22 18:23	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.437	0.0137	1	11/22/22 05:49	11/22/22 18:23		
Pentachlorophenol	ND	mg/kg	0.437	0.0118	1	11/22/22 05:49	11/22/22 18:23	87-86-5	
Phenol	ND	mg/kg	0.437	0.0176	1	11/22/22 05:49	11/22/22 18:23	108-95-2	
Surrogates									
2-Fluorophenol (S)	39.0	%	12.0-120		1	11/22/22 05:49	11/22/22 18:23	367-12-4	
Phenol-d5 (S)	36.9	%	10.0-120		1	11/22/22 05:49	11/22/22 18:23	4165-62-2	
Nitrobenzene-d5 (S)	36.6	%	10.0-122		1	11/22/22 05:49	11/22/22 18:23	4165-60-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-O280-SC-0.0-0.7-111322 **Lab ID: 10633981002** Collected: 11/13/22 11:50 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	40.9	%	15.0-120		1	11/22/22 05:49	11/22/22 18:23	321-60-8	
2,4,6-Tribromophenol (S)	32.0	%	10.0-127		1	11/22/22 05:49	11/22/22 18:23	118-79-6	
p-Terphenyl-d14 (S)	43.0	%	10.0-120		1	11/22/22 05:49	11/22/22 18:23	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**76.1**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-HN300-SC-1.0-2.0-111322 **Lab ID: 10633981003** Collected: 11/13/22 15:00 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	19.5	9.0	1	11/16/22 13:13	11/17/22 18:36	68334-30-5	
Motor Oil Range	**46.0**	mg/kg	13.0	6.5	1	11/16/22 13:13	11/17/22 18:36		
Surrogates									
n-Triacontane (S)	72	%.	50-150		1	11/16/22 13:13	11/17/22 18:36		
o-Terphenyl (S)	74	%.	50-150		1	11/16/22 13:13	11/17/22 18:36	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**23.6**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0440	0.00712	1	11/22/22 05:49	11/22/22 18:44	83-32-9	
Acenaphthylene	ND	mg/kg	0.0440	0.00620	1	11/22/22 05:49	11/22/22 18:44	208-96-8	
Anthracene	ND	mg/kg	0.0440	0.00783	1	11/22/22 05:49	11/22/22 18:44	120-12-7	
Benzoic acid	ND	mg/kg	2.21	0.156	1	11/22/22 05:49	11/22/22 18:44	65-85-0	
Benzo(a)anthracene	**0.00778J**	mg/kg	0.0440	0.00775	1	11/22/22 05:49	11/22/22 18:44	56-55-3	J
Benzo(b)fluoranthene	**0.00847J**	mg/kg	0.0440	0.00820	1	11/22/22 05:49	11/22/22 18:44	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0440	0.00782	1	11/22/22 05:49	11/22/22 18:44	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0440	0.00804	1	11/22/22 05:49	11/22/22 18:44	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0440	0.00818	1	11/22/22 05:49	11/22/22 18:44	50-32-8	
Carbazole	ND	mg/kg	0.440	0.0136	1	11/22/22 05:49	11/22/22 18:44	86-74-8	
Chrysene	ND	mg/kg	0.0440	0.00874	1	11/22/22 05:49	11/22/22 18:44	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0440	0.0122	1	11/22/22 05:49	11/22/22 18:44	53-70-3	
Dibenzofuran	ND	mg/kg	0.440	0.0144	1	11/22/22 05:49	11/22/22 18:44	132-64-9	
Fluoranthene	**0.0108J**	mg/kg	0.0440	0.00794	1	11/22/22 05:49	11/22/22 18:44	206-44-0	J
Fluorene	ND	mg/kg	0.0440	0.00716	1	11/22/22 05:49	11/22/22 18:44	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0440	0.0124	1	11/22/22 05:49	11/22/22 18:44	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0440	0.00563	1	11/22/22 05:49	11/22/22 18:44	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0440	0.00571	1	11/22/22 05:49	11/22/22 18:44	91-57-6	
Naphthalene	ND	mg/kg	0.0440	0.0110	1	11/22/22 05:49	11/22/22 18:44	91-20-3	
Phenanthrene	ND	mg/kg	0.0440	0.00873	1	11/22/22 05:49	11/22/22 18:44	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.440	0.0557	1	11/22/22 05:49	11/22/22 18:44	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.440	0.0151	1	11/22/22 05:49	11/22/22 18:44	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.440	0.0297	1	11/22/22 05:49	11/22/22 18:44	117-84-0	
Pyrene	**0.0112J**	mg/kg	0.0440	0.00856	1	11/22/22 05:49	11/22/22 18:44	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.440	0.0137	1	11/22/22 05:49	11/22/22 18:44		
Pentachlorophenol	ND	mg/kg	0.440	0.0118	1	11/22/22 05:49	11/22/22 18:44	87-86-5	
Phenol	ND	mg/kg	0.440	0.0177	1	11/22/22 05:49	11/22/22 18:44	108-95-2	
Surrogates									
2-Fluorophenol (S)	42.9	%	12.0-120		1	11/22/22 05:49	11/22/22 18:44	367-12-4	
Phenol-d5 (S)	40.2	%	10.0-120		1	11/22/22 05:49	11/22/22 18:44	4165-62-2	
Nitrobenzene-d5 (S)	39.7	%	10.0-122		1	11/22/22 05:49	11/22/22 18:44	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-HN300-SC-1.0-2.0-111322 **Lab ID: 10633981003** Collected: 11/13/22 15:00 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	44.6	%	15.0-120		1	11/22/22 05:49	11/22/22 18:44	321-60-8	
2,4,6-Tribromophenol (S)	43.4	%	10.0-127		1	11/22/22 05:49	11/22/22 18:44	118-79-6	
p-Terphenyl-d14 (S)	48.0	%	10.0-120		1	11/22/22 05:49	11/22/22 18:44	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**75.7**	%			1	11/19/22 09:54	11/19/22 10:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-0.5-1.5-111422 **Lab ID: 10633981004** Collected: 11/14/22 10:20 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	21.4	9.9	1	11/16/22 13:13	11/17/22 18:48	68334-30-5	
Motor Oil Range	**29.9**	mg/kg	14.3	7.1	1	11/16/22 13:13	11/17/22 18:48		
Surrogates									
n-Triacontane (S)	73	%.	50-150		1	11/16/22 13:13	11/17/22 18:48		
o-Terphenyl (S)	78	%.	50-150		1	11/16/22 13:13	11/17/22 18:48	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**30.6**	%	0.10	0.10	1		11/17/22 13:06		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0458	0.00742	1	11/22/22 05:49	11/22/22 19:04	83-32-9	
Acenaphthylene	ND	mg/kg	0.0458	0.00645	1	11/22/22 05:49	11/22/22 19:04	208-96-8	
Anthracene	ND	mg/kg	0.0458	0.00816	1	11/22/22 05:49	11/22/22 19:04	120-12-7	
Benzoic acid	ND	mg/kg	2.30	0.162	1	11/22/22 05:49	11/22/22 19:04	65-85-0	
Benzo(a)anthracene	**0.00973J**	mg/kg	0.0458	0.00808	1	11/22/22 05:49	11/22/22 19:04	56-55-3	J
Benzo(b)fluoranthene	**0.0112J**	mg/kg	0.0458	0.00855	1	11/22/22 05:49	11/22/22 19:04	205-99-2	J
Benzo(k)fluoranthene	ND	mg/kg	0.0458	0.00815	1	11/22/22 05:49	11/22/22 19:04	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0458	0.00838	1	11/22/22 05:49	11/22/22 19:04	191-24-2	
Benzo(a)pyrene	**0.00979J**	mg/kg	0.0458	0.00852	1	11/22/22 05:49	11/22/22 19:04	50-32-8	J
Carbazole	ND	mg/kg	0.458	0.0142	1	11/22/22 05:49	11/22/22 19:04	86-74-8	
Chrysene	**0.00922J**	mg/kg	0.0458	0.00911	1	11/22/22 05:49	11/22/22 19:04	218-01-9	J
Dibenz(a,h)anthracene	ND	mg/kg	0.0458	0.0127	1	11/22/22 05:49	11/22/22 19:04	53-70-3	
Dibenzofuran	ND	mg/kg	0.458	0.0150	1	11/22/22 05:49	11/22/22 19:04	132-64-9	
Fluoranthene	**0.0206J**	mg/kg	0.0458	0.00827	1	11/22/22 05:49	11/22/22 19:04	206-44-0	J
Fluorene	ND	mg/kg	0.0458	0.00746	1	11/22/22 05:49	11/22/22 19:04	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0458	0.0130	1	11/22/22 05:49	11/22/22 19:04	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0458	0.00586	1	11/22/22 05:49	11/22/22 19:04	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0458	0.00595	1	11/22/22 05:49	11/22/22 19:04	91-57-6	
Naphthalene	ND	mg/kg	0.0458	0.0115	1	11/22/22 05:49	11/22/22 19:04	91-20-3	
Phenanthrene	**0.0172J**	mg/kg	0.0458	0.00910	1	11/22/22 05:49	11/22/22 19:04	85-01-8	J
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.458	0.0581	1	11/22/22 05:49	11/22/22 19:04	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.458	0.0157	1	11/22/22 05:49	11/22/22 19:04	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.458	0.0310	1	11/22/22 05:49	11/22/22 19:04	117-84-0	
Pyrene	**0.0195J**	mg/kg	0.0458	0.00892	1	11/22/22 05:49	11/22/22 19:04	129-00-0	J
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.458	0.0143	1	11/22/22 05:49	11/22/22 19:04		
Pentachlorophenol	ND	mg/kg	0.458	0.0123	1	11/22/22 05:49	11/22/22 19:04	87-86-5	
Phenol	ND	mg/kg	0.458	0.0184	1	11/22/22 05:49	11/22/22 19:04	108-95-2	
Surrogates									
2-Fluorophenol (S)	50.8	%	12.0-120		1	11/22/22 05:49	11/22/22 19:04	367-12-4	
Phenol-d5 (S)	47.5	%	10.0-120		1	11/22/22 05:49	11/22/22 19:04	4165-62-2	
Nitrobenzene-d5 (S)	48.6	%	10.0-122		1	11/22/22 05:49	11/22/22 19:04	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-0.5-1.5-111422 **Lab ID: 10633981004** Collected: 11/14/22 10:20 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	52.4	%	15.0-120		1	11/22/22 05:49	11/22/22 19:04	321-60-8	
2,4,6-Tribromophenol (S)	52.7	%	10.0-127		1	11/22/22 05:49	11/22/22 19:04	118-79-6	
p-Terphenyl-d14 (S)	55.2	%	10.0-120		1	11/22/22 05:49	11/22/22 19:04	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**72.7**	%			1	11/19/22 09:54	11/19/22 10:10		

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-8.5-9.5-111422 **Lab ID: 10633981005** Collected: 11/14/22 10:30 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550								
	Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/kg	18.6	8.6	1	11/16/22 13:13	11/17/22 19:33	68334-30-5	
Motor Oil Range	ND	mg/kg	12.4	6.2	1	11/16/22 13:13	11/17/22 19:33		
Surrogates									
n-Triacontane (S)	76	%.	50-150		1	11/16/22 13:13	11/17/22 19:33		
o-Terphenyl (S)	79	%.	50-150		1	11/16/22 13:13	11/17/22 19:33	84-15-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**20.1**	%	0.10	0.10	1		11/17/22 13:07		N2
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546								
	Pace National - Mt. Juliet								
Acenaphthene	ND	mg/kg	0.0425	0.00687	1	11/22/22 05:49	11/22/22 18:03	83-32-9	
Acenaphthylene	ND	mg/kg	0.0425	0.00598	1	11/22/22 05:49	11/22/22 18:03	208-96-8	
Anthracene	ND	mg/kg	0.0425	0.00756	1	11/22/22 05:49	11/22/22 18:03	120-12-7	
Benzoic acid	ND	mg/kg	2.13	0.150	1	11/22/22 05:49	11/22/22 18:03	65-85-0	
Benzo(a)anthracene	ND	mg/kg	0.0425	0.00749	1	11/22/22 05:49	11/22/22 18:03	56-55-3	
Benzo(b)fluoranthene	ND	mg/kg	0.0425	0.00792	1	11/22/22 05:49	11/22/22 18:03	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0425	0.00755	1	11/22/22 05:49	11/22/22 18:03	207-08-9	
Benzo(g,h,i)perylene	ND	mg/kg	0.0425	0.00777	1	11/22/22 05:49	11/22/22 18:03	191-24-2	
Benzo(a)pyrene	ND	mg/kg	0.0425	0.00789	1	11/22/22 05:49	11/22/22 18:03	50-32-8	
Carbazole	ND	mg/kg	0.425	0.0131	1	11/22/22 05:49	11/22/22 18:03	86-74-8	
Chrysene	ND	mg/kg	0.0425	0.00844	1	11/22/22 05:49	11/22/22 18:03	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0425	0.0118	1	11/22/22 05:49	11/22/22 18:03	53-70-3	
Dibenzofuran	ND	mg/kg	0.425	0.0139	1	11/22/22 05:49	11/22/22 18:03	132-64-9	
Fluoranthene	ND	mg/kg	0.0425	0.00766	1	11/22/22 05:49	11/22/22 18:03	206-44-0	
Fluorene	ND	mg/kg	0.0425	0.00691	1	11/22/22 05:49	11/22/22 18:03	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0425	0.0120	1	11/22/22 05:49	11/22/22 18:03	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.0425	0.00543	1	11/22/22 05:49	11/22/22 18:03	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.0425	0.00551	1	11/22/22 05:49	11/22/22 18:03	91-57-6	
Naphthalene	ND	mg/kg	0.0425	0.0107	1	11/22/22 05:49	11/22/22 18:03	91-20-3	
Phenanthrene	ND	mg/kg	0.0425	0.00843	1	11/22/22 05:49	11/22/22 18:03	85-01-8	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.425	0.0538	1	11/22/22 05:49	11/22/22 18:03	117-81-7	
Di-n-butylphthalate	ND	mg/kg	0.425	0.0145	1	11/22/22 05:49	11/22/22 18:03	84-74-2	
Di-n-octylphthalate	ND	mg/kg	0.425	0.0287	1	11/22/22 05:49	11/22/22 18:03	117-84-0	
Pyrene	ND	mg/kg	0.0425	0.00826	1	11/22/22 05:49	11/22/22 18:03	129-00-0	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.425	0.0133	1	11/22/22 05:49	11/22/22 18:03		
Pentachlorophenol	ND	mg/kg	0.425	0.0114	1	11/22/22 05:49	11/22/22 18:03	87-86-5	
Phenol	ND	mg/kg	0.425	0.0171	1	11/22/22 05:49	11/22/22 18:03	108-95-2	
Surrogates									
2-Fluorophenol (S)	36.5	%	12.0-120		1	11/22/22 05:49	11/22/22 18:03	367-12-4	
Phenol-d5 (S)	33.4	%	10.0-120		1	11/22/22 05:49	11/22/22 18:03	4165-62-2	
Nitrobenzene-d5 (S)	34.5	%	10.0-122		1	11/22/22 05:49	11/22/22 18:03	4165-60-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633981

Sample: BNSF-J060-SC-8.5-9.5-111422 **Lab ID: 10633981005** Collected: 11/14/22 10:30 Received: 11/16/22 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3546 Pace National - Mt. Juliet								
Surrogates									
2-Fluorobiphenyl (S)	36.9	%	15.0-120		1	11/22/22 05:49	11/22/22 18:03	321-60-8	
2,4,6-Tribromophenol (S)	30.5	%	10.0-127		1	11/22/22 05:49	11/22/22 18:03	118-79-6	
p-Terphenyl-d14 (S)	36.9	%	10.0-120		1	11/22/22 05:49	11/22/22 18:03	1718-51-0	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**78.4**	%			1	11/19/22 11:33	11/19/22 11:57		

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 854009
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

SAMPLE DUPLICATE: 4515868

Parameter	Units	10633981001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.6	20.9	2	30	N2

SAMPLE DUPLICATE: 4515869

Parameter	Units	10634104010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	80.6	80.5	0	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962881
QC Batch Method: 3546
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

METHOD BLANK: R3864551-2 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0333	0.00539	11/22/22 17:01	
Acenaphthylene	mg/kg	ND	0.0333	0.00469	11/22/22 17:01	
Anthracene	mg/kg	ND	0.0333	0.00593	11/22/22 17:01	
Benzoic acid	mg/kg	ND	1.67	0.118	11/22/22 17:01	
Benzo(a)anthracene	mg/kg	ND	0.0333	0.00587	11/22/22 17:01	
Benzo(b)fluoranthene	mg/kg	ND	0.0333	0.00621	11/22/22 17:01	
Benzo(k)fluoranthene	mg/kg	ND	0.0333	0.00592	11/22/22 17:01	
Benzo(g,h,i)perylene	mg/kg	ND	0.0333	0.00609	11/22/22 17:01	
Benzo(a)pyrene	mg/kg	ND	0.0333	0.00619	11/22/22 17:01	
Carbazole	mg/kg	ND	0.333	0.0103	11/22/22 17:01	
Chrysene	mg/kg	ND	0.0333	0.00662	11/22/22 17:01	
Dibenz(a,h)anthracene	mg/kg	ND	0.0333	0.00923	11/22/22 17:01	
Dibenzofuran	mg/kg	ND	0.333	0.0109	11/22/22 17:01	
Fluoranthene	mg/kg	ND	0.0333	0.00601	11/22/22 17:01	
Fluorene	mg/kg	ND	0.0333	0.00542	11/22/22 17:01	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0333	0.00941	11/22/22 17:01	
1-Methylnaphthalene	mg/kg	ND	0.0333	0.00426	11/22/22 17:01	
2-Methylnaphthalene	mg/kg	ND	0.0333	0.00432	11/22/22 17:01	
Naphthalene	mg/kg	ND	0.0333	0.00836	11/22/22 17:01	
Phenanthrene	mg/kg	ND	0.0333	0.00661	11/22/22 17:01	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.333	0.0422	11/22/22 17:01	
Di-n-butylphthalate	mg/kg	ND	0.333	0.0114	11/22/22 17:01	
Di-n-octylphthalate	mg/kg	ND	0.333	0.0225	11/22/22 17:01	
Pyrene	mg/kg	ND	0.0333	0.00648	11/22/22 17:01	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.333	0.0104	11/22/22 17:01	
Pentachlorophenol	mg/kg	ND	0.333	0.00896	11/22/22 17:01	
Phenol	mg/kg	ND	0.333	0.0134	11/22/22 17:01	
2-Fluorophenol (S)	%	53.3	12.0-120		11/22/22 17:01	
Phenol-d5 (S)	%	50	10.0-120		11/22/22 17:01	
Nitrobenzene-d5 (S)	%	50.8	10.0-122		11/22/22 17:01	
2-Fluorobiphenyl (S)	%	56.2	15.0-120		11/22/22 17:01	
2,4,6-Tribromophenol (S)	%	44.7	10.0-127		11/22/22 17:01	
p-Terphenyl-d14 (S)	%	62.8	10.0-120		11/22/22 17:01	

LABORATORY CONTROL SAMPLE: R3864551-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.666	0.399	59.9	38.0-120	
Acenaphthylene	mg/kg	0.666	0.430	64.6	40.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

LABORATORY CONTROL SAMPLE: R3864551-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	mg/kg	0.666	0.393	59.0	42.0-120	
Benzoic acid	mg/kg	1.33	0.189	14.2	10.0-120	
Benzo(a)anthracene	mg/kg	0.666	0.451	67.7	44.0-120	
Benzo(b)fluoranthene	mg/kg	0.666	0.457	68.6	43.0-120	
Benzo(k)fluoranthene	mg/kg	0.666	0.470	70.6	44.0-120	
Benzo(g,h,i)perylene	mg/kg	0.666	0.356	53.5	43.0-120	
Benzo(a)pyrene	mg/kg	0.666	0.479	71.9	45.0-120	
Carbazole	mg/kg	0.666	0.400	60.1	48.0-120	
Chrysene	mg/kg	0.666	0.450	67.6	43.0-120	
Dibenz(a,h)anthracene	mg/kg	0.666	0.367	55.1	44.0-120	
Dibenzofuran	mg/kg	0.666	0.405	60.8	44.0-120	
Fluoranthene	mg/kg	0.666	0.420	63.1	44.0-120	
Fluorene	mg/kg	0.666	0.406	61.0	41.0-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.666	0.331	49.7	45.0-120	
1-Methylnaphthalene	mg/kg	0.666	0.364	54.7	34.0-120	
2-Methylnaphthalene	mg/kg	0.666	0.351	52.7	34.0-120	
Naphthalene	mg/kg	0.666	0.334	50.2	18.0-120	
Phenanthrene	mg/kg	0.666	0.414	62.2	42.0-120	
bis(2-Ethylhexyl)phthalate	mg/kg	0.666	0.395	59.3	41.0-120	
Di-n-butylphthalate	mg/kg	0.666	0.379	56.9	43.0-120	
Di-n-octylphthalate	mg/kg	0.666	0.396	59.5	40.0-120	
Pyrene	mg/kg	0.666	0.437	65.6	41.0-120	
3&4-Methylphenol(m&p Cresol)	mg/kg	0.666	0.386	58.0	42.0-120	
Pentachlorophenol	mg/kg	0.666	0.398	59.8	29.0-120	
Phenol	mg/kg	0.666	0.363	54.5	28.0-120	
2-Fluorophenol (S)	%			58.4	12.0-120	
Phenol-d5 (S)	%			54.8	10.0-120	
Nitrobenzene-d5 (S)	%			46.5	10.0-122	
2-Fluorobiphenyl (S)	%			61.3	15.0-120	
2,4,6-Tribromophenol (S)	%			61.4	10.0-127	
p-Terphenyl-d14 (S)	%			65.5	10.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 853840 | Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3550 | Analysis Description: NWTPH-Dx GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

METHOD BLANK: 4514590 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004, 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	6.9	11/17/22 17:16	
Motor Oil Range	mg/kg	ND	10.0	5.0	11/17/22 17:16	
n-Triacontane (S)	%.	88	50-150		11/17/22 17:16	
o-Terphenyl (S)	%.	84	50-150		11/17/22 17:16	

LABORATORY CONTROL SAMPLE: 4514591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	43.0	86	50-150	
Motor Oil Range	mg/kg	50	46.8	94	50-150	
n-Triacontane (S)	%.			85	50-150	
o-Terphenyl (S)	%.			85	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4514592 4514593

Parameter	Units	10633981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	199	62.6	62.6	158J	195	-65	-6	50-150		30	P6
Motor Oil Range	mg/kg	905	62.6	62.6	587	756	-507	-238	50-150	25	30	P6
n-Triacontane (S)	%.						49	69	50-150			S4
o-Terphenyl (S)	%.						97	98	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962054
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004

METHOD BLANK: R3863242-1 Matrix: Solid
Associated Lab Samples: 10633981001, 10633981002, 10633981003, 10633981004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			11/19/22 10:10	

LABORATORY CONTROL SAMPLE: R3863242-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3863242-3

Parameter	Units	10633981003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	75.7	75.8	0.180	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633981

QC Batch: 1962356
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633981005

METHOD BLANK: R3863246-1 Matrix: Solid
Associated Lab Samples: 10633981005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			11/19/22 11:57	

LABORATORY CONTROL SAMPLE: R3863246-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3863246-3

Parameter	Units	L1559177-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	81.8	82.9	1.24	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10633981

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10633981

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	EPA 3550	853840	NWTPH-Dx	854347
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	EPA 3550	853840	NWTPH-Dx	854347
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	EPA 3550	853840	NWTPH-Dx	854347
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	ASTM D2974	854009		
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	ASTM D2974	854009		
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	ASTM D2974	854009		
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	ASTM D2974	854009		
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	ASTM D2974	854009		
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	3546	1962881	EPA 8270E	1962881
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	3546	1962881	EPA 8270E	1962881
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	3546	1962881	EPA 8270E	1962881
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	3546	1962881	EPA 8270E	1962881
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	3546	1962881	EPA 8270E	1962881
10633981001	**BNSF-I500-SC-0.0-0.8-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981002	**BNSF-O280-SC-0.0-0.7-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981003	**BNSF-HN300-SC-1.0-2.0-111322**	SM 2540 G	1962054	SM 2540G	1962054
10633981004	**BNSF-J060-SC-0.5-1.5-111422**	SM 2540 G	1962054	SM 2540G	1962054
10633981005	**BNSF-J060-SC-8.5-9.5-111422**	SM 2540 G	1962356	SM 2540G	1962356

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

WO#: 10633981

10633981

Company: JACOBS

Address: 2020 SW 4th AVE STE 300 PDX OR 97201

Billing Information: SEE CONTRACT

Report To: BERNEY KIDD

Email To: BERNICE.KIDD@JACOBS.COM KRIS.IVARSON@JACOBS.COM

Copy To: KRIS IVARSON

Site Collection Info/Address: WISHRAM BNSF PH 2

Customer Project Name/Number: D3631600

State: WA County/City: WISHRAM Time Zone Collected: [✓] PT [ ] MT [ ] CT [ ] ET

Phone:
Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): LAURA TOCHKO

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature): [signature]

Turnaround Date Required: STD

Immediately Packed on Ice: [ ] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive: ______
[ ] Hold: ______

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ______

Container Preservative Type **: U U U

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Analyses:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	~~TOC SW9060A~~	NWTPH-DX	SVOC 8270E	PAH 8270SIM	TOC SW9060A	Lab Sample # / Comments
BNSF-I500-SC-0.0-0.8-111322	SL	COMP	—		11/13/22	1140		2		X	X	X		001
BNSF-0280-SC-0.0-0.7-111322	SL	COMP	—		11/13/22	1150		2		X	X	X		002
~~BNSF-HN300-SC-0.7-1.0-111322~~	SL	COMP	—		11/13/22	1500		2		X	X	X		003
BNSF-HN300-SC-1.0-2.0-111322														
BNSF-J060-SC-0.5-1.5-111422	SL	COMP	—		11/14/22	1020		2		X	X	X		004
BNSF-J060-SC-0.5-1.5-111422	SL	COMP	—		11/14/22	1030		3		X	X	X	X	005

Lab Profile/Line:
Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Sample pH Acceptable Y N NA
pH Strips: ______
Sulfide Present Y N NA
Lead Acetate Strips: ______

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Radchem sample(s) screened (<500 cpm): Y N NA

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 1.2

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
LAURA TOCHKO / JACOBS	11/16/22 1700	[signature] / PACE	11.16.22 8:50	Table #: Acctnum: Template: Prelogin: PM:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): Page: ______

DC#_Title: ENV-FRM-MIN4-0150 v10_Sample Condition Upon Receipt (SCUR)
Effective Date:

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: **WO#: 10633981**

PM: KV **Due Date: 12/09/22**
CLIENT: BNSF_Jacobs

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 390637117650

☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Temp Blank? ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☒ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No

Were All Container Temps Taken? ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C

Cooler temp Read w/Temp Blank: 1.1 °C

Correction Factor: +0.1

Cooler Temp Corrected w/temp blank: 1.2 °C

Average Corrected Temp (no temp blank only): _____ °C

☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☐ N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: ED 11.16.22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☒ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 11/17/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: ED **Line:** 2

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, Minnesota 55414

Generated 12/19/2022 11:13:08 PM

JOB DESCRIPTION

D3631600 10633981

JOB NUMBER

580-120212-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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12/19/2022 11:13:08 PM

Authorized for release by
Pauline Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
(253)922-2310

Table of Contents

Job ID: 580-120212-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-120212-1

Comments
No additional comments.

Receipt
The sample was received on 11/17/2022 5:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9º C.

General Chemistry
Method 9060A: The following sample was prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-J060-SC-8.5-9.5-111422 (580-120212-1).

Method 9060A: The sample duplicate (DUP) precision for analytical batch 580-413230 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (SM22 2540G)	77.6		0.1	0.1	%			11/21/22 19:41	1
Percent Moisture (SM22 2540G)	22.4		0.1	0.1	%			11/21/22 19:41	1

Client Sample Results

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid
Percent Solids: 77.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	370	J H	2600	120	mg/Kg	☼		12/17/22 23:54	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/39
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/17/22 23:46	1

Lab Sample ID: LCS 580-413230/40
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	122000		mg/Kg		102	80 - 120		

Lab Sample ID: LCSD 580-413230/41
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	123000		mg/Kg		102	80 - 120	0	20

Lab Sample ID: 580-120212-1 MS
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	370	J H	155000	164000		mg/Kg	☼	106	75 - 125		

Lab Sample ID: 580-120212-1 MSD
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H	155000	167000		mg/Kg	☼	108	75 - 125	1	20

Lab Sample ID: 580-120212-1 DU
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H		307	J	mg/Kg	☼			18	20

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422

Lab Sample ID: 580-120212-1

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/17/22 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410736	JLS	EET SEA	11/21/22 19:41

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422

Lab Sample ID: 580-120212-1

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/17/22 17:40

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 23:54

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-120212-1	BNSF-J060-SC-8.5-9.5-111422	Solid	11/14/22 10:30	11/17/22 17:40

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 10633981 **Workorder Name:** D3631600 **Results Requested By:** 12/2/2022

Report / Invoice To	Subcontract To	Requested Analysis
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424	

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						9060A TOC												LAB USE ONLY
1	BNSF-J060-SC-8.5-9.5-111422	11/14/2022 10:30	10633981005	Solid	1						X												
2																							
3																							
4																							
5																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-16-22 15:55	KHasa	11/16/22 1740
2				
3				

Comments

Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N

A3 1.9/1.8
SB Bubbles
Fed 10

580-120212 Chain of Custody

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-120212-1

Login Number: 120212
List Number: 1
Creator: Groves, Elizabeth

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

GC-FID DRO - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633981 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4514590	4514590BLANK	88	84
4514591	4514591LCS	85	85
4514592	4514592MS	49*	97
4514593	4514593MSD	69	98
10633981001	BNSF-I500-SC-0.0-0.8-	52	86
10633981002	BNSF-O280-SC-0.0-0.7-	77	80
10633981003	BNSF-HN300-SC-1.0-2.0-	72	74
10633981004	BNSF-J060-SC-0.5-1.5-	73	78
10633981005	BNSF-J060-SC-8.5-9.5-	76	79

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4514591LCS
Date Extracted: 11/16/2022
Date Analyzed (1): 11/17/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 111722R.B\1117R0000035.D
SDG No.: 10633981

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	50.0	43.0	86	50-150
Motor Oil Range	50.0	46.8	94	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Minnesota

Matrix Spike - Sample No: 4514592MS

Date Extracted: 11/16/2022

Date Analyzed (1): 11/17/2022

Instrument: 10GCSF

Lab File ID: 111722R.B\1117R0000039.D

Parent Sample ID: BNSF-I500-SC-0.0-0.8-111322

SDG No.: 10633981

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Diesel Fuel Range	62.6	199	158J	-65	50-150
Motor Oil Range	62.6	905	587	-507	50-150

Spike Recovery: 2 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 10GCSF

Matrix Spike Duplicate - Sample No: 4514593MSD

Lab File ID (2): 111722R.B\1117R0000040.D

Date Analyzed (2): 11/17/2022

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	62.6	195	-6		0-30	50-150
Motor Oil Range	62.6	756	-238	25	0-30	50-150

RPD: 0 out of 1 outside limits.

Spike Recovery: 2 out of 2 outside limits.

SAMPLE NO.

4514590BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633981 Contract: D3631600

Instrument ID: 10GCSF Matrix: Solid Lab Sample ID: 4514590

Lab File ID: 111722R.B\1117R0000034.D Date Analyzed: 11/17/2022 Time:17:16

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4514591LCS	4514591	111722R.B\1117R0000035.D	11/17/2022 17:28
BNSF-I500-SC-0.0-0.8-111322	10633981001	111722R.B\1117R0000038.D	11/17/2022 18:02
4514592MS	4514592	111722R.B\1117R0000039.D	11/17/2022 18:13
4514593MSD	4514593	111722R.B\1117R0000040.D	11/17/2022 18:25
BNSF-HN300-SC-1.0-2.0-	10633981003	111722R.B\1117R0000041.D	11/17/2022 18:36
BNSF-J060-SC-0.5-1.5-111422	10633981004	111722R.B\1117R0000042.D	11/17/2022 18:48
BNSF-O280-SC-0.0-0.7-	10633981002	111722R.B\1117R0000043.D	11/17/2022 18:59
BNSF-J060-SC-8.5-9.5-111422	10633981005	111722R.B\1117R0000046.D	11/17/2022 19:33

SAMPLE NO.

BNSF-I500-SC-0.0-0.8-111322

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/16/2022 08:50 Matrix: Solid SDG No.: 10633981

Date Extracted: 11/16/2022 13:13 Lab Sample ID: 10633981001

Date Analyzed: 11/17/2022 18:02 Lab File ID: 111722R.B\1117R0000038.D

Initial wt/vol: 10.05 g Final wt/vol: 1 mL Dilution: 10 Instrument: 10GCSF Percent Moisture: 20.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	199	
	Motor Oil Range	905	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000038.d
Lab Smp Id: 10633981001 Client Smp ID: BNSF-I500-SC-0.0-0.
Inj Date : 17-NOV-2022 18:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633981001x10
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 35
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.050	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.600			1060402	125.312	125	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.731	2.731	0.000	24592	4.30277	4.28	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.272	0.002	15161	2.58324	2.57	(RM)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601 - 5.160			2570086	682.314	679	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.210			1899513	228.042	227	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.160			2710772	684.128	681	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		3630489	682.139	679	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1066214	158.935	158	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1066214	158.935	158	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		3311004	722.332	719	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		3311004	722.332	719	(M)	RNG

QC Flag Legend

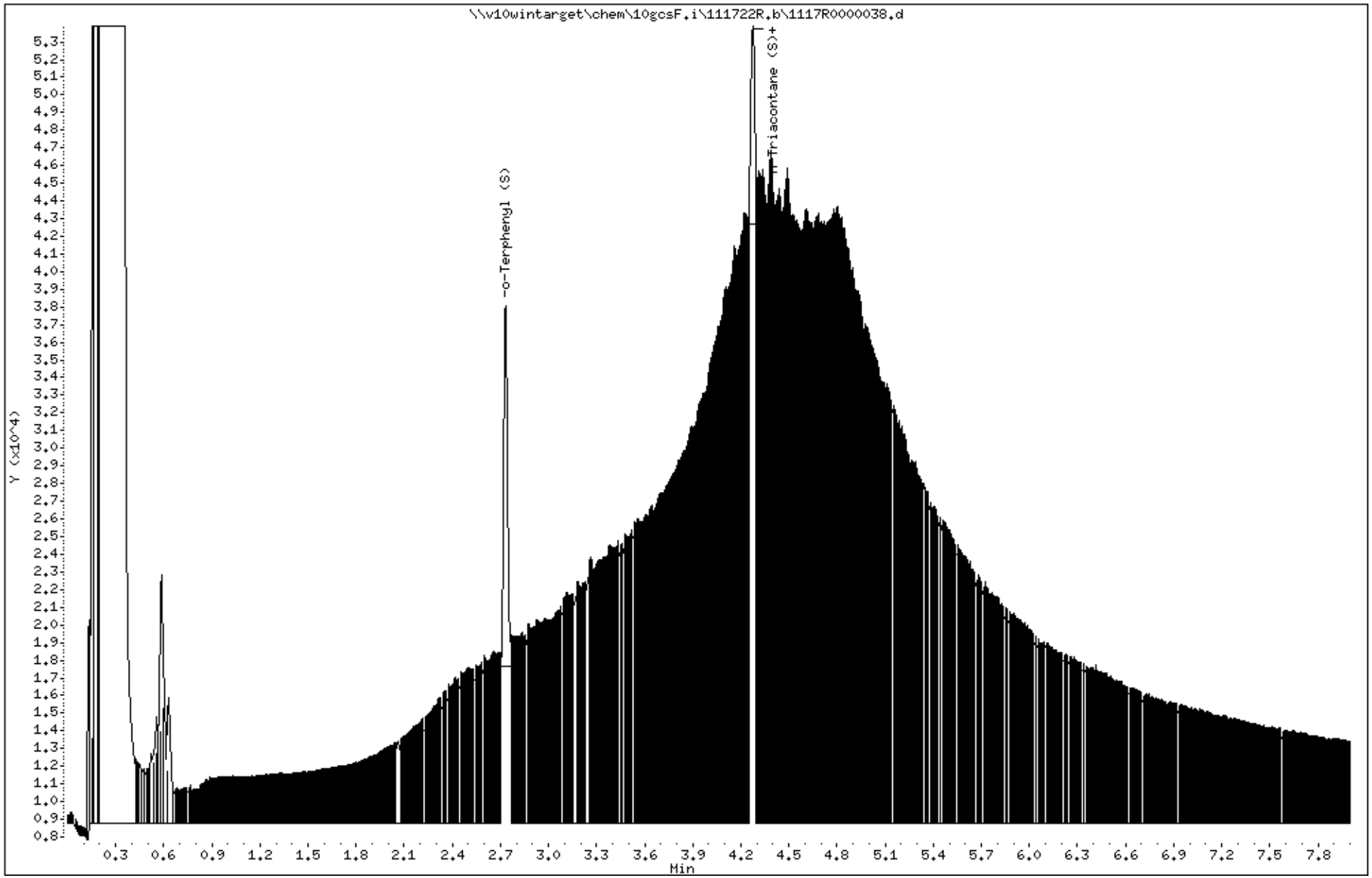
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

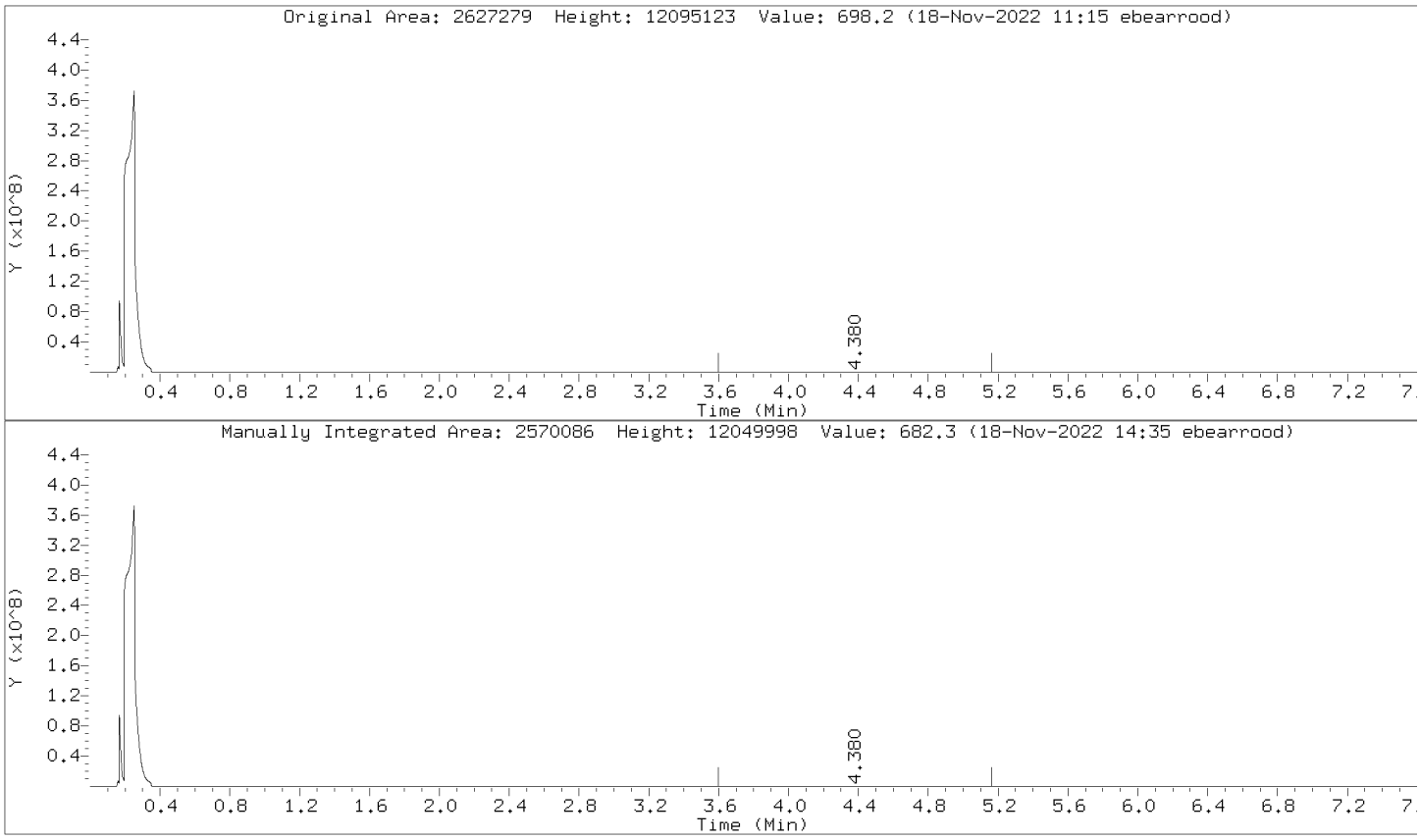
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000038.d
Date : 17-NOV-2022 18:02
Client ID: BNSF-I500-SC-0.0-0.
Sample Info: 10633981001X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



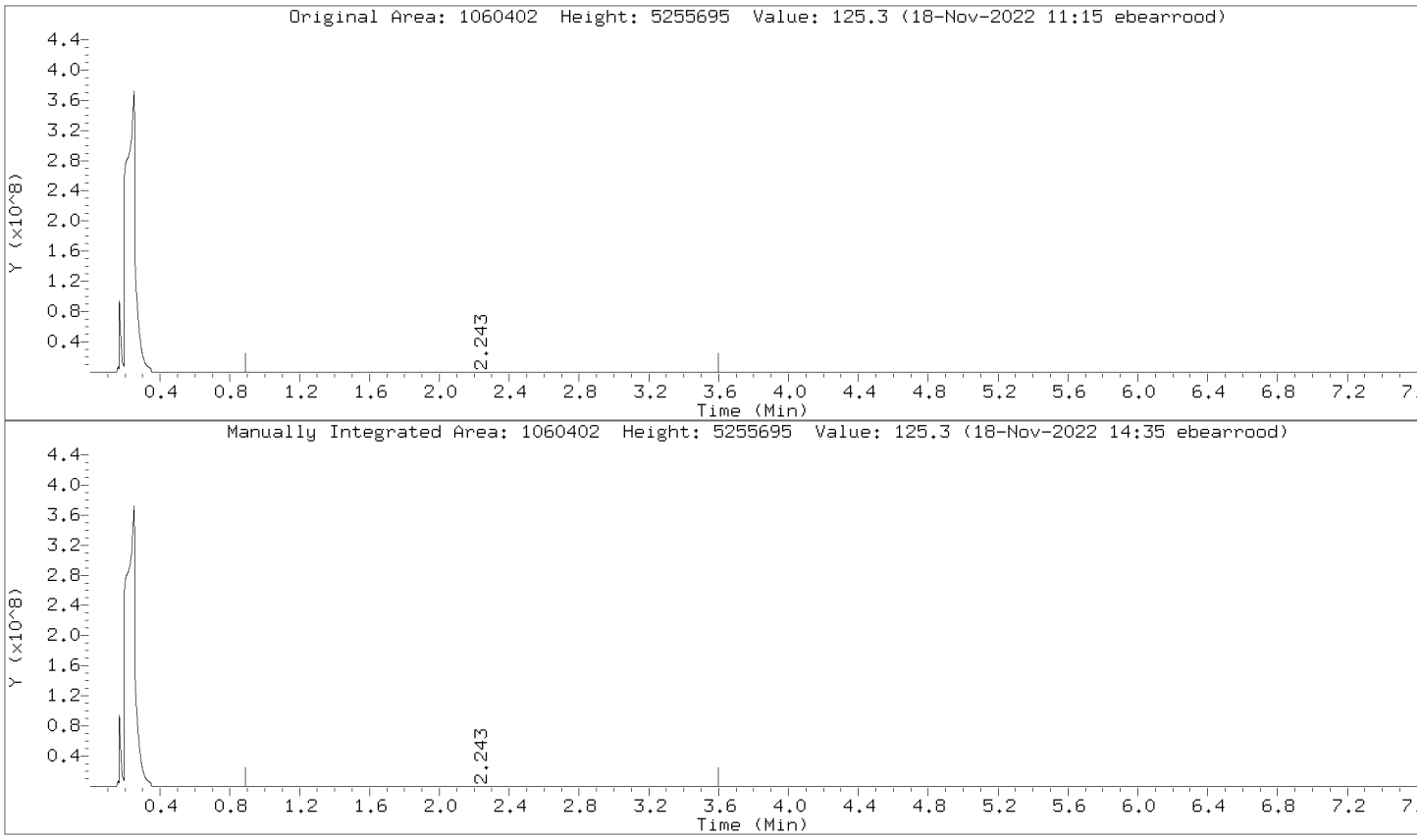
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



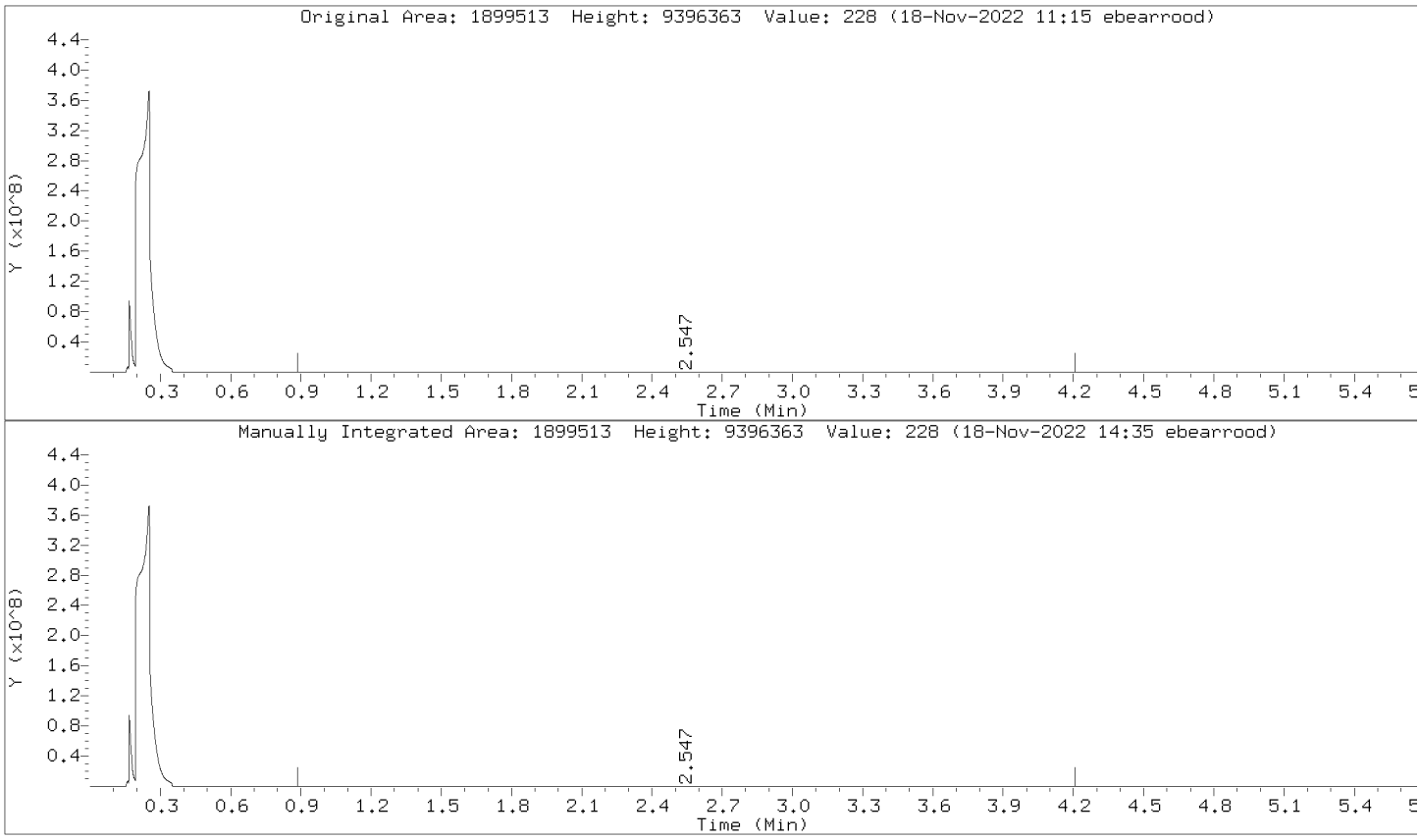
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



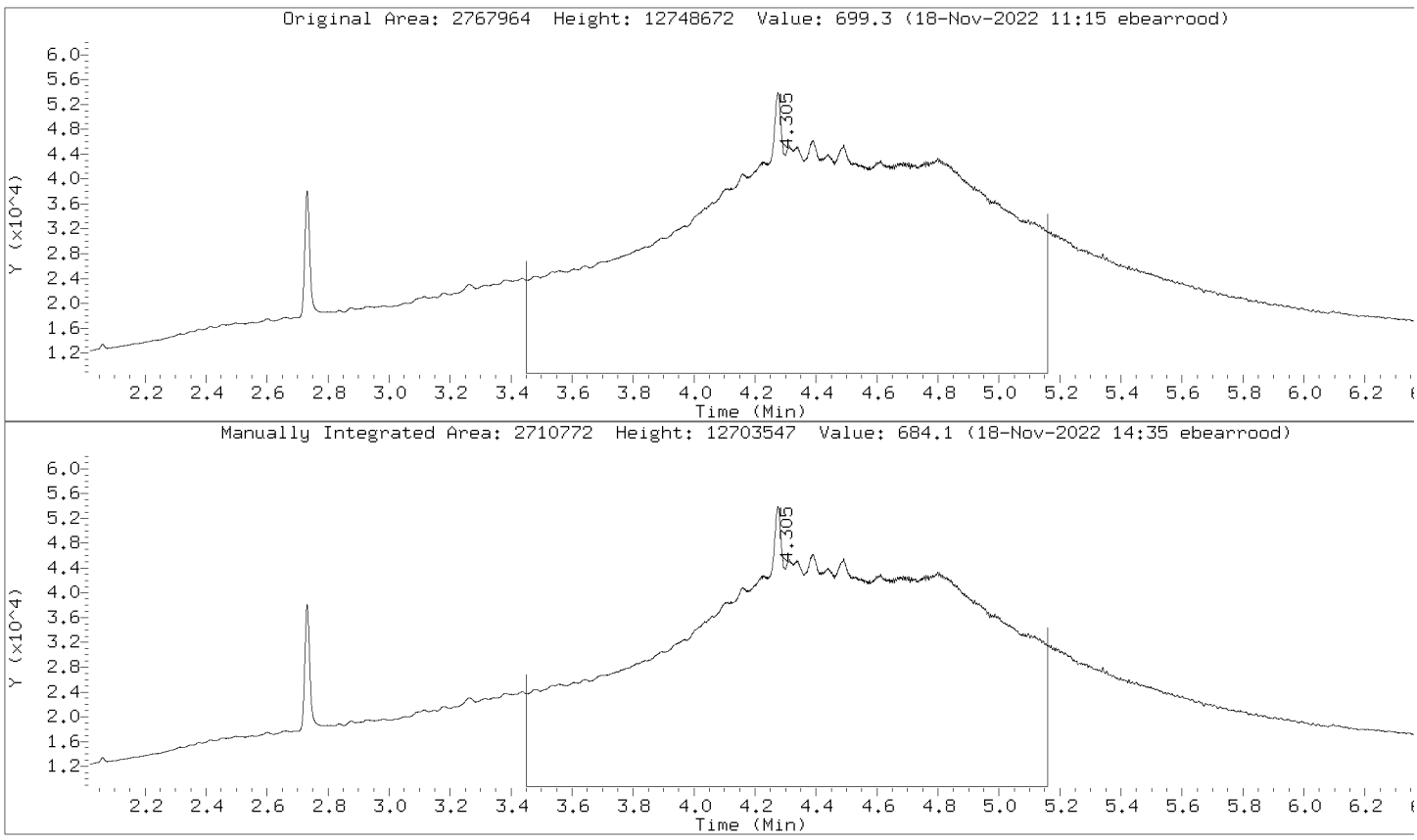
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



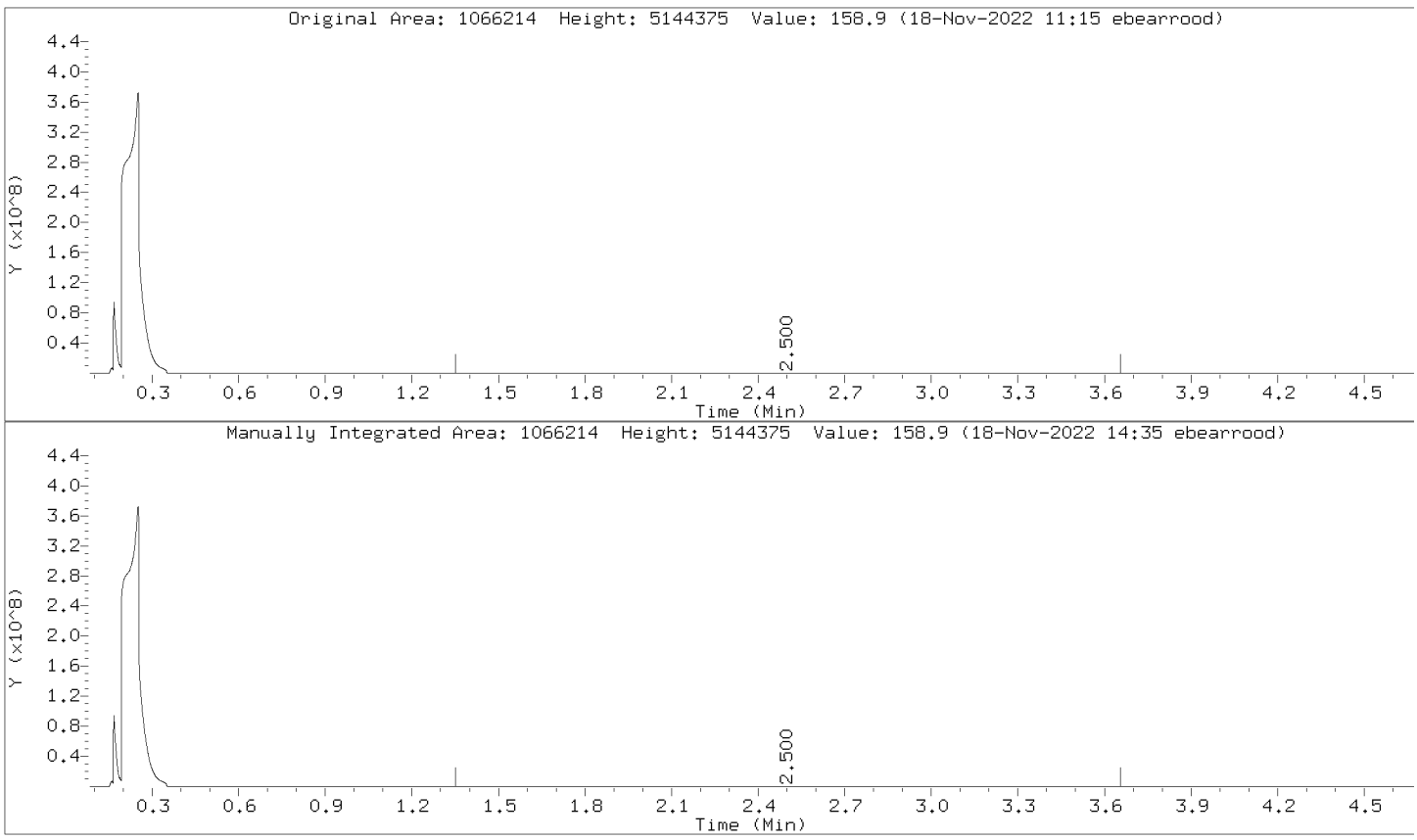
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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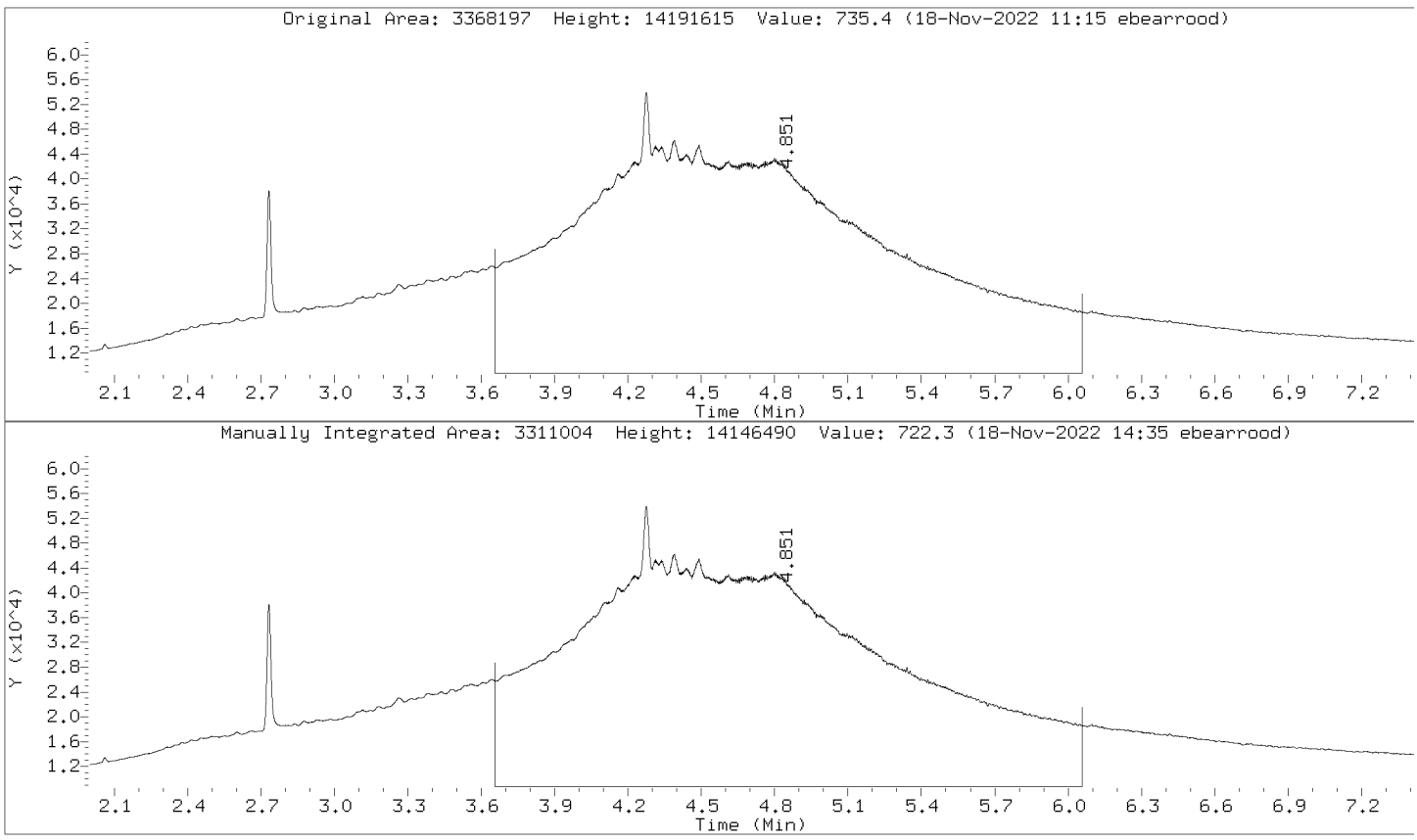
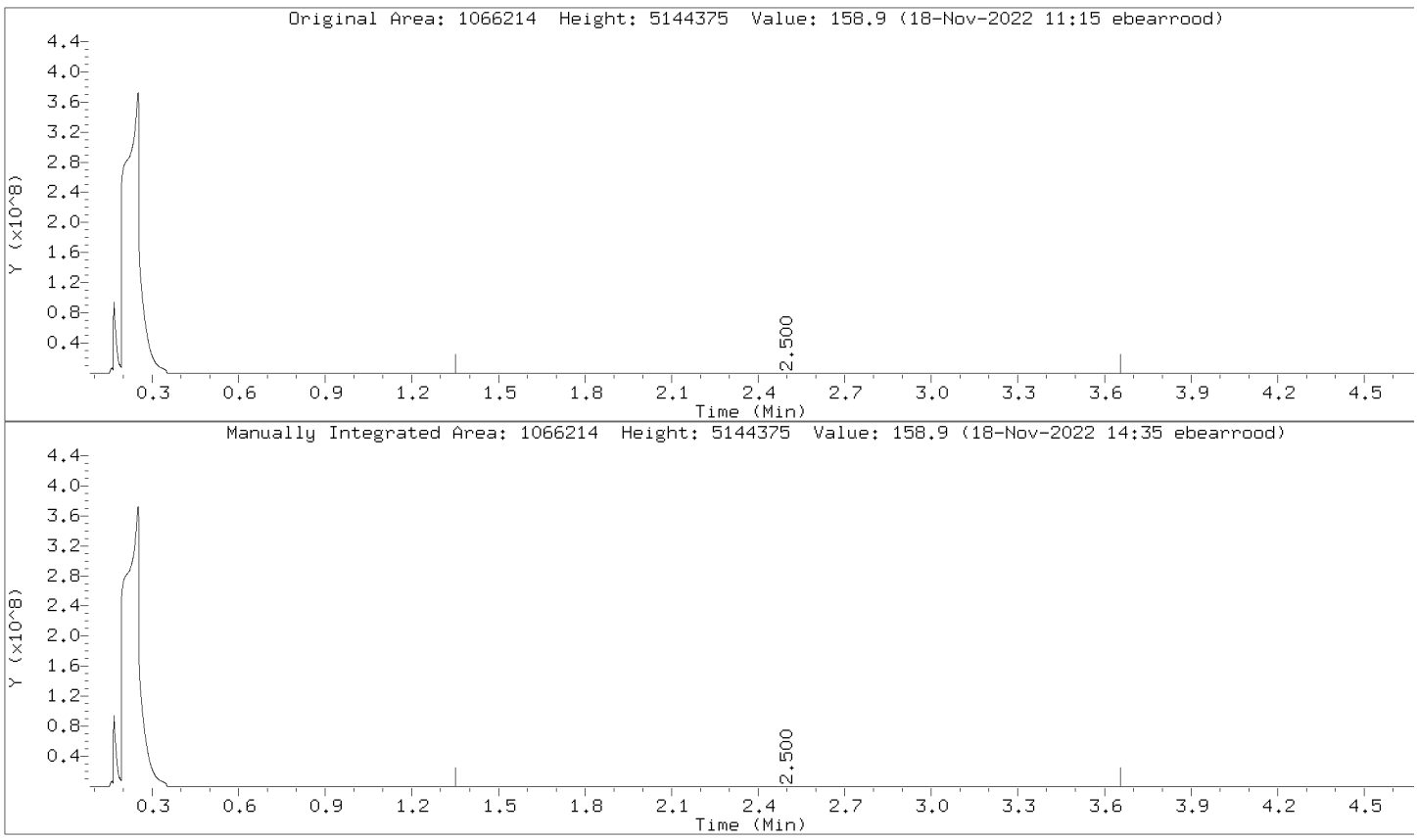
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Motor Oil Range Review Code: RNG
CAS Number:



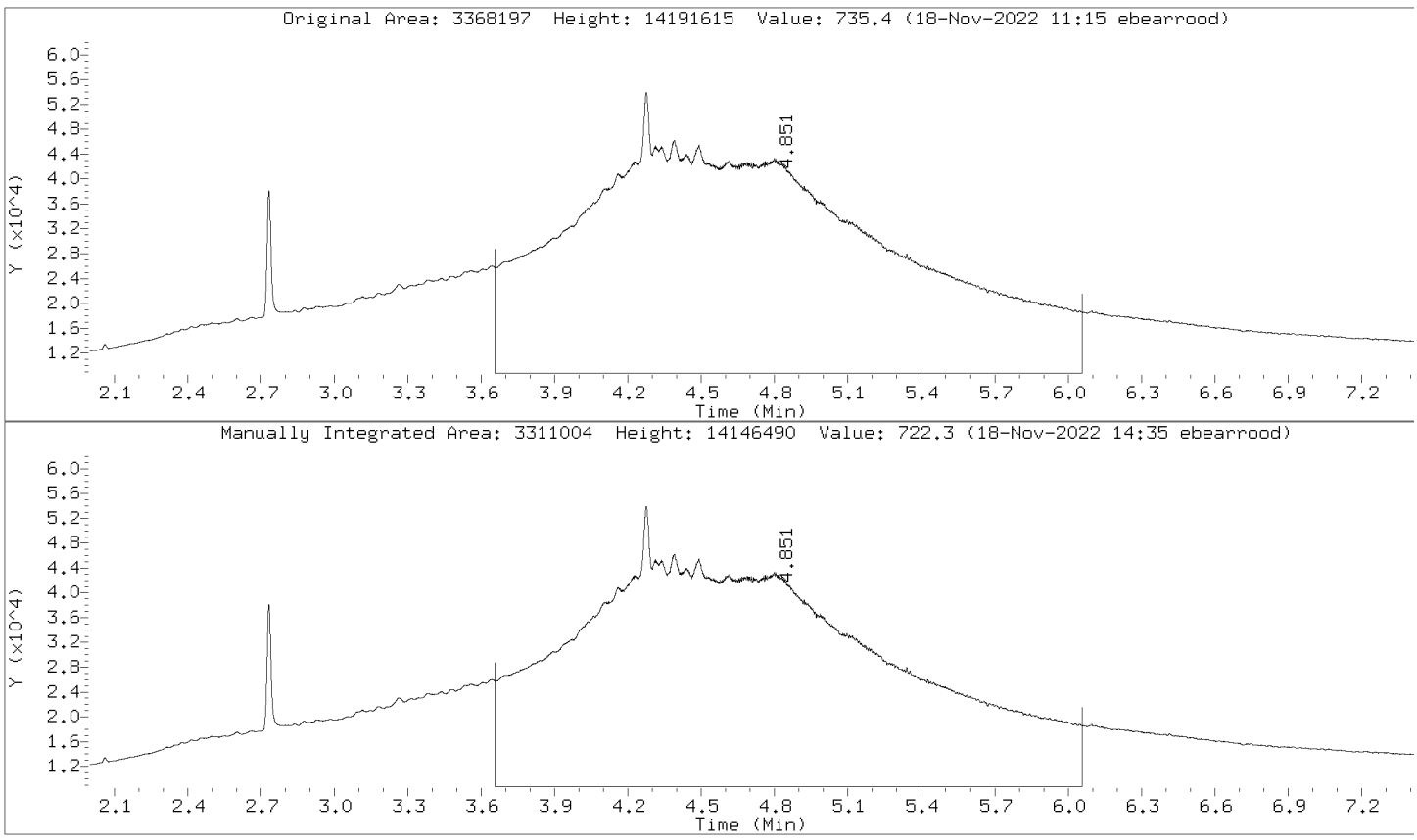
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



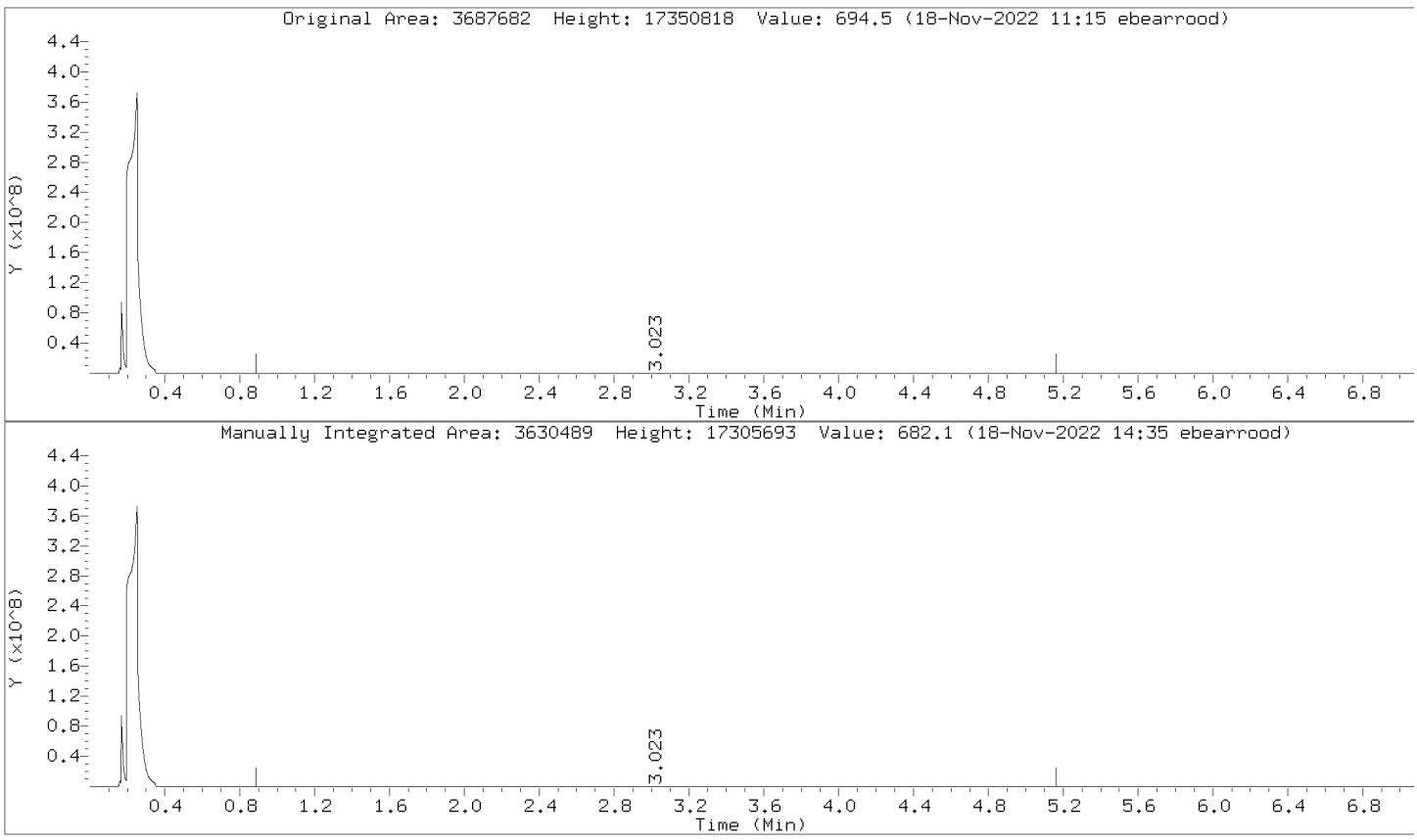
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: C10-C36 Review Code: RNG
CAS Number:



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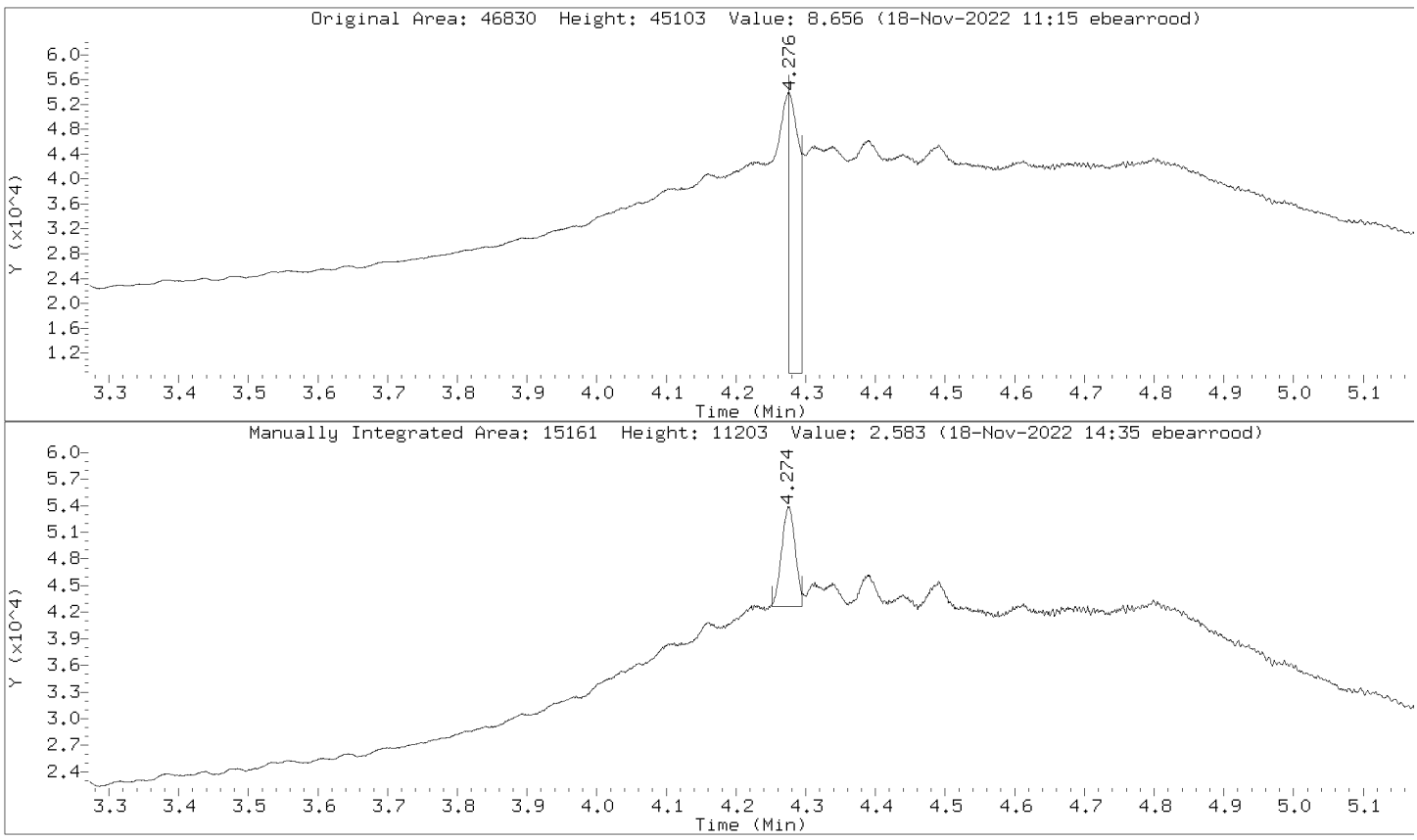
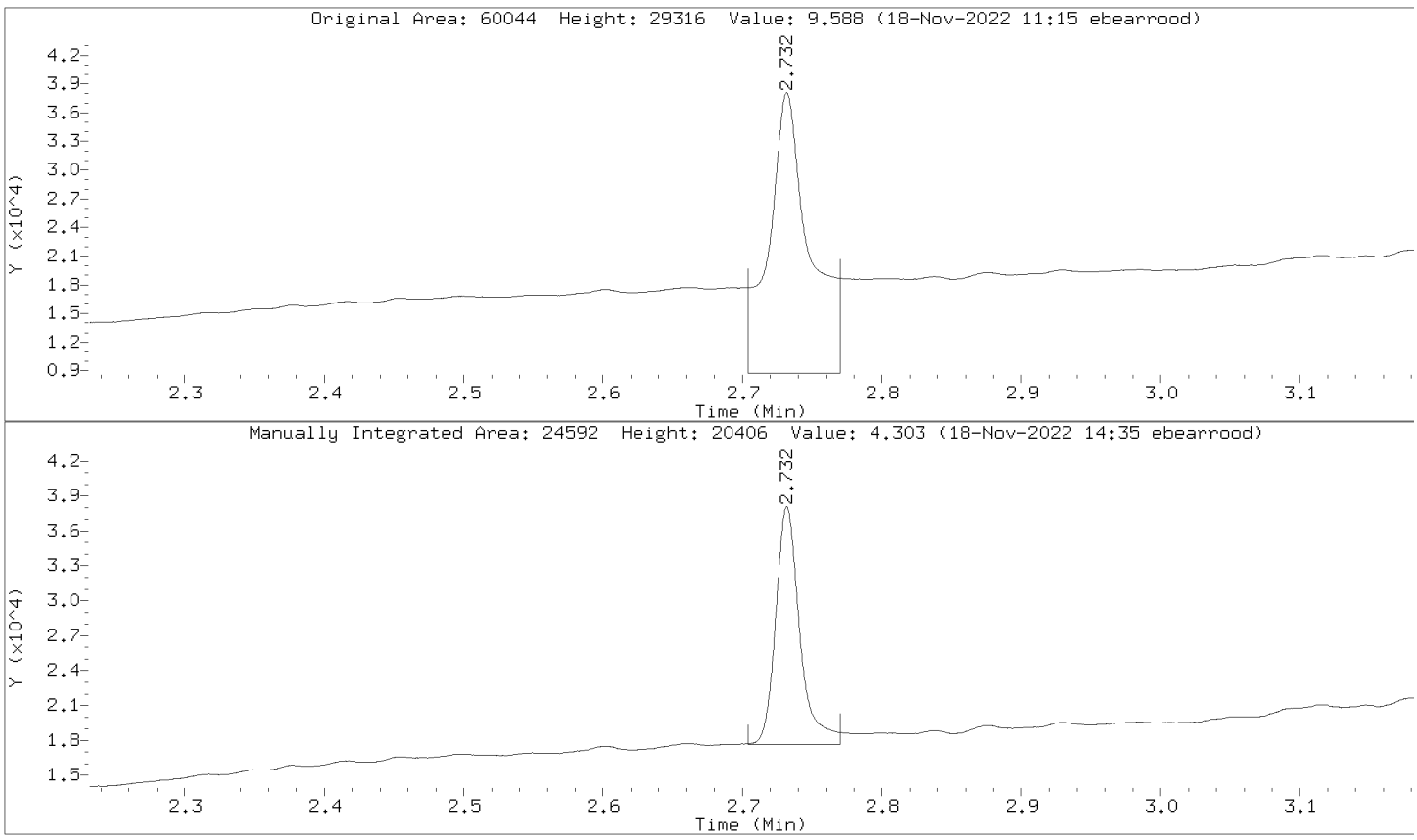
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000038.d
Injection Date: 17-NOV-2022 18:02
Instrument: 10gcsF.i
Lab Sample ID: 10633981001

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2627279	2570086
DRO by AK 102	1060402	1060402
TPH-DRO (C10-C28)	1899513	1899513
Motor Oil Range (C24-C36)	2767964	2710772
Diesel Fuel Range	1066214	1066214
Motor Oil Range	3368197	3311004
Diesel Fuel Range SG	1066214	1066214
Motor Oil Range SG	3368197	3311004
C10-C36	3687682	3630489
n-Triacontane (S)	46830	15161
o-Terphenyl (S)	60044	24592

SAMPLE NO.

BNSF-O280-SC-0.0-0.7-111322

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/16/2022 08:50 Matrix: Solid SDG No.: 10633981

Date Extracted: 11/16/2022 13:13 Lab Sample ID: 10633981002

Date Analyzed: 11/17/2022 18:59 Lab File ID: 111722R.B\1117R0000043.D

Initial wt/vol: 10.07 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 24.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	12.1	J

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000043.d
Lab Smp Id: 10633981002 Client Smp ID: BNSF-O280-SC-0.0-0.
Inj Date : 17-NOV-2022 18:59
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633981002
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.070	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885	- 3.600		469170	20.8485	2.07	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.731	2.731	0.000	265150	40.1688	3.99	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.272	0.001	201943	38.3995	3.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601	- 5.160		400395	79.2783	7.87	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.210		603729	30.9790	3.08	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.160		422652	77.3456	7.68	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		869566	87.1103	8.65	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		392560	17.5952	1.75	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		392560	17.5952	1.75	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		545938	92.2272	9.16	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		545938	92.2272	9.16	(M)	RNG

QC Flag Legend

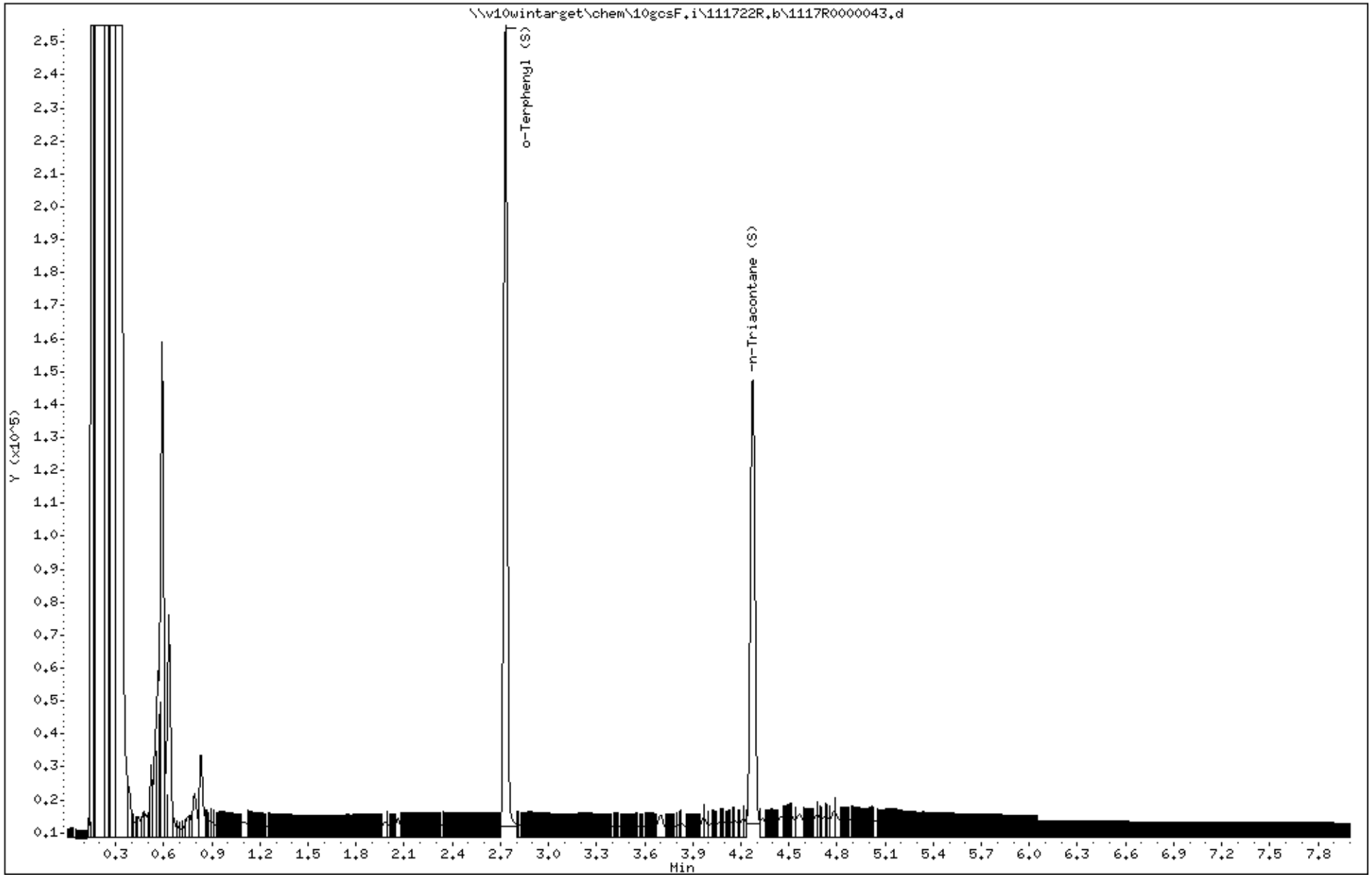
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

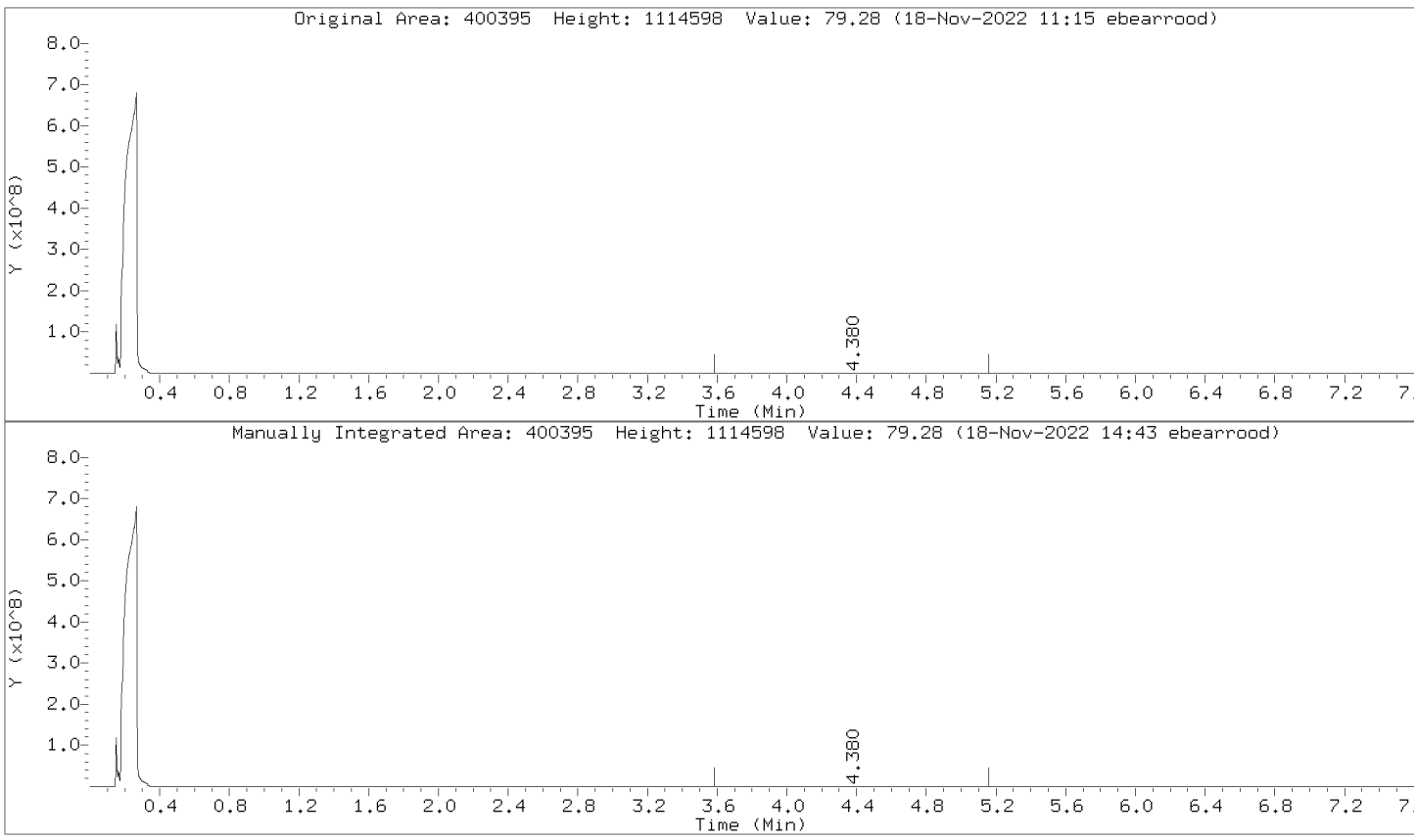
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000043.d
Date : 17-NOV-2022 18:59
Client ID: BNSF-0280-SC-0.0-0.
Sample Info: 10633981002
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



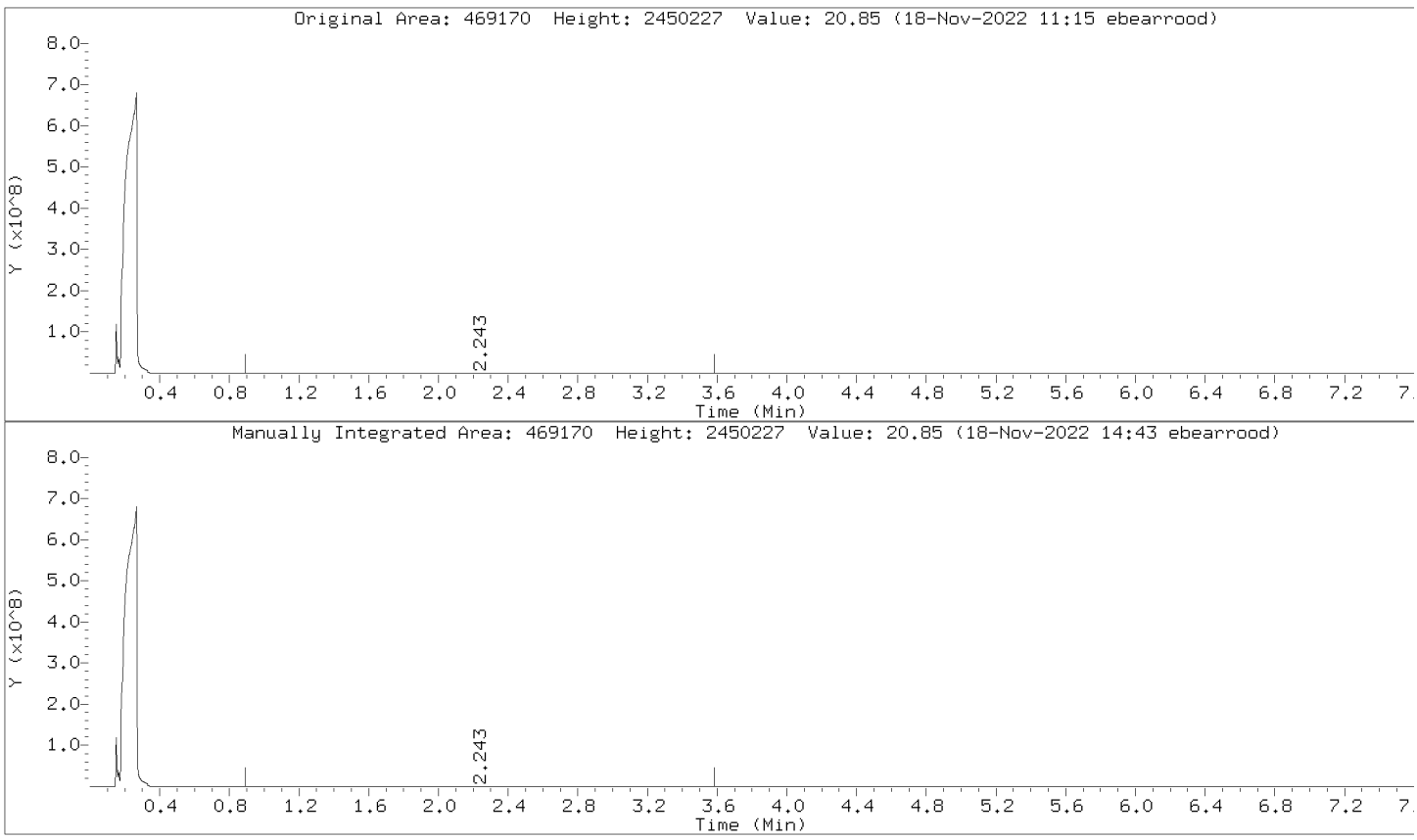
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



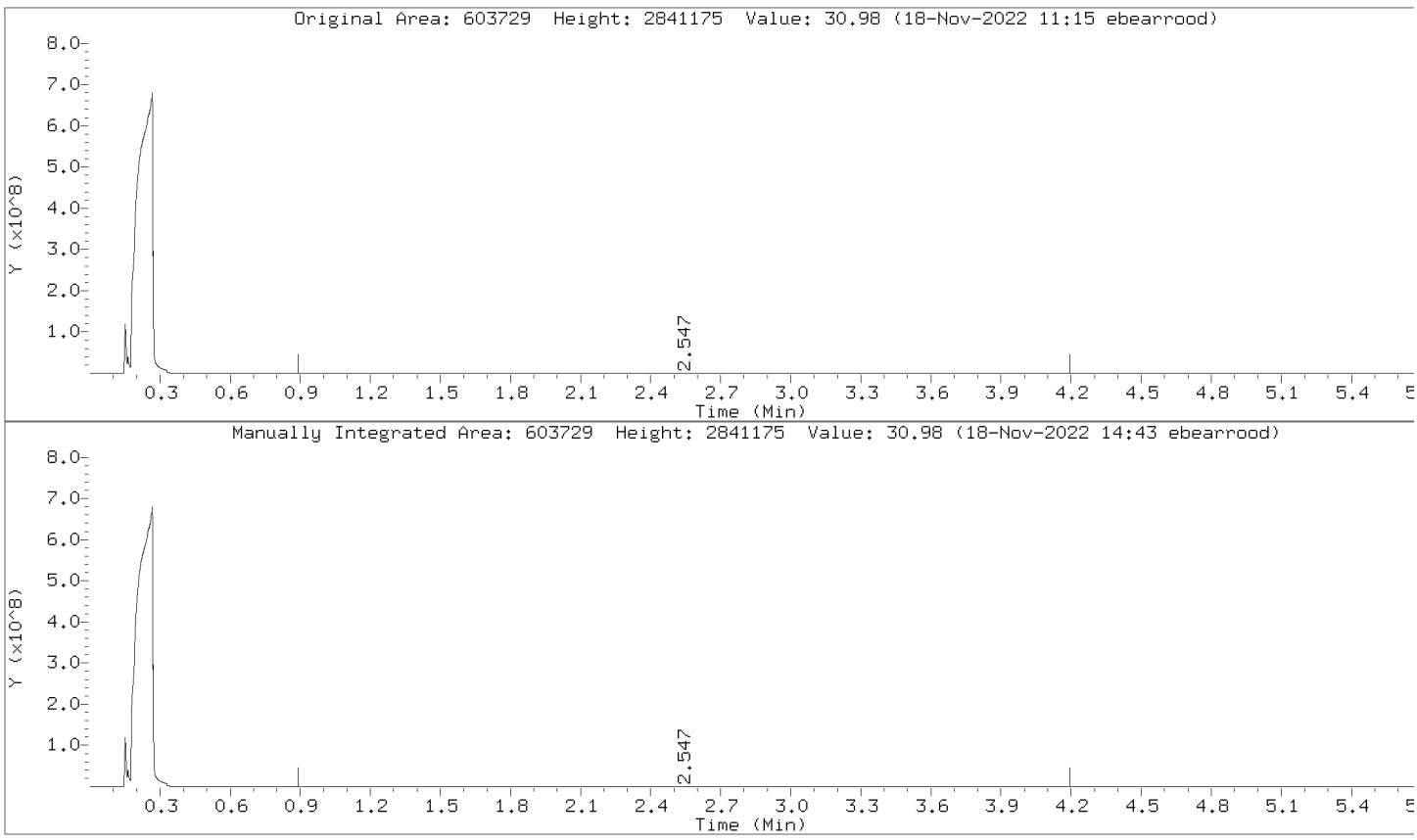
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



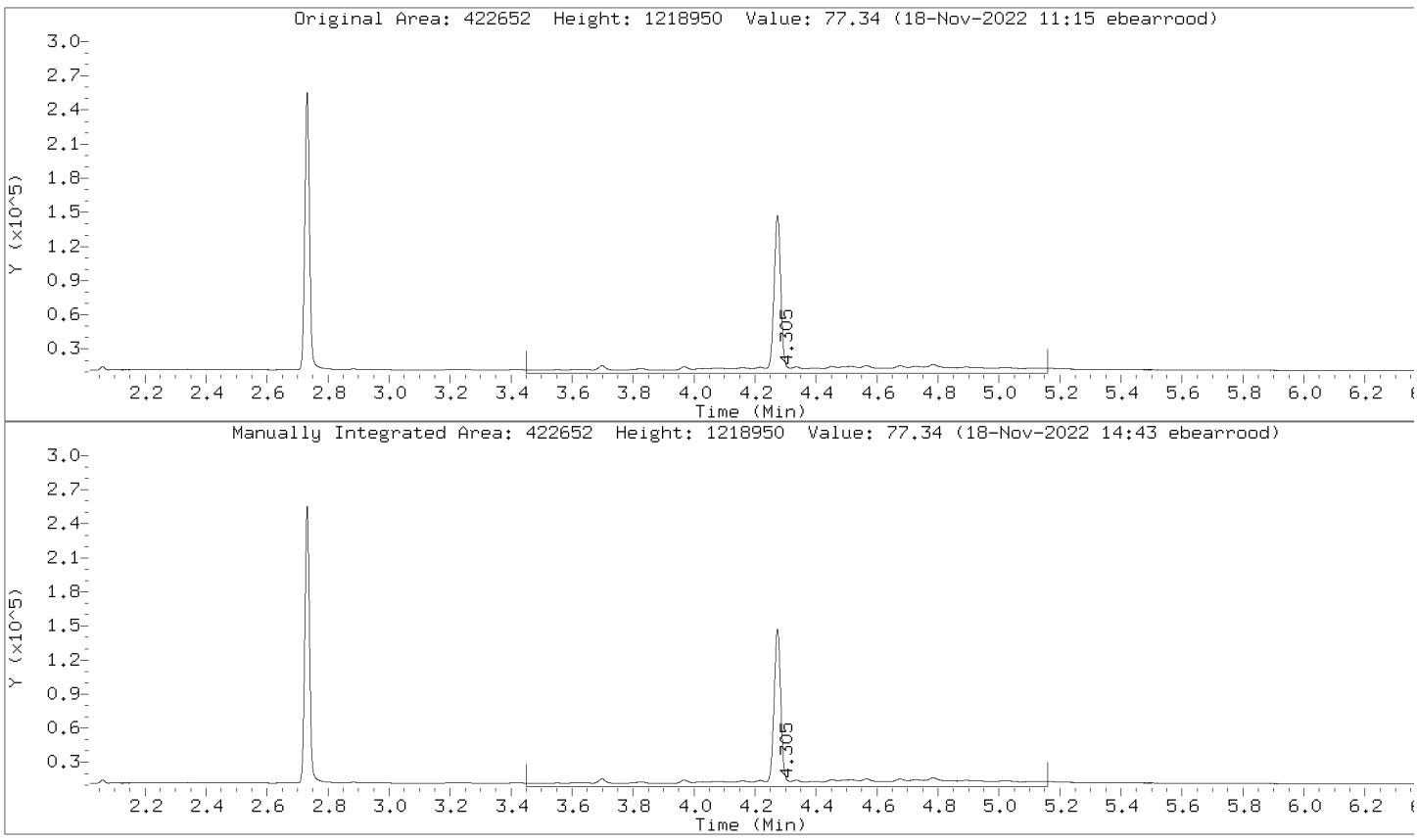
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



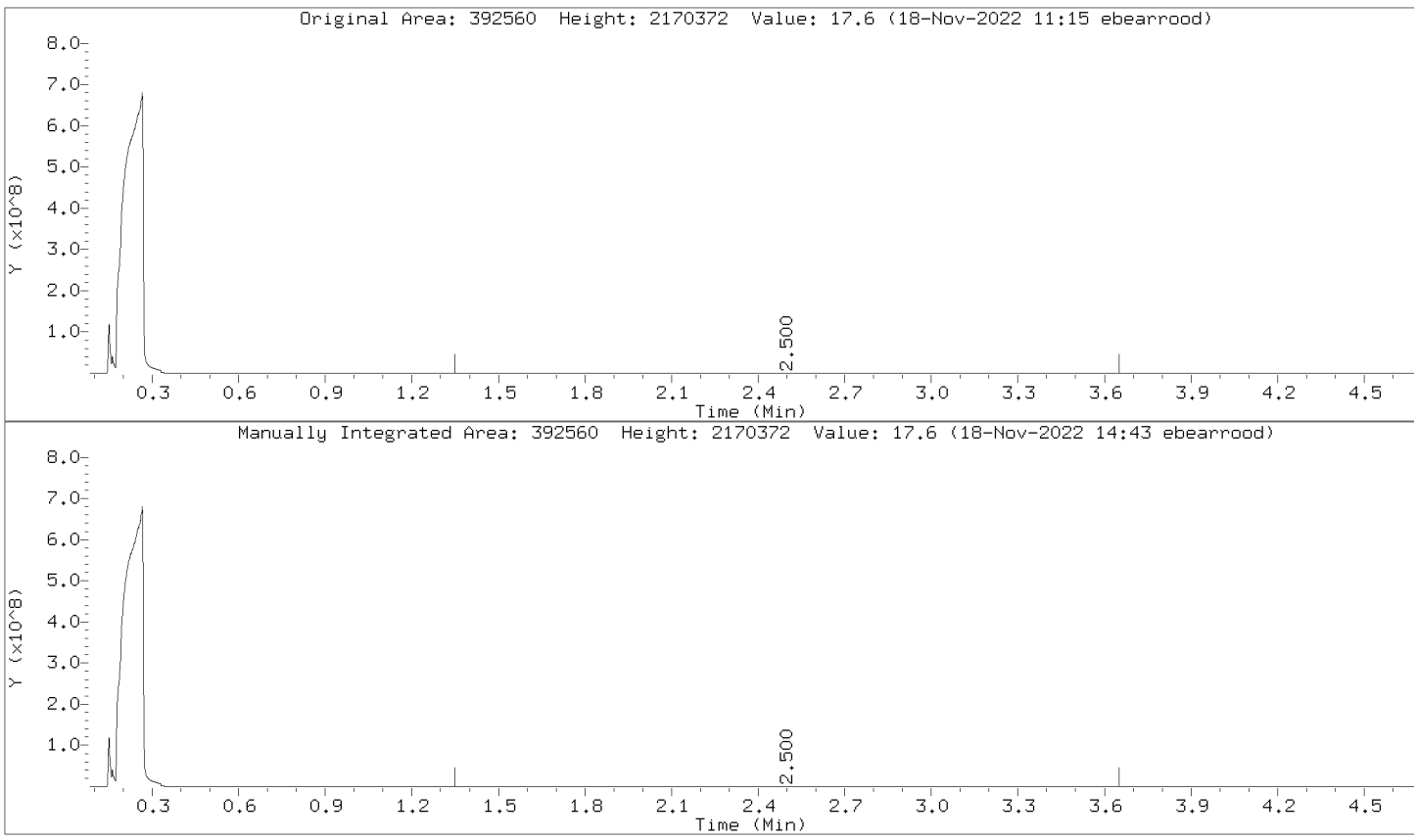
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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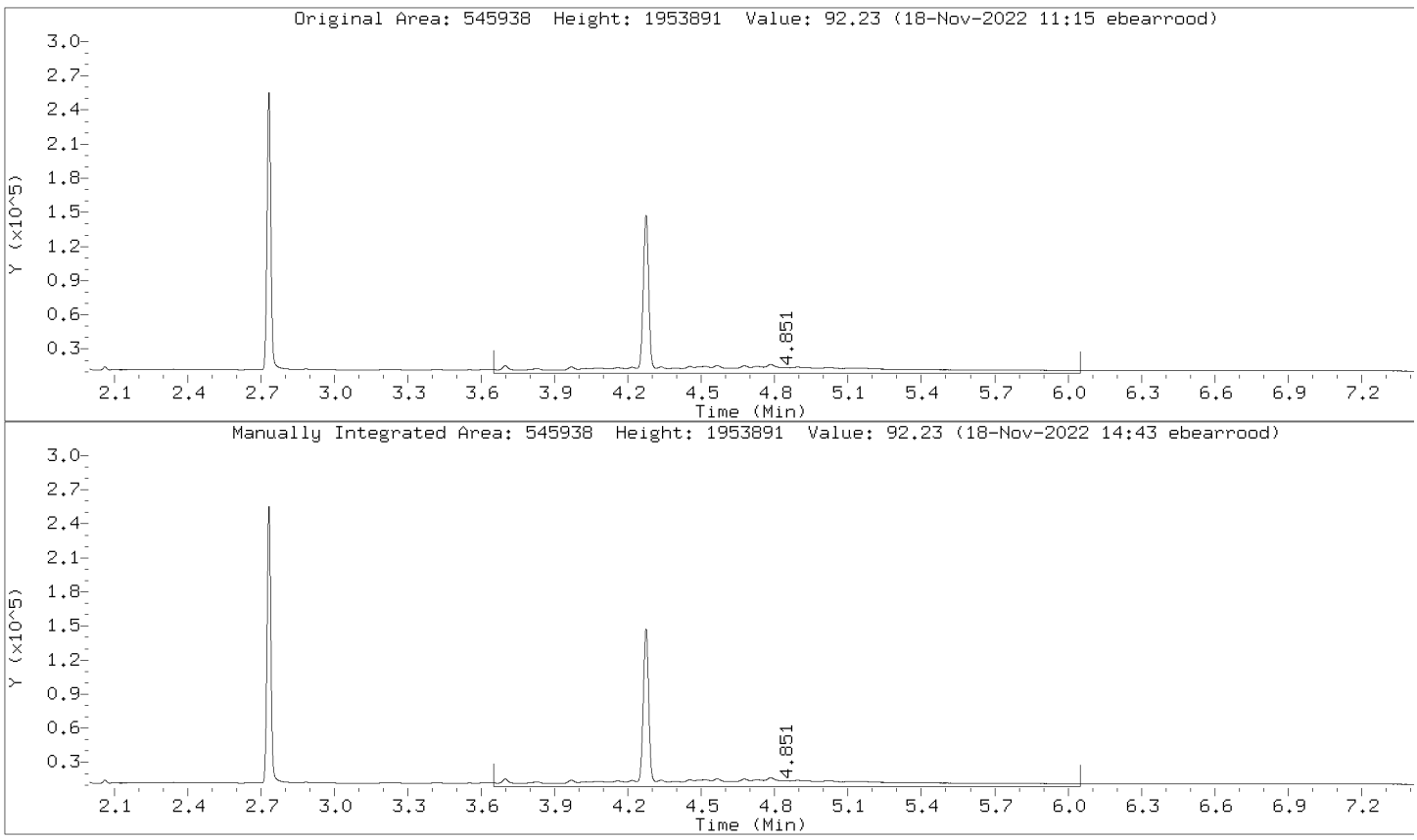
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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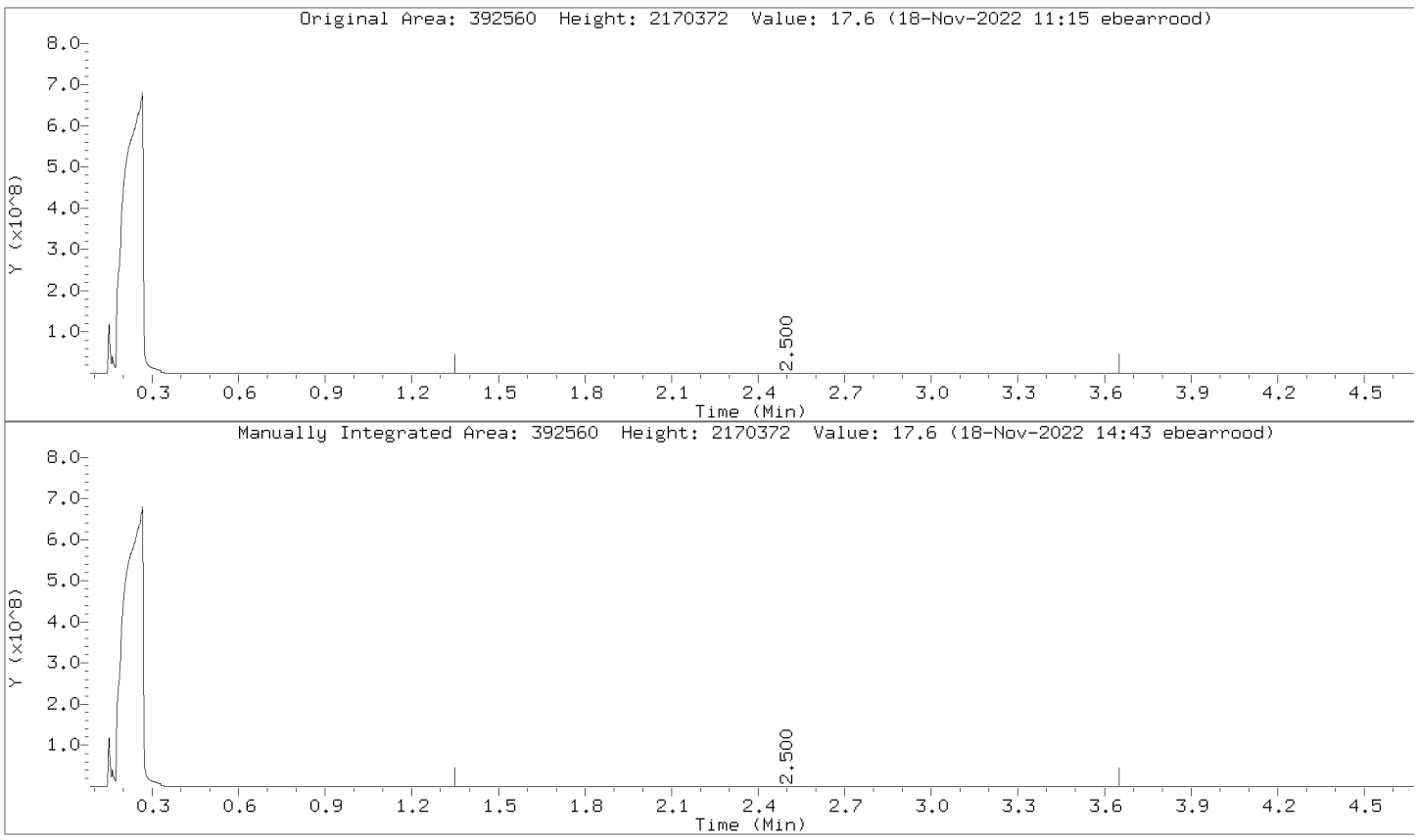
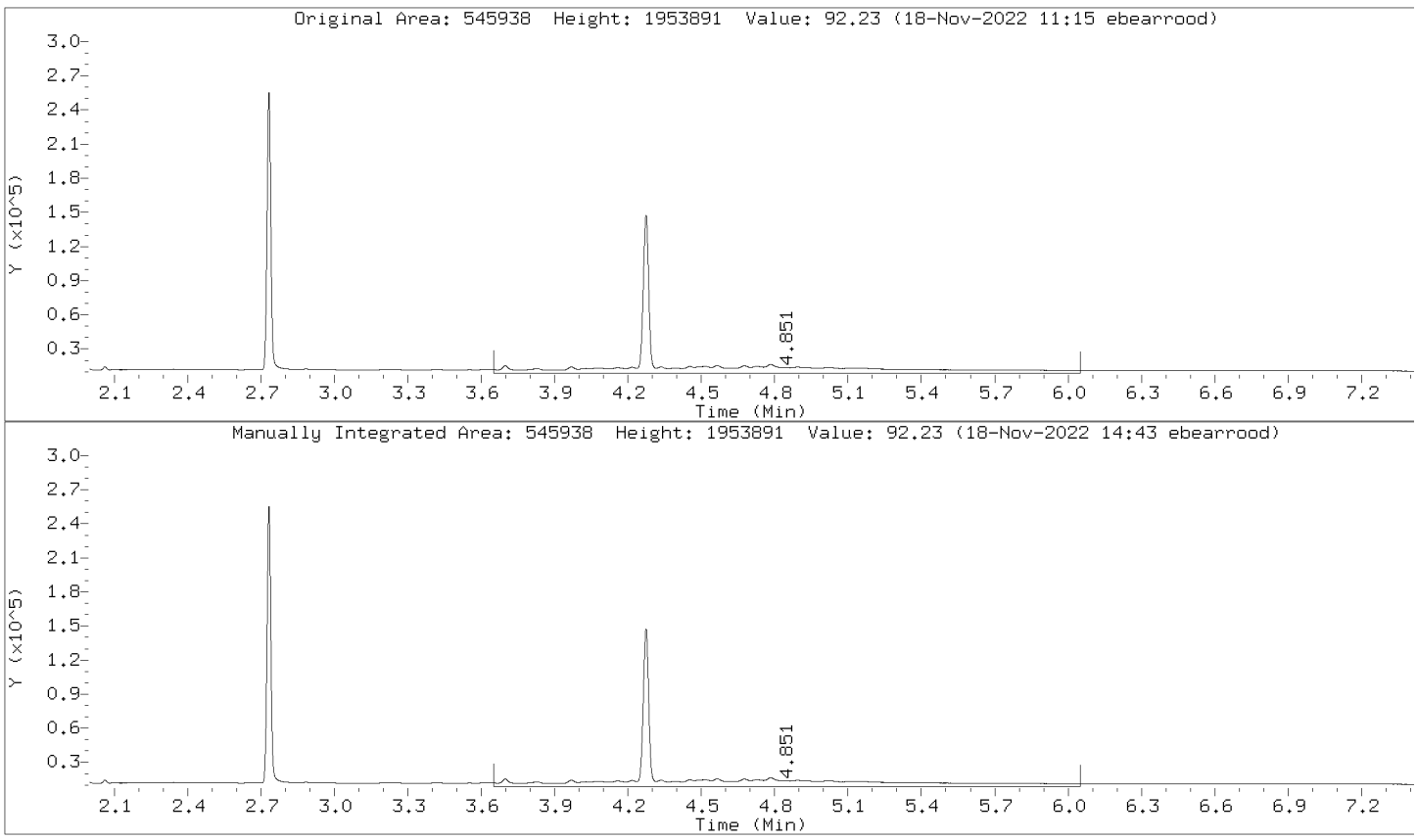
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



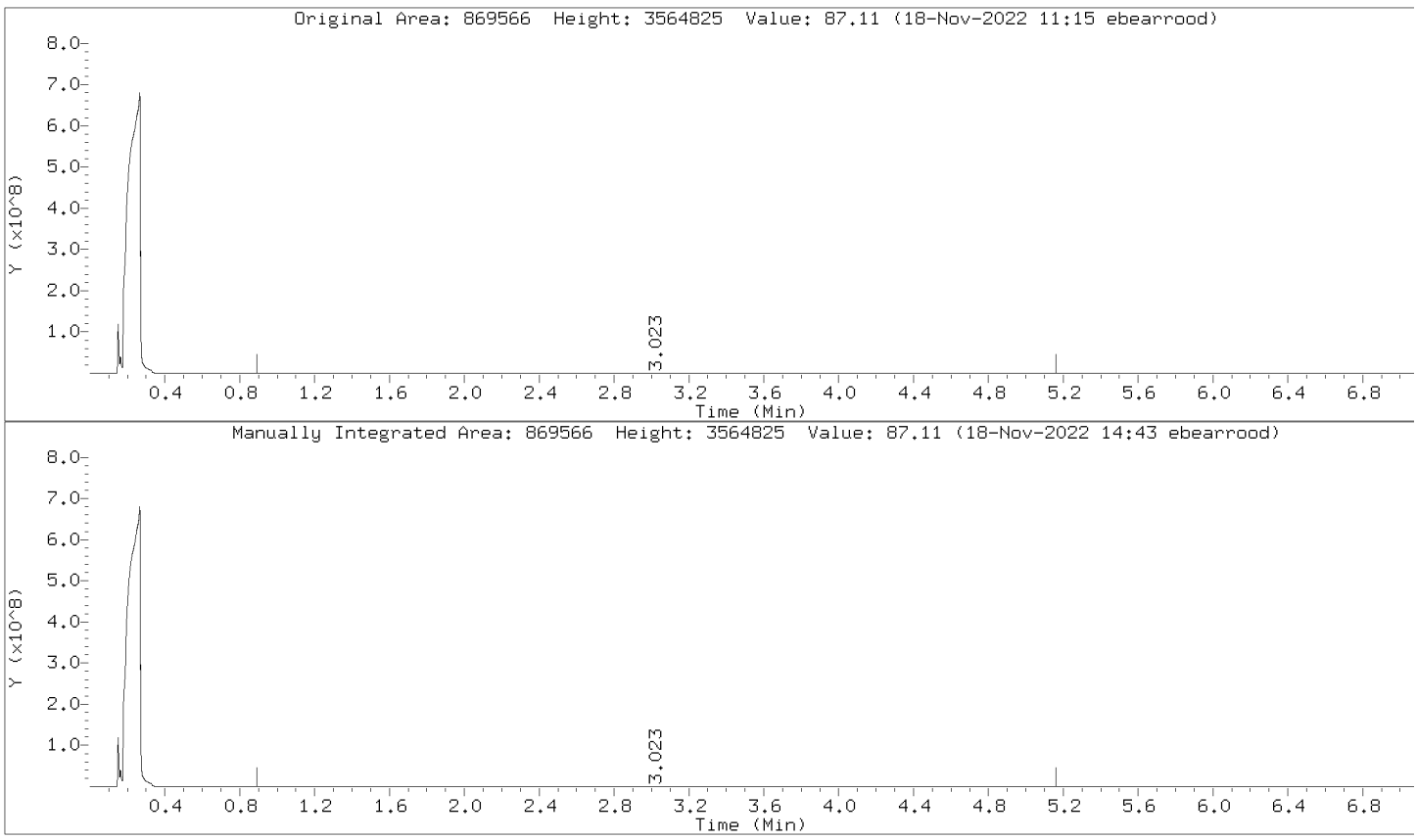
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



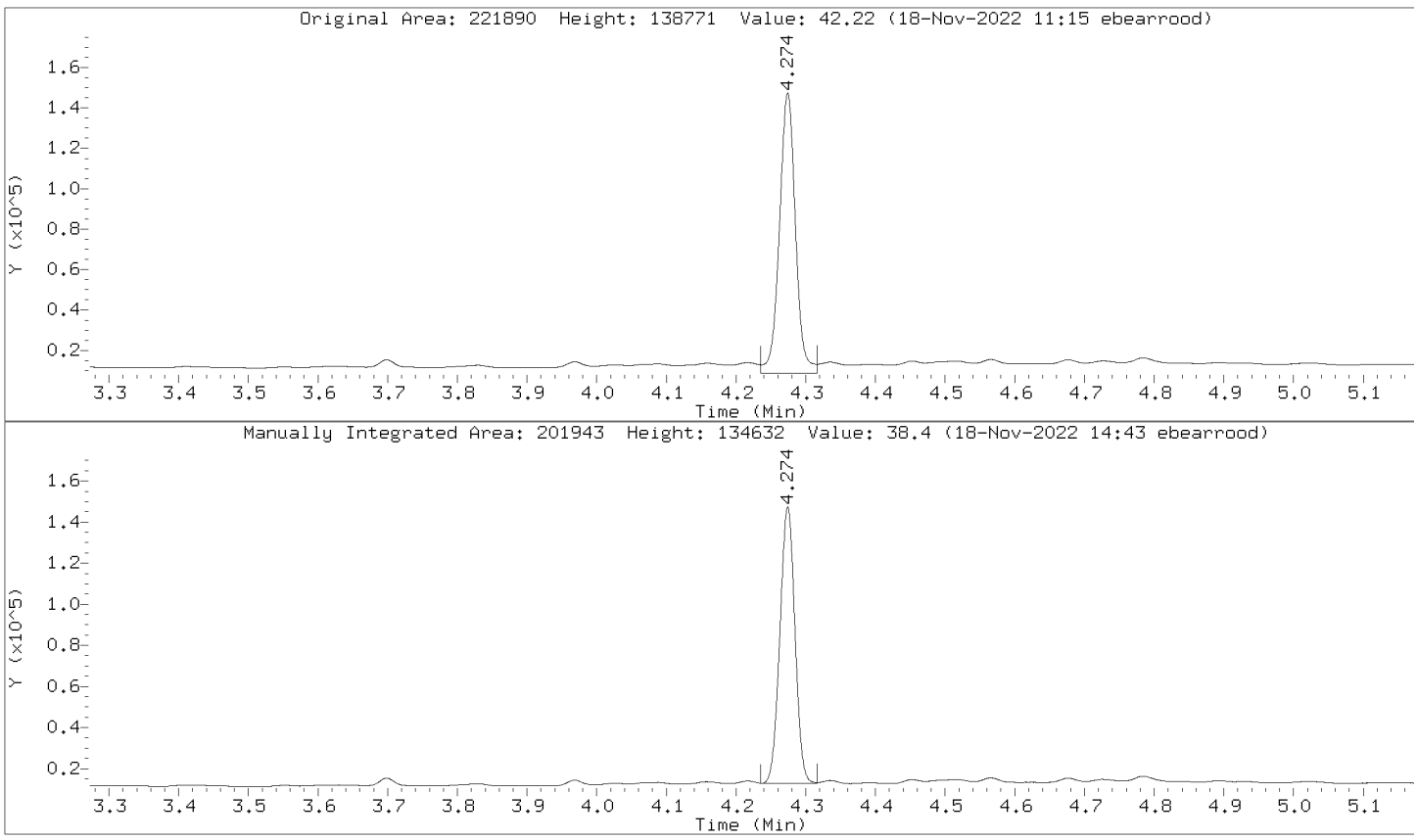
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: C10-C36 Review Code: RNG
CAS Number:



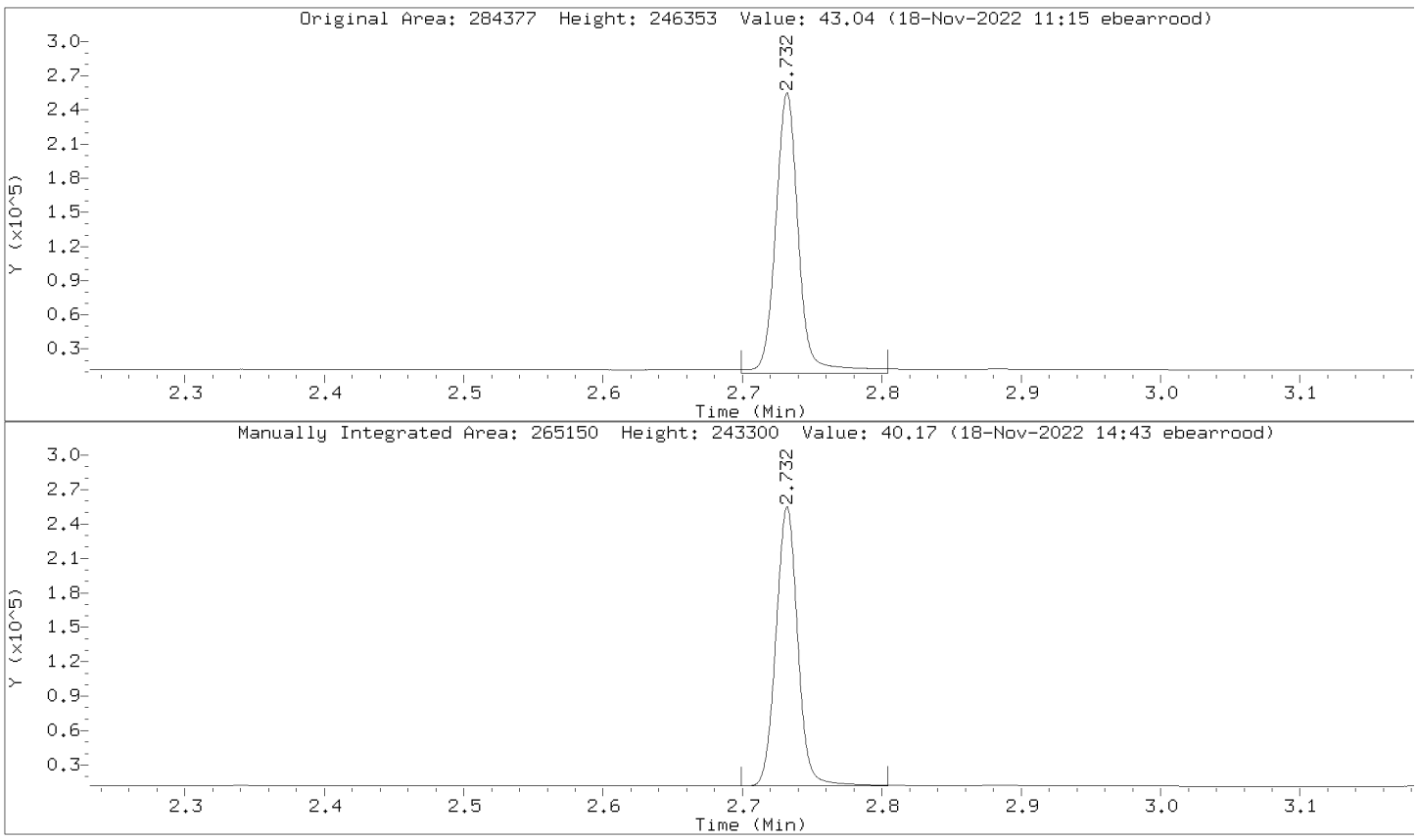
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000043.d
Injection Date: 17-NOV-2022 18:59
Instrument: 10gcsF.i
Lab Sample ID: 10633981002

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	400395	400395
DRO by AK 102	469170	469170
TPH-DRO (C10-C28)	603729	603729
Motor Oil Range (C24-C36)	422652	422652
Diesel Fuel Range	392560	392560
Motor Oil Range	545938	545938
Diesel Fuel Range SG	392560	392560
Motor Oil Range SG	545938	545938
C10-C36	869566	869566
n-Triacontane (S)	221890	201943
o-Terphenyl (S)	284377	265150

SAMPLE NO.

BNSF-HN300-SC-1.0-2.0-111322

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/16/2022 08:50
Matrix: Solid
SDG No.: 10633981
Date Extracted: 11/16/2022 13:13
Lab Sample ID: 10633981003
Date Analyzed: 11/17/2022 18:36
Lab File ID: 111722R.B\1117R0000041.D
Initial wt/vol: 10.09 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture: 23.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	46.0	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000041.d
Lab Smp Id: 10633981003 Client Smp ID: BNSF-HN300-SC-1.0-2
Inj Date : 17-NOV-2022 18:36
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633981003
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.090	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.600			670334	56.3919	5.59	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.731	0.001	242505	36.7925	3.65	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.276	4.272	0.004	188383	35.7993	3.55	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601 - 5.160			1312240	332.713	33.0	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.210			1040149	97.3497	9.65	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.160			1356451	324.978	32.2	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		1982575	326.984	32.4	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		599473	61.0078	6.05	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		599473	61.0078	6.05	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		1698094	354.781	35.2	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		1698094	354.781	35.2	(M)	RNG

QC Flag Legend

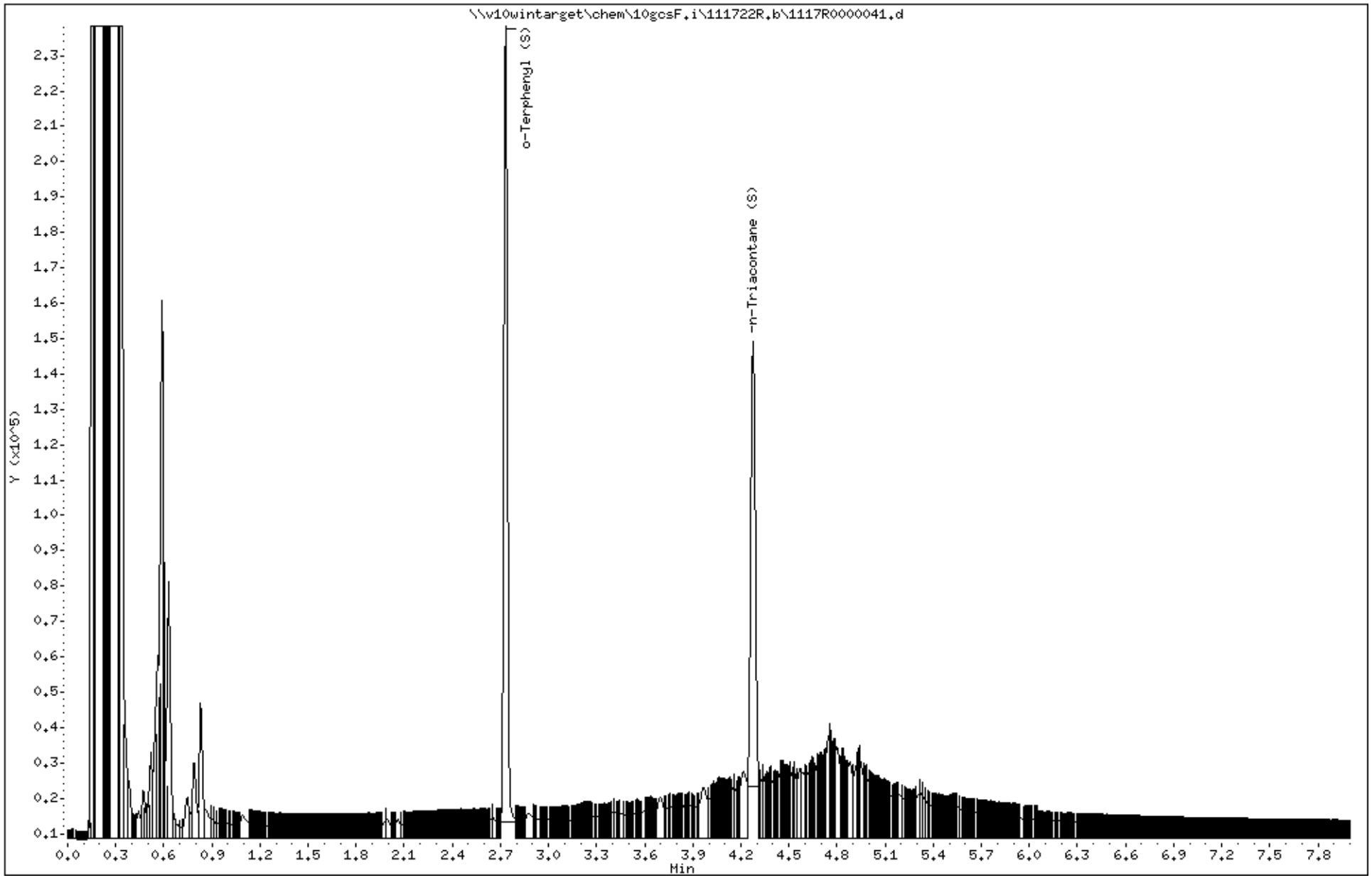
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

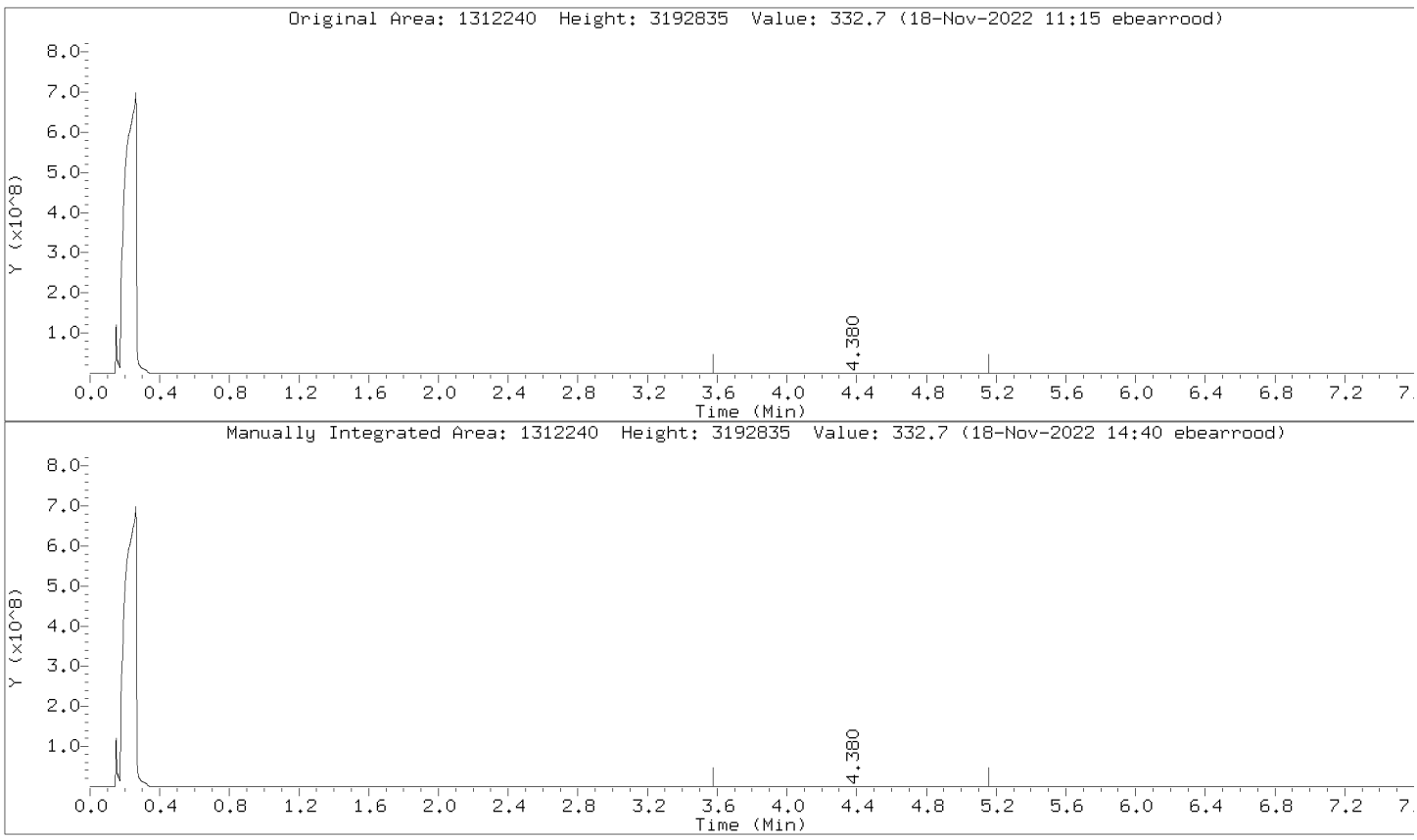
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000041.d
Date : 17-NOV-2022 18:36
Client ID: BNSF-HN300-SC-1.0-2
Sample Info: 10633981003
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



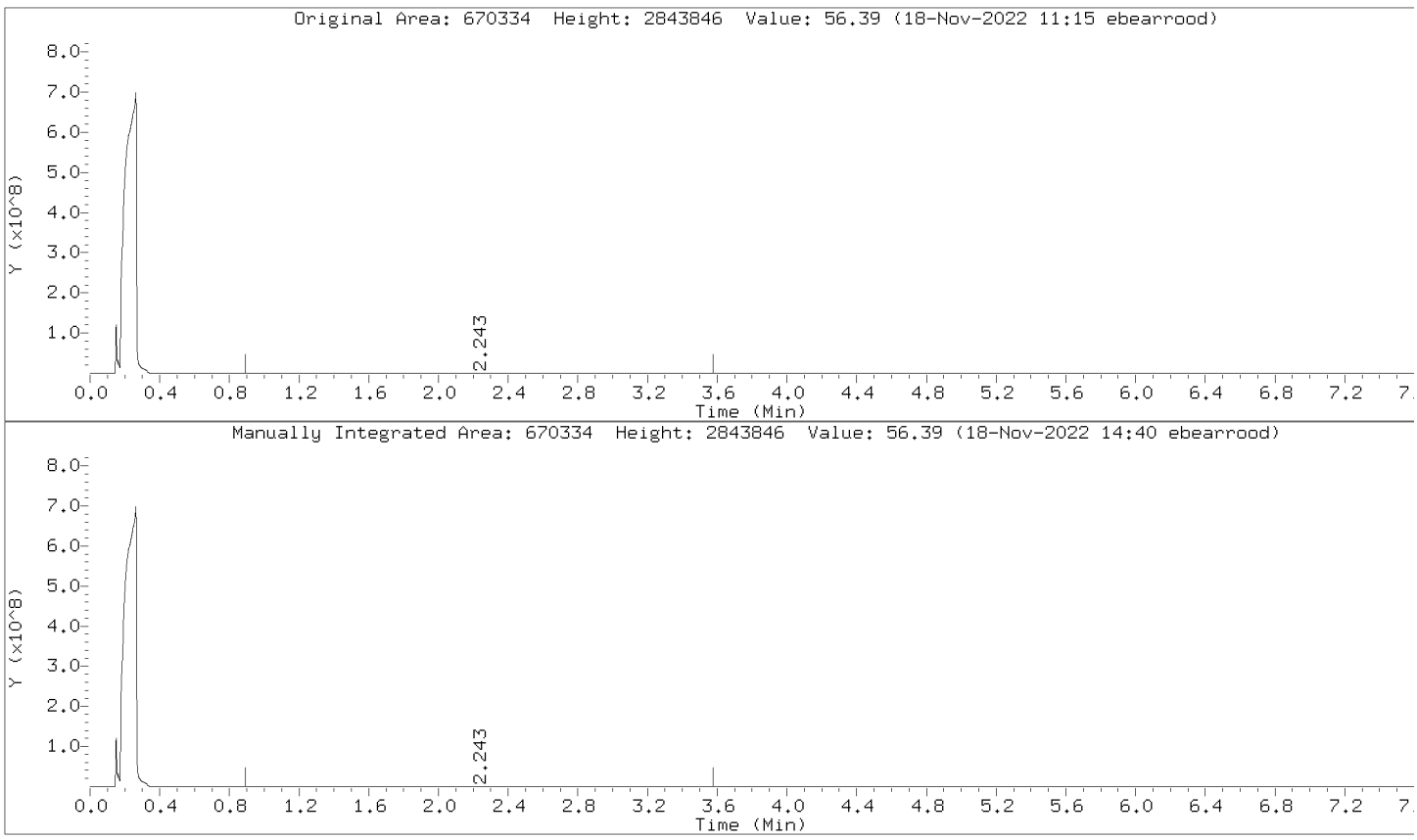
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



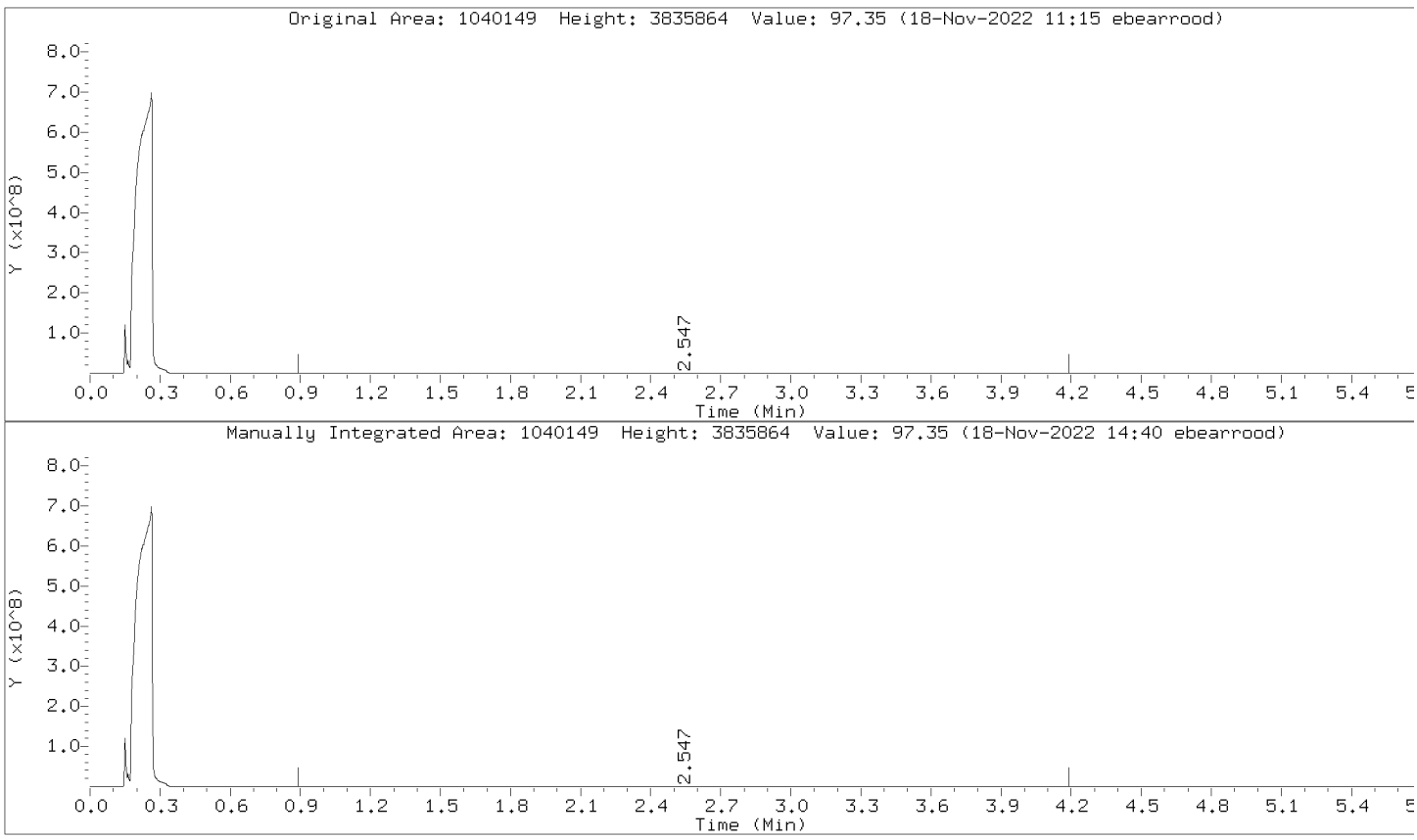
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



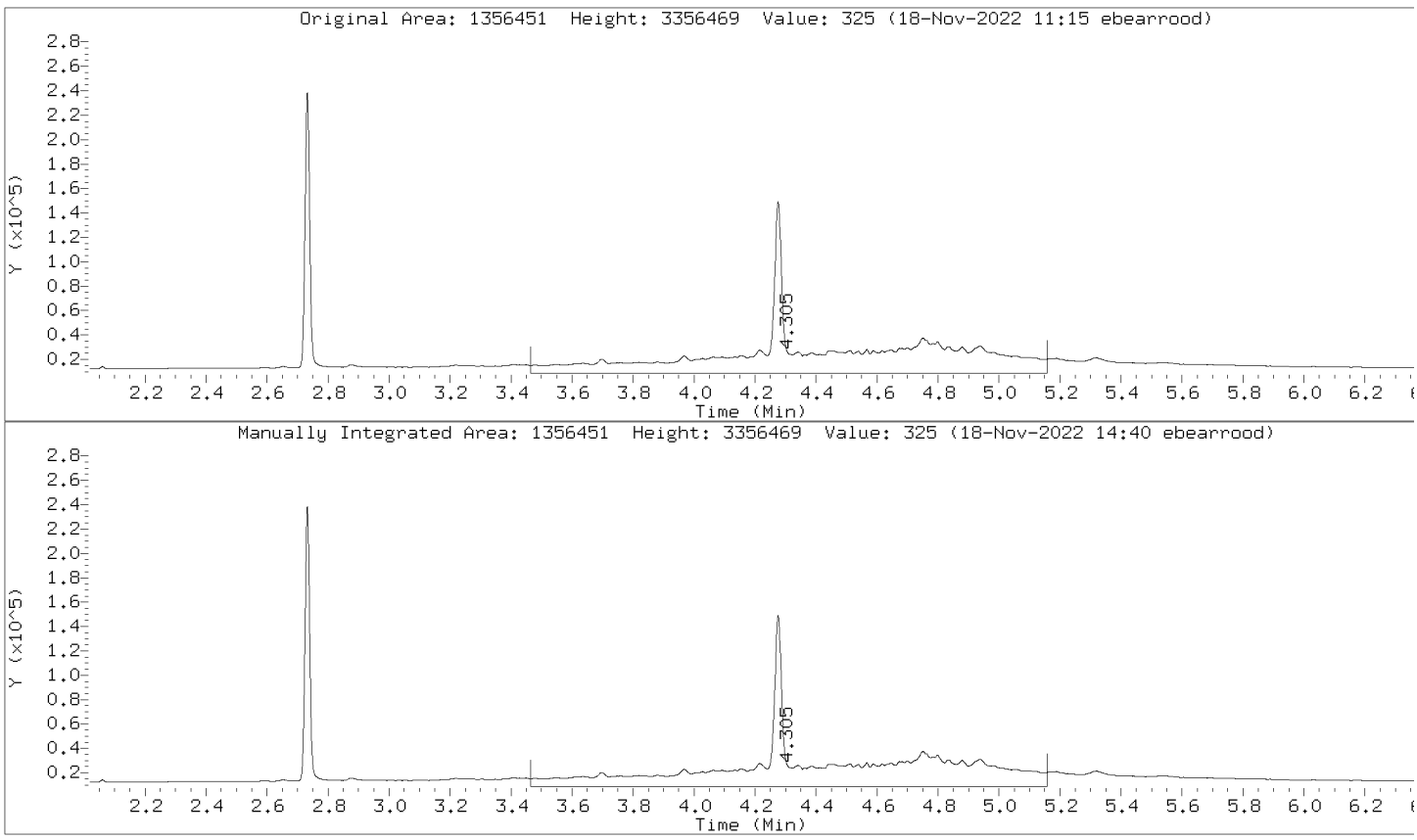
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



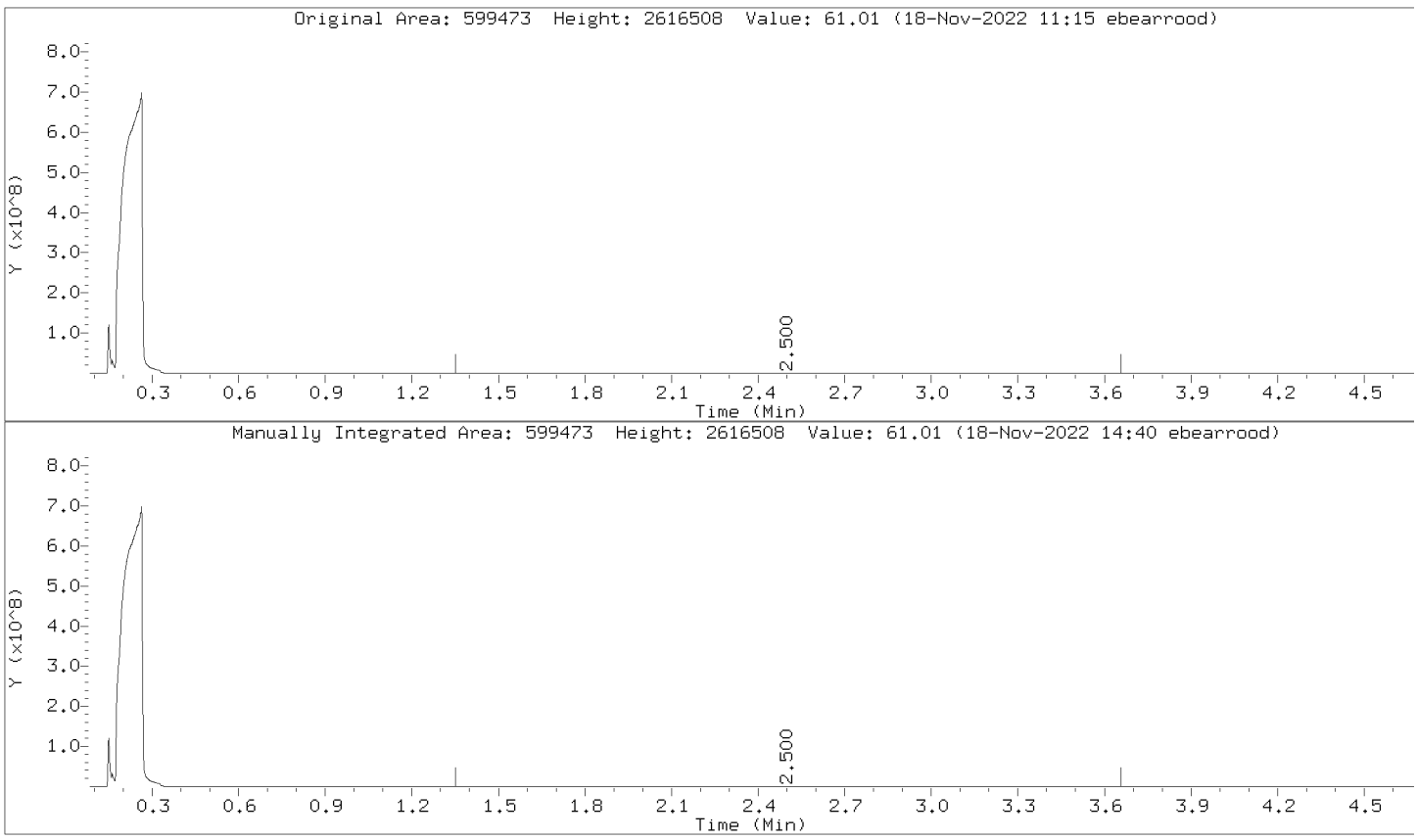
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



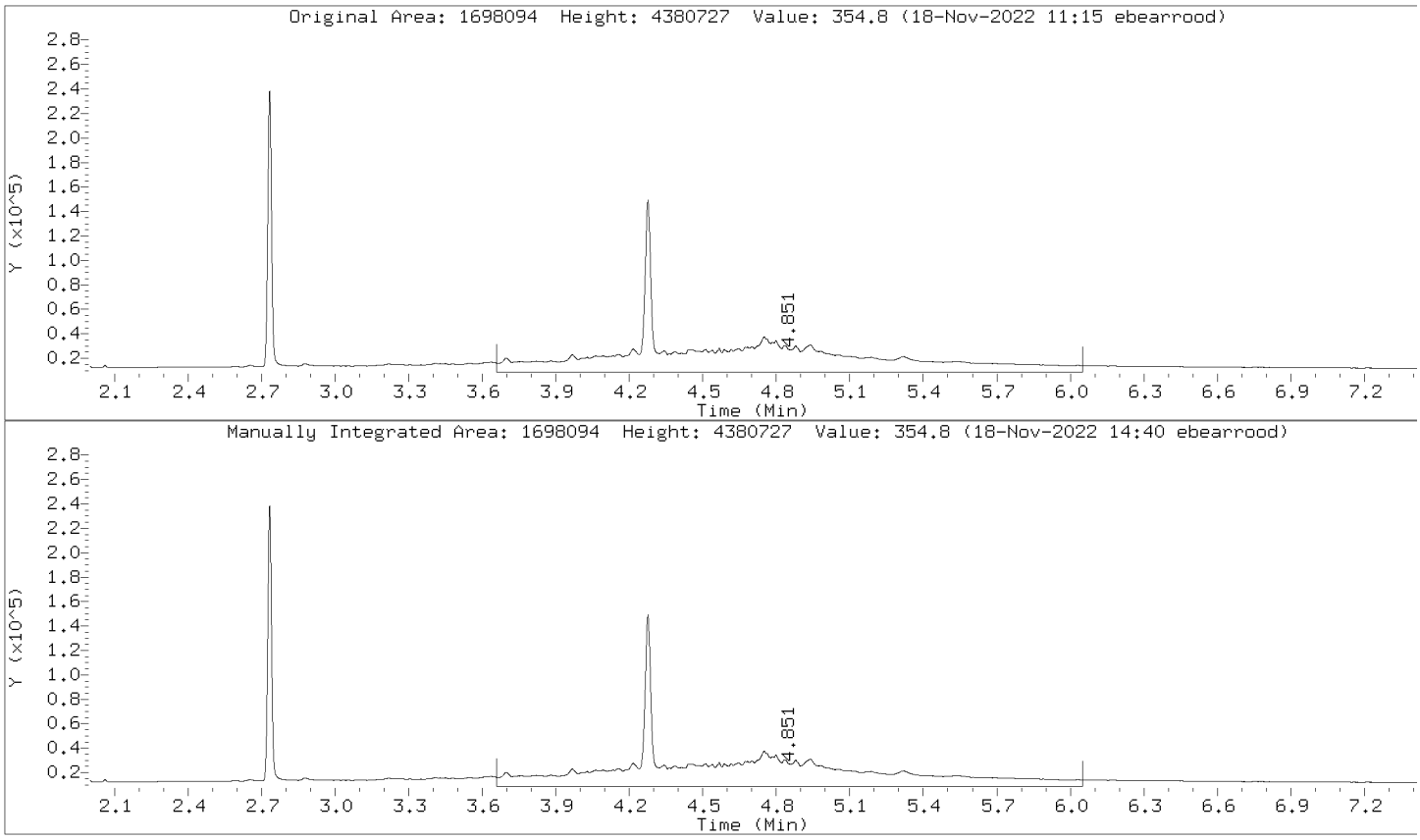
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



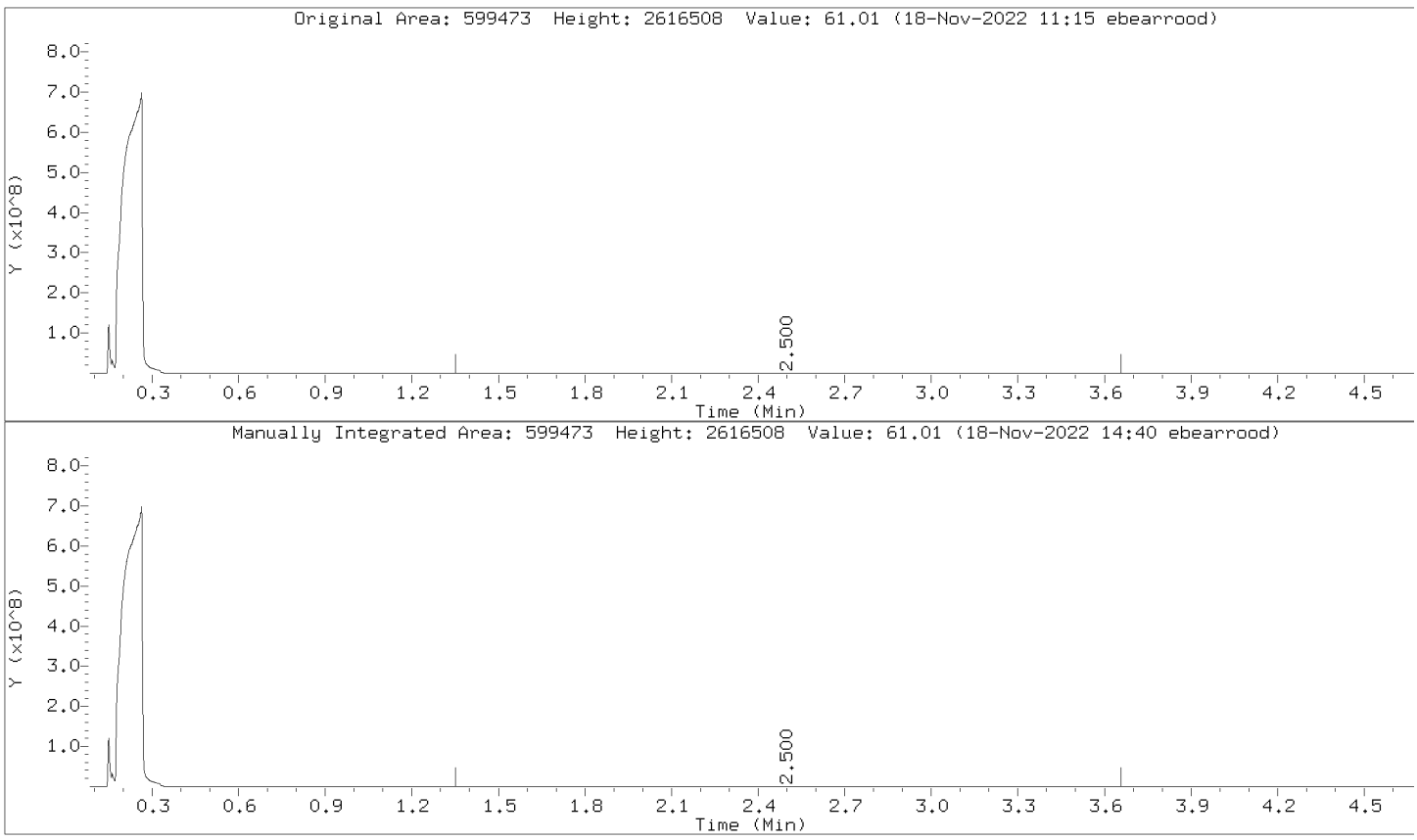
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Motor Oil Range Review Code: RNG
CAS Number:



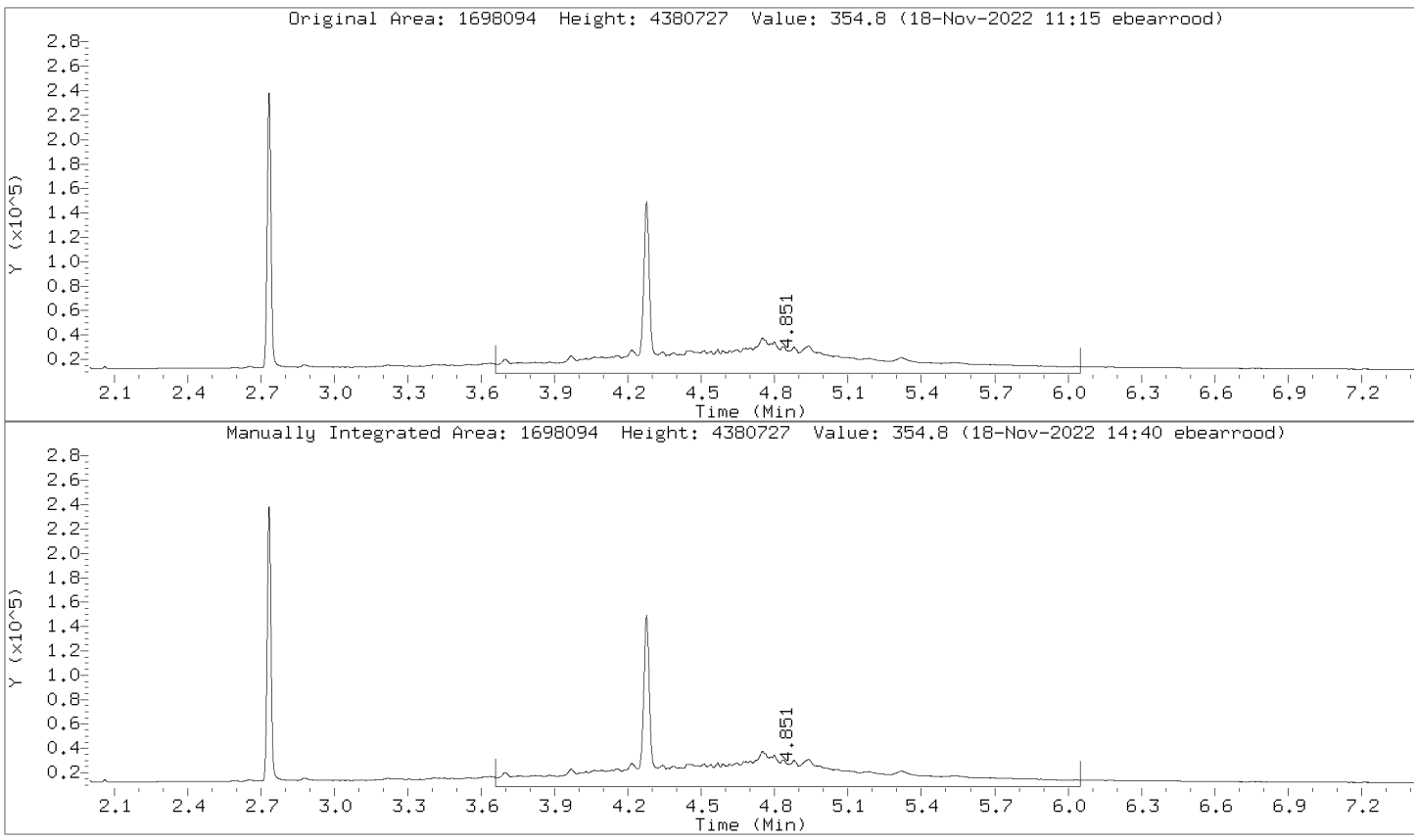
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



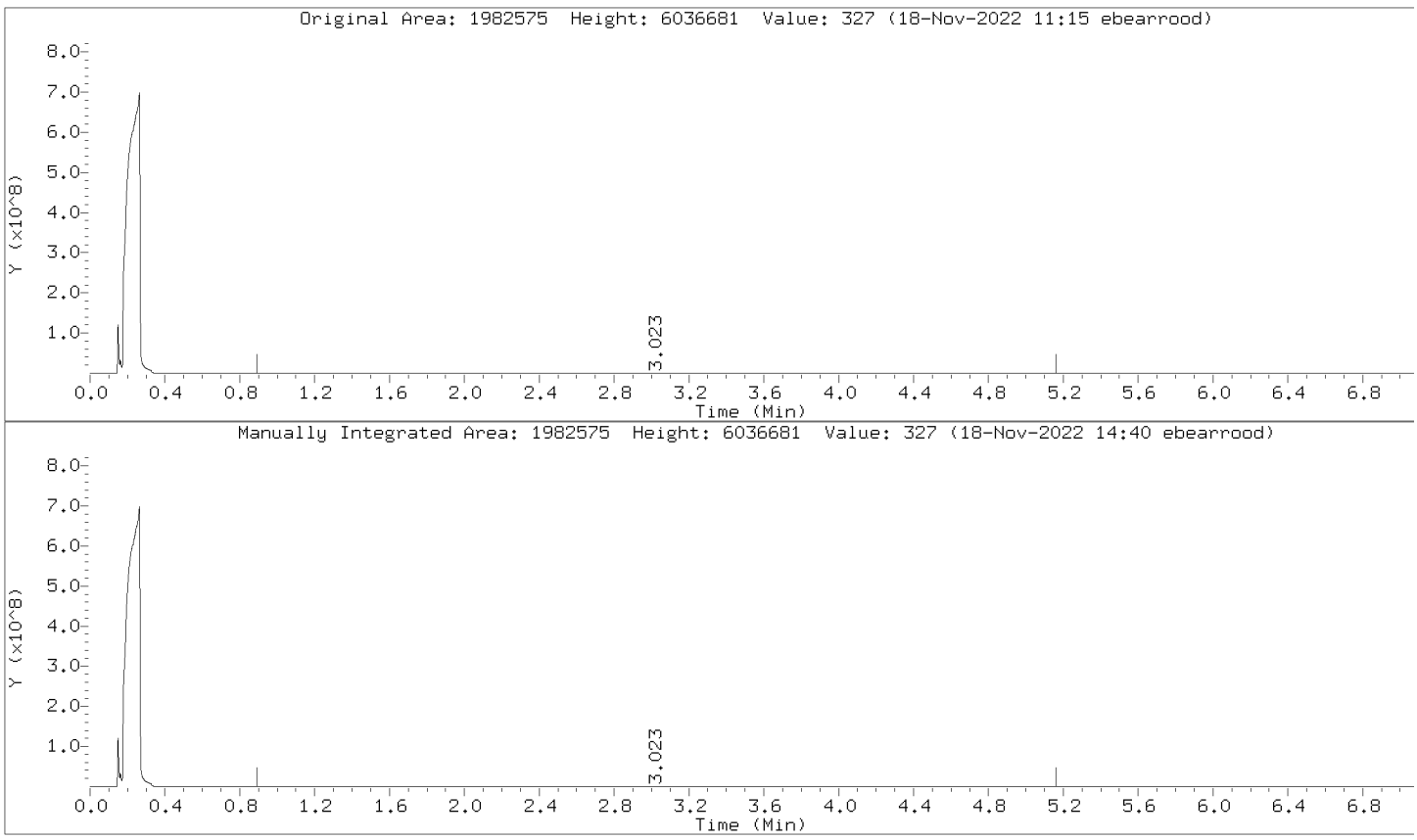
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



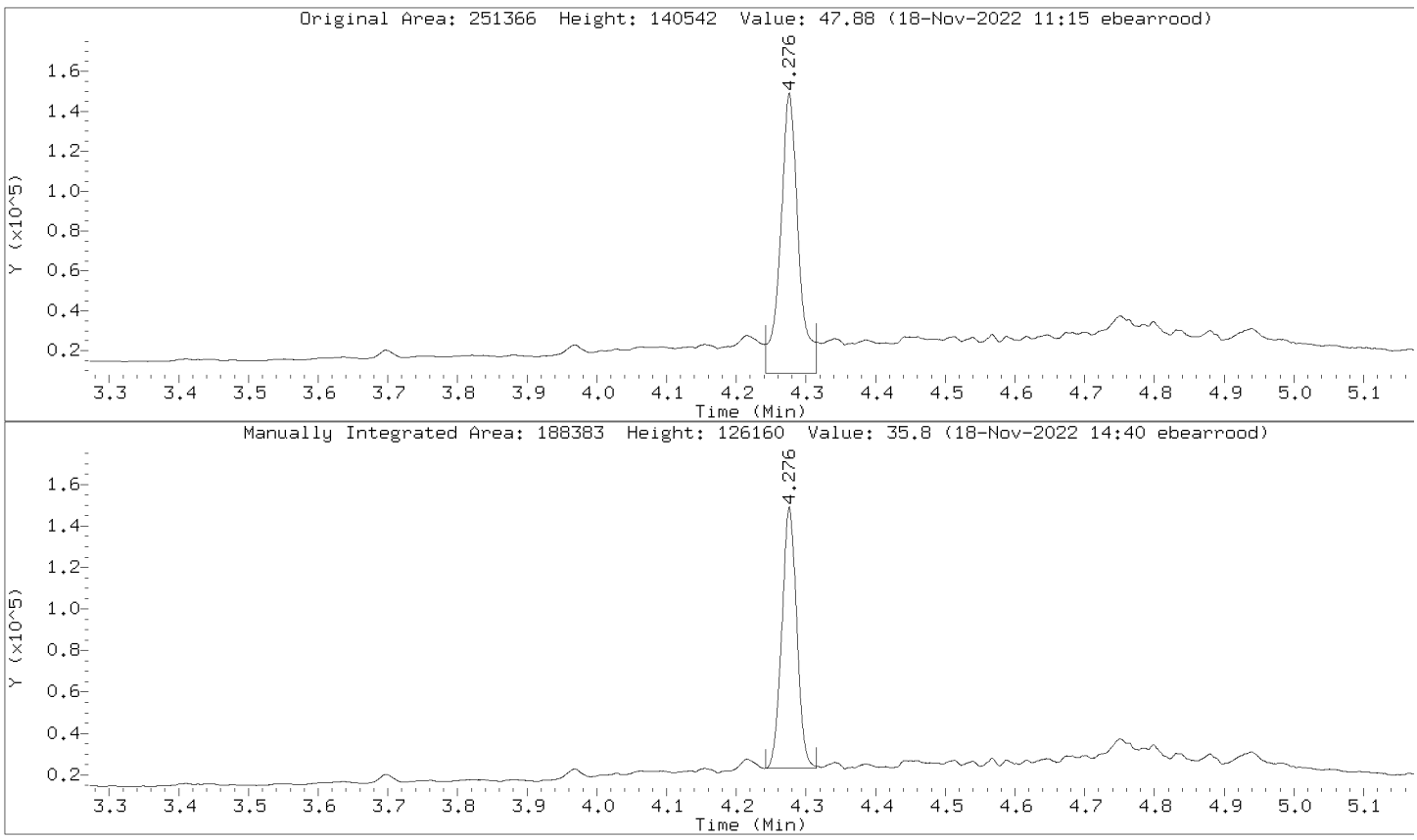
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: C10-C36 Review Code: RNG
CAS Number:



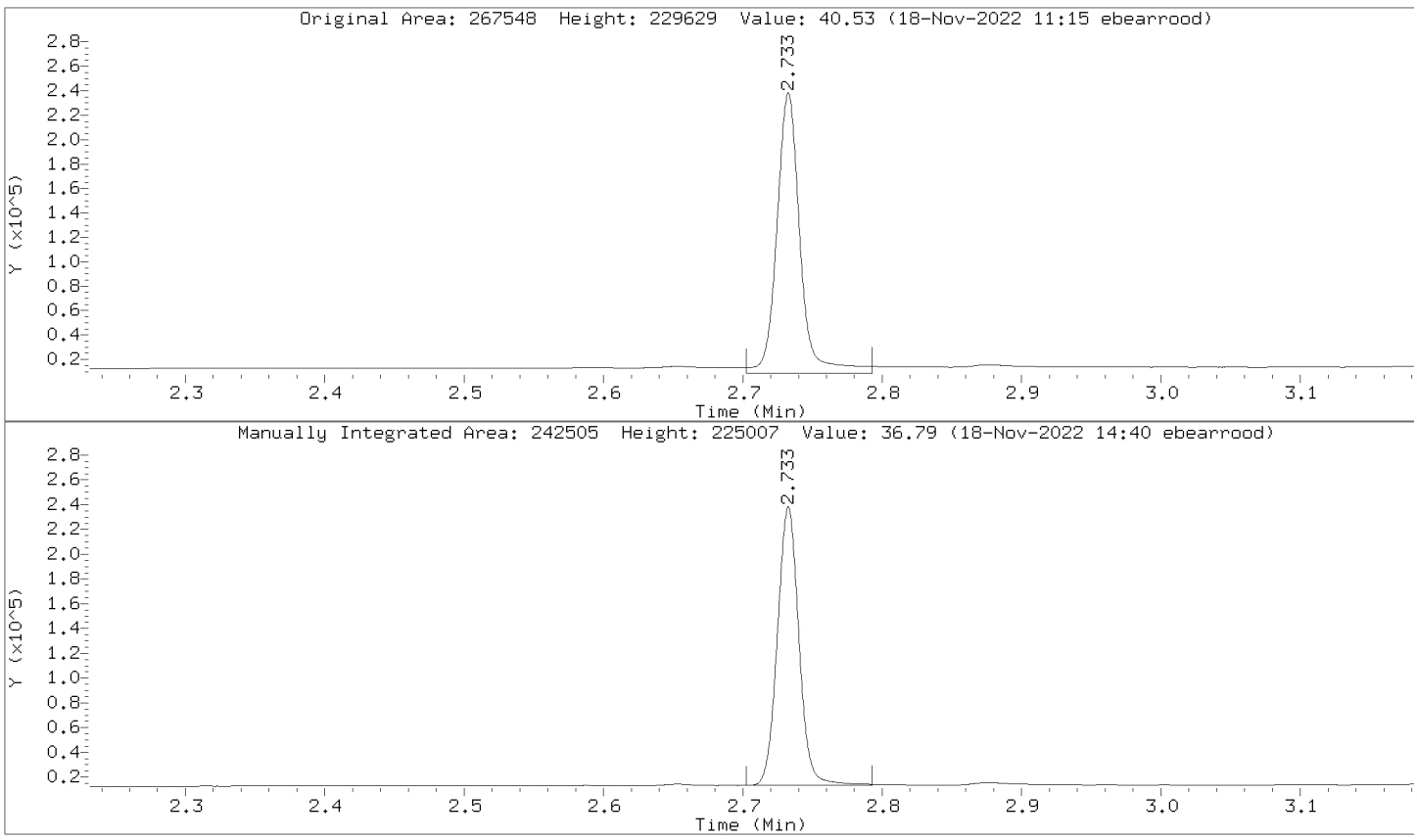
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000041.d
Injection Date: 17-NOV-2022 18:36
Instrument: 10gcsF.i
Lab Sample ID: 10633981003

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1312240	1312240
DRO by AK 102	670334	670334
TPH-DRO (C10-C28)	1040149	1040149
Motor Oil Range (C24-C36)	1356451	1356451
Diesel Fuel Range	599473	599473
Motor Oil Range	1698094	1698094
Diesel Fuel Range SG	599473	599473
Motor Oil Range SG	1698094	1698094
C10-C36	1982575	1982575
n-Triacontane (S)	251366	188383
o-Terphenyl (S)	267548	242505

SAMPLE NO.

BNSF-J060-SC-0.5-1.5-111422

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/16/2022 08:50 Matrix: Solid SDG No.: 10633981

Date Extracted: 11/16/2022 13:13 Lab Sample ID: 10633981004

Date Analyzed: 11/17/2022 18:48 Lab File ID: 111722R.B\1117R0000042.D

Initial wt/vol: 10.1 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 30.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	29.9	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000042.d
Lab Smp Id: 10633981004 Client Smp ID: BNSF-J060-SC-0.5-1.
Inj Date : 17-NOV-2022 18:48
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633981004
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.100	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.600			628921	49.0747	4.86	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.731	0.001	256158	38.8281	3.84	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.273	4.272	0.001	190943	36.2902	3.59	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601 - 5.160			837974	200.897	19.9	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.210			884457	73.6721	7.29	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.160			886253	200.287	19.8	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		1466896	215.846	21.4	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		543549	49.2743	4.88	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		543549	49.2743	4.88	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		1062457	209.932	20.8	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		1062457	209.932	20.8	(M)	RNG

QC Flag Legend

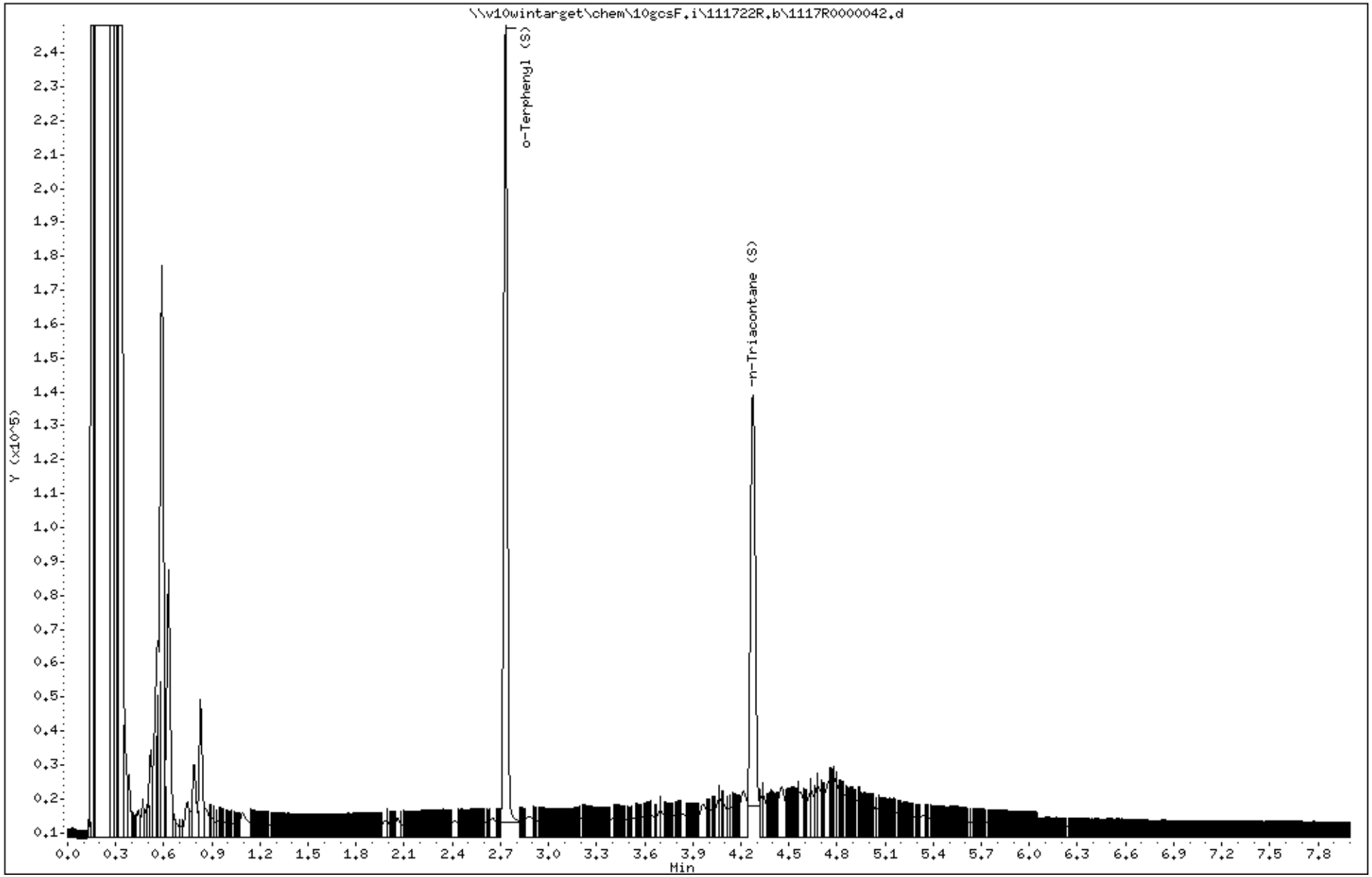
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

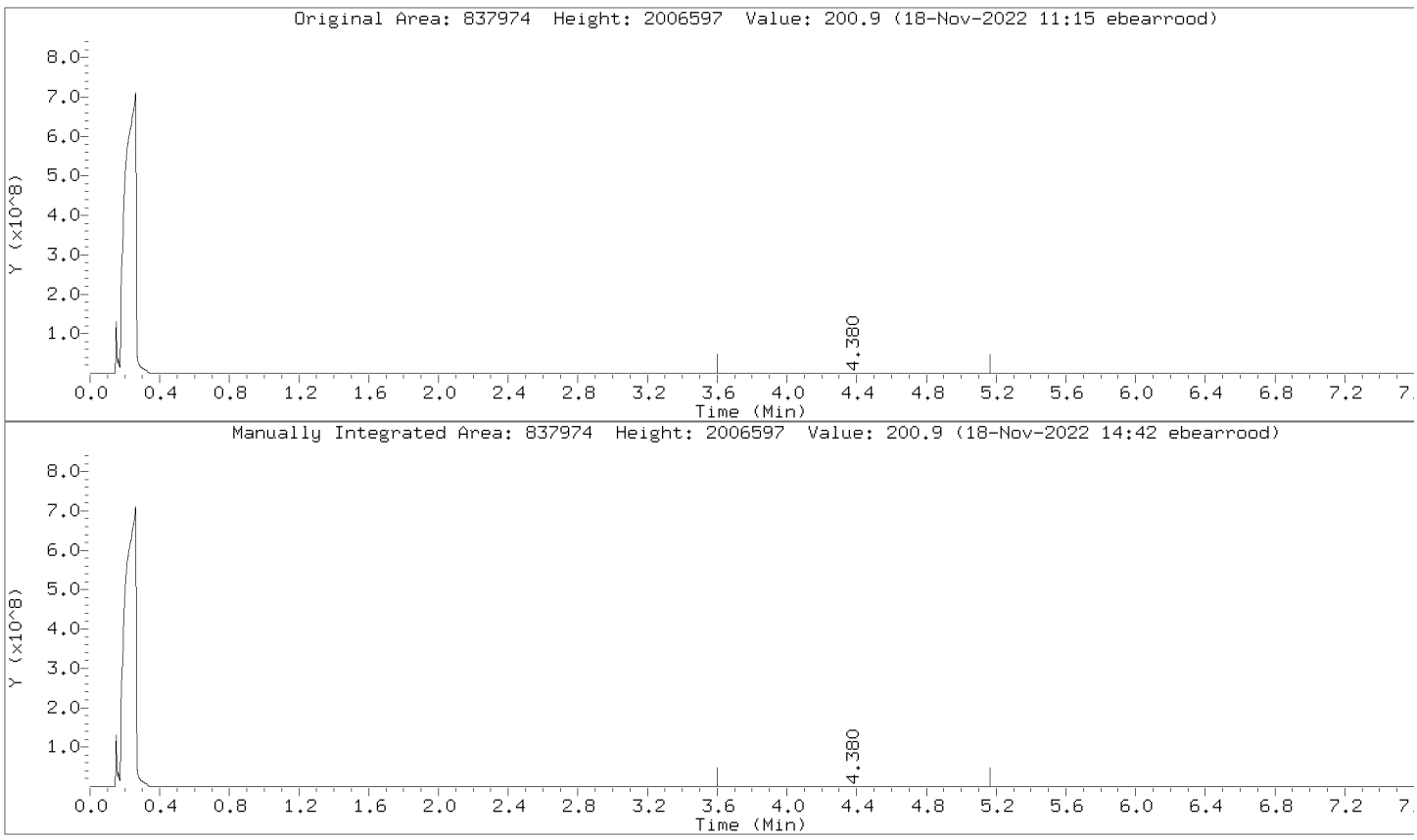
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000042.d
Date : 17-NOV-2022 18:48
Client ID: BNSF-J060-SC-0.5-1.
Sample Info: 10633981004
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



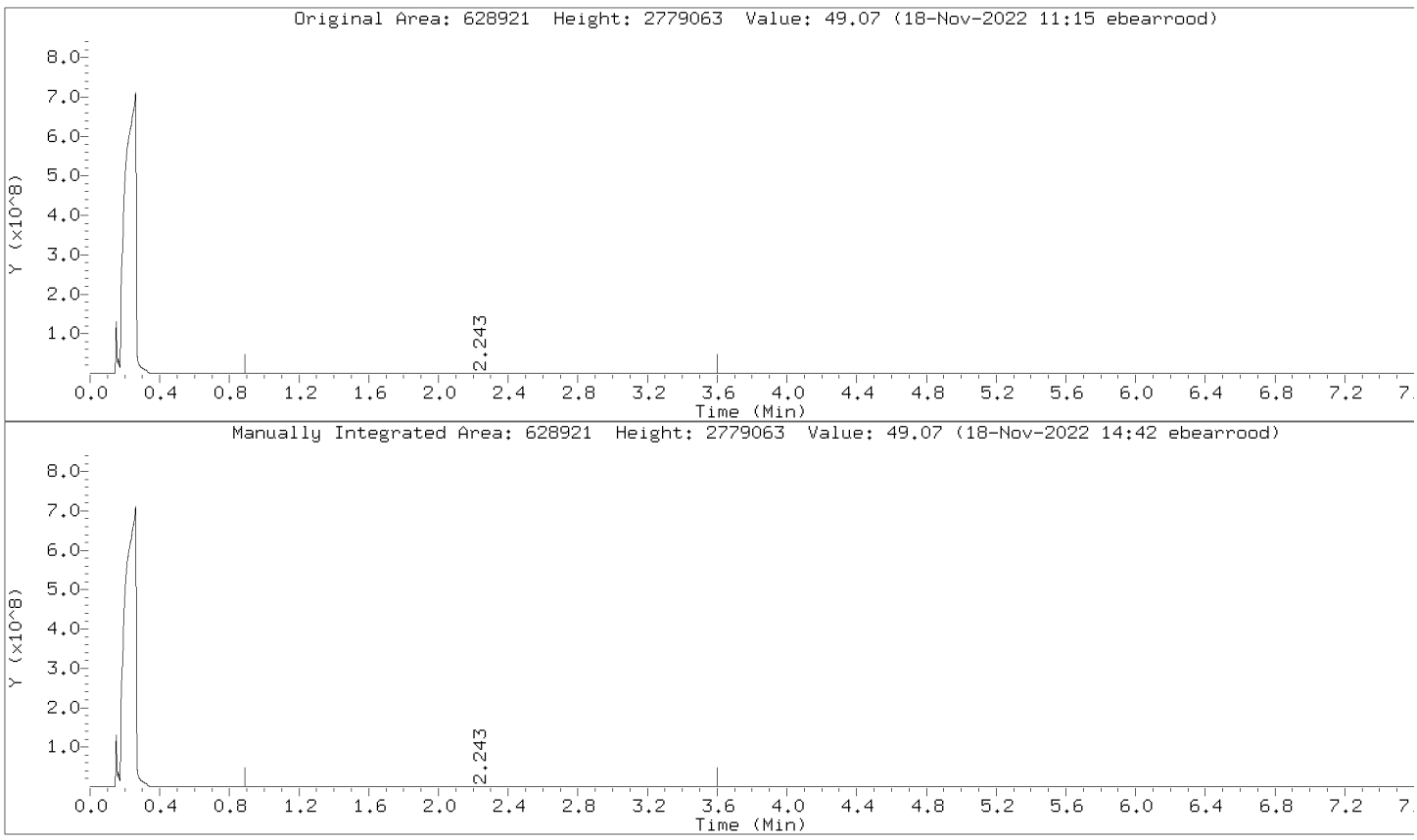
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



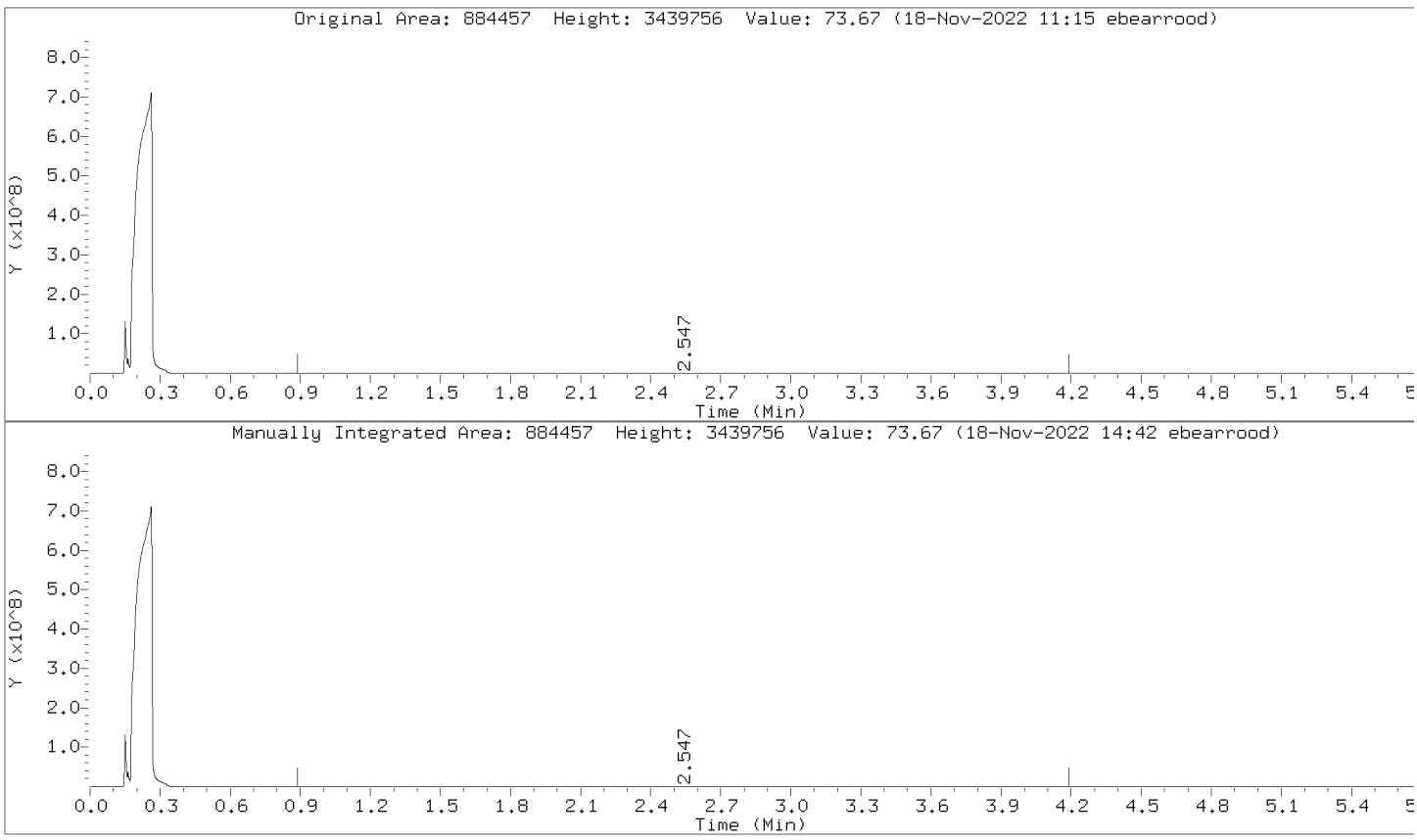
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



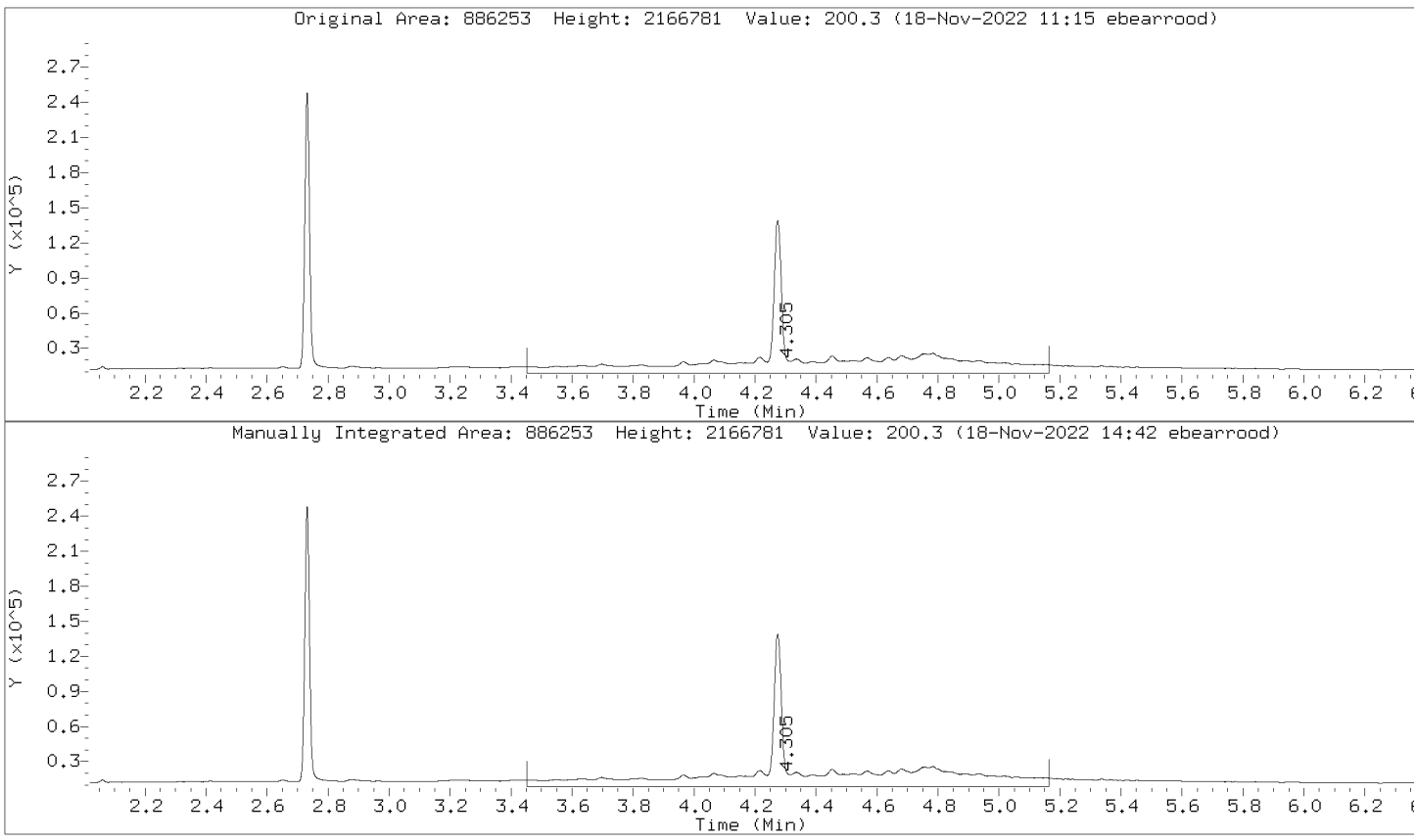
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



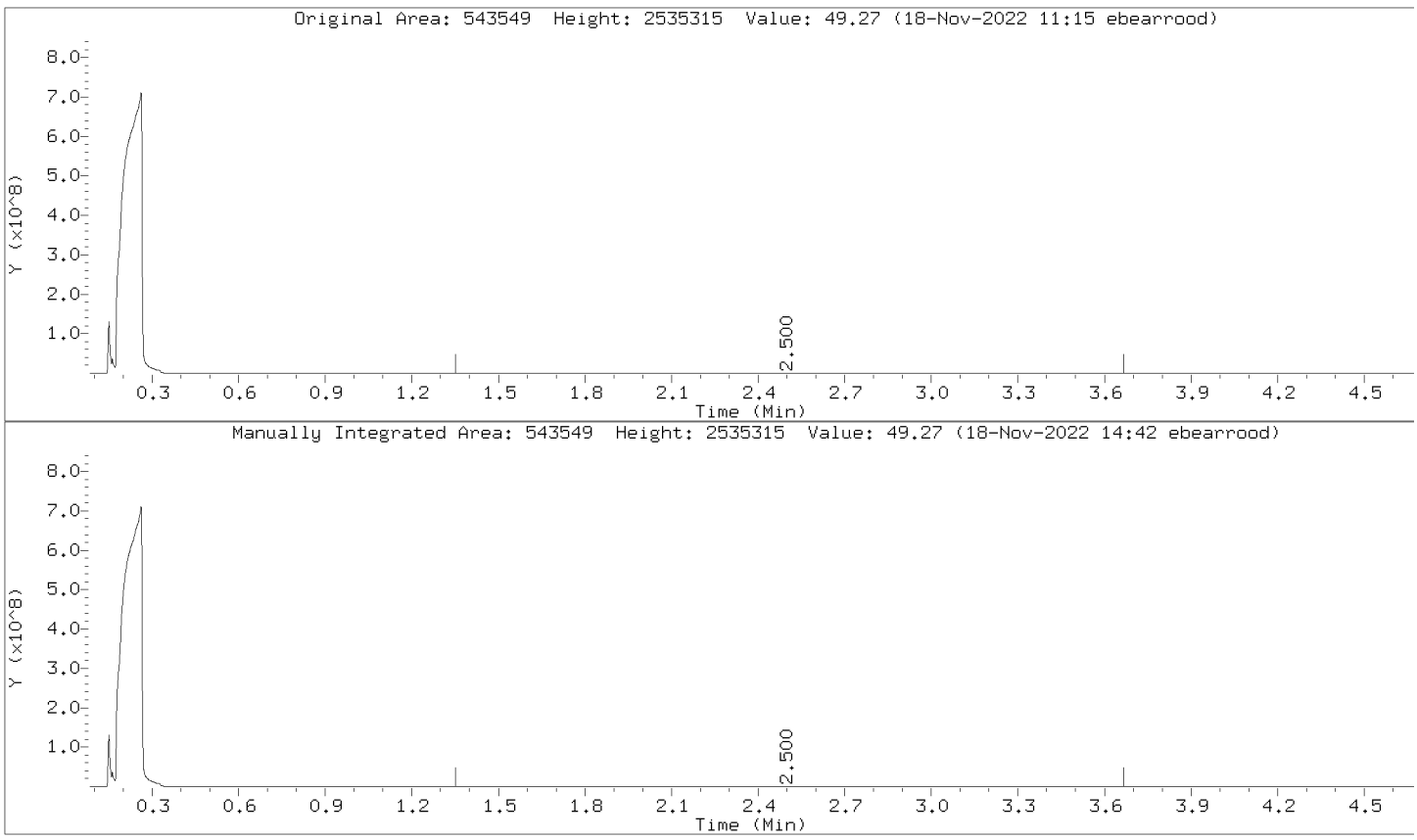
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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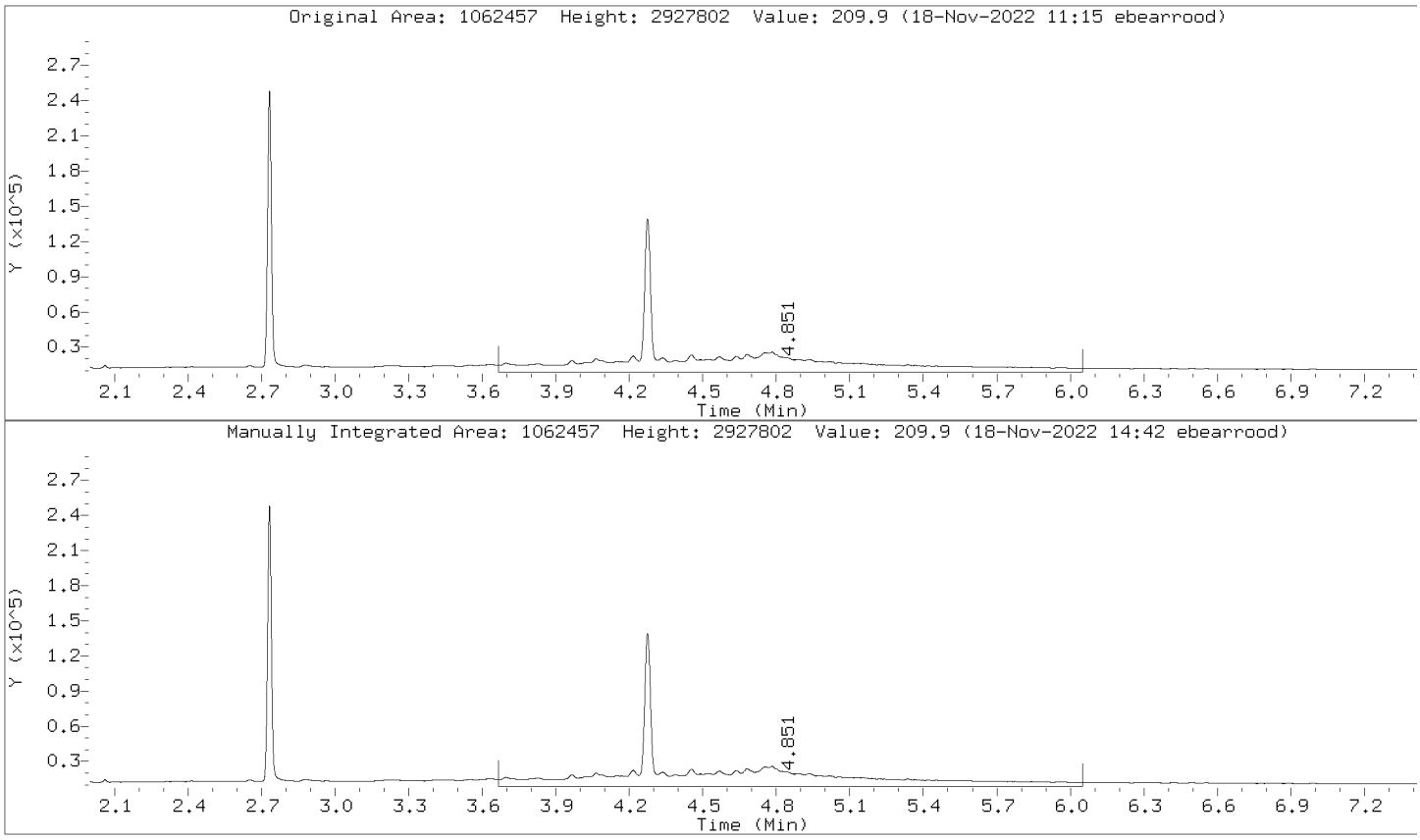
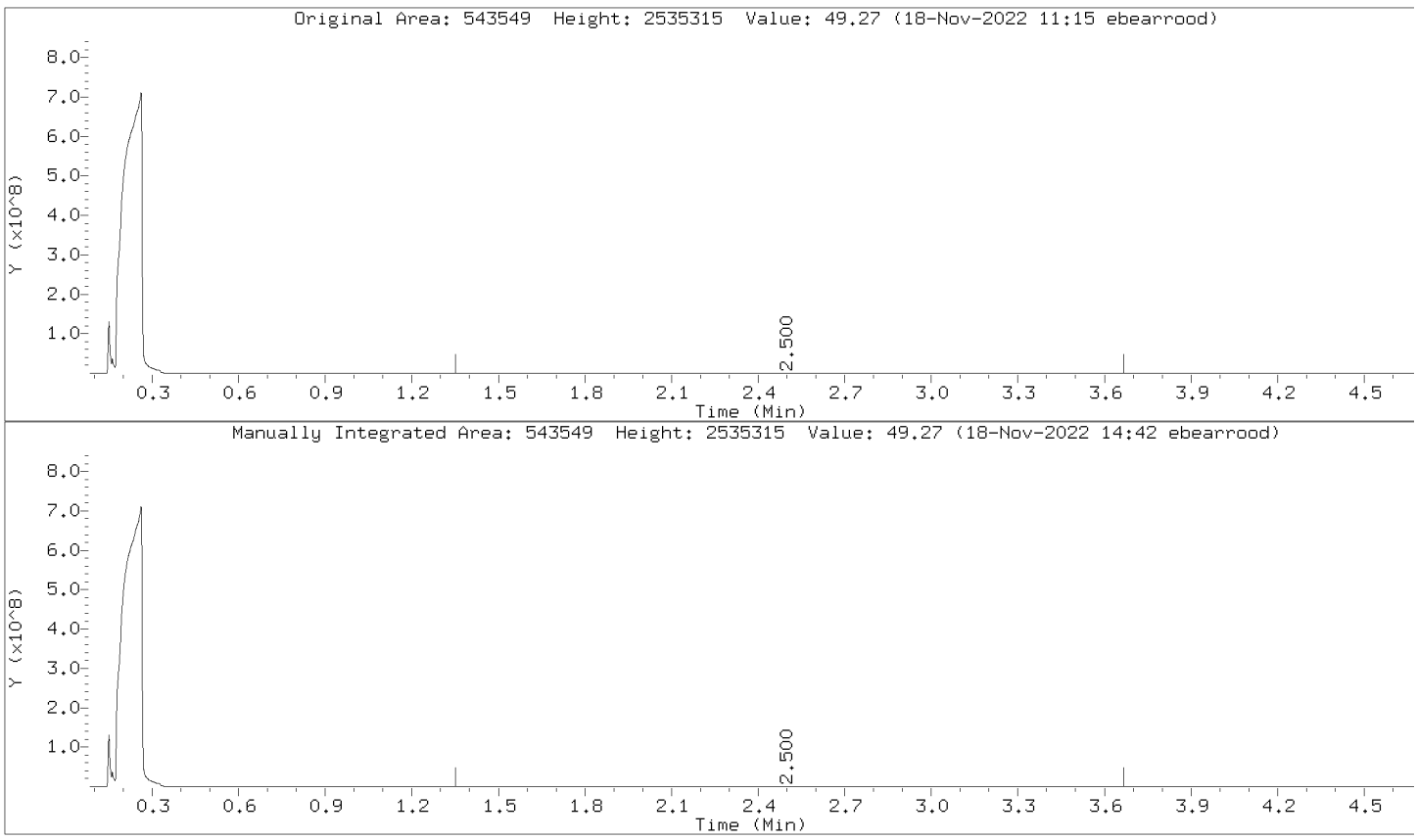
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Motor Oil Range Review Code: RNG
CAS Number:



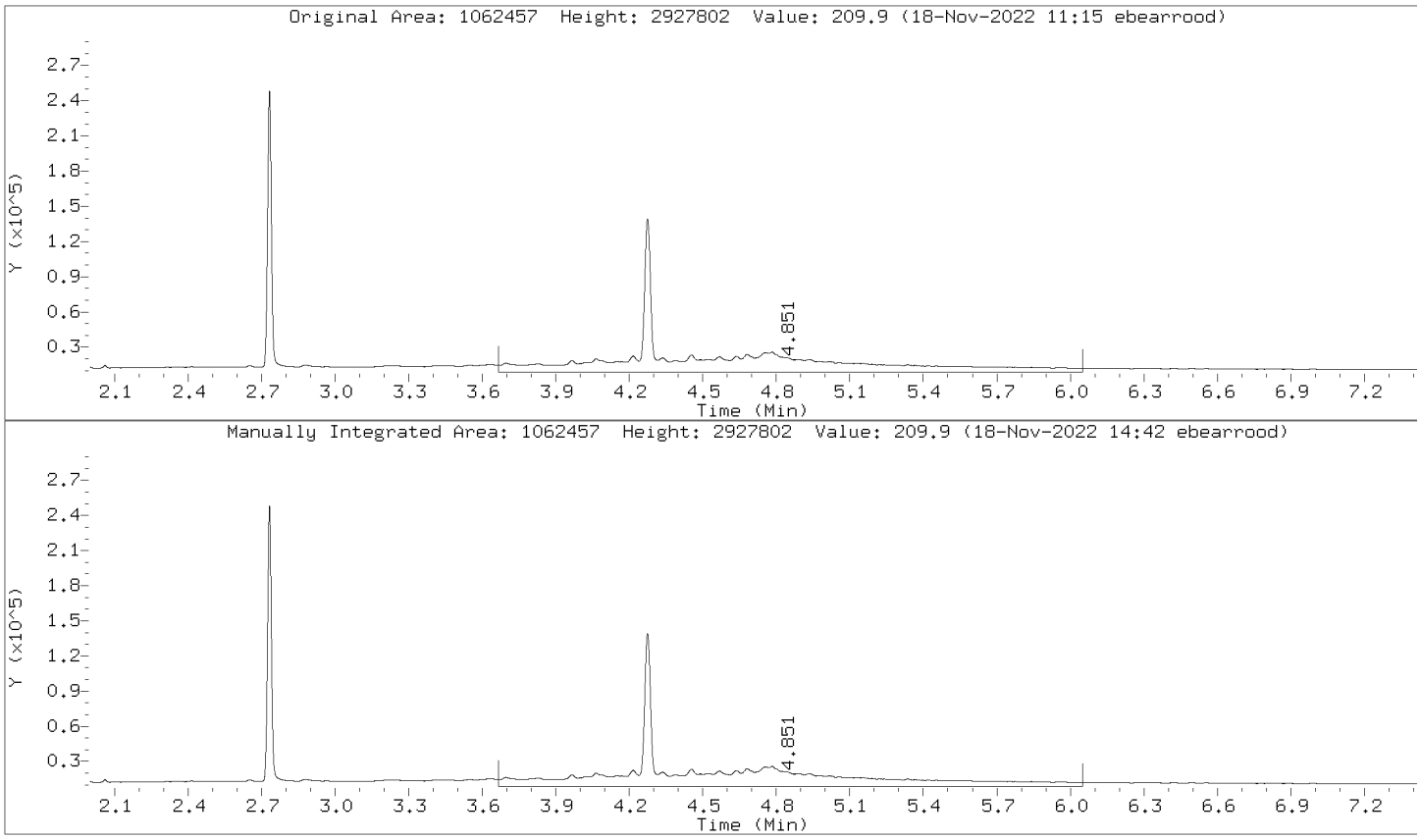
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



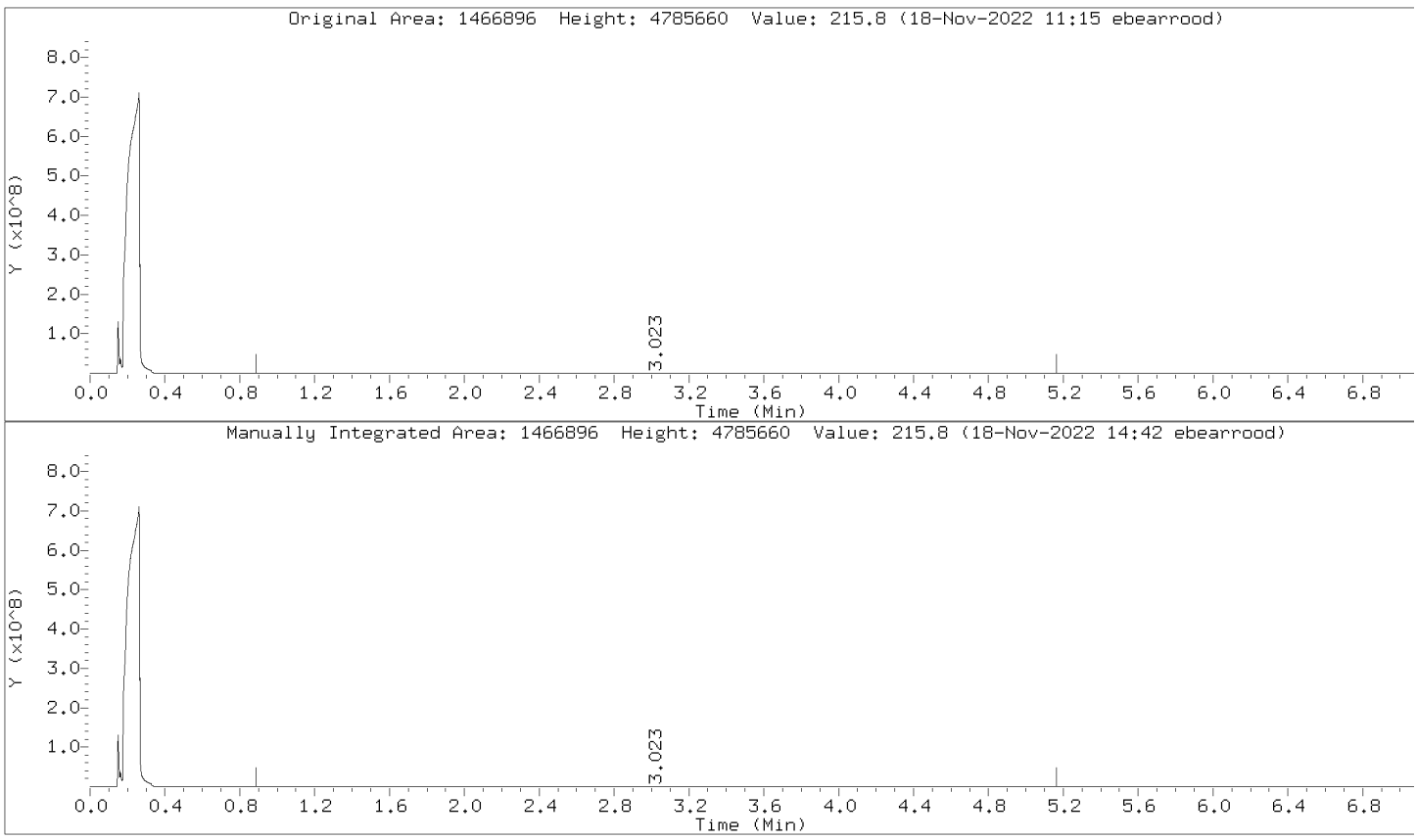
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



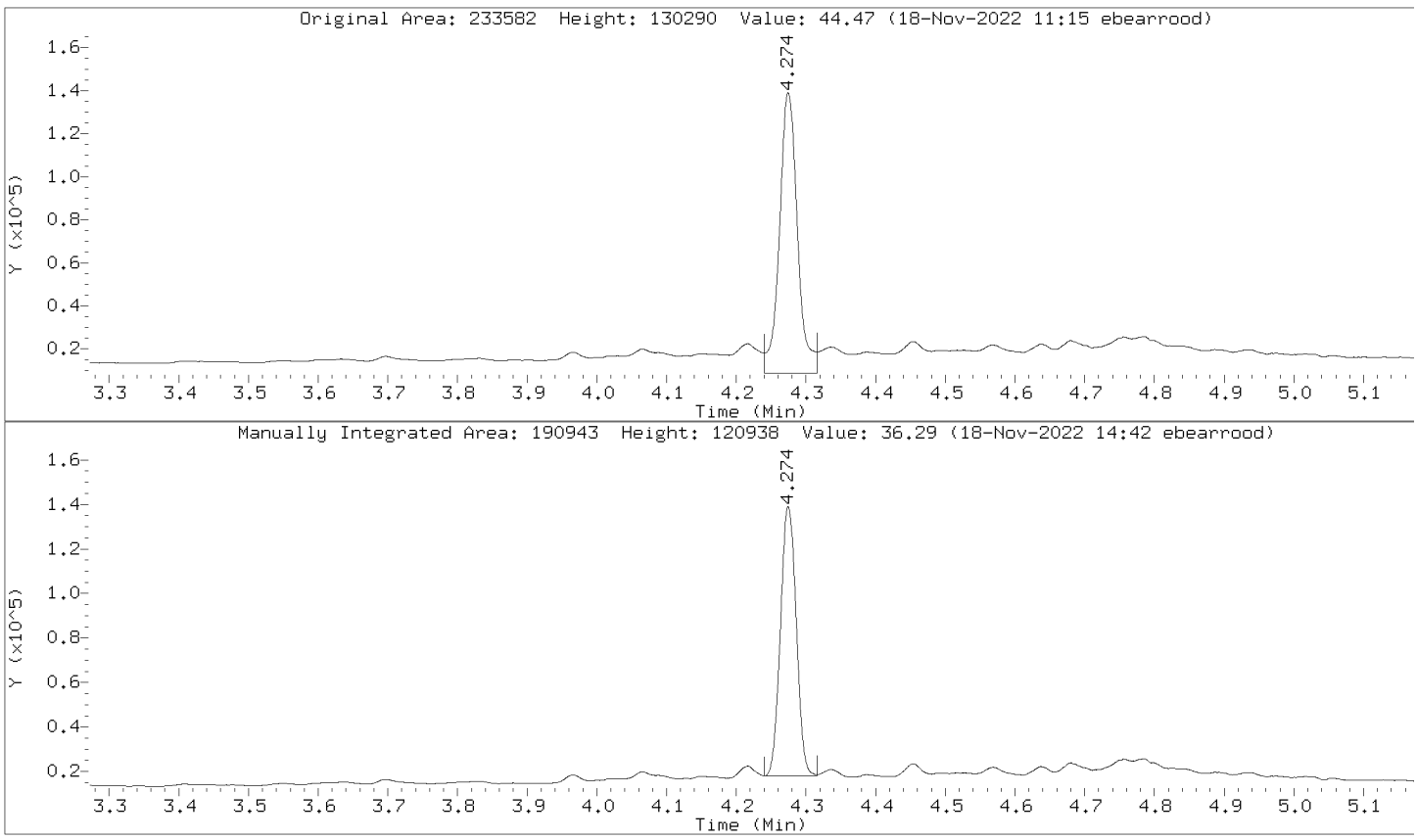
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: C10-C36 Review Code: RNG
CAS Number:



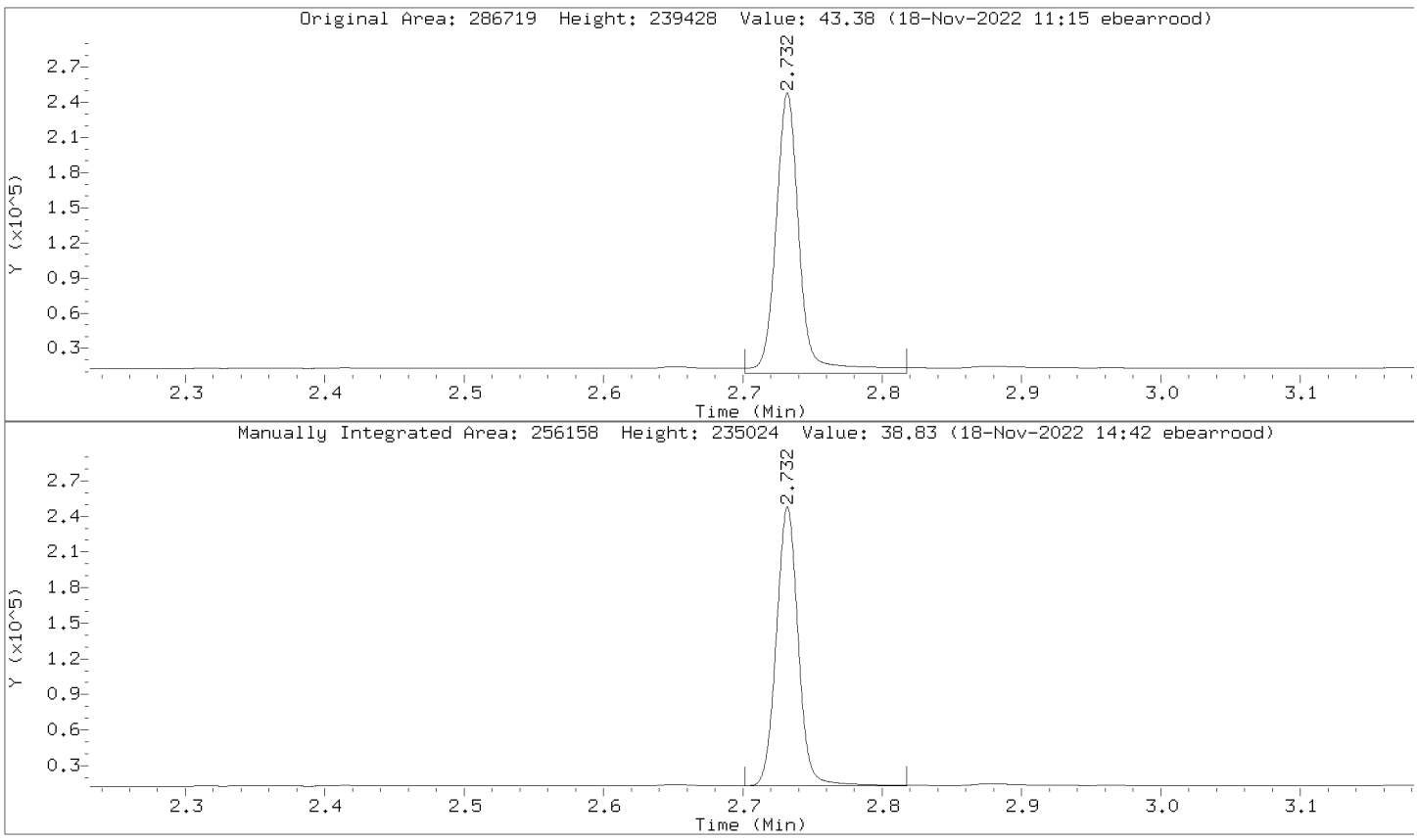
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000042.d
Injection Date: 17-NOV-2022 18:48
Instrument: 10gcsF.i
Lab Sample ID: 10633981004

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	837974	837974
DRO by AK 102	628921	628921
TPH-DRO (C10-C28)	884457	884457
Motor Oil Range (C24-C36)	886253	886253
Diesel Fuel Range	543549	543549
Motor Oil Range	1062457	1062457
Diesel Fuel Range SG	543549	543549
Motor Oil Range SG	1062457	1062457
C10-C36	1466896	1466896
n-Triacontane (S)	233582	190943
o-Terphenyl (S)	286719	256158

SAMPLE NO.

BNSF-J060-SC-8.5-9.5-111422

GC-FID DRO - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600

Date Received: 11/16/2022 08:50 Matrix: Solid SDG No.: 10633981

Date Extracted: 11/16/2022 13:13 Lab Sample ID: 10633981005

Date Analyzed: 11/17/2022 19:33 Lab File ID: 111722R.B\1117R0000046.D

Initial wt/vol: 10.12 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture: 20.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000046.d
Lab Smp Id: 10633981005 Client Smp ID: BNSF-J060-SC-8.5-9.
Inj Date : 17-NOV-2022 19:33
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633981005
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.120	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.600			392066	7.22512	0.714	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.731	0.001	261416	39.6121	3.91	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.272	0.003	200989	38.2166	3.78	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601 - 5.160			204963	24.9606	2.47	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.210			470597	10.7323	1.06	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.160			220114	23.6349	2.34	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		597123	28.3939	2.80	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		327332	3.90965	0.386	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		327332	3.90965	0.386	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		284128	32.5658	3.22	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		284128	32.5658	3.22	(M)	RNG

QC Flag Legend

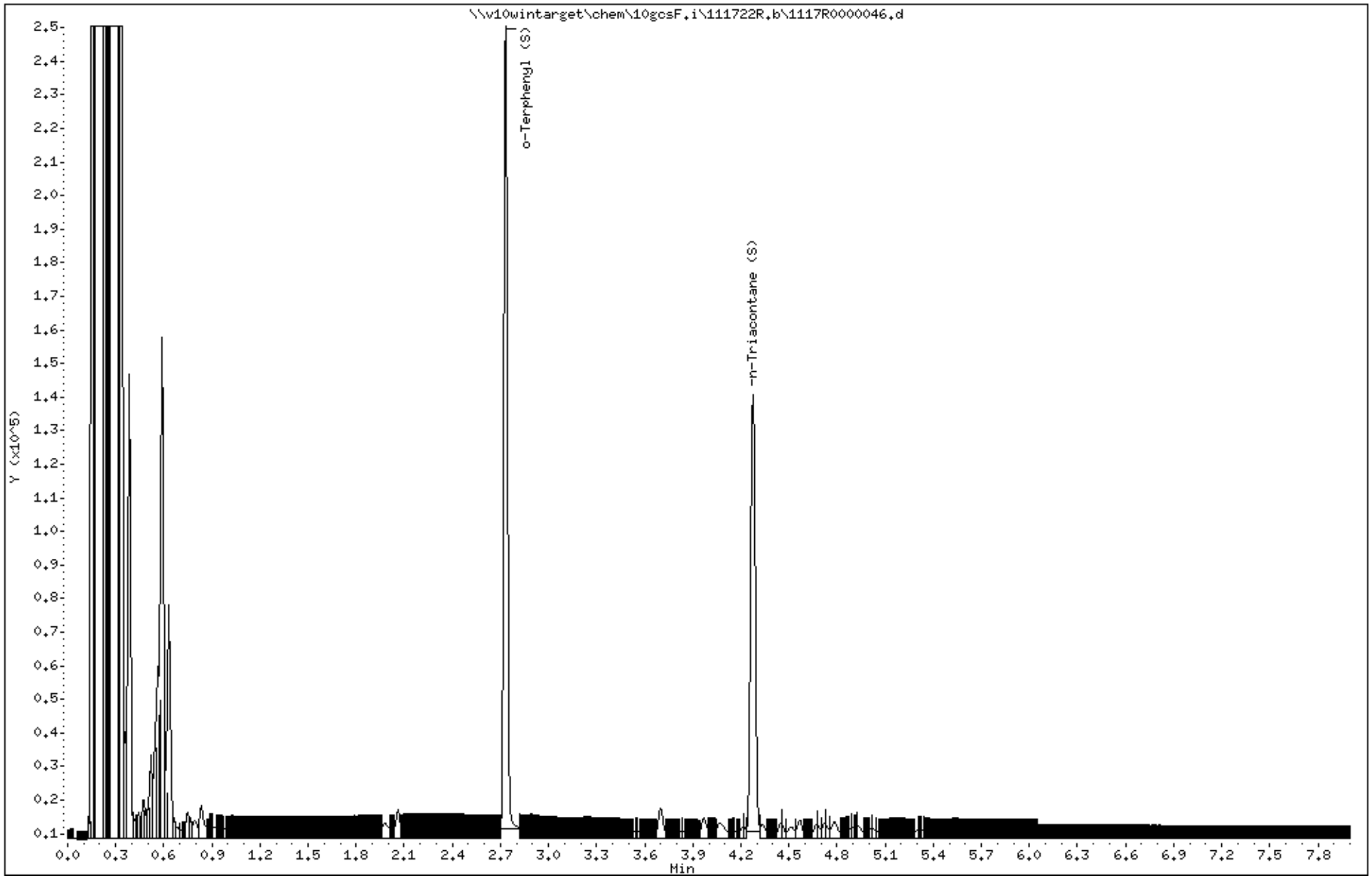
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

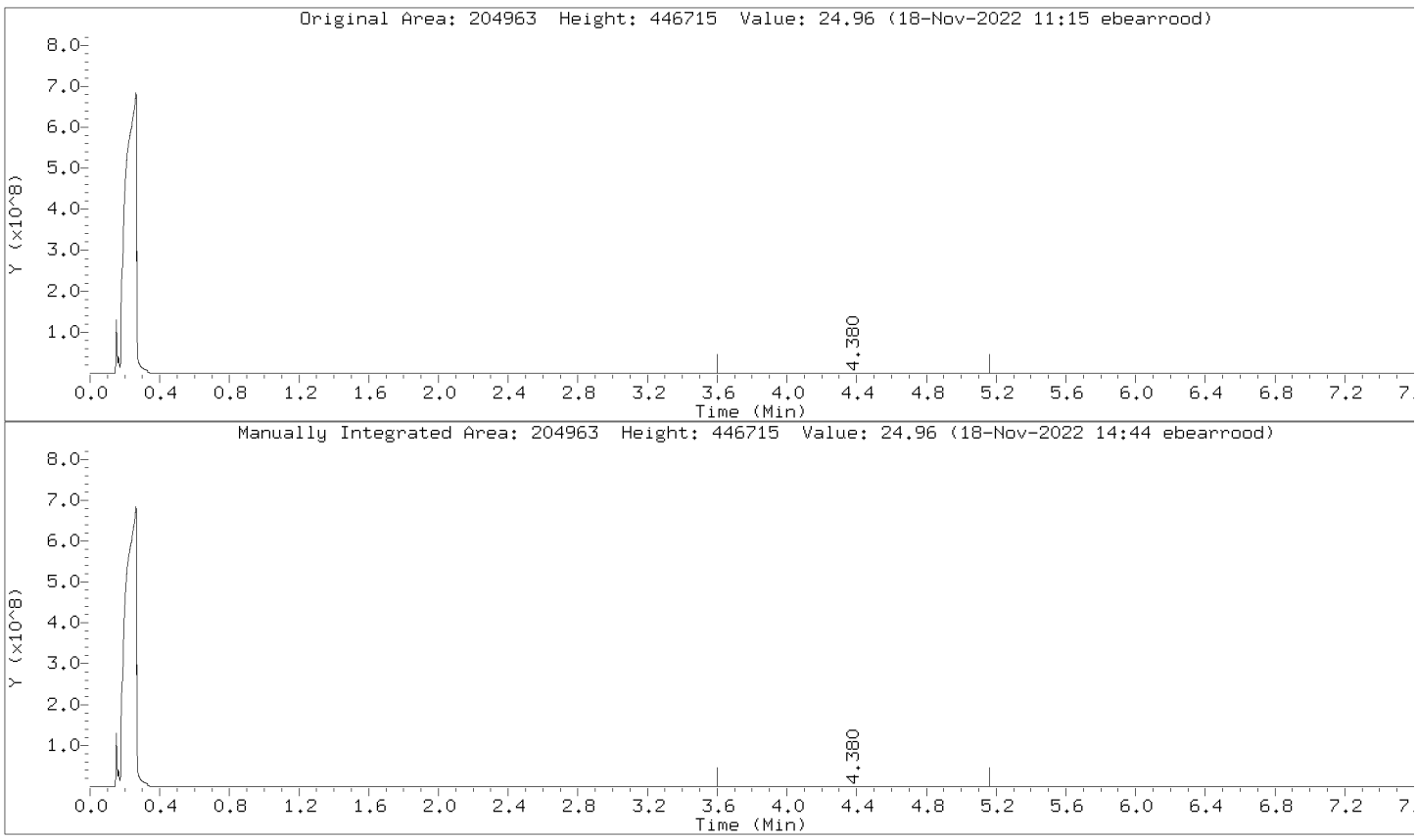
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000046.d
Date : 17-NOV-2022 19:33
Client ID: BNSF-J060-SC-8.5-9.
Sample Info: 10633981005
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000046.d
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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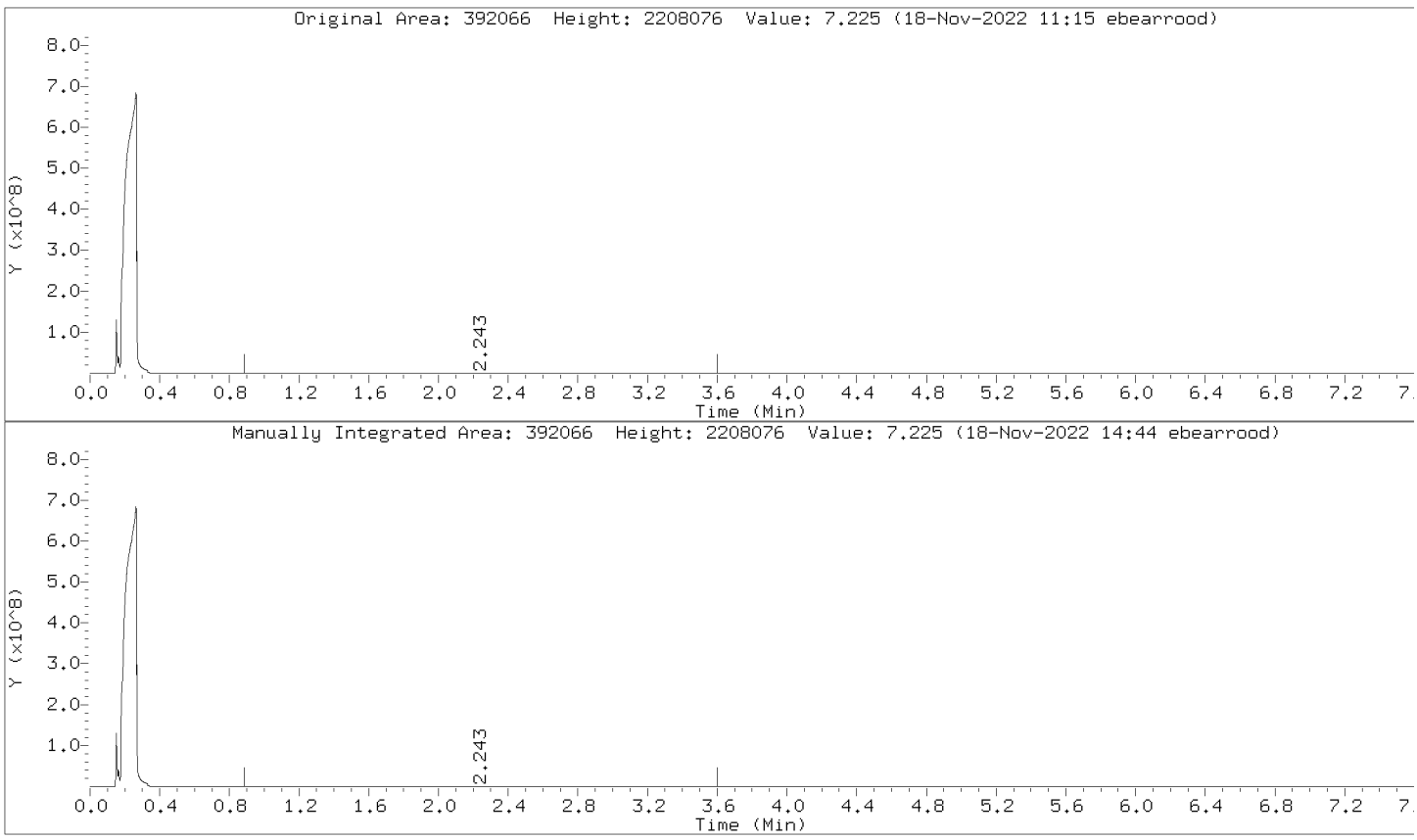
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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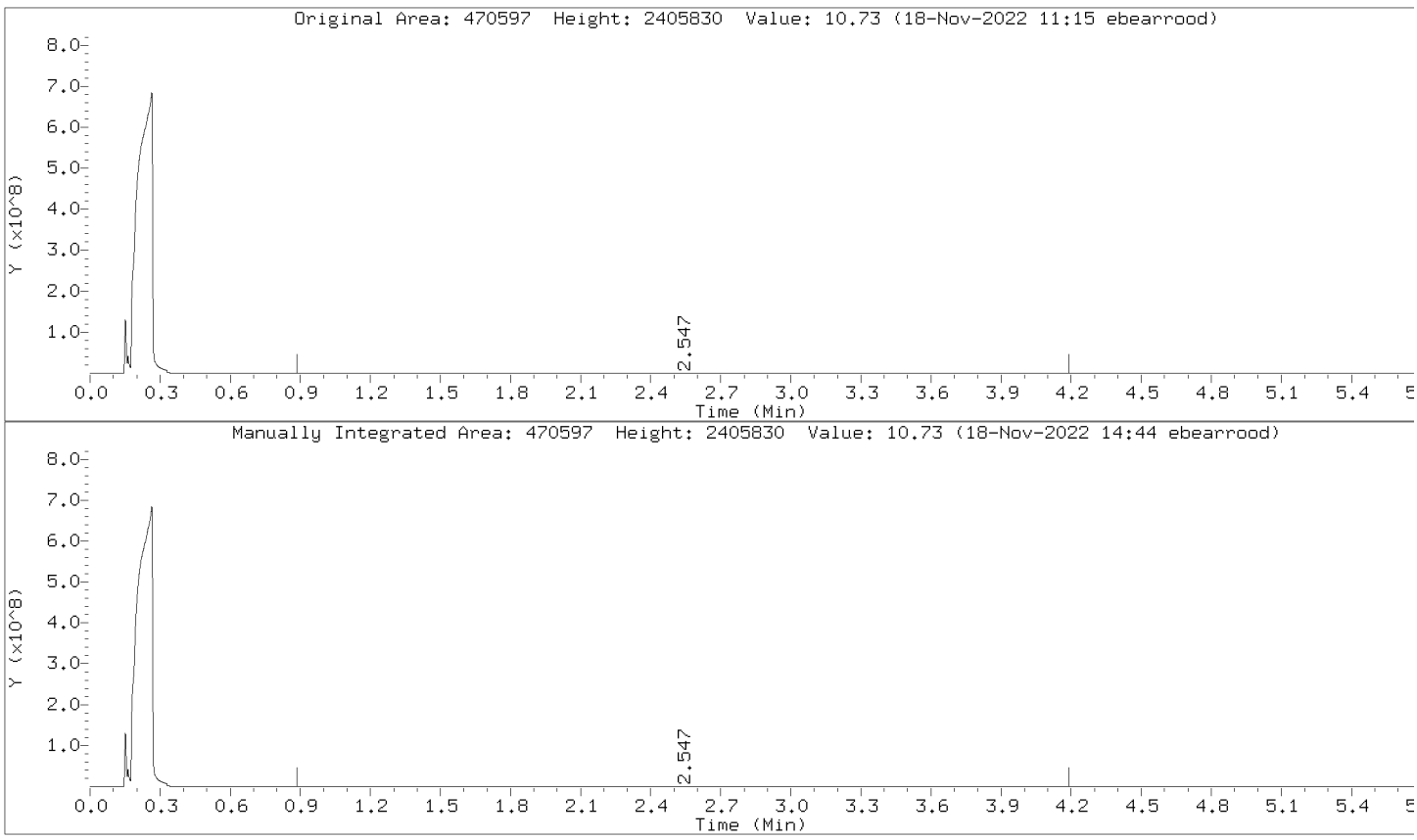
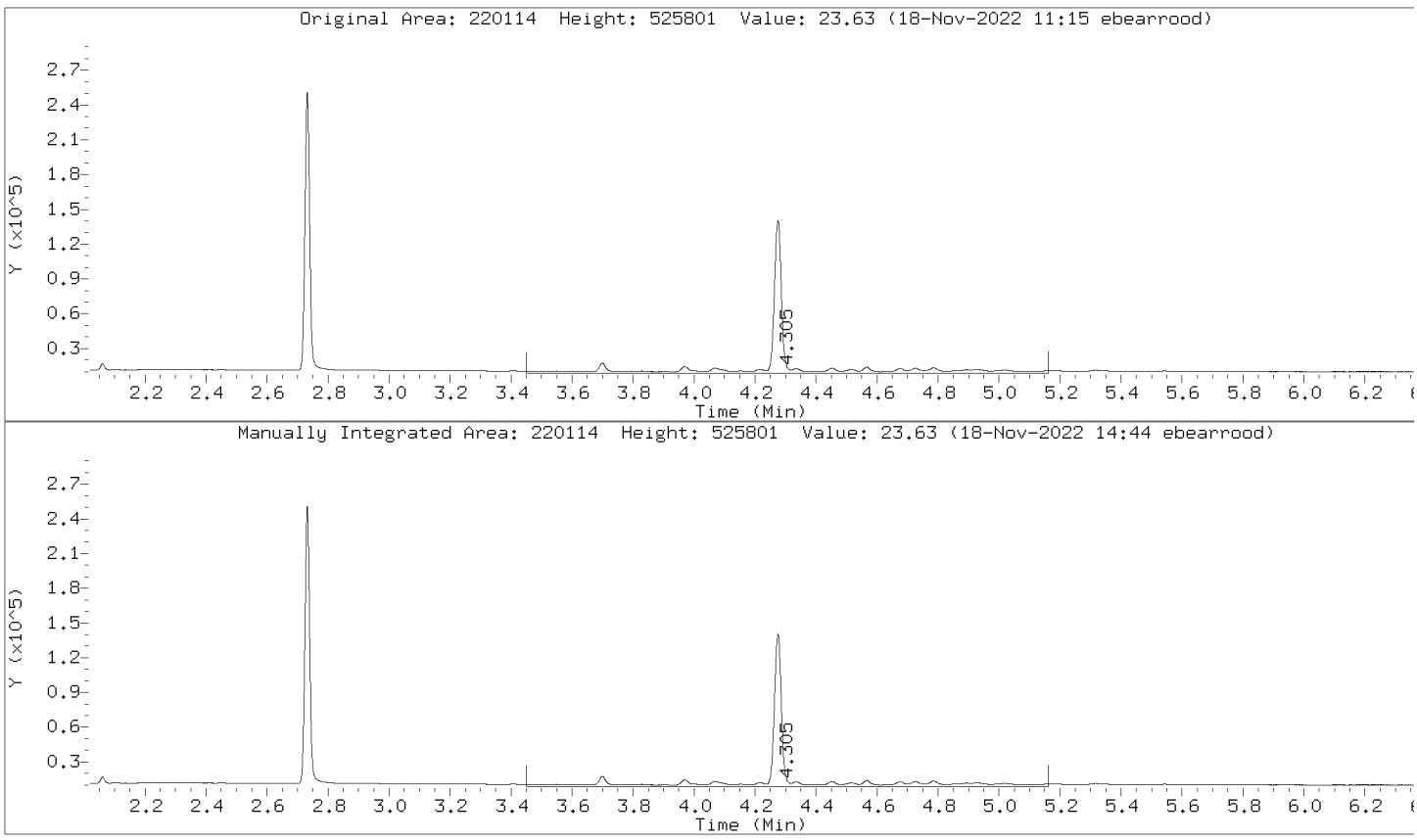
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000046.d
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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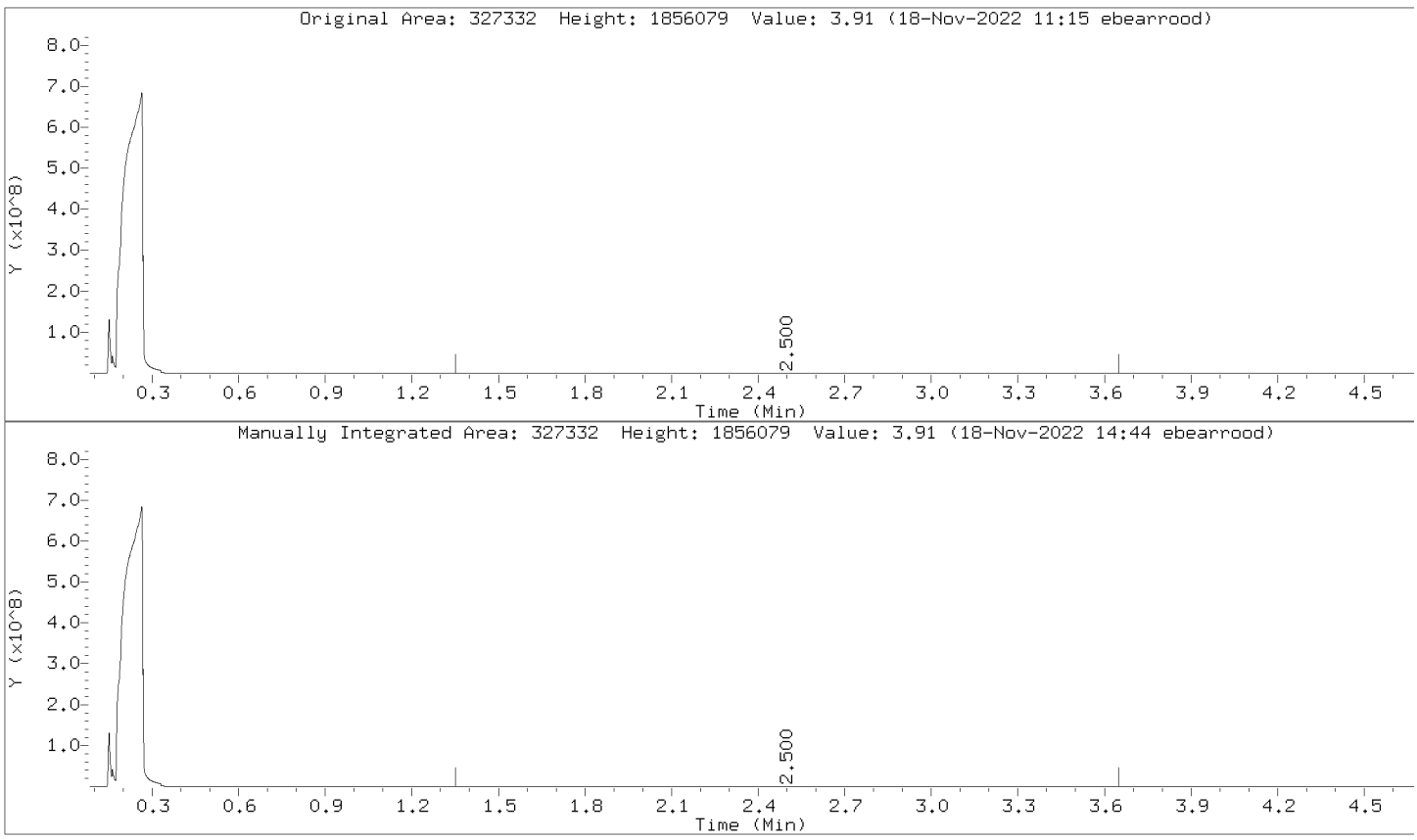
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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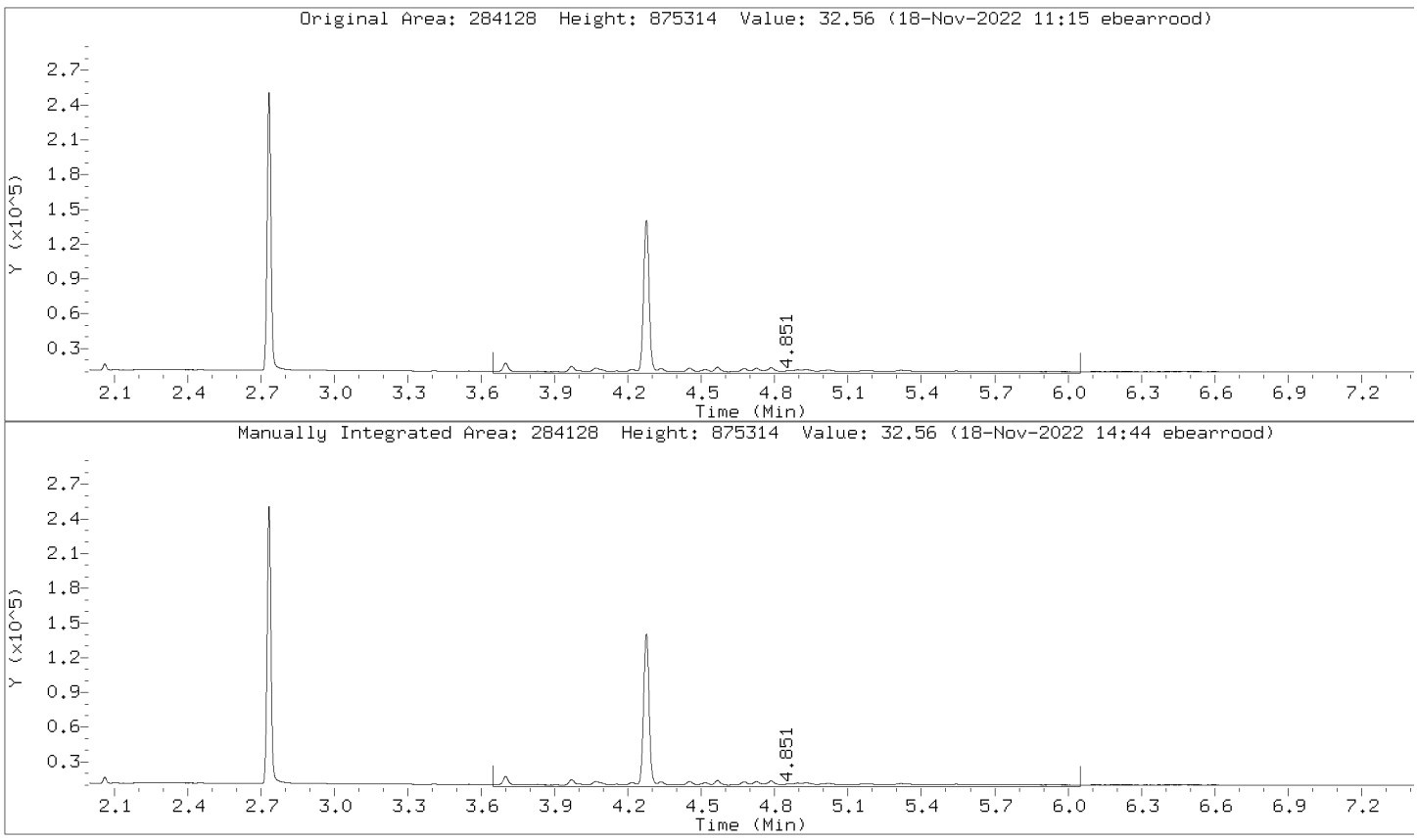
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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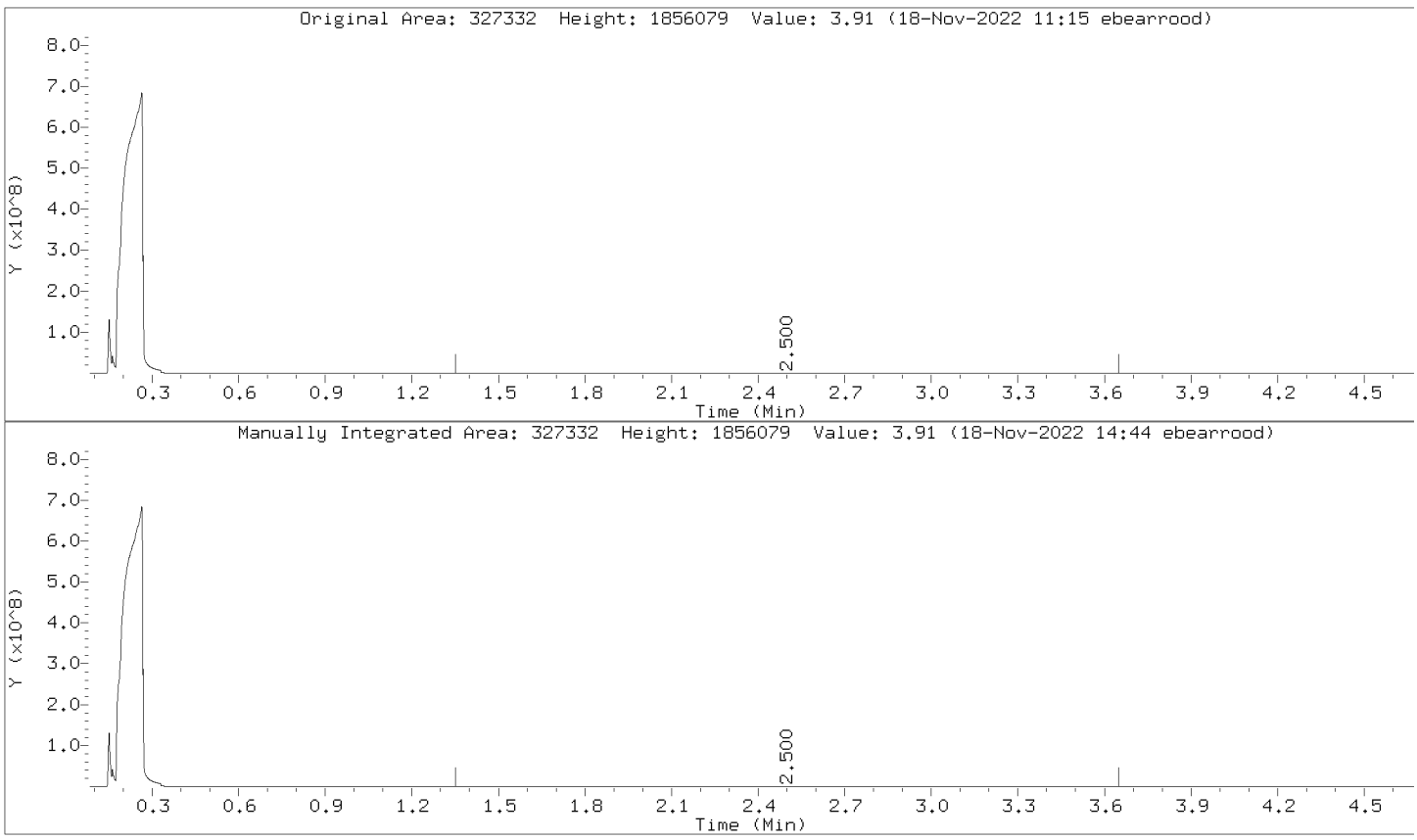
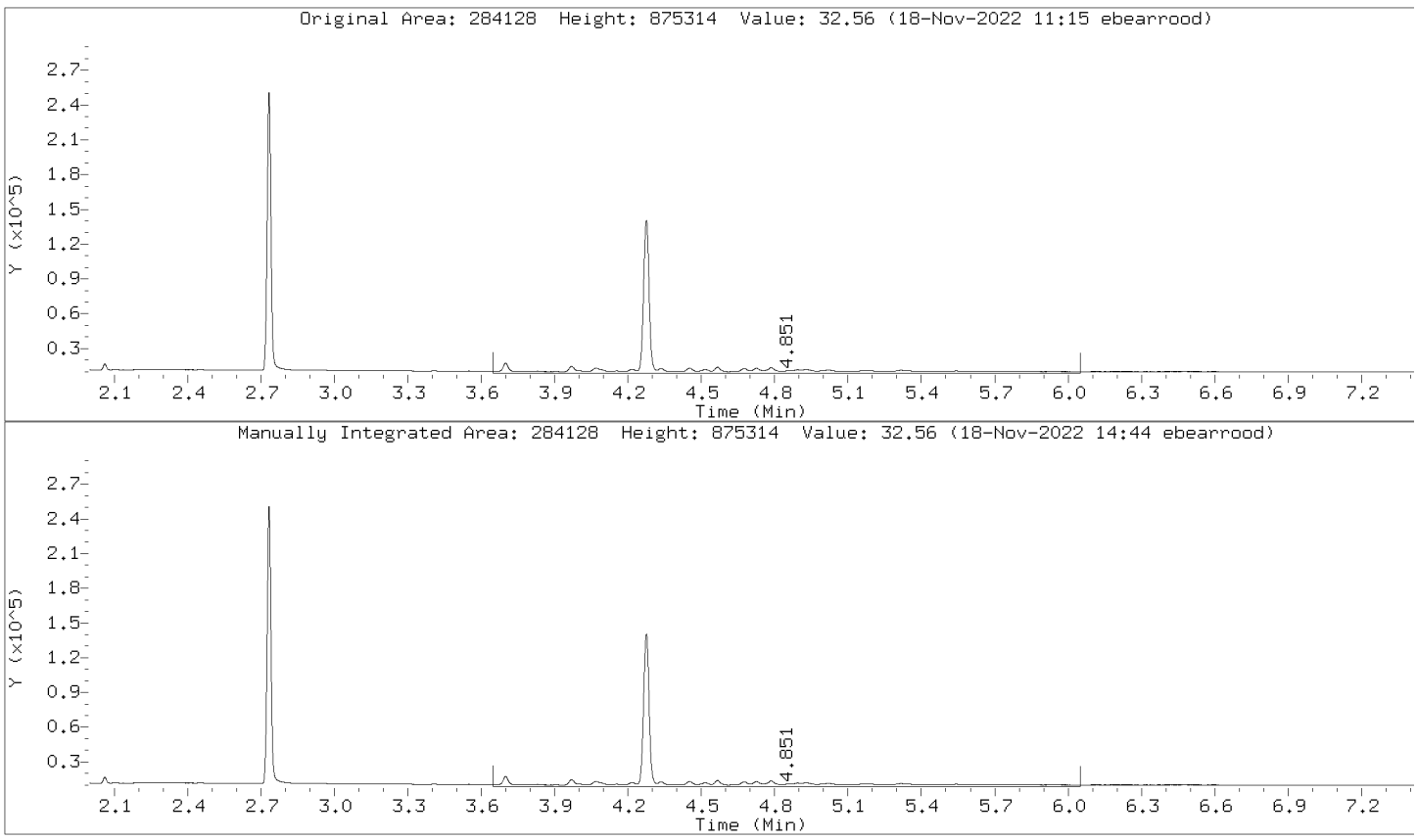
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



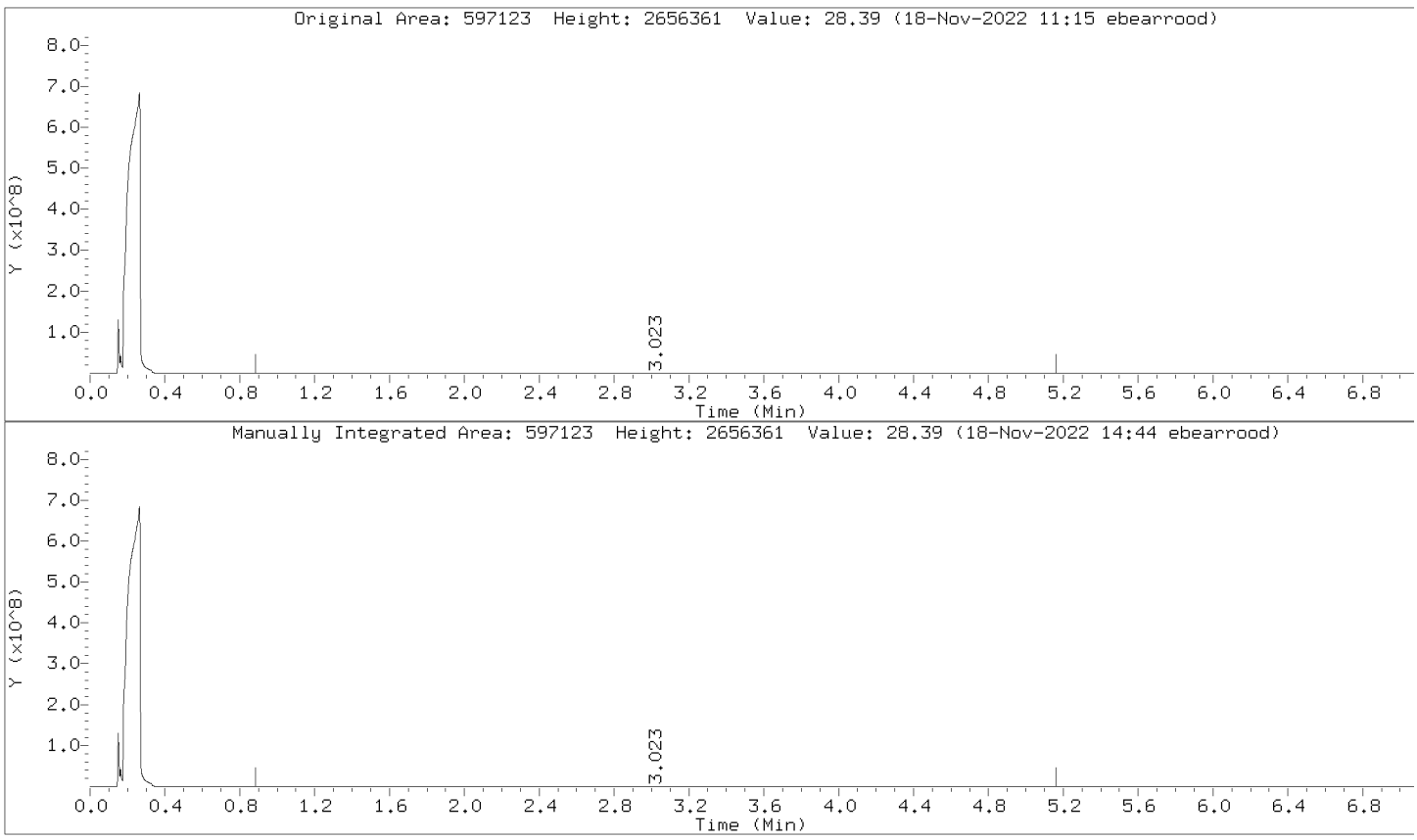
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000046.d
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000046.d
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: C10-C36 Review Code: RNG
CAS Number:



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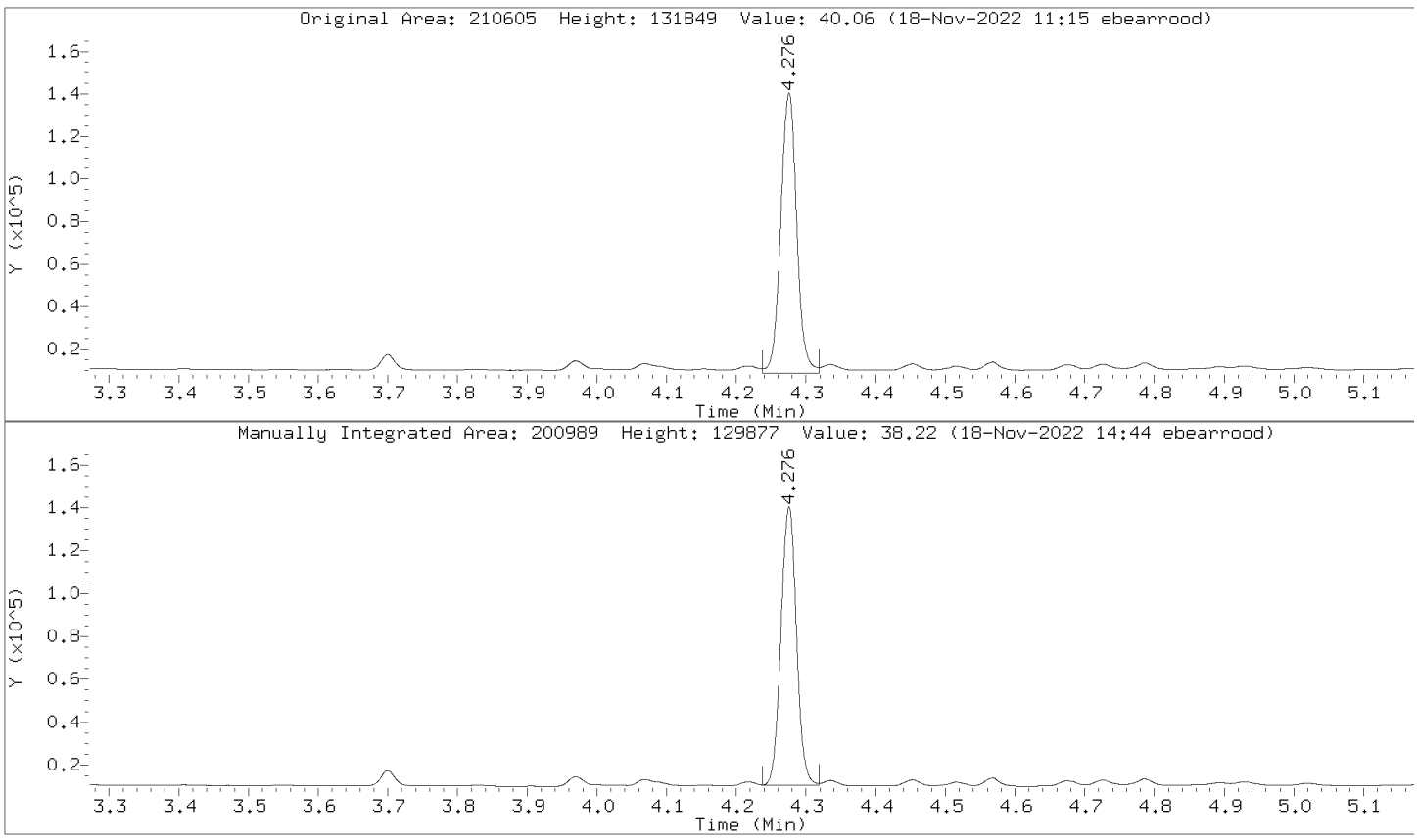
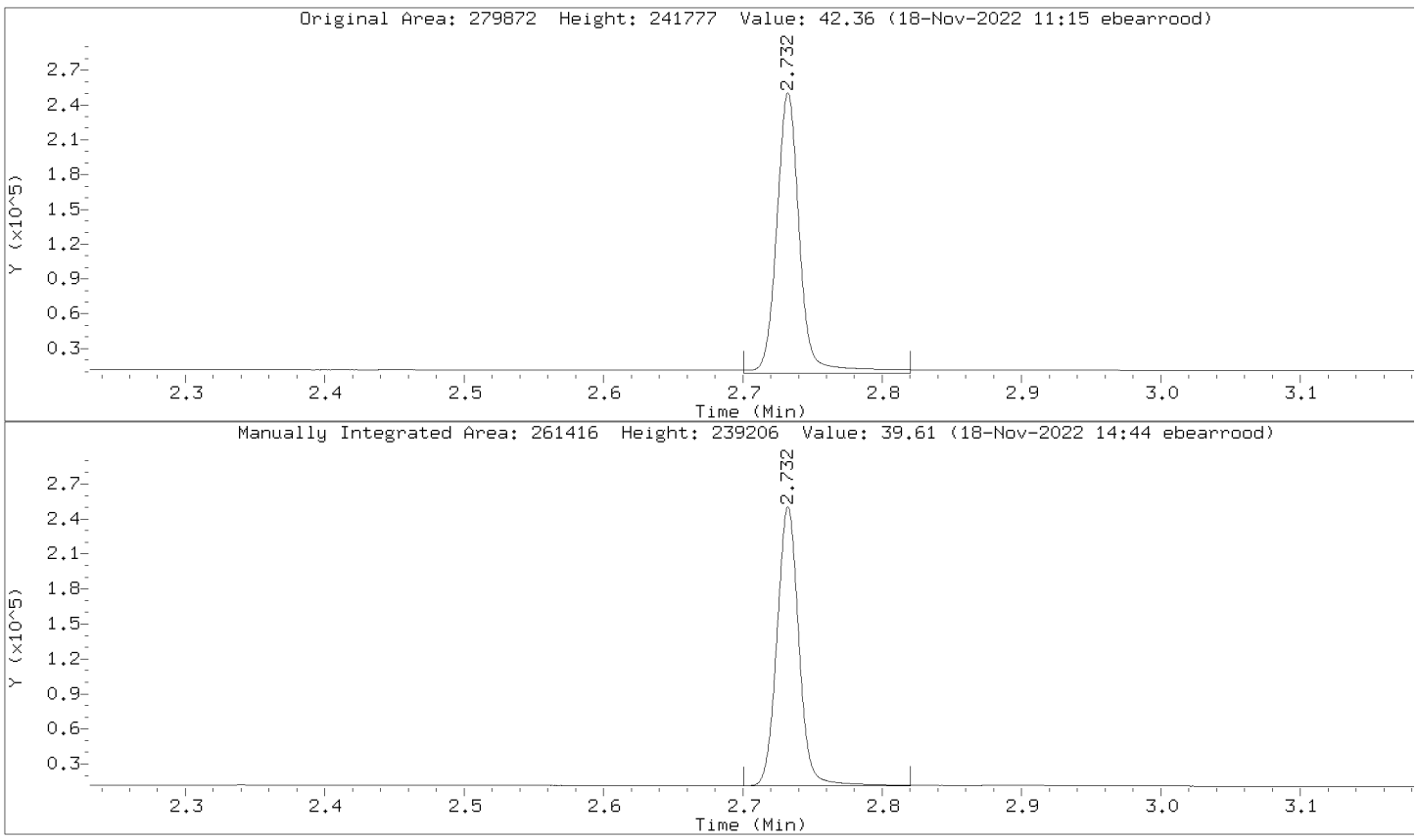
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000046.d
Injection Date: 17-NOV-2022 19:33
Instrument: 10gcsF.i
Lab Sample ID: 10633981005

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	204963	204963
DRO by AK 102	392066	392066
TPH-DRO (C10-C28)	470597	470597
Motor Oil Range (C24-C36)	220114	220114
Diesel Fuel Range	327332	327332
Motor Oil Range	284128	284128
Diesel Fuel Range SG	327332	327332
Motor Oil Range SG	284128	284128
C10-C36	597123	597123
n-Triacontane (S)	210605	200989
o-Terphenyl (S)	279872	261416

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633981

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633981

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633981

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

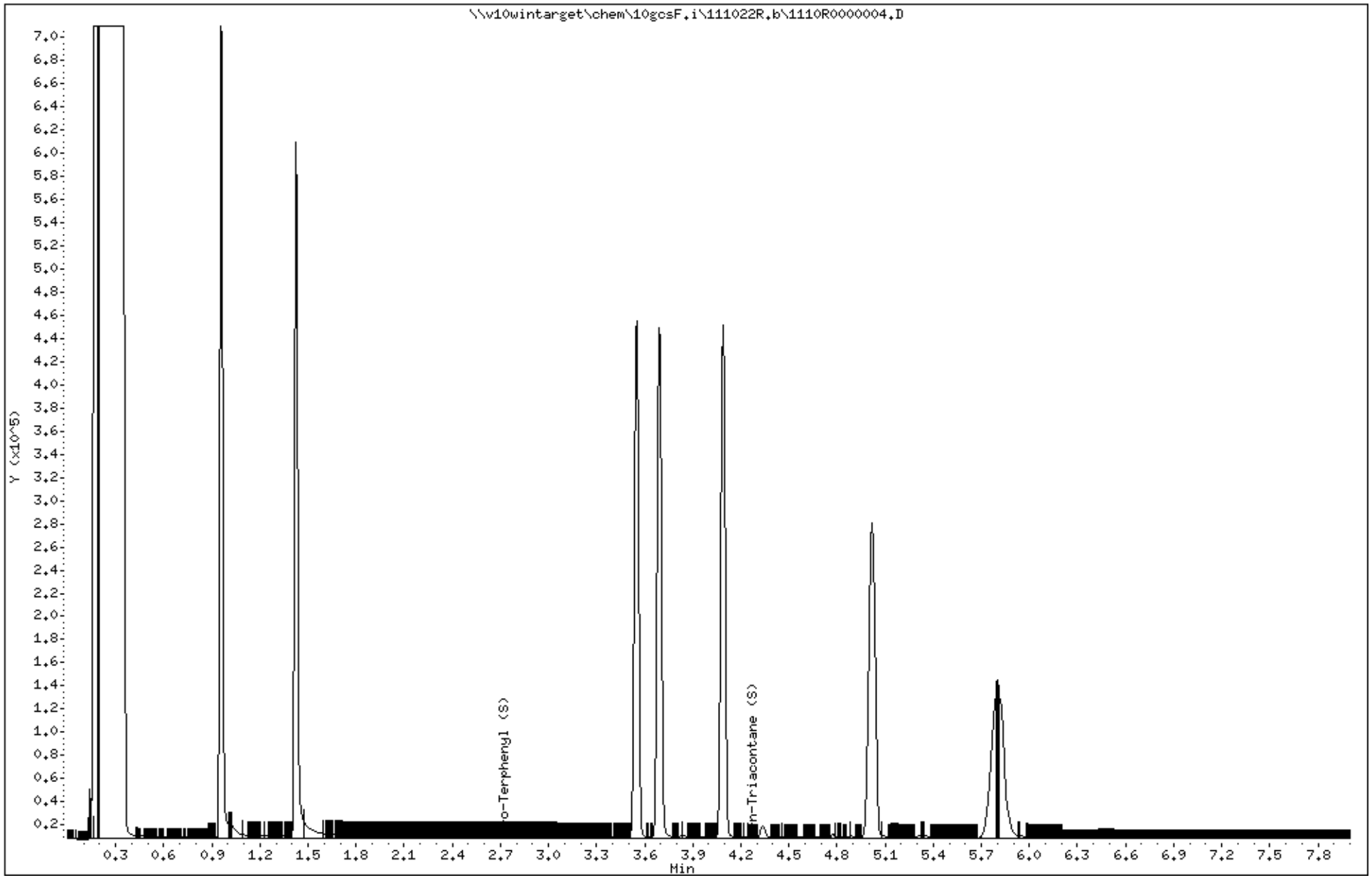
AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

				CONCENTRATIONS ON-COL	FINAL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.880	- 3.600		2108709			
$ 2 o-Terphenyl (S)					CAS #:	
2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)					CAS #:	
4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103					CAS #:	
3.610	- 5.200		2005315			
S 5 TPH-DRO (C10-C28)					CAS #:	
0.880	- 4.219		3399190			
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450	- 5.200		2635115			
S 7 C10-C36					CAS #:	
0.880	- 5.200		4114949			
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		1498770			
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		1498770			
S 10 Motor Oil Range					CAS #:	
3.660	- 6.000		2695751			
S 11 Motor Oil Range SG					CAS #:	
3.660	- 6.000		2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

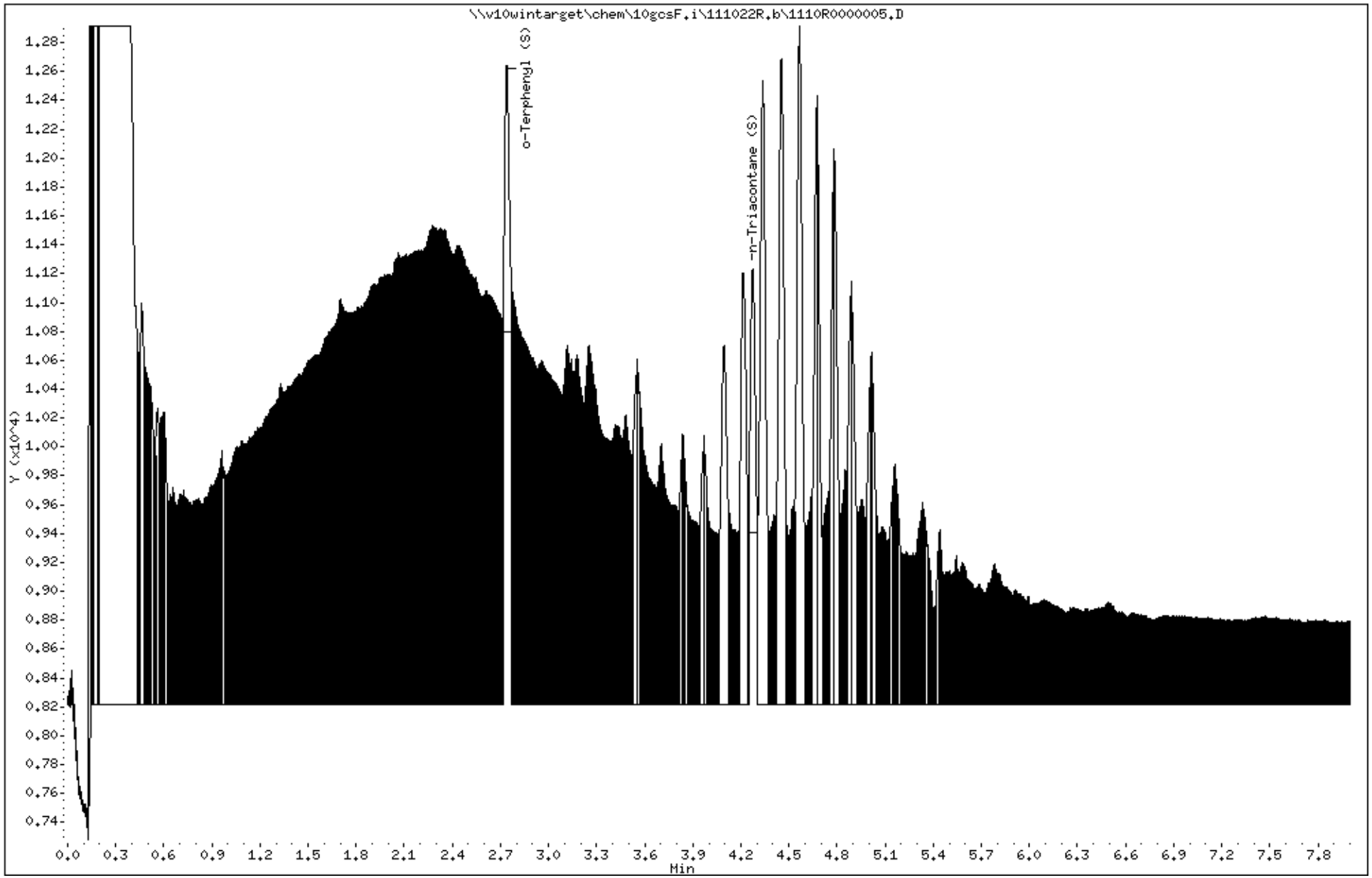
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

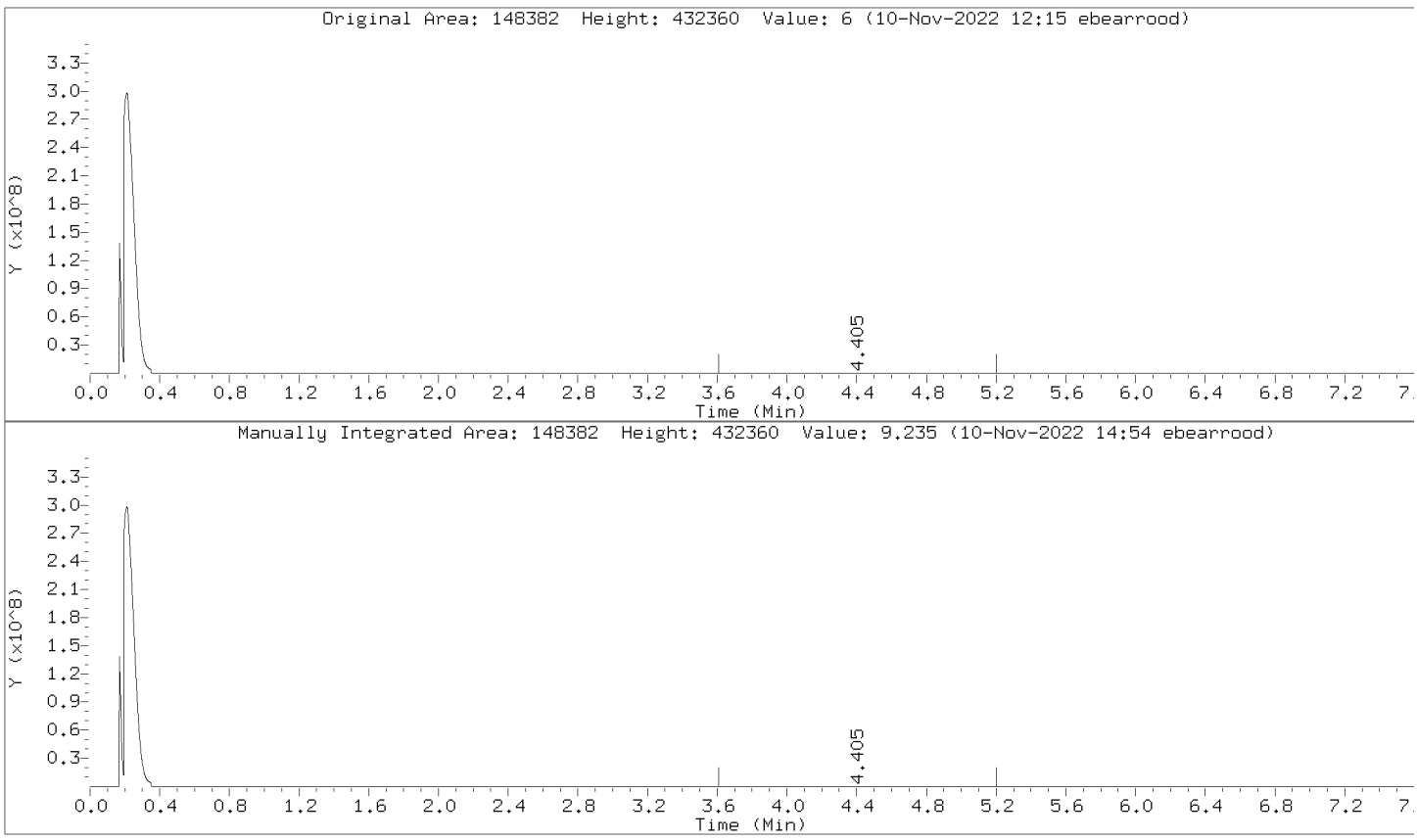
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



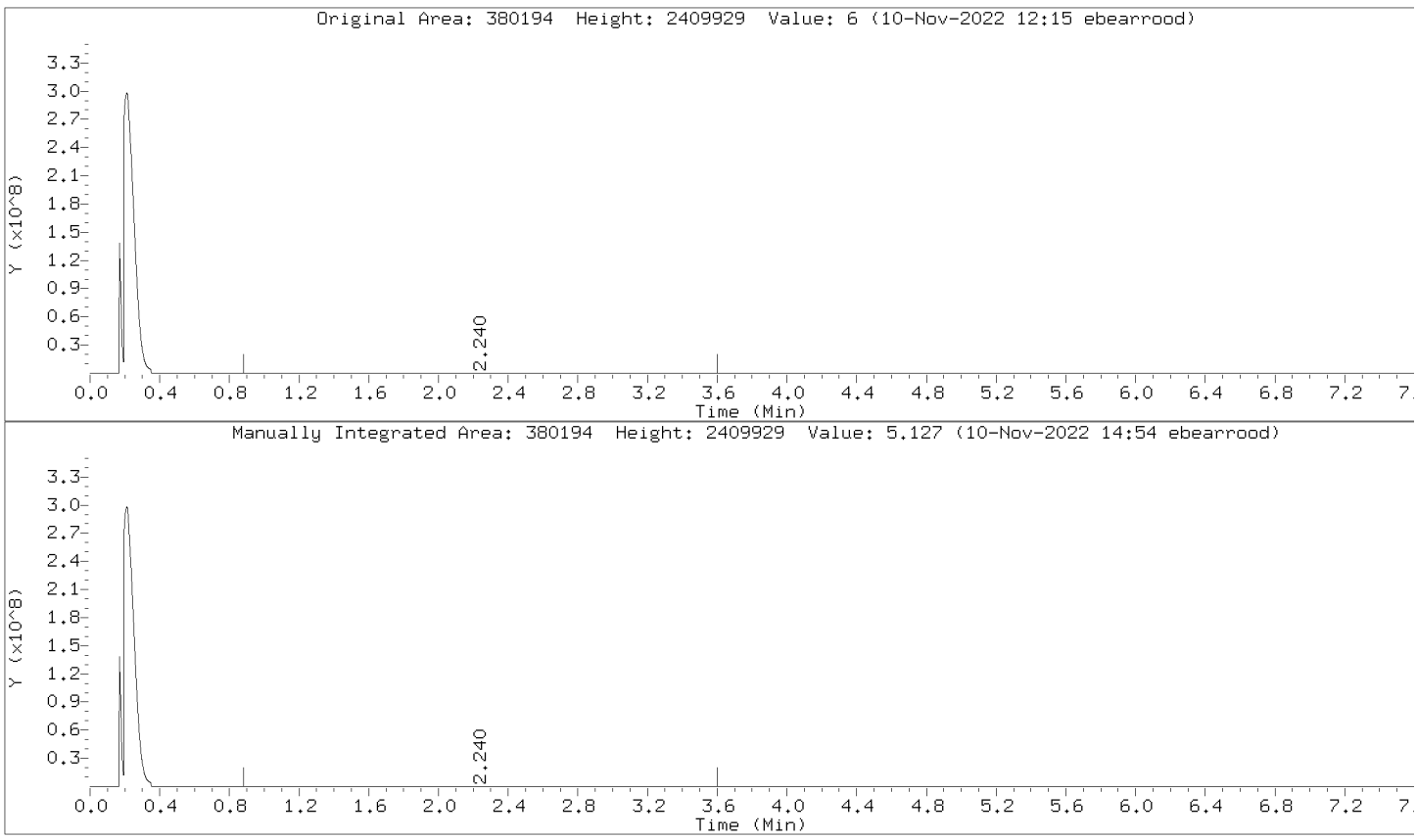
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



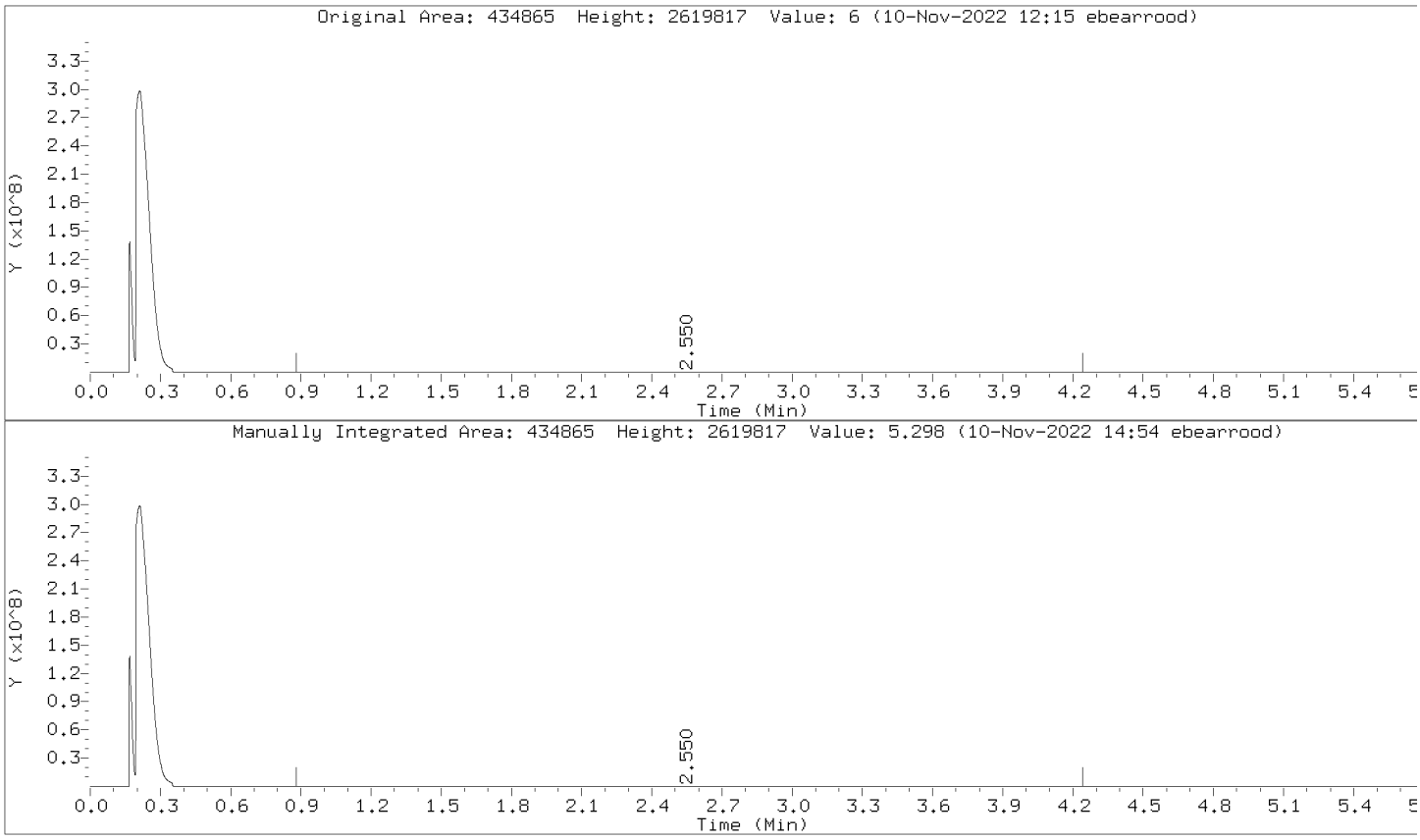
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



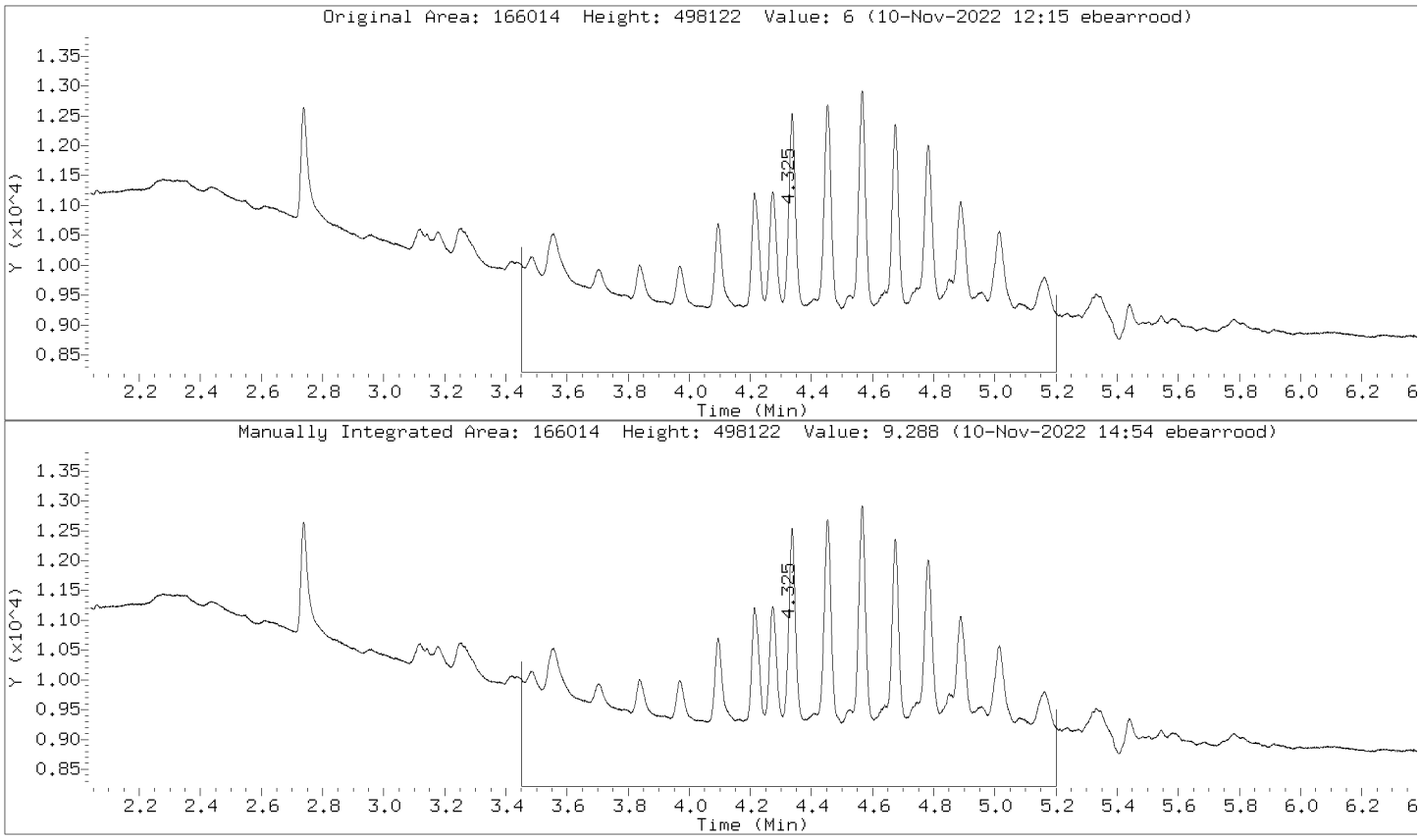
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



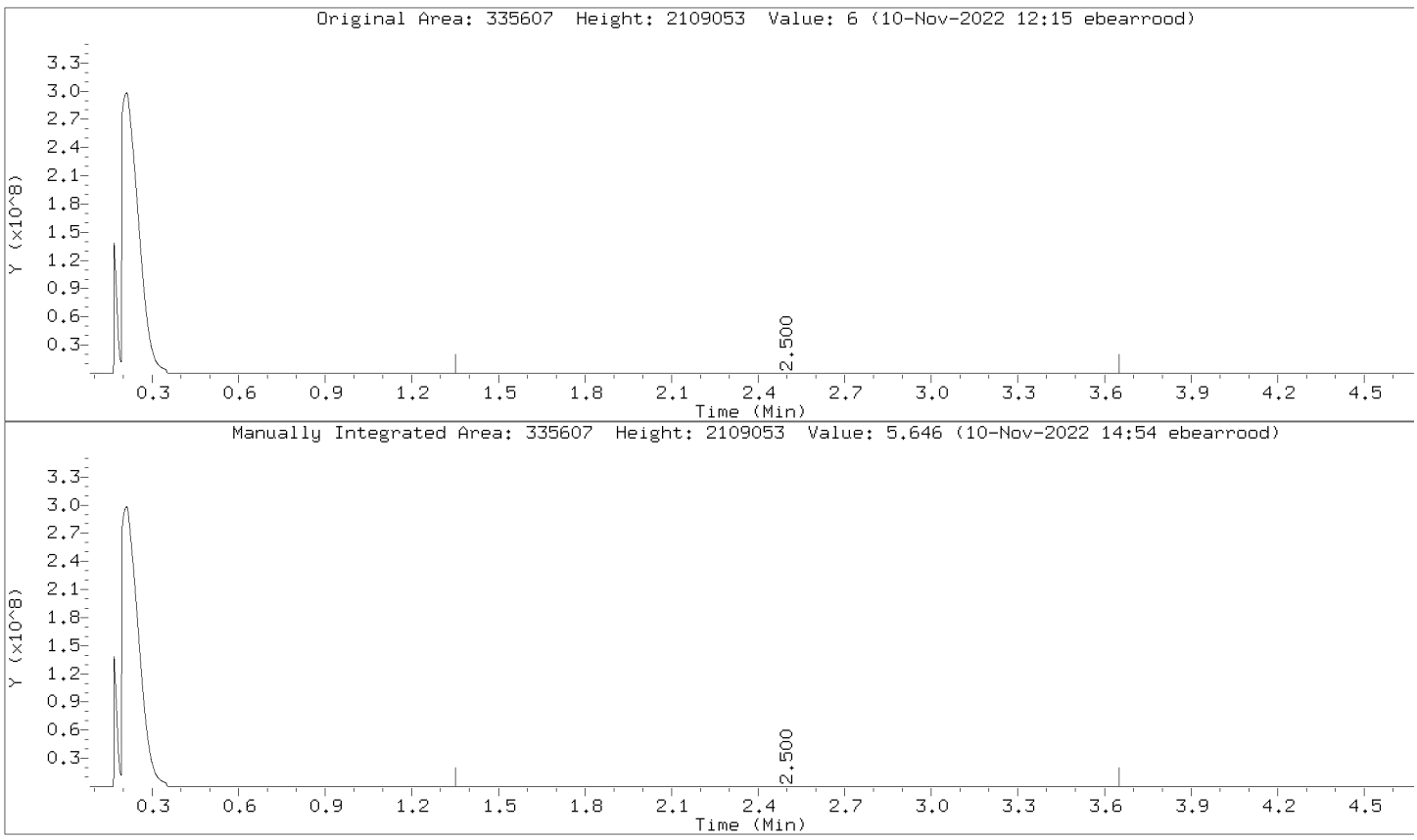
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



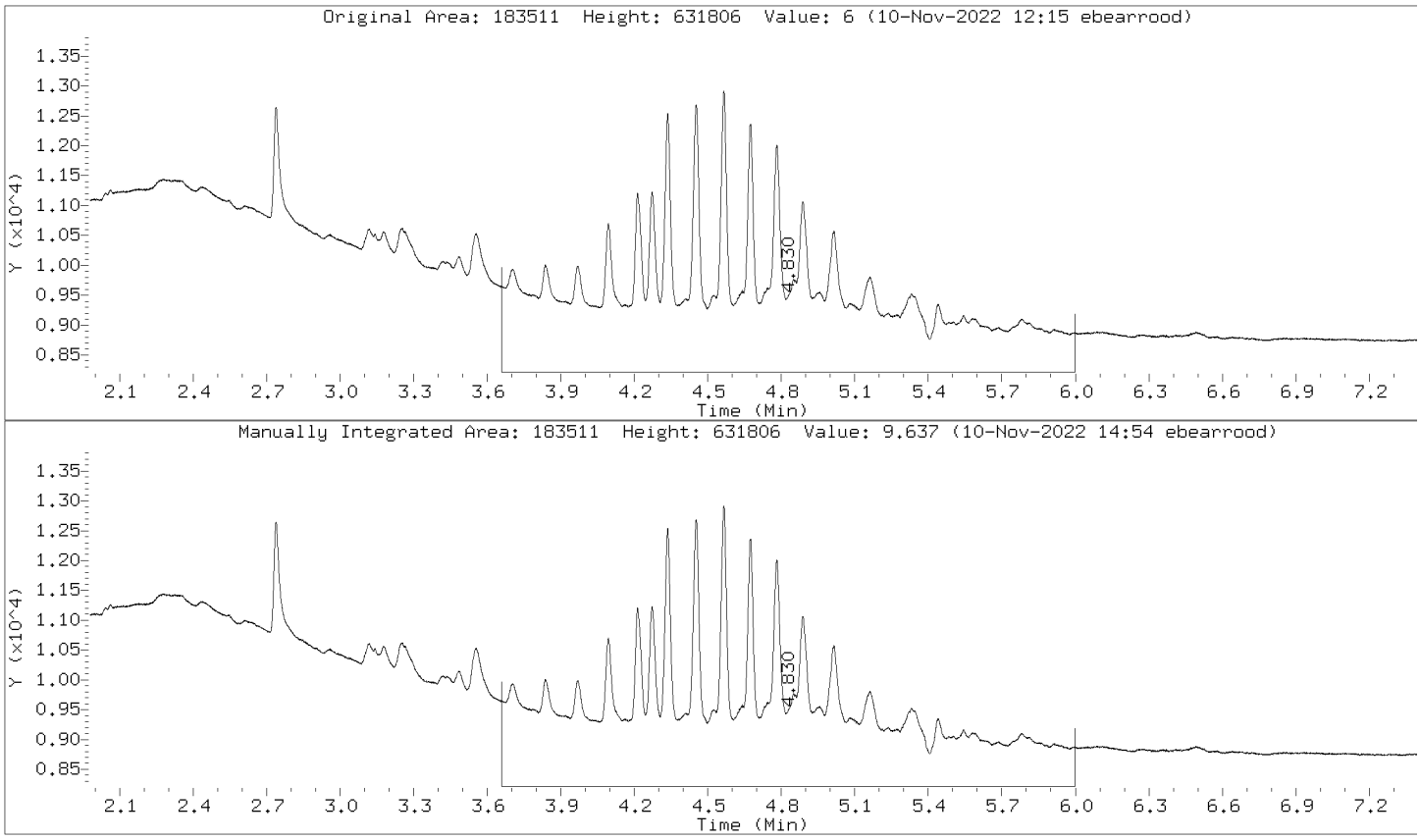
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



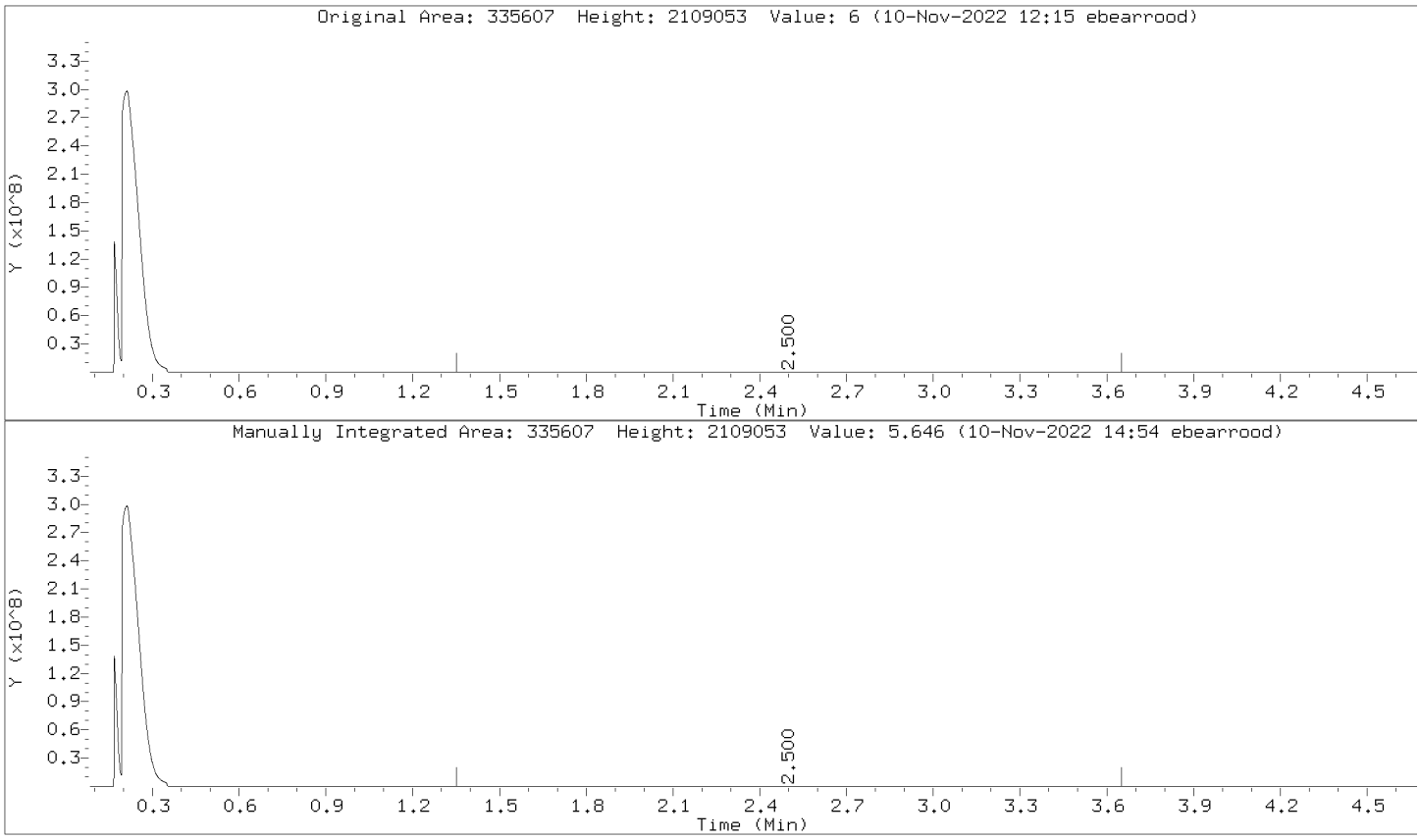
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



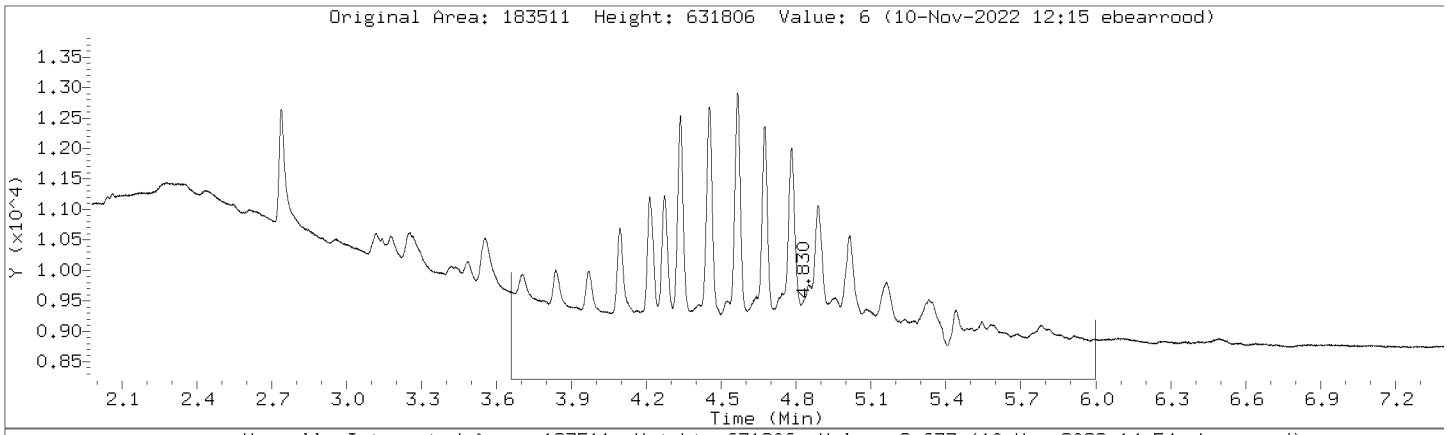
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

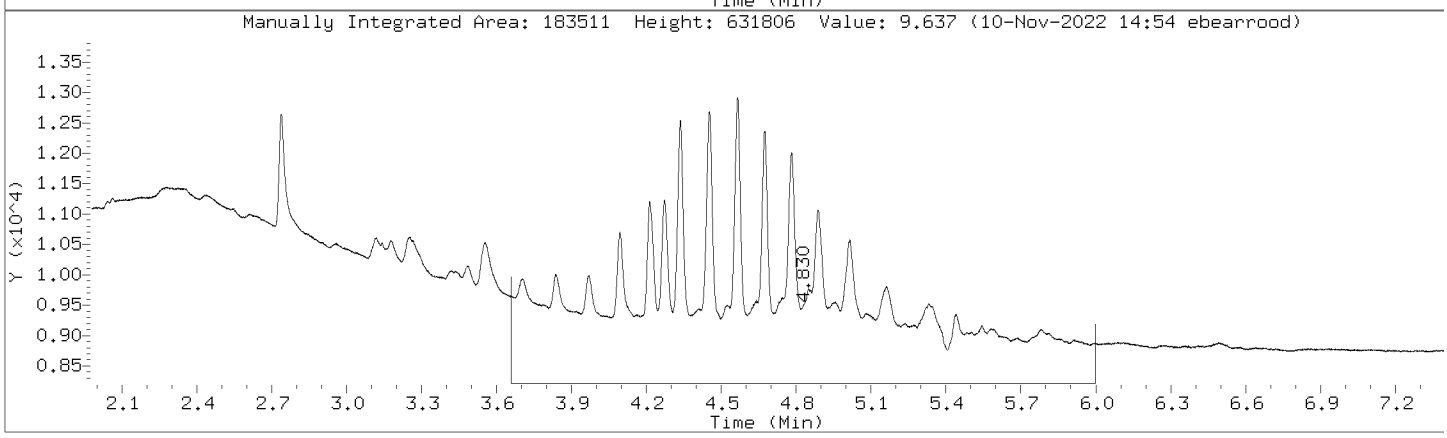
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

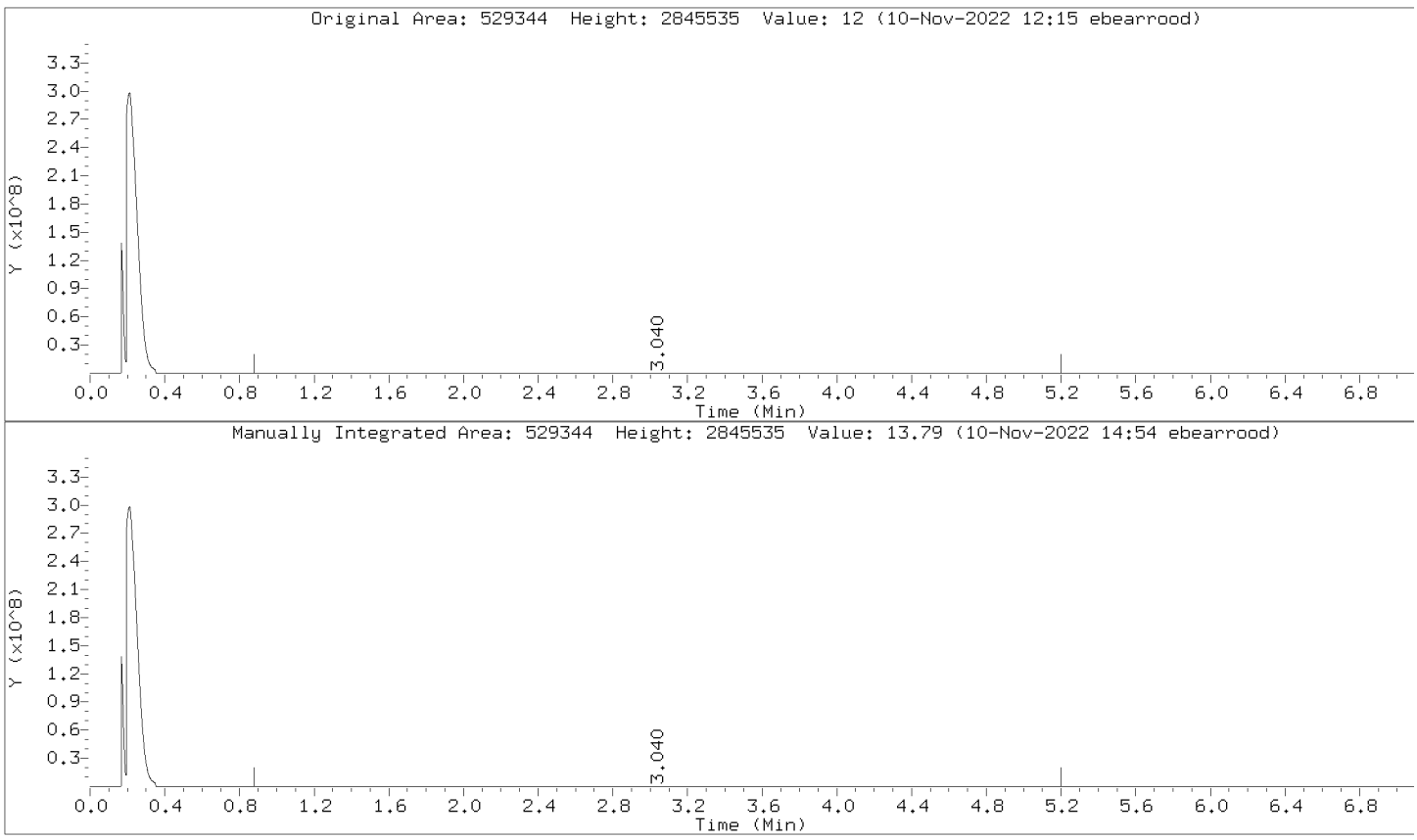
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





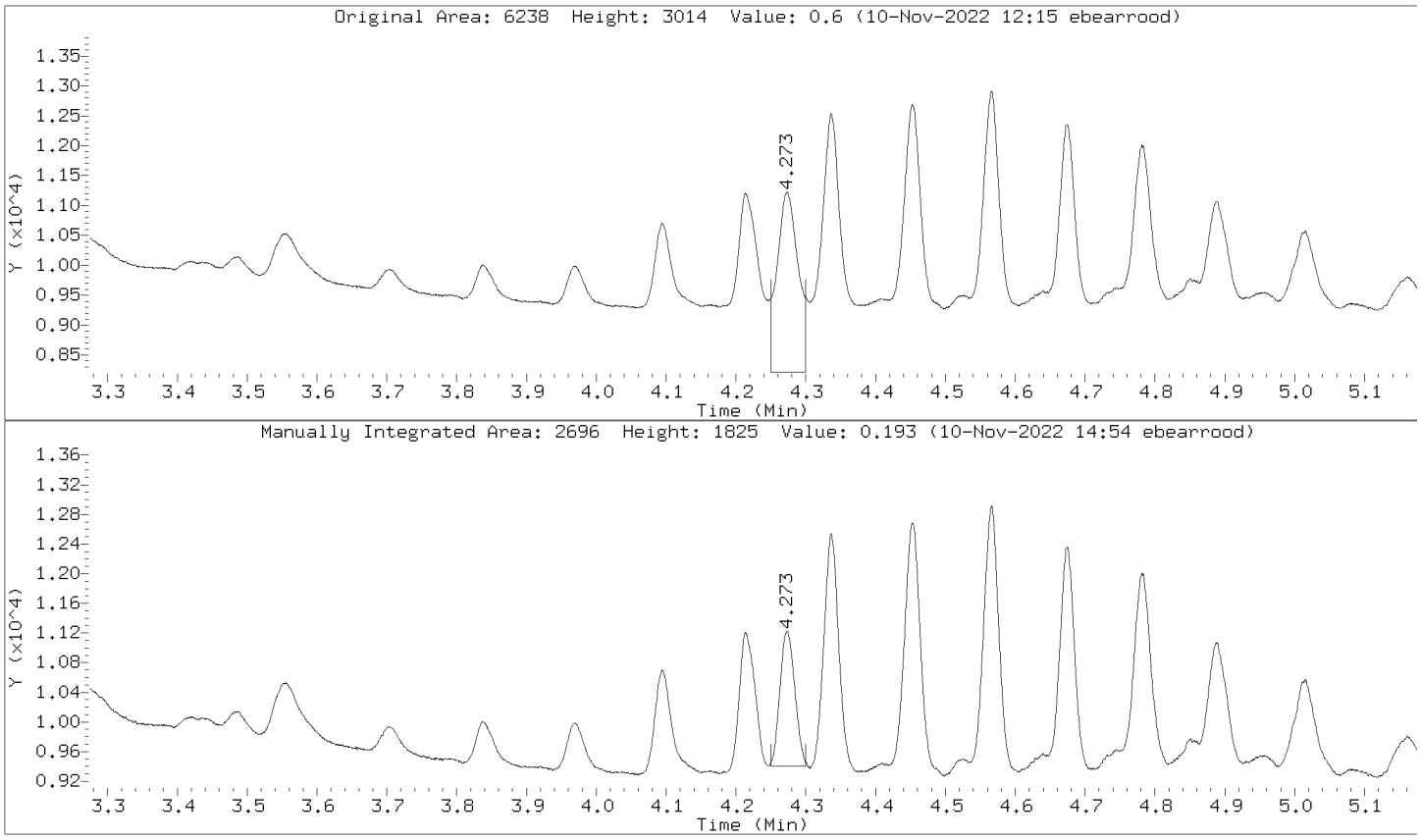
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



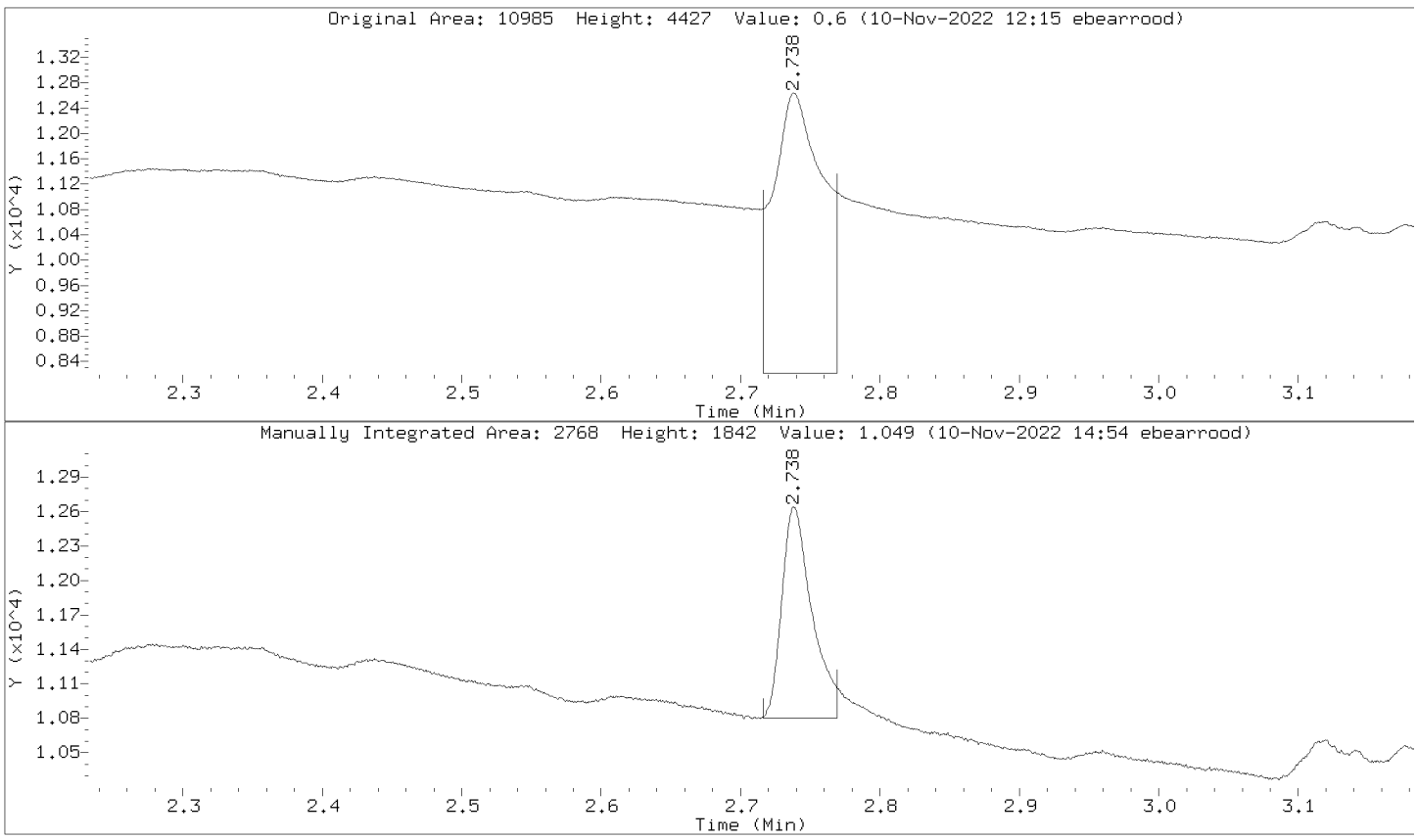
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000005.D
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		394088	10.0000	7.58	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		138206	10.0000	6.41	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		446339	10.0000	7.04	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		154886	10.0000	6.34	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		533232	20.0000	14.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG

QC Flag Legend

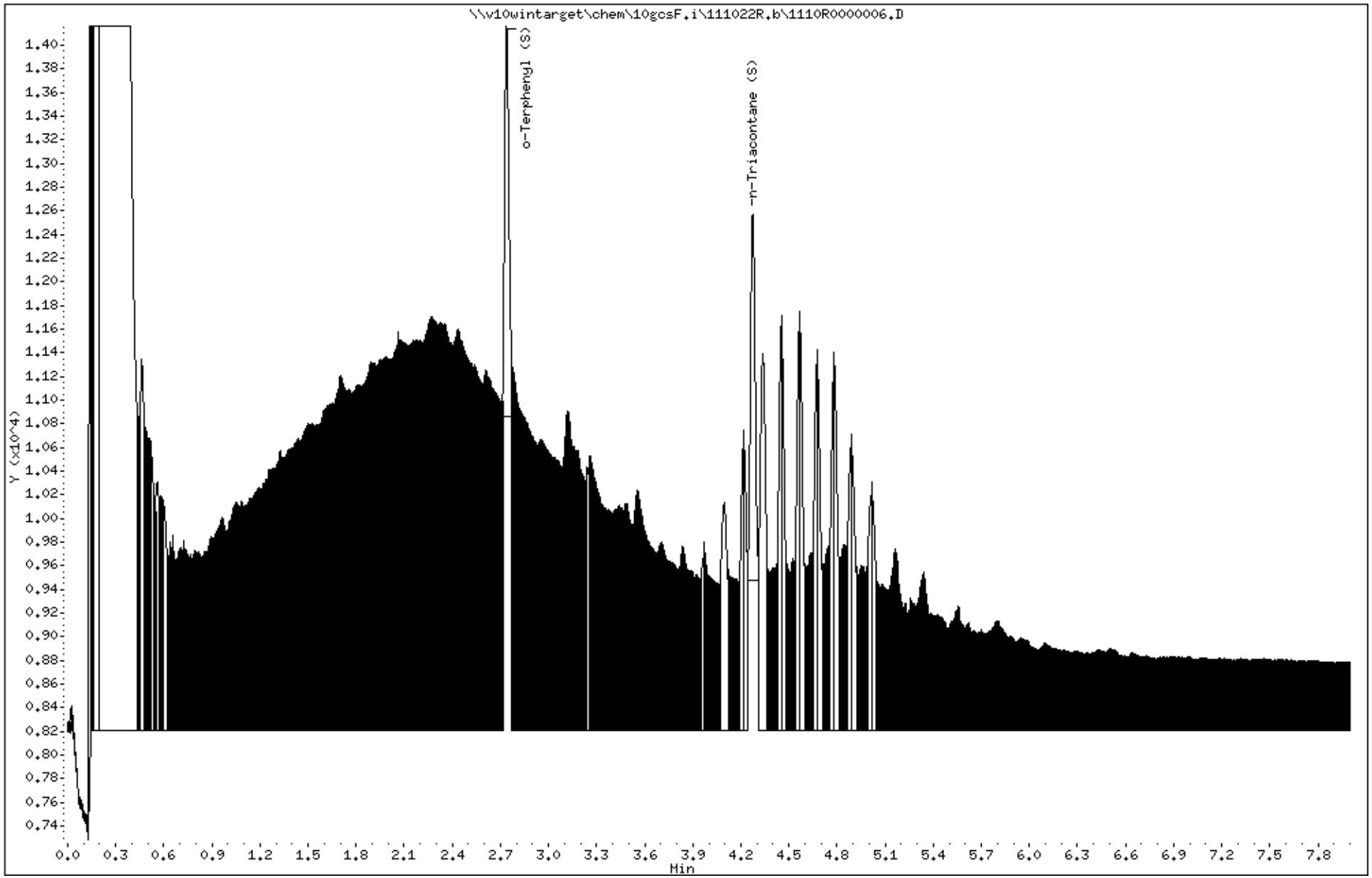
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

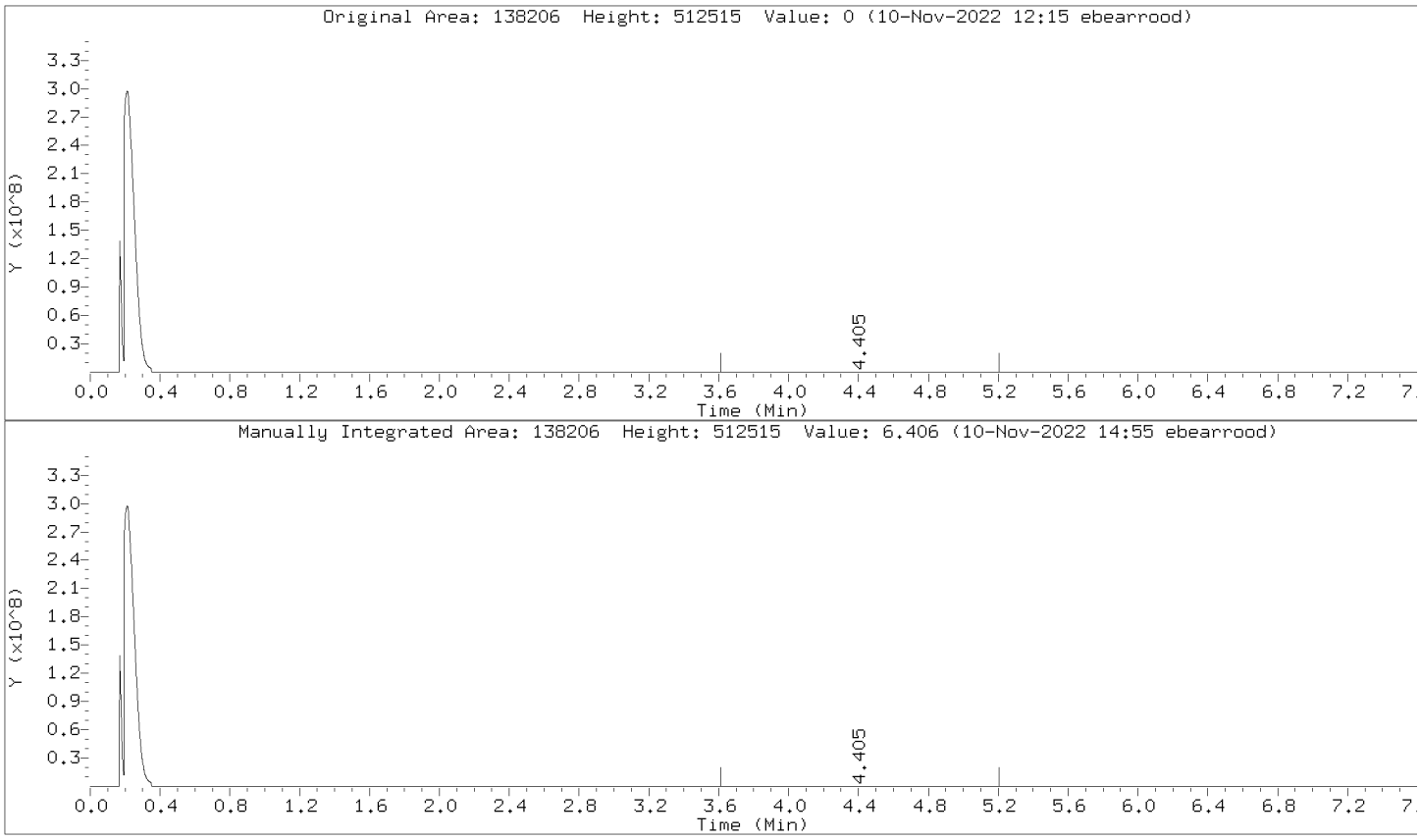
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



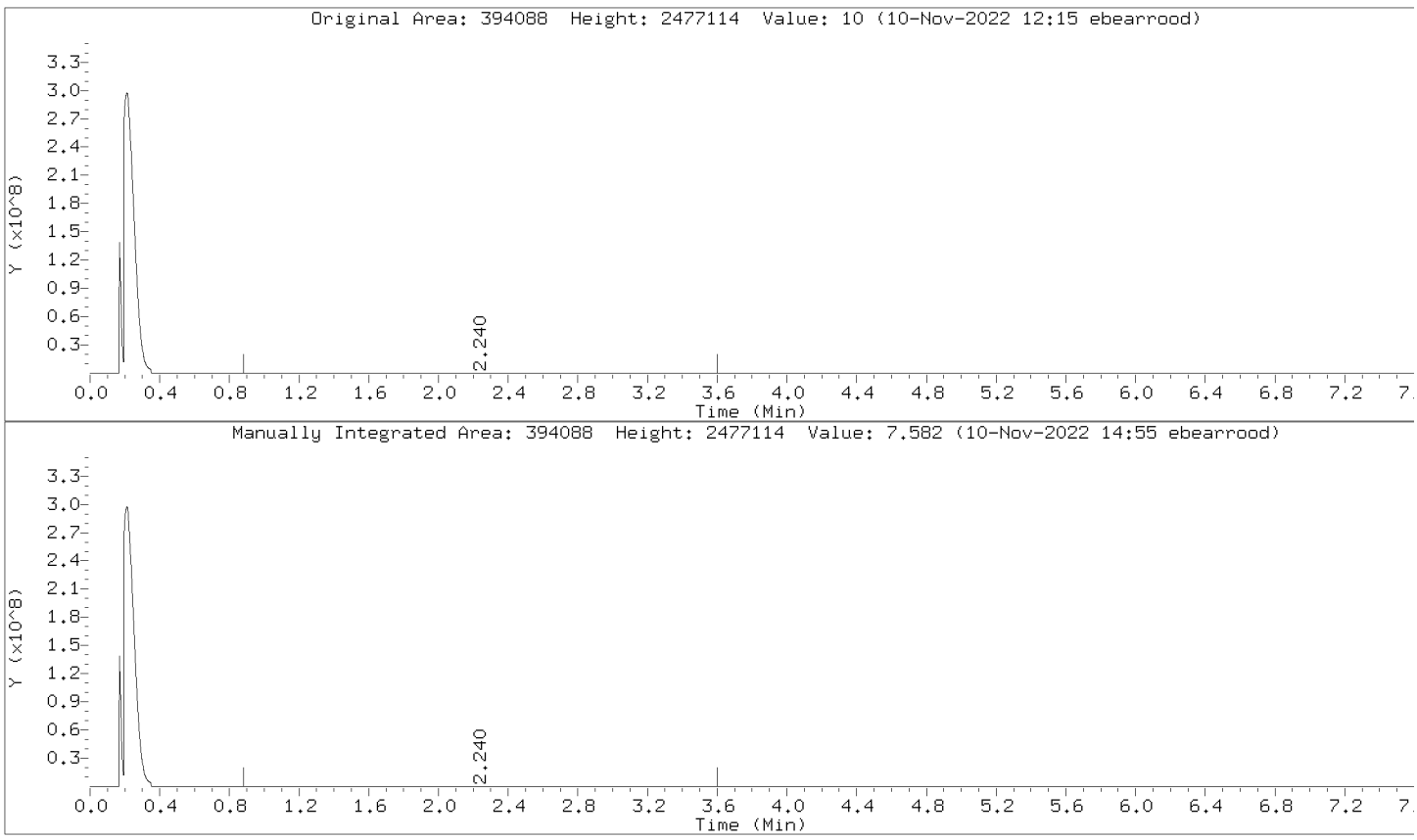
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



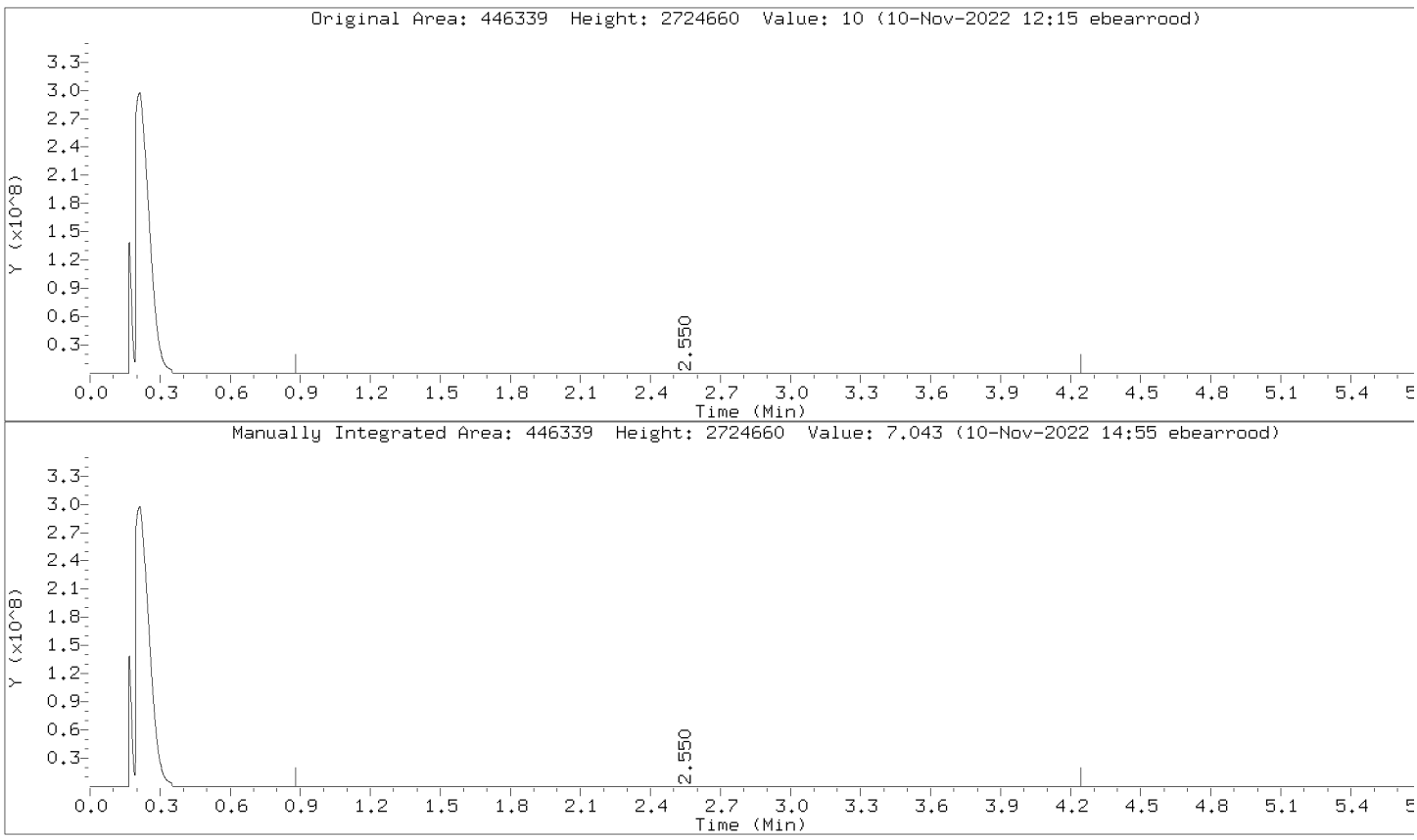
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



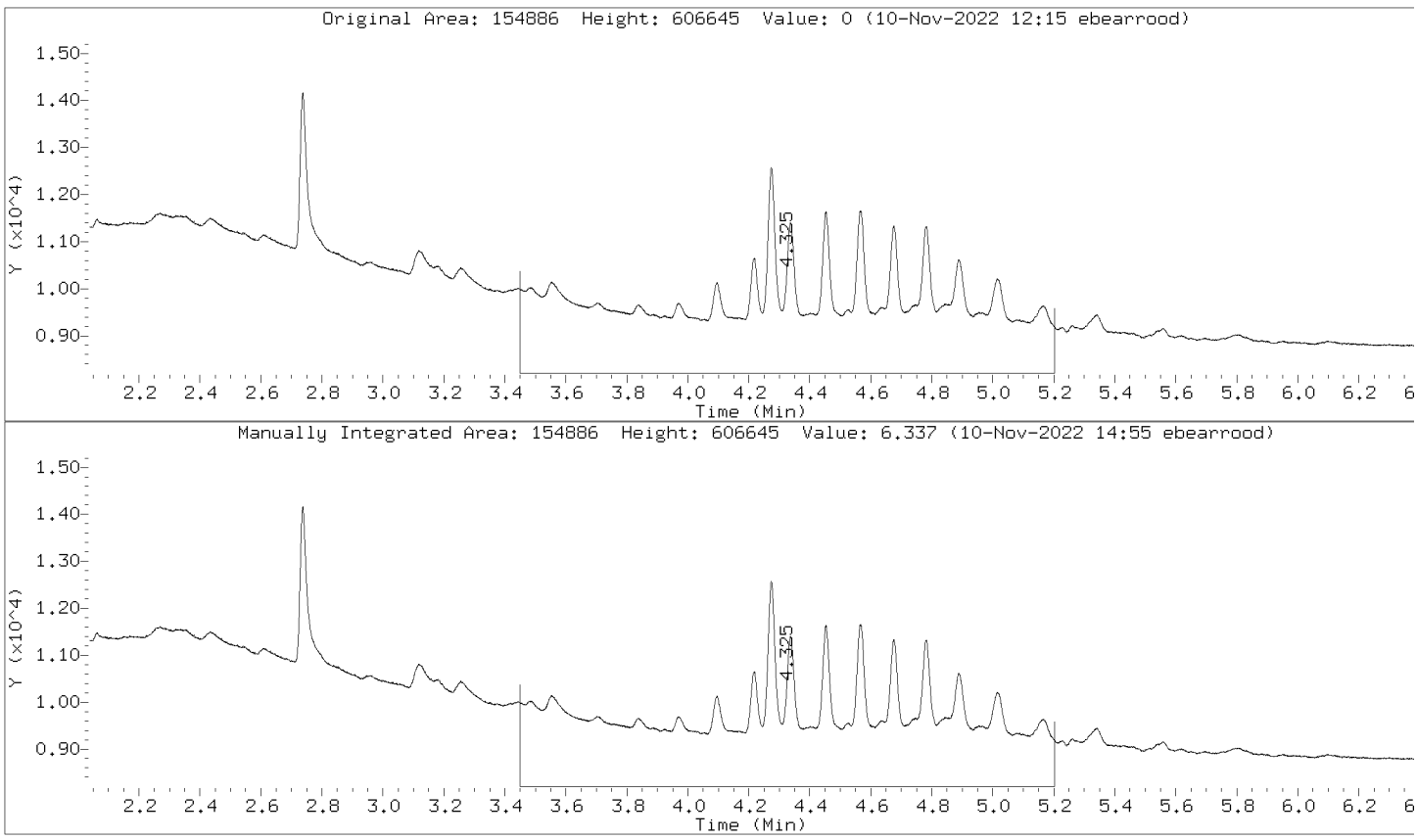
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



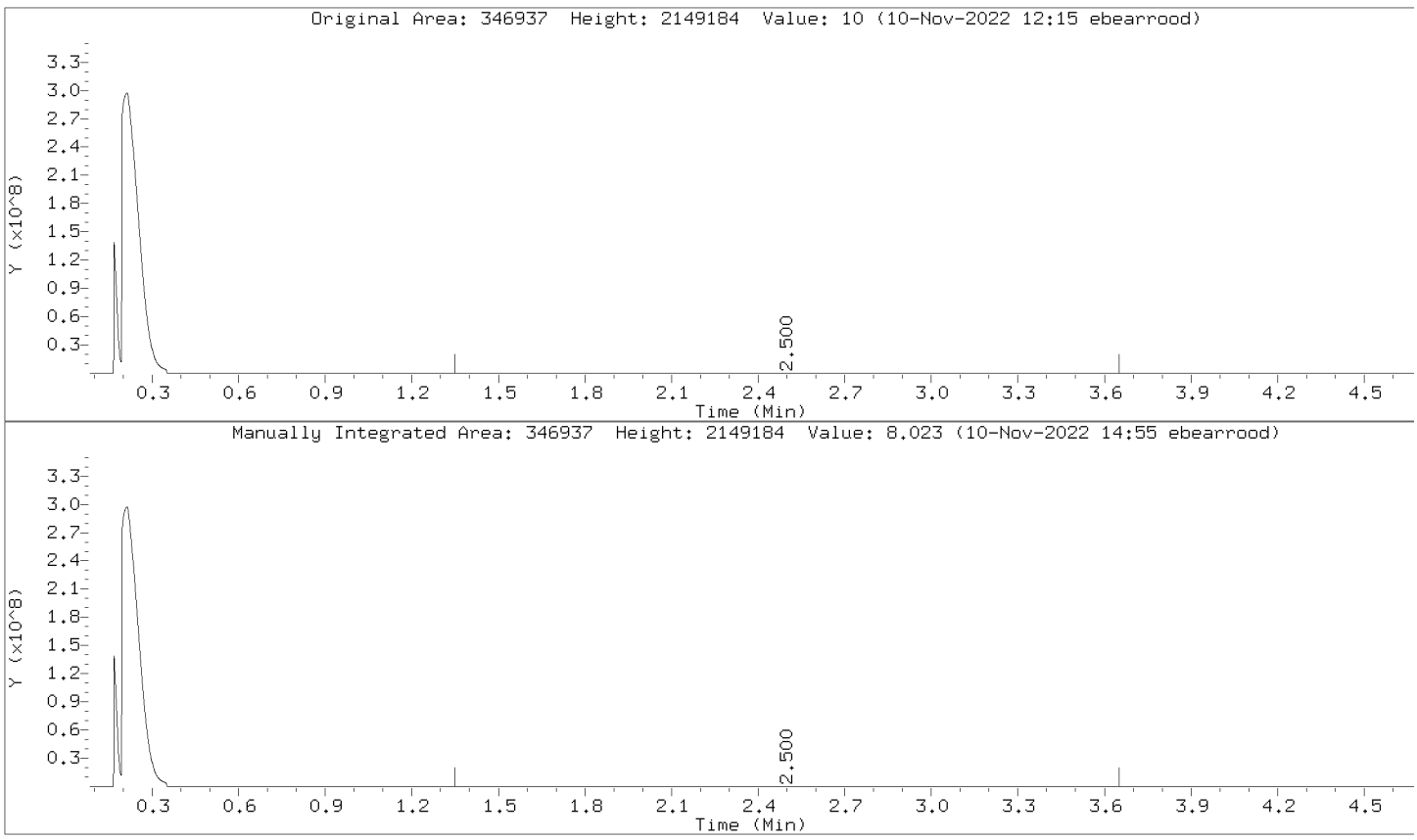
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



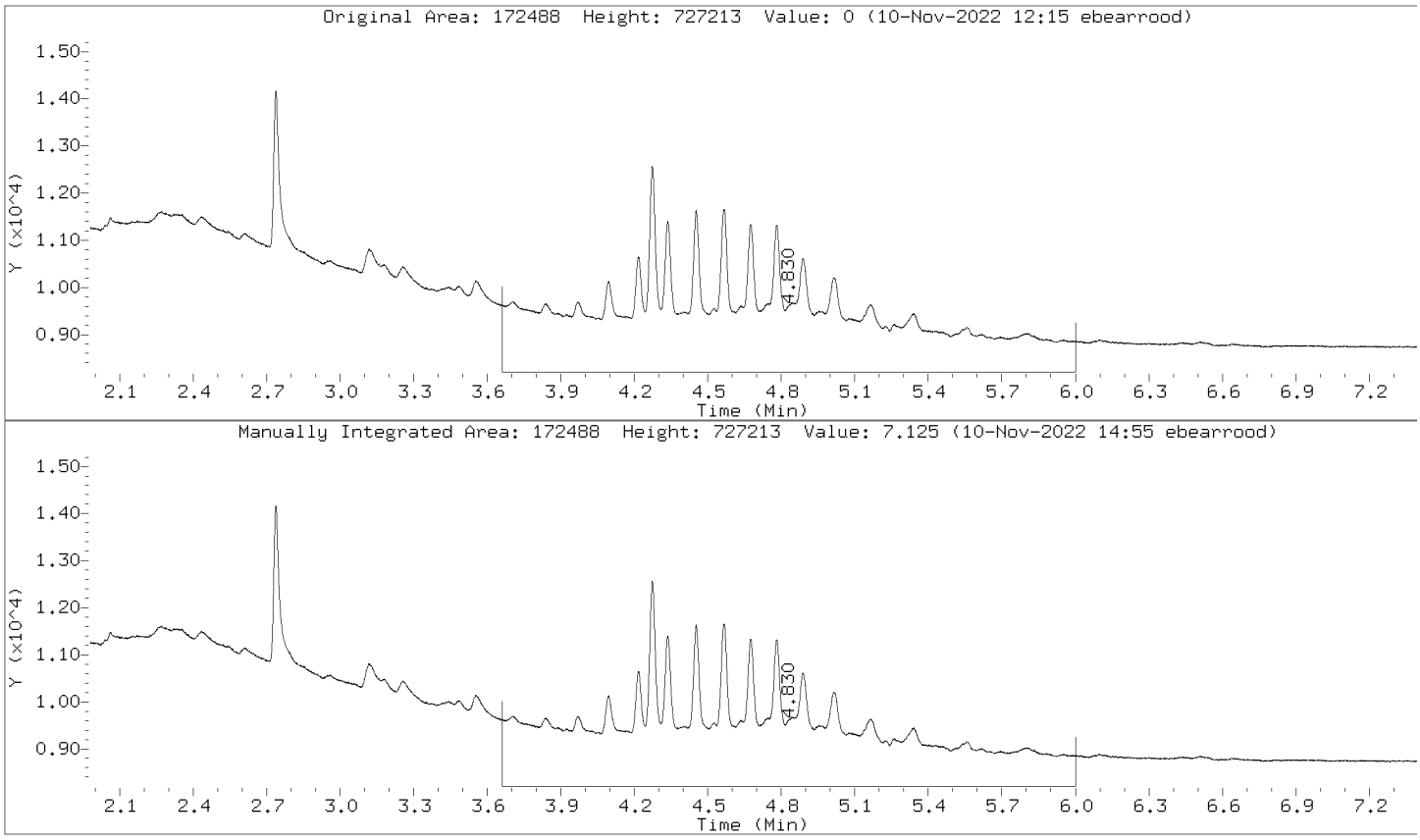
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



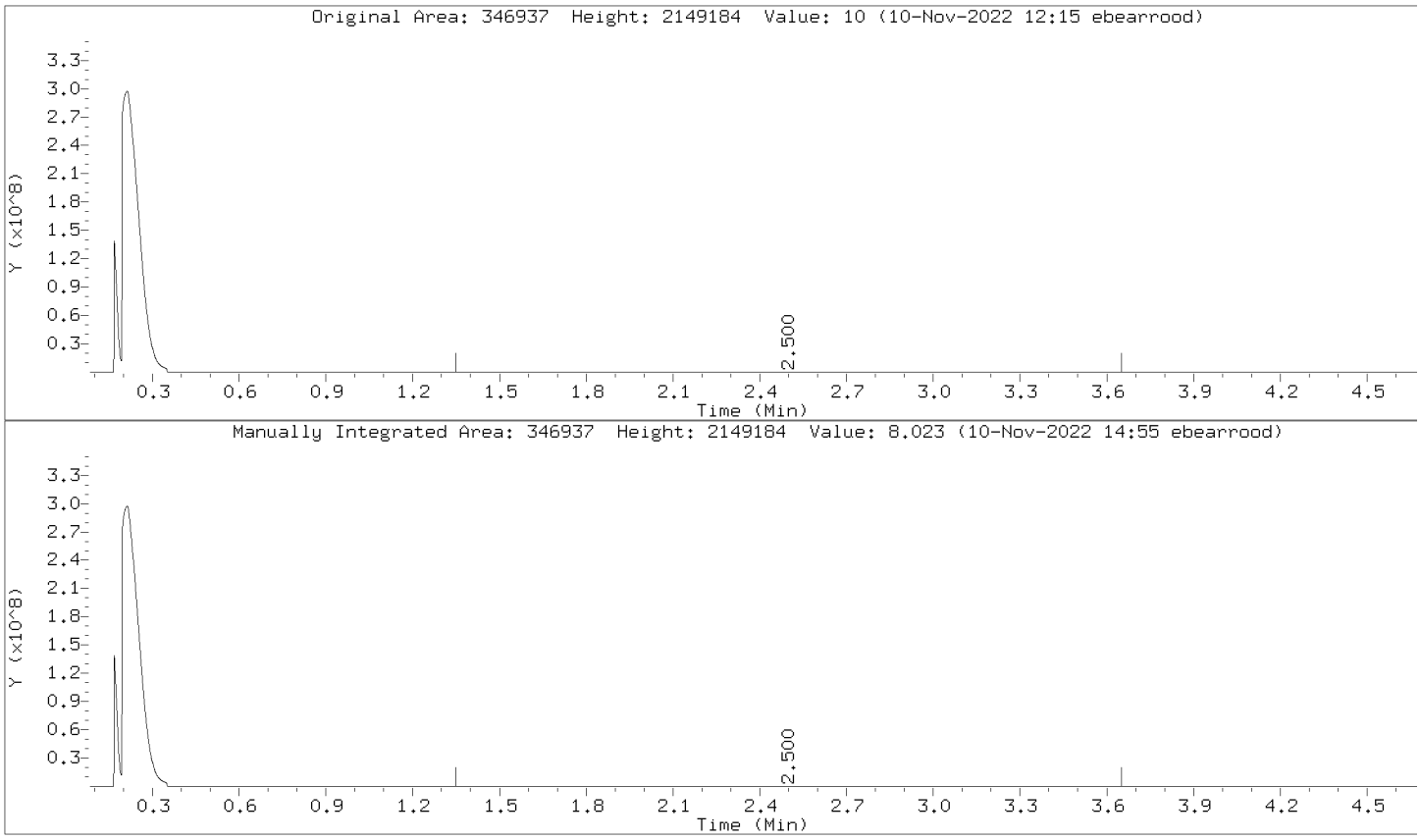
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



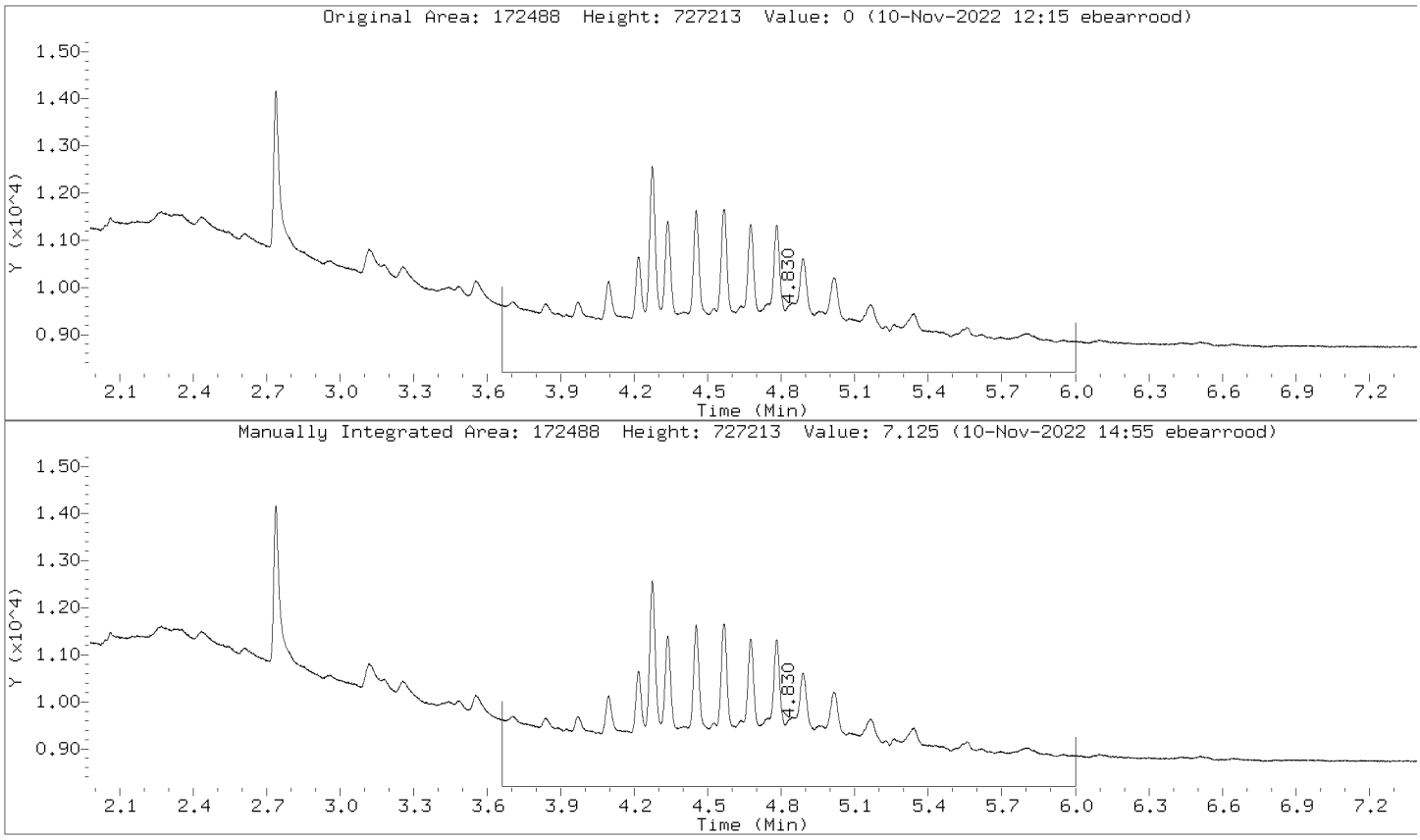
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



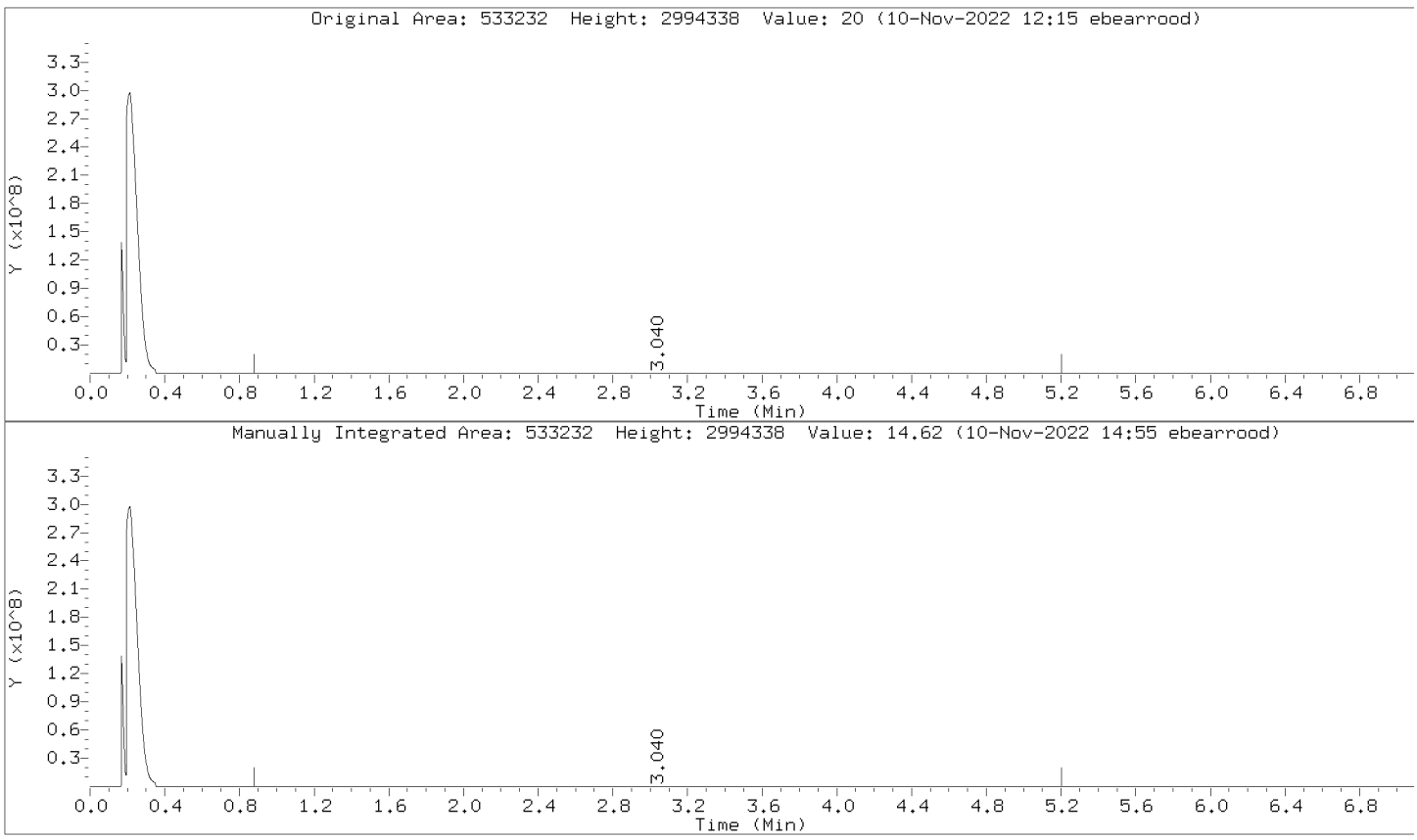
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



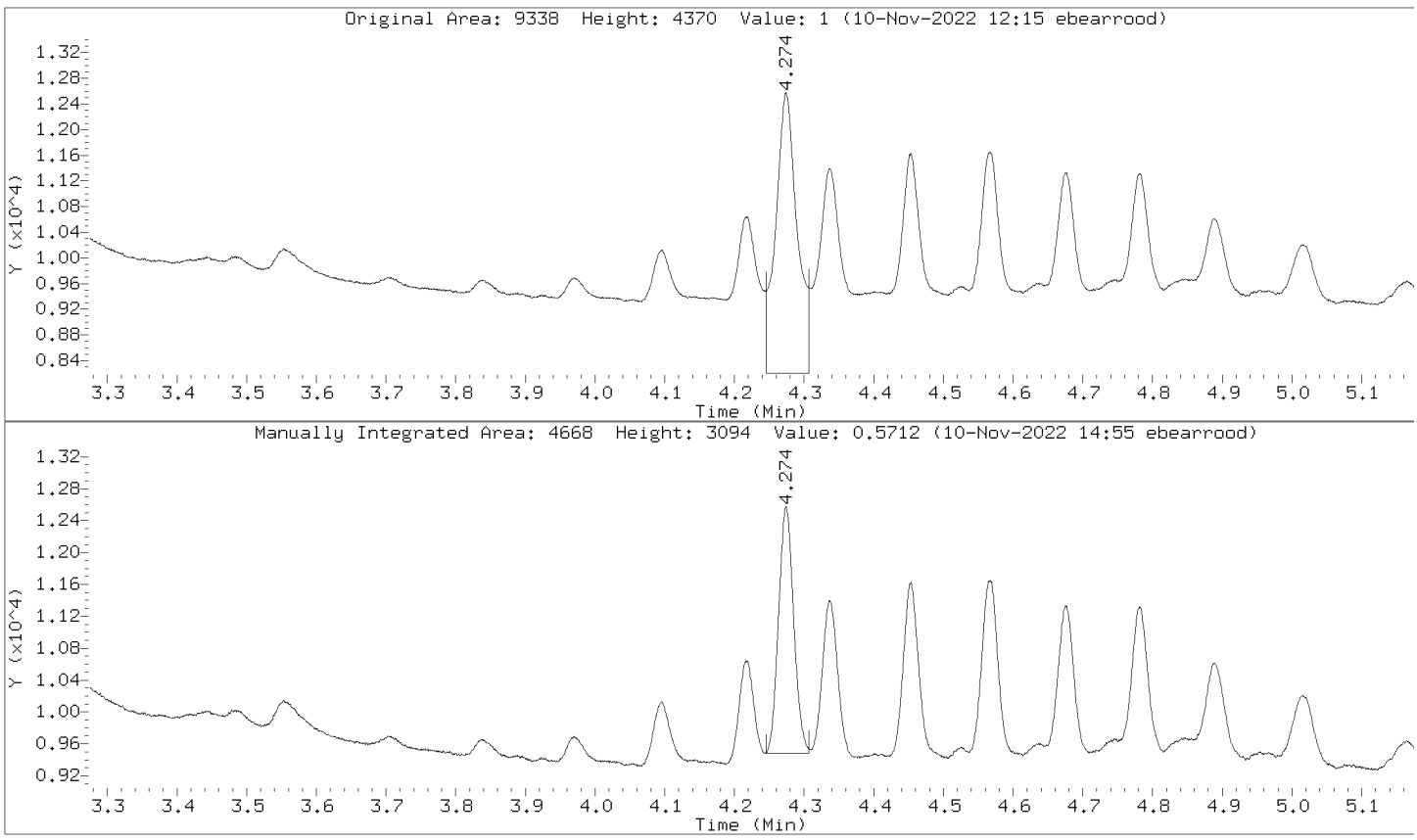
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



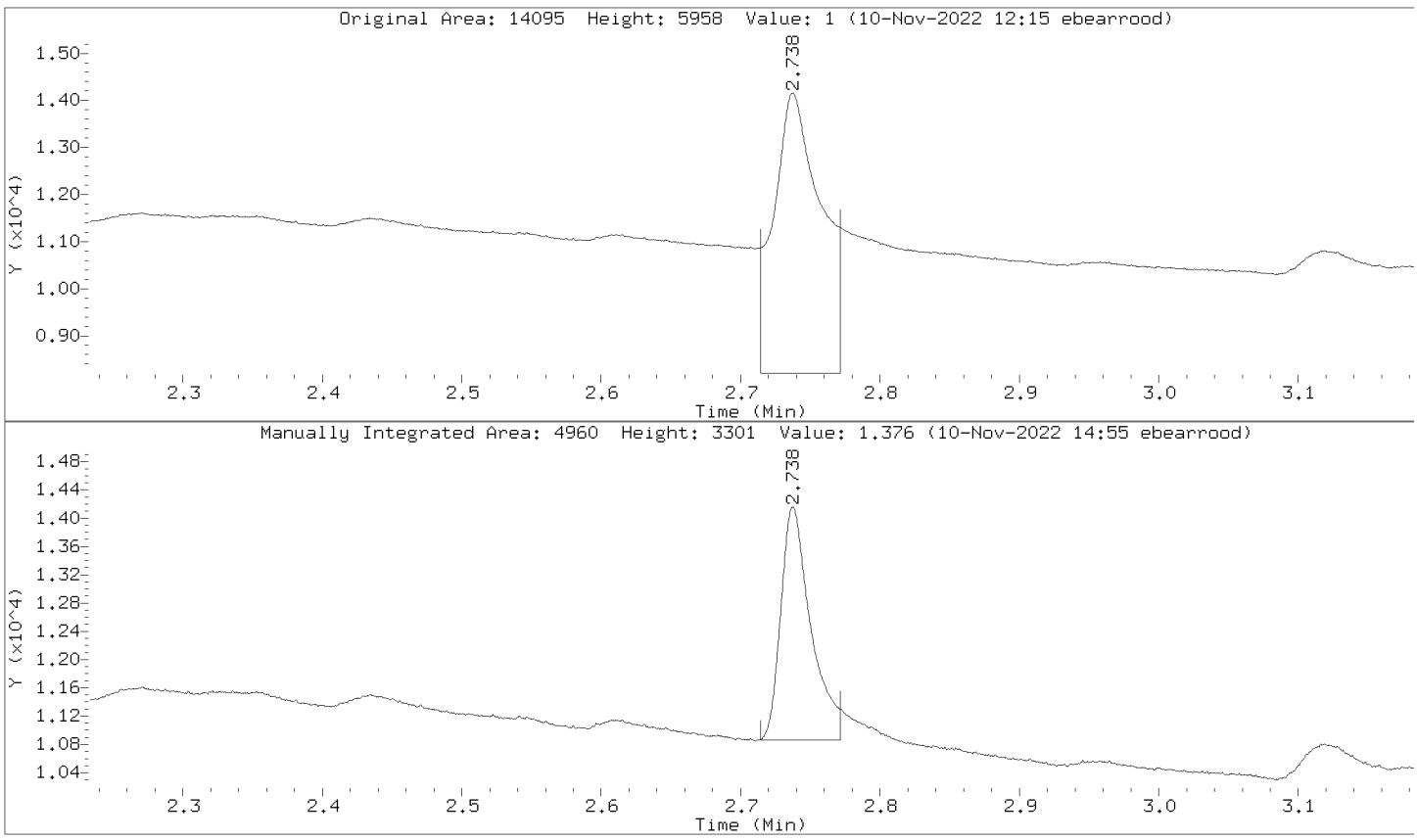
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		475588	25.0000	22.0	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	14599	2.50000	2.81	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	12458	2.50000	2.06	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		195791	25.0000	22.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		541580	25.0000	21.5	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		213550	25.0000	21.9	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		672394	50.0000	44.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		416390	25.0000	22.6	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		416390	25.0000	22.6	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		243248	25.0000	23.2	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		243248	25.0000	23.2	(M)	RNG

QC Flag Legend

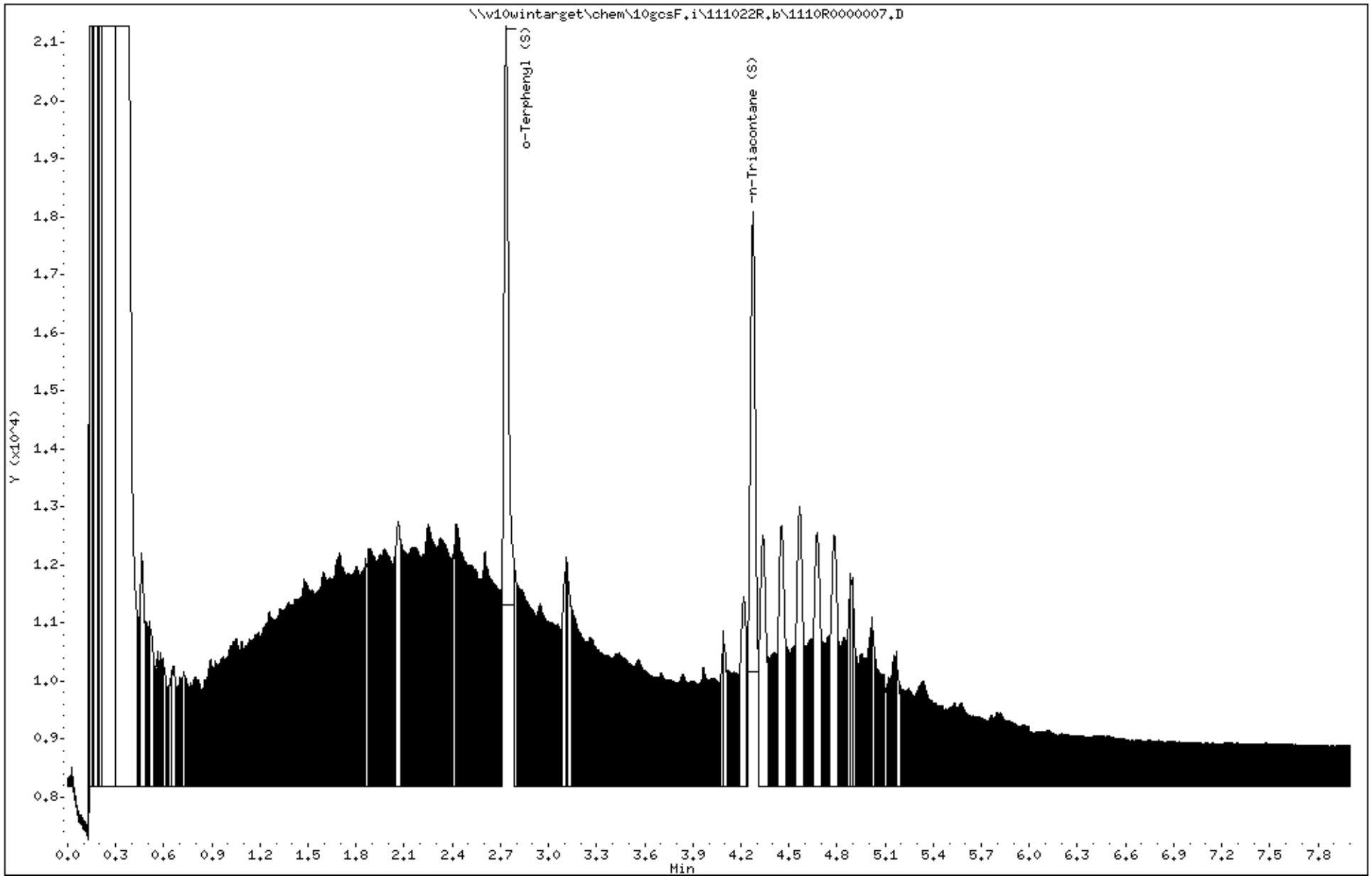
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

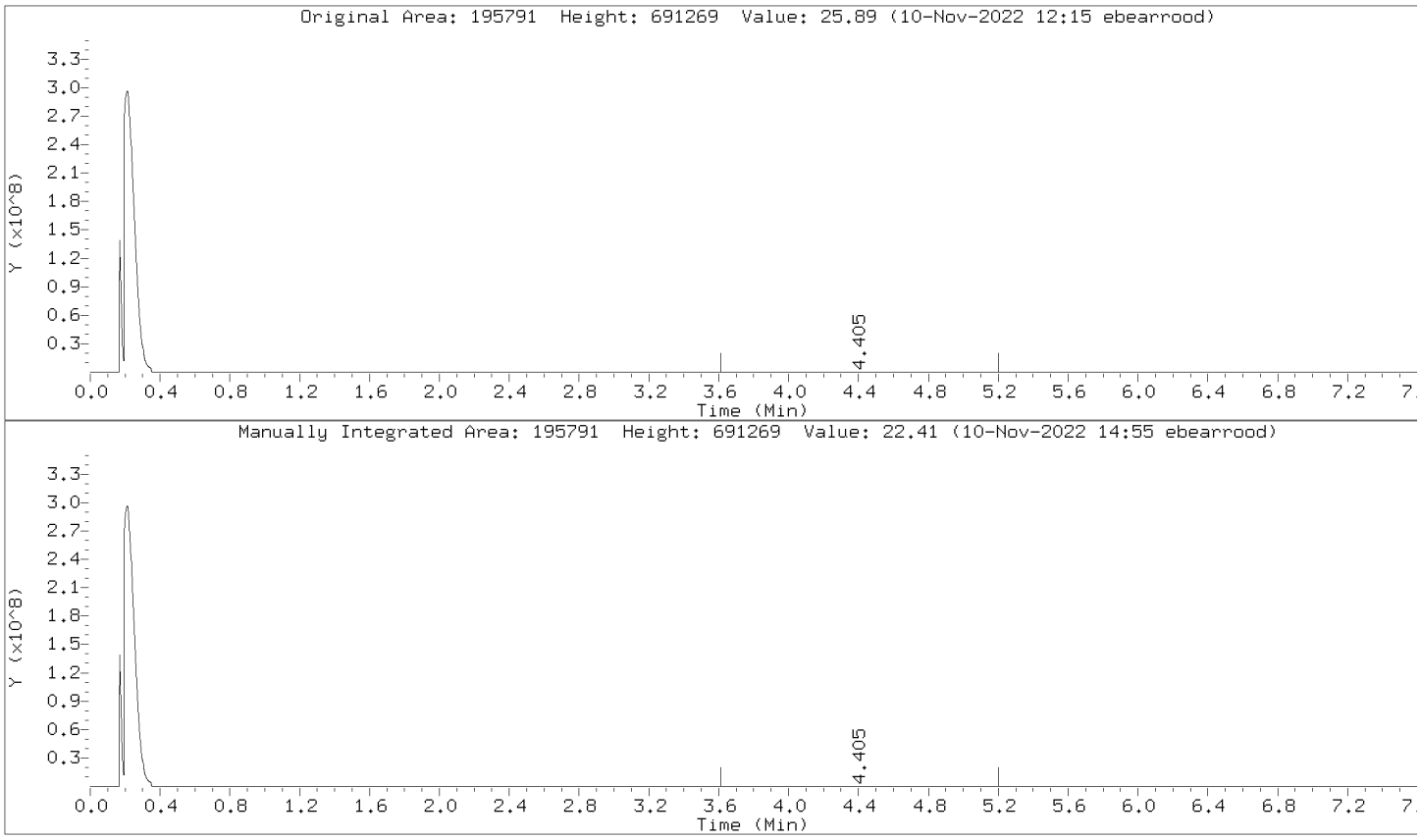
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



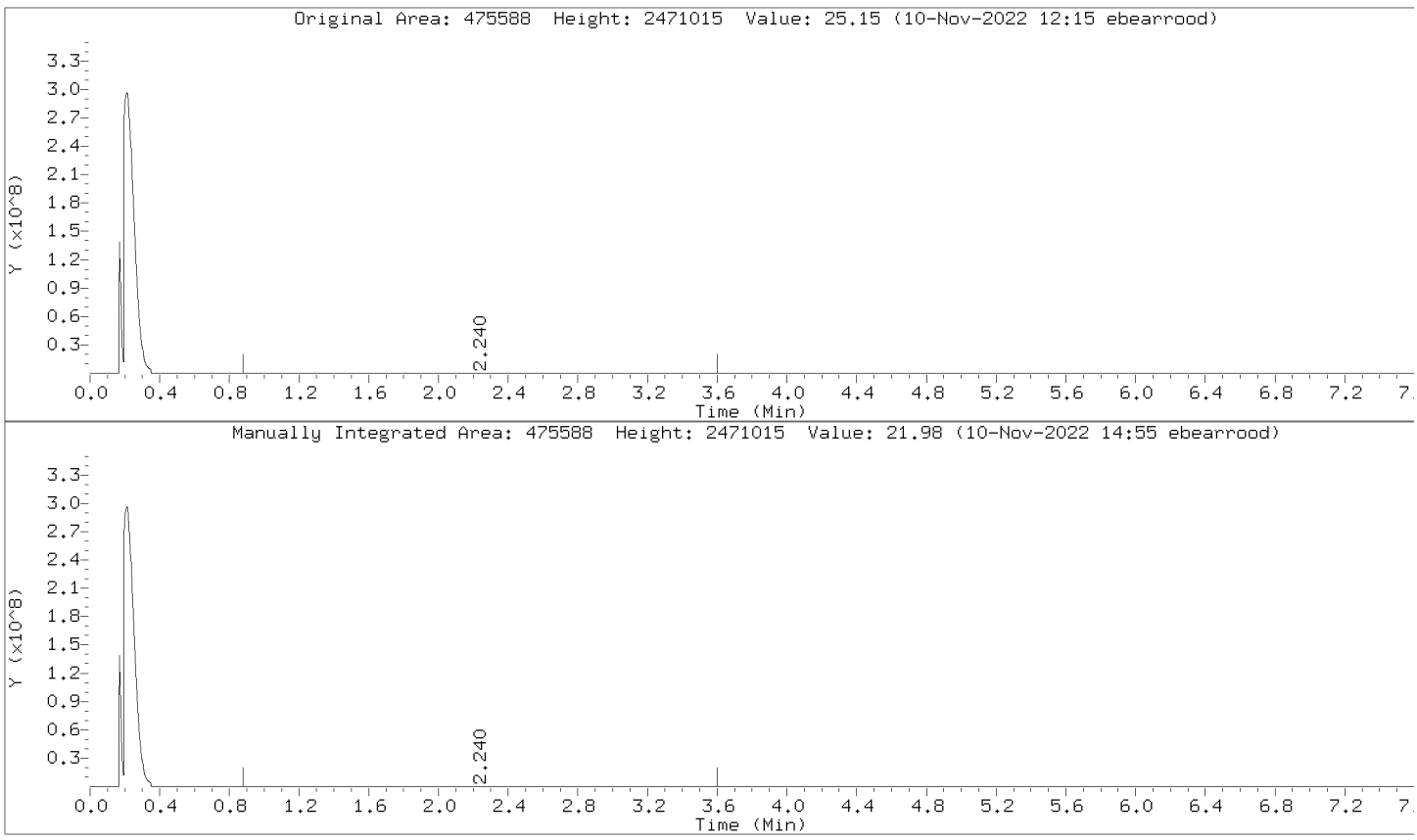
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



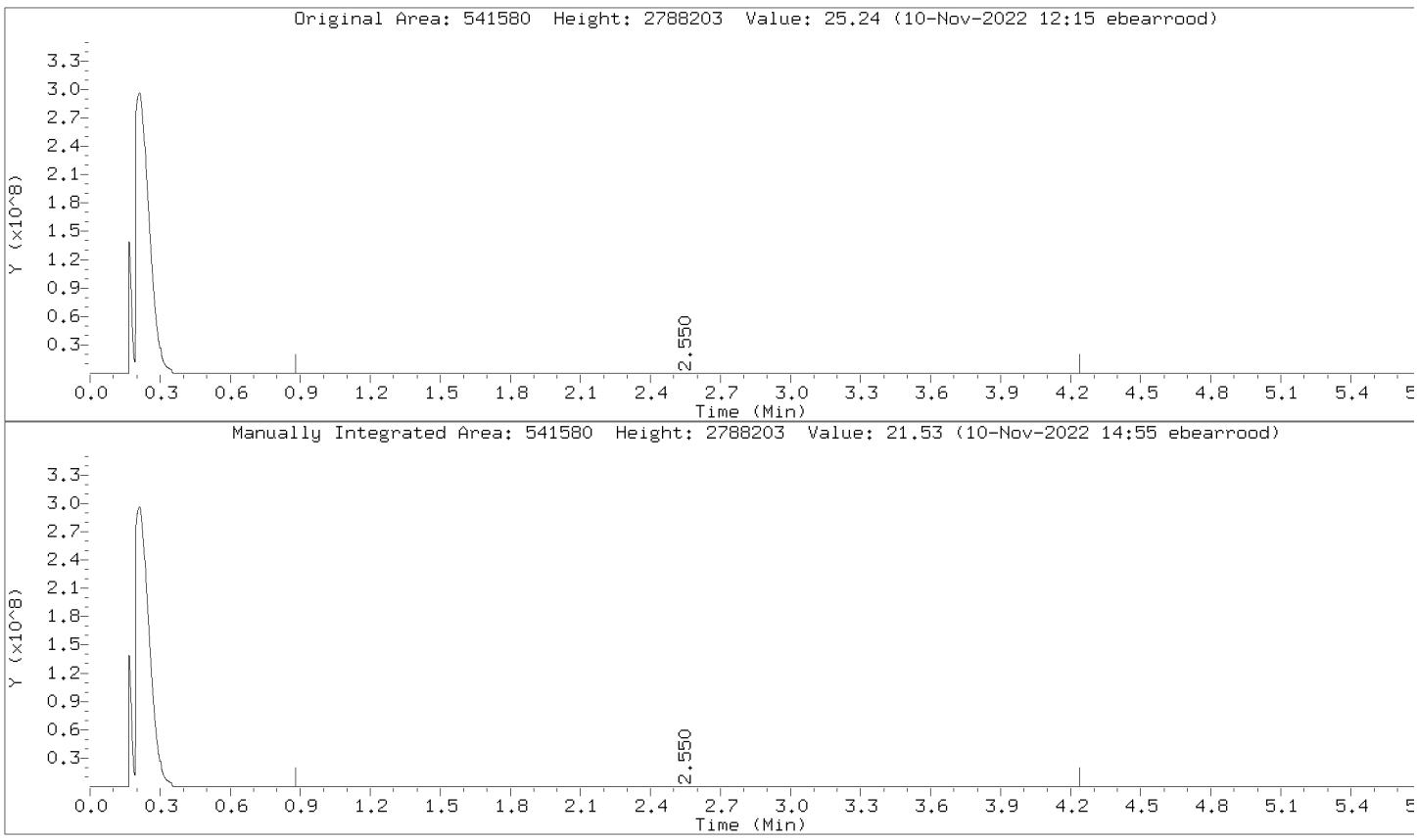
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



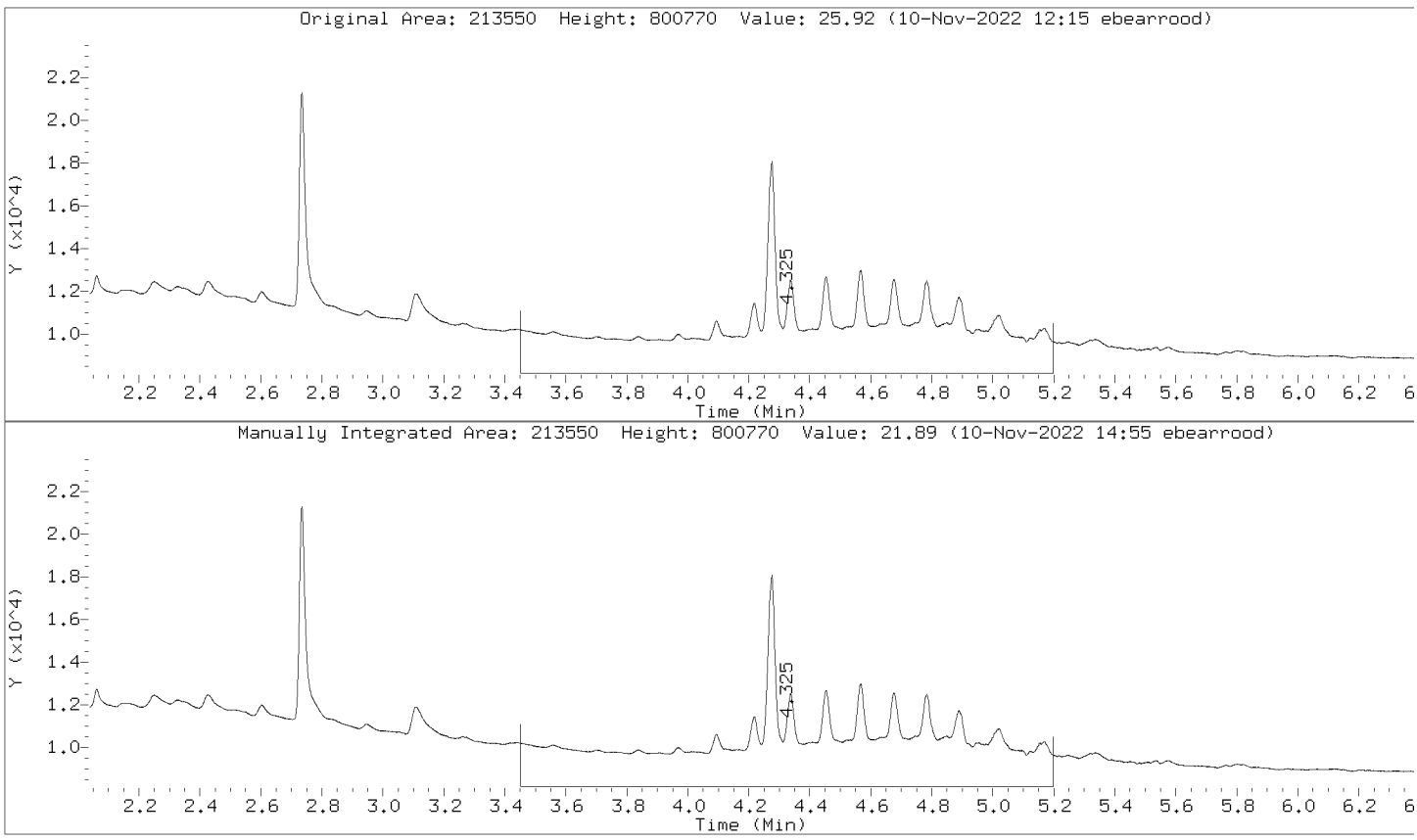
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



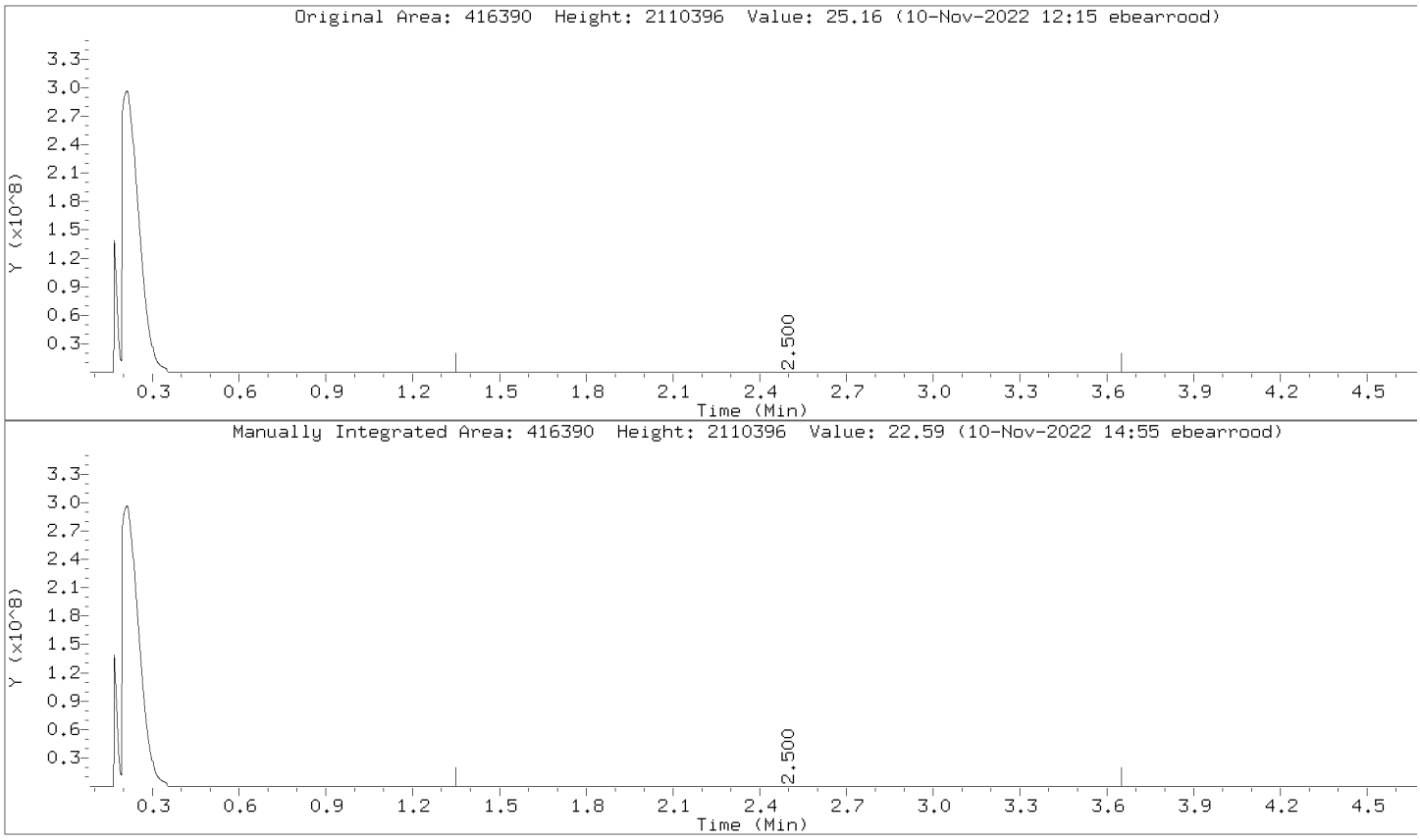
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



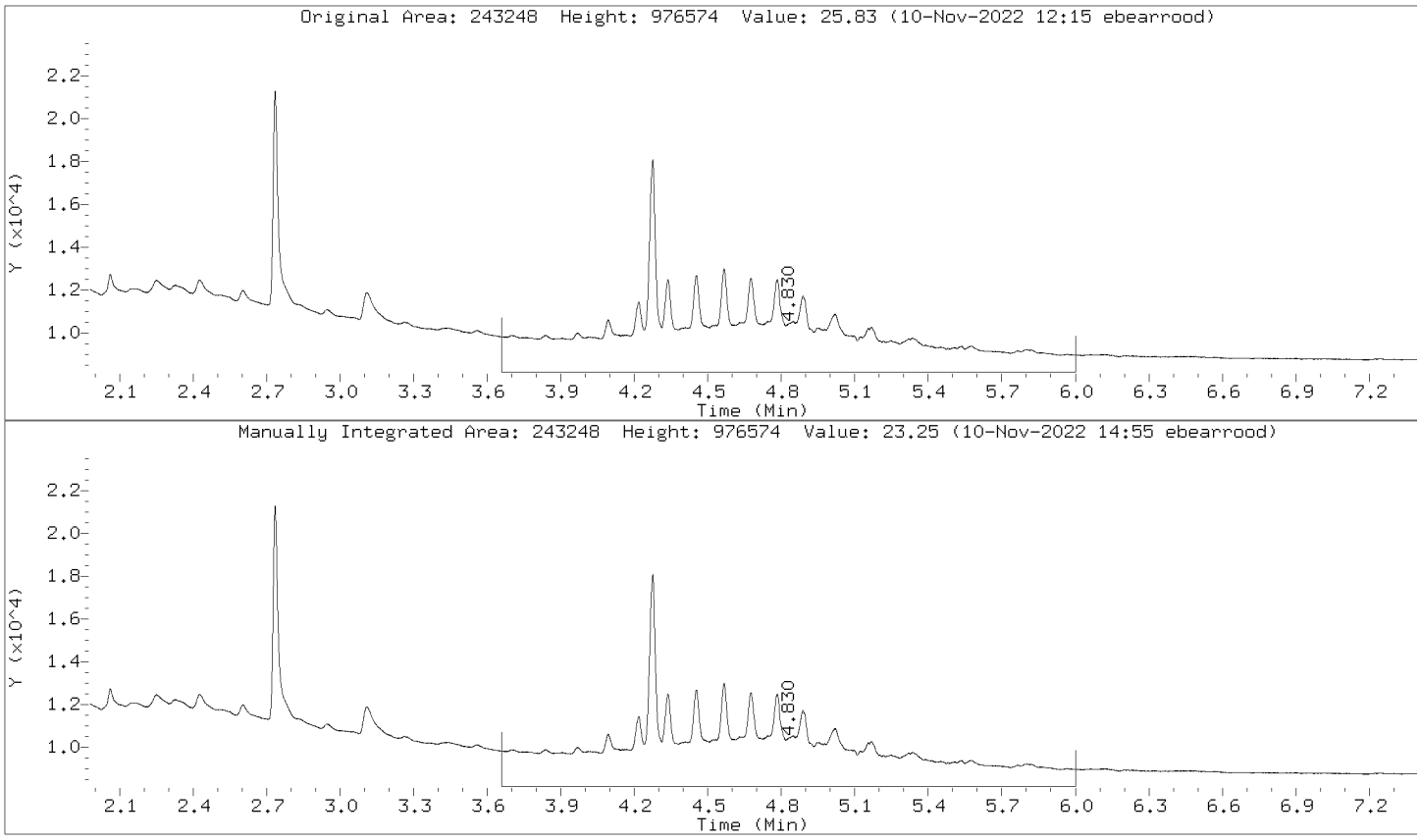
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



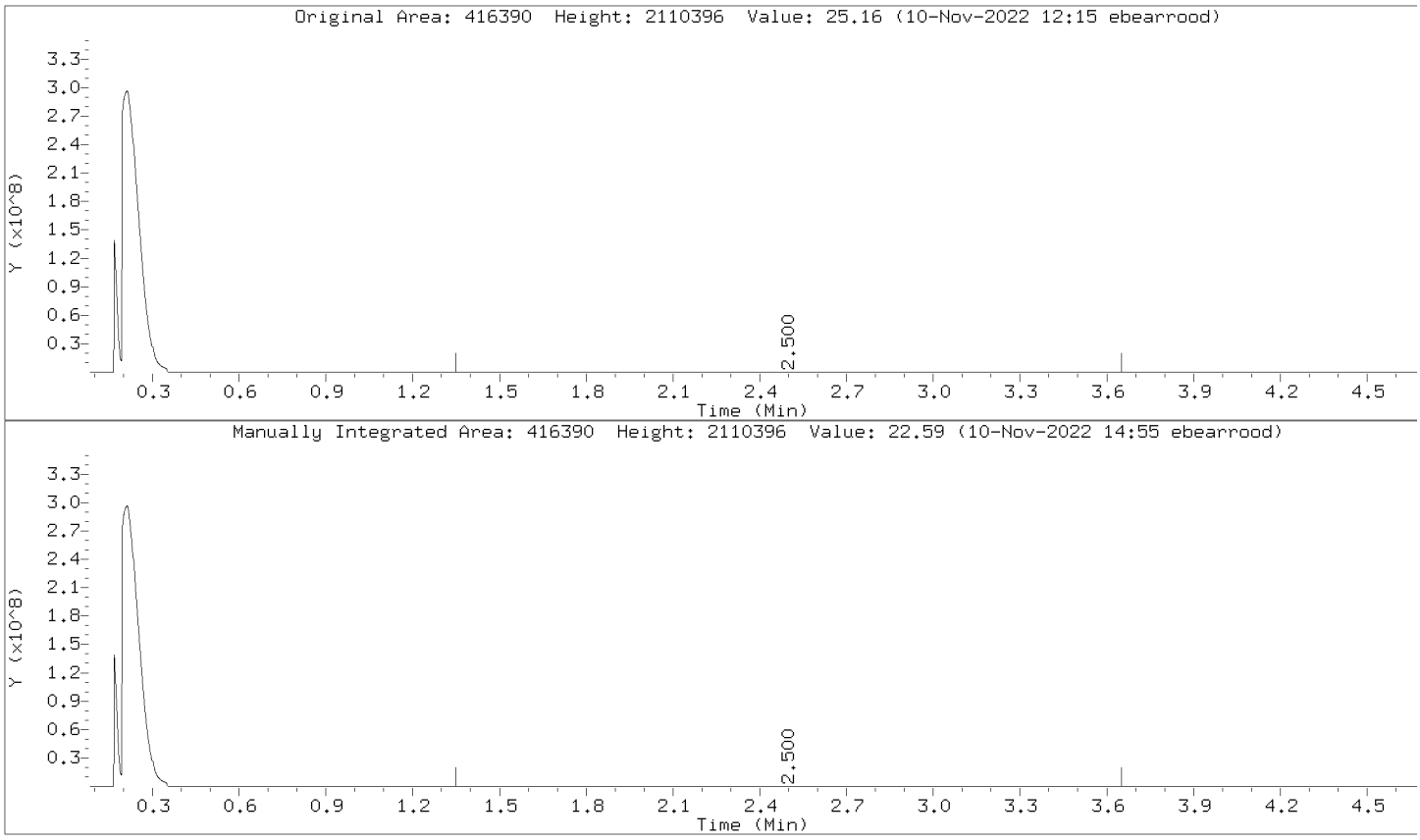
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



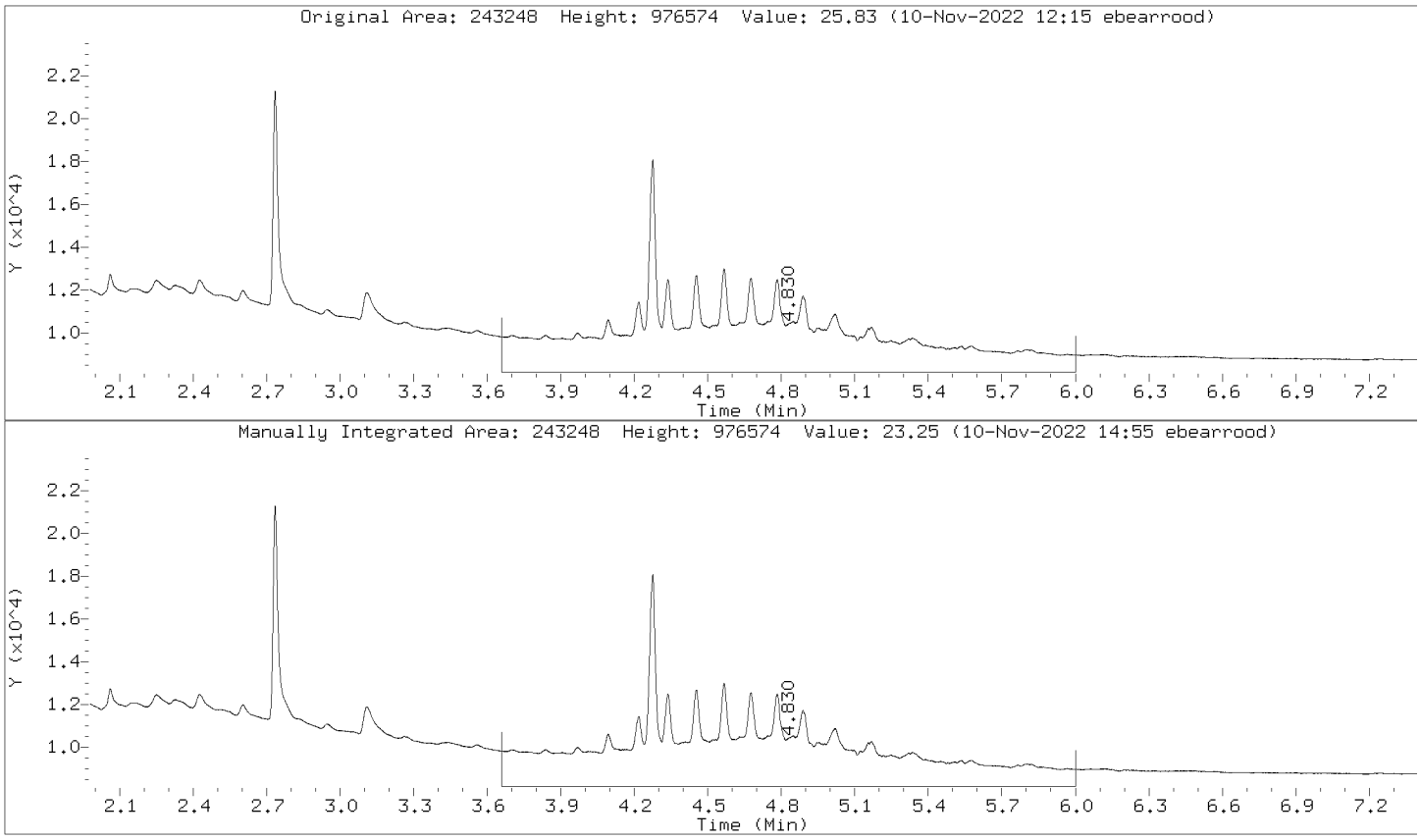
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



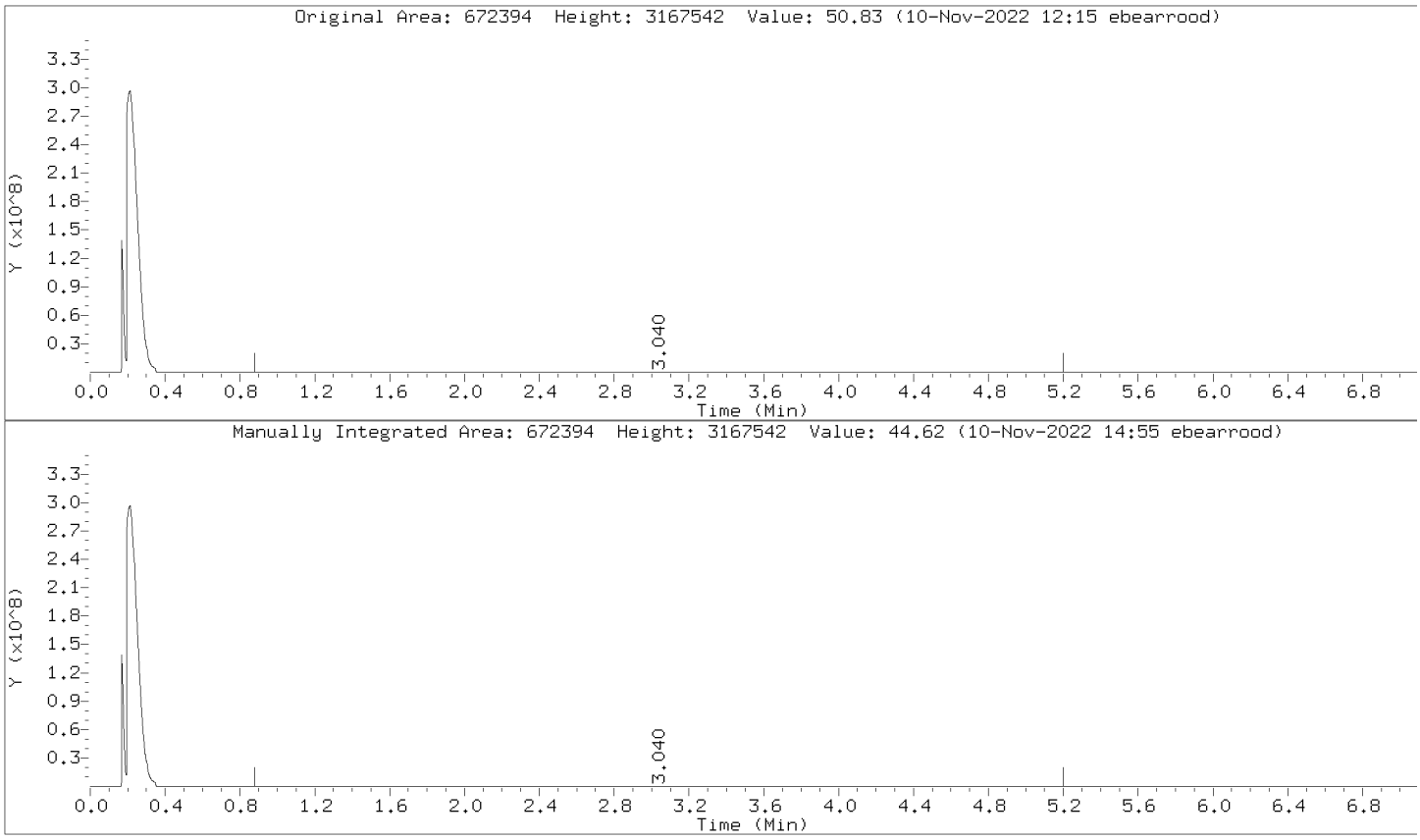
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



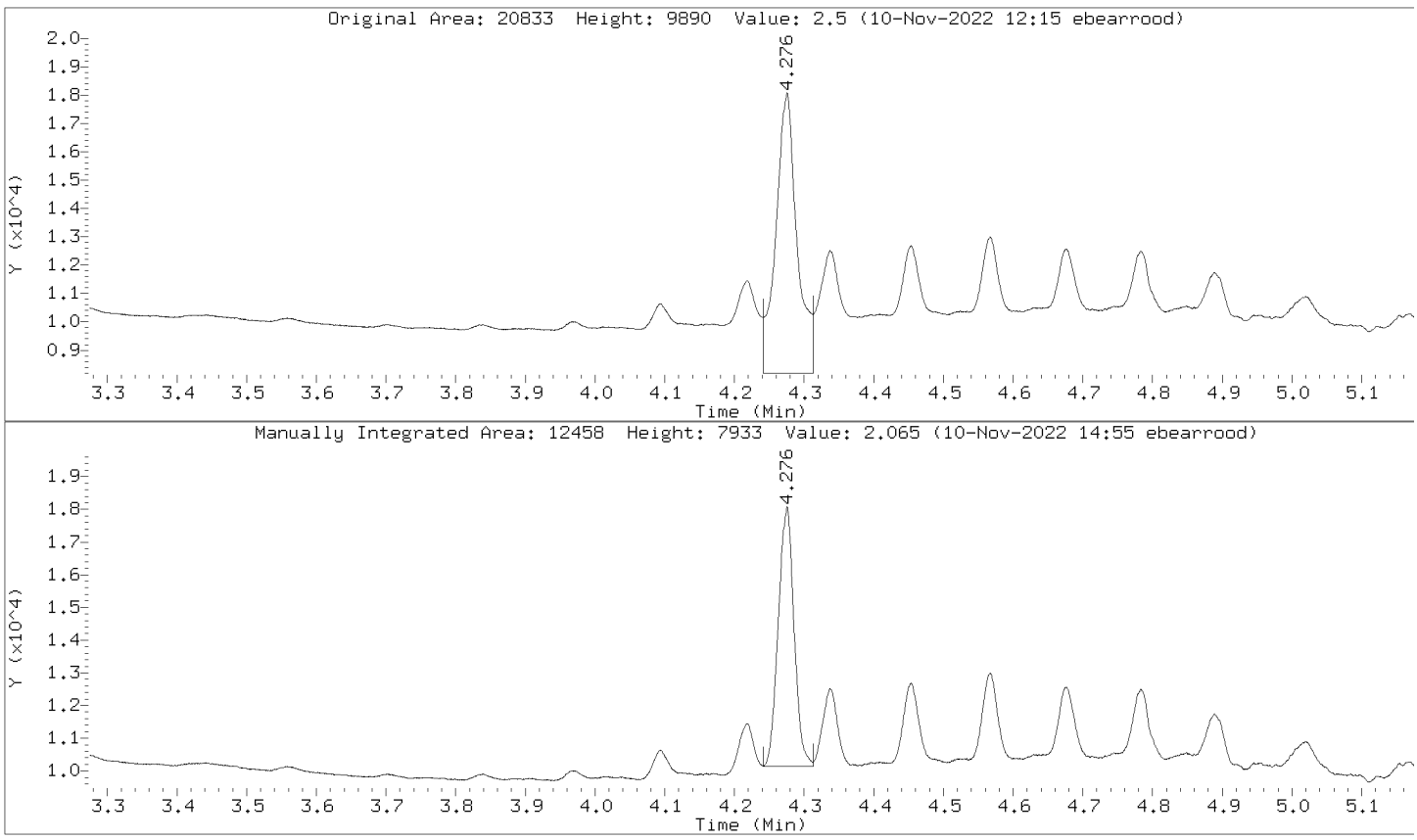
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



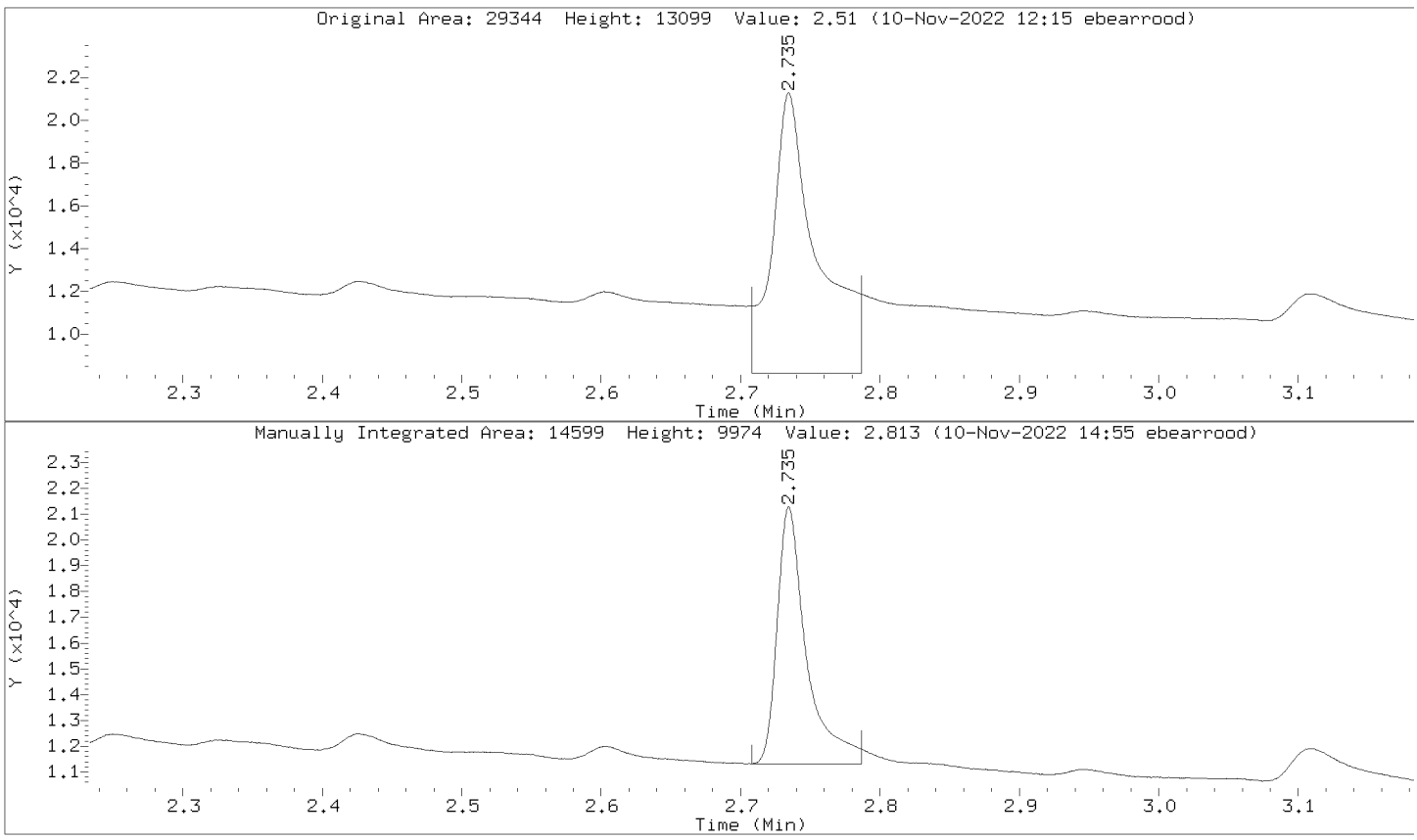
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

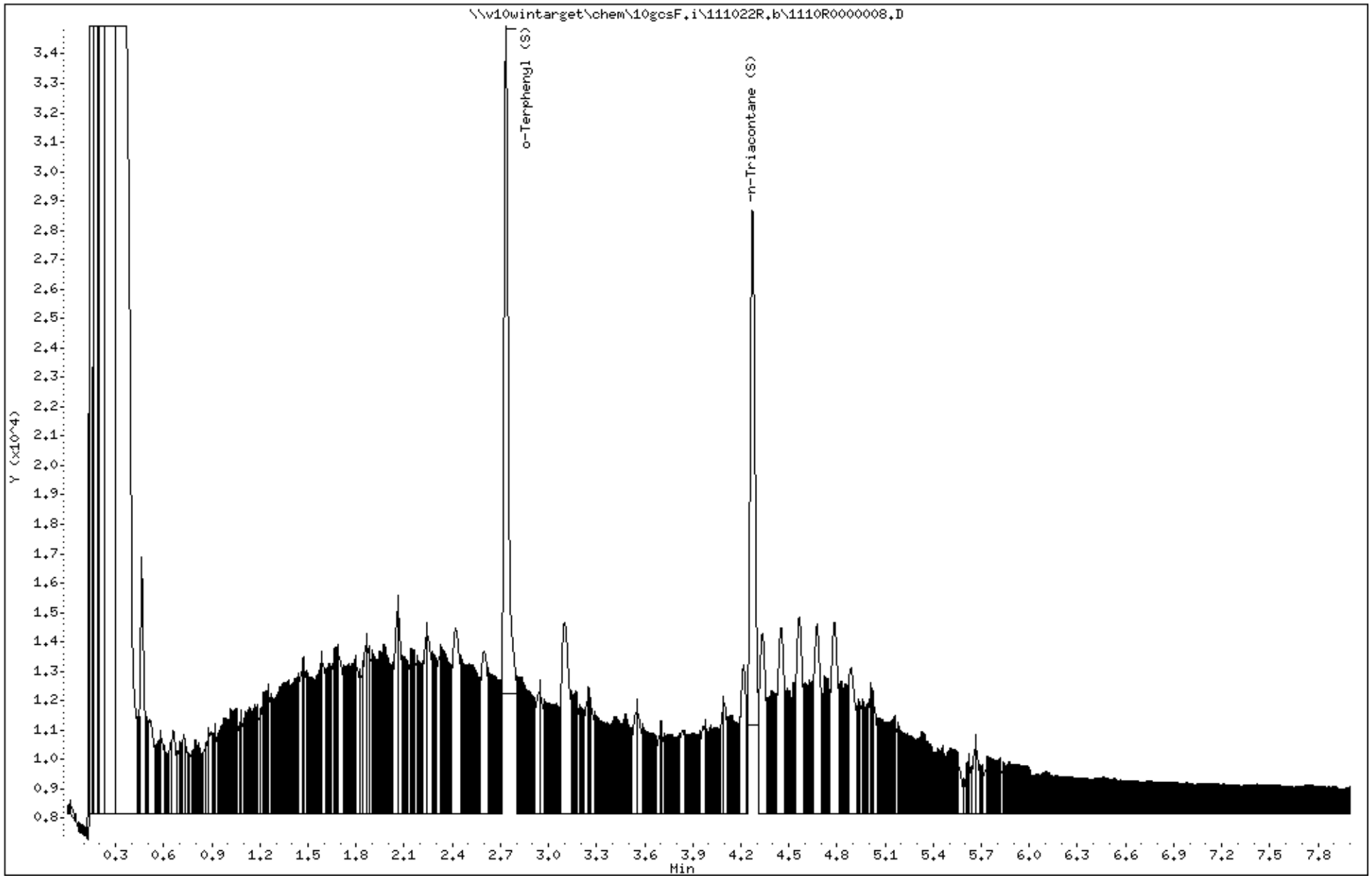
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

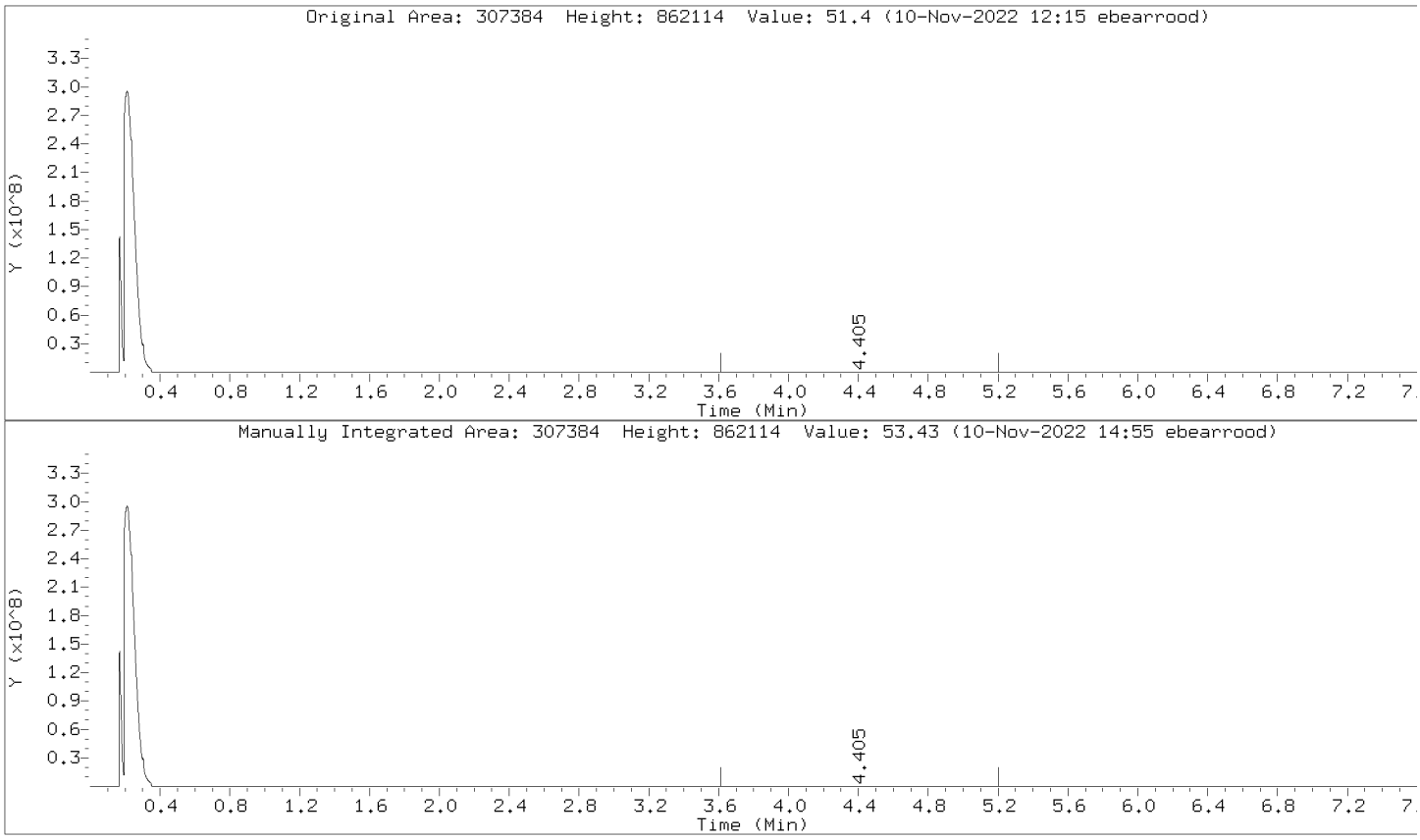
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



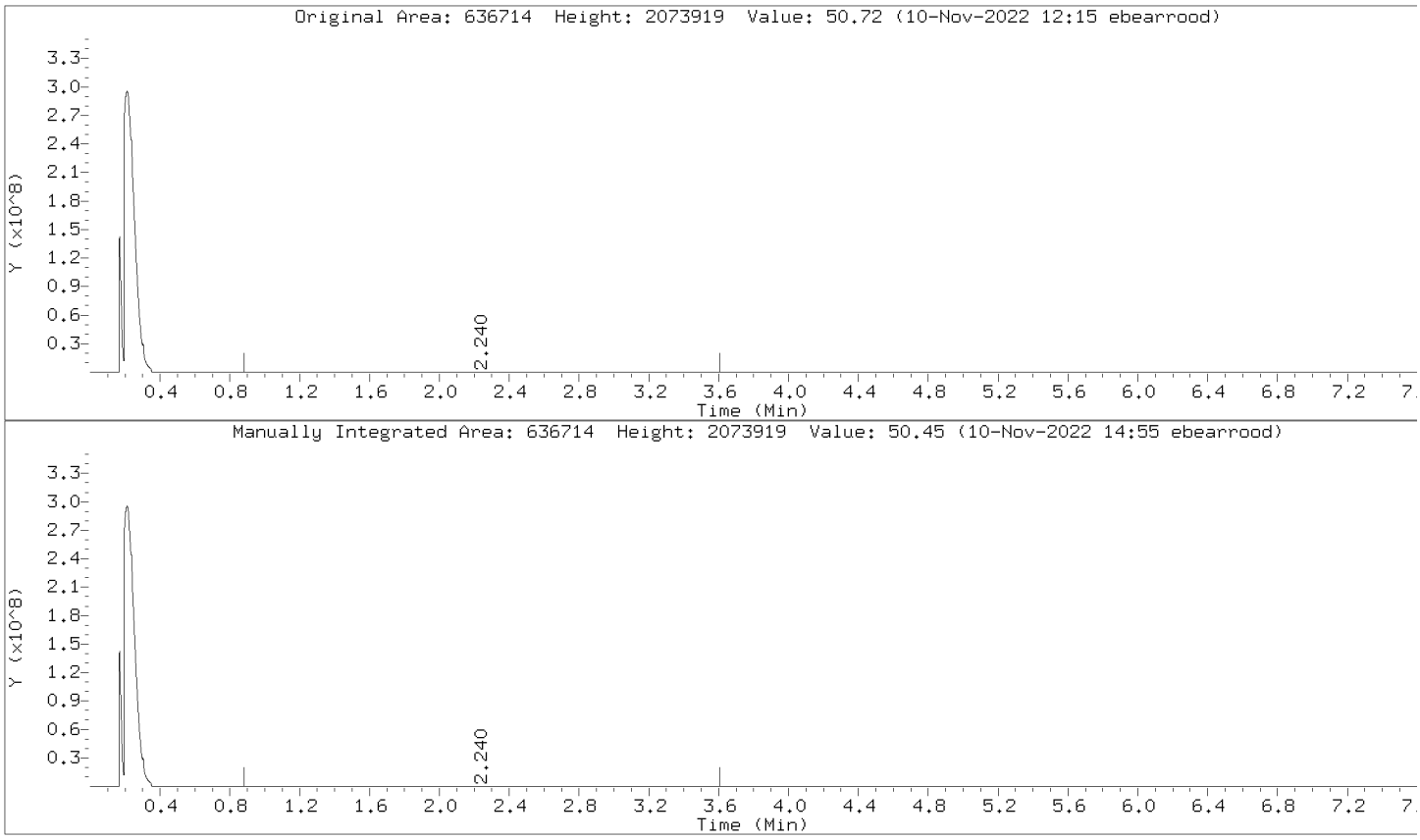
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



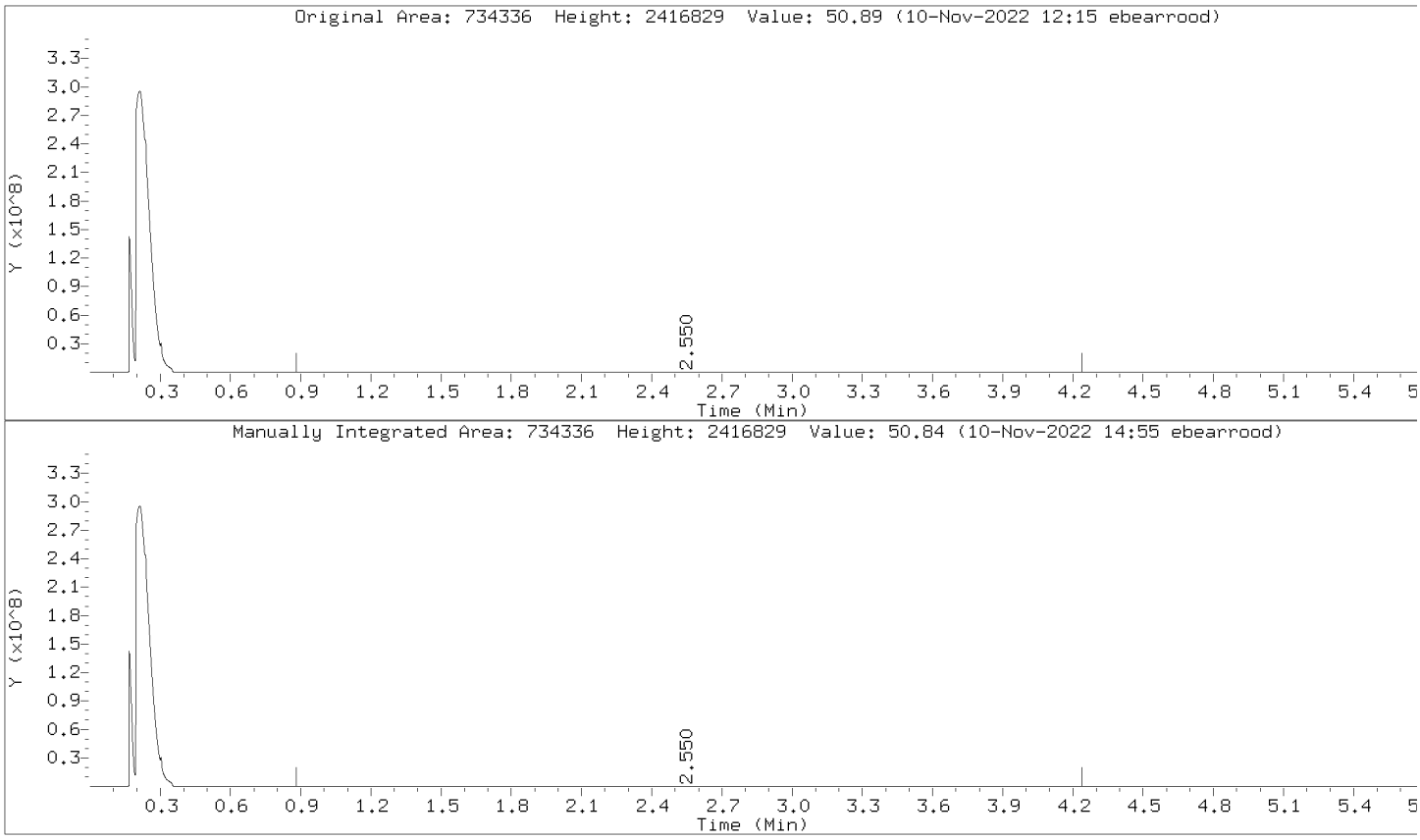
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



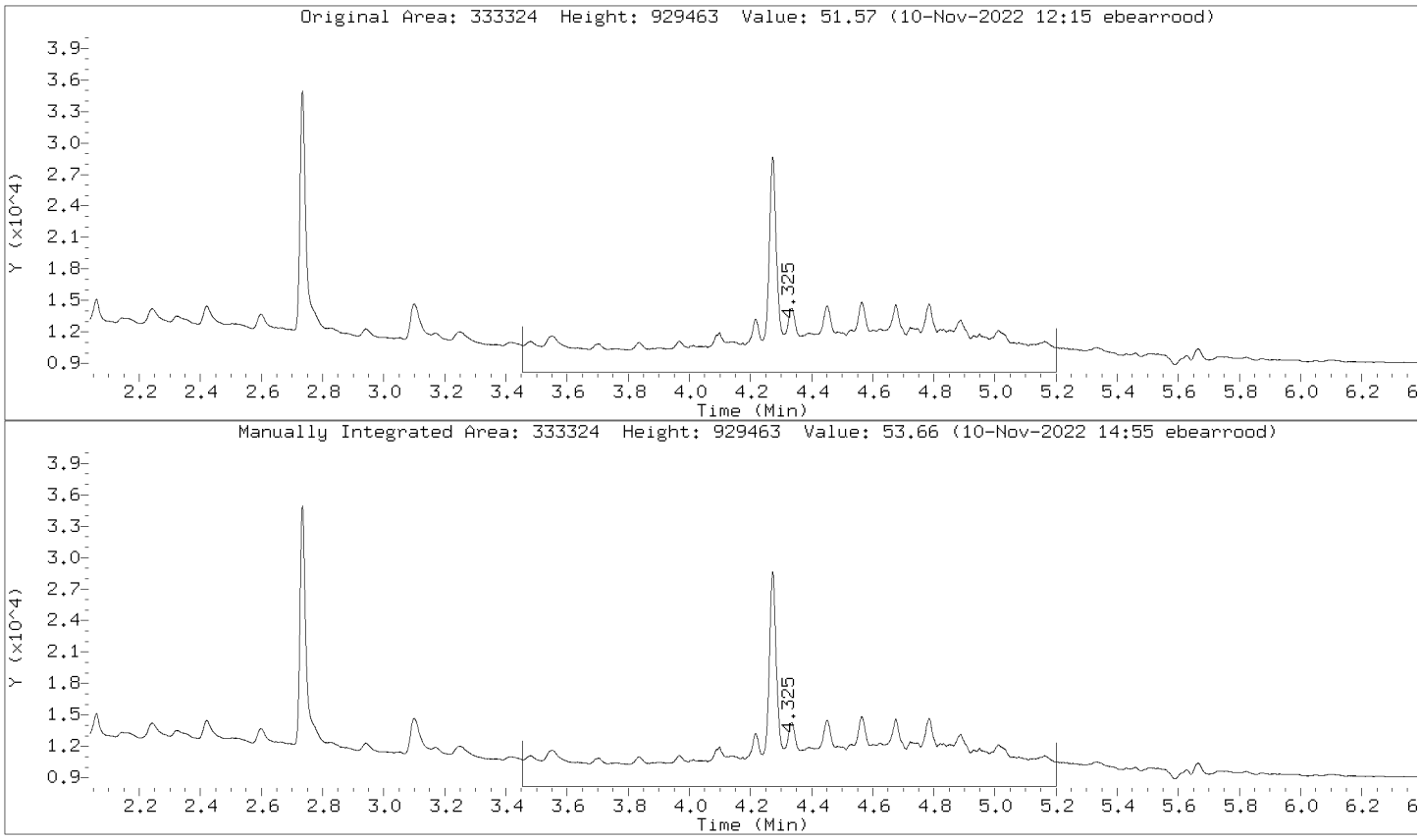
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



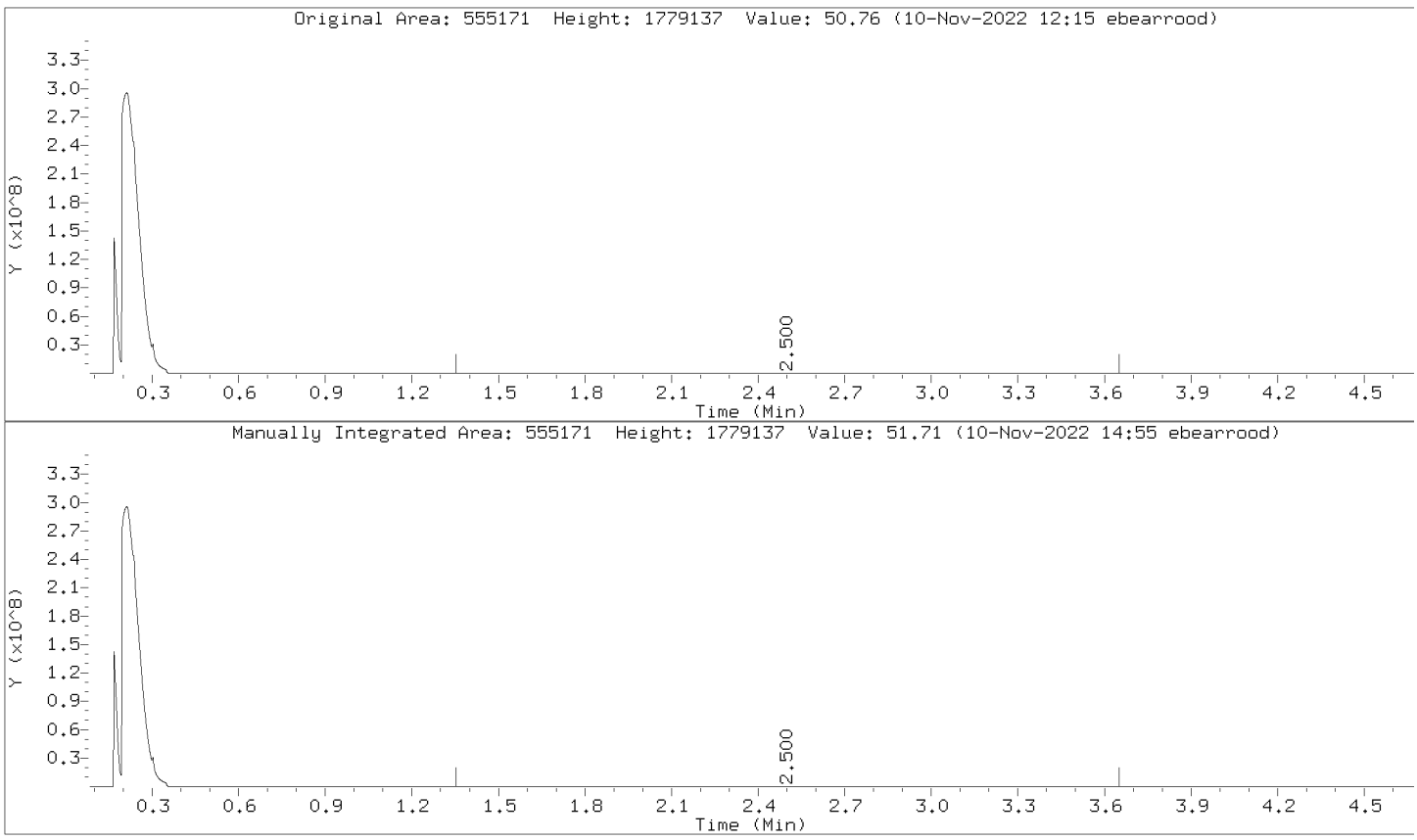
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



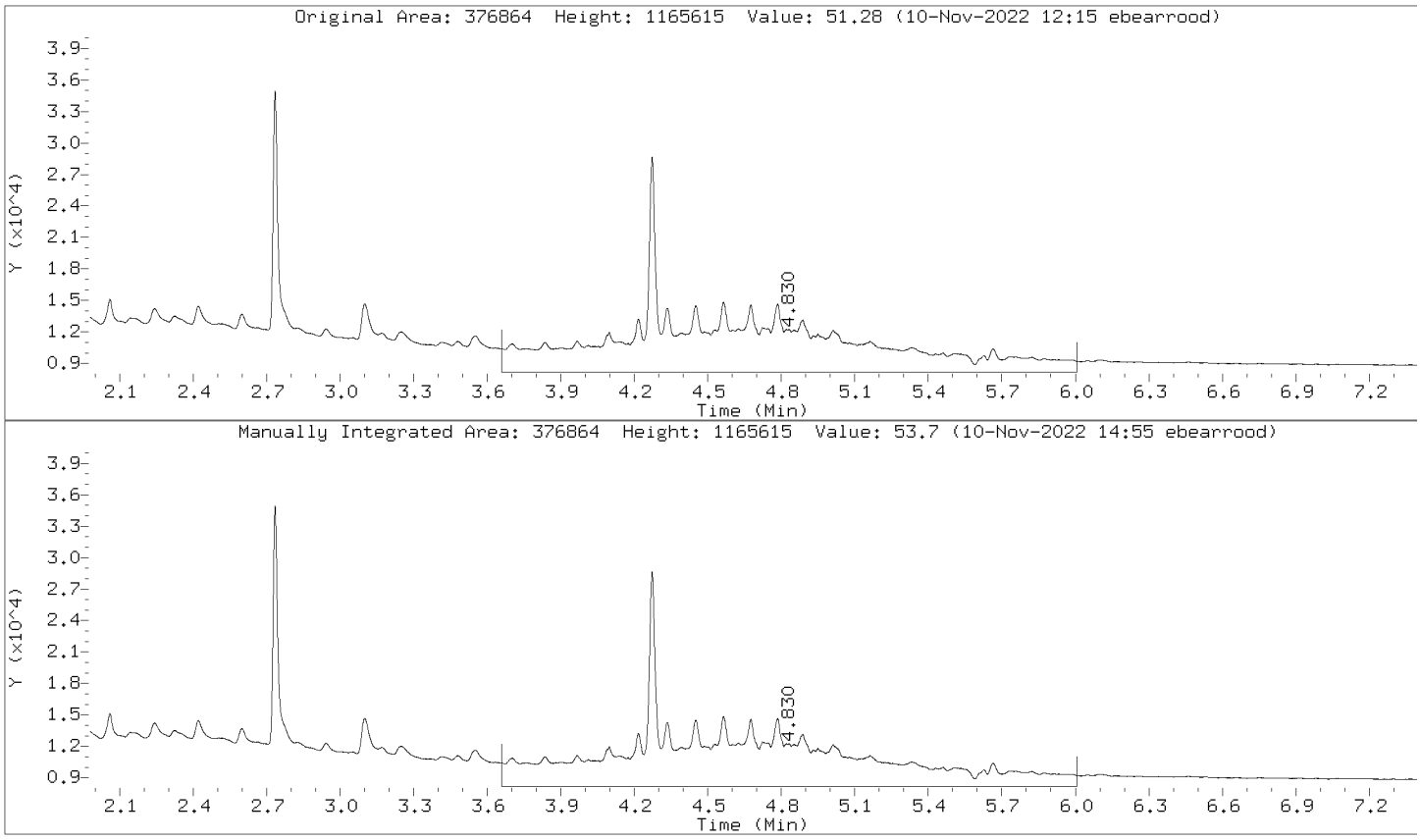
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



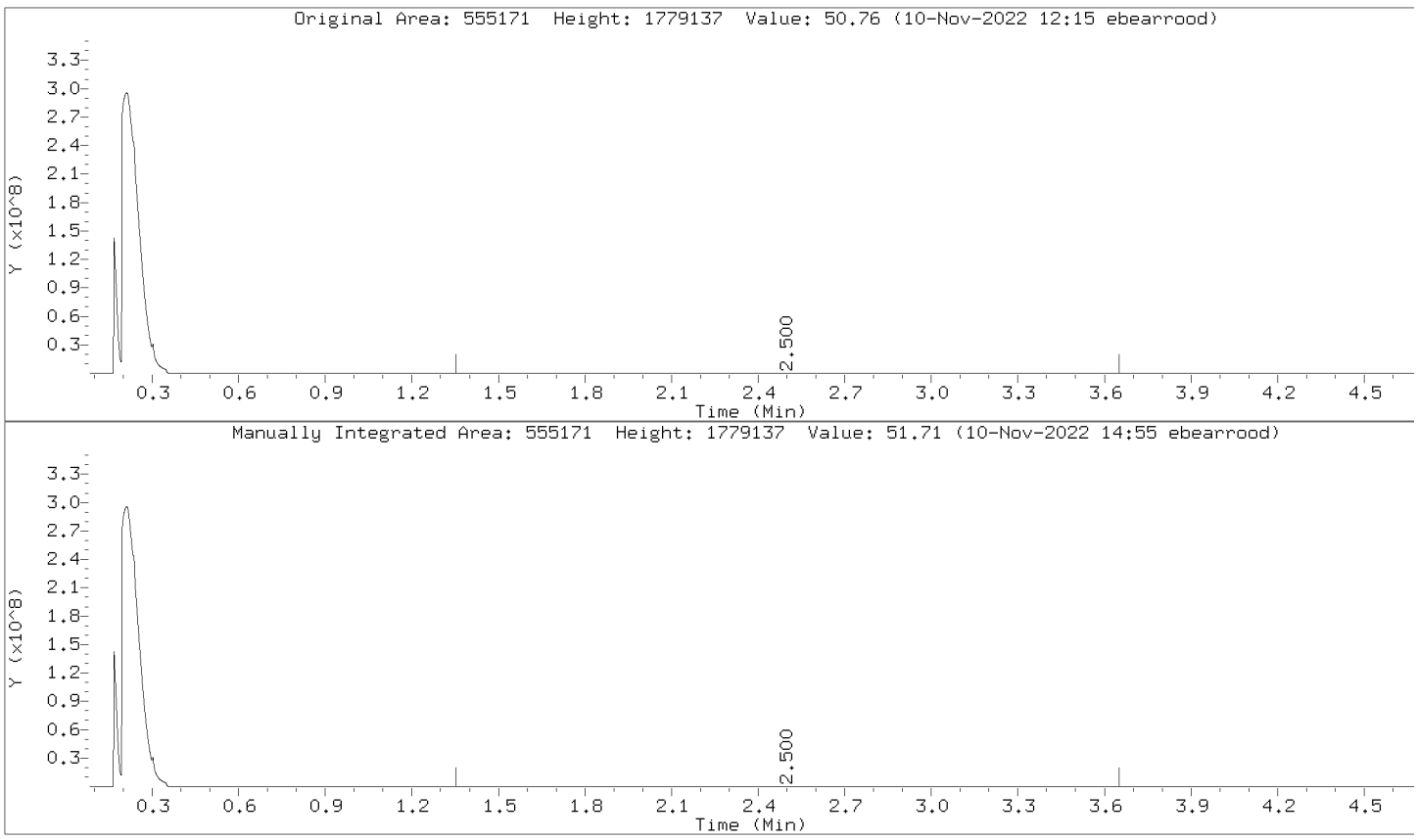
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



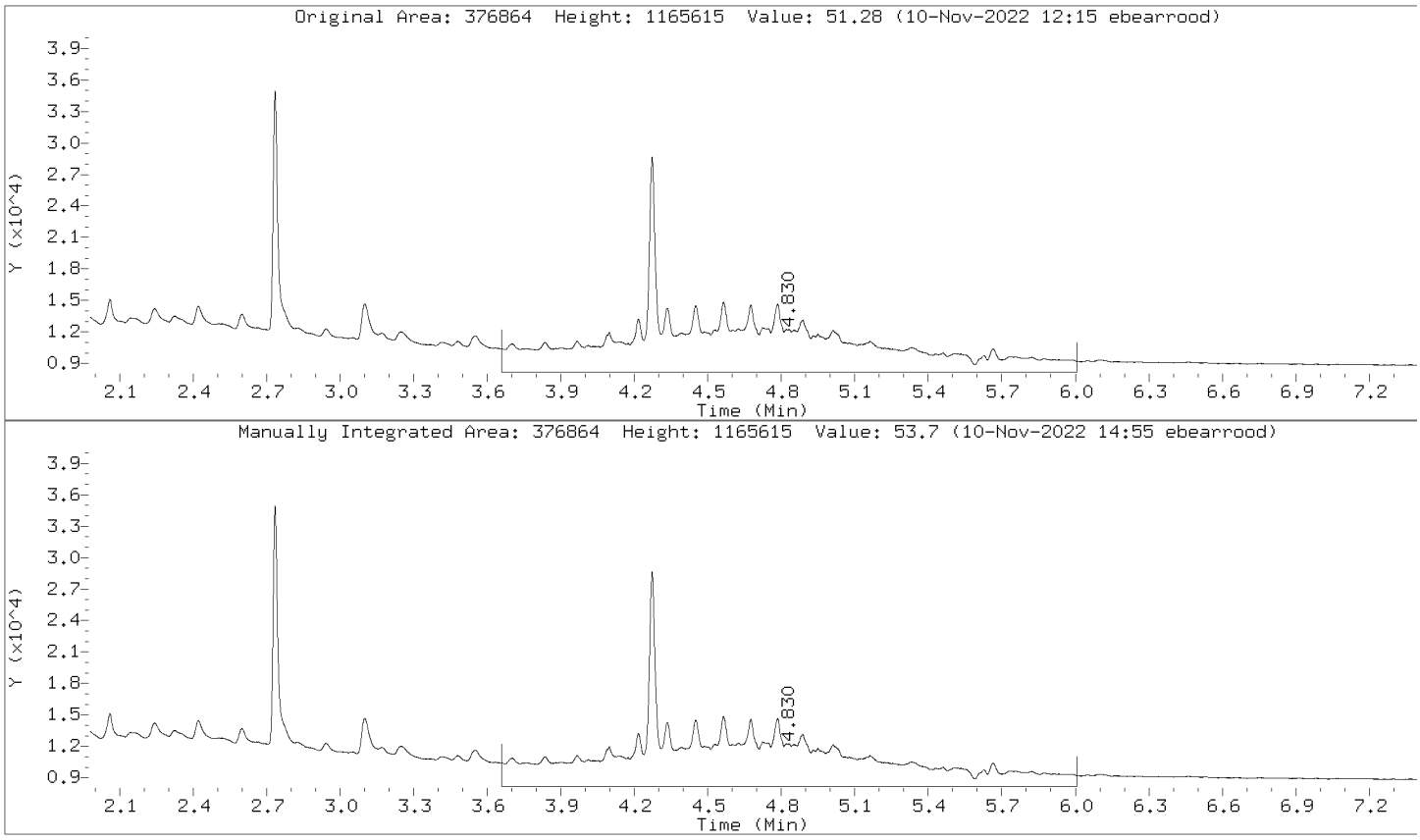
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



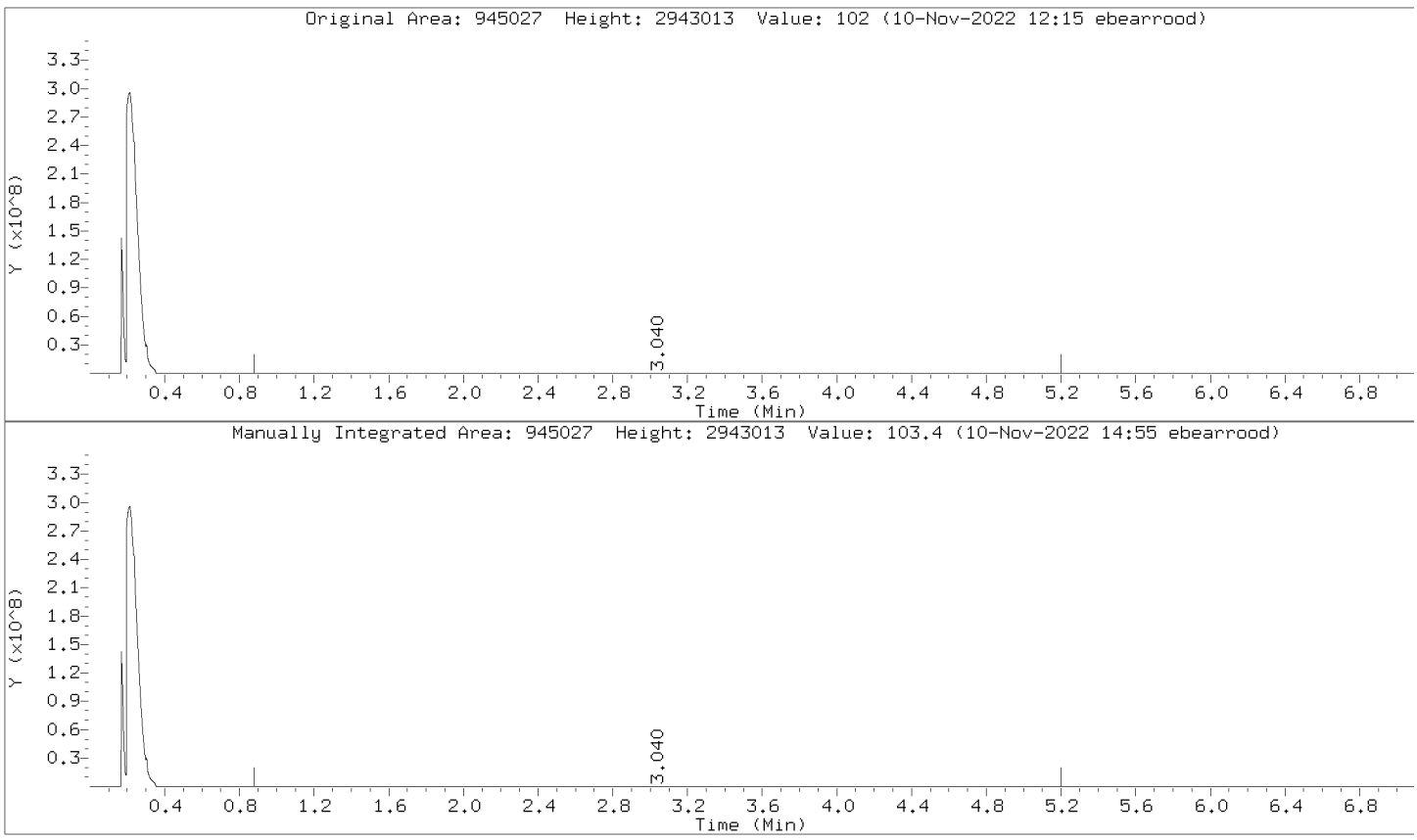
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



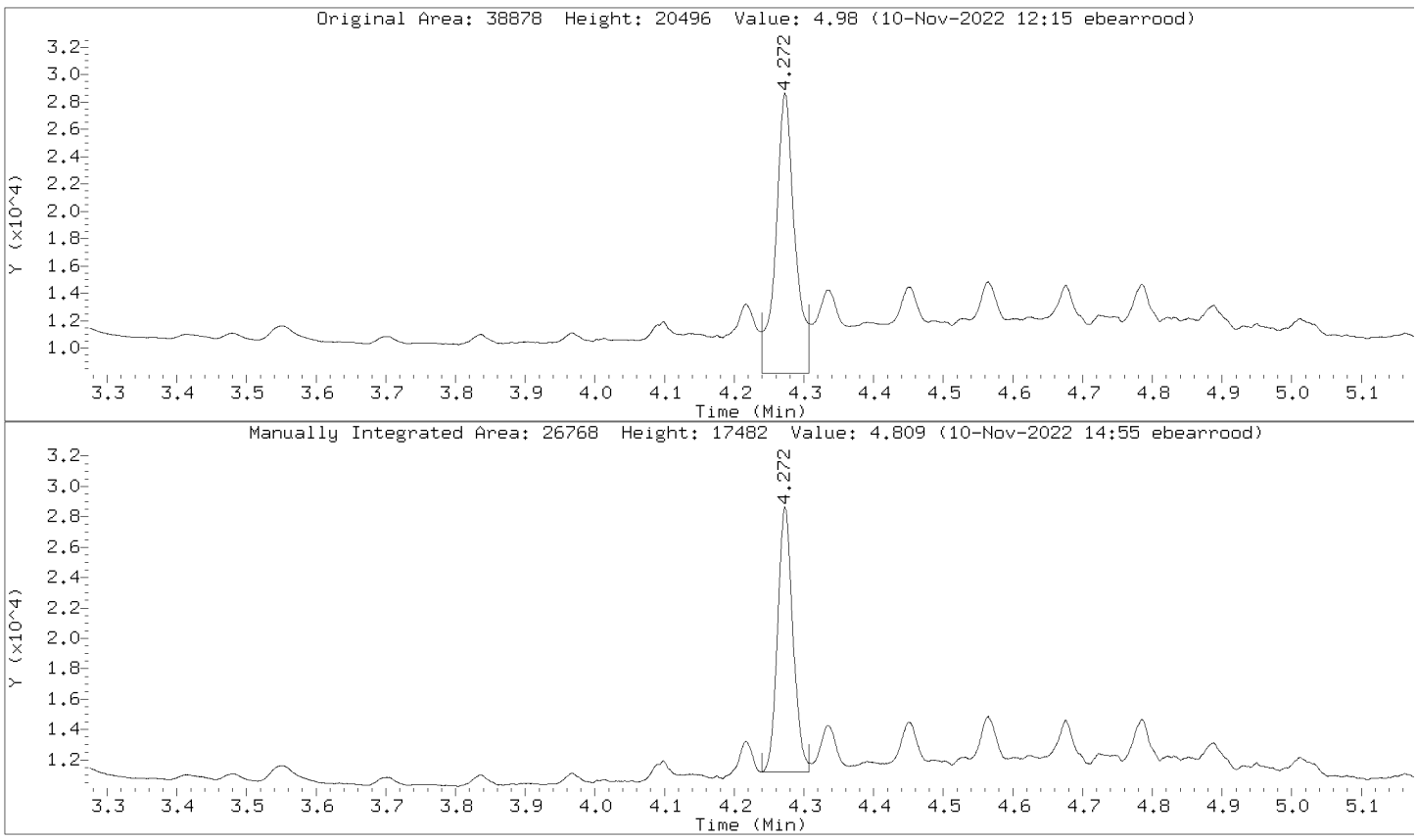
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



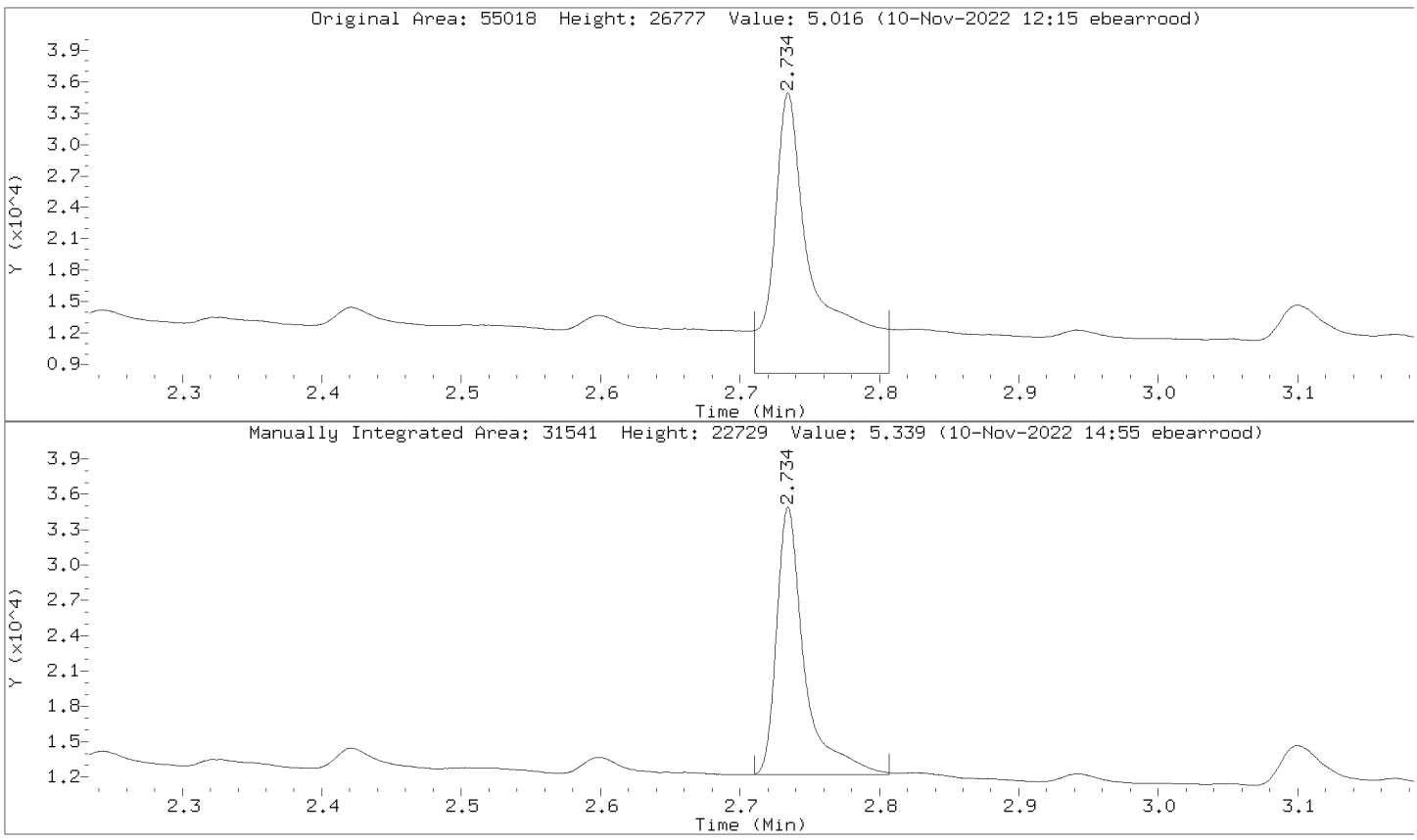
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)		REVIEW	CODE
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		898996	100.000	96.8		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	63221	10.0000	10.1		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.272	4.275	-0.003	50954	10.0000	9.45		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		461790	100.000	96.3		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		1035387	100.000	96.6		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		493334	100.000	96.1		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		1362996	200.000	193		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG

QC Flag Legend

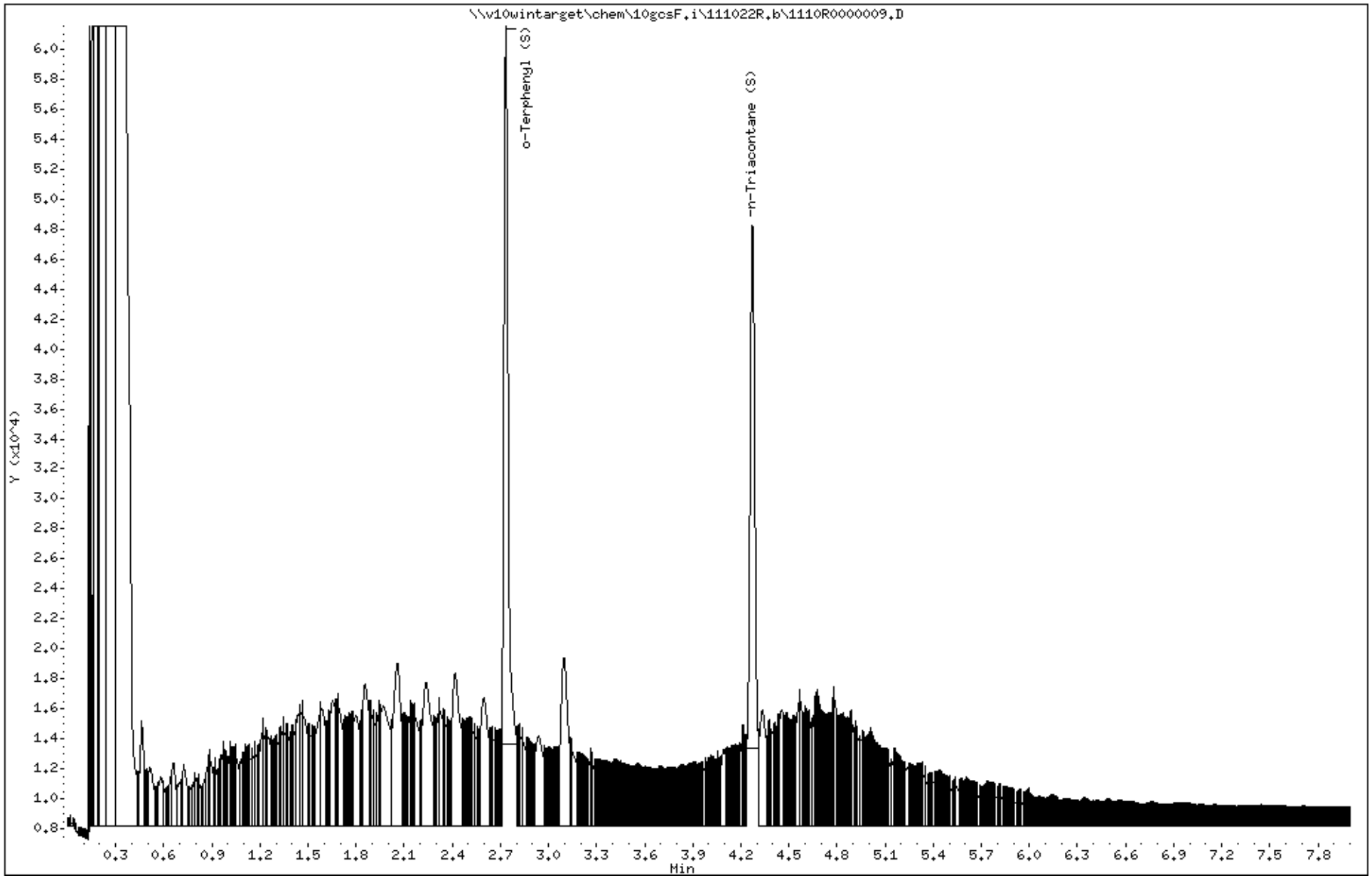
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

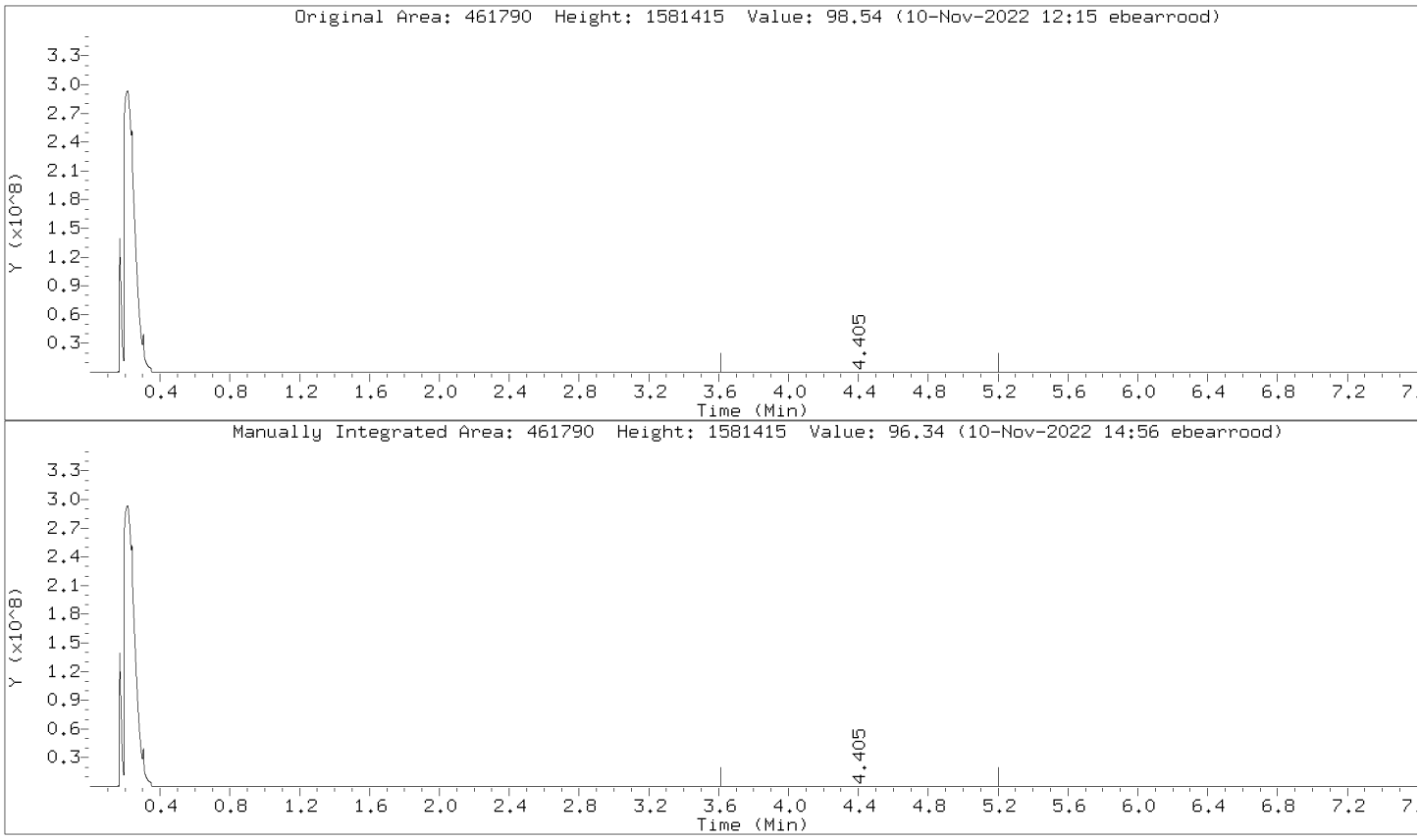
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



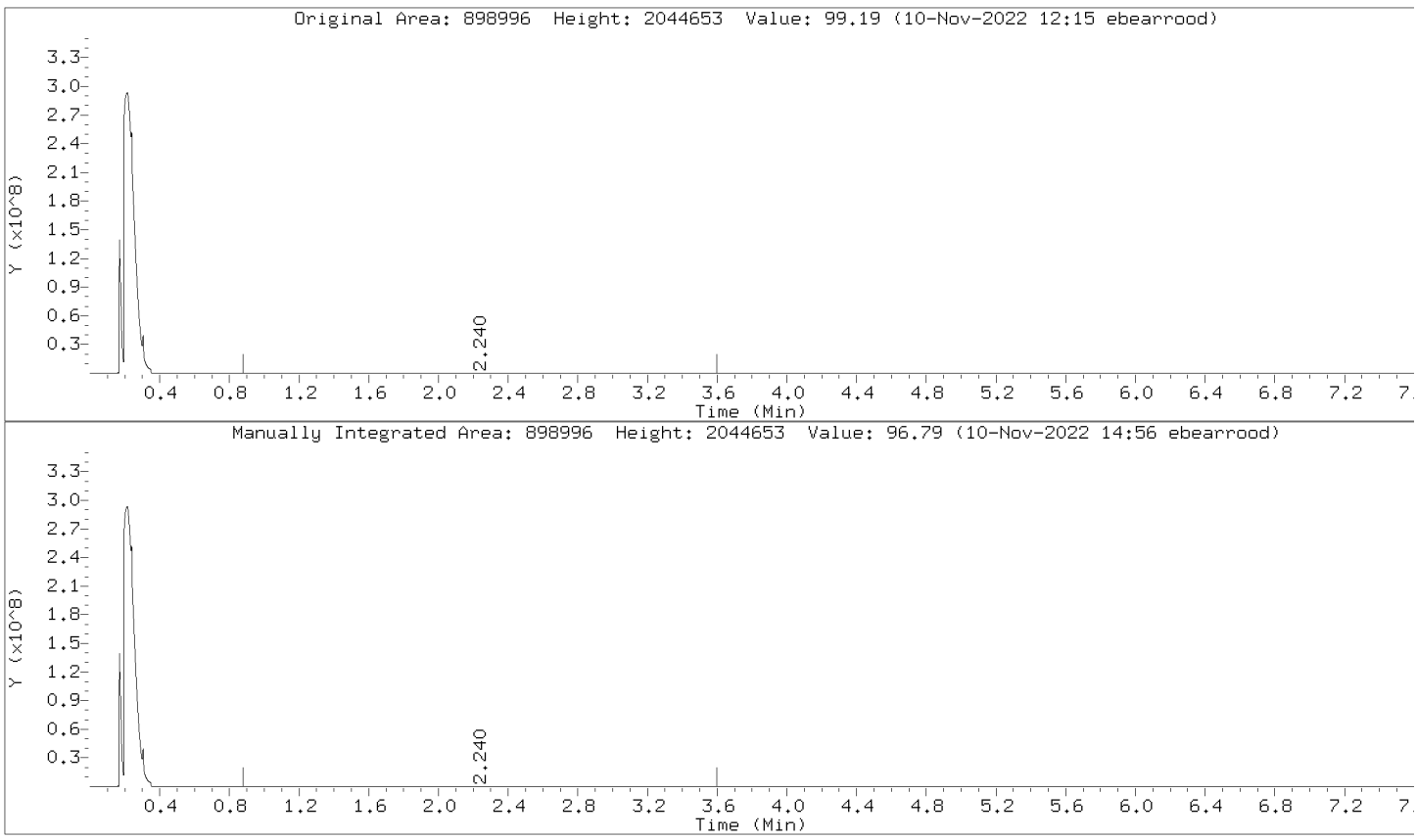
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



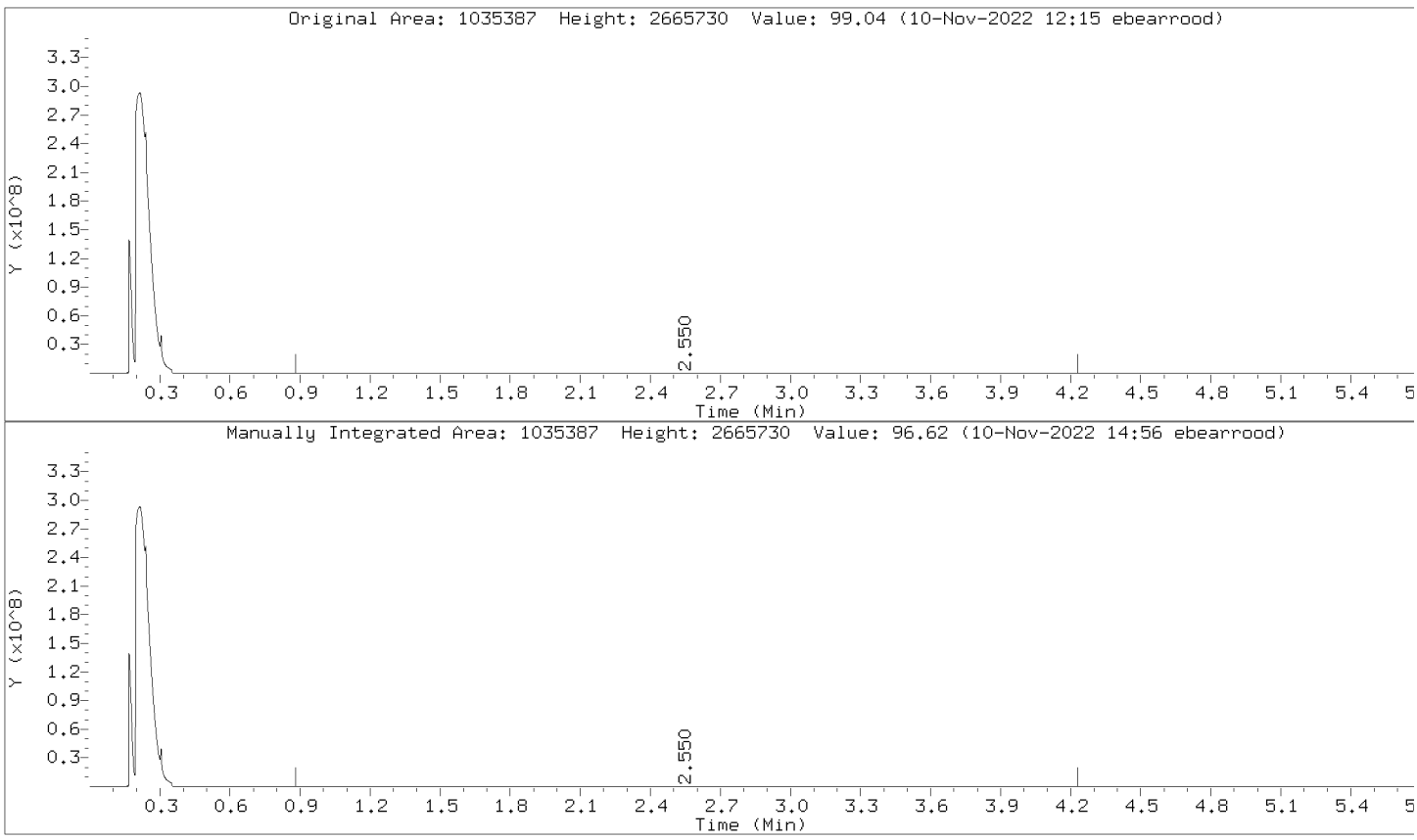
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



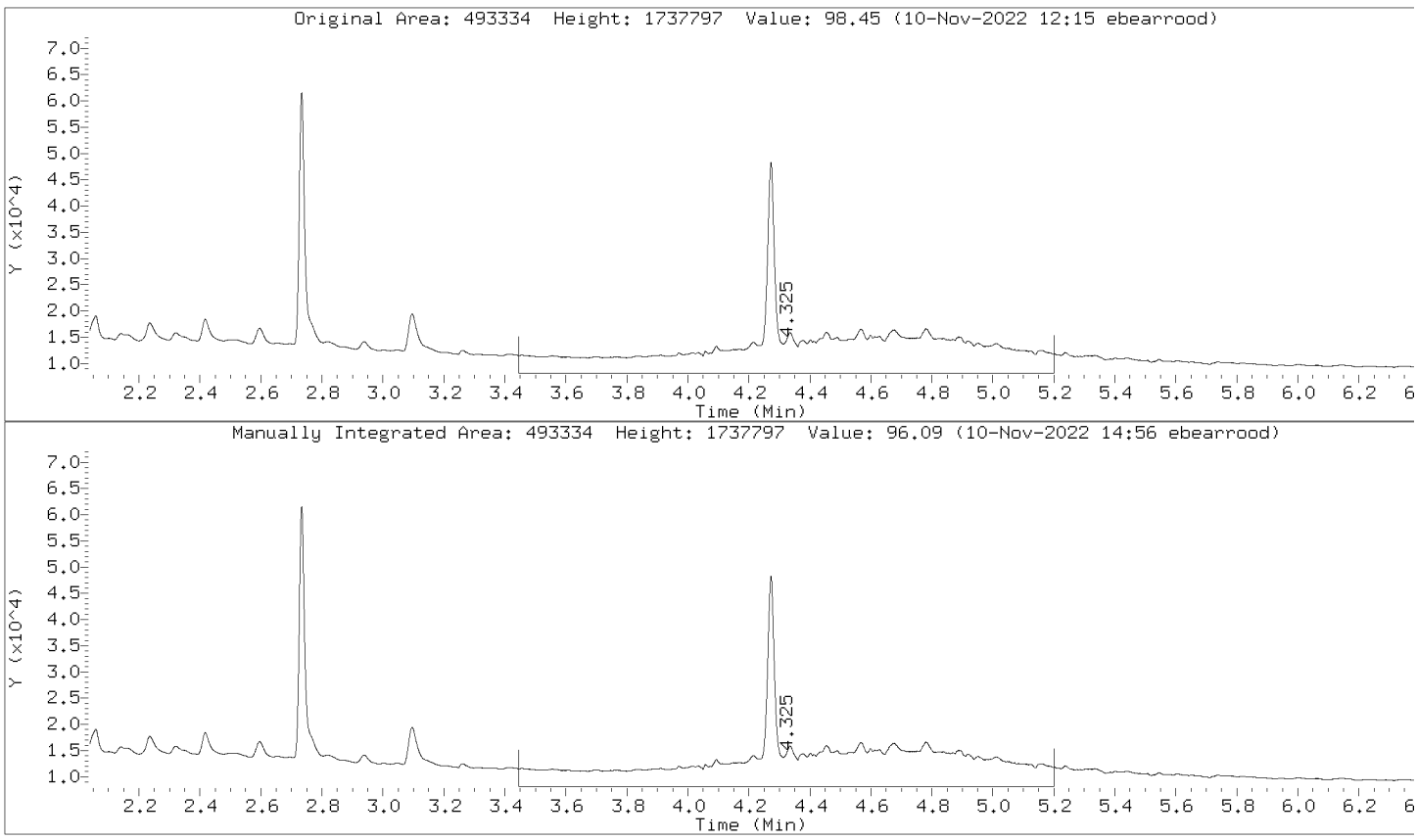
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



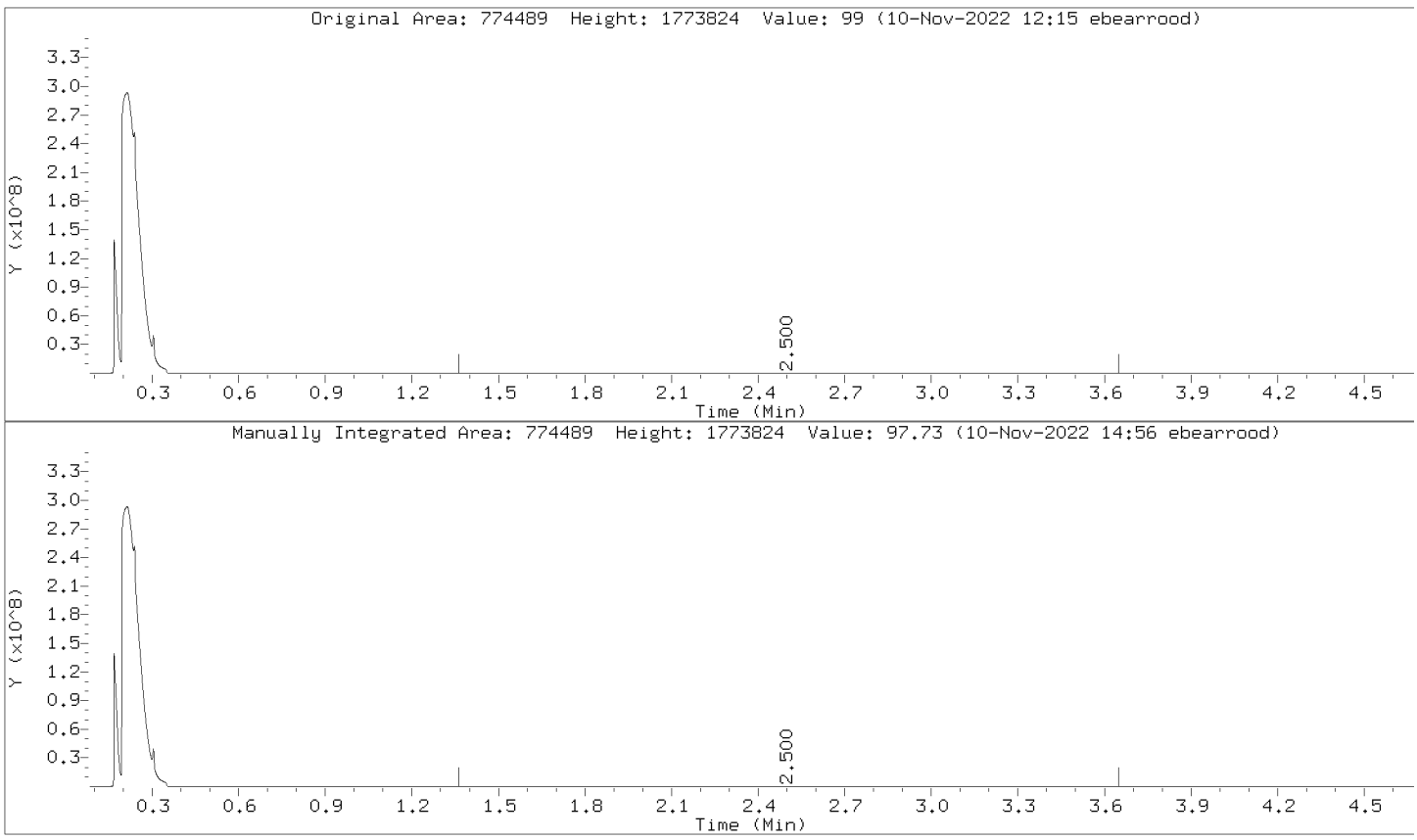
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



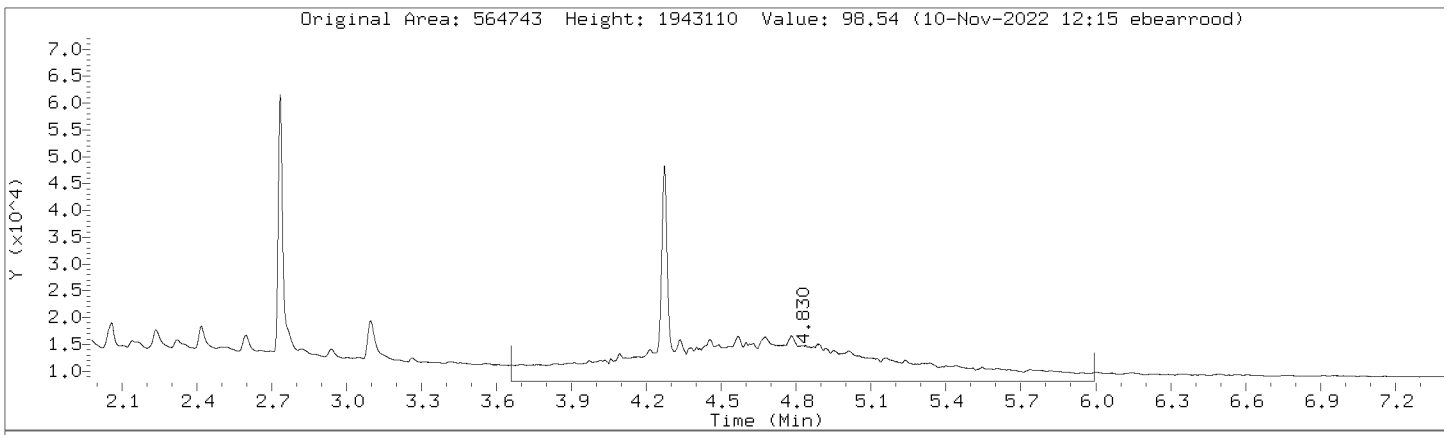
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

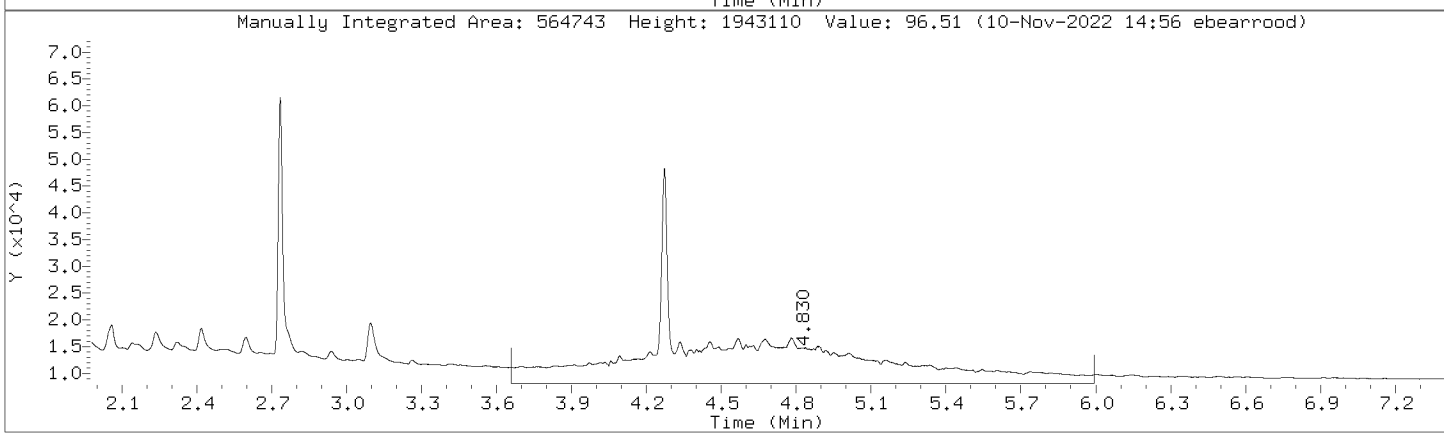
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

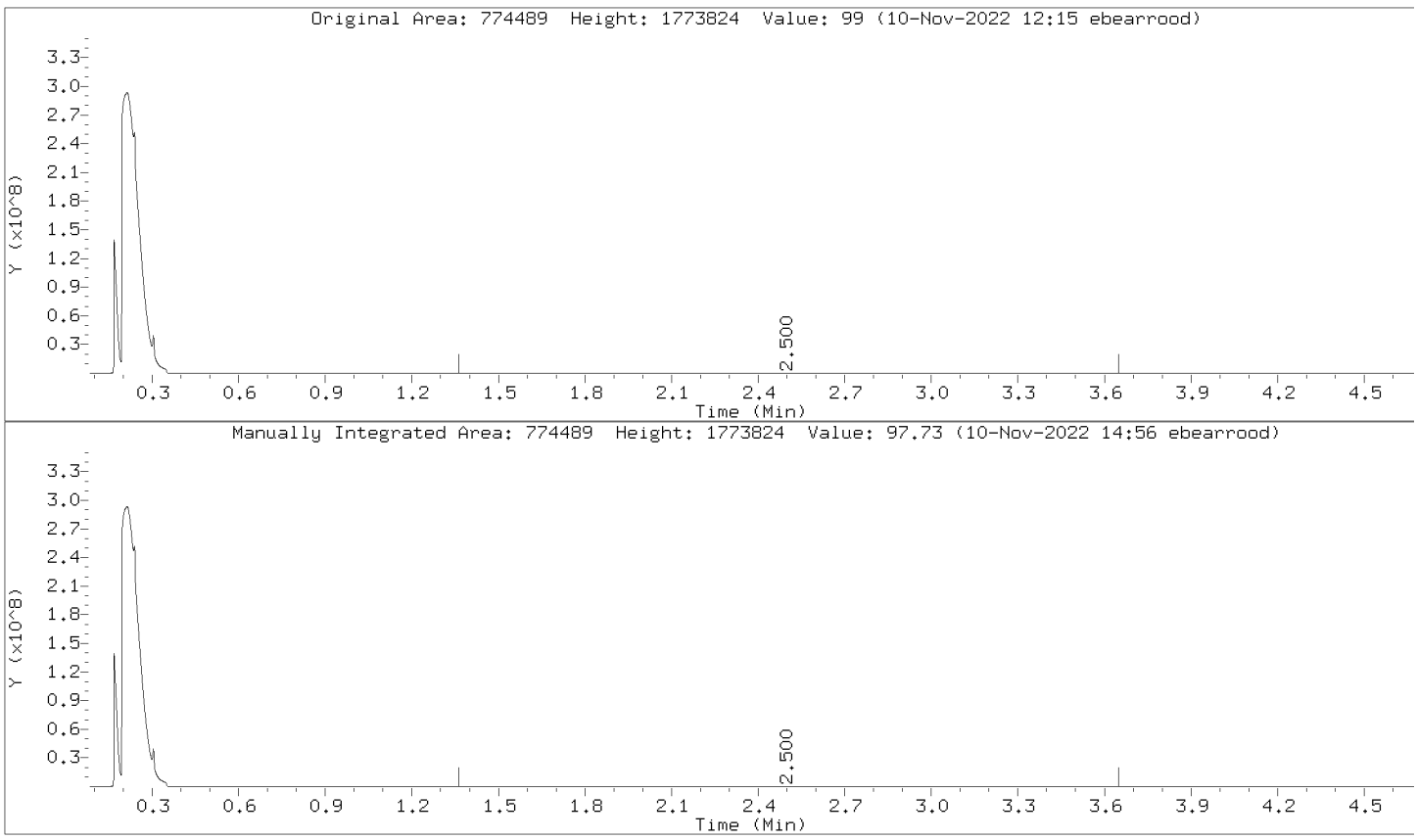
Compound: Motor Oil Range Review Code: RNG
CAS Number:





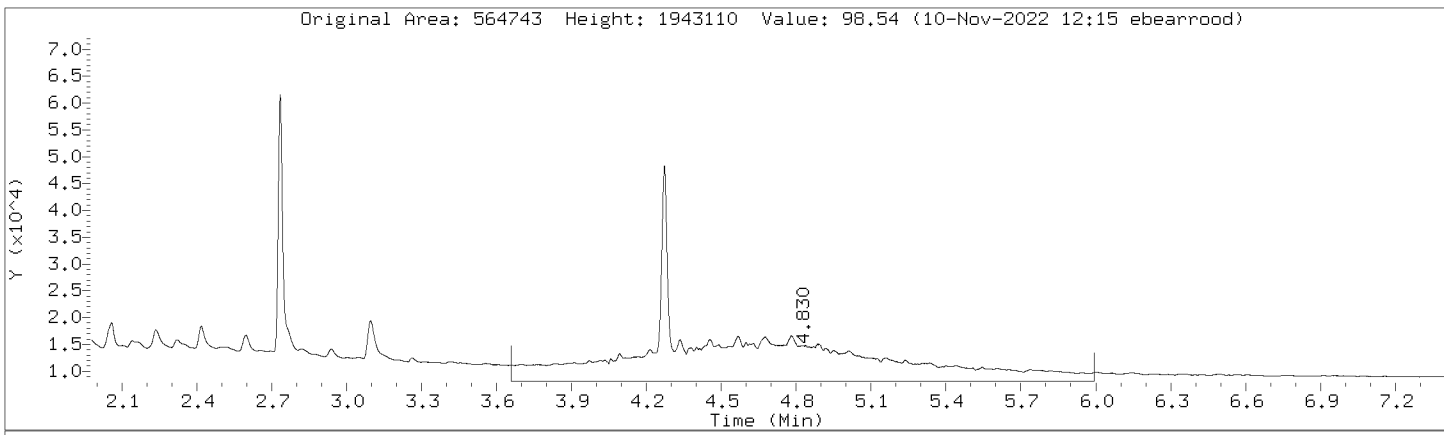
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

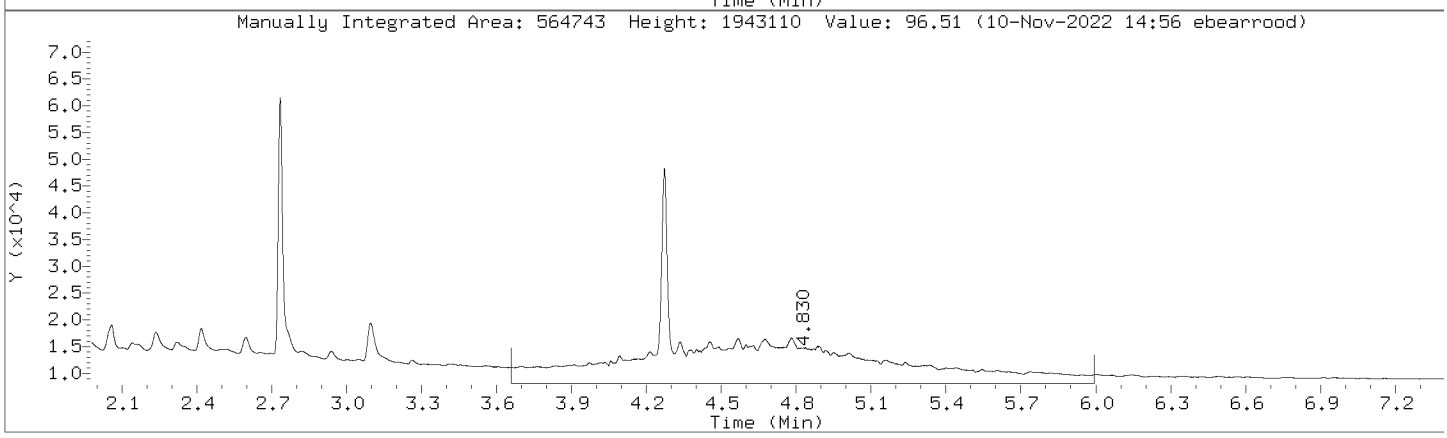
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

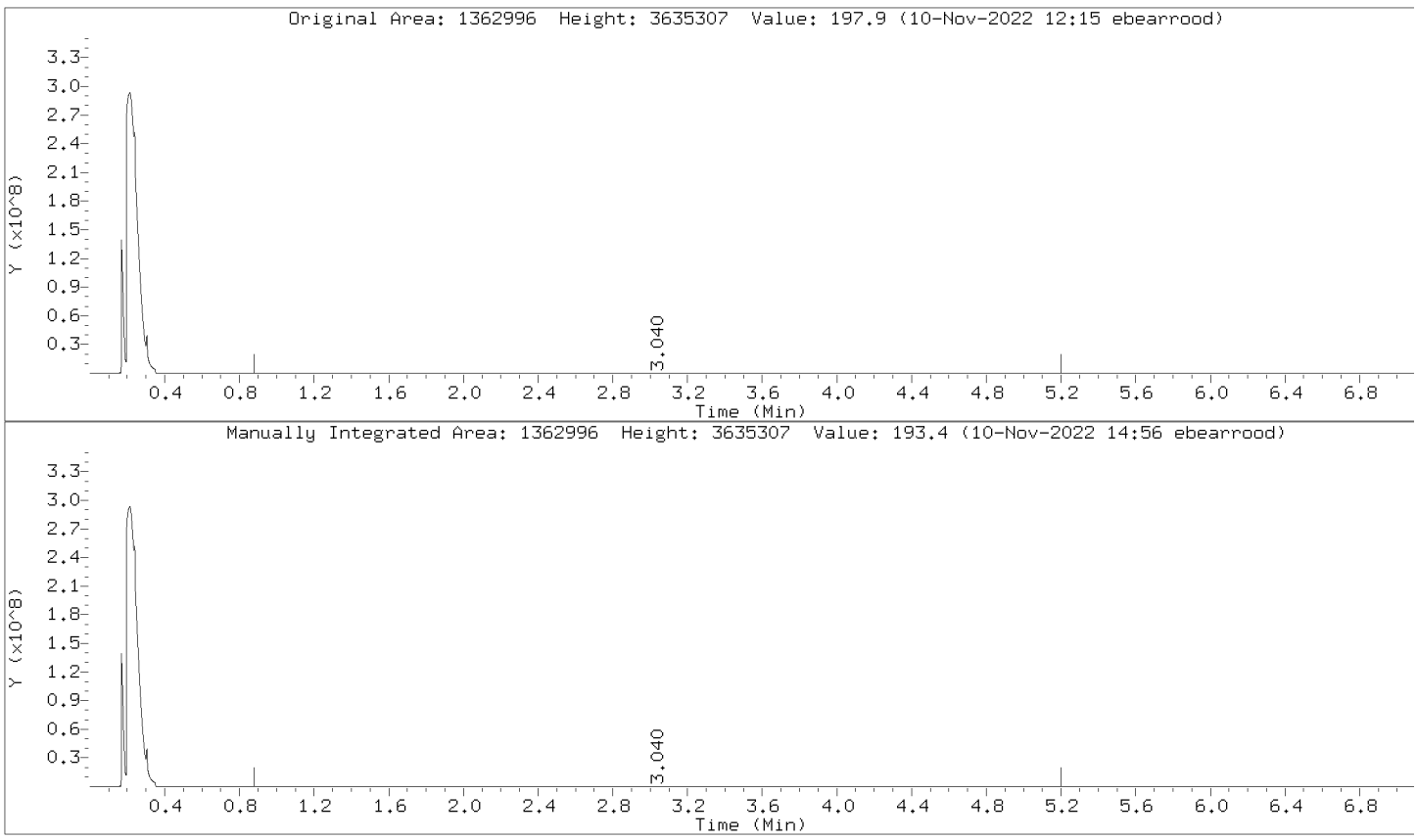
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





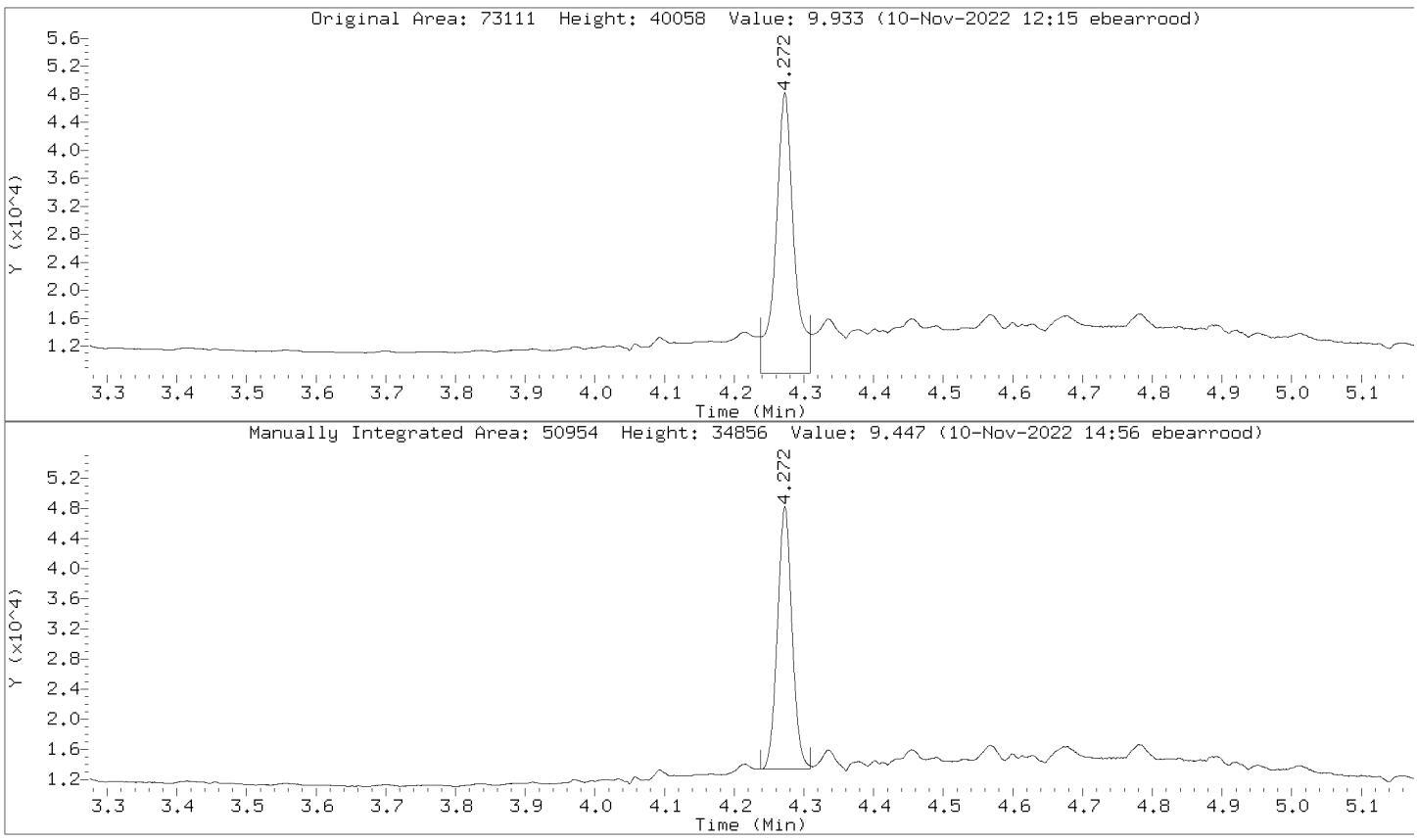
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



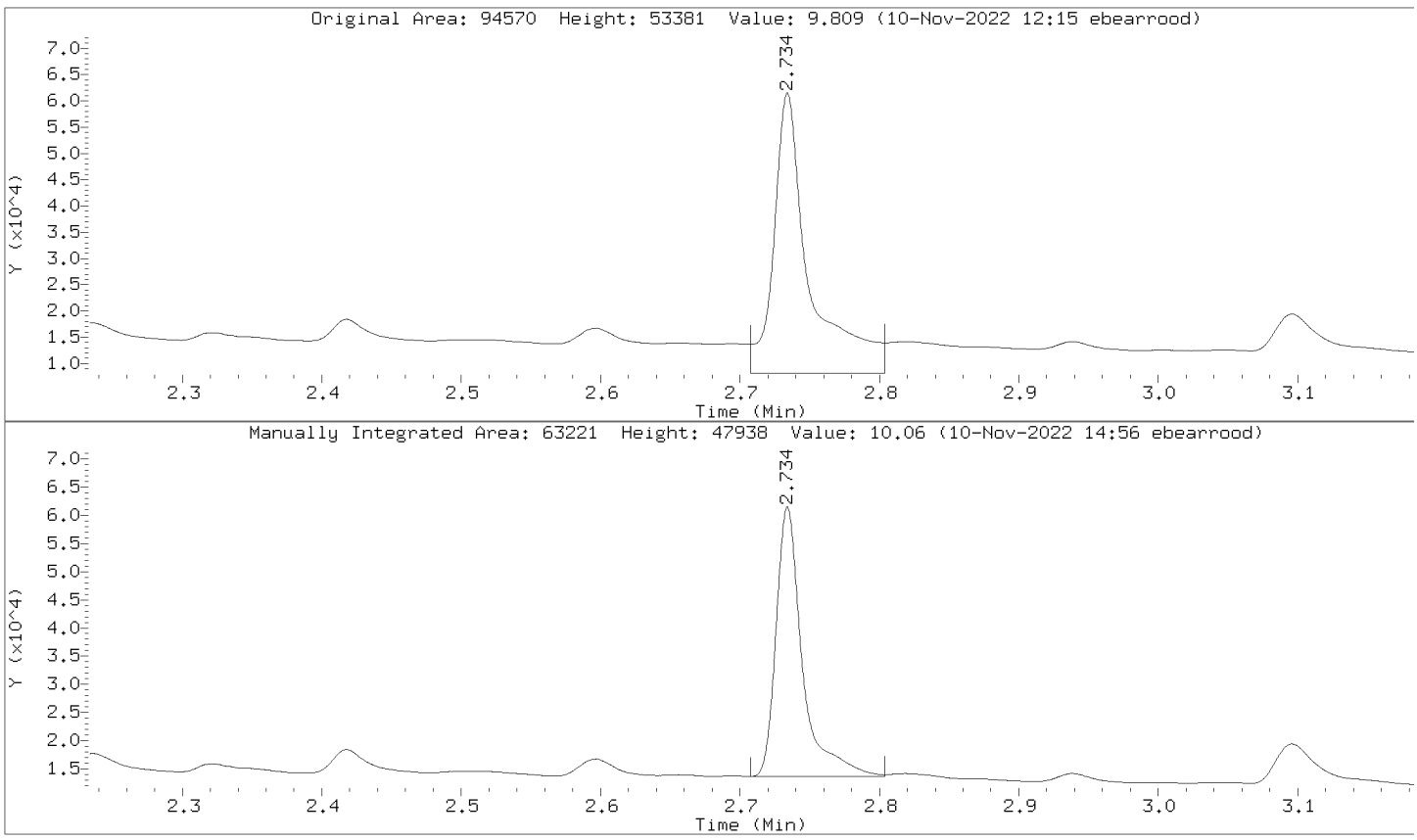
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE		(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		1767895	250.000		250	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	162877	25.0000		24.9	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.274	4.275	-0.001	134635	25.0000		25.5	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		1016189	250.000		250	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		2040586	250.000		249	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		1068936	250.000		249	(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		2784418	500.000		500	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		1502245	250.000		250	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		1502245	250.000		250	(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		1233127	250.000		249	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		1233127	250.000		249	(M)	RNG

QC Flag Legend

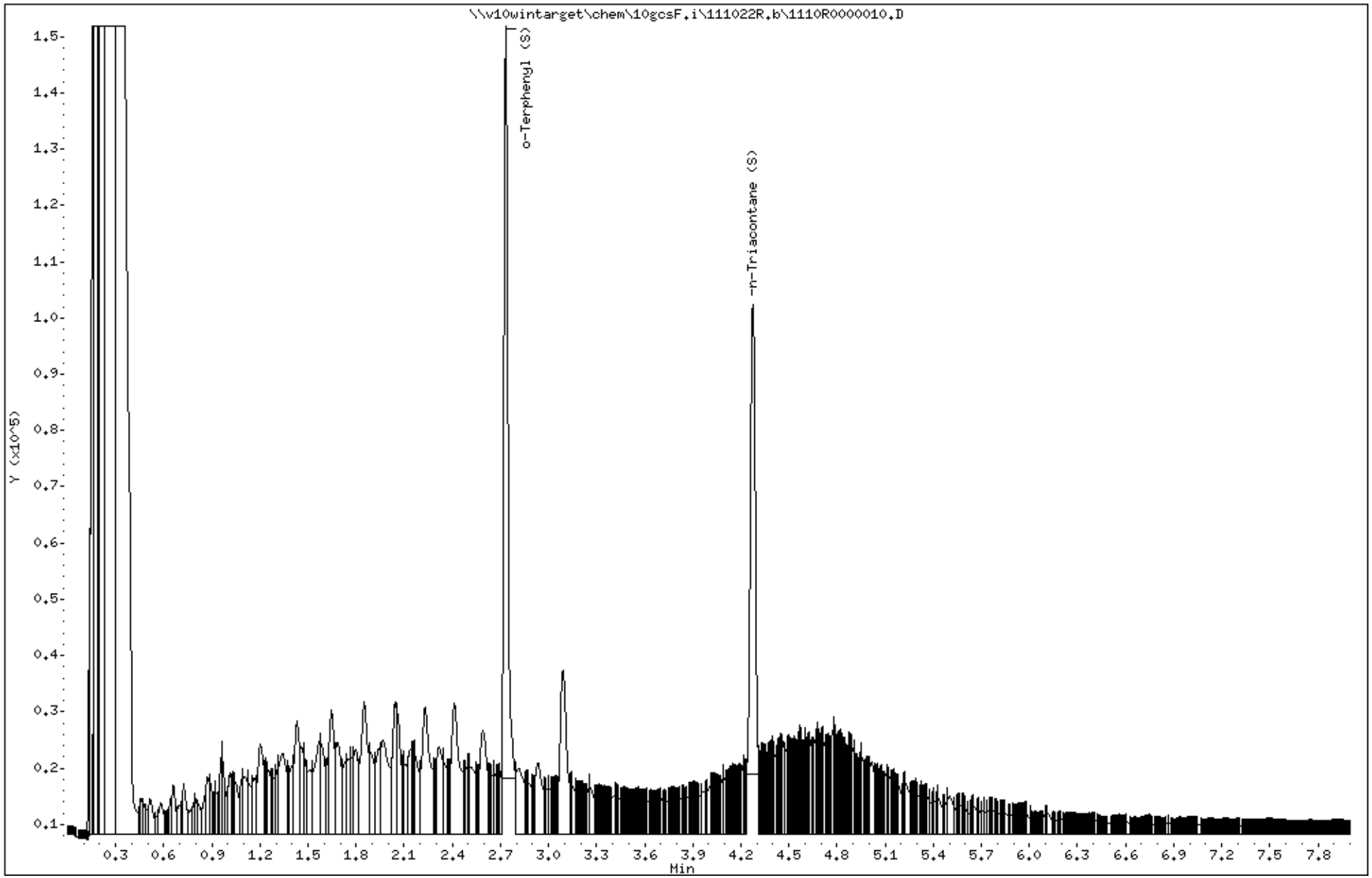
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

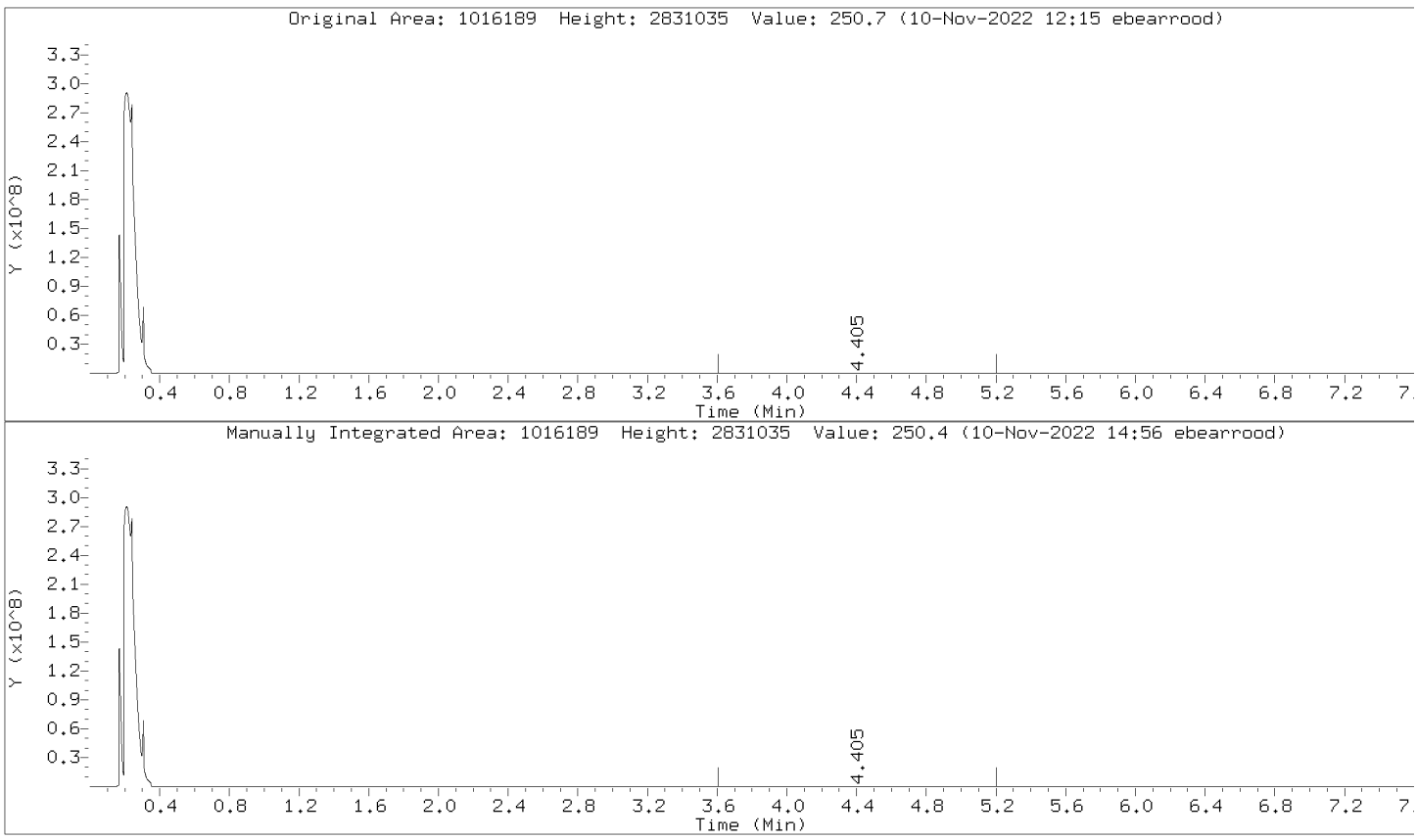
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



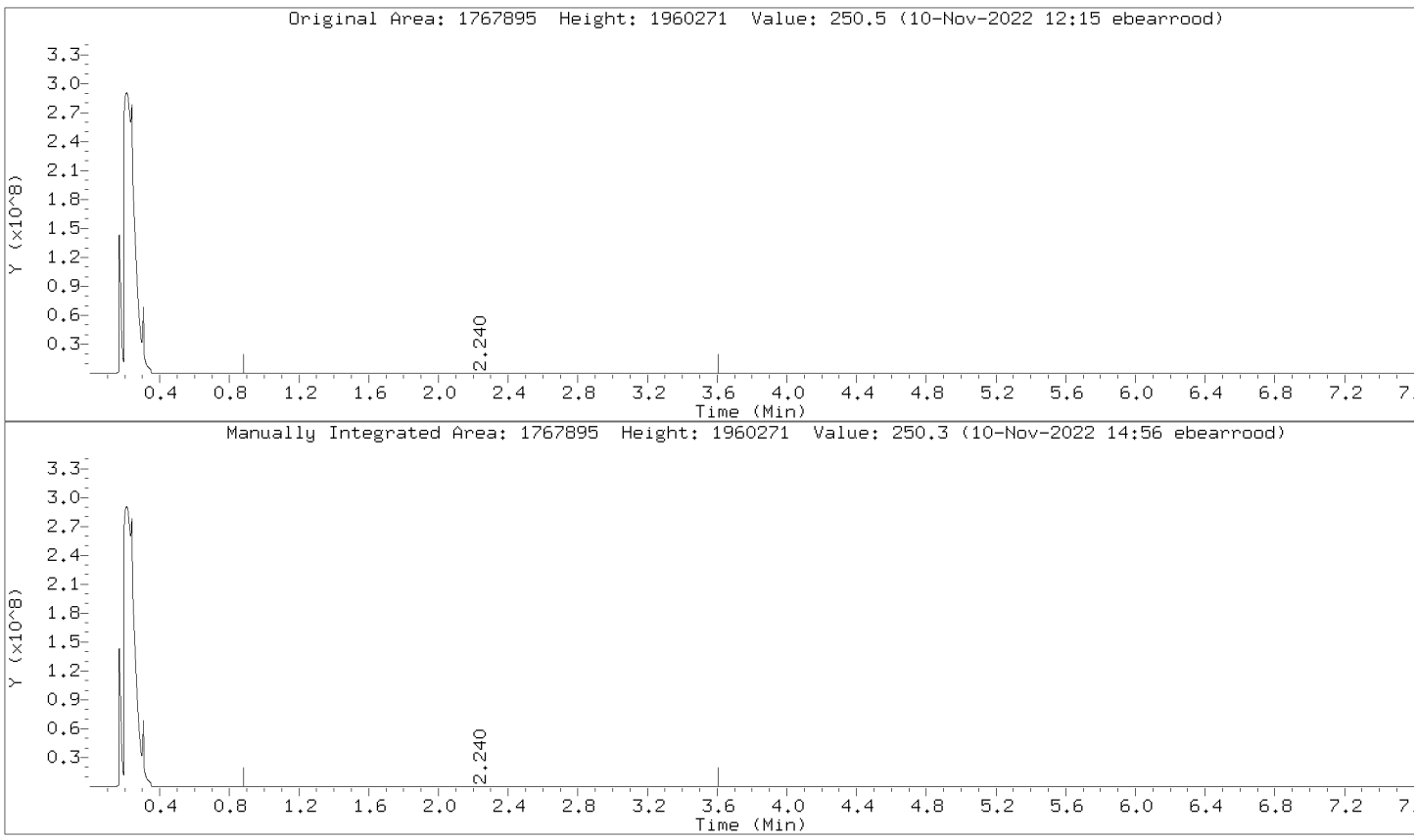
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



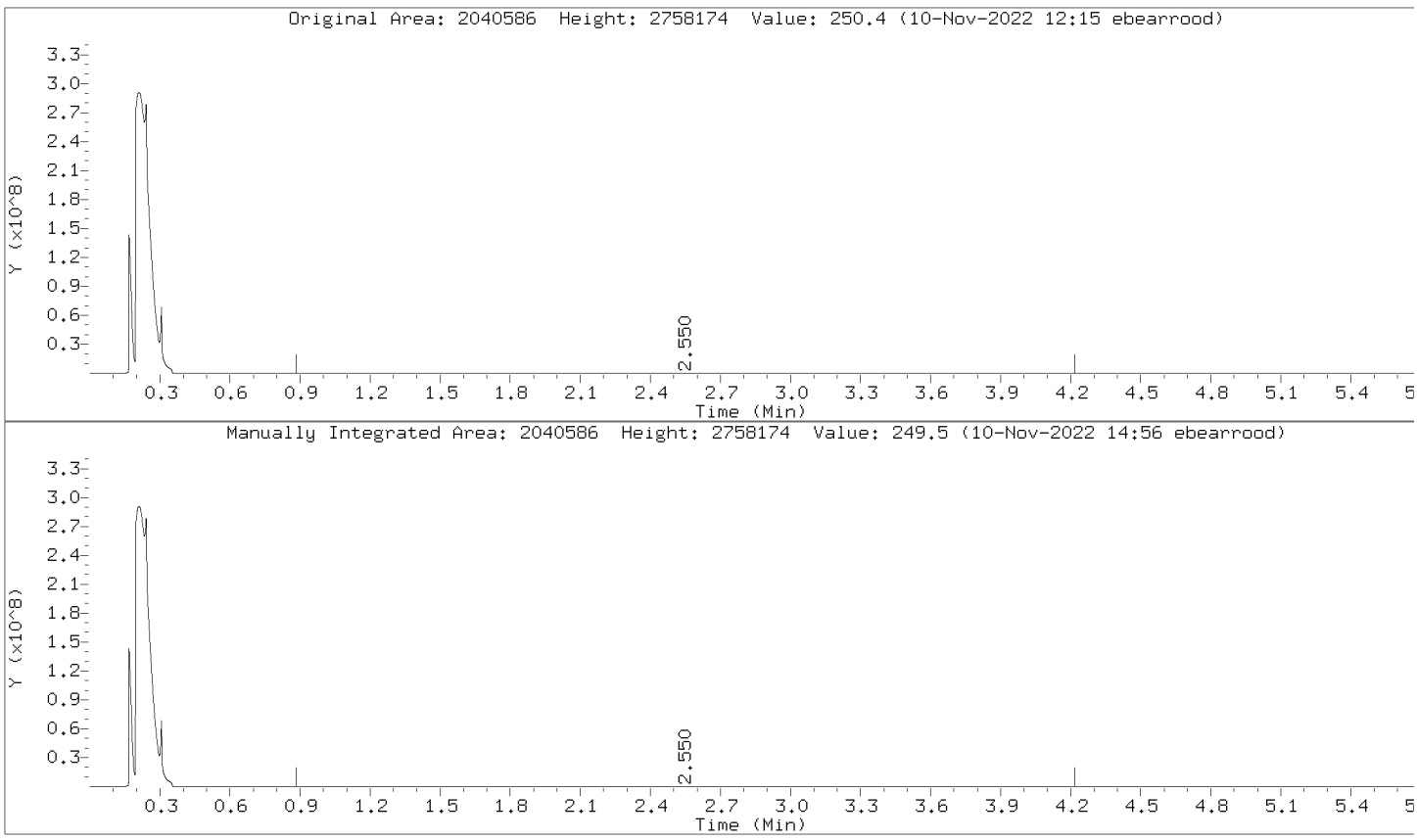
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



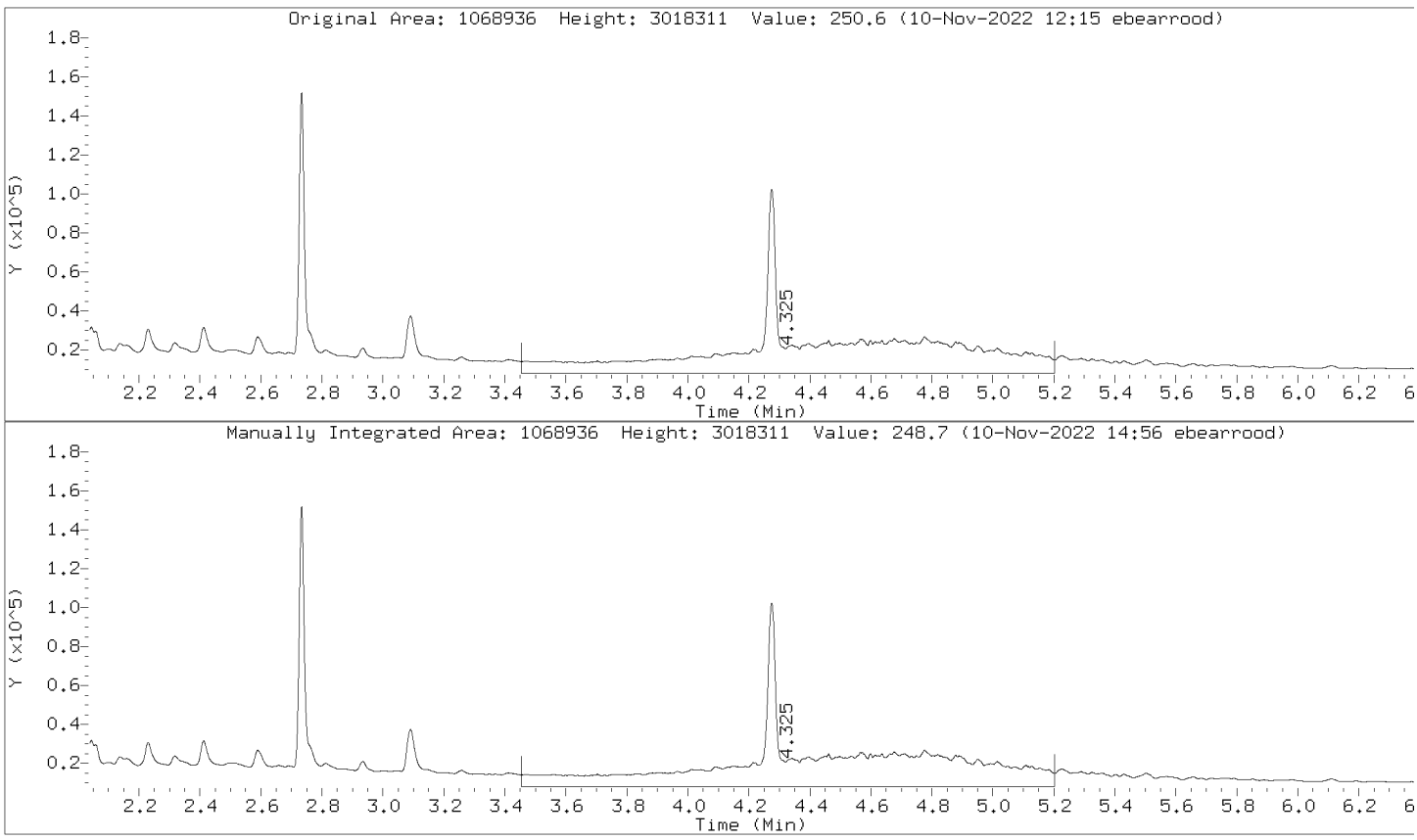
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



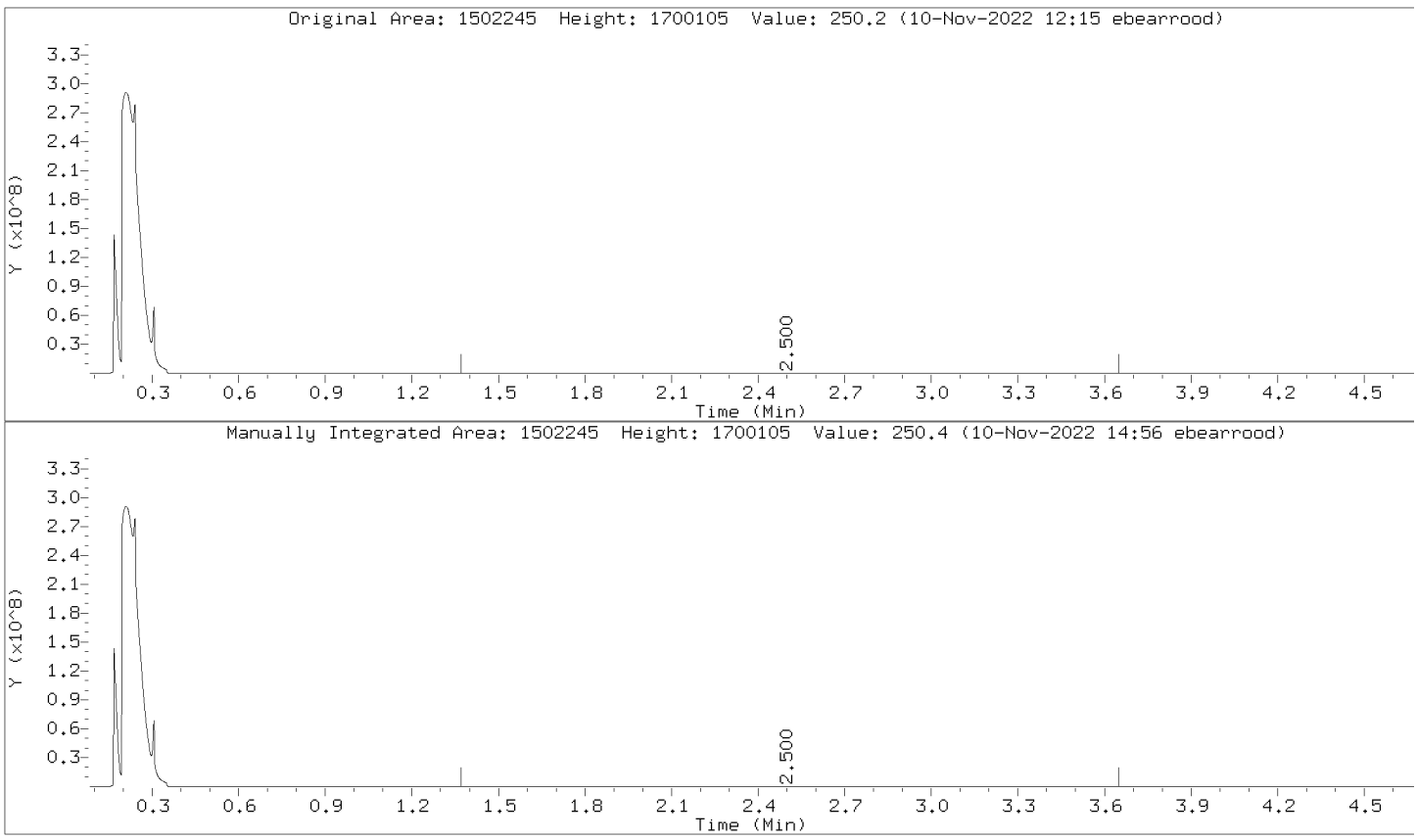
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



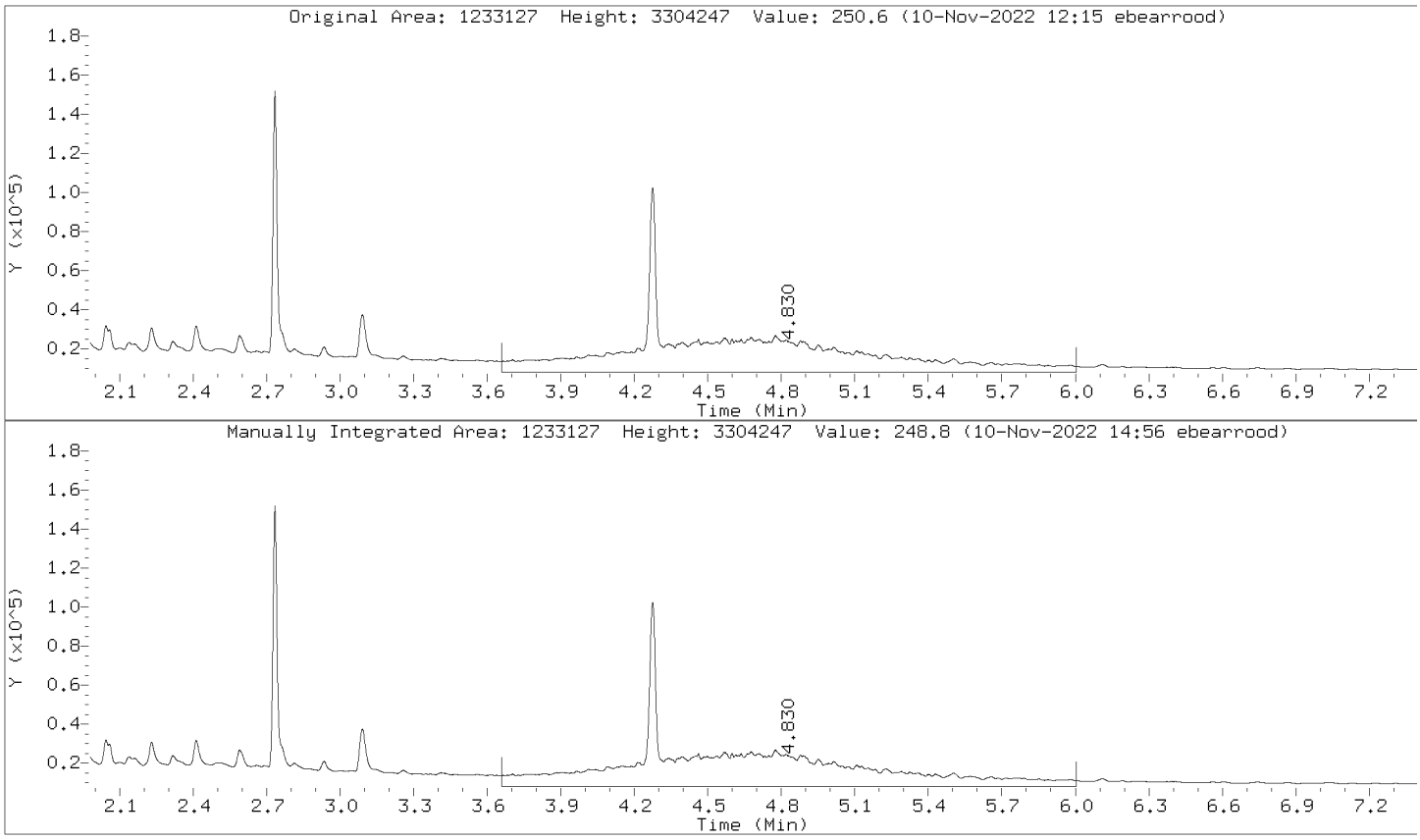
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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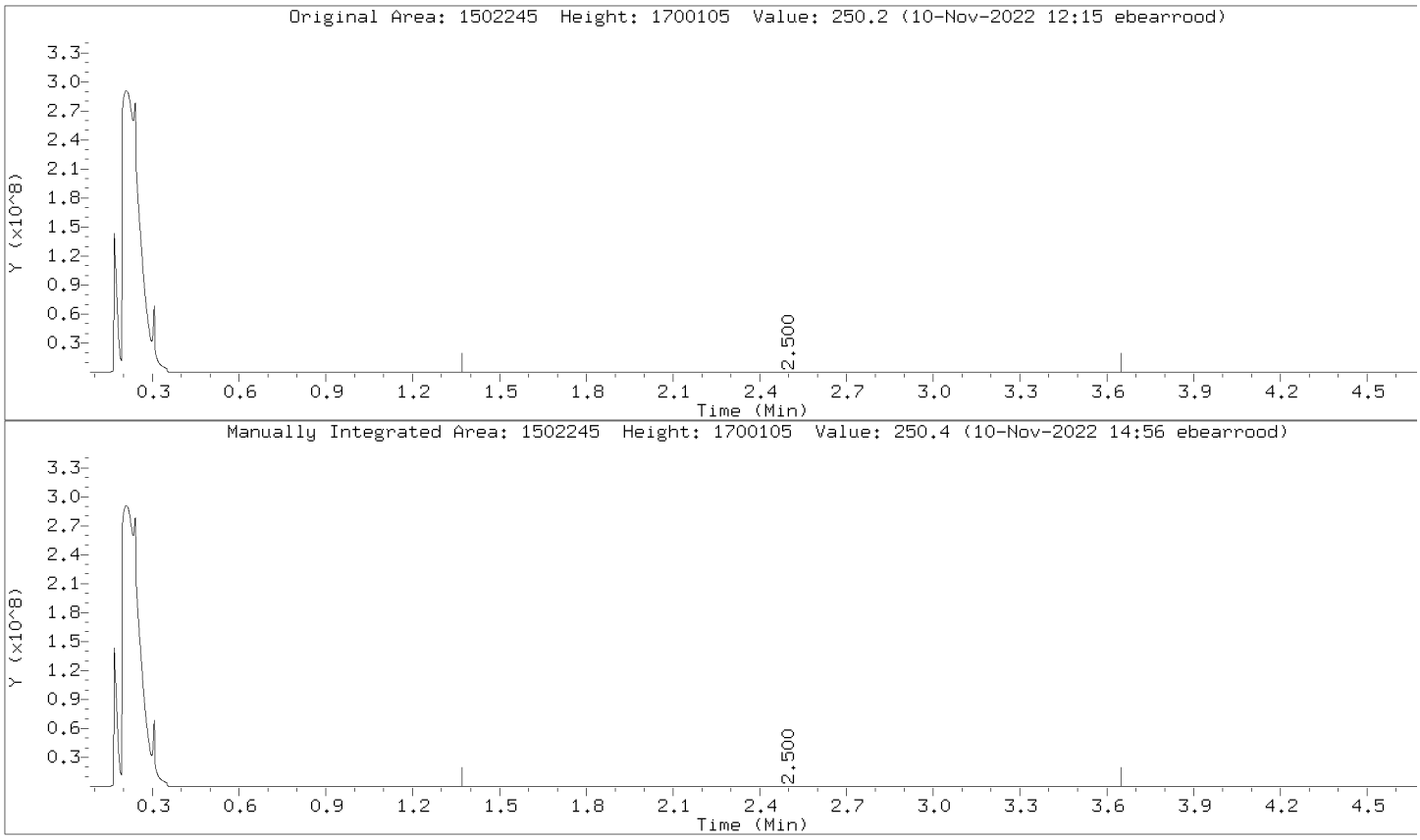
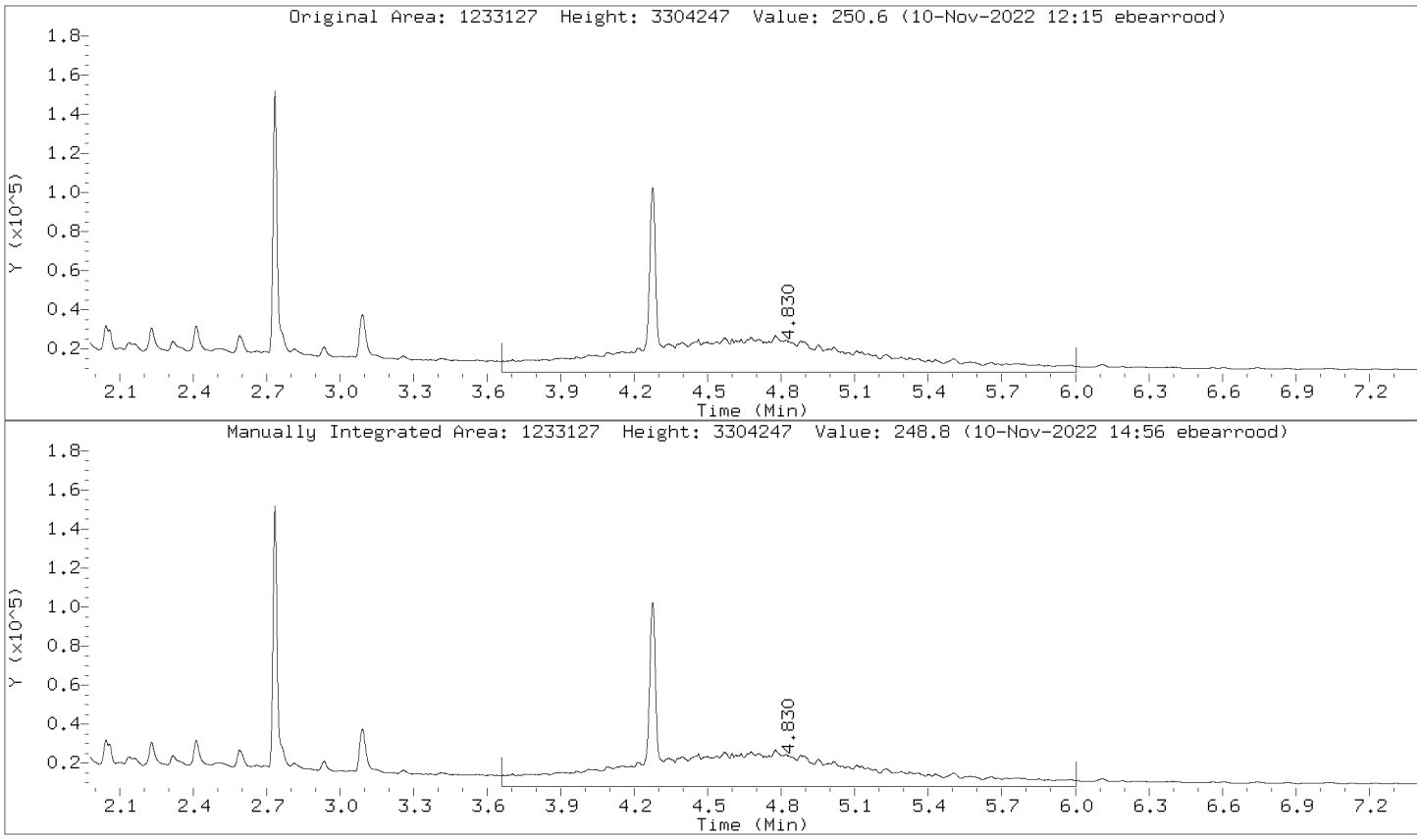
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



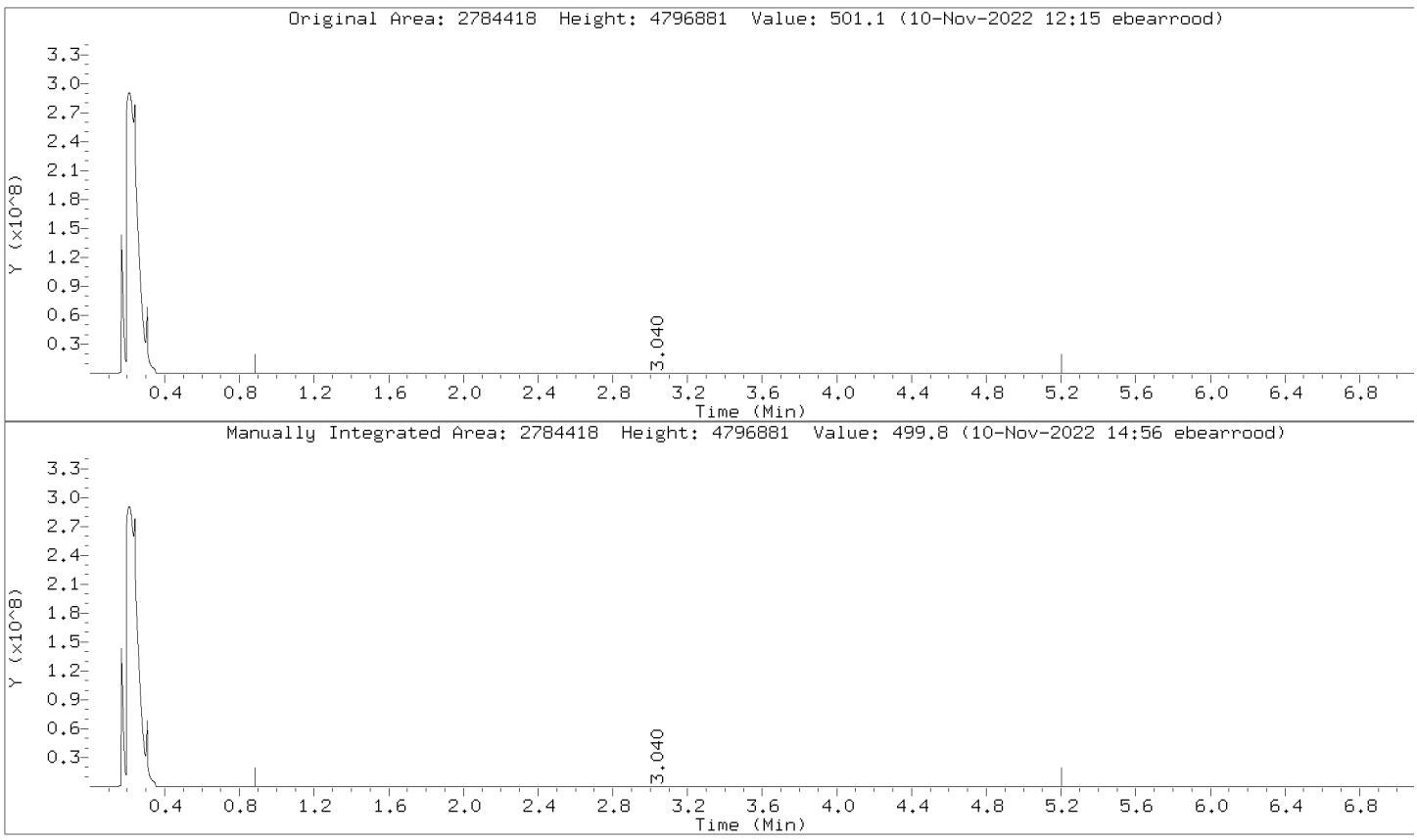
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



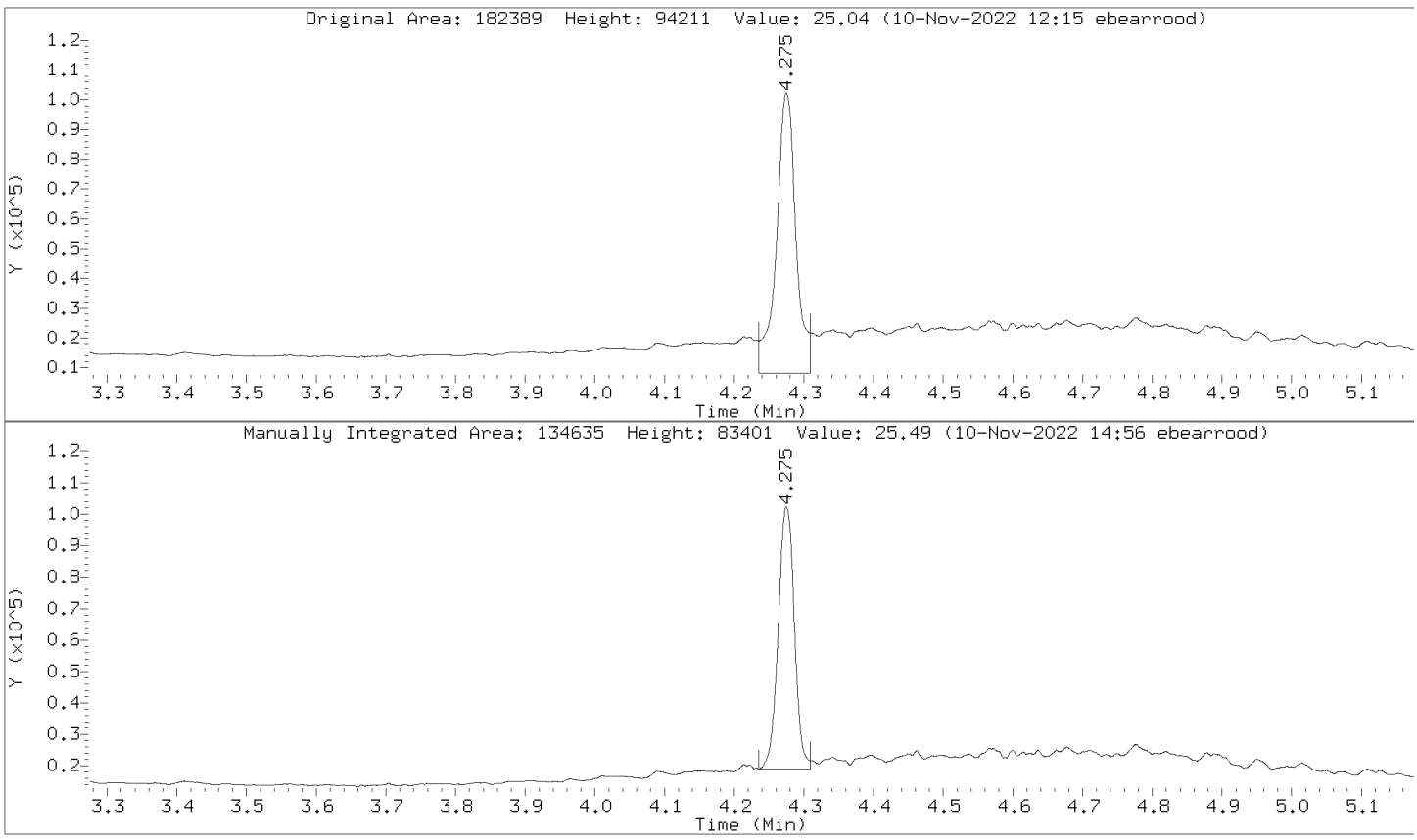
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



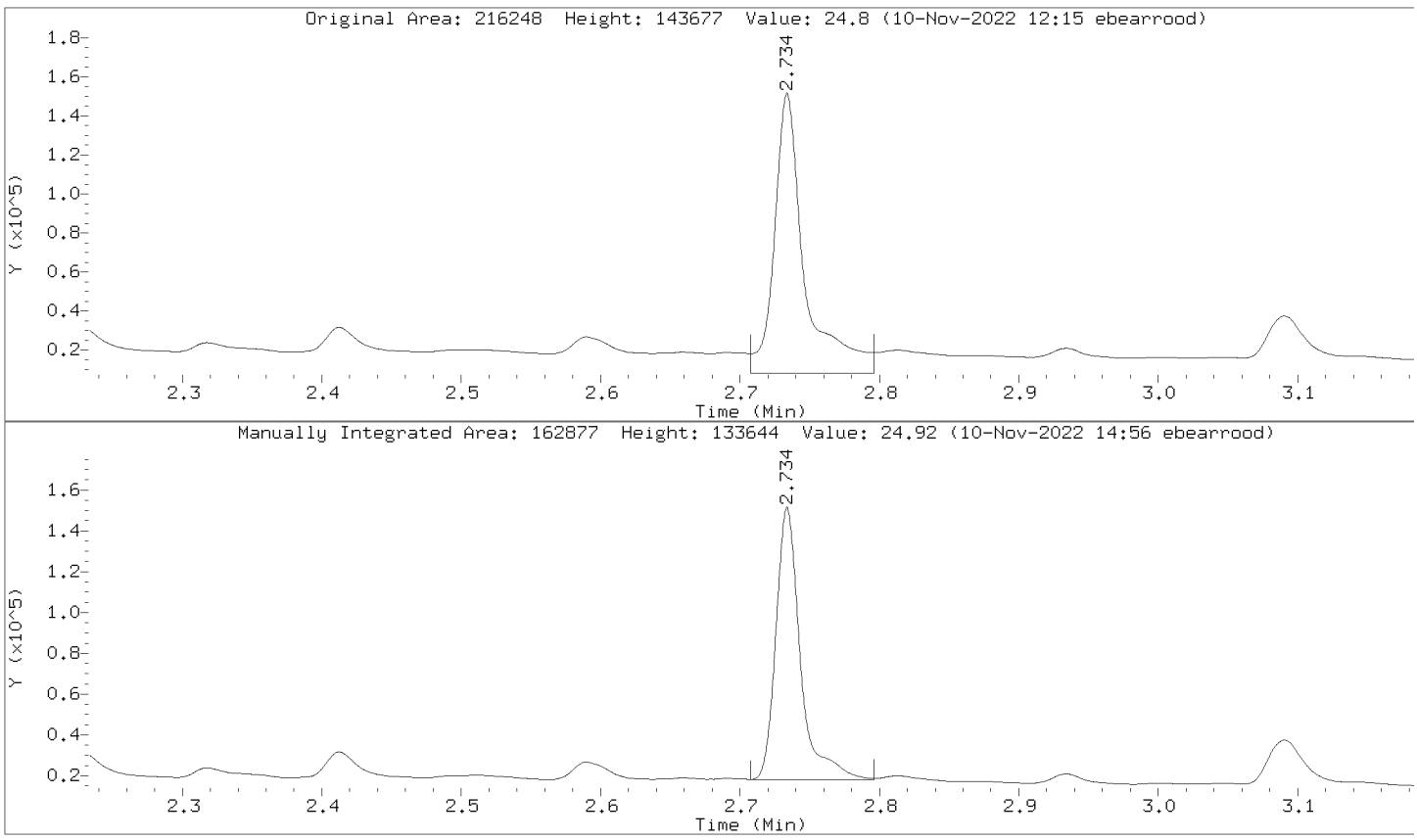
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT		RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600			6099190	1000.00	1020	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.734	2.733	0.001		667884	100.000	100	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.275	4.275	0.000		532234	100.000	102	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200			3764430	1000.00	1010	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219			7097120	1000.00	1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200			3964256	1000.00	1020	(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200			9895685	2000.00	2030	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650			5136881	1000.00	1010	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650			5136881	1000.00	1010	(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000			4575578	1000.00	1010	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000			4575578	1000.00	1010	(M)	RNG

QC Flag Legend

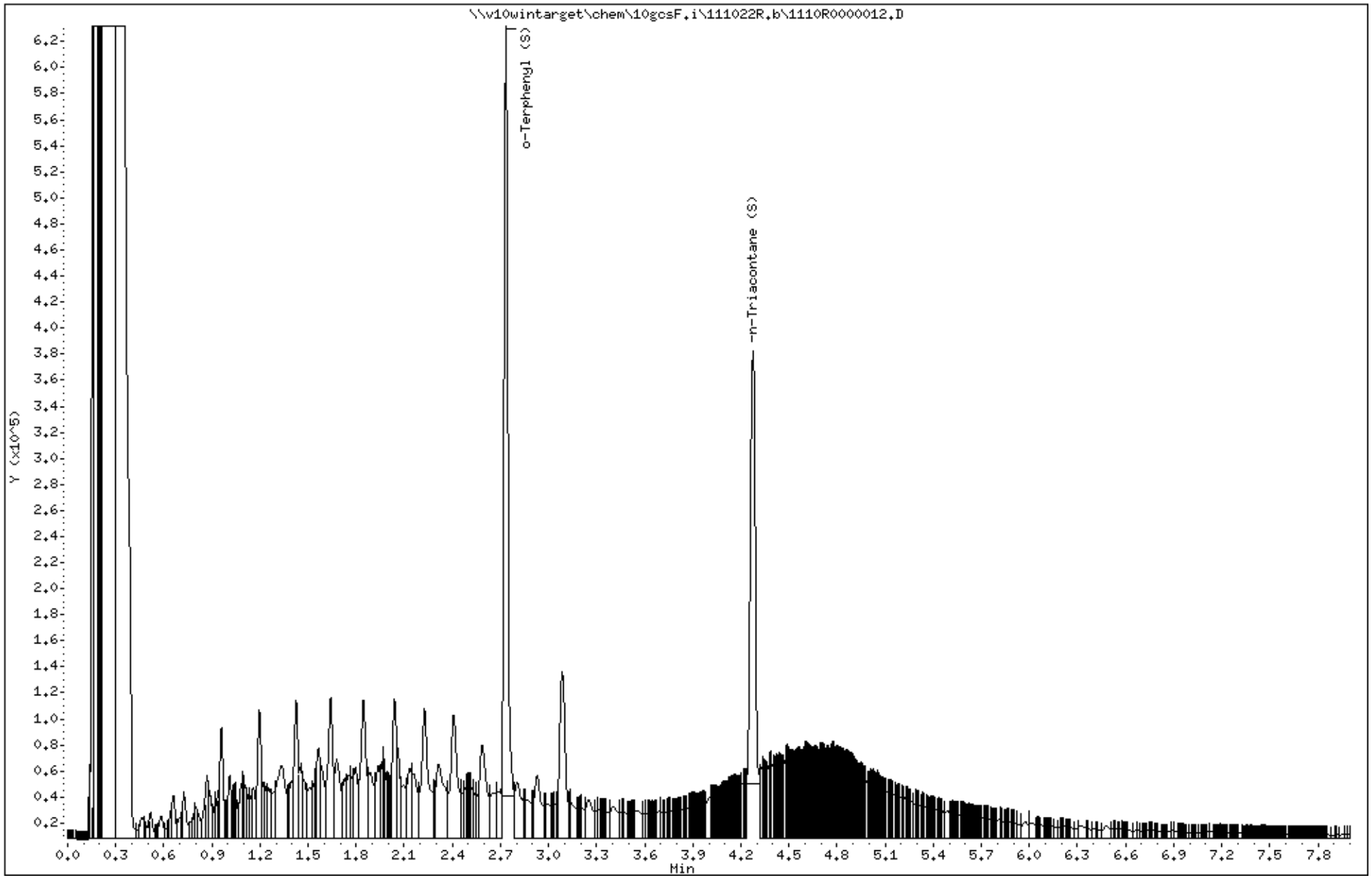
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

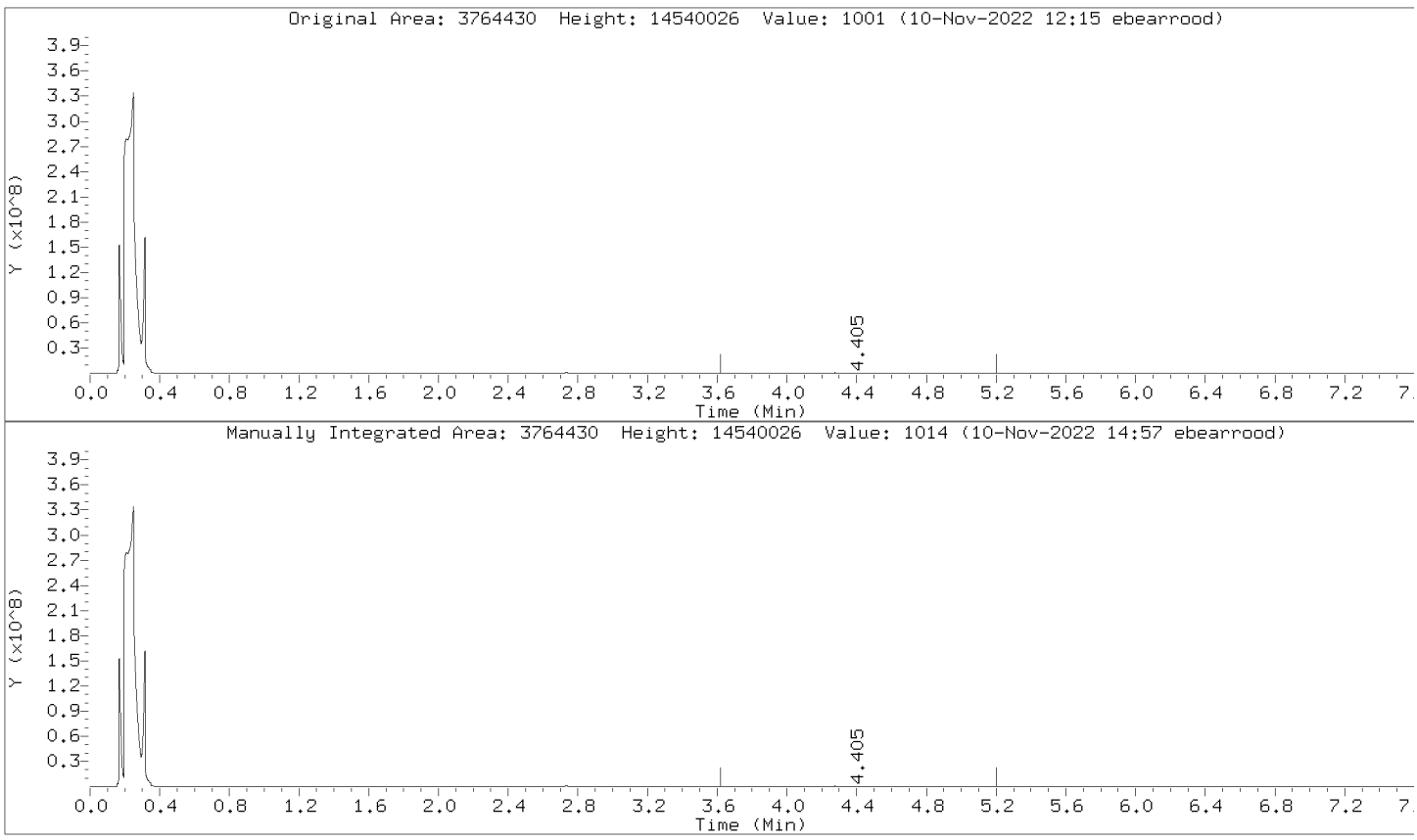
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



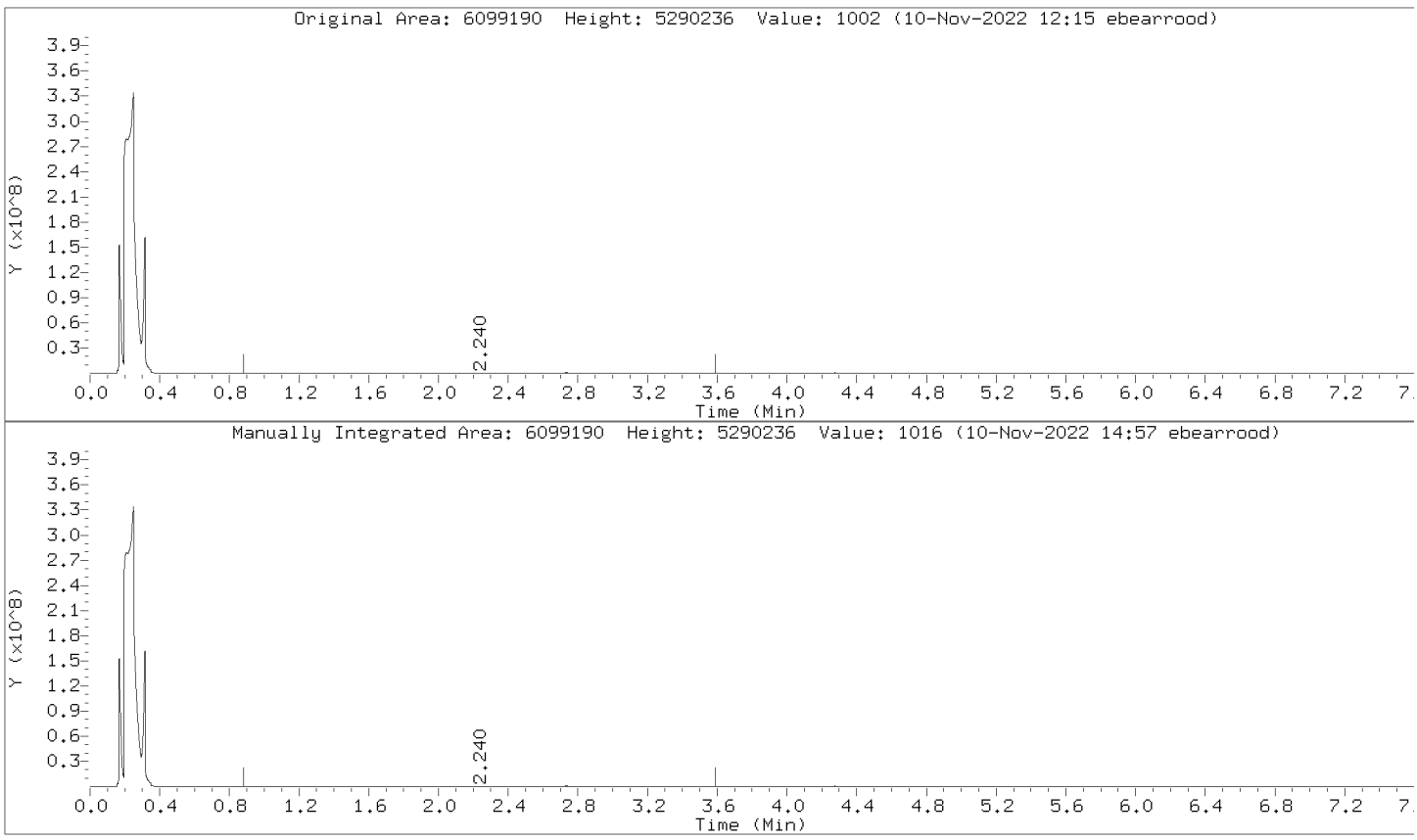
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



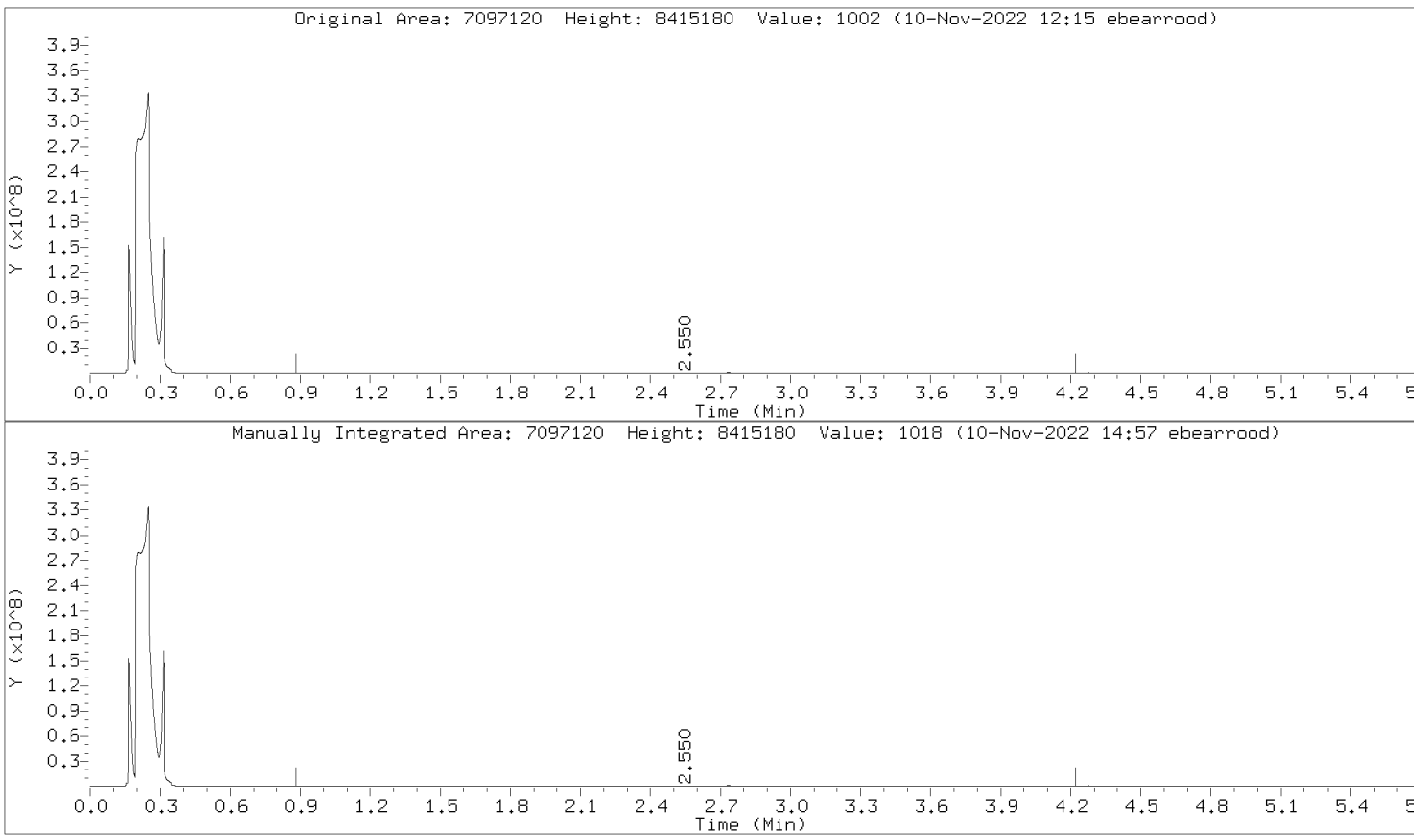
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



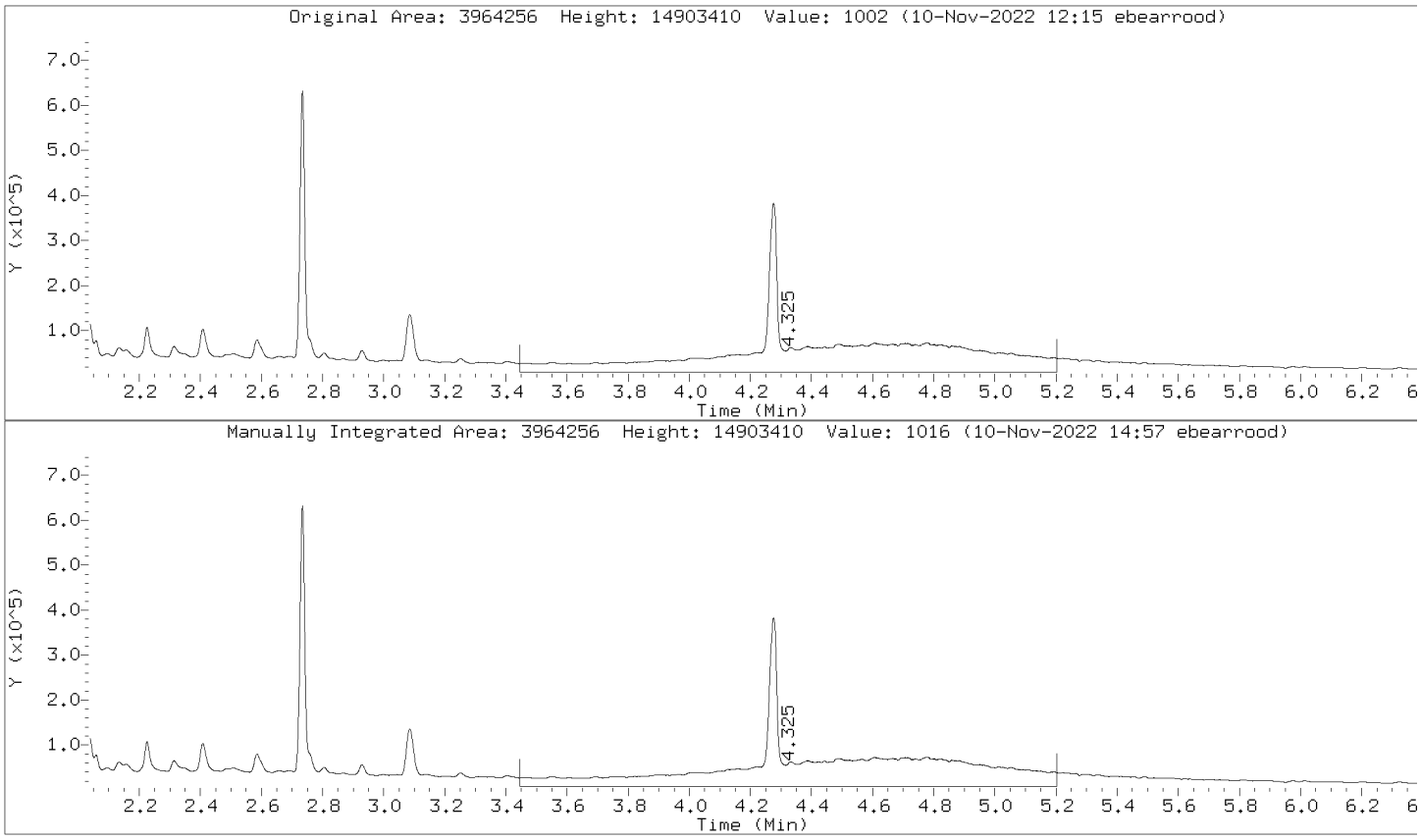
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



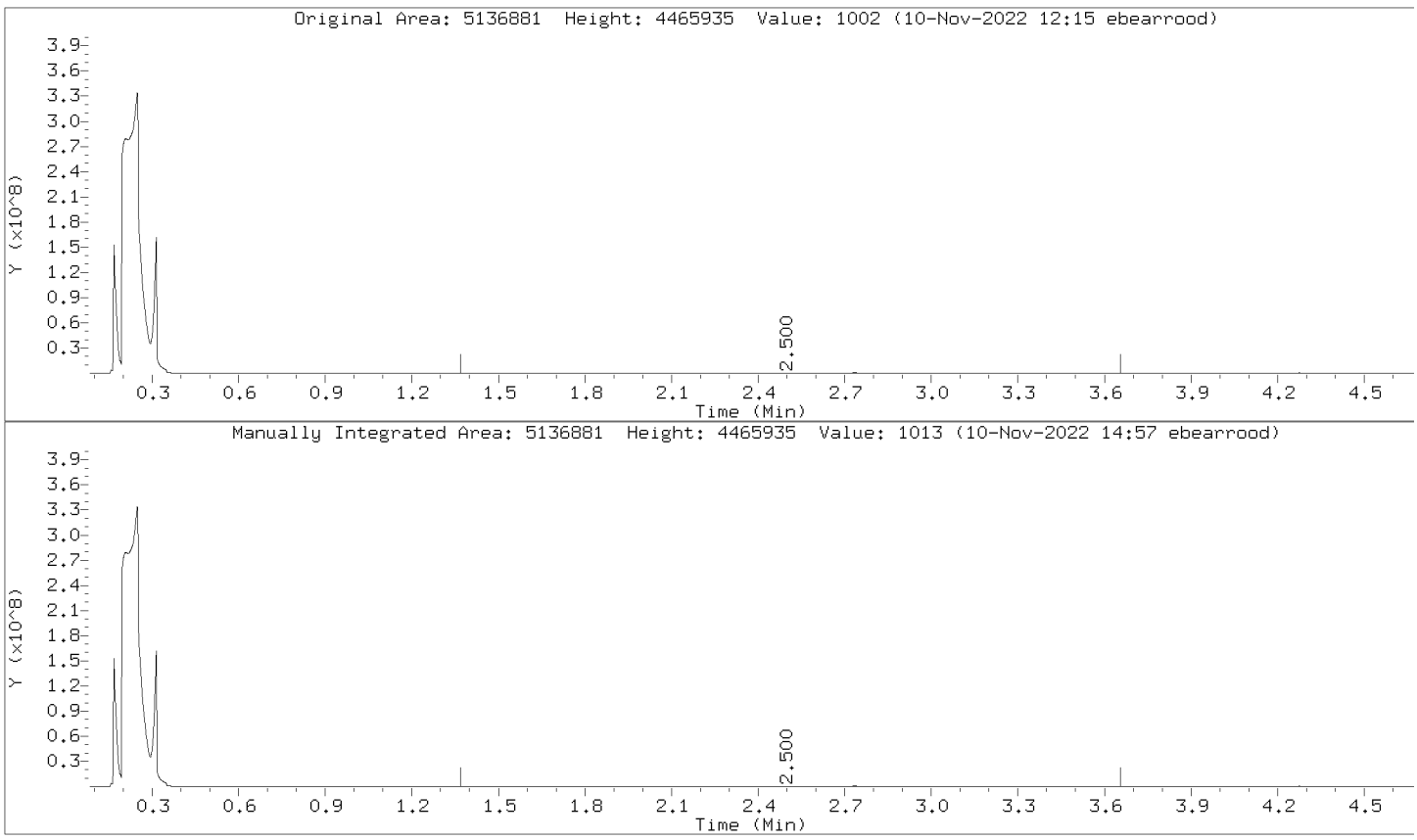
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



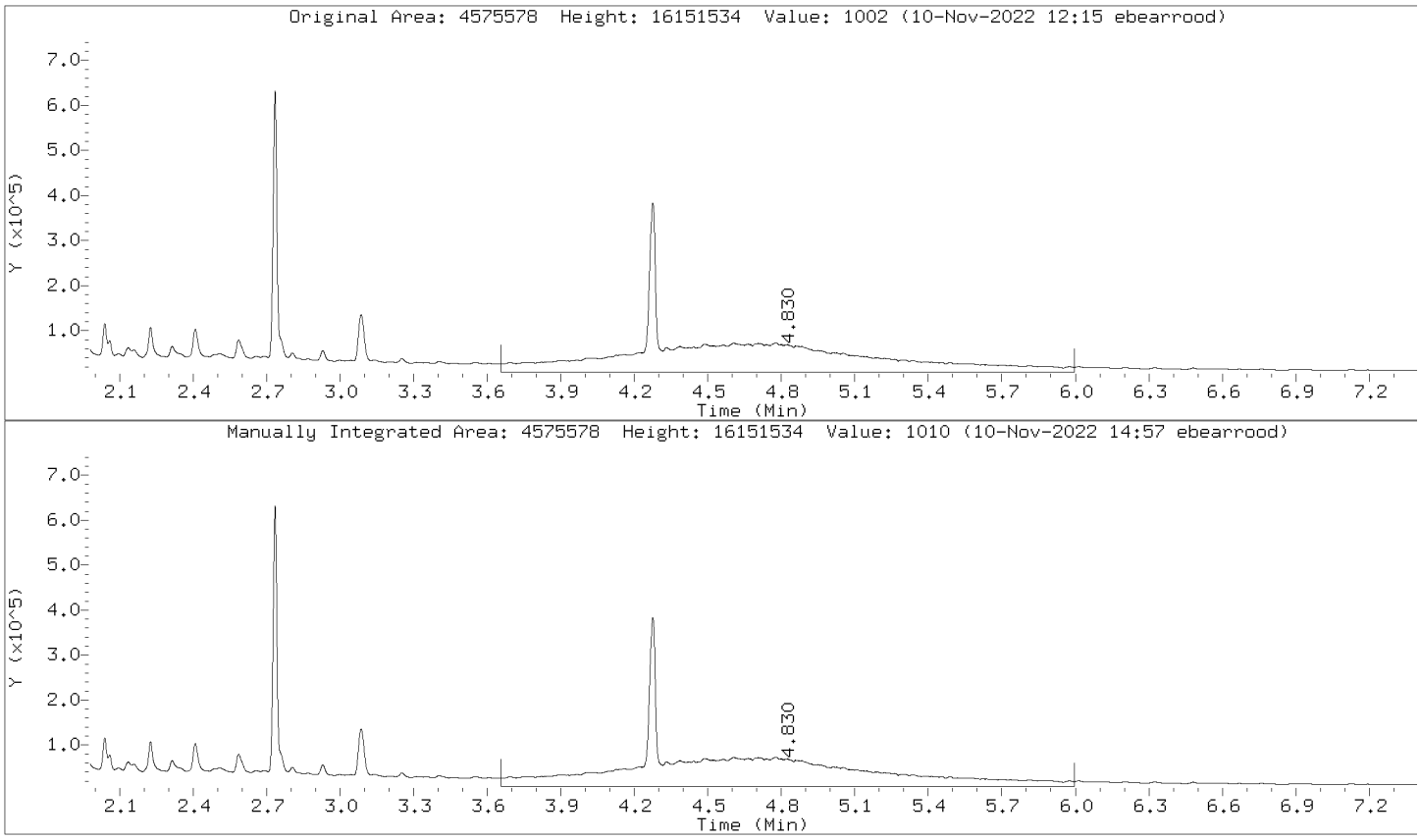
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



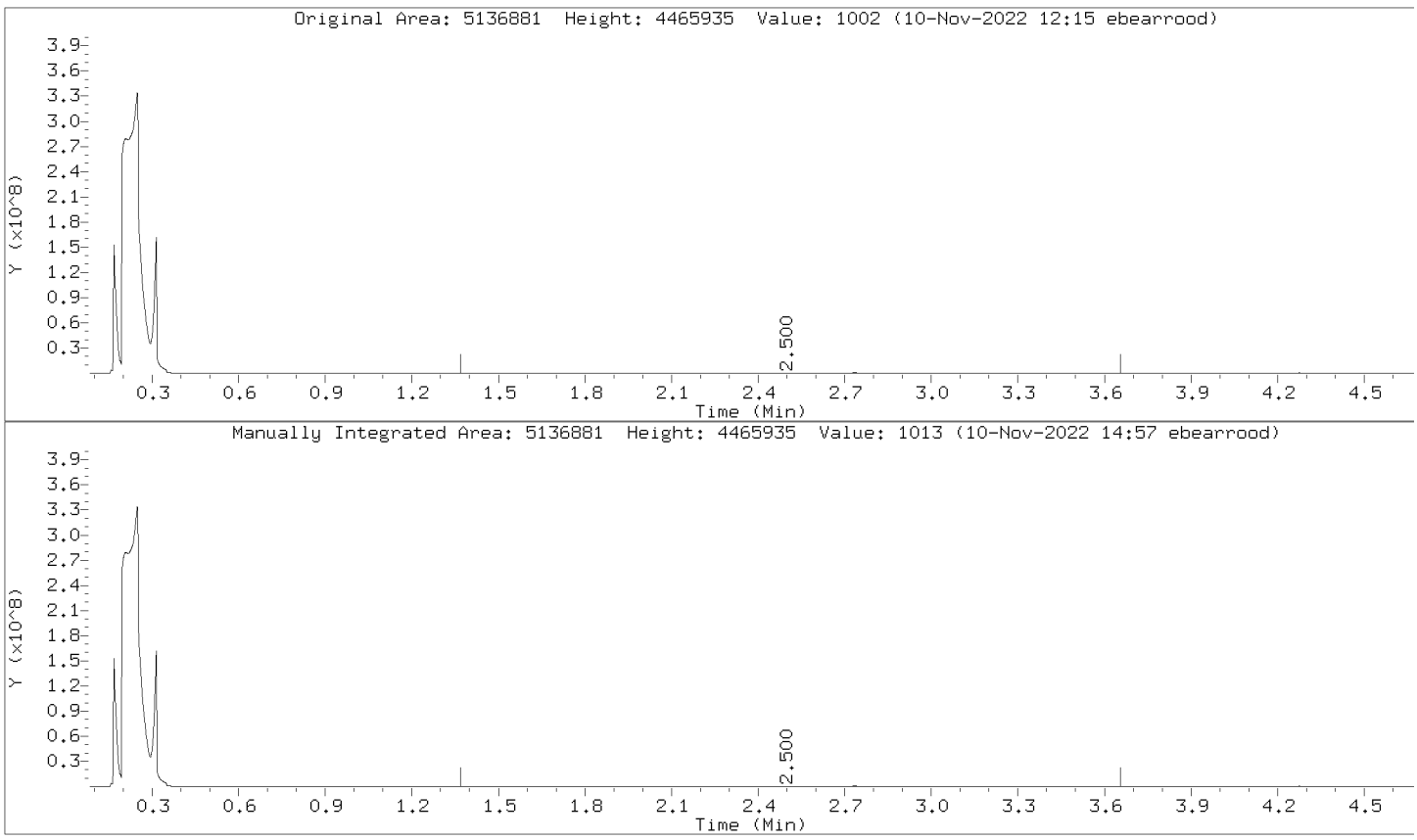
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



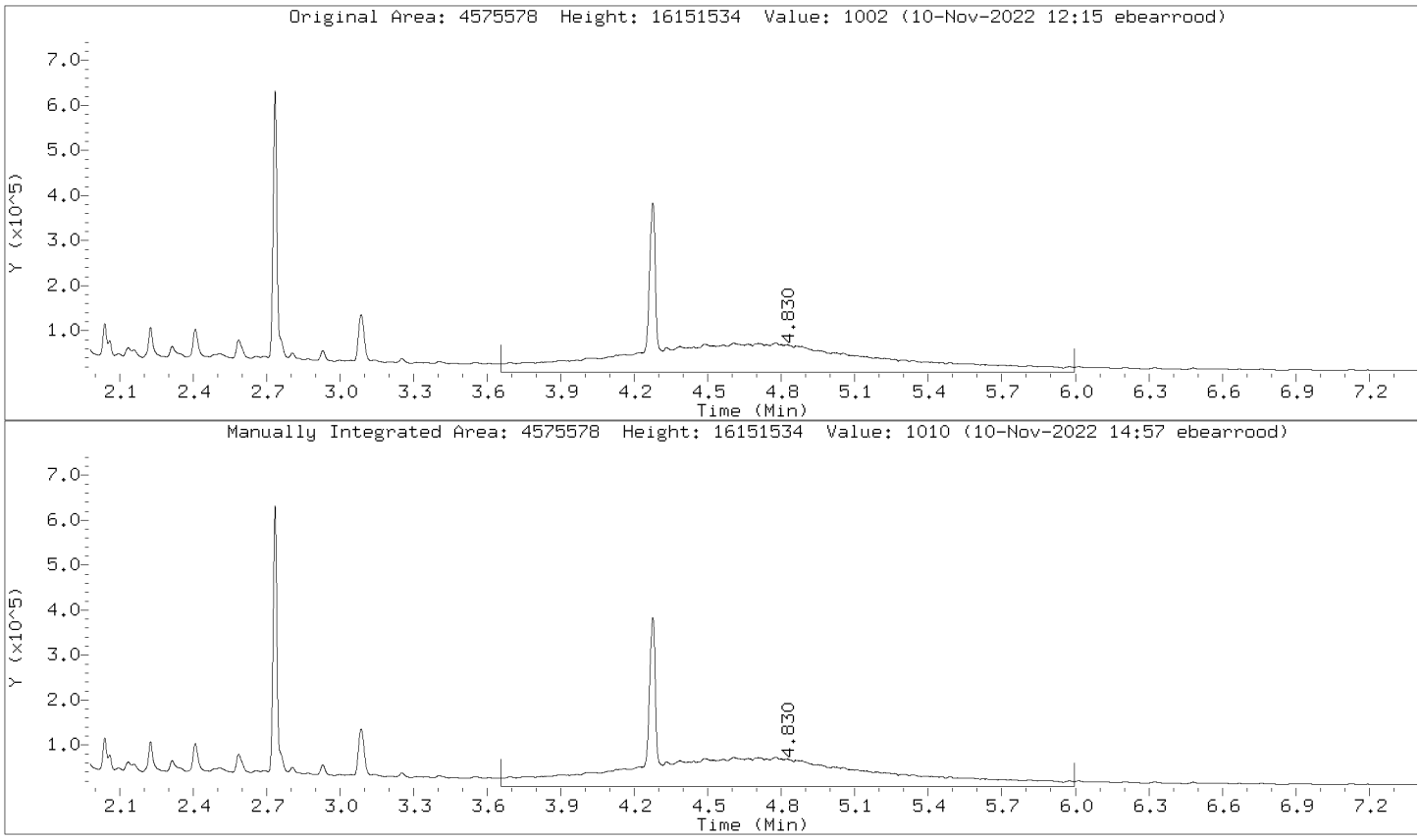
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



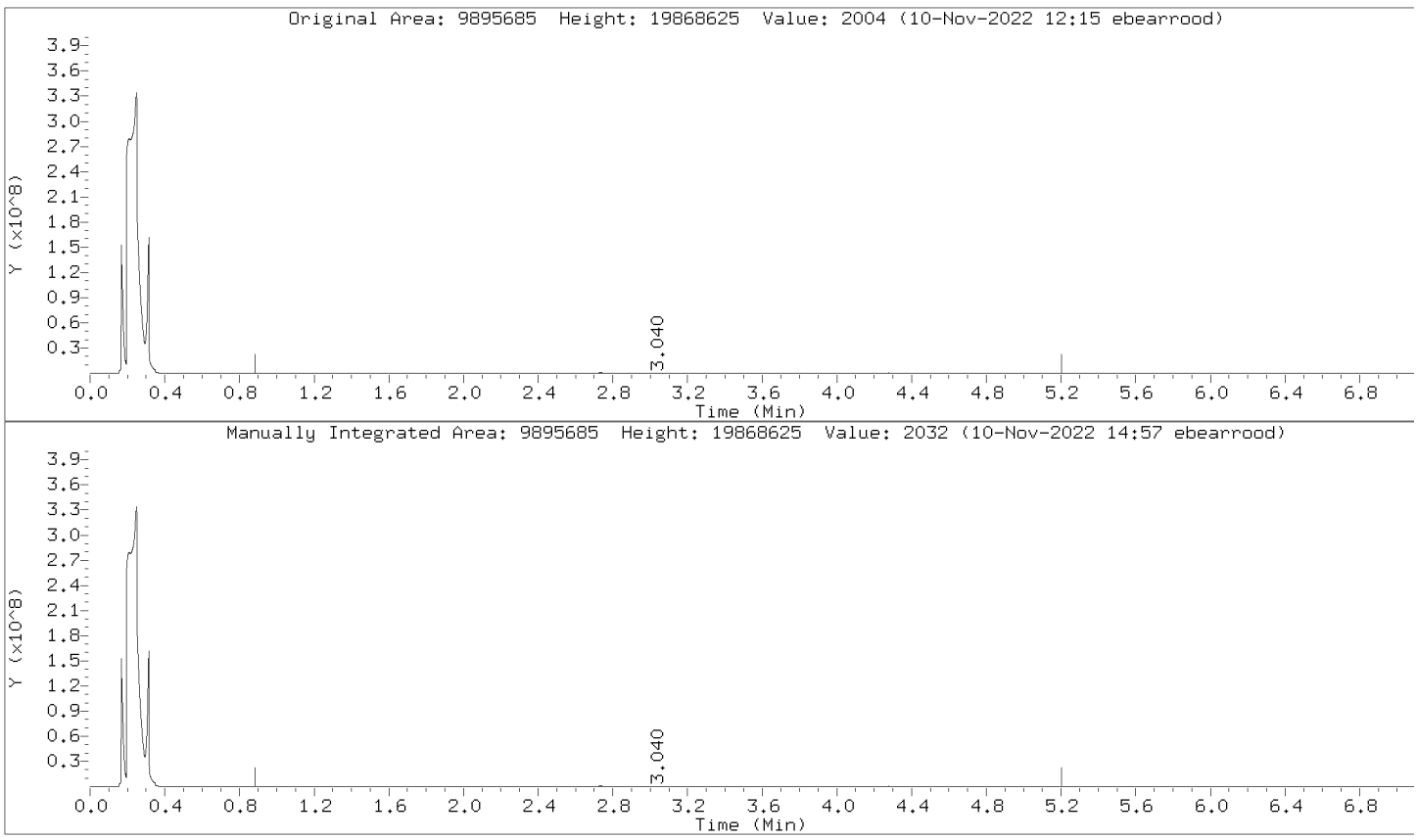
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



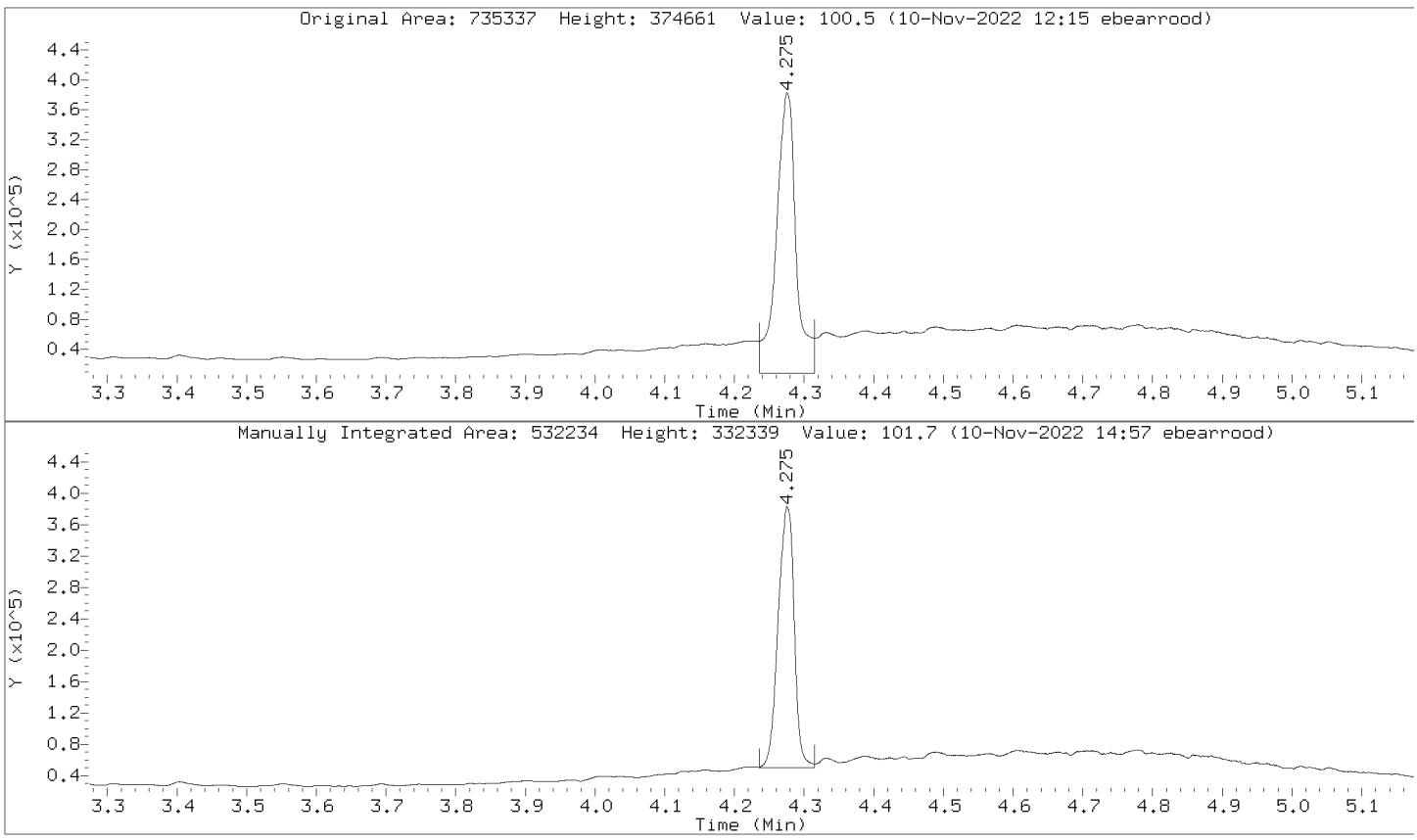
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



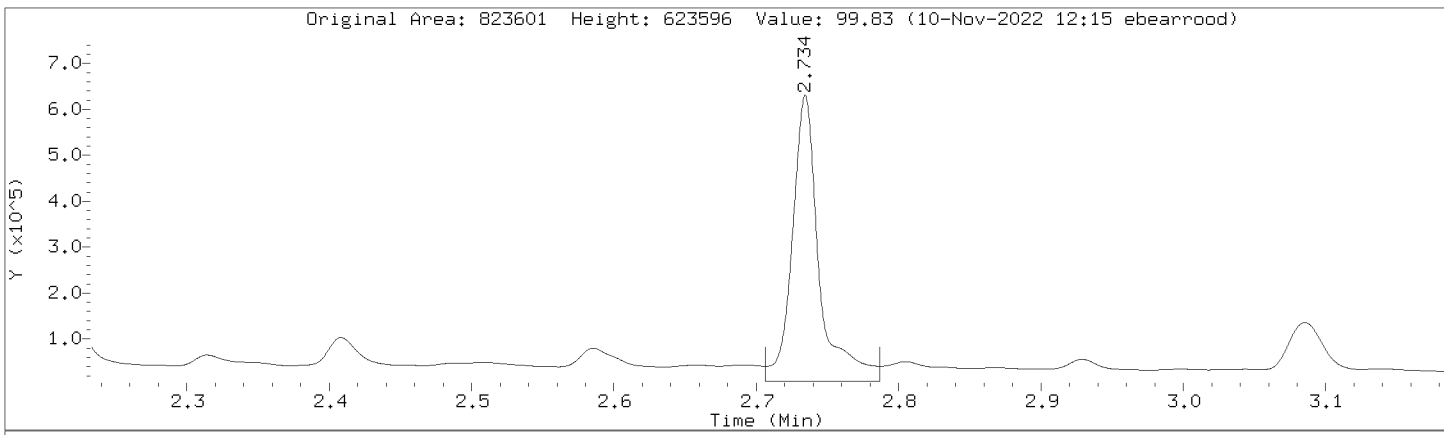
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

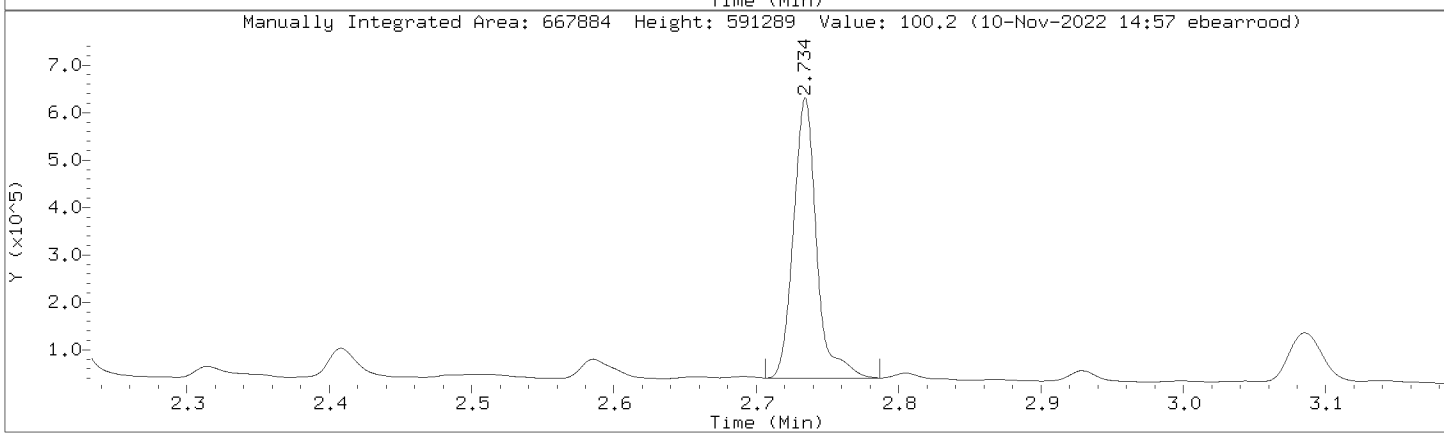
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

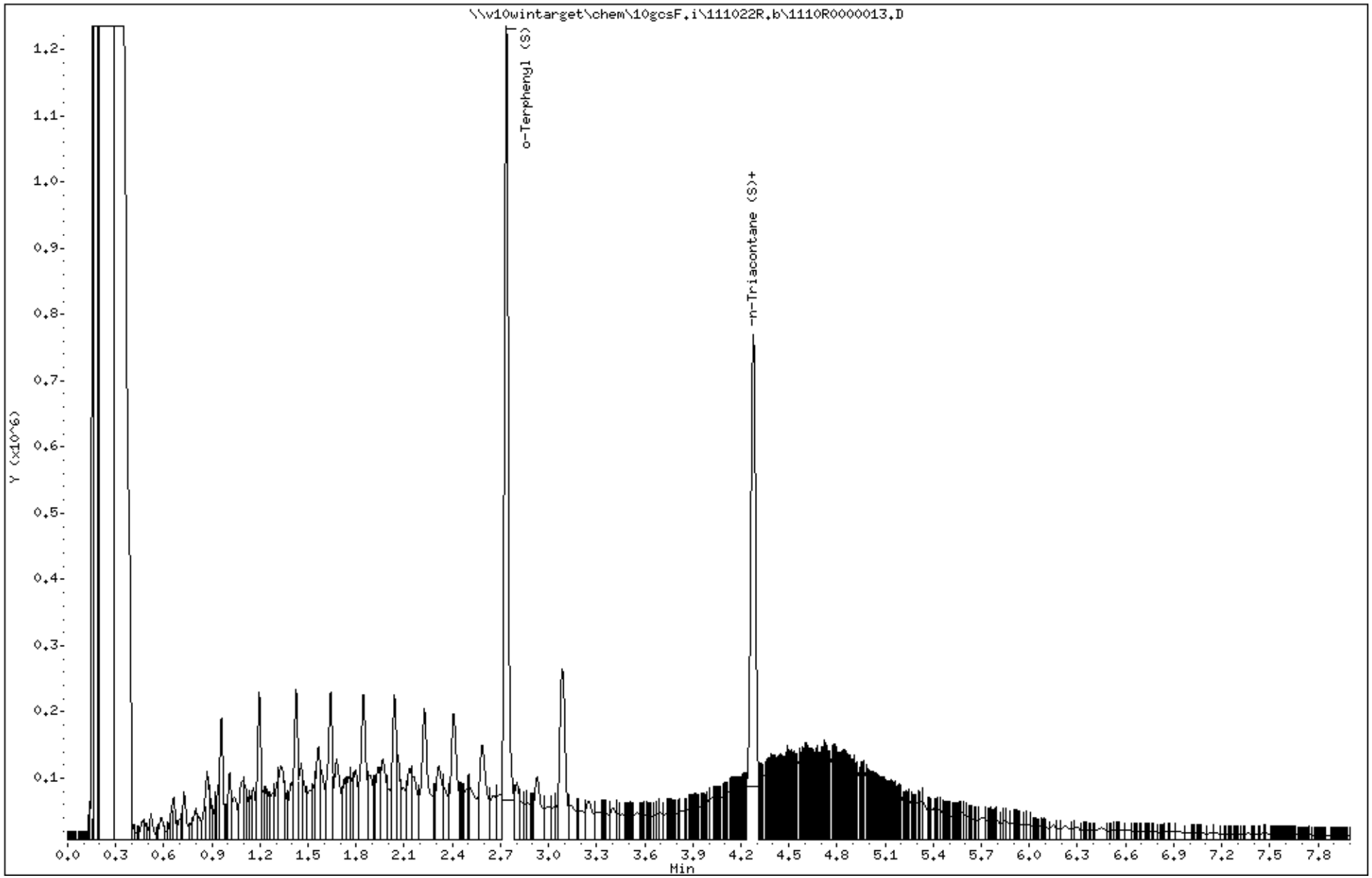
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

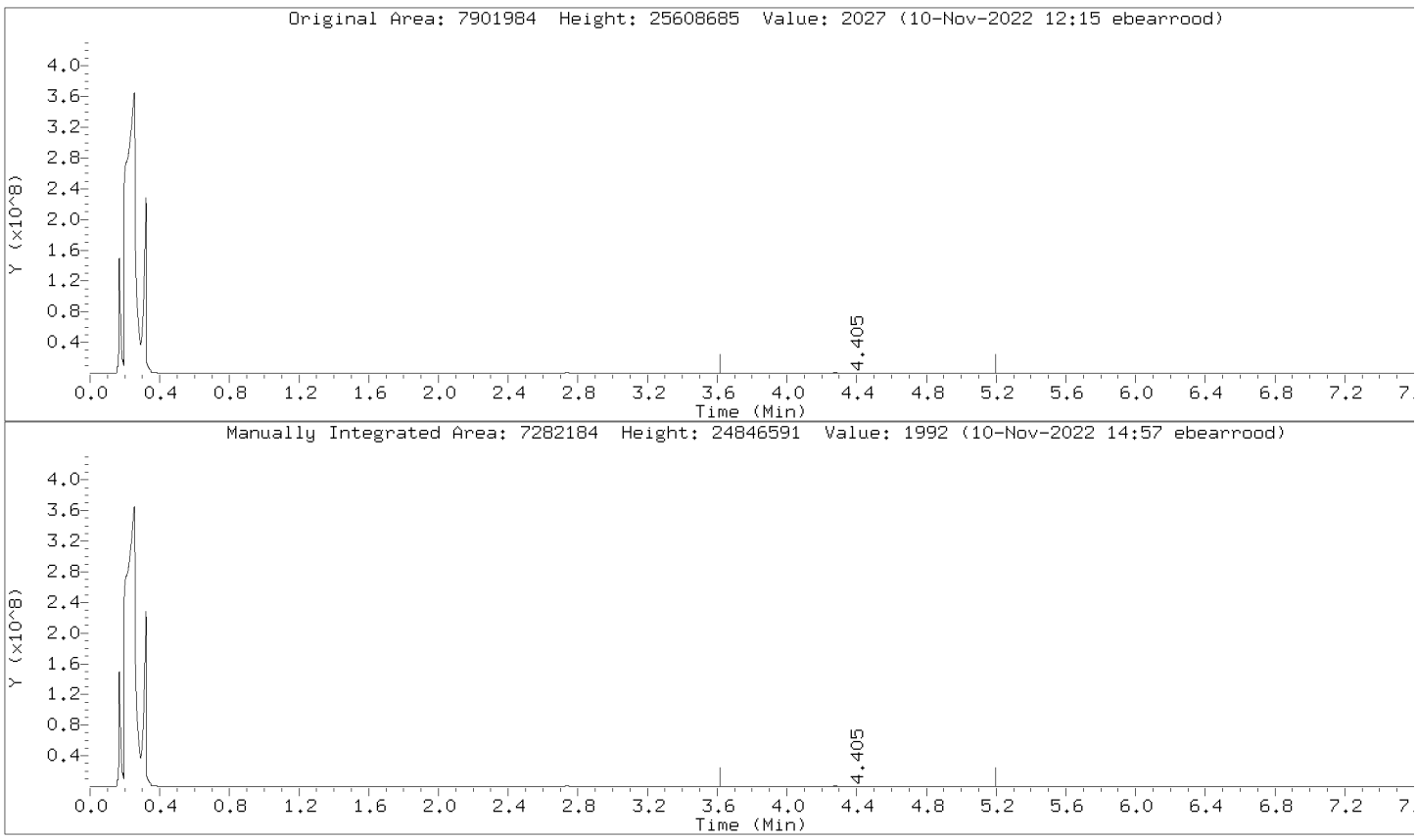
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



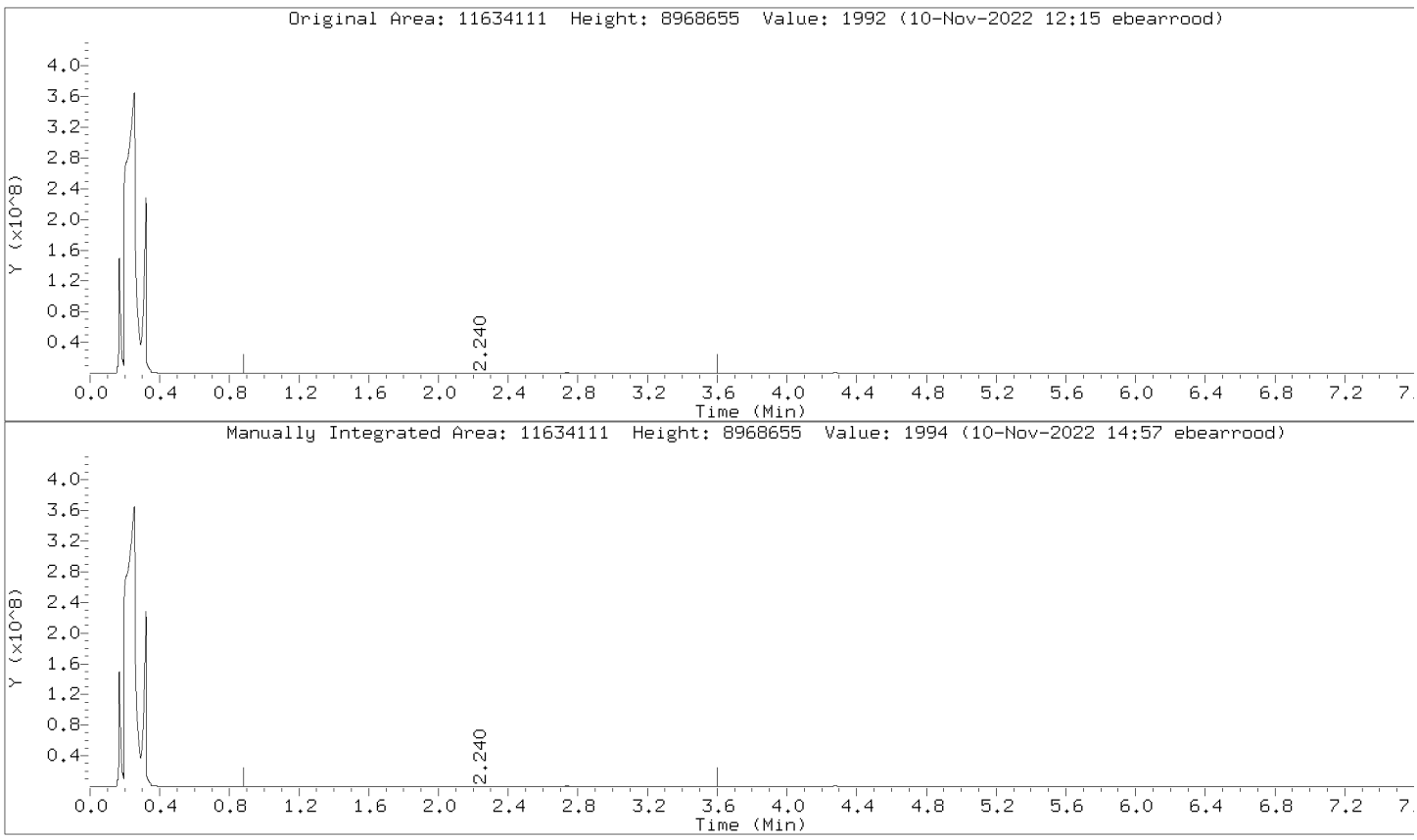
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



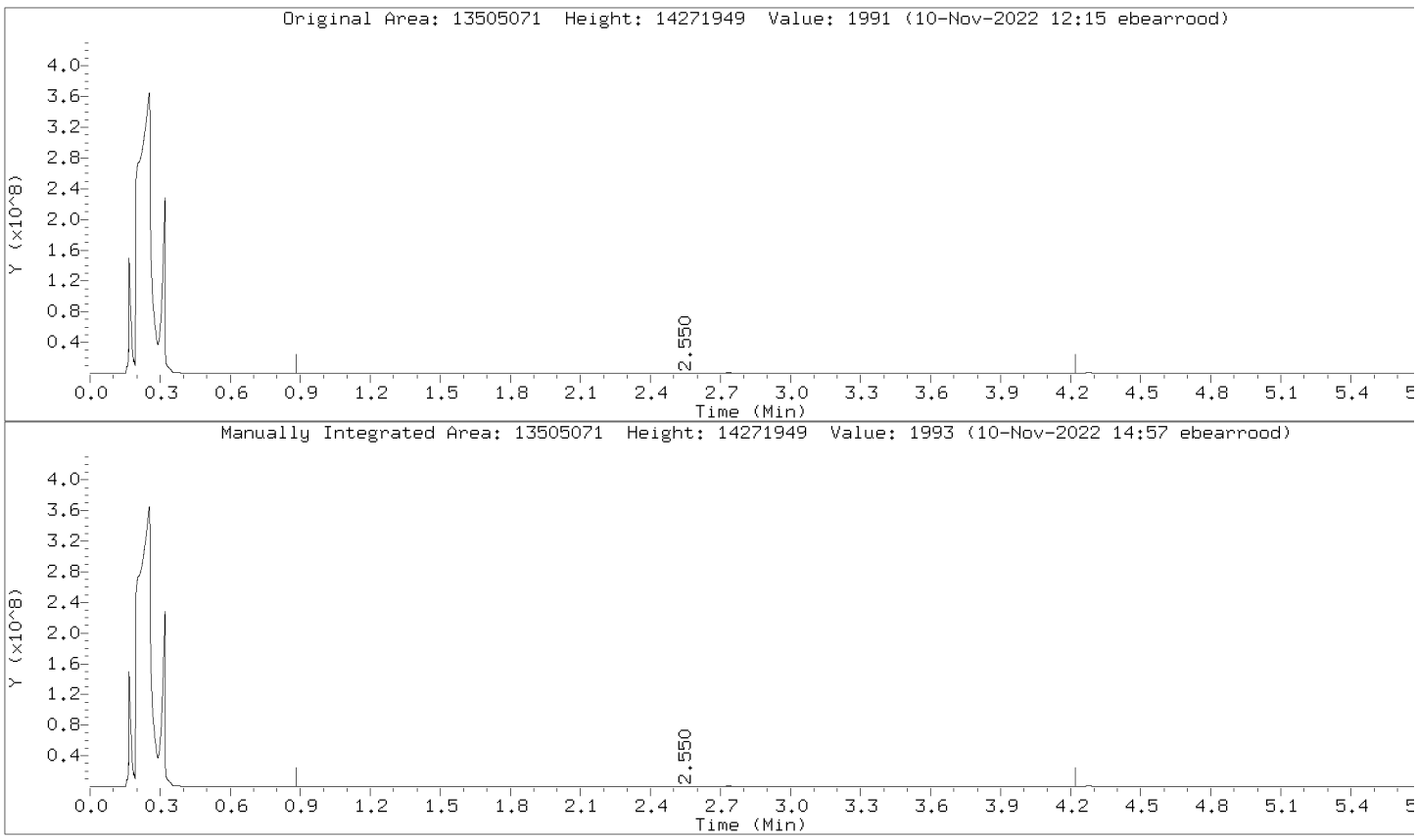
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



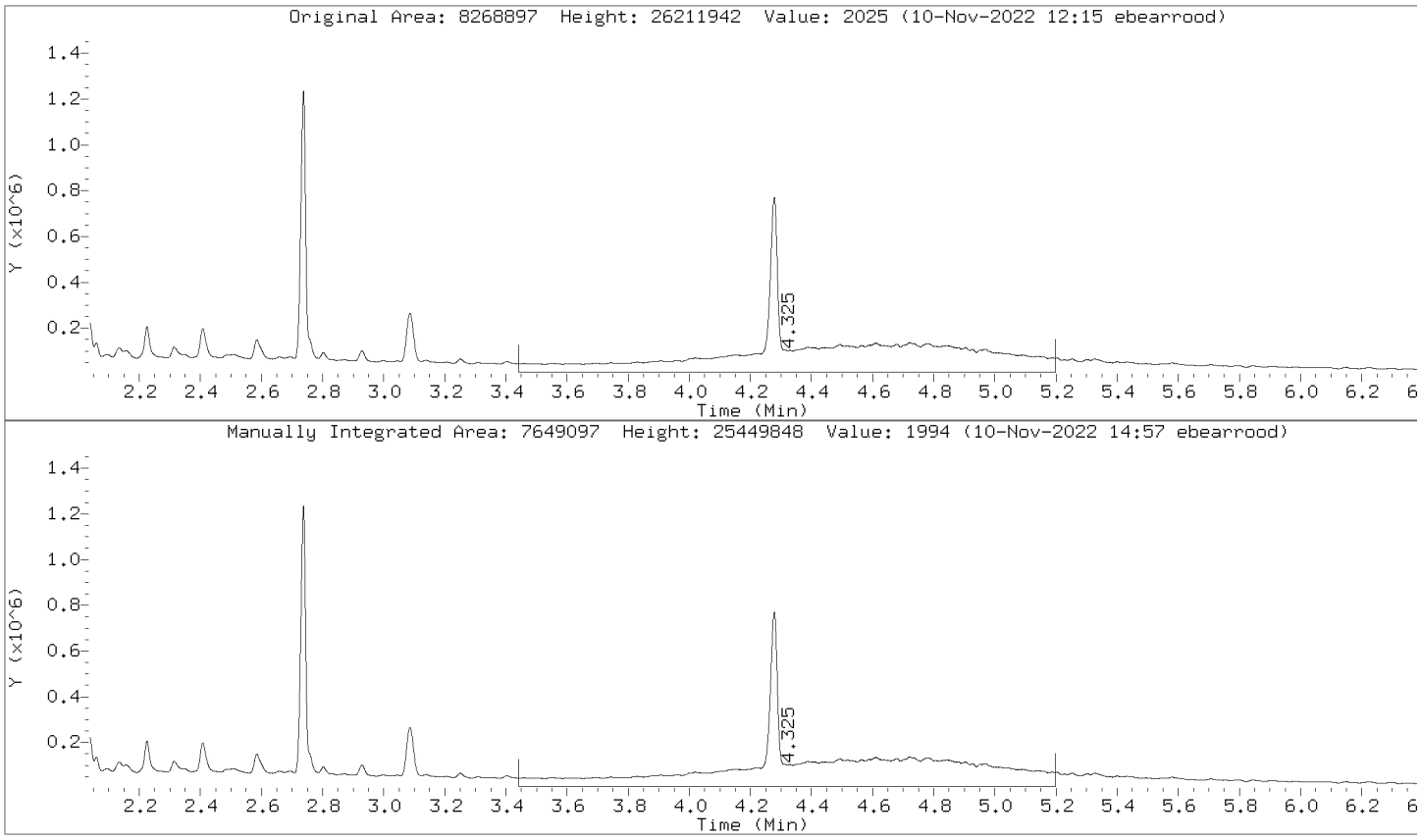
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



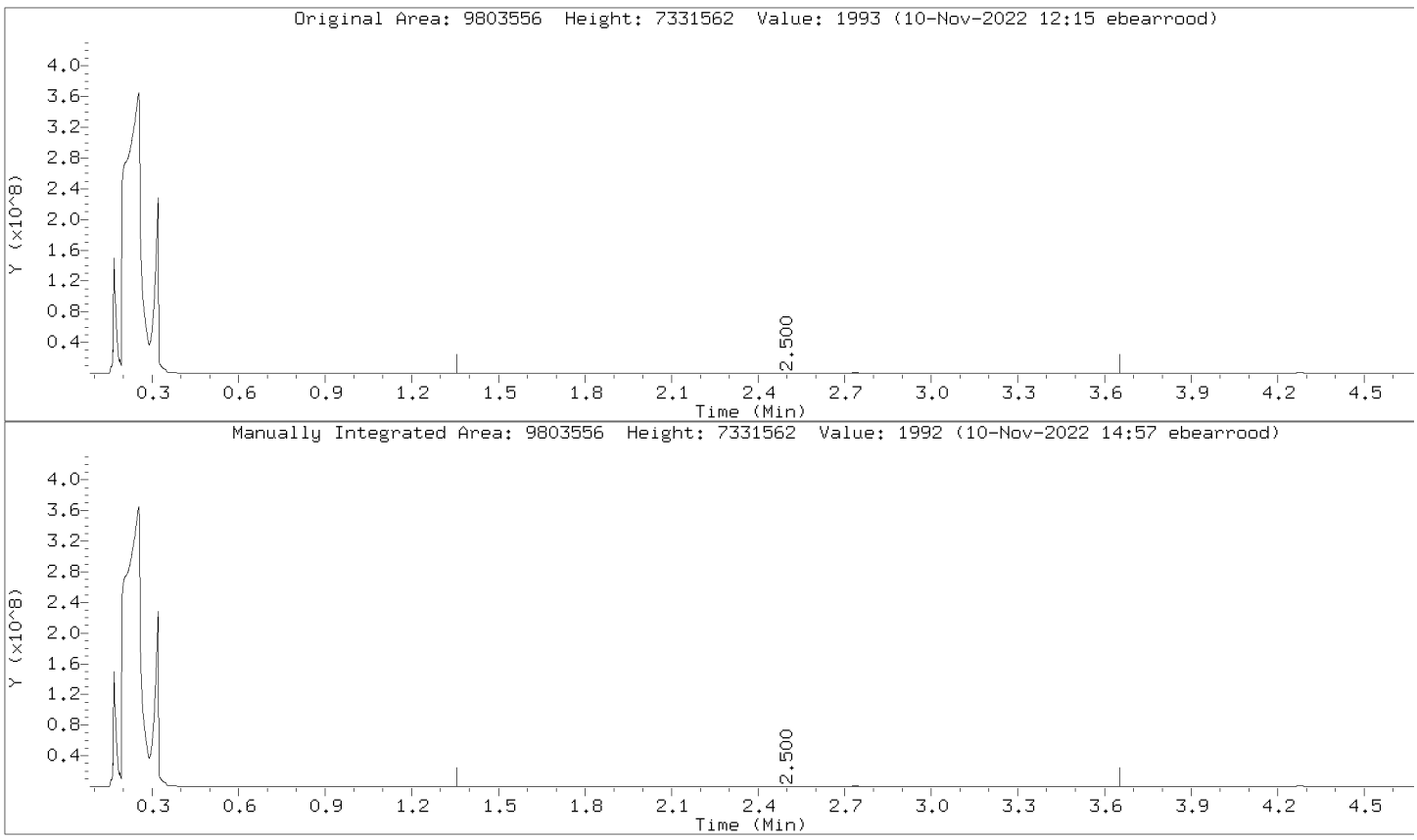
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



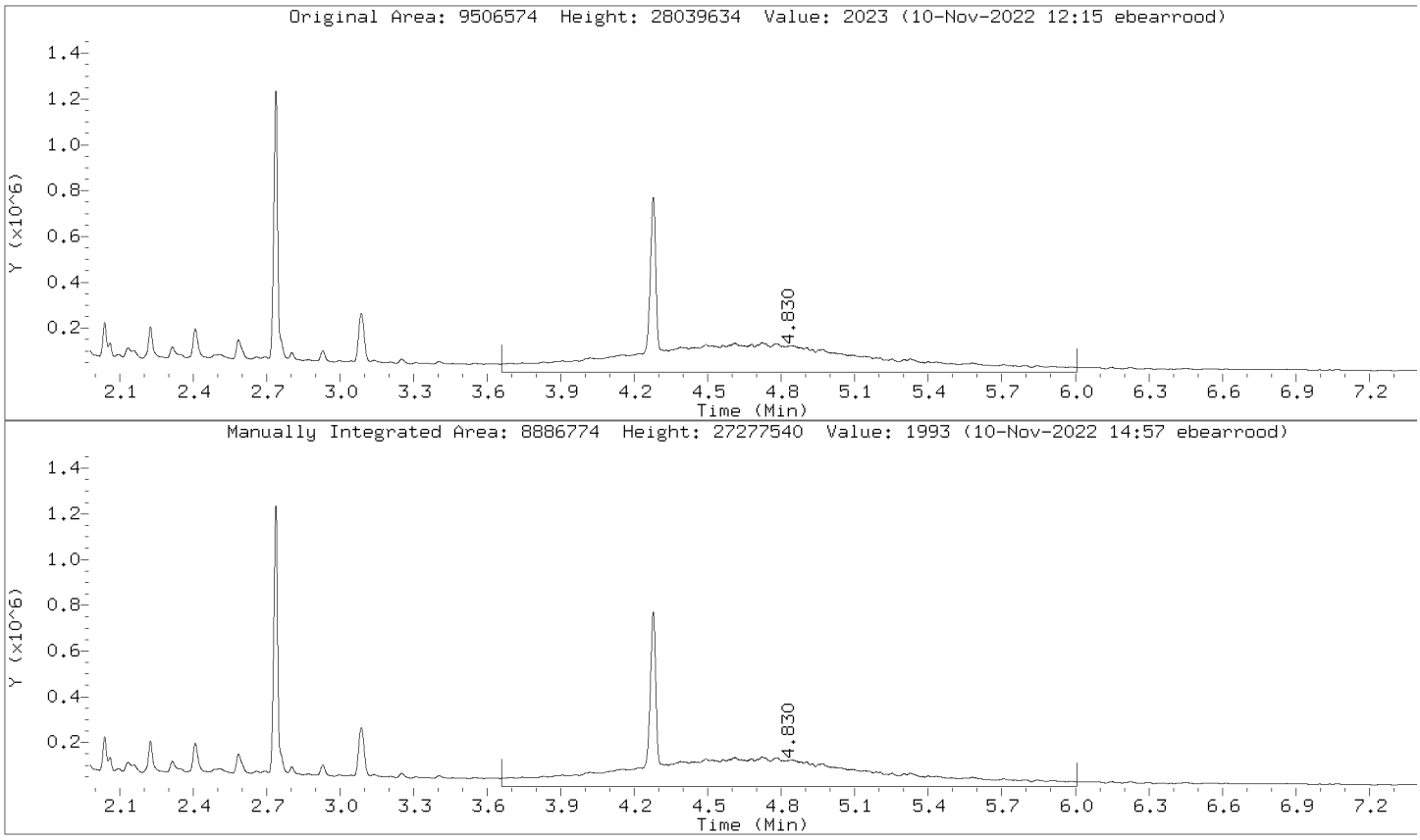
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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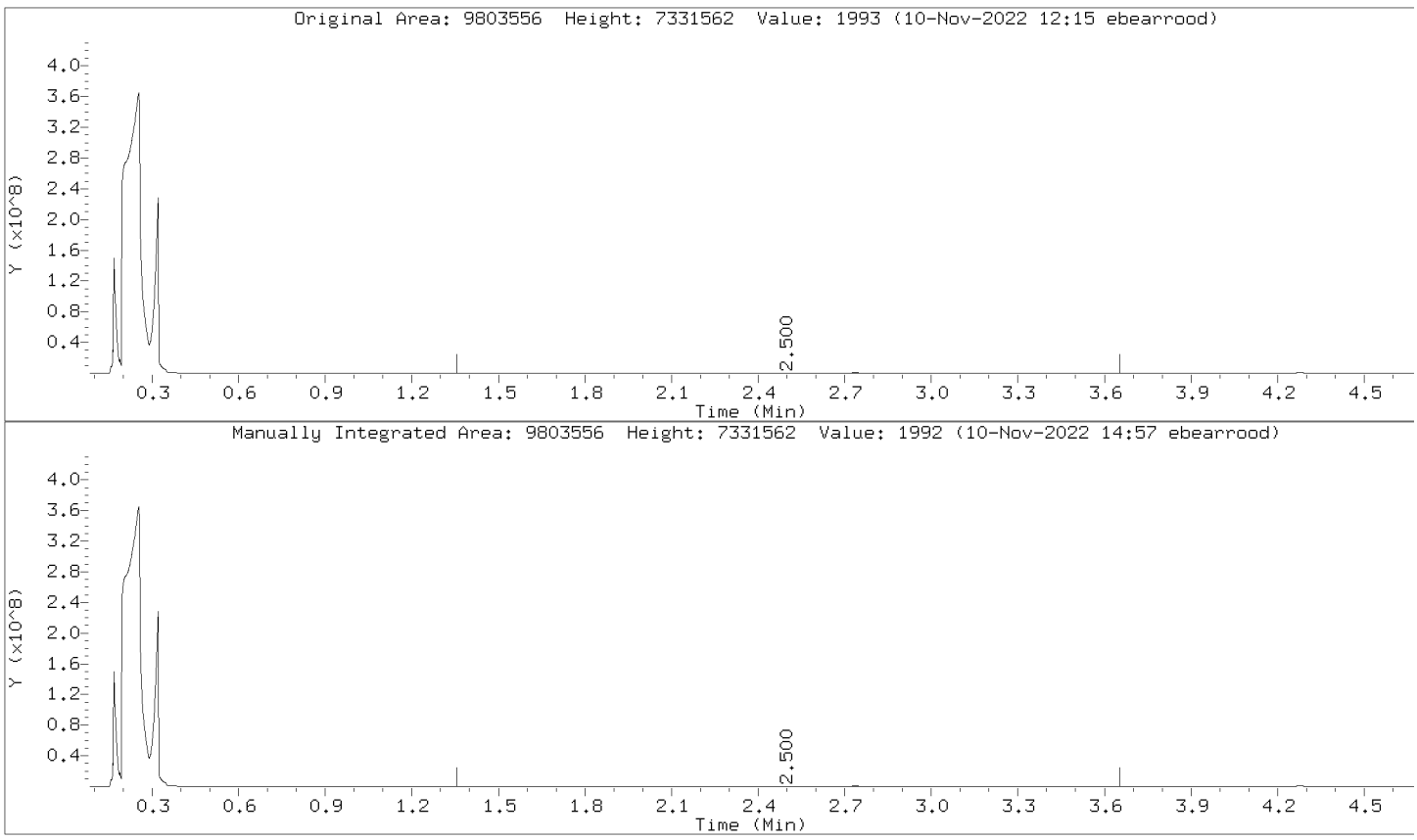
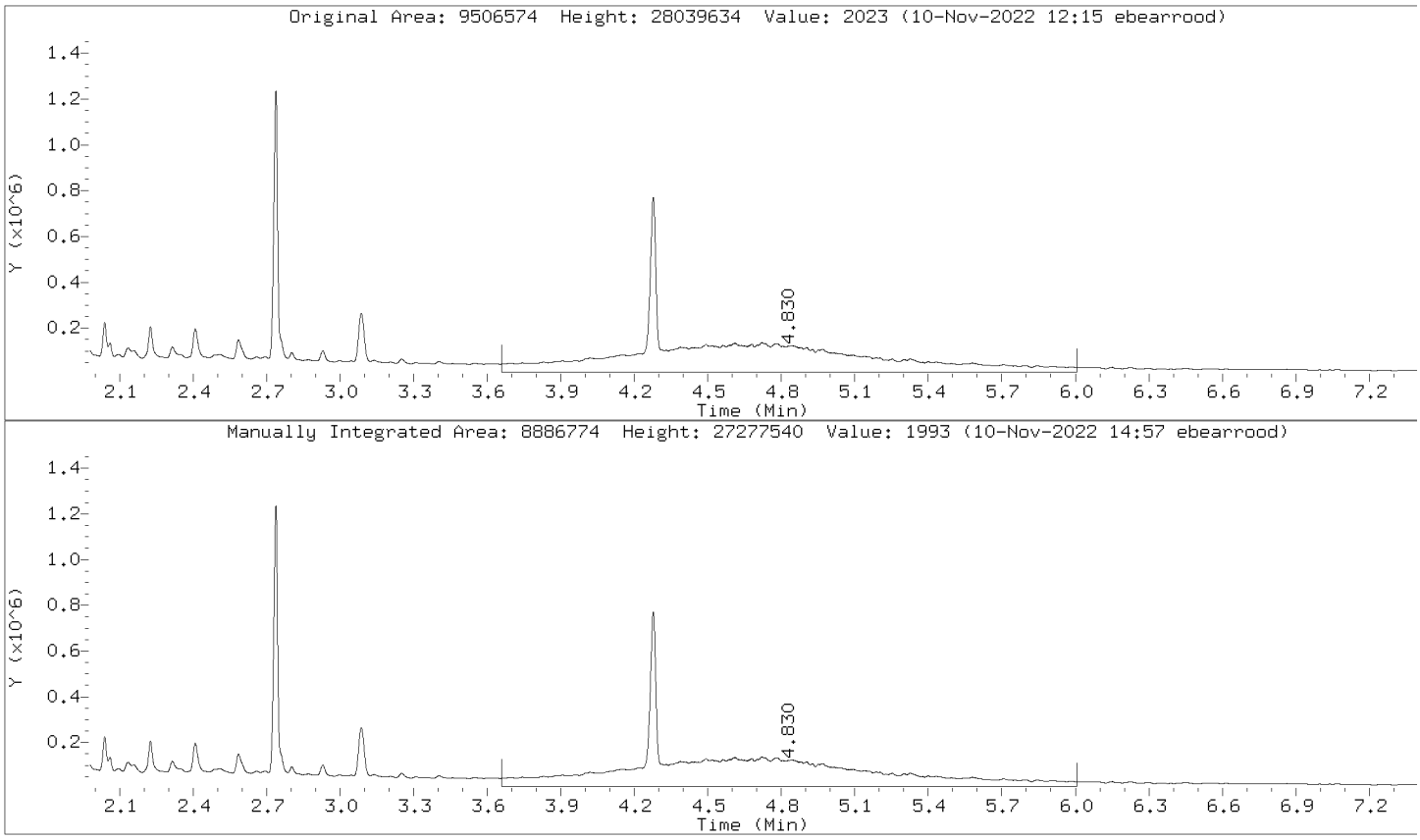
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



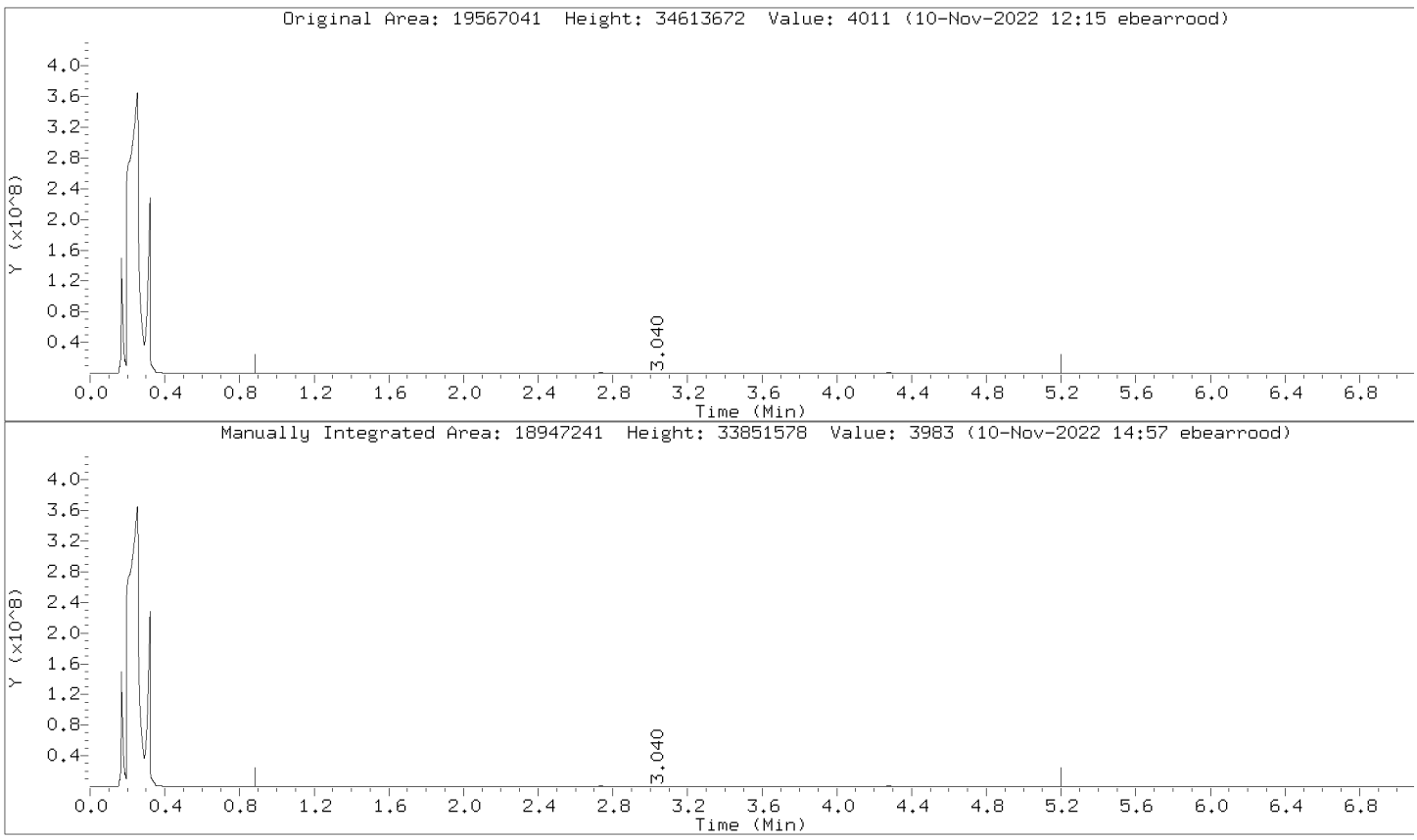
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



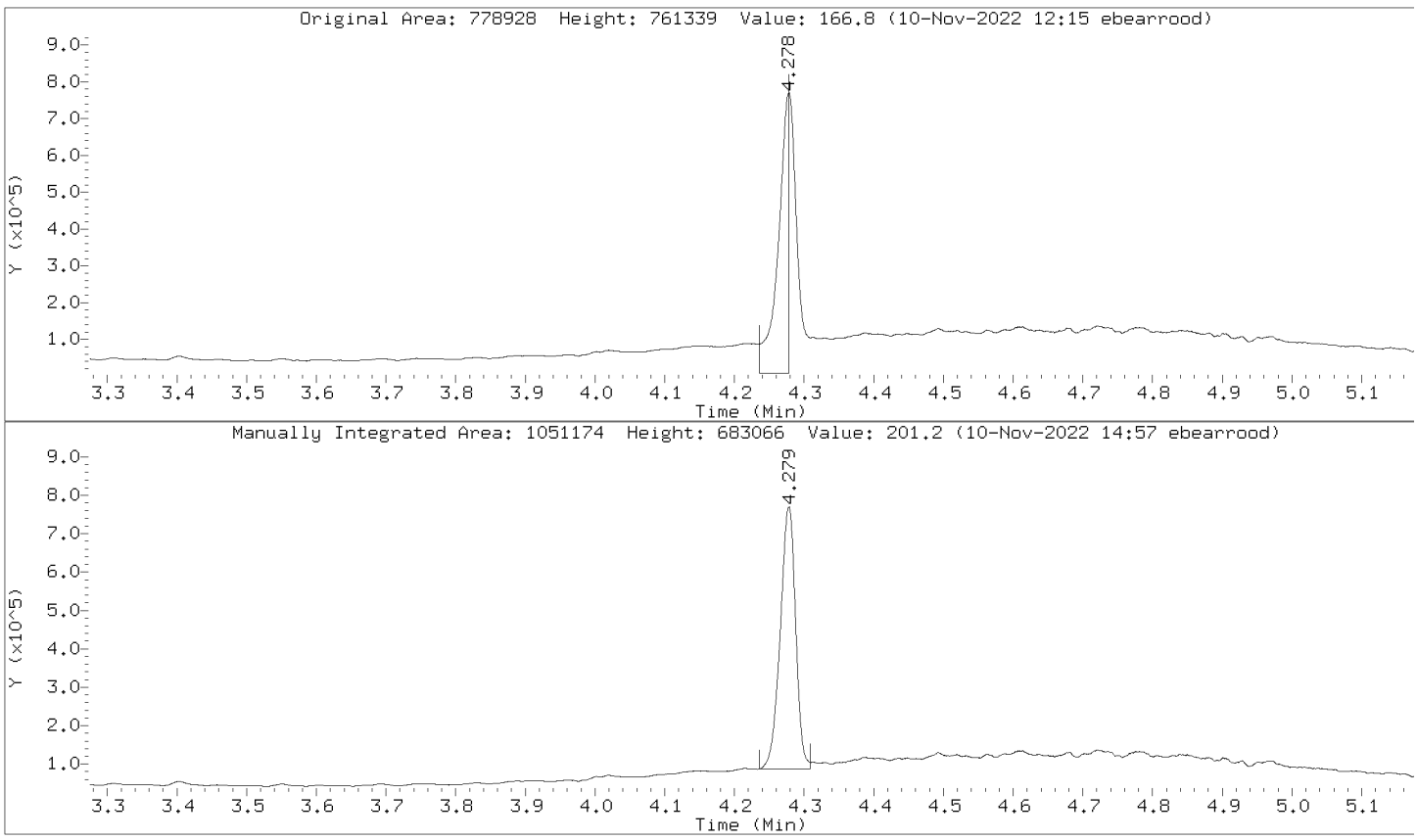
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: C10-C36 Review Code: RNG
CAS Number:



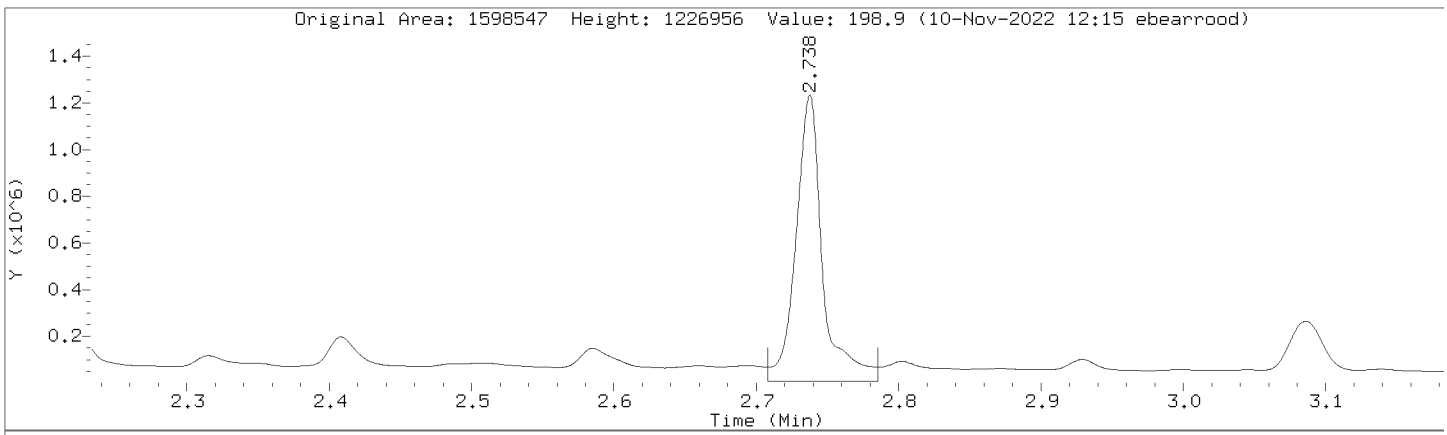
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

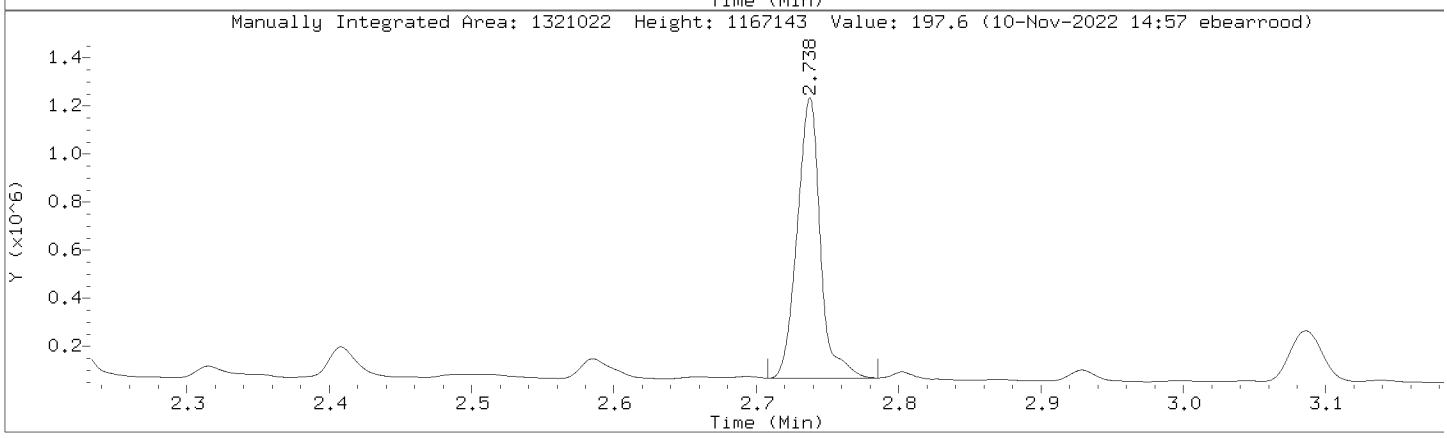
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

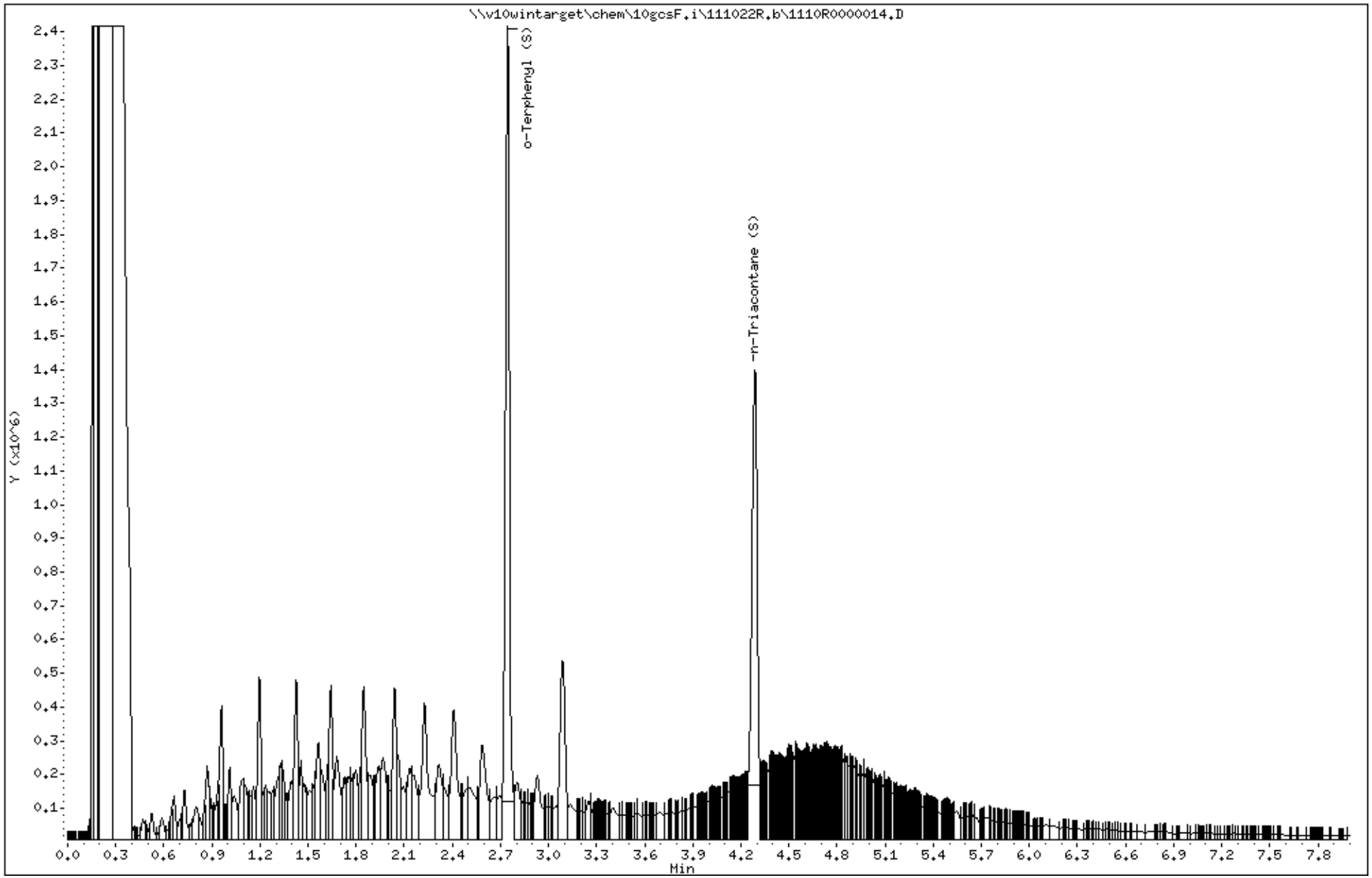
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

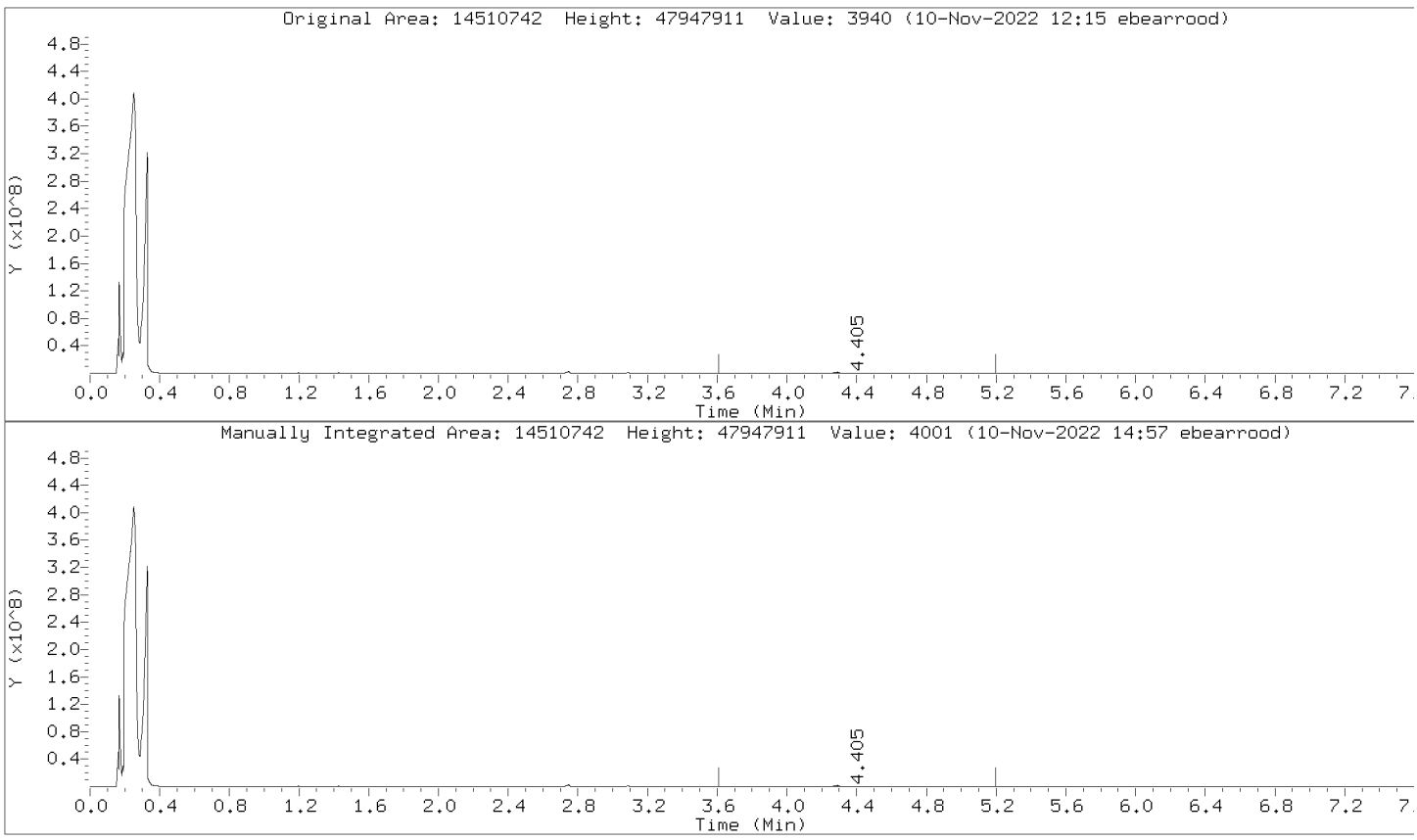
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



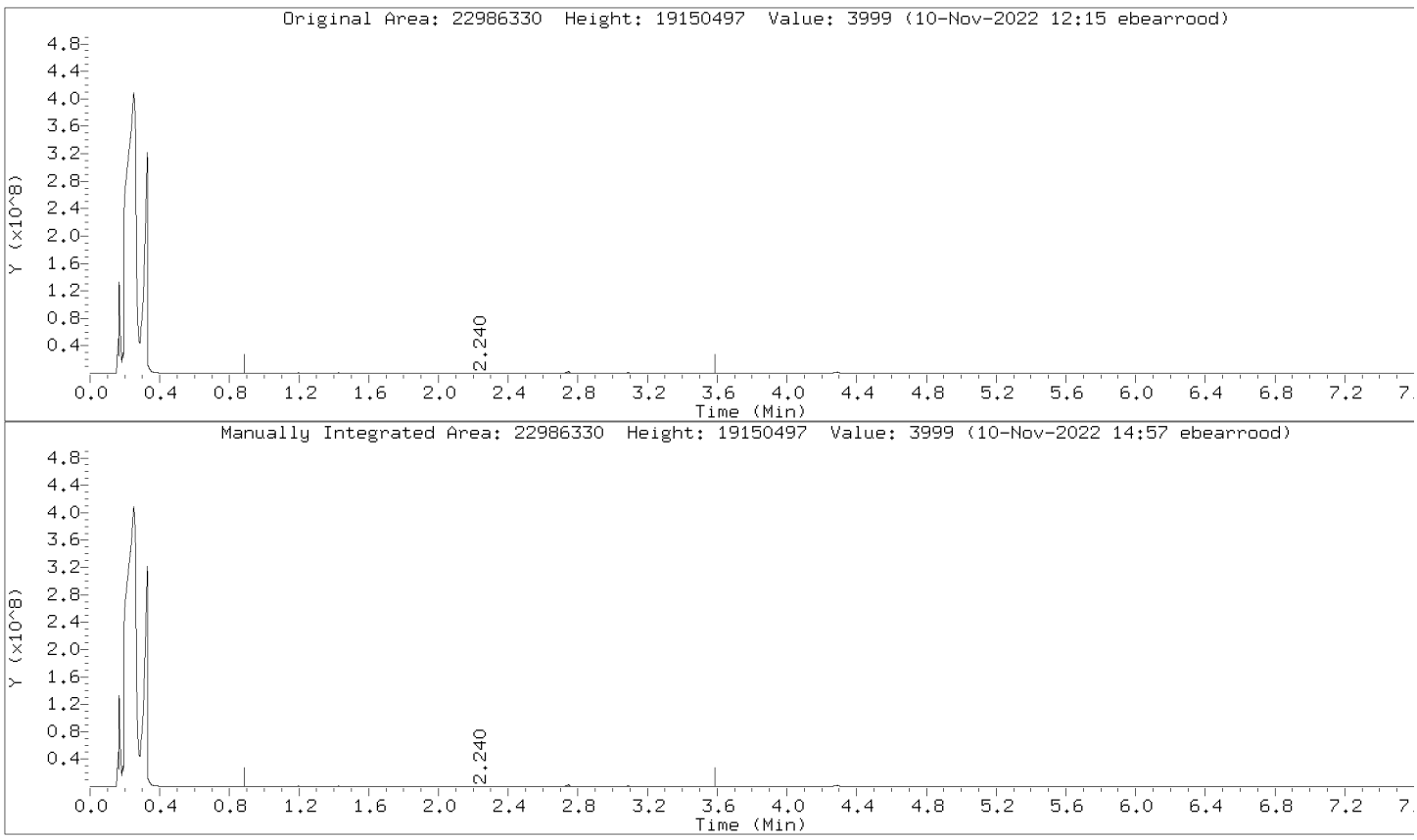
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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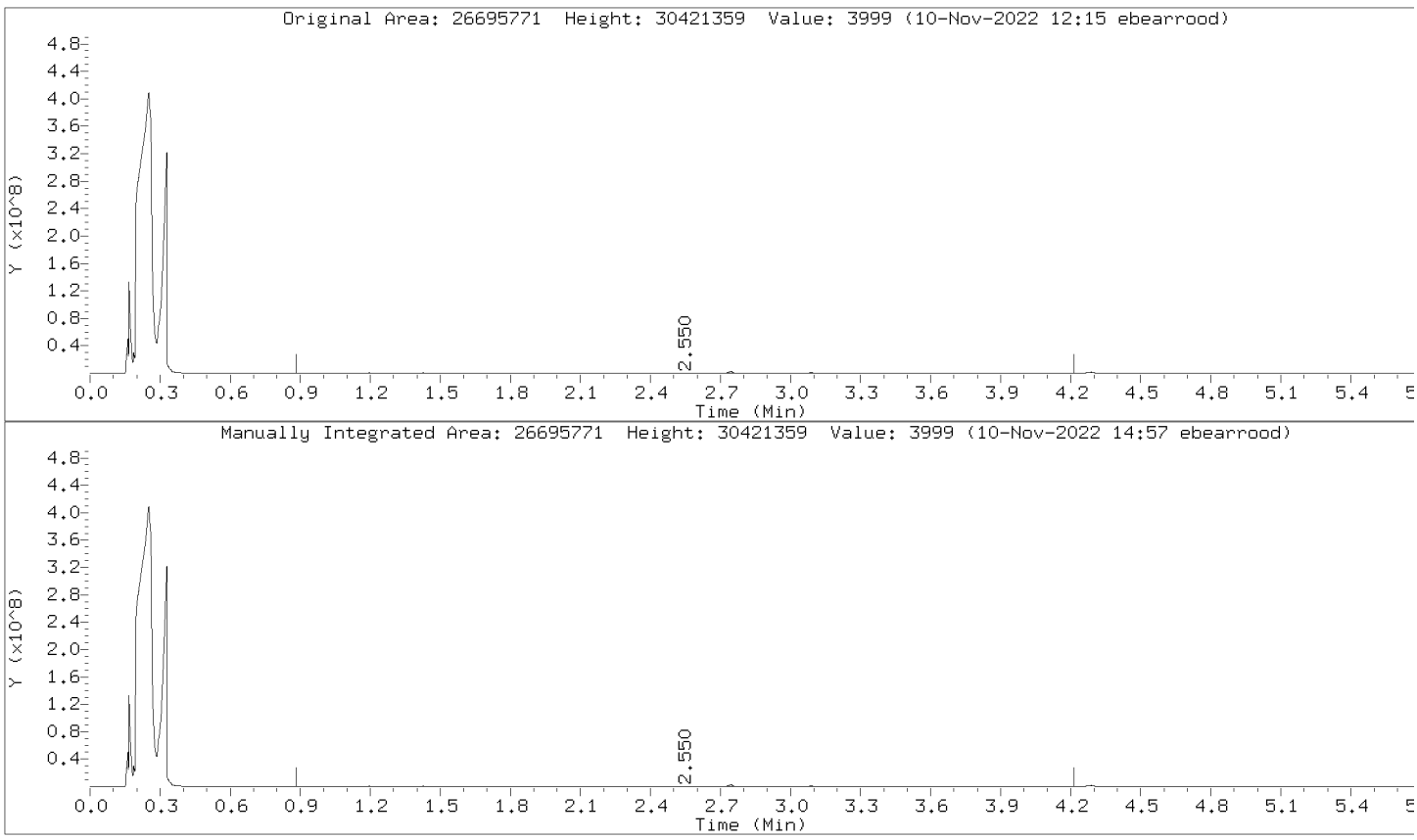
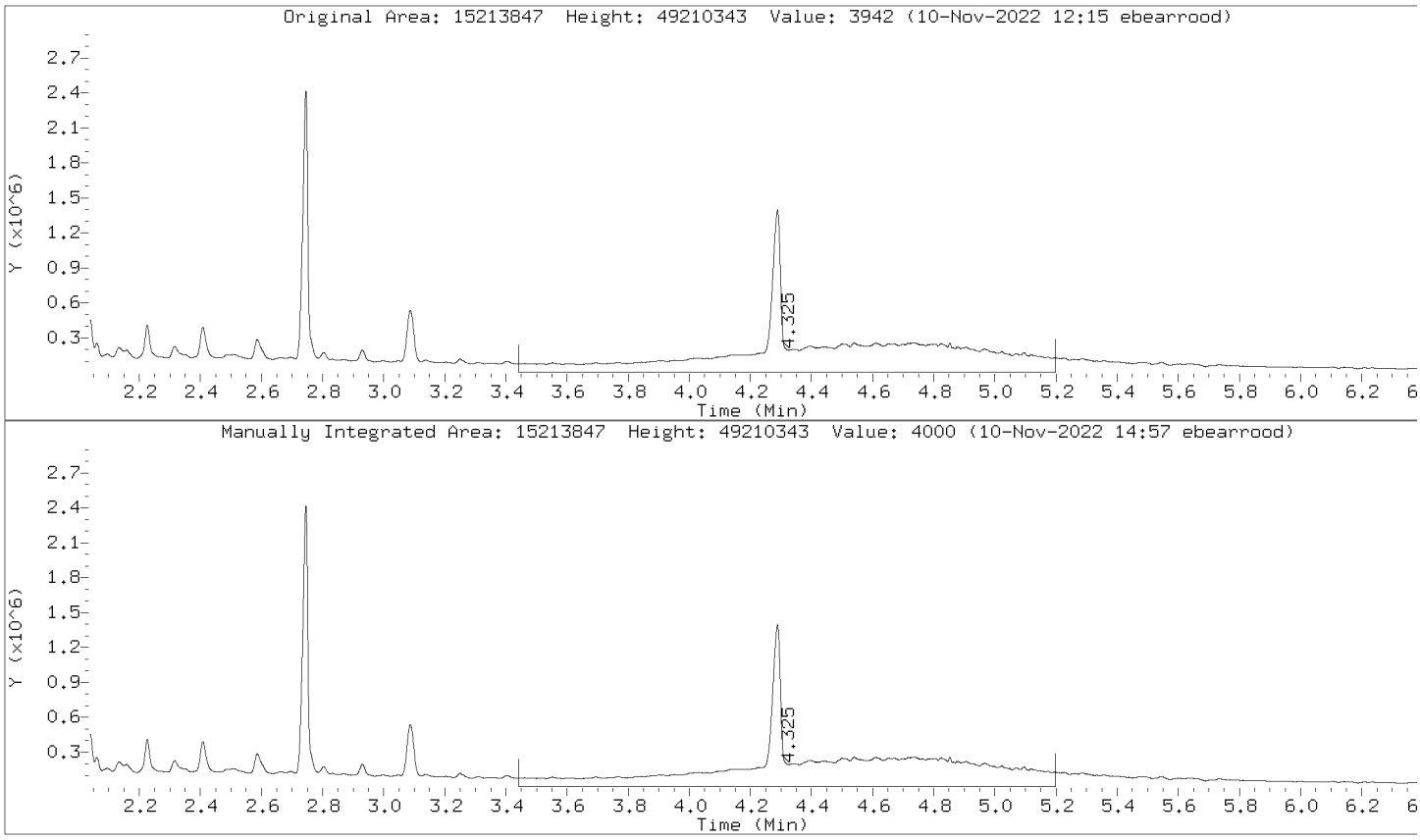
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



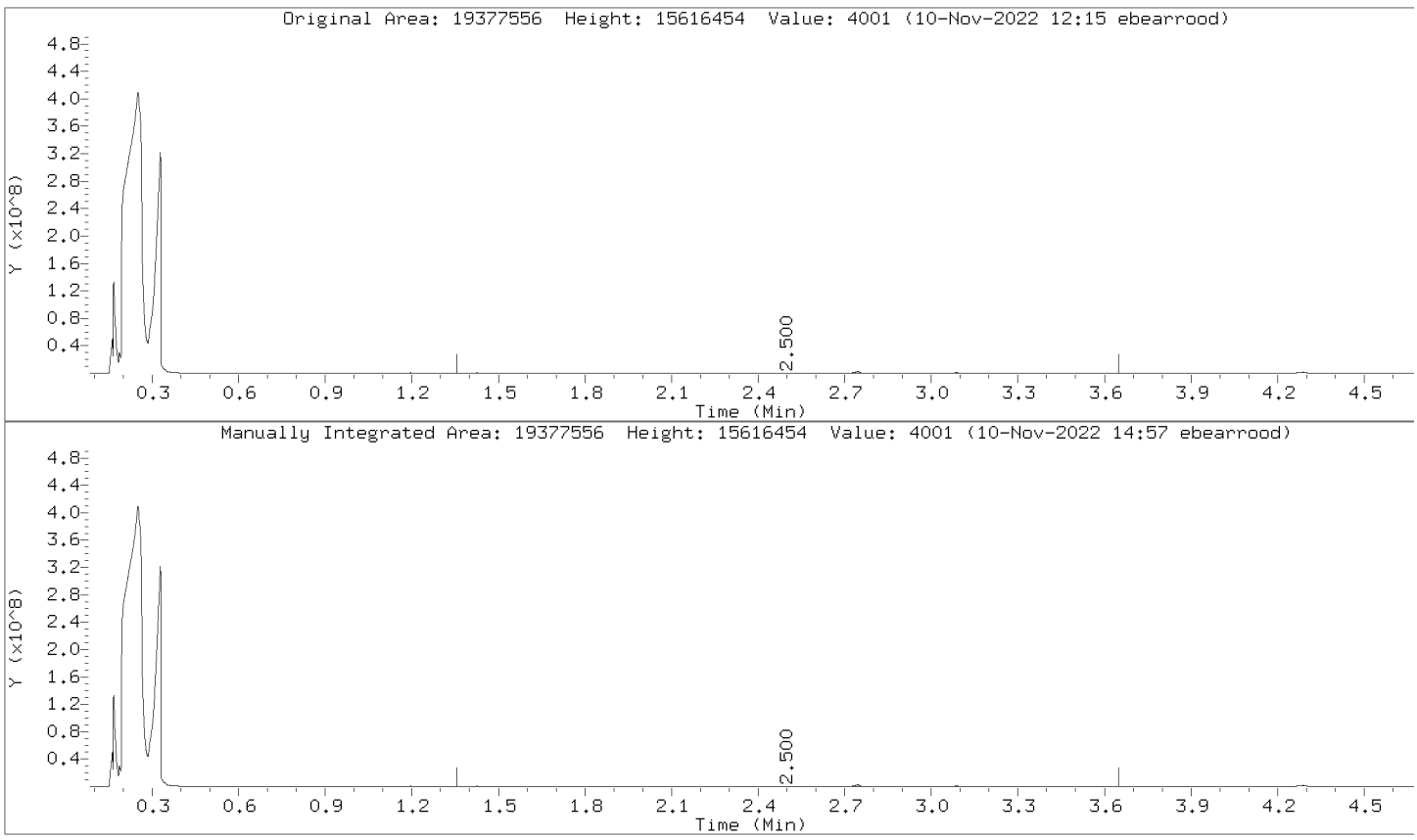
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



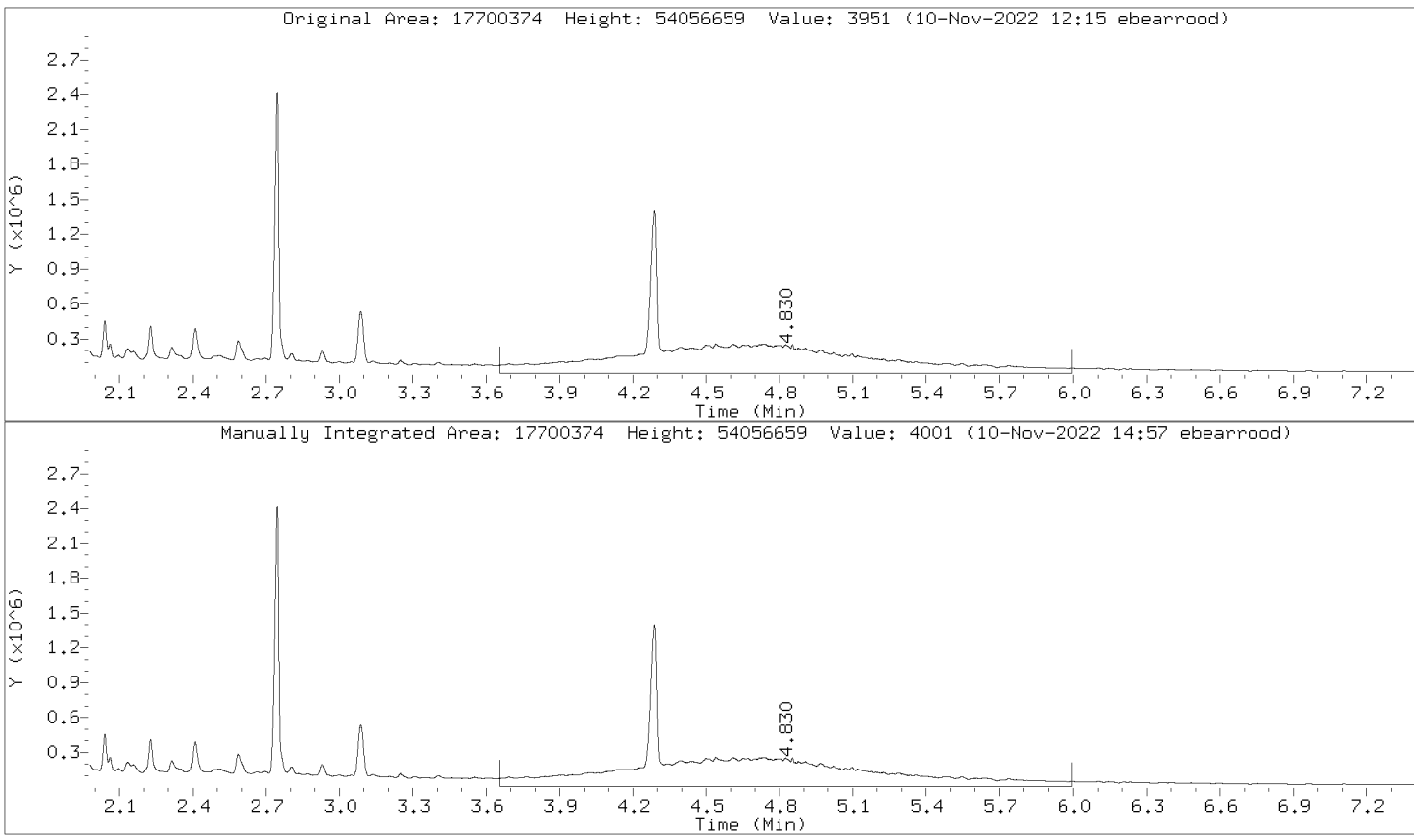
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



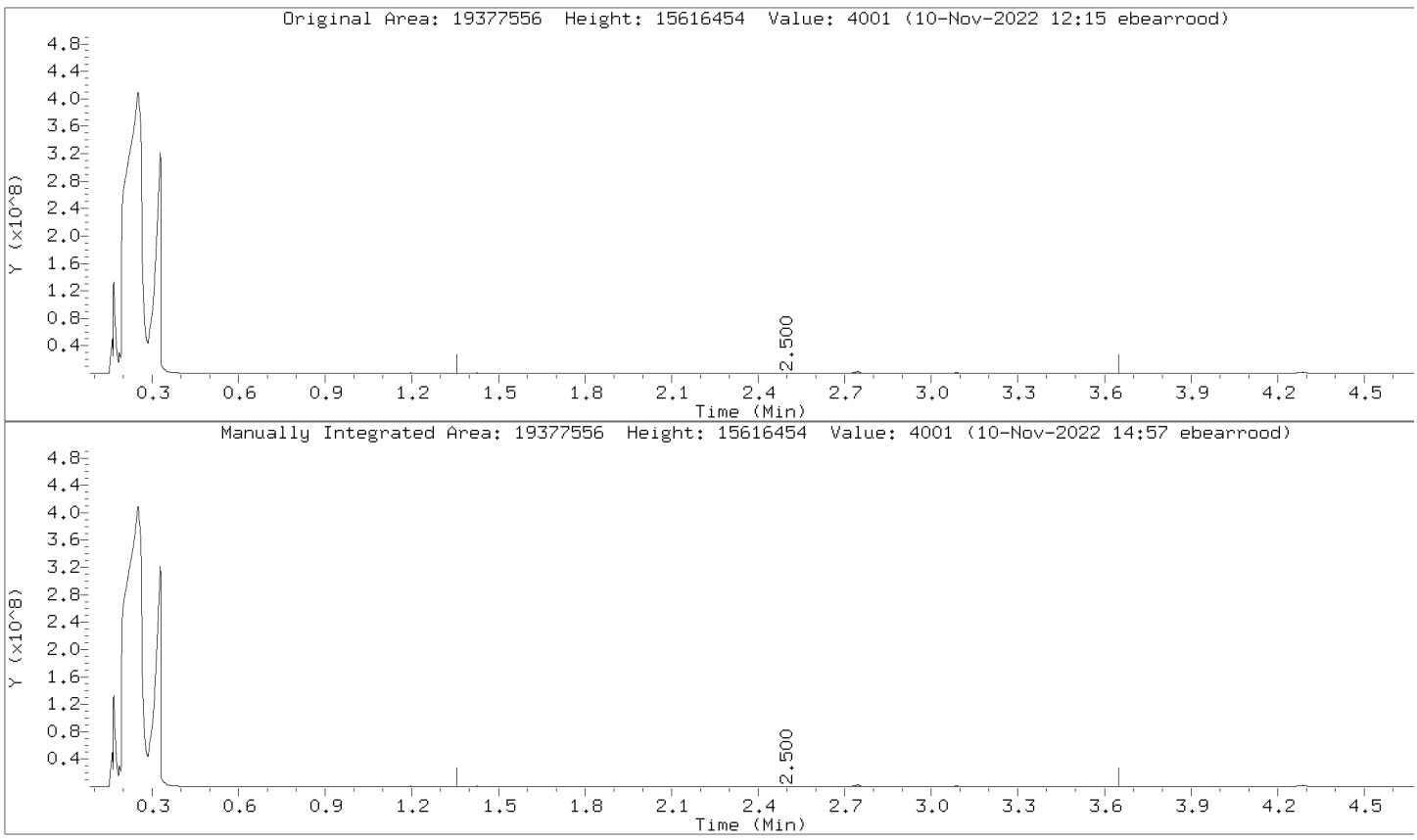
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



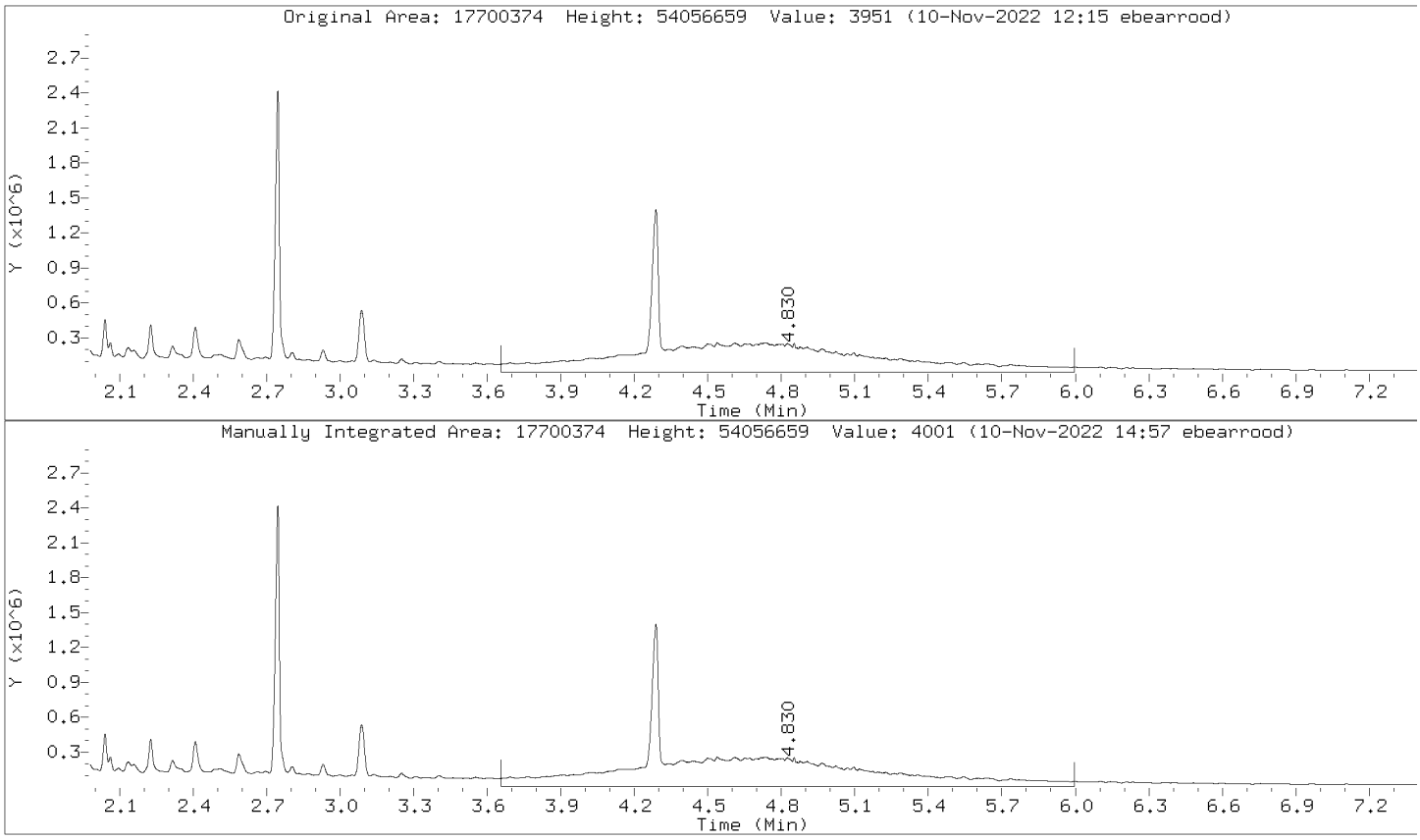
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



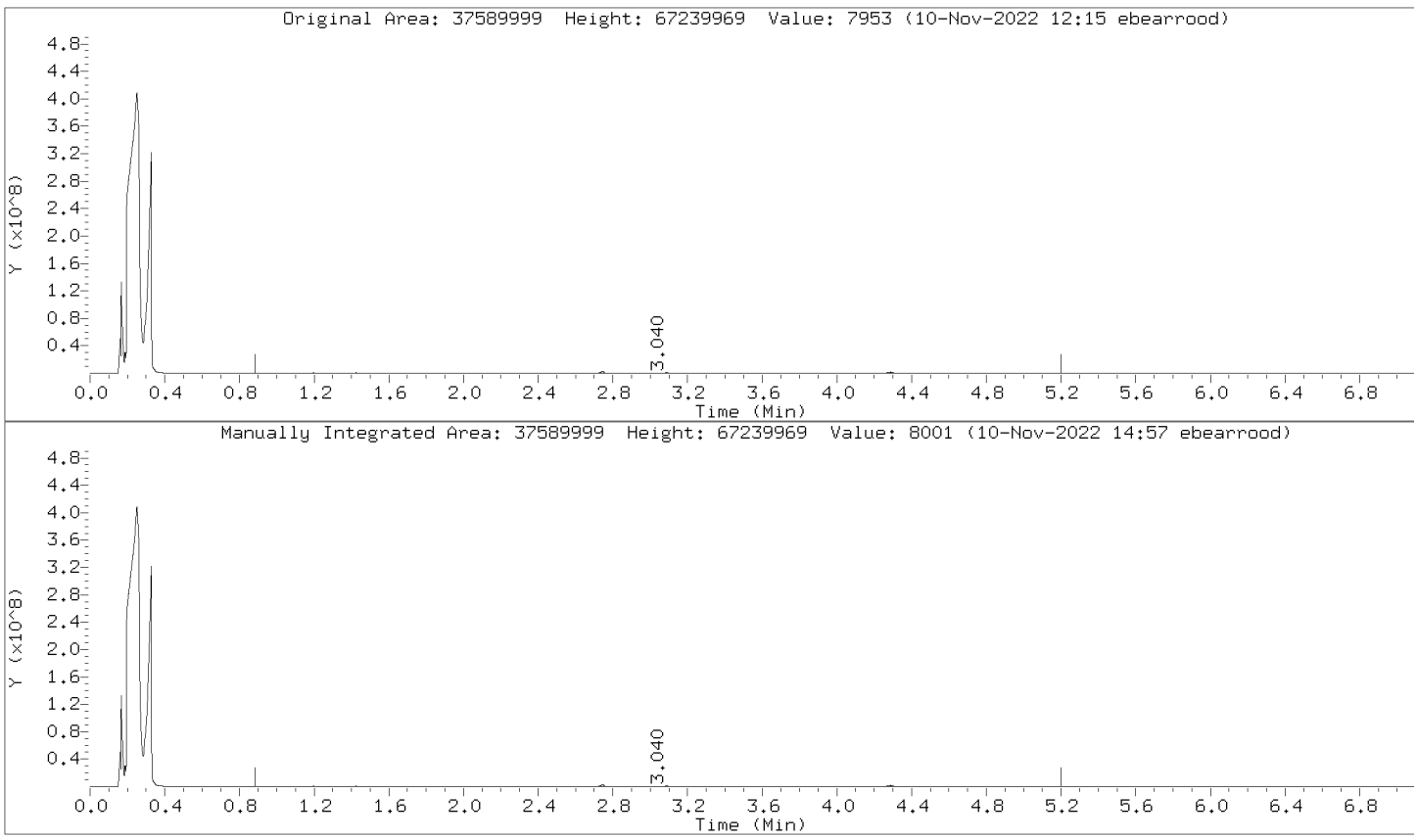
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



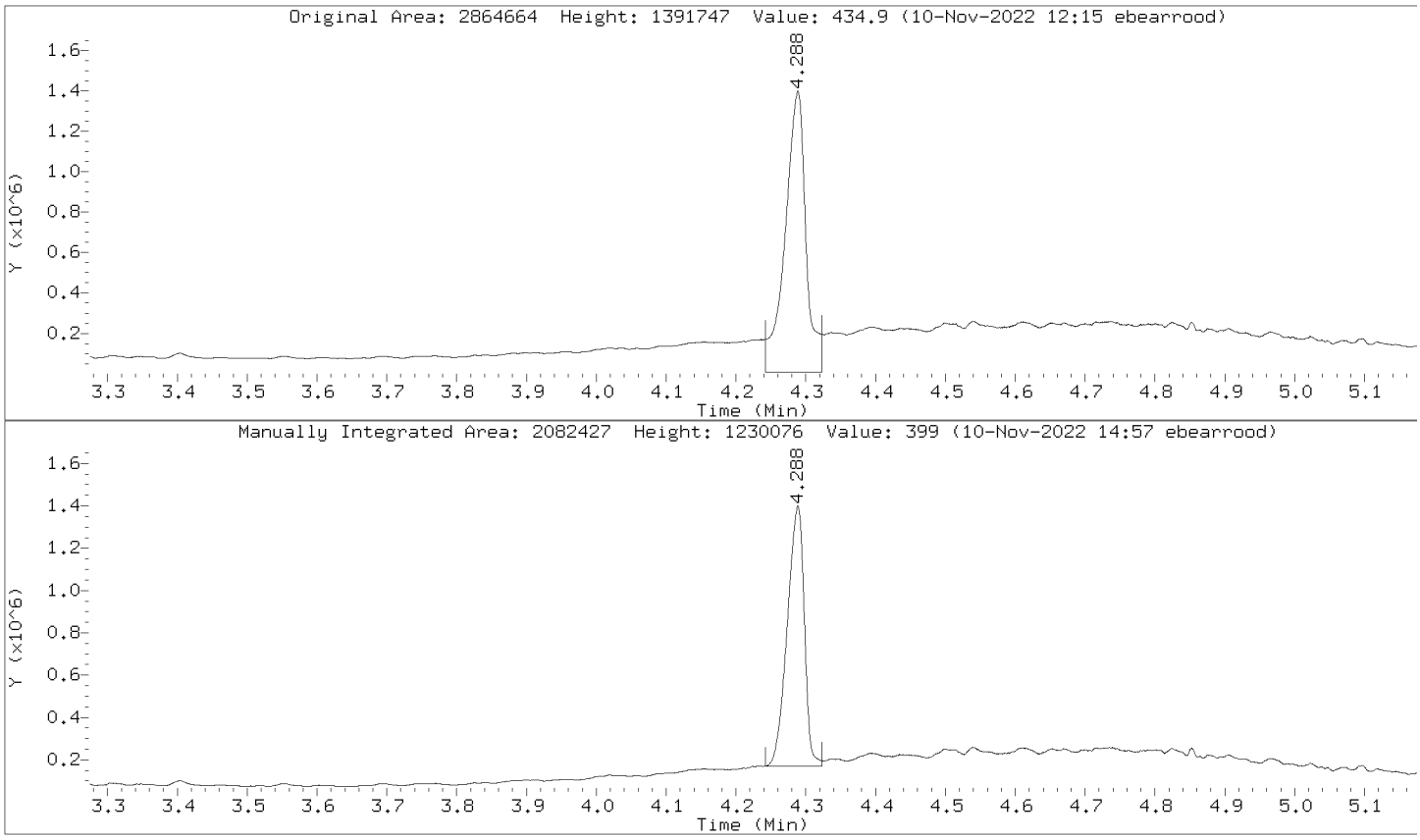
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



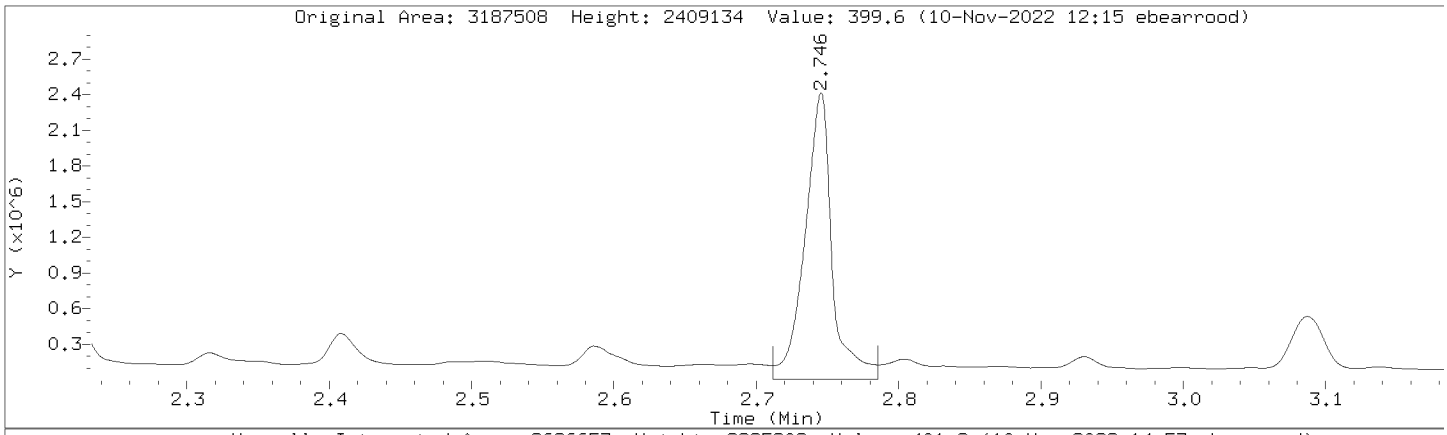
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

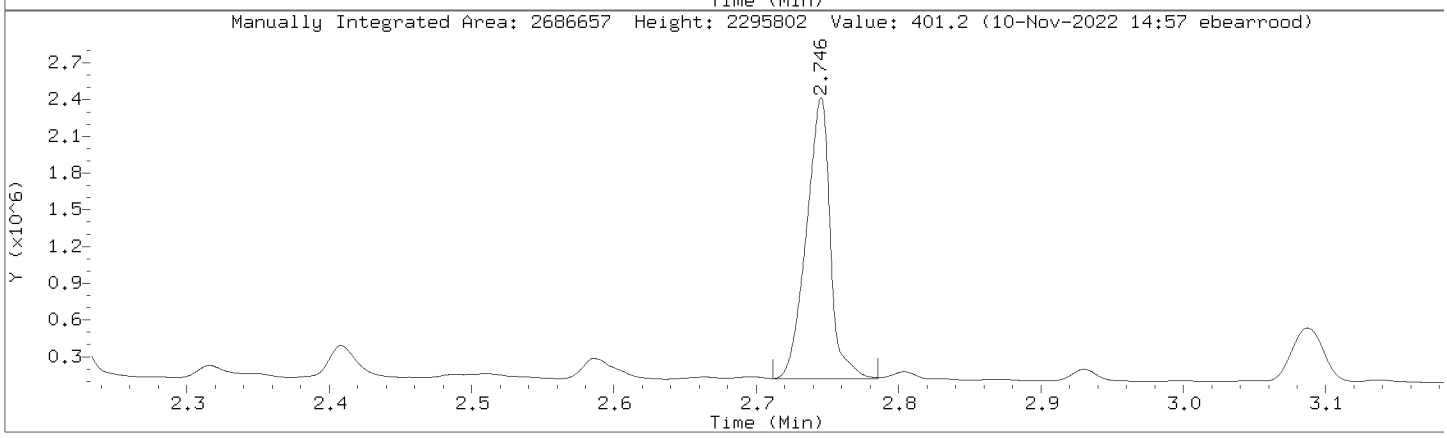
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

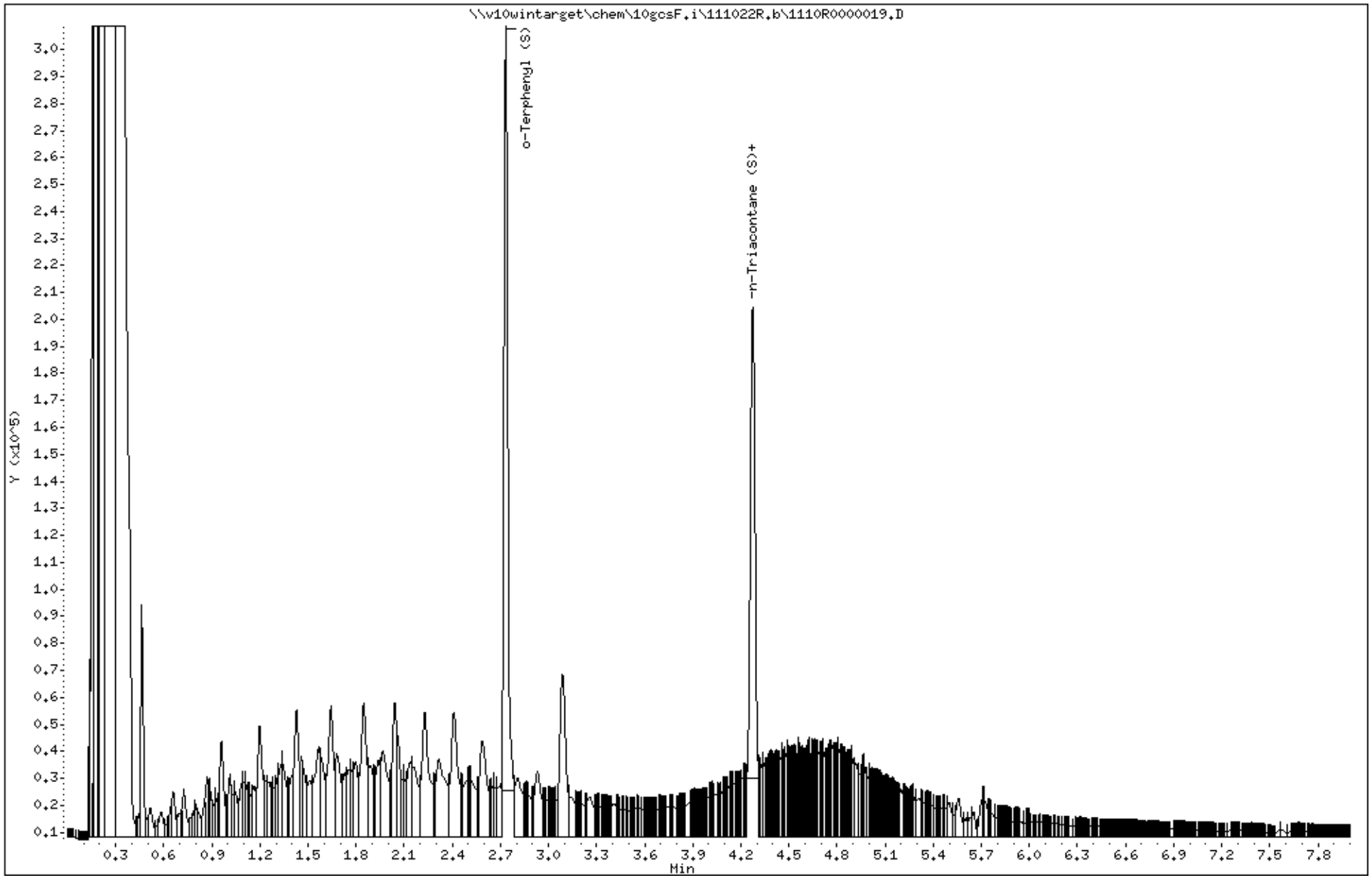
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

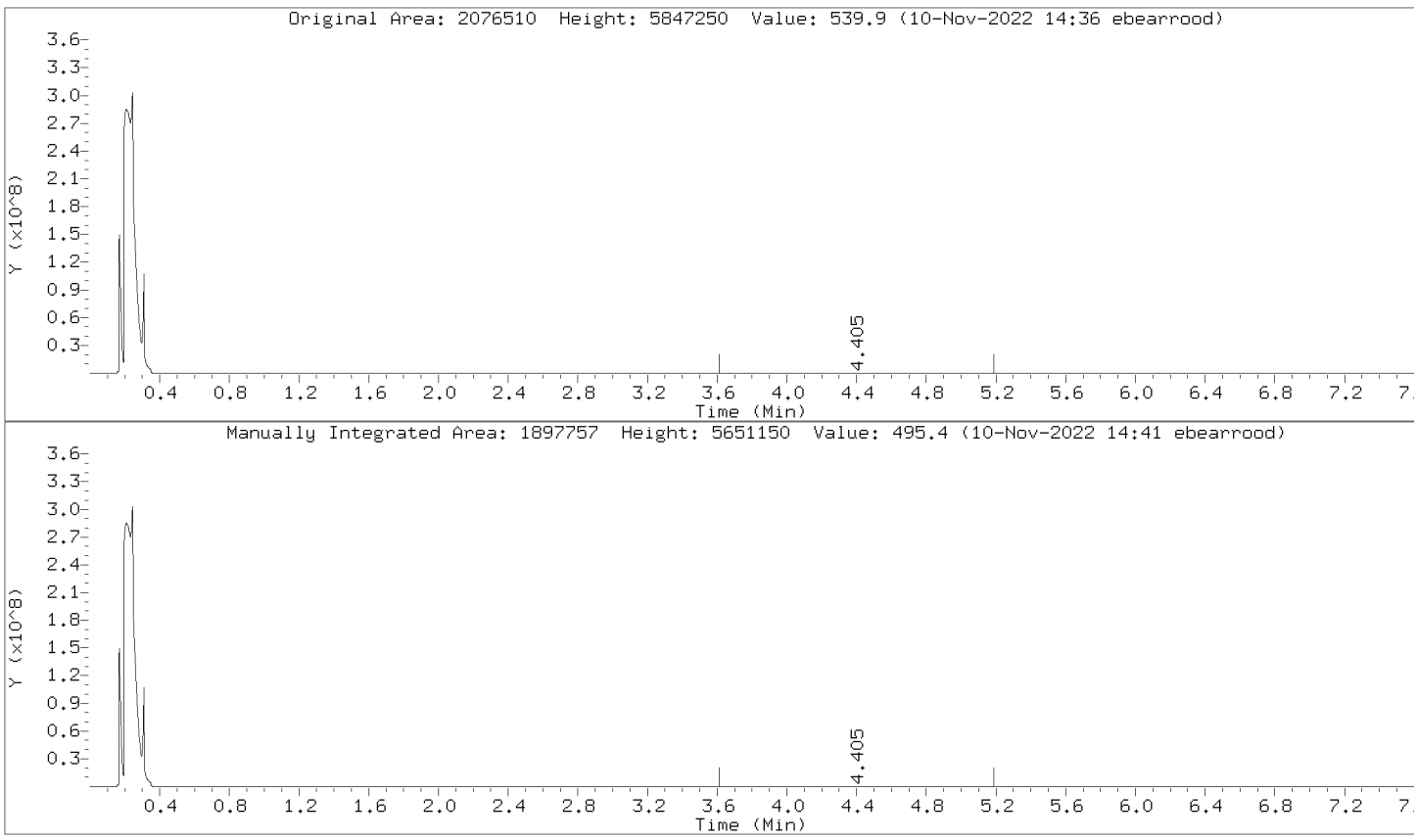
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



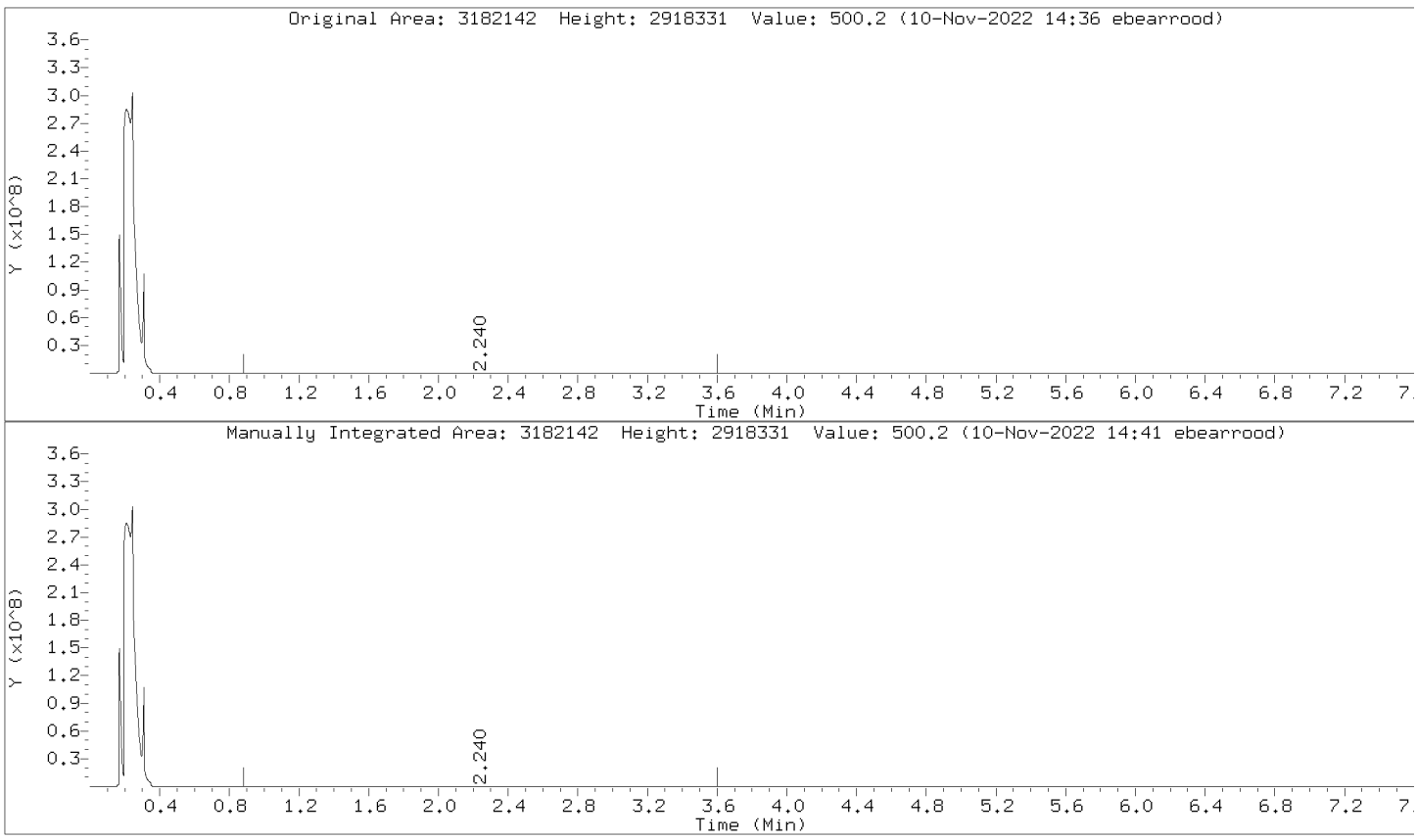
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



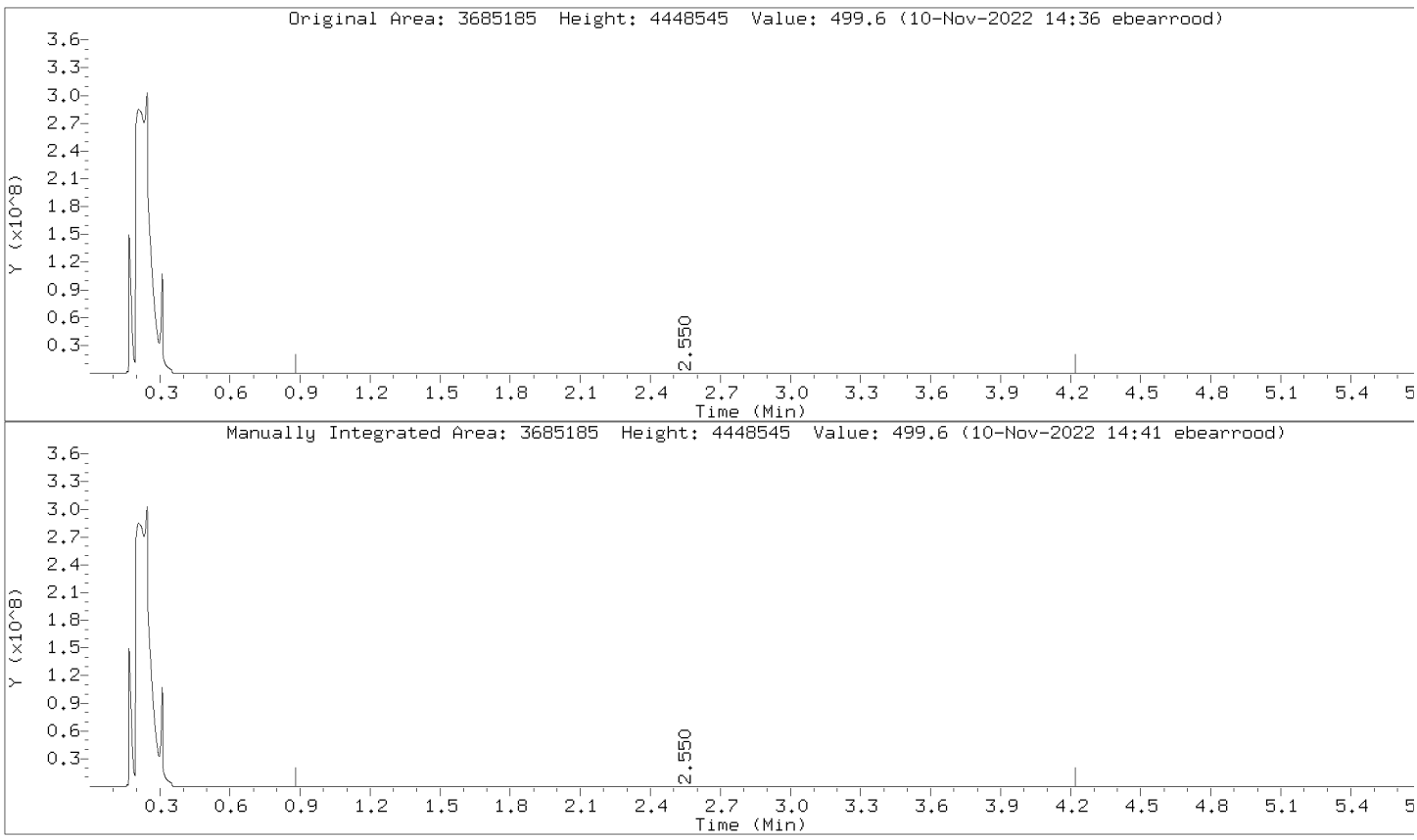
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



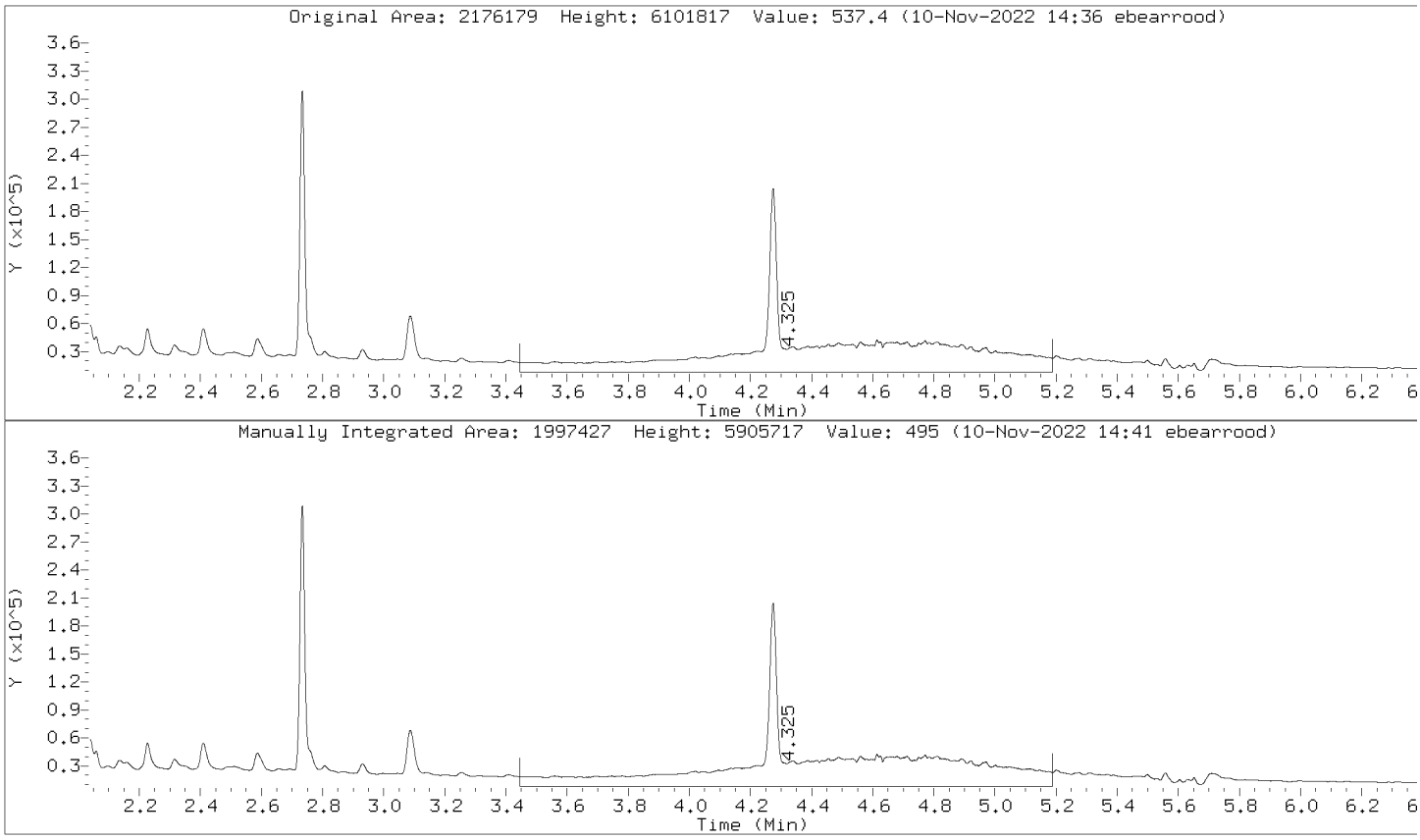
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



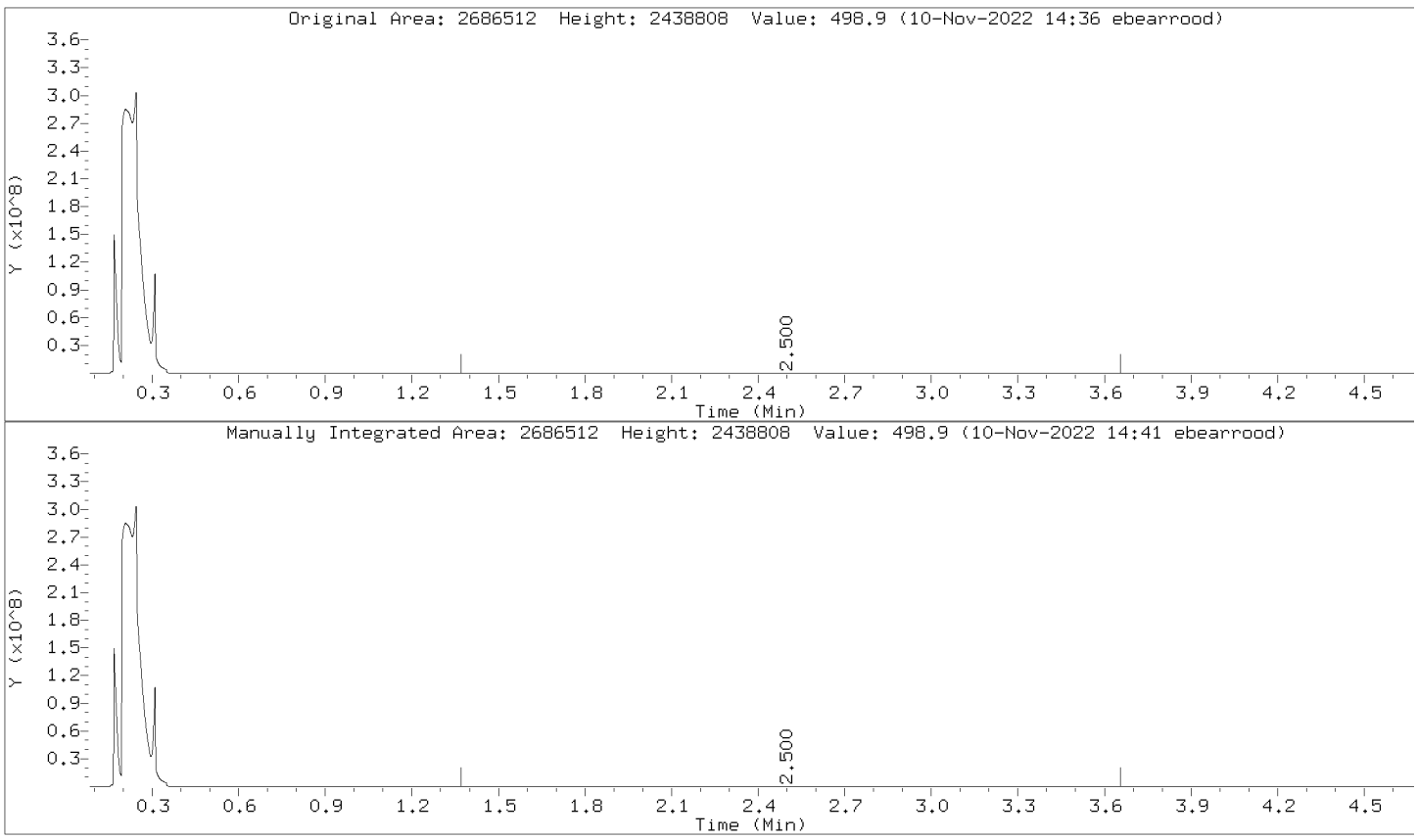
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



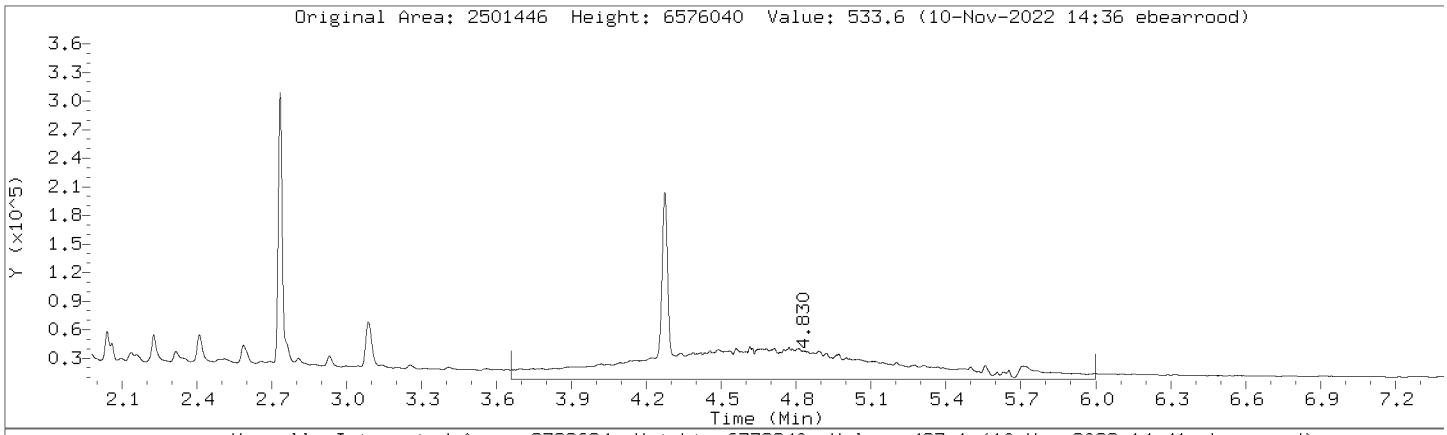
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

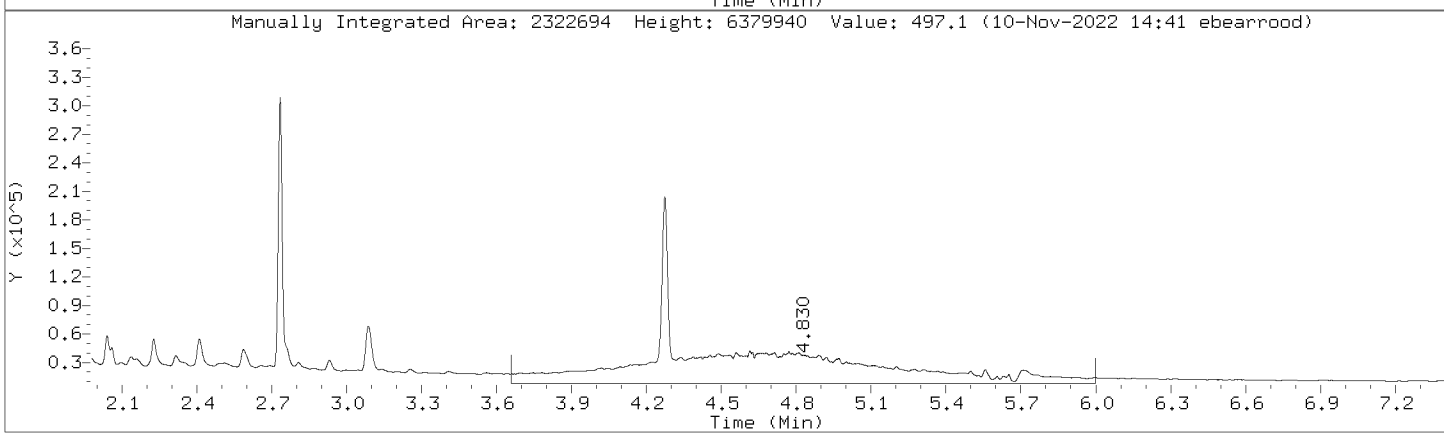
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

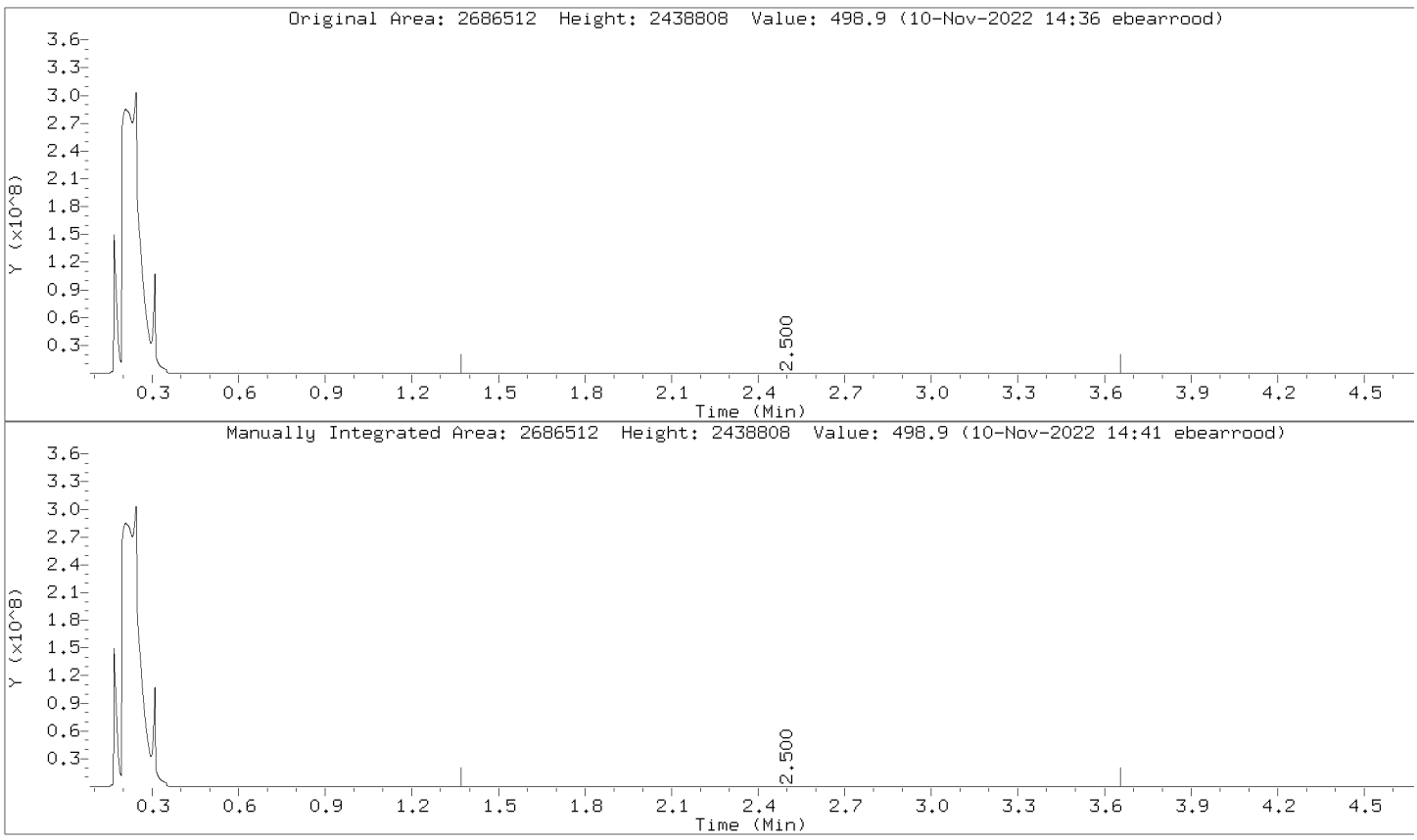
Compound: Motor Oil Range Review Code: RNG
CAS Number:





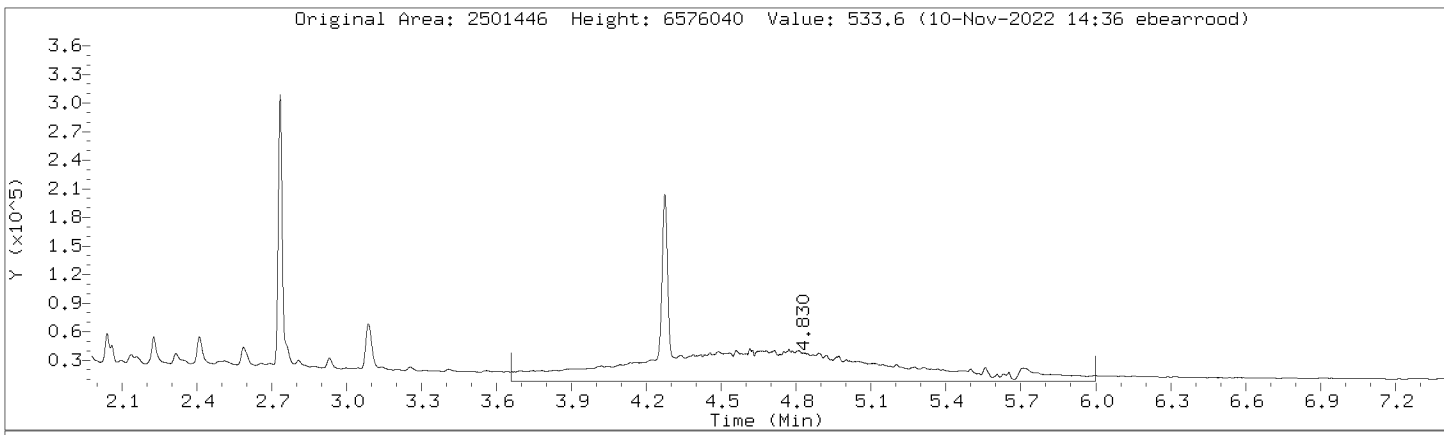
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

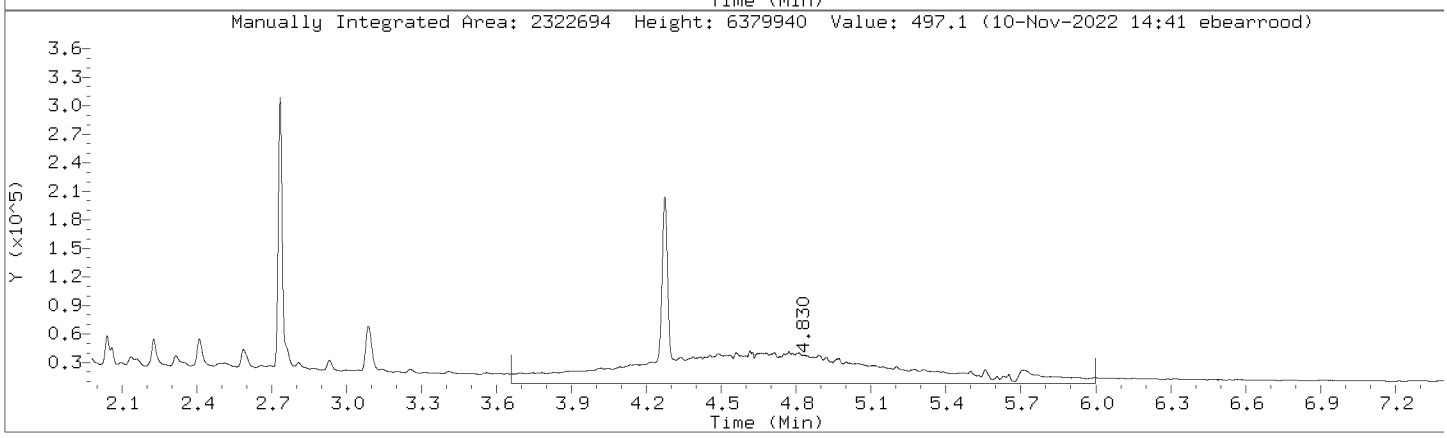
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

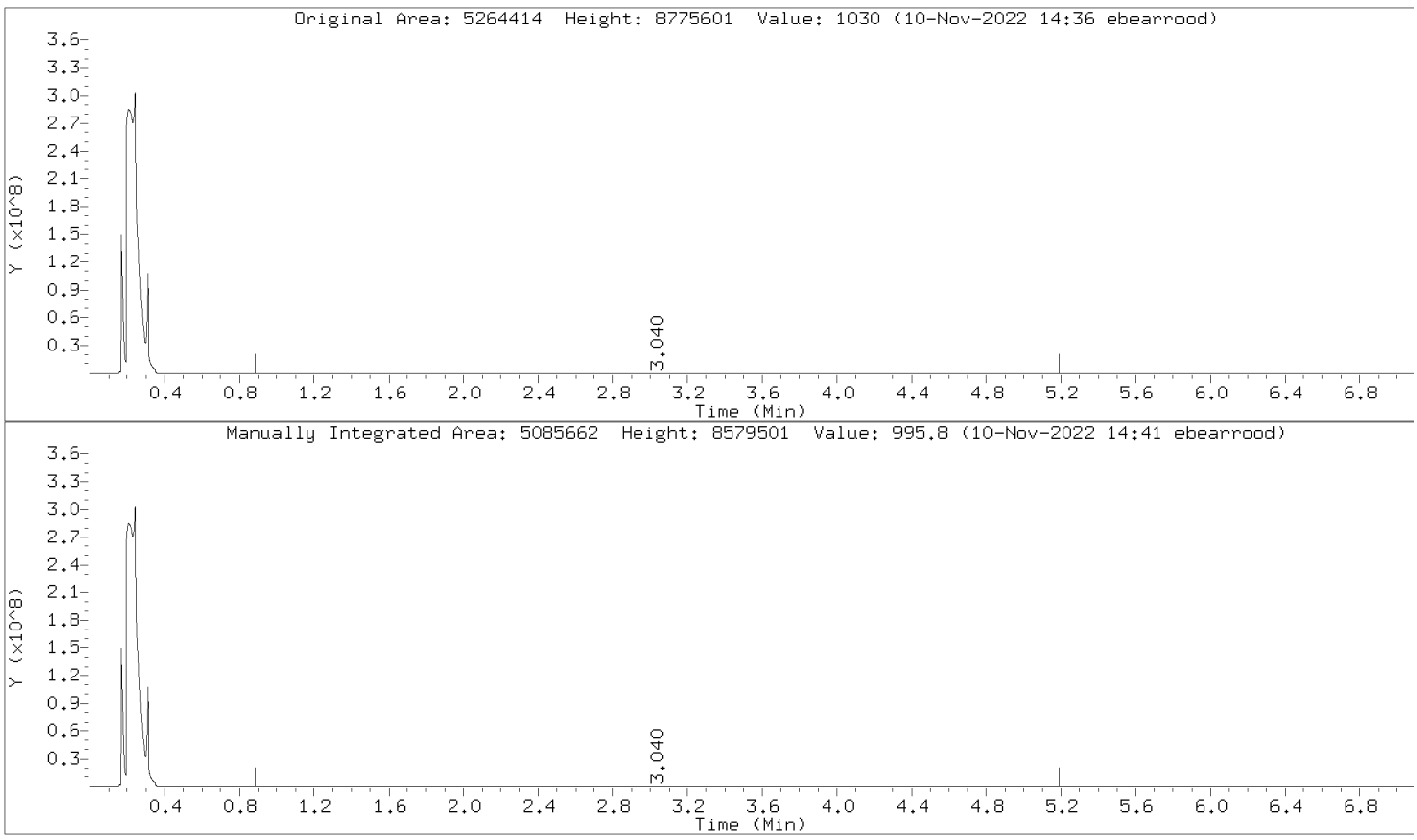
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





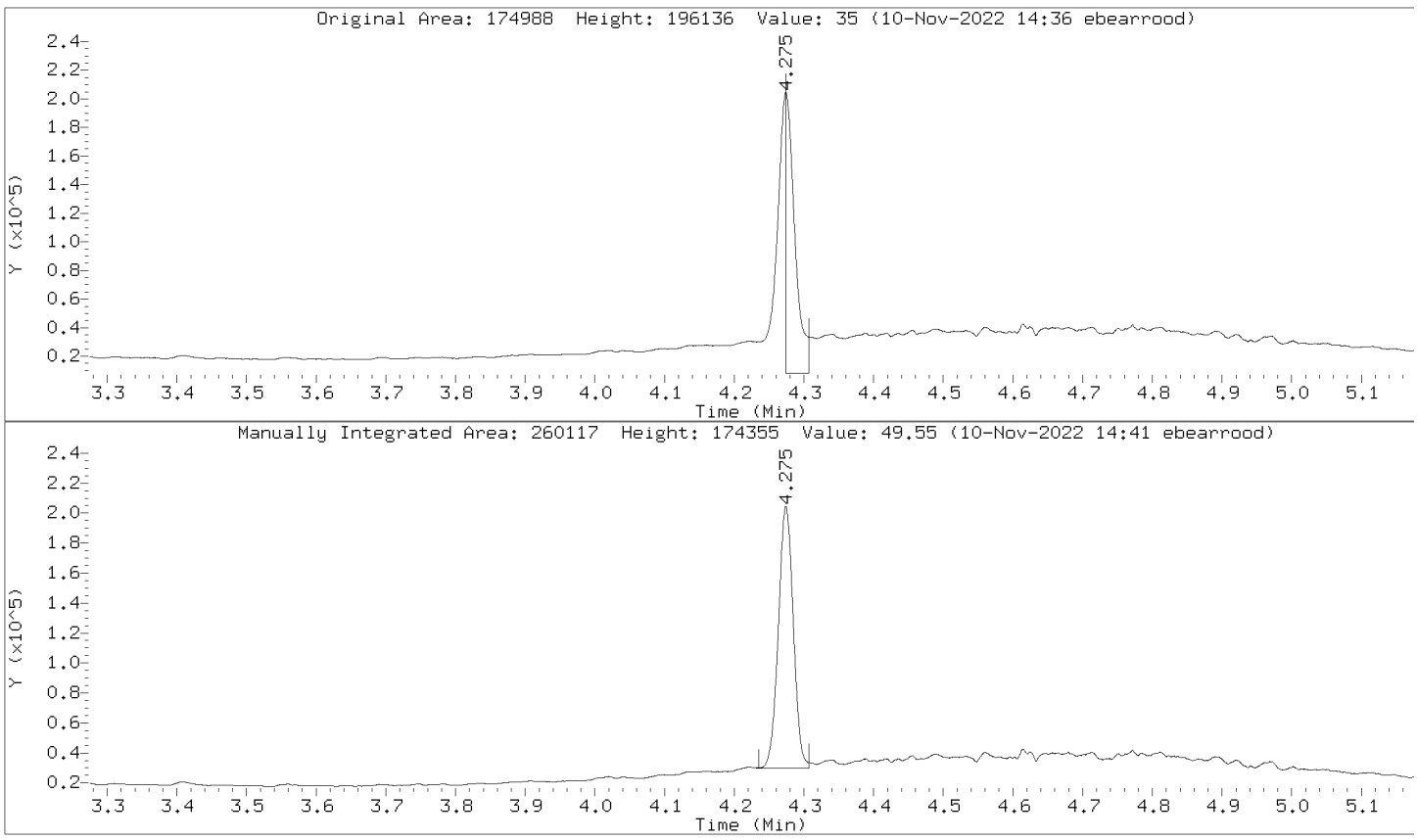
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



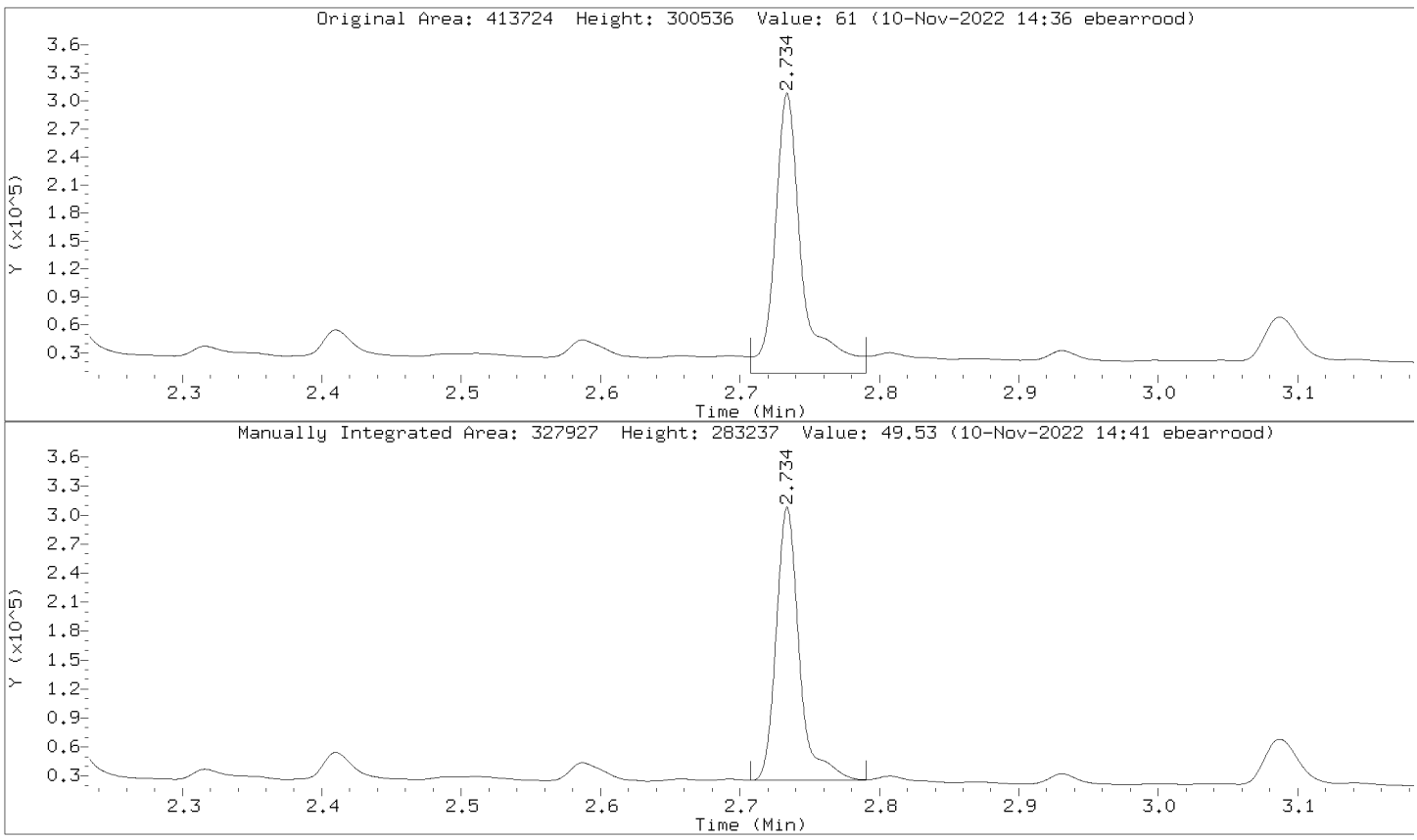
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000003.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 17-NOV-2022 11:18
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 17-Nov-2022 14:03 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

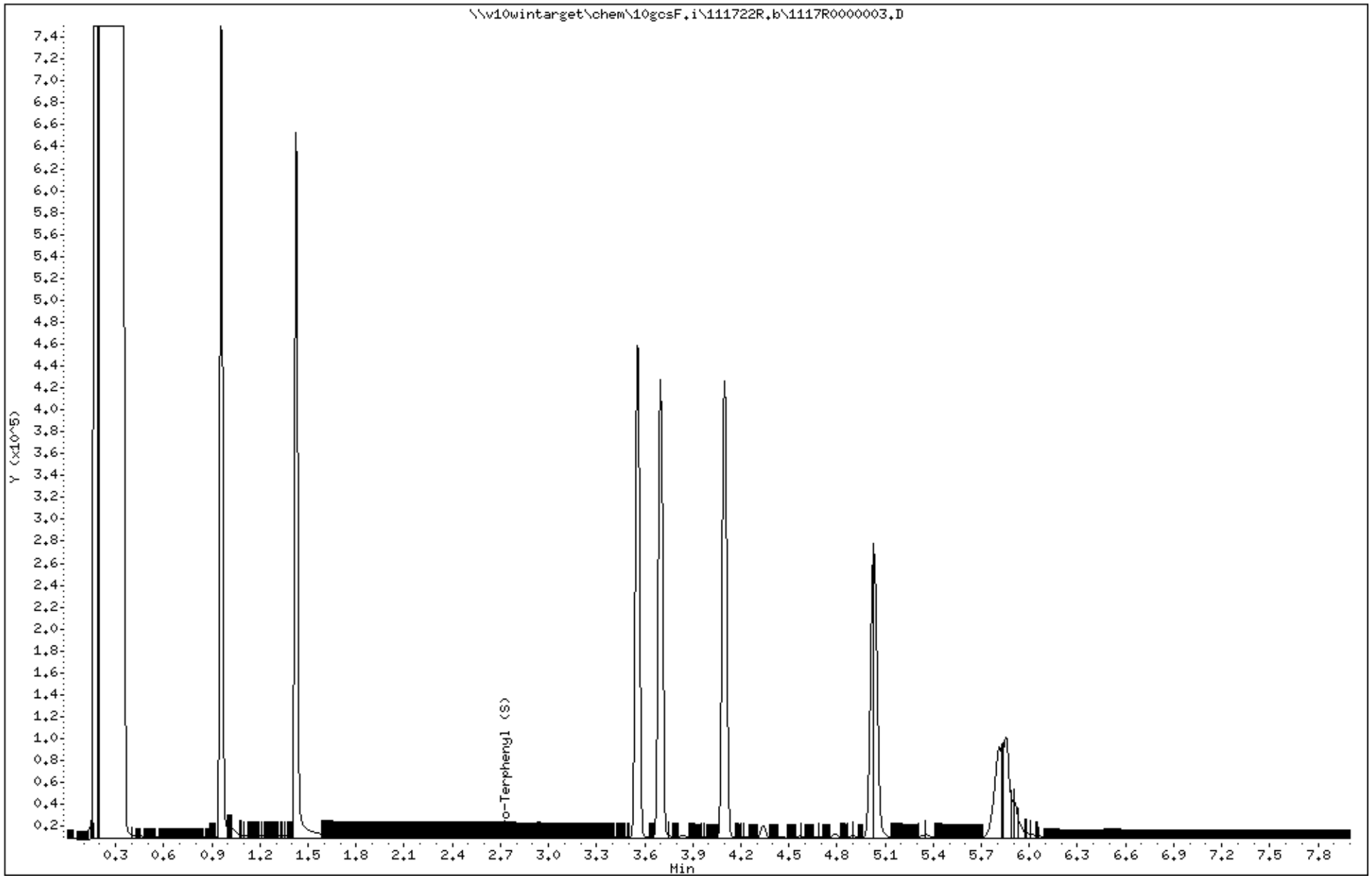
				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.600		2123474	313.145	313		
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	406	0.69675	0.697		(R)
$ 3 n-Triacontane (S)					CAS #:		
Compound Not Detected.							
S 4 Residual Range Organics AK103					CAS #:		
3.601	- 5.160		2025899	531.065	531		
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.210		3429504	460.723	461		
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.160		2666305	672.336	672		
S 7 C10-C36					CAS #:		
0.885	- 5.160		4149373	793.968	794		
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		1508093	251.646	252		
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		1508093	251.646	252		
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		2657004	573.298	573		
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		2657004	573.298	573		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000003.D
Date : 17-NOV-2022 11:18
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000003.D
Injection Date: 17-NOV-2022 11:18
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2025899	2025899
DRO by AK 102	2123474	2123474
TPH-DRO (C10-C28)	3429504	3429504
Motor Oil Range (C24-C36)	2666305	2666305
Diesel Fuel Range	1508093	1508093
Motor Oil Range	2657004	2657004
Diesel Fuel Range SG	1508093	1508093
Motor Oil Range SG	2657004	2657004
C10-C36	4149373	4149373
n-Triacontane (S)	0	0
o-Terphenyl (S)	406	406

SAMPLE NO.

31472811ICV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota
Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID
Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D
Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633981

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31550457CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/17/2022 Time: 17:05

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111722R.B\1117R0000033C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633981

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.0195	0.0100	2.0039	15.0000
Motor Oil Range	Linear	500	523.3470	0.0100	4.6694	15.0000
n-Triacontane (S)	Linear	50	50.43437	0.0100	0.8687	15.0000
o-Terphenyl (S)	Linear	50	51.29339	0.0100	2.5868	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31550456CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/17/2022 Time: 19:10

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111722R.B\1117R0000044C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633981

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	502.7808	0.0100	0.5562	15.0000
Motor Oil Range	Linear	500	508.3445	0.0100	1.6689	15.0000
n-Triacontane (S)	Linear	50	51.13274	0.0100	2.2655	15.0000
o-Terphenyl (S)	Linear	50	51.11403	0.0100	2.2281	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31537685CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/17/2022 Time: 20:07

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111722R.B\1117R0000049C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633981

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	506.2752	0.0100	1.2550	15.0000
Motor Oil Range	Linear	500	503.3539	0.0100	0.6708	15.0000
n-Triacontane (S)	Linear	50	49.80024	0.0100	-0.3995	15.0000
o-Terphenyl (S)	Linear	50	51.00519	0.0100	2.0104	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3247087	500.000	512	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1975744	500.000	517	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3761077	500.000	511	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2073788	500.000	515	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

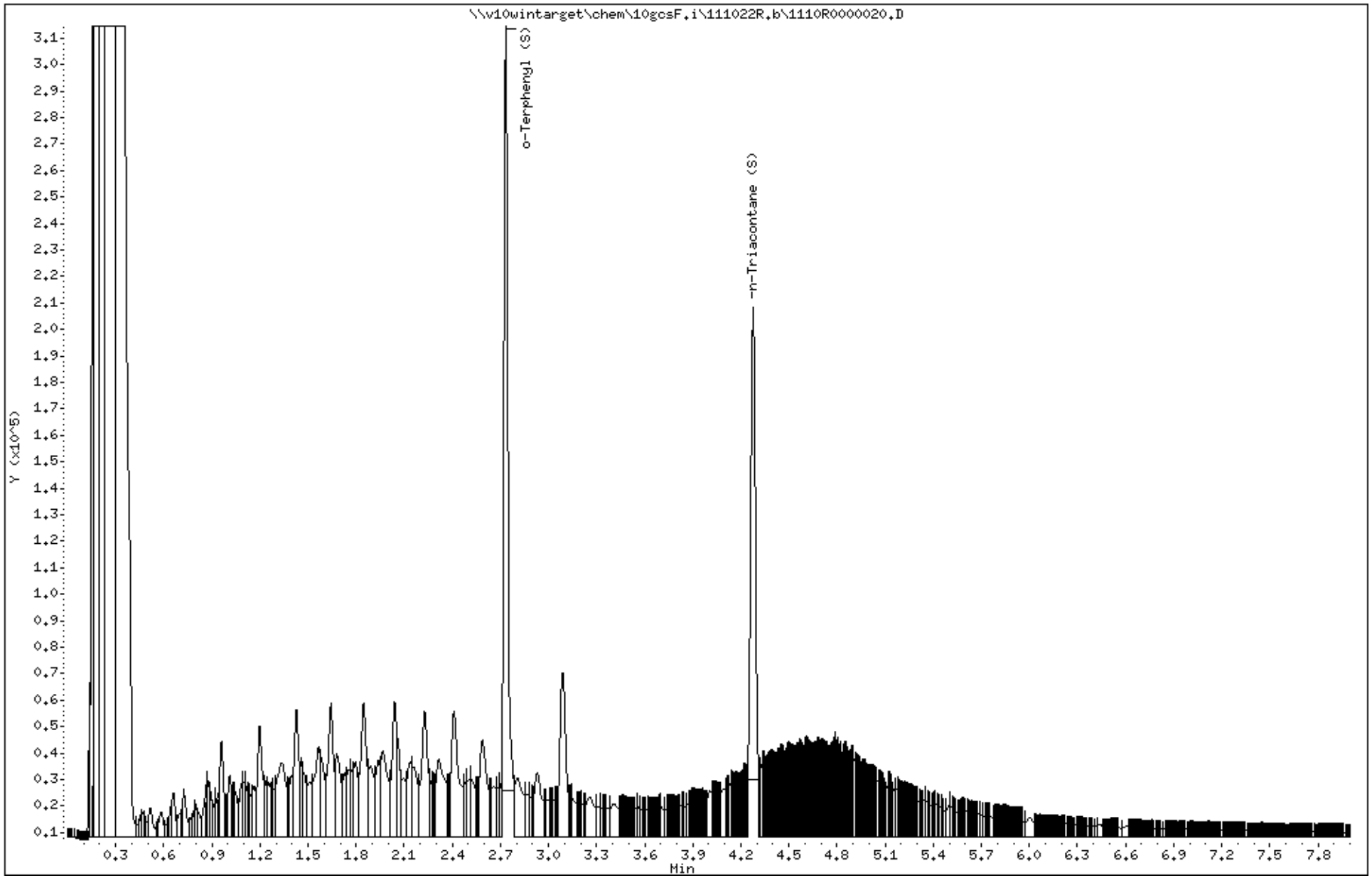
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

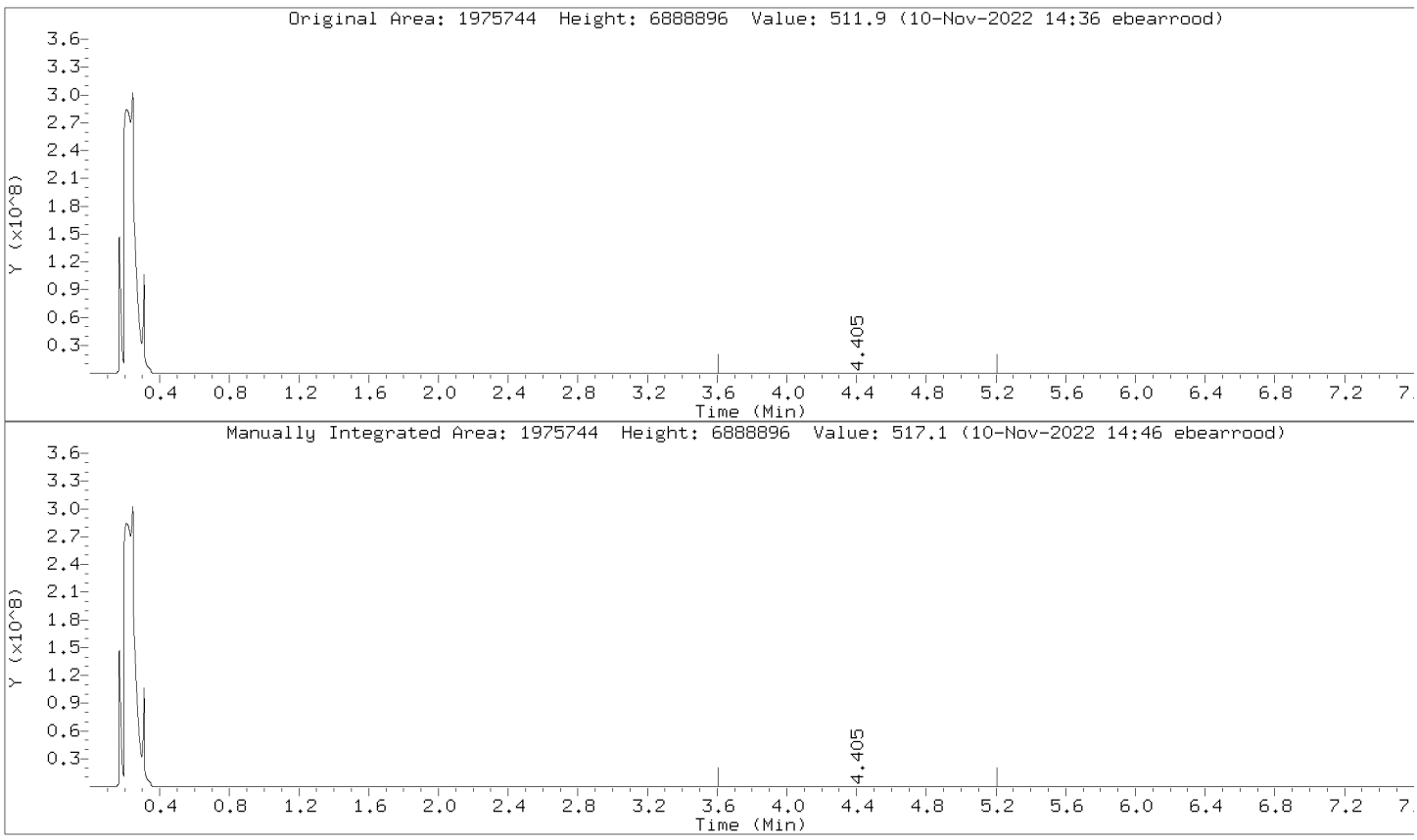
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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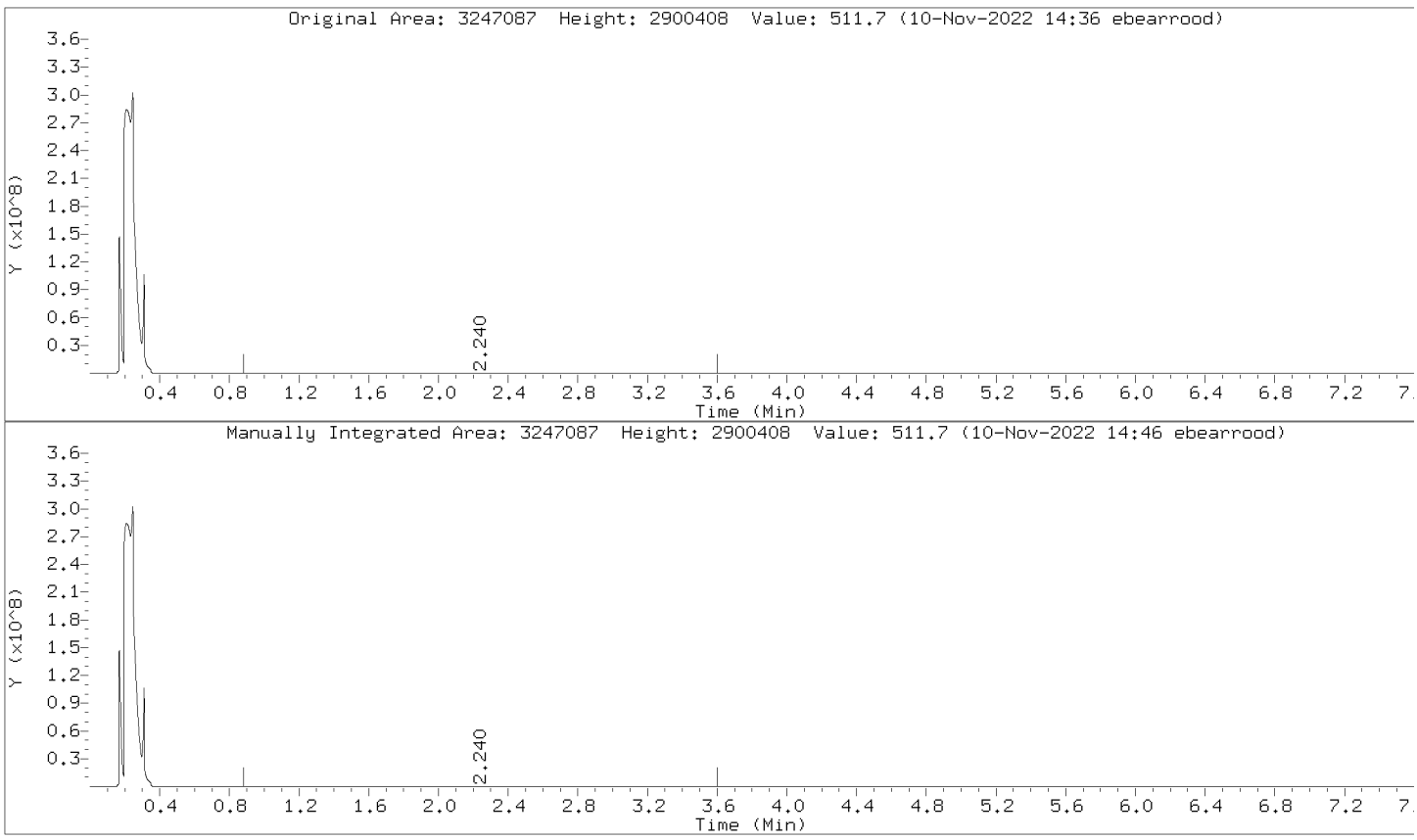
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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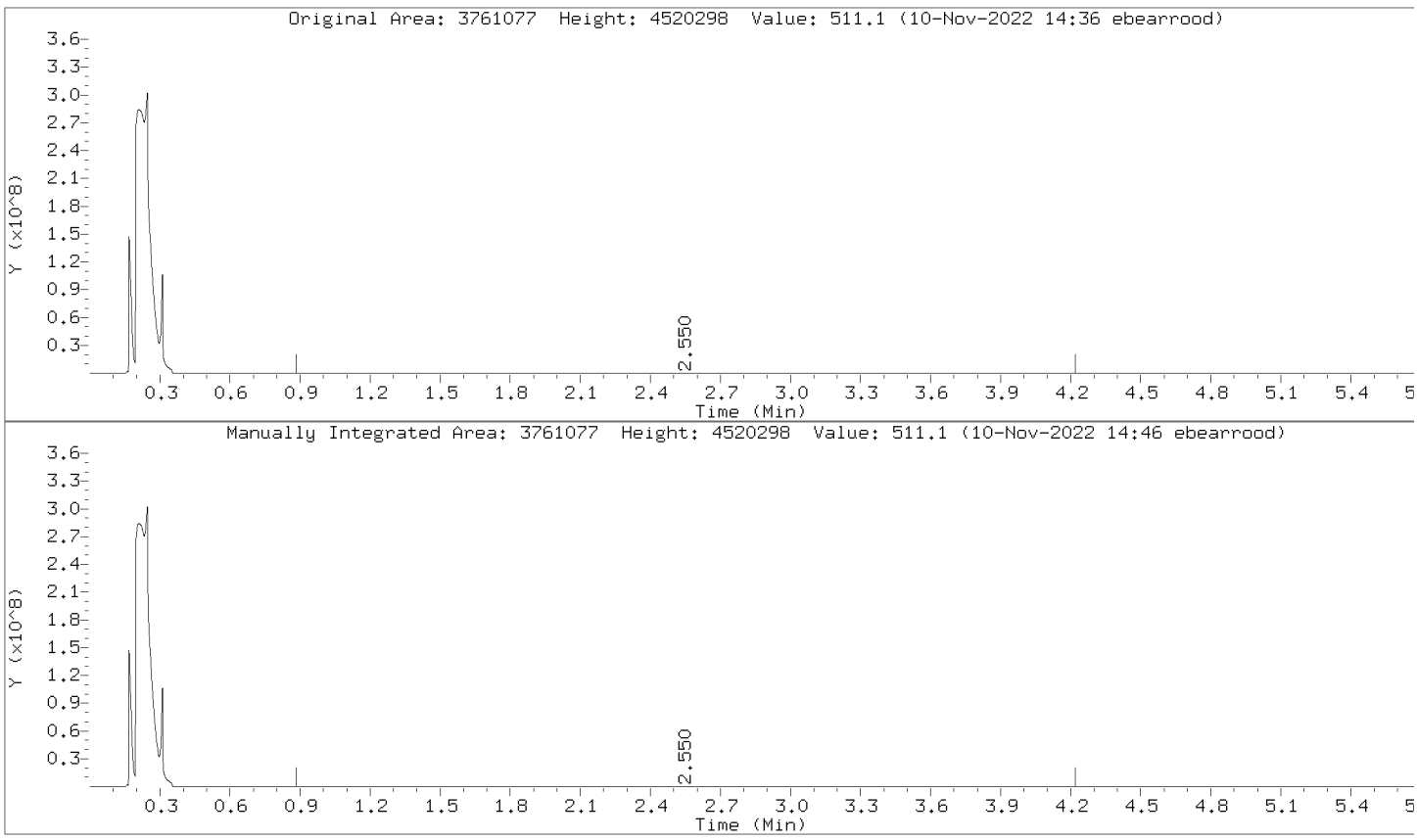
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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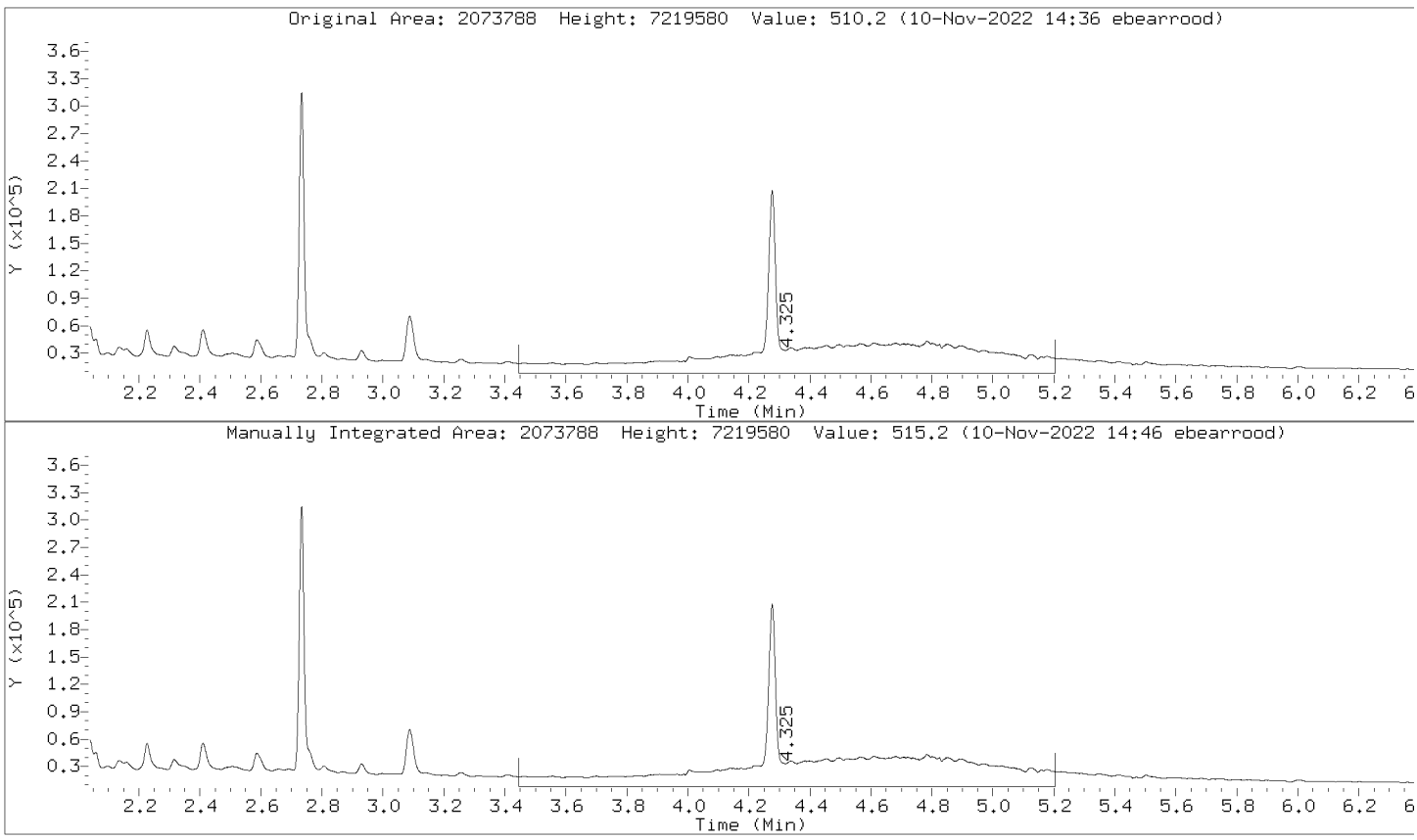
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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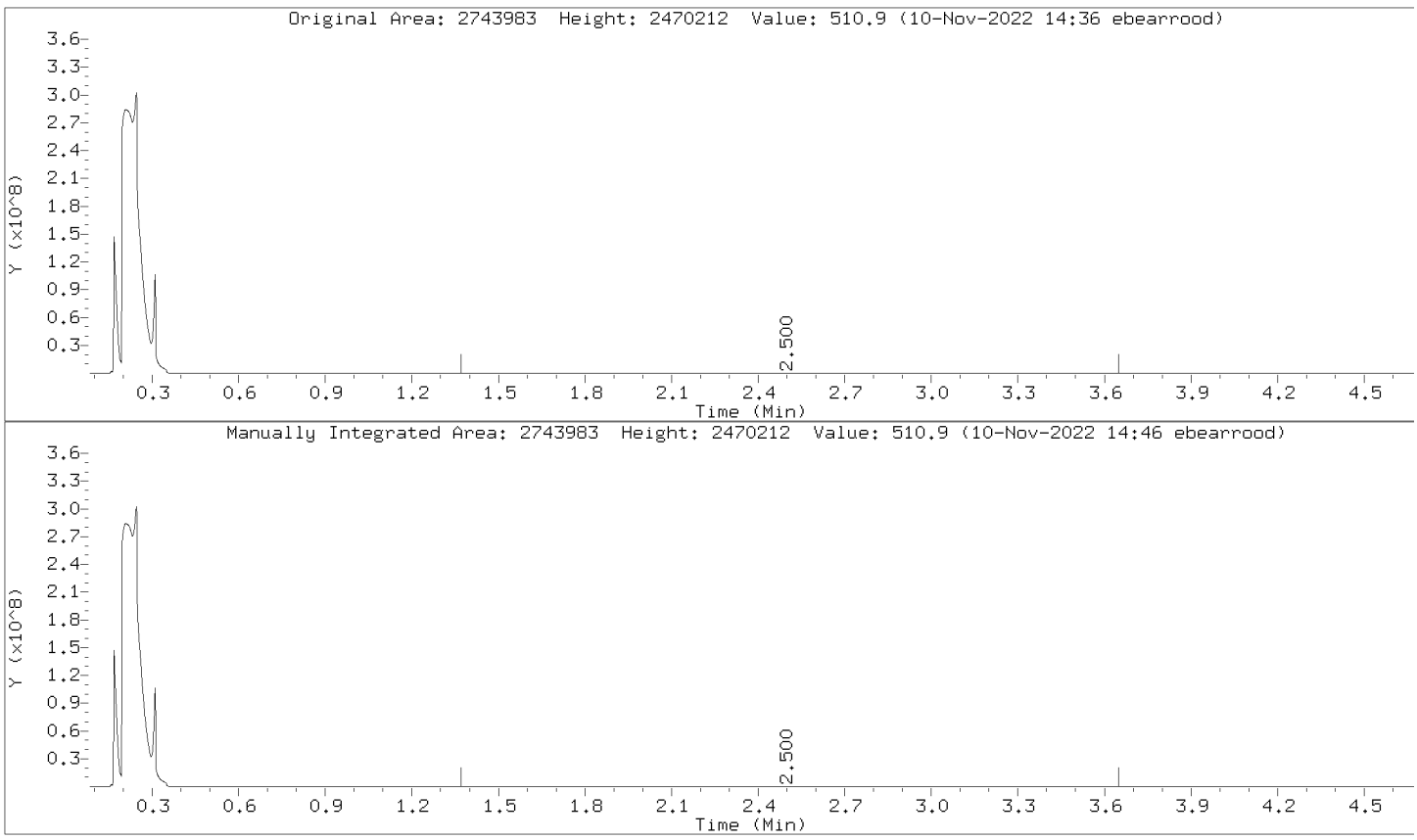
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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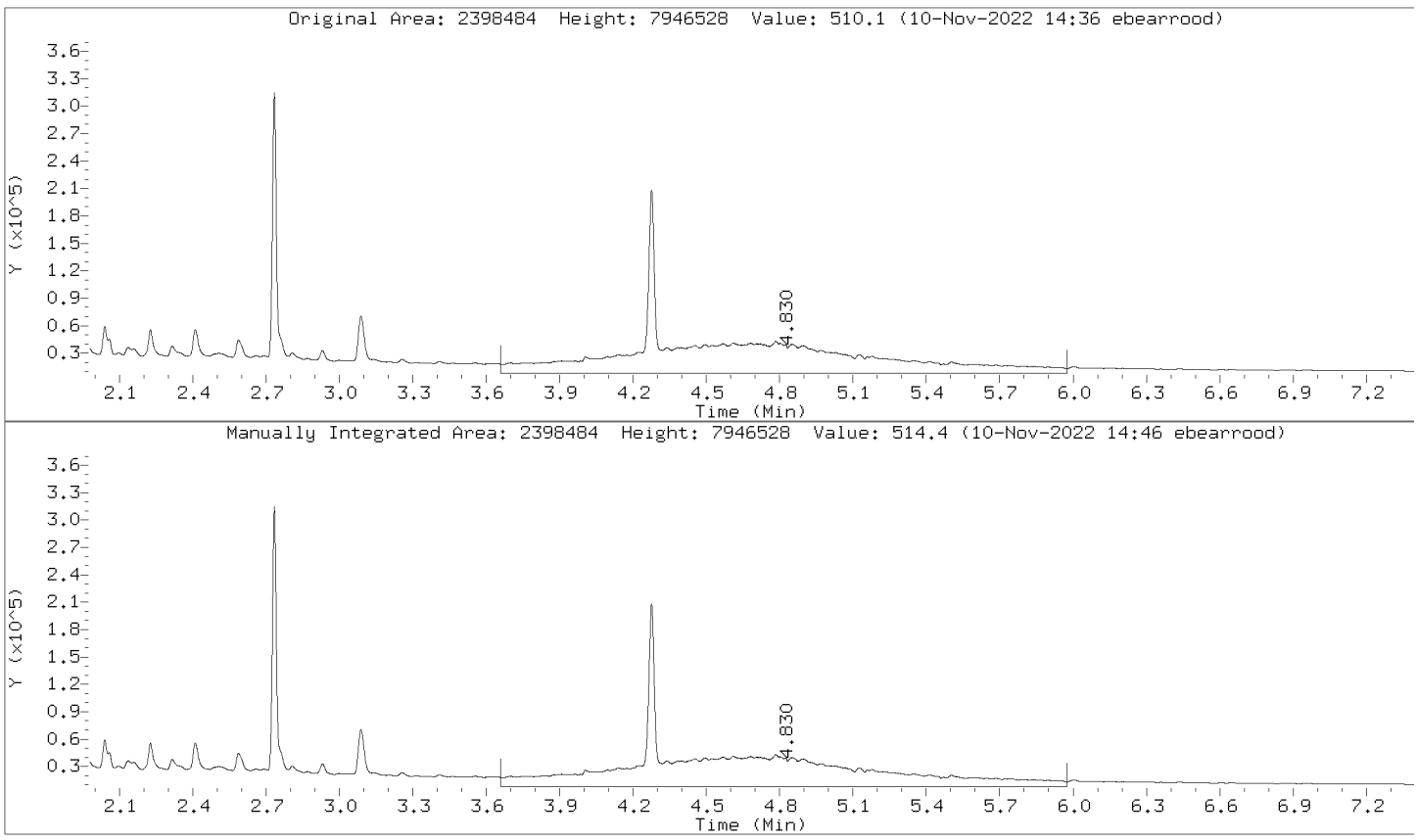
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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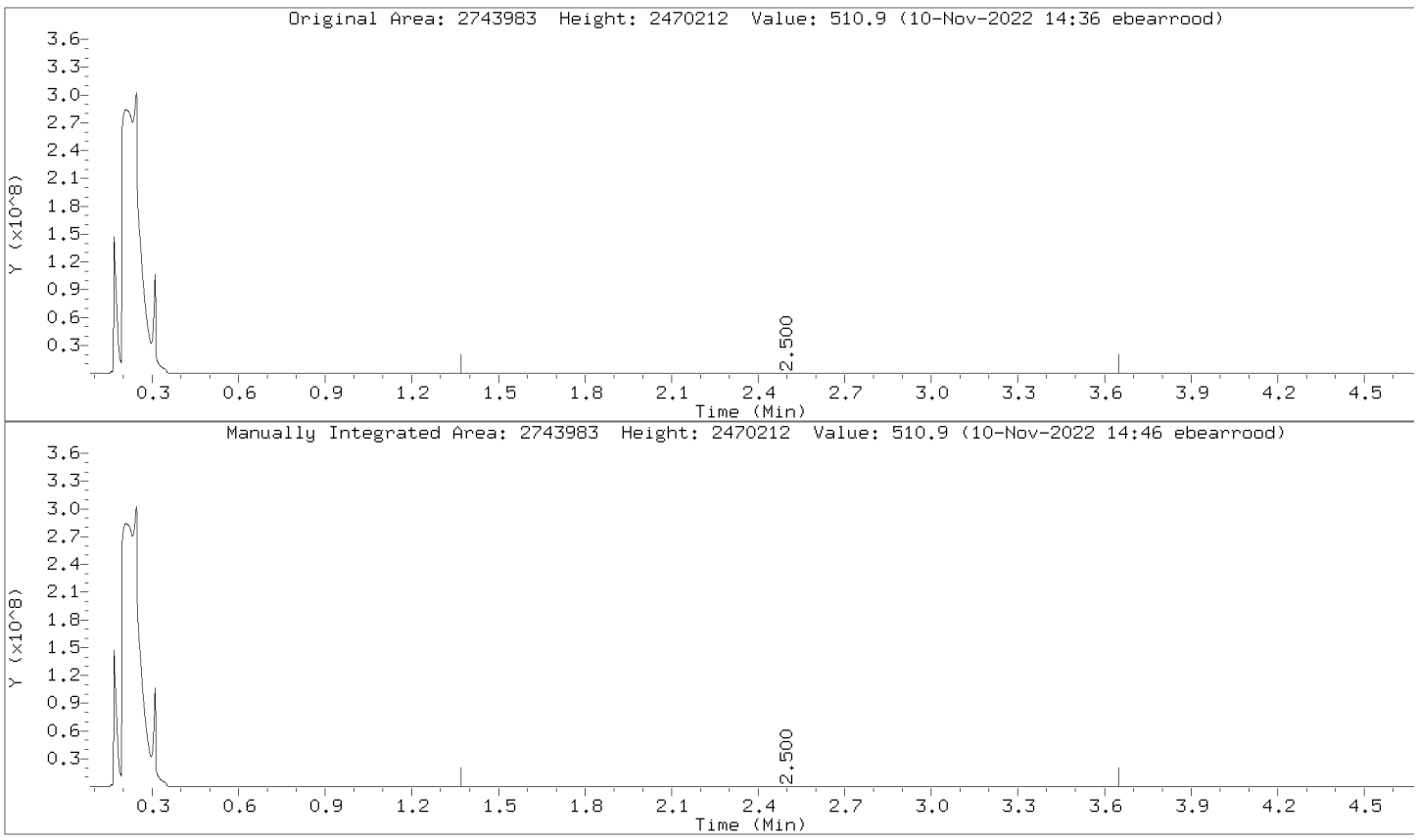
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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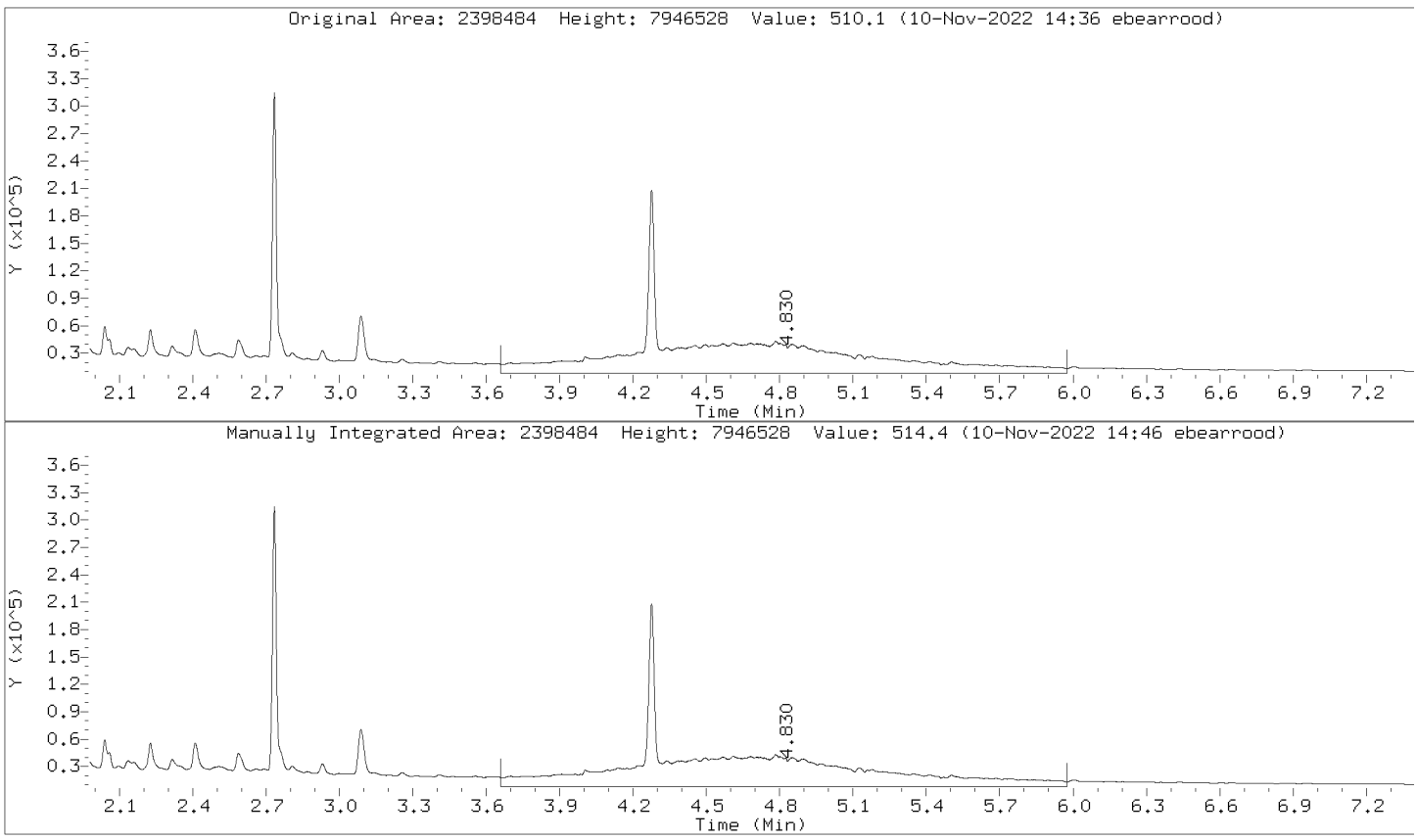
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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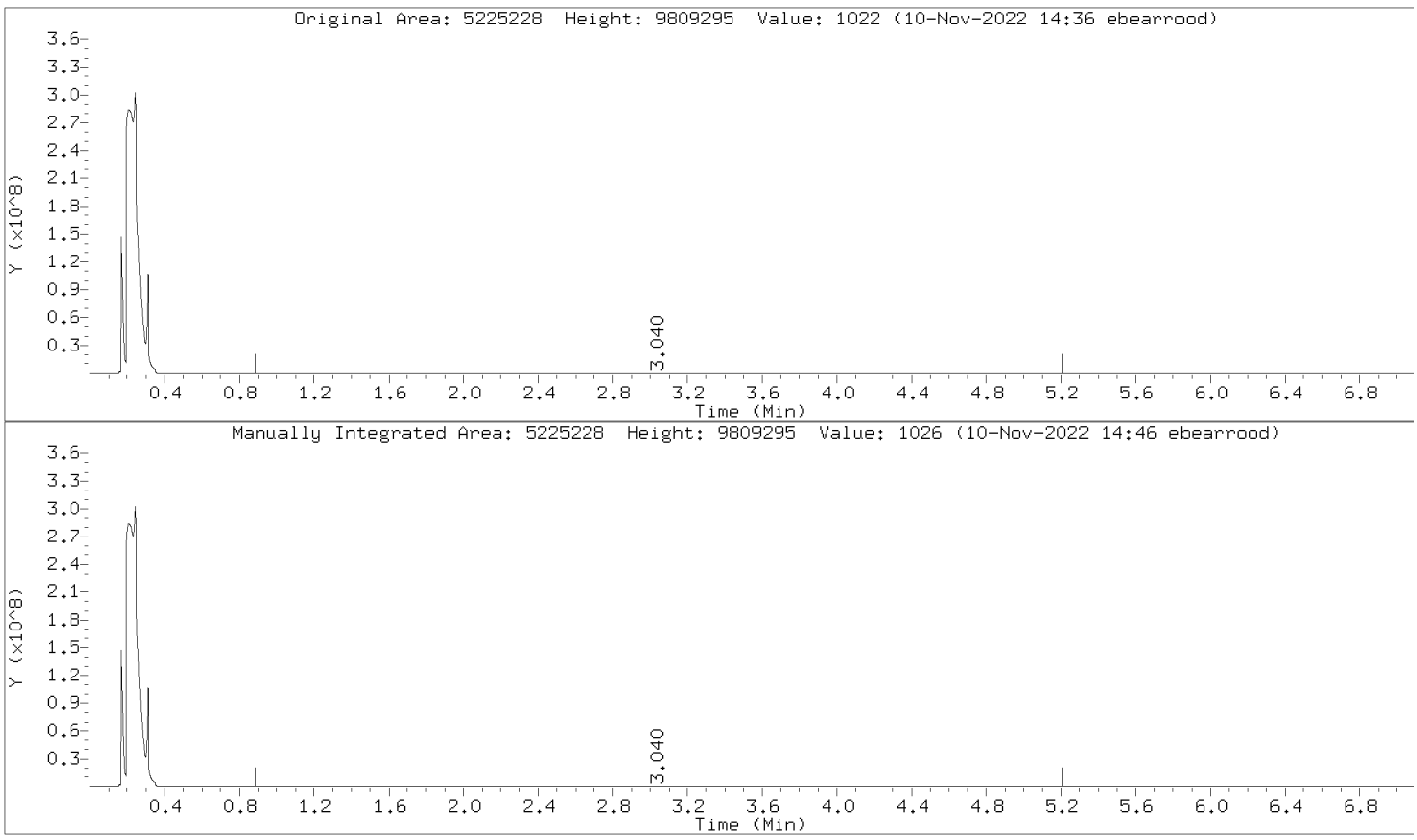
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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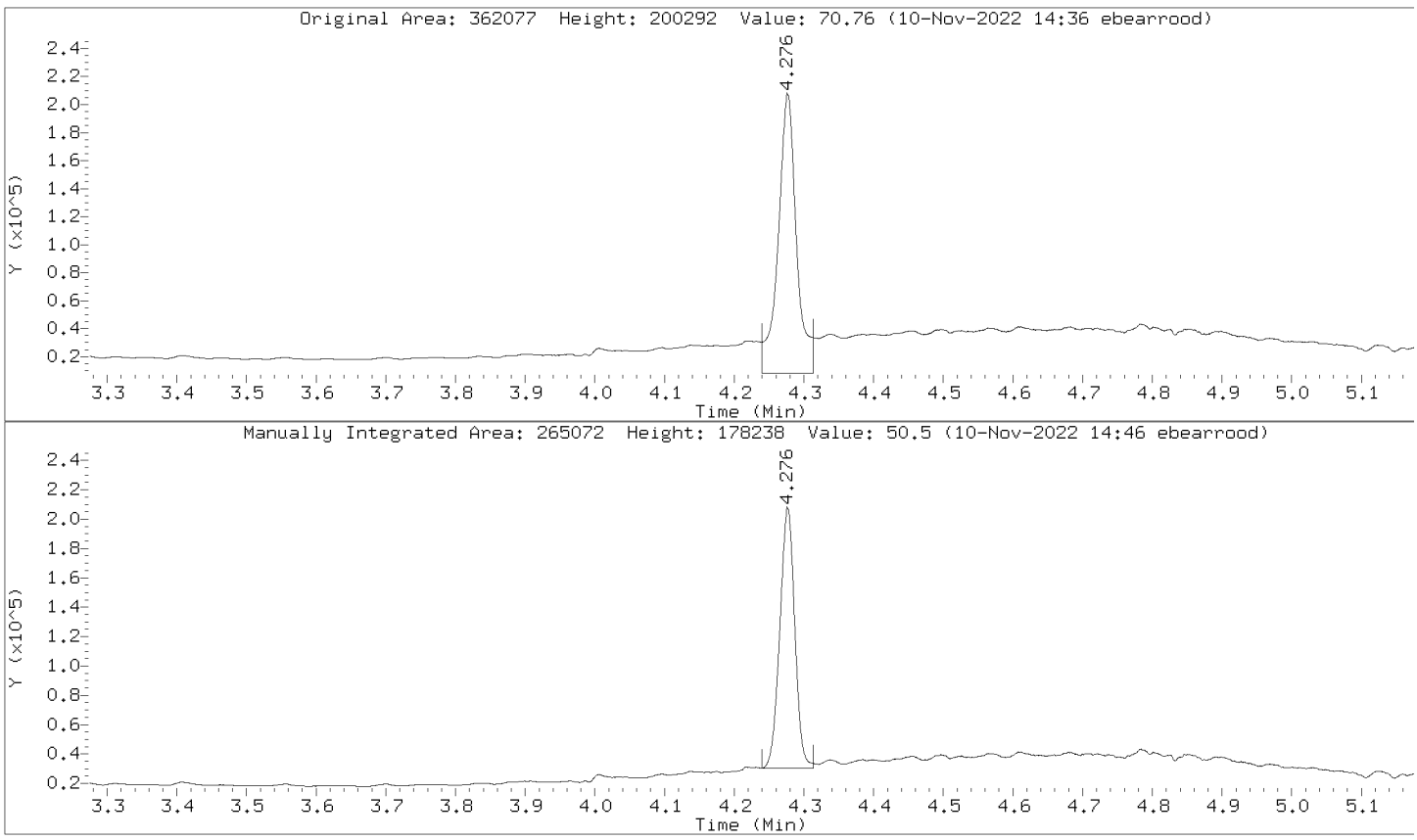
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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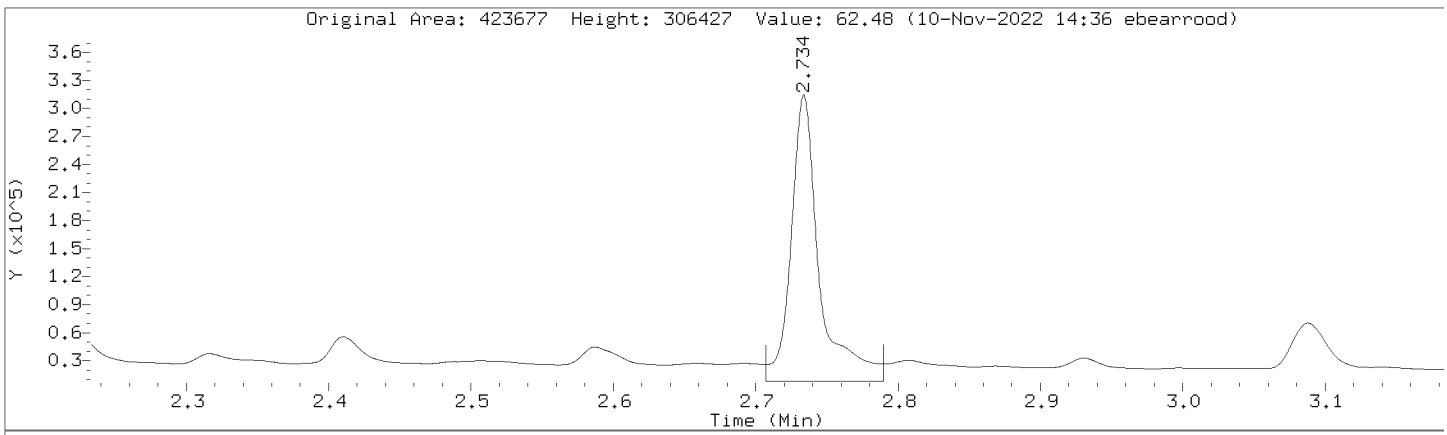
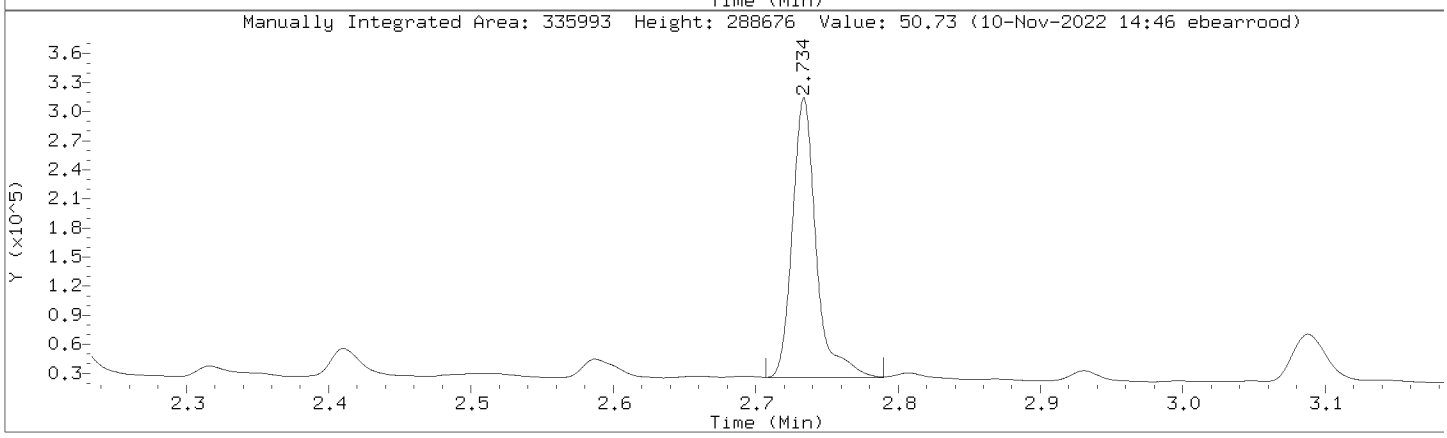
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000033C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 17-NOV-2022 17:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS			
				CAL-AMT	ON-COL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.885 - 3.600			3223850	500.000	508	(M) RNG
$ 2 o-Terphenyl (S)					CAS #:	
2.732	2.731	0.001	339764	50.0000	51.3	(M) BA
$ 3 n-Triacontane (S)					CAS #:	
4.275	4.272	0.003	264705	50.0000	50.4	(M) BA
S 4 Residual Range Organics AK103					CAS #:	
3.601 - 5.160			1936425	500.000	506	(M) RNG
S 5 TPH-DRO (C10-C28)					CAS #:	
0.885 - 4.210			3729252	500.000	506	(M) RNG
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450 - 5.160			2024782	500.000	502	(M) RNG
S 7 C10-C36					CAS #:	
0.885 - 5.160			5160276	1000.00	1010	(M) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350 - 3.650			2739551	500.000	510	(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350 - 3.650			2739551	500.000	510	(M) RNG
S 10 Motor Oil Range					CAS #:	
3.651 - 6.050			2437805	500.000	523	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.651 - 6.050			2437805	500.000	523	(M) RNG

QC Flag Legend

M - Compound response manually integrated.

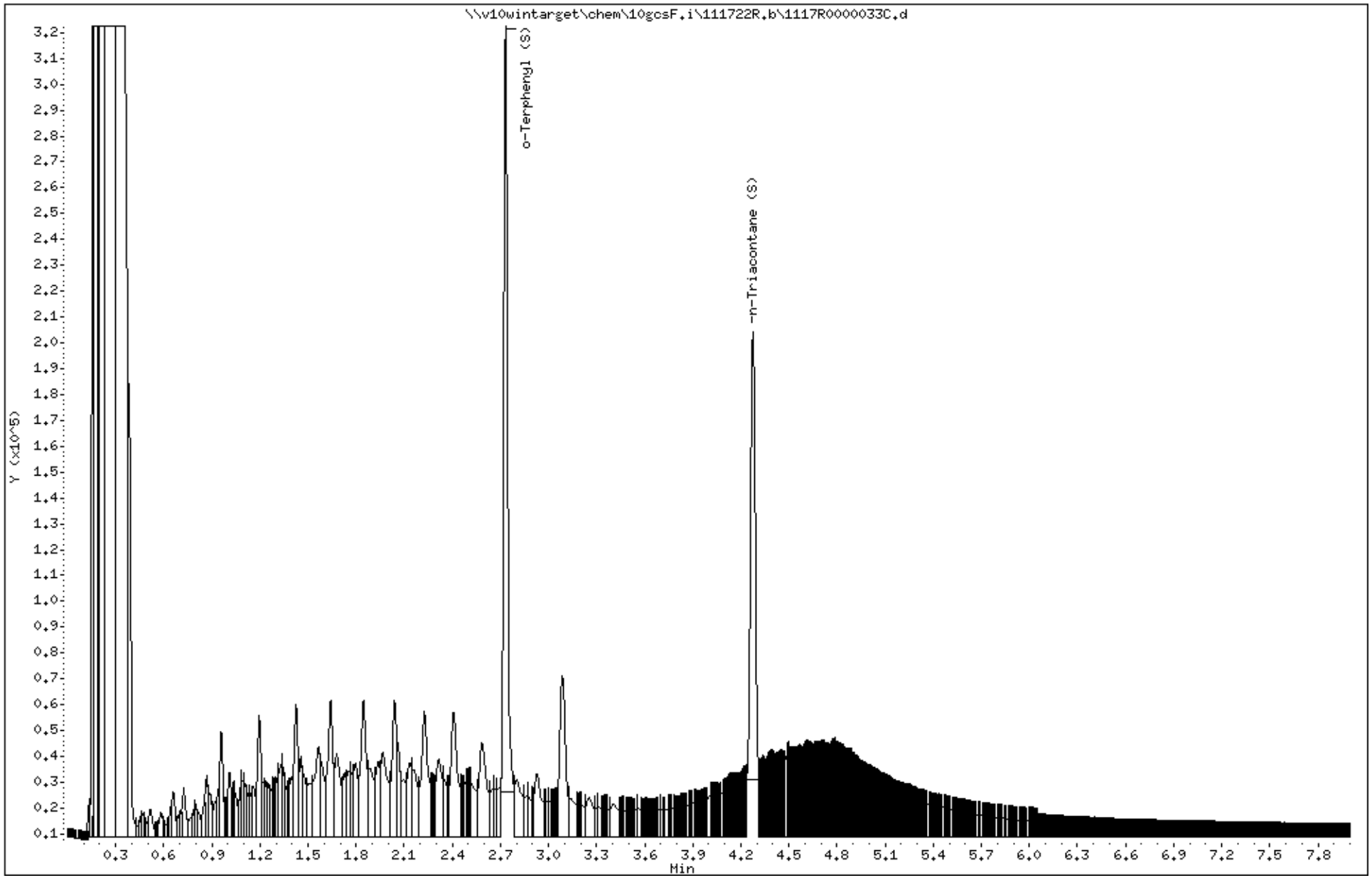
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000033C.d
Date : 17-NOV-2022 17:05
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

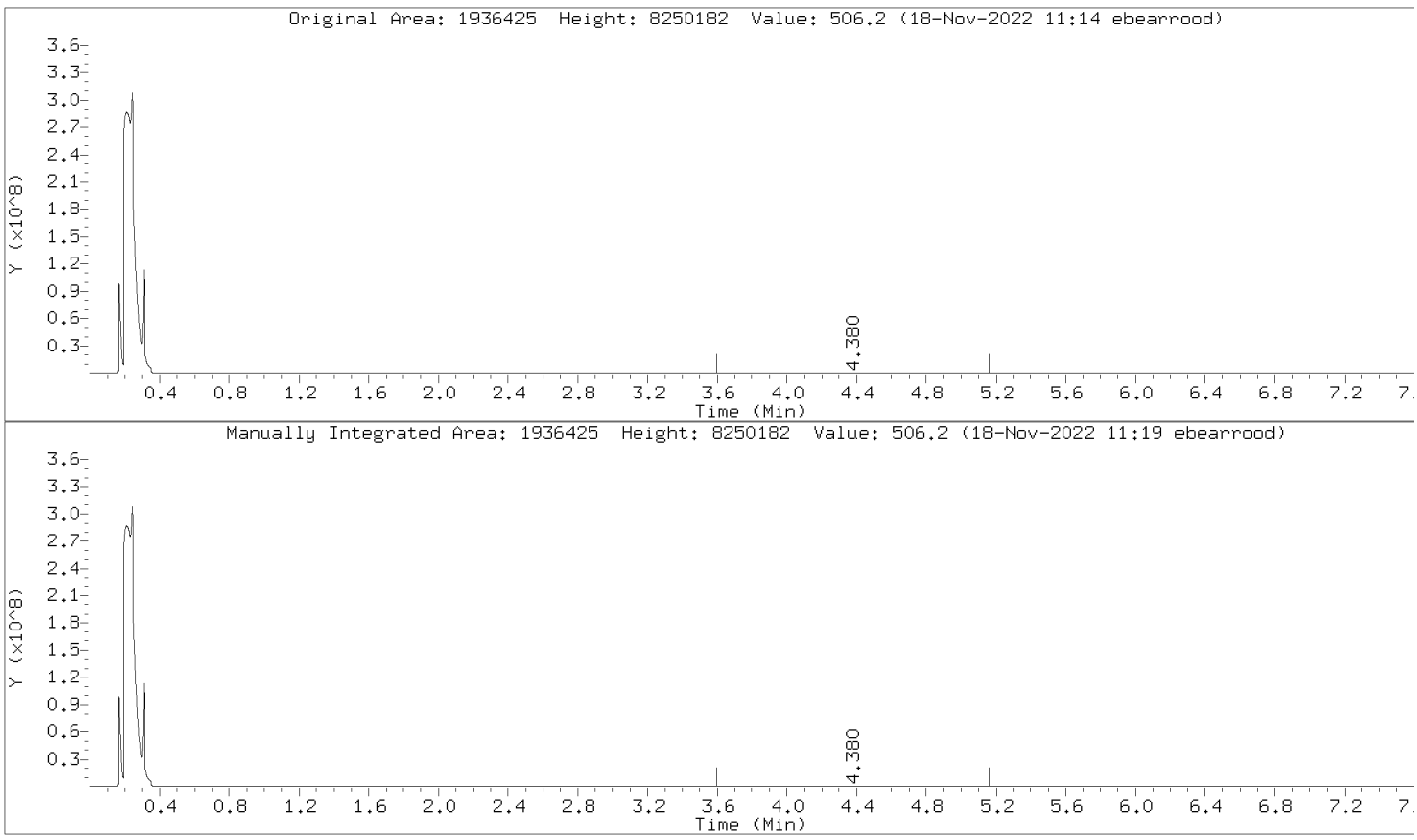
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



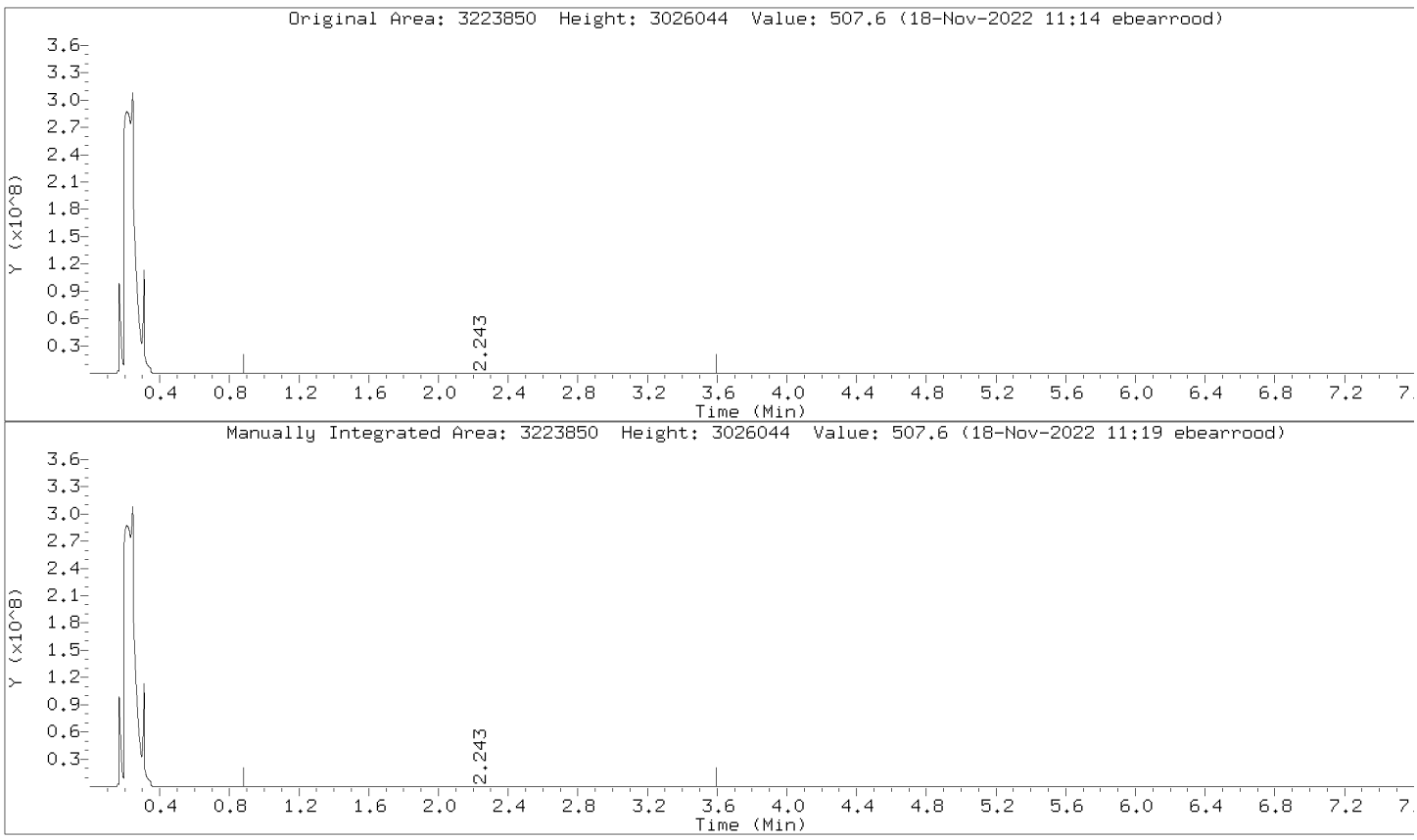
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



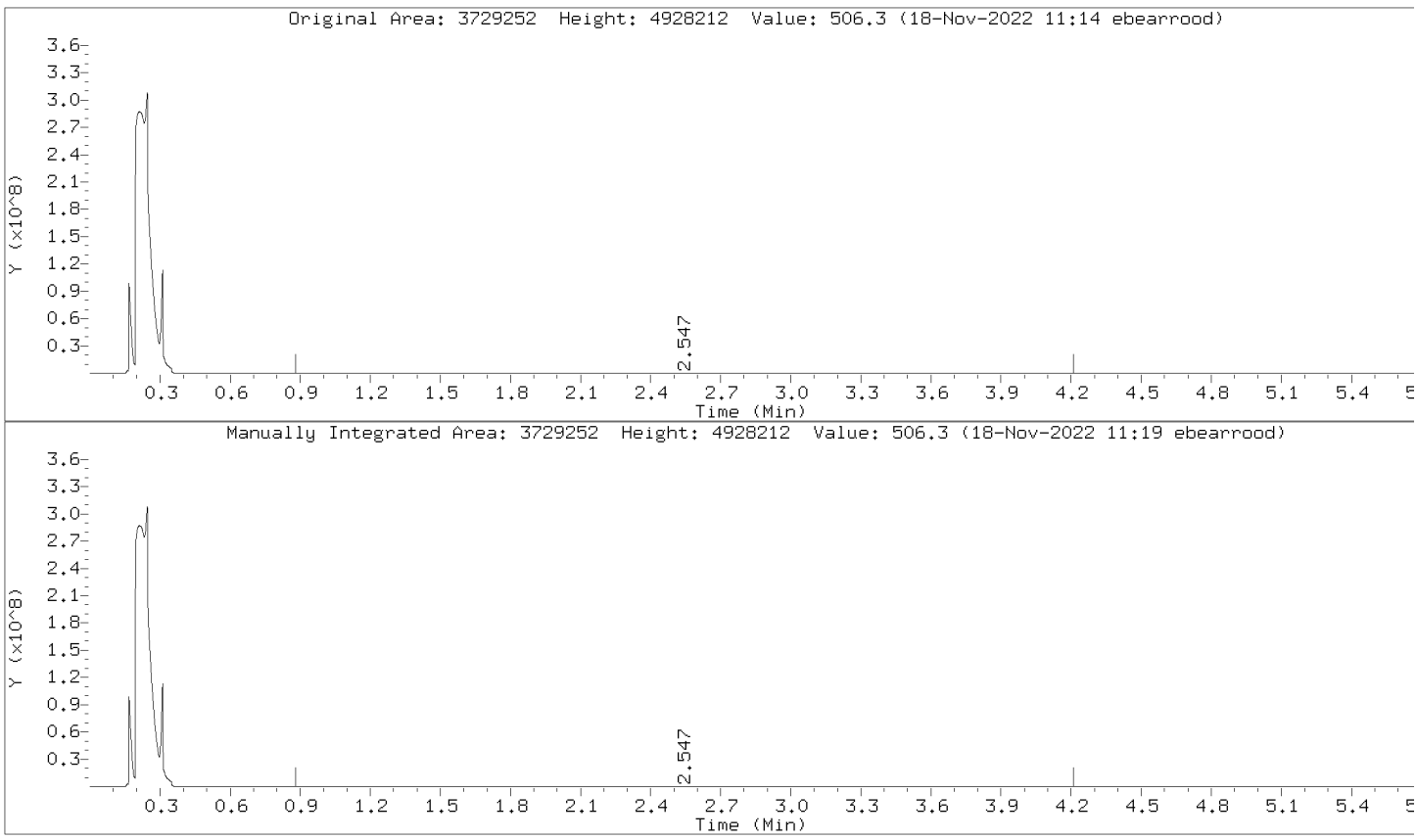
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



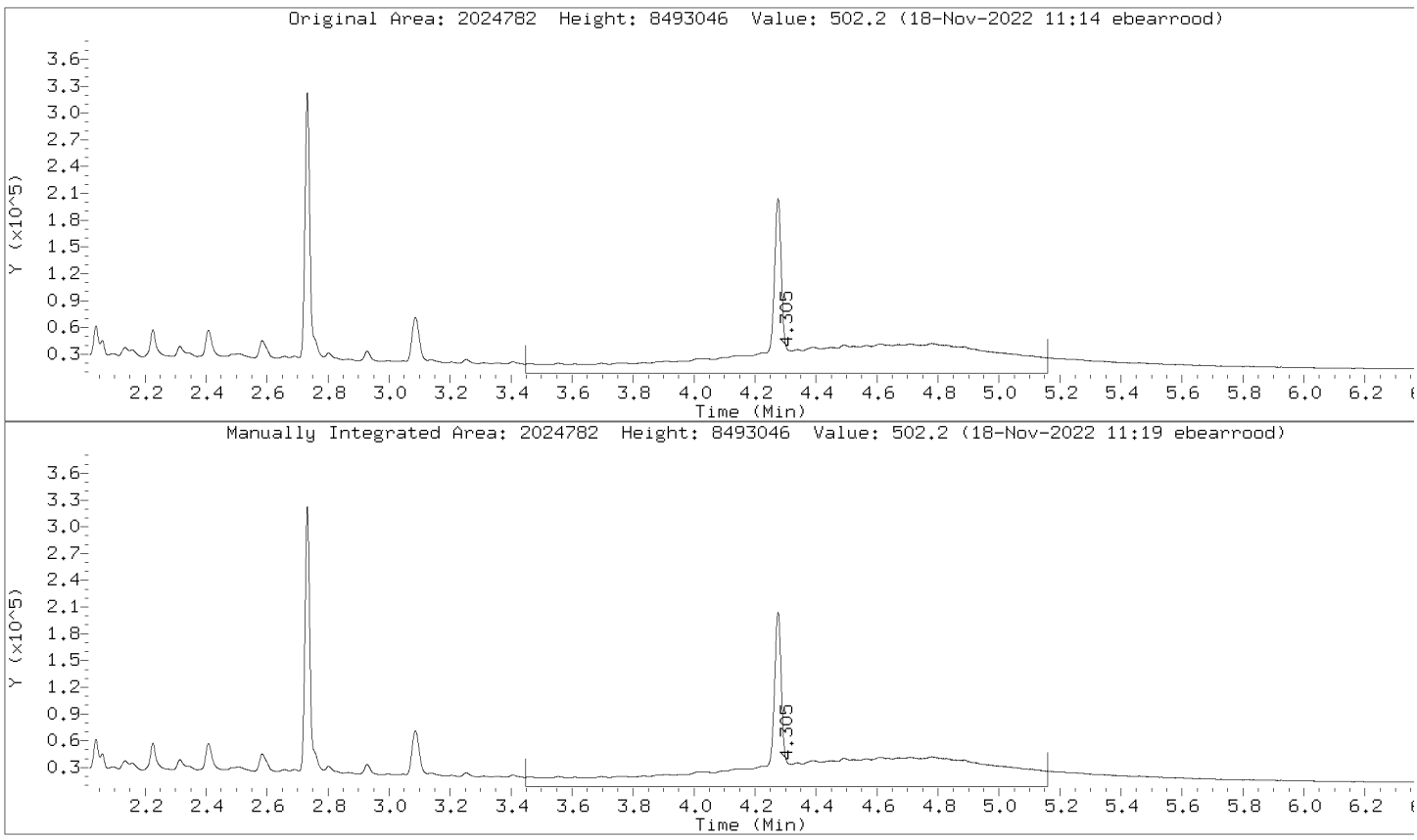
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



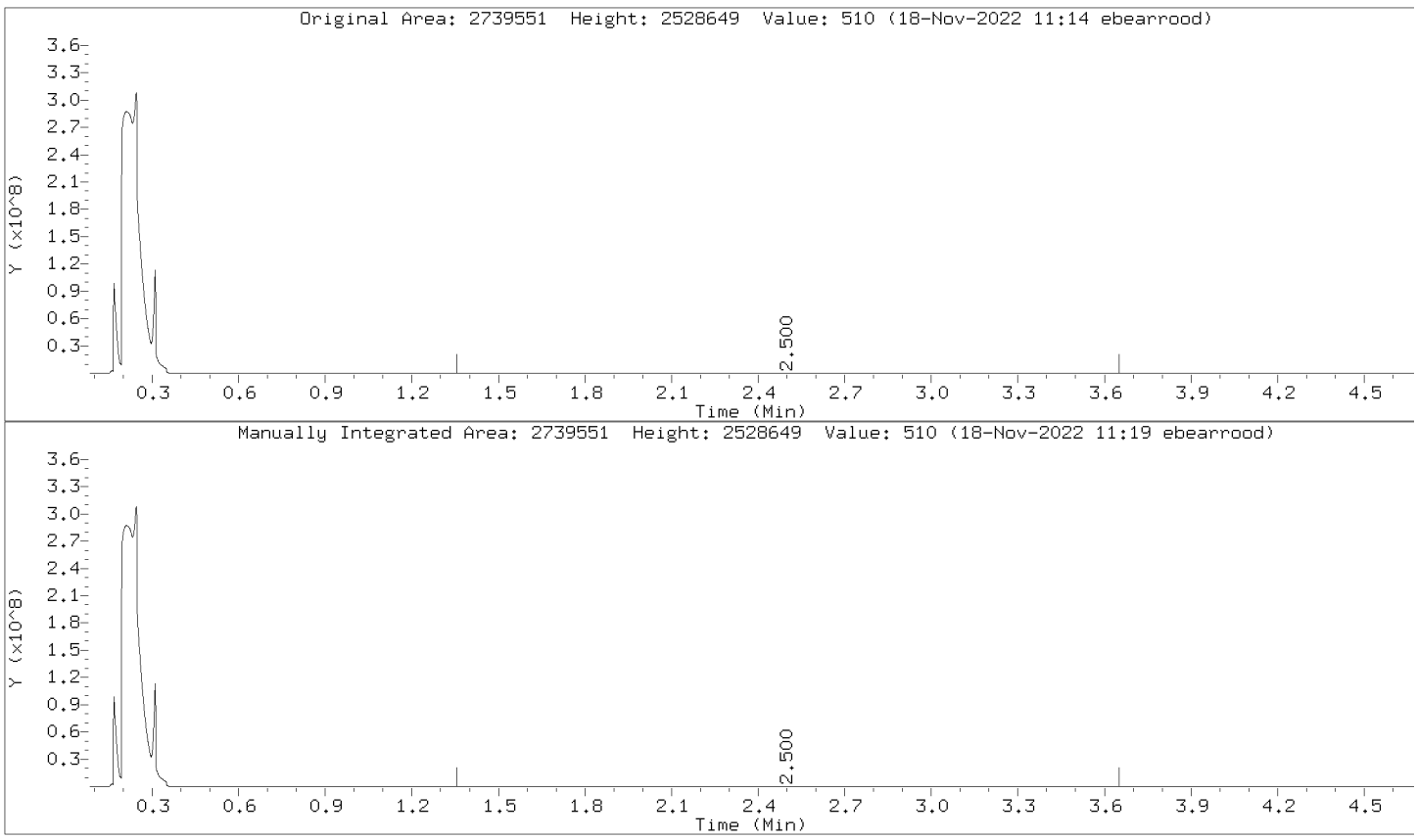
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



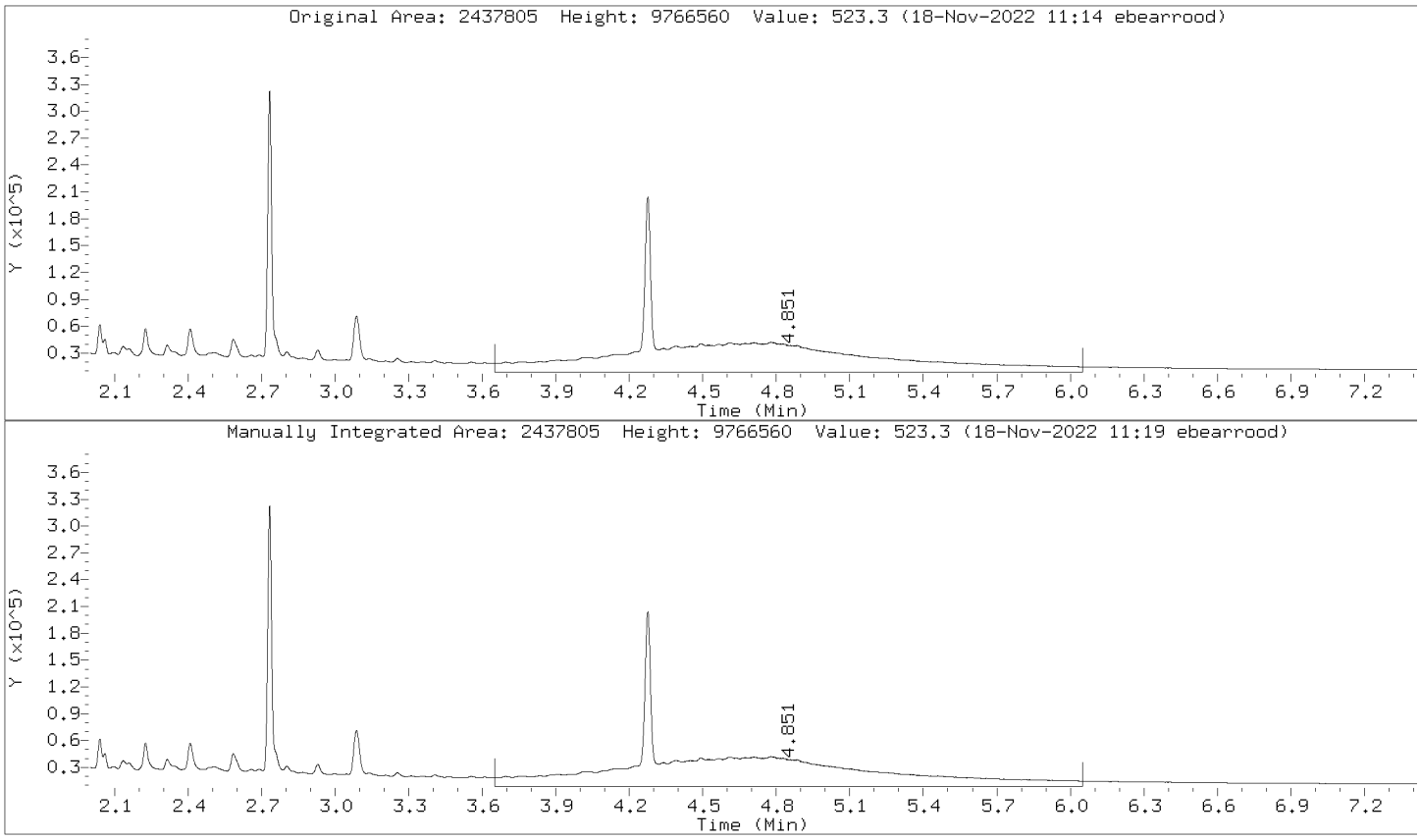
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



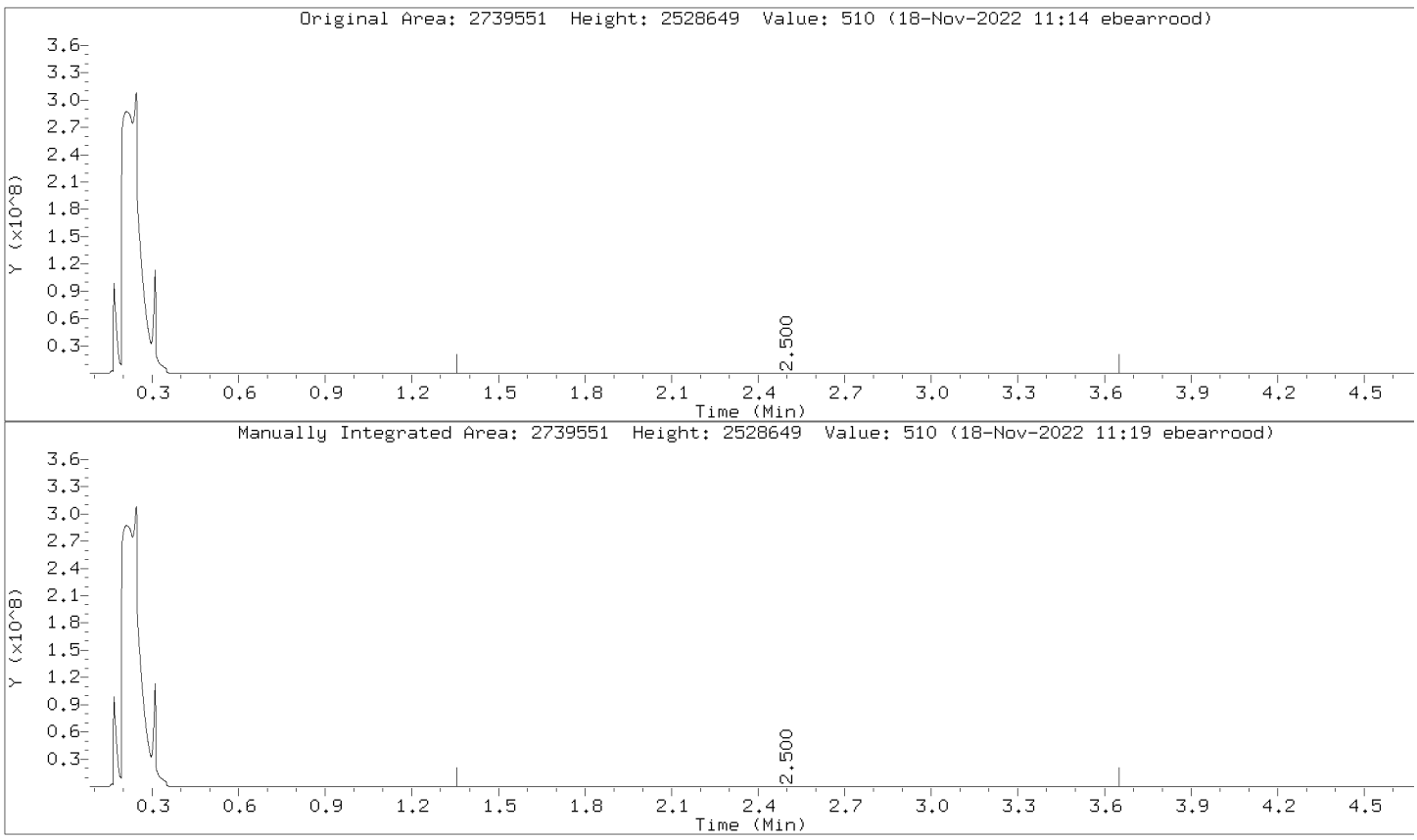
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



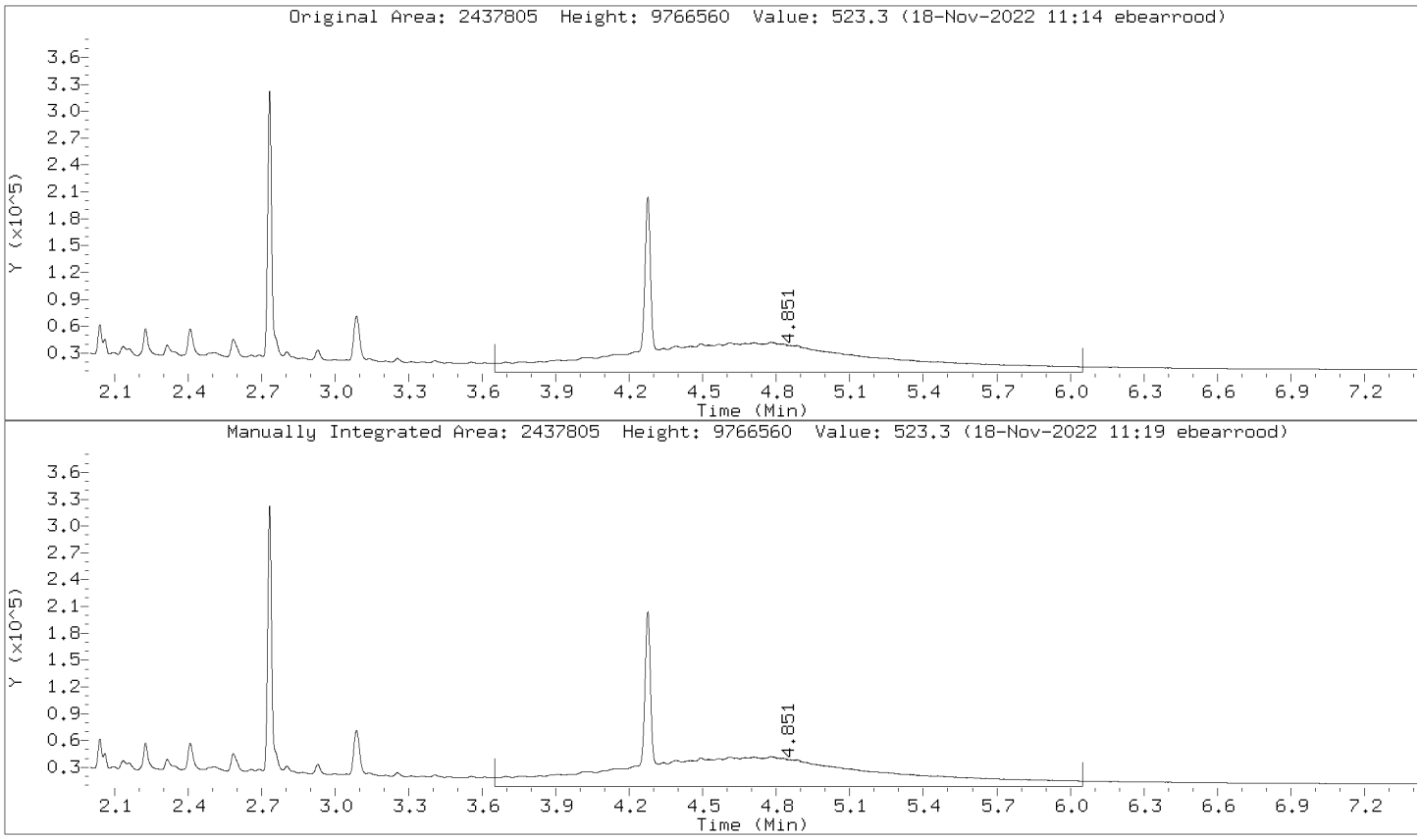
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



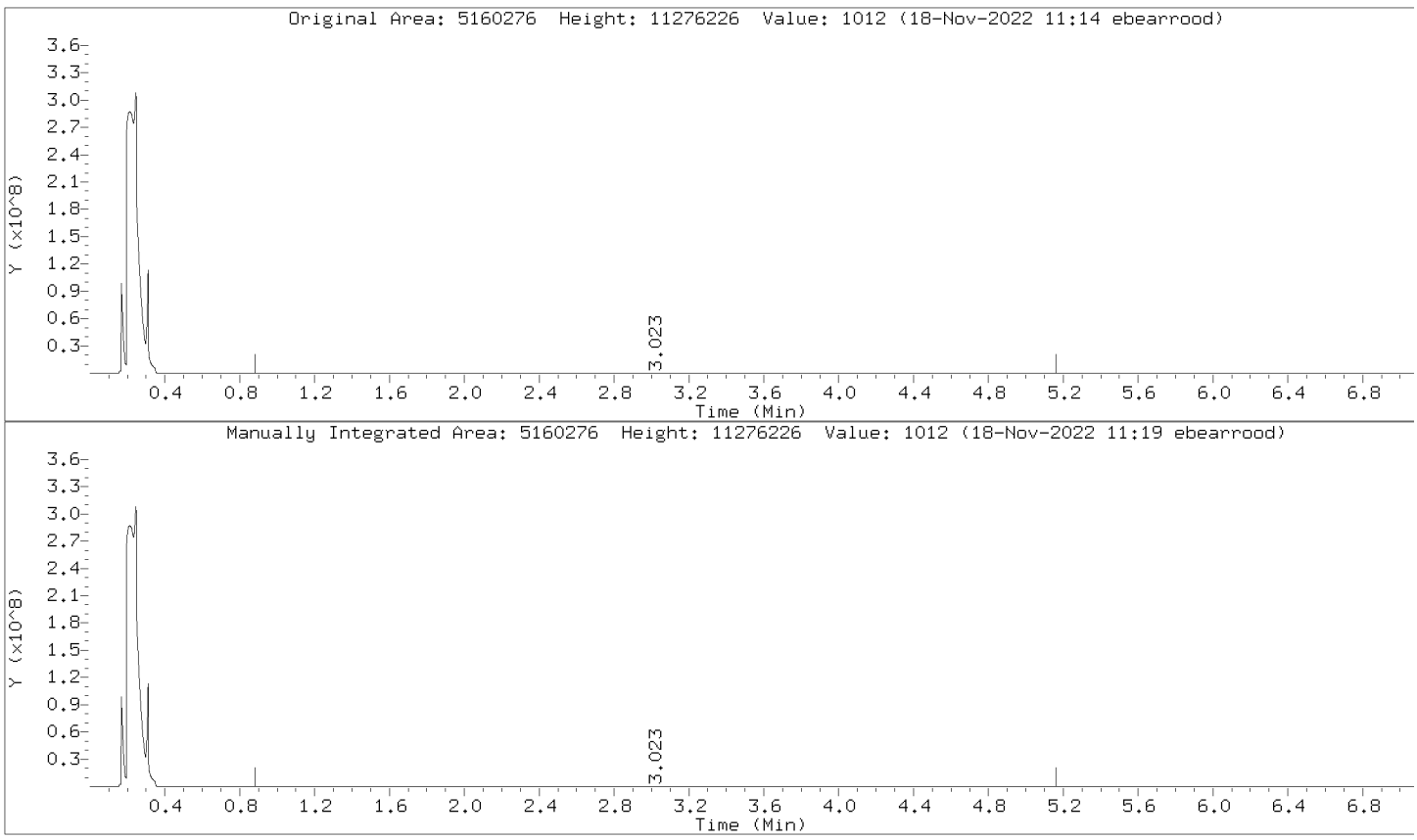
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



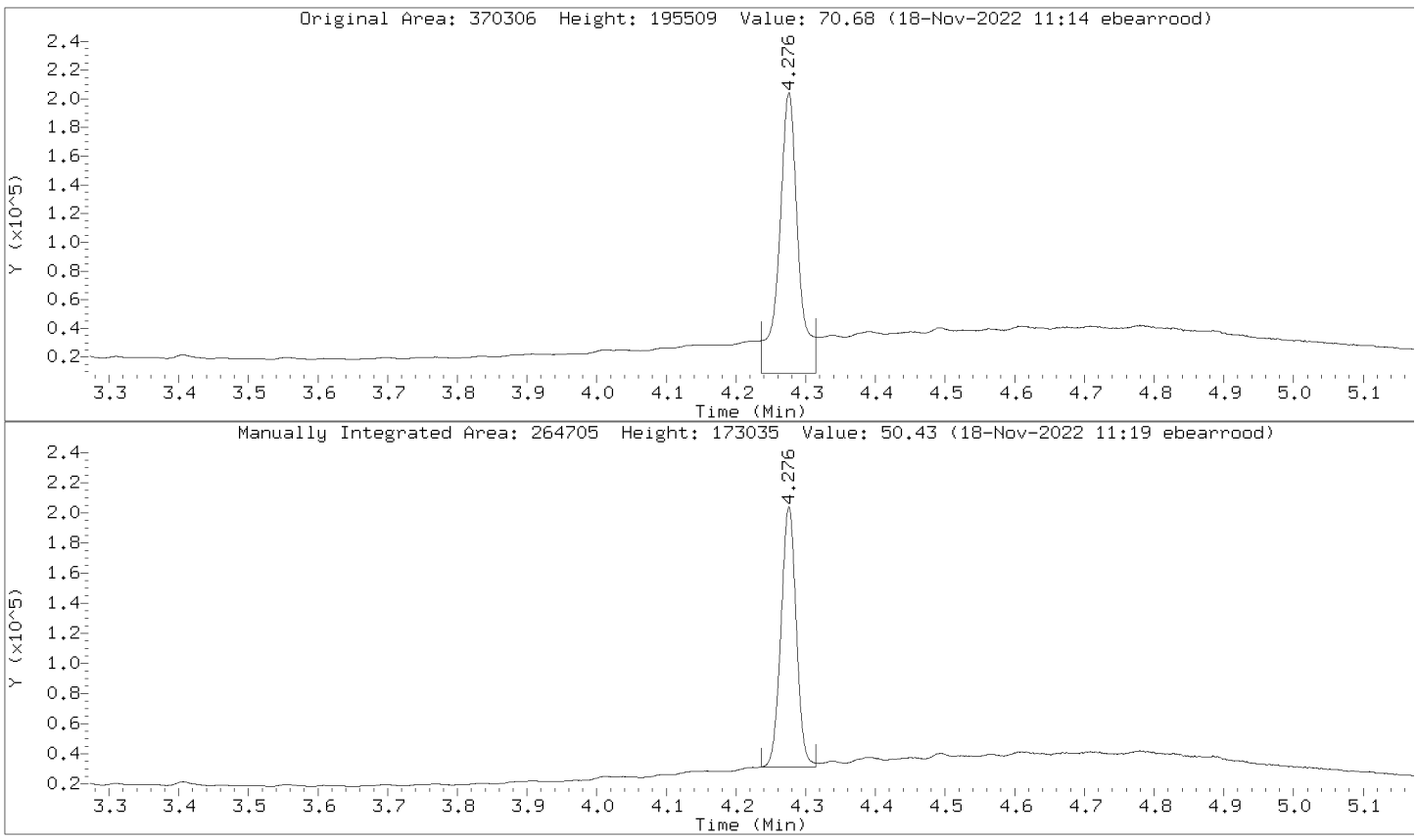
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



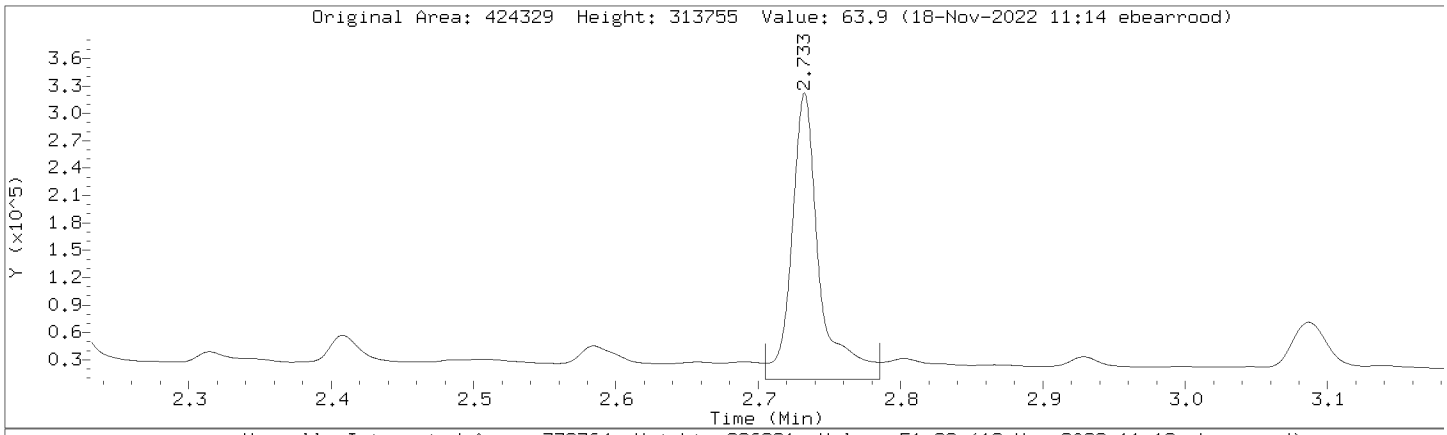
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

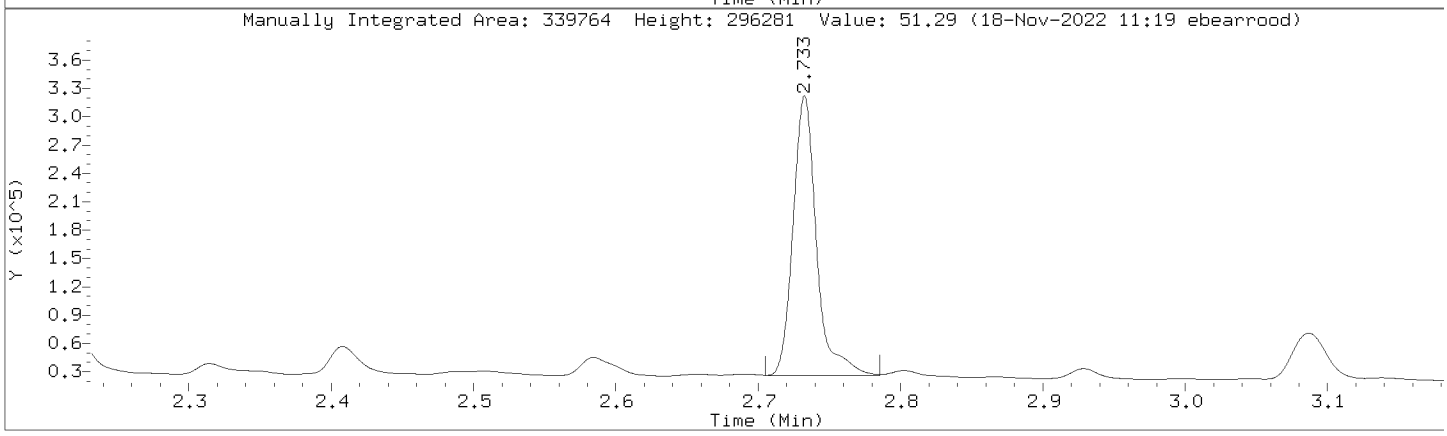
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000033C.d
Injection Date: 17-NOV-2022 17:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1936425	1936425
DRO by AK 102	3223850	3223850
TPH-DRO (C10-C28)	3729252	3729252
Motor Oil Range (C24-C36)	2024782	2024782
Diesel Fuel Range	2739551	2739551
Motor Oil Range	2437805	2437805
Diesel Fuel Range SG	2739551	2739551
Motor Oil Range SG	2437805	2437805
C10-C36	5160276	5160276
n-Triacontane (S)	370306	264705
o-Terphenyl (S)	424329	339764

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000044C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 17-NOV-2022 19:10
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1	DRO by AK 102					CAS #:		
	0.885 - 3.600			3204766	500.000	504	(M)	RNG
$ 2	o-Terphenyl (S)					CAS #:		
	2.733	2.731	0.002	338561	50.0000	51.1	(M)	BA
$ 3	n-Triacontane (S)					CAS #:		
	4.278	4.272	0.006	268347	50.0000	51.1	(M)	BA
S 4	Residual Range Organics AK103					CAS #:		
	3.601 - 5.160			1895861	500.000	495	(M)	RNG
S 5	TPH-DRO (C10-C28)					CAS #:		
	0.885 - 4.210			3698575	500.000	502	(M)	RNG
S 6	Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.160			1986792	500.000	492	(M)	RNG
S 7	C10-C36					CAS #:		
	0.885 - 5.160			5100628	1000.00	999	(M)	RNG
S 8	Diesel Fuel Range					CAS #:		
	1.350 - 3.650			2705050	500.000	503	(M)	RNG
S 9	Diesel Fuel Range SG					CAS #:		
	1.350 - 3.650			2705050	500.000	503	(M)	RNG
S 10	Motor Oil Range					CAS #:		
	3.651 - 6.050			2371970	500.000	508	(M)	RNG
S 11	Motor Oil Range SG					CAS #:		
	3.651 - 6.050			2371970	500.000	508	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

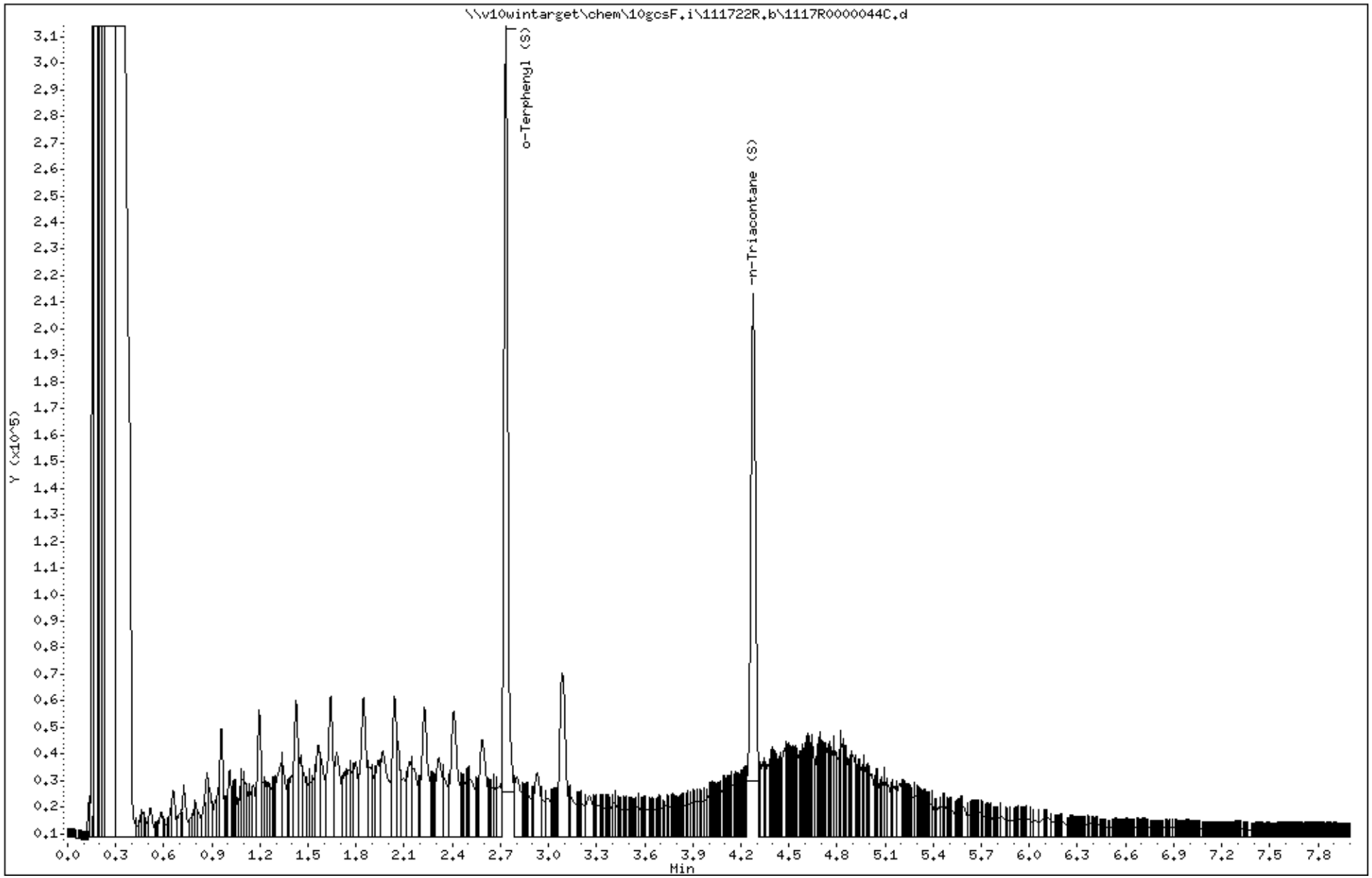
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000044C.d
Date : 17-NOV-2022 19:10
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

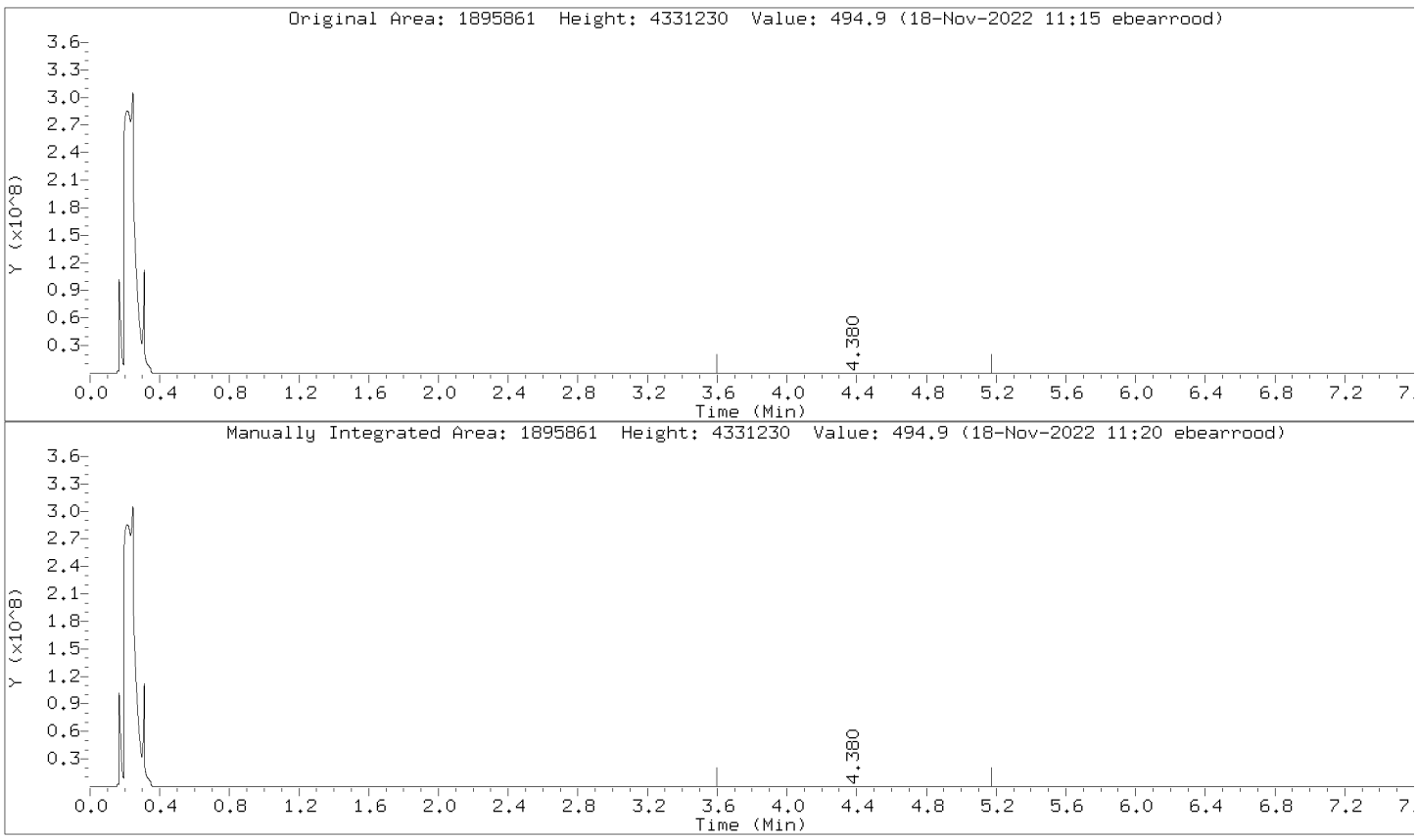
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



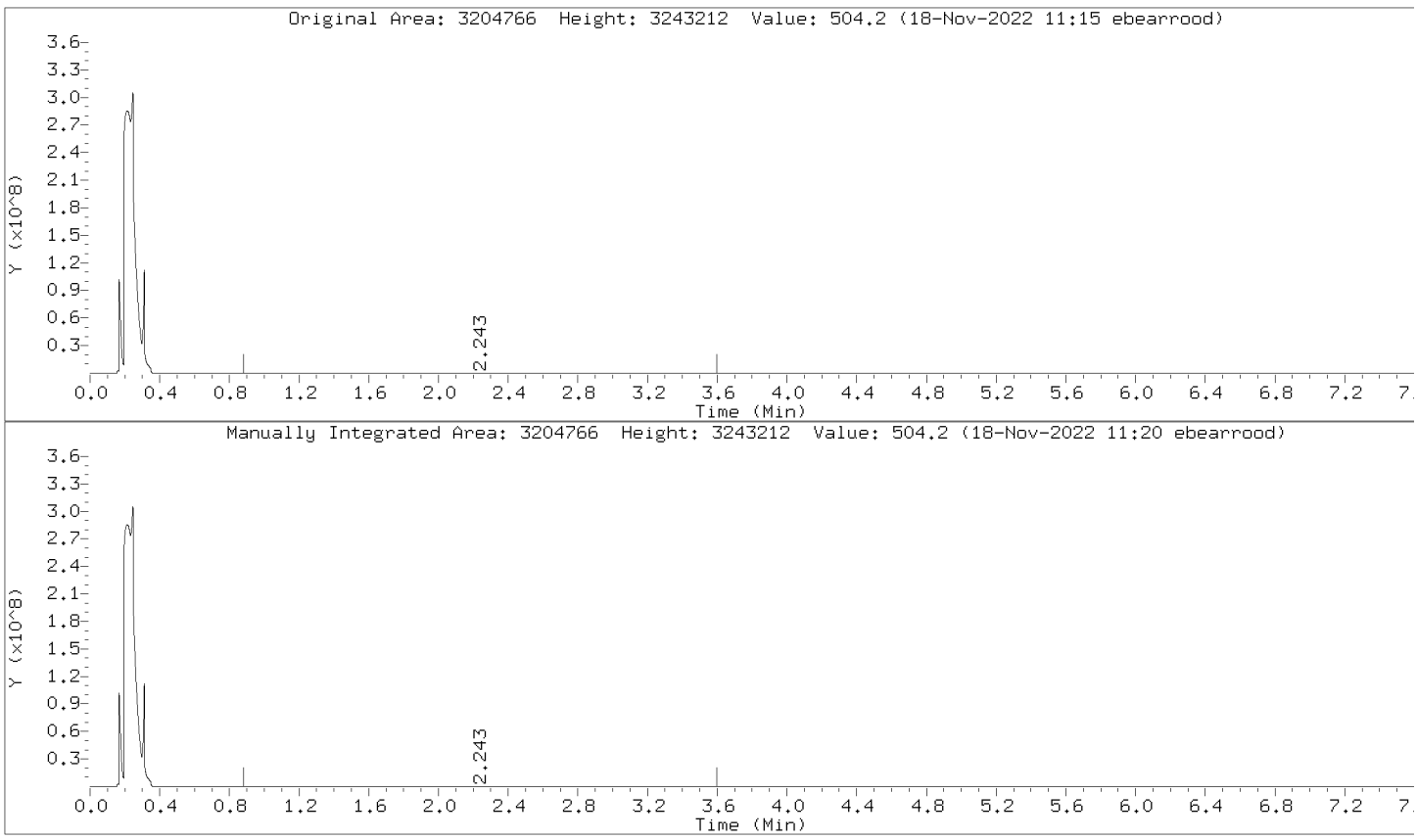
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



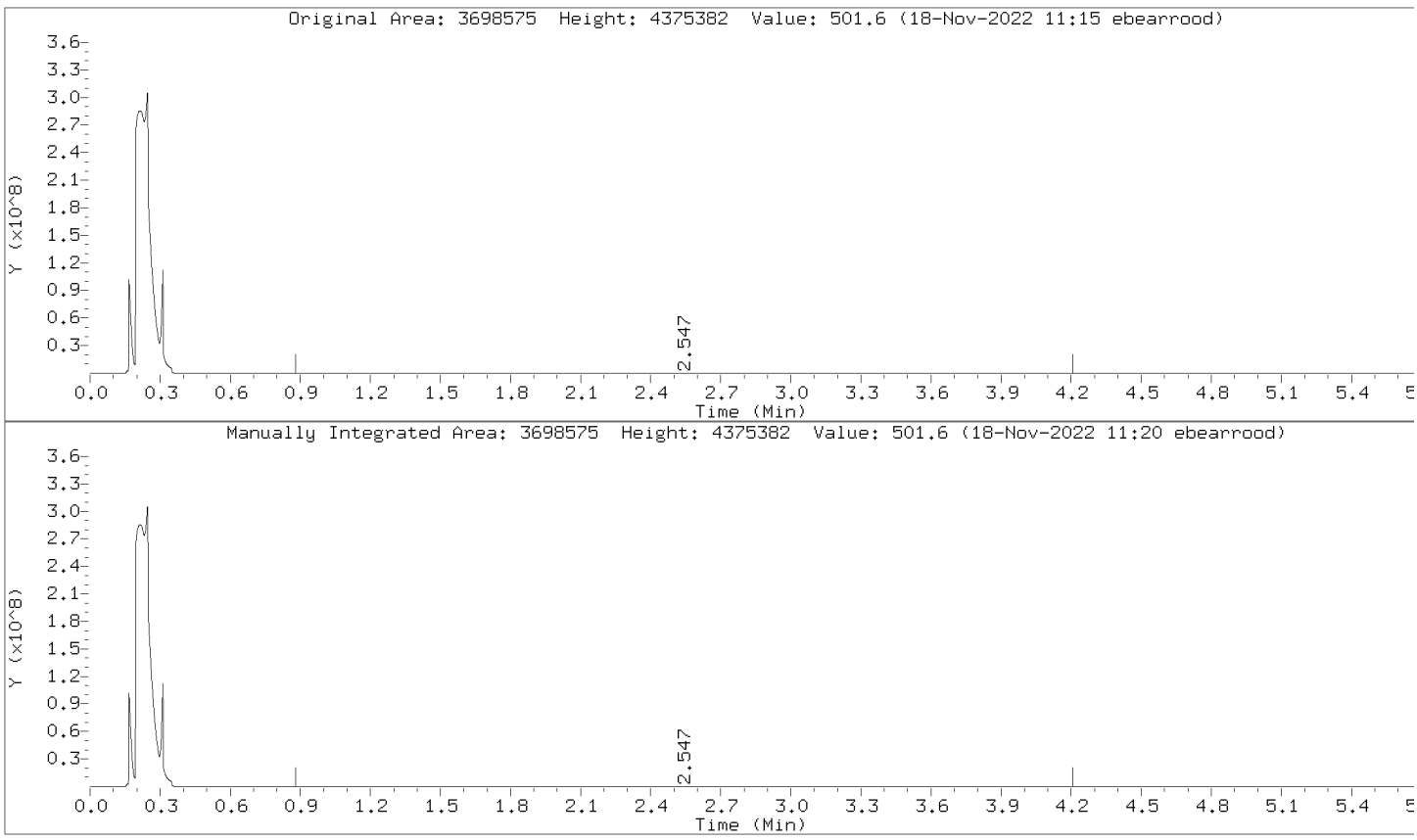
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



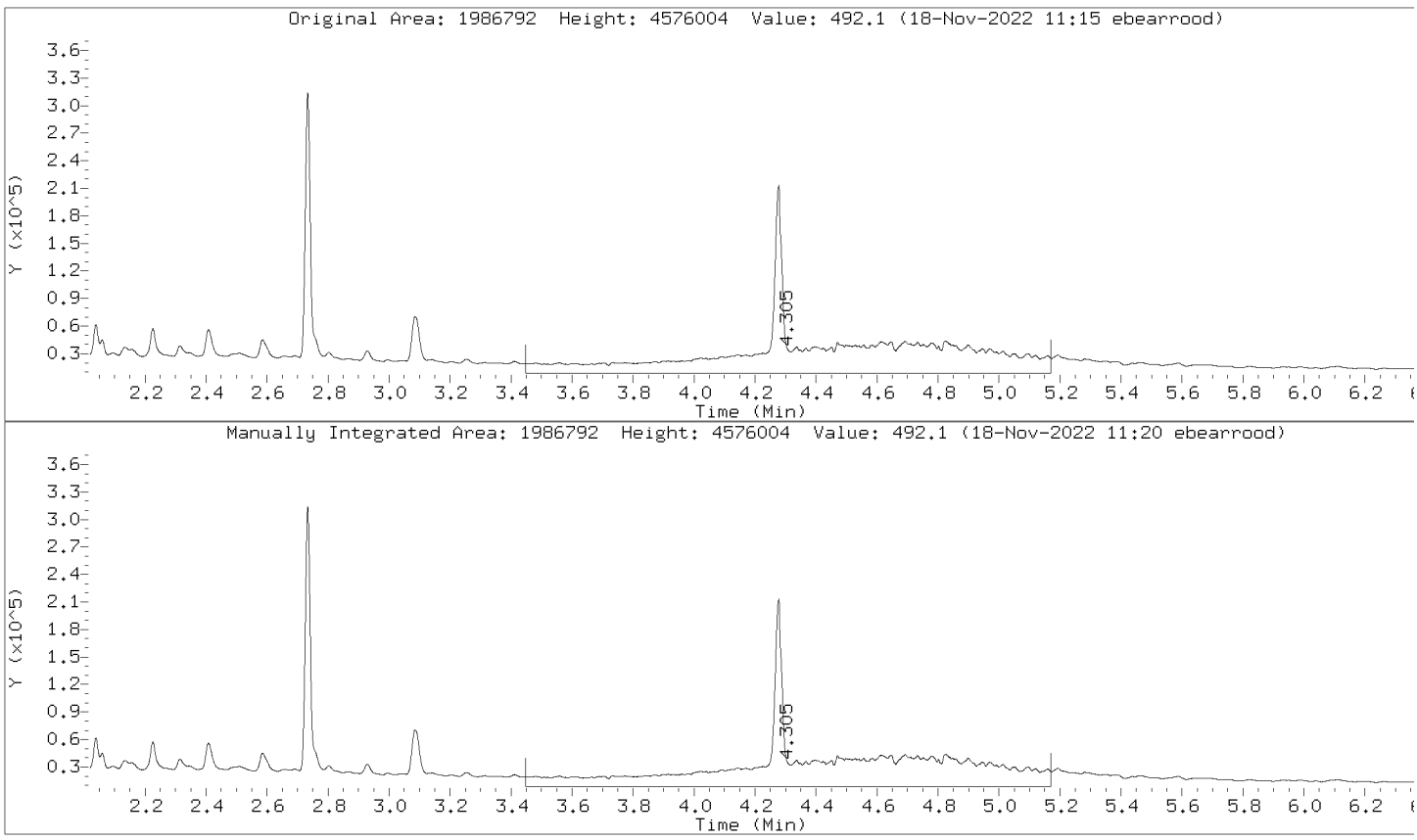
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



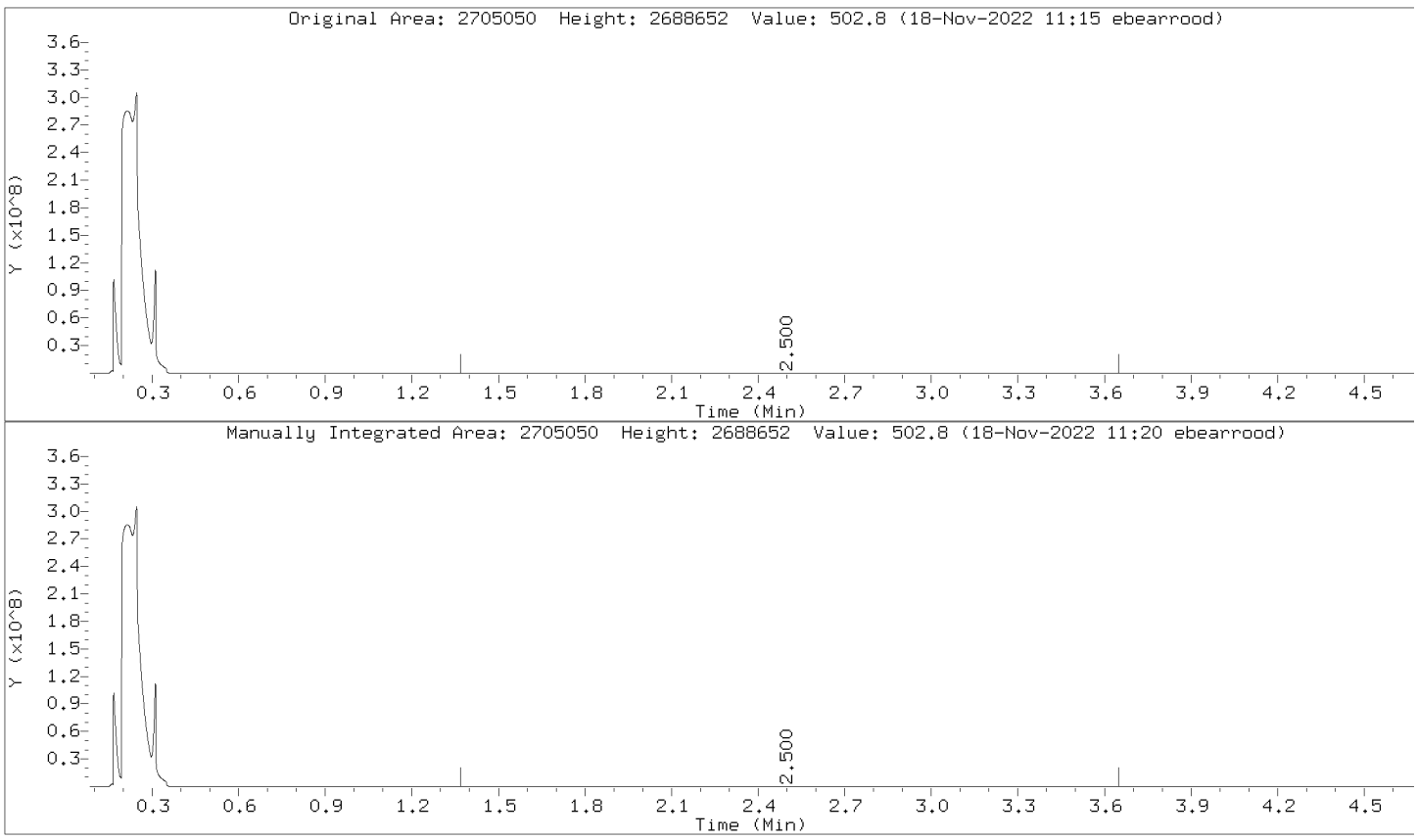
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



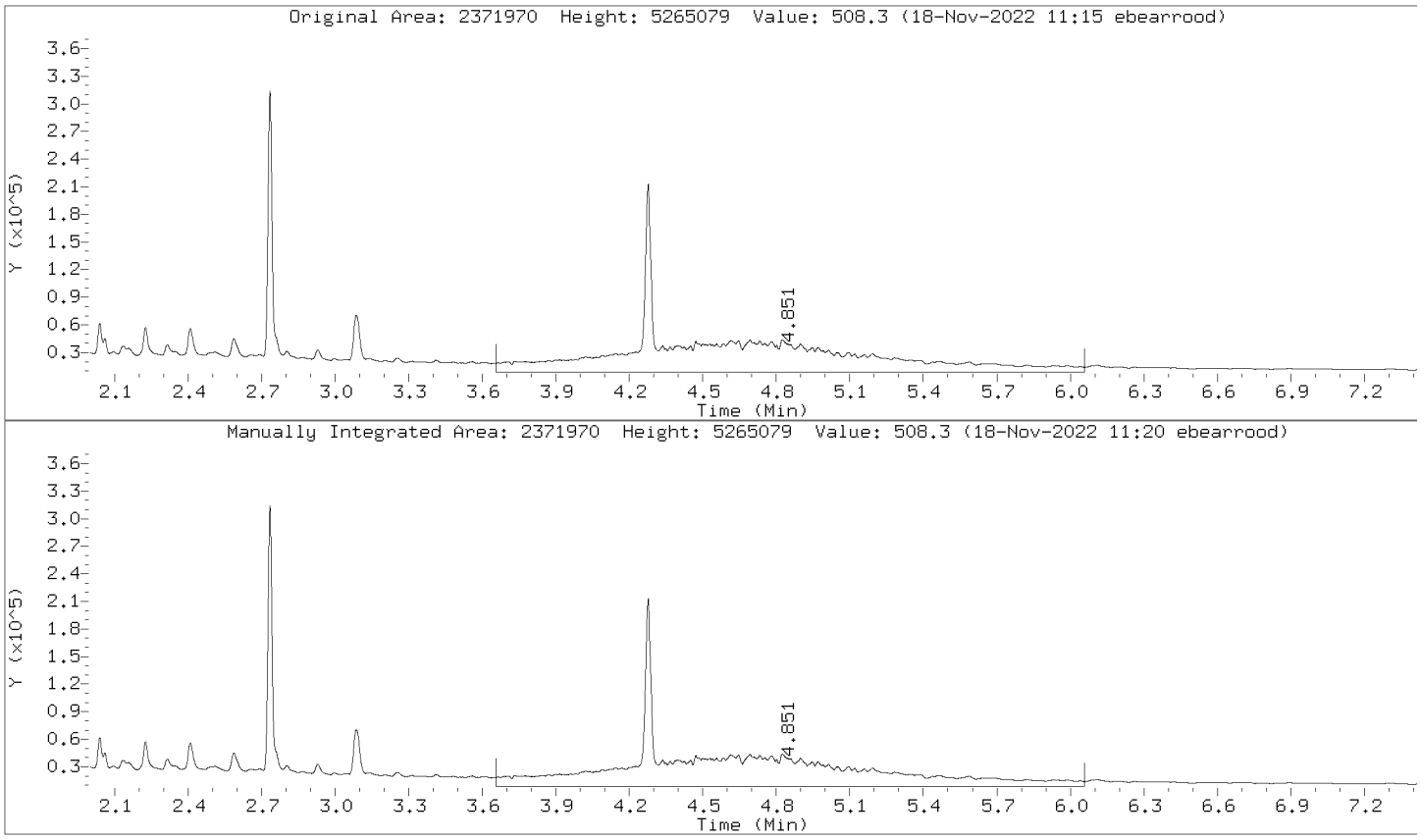
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



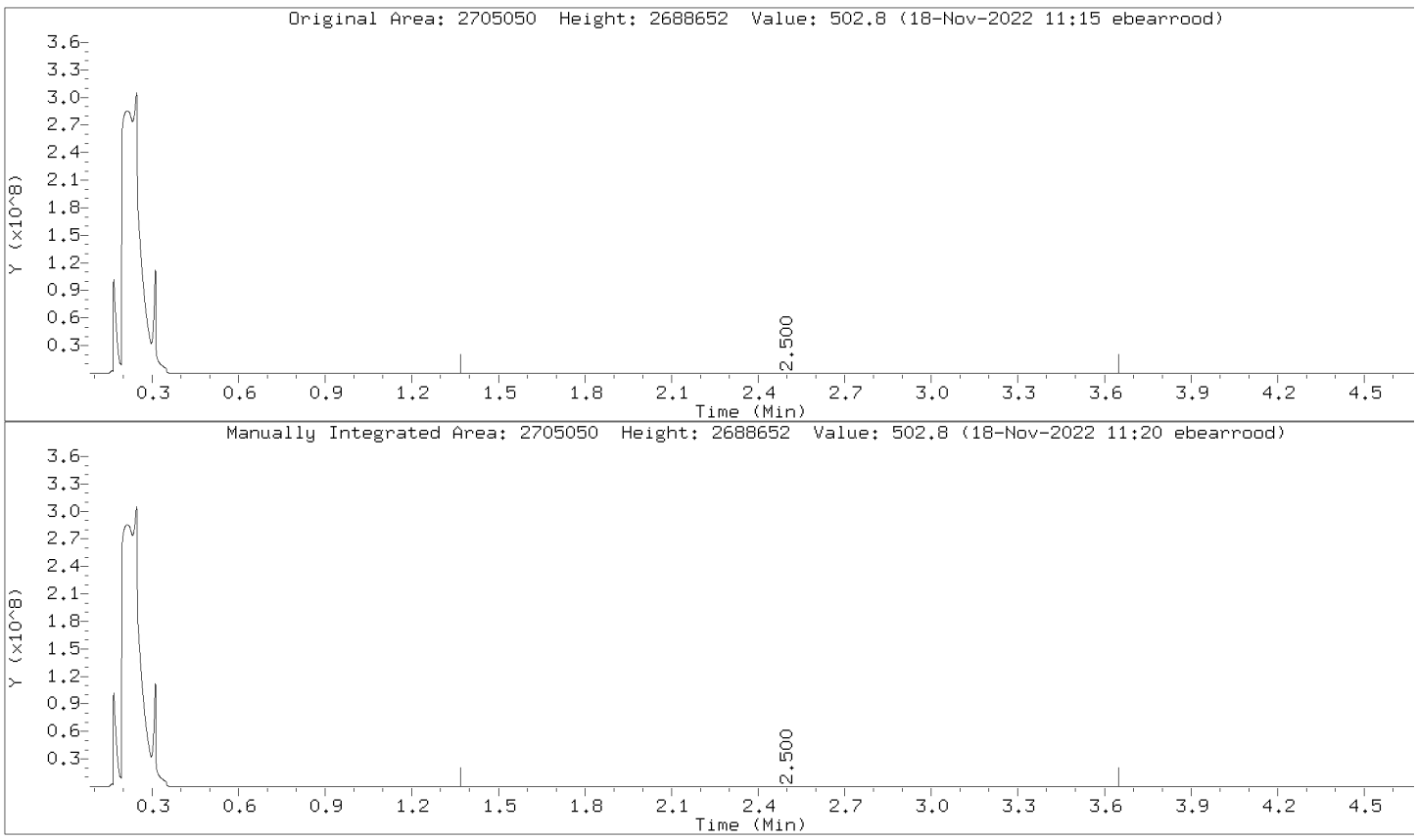
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



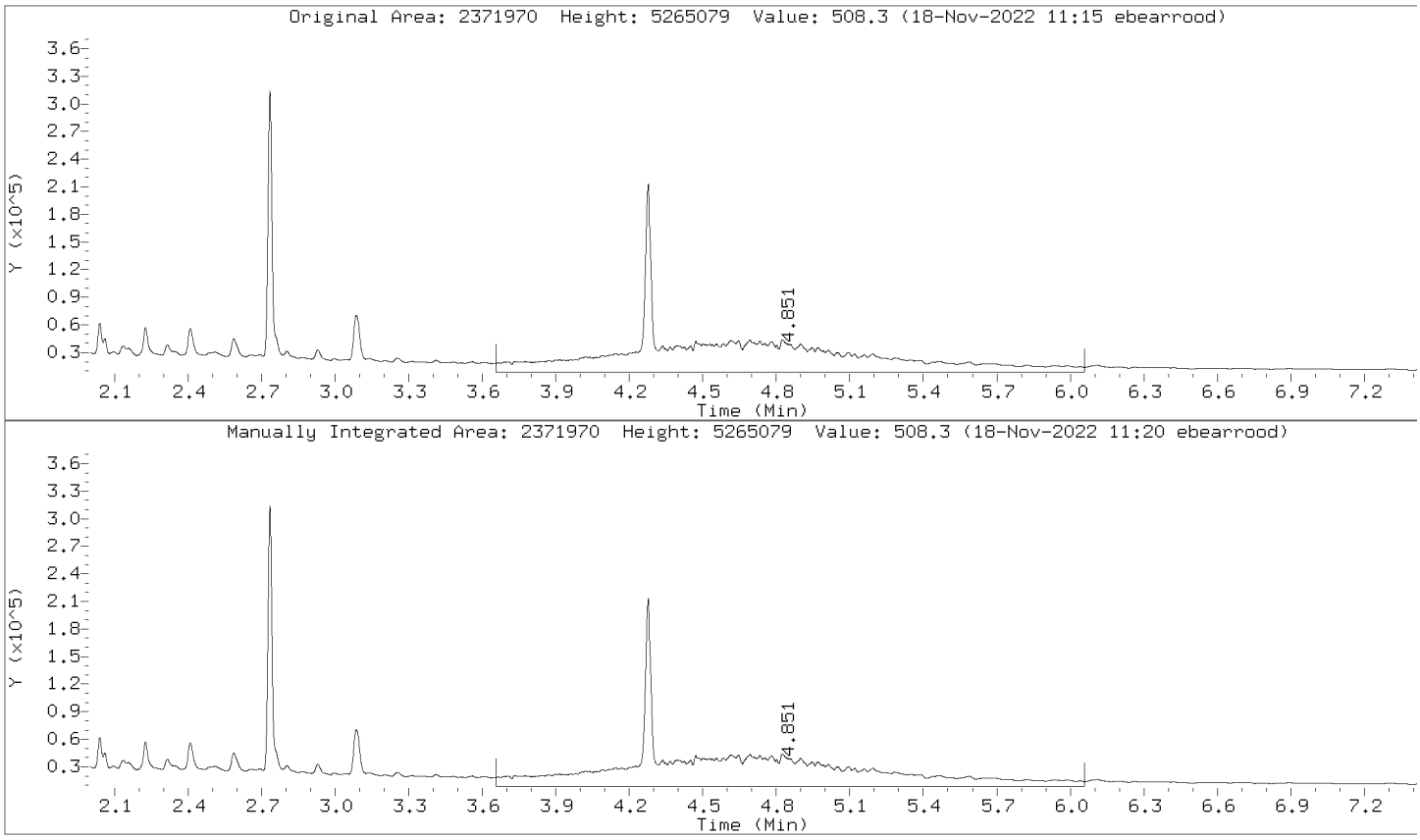
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



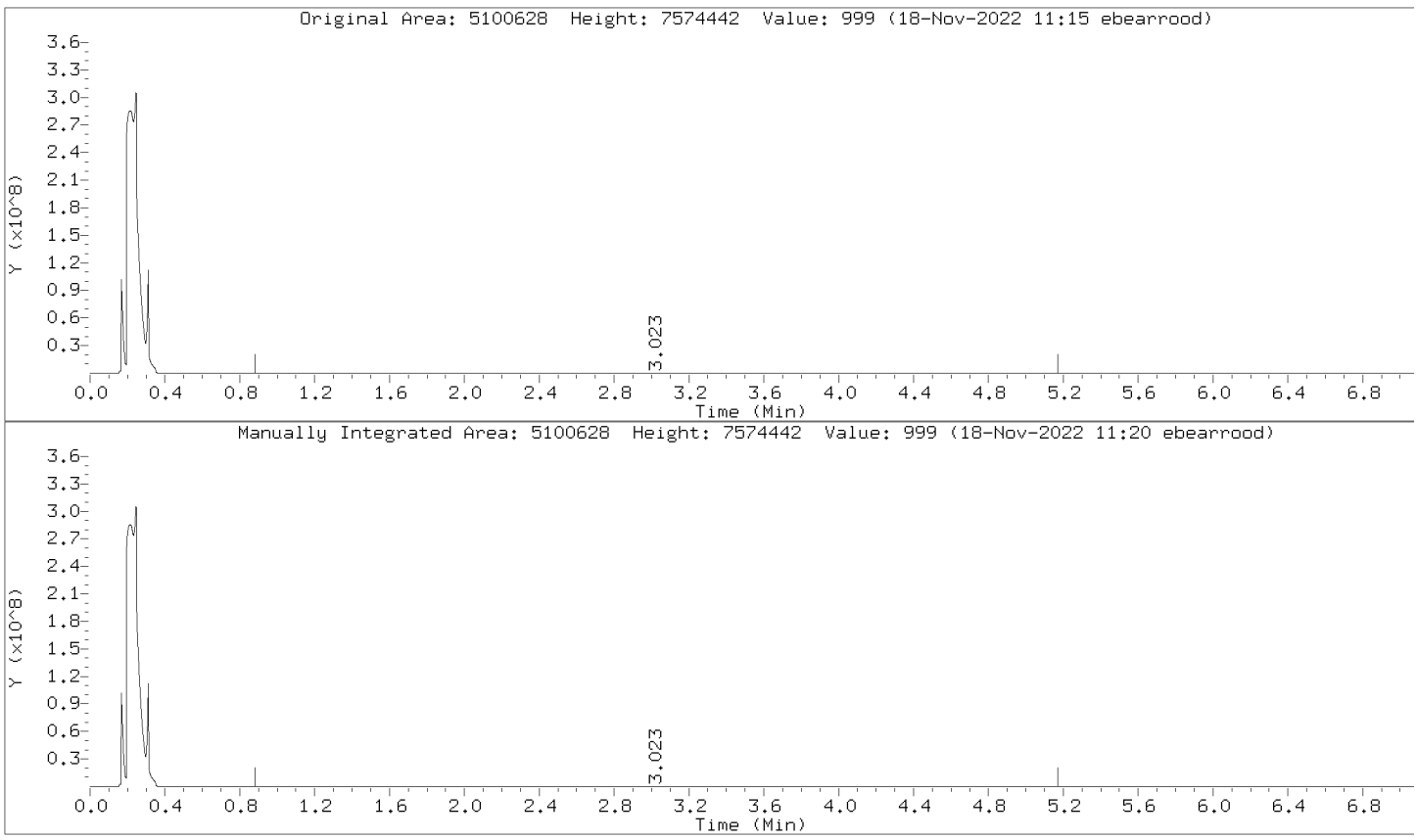
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



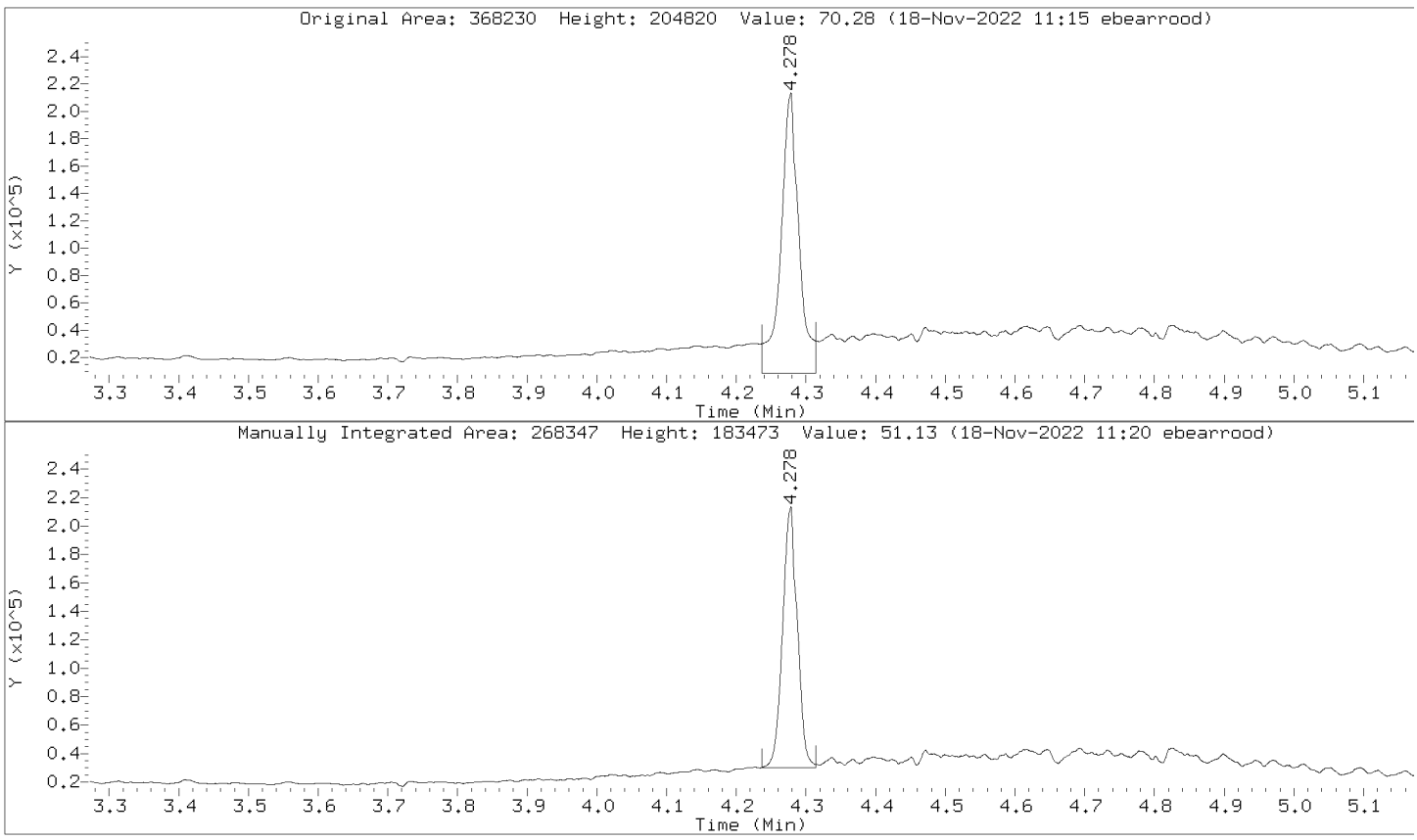
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



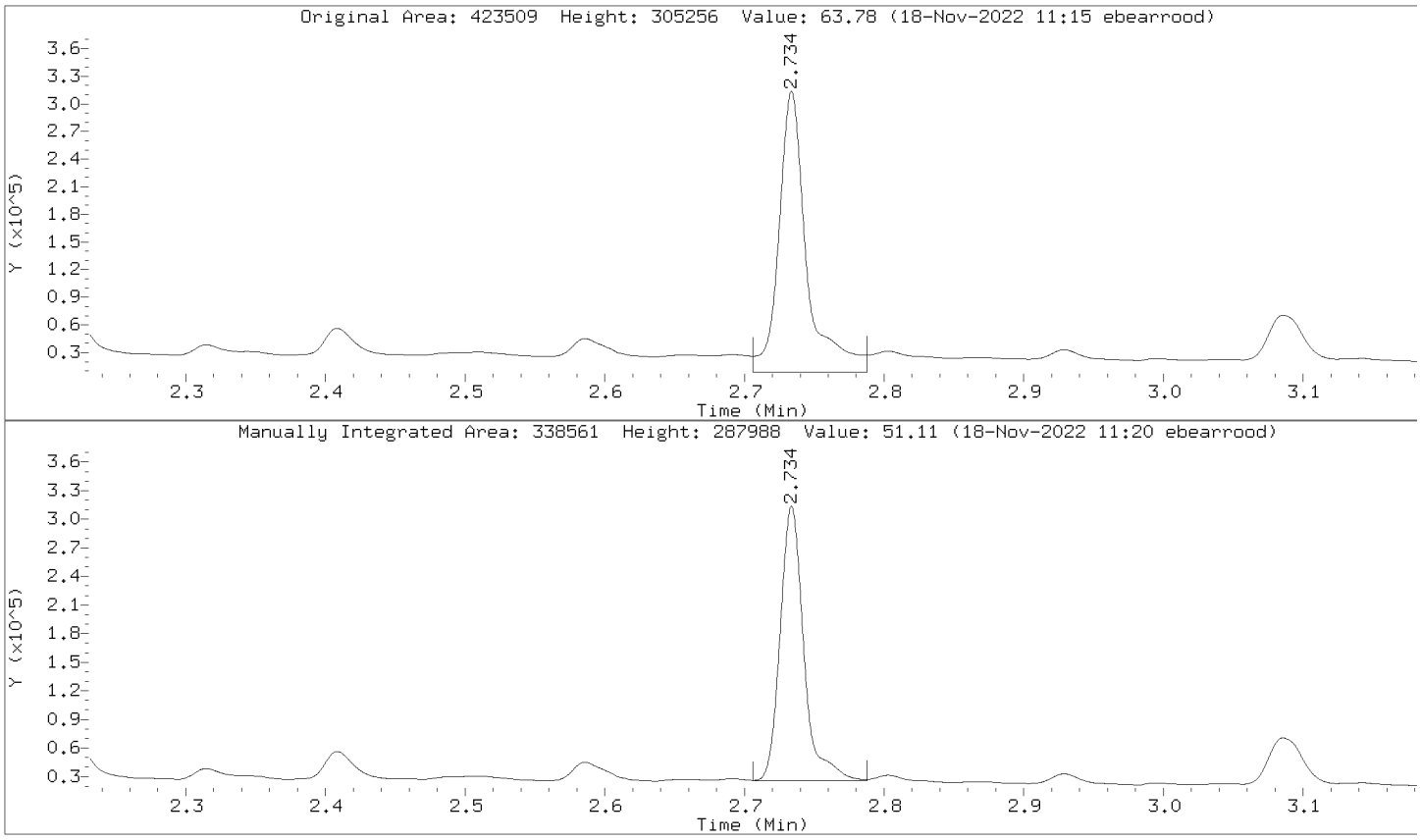
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000044C.d
Injection Date: 17-NOV-2022 19:10
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1895861	1895861
DRO by AK 102	3204766	3204766
TPH-DRO (C10-C28)	3698575	3698575
Motor Oil Range (C24-C36)	1986792	1986792
Diesel Fuel Range	2705050	2705050
Motor Oil Range	2371970	2371970
Diesel Fuel Range SG	2705050	2705050
Motor Oil Range SG	2371970	2371970
C10-C36	5100628	5100628
n-Triacontane (S)	368230	268347
o-Terphenyl (S)	423509	338561

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000049C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 17-NOV-2022 20:07
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1	DRO by AK 102					CAS #:		
	0.885	- 3.600		3200497	500.000	503	(M)	RNG
$ 2	o-Terphenyl (S)					CAS #:		
	2.731	2.731	0.000	337831	50.0000	51.0	(M)	BA
$ 3	n-Triacontane (S)					CAS #:		
	4.272	4.272	0.000	261398	50.0000	49.8	(M)	BA
S 4	Residual Range Organics AK103					CAS #:		
	3.601	- 5.160		1886649	500.000	492	(M)	RNG
S 5	TPH-DRO (C10-C28)					CAS #:		
	0.885	- 4.210		3695143	500.000	501	(M)	RNG
S 6	Motor Oil Range (C24-C36)					CAS #:		
	3.450	- 5.160		1973433	500.000	488	(M)	RNG
S 7	C10-C36					CAS #:		
	0.885	- 5.160		5087147	1000.00	996	(M)	RNG
S 8	Diesel Fuel Range					CAS #:		
	1.350	- 3.650		2721705	500.000	506	(M)	RNG
S 9	Diesel Fuel Range SG					CAS #:		
	1.350	- 3.650		2721705	500.000	506	(M)	RNG
S 10	Motor Oil Range					CAS #:		
	3.651	- 6.050		2350070	500.000	503	(M)	RNG
S 11	Motor Oil Range SG					CAS #:		
	3.651	- 6.050		2350070	500.000	503	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

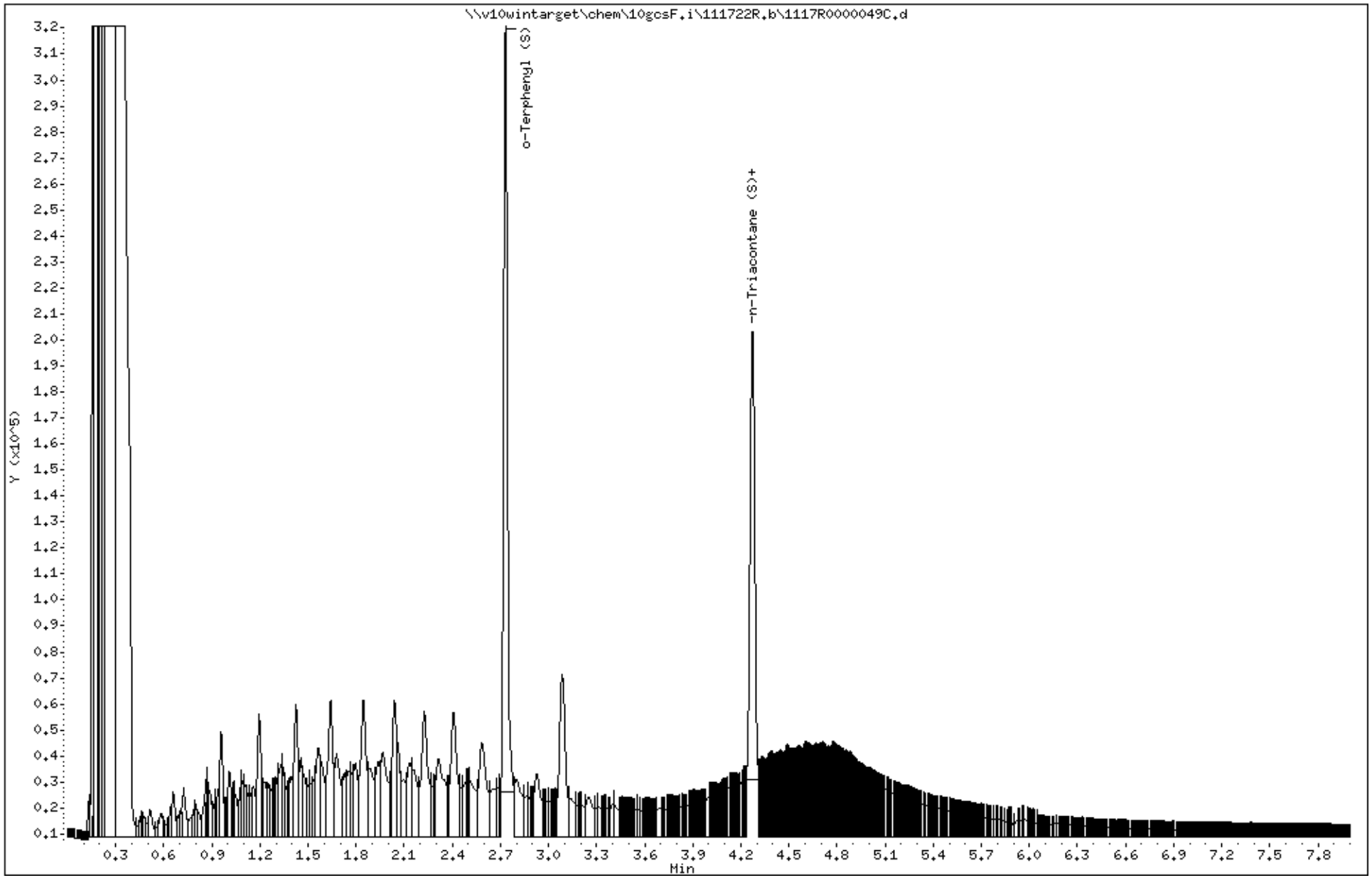
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000049C.d
Date : 17-NOV-2022 20:07
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

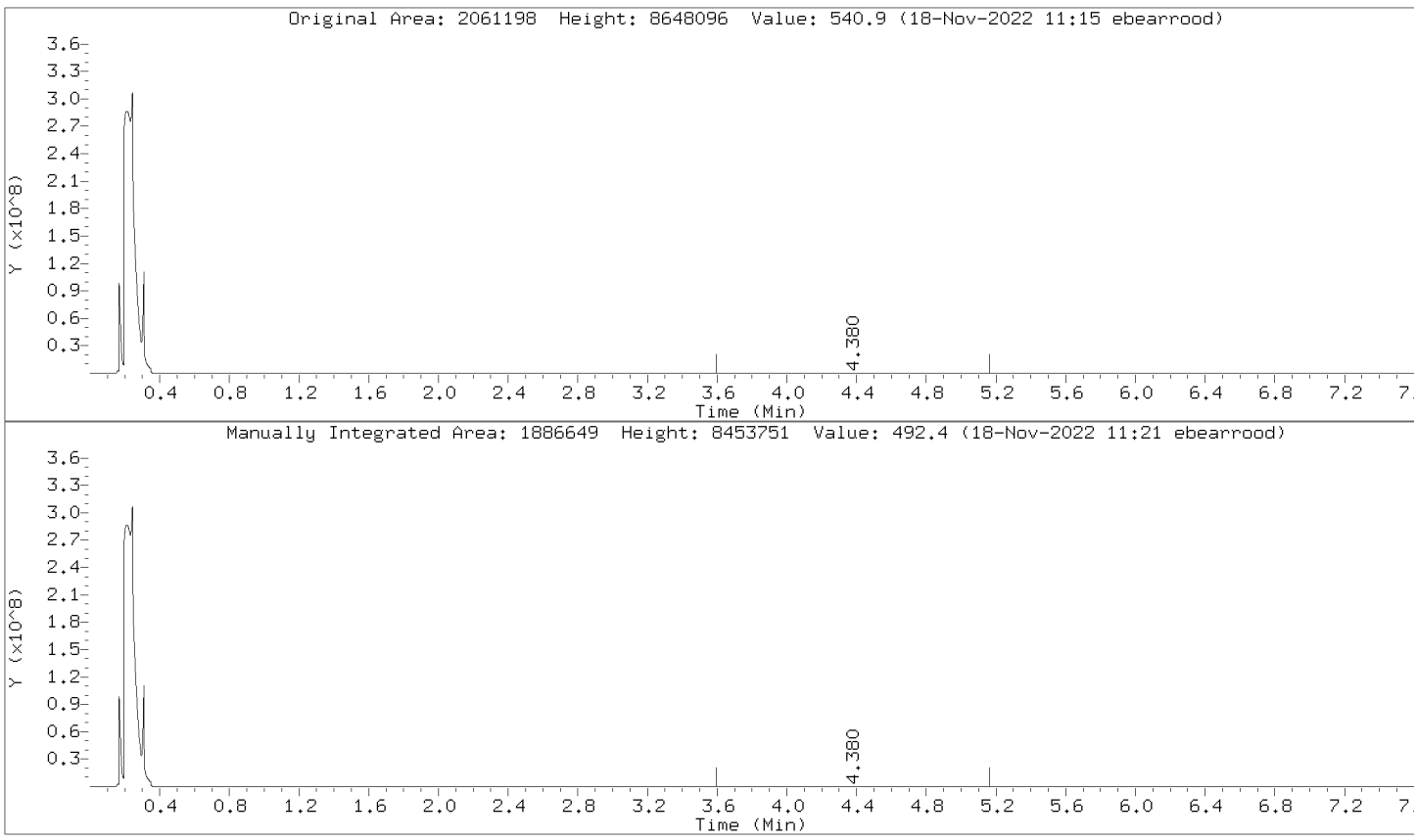
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



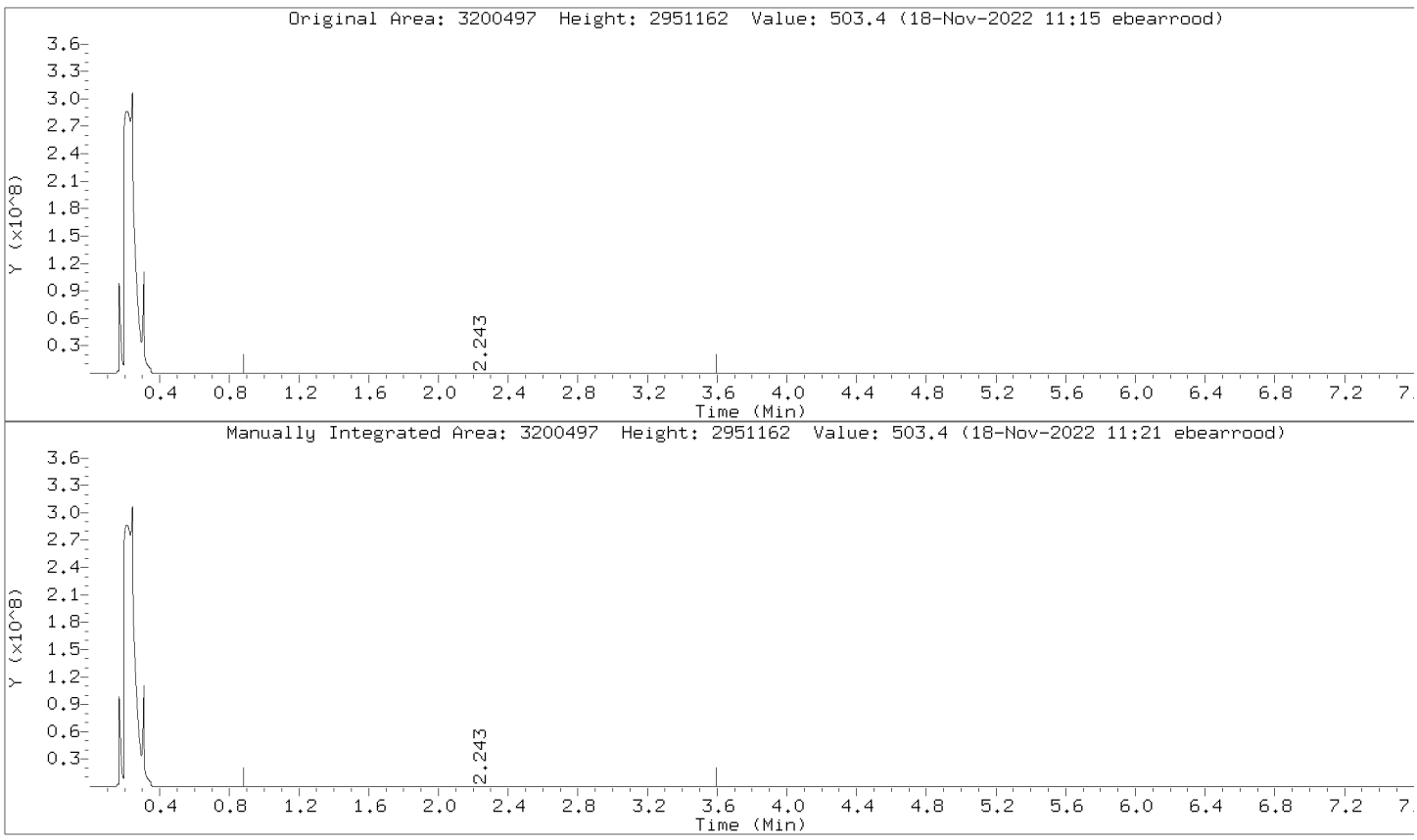
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



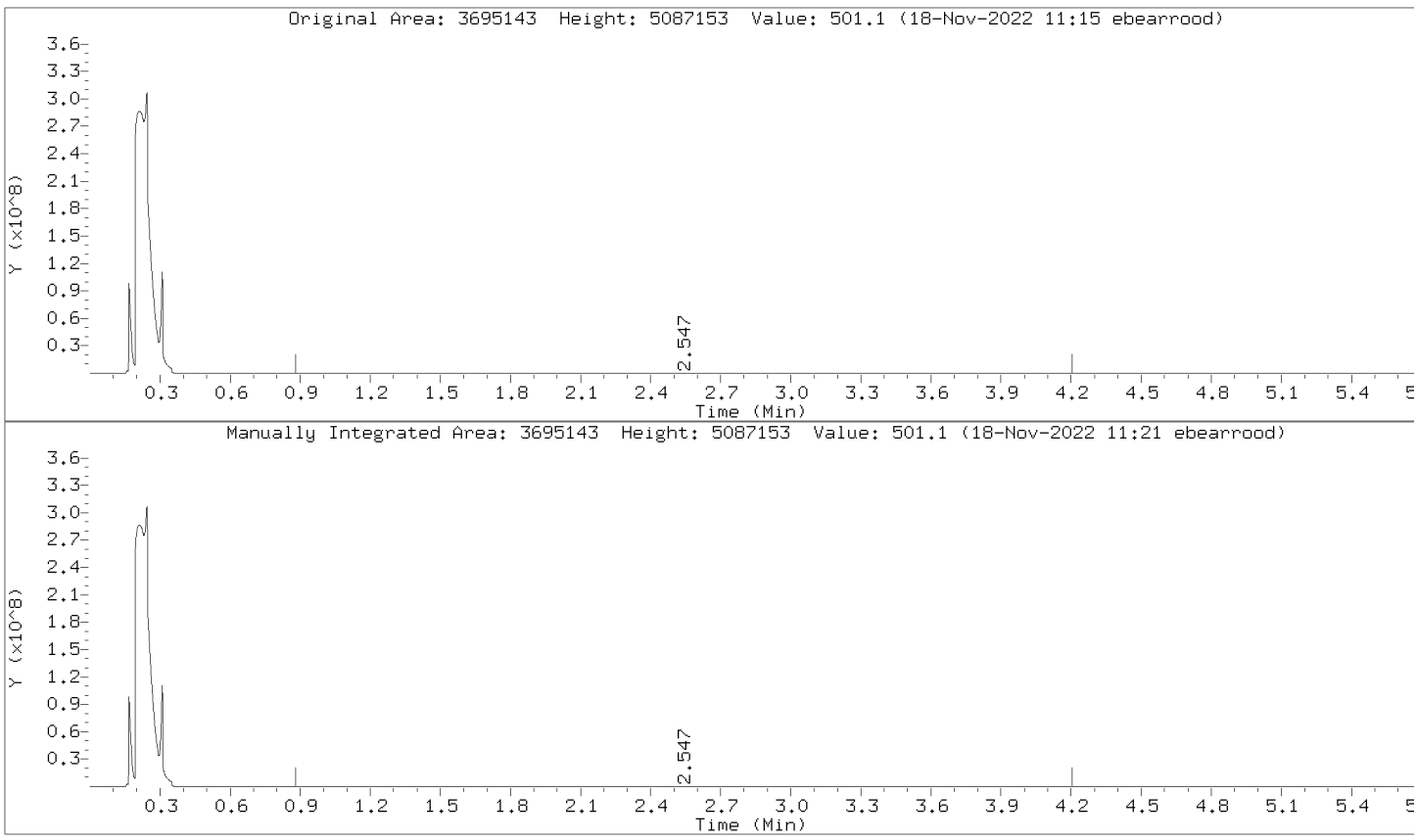
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



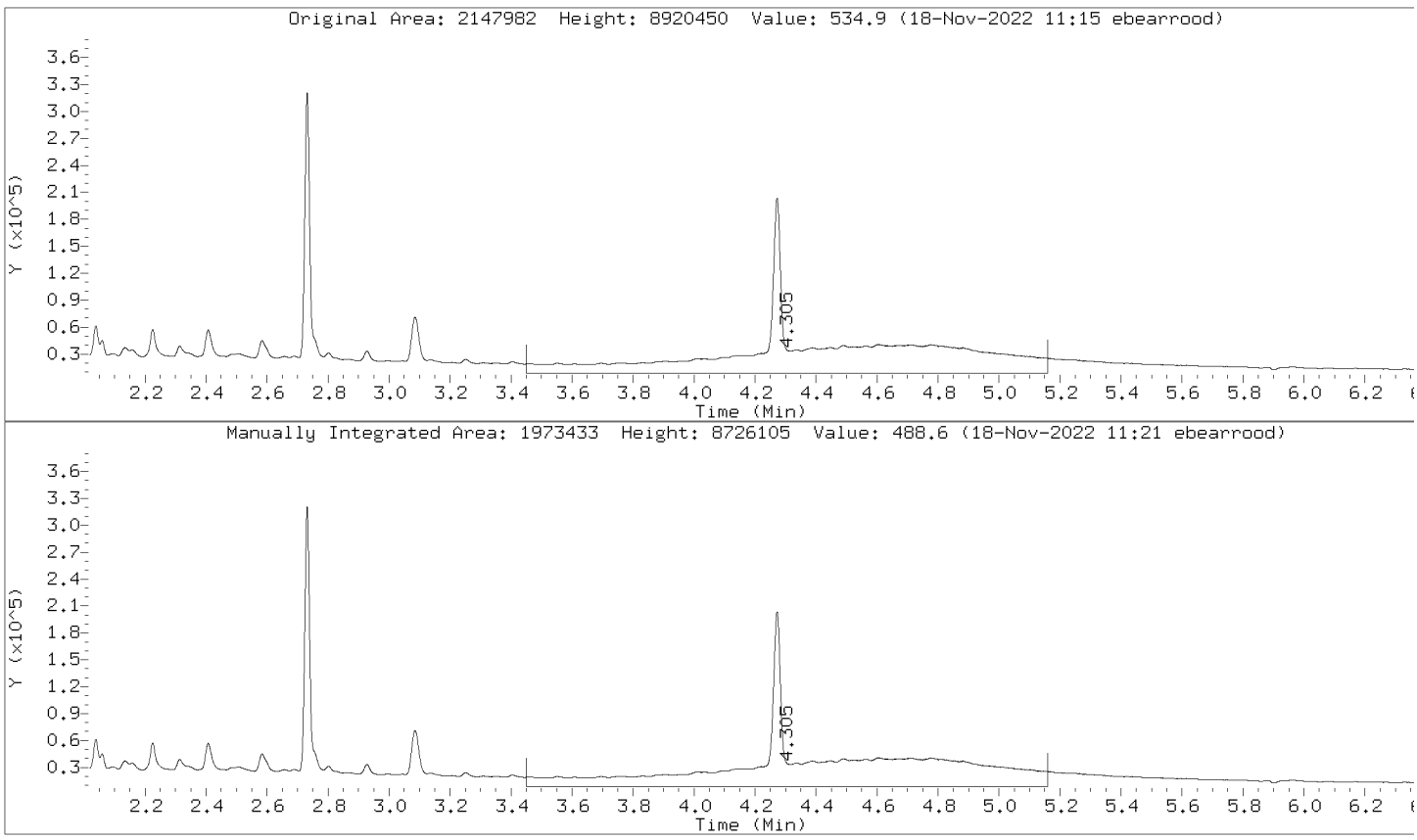
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



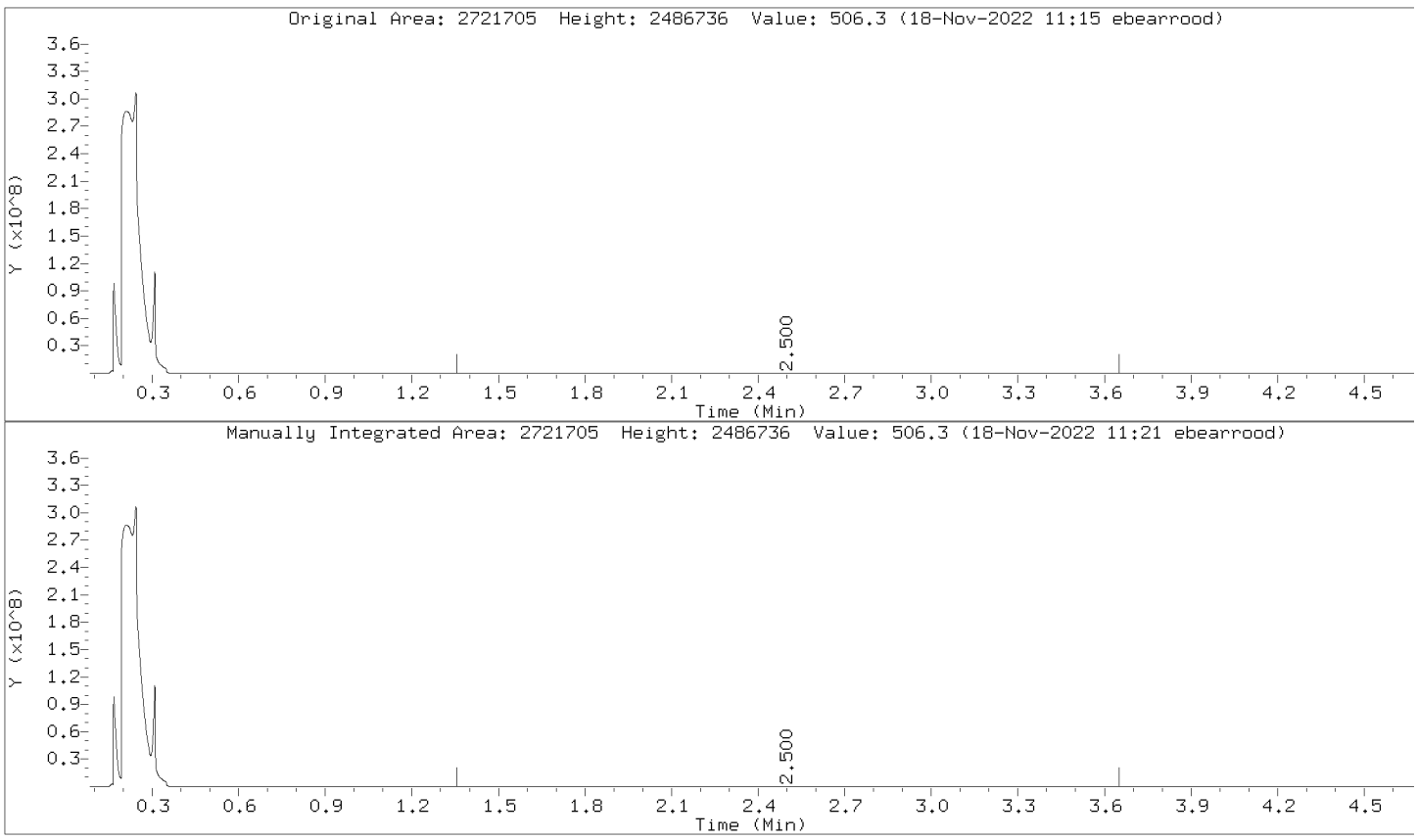
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



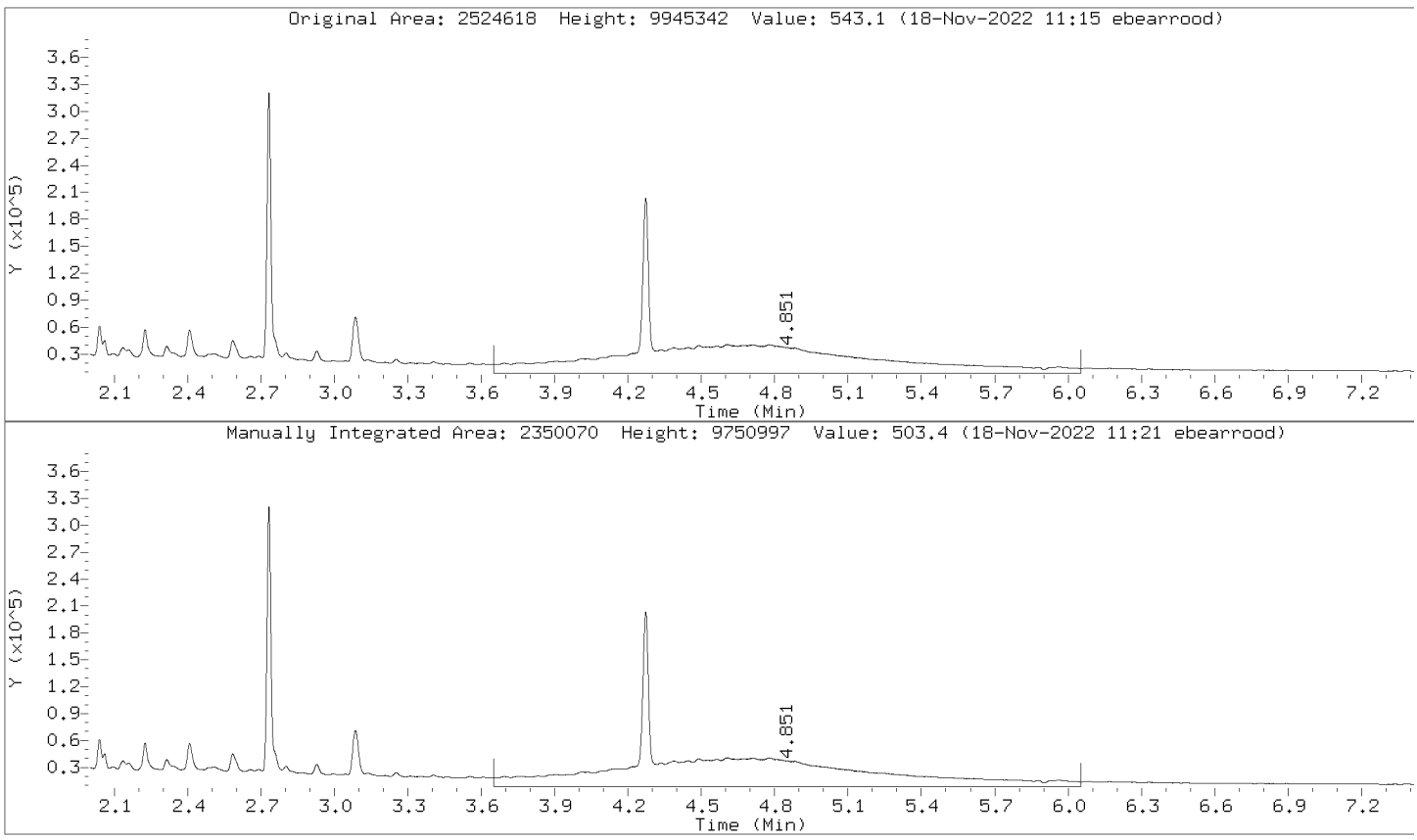
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



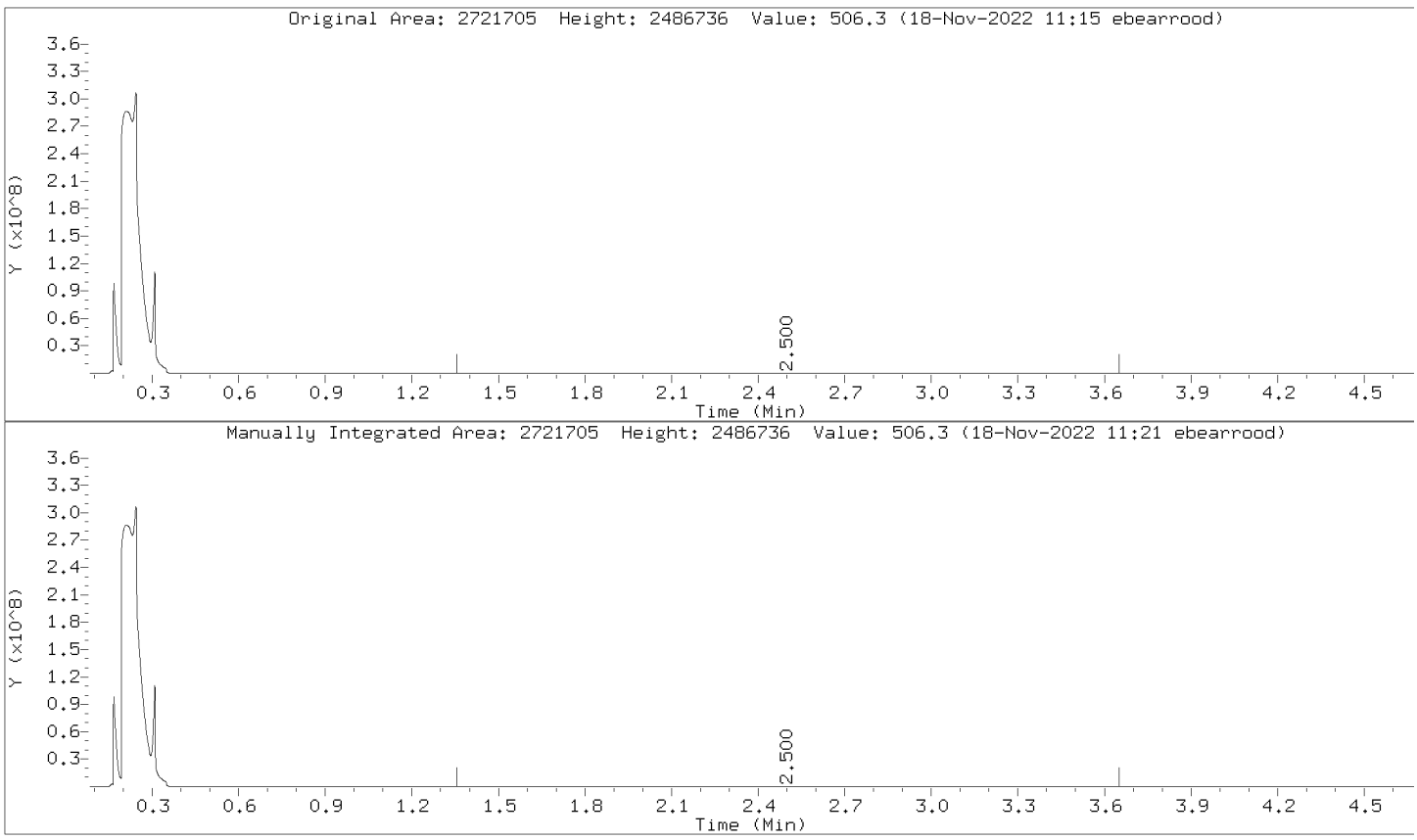
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



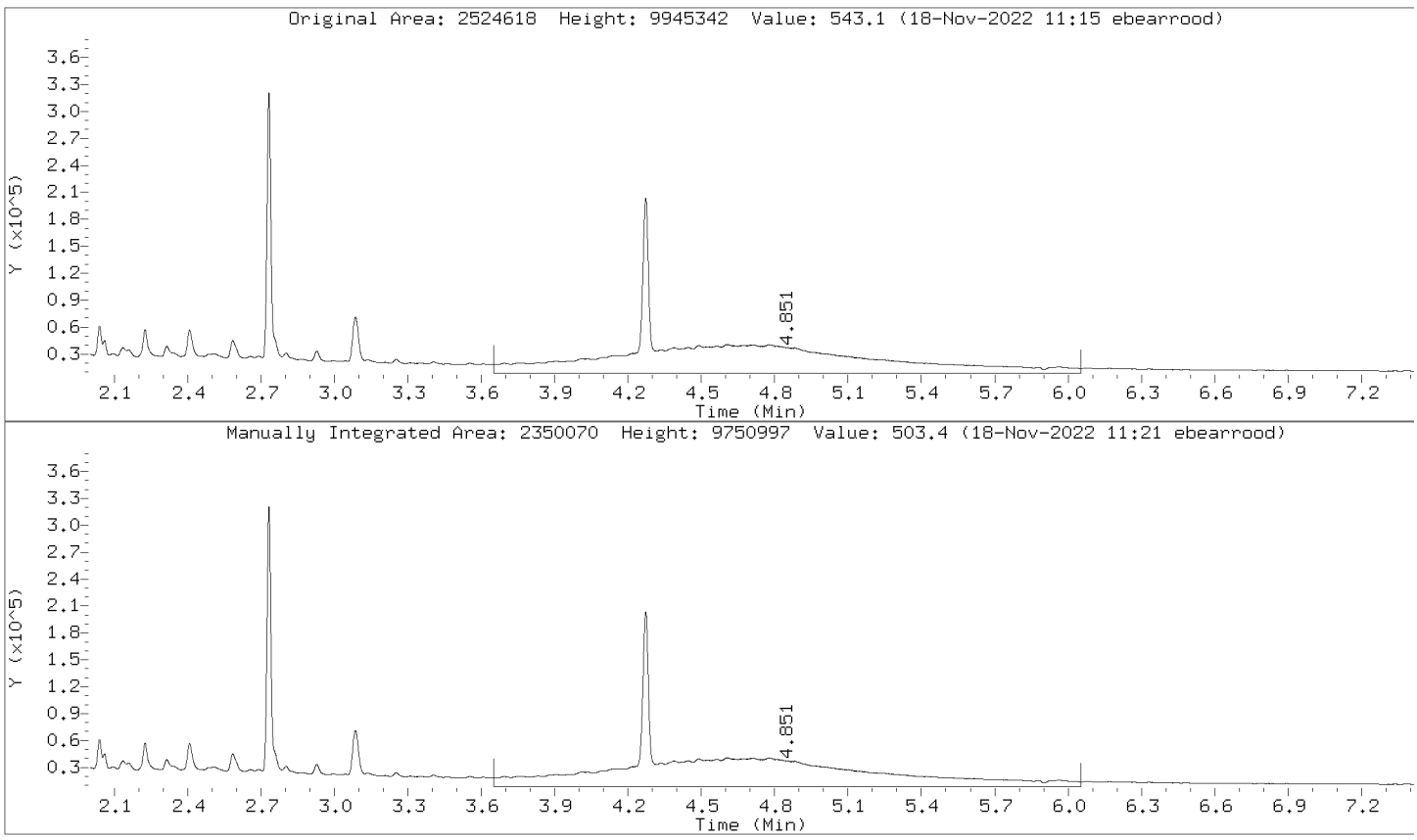
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



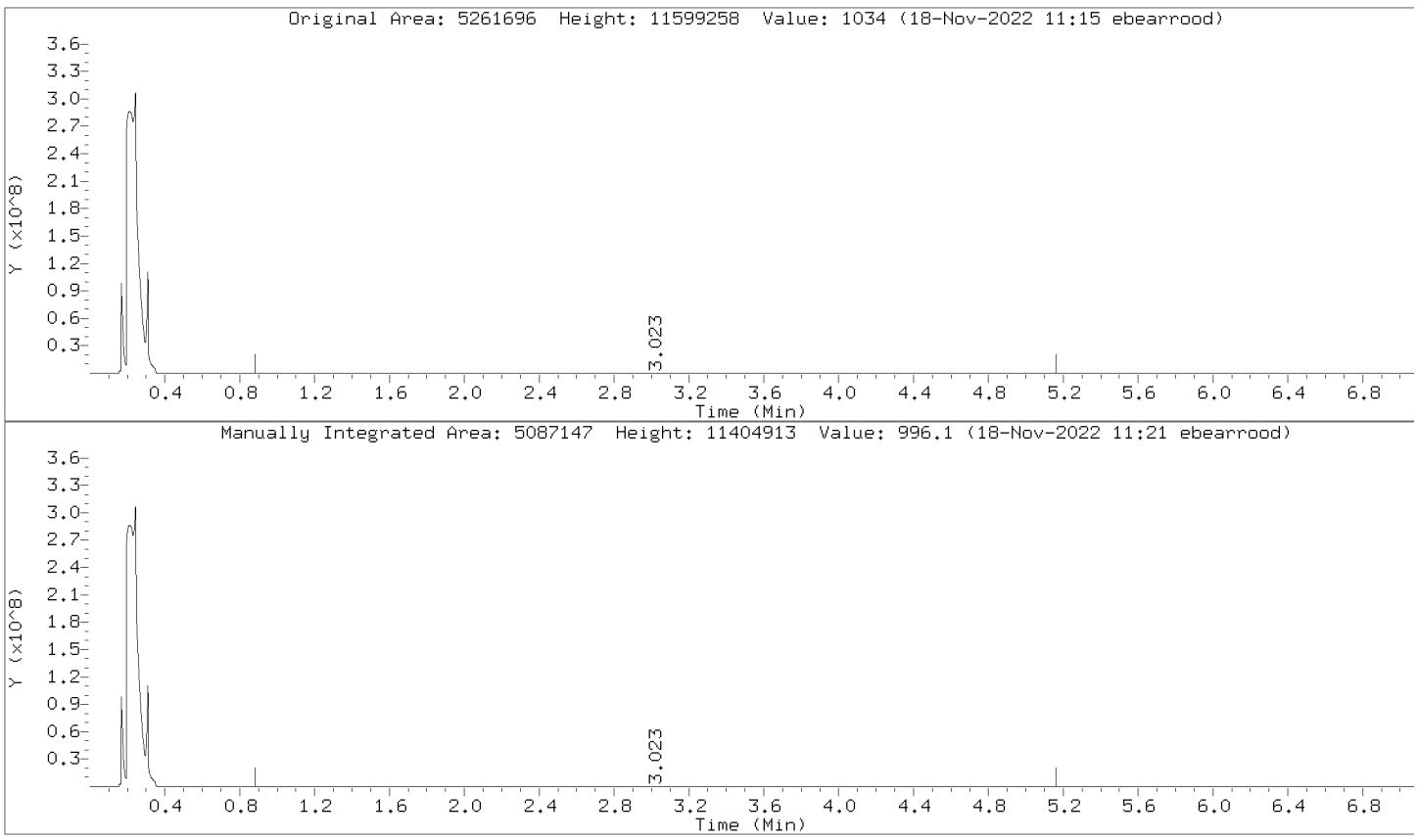
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



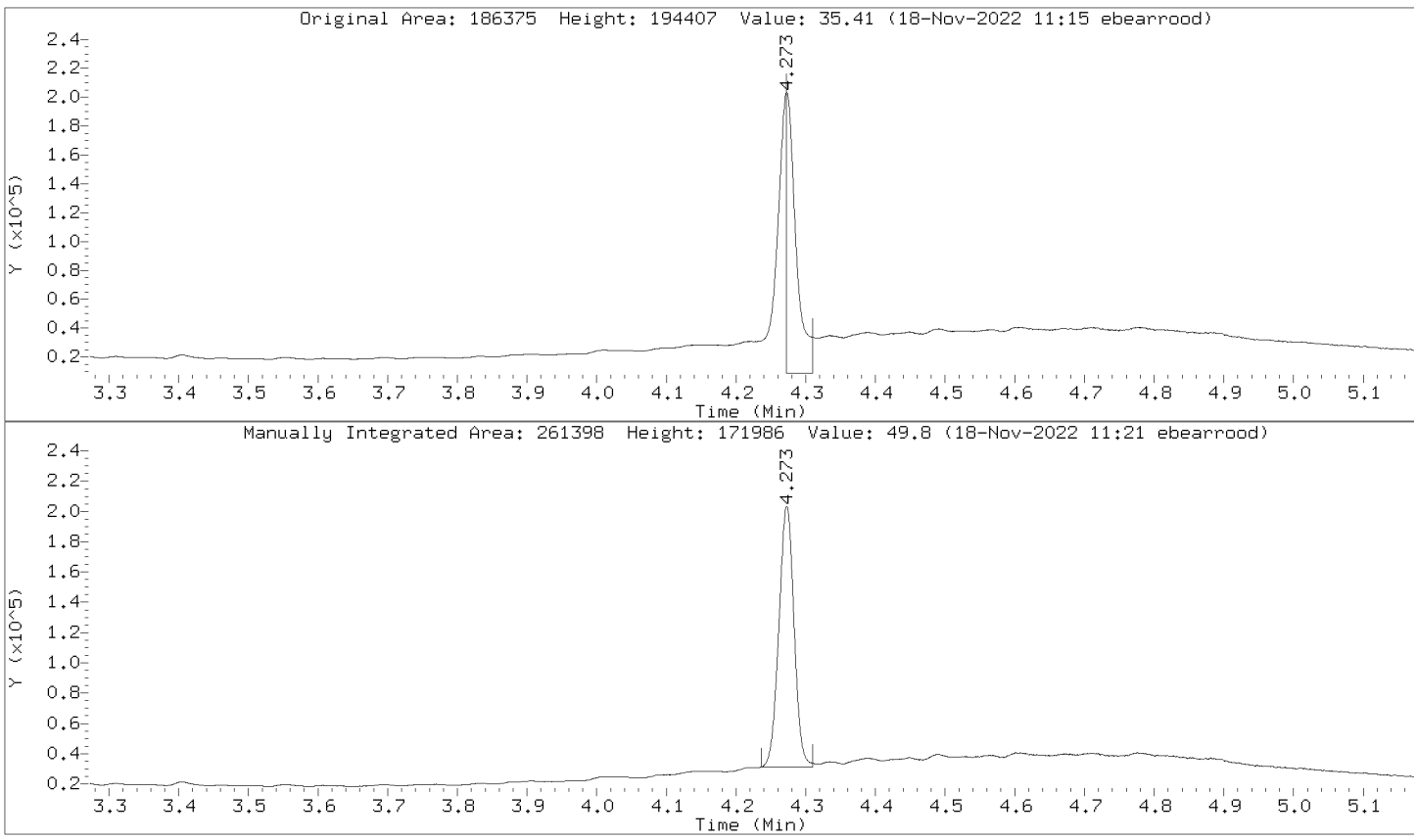
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



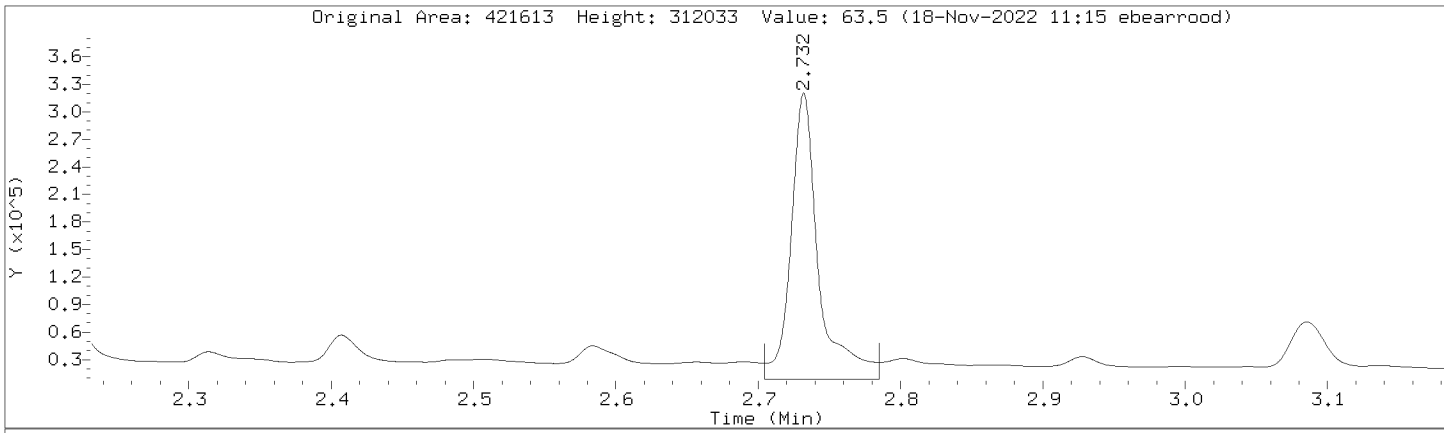
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

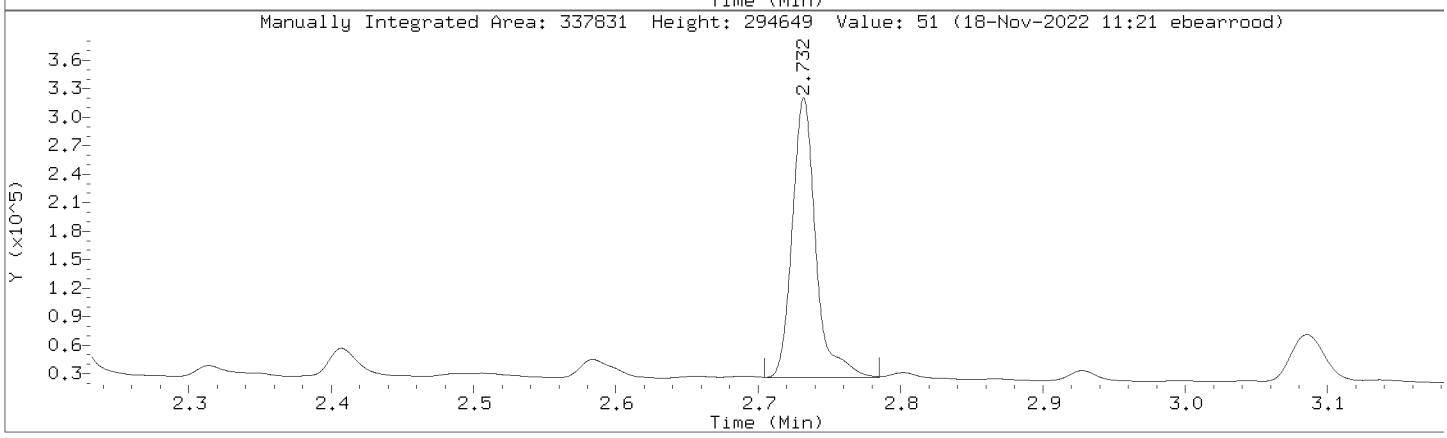
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000049C.d
Injection Date: 17-NOV-2022 20:07
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2061198	1886649
DRO by AK 102	3200497	3200497
TPH-DRO (C10-C28)	3695143	3695143
Motor Oil Range (C24-C36)	2147982	1973433
Diesel Fuel Range	2721705	2721705
Motor Oil Range	2524618	2350070
Diesel Fuel Range SG	2721705	2721705
Motor Oil Range SG	2524618	2350070
C10-C36	5261696	5087147
n-Triacontane (S)	186375	261398
o-Terphenyl (S)	421613	337831

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Solid
SDG No.: 10633981
Date Extracted: 11/16/2022 13:13
Lab Sample ID: 4514590
Date Analyzed: 11/17/2022 17:16
Lab File ID: 111722R.B\1117R0000034.D
Initial wt/vol: 10 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000034.d
Lab Smp Id: 4514590 Client Smp ID: MB
Inj Date : 17-NOV-2022 17:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514590
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 31 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S	1 DRO by AK 102					CAS #:		
	0.885 - 3.600			413766	11.0593	1.10	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.732	2.731	0.001	277156	41.9588	4.20	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.277	4.272	0.005	229969	43.7736	4.38	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.601 - 5.160			192878	21.6018	2.16	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.885 - 4.210			481433	12.3802	1.24	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.160			210418	21.0636	2.11	(M)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(mg/Kg)	REVIEW CODE	
S 7 C10-C36					CAS #:		
0.885	- 5.160		606645	30.4461	3.04	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		350138	8.69459	0.869	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		350138	8.69459	0.869	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		280224	31.6762	3.17	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		280224	31.6762	3.17	(M)	RNG

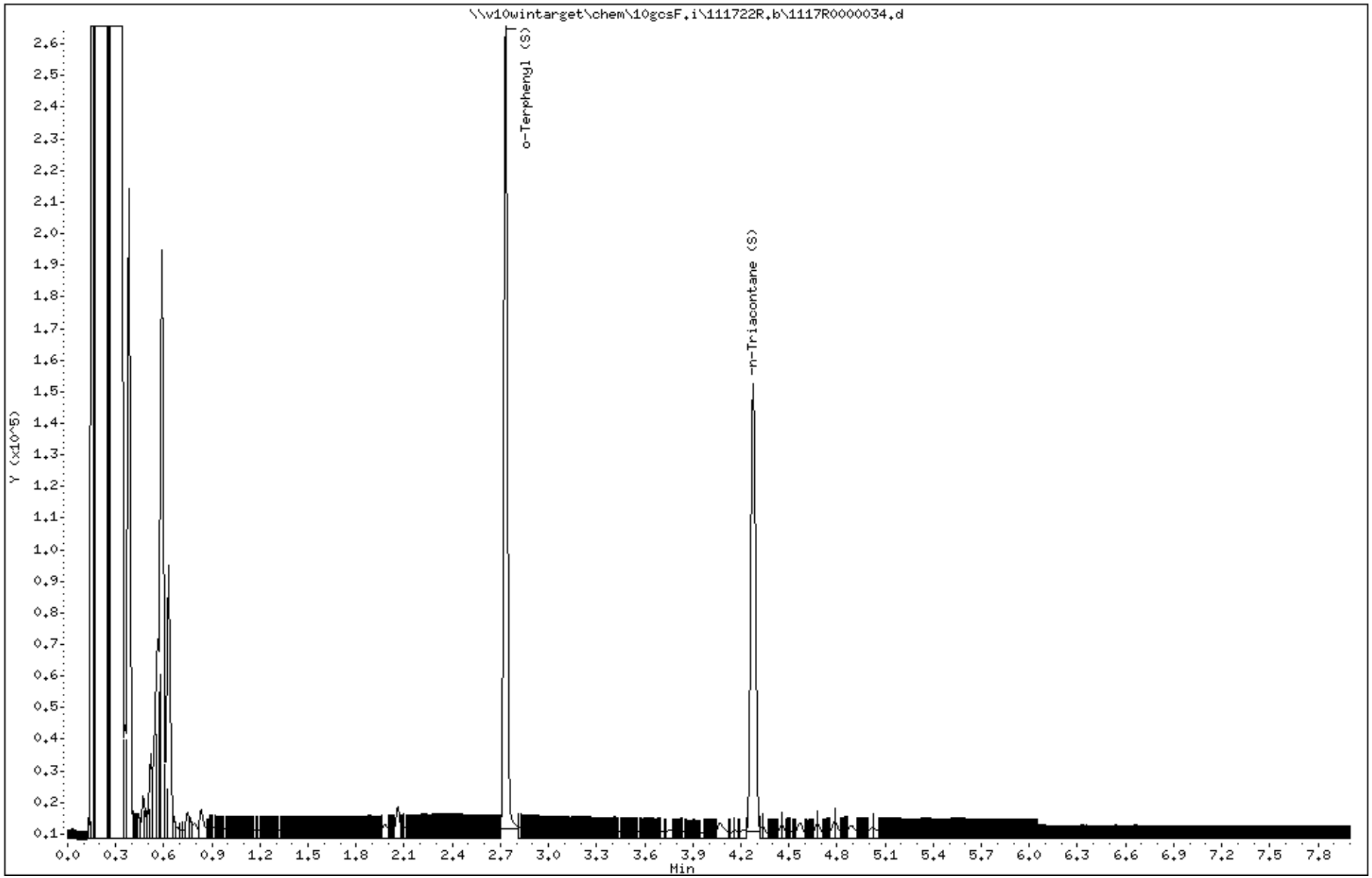
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

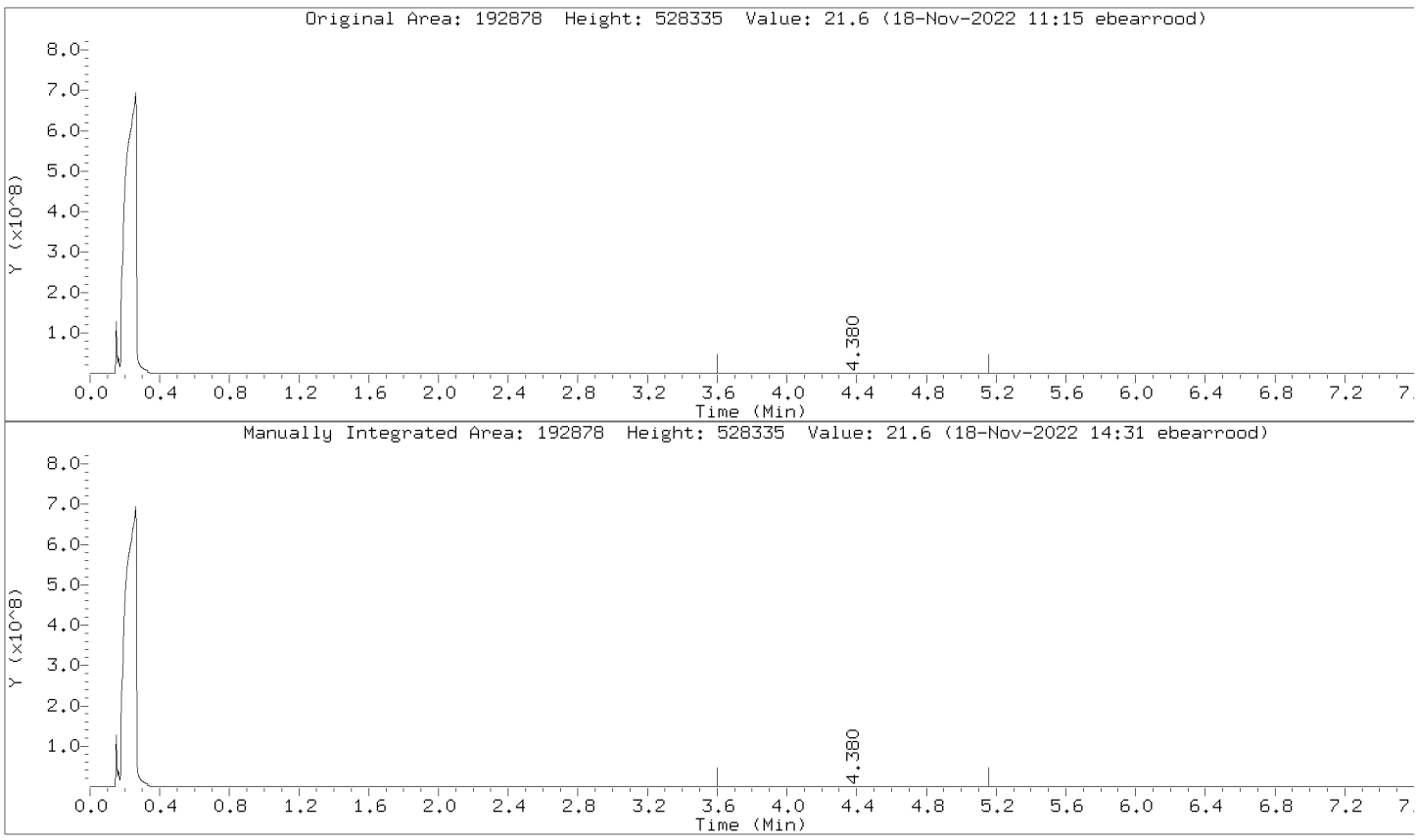
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000034.d
Date : 17-NOV-2022 17:16
Client ID: MB
Instrument: 10gcsF.i
Sample Info: 4514590
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



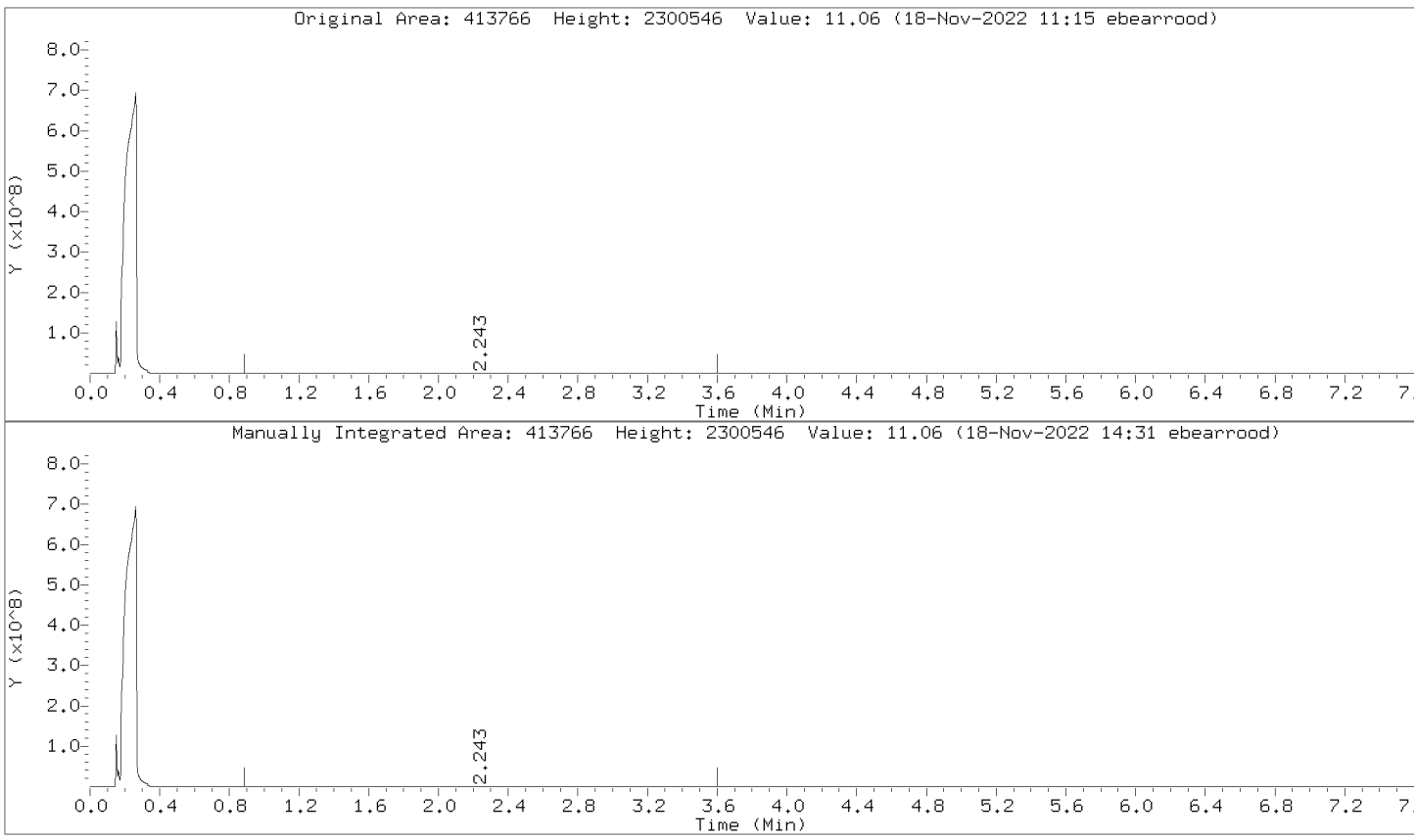
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



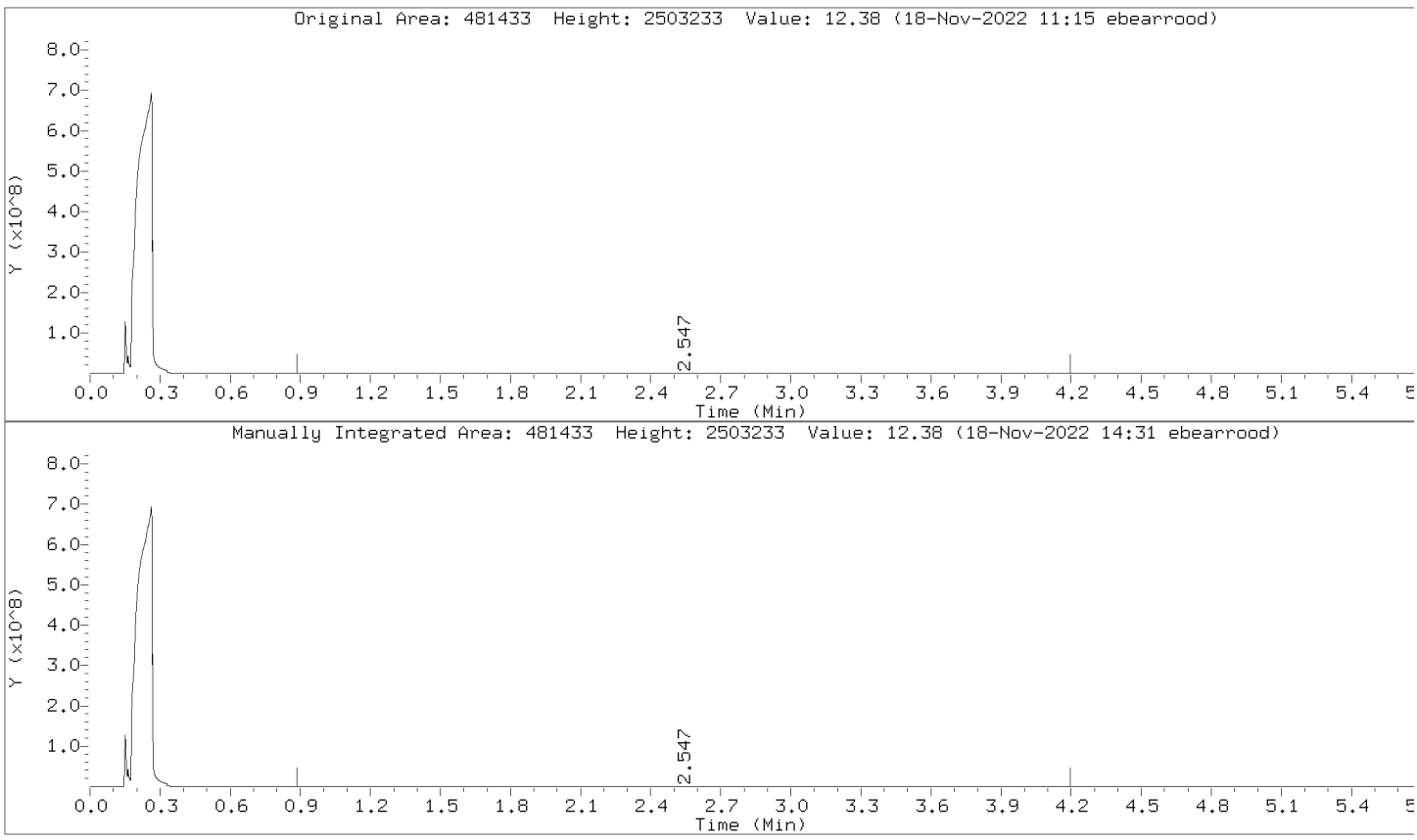
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



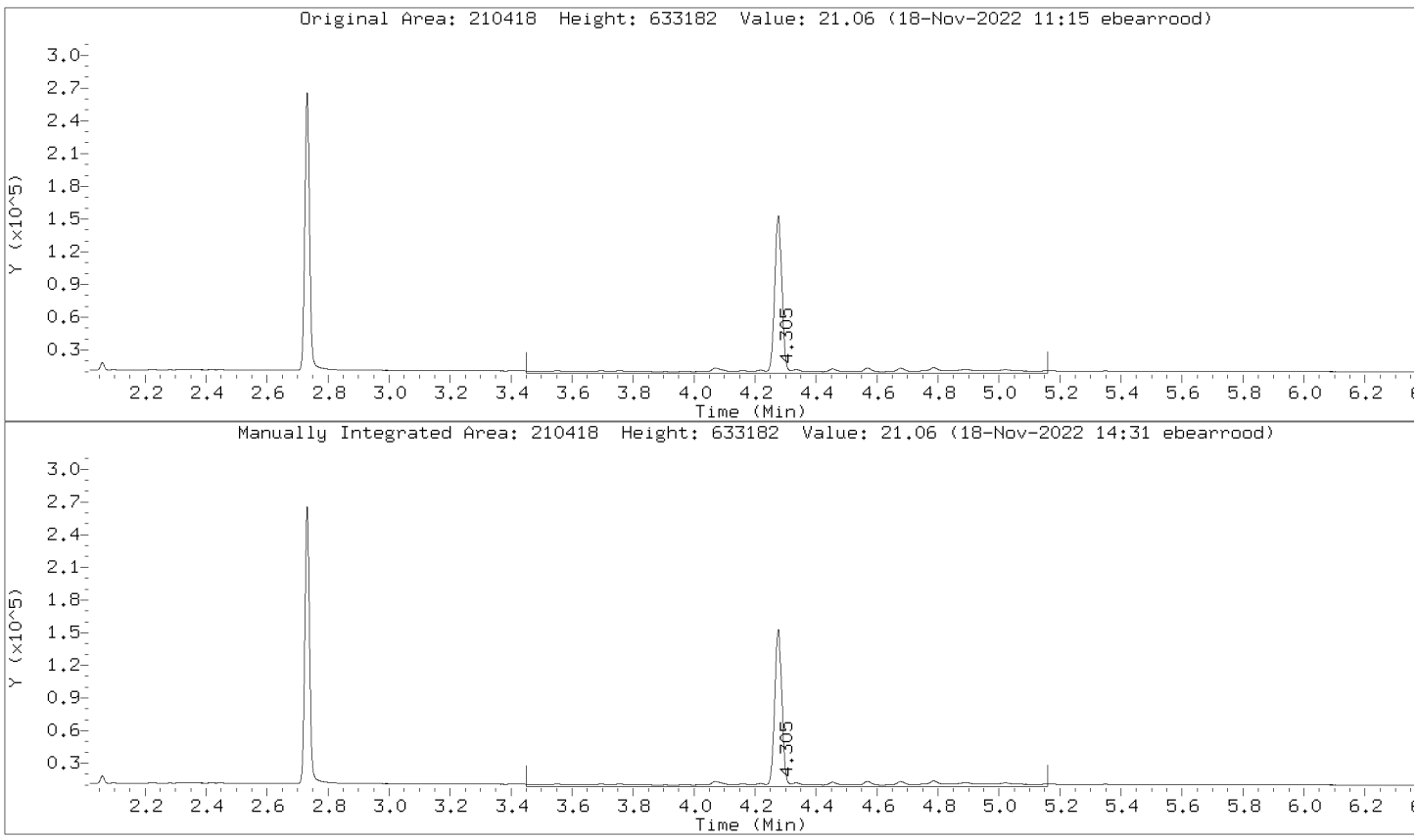
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



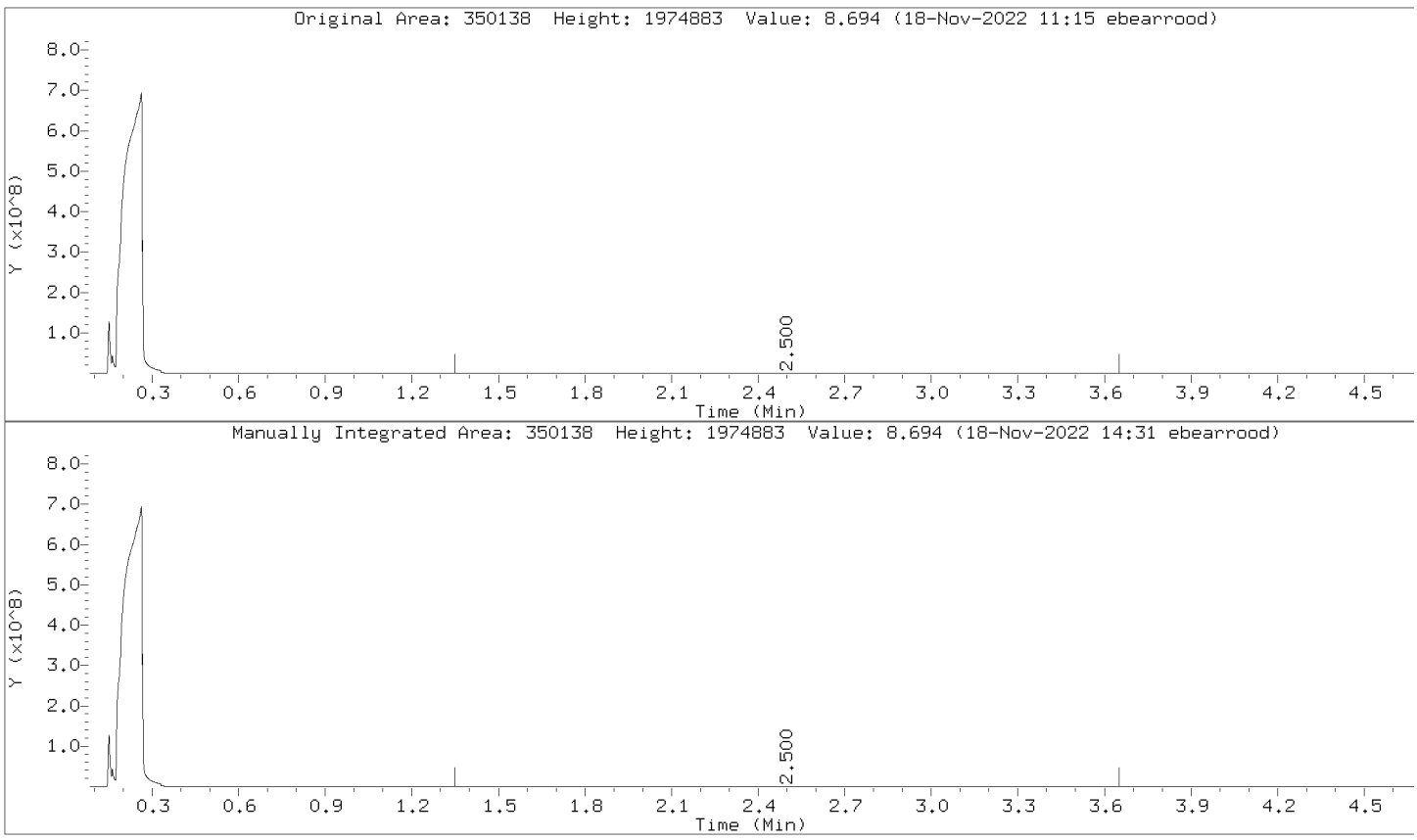
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



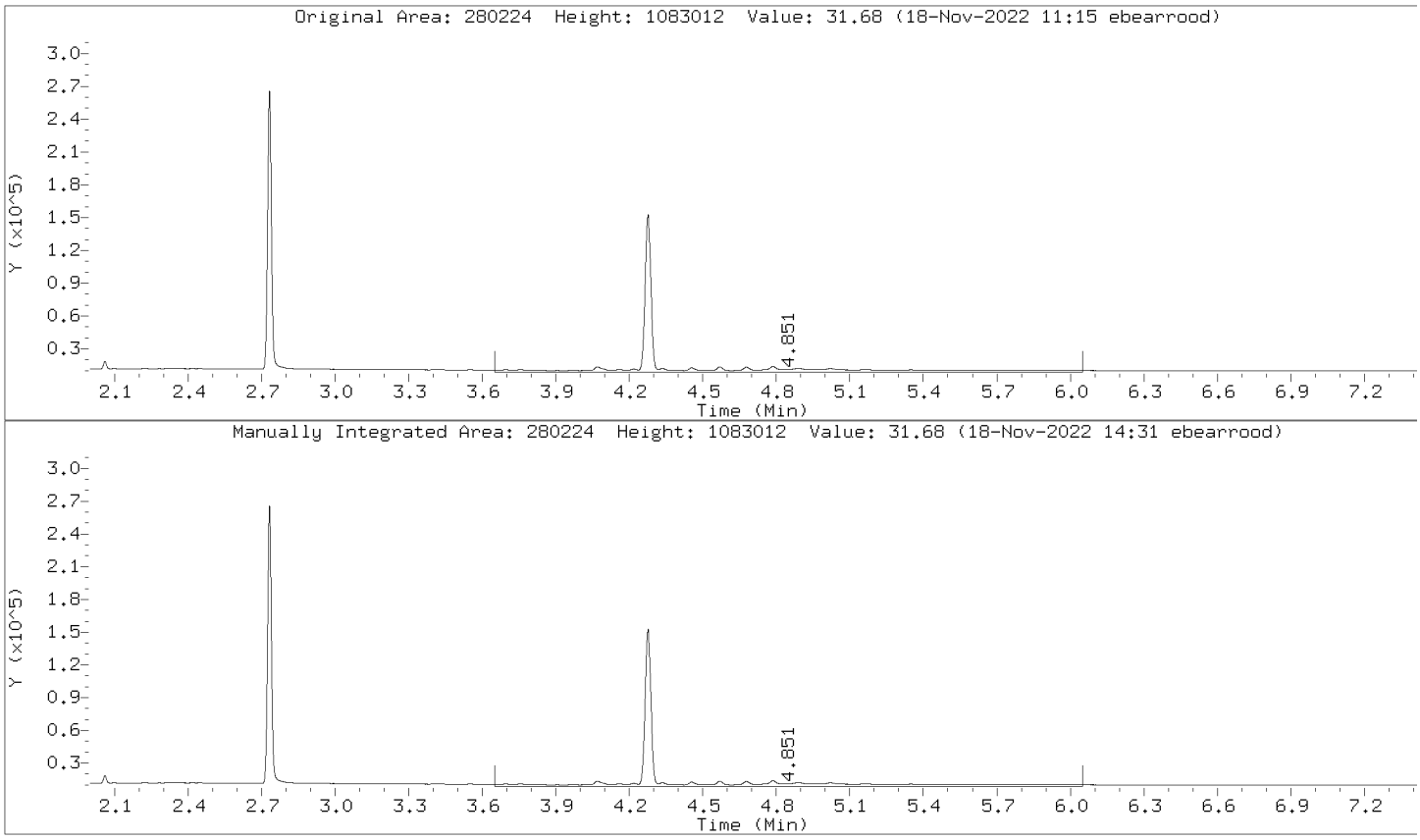
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



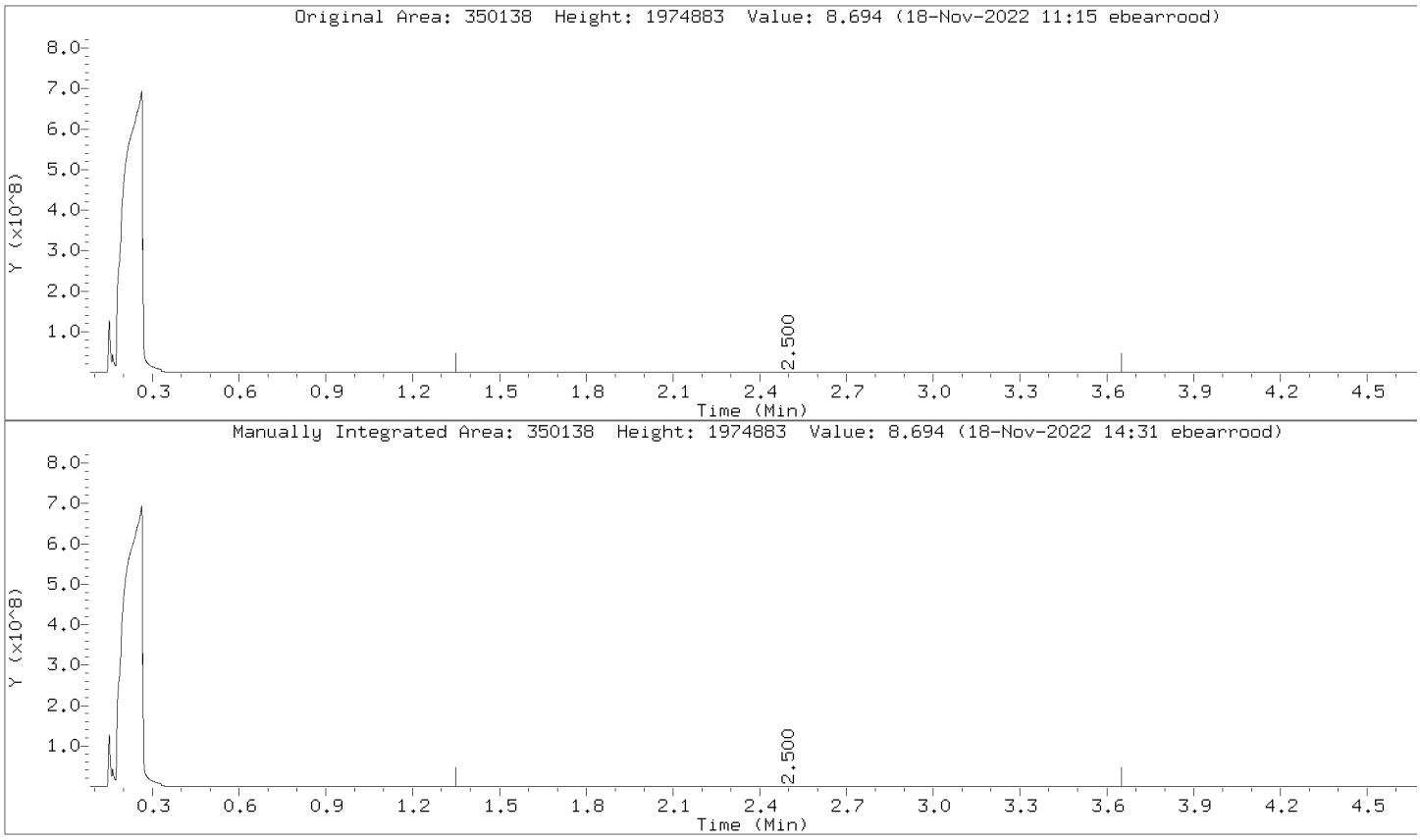
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Motor Oil Range Review Code: RNG
CAS Number:



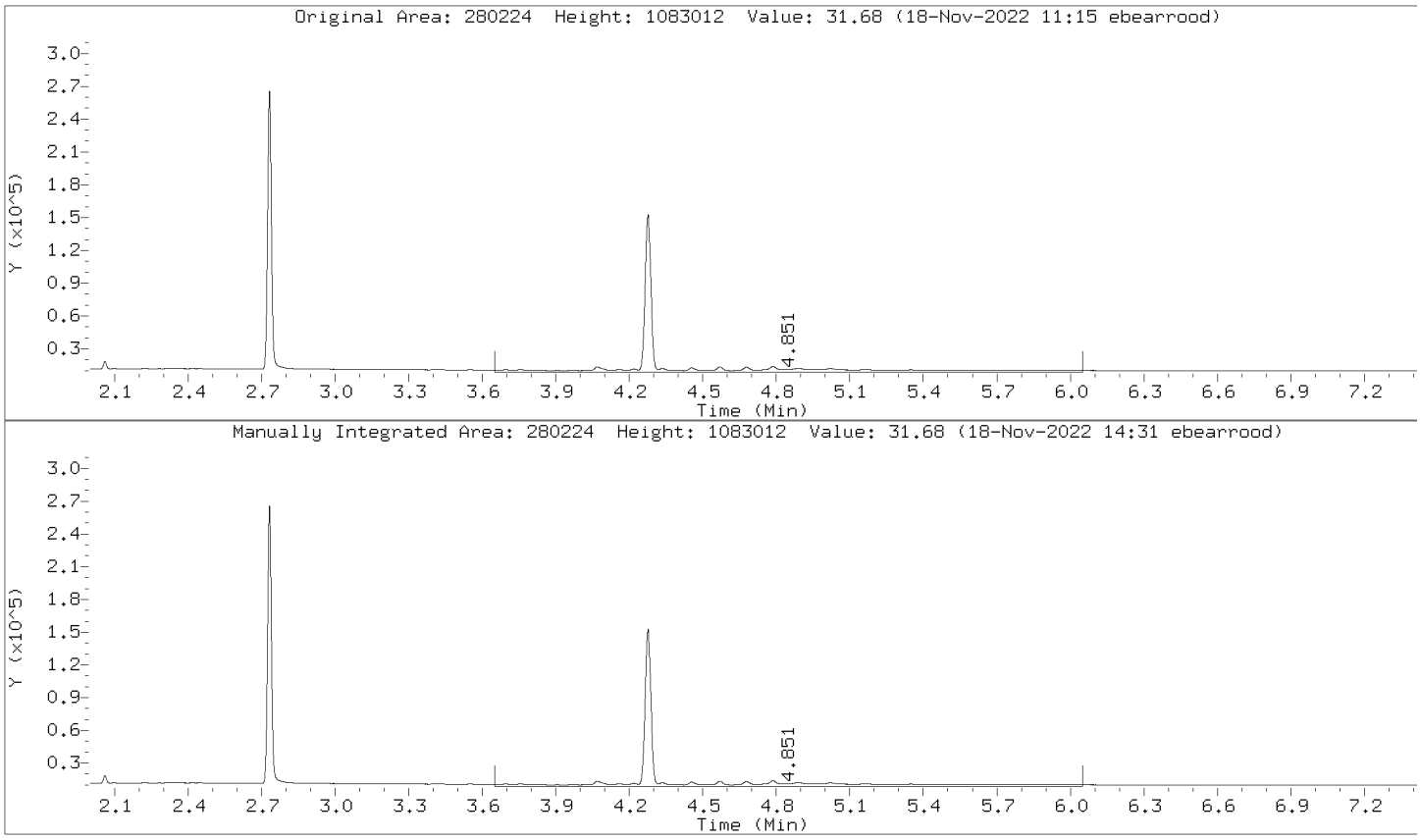
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



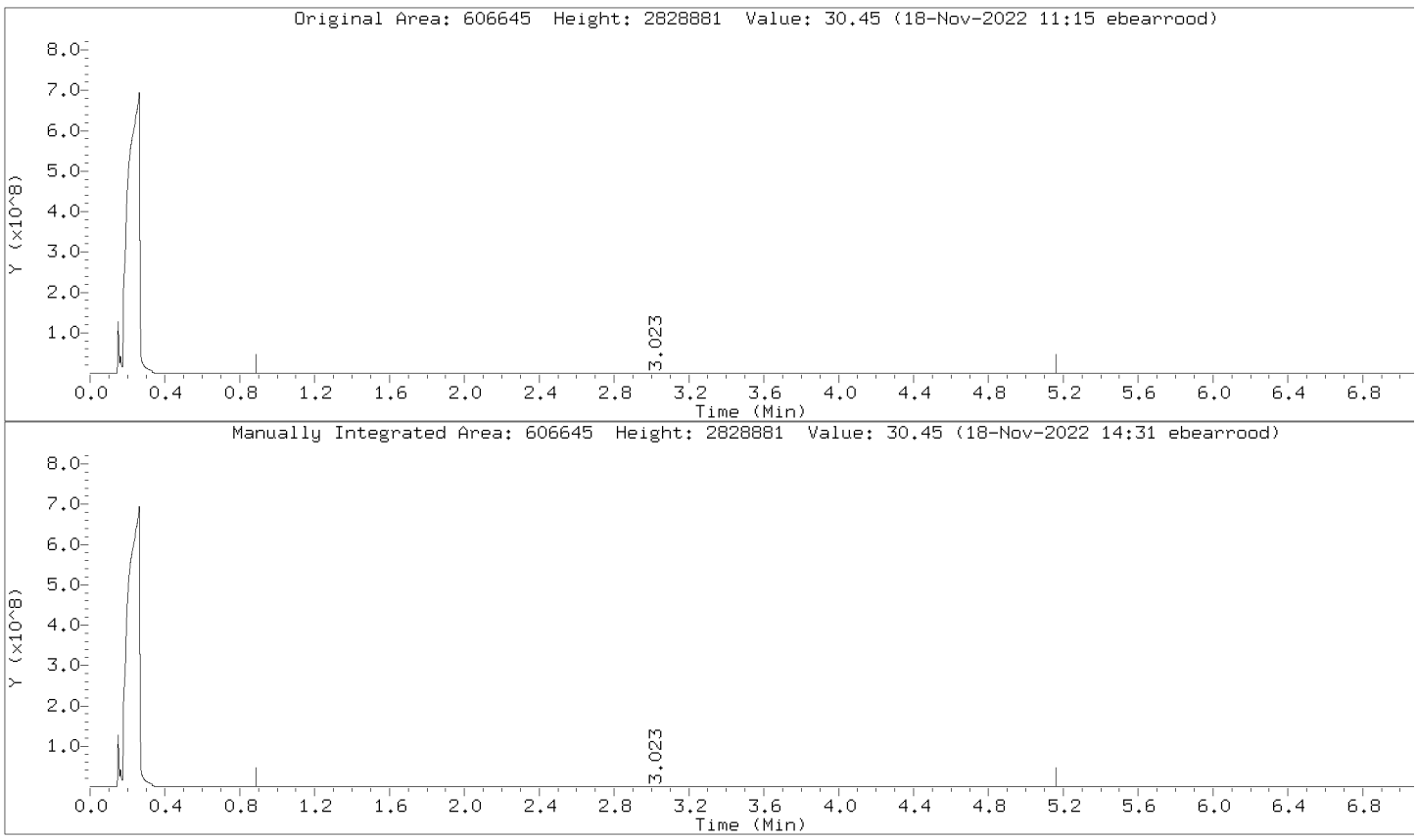
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



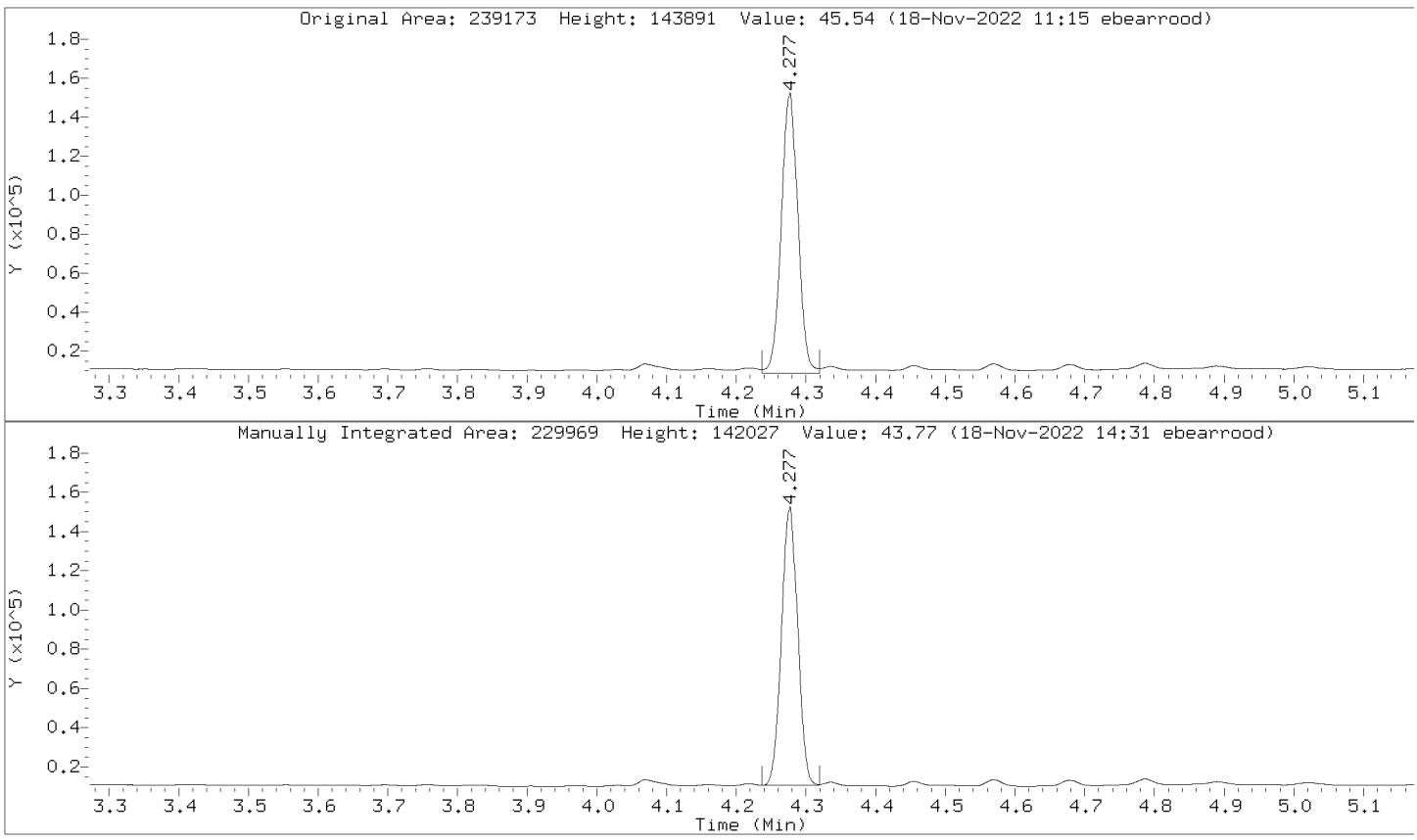
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: C10-C36 Review Code: RNG
CAS Number:



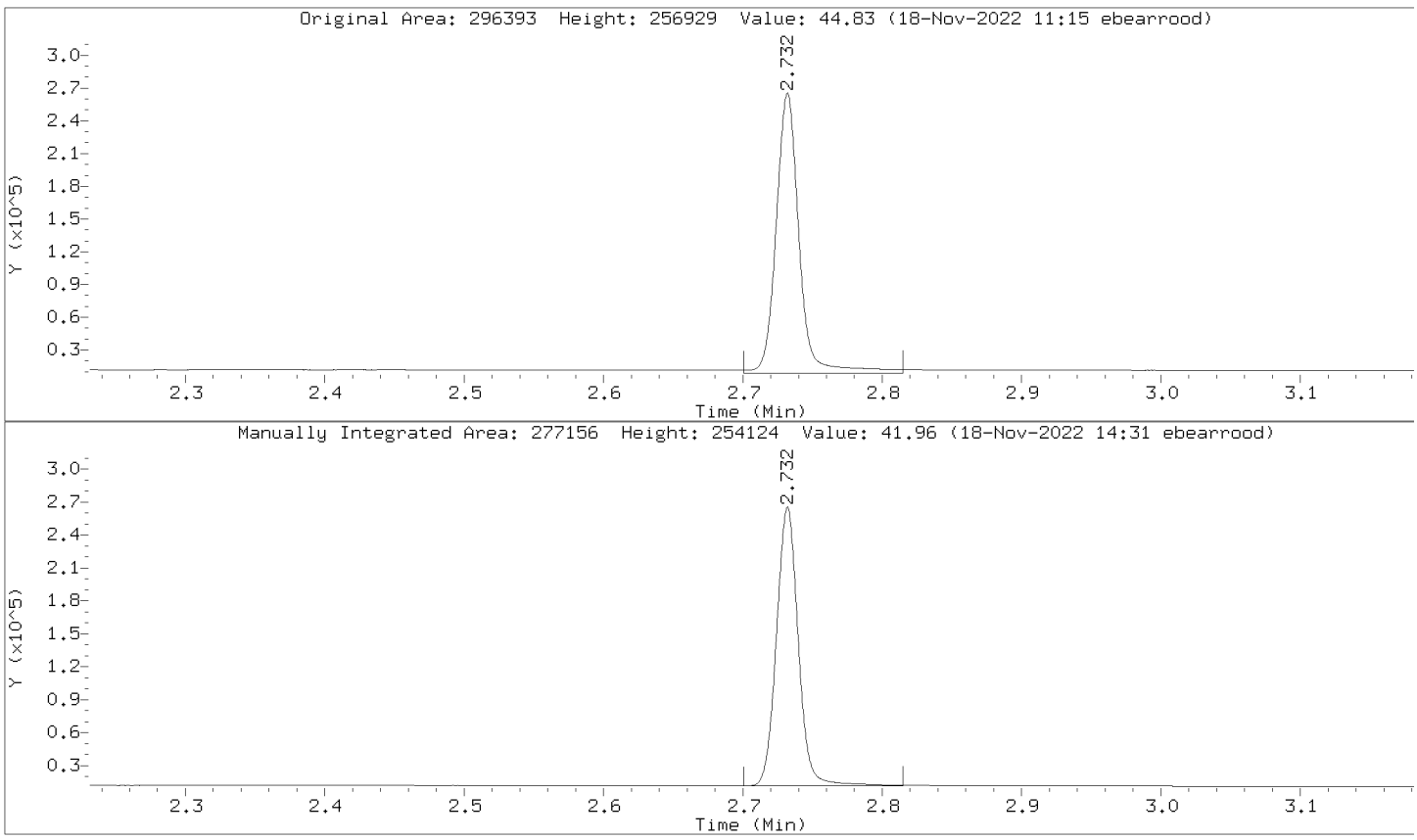
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000034.d
Injection Date: 17-NOV-2022 17:16
Instrument: 10gcsF.i
Lab Sample ID: 4514590

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	192878	192878
DRO by AK 102	413766	413766
TPH-DRO (C10-C28)	481433	481433
Motor Oil Range (C24-C36)	210418	210418
Diesel Fuel Range	350138	350138
Motor Oil Range	280224	280224
Diesel Fuel Range SG	350138	350138
Motor Oil Range SG	280224	280224
C10-C36	606645	606645
n-Triacontane (S)	239173	229969
o-Terphenyl (S)	296393	277156

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Solid SDG No.: 10633981
Date Extracted: 11/16/2022 13:13 Lab Sample ID: 4514591
Date Analyzed: 11/17/2022 17:28 Lab File ID: 111722R.B\1117R0000035.D
Initial wt/vol: 10 g Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	43.0	
	Motor Oil Range	46.8	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000035.d
Lab Smp Id: 4514591 Client Smp ID: MBLCS
Inj Date : 17-NOV-2022 17:28
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514591
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 32 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.000	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885 - 3.600			2612420	399.536	40.0	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.731	0.001	281453	42.5995	4.26	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.272	0.002	224155	42.6587	4.26	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601 - 5.160			1758304	456.690	45.7	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885 - 4.210			3085513	408.408	40.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.160			1845700	454.721	45.5	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)		REVIEW CODE
S 7 C10-C36					CAS #:		
0.885	- 5.160		4370724	841.673	84.2	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2357216	429.801	43.0	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2357216	429.801	43.0	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		2193993	467.787	46.8	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		2193993	467.787	46.8	(M)	RNG

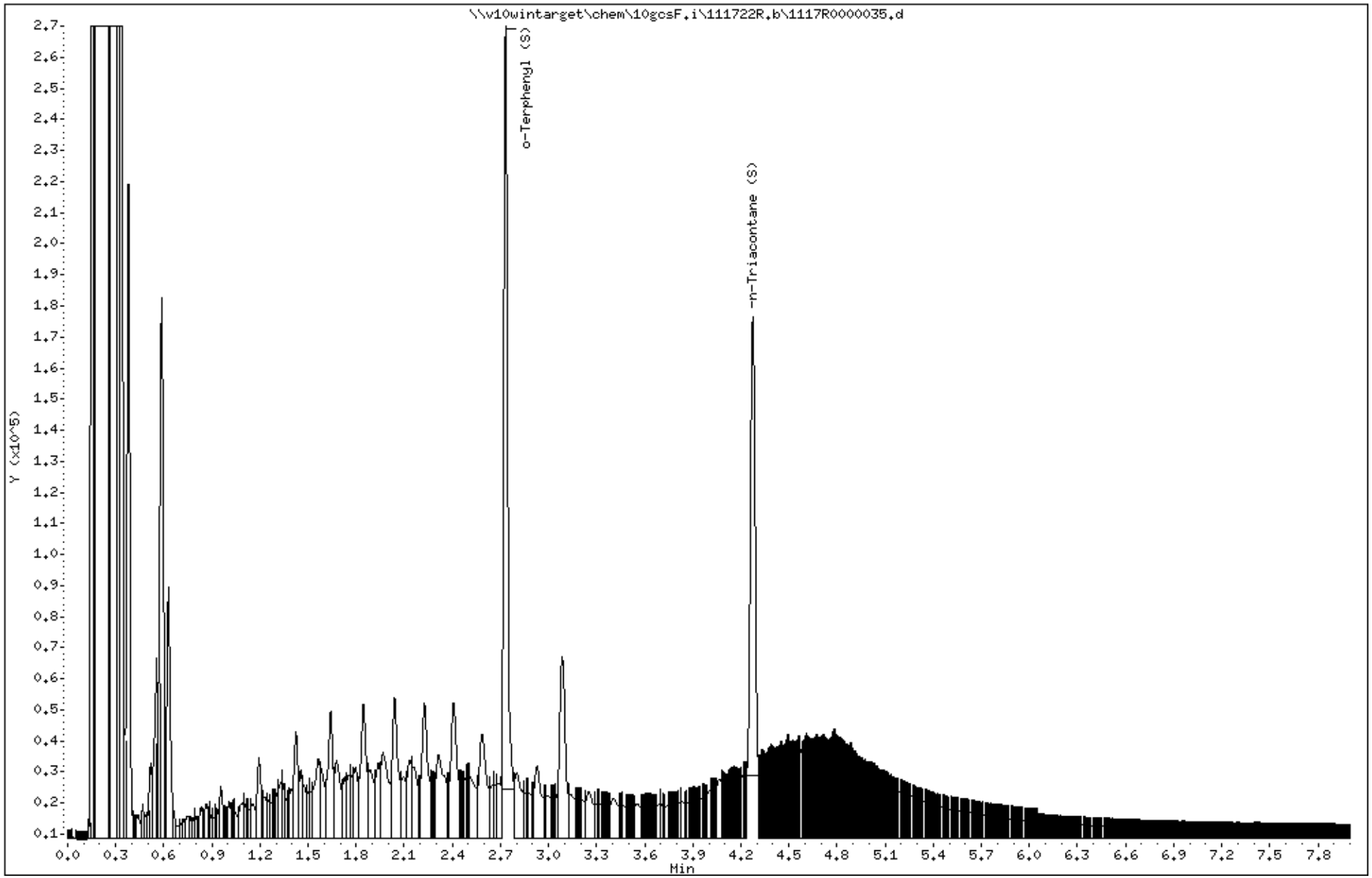
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

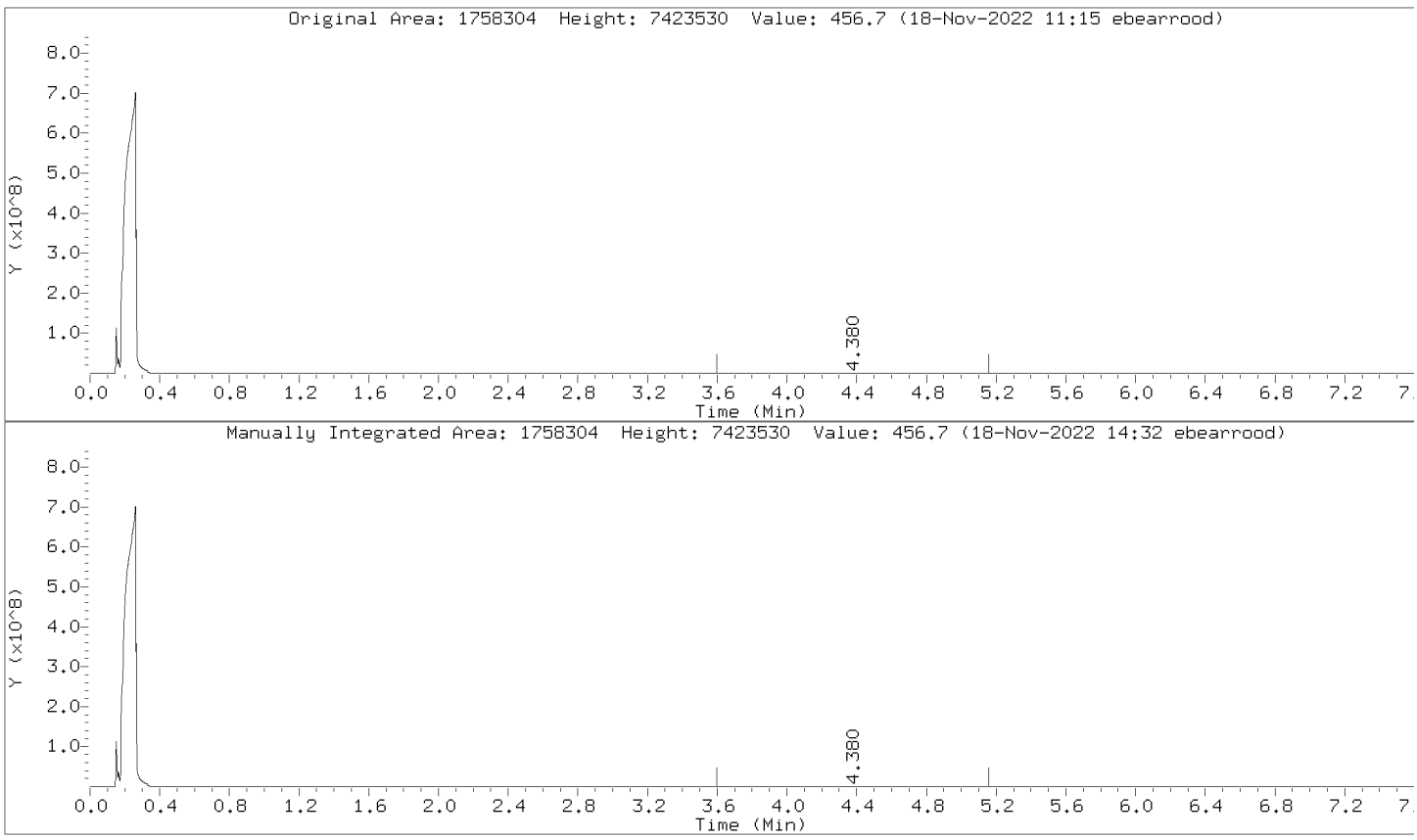
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000035.d
Date : 17-NOV-2022 17:28
Client ID: MBLCS
Instrument: 10gcsF.i
Sample Info: 4514591
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



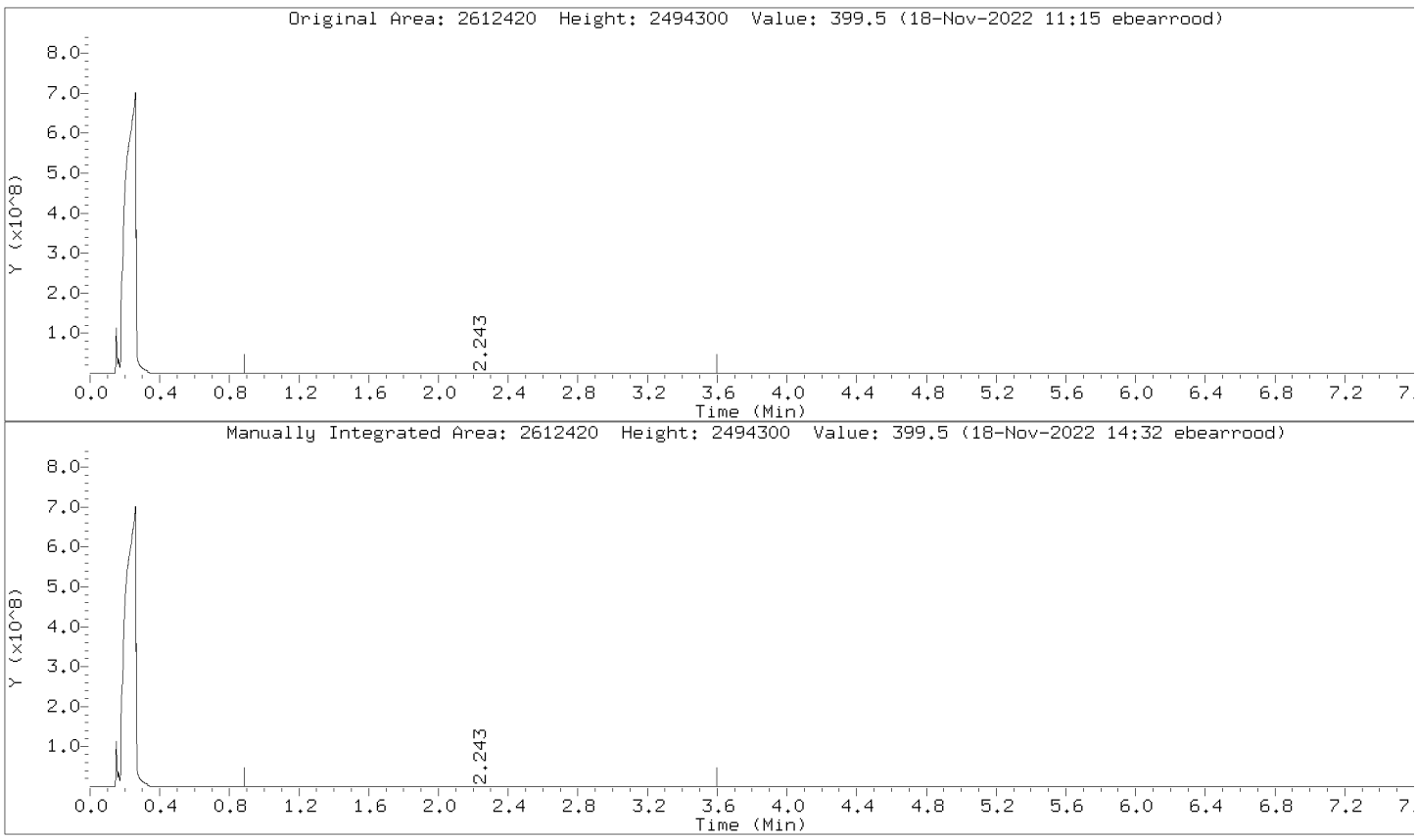
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



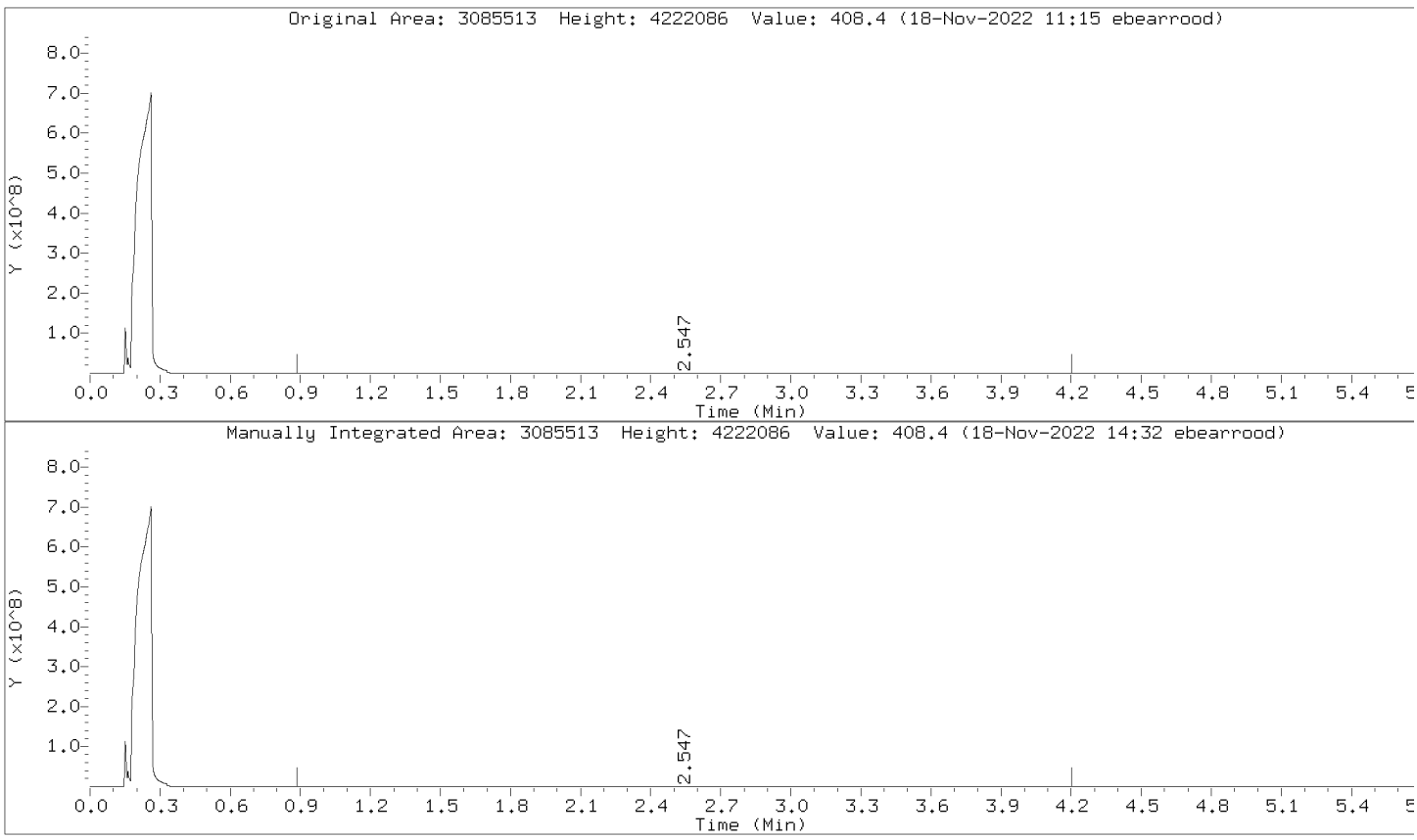
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



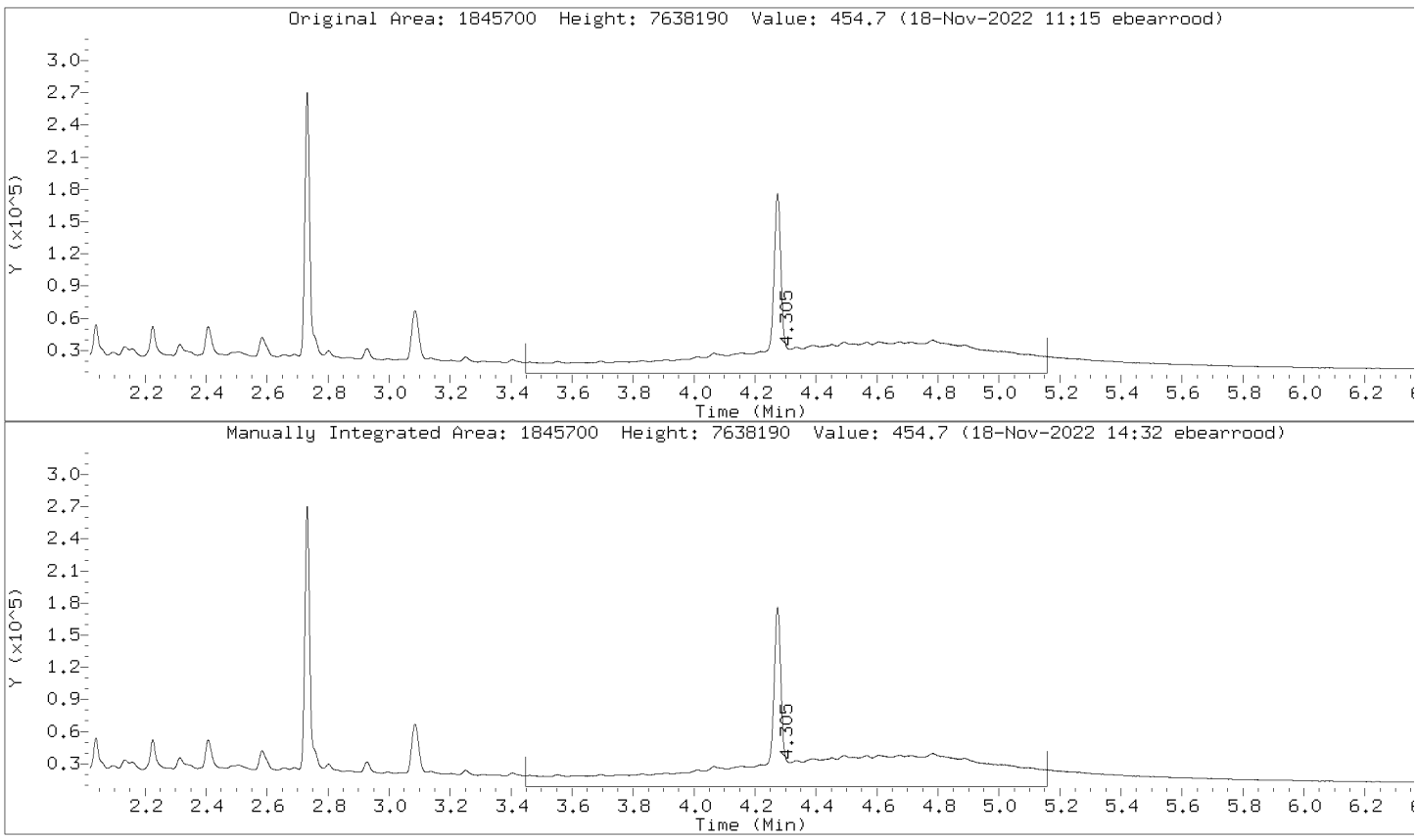
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



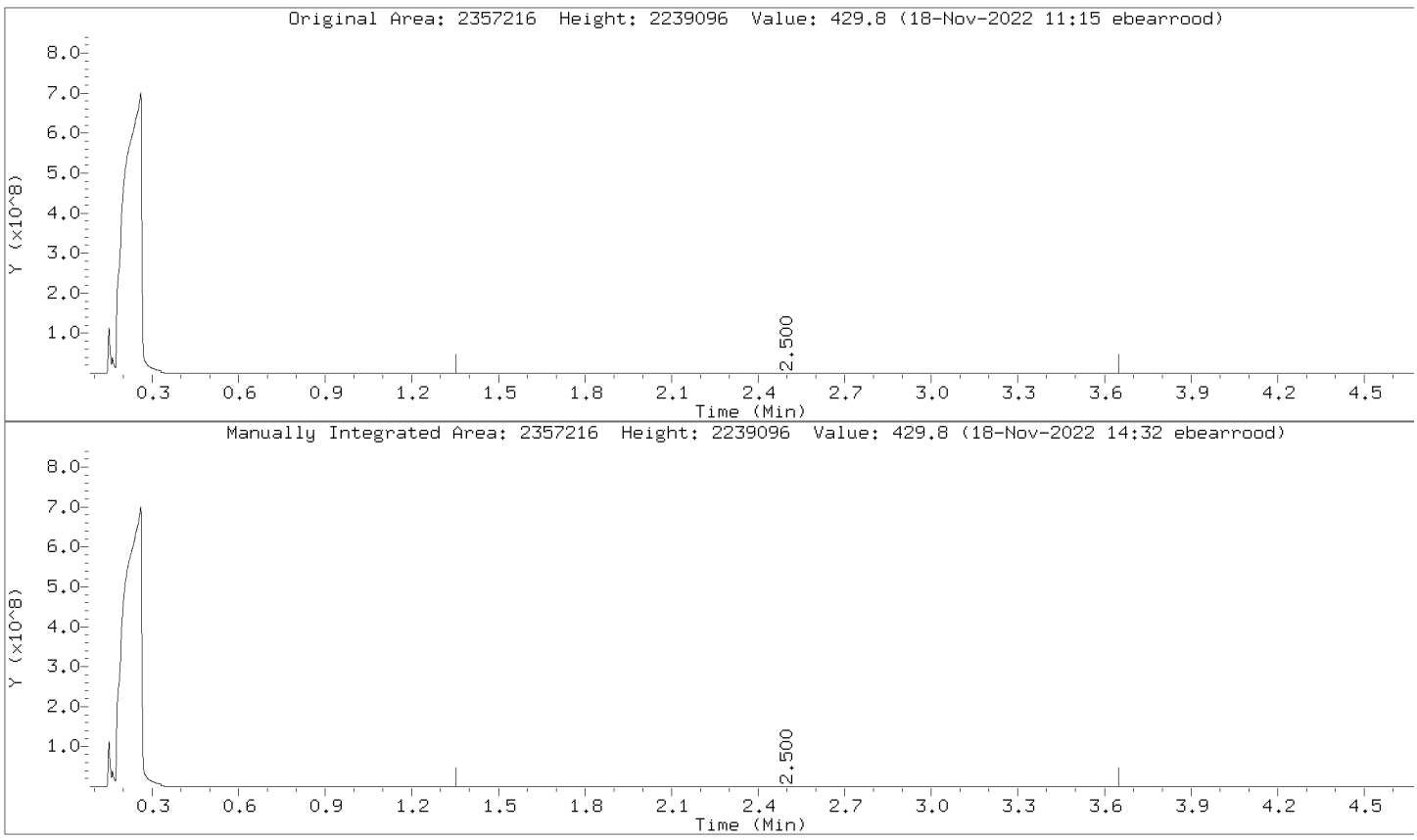
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



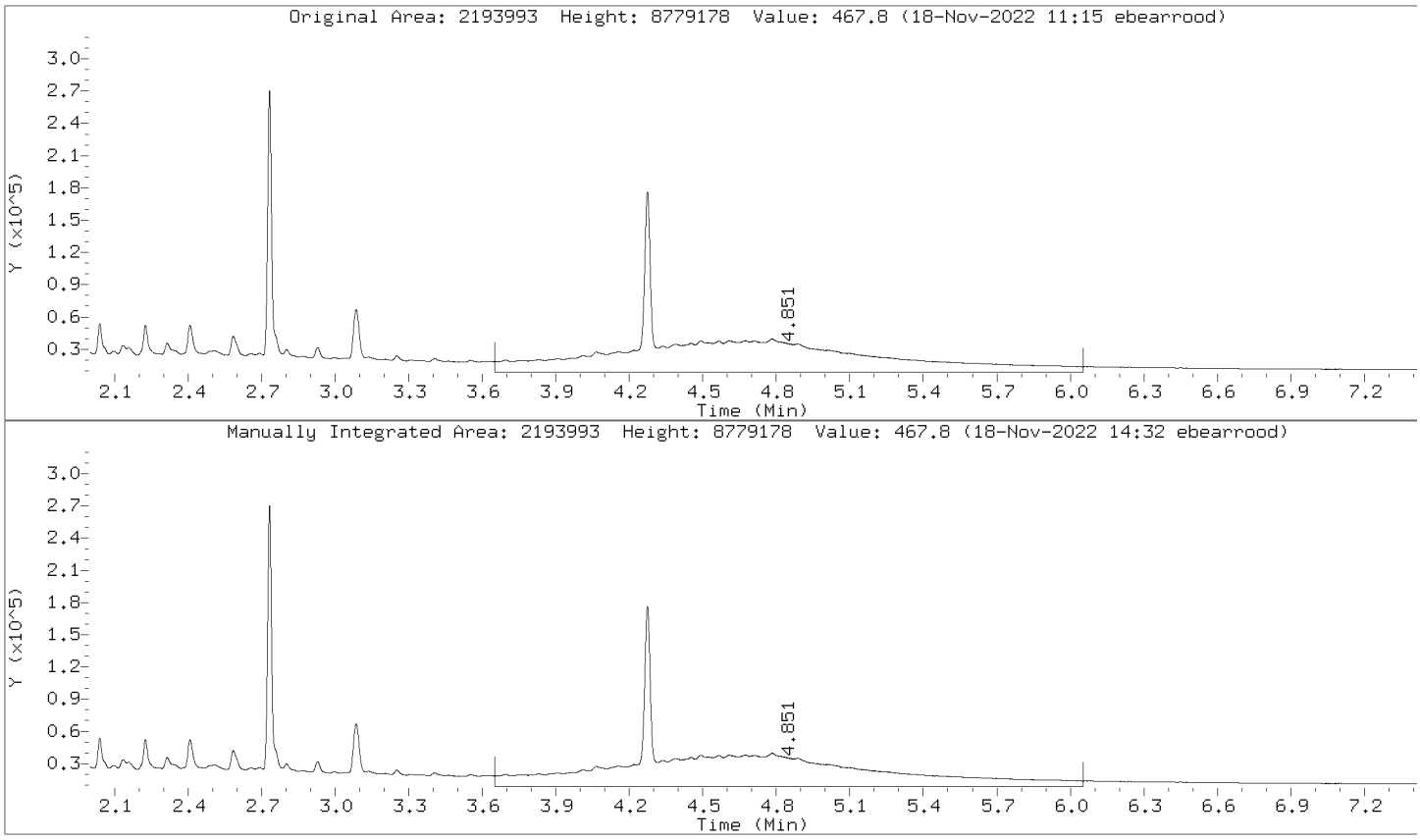
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



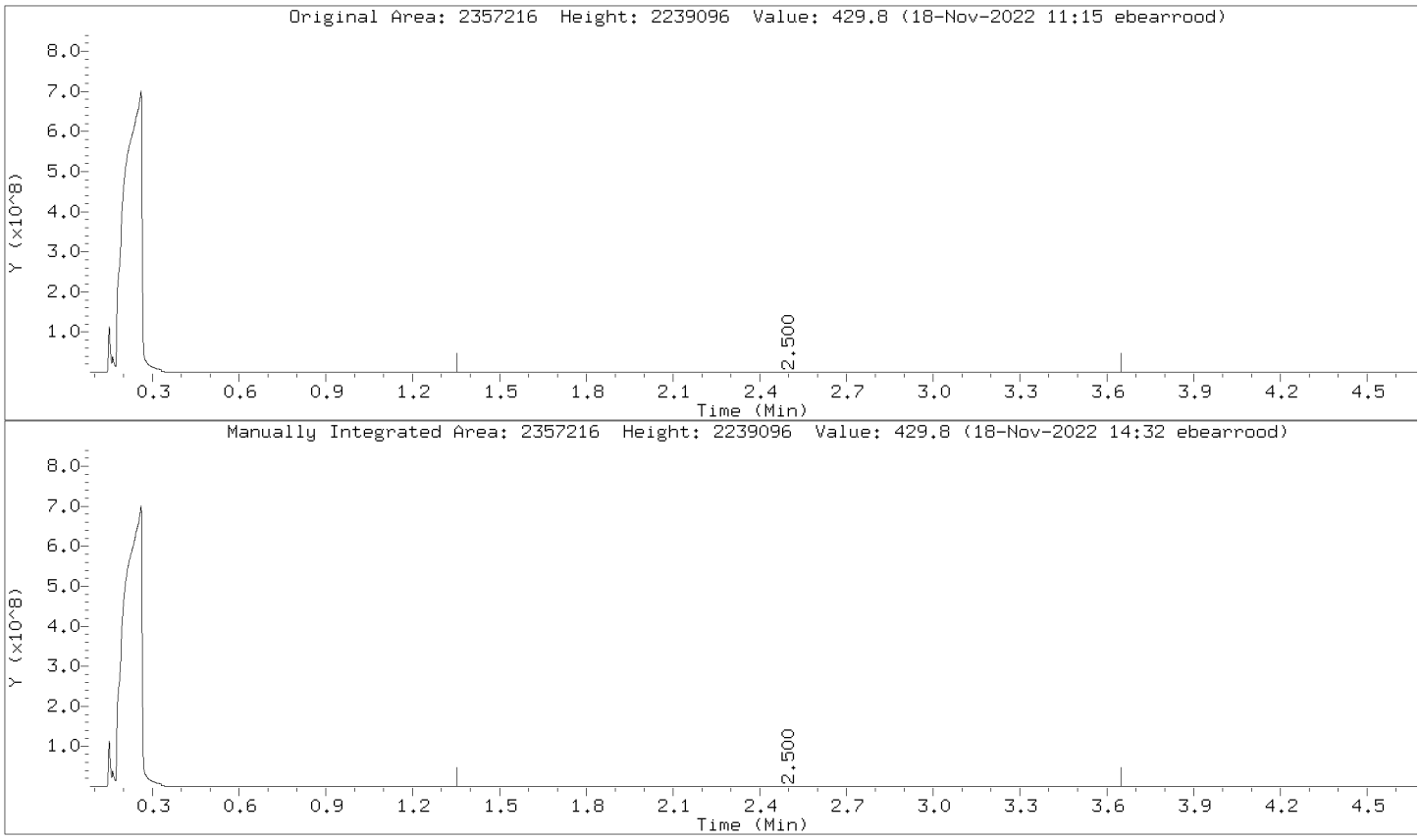
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Motor Oil Range Review Code: RNG
CAS Number:



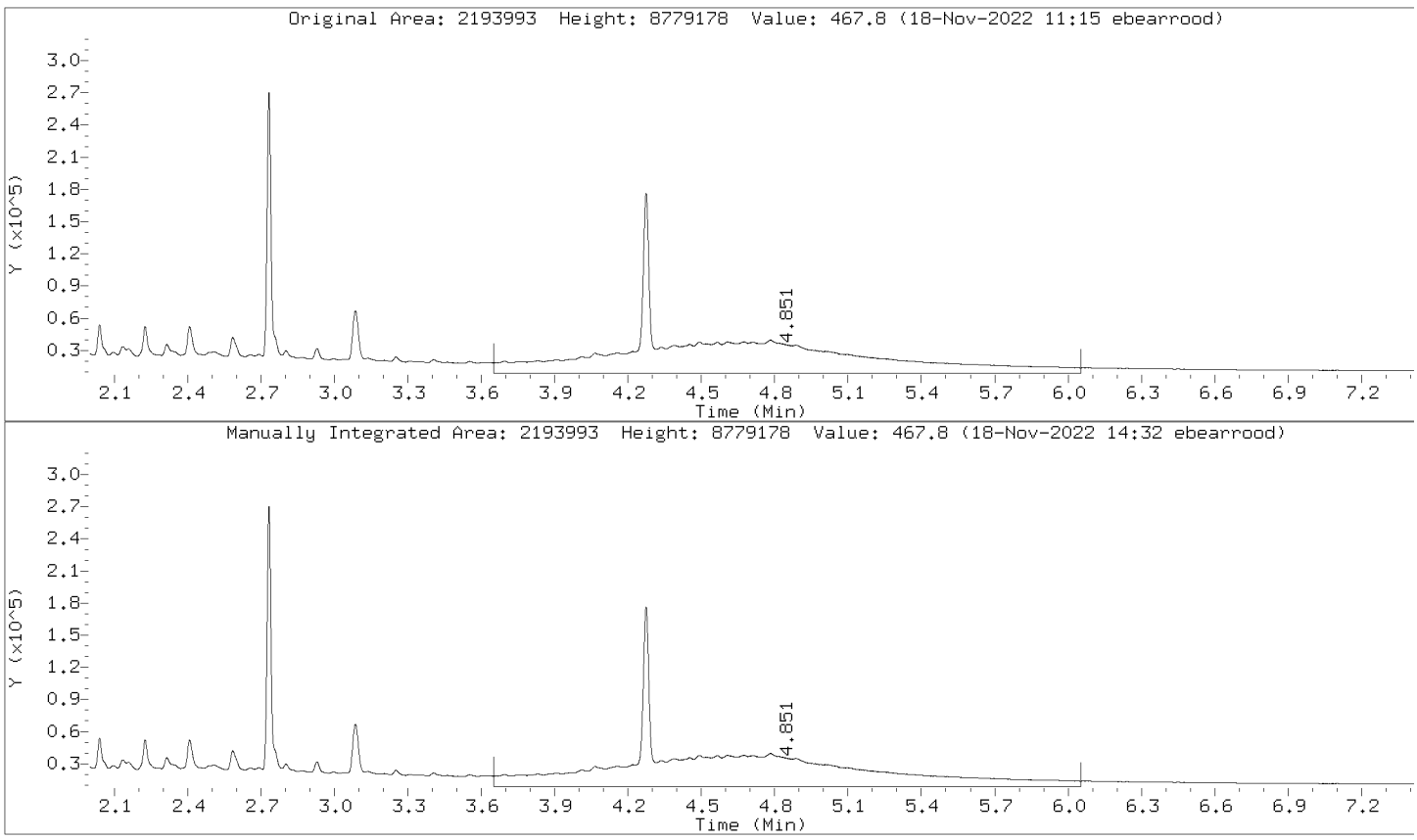
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



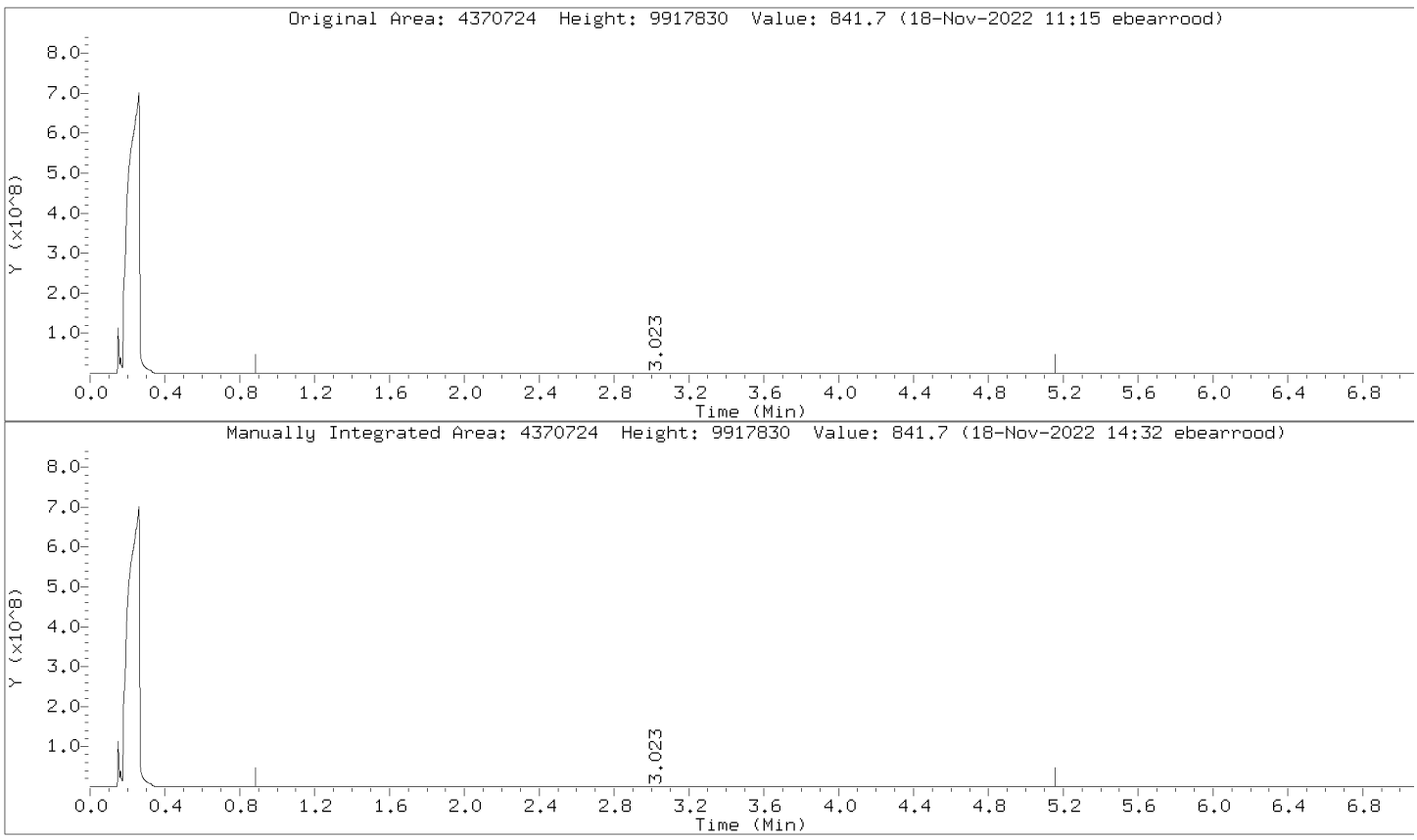
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



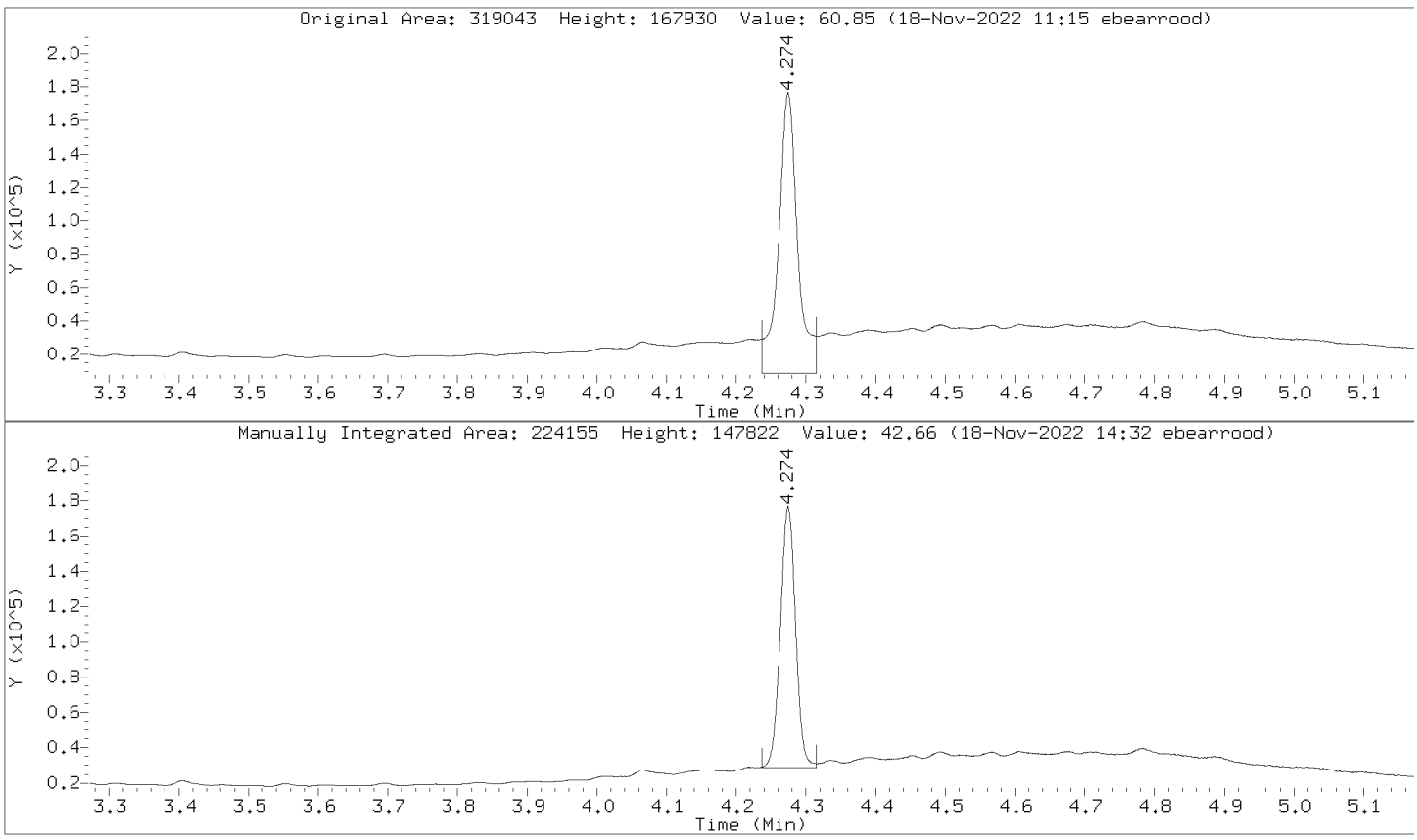
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: C10-C36 Review Code: RNG
CAS Number:



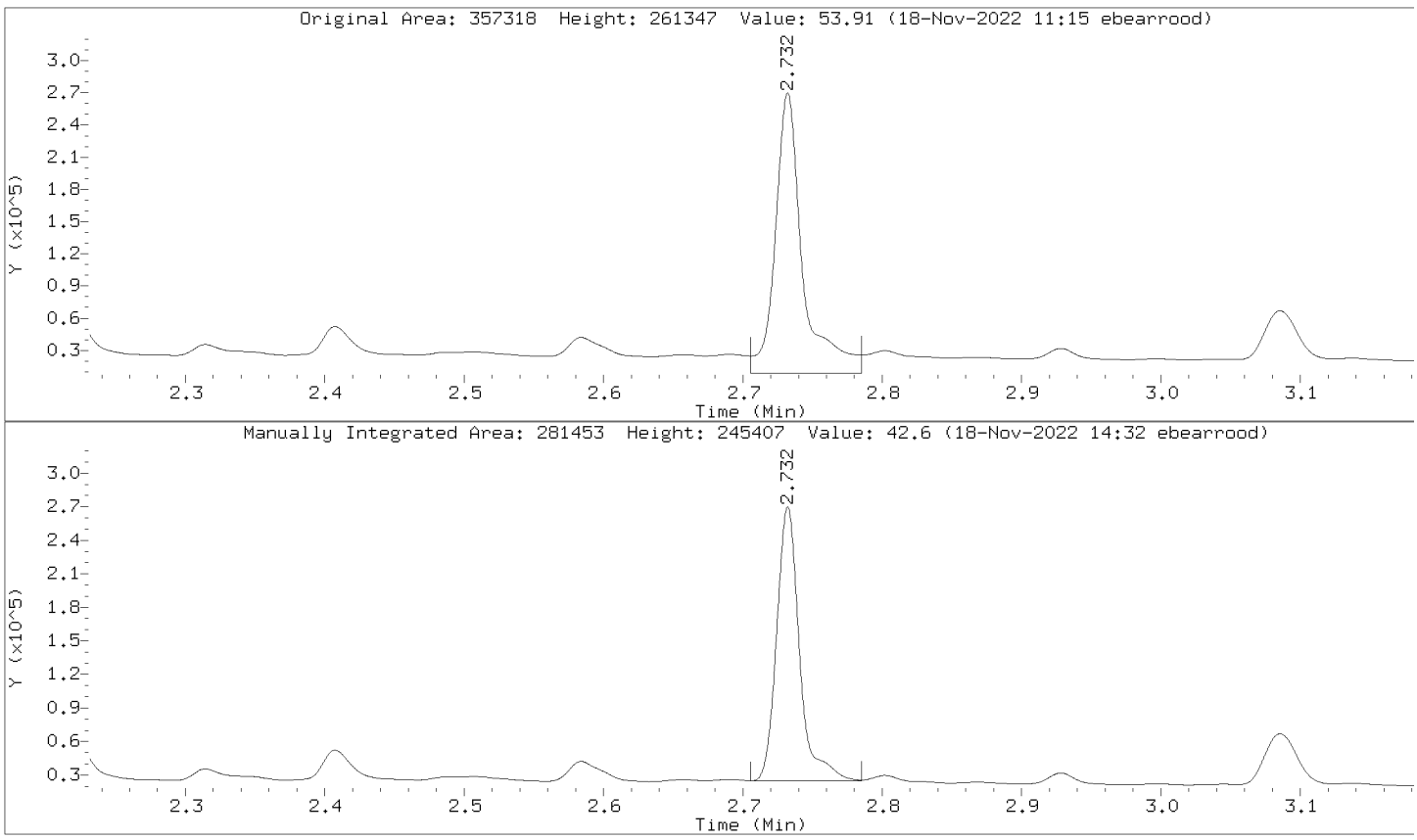
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000035.d
Injection Date: 17-NOV-2022 17:28
Instrument: 10gcsF.i
Lab Sample ID: 4514591

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1758304	1758304
DRO by AK 102	2612420	2612420
TPH-DRO (C10-C28)	3085513	3085513
Motor Oil Range (C24-C36)	1845700	1845700
Diesel Fuel Range	2357216	2357216
Motor Oil Range	2193993	2193993
Diesel Fuel Range SG	2357216	2357216
Motor Oil Range SG	2193993	2193993
C10-C36	4370724	4370724
n-Triacontane (S)	319043	224155
o-Terphenyl (S)	357318	281453

SAMPLE NO.

MS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/16/2022 08:50
Matrix: Solid
SDG No.: 10633981
Date Extracted: 11/16/2022 13:13
Lab Sample ID: 4514592
Date Analyzed: 11/17/2022 18:13
Lab File ID: 111722R.B\1117R0000039.D
Initial wt/vol: 10.06 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 10GCSF
Percent Moisture: 20.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	158	J
	Motor Oil Range	587	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000039.d
Lab Smp Id: 4514592 Client Smp ID: BNSF-I500-SC-0.0-0.
Inj Date : 17-NOV-2022 18:13
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514592x10
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 36 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.060	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	20.570	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)	REVIEW CODE		
S 1 DRO by AK 102					CAS #:			
0.885	- 3.600		945539	105.017	131		(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:			
2.732	2.731	0.001	28311	4.85726	6.08		(M)	BA
$ 3 n-Triacontane (S)					CAS #:			
4.275	4.272	0.003	14348	2.42735	3.04		(RM)	BA
S 4 Residual Range Organics AK103					CAS #:			
3.601	- 5.160		1687989	437.147	547		(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:			
0.885	- 4.210		1469480	162.642	204		(RM)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:			
3.450	- 5.160		1778767	436.971	547		(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE		
S 7 C10-C36					CAS #:			
0.885	- 5.160		2633529	467.276	585		(RM)	RNG
S 8 Diesel Fuel Range					CAS #:			
1.350	- 3.650		911591	126.494	158		(RM)	RNG
S 9 Diesel Fuel Range SG					CAS #:			
1.350	- 3.650		911591	126.494	158		(RM)	RNG
S 10 Motor Oil Range					CAS #:			
3.651	- 6.050		2200954	469.373	587		(RM)	RNG
S 11 Motor Oil Range SG					CAS #:			
3.651	- 6.050		2200954	469.373	587		(RM)	RNG

QC Flag Legend

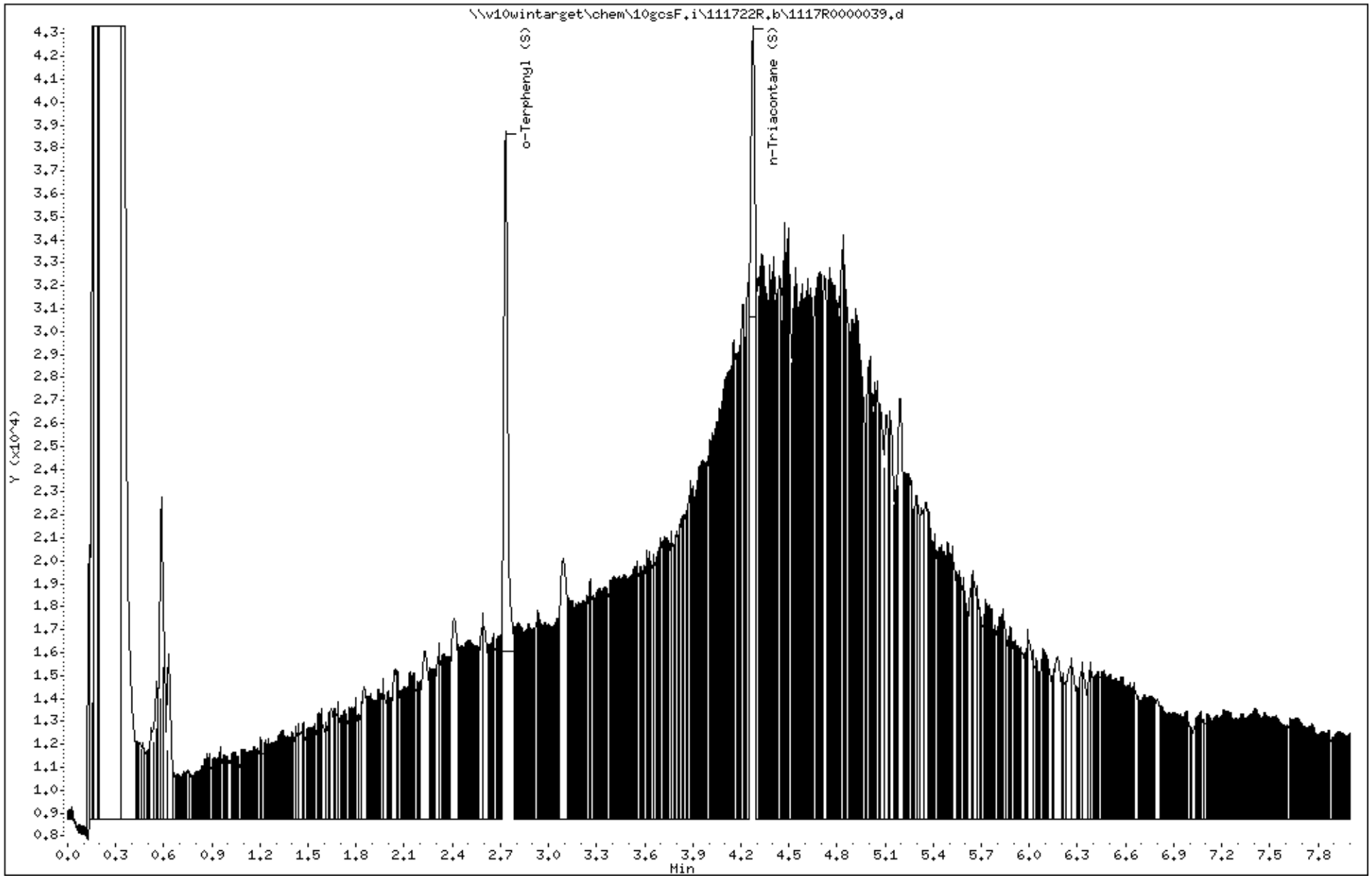
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

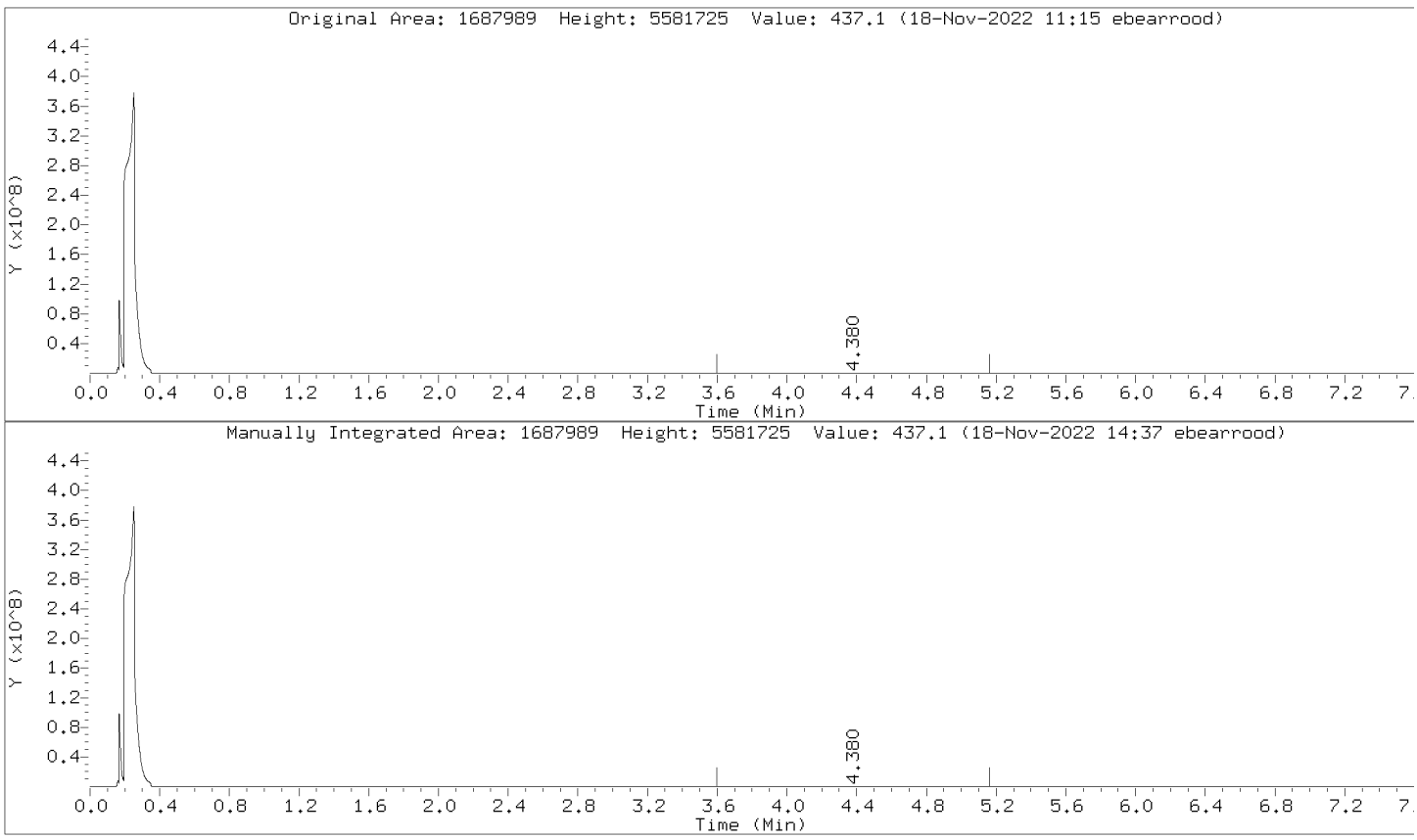
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000039.d
Date : 17-NOV-2022 18:13
Client ID: BNSF-I500-SC-0.0-0.
Sample Info: 4514592X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



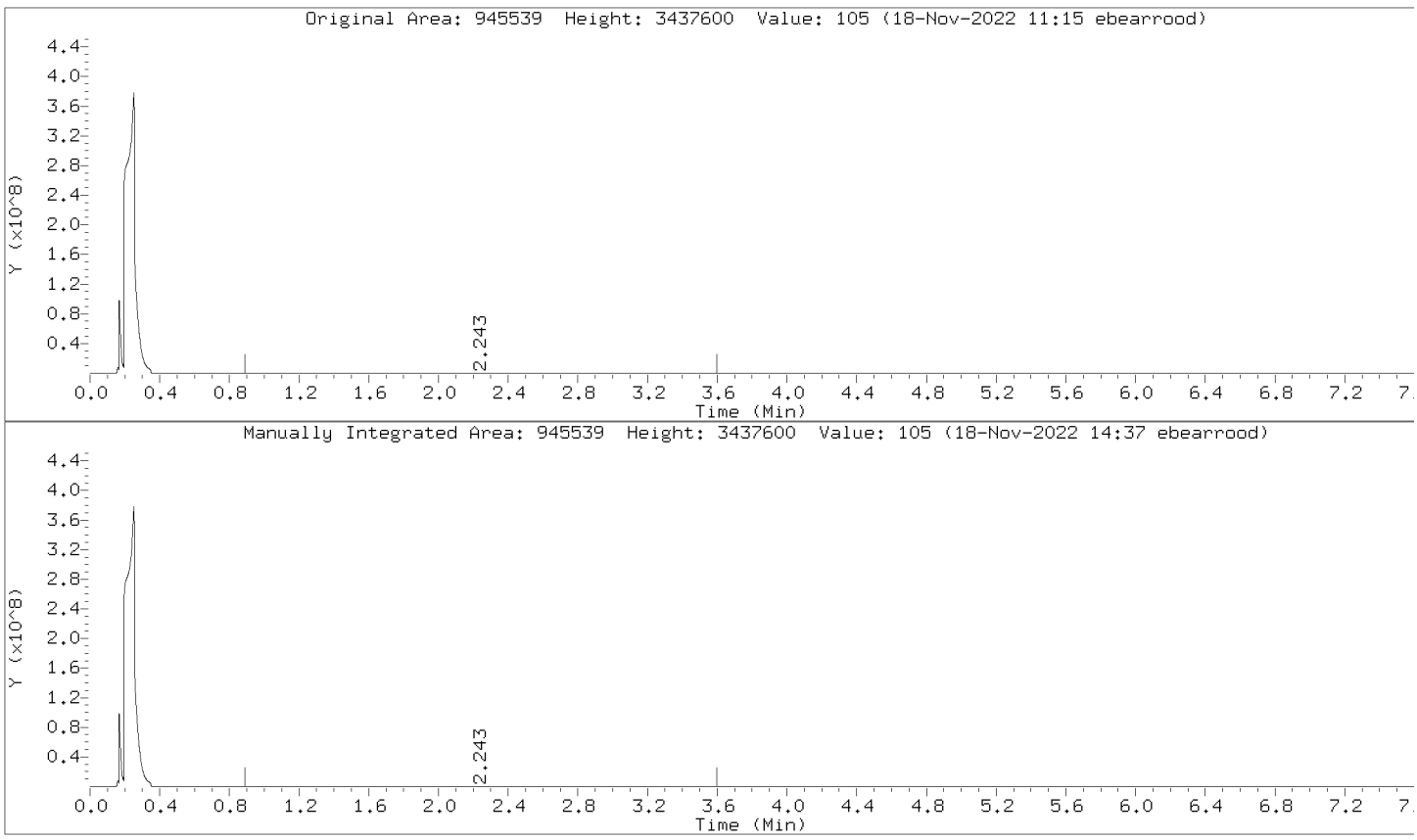
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



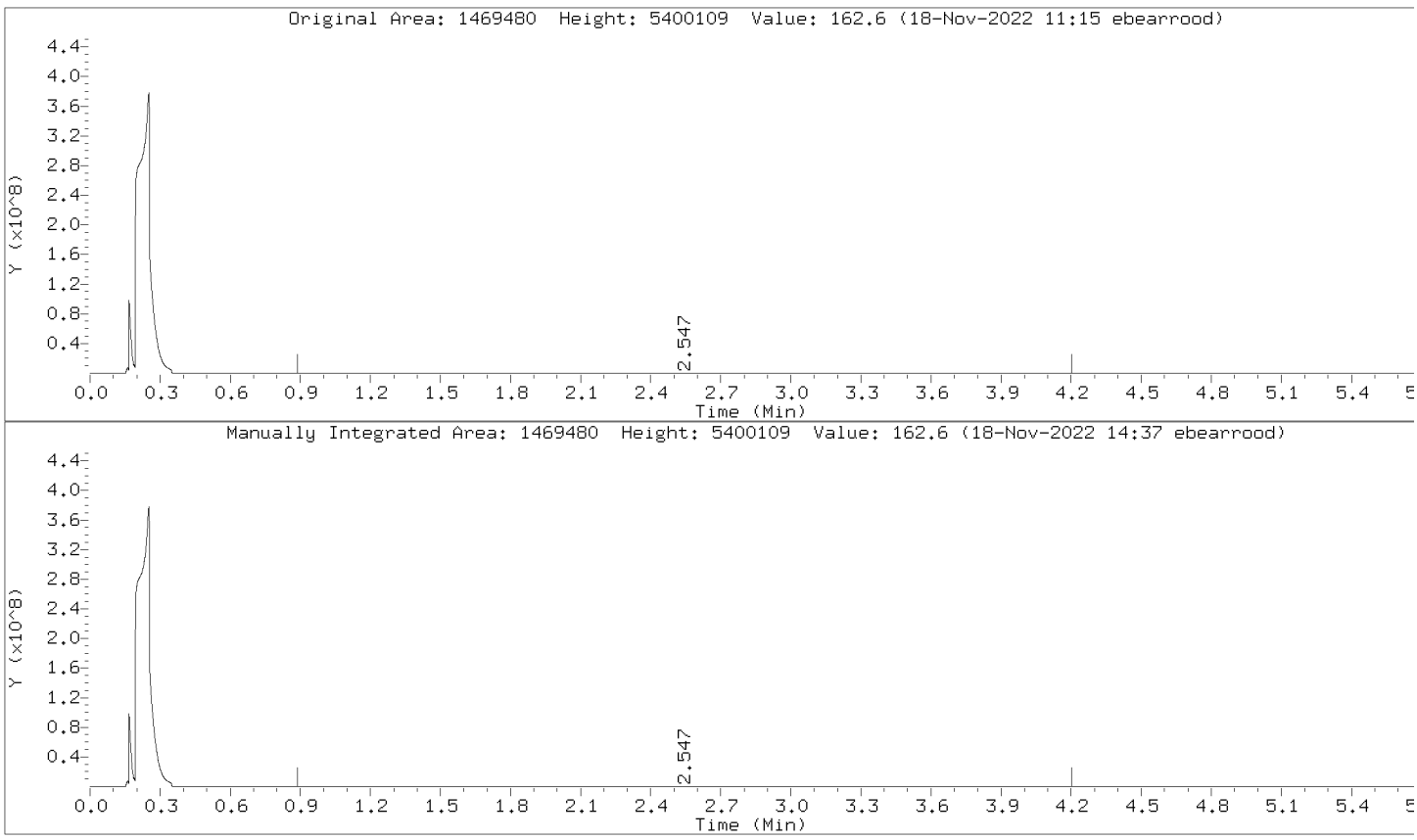
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



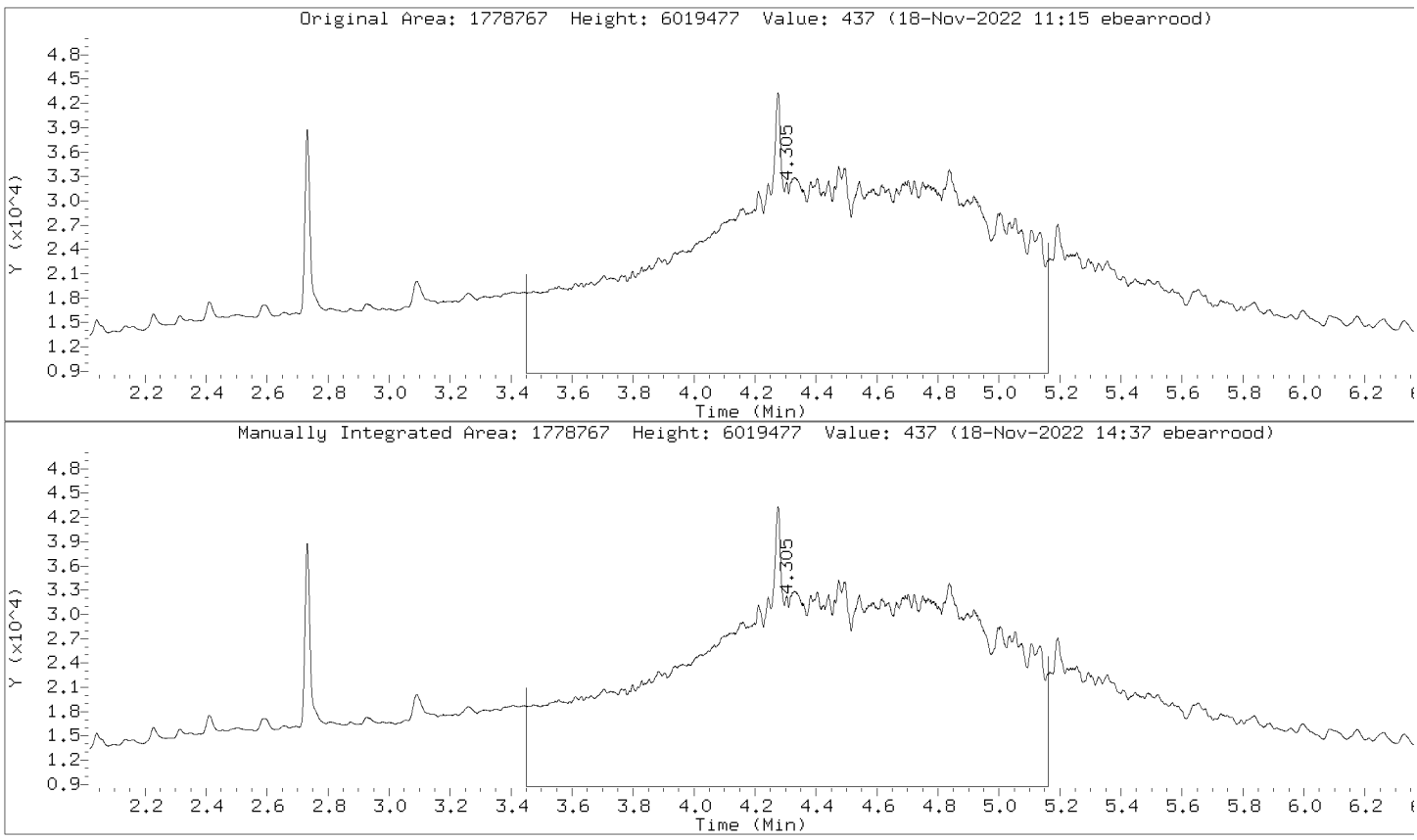
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



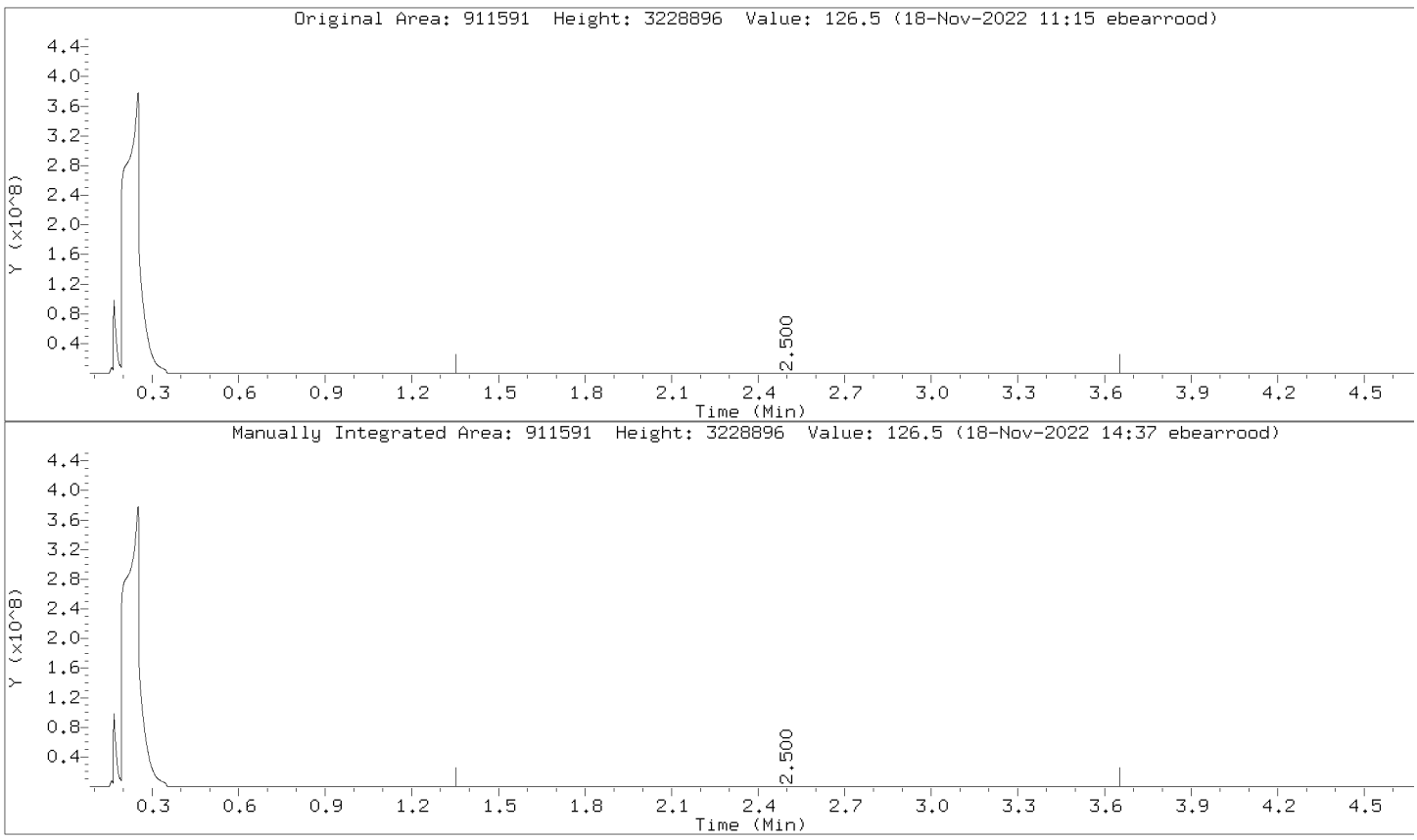
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



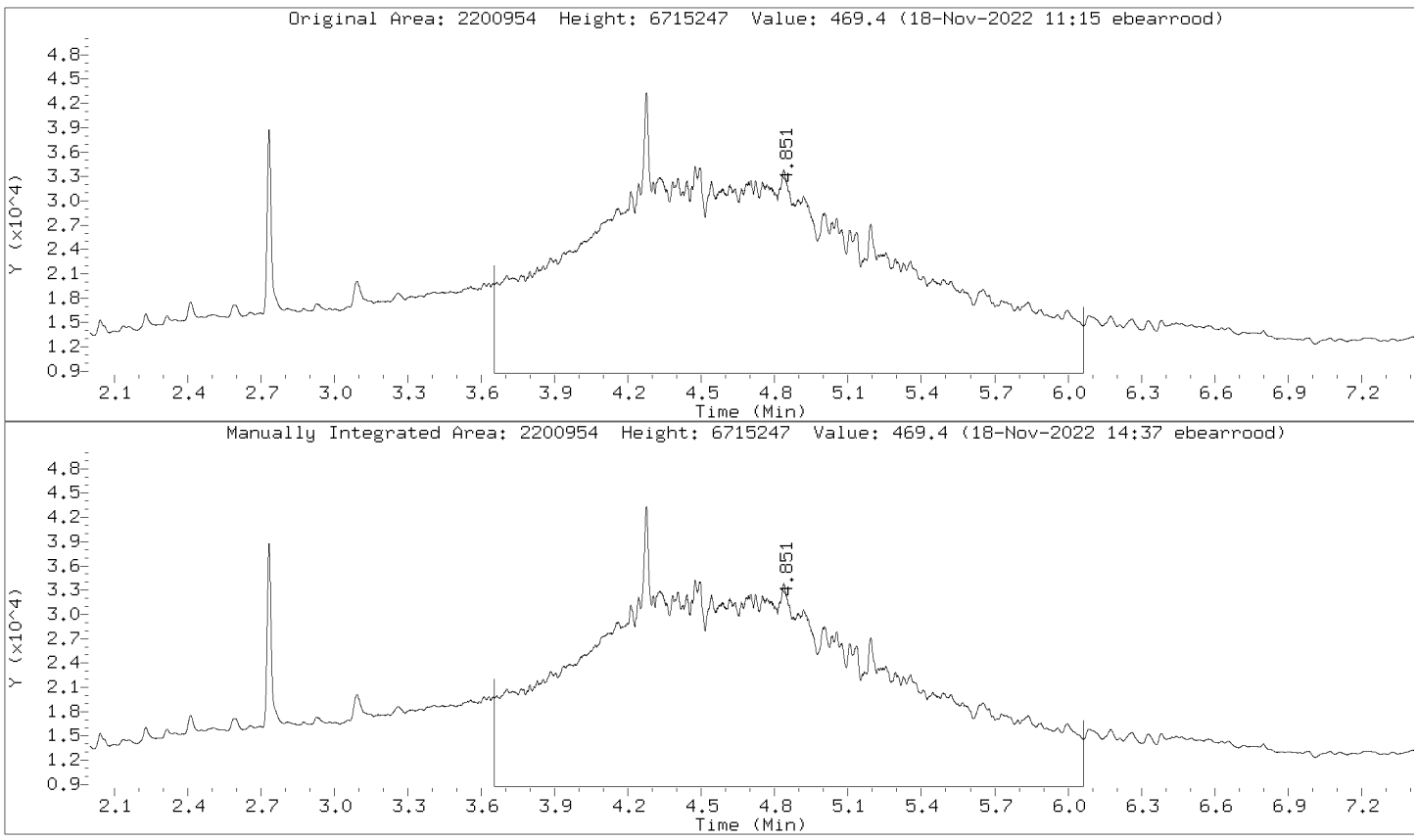
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



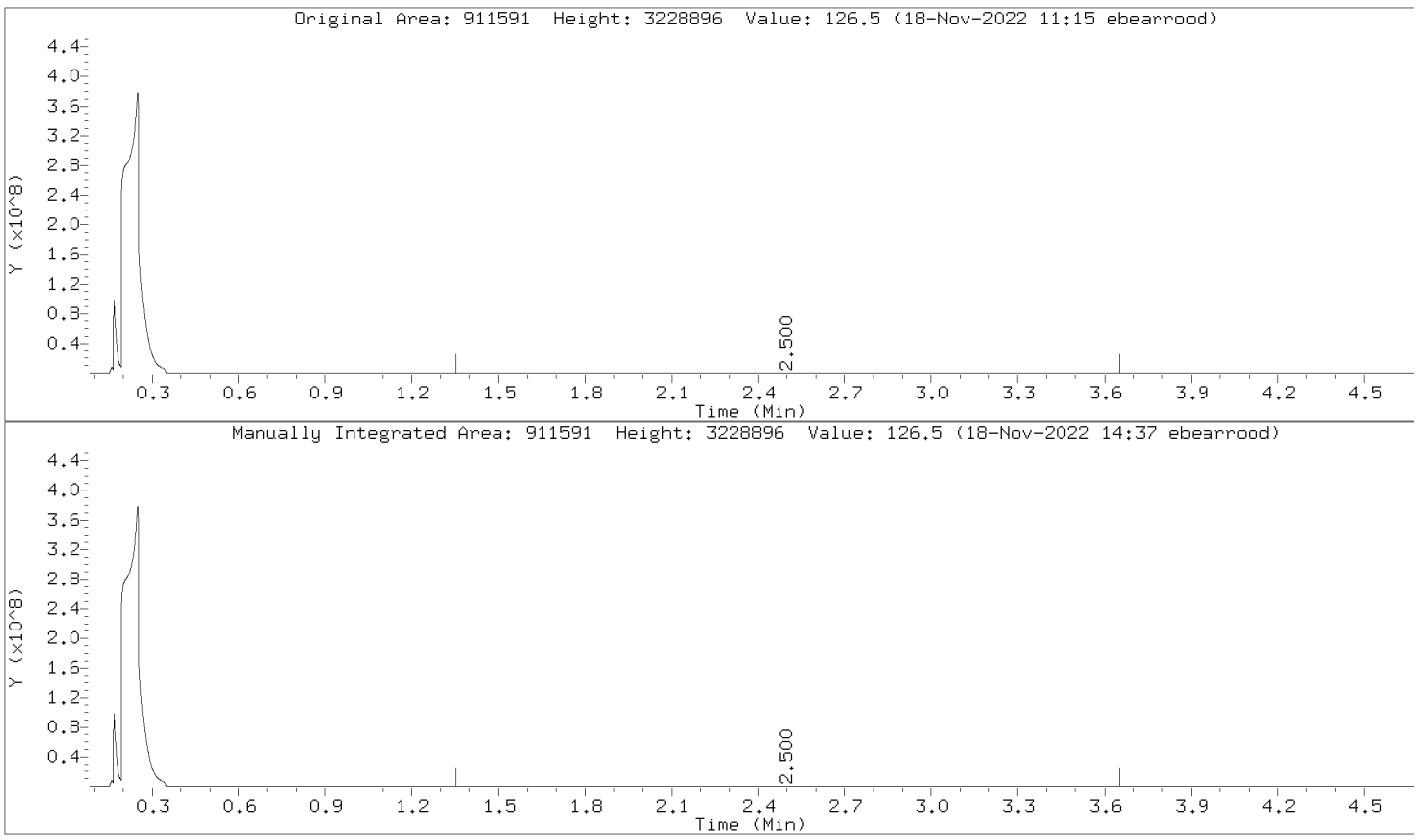
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Motor Oil Range Review Code: RNG
CAS Number:



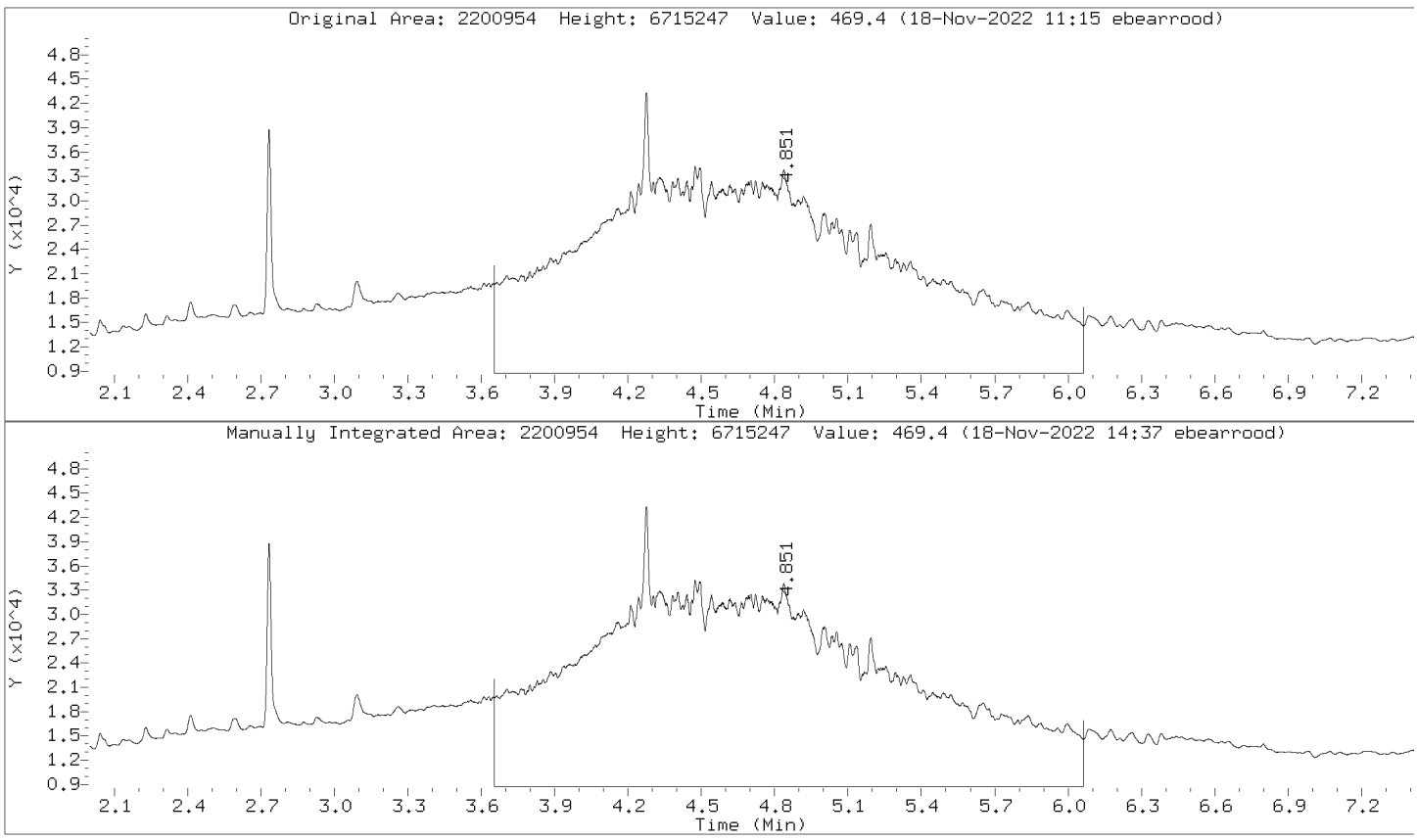
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



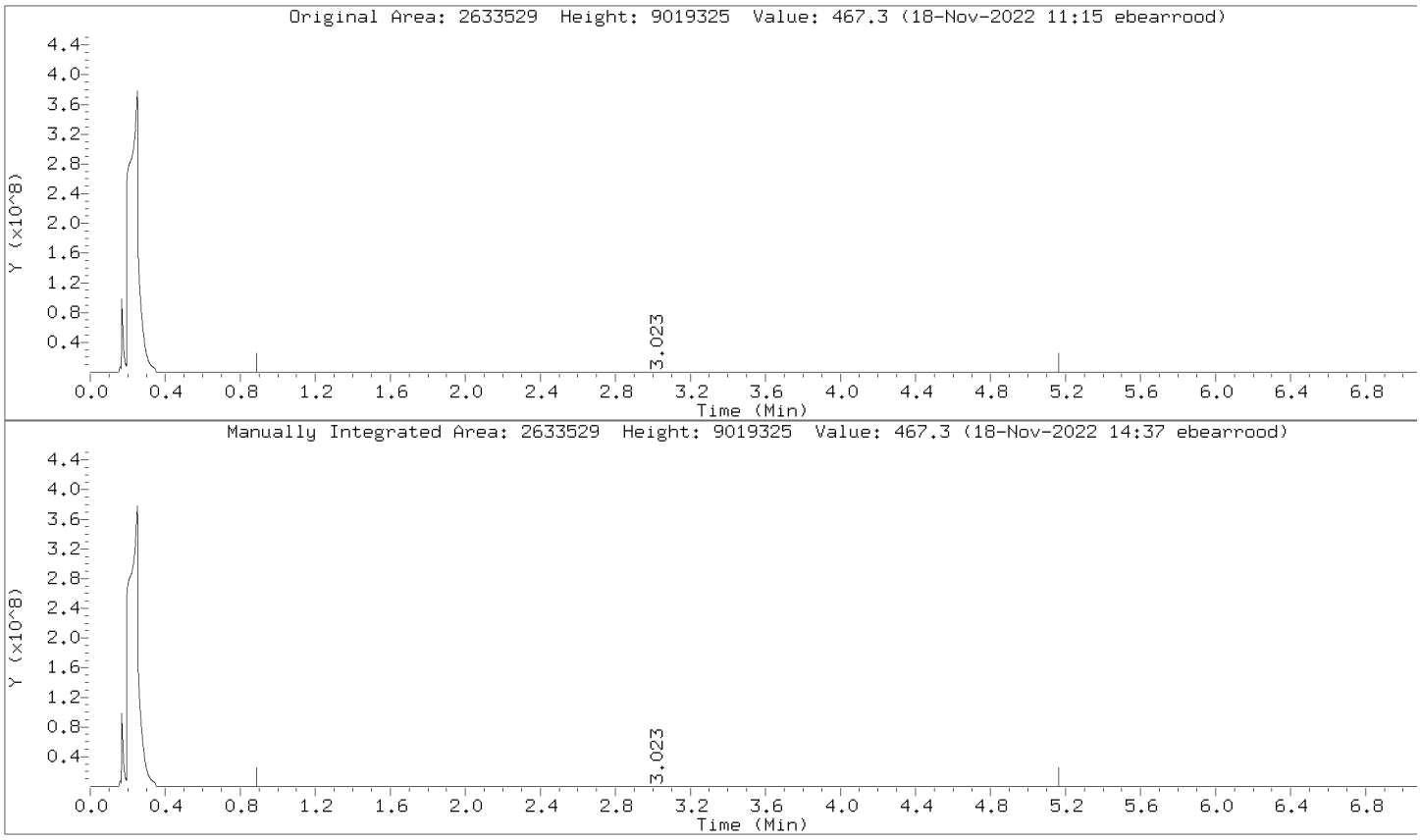
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



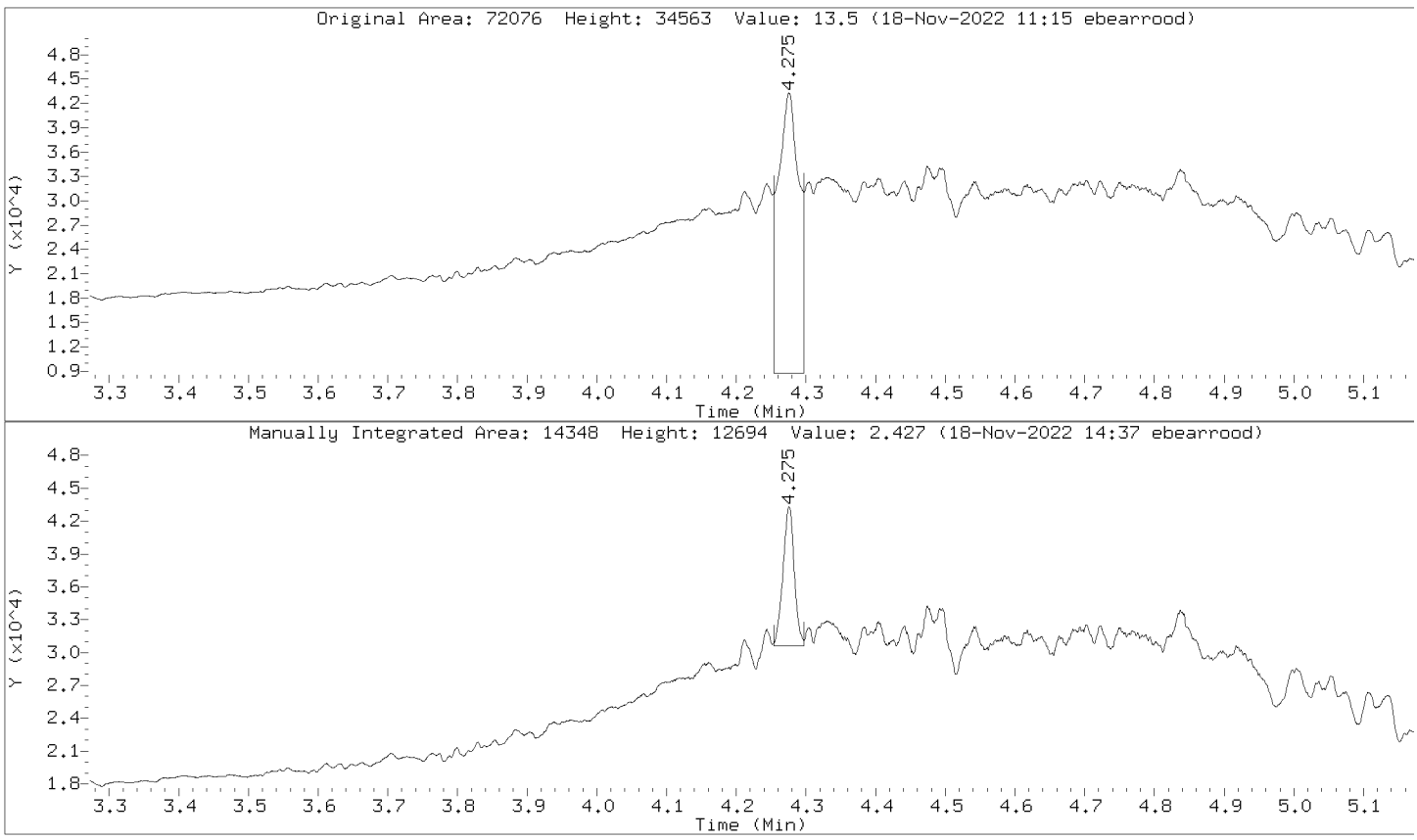
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: C10-C36 Review Code: RNG
CAS Number:



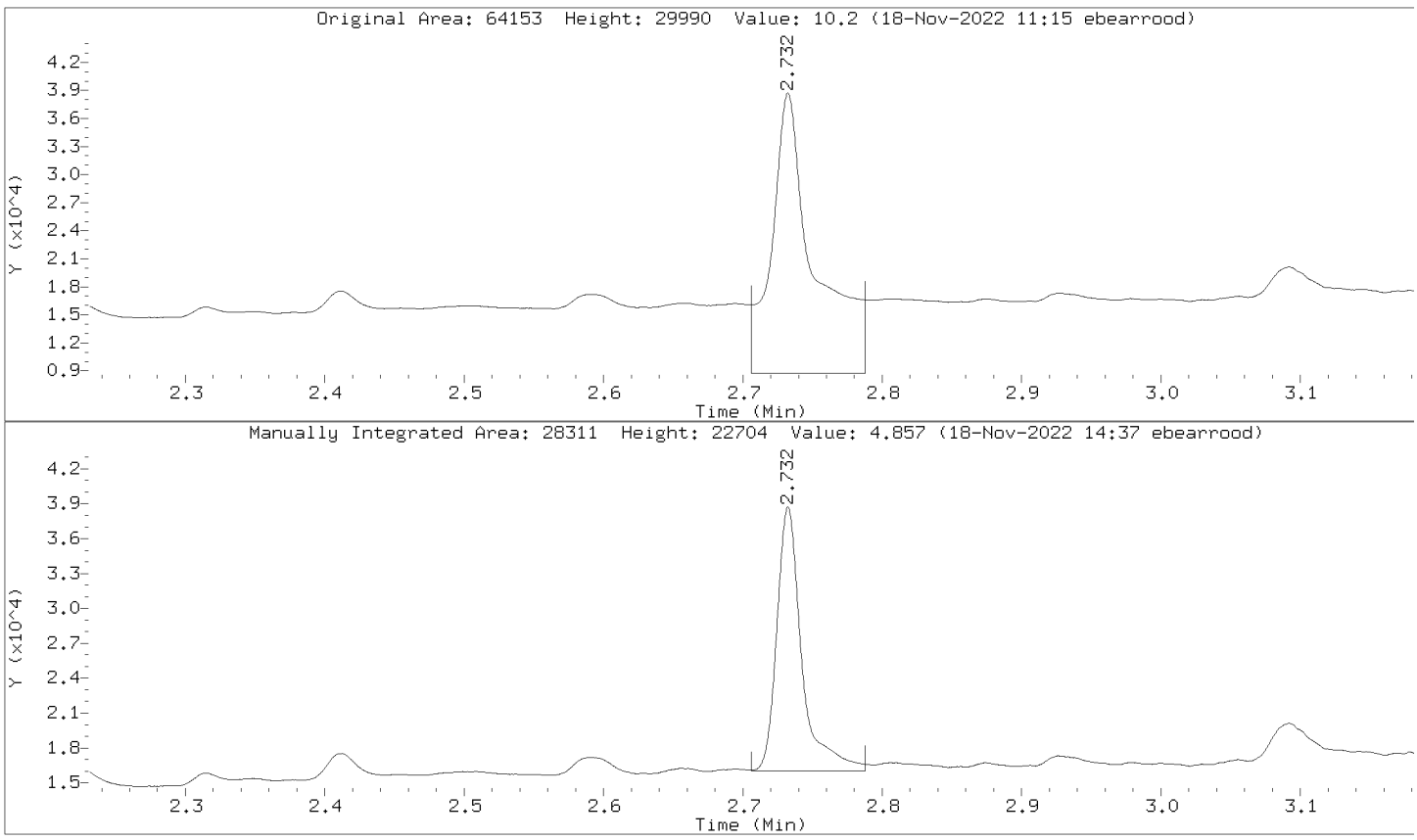
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000039.d
Injection Date: 17-NOV-2022 18:13
Instrument: 10gcsF.i
Lab Sample ID: 4514592

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1687989	1687989
DRO by AK 102	945539	945539
TPH-DRO (C10-C28)	1469480	1469480
Motor Oil Range (C24-C36)	1778767	1778767
Diesel Fuel Range	911591	911591
Motor Oil Range	2200954	2200954
Diesel Fuel Range SG	911591	911591
Motor Oil Range SG	2200954	2200954
C10-C36	2633529	2633529
n-Triacontane (S)	72076	14348
o-Terphenyl (S)	64153	28311

SAMPLE NO.

MSD

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/16/2022 08:50
Matrix: Solid
SDG No.: 10633981
Date Extracted: 11/16/2022 13:13
Lab Sample ID: 4514593
Date Analyzed: 11/17/2022 18:25
Lab File ID: 111722R.B\1117R0000040.D
Initial wt/vol: 10.06 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 10GCSF
Percent Moisture: 20.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
68334-30-5	Diesel Fuel Range	195	
	Motor Oil Range	756	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000040.d
Lab Smp Id: 4514593 Client Smp ID: BNSF-I500-SC-0.0-0.
Inj Date : 17-NOV-2022 18:25
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514593x10
Misc Info : 41067
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 37 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf*Vt/(Ws*Vi*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Ws	10.060	Weight of the sample extracted (g)
Vi	1.000	Volume Injected (uL)
M	20.570	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (mg/Kg)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.885	- 3.600		1078214	128.460	161	(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.731	2.731	0.000	28608	4.90154	6.13	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.272	0.000	19589	3.43233	4.30	(RM)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601	- 5.160		2169180	570.888	714	(RM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.210		1772996	208.801	261	(RM)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.160		2288285	572.089	716	(RM)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (mg/Kg)	REVIEW CODE
S 7 C10-C36					CAS #:	
0.885	- 5.160		3247395	599.575	750	(RM) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		1053243	156.214	195	(RM) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		1053243	156.214	195	(RM) RNG
S 10 Motor Oil Range					CAS #:	
3.651	- 6.050		2792250	604.118	756	(RM) RNG
S 11 Motor Oil Range SG					CAS #:	
3.651	- 6.050		2792250	604.118	756	(RM) RNG

QC Flag Legend

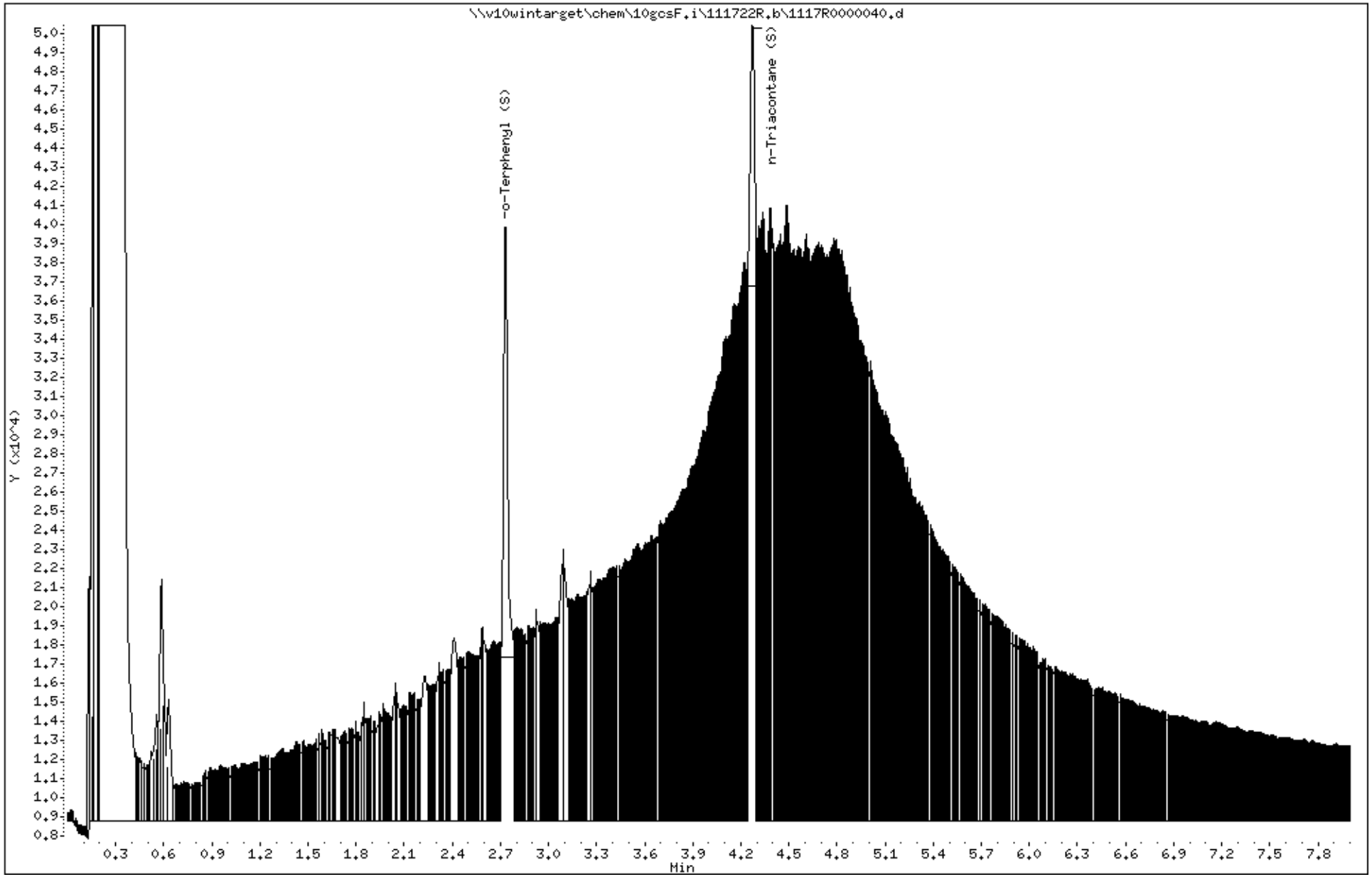
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

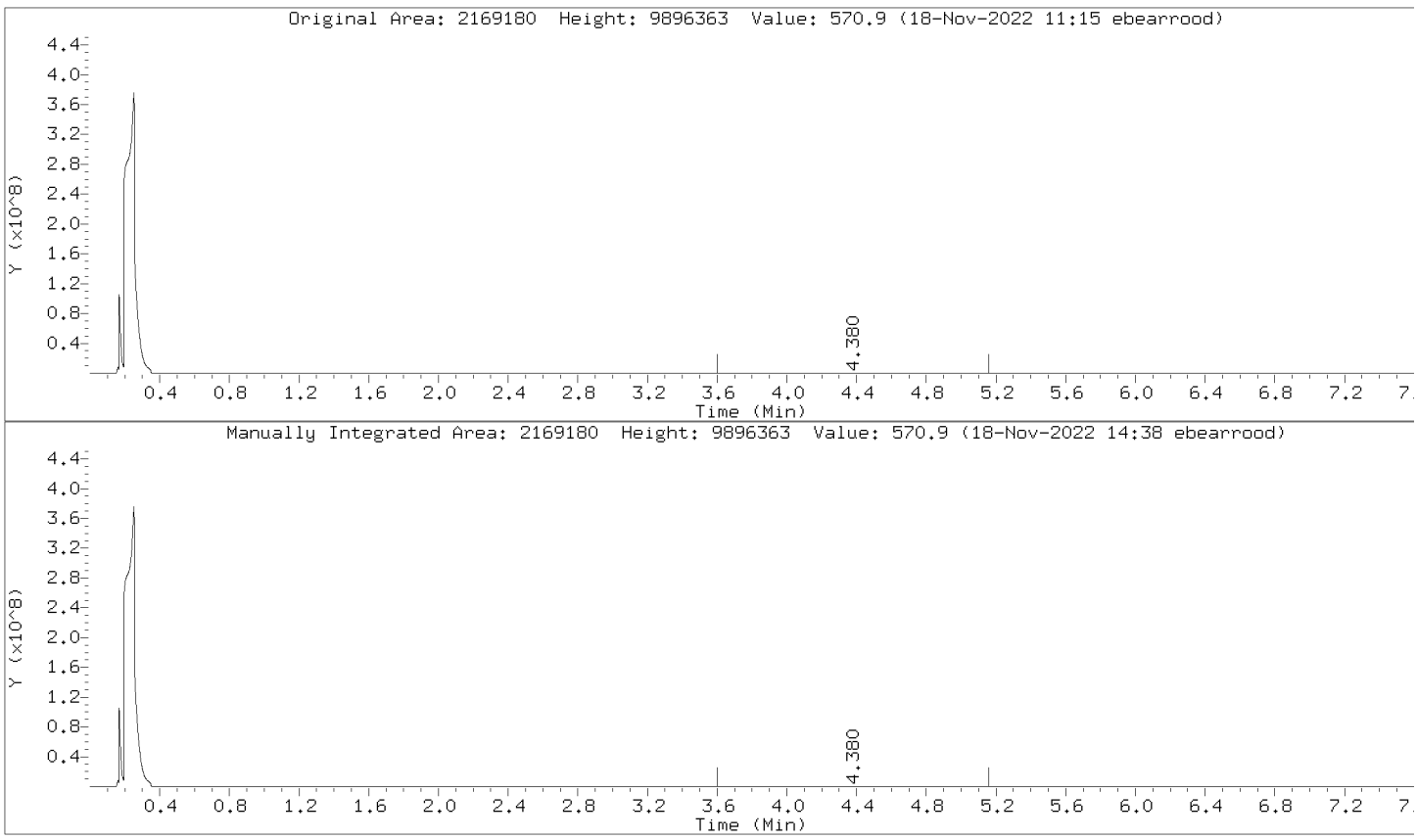
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000040.d
Date : 17-NOV-2022 18:25
Client ID: BNSF-I500-SC-0.0-0.
Sample Info: 4514593X10
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



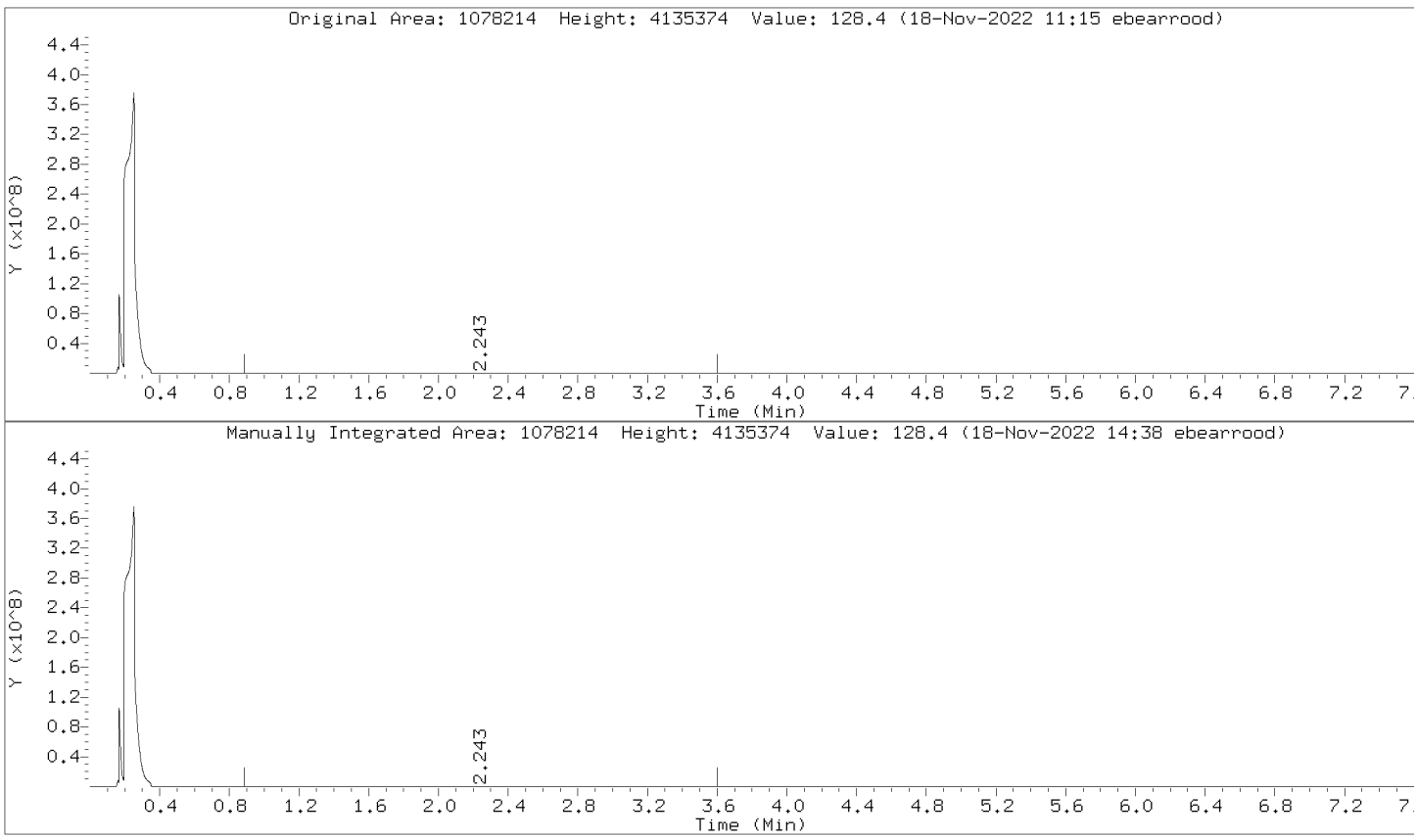
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



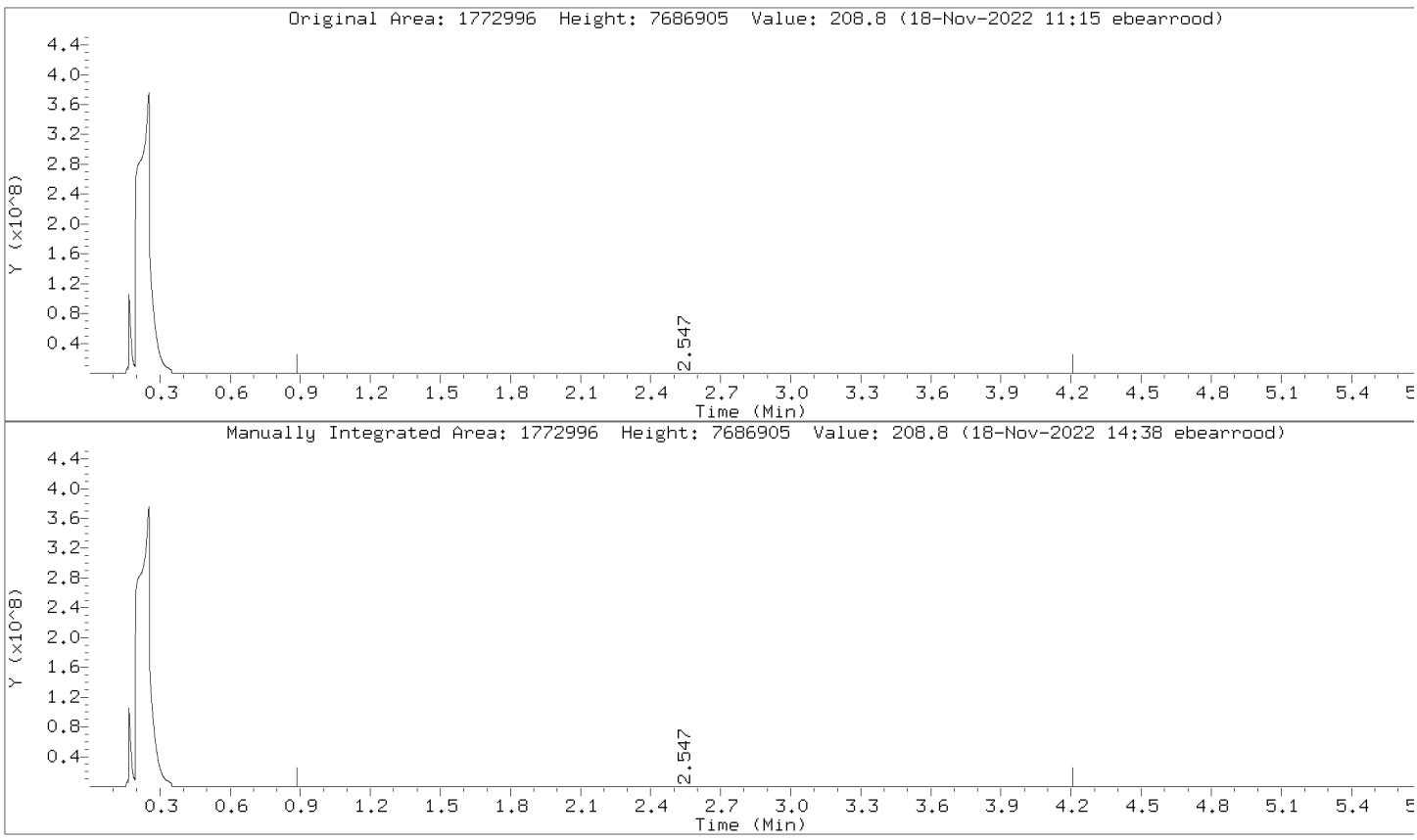
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



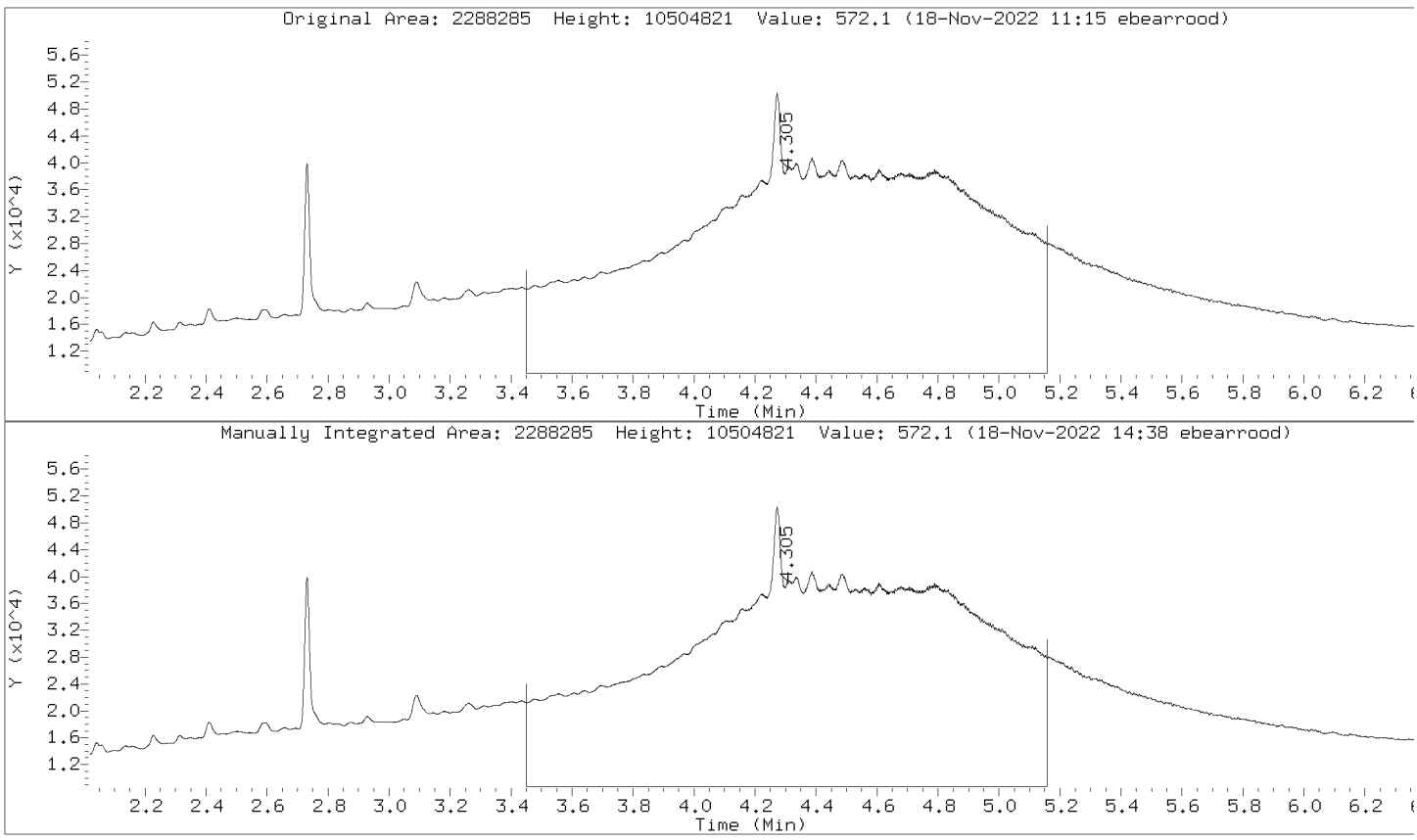
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



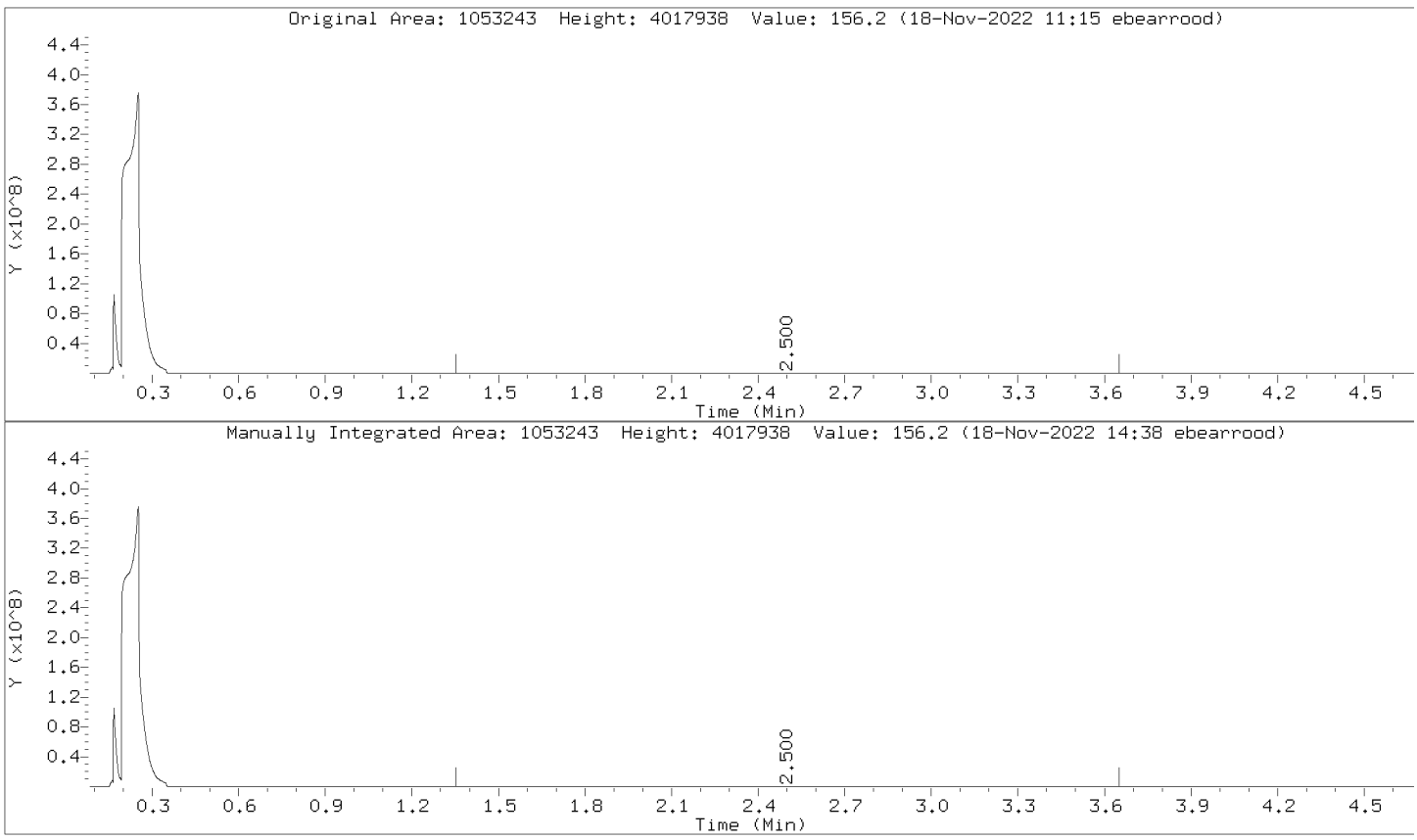
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



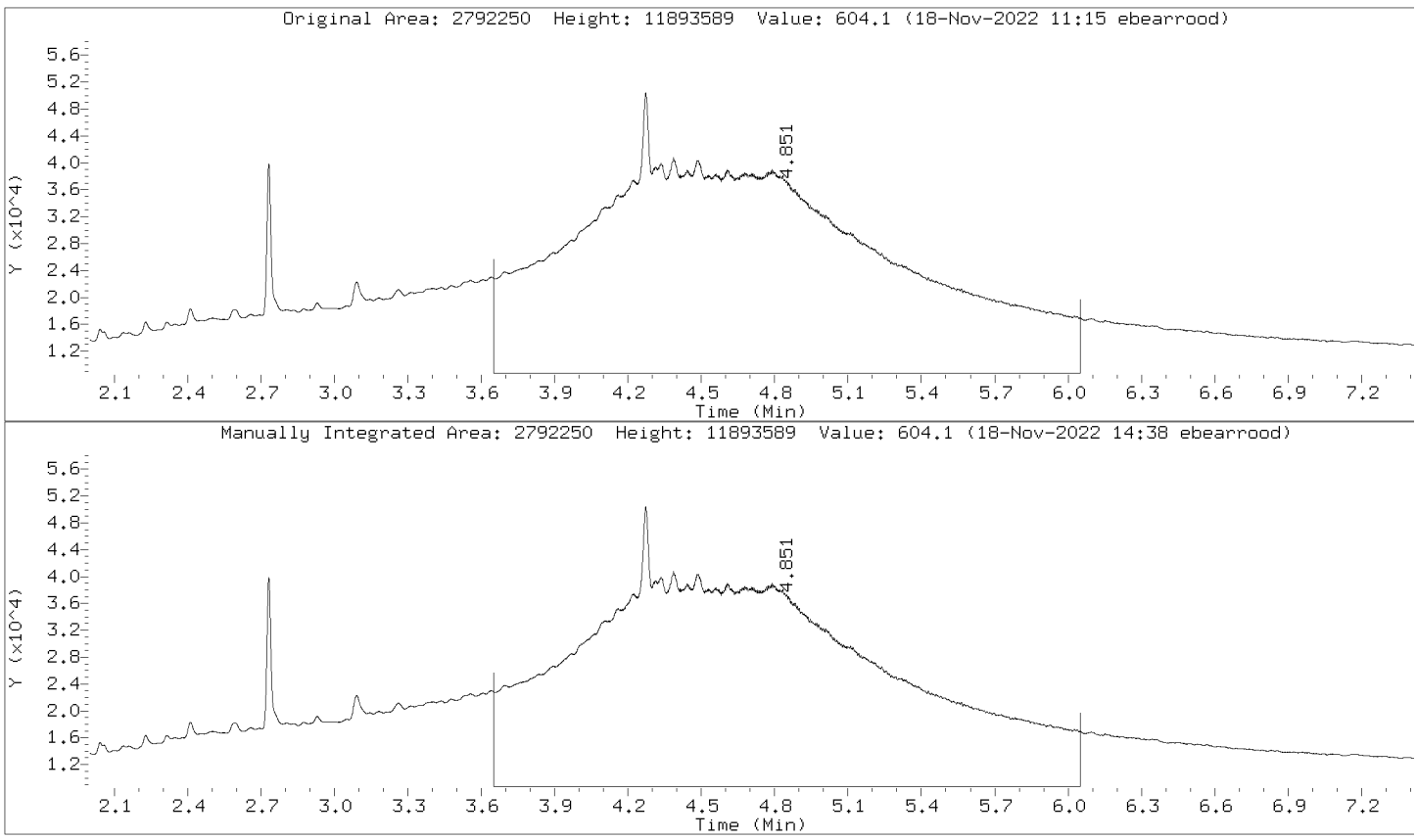
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



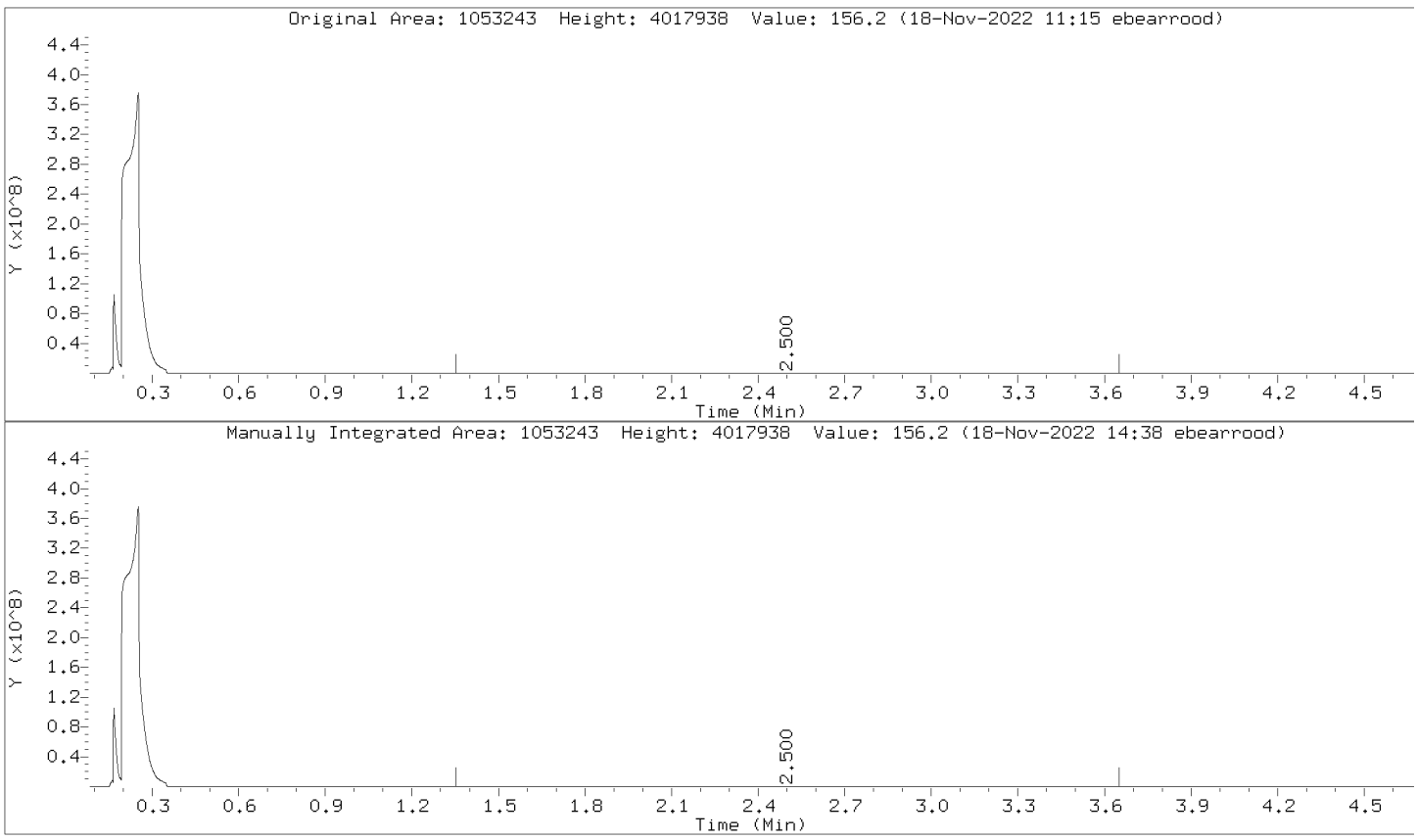
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Motor Oil Range Review Code: RNG
CAS Number:



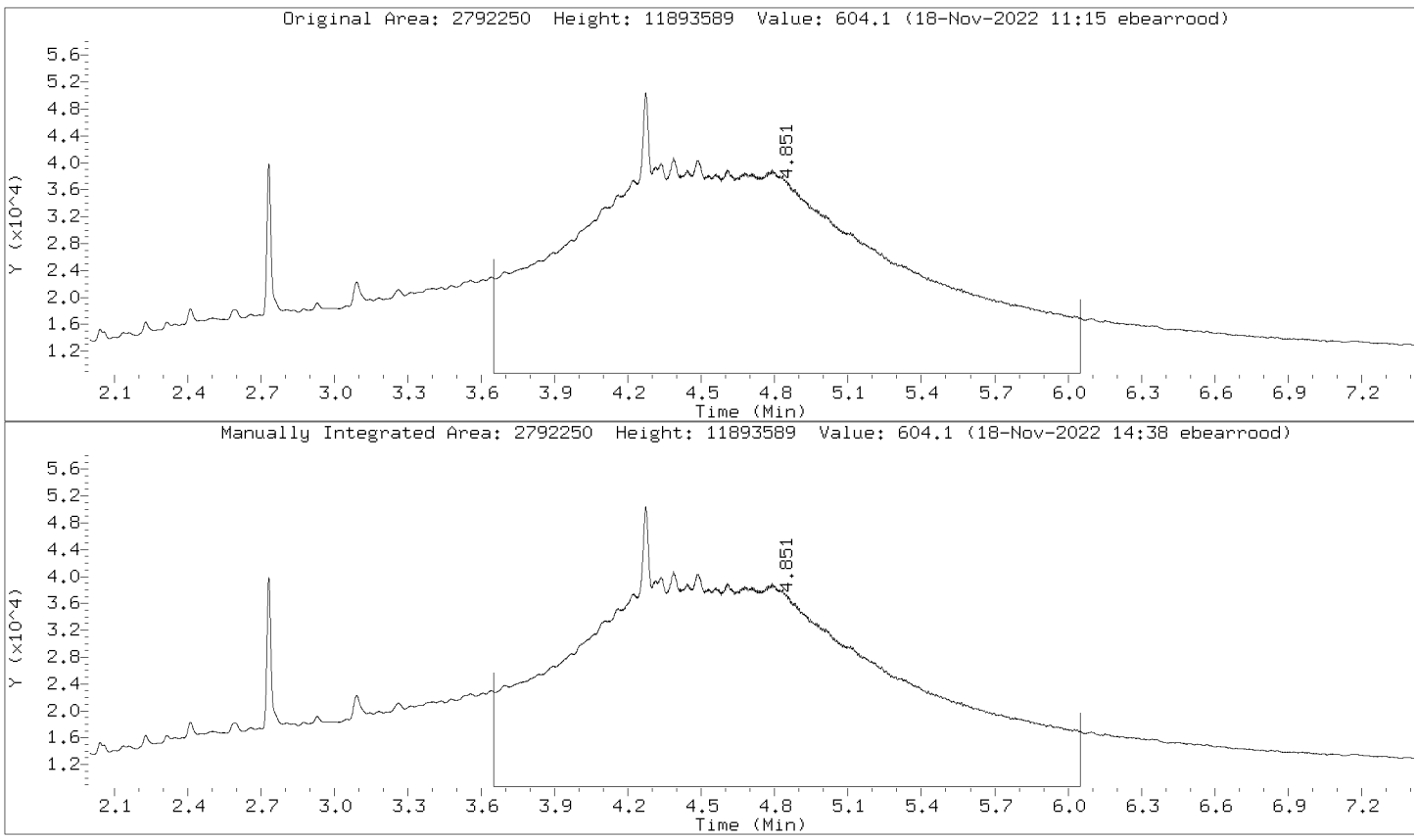
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



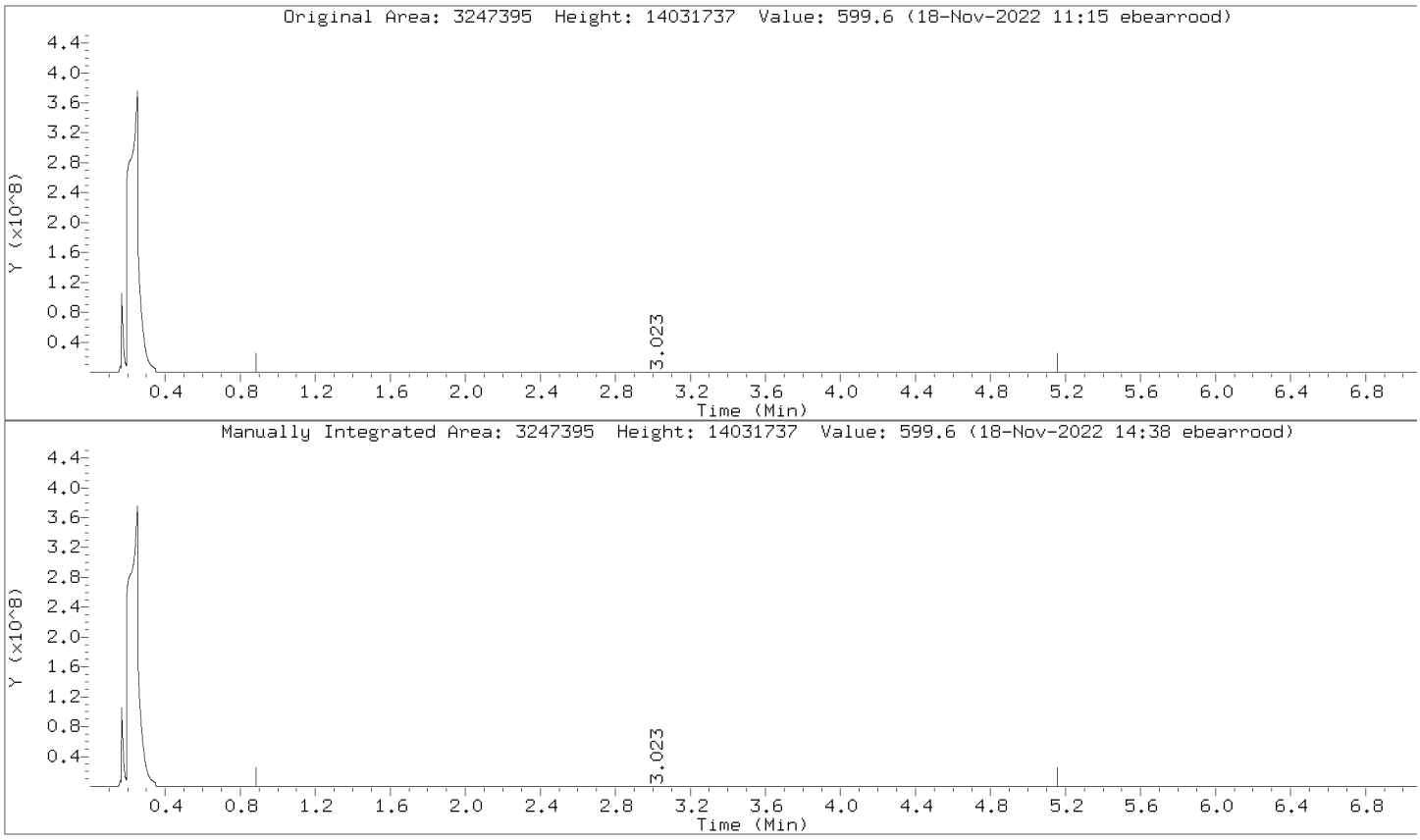
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



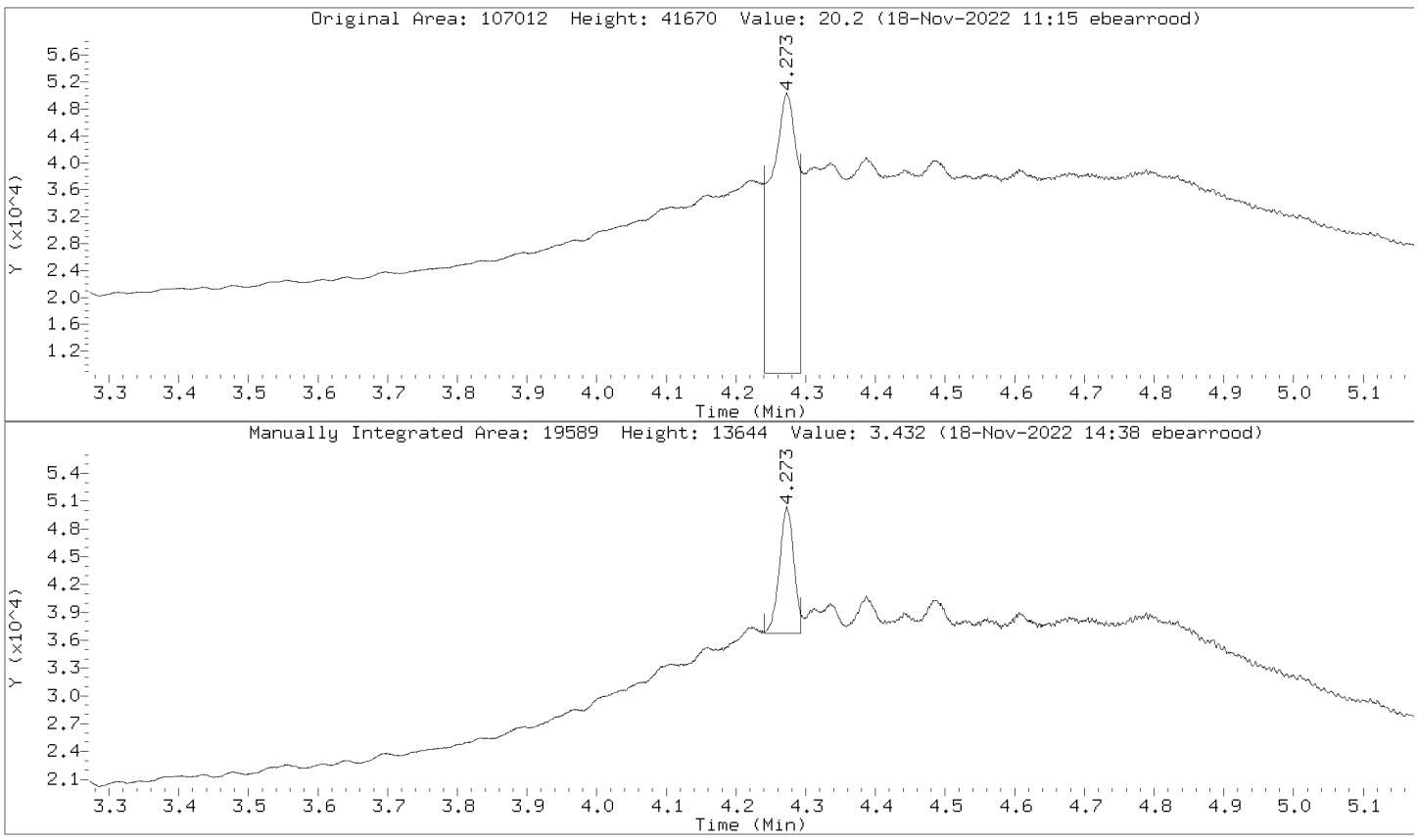
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: C10-C36 Review Code: RNG
CAS Number:



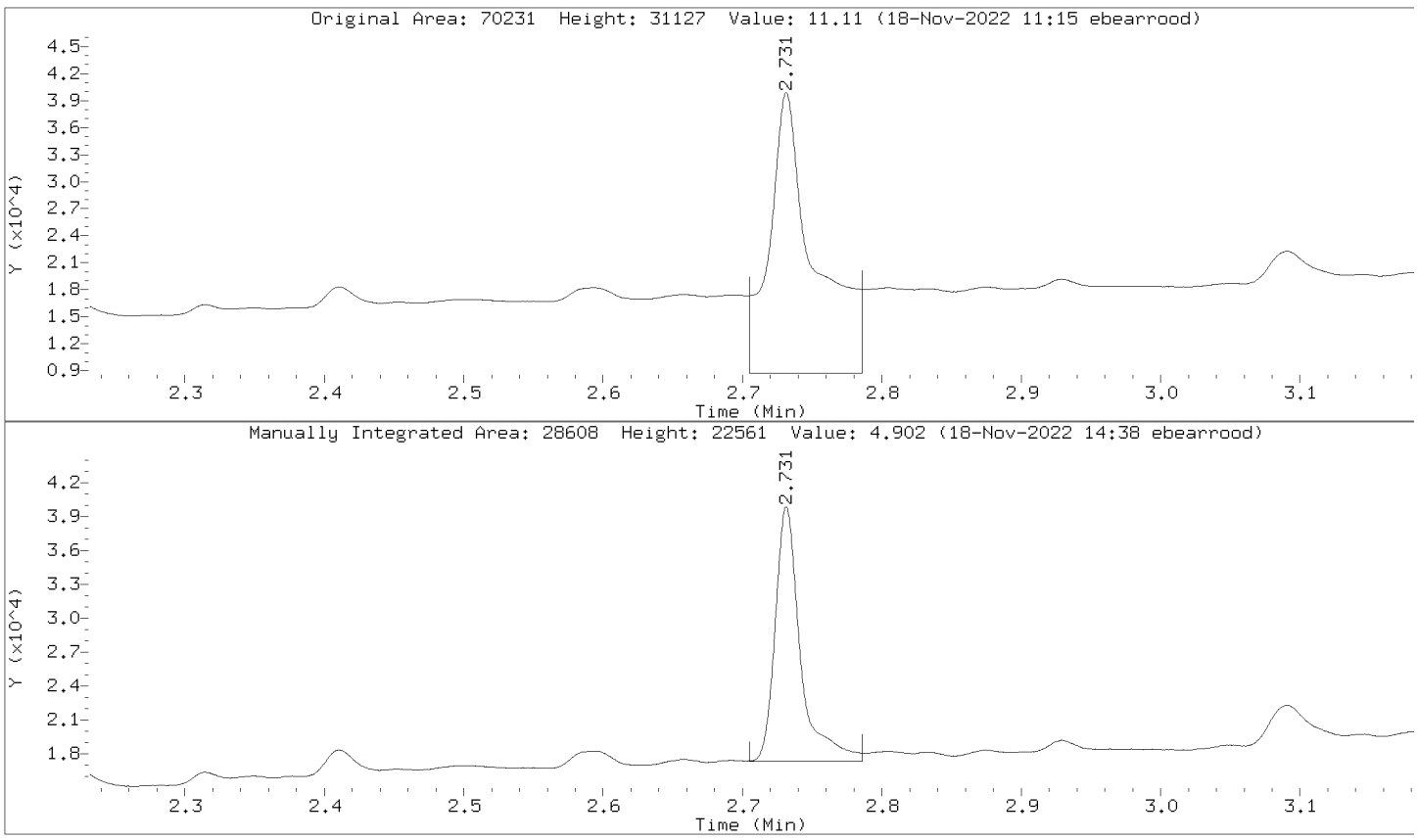
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000040.d
Injection Date: 17-NOV-2022 18:25
Instrument: 10gcsF.i
Lab Sample ID: 4514593

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2169180	2169180
DRO by AK 102	1078214	1078214
TPH-DRO (C10-C28)	1772996	1772996
Motor Oil Range (C24-C36)	2288285	2288285
Diesel Fuel Range	1053243	1053243
Motor Oil Range	2792250	2792250
Diesel Fuel Range SG	1053243	1053243
Motor Oil Range SG	2792250	2792250
C10-C36	3247395	3247395
n-Triacontane (S)	107012	19589
o-Terphenyl (S)	70231	28608

Prep Log Report

Batch Information: OEXT 67289 853840 NWDROS

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3550	Analysis Method	NWTPH-Dx	Prepared By	KG2	Extracted Date/Time	11/16/2022 13:13:35:561
Instrument	10BALW	Calibrated	Yes	Sonicator Tune Date	11/16/2022 13:13:38:233	Spiked By	KG2
Dispenser ID 1	Q617	Dispenser ID 2		Syringe ID 1	Q701	Syringe ID 2	Q835
Syringe ID 3	Q823	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	VH
Concentration Date/Time	11/16/2022	Methylene Chloride	396031	MeCl/Acetone 80:20	396472	Ottawa Sand	372714
Sodium Sulfate	394931	Glass Wool	395359	Gravity Filters	None Added	Vial Lot #	2203611588
Reviewed By	RS	Reviewed By Date	11/17/2022 06:36	Batch Notes	Shares QCs with OEXT 67290 853843 8015DSD10		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Spike Verified By	Container + Sample Wt (g)	Container Wt (g)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Sonicator ID	Water Bath ID	Water Bath Thermo ID	Correction Factor
NWDROS_P	BLANK	**4514590**	Y	Solid	scanner	GY1			10	1	10OP37	10OP28	210745396	1
NWDROS_P	LCS	**4514591**	Y	Solid	scanner	GY1			10	1	10OP04	10OP28	210745396	1
NWDROS_P	PS	**10633981001**	Y	Solid	scanner	GY1			10.05	1	10OP04	10OP28	210745396	1
NWDROS_P	MS	**4514592**	Y	Solid	scanner	GY1			10.06	1	10OP01	10OP28	210745396	1
NWDROS_P	MSD	**4514593**	Y	Solid	scanner	GY1			10.06	1	10OP02	10OP28	210745396	1
NWDROS_P	PS	**10633981002**	Y	Solid	scanner	GY1			10.07	1	10OP02	10OP28	210745396	1
NWDROS_P	PS	**10633981003**	Y	Solid	scanner	GY1			10.09	1	10OP37	10OP28	210745396	1
NWDROS_P	PS	**10633981004**	Y	Solid	scanner	GY1			10.1	1	10OP04	10OP28	210745396	1
NWDROS_P	PS	**10633981005**	Y	Solid	scanner	GY1			10.12	1	10OP04	10OP28	210745396	1

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	BLANK	**4514590**	98.00 | 99.00			394615 (10)	386119 (25)
NWDROS_P	LCS	**4514591**	98.00 | 99.00		389587 (250)	394615 (10)	386119 (25)
NWDROS_P	PS	**10633981001**	98.00 | 99.00	wet sample		394615 (10)	386119 (25)

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROS_P	MS	**4514592**	98.00 | 99.00	wet sample	389587 (250)	394615 (10)	386119 (25)
NWDROS_P	MSD	**4514593**	98.00 | 99.00	wet sample	389587 (250)	394615 (10)	386119 (25)
NWDROS_P	PS	**10633981002**	98.00 | 99.00	wet sample		394615 (10)	386119 (25)
NWDROS_P	PS	**10633981003**	98.00 | 99.00	wet sample		394615 (10)	386119 (25)
NWDROS_P	PS	**10633981004**	98.00 | 99.00	wet sample		394615 (10)	386119 (25)
NWDROS_P	PS	**10633981005**	98.00 | 99.00	wet sample		394615 (10)	386119 (25)

Standard Notes:

386119: received 9/9/22

389587: 10GCSF 1005R000014.D

394615: Recieved 11/04/22, Opened 11/16/2 KG2

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:27	EB3	| PRL meeting criteria for everything except surr*
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_	11/10/22 15:15	EB3	rxooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_	11/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_	11/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_	11/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_	11/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_	11/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_	11/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_	11/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_	11/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022_	11/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022_	11/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022_	11/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022_	11/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022_	11/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022_	11/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022_	11/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022_	11/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022_	11/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 01:50	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 11/14/2022 17:50
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF | Method: 8015/AK/NW | Solvent lot: 396031 | Surrogate Lot: See extract sheet
Column: DB-5-US21130002 0.32mm Hy | ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1117R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 10:55	EB3	
1117R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 11:06	EB3	
1117R0000003.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/17/22 11:18	EB3	
1117R0000004C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 11:29	EB3	Pass 15% for all ranges
1117R0000005.D	4514703	S/41050	Blank	1		GCSFAKNW8015-111022_	11/17/22 11:41	EB3	clean
1117R0000006.D	4514706	S/41050	LCS	1		GCSFAKNW8015-111022_	11/17/22 11:53	EB3	8015 microwave MDL
1117R0000007C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 12:05	EB3	Pass 15% for all ranges
1117R0000008.D	4512629	L/41038	Blank	1		GCSFAKNW8015-111022_	11/17/22 12:16	EB3	clean
1117R0000009.D	10633738005	L/41038	Sample	400		GCSFAKNW8015-111022_	11/17/22 12:28	EB3	
1117R0000010C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 12:40	EB3	Pass 15% for all ranges
1117R0000011.D	4512707	S/41040	Blank	1		GCSFAKNW8015-111022_	11/17/22 12:51	EB3	clean
1117R0000012.D	10633733009	S/41040	Sample	100		GCSFAKNW8015-111022_	11/17/22 13:03	EB3	
1117R0000013.D	10633738004	S/41040	Sample	10		GCSFAKNW8015-111022_	11/17/22 13:15	EB3	
1117R0000014.D	10633733006	S/41040	Sample	1		GCSFAKNW8015-111022_	11/17/22 13:26	EB3	
1117R0000015C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 13:38	EB3	Pass 15% for all ranges
1117R0000016.D	4512083	S/41043	Blank	1		GCSFAKNW8015-111022_	11/17/22 13:50	EB3	clean
1117R0000017.D	10633565001	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:01	EB3	rx
1117R0000017B.	10633670001	S/41041	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:01	EB3	
1117R0000018.D	4512085	S/41043	MS	1		GCSFAKNW8015-111022_	11/17/22 14:13	EB3	failing low, rx due to BNSF QAPP criteria
1117R0000018B.	4512101	S/41041	MS	1		GCSFAKNW8015-111022_	11/17/22 14:13	EB3	
1117R0000019.D	4512086	S/41043	MSD	1		GCSFAKNW8015-111022_	11/17/22 14:25	EB3	NR
1117R0000019B.	4512102	S/41041	MSD	1		GCSFAKNW8015-111022_	11/17/22 14:25	EB3	
1117R0000020.D	10633565003	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:37	EB3	rx
1117R0000021.D	10633565005	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:48	EB3	rx
1117R0000022C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 14:59	EB3	Pass 15% for all ranges
1117R0000023.D	4514826	L/41065	Blank	1		GCSFAKNW8015-111022_	11/17/22 15:11	EB3	clean
1117R0000024.D	4514827	L/41065	LCS	1		GCSFAKNW8015-111022_	11/17/22 15:22	EB3	pass
1117R0000025.D	4514828	L/41065	LCSD	1		GCSFAKNW8015-111022_	11/17/22 15:34	EB3	pass
1117R0000026.D	10633992001	L/41065	Sample	1		GCSFAKNW8015-111022_	11/17/22 15:45	EB3	
1117R0000027C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 15:56	EB3	Pass 15% for all ranges
1117R0000028.D	4514468	L/41066	Blank	1		GCSFAKNW8015-111022_	11/17/22 16:08	EB3	clean
1117R0000029.D	4514469	L/41066	LCS	1		GCSFAKNW8015-111022_	11/17/22 16:19	EB3	pass
1117R0000030.D	4514470	L/41066	LCSD	1		GCSFAKNW8015-111022_	11/17/22 16:31	EB3	pass
1117R0000031.D	10633946002	L/41066	Sample	10		GCSFAKNW8015-111022_	11/17/22 16:42	EB3	
1117R0000032.D	10633974003	L/41066	Sample	1		GCSFAKNW8015-111022_	11/17/22 16:53	EB3	
1117R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 17:05	EB3	Pass 15% for all ranges
1117R0000034.D	4514590	S/41067	Blank	1		GCSFAKNW8015-111022_	11/17/22 17:16	EB3	clean
1117R0000034B.	4514594	S/41068	Blank	1		GCSFAKNW8015-111022_	11/17/22 17:16	EB3	clean
1117R0000035.D	4514591	S/41067	LCS	1		GCSFAKNW8015-111022_	11/17/22 17:28	EB3	pass
1117R0000035B.	4514595	S/41068	LCS	1		GCSFAKNW8015-111022_	11/17/22 17:28	EB3	pass
1117R0000036.D	10634002001	S/41068	Sample	20		GCSFAKNW8015-111022_	11/17/22 17:39	EB3	rr 200X
1117R0000037.D	10633946001	S/41068	Sample	20		GCSFAKNW8015-111022_	11/17/22 17:51	EB3	rrcheckforcarryover
1117R0000038.D	10633981001	S/41067	Sample	10		GCSFAKNW8015-111022_	11/17/22 18:02	EB3	
1117R0000038B.	10634011001	S/41068	Sample	10		GCSFAKNW8015-111022_	11/17/22 18:02	EB3	
1117R0000039.D	4514592	S/41067	MS	10		GCSFAKNW8015-111022_	11/17/22 18:13	EB3	
1117R0000039B.	4514723	S/41068	MS	10		GCSFAKNW8015-111022_	11/17/22 18:13	EB3	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 396031

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1117R0000040.D	4514593	S/41067	MSD	10		GCSFAKNW8015-111022_	11/17/22 18:25	EB3	
1117R0000040B.	4514724	S/41068	MSD	10		GCSFAKNW8015-111022_	11/17/22 18:25	EB3	
1117R0000041.D	10633981003	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:36	EB3	
1117R0000042.D	10633981004	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:48	EB3	
1117R0000043.D	10633981002	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:59	EB3	
1117R0000044C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 19:10	EB3	Pass 15% for all ranges
1117R0000045.D	4514590	S/41067	Blank	1		GCSFAKNW8015-111022_	11/17/22 19:22	EB3	clean
1117R0000046.D	10633981005	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:33	EB3	
1117R0000047.D	10633974001	S/41068	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:45	EB3	
1117R0000048.D	10633974002	S/41068	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:56	EB3	
1117R0000049C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 20:07	EB3	Pass 15% for all ranges
1117R0000050.D	PBLK,4514590	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 20:19	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111722R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/22/2022 14:50
Reviewed By/Date:

SAMPLE NO.

BNSF-I500-SC-0.0-0.8-111322

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Lab Sample ID: 10633981001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	20.6		%	1	11/17/2022 13:01

SAMPLE NO.

BNSF-O280-SC-0.0-0.7-111322

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Lab Sample ID: 10633981002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	24.2		%	1	11/17/2022 13:06

SAMPLE NO.

BNSF-HN300-SC-1.0-2.0-111322

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Lab Sample ID: 10633981003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	23.6		%	1	11/17/2022 13:06

SAMPLE NO.

BNSF-J060-SC-0.5-1.5-111422

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Lab Sample ID: 10633981004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	30.6		%	1	11/17/2022 13:06

SAMPLE NO.

BNSF-J060-SC-8.5-9.5-111422

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Lab Sample ID: 10633981005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	20.1		%	1	11/17/2022 13:07

SAMPLE NO.

4515868DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	20.6	20.9	2

SAMPLE NO.

4515869DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Matrix: Solid Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Percent Moisture	30	80.6	80.5	0

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Preparation Method: ASTM D2974 Instrument ID: 10BALP

Concentration Units: %

Analyte	PQL	MDL	MDL Date
Percent Moisture	0.10	0.10	01/01/2003

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Preparation Method: ASTM D2974 Batch: MPRP 130063

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
4515868	4515868	11/17/2022	1	1
4515869	4515869	11/17/2022	1	1
10633981001	BNSF-I500-SC-0.0-0.8-	11/17/2022	1	1
10633981002	BNSF-O280-SC-0.0-0.7-	11/17/2022	1	1
10633981003	BNSF-HN300-SC-1.0-2.0-	11/17/2022	1	1
10633981004	BNSF-J060-SC-0.5-1.5-	11/17/2022	1	1
10633981005	BNSF-J060-SC-8.5-9.5-	11/17/2022	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10633981 Contract: D3631600

Instrument ID: 10BALP Analysis Method: ASTM D2974

Start Date: 11/17/2022 13:01 End Date: 11/17/2022 13:08

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BNSF-I500-SC-0.0-0.8-	10633981001	1	11/17/2022	13:01	X
4515868DUP	4515868	1	11/17/2022	13:01	X
BNSF-O280-SC-0.0-0.7-	10633981002	1	11/17/2022	13:06	X
BNSF-HN300-SC-1.0-2.0-	10633981003	1	11/17/2022	13:06	X
BNSF-J060-SC-0.5-1.5-	10633981004	1	11/17/2022	13:06	X
BNSF-J060-SC-8.5-9.5-	10633981005	1	11/17/2022	13:07	X
10634104010	10634104010	1	11/17/2022	13:07	X
4515869DUP	4515869	1	11/17/2022	13:08	X

Prep Log Report

Batch Information: 854009 130063 DW

Template Version: ENV-EPL-MIN4-0033-Rev.00 (13Dec2020)

Analysis Method	ASTM D2974	Analyzed By	JDL	Instrument	10BALP	Oven ID	10WET49
Acceptance Range	100-110 C	Thermometer ID	559926	Oven Correction Factor (C)	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 11/17/2022 13:21 | JDL
Oven Temp Out1 (C) | Corr | Date/Time | Init	101.0 | 101.0 | 11/18/2022 08:02 | JDL	Desic. In 1 ID | Date/Time | Init	10MET41 | 11/18/2022 08:02 | JDL	Desic. Out 1 Date/Time | Init	11/18/2022 08:41 | JDL	Reviewed By	RAM
Reviewed By Date	11/18/2022 13:15	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**10633767174**	Y		90.94	9.057	11/17/2022 13:05:09	8.6871	1.2756	9.4252	8.6871	M	
DRY WEIGHT	PS	**10633767176**	Y		90.30	9.701	11/17/2022 13:05:20	9.0454	1.2728	9.8804	9.0454	M	
DRY WEIGHT	PS	**10633767178**	Y		92.54	7.457	11/17/2022 13:05:33	8.7736	1.2718	9.3781	8.7736	M	
DRY WEIGHT	PS	**10633767180**	Y		92.44	7.558	11/17/2022 13:05:44	8.6501	1.2753	9.2531	8.6501	M	
DRY WEIGHT	PS	**10633767182**	Y		93.03	6.966	11/17/2022 13:05:55	9.2888	1.2774	9.8887	9.2888	M	
DRY WEIGHT	PS	**10634002001**	Y		91.61	8.395	11/17/2022 13:06:10	8.4893	1.2722	9.1507	8.4893	M	
DRY WEIGHT	PS	**10633981001**	Y		79.43	20.57	11/17/2022 13:01:21	8.1778	1.2748	9.9655	8.1778	M	
DRY WEIGHT	DUP	**4515868**	Y		79.09	20.91	11/17/2022 13:01:33	8.1237	1.2791	9.9333	8.1237	M	
DRY WEIGHT	PS	**10633981002**	Y		75.80	24.20	11/17/2022 13:06:26	7.5497	1.2743	9.5537	7.5497	M	
DRY WEIGHT	PS	**10633981003**	Y		76.41	23.59	11/17/2022 13:06:39	7.6516	1.2814	9.6181	7.6516	M	
DRY WEIGHT	PS	**10633981004**	Y		69.45	30.55	11/17/2022 13:06:50	7.2894	1.2727	9.9365	7.2894	M	
DRY WEIGHT	PS	**10633981005**	Y		79.86	20.14	11/17/2022 13:07:02	7.9035	1.2787	9.5746	7.9035	M	
DRY WEIGHT	PS	**10634104003**	Y		66.16	33.84	11/17/2022 13:07:16	6.8289	1.2691	9.6722	6.8289	M	
DRY WEIGHT	PS	**10634104006**	Y		28.05	71.95	11/17/2022 13:07:28	3.5121	1.2745	9.2526	3.5121	M	
DRY WEIGHT	PS	**10634104007**	Y		84.35	15.65	11/17/2022 13:07:39	8.0134	1.2703	9.2644	8.0134	M	
DRY WEIGHT	PS	**10634104010**	Y		19.44	80.56	11/17/2022 13:07:50	2.9677	1.2715	9.9954	2.9677	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	DUP	**4515869**	Y		19.53	80.47	11/17/2022 13:08:02	2.9546	1.2733	9.8843	2.9546	M	

ANALYTICAL REPORT

November 25, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1559126
Samples Received:	11/17/2022
Project Number:	10633981
Description:	D3631600
Site:	001
Report To:	Kongmeng Vang
	1700 Elm Street Suite 200
	Minneapolis, MN 55414

Entire Report Reviewed By:

Nancy McLain
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BNSF-I500-SC-0.0-0.8-111322 L1559126-01 Solid

Collected by	Collected date/time	Received date/time
	11/13/22 11:40	11/17/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1962054	1	11/19/22 09:54	11/19/22 10:10	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962881	1	11/22/22 05:49	11/22/22 21:48	JRM	Mt. Juliet, TN

BNSF-O280-SC-0.0-0.7-111322 L1559126-02 Solid

Collected by	Collected date/time	Received date/time
	11/13/22 11:50	11/17/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1962054	1	11/19/22 09:54	11/19/22 10:10	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962881	1	11/22/22 05:49	11/22/22 18:23	JRM	Mt. Juliet, TN

BNSF-HN300-SC-1.0-2.0-111322 L1559126-03 Solid

Collected by	Collected date/time	Received date/time
	11/13/22 15:00	11/17/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1962054	1	11/19/22 09:54	11/19/22 10:10	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962881	1	11/22/22 05:49	11/22/22 18:44	JRM	Mt. Juliet, TN

BNSF-J060-SC-0.5-1.5-111322 L1559126-04 Solid

Collected by	Collected date/time	Received date/time
	11/14/22 10:20	11/17/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1962054	1	11/19/22 09:54	11/19/22 10:10	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962881	1	11/22/22 05:49	11/22/22 19:04	JRM	Mt. Juliet, TN

BNSF-J060-SC-8.5-9.5-111322 L1559126-05 Solid

Collected by	Collected date/time	Received date/time
	11/14/22 10:30	11/17/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1962356	1	11/19/22 11:33	11/19/22 11:57	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962881	1	11/22/22 05:49	11/22/22 18:03	JRM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 11/25/22 12:21

2540 G-2011 Total Solids

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-I500-SC-0.0-0.8-111322

Lab Sample ID:	L1559126-01	**SDG:**	L1559126
Client Sample ID:	BNSF-I500-SC-0.0-0.8-111322	**Collected Date/Time:**	11/13/22 11:40
Lab File ID:	06	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:54
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	9.743 g
Total Solids (%):	80.5	**Final Wt/Vol:**	8.097 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	80.5	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-O280-SC-0.0-0.7-111322

Lab Sample ID:	L1559126-02	**SDG:**	L1559126
Client Sample ID:	BNSF-O280-SC-0.0-0.7-111322	**Collected Date/Time:**	11/13/22 11:50
Lab File ID:	07	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:54
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	14.816 g
Total Solids (%):	76.1	**Final Wt/Vol:**	11.586 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	76.1	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-HN300-SC-1.0-2.0-111322

Lab Sample ID:	L1559126-03	**SDG:**	L1559126
Client Sample ID:	BNSF-HN300-SC-1.0-2.0-111322	**Collected Date/Time:**	11/13/22 15:00
Lab File ID:	08	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:54
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.82 g
Total Solids (%):	75.7	**Final Wt/Vol:**	6.989 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	75.7	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-J060-SC-0.5-1.5-111322

Lab Sample ID:	L1559126-04	**SDG:**	L1559126
Client Sample ID:	BNSF-J060-SC-0.5-1.5-111322	**Collected Date/Time:**	11/14/22 10:20
Lab File ID:	09	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:54
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.401 g
Total Solids (%):	72.7	**Final Wt/Vol:**	8.638 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	72.7	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-J060-SC-8.5-9.5-111322

Lab Sample ID:	L1559126-05	**SDG:**	L1559126
Client Sample ID:	BNSF-J060-SC-8.5-9.5-111322	**Collected Date/Time:**	11/14/22 10:30
Lab File ID:	04	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 11:33
Analytical Batch:	WG1962356	**Analysis Date/Time:**	11/19/22 11:57
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	8.768 g
Total Solids (%):	78.4	**Final Wt/Vol:**	7.151 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	78.4	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863242-1	**SDG:**	L1559126
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:52
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.285 g
Total Solids (%):		**Final Wt/Vol:**	1.284 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00100	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863246-1	**SDG:**	L1559126
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 11:26
Analytical Batch:	WG1962356	**Analysis Date/Time:**	11/19/22 11:57
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	1.278 g
Total Solids (%):		**Final Wt/Vol:**	1.276 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	0.00200	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863242-2	**SDG:**	L1559126
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	03	**Received Date/Time:**	_____
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:52
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	11.294 g
Total Solids (%):	_____	**Final Wt/Vol:**	6.294 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863246-2	**SDG:**	L1559126
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	03	**Received Date/Time:**	
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 11:26
Analytical Batch:	WG1962356	**Analysis Date/Time:**	11/19/22 11:57
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	
Matrix:	Solid	**Initial Wt/Vol:**	11.277 g
Total Solids (%):		**Final Wt/Vol:**	6.275 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	50.0	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863242-3	**SDG:**	L1559126
Client Sample ID:	DUP	**Collected Date/Time:**	11/13/22 15:00
Lab File ID:	02	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 09:52
Analytical Batch:	WG1962054	**Analysis Date/Time:**	11/19/22 10:10
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	10.337 g
Total Solids (%):	75.7	**Final Wt/Vol:**	8.151 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	75.8	

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863246-3	**SDG:**	L1559126
Client Sample ID:	DUP	**Collected Date/Time:**	11/14/22 11:32
Lab File ID:	02	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	LOGBAL1	**Preparation Date/Time:**	11/19/22 11:26
Analytical Batch:	WG1962356	**Analysis Date/Time:**	11/19/22 11:57
Dilution Factor:	1	**Prep Method:**	SM 2540 G
Analytical Method:	2540 G-2011	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	12.252 g
Total Solids (%):	81.8	**Final Wt/Vol:**	10.374 g

Analyte	CAS	Result	Qualifier
		%	
Total Solids	TSOLIDS	82.9	

SDG:	L1559126	**Calibration (begin) date/time:**	_____
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1962054

	Sample ID:	**BLANK Result**	**BLANK Qual**
	File ID:	01	
Analyte		%	
TOTAL SOLIDS		0.00100	

SDG:	L1559126	**Calibration (begin) date/time:**	
Instrument ID:	LOGBAL1	**Calibration (end) date/time:**	
Analytical Method:	2540 G-2011	**Analytical Run:**	WG1962356

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	%	
TOTAL SOLIDS	0.00200	

DUP Sample / File ID:	R3863242-3 / 02	**SDG:**	L1559126
OS Sample / File ID:	L1559126-03 / 08	**Analytical Batch:**	WG1962054
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	75.7	75.8	0.180	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DUP Sample / File ID:	R3863246-3 / 02	**SDG:**	L1559126
OS Sample / File ID:	L1559177-01 / 07	**Analytical Batch:**	WG1962356
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	OS Result	DUP Result	RPD	RPD Limits
	%	%	%	%
Total Solids	81.8	82.9	1.24	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1559126-01,02,03,04

SAMPLE NO.:
R3863242-2

LCS Sample / File ID:	R3863242-2 / 03	**SDG:**	L1559126
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1962054
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1559126-05

SAMPLE NO.:
R3863246-2

LCS Sample / File ID:	R3863246-2 / 03	**SDG:**	L1559126
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1962356
Instrument ID:	LOGBAL1	**Dilution Factor:**	1
Analytical Method:	2540 G-2011	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	%	%		%	%	%	%	%
Total Solids	50.0	50.0		100		85.0 - 115		

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1559126-01,02,03,04,05 **Analytical Method:** 2540 G-2011

Matrix: Solid **Prep Method:** SM 2540 G

Analyte	CAS	Wavelength	Mass	MDL	RDL
				%	%
Total Solids	TSOLIDS				

ANALYSIS LOG

SDG:	L1559126	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	
Analytical Run:	WG1962054	**Calibration End Date:**	

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3863242-1	01	11/19/22 10:10	1	WG1962054
DUP	R3863242-3	02	11/19/22 10:10	1	WG1962054
LCS	R3863242-2	03	11/19/22 10:10	1	WG1962054
BNSF-O280-SC-0.0-0.7-111322	L1559126-02	07	11/19/22 10:10	1	WG1962054
BNSF-HN300-SC-1.0-2.0-111322	L1559126-03	08	11/19/22 10:10	1	WG1962054
BNSF-I500-SC-0.0-0.8-111322	L1559126-01	06	11/19/22 10:10	1	WG1962054
BNSF-J060-SC-0.5-1.5-111322	L1559126-04	09	11/19/22 10:10	1	WG1962054

ANALYSIS LOG

SDG:	L1559126	**Analytical Method:**	2540 G-2011
Instrument ID:	LOGBAL1	**Calibration Start Date:**	_____
Analytical Run:	WG1962356	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3863246-1	01	11/19/22 11:57	1	WG1962356
DUP	R3863246-3	02	11/19/22 11:57	1	WG1962356
LCS	R3863246-2	03	11/19/22 11:57	1	WG1962356
OS	L1559177-01	07	11/19/22 11:57		
BNSF-J060-SC-8.5-9.5-111322	L1559126-05	04	11/19/22 11:57	1	WG1962356

Total Solids WetChem Prep Benchsheet

Batch: WG1962054

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1558905	WG1961548	RT703	PREPREPBAL3	17-NOV-22
L1559126	WG1961691	KMT967	PREPREPBAL4	18-NOV-22
L1559269	WG1961903	RT703	PREPREPBAL2	18-NOV-22

Analyst: MT3521 **Prep Start Date/Time:** 11/19/22 09:52-09:54 **Prep End Date/Time:** 11/21/22 06:27 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				BB1	1.285	1.285	1.284	1.284	0	0.001	99.999						KDW475	11/21/22 06:28:11
LCS				BB2	1.292	11.294	6.293	6.294	0.001	50.01	49.99	100.02	99.98				KDW475	11/21/22 06:28:11
DUP(L1559126-03)				BB3	1.289	10.337	8.148	8.151	0.003	75.84	24.16			0.18	0.56	PP4 1118 Fri1	KDW475	11/21/22 06:28:11
1. L1558905-05	SS	CO	11/16/22 13:30	BB4	1.278	12.676	11.755	11.763	0.008	91.9898	8.0102					11/17 PP3 THUR 3	KDW475	11/21/22 06:28:11
2. L1558905-06	SS	CO	11/16/22 13:30	BB5	1.282	10.046	8.966	8.970	0.004	87.7225	12.2775					11/17 PP3 THUR 3	KDW475	11/21/22 06:28:11
3. L1559126-01	SS	WA	11/13/22 11:40	BB6	1.283	9.743	8.094	8.097	0.003	80.5437	19.4563					PP4 1118 Fri1	KDW475	11/21/22 06:28:11
4. L1559126-02	SS	WA	11/13/22 11:50	BB7	1.278	14.816	11.587	11.586	0.001	76.1412	23.8588					PP4 1118 Fri1	KDW475	11/21/22 06:28:11
5. L1559126-03	SS	WA	11/13/22 15:00	BB8	1.284	8.820	6.988	6.989	0.001	75.7033	24.2967						KDW475	11/21/22 06:28:11
6. L1559126-04	SS	WA	11/14/22 10:20	BB9	1.296	11.401	8.634	8.638	0.004	72.6571	27.3429					PP4 1118 Fri1	KDW475	11/21/22 06:28:11
7. L1559269-01	SS	IN	11/16/22 11:15	BB10	1.282	10.613	9.214	9.217	0.003	85.0391	14.9609					Fri02 / 1118PP02	KDW475	11/21/22 06:28:11
8. L1559269-02	SS	IN	11/16/22 11:40	BB11	1.279	10.334	9.088	9.089	0.001	86.2507	13.7493					Fri02 / 1118PP02	KDW475	11/21/22 06:28:11
9. L1559269-03	SS	IN	11/16/22 12:20	BB12	1.282	9.712	8.536	8.538	0.002	86.0735	13.9265					Fri02 / 1118PP02	KDW475	11/21/22 06:28:11
10. L1559269-04	SS	IN	11/16/22 12:40	BB13	1.281	10.524	9.333	9.335	0.002	87.1362	12.8638					Fri02 / 1118PP02	KDW475	11/21/22 06:28:11

Comments:

Reviewed By:KDW475 on 11/21/22 06:28:11

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/19/22 10:10:18	104	104	11/21/22 04:28:10	104	104	BLANK, LCS, DUP(L1559126-03), L1558905-05, L1559269-04, L1559269-03, L1559269-02, L1559269-01, L1559126-04, L1559126-03, L1559126-02, L1559126-01, L1558905-06
2	Oven-1hr	11/21/22 04:30:23	104	104	11/21/22 06:24:33	104	104	BLANK, LCS, DUP(L1559126-03), L1558905-05, L1558905-06, L1559126-01, L1559126-02, L1559126-03, L1559126-04, L1559269-01, L1559269-02, L1559269-03, L1559269-04

Total Solids WetChem Prep Benchsheet

Batch: WG1962356

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1559126	WG1961691	KMT967	PREPREPBAL4	18-NOV-22
L1559141	WG1961681	KMT967	PREPREPBAL4	17-NOV-22
L1559170	WG1961681	KMT967	PREPREPBAL4	17-NOV-22
L1559177	WG1961903	RT703	PREPREPBAL2	18-NOV-22
L1559181	WG1961893	ARS3701	PREPREPBAL4	18-NOV-22
L1559748	WG1962342	KMT967	PREPREPBAL2	18-NOV-22

Analyst: MT3521 **Prep Start Date/Time:** 11/19/22 11:26-11:33 **Prep End Date/Time:** 11/21/22 06:44 **SOP:** 0178 **Method:** SM 2540G **Oven ID:** 2305
Balance ID: LOGBAL1 **LCS True Value:** 50

LCS: 22J29518 Amt. Used: 50 Exp. Date:04/29/23

Sample Number	Matrix	State	Collect Date	Vessel ID	Vessel Wt (g)	Sample + Vessel Wt (g)	Oven Wt1 (g)	Oven Wt2 (g)	Wt Diff (g)	% TS Result	% Moisture Result	TS % Recovery	Moisture % Rec.	TS RPD	% Moisture RPD	Box ID	Review Analyst	Review Date
BLANK				FF1	1.278	1.278	1.277	1.276	0.001	0.002	99.998						KDW475	11/21/22 06:44:28
LCS				FF2	1.276	11.277	6.276	6.275	0.001	49.985	50.015	99.97	100.03				KDW475	11/21/22 06:44:28
DUP(L1559177-01)				FF3	1.289	12.252	10.370	10.374	0.004	82.8697	17.1303			1.24	5.79	Fri02 / 1118PP02	KDW475	11/21/22 06:44:28
1. L1559126-05	SS	WA	11/14/22 10:30	FF4	1.275	8.768	7.148	7.151	0.003	78.4199	21.5801					PP4 1118 Fri1	KDW475	11/21/22 06:44:28
2. L1559141-01	SS	WA	11/14/22 10:00	FF5	1.289	11.942	9.169	9.172	0.003	73.9979	26.0021					Thu 03 / 1116PP4	KDW475	11/21/22 06:44:28
3. L1559170-02	SS	MI	10/14/22 15:00	FF6	1.293	7.098	6.507	6.511	0.004	89.888	10.112					Thu 03 / 1117PP4	KDW475	11/21/22 06:44:28
4. L1559177-01	SS	CA	11/14/22 11:32	FF7	1.285	10.805	9.074	9.077	0.003	81.8487	18.1513						KDW475	11/21/22 06:44:28
5. L1559177-02	SS	CA	11/14/22 12:58	FF8	1.287	10.896	9.655	9.659	0.004	87.1267	12.8733					Fri02 / 1118PP02	KDW475	11/21/22 06:44:28
6. L1559177-03	SS	CA	11/15/22 12:19	FF9	1.287	7.955	6.959	6.961	0.002	85.093	14.907					Fri02 / 1118PP02	KDW475	11/21/22 06:44:28
7. L1559181-01	SS	NM	11/15/22 00:00	FF10	1.281	12.158	11.623	11.628	0.005	95.1273	4.8727					PP4 1118 Fri4	KDW475	11/21/22 06:44:28
8. L1559181-02	SS	NM	11/15/22 00:00	FF11	1.286	9.023	8.740	8.744	0.004	96.394	3.606					PP4 1118 Fri4	KDW475	11/21/22 06:44:28
9. L1559748-11	SS	MD	11/16/22 14:00	FF12	1.283	14.722	12.845	12.846	0.001	86.0406	13.9594					Fri-8/PP2 1118	KDW475	11/21/22 06:44:28
10. L1559748-12	SS	MD	11/16/22 14:10	FF13	1.285	10.801	9.320	9.321	0.001	84.4472	15.5528					Fri-8/PP2 1118	KDW475	11/21/22 06:44:28

Comments:

Reviewed By:KDW475 on 11/21/22 06:44:28

#	Type	Time In	Obs. Temp In (°C)	Corrected Temp In (°C)	Time Out	Obs. Temp Out (°C)	Corrected Temp Out (°C)	Samples
1	Oven-4hr	11/19/22 11:57:15	104	104	11/21/22 04:38:34	104	104	BLANK, LCS, DUP(L1559177-01), L1559126-05, L1559748-12, L1559748-11, L1559181-02, L1559181-01, L1559177-03, L1559177-02, L1559177-01, L1559170-02, L1559141-01
2	Oven-1hr	11/21/22 04:40:51	104	104	11/21/22 06:41:19	104	104	BLANK, LCS, DUP(L1559177-01), L1559126-05, L1559141-01, L1559170-02, L1559177-01, L1559177-02, L1559177-03, L1559181-01, L1559181-02, L1559748-11, L1559748-12

8270E Semi Volatile Organic Compounds (GC/MS)

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1559126
Matrix: Solid

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	
BNSF-I500-SC-0.0-0.8-111322	L1559126-01	BNAMS2	1122_25	41.8	40.2	39.1	43.3	47.7	47.9	0
BNSF-O280-SC-0.0-0.7-111322	L1559126-02	BNAMS2	1122_15	39.0	36.9	36.6	40.9	32.0	43.0	0
BNSF-HN300-SC-1.0-2.0-111322	L1559126-03	BNAMS2	1122_16	42.9	40.2	39.7	44.6	43.4	48.0	0
BNSF-J060-SC-0.5-1.5-111322	L1559126-04	BNAMS2	1122_17	50.8	47.5	48.6	52.4	52.7	55.2	0
BNSF-J060-SC-8.5-9.5-111322	L1559126-05	BNAMS2	1122_14	36.5	33.4	34.5	36.9	30.5	36.9	0
BLANK	R3864551-2	BNAMS2	1122_11	53.3	50.0	50.8	56.2	44.7	62.8	0
LCS	R3864551-1	BNAMS2	1122_10	58.4	54.8	46.5	61.3	61.4	65.5	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	12.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 122
DMC-4	2-Fluorobiphenyl	15.0 - 120
DMC-5	2,4,6-Tribromophenol	10.0 - 127
DMC-6	p-Terphenyl-d14	10.0 - 120

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1559126-01,02,03,04,05

SAMPLE NO.:
R3864551-1

LCS Sample / File ID:	R3864551-1 / 1122_10	**SDG:**	L1559126
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1962881
Instrument ID:	BNAMS2	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/kg	*mg/kg*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	0.666	0.399		59.9		38.0 - 120		
Acenaphthylene	0.666	0.430		64.6		40.0 - 120		
Anthracene	0.666	0.393		59.0		42.0 - 120		
Benzoic Acid	1.33	0.189		14.2		10.0 - 120		
Benzo(a)anthracene	0.666	0.451		67.7		44.0 - 120		
Benzo(b)fluoranthene	0.666	0.457		68.6		43.0 - 120		
Benzo(k)fluoranthene	0.666	0.470		70.6		44.0 - 120		
Benzo(g,h,i)perylene	0.666	0.356		53.5		43.0 - 120		
Benzo(a)pyrene	0.666	0.479		71.9		45.0 - 120		
Carbazole	0.666	0.400		60.1		48.0 - 120		
Chrysene	0.666	0.450		67.6		43.0 - 120		
Dibenz(a,h)anthracene	0.666	0.367		55.1		44.0 - 120		
Dibenzofuran	0.666	0.405		60.8		44.0 - 120		
Fluoranthene	0.666	0.420		63.1		44.0 - 120		
Fluorene	0.666	0.406		61.0		41.0 - 120		
Indeno(1,2,3-cd)pyrene	0.666	0.331		49.7		45.0 - 120		
1-Methylnaphthalene	0.666	0.364		54.7		34.0 - 120		
2-Methylnaphthalene	0.666	0.351		52.7		34.0 - 120		
Naphthalene	0.666	0.334		50.2		18.0 - 120		
Phenanthrene	0.666	0.414		62.2		42.0 - 120		
Bis(2-ethylhexyl)phthalate	0.666	0.395		59.3		41.0 - 120		
Di-n-butyl phthalate	0.666	0.379		56.9		43.0 - 120		
Di-n-octyl phthalate	0.666	0.396		59.5		40.0 - 120		
Pyrene	0.666	0.437		65.6		41.0 - 120		
3&4-Methyl Phenol	0.666	0.386		58.0		42.0 - 120		
Pentachlorophenol	0.666	0.398		59.8		29.0 - 120		
Phenol	0.666	0.363		54.5		28.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3864551-2	**SDG:**	L1559126
Lab File ID:	1122_11	**Preparation Date/Time:**	11/22/22 05:49
Instrument ID:	BNAMS2	**Analysis Date/Time:**	11/22/22 17:01
Analytical Batch:	WG1962881	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	Solid

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3864551-1	BNAMS2	1122_10	11/22/22 16:40
BNSF-J060-SC-8.5-9.5-111322	L1559126-05	BNAMS2	1122_14	11/22/22 18:03
BNSF-O280-SC-0.0-0.7-111322	L1559126-02	BNAMS2	1122_15	11/22/22 18:23
BNSF-HN300-SC-1.0-2.0-111322	L1559126-03	BNAMS2	1122_16	11/22/22 18:44
BNSF-J060-SC-0.5-1.5-111322	L1559126-04	BNAMS2	1122_17	11/22/22 19:04
BNSF-I500-SC-0.0-0.8-111322	L1559126-01	BNAMS2	1122_25	11/22/22 21:48

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1020_03-1	**SDG:**	L1559126
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	10/20/22 19:04		

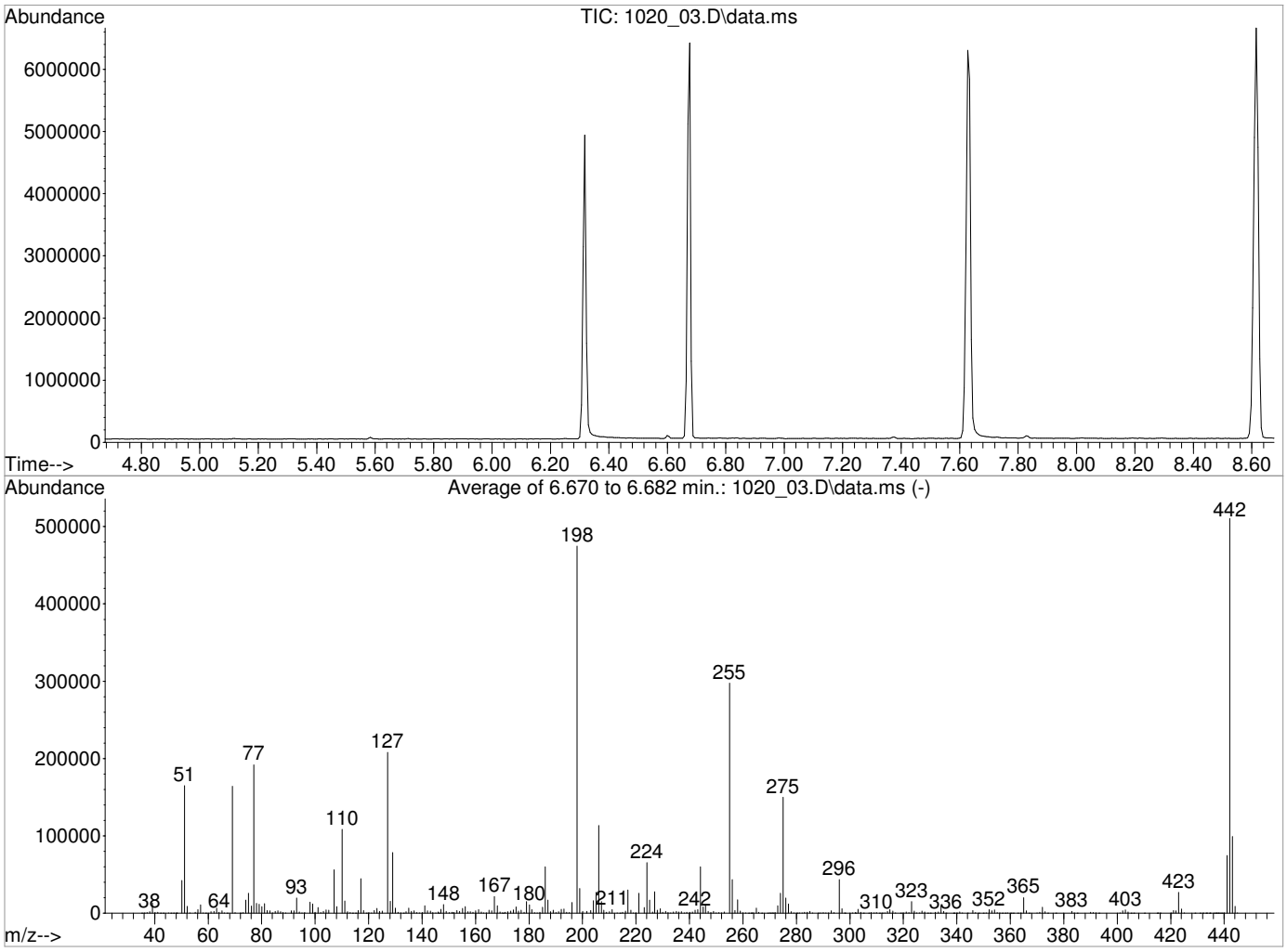
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	442	10	80	41
197	198	0	2	0
198	442	50	100	93
199	198	5	9	7
275	442	10	60	29
365	198	1	100	4
441	442	0.0001	24	15
442	442	50	100	100
443	442	15	24	20

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-500	500	1020_04	10/20/22 19:25
STD-1000	1000	1020_05	10/20/22 19:45
STD-4000	4000	1020_06	10/20/22 20:06
STD-10000	10000	1020_07	10/20/22 20:27
STD-20000	20000	1020_08	10/20/22 20:47
STD-30000	30000	1020_09	10/20/22 21:08
STD-40000	40000	1020_10	10/20/22 21:29
STD-50000	50000	1020_11	10/20/22 21:49
STD-1K1	1K1	1020_12	10/20/22 22:10
STD-4K1	4K1	1020_13	10/20/22 22:31
STD-10K1	10K1	1020_14	10/20/22 22:51
STD-20K1	20K1	1020_15	10/20/22 23:12
STD-30K1	30K1	1020_16	10/20/22 23:32
STD-40K1	40K1	1020_17	10/20/22 23:53
STD-50K1	50K1	1020_18	10/21/22 00:14
SSCV	BNAMS21020221020_19-1603375	1020_19-1	10/21/22 00:34
SSCV	BNAMS21020221020_20-1603375	1020_20-1	10/21/22 00:55

DFTPP

Data File : C:\msdchem\1\data\102022\1020_03.D Vial: 2
Acq On : 20 Oct 2022 7:04 pm Operator: 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.670 to 6.682 min.

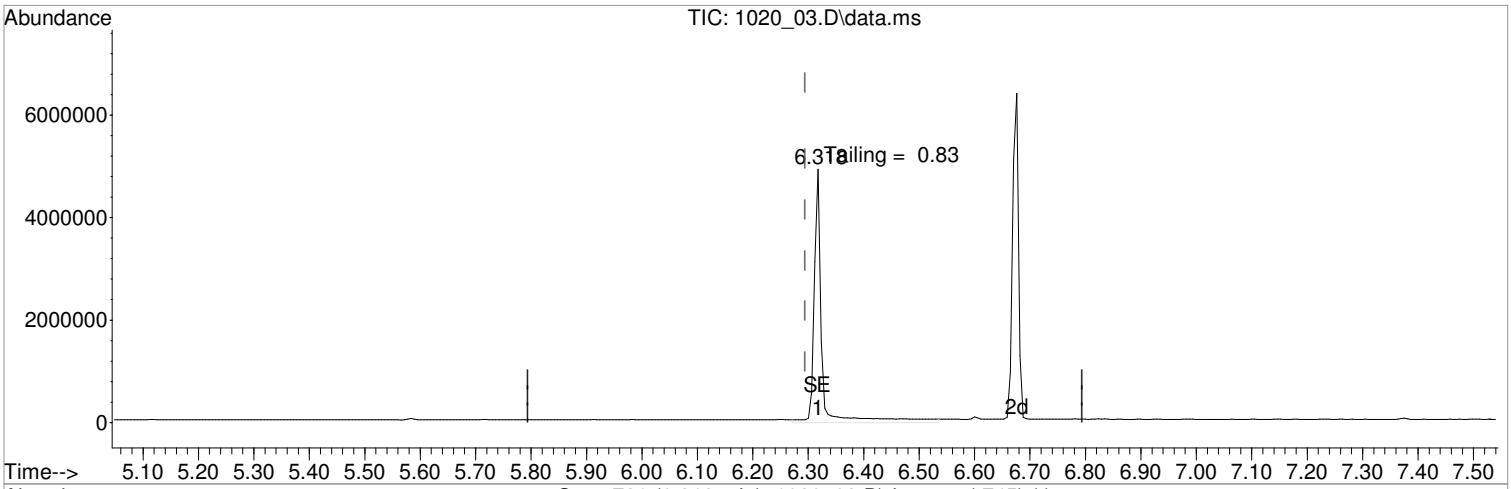
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	32.3	164781	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	164331	PASS
70	69	0.00	2	0.4	717	PASS
127	442	10	80	40.8	208117	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	93.0	474821	PASS
199	198	5	9	6.7	31838	PASS
275	442	10	60	29.4	149869	PASS
365	198	1	100	4.2	20123	PASS
441	442	0.01	24	14.6	74555	PASS
442	442	50	100	100.0	510357	PASS
443	442	15	24	19.5	99336	PASS

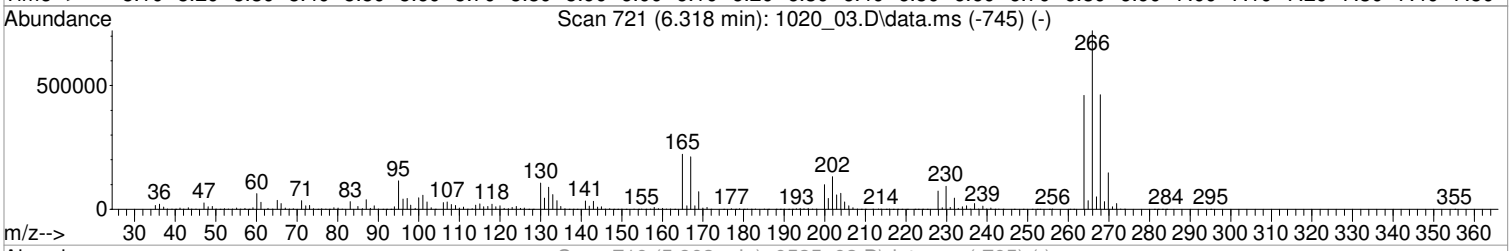
1020_03.D TUNED.M Fri Oct 21 08:14:26 2022

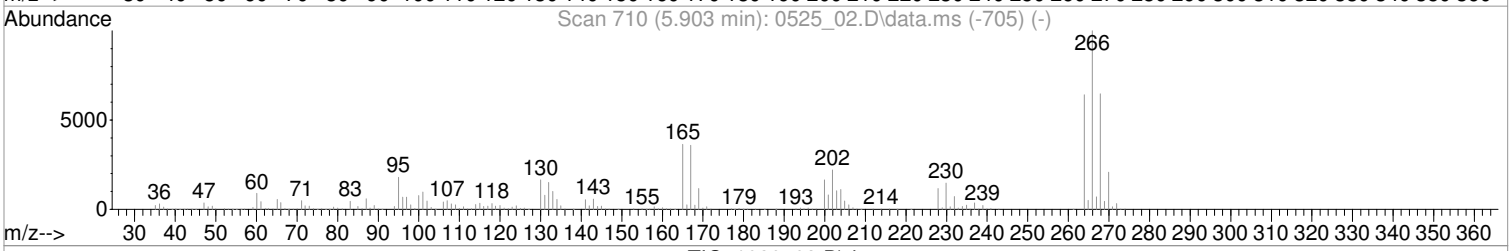
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1020_03.D\data.ms

(1) Pentachlorophenol (TM)

6.318min (+0.024) 669.2396542 ug/mL

Qvalue = 100

response 3905174

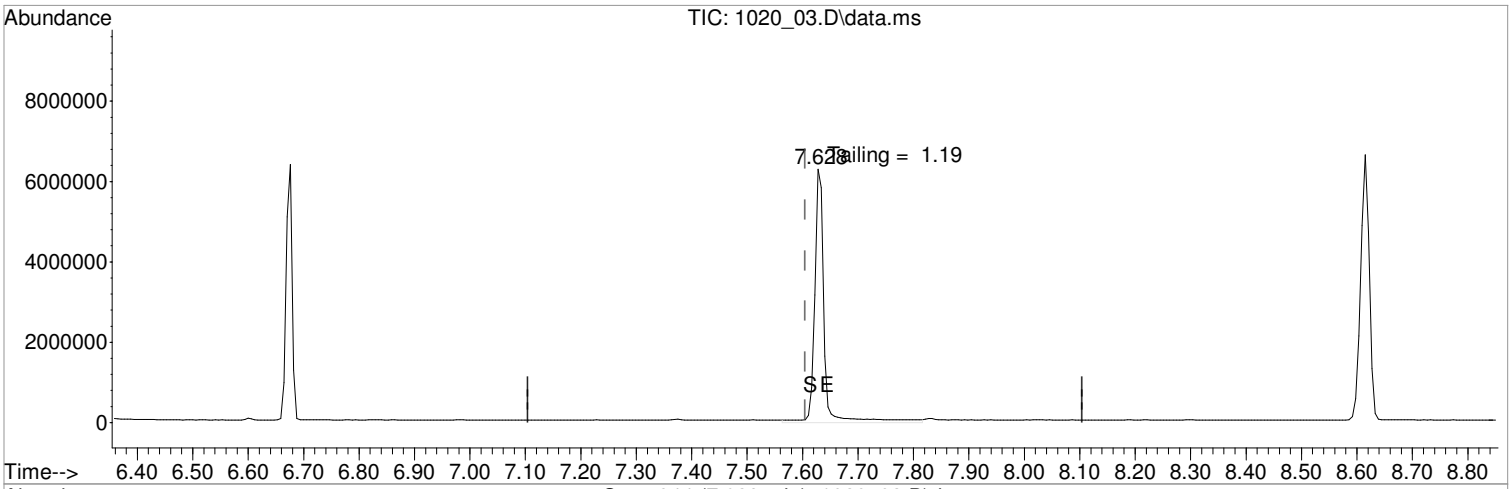
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

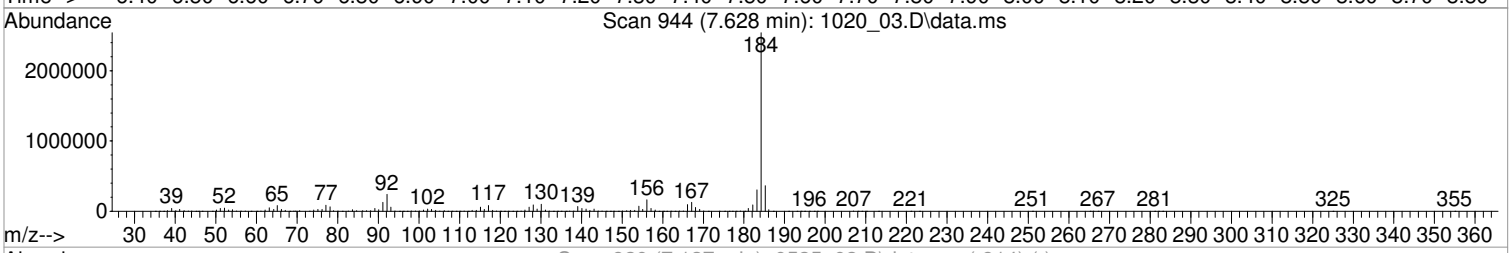
TUNED.M Fri Oct 21 08:16:23 2022 Page: 1

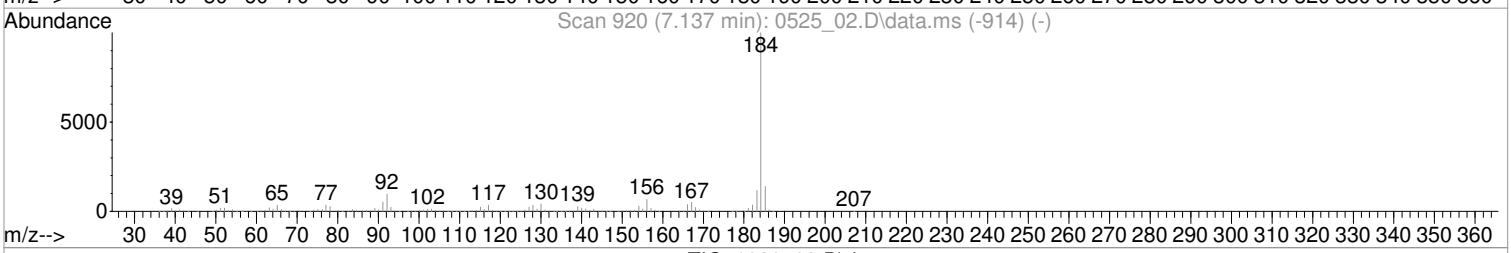
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration







TIC: 1020_03.D\data.ms

(3) Benzidine (MT)

7.628min (+0.024) 273.2919084 ug/mL

Qvalue = 100

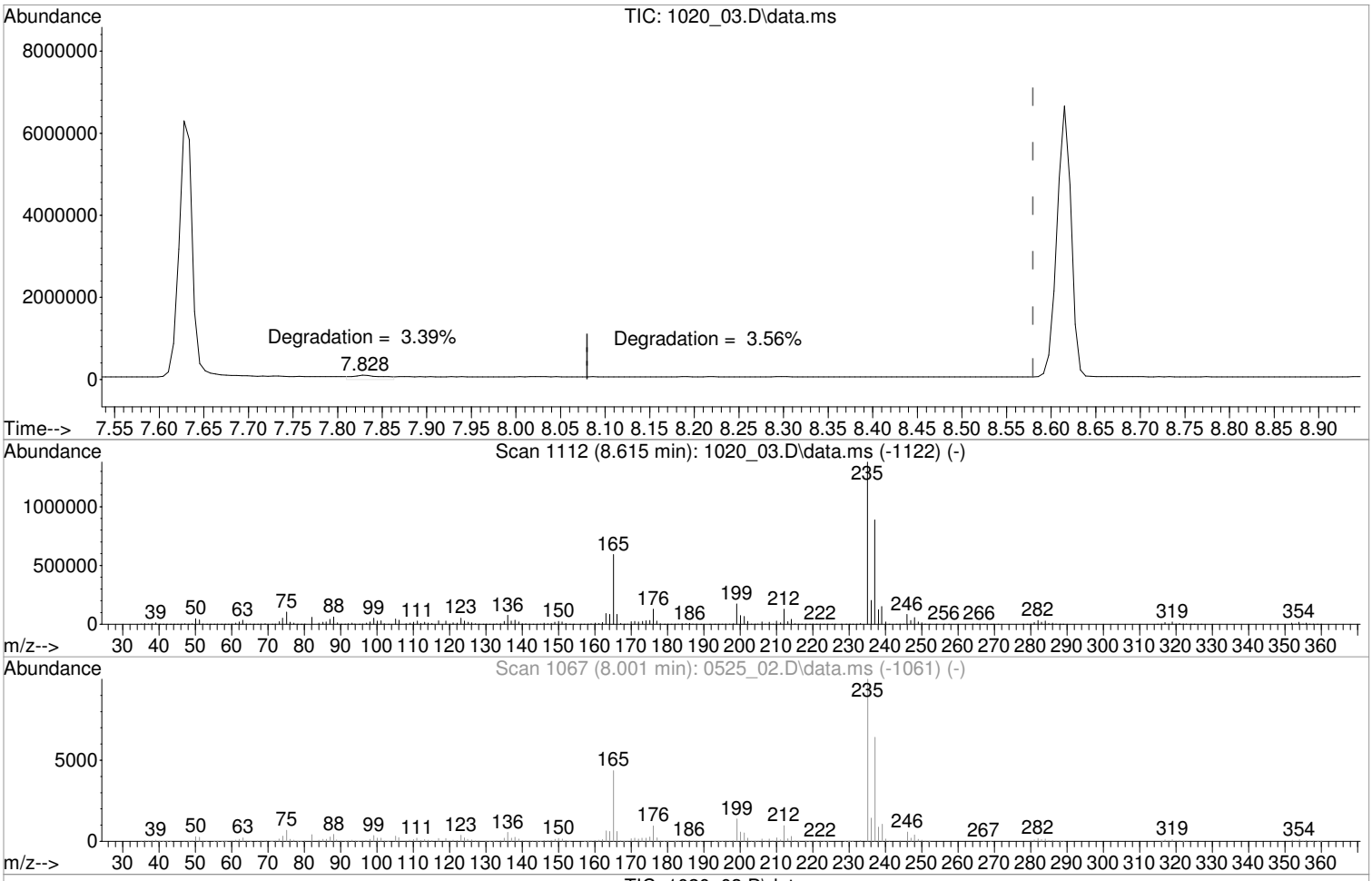
response 6559454

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_03.D
Acq On : 20 Oct 2022 7:04 pm
Operator : 3545
Sample : TUNE 50 PPM 22J14652 exp 04/13/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:14:22 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1020_03.D\data.ms

(4) DDT (MT)

8.615min (+0.035) 534.6042202 ug/ml

Qvalue = 100

response 7193752

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	1122_02T	**SDG:**	L1559126
Instrument ID:	BNAMS2	**Analytical Method:**	8270E
Analysis Date/Time:	11/22/22 13:56		

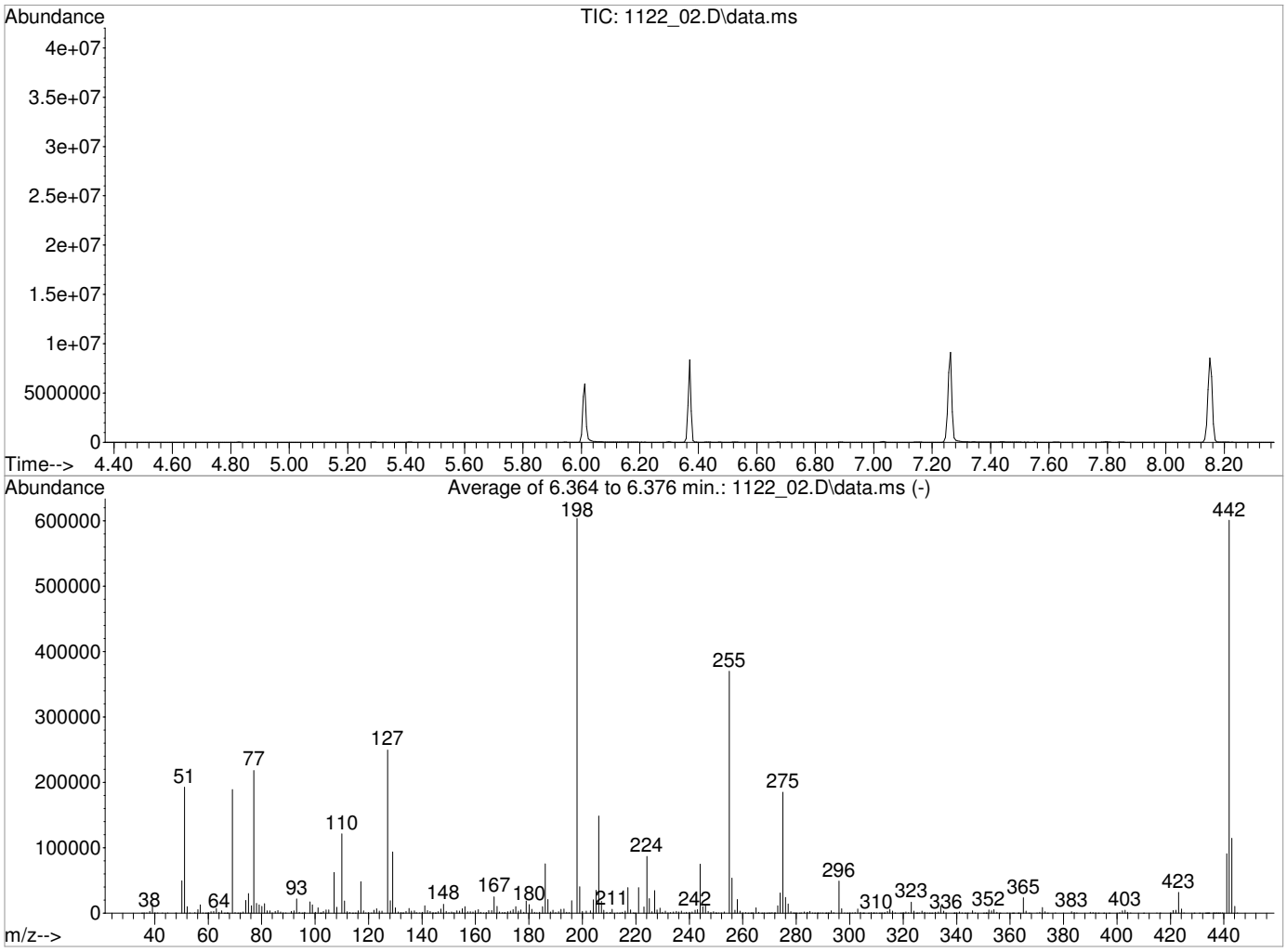
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	32
68	69	0	2	0
69	69	100	100	100
70	69	0	2	0
127	198	10	80	41
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	31
365	198	1	100	4
441	442	0.0001	24	15
442	198	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS21122221122_03-1603375	1122_03-1	11/22/22 14:17
ICV	BNAMS21122221122_04-1603375	1122_04-1	11/22/22 14:37
LCS	R3864551-1	1122_10	11/22/22 16:40
BLANK	R3864551-2	1122_11	11/22/22 17:01
BNSF-J060-SC-8.5-9.5-111322	L1559126-05	1122_14	11/22/22 18:03
BNSF-O280-SC-0.0-0.7-111322	L1559126-02	1122_15	11/22/22 18:23
BNSF-HN300-SC-1.0-2.0-111322	L1559126-03	1122_16	11/22/22 18:44
BNSF-J060-SC-0.5-1.5-111322	L1559126-04	1122_17	11/22/22 19:04
BNSF-I500-SC-0.0-0.8-111322	L1559126-01	1122_25	11/22/22 21:48

DFTPP

Data File : C:\msdchem\1\data\112222\1122_02.D Vial: 2
Acq On : 22 Nov 2022 1:56 pm Operator: 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23 Inst : BNAMS2
Misc : DFTPP TUNE Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\TUNED.M (RTE Integrator)
Title : 8270 BNA



Spectrum Information: Average of 6.364 to 6.376 min.

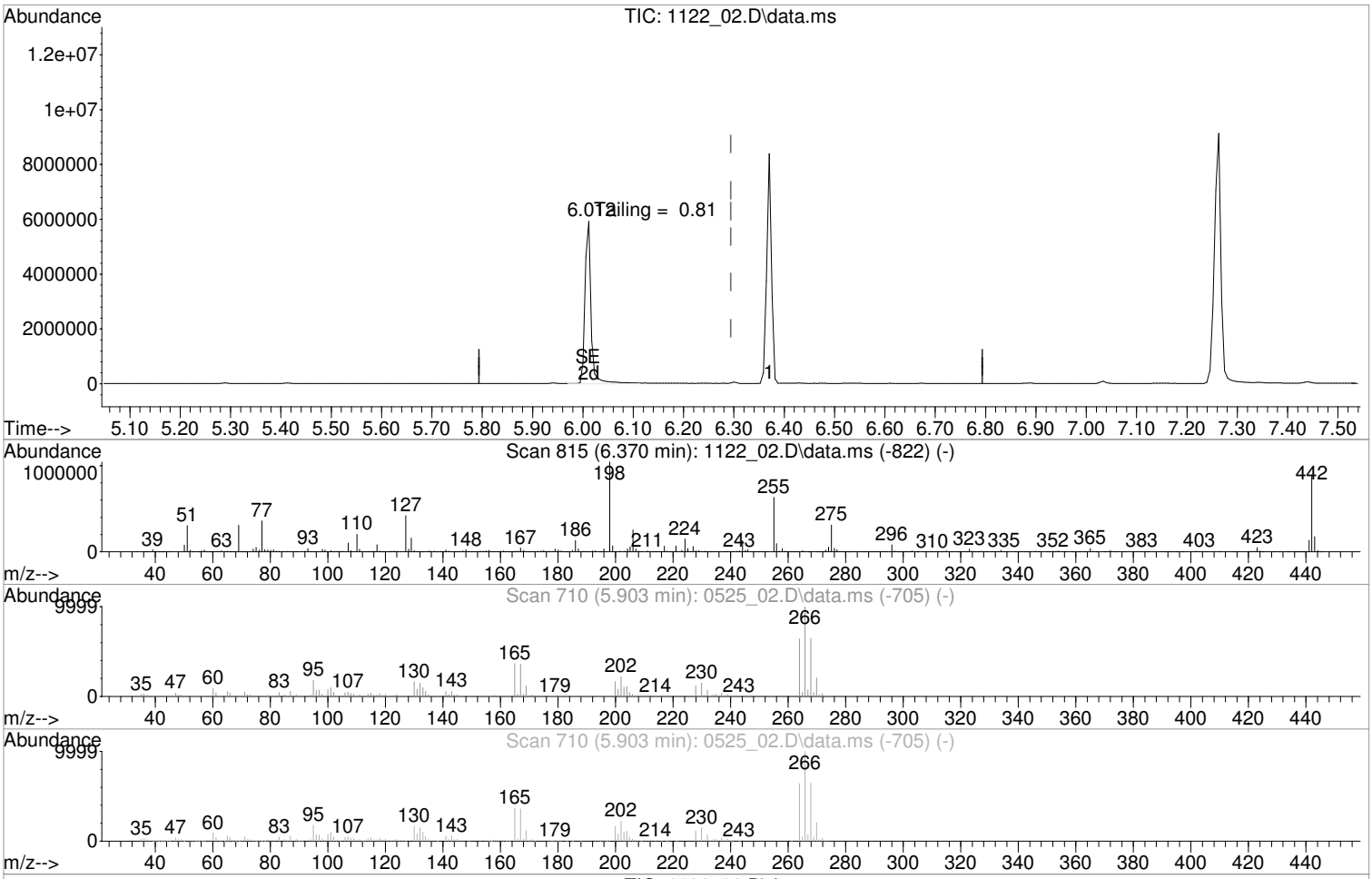
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	31.9	192689	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	189116	PASS
70	69	0.00	2	0.5	939	PASS
127	198	10	80	41.4	249565	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	603413	PASS
199	198	5	9	6.7	40397	PASS
275	198	10	60	30.6	184861	PASS
365	198	1	100	3.9	23441	PASS
441	442	0.01	24	15.1	90813	PASS
442	198	50	100	99.6	601045	PASS
443	442	15	24	19.0	114357	PASS

1122_02.D TUNED.M Tue Nov 22 14:40:39 2022

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_02.D
Acq On : 22 Nov 2022 1:56 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:40:33 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1122_02.D\data.ms

(1) Pentachlorophenol (TM)

6.012min (-0.282) 844.4355331 ug/mL m

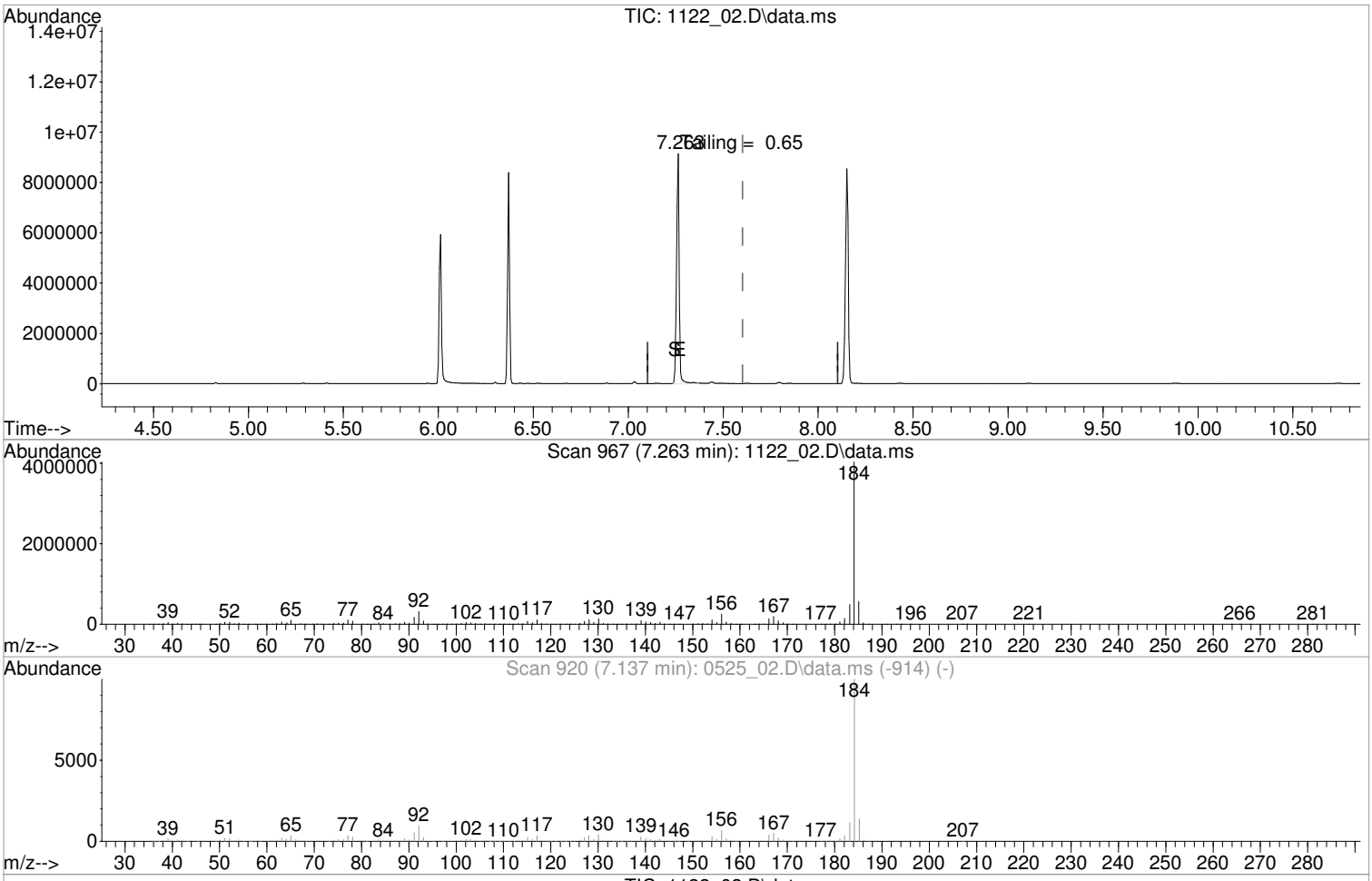
response 4927484

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_02.D
Acq On : 22 Nov 2022 1:56 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:40:33 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1122_02.D\data.ms

(3) Benzidine (MT)

7.263min (-0.341) 349.7467673 ug/mL

Qvalue = 100

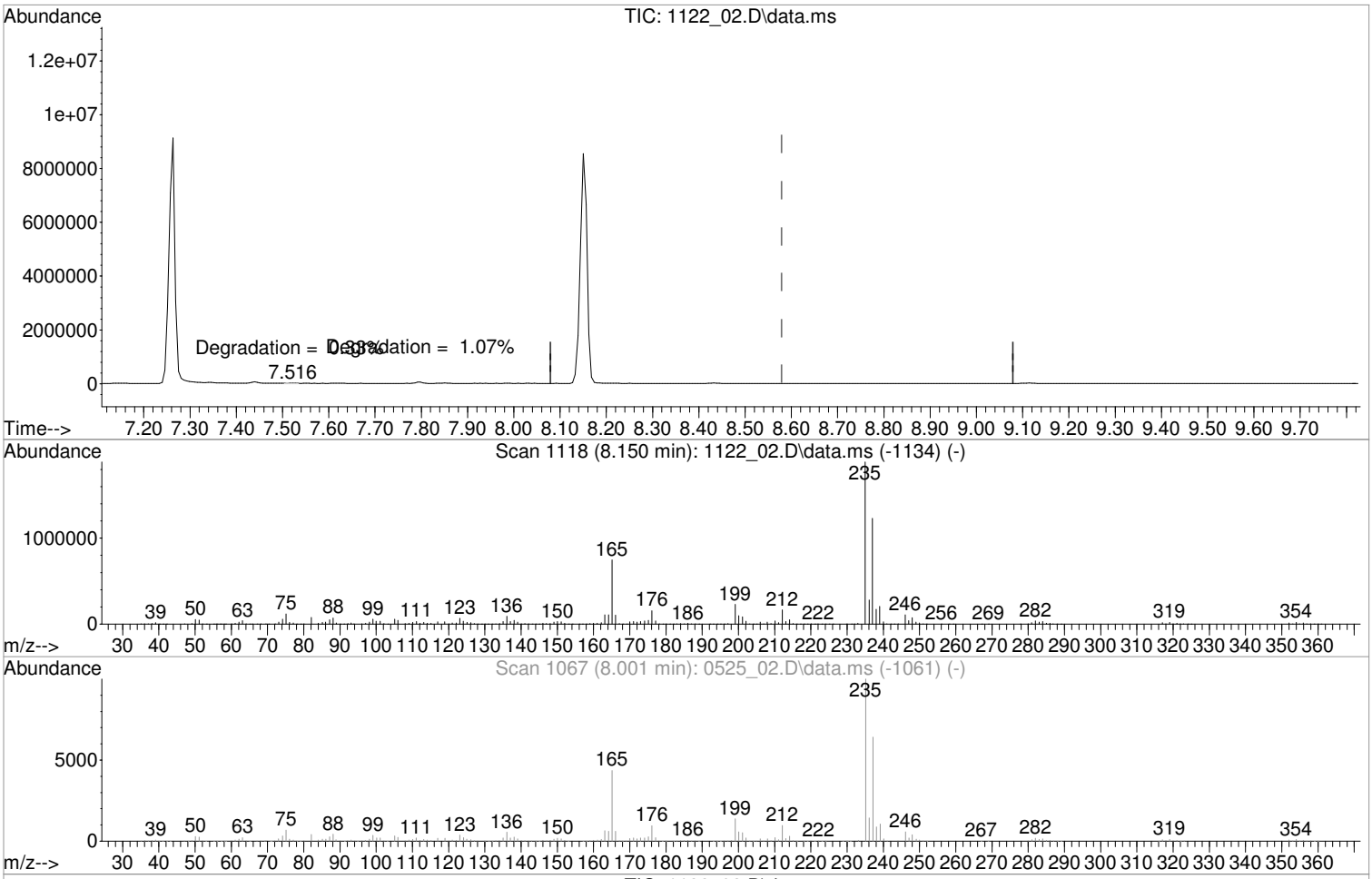
response 8394496

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_02.D
Acq On : 22 Nov 2022 1:56 pm
Operator : 3545
Sample : TUNE 50 PPM 22J25967 exp 04/19/23
Misc : DFTPP TUNE
ALS Vial : 2 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:40:33 2022
Quant Method : C:\msdchem\1\methods\TUNED.M
Quant Title : 8270 BNA
QLast Update : Wed Jul 27 13:24:35 2022
Response via : Initial Calibration



TIC: 1122_02.D\data.ms

(4) DDT (MT)

8.150min (-0.429) 650.5385613 ug/ml

Qvalue = 100

response 8753790

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1559126	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1122_03-1	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/22/22 14:17

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		174640	3.20	351607	5.06	695813	8.77	653070	3.92
UPPER LIMIT		349280		703214		1391626		1306140	
LOWER LIMIT		87320		175804		347907		326535	
LCS R3864551-1 WG1962881 1x	1122_10	153775	3.19	320319	5.06	626326	8.77	688770	3.91
BLANK R3864551-2 WG1962881 1x	1122_11	175608	3.19	373277	5.06	684678	8.77	680209	3.91
L1559126-05 WG1962881 1x	1122_14	191041	3.19	393963	5.05	722552	8.77	729444	3.91
L1559126-02 WG1962881 1x	1122_15	195486	3.19	416114	5.05	771549	8.77	754728	3.91
L1559126-03 WG1962881 1x	1122_16	180215	3.19	378113	5.06	744924	8.77	694169	3.91
L1559126-04 WG1962881 1x	1122_17	187342	3.19	397392	5.06	768910	8.77	712282	3.91
L1559126-01 WG1962881 1x	1122_25	200800	3.19	444129	5.06	903557	8.78	769692	3.91

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1559126	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
Std File:	1122_03-1	**Calibration End Date:**	10/21/22 00:14
		Std Analysis Date:	11/22/22 14:17

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		627870	11.29	660613	6.16
UPPER LIMIT		1255740		1321226	
LOWER LIMIT		313935		330307	
LCS R3864551-1 WG1962881 1x	1122_10	591197	11.29	597893	6.16
BLANK R3864551-2 WG1962881 1x	1122_11	538377	11.29	723823	6.16
L1559126-05 WG1962881 1x	1122_14	608655	11.29	757788	6.16
L1559126-02 WG1962881 1x	1122_15	672595	11.29	786444	6.16
L1559126-03 WG1962881 1x	1122_16	764231	11.29	720326	6.16
L1559126-04 WG1962881 1x	1122_17	801104	11.29	751777	6.16
L1559126-01 WG1962881 1x	1122_25	537306	11.31	861232	6.16

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-I500-SC-0.0-0.8-111322

Lab Sample ID:	L1559126-01	**SDG:**	L1559126
Client Sample ID:	BNSF-I500-SC-0.0-0.8-111322	**Collected Date/Time:**	11/13/22 11:40
Lab File ID:	1122_25	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 21:48
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.16 g
Total Solids (%):	80.5	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00669	0.0413
Acenaphthylene	208-96-8	4.96	U		0.00582	0.0413
Anthracene	120-12-7	6.18	U		0.00736	0.0413
Benzoic Acid	65-85-0	3.72	U		0.147	2.07
Benzo(a)anthracene	56-55-3	8.79	U		0.00729	0.0413
Benzo(b)fluoranthene	205-99-2	10.57	U		0.00771	0.0413
Benzo(k)fluoranthene	207-08-9	10.66	U		0.00735	0.0413
Benzo(g,h,i)perylene	191-24-2	13.68	U		0.00756	0.0413
Benzo(a)pyrene	50-32-8	0	U		0.00769	0.0413
Carbazole	86-74-8	6.52	U		0.0128	0.413
Chrysene	218-01-9	8.79	U		0.00822	0.0413
Dibenz(a,h)anthracene	53-70-3	13.64	U		0.0115	0.0413
Dibenzofuran	132-64-9	5.20	U		0.0135	0.413
Fluoranthene	206-44-0	7.35	U		0.00746	0.0413
Fluorene	86-73-7	5.53	U		0.00673	0.0413
Indeno(1,2,3-cd)pyrene	193-39-5	13.36	U		0.0117	0.0413
1-Methylnaphthalene	90-12-0	0	U		0.00529	0.0413
2-Methylnaphthalene	91-57-6	4.35	U		0.00536	0.0413
Naphthalene	91-20-3	3.93	U		0.0104	0.0413
Phenanthrene	85-01-8	6.18	U		0.00821	0.0413
Bis(2-ethylhexyl)phthalate	117-81-7	8.78	U		0.0524	0.413
Di-n-butyl phthalate	84-74-2	6.60	U		0.0142	0.413
Di-n-octyl phthalate	117-84-0	9.97	U		0.0279	0.413
Pyrene	129-00-0	7.35	U		0.00805	0.0413
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0129	0.413
Pentachlorophenol	87-86-5	5.88	U		0.0111	0.413
Phenol	108-95-2	0	U		0.0166	0.413

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_25.D
Acq On : 22 Nov 2022 9:48 pm
Operator : 3545
Sample : L1559126-01 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:40:53 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

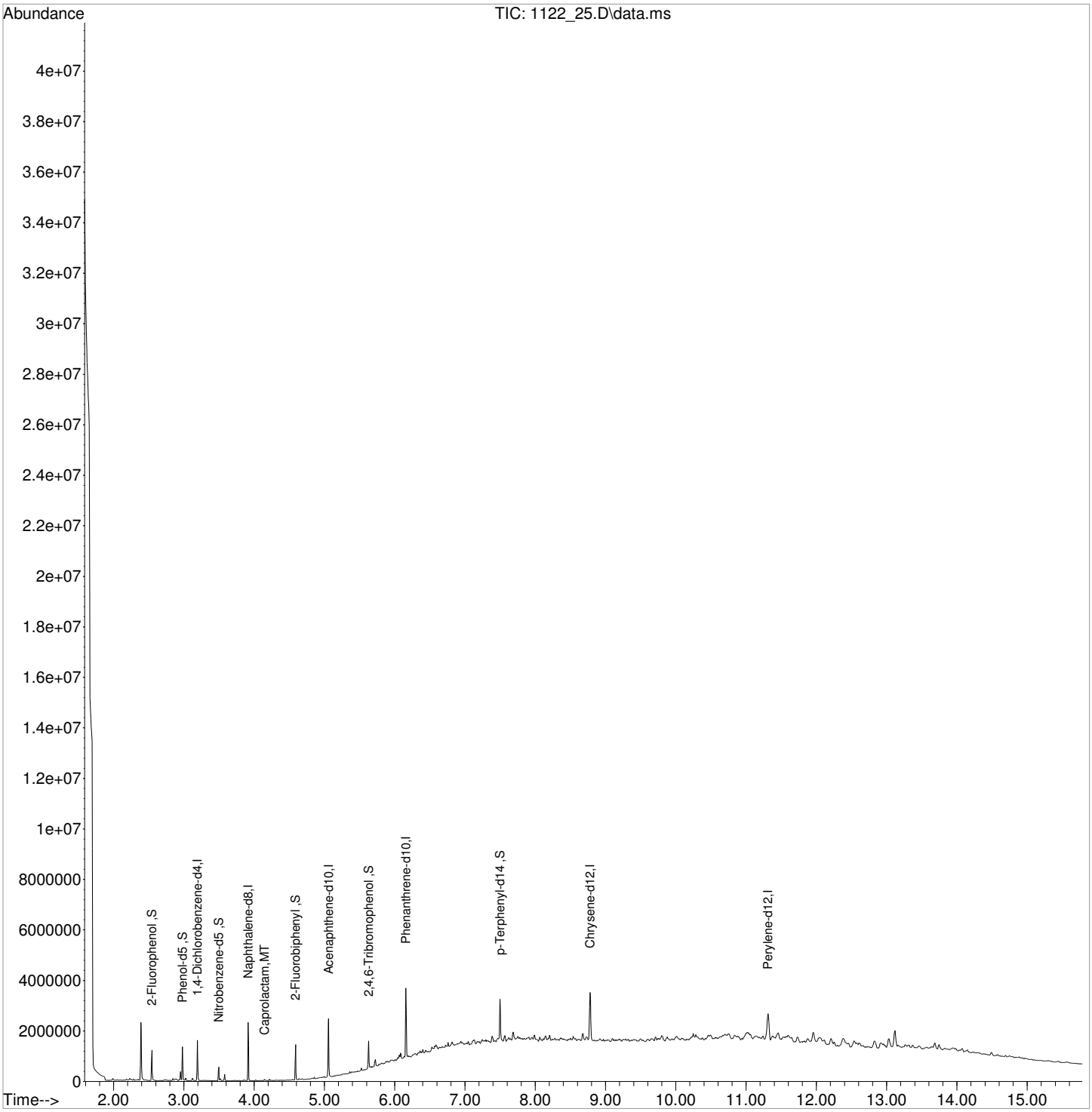
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	200800	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	769692	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.060	164	444129	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	861232	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.779	240	903557	8000.0000000	ppb	-0.04
94) Perylene-d12	11.311	264	537306	8000.0000000	ppb	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	290917	8360.1610166	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 41.80%			
7) Phenol-d5	2.980	99	338326	8031.9638543	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 40.16%			
24) Nitrobenzene-d5	3.497	82	127732	3915.6821468	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 39.16%			
50) 2-Fluorobiphenyl	4.590	172	337369	4326.3785082	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 43.26%			
73) 2,4,6-Tribromophenol	5.630	330	132915	9536.4709791	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 47.68%			
87) p-Terphenyl-d14	7.498	244	593368	4786.4255327	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 47.86%			
Target Compounds						Qvalue
39) Caprolactam	4.149	113	4429	853.7223070	ppb #	88

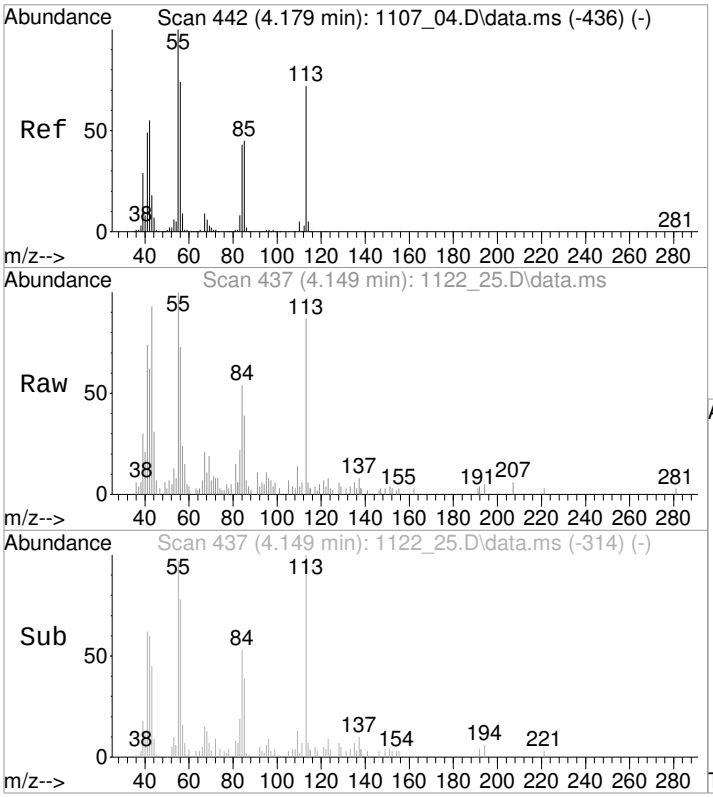
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_25.D
Acq On : 22 Nov 2022 9:48 pm
Operator : 3545
Sample : L1559126-01 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 25 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:40:53 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

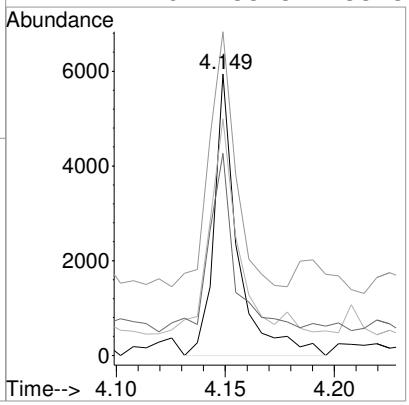




#39
Caprolactam
Concen: 853.7223070 ppb
RT: 4.149 min Scan# 437
Delta R.T. -0.030 min
Lab File: 1122_25.D
Acq: 22 Nov 2022 9:48 pm

Tgt Ion:113 Resp: 4429

Ion	Ratio	Lower	Upper
113	100		
55	99.1	100.6	150.8#
56	94.1	75.1	112.7
42	74.9	55.5	83.3



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-O280-SC-0.0-0.7-111322

Lab Sample ID:	L1559126-02	**SDG:**	L1559126
Client Sample ID:	BNSF-O280-SC-0.0-0.7-111322	**Collected Date/Time:**	11/13/22 11:50
Lab File ID:	1122_15	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 18:23
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.23 g
Total Solids (%):	76.1	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00708	0.0437
Acenaphthylene	208-96-8	0	U		0.00616	0.0437
Anthracene	120-12-7	6.18	U		0.00779	0.0437
Benzoic Acid	65-85-0	0	U		0.155	2.19
Benzo(a)anthracene	56-55-3	8.77	U		0.00771	0.0437
Benzo(b)fluoranthene	205-99-2	0	U		0.00816	0.0437
Benzo(k)fluoranthene	207-08-9	0	U		0.00778	0.0437
Benzo(g,h,i)perylene	191-24-2	0	U		0.00800	0.0437
Benzo(a)pyrene	50-32-8	11.29	U		0.00813	0.0437
Carbazole	86-74-8	0	U		0.0135	0.437
Chrysene	218-01-9	8.77	U		0.00869	0.0437
Dibenz(a,h)anthracene	53-70-3	0	U		0.0121	0.0437
Dibenzofuran	132-64-9	0	U		0.0143	0.437
Fluoranthene	206-44-0	0	U		0.00789	0.0437
Fluorene	86-73-7	0	U		0.00712	0.0437
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.0124	0.0437
1-Methylnaphthalene	90-12-0	0	U		0.00559	0.0437
2-Methylnaphthalene	91-57-6	0	U		0.00567	0.0437
Naphthalene	91-20-3	3.93	U		0.0110	0.0437
Phenanthrene	85-01-8	6.18	U		0.00868	0.0437
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	U		0.0554	0.437
Di-n-butyl phthalate	84-74-2	6.61	U		0.0150	0.437
Di-n-octyl phthalate	117-84-0	10.07	U		0.0296	0.437
Pyrene	129-00-0	7.50	U		0.00851	0.0437
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0137	0.437
Pentachlorophenol	87-86-5	0	U		0.0118	0.437
Phenol	108-95-2	0	U		0.0176	0.437

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_15.D
Acq On : 22 Nov 2022 6:23 pm
Operator : 3545
Sample : L1559126-02 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:31:20 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	195486	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	754728	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.054	164	416114	8000.0000000	ppb	-0.03
70) Phenanthrene-d10	6.158	188	786444	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	771549	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	672595	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	264789	7816.1615899	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 39.08%			
7) Phenol-d5	2.980	99	301979	7363.9556129	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 36.82%			
24) Nitrobenzene-d5	3.491	82	116983	3657.2696622	ppb	-0.03
Spiked Amount 10000.000	Range 18 - 125		Recovery = 36.57%			
50) 2-Fluorobiphenyl	4.590	172	297843	4076.6510677	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 40.77%			
73) 2,4,6-Tribromophenol	5.630	330	81432	6398.2492131	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 31.99%			
87) p-Terphenyl-d14	7.498	244	454295	4291.5797189	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 42.92%			

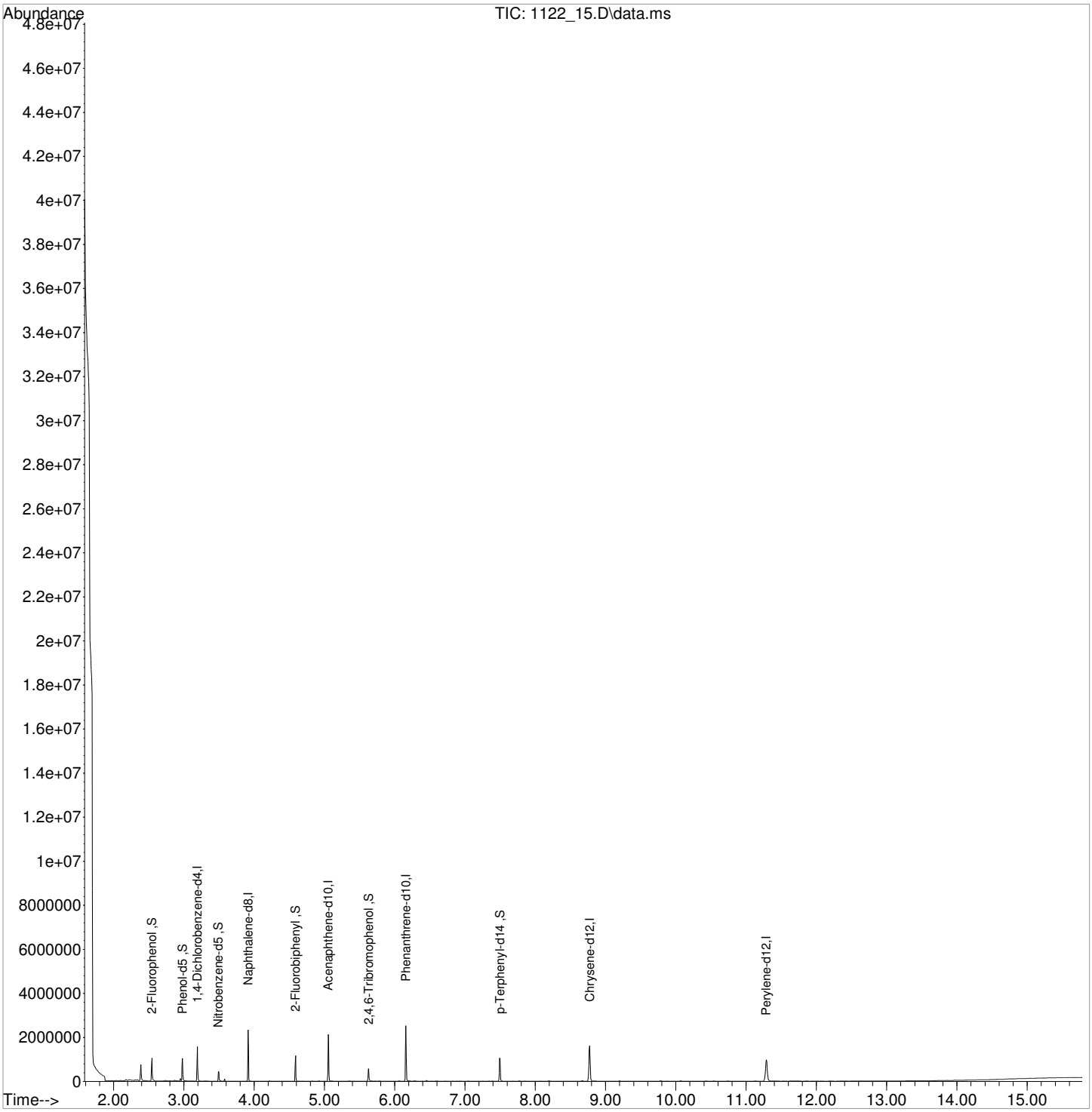
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_15.D
Acq On : 22 Nov 2022 6:23 pm
Operator : 3545
Sample : L1559126-02 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:31:20 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-HN300-SC-1.0-2.0-111322

Lab Sample ID:	L1559126-03	**SDG:**	L1559126
Client Sample ID:	BNSF-HN300-SC-1.0-2.0-111322	**Collected Date/Time:**	11/13/22 15:00
Lab File ID:	1122_16	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 18:44
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.39 g
Total Solids (%):	75.7	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00712	0.0440
Acenaphthylene	208-96-8	4.96	U		0.00620	0.0440
Anthracene	120-12-7	6.22	U		0.00783	0.0440
Benzoic Acid	65-85-0	3.71	U		0.156	2.21
Benzo(a)anthracene	56-55-3	8.76	0.00778	J	0.00775	0.0440
Benzo(b)fluoranthene	205-99-2	10.57	0.00847	J	0.00820	0.0440
Benzo(k)fluoranthene	207-08-9	10.61	U		0.00782	0.0440
Benzo(g,h,i)perylene	191-24-2	13.72	U		0.00804	0.0440
Benzo(a)pyrene	50-32-8	11.18	U		0.00818	0.0440
Carbazole	86-74-8	6.34	U		0.0136	0.440
Chrysene	218-01-9	8.81	U		0.00874	0.0440
Dibenz(a,h)anthracene	53-70-3	13.54	U		0.0122	0.0440
Dibenzofuran	132-64-9	5.20	U		0.0144	0.440
Fluoranthene	206-44-0	7.13	0.0108	J	0.00794	0.0440
Fluorene	86-73-7	5.45	U		0.00716	0.0440
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	U		0.0124	0.0440
1-Methylnaphthalene	90-12-0	0	U		0.00563	0.0440
2-Methylnaphthalene	91-57-6	4.35	U		0.00571	0.0440
Naphthalene	91-20-3	3.93	U		0.0110	0.0440
Phenanthrene	85-01-8	6.18	U		0.00873	0.0440
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	U		0.0557	0.440
Di-n-butyl phthalate	84-74-2	6.61	U		0.0151	0.440
Di-n-octyl phthalate	117-84-0	9.99	U		0.0297	0.440
Pyrene	129-00-0	7.35	0.0112	J	0.00856	0.0440
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0137	0.440
Pentachlorophenol	87-86-5	0	U		0.0118	0.440
Phenol	108-95-2	0	U		0.0177	0.440

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_16.D
Acq On : 22 Nov 2022 6:44 pm
Operator : 3545
Sample : L1559126-03 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:31:58 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

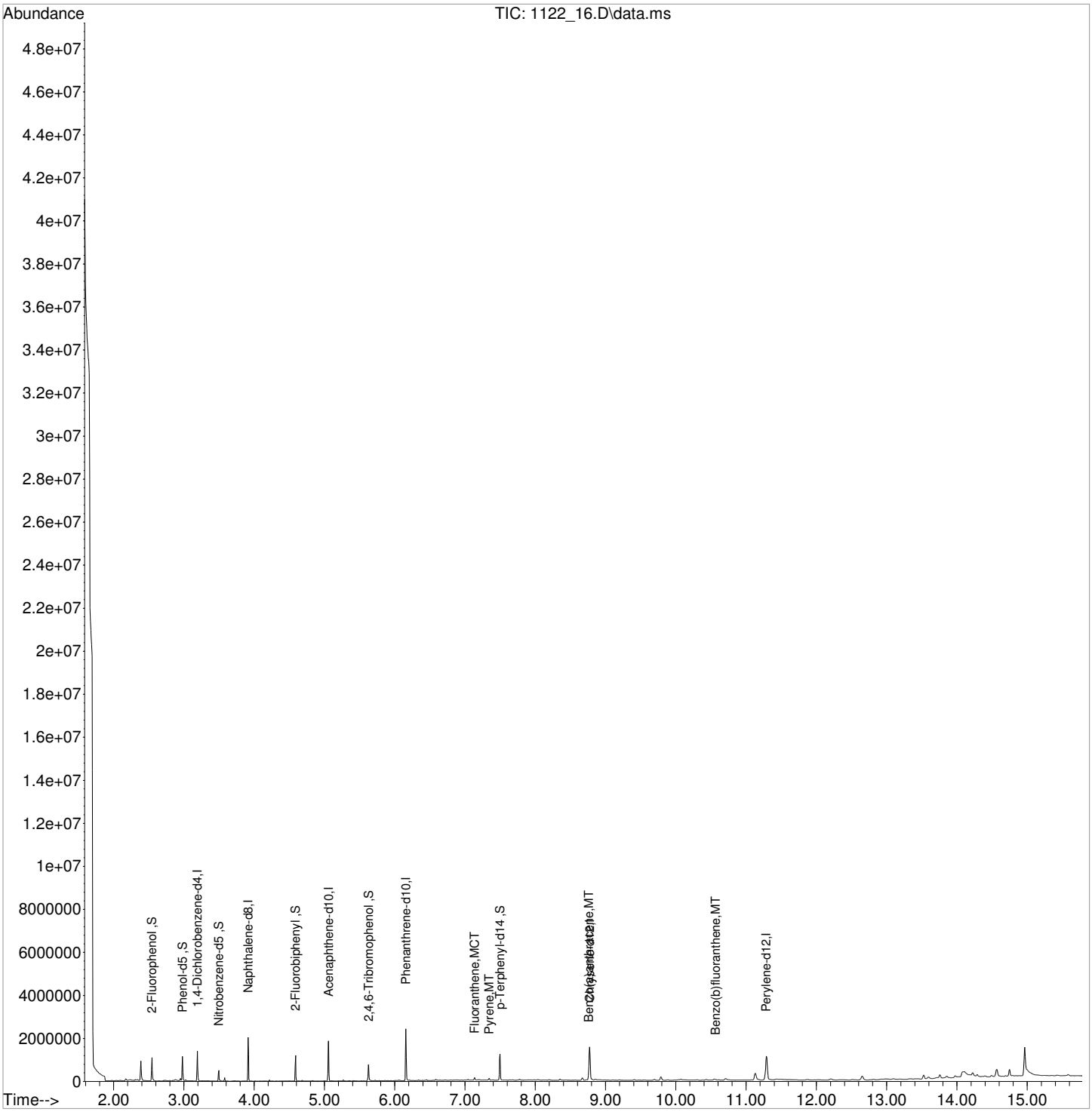
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	180215	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	694169	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.060	164	378113	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	720326	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	744924	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	764231	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	267925	8578.8989693	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 42.89%			
7) Phenol-d5	2.980	99	303779	8035.5737553	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 40.18%			
24) Nitrobenzene-d5	3.497	82	117173	3982.7864918	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 39.83%			
50) 2-Fluorobiphenyl	4.590	172	297120	4475.4710047	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 44.75%			
73) 2,4,6-Tribromophenol	5.630	330	100973	8661.8373209	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 43.31%			
87) p-Terphenyl-d14	7.498	244	489115	4785.6590579	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 47.86%			
Target Compounds						Qvalue
83) Fluoranthene	7.134	202	29187	251.7084657	ppb	97
86) Pyrene	7.345	202	29026	261.9026713	ppb	99
90) Benzo(a)anthracene	8.761	228	20206	181.1218889	ppb	88
95) Benzo(b)fluoranthene	10.565	252	22591	197.3062057	ppb	94

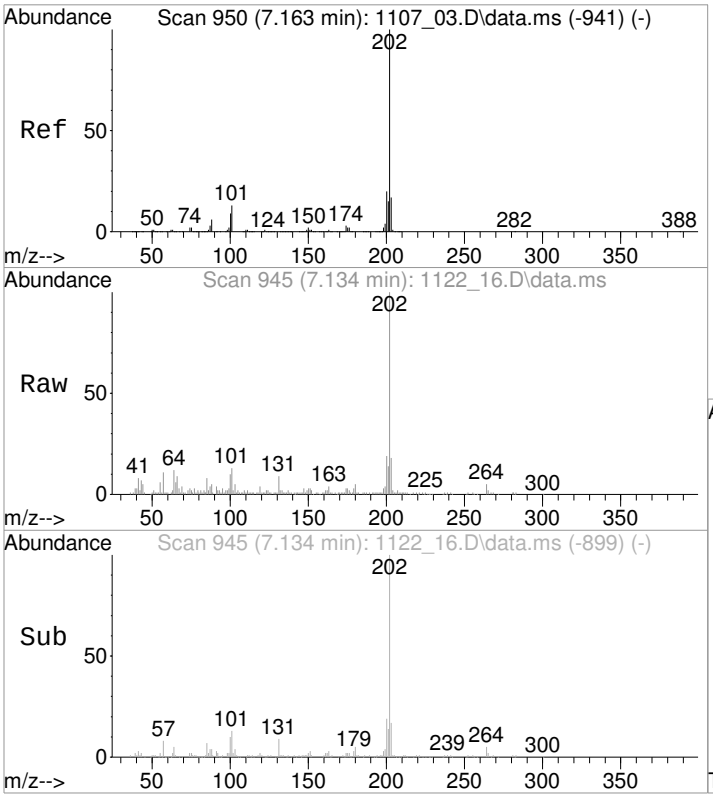
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_16.D
Acq On : 22 Nov 2022 6:44 pm
Operator : 3545
Sample : L1559126-03 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:31:58 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

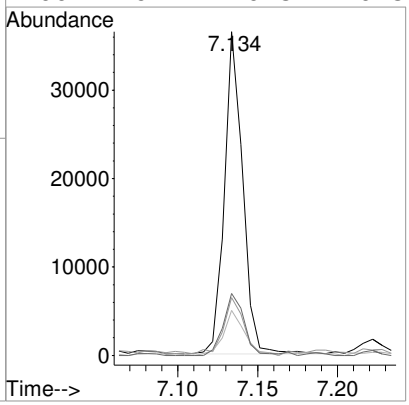


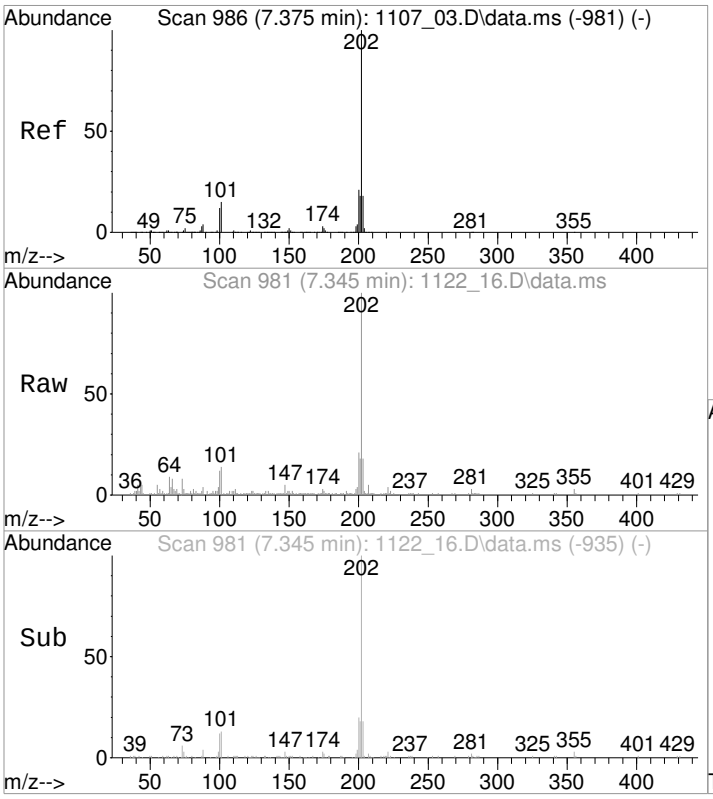


#83
Fluoranthene
Concen: 251.7084657 ppb
RT: 7.134 min Scan# 945
Delta R.T. -0.030 min
Lab File: 1122_16.D
Acq: 22 Nov 2022 6:44 pm

Tgt Ion:202 Resp: 29187

Ion	Ratio	Lower	Upper
202	100		
203	17.0	0.0	37.5
201	13.5	0.0	35.0
200	19.2	0.8	40.8

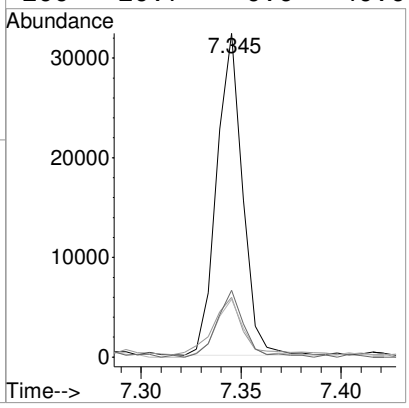


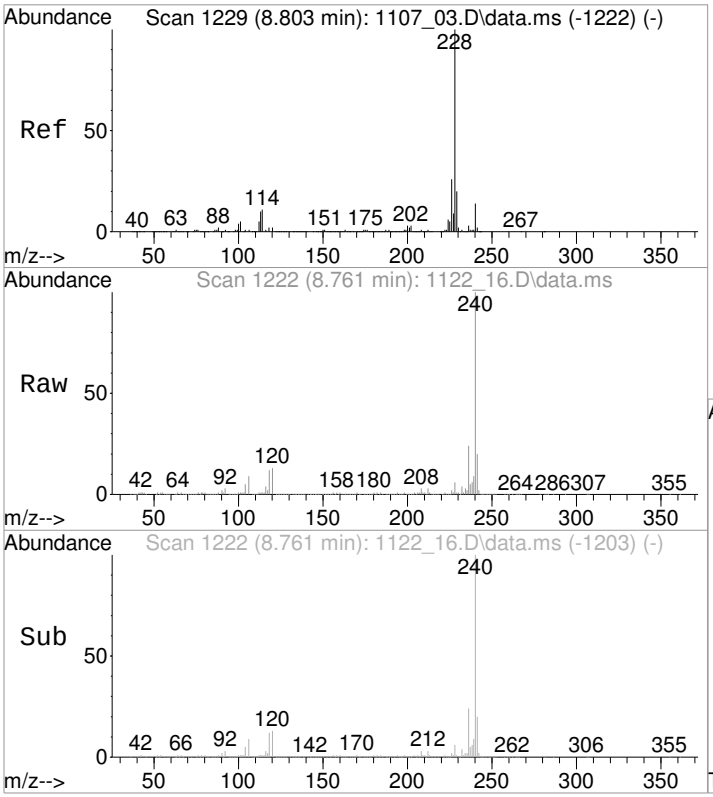


#86
Pyrene
Concen: 261.9026713 ppb
RT: 7.345 min Scan# 981
Delta R.T. -0.029 min
Lab File: 1122_16.D
Acq: 22 Nov 2022 6:44 pm

Tgt Ion:202 Resp: 29026

Ion	Ratio	Lower	Upper
202	100		
203	17.3	0.0	37.2
201	18.0	0.0	37.4
200	20.7	0.6	40.6

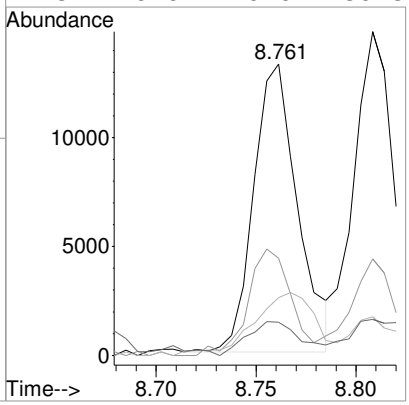


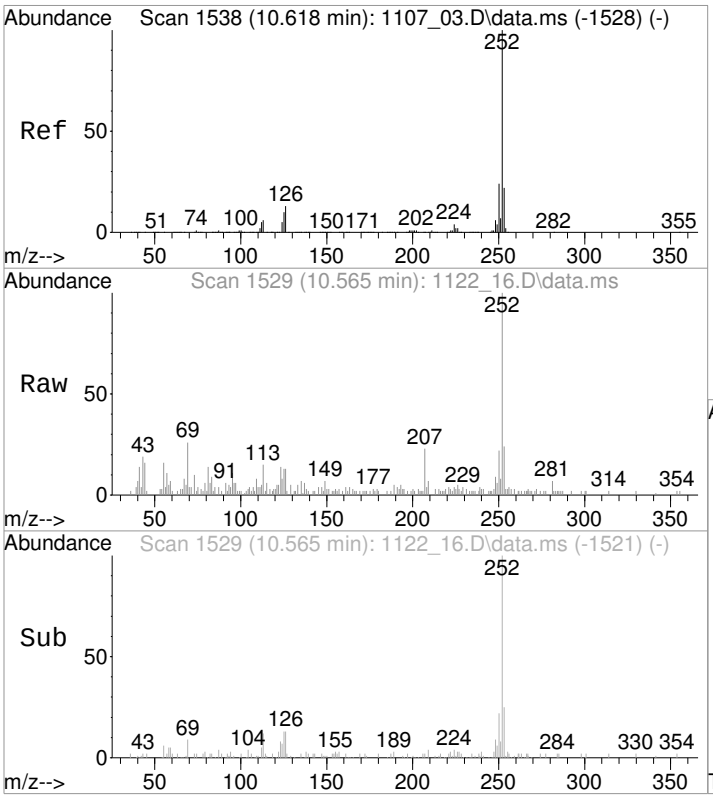


#90
Benzo(a)anthracene
Concen: 181.1218889 ppb
RT: 8.761 min Scan# 1222
Delta R.T. -0.041 min
Lab File: 1122_16.D
Acq: 22 Nov 2022 6:44 pm

Tgt Ion:228 Resp: 20206

Ion	Ratio	Lower	Upper
228	100		
226	33.7	7.1	47.1
114	18.6	0.0	31.6
113	9.9	0.0	30.3

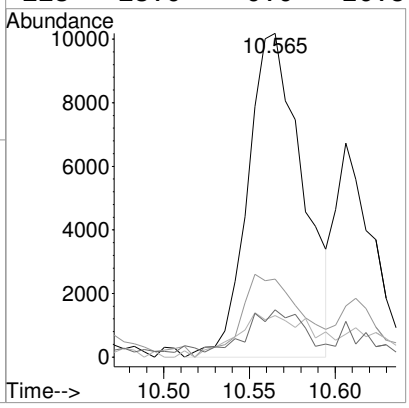




#95
Benzo(b)fluoranthene
Concen: 197.3062057 ppb
RT: 10.565 min Scan# 1529
Delta R.T. -0.053 min
Lab File: 1122_16.D
Acq: 22 Nov 2022 6:44 pm

Tgt Ion:252 Resp: 22591

Ion	Ratio	Lower	Upper
252	100		
253	21.8	1.9	41.9
126	9.5	0.0	33.4
113	13.0	0.0	26.5



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-J060-SC-0.5-1.5-111322

Lab Sample ID:	L1559126-04	**SDG:**	L1559126
Client Sample ID:	BNSF-J060-SC-0.5-1.5-111322	**Collected Date/Time:**	11/14/22 10:20
Lab File ID:	1122_17	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 19:04
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.79 g
Total Solids (%):	72.7	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	U		0.00742	0.0458
Acenaphthylene	208-96-8	5.08	U		0.00645	0.0458
Anthracene	120-12-7	6.22	U		0.00816	0.0458
Benzoic Acid	65-85-0	3.71	U		0.162	2.30
Benzo(a)anthracene	56-55-3	8.76	0.00973	J	0.00808	0.0458
Benzo(b)fluoranthene	205-99-2	10.56	0.0112	J	0.00855	0.0458
Benzo(k)fluoranthene	207-08-9	10.61	U		0.00815	0.0458
Benzo(g,h,i)perylene	191-24-2	13.72	U		0.00838	0.0458
Benzo(a)pyrene	50-32-8	11.18	0.00979	J	0.00852	0.0458
Carbazole	86-74-8	6.34	U		0.0142	0.458
Chrysene	218-01-9	8.81	0.00922	J	0.00911	0.0458
Dibenz(a,h)anthracene	53-70-3	13.40	U		0.0127	0.0458
Dibenzofuran	132-64-9	5.20	U		0.0150	0.458
Fluoranthene	206-44-0	7.13	0.0206	J	0.00827	0.0458
Fluorene	86-73-7	5.45	U		0.00746	0.0458
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	U		0.0130	0.0458
1-Methylnaphthalene	90-12-0	0	U		0.00586	0.0458
2-Methylnaphthalene	91-57-6	0	U		0.00595	0.0458
Naphthalene	91-20-3	3.93	U		0.0115	0.0458
Phenanthrene	85-01-8	6.18	0.0172	J	0.00910	0.0458
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	U		0.0581	0.458
Di-n-butyl phthalate	84-74-2	6.61	U		0.0157	0.458
Di-n-octyl phthalate	117-84-0	10.08	U		0.0310	0.458
Pyrene	129-00-0	7.35	0.0195	J	0.00892	0.0458
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0143	0.458
Pentachlorophenol	87-86-5	0	U		0.0123	0.458
Phenol	108-95-2	0	U		0.0184	0.458

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_17.D
Acq On : 22 Nov 2022 7:04 pm
Operator : 3545
Sample : L1559126-04 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:32:33 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

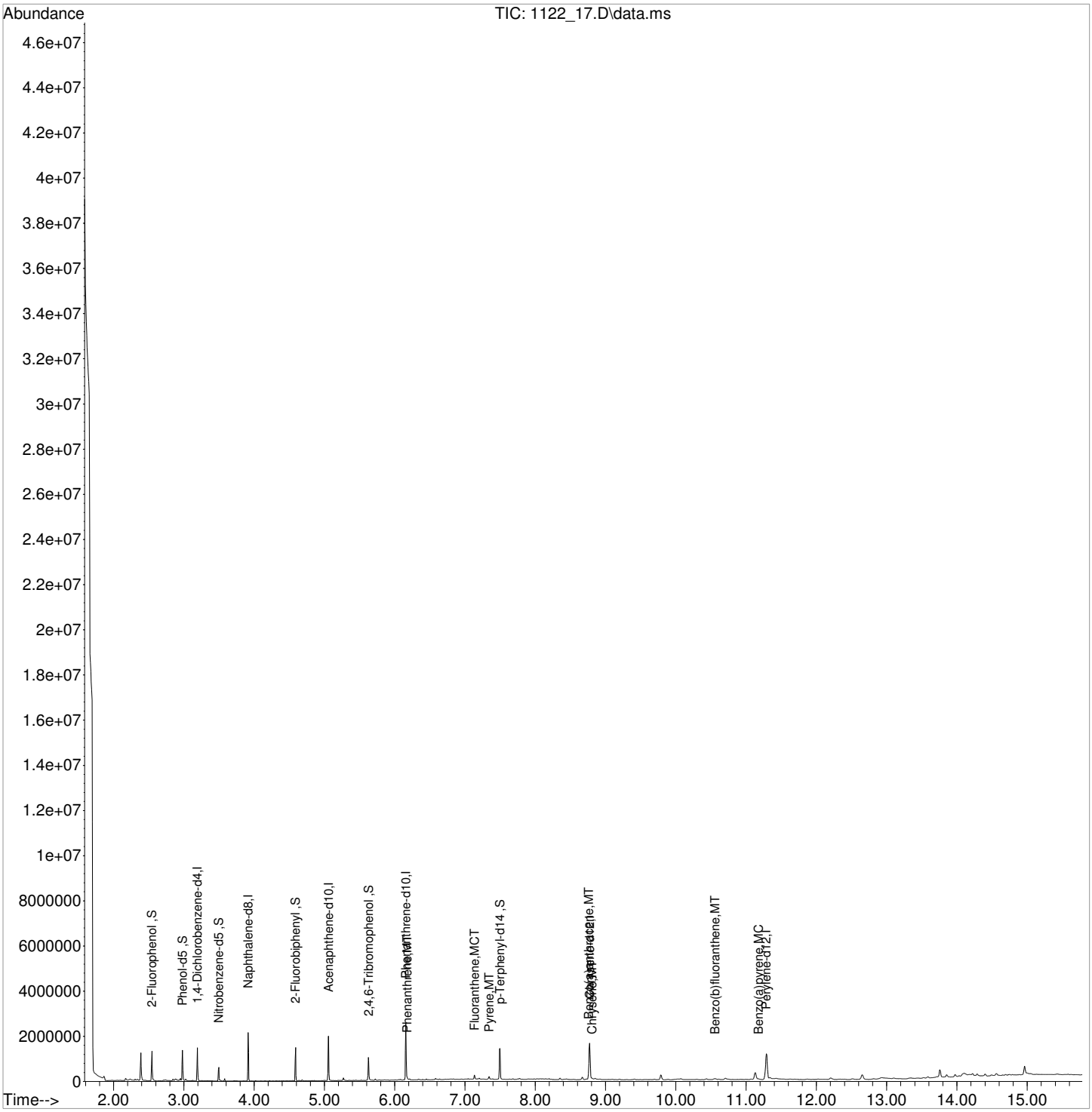
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.191	152	187342	8000.0000000 ppb	-0.02
23) Naphthalene-d8	3.914	136	712282	8000.0000000 ppb	-0.03
46) Acenaphthene-d10	5.060	164	397392	8000.0000000 ppb	-0.02
70) Phenanthrene-d10	6.159	188	751777	8000.0000000 ppb	-0.03
84) Chrysene-d12	8.773	240	768910	8000.0000000 ppb	-0.04
94) Perylene-d12	11.288	264	801104	8000.0000000 ppb	-0.06
System Monitoring Compounds					
4) 2-Fluorophenol	2.545	112	329681	10154.7214897 ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 50.77%		
7) Phenol-d5	2.980	99	373468	9503.1661708 ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 47.52%		
24) Nitrobenzene-d5	3.497	82	146541	4854.3587942 ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 48.54%		
50) 2-Fluorobiphenyl	4.590	172	365773	5242.2894304 ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 52.42%		
73) 2,4,6-Tribromophenol	5.630	330	128109	10529.9051805 ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 52.65%		
87) p-Terphenyl-d14	7.498	244	583196	5528.1748071 ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 55.28%		
Target Compounds					Qvalue
78) Phenanthrene	6.176	178	39798	393.0637212 ppb	99
83) Fluoranthene	7.134	202	57440	474.6383784 ppb	98
86) Pyrene	7.345	202	51338	448.7744675 ppb	98
90) Benzo(a)anthracene	8.761	228	25674	222.9567291 ppb	93
91) Chrysene	8.808	228	23071	211.1850141 ppb	93
95) Benzo(b)fluoranthene	10.559	252	30928	257.6872176 ppb	96
97) Benzo(a)pyrene	11.176	252	23390	224.4157573 ppb	95

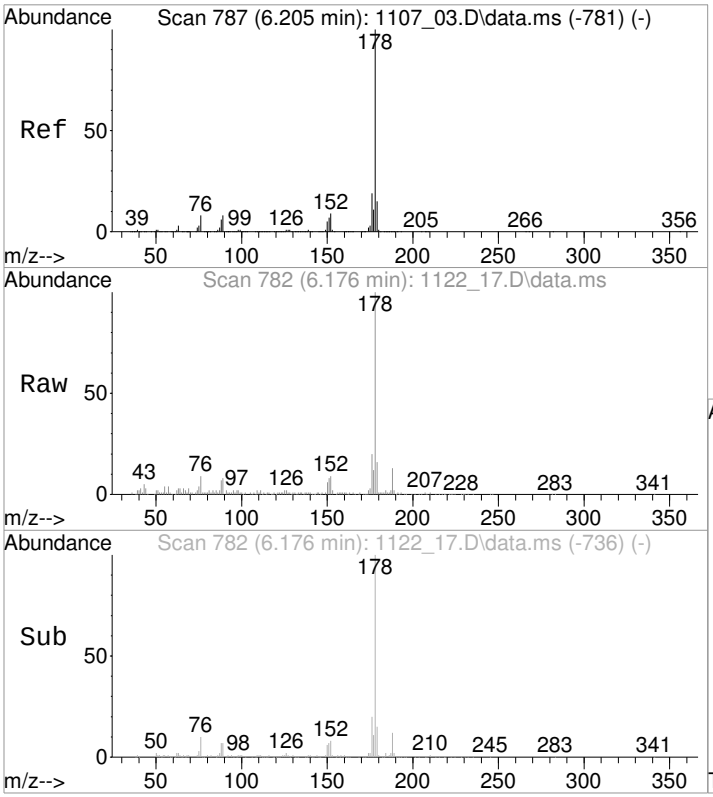
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_17.D
Acq On : 22 Nov 2022 7:04 pm
Operator : 3545
Sample : L1559126-04 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:32:33 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

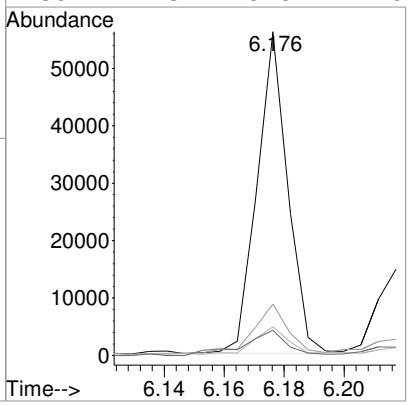


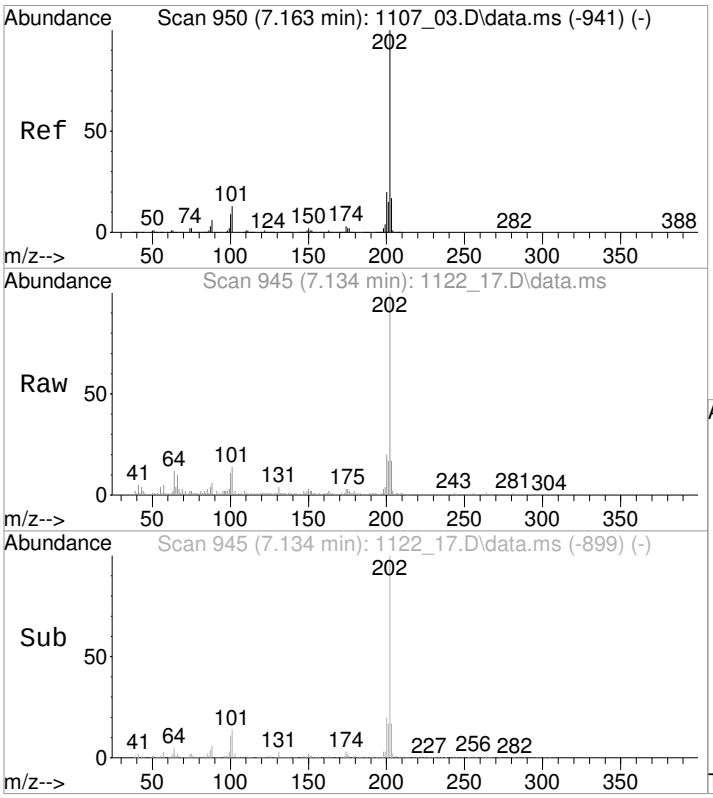


#78
Phenanthrene
Concen: 393.0637212 ppb
RT: 6.176 min Scan# 782
Delta R.T. -0.029 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:178 Resp: 39798

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	34.9
152	8.4	0.0	29.0
89	7.8	0.0	27.9

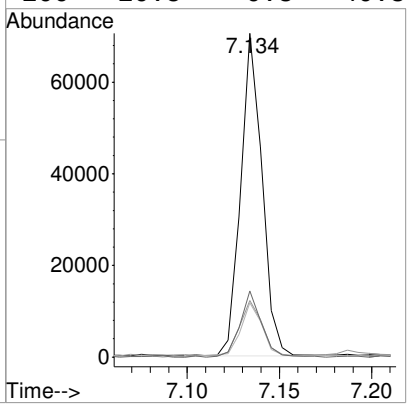


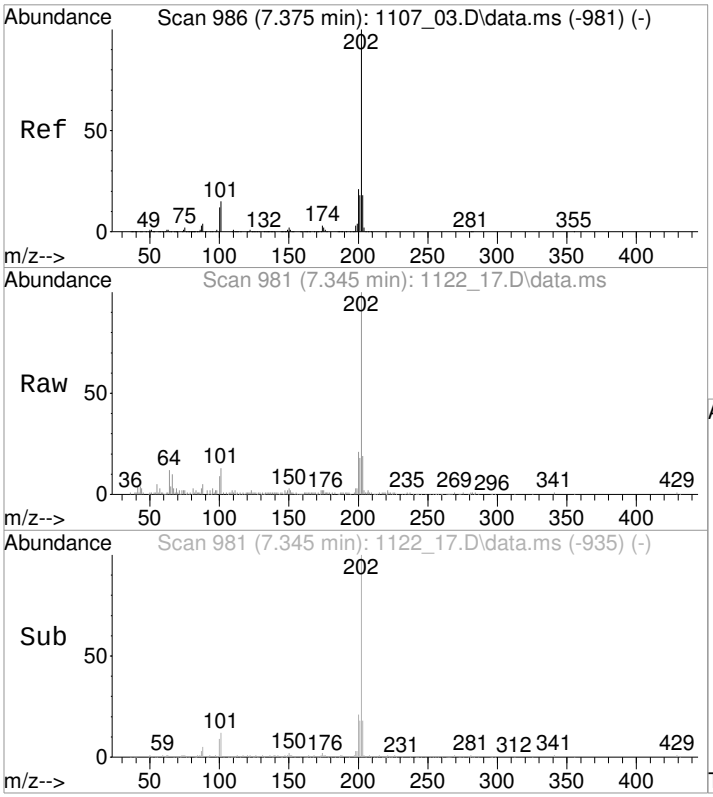


#83
Fluoranthene
Concen: 474.6383784 ppb
RT: 7.134 min Scan# 945
Delta R.T. -0.029 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:202 Resp: 57440

Ion	Ratio	Lower	Upper
202	100		
203	16.7	0.0	37.5
201	16.9	0.0	35.0
200	20.5	0.8	40.8

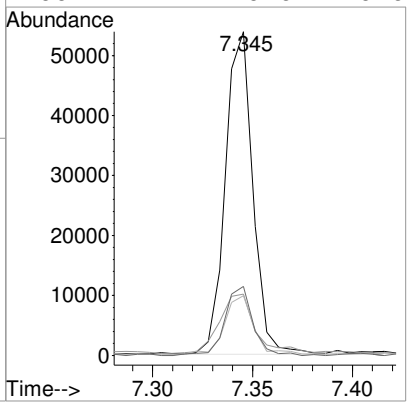


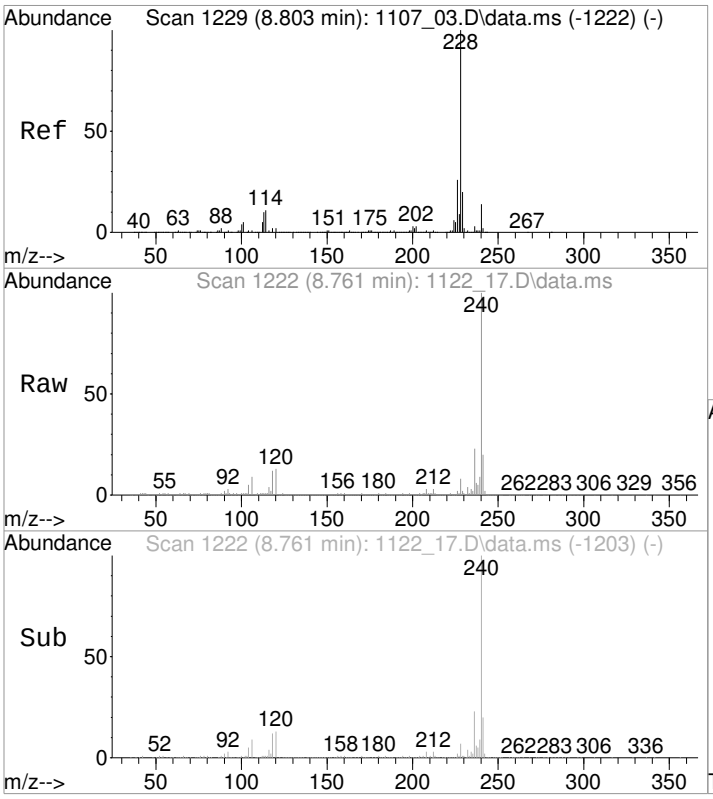


#86
Pyrene
Concen: 448.7744675 ppb
RT: 7.345 min Scan# 981
Delta R.T. -0.029 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:202 Resp: 51338

Ion	Ratio	Lower	Upper
202	100		
203	18.2	0.0	37.2
201	18.2	0.0	37.4
200	21.4	0.6	40.6

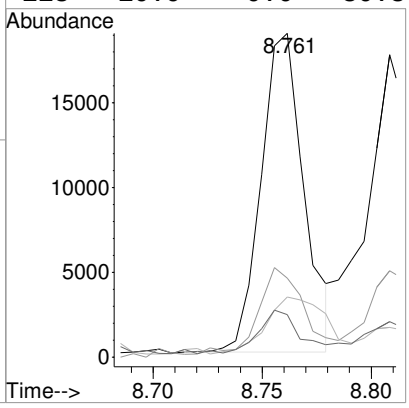


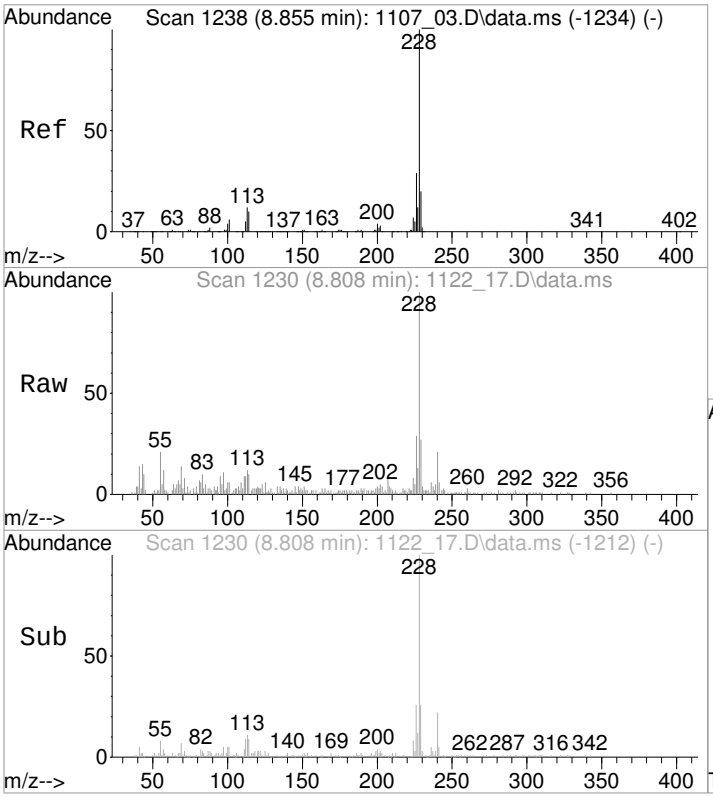


#90
Benzo(a)anthracene
Concen: 222.9567291 ppb
RT: 8.761 min Scan# 1222
Delta R.T. -0.041 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:228 Resp: 25674

Ion	Ratio	Lower	Upper
228	100		
226	23.9	7.1	47.1
114	16.5	0.0	31.6
113	10.9	0.0	30.3

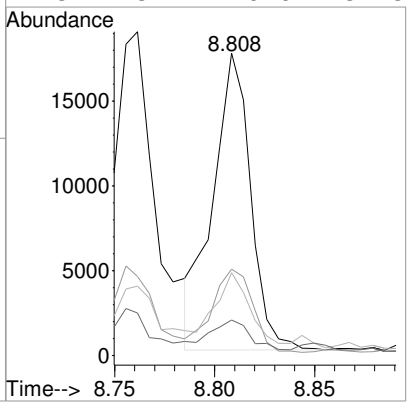


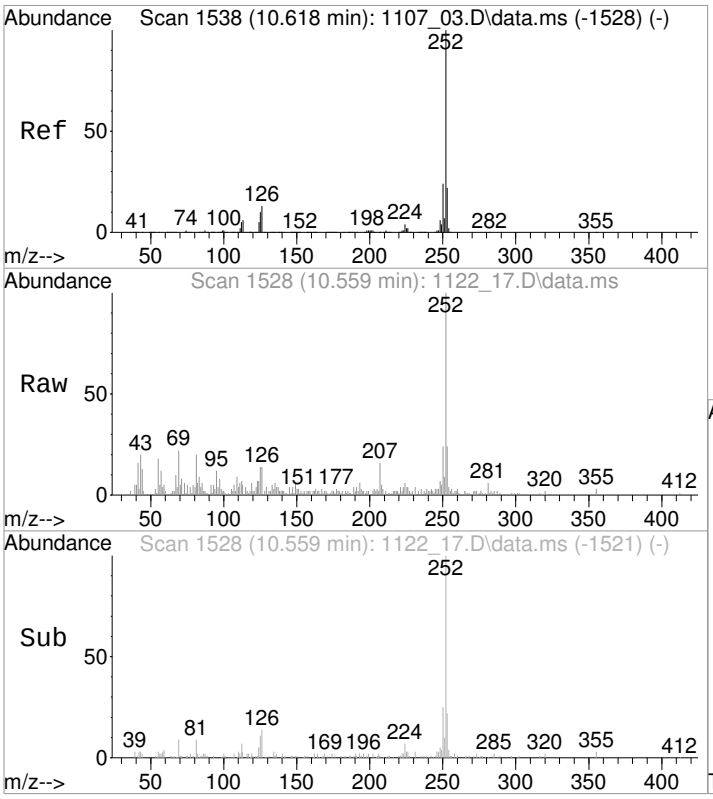


#91
Chrysene
Concen: 211.1850141 ppb
RT: 8.808 min Scan# 1230
Delta R.T. -0.047 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:228 Resp: 23071

Ion	Ratio	Lower	Upper
228	100		
226	27.2	8.9	48.9
229	25.4	0.0	39.6
113	8.4	0.0	31.3

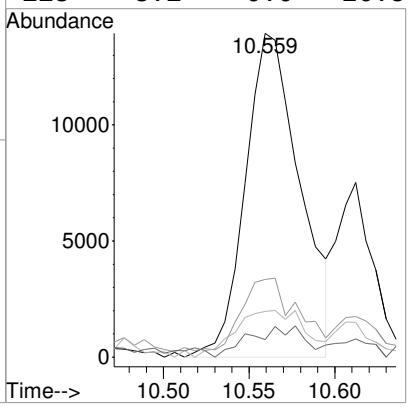


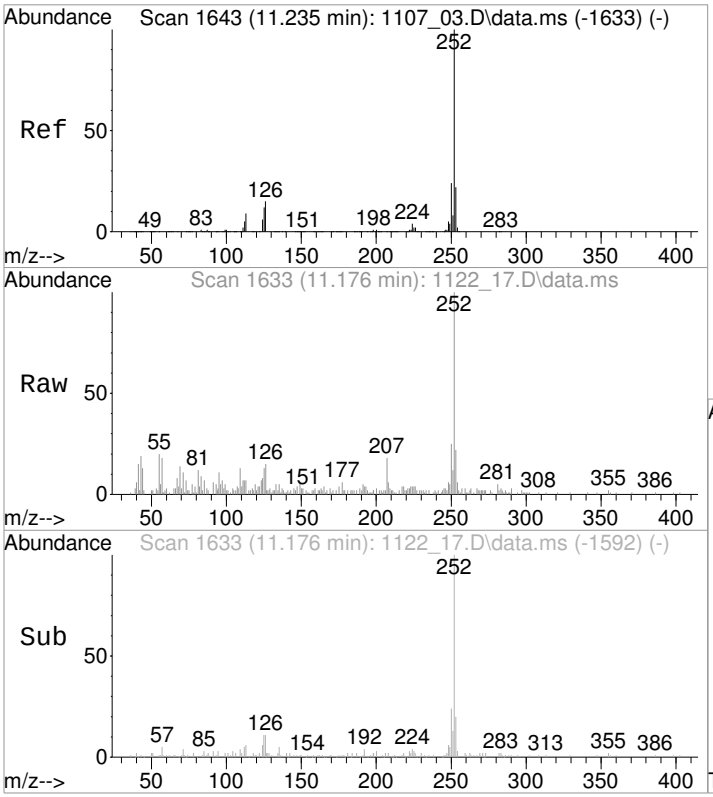


#95
Benzo(b)fluoranthene
Concen: 257.6872176 ppb
RT: 10.559 min Scan# 1528
Delta R.T. -0.059 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:252 Resp: 30928

Ion	Ratio	Lower	Upper
252	100		
253	23.1	1.9	41.9
126	12.6	0.0	33.4
113	3.1	0.0	26.5

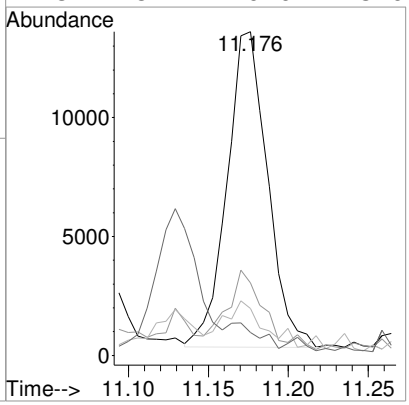




#97
Benzo(a)pyrene
Concen: 224.4157573 ppb
RT: 11.176 min Scan# 1633
Delta R.T. -0.059 min
Lab File: 1122_17.D
Acq: 22 Nov 2022 7:04 pm

Tgt Ion:252 Resp: 23390

Ion	Ratio	Lower	Upper
252	100		
253	19.8	1.4	41.4
126	12.9	0.0	34.7
113	5.2	0.0	28.0



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
BNSF-J060-SC-8.5-9.5-111322

Lab Sample ID:	L1559126-05	**SDG:**	L1559126
Client Sample ID:	BNSF-J060-SC-8.5-9.5-111322	**Collected Date/Time:**	11/14/22 10:30
Lab File ID:	1122_14	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 18:03
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15.40 g
Total Solids (%):	78.4	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result (dry)	Qualifier	MDL (dry)	RDL (dry)
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00687	0.0425
Acenaphthylene	208-96-8	0	U		0.00598	0.0425
Anthracene	120-12-7	0	U		0.00756	0.0425
Benzoic Acid	65-85-0	0	U		0.150	2.13
Benzo(a)anthracene	56-55-3	8.78	U		0.00749	0.0425
Benzo(b)fluoranthene	205-99-2	0	U		0.00792	0.0425
Benzo(k)fluoranthene	207-08-9	0	U		0.00755	0.0425
Benzo(g,h,i)perylene	191-24-2	0	U		0.00777	0.0425
Benzo(a)pyrene	50-32-8	11.29	U		0.00789	0.0425
Carbazole	86-74-8	0	U		0.0131	0.425
Chrysene	218-01-9	8.78	U		0.00844	0.0425
Dibenz(a,h)anthracene	53-70-3	0	U		0.0118	0.0425
Dibenzofuran	132-64-9	0	U		0.0139	0.425
Fluoranthene	206-44-0	0	U		0.00766	0.0425
Fluorene	86-73-7	0	U		0.00691	0.0425
Indeno(1,2,3-cd)pyrene	193-39-5	0	U		0.0120	0.0425
1-Methylnaphthalene	90-12-0	0	U		0.00543	0.0425
2-Methylnaphthalene	91-57-6	0	U		0.00551	0.0425
Naphthalene	91-20-3	0	U		0.0107	0.0425
Phenanthrene	85-01-8	0	U		0.00843	0.0425
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	U		0.0538	0.425
Di-n-butyl phthalate	84-74-2	0	U		0.0145	0.425
Di-n-octyl phthalate	117-84-0	10.07	U		0.0287	0.425
Pyrene	129-00-0	0	U		0.00826	0.0425
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0133	0.425
Pentachlorophenol	87-86-5	0	U		0.0114	0.425
Phenol	108-95-2	0	U		0.0171	0.425

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_14.D
Acq On : 22 Nov 2022 6:03 pm
Operator : 3545
Sample : L1559126-05 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:30:53 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

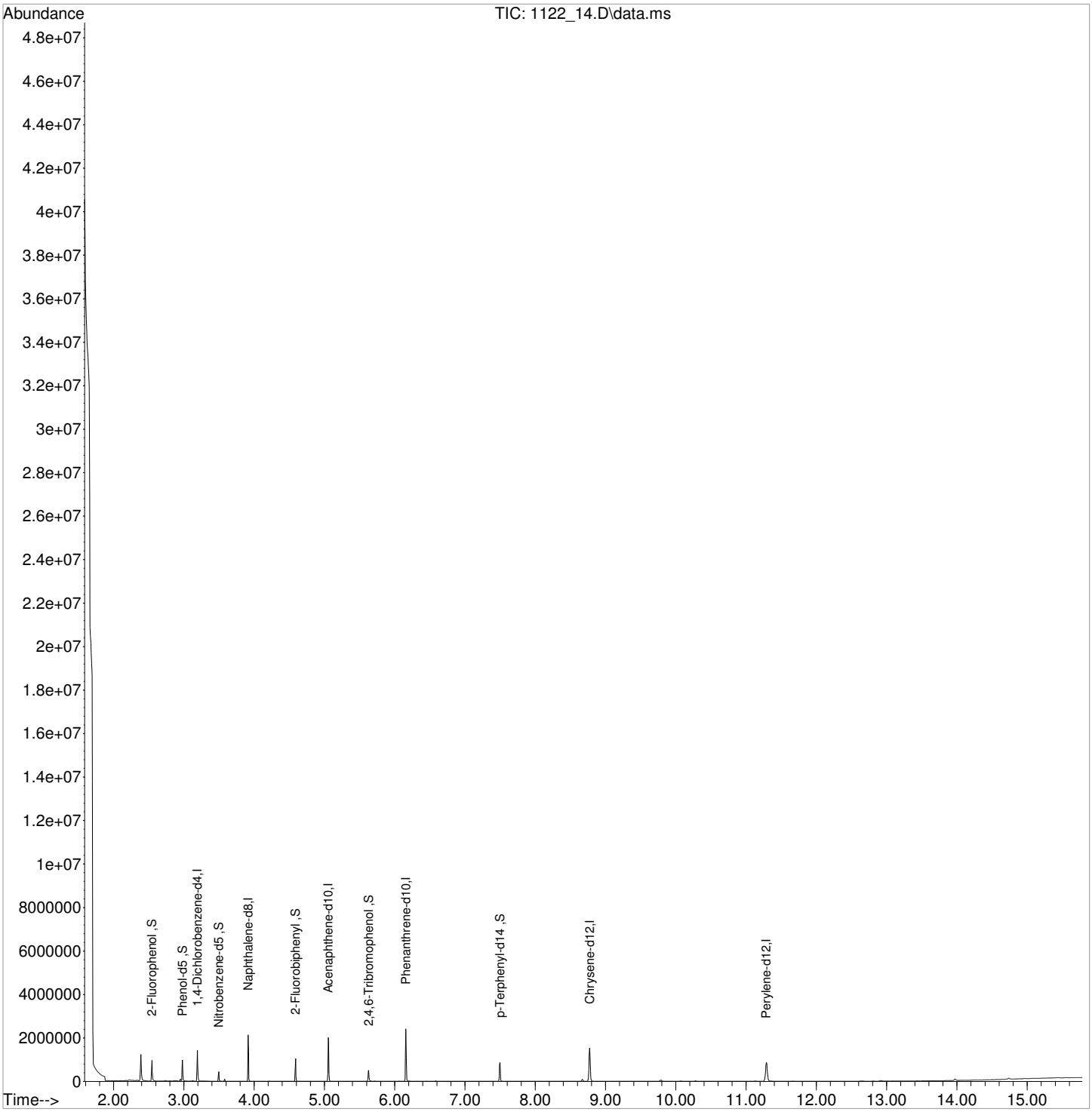
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	191041	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	729444	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.054	164	393963	8000.0000000	ppb	-0.03
70) Phenanthrene-d10	6.158	188	757788	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	722552	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	608655	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	240916	7276.9319088	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 36.38%			
7) Phenol-d5	2.980	99	267646	6678.5818693	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 33.39%			
24) Nitrobenzene-d5	3.497	82	106860	3456.5902830	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 34.57%			
50) 2-Fluorobiphenyl	4.590	172	255887	3699.3145225	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 36.99%			
73) 2,4,6-Tribromophenol	5.630	330	74588	6082.1215119	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 30.41%			
87) p-Terphenyl-d14	7.498	244	365593	3687.8351908	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 36.88%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_14.D
Acq On : 22 Nov 2022 6:03 pm
Operator : 3545
Sample : L1559126-05 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:30:53 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



GC/MS INITIAL CALIBRATION DATA

SDG: L1559126 **Analytical Method:** 8270E

Instrument ID: BNAMS2

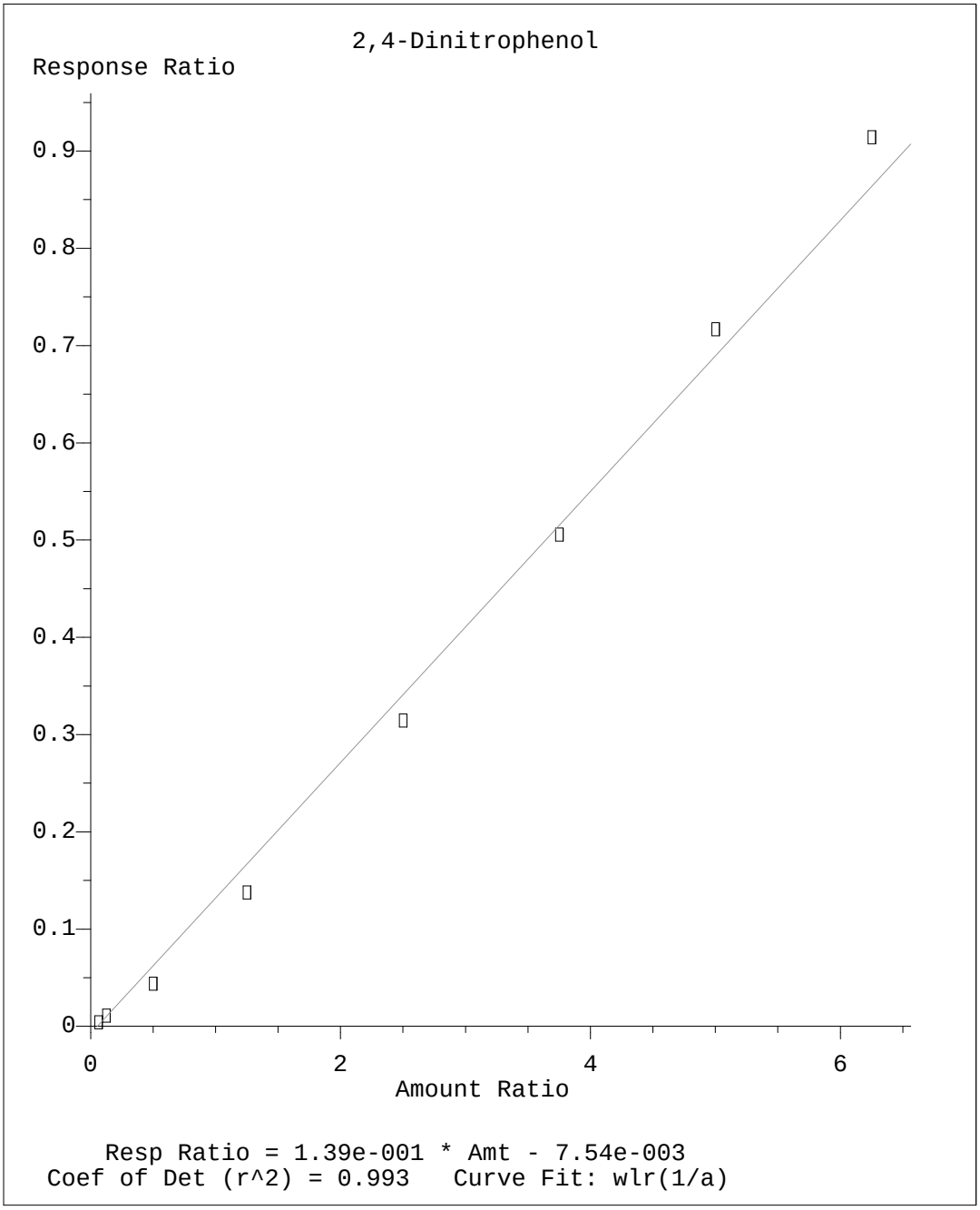
Analyte	**RRF: 500**	**RRF: 1000**	**RRF: 4000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**	**RRF: 1K1**	**RRF: 4K1**
Analysis date/time	10/20/22 19:25	10/20/22 19:45	10/20/22 20:06	10/20/22 20:27	10/20/22 20:47	10/20/22 21:08	10/20/22 21:29	10/20/22 21:49	10/20/22 22:10	10/20/22 22:31
PHENOL	1.9860	1.8660	1.5990	1.6480	1.6710	1.7020	1.6920	1.6880		
3&4-METHYL PHENOL	1.69	1.5340	1.31	1.3730	1.38	1.3970	1.3870	1.3850		
NAPHTHALENE	1.2470	1.1750	1.0010	1.0180	1.0110	1.02	1	0.9770		
2-METHYLNAPHTHALENE	0.7750	0.7290	0.6320	0.6480	0.6580	0.6610	0.6550	0.6480		
1-METHYLNAPHTHALENE	0.7330	0.6710	0.5920	0.6110	0.6130	0.6160	0.6090	0.6090		
ACENAPHTHYLENE	2.1820	1.94	1.7690	1.8170	1.8340	1.7890	1.7970	1.7420		
ACENAPHTHENE	1.4710	1.3470	1.1750	1.20	1.1860	1.1530	1.16	1.1430		
DIBENZOFURAN	2.02	1.8760	1.6430	1.6710	1.6430	1.5840	1.6010	1.5650		
FLUORENE	1.6740	1.5180	1.3520	1.3820	1.3270	1.2860	1.3050	1.2750		
PHENANTHRENE	1.2740	1.1740	1.0190	1.05	1.0370	1.0320	1.0170	1.0160		
ANTHRACENE	1.2740	1.1610	1.0420	1.0720	1.0930	1.0790	1.0710	1.07		
CARBAZOLE	1.1770	1.0960	0.98	1.0280	1.0640	1.0560	1.0630	1.0280		
DI-N-BUTYL PHTHALATE	1.3840	1.2910	1.1470	1.2270	1.2970	1.3280	1.3210	1.2550		
FLUORANTHENE	1.4010	1.3080	1.1740	1.2280	1.2990	1.3220	1.3030	1.2670		
PYRENE	1.4020	1.2610	1.13	1.16	1.1790	1.1490	1.1310	1.1090		
BENZO(A)ANTHRACENE	1.4120	1.2460	1.1070	1.1590	1.1710	1.1640	1.1620	1.1630		
CHRYSENE	1.3050	1.1870	1.0680	1.1270	1.1140	1.1010	1.0940	1.0970		
BIS(2-ETHYLHEXYL)PHTHALATE	0.7580	0.7120	0.6360	0.6810	0.7050	0.6980	0.6960	0.6980		
DI-N-OCTYL PHTHALATE	1.20	1.1380	1.0680	1.1520	1.2050	1.22	1.2280	1.2370		
BENZO(B)FLUORANTHENE	1.3110	1.2030	1.0980	1.1690	1.1610	1.1940	1.2230	1.2290		
BENZO(K)FLUORANTHENE	1.2940	1.1960	1.0990	1.1410	1.17	1.1740	1.18	1.2130		
BENZO(A)PYRENE	1.14	1.0420	0.95	1.0090	1.0230	1.0470	1.0510	1.0650		
INDENO(1,2,3-CD)PYRENE	1.2140	1.1330	1.0270	1.0660	1.0220	0.9590	0.9740	0.9850		
DIBENZ(A,H)ANTHRACENE	1.2260	1.1460	1.0360	1.0990	1.0450	1	1.01	1.02		
BENZO(G,H,I)PERYLENE	1.3110	1.2020	1.0640	1.1070	0.9980	0.9290	0.9490	0.9610		
2-FLUOROPHENOL	1.6320	1.4920	1.2780	1.32	1.33	1.3430	1.3510	1.3450		
PHENOL-D5	1.9380	1.7990	1.5320	1.60	1.6260	1.6470	1.64	1.6440		
NITROBENZENE-D5	0.3730	0.3620	0.3120	0.3220	0.33	0.3360	0.3380	0.3390		
2-FLUOROBIPHENYL	1.6860	1.5270	1.3740	1.4010	1.3630	1.3080	1.3140	1.2640		
2,4,6-TRIBROMOPHENOL	0.13	0.1230	0.11	0.1210	0.1340	0.1420	0.1390	0.1370		
P-TERPHENYL-D14	1.2390	1.1720	1.0110	1.0250	1.09	1.09	1.0820	1.0720		
PENTACHLOROPHENOL			0.1120	0.1280	0.14	0.1480	0.1540	0.16		
BENZOIC ACID									0.0950	0.1090
File ID:	1020_04	1020_05	1020_06	1020_07	1020_08	1020_09	1020_10	1020_11	1020_12	1020_13

GC/MS INITIAL CALIBRATION DATA

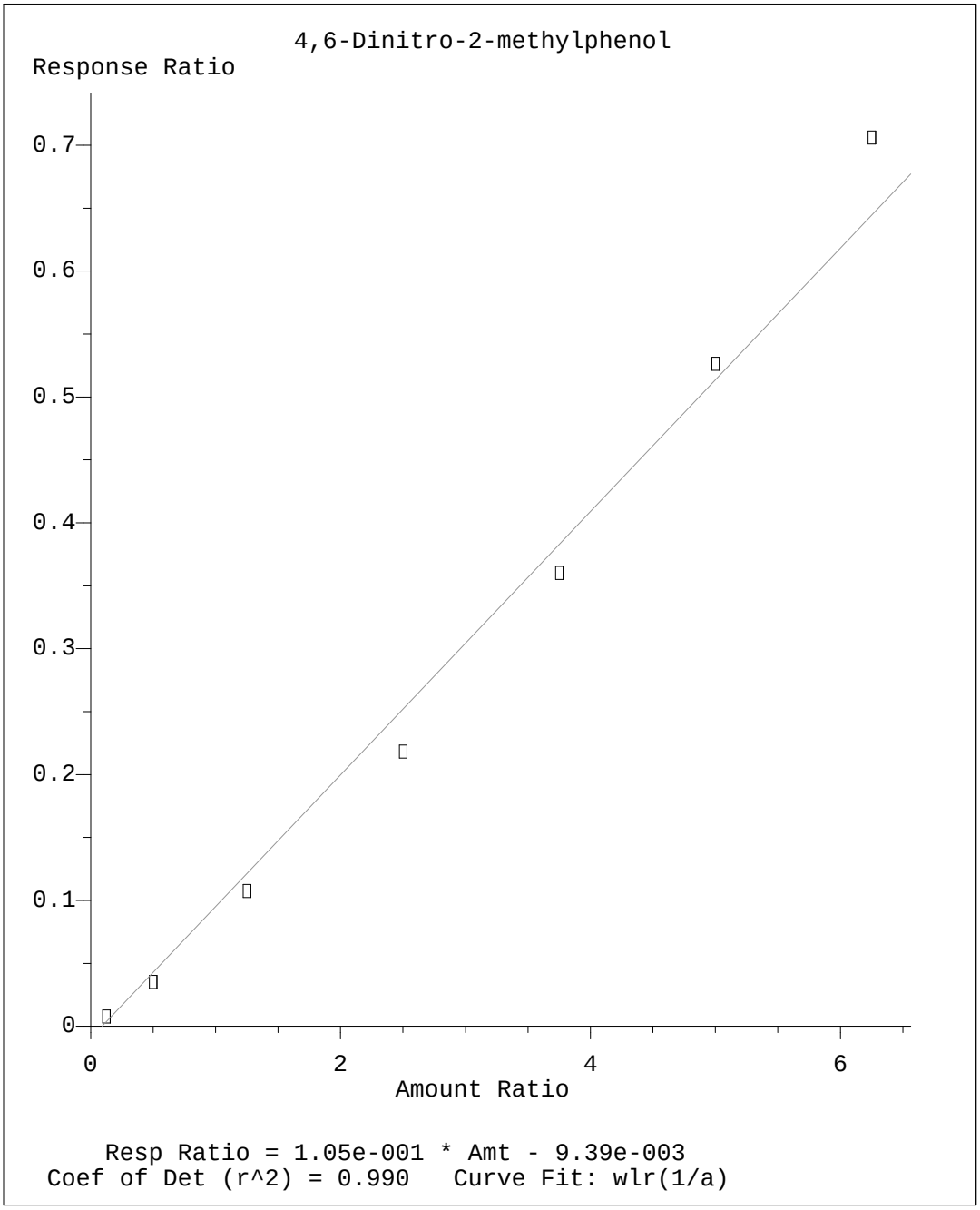
SDG: L1559126 **Analytical Method:** 8270E

Instrument ID: BNAMS2

Analyte	**RRF: 10K1**	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	10/20/22 22:51	10/20/22 23:12	10/20/22 23:32	10/20/22 23:53	10/21/22 00:14			
PHENOL						1.731591	7.42	
3&4-METHYL PHENOL						1.431908	8.49	
NAPHTHALENE						1.056043	9.31	
2-METHYLNAPHTHALENE						0.675661	7.32	
1-METHYLNAPHTHALENE						0.631524	7.42	
ACENAPHTHYLENE						1.858572	7.71	
ACENAPHTHENE						1.229442	9.54	
DIBENZOFURAN						1.700492	9.48	
FLUORENE						1.3899	9.94	
PHENANTHRENE						1.077455	8.82	
ANTHRACENE						1.107564	6.81	
CARBAZOLE						1.06163	5.44	
DI-N-BUTYL PHTHALATE						1.281066	5.63	
FLUORANTHENE						1.287812	5.23	
PYRENE						1.190215	8.18	
BENZO(A)ANTHRACENE						1.198084	7.88	
CHRYSENE						1.136627	6.72	
BIS(2-ETHYLHEXYL)PHTHALATE						0.697969	4.86	
DI-N-OCTYL PHTHALATE						1.180926	4.88	
BENZO(B)FLUORANTHENE						1.198561	5.15	
BENZO(K)FLUORANTHENE						1.183434	4.79	
BENZO(A)PYRENE						1.040826	5.15	
INDENO(1,2,3-CD)PYRENE						1.04746	8.35	
DIBENZ(A,H)ANTHRACENE						1.072637	7.35	
BENZO(G,H,I)PERYLENE						1.064936	12.7	
2-FLUOROPHENOL						1.386375	8.43	
PHENOL-D5						1.678185	7.66	
NITROBENZENE-D5						0.339051	5.85	
2-FLUOROBIPHENYL						1.404629	9.85	
2,4,6-TRIBROMOPHENOL						0.129466	8.23	
P-TERPHENYL-D14						1.097608	6.84	
PENTACHLOROPHENOL						0.140213	12.65	
BENZOIC ACID	0.1280	0.1380	0.1330	0.1280	0.1240	0.122101	12.42	
File ID:	1020_14	1020_15	1020_16	1020_17	1020_18			



Method Name: C:\msdchem\1\methods\S802J20V.M



Method Name: C:\msdchem\1\methods\S802J20V.M

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022
Response Via : Initial Calibration

Calibration Files
500 =1020_04.D 1K =1020_05.D 4K =1020_06.D 10K =1020_07.D 20K =1020_08.D 30K =1020_09.D 40K =1020_10.D
50K =1020_11.D 1K1 =1020_12.D 4K1 =1020_13.D 10K1=1020_14.D 20K1=1020_15.D 30K1=1020_16.D 40K1=1020_17.D
50K1=1020_18.D

		Compound	500	1K	4K	10K	20K	30K	40K	50K	1K1	4K1	10K1	20K1	30K1	40K1	50K1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------																
2)	TM	Pyridine	1.737	1.584	1.400	1.418	1.426	1.445	1.463	1.458								1.491	7.65
3)	MT	N-Nitrosodimet...	0.877	0.807	0.667	0.652	0.665	0.674	0.671	0.680								0.711	11.66
4)	S	2-Fluorophenol	1.632	1.492	1.278	1.320	1.330	1.343	1.351	1.345								1.386	8.43
5)	MT	Aniline	0.915	0.805	0.700	0.724	0.736	0.729	0.735	0.731								0.759	9.15
6)	MT	bis(2-Chloroet...			1.217	1.285	1.326	0.928	1.007	1.055								1.136	14.26
7)	S	Phenol-d5	1.938	1.799	1.532	1.600	1.626	1.647	1.640	1.644								1.678	7.66
8)	MC	Phenol	1.986	1.866	1.599	1.648	1.671	1.702	1.692	1.688								1.732	7.42
9)		Benzaldehyde									0.398	0.367	0.367	0.360	0.364	0.364	0.364	0.369	3.57
10)	MT	2-Chlorophenol	1.705	1.568	1.321	1.357	1.386	1.375	1.360	1.330								1.425	9.61
11)	T	n-Decane	0.860	0.880	0.697	0.719	0.720	0.716	0.704	0.692								0.748	10.16
12)	MT	1,3-Dichlorobe...	1.816	1.645	1.471	1.514	1.524	1.521	1.507	1.490								1.561	7.40
13)	MTC	1,4-Dichlorobe...	1.879	1.688	1.488	1.529	1.530	1.536	1.508	1.501								1.582	8.55
14)	MT	Benzyl Alcohol	1.249	1.112	0.989	1.037	1.049	1.070	1.064	1.063								1.079	7.11
15)	MT	1,2-Dichlorobe...	1.714	1.587	1.413	1.444	1.448	1.442	1.427	1.410								1.486	7.27
16)	MT	bis(2-Chlorois...		0.542	0.453	0.463	0.463	0.461	0.454	0.453								0.470	6.85
17)	MT	2,2-oxybis(1-c...		0.542	0.453	0.463	0.463	0.461	0.454	0.453								0.470	6.85
18)	MT	2-Methylphenol	1.559	1.356	1.175	1.191	1.213	1.212	1.205	1.200								1.264	10.10

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.44
                                 Response Factor Report BNAMS2

  Method Path : C:\msdchem\1\methods\
  Method File : S802J20V.M
  Title       : 8270 BNA
  Last Update  : Fri Oct 21 09:58:59 2022
 19) MT  Hexachloroethane  0.732 0.587 0.541 0.553 0.555 0.554 0.556 0.560                                           0.580   10
.83
 20) MP  N-Nitrosodi-n-... 1.087 0.949 0.844 0.873 0.885 0.893 0.899 0.898                                           0.916    8
.20
 21) MT  3&4-Methyl phenol 1.690 1.534 1.310 1.373 1.380 1.397 1.387 1.385                                           1.432    8
.49
 22) MT  Acetophenone                                                      1.733 1.670 1.776 1.748 1.773 1.777 1.748 1.746    2
.16

 23) I   Naphthalene-d8        ----------------ISTD---------------------
 24) S   Nitrobenzene-d5   0.373 0.362 0.312 0.322 0.330 0.336 0.338 0.339                                           0.339    5
.85
 25) MT  Nitrobenzene      0.407 0.356 0.324 0.335 0.338 0.340 0.340 0.339                                           0.347    7
.34
 26) MT  Isophorone        0.741 0.658 0.591 0.616 0.620 0.625 0.617 0.606                                           0.634    7
.43
 27) MCT 2-Nitrophenol     0.187 0.178 0.164 0.173 0.180 0.180 0.182 0.181                                           0.178    3
.92
 28) MT  2,4-Dimethylph... 0.388 0.367 0.322 0.324 0.328 0.321 0.315 0.312                                           0.335    8
.24
 29) MT  bis(2-Chloreth... 0.451 0.440 0.366 0.377 0.379 0.379 0.378 0.378                                           0.393    8
.25
 30) MCT 2,4-Dichloroph... 0.321 0.313 0.273 0.285 0.285 0.284 0.279 0.277                                           0.289    6
.09
 31) MT  Benzoic Acid                                                      0.095 0.109 0.128 0.138 0.133 0.128 0.124 0.122   12
.42
 32) MT  1,2,4-Trichlor... 0.376 0.363 0.307 0.319 0.319 0.315 0.313 0.311                                           0.328    8
.00
 33) MT  alpha-terpineol                                                   0.259 0.238 0.230 0.206 0.186             0.224   12
.72
 34) MT  Naphthalene       1.247 1.175 1.001 1.018 1.011 1.020 1.000 0.977                                           1.056    9
.31
 35) MT  4-Chloroaniline         0.118 0.110 0.112 0.115 0.113 0.115 0.114                                           0.114    2
.16
 36) MCT Hexachloro-1,3... 0.225 0.211 0.179 0.188 0.186 0.182 0.179 0.178                                           0.191    9
.15
 37)     Hydroquinone                                                            0.187 0.188 0.239 0.224 0.205 0.190 0.205   10
.63
 38) MT  Quinoline                                                         0.647 0.560 0.561 0.499 0.448             0.543   13
.73
 39) MT  Caprolactam                                                           0.052 0.058 0.057 0.056 0.052 0.049 0.054    6
.19
 40) MCT 4-Chloro-3-met... 0.353 0.296 0.255 0.269 0.279 0.283 0.285 0.288                                           0.288   10
.06
 41) MT  2-Methylnaphth... 0.775 0.729 0.632 0.648 0.658 0.661 0.655 0.648                                           0.676    7
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Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

42)	MT	1-Methylnaphth...	0.733	0.671	0.592	0.611	0.613	0.616	0.609	0.609				0.632	7
43)	MT	1,2,4,5-Tetrac...									0.319	0.289	0.276	0.269	14
44)		Diphenyl Ether									0.406	0.366	0.361	0.345	14
45)		Diphenyl Oxide									0.406	0.366	0.361	0.345	14
46)	I	Acenaphthene-d10	----------ISTD----------												
47)	MPT	Hexachlorocycl...	0.512	0.449	0.475	0.466	0.451	0.450	0.439					0.463	5
48)	MCT	2,4,6-Trichlor...	0.447	0.394	0.374	0.398	0.386	0.378	0.377	0.372				0.391	6
49)	MT	2,4,5-Trichlor...	0.437	0.373	0.362	0.382	0.397	0.394	0.403	0.396				0.393	5
50)	S	2-Fluorobiphenyl	1.686	1.527	1.374	1.401	1.363	1.308	1.314	1.264				1.405	9
51)	MT	Biphenyl	1.855	1.673	1.464	1.522	1.487	1.439	1.421	1.385				1.531	10
52)	MT	2-Chloronaphth...	1.462	1.308	1.142	1.197	1.171	1.129	1.125	1.099				1.204	10
53)	MT	2-Nitroaniline	0.383	0.355	0.327	0.385	0.402	0.398	0.406	0.408				0.383	7
54)	MT	Acenaphthylene	2.182	1.940	1.769	1.817	1.834	1.789	1.797	1.742				1.859	7
55)	MT	Dimethyl phtha...	1.466	1.351	1.230	1.280	1.241	1.240	1.295	1.271				1.297	6
56)	MT	2,6-Dinitrotol...	0.297	0.268	0.258	0.296	0.298	0.294	0.309	0.309				0.291	6
57)	MT	3-Nitroaniline	0.328	0.285	0.290	0.325	0.323	0.329	0.342	0.334				0.320	6
58)	MCT	Acenaphthene	1.471	1.347	1.175	1.200	1.186	1.153	1.160	1.143				1.229	9
59)	MPT	2,4-Dinitrophenol	0.068	0.088	0.088	0.110	0.126	0.135	0.143	0.146				0.113	25
60)	MT	Dibenzofuran	2.020	1.876	1.643	1.671	1.643	1.584	1.601	1.565				1.700	9
61)	MT	2,4-Dinitrotol...	0.341	0.324	0.333	0.369	0.387	0.392	0.391	0.384				0.365	7
62)	T	2,3,4,6-Tetrac...									0.277	0.278	0.294	0.289	0.285	0.285	0.283	0.284	2
63)	MPT	4-Nitrophenol	0.230	0.215	0.215	0.251	0.236	0.231	0.243	0.249				0.234	5
64)	MT	Fluorene	1.674	1.518	1.352	1.382	1.327	1.286	1.305	1.275				1.390	9

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

65)	MT	4-Chlorophenyl...	0.846	0.750	0.678	0.676	0.663	0.641	0.646	0.633					0.692	10
66)	MT	Diethyl phthalate	1.591	1.375	1.267	1.291	1.182	1.079	1.113	1.105					1.250	13
67)	MT	4-Nitroaniline	0.339	0.340	0.304	0.332	0.216	0.248	0.279	0.286					0.293	15
68)	MT	Azobenzene	1.594	1.414	1.263	1.288	1.274	1.236	1.240	1.204					1.314	9
69)	MT	Atrazine									0.385	0.380	0.395	0.409	0.404	4
70)	I	Phenanthrene-d10	----------ISTD----------													
71)	MT	4,6-Dinitro-2-...		0.063	0.071	0.086	0.087	0.096	0.105	0.113					0.089	20
72)	MCT	N-Nitrosodiphe...	0.702	0.662	0.587	0.613	0.632	0.640	0.623	0.615					0.634	5
73)	S	2,4,6-Tribromo...	0.130	0.123	0.110	0.121	0.134	0.142	0.139	0.137					0.129	8
74)	MT	4-Bromophenyl-...	0.271	0.253	0.222	0.232	0.236	0.238	0.235	0.232					0.240	6
75)	MT	Hexachlorobenzene	0.350	0.318	0.267	0.279	0.288	0.292	0.295	0.295					0.298	8
76)	T	n-octadecane	0.127	0.117	0.097	0.104	0.107	0.110	0.113	0.111					0.111	8
77)	MCT	Pentachlorophenol			0.112	0.128	0.140	0.148	0.154	0.160					0.140	12
78)	MT	Phenanthrene	1.274	1.174	1.019	1.050	1.037	1.032	1.017	1.016					1.077	8
79)	MT	Anthracene	1.274	1.161	1.042	1.072	1.093	1.079	1.071	1.070					1.108	6
80)	MT	Carbazole	1.177	1.096	0.980	1.028	1.064	1.056	1.063	1.028					1.062	5
81)	MT	Di-n-butyl pht...	1.384	1.291	1.147	1.227	1.297	1.328	1.321	1.255					1.281	5
82)	MT	2-nitrodipheny...									0.181	0.210	0.233	0.246	0.230	12
83)	MCT	Fluoranthene	1.401	1.308	1.174	1.228	1.299	1.322	1.303	1.267					1.288	5
84)	I	Chrysene-d12	----------ISTD----------													
85)	MT	Benzidine									0.339	0.428	0.475	0.526	0.465	15
86)	MT	Pyrene	1.402	1.261	1.130	1.160	1.179	1.149	1.131	1.109					1.190	8
87)	S	p-Terphenyl-d14	1.239	1.172	1.011	1.025	1.090	1.090	1.082	1.072					1.098	6

.84

Response Factor Report BNAMS2

Method Path : C:\msdchem\1\methods\
Method File : S802J20V.M
Title : 8270 BNA
Last Update : Fri Oct 21 09:58:59 2022

88)	MT	Benzylbutyl ph...	0.543	0.518	0.449	0.488	0.502	0.503	0.503	0.507					0.502	5
.00																
89)	MT	3,3-Dichlorobe...									0.445	0.440	0.484	0.505	0.506	0.511	0.511	0.486	6
.41																
90)	MT	Benzo(a)anthra...	1.412	1.246	1.107	1.159	1.171	1.164	1.162	1.163					1.198	7
.88																
91)	MT	Chrysene	1.305	1.187	1.068	1.127	1.114	1.101	1.094	1.097					1.137	6
.72																
92)	MT	bis(2-Ethylhex...	0.758	0.712	0.636	0.681	0.705	0.698	0.696	0.698					0.698	4
.86																
93)	MC	Di-n-octyl pht...	1.200	1.138	1.068	1.152	1.205	1.220	1.228	1.237					1.181	4
.88																
94)	I	Perylene-d12	----------ISTD----------													
95)	MT	Benzo(b)fluora...	1.311	1.203	1.098	1.169	1.161	1.194	1.223	1.229					1.199	5
.15																
96)	MT	Benzo(k)fluora...	1.294	1.196	1.099	1.141	1.170	1.174	1.180	1.213					1.183	4
.79																
97)	MC	Benzo(a)pyrene	1.140	1.042	0.950	1.009	1.023	1.047	1.051	1.065					1.041	5
.15																
98)	MT	Indeno(1,2,3-c...	1.214	1.133	1.027	1.066	1.022	0.959	0.974	0.985					1.047	8
.35																
99)	MT	Dibenz(a,h)ant...	1.226	1.146	1.036	1.099	1.045	1.000	1.010	1.020					1.073	7
.35																
100)	MT	Benzo(g,h,i)pe...	1.311	1.202	1.064	1.107	0.998	0.929	0.949	0.961					1.065	12
.70																

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	150514	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	583117	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	295022	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.470	188	589816	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	613312	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	684519	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.798	112	15349	618.0969934	ppb		0.00
Spiked Amount 20000.000				Recovery = 3.09%			
7) Phenol-d5	3.233	99	18227	605.4498500	ppb		0.00
Spiked Amount 20000.000				Recovery = 3.03%			
24) Nitrobenzene-d5	3.768	82	13599m	578.7135573	ppb		0.00
Spiked Amount 10000.000				Recovery = 5.79%			
50) 2-Fluorobiphenyl	4.878	172	31084	601.5700499	ppb		0.00
Spiked Amount 10000.000				Recovery = 6.02%			
73) 2,4,6-Tribromophenol	5.930	330	4789	535.8563562	ppb		0.00
Spiked Amount 20000.000				Recovery = 2.68%			
87) p-Terphenyl-d14	7.892	244	47512	604.6707658	ppb		0.00
Spiked Amount 10000.000				Recovery = 6.05%			
Target Compounds						Qvalue	
2) Pyridine	2.252	79	16341	612.5939056	ppb	#	95
3) N-Nitrosodimethylamine	2.240	42	8248	672.6655407	ppb	#	85
5) Aniline	3.286	66	8604	631.4349868	ppb	#	84
6) bis(2-Chloroethyl)ether	3.309	93	15010m	620.6847948	ppb		
8) Phenol	3.239	94	18683	602.6426741	ppb		98
10) 2-Chlorophenol	3.351	128	16039	628.4051136	ppb		99
11) n-Decane	3.351	41	8092	598.2914880	ppb	#	94
12) 1,3-Dichlorobenzene	3.439	146	17087	599.8030283	ppb		97
13) 1,4-Dichlorobenzene	3.474	146	17677	614.3359985	ppb	#	88
14) Benzyl Alcohol	3.521	79	11749	601.9756405	ppb		95
15) 1,2-Dichlorobenzene	3.562	146	16120	593.2649735	ppb		99
16) bis(2-Chloroisopropyl)...	3.591	121	6394	733.6912761	ppb	#	60
17) 2,2-oxybis(1-chloropro...	3.591	121	6394	733.6912761	ppb	#	60
18) 2-Methylphenol	3.568	108	14668	654.7282157	ppb		95
19) Hexachloroethane	3.750	117	6884	662.1412758	ppb		91
20) N-Nitrosodi-n-propylamine	3.668	70	10225	622.8211816	ppb		93
21) 3&4-Methyl phenol	3.650	107	15896	615.1929266	ppb		97
25) Nitrobenzene	3.779	77	14822	607.2800693	ppb		95
26) Isophorone	3.909	82	26998	601.6322947	ppb		94
27) 2-Nitrophenol	3.962	139	6805	539.6995505	ppb		93
28) 2,4-Dimethylphenol	3.962	107	14150	598.7476527	ppb		90
29) bis(2-Chlorethoxy)methane	4.020	93	16420	596.7990910	ppb		98
30) 2,4-Dichlorophenol	4.097	162	11702	563.2055949	ppb		94
32) 1,2,4-Trichlorobenzene	4.156	180	13692	588.2050764	ppb		95
34) Naphthalene	4.208	128	45439m	612.2378513	ppb		
35) 4-Chloroaniline	4.226	65	6113	751.8062822	ppb	#	62
36) Hexachloro-1,3-butadiene	4.273	225	8214	600.5117099	ppb		96

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration

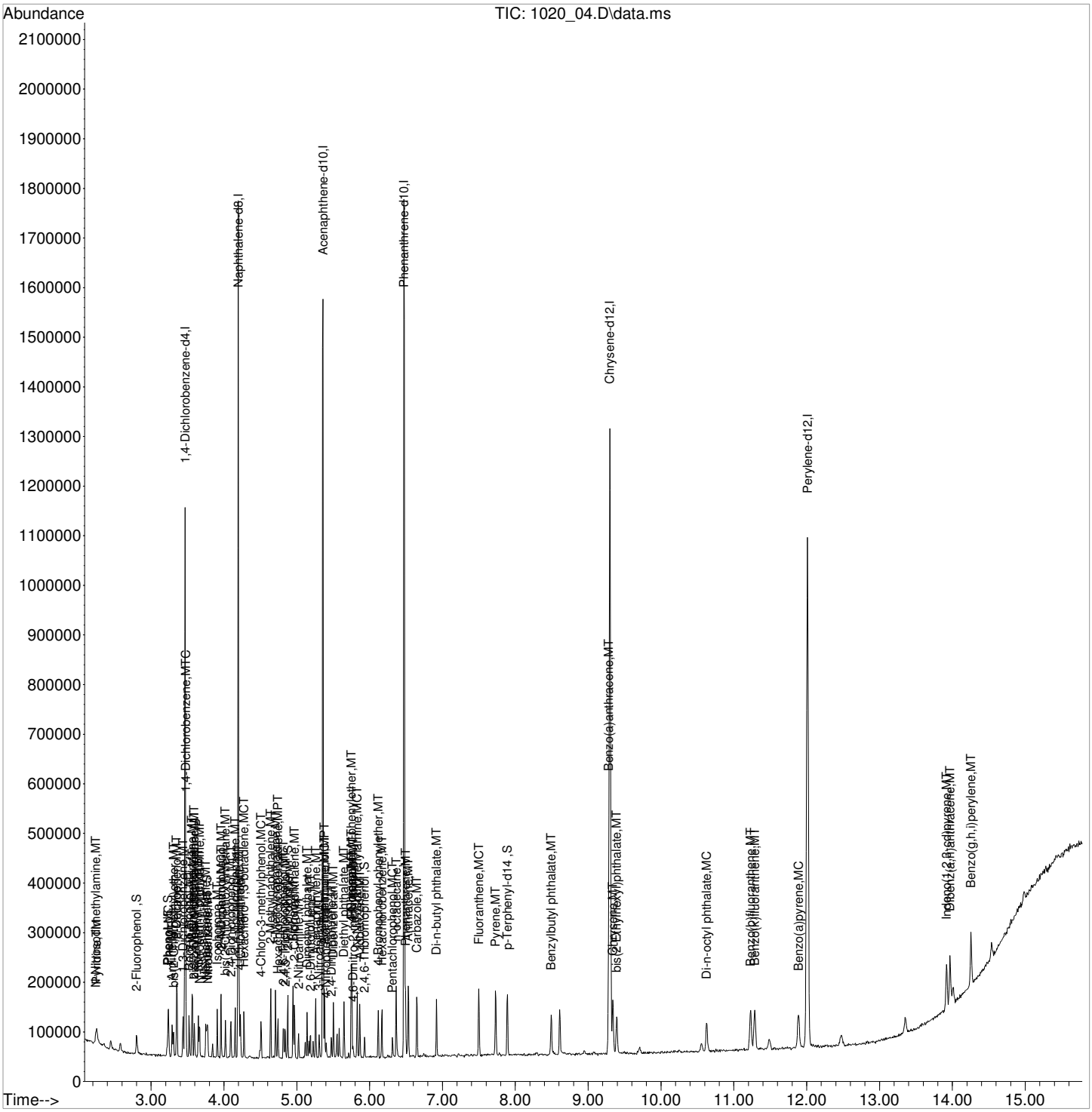
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.508	107	12866	655.8233024 ppb		96
41)	2-Methylnaphthalene	4.643	142	28251	597.8151815 ppb		96
42)	1-Methylnaphthalene	4.708	142	26700	599.7026489 ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	9882	563.5922721 ppb		99
48)	2,4,6-Trichlorophenol	4.819	196	8234	561.2976569 ppb		97
49)	2,4,5-Trichlorophenol	4.843	196	8050	571.2913849 ppb		94
51)	Biphenyl	4.949	154	34212	609.6473771 ppb		100
52)	2-Chloronaphthalene	4.966	162	26949	610.4112285 ppb		98
53)	2-Nitroaniline	5.025	138	7068	497.4943727 ppb		97
54)	Acenaphthylene	5.260	152	40232	600.4191062 ppb		99
55)	Dimethyl phthalate	5.143	163	27040	572.6710438 ppb		95
56)	2,6-Dinitrotoluene	5.190	165	5469	500.4814896 ppb		96
57)	3-Nitroaniline	5.307	138	6052	504.8629687 ppb		85
58)	Acenaphthene	5.378	153	27131	612.9018405 ppb		97
59)	2,4-Dinitrophenol	5.378	184	1258	309.6107661 ppb	#	1
60)	Dibenzofuran	5.501	168	37246	604.4520633 ppb		99
61)	2,4-Dinitrotoluene	5.478	165	6282	461.4003003 ppb		96
63)	4-Nitrophenol	5.401	139	4249m	458.4620930 ppb		
64)	Fluorene	5.754	166	30860	605.3897886 ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	15591	625.8638810 ppb		93
66)	Diethyl phthalate	5.648	149	29335	616.1702313 ppb		99
67)	4-Nitroaniline	5.748	138	6249	510.4058895 ppb		93
68)	Azobenzene	5.865	77	29390	618.7799585 ppb		96
71)	4,6-Dinitro-2-methylph...	5.771	198	2287	360.6799179 ppb	#	73
72)	N-Nitrosodiphenylamine	5.830	169	25873	572.4952216 ppb		97
74)	4-Bromophenyl-phenylether	6.118	248	10001	583.9207134 ppb		96
75)	Hexachlorobenzene	6.171	284	12898	626.8843831 ppb		97
76)	n-octadecane	6.365	55	4685	613.0044823 ppb	#	90
77)	Pentachlorophenol	6.312	266	4530	478.6930908 ppb		95
78)	Phenanthrene	6.494	178	46960	606.3361806 ppb		98
79)	Anthracene	6.529	178	46951	594.1205684 ppb		99
80)	Carbazole	6.647	167	43381	572.5632015 ppb		99
81)	Di-n-butyl phthalate	6.917	149	51007	563.9787015 ppb		99
83)	Fluoranthene	7.499	202	51648	570.4836640 ppb		99
86)	Pyrene	7.728	202	53739	604.2879799 ppb		99
88)	Benzylbutyl phthalate	8.492	149	20826	556.4709528 ppb		99
90)	Benzo(a)anthracene	9.285	228	54143	609.2326496 ppb		98
91)	Chrysene	9.338	228	50031	579.0265495 ppb		97
92)	bis(2-Ethylhexyl)phtha...	9.391	149	29065	556.7267591 ppb		97
93)	Di-n-octyl phthalate	10.625	149	46000	520.9833124 ppb		97
95)	Benzo(b)fluoranthene	11.230	252	56105	560.7512039 ppb		98
96)	Benzo(k)fluoranthene	11.288	252	55358	566.9357331 ppb		98
97)	Benzo(a)pyrene	11.888	252	48778	564.7566477 ppb		97
98)	Indeno(1,2,3-cd)pyrene	13.921	276	51939	569.5862164 ppb		97
99)	Dibenz(a,h)anthracene	13.968	278	52438	557.8106312 ppb		98
100)	Benzo(g,h,i)perylene	14.256	276	56068	591.9545643 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:28:34 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration

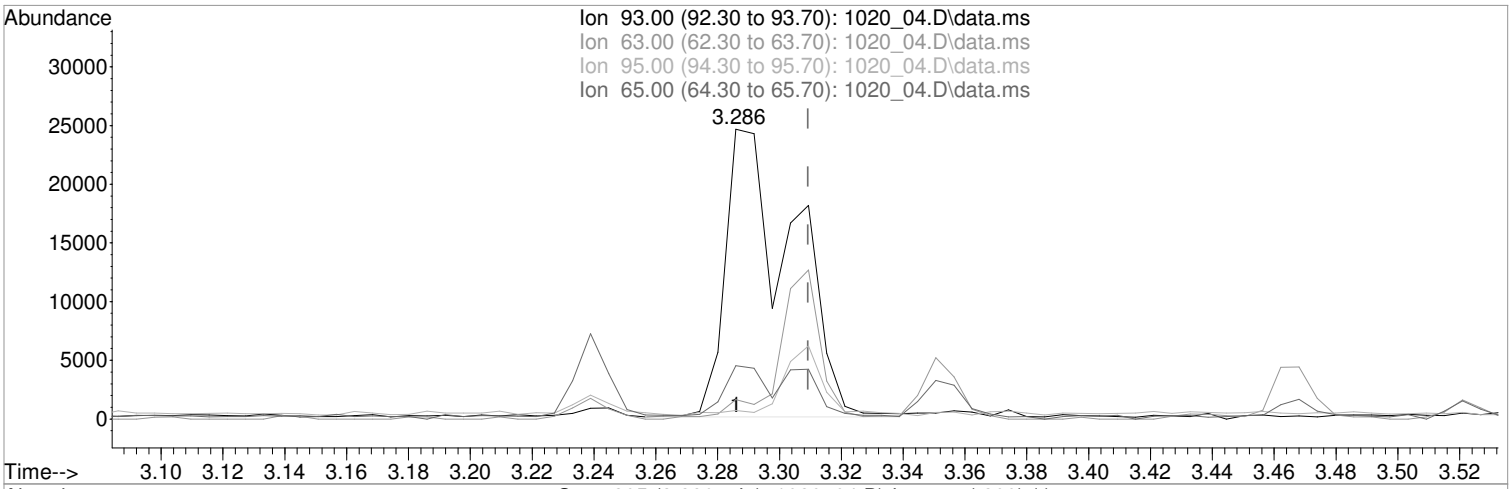


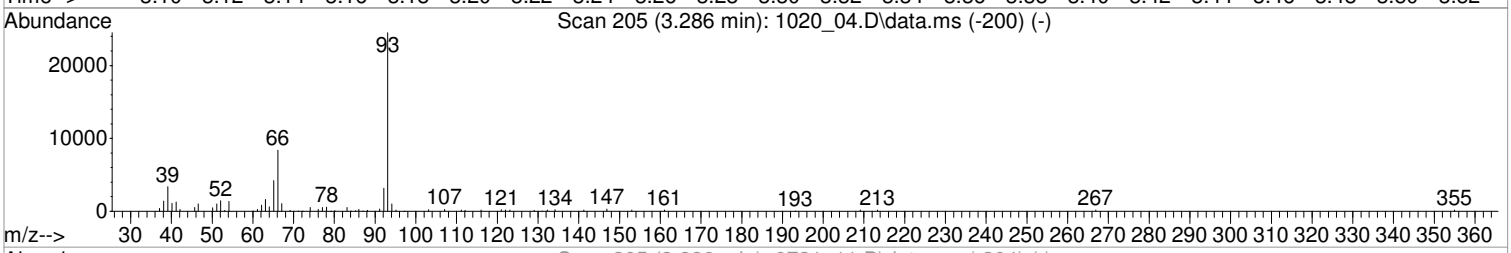
S802J20V.M Fri Oct 21 08:29:44 2022 Page: 3

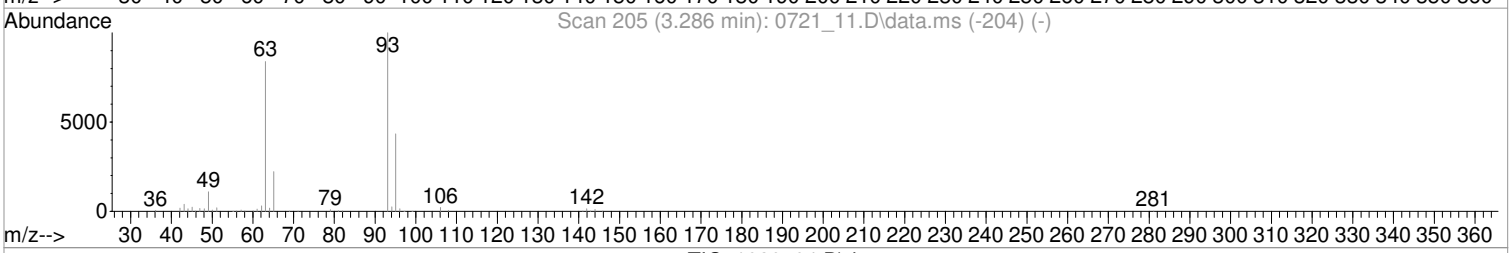
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 1538.9343985 ppb

Qvalue = 42

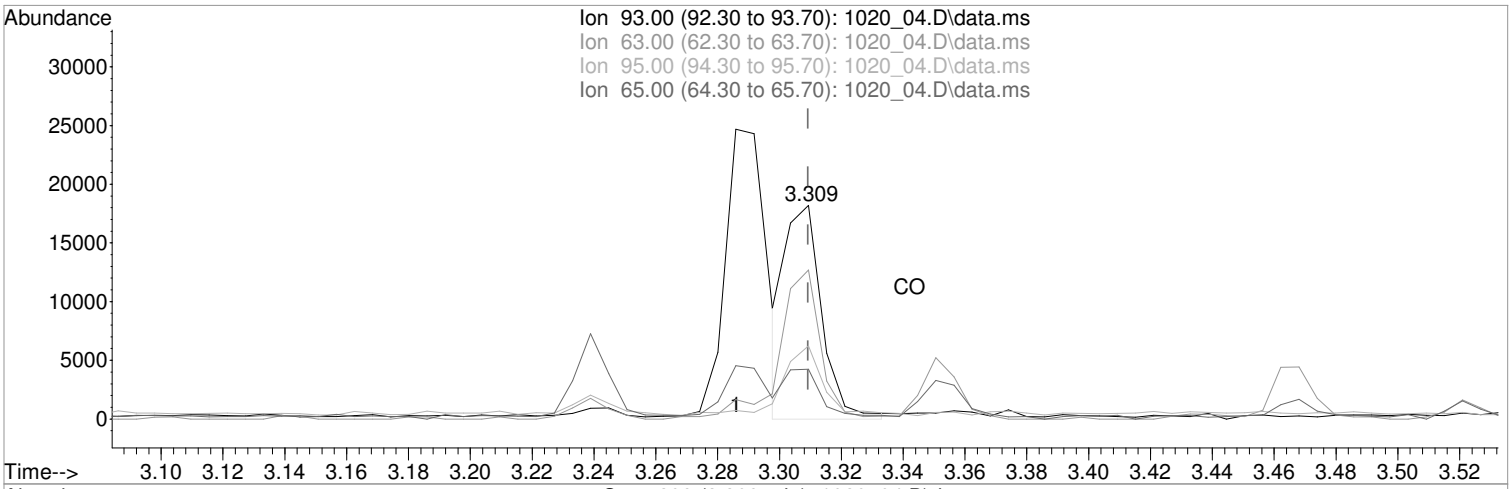
response 37216

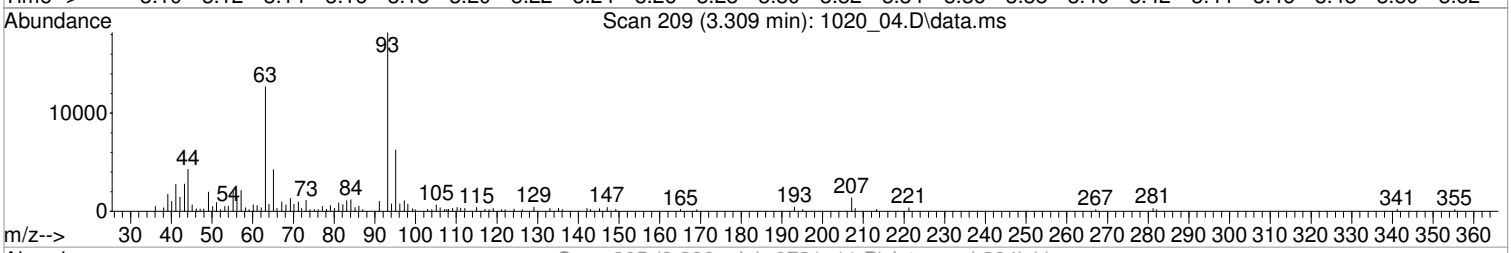
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	6.69#
95.00	32.50	0.95#
65.00	21.90	17.68

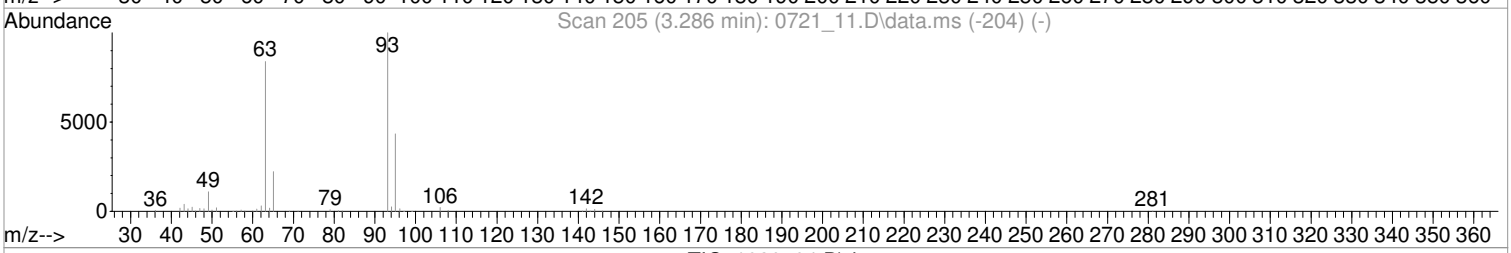
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 620.6847948 ppb m

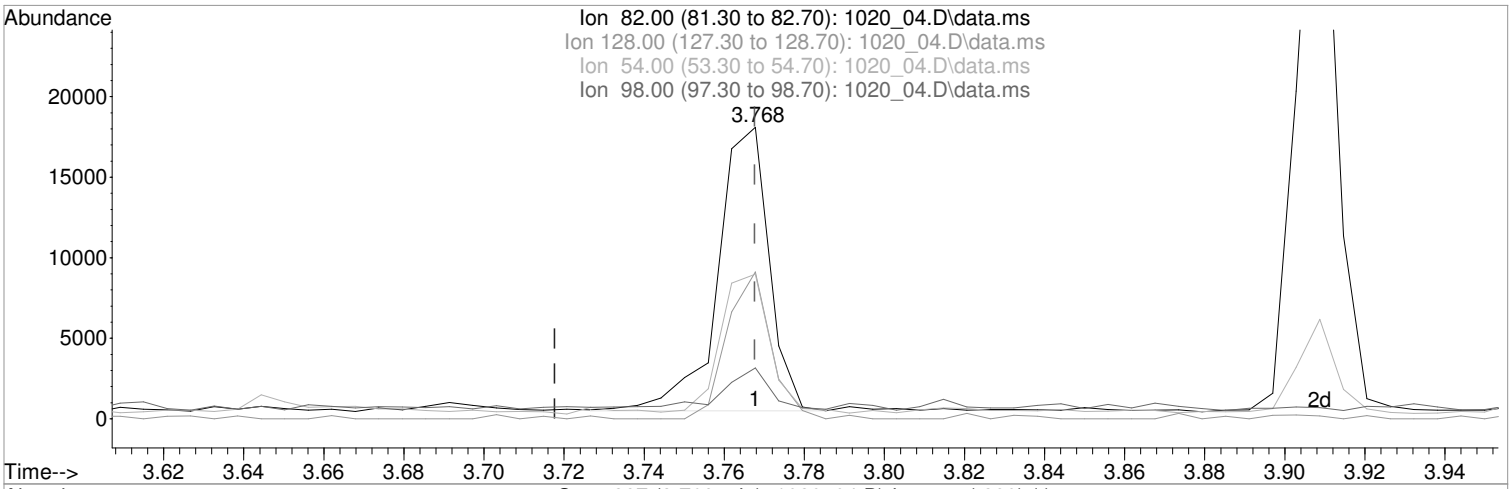
response 15010

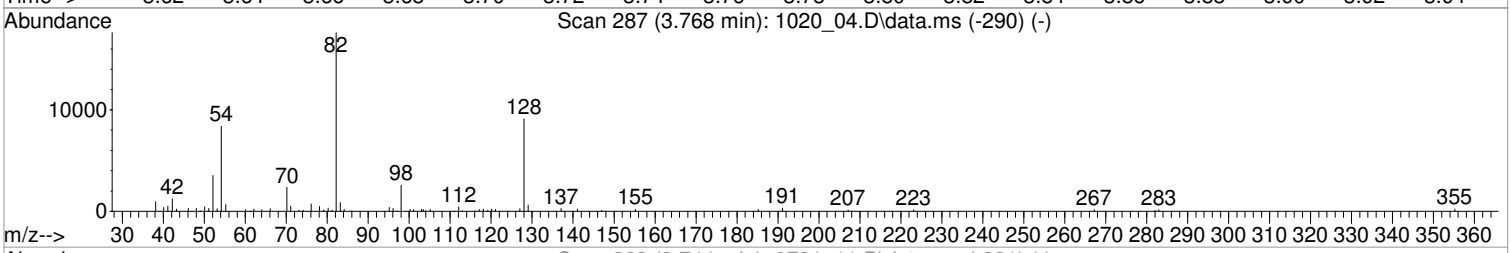
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.71
95.00	32.50	34.18
65.00	21.90	23.30

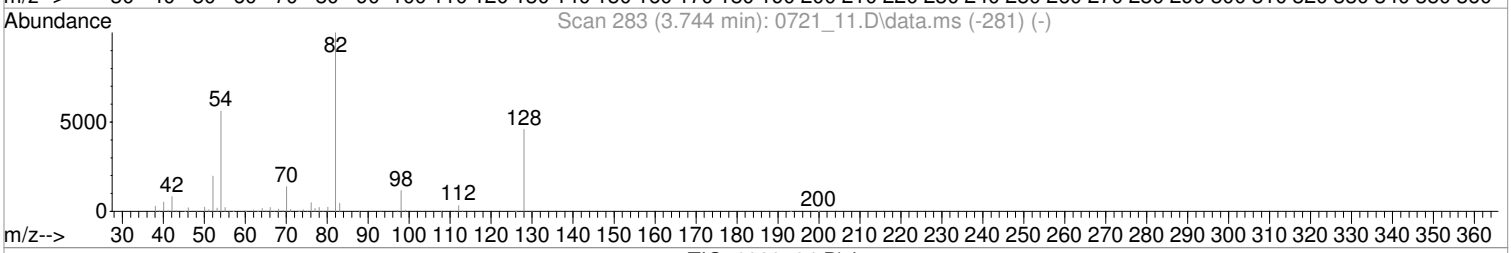
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 666.6334197 ppb

Qvalue = 98

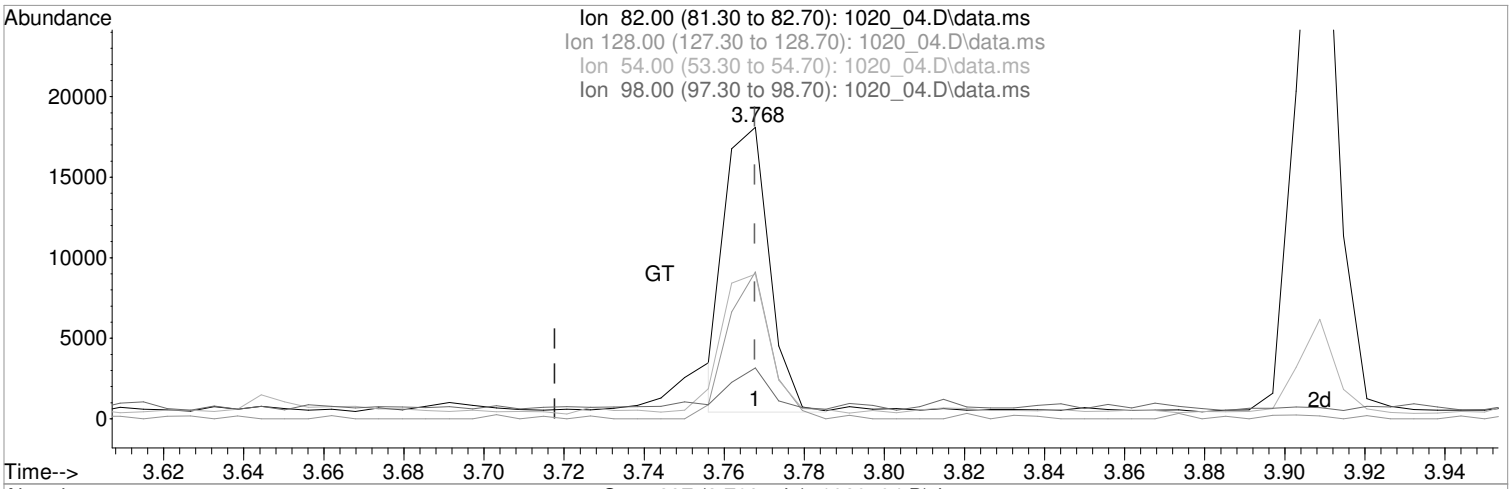
response 15665

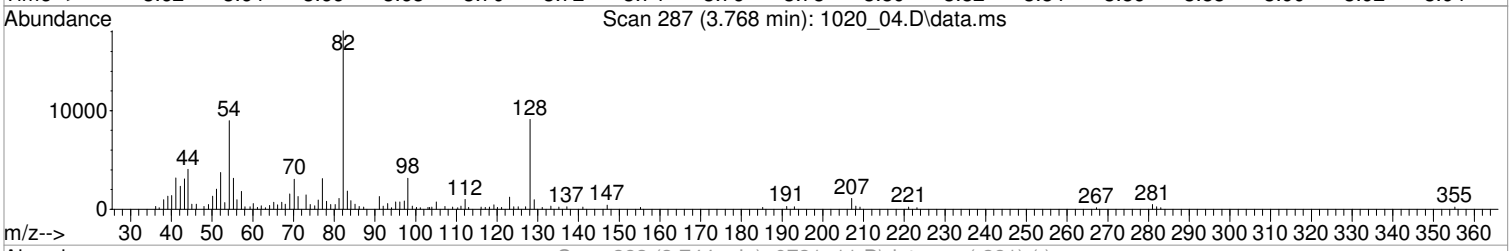
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.76
54.00	48.90	47.72
98.00	12.10	14.53

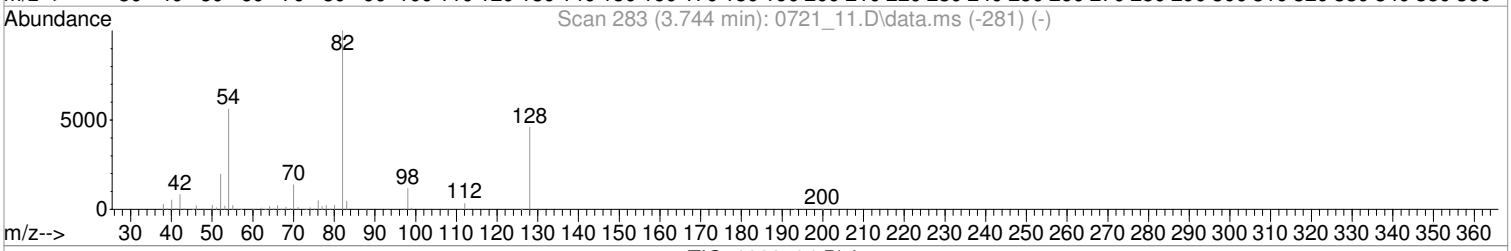
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 578.7135573 ppb m

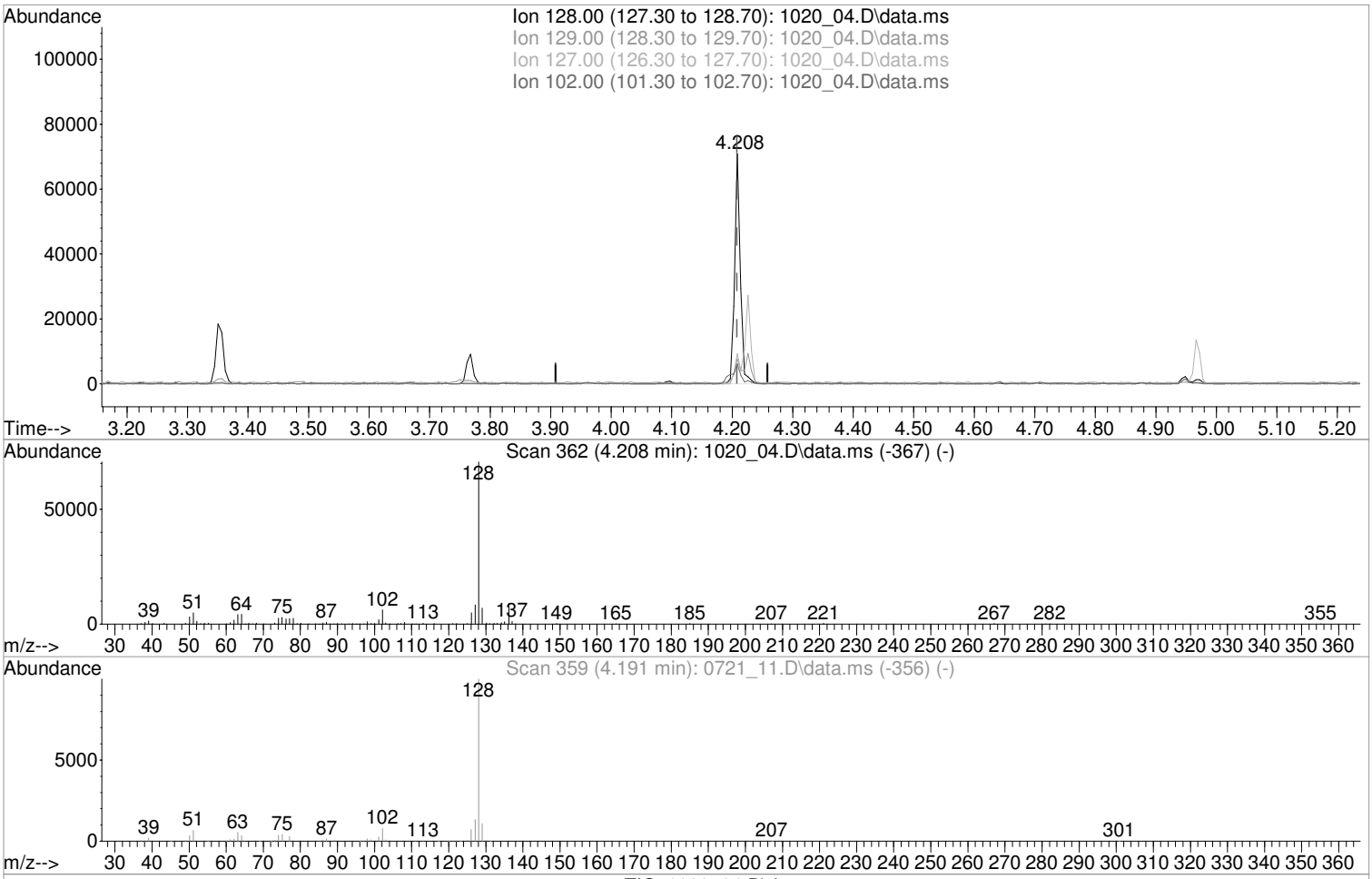
response 13599

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.33
54.00	48.90	49.61
98.00	12.10	17.46

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration



TIC: 1020_04.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 628.5411986 ppb

Qvalue = 99

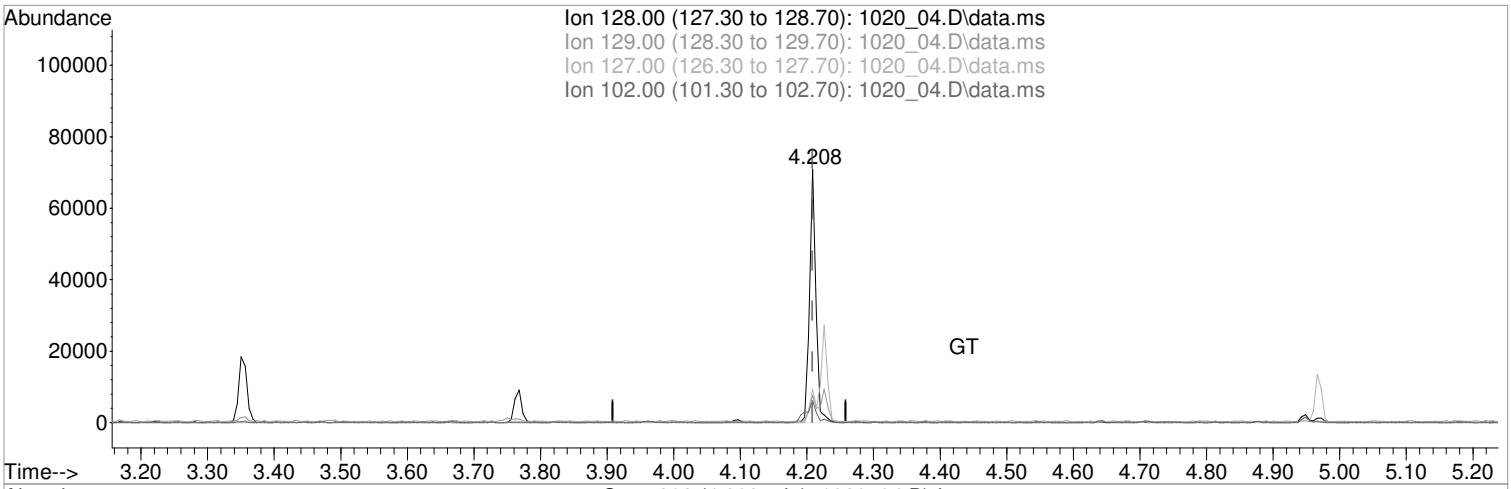
response 46649

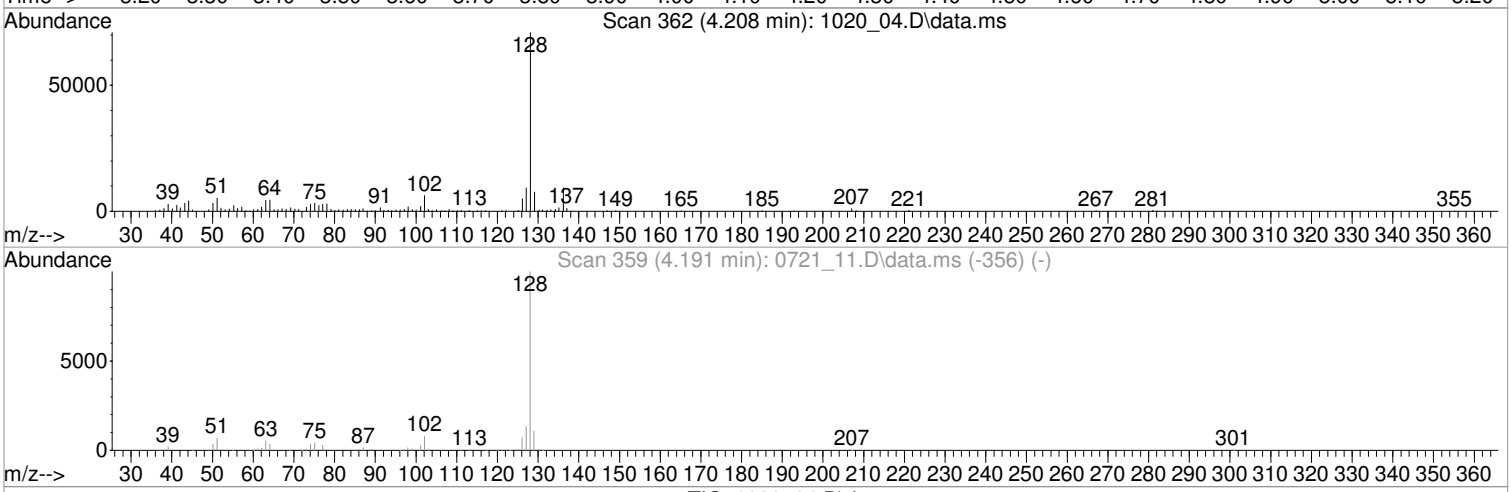
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.44
127.00	13.10	13.14
102.00	8.20	8.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration





TIC: 1020_04.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 612.2378513 ppb m

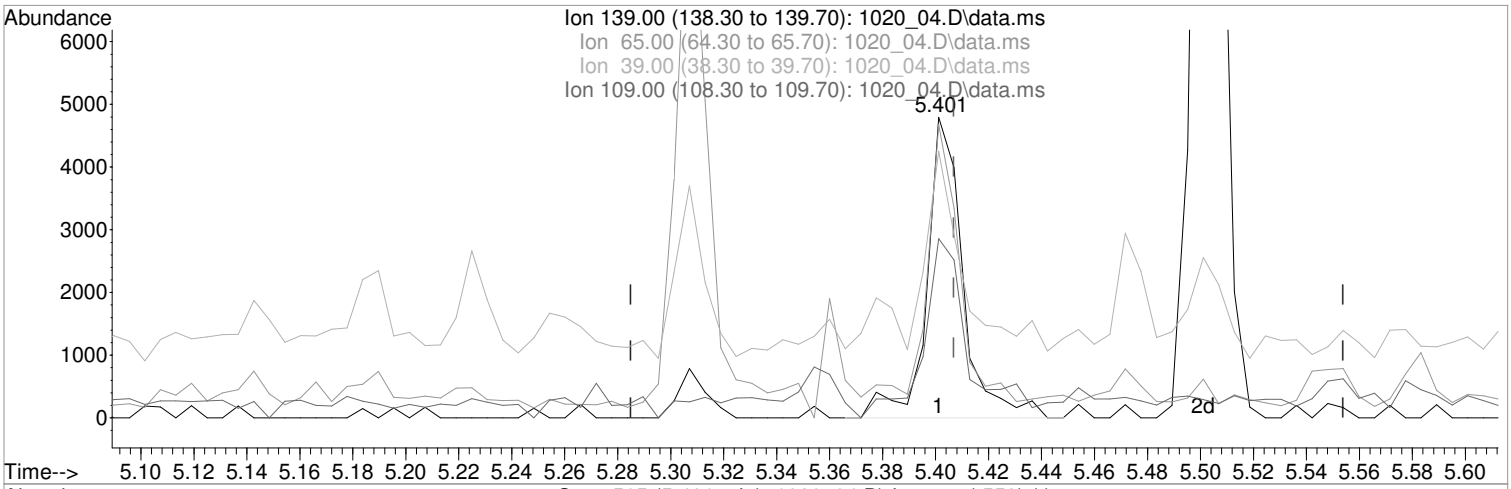
response 45439

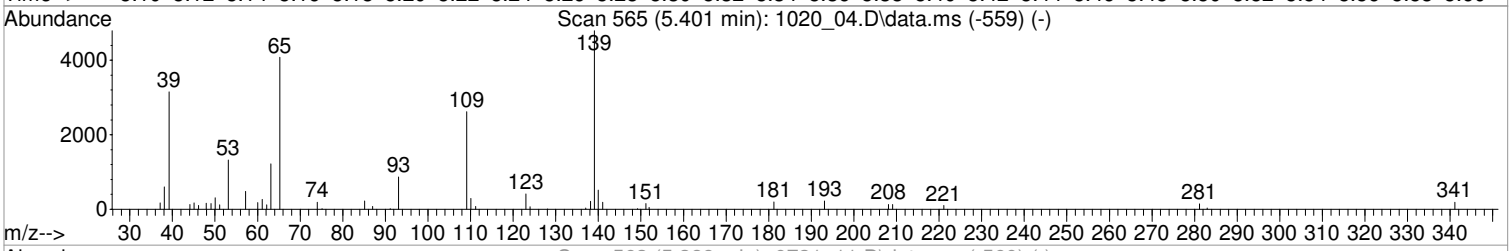
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.84
127.00	13.10	13.14
102.00	8.20	8.76

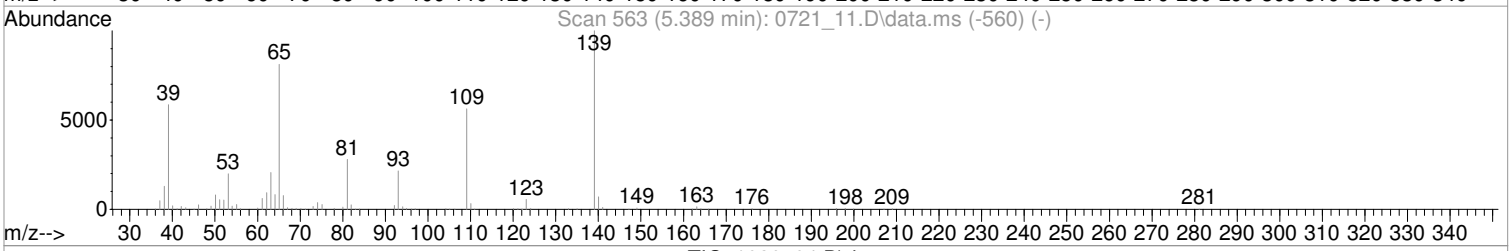
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 492.8818171 ppb

Qvalue = 86

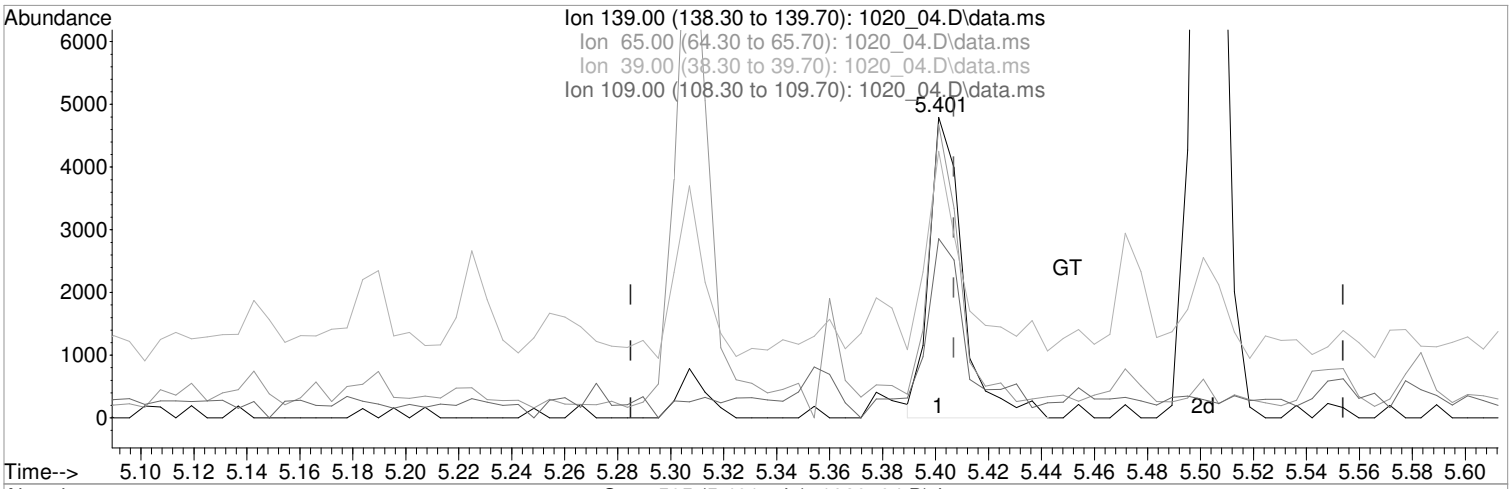
response 4568

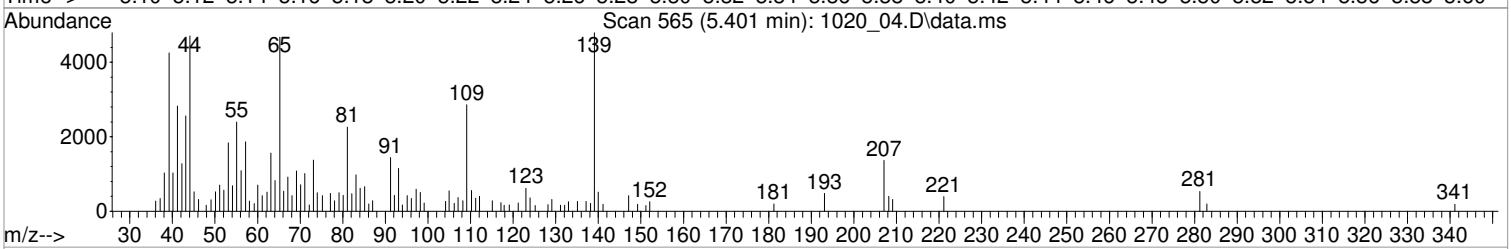
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	89.99
39.00	49.40	65.74
109.00	53.80	54.64

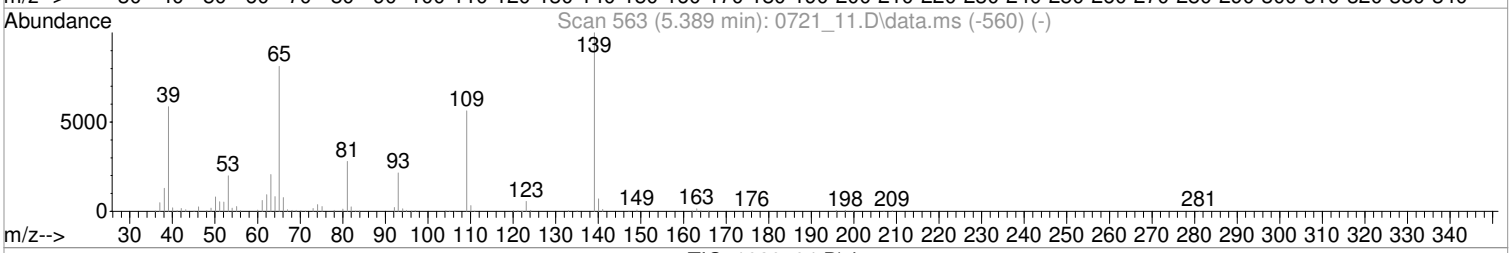
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 458.4620930 ppb m

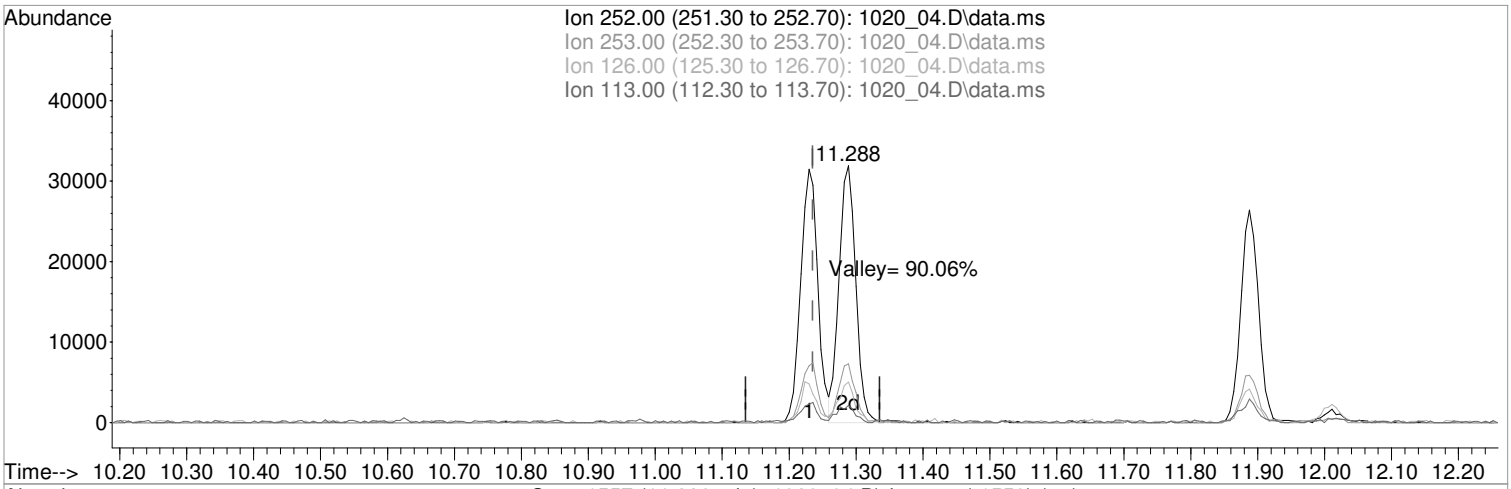
response 4249

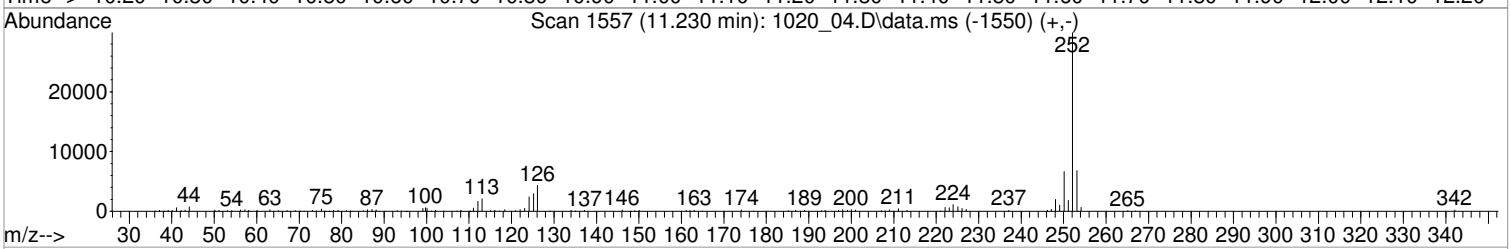
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	97.58#
39.00	49.40	88.73#
109.00	53.80	59.65

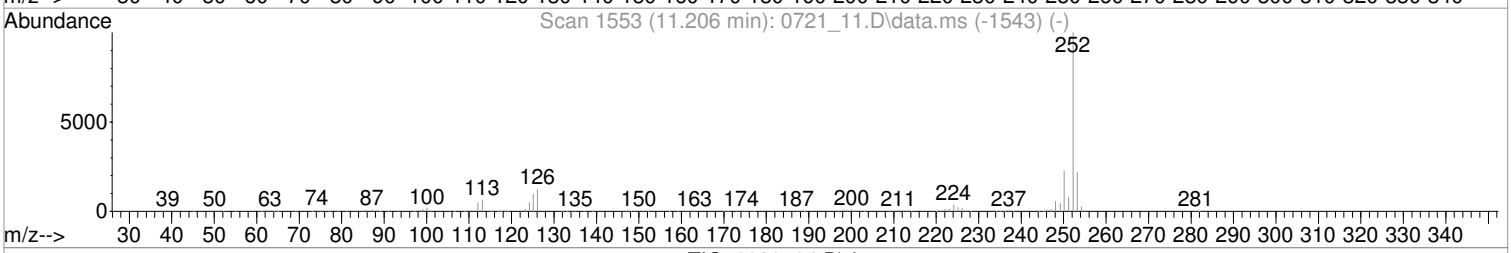
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_04.D
Acq On : 20 Oct 2022 7:25 pm
Operator : 3545
Sample : STD SVMS 500 PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:24:21 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:24:15 2022
Response via : Initial Calibration







TIC: 1020_04.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.230min (-0.006) 560.7512039 ppb

Qvalue = 98

response 56105

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	22.68
126.00	13.40	14.51
113.00	6.50	7.01

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	149462	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	565245	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	290034	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.476	188	574487	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	604574	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	672933	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.804	112	27874	1010.9797790	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.05%				
7) Phenol-d5	3.233	99	33611	1017.0714870	ppb		0.00
Spiked Amount 20000.000			Recovery = 5.09%				
24) Nitrobenzene-d5	3.768	82	25561m	1040.2730789	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.40%				
50) 2-Fluorobiphenyl	4.878	172	55349	989.1279083	ppb		0.00
Spiked Amount 10000.000			Recovery = 9.89%				
73) 2,4,6-Tribromophenol	5.930	330	8856	982.1503282	ppb		0.00
Spiked Amount 20000.000			Recovery = 4.91%				
87) p-Terphenyl-d14	7.892	244	88540	1034.7949784	ppb		0.00
Spiked Amount 10000.000			Recovery = 10.35%				
Target Compounds							Qvalue
2) Pyridine	2.252	79	29596	1004.2376326	ppb		98
3) N-Nitrosodimethylamine	2.246	42	15068	1055.3052148	ppb		87
5) Aniline	3.286	66	15048	982.9321191	ppb	#	90
6) bis(2-Chloroethyl)ether	3.309	93	26405m	981.1585993	ppb		
8) Phenol	3.239	94	34870	1027.2508915	ppb		97
10) 2-Chlorophenol	3.350	128	29291	1024.1832866	ppb		99
11) n-Decane	3.350	41	16446	1114.9251863	ppb	#	94
12) 1,3-Dichlorobenzene	3.439	146	30730	987.7262411	ppb		98
13) 1,4-Dichlorobenzene	3.474	146	31534	990.3903806	ppb		93
14) Benzyl Alcohol	3.521	79	20768	972.4041475	ppb		98
15) 1,2-Dichlorobenzene	3.562	146	29645	1004.9762522	ppb		94
16) bis(2-Chloroisopropyl)...	3.591	121	10133	949.1140017	ppb		97
17) 2,2-oxybis(1-chloropro...	3.591	121	10133	949.1140017	ppb		97
18) 2-Methylphenol	3.568	108	25339	986.3838610	ppb		98
19) Hexachloroethane	3.750	117	10967	914.0813012	ppb		97
20) N-Nitrosodi-n-propylamine	3.668	70	17733	968.7635340	ppb		91
21) 3&4-Methyl phenol	3.650	107	28656	1001.4635564	ppb		97
25) Nitrobenzene	3.779	77	25123	958.9924942	ppb		98
26) Isophorone	3.909	82	46503	970.4269144	ppb		98
27) 2-Nitrophenol	3.962	139	12592	990.8998419	ppb		97
28) 2,4-Dimethylphenol	3.962	107	25925	1029.9761355	ppb		97
29) bis(2-Chlorethoxy)methane	4.020	93	31099	1063.1469955	ppb		98
30) 2,4-Dichlorophenol	4.097	162	22099	1032.0035916	ppb		94
32) 1,2,4-Trichlorobenzene	4.155	180	25667	1045.3102631	ppb		96
34) Naphthalene	4.208	128	82987m	1037.1051213	ppb		
35) 4-Chloroaniline	4.226	65	8322	843.4534381	ppb		93
36) Hexachloro-1,3-butadiene	4.273	225	14893	1020.6416267	ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration

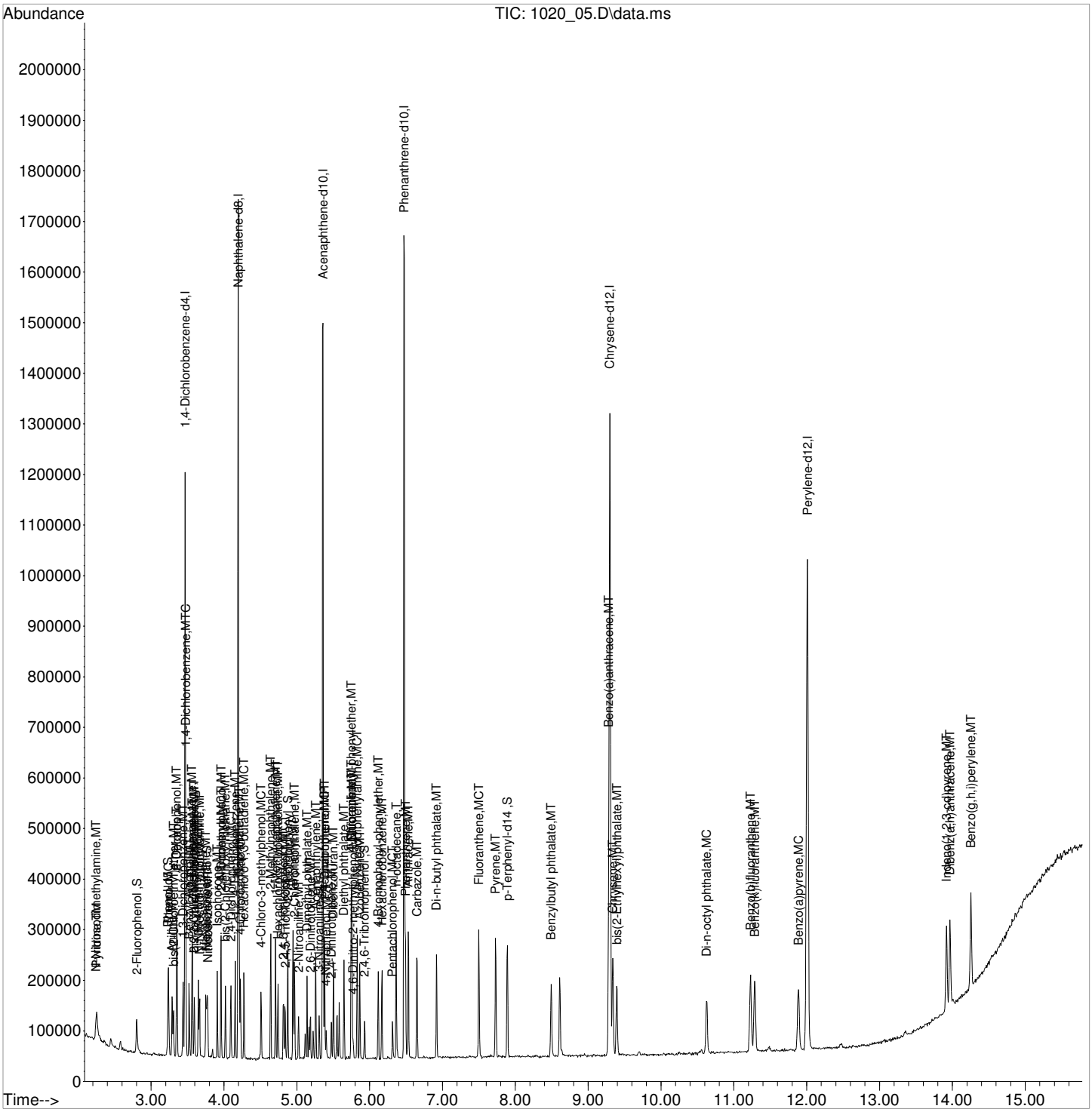
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.508	107	20921	951.8165757	ppb		98
41) 2-Methylnaphthalene	4.643	142	51476	1023.5938032	ppb		99
42) 1-Methylnaphthalene	4.708	142	47378	998.2633612	ppb		98
47) Hexachlorocyclopentadiene	4.743	237	18551	1011.8539301	ppb		98
48) 2,4,6-Trichlorophenol	4.819	196	14272	932.4713324	ppb		97
49) 2,4,5-Trichlorophenol	4.843	196	13534	911.9811144	ppb		95
51) Biphenyl	4.949	154	60645	990.6397411	ppb		98
52) 2-Chloronaphthalene	4.966	162	47417	983.8651528	ppb		98
53) 2-Nitroaniline	5.025	138	12869	923.7011175	ppb		96
54) Acenaphthylene	5.260	152	70320	970.0834859	ppb		98
55) Dimethyl phthalate	5.143	163	48982	983.7256249	ppb		97
56) 2,6-Dinitrotoluene	5.189	165	9728	905.1073484	ppb		96
57) 3-Nitroaniline	5.307	138	10342	873.3287946	ppb	#	84
58) Acenaphthene	5.378	153	48848	1008.6036630	ppb		100
59) 2,4-Dinitrophenol	5.383	184	3199	989.1880676	ppb	#	43
60) Dibenzofuran	5.501	168	68022	1016.6939571	ppb		99
61) 2,4-Dinitrotoluene	5.477	165	11729	911.4695495	ppb		94
63) 4-Nitrophenol	5.401	139	7806m	893.8729560	ppb		
64) Fluorene	5.754	166	55032	993.4465554	ppb		95
65) 4-Chlorophenyl-phenyle...	5.748	204	27181	985.8048530	ppb		99
66) Diethyl phthalate	5.648	149	49860	954.4253137	ppb		95
67) 4-Nitroaniline	5.748	138	12328	1013.6952225	ppb		98
68) Azobenzene	5.865	77	51251	981.0695790	ppb		97
71) 4,6-Dinitro-2-methylph...	5.771	198	4530	852.2140183	ppb		79
72) N-Nitrosodiphenylamine	5.830	169	47562	1007.4561777	ppb		98
74) 4-Bromophenyl-phenylether	6.118	248	18134	1002.8659677	ppb		96
75) Hexachlorobenzene	6.171	284	22816	1010.3260949	ppb		98
76) n-octadecane	6.365	55	8430	1017.4687049	ppb		94
77) Pentachlorophenol	6.312	266	8442	935.8238874	ppb		88
78) Phenanthrene	6.494	178	84337	1010.5382868	ppb		99
79) Anthracene	6.529	178	83342	989.6116995	ppb		98
80) Carbazole	6.653	167	78726	994.6161592	ppb		99
81) Di-n-butyl phthalate	6.917	149	92729	989.3544423	ppb		100
83) Fluoranthene	7.499	202	93953	995.3060775	ppb		99
86) Pyrene	7.728	202	95329	984.7569699	ppb		98
88) Benzylbutyl phthalate	8.492	149	39148	1004.4322541	ppb		96
90) Benzo(a)anthracene	9.285	228	94167	969.0561459	ppb		99
91) Chrysene	9.338	228	89670	975.6775879	ppb		96
92) bis(2-Ethylhexyl)phtha...	9.396	149	53824	989.7306725	ppb		98
93) Di-n-octyl phthalate	10.624	149	85976	967.5124650	ppb		100
95) Benzo(b)fluoranthene	11.230	252	101169	969.6527933	ppb		99
96) Benzo(k)fluoranthene	11.288	252	100577	982.0362910	ppb		98
97) Benzo(a)pyrene	11.888	252	87608	969.0461245	ppb		99
98) Indeno(1,2,3-cd)pyrene	13.921	276	95273	993.6503995	ppb		98
99) Dibenz(a,h)anthracene	13.968	278	96359	985.6862670	ppb		98
100) Benzo(g,h,i)perylene	14.256	276	101077	994.1107391	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:13 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
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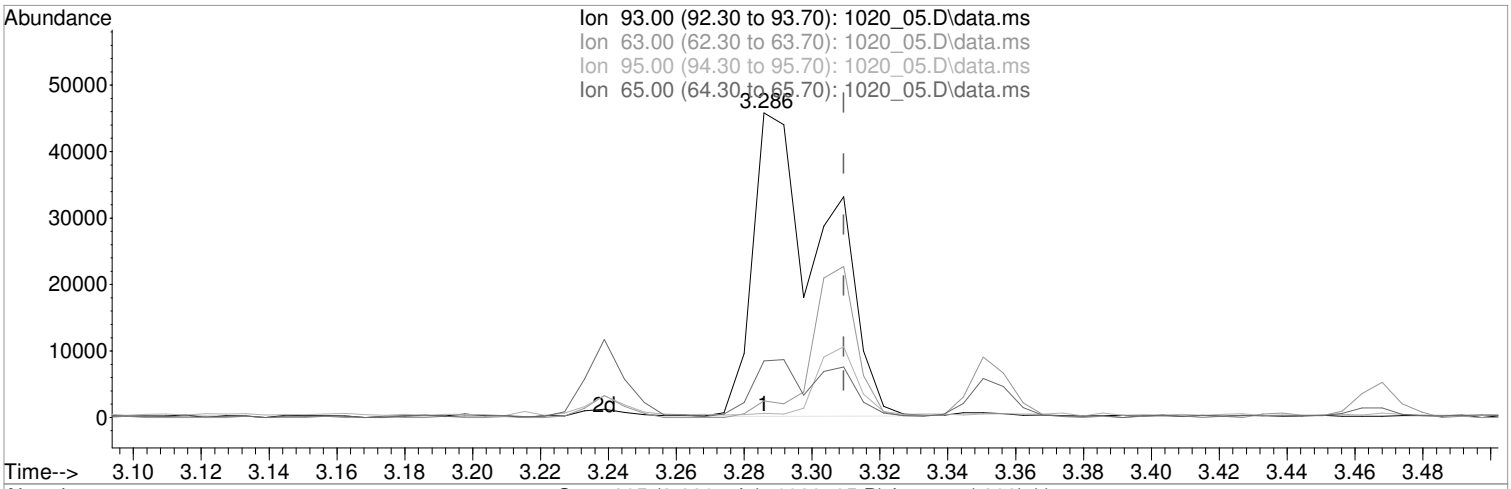
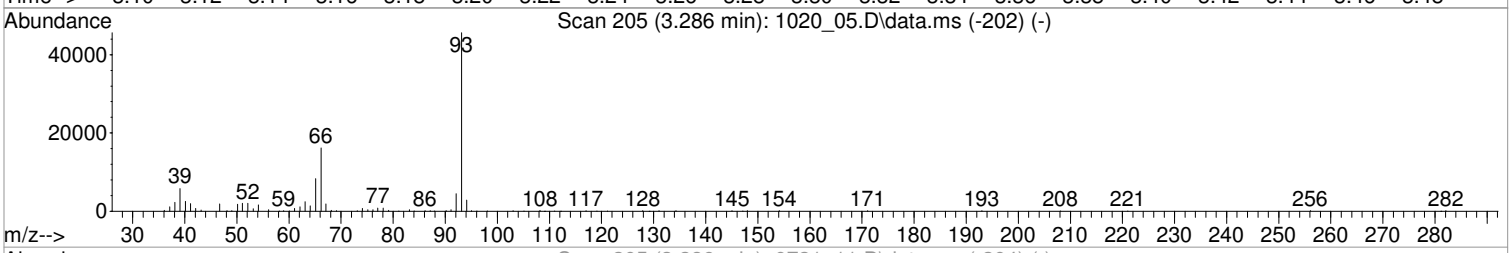
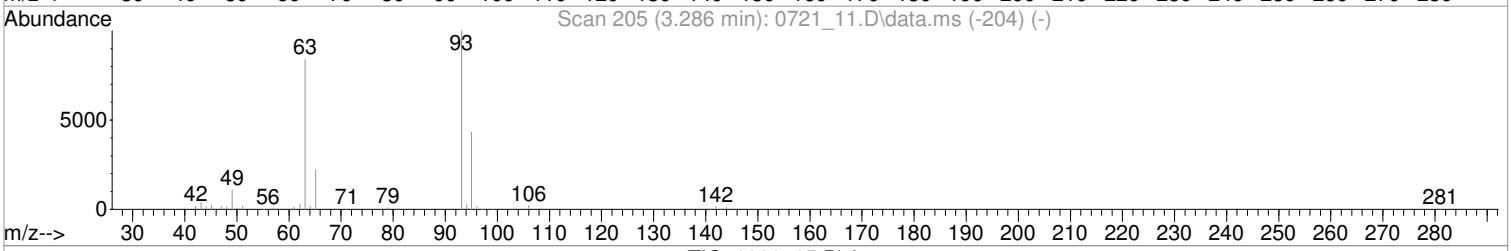
Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.024) 2498.2107536 ppb

Qvalue = 41

response 67232

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.45#
95.00	32.50	0.32#
65.00	21.90	18.37

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
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Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
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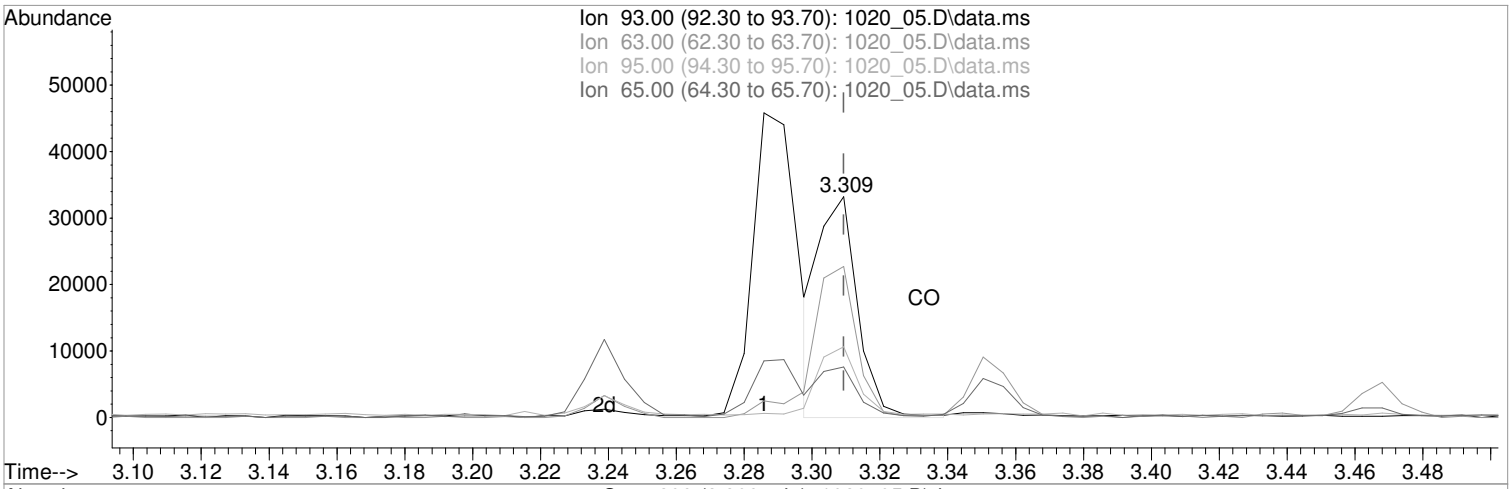
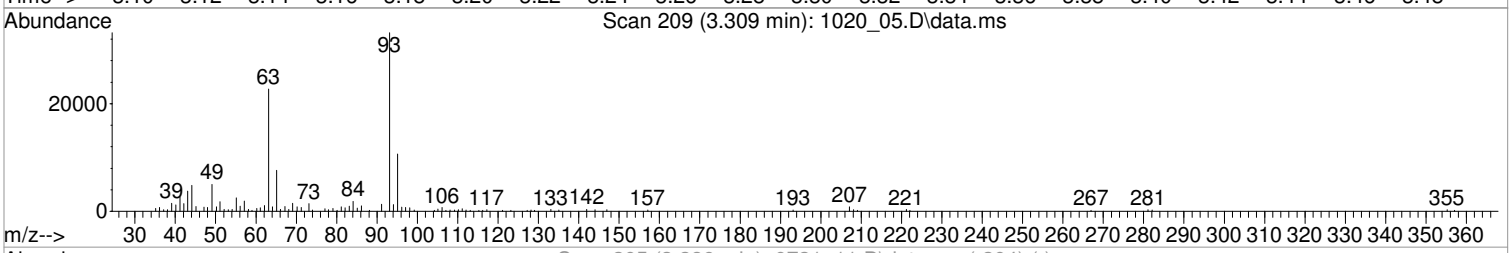
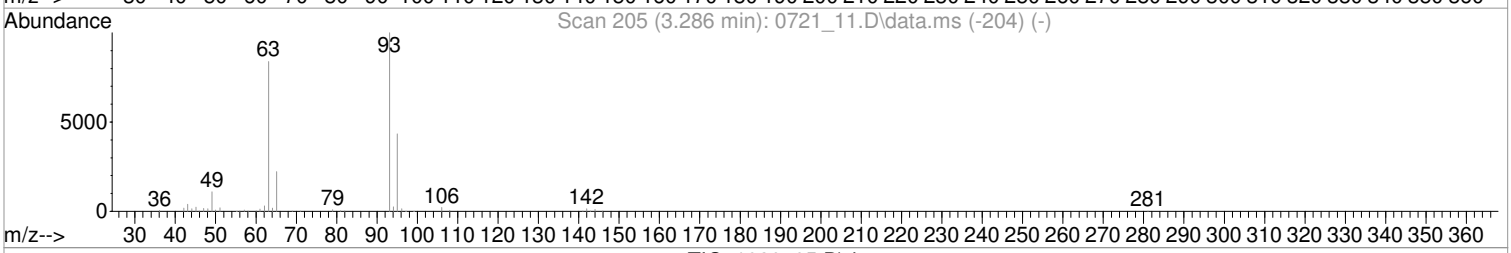
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.000) 981.1585993 ppb m

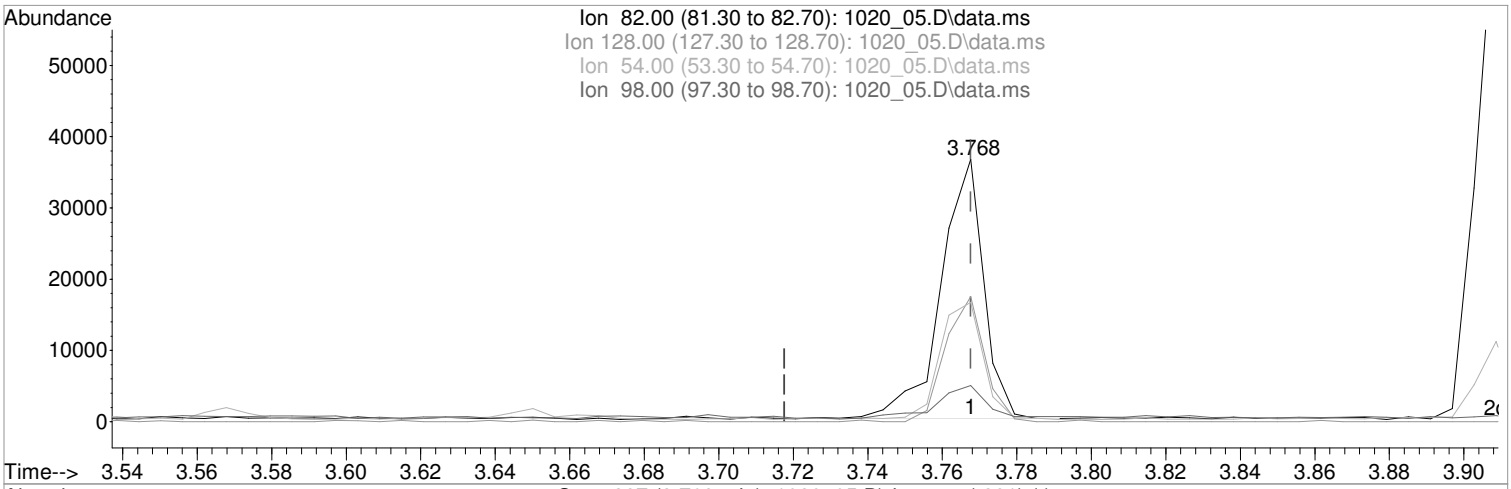
response 26405

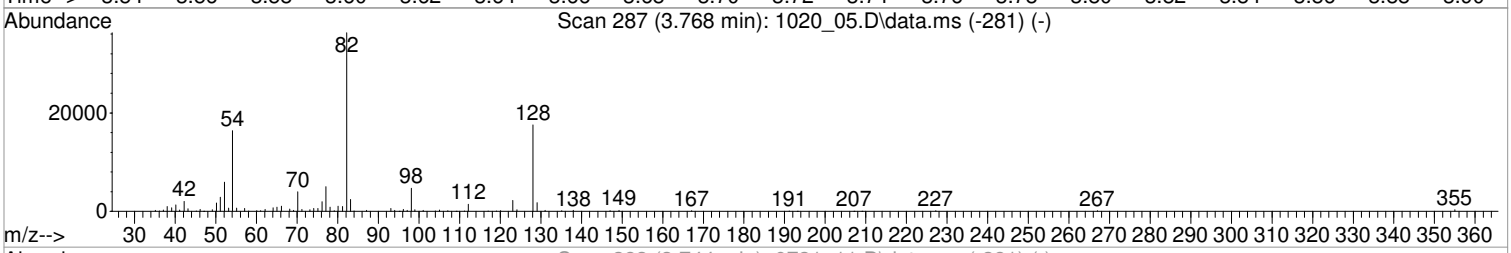
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	68.45
95.00	32.50	32.06
65.00	21.90	22.86

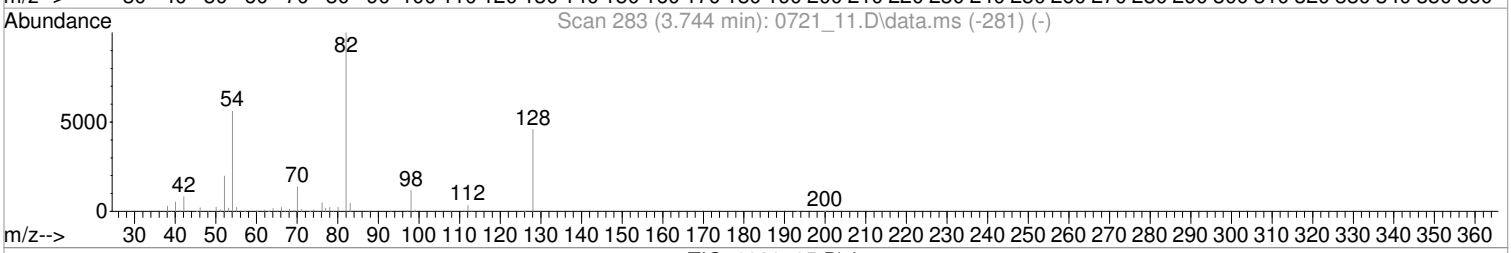
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 1177.3835207 ppb

Qvalue = 95

response 28930

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.24
54.00	48.90	45.16
98.00	12.10	12.88

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
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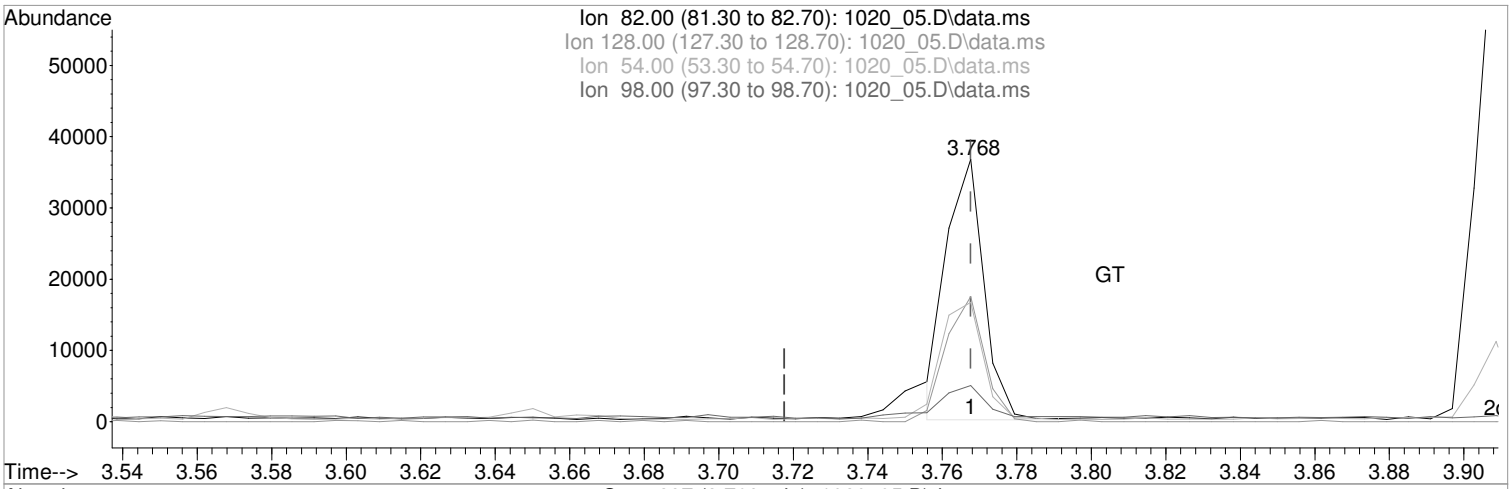
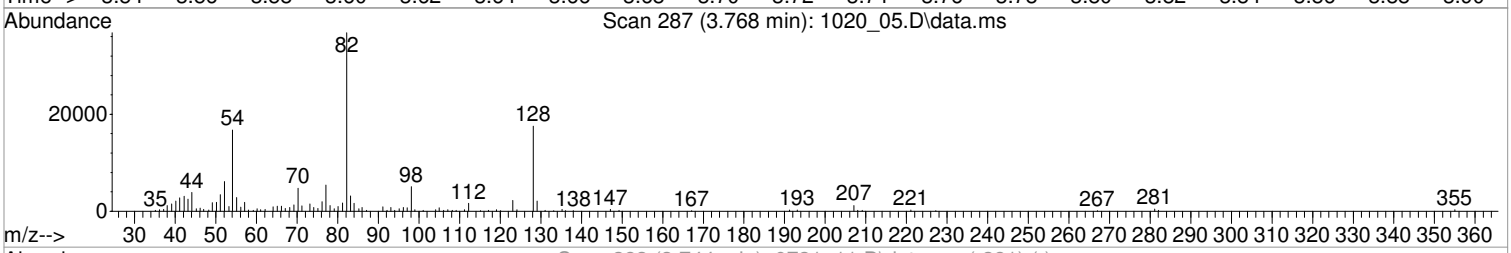
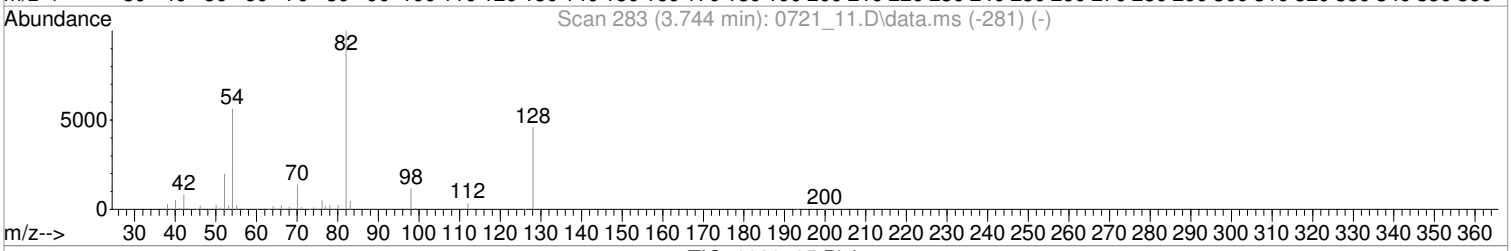






TIC: 1020_05.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 1040.2730789 ppb m

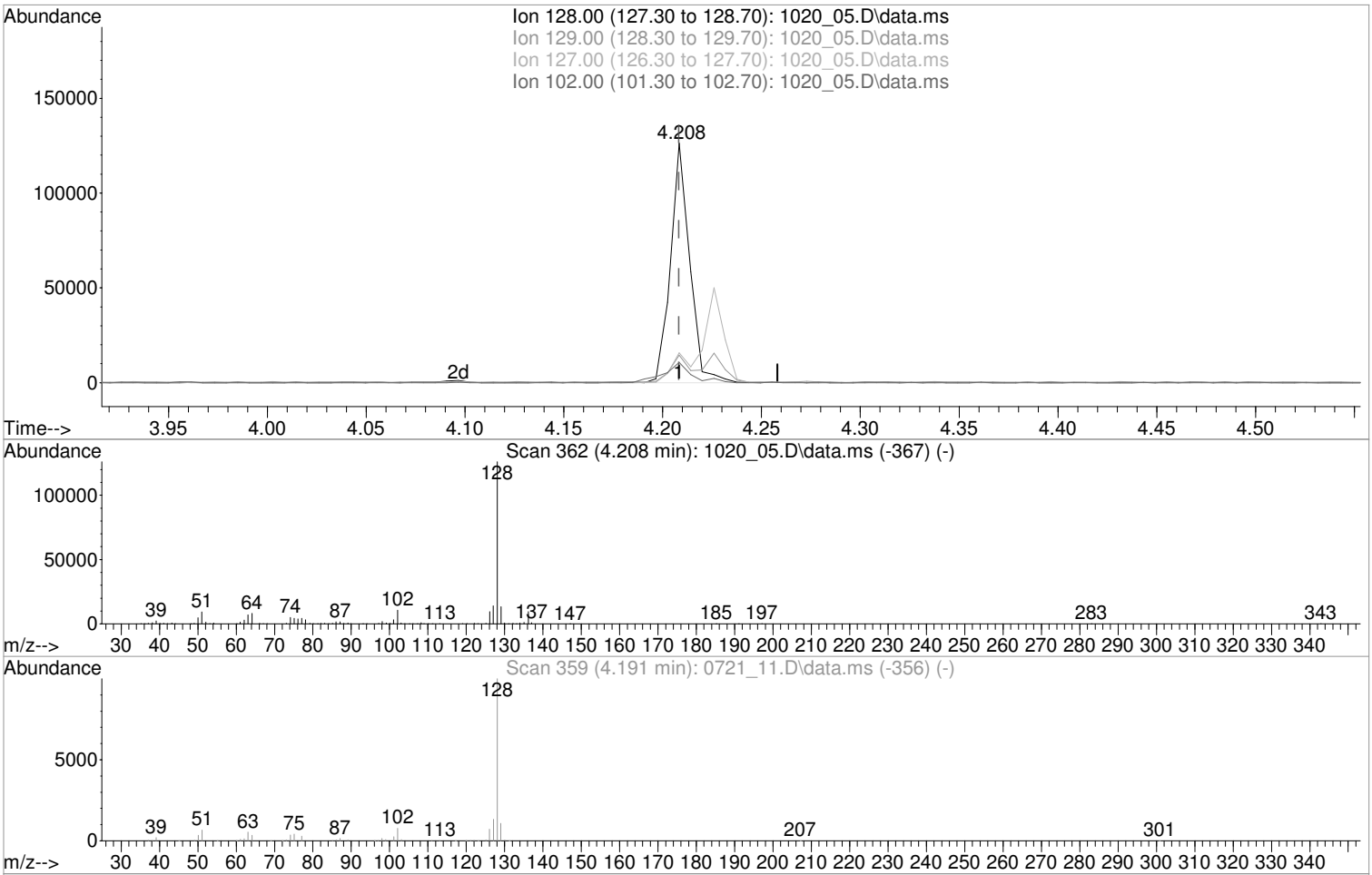
response 25561

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.66
54.00	48.90	45.53
98.00	12.10	13.83

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration



TIC: 1020_05.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 1066.8359596 ppb

Qvalue = 99

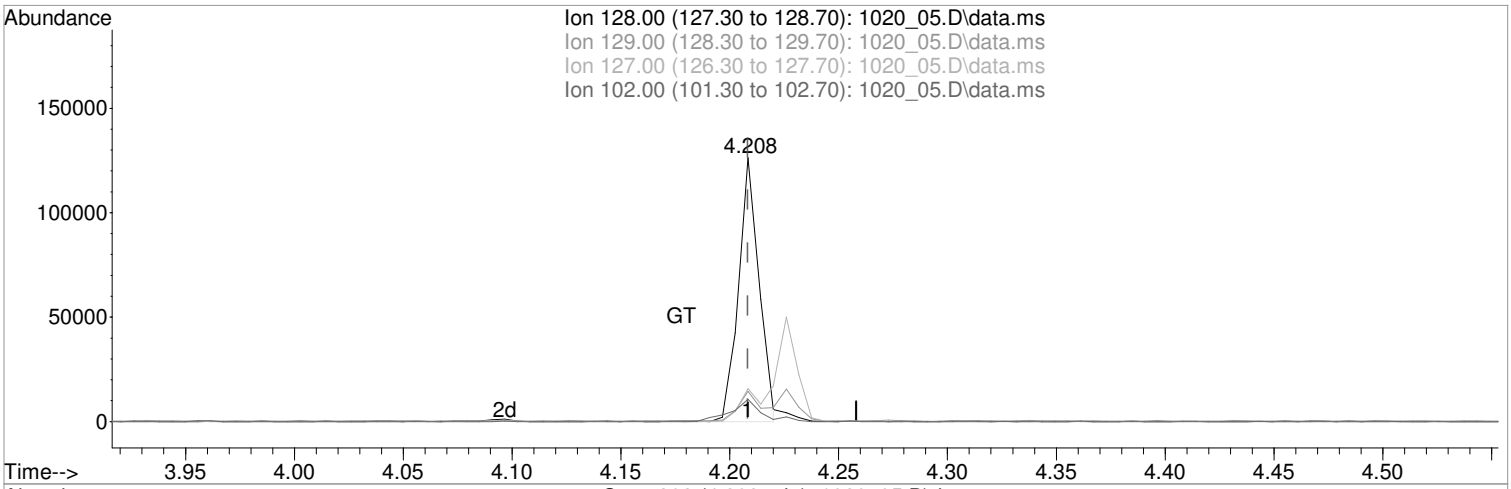
response 85366

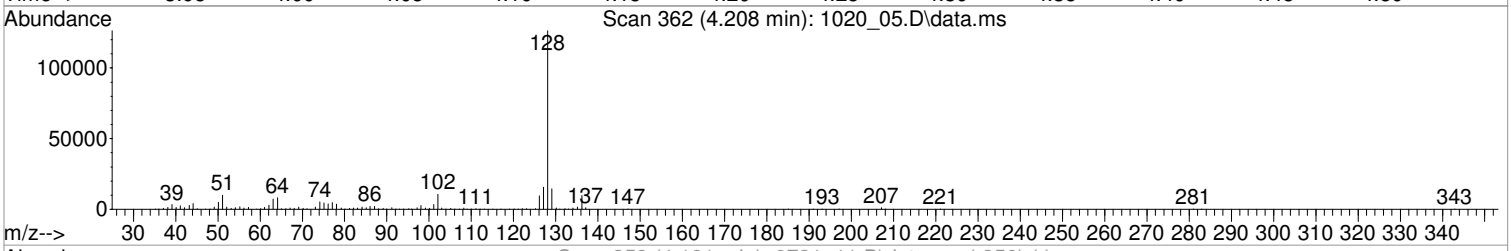
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.17
127.00	13.10	12.41
102.00	8.20	8.41

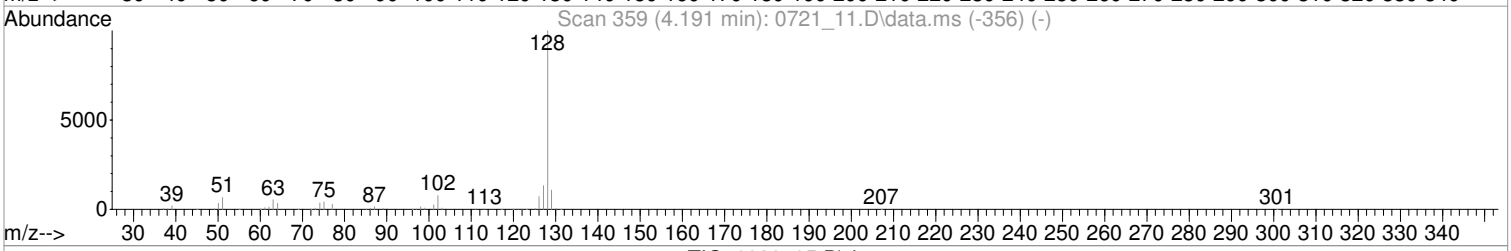
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 1037.1051213 ppb m

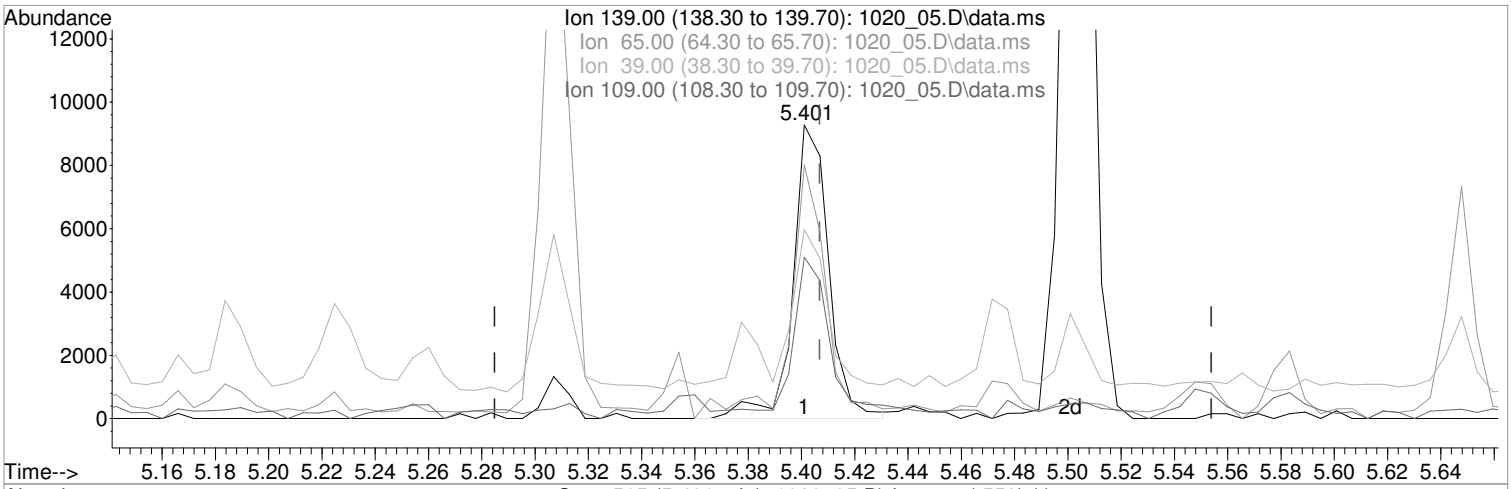
response 82987

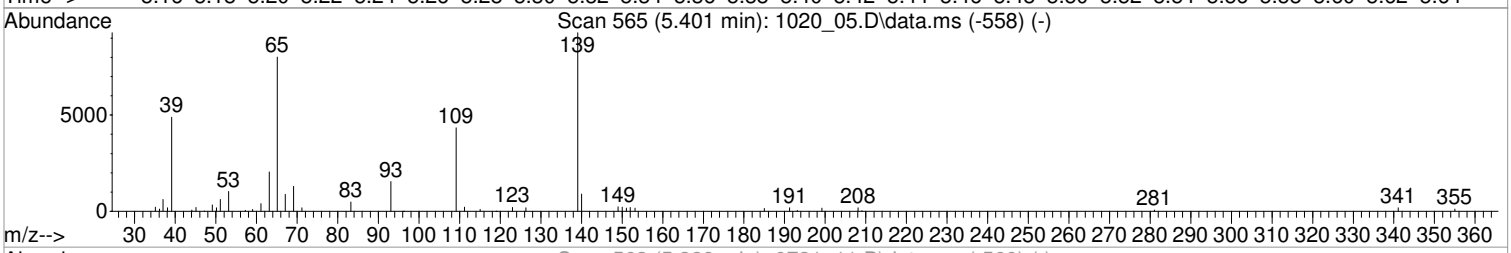
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.47
127.00	13.10	12.41
102.00	8.20	8.41

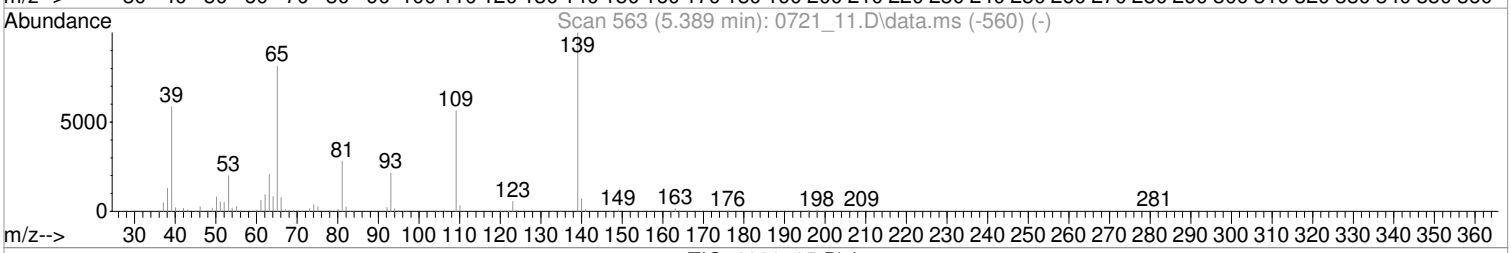
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 990.9782938 ppb

Qvalue = 92

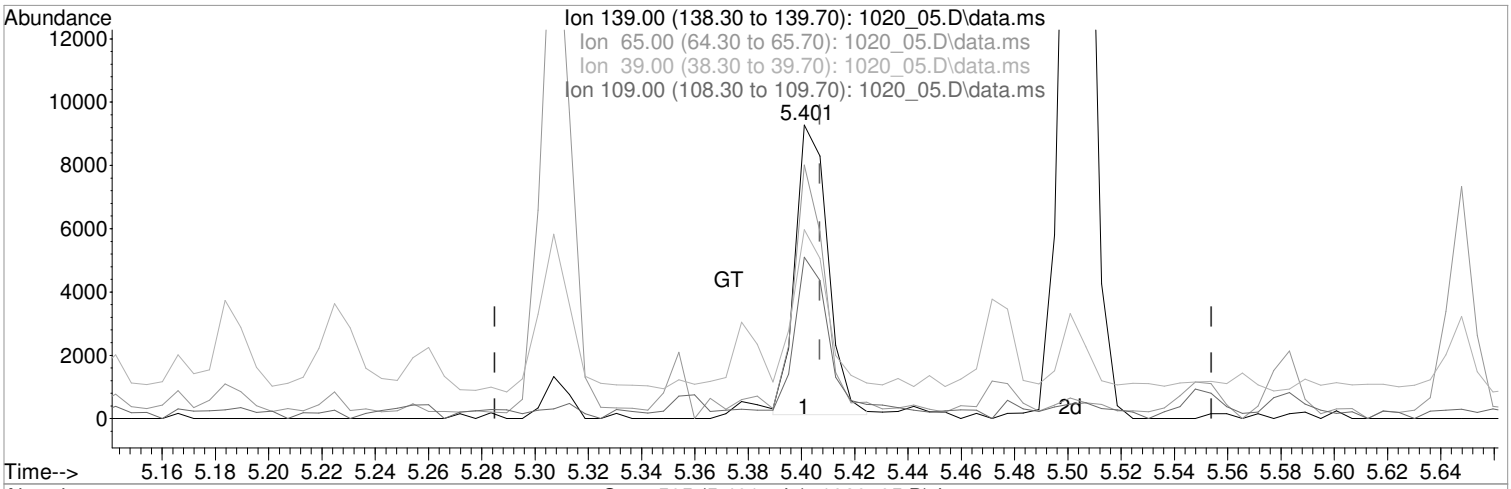
response 8654

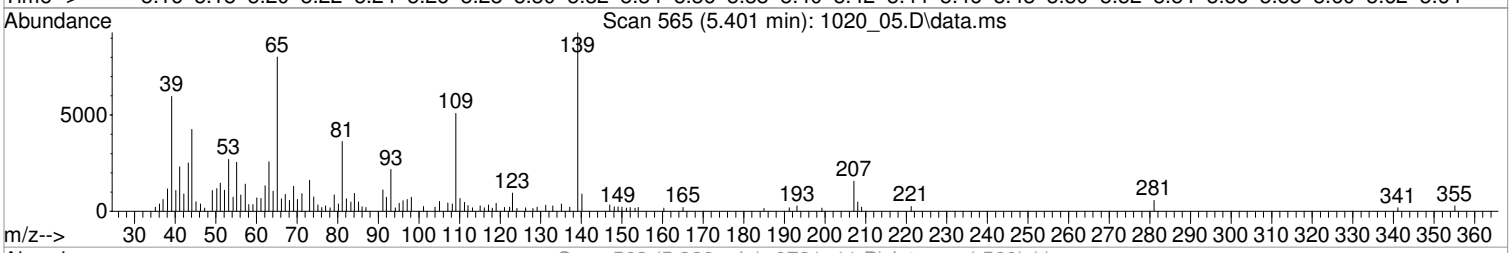
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	86.36
39.00	49.40	52.87
109.00	53.80	50.35

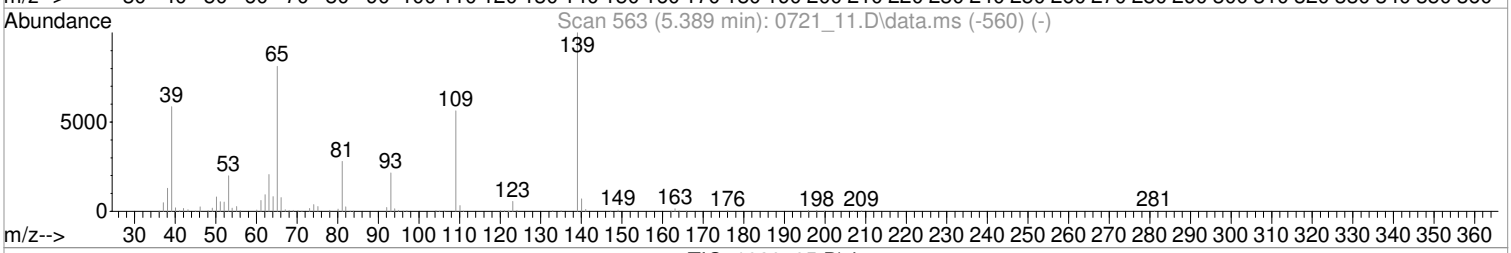
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_05.D
Acq On : 20 Oct 2022 7:45 pm
Operator : 3545
Sample : STD SVMS 1K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:38:17 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:38:14 2022
Response via : Initial Calibration







TIC: 1020_05.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 893.8729560 ppb m

response 7806

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	86.36
39.00	49.40	64.35
109.00	53.80	54.92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	147748	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	558569	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.360	164	279986	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.471	188	564191	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	603254	8000.0000000	ppb		0.00
94) Perylene-d12	12.011	264	656824	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.804	112	94381	3450.2482358	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.25%			
7) Phenol-d5	3.233	99	113175	3444.8108584	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.22%			
24) Nitrobenzene-d5	3.768	82	87271m	3546.5658889	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.47%			
50) 2-Fluorobiphenyl	4.878	172	192379	3574.2892192	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.74%			
73) 2,4,6-Tribromophenol	5.930	330	31038	3525.9801344	ppb		0.00
Spiked Amount 20000.000				Recovery = 17.63%			
87) p-Terphenyl-d14	7.892	244	304821	3529.3996010	ppb		0.00
Spiked Amount 10000.000				Recovery = 35.29%			
Target Compounds							Qvalue
2) Pyridine	2.252	79	103420	3544.9013852	ppb		95
3) N-Nitrosodimethylamine	2.240	42	49253	3426.3442360	ppb		95
5) Aniline	3.286	66	51744	3438.6803368	ppb	#	91
6) bis(2-Chloroethyl)ether	3.309	93	89922m	3401.4520446	ppb		
8) Phenol	3.239	94	118116	3488.3120504	ppb		97
10) 2-Chlorophenol	3.351	128	97604	3424.7858960	ppb		98
11) n-Decane	3.351	41	51476	3399.9540347	ppb		100
12) 1,3-Dichlorobenzene	3.439	146	108702	3548.9607661	ppb		98
13) 1,4-Dichlorobenzene	3.474	146	109888	3502.5163053	ppb		98
14) Benzyl Alcohol	3.521	79	73078	3493.5048879	ppb		100
15) 1,2-Dichlorobenzene	3.562	146	104365	3573.1283056	ppb		99
16) bis(2-Chloroisopropyl)...	3.591	121	33436	3222.8012731	ppb		96
17) 2,2-oxybis(1-chloropro...	3.591	121	33436	3222.8012731	ppb		96
18) 2-Methylphenol	3.568	108	86790	3433.2938703	ppb		99
19) Hexachloroethane	3.750	117	39962	3468.7497258	ppb		98
20) N-Nitrosodi-n-propylamine	3.668	70	62330	3480.8677412	ppb		96
21) 3&4-Methyl phenol	3.650	107	96775	3419.6378871	ppb		99
25) Nitrobenzene	3.780	77	90516	3544.9193164	ppb		99
26) Isophorone	3.909	82	165052	3520.1805331	ppb		98
27) 2-Nitrophenol	3.962	139	45722	3652.0738300	ppb		98
28) 2,4-Dimethylphenol	3.962	107	89908	3578.8927268	ppb		97
29) bis(2-Chlorethoxy)methane	4.020	93	102147	3460.8742896	ppb		98
30) 2,4-Dichlorophenol	4.097	162	76169	3561.5437559	ppb		97
32) 1,2,4-Trichlorobenzene	4.156	180	85715	3479.9783503	ppb		97
34) Naphthalene	4.208	128	279606m	3492.8547929	ppb		
35) 4-Chloroaniline	4.226	65	30755	3328.0065065	ppb		99
36) Hexachloro-1,3-butadiene	4.273	225	50052	3447.4222108	ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

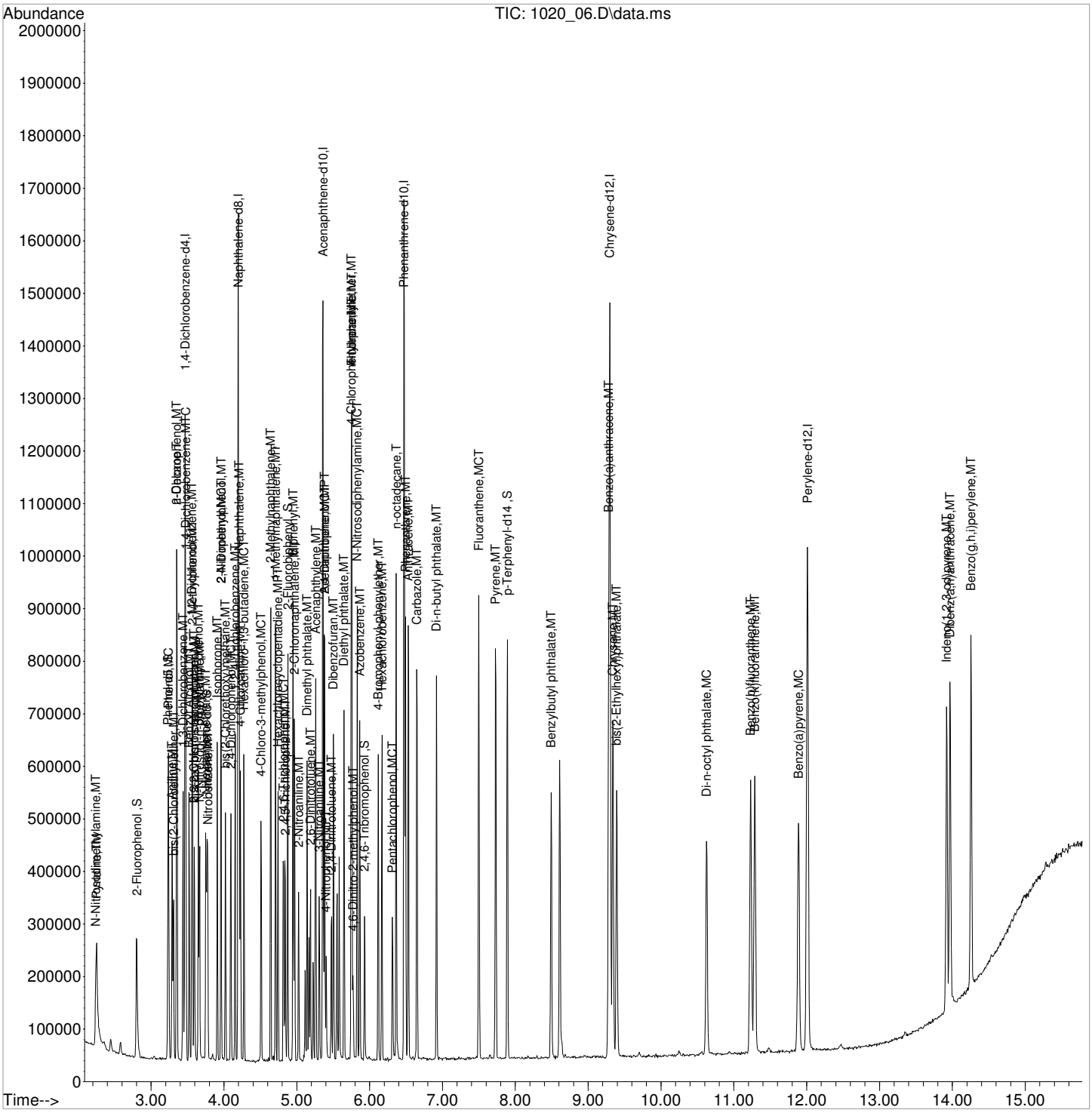
Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.508	107	71114	3327.4973587	ppb		99
41)	2-Methylnaphthalene	4.643	142	176450	3522.9155040	ppb		99
42)	1-Methylnaphthalene	4.708	142	165380	3528.2778069	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	62794	3534.0166512	ppb		98
48)	2,4,6-Trichlorophenol	4.819	196	52426	3629.9233179	ppb		98
49)	2,4,5-Trichlorophenol	4.843	196	50673	3644.0270004	ppb		97
51)	Biphenyl	4.949	154	204882	3477.7175075	ppb		99
52)	2-Chloronaphthalene	4.966	162	159921	3455.9039246	ppb		99
53)	2-Nitroaniline	5.025	138	45726	3488.5966328	ppb		96
54)	Acenaphthylene	5.260	152	247704	3575.4315079	ppb		99
55)	Dimethyl phthalate	5.143	163	172155	3601.0742642	ppb		97
56)	2,6-Dinitrotoluene	5.190	165	36060	3589.0037927	ppb		97
57)	3-Nitroaniline	5.307	138	40588	3706.9730065	ppb	#	80
58)	Acenaphthene	5.384	153	164520	3508.8219075	ppb		98
59)	2,4-Dinitrophenol	5.384	184	12305	3955.7319744	ppb	#	65
60)	Dibenzofuran	5.501	168	229982	3541.0926441	ppb		99
61)	2,4-Dinitrotoluene	5.478	165	46663	3870.5745174	ppb		96
63)	4-Nitrophenol	5.401	139	30046m	3694.7776131	ppb		
64)	Fluorene	5.754	166	189285	3547.3803284	ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	94904	3582.4692382	ppb		98
66)	Diethyl phthalate	5.648	149	177339	3570.7115268	ppb		99
67)	4-Nitroaniline	5.754	138	42496	3603.2745025	ppb		94
68)	Azobenzene	5.865	77	176778	3527.6656798	ppb		100
71)	4,6-Dinitro-2-methylph...	5.771	198	19937	4017.0152163	ppb		87
72)	N-Nitrosodiphenylamine	5.830	169	165667	3564.3312804	ppb		99
74)	4-Bromophenyl-phenylether	6.118	248	62754	3530.4499093	ppb		97
75)	Hexachlorobenzene	6.171	284	75391	3387.6874004	ppb		98
76)	n-octadecane	6.365	55	27317	3337.7900822	ppb		97
77)	Pentachlorophenol	6.312	266	31503	3633.6743098	ppb		94
78)	Phenanthrene	6.494	178	287505	3495.5150594	ppb		99
79)	Anthracene	6.529	178	293916	3566.0272143	ppb		100
80)	Carbazole	6.647	167	276499	3563.4037474	ppb		100
81)	Di-n-butyl phthalate	6.917	149	323488	3526.8939520	ppb		99
83)	Fluoranthene	7.499	202	331098	3577.1459487	ppb		99
86)	Pyrene	7.728	202	340881	3547.0585468	ppb		99
88)	Benzylbutyl phthalate	8.492	149	135540	3480.0593199	ppb		99
90)	Benzo(a)anthracene	9.285	228	334029	3480.8593818	ppb		99
91)	Chrysene	9.338	228	322199	3542.1584473	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.391	149	191750	3545.8052283	ppb		98
93)	Di-n-octyl phthalate	10.625	149	322209	3673.6261593	ppb		100
95)	Benzo(b)fluoranthene	11.230	252	360678	3577.8888171	ppb		99
96)	Benzo(k)fluoranthene	11.288	252	360870	3631.7068298	ppb		99
97)	Benzo(a)pyrene	11.888	252	312053	3573.1904813	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.921	276	337378	3612.6302658	ppb		98
99)	Dibenz(a,h)anthracene	13.968	278	340313	3583.6439827	ppb		99
100)	Benzo(g,h,i)perylene	14.256	276	349392	3527.5370785	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

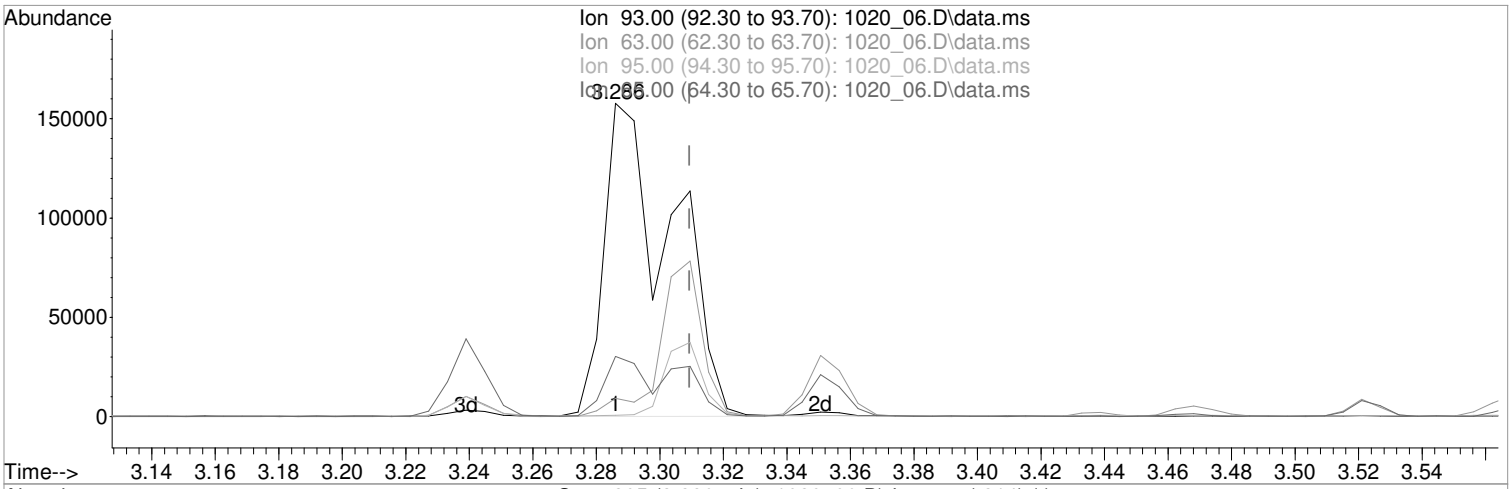
Quant Time: Oct 21 08:41:43 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration

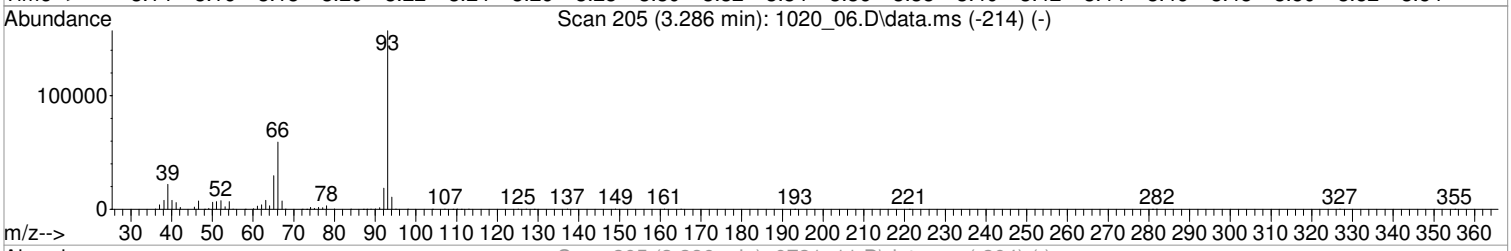


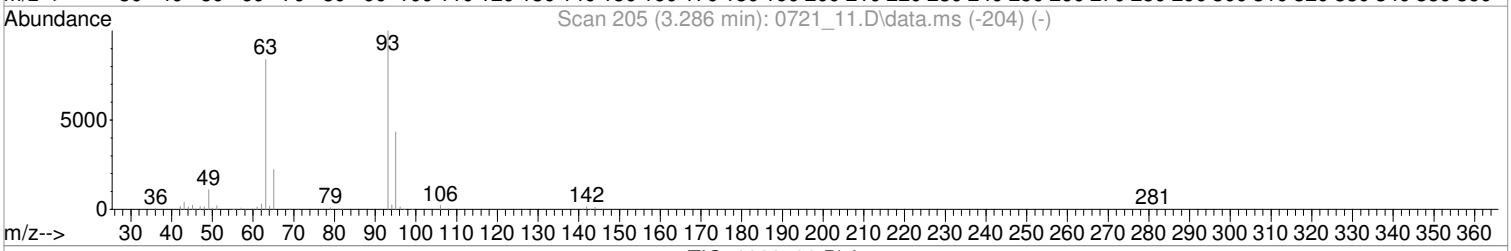
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 8820.1638932 ppb

Qvalue = 42

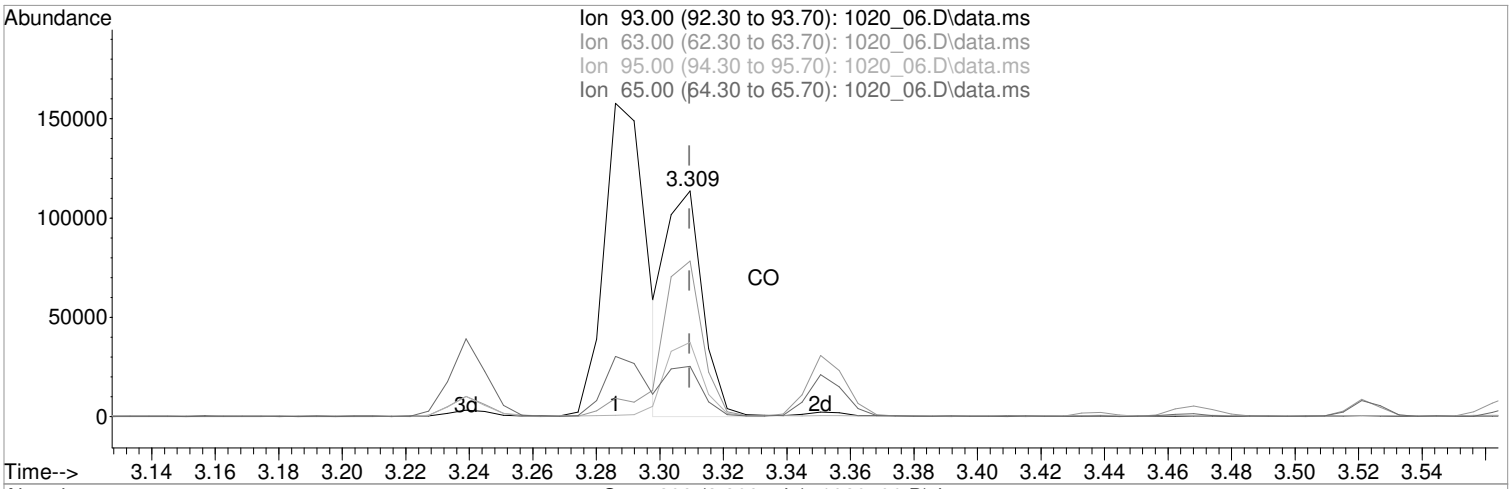
response 233173

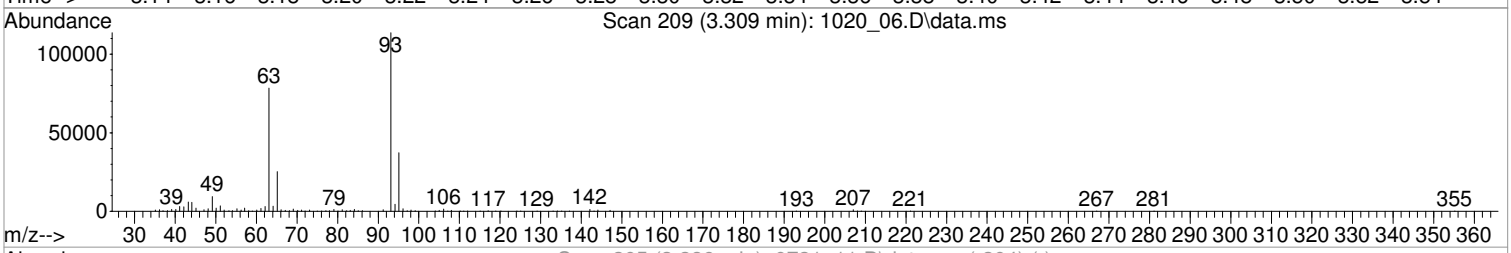
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.73#
95.00	32.50	0.10#
65.00	21.90	18.84

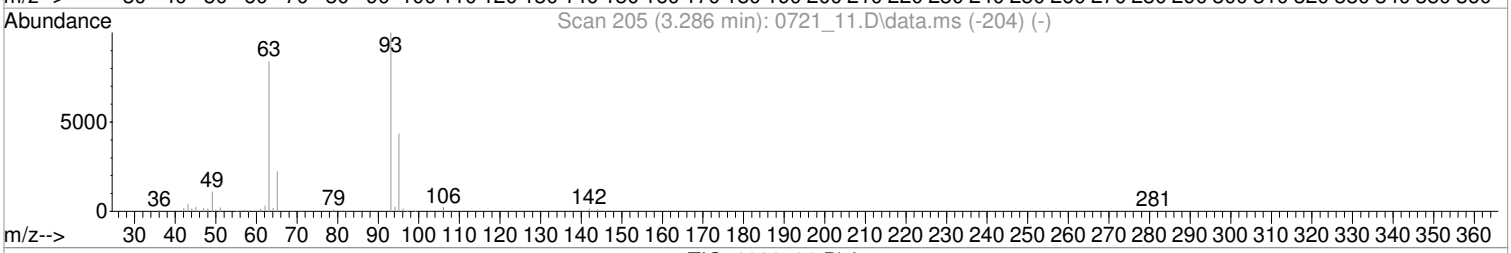
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 3401.4520446 ppb m

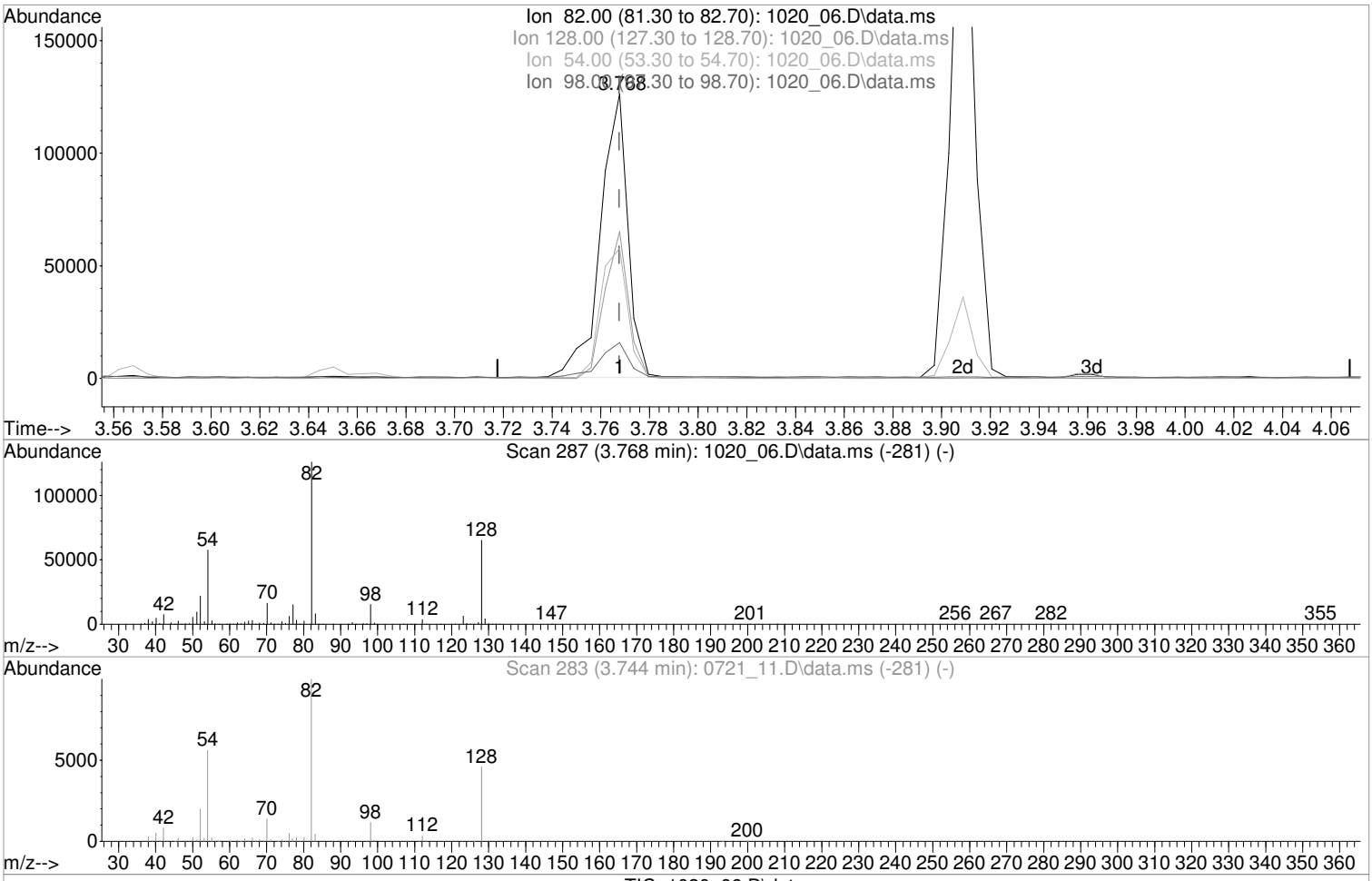
response 89922

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.01
95.00	32.50	32.87
65.00	21.90	22.31

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration



TIC: 1020_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 4028.0106539 ppb

Qvalue = 98

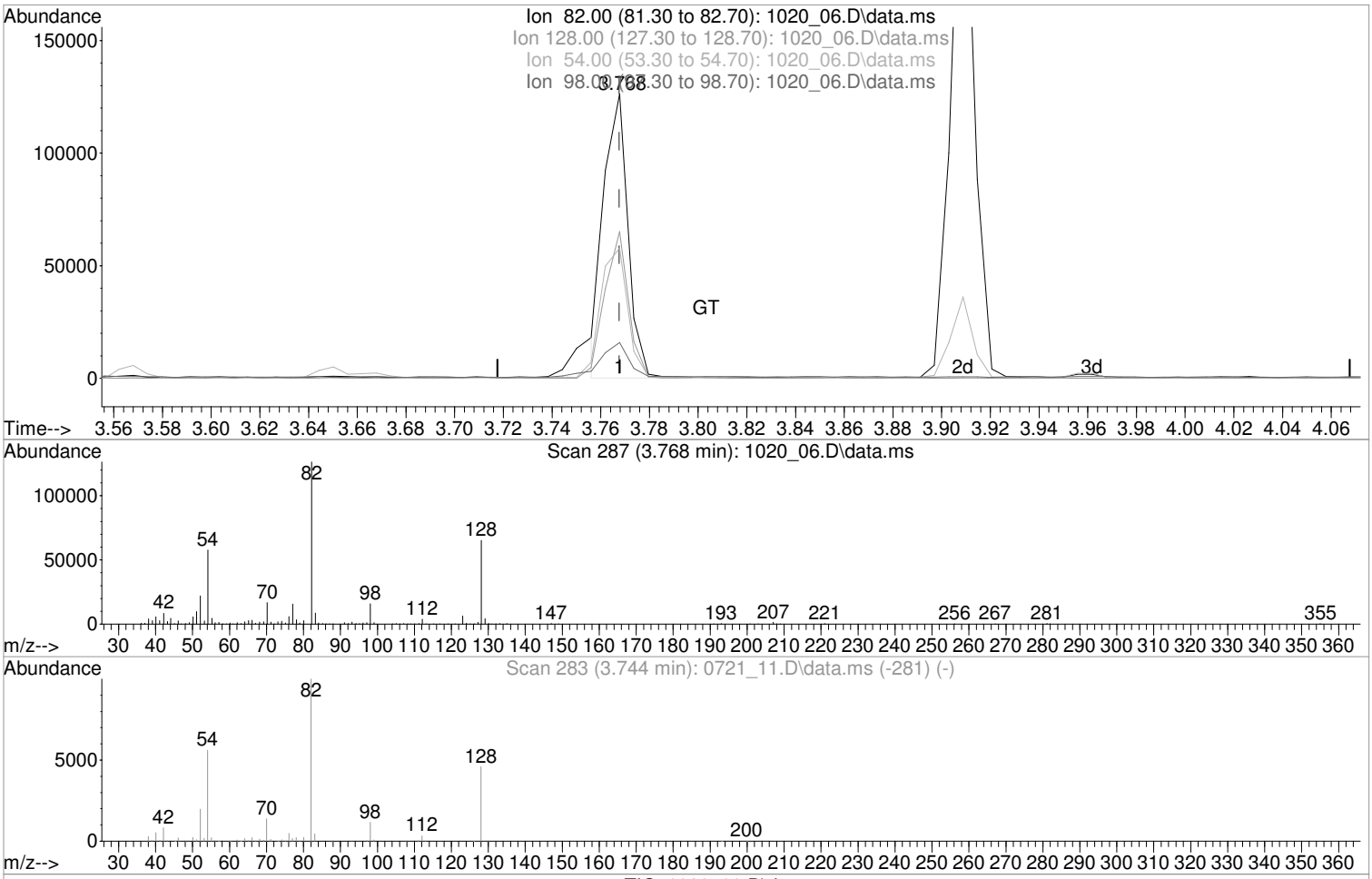
response 99118

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.71
54.00	48.90	45.60
98.00	12.10	12.13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration



TIC: 1020_06.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 3546.5658889 ppb m

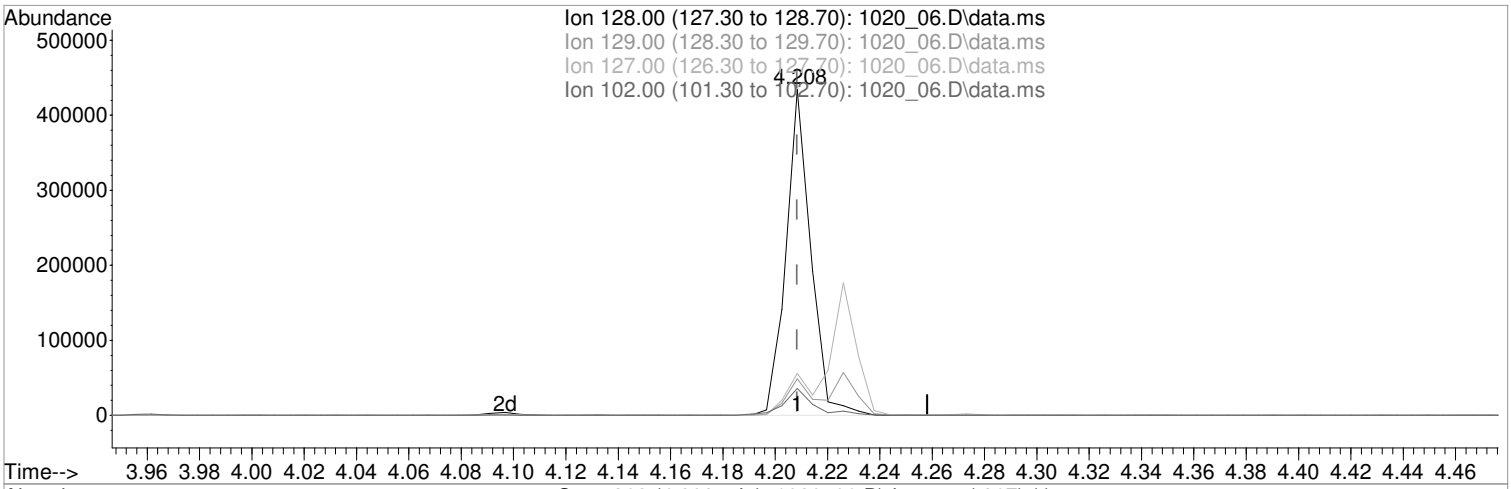
response 87271

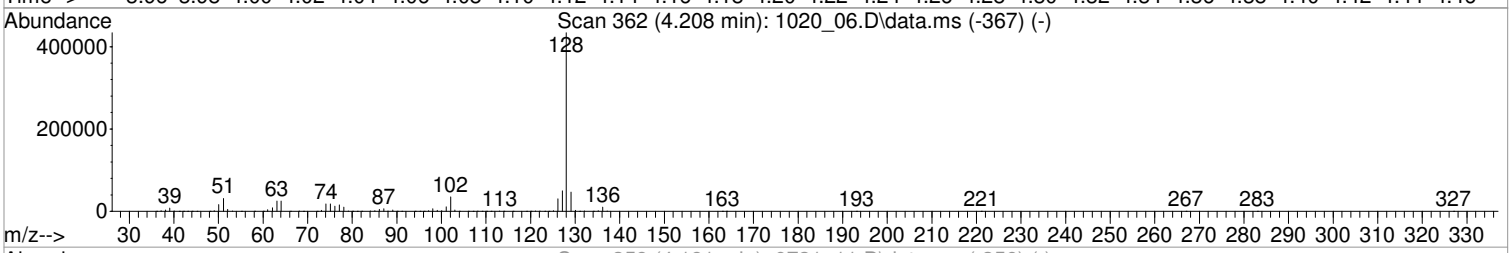
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	51.56
54.00	48.90	45.78
98.00	12.10	12.56

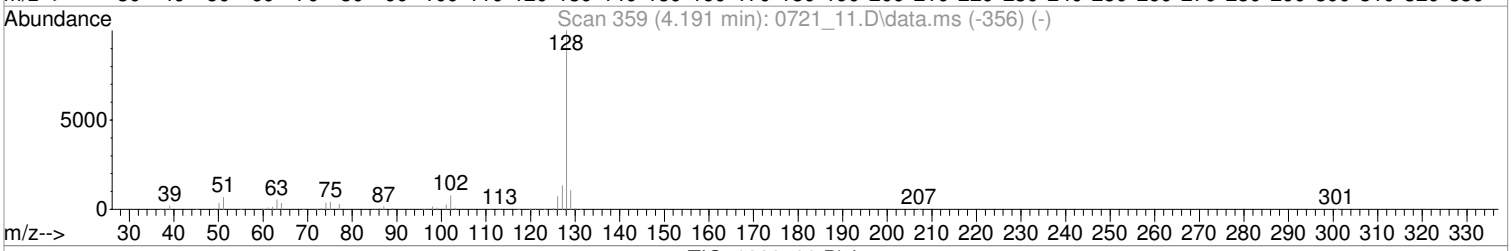
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 3577.6508929 ppb

Qvalue = 100

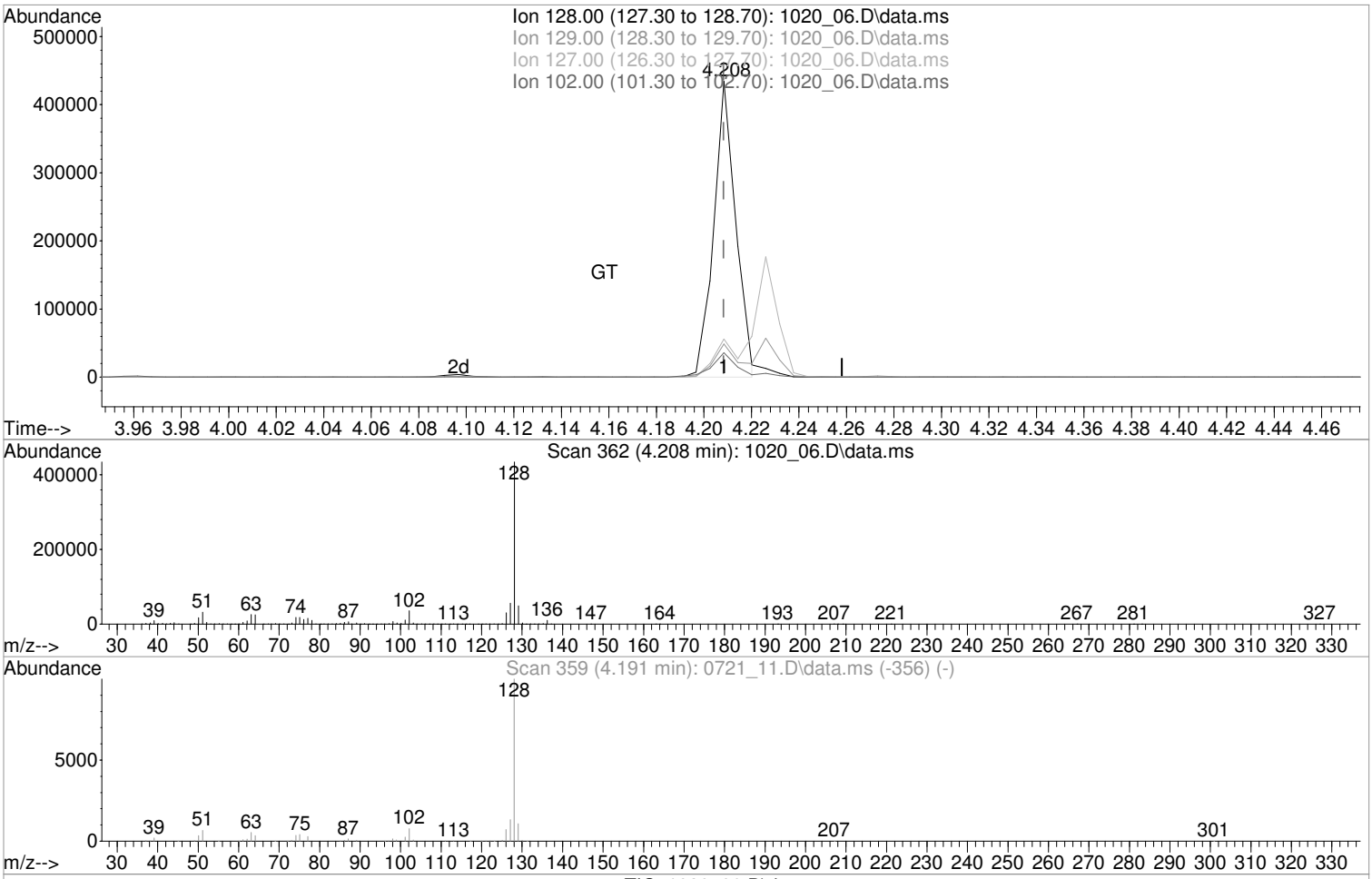
response 286394

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.14
127.00	13.10	12.91
102.00	8.20	8.22

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration



TIC: 1020_06.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 3492.8547929 ppb m

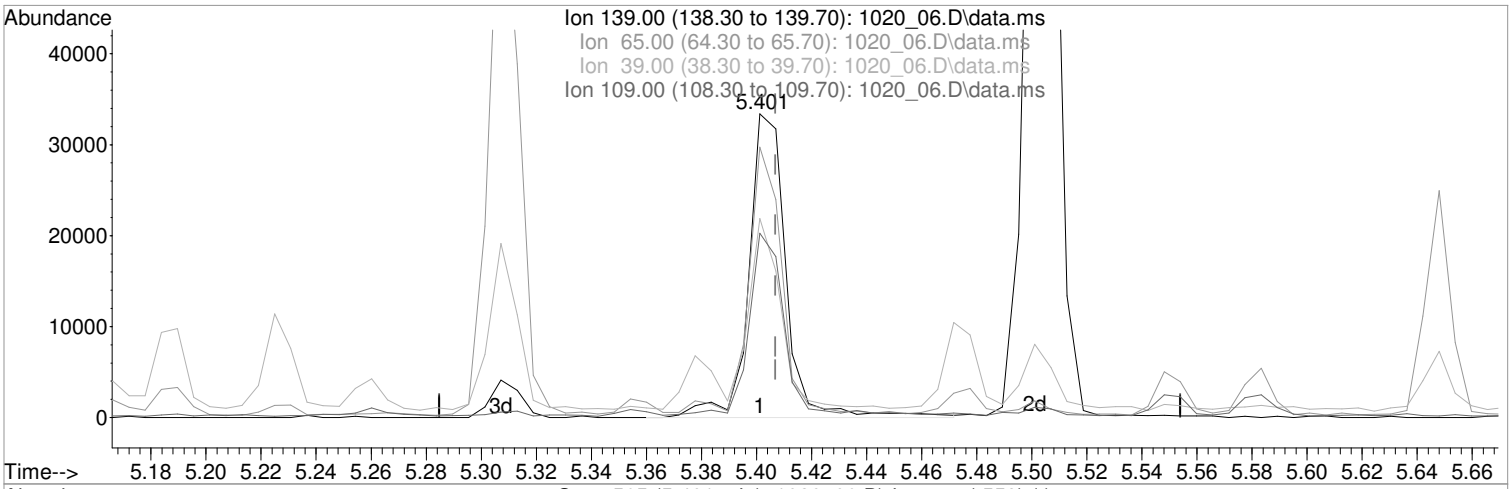
response 279606

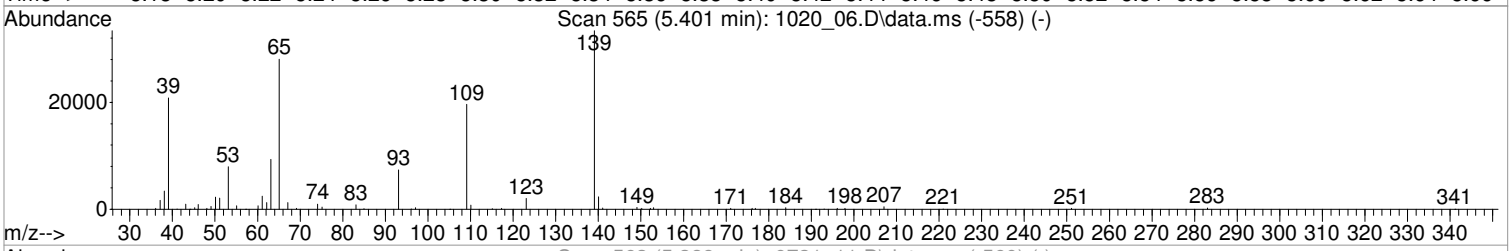
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.21
127.00	13.10	12.91
102.00	8.20	8.22

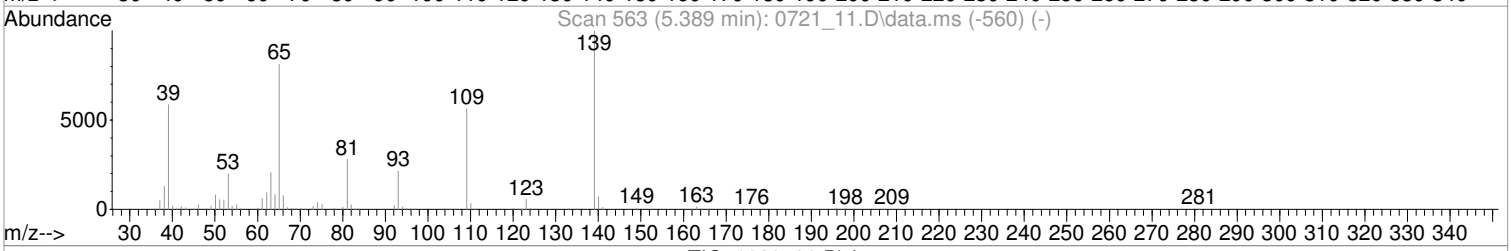
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 3886.1200203 ppb

Qvalue = 89

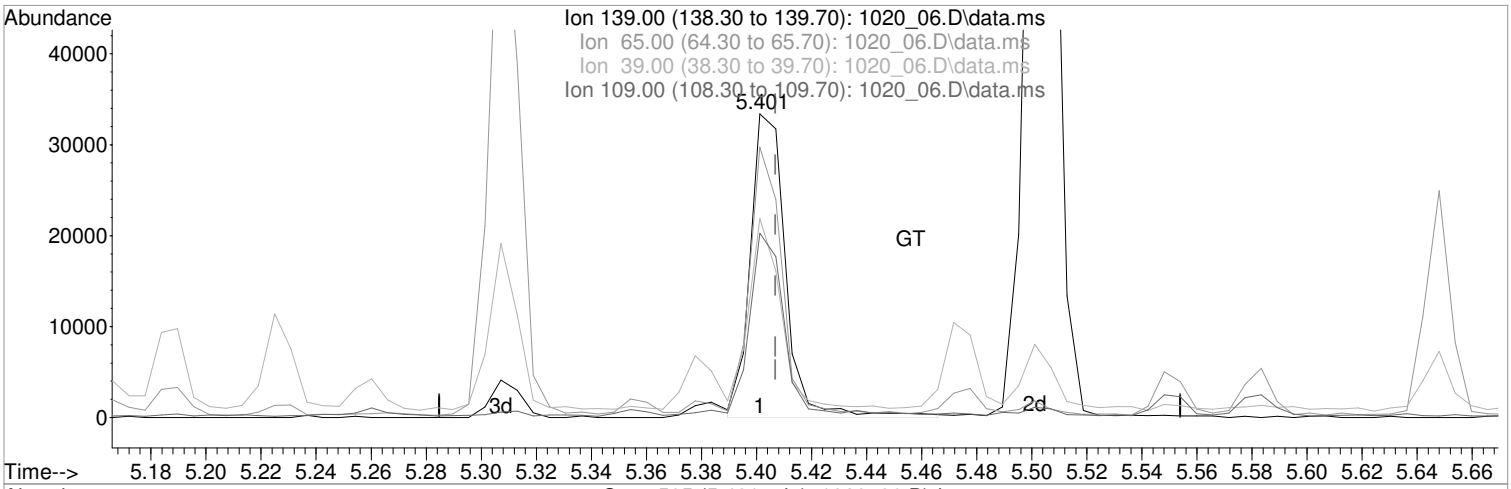
response 31602

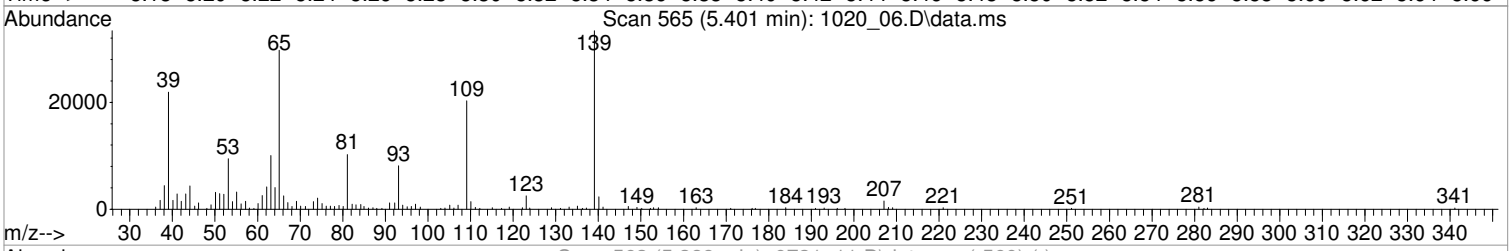
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	84.03
39.00	49.40	62.42
109.00	53.80	59.14

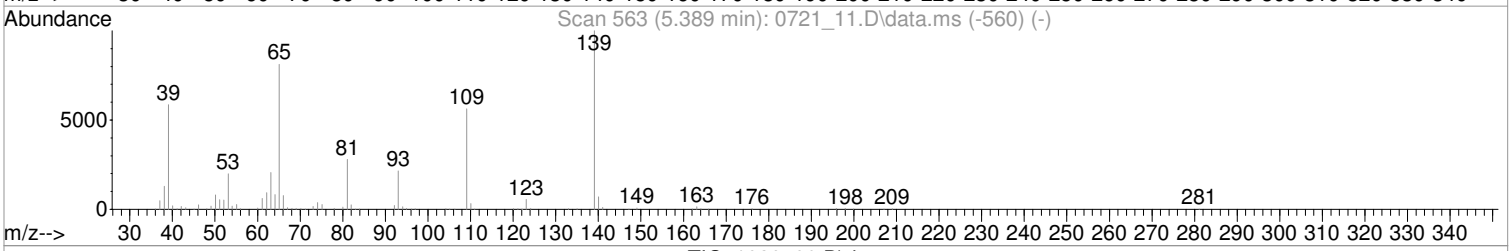
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_06.D
Acq On : 20 Oct 2022 8:06 pm
Operator : 3545
Sample : STD SVMS 4K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 5 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:40:38 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:40:34 2022
Response via : Initial Calibration







TIC: 1020_06.D\data.ms

(63) 4-Nitrophenol (MPT)

5.401min (-0.006) 3694.7776131 ppb m

response 30046

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	89.07
39.00	49.40	65.59
109.00	53.80	60.68

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151370	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	573157	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	287887	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	568440	8000.0000000	ppb	0.00
84) Chrysene-d12	9.302	240	620191	8000.0000000	ppb	0.00
94) Perylene-d12	12.011	264	671005	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	249739	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
7) Phenol-d5	3.233	99	302761	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
24) Nitrobenzene-d5	3.768	82	230973m	10009.1436198	ppb	0.00
Spiked Amount 10000.000				Recovery = 100.09%		
50) 2-Fluorobiphenyl	4.878	172	504218	10000.0000000	ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%		
73) 2,4,6-Tribromophenol	5.936	330	86132	10000.0000000	ppb	0.00
Spiked Amount 20000.000				Recovery = 50.00%		
87) p-Terphenyl-d14	7.892	244	794563	10000.0000000	ppb	0.00
Spiked Amount 10000.000				Recovery = 100.00%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	268268	10000.0000000	ppb	100
3) N-Nitrosodimethylamine	2.240	42	123314	10000.0000000	ppb	100
5) Aniline	3.292	66	137036	10000.0000000	ppb	100
6) bis(2-Chloroethyl)ether	3.309	93	243205m	10000.0000000	ppb	
8) Phenol	3.239	94	311781	10000.0000000	ppb	100
10) 2-Chlorophenol	3.350	128	256685	10000.0000000	ppb	100
11) n-Decane	3.350	41	136021	10000.0000000	ppb	100
12) 1,3-Dichlorobenzene	3.439	146	286497	10000.0000000	ppb	100
13) 1,4-Dichlorobenzene	3.474	146	289378	10000.0000000	ppb	100
14) Benzyl Alcohol	3.521	79	196284	10000.0000000	ppb	100
15) 1,2-Dichlorobenzene	3.562	146	273262	10000.0000000	ppb	100
16) bis(2-Chloroisopropyl)...	3.591	121	87644	10000.0000000	ppb	100
17) 2,2-oxybis(1-chloropro...	3.591	121	87644	10000.0000000	ppb	100
18) 2-Methylphenol	3.568	108	225306	10000.0000000	ppb	100
19) Hexachloroethane	3.750	117	104557	10000.0000000	ppb	100
20) N-Nitrosodi-n-propylamine	3.668	70	165106	10000.0000000	ppb	100
21) 3&4-Methyl phenol	3.650	107	259860	10000.0000000	ppb	100
25) Nitrobenzene	3.779	77	239903	10000.0000000	ppb	100
26) Isophorone	3.909	82	441081	10000.0000000	ppb	100
27) 2-Nitrophenol	3.962	139	123935	10000.0000000	ppb	100
28) 2,4-Dimethylphenol	3.962	107	232290	10000.0000000	ppb	100
29) bis(2-Chlorethoxy)methane	4.020	93	270435	10000.0000000	ppb	100
30) 2,4-Dichlorophenol	4.097	162	204226	10000.0000000	ppb	100
32) 1,2,4-Trichlorobenzene	4.155	180	228800	10000.0000000	ppb	100
34) Naphthalene	4.208	128	729502m	9995.0949497	ppb	
35) 4-Chloroaniline	4.226	65	79922	10000.0000000	ppb	100
36) Hexachloro-1,3-butadiene	4.273	225	134447	10000.0000000	ppb	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration

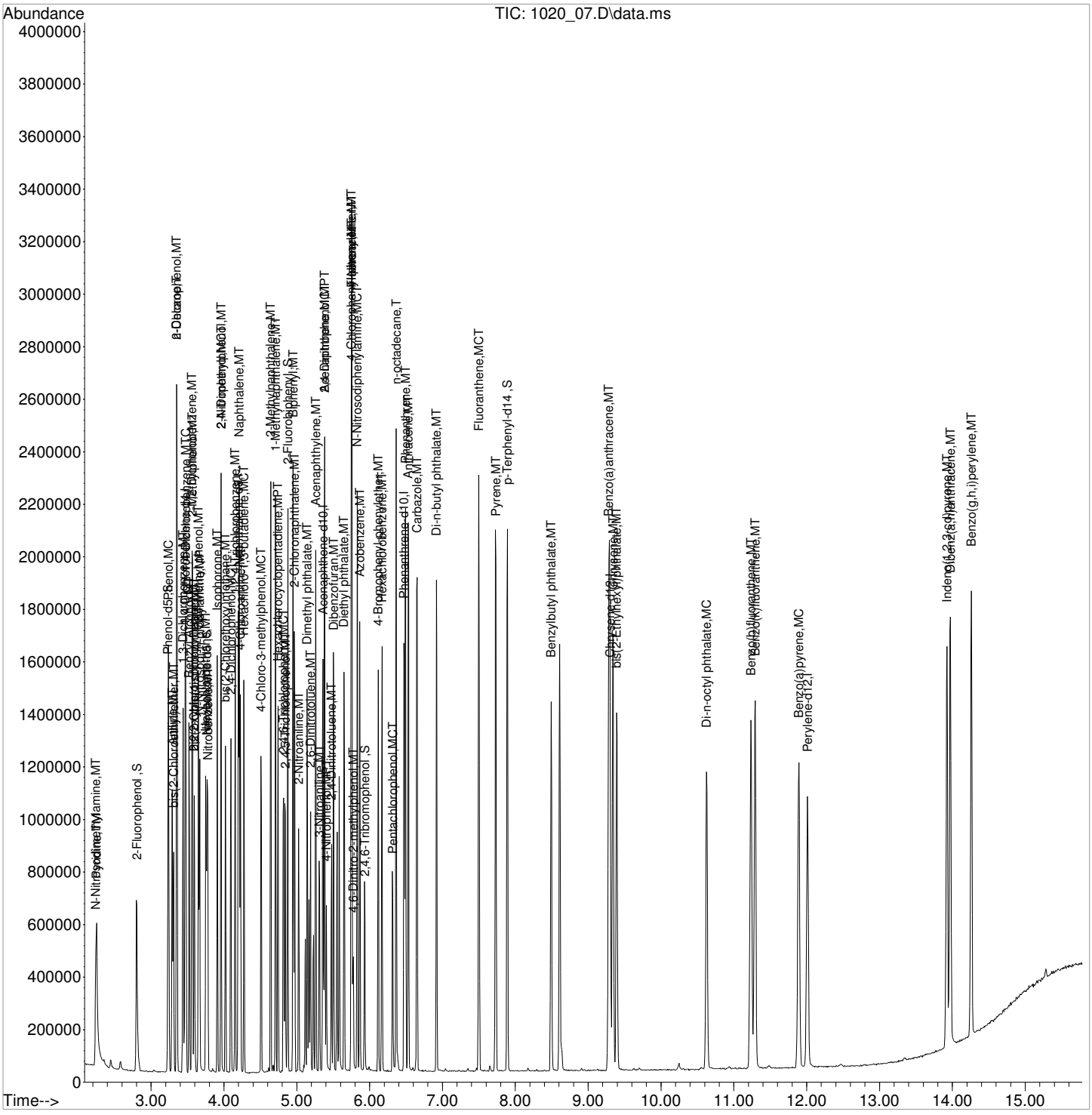
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40)	4-Chloro-3-methylphenol	4.508	107	192830	10000.0000000	ppb	100
41)	2-Methylnaphthalene	4.643	142	464499	10000.0000000	ppb	100
42)	1-Methylnaphthalene	4.708	142	437616	10000.0000000	ppb	100
47)	Hexachlorocyclopentadiene	4.743	237	171099	10000.0000000	ppb	100
48)	2,4,6-Trichlorophenol	4.819	196	143148	10000.0000000	ppb	100
49)	2,4,5-Trichlorophenol	4.843	196	137501	10000.0000000	ppb	100
51)	Biphenyl	4.949	154	547605	10000.0000000	ppb	100
52)	2-Chloronaphthalene	4.966	162	430812	10000.0000000	ppb	100
53)	2-Nitroaniline	5.025	138	138636	10000.0000000	ppb	100
54)	Acenaphthylene	5.260	152	653860	10000.0000000	ppb	100
55)	Dimethyl phthalate	5.143	163	460754	10000.0000000	ppb	100
56)	2,6-Dinitrotoluene	5.190	165	106632	10000.0000000	ppb	100
57)	3-Nitroaniline	5.313	138	116975	10000.0000000	ppb	100
58)	Acenaphthene	5.383	153	431959	10000.0000000	ppb	100
59)	2,4-Dinitrophenol	5.383	184	39649	10000.0000000	ppb	100
60)	Dibenzofuran	5.507	168	601292	10000.0000000	ppb	100
61)	2,4-Dinitrotoluene	5.477	165	132858	10000.0000000	ppb	100
63)	4-Nitrophenol	5.407	139	90438m	10000.0000000	ppb	
64)	Fluorene	5.754	166	497426	10000.0000000	ppb	100
65)	4-Chlorophenyl-phenyle...	5.748	204	243087	10000.0000000	ppb	100
66)	Diethyl phthalate	5.648	149	464572	10000.0000000	ppb	100
67)	4-Nitroaniline	5.754	138	119471	10000.0000000	ppb	100
68)	Azobenzene	5.865	77	463480	10004.5113983	ppb	100
71)	4,6-Dinitro-2-methylph...	5.777	198	61110	10028.5545490	ppb	100
72)	N-Nitrosodiphenylamine	5.830	169	435555	10000.0000000	ppb	100
74)	4-Bromophenyl-phenylether	6.118	248	165066	10000.0000000	ppb	100
75)	Hexachlorobenzene	6.171	284	198291	10000.0000000	ppb	100
76)	n-octadecane	6.365	55	73657	10000.0000000	ppb	100
77)	Pentachlorophenol	6.318	266	91203	10000.0000000	ppb	100
78)	Phenanthrene	6.494	178	746419	10012.8779718	ppb	100
79)	Anthracene	6.529	178	761620	10000.0000000	ppb	100
80)	Carbazole	6.653	167	730204	10000.0000000	ppb	100
81)	Di-n-butyl phthalate	6.917	149	871636	10000.0000000	ppb	100
83)	Fluoranthene	7.499	202	872526	10000.0000000	ppb	100
86)	Pyrene	7.734	202	899269	10000.0000000	ppb	100
88)	Benzylbutyl phthalate	8.492	149	378449	10000.0000000	ppb	100
90)	Benzo(a)anthracene	9.285	228	898676	10000.0000000	ppb	100
91)	Chrysene	9.344	228	873745	10000.0000000	ppb	100
92)	bis(2-Ethylhexyl)phtha...	9.391	149	527925	10000.0000000	ppb	100
93)	Di-n-octyl phthalate	10.624	149	892849	10000.0000000	ppb	100
95)	Benzo(b)fluoranthene	11.236	252	980780	10000.0000000	ppb	100
96)	Benzo(k)fluoranthene	11.294	252	957165	10000.0000000	ppb	100
97)	Benzo(a)pyrene	11.894	252	846648	10000.0000000	ppb	100
98)	Indeno(1,2,3-cd)pyrene	13.927	276	893870	10000.0000000	ppb	100
99)	Dibenz(a,h)anthracene	13.974	278	921509	10000.0000000	ppb	100
100)	Benzo(g,h,i)perylene	14.261	276	928468	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:23:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.356	152	110436	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.085	136	423129	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.237	164	219757	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.347	188	421087	8000.0000000	ppb		0.00
84) Chrysene-d12	9.091	240	429747	8000.0000000	ppb		0.00
94) Perylene-d12	11.723	264	424107	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.692	112	176497	9222.2291658	ppb		0.00
Spiked Amount 20000.000				Recovery = 46.11%			
7) Phenol-d5	3.127	99	210922	9104.6088477	ppb		0.00
Spiked Amount 20000.000				Recovery = 45.52%			
24) Nitrobenzene-d5	3.656	82	172844m	9638.4280109	ppb		0.00
Spiked Amount 10000.000				Recovery = 96.38%			
50) 2-Fluorobiphenyl	4.761	172	379745	9841.8743748	ppb		0.00
Spiked Amount 10000.000				Recovery = 98.42%			
73) 2,4,6-Tribromophenol	5.812	330	60646	8899.4707853	ppb		0.00
Spiked Amount 20000.000				Recovery = 44.50%			
87) p-Terphenyl-d14	7.728	244	570196	9670.6140852	ppb		0.00
Spiked Amount 10000.000				Recovery = 96.71%			
Target Compounds							Qvalue
2) Pyridine	2.140	79	180590	8772.1725400	ppb		94
3) N-Nitrosodimethylamine	2.128	42	91420	9309.4243702	ppb		92
5) Aniline	3.180	66	95465	9105.8264610	ppb	#	42
6) bis(2-Chloroethyl)ether	3.198	93	165063m	10522.7277478	ppb		
8) Phenol	3.139	94	223438	9347.4061900	ppb		95
10) 2-Chlorophenol	3.245	128	184097	9356.6313645	ppb		99
11) n-Decane	3.245	41	102975	9966.9160621	ppb		99
12) 1,3-Dichlorobenzene	3.327	146	208725	9685.5160145	ppb		97
13) 1,4-Dichlorobenzene	3.368	146	211878	9700.0233096	ppb		97
14) Benzyl Alcohol	3.415	79	134393	9021.1649463	ppb		99
15) 1,2-Dichlorobenzene	3.450	146	198849	9696.7593162	ppb		98
16) bis(2-Chloroisopropyl)...	3.486	121	63291	9752.8142740	ppb		97
17) 2,2-oxybis(1-chloropro...	3.486	121	63291	9752.8142740	ppb		97
18) 2-Methylphenol	3.462	108	164833	9447.6606940	ppb		99
19) Hexachloroethane	3.638	117	74650	9327.3355159	ppb		98
20) N-Nitrosodi-n-propylamine	3.562	70	120154	9502.6510663	ppb		96
21) 3&4-Methyl phenol	3.544	107	181890	9201.8026146	ppb		98
25) Nitrobenzene	3.668	77	174221	9485.6963118	ppb		94
26) Isophorone	3.797	82	324275	9668.5337050	ppb		97
27) 2-Nitrophenol	3.850	139	94671	10049.1779176	ppb		99
28) 2,4-Dimethylphenol	3.856	107	164774	9310.3710280	ppb		98
29) bis(2-Chlorethoxy)methane	3.915	93	198754	9551.6725112	ppb		97
30) 2,4-Dichlorophenol	3.985	162	147883	9660.4443715	ppb		94
32) 1,2,4-Trichlorobenzene	4.044	180	165553	9546.7915261	ppb		98
34) Naphthalene	4.097	128	533468m	9550.8964973	ppb		
35) 4-Chloroaniline	4.114	65	58380	9710.6458833	ppb		95
36) Hexachloro-1,3-butadiene	4.161	225	99902	9888.7071243	ppb		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

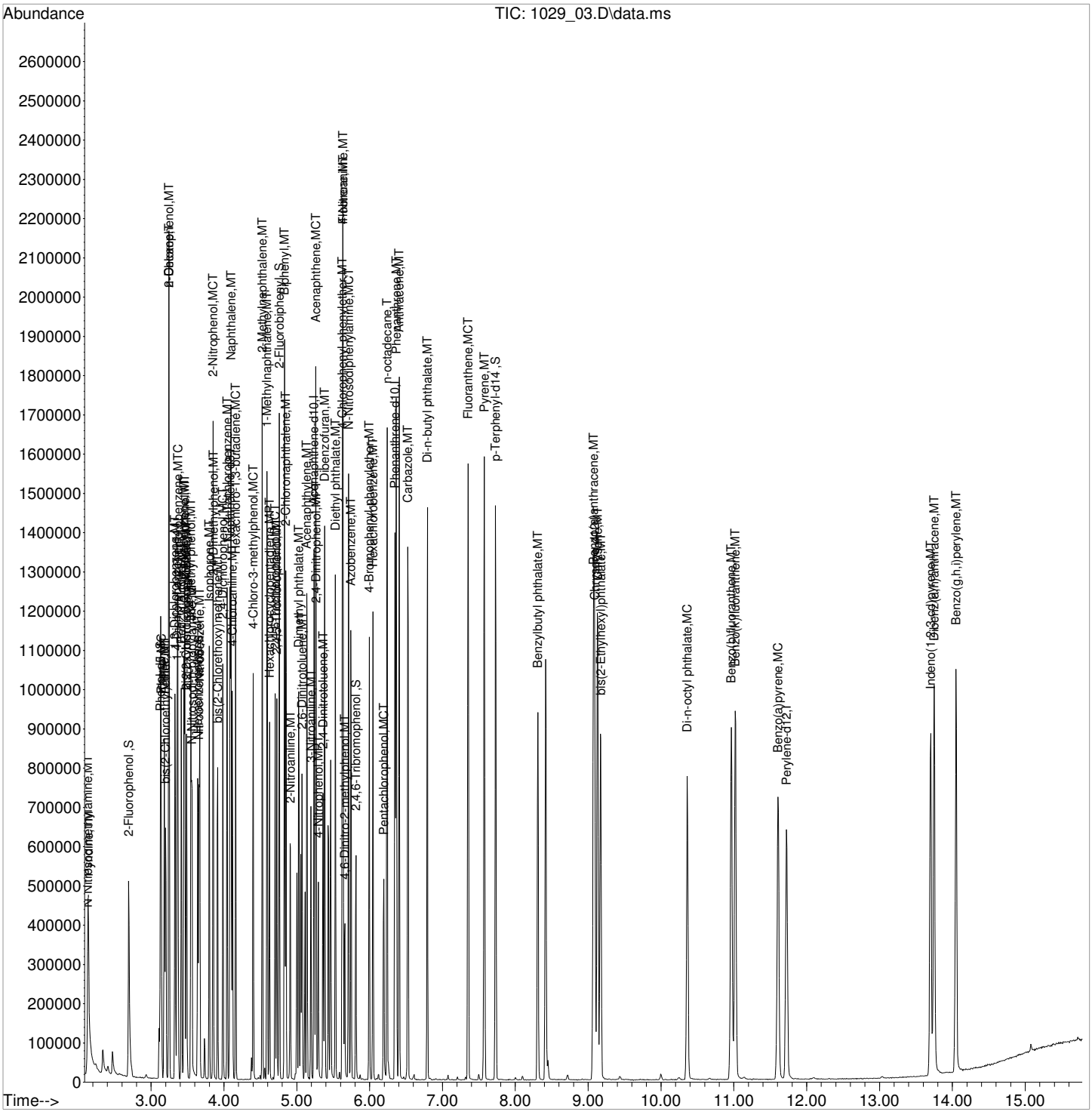
Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.402	107	137639	9023.6365538 ppb		90
41) 2-Methylnaphthalene	4.526	142	347589	9726.4476659 ppb		99
42) 1-Methylnaphthalene	4.590	142	324619	9718.5401248 ppb		100
47) Hexachlorocyclopentadiene	4.626	237	105707	8309.7012910 ppb		98
48) 2,4,6-Trichlorophenol	4.702	196	99306	9253.9418057 ppb		95
49) 2,4,5-Trichlorophenol	4.725	196	108563	10053.4774943 ppb		95
51) Biphenyl	4.831	154	415415	9880.1050691 ppb		99
52) 2-Chloronaphthalene	4.849	162	318242	9620.9361981 ppb		98
53) 2-Nitroaniline	4.913	138	106336	10107.3267665 ppb		99
54) Acenaphthylene	5.137	152	485456	9508.6244610 ppb		100
55) Dimethyl phthalate	5.025	163	336003	9431.2537715 ppb		98
56) 2,6-Dinitrotoluene	5.072	165	81737	10222.4514414 ppb		97
57) 3-Nitroaniline	5.196	138	88392	10070.4529900 ppb		92
58) Acenaphthene	5.260	153	319627	9464.1696979 ppb		99
59) 2,4-Dinitrophenol	5.266	184	29087	8032.7010838 ppb	#	21
60) Dibenzofuran	5.384	168	445055	9527.6615756 ppb		99
61) 2,4-Dinitrotoluene	5.360	165	103323	10299.4254314 ppb		96
63) 4-Nitrophenol	5.295	139	66199	10304.5854446 ppb		95
64) Fluorene	5.636	166	364498	9546.8256264 ppb		100
65) 4-Chlorophenyl-phenyle...	5.624	204	184740	9725.5729655 ppb		97
66) Diethyl phthalate	5.530	149	340719	9920.2802828 ppb		98
67) 4-Nitroaniline	5.636	138	86717	10776.1382482 ppb		98
68) Azobenzene	5.742	77	334320	9262.0062424 ppb		99
71) 4,6-Dinitro-2-methylph...	5.660	198	55952	10876.9794625 ppb		97
72) N-Nitrosodiphenylamine	5.713	169	317144	9500.4386097 ppb		99
74) 4-Bromophenyl-phenylether	5.995	248	117543	9308.6264506 ppb		98
75) Hexachlorobenzene	6.047	284	134421	8568.0998552 ppb		98
76) n-octadecane	6.241	55	52677	9035.6618506 ppb		97
77) Pentachlorophenol	6.194	266	60181	8154.3538698 ppb		97
78) Phenanthrene	6.365	178	532565	9390.5609496 ppb		98
79) Anthracene	6.406	178	546745	9378.5136890 ppb		99
80) Carbazole	6.523	167	501264	8970.3904280 ppb		99
81) Di-n-butyl phthalate	6.794	149	593110	8795.9346420 ppb		99
83) Fluoranthene	7.352	202	601581	8874.8236585 ppb		99
86) Pyrene	7.575	202	626634	9800.8965543 ppb		100
88) Benzylbutyl phthalate	8.310	149	243194	9021.8506871 ppb		99
90) Benzo(a)anthracene	9.073	228	595570	9253.8512978 ppb		99
91) Chrysene	9.132	228	595557	9753.9981058 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.173	149	350055	9336.3498387 ppb		98
93) Di-n-octyl phthalate	10.360	149	563051	8875.6940016 ppb		99
95) Benzo(b)fluoranthene	10.965	252	615727	9690.4221561 ppb		99
96) Benzo(k)fluoranthene	11.018	252	625142	9964.3519704 ppb		98
97) Benzo(a)pyrene	11.606	252	528192	9572.5667711 ppb		99
98) Indeno(1,2,3-cd)pyrene	13.703	276	520325	9370.2659267 ppb		98
99) Dibenz(a,h)anthracene	13.750	278	559986	9847.7961211 ppb		98
100) Benzo(g,h,i)perylene	14.050	276	564928	10006.5441447 ppb		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_03.D
Acq On : 29 Oct 2022 9:09 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22J20349 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:11:27 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.215	152	152687	8000.0000000	ppb		0.00
23) Naphthalene-d8	3.943	136	578819	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.083	164	300945	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.188	188	569887	8000.0000000	ppb		0.00
84) Chrysene-d12	8.814	240	569427	8000.0000000	ppb		0.00
94) Perylene-d12	11.347	264	559789	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.545	112	255529	9657.1145594	ppb		0.00
Spiked Amount 20000.000				Recovery = 48.29%			
7) Phenol-d5	2.992	99	315589	9853.0315817	ppb		0.00
Spiked Amount 20000.000				Recovery = 49.27%			
24) Nitrobenzene-d5	3.520	82	248615m	10134.6613336	ppb		0.00
Spiked Amount 10000.000				Recovery = 101.35%			
50) 2-Fluorobiphenyl	4.613	172	581867	11011.9711703	ppb		0.00
Spiked Amount 10000.000				Recovery = 110.12%			
73) 2,4,6-Tribromophenol	5.653	330	84870	9202.3618433	ppb		0.00
Spiked Amount 20000.000				Recovery = 46.01%			
87) p-Terphenyl-d14	7.527	244	785118	10049.3880949	ppb		0.00
Spiked Amount 10000.000				Recovery = 100.49%			
Target Compounds							Qvalue
2) Pyridine	1.952	79	262820	9233.8004344	ppb		94
3) N-Nitrosodimethylamine	1.934	42	134183	9882.9754022	ppb		92
5) Aniline	3.039	66	144629	9977.9007955	ppb	#	38
6) bis(2-Chloroethyl)ether	3.062	93	259764	11977.4997141	ppb		97
8) Phenol	3.003	94	332099	10048.7086315	ppb		95
10) 2-Chlorophenol	3.103	128	271821	9992.2759632	ppb		99
11) n-Decane	3.109	41	148352	10385.5861282	ppb	#	99
12) 1,3-Dichlorobenzene	3.185	146	307163	10309.2198275	ppb		99
13) 1,4-Dichlorobenzene	3.227	146	313196	10370.7872677	ppb		96
14) Benzyl Alcohol	3.279	79	201041	9760.6607161	ppb		99
15) 1,2-Dichlorobenzene	3.309	146	292248	10307.7376980	ppb		97
16) bis(2-Chloroisopropyl)...	3.350	121	92188	10274.7436528	ppb		94
17) 2,2-oxybis(1-chloropro...	3.350	121	92188	10274.7436528	ppb		94
18) 2-Methylphenol	3.326	108	240571	9973.1420290	ppb		98
19) Hexachloroethane	3.503	117	107194	9687.3919191	ppb		89
20) N-Nitrosodi-n-propylamine	3.420	70	171324	9800.1643881	ppb		91
21) 3&4-Methyl phenol	3.415	107	275506	10081.0033130	ppb		99
25) Nitrobenzene	3.532	77	255470	10168.0725256	ppb		96
26) Isophorone	3.661	82	465995	10156.8354699	ppb		100
27) 2-Nitrophenol	3.714	139	134021	10399.5952722	ppb		93
28) 2,4-Dimethylphenol	3.720	107	246542	10183.5507380	ppb		98
29) bis(2-Chlorethoxy)methane	3.779	93	293642	10316.0094773	ppb		98
30) 2,4-Dichlorophenol	3.849	162	217622	10392.2996842	ppb		98
32) 1,2,4-Trichlorobenzene	3.902	180	248769	10486.8886649	ppb		99
34) Naphthalene	3.955	128	789912m	10338.1895271	ppb		
35) 4-Chloroaniline	3.979	65	85914	10446.6724750	ppb	#	58
36) Hexachloro-1,3-butadiene	4.020	225	147842	10697.7679654	ppb		99

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

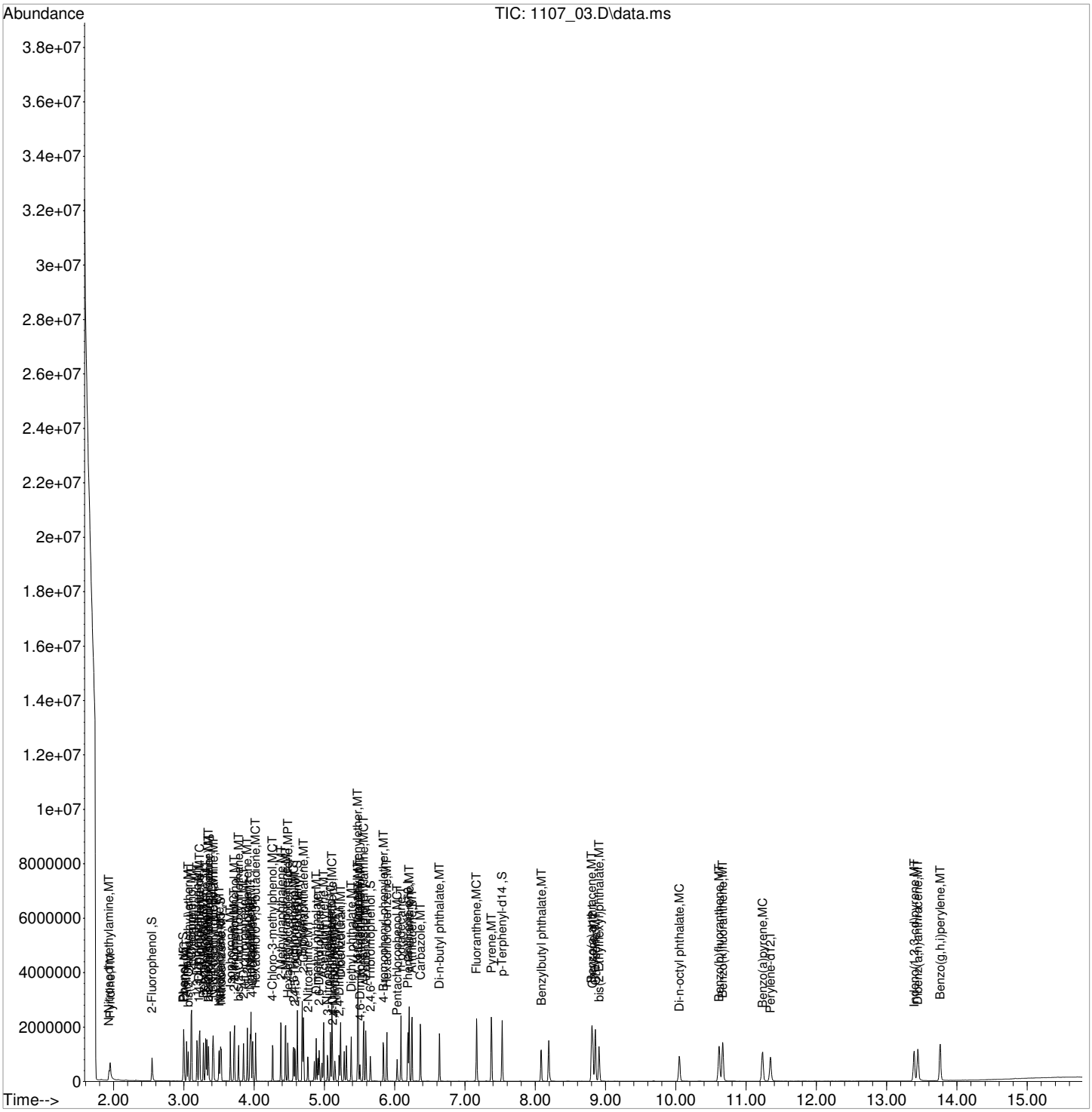
Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.261	107	203665	9760.8244224 ppb		98
41)	2-Methylnaphthalene	4.384	142	522839	10695.1337144 ppb		99
42)	1-Methylnaphthalene	4.449	142	490830	10742.0757082 ppb		99
47)	Hexachlorocyclopentadiene	4.478	237	168176	9653.8660625 ppb		98
48)	2,4,6-Trichlorophenol	4.560	196	156500	10649.3034508 ppb		97
49)	2,4,5-Trichlorophenol	4.584	196	157441	10646.5255118 ppb		99
51)	Biphenyl	4.684	154	627986	10906.4882619 ppb		100
52)	2-Chloronaphthalene	4.701	162	481069	10619.9579446 ppb		98
53)	2-Nitroaniline	4.766	138	154845	10747.5322956 ppb		98
54)	Acenaphthylene	4.989	152	739982	10583.8716250 ppb		100
55)	Dimethyl phthalate	4.883	163	499674	10241.6189464 ppb		93
56)	2,6-Dinitrotoluene	4.925	165	120322	10988.4640128 ppb		92
57)	3-Nitroaniline	5.048	138	133741	11126.4391608 ppb		95
58)	Acenaphthene	5.107	153	488683	10566.2742110 ppb		98
59)	2,4-Dinitrophenol	5.119	184	36695	7434.0128658 ppb	#	1
60)	Dibenzofuran	5.230	168	675144	10554.1833833 ppb		99
61)	2,4-Dinitrotoluene	5.213	165	154635	11255.8779243 ppb		89
63)	4-Nitrophenol	5.148	139	102522	11653.3757759 ppb		88
64)	Fluorene	5.477	166	542491	10375.5699721 ppb		99
65)	4-Chlorophenyl-phenyle...	5.471	204	269356	10354.6755818 ppb		99
66)	Diethyl phthalate	5.383	149	474796	10094.6258614 ppb		97
67)	4-Nitroaniline	5.483	138	136700	12404.6069975 ppb		98
68)	Azobenzene	5.589	77	479781	9706.0235793 ppb		98
71)	4,6-Dinitro-2-methylph...	5.506	198	79112	11331.5231044 ppb		96
72)	N-Nitrosodiphenylamine	5.559	169	465909	10312.6752067 ppb		99
74)	4-Bromophenyl-phenylether	5.841	248	170617	9983.7619427 ppb		90
75)	Hexachlorobenzene	5.888	284	199422	9392.3344418 ppb		99
76)	n-octadecane	6.088	55	71346	9042.5652078 ppb		98
77)	Pentachlorophenol	6.035	266	85667	8576.8298919 ppb		97
78)	Phenanthrene	6.205	178	811387	10571.3400574 ppb		100
79)	Anthracene	6.247	178	834461	10576.4111235 ppb		98
80)	Carbazole	6.364	167	729434	9645.2595011 ppb		100
81)	Di-n-butyl phthalate	6.634	149	796129	8723.9521512 ppb		99
83)	Fluoranthene	7.163	202	883088	9626.1514048 ppb		99
86)	Pyrene	7.375	202	918340	10840.0216396 ppb		99
88)	Benzylbutyl phthalate	8.086	149	321630	9004.8011676 ppb		97
90)	Benzo(a)anthracene	8.803	228	878505	10301.6962046 ppb		98
91)	Chrysene	8.855	228	895482	11068.5566375 ppb		100
92)	bis(2-Ethylhexyl)phtha...	8.908	149	455386	9166.3261096 ppb		99
93)	Di-n-octyl phthalate	10.048	149	723846	8611.4357081 ppb		99
95)	Benzo(b)fluoranthene	10.618	252	899246	10722.2047012 ppb		99
96)	Benzo(k)fluoranthene	10.665	252	934507	11285.0638638 ppb		97
97)	Benzo(a)pyrene	11.235	252	751592	10319.7651609 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.391	276	699134	9538.6898269 ppb		98
99)	Dibenz(a,h)anthracene	13.444	278	714604	9520.9087451 ppb		97
100)	Benzo(g,h,i)perylene	13.761	276	802727	10772.3378691 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_03.D
Acq On : 7 Nov 2022 8:05 am
Operator : 3545
Sample : ICV SVMS 10K PPB 22K02952 exp 1/13/23
Misc : SVMS CAL ISTD 22K02941 exp 05/02/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

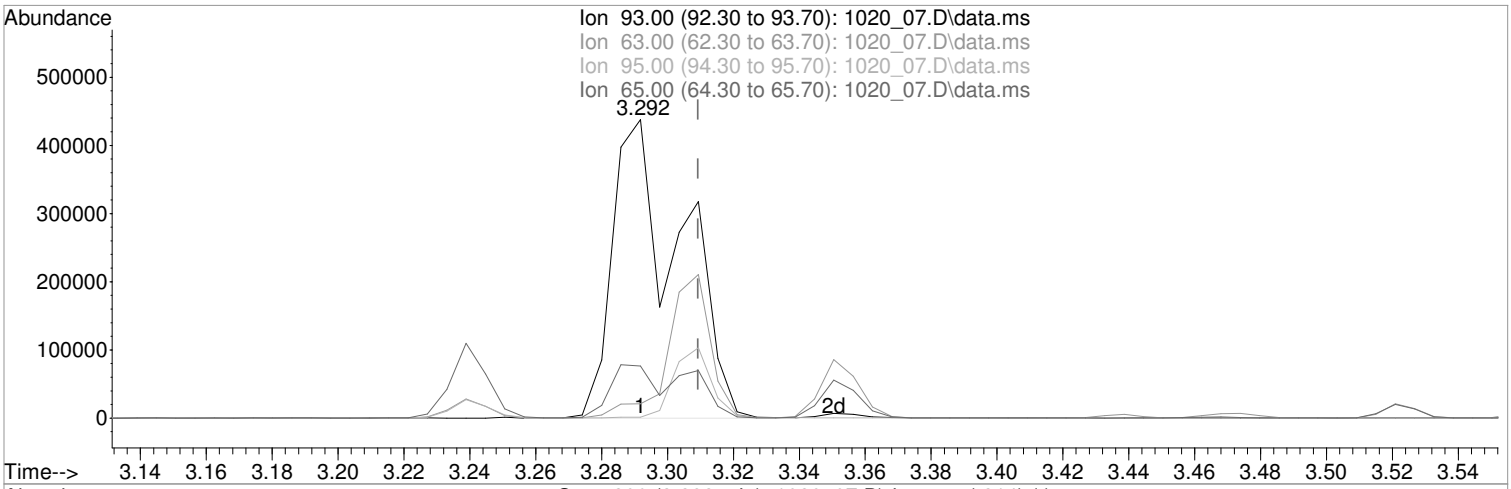
Quant Time: Nov 08 12:37:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

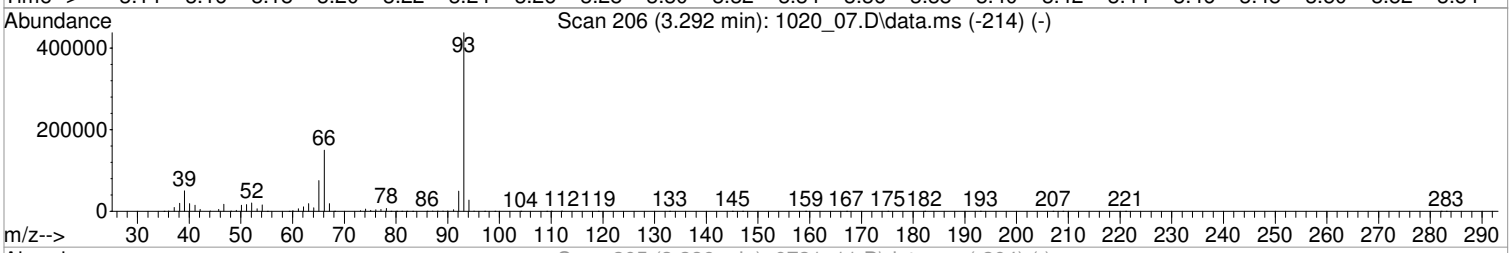


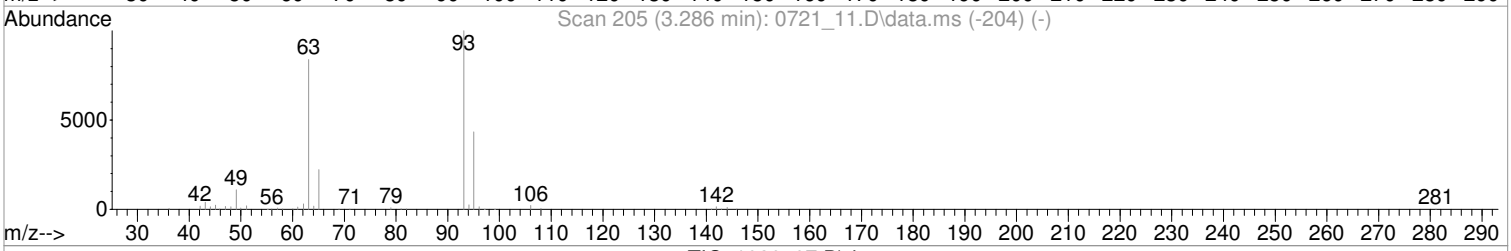
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 25778.8285603 ppb

Qvalue = 40

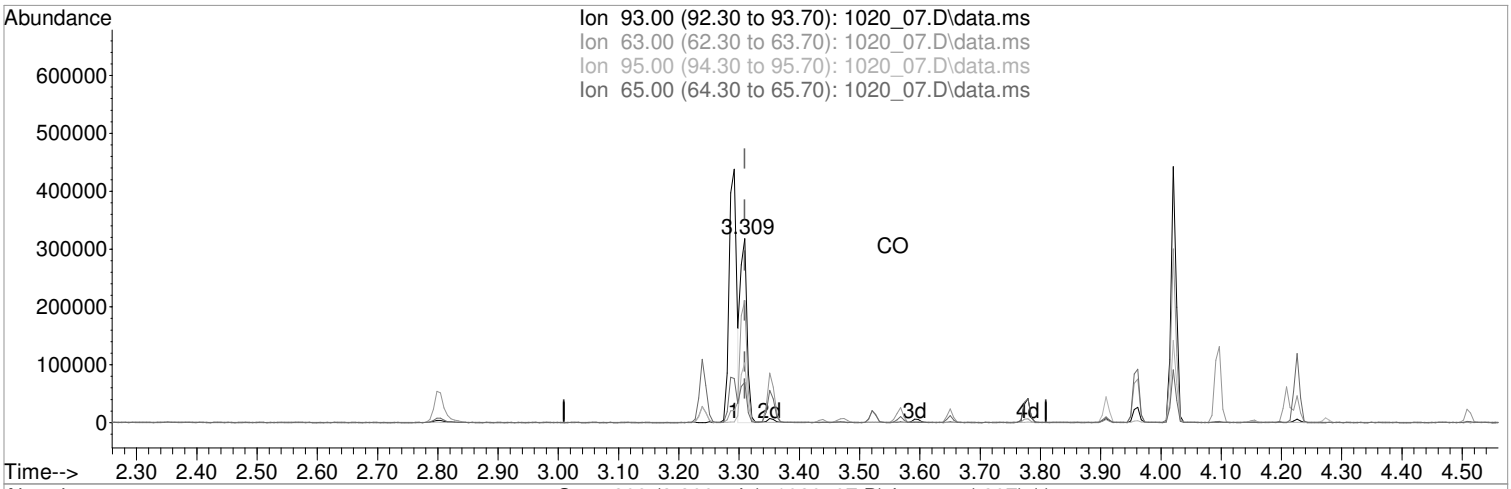
response 626954

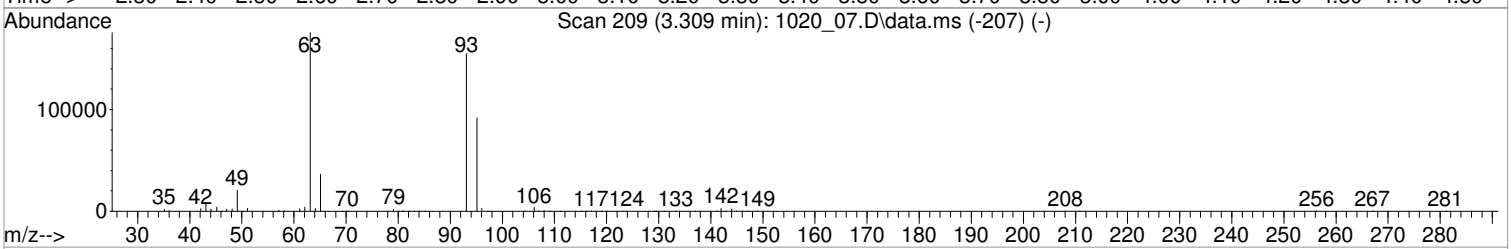
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.71#
95.00	32.50	0.14#
65.00	21.90	17.11

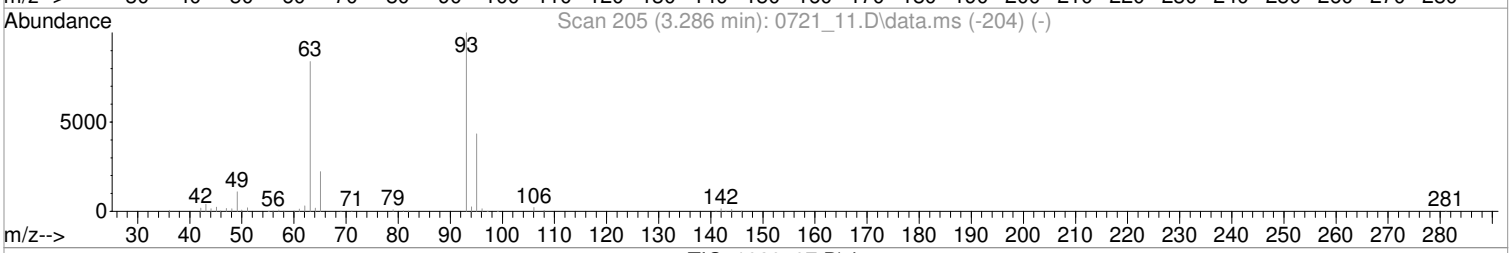
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (0.000) 10000.0000000 ppb m

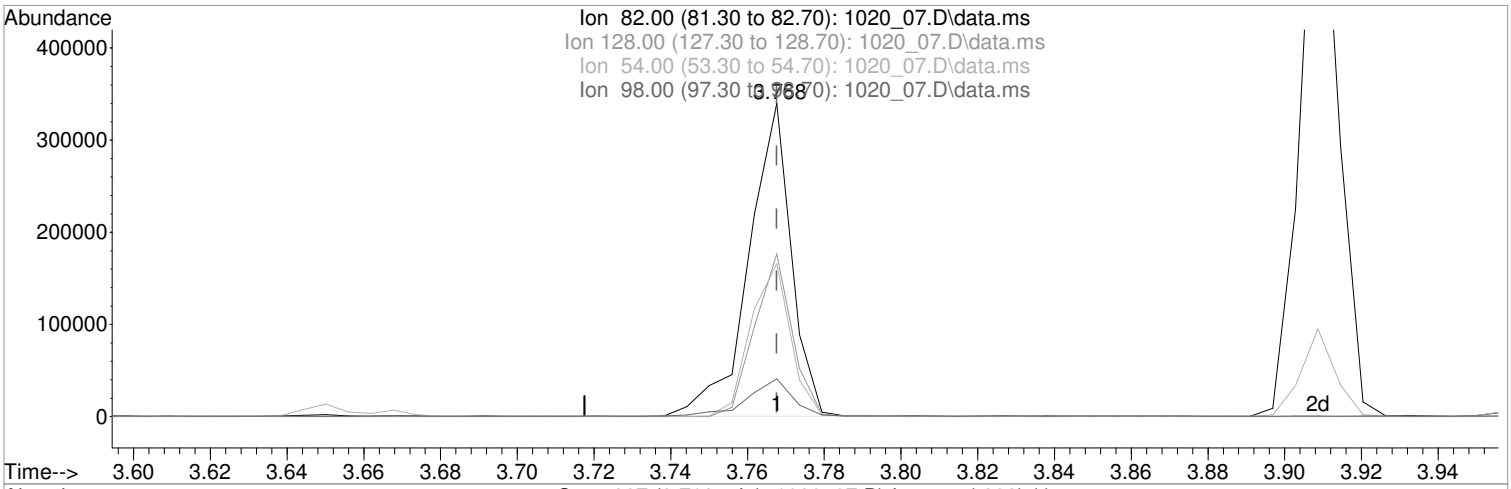
response 243205

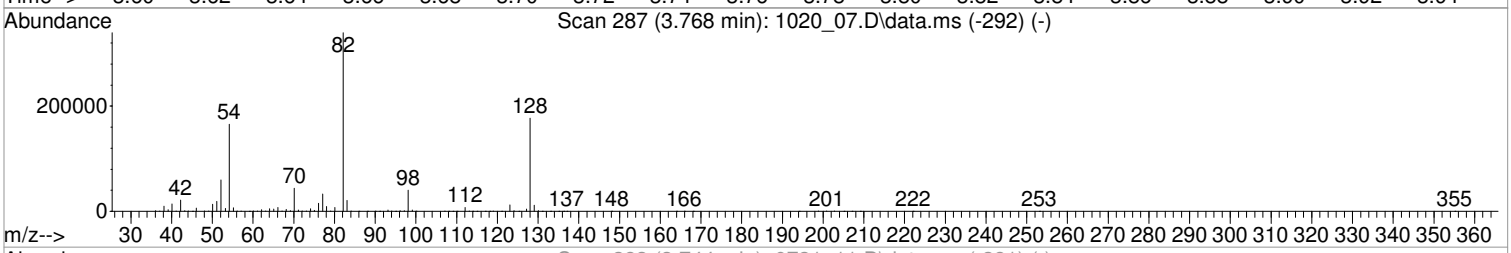
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	66.34
95.00	32.50	32.51
65.00	21.90	21.94

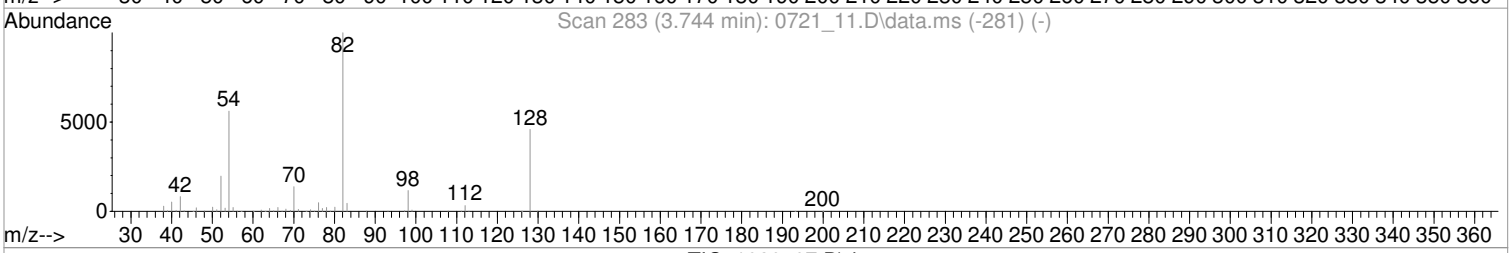
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 11319.5413456 ppb

Qvalue = 100

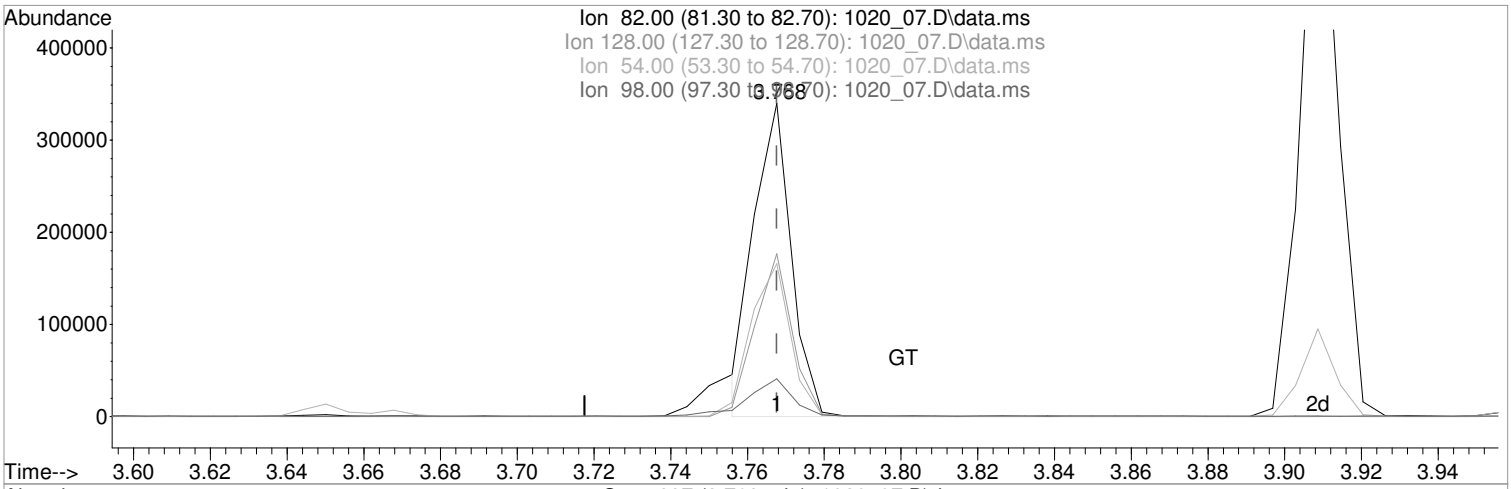
response 261212

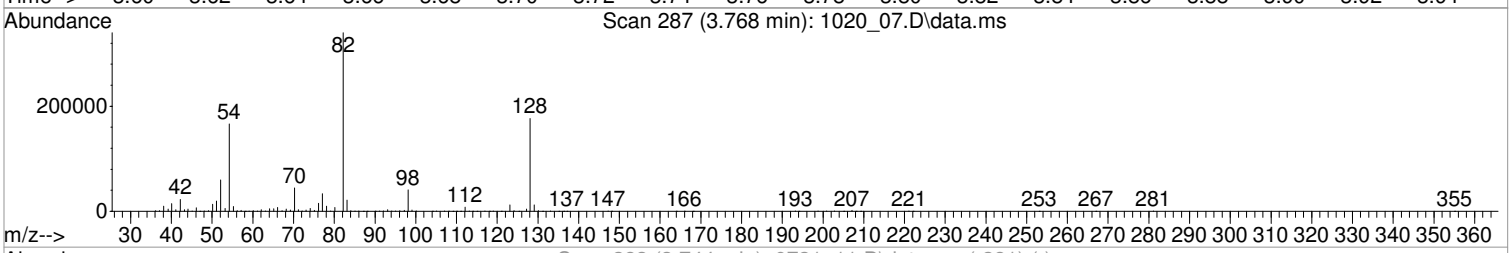
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	52.09
54.00	48.90	48.84
98.00	12.10	11.96

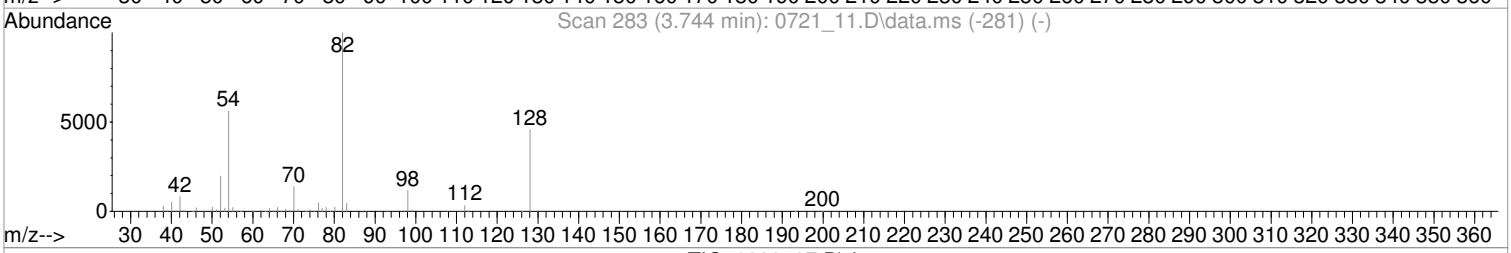
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 10009.1436198 ppb m

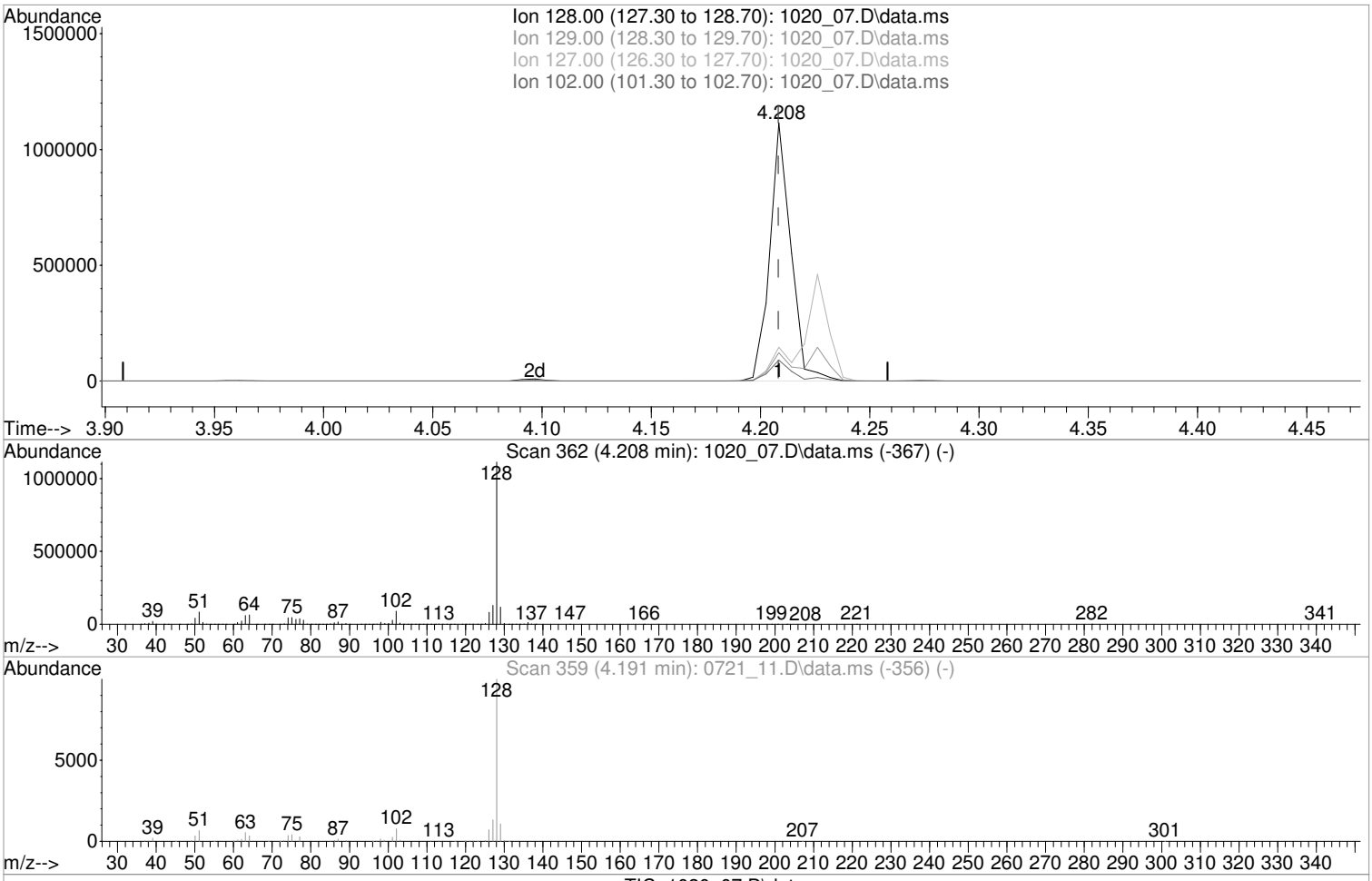
response 230973

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	52.01
54.00	48.90	48.87
98.00	12.10	12.08

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration



TIC: 1020_07.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 10263.2559669 ppb

Qvalue = 100

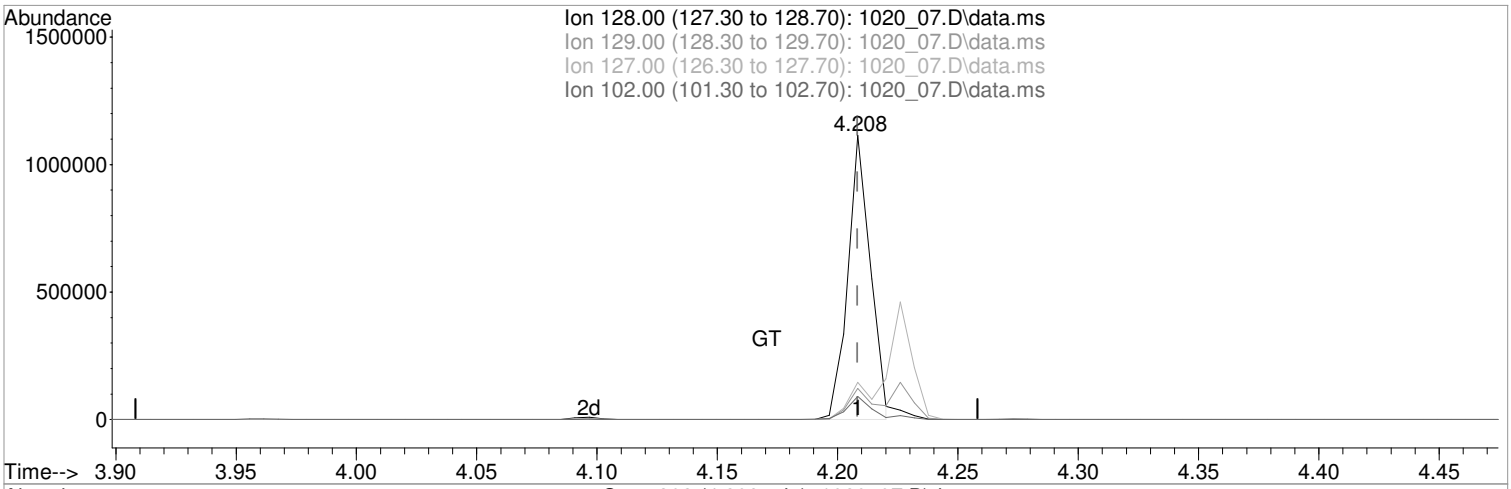
response 749074

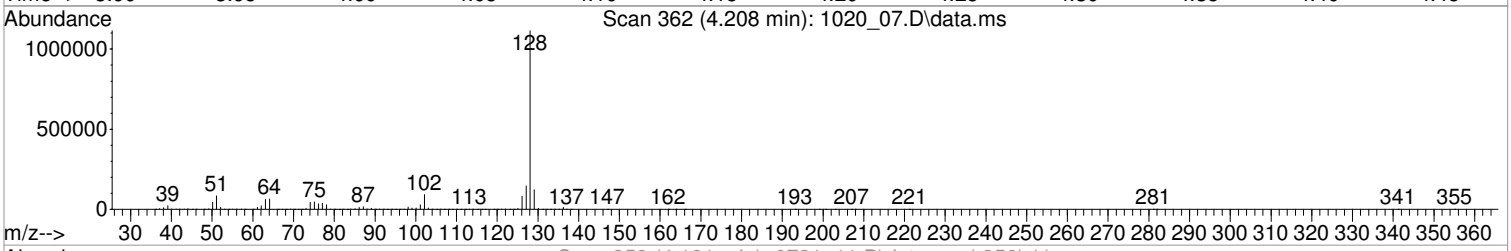
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.95
127.00	13.10	13.14
102.00	8.20	8.19

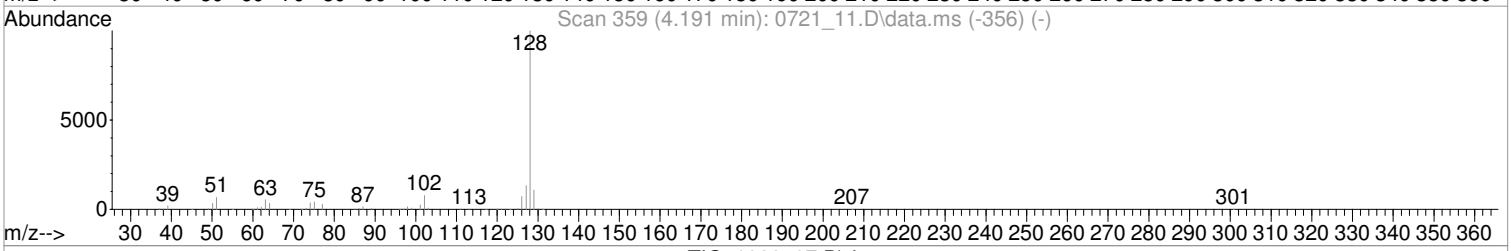
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 9995.0949497 ppb m

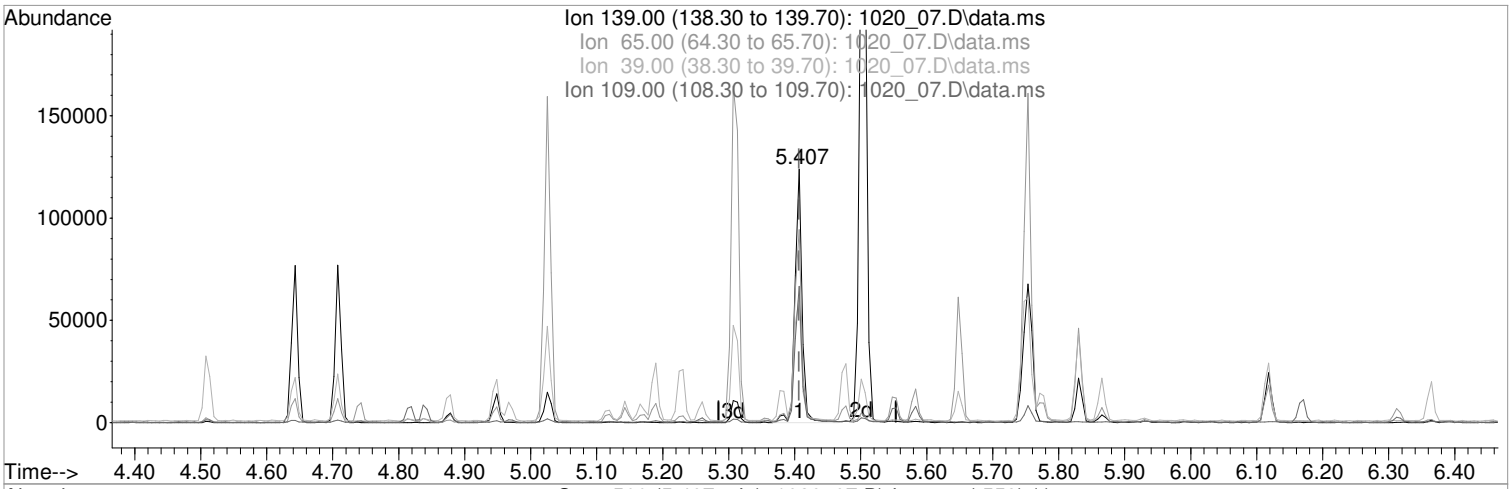
response 729502

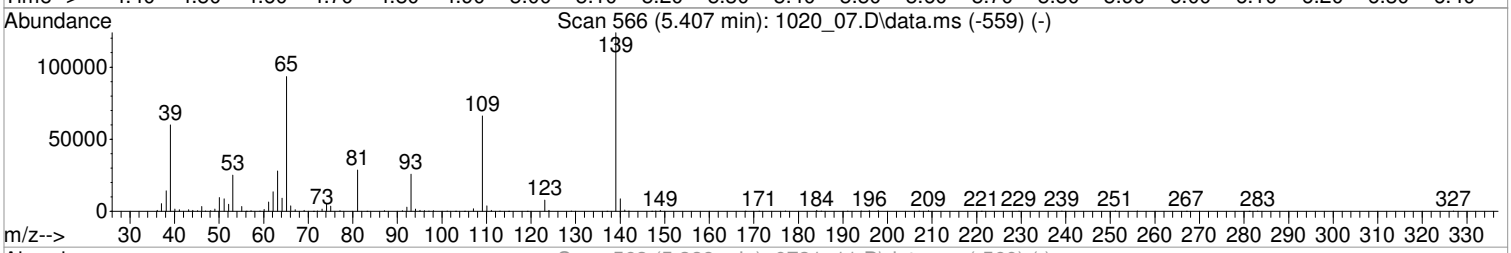
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.98
127.00	13.10	13.14
102.00	8.20	8.19

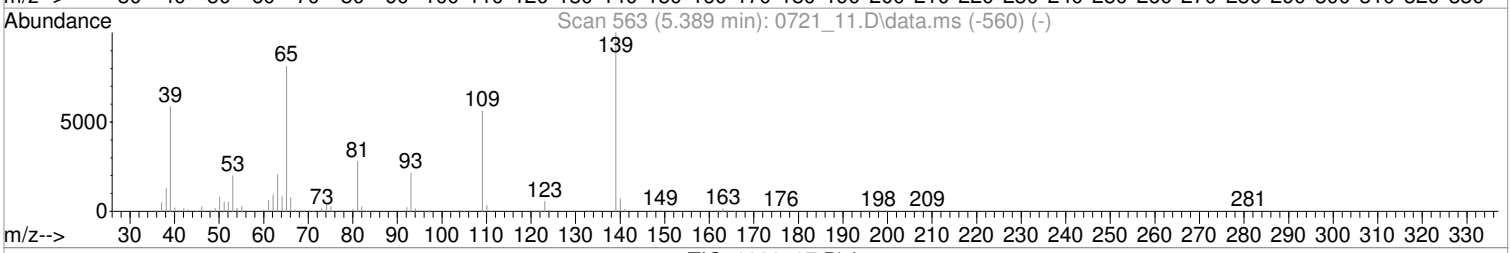
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (0.000) 10337.2476172 ppb

Qvalue = 99

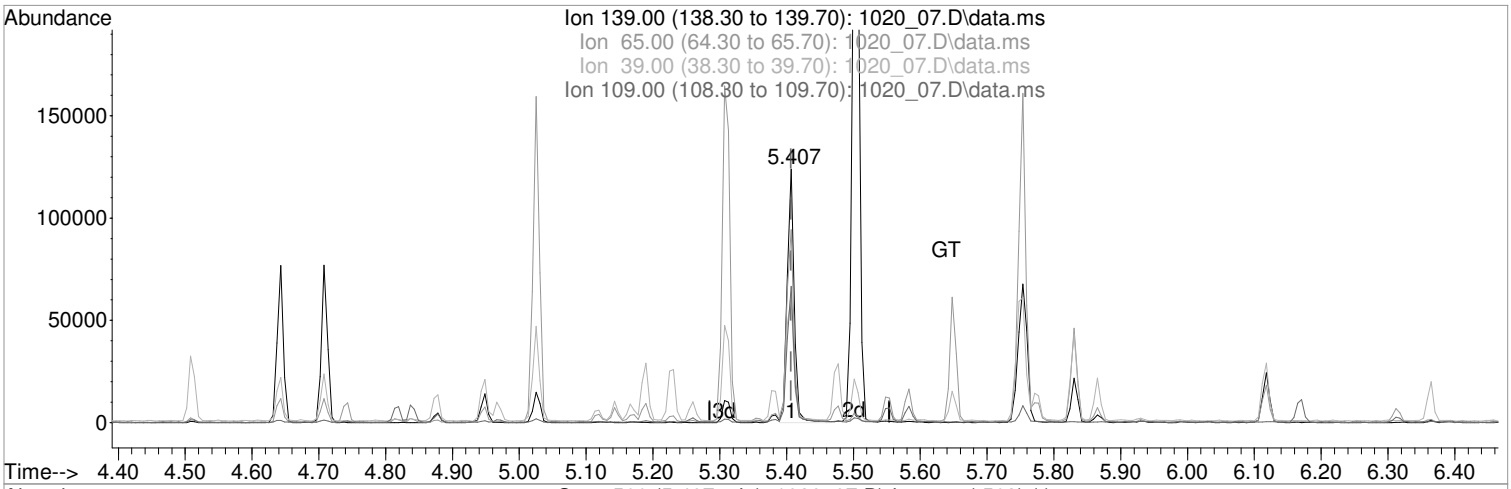
response 93488

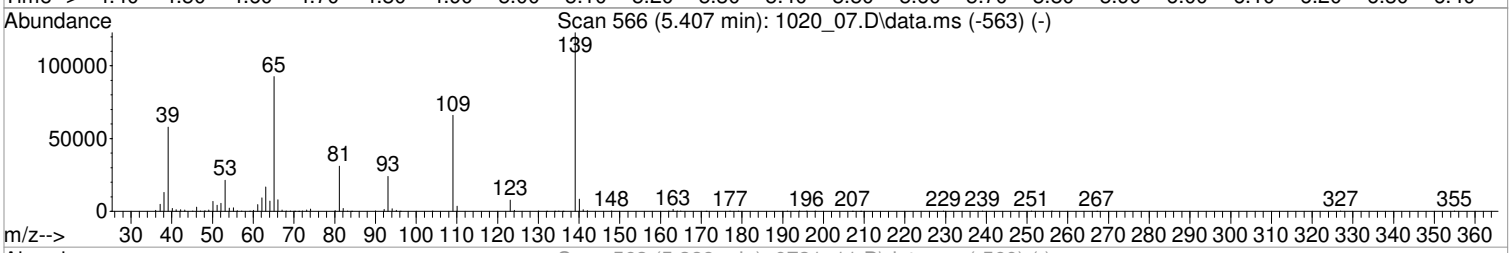
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	75.49
39.00	49.40	48.46
109.00	53.80	53.49

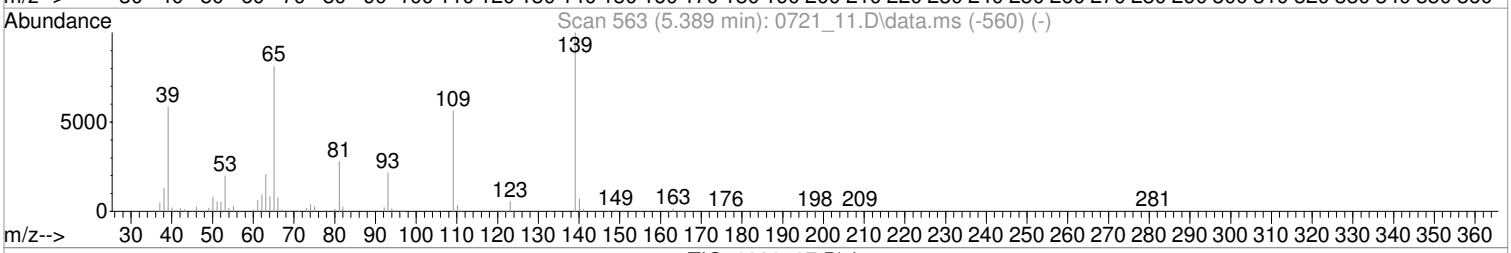
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (0.000) 10000.0000000 ppb m

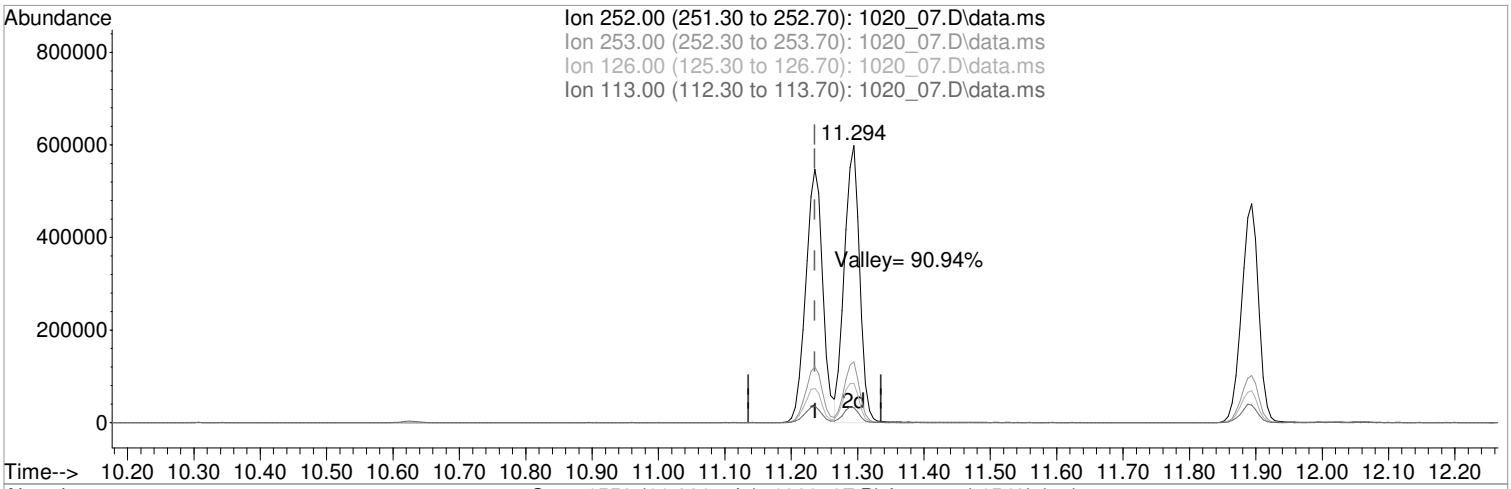
response 90438

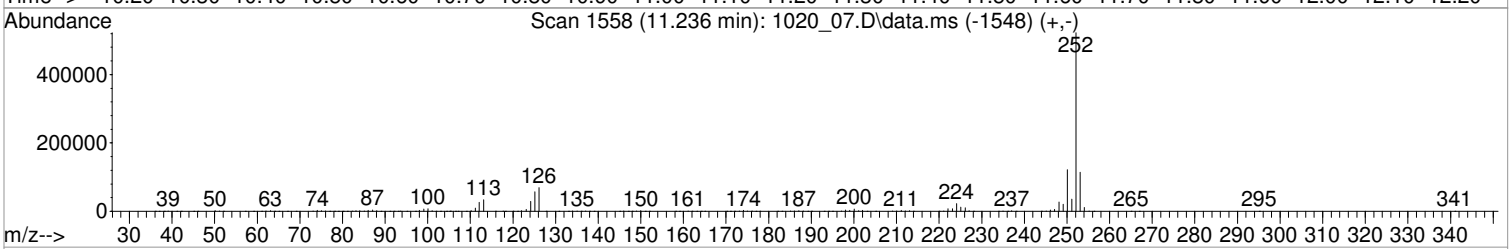
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	76.11
39.00	49.40	49.37
109.00	53.80	53.77

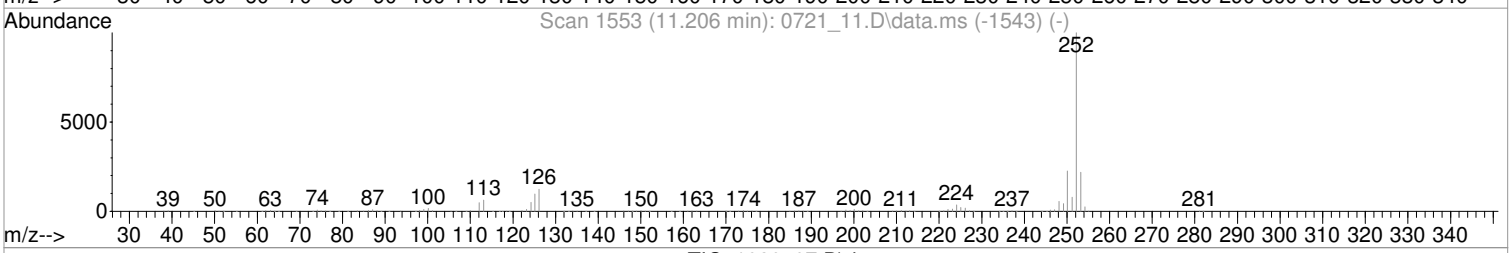
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_07.D
Acq On : 20 Oct 2022 8:27 pm
Operator : 3545
Sample : MSTD SVMS 10K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 6 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:37 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:21:28 2022
Response via : Initial Calibration







TIC: 1020_07.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.236min (0.000) 10000.0000000 ppb

Qvalue = 100

response 980780

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	21.92
126.00	13.40	13.35
113.00	6.50	6.48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	146392	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	557868	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	290493	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.476	188	533975	8000.0000000	ppb	0.00
84) Chrysene-d12	9.302	240	611128	8000.0000000	ppb	0.00
94) Perylene-d12	12.011	264	660958	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	486732	18597.0669855	ppb	0.00
Spiked Amount 20000.000				Recovery = 92.99%		
7) Phenol-d5	3.233	99	594964	18934.2113971	ppb	0.00
Spiked Amount 20000.000				Recovery = 94.67%		
24) Nitrobenzene-d5	3.768	82	459916m	19259.6099888	ppb	0.00
Spiked Amount 10000.000				Recovery = 192.60%		
50) 2-Fluorobiphenyl	4.878	172	990081	18214.4115983	ppb	0.00
Spiked Amount 10000.000				Recovery = 182.14%		
73) 2,4,6-Tribromophenol	5.936	330	178452	22073.6289577	ppb	0.00
Spiked Amount 20000.000				Recovery = 110.37%		
87) p-Terphenyl-d14	7.892	244	1664979	19606.4088358	ppb	0.00
Spiked Amount 10000.000				Recovery = 196.06%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	521980	18586.1640341	ppb	98
3) N-Nitrosodimethylamine	2.240	42	243470	17729.8471453	ppb	97
5) Aniline	3.292	66	269327	18720.8591055	ppb	99
6) bis(2-Chloroethyl)ether	3.309	93	485140m	19241.0186232	ppb	
8) Phenol	3.239	94	611734	18836.0300875	ppb	99
10) 2-Chlorophenol	3.356	128	507405	18639.1308545	ppb	93
11) n-Decane	3.350	41	263478	18248.0909284	ppb	100
12) 1,3-Dichlorobenzene	3.439	146	557732	18910.8960767	ppb	99
13) 1,4-Dichlorobenzene	3.474	146	560096	18595.7808819	ppb	99
14) Benzyl Alcohol	3.521	79	383976	19131.6910075	ppb	100
15) 1,2-Dichlorobenzene	3.562	146	530001	18815.6319997	ppb	99
16) bis(2-Chloroisopropyl)...	3.597	121	169534	17334.2753235	ppb	95
17) 2,2-oxybis(1-chloropro...	3.597	121	169534	17334.2753235	ppb	95
18) 2-Methylphenol	3.568	108	443890	18373.0930507	ppb	99
19) Hexachloroethane	3.750	117	203255	18417.7267295	ppb	97
20) N-Nitrosodi-n-propylamine	3.668	70	324069	18878.0370122	ppb	98
21) 3&4-Methyl phenol	3.650	107	504937	18685.4779014	ppb	98
25) Nitrobenzene	3.779	77	471851	19044.2015928	ppb	98
26) Isophorone	3.909	82	864854	19039.4998952	ppb	98
27) 2-Nitrophenol	3.962	139	251670	20574.9719577	ppb	99
28) 2,4-Dimethylphenol	3.962	107	456802	18698.5149270	ppb	97
29) bis(2-Chlorethoxy)methane	4.020	93	528419	18551.1119222	ppb	99
30) 2,4-Dichlorophenol	4.097	162	396810	19100.9655712	ppb	97
32) 1,2,4-Trichlorobenzene	4.155	180	445518	18718.8851765	ppb	99
34) Naphthalene	4.208	128	1409946m	18212.5365069	ppb	
35) 4-Chloroaniline	4.226	65	159995	18094.8310020	ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	259249	18518.2299974	ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

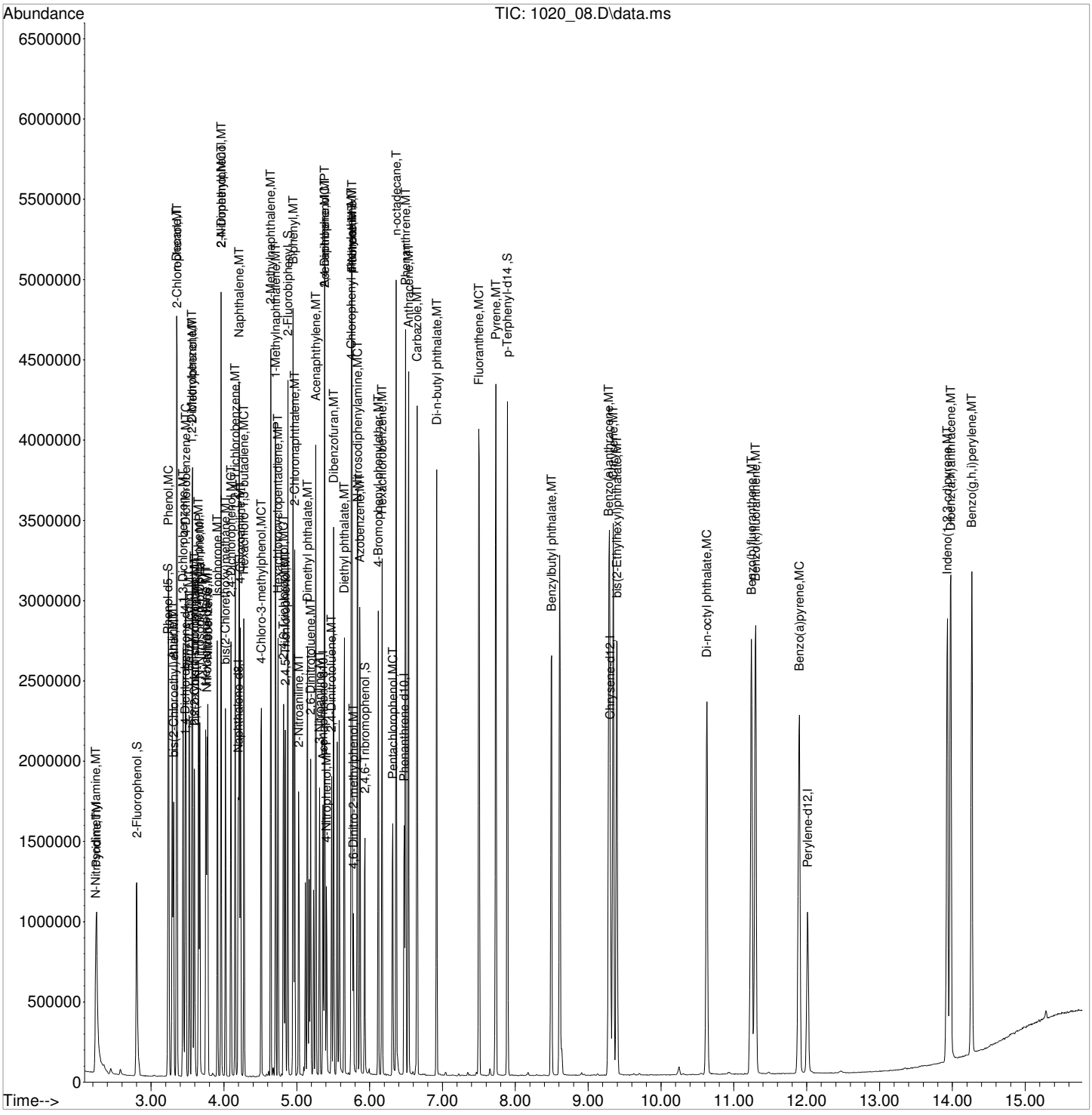
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	388546	19001.9935241	ppb		91
41)	2-Methylnaphthalene	4.643	142	917784	18910.9398940	ppb		100
42)	1-Methylnaphthalene	4.708	142	854732	18812.7298121	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	338252	18898.5148675	ppb		99
48)	2,4,6-Trichlorophenol	4.819	196	280527	19164.1329266	ppb		98
49)	2,4,5-Trichlorophenol	4.843	196	288415	20445.3657156	ppb		98
51)	Biphenyl	4.949	154	1079662	18259.6321448	ppb		100
52)	2-Chloronaphthalene	4.972	162	850489	18337.9625791	ppb		97
53)	2-Nitroaniline	5.025	138	291687	22157.1131973	ppb		98
54)	Acenaphthylene	5.260	152	1331693	19031.8102822	ppb		100
55)	Dimethyl phthalate	5.148	163	901453	18638.9588013	ppb		95
56)	2,6-Dinitrotoluene	5.190	165	216306	21297.0291591	ppb		93
57)	3-Nitroaniline	5.313	138	234473	21025.3261635	ppb		93
58)	Acenaphthene	5.383	153	861027	18260.0185108	ppb		97
59)	2,4-Dinitrophenol	5.383	184	91320	28373.6388907	ppb	#	84
60)	Dibenzofuran	5.507	168	1193392	18233.3153222	ppb		100
61)	2,4-Dinitrotoluene	5.477	165	281291	22671.8308134	ppb		95
63)	4-Nitrophenol	5.407	139	171032m	20665.4313909	ppb		
64)	Fluorene	5.759	166	963737	17914.8629942	ppb		100
65)	4-Chlorophenyl-phenyle...	5.748	204	481722	17996.1159270	ppb		98
66)	Diethyl phthalate	5.654	149	858228	17114.5450166	ppb		97
67)	4-Nitroaniline	5.759	138	157128	13167.6342823	ppb		99
68)	Azobenzene	5.865	77	925392	18340.0028862	ppb		99
71)	4,6-Dinitro-2-methylph...	5.777	198	116581	24792.2000896	ppb		90
72)	N-Nitrosodiphenylamine	5.836	169	843113	19702.5567050	ppb		99
74)	4-Bromophenyl-phenylether	6.118	248	314958	19287.7895890	ppb		96
75)	Hexachlorobenzene	6.171	284	384807	18996.7210613	ppb		99
76)	n-octadecane	6.365	55	143223	19288.6221755	ppb		99
77)	Pentachlorophenol	6.318	266	187149	23342.4129619	ppb		98
78)	Phenanthrene	6.494	178	1383809	18355.2845813	ppb		99
79)	Anthracene	6.535	178	1458732	19221.3710134	ppb		99
80)	Carbazole	6.653	167	1420180	19880.8746860	ppb		100
81)	Di-n-butyl phthalate	6.923	149	1730935	20547.3401959	ppb		99
83)	Fluoranthene	7.499	202	1734277	20334.6120027	ppb		100
86)	Pyrene	7.734	202	1801690	19045.1942429	ppb		100
88)	Benzylbutyl phthalate	8.497	149	767630	20108.8157516	ppb		96
90)	Benzo(a)anthracene	9.285	228	1788897	19018.6894258	ppb		99
91)	Chrysene	9.344	228	1702286	19017.4814761	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.396	149	1076773	20229.1879325	ppb		98
93)	Di-n-octyl phthalate	10.630	149	1840928	21150.1095852	ppb		99
95)	Benzo(b)fluoranthene	11.241	252	1918385	19423.5894754	ppb		99
96)	Benzo(k)fluoranthene	11.300	252	1933905	19796.2928841	ppb		99
97)	Benzo(a)pyrene	11.899	252	1690033	19757.8883935	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.932	276	1689184	18420.5576364	ppb		99
99)	Dibenz(a,h)anthracene	13.979	278	1725965	18544.0426614	ppb		99
100)	Benzo(g,h,i)perylene	14.267	276	1648877	17046.6658523	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

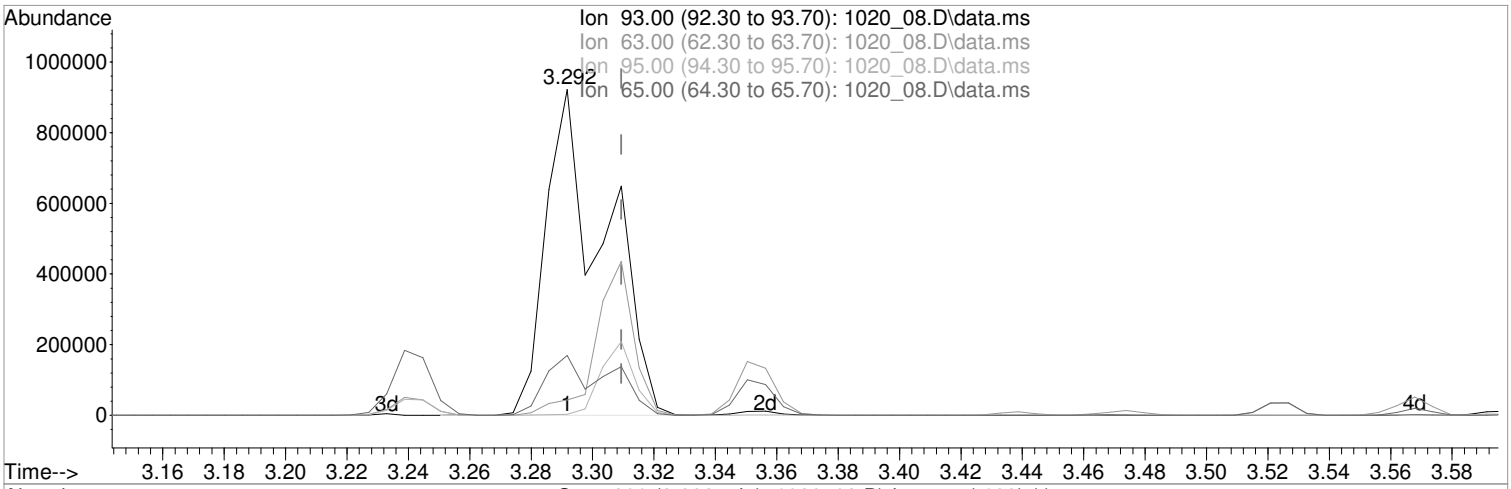
Quant Time: Oct 21 08:43:24 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration

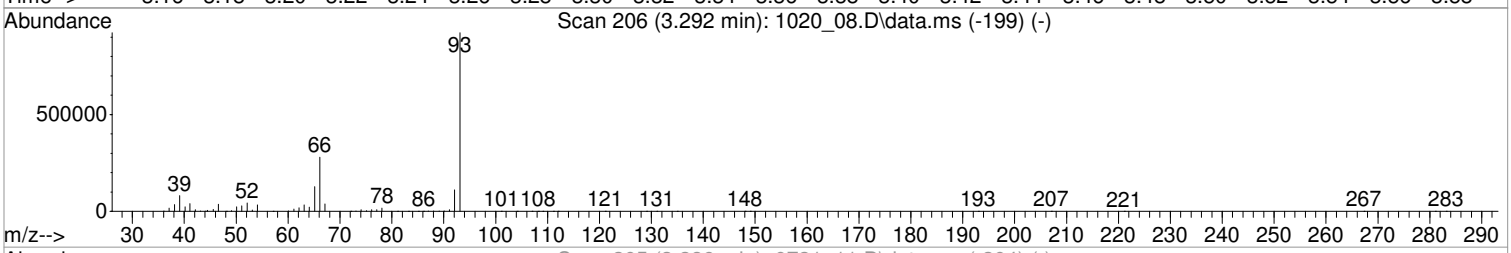


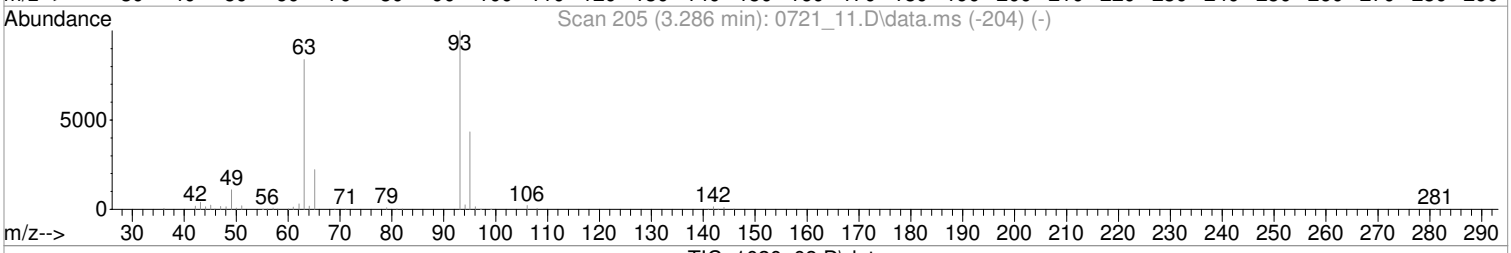
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 48493.7602442 ppb

Qvalue = 40

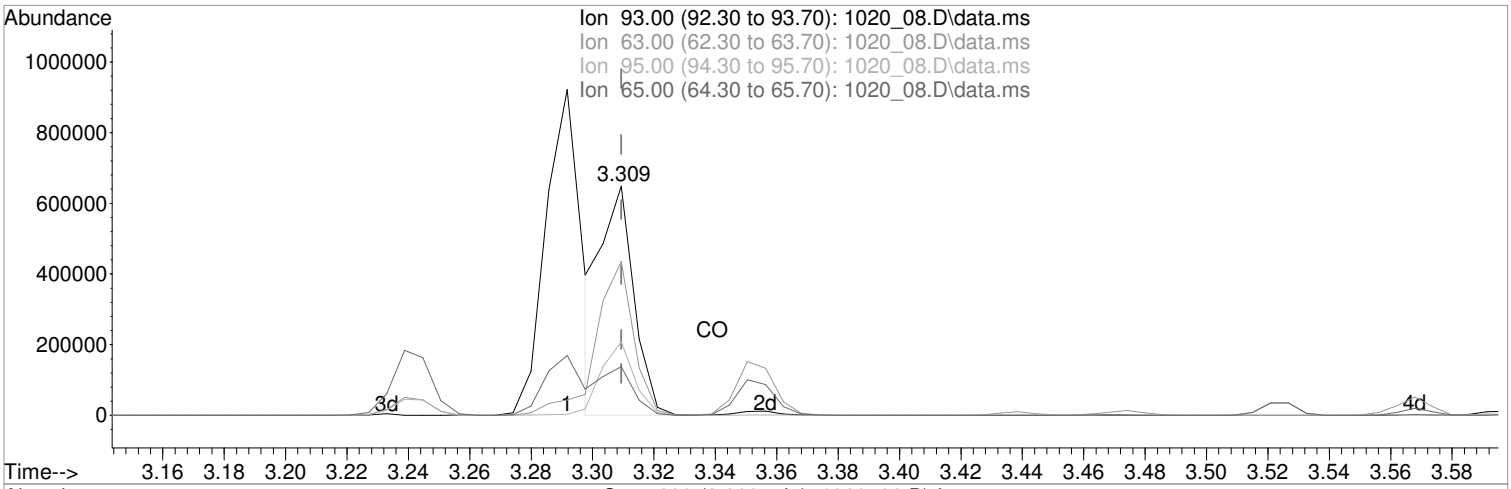
response 1222714

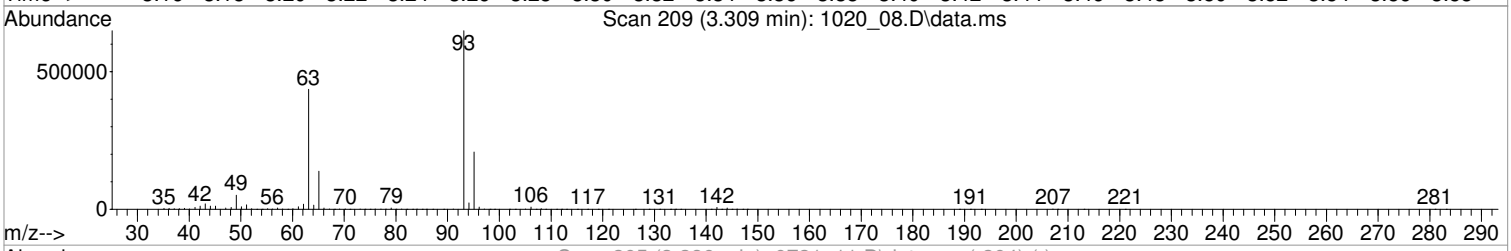
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.38#
95.00	32.50	0.23#
65.00	21.90	18.09

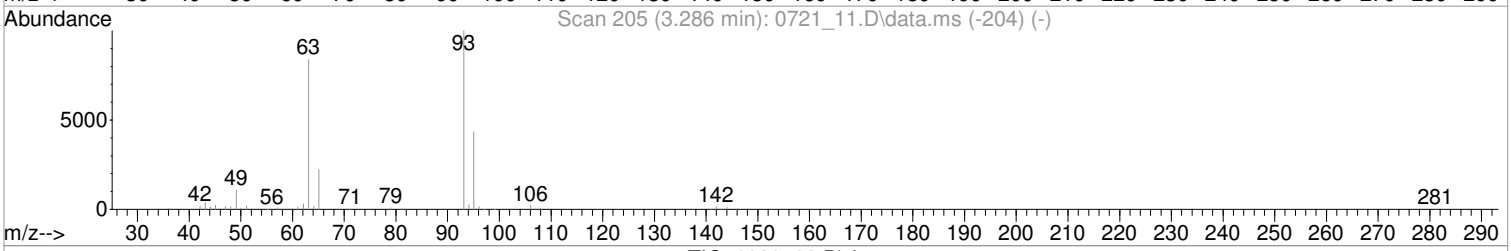
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (-0.000) 19241.0186232 ppb m

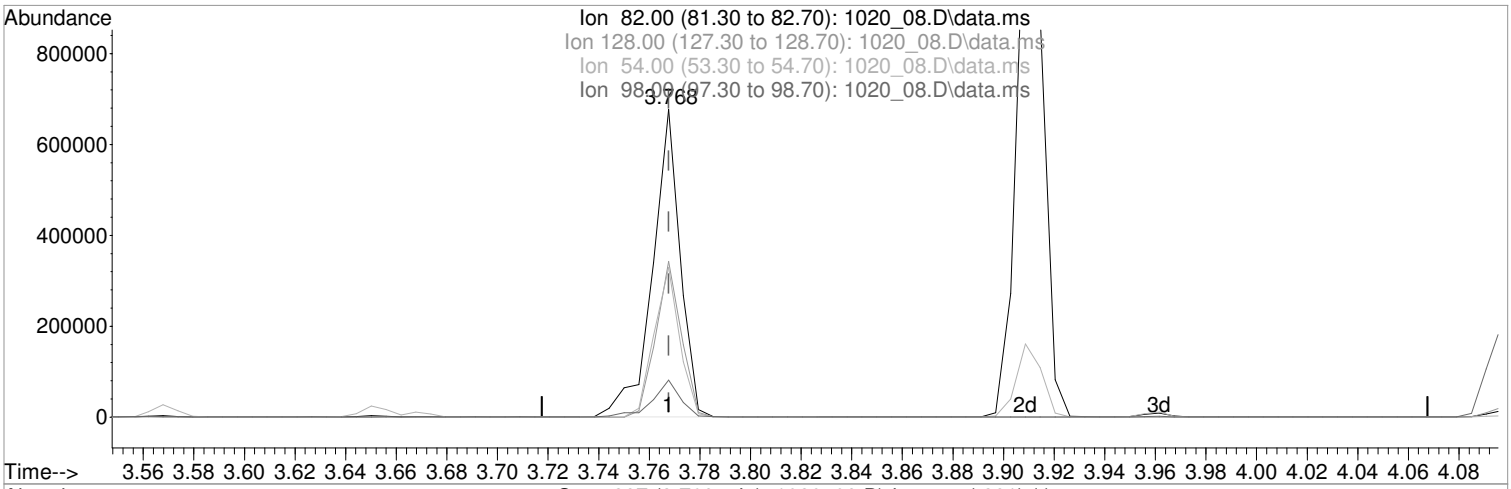
response 485140

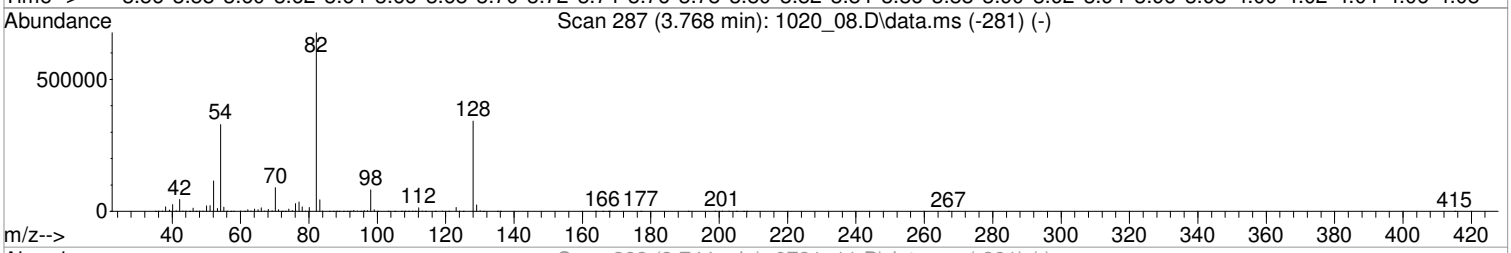
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	67.14
95.00	32.50	32.13
65.00	21.90	21.26

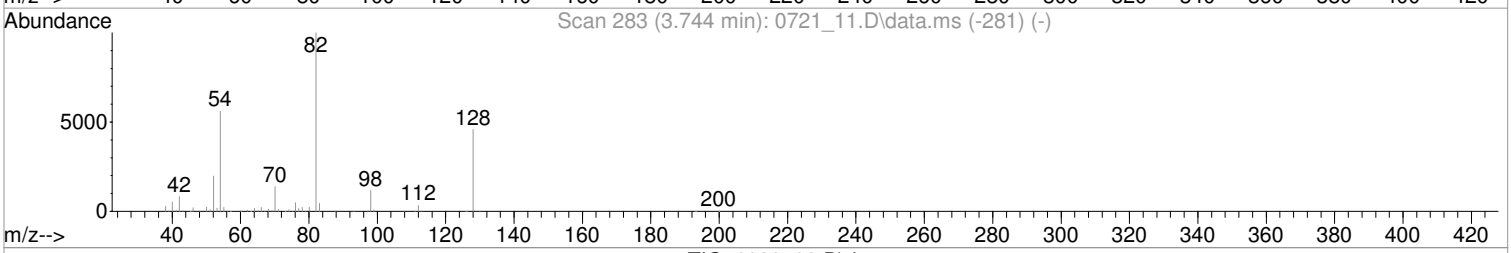
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 21545.7244717 ppb

Qvalue = 99

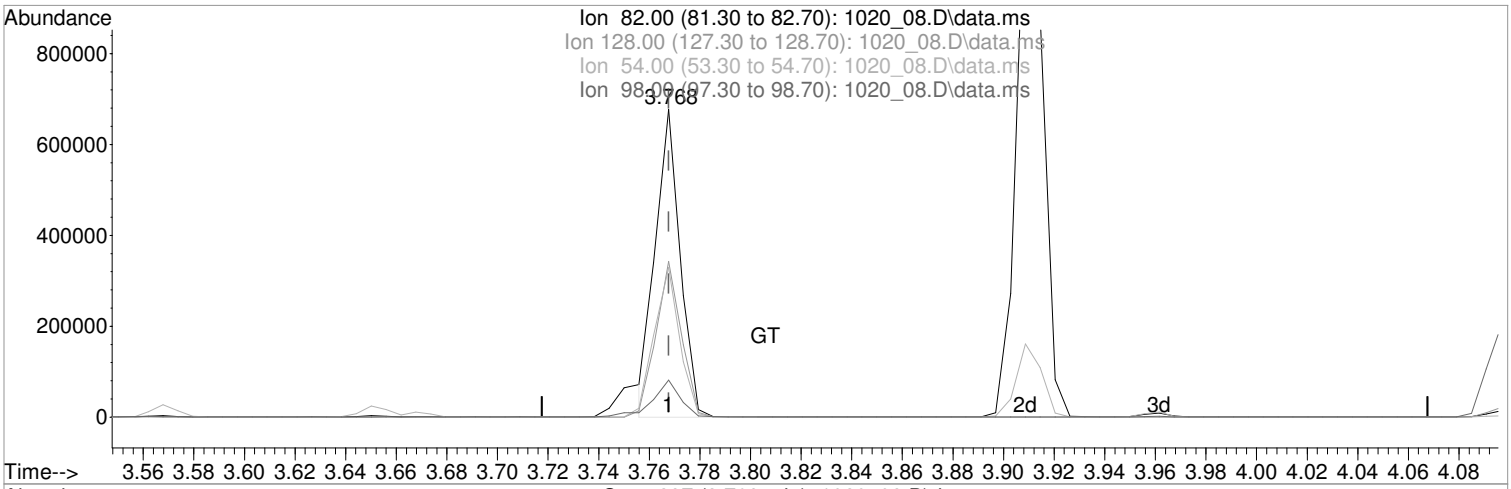
response 514508

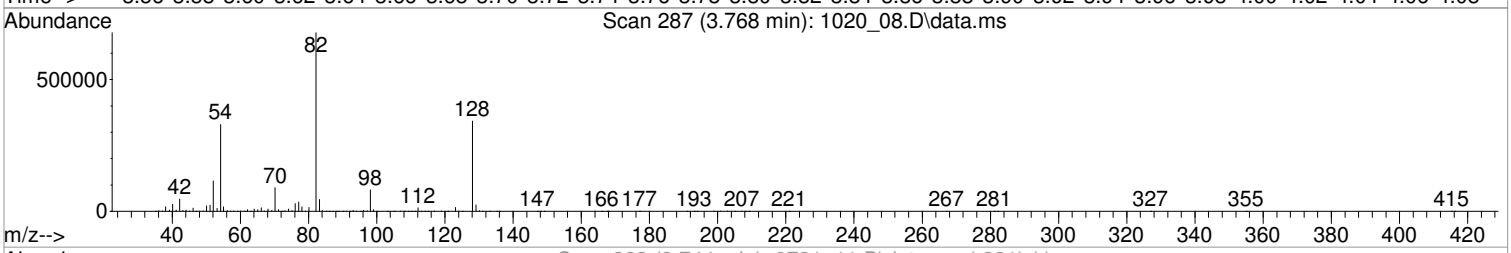
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.61
54.00	48.90	48.58
98.00	12.10	11.93

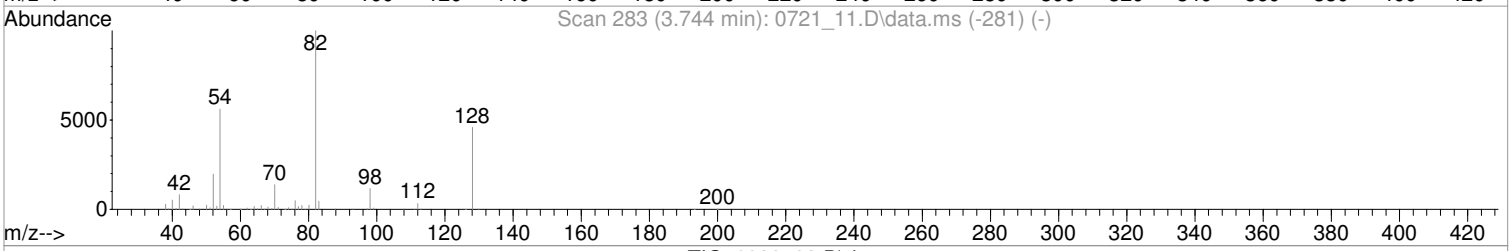
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (-0.000) 19259.6099888 ppb m

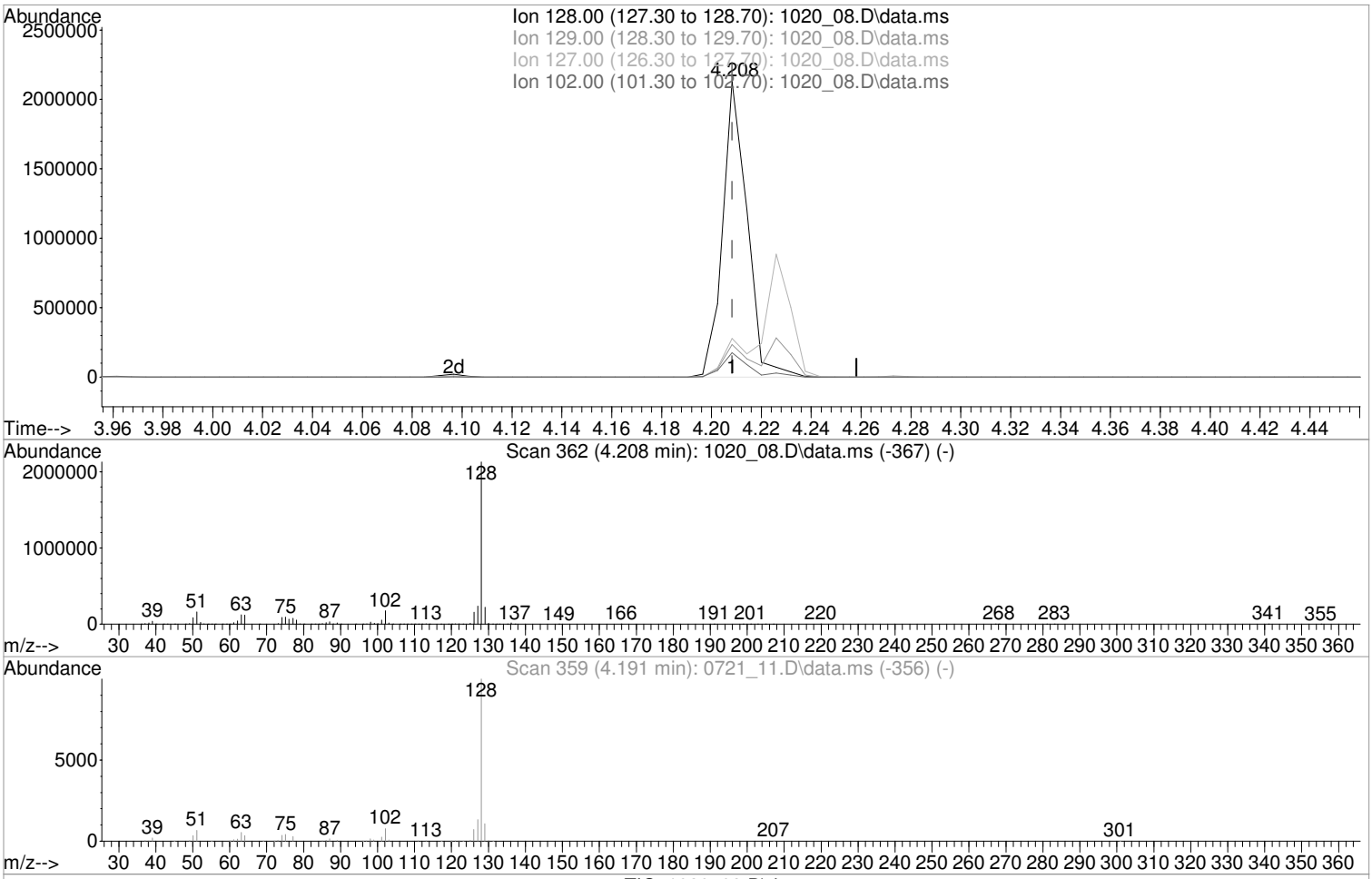
response 459916

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	50.59
54.00	48.90	48.59
98.00	12.10	12.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration



TIC: 1020_08.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 18718.0635474 ppb

Qvalue = 100

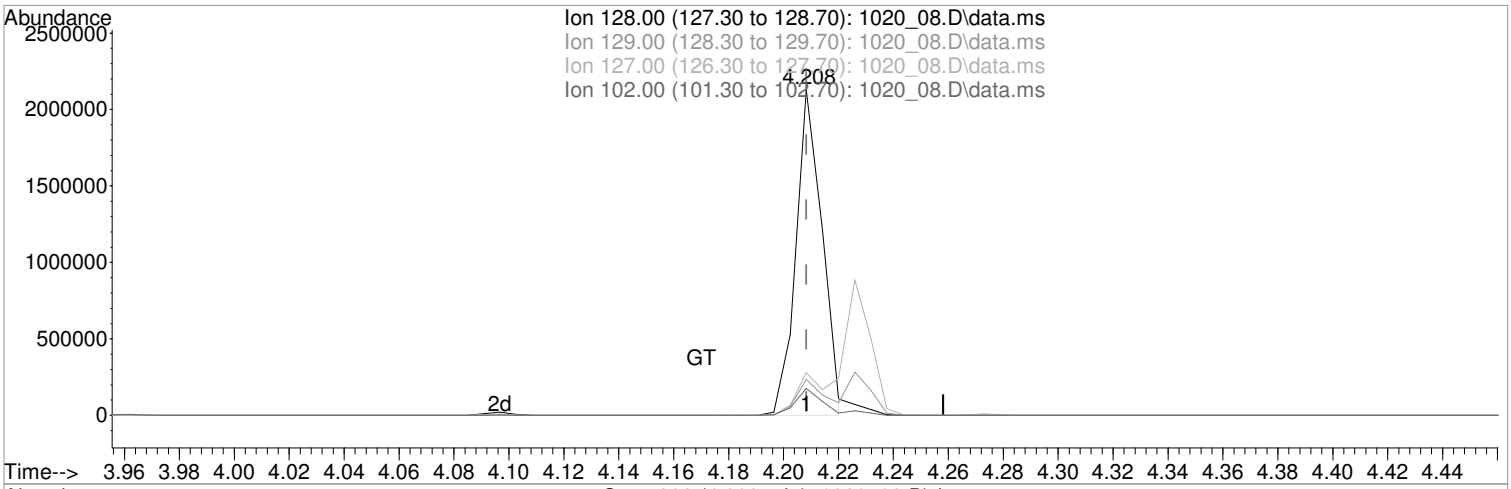
response 1449082

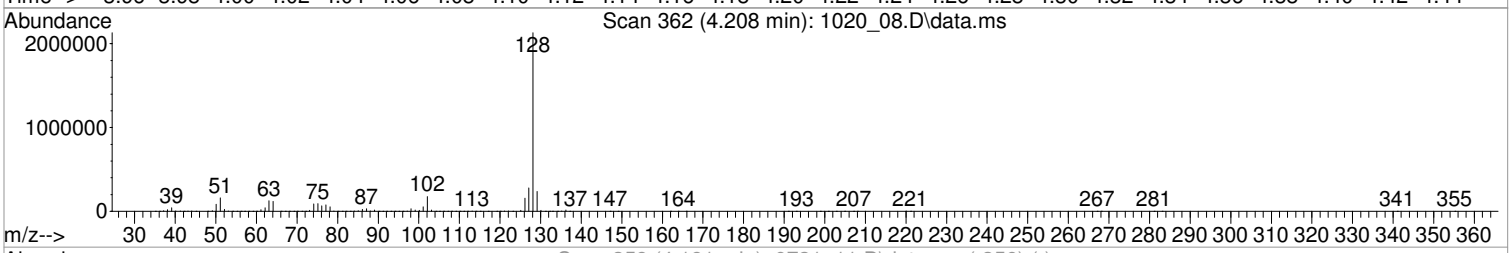
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.05
127.00	13.10	13.06
102.00	8.20	8.29

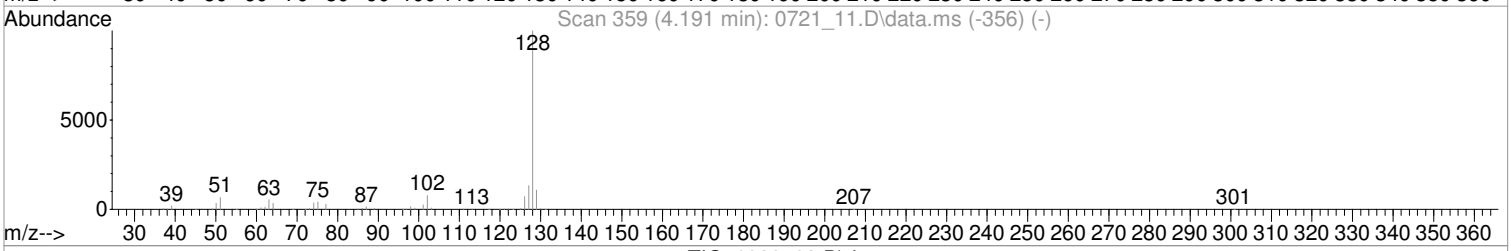
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(34) Naphthalene (MT)

4.208min (-0.000) 18212.5365069 ppb m

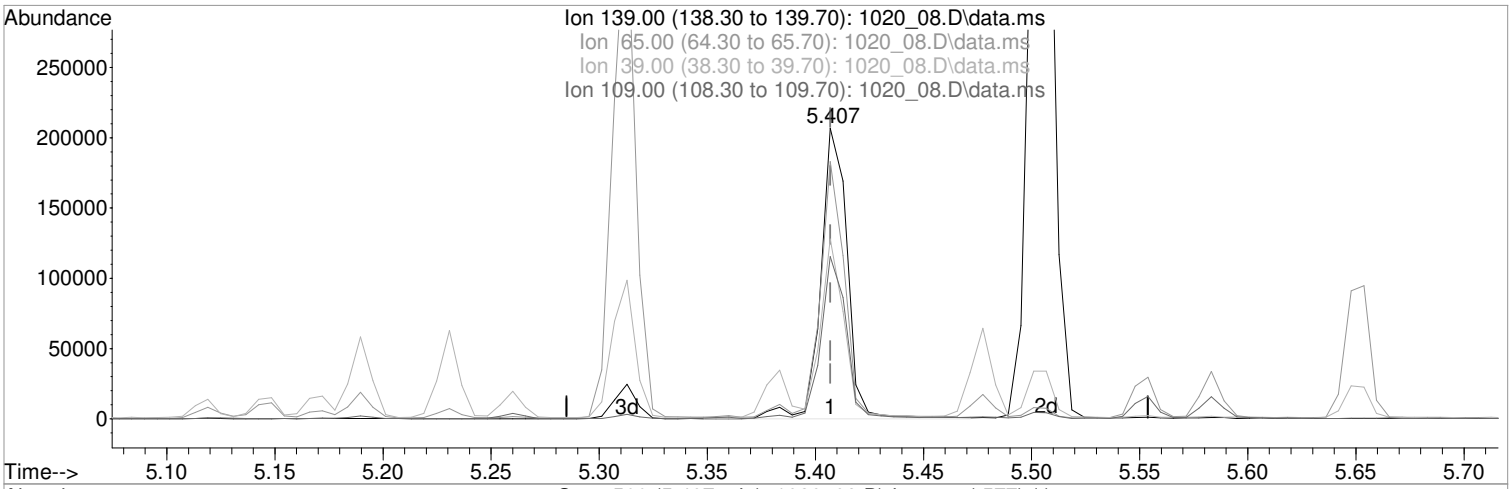
response 1409946

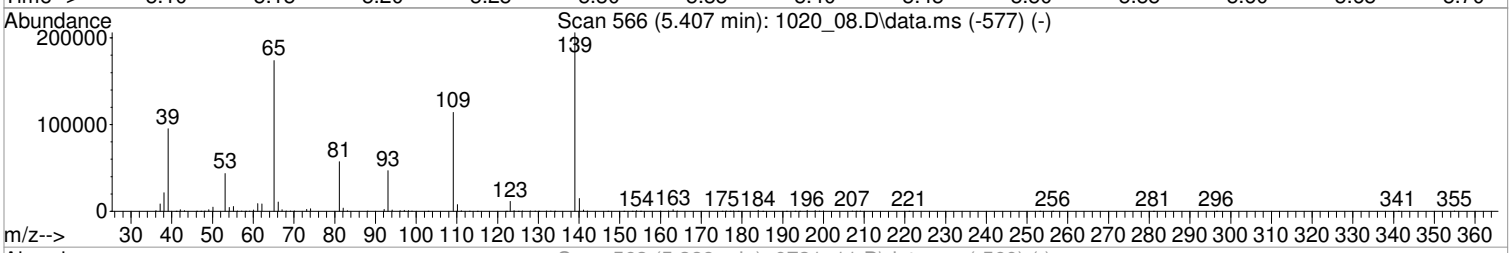
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.06
127.00	13.10	13.06
102.00	8.20	8.29

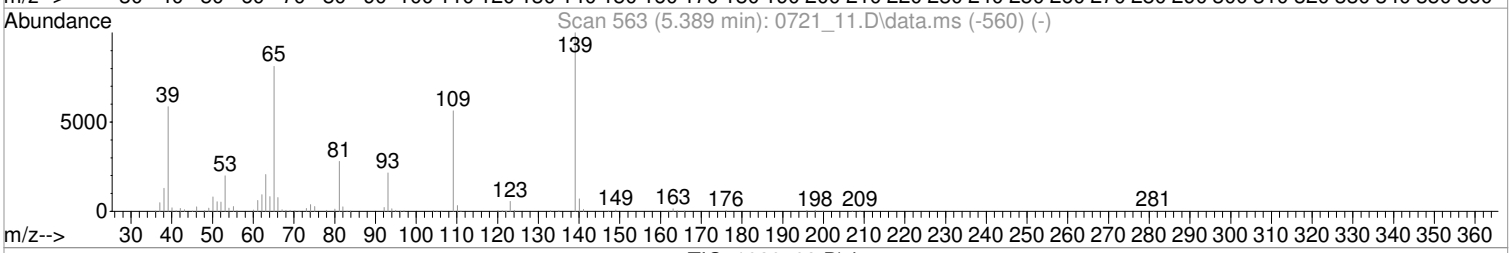
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (-0.000) 21472.1990449 ppb

Qvalue = 89

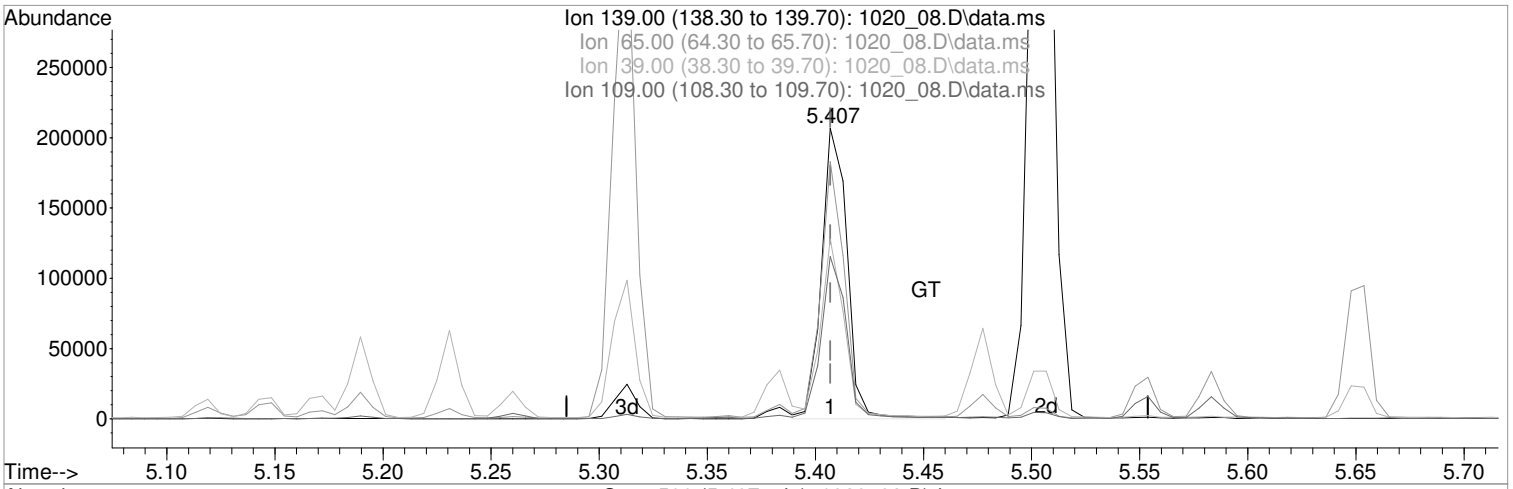
response 177709

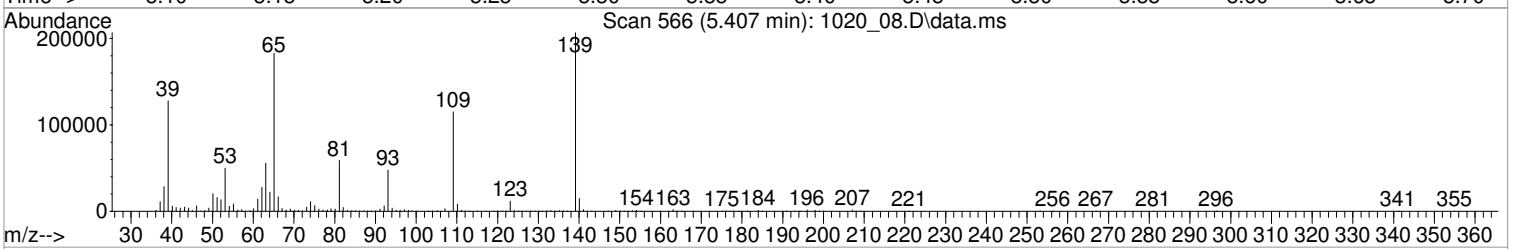
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	87.93
39.00	49.40	61.33
109.00	53.80	55.60

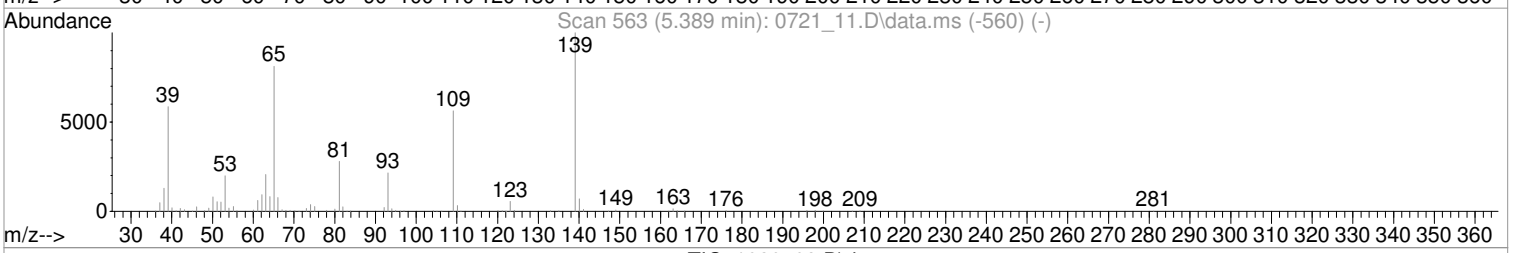
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_08.D
Acq On : 20 Oct 2022 8:47 pm
Operator : 3545
Sample : STD SVMS 20K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 7 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:42:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:42:07 2022
Response via : Initial Calibration







TIC: 1020_08.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (-0.000) 20665.4313909 ppb m

response 171032

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	88.52
39.00	49.40	61.90
109.00	53.80	55.81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	145560	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	560000	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	299206	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.476	188	518937	8000.0000000	ppb	0.00
84) Chrysene-d12	9.308	240	613334	8000.0000000	ppb	0.01
94) Perylene-d12	12.017	264	644633	8000.0000000	ppb	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	733161	28573.6165181	ppb	0.00
Spiked Amount 20000.000				Recovery = 142.87%		
7) Phenol-d5	3.233	99	899134	29087.7249315	ppb	0.00
Spiked Amount 20000.000				Recovery = 145.44%		
24) Nitrobenzene-d5	3.768	82	705955m	29669.9522487	ppb	0.00
Spiked Amount 10000.000				Recovery = 296.70%		
50) 2-Fluorobiphenyl	4.878	172	1467488	26687.5762291	ppb	0.00
Spiked Amount 10000.000				Recovery = 266.88%		
73) 2,4,6-Tribromophenol	5.936	330	275467	34349.0420843	ppb	0.00
Spiked Amount 20000.000				Recovery = 171.75%		
87) p-Terphenyl-d14	7.892	244	2507172	29533.9328055	ppb	0.00
Spiked Amount 10000.000				Recovery = 295.34%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	788771	28651.4210023	ppb	99
3) N-Nitrosodimethylamine	2.240	42	367641	27550.6311300	ppb	96
5) Aniline	3.292	66	398133	28192.9440003	ppb	99
6) bis(2-Chloroethyl)ether	3.310	93	506705m	20365.7425686	ppb	
8) Phenol	3.245	94	929215	29114.0733951	ppb	95
10) 2-Chlorophenol	3.357	128	750748	28118.4358903	ppb	94
11) n-Decane	3.351	41	390650	27695.6832574	ppb	99
12) 1,3-Dichlorobenzene	3.439	146	830192	28621.7543489	ppb	99
13) 1,4-Dichlorobenzene	3.474	146	838221	28387.5199429	ppb	99
14) Benzyl Alcohol	3.527	79	584062	29523.7155155	ppb	98
15) 1,2-Dichlorobenzene	3.562	146	787134	28440.7102632	ppb	98
16) bis(2-Chloroisopropyl)...	3.597	121	251836	26605.7919957	ppb	91
17) 2,2-oxybis(1-chloropro...	3.597	121	251836	26605.7919957	ppb	91
18) 2-Methylphenol	3.568	108	661446	27989.8311263	ppb	99
19) Hexachloroethane	3.750	117	302566	28016.6934765	ppb	98
20) N-Nitrosodi-n-propylamine	3.674	70	487229	28868.7470506	ppb	96
21) 3&4-Methyl phenol	3.656	107	762544	28757.6882432	ppb	99
25) Nitrobenzene	3.780	77	714077	28987.9366274	ppb	97
26) Isophorone	3.915	82	1311801	29047.9628657	ppb	96
27) 2-Nitrophenol	3.962	139	377251	30548.6277063	ppb	98
28) 2,4-Dimethylphenol	3.962	107	674043	27848.3537423	ppb	97
29) bis(2-Chlorethoxy)methane	4.020	93	794935	28210.1265502	ppb	99
30) 2,4-Dichlorophenol	4.097	162	595775	28828.3991353	ppb	96
32) 1,2,4-Trichlorobenzene	4.156	180	660799	28017.3646969	ppb	98
34) Naphthalene	4.208	128	2142080m	28065.9752403	ppb	
35) 4-Chloroaniline	4.226	65	237926	27326.7084965	ppb	99
36) Hexachloro-1,3-butadiene	4.273	225	382062	27595.8039891	ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

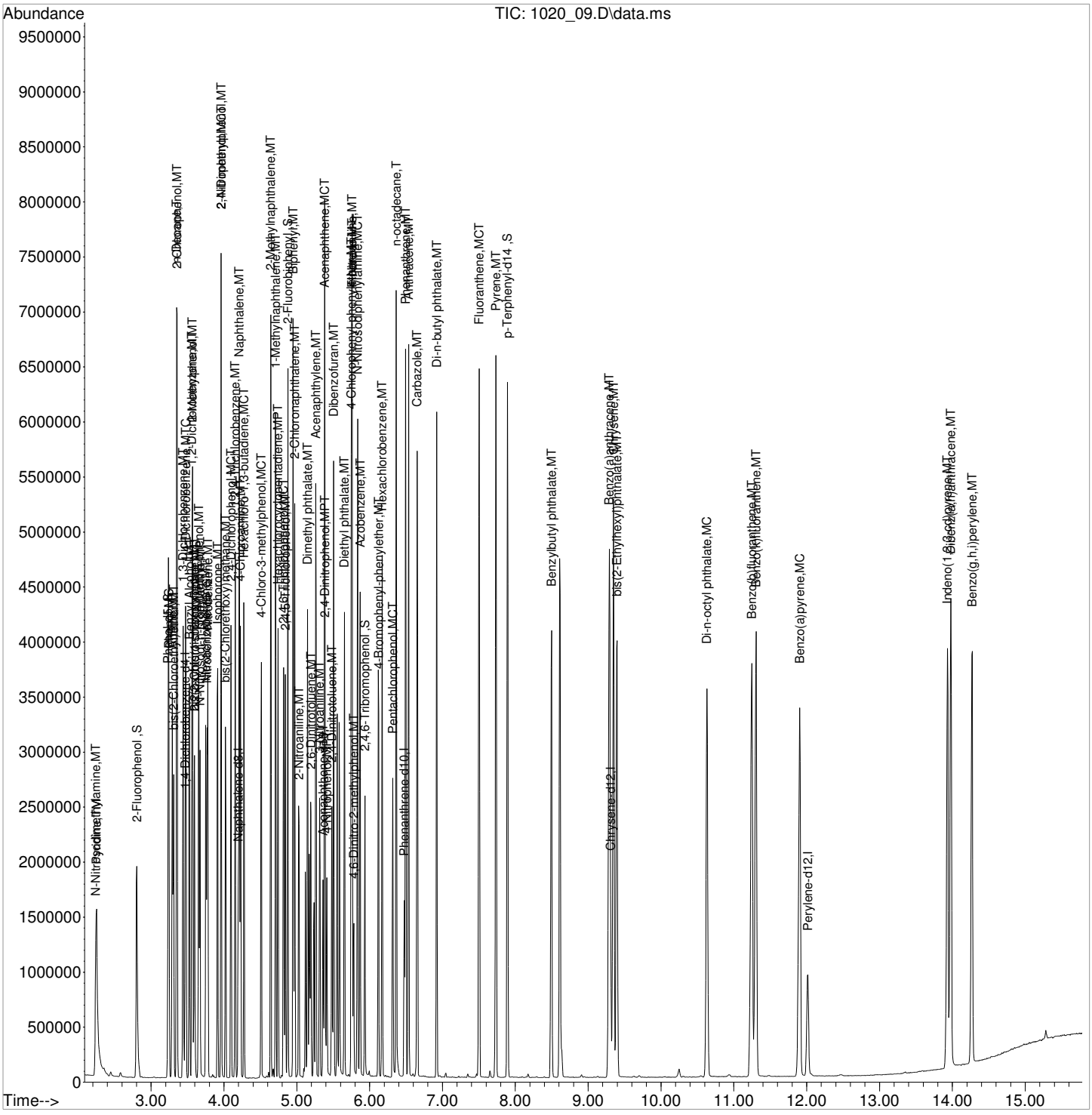
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	593754	29218.8255517	ppb		91
41)	2-Methylnaphthalene	4.643	142	1387411	28792.3332433	ppb		99
42)	1-Methylnaphthalene	4.708	142	1292665	28683.9112934	ppb		100
47)	Hexachlorocyclopentadiene	4.743	237	506398	27775.0525167	ppb		99
48)	2,4,6-Trichlorophenol	4.820	196	423921	28353.7295673	ppb		97
49)	2,4,5-Trichlorophenol	4.843	196	442566	30324.2839923	ppb		97
51)	Biphenyl	4.949	154	1614854	26985.3286144	ppb		99
52)	2-Chloronaphthalene	4.972	162	1266249	26955.3927463	ppb		97
53)	2-Nitroaniline	5.031	138	446571	32239.1350165	ppb		99
54)	Acenaphthylene	5.260	152	2006972	28119.5231689	ppb		99
55)	Dimethyl phthalate	5.149	163	1391565	28320.3718341	ppb		99
56)	2,6-Dinitrotoluene	5.196	165	330101	31150.5675778	ppb		90
57)	3-Nitroaniline	5.313	138	369437	31836.5062970	ppb	#	81
58)	Acenaphthene	5.384	153	1293827	27111.2277265	ppb		98
59)	2,4-Dinitrophenol	5.389	184	151247	42099.5662105	ppb	#	1
60)	Dibenzofuran	5.507	168	1777819	26845.8176349	ppb		100
61)	2,4-Dinitrotoluene	5.483	165	439693	33511.5390596	ppb		97
63)	4-Nitrophenol	5.413	139	259263m	30212.9170171	ppb		
64)	Fluorene	5.760	166	1442624	26590.3996179	ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	719118	26615.7661187	ppb		96
66)	Diethyl phthalate	5.654	149	1210174	24126.3481406	ppb		98
67)	4-Nitroaniline	5.760	138	278744	24342.2101078	ppb		98
68)	Azobenzene	5.871	77	1386383	27126.3924180	ppb		99
71)	4,6-Dinitro-2-methylph...	5.783	198	186911	39030.0836691	ppb		98
72)	N-Nitrosodiphenylamine	5.836	169	1244933	30024.9831160	ppb		99
74)	4-Bromophenyl-phenylether	6.124	248	463111	29391.7440921	ppb		90
75)	Hexachlorobenzene	6.171	284	568601	29176.2034432	ppb		97
76)	n-octadecane	6.365	55	213997	29867.7789498	ppb		98
77)	Pentachlorophenol	6.318	266	287283	35677.6182632	ppb		97
78)	Phenanthrene	6.494	178	2007407	27856.6568178	ppb		98
79)	Anthracene	6.535	178	2100118	28698.1309292	ppb		100
80)	Carbazole	6.653	167	2055924	29649.8910960	ppb		100
81)	Di-n-butyl phthalate	6.923	149	2583344	31382.8798348	ppb		99
83)	Fluoranthene	7.505	202	2572786	30936.8863242	ppb		100
86)	Pyrene	7.734	202	2643441	28111.0258045	ppb		99
88)	Benzylbutyl phthalate	8.498	149	1155980	30140.3085511	ppb		98
90)	Benzo(a)anthracene	9.291	228	2676610	28635.0743382	ppb		99
91)	Chrysene	9.350	228	2533154	28477.7277329	ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.397	149	1604791	29971.8604766	ppb		98
93)	Di-n-octyl phthalate	10.630	149	2805304	31748.5966850	ppb		99
95)	Benzo(b)fluoranthene	11.247	252	2885740	30131.6428379	ppb		99
96)	Benzo(k)fluoranthene	11.306	252	2837773	29845.1184616	ppb		99
97)	Benzo(a)pyrene	11.905	252	2530720	30409.0968651	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.933	276	2318444	26338.9181384	ppb		99
99)	Dibenz(a,h)anthracene	13.980	278	2417499	27025.2481776	ppb		99
100)	Benzo(g,h,i)perylene	14.273	276	2245323	24525.0964080	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

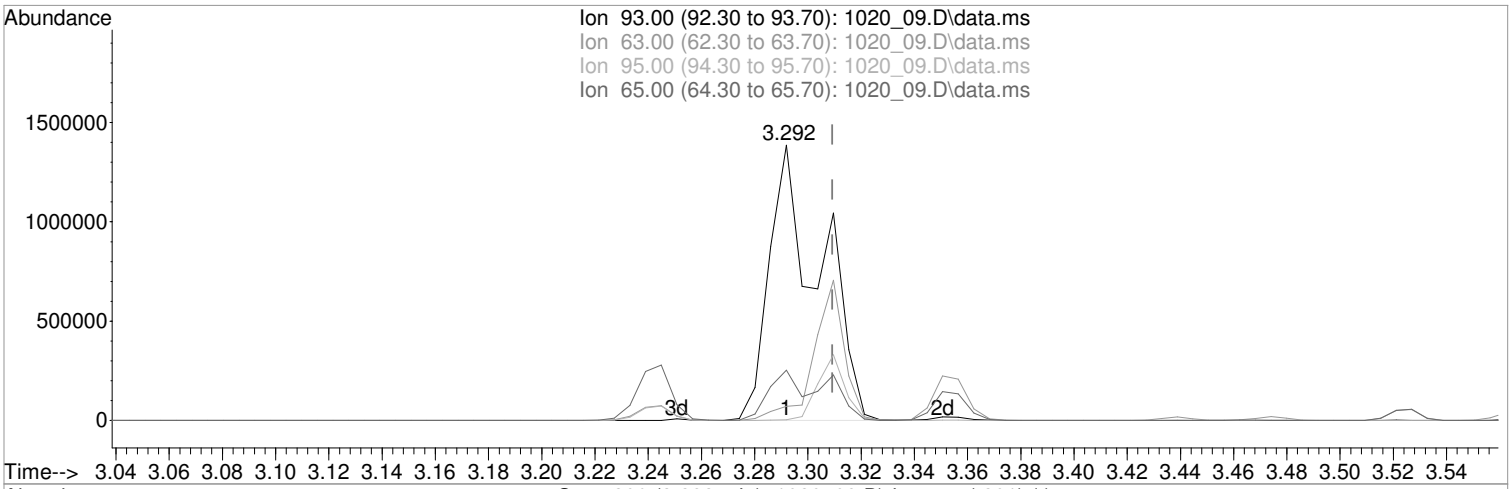
Quant Time: Oct 21 09:11:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration

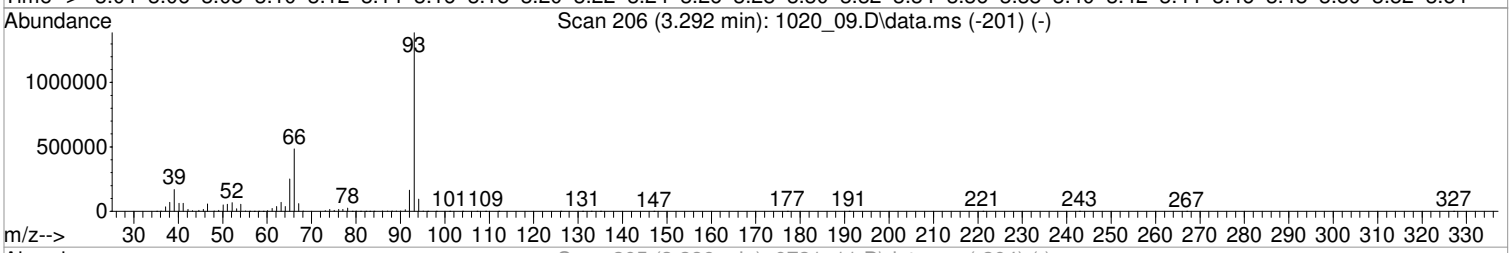


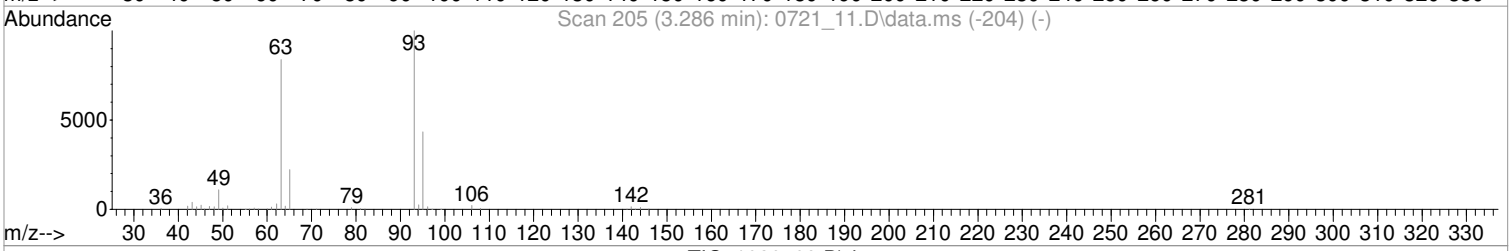
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.017) 73831.4186414 ppb

Qvalue = 41

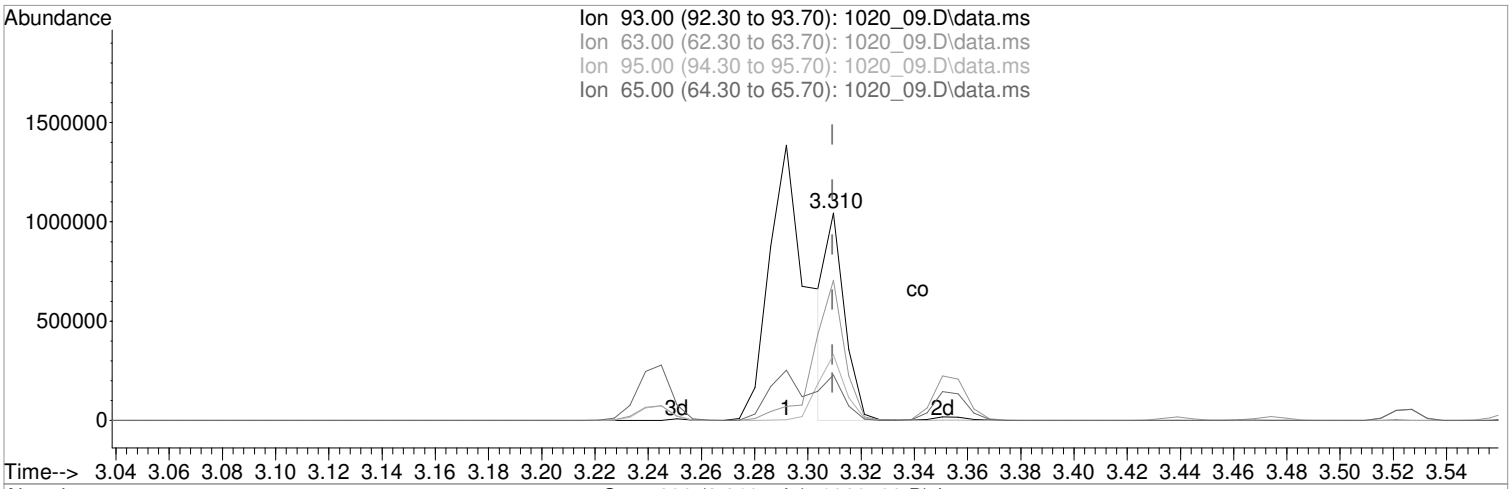
response 1836945

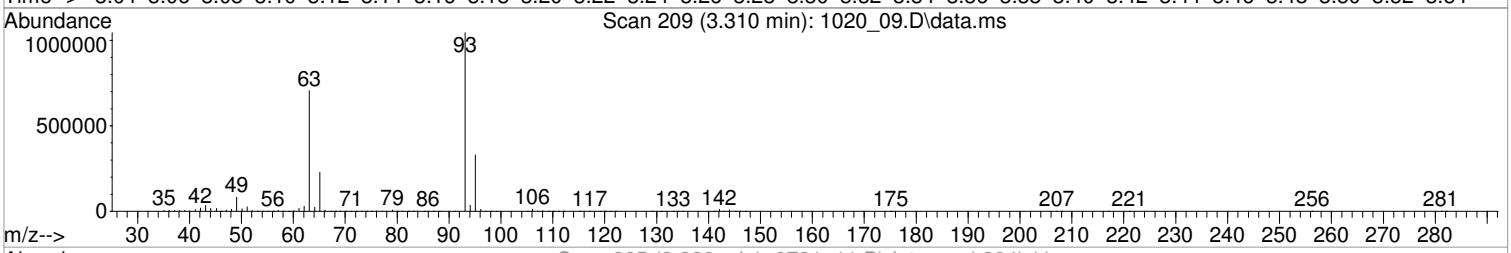
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.05#
95.00	32.50	0.22#
65.00	21.90	18.22

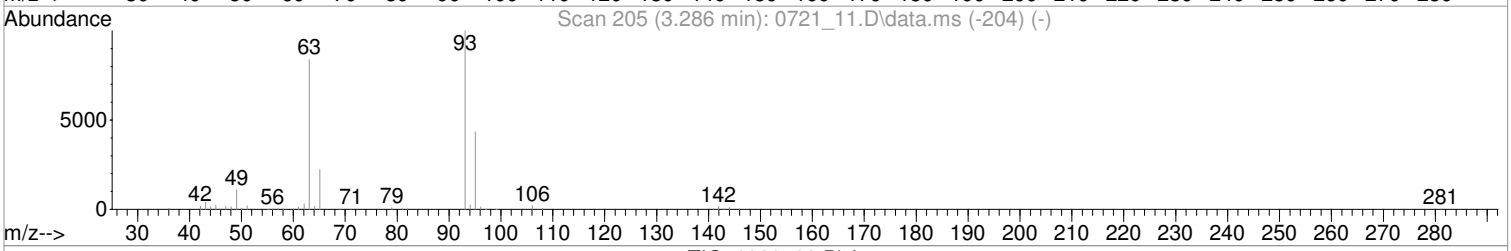
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.310min (+0.000) 20365.7425686 ppb m

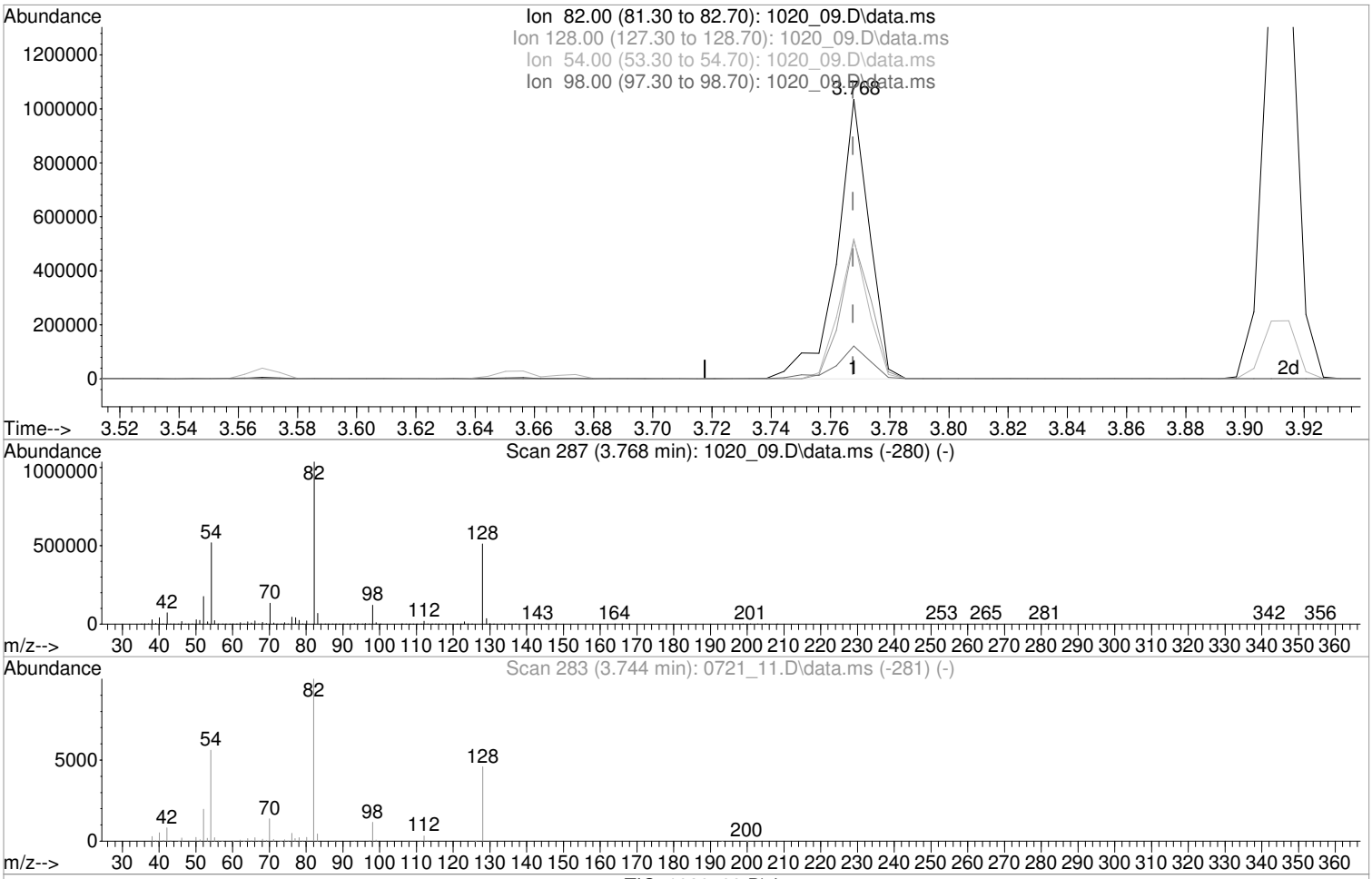
response 506705

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	67.51
95.00	32.50	31.56
65.00	21.90	21.95

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration



TIC: 1020_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 32856.3131779 ppb

Qvalue = 97

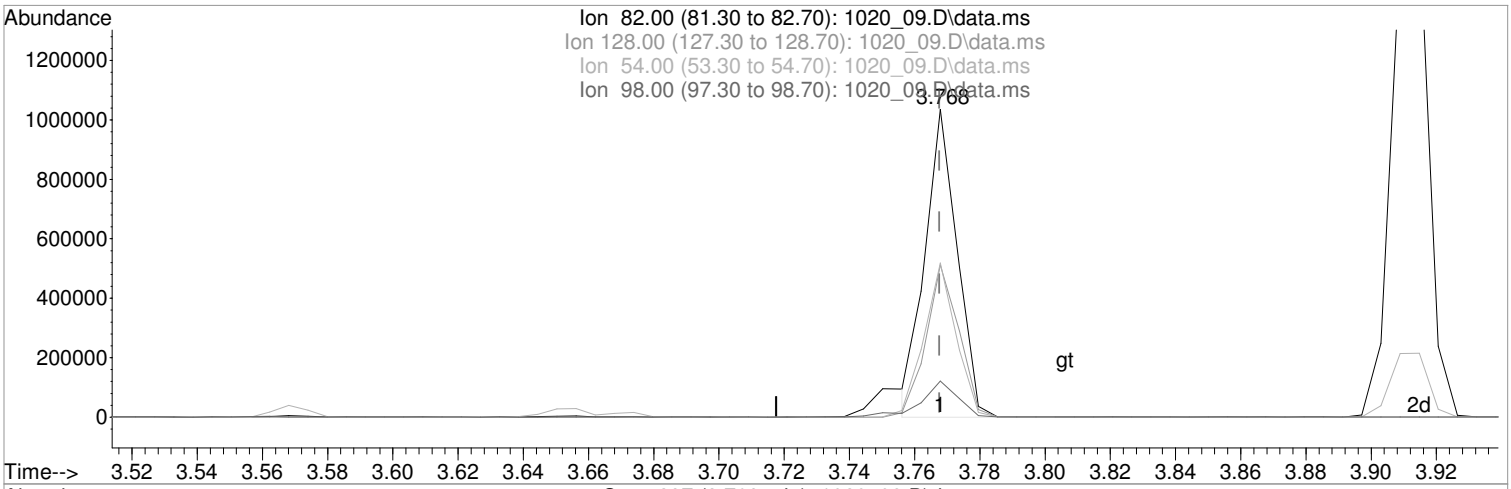
response 781770

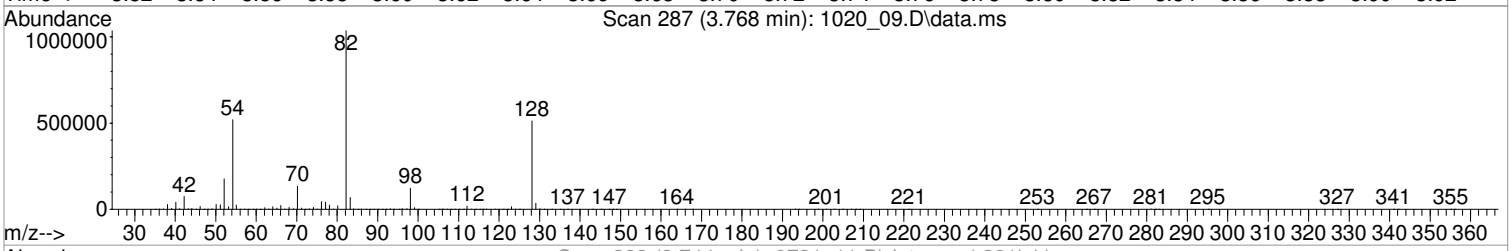
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	49.44
54.00	48.90	50.12
98.00	12.10	11.71

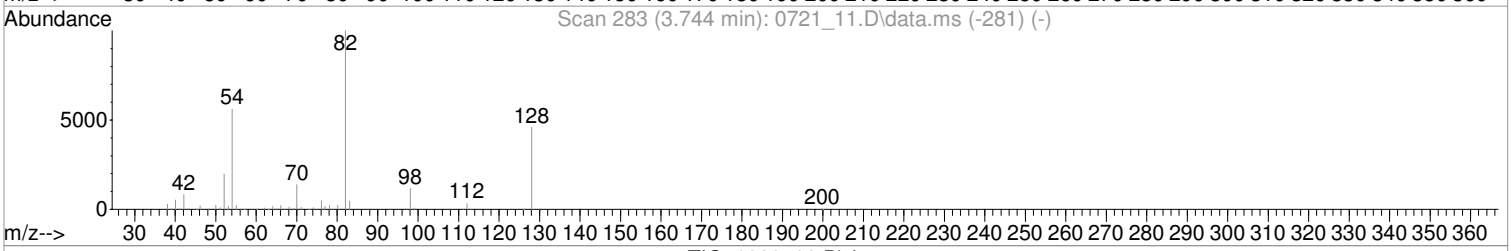
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 29669.9522487 ppb m

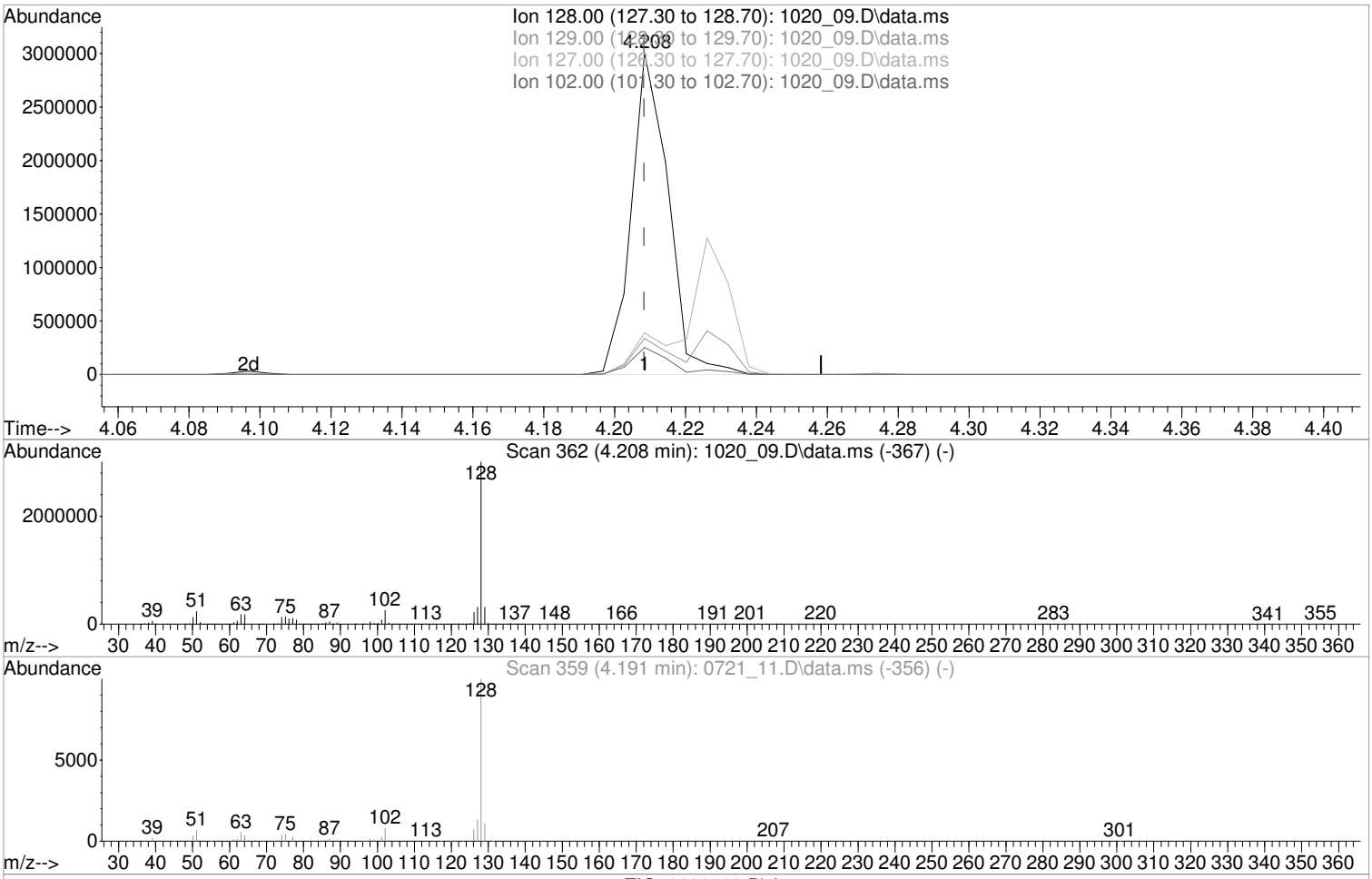
response 705955

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	49.44
54.00	48.90	50.14
98.00	12.10	11.76

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration



TIC: 1020_09.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 28399.2822802 ppb

Qvalue = 99

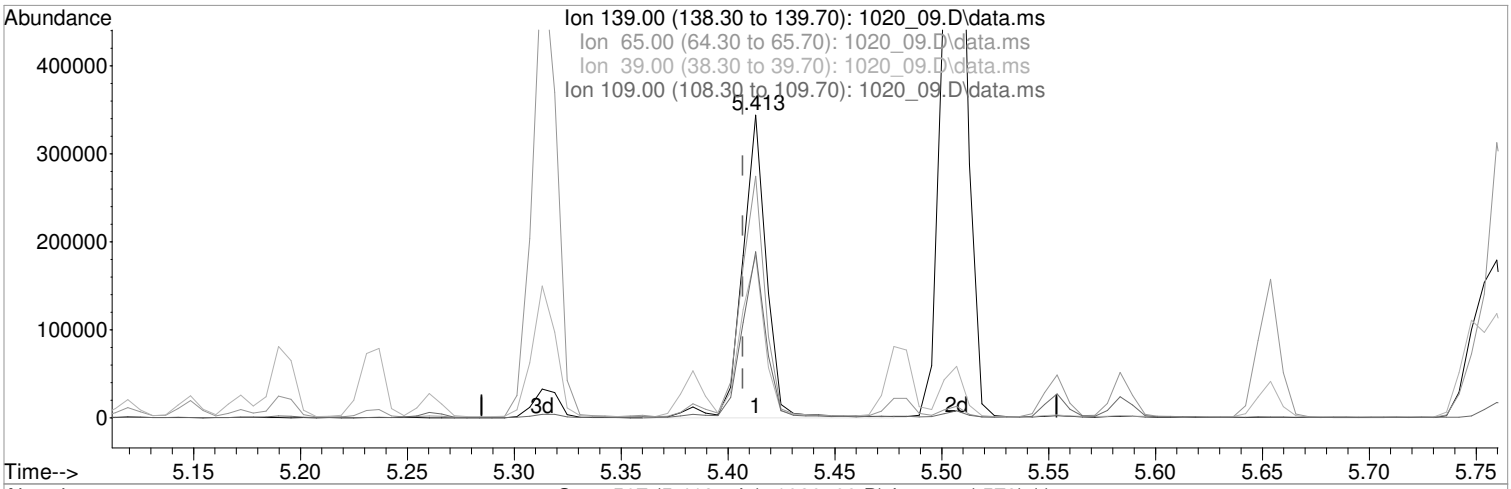
response 2167519

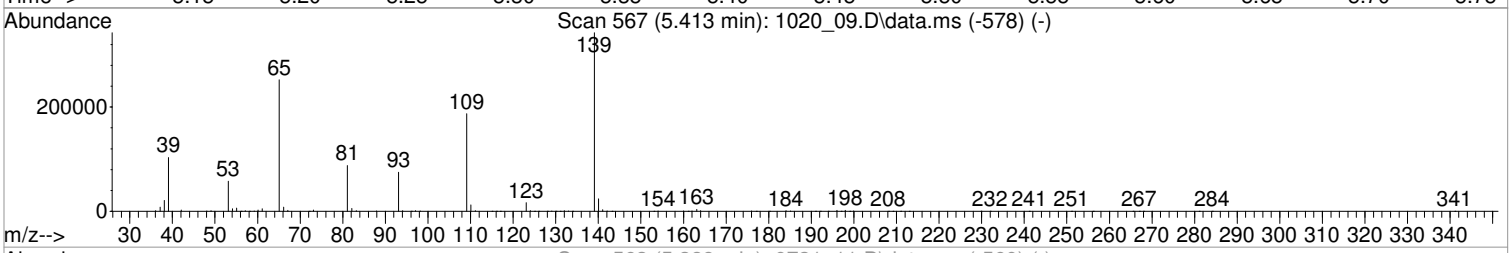
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.20
127.00	13.10	12.93
102.00	8.20	8.44

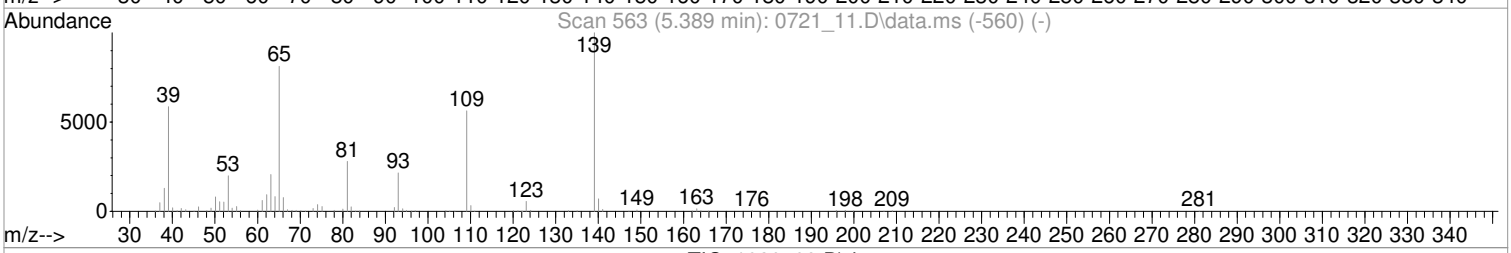
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(63) 4-Nitrophenol (MPT)

5.413min (+0.006) 31566.5742843 ppb

Qvalue = 97

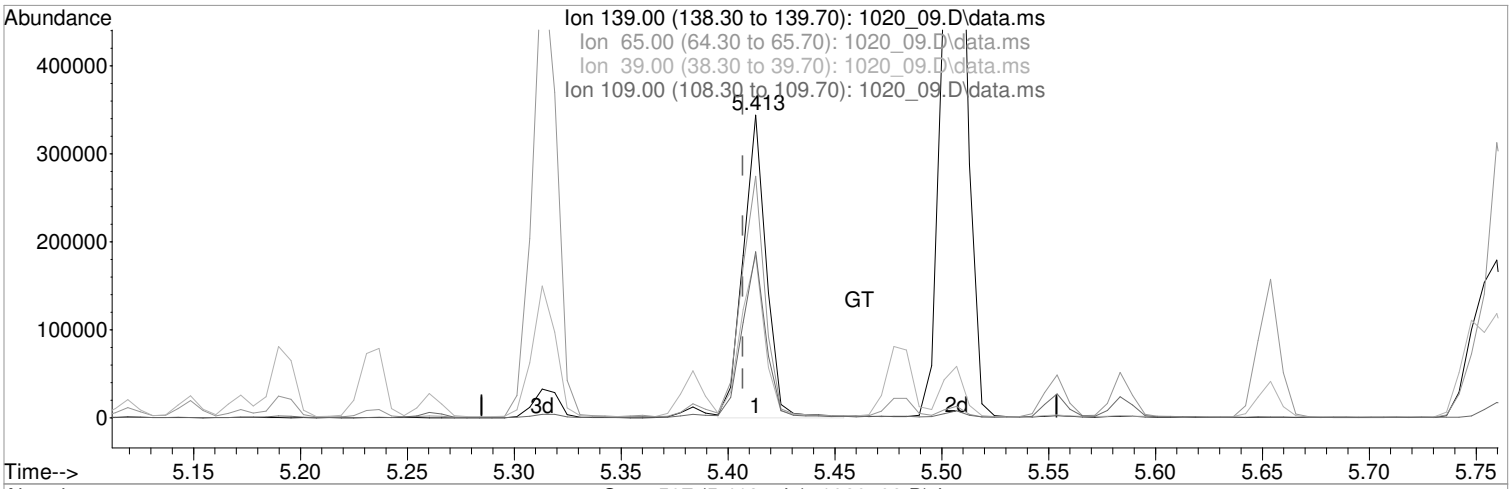
response 270879

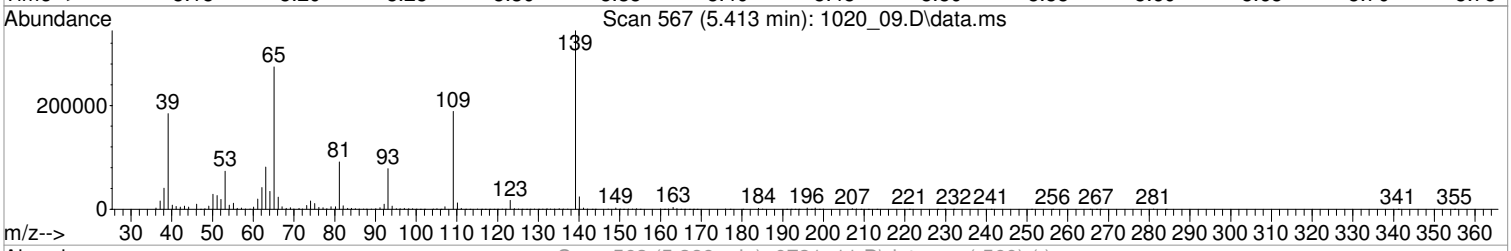
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	78.99
39.00	49.40	53.17
109.00	53.80	54.61

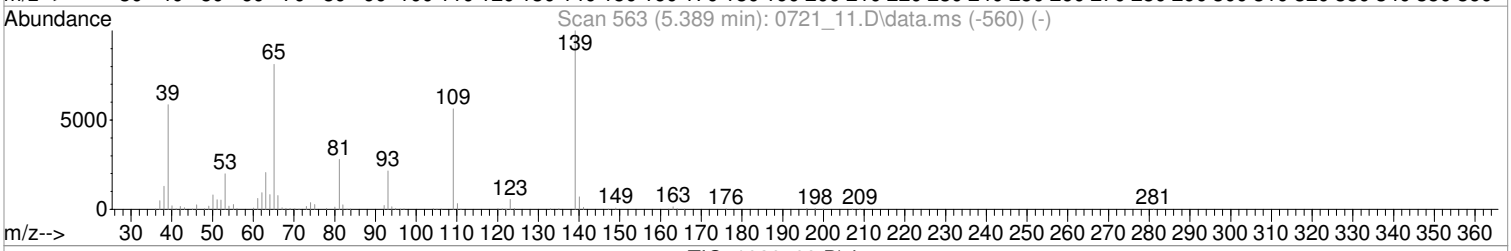
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:07:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration







TIC: 1020_09.D\data.ms

(63) 4-Nitrophenol (MPT)

5.413min (+0.006) 30212.9170171 ppb m

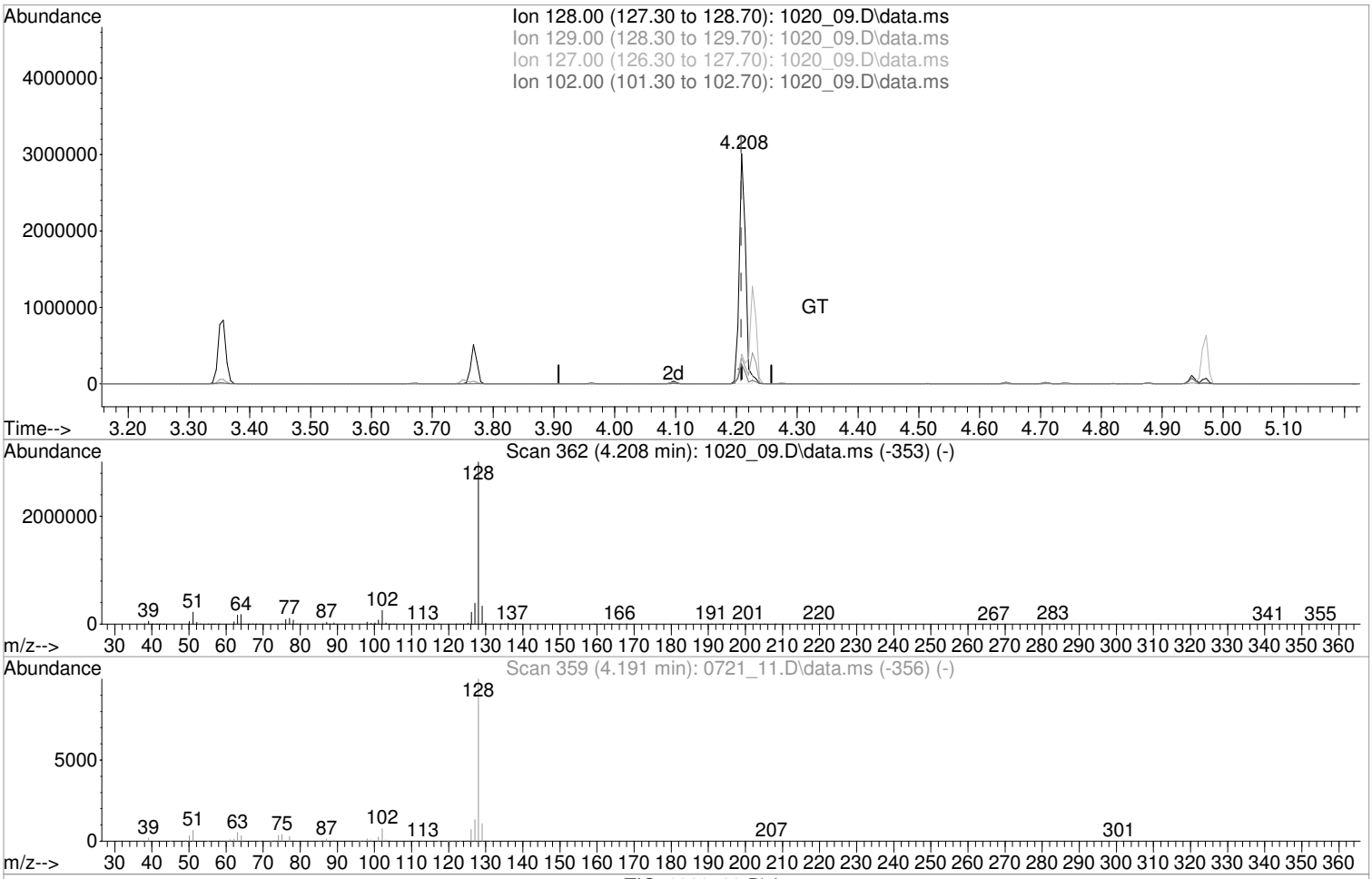
response 259263

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	79.75
39.00	49.40	53.54
109.00	53.80	54.84

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_09.D
Acq On : 20 Oct 2022 9:08 pm
Operator : 3545
Sample : STD SVMS 30K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 8 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:09:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:07:35 2022
Response via : Initial Calibration



TIC: 1020_09.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 28065.9752403 ppb m

response 2142080

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.21
127.00	13.10	12.93
102.00	8.20	8.44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	147423	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	568039	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	303180	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.476	188	522584	8000.0000000	ppb	0.00
84) Chrysene-d12	9.308	240	623047	8000.0000000	ppb	0.01
94) Perylene-d12	12.017	264	636958	8000.0000000	ppb	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	996117	38637.4291827	ppb	0.00
Spiked Amount 20000.000				Recovery = 193.19%		
7) Phenol-d5	3.239	99	1208689	38804.6161561	ppb	0.00
Spiked Amount 20000.000				Recovery = 194.02%		
24) Nitrobenzene-d5	3.768	82	960389m	39865.1985553	ppb	0.00
Spiked Amount 10000.000				Recovery = 398.65%		
50) 2-Fluorobiphenyl	4.878	172	1991495	36412.4613065	ppb	0.00
Spiked Amount 10000.000				Recovery = 364.12%		
73) 2,4,6-Tribromophenol	5.936	330	362716	43853.2628550	ppb	0.00
Spiked Amount 20000.000				Recovery = 219.27%		
87) p-Terphenyl-d14	7.892	244	3372007	39203.7682065	ppb	0.00
Spiked Amount 10000.000				Recovery = 392.04%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	1078092	38957.7518586	ppb	98
3) N-Nitrosodimethylamine	2.240	42	494334	37081.3197279	ppb	98
5) Aniline	3.292	66	541595	38251.2562541	ppb	100
6) bis(2-Chloroethyl)ether	3.309	93	742214m	31120.1182665	ppb	
8) Phenol	3.245	94	1247231	38775.1292419	ppb	97
10) 2-Chlorophenol	3.356	128	1002737	37473.5165795	ppb	96
11) n-Decane	3.356	41	518618	36774.2878174	ppb	98
12) 1,3-Dichlorobenzene	3.439	146	1111048	38112.3286389	ppb	99
13) 1,4-Dichlorobenzene	3.474	146	1111289	37495.6399702	ppb	98
14) Benzyl Alcohol	3.527	79	784566	39261.6930604	ppb	99
15) 1,2-Dichlorobenzene	3.562	146	1051754	37849.6007273	ppb	98
16) bis(2-Chloroisopropyl)...	3.597	121	335012	35617.4732663	ppb	96
17) 2,2-oxybis(1-chloropro...	3.597	121	335012	35617.4732663	ppb	96
18) 2-Methylphenol	3.568	108	888120	37525.9460908	ppb	98
19) Hexachloroethane	3.750	117	409783	37882.5556295	ppb	96
20) N-Nitrosodi-n-propylamine	3.674	70	662955	39029.5638760	ppb	98
21) 3&4-Methyl phenol	3.656	107	1022263	38329.7761531	ppb	99
25) Nitrobenzene	3.779	77	964482	38817.2711735	ppb	95
26) Isophorone	3.915	82	1751149	38431.1886679	ppb	98
27) 2-Nitrophenol	3.962	139	517256	41167.5507216	ppb	97
28) 2,4-Dimethylphenol	3.962	107	895467	36914.2490718	ppb	96
29) bis(2-Chlorethoxy)methane	4.026	93	1074946	37984.8191337	ppb	95
30) 2,4-Dichlorophenol	4.097	162	792336	38044.6443688	ppb	92
32) 1,2,4-Trichlorobenzene	4.155	180	887598	37514.0740614	ppb	98
34) Naphthalene	4.208	128	2839367m	37172.3036023	ppb	
35) 4-Chloroaniline	4.226	65	325427	37403.0681345	ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	508442	36694.4432272	ppb	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

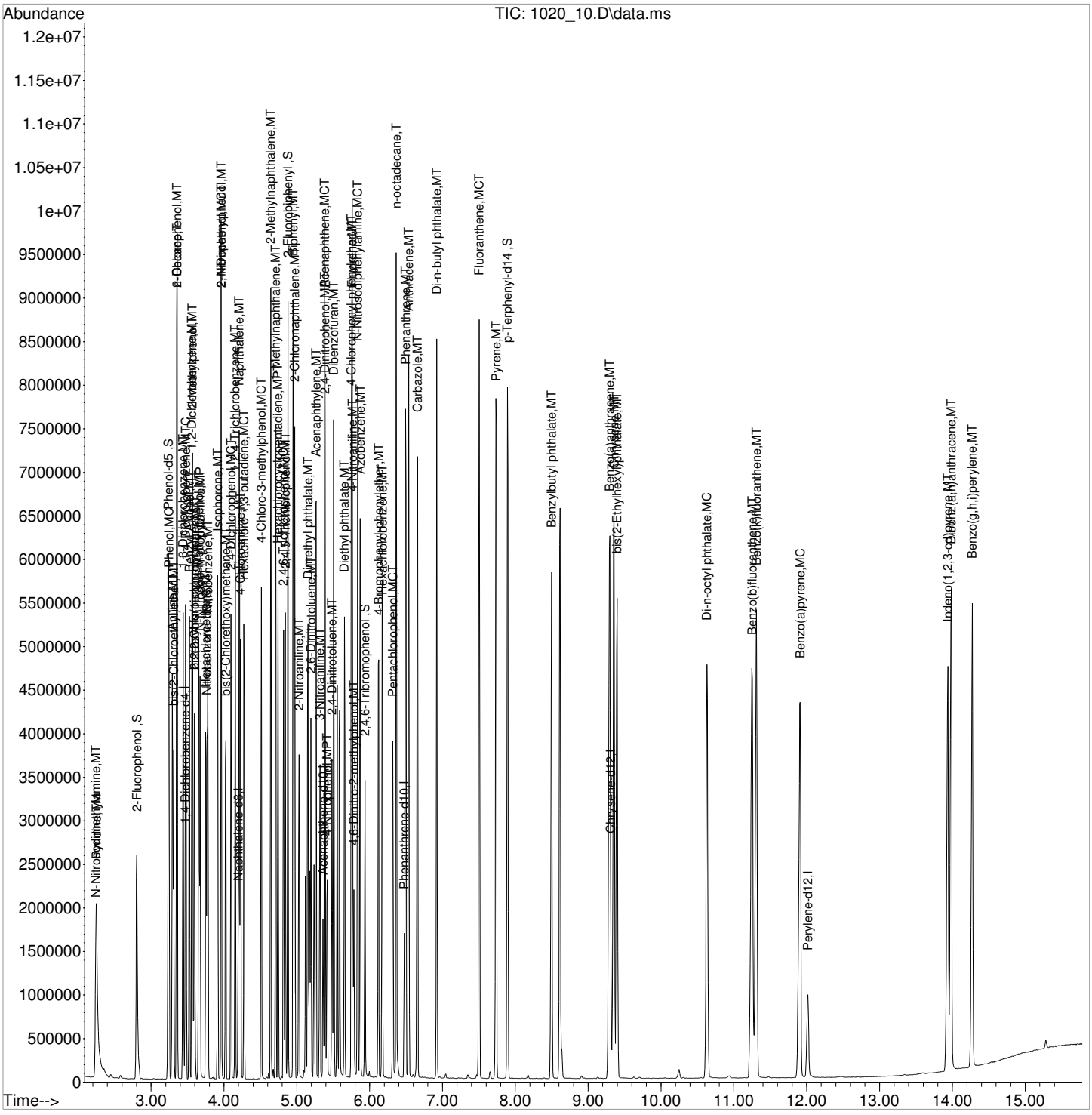
Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	809779	39456.7643472	ppb		94
41)	2-Methylnaphthalene	4.643	142	1859160	38293.2281813	ppb		100
42)	1-Methylnaphthalene	4.708	142	1728796	38097.1999464	ppb		99
47)	Hexachlorocyclopentadiene	4.743	237	681625	37357.6764811	ppb		98
48)	2,4,6-Trichlorophenol	4.819	196	571175	38049.9868993	ppb		96
49)	2,4,5-Trichlorophenol	4.843	196	611609	41283.3008735	ppb		95
51)	Biphenyl	4.949	154	2153667	36122.5157541	ppb		99
52)	2-Chloronaphthalene	4.972	162	1705906	36455.2514070	ppb		99
53)	2-Nitroaniline	5.031	138	615309	43299.8848056	ppb		100
54)	Acenaphthylene	5.266	152	2723388	38054.5761180	ppb		100
55)	Dimethyl phthalate	5.154	163	1963080	39799.2370004	ppb		96
56)	2,6-Dinitrotoluene	5.195	165	468623	43365.5920202	ppb		98
57)	3-Nitroaniline	5.319	138	518123	43619.3371293	ppb		91
58)	Acenaphthene	5.383	153	1758270	36953.4254663	ppb		99
59)	2,4-Dinitrophenol	5.389	184	217351	55945.9129173	ppb	#	8
60)	Dibenzofuran	5.507	168	2426919	36812.2053070	ppb		99
61)	2,4-Dinitrotoluene	5.483	165	593367	43777.1101116	ppb		92
63)	4-Nitrophenol	5.419	139	368824	42366.9916949	ppb		99
64)	Fluorene	5.759	166	1978492	36684.3792946	ppb		97
65)	4-Chlorophenyl-phenyle...	5.748	204	979388	36459.1362572	ppb		94
66)	Diethyl phthalate	5.654	149	1687838	34328.2998846	ppb		99
67)	4-Nitroaniline	5.765	138	422399	37585.2174898	ppb		99
68)	Azobenzene	5.871	77	1879749	36886.5175556	ppb		98
71)	4,6-Dinitro-2-methylph...	5.783	198	275039	54307.3996239	ppb		85
72)	N-Nitrosodiphenylamine	5.836	169	1626544	38949.4081676	ppb		99
74)	4-Bromophenyl-phenylether	6.124	248	614393	38852.1539500	ppb		91
75)	Hexachlorobenzene	6.177	284	771165	39474.7304392	ppb		98
76)	n-octadecane	6.365	55	294137	40796.4678176	ppb		98
77)	Pentachlorophenol	6.318	266	401289	47974.9641330	ppb		97
78)	Phenanthrene	6.494	178	2657943	37068.0833953	ppb		96
79)	Anthracene	6.535	178	2797453	38236.9934927	ppb		100
80)	Carbazole	6.658	167	2778314	39865.8885628	ppb		99
81)	Di-n-butyl phthalate	6.923	149	3452751	41334.2967279	ppb		99
83)	Fluoranthene	7.505	202	3404143	40437.5331382	ppb		100
86)	Pyrene	7.740	202	3522440	37265.6420172	ppb		99
88)	Benzylbutyl phthalate	8.497	149	1568257	40220.9609394	ppb		100
90)	Benzo(a)anthracene	9.297	228	3620207	38417.4578720	ppb		99
91)	Chrysene	9.355	228	3406848	38024.2981092	ppb		100
92)	bis(2-Ethylhexyl)phtha...	9.396	149	2168093	39867.3399511	ppb		98
93)	Di-n-octyl phthalate	10.630	149	3826953	42225.5583934	ppb		100
95)	Benzo(b)fluoranthene	11.253	252	3893949	41118.7689091	ppb		100
96)	Benzo(k)fluoranthene	11.312	252	3758982	40044.3721860	ppb		99
97)	Benzo(a)pyrene	11.911	252	3347149	40611.6168847	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.938	276	3100767	36391.2125257	ppb		99
99)	Dibenz(a,h)anthracene	13.985	278	3217087m	37008.8188101	ppb		
100)	Benzo(g,h,i)perylene	14.273	276	3022084	34455.2008407	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

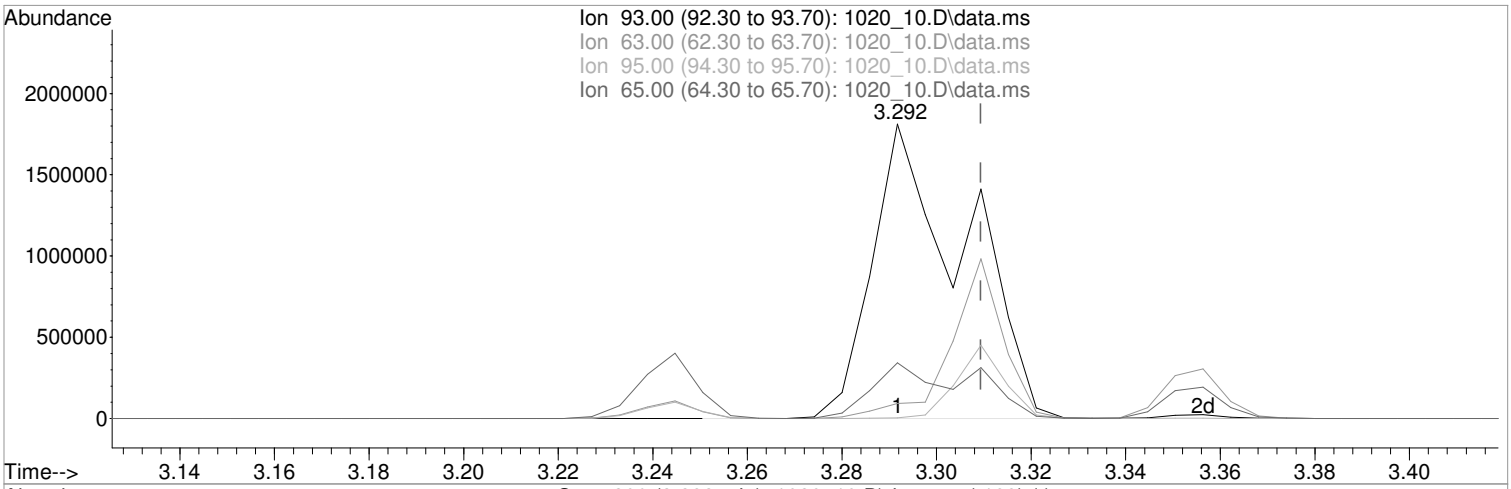
Quant Time: Oct 21 09:11:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration

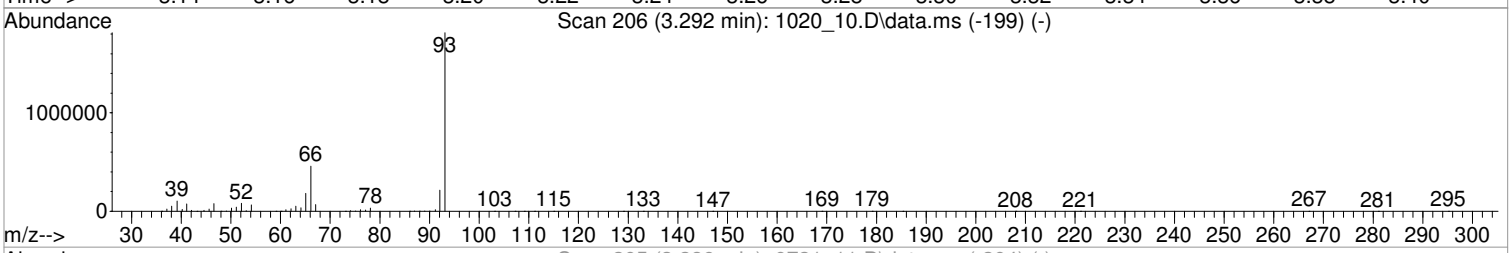


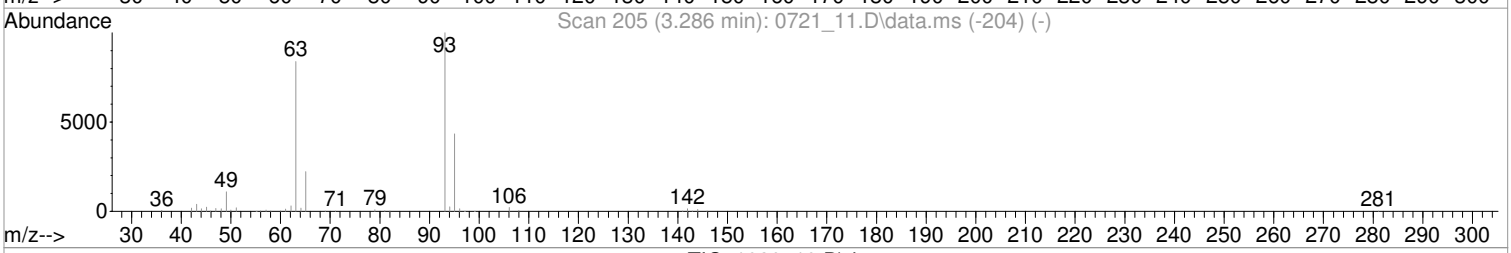
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.018) 103824.7688856 ppb

Qvalue = 41

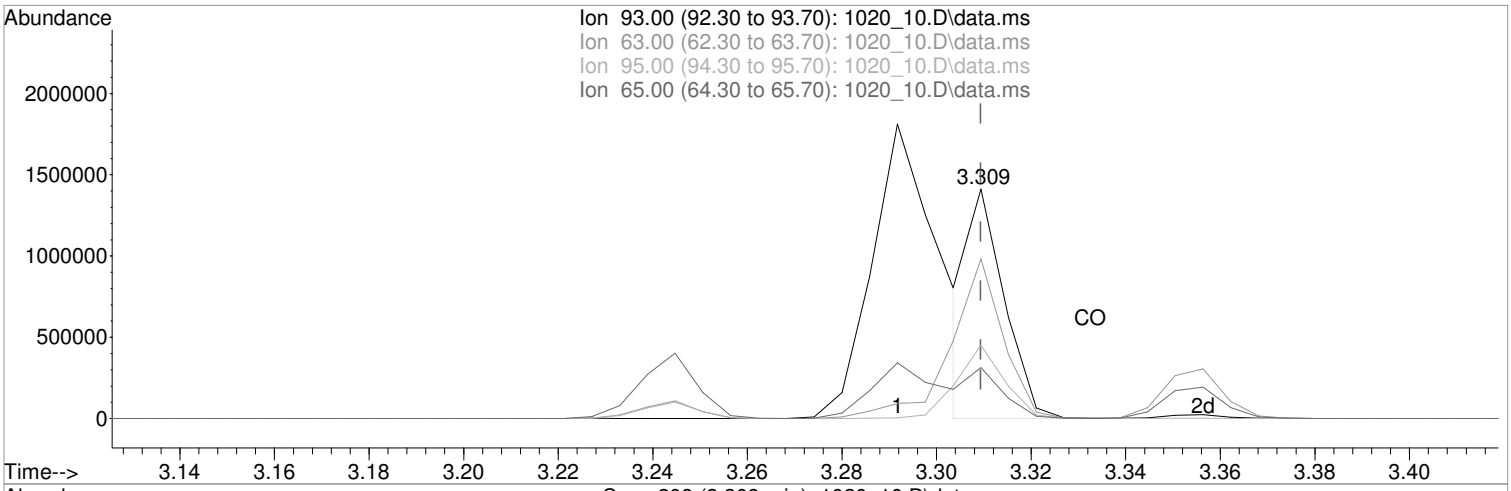
response 2476218

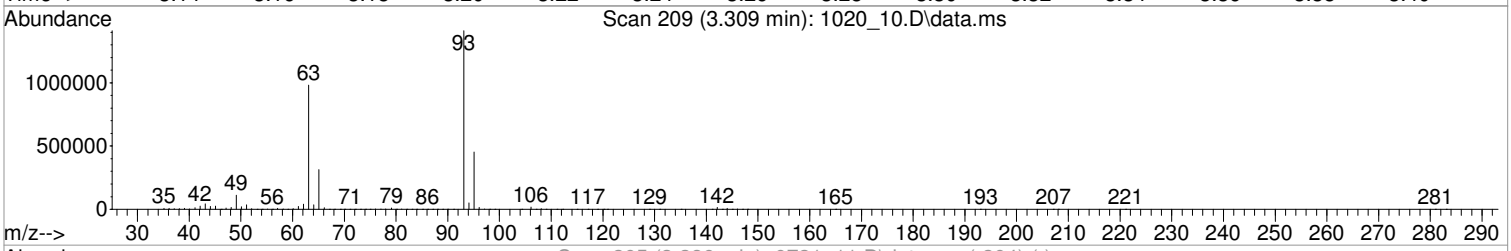
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.83#
95.00	32.50	0.24#
65.00	21.90	18.74

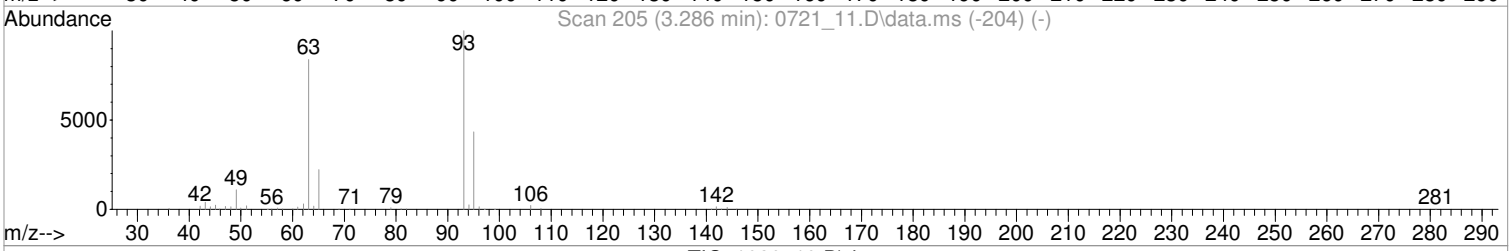
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (0.000) 31120.1182665 ppb m

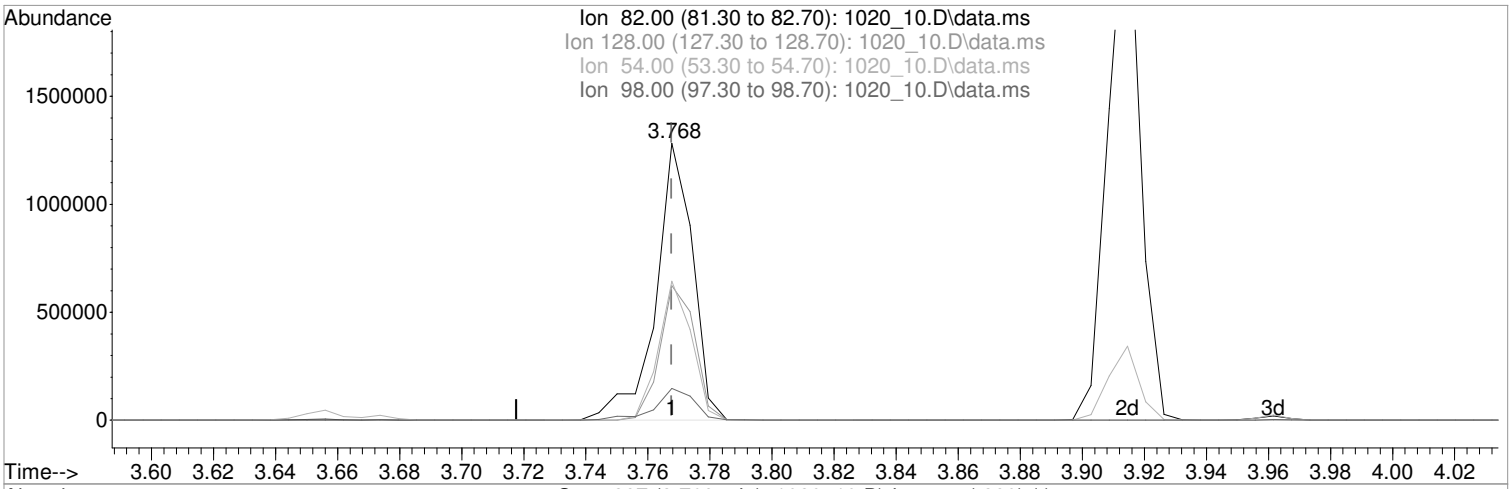
response 742214

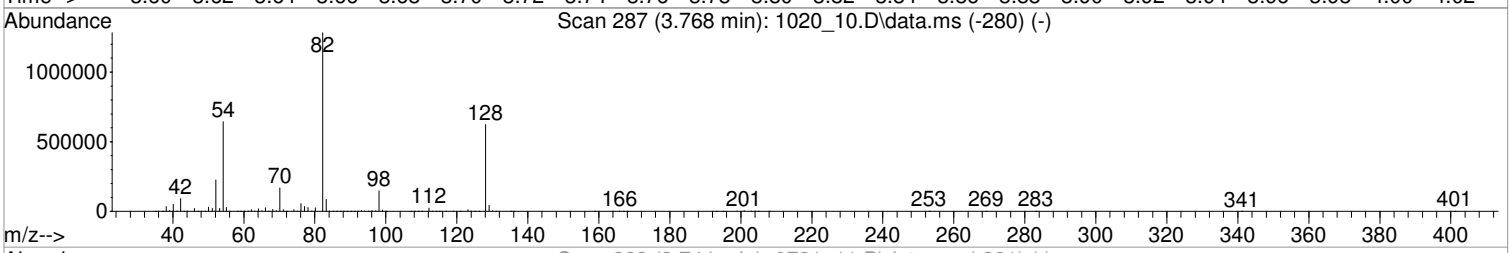
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	69.58
95.00	32.50	32.00
65.00	21.90	22.19

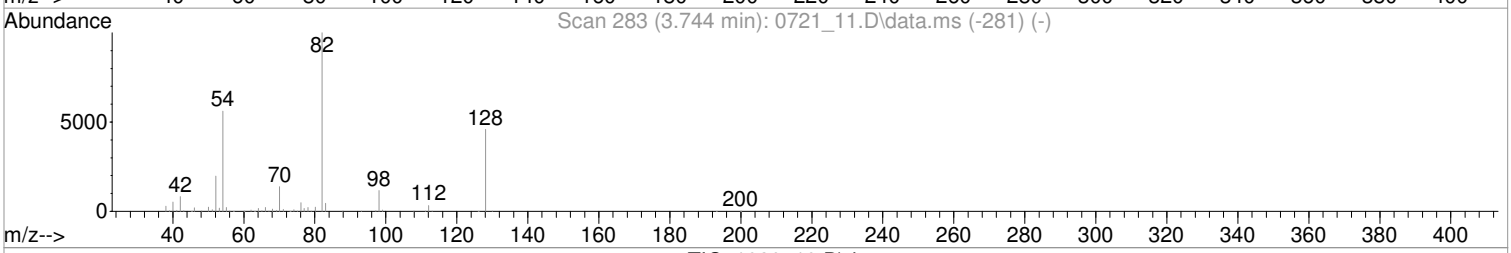
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 43911.2055729 ppb

Qvalue = 97

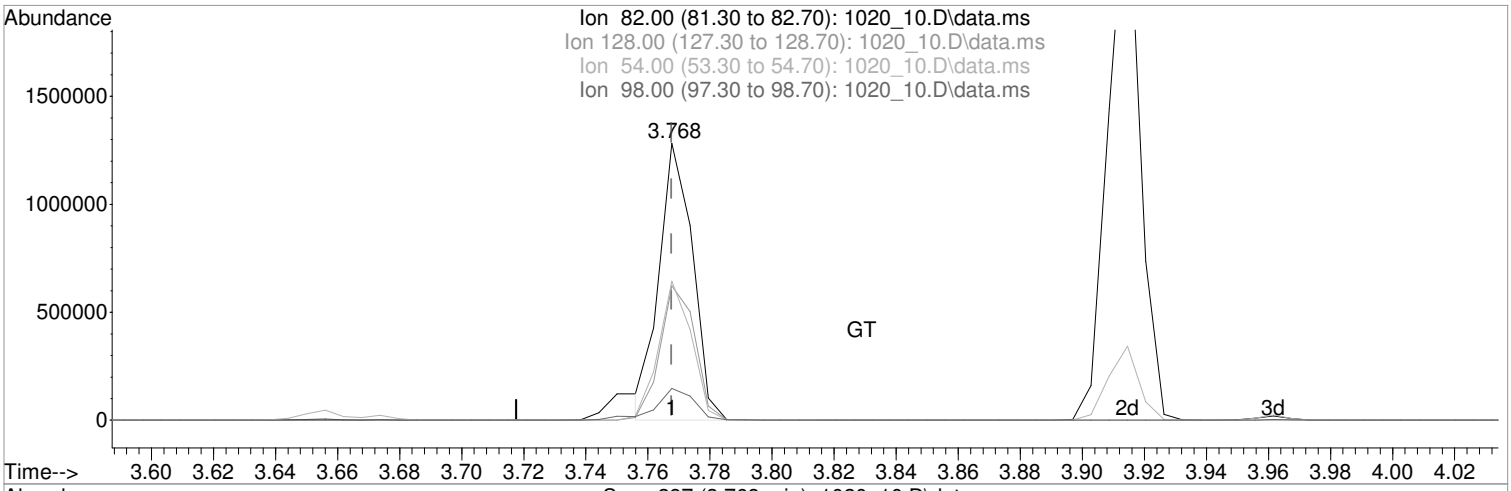
response 1057861

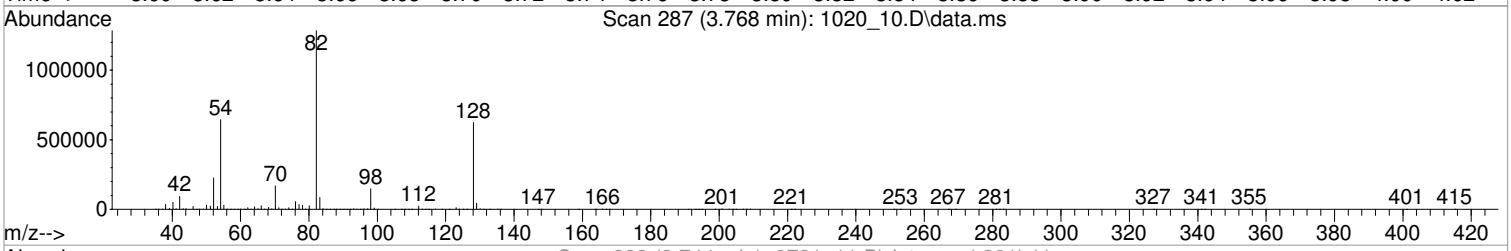
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.55
54.00	48.90	50.15
98.00	12.10	11.47

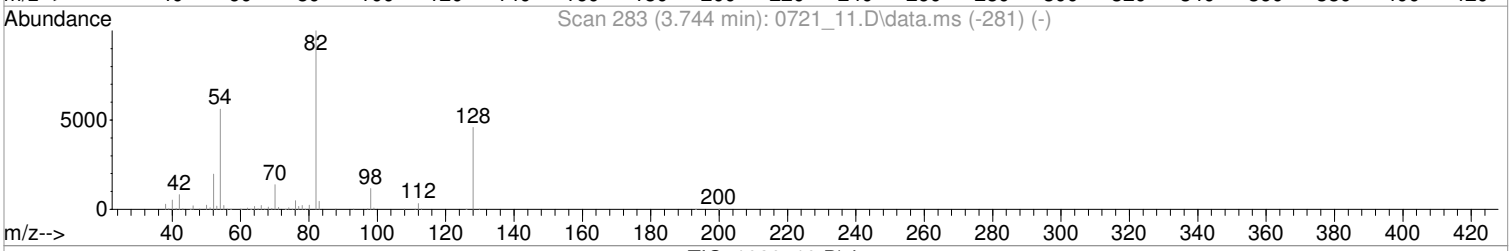
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (0.000) 39865.1985553 ppb m

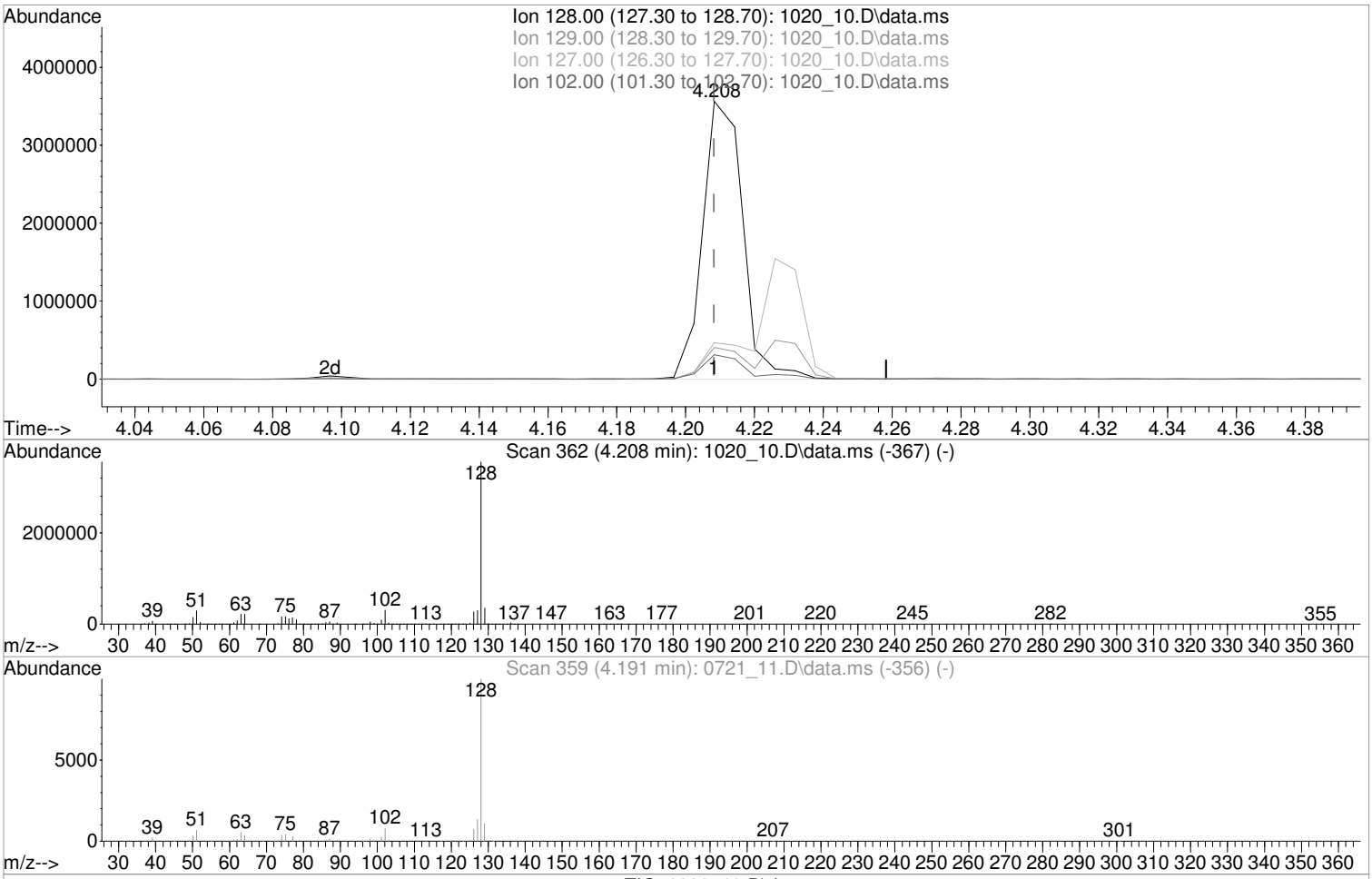
response 960389

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	48.53
54.00	48.90	50.16
98.00	12.10	11.49

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration



TIC: 1020_10.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 37718.5048079 ppb

Qvalue = 99

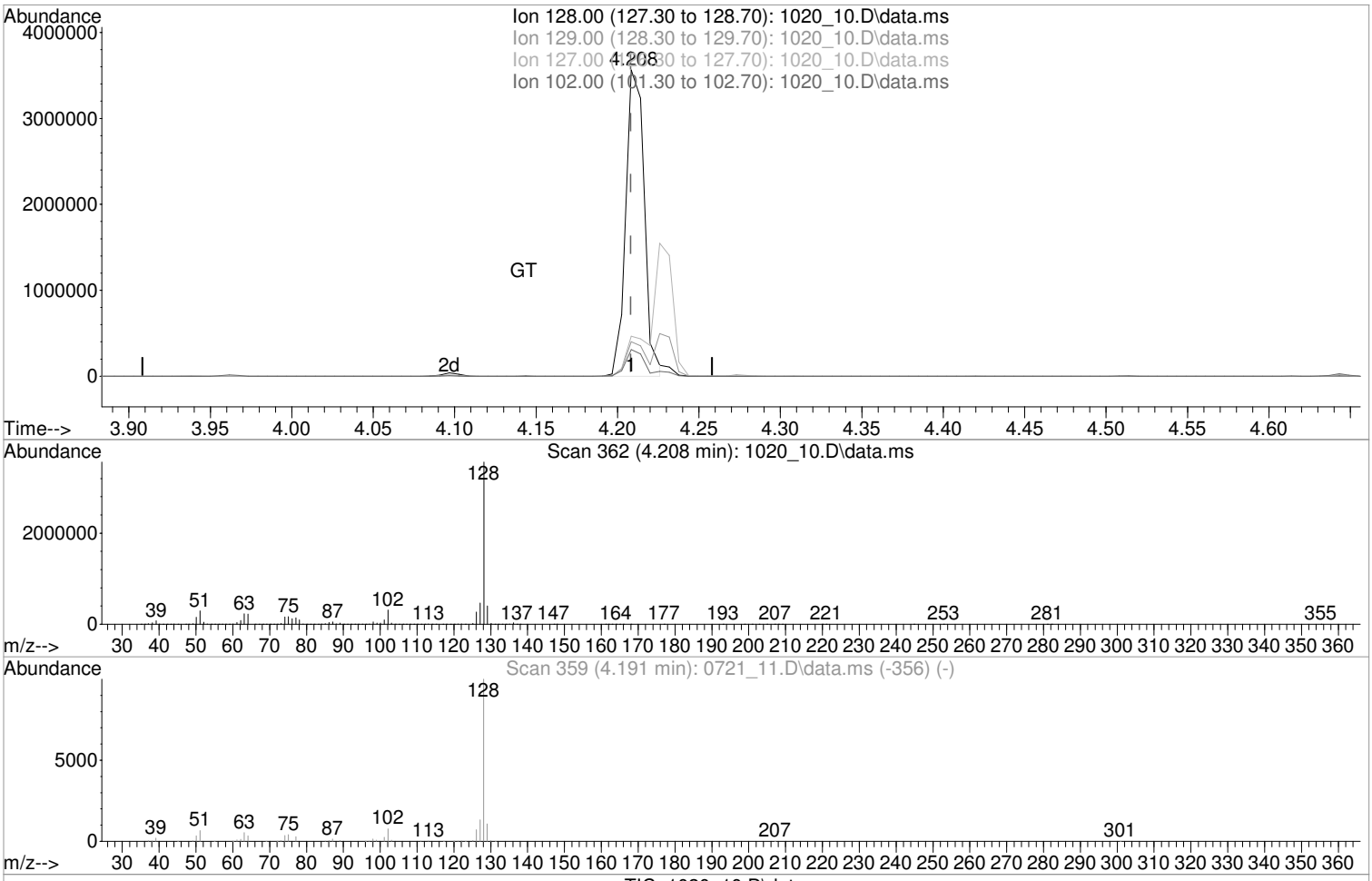
response 2881088

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.30
127.00	13.10	13.07
102.00	8.20	8.71

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration



TIC: 1020_10.D\data.ms

(34) Naphthalene (MT)

4.208min (0.000) 37172.3036023 ppb m

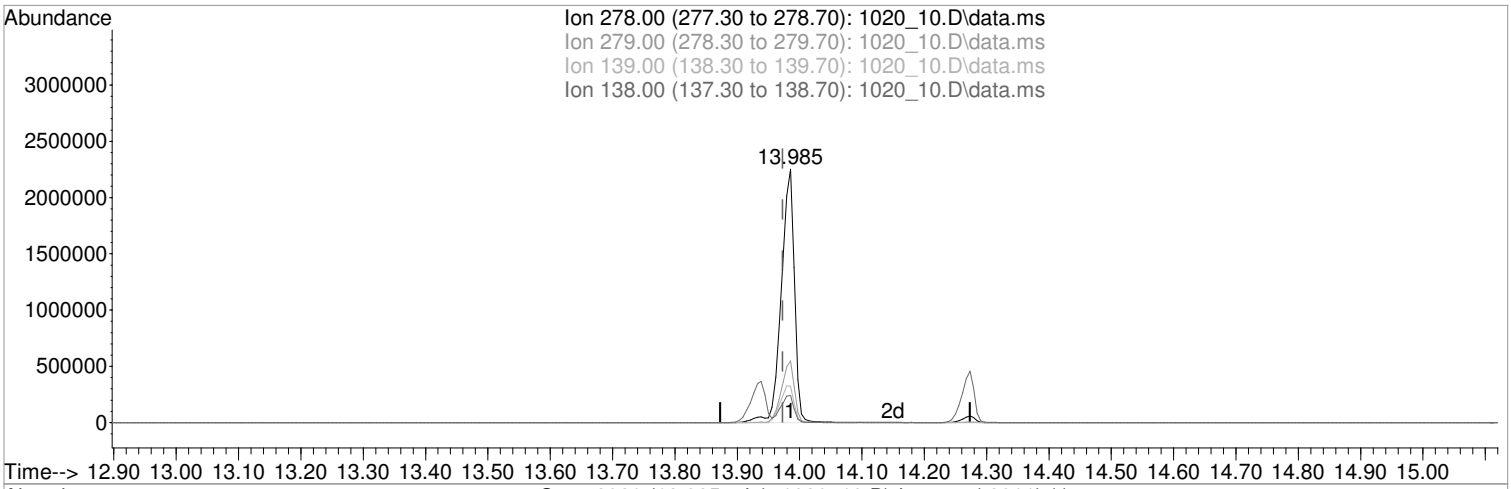
response 2839367

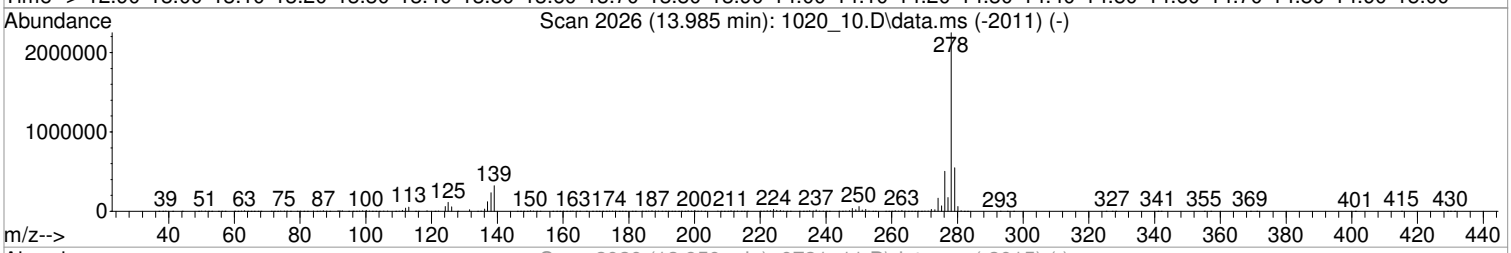
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.31
127.00	13.10	13.07
102.00	8.20	8.71

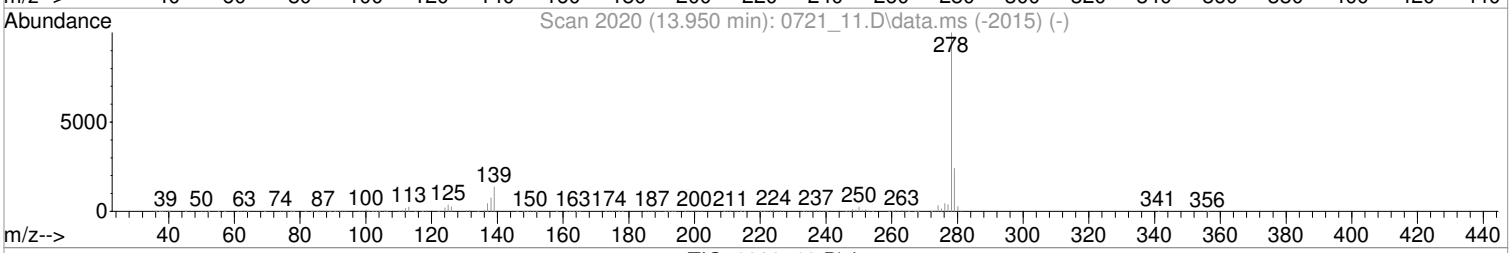
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.985min (+0.012) 37921.8086970 ppb

Qvalue = 98

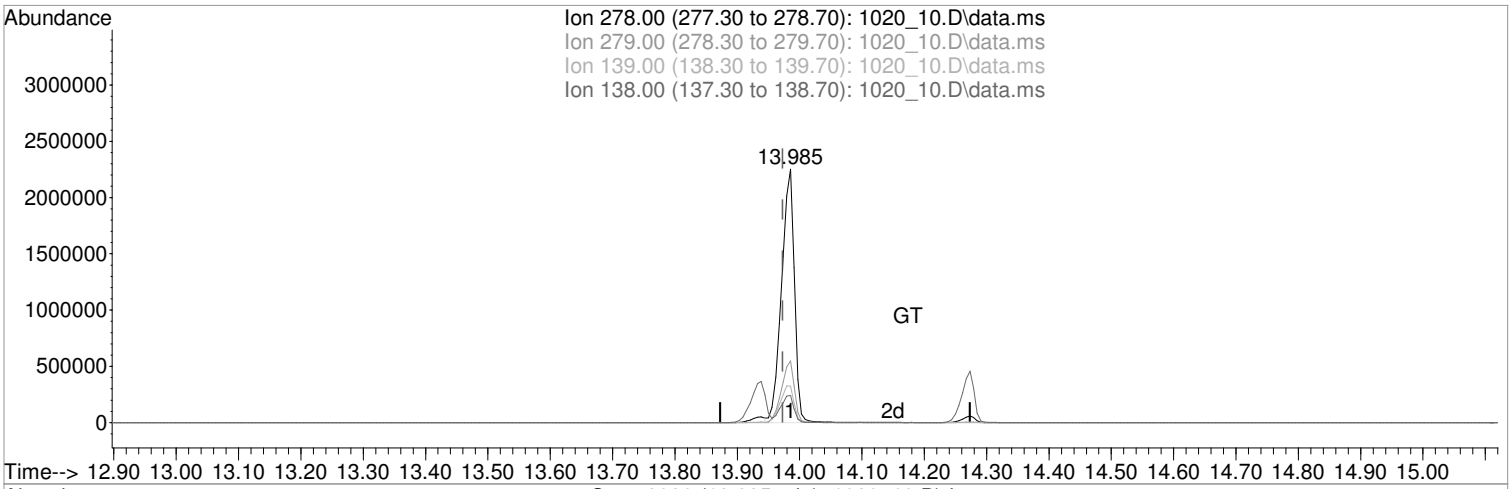
response 3296451

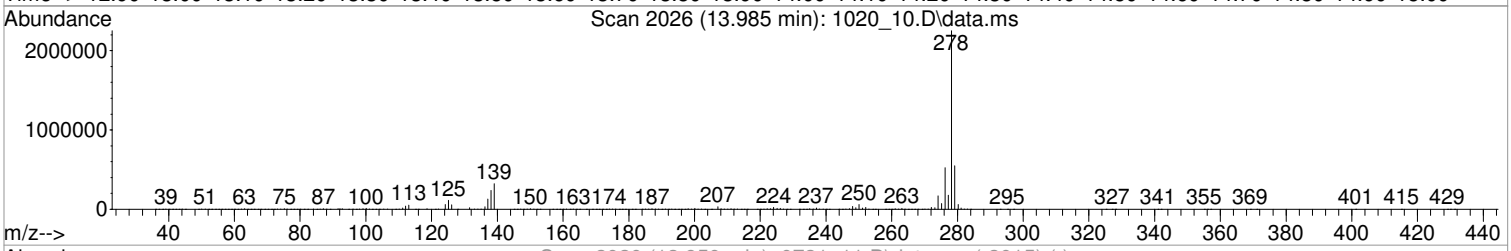
Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.42
139.00	15.10	14.34
138.00	10.40	10.64

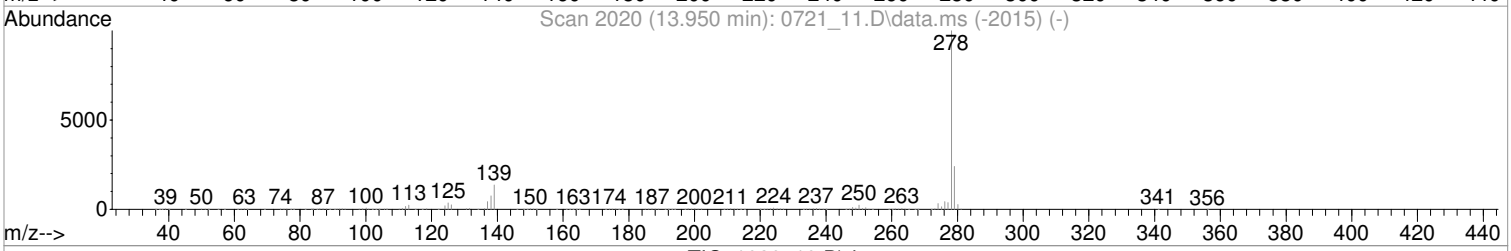
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_10.D
Acq On : 20 Oct 2022 9:29 pm
Operator : 3545
Sample : STD SVMS 40K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 9 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:10:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:09:55 2022
Response via : Initial Calibration







TIC: 1020_10.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.985min (+0.012) 37008.8188101 ppb m

response 3217087

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.43
139.00	15.10	14.34
138.00	10.40	10.67

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	149315	8000.0000000	ppb	# 0.00
23) Naphthalene-d8	4.197	136	575243	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.360	164	310874	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.476	188	527948	8000.0000000	ppb	0.00
84) Chrysene-d12	9.308	240	627119	8000.0000000	ppb	0.01
94) Perylene-d12	12.017	264	623100	8000.0000000	ppb	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.804	112	1255600	48320.2931123	ppb	0.00
Spiked Amount 20000.000				Recovery = 241.60%		
7) Phenol-d5	3.239	99	1534314	48843.0693129	ppb	0.00
Spiked Amount 20000.000				Recovery = 244.22%		
24) Nitrobenzene-d5	3.768	82	1217199m	49916.5185056	ppb	0.00
Spiked Amount 10000.000				Recovery = 499.17%		
50) 2-Fluorobiphenyl	4.878	172	2456388	44369.4804596	ppb	0.00
Spiked Amount 10000.000				Recovery = 443.69%		
73) 2,4,6-Tribromophenol	5.936	330	452712	53442.4433417	ppb	0.00
Spiked Amount 20000.000				Recovery = 267.21%		
87) p-Terphenyl-d14	7.898	244	4201645	48670.5559733	ppb	0.00
Spiked Amount 10000.000				Recovery = 486.71%		
Target Compounds						Qvalue
2) Pyridine	2.252	79	1360229	48711.4992377	ppb	99
3) N-Nitrosodimethylamine	2.246	42	634439	47482.8919860	ppb	97
5) Aniline	3.292	66	682068	47860.9632339	ppb	99
6) bis(2-Chloroethyl)ether	3.310	93	984114m	42074.1740402	ppb	
8) Phenol	3.245	94	1575009	48557.3758779	ppb	98
10) 2-Chlorophenol	3.357	128	1240842	46201.0870321	ppb	98
11) n-Decane	3.351	41	645870	45744.1848235	ppb	98
12) 1,3-Dichlorobenzene	3.439	146	1390338	47408.1110650	ppb	98
13) 1,4-Dichlorobenzene	3.474	146	1400759	47084.8130103	ppb	99
14) Benzyl Alcohol	3.527	79	991750	49130.3909298	ppb	99
15) 1,2-Dichlorobenzene	3.562	146	1315593	47106.2729860	ppb	97
16) bis(2-Chloroisopropyl)...	3.597	121	423154	45124.6955076	ppb	96
17) 2,2-oxybis(1-chloropro...	3.597	121	423154	45124.6955076	ppb	96
18) 2-Methylphenol	3.574	108	1120102	47144.8022406	ppb	99
19) Hexachloroethane	3.750	117	522767	48078.6262208	ppb	96
20) N-Nitrosodi-n-propylamine	3.674	70	837751	48864.5855997	ppb	98
21) 3&4-Methyl phenol	3.656	107	1292296	48127.7776344	ppb	98
25) Nitrobenzene	3.780	77	1218357	48626.2309171	ppb	94
26) Isophorone	3.915	82	2178787	47483.4705317	ppb	100
27) 2-Nitrophenol	3.962	139	651037	50953.5924135	ppb	97
28) 2,4-Dimethylphenol	3.962	107	1120870	46135.9255193	ppb	95
29) bis(2-Chlorethoxy)methane	4.026	93	1357332	47706.0288286	ppb	96
30) 2,4-Dichlorophenol	4.097	162	994367	47478.9550224	ppb	91
32) 1,2,4-Trichlorobenzene	4.156	180	1118432	47096.3587211	ppb	98
34) Naphthalene	4.208	128	3512397m	45765.5645619	ppb	
35) 4-Chloroaniline	4.226	65	408473	46794.0444919	ppb	97
36) Hexachloro-1,3-butadiene	4.273	225	640643	46201.8509604	ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.514	107	1034553	49874.4269933	ppb		94
41)	2-Methylnaphthalene	4.643	142	2330140	47683.6434899	ppb		99
42)	1-Methylnaphthalene	4.714	142	2189379	47968.7590234	ppb		100
47)	Hexachlorocyclopentadiene	4.743	237	853326	46045.0885709	ppb		98
48)	2,4,6-Trichlorophenol	4.820	196	722536	47271.1438612	ppb		95
49)	2,4,5-Trichlorophenol	4.843	196	769185	50403.6030187	ppb		95
51)	Biphenyl	4.949	154	2690855	44633.6176355	ppb		99
52)	2-Chloronaphthalene	4.972	162	2136127	45090.1214439	ppb		99
53)	2-Nitroaniline	5.031	138	793169	53800.5835492	ppb		99
54)	Acenaphthylene	5.266	152	3384018	46438.0703890	ppb		98
55)	Dimethyl phthalate	5.154	163	2470283	48877.7392541	ppb		99
56)	2,6-Dinitrotoluene	5.196	165	599629	53472.6087735	ppb		98
57)	3-Nitroaniline	5.319	138	648665	52578.1131070	ppb	#	84
58)	Acenaphthene	5.384	153	2220014	46003.6496241	ppb		99
59)	2,4-Dinitrophenol	5.395	184	284212	67501.1178728	ppb	#	1
60)	Dibenzofuran	5.507	168	3041276	45507.3275435	ppb		99
61)	2,4-Dinitrotoluene	5.489	165	746559	53001.0717579	ppb		97
63)	4-Nitrophenol	5.419	139	484508	53823.2177799	ppb		92
64)	Fluorene	5.760	166	2477853	45343.1776659	ppb		99
65)	4-Chlorophenyl-phenyle...	5.748	204	1229886	45223.0330929	ppb		92
66)	Diethyl phthalate	5.660	149	2146604	43458.7305325	ppb		98
67)	4-Nitroaniline	5.771	138	554983	48579.3512449	ppb		100
68)	Azobenzene	5.871	77	2339464	45274.7988258	ppb		98
71)	4,6-Dinitro-2-methylph...	5.789	198	372771	69315.2280142	ppb		92
72)	N-Nitrosodiphenylamine	5.836	169	2030643	48313.2409899	ppb		99
74)	4-Bromophenyl-phenylether	6.124	248	764069	48023.1241059	ppb		95
75)	Hexachlorobenzene	6.177	284	973250	49405.6616790	ppb		98
76)	n-octadecane	6.365	55	367145	50262.2439179	ppb		98
77)	Pentachlorophenol	6.318	266	527449	60688.4625004	ppb		96
78)	Phenanthrene	6.500	178	3353379	46781.4414266	ppb		99
79)	Anthracene	6.541	178	3530553	48069.7422115	ppb		100
80)	Carbazole	6.659	167	3393686	48224.1744075	ppb		99
81)	Di-n-butyl phthalate	6.923	149	4139637	48821.1342573	ppb		99
83)	Fluoranthene	7.505	202	4181986	49096.0198585	ppb		99
86)	Pyrene	7.740	202	4346418	46134.8719310	ppb		98
88)	Benzylbutyl phthalate	8.498	149	1987656	50606.3127632	ppb		99
90)	Benzo(a)anthracene	9.297	228	4557465	48322.6763727	ppb		100
91)	Chrysene	9.355	228	4298961	48008.4939884	ppb		98
92)	bis(2-Ethylhexyl)phtha...	9.397	149	2736228	50011.3175904	ppb		99
93)	Di-n-octyl phthalate	10.636	149	4847030	52714.5521562	ppb		99
95)	Benzo(b)fluoranthene	11.253	252	4787714	51475.3464288	ppb		99
96)	Benzo(k)fluoranthene	11.318	252	4724960	51446.2361145	ppb		99
97)	Benzo(a)pyrene	11.917	252	4146402	51315.9142490	ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.944	276	3836172	46624.2983789	ppb		100
99)	Dibenz(a,h)anthracene	13.991	278	3973229m	47228.4286596	ppb		
100)	Benzo(g,h,i)perylene	14.279	276	3741989	44492.8650592	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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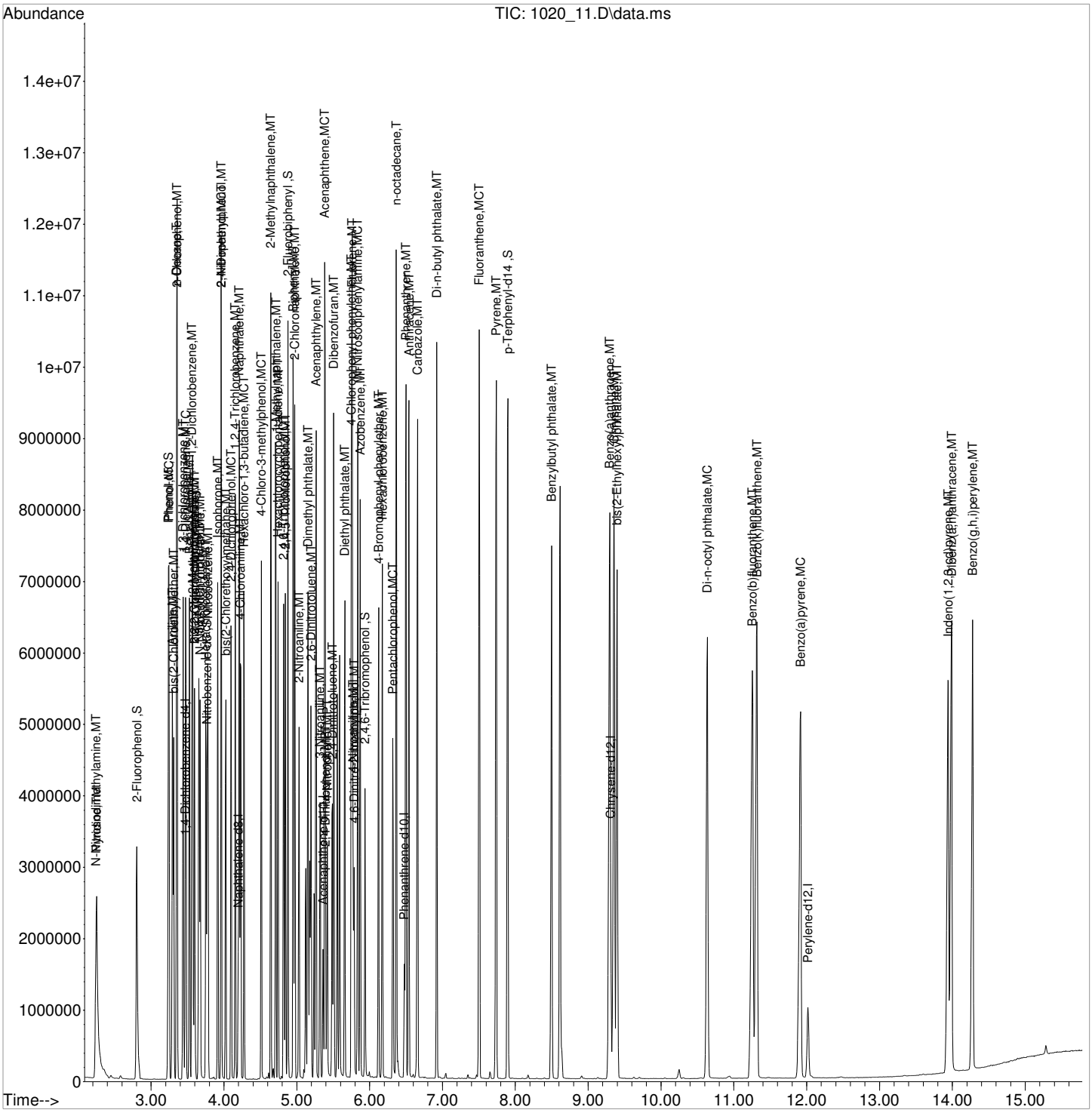
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:23:39 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
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Quant Title : 8270 BNA
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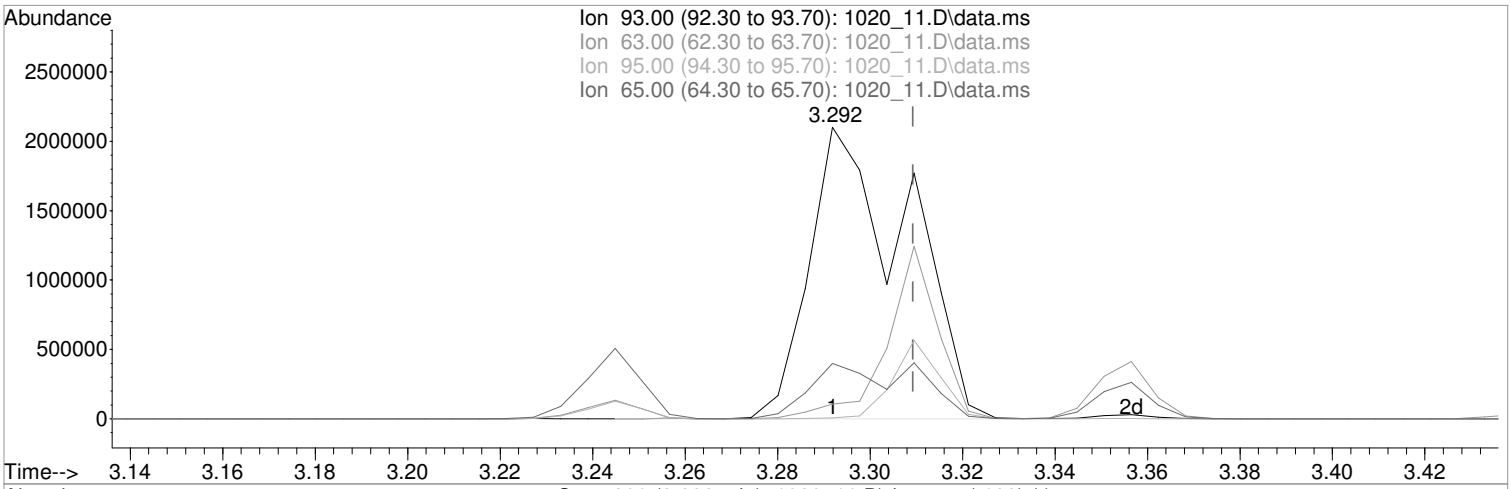
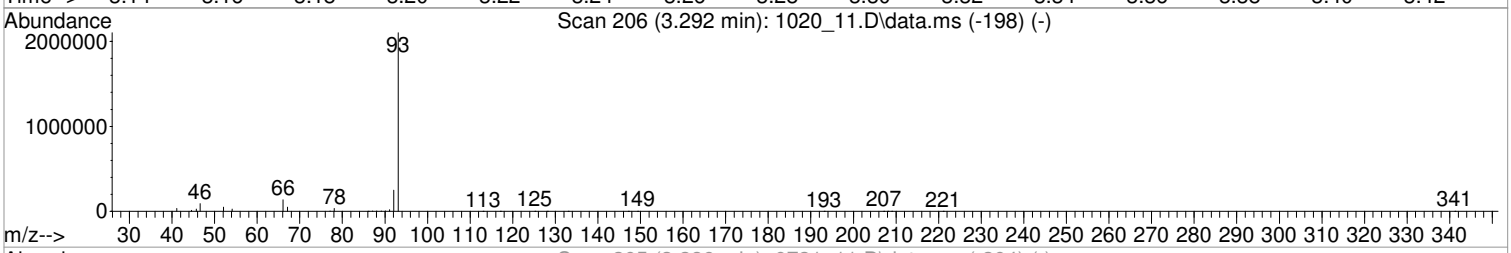
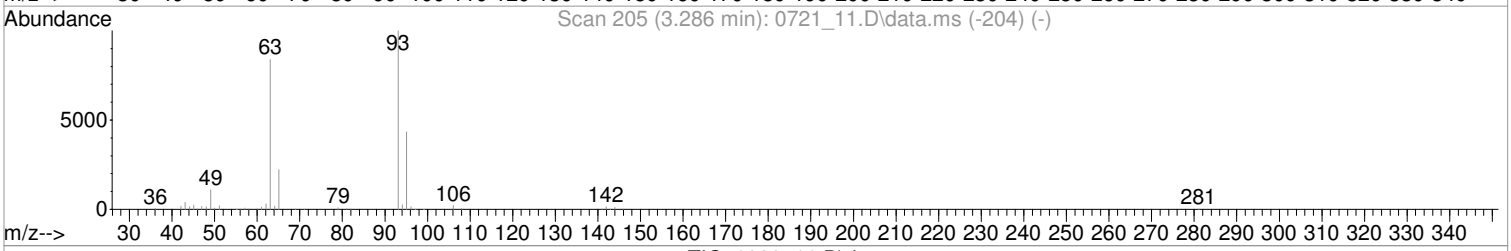
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.292min (-0.017) 132296.7048644 ppb

Qvalue = 41

response 3094417

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	4.77#
95.00	32.50	0.24#
65.00	21.90	18.73

Quantitation Report (Qedit)

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Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
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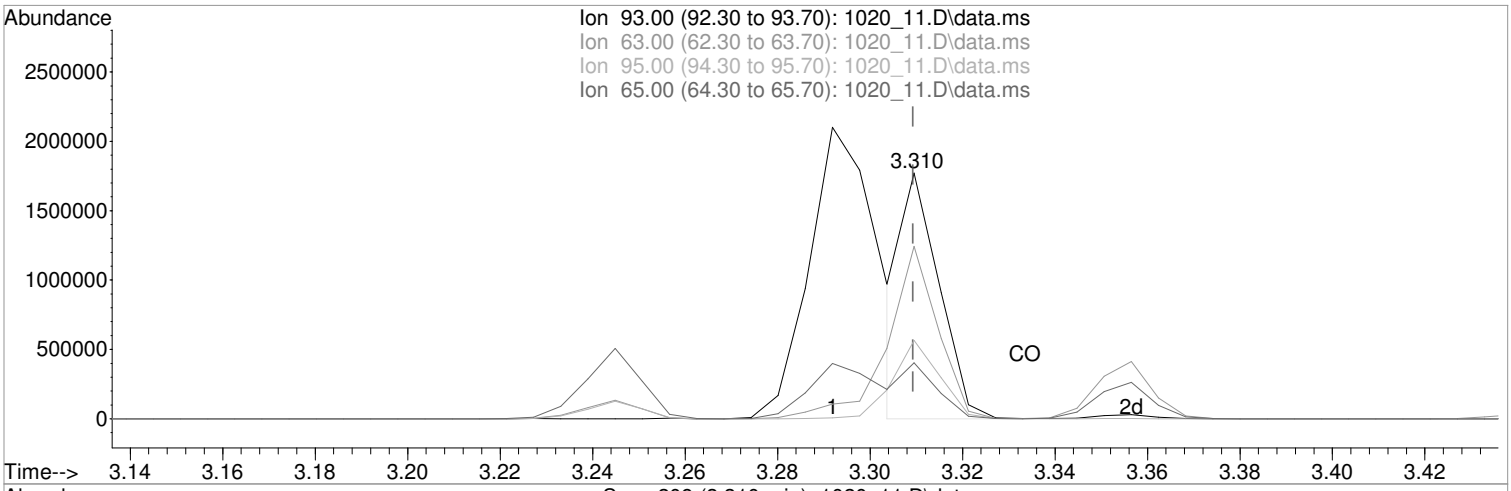

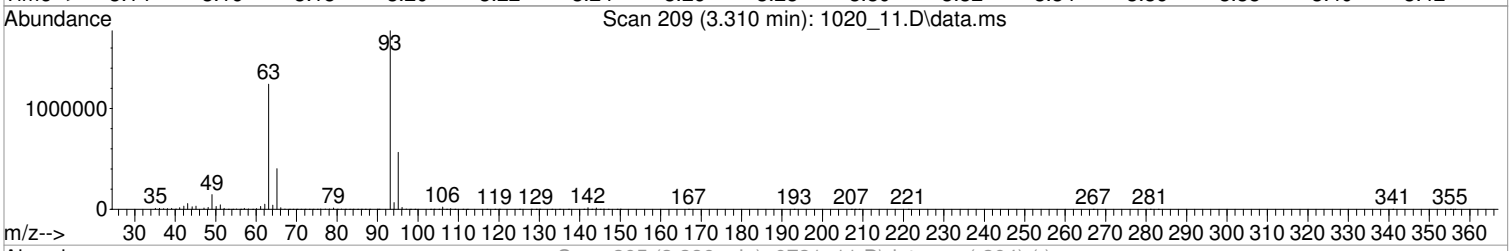

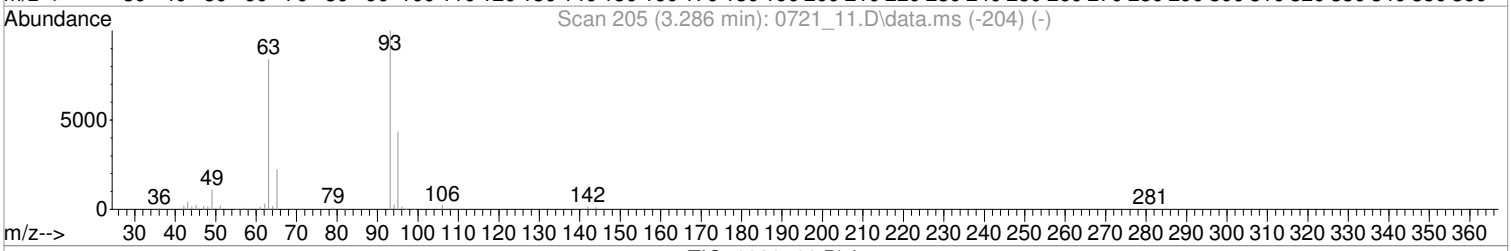

TIC: 1020_11.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.310min (+0.000) 42074.1740402 ppb m

response 984114

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	70.10
95.00	32.50	31.93
65.00	21.90	22.74

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
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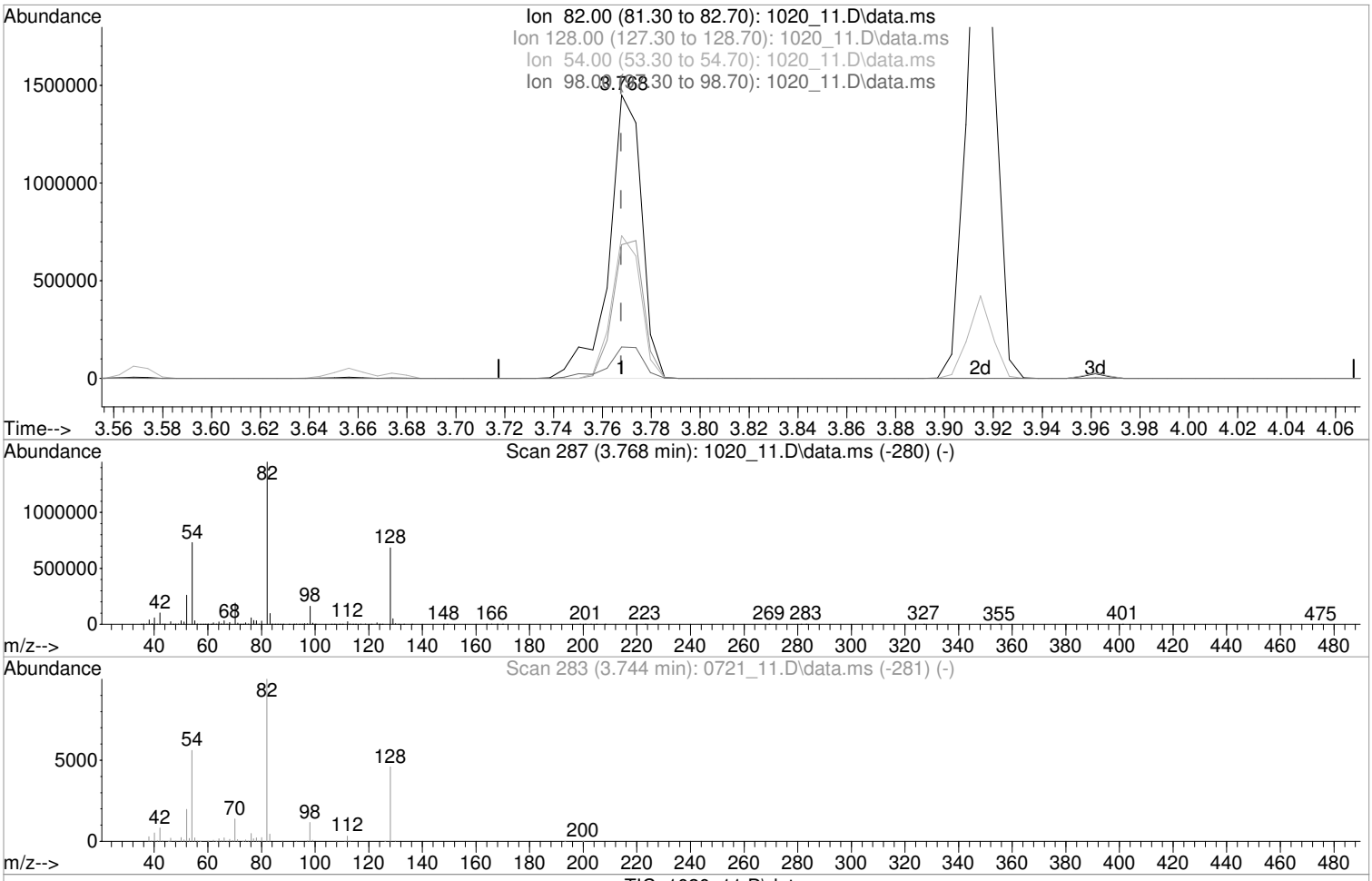
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration



TIC: 1020_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 55090.0098373 ppb

Qvalue = 96

response 1343353

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.17
54.00	48.90	50.35
98.00	12.10	11.12

Data Path : C:\msdchem\1\data\102022\
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Acq On : 20 Oct 2022 9:49 pm
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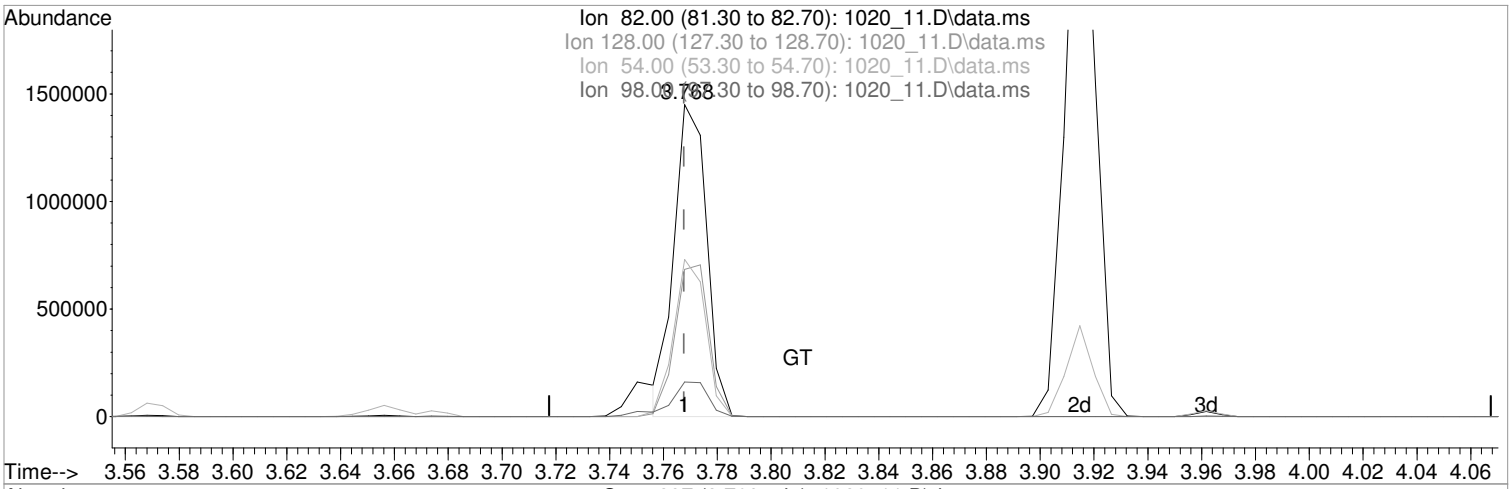
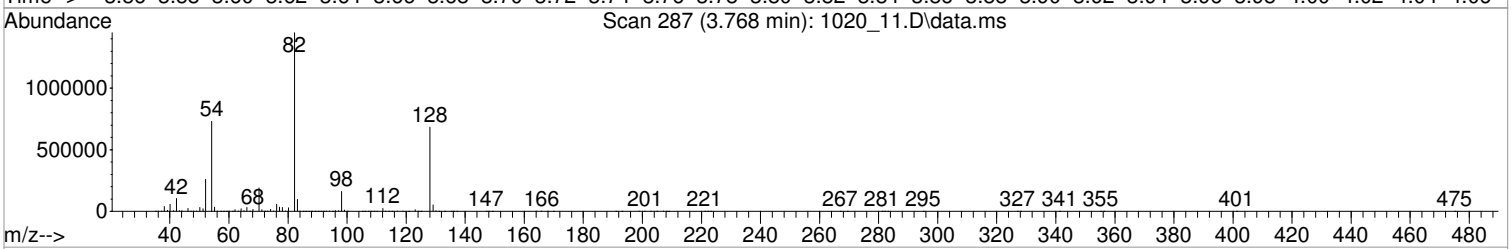
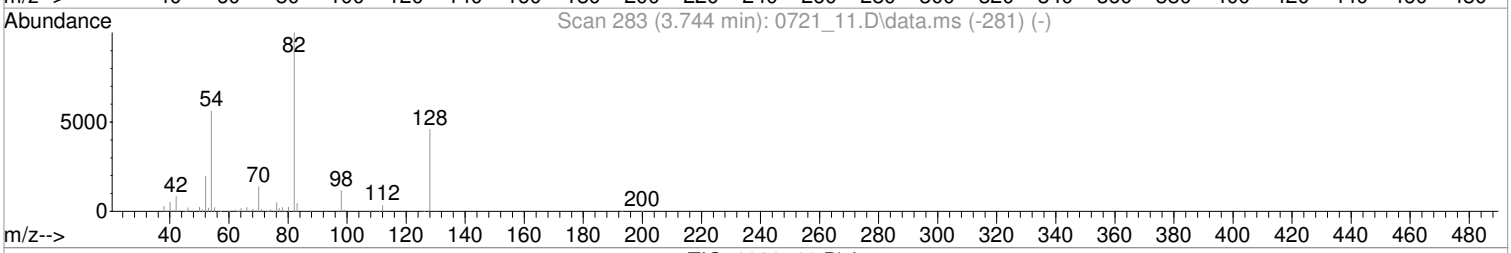
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration







TIC: 1020_11.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 49916.5185056 ppb m

response 1217199

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	47.16
54.00	48.90	50.38
98.00	12.10	11.15

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
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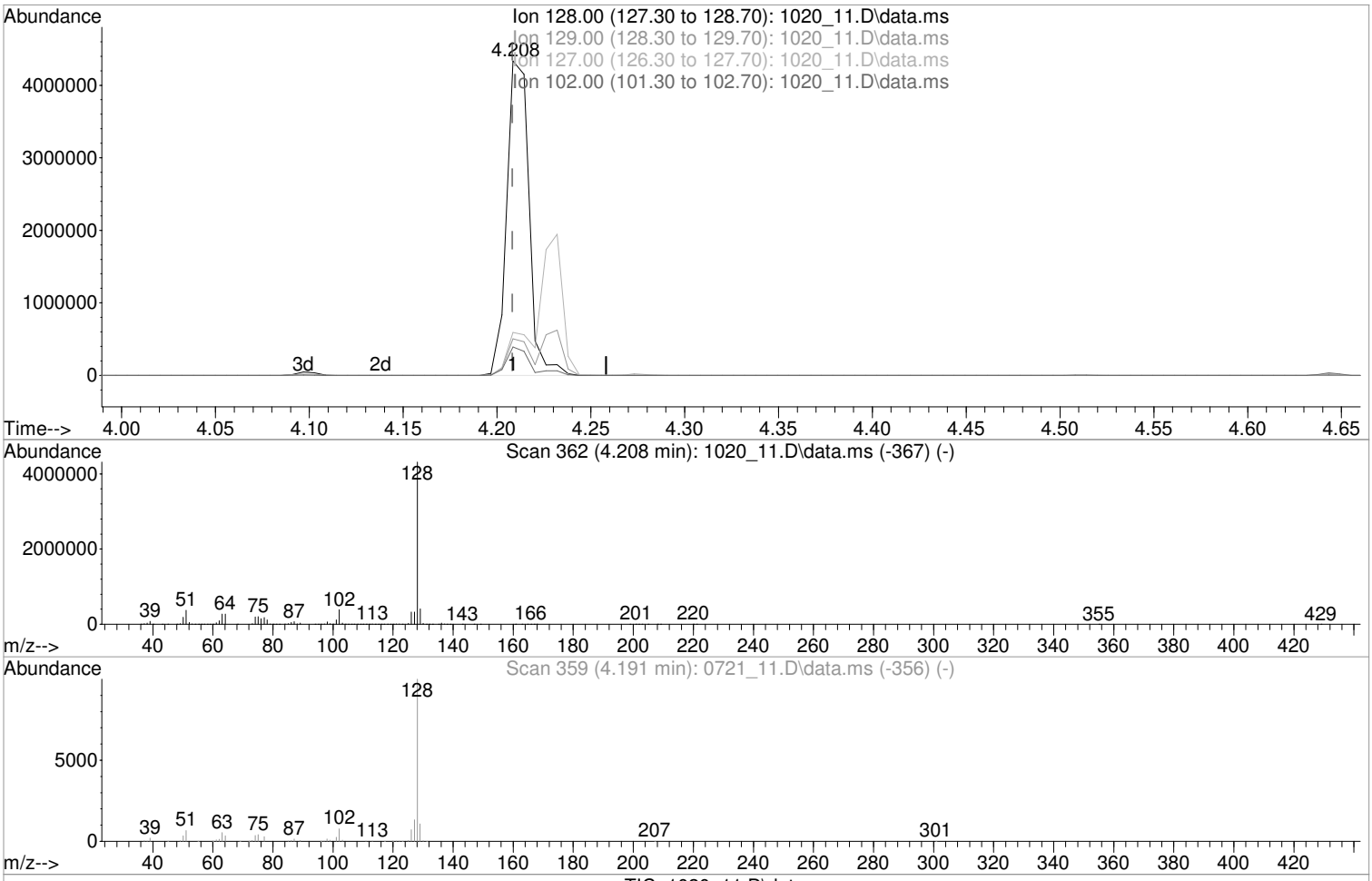
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:12:11 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:11:58 2022
Response via : Initial Calibration



TIC: 1020_11.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 46549.6803409 ppb

Qvalue = 98

response 3572576

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.58
127.00	13.10	13.65
102.00	8.20	9.06

Quantitation Report (Qedit)

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Acq On : 20 Oct 2022 9:49 pm
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Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
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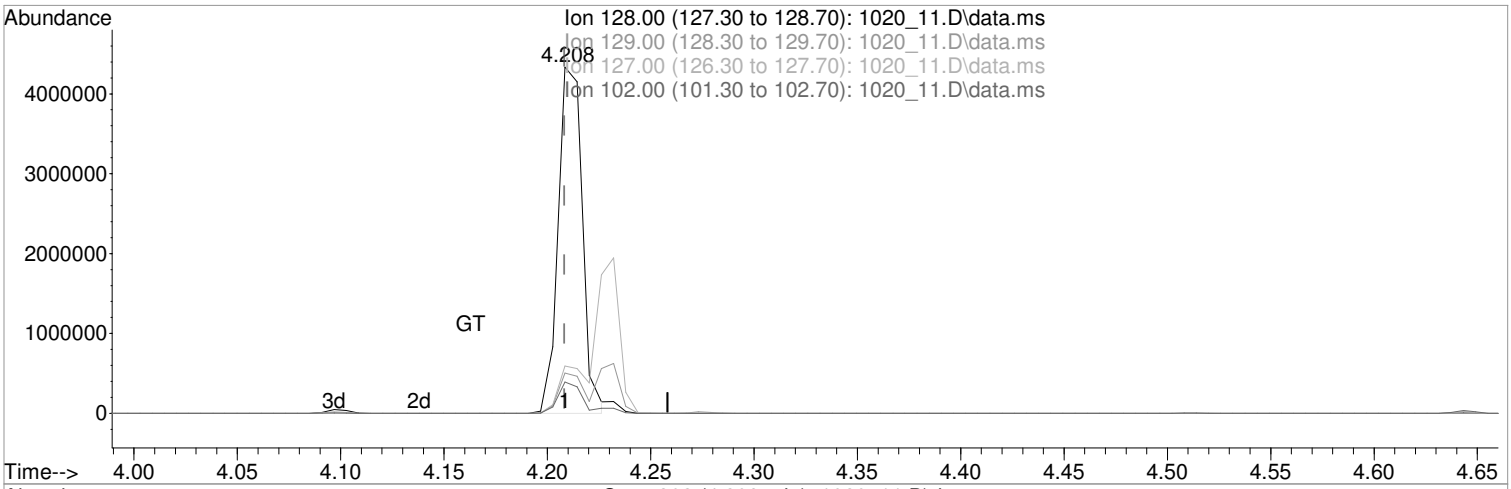

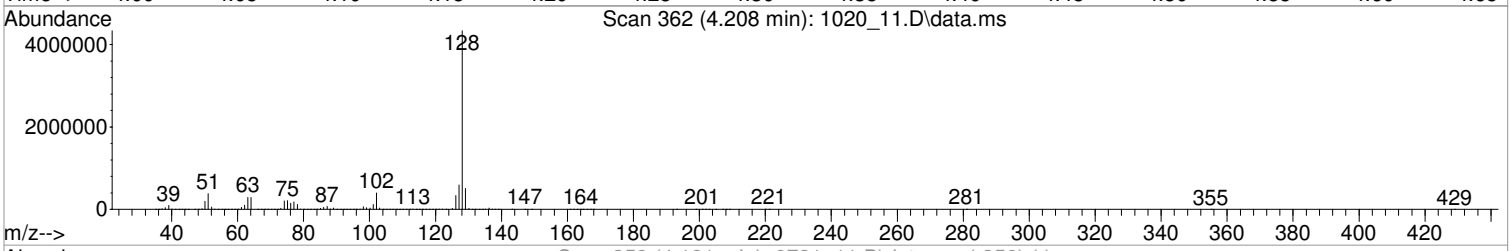

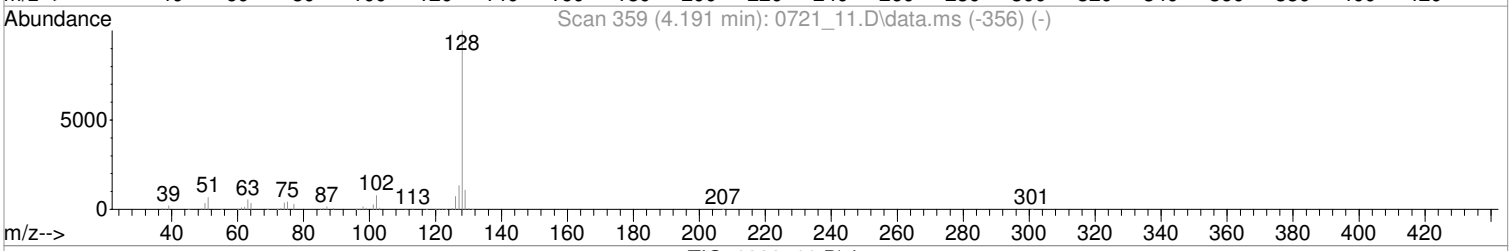

TIC: 1020_11.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 45765.5645619 ppb m

response 3512397

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	11.59
127.00	13.10	13.65
102.00	8.20	9.06

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
Operator : 3545
Sample : STD SVMS 50K PPB 22J20311 exp 4/13/23
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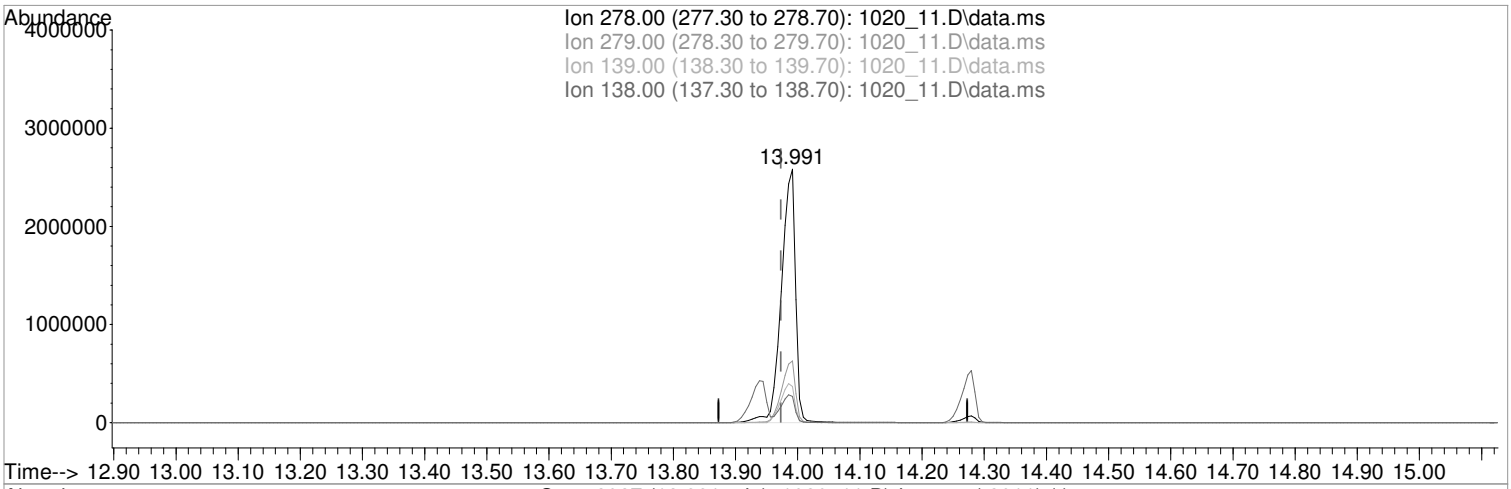

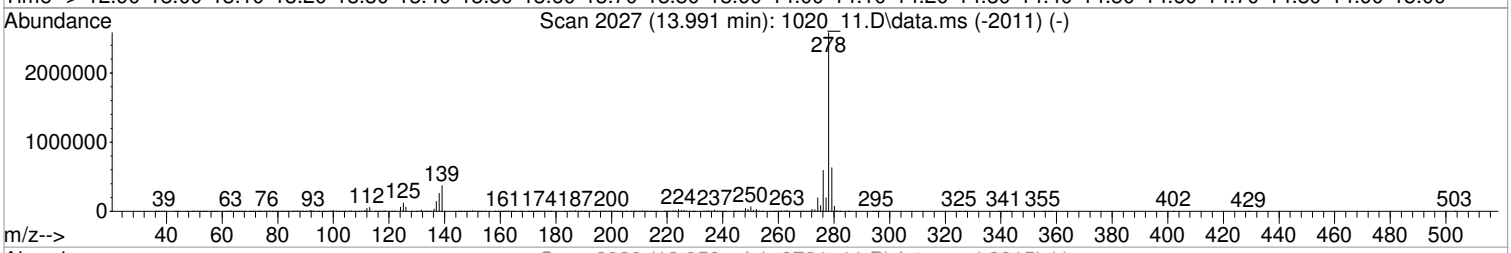

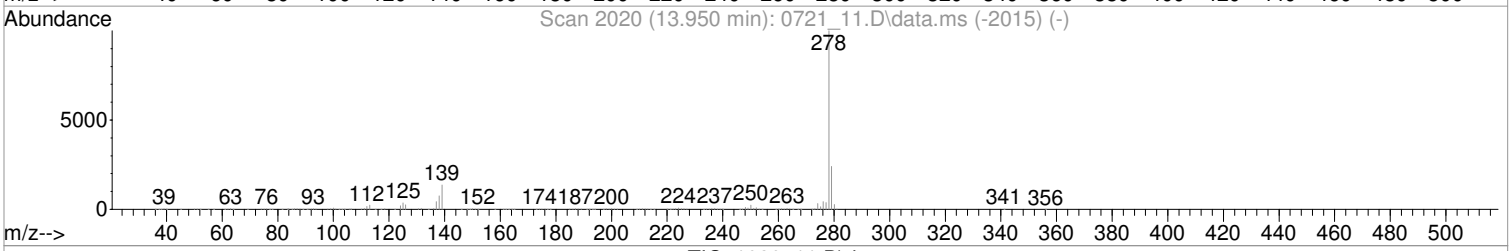

TIC: 1020_11.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.991min (+0.018) 48397.9929563 ppb

Qvalue = 99

response 4071622

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.33
139.00	15.10	14.30
138.00	10.40	10.29

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_11.D
Acq On : 20 Oct 2022 9:49 pm
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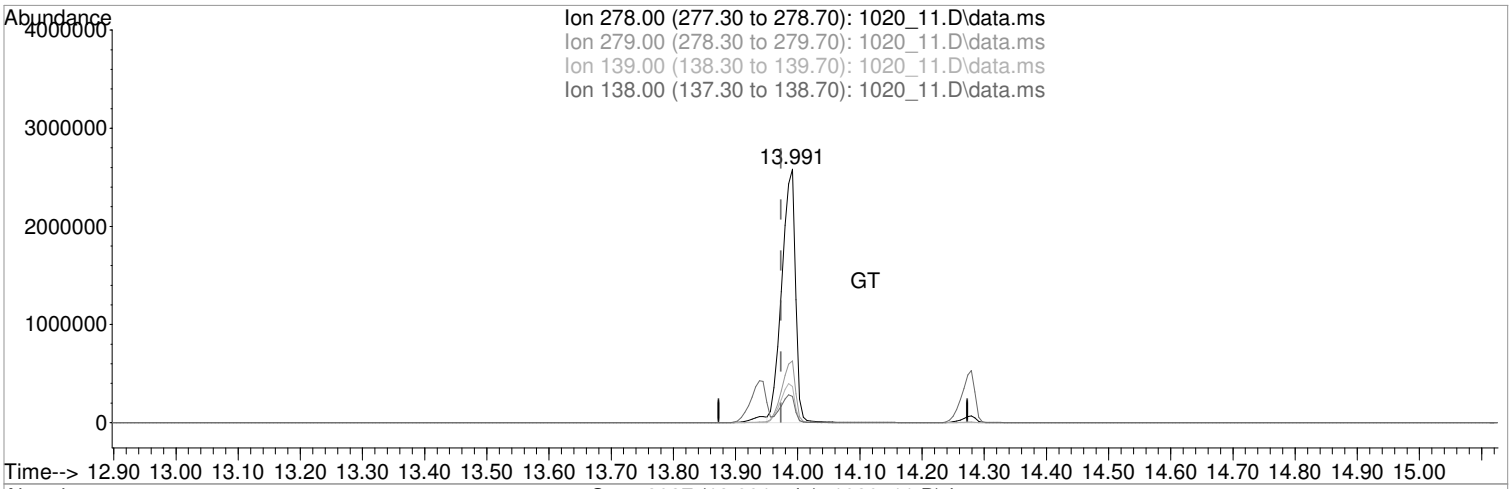
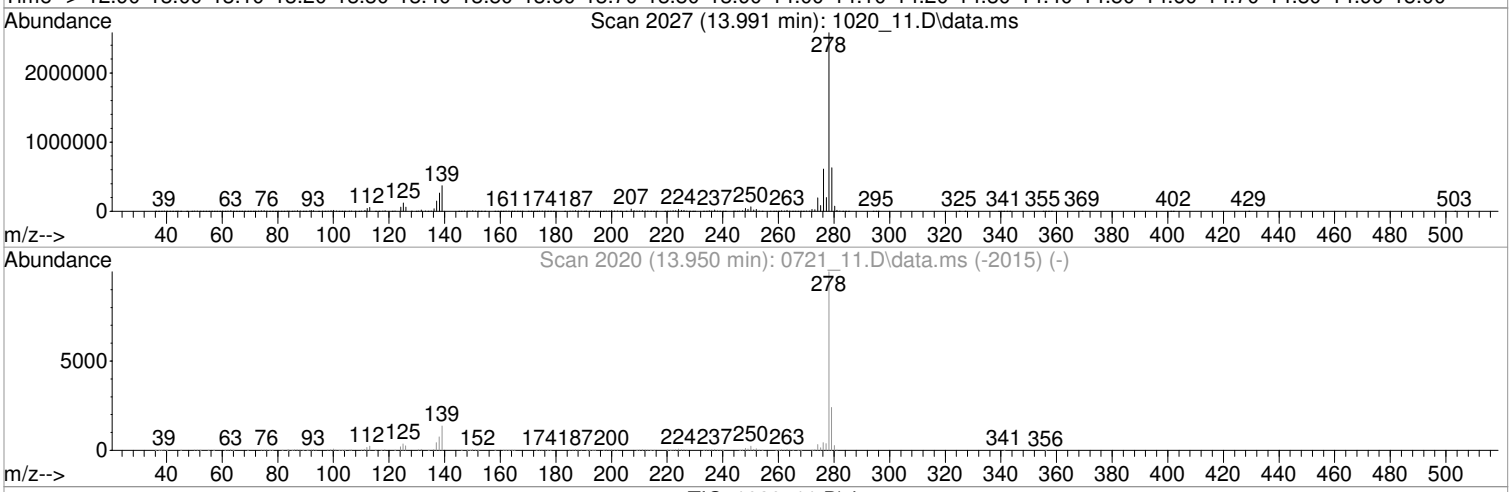
Response via : Initial Calibration





TIC: 1020_11.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

13.991min (+0.018) 47228.4286596 ppb m

response 3973229

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.33
139.00	15.10	14.29
138.00	10.40	10.31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_12.D
Acq On : 20 Oct 2022 10:10 pm
Operator : 3545
Sample : STD TCL 1K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:27:09 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:23:49 2022
Response via : Initial Calibration

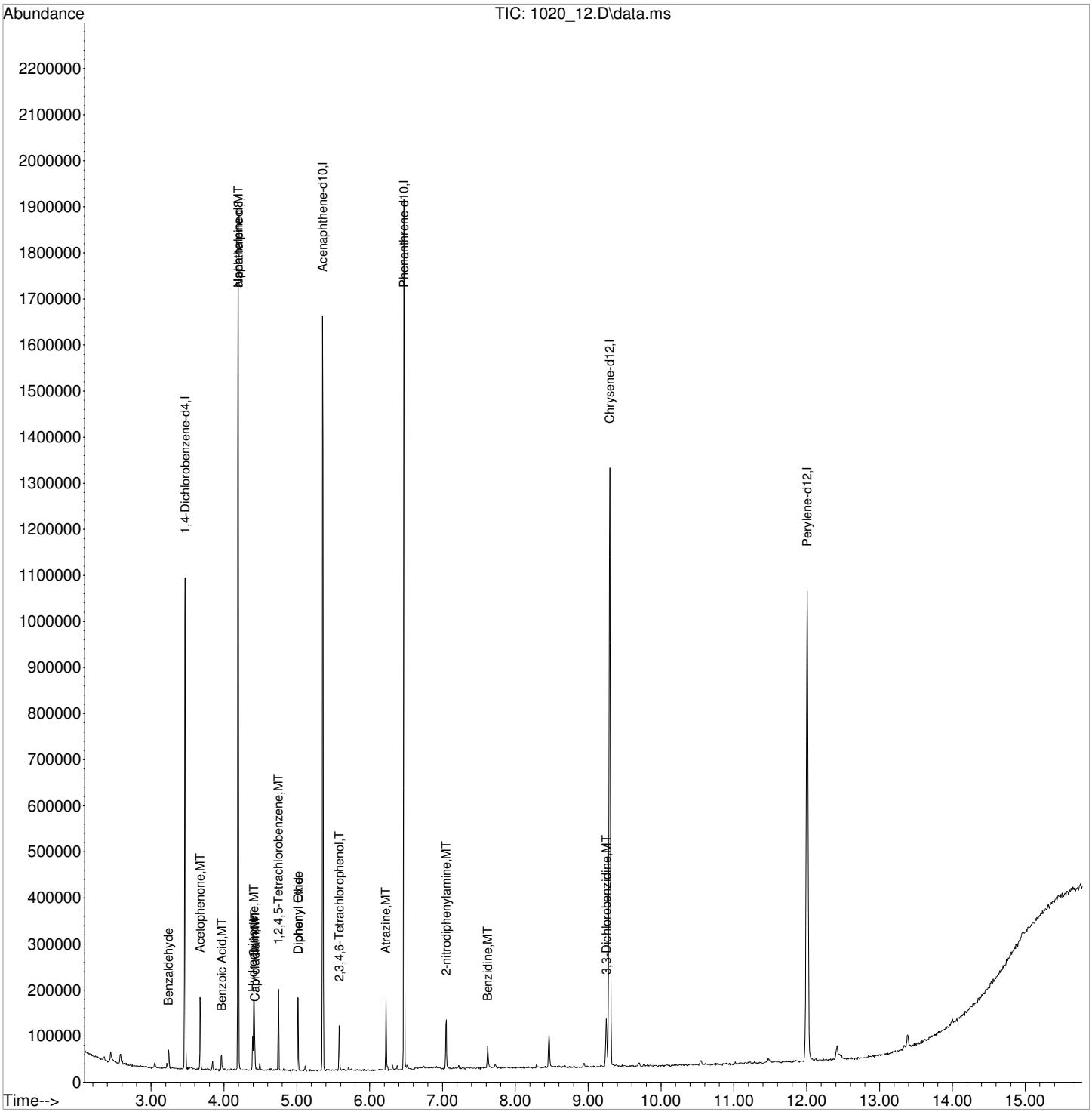
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	154992	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	603411	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	296738	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	599490	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	618690	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	674965	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	7720	1086.4725910	ppb	96
22) Acetophenone	3.674	105	33573	975.7464367	ppb	97
31) Benzoic Acid	3.967	105	7137	739.9159675	ppb	98
33) alpha-terpineol	4.197	59	19537	1124.1896811	ppb	96
37) Hydroquinone	4.396	110	20854	1472.6272223	ppb	97
38) Quinoline	4.414	129	48796	1153.5182155	ppb	97
39) Caprolactam	4.426	113	5920	1358.2886485	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.749	216	24074	1154.4124419	ppb	99
44) Diphenyl Ether	5.019	170	30642	1125.3444220	ppb	94
45) Diphenyl Oxide	5.019	170	30642	1125.3444220	ppb	94
62) 2,3,4,6-Tetrachlorophenol	5.583	232	10261	940.2086249	ppb	98
69) Atrazine	6.224	200	14285	973.7787422	ppb	95
82) 2-nitrodiphenylamine	7.052	167	13035	829.4821373	ppb	95
85) Benzidine	7.622	184	20892	631.5950022	ppb	98
89) 3,3-Dichlorobenzidine	9.250	252	34388	918.3369276	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_12.D
Acq On : 20 Oct 2022 10:10 pm
Operator : 3545
Sample : STD TCL 1K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:27:09 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:23:49 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:02 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration

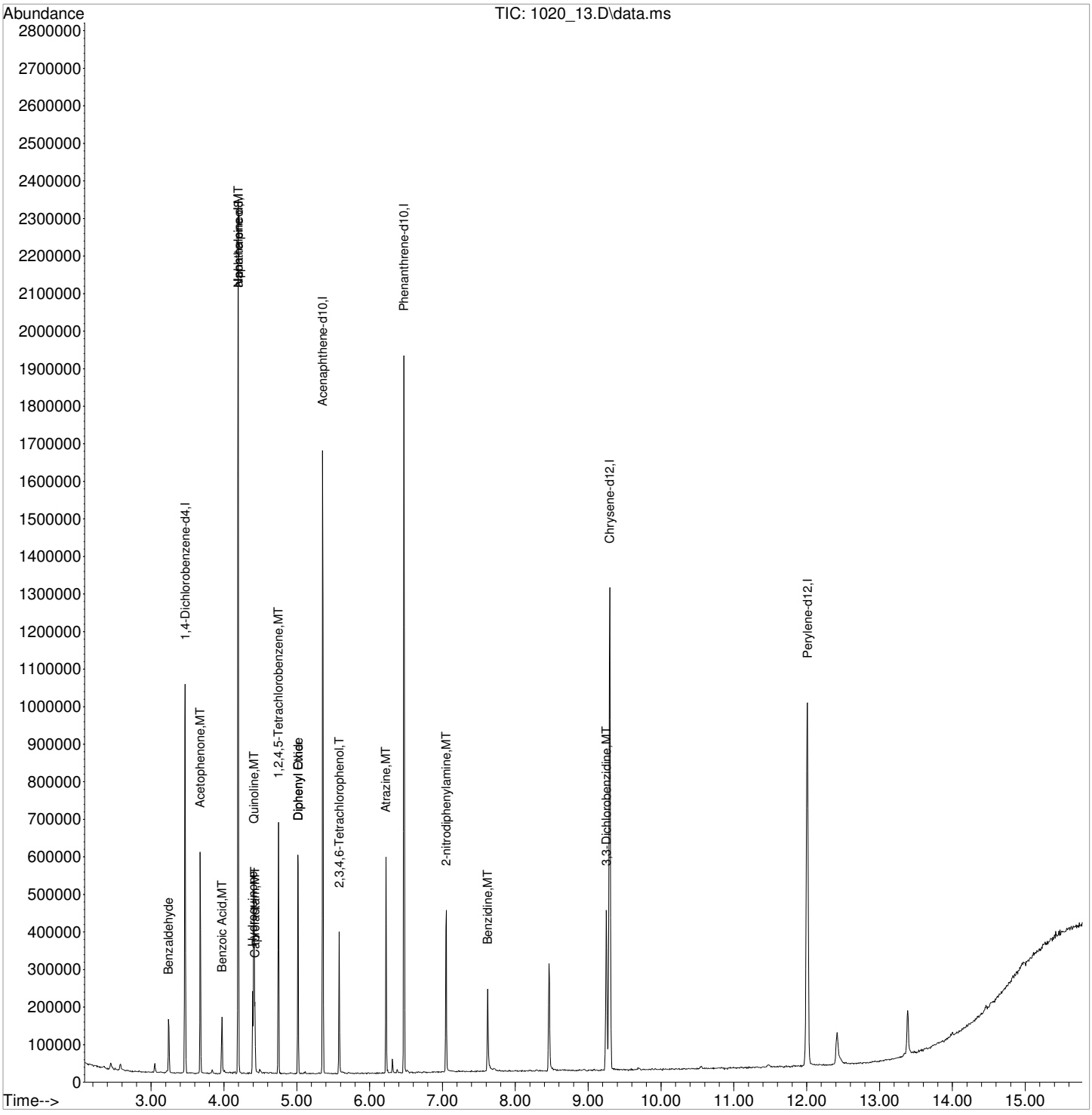
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151549	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	615916	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	291593	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	585633	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	614545	8000.0000000	ppb	0.00
94) Perylene-d12	12.011	264	663481	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	27780	3832.7212516	ppb	97
22) Acetophenone	3.674	105	126531	3807.1392300	ppb	98
31) Benzoic Acid	3.973	105	33535	3915.2407505	ppb	95
33) alpha-terpineol	4.197	59	73295	3890.3126465	ppb	98
37) Hydroquinone	4.396	110	57452	3214.9312724	ppb	98
38) Quinoline	4.414	129	172319	3706.3513181	ppb	99
39) Caprolactam	4.426	113	16100	3069.1704804	ppb	93
43) 1,2,4,5-Tetrachloroben...	4.749	216	88913	3877.6703914	ppb	99
44) Diphenyl Ether	5.019	170	112842	3820.5997440	ppb	98
45) Diphenyl Oxide	5.019	170	112842	3820.5997440	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.583	232	40524	3895.1526828	ppb	97
69) Atrazine	6.224	200	55350	3890.6778243	ppb	98
82) 2-nitrodiphenylamine	7.052	167	52874	3765.2723370	ppb	98
85) Benzidine	7.622	184	104193m	3887.1763754	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	135217	3790.1023847	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

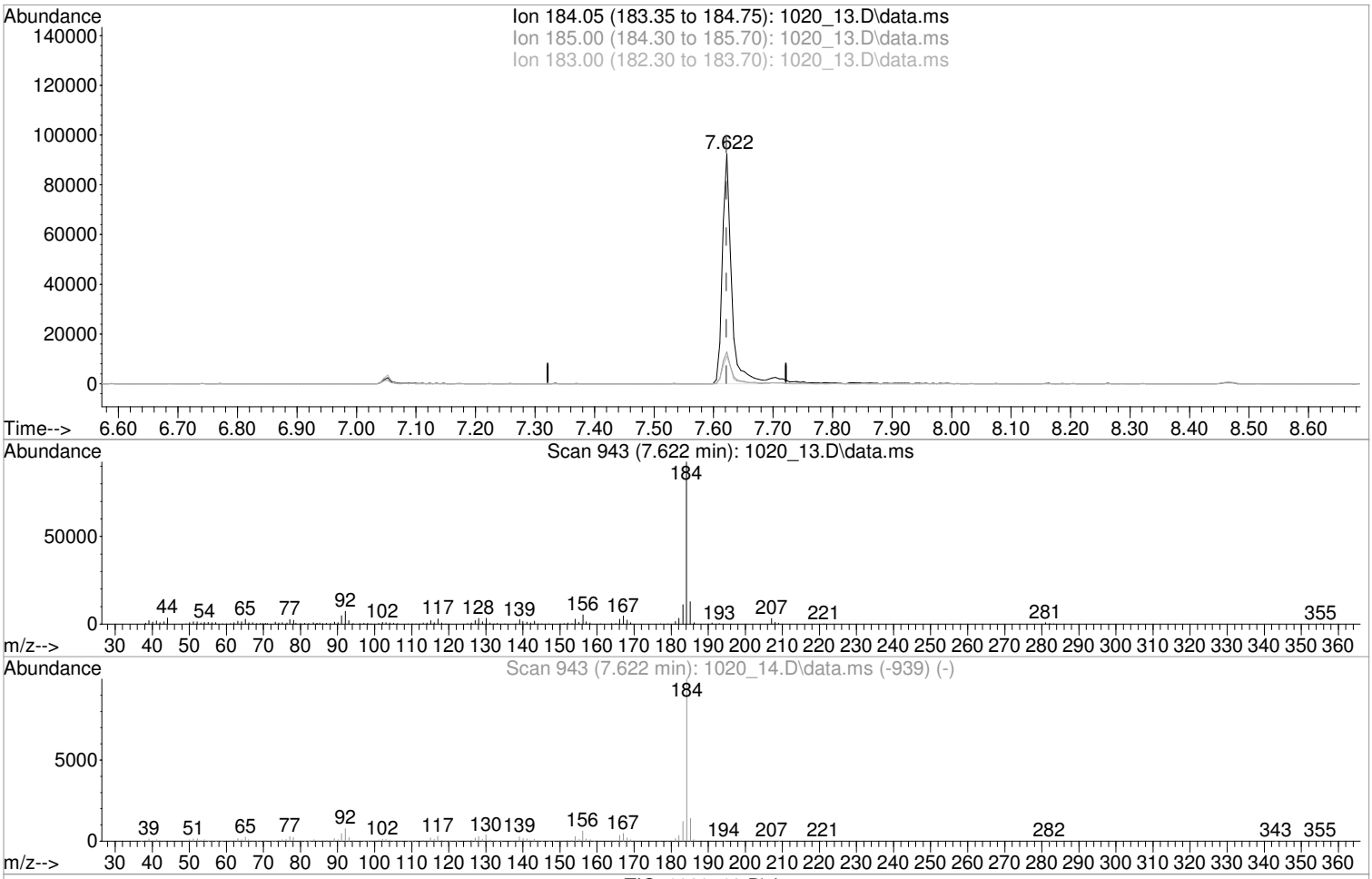
Quant Time: Oct 21 09:30:02 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:28:23 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



TIC: 1020_13.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 3662.2123803 ppb

Qvalue = 97

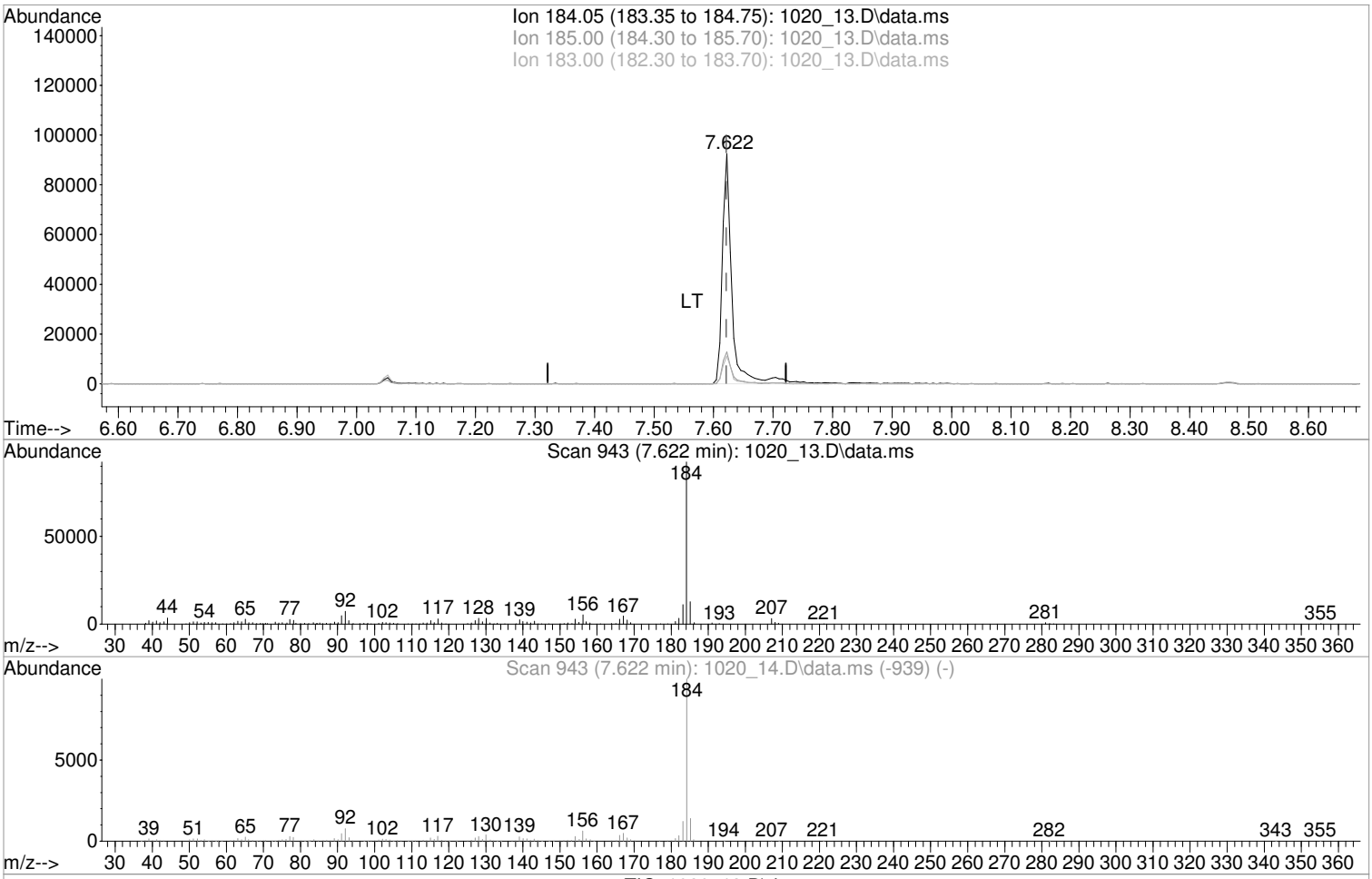
response 98163

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	14.22
183.00	11.30	12.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_13.D
Acq On : 20 Oct 2022 10:31 pm
Operator : 3545
Sample : STD TCL 4K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 12 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:28:23 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:28:19 2022
Response via : Initial Calibration



TIC: 1020_13.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 3887.1763754 ppb m

response 104193

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.40
183.00	11.30	11.85
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration

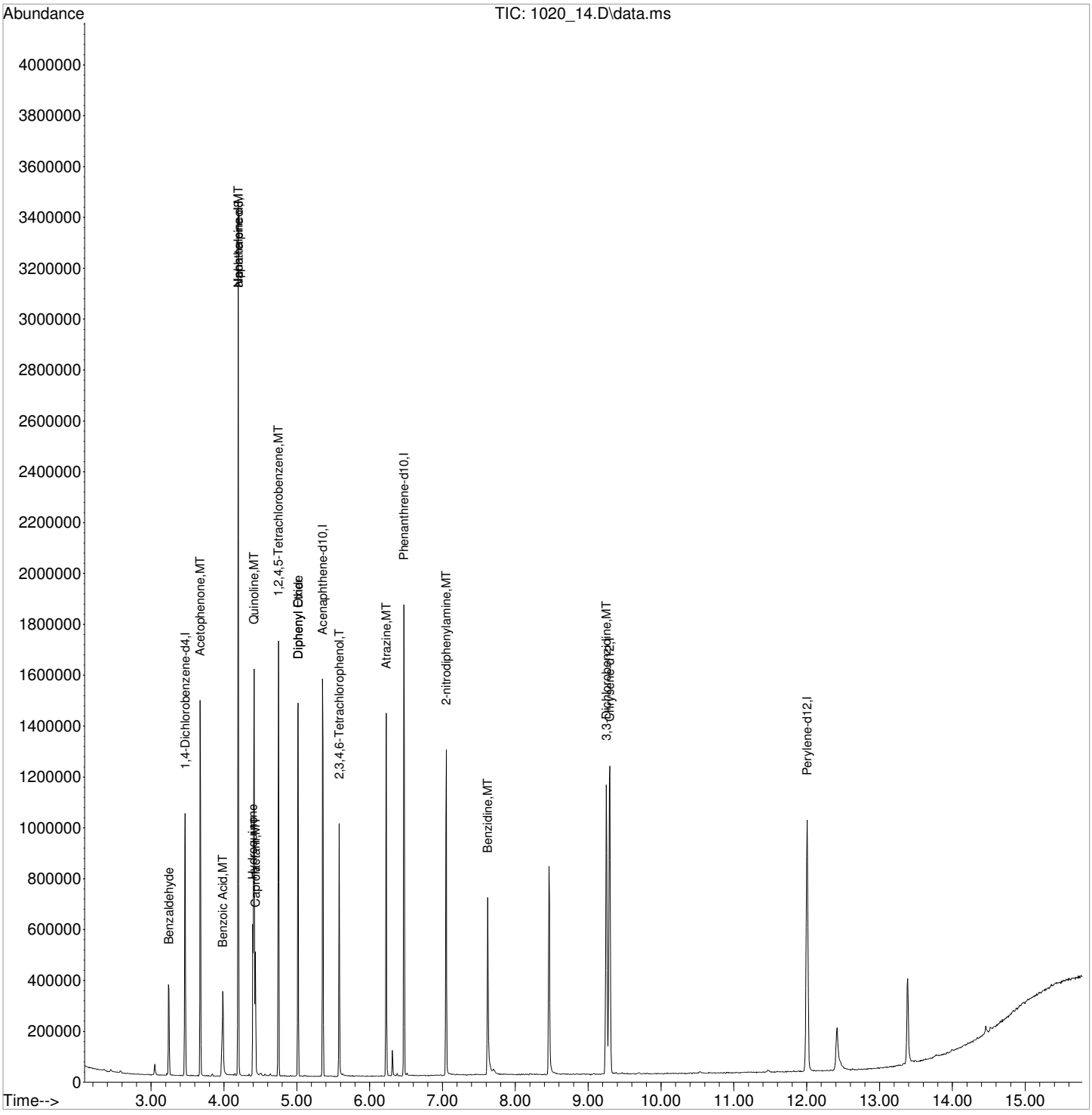
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151241	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	655422	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	290274	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	584573	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	610433	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	658056	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.245	105	69336	10000.0000000	ppb	100
22) Acetophenone	3.674	105	335748	10000.0000000	ppb	100
31) Benzoic Acid	3.985	105	104771	10000.0000000	ppb	100
33) alpha-terpineol	4.197	59	188767	10000.0000000	ppb	100
37) Hydroquinone	4.396	110	153817	9895.9687070	ppb	100
38) Quinoline	4.414	129	459481	10000.0000000	ppb	100
39) Caprolactam	4.432	113	47341	10000.0000000	ppb	100
43) 1,2,4,5-Tetrachloroben...	4.749	216	226514	10000.0000000	ppb	100
44) Diphenyl Ether	5.019	170	295760	10000.0000000	ppb	100
45) Diphenyl Oxide	5.019	170	295760	10000.0000000	ppb	100
62) 2,3,4,6-Tetrachlorophenol	5.583	232	106758	10030.7241311	ppb	100
69) Atrazine	6.229	200	143501	10000.0000000	ppb	100
82) 2-nitrodiphenylamine	7.052	167	153236	10007.5757576	ppb	100
85) Benzidine	7.622	184	326367m	9915.2681403	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	369462	10000.0000000	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:21:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_04.D
Acq On : 29 Oct 2022 9:30 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:12:49 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration

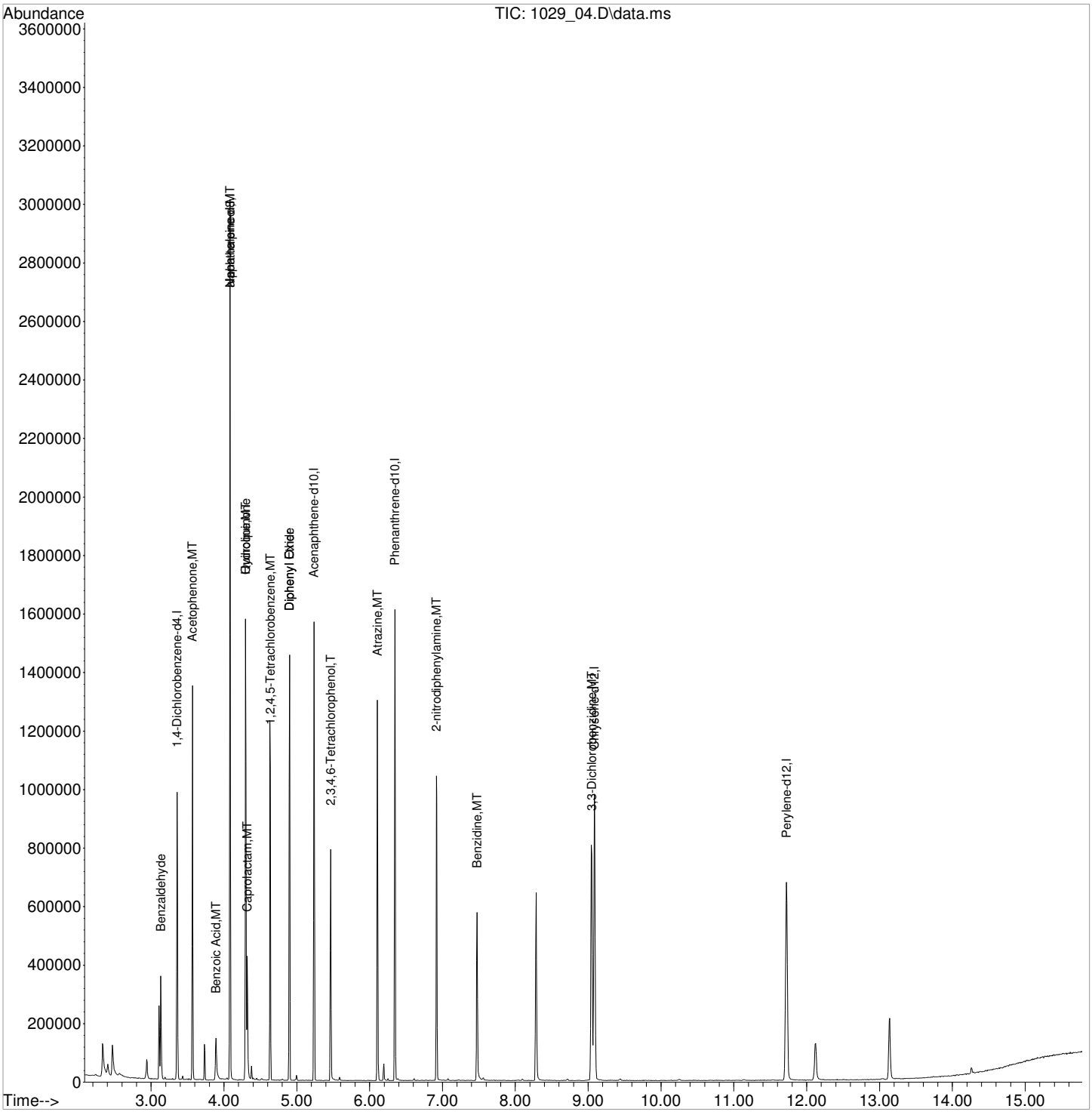
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.356	152	126934	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.085	136	555091	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.237	164	249114	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.347	188	477175	8000.0000000	ppb	0.00
84) Chrysene-d12	9.085	240	475891	8000.0000000	ppb	0.00
94) Perylene-d12	11.723	264	456905	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.133	105	57562	9829.4483675	ppb	96
22) Acetophenone	3.568	105	257284	9284.7770952	ppb	97
31) Benzoic Acid	3.891	105	50120	5915.8789131	ppb	95
33) alpha-terpineol	4.085	59	160648	10341.8973613	ppb	95
37) Hydroquinone	4.296	110	113804m	7990.9115573	ppb	
38) Quinoline	4.296	129	360115	9557.6017839	ppb	97
39) Caprolactam	4.320	113	40389	10795.1041379	ppb	86
43) 1,2,4,5-Tetrachloroben...	4.637	216	188500	10102.0977159	ppb	100
44) Diphenyl Ether	4.902	170	242920	10141.4481075	ppb	98
45) Diphenyl Oxide	4.902	170	242920	10141.4481075	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.466	232	81826	9239.6041253	ppb	100
69) Atrazine	6.106	200	115407	9180.7782914	ppb	99
82) 2-nitrodiphenylamine	6.917	167	129047	9415.7754190	ppb	99
85) Benzidine	7.475	184	228853	8274.5621053	ppb	97
89) 3,3-Dichlorobenzidine	9.050	252	258370	8937.5210595	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102922\
Data File : 1029_04.D
Acq On : 29 Oct 2022 9:30 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 29 11:12:49 2022
Quant Method : C:\msdchem\1\methods\S802J29V.M
Quant Title : 8270 BNA
QLast Update : Sat Oct 29 11:10:22 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_04.D
Acq On : 7 Nov 2022 8:26 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 08 12:41:03 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

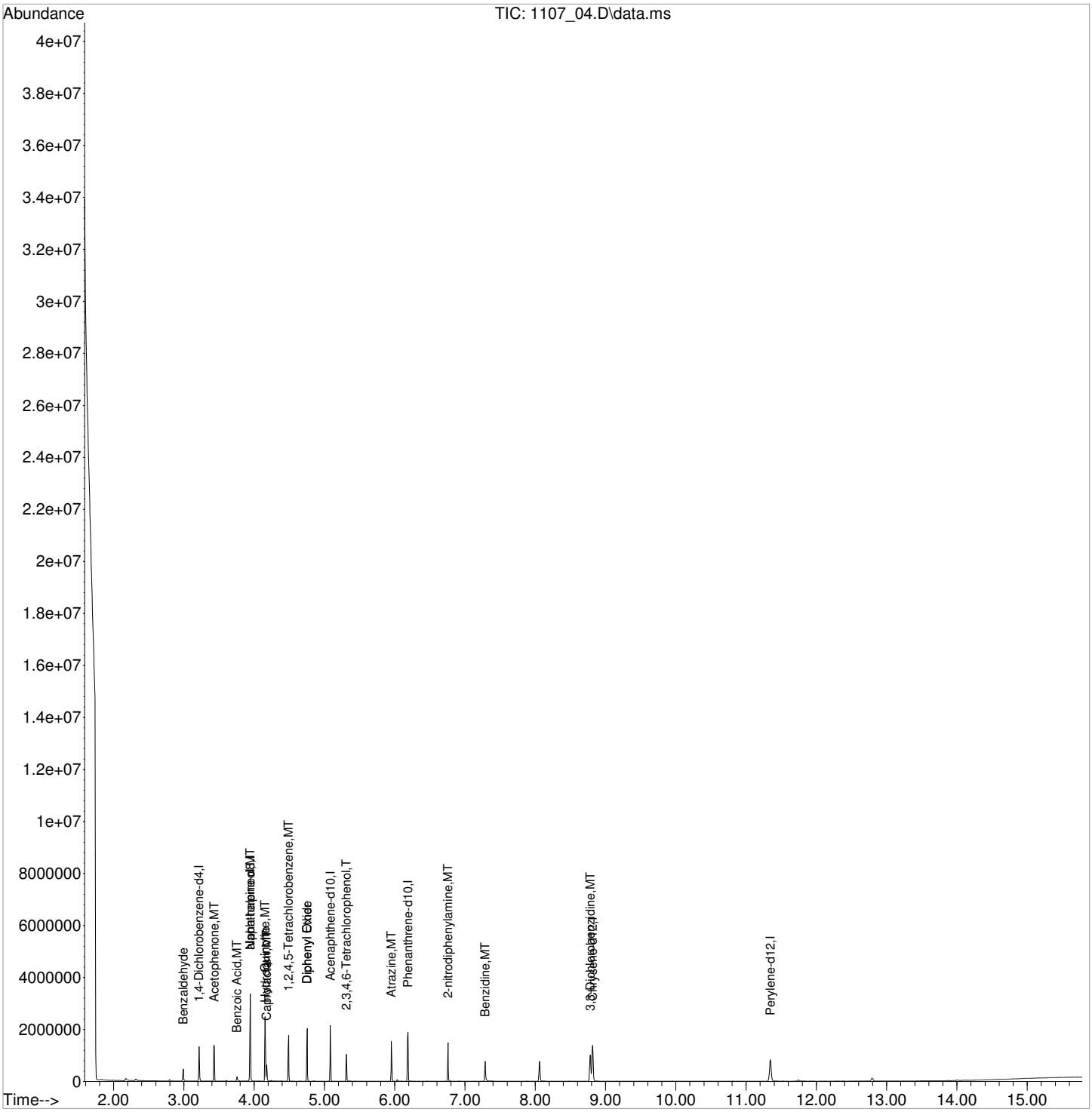
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.215	152	168712	8000.0000000	ppb	0.00
23) Naphthalene-d8	3.943	136	737002	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.083	164	334872	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.188	188	640587	8000.0000000	ppb	0.00
84) Chrysene-d12	8.814	240	634794	8000.0000000	ppb	0.00
94) Perylene-d12	11.347	264	541236	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	2.992	105	74882	9620.6119596	ppb	97
22) Acetophenone	3.432	105	336006	9123.0011049	ppb	98
31) Benzoic Acid	3.755	105	46662	4148.2706404	ppb	99
33) alpha-terpineol	3.943	59	211750	10267.0065402	ppb	85
37) Hydroquinone	4.161	110	159572m	8439.0003486	ppb	
38) Quinoline	4.155	129	494434	9883.5182216	ppb	99
39) Caprolactam	4.179	113	54093	10889.3090407	ppb #	67
43) 1,2,4,5-Tetrachloroben...	4.490	216	258405	10430.2962264	ppb	99
44) Diphenyl Ether	4.754	170	333286	10479.7106307	ppb	98
45) Diphenyl Oxide	4.754	170	333286	10479.7106307	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.313	232	105486	8860.8659431	ppb	98
69) Atrazine	5.953	200	137922	8162.0677137	ppb	100
82) 2-nitrodiphenylamine	6.758	167	144228	7838.9396522	ppb	97
85) Benzidine	7.287	184	304139m	8243.9472085	ppb	
89) 3,3-Dichlorobenzidine	8.785	252	320132	8301.9241112	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\110722\
Data File : 1107_04.D
Acq On : 7 Nov 2022 8:26 am
Operator : 3545
Sample : ICV TCL 10K1 PPB 22J20351 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

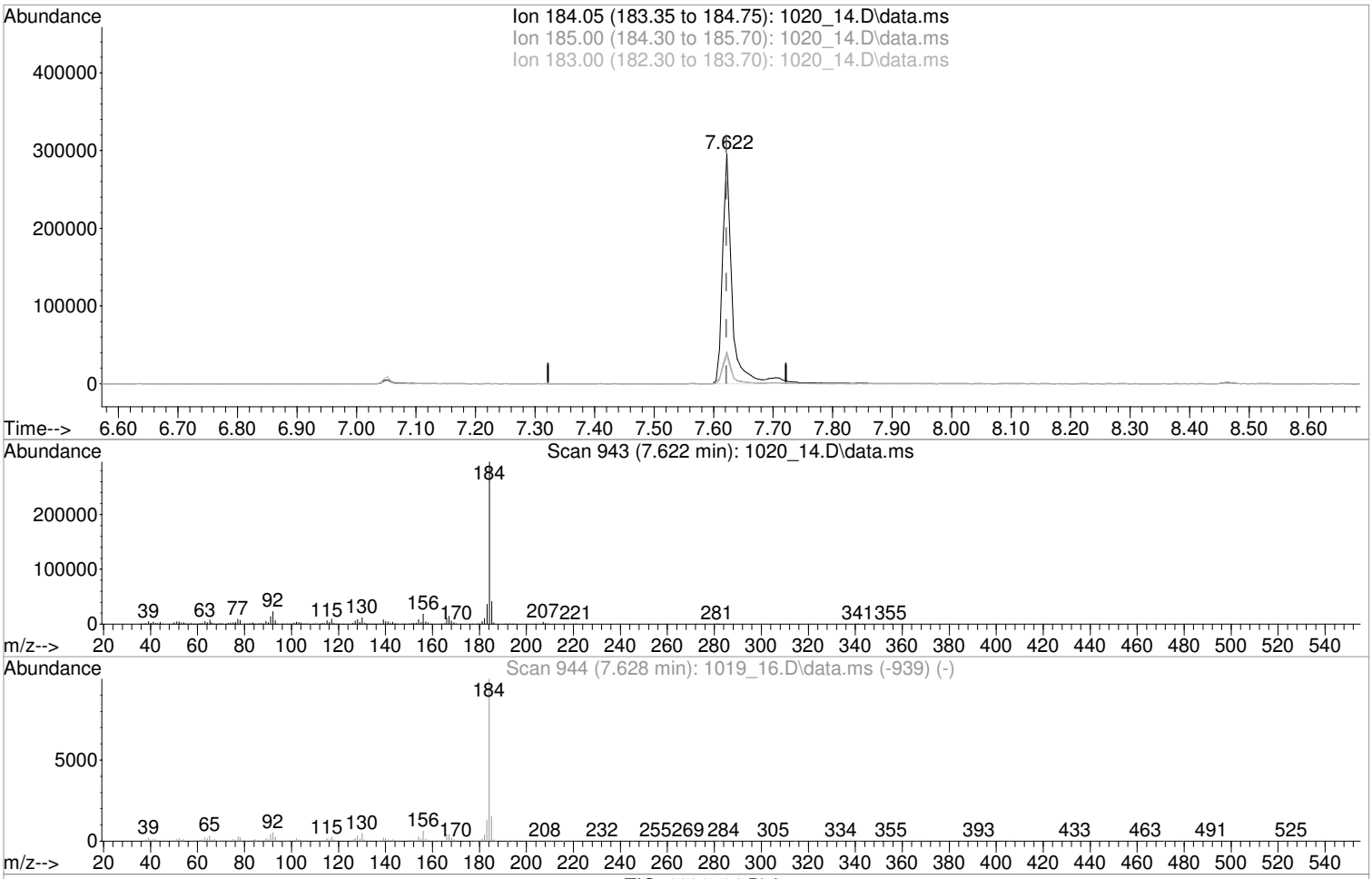
Quant Time: Nov 08 12:41:03 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:20:16 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration



TIC: 1020_14.D\data.ms

(85) Benzidine (MT)

7.622min (0.000) 9401.5299736 ppb

Qvalue = 98

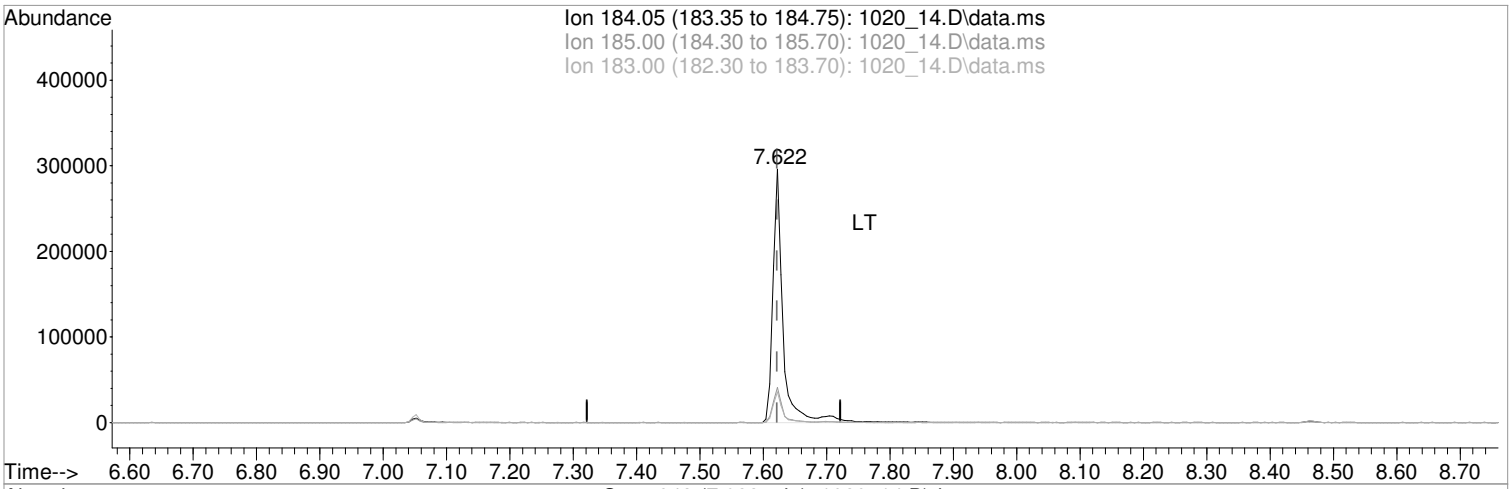
response 309457

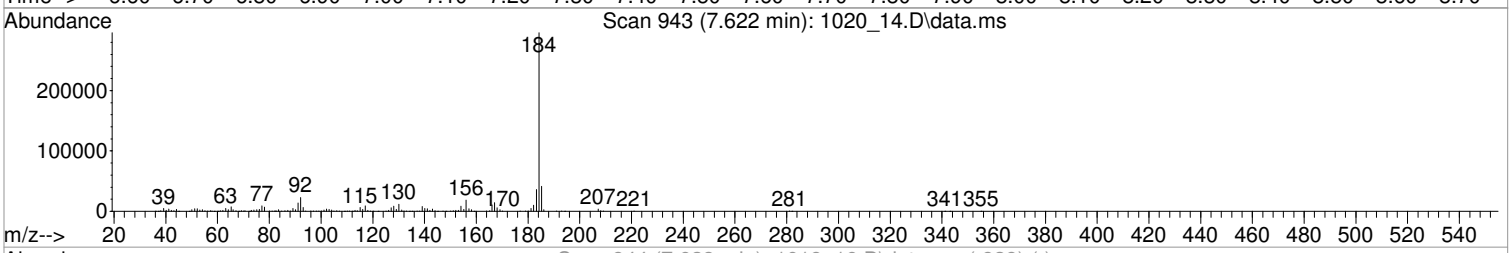
Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.70
183.00	11.30	12.02
0.00	0.00	0.00

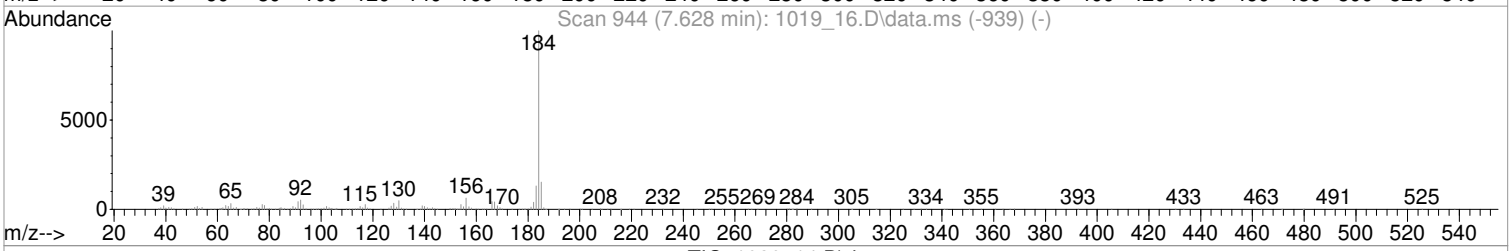
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_14.D
Acq On : 20 Oct 2022 10:51 pm
Operator : 3545
Sample : MSTD TCL 10K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 13 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 08:20:16 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 08:20:09 2022
Response via : Initial Calibration







TIC: 1020_14.D\data.ms

(85) Benzidine (MT)

7.622min (0.000) 9915.2681403 ppb m

response 326367

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	12.99
183.00	11.30	11.40
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration

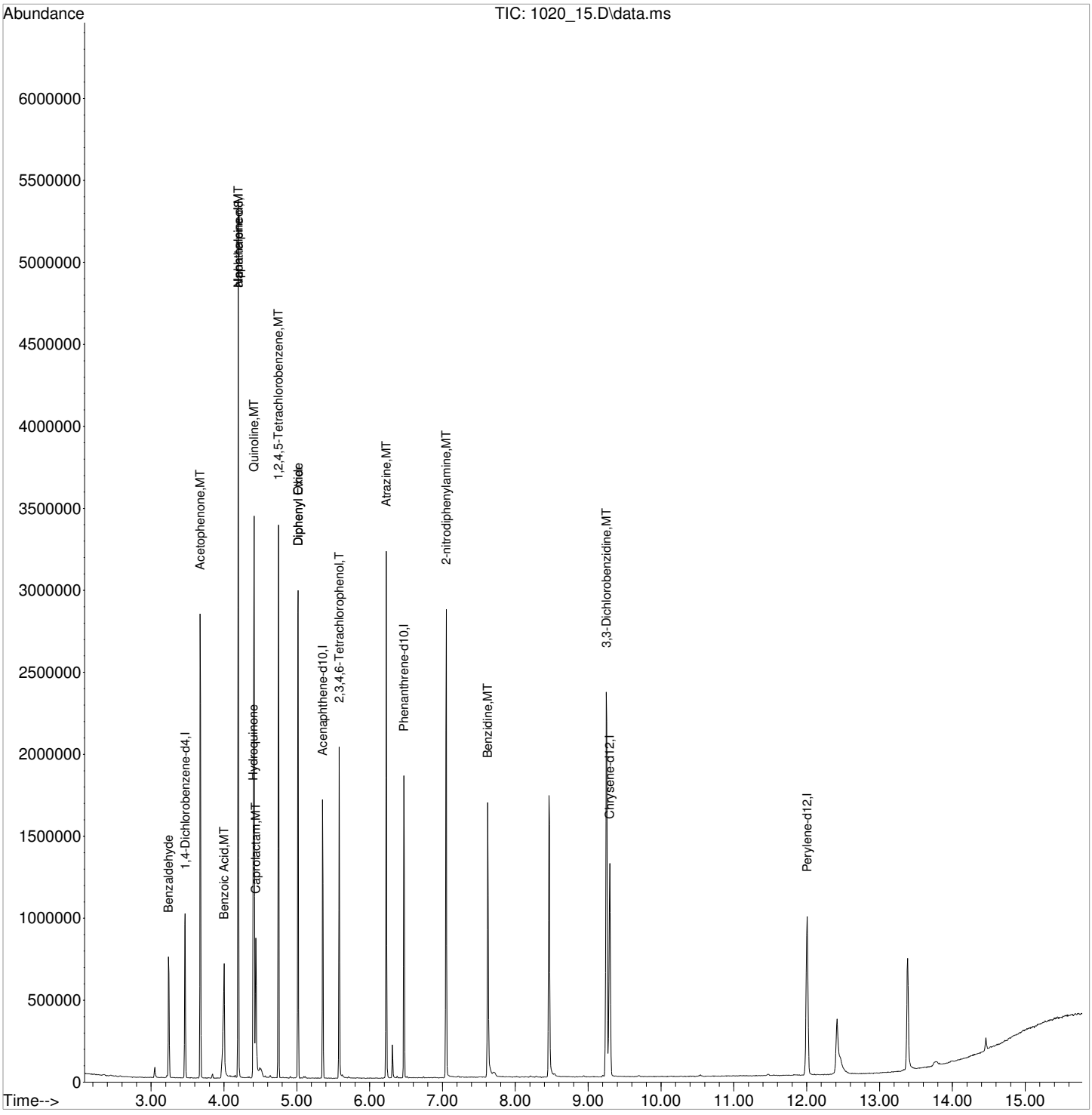
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	151012	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	739134	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	289508	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	583560	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	616250	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	658337	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	135755	19062.0259020	ppb	98
22) Acetophenone	3.674	105	660074	20256.8831464	ppb	99
31) Benzoic Acid	4.003	105	255059	24990.6495542	ppb	100
33) alpha-terpineol	4.197	59	381048	17008.8957813	ppb	98
37) Hydroquinone	4.402	110	441216m	22014.0896096	ppb	
38) Quinoline	4.414	129	922876	16955.6626680	ppb	99
39) Caprolactam	4.438	113	104917	18067.8083848	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.749	216	448736	16475.7358953	ppb	100
44) Diphenyl Ether	5.019	170	581681	16660.4100279	ppb	99
45) Diphenyl Oxide	5.019	170	581681	16660.4100279	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	209426	20453.6362040	ppb	99
69) Atrazine	6.230	200	295794	21134.3143899	ppb	99
82) 2-nitrodiphenylamine	7.052	167	340171	24795.3818304	ppb	99
85) Benzidine	7.622	184	731088m	27457.7316415	ppb	
89) 3,3-Dichlorobenzidine	9.250	252	777553	22121.2708876	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

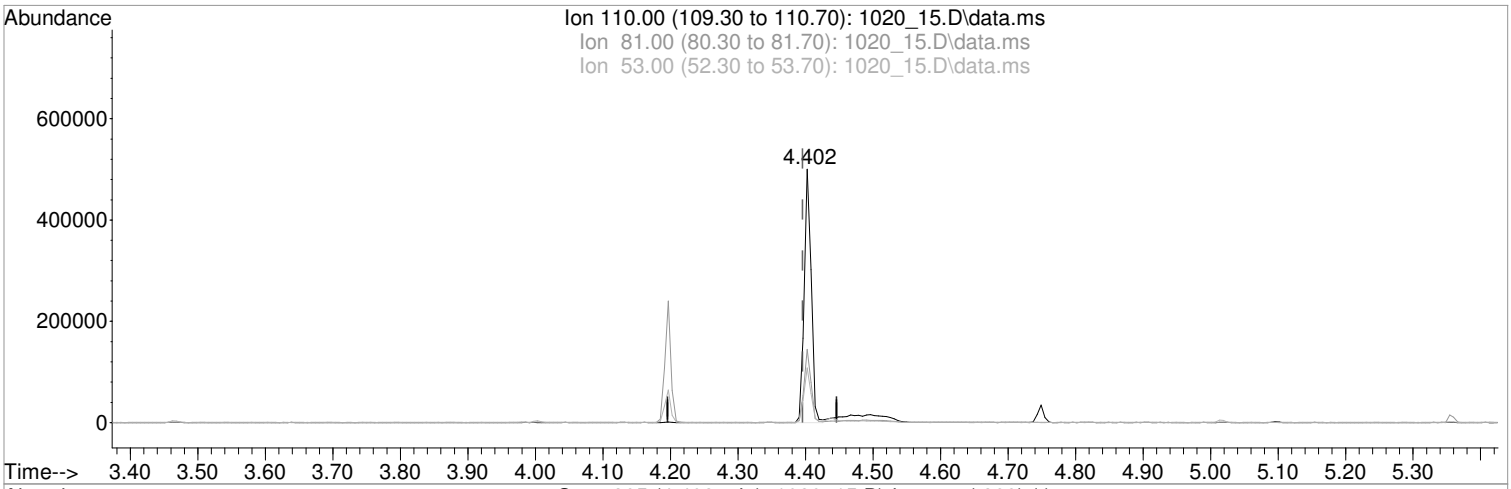
Quant Time: Oct 21 09:32:00 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration

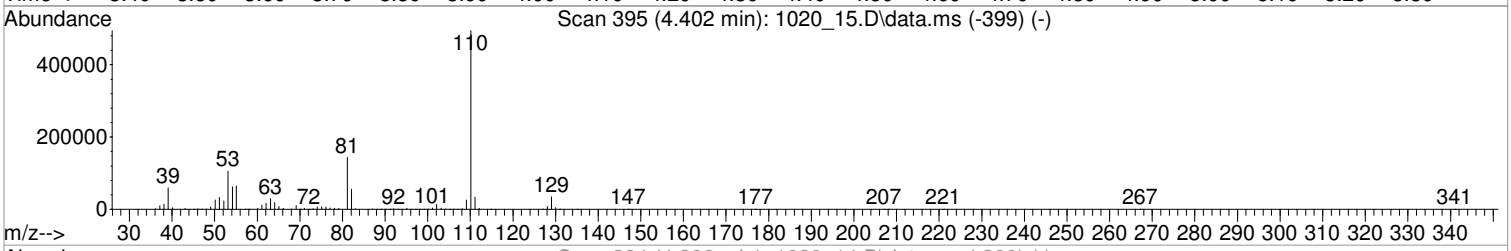


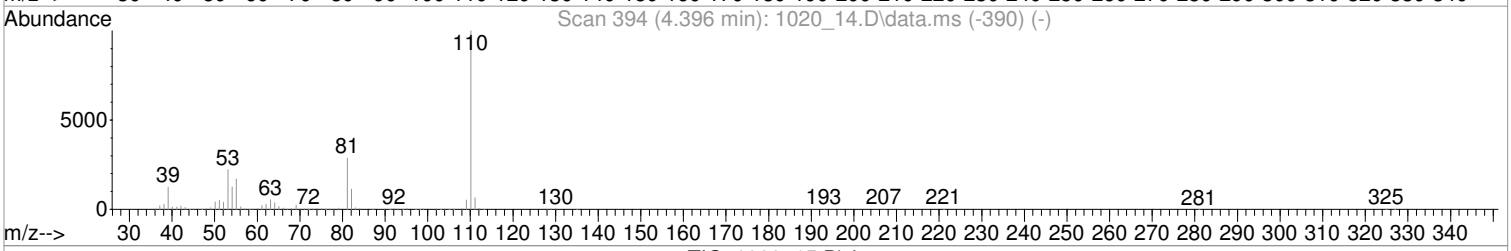
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration







TIC: 1020_15.D\data.ms

(37) Hydroquinone

4.402min (+0.006) 17987.1840615 ppb

Qvalue = 99

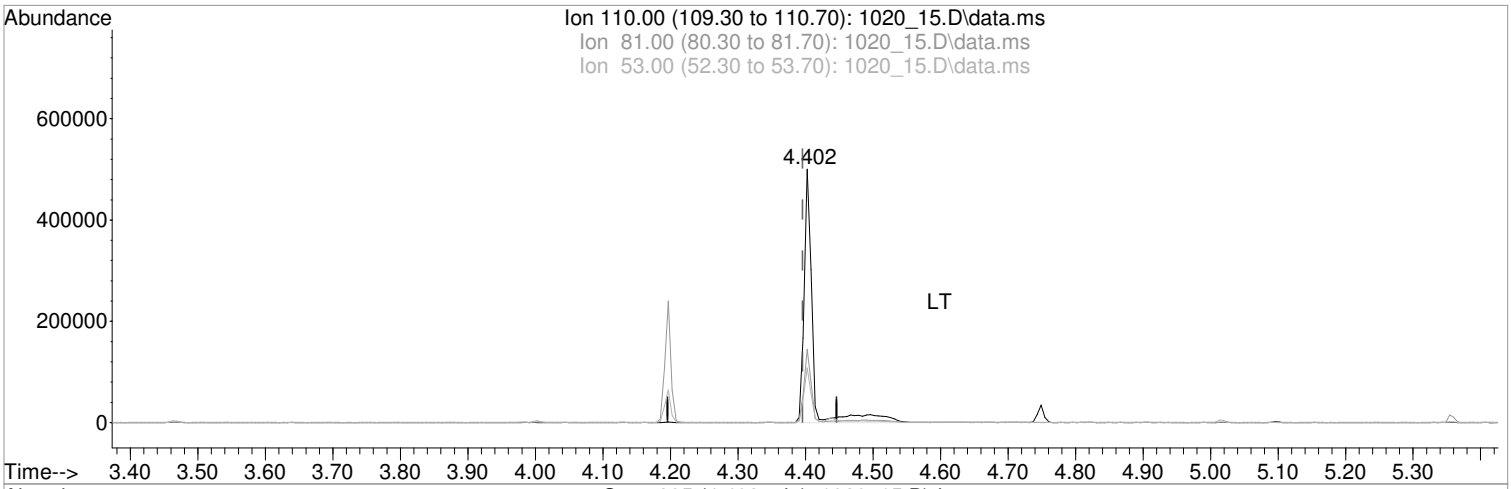
response 360507

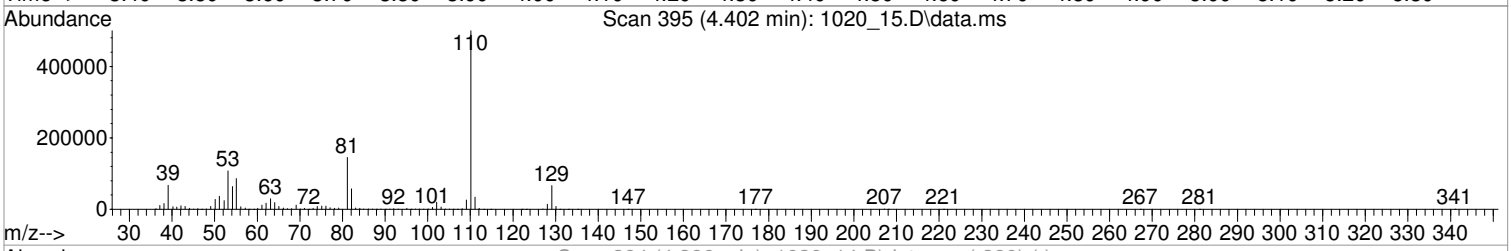
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.90
53.00	22.20	21.51
0.00	0.00	0.00

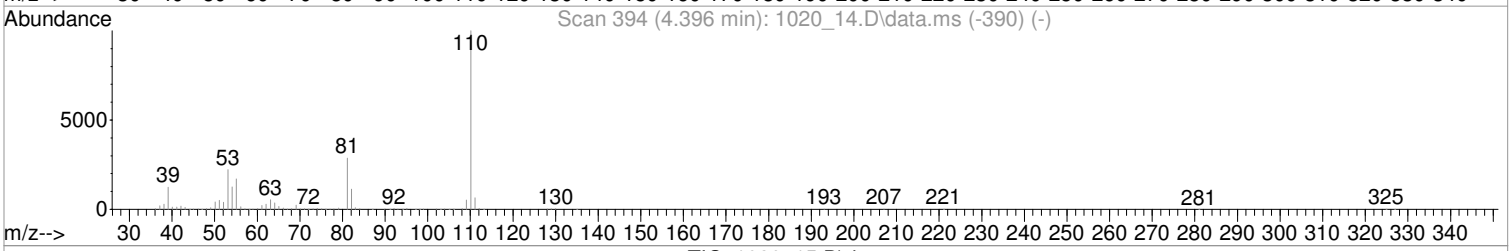
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration







TIC: 1020_15.D\data.ms

(37) Hydroquinone

4.402min (+0.006) 22014.0896096 ppb m

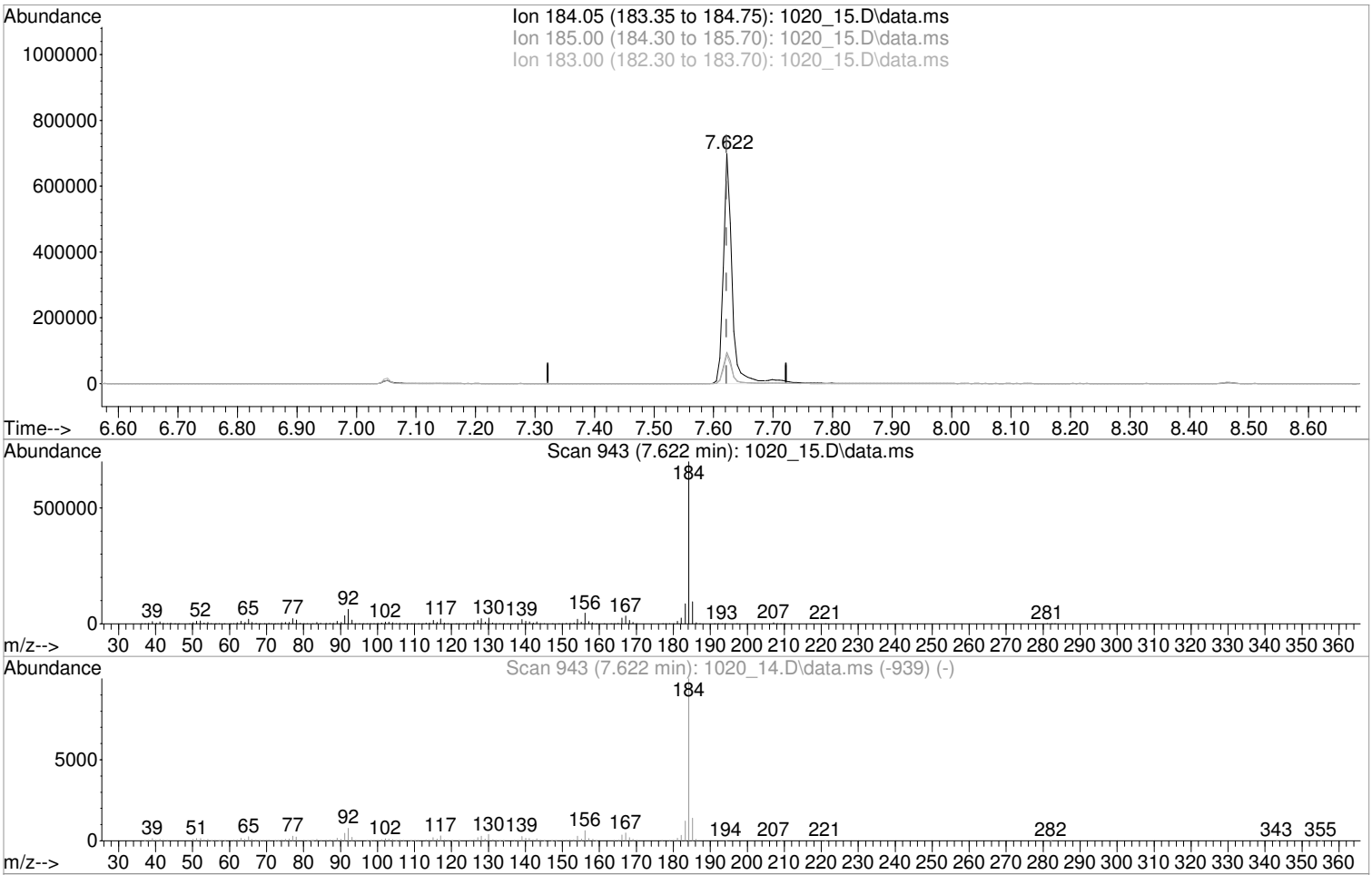
response 441216

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.96
53.00	22.20	21.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration



TIC: 1020_15.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 26092.8222416 ppb

Qvalue = 97

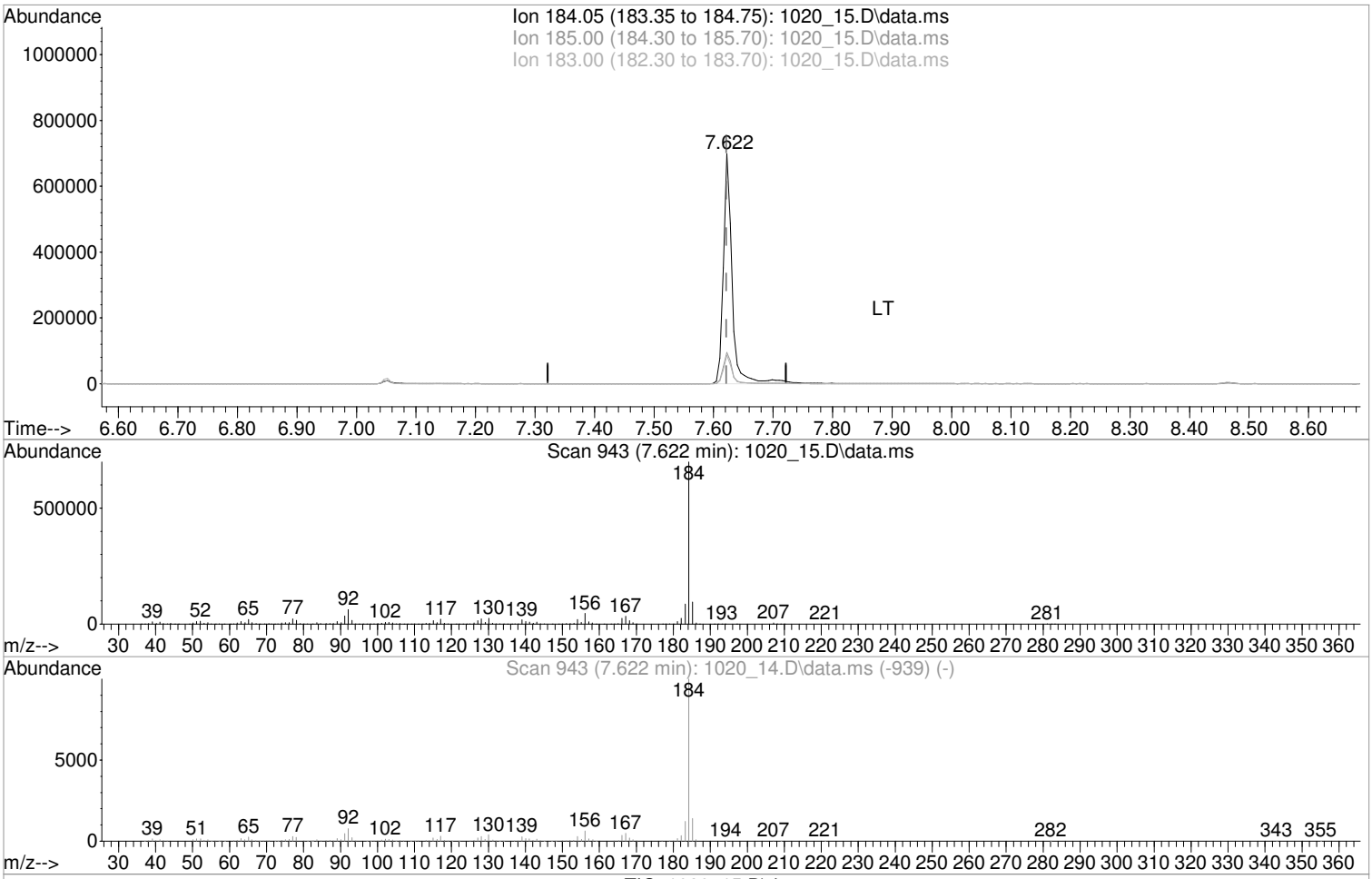
response 694746

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	14.08
183.00	11.30	12.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_15.D
Acq On : 20 Oct 2022 11:12 pm
Operator : 3545
Sample : STD TCL 20K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 14 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:30:32 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:30:28 2022
Response via : Initial Calibration



TIC: 1020_15.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 27457.7316415 ppb m

response 731088

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.38
183.00	11.30	11.46
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:06 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration

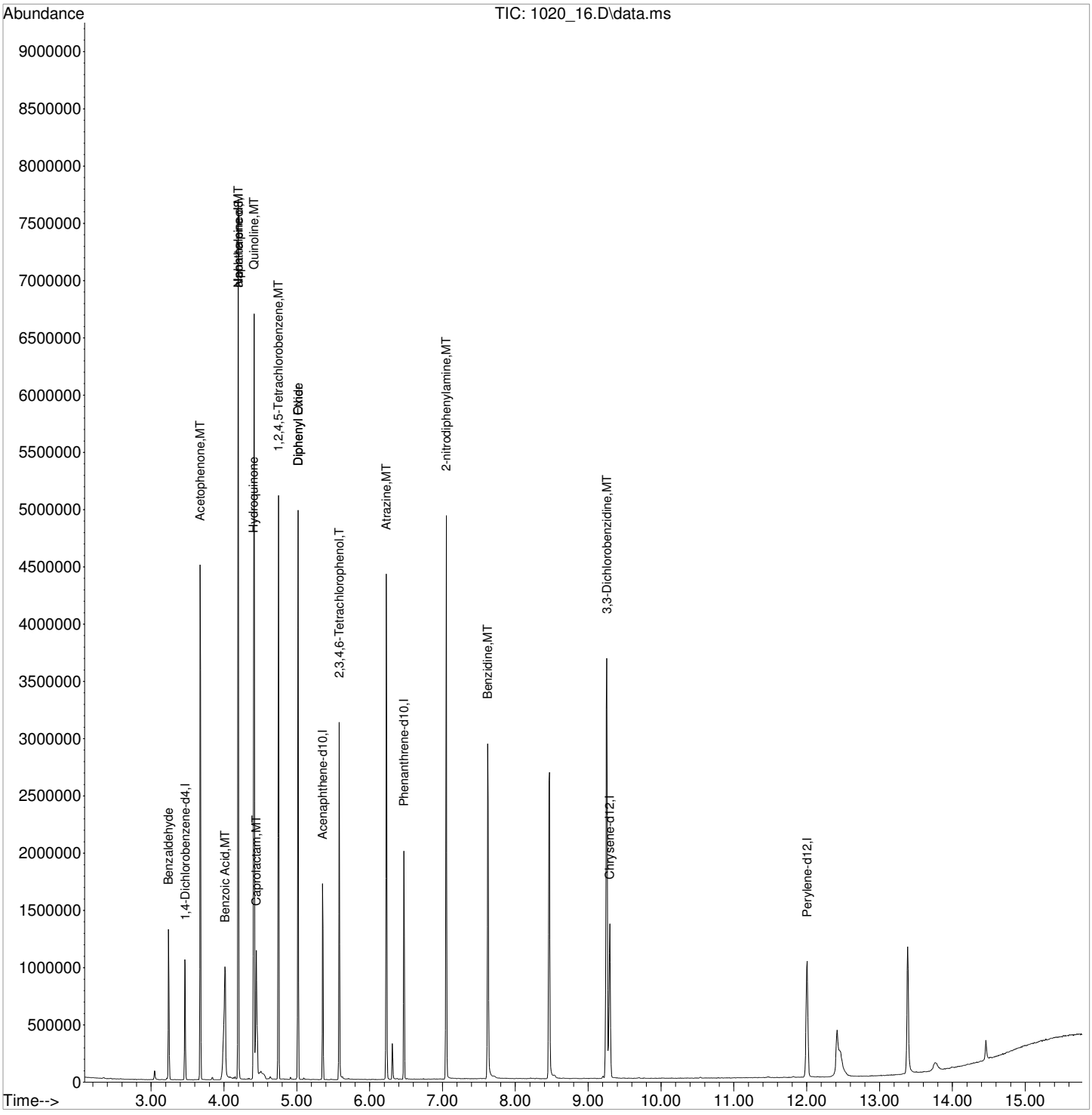
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	157386	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	863962	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	302556	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	606386	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	632960	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	682118	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	214671	29265.3694167	ppb	99
22) Acetophenone	3.674	105	1046151	30706.2958533	ppb	99
31) Benzoic Acid	4.015	105	431512	34046.8664337	ppb	100
33) alpha-terpineol	4.197	59	601703	23870.2100301	ppb	98
37) Hydroquinone	4.408	110	726400m	30245.1240463	ppb	
38) Quinoline	4.414	129	1452596	23735.2714758	ppb	98
39) Caprolactam	4.444	113	179995	27174.8147350	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.749	216	704323	23143.0525407	ppb	99
44) Diphenyl Ether	5.019	170	899419	22999.0688452	ppb	99
45) Diphenyl Oxide	5.019	170	899419	22999.0688452	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	323424	30054.6228328	ppb	98
69) Atrazine	6.230	200	463088	31217.8181325	ppb	99
82) 2-nitrodiphenylamine	7.052	167	558625	36969.8780504	ppb	98
85) Benzidine	7.622	184	1249278m	41785.5898737	ppb	
89) 3,3-Dichlorobenzidine	9.256	252	1202066	32435.7076984	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

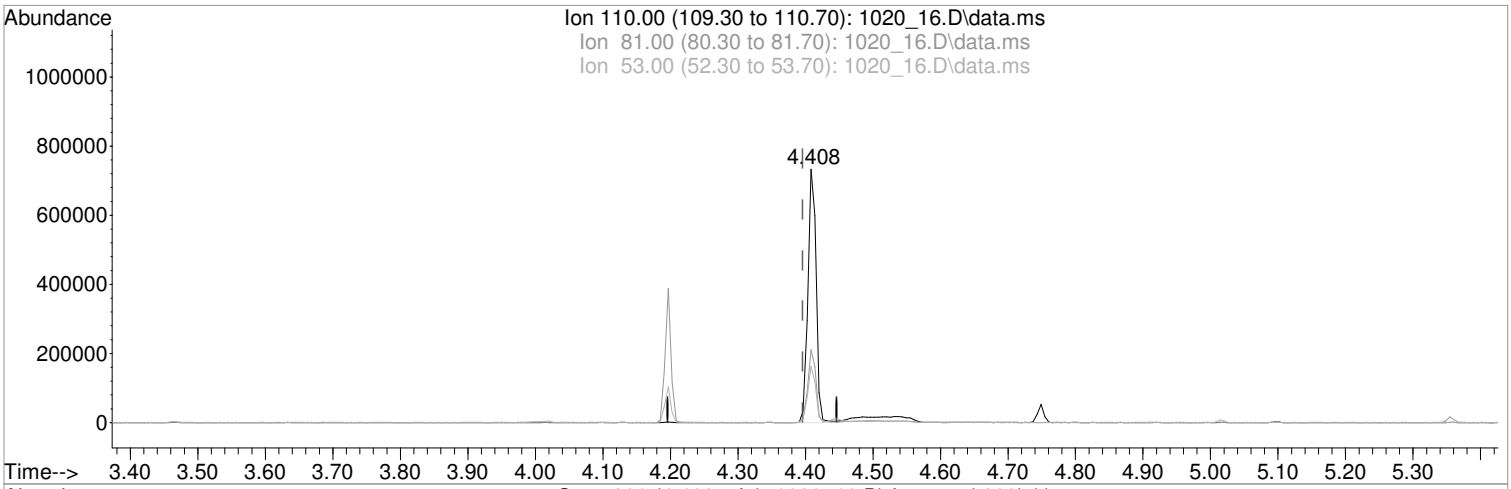
Quant Time: Oct 21 09:34:06 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration

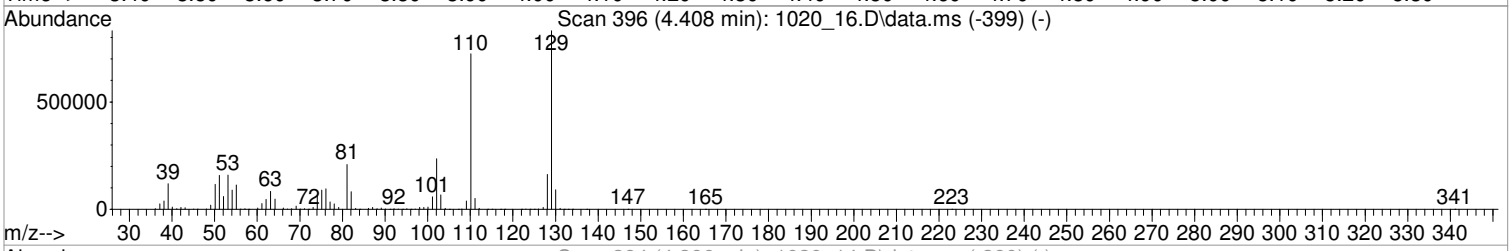


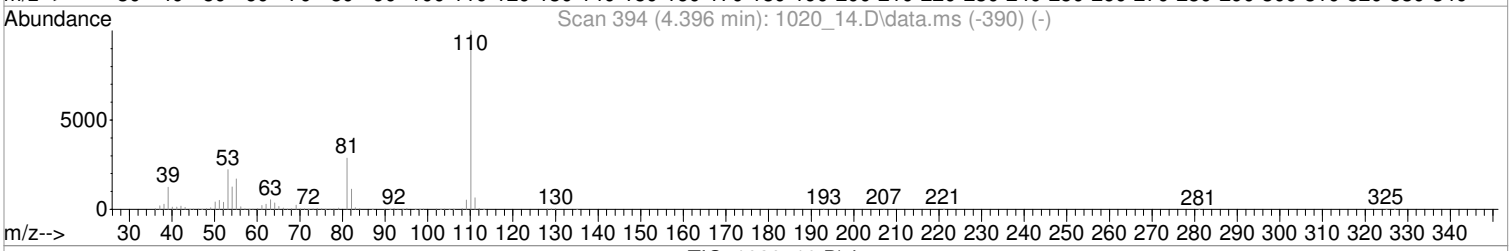
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration







TIC: 1020_16.D\data.ms

(37) Hydroquinone

4.408min (+0.012) 25791.8376443 ppb

Qvalue = 100

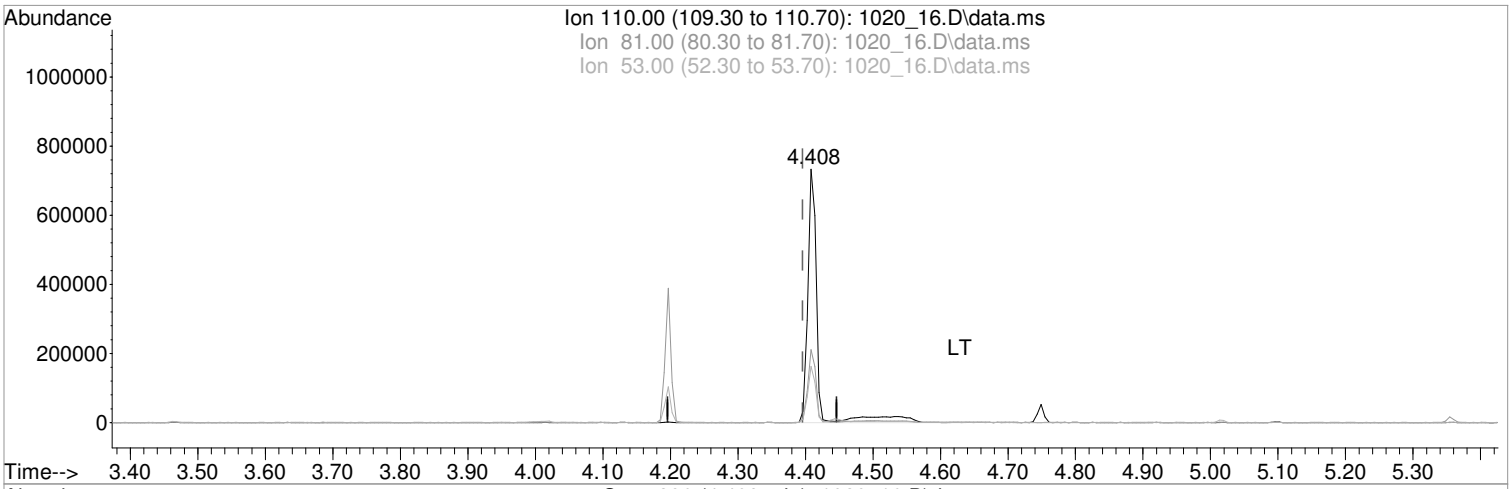
response 619445

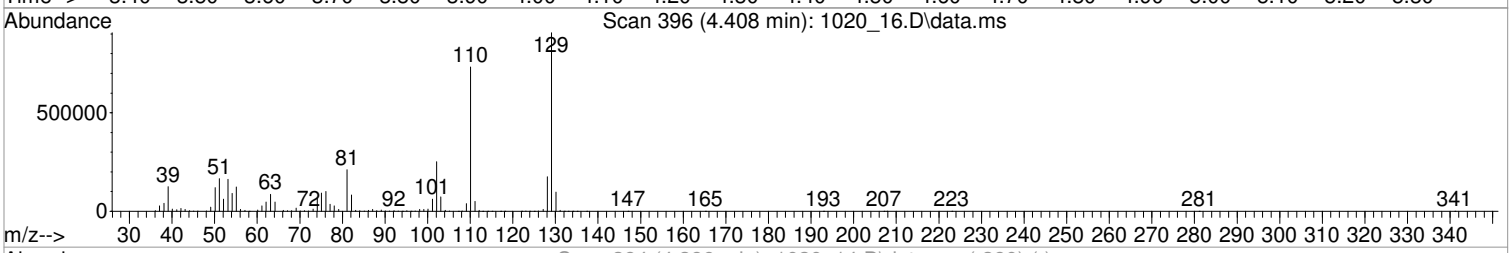
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.80
53.00	22.20	22.11
0.00	0.00	0.00

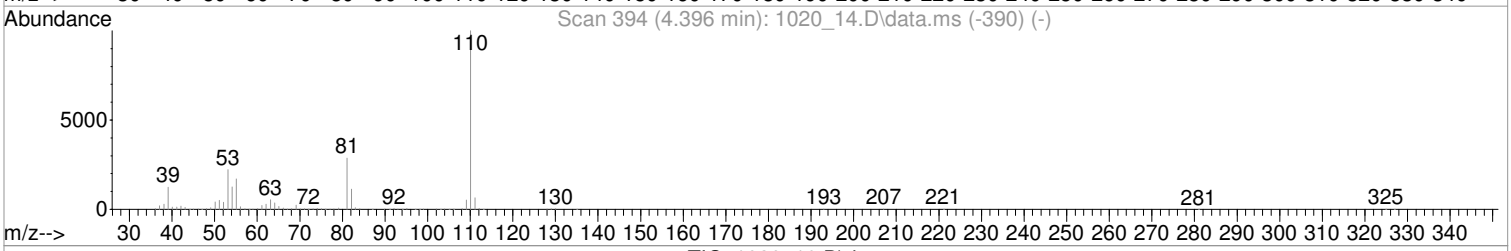
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration







TIC: 1020_16.D\data.ms

(37) Hydroquinone

4.408min (+0.012) 30245.1240463 ppb m

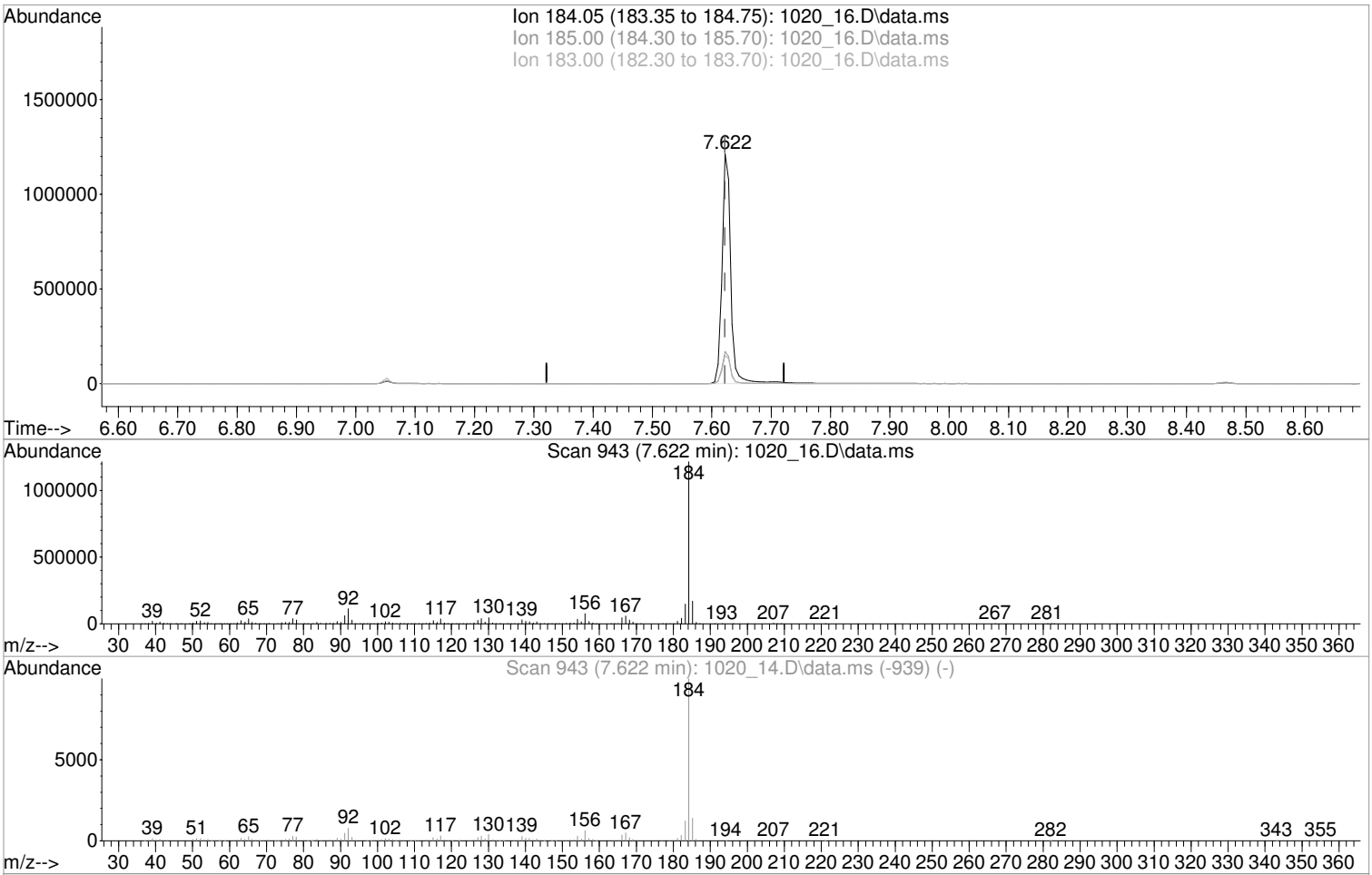
response 726400

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.85
53.00	22.20	22.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration



TIC: 1020_16.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 40938.2904234 ppb

Qvalue = 98

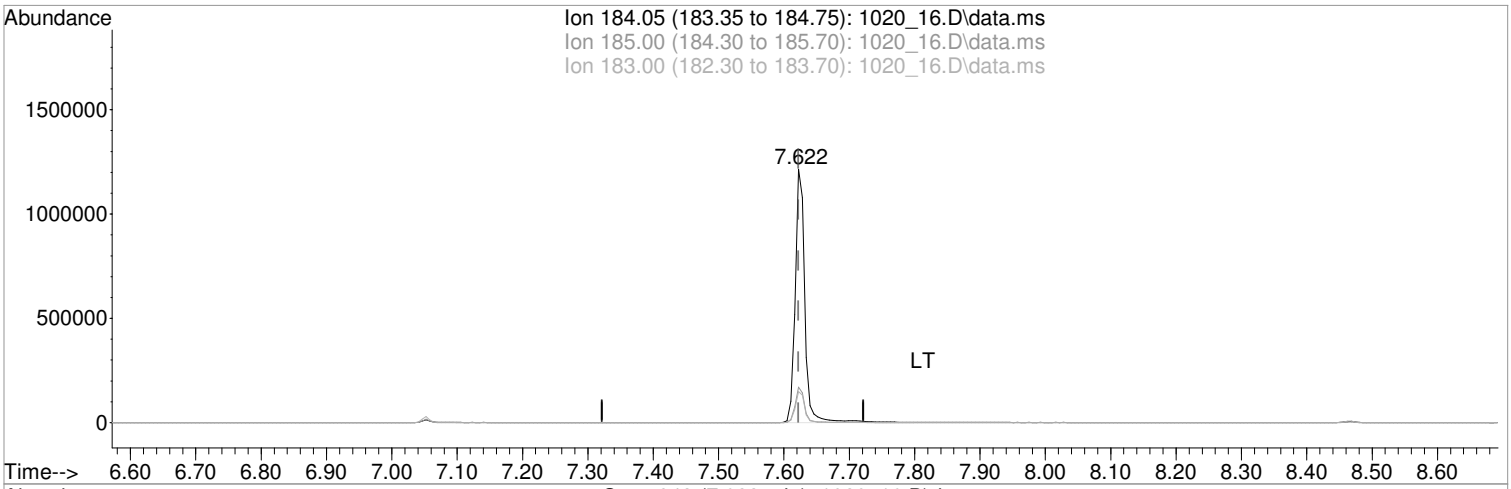
response 1223946

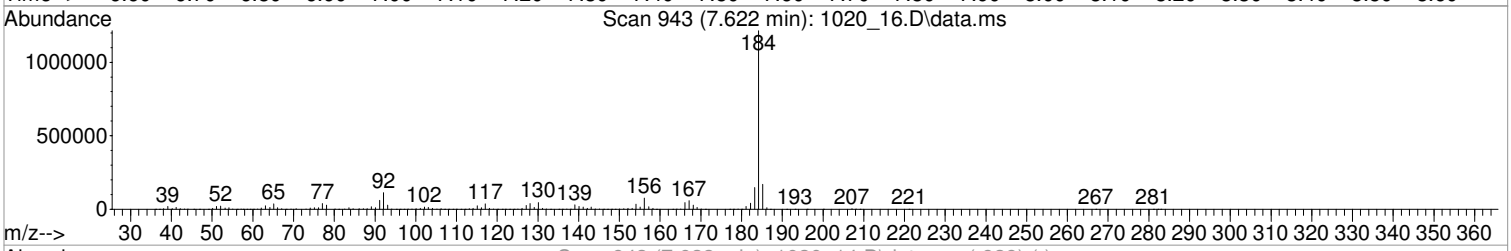
Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.83
183.00	11.30	12.20
0.00	0.00	0.00

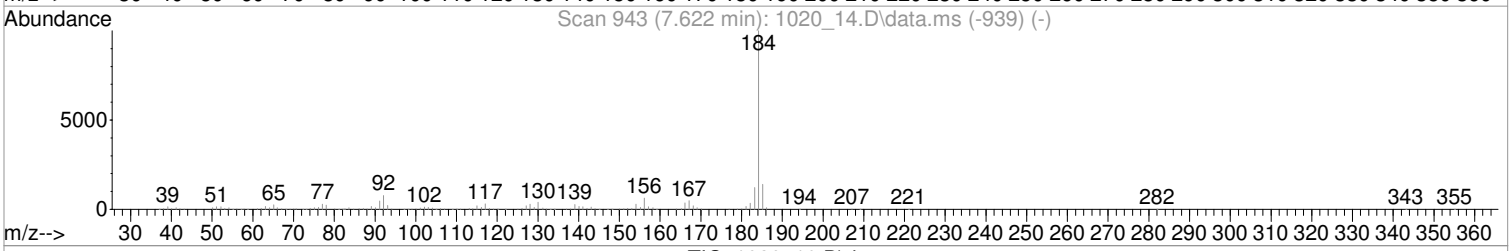
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_16.D
Acq On : 20 Oct 2022 11:32 pm
Operator : 3545
Sample : STD TCL 30K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 15 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:32:12 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:32:09 2022
Response via : Initial Calibration







TIC: 1020_16.D\data.ms

(85) Benzidine (MT)

7.622min (+0.000) 41785.5898737 ppb m

response 1249278

Ion	Exp%	Act%
184.05	100	100
185.00	12.90	13.55
183.00	11.30	11.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:55 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration

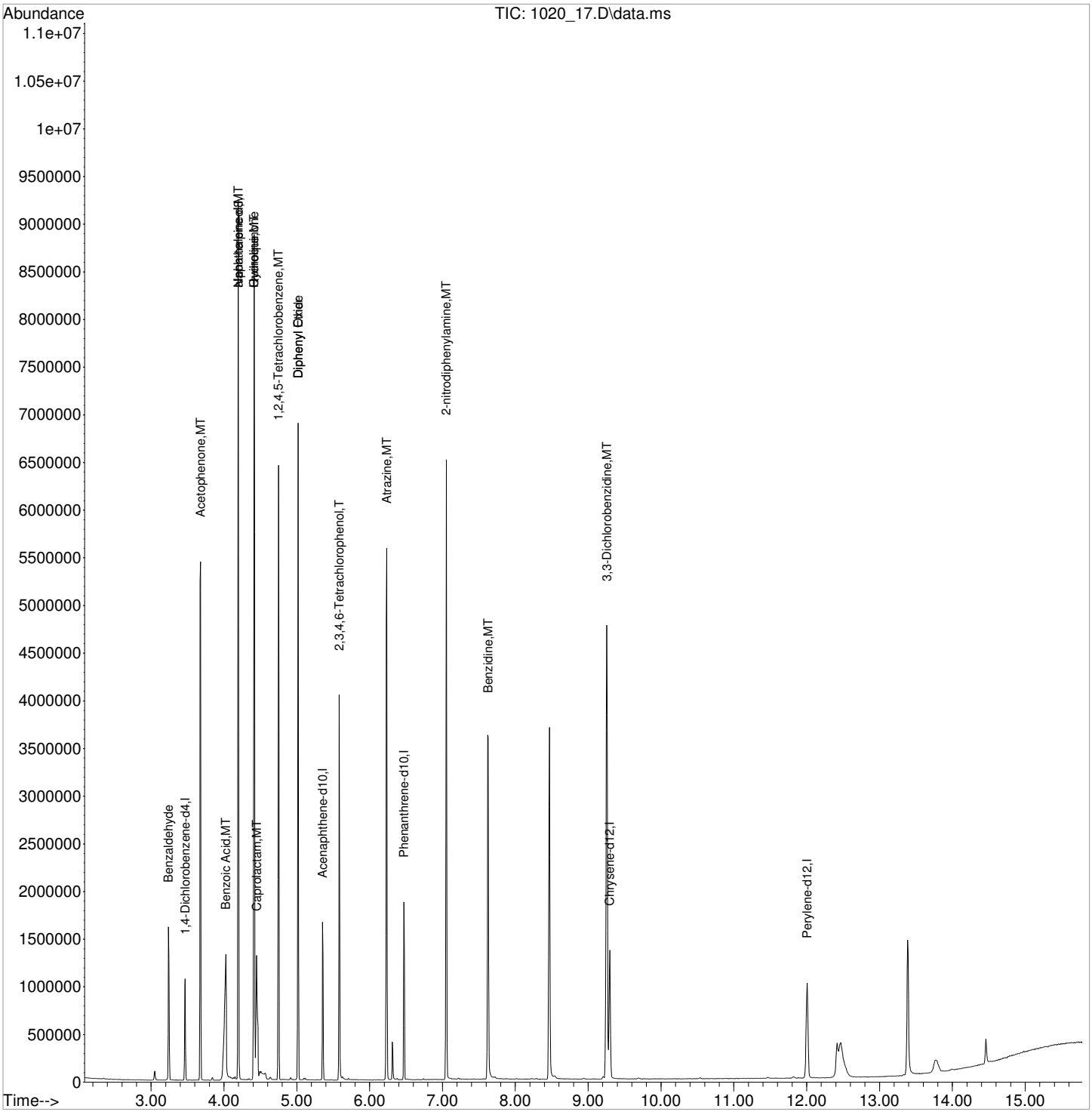
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	154062	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	930657	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	298194	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	604415	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	627608	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	686116	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	280443	39248.9461952	ppb	99
22) Acetophenone	3.680	105	1368829	40851.9397614	ppb	99
31) Benzoic Acid	4.026	105	596891	42571.8657011	ppb	99
33) alpha-terpineol	4.197	59	785614	30165.3696775	ppb	96
37) Hydroquinone	4.414	110	951868m	36732.6386686	ppb	
38) Quinoline	4.414	129	1918056	30362.9203713	ppb	98
39) Caprolactam	4.449	113	242503	34640.6490393	ppb	97
43) 1,2,4,5-Tetrachloroben...	4.749	216	908670	29045.6391854	ppb	100
44) Diphenyl Ether	5.019	170	1166731	29052.3973369	ppb	99
45) Diphenyl Oxide	5.019	170	1166731	29052.3973369	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	424902	40047.6062366	ppb	97
69) Atrazine	6.235	200	621962	42198.5988549	ppb	100
82) 2-nitrodiphenylamine	7.052	167	760578	48256.9955722	ppb	98
85) Benzidine	7.628	184	1615261	50518.3746899	ppb	97
89) 3,3-Dichlorobenzidine	9.255	252	1603951	42951.5166461	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

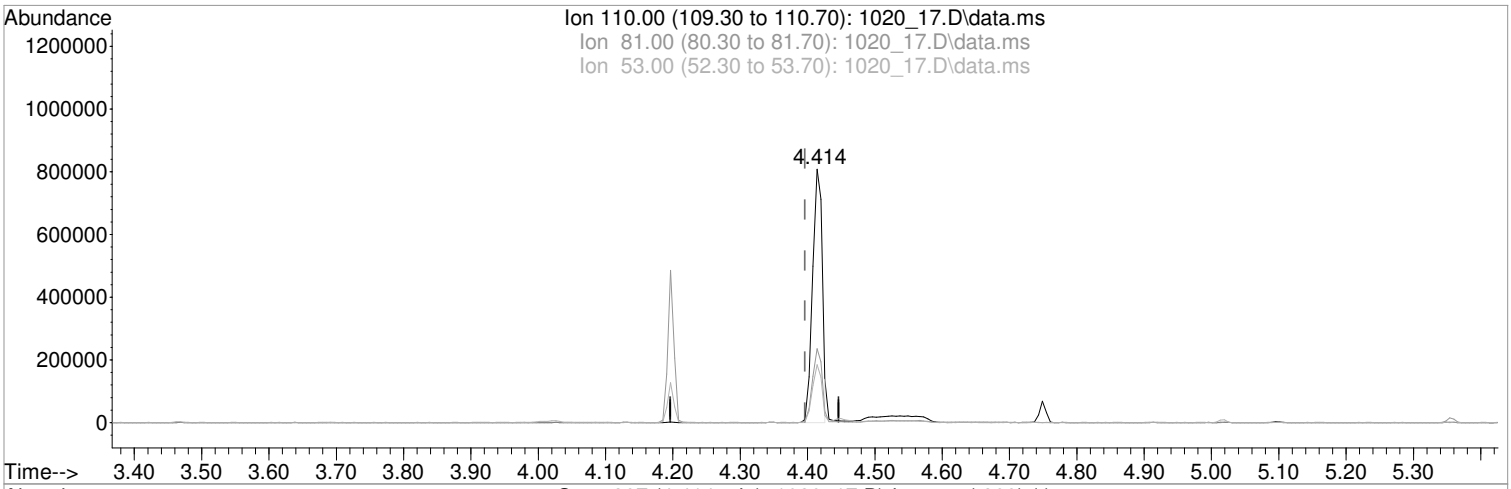
Quant Time: Oct 21 09:34:55 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration

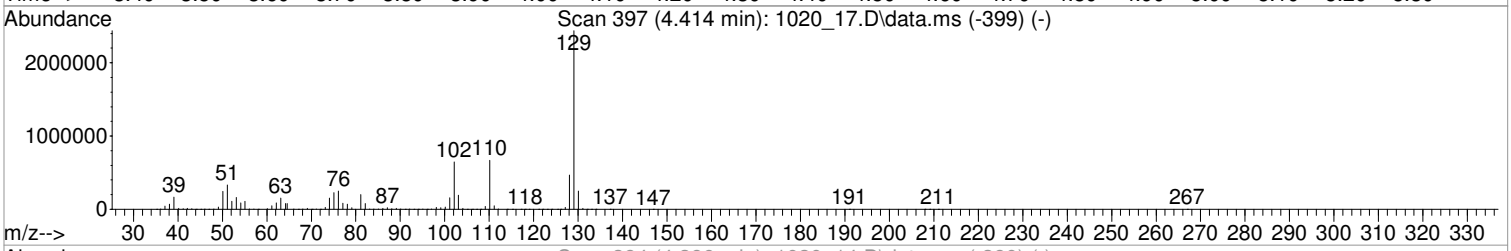


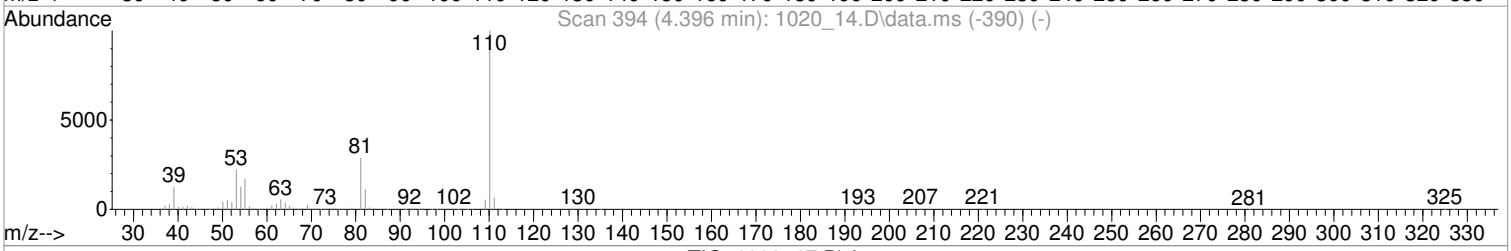
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:18 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration







TIC: 1020_17.D\data.ms

(37) Hydroquinone

4.414min (+0.018) 31480.5321551 ppb

Qvalue = 99

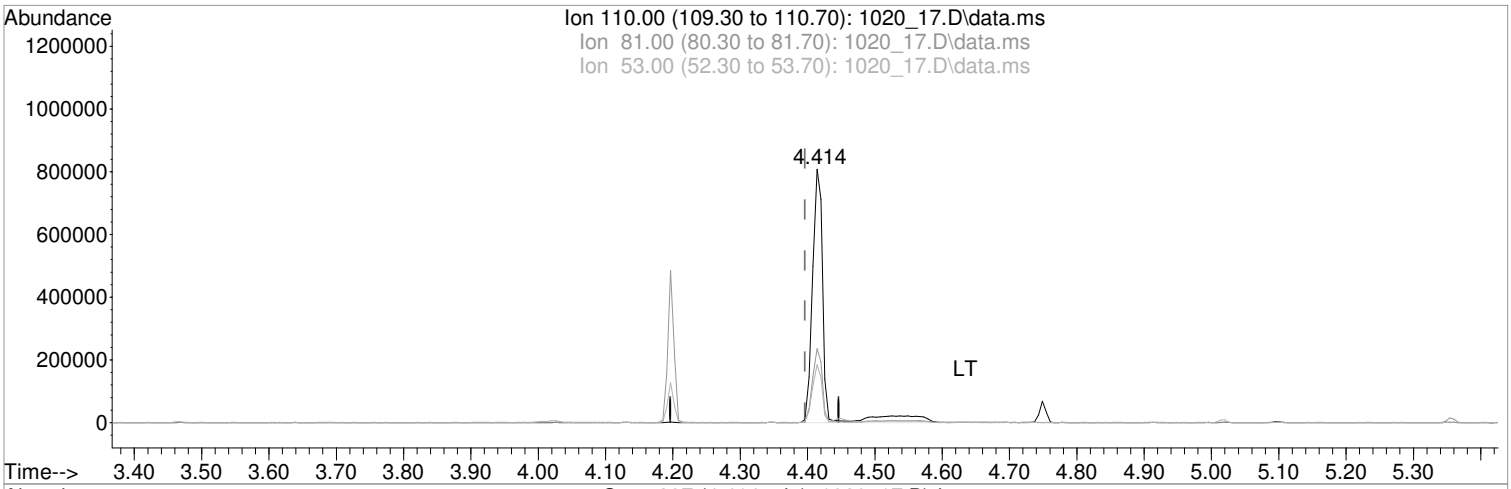
response 815768

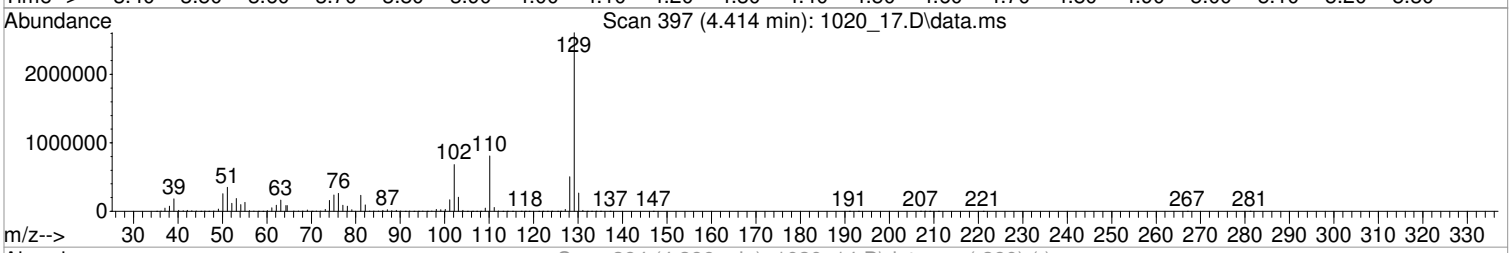
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.10
53.00	22.20	22.85
0.00	0.00	0.00

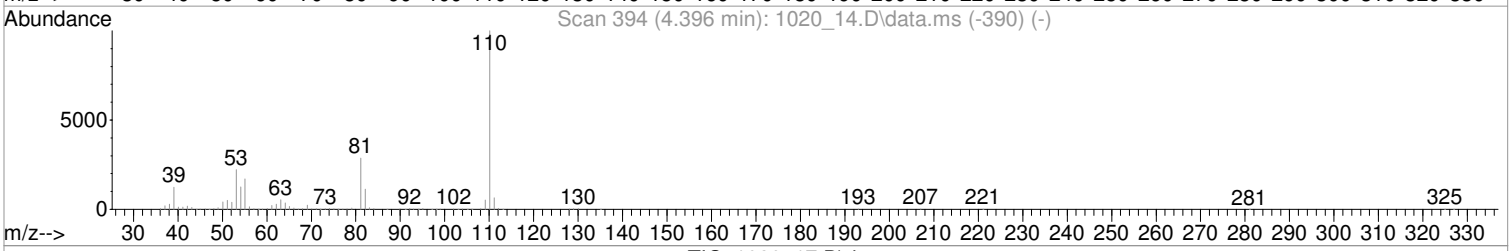
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_17.D
Acq On : 20 Oct 2022 11:53 pm
Operator : 3545
Sample : STD TCL 40K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 16 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:34:18 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:34:15 2022
Response via : Initial Calibration







TIC: 1020_17.D\data.ms

(37) Hydroquinone

4.414min (+0.018) 36732.6386686 ppb m

response 951868

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.16
53.00	22.20	22.89
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:35:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration

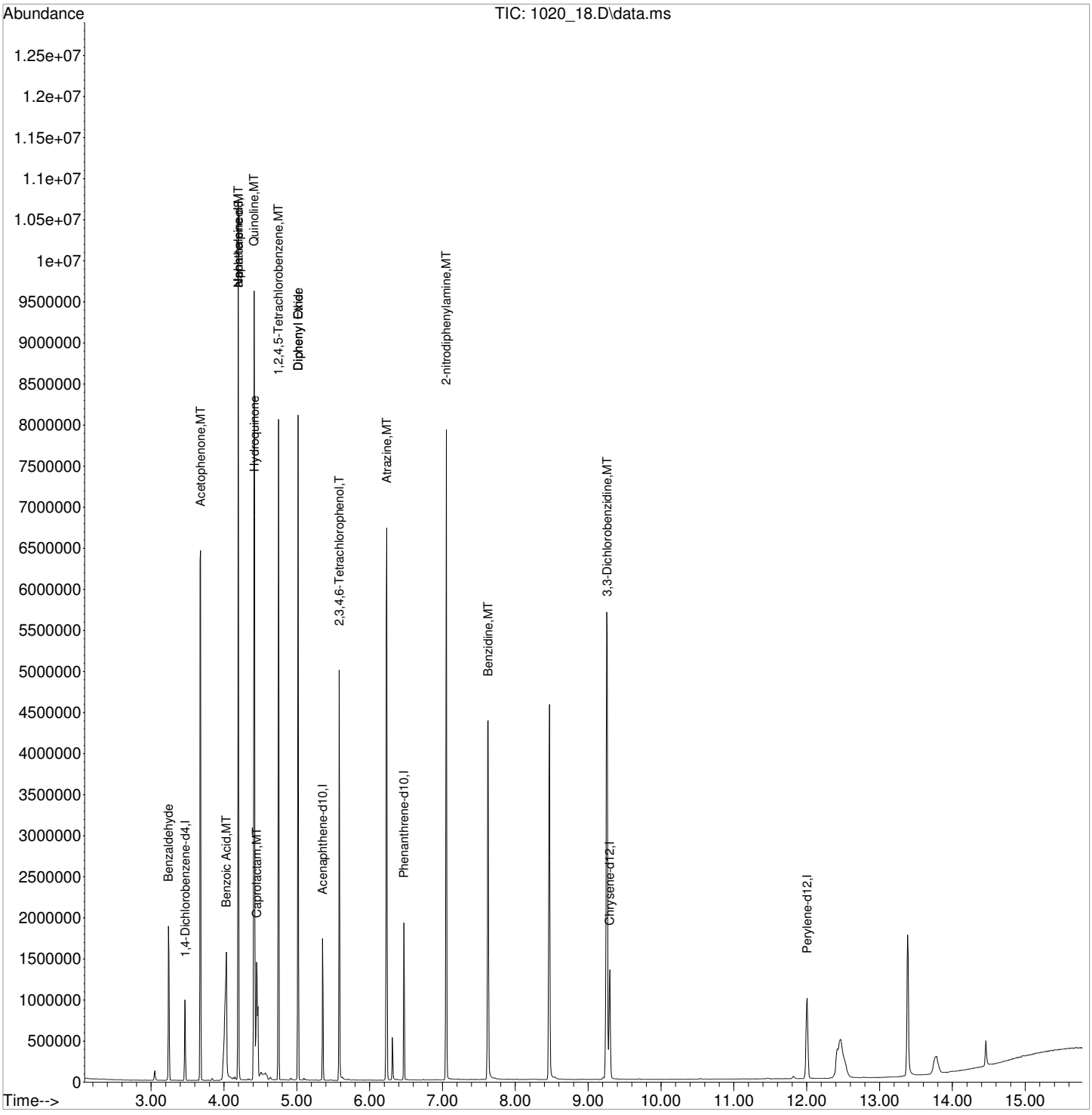
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	150865	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	972736	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	289984	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.471	188	581980	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	612987	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	664381	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	343525	49250.4255428	ppb	99
22) Acetophenone	3.680	105	1648626	50067.2522750	ppb	98
31) Benzoic Acid	4.032	105	752727	50819.5271213	ppb	100
33) alpha-terpineol	4.197	59	947318	36287.8424470	ppb	97
37) Hydroquinone	4.420	110	1153091m	43160.5275520	ppb	
38) Quinoline	4.414	129	2293480	36188.4965347	ppb	97
39) Caprolactam	4.449	113	297999	41656.8437531	ppb	94
43) 1,2,4,5-Tetrachloroben...	4.749	216	1089146	34901.5506177	ppb	100
44) Diphenyl Ether	5.019	170	1407068	35123.4674496	ppb	98
45) Diphenyl Oxide	5.019	170	1407068	35123.4674496	ppb	98
62) 2,3,4,6-Tetrachlorophenol	5.583	232	512172	49629.7795188	ppb	94
69) Atrazine	6.236	200	782164	54074.9943457	ppb	99
82) 2-nitrodiphenylamine	7.052	167	937972	59750.7436632	ppb	98
85) Benzidine	7.628	184	1943229	59612.7982599	ppb	98
89) 3,3-Dichlorobenzidine	9.261	252	1956210	52982.4107734	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

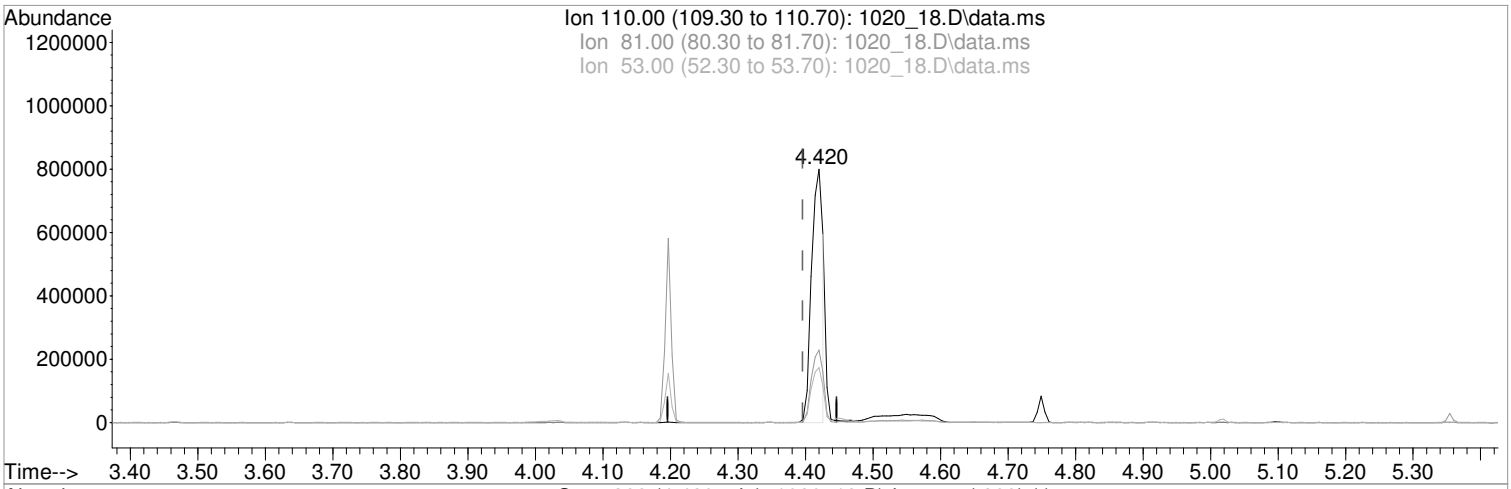
Quant Time: Oct 21 09:35:51 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration

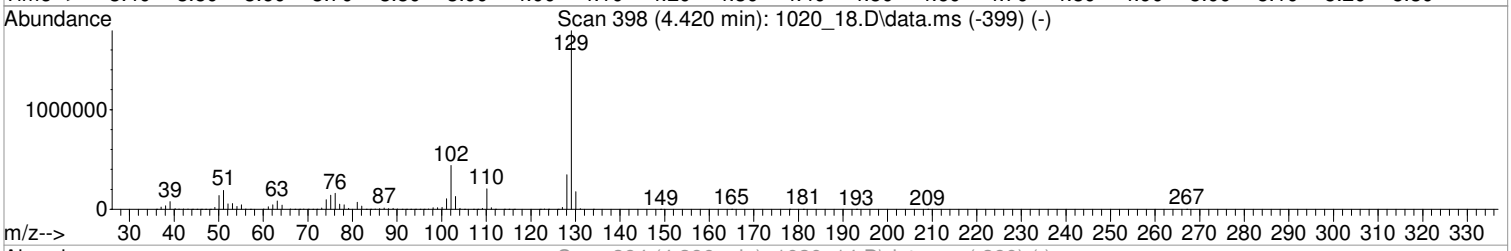


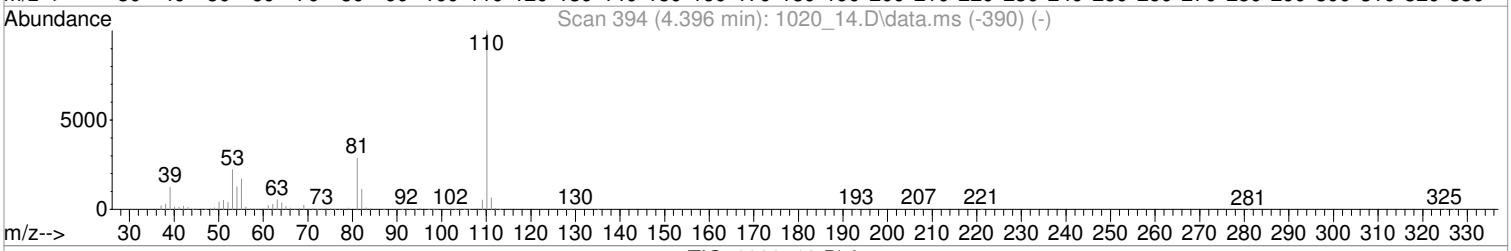
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:35:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration







TIC: 1020_18.D\data.ms

(37) Hydroquinone

4.420min (+0.024) 35422.0027793 ppb

Qvalue = 100

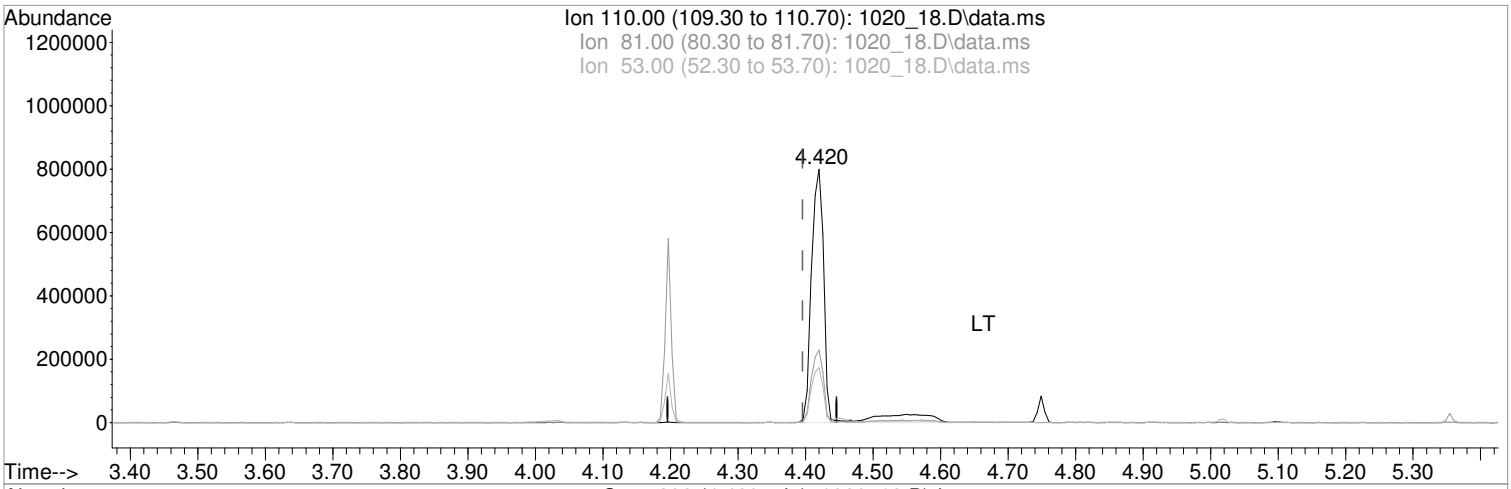
response 946346

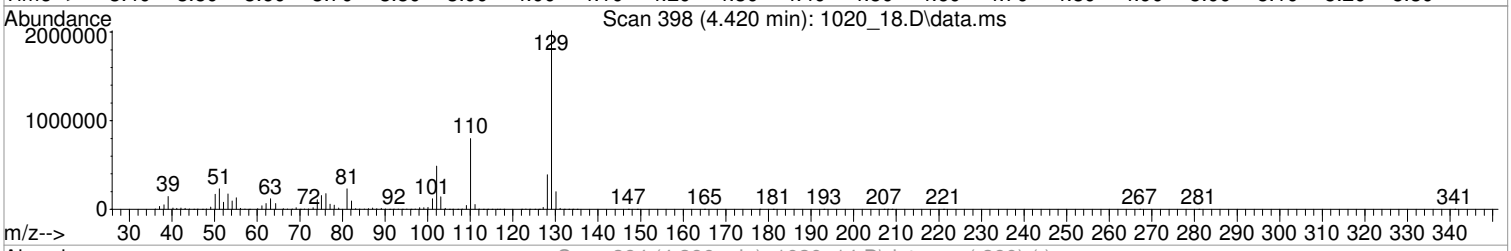
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.66
53.00	22.20	21.73
0.00	0.00	0.00

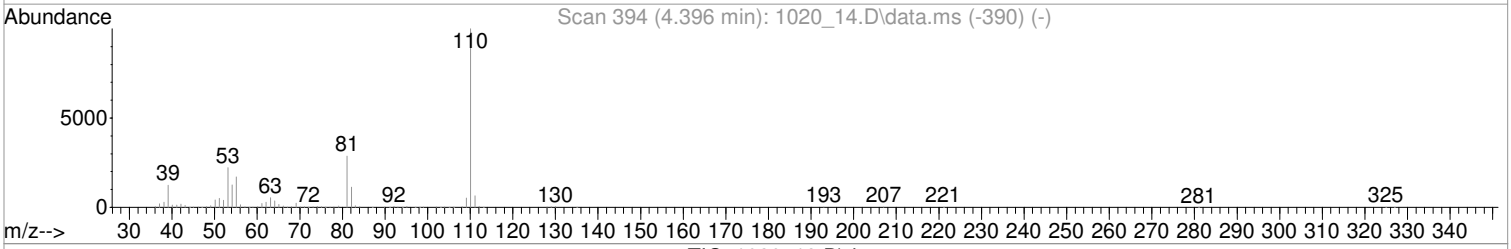
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_18.D
Acq On : 21 Oct 2022 12:14 am
Operator : 3545
Sample : STD TCL 50K1 PPB 22J20312 exp 4/13/23
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 17 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 09:35:14 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:35:10 2022
Response via : Initial Calibration







TIC: 1020_18.D\data.ms

(37) Hydroquinone

4.420min (+0.024) 43160.5275520 ppb m

response 1153091

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	28.73
53.00	22.20	21.76
0.00	0.00	0.00

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559126	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1020_19-1	**Analysis date/time:**	10/21/22 00:34
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.631524	0.64616840		2.32		10	10.23	102	50 - 150
2-METHYLNAPHTHALENE	0.675661	0.66892640		0.9970		10	9.900	99	50 - 150
3&4-METHYL PHENOL	1.431908	1.403001		2.02		10	9.798	98	50 - 150
ACENAPHTHENE	1.229442	1.213867		1.27		10	9.873	98.70	80 - 120
ACENAPHTHYLENE	1.858572	1.896756		2.05		10	10.21	102	50 - 150
ANTHRACENE	1.107564	1.075623		2.88		10	9.712	97.10	50 - 150
BENZO(A)ANTHRACENE	1.198084	1.137022		5.10		10	9.490	94.90	50 - 150
BENZO(A)PYRENE	1.040826	1.101217		5.80		10	10.58	106	80 - 120
BENZO(B)FLUORANTHENE	1.198561	1.186239		1.03		10	9.897	99	50 - 150
BENZO(G,H,I)PERYLENE	1.064936	1.118789		5.06		10	10.51	105	50 - 150
BENZO(K)FLUORANTHENE	1.183434	1.183357		0.006510		10	9.999	100	50 - 150
BIS(2-ETHYLHEXYL)PHTHALATE	0.697969	0.67561790		3.20		10	9.680	96.80	50 - 150
CARBAZOLE	1.061630	1.102846		3.88		10	10.39	104	50 - 150
CHRYSENE	1.136627	1.153955		1.52		10	10.15	102	50 - 150
DI-N-BUTYL PHTHALATE	1.281066	1.300718		1.53		10	10.15	102	50 - 150
DI-N-OCTYL PHTHALATE	1.180926	1.099809		6.87		10	9.313	93.10	80 - 120
DIBENZ(A,H)ANTHRACENE	1.072637	1.138916		6.18		10	10.62	106	50 - 150
DIBENZOFURAN	1.700492	1.683745		0.9850		10	9.902	99	50 - 150
FLUORANTHENE	1.287812	1.252358		2.75		10	9.725	97.30	80 - 120
FLUORENE	1.3899	1.383513		0.46		10	9.954	99.50	50 - 150
INDENO(1,2,3-CD)PYRENE	1.047460	1.087104		3.78		10	10.38	104	50 - 150
NAPHTHALENE	1.056043	1.044998		1.05		10	9.895	99	50 - 150
PENTACHLOROPHENOL	0.140213	0.16779770		19.70		10	11.97	120	80 - 120
PHENANTHRENE	1.077455	1.078873		0.1320		10	10.01	100	50 - 150
PHENOL	1.731591	1.701637		1.73		10	9.827	98.30	80 - 120
PYRENE	1.190215	1.185924		0.3610		10	9.964	99.60	50 - 150
2,4,6-TRIBROMOPHENOL	0.129466	0.123452		4.65		10	9.535	95.30	50 - 150
2-FLUOROBIPHENYL	1.404629	1.360726		3.13		10	9.687	96.90	50 - 150
2-FLUOROPHENOL	1.386375	1.274432		8.07		10	9.193	91.90	50 - 150
NITROBENZENE-D5	0.339051	0.31095360		8.29		10	9.171	91.70	50 - 150
P-TERPHENYL-D14	1.097608	1.035553		5.65		10	9.435	94.40	50 - 150
PHENOL-D5	1.678185	1.574594		6.17		10	9.383	93.80	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.468	152	149946	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.197	136	572106	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.354	164	294340	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.471	188	568208	8000.0000000	ppb		0.00
84) Chrysene-d12	9.297	240	630412	8000.0000000	ppb		0.00
94) Perylene-d12	12.005	264	670753	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	2.798	112	238870	9192.5494501	ppb		0.00
Spiked Amount 20000.000				Recovery = 45.96%			
7) Phenol-d5	3.233	99	295130	9382.7156009	ppb		0.00
Spiked Amount 20000.000				Recovery = 46.91%			
24) Nitrobenzene-d5	3.768	82	222373m	9171.2861496	ppb		0.00
Spiked Amount 10000.000				Recovery = 91.71%			
50) 2-Fluorobiphenyl	4.878	172	500645	9687.4409495	ppb		0.00
Spiked Amount 10000.000				Recovery = 96.87%			
73) 2,4,6-Tribromophenol	5.930	330	87683	9535.4657466	ppb		0.00
Spiked Amount 20000.000				Recovery = 47.68%			
87) p-Terphenyl-d14	7.887	244	816031	9434.6311496	ppb		0.00
Spiked Amount 10000.000				Recovery = 94.35%			
Target Compounds							Qvalue
2) Pyridine	2.252	79	291744	10437.3725056	ppb		99
3) N-Nitrosodimethylamine	2.246	42	120661	9049.4943785	ppb		98
5) Aniline	3.286	66	135014	9484.8349876	ppb	#	92
6) bis(2-Chloroethyl)ether	3.309	93	240174m	11276.6570928	ppb		
8) Phenol	3.239	94	318942	9827.0140368	ppb		97
10) 2-Chlorophenol	3.351	128	267219	10002.6696405	ppb		99
11) n-Decane	3.351	41	130793	9323.7213285	ppb	#	97
12) 1,3-Dichlorobenzene	3.439	146	301493	10303.8922905	ppb		98
13) 1,4-Dichlorobenzene	3.474	146	298970	10080.6911172	ppb		98
14) Benzyl Alcohol	3.521	79	203808	10075.8799741	ppb		98
15) 1,2-Dichlorobenzene	3.562	146	282781	10156.1525122	ppb		99
16) bis(2-Chloroisopropyl)...	3.592	121	90935	10320.3600896	ppb		98
17) 2,2-oxybis(1-chloropro...	3.592	121	90935	10320.3600896	ppb		98
18) 2-Methylphenol	3.568	108	234955	9918.3767111	ppb		99
19) Hexachloroethane	3.750	117	105982	9752.9428906	ppb		97
20) N-Nitrosodi-n-propylamine	3.668	70	168074	9790.0039784	ppb		97
21) 3&4-Methyl phenol	3.650	107	262968	9798.1205102	ppb		98
25) Nitrobenzene	3.780	77	248721	10015.6112315	ppb		98
26) Isophorone	3.909	82	429785	9477.5195879	ppb		100
27) 2-Nitrophenol	3.962	139	128893	10119.0371882	ppb		95
28) 2,4-Dimethylphenol	3.962	107	244086	10200.4061232	ppb		99
29) bis(2-Chlorethoxy)methane	4.020	93	283680	10082.9718202	ppb		99
30) 2,4-Dichlorophenol	4.097	162	208736	10084.9209358	ppb		98
32) 1,2,4-Trichlorobenzene	4.156	180	233557	9961.1518630	ppb		97
34) Naphthalene	4.208	128	747312m	9895.4149478	ppb		
35) 4-Chloroaniline	4.226	65	80420	9893.3730258	ppb		100
36) Hexachloro-1,3-butadiene	4.273	225	150336	11005.8759043	ppb		99

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Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.508	107	196794	9542.1937076 ppb		96
41) 2-Methylnaphthalene	4.643	142	478371	9900.3229876 ppb		99
42) 1-Methylnaphthalene	4.708	142	462096	10231.8836930 ppb		100
47) Hexachlorocyclopentadiene	4.743	237	136569	8015.4373960 ppb		97
48) 2,4,6-Trichlorophenol	4.814	196	137310	9553.1561018 ppb		92
49) 2,4,5-Trichlorophenol	4.837	196	151112	10447.8483406 ppb		92
51) Biphenyl	4.949	154	548451	9738.9167569 ppb		100
52) 2-Chloronaphthalene	4.966	162	441898	9974.1365049 ppb		99
53) 2-Nitroaniline	5.025	138	147385	10459.3020467 ppb		99
54) Acenaphthylene	5.260	152	697864	10205.4474294 ppb		100
55) Dimethyl phthalate	5.143	163	467465	9796.4518427 ppb		99
56) 2,6-Dinitrotoluene	5.190	165	110942	10359.1896875 ppb		85
57) 3-Nitroaniline	5.307	138	120653	10262.8410595 ppb	#	83
58) Acenaphthene	5.378	153	446612	9873.3124387 ppb		99
59) 2,4-Dinitrophenol	5.384	184	48721	9936.9750567 ppb	#	31
60) Dibenzofuran	5.501	168	619492	9901.5177999 ppb		100
61) 2,4-Dinitrotoluene	5.478	165	139543	10385.2624881 ppb		95
63) 4-Nitrophenol	5.407	139	96317m	11193.7466939 ppb		
64) Fluorene	5.754	166	509029	9954.0495440 ppb		100
65) 4-Chlorophenyl-phenyle...	5.748	204	255592	10046.0409863 ppb		96
66) Diethyl phthalate	5.648	149	487181	10590.3756438 ppb		98
67) 4-Nitroaniline	5.754	138	123458	11454.3797898 ppb		99
68) Azobenzene	5.865	77	479727	9922.7101512 ppb		99
71) 4,6-Dinitro-2-methylph...	5.771	198	68514	9936.8999737 ppb		86
72) N-Nitrosodiphenylamine	5.830	169	447908	9943.5271923 ppb		99
74) 4-Bromophenyl-phenylether	6.118	248	170679	10016.9016888 ppb		95
75) Hexachlorobenzene	6.171	284	204393	9654.9027864 ppb		99
76) n-octadecane	6.359	55	70518	8964.0322931 ppb		99
77) Pentachlorophenol	6.312	266	119180	11967.3509004 ppb		97
78) Phenanthrene	6.488	178	766280	10013.1539849 ppb		98
79) Anthracene	6.529	178	763972	9711.6076414 ppb		98
80) Carbazole	6.647	167	783307	10388.2245294 ppb		100
81) Di-n-butyl phthalate	6.917	149	923848	10153.4061778 ppb		99
83) Fluoranthene	7.499	202	889500	9724.6966616 ppb		99
86) Pyrene	7.728	202	934526	9963.9518690 ppb		99
88) Benzylbutyl phthalate	8.492	149	379770	9603.9925833 ppb		97
90) Benzo(a)anthracene	9.279	228	895990	9490.3285527 ppb		98
91) Chrysene	9.338	228	909334	10152.4566833 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.385	149	532397	9679.7649840 ppb		99
93) Di-n-octyl phthalate	10.619	149	866666	9313.1099090 ppb		100
95) Benzo(b)fluoranthene	11.230	252	994592	9897.1984321 ppb		99
96) Benzo(k)fluoranthene	11.289	252	992175	9999.3432922 ppb		99
97) Benzo(a)pyrene	11.888	252	923306	10580.2288100 ppb		99
98) Indeno(1,2,3-cd)pyrene	13.921	276	911473	10378.4822911 ppb		99
99) Dibenz(a,h)anthracene	13.968	278	954914	10617.9079696 ppb		99
100) Benzo(g,h,i)perylene	14.256	276	938039	10505.6935177 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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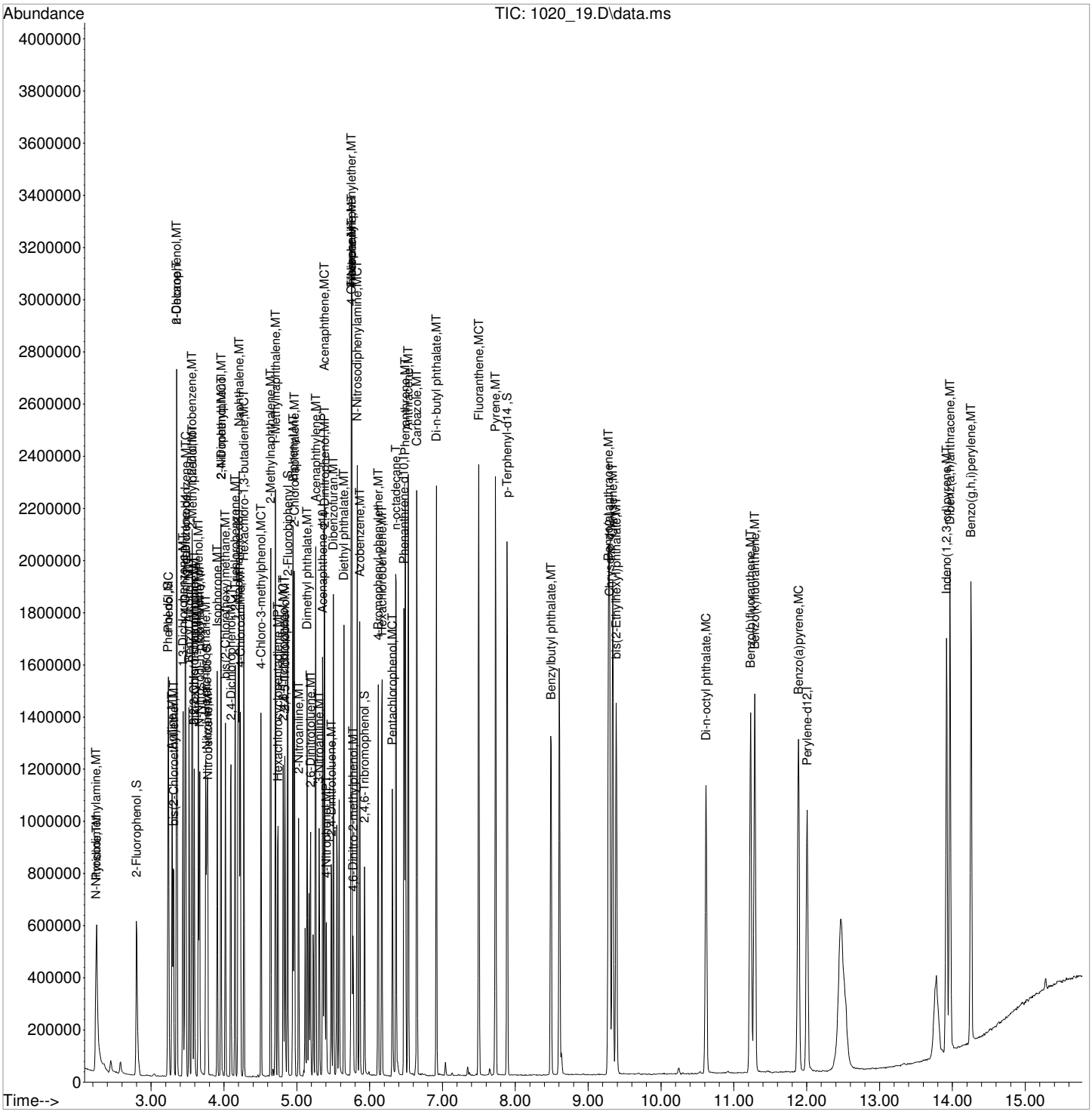
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
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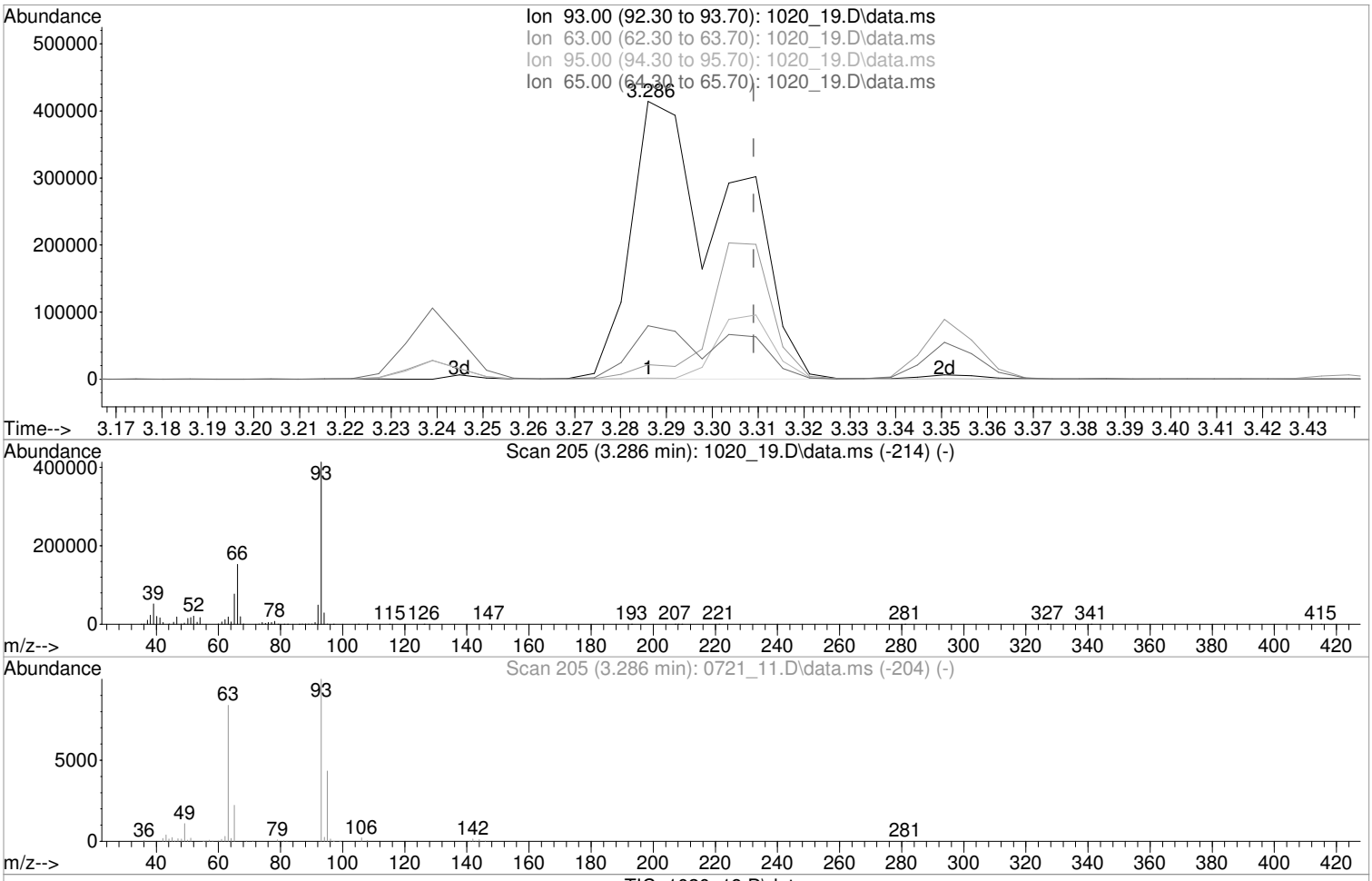
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.286min (-0.023) 29426.4811473 ppb

Qvalue = 41

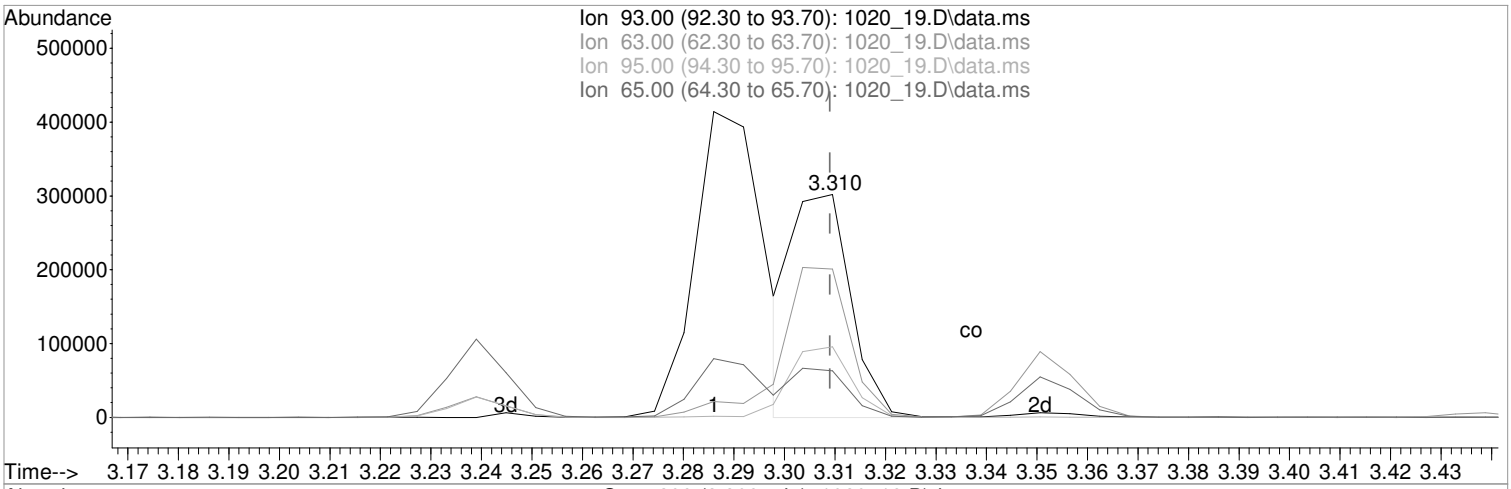
response 626735

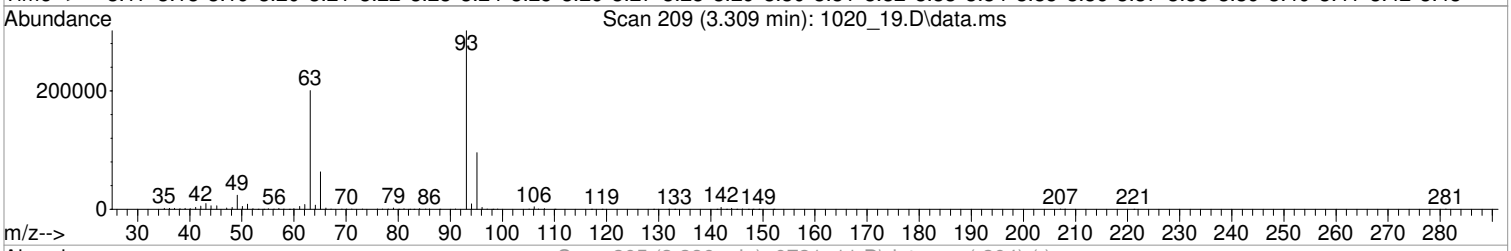
Ion	Exp%	Act%
93.00	100	100
63.00	66.30	5.13#
95.00	32.50	0.25#
65.00	21.90	18.86

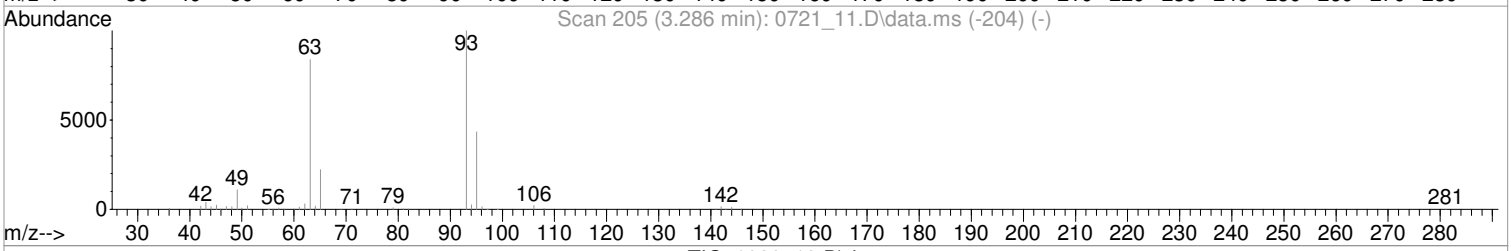
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.309min (+0.000) 11276.6570928 ppb m

response 240174

Ion	Exp%	Act%
93.00	100	100
63.00	66.30	66.57
95.00	32.50	31.68
65.00	21.90	20.96

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
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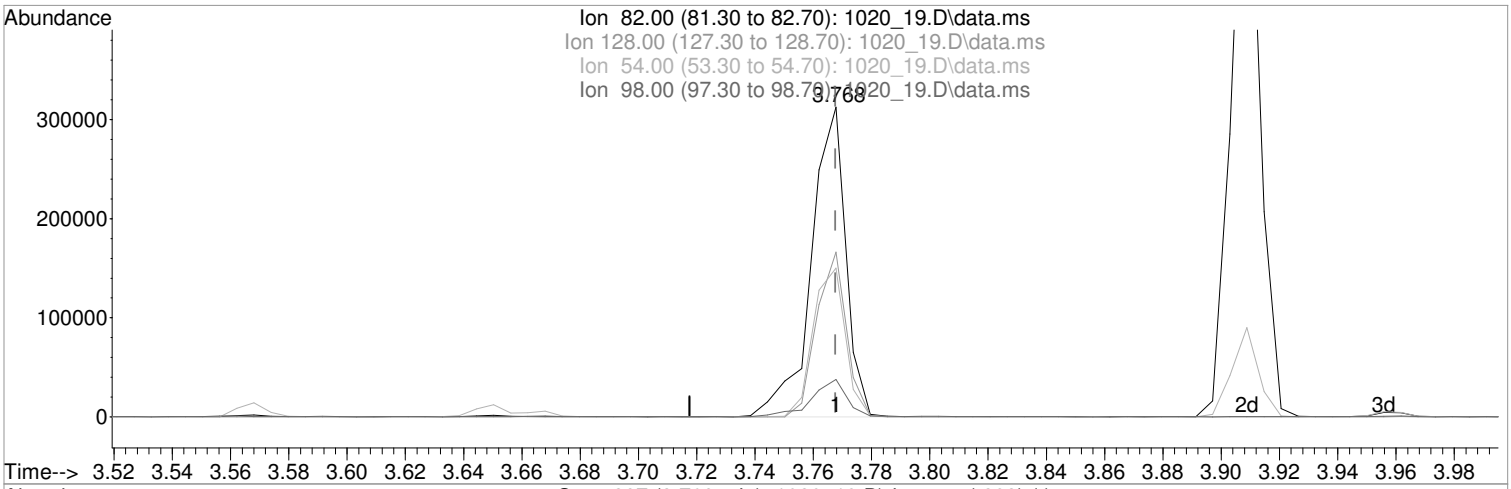

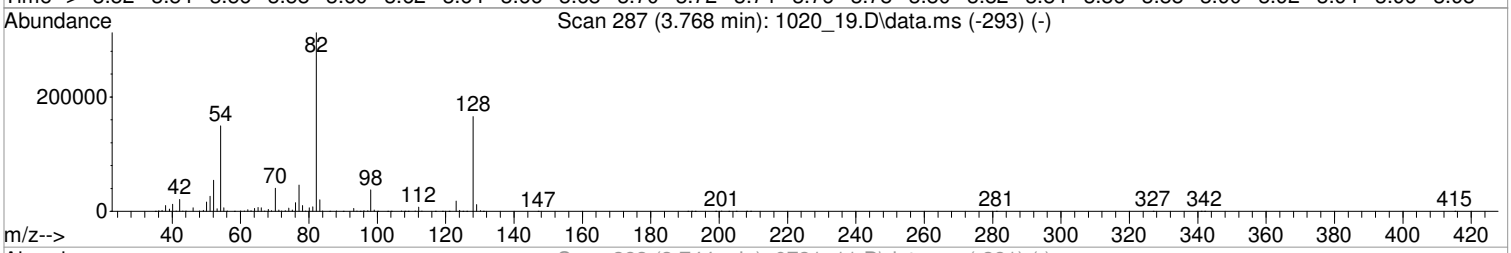

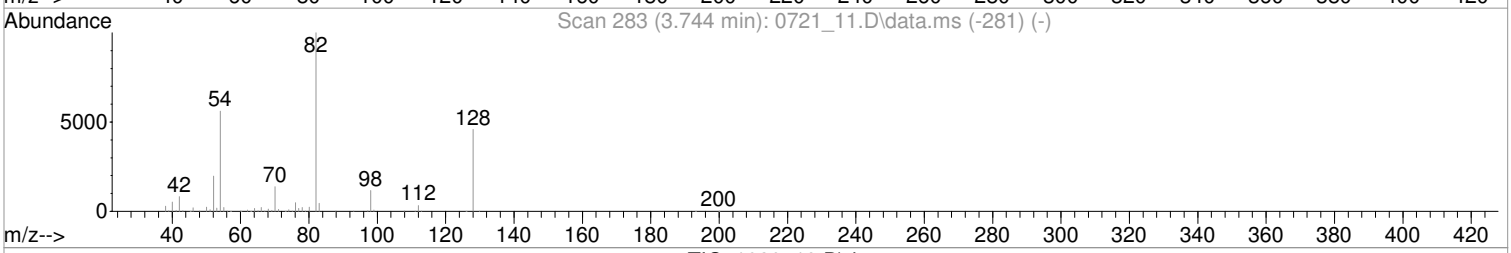

TIC: 1020_19.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 10653.1813556 ppb

Qvalue = 99

response 258304

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.15
54.00	48.90	47.93
98.00	12.10	12.10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
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Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
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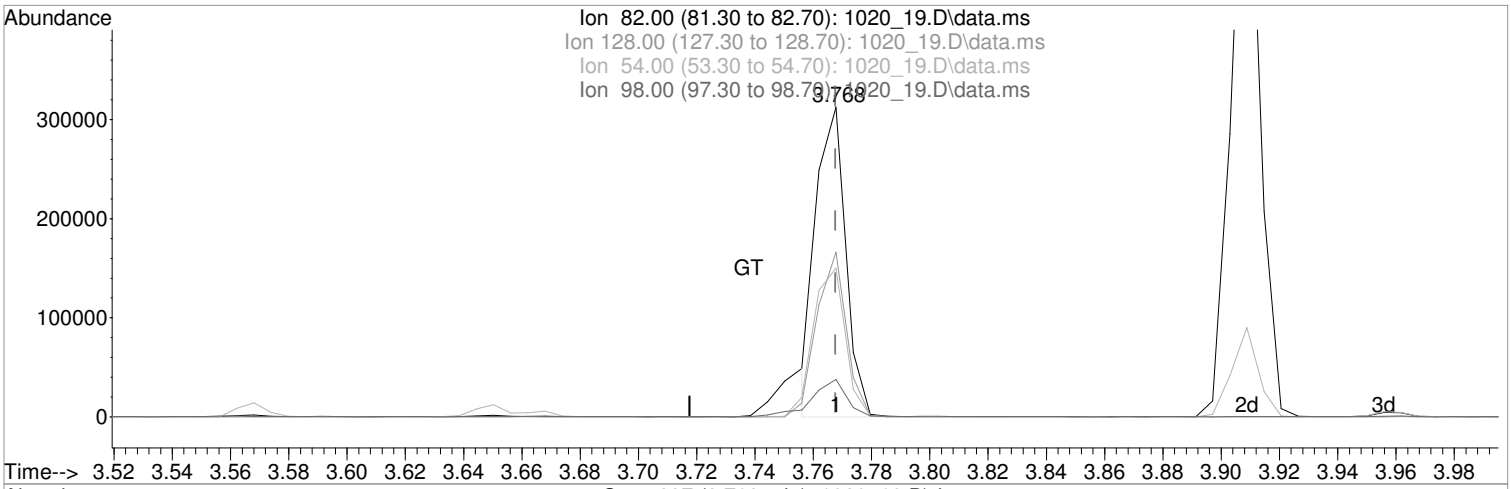
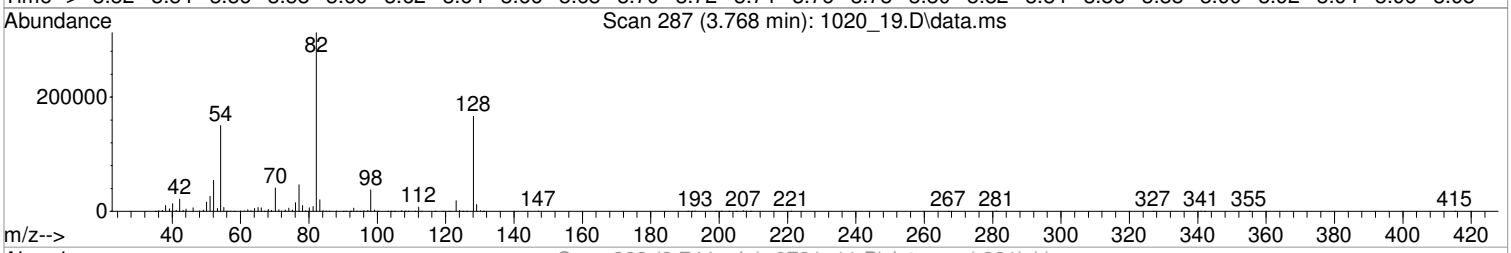
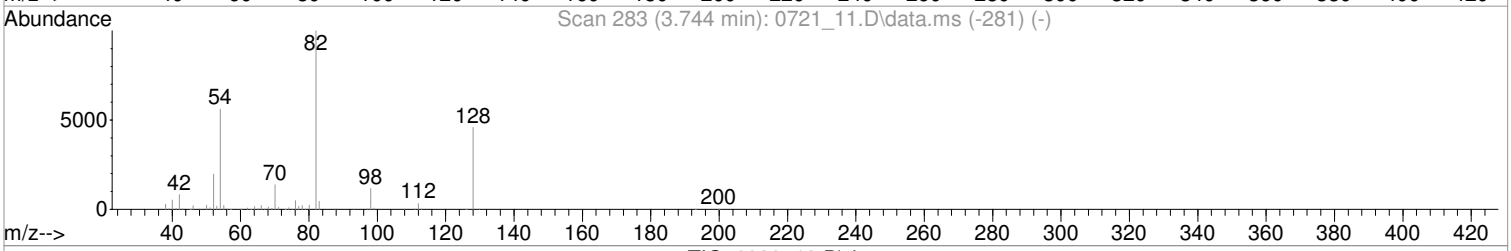
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(24) Nitrobenzene-d5 (S)

3.768min (+0.000) 9171.2861496 ppb m

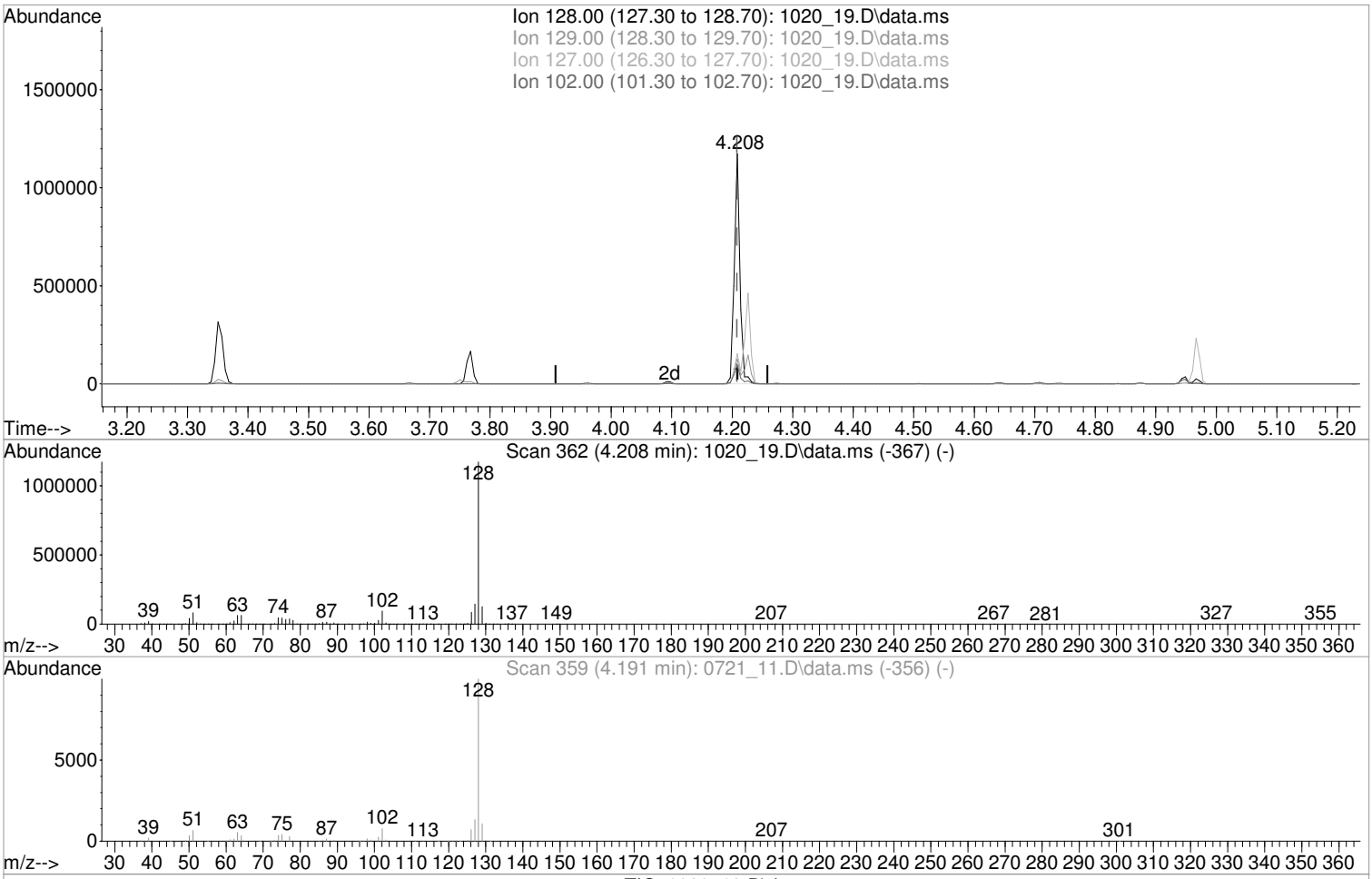
response 222373

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.15
54.00	48.90	47.99
98.00	12.10	12.10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 10113.4733938 ppb

Qvalue = 100

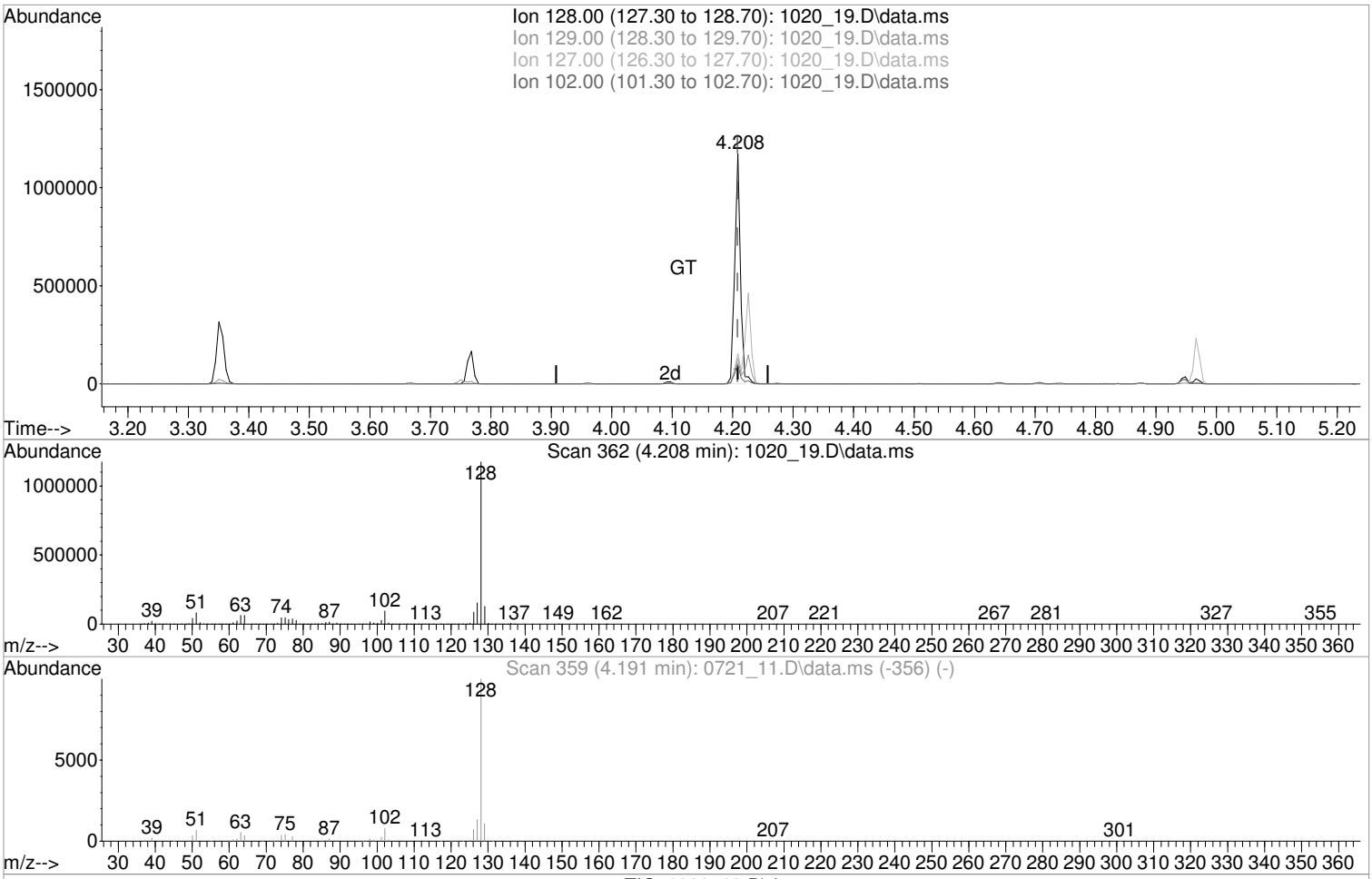
response 763780

Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.90
127.00	13.10	13.08
102.00	8.20	8.08

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(34) Naphthalene (MT)

4.208min (+0.000) 9895.4149478 ppb m

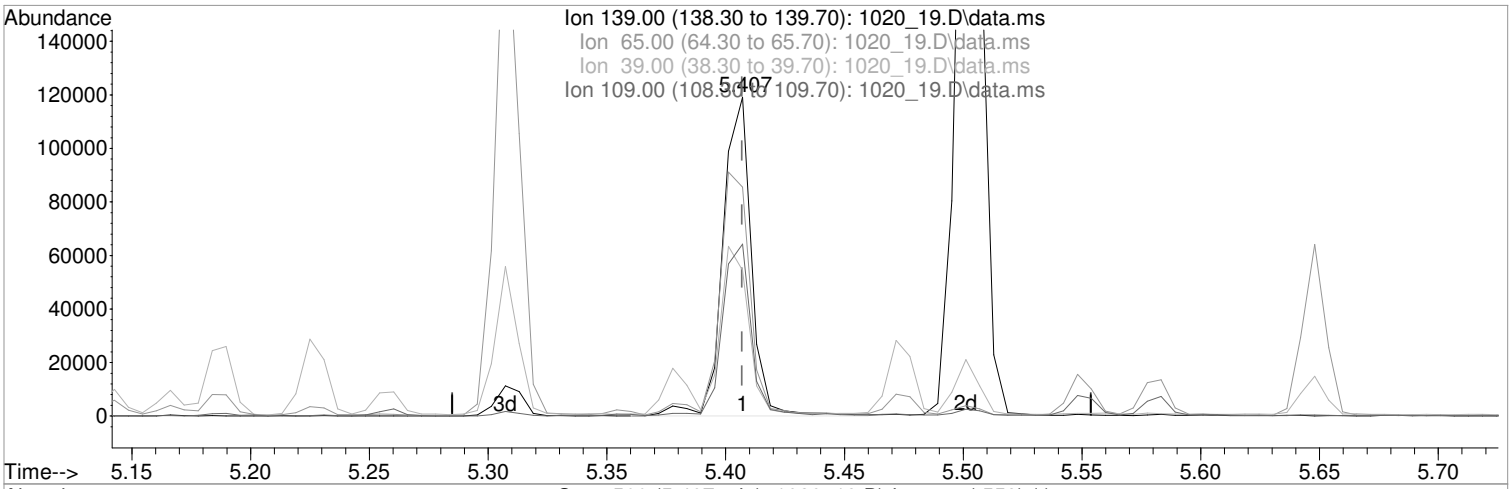
response 747312

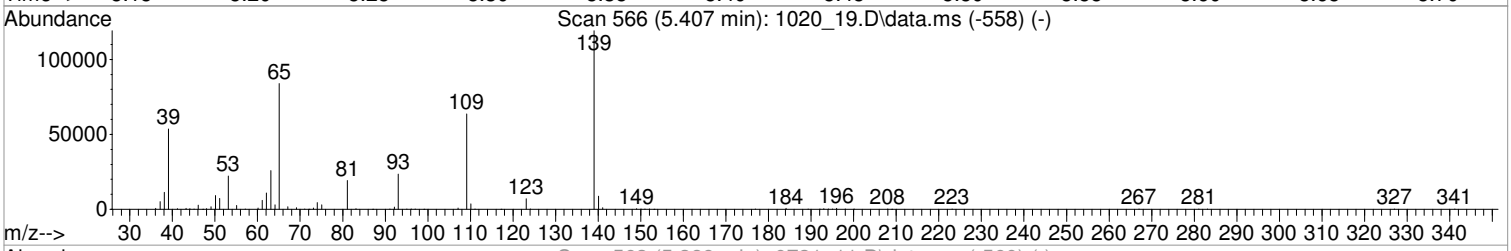
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.91
127.00	13.10	13.08
102.00	8.20	8.08

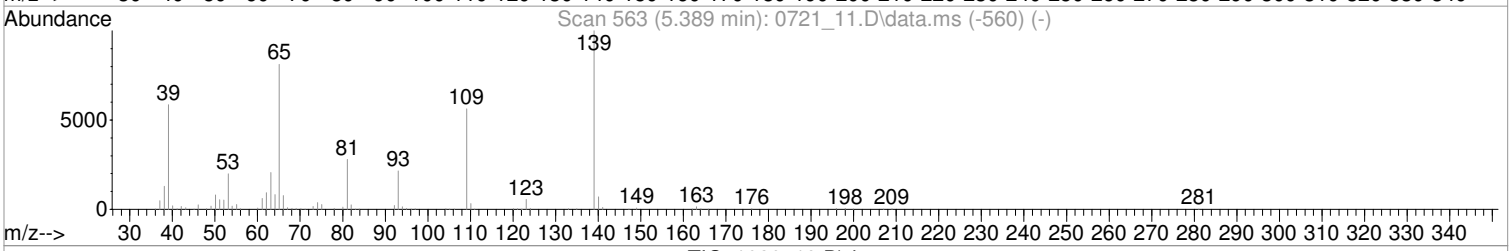
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (+0.000) 11581.6816012 ppb

Qvalue = 96

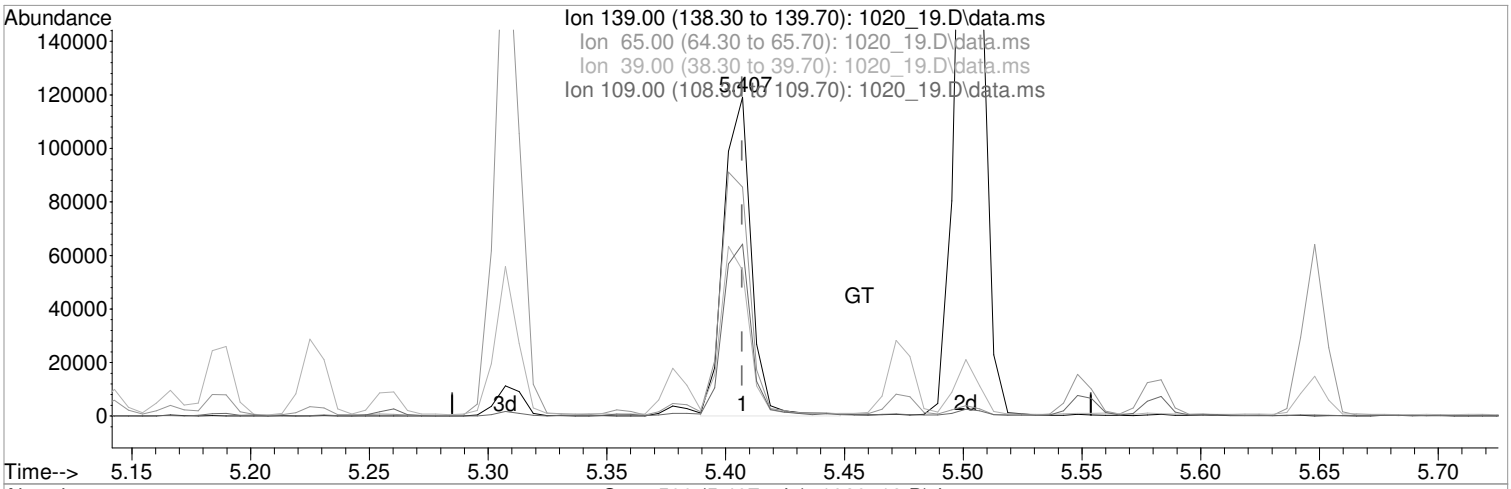
response 99655

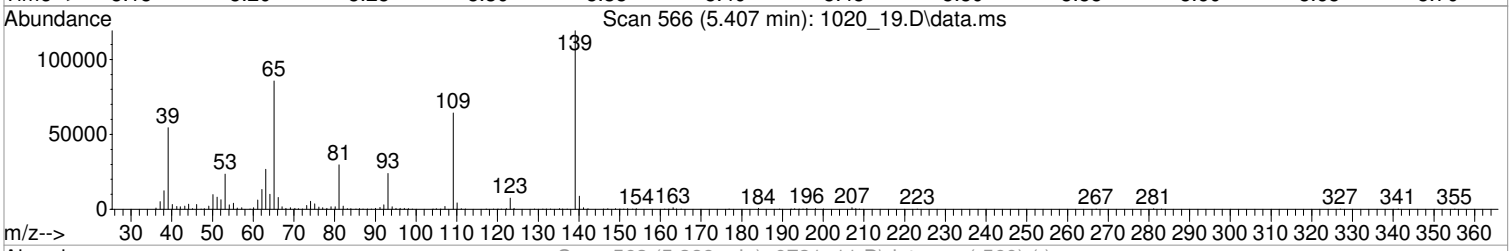
Ion	Exp%	Act%
139.00	100	100
65.00	76.10	71.05
39.00	49.40	45.06
109.00	53.80	53.53

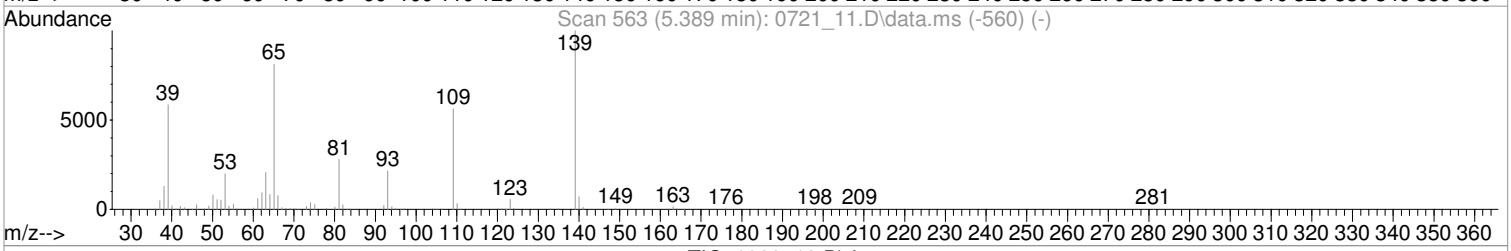
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:02:46 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration







TIC: 1020_19.D\data.ms

(63) 4-Nitrophenol (MPT)

5.407min (+0.000) 11193.7466939 ppb m

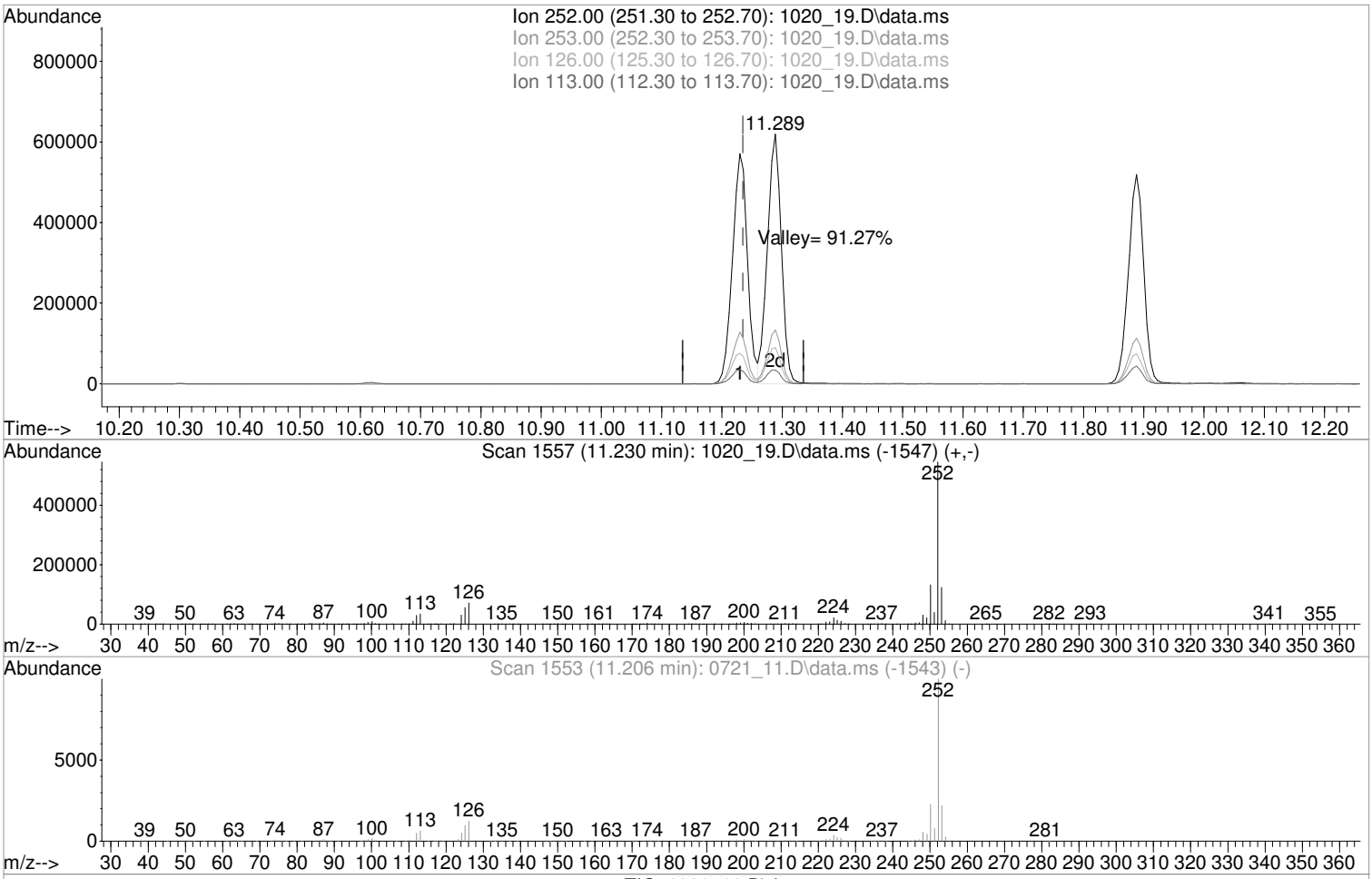
response 96317

Ion	Exp%	Act%
139.00	100	100
65.00	76.10	71.83
39.00	49.40	45.71
109.00	53.80	53.90

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_19.D
Acq On : 21 Oct 2022 12:34 am
Operator : 3545
Sample : SSCV SVMS 10K PPB 22J20313 exp 2/2/23
Misc : SVMS CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 18 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:05:31 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



TIC: 1020_19.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.230min (-0.006) 9897.1984321 ppb

Qvalue = 99

response 994592

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	22.54
126.00	13.40	13.18
113.00	6.50	6.21

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559126	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1020_20-1	**Analysis date/time:**	10/21/22 00:55
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122101	0.10123080		17.10		10	8.291	82.90	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_20.D
Acq On : 21 Oct 2022 12:55 am
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22J20314 exp 12/6/22
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 19 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:03:44 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration

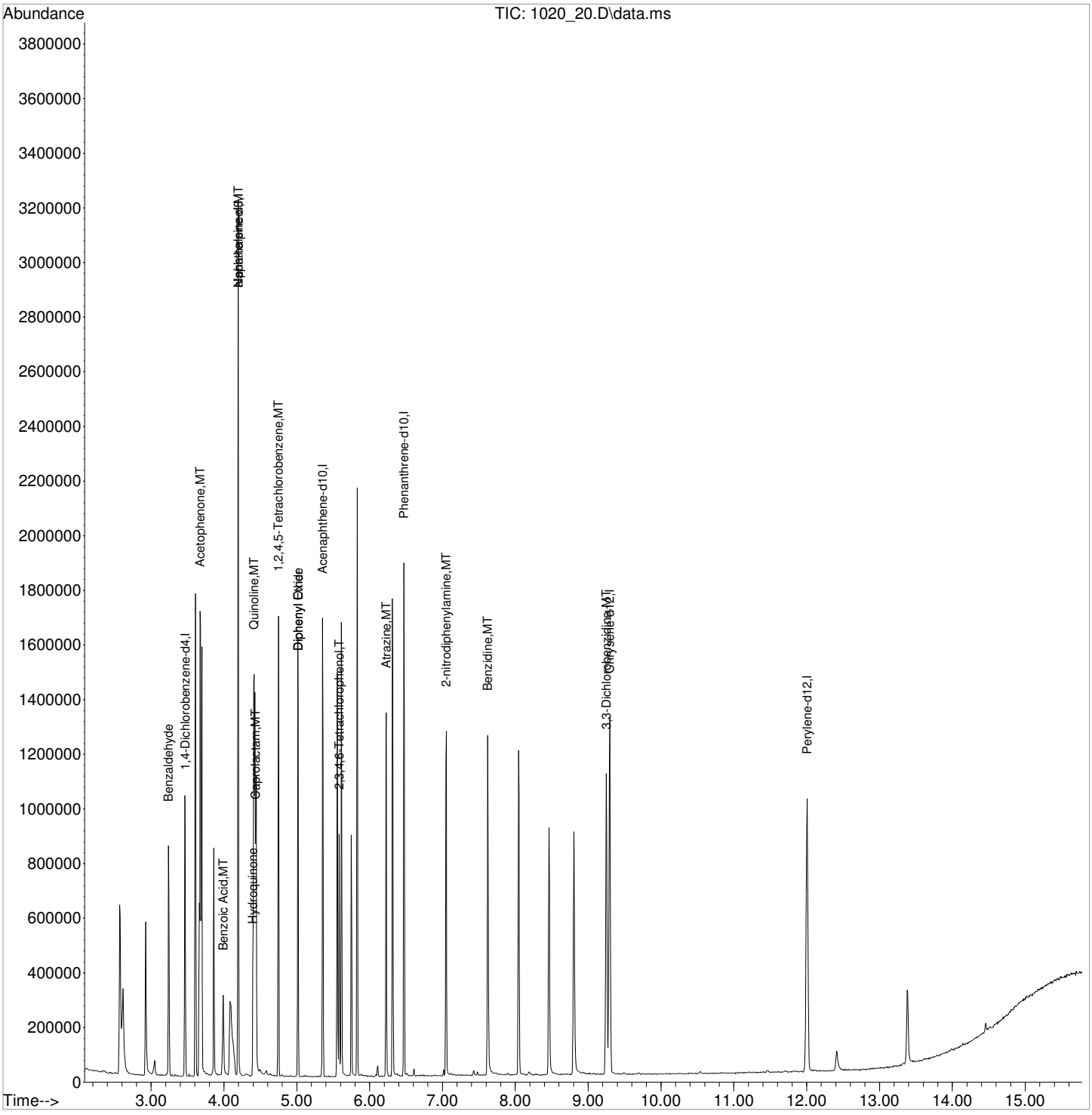
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.468	152	152663	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.197	136	664296	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.354	164	298257	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.470	188	599632	8000.0000000	ppb	0.00
84) Chrysene-d12	9.297	240	617677	8000.0000000	ppb	0.00
94) Perylene-d12	12.005	264	671473	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	3.239	105	148226	21045.6252577	ppb	99
22) Acetophenone	3.674	105	338558	10158.6490409	ppb #	83
31) Benzoic Acid	3.991	105	84059	8290.7721831	ppb	98
33) alpha-terpineol	4.197	59	179842	9674.2782055	ppb	100
37) Hydroquinone	4.396	110	111544	6544.6670879	ppb	96
38) Quinoline	4.414	129	465134	10315.4541988	ppb	99
39) Caprolactam	4.432	113	61616	13761.3102301	ppb #	45
43) 1,2,4,5-Tetrachloroben...	4.749	216	230649	10328.9062382	ppb	99
44) Diphenyl Ether	5.019	170	302366	10548.0505772	ppb	99
45) Diphenyl Oxide	5.019	170	302366	10548.0505772	ppb	99
62) 2,3,4,6-Tetrachlorophenol	5.583	232	95720	9027.5982249	ppb	99
69) Atrazine	6.229	200	145059	9638.2795204	ppb	99
82) 2-nitrodiphenylamine	7.052	167	160715	9331.6291690	ppb	99
85) Benzidine	7.622	184	491201	13683.3902667	ppb	97
89) 3,3-Dichlorobenzidine	9.250	252	359194	9573.0456066	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\102022\
Data File : 1020_20.D
Acq On : 21 Oct 2022 12:55 am
Operator : 3545
Sample : SSCV TCL 10K1 PPB 22J20314 exp 12/6/22
Misc : TCL CAL ISTD 22J19160 exp 04/19/23
ALS Vial : 19 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Oct 21 10:03:44 2022
Quant Method : C:\msdchem\1\methods\S802J20V.M
Quant Title : 8270 BNA
QLast Update : Fri Oct 21 09:58:59 2022
Response via : Initial Calibration



7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559126	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1122_03-1	**Analysis date/time:**	11/22/22 14:17
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.631524	0.63775220		0.9860		10	10.10	101	
2-METHYLNAPHTHALENE	0.675661	0.68109080		0.8040		10	10.08	101	
3&4-METHYL PHENOL	1.431908	1.329638		7.14		10	9.286	92.90	
ACENAPHTHENE	1.229442	1.173149		4.58	20	10	9.542	95.40	
ACENAPHTHYLENE	1.858572	1.792822		3.54		10	9.646	96.50	
ANTHRACENE	1.107564	1.072760		3.14		10	9.686	96.90	
BENZO(A)ANTHRACENE	1.198084	1.140785		4.78		10	9.522	95.20	
BENZO(A)PYRENE	1.040826	1.029087		1.13	20	10	9.887	98.90	
BENZO(B)FLUORANTHENE	1.198561	1.248695		4.18		10	10.42	104	
BENZO(G,H,I)PERYLENE	1.064936	0.86659470		18.60		10	8.138	81.40	
BENZO(K)FLUORANTHENE	1.183434	1.274939		7.73		10	10.77	108	
BIS(2-ETHYLHEXYL)PHTHALATE	0.697969	0.602079		13.70		10	8.626	86.30	
CARBAZOLE	1.061630	0.97950970		7.74		10	9.226	92.30	
CHRYSENE	1.136627	1.142213		0.4910		10	10.05	101	
DI-N-BUTYL PHTHALATE	1.281066	1.067749		16.70		10	8.335	83.40	
DI-N-OCTYL PHTHALATE	1.180926	1.022728		13.40	20	10	8.660	86.60	
DIBENZ(A,H)ANTHRACENE	1.072637	0.88052110		17.90		10	8.209	82.10	
DIBENZOFURAN	1.700492	1.663387		2.18		10	9.782	97.80	
FLUORANTHENE	1.287812	1.195404		7.18	20	10	9.282	92.80	
FLUORENE	1.3899	1.347530		3.05		10	9.695	96.90	
INDENO(1,2,3-CD)PYRENE	1.047460	0.83545830		20.20		10	7.976	79.80	
NAPHTHALENE	1.056043	1.026139		2.83		10	9.717	97.20	
PENTACHLOROPHENOL	0.140213	0.12778440		8.86	20	10	9.114	91.10	
PHENANTHRENE	1.077455	1.055184		2.07		10	9.793	97.90	
PHENOL	1.731591	1.536803		11.20	20	10	8.875	88.80	
PYRENE	1.190215	1.183265		0.5840		10	9.942	99.40	
2,4,6-TRIBROMOPHENOL	0.129466	0.12477020		3.63		10	9.637	96.40	70 - 130
2-FLUOROBIPHENYL	1.404629	1.417317		0.9030		10	10.09	101	70 - 130
2-FLUOROPHENOL	1.386375	1.243866		10.30		10	8.972	89.70	70 - 130
NITROBENZENE-D5	0.339051	0.31672560		6.58		10	9.342	93.40	70 - 130
P-TERPHENYL-D14	1.097608	1.043589		4.92		10	9.508	95.10	70 - 130
PHENOL-D5	1.678185	1.502190		10.50		10	8.951	89.50	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:43:04 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.197	152	174640	8000.0000000	ppb		-0.02
23) Naphthalene-d8	3.920	136	653070	8000.0000000	ppb		-0.02
46) Acenaphthene-d10	5.060	164	351607	8000.0000000	ppb		-0.02
70) Phenanthrene-d10	6.158	188	660613	8000.0000000	ppb		-0.03
84) Chrysene-d12	8.773	240	695813	8000.0000000	ppb		-0.04
94) Perylene-d12	11.294	264	627870	8000.0000000	ppb		-0.05
System Monitoring Compounds							
4) 2-Fluorophenol	2.527	112	271536	8972.0759961	ppb		-0.02
Spiked Amount 20000.000				Recovery = 44.86%			
7) Phenol-d5	2.974	99	327928	8951.2741269	ppb		-0.02
Spiked Amount 20000.000				Recovery = 44.76%			
24) Nitrobenzene-d5	3.497	82	258555m	9341.5275267	ppb		-0.02
Spiked Amount 10000.000				Recovery = 93.42%			
50) 2-Fluorobiphenyl	4.590	172	622923	10090.3289439	ppb		-0.02
Spiked Amount 10000.000				Recovery = 100.90%			
73) 2,4,6-Tribromophenol	5.630	330	103031	9637.2839091	ppb		-0.02
Spiked Amount 20000.000				Recovery = 48.19%			
87) p-Terphenyl-d14	7.498	244	907678	9507.8431977	ppb		-0.03
Spiked Amount 10000.000				Recovery = 95.08%			
Target Compounds							Qvalue
2) Pyridine	1.946	79	279057	8571.8257426	ppb		95
3) N-Nitrosodimethylamine	1.934	42	132464	8529.9487483	ppb		97
5) Aniline	3.015	66	148457	8954.5304553	ppb	#	44
6) bis(2-Chloroethyl)ether	3.038	93	232374	9367.7022696	ppb		96
8) Phenol	2.980	94	335484	8875.0914719	ppb		99
10) 2-Chlorophenol	3.080	128	287776	9248.9903228	ppb		99
11) n-Decane	3.085	41	144280	8830.8412818	ppb		98
12) 1,3-Dichlorobenzene	3.168	146	330113	9686.7449850	ppb		96
13) 1,4-Dichlorobenzene	3.203	146	329357	9535.0013009	ppb		96
14) Benzyl Alcohol	3.256	79	175368	7443.9469512	ppb		100
15) 1,2-Dichlorobenzene	3.285	146	313401	9664.3027854	ppb		98
16) bis(2-Chloroisopropyl)...	3.326	121	95120	9268.8698344	ppb		96
17) 2,2-oxybis(1-chloropro...	3.326	121	95120	9268.8698344	ppb		96
18) 2-Methylphenol	3.309	108	257421	9330.2019273	ppb		98
19) Hexachloroethane	3.473	117	113099	8936.2127030	ppb		98
20) N-Nitrosodi-n-propylamine	3.403	70	181789	9091.6162277	ppb		97
21) 3&4-Methyl phenol	3.391	107	290260	9285.7765010	ppb		98
25) Nitrobenzene	3.508	77	264568	9332.9531566	ppb		99
26) Isophorone	3.638	82	493110	9525.8560619	ppb		99
27) 2-Nitrophenol	3.691	139	151933	10449.0965386	ppb	#	80
28) 2,4-Dimethylphenol	3.696	107	248743	9106.3057767	ppb		98
29) bis(2-Chlorethoxy)methane	3.755	93	296609	9235.5109645	ppb		98
30) 2,4-Dichlorophenol	3.826	162	234742	9935.3394499	ppb		99
32) 1,2,4-Trichlorobenzene	3.879	180	270078	10090.7314986	ppb		99
34) Naphthalene	3.932	128	837676m	9716.8365079	ppb		
35) 4-Chloroaniline	3.955	65	86552	9327.6918806	ppb	#	62
36) Hexachloro-1,3-butadiene	3.996	225	158809	10184.8233394	ppb		97

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:43:04 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

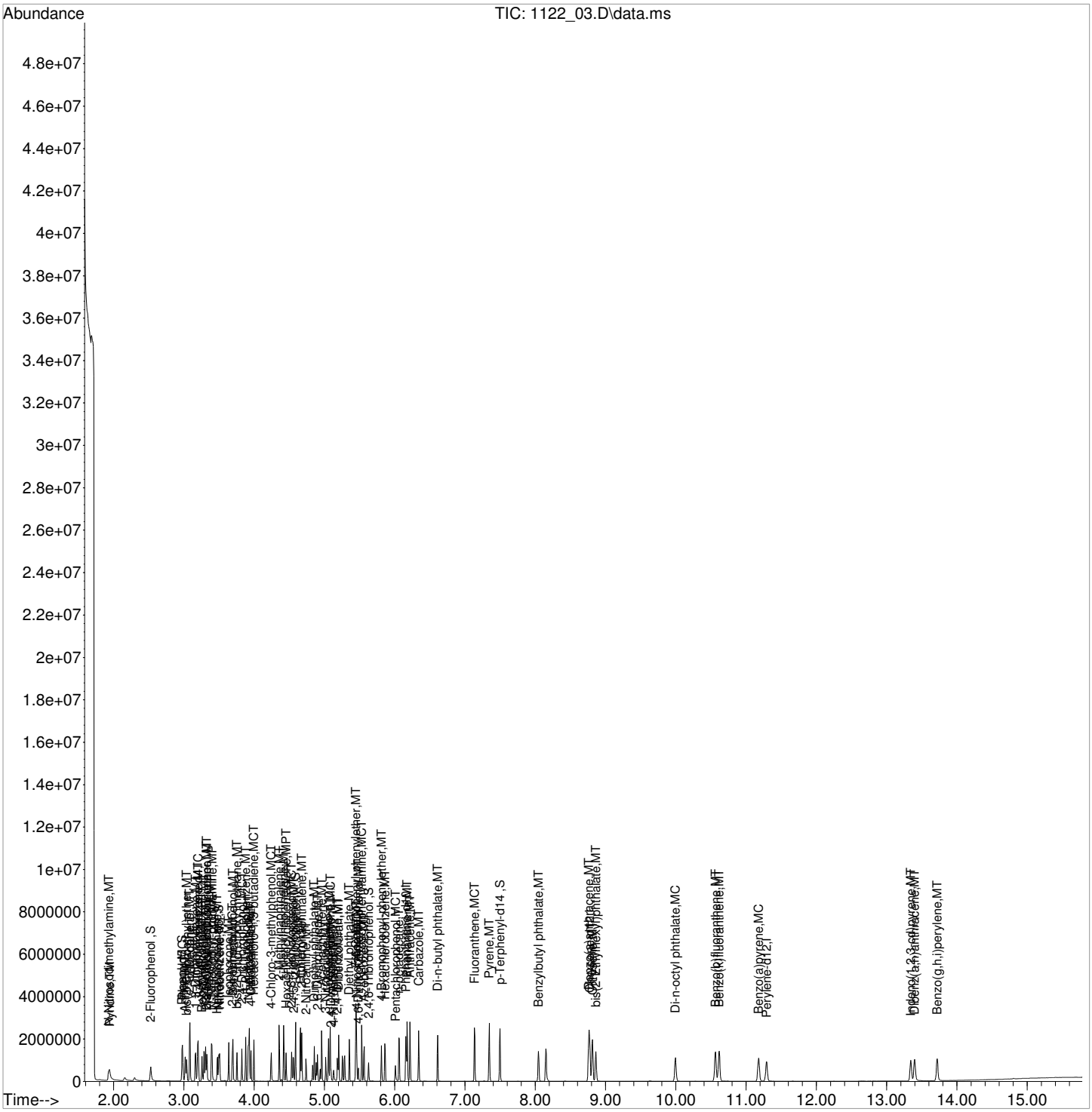
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.243	107	212469	9025.0313171 ppb		86
41)	2-Methylnaphthalene	4.355	142	556000	10080.3608601 ppb		99
42)	1-Methylnaphthalene	4.419	142	520621	10098.6154789 ppb		99
47)	Hexachlorocyclopentadiene	4.454	237	157385	7732.6830285 ppb		97
48)	2,4,6-Trichlorophenol	4.531	196	172525	10048.2056780 ppb		94
49)	2,4,5-Trichlorophenol	4.560	196	172792	10000.9973118 ppb		98
51)	Biphenyl	4.660	154	677144	10065.7381520 ppb		99
52)	2-Chloronaphthalene	4.678	162	516323	9755.8814878 ppb		94
53)	2-Nitroaniline	4.736	138	170078	10103.9068137 ppb		95
54)	Acenaphthylene	4.960	152	787961	9646.2330483 ppb		100
55)	Dimethyl phthalate	4.854	163	543323	9531.6825714 ppb		99
56)	2,6-Dinitrotoluene	4.901	165	133801	10458.7775700 ppb		91
57)	3-Nitroaniline	5.018	138	142154	10122.3263594 ppb		90
58)	Acenaphthene	5.083	153	515609	9542.1173818 ppb		98
59)	2,4-Dinitrophenol	5.095	184	56665	9686.2856163 ppb	#	1
60)	Dibenzofuran	5.201	168	731073	9781.7956967 ppb		98
61)	2,4-Dinitrotoluene	5.183	165	172723	10760.9686892 ppb		97
63)	4-Nitrophenol	5.130	139	102643	9986.0477321 ppb		97
64)	Fluorene	5.453	166	592251	9695.1570436 ppb		99
65)	4-Chlorophenyl-phenyle...	5.447	204	294141	9678.2096766 ppb		89
66)	Diethyl phthalate	5.353	149	521420	9488.5637669 ppb		97
67)	4-Nitroaniline	5.459	138	147863	11484.2761735 ppb		96
68)	Azobenzene	5.565	77	489367	8473.4953609 ppb		97
71)	4,6-Dinitro-2-methylph...	5.483	198	92738	11450.8850959 ppb		94
72)	N-Nitrosodiphenylamine	5.530	169	509661	9731.8022750 ppb		99
74)	4-Bromophenyl-phenylether	5.812	248	196227	9905.4067570 ppb		91
75)	Hexachlorobenzene	5.859	284	228250	9273.6969905 ppb		97
76)	n-octadecane	6.058	55	72021	7874.4966268 ppb		97
77)	Pentachlorophenol	6.011	266	105520	9113.5935317 ppb		96
78)	Phenanthrene	6.176	178	871335	9793.2939852 ppb		99
79)	Anthracene	6.217	178	885849	9685.7579992 ppb		99
80)	Carbazole	6.340	167	808846	9226.4661033 ppb		99
81)	Di-n-butyl phthalate	6.611	149	881711	8334.8487712 ppb		99
83)	Fluoranthene	7.134	202	987124	9282.4378542 ppb		99
86)	Pyrene	7.345	202	1029164	9941.6106724 ppb		99
88)	Benzylbutyl phthalate	8.044	149	374930	8590.3980139 ppb		97
90)	Benzo(a)anthracene	8.761	228	992216	9521.7383708 ppb		99
91)	Chrysene	8.814	228	993458	10049.1460894 ppb		99
92)	bis(2-Ethylhexyl)phtha...	8.861	149	523668	8626.1535111 ppb		98
93)	Di-n-octyl phthalate	9.995	149	889534	8660.3900931 ppb		100
95)	Benzo(b)fluoranthene	10.565	252	980023	10418.2907945 ppb		99
96)	Benzo(k)fluoranthene	10.618	252	1000620	10773.2135576 ppb		99
97)	Benzo(a)pyrene	11.176	252	807666	9887.2176420 ppb		99
98)	Indeno(1,2,3-cd)pyrene	13.344	276	655699	7976.0423757 ppb		99
99)	Dibenz(a,h)anthracene	13.397	278	691066	8208.9406121 ppb		98
100)	Benzo(g,h,i)perylene	13.720	276	680136	8137.5278131 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

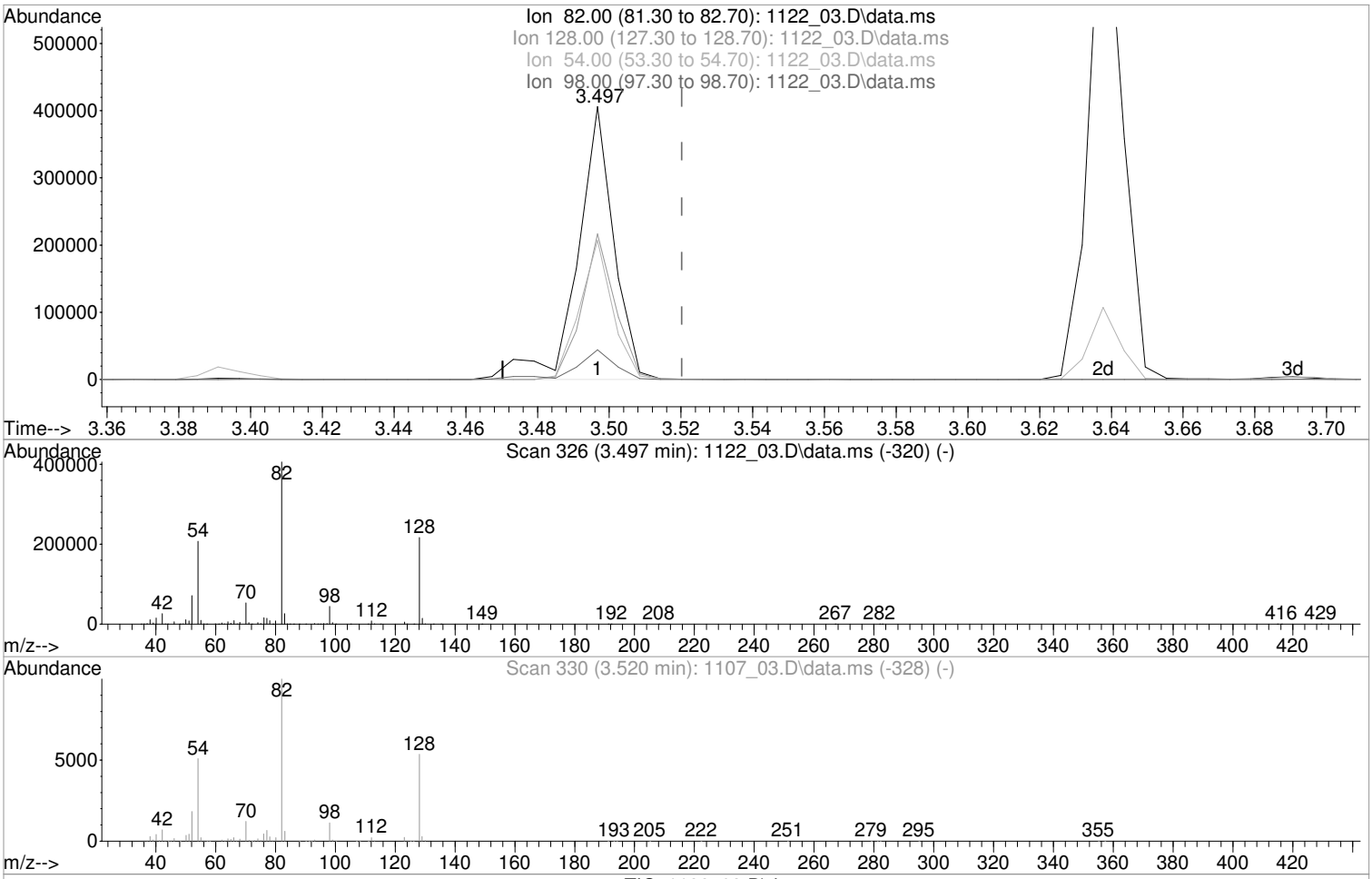
Quant Time: Nov 22 14:43:04 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:41:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1122_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 10276.1680309 ppb

Qvalue = 97

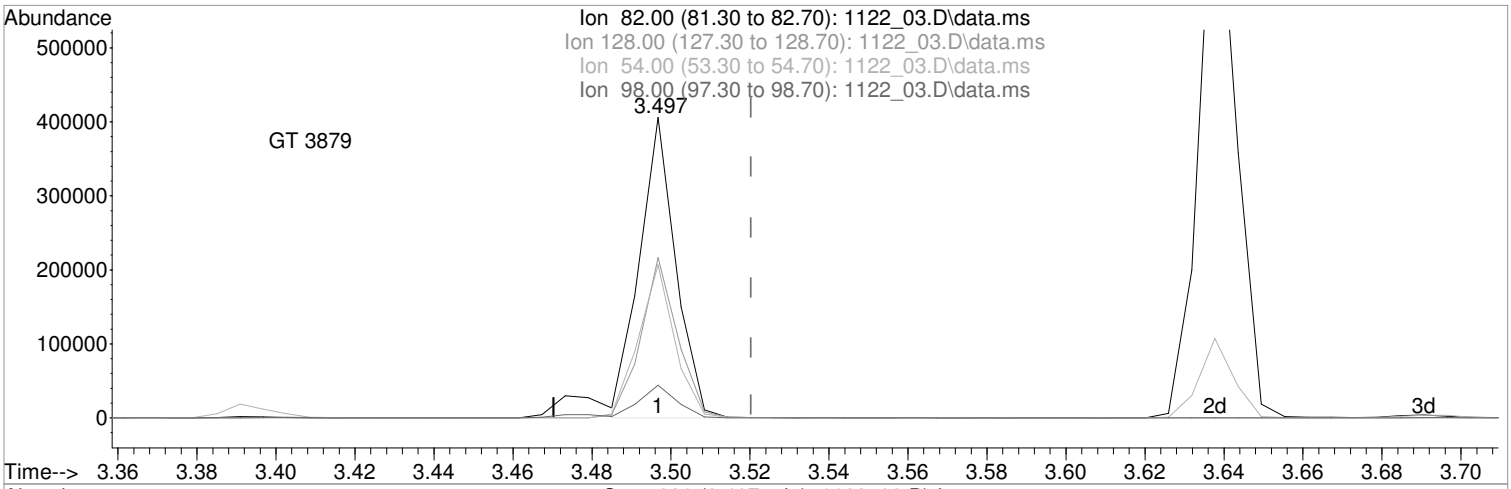
response 284424

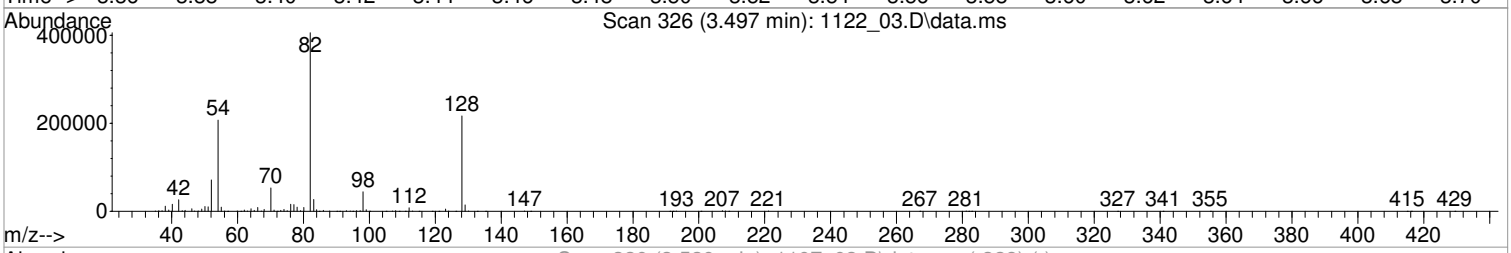
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.45
54.00	48.90	51.03
98.00	12.10	10.92

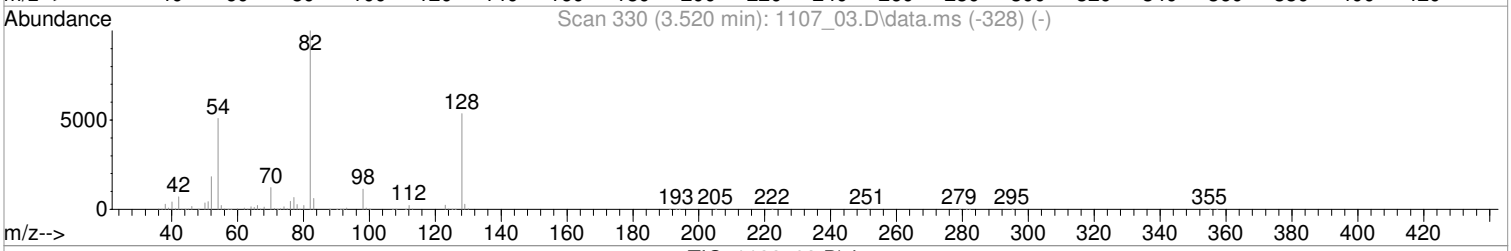
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:41:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_03.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 9341.5275267 ppb m

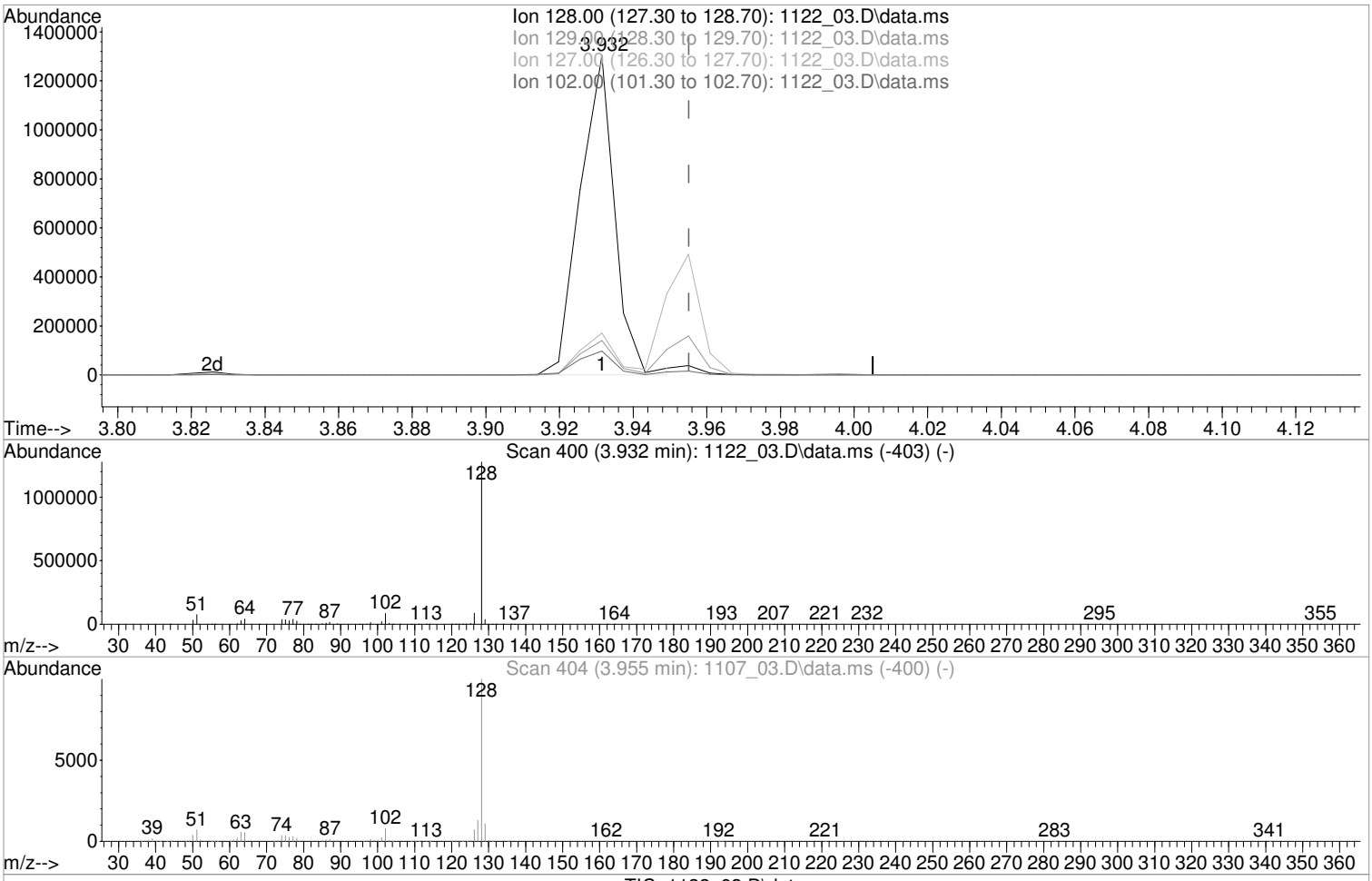
response 258555

Ion	Exp%	Act%
82.00	100	100
128.00	52.00	53.42
54.00	48.90	51.01
98.00	12.10	10.91

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:41:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



TIC: 1122_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 9827.1501796 ppb

Qvalue = 99

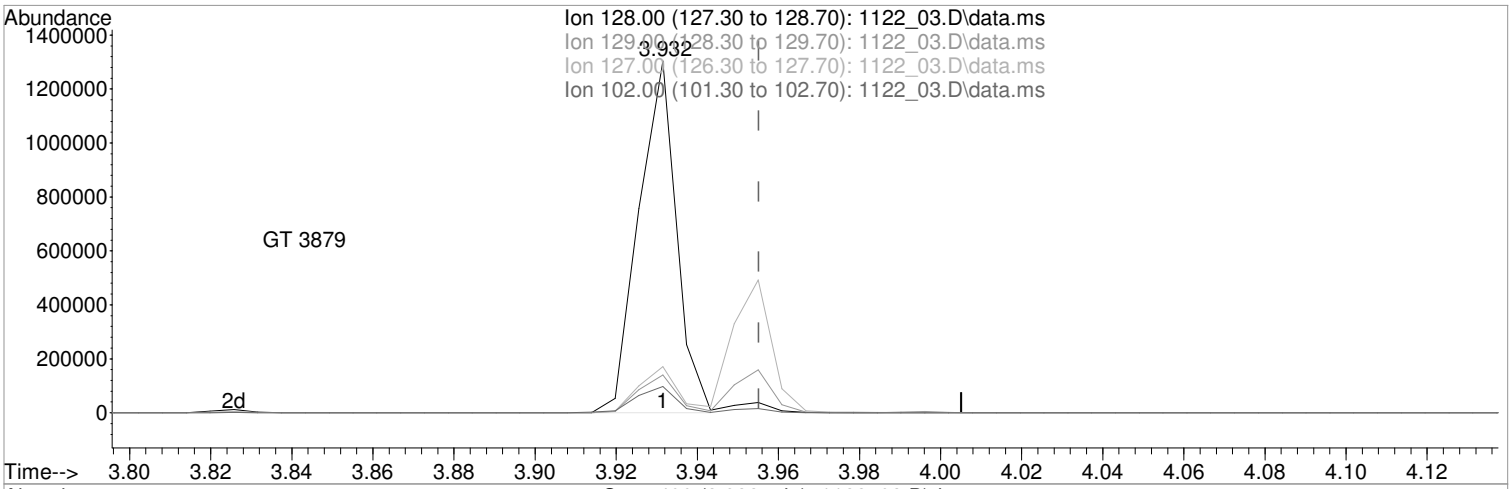
response 847186

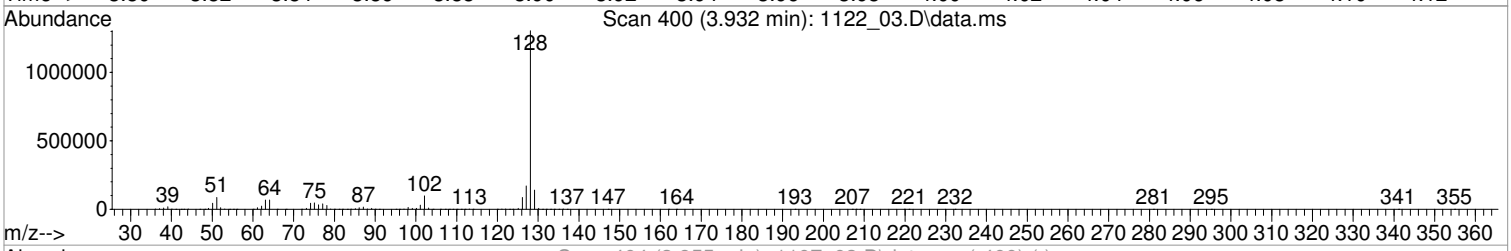
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.77
127.00	13.10	13.08
102.00	8.20	7.44

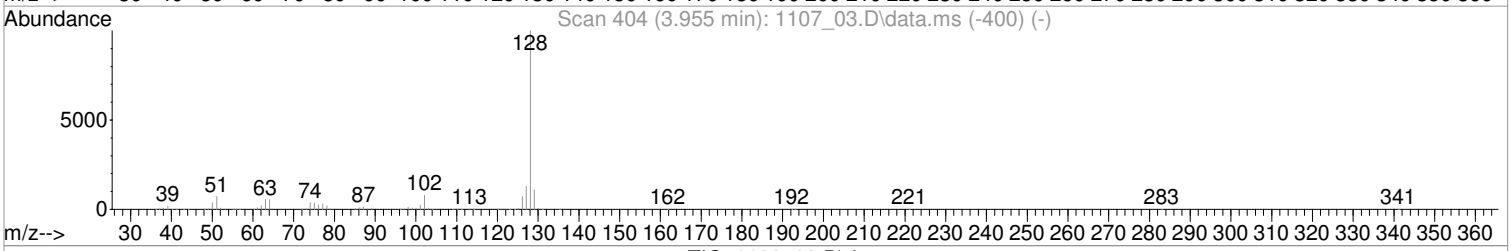
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:41:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_03.D\data.ms

(34) Naphthalene (MT)

3.932min (-0.024) 9716.8365079 ppb m

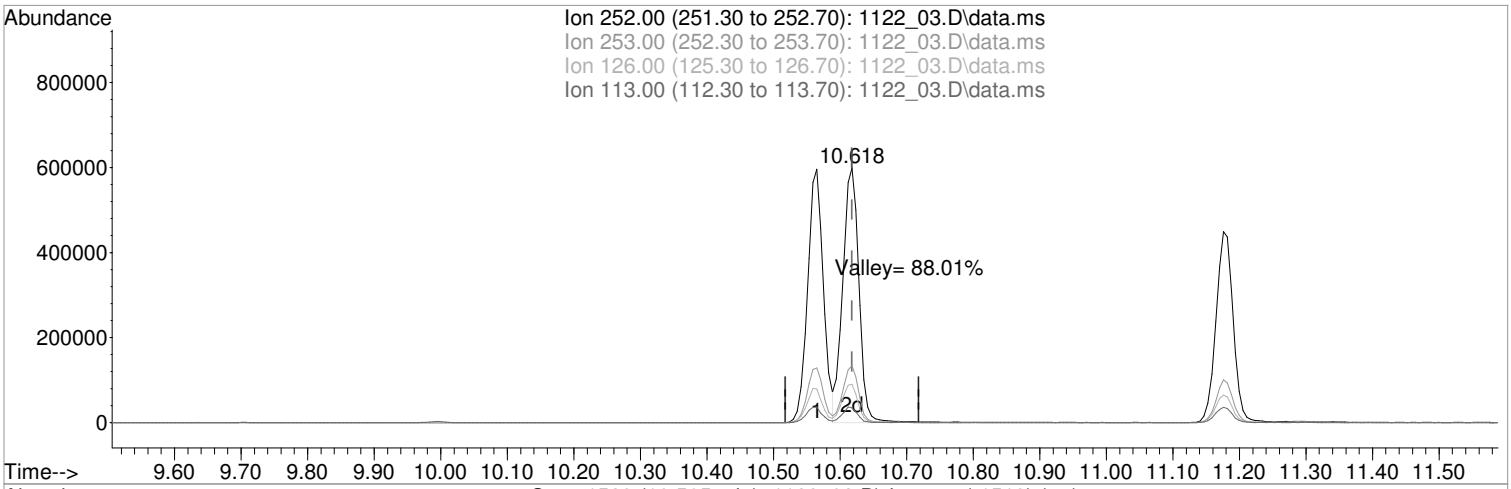
response 837676

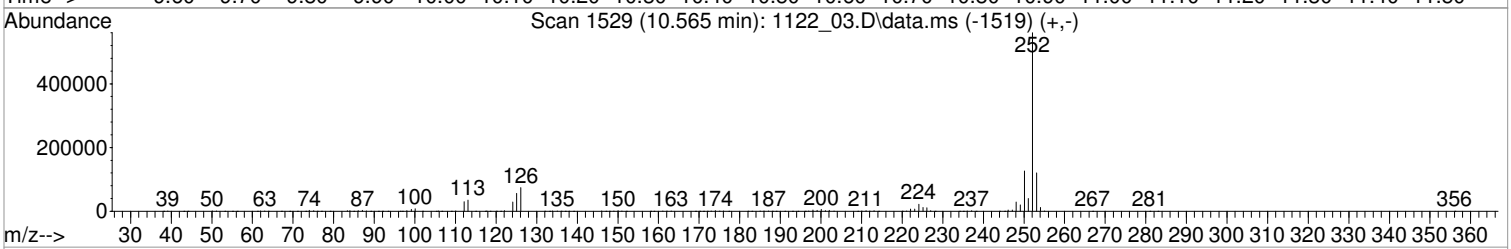
Ion	Exp%	Act%
128.00	100	100
129.00	11.00	10.77
127.00	13.10	13.08
102.00	8.20	7.47

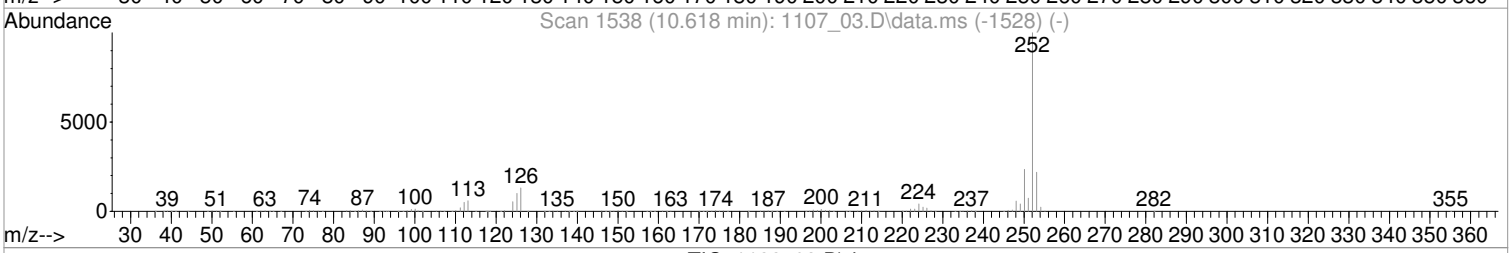
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_03.D
Acq On : 22 Nov 2022 2:17 pm
Operator : 3545
Sample : ICV SVMS 10K PPB 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:41:45 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_03.D\data.ms

(95) Benzo(b)fluoranthene (MT)

10.565min (-0.053) 10418.2907945 ppb

Qvalue = 99

response 980023

Ion	Exp%	Act%
252.00	100	100
253.00	21.90	21.52
126.00	13.40	13.22
113.00	6.50	6.23

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559126	**Calibration (begin) date/time:**	10/20/22 19:25
Instrument ID:	BNAMS2	**Calibration (end) date/time:**	10/21/22 00:14
Lab File ID:	1122_04-1	**Analysis date/time:**	11/22/22 14:37
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.122101	0.10834680		11.30		10	8.874	88.70	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_04.D
Acq On : 22 Nov 2022 2:37 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22k02953 exp 4/13/23
Misc : TCL CAL ISTD 22k02941 exp 05/02/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:54:40 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

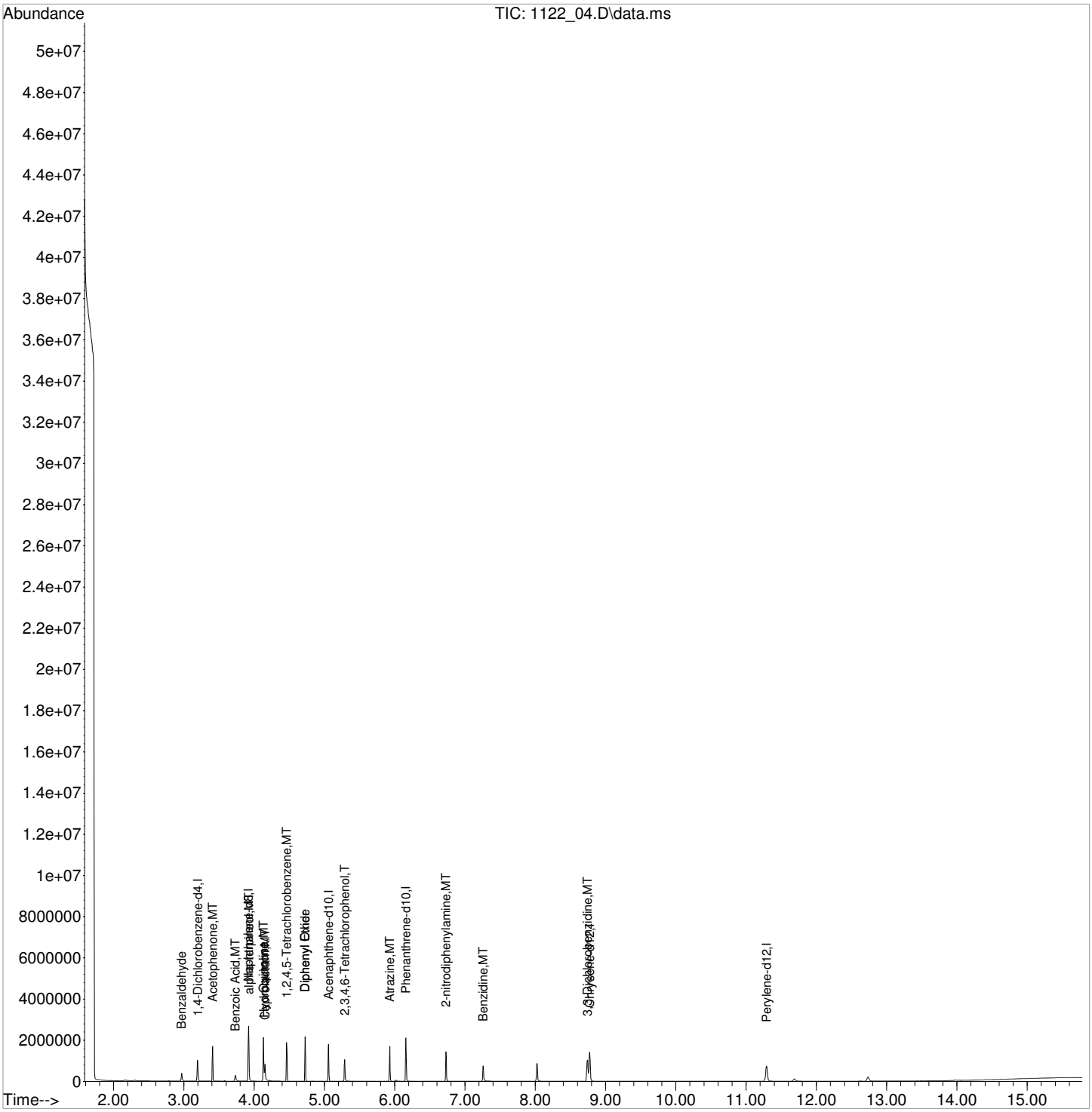
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.197	152	169079	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.920	136	733039	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.060	164	341960	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	643553	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	646696	8000.0000000	ppb	-0.04
94) Perylene-d12	11.294	264	524230	8000.0000000	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 20000.000			Recovery =	0.00%		
87) p-Terphenyl-d14	0.000	244	0	0.0000000	ppb	
Spiked Amount 10000.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Benzaldehyde	2.968	105	73470	9418.7139153	ppb	97
22) Acetophenone	3.409	105	364398	9872.4054430	ppb	99
31) Benzoic Acid	3.732	105	99278	8873.5691547	ppb	98
33) alpha-terpineol	3.926	59	221438	10794.7889365	ppb	98
37) Hydroquinone	4.137	110	202972m	10792.2508895	ppb	
38) Quinoline	4.131	129	526939	10590.2245293	ppb	100
39) Caprolactam	4.155	113	68681	13900.7249592	ppb #	73
43) 1,2,4,5-Tetrachloroben...	4.460	216	293943	11928.9010914	ppb	99
44) Diphenyl Ether	4.725	170	366468	11585.3687951	ppb	97
45) Diphenyl Oxide	4.725	170	366468	11585.3687951	ppb	97
62) 2,3,4,6-Tetrachlorophenol	5.289	232	136779	11251.3411640	ppb	93
69) Atrazine	5.929	200	162114	9394.8683006	ppb	97
82) 2-nitrodiphenylamine	6.728	167	172090	9310.1606758	ppb	95
85) Benzidine	7.257	184	310046	8249.3904505	ppb	97
89) 3,3-Dichlorobenzidine	8.744	252	364005	9265.9437395	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_04.D
Acq On : 22 Nov 2022 2:37 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22k02953 exp 4/13/23
Misc : TCL CAL ISTD 22k02941 exp 05/02/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

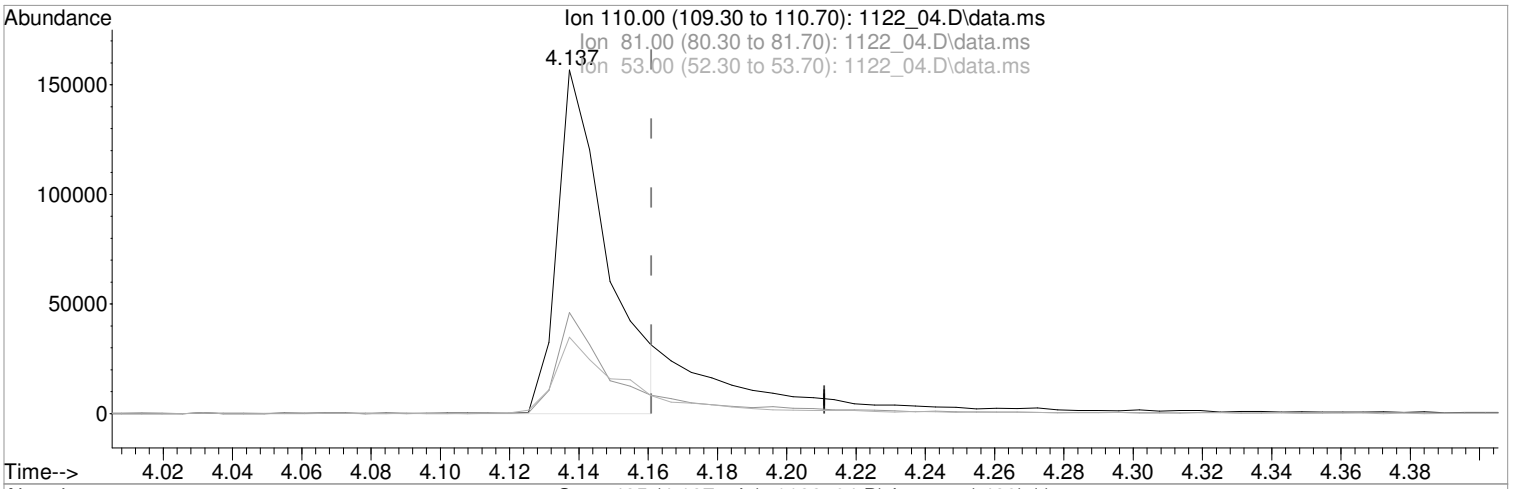
Quant Time: Nov 22 14:54:40 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

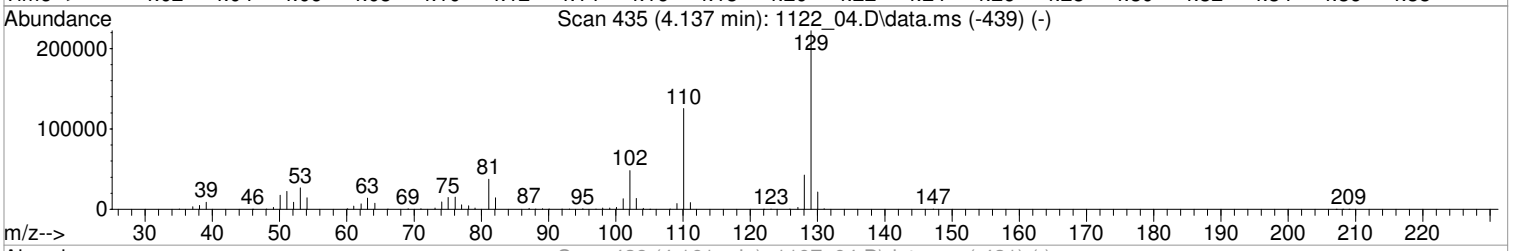


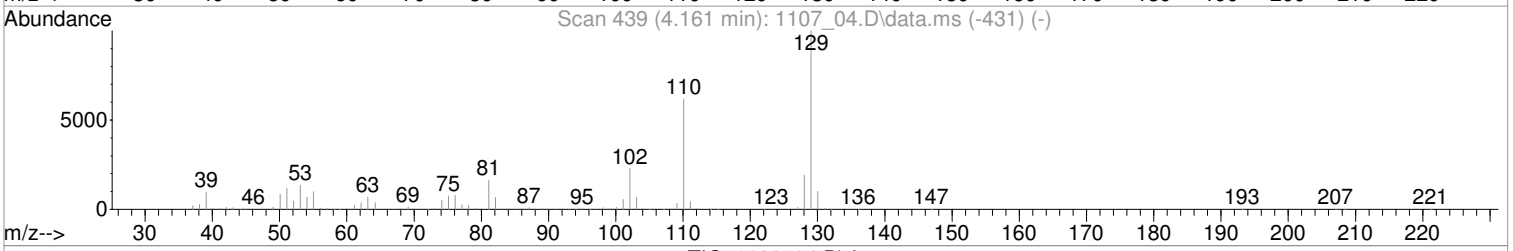
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_04.D
Acq On : 22 Nov 2022 2:37 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22k02953 exp 4/13/23
Misc : TCL CAL ISTD 22k02941 exp 05/02/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:53:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_04.D\data.ms

(37) Hydroquinone

4.137min (-0.024) 8352.7062082 ppb

Qvalue = 99

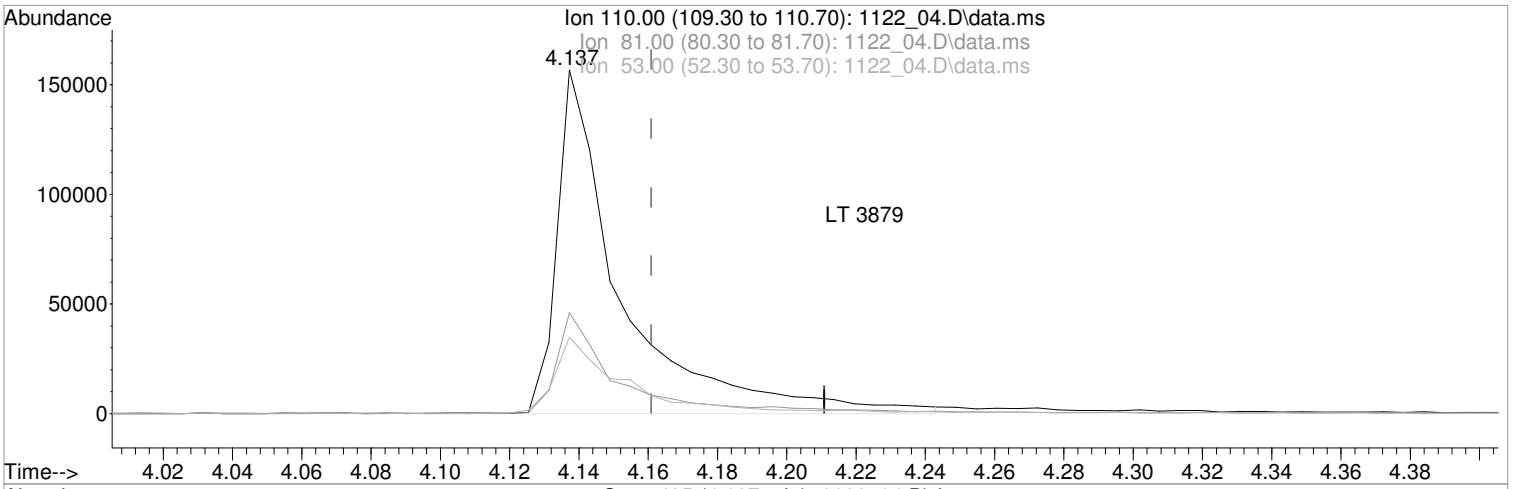
response 157091

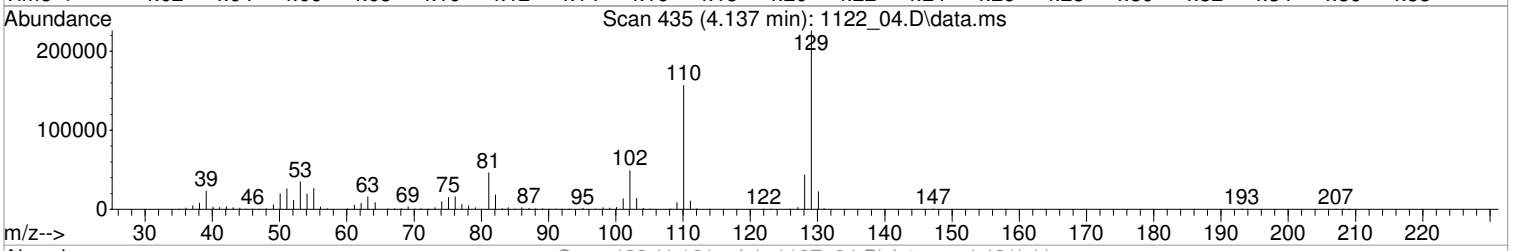
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.21
53.00	22.20	22.24
0.00	0.00	0.00

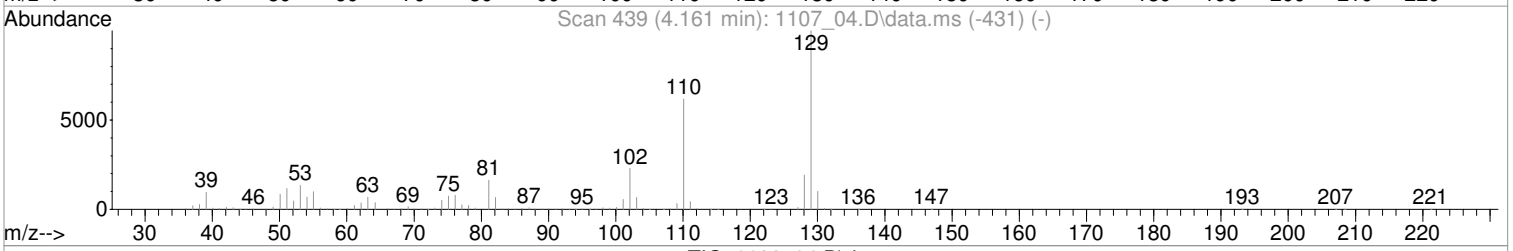
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_04.D
Acq On : 22 Nov 2022 2:37 pm
Operator : 3545
Sample : ICV TCL 10K1 PPB 22k02953 exp 4/13/23
Misc : TCL CAL ISTD 22k02941 exp 05/02/23
ALS Vial : 4 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 22 14:53:47 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_04.D\data.ms

(37) Hydroquinone

4.137min (-0.024) 10792.2508895 ppb m

response 202972

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	29.35
53.00	22.20	22.24
0.00	0.00	0.00

ANALYTICAL SEQUENCE

SDG:	L1559126	**Analytical Method:**	8270E
Instrument ID:	BNAMS2	**Calibration Start Date:**	10/20/22 19:25
		Calibration End Date:	10/21/22 00:14

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS21020221020_03-1603375	1020_03-1	10/20/22 19:04		
CAL	500	1020_04	10/20/22 19:25		
CAL	1000	1020_05	10/20/22 19:45		
CAL	4000	1020_06	10/20/22 20:06		
CAL	10000	1020_07	10/20/22 20:27		
CAL	20000	1020_08	10/20/22 20:47		
CAL	30000	1020_09	10/20/22 21:08		
CAL	40000	1020_10	10/20/22 21:29		
CAL	50000	1020_11	10/20/22 21:49		
CAL	1K1	1020_12	10/20/22 22:10		
CAL	4K1	1020_13	10/20/22 22:31		
CAL	10K1	1020_14	10/20/22 22:51		
CAL	20K1	1020_15	10/20/22 23:12		
CAL	30K1	1020_16	10/20/22 23:32		
CAL	40K1	1020_17	10/20/22 23:53		
CAL	50K1	1020_18	10/21/22 00:14		
SSCV	BNAMS21020221020_19-1603375	1020_19-1	10/21/22 00:34		
SSCV	BNAMS21020221020_20-1603375	1020_20-1	10/21/22 00:55		
TUNE	BNAMS21122221122_02T603375	1122_02T	11/22/22 13:56		
ICV	BNAMS21122221122_03603375	1122_03	11/22/22 14:17		
ICV	BNAMS21122221122_03-1603375	1122_03-1	11/22/22 14:17		
ICV	BNAMS21122221122_04603375	1122_04	11/22/22 14:37		
ICV	BNAMS21122221122_04-1603375	1122_04-1	11/22/22 14:37		
BLANK	R3864552-1	1122_05	11/22/22 14:58	1	WG1962948
L1560176-01	L1560176-01	1122_06	11/22/22 15:18	1	WG1962948
L1560176-02	L1560176-02	1122_07	11/22/22 15:39	1	WG1962948
L1560176-03	L1560176-03	1122_08	11/22/22 15:59	1	WG1962948
L1560176-04	L1560176-04	1122_09	11/22/22 16:20	1	WG1962948
LCS	R3864551-1	1122_10	11/22/22 16:40	1	WG1962881
BLANK	R3864551-2	1122_11	11/22/22 17:01	1	WG1962881
BNSF-J060-SC-8.5-9.5-111322	L1559126-05	1122_14	11/22/22 18:03	1	WG1962881
BNSF-O280-SC-0.0-0.7-111322	L1559126-02	1122_15	11/22/22 18:23	1	WG1962881
BNSF-HN300-SC-1.0-2.0-111322	L1559126-03	1122_16	11/22/22 18:44	1	WG1962881
BNSF-J060-SC-0.5-1.5-111322	L1559126-04	1122_17	11/22/22 19:04	1	WG1962881
BNSF-I500-SC-0.0-0.8-111322	L1559126-01	1122_25	11/22/22 21:48	1	WG1962881

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1559126-01,02,03,04,05 **Analytical Method:** 8270E
Matrix: Solid **Prep Method:** 3546

Analyte	CAS	MDL	RDL
		mg/kg	*mg/kg*
Benzo(k)fluoranthene	207-08-9	0.005920	0.0333
Benzo(g,h,i)perylene	191-24-2	0.006090	0.0333
Benzo(a)pyrene	50-32-8	0.006190	0.0333
Carbazole	86-74-8	0.0103	0.3330
Acenaphthene	83-32-9	0.005390	0.0333
Chrysene	218-01-9	0.006620	0.0333
Dibenz(a,h)anthracene	53-70-3	0.009230	0.0333
Dibenzofuran	132-64-9	0.0109	0.3330
Fluoranthene	206-44-0	0.006010	0.0333
Acenaphthylene	208-96-8	0.004690	0.0333
Fluorene	86-73-7	0.005420	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	0.009410	0.0333
1-Methylnaphthalene	90-12-0	0.004260	0.0333
2-Methylnaphthalene	91-57-6	0.004320	0.0333
Naphthalene	91-20-3	0.008360	0.0333
Phenanthrene	85-01-8	0.006610	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	0.0422	0.3330
Di-n-butyl phthalate	84-74-2	0.0114	0.3330
Anthracene	120-12-7	0.005930	0.0333
Di-n-octyl phthalate	117-84-0	0.0225	0.3330
Pyrene	129-00-0	0.006480	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0104	0.3330
Pentachlorophenol	87-86-5	0.008960	0.3330
Phenol	108-95-2	0.0134	0.3330
Benzoic Acid	65-85-0	0.1180	1.67
Benzo(a)anthracene	56-55-3	0.005870	0.0333
Benzo(b)fluoranthene	205-99-2	0.006210	0.0333

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3864551-2	**SDG:**	L1559126
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	1122_11	**Received Date/Time:**	_____
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 17:01
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	0	U		0.00539	0.0333
Acenaphthylene	208-96-8	0	U		0.00469	0.0333
Anthracene	120-12-7	0	U		0.00593	0.0333
Benzoic Acid	65-85-0	0	U		0.118	1.67
Benzo(a)anthracene	56-55-3	8.77	U		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	0	U		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	0	U		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	13.71	U		0.00609	0.0333
Benzo(a)pyrene	50-32-8	11.29	U		0.00619	0.0333
Carbazole	86-74-8	0	U		0.0103	0.333
Chrysene	218-01-9	8.77	U		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	13.39	U		0.00923	0.0333
Dibenzofuran	132-64-9	0	U		0.0109	0.333
Fluoranthene	206-44-0	0	U		0.00601	0.0333
Fluorene	86-73-7	0	U		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	U		0.00941	0.0333
1-Methylnaphthalene	90-12-0	0	U		0.00426	0.0333
2-Methylnaphthalene	91-57-6	0	U		0.00432	0.0333
Naphthalene	91-20-3	0	U		0.00836	0.0333
Phenanthrene	85-01-8	0	U		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	U		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.61	U		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10.07	U		0.0225	0.333
Pyrene	129-00-0	7.50	U		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.0104	0.333
Pentachlorophenol	87-86-5	0	U		0.00896	0.333
Phenol	108-95-2	0	U		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_11.D
Acq On : 22 Nov 2022 5:01 pm
Operator : 3545
Sample : BLANK 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:28:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

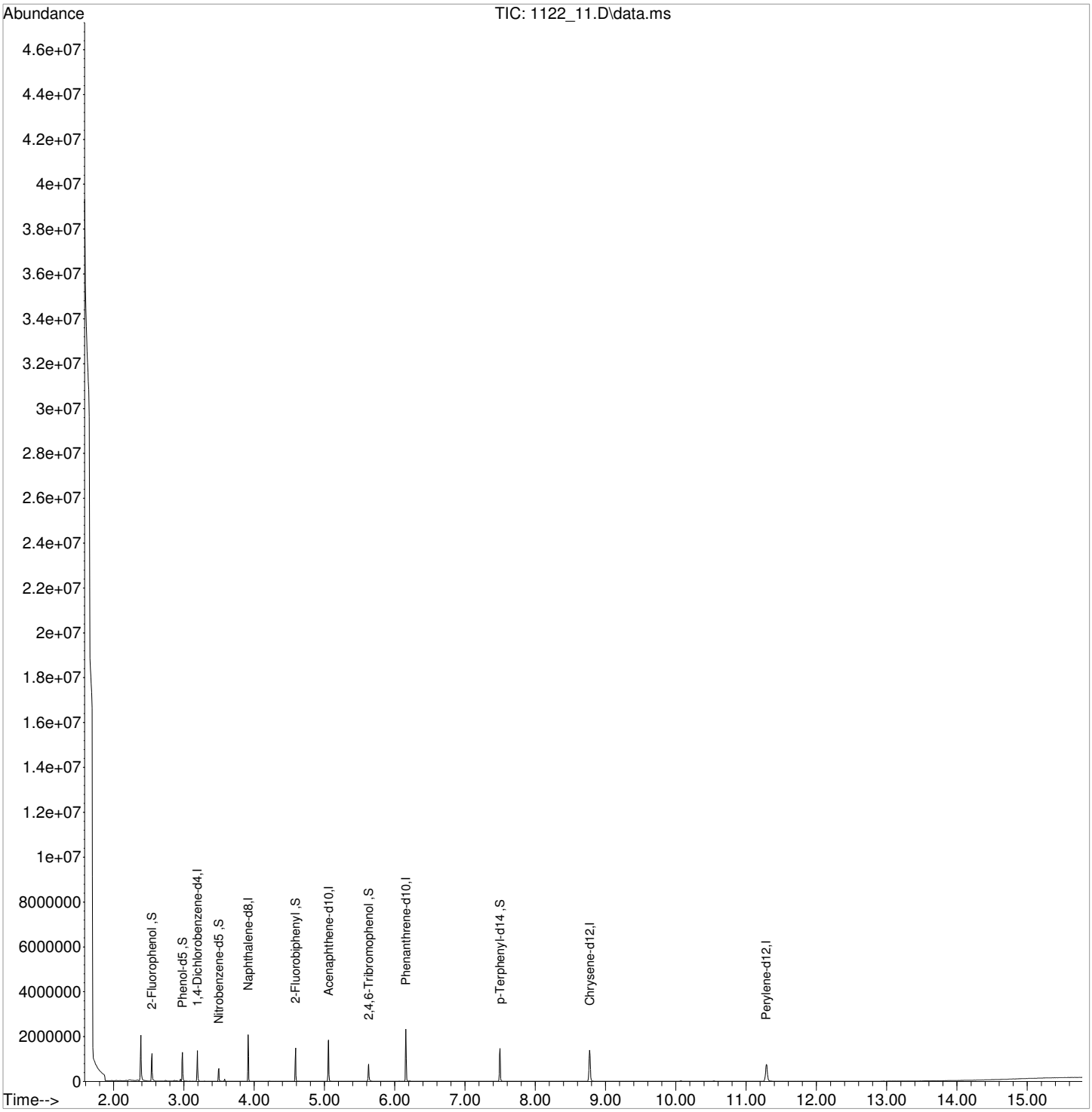
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	175608	8000.0000000	ppb	-0.02
23) Naphthalene-d8	3.914	136	680209	8000.0000000	ppb	-0.03
46) Acenaphthene-d10	5.060	164	373277	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.158	188	723823	8000.0000000	ppb	-0.03
84) Chrysene-d12	8.773	240	684678	8000.0000000	ppb	-0.04
94) Perylene-d12	11.288	264	538377	8000.0000000	ppb	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	324671	10668.6250490	ppb	0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 53.34%			
7) Phenol-d5	2.980	99	367836	9985.2746352	ppb	-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 49.93%			
24) Nitrobenzene-d5	3.497	82	146020	5065.1774122	ppb	-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 50.65%			
50) 2-Fluorobiphenyl	4.590	172	367689	5610.1939693	ppb	-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 56.10%			
73) 2,4,6-Tribromophenol	5.630	330	104974	8961.5518351	ppb	-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 44.81%			
87) p-Terphenyl-d14	7.498	244	588371	6263.3636196	ppb	-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 62.63%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_11.D
Acq On : 22 Nov 2022 5:01 pm
Operator : 3545
Sample : BLANK 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:28:35 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3864551-1	**SDG:**	L1559126
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	1122_10	**Received Date/Time:**	_____
Instrument ID:	BNAMS2	**Preparation Date/Time:**	11/22/22 05:49
Analytical Batch:	WG1962881	**Analysis Date/Time:**	11/22/22 16:40
Dilution Factor:	1	**Prep Method:**	3546
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	Solid	**Initial Wt/Vol:**	15 g
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/kg		*mg/kg*	*mg/kg*
Acenaphthene	83-32-9	5.08	0.399		0.00539	0.0333
Acenaphthylene	208-96-8	4.96	0.430		0.00469	0.0333
Anthracene	120-12-7	6.22	0.393		0.00593	0.0333
Benzoic Acid	65-85-0	3.73	0.189		0.0000100	1.67
Benzo(a)anthracene	56-55-3	8.76	0.451		0.00587	0.0333
Benzo(b)fluoranthene	205-99-2	10.57	0.457		0.00621	0.0333
Benzo(k)fluoranthene	207-08-9	10.62	0.470		0.00592	0.0333
Benzo(g,h,i)perylene	191-24-2	13.72	0.356		0.00609	0.0333
Benzo(a)pyrene	50-32-8	11.18	0.479		0.00619	0.0333
Carbazole	86-74-8	6.34	0.400		0.0103	0.333
Chrysene	218-01-9	8.81	0.450		0.00662	0.0333
Dibenz(a,h)anthracene	53-70-3	13.40	0.367		0.00923	0.0333
Dibenzofuran	132-64-9	5.20	0.405		0.0109	0.333
Fluoranthene	206-44-0	7.13	0.420		0.00601	0.0333
Fluorene	86-73-7	5.45	0.406		0.00542	0.0333
Indeno(1,2,3-cd)pyrene	193-39-5	13.34	0.331		0.00941	0.0333
1-Methylnaphthalene	90-12-0	4.42	0.364		0.00426	0.0333
2-Methylnaphthalene	91-57-6	4.35	0.351		0.00432	0.0333
Naphthalene	91-20-3	3.93	0.334		0.00836	0.0333
Phenanthrene	85-01-8	6.18	0.414		0.00661	0.0333
Bis(2-ethylhexyl)phthalate	117-81-7	8.86	0.395		0.0422	0.333
Di-n-butyl phthalate	84-74-2	6.61	0.379		0.0114	0.333
Di-n-octyl phthalate	117-84-0	10	0.396		0.0225	0.333
Pyrene	129-00-0	7.35	0.437		0.00648	0.0333
3&4-Methyl Phenol	3&4-Methyl Phenol	3.39	0.386		0.0104	0.333
Pentachlorophenol	87-86-5	6.01	0.398		0.00896	0.333
Phenol	108-95-2	2.99	0.363		0.0134	0.333

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:27:31 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.191	152	153775	8000.0000000 ppb		-0.02
23) Naphthalene-d8	3.914	136	688770	8000.0000000 ppb		-0.03
46) Acenaphthene-d10	5.060	164	320319	8000.0000000 ppb		-0.02
70) Phenanthrene-d10	6.158	188	597893	8000.0000000 ppb		-0.03
84) Chrysene-d12	8.773	240	626326	8000.0000000 ppb		-0.04
94) Perylene-d12	11.288	264	591197	8000.0000000 ppb		-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	2.545	112	311497	11689.0006500 ppb		0.00
Spiked Amount 20000.000	Range 20 - 120		Recovery = 58.45%			
7) Phenol-d5	2.980	99	353293	10952.1498326 ppb		-0.01
Spiked Amount 20000.000	Range 20 - 120		Recovery = 54.76%			
24) Nitrobenzene-d5	3.497	82	135805m	4652.2841059 ppb		-0.02
Spiked Amount 10000.000	Range 18 - 125		Recovery = 46.52%			
50) 2-Fluorobiphenyl	4.590	172	345275	6139.1875987 ppb		-0.02
Spiked Amount 10000.000	Range 28 - 120		Recovery = 61.39%			
73) 2,4,6-Tribromophenol	5.630	330	118882	12286.4519904 ppb		-0.02
Spiked Amount 20000.000	Range 17 - 137		Recovery = 61.43%			
87) p-Terphenyl-d14	7.498	244	562614	6547.1581912 ppb		-0.03
Spiked Amount 10000.000	Range 13 - 131		Recovery = 65.47%			
Target Compounds						Qvalue
2) Pyridine	1.922	79	188520	6576.5152376 ppb		94
3) N-Nitrosodimethylamine	1.916	42	128289	9382.0115522 ppb		96
5) Aniline	3.015	66	58670	4018.9834053 ppb	#	35
6) bis(2-Chloroethyl)ether	3.039	93	288218	13195.4629804 ppb		98
8) Phenol	2.986	94	362946	10904.3812362 ppb		98
9) Benzaldehyde	2.962	105	84803	11953.5448953 ppb		98
10) 2-Chlorophenol	3.086	128	311405	11366.4101109 ppb		92
11) n-Decane	3.080	41	125396	8716.4093067 ppb		98
12) 1,3-Dichlorobenzene	3.162	146	337913	11261.0302793 ppb		98
13) 1,4-Dichlorobenzene	3.203	146	347223	11416.1674562 ppb		95
14) Benzyl Alcohol	3.256	79	197341	9513.2351542 ppb		99
15) 1,2-Dichlorobenzene	3.285	146	332763	11653.6821363 ppb		99
16) bis(2-Chloroisopropyl)...	3.326	121	100878	11163.7317401 ppb		95
17) 2,2-oxybis(1-chloropro...	3.326	121	100878	11163.7317401 ppb		95
18) 2-Methylphenol	3.309	108	282091	11611.6593717 ppb		99
19) Hexachloroethane	3.473	117	116077	10415.9501985 ppb		93
20) N-Nitrosodi-n-propylamine	3.397	70	197527	11219.0981980 ppb		99
21) 3&4-Methyl phenol	3.391	107	319196	11597.0215150 ppb		97
22) Acetophenone	3.409	105	380207	11325.8561517 ppb	#	81
25) Nitrobenzene	3.509	77	289882	9695.9090284 ppb		97
26) Isophorone	3.638	82	524242	9602.3499219 ppb		96
27) 2-Nitrophenol	3.691	139	174676	11390.5679155 ppb	#	74
28) 2,4-Dimethylphenol	3.697	107	269241	9345.8341010 ppb		98
29) bis(2-Chlorethoxy)methane	3.755	93	331052	9773.6848417 ppb		95
30) 2,4-Dichlorophenol	3.826	162	262972	10553.2670962 ppb		98
31) Benzoic Acid	3.726	105	59596	5669.1152826 ppb		95
32) 1,2,4-Trichlorobenzene	3.879	180	301189	10669.8437416 ppb		98

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:27:31 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
33) alpha-terpineol	3.926	59	237408	12317.1494994 ppb		98
34) Naphthalene	3.932	128	912990	10041.5407439 ppb		99
35) 4-Chloroaniline	3.955	65	49395	5047.3751477 ppb	#	57
36) Hexachloro-1,3-butadiene	3.996	225	179623	10922.5953887 ppb		97
37) Hydroquinone	4.143	110	9981m	564.8105702 ppb		
38) Quinoline	4.131	129	575830	12316.6321421 ppb		99
39) Caprolactam	4.155	113	95533	20578.1872568 ppb		99
40) 4-Chloro-3-methylphenol	4.243	107	227557	9164.9237197 ppb		93
41) 2-Methylnaphthalene	4.355	142	613981	10554.5988335 ppb		98
42) 1-Methylnaphthalene	4.419	142	594026	10925.2433541 ppb		99
43) 1,2,4,5-Tetrachloroben...	4.460	216	309046	13347.9109477 ppb		99
44) Diphenyl Ether	4.725	170	402605	13545.8364472 ppb		97
45) Diphenyl Oxide	4.725	170	402605	13545.8364472 ppb		97
47) Hexachlorocyclopentadiene	4.455	237	182786	9857.9046165 ppb		99
48) 2,4,6-Trichlorophenol	4.537	196	186480	11921.8472544 ppb		95
49) 2,4,5-Trichlorophenol	4.560	196	177479	11275.6468340 ppb		98
51) Biphenyl	4.660	154	731223	11931.3407752 ppb		99
52) 2-Chloronaphthalene	4.678	162	581553	12061.7176409 ppb		95
53) 2-Nitroaniline	4.737	138	193664	12628.8819113 ppb		92
54) Acenaphthylene	4.960	152	960617	12908.5692258 ppb		100
55) Dimethyl phthalate	4.854	163	629452	12121.2919405 ppb		97
56) 2,6-Dinitrotoluene	4.901	165	151893	13032.6922500 ppb		91
57) 3-Nitroaniline	5.019	138	125063	9775.1832114 ppb		93
58) Acenaphthene	5.083	153	589061	11966.2851693 ppb		99
59) 2,4-Dinitrophenol	5.095	184	19517	3931.5000115 ppb	#	1
60) Dibenzofuran	5.201	168	828710	12171.2514632 ppb		97
61) 2,4-Dinitrotoluene	5.183	165	205957	14084.8609889 ppb		98
62) 2,3,4,6-Tetrachlorophenol	5.289	232	317807	27908.7854153 ppb		91
63) 4-Nitrophenol	5.130	139	123739	13214.3472562 ppb		96
64) Fluorene	5.453	166	678717	12195.8643566 ppb		99
65) 4-Chlorophenyl-phenyle...	5.447	204	351131	12681.8744171 ppb		89
66) Diethyl phthalate	5.353	149	620582	12396.1488550 ppb		98
67) 4-Nitroaniline	5.459	138	155357	13244.9326246 ppb		93
68) Azobenzene	5.565	77	566216	10761.7987511 ppb		96
69) Atrazine	5.929	200	195919	12121.0247659 ppb		95
71) 4,6-Dinitro-2-methylph...	5.483	198	72738	10019.3274000 ppb		93
72) N-Nitrosodiphenylamine	5.530	169	487728	10289.9487161 ppb		98
74) 4-Bromophenyl-phenylether	5.812	248	235597	13140.3506016 ppb		90
75) Hexachlorobenzene	5.859	284	258592	11608.6267455 ppb		98
76) n-octadecane	6.059	55	80333	9704.6815026 ppb		97
77) Pentachlorophenol	6.012	266	125198	11947.4689545 ppb		99
78) Phenanthrene	6.176	178	1002025	12443.5941082 ppb		99
79) Anthracene	6.217	178	975585	11785.8979362 ppb		98
80) Carbazole	6.341	167	953458	12016.9640642 ppb		99
81) Di-n-butyl phthalate	6.611	149	1089024	11374.5064993 ppb		99
82) 2-nitrodiphenylamine	6.728	167	233847	13617.3999990 ppb		95
83) Fluoranthene	7.134	202	1213992	12613.3315333 ppb		99
86) Pyrene	7.345	202	1222212	13116.2838515 ppb		99
88) Benzylbutyl phthalate	8.044	149	477914	12164.7992197 ppb		97
89) 3,3-Dichlorobenzidine	8.744	252	657564	17283.0375148 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 13:27:31 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) Benzo(a)anthracene	8.761	228	1269128	13530.3036113 ppb	99
91) Chrysene	8.814	228	1202241	13510.2467529 ppb	99
92) bis(2-Ethylhexyl)phtha...	8.861	149	647447	11848.3388859 ppb	98
93) Di-n-octyl phthalate	9.995	149	1098692	11883.4614692 ppb	99
95) Benzo(b)fluoranthene	10.565	252	1216511	13734.5286132 ppb	99
96) Benzo(k)fluoranthene	10.618	252	1233543	14104.8312319 ppb	99
97) Benzo(a)pyrene	11.182	252	1105720	14375.5665465 ppb	99
98) Indeno(1,2,3-cd)pyrene	13.344	276	769694	9943.4831830 ppb	98
99) Dibenz(a,h)anthracene	13.397	278	873756	11022.8848198 ppb	97
100) Benzo(g,h,i)perylene	13.720	276	840346	10678.0603568 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
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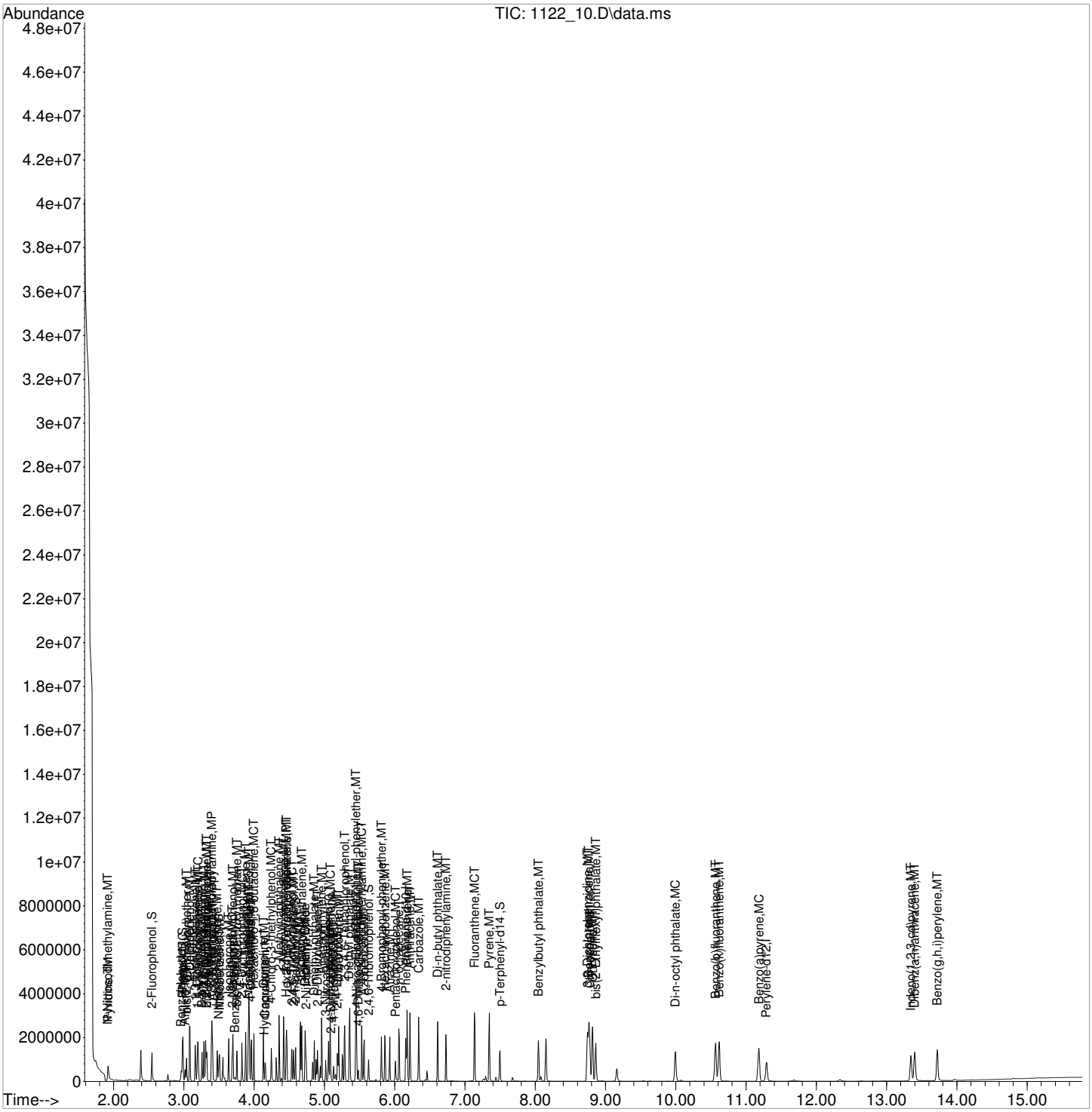
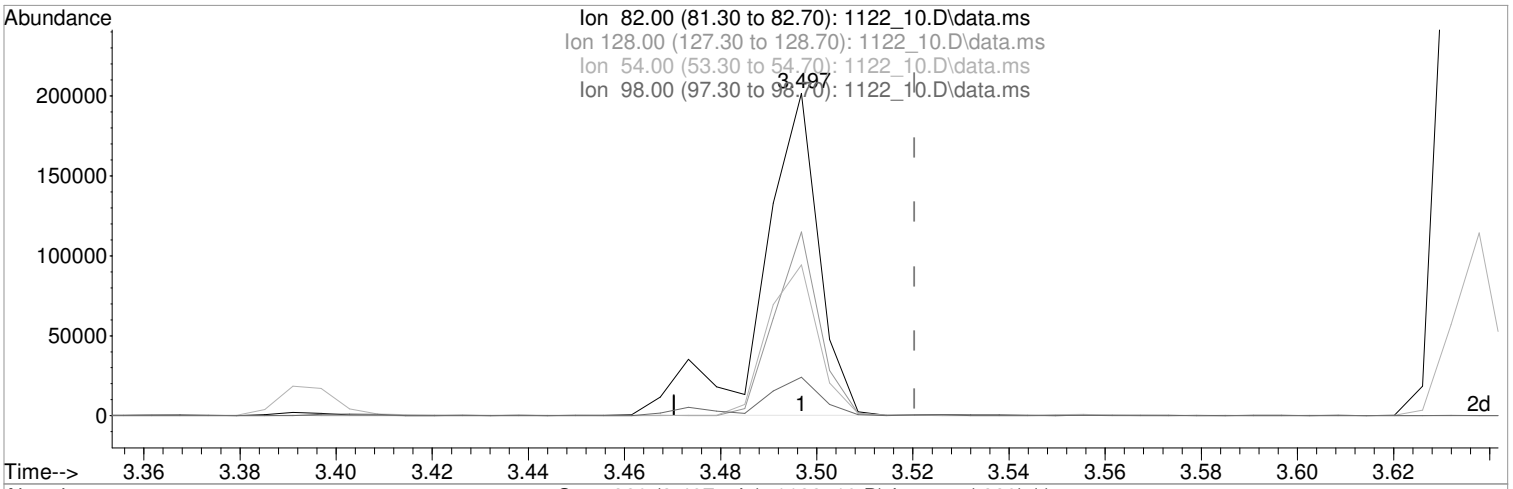
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration

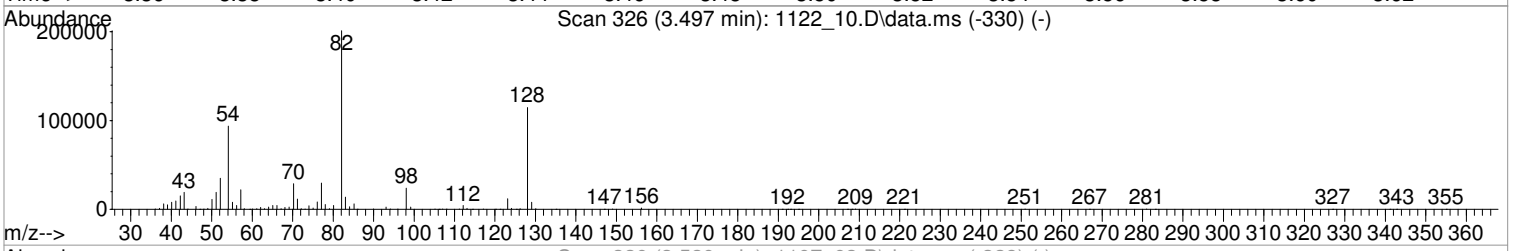


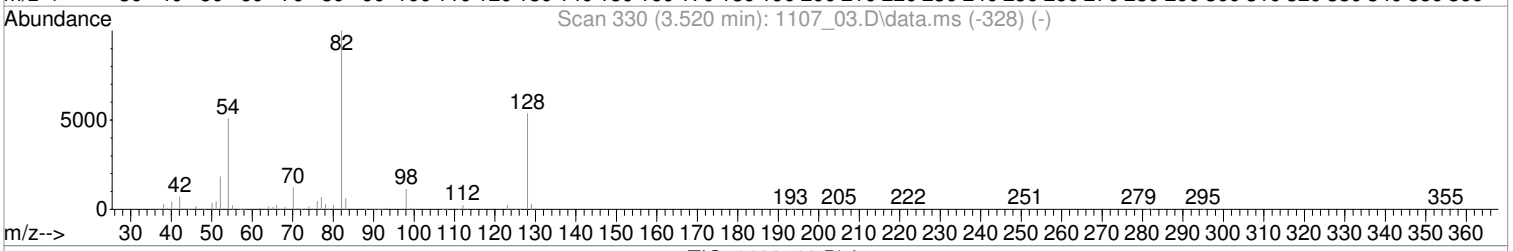
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 12:42:05 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 5587.9822618 ppb

Qvalue = 95

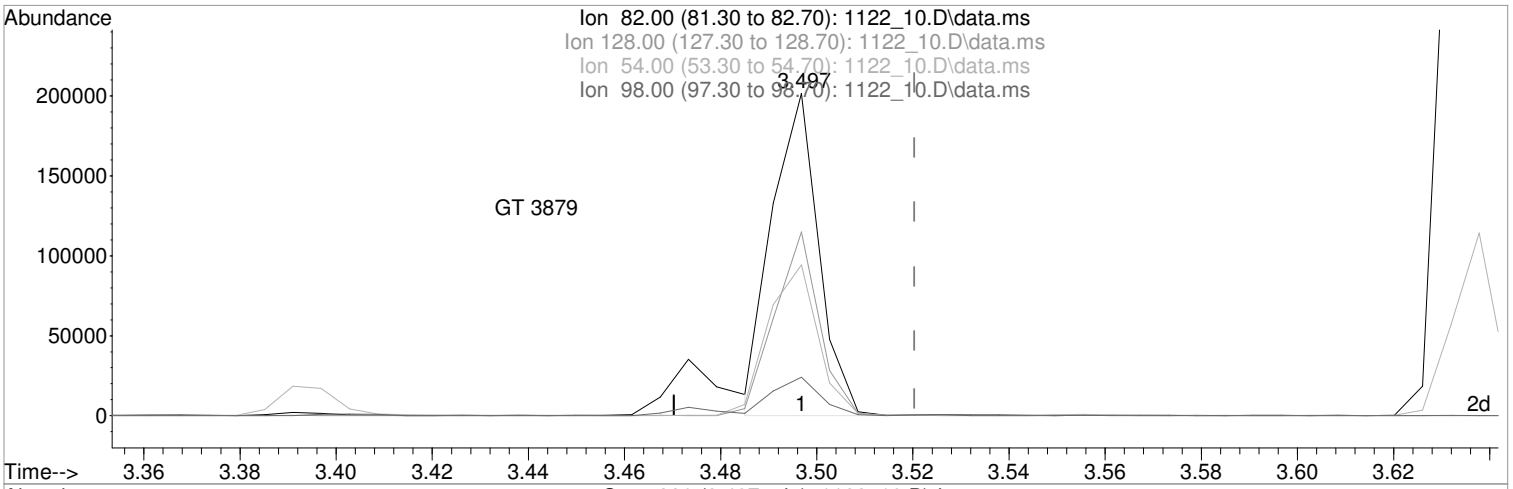
response 163119

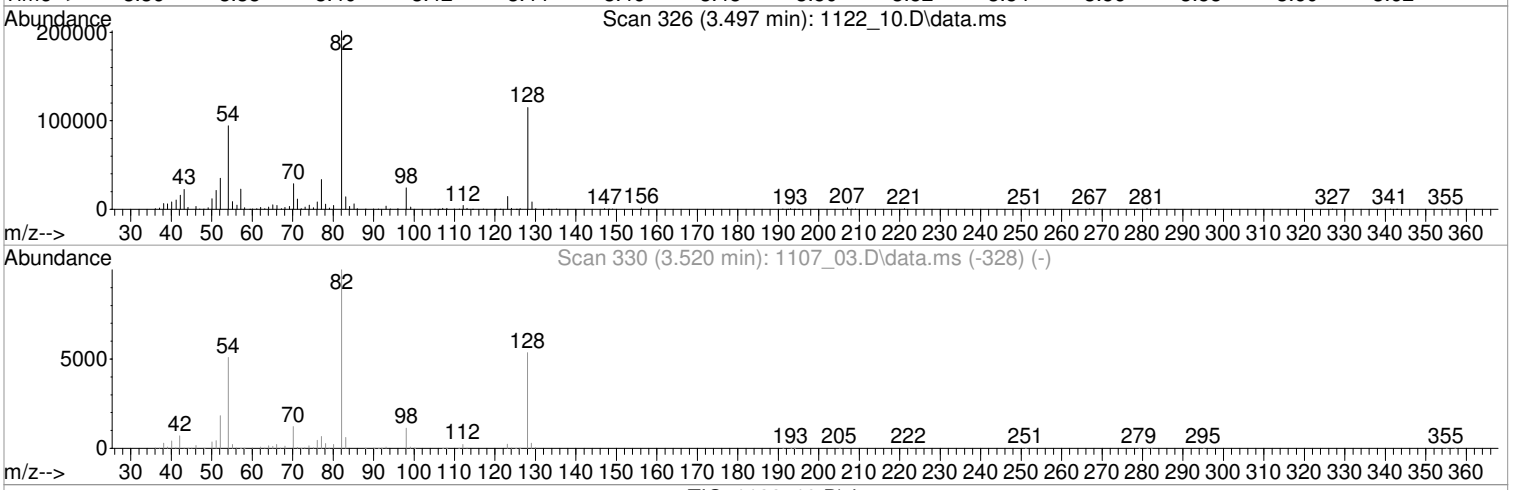
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	57.07
54.00	48.90	46.80
98.00	12.10	11.96

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 12:42:05 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration





TIC: 1122_10.D\data.ms

(24) Nitrobenzene-d5 (S)

3.497min (-0.024) 4652.2841059 ppb m

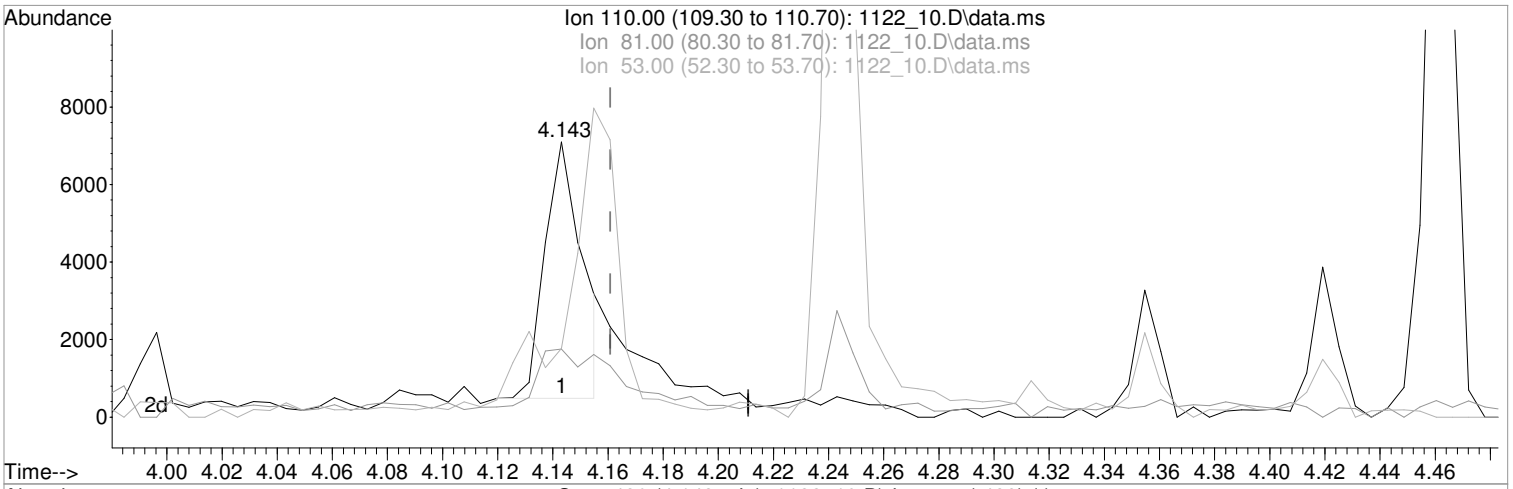
response 135805

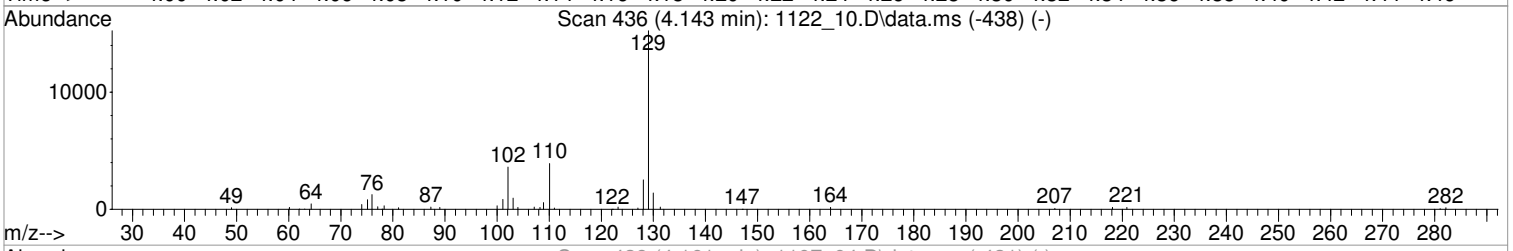
Ion	Exp%	Act%
82.00	100	100
128.00	52.00	57.01
54.00	48.90	46.75
98.00	12.10	11.95

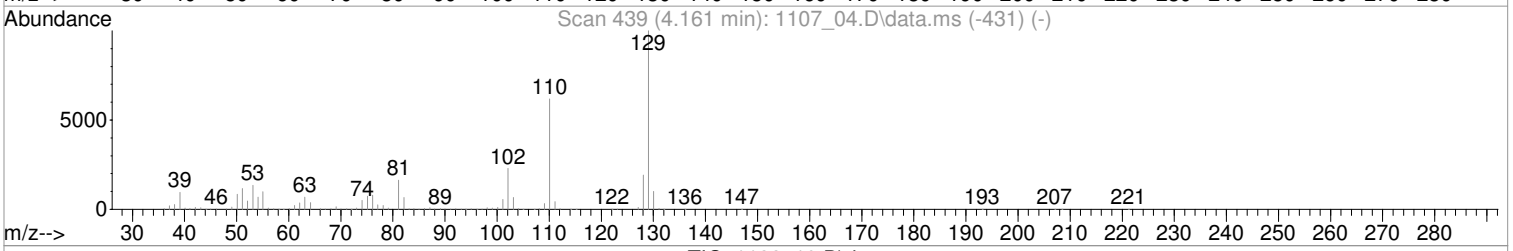
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 12:42:05 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_10.D\data.ms

(37) Hydroquinone

4.143min (-0.018) 354.7537786 ppb

Qvalue = 92

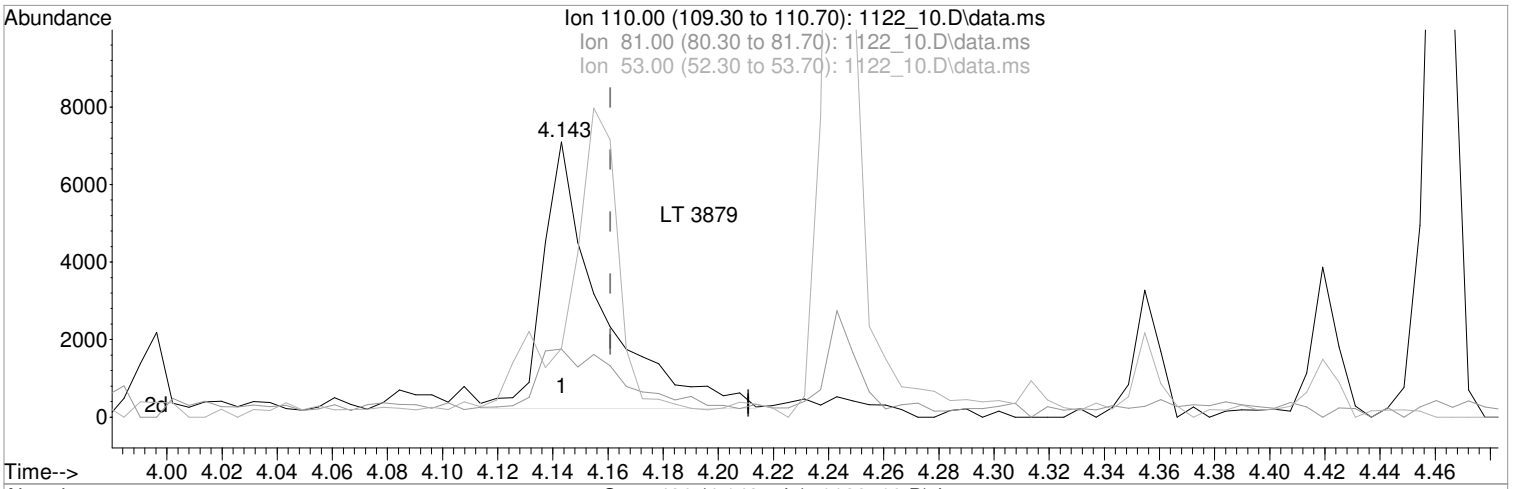
response 6269

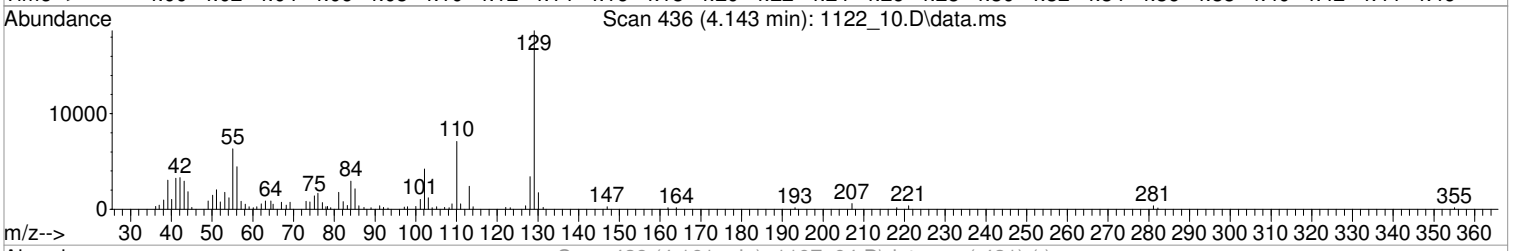
Ion	Exp%	Act%
110.00	100	100
81.00	28.70	22.66
53.00	22.20	20.08
0.00	0.00	0.00

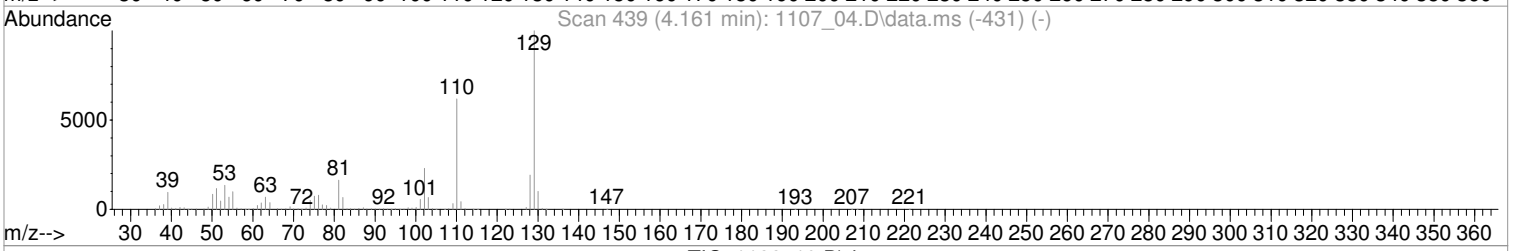
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\112222\
Data File : 1122_10.D
Acq On : 22 Nov 2022 4:40 pm
Operator : 3545
Sample : LCS 1X WG1962881
Misc : SOIL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1
InstName : BNAMS2

Quant Time: Nov 23 12:42:05 2022
Quant Method : C:\msdchem\1\methods\S802K07V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 08 12:33:46 2022
Response via : Initial Calibration







TIC: 1122_10.D\data.ms

(37) Hydroquinone

4.143min (-0.018) 564.8105702 ppb m

response 9981

Ion	Exp%	Act%
110.00	100	100
81.00	28.70	24.76
53.00	22.20	24.97
0.00	0.00	0.00

BNA SS Extractions Benchsheet

Batch: WG1962881

SDG	PrePrep Batch	PrePrep Analyst	PrePrep Balance	PrePrep Start Time
L1559126	WG1961691	KMT967	PREPREPBAL4	18-NOV-22
L1559141	WG1961681	KMT967	PREPREPBAL4	17-NOV-22
L1559154	WG1961675	KMT967	PREPREPBAL2	18-NOV-22
L1559174	WG1961691	KMT967	PREPREPBAL4	18-NOV-22
L1559188	WG1961712	KMT967	PREPREPBAL4	18-NOV-22

Process Analyst: APL3818 **Transfer Analyst:** APL3818 **Material Handler:** APL3818 **Prep Start Date/Time:** 11/22/22 05:49 **Prep End Date/Time:** 11/22/22 13:09
SOP: MTJL -0118 **Method:** 3546 **Balance ID:** EXTBAL5 **Filter Lot#:** 17596847

Na2SO4: 22K18413 Amt. Used: 1 Exp. Date:05/18/23 **MeCL2:Acetone:** 22K04378 Amt. Used: 1 Exp. Date:05/01/23
Surrogate: 22K09913 Amt. Used: 0.50 mL Exp. Date:04/12/23 **LCS/MS Spike:** 22K11306 Amt. Used: 0.50 mL Exp. Date:12/02/22
MeCl2: 22K04368 Amt. Used: 1 Exp. Date:05/04/23 **Spike Syringe ID:** 22E29053 Amt. Used: 1 Exp. Date:11/29/22
Surrogate Syringe ID: 22E29053 Amt. Used: 1 Exp. Date:11/29/22

Sample Number	Initial Sample Wt (g)	Solvent Volume (mL)	Final Volume (mL)	Extract Color	Box ID	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK	15	25	0.5	Colorless		0.0333	1	1	1	1	JRM3879	11/22/22 13:33:32
LCS	15	25	0.5	Yellow		0.0333	1	1	1	1	JRM3879	11/22/22 13:33:32
MS(L1559154-05)	15	25	0.5	Dark-brown		0.0333	1	1	1	1	JRM3879	11/22/22 13:33:32
MSD(L1559154-05)	15	25	0.5	Dark-brown		0.0333	1	1	1	1	JRM3879	11/22/22 13:33:32
1. L1559126-01	15.16	25	0.5	Dark-brown	PP4 1118 Fri1	0.033	0.991	1	1	1	JRM3879	11/22/22 13:33:32
2. L1559126-02	15.23	25	0.5	Yellow	PP4 1118 Fri1	0.0328	0.985	1	1	1	JRM3879	11/22/22 13:33:32
3. L1559126-03	15.39	25	0.5	Yellow	PP4 1118 Fri1	0.0325	0.976	1	1	1	JRM3879	11/22/22 13:33:32
4. L1559126-04	15.79	25	0.5	Yellow	PP4 1118 Fri1	0.0317	0.952	1	1	1	JRM3879	11/22/22 13:33:32
5. L1559126-05	15.40	25	0.5	Colorless	PP4 1118 Fri1	0.0325	0.976	1	1	1	JRM3879	11/22/22 13:33:32
6. L1559141-01	15.56	25	0.5	Dark-brown	Thu 03 / 1116PP4	0.0321	0.964	1	1	1	JRM3879	11/22/22 13:33:32
7. L1559154-04	15.27	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0327	0.982	1	1	1	JRM3879	11/22/22 13:33:32
8. L1559154-05	15.54	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0322	0.967	1	1	1	JRM3879	11/22/22 13:33:32
9. L1559154-06	15.53	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0322	0.967	1	1	1	JRM3879	11/22/22 13:33:32
10. L1559154-07	15.79	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0317	0.952	1	1	1	JRM3879	11/22/22 13:33:32
11. L1559154-08	15.47	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0323	0.97	1	1	1	JRM3879	11/22/22 13:33:32
12. L1559154-09	15.24	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0328	0.985	1	1	1	JRM3879	11/22/22 13:33:32
13. L1559154-10	15.61	25	0.5	Dark-brown	Fri02 / 1118PP02	0.032	0.961	1	1	1	JRM3879	11/22/22 13:33:32
14. L1559154-14	15.25	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0328	0.985	1	1	1	JRM3879	11/22/22 13:33:32
15. L1559154-15	15.71	25	0.5	Dark-brown	Fri02 / 1118PP02	0.0318	0.955	1	1	1	JRM3879	11/22/22 13:33:32
16. L1559174-01	15.02	25	0.5	Yellow	PP4 1118 Fri1	0.0333	1	1	1	1	JRM3879	11/22/22 13:33:32
17. L1559174-02	15.51	25	0.5	Yellow	PP4 1118 Fri1	0.0322	0.967	1	1	1	JRM3879	11/22/22 13:33:32
18. L1559188-01	15.15	25	0.5	Yellow	PP4 1118 Fri1	0.033	0.991	1	1	1	JRM3879	11/22/22 13:33:32
19. L1559188-02	15.07	25	0.5	Colorless	PP4 1118 Fri1	0.0332	0.997	1	1	1	JRM3879	11/22/22 13:33:32
20. L1559188-03	15.37	25	0.5	Colorless	PP4 1118 Fri1	0.0325	0.976	1	1	1	JRM3879	11/22/22 13:33:32

Comments:

Reviewed By:JRM3879 on 11/22/22 13:33:32

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Mass	Mass of parameter.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [X] Yes ☐ No

Workorder: 10633981 **Workorder Name:** D3631600
Owner Received Date: 11/16/2022 **Results Requested By:** 12/2/2022

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	8270E SVOC	LAB USE ONLY
1	BNSF-I500-SC-0.0-0.8-111322	PS	11/13/2022 11:40	10633981001	Solid	1	X	-01
2	BNSF-O280-SC-0.0-0.7-111322	PS	11/13/2022 11:50	10633981002	Solid	1	X	-02
3	BNSF-HN300-SC-1.0-2.0-111322	PS	11/13/2022 15:00	10633981003	Solid	1	X	-03
4	BNSF-J060-SC-0.5-1.5-111422	PS	11/14/2022 10:20	10633981004	Solid	1	X	-04
5	BNSF-J060-SC-8.5-9.5-111422	PS	11/14/2022 10:30	10633981005	Solid	1	X	-05

L1559126

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-16-22 15:20		
2				
3			Kaycie	11/17/22 1100

Comments
See attached 8270 list
Lvl 4 data package
Report to MDL, non-detects as ND
OK

Cooler Temperature on Receipt 4.4 °C | **Custody Seal** N or N | **Received on Ice** Y or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist
COC Seal Present/Intact: Y N — If Applicable
COC Signed/Accurate: Y N — VOA Zero Headspace: Y N
Bottles arrive intact: Y N — Pres.Correct/Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

MSAT
4.4+0=4.4
5466 8887 2538

L1559146

10633981

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 10633981
(To be completed by sending lab)

Sending Project No:	10633981
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/16/22
REQUESTED COMPLETION DATE:	**12/9/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed yes

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8270E SVOC	JGFU		Unpreserved	5	$135.00	$675.00
					TOTAL	$675.00

Special Requirements: Report D, QC Limits, MDLs (D),Jacobs UPRR EQEDD (1579)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$675.00	$540.00	$135.00
* Custom Revenue Allocation	**TOTAL**	$675.00	$540.00	$135.00

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☐ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

712 of 776

8270 SVOC List

Semi-volatile Organic Compounds and Polycy
3&4-Methylphenol
Benzoic acid
Bis(2-ethylhexyl) phthalate
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Di-n-octyl phthalate
Pentachlorophenol
Phenol
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Benz(a)anthracene
Benzo(a)pyrene
Benzo(ghi)perylene
Chrysene
Dibenz(ah)anthracene
Fluoranthene
Fluorene
Indeno(123-cd)pyrene
Naphthalene
Phenanthrene
Pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kongmeng Vang
Pace Analytical Services, LLC
1700 Elm Street
Minneapolis MN 55414

Generated 12/19/2022 11:13 PM

JOB DESCRIPTION

D3631600 10633981

JOB NUMBER

580-120212-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
12/19/2022 11:13 PM

Authorized for release by
Pauline M Matlock, Project Manager
Pauline.Matlock@et.eurofinsus.com
253 922-2310

Table of Contents

Table of Contents

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
580-120212-1

Comments
No additional comments.

Receipt
The sample was received on 11/17/2022 5:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9º C.

General Chemistry
Method 9060A: The following sample was prepared outside of preparation holding time due to lab over capacity and low staffing causing delays in analysis: BNSF-J060-SC-8.5-9.5-111422 (580-120212-1).

Method 9060A: The sample duplicate (DUP) precision for analytical batch 580-413230 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422

Lab Sample ID: 580-120212-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Duplicates	370	J H	2600	120	mg/Kg	1	☼	9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid
Percent Solids: 77.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SW846 9060A)	370	J H	2600	120	mg/Kg	☼		12/17/22 23:54	1

Default Detection Limits

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

General Chemistry

Analyte	RL	MDL	Units
Total Organic Carbon - Duplicates	2000	97	mg/Kg

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-413230/39
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			12/17/22 23:46	1

Lab Sample ID: LCS 580-413230/40
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates			120000	122000		mg/Kg		102	80 - 120		

Lab Sample ID: LCSD 580-413230/41
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			120000	123000		mg/Kg		102	80 - 120	0	20

Lab Sample ID: 580-120212-1 MS
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Duplicates	370	J H	155000	164000		mg/Kg	☼	106	75 - 125		

Lab Sample ID: 580-120212-1 MSD
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H	155000	167000		mg/Kg	☼	108	75 - 125	1	20

Lab Sample ID: 580-120212-1 DU
Matrix: Solid
Analysis Batch: 413230

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	370	J H		307	J	mg/Kg	☼			18	20

QC Association Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

General Chemistry

Analysis Batch: 410736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-120212-1	BNSF-J060-SC-8.5-9.5-111422	Total/NA	Solid	2540G	

Analysis Batch: 413230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-120212-1	BNSF-J060-SC-8.5-9.5-111422	Total/NA	Solid	9060A	
MB 580-413230/39	Method Blank	Total/NA	Solid	9060A	
LCS 580-413230/40	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-413230/41	Lab Control Sample Dup	Total/NA	Solid	9060A	
580-120212-1 MS	BNSF-J060-SC-8.5-9.5-111422	Total/NA	Solid	9060A	
580-120212-1 MSD	BNSF-J060-SC-8.5-9.5-111422	Total/NA	Solid	9060A	
580-120212-1 DU	BNSF-J060-SC-8.5-9.5-111422	Total/NA	Solid	9060A	

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540G		1	410736	JLS	EET SEA	11/21/22 19:41

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422
Date Collected: 11/14/22 10:30
Date Received: 11/17/22 17:40

Lab Sample ID: 580-120212-1
Matrix: Solid
Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	413230	FCG	EET SEA	12/17/22 23:54

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Job ID: 580-120212-1
Project/Site: D3631600 10633981

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22 *
Oregon	NELAP	4167	07-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Solids

Washington	State	C788	07-13-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
9060A		Solid	Total Organic Carbon - Duplicates

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Method	Method Description	Protocol	Laboratory
2540G	SM 2540G	SM22	EET SEA
9060A	Organic Carbon, Total (TOC)	SW846	EET SEA

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: D3631600 10633981

Job ID: 580-120212-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-120212-1	BNSF-J060-SC-8.5-9.5-111422	Solid	11/14/22 10:30	11/17/22 17:40

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CaCO3_00004_00009	07/16/25	LECO, Lot 1001			(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00012	03/31/23	Alfa Aesar, Lot X15E030			(Purchased Reagent)		Total Organic Carbon - Duplicates	120000 mg/Kg
TOCS_LCS_00012	07/26/23	ERA, Lot D108-542			(Purchased Reagent)		TOC Result 1	4300 mg/Kg
							Total Organic Carbon - Duplicates	4300 mg/Kg

Reagent

CaCO3_00004_00009

Version	00
Molecular weight	100.09
Quality Test / Release Date	07/31/2020
Molecular Formula	C Ca O3
CAS No	471-34-1
Linear Formula	CaCO3
Flash Point (°C)	

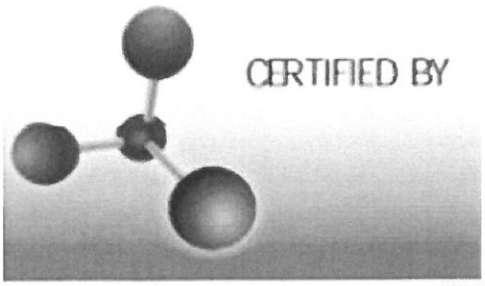
Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	42351	**Quality Test / Release Date**	07/31/2020
Lot Number	A0421160	**Suggested retest date**	07/31/2025
Description	Calcium carbonate,99+%,ACS reagent		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Crystalline powder	Crystalline powder
Titration Complexometric	>=99.0 % (on dried substance)	99.4 % (on dried substance)
Heavy metals (ICP-OES)	=<0.001 %	=<0.001 %
Insoluble matter	=<0.01 % (in dilute HCl)	0.008 % (in dilute HCl)
Chloride (Cl)	=<0.001 %	=<0.001 %
Fluoride (F)	=<0.0015 %	=<0.0015 %
Sulfate (SO4)	=<0.01 %	=<0.01 %
Ammonium (NH4)	=<0.003 %	=<0.003 %
Barium (Ba)	=<0.01 %	0.00164 %
Iron (Fe)	=<0.003 %	=<0.003 %
Magnesium (Mg)	=<0.02 %	0.010341 %
Potassium (K)	=<0.01 %	0.001048 %
Sodium (Na)	=<0.1 %	0.07061 %
Strontium (Sr)	=<0.1 %	0.007741 %



C. Wygaerts, QA Manager

Issued: 08-03-2020

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet:http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

3092515

ID: CaCO3_00004_00009

Exp 07/16/25 Prpd:R1K Opn:03/04/22

CaCO3-12%TC Second Source

FCG 3/4/22

Reagent

CaCO3_00012

Certificate of analysis

2450156
ID: CaCO3_00012
Exp:03/31/23 Prpd:JKM Opn:08/14/19
CaCO3-12%TC Second Source

Product No.: 36337

Product: Calcium carbonate, ACS, low in alkalies, 99.0% min

Lot No.: X15E030

Test	Limits	Results
Assay	99.5 % min	99.1 %
Insoluble in dilute HCl	0.01 % max	< 0.01 %
Chloride	0.001 % max	< 0.001 %
Fluoride	0.0015 % max	< 0.0008 %
Sulfate	0.005 % max	< 0.01 %
Ammonium	0.003 % max	< 0.003 %
Barium	0.01 %	< 0.01 %
Heavy metals (as Pb)	0.001 % max	< 0.001 %
Iron	0.002 % max	< 0.003 %
Magnesium	0.01 % max	0.003 %
Potassium	0.01 % max	< 0.01 %
Sodium	0.01 % max	< 0.1 %
Strontium	0.1 % max	< 0.1 %

This document has been electronically generated and does not require a signature.

Reagent

TOCS_LCS_00012

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D108-542
Certificate Issue Date: December 26, 2019
Expiration Date: July 26, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	853	795	5.50	523 - 1070	456 - 1130
Total Kjeldahl Nitrogen	1510	1500	12.3	976 - 2030	827 - 2180
Total Organic Carbon (TOC)	4300	4370	6.86	1580 - 7150	1530 - 7200
Total Phosphorus	911	815	10.8	422 - 1210	185 - 1440

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	853	795	93.3	39	-	-
Total Kjeldahl Nitrogen	1510	1500	99.7	33	-	-
Total Organic Carbon (TOC)	4300	4370	102	24	-	-
Total Phosphorus	911	815	89.4	55	-	-

2735864
ID: TOCS_LCS_00012
Exp: 01/31/22 Prpd: R1K
1540-7000 mg/kg TOC

Rev.1 10/21/20

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120212-1

SDG No.:

Project: D3631600 10633981

Client Sample ID	Lab Sample ID
BNSF-J060-SC-8.5-9.5-111422	580-120212-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BNSF-J060-SC-8.5-9.5-111422 Lab Sample ID: 580-120212-1

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG ID.:

Matrix: Solid Date Sampled: 11/14/2022 10:30

Reporting Basis: DRY Date Received: 11/17/2022 17:40

% Solids: 77.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	370	2600	120	mg/Kg	J	H	1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Analyst: FCG Batch Start Date: 11/11/2022

Reporting Units: mg/Kg Analytical Batch No.: 413230

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	20:33	Total Organic Carbon - Duplicates	4220	4300	98	80-120		TOCS_LCS_00012
2	ICB	20:35	Total Organic Carbon - Duplicates	ND					
37	CCV	23:41	Total Organic Carbon - Duplicates	126000	120000	105	80-120		CaCO3_00004_00009
38	CCB	23:43	Total Organic Carbon - Duplicates	ND					
49	CCV	00:25	Total Organic Carbon - Duplicates	129000	120000	108	80-120		CaCO3_00004_00009
50	CCB	00:27	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 413230 Date: 12/17/2022 23:46							
9060A	MB 580-413230/39	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/18/2022 00:04											
9060A	580-120212-1	Total Organic Carbon - Duplicates	370	J	mg/Kg						H
9060A	580-120212-1 MS	Total Organic Carbon - Duplicates	164000		mg/Kg	155000	106	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/18/2022 00:07											
9060A	580-120212-1 MSD	Total Organic Carbon - Duplicates	167000		mg/Kg	155000	108	75-125	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 413230 Date: 12/17/2022 23:59								
9060A	BNSF-J060-SC-8.5-9.5-111422	580-120212-1	Total Organic Carbon - Duplicates	370	mg/Kg			J
9060A	BNSF-J060-SC-8.5-9.5-111422	580-120212-1 DU	Total Organic Carbon - Duplicates	307	mg/Kg	18	20	J

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/17/2022 23:48											
						LCS Source: CaCO3_00012					
9060A	LCS 580-413230/40	Total Organic Carbon - Duplicates	122000		mg/Kg	120000	102	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 413230 Date: 12/17/2022 23:52											
						LCSD Source: CaCO3_00012					
9060A	LCSD 580-413230/41	Total Organic Carbon - Duplicates	123000		mg/Kg	120000	102	80-120	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120212-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120212-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job Number: 580-120212-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060A XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle　　Job No.: 580-120212-1

SDG No.:

Instrument ID: NOEQUIP　　Analysis Method: 2540G

Start Date: 11/21/2022 19:41　　End Date: 11/21/2022 19:41

Lab Sample Id	D/F	Type	Time	Analytes																									
				%Sol	Moist																								
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
580-120212-1	1	T	19:41	X	X																								
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
ZZZZZZ			19:41																										
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ZZZZZZ			19:41																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCD																								
ICV 580-413230/1	1		20:33	X																								
ICB 580-413230/2	1		20:35	X																								
CCV 580-413230/3			22:10																									
CCB 580-413230/4			22:12																									
ZZZZZZ			22:15																									
ZZZZZZ			22:18																									
ZZZZZZ			22:21																									
ZZZZZZ			22:23																									
ZZZZZZ			22:33																									
ZZZZZZ			22:42																									
ZZZZZZ			22:45																									
ZZZZZZ			22:47																									
ZZZZZZ			22:57																									
ZZZZZZ			23:06																									
CCV 580-413230/15			23:16																									
CCB 580-413230/16			23:18																									
ZZZZZZ			23:20																									
ZZZZZZ			23:29																									
ZZZZZZ			23:34																									
ZZZZZZ			23:39																									
ZZZZZZ			23:50																									
ZZZZZZ			00:00																									
ZZZZZZ			00:12																									
ZZZZZZ			01:00																									
ZZZZZZ			01:11																									
ZZZZZZ			01:22																									
CCV 580-413230/27			01:35																									
CCB 580-413230/28			01:37																									
ZZZZZZ			01:40																									
ZZZZZZ			01:51																									
ZZZZZZ			02:03																									
ZZZZZZ			02:08																									
ZZZZZZ			02:13																									
ZZZZZZ			02:19																									
CCV 580-413230/35			02:24																									
CCB 580-413230/36			02:27																									
CCV 580-413230/37	1		23:41	X																								
CCB 580-413230/38	1		23:43	X																								
MB 580-413230/39	1	T	23:46	X																								
LCS 580-413230/40	1	T	23:48	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes
				TOCD
LCSD 580-413230/41	1	T	23:52	X
580-120212-1	1	T	23:54	X
580-120212-1 DU	1	T	23:59	X
580-120212-1 MS	1	T	00:04	X
580-120212-1 MSD	1	T	00:07	X
ZZZZZZ			00:09	
ZZZZZZ			00:14	
ZZZZZZ			00:19	
CCV 580-413230/49	1		00:25	X
CCB 580-413230/50	1		00:27	X
ZZZZZZ			00:29	
ZZZZZZ			00:34	
ZZZZZZ			00:38	
ZZZZZZ			00:43	
ZZZZZZ			00:47	
ZZZZZZ			00:52	
ZZZZZZ			00:57	
ZZZZZZ			01:02	
ZZZZZZ			01:07	
ZZZZZZ			01:11	
CCV 580-413230/61			01:22	
CCB 580-413230/62			01:24	
ZZZZZZ			01:27	
ZZZZZZ			01:32	
ZZZZZZ			01:36	
ZZZZZZ			01:41	
ZZZZZZ			01:46	
ZZZZZZ			01:52	
CCV 580-413230/69			01:58	
CCB 580-413230/70			02:00	
CCV 580-413230/71			02:03	
CCB 580-413230/72			02:05	
ZZZZZZ			02:07	
ZZZZZZ			02:10	
ZZZZZZ			02:13	
ZZZZZZ			02:15	
ZZZZZZ			02:20	
ZZZZZZ			02:25	
ZZZZZZ			02:28	
ZZZZZZ			02:31	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060A

Start Date: 11/11/2022 20:33 End Date: 12/18/2022 03:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCD																									
ZZZZZZ			02:36																										
ZZZZZZ			02:41																										
CCV 580-413230/83			02:46																										
CCB 580-413230/84			02:49																										
ZZZZZZ			02:51																										
ZZZZZZ			02:56																										
ZZZZZZ			03:00																										
ZZZZZZ			03:05																										
ZZZZZZ			03:10																										
ZZZZZZ			03:14																										
ZZZZZZ			03:19																										
CCV 580-413230/92			03:24																										
CCB 580-413230/93			03:27																										

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Batch Number: 410736 Batch Start Date: 11/21/22 19:41 Batch Analyst: Sloan, Joshua L

Batch Method: 2540G Batch End Date: 11/22/22 10:18

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid
580-120212-A-1	BNSF-J060-SC-8.5-9.5-111422	2540G	T	8	0.8319 g	6.2004 g	4.9988 g	22.382415944863 6 %	77.617584055136 4 %

Batch Notes	
Balance ID	SEA228
Oven ID	OVEN 2
Thermometer ID	DIGITAL READOUT
Date samples were placed in the oven	11/21/2022
Time samples were place in the oven	20:11
Temperature - Start - Uncorrected	110.0 Degrees C
Oven Temp In	109.6 Degrees C
Date samples were removed from oven	11/22/2022
Time Samples were removed from oven	10:08
Temperature - End - Uncorrected	110.2 Degrees C
Oven Temp Out	109.8 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Seattle Job No.: 580-120212-1

SDG No.:

Batch Number: 413230 Batch Start Date: 12/16/22 22:10 Batch Analyst: Guerra, Fernando C

Batch Method: 9060A Batch End Date: 12/18/22 03:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00141	Baked Sand 00149	CaCO3 00012	CaCO3_00004 00009	TOCS_LCS 00012	
ICV 580-413230/1		9060A						# g	
ICB 580-413230/2		9060A			# g				
CCV 580-413230/37		9060A					# g		
CCB 580-413230/38		9060A		# g					
MB 580-413230/39		9060A			# g				
LCS 580-413230/40		9060A				# g			
LCSD 580-413230/41		9060A				# g			
580-120212-A-1 MS	BNSF-J060-SC-8.5 -9.5-111422	9060A	T				0.1025 g		
580-120212-A-1 MSD	BNSF-J060-SC-8.5 -9.5-111422	9060A	T				0.106 g		
CCV 580-413230/49		9060A					# g		
CCB 580-413230/50		9060A		# g					

Batch Notes	
Phosphoric Acid ID	3157753
Pipette/Syringe/Dispenser ID	SEA224
Oven ID	oven 4
Temperature	70.3 Deg. C
Drying Time	12+ hours min
Batch Comment	ALum dish: 20200416

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 580-120212-1

Batch: 410736 **Analyst Initials: JLS**

Method: 2540G **Instrument: NONE**

Lab Sample ID: 580-120212-A-1 **Analysis Date: Nov 21, 2022 19:41**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Solids	None	1	77.6175840551364	%
Percent Moisture	None	1	22.3824159448636	%

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV 3092515	1928393		0.2048	TA SOIL LINNEAR	12/16/2022 10:10:04 PM	13.78	A01
CCV 3092515	1921327		0.2050	TA SOIL LINNEAR	12/16/2022 11:16:07 PM	13.72	C08
CCV 3092515	1940994		0.2067	TA SOIL LINNEAR	12/17/2022 1:35:16 AM	13.74	B06
CCV 3092515	1900140		0.2069	TA SOIL LINNEAR	12/17/2022 2:24:36 AM	13.44	D04
CCV 3092515	1745241		0.2031	TA SOIL LINNEAR	12/17/2022 11:41:32 PM	12.57	A01
CCV 3092515	1815018		0.2053	TA SOIL LINNEAR	12/18/2022 12:25:06 AM	12.94	B08
CCV 3092515	1850831		0.2062	TA SOIL LINNEAR	12/18/2022 1:22:25 AM	13.13	D10
CCV 3092515	1778178		0.2026	TA SOIL LINNEAR	12/18/2022 1:58:23 AM	12.84	A04
CCV 3092515	1829472		0.2068	TA SOIL LINNEAR	12/18/2022 2:03:45 AM	12.94	A06
CCV 3092515	1824452		0.2054	TA SOIL LINNEAR	12/18/2022 2:46:40 AM	13.00	C03
CCV 3092515	1817433		0.2042	TA SOIL LINNEAR	12/18/2022 3:24:58 AM	13.02	D09
Average			0.2052			13.19	
Std. Deviation			0.001			0.411	
RSD			0.708			3.116	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3508.7		0.2050	TA SOIL LINNEAR	12/16/2022 10:12:47 PM	-0.01641	A02
CCB 3049570	3414.5		0.2086	TA SOIL LINNEAR	12/16/2022 11:18:18 PM	-0.01679	C09
CCB 3049570	7228.9		0.2025	TA SOIL LINNEAR	12/17/2022 1:37:47 AM	0.01035	B07
CCB 3049570	3849.4		0.2061	TA SOIL LINNEAR	12/17/2022 2:27:17 AM	-0.01390	D05
CCB 3049570	2618.3		0.2008	TA SOIL LINNEAR	12/17/2022 11:43:55 PM	-0.02326	A02

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB 3049570	3200.0		0.2080	TA SOIL LINNEAR	12/18/2022 12:27:17 AM	-0.01835	B09
CCB 3049570	5209.5		0.2042	TA SOIL LINNEAR	12/18/2022 1:24:57 AM	-0.004249	E01
CCB 3049570	2279.2		0.2008	TA SOIL LINNEAR	12/18/2022 2:00:34 AM	-0.02574	A05
CCB 3049570	4798.6		0.2064	TA SOIL LINNEAR	12/18/2022 2:05:43 AM	-0.007125	A07
CCB 3049570	4108.3		0.2000	TA SOIL LINNEAR	12/18/2022 2:49:12 AM	-0.01242	C04
CCB 3049570	4340.2		0.2019	TA SOIL LINNEAR	12/18/2022 3:27:10 AM	-0.01062	D10
Average			0.2040			-0.01259	
Std. Deviation			0.003			0.009918	
RSD			1.483			78.77	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB 3117971	1689.4		0.2019	TA SOIL LINNEAR	12/16/2022 10:15:04 PM	-0.02989	A03
MB 3117971	2466.7		0.2042	TA SOIL LINNEAR	12/17/2022 11:46:07 PM	-0.02396	A03
MB 3117971	4104.7		0.2013	TA SOIL LINNEAR	12/18/2022 2:07:54 AM	-0.01237	A08
Average			0.2025			-0.02207	
Std. Deviation			0.002			0.008913	
RSD			0.756			40.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS 2450156	1823044		0.2022	TA SOIL LINNEAR	12/16/2022 10:18:02 PM	13.19	A04
LCS 2450156	1714809		0.2052	TA SOIL LINNEAR	12/17/2022 11:48:48 PM	12.23	A04
LCS 2450156	1761308		0.2076	TA SOIL LINNEAR	12/18/2022 2:10:32 AM	12.41	A09
Average			0.2050			12.61	
Std. Deviation			0.003			0.513	
RSD			1.320			4.067	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD 2450156	1841658		0.2052	TA SOIL LINNEAR	12/16/2022 10:21:00 PM	13.13	A05
LCSD 2450156	1721468		0.2055	TA SOIL LINNEAR	12/17/2022 11:52:05 PM	12.25	A05
LCSD 2450156	1748637		0.2071	TA SOIL LINNEAR	12/18/2022 2:13:43 AM	12.35	A10

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Average			0.2059			12.58	
Std. Deviation			0.001			0.481	
RSD			0.496			3.823	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-1	9932.1		0.2029	TA SOIL LINNEAR	12/16/2022 10:23:15 PM	0.02989	A06
570-116140-B-1	11513		0.2059	TA SOIL LINNEAR	12/16/2022 10:25:50 PM	0.04073	A07
570-116140-B-1	13827		0.2057	TA SOIL LINNEAR	12/16/2022 10:28:17 PM	0.05728	A08
570-116140-B-1	14078		0.2018	TA SOIL LINNEAR	12/16/2022 10:30:35 PM	0.06021	A09
Average			0.2041			0.04703	
Std. Deviation			0.002			0.014286	
RSD			1.001			30.38	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 570-116140-B-1	12906		0.2055	TA SOIL LINNEAR	12/16/2022 10:33:01 PM	0.05075	A10
DU 570-116140-B-1	16055		0.2019	TA SOIL LINNEAR	12/16/2022 10:35:20 PM	0.07455	B01
DU 570-116140-B-1	10511		0.2026	TA SOIL LINNEAR	12/16/2022 10:37:38 PM	0.03413	B02
DU 570-116140-B-1	15974		0.2077	TA SOIL LINNEAR	12/16/2022 10:40:00 PM	0.07190	B03
Average			0.2044			0.05783	
Std. Deviation			0.003			0.019056	
RSD			1.312			32.95	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 570-116140-B-1	944674	0.1033	0.1050	TA SOIL LINNEAR	12/16/2022 10:42:46 PM	13.13	B04

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 570-116140-B-1	940461	0.1035	0.1049	TA SOIL LINNEAR	12/16/2022 10:45:36 PM	13.08	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-2	22614		0.2053	TA SOIL LINNEAR	12/16/2022 10:47:52 PM	0.1202	B06
570-116140-B-2	20284		0.2006	TA SOIL LINNEAR	12/16/2022 10:50:15 PM	0.1060	B07
570-116140-B-2	19379		0.2019	TA SOIL LINNEAR	12/16/2022 10:52:32 PM	0.09872	B08
570-116140-B-2	36855		0.2074	TA SOIL LINNEAR	12/16/2022 10:54:52 PM	0.2198	B09
Average			0.2038			0.1362	
Std. Deviation			0.003			0.05645	
RSD			1.527			41.45	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-3	6431.3		0.1985	TA SOIL LINNEAR	12/16/2022 10:57:12 PM	0.004664	B10
570-116140-B-3	8272.4		0.2091	TA SOIL LINNEAR	12/16/2022 10:59:29 PM	0.01735	C01
570-116140-B-3	93022		0.2034	TA SOIL LINNEAR	12/16/2022 11:01:58 PM	0.6294	C02
570-116140-B-3	5461.7		0.2074	TA SOIL LINNEAR	12/16/2022 11:04:11 PM	-0.002398	C03
Average			0.2046			0.1623	
Std. Deviation			0.005			0.31156	
RSD			2.305			192.0	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-4	23302		0.2041	TA SOIL LINNEAR	12/16/2022 11:06:31 PM	0.1259	C04
570-116140-B-4	33569		0.2001	TA SOIL LINNEAR	12/16/2022 11:08:43 PM	0.2037	C05
570-116140-B-4	27017		0.2069	TA SOIL LINNEAR	12/16/2022 11:10:56 PM	0.1505	C06
570-116140-B-4	17782		0.2000	TA SOIL LINNEAR	12/16/2022 11:13:14 PM	0.08793	C07
Average			0.2028			0.1420	
Std. Deviation			0.003			0.04852	
RSD			1.651			34.17	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
570-116140-B-5	22299		0.2062	TA SOIL LINNEAR	12/16/2022 11:20:44 PM	0.1174	C10
570-116140-B-5	17106		0.2024	TA SOIL LINNEAR	12/16/2022 11:22:56 PM	0.08199	D01
570-116140-B-5	24456		0.2075	TA SOIL LINNEAR	12/16/2022 11:25:07 PM	0.1320	D02
570-116140-B-5	18981		0.2030	TA SOIL LINNEAR	12/16/2022 11:27:18 PM	0.09530	D03
Average			0.2048			0.1067	
Std. Deviation			0.002			0.02232	
RSD			1.204			20.92	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-1	101628		0.2055	TA SOIL LINNEAR	12/16/2022 11:29:40 PM	0.6845	D04
580-119923-A-1	100997		0.2046	TA SOIL LINNEAR	12/16/2022 11:32:11 PM	0.6830	D05
Average			0.2051			0.6837	
Std. Deviation			0.0006			0.00107	
RSD			0.310			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119923-A-2	353162		0.2025	TA SOIL LINNEAR	12/16/2022 11:34:22 PM	2.518	D06
580-119923-A-2	338148		0.2049	TA SOIL LINNEAR	12/16/2022 11:36:37 PM	2.381	D07
Average			0.2037			2.449	
Std. Deviation			0.002			0.0969	
RSD			0.833			3.956	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148318-A-1	13813		0.1991	TA SOIL LINNEAR	12/16/2022 11:39:20 PM	0.05907	D08
180-148318-A-1	17780		0.2058	TA SOIL LINNEAR	12/16/2022 11:41:57 PM	0.08544	D09
180-148318-A-1	19470		0.2054	TA SOIL LINNEAR	12/16/2022 11:44:45 PM	0.09768	D10
180-148318-A-1	18303		0.2061	TA SOIL LINNEAR	12/16/2022 11:47:20 PM	0.08904	E01
Average			0.2041			0.08281	
Std. Deviation			0.003			0.016637	
RSD			1.639			20.09	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-1	36361		0.2018	TA SOIL LINNEAR	12/16/2022 11:50:00 PM	0.2223	E02
180-148319-A-1	36599		0.2045	TA SOIL LINNEAR	12/16/2022 11:52:49 PM	0.2211	E03
180-148319-A-1	36353		0.2014	TA SOIL LINNEAR	12/16/2022 11:55:33 PM	0.2227	E04
180-148319-A-1	35751		0.2016	TA SOIL LINNEAR	12/16/2022 11:58:19 PM	0.2181	E05
Average			0.2023			0.2210	
Std. Deviation			0.001			0.00209	
RSD			0.721			0.945	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148319-A-2	40258		0.2009	TA SOIL LINNEAR	12/17/2022 12:00:59 AM	0.2518	E06
180-148319-A-2	43927		0.1971	TA SOIL LINNEAR	12/17/2022 12:04:10 AM	0.2839	E07
180-148319-A-2	41649		0.2019	TA SOIL LINNEAR	12/17/2022 12:06:49 AM	0.2606	E08
180-148319-A-2	45358		0.1999	TA SOIL LINNEAR	12/17/2022 12:09:41 AM	0.2905	E09
Average			0.1999			0.2717	
Std. Deviation			0.002			0.01846	
RSD			1.034			6.793	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-1	25791		0.2071	TA SOIL LINNEAR	12/17/2022 12:12:10 AM	0.1417	E10
180-148320-A-1	26095		0.2041	TA SOIL LINNEAR	12/17/2022 12:52:55 AM	0.1460	A01
180-148320-A-1	25934		0.2053	TA SOIL LINNEAR	12/17/2022 12:55:21 AM	0.1440	A02
180-148320-A-1	32938		0.2080	TA SOIL LINNEAR	12/17/2022 12:57:44 AM	0.1915	A03
Average			0.2061			0.1558	
Std. Deviation			0.002			0.02389	
RSD			0.852			15.33	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	123060		0.2074	TA SOIL LINNEAR	12/17/2022 1:00:29 AM	0.8299	A04
180-148320-A-2	120778		0.1992	TA SOIL LINNEAR	12/17/2022 1:03:19 AM	0.8472	A05
180-148320-A-2	122644		0.2004	TA SOIL LINNEAR	12/17/2022 1:06:01 AM	0.8558	A06

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148320-A-2	125711		0.2054	TA SOIL LINNEAR	12/17/2022 1:08:47 AM	0.8569	A07
Average			0.2031			0.8475	
Std. Deviation			0.004			0.01249	
RSD			1.934			1.474	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148321-A-1	8238.1		0.2060	TA SOIL LINNEAR	12/17/2022 1:11:30 AM	0.01737	A08
180-148321-A-1	6082.7		0.2087	TA SOIL LINNEAR	12/17/2022 1:14:00 AM	0.001985	A09
180-148321-A-1	9335.3		0.2044	TA SOIL LINNEAR	12/17/2022 1:16:39 AM	0.02538	A10
180-148321-A-1	26.074		0.2022	TA SOIL LINNEAR	12/17/2022 1:19:20 AM	-0.04192	B01
Average			0.2053			0.0007045	
Std. Deviation			0.003			0.030029	
RSD			1.333			4.262E+3	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-1	98003		0.2046	TA SOIL LINNEAR	12/17/2022 1:22:41 AM	0.6615	B02
180-148322-A-1	115920		0.2039	TA SOIL LINNEAR	12/17/2022 1:25:41 AM	0.7927	B03
180-148322-A-1	106683		0.2018	TA SOIL LINNEAR	12/17/2022 1:28:35 AM	0.7338	B04
180-148322-A-1	106572		0.2011	TA SOIL LINNEAR	12/17/2022 1:31:50 AM	0.7355	B05
Average			0.2028			0.7309	
Std. Deviation			0.002			0.05377	
RSD			0.821			7.356	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-2	118451		0.2052	TA SOIL LINNEAR	12/17/2022 1:40:34 AM	0.8058	B08
180-148322-A-2	107362		0.2040	TA SOIL LINNEAR	12/17/2022 1:43:20 AM	0.7308	B09
180-148322-A-2	116247		0.2035	TA SOIL LINNEAR	12/17/2022 1:46:07 AM	0.7967	B10
180-148322-A-2	116916		0.2079	TA SOIL LINNEAR	12/17/2022 1:49:02 AM	0.7845	C01
Average			0.2052			0.7794	
Std. Deviation			0.002			0.03360	
RSD			0.959			4.311	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
180-148322-A-3	143102		0.2085	TA SOIL LINNEAR	12/17/2022 1:51:47 AM	0.9666	C02
180-148322-A-3	179812		0.2068	TA SOIL LINNEAR	12/17/2022 1:54:36 AM	1.235	C03
180-148322-A-3	133592		0.2072	TA SOIL LINNEAR	12/17/2022 1:57:18 AM	0.9053	C04
180-148322-A-3	160271		0.2040	TA SOIL LINNEAR	12/17/2022 2:00:13 AM	1.111	C05
Average			0.2066			1.055	
Std. Deviation			0.002			0.1482	
RSD			0.917			14.05	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-1	29742		0.2083	TA SOIL LINNEAR	12/17/2022 2:03:13 AM	0.1687	C06
580-120040-A-1	27576		0.2079	TA SOIL LINNEAR	12/17/2022 2:06:02 AM	0.1537	C07
Average			0.2081			0.1612	
Std. Deviation			0.0003			0.01058	
RSD			0.136			6.565	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-2	125374		0.2002	TA SOIL LINNEAR	12/17/2022 2:08:40 AM	0.8767	C08
580-120040-A-2	129250		0.2058	TA SOIL LINNEAR	12/17/2022 2:11:24 AM	0.8805	C09
Average			0.2030			0.8786	
Std. Deviation			0.004			0.00268	
RSD			1.951			0.305	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-3	118575		0.2082	TA SOIL LINNEAR	12/17/2022 2:13:58 AM	0.7951	C10
580-120040-A-3	109232		0.2017	TA SOIL LINNEAR	12/17/2022 2:16:30 AM	0.7527	D01
Average			0.2050			0.7739	
Std. Deviation			0.005			0.02996	
RSD			2.243			3.872	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120040-A-4	250449		0.2063	TA SOIL LINNEAR	12/17/2022 2:19:04 AM	1.741	D02
580-120040-A-4	223372		0.1989	TA SOIL LINNEAR	12/17/2022 2:21:38 AM	1.606	D03
Average			0.2026			1.673	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.005			0.0955	
RSD			2.583			5.708	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-120212-A-1	9734.6		0.2035	TA SOIL LINNEAR	12/17/2022 11:54:24 PM	0.02838	A06
580-120212-A-1	9752.0		0.2022	TA SOIL LINNEAR	12/17/2022 11:56:59 PM	0.02869	A07
Average			0.2028			0.02853	
Std. Deviation			0.0009			0.000218	
RSD			0.453			0.766	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-120212-A-1	8819.3		0.2034	TA SOIL LINNEAR	12/17/2022 11:59:31 PM	0.02178	A08
DU 580-120212-A-1	9379.4		0.2025	TA SOIL LINNEAR	12/18/2022 12:01:58 AM	0.02594	A09
Average			0.2030			0.02386	
Std. Deviation			0.0006			0.002939	
RSD			0.314			12.32	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-120212-A-1	894038	0.1025	0.1022	TA SOIL LINNEAR	12/18/2022 12:04:48 AM	12.76	A10

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-120212-A-1	923969	0.1060	0.1042	TA SOIL LINNEAR	12/18/2022 12:07:33 AM	12.93	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-1	290184		0.2063	TA SOIL LINNEAR	12/18/2022 12:09:44 AM	2.023	B02
580-119976-A-1	332503		0.2003	TA SOIL LINNEAR	12/18/2022 12:11:56 AM	2.394	B03
Average			0.2033			2.209	
Std. Deviation			0.004			0.2621	
RSD			2.087			11.87	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-2	82513		0.2040	TA SOIL LINNEAR	12/18/2022 12:14:23 AM	0.5520	B04
580-119976-A-2	76533		0.2068	TA SOIL LINNEAR	12/18/2022 12:16:56 AM	0.5021	B05
Average			0.2054			0.5270	
Std. Deviation			0.002			0.03530	
RSD			0.964			6.698	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-3	264768		0.2020	TA SOIL LINNEAR	12/18/2022 12:19:11 AM	1.882	B06
580-119976-A-3	282077		0.2065	TA SOIL LINNEAR	12/18/2022 12:21:25 AM	1.964	B07
Average			0.2042			1.923	
Std. Deviation			0.003			0.0580	
RSD			1.558			3.016	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-4	343337		0.1991	TA SOIL LINNEAR	12/18/2022 12:29:14 AM	2.488	B10
580-119976-A-4	340680		0.2004	TA SOIL LINNEAR	12/18/2022 12:31:32 AM	2.453	C01
Average			0.1997			2.471	
Std. Deviation			0.0009			0.0252	
RSD			0.460			1.019	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-5	28357		0.2021	TA SOIL LINNEAR	12/18/2022 12:34:12 AM	0.1638	C02
580-119976-A-5	39203		0.2025	TA SOIL LINNEAR	12/18/2022 12:36:44 AM	0.2421	C03
Average			0.2023			0.2030	
Std. Deviation			0.0003			0.05536	
RSD			0.140			27.27	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-6	448592		0.2073	TA SOIL LINNEAR	12/18/2022 12:38:55 AM	3.135	C04
580-119976-A-6	445955		0.2015	TA SOIL LINNEAR	12/18/2022 12:41:07 AM	3.206	C05
Average			0.2044			3.171	
Std. Deviation			0.004			0.0502	
RSD			2.006			1.584	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-7	361807		0.1032	TA SOIL LINNEAR	12/18/2022 12:43:21 AM	5.064	C06
580-119976-A-7	389508		0.1059	TA SOIL LINNEAR	12/18/2022 12:45:37 AM	5.318	C07
Average			0.1046			5.191	
Std. Deviation			0.002			0.1802	
RSD			1.826			3.472	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-8	256825		0.2050	TA SOIL LINNEAR	12/18/2022 12:47:56 AM	1.797	C08
580-119976-A-8	252142		0.2072	TA SOIL LINNEAR	12/18/2022 12:50:15 AM	1.745	C09
Average			0.2061			1.771	
Std. Deviation			0.002			0.0370	
RSD			0.755			2.086	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-9	66829		0.2022	TA SOIL LINNEAR	12/18/2022 12:52:57 AM	0.4430	C10
580-119976-A-9	74279		0.2069	TA SOIL LINNEAR	12/18/2022 12:55:38 AM	0.4858	D01
Average			0.2046			0.4644	
Std. Deviation			0.003			0.03026	
RSD			1.625			6.515	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-10	628252		0.2009	TA SOIL LINNEAR	12/18/2022 12:57:49 AM	4.548	D02
580-119976-A-10	518016		0.2050	TA SOIL LINNEAR	12/18/2022 1:00:01 AM	3.668	D03
Average			0.2029			4.108	
Std. Deviation			0.003			0.6224	
RSD			1.428			15.15	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-11	75280		0.2034	TA SOIL LINNEAR	12/18/2022 1:02:17 AM	0.5014	D04
580-119976-A-11	187913		0.2005	TA SOIL LINNEAR	12/18/2022 1:04:32 AM	1.333	D05
Average			0.2020			0.9173	
Std. Deviation			0.002			0.58820	
RSD			1.015			64.12	

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Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-12	41691		0.2062	TA SOIL LINNEAR	12/18/2022 1:07:02 AM	0.2555	D06
580-119976-A-12	47423		0.2032	TA SOIL LINNEAR	12/18/2022 1:09:28 AM	0.3007	D07
Average			0.2047			0.2781	
Std. Deviation			0.002			0.03195	
RSD			1.036			11.49	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-13	77779		0.2058	TA SOIL LINNEAR	12/18/2022 1:11:51 AM	0.5134	D08
580-119976-A-13	76126		0.2073	TA SOIL LINNEAR	12/18/2022 1:14:17 AM	0.4980	D09
Average			0.2066			0.5057	
Std. Deviation			0.001			0.01090	
RSD			0.514			2.155	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-14	284848		0.2080	TA SOIL LINNEAR	12/18/2022 1:27:08 AM	1.969	E02
580-119976-A-14	253416		0.2087	TA SOIL LINNEAR	12/18/2022 1:29:19 AM	1.742	E03
Average			0.2083			1.855	
Std. Deviation			0.0005			0.1610	
RSD			0.238			8.677	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-15	26092		0.2059	TA SOIL LINNEAR	12/18/2022 1:32:01 AM	0.1447	E04
580-119976-A-15	24881		0.2023	TA SOIL LINNEAR	12/18/2022 1:34:38 AM	0.1384	E05
Average			0.2041			0.1416	
Std. Deviation			0.003			0.00439	
RSD			1.247			3.105	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-16	223688		0.2043	TA SOIL LINNEAR	12/18/2022 1:36:50 AM	1.565	E06
580-119976-A-16	236123		0.2071	TA SOIL LINNEAR	12/18/2022 1:39:02 AM	1.632	E07
Average			0.2057			1.599	
Std. Deviation			0.002			0.0474	
RSD			0.963			2.962	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-17	15251		0.2030	TA SOIL LINNEAR	12/18/2022 1:41:38 AM	0.06834	E08
580-119976-A-17	13846		0.2048	TA SOIL LINNEAR	12/18/2022 1:44:02 AM	0.05767	E09
Average			0.2039			0.06300	
Std. Deviation			0.001			0.007546	
RSD			0.624			11.98	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-18	52973		0.2049	TA SOIL LINNEAR	12/18/2022 1:46:39 AM	0.3379	E10
580-119976-A-18	54241		0.2030	TA SOIL LINNEAR	12/18/2022 1:49:49 AM	0.3503	A01
Average			0.2040			0.3441	
Std. Deviation			0.001			0.00872	
RSD			0.659			2.535	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-19	61150		0.2029	TA SOIL LINNEAR	12/18/2022 1:52:28 AM	0.4004	A02
580-119976-A-19	66462		0.2020	TA SOIL LINNEAR	12/18/2022 1:55:04 AM	0.4408	A03
Average			0.2025			0.4206	
Std. Deviation			0.0006			0.02855	
RSD			0.314			6.788	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-20	317725		0.2052	TA SOIL LINNEAR	12/18/2022 2:15:54 AM	2.231	B01
580-119976-A-20	311724		0.2017	TA SOIL LINNEAR	12/18/2022 2:18:05 AM	2.226	B02
Average			0.2034			2.229	
Std. Deviation			0.002			0.0035	
RSD			1.216			0.157	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
DU 580-119976-A-20	317573		0.2036	TA SOIL LINNEAR	12/18/2022 2:20:20 AM	2.248	B03
DU 580-119976-A-20	309506		0.1991	TA SOIL LINNEAR	12/18/2022 2:22:35 AM	2.239	B04
Average			0.2014			2.243	
Std. Deviation			0.003			0.0061	
RSD			1.580			0.273	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MS 580-119976-A-20	1114088	0.1080	0.1018	TA SOIL LINNEAR	12/18/2022 2:25:24 AM	15.98	B05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MSD 580-119976-A-20	1098477	0.1071	0.1021	TA SOIL LINNEAR	12/18/2022 2:28:22 AM	15.71	B06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-21	24420		0.2068	TA SOIL LINNEAR	12/18/2022 2:31:10 AM	0.1322	B07
580-119976-A-21	22768		0.2038	TA SOIL LINNEAR	12/18/2022 2:34:05 AM	0.1222	B08
Average			0.2053			0.1272	
Std. Deviation			0.002			0.00704	
RSD			1.033			5.533	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-22	173333		0.2046	TA SOIL LINNEAR	12/18/2022 2:36:34 AM	1.202	B09
580-119976-A-22	168984		0.2068	TA SOIL LINNEAR	12/18/2022 2:39:02 AM	1.158	B10
Average			0.2057			1.180	
Std. Deviation			0.002			0.0309	
RSD			0.756			2.616	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-23	124975		0.2033	TA SOIL LINNEAR	12/18/2022 2:41:20 AM	0.8605	C01
580-119976-A-23	148893		0.2063	TA SOIL LINNEAR	12/18/2022 2:43:40 AM	1.018	C02
Average			0.2048			0.9393	
Std. Deviation			0.002			0.11148	
RSD			1.036			11.87	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-24	56879		0.2025	TA SOIL LINNEAR	12/18/2022 2:51:27 AM	0.3703	C05
580-119976-A-24	52313		0.2073	TA SOIL LINNEAR	12/18/2022 2:53:49 AM	0.3293	C06
Average			0.2049			0.3498	
Std. Deviation			0.003			0.02892	
RSD			1.656			8.268	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-25	216436		0.2049	TA SOIL LINNEAR	12/18/2022 2:56:00 AM	1.509	C07
580-119976-A-25	227871		0.2000	TA SOIL LINNEAR	12/18/2022 2:58:15 AM	1.630	C08
Average			0.2025			1.569	
Std. Deviation			0.003			0.0855	
RSD			1.711			5.447	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-26	162714		0.2023	TA SOIL LINNEAR	12/18/2022 3:00:39 AM	1.139	C09
580-119976-A-26	208820		0.2053	TA SOIL LINNEAR	12/18/2022 3:02:59 AM	1.452	C10
Average			0.2038			1.295	
Std. Deviation			0.002			0.2213	
RSD			1.041			17.09	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-27	103846		0.1971	TA SOIL LINNEAR	12/18/2022 3:05:21 AM	0.7302	D01
580-119976-A-27	93093		0.2072	TA SOIL LINNEAR	12/18/2022 3:07:47 AM	0.6184	D02
Average			0.2021			0.6743	
Std. Deviation			0.007			0.07903	
RSD			3.533			11.72	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-28	258528		0.1992	TA SOIL LINNEAR	12/18/2022 3:10:13 AM	1.862	D03
580-119976-A-28	263877		0.2056	TA SOIL LINNEAR	12/18/2022 3:12:34 AM	1.843	D04
Average			0.2024			1.852	
Std. Deviation			0.005			0.0140	
RSD			2.236			0.755	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-29	260776		0.2016	TA SOIL LINNEAR	12/18/2022 3:14:54 AM	1.856	D05
580-119976-A-29	289727		0.1989	TA SOIL LINNEAR	12/18/2022 3:17:13 AM	2.095	D06
Average			0.2002			1.976	
Std. Deviation			0.002			0.1689	
RSD			0.953			8.548	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-119976-A-30	189258		0.2051	TA SOIL LINNEAR	12/18/2022 3:19:28 AM	1.313	D07
580-119976-A-30	265114		0.2049	TA SOIL LINNEAR	12/18/2022 3:21:45 AM	1.858	D08
Average			0.2050			1.585	
Std. Deviation			0.0001			0.3852	
RSD			0.069			24.30	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	5800.6		1.0000	TA SOIL LINNEAR	11/11/2022 8:11:21 PM	0.000000008319	A03

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
2450155	207376		0.0250	TA SOIL LINNEAR	11/11/2022 8:13:53 PM	12.04	A04
2450155	403472		0.0498	TA SOIL LINNEAR	11/11/2022 8:16:25 PM	11.82	A05
2450155	613484		0.0753	TA SOIL LINNEAR	11/11/2022 8:19:09 PM	11.91	A06
2450155	818286		0.1007	TA SOIL LINNEAR	11/11/2022 8:21:56 PM	11.89	A07
2450155	1225915		0.1506	TA SOIL LINNEAR	11/11/2022 8:24:50 PM	11.93	A08
2450155	1651543		0.2001	TA SOIL LINNEAR	11/11/2022 8:27:46 PM	12.10	A09
2450155	2061584		0.2505	TA SOIL LINNEAR	11/11/2022 8:31:03 PM	12.07	A10
Average			0.1217			11.96	
Std. Deviation			0.08			0.102	
RSD			67.66			0.855	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 2735864	63430		0.2006	TA SOIL LINNEAR	11/11/2022 8:33:14 PM	0.4217	B01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 3117971	4978.3		0.2006	TA SOIL LINNEAR	11/11/2022 8:35:25 PM	-0.006017	B02

Shipping and Receiving Documents

Chain of Custody

PASI Minnesota Laboratory

Pace Analytical
www.pacelabs.com

Workorder: 10633981 **Workorder Name:** D3631600 **Results Requested By:** 12/2/2022

Report / Invoice To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700 Email: kongmeng.vang@pacelabs.com	P.O._____ Eurofins Frontier Global Sciences 5755 8th Street East Tacoma, WA 98424

State of Sample Origin: WA

JGFU

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: 9060A TOC												LAB USE ONLY
1	BNSF-J060-SC-8.5-9.5-111422	11/14/2022 10:30	10633981005	Solid	1						X												
2																							
3																							
4																							
5																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-16-22 15:55	KMasa	11/16/22 1740
2				
3				

Comments

Lvl 4 data package
Jacobs UPRR EQ EDD
Report to MDL, non-detects as ND

Cooler Temperature on Receipt °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N

A3 1.9/1.8
SB Bubbles
Fed Ex

580-120212 Chain of Custody

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 580-120212-1

Login Number: 120212
List Number: 1
Creator: Groves, Elizabeth

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 22, 2022

Bernice Kidd
Jacobs Engineering
2525 Air Park Drive
Redding, CA 96001

RE: Project: D3631600
Pace Project No.: 10633992

Dear Bernice Kidd:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kongmeng Vang
kongmeng.vang@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Kris Ivarson, Jacobs
Jennifer Ulrich, Jacobs

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633992

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: D3631600
Pace Project No.: 10633992

Pace Analytical Services National

Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: D3631600
Pace Project No.: 10633992

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10633992001	**BNSF-EB01-111422**	Water	11/14/22 09:30	11/16/22 08:50

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: D3631600
Pace Project No.: 10633992

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10633992001	**BNSF-EB01-111422**	NWTPH-Dx	EB3	4	PASI-M
		EPA 8270E	AMG	33	PAN

PAN = Pace National - Mt. Juliet
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633992

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS LV
Client: BNSF_Jacobs_WA
Date: November 22, 2022

General Information:
1 sample was analyzed for NWTPH-Dx by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: D3631600
Pace Project No.: 10633992

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: BNSF_Jacobs_WA
Date: November 22, 2022

General Information:
1 sample was analyzed for EPA 8270E by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: D3631600
Pace Project No.: 10633992

Sample: BNSF-EB01-111422 **Lab ID: 10633992001** Collected: 11/14/22 09:30 Received: 11/16/22 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510C Pace Analytical Services - Minneapolis								
Diesel Fuel Range	ND	mg/L	0.11	0.032	1	11/16/22 14:58	11/17/22 15:45	68334-30-5	
Motor Oil Range	ND	mg/L	0.11	0.052	1	11/16/22 14:58	11/17/22 15:45		
Surrogates									
o-Terphenyl (S)	62	%.	50-150		1	11/16/22 14:58	11/17/22 15:45	84-15-1	
n-Triacontane (S)	60	%.	50-150		1	11/16/22 14:58	11/17/22 15:45		
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3510C Pace National - Mt. Juliet								
Acenaphthene	ND	ug/L	1.00	0.0886	1	11/19/22 05:17	11/19/22 18:11	83-32-9	G6
Acenaphthylene	ND	ug/L	1.00	0.0921	1	11/19/22 05:17	11/19/22 18:11	208-96-8	G6
Anthracene	ND	ug/L	1.00	0.0804	1	11/19/22 05:17	11/19/22 18:11	120-12-7	G6
Benzo(a)anthracene	ND	ug/L	1.00	0.199	1	11/19/22 05:17	11/19/22 18:11	56-55-3	G6
Benzo(b)fluoranthene	ND	ug/L	1.00	0.130	1	11/19/22 05:17	11/19/22 18:11	205-99-2	G6
Benzo(k)fluoranthene	ND	ug/L	1.00	0.120	1	11/19/22 05:17	11/19/22 18:11	207-08-9	G6
Benzo(g,h,i)perylene	ND	ug/L	1.00	0.121	1	11/19/22 05:17	11/19/22 18:11	191-24-2	G6
Benzo(a)pyrene	ND	ug/L	1.00	0.0381	1	11/19/22 05:17	11/19/22 18:11	50-32-8	G6
Benzoic acid	ND	ug/L	50.0	1.70	1	11/19/22 05:17	11/19/22 18:11	65-85-0	G6
Carbazole	ND	ug/L	10.0	0.111	1	11/19/22 05:17	11/19/22 18:11	86-74-8	G6
Chrysene	ND	ug/L	1.00	0.130	1	11/19/22 05:17	11/19/22 18:11	218-01-9	G6
Dibenz(a,h)anthracene	ND	ug/L	1.00	0.0644	1	11/19/22 05:17	11/19/22 18:11	53-70-3	G6
Dibenzofuran	ND	ug/L	10.0	0.0970	1	11/19/22 05:17	11/19/22 18:11	132-64-9	G6
Fluorene	ND	ug/L	1.00	0.0844	1	11/19/22 05:17	11/19/22 18:11	86-73-7	G6
Fluoranthene	ND	ug/L	1.00	0.102	1	11/19/22 05:17	11/19/22 18:11	206-44-0	G6
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.00	0.279	1	11/19/22 05:17	11/19/22 18:11	193-39-5	G6
1-Methylnaphthalene	ND	ug/L	1.00	0.0790	1	11/19/22 05:17	11/19/22 18:11	90-12-0	G6
2-Methylnaphthalene	ND	ug/L	1.00	0.117	1	11/19/22 05:17	11/19/22 18:11	91-57-6	G6
Phenanthrene	ND	ug/L	1.00	0.112	1	11/19/22 05:17	11/19/22 18:11	85-01-8	G6
Pyrene	ND	ug/L	1.00	0.107	1	11/19/22 05:17	11/19/22 18:11	129-00-0	G6
Naphthalene	ND	ug/L	1.00	0.159	1	11/19/22 05:17	11/19/22 18:11	91-20-3	G6
bis(2-Ethylhexyl)phthalate	ND	ug/L	3.00	0.895	1	11/19/22 05:17	11/19/22 18:11	117-81-7	G6
Di-n-butylphthalate	ND	ug/L	3.00	0.453	1	11/19/22 05:17	11/19/22 18:11	84-74-2	G6
Di-n-octylphthalate	ND	ug/L	3.00	0.932	1	11/19/22 05:17	11/19/22 18:11	117-84-0	G6
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	0.168	1	11/19/22 05:17	11/19/22 18:11		G6
Pentachlorophenol	ND	ug/L	10.0	0.313	1	11/19/22 05:17	11/19/22 18:11	87-86-5	G6
Phenol	ND	ug/L	10.0	4.33	1	11/19/22 05:17	11/19/22 18:11	108-95-2	G6
Surrogates									
2-Fluorophenol (S)	30.2	%	10.0-120		1	11/19/22 05:17	11/19/22 18:11	367-12-4	
Phenol-d5 (S)	20.2	%	10.0-120		1	11/19/22 05:17	11/19/22 18:11	4165-62-2	
Nitrobenzene-d5 (S)	50.6	%	10.0-127		1	11/19/22 05:17	11/19/22 18:11	4165-60-0	
2-Fluorobiphenyl (S)	55.6	%	10.0-130		1	11/19/22 05:17	11/19/22 18:11	321-60-8	
2,4,6-Tribromophenol (S)	78.5	%	10.0-155		1	11/19/22 05:17	11/19/22 18:11	118-79-6	
p-Terphenyl-d14 (S)	84.7	%	10.0-128		1	11/19/22 05:17	11/19/22 18:11	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633992

QC Batch: 1962120
QC Batch Method: 3510C
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 10633992001

METHOD BLANK: R3863446-2 Matrix: Water
Associated Lab Samples: 10633992001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	1.00	0.0886	11/19/22 16:04	
Acenaphthylene	ug/L	ND	1.00	0.0921	11/19/22 16:04	
Anthracene	ug/L	ND	1.00	0.0804	11/19/22 16:04	
Benzo(a)anthracene	ug/L	ND	1.00	0.199	11/19/22 16:04	
Benzo(b)fluoranthene	ug/L	ND	1.00	0.130	11/19/22 16:04	
Benzo(k)fluoranthene	ug/L	ND	1.00	0.120	11/19/22 16:04	
Benzo(g,h,i)perylene	ug/L	ND	1.00	0.121	11/19/22 16:04	
Benzo(a)pyrene	ug/L	ND	1.00	0.0381	11/19/22 16:04	
Benzoic acid	ug/L	ND	50.0	1.70	11/19/22 16:04	
Carbazole	ug/L	ND	10.0	0.111	11/19/22 16:04	
Chrysene	ug/L	ND	1.00	0.130	11/19/22 16:04	
Dibenz(a,h)anthracene	ug/L	ND	1.00	0.0644	11/19/22 16:04	
Dibenzofuran	ug/L	ND	10.0	0.0970	11/19/22 16:04	
Fluorene	ug/L	ND	1.00	0.0844	11/19/22 16:04	
Fluoranthene	ug/L	ND	1.00	0.102	11/19/22 16:04	
Indeno(1,2,3-cd)pyrene	ug/L	ND	1.00	0.279	11/19/22 16:04	
1-Methylnaphthalene	ug/L	ND	1.00	0.0790	11/19/22 16:04	
2-Methylnaphthalene	ug/L	ND	1.00	0.117	11/19/22 16:04	
Phenanthrene	ug/L	ND	1.00	0.112	11/19/22 16:04	
Pyrene	ug/L	ND	1.00	0.107	11/19/22 16:04	
Naphthalene	ug/L	ND	1.00	0.159	11/19/22 16:04	
bis(2-Ethylhexyl)phthalate	ug/L	ND	3.00	0.895	11/19/22 16:04	
Di-n-butylphthalate	ug/L	ND	3.00	0.453	11/19/22 16:04	
Di-n-octylphthalate	ug/L	ND	3.00	0.932	11/19/22 16:04	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	0.168	11/19/22 16:04	
Pentachlorophenol	ug/L	ND	10.0	0.313	11/19/22 16:04	
Phenol	ug/L	ND	10.0	4.33	11/19/22 16:04	
2-Fluorophenol (S)	%	25.3	10.0-120		11/19/22 16:04	
Phenol-d5 (S)	%	16.5	10.0-120		11/19/22 16:04	
Nitrobenzene-d5 (S)	%	47.7	10.0-127		11/19/22 16:04	
2-Fluorobiphenyl (S)	%	47.8	10.0-130		11/19/22 16:04	
2,4,6-Tribromophenol (S)	%	65.5	10.0-155		11/19/22 16:04	
p-Terphenyl-d14 (S)	%	87	10.0-128		11/19/22 16:04	

LABORATORY CONTROL SAMPLE: R3863446-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	50.0	31.0	62.0	41.0-120	
Acenaphthylene	ug/L	50.0	34.4	68.8	43.0-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633992

LABORATORY CONTROL SAMPLE: R3863446-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	ug/L	50.0	38.0	76.0	45.0-120	
Benzo(a)anthracene	ug/L	50.0	44.3	88.6	47.0-120	
Benzo(b)fluoranthene	ug/L	50.0	47.6	95.2	46.0-120	
Benzo(k)fluoranthene	ug/L	50.0	47.1	94.2	46.0-120	
Benzo(g,h,i)perylene	ug/L	50.0	47.5	95.0	48.0-121	
Benzo(a)pyrene	ug/L	50.0	44.9	89.8	47.0-120	
Benzoic acid	ug/L	100	13.6	13.6	10.0-120	
Carbazole	ug/L	50.0	44.0	88.0	51.0-122	
Chrysene	ug/L	50.0	40.9	81.8	48.0-120	
Dibenz(a,h)anthracene	ug/L	50.0	46.7	93.4	47.0-120	
Dibenzofuran	ug/L	50.0	33.1	66.2	44.0-120	
Fluorene	ug/L	50.0	36.8	73.6	47.0-120	
Fluoranthene	ug/L	50.0	42.6	85.2	51.0-120	
Indeno(1,2,3-cd)pyrene	ug/L	50.0	43.4	86.8	49.0-122	
1-Methylnaphthalene	ug/L	50.0	25.3	50.6	33.0-120	
2-Methylnaphthalene	ug/L	50.0	24.0	48.0	33.0-120	
Phenanthrene	ug/L	50.0	39.4	78.8	46.0-120	
Pyrene	ug/L	50.0	42.4	84.8	47.0-120	
Naphthalene	ug/L	50.0	21.8	43.6	27.0-120	
bis(2-Ethylhexyl)phthalate	ug/L	50.0	43.2	86.4	43.0-122	
Di-n-butylphthalate	ug/L	50.0	45.4	90.8	49.0-121	
Di-n-octylphthalate	ug/L	50.0	45.4	90.8	42.0-125	
3&4-Methylphenol(m&p Cresol)	ug/L	50.0	22.6	45.2	31.0-120	
Pentachlorophenol	ug/L	50.0	48.1	96.2	23.0-120	
Phenol	ug/L	50.0	9.99	20.0	10.0-120	
2-Fluorophenol (S)	%			30.3	10.0-120	
Phenol-d5 (S)	%			19.4	10.0-120	
Nitrobenzene-d5 (S)	%			39.9	10.0-127	
2-Fluorobiphenyl (S)	%			59.3	10.0-130	
2,4,6-Tribromophenol (S)	%			87.0	10.0-155	
p-Terphenyl-d14 (S)	%			88.2	10.0-128	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3863446-3 R3863446-4

Parameter	Units	L1559112-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/L	ND	45.5	45.5	30.8	31.4	67.7	69.0	28.0-120	1.93	25	
Acenaphthylene	ug/L	ND	45.5	45.5	33.4	33.5	73.4	73.6	31.0-121	0.299	25	
Anthracene	ug/L	ND	45.5	45.5	33.4	31.7	73.4	69.7	36.0-120	5.22	23	
Benzo(a)anthracene	ug/L	ND	45.5	45.5	36.9	34.9	81.1	76.7	39.0-120	5.57	23	
Benzo(b)fluoranthene	ug/L	ND	45.5	45.5	38.9	35.6	85.5	78.2	37.0-120	8.86	23	
Benzo(k)fluoranthene	ug/L	ND	45.5	45.5	37.1	34.3	81.5	75.4	37.0-120	7.84	26	
Benzo(g,h,i)perylene	ug/L	ND	45.5	45.5	36.3	33.7	79.8	74.1	37.0-123	7.43	25	
Benzo(a)pyrene	ug/L	ND	45.5	45.5	37.8	35.2	83.1	77.4	37.0-120	7.12	24	
Benzoic acid	ug/L	2.30	91.0	91.0	35.4	37.0	36.4	38.1	10.0-120	4.42	40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633992

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		R3863446-3			R3863446-4							
Parameter	Units	L1559112-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Carbazole	ug/L	ND	45.5	45.5	39.3	37.4	86.4	82.2	38.0-127	4.95	21	
Chrysene	ug/L	ND	45.5	45.5	36.7	35.1	80.7	77.1	38.0-120	4.46	23	
Dibenz(a,h)anthracene	ug/L	ND	45.5	45.5	36.4	34.5	80.0	75.8	36.0-121	5.36	24	
Dibenzofuran	ug/L	ND	45.5	45.5	32.8	32.8	72.1	72.1	32.0-120	0.00	26	
Fluorene	ug/L	ND	45.5	45.5	34.6	34.1	76.0	74.9	37.0-120	1.46	24	
Fluoranthene	ug/L	ND	45.5	45.5	39.1	36.3	85.9	79.8	41.0-121	7.43	22	
Indeno(1,2,3-cd)pyrene	ug/L	ND	45.5	45.5	34.9	32.1	76.7	70.5	38.0-125	8.36	24	
1-Methylnaphthalene	ug/L	ND	45.5	45.5	26.4	27.0	58.0	59.3	11.0-120	2.25	27	
2-Methylnaphthalene	ug/L	ND	45.5	45.5	24.8	25.4	54.5	55.8	17.0-120	2.39	28	
Phenanthrene	ug/L	ND	45.5	45.5	35.9	34.4	78.9	75.6	33.0-120	4.27	22	
Pyrene	ug/L	ND	45.5	45.5	37.8	36.2	83.1	79.6	39.0-120	4.32	22	
Naphthalene	ug/L	ND	45.5	45.5	22.2	23.1	48.8	50.8	10.0-120	3.97	31	
bis(2-Ethylhexyl)phthalate	ug/L	ND	45.5	45.5	38.3	35.6	84.2	78.2	33.0-126	7.31	25	
Di-n-butylphthalate	ug/L	ND	45.5	45.5	41.6	38.7	91.4	85.1	35.0-128	7.22	23	
Di-n-octylphthalate	ug/L	ND	45.5	45.5	39.1	36.3	85.9	79.8	25.0-135	7.43	26	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	45.5	45.5	18.3	16.8	40.2	36.9	10.0-120	8.55	36	
Pentachlorophenol	ug/L	ND	45.5	45.5	41.5	39.2	91.2	86.2	10.0-128	5.70	37	
Phenol	ug/L	ND	45.5	45.5	9.07	9.06	19.9	19.9	10.0-120	0.110	40	
2-Fluorophenol (S)	%						28.6	28.5	10.0-120			
Phenol-d5 (S)	%						18.5	19.3	10.0-120			
Nitrobenzene-d5 (S)	%						53.3	56.2	10.0-127			
2-Fluorobiphenyl (S)	%						67.8	70.7	10.0-130			
2,4,6-Tribromophenol (S)	%						85.2	77.5	10.0-155			
p-Terphenyl-d14 (S)	%						82.2	76.7	10.0-128			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: D3631600
Pace Project No.: 10633992

QC Batch: 853897
QC Batch Method: EPA 3510C
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS LV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10633992001

METHOD BLANK: 4514826 Matrix: Water
Associated Lab Samples: 10633992001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	mg/L	ND	0.40	0.12	11/17/22 15:11	
Motor Oil Range	mg/L	0.30J	0.40	0.19	11/17/22 15:11	
n-Triacontane (S)	%.	56	50-150		11/17/22 15:11	
o-Terphenyl (S)	%.	65	50-150		11/17/22 15:11	

LABORATORY CONTROL SAMPLE & LCSD: 4514827 4514828

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	mg/L	2	1.5	1.5	75	76	50-150	1	20	
Motor Oil Range	mg/L	2	1.7	1.7	85	86	50-150	0	20	
n-Triacontane (S)	%.				63	70	50-150			
o-Terphenyl (S)	%.				77	78	50-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: D3631600
Pace Project No.: 10633992

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

G6	An aliquot for analysis was taken from the original container received due to volume requirements of the laboratory's procedure. Rinsing of the original sample container for inclusion in the sample extraction was not performed.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: D3631600
Pace Project No.: 10633992

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10633992001	**BNSF-EB01-111422**	EPA 3510C	853897	NWTPH-Dx	854341
10633992001	**BNSF-EB01-111422**	3510C	1962120	EPA 8270E	1962120

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

10633992

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: JACOBS	Billing Information: SEE CONTRACT
Address: 2020 SW 4th AVE STE300 PDX OR 97201	
Report To: BERNEY KIDD	Email To: BERNICE.KIDD@JACOBS.COM ERIS.IVARSON@JACOBS.COM
Copy To: KRIS IVARSON	Site Collection Info/Address: WISHRAM BNSF PH 2
Customer Project Name/Number: D3631600	State: WA County/City: WISHRAM Time Zone Collected: [X] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: BNSF WISHRAM Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: STD Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Container Preservative Type **	Analyses: NWTPH-DX	Analyses: SVOC 8270	Analyses: PAH 8270 SIM
									3 U U			
BNSF-EB01-111422	AQ	GRAB			11/14/22	0930		6		X	X	X

Lab Profile/Line: 001

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

WO#: 10633992

10633992

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2743846

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

Relinquished by/Company: (Signature) LAURA TOCHKO JACOBS	Date/Time: 11/14/22 1700	Received by/Company: (Signature) / PACE	Date/Time: 11.16.22 8:50
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

15 of 522

Sample Condition Upon Receipt

Client Name: Jacobs

Project #: WO#: 10633992
PM: KV Due Date: 12/09/22
CLIENT: BNSF_Jacobs

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 390637117650 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☒ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 1.1 °C

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** 1.2 °C

Average Corrected Temp (no temp blank only): ____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: ____) **Date/Initials of Person Examining Contents:** ED 11·16·22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia

				COMMENTS
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other ____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** 4 AGIU, 2 AGIH ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☒ Yes	☐ No	☐ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: ____ Date/Time: ____

Comments/Resolution: ____

Project Manager Review: ____ **Date:** 11/17/22

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: ED **Line:** 2

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10633992

Table Of Contents

Organic

GC-FID DRO

GC-FID DRO - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633992 Contract: D3631600

Instrument ID: 10GCSF

LAB SAMPLE ID	SAMPLE NAME	NTCS	OTER
4514826	4514826BLANK	56	65
4514827	4514827LCS	63	77
4514828	4514828LCSD	70	78
10633992001	BNSF-EB01-111422	60	62

	QC LIMITS
(NTCS) = n-Triacontane (S)	(50-150)
(OTER) = o-Terphenyl (S)	(50-150)

* Values outside of QC Limits

GC-FID DRO - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Minnesota
Lab Sample ID: 4514827LCS
Date Extracted: 11/16/2022
Date Analyzed (1): 11/17/2022
Instrument: 10GCSF
LCS Lot No: 389587
Lab File ID: 111722R.B\1117R0000024.D
SDG No.: 10633992

COMPOUND	AMOUNT ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS %REC	QC LIMITS REC.
Diesel Fuel Range	2.0	1.5	75	50-150
Motor Oil Range	2.0	1.7	85	50-150

Spike Recovery: 0 out of 2 outside limits.

GC-FID DRO - FORM III SVOA-2
WATER LABORATORY CONTROL SAMPLE RECOVERY

Instrument ID (2): 10GCSF
Lab Sample ID (2): 4514828LCSD
Date Analyzed 11/17/2022
Lab File ID (2): 111722R.B\1117R0000025.D

COMPOUND	AMOUNT ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Diesel Fuel Range	2.0	1.5	76	1	0-20	50-150
Motor Oil Range	2.0	1.7	86	0	0-20	50-150

RPD: 0 out of 2 outside limits.
Spike Recovery: 0 out of 2 outside limits.

SAMPLE NO.

4514826BLANK

GC-FID DRO - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Minnesota SDG No.: 10633992 Contract: D3631600

Instrument ID: 10GCSF Matrix: Water Lab Sample ID: 4514826

Lab File ID: 111722R.B\1117R0000023.D Date Analyzed: 11/17/2022 Time: 15:11

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
4514827LCS	4514827	111722R.B\1117R0000024.D	11/17/2022 15:22
4514828LCSD	4514828	111722R.B\1117R0000025.D	11/17/2022 15:34
BNSF-EB01-111422	10633992001	111722R.B\1117R0000026.D	11/17/2022 15:45

SAMPLE NO.

BNSF-EB01-111422

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received: 11/16/2022 08:50
Matrix: Water SDG No.: 10633992
Date Extracted: 11/16/2022 14:58
Lab Sample ID: 10633992001
Date Analyzed: 11/17/2022 15:45
Lab File ID: 111722R.B\1117R0000026.D
Initial wt/vol: 920 mL Final wt/vol: 1 mL Dilution: 1
Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	ND	U

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000026.d
Lab Smp Id: 10633992001 Client Smp ID: BNSF-EB01-111422
Inj Date : 17-NOV-2022 15:45
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 10633992001
Misc Info : 41065
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf *Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Vo	920.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)		REVIEW CODE
S 1 DRO by AK 102							CAS #:	
	0.885	- 3.600		349410			(M)	RNG
$ 2 o-Terphenyl (S)							CAS #:	
	2.732	2.731	0.001	202969	30.8979	33.6	(RM)	BA
$ 3 n-Triacontane (S)							CAS #:	
	4.276	4.272	0.004	159255	30.2139	32.8	(M)	BA
S 4 Residual Range Organics AK103							CAS #:	
	3.601	- 5.160		138430	6.46871	7.03	(M)	RNG
S 5 TPH-DRO (C10-C28)							CAS #:	
	0.885	- 4.210		398120			(M)	RNG
S 6 Motor Oil Range (C24-C36)							CAS #:	
	3.450	- 5.160		151996	5.57082	6.06	(M)	RNG
S 7 C10-C36							CAS #:	
	0.885	- 5.160		487841	4.84166	5.26	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	REVIEW CODE
S 8 Diesel Fuel Range					CAS #:	
1.350	- 3.650		307436			(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350	- 3.650		307436			(M) RNG
S 10 Motor Oil Range					CAS #:	
3.651	- 6.050		222950	18.6245	20.2	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.651	- 6.050		222950	18.6245	20.2	(M) RNG

QC Flag Legend

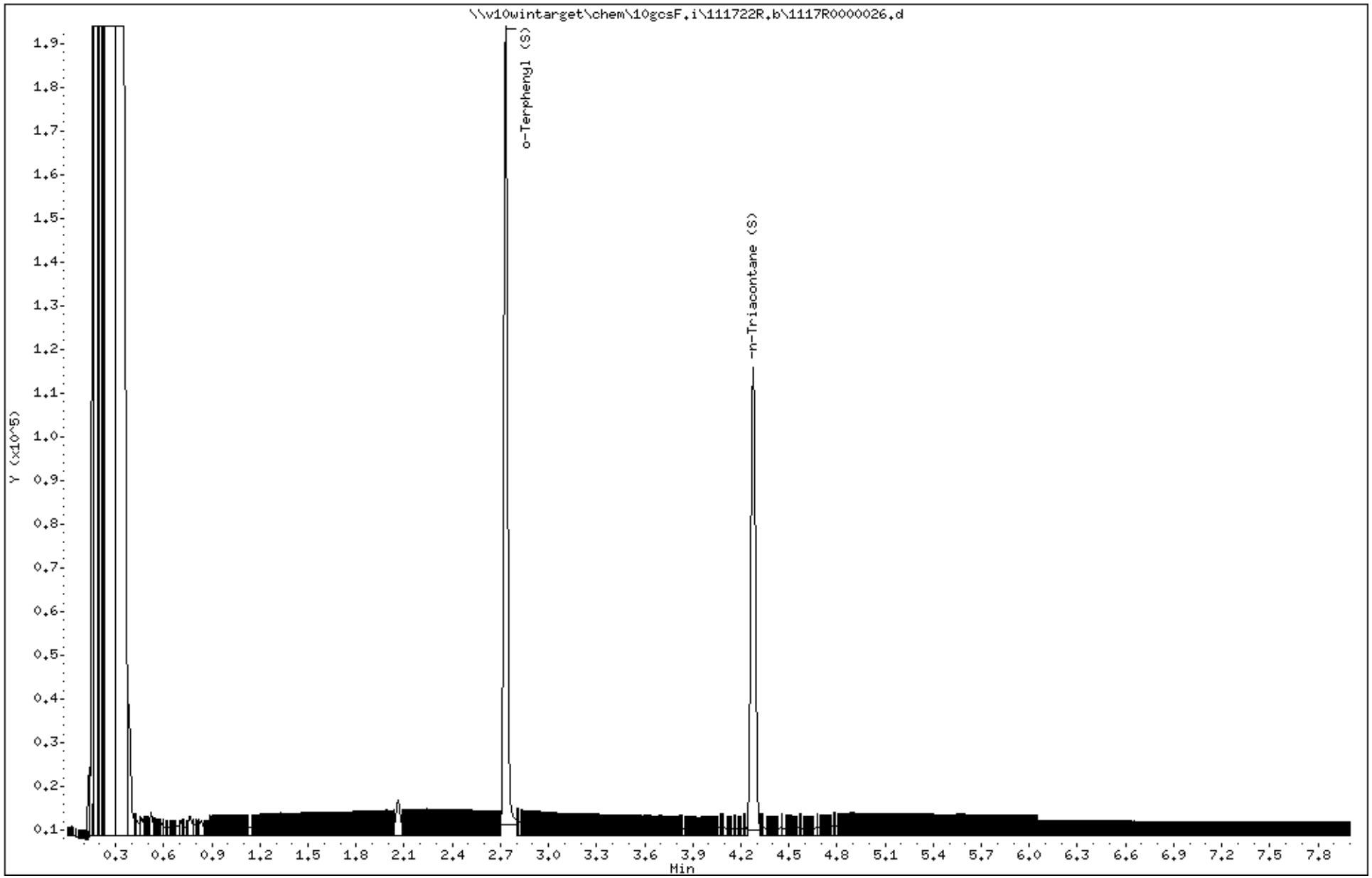
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000026.d
Date : 17-NOV-2022 15:45
Client ID: BNSF-EB01-111422
Sample Info: 10633992001
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



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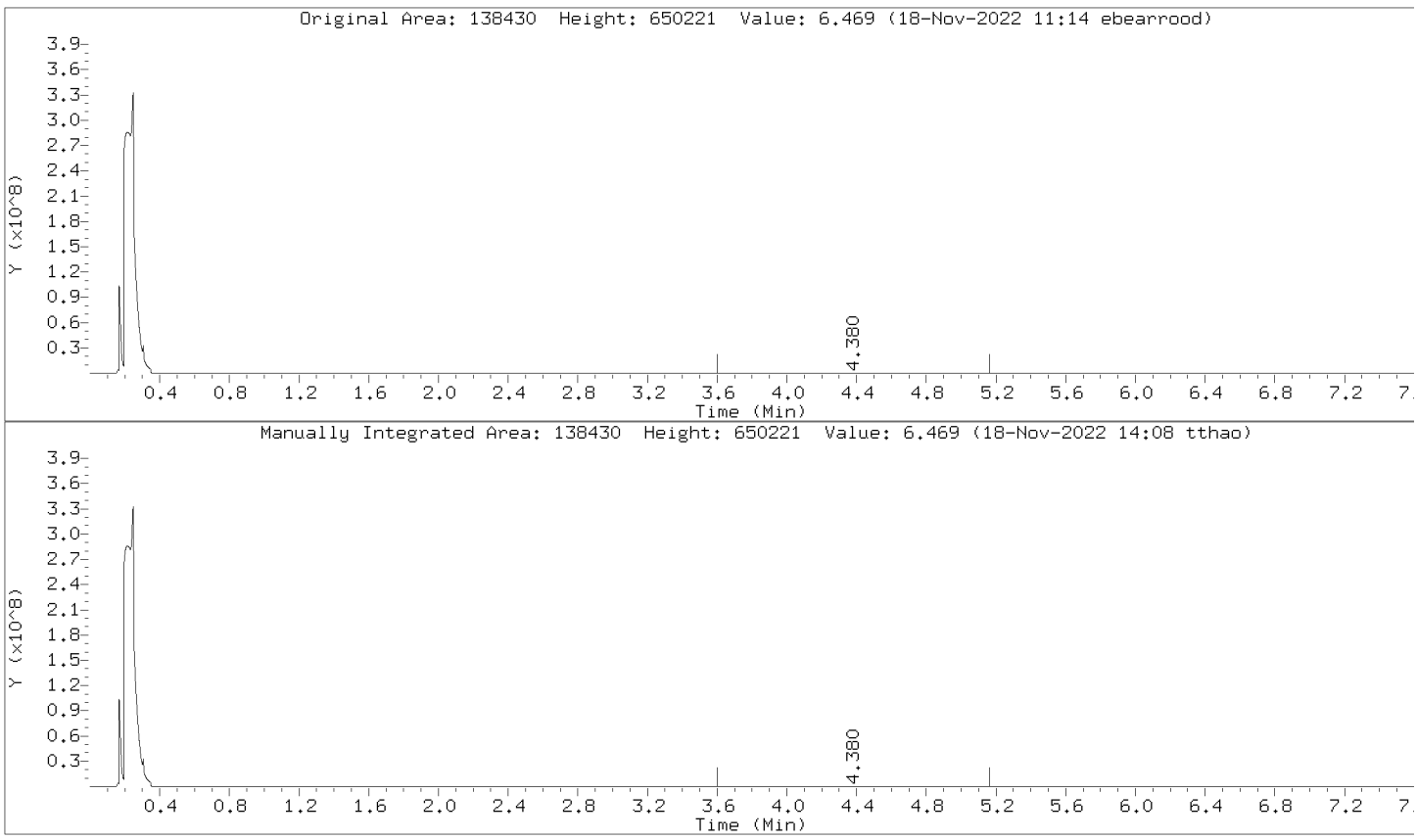
Injection Date: 17-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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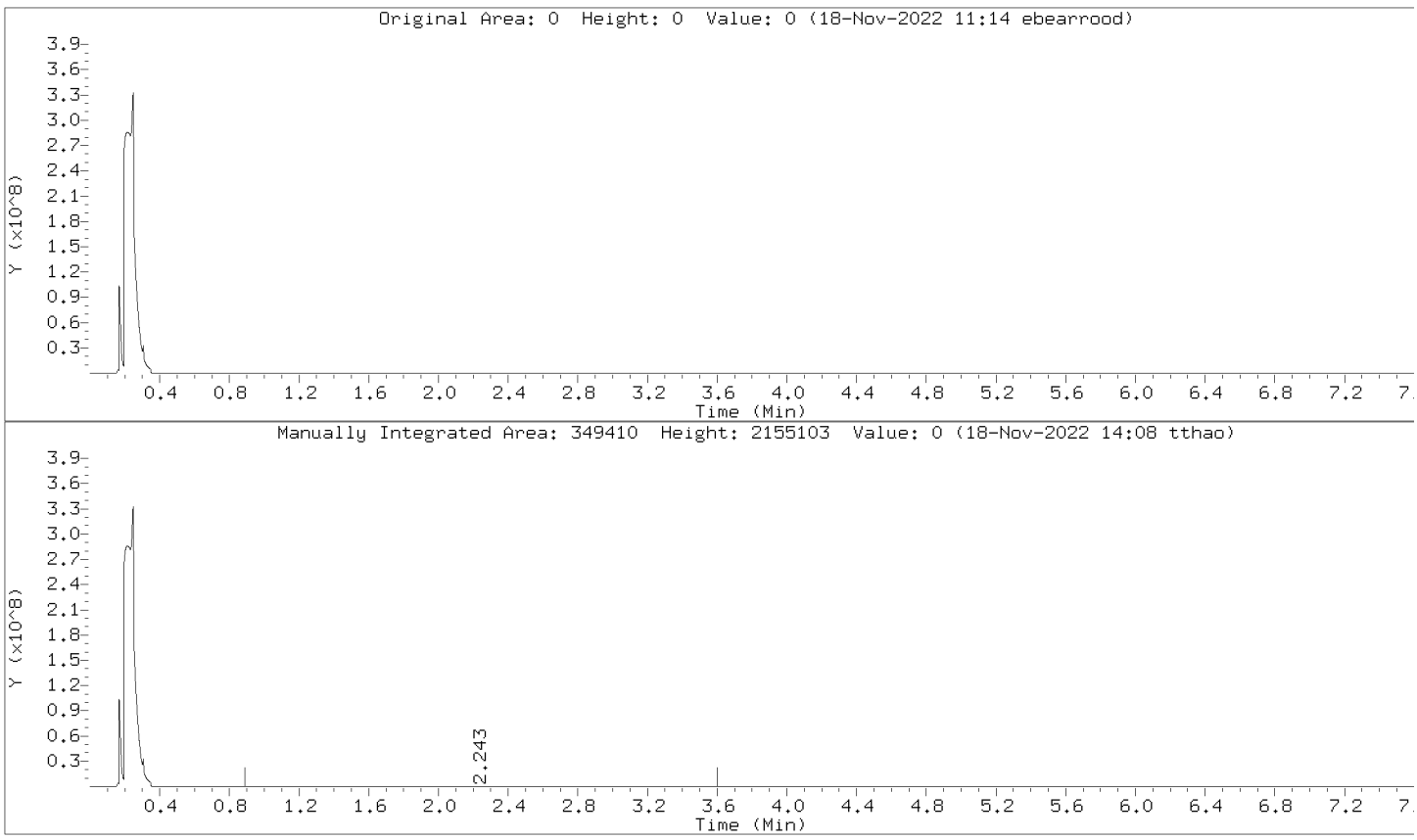
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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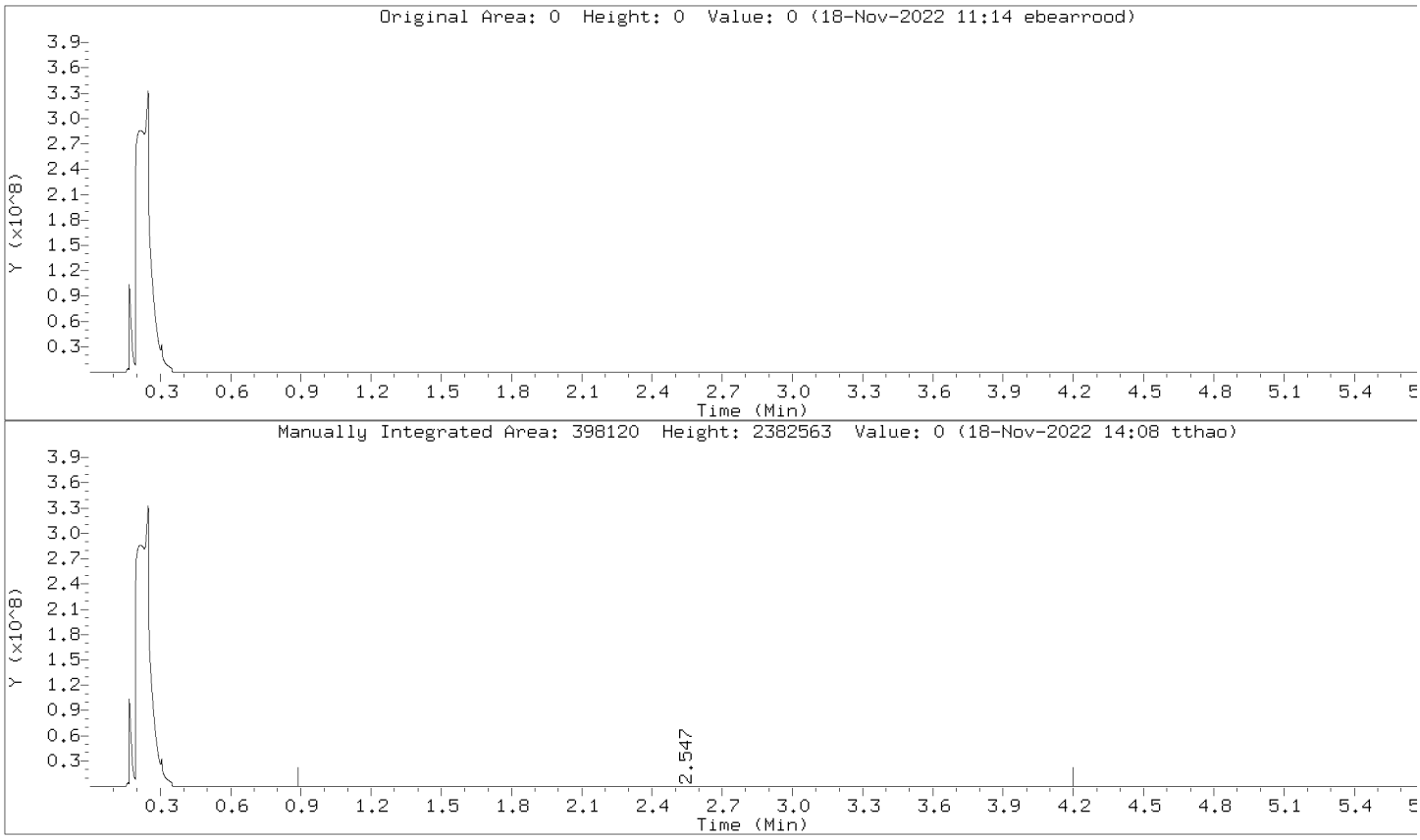
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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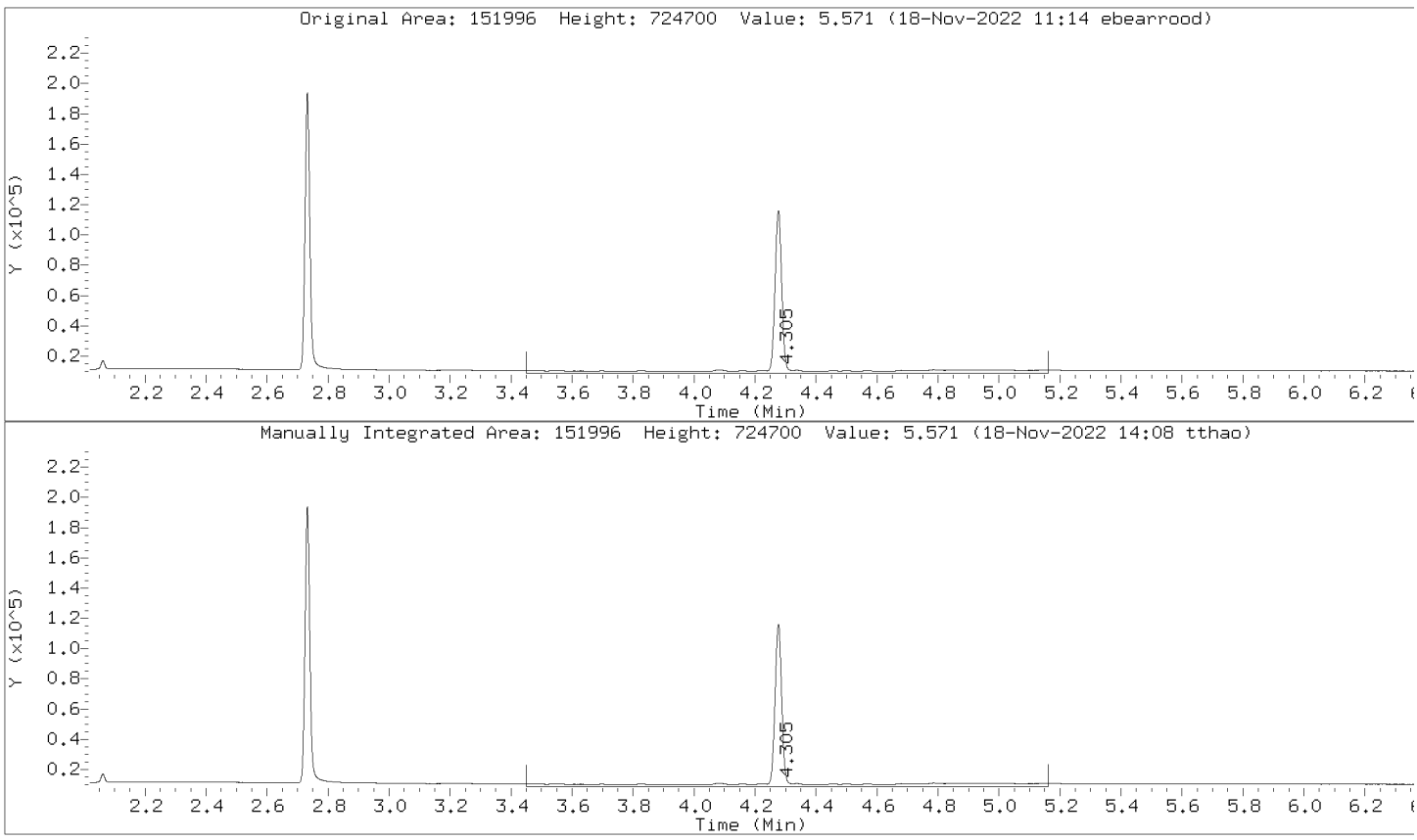
Injection Date: 17-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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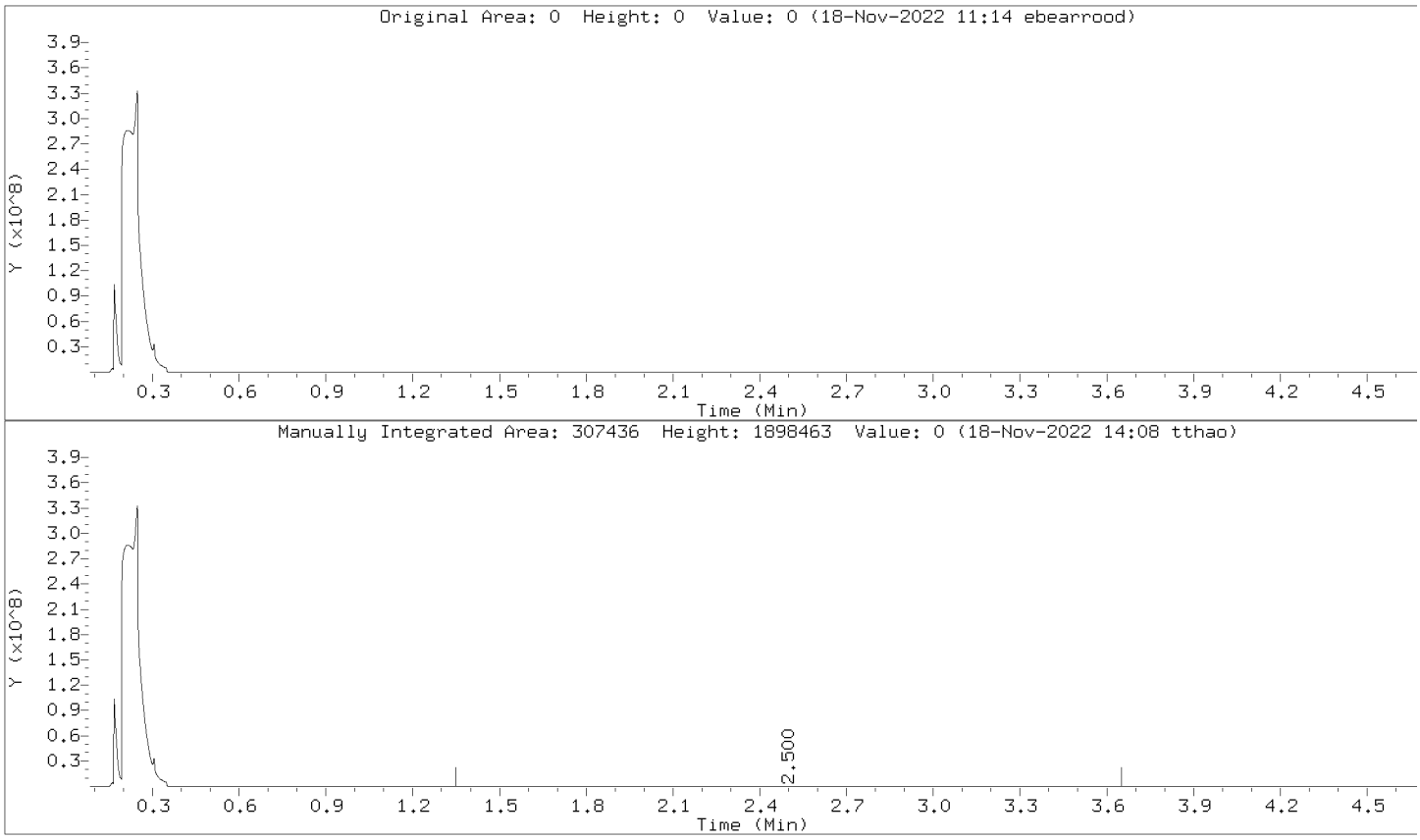
Injection Date: 17-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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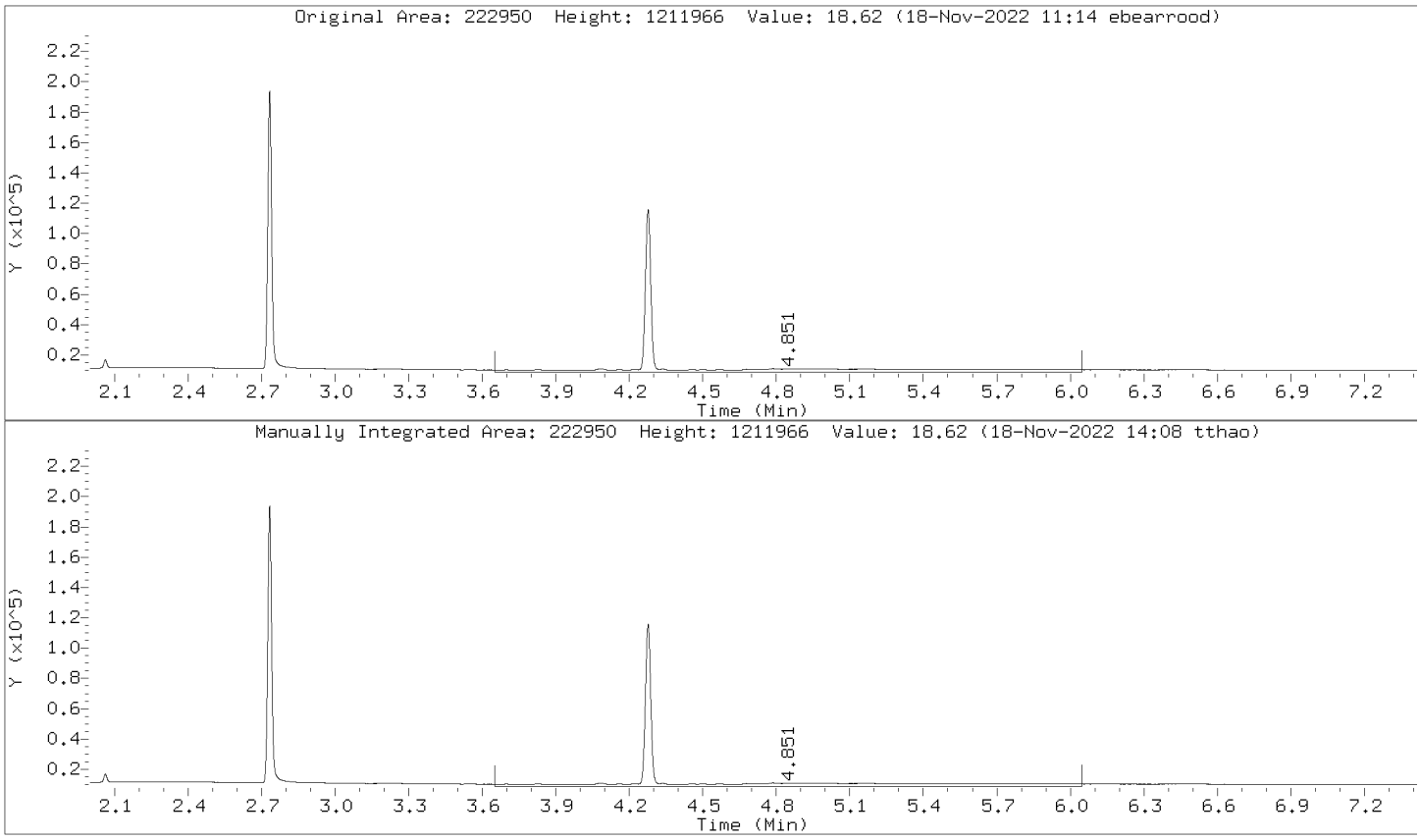
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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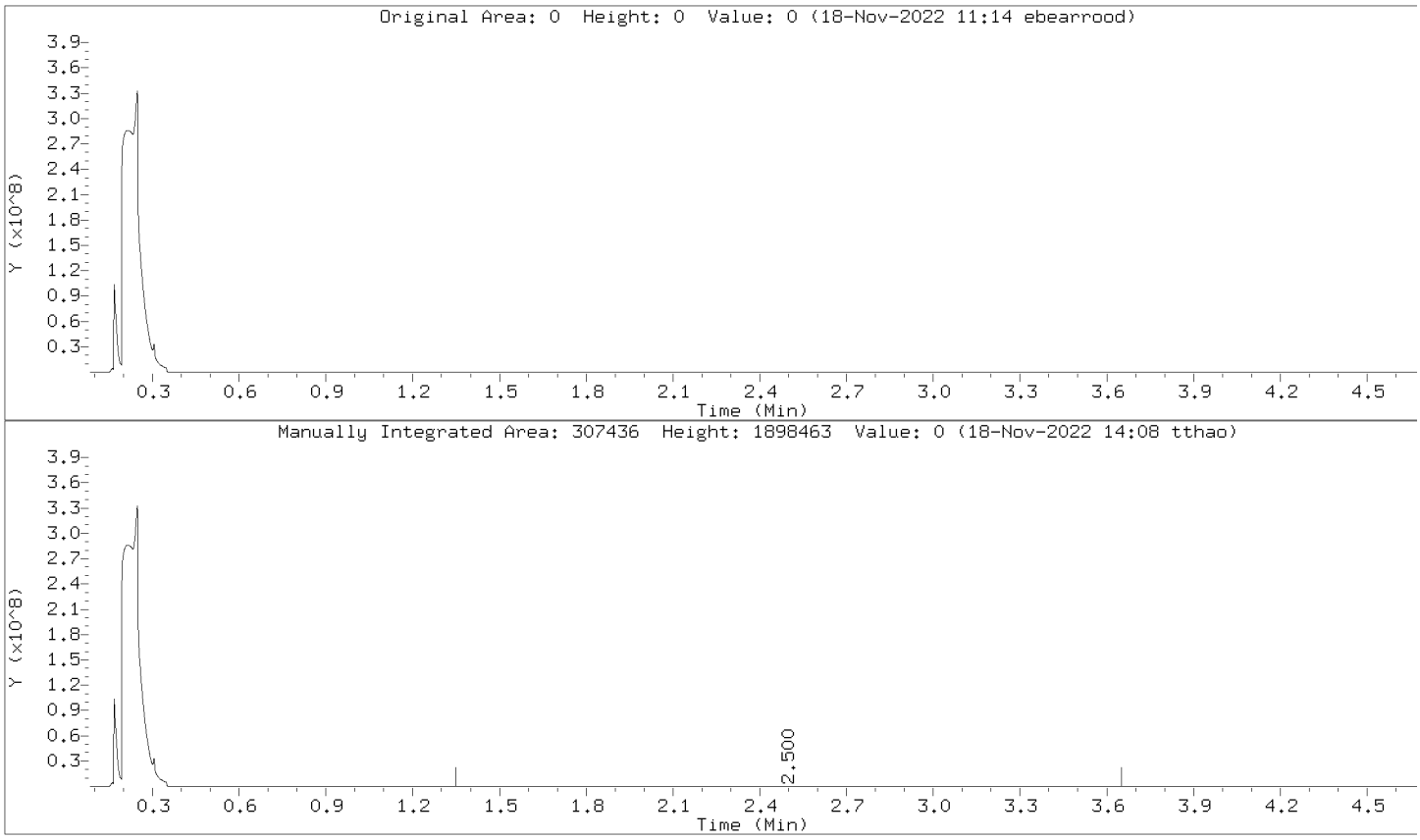
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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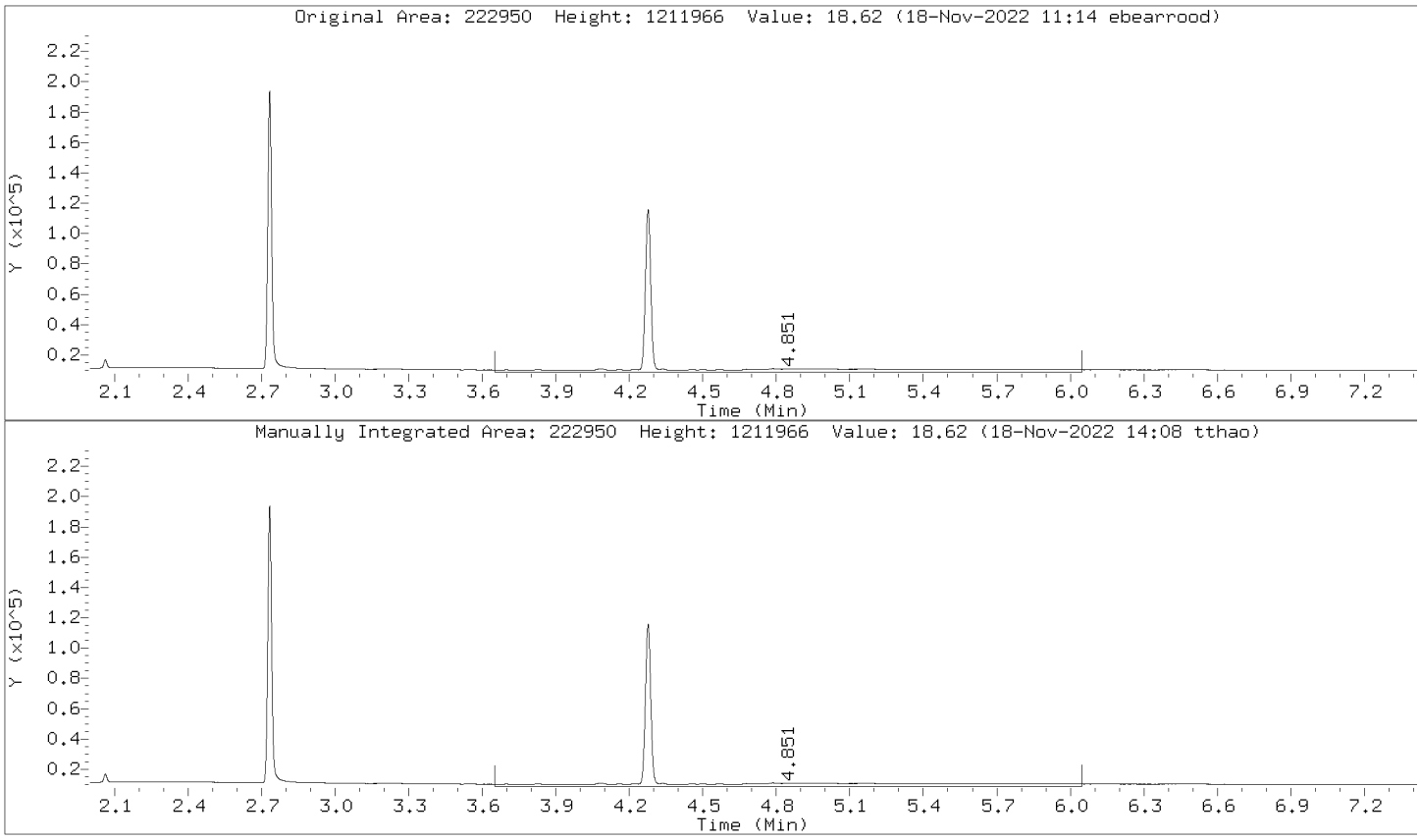
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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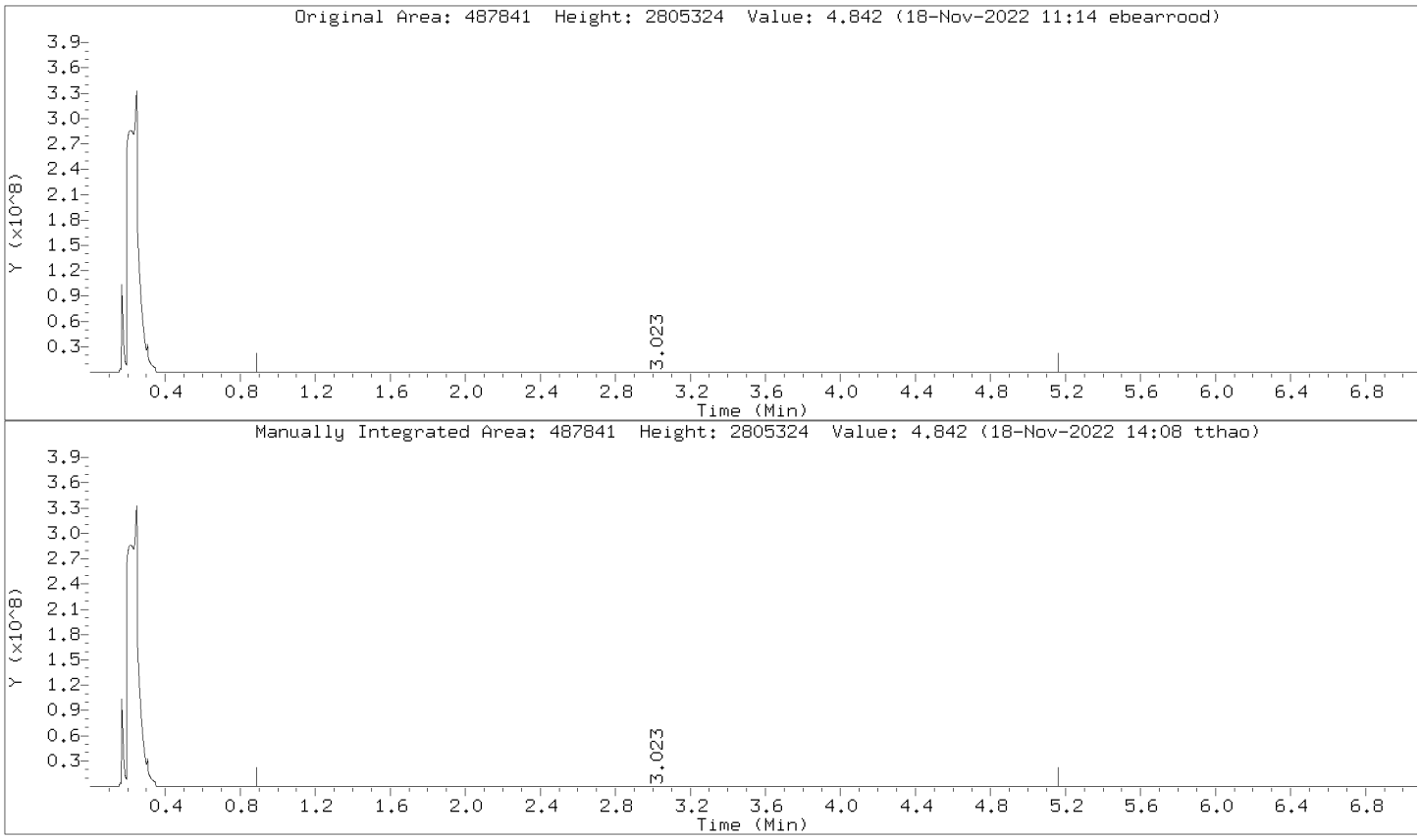
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: C10-C36 Review Code: RNG
CAS Number:



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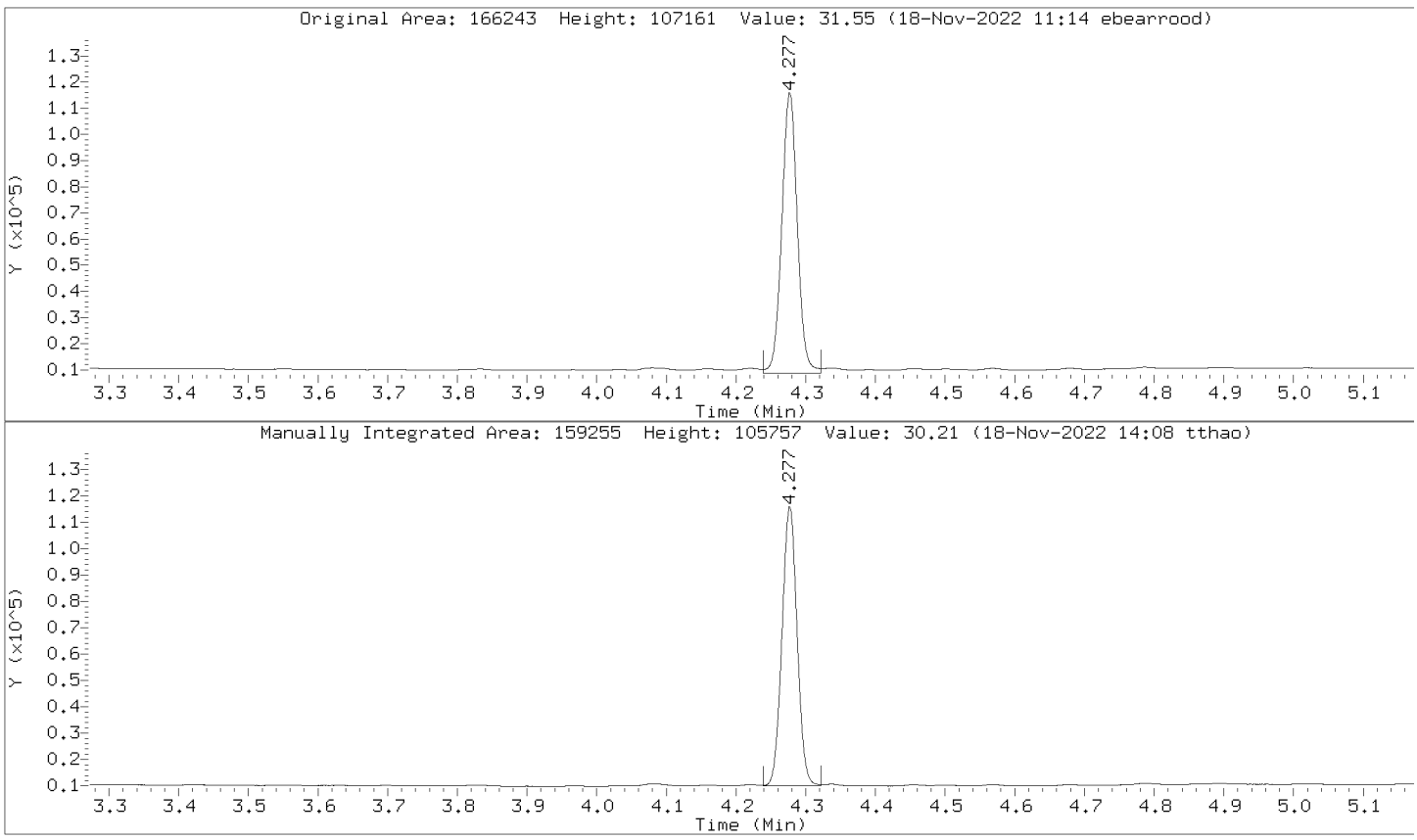
Injection Date: 17-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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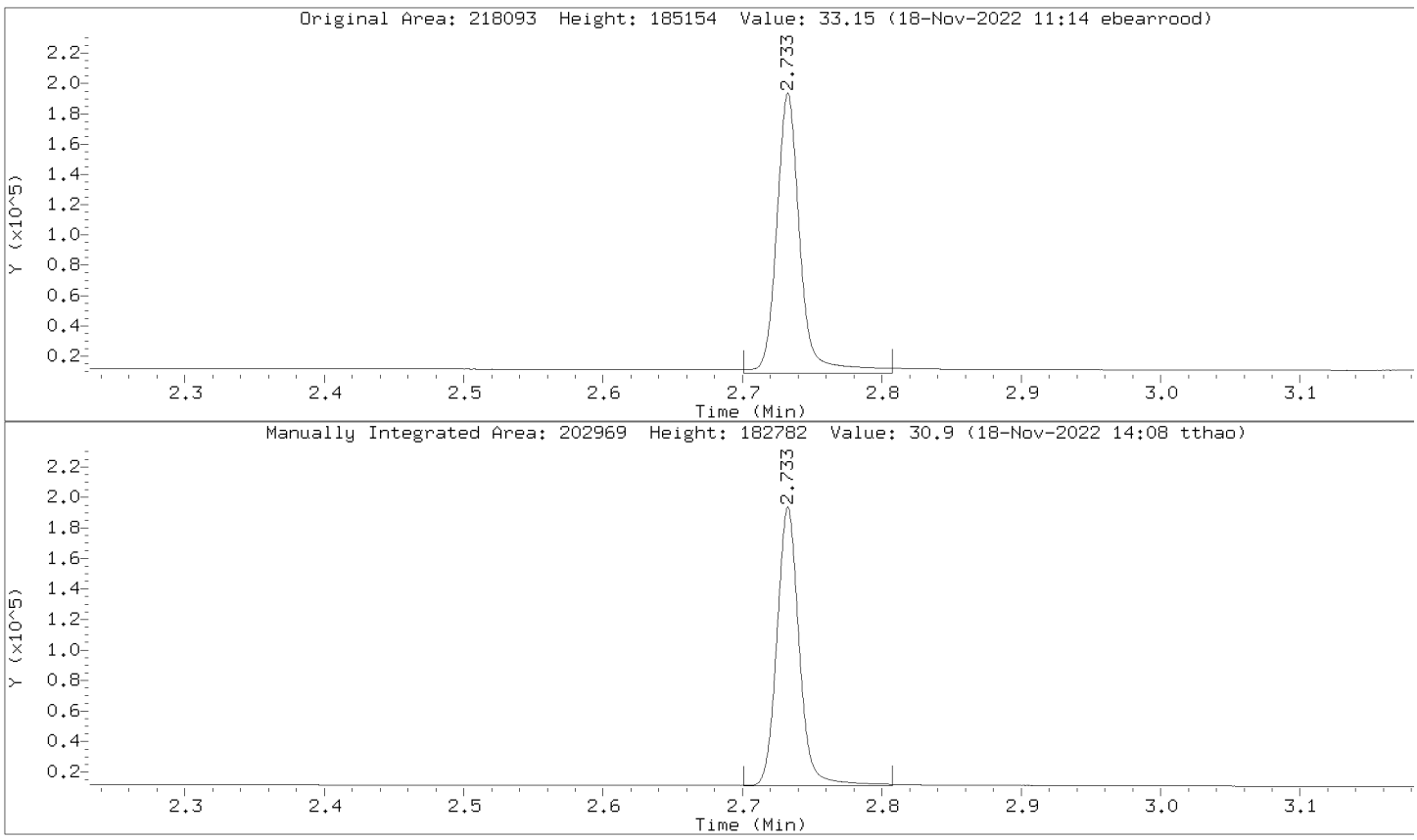
Injection Date: 17-NOV-2022 15:45
Instrument: 10gcsF.i
Lab Sample ID: 10633992001

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138430	138430
DRO by AK 102	0	349410
TPH-DRO (C10-C28)	0	398120
Motor Oil Range (C24-C36)	151996	151996
Diesel Fuel Range	0	307436
Motor Oil Range	222950	222950
Diesel Fuel Range SG	0	307436
Motor Oil Range SG	222950	222950
C10-C36	487841	487841
n-Triacontane (S)	166243	159255
o-Terphenyl (S)	218093	202969

GC-FID DRO - FORM VI SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633992

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Diesel Fuel Range	Linear	55934.5000	34693.7000	16655.6000	11103.4200	7744.8900	6008.9800
Motor Oil Range	Linear	30585.1666	17248.8000	9729.9200	7537.2800	5647.4300	4932.5080
n-Triacontane (S)	Linear	4493.3333	4668.0000	4983.2000	5353.6000	5095.4000	5385.4000
o-Terphenyl (S)	Linear	4613.3333	4960.0000	5839.6000	6308.2000	6322.1000	6515.0800

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-2
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633992

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10
Diesel Fuel Range	Linear	5373.0240	5136.8810	4901.7780	4844.3890
Motor Oil Range	Linear	4645.3880	4575.5780	4443.3870	4425.0935
n-Triacontane (S)	Linear	5202.3400	5322.3400	5255.8700	5206.0675
o-Terphenyl (S)	Linear	6558.5400	6678.8400	6605.1100	6716.6425

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

GC-FID DRO - FORM VI SVOA-3
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Instrument ID: 10GCSF GC Column: FID SDG No.: 10633992

Calibration Date(s): 11/10/2022 11/10/2022 Calibration Time(s): 08:04 14:05

LAB FILE ID

CAL1 = 111022R.B\1110R0000005.D CAL2 = 111022R.B\1110R0000006.D CAL3 = 111022R.B\1110R0000007.D
CAL4 = 111022R.B\1110R0000008.D CAL5 = 111022R.B\1110R0000009.D CAL6 = 111022R.B\1110R0000010.D
CAL7 = 111022R.B\1110R0000019.D CAL8 = 111022R.B\1110R0000012.D CAL9 = 111022R.B\1110R0000013.D
CAL10 = 111022R.B\1110R0000014.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Diesel Fuel Range	Linear		0.99998	308697.858	4766.19637	
Motor Oil Range	Linear		0.99999	141220.671	4388.26272	
n-Triacontane (S)	Linear		0.99995	1689.36305	5215.00739	
o-Terphenyl (S)	Linear		0.99995	-4267.2181	6707.12528	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

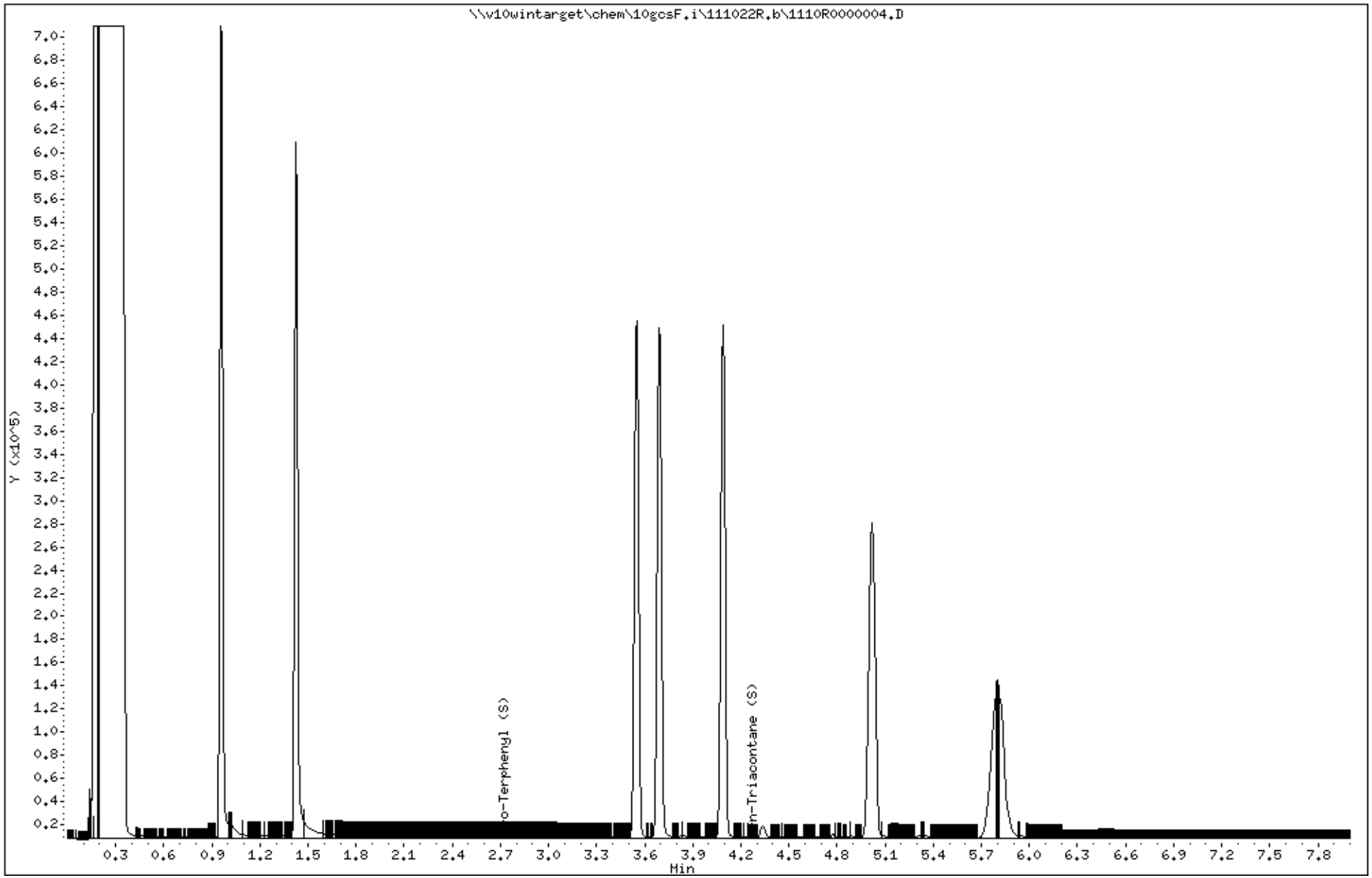
AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 10-NOV-2022 07:52
Operator : TT2 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10SVOA-TT

				CONCENTRATIONS ON-COL	FINAL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.880 - 3.600			2108709			
$ 2 o-Terphenyl (S)					CAS #:	
2.730	2.733	-0.003	558			
$ 3 n-Triacontane (S)					CAS #:	
4.273	4.275	-0.002	133			
S 4 Residual Range Organics AK103					CAS #:	
3.610 - 5.200			2005315			
S 5 TPH-DRO (C10-C28)					CAS #:	
0.880 - 4.219			3399190			
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450 - 5.200			2635115			
S 7 C10-C36					CAS #:	
0.880 - 5.200			4114949			
S 8 Diesel Fuel Range					CAS #:	
1.350 - 3.650			1498770			
S 9 Diesel Fuel Range SG					CAS #:	
1.350 - 3.650			1498770			
S 10 Motor Oil Range					CAS #:	
3.660 - 6.000			2695751			
S 11 Motor Oil Range SG					CAS #:	
3.660 - 6.000			2695751			

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000004.D
Date : 10-NOV-2022 07:52
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: TT2
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000004.D
Injection Date: 10-NOV-2022 07:52
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Lab Smp Id: DMO-CAL1,391056:2 Client Smp ID: DMO-CAL1,391056:2
Inj Date : 10-NOV-2022 08:04
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal1,391056:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		380194	6.00000	5.13	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	2768	0.60000	1.05	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	2696	0.60000	0.193	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		148382	6.00000	9.23	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		434865	6.00000	5.30	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		166014	6.00000	9.29	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		529344	12.0000	13.8	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		335607	6.00000	5.64	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		183511	6.00000	9.64	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

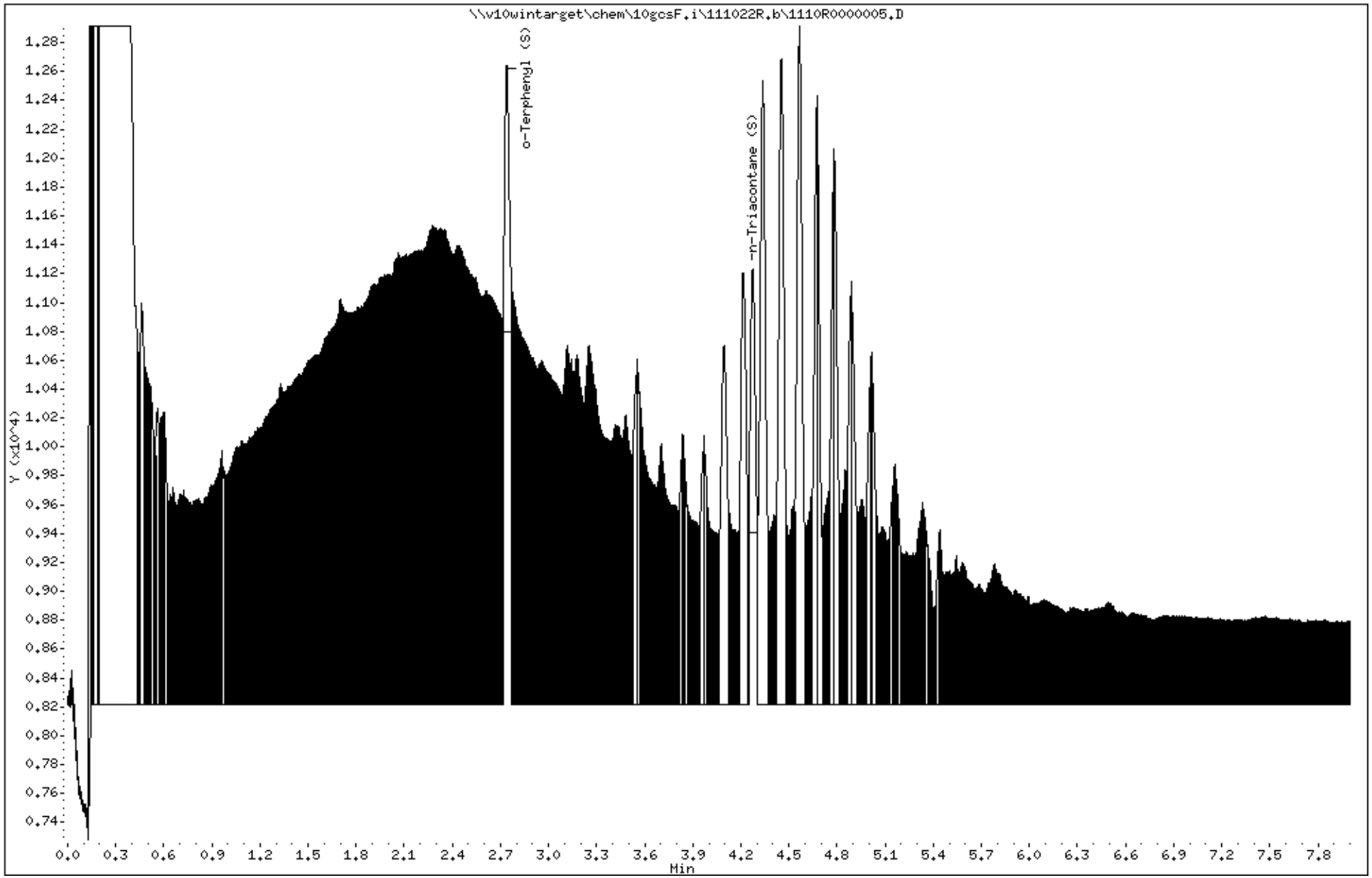
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000005.D
Date : 10-NOV-2022 08:04
Client ID: DMO-CAL1,391056:2
Sample Info: DMO-CAL1,391056:2

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



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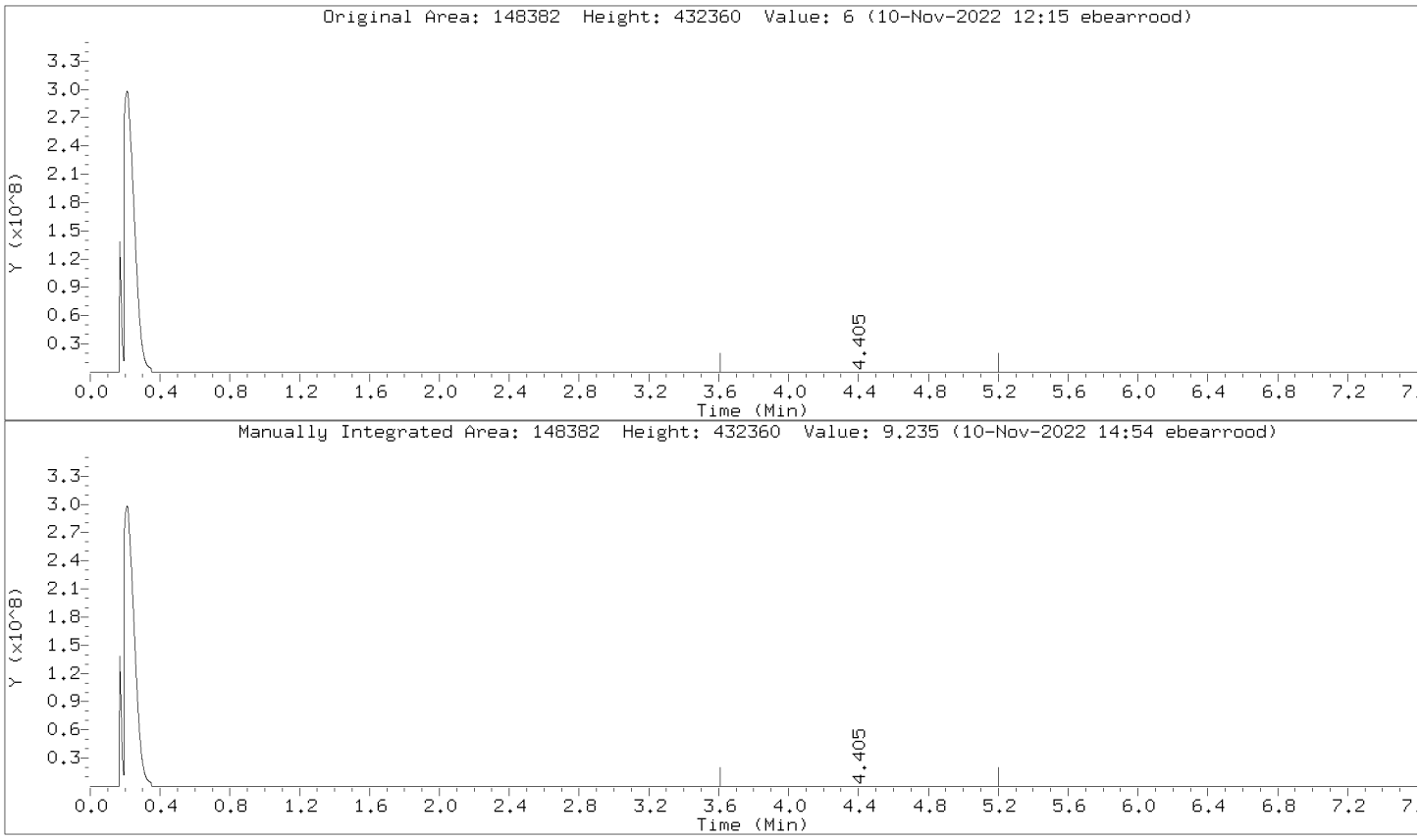
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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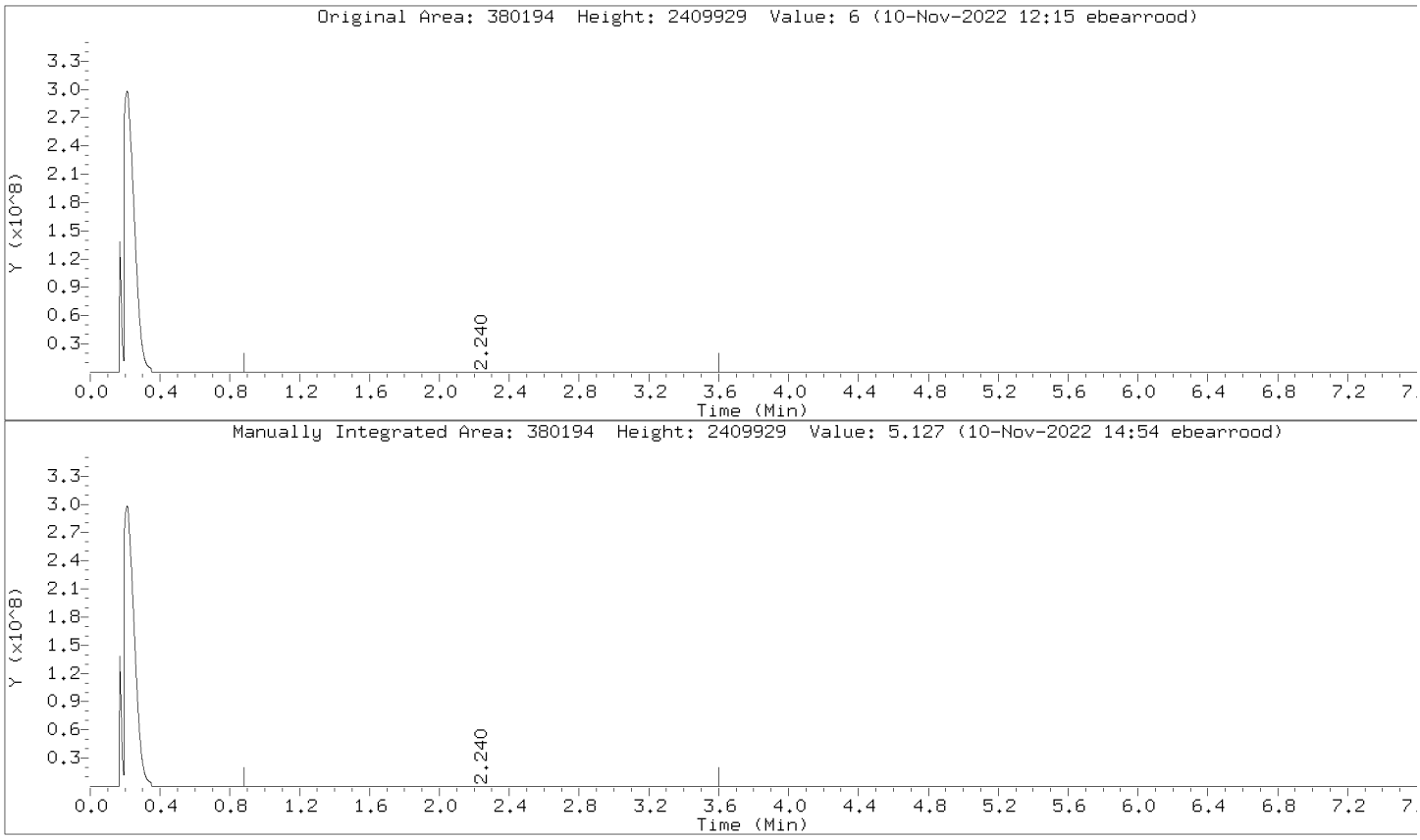
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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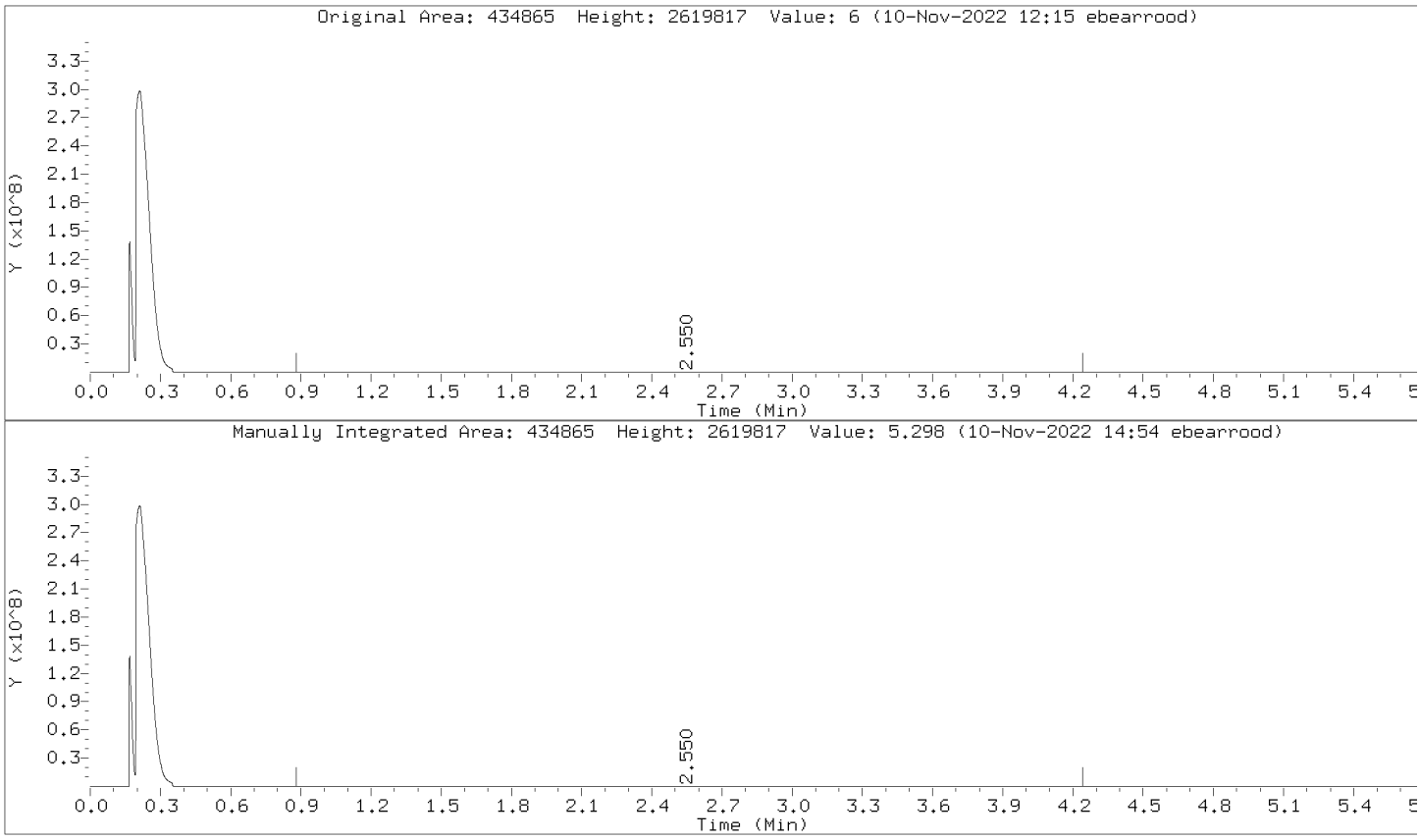
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



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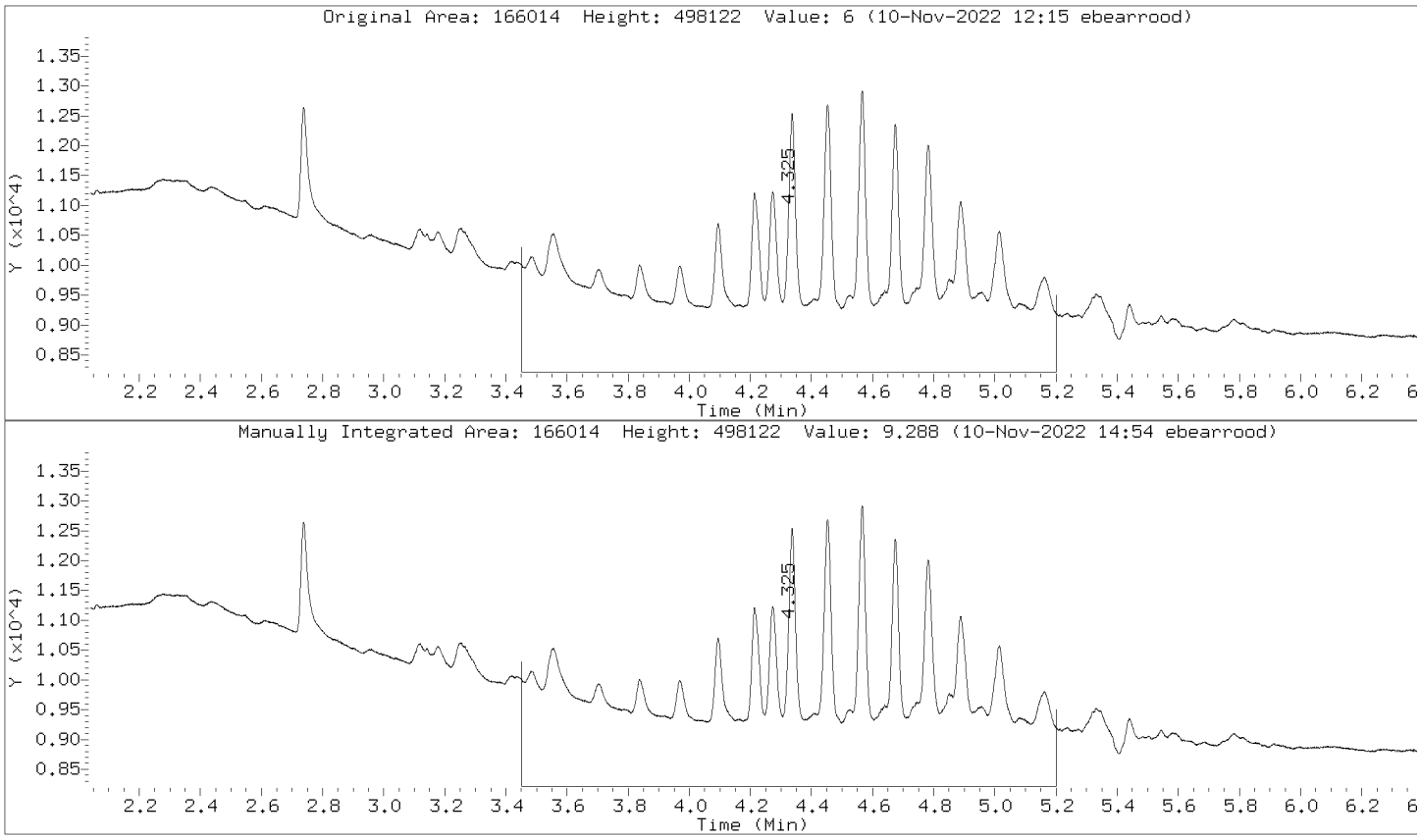
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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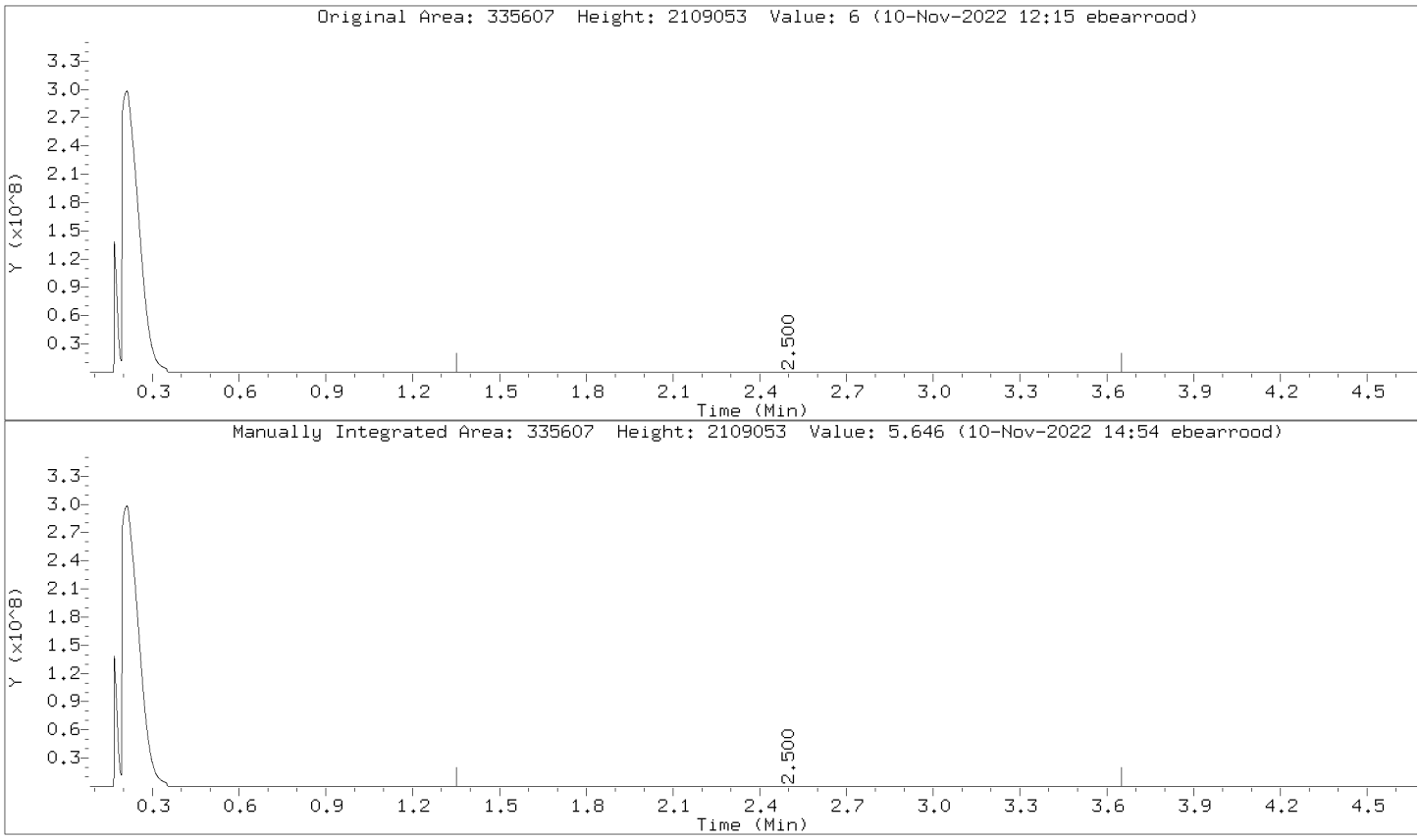
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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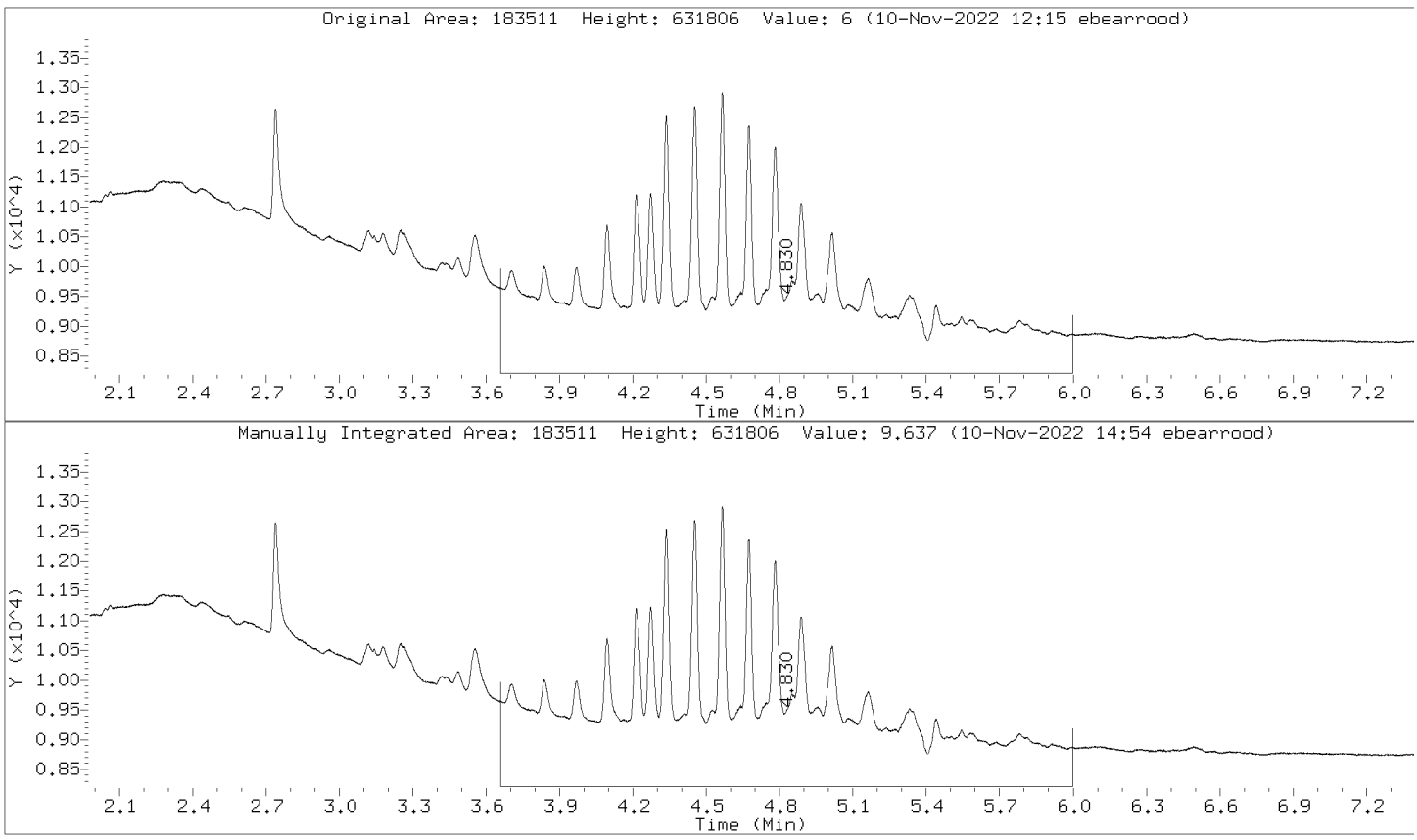
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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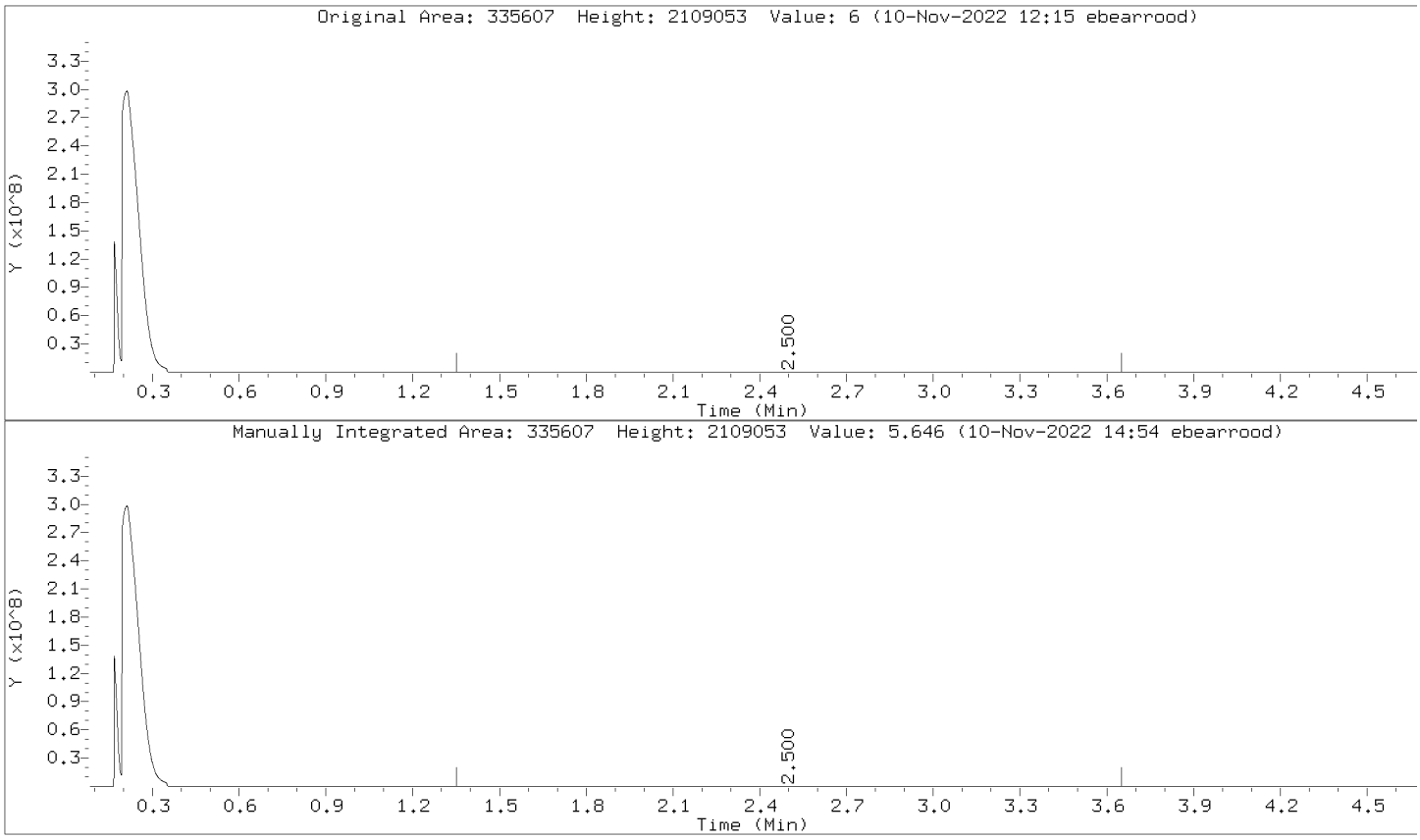
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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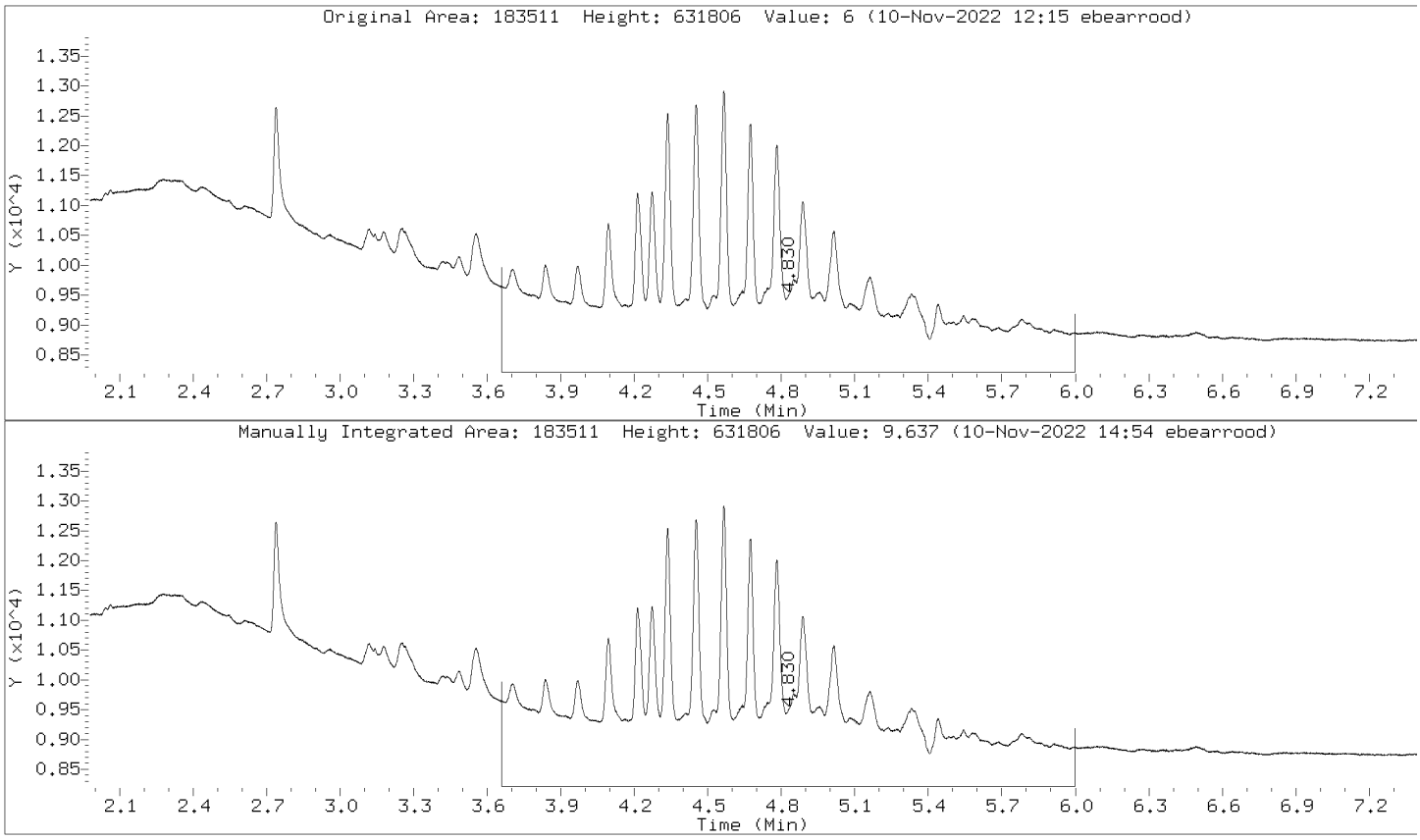
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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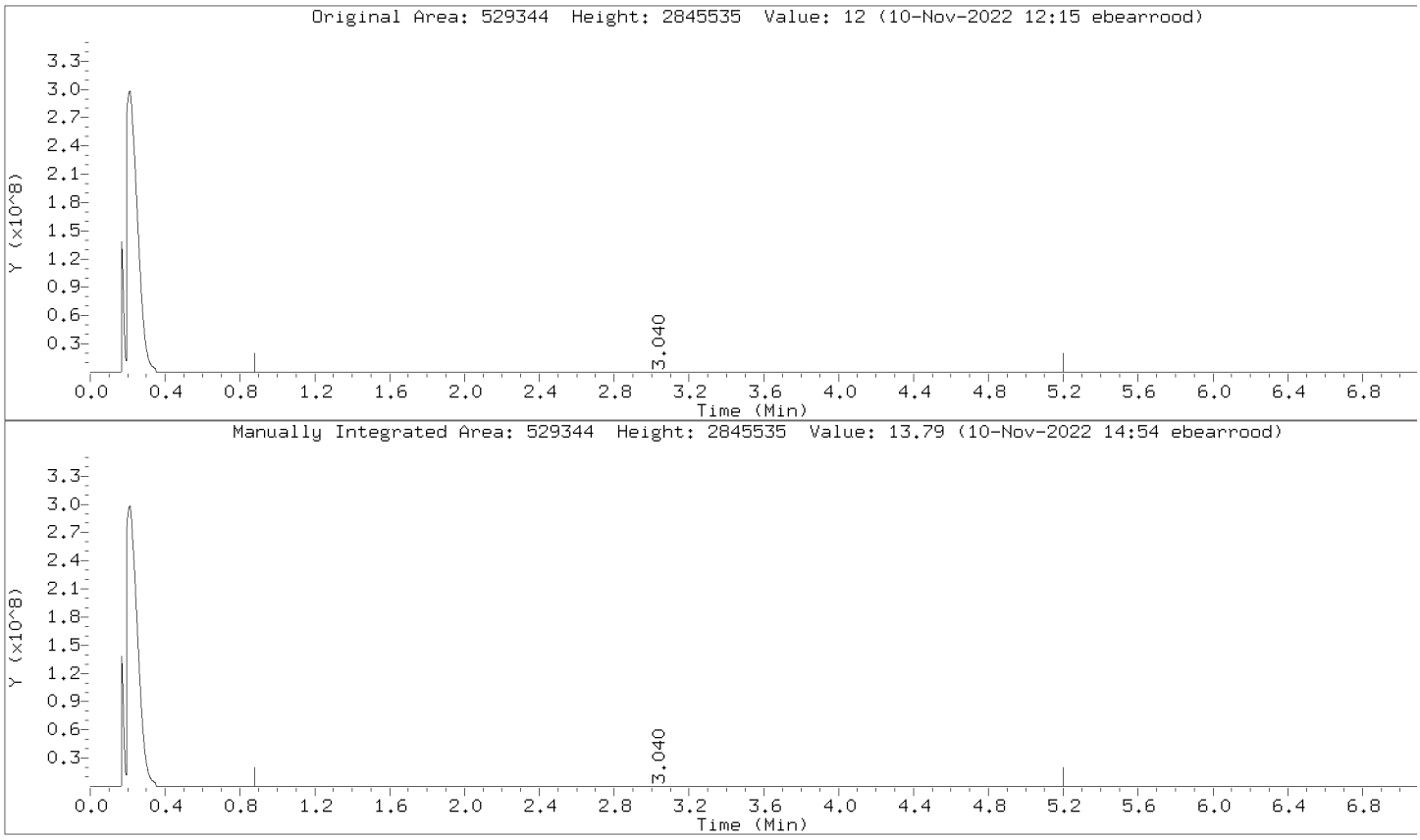
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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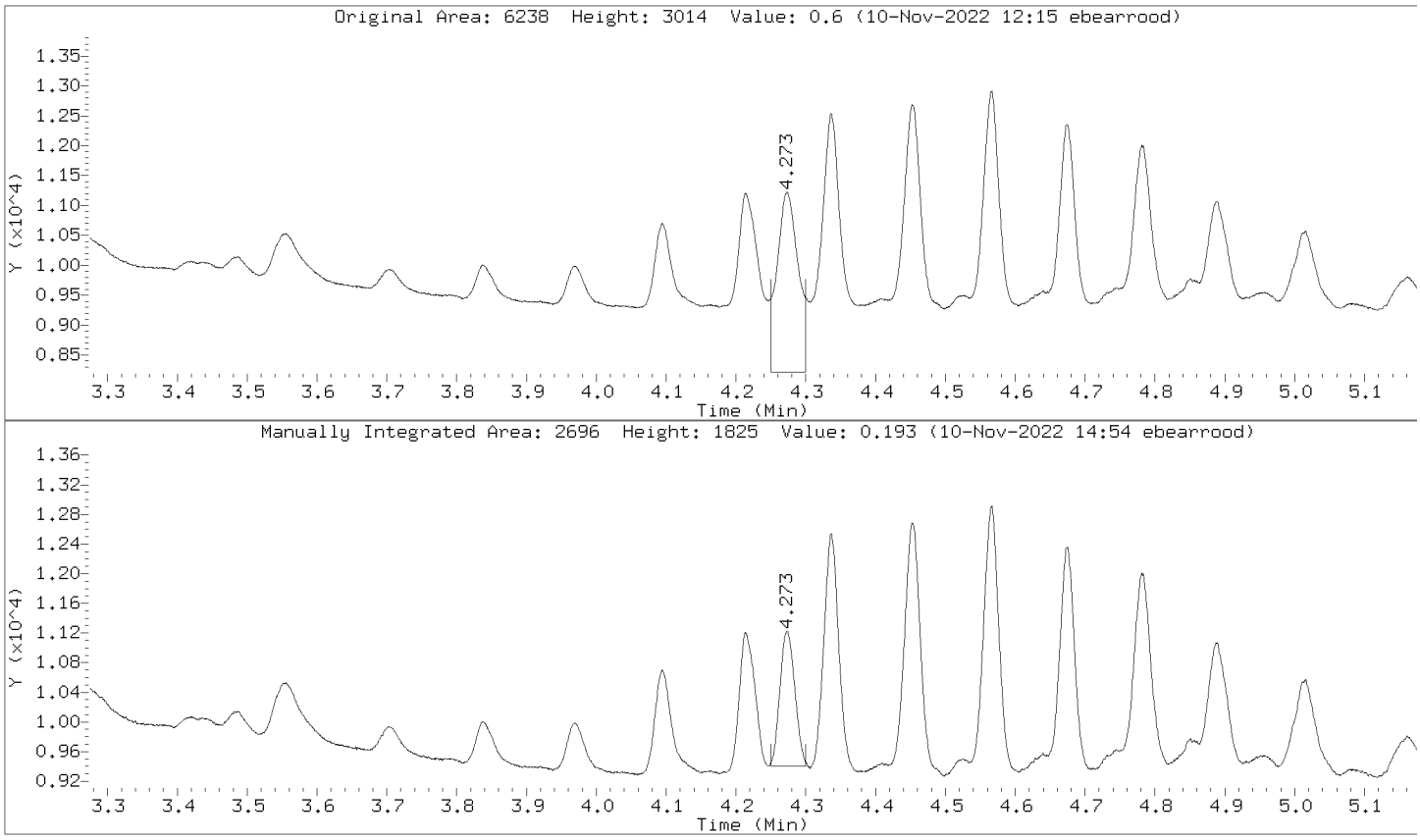
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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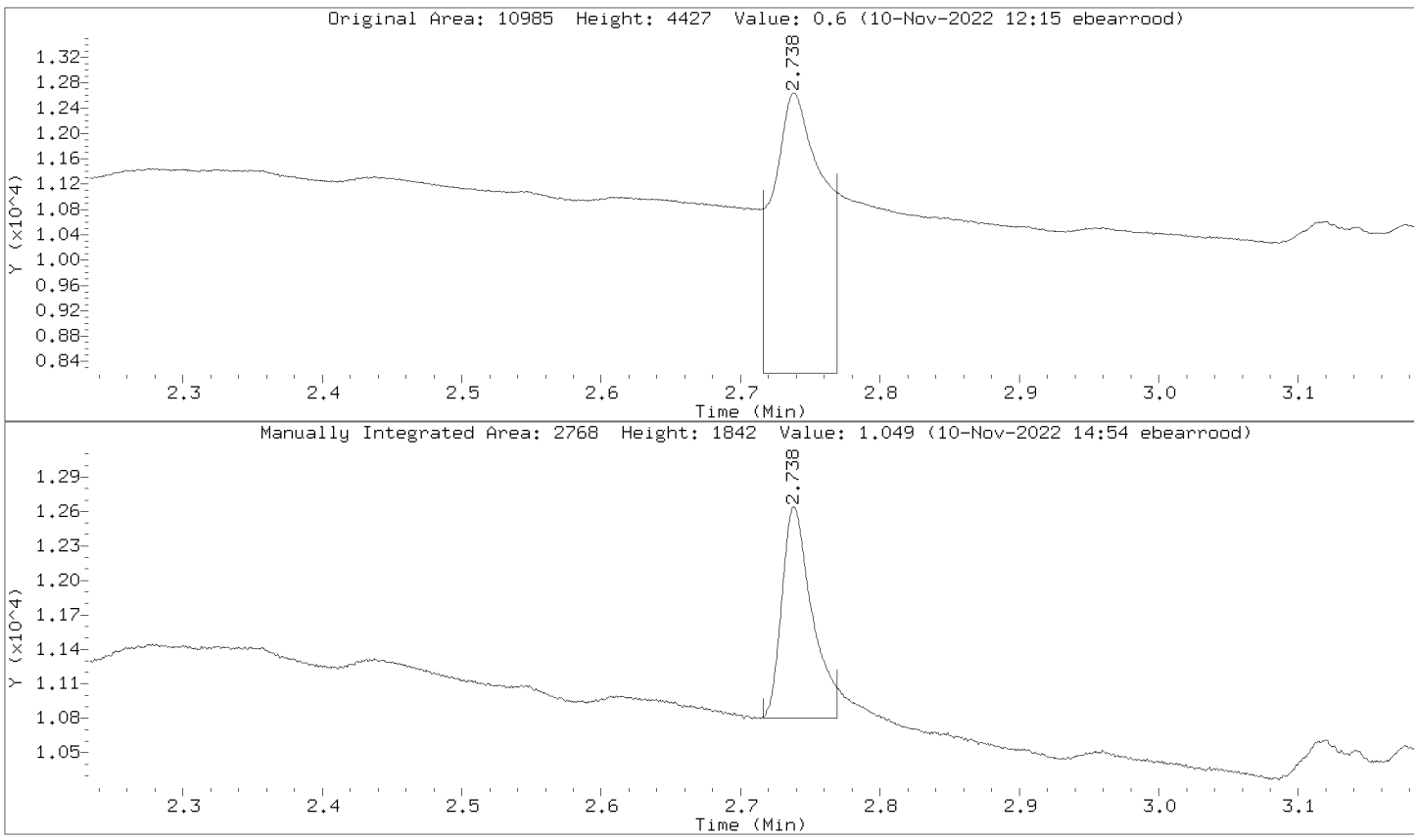
Injection Date: 10-NOV-2022 08:04
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL1,391056:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	148382	148382
DRO by AK 102	380194	380194
TPH-DRO (C10-C28)	434865	434865
Motor Oil Range (C24-C36)	166014	166014
Diesel Fuel Range	335607	335607
Motor Oil Range	183511	183511
Diesel Fuel Range SG	335607	335607
Motor Oil Range SG	183511	183511
C10-C36	529344	529344
n-Triacontane (S)	6238	2696
o-Terphenyl (S)	10985	2768

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Lab Smp Id: DMO-CAL2,391059:2 Client Smp ID: DMO-CAL2,391059:2
Inj Date : 10-NOV-2022 08:16
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal2,391059:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		394088	10.0000	7.58	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.737	2.733	0.004	4960	1.00000	1.38	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	4668	1.00000	0.571	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		138206	10.0000	6.41	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		446339	10.0000	7.04	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		154886	10.0000	6.34	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		533232	20.0000	14.6	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		346937	10.0000	8.02	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		172488	10.0000	7.12	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

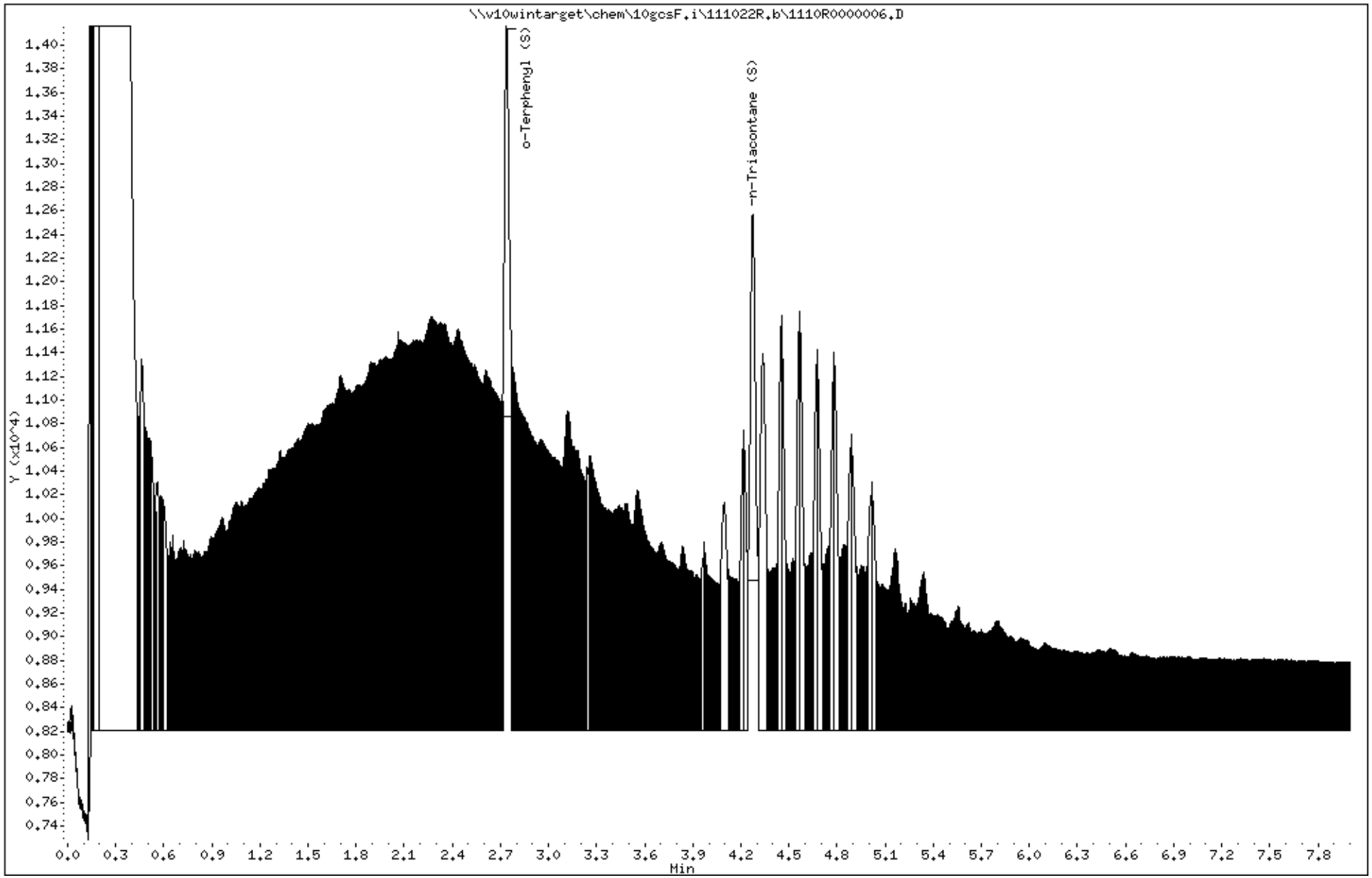
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000006.D
Date : 10-NOV-2022 08:16
Client ID: DMO-CAL2,391059:2
Sample Info: DMO-CAL2,391059:2

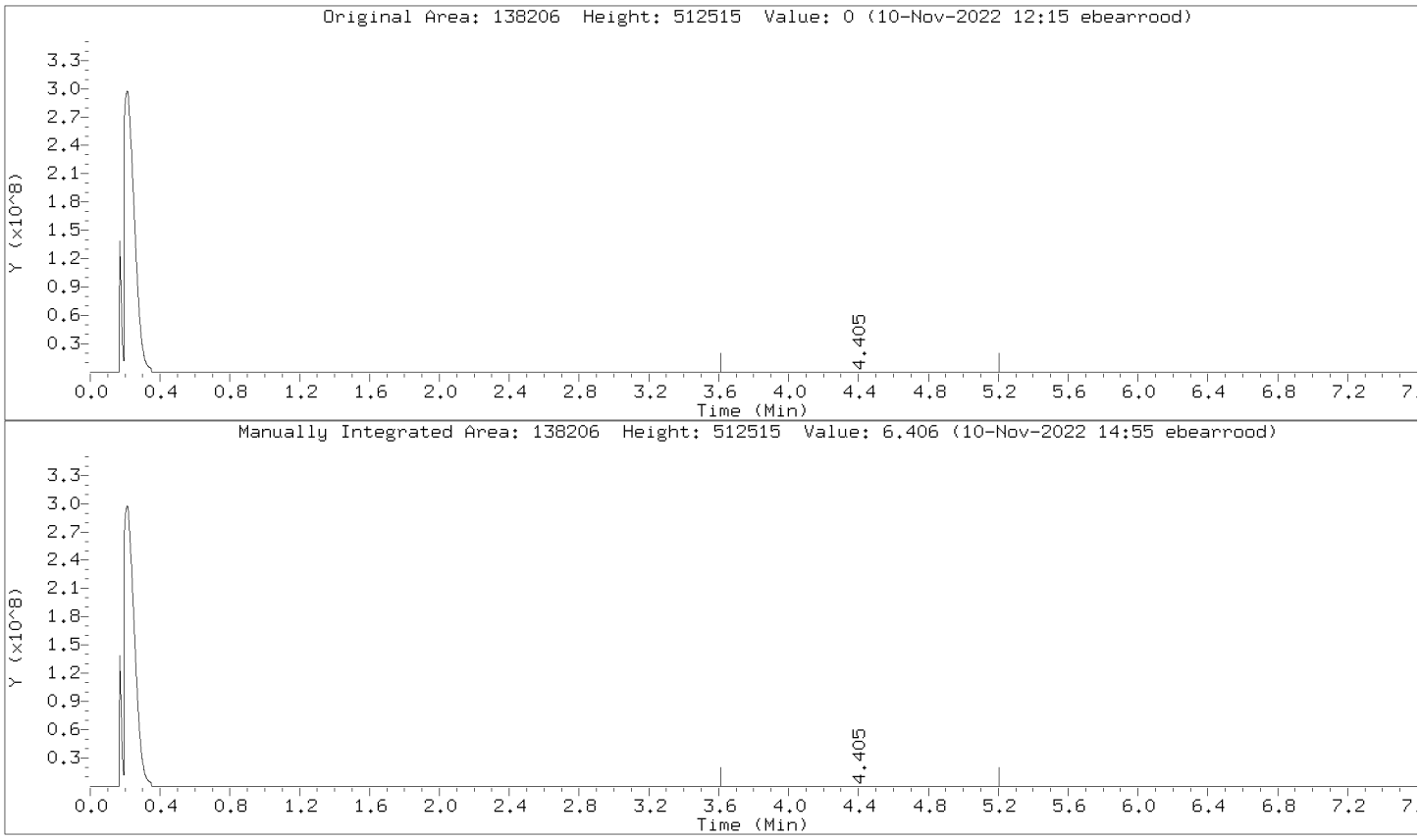
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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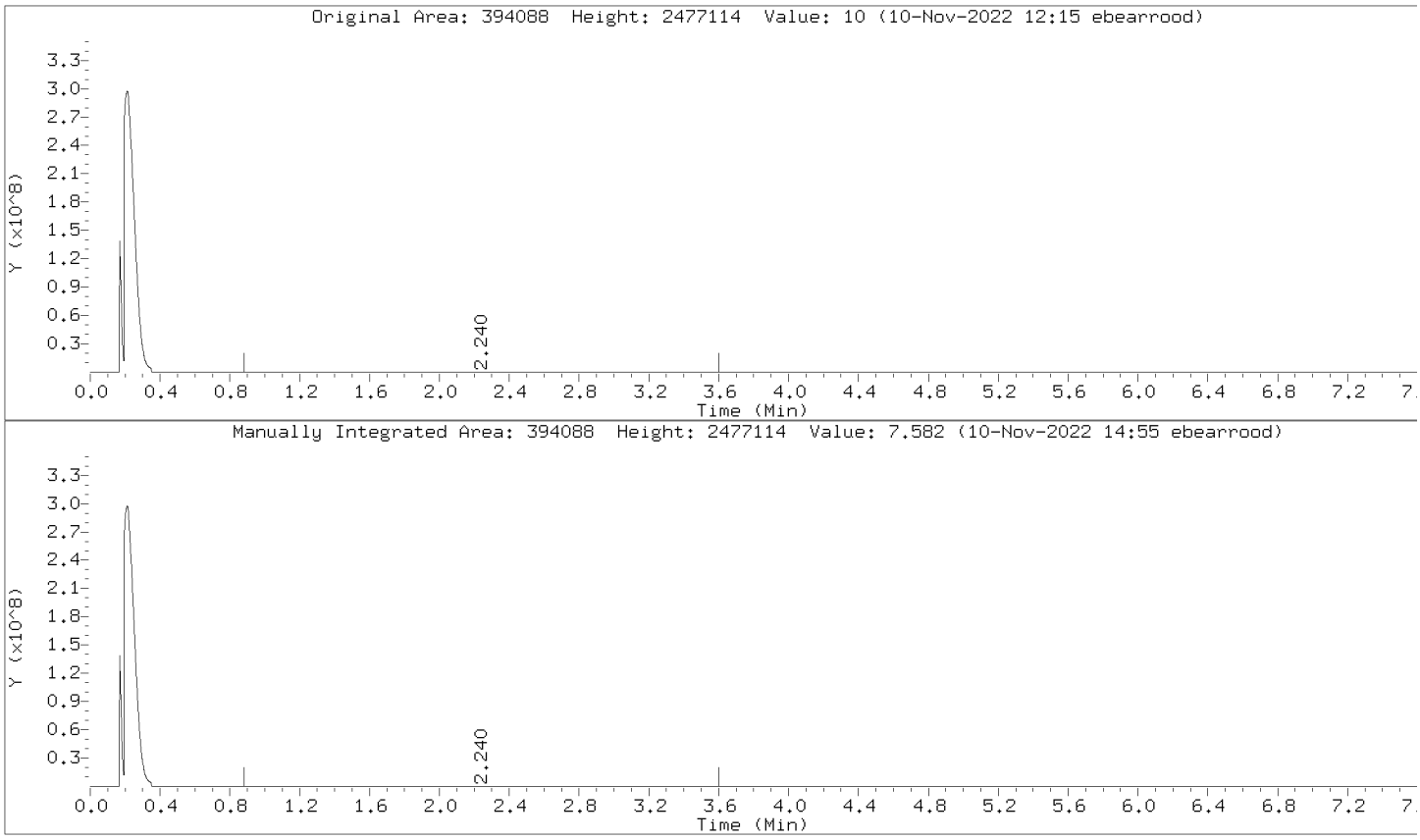
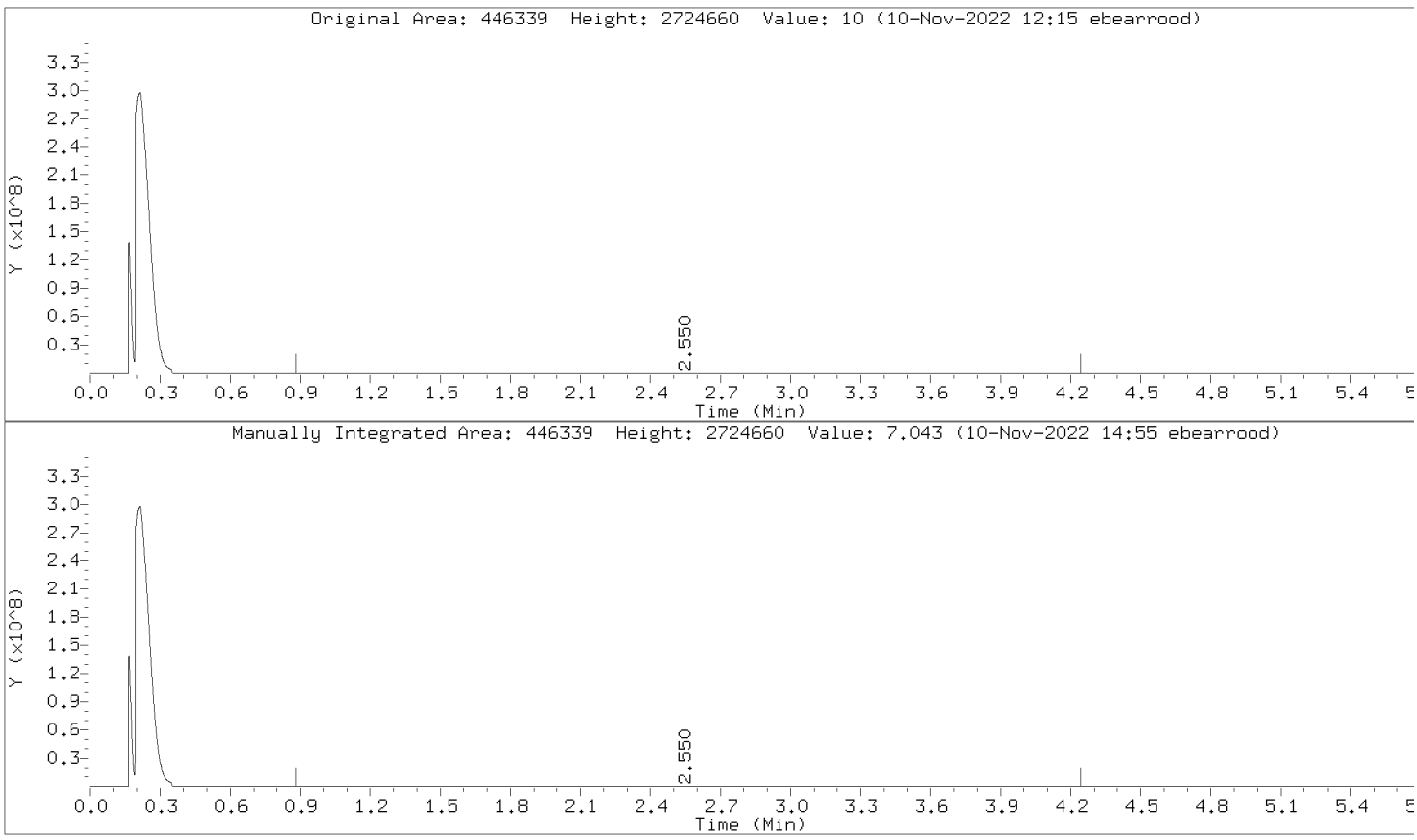
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



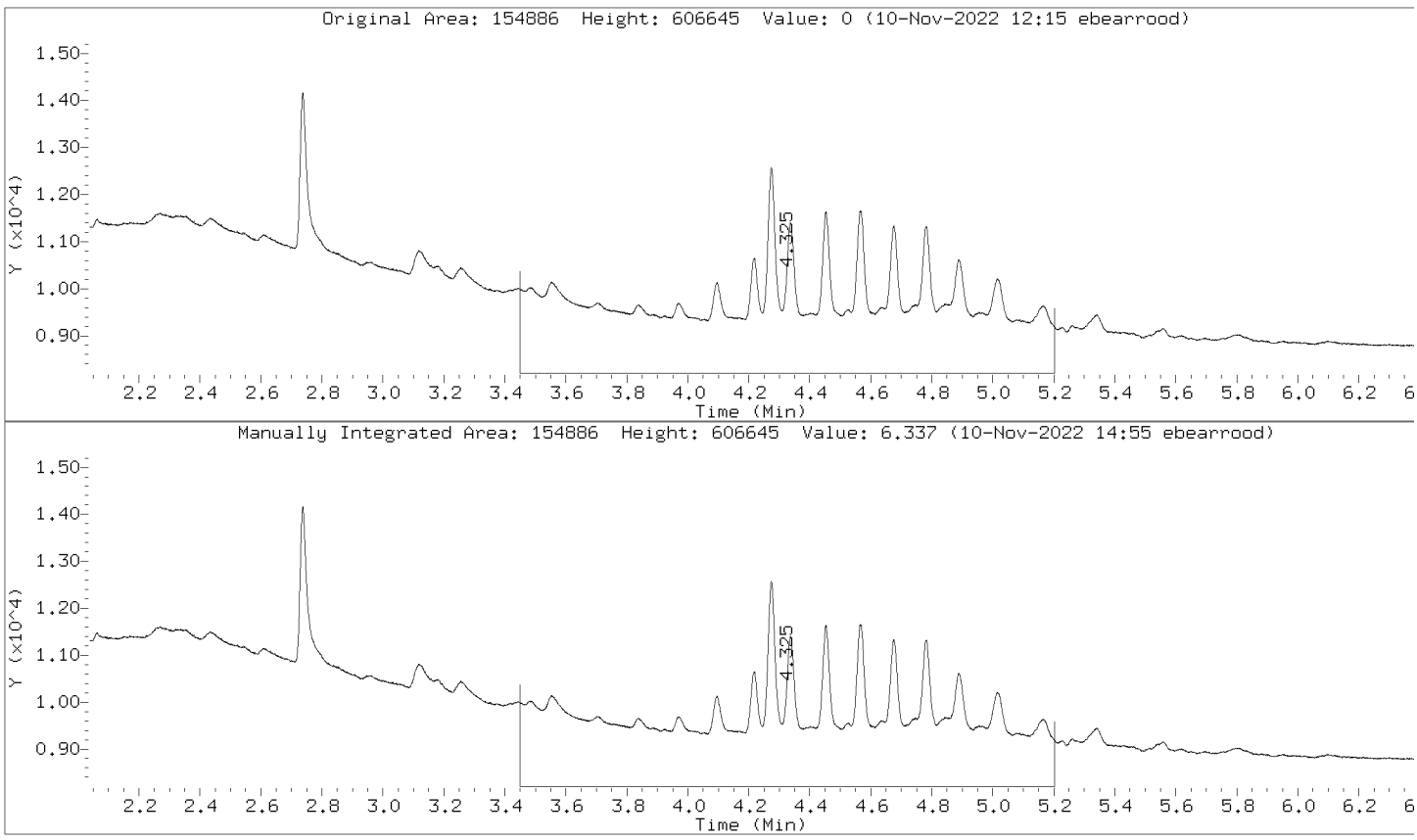
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



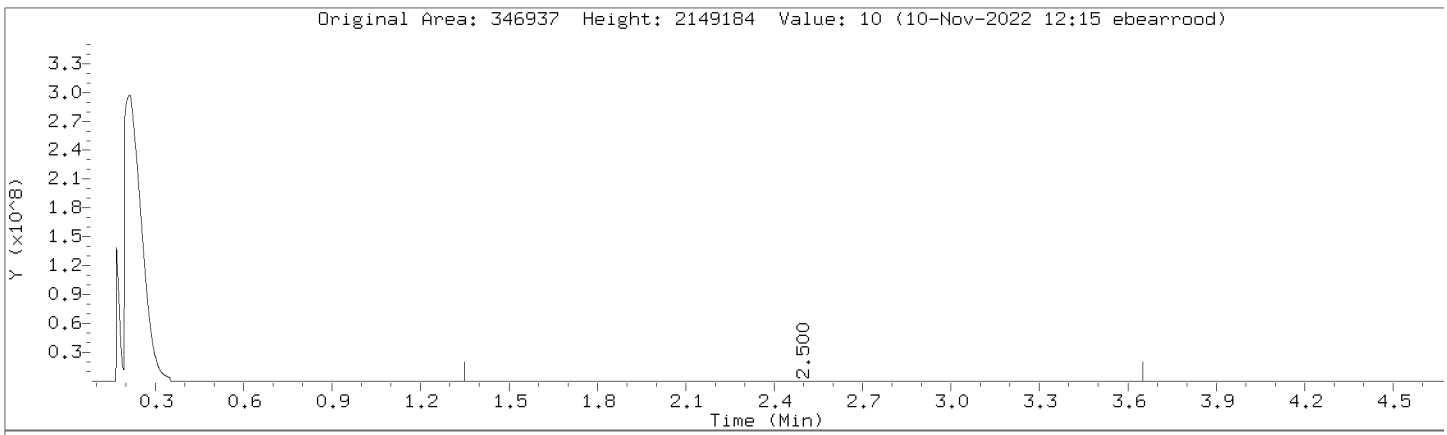
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

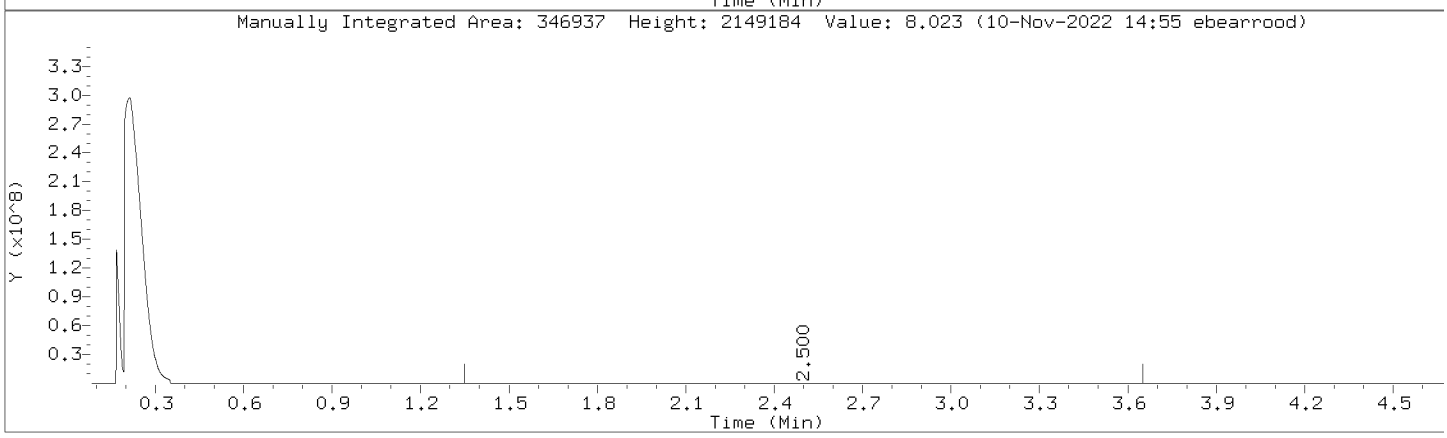
Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

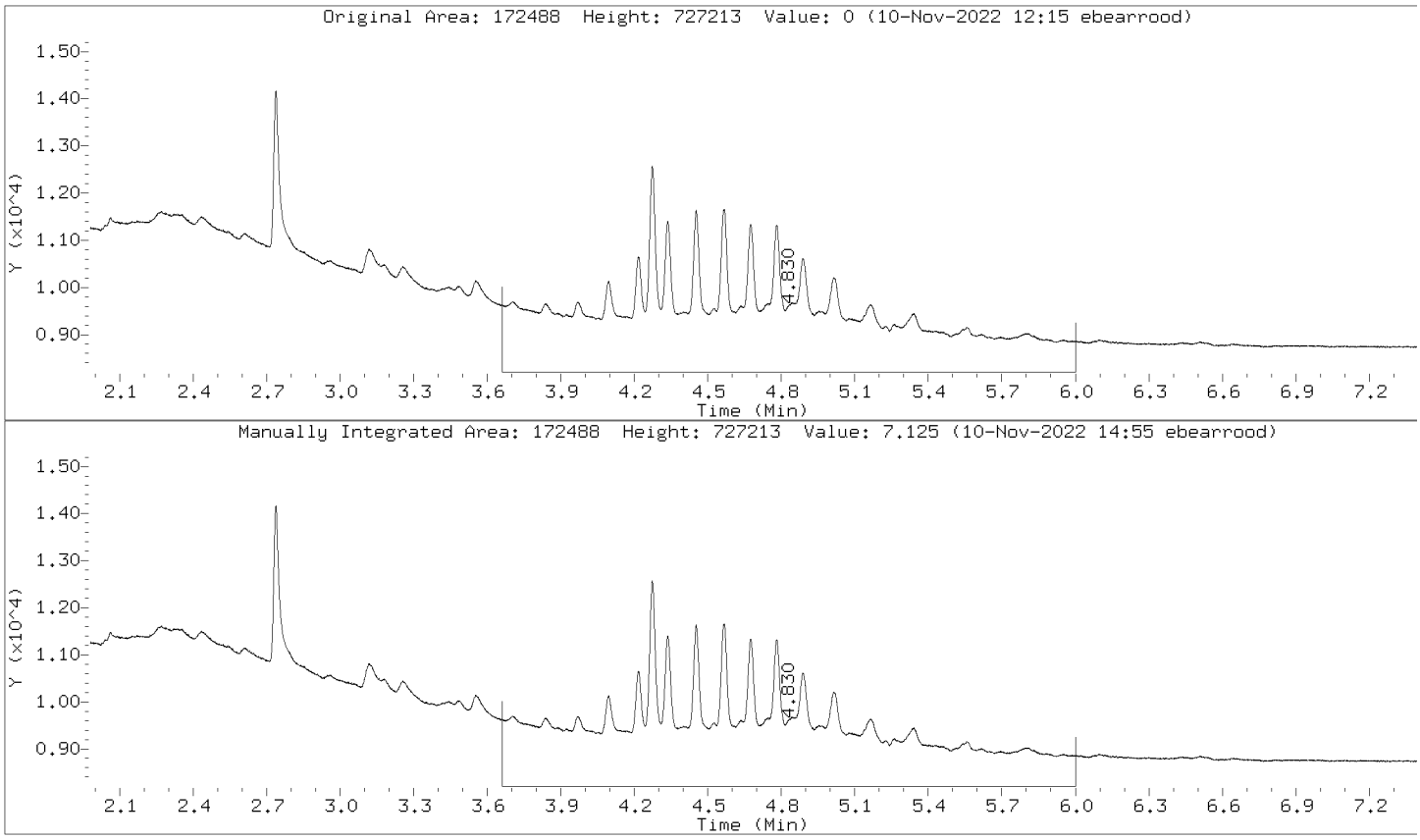
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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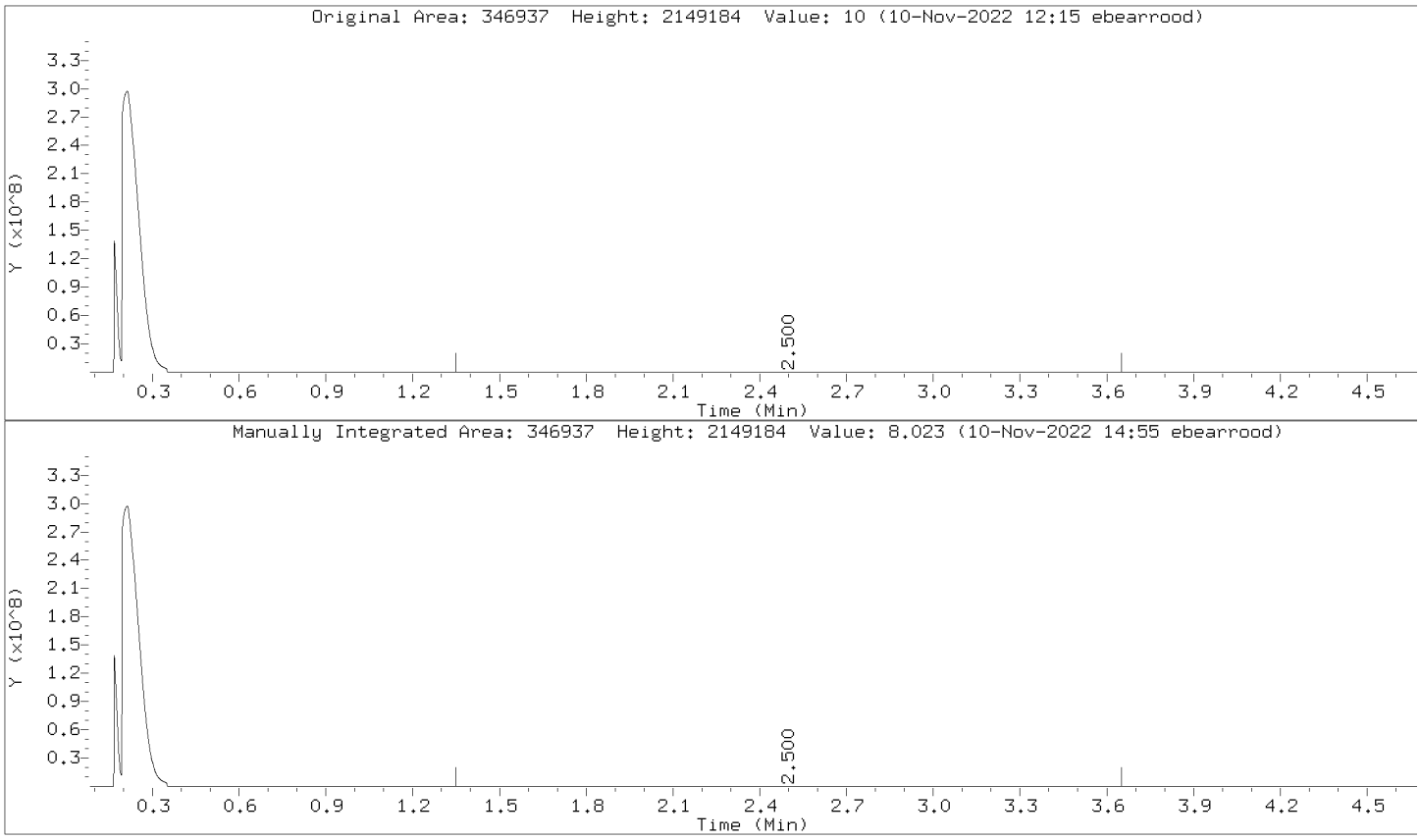
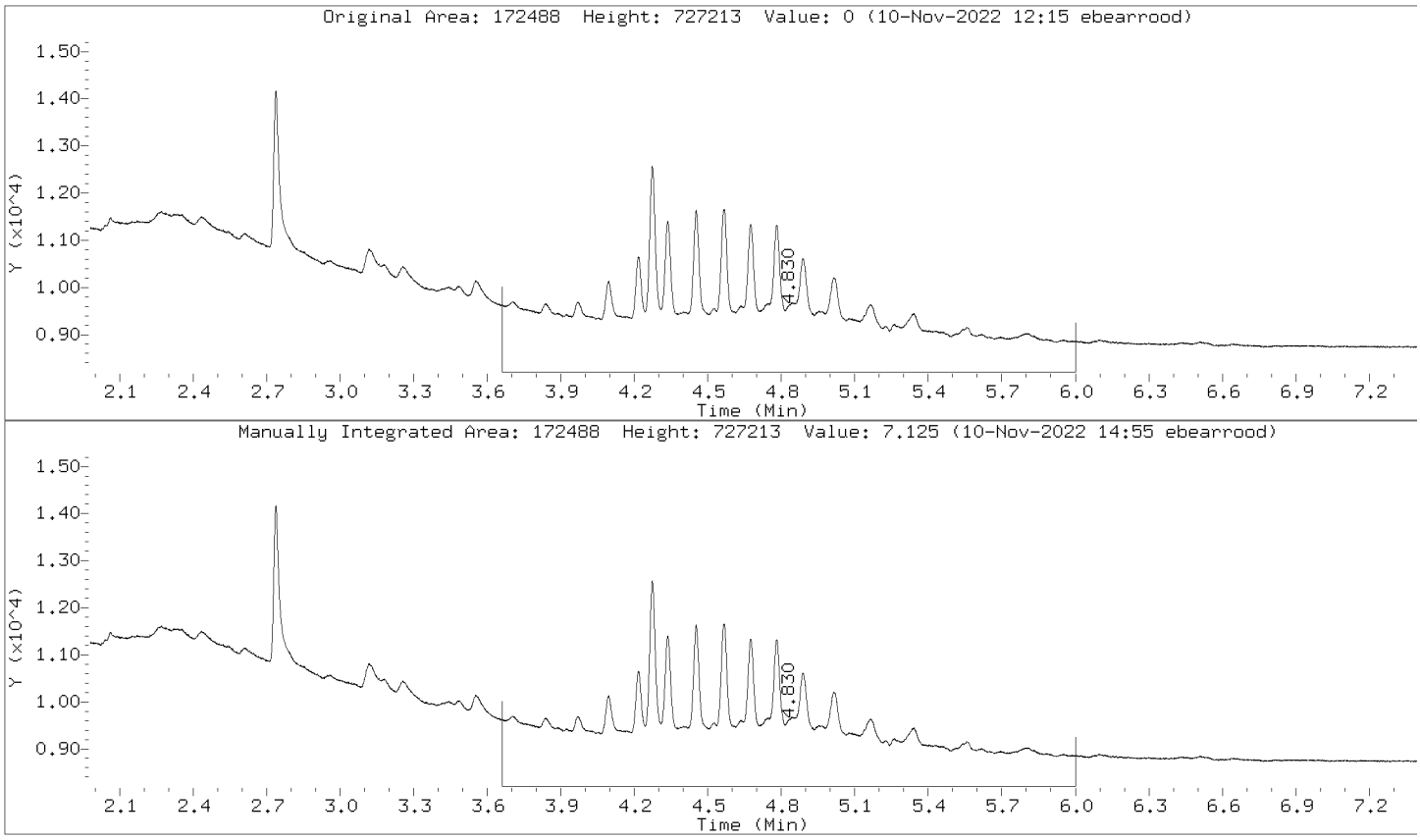
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



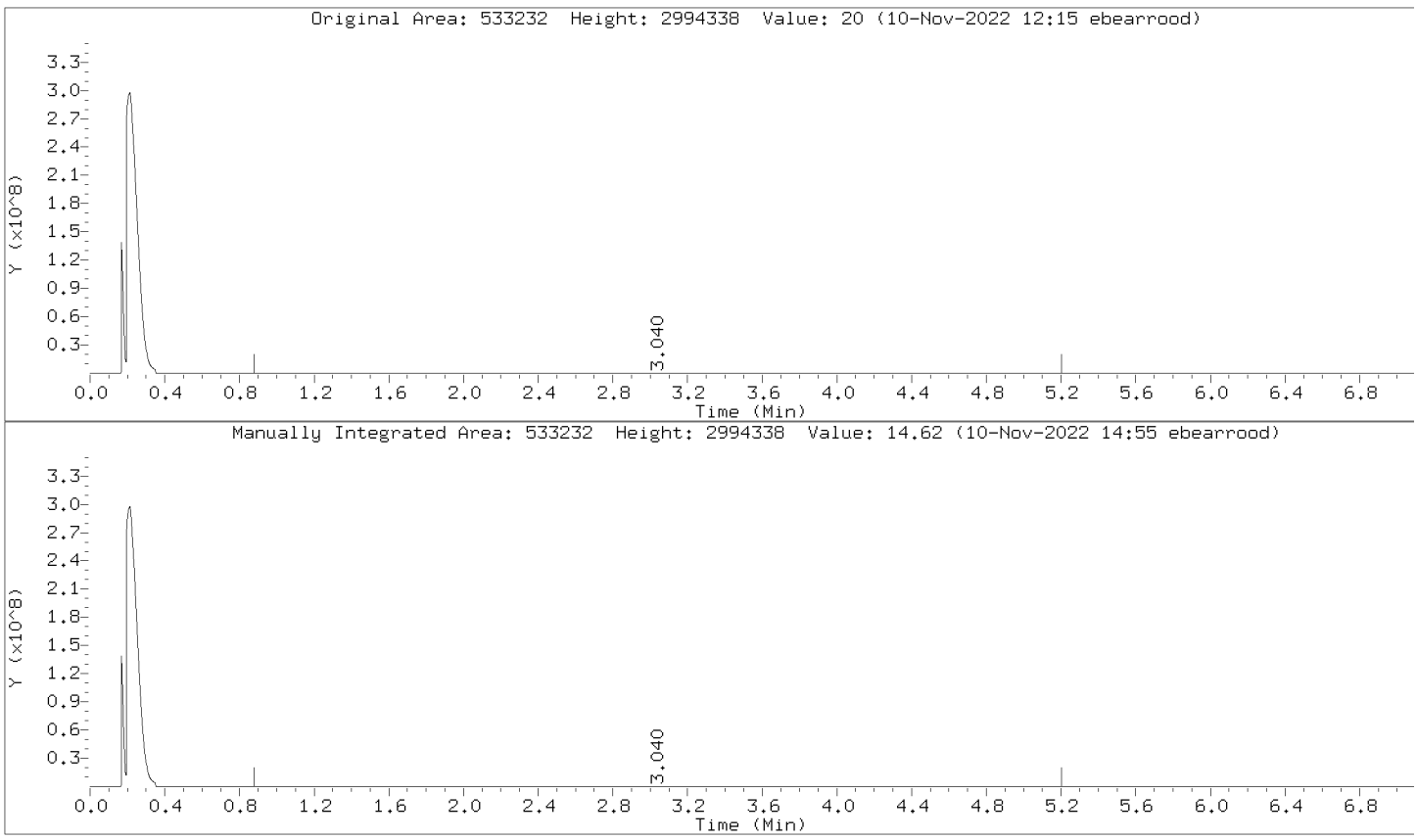
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000006.D
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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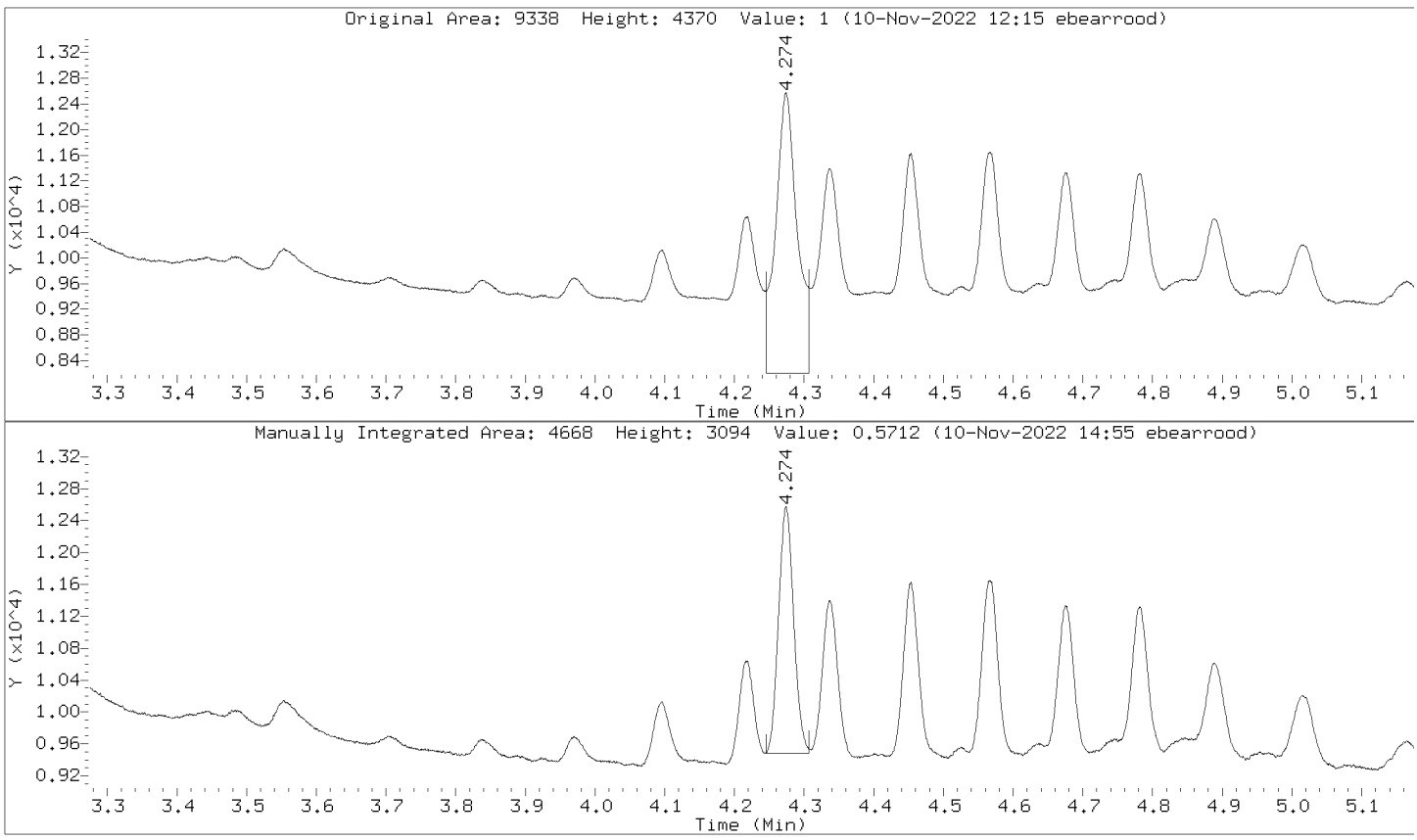
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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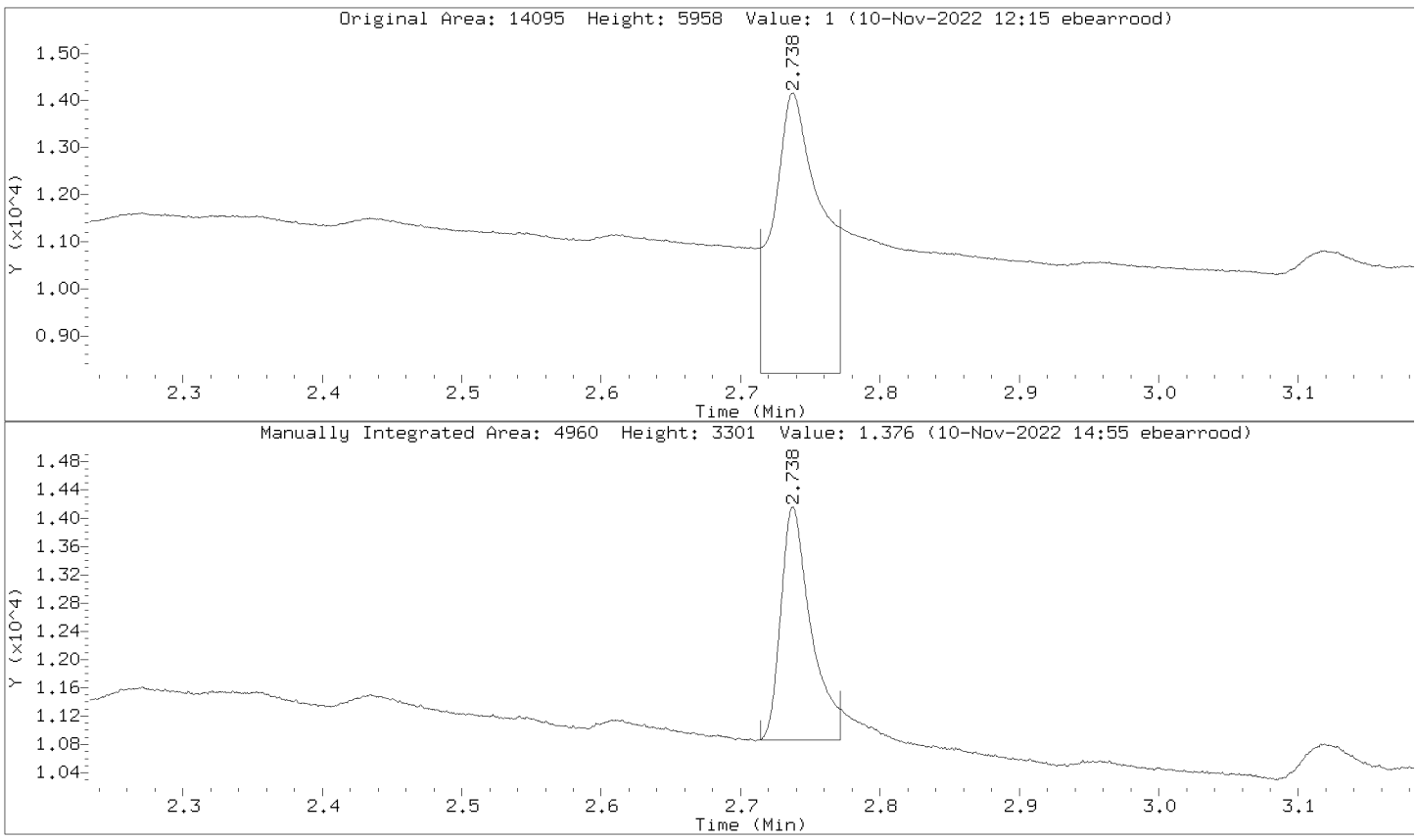
Injection Date: 10-NOV-2022 08:16
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL2,391059:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	138206	138206
DRO by AK 102	394088	394088
TPH-DRO (C10-C28)	446339	446339
Motor Oil Range (C24-C36)	154886	154886
Diesel Fuel Range	346937	346937
Motor Oil Range	172488	172488
Diesel Fuel Range SG	346937	346937
Motor Oil Range SG	172488	172488
C10-C36	533232	533232
n-Triacontane (S)	9338	4668
o-Terphenyl (S)	14095	4960

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Lab Smp Id: DMO-CAL3,391060:2 Client Smp ID: DMO-CAL3,391060:2
Inj Date : 10-NOV-2022 08:27
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal3,391060:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S	1 DRO by AK 102					CAS #:		
	0.880 - 3.600			475588	25.0000	22.0	(M)	RNG
$	2 o-Terphenyl (S)					CAS #:		
	2.734	2.733	0.001	14599	2.50000	2.81	(M)	BA
$	3 n-Triacontane (S)					CAS #:		
	4.275	4.275	0.000	12458	2.50000	2.06	(M)	BA
S	4 Residual Range Organics AK103					CAS #:		
	3.610 - 5.200			195791	25.0000	22.4	(M)	RNG
S	5 TPH-DRO (C10-C28)					CAS #:		
	0.880 - 4.219			541580	25.0000	21.5	(M)	RNG
S	6 Motor Oil Range (C24-C36)					CAS #:		
	3.450 - 5.200			213550	25.0000	21.9	(M)	RNG
S	7 C10-C36					CAS #:		
	0.880 - 5.200			672394	50.0000	44.6	(M)	RNG
S	8 Diesel Fuel Range					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	9 Diesel Fuel Range SG					CAS #:		
	1.350 - 3.650			416390	25.0000	22.6	(M)	RNG
S	10 Motor Oil Range					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG
S	11 Motor Oil Range SG					CAS #:		
	3.660 - 6.000			243248	25.0000	23.2	(M)	RNG

QC Flag Legend

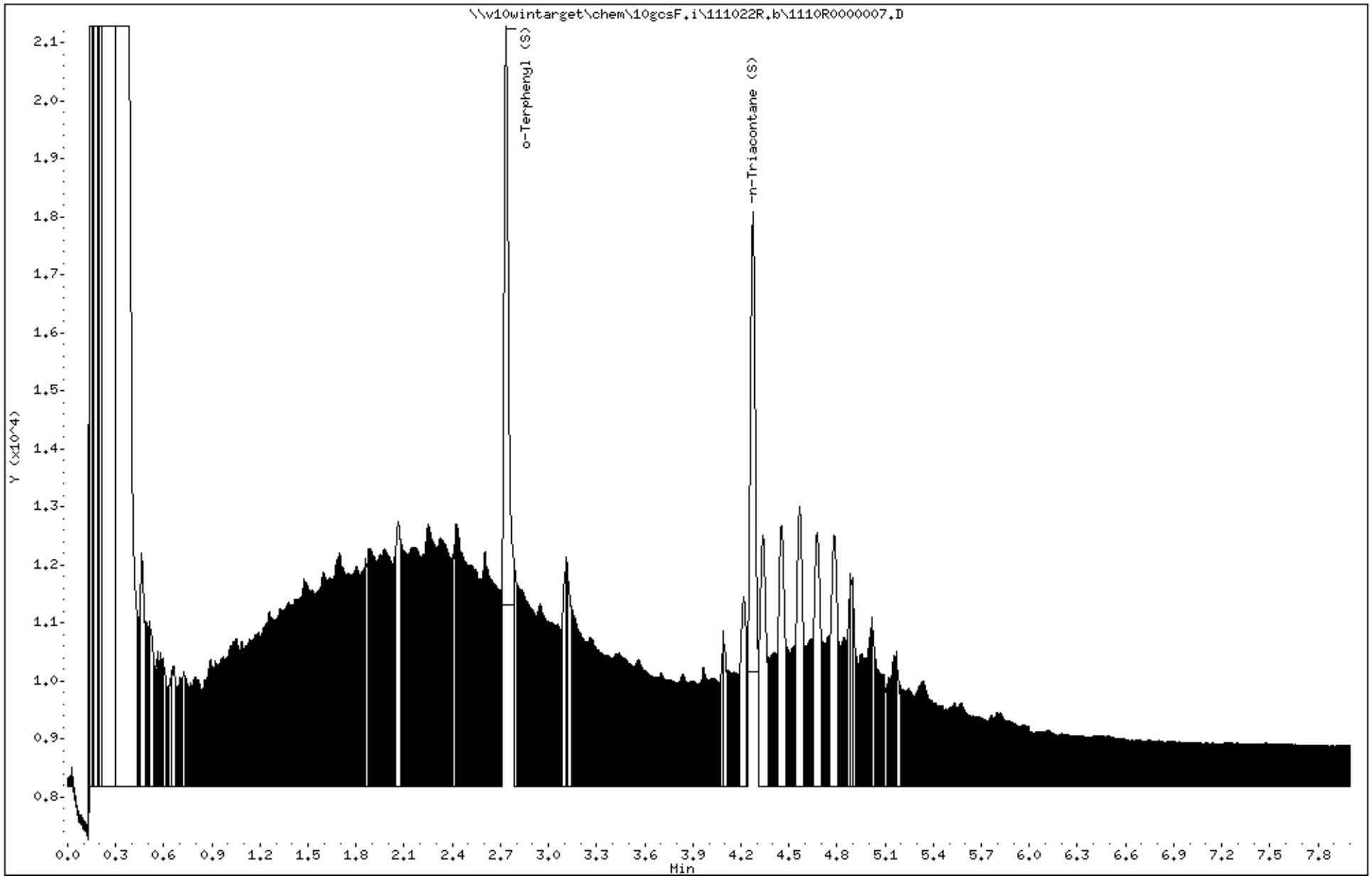
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

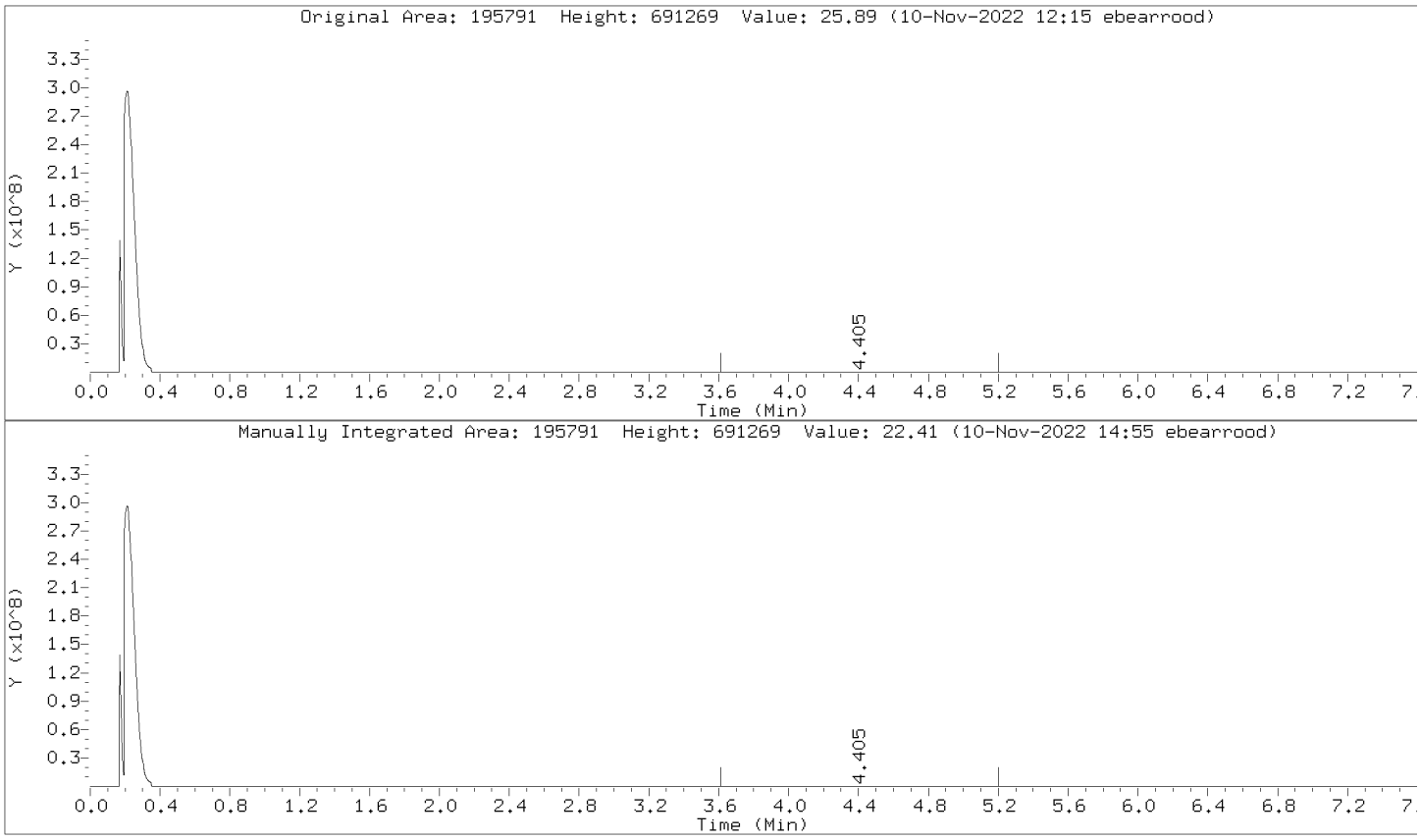
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000007.D
Date : 10-NOV-2022 08:27
Client ID: DMO-CAL3,391060:2
Sample Info: DMO-CAL3,391060:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



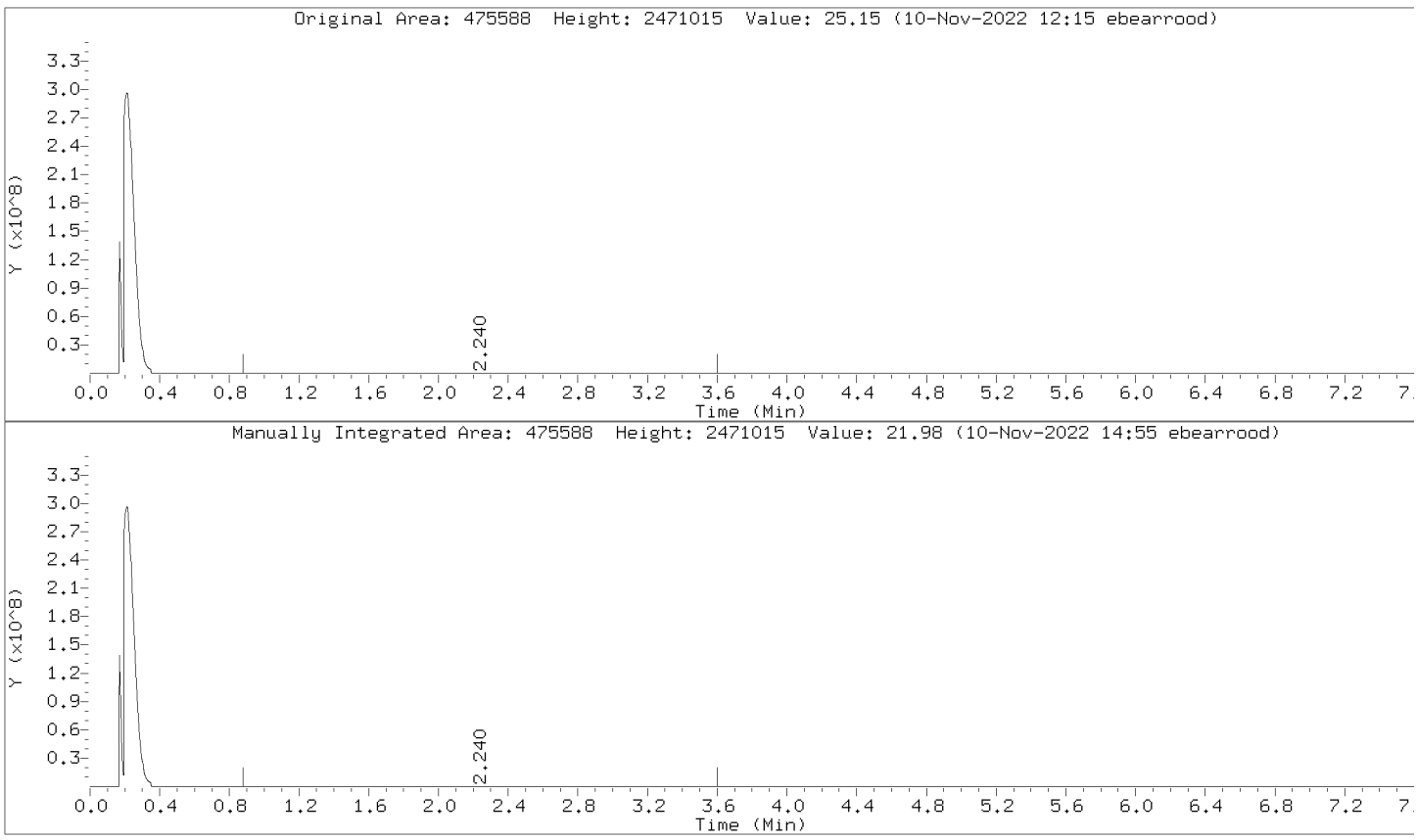
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



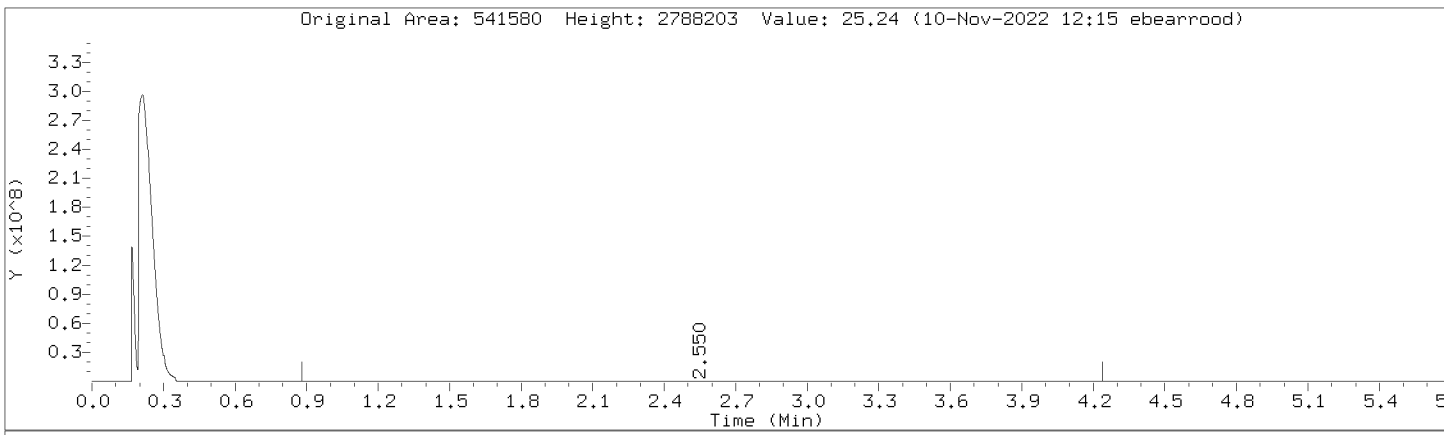
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

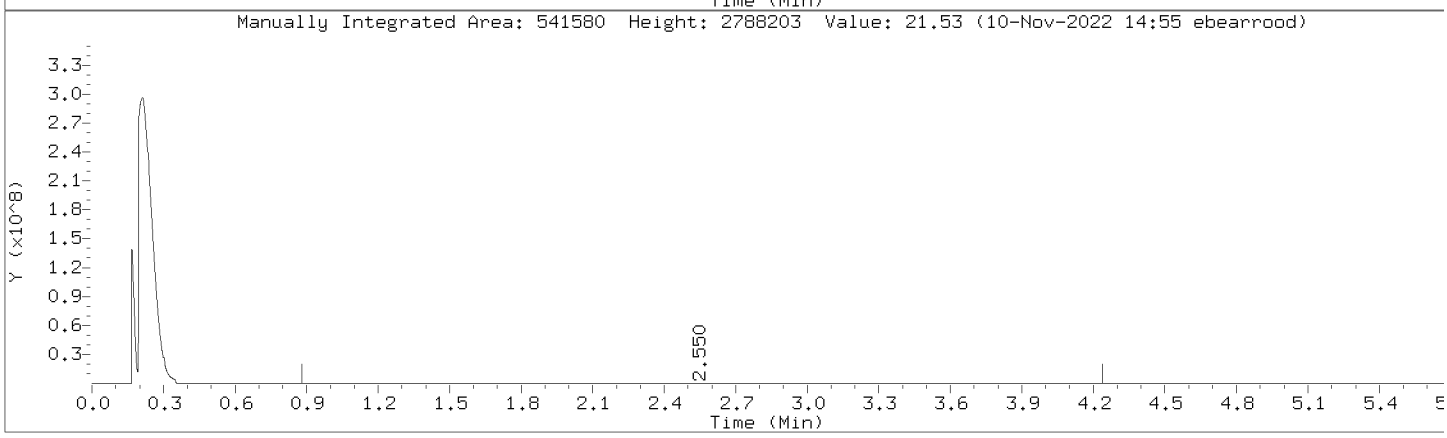
Compound: DRO by AK 102 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

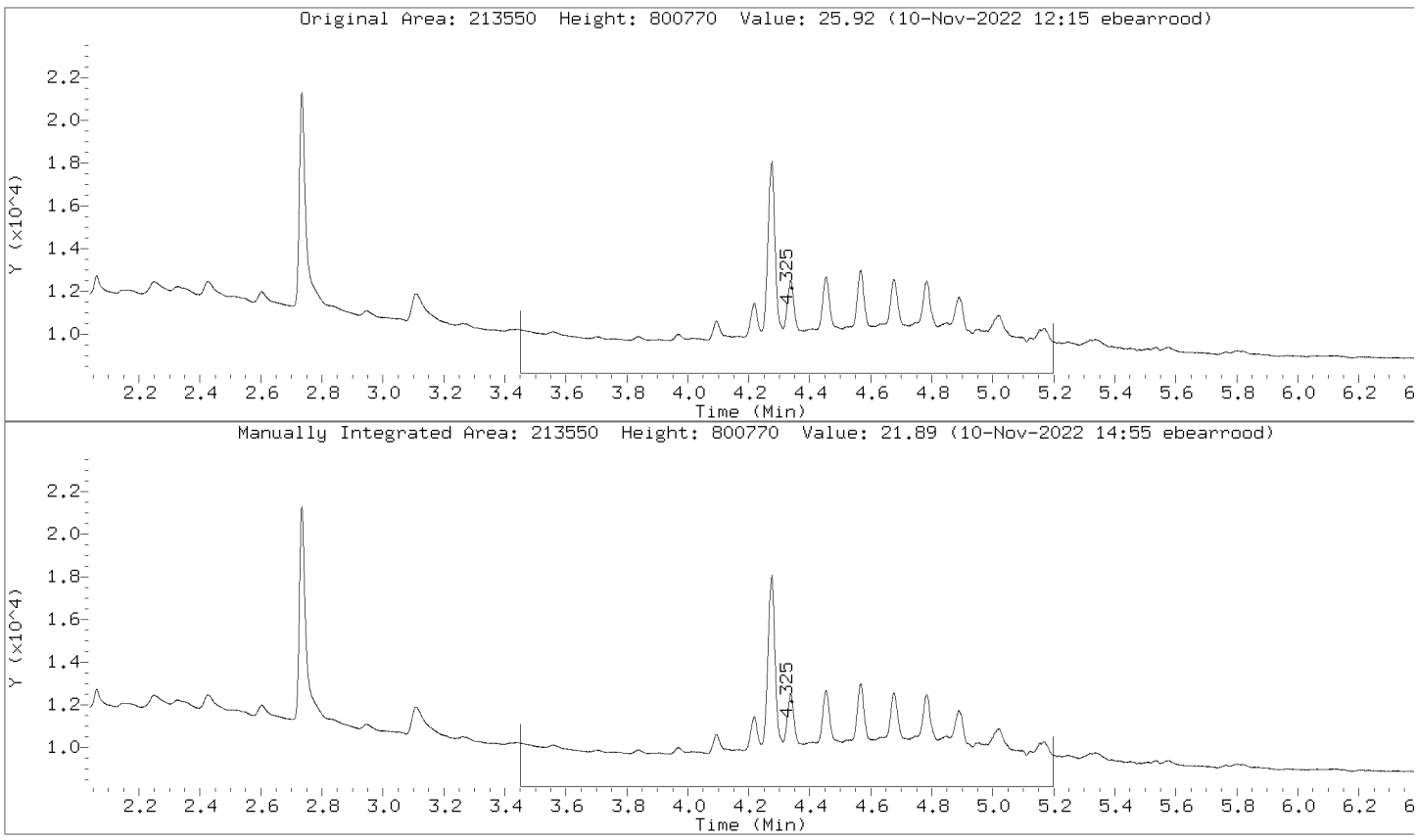
Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:





Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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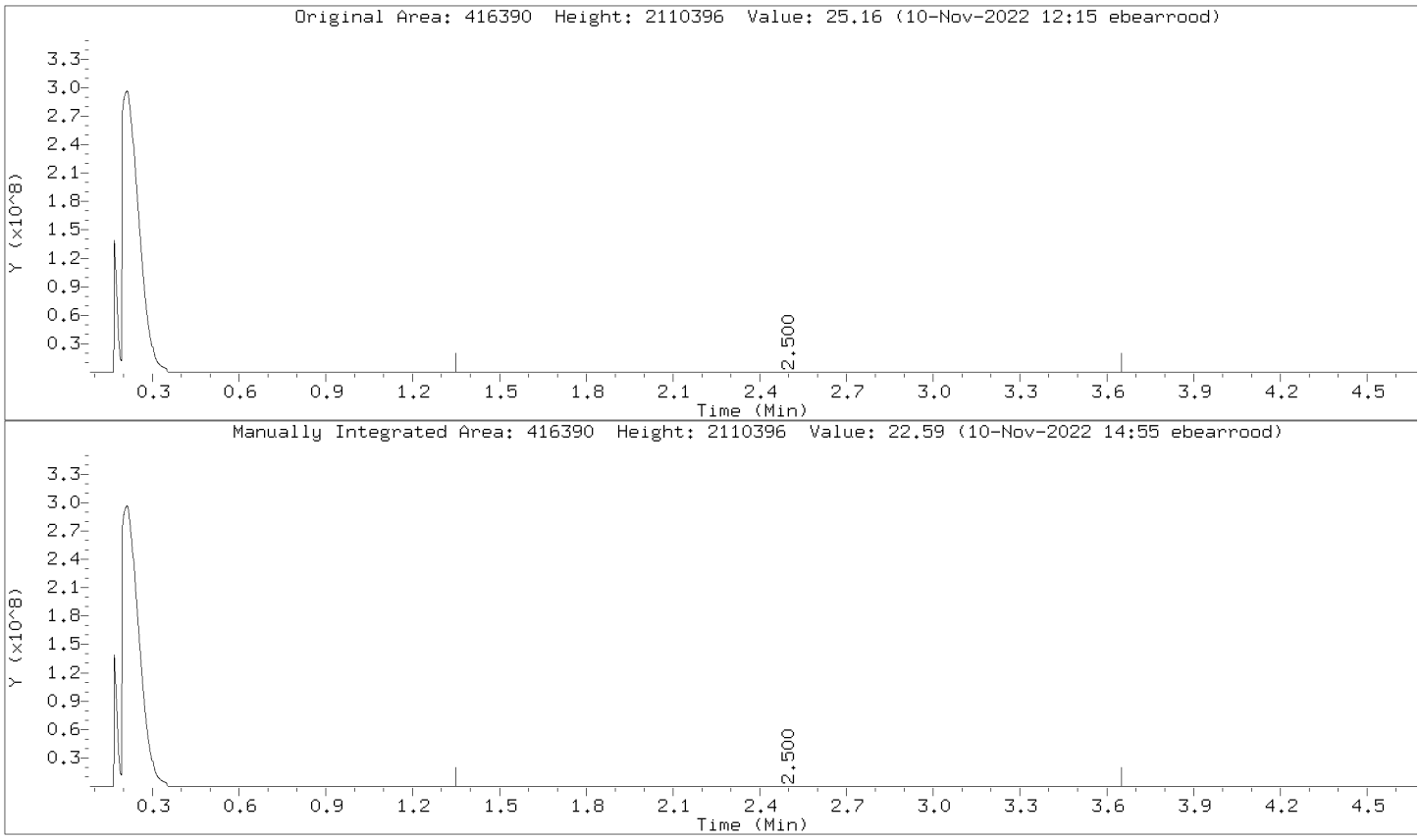
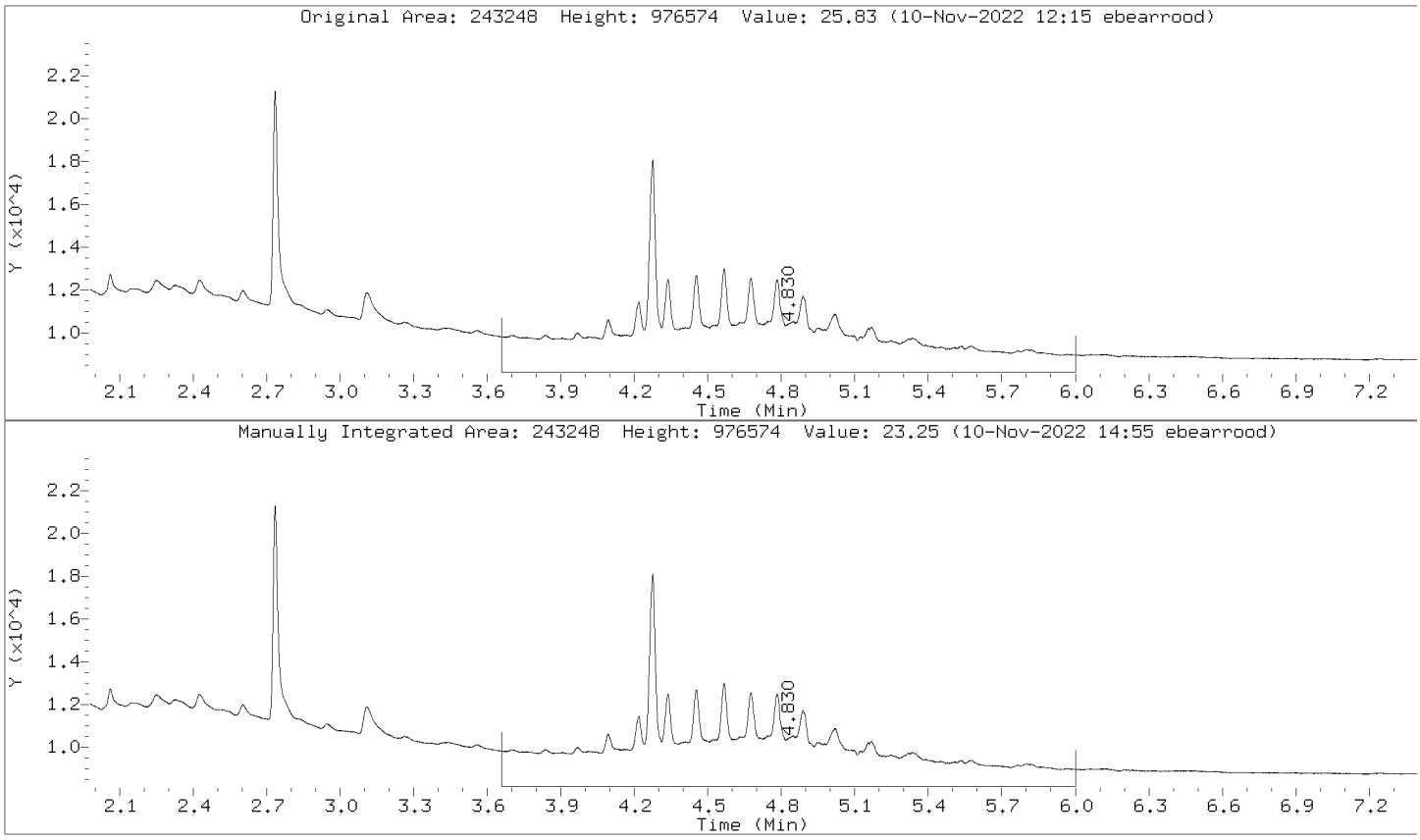
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



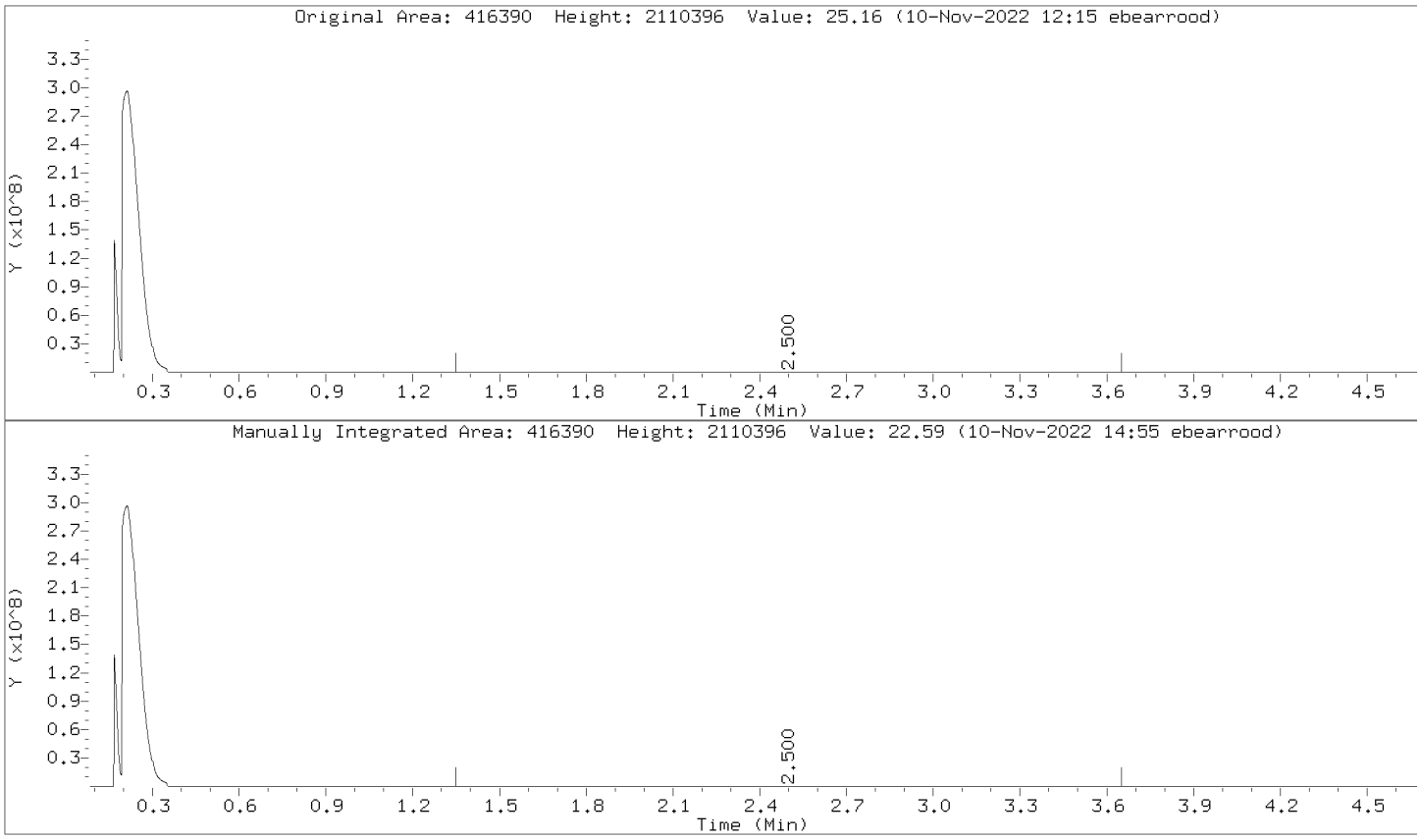
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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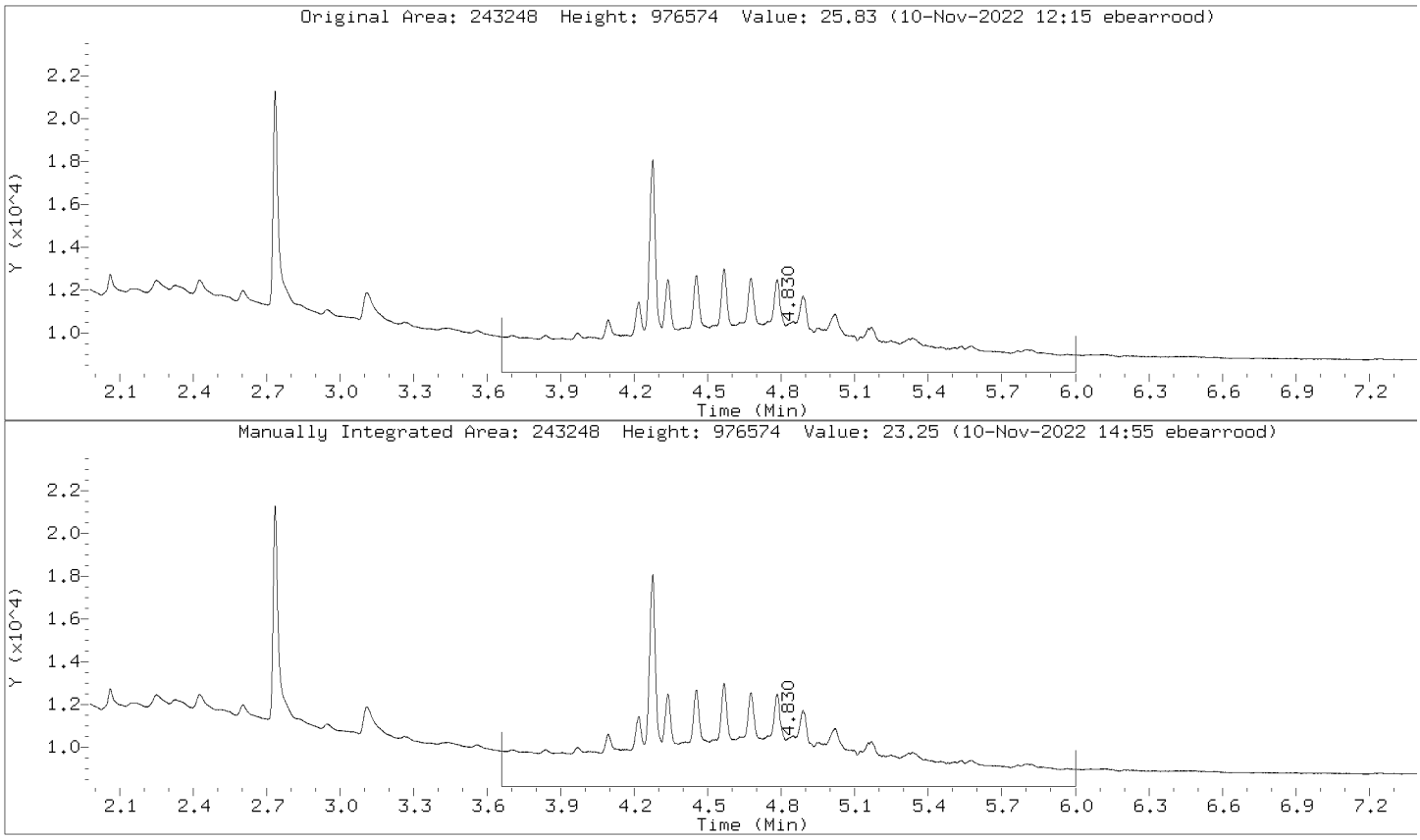
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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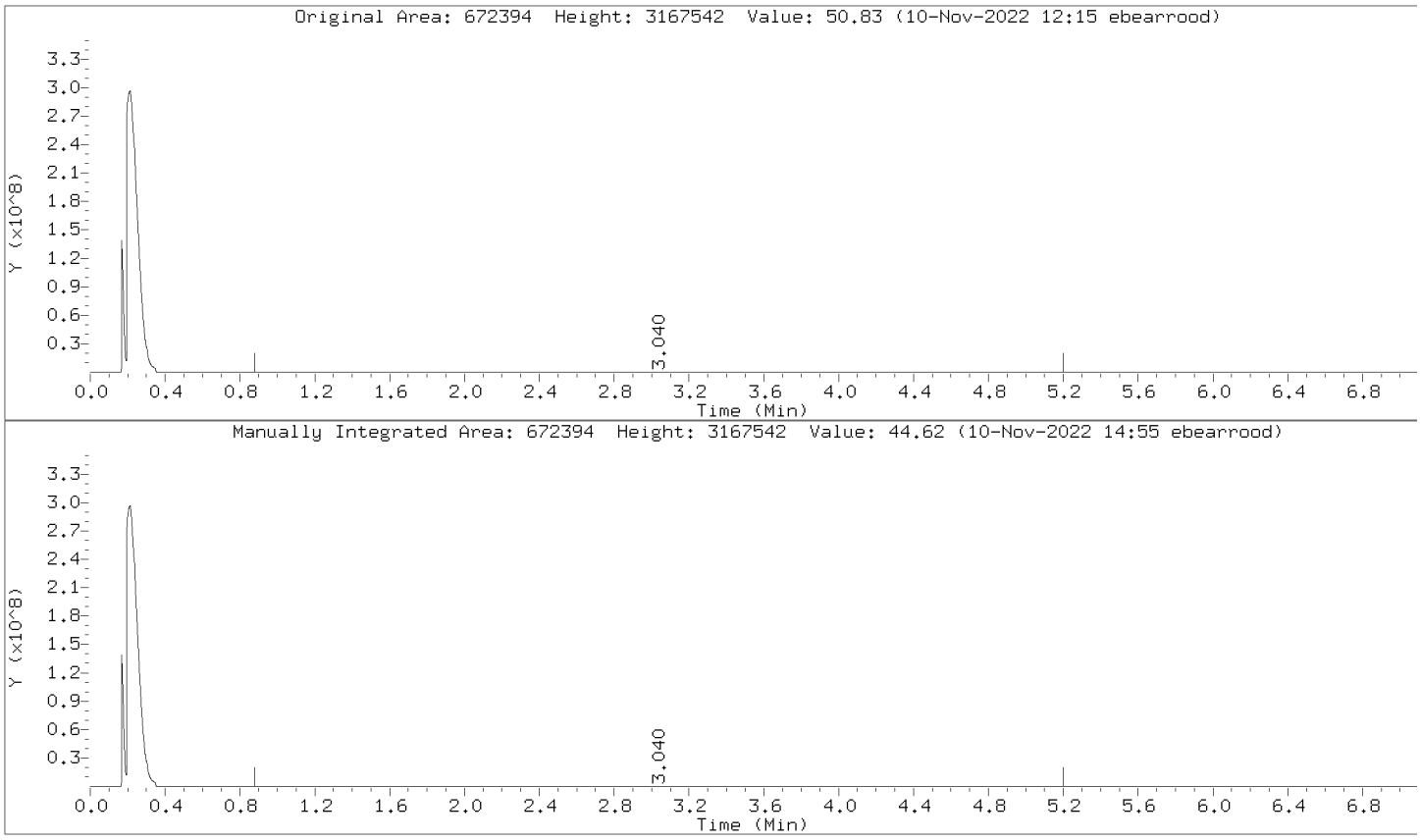
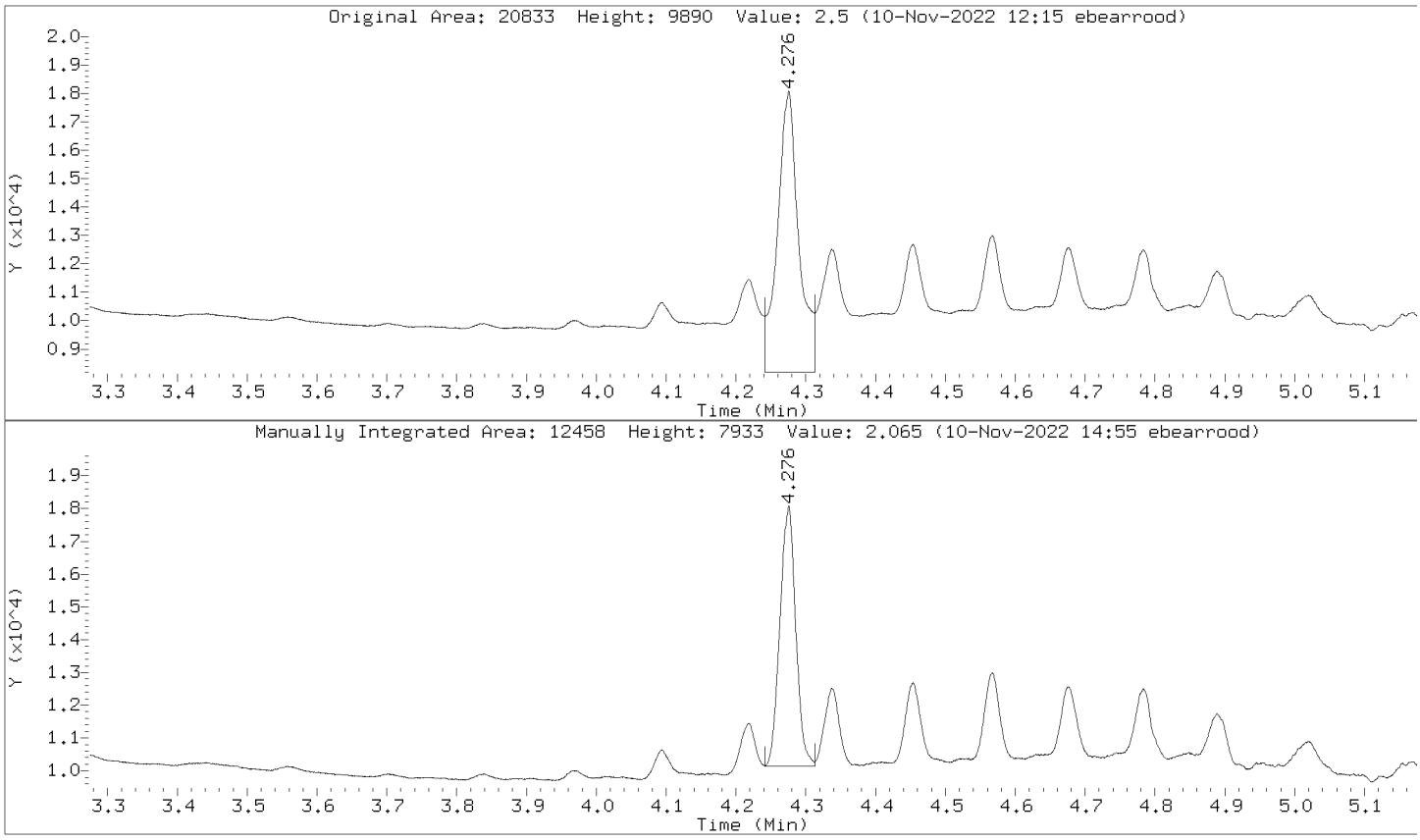
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: C10-C36 Review Code: RNG
CAS Number:



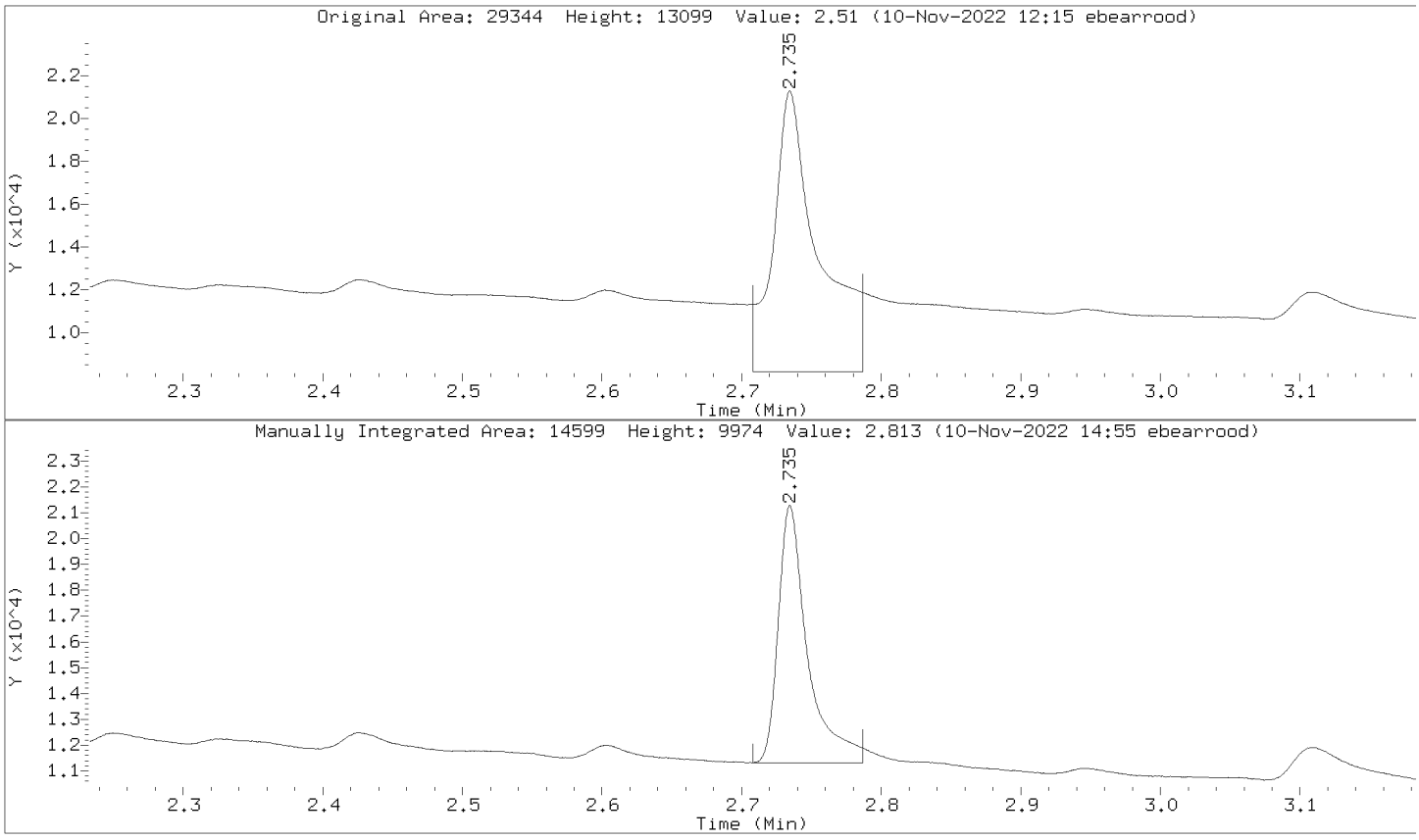
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000007.D
Injection Date: 10-NOV-2022 08:27
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL3,391060:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	195791	195791
DRO by AK 102	475588	475588
TPH-DRO (C10-C28)	541580	541580
Motor Oil Range (C24-C36)	213550	213550
Diesel Fuel Range	416390	416390
Motor Oil Range	243248	243248
Diesel Fuel Range SG	416390	416390
Motor Oil Range SG	243248	243248
C10-C36	672394	672394
n-Triacontane (S)	20833	12458
o-Terphenyl (S)	29344	14599

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Lab Smp Id: DMO-CAL4,391061:2 Client Smp ID: DMO-CAL4,391061:2
Inj Date : 10-NOV-2022 08:39
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal4,391061:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		636714	50.0000	50.4	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	31541	5.00000	5.34	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.272	4.275	-0.003	26768	5.00000	4.81	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		307384	50.0000	53.4	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		734336	50.0000	50.8	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		333324	50.0000	53.6	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		945027	100.000	103	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		555171	50.0000	51.7	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		376864	50.0000	53.7	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

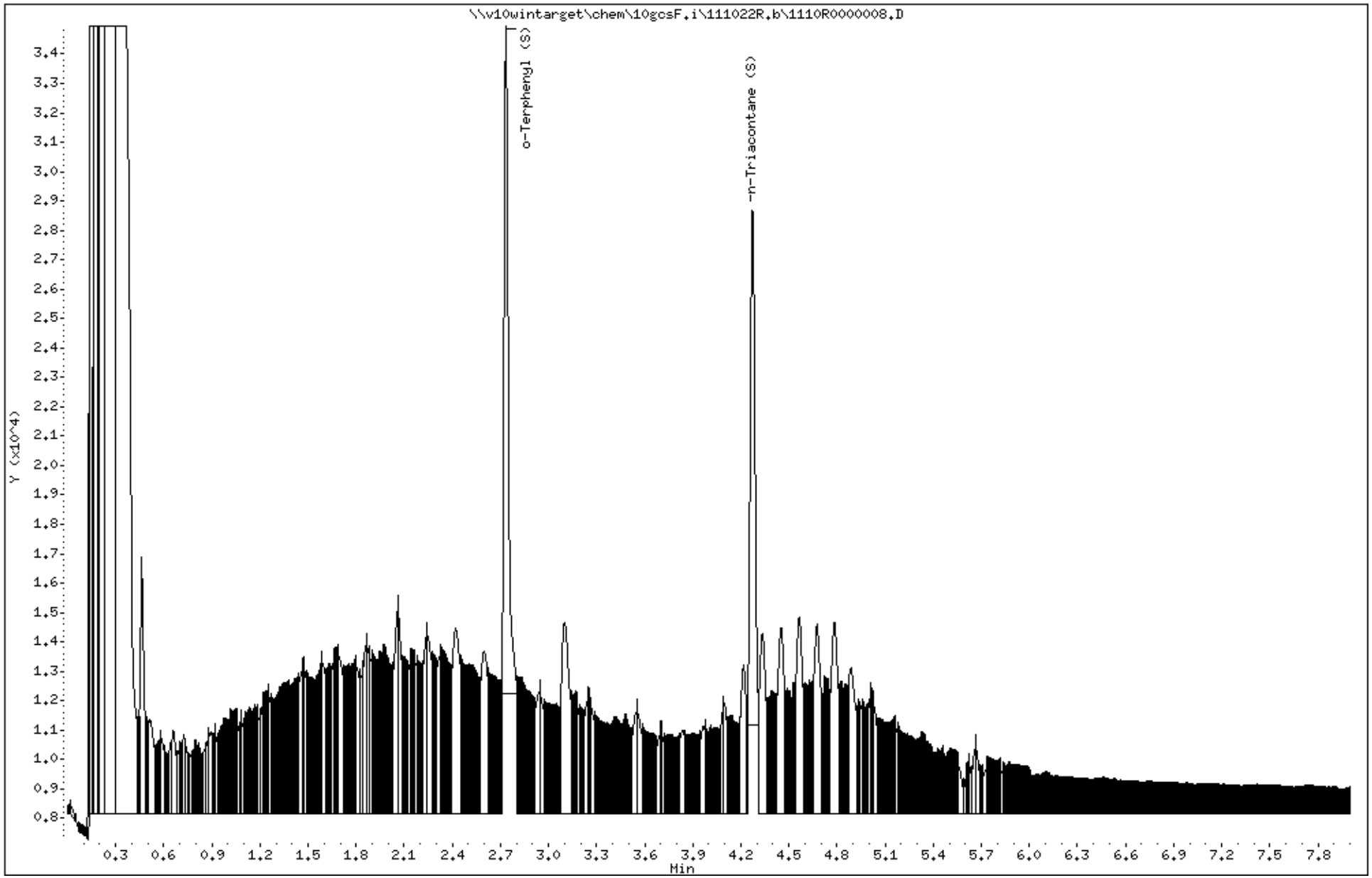
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000008.D
Date : 10-NOV-2022 08:39
Client ID: DMO-CAL4,391061:2
Sample Info: DMO-CAL4,391061:2

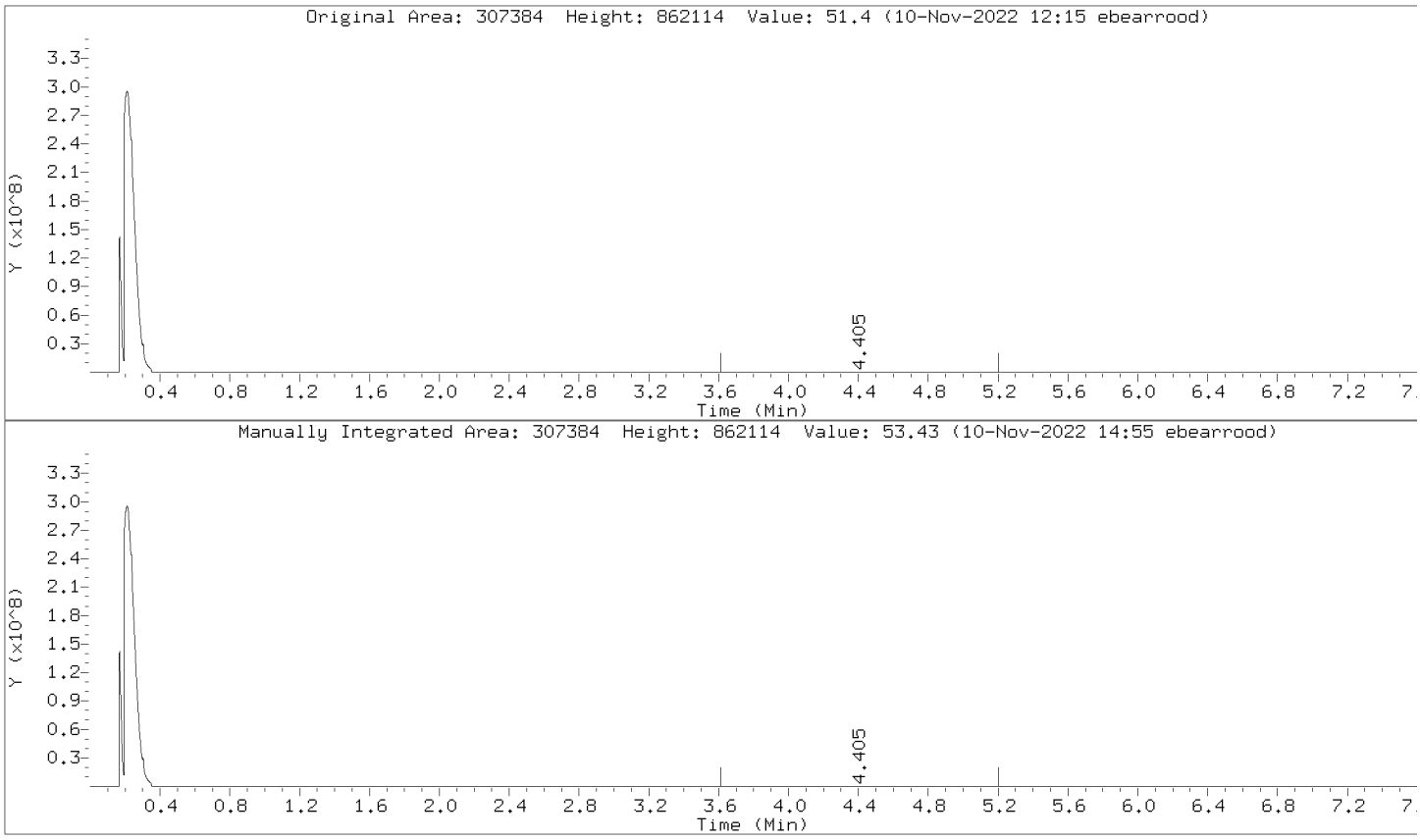
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



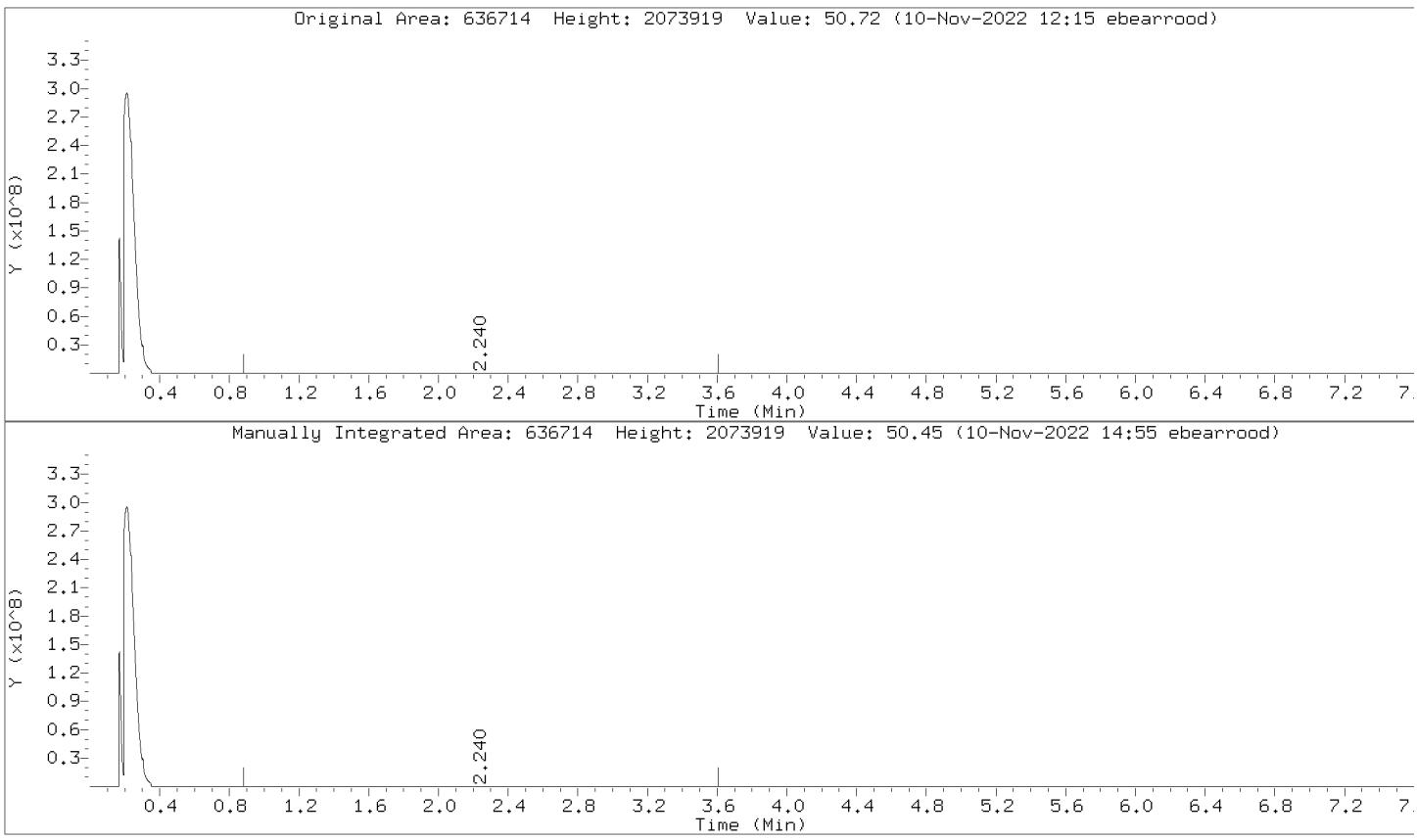
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



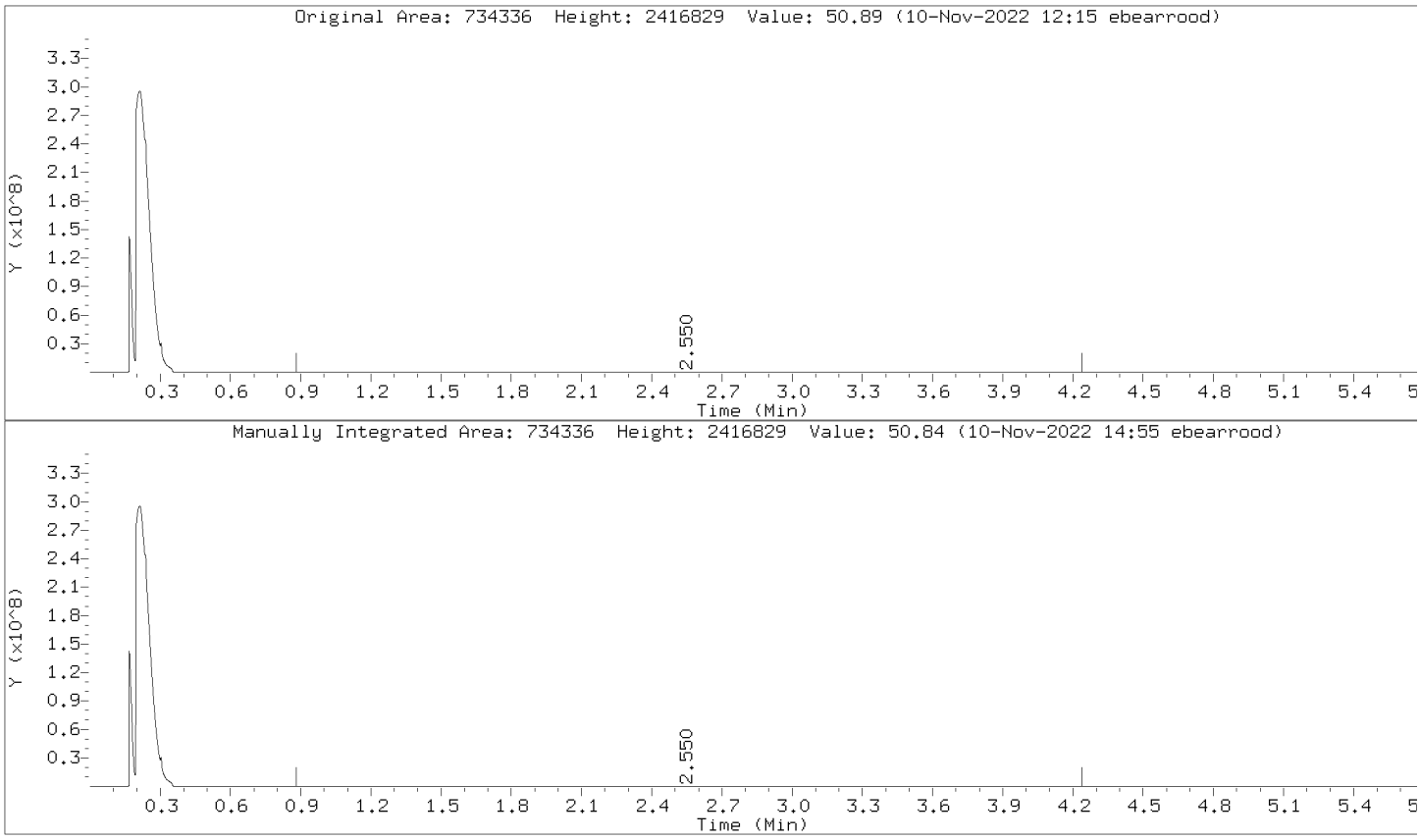
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



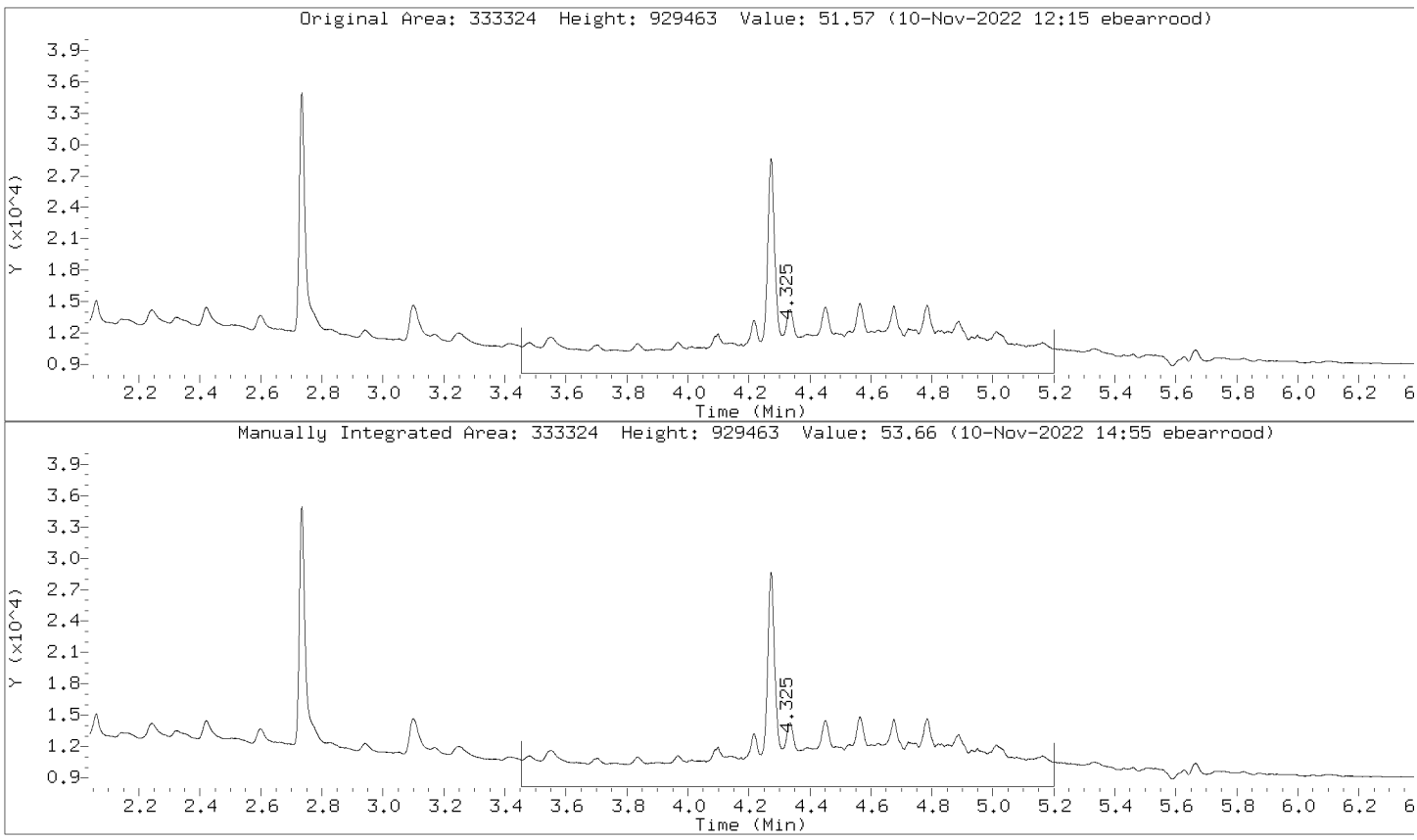
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



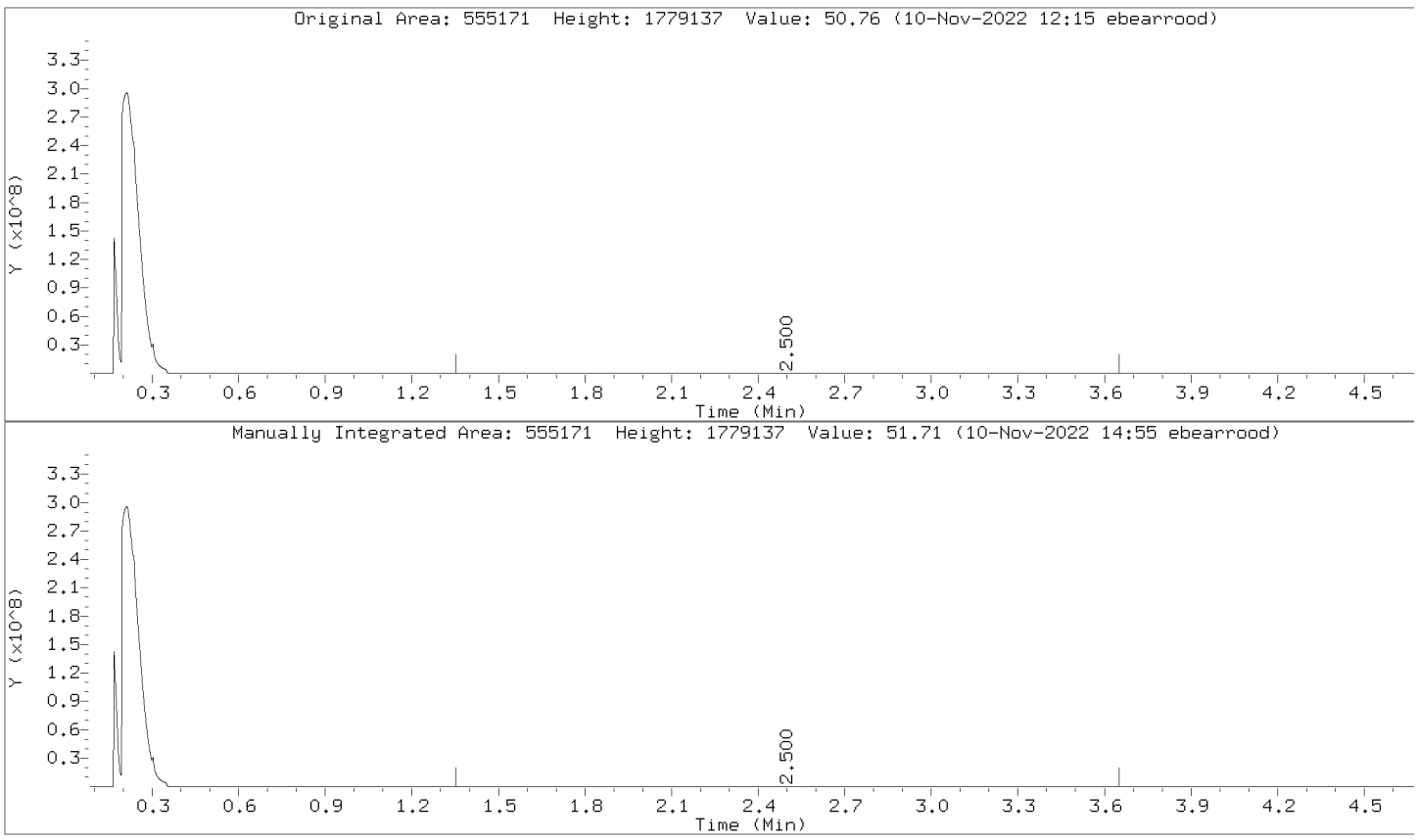
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



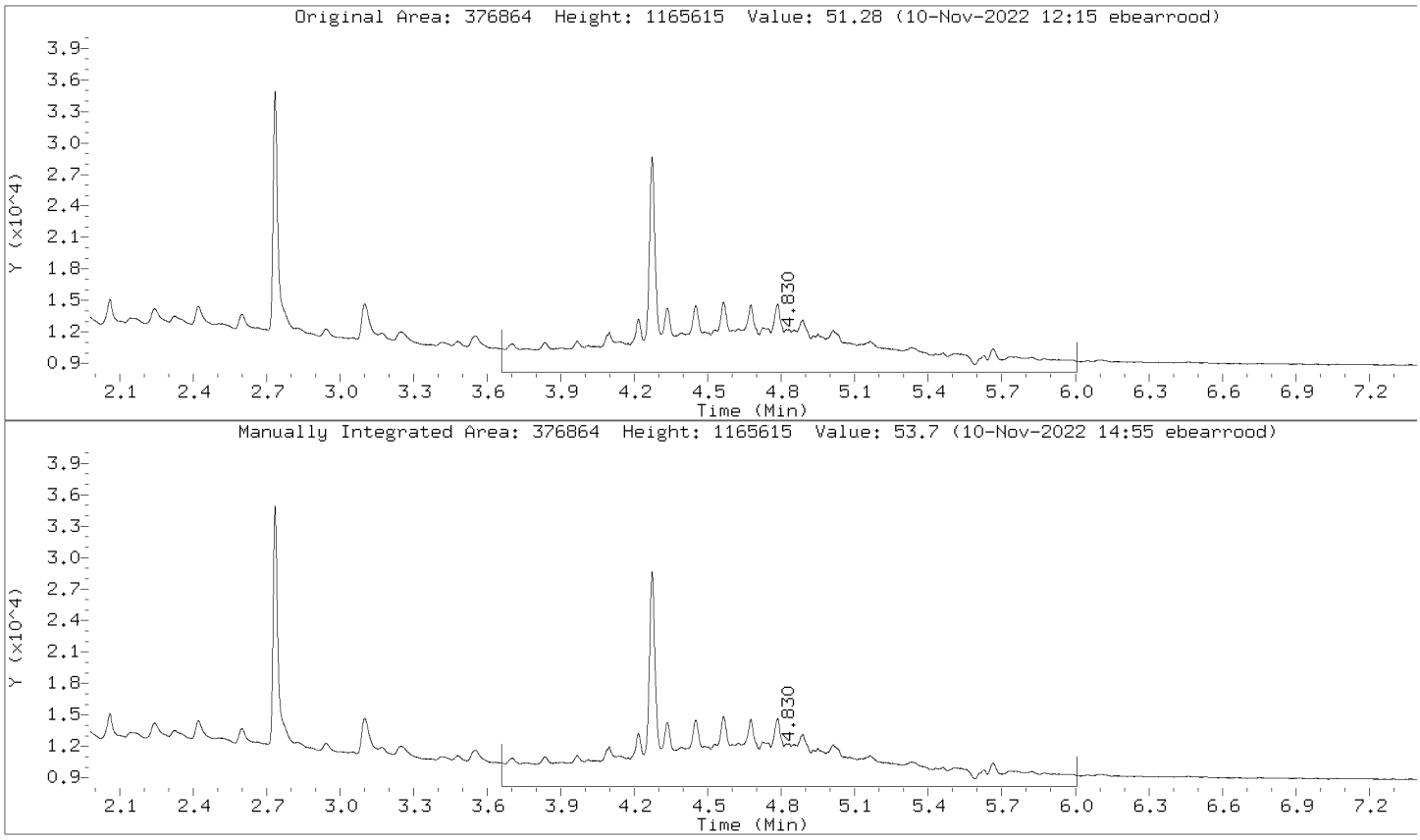
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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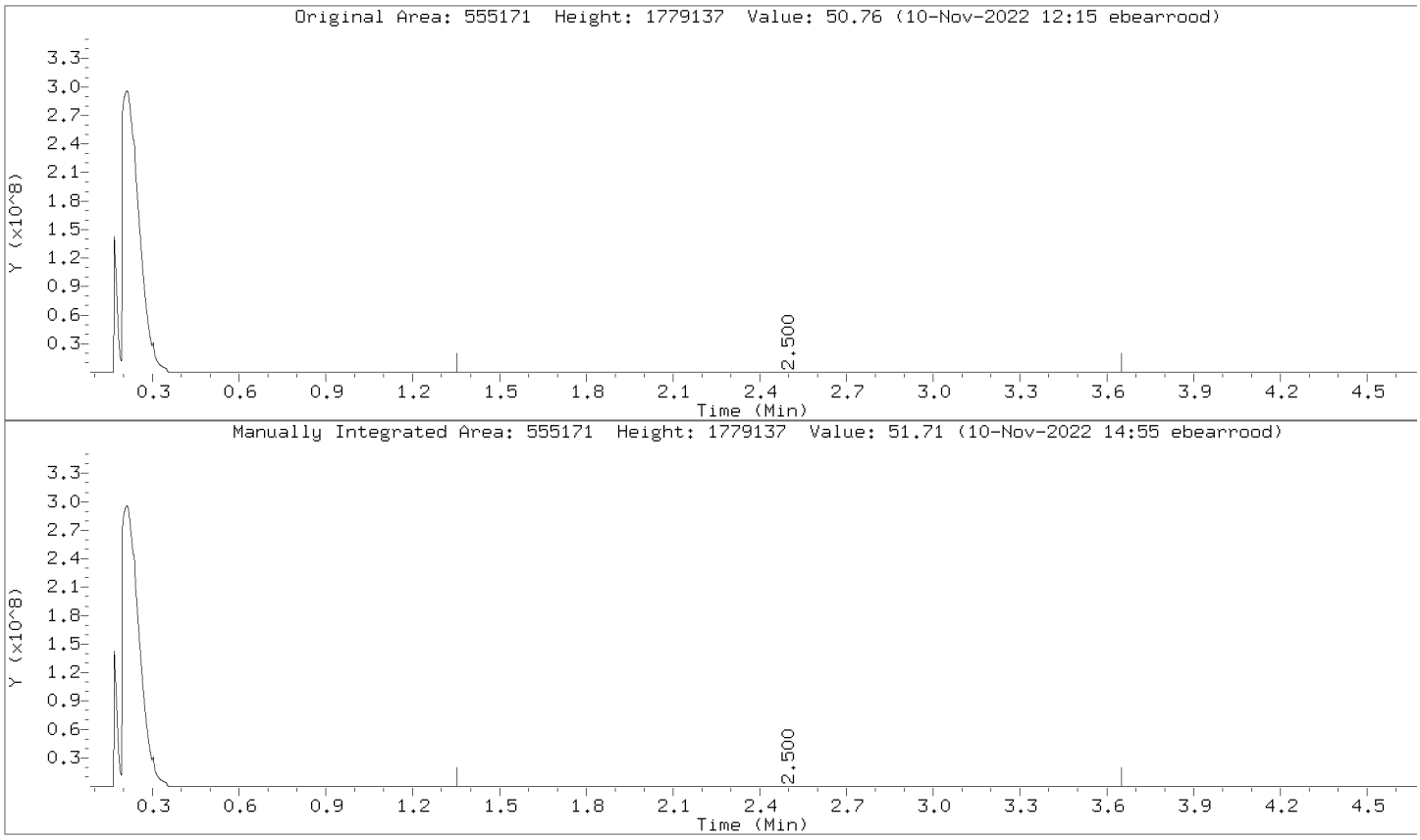
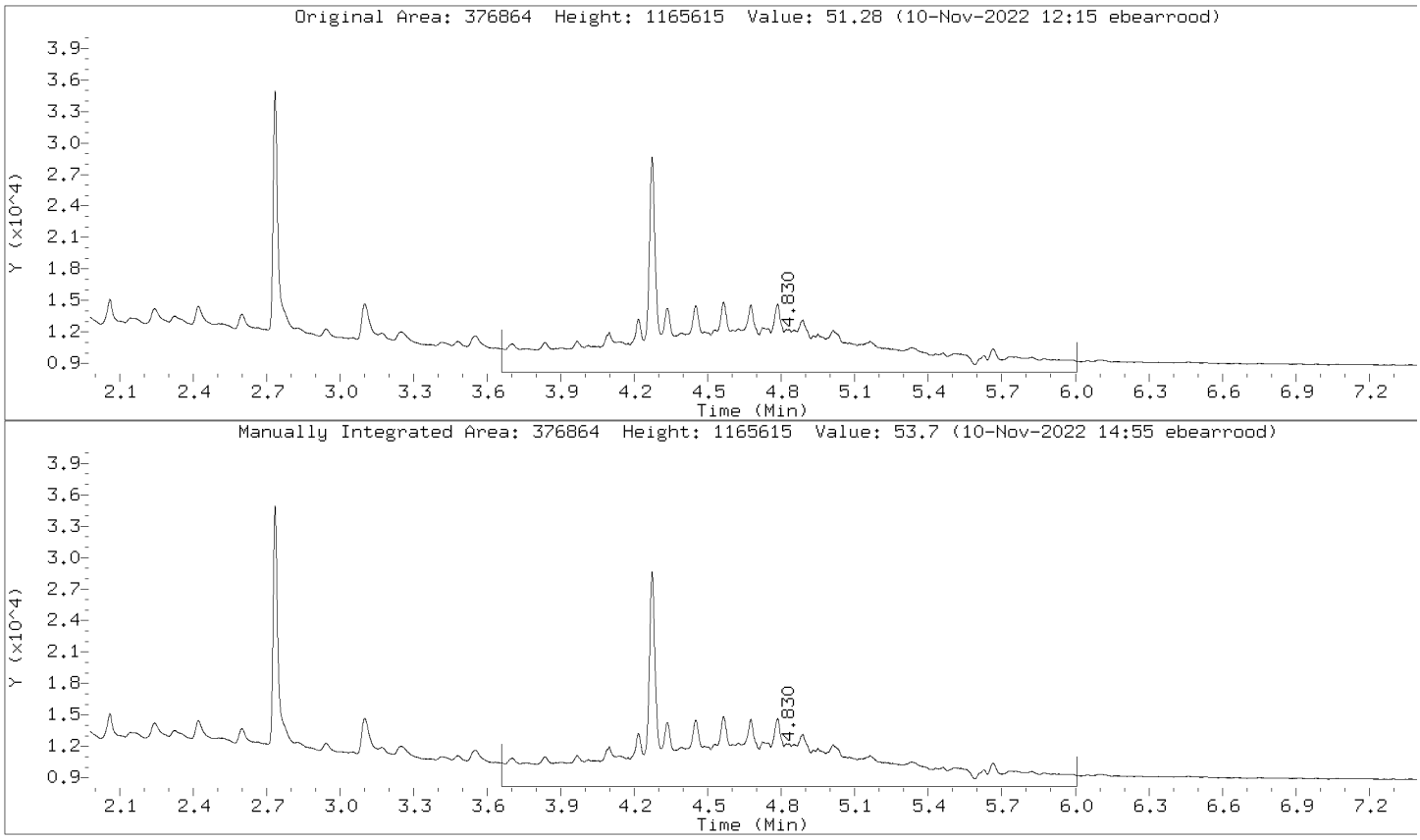
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



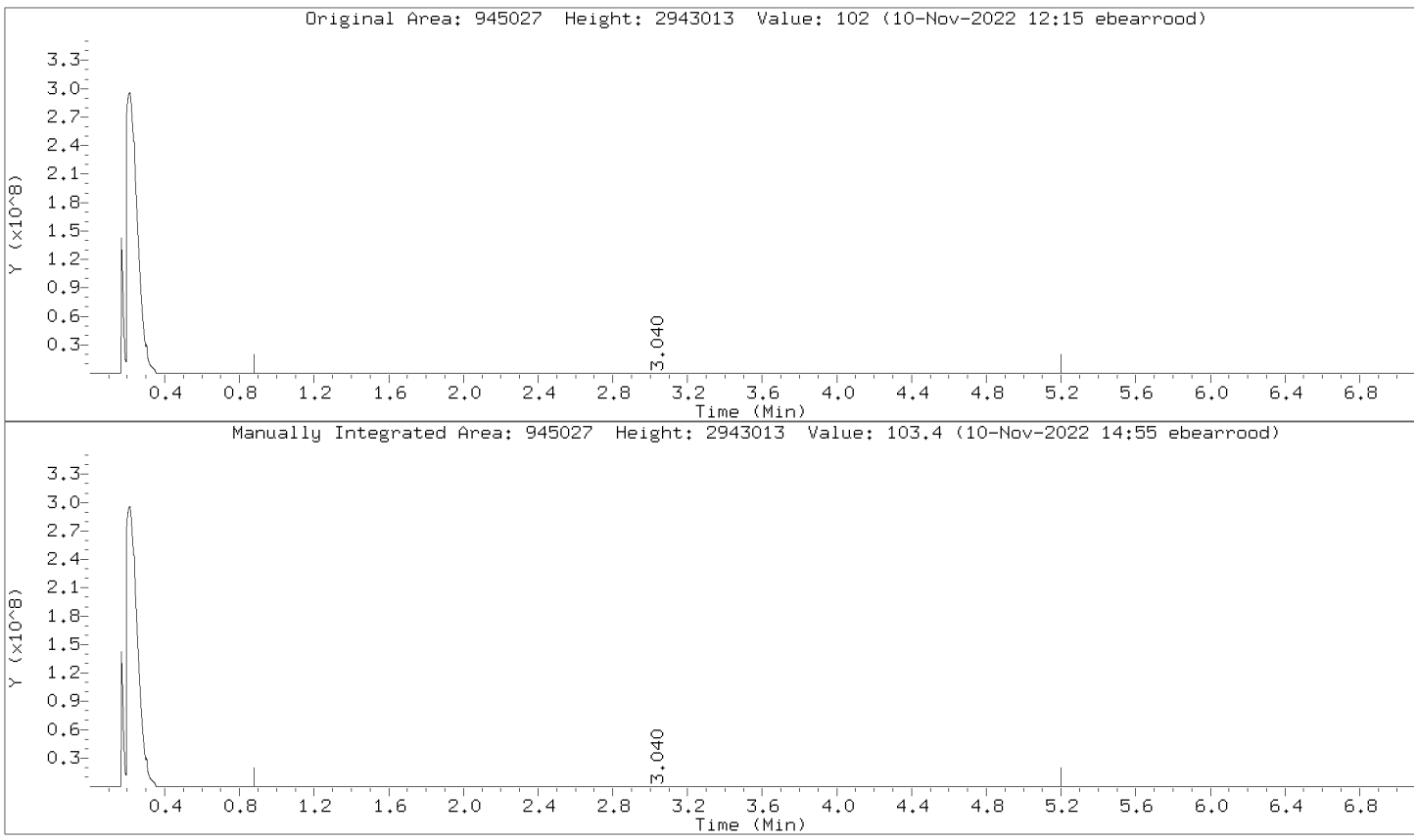
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



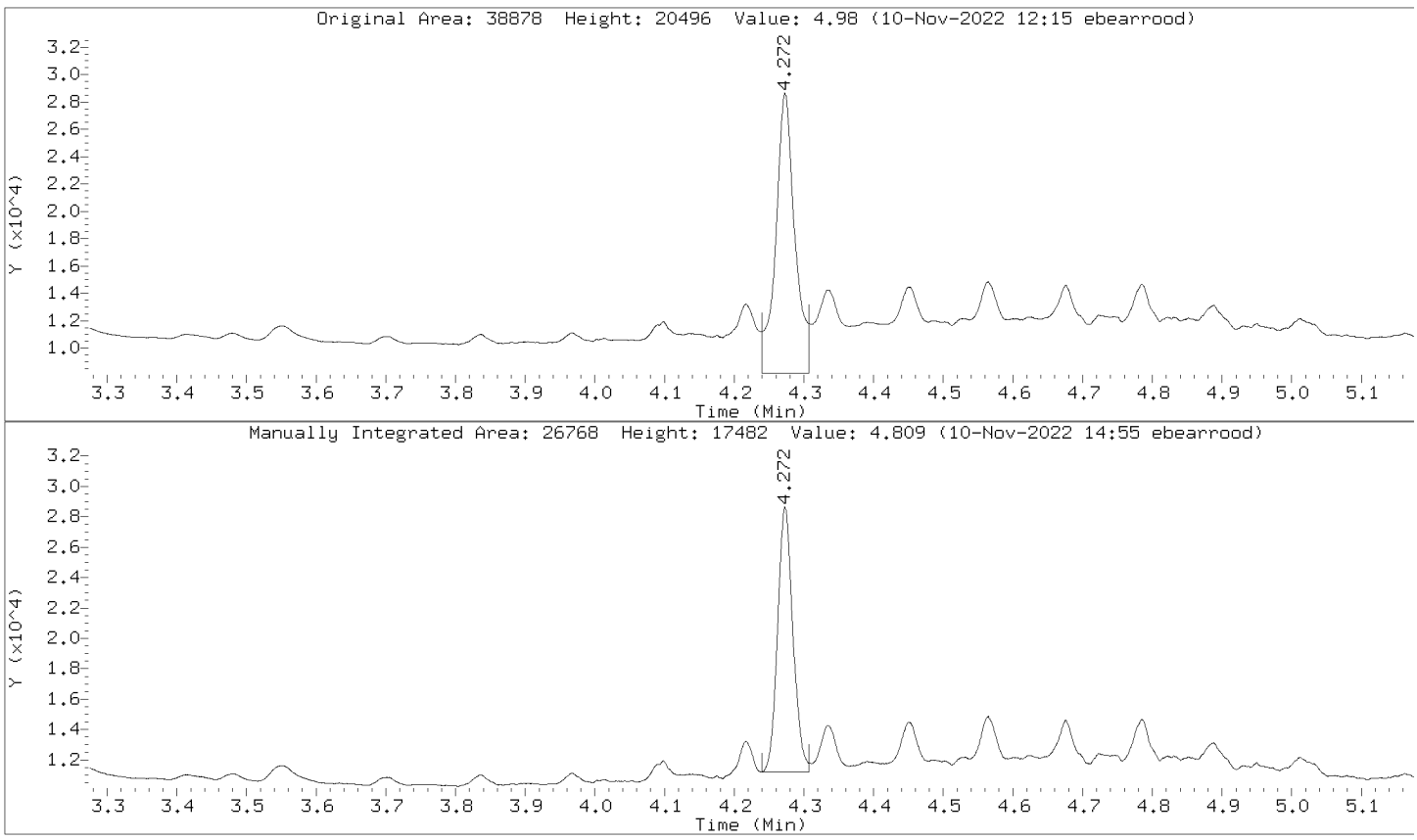
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: C10-C36 Review Code: RNG
CAS Number:



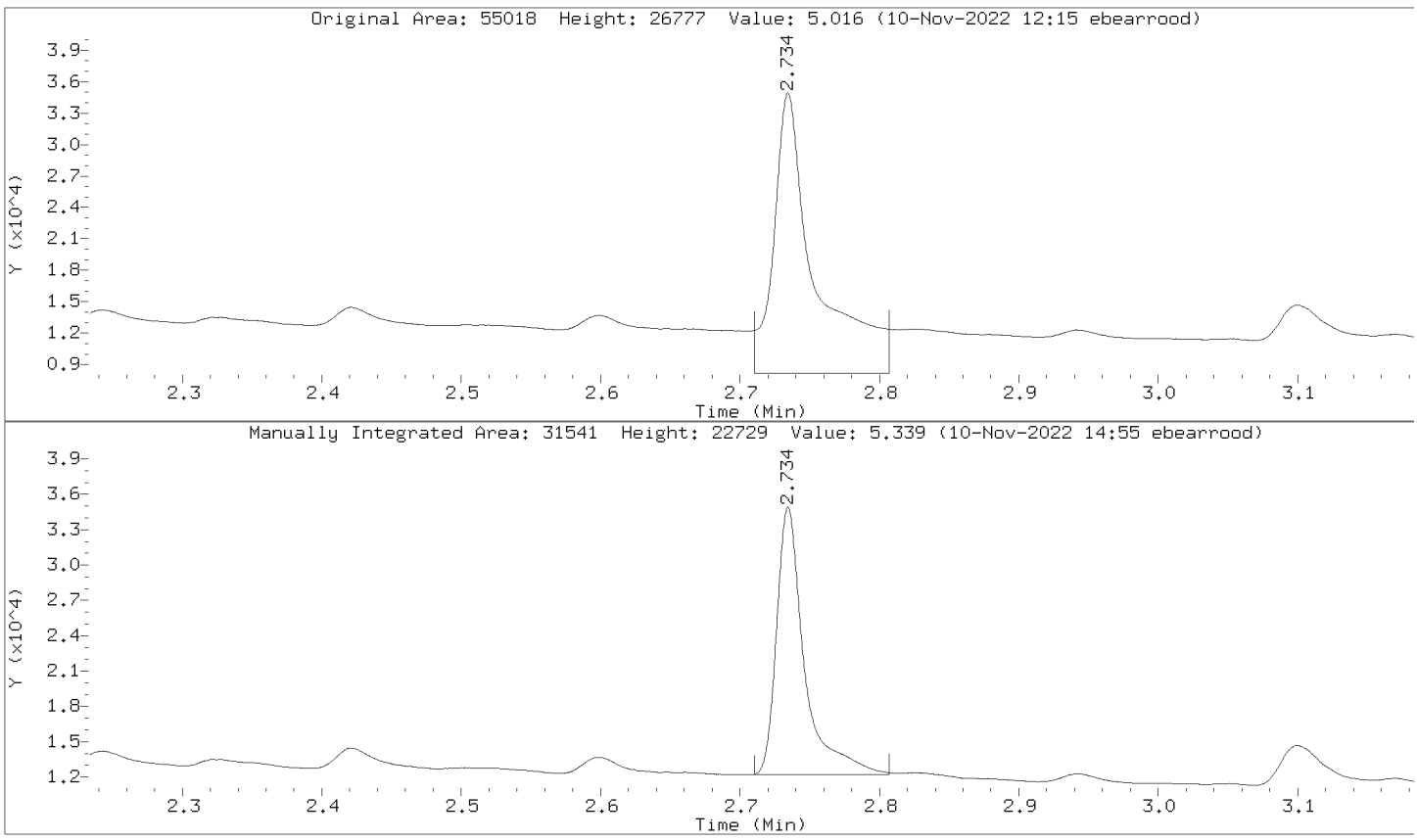
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000008.D
Injection Date: 10-NOV-2022 08:39
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL4,391061:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	307384	307384
DRO by AK 102	636714	636714
TPH-DRO (C10-C28)	734336	734336
Motor Oil Range (C24-C36)	333324	333324
Diesel Fuel Range	555171	555171
Motor Oil Range	376864	376864
Diesel Fuel Range SG	555171	555171
Motor Oil Range SG	376864	376864
C10-C36	945027	945027
n-Triacontane (S)	38878	26768
o-Terphenyl (S)	55018	31541

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Lab Smp Id: DMO-CAL5,391062:2 Client Smp ID: DMO-CAL5,391062:2
Inj Date : 10-NOV-2022 08:51
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal5,391062:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)		REVIEW	CODE
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		898996	100.000	96.8		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	63221	10.0000	10.1		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.272	4.275	-0.003	50954	10.0000	9.45		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		461790	100.000	96.3		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		1035387	100.000	96.6		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		493334	100.000	96.1		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		1362996	200.000	193		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		774489	100.000	97.7		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		564743	100.000	96.5		(M)	RNG

QC Flag Legend

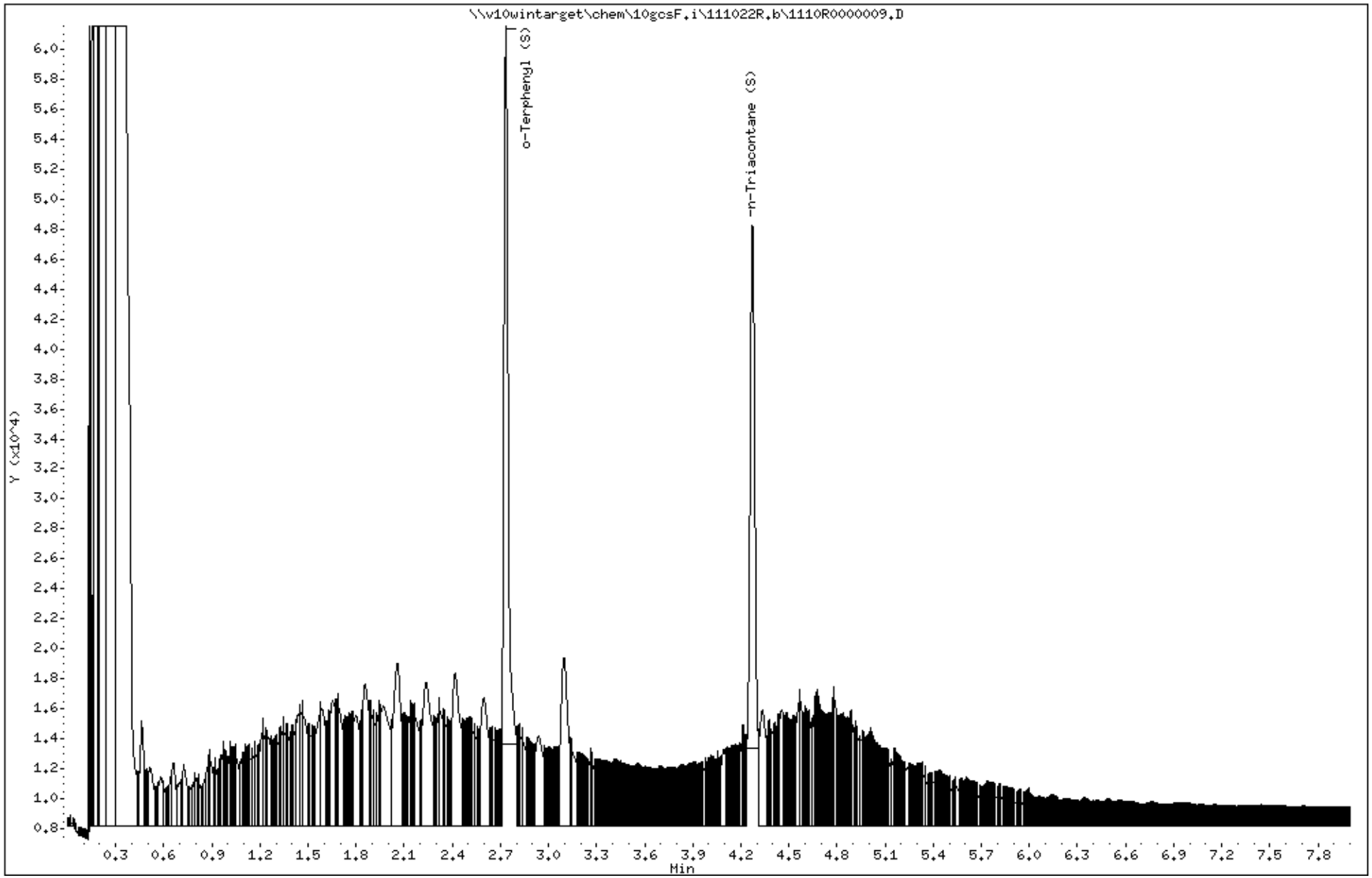
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

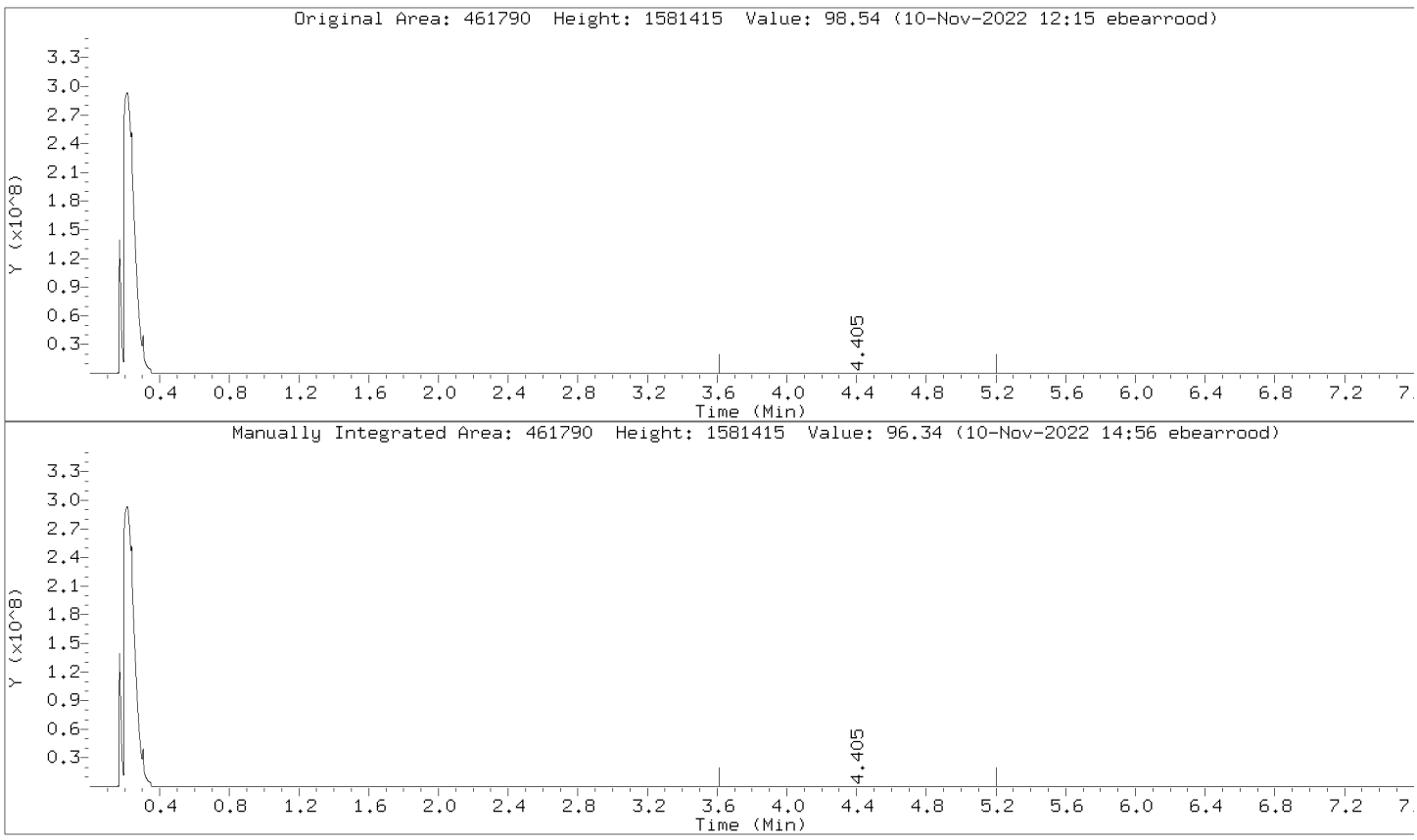
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000009.D
Date : 10-NOV-2022 08:51
Client ID: DMO-CAL5,391062:2
Sample Info: DMO-CAL5,391062:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



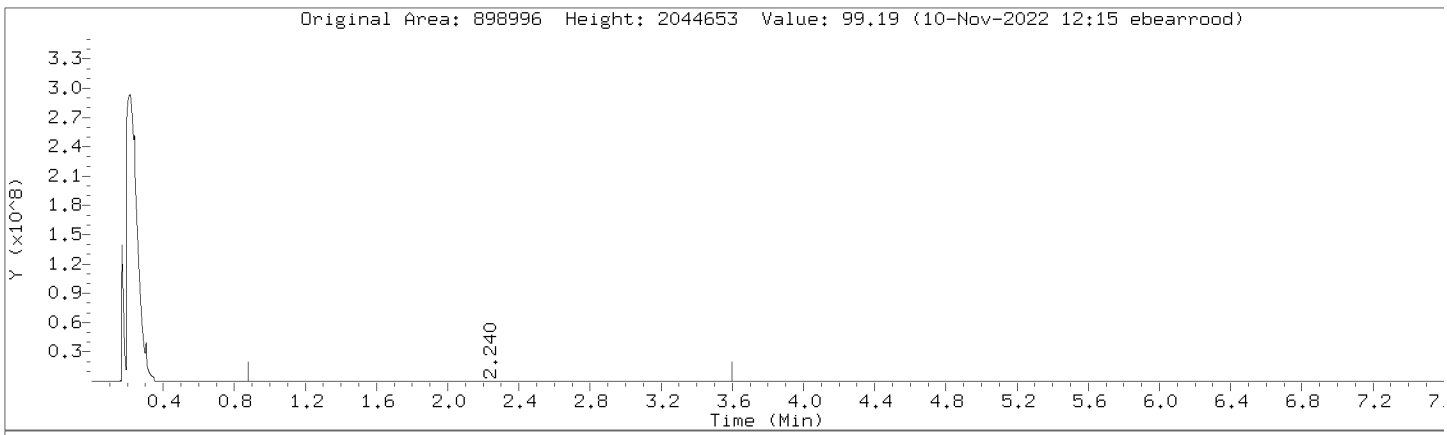
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

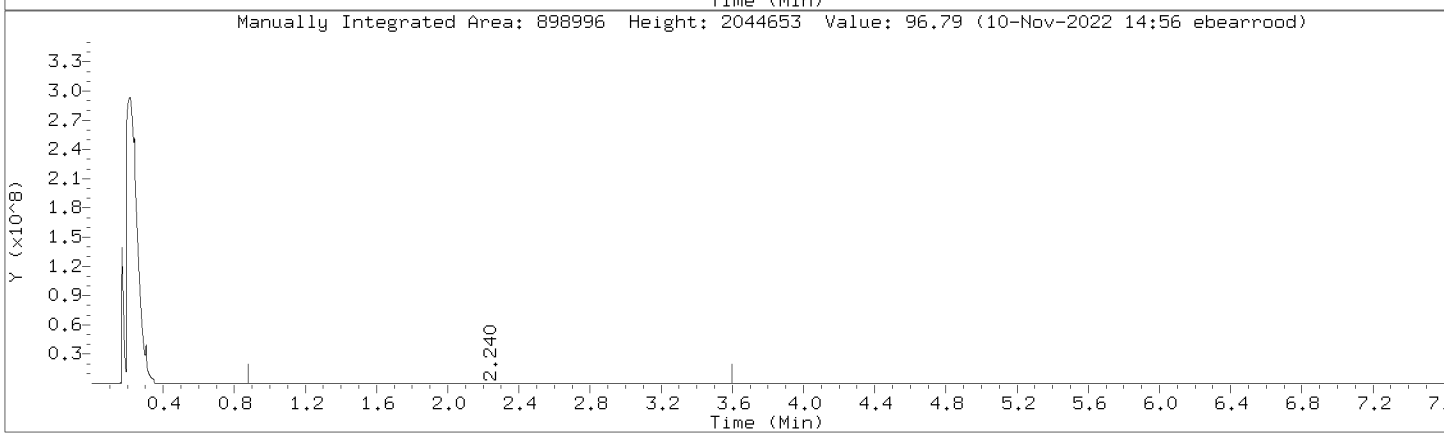
Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

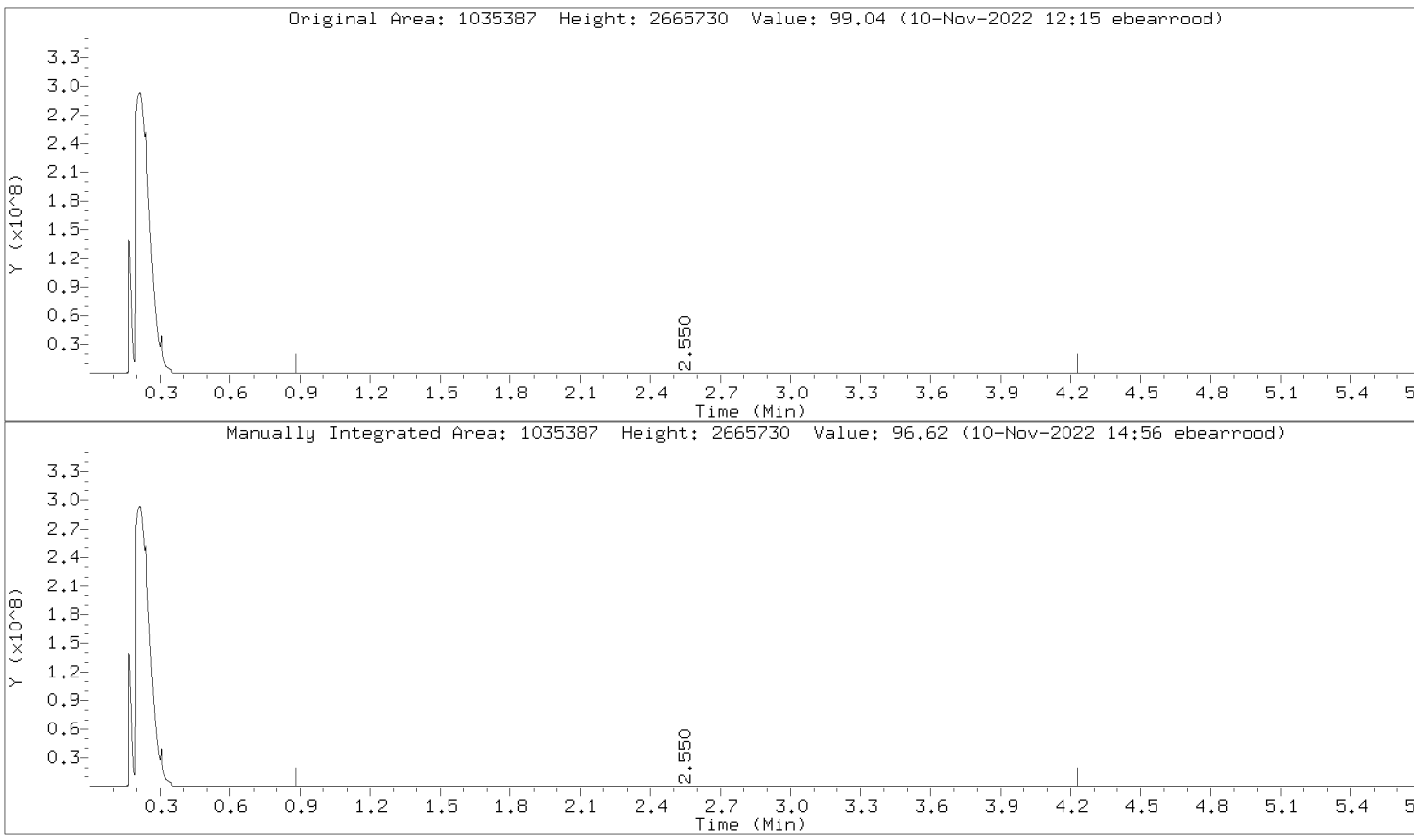
Compound: DRO by AK 102 Review Code: RNG
CAS Number:





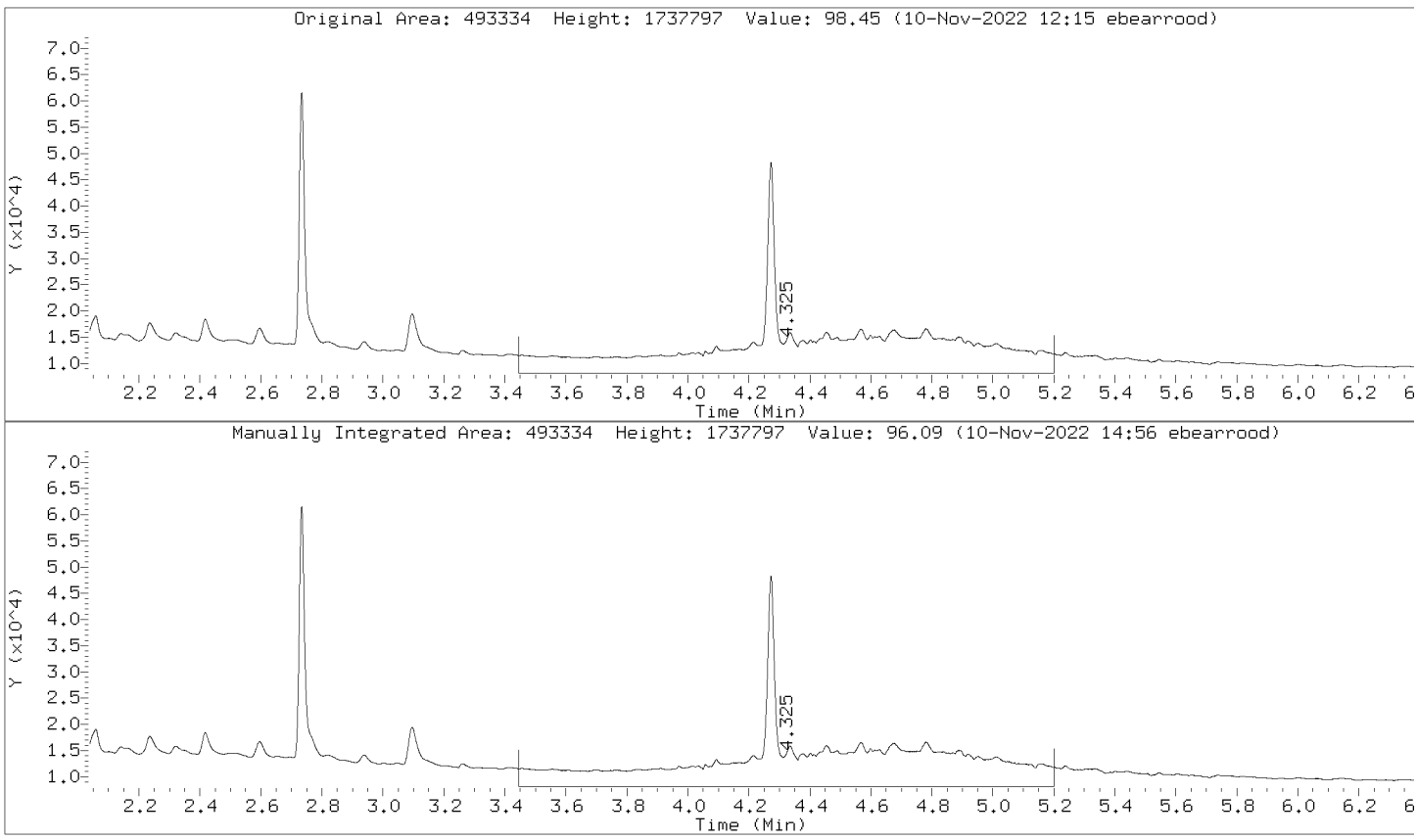
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



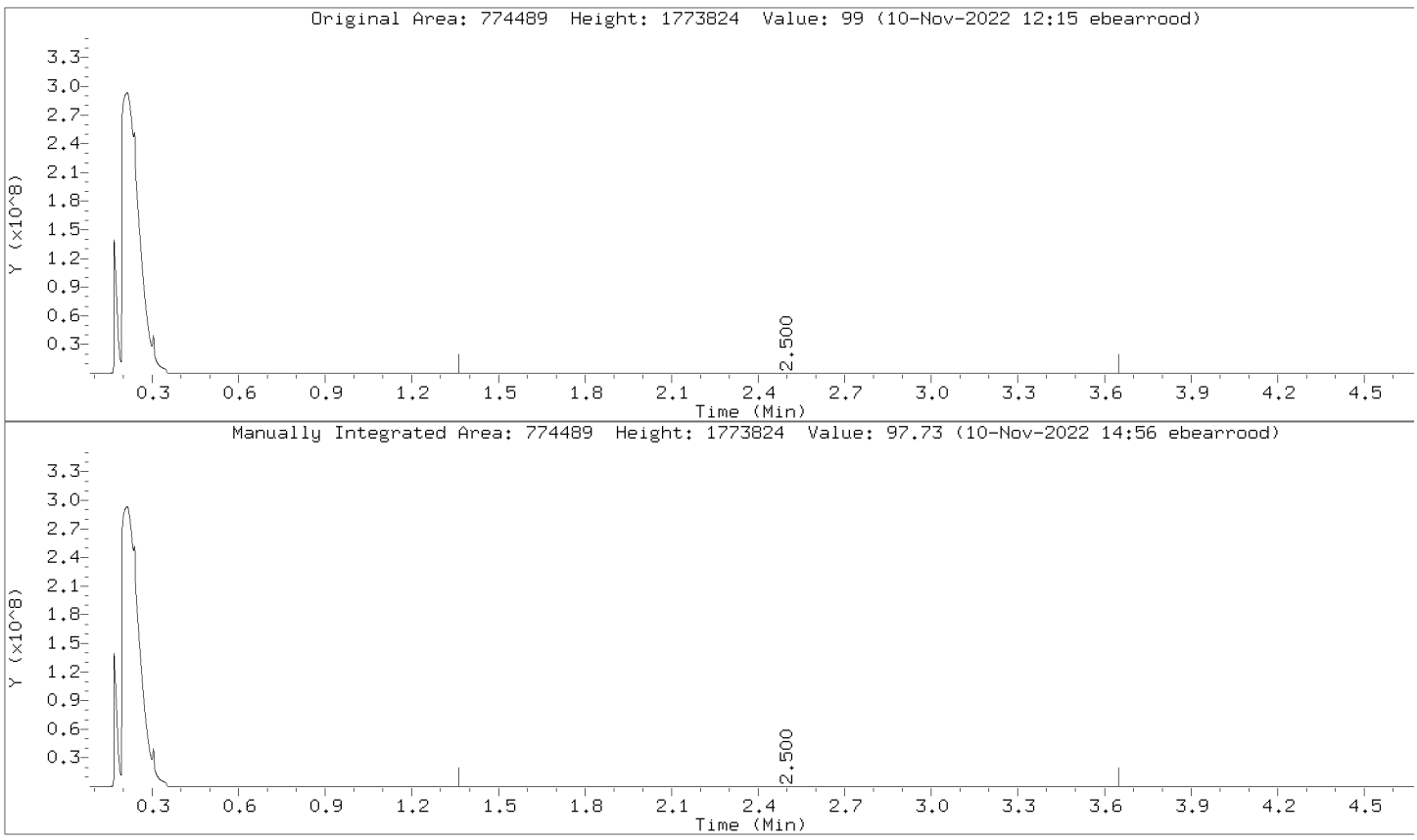
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



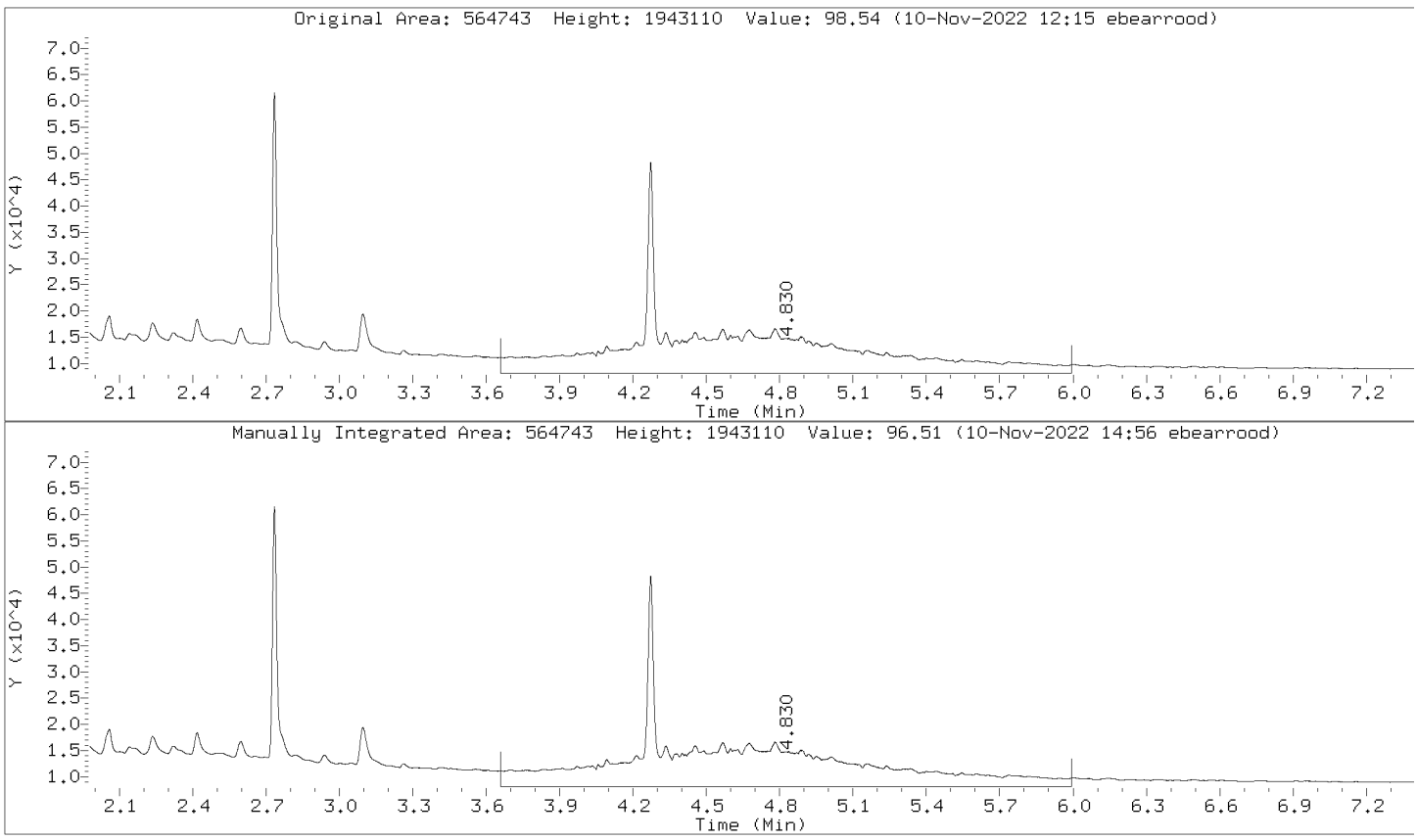
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



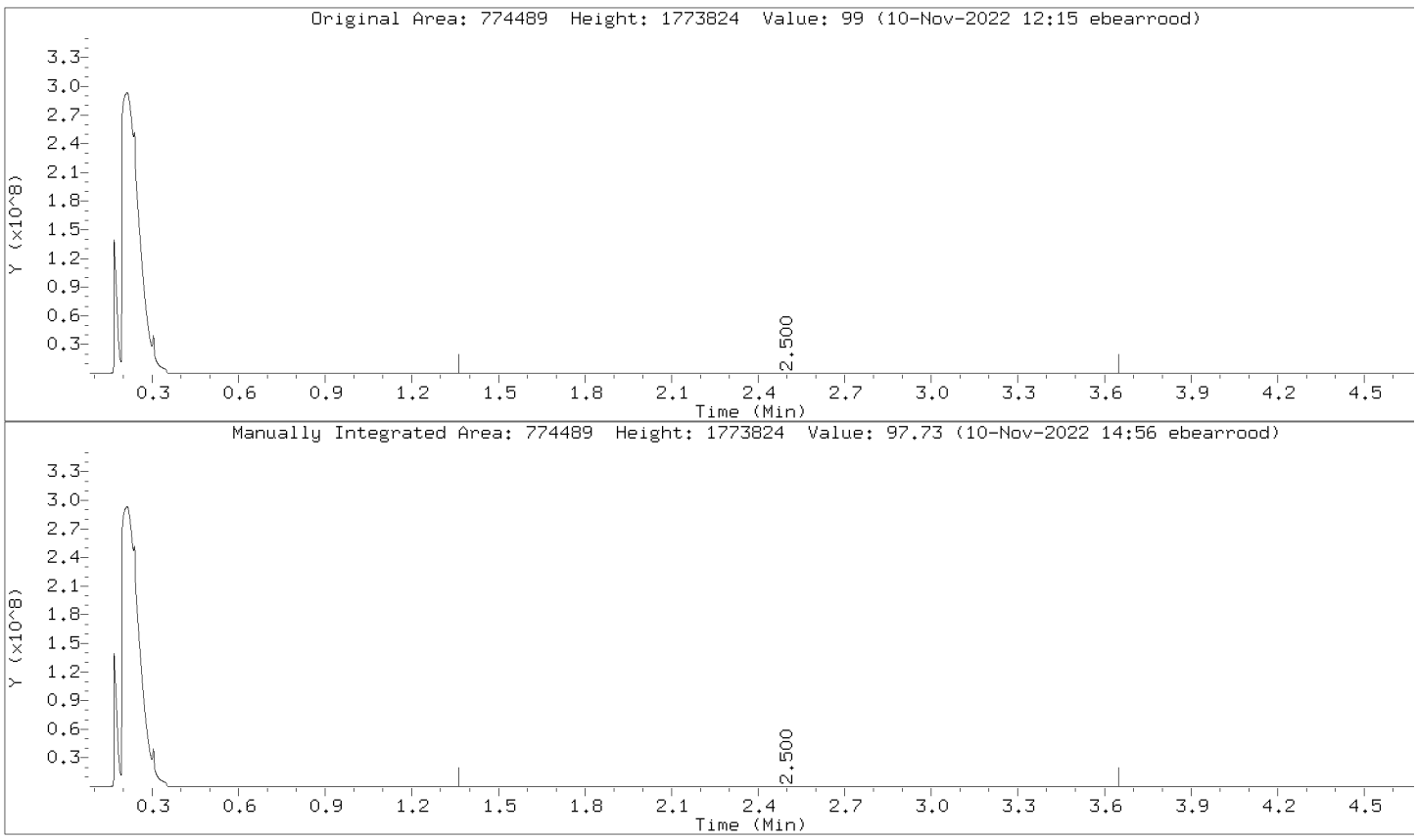
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



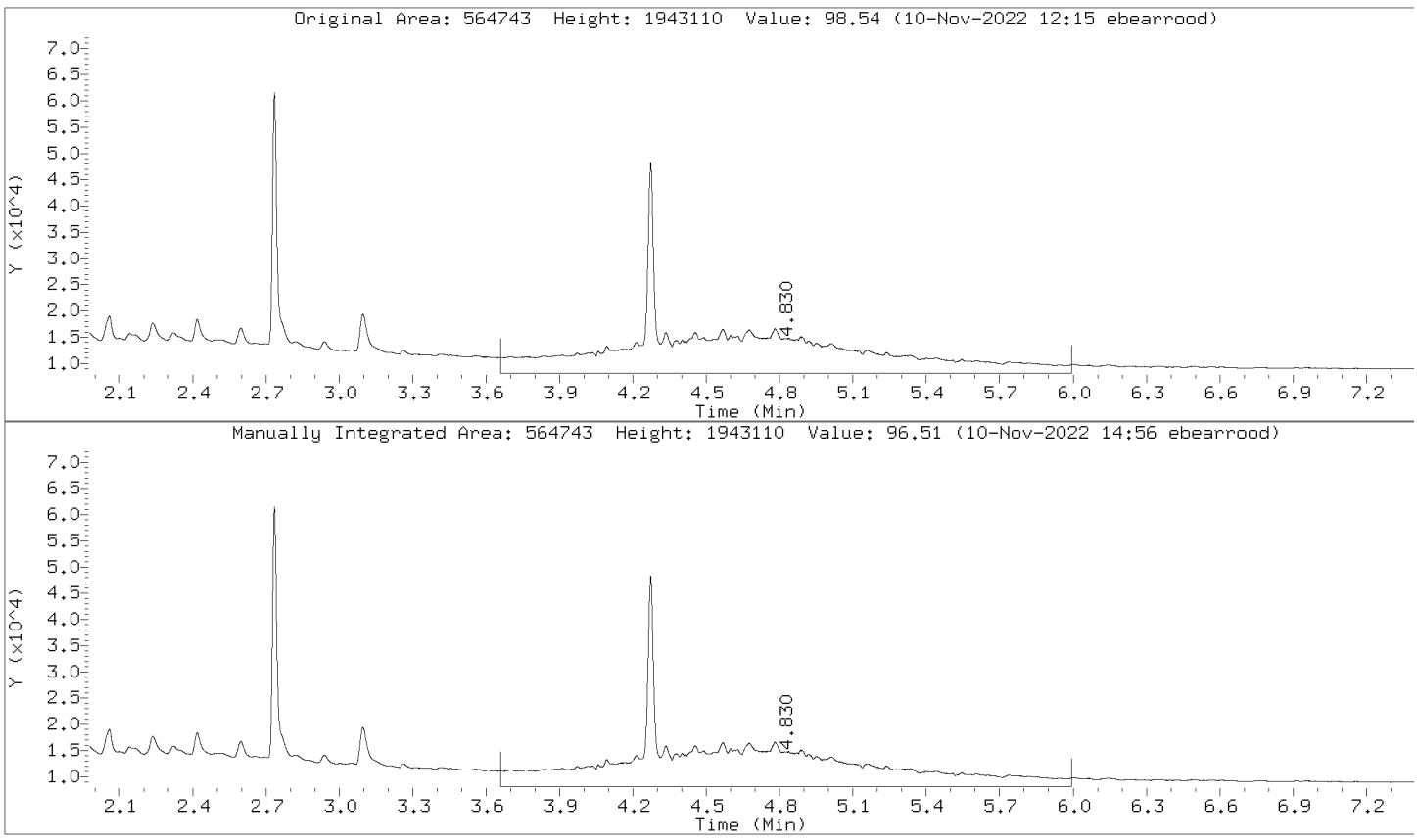
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



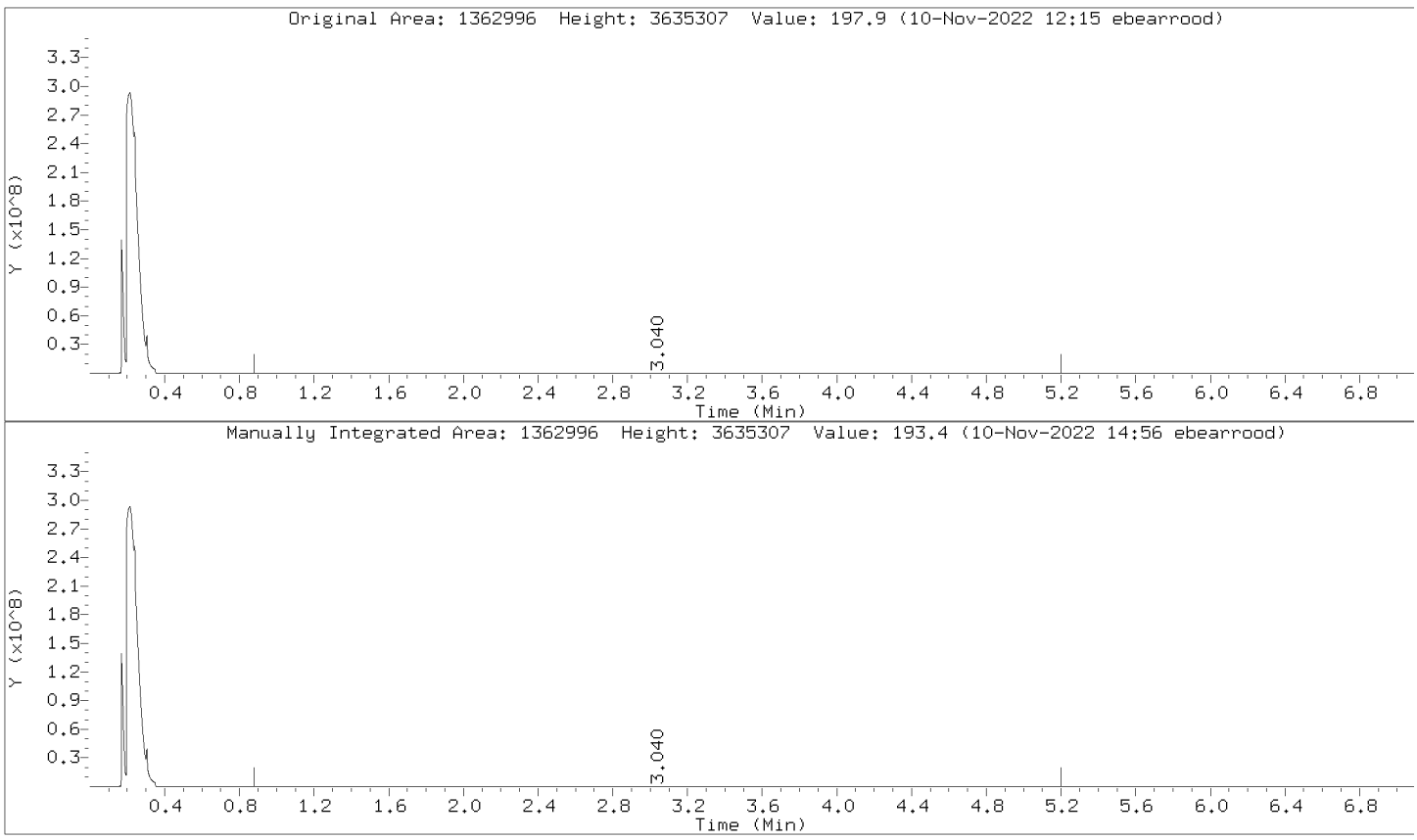
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



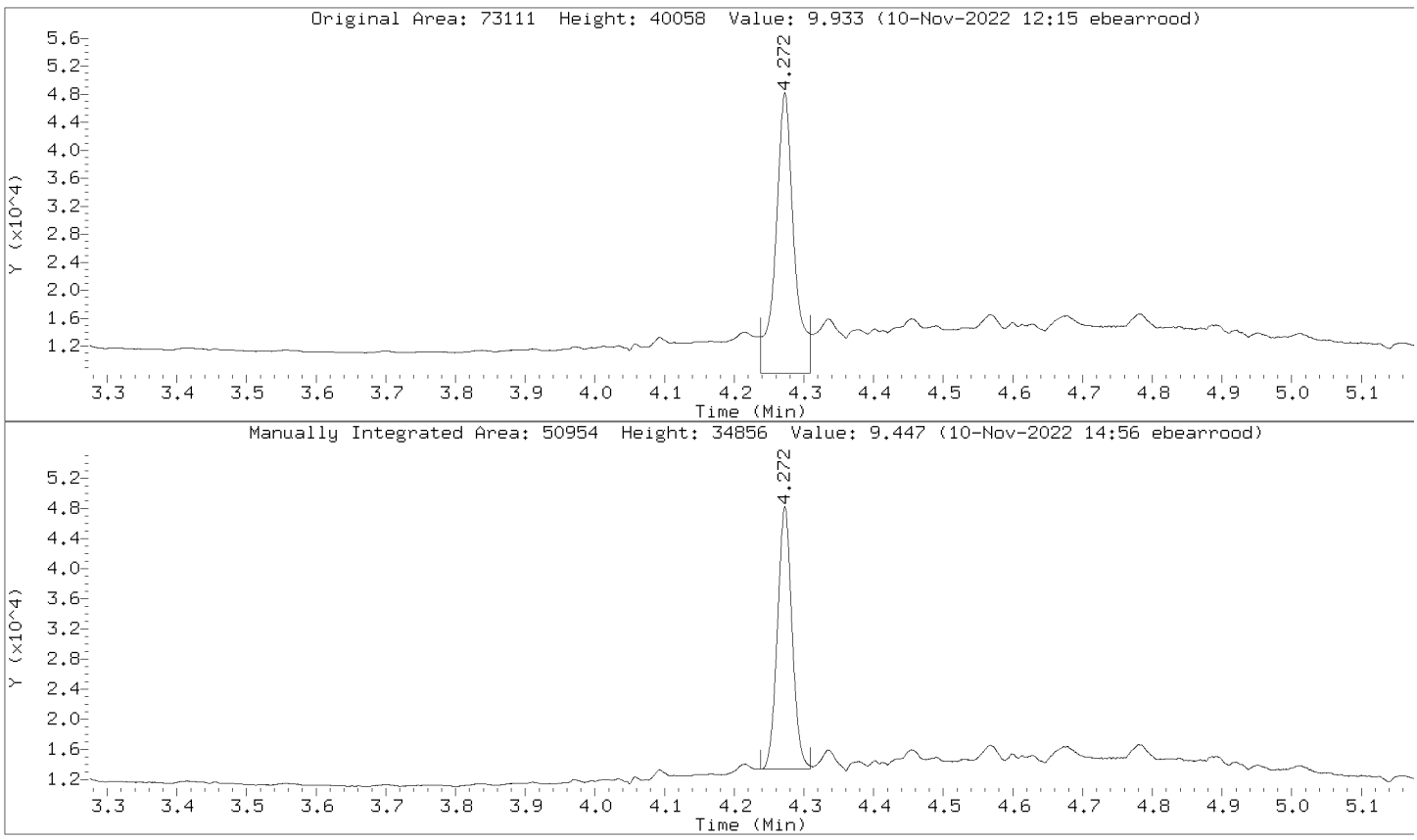
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: C10-C36 Review Code: RNG
CAS Number:



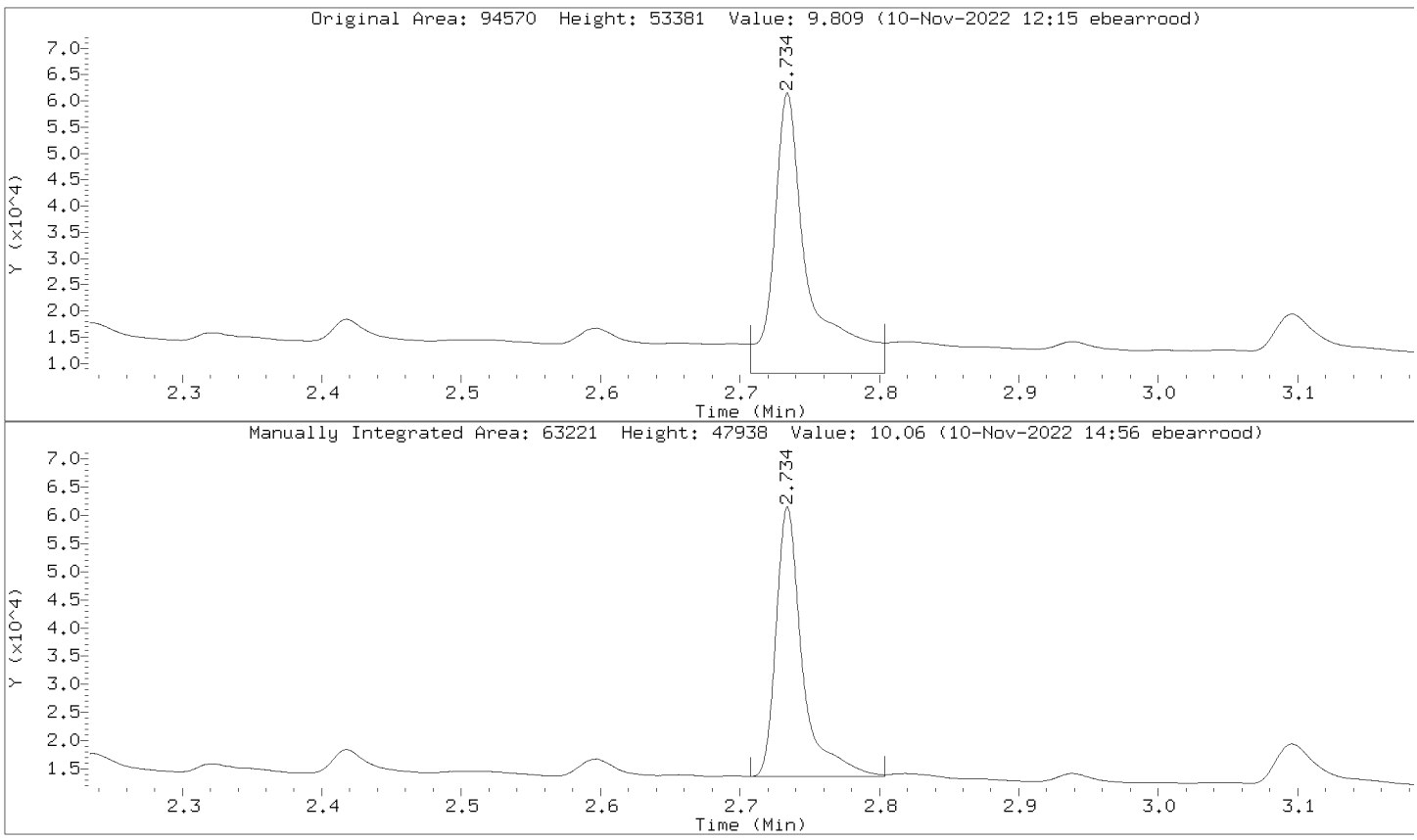
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000009.D
Injection Date: 10-NOV-2022 08:51
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL5,391062:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	461790	461790
DRO by AK 102	898996	898996
TPH-DRO (C10-C28)	1035387	1035387
Motor Oil Range (C24-C36)	493334	493334
Diesel Fuel Range	774489	774489
Motor Oil Range	564743	564743
Diesel Fuel Range SG	774489	774489
Motor Oil Range SG	564743	564743
C10-C36	1362996	1362996
n-Triacontane (S)	73111	50954
o-Terphenyl (S)	94570	63221

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Lab Smp Id: DMO-CAL6,391063:2 Client Smp ID: DMO-CAL6,391063:2
Inj Date : 10-NOV-2022 09:02
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal6,391063:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE		(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		1767895	250.000	250		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.733	2.733	0.000	162877	25.0000	24.9		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.274	4.275	-0.001	134635	25.0000	25.5		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		1016189	250.000	250		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		2040586	250.000	249		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		1068936	250.000	249		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		2784418	500.000	500		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		1502245	250.000	250		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		1502245	250.000	250		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		1233127	250.000	249		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		1233127	250.000	249		(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

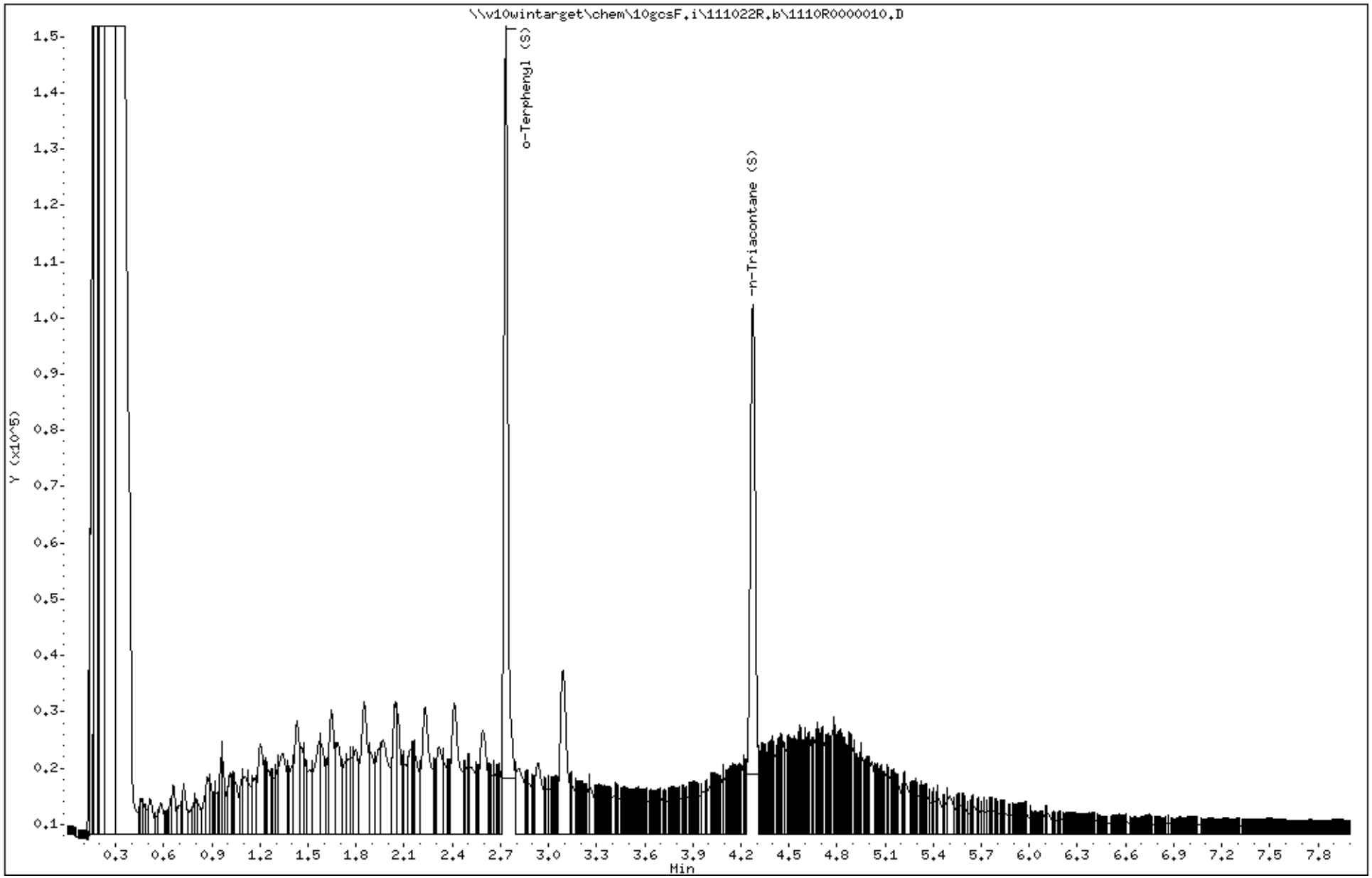
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000010.D
Date : 10-NOV-2022 09:02
Client ID: DMO-CAL6,391063:2
Sample Info: DMO-CAL6,391063:2

Column phase: DB-5-US21130002

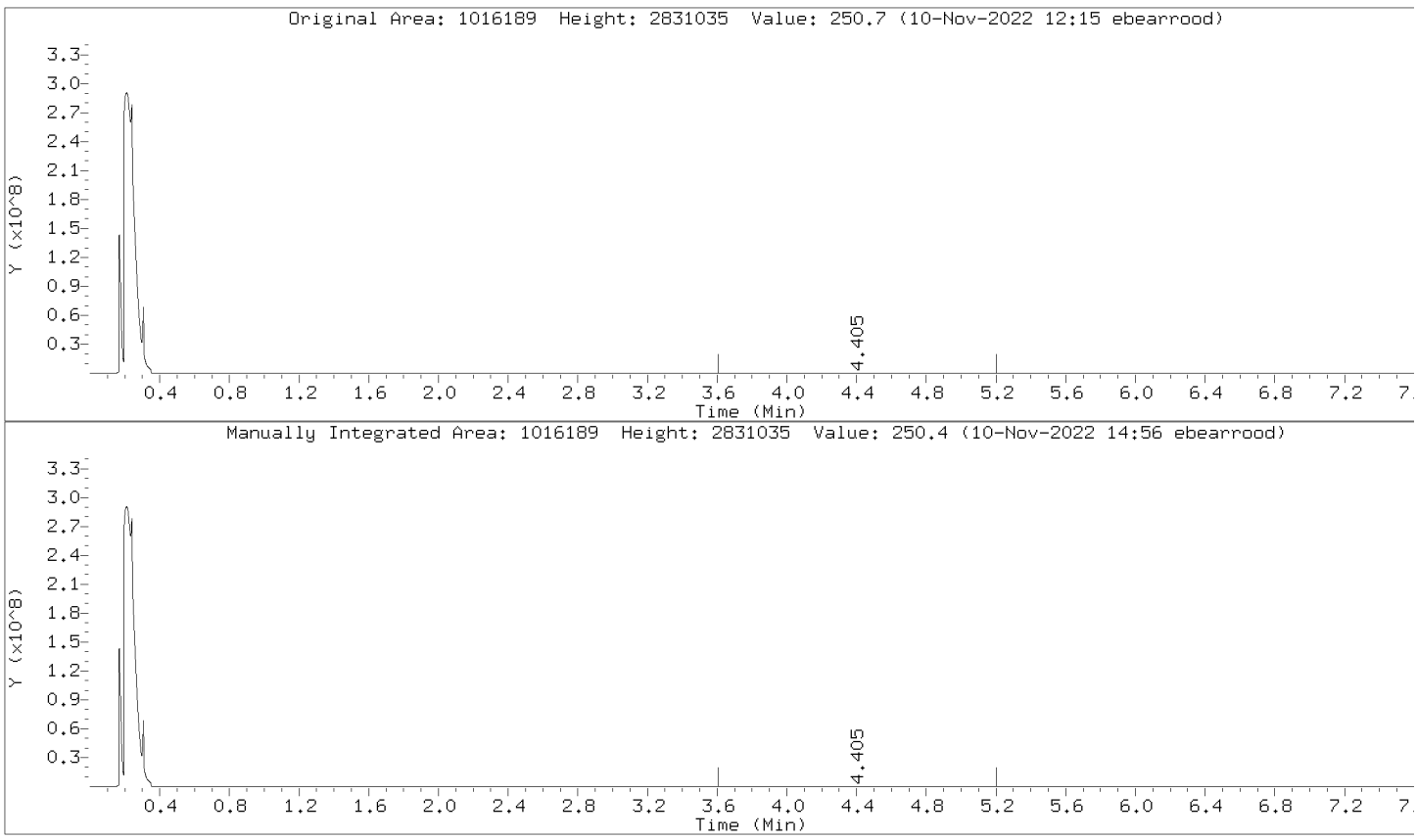
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



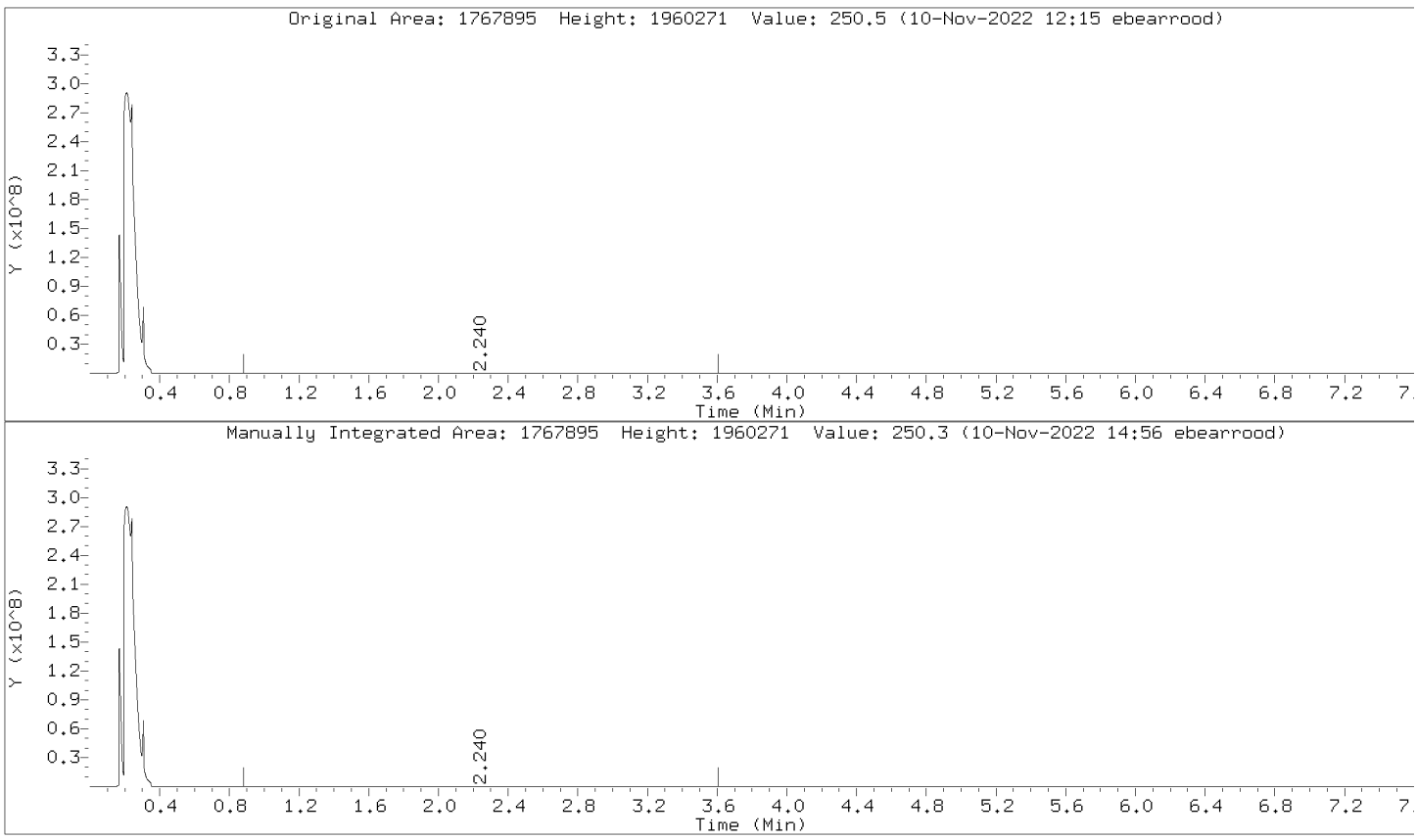
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



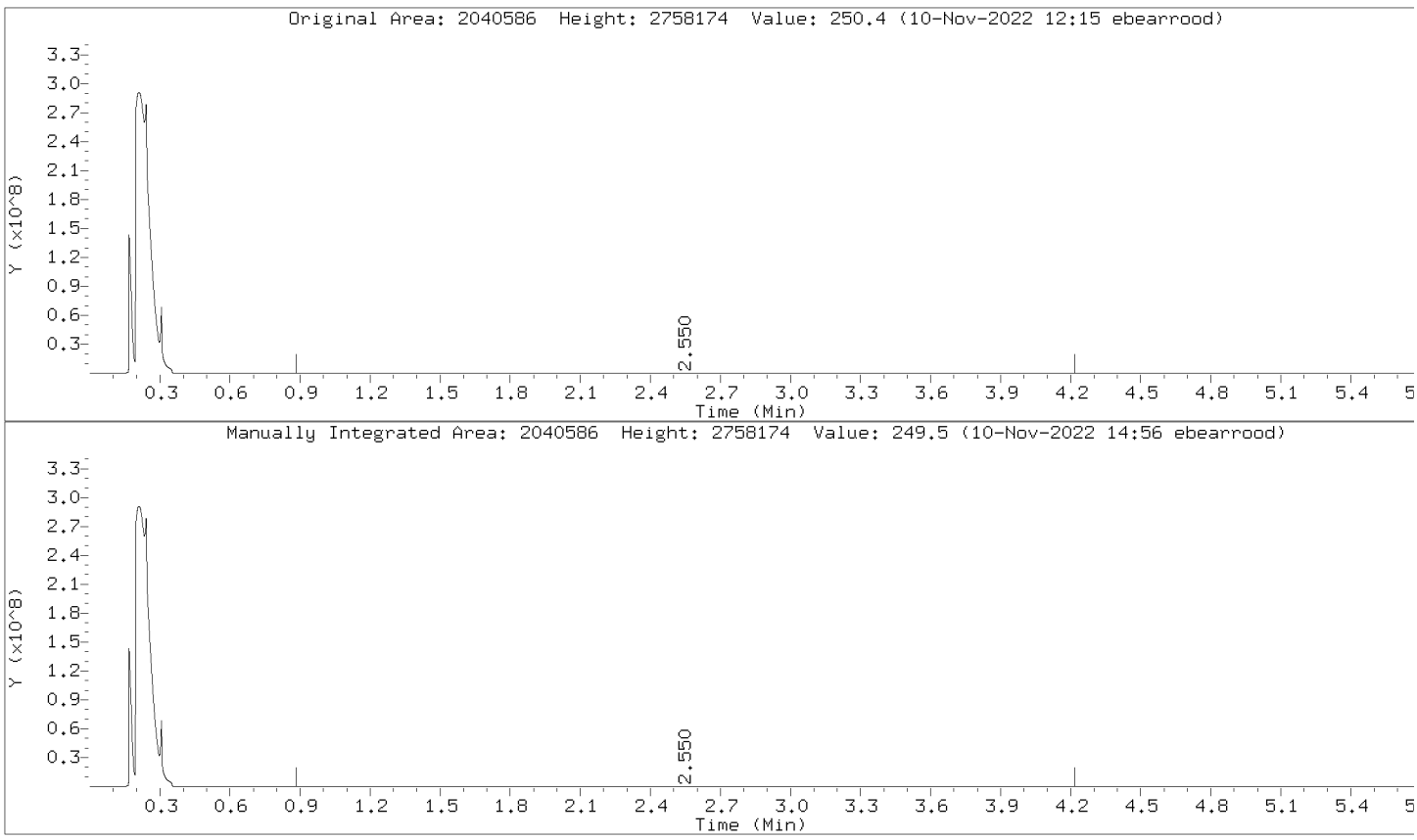
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



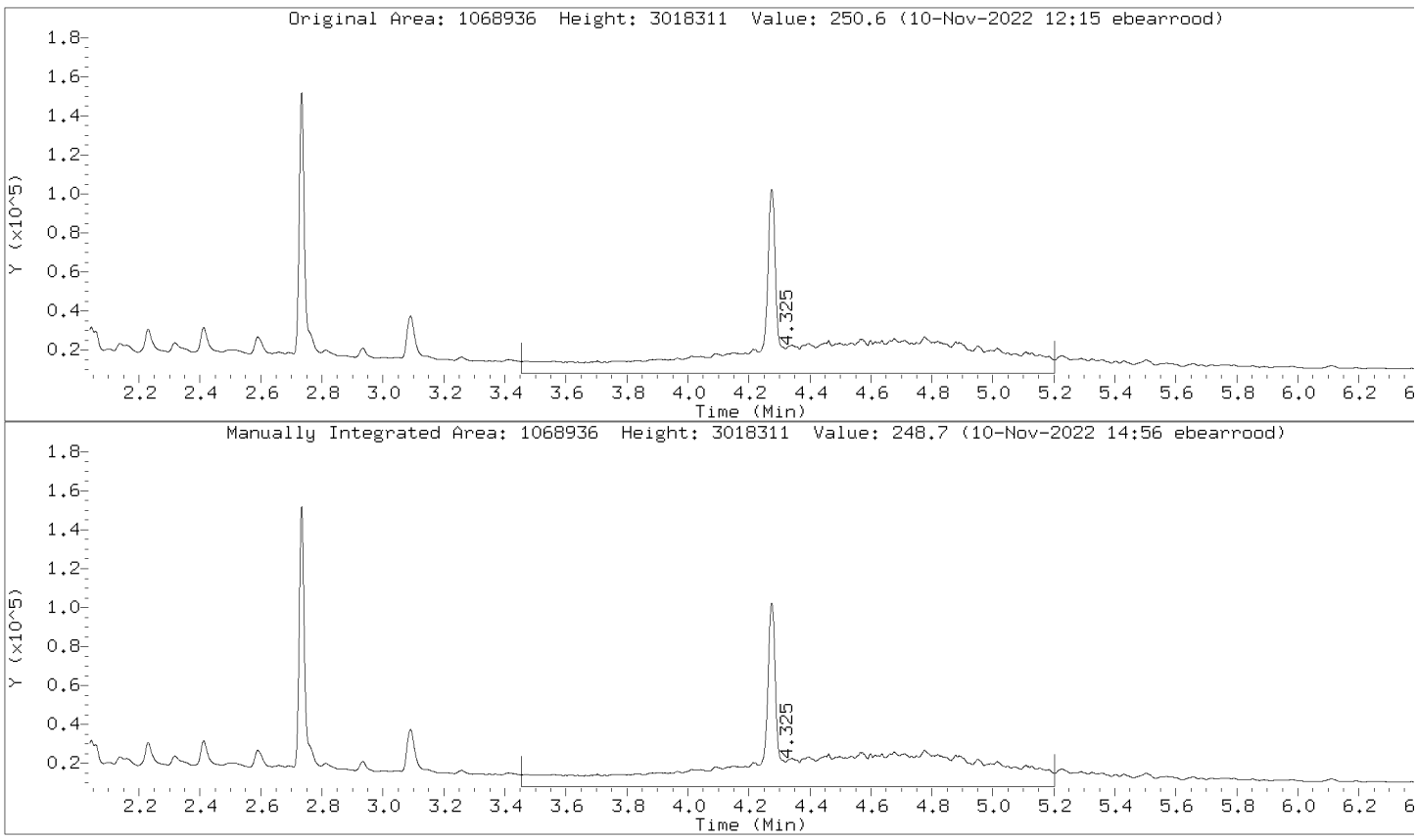
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



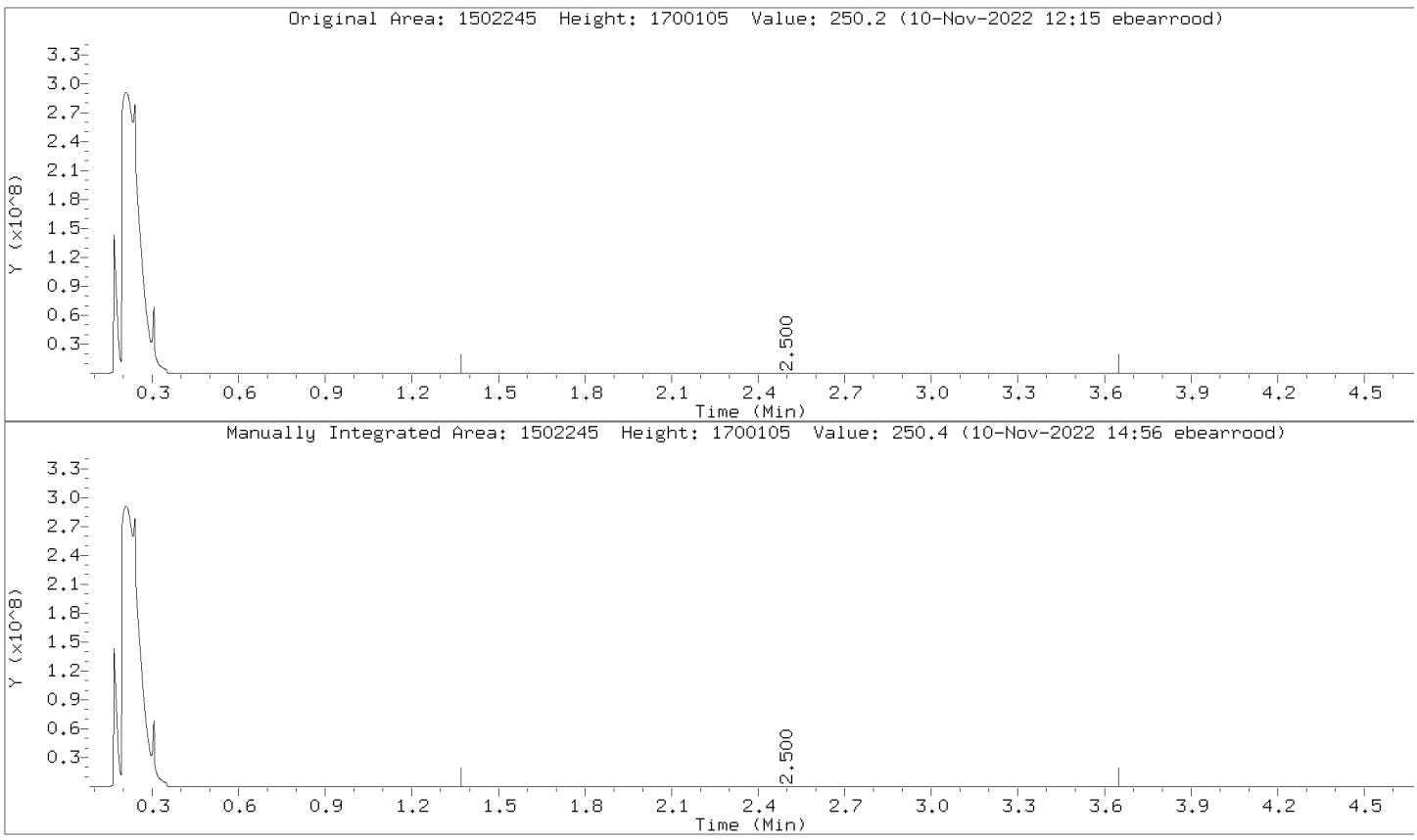
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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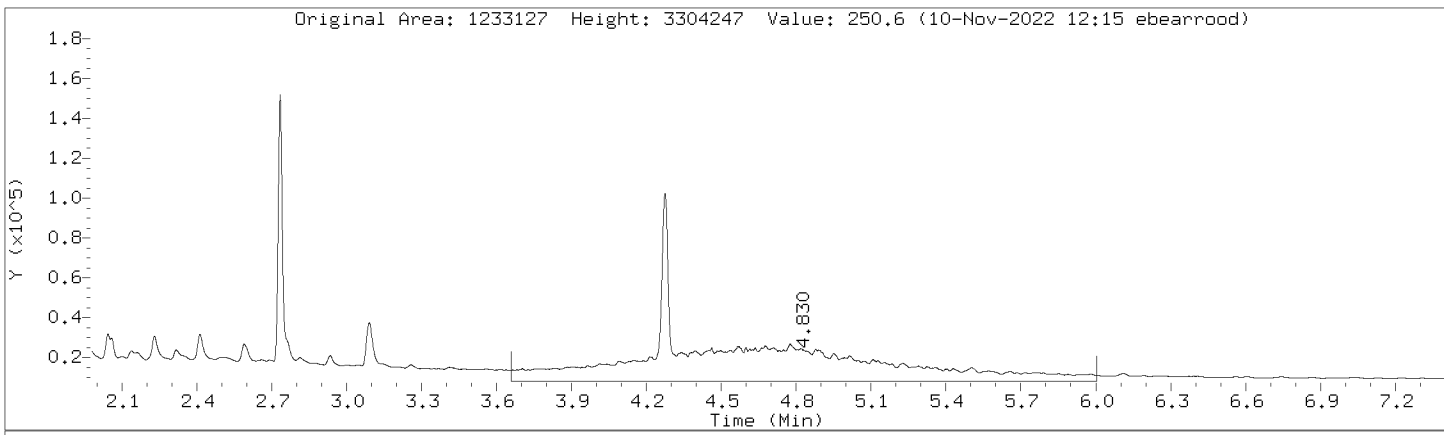
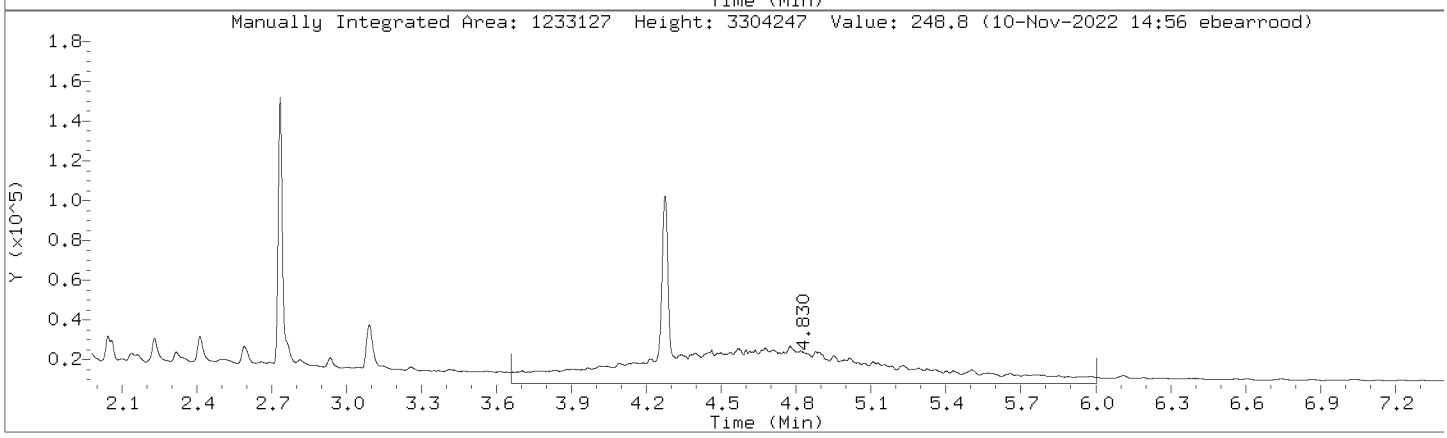
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:





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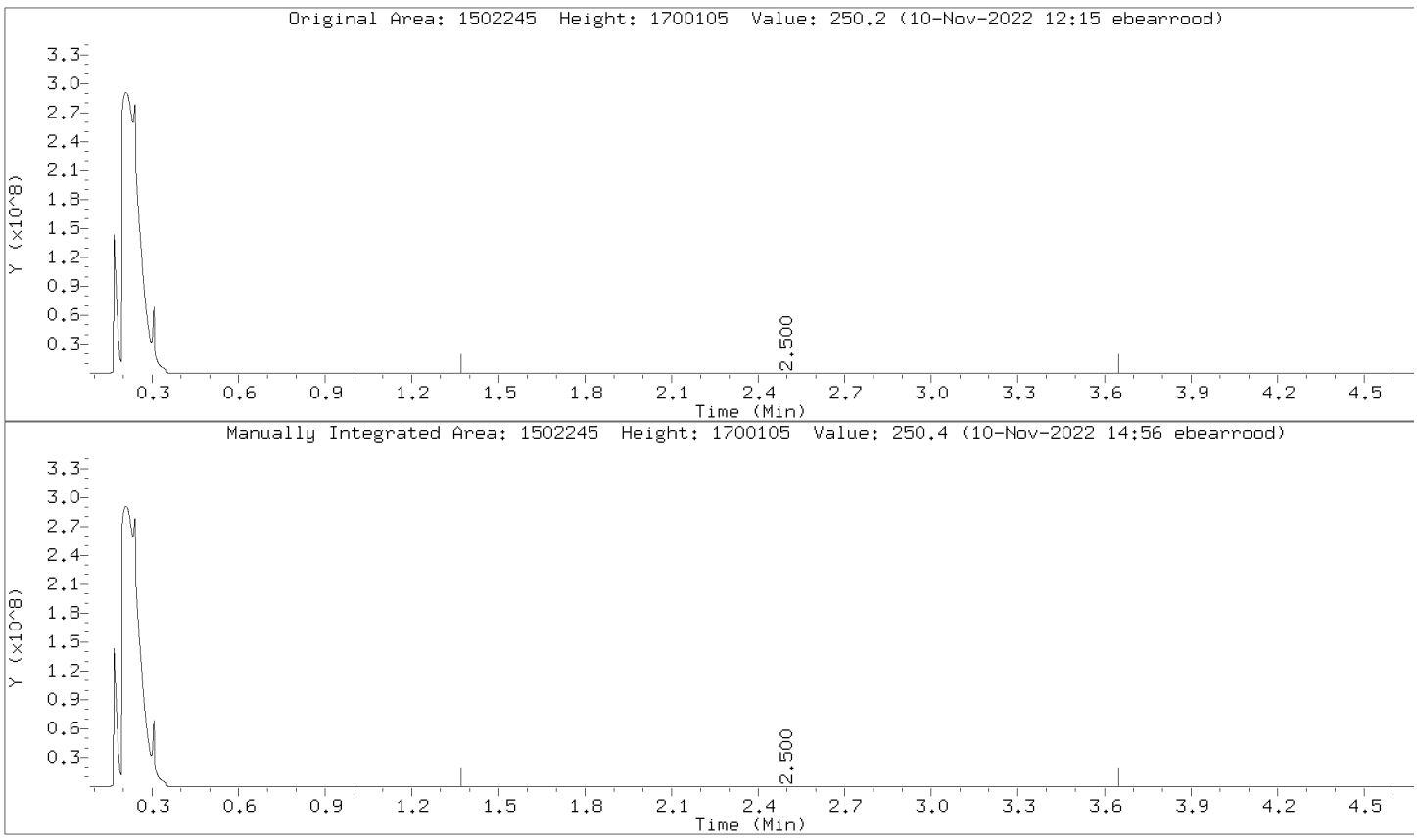
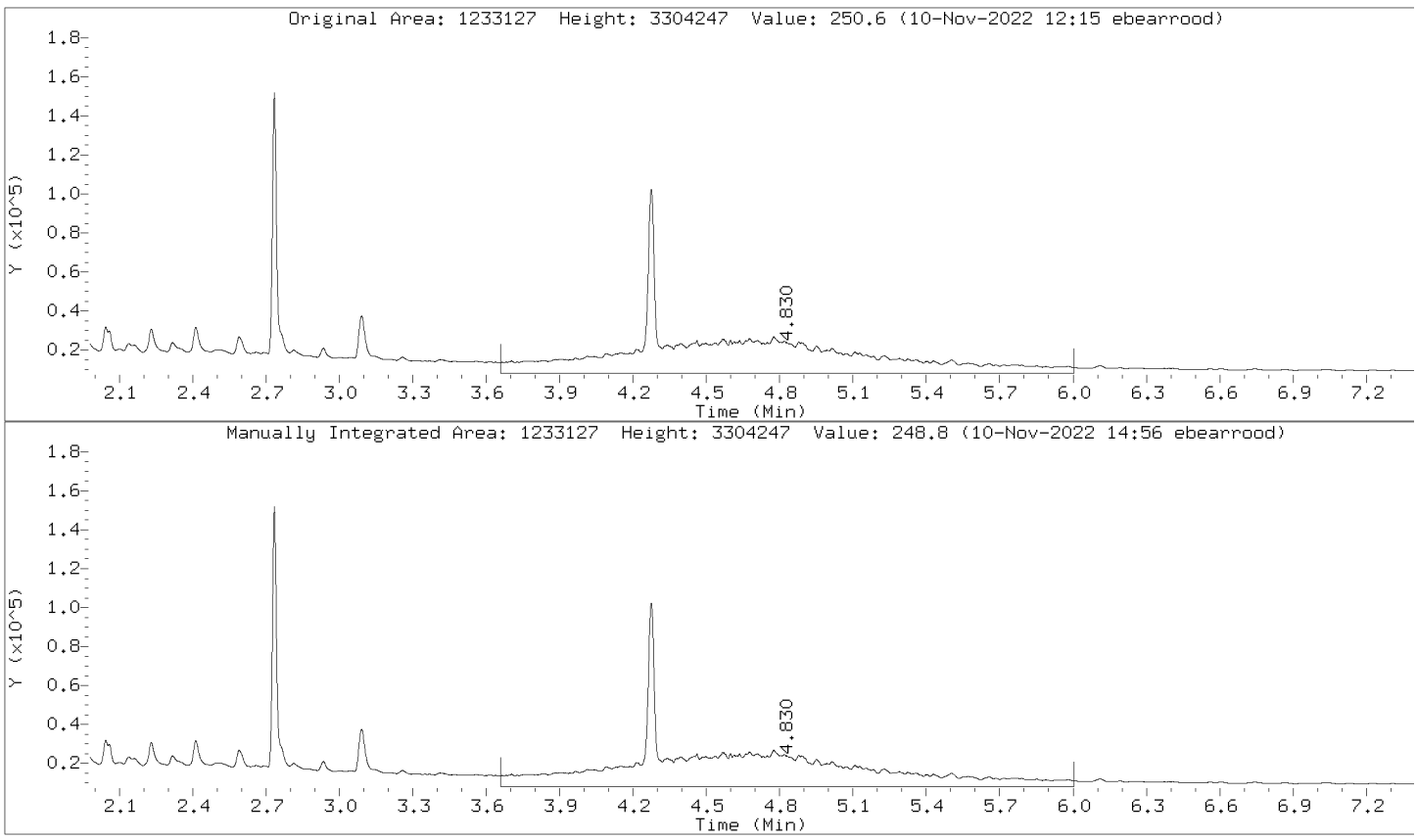
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



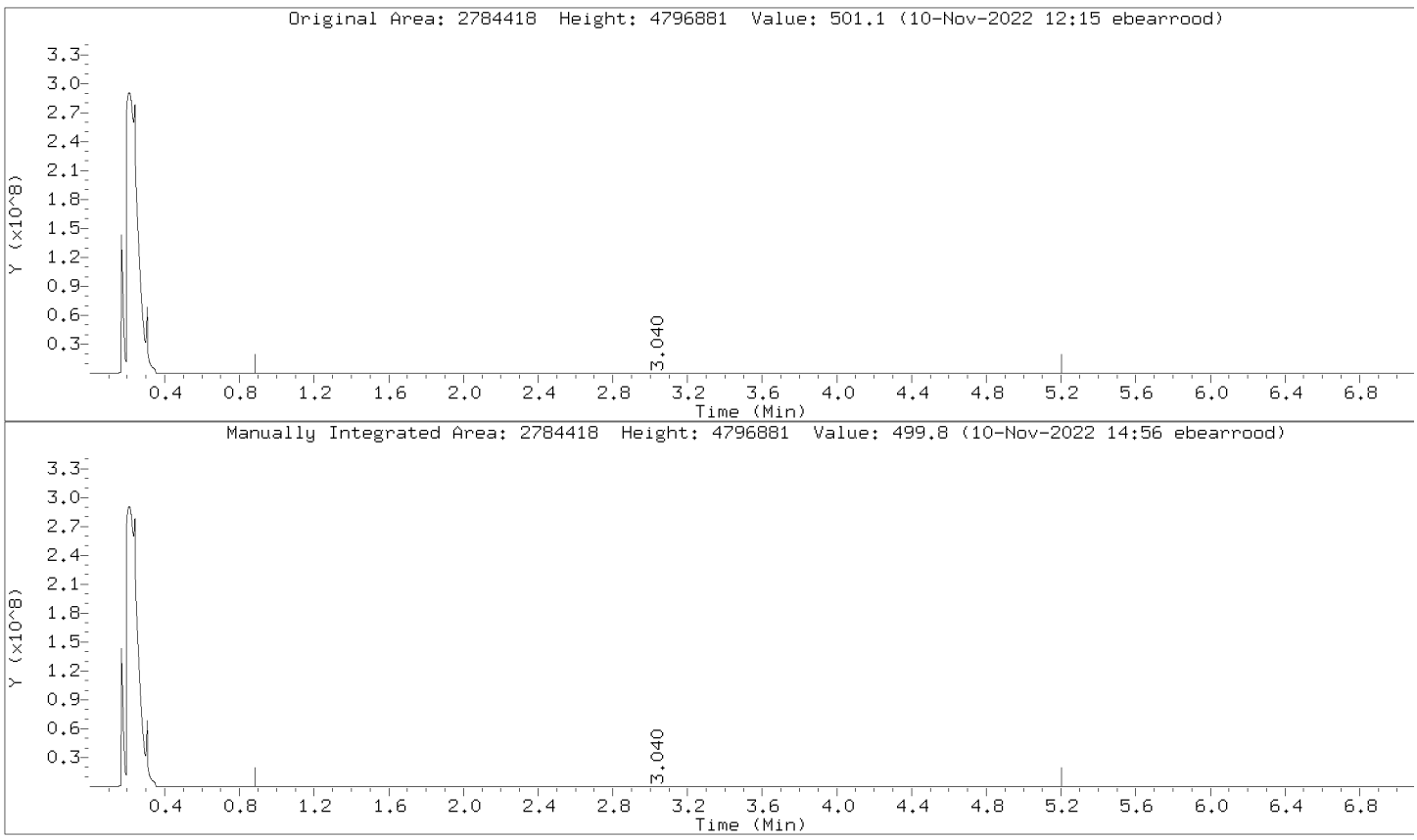
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



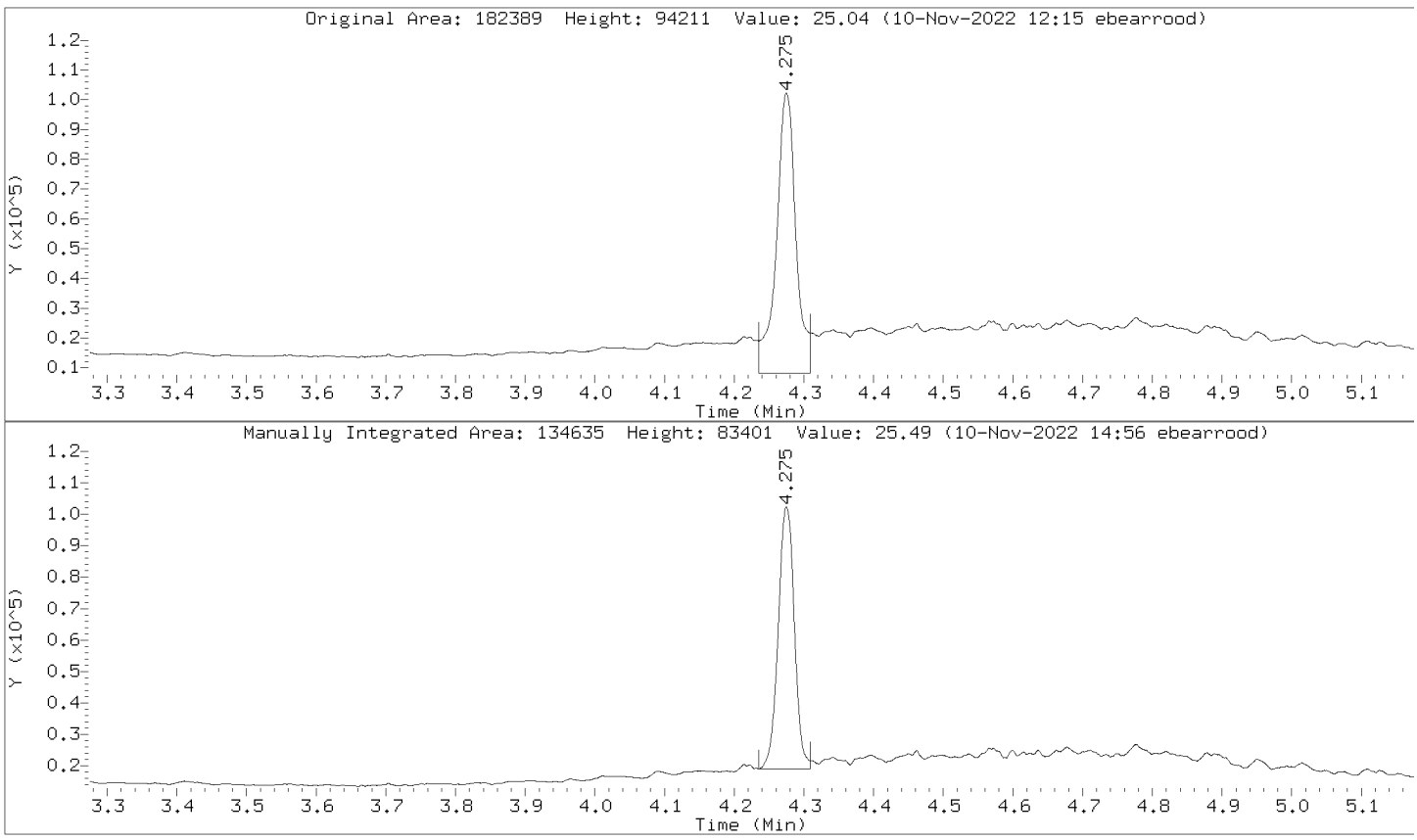
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: C10-C36 Review Code: RNG
CAS Number:



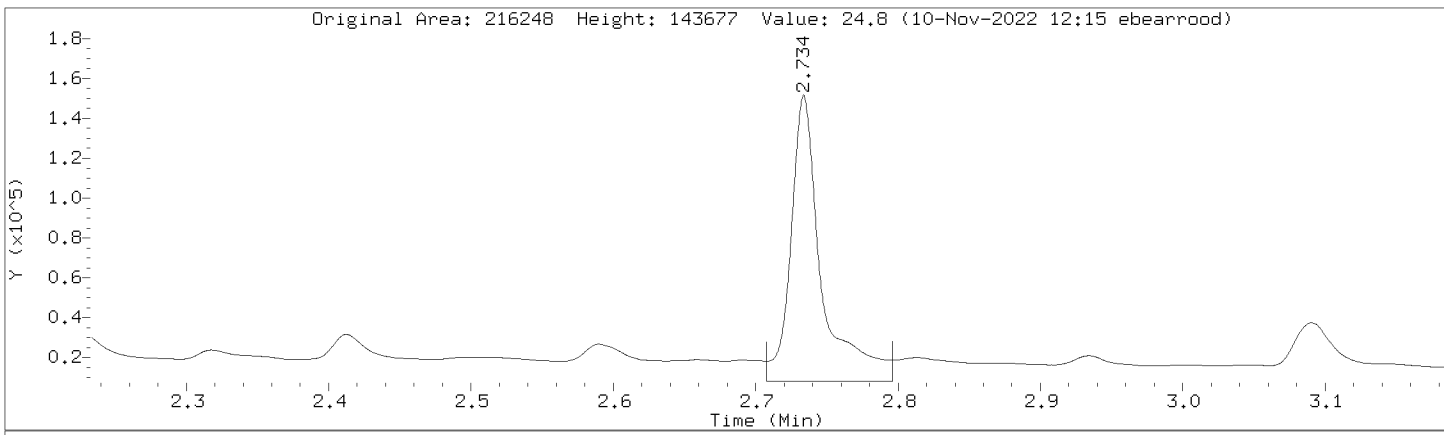
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

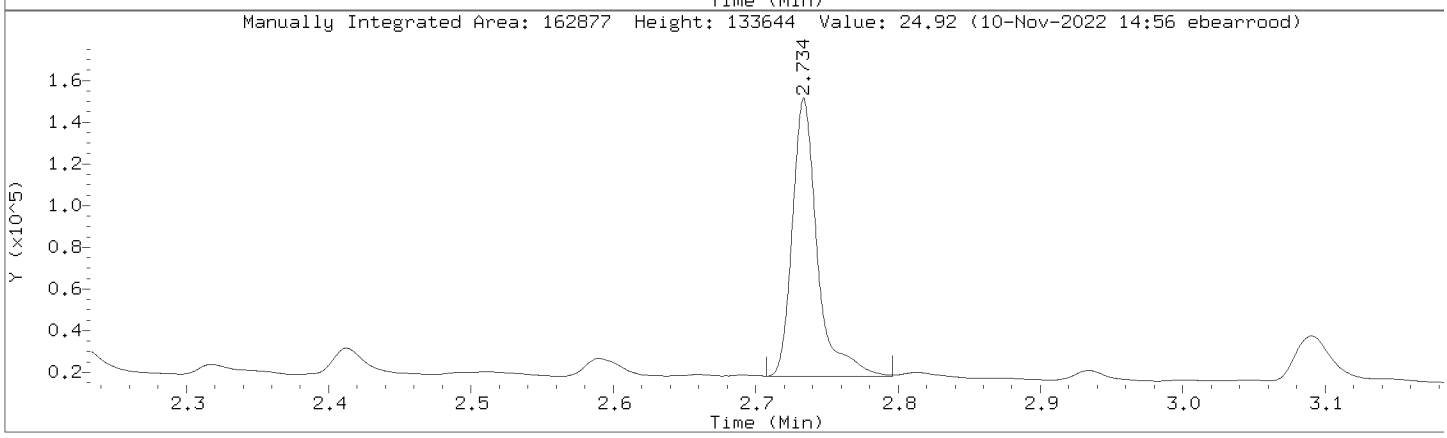
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000010.D
Injection Date: 10-NOV-2022 09:02
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL6,391063:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1016189	1016189
DRO by AK 102	1767895	1767895
TPH-DRO (C10-C28)	2040586	2040586
Motor Oil Range (C24-C36)	1068936	1068936
Diesel Fuel Range	1502245	1502245
Motor Oil Range	1233127	1233127
Diesel Fuel Range SG	1502245	1502245
Motor Oil Range SG	1233127	1233127
C10-C36	2784418	2784418
n-Triacontane (S)	182389	134635
o-Terphenyl (S)	216248	162877

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Lab Smp Id: DMO-CAL8,391066:2 Client Smp ID: DMO-CAL8,391066:2
Inj Date : 10-NOV-2022 09:26
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal8,391066:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102					CAS #:		
0.880 - 3.600			6099190	1000.00	1020	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.734	2.733	0.001	667884	100.000	100	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	532234	100.000	102	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610 - 5.200			3764430	1000.00	1010	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880 - 4.219			7097120	1000.00	1020	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450 - 5.200			3964256	1000.00	1020	(M)	RNG
S 7 C10-C36					CAS #:		
0.880 - 5.200			9895685	2000.00	2030	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350 - 3.650			5136881	1000.00	1010	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660 - 6.000			4575578	1000.00	1010	(M)	RNG

QC Flag Legend

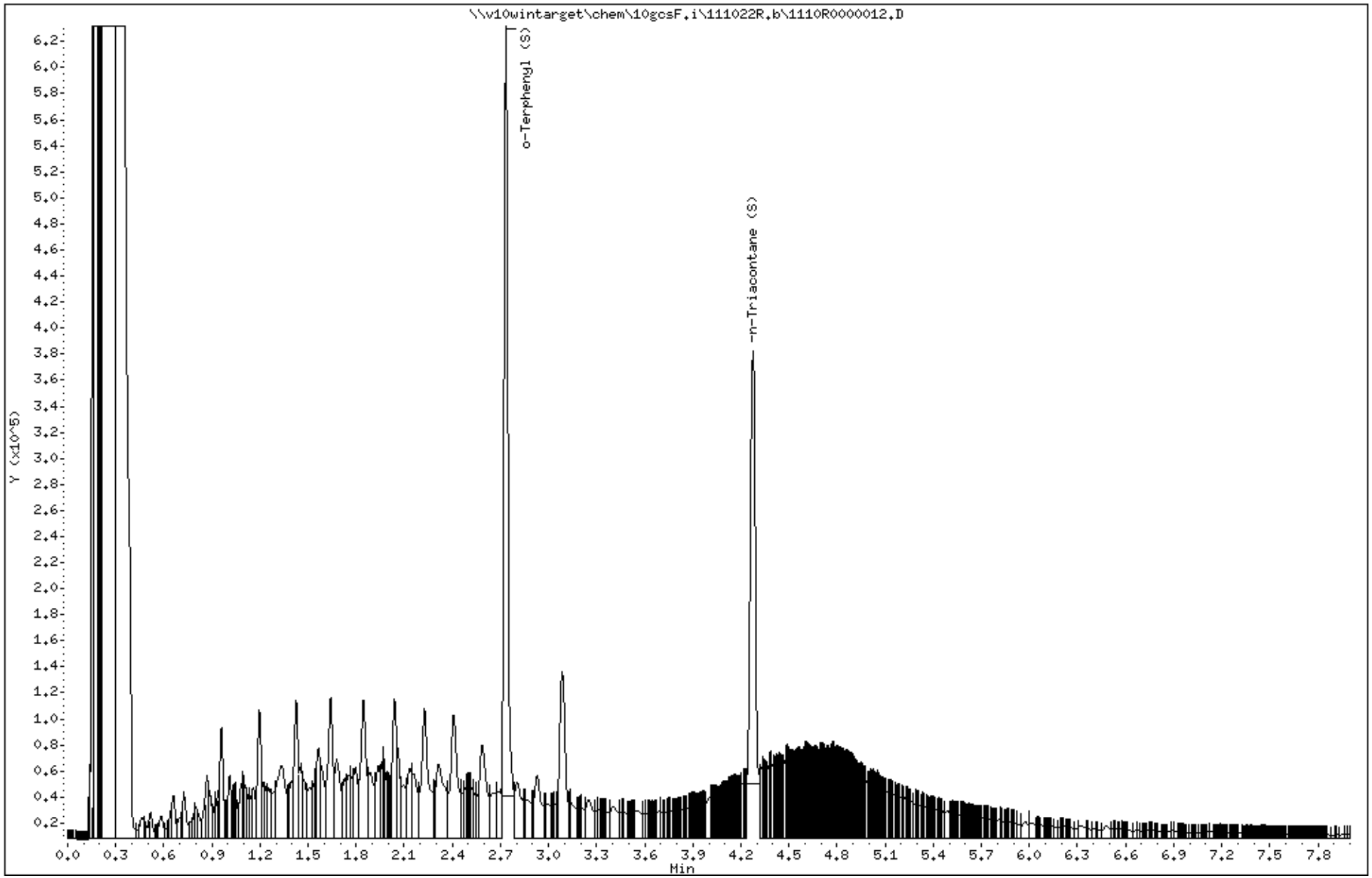
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

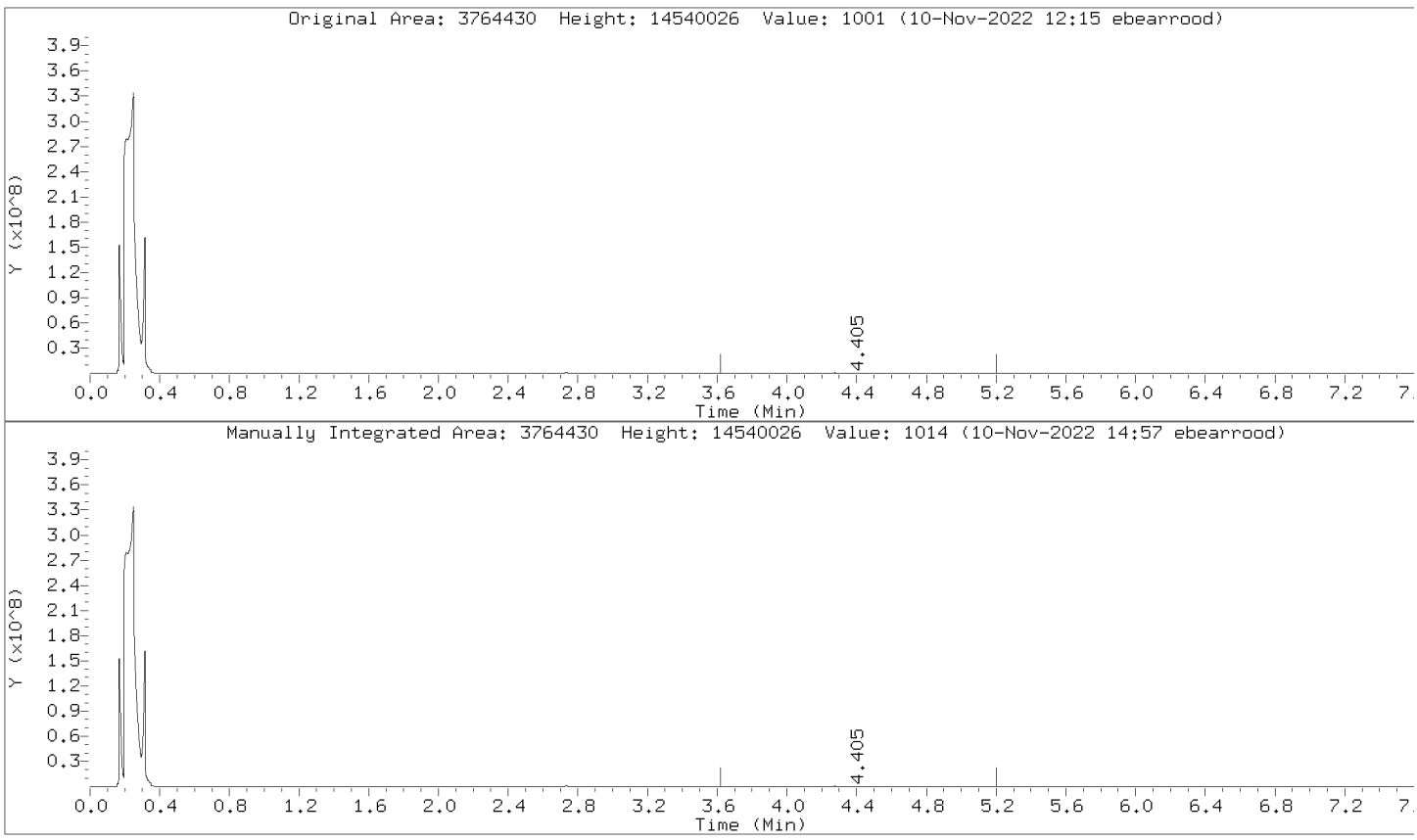
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000012.D
Date : 10-NOV-2022 09:26
Client ID: DMO-CAL8,391066:2
Sample Info: DMO-CAL8,391066:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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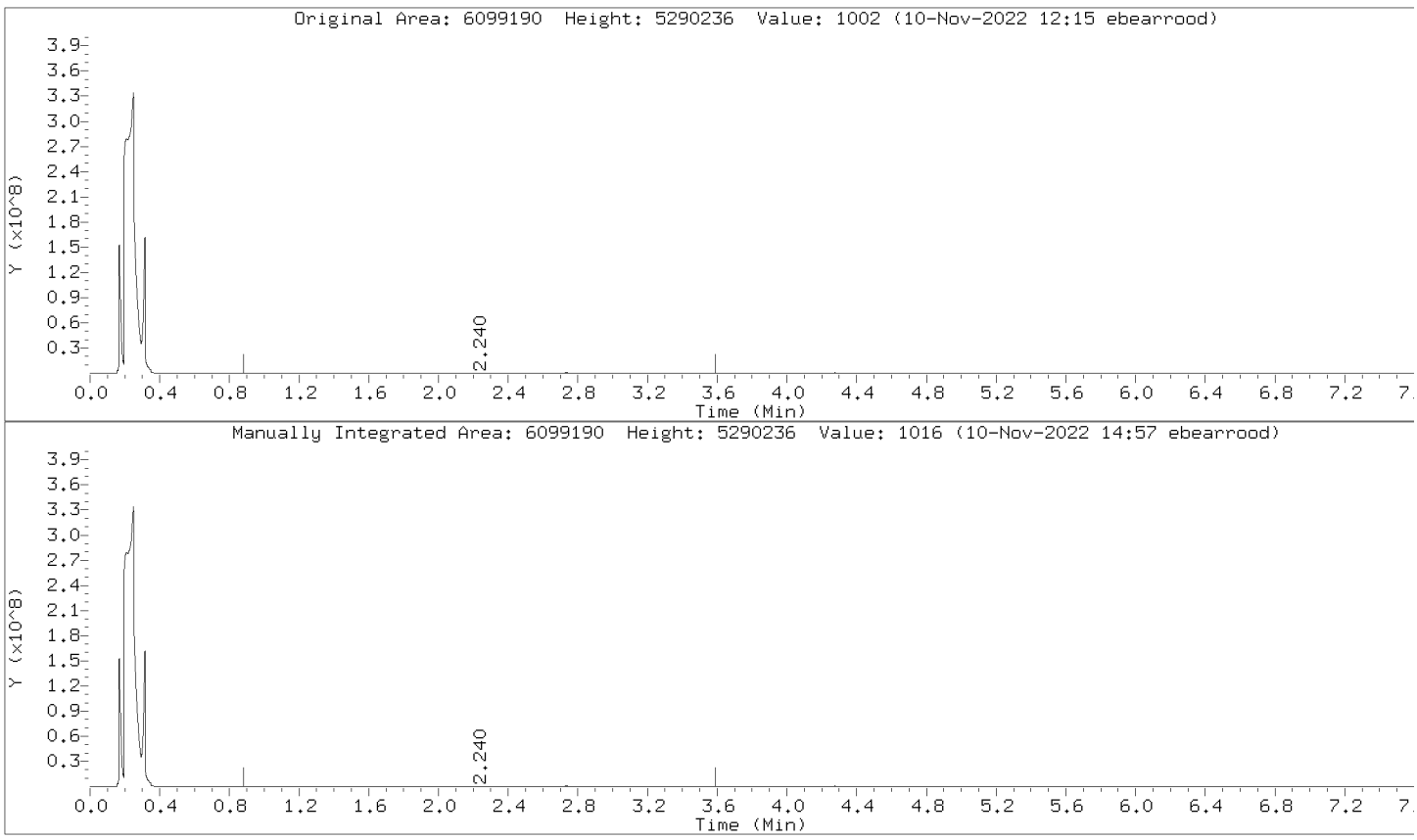
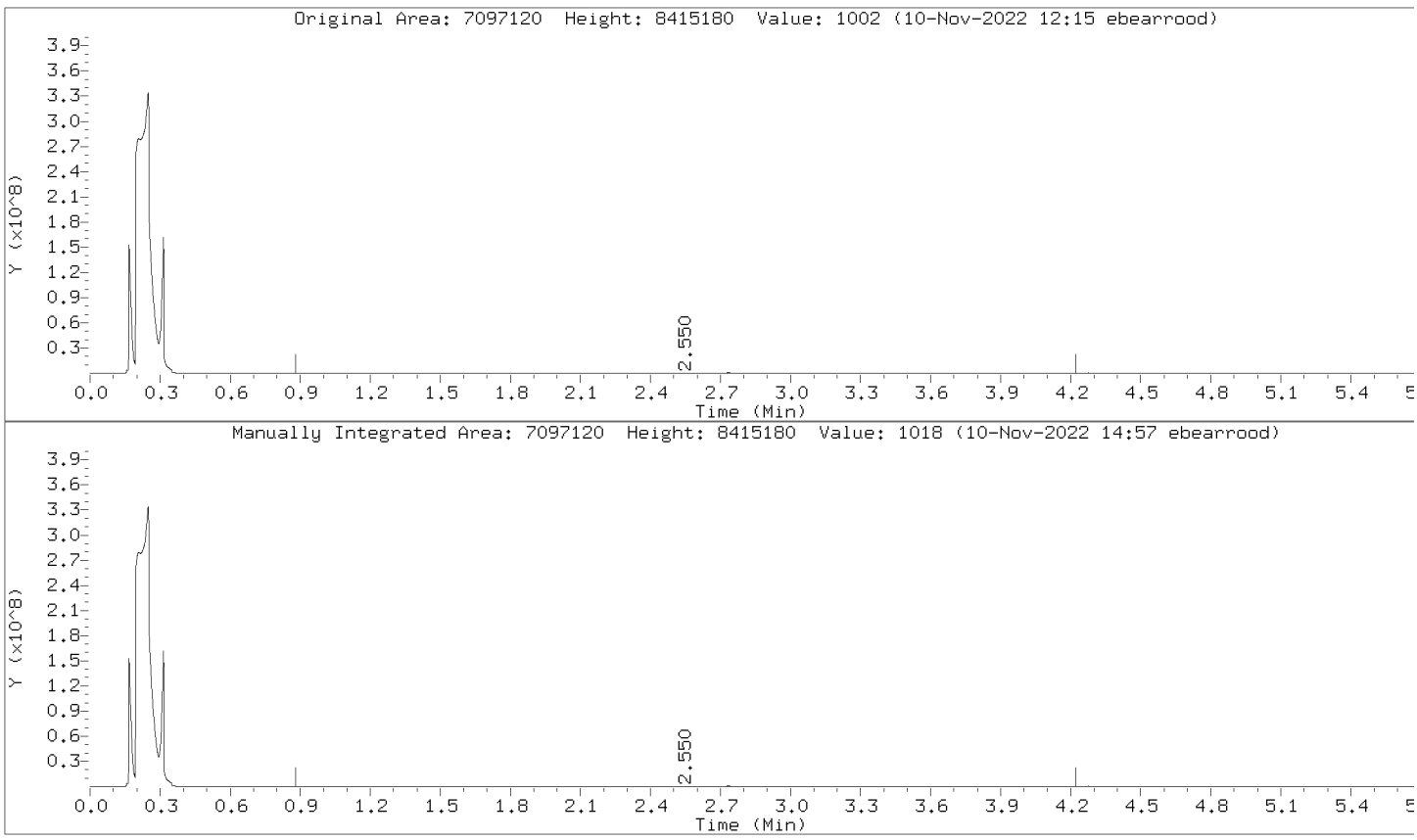
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



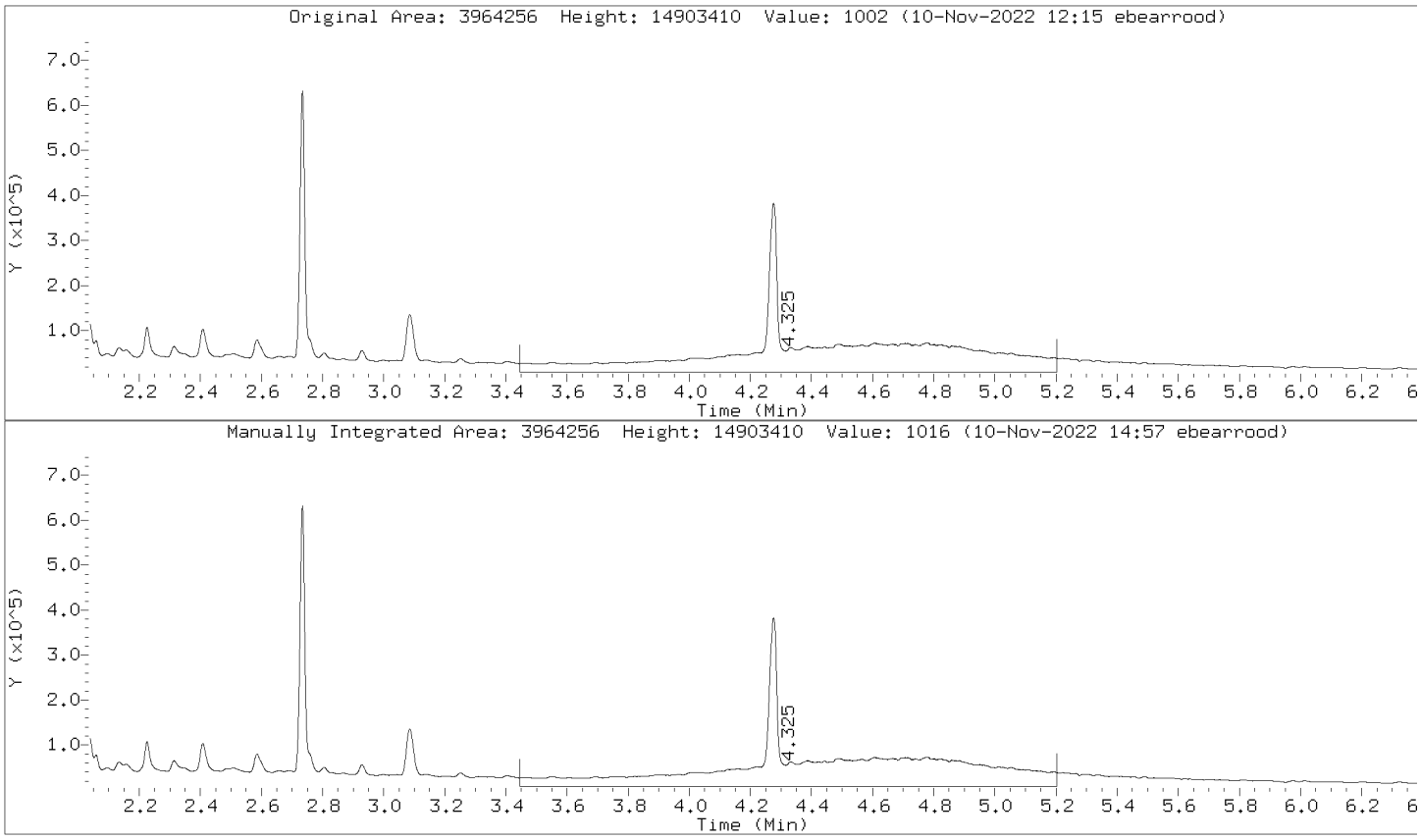
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



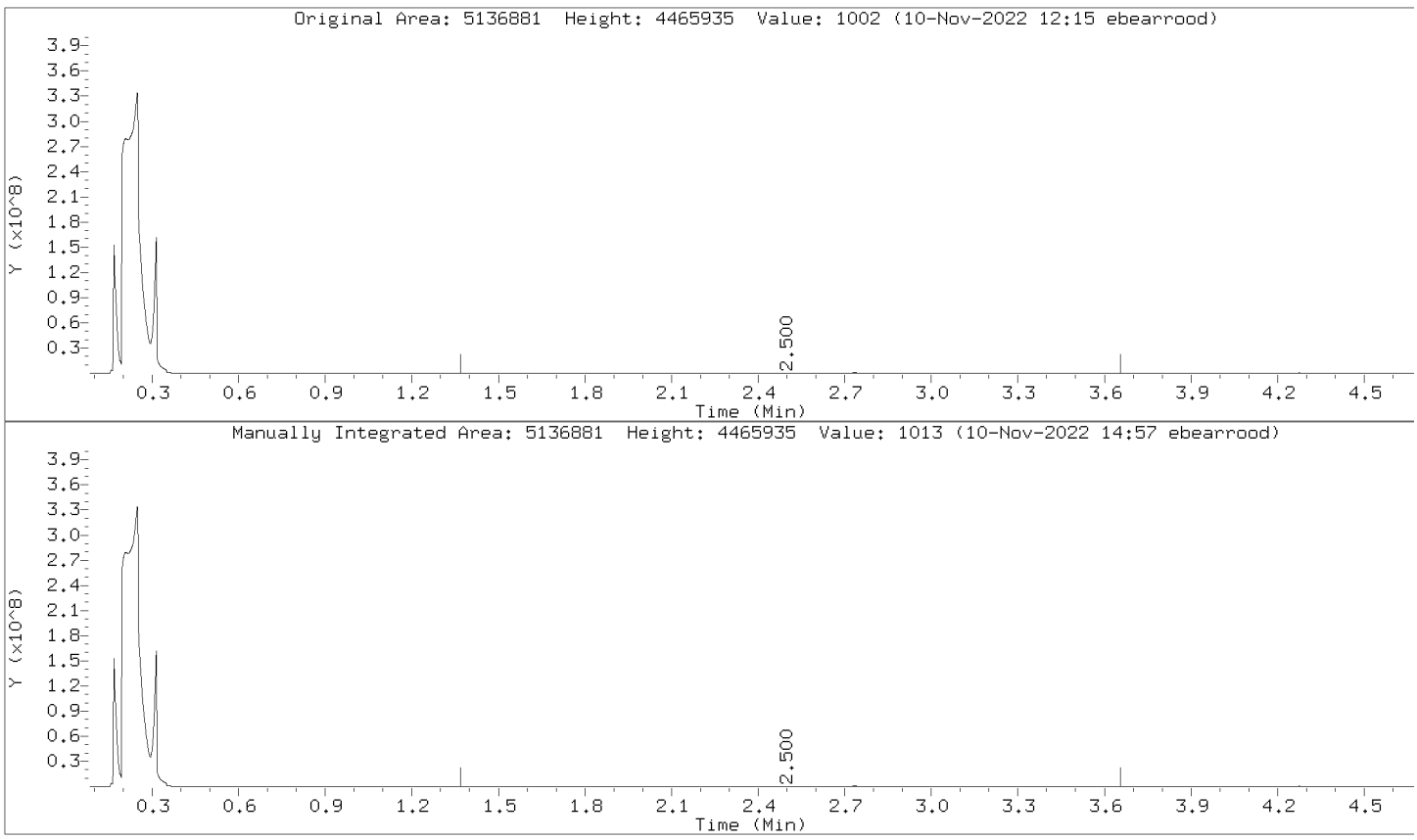
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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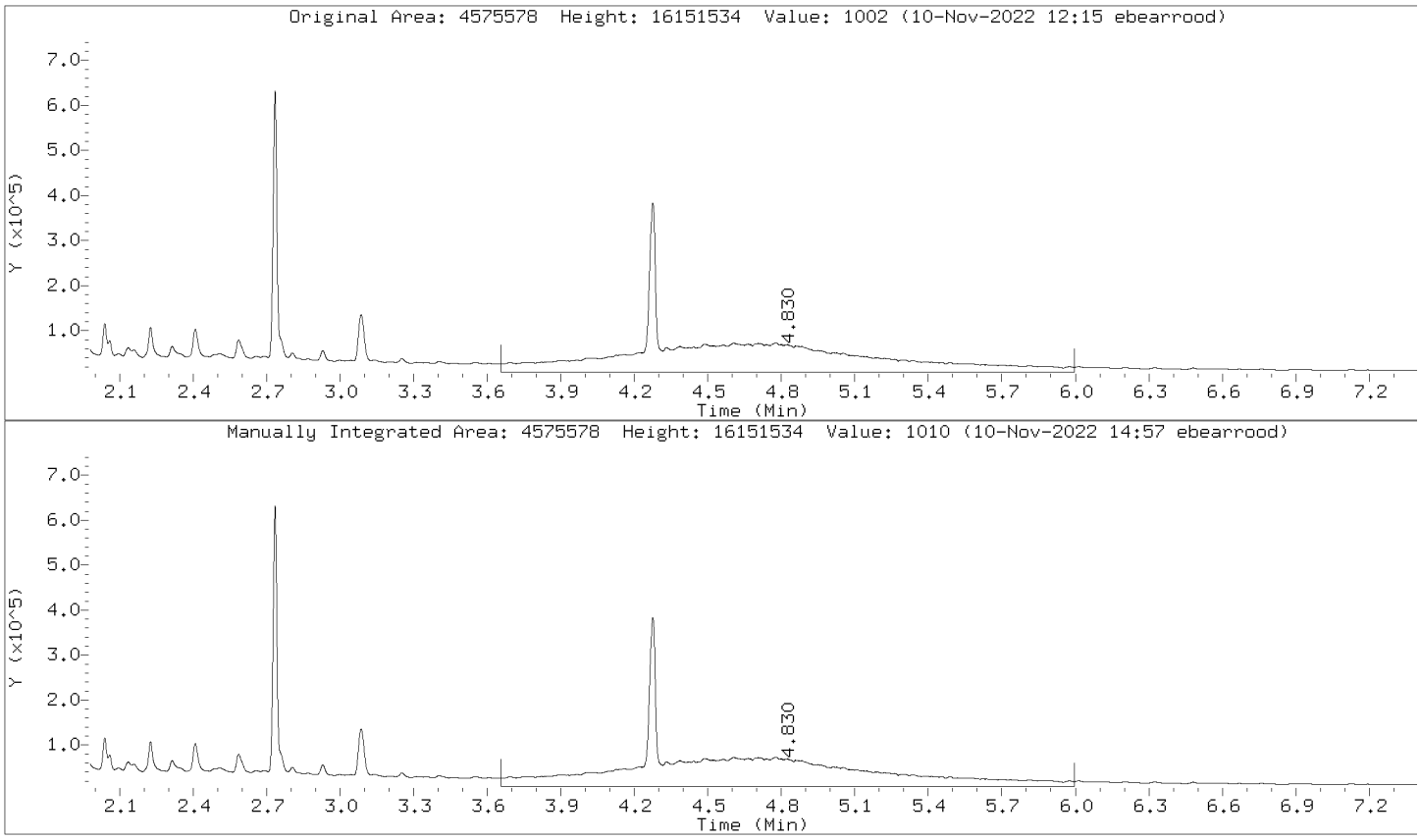
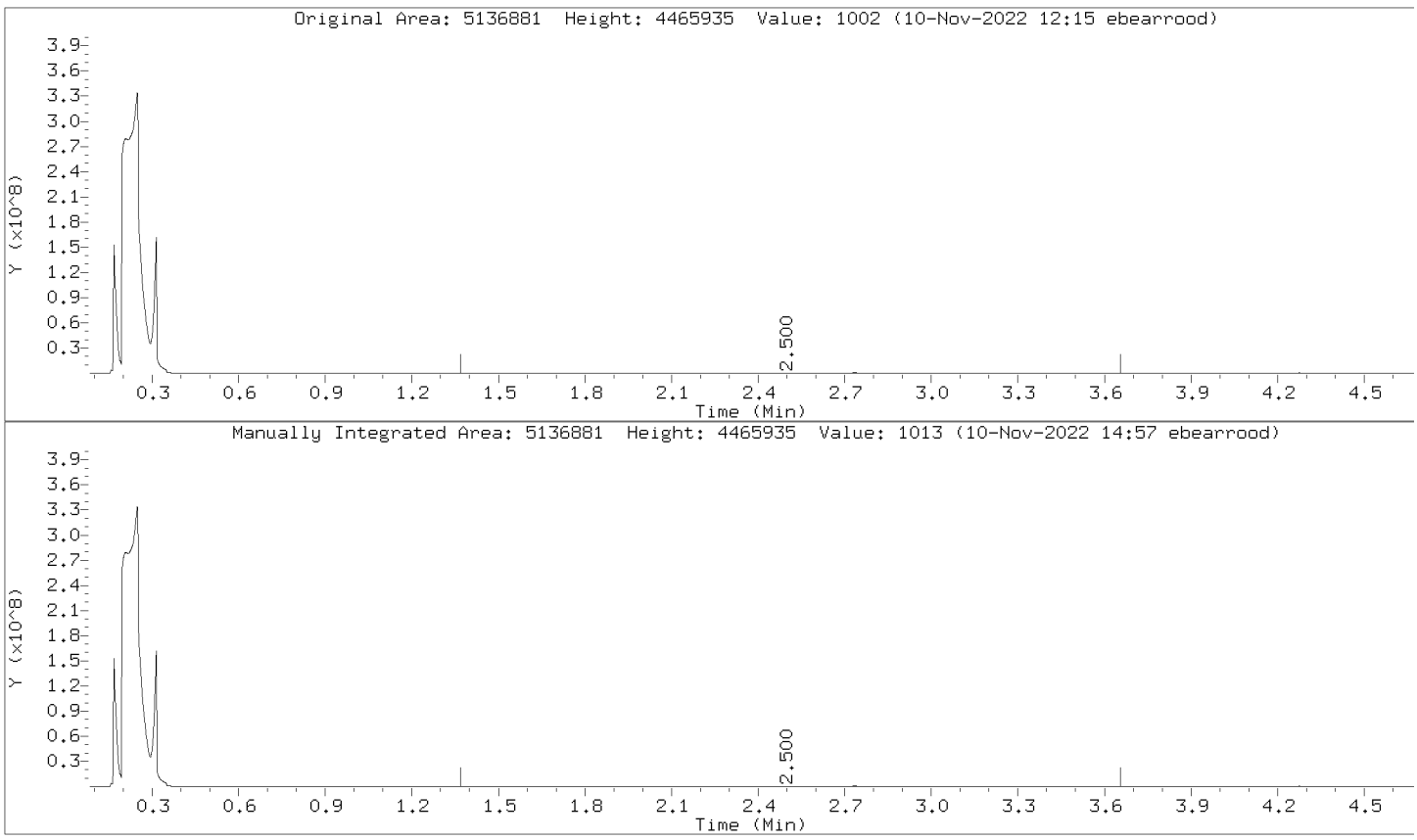
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



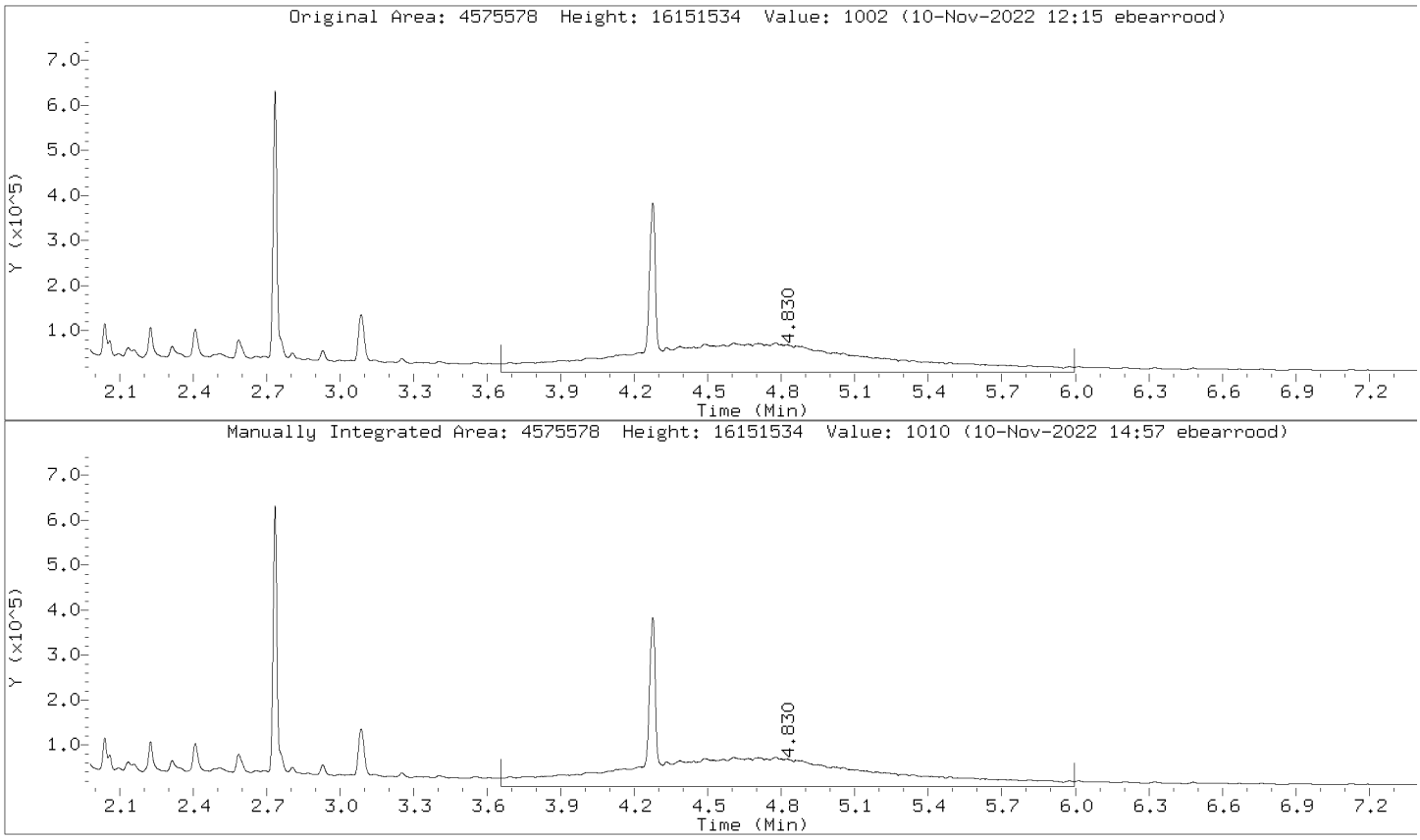
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



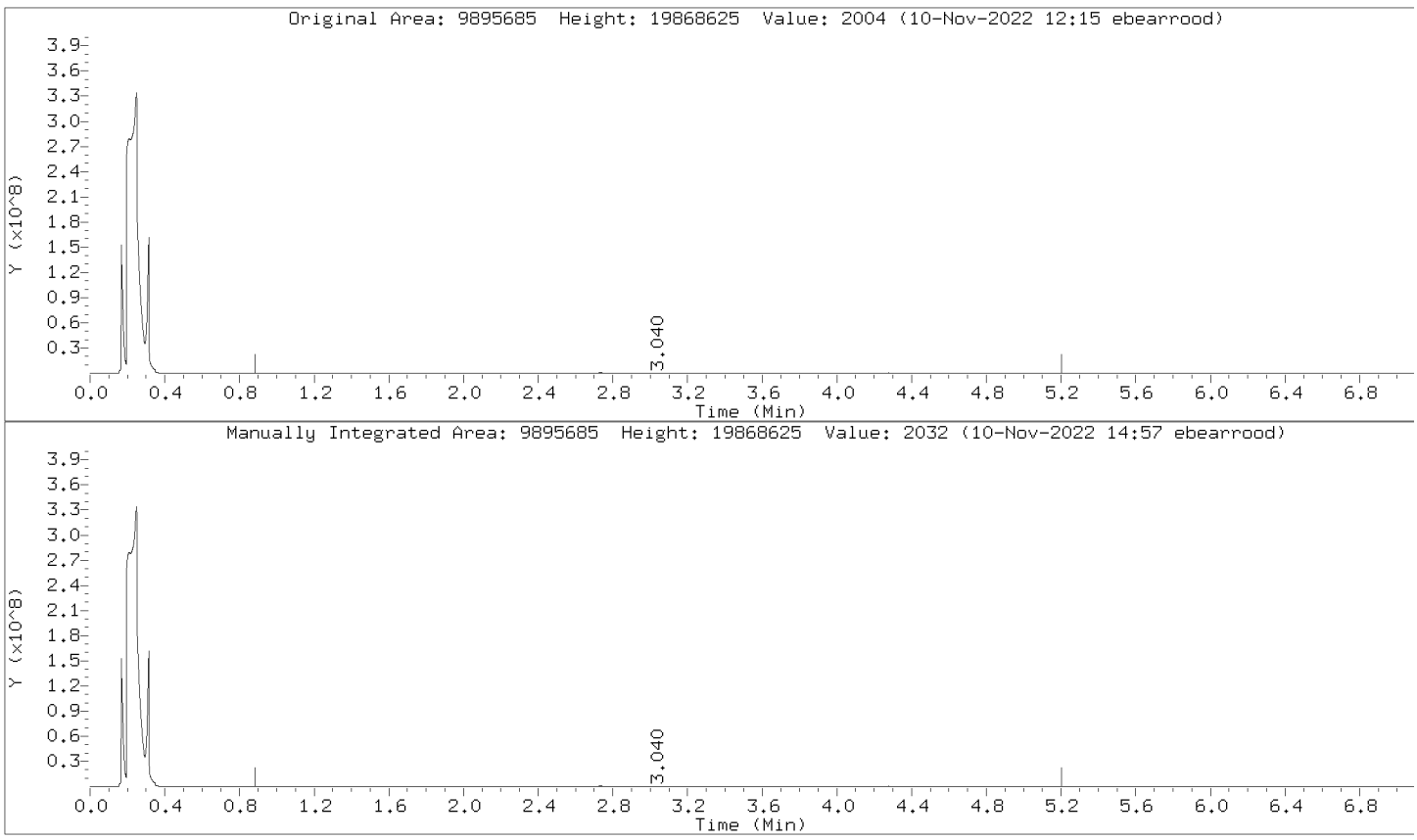
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



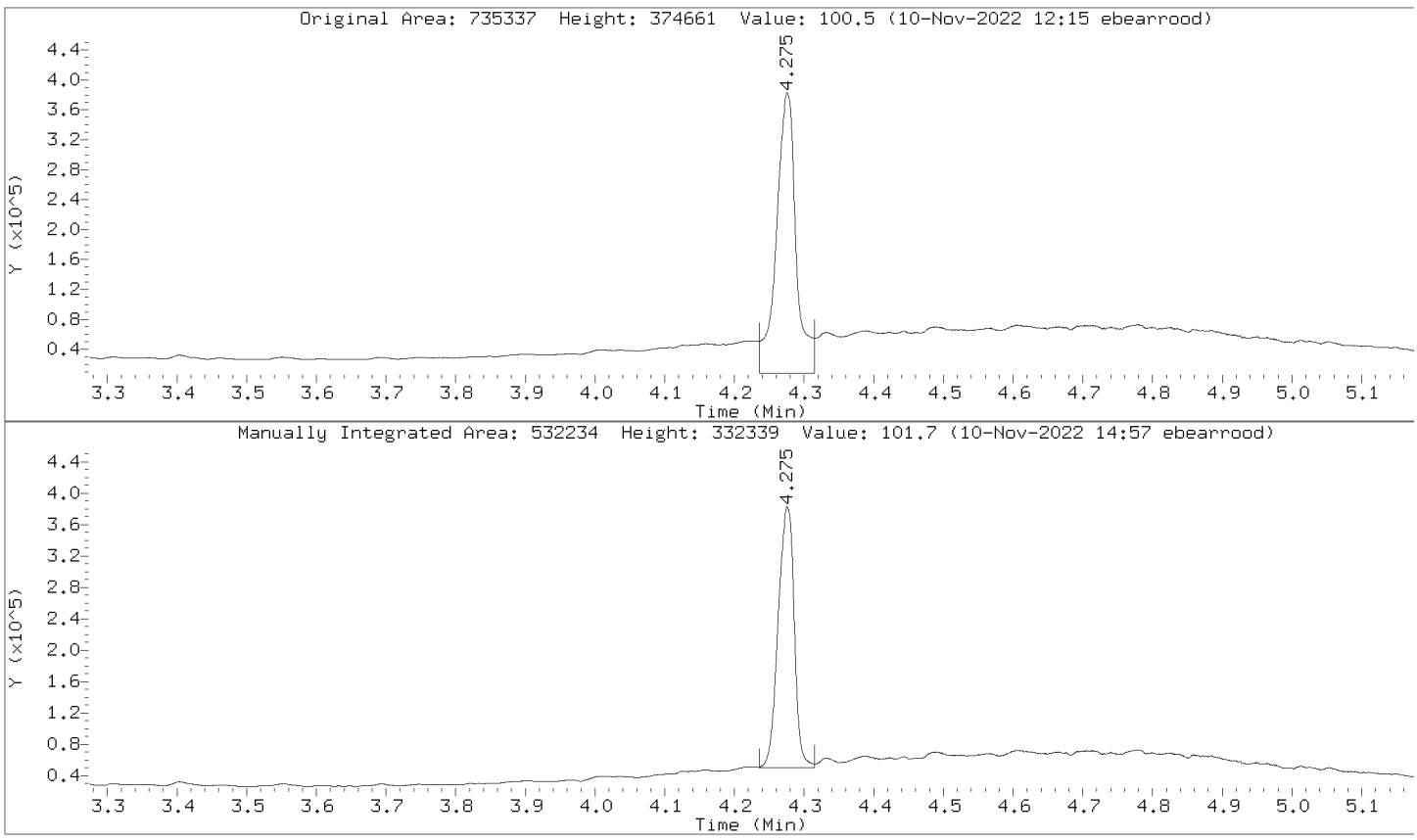
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: C10-C36 Review Code: RNG
CAS Number:



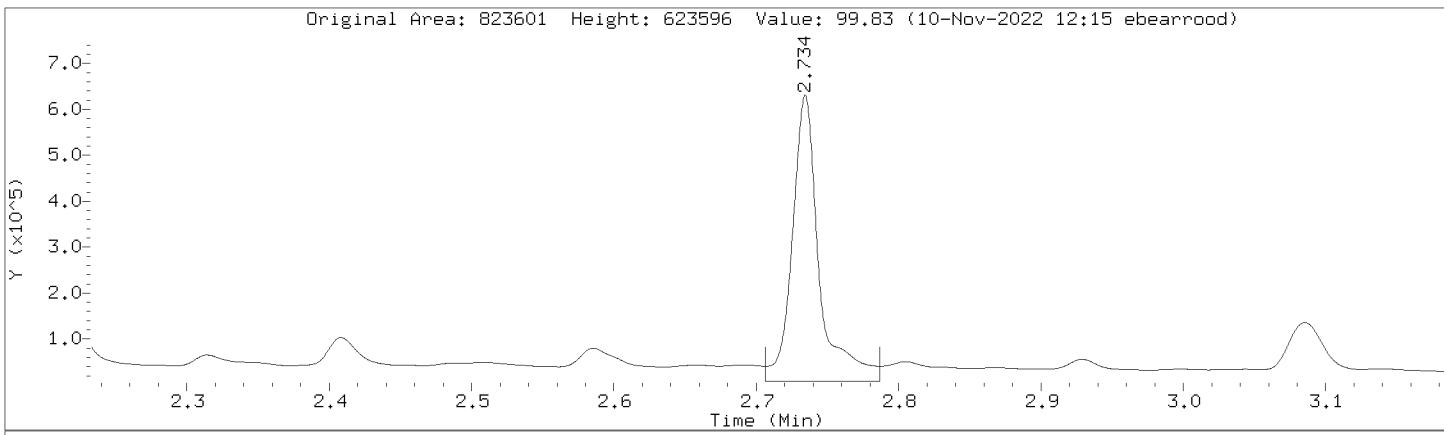
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

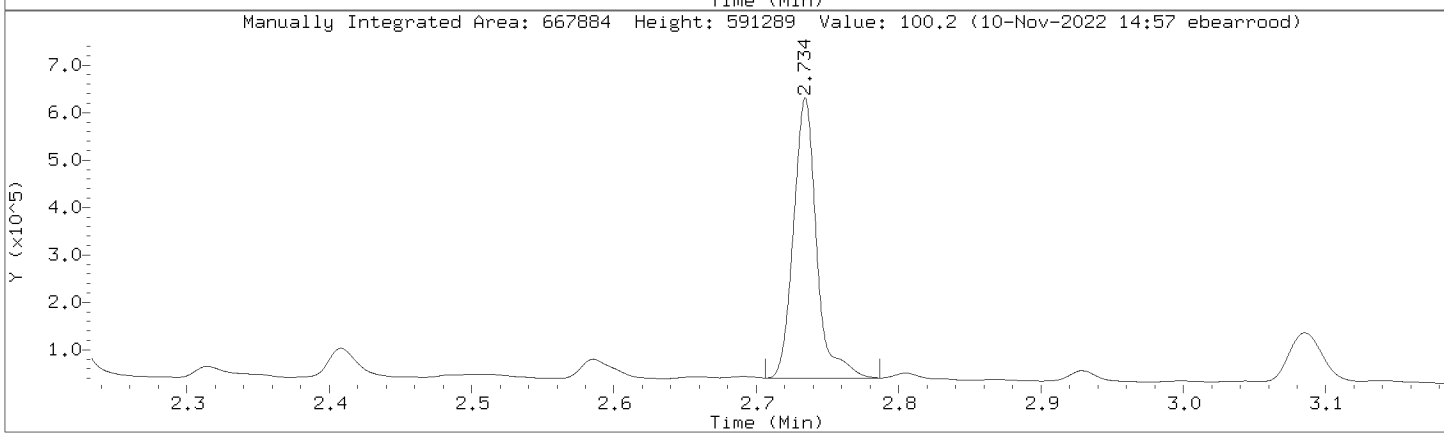
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000012.D
Injection Date: 10-NOV-2022 09:26
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL8,391066:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	3764430	3764430
DRO by AK 102	6099190	6099190
TPH-DRO (C10-C28)	7097120	7097120
Motor Oil Range (C24-C36)	3964256	3964256
Diesel Fuel Range	5136881	5136881
Motor Oil Range	4575578	4575578
Diesel Fuel Range SG	5136881	5136881
Motor Oil Range SG	4575578	4575578
C10-C36	9895685	9895685
n-Triacontane (S)	735337	532234
o-Terphenyl (S)	823601	667884

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Lab Smp Id: DMO-CAL9,391067:2 Client Smp ID: DMO-CAL9,391067:2
Inj Date : 10-NOV-2022 09:37
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal9,391067:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE		
S 1 DRO by AK 102						CAS #:		
0.880	- 3.600		11634111	2000.00	1990		(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
2.737	2.733	0.004	1321022	200.000	198		(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
4.278	4.275	0.003	1051174	200.000	201		(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
3.610	- 5.200		7282184	2000.00	1990		(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
0.880	- 4.219		13505071	2000.00	1990		(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
3.450	- 5.200		7649097	2000.00	1990		(M)	RNG
S 7 C10-C36						CAS #:		
0.880	- 5.200		18947241	4000.00	3980		(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
1.350	- 3.650		9803556	2000.00	1990		(M)	RNG
S 10 Motor Oil Range						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
3.660	- 6.000		8886774	2000.00	1990		(M)	RNG

QC Flag Legend

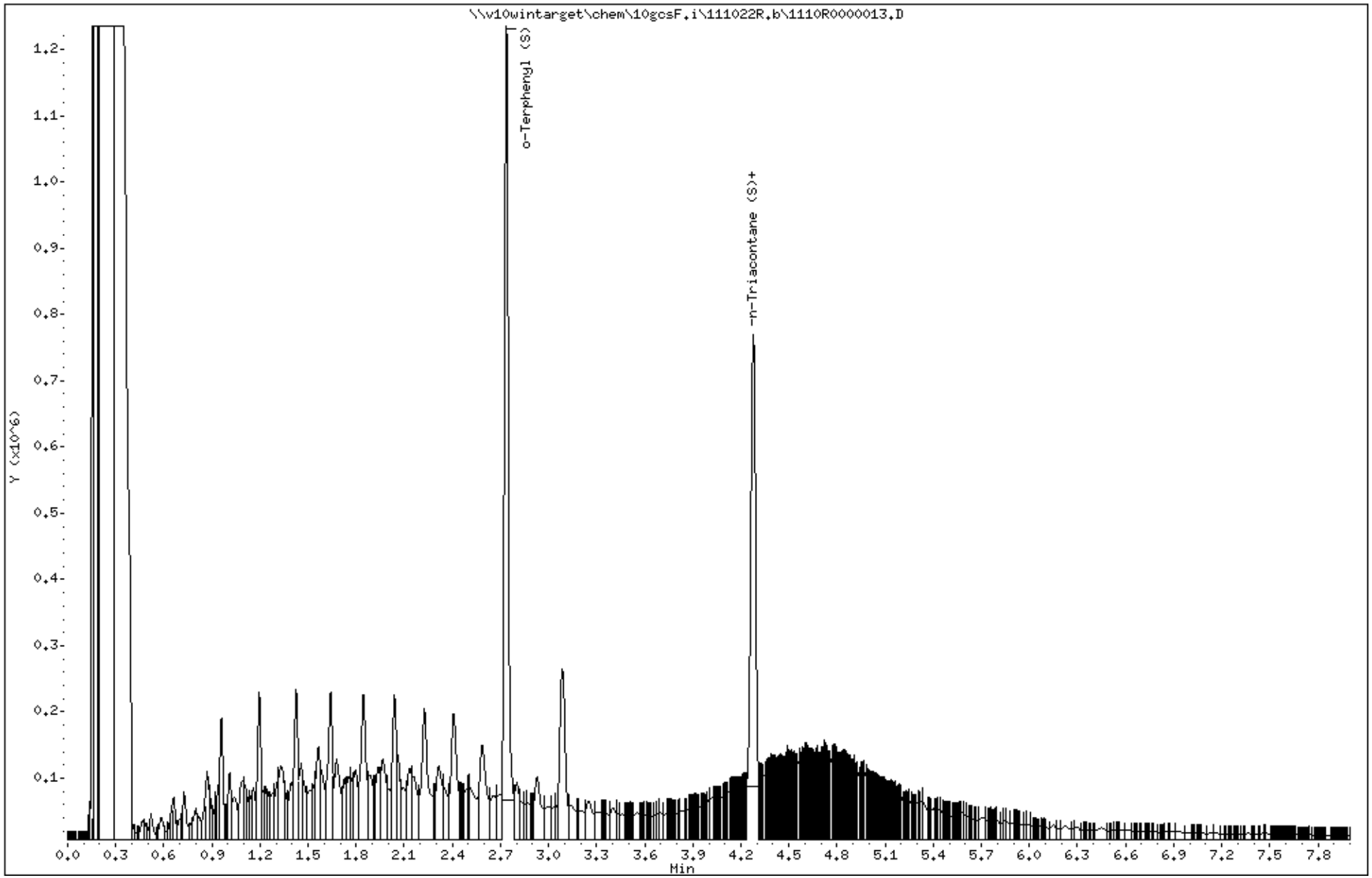
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

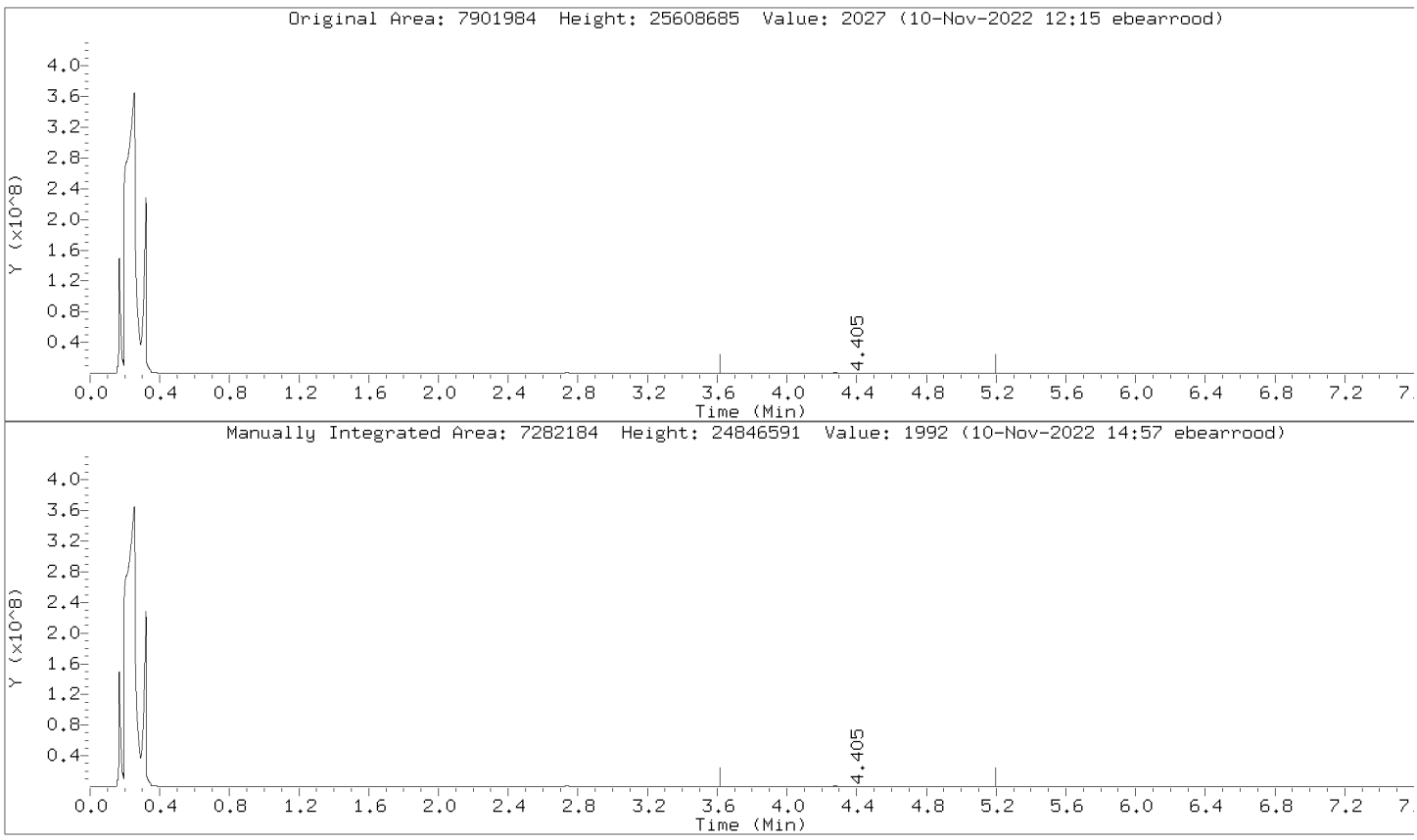
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000013.D
Date : 10-NOV-2022 09:37
Client ID: DMO-CAL9,391067:2
Sample Info: DMO-CAL9,391067:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



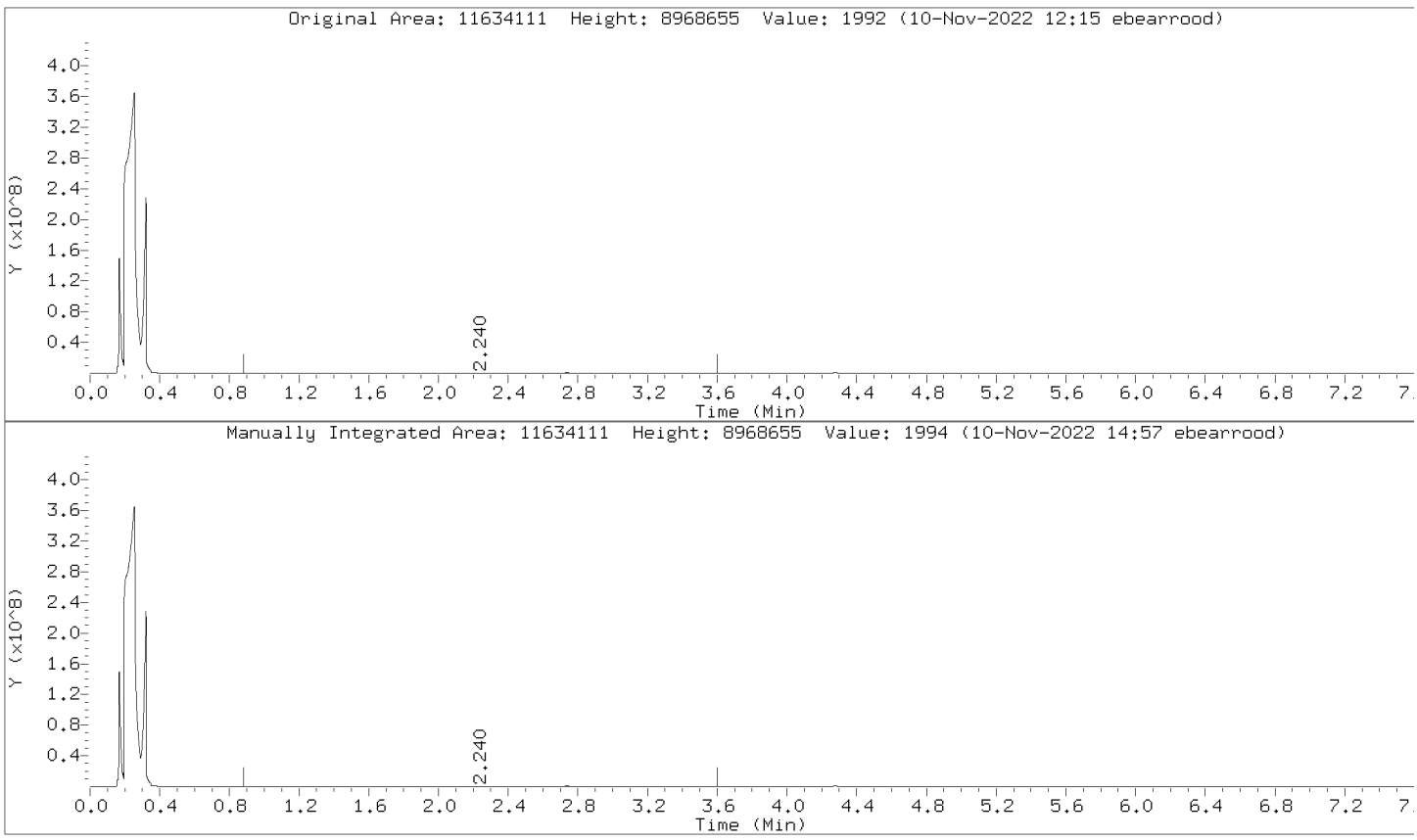
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



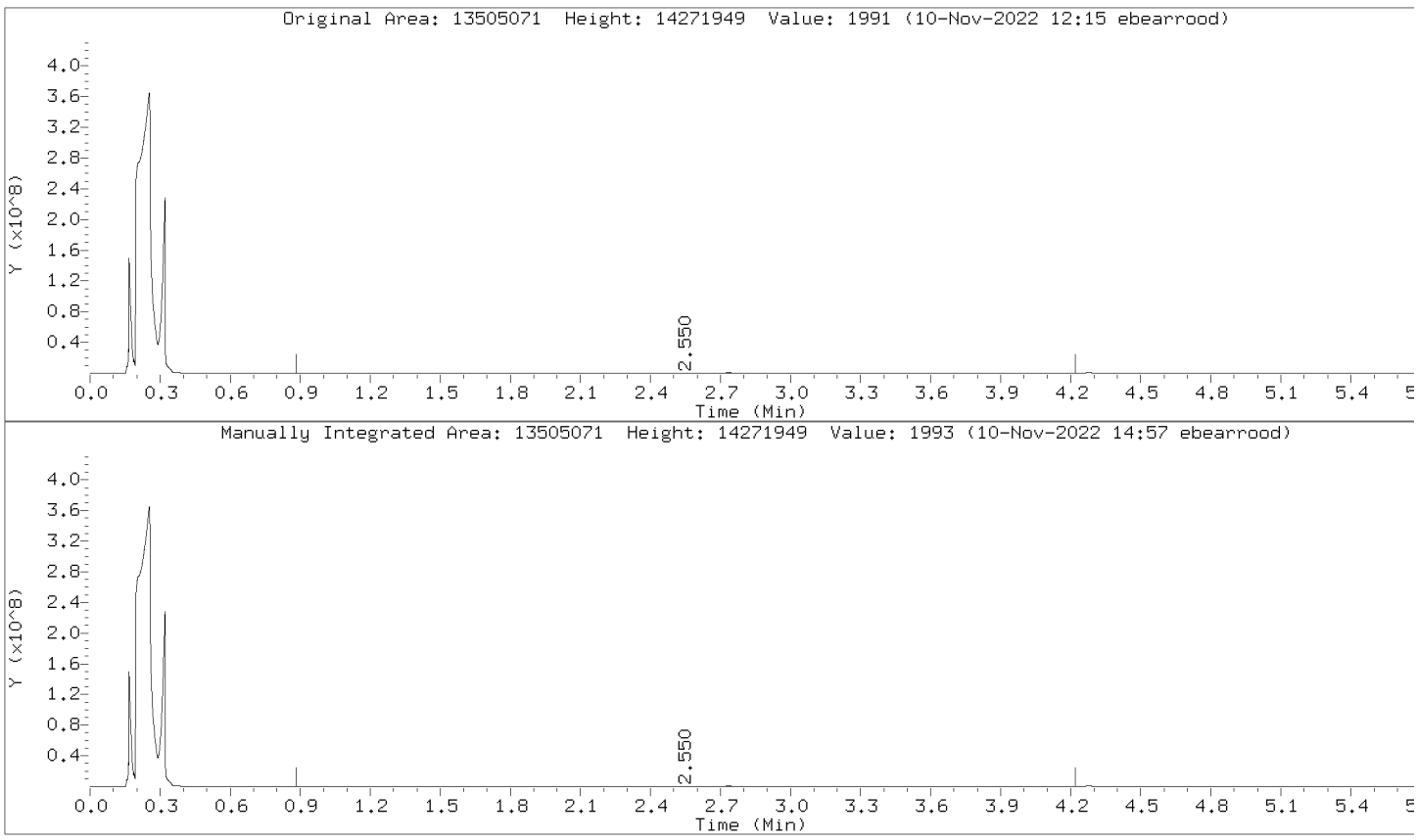
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



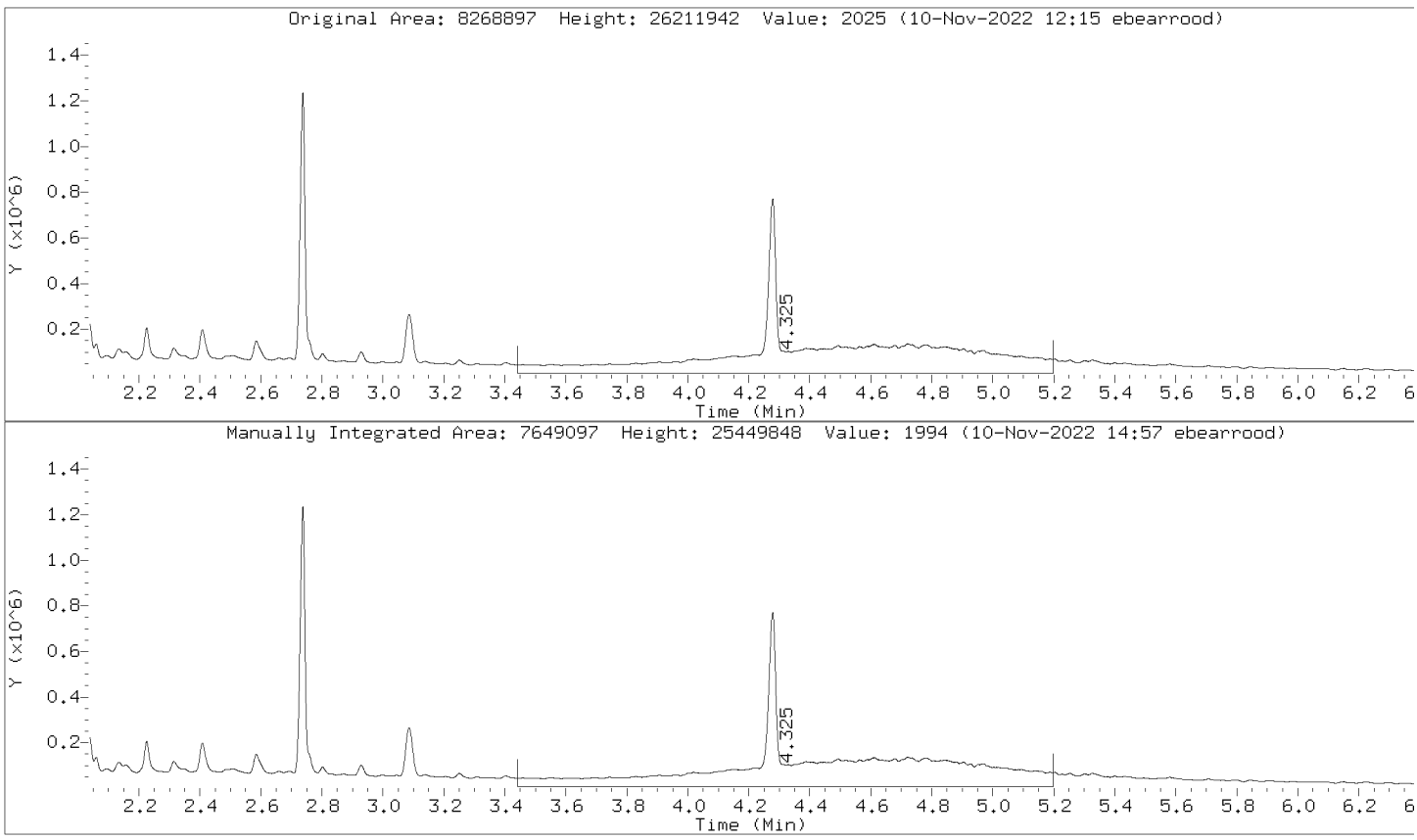
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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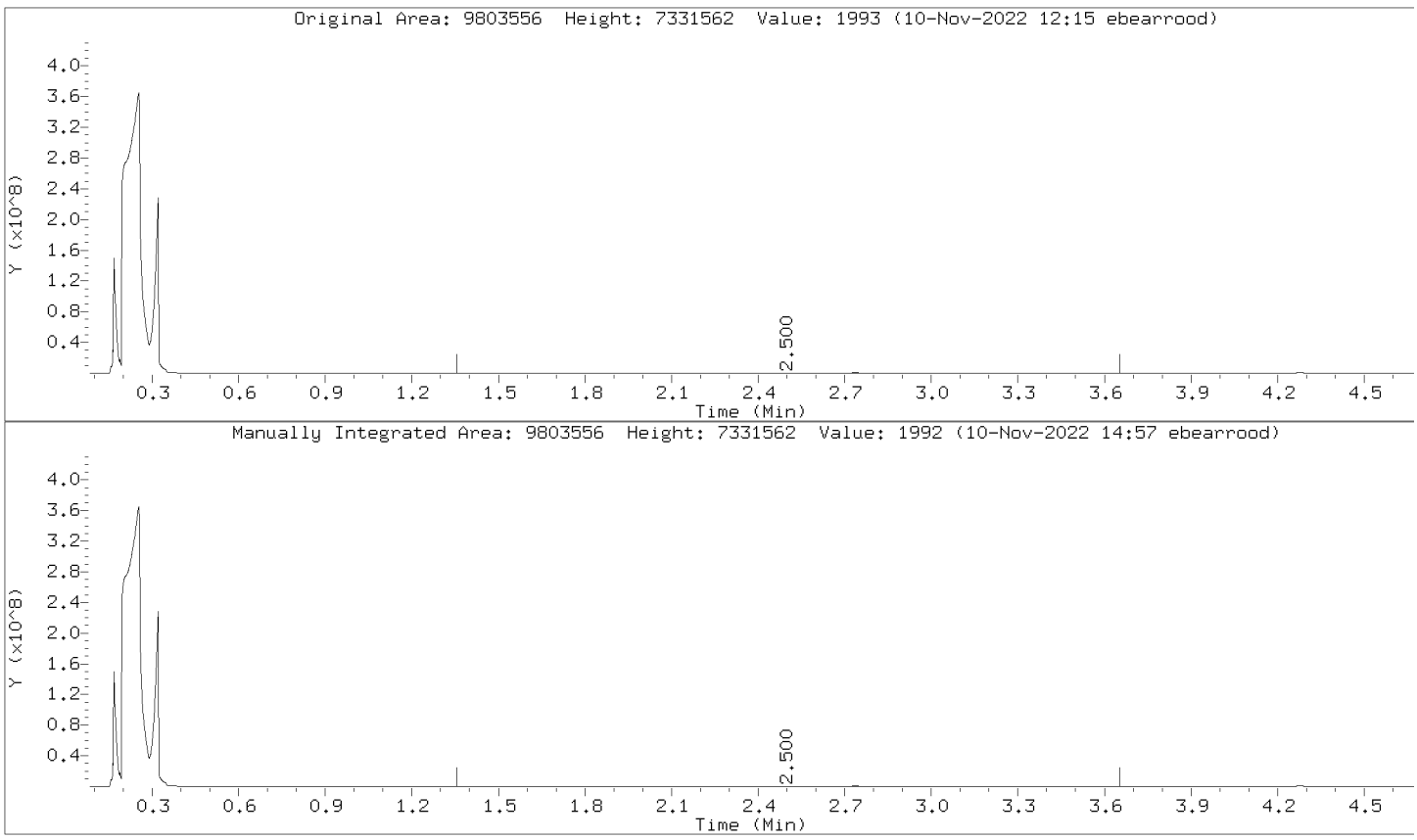
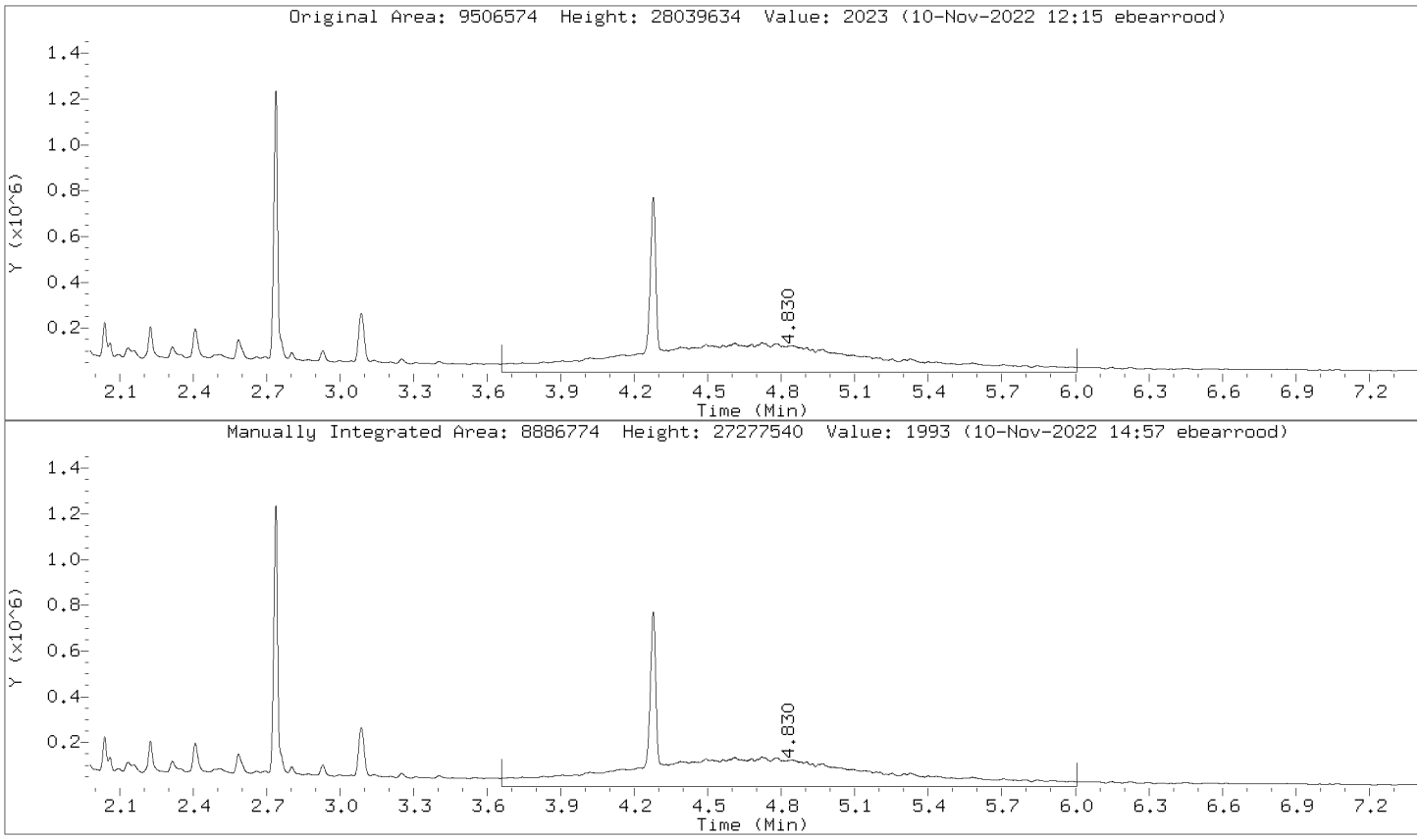
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



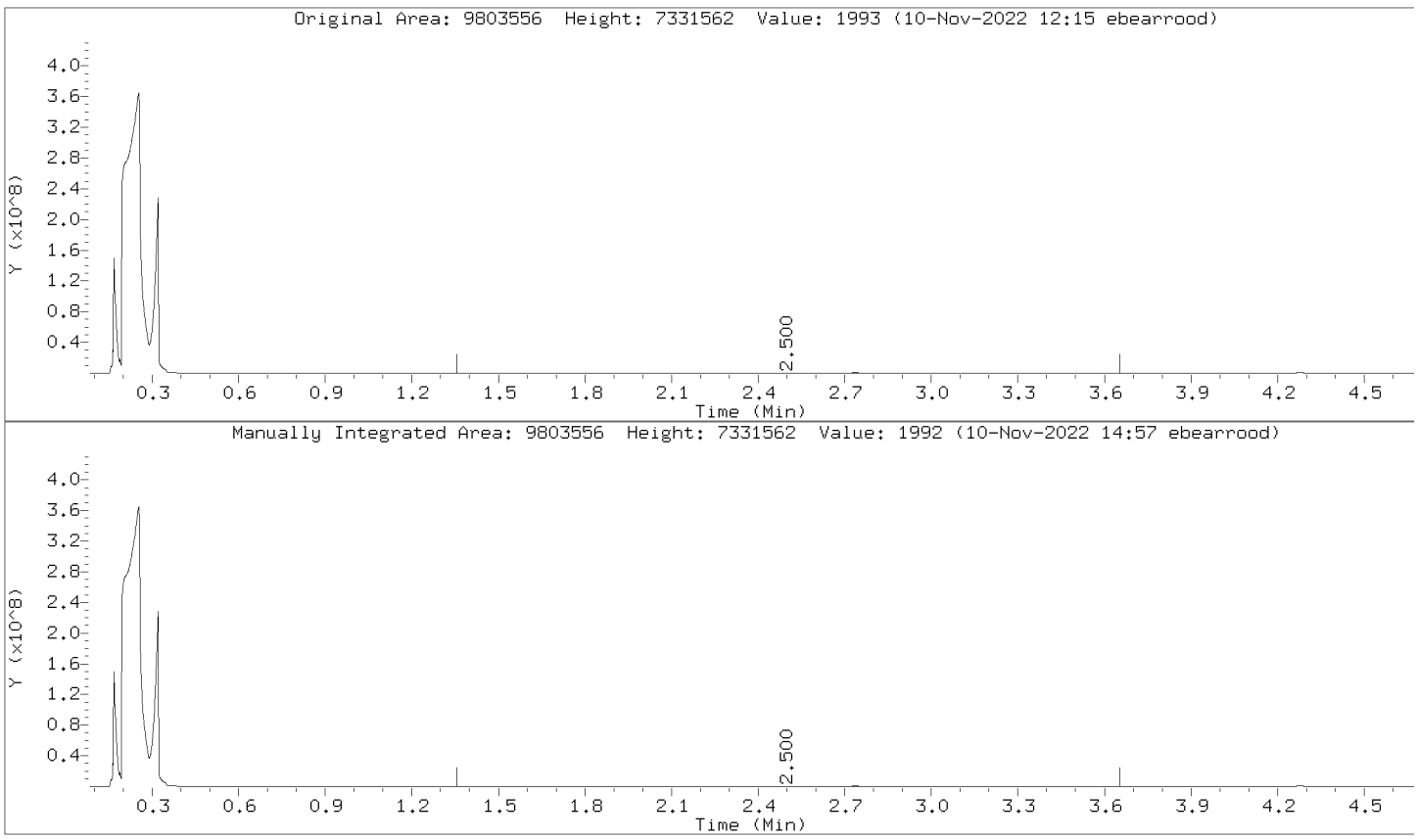
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



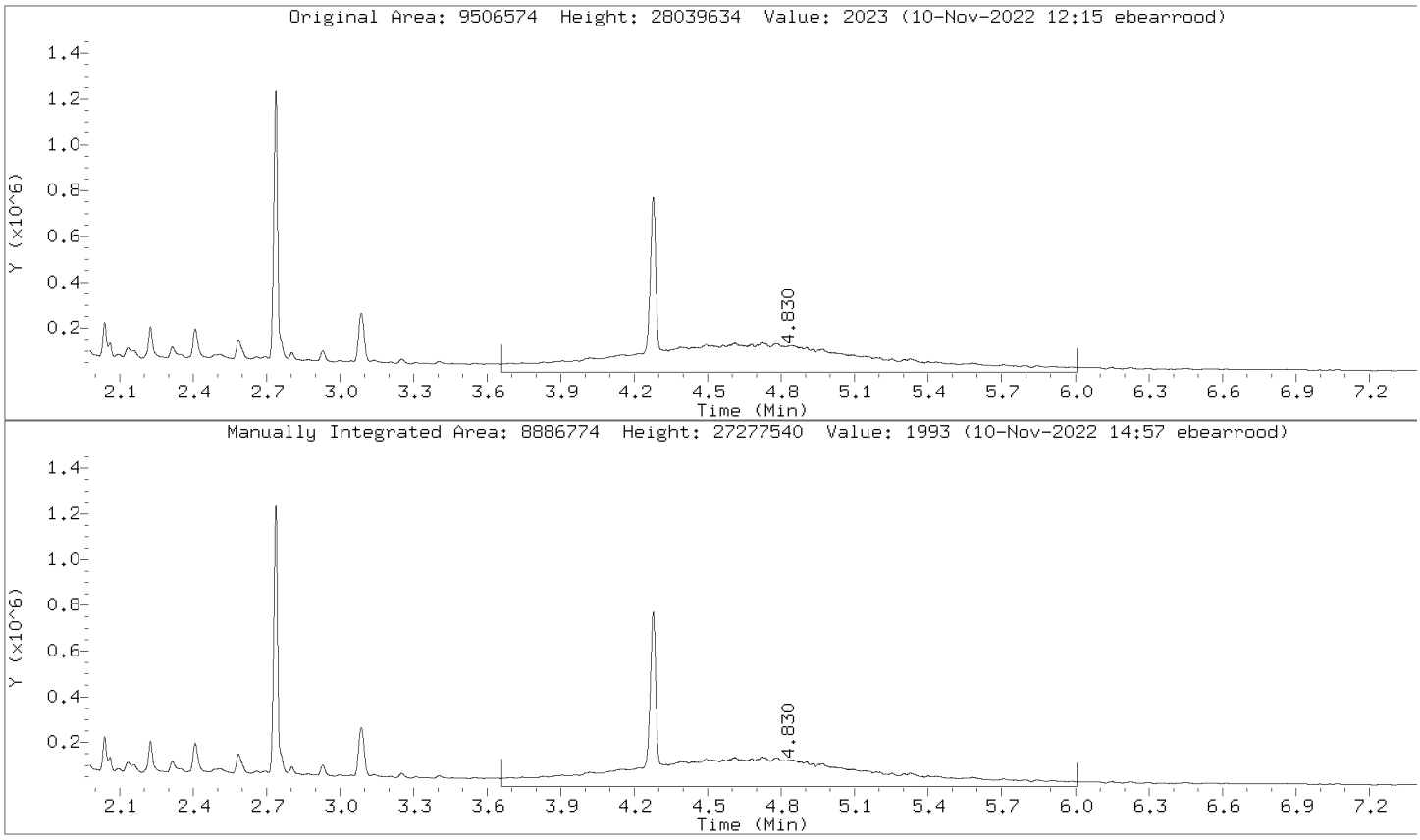
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



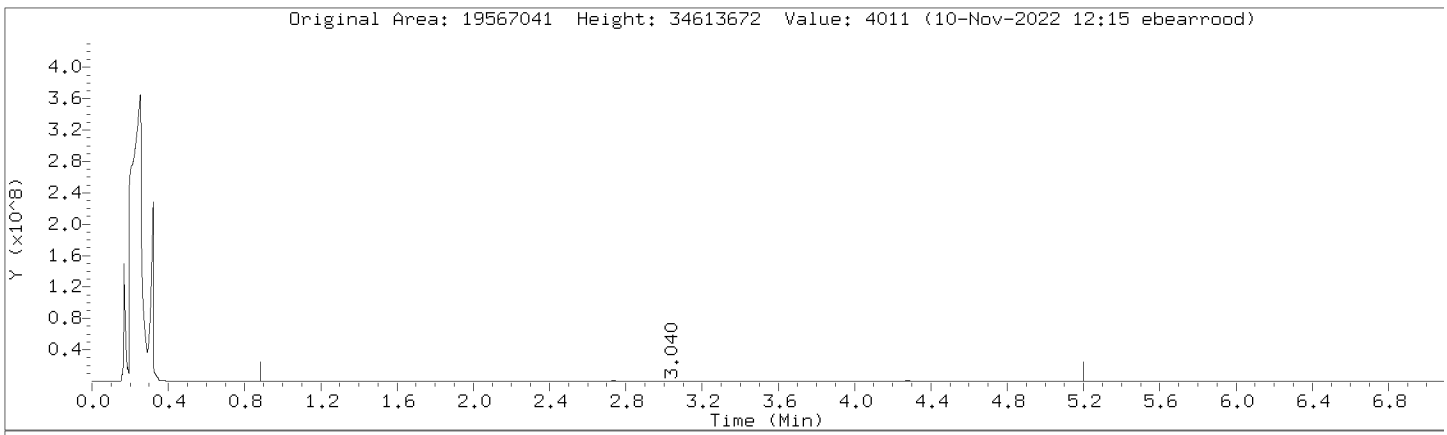
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

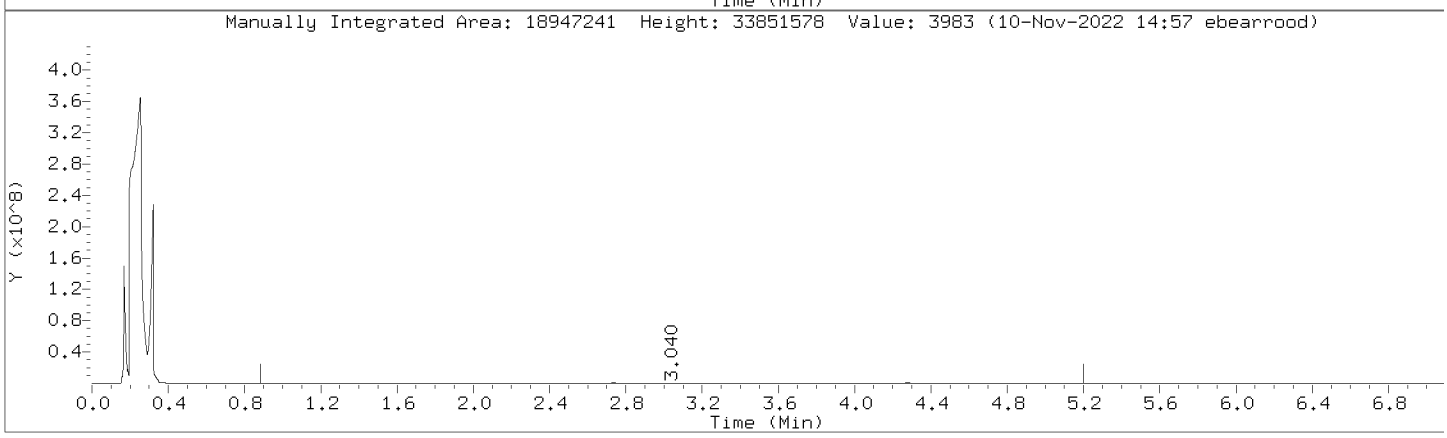
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

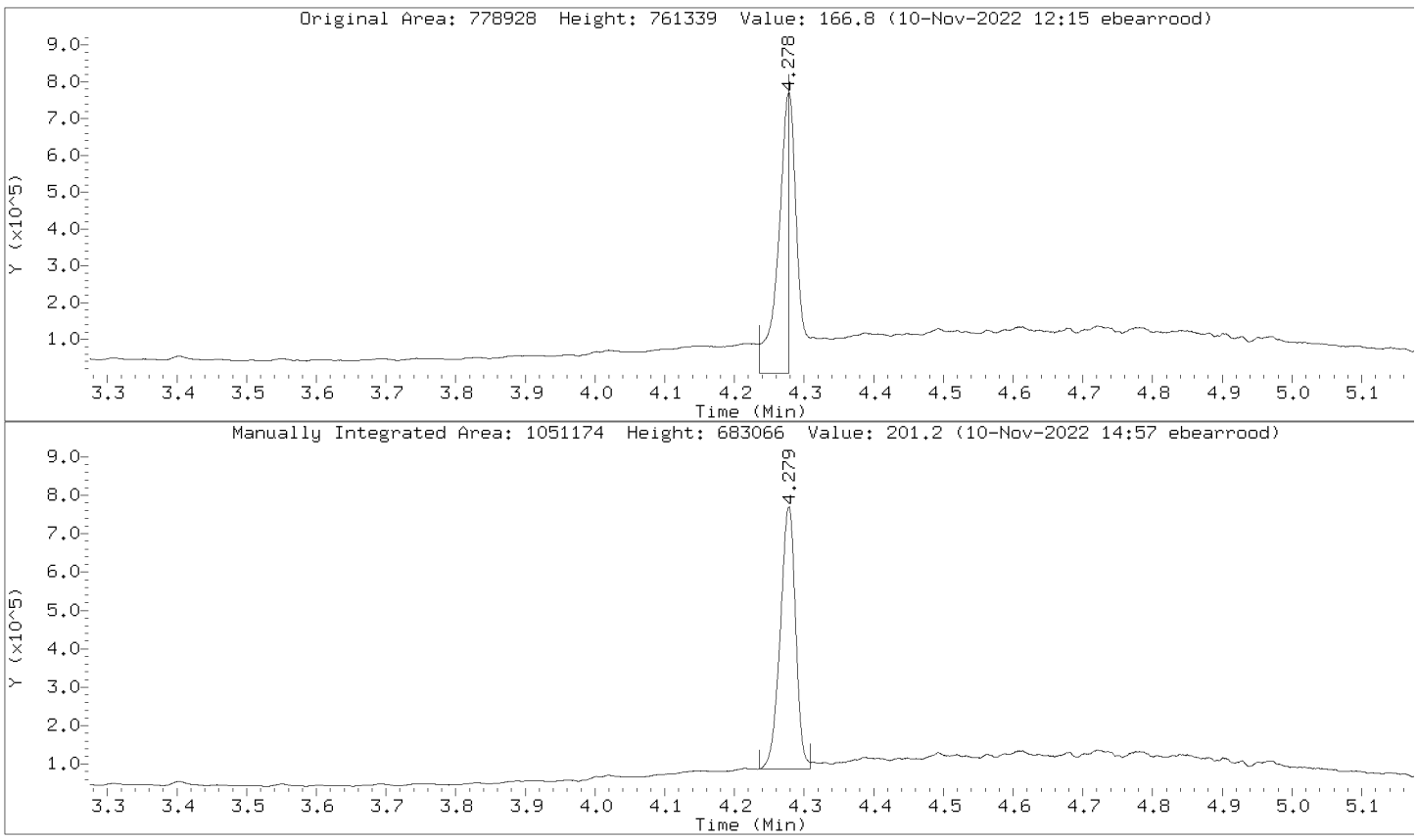
Compound: C10-C36 Review Code: RNG
CAS Number:





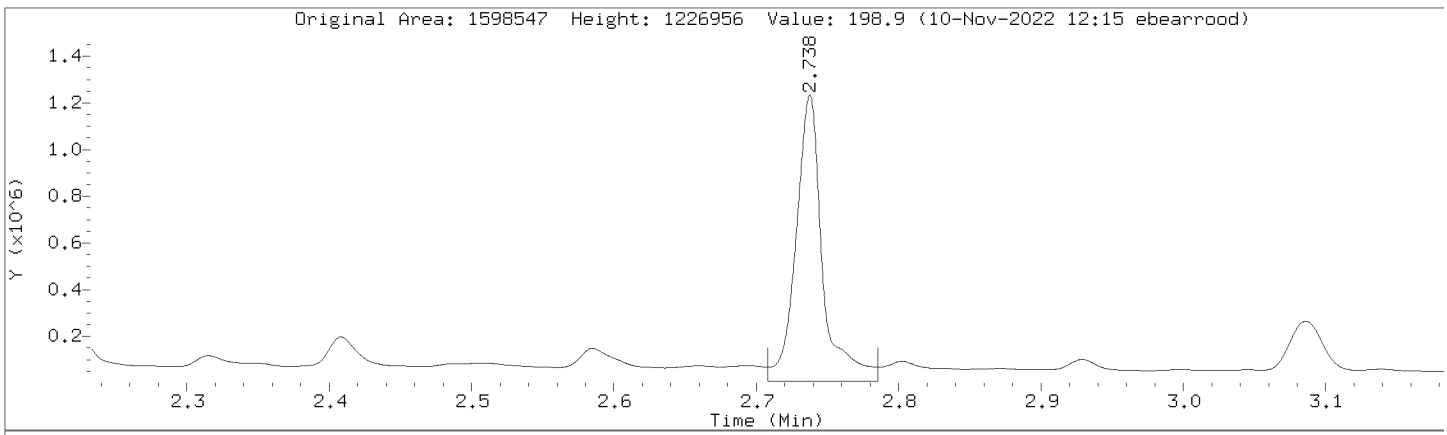
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

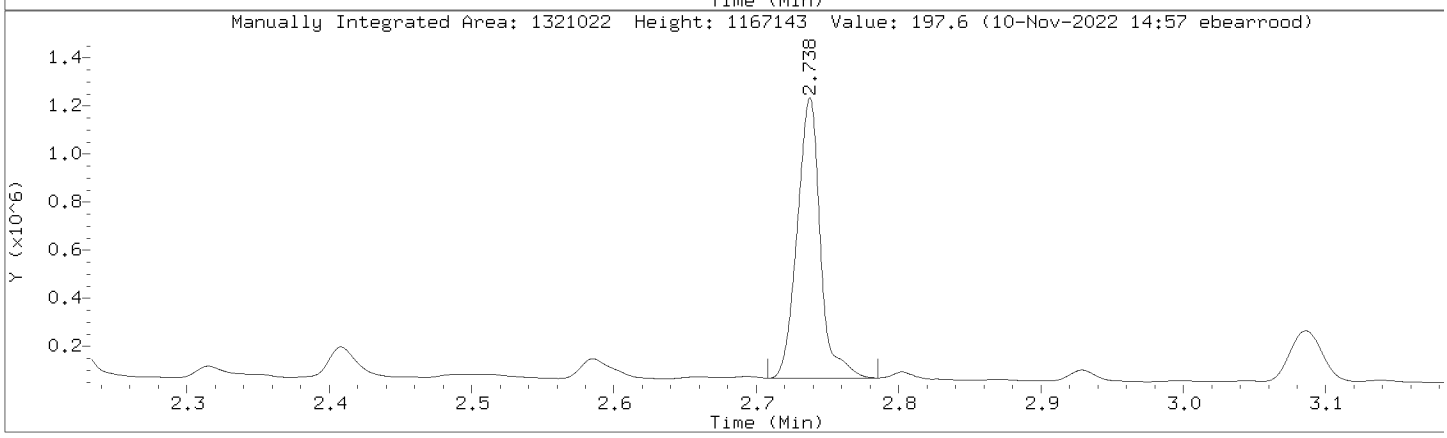
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000013.D
Injection Date: 10-NOV-2022 09:37
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL9,391067:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	7901984	7282184
DRO by AK 102	11634111	11634111
TPH-DRO (C10-C28)	13505071	13505071
Motor Oil Range (C24-C36)	8268897	7649097
Diesel Fuel Range	9803556	9803556
Motor Oil Range	9506574	8886774
Diesel Fuel Range SG	9803556	9803556
Motor Oil Range SG	9506574	8886774
C10-C36	19567041	18947241
n-Triacontane (S)	778928	1051174
o-Terphenyl (S)	1598547	1321022

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Lab Smp Id: DMO-CAL10,391068:2 Client Smp ID: DMO-CAL10,391068:2
Inj Date : 10-NOV-2022 09:49
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal10,391068:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		22986330	4000.00	4000	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.745	2.733	0.012	2686657	400.000	401	(AM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.288	4.275	0.013	2082427	400.000	399	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		14510742	4000.00	4000	(AM)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		26695771	4000.00	4000	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		15213847	4000.00	4000	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		37589999	8000.00	8000	(AM)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		19377556	4000.00	4000	(AM)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		17700374	4000.00	4000	(AM)	RNG

QC Flag Legend

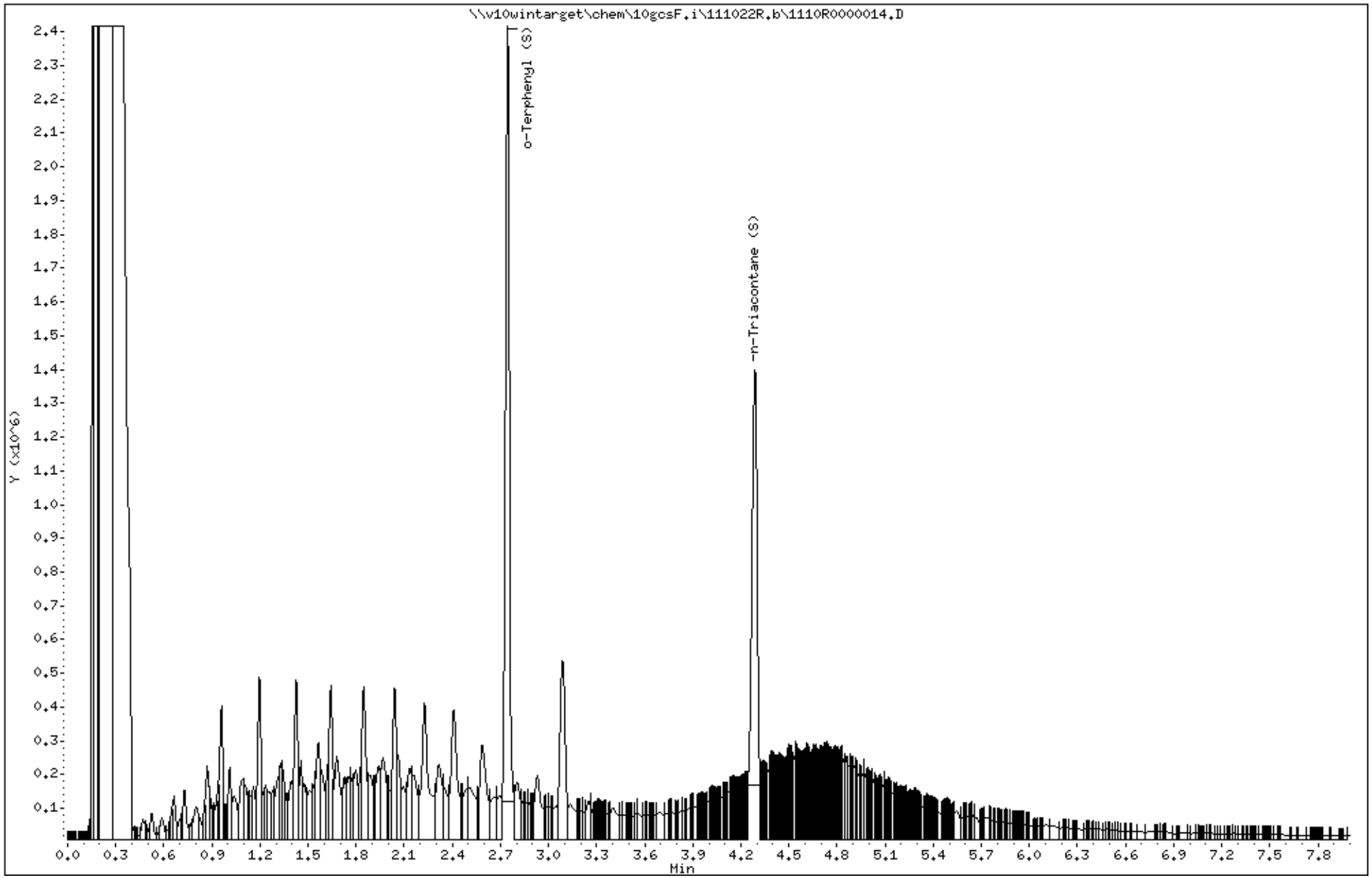
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

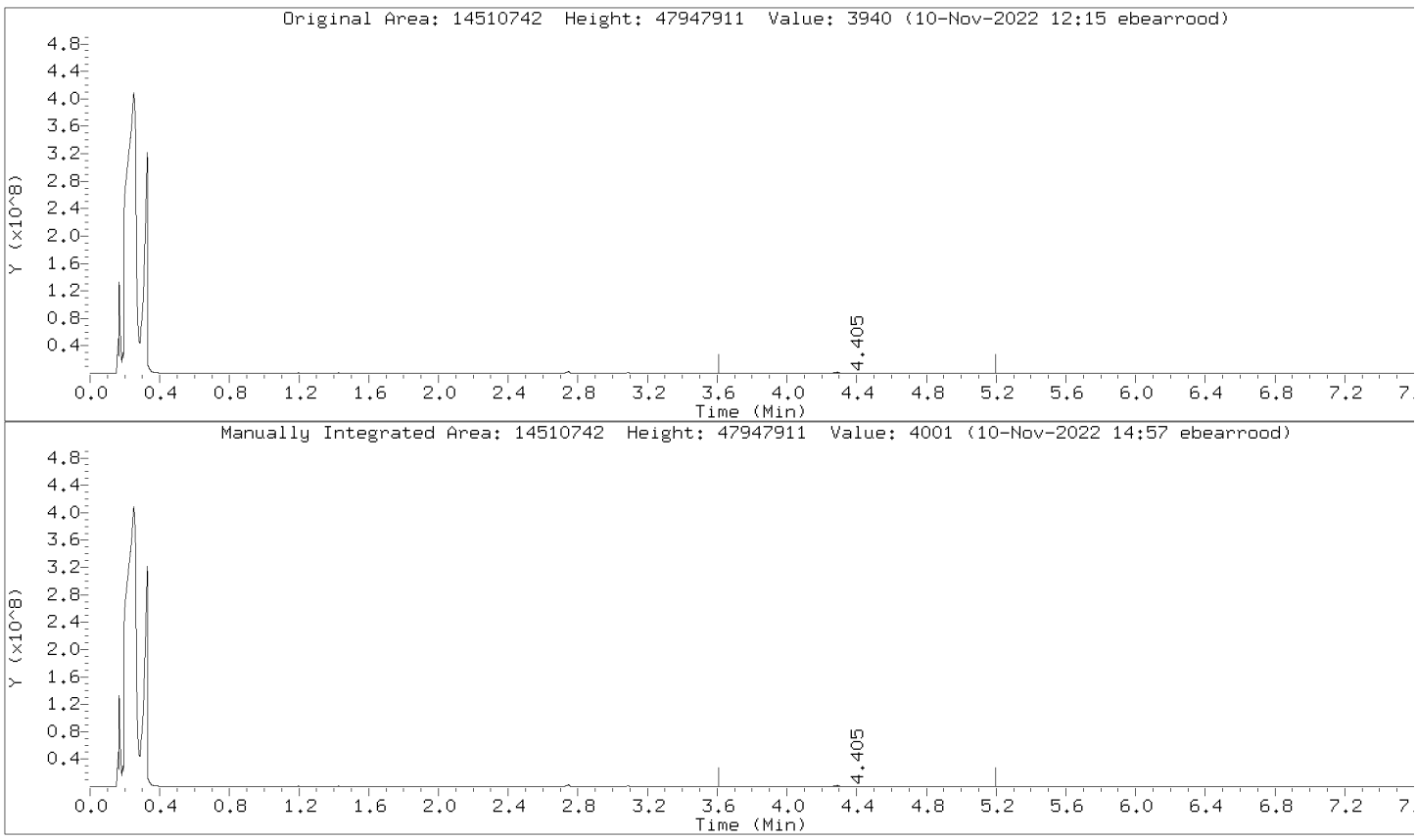
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000014.D
Date : 10-NOV-2022 09:49
Client ID: DMO-CAL10,391068:2
Sample Info: DMO-CAL10,391068:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



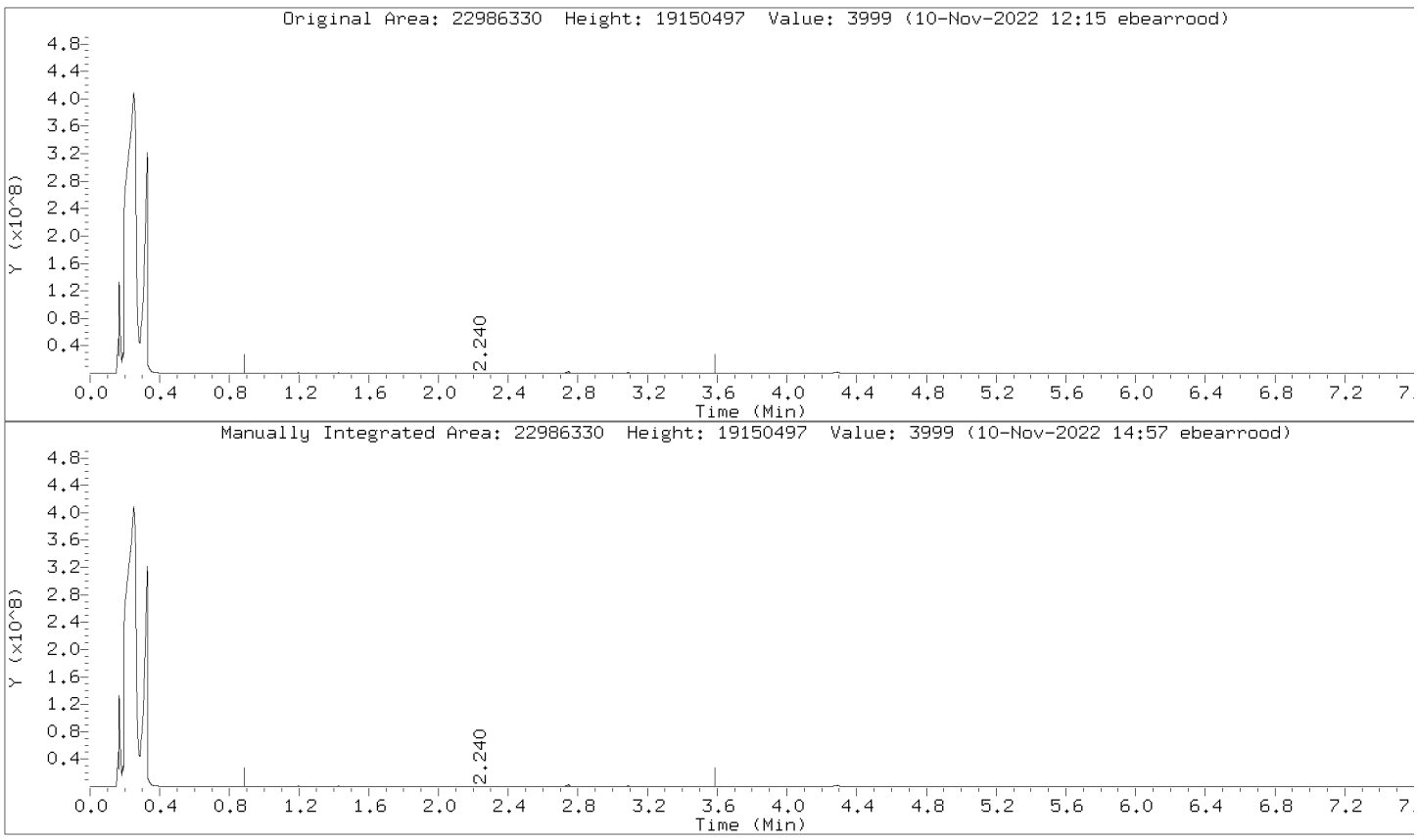
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



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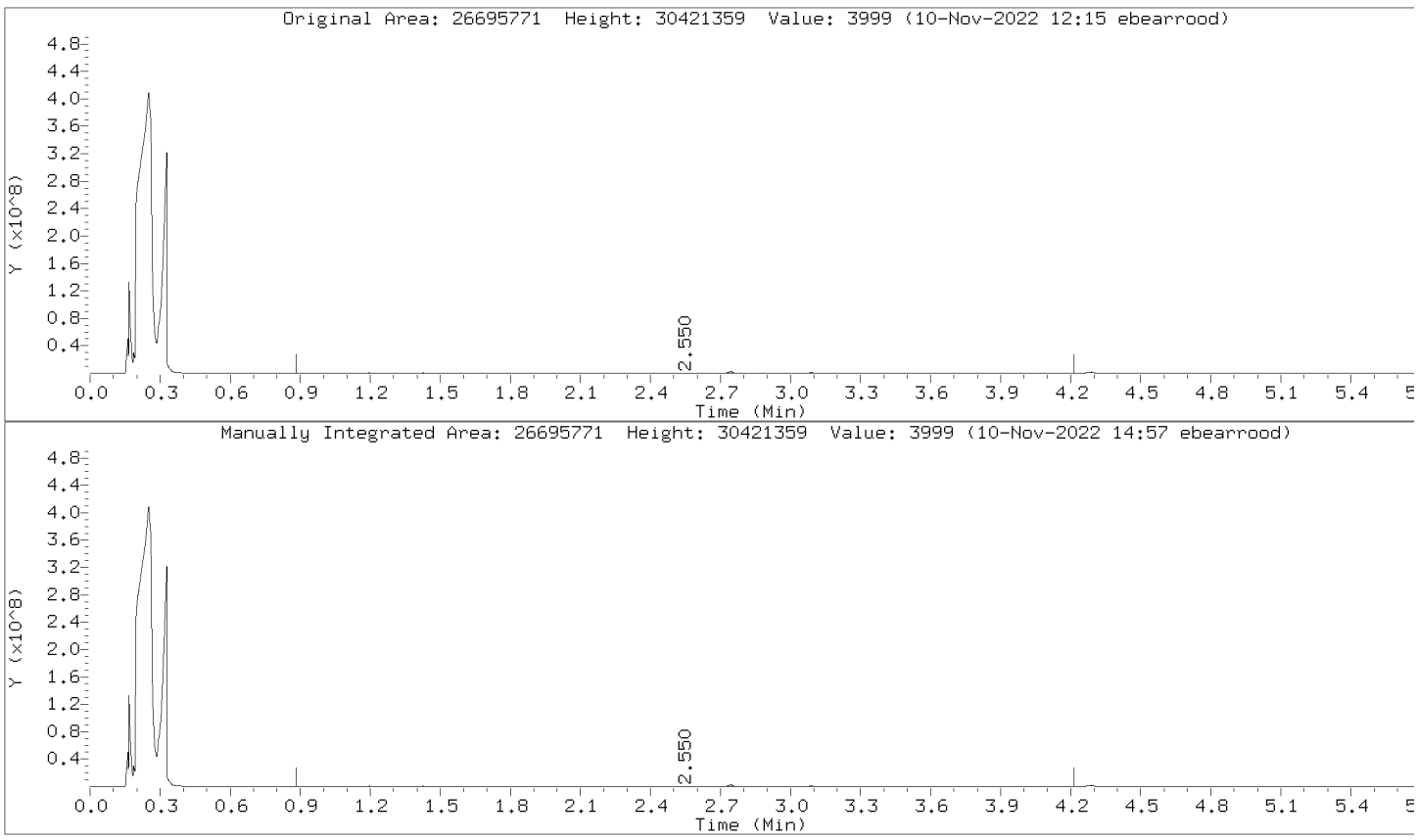
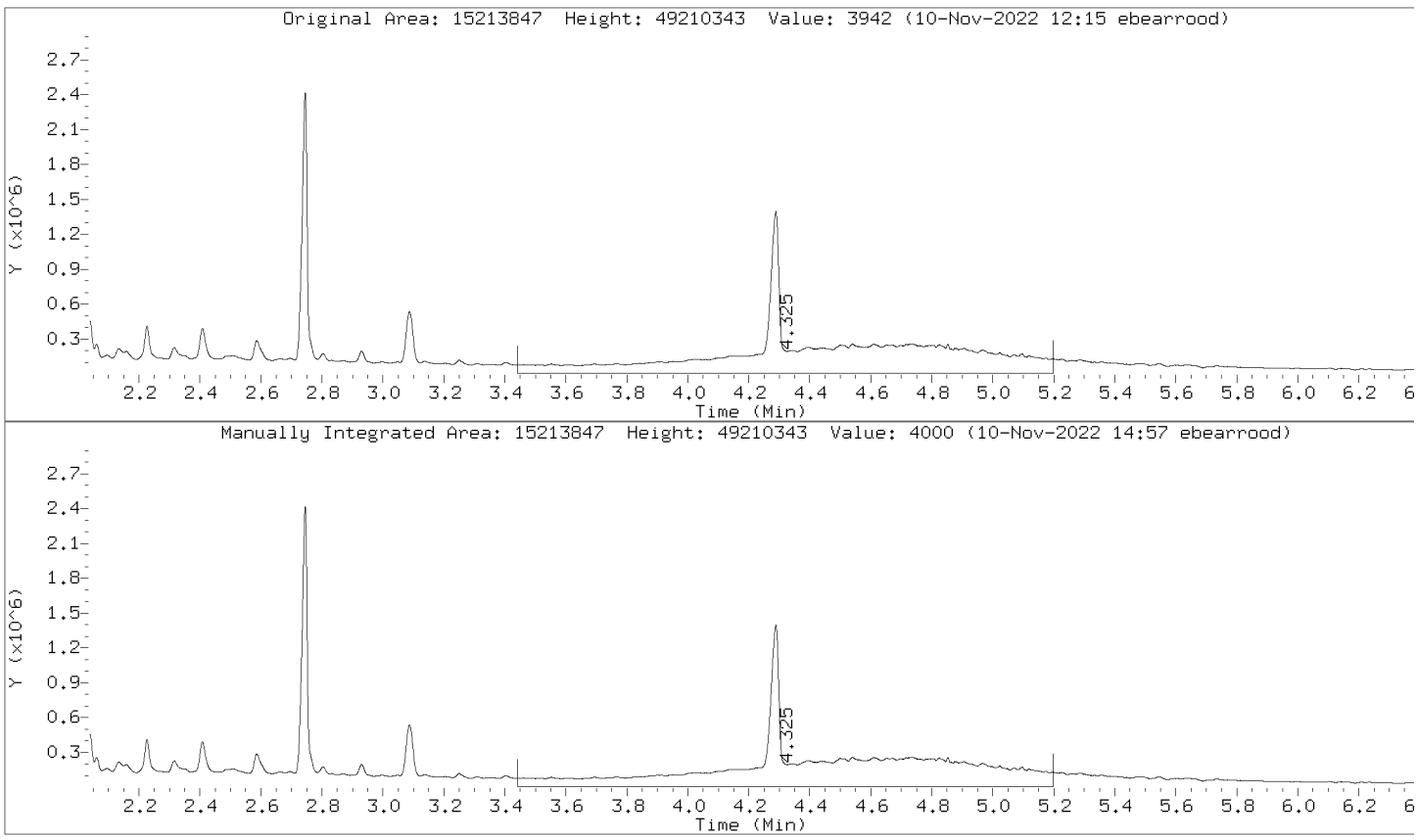
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



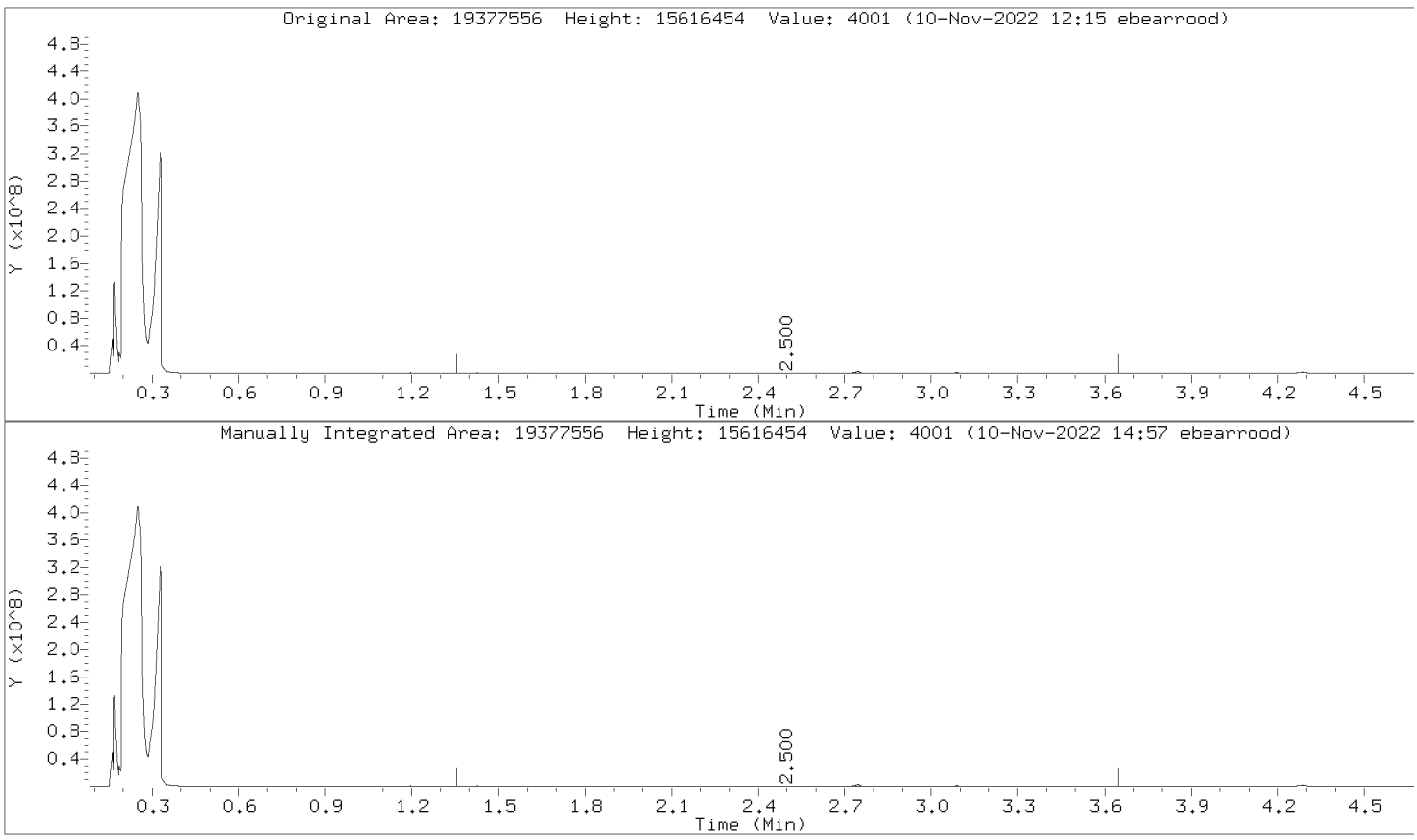
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



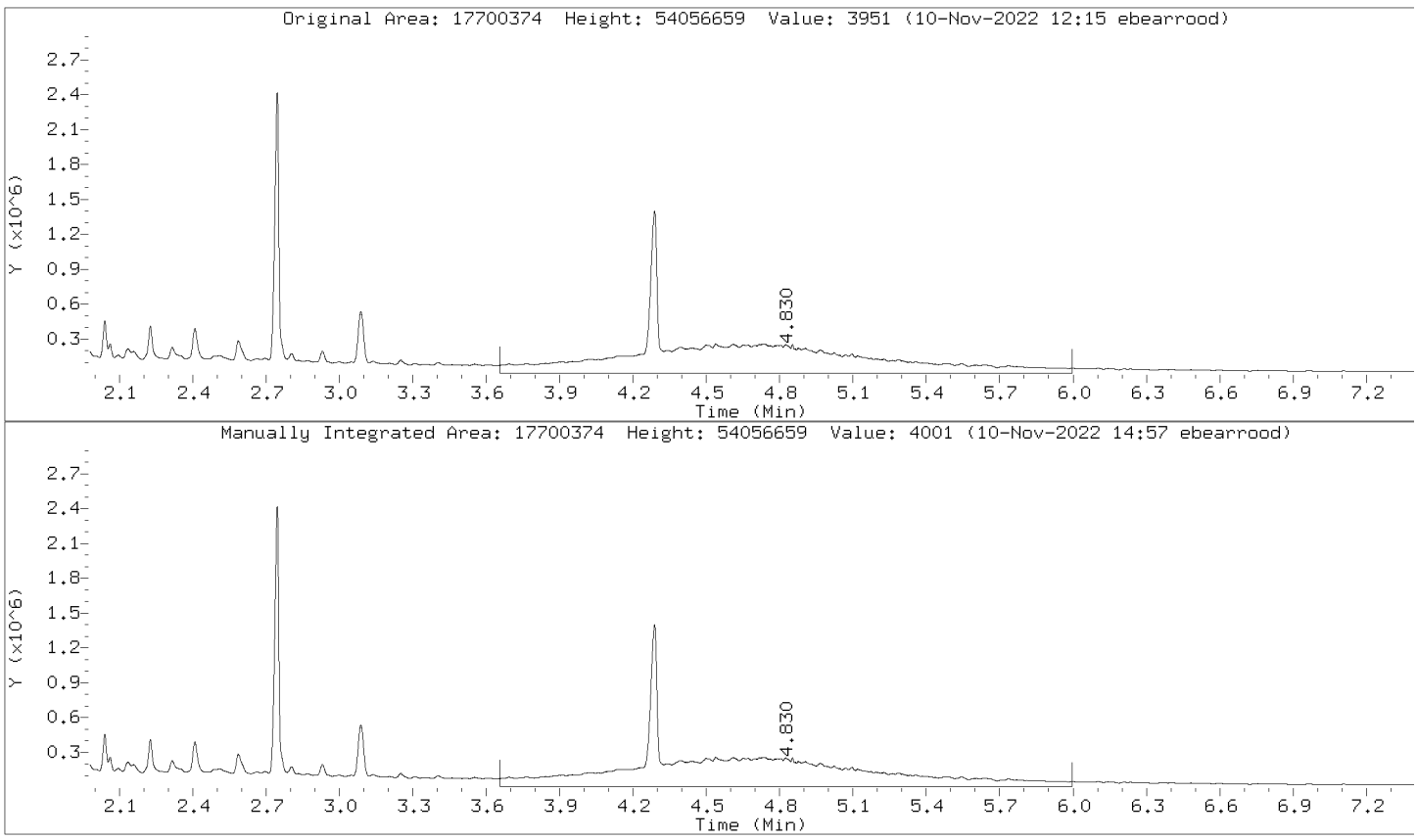
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



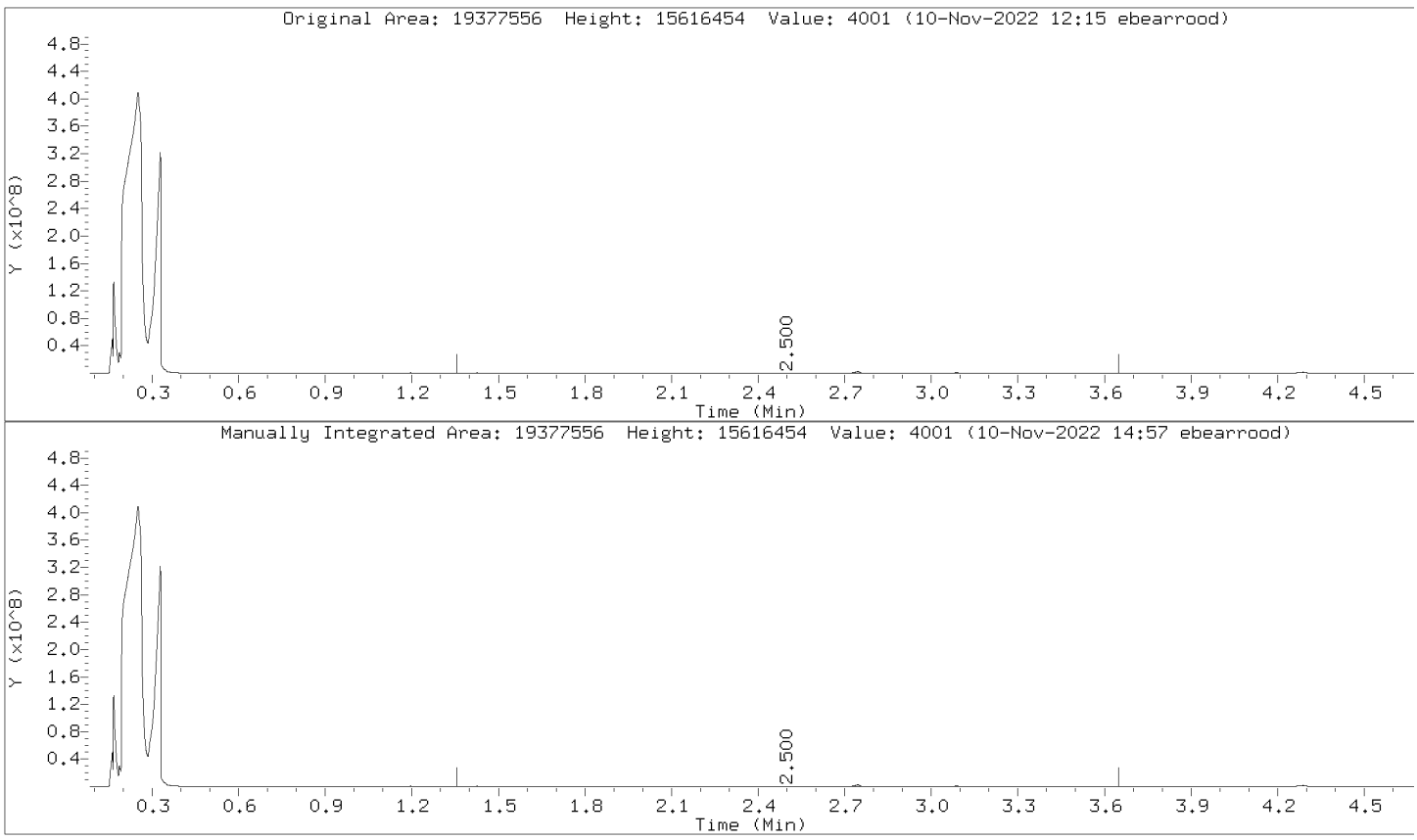
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



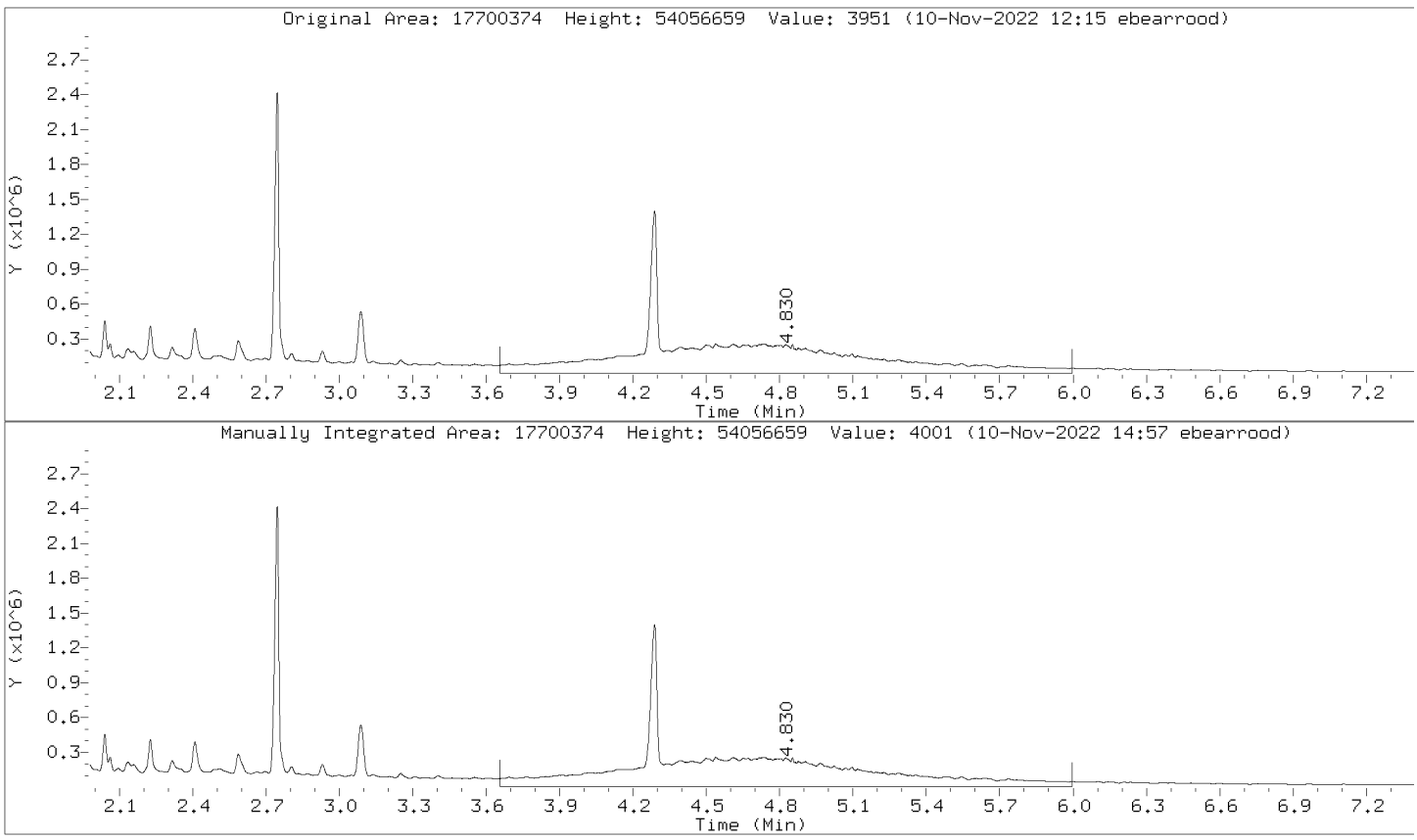
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



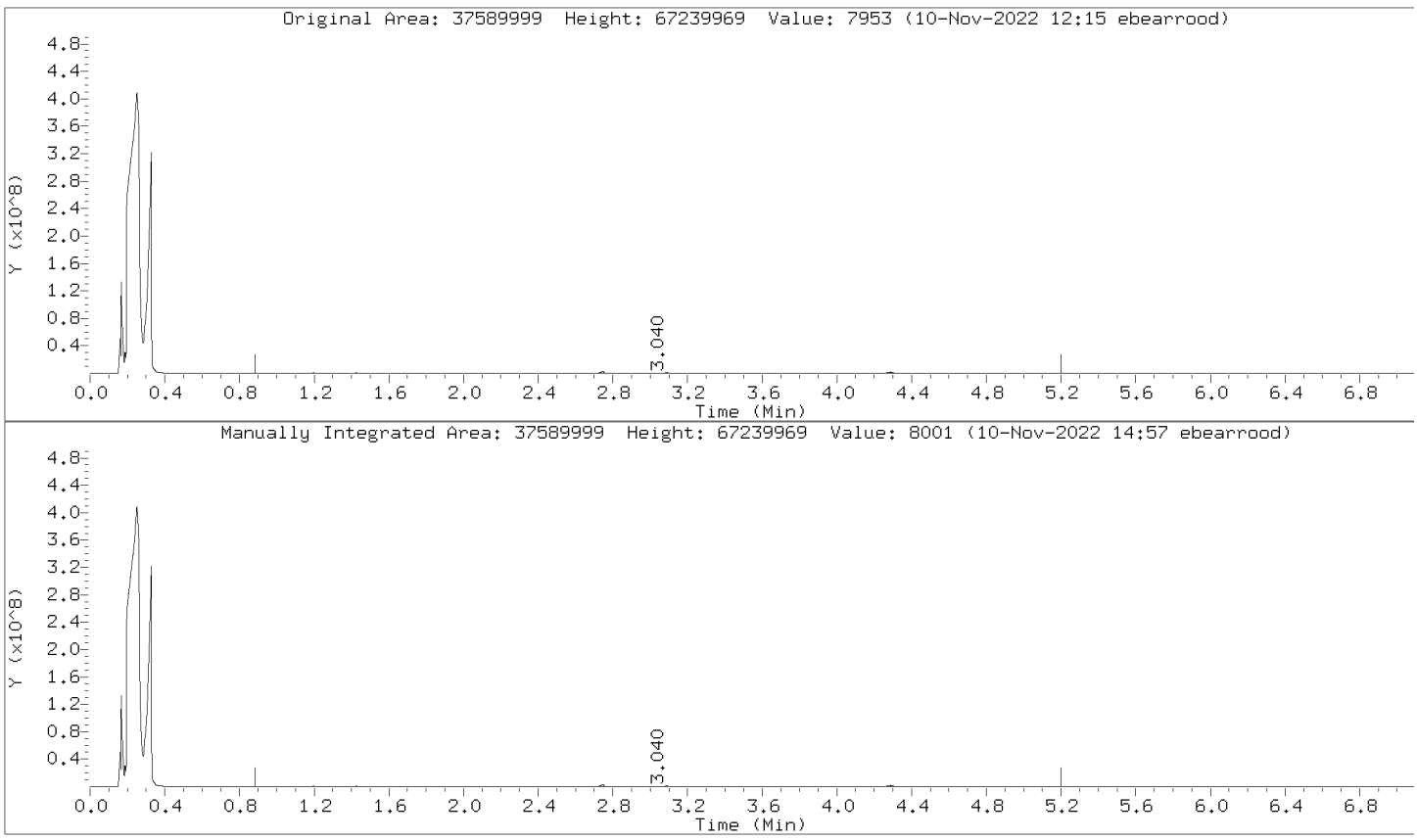
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



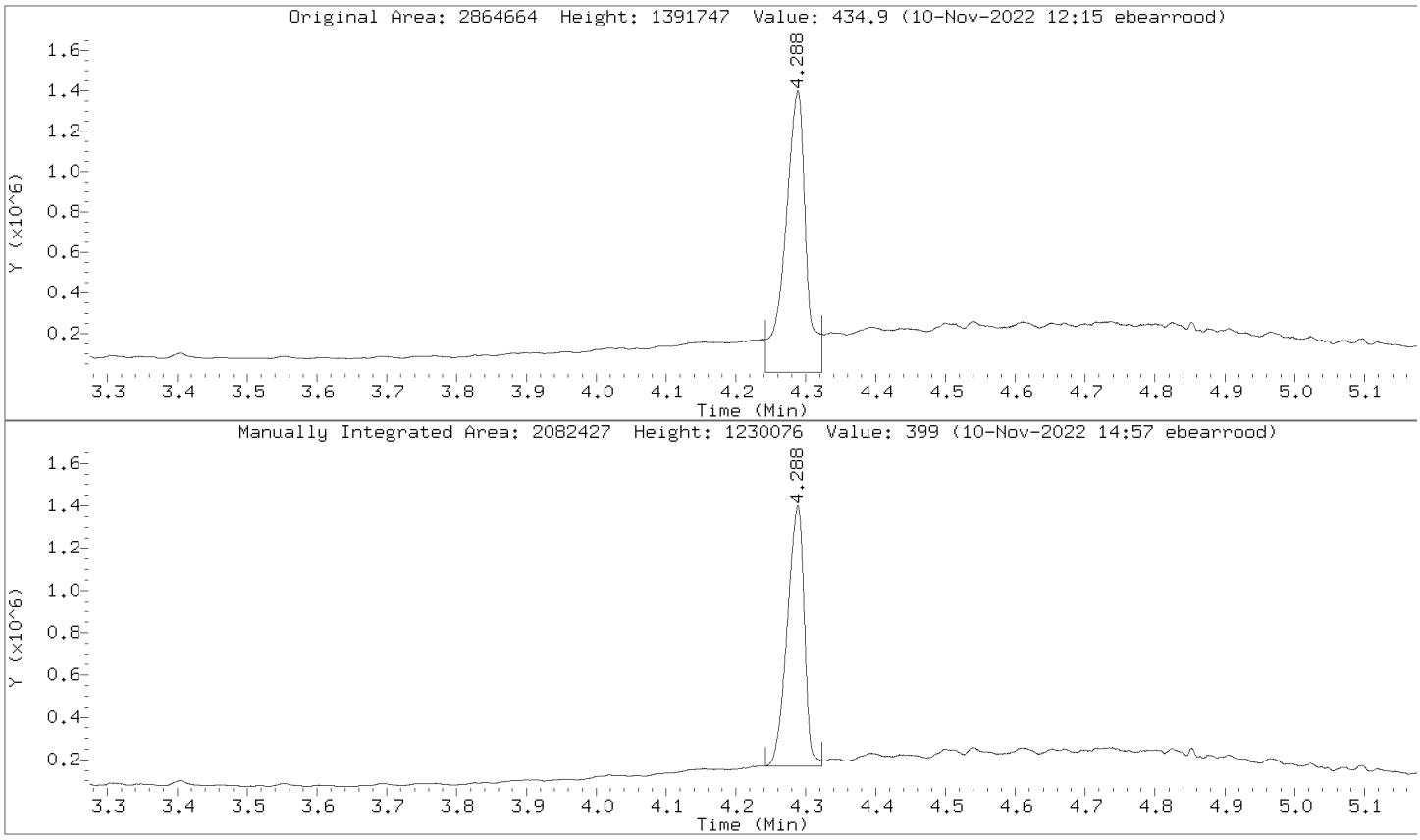
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: C10-C36 Review Code: RNG
CAS Number:



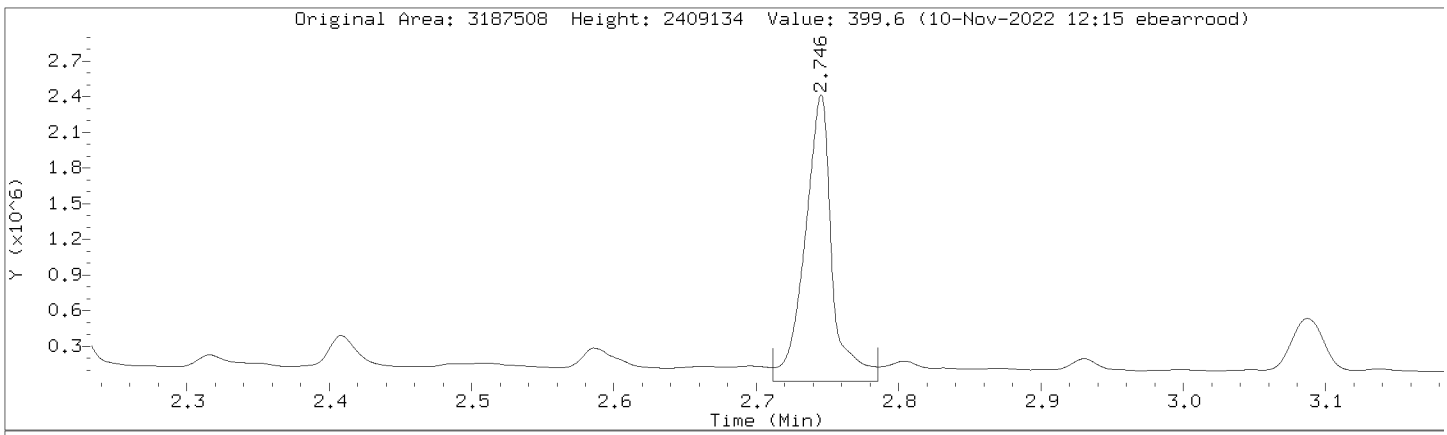
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

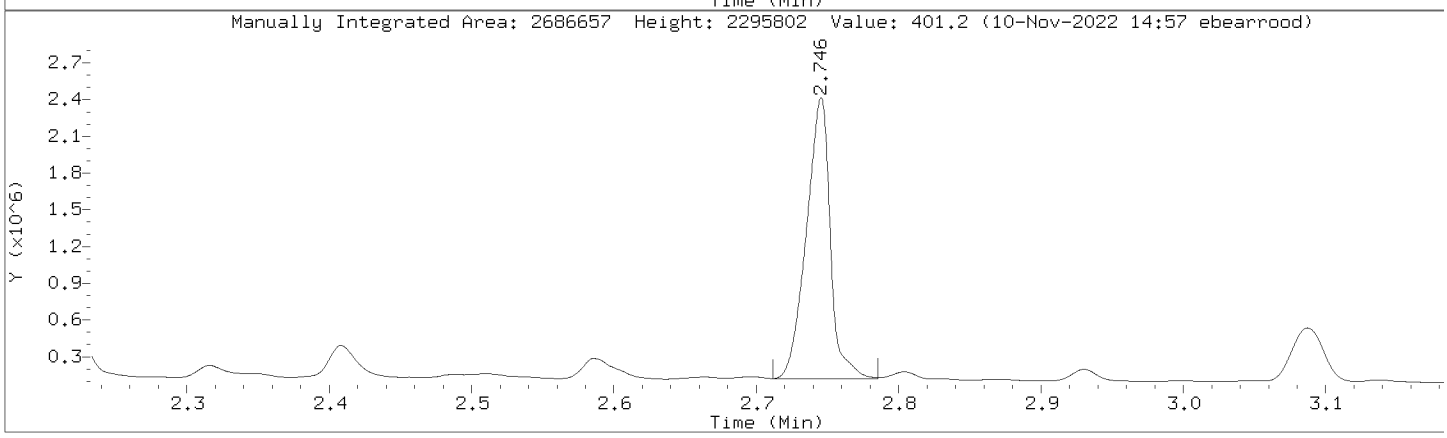
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000014.D
Injection Date: 10-NOV-2022 09:49
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL10,391068:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	14510742	14510742
DRO by AK 102	22986330	22986330
TPH-DRO (C10-C28)	26695771	26695771
Motor Oil Range (C24-C36)	15213847	15213847
Diesel Fuel Range	19377556	19377556
Motor Oil Range	17700374	17700374
Diesel Fuel Range SG	19377556	19377556
Motor Oil Range SG	17700374	17700374
C10-C36	37589999	37589999
n-Triacontane (S)	2864664	2082427
o-Terphenyl (S)	3187508	2686657

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Lab Smp Id: DMO-CAL7,391064:2 Client Smp ID: DMO-CAL7,391064:2
Inj Date : 10-NOV-2022 14:05
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-cal7,391064:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 98 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3182142	500.000	500	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	327927	50.0000	49.5	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.274	4.275	-0.001	260117	50.0000	49.6	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1897757	500.000	495	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3685185	500.000	500	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		1997427	500.000	495	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5085662	1000.00	996	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2686512	500.000	499	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2322694	500.000	497	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

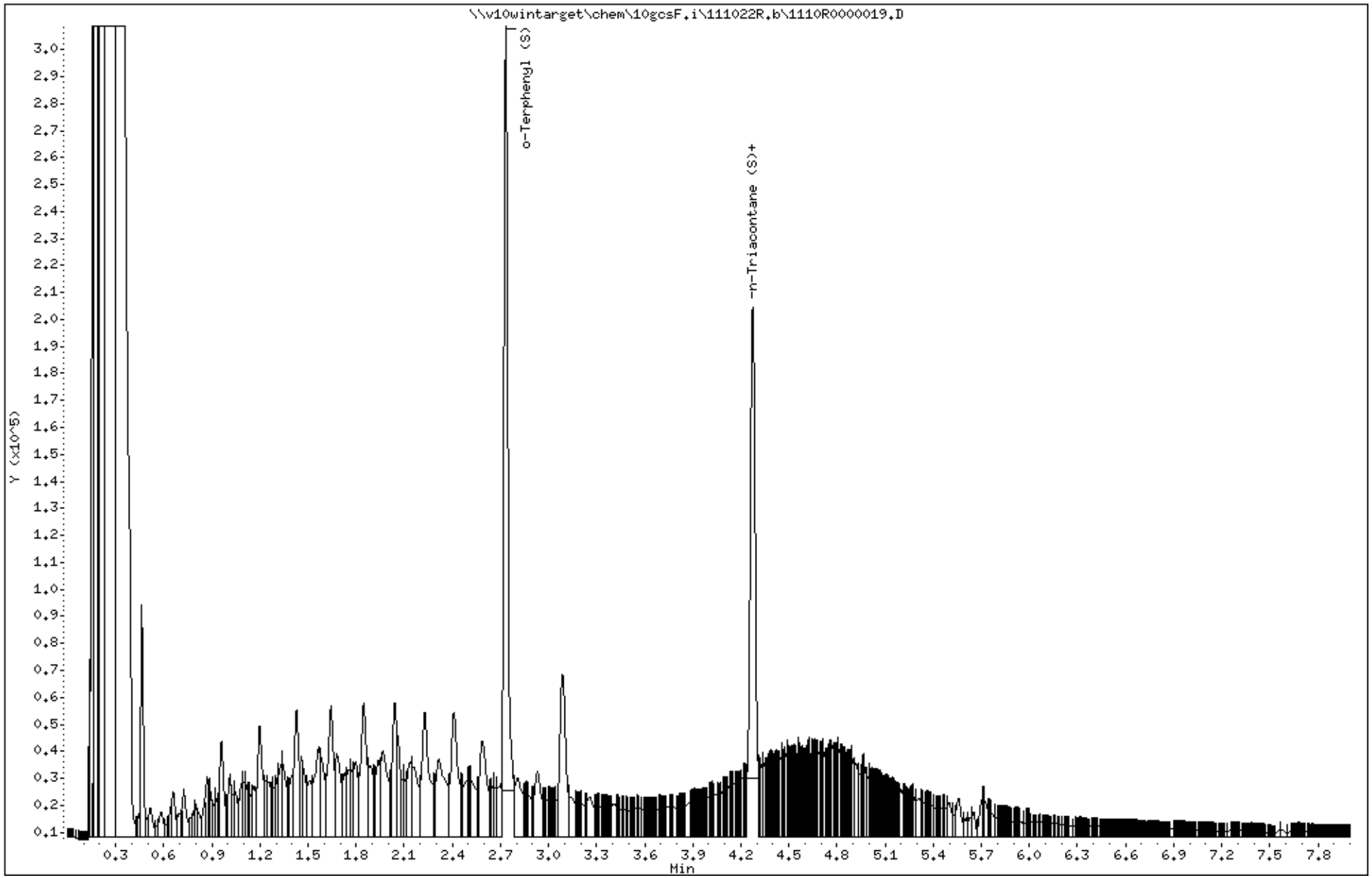
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000019.D
Date : 10-NOV-2022 14:05
Client ID: DMO-CAL7,391064:2
Sample Info: DMO-CAL7,391064:2

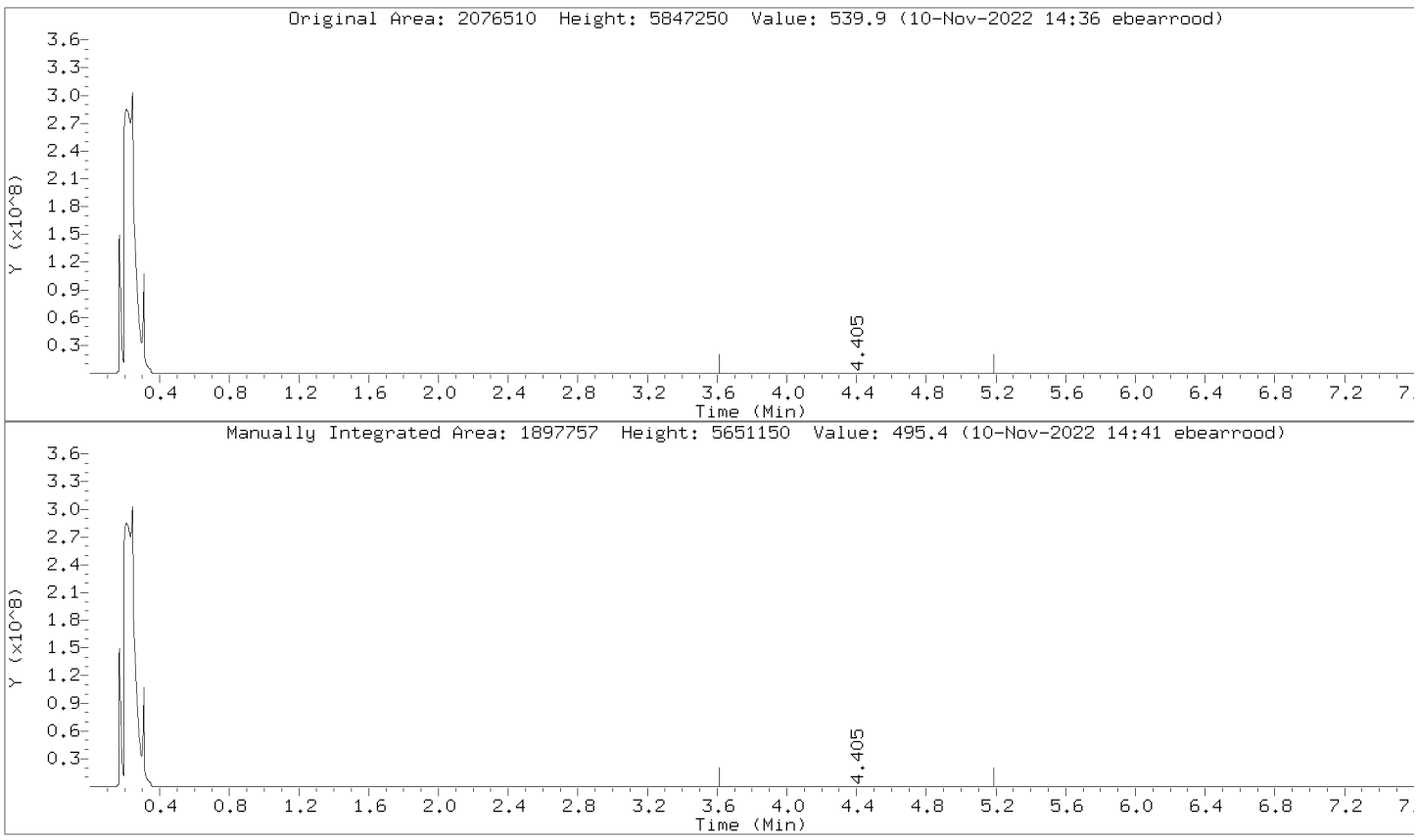
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



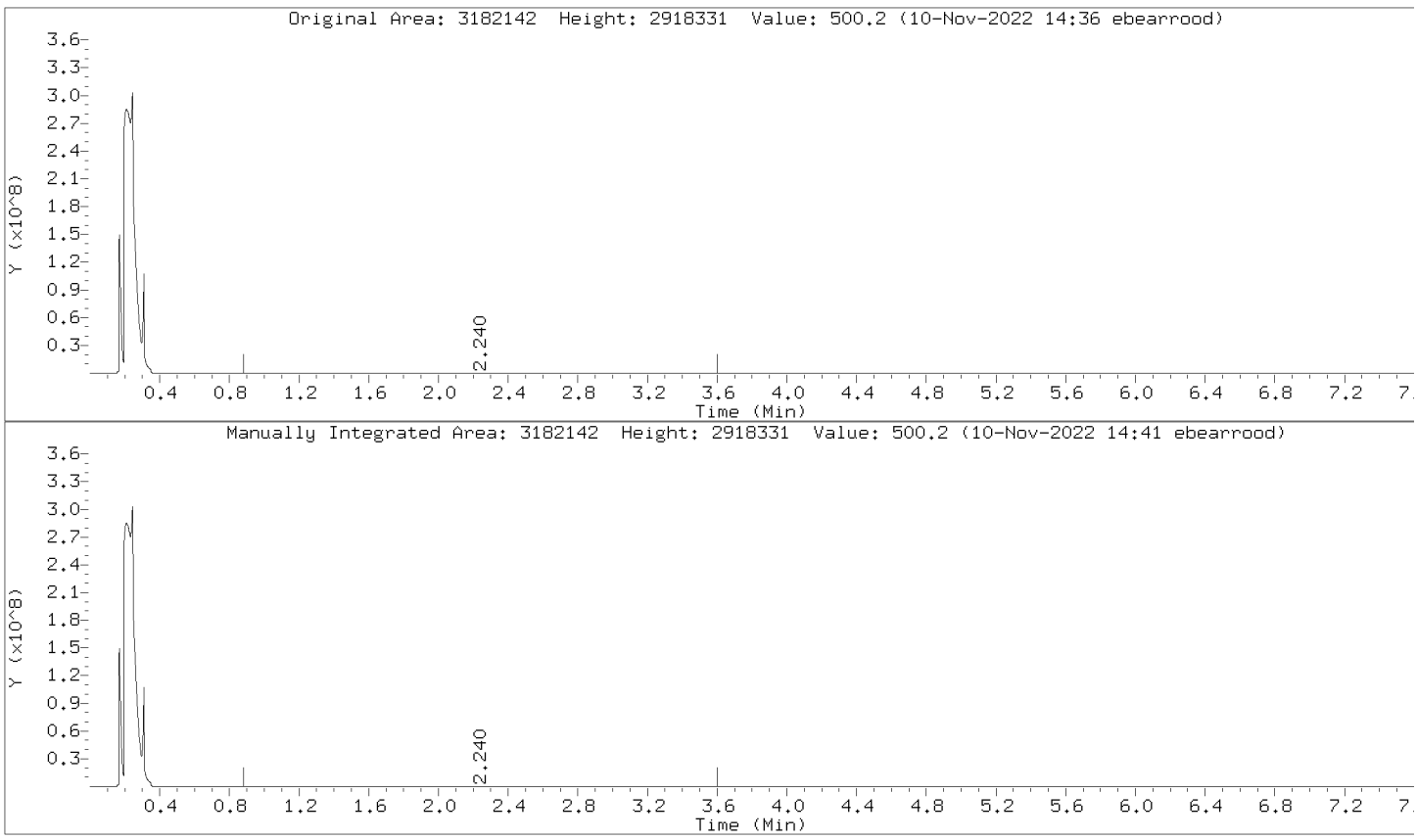
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



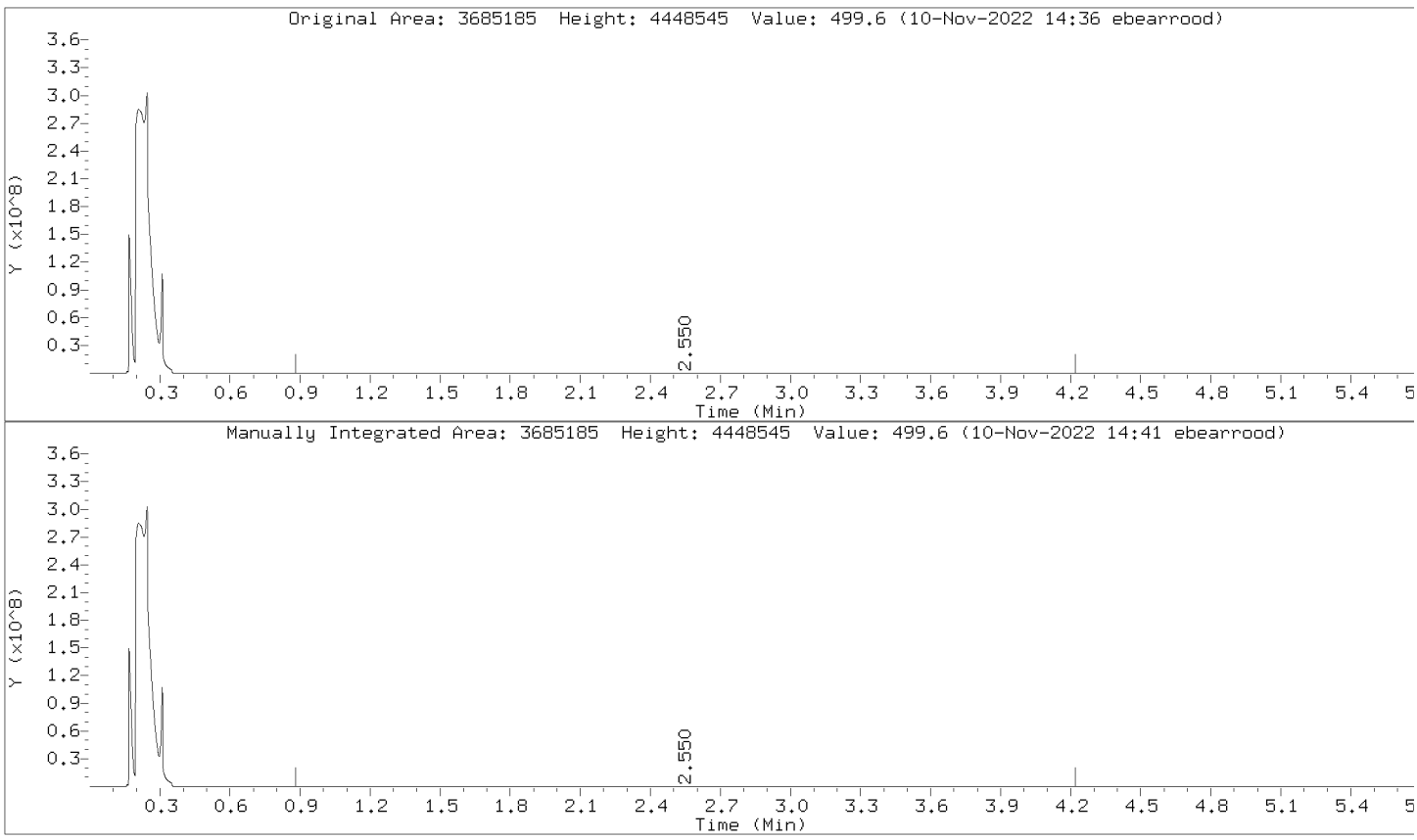
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



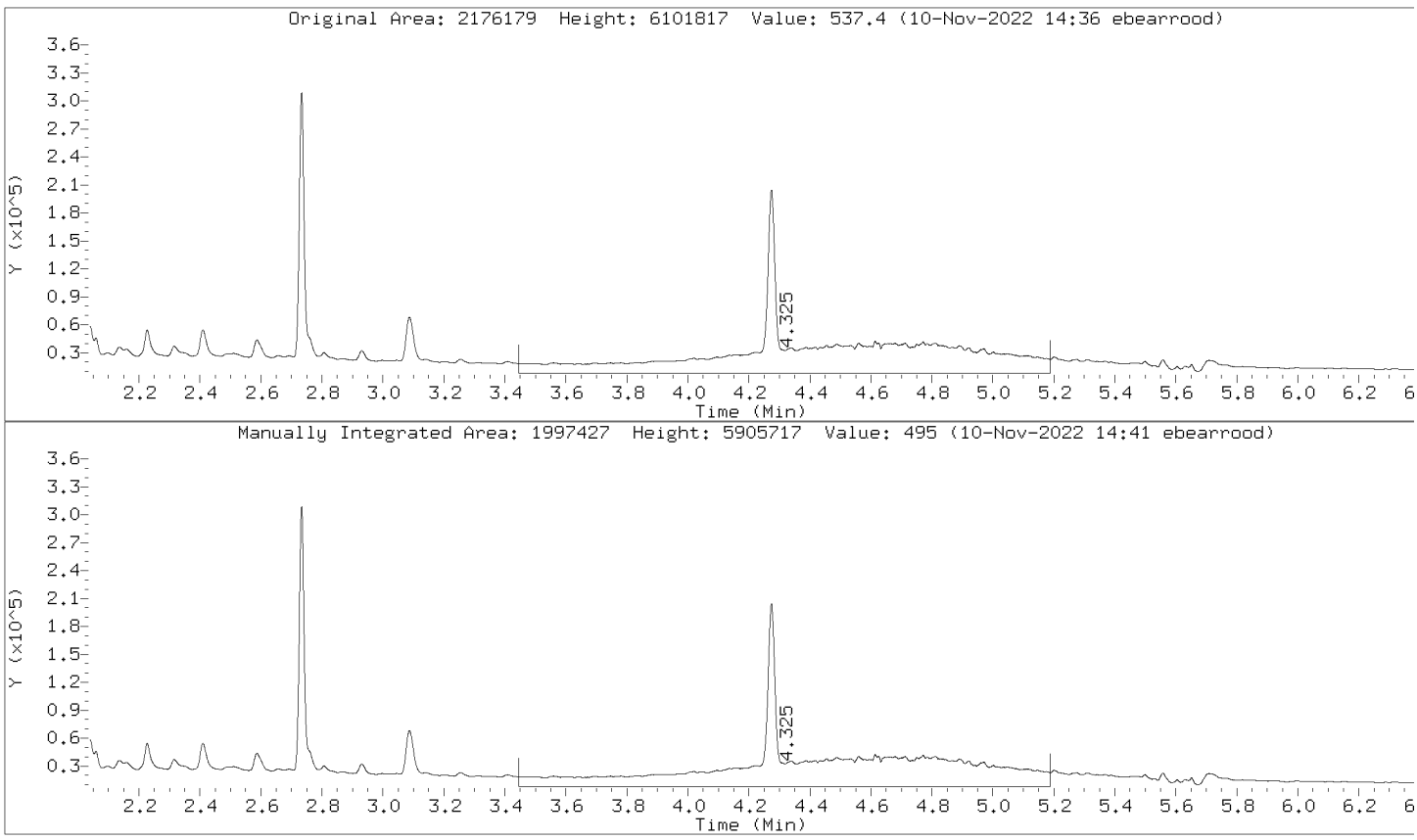
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



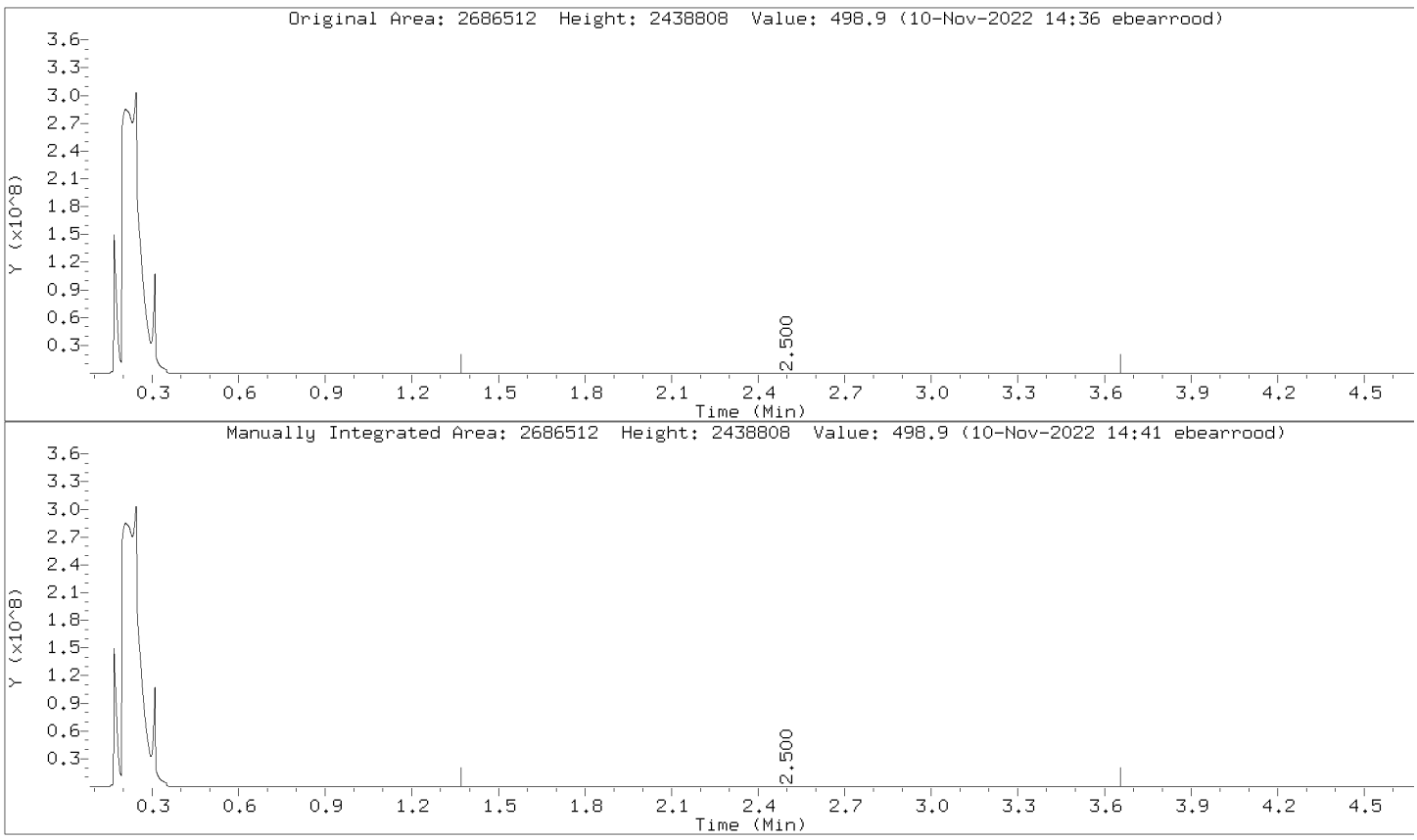
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



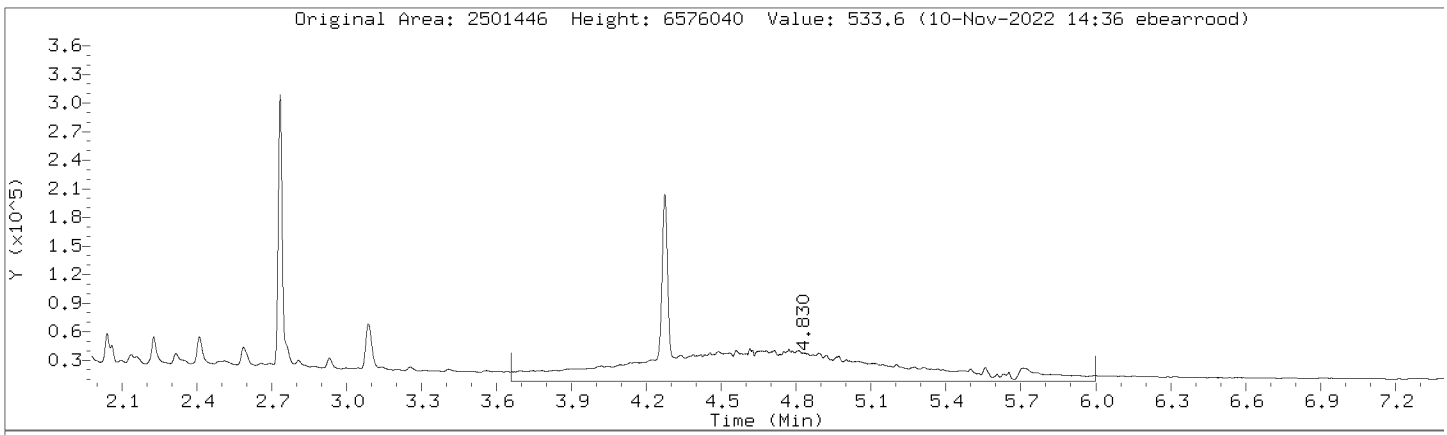
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

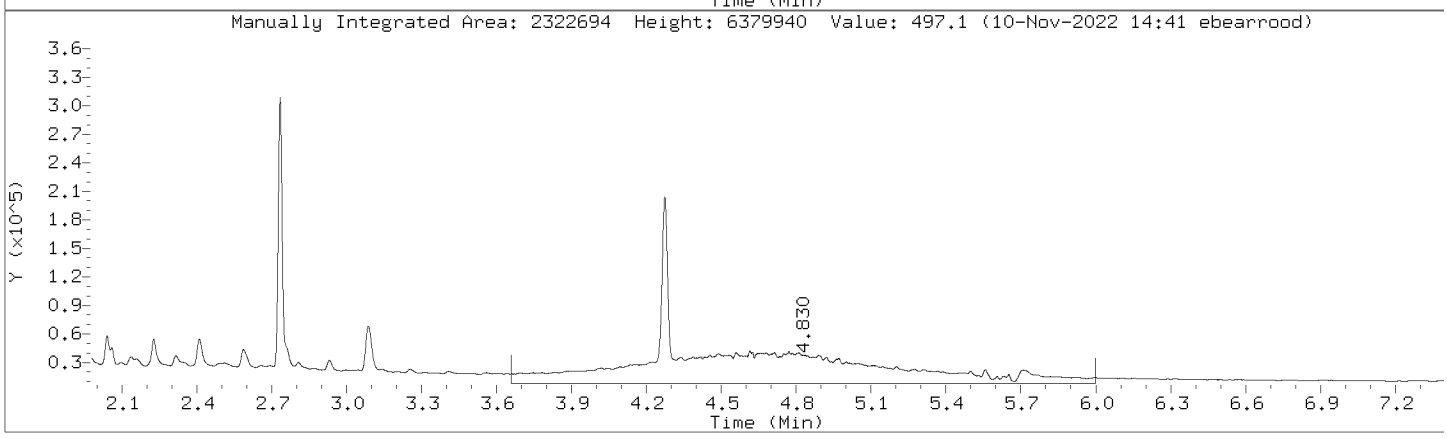
Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

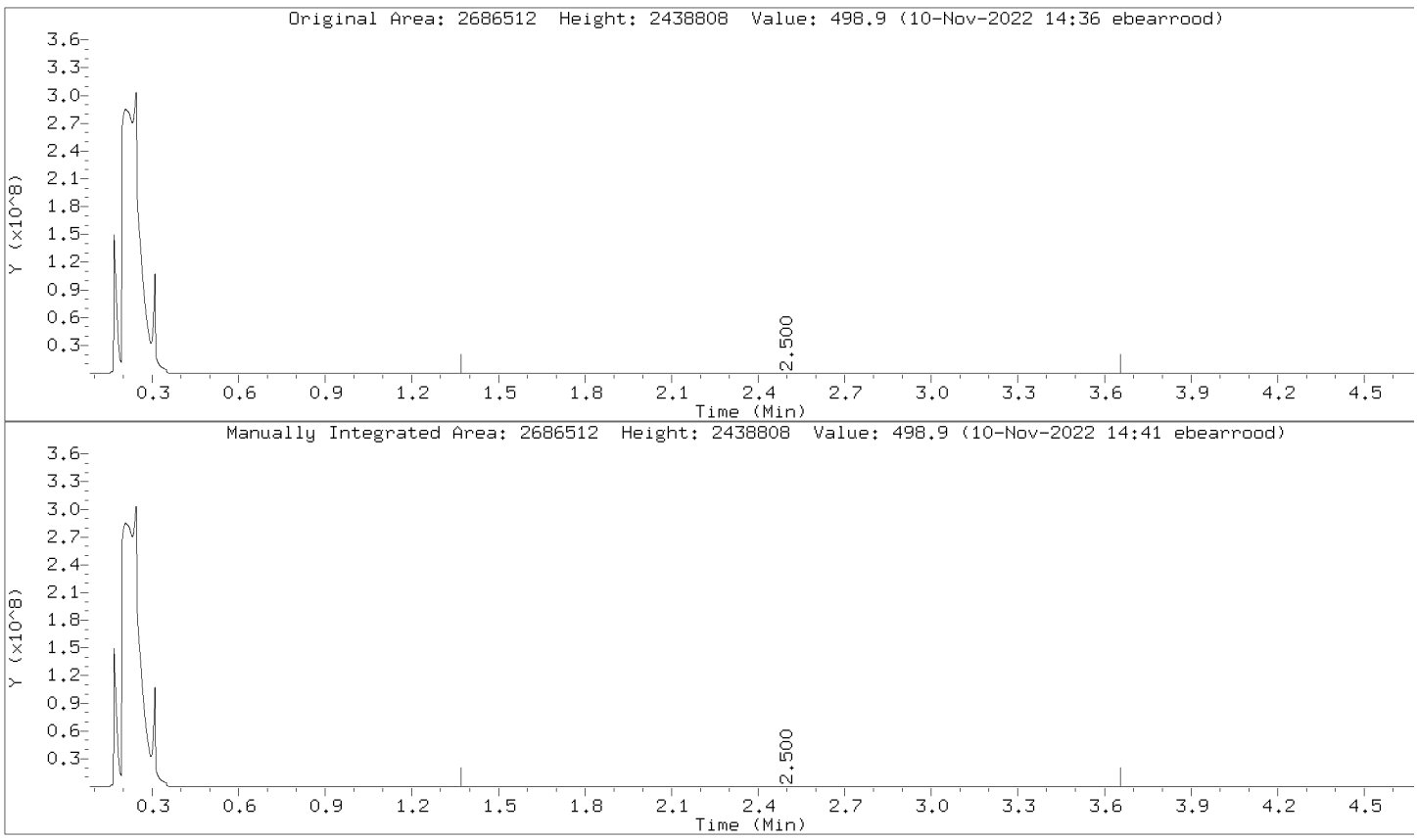
Compound: Motor Oil Range Review Code: RNG
CAS Number:





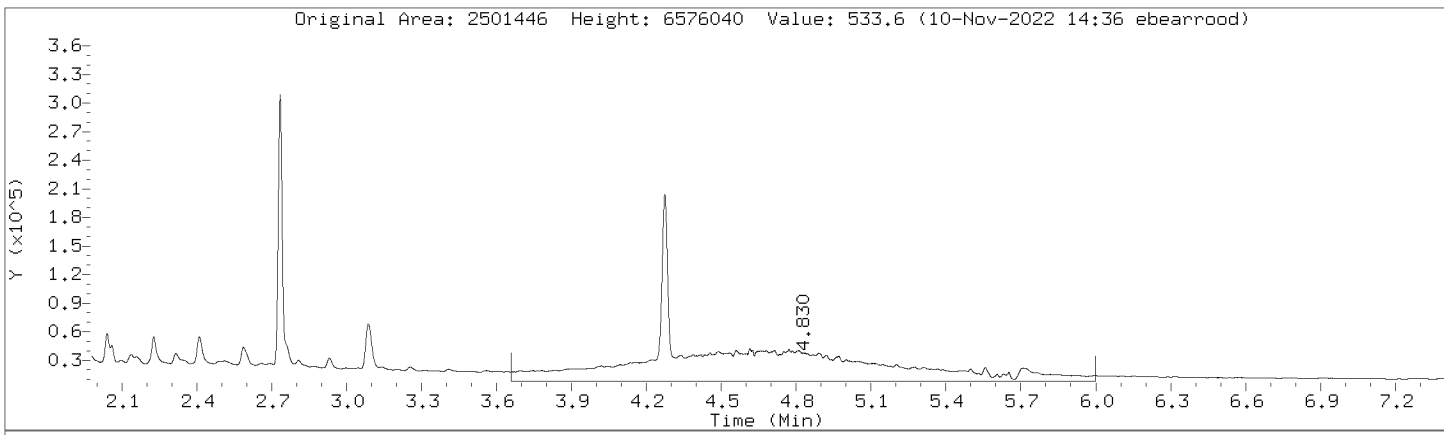
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

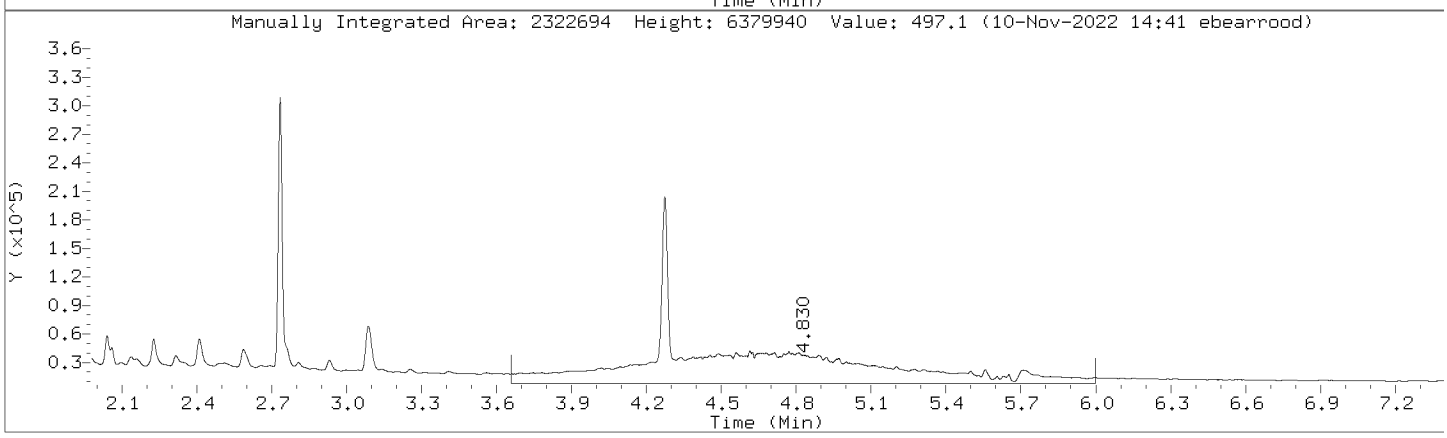
Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

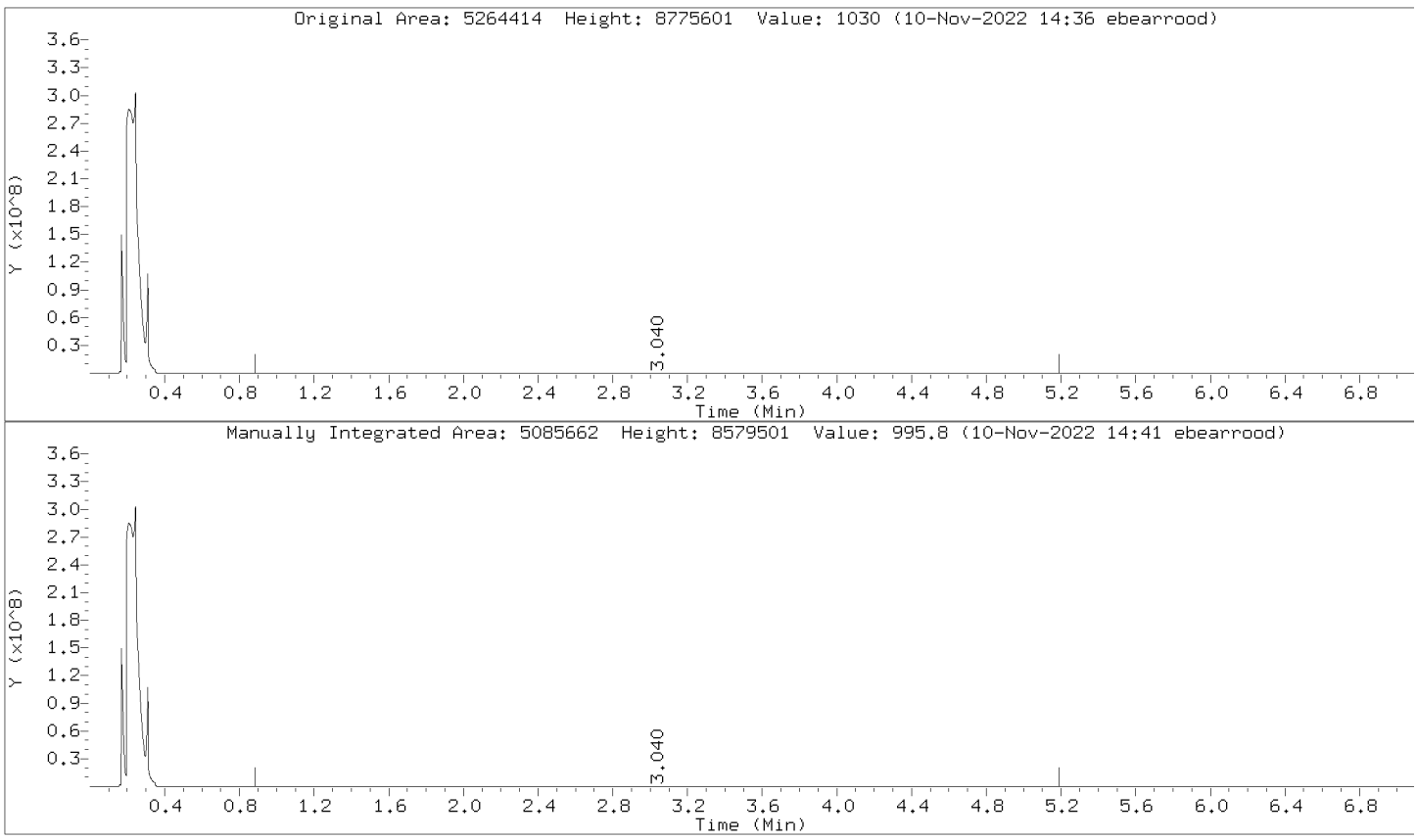
Compound: Motor Oil Range SG Review Code: RNG
CAS Number:





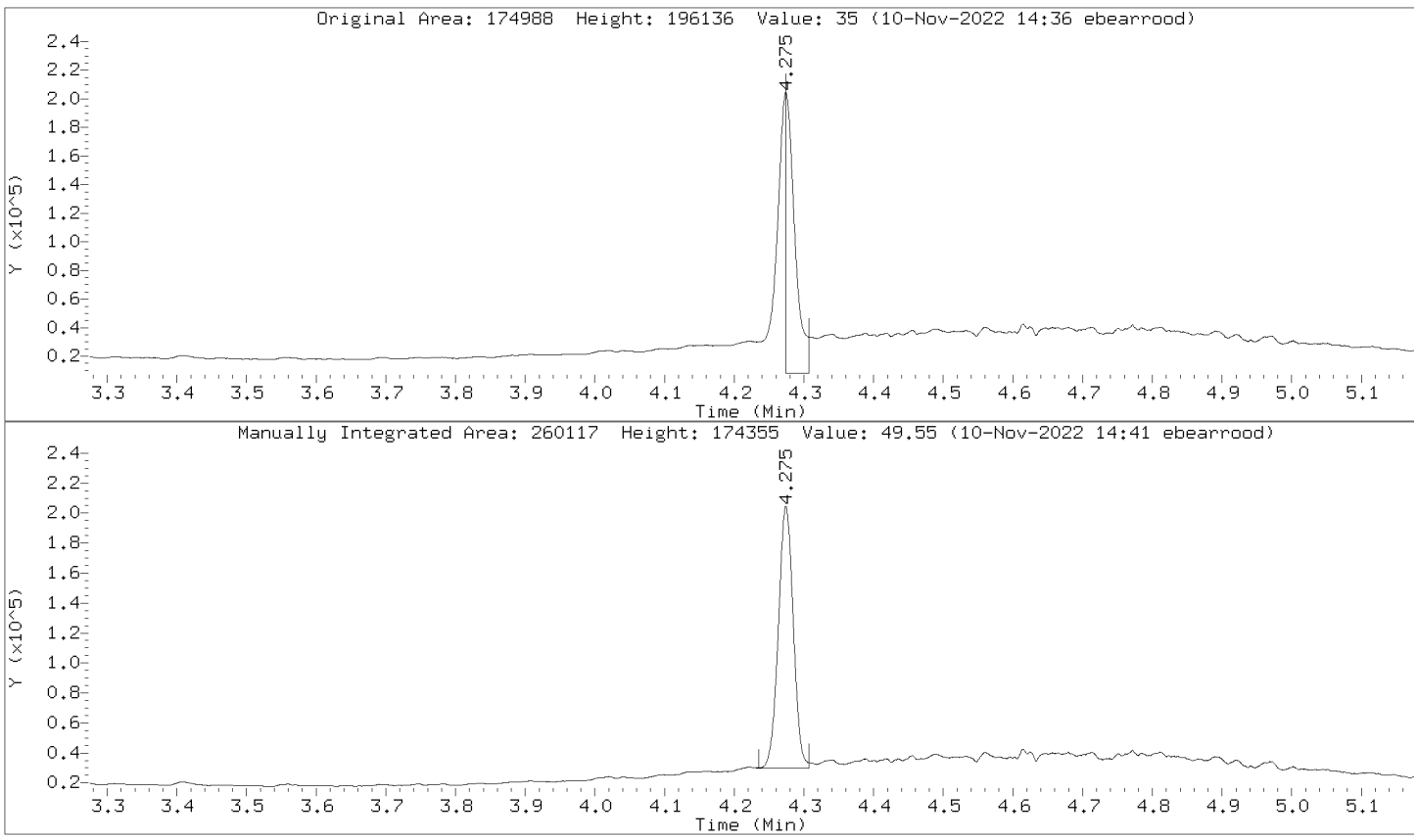
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: C10-C36 Review Code: RNG
CAS Number:



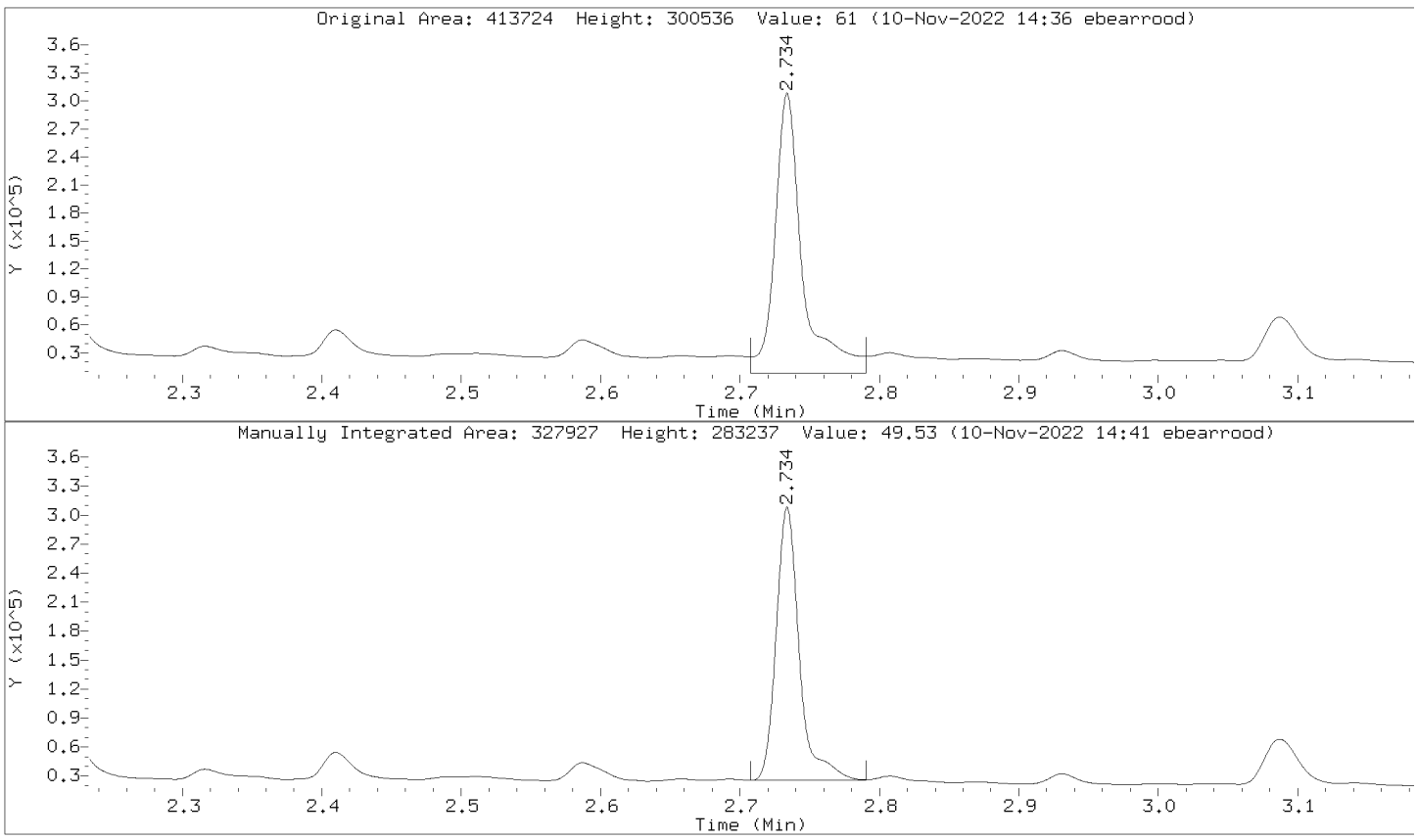
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000019.D
Injection Date: 10-NOV-2022 14:05
Instrument: 10gcsF.i
Lab Sample ID: DMO-CAL7,391064:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2076510	1897757
DRO by AK 102	3182142	3182142
TPH-DRO (C10-C28)	3685185	3685185
Motor Oil Range (C24-C36)	2176179	1997427
Diesel Fuel Range	2686512	2686512
Motor Oil Range	2501446	2322694
Diesel Fuel Range SG	2686512	2686512
Motor Oil Range SG	2501446	2322694
C10-C36	5264414	5085662
n-Triacontane (S)	174988	260117
o-Terphenyl (S)	413724	327927

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000003.D
Lab Smp Id: DMO-RTM,395212:2 Client Smp ID: DMO-RTM,395212:2
Inj Date : 17-NOV-2022 11:18
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-rtm,395212:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 17-Nov-2022 14:03 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

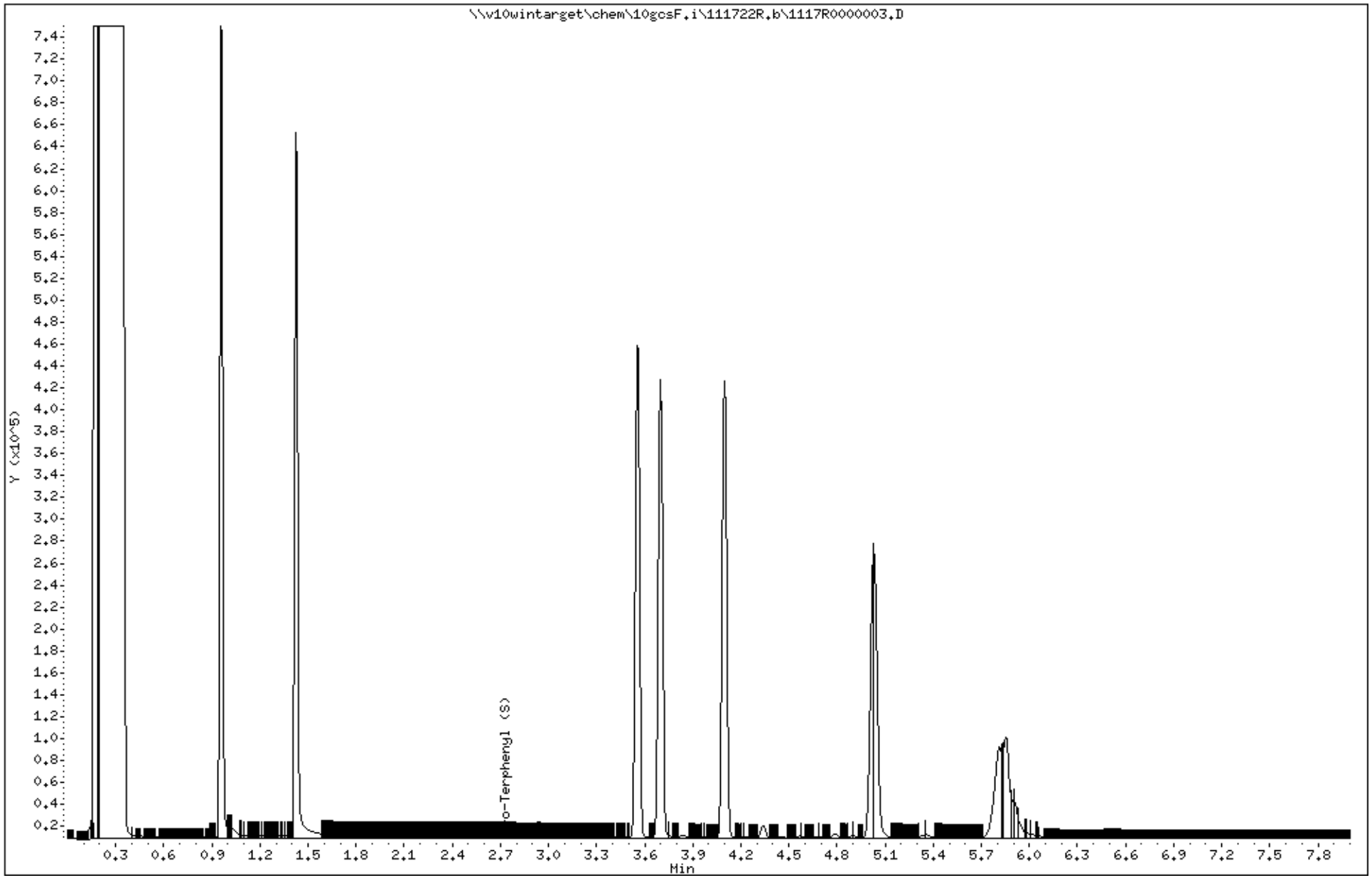
	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/mL)	REVIEW CODE
S 1	DRO by AK 102					CAS #:	
	0.885 - 3.600			2123474	313.145	313	
$ 2	o-Terphenyl (S)					CAS #:	
	2.733	2.733	0.000	406	0.69675	0.697	(R)
$ 3	n-Triacontane (S)					CAS #:	
	Compound Not Detected.						
S 4	Residual Range Organics AK103					CAS #:	
	3.601 - 5.160			2025899	531.065	531	
S 5	TPH-DRO (C10-C28)					CAS #:	
	0.885 - 4.210			3429504	460.723	461	
S 6	Motor Oil Range (C24-C36)					CAS #:	
	3.450 - 5.160			2666305	672.336	672	
S 7	C10-C36					CAS #:	
	0.885 - 5.160			4149373	793.968	794	
S 8	Diesel Fuel Range					CAS #:	
	1.350 - 3.650			1508093	251.646	252	
S 9	Diesel Fuel Range SG					CAS #:	
	1.350 - 3.650			1508093	251.646	252	
S 10	Motor Oil Range					CAS #:	
	3.651 - 6.050			2657004	573.298	573	
S 11	Motor Oil Range SG					CAS #:	
	3.651 - 6.050			2657004	573.298	573	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000003.D
Date : 17-NOV-2022 11:18
Client ID: DMO-RTM,395212:2
Sample Info: DMO-RTM,395212:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000003.D
Injection Date: 17-NOV-2022 11:18
Instrument: 10gcsF.i
Lab Sample ID: DMO-RTM,395212:2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2025899	2025899
DRO by AK 102	2123474	2123474
TPH-DRO (C10-C28)	3429504	3429504
Motor Oil Range (C24-C36)	2666305	2666305
Diesel Fuel Range	1508093	1508093
Motor Oil Range	2657004	2657004
Diesel Fuel Range SG	1508093	1508093
Motor Oil Range SG	2657004	2657004
C10-C36	4149373	4149373
n-Triacontane (S)	0	0
o-Terphenyl (S)	406	406

SAMPLE NO.

31472811ICV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota
Calibration Date: 11/10/2022 Time: 14:17

Instrument ID: 10GCSF GC Column: FID
Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111022R.B\1110R0000020.D
Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633992

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	510.9493	0.0100	2.1899	15.0000
Motor Oil Range	Linear	500	514.3865	0.0100	2.8773	15.0000
n-Triacontane (S)	Linear	50	50.50474	0.0100	1.0095	15.0000
o-Terphenyl (S)	Linear	50	50.73115	0.0100	1.4623	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31537056CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/17/2022 Time: 14:59

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111722R.B\1117R0000022C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633992

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	503.6047	0.0100	0.7210	15.0000
Motor Oil Range	Linear	500	574.8223	0.0100	14.9645	15.0000
n-Triacontane (S)	Linear	50	50.01404	0.0100	0.0281	15.0000
o-Terphenyl (S)	Linear	50	50.88576	0.0100	1.7715	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

31537060CCV

GC-FID DRO - FORM VII SVOA-1
GC-FID DRO CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Minnesota Calibration Date: 11/17/2022 Time: 15:56

Instrument ID: 10GCSF GC Column: FID Init. Calib. Date(s): 11/10/2022 11/10/2022

Lab File ID: 111722R.B\1117R0000027C.D Init. Calib. Time(s): 08:04 14:05

SDG No.: 10633992

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Diesel Fuel Range	Linear	500	504.7660	0.0100	0.9532	15.0000
Motor Oil Range	Linear	500	502.6892	0.0100	0.5378	15.0000
n-Triacontane (S)	Linear	50	49.96783	0.0100	-0.0643	15.0000
o-Terphenyl (S)	Linear	50	50.90306	0.0100	1.8061	15.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Lab Smp Id: DMO-ICV,391069:2 Client Smp ID: DMO-ICV,391069:2
Inj Date : 10-NOV-2022 14:17
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-icv,391069:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111022R.b\GCSFakNW8015-111022_4098
Meth Date : 10-Nov-2022 14:45 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.880	- 3.600		3247087	500.000	512	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.733	2.733	0.000	335993	50.0000	50.7	(M)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.275	0.000	265072	50.0000	50.5	(M)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.610	- 5.200		1975744	500.000	517	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.880	- 4.219		3761077	500.000	511	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.200		2073788	500.000	515	(M)	RNG
S 7 C10-C36					CAS #:		
0.880	- 5.200		5225228	1000.00	1020	(M)	RNG
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2743983	500.000	511	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.660	- 6.000		2398484	500.000	514	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

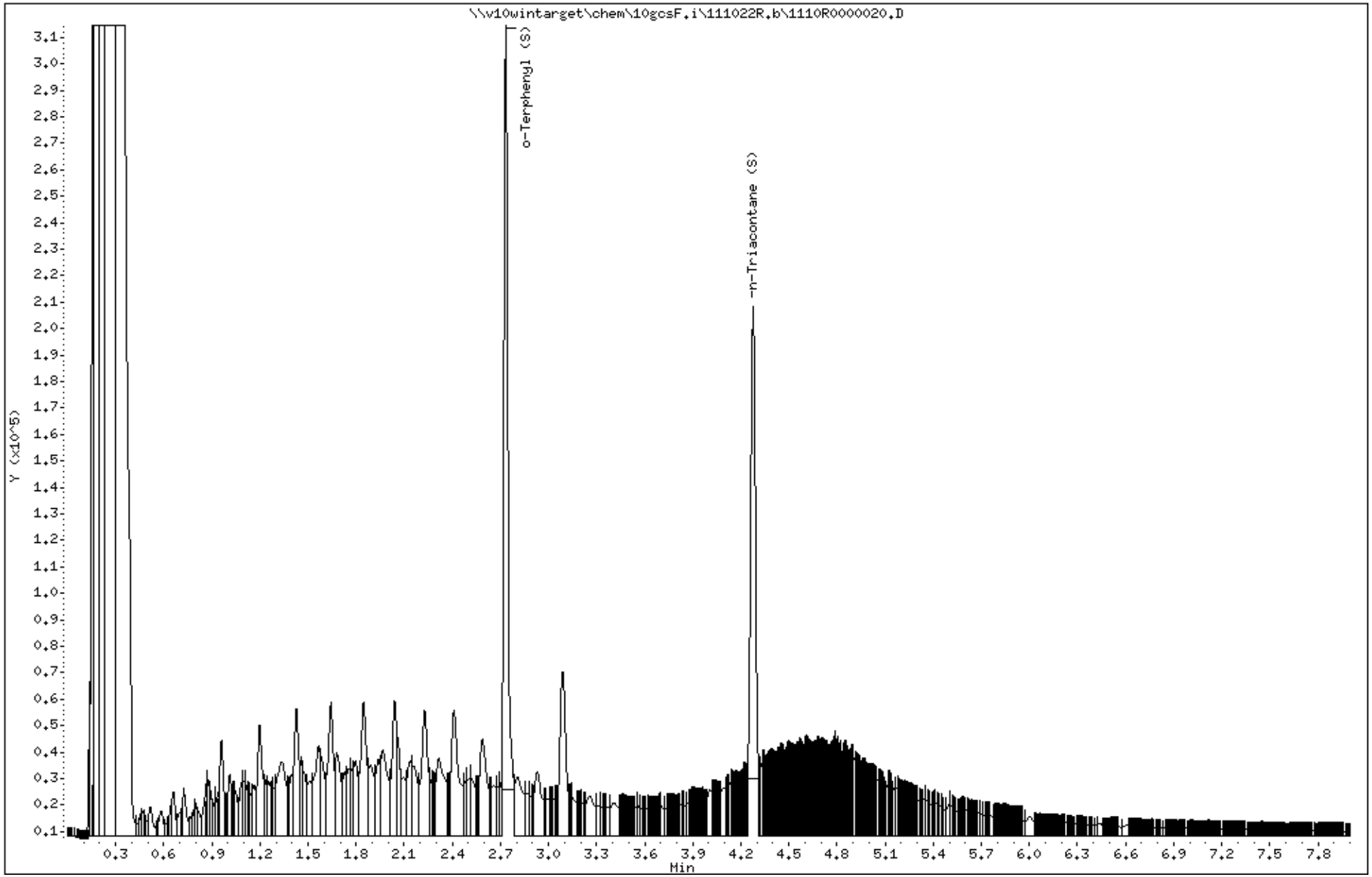
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111022R.b\1110R0000020.D
Date : 10-NOV-2022 14:17
Client ID: DMO-ICV,391069:2
Sample Info: DMO-ICV,391069:2

Column phase: DB-5-US21130002

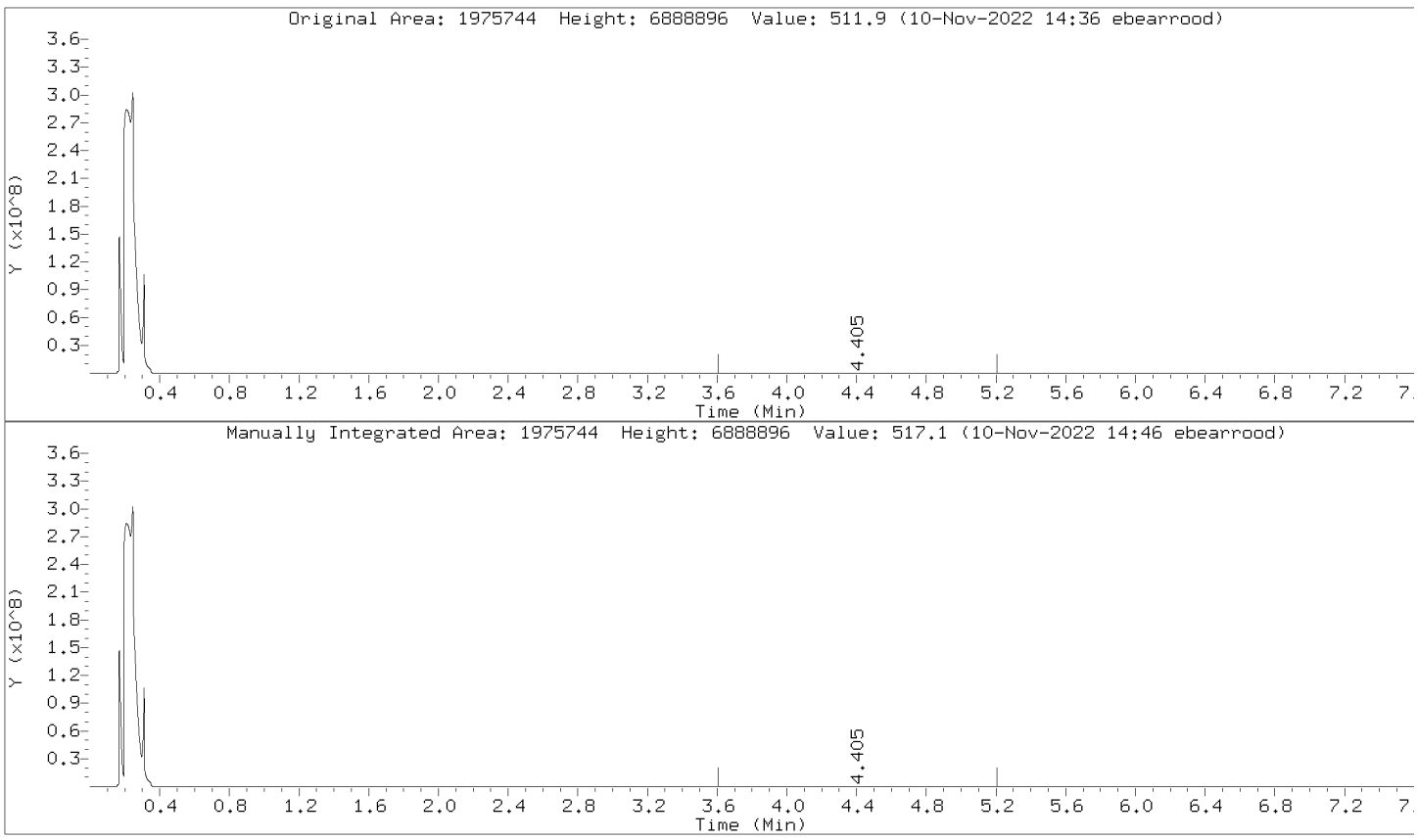
Instrument: 10gcsF.i

Operator: EB3
Column diameter: 0.32



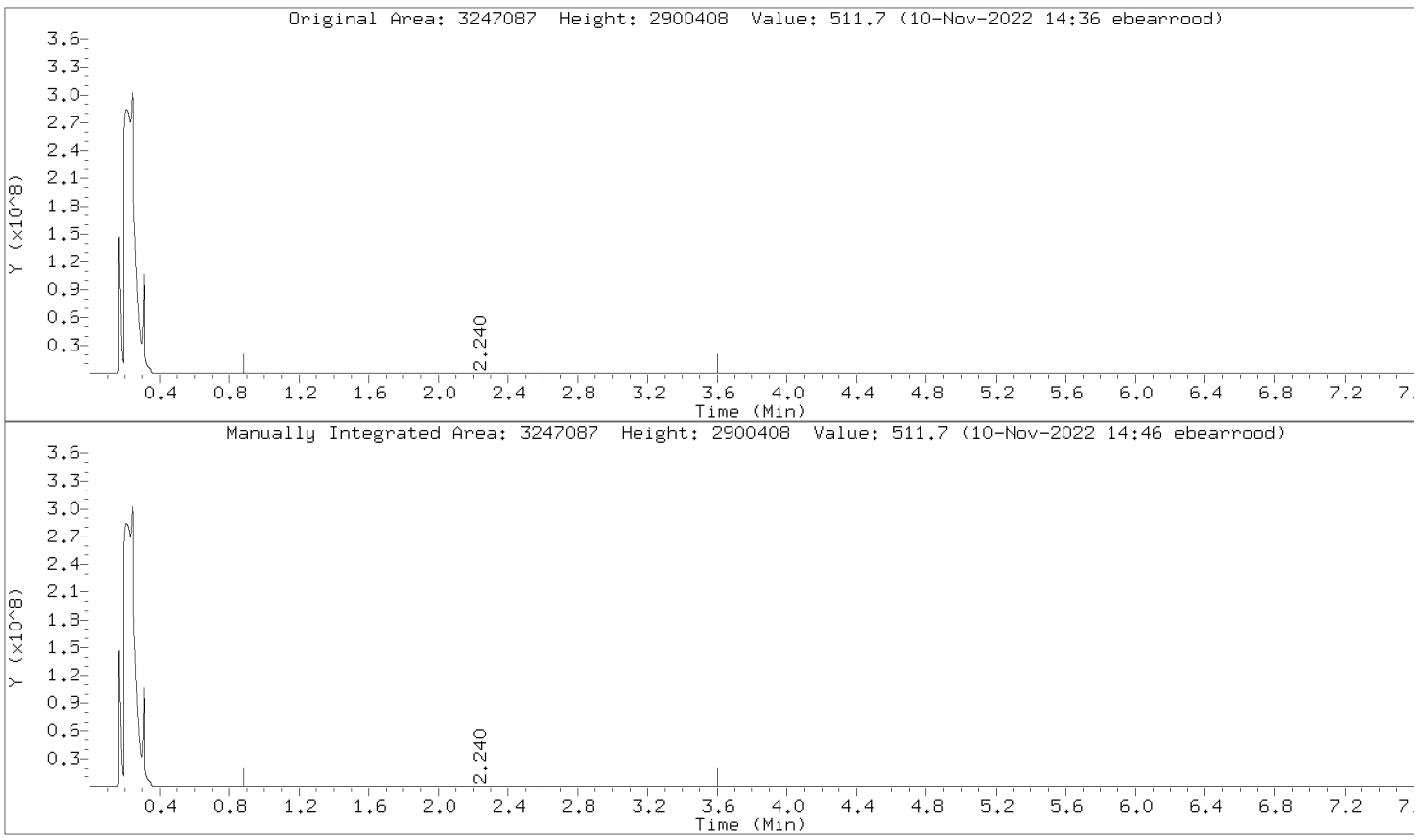
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



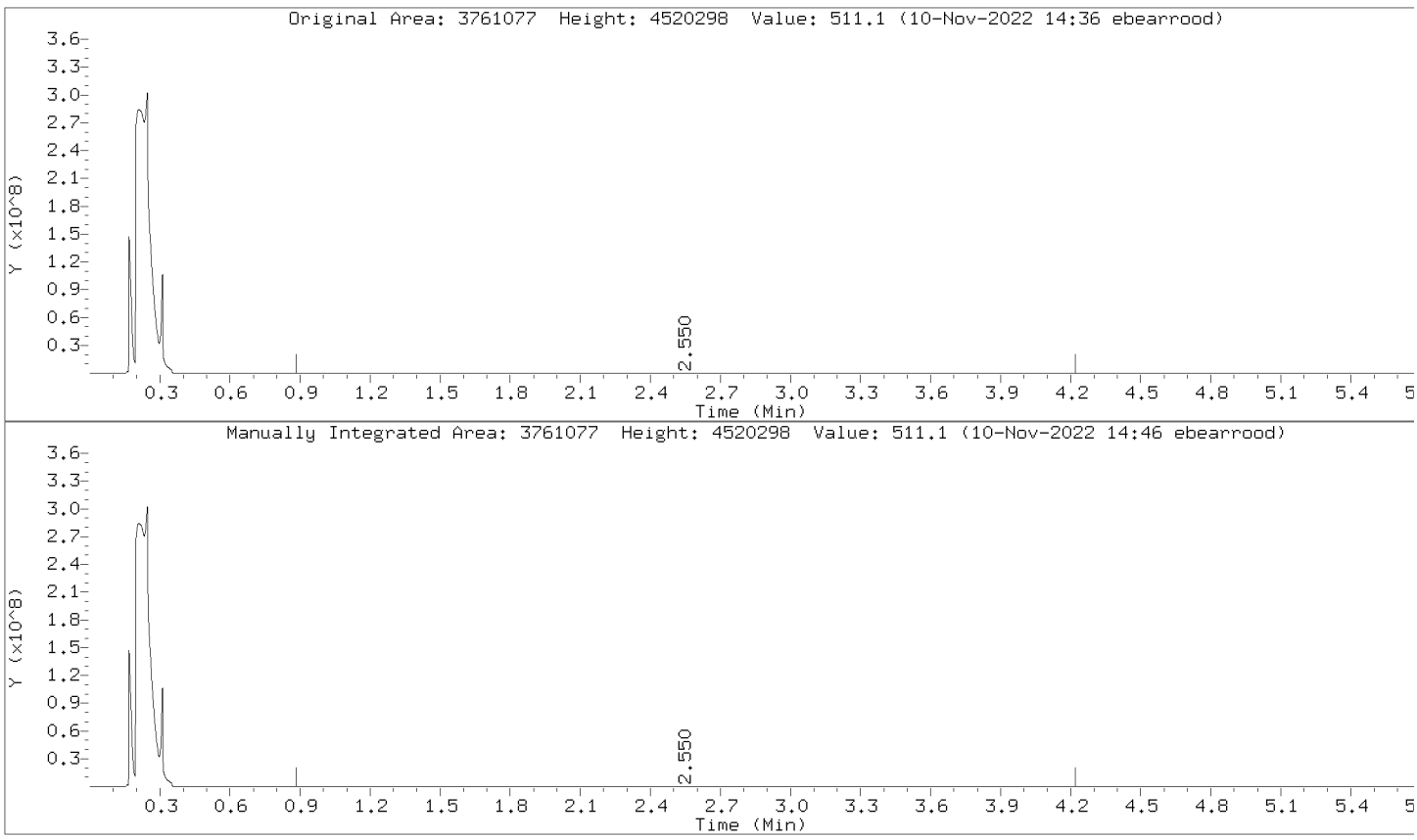
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



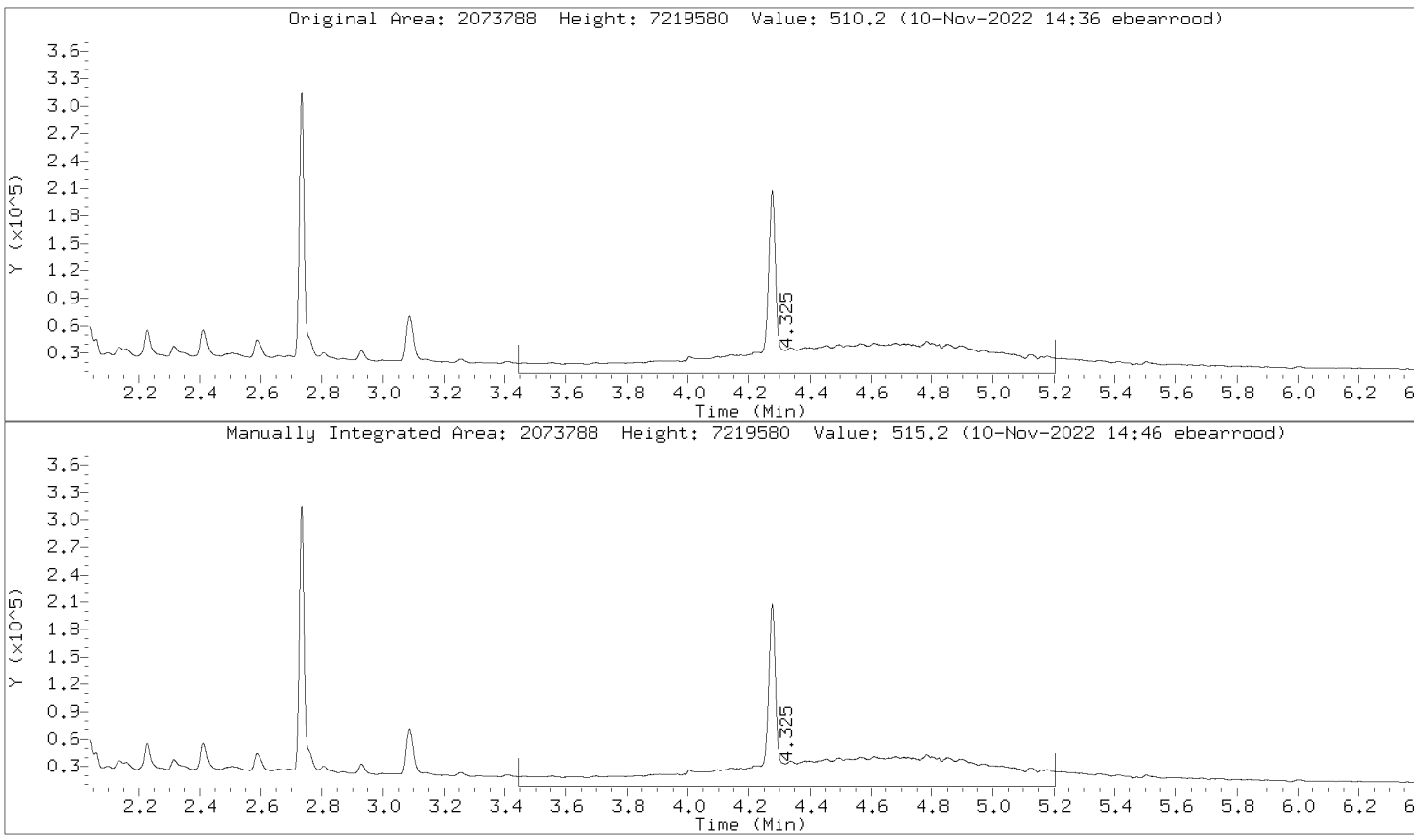
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



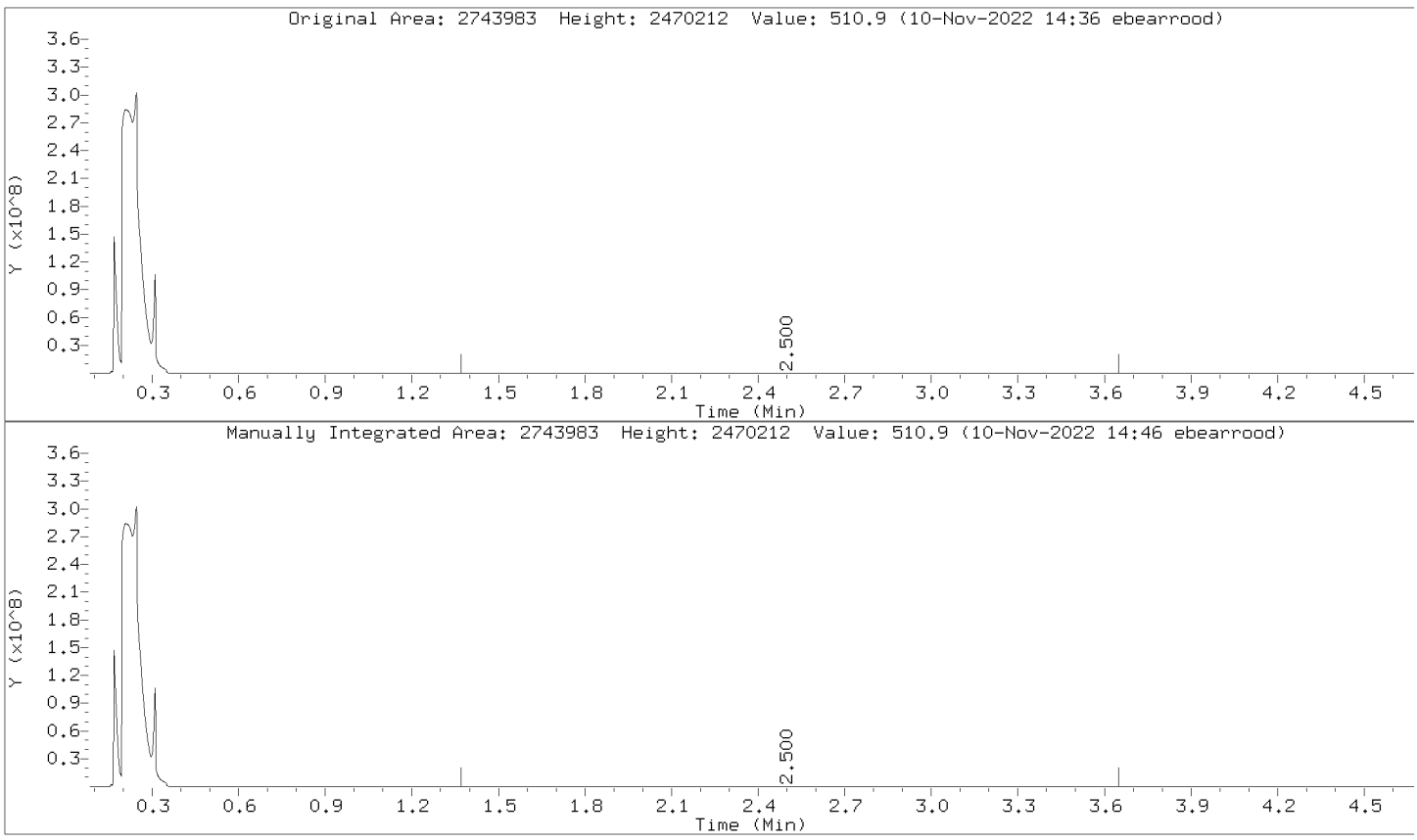
Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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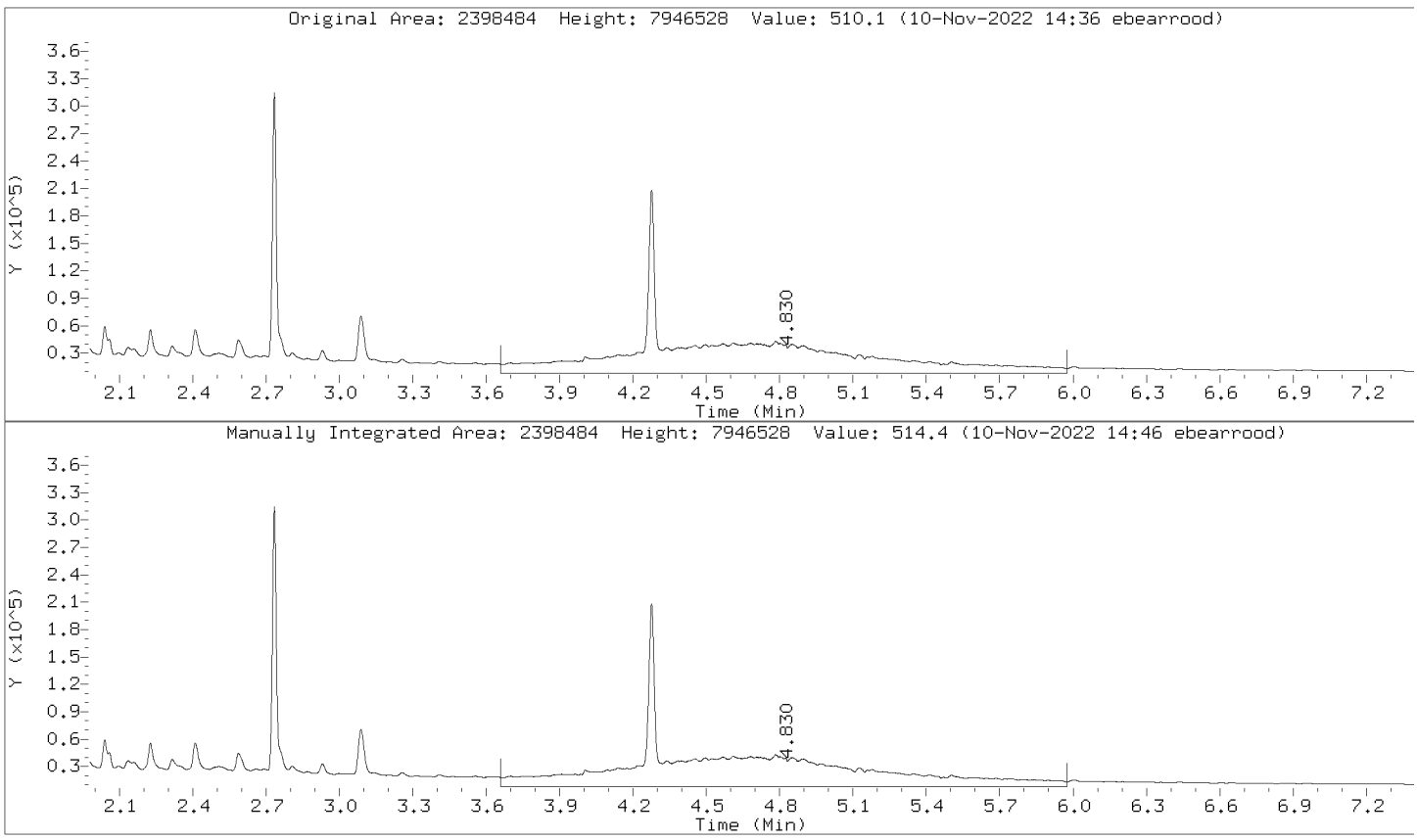
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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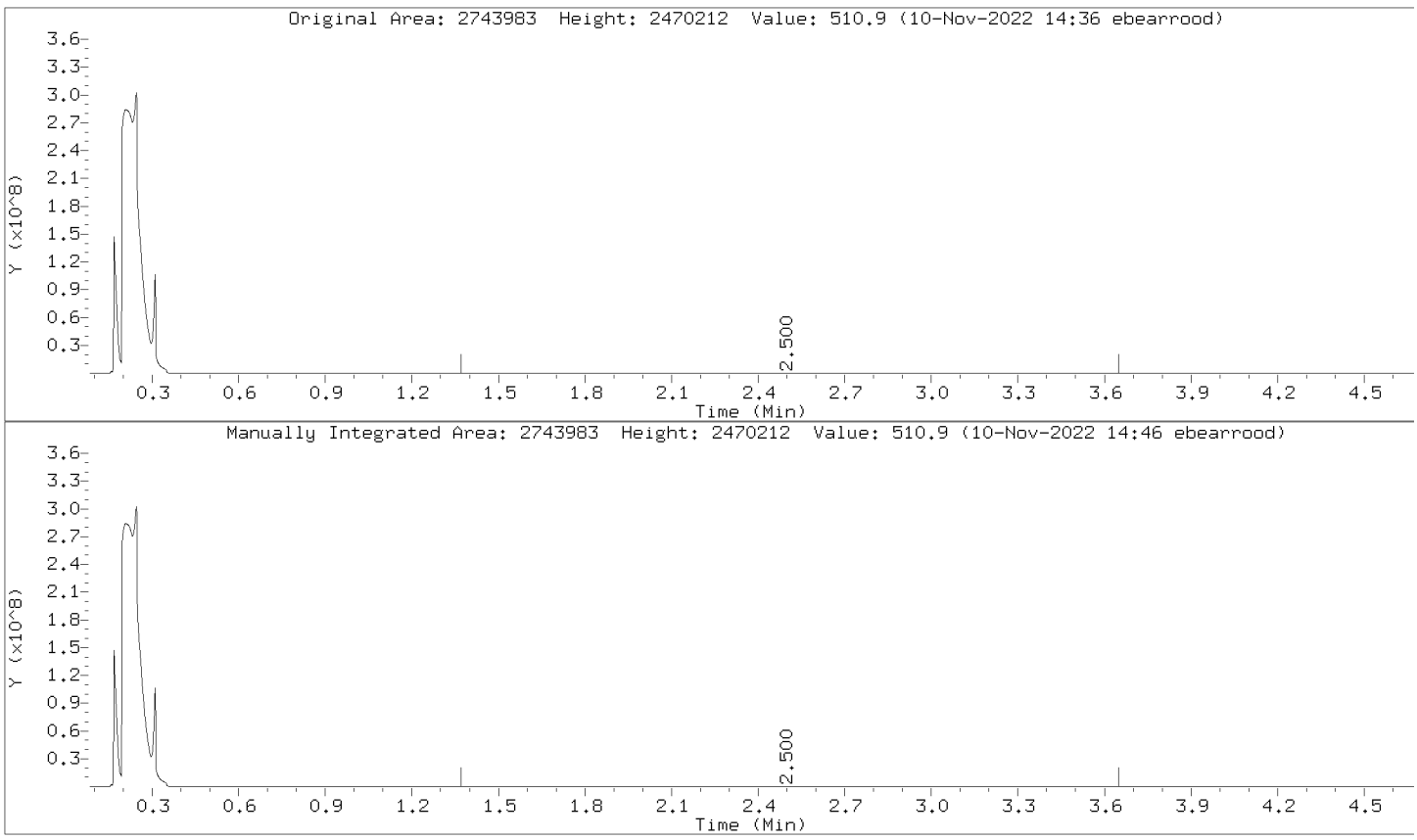
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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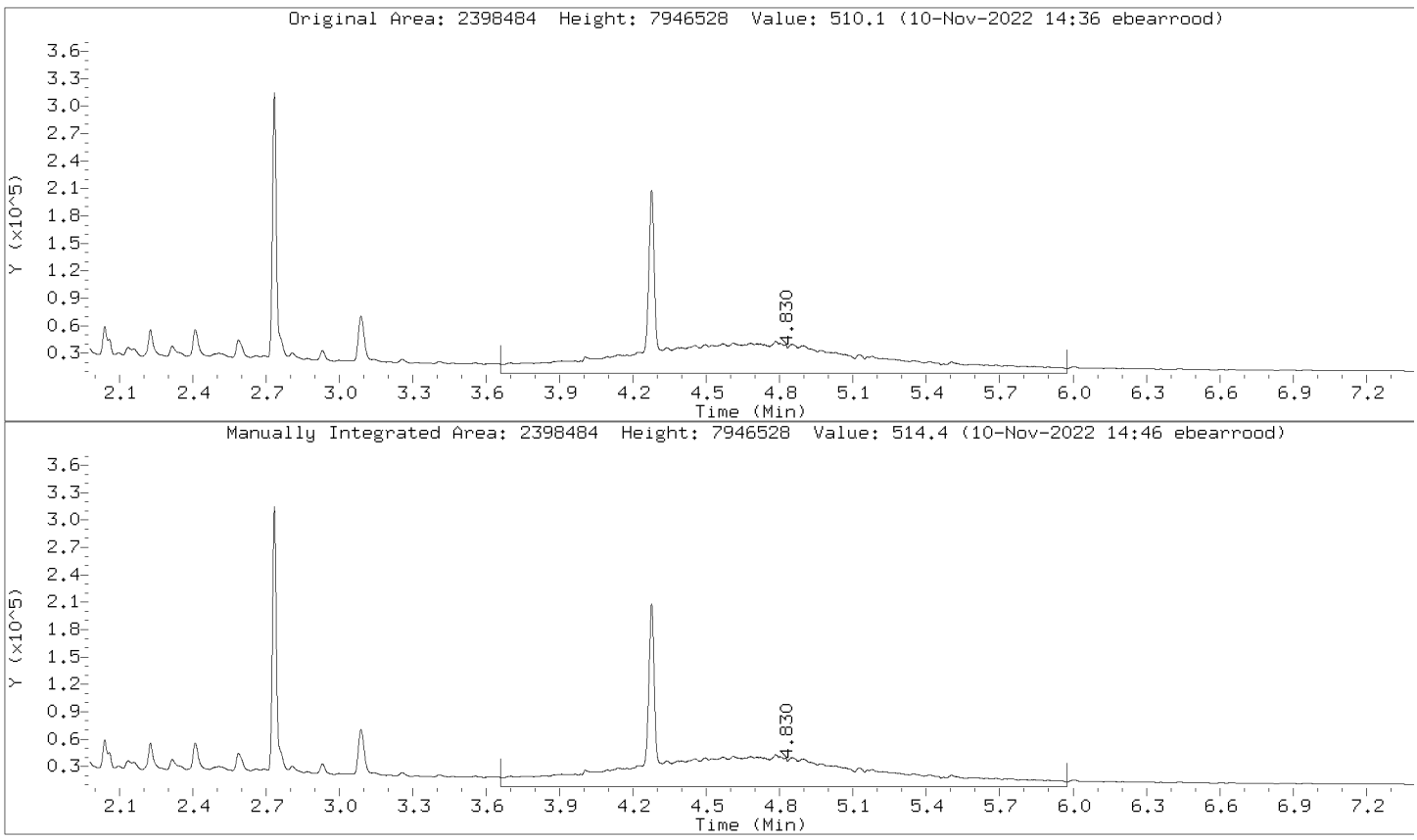
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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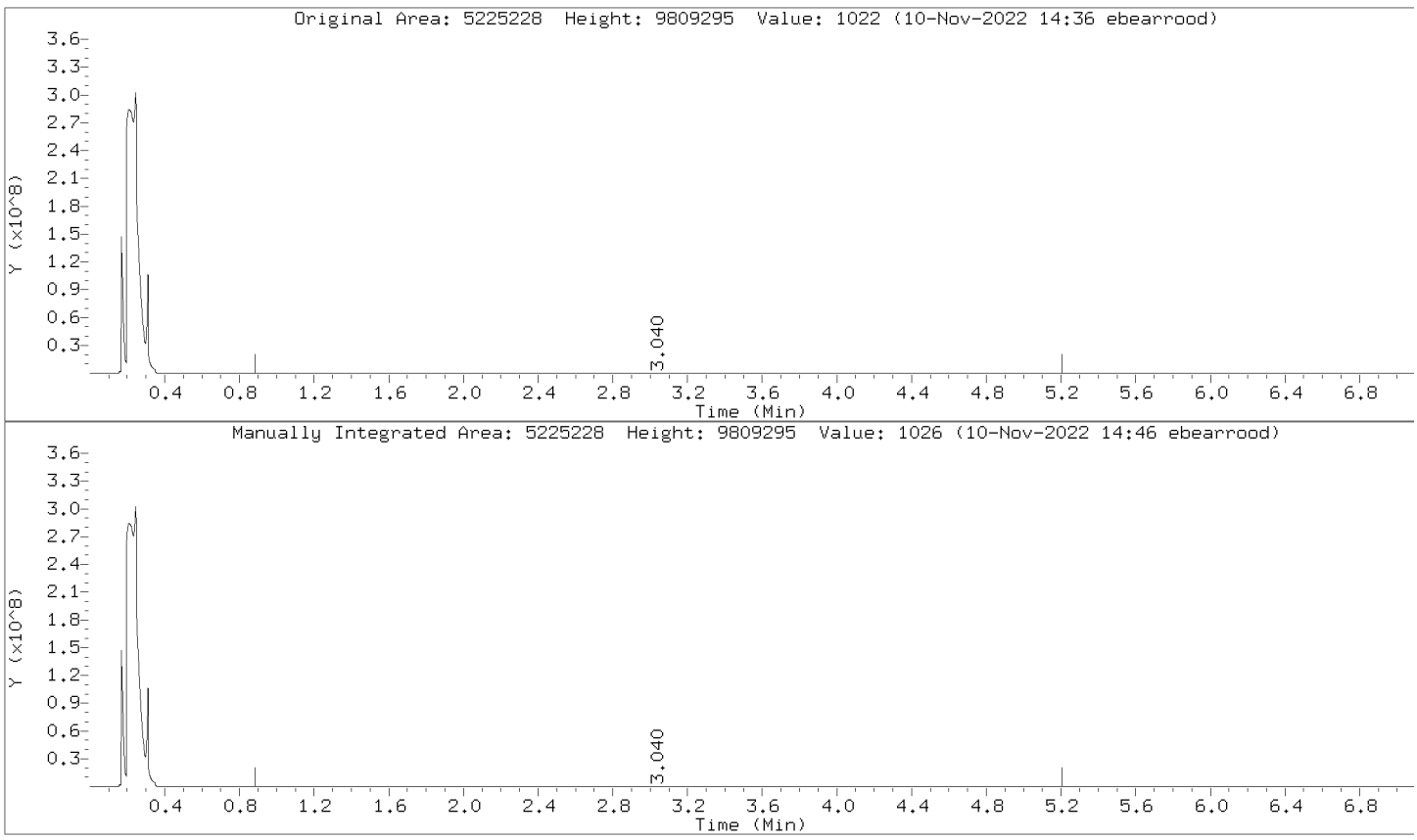
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: C10-C36 Review Code: RNG
CAS Number:



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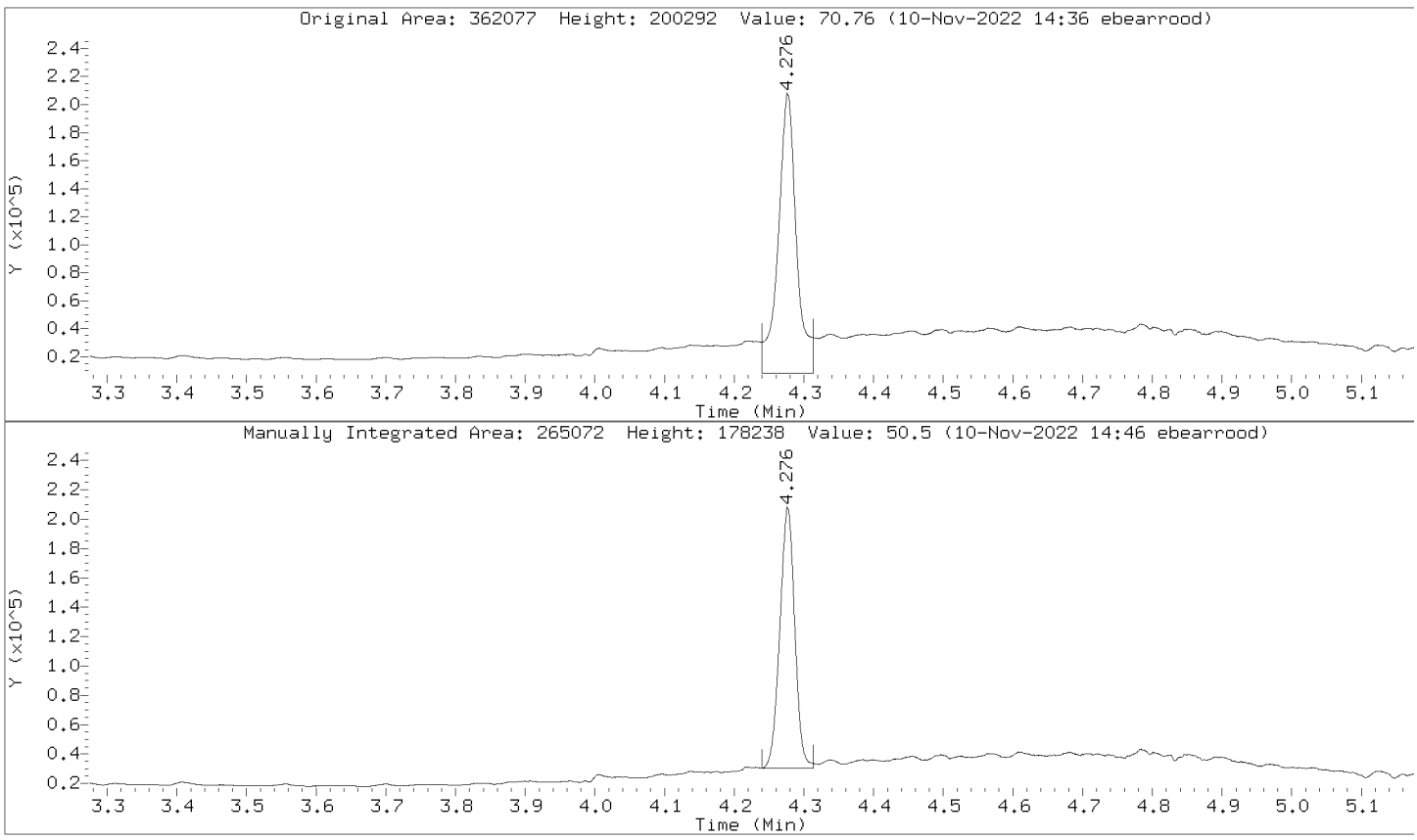
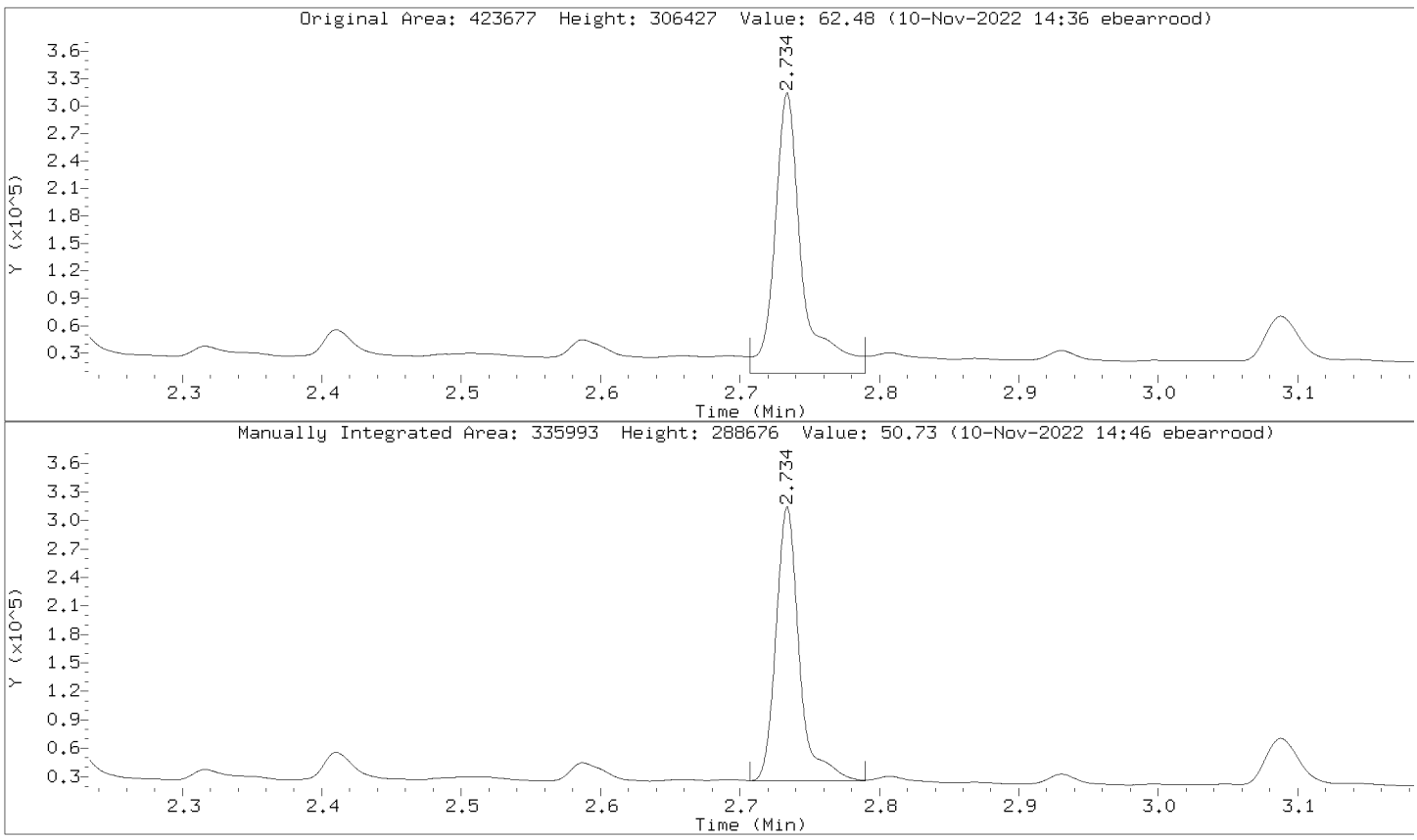
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111022R.b/1110R0000020.D
Injection Date: 10-NOV-2022 14:17
Instrument: 10gcsF.i
Lab Sample ID: DMO-ICV,391069:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1975744	1975744
DRO by AK 102	3247087	3247087
TPH-DRO (C10-C28)	3761077	3761077
Motor Oil Range (C24-C36)	2073788	2073788
Diesel Fuel Range	2743983	2743983
Motor Oil Range	2398484	2398484
Diesel Fuel Range SG	2743983	2743983
Motor Oil Range SG	2398484	2398484
C10-C36	5225228	5225228
n-Triacontane (S)	362077	265072
o-Terphenyl (S)	423677	335993

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000022C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 17-NOV-2022 14:59
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)		REVIEW CODE
S 1 DRO by AK 102						CAS #:		
	0.885 - 3.600			3202371	500.000	504	(M)	RNG
$ 2 o-Terphenyl (S)						CAS #:		
	2.732	2.731	0.001	337030	50.0000	50.9	(M)	BA
$ 3 n-Triacontane (S)						CAS #:		
	4.273	4.272	0.001	262513	50.0000	50.0	(M)	BA
S 4 Residual Range Organics AK103						CAS #:		
	3.601 - 5.160			2055157	500.000	539	(M)	RNG
S 5 TPH-DRO (C10-C28)						CAS #:		
	0.885 - 4.210			3704976	500.000	503	(M)	RNG
S 6 Motor Oil Range (C24-C36)						CAS #:		
	3.450 - 5.160			2146683	500.000	534	(M)	RNG
S 7 C10-C36						CAS #:		
	0.885 - 5.160			5257529	1000.00	1030	(M)	RNG
S 8 Diesel Fuel Range						CAS #:		
	1.350 - 3.650			2708977	500.000	504	(M)	RNG
S 9 Diesel Fuel Range SG						CAS #:		
	1.350 - 3.650			2708977	500.000	504	(M)	RNG
S 10 Motor Oil Range						CAS #:		
	3.651 - 6.050			2663692	500.000	575	(M)	RNG
S 11 Motor Oil Range SG						CAS #:		
	3.651 - 6.050			2663692	500.000	575	(M)	RNG

QC Flag Legend

M - Compound response manually integrated.

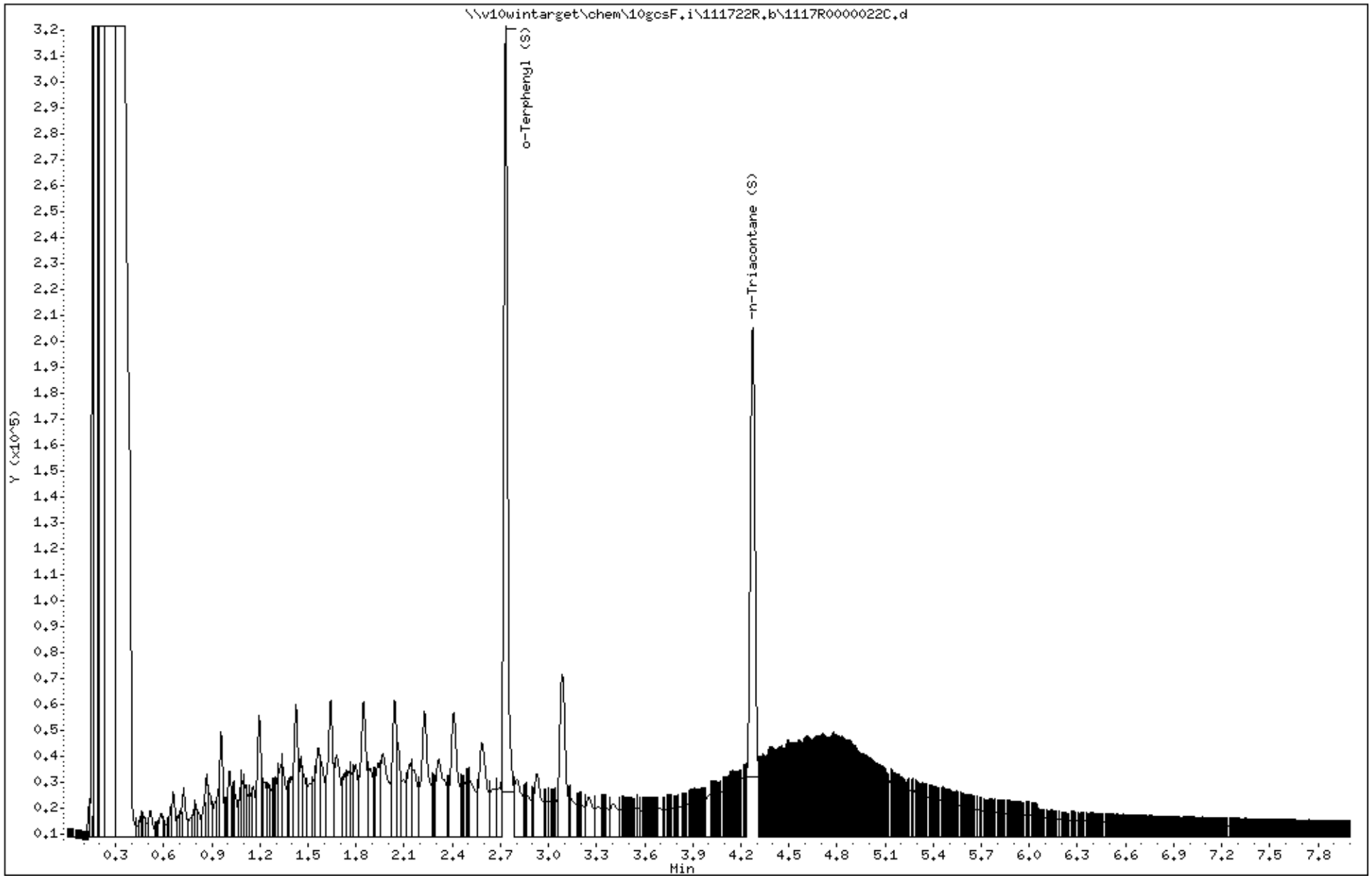
Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000022C.d
Date : 17-NOV-2022 14:59
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

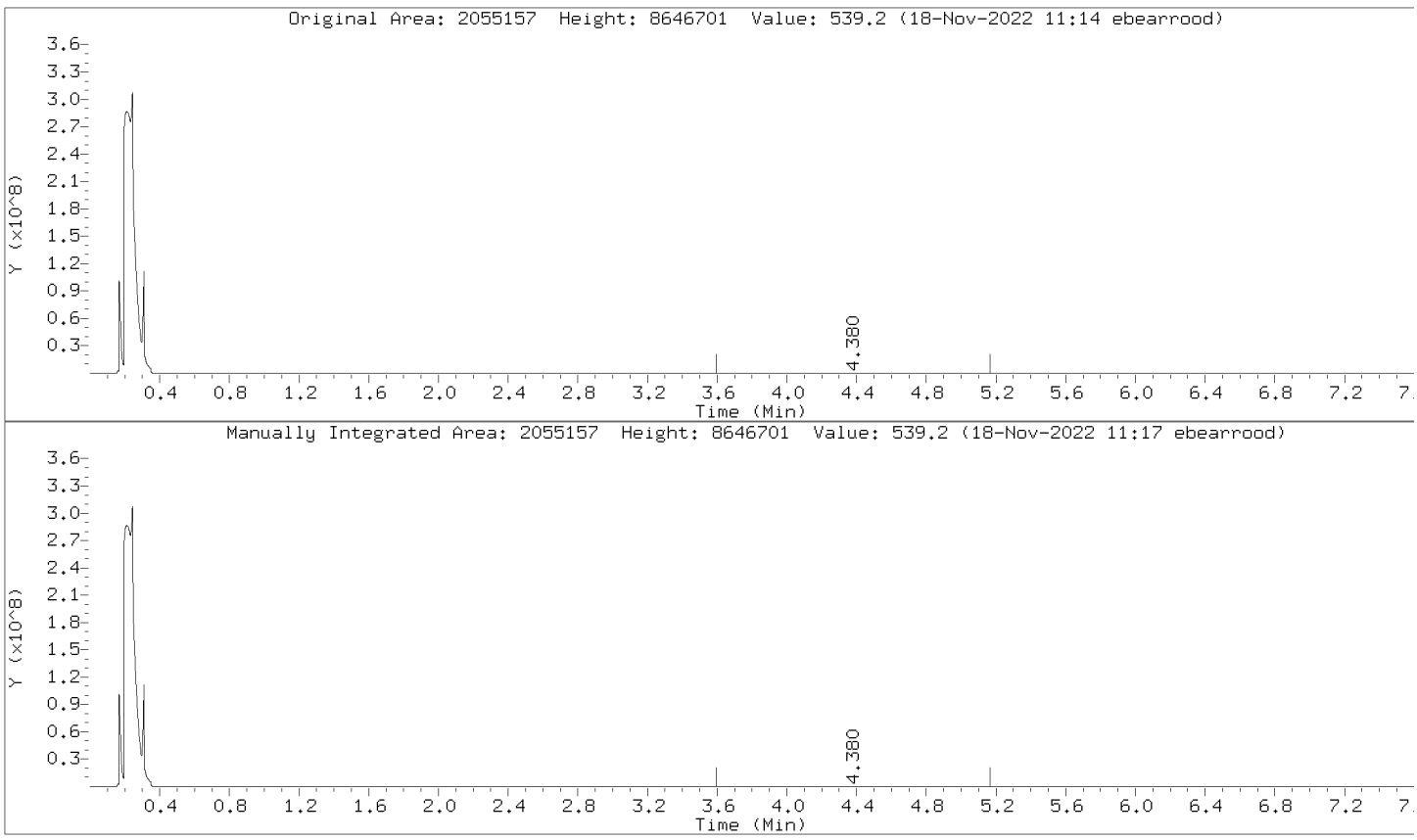
Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32

Column phase: DB-5-US21130002



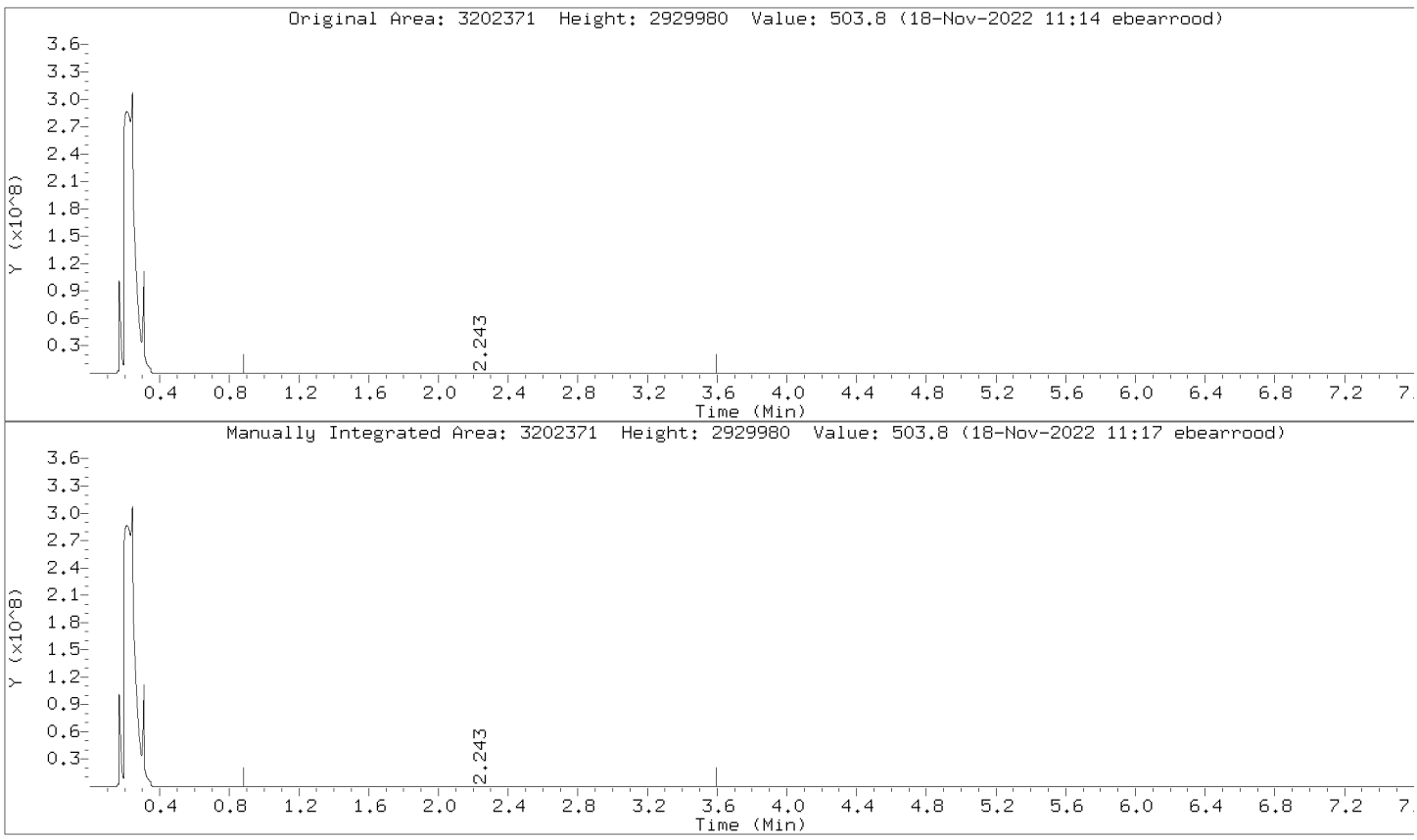
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



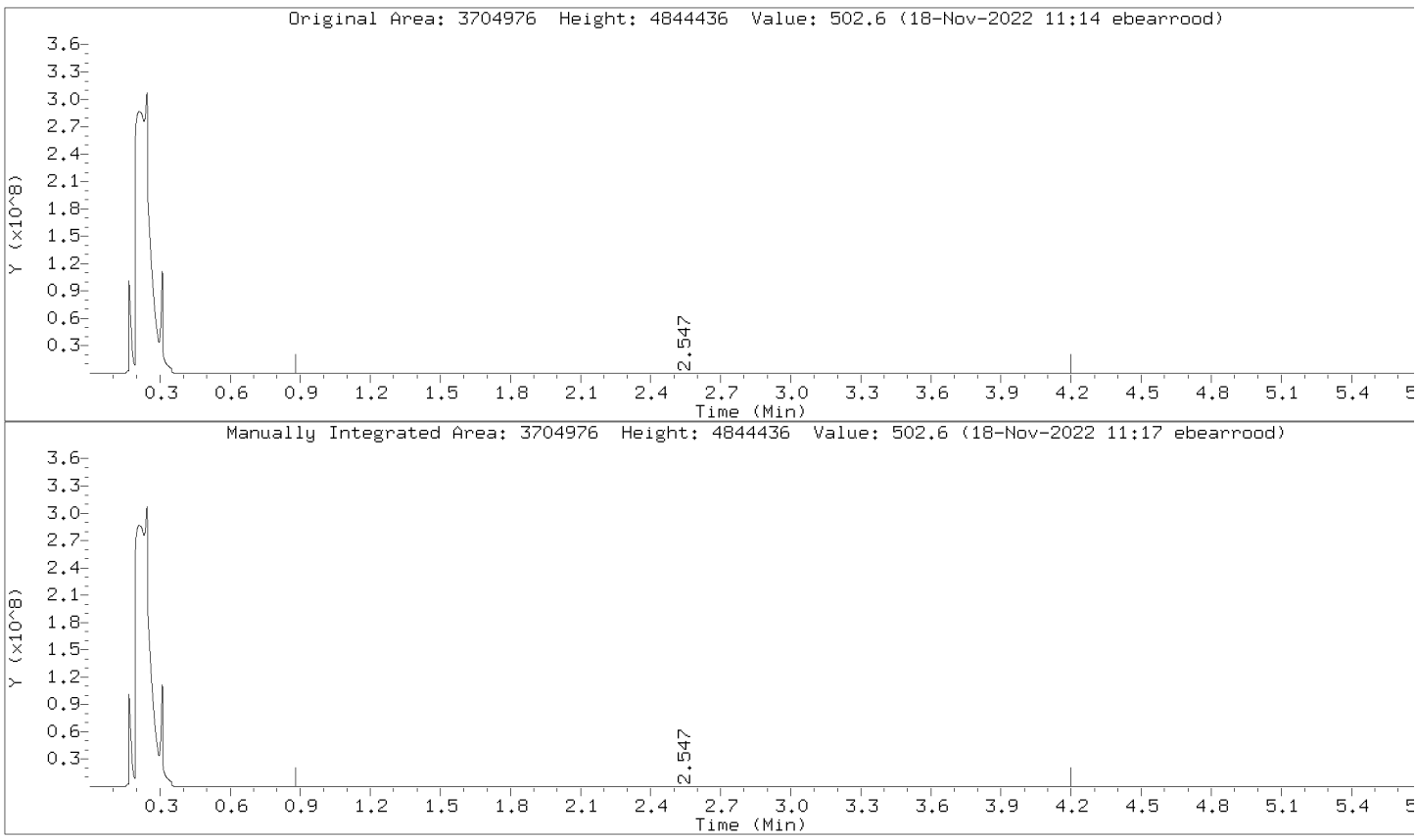
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



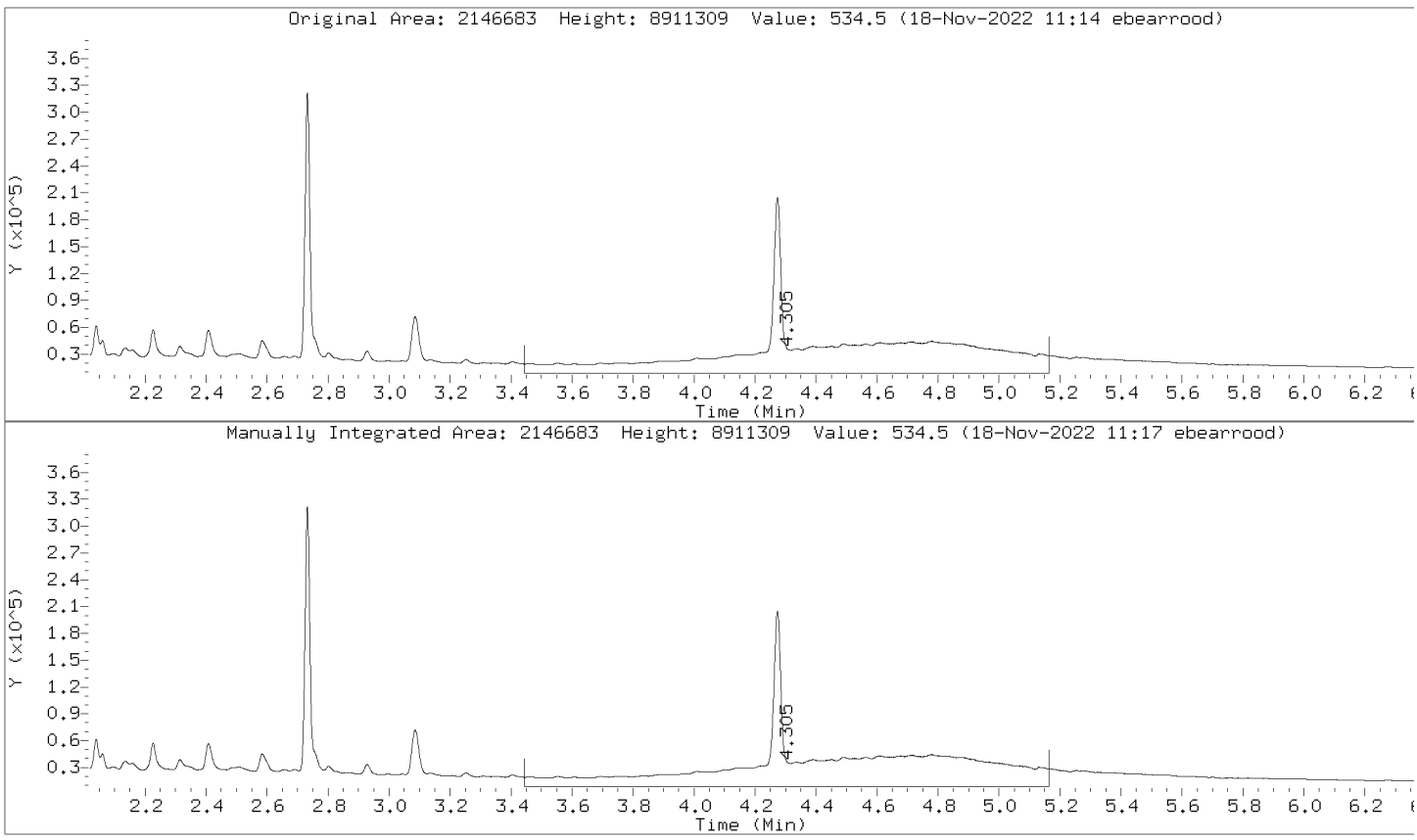
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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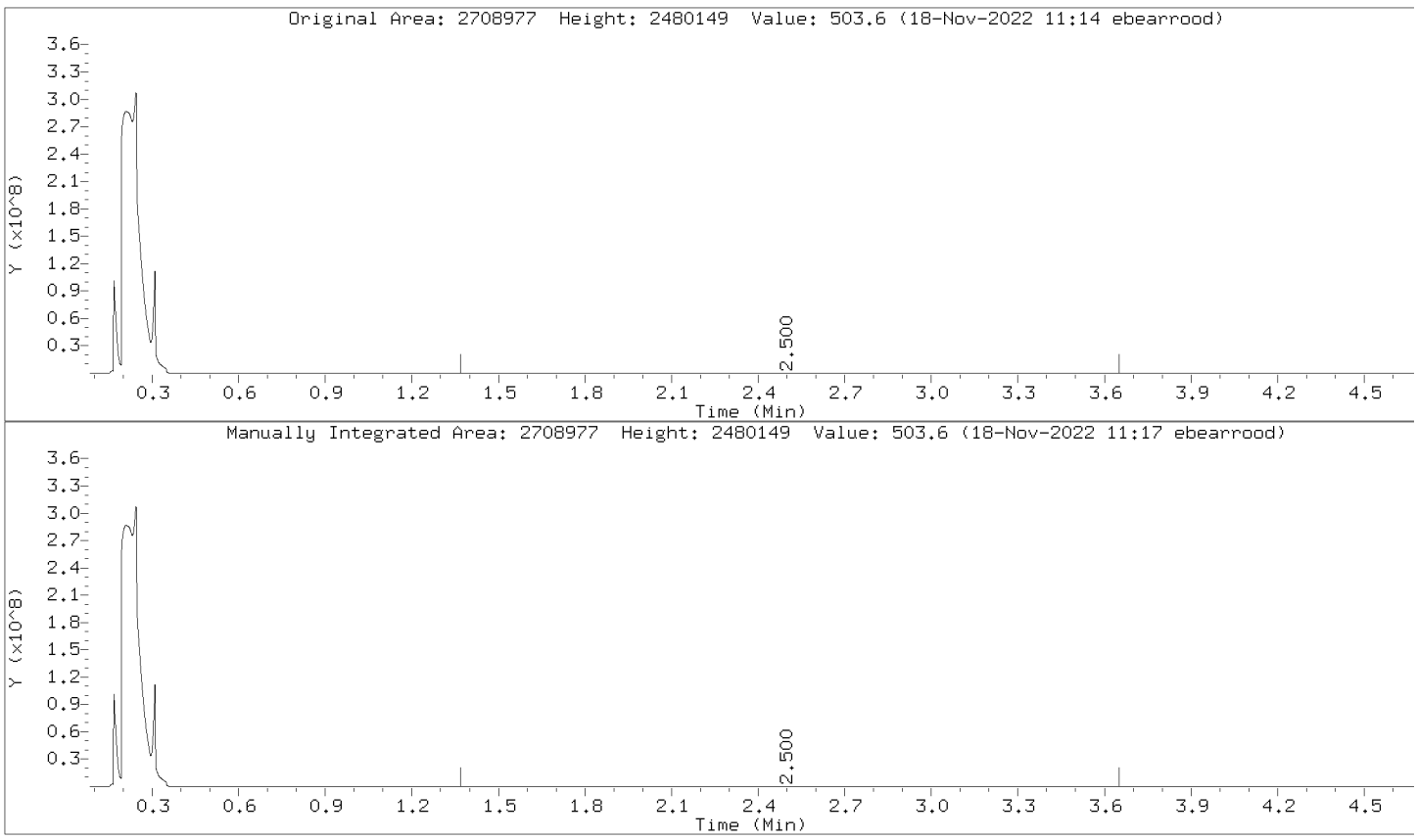
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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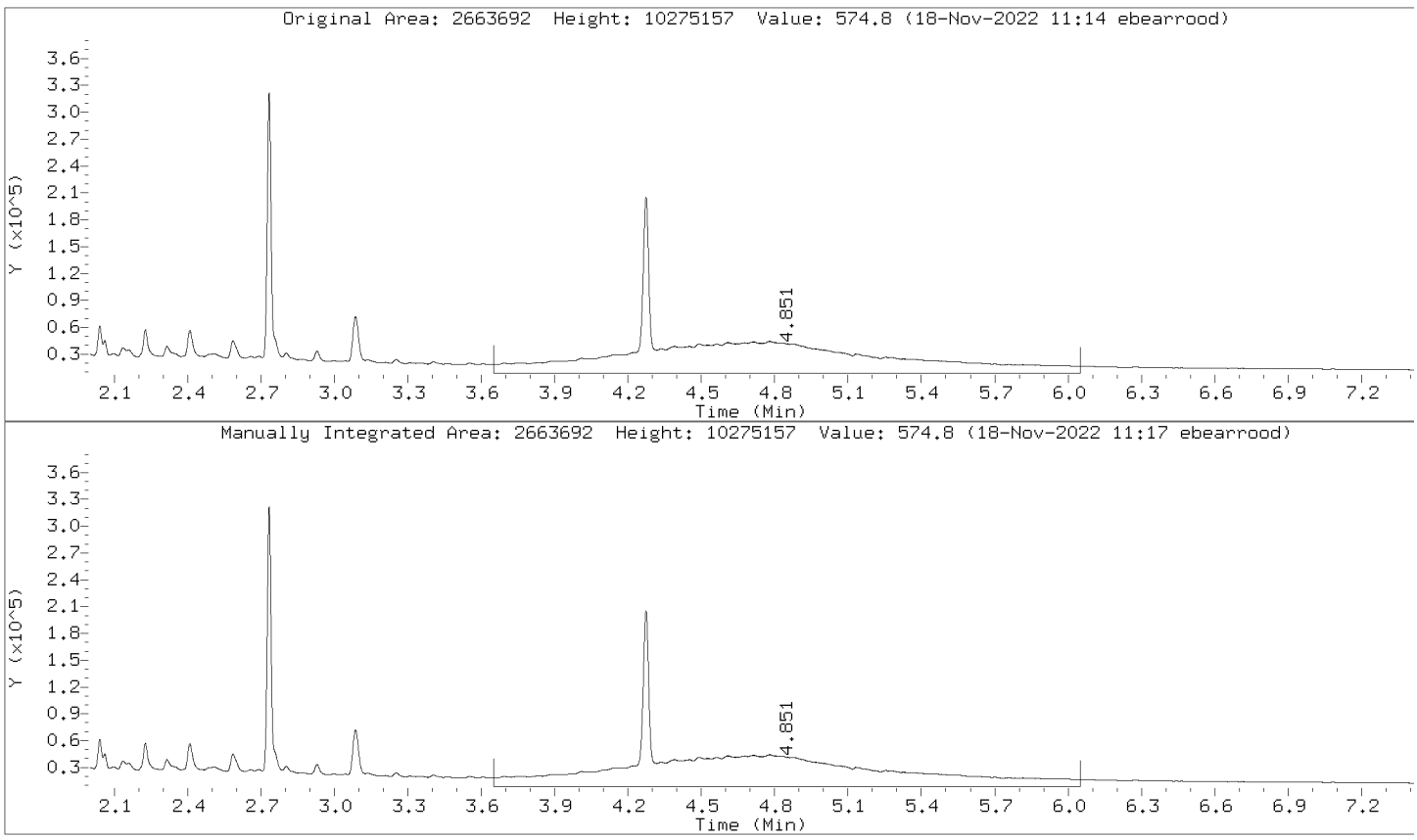
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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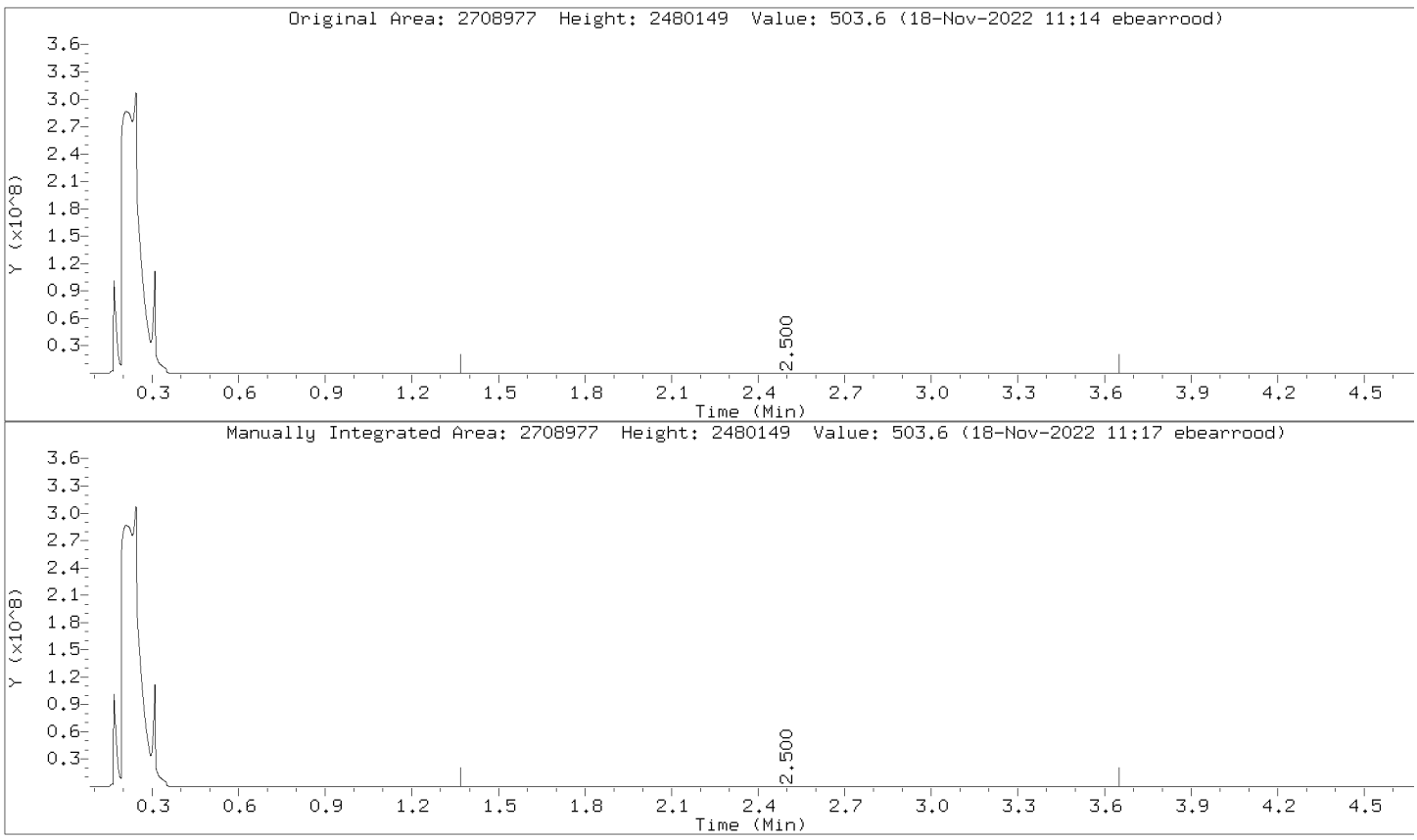
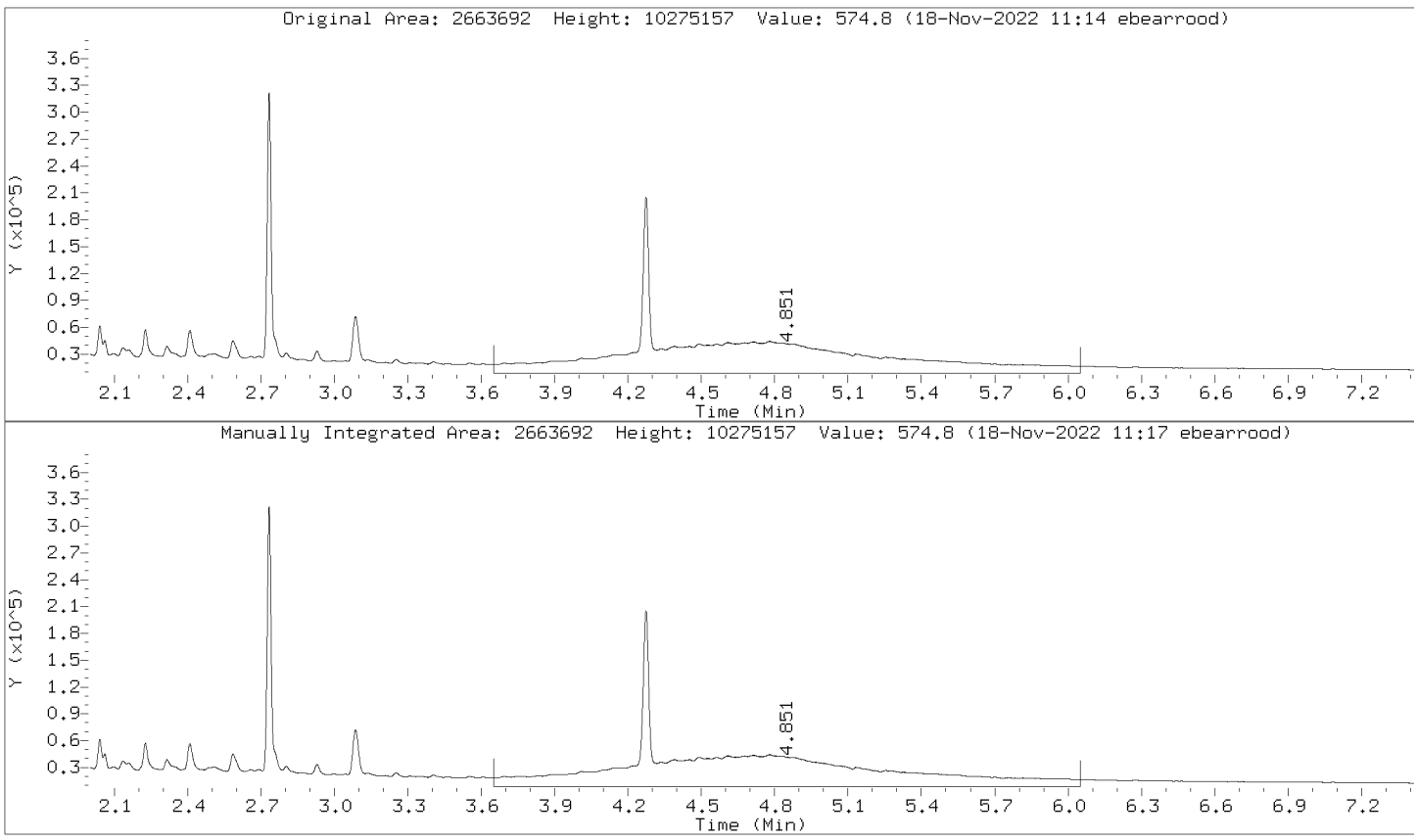
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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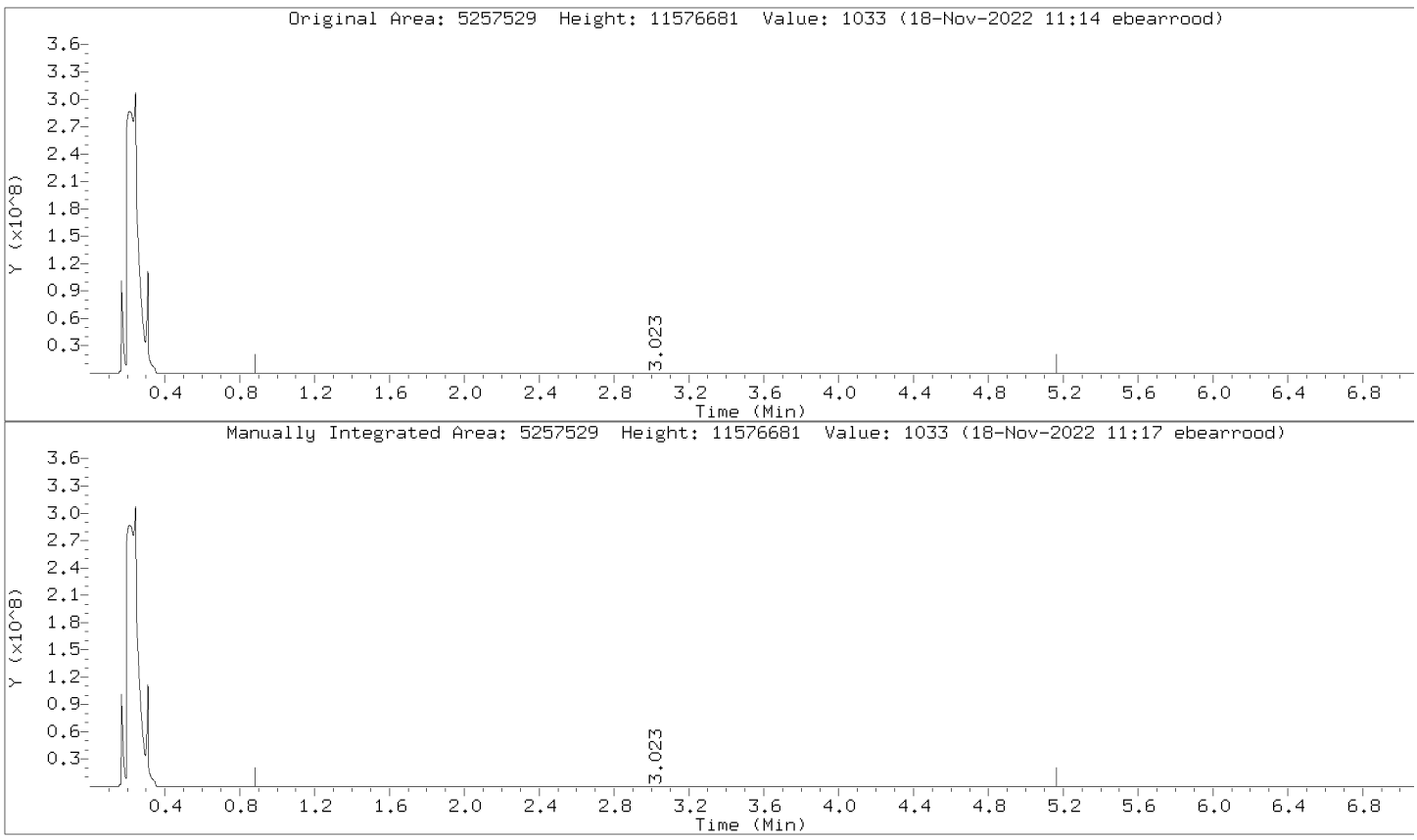
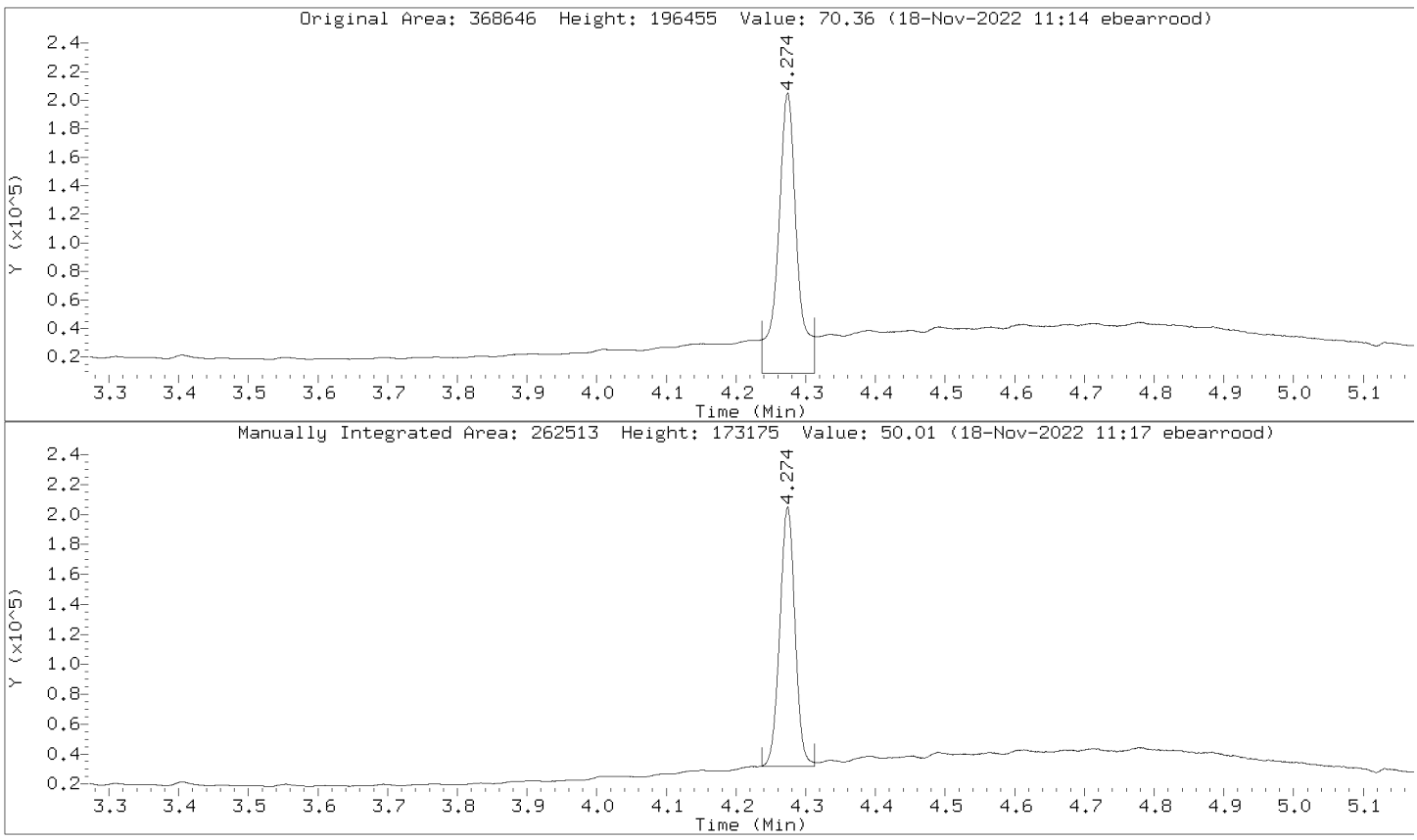
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: C10-C36 Review Code: RNG
CAS Number:



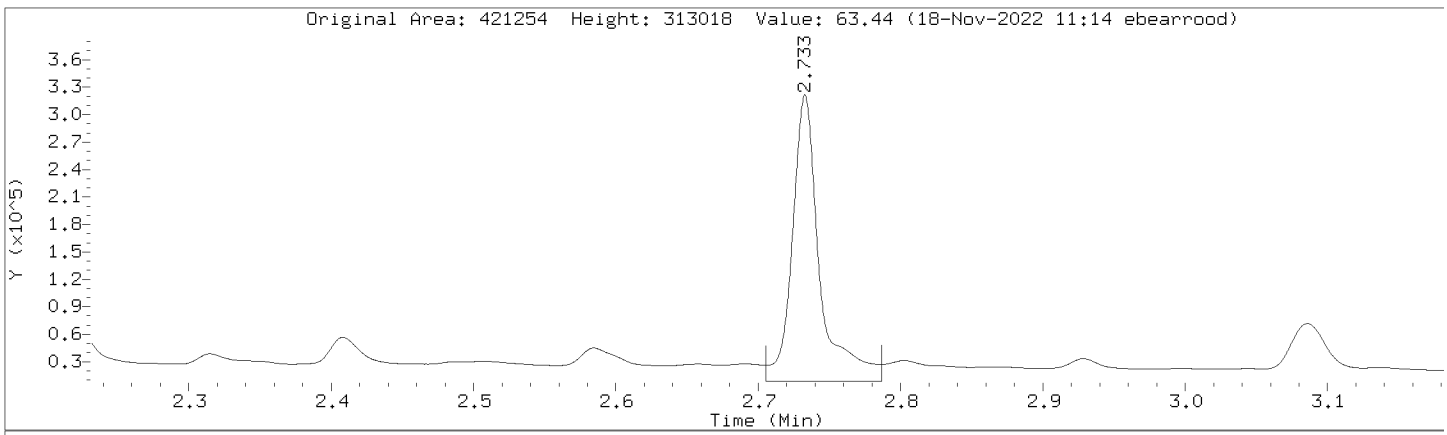
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

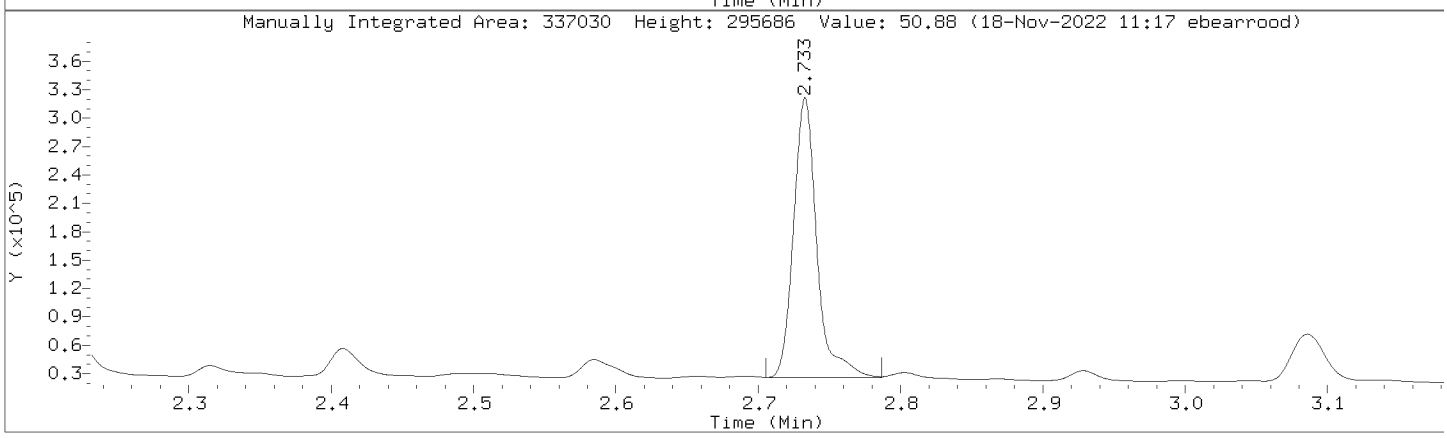
Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000022C.d
Injection Date: 17-NOV-2022 14:59
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	2055157	2055157
DRO by AK 102	3202371	3202371
TPH-DRO (C10-C28)	3704976	3704976
Motor Oil Range (C24-C36)	2146683	2146683
Diesel Fuel Range	2708977	2708977
Motor Oil Range	2663692	2663692
Diesel Fuel Range SG	2708977	2708977
Motor Oil Range SG	2663692	2663692
C10-C36	5257529	5257529
n-Triacontane (S)	368646	262513
o-Terphenyl (S)	421254	337030

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000027C.d
Lab Smp Id: DMO-CCV,395578:2 Client Smp ID: DMO-CCV,395578:2
Inj Date : 17-NOV-2022 15:56
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : dmo-ccv,395578:2
Misc Info : 40988
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: None
Processing Host: W10MNLABS0070

			AMOUNTS			
				CAL-AMT	ON-COL	
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	REVIEW CODE
S 1 DRO by AK 102					CAS #:	
0.885 - 3.600			3194528	500.000	502	(M) RNG
$ 2 o-Terphenyl (S)					CAS #:	
2.732	2.731	0.001	337146	50.0000	50.9	(M) BA
$ 3 n-Triacontane (S)					CAS #:	
4.276	4.272	0.004	262272	50.0000	50.0	(M) BA
S 4 Residual Range Organics AK103					CAS #:	
3.601 - 5.160			1878953	500.000	490	(M) RNG
S 5 TPH-DRO (C10-C28)					CAS #:	
0.885 - 4.210			3681363	500.000	499	(M) RNG
S 6 Motor Oil Range (C24-C36)					CAS #:	
3.450 - 5.160			1966978	500.000	487	(M) RNG
S 7 C10-C36					CAS #:	
0.885 - 5.160			5073481	1000.00	993	(M) RNG
S 8 Diesel Fuel Range					CAS #:	
1.350 - 3.650			2714512	500.000	505	(M) RNG
S 9 Diesel Fuel Range SG					CAS #:	
1.350 - 3.650			2714512	500.000	505	(M) RNG
S 10 Motor Oil Range					CAS #:	
3.651 - 6.050			2347153	500.000	503	(M) RNG
S 11 Motor Oil Range SG					CAS #:	
3.651 - 6.050			2347153	500.000	503	(M) RNG

QC Flag Legend

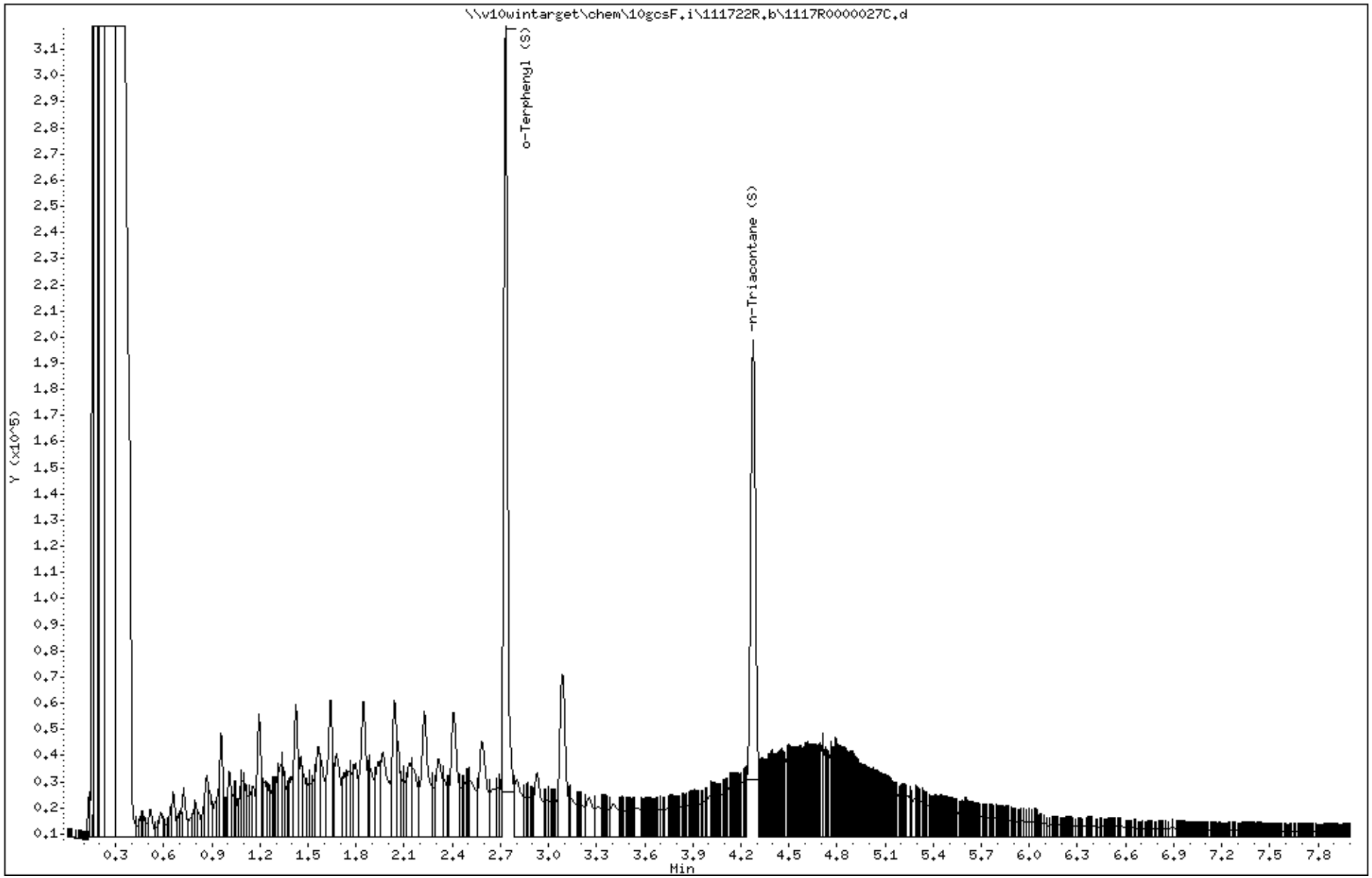
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

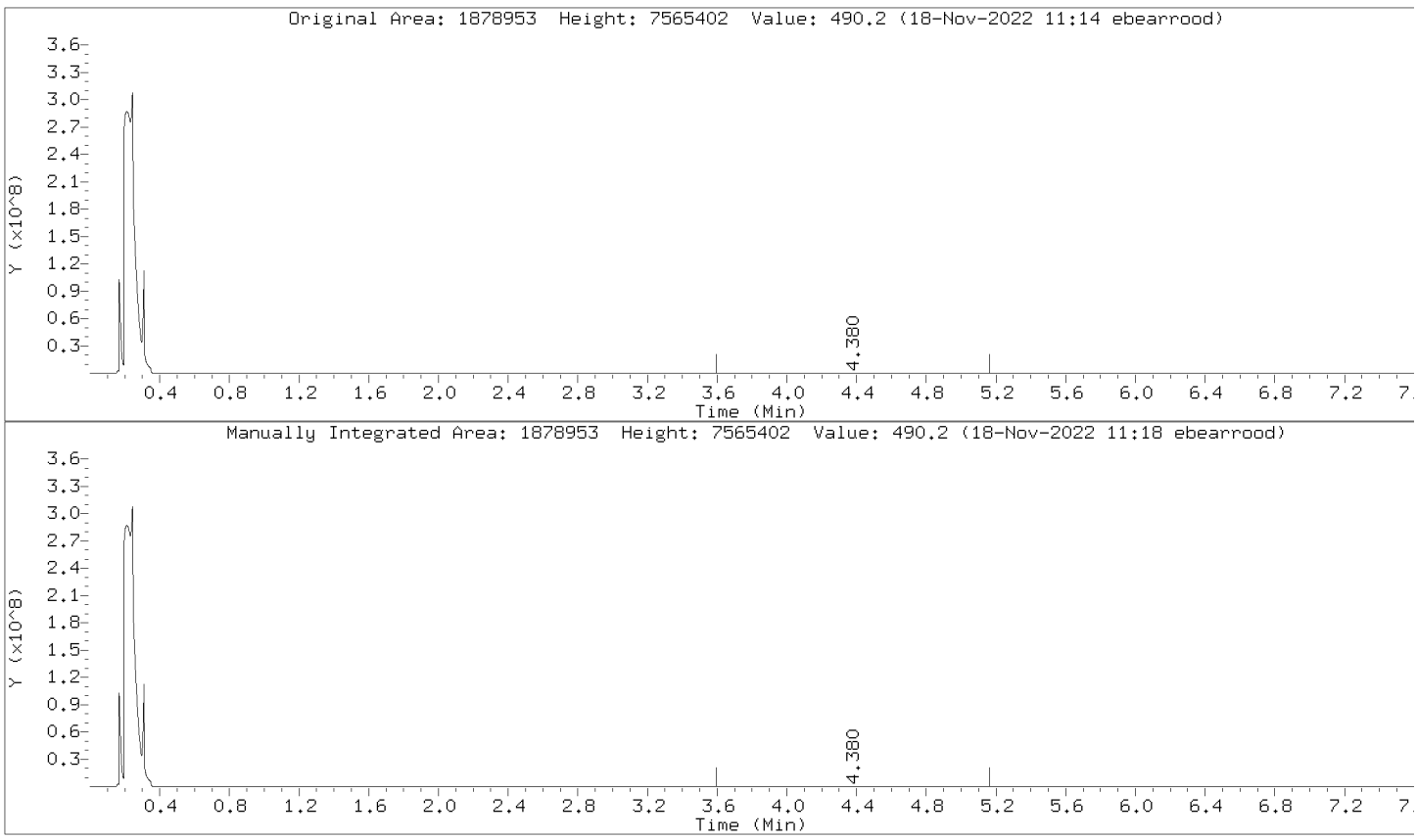
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000027C.d
Date : 17-NOV-2022 15:56
Client ID: DMO-CCV,395578:2
Sample Info: DMO-CCV,395578:2

Instrument: 10gcsF.i
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



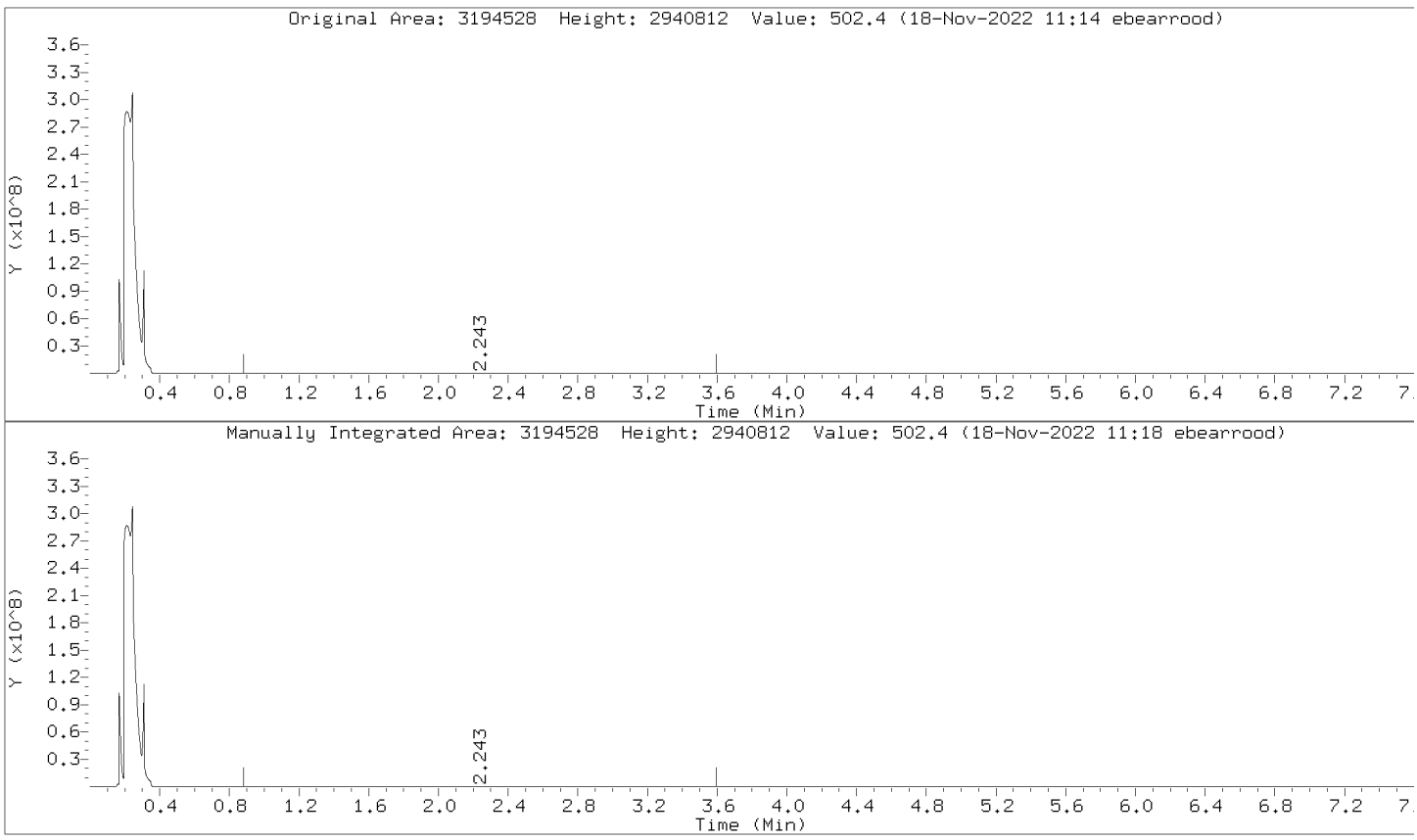
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



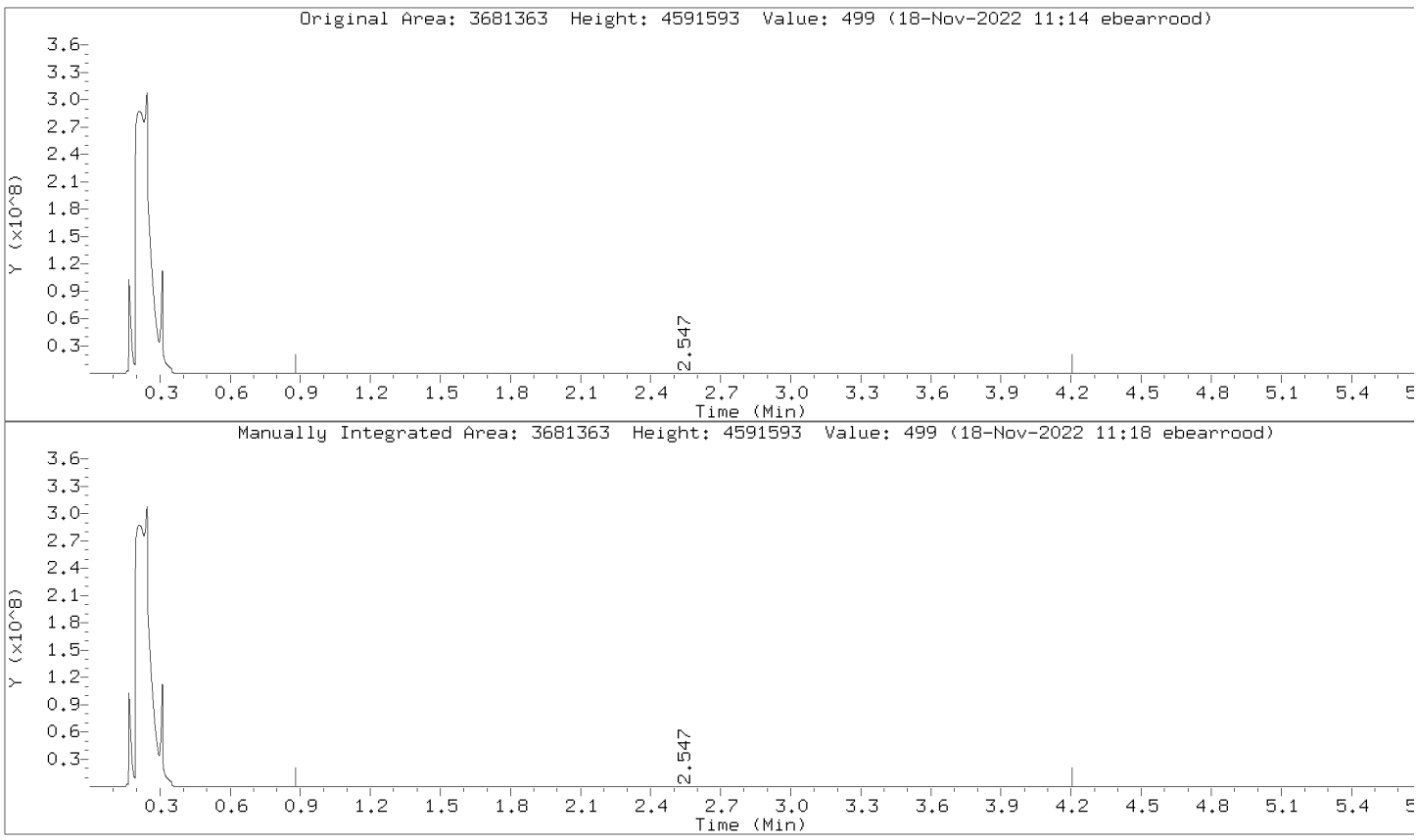
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



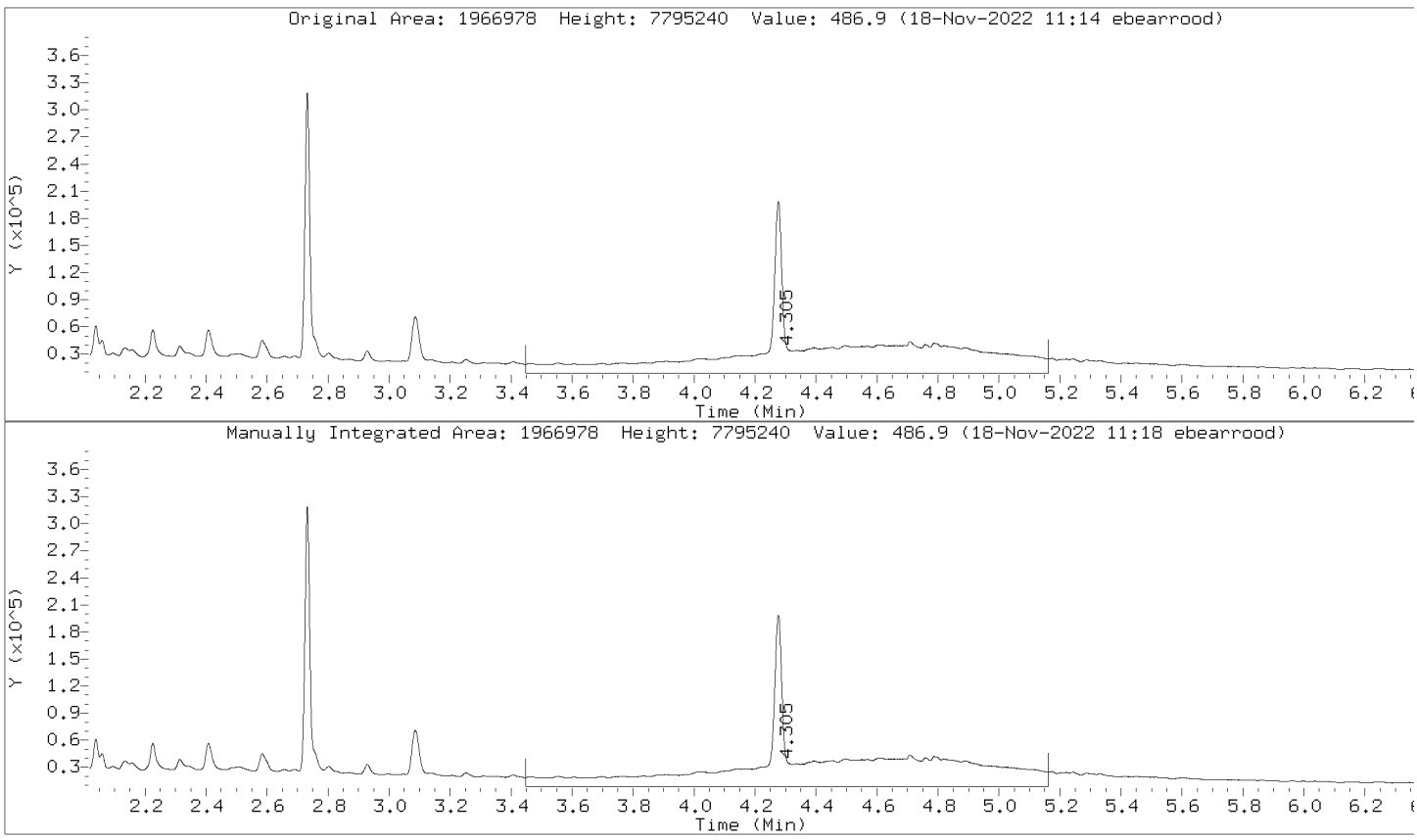
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



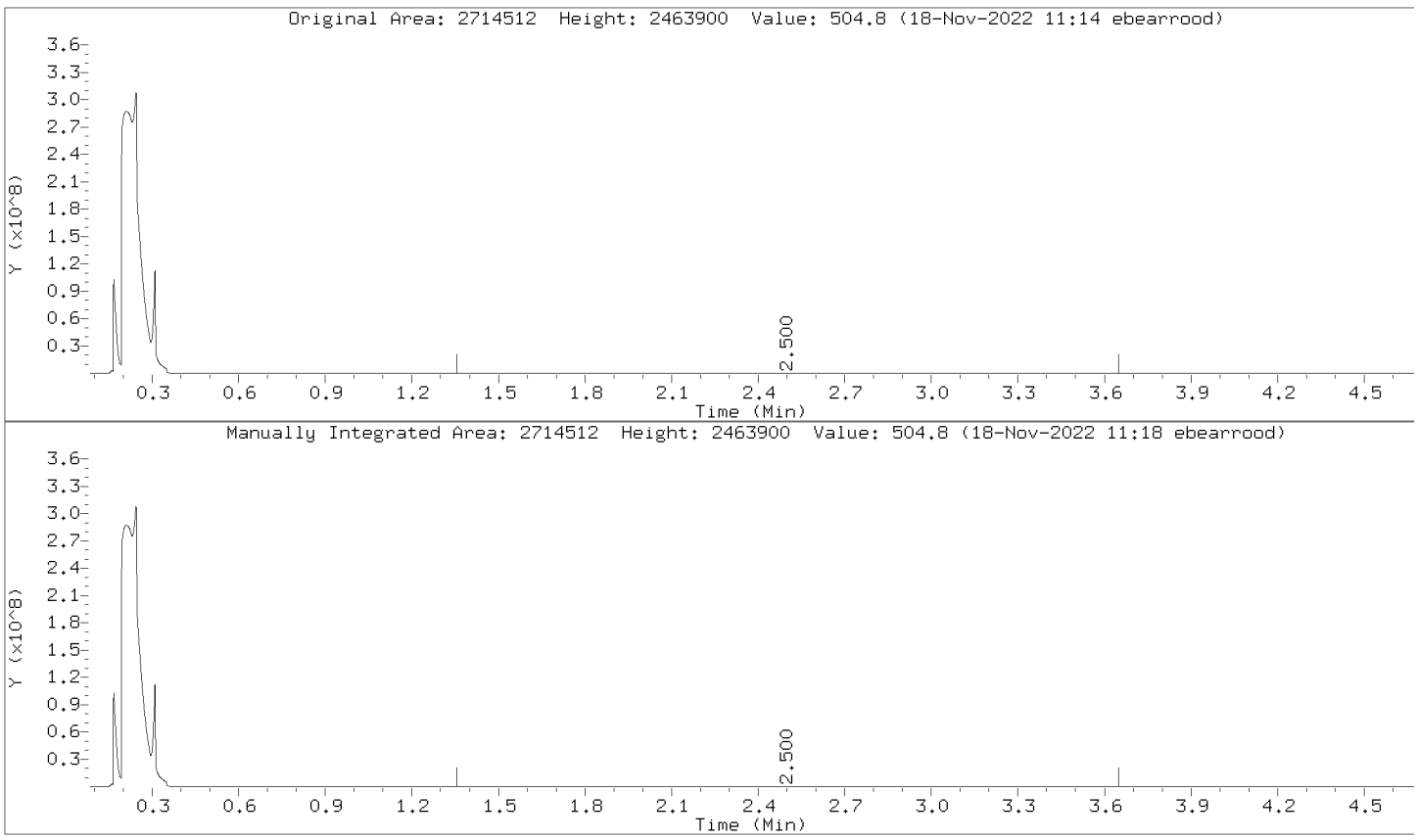
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



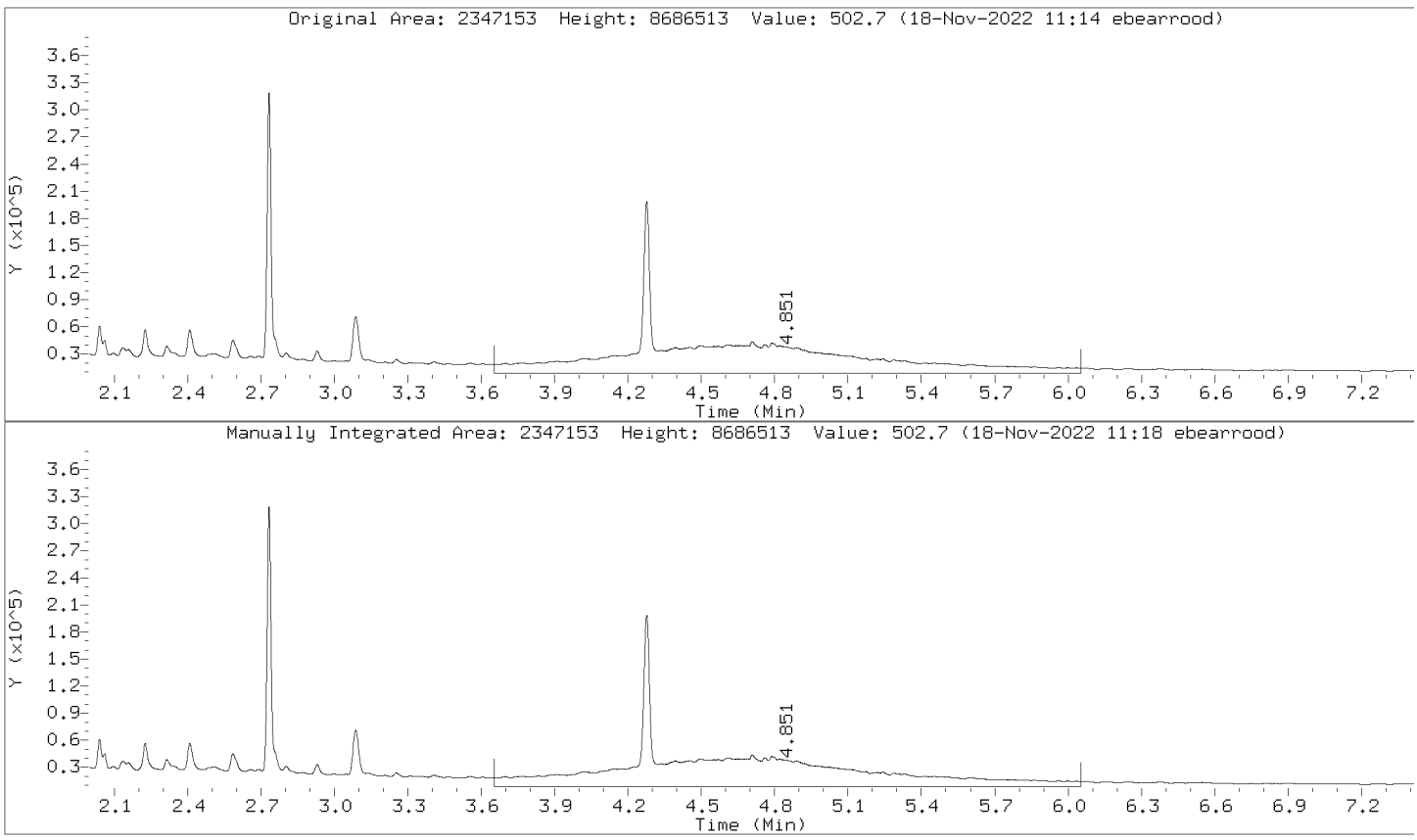
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



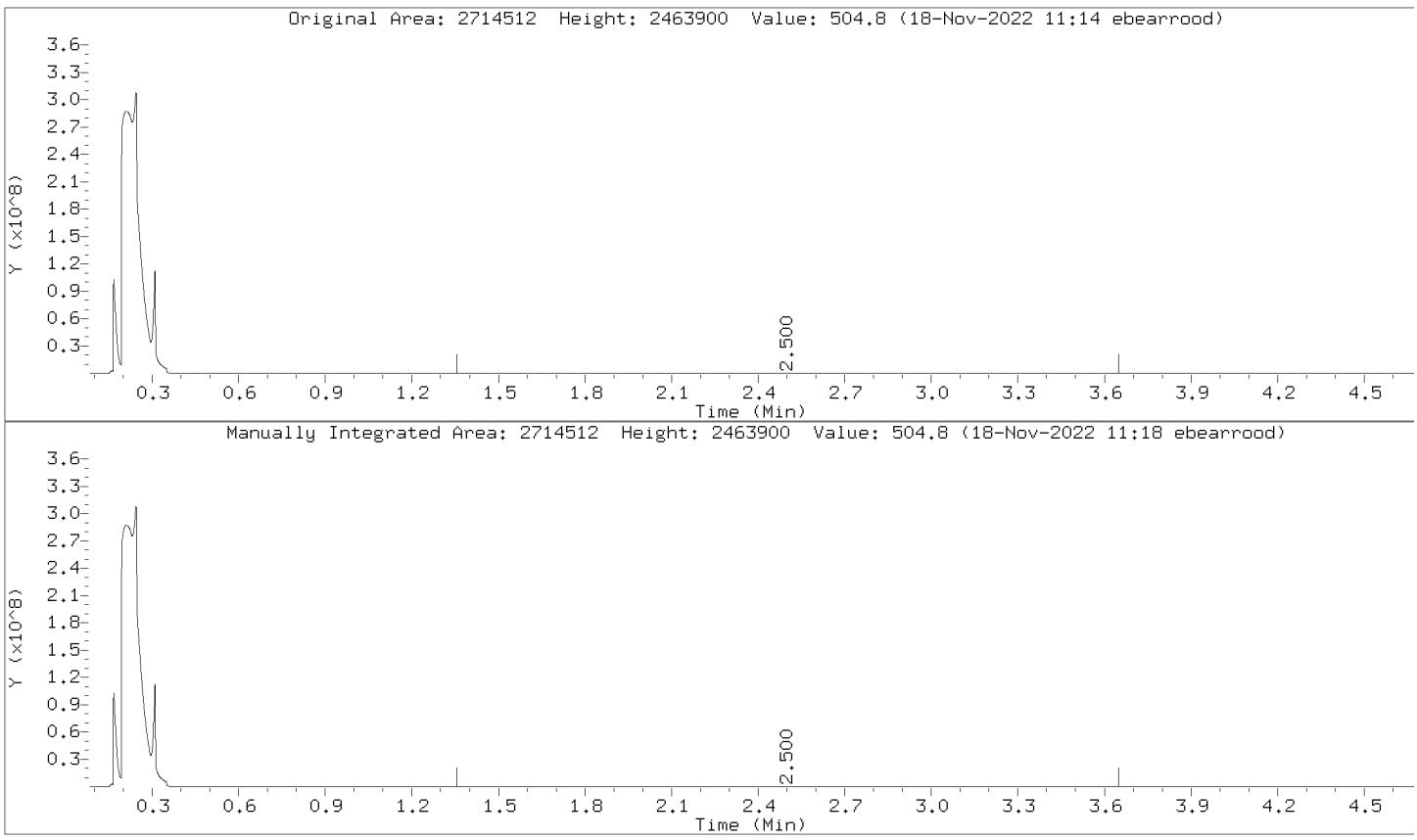
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range Review Code: RNG
CAS Number:



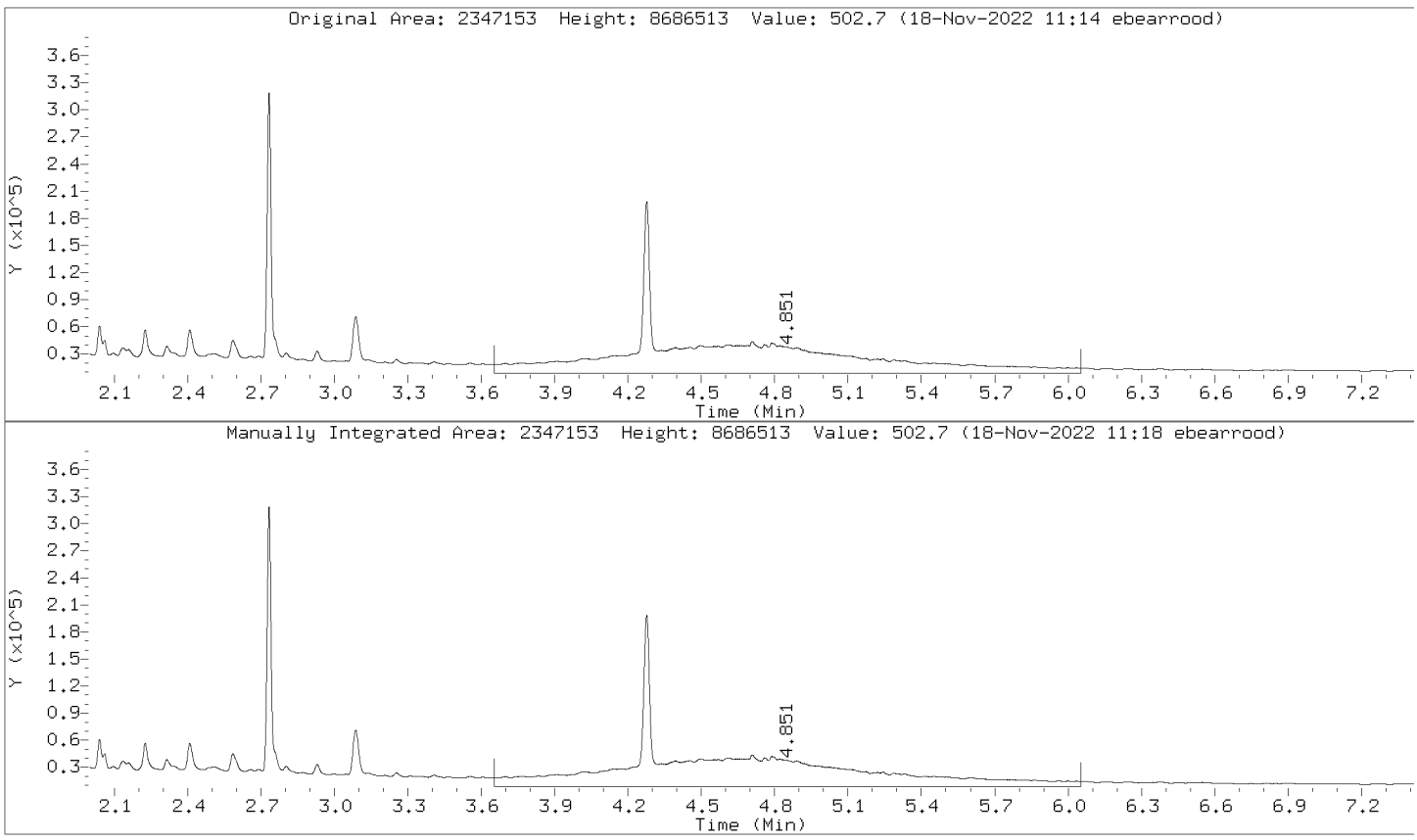
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



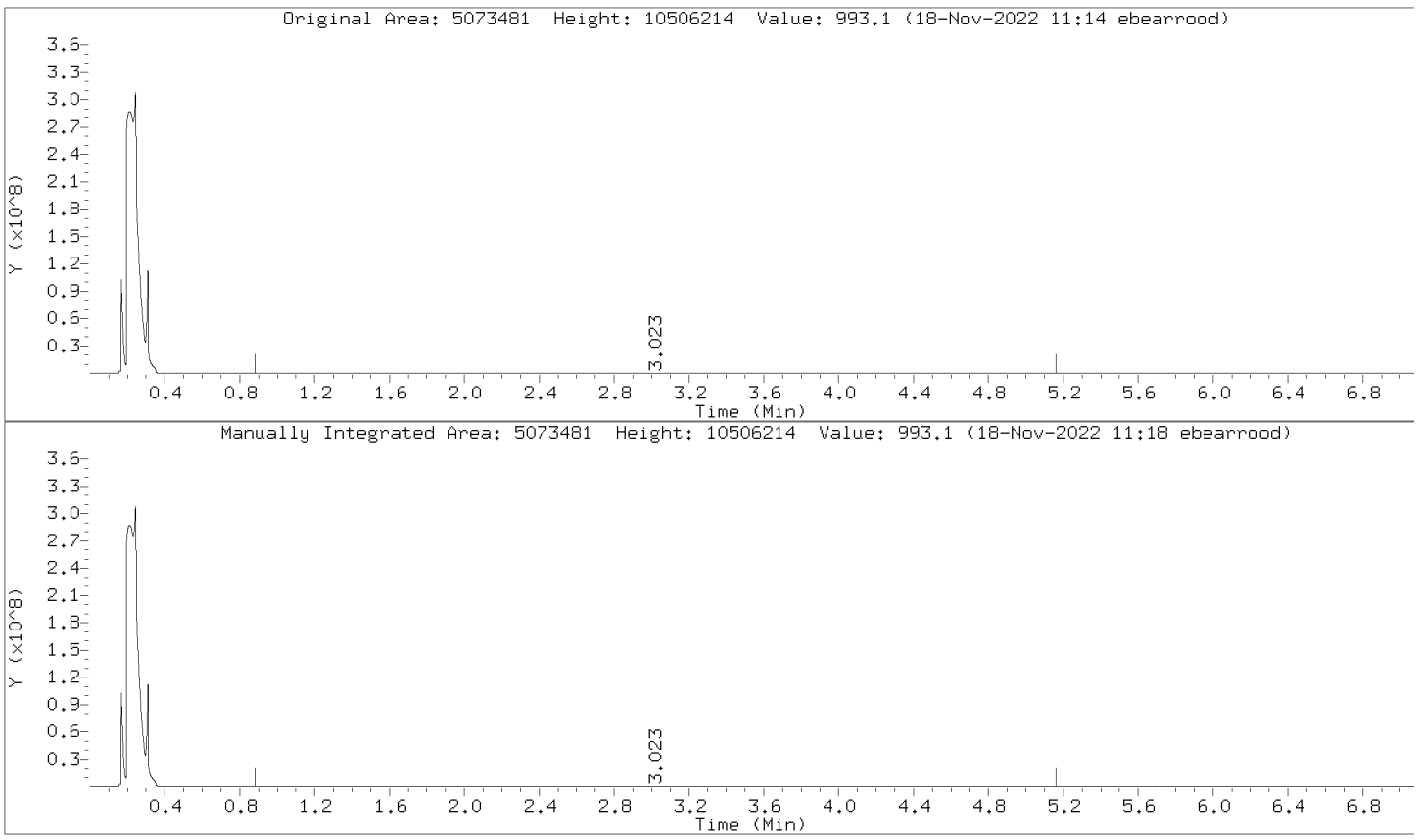
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



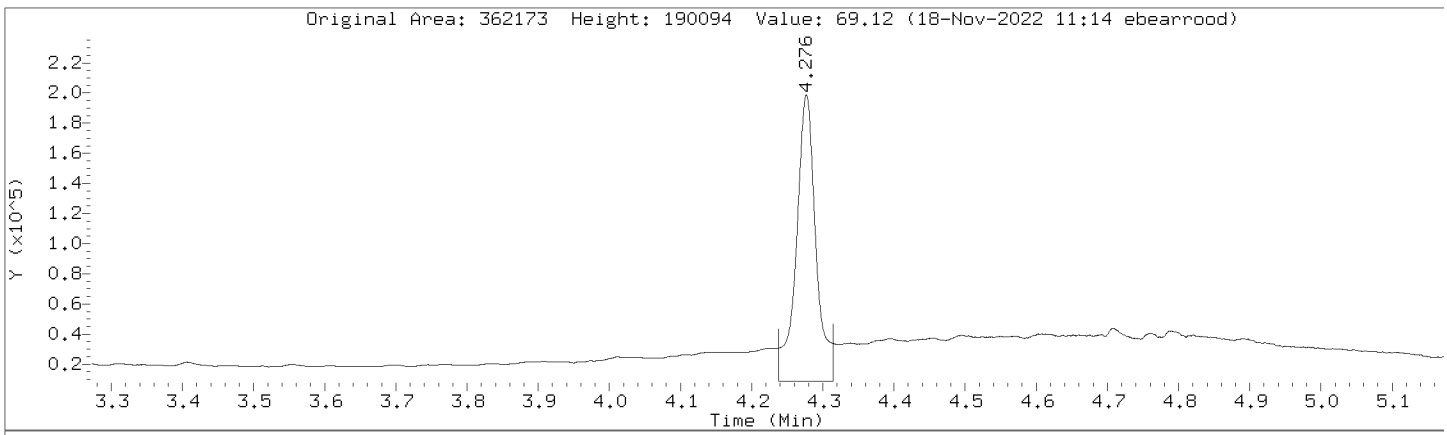
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

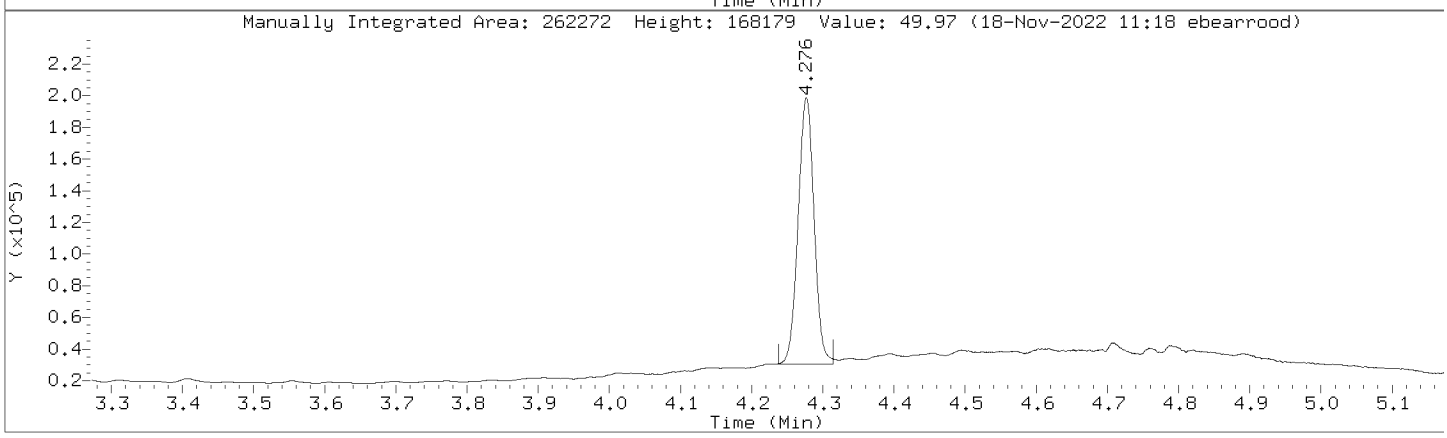
Compound: C10-C36 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

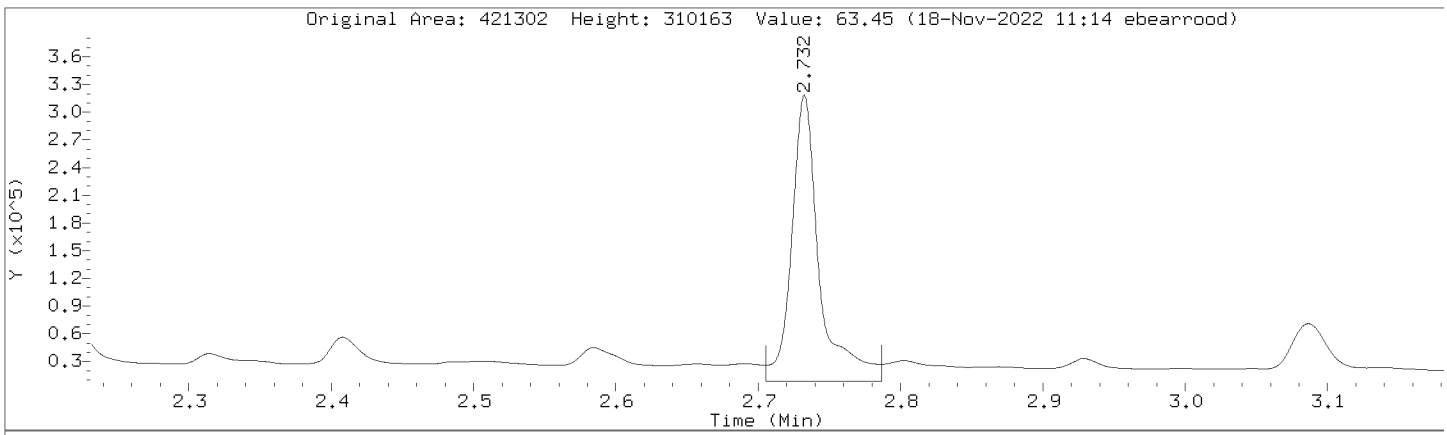
Compound: n-Triacontane (S) Review Code: BA
CAS Number:

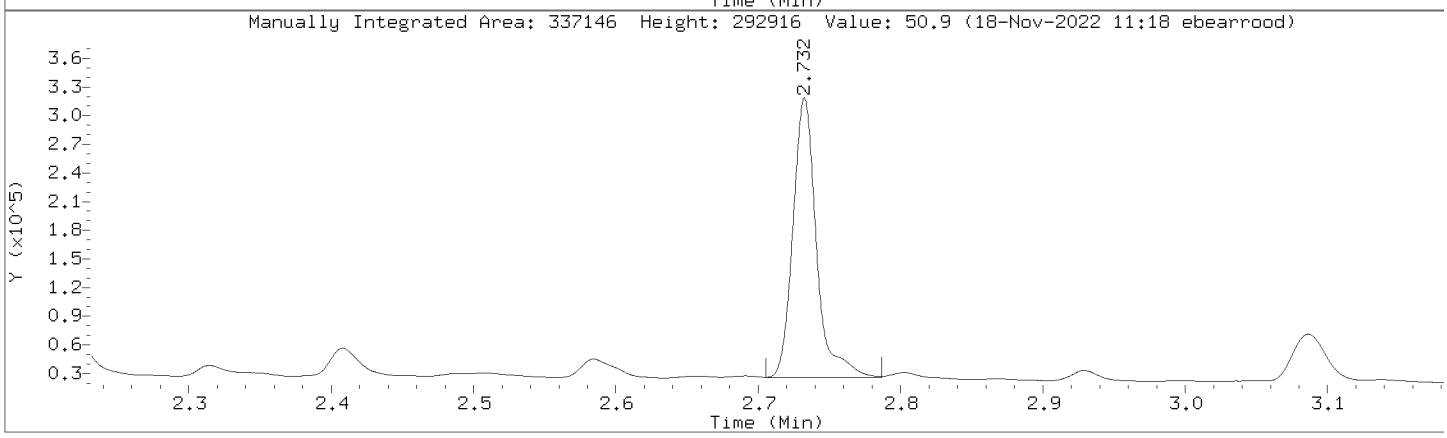




Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000027C.d
Injection Date: 17-NOV-2022 15:56
Instrument: 10gcsF.i
Lab Sample ID: DMO-CCV,395578:2

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1878953	1878953
DRO by AK 102	3194528	3194528
TPH-DRO (C10-C28)	3681363	3681363
Motor Oil Range (C24-C36)	1966978	1966978
Diesel Fuel Range	2714512	2714512
Motor Oil Range	2347153	2347153
Diesel Fuel Range SG	2714512	2714512
Motor Oil Range SG	2347153	2347153
C10-C36	5073481	5073481
n-Triacontane (S)	362173	262272
o-Terphenyl (S)	421302	337146

SAMPLE NO.

BLANK

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota
Contract: D3631600
Date Received:
Matrix: Water
SDG No.: 10633992
Date Extracted: 11/16/2022 14:58
Lab Sample ID: 4514826
Date Analyzed: 11/17/2022 15:11
Lab File ID: 111722R.B\1117R0000023.D
Initial wt/vol: 250 mL
Final wt/vol: 1 mL
Dilution: 1
Instrument: 10GCSF
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
68334-30-5	Diesel Fuel Range	ND	U
	Motor Oil Range	0.30	J

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000023.d
Lab Smp Id: 4514826 Client Smp ID: MB
Inj Date : 17-NOV-2022 15:11
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514826
Misc Info : 41065
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 22 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf *Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	REVIEW CODE	
S 1 DRO by AK 102					CAS #:		
0.885	- 3.600		376298	4.43910	17.8	(M)	RNG
$ 2 o-Terphenyl (S)					CAS #:		
2.732	2.731	0.001	213148	32.4156	130	(RM)	BA
$ 3 n-Triacontane (S)					CAS #:		
4.275	4.272	0.003	148994	28.2463	113	(RM)	BA
S 4 Residual Range Organics AK103					CAS #:		
3.601	- 5.160		333301	60.6304	242	(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:		
0.885	- 4.210		511632	16.9729	67.9	(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:		
3.450	- 5.160		357370	60.0336	240	(M)	RNG
S 7 C10-C36					CAS #:		
0.885	- 5.160		709599	52.6345	210	(M)	RNG

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)		REVIEW CODE
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		341274	6.83483	27.3	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		341274	6.83483	27.3	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		474067	75.8492	303	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		474067	75.8492	303	(M)	RNG

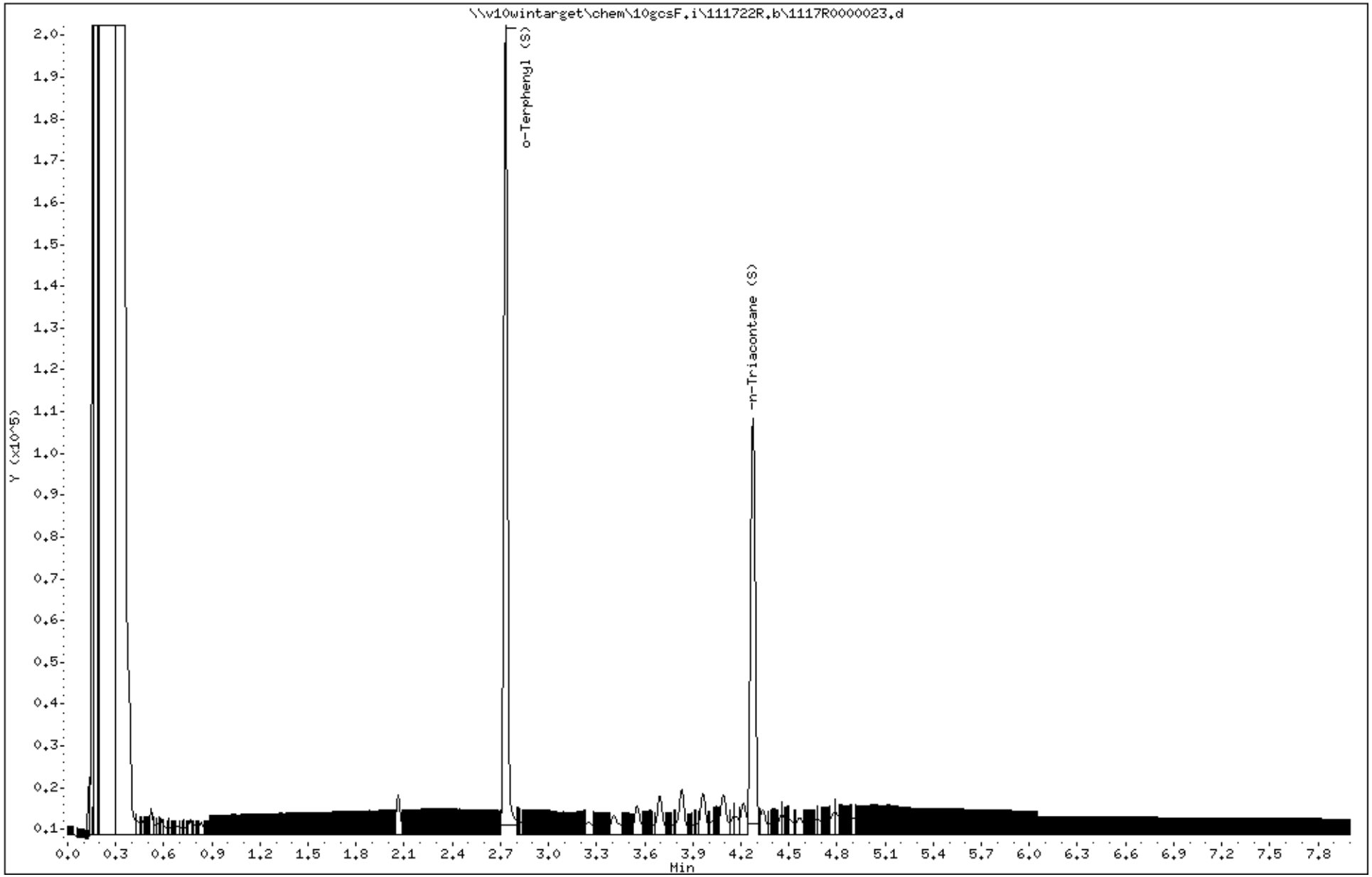
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

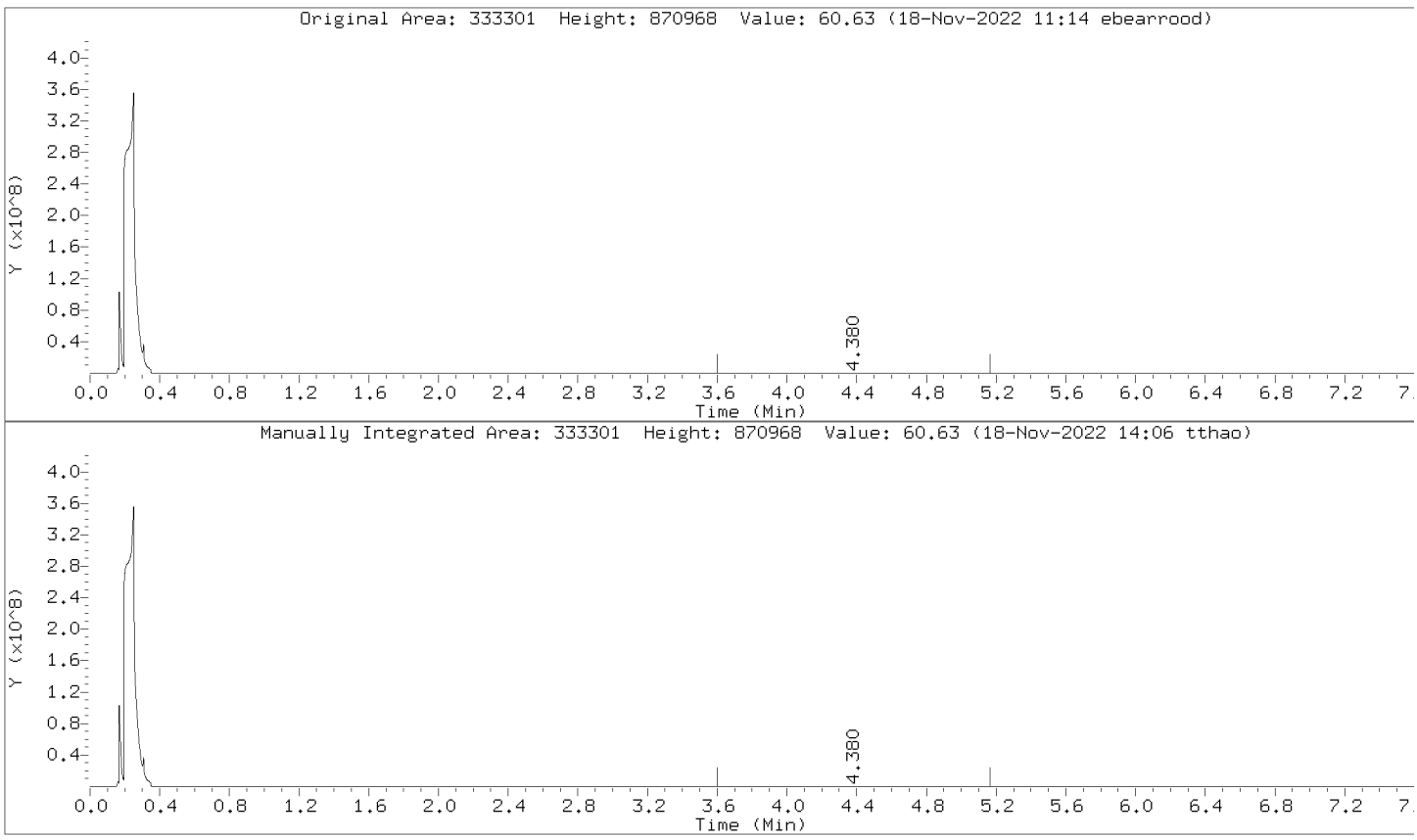
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000023.d
Date : 17-NOV-2022 15:11
Client ID: MB
Instrument: 10gcsF.i
Sample Info: 4514826
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



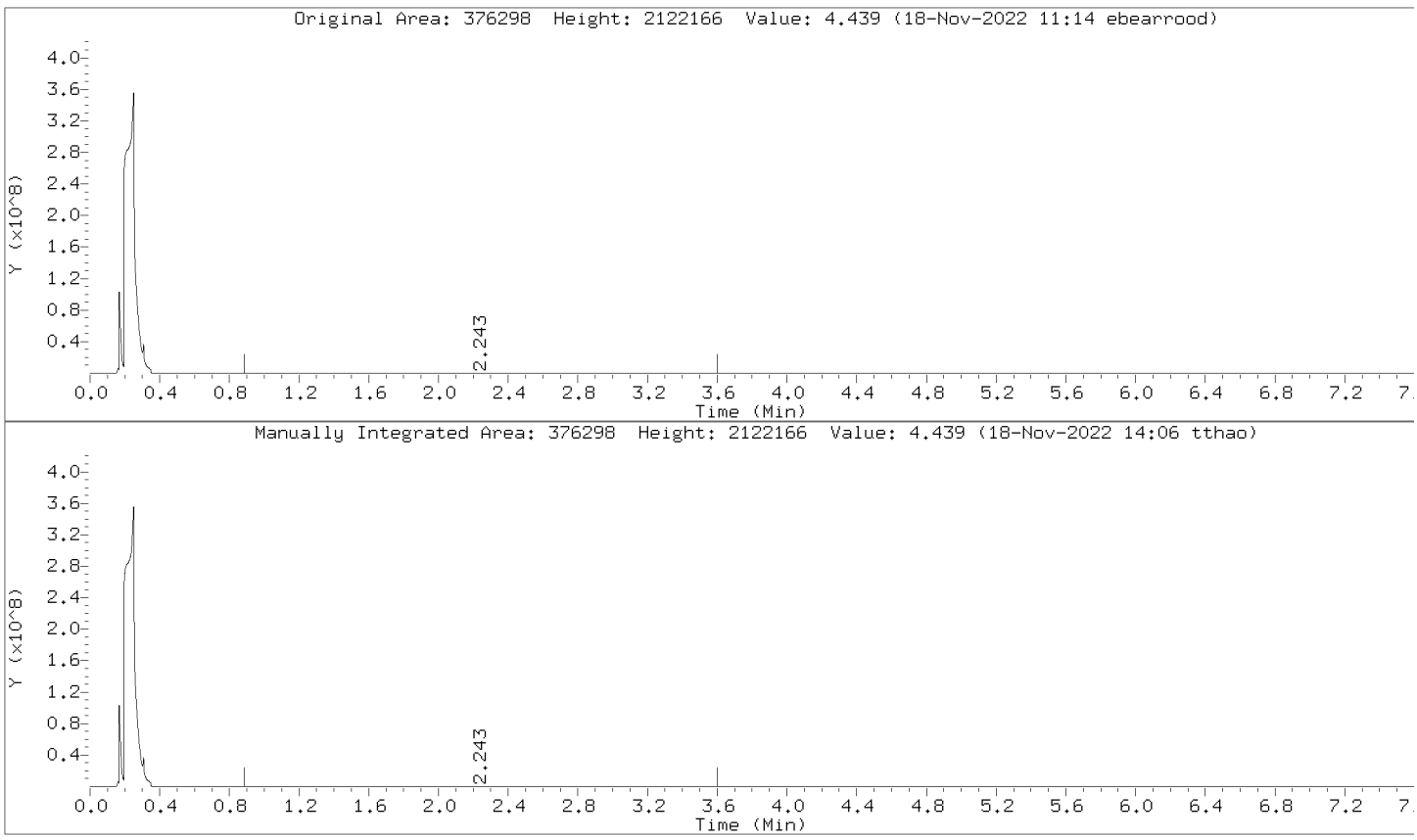
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



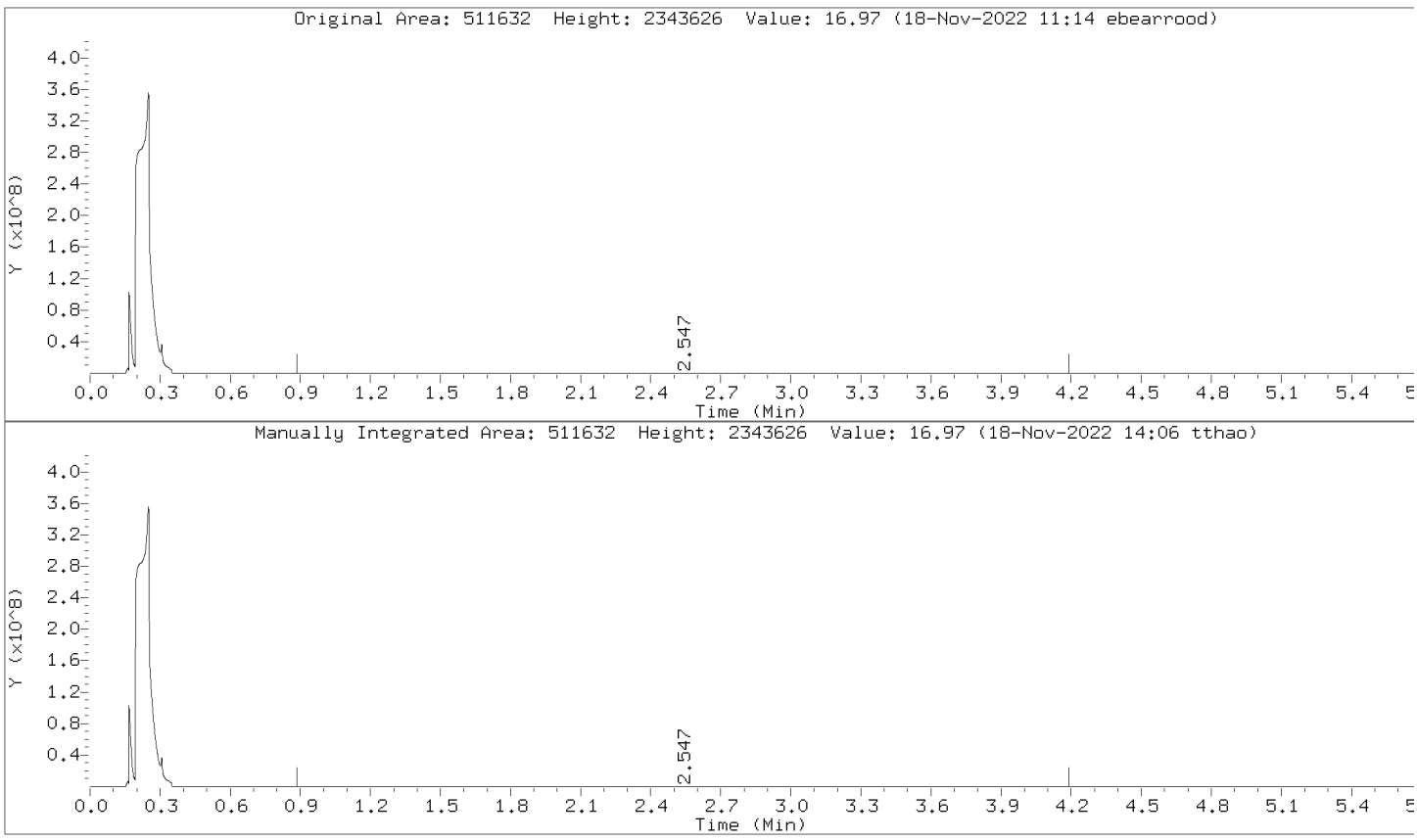
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



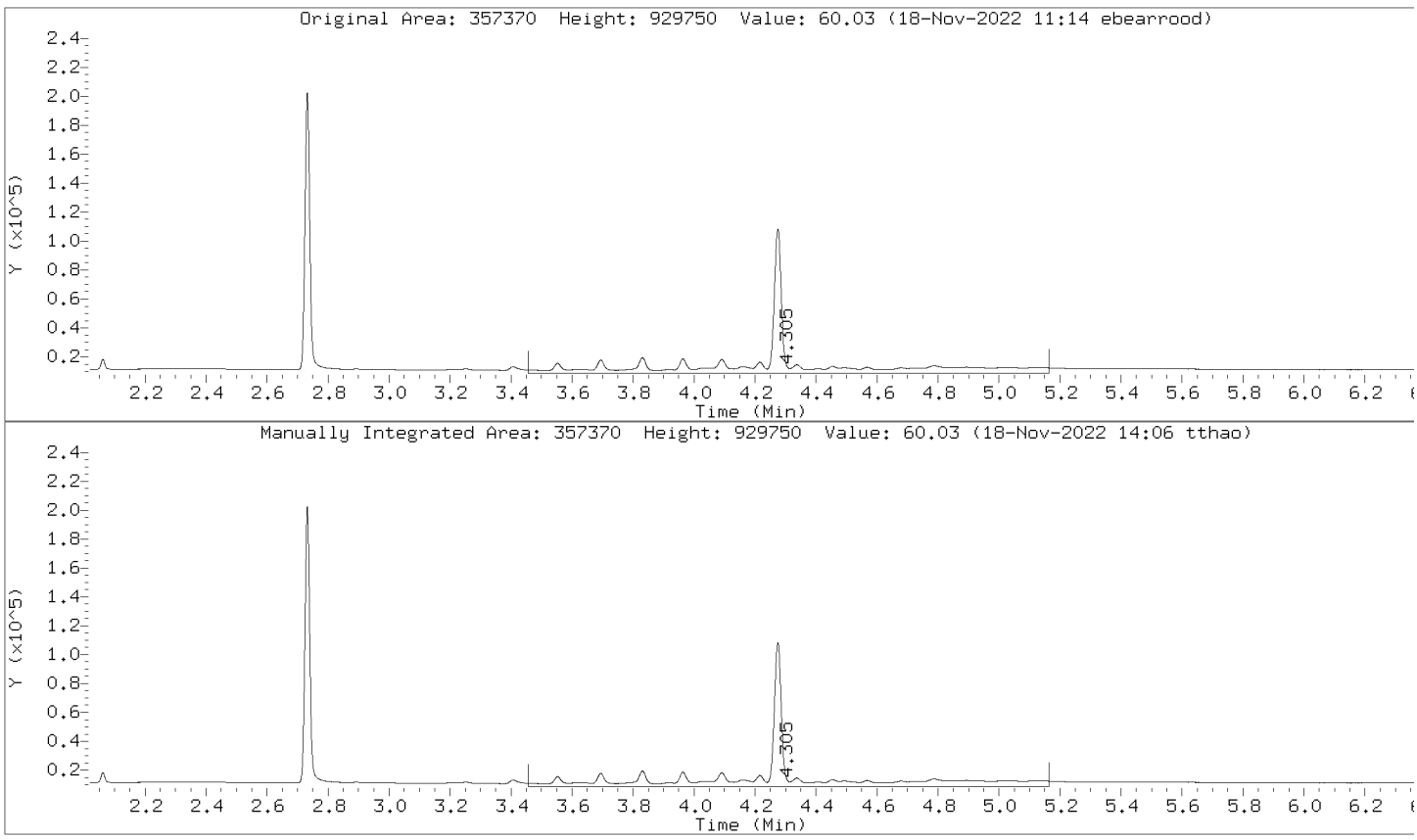
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



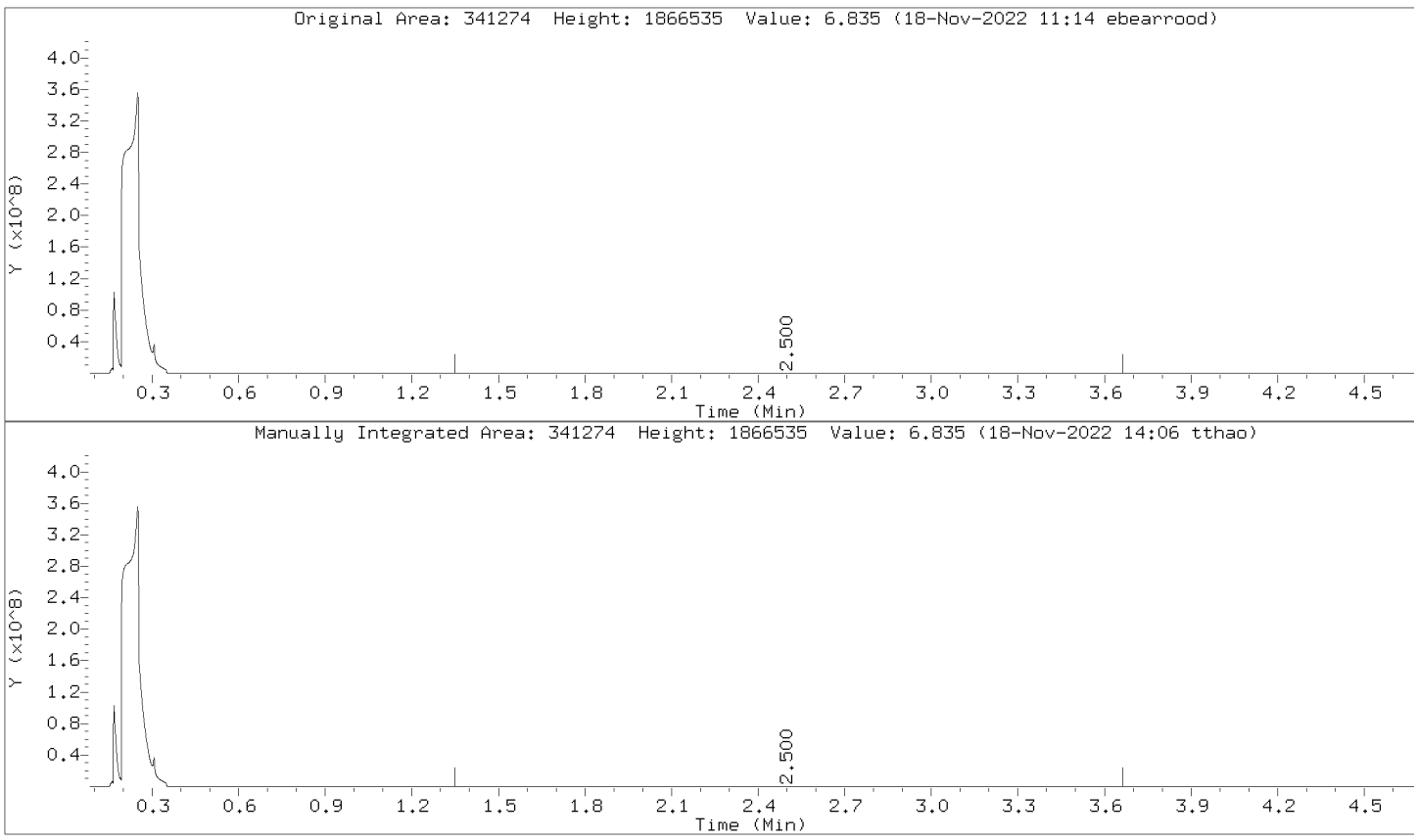
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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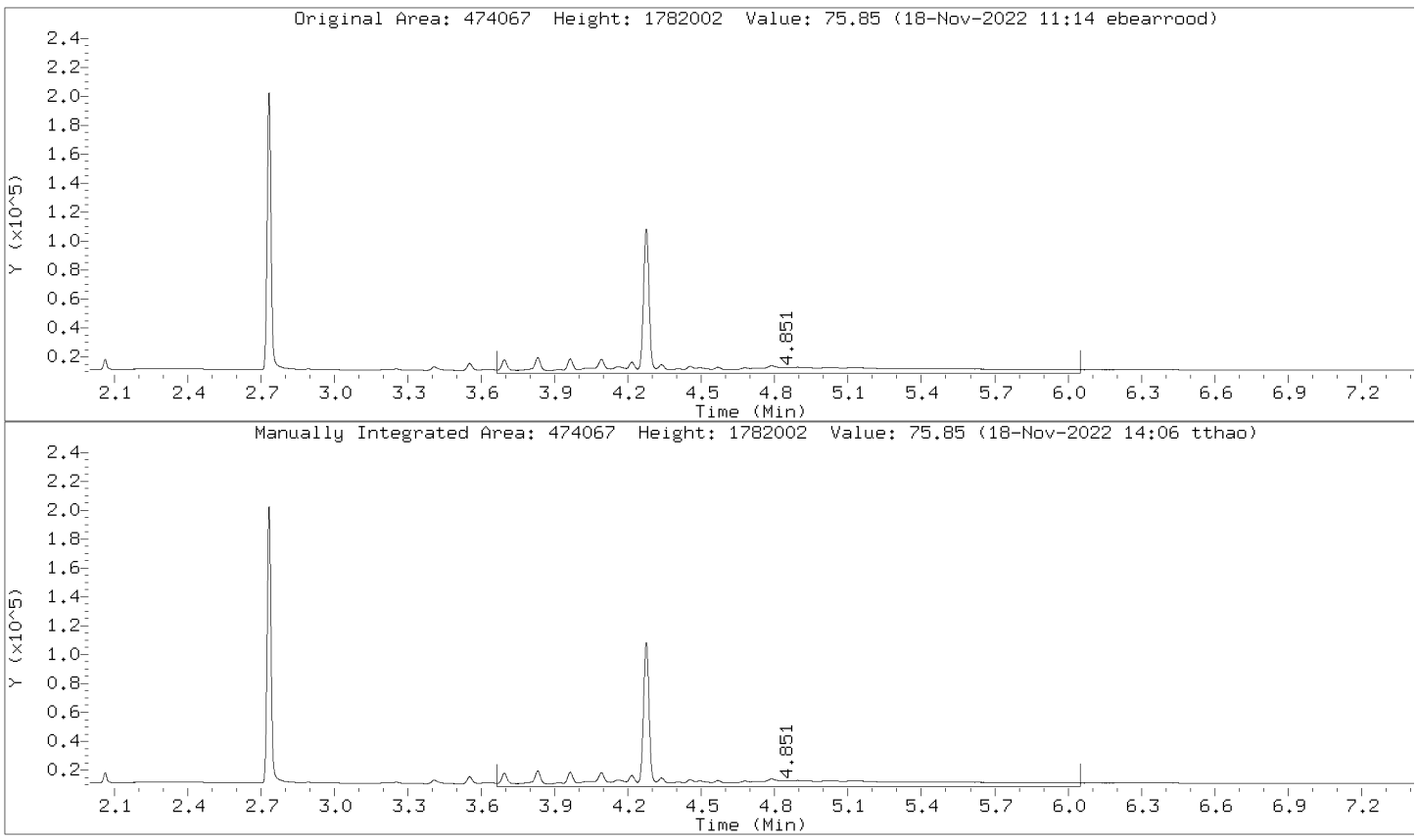
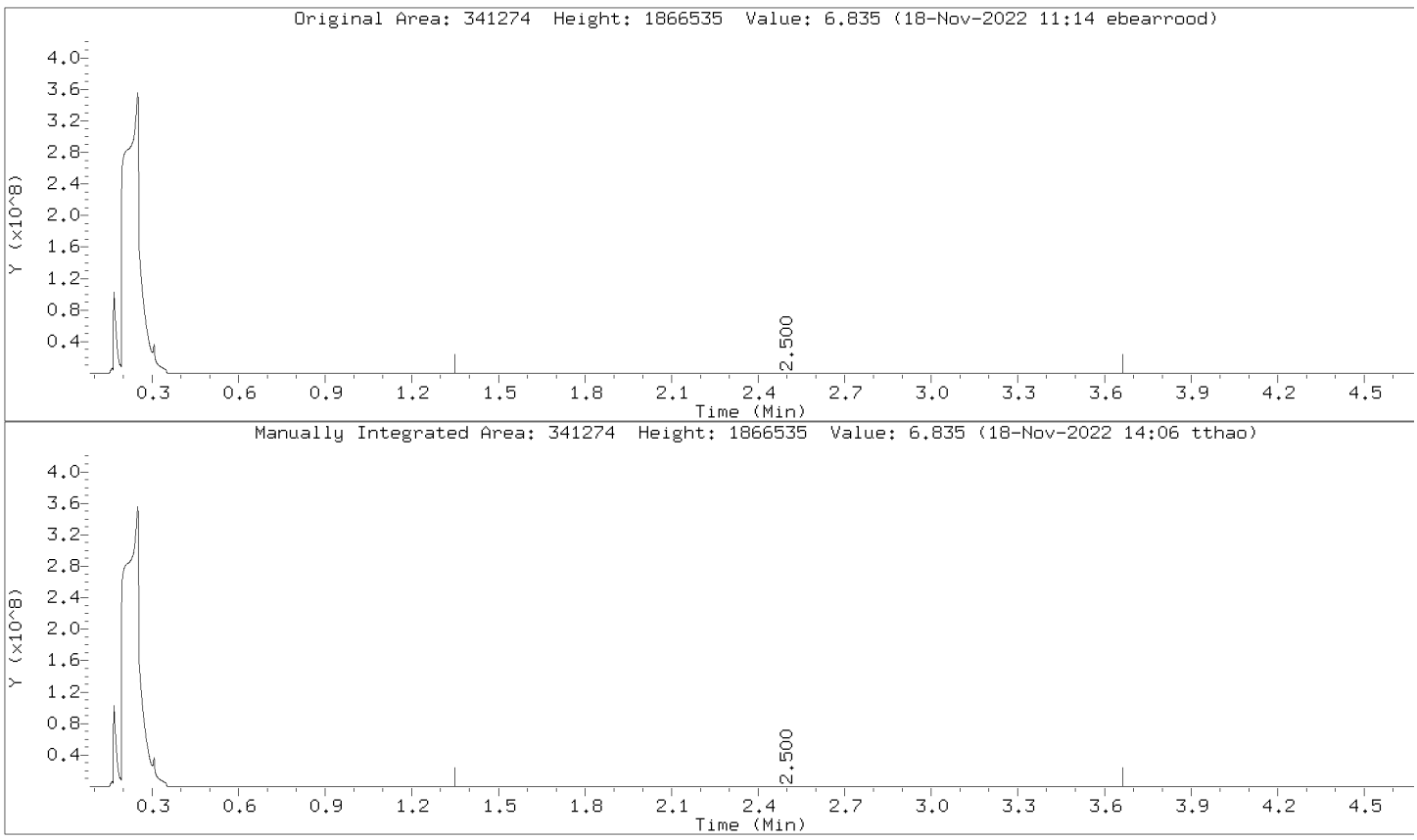
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Motor Oil Range Review Code: RNG
CAS Number:



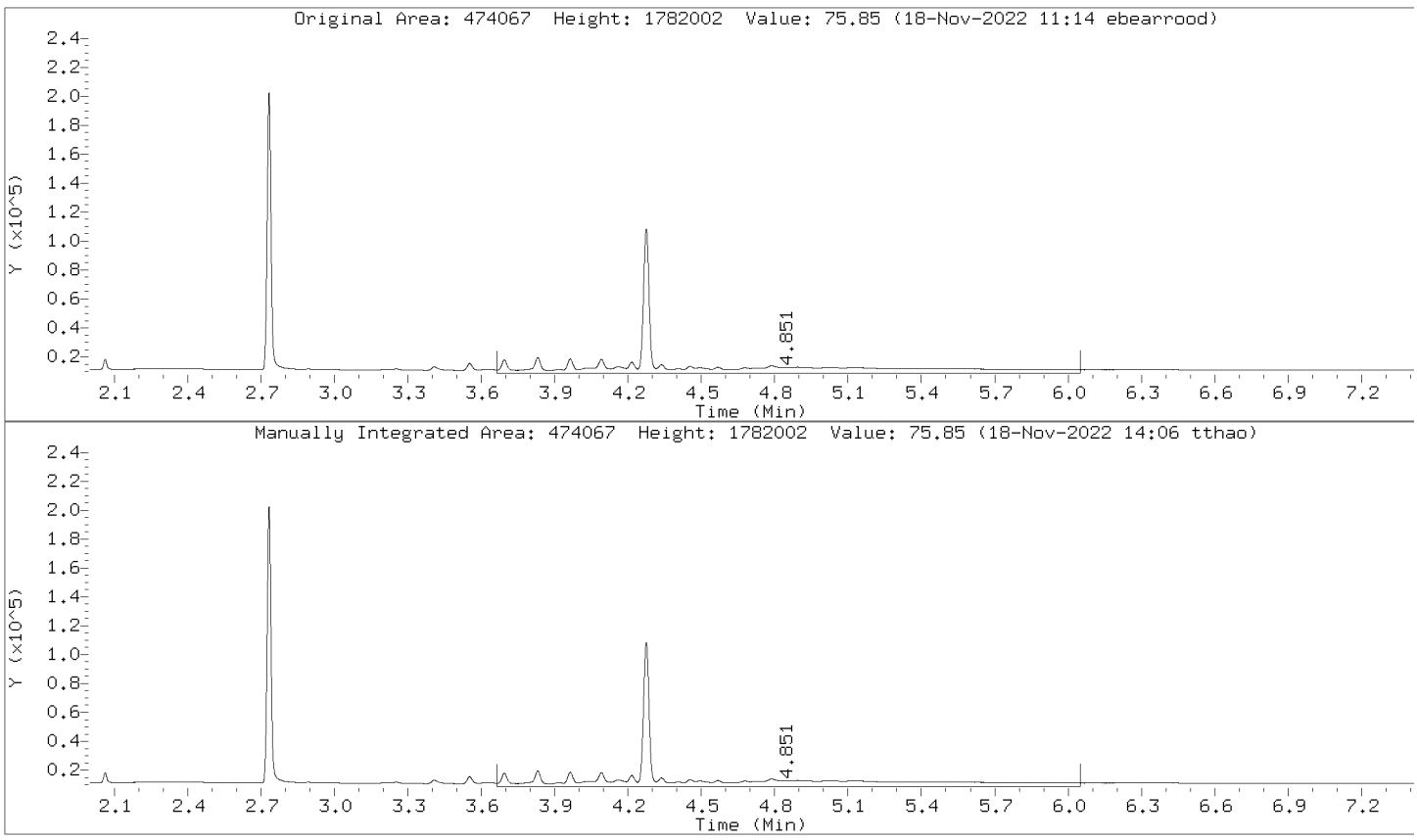
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



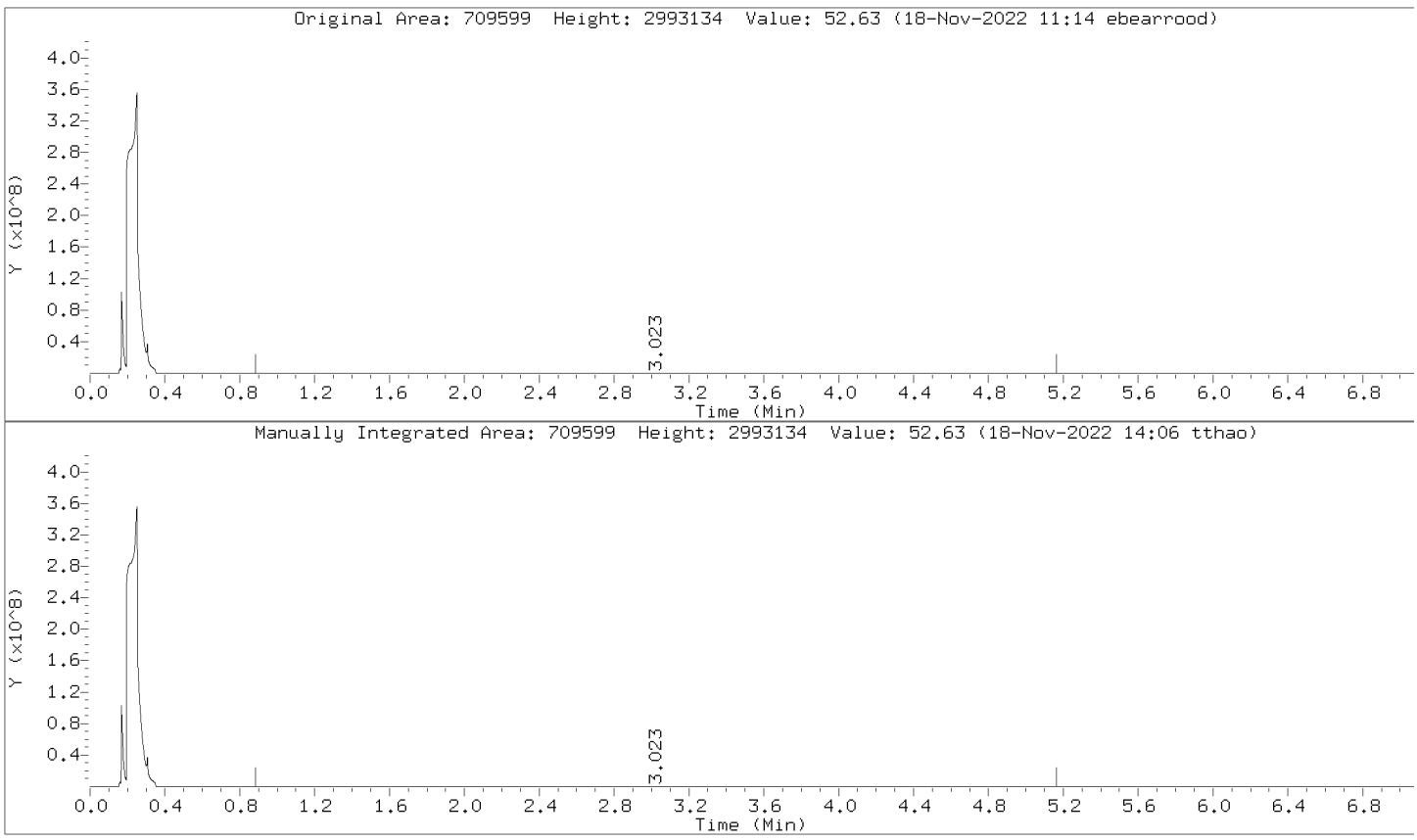
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



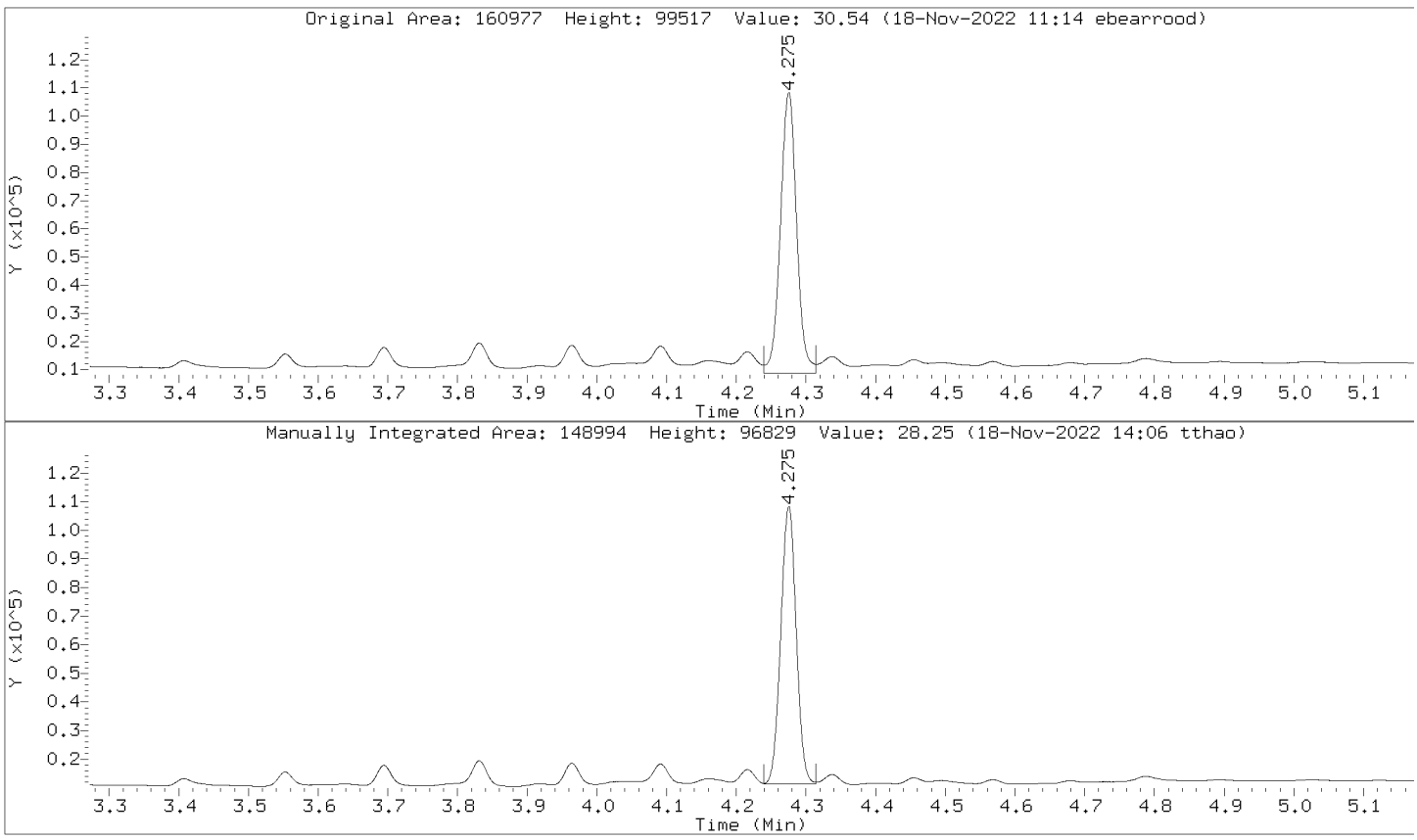
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: C10-C36 Review Code: RNG
CAS Number:



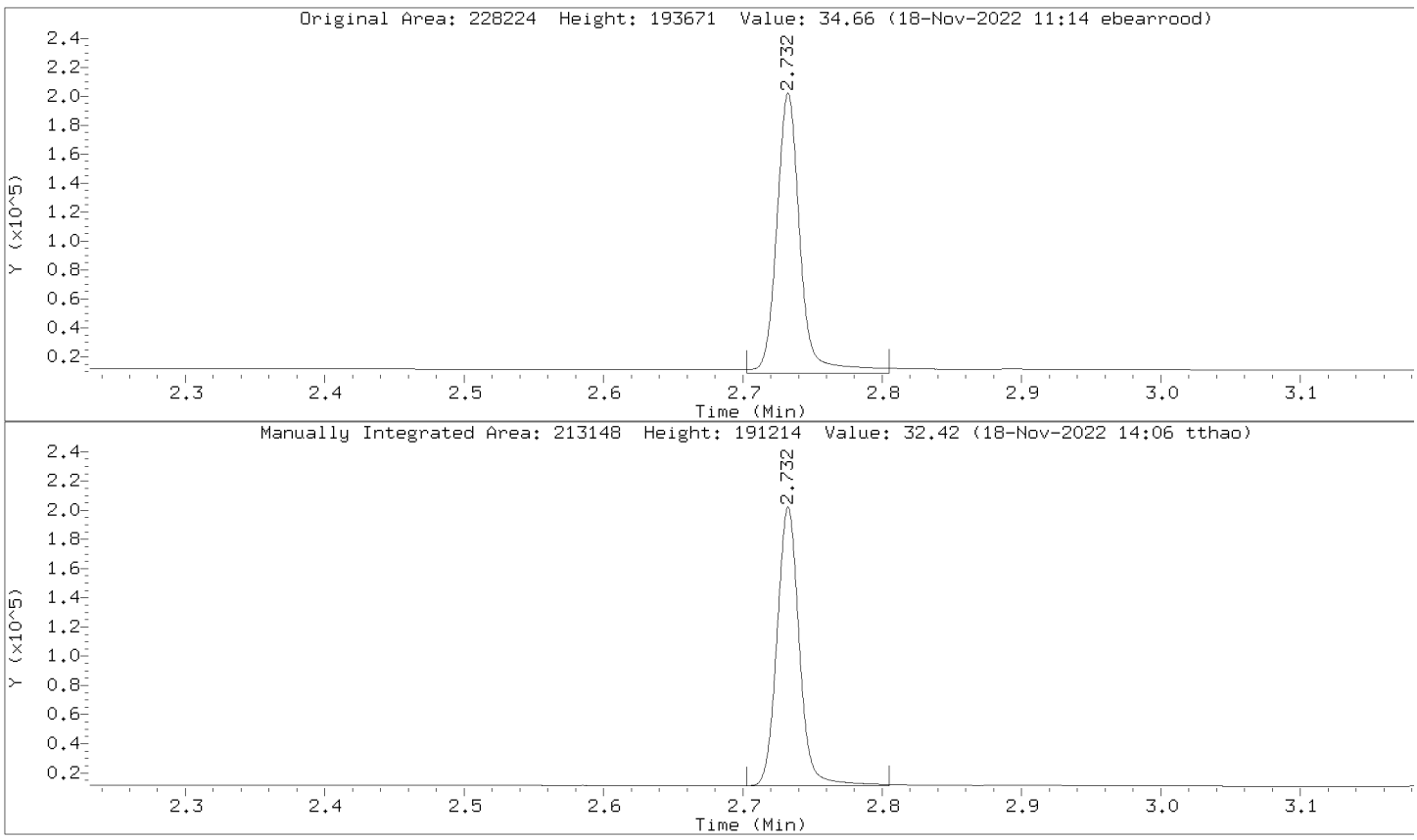
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000023.d
Injection Date: 17-NOV-2022 15:11
Instrument: 10gcsF.i
Lab Sample ID: 4514826

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	333301	333301
DRO by AK 102	376298	376298
TPH-DRO (C10-C28)	511632	511632
Motor Oil Range (C24-C36)	357370	357370
Diesel Fuel Range	341274	341274
Motor Oil Range	474067	474067
Diesel Fuel Range SG	341274	341274
Motor Oil Range SG	474067	474067
C10-C36	709599	709599
n-Triacontane (S)	160977	148994
o-Terphenyl (S)	228224	213148

SAMPLE NO.

LCS

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Water SDG No.: 10633992
Date Extracted: 11/16/2022 14:58 Lab Sample ID: 4514827
Date Analyzed: 11/17/2022 15:22 Lab File ID: 111722R.B\1117R0000024.D
Initial wt/vol: 250 mL Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
68334-30-5	Diesel Fuel Range	1.5	
	Motor Oil Range	1.7	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000024.d
Lab Smp Id: 4514827 Client Smp ID: MBLCS
Inj Date : 17-NOV-2022 15:22
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514827
Misc Info : 41065
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 23 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf *Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE		
S 1 DRO by AK 102					CAS #:			
0.885 - 3.600			2408768	363.553	1450		(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:			
2.732	2.731	0.001	255238	38.6910	155		(M)	BA
$ 3 n-Triacontane (S)					CAS #:			
4.275	4.272	0.003	166817	31.6639	127		(M)	BA
S 4 Residual Range Organics AK103					CAS #:			
3.601 - 5.160			1618661	417.879	1670		(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:			
0.885 - 4.210			2850874	372.725	1490		(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:			
3.450 - 5.160			1694862	414.721	1660		(M)	RNG
S 7 C10-C36					CAS #:			
0.885 - 5.160			4027430	767.687	3070		(M)	RNG

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	REVIEW CODE	
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2107223	377.350	1510	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2107223	377.350	1510	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		2009826	425.819	1700	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		2009826	425.819	1700	(M)	RNG

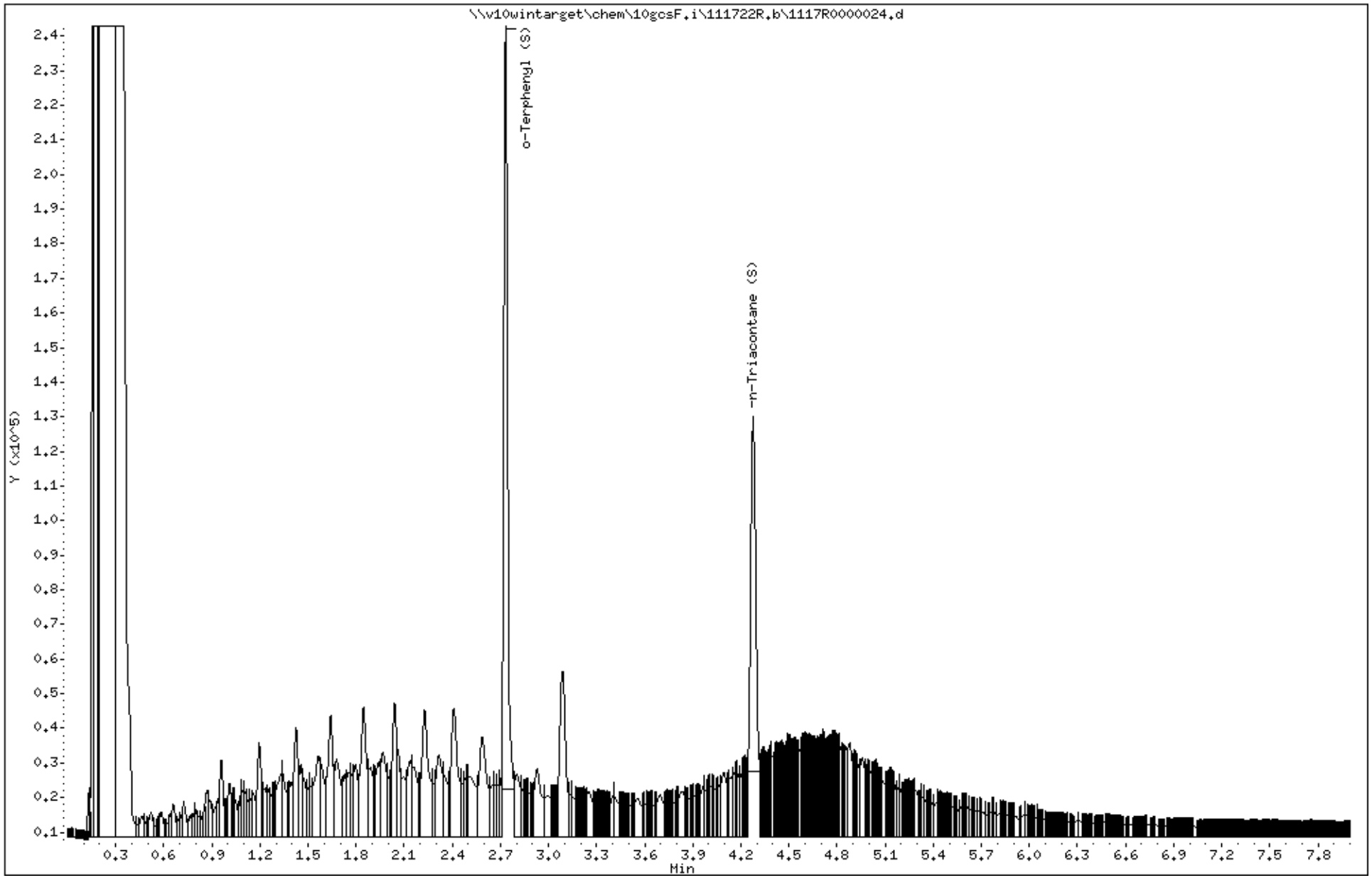
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

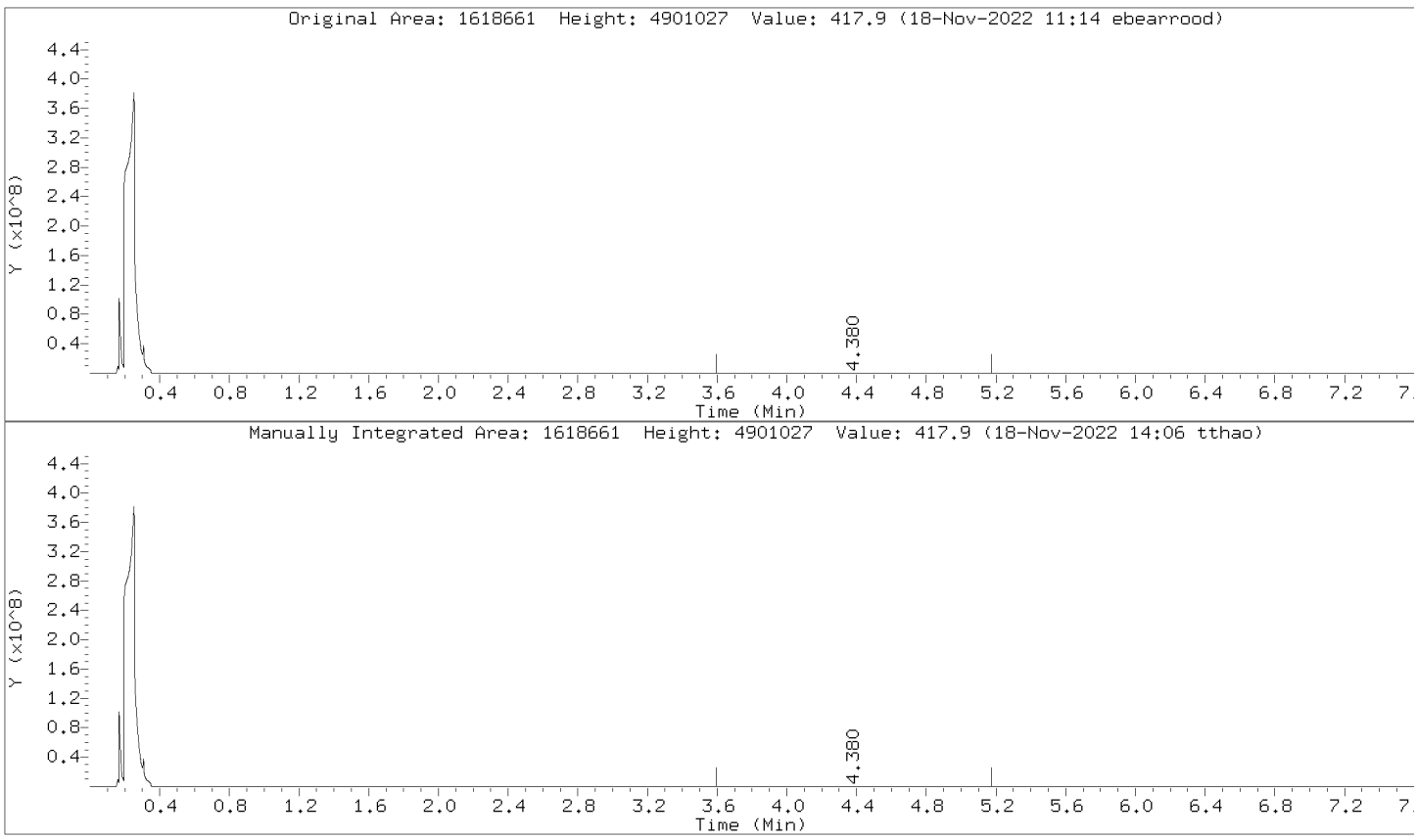
RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000024.d
Date : 17-NOV-2022 15:22
Client ID: MBLCS
Instrument: 10gcsF.i
Sample Info: 4514827
Volume Injected (uL): 1.0
Operator: EB3
Column phase: DB-5-US21130002
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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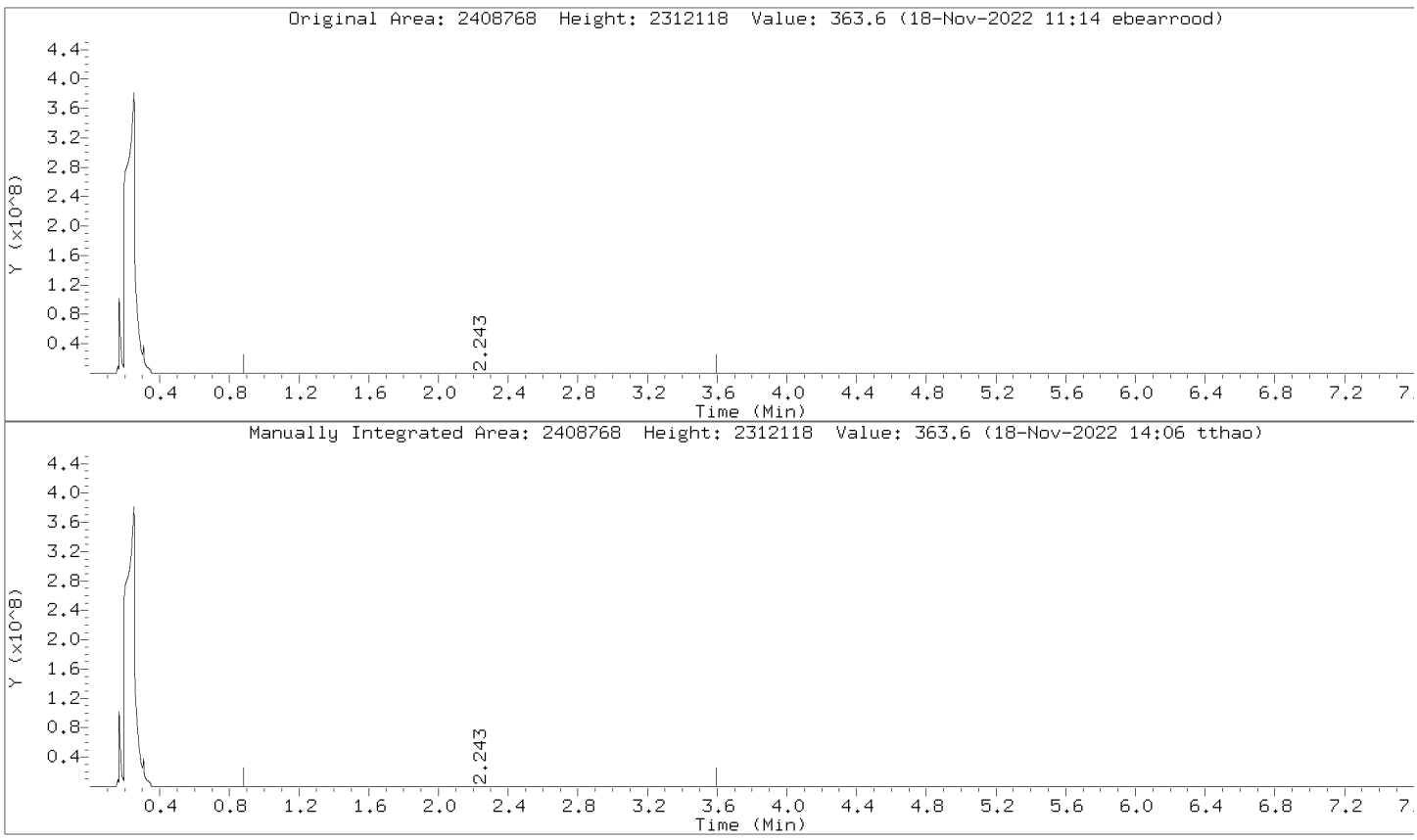
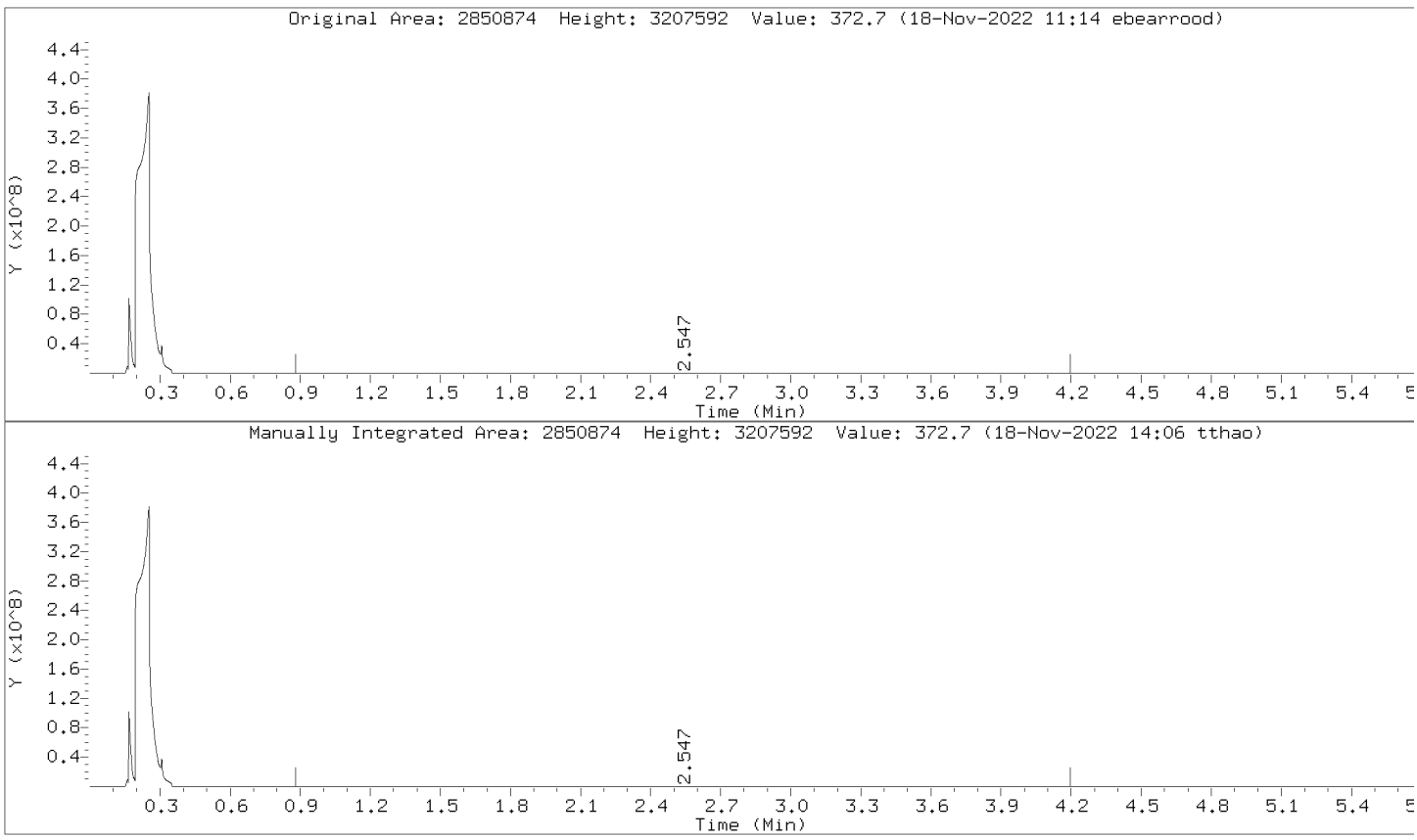
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



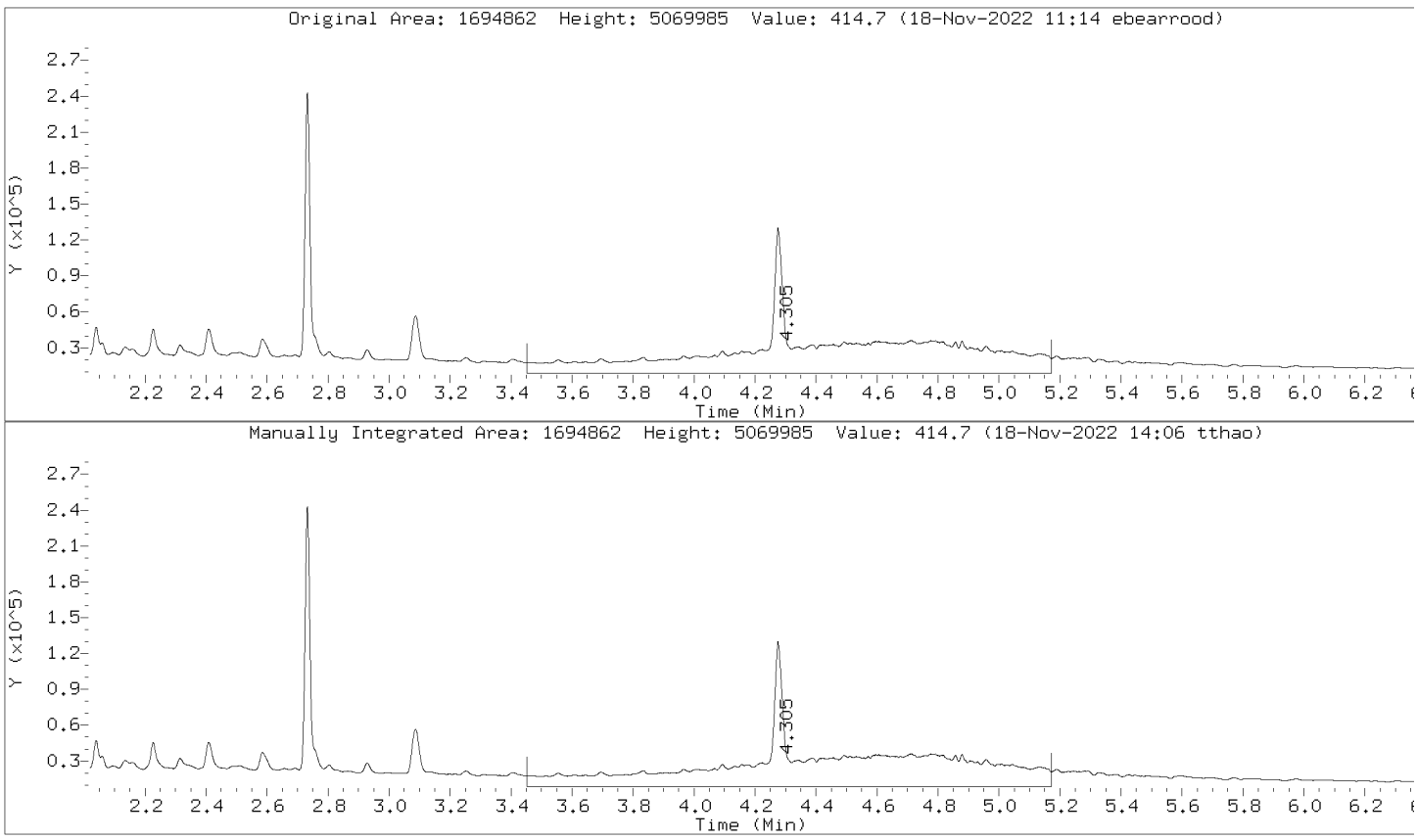
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



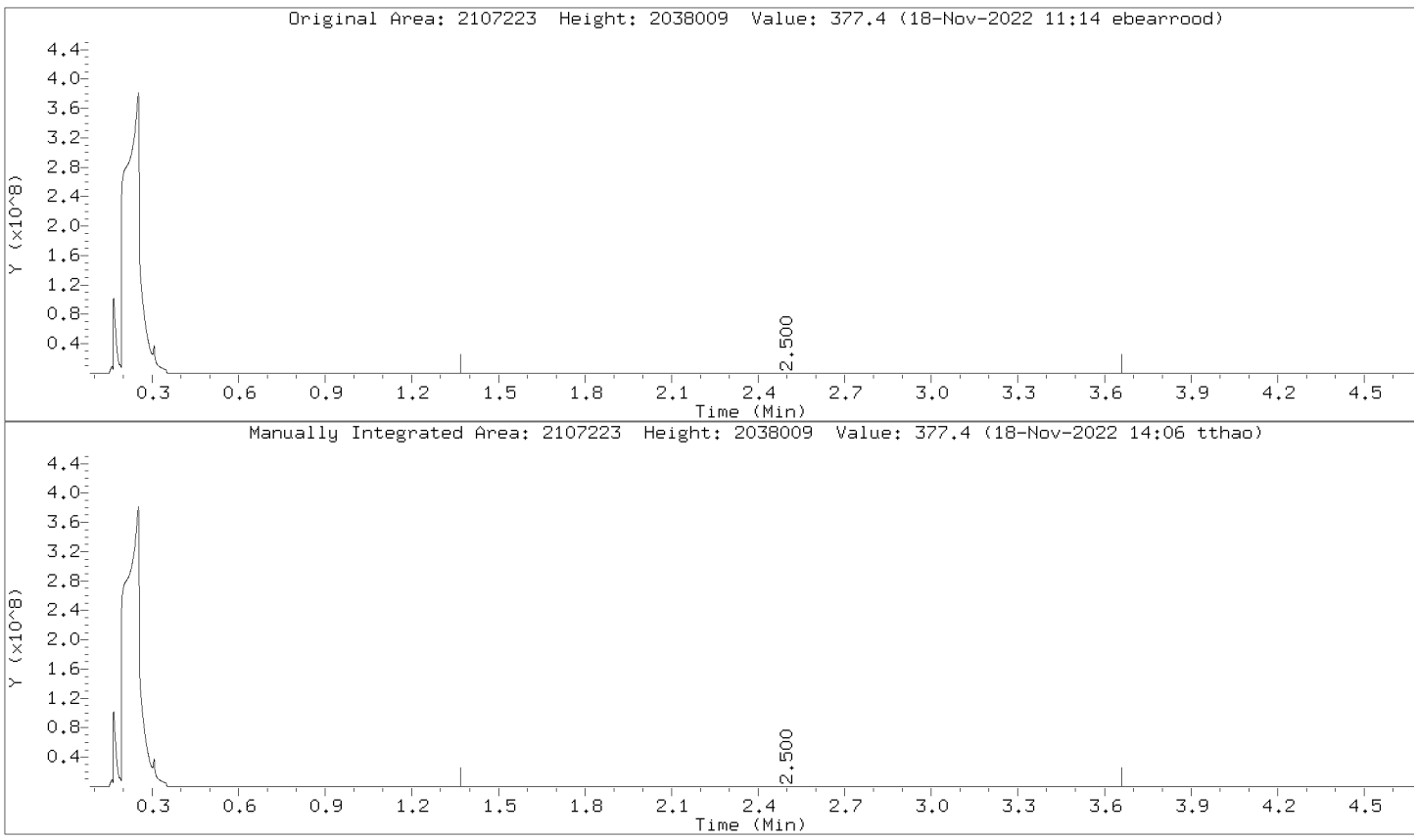
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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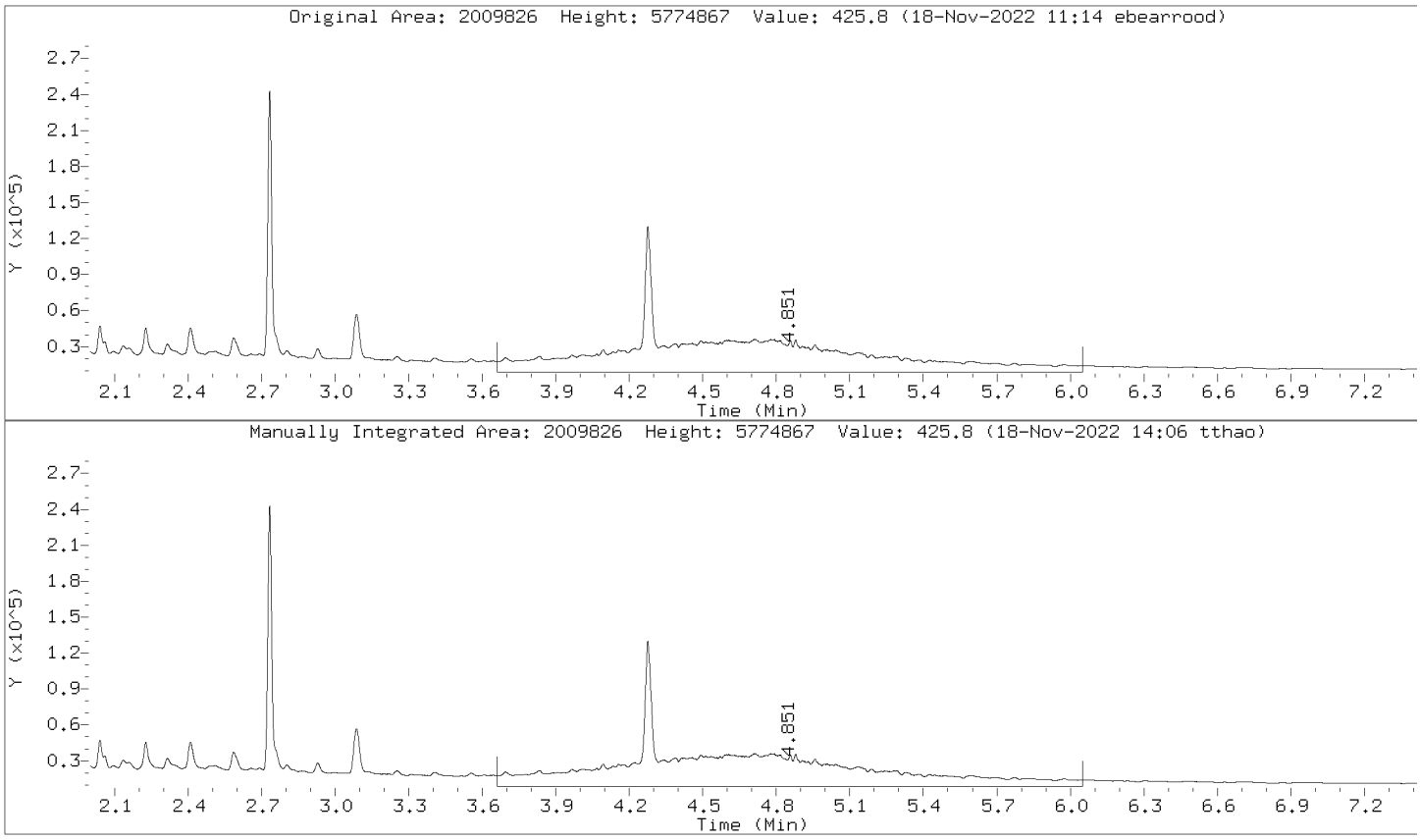
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Motor Oil Range Review Code: RNG
CAS Number:



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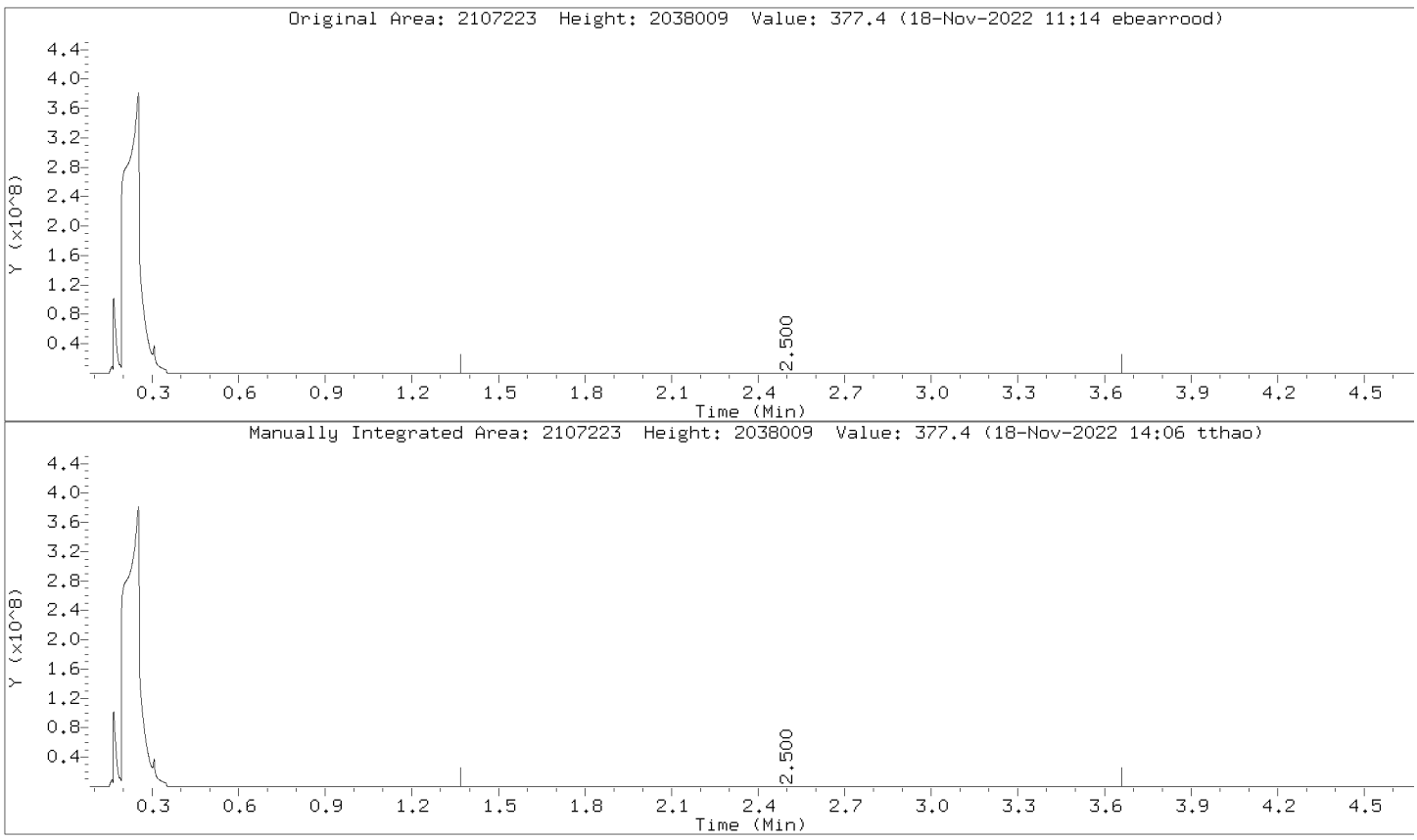
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



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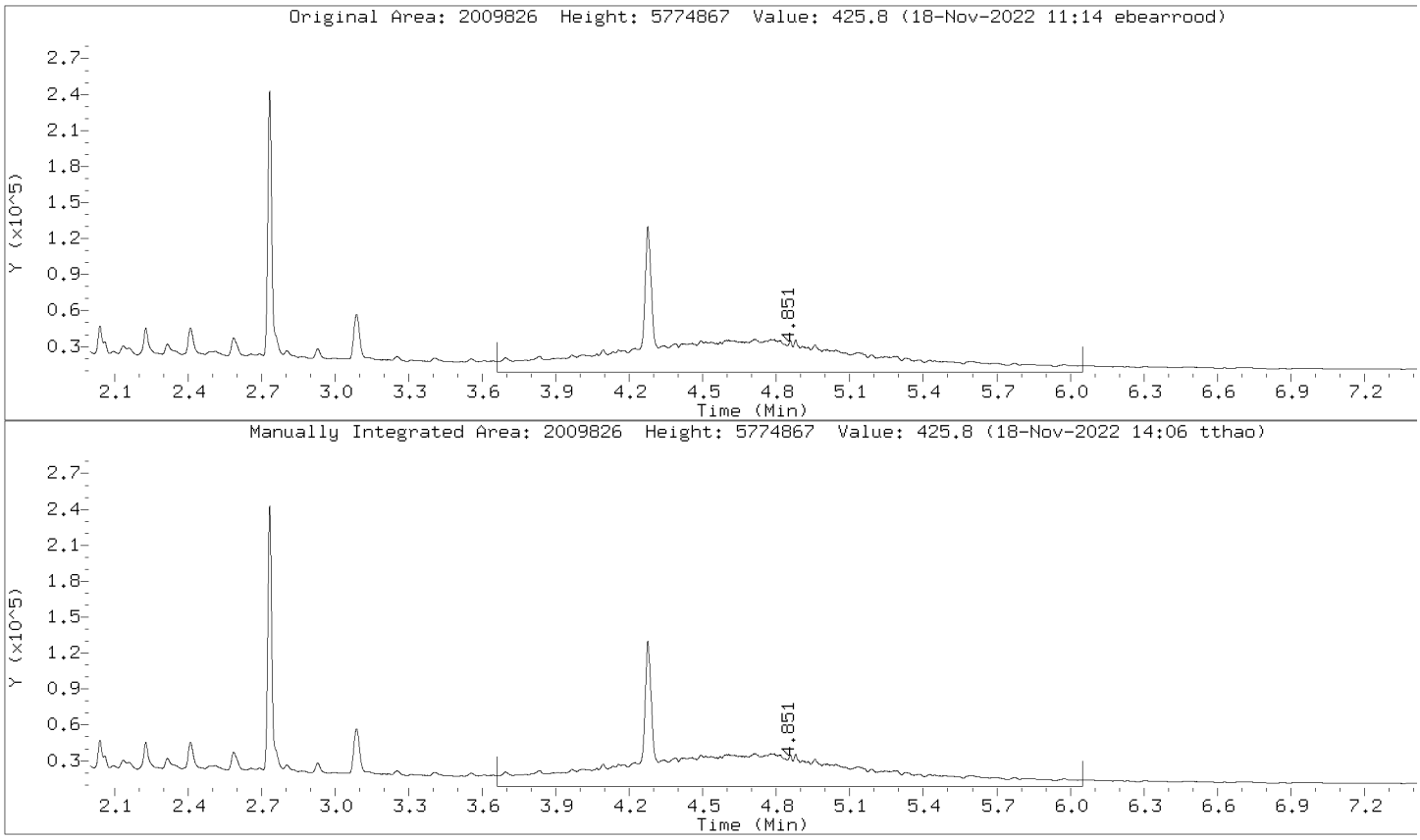
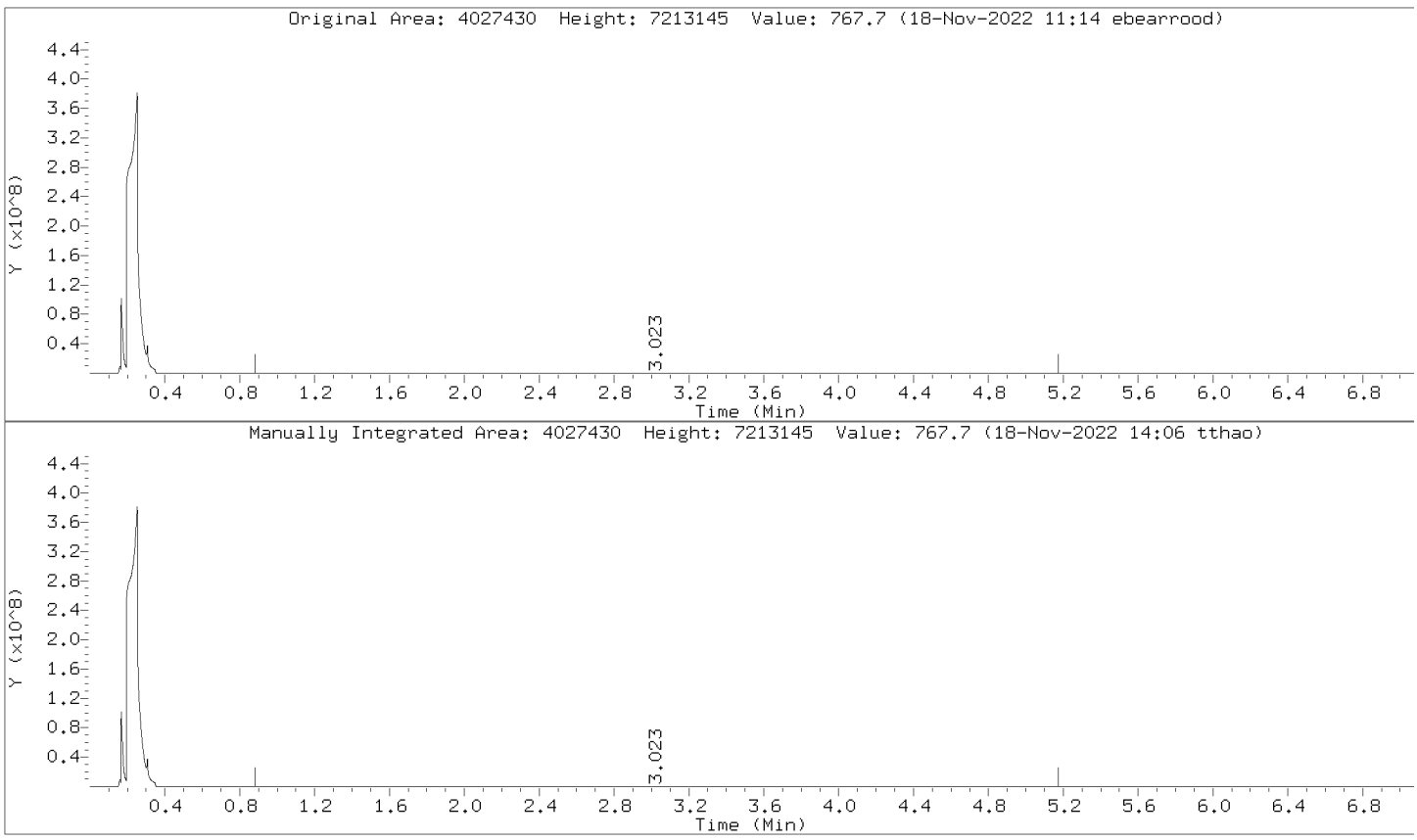
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



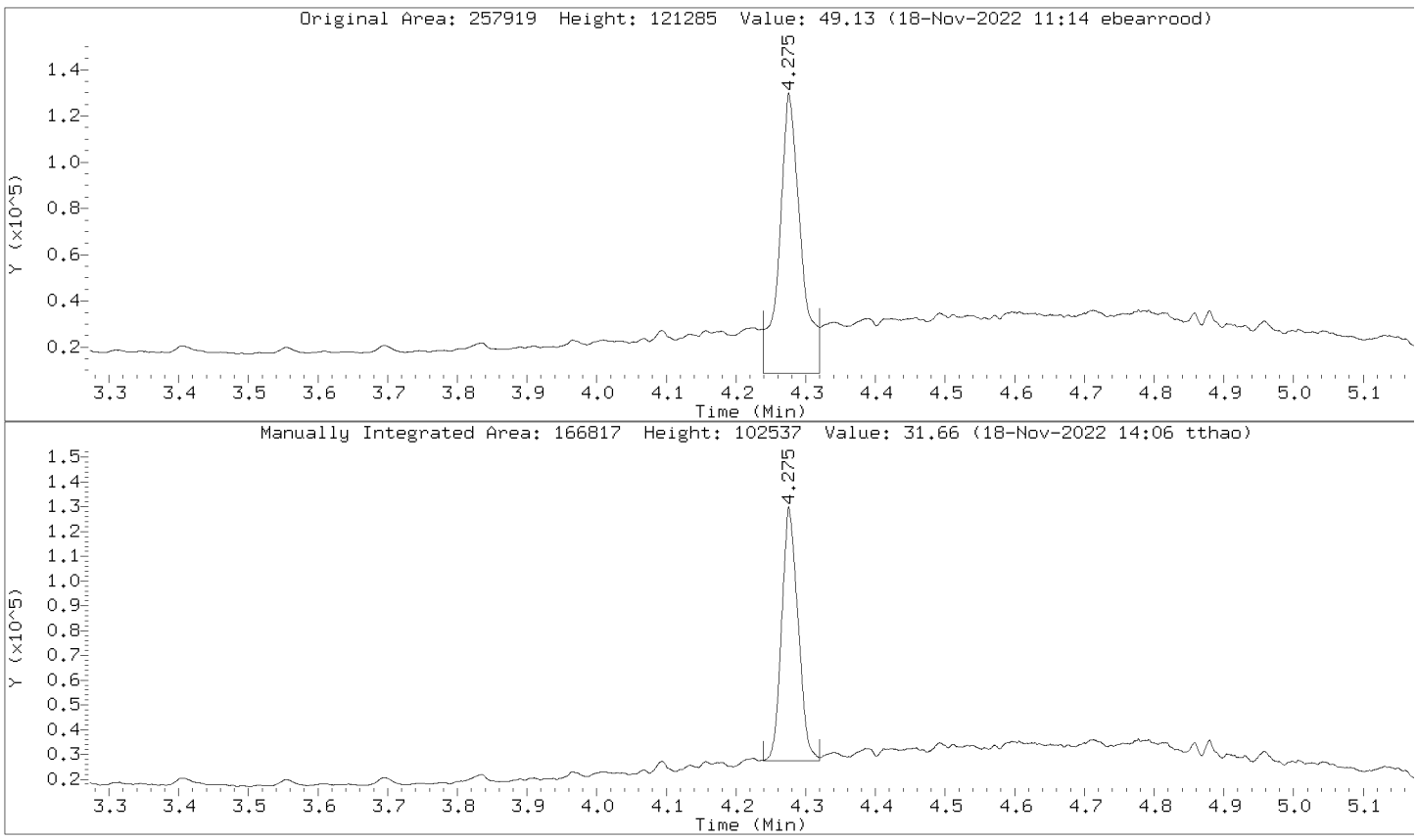
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: C10-C36 Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000024.d
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



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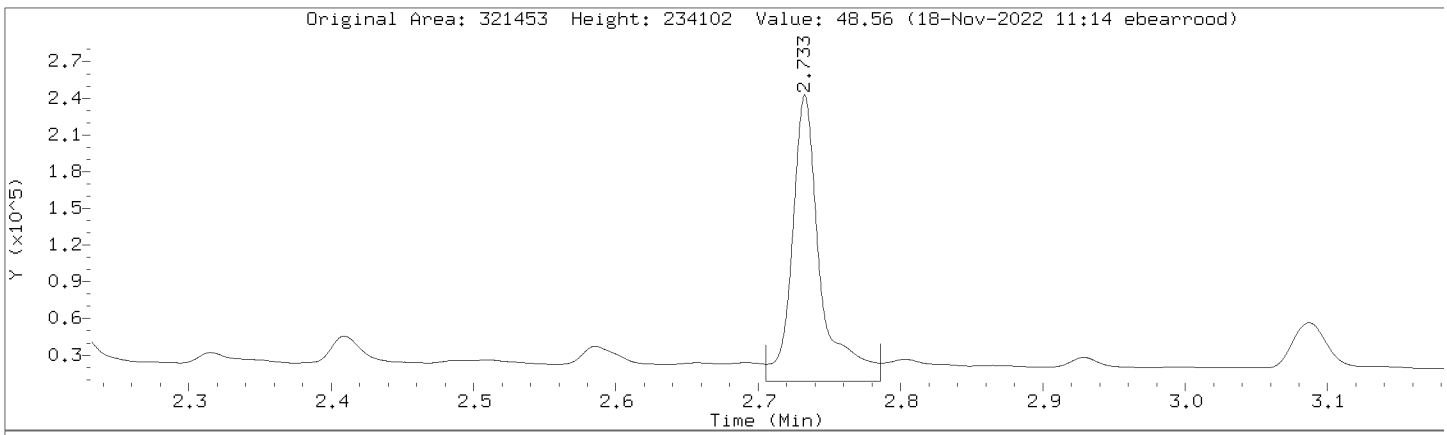
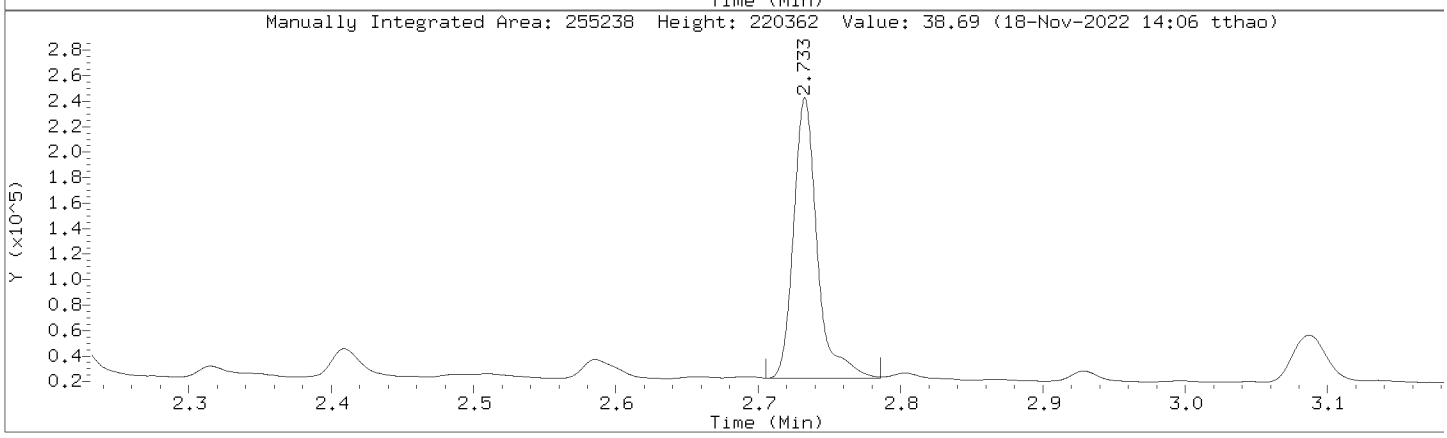
Injection Date: 17-NOV-2022 15:22
Instrument: 10gcsF.i
Lab Sample ID: 4514827

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1618661	1618661
DRO by AK 102	2408768	2408768
TPH-DRO (C10-C28)	2850874	2850874
Motor Oil Range (C24-C36)	1694862	1694862
Diesel Fuel Range	2107223	2107223
Motor Oil Range	2009826	2009826
Diesel Fuel Range SG	2107223	2107223
Motor Oil Range SG	2009826	2009826
C10-C36	4027430	4027430
n-Triacontane (S)	257919	166817
o-Terphenyl (S)	321453	255238

SAMPLE NO.

LCSD

GC-FID DRO - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Minnesota Contract: D3631600
Date Received: Matrix: Water SDG No.: 10633992
Date Extracted: 11/16/2022 14:58 Lab Sample ID: 4514828
Date Analyzed: 11/17/2022 15:34 Lab File ID: 111722R.B\1117R0000025.D
Initial wt/vol: 250 mL Final wt/vol: 1 mL Dilution: 1 Instrument: 10GCSF Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
68334-30-5	Diesel Fuel Range	1.5	
	Motor Oil Range	1.7	

Pace Analytical Services, Inc.

AK 102/AK 103

Data file : \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000025.d
Lab Smp Id: 4514828 Client Smp ID: MBLCSD
Inj Date : 17-NOV-2022 15:34
Operator : EB3 Inst ID: 10gcsF.i
Smp Info : 4514828
Misc Info : 41065
Comment : FID
Method : \\v10wintarget\chem\10gcsF.i\111722R.b\GCSFakNW8015-111022_4098
Meth Date : 18-Nov-2022 11:15 ebearrood Quant Type: ESTD
Cal Date : 10-NOV-2022 14:05 Cal File: 1110R0000019.D
Als bottle: 24 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: W10MNLABS0070

Concentration Formula: Amt * DF * Uf *Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng on column unit factor
Vt	1000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE		
S 1 DRO by AK 102					CAS #:			
0.885	- 3.600		2464111	373.332	1490		(RM)	RNG
$ 2 o-Terphenyl (S)					CAS #:			
2.732	2.731	0.001	256446	38.8711	155		(M)	BA
$ 3 n-Triacontane (S)					CAS #:			
4.274	4.272	0.002	185039	35.1581	141		(M)	BA
S 4 Residual Range Organics AK103					CAS #:			
3.601	- 5.160		1602074	413.268	1650		(M)	RNG
S 5 TPH-DRO (C10-C28)					CAS #:			
0.885	- 4.210		2898489	379.966	1520		(M)	RNG
S 6 Motor Oil Range (C24-C36)					CAS #:			
3.450	- 5.160		1677102	410.011	1640		(M)	RNG
S 7 C10-C36					CAS #:			
0.885	- 5.160		4066186	776.039	3100		(M)	RNG

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)		REVIEW CODE
RT	EXP RT	DLT RT	RESPONSE				
S 8 Diesel Fuel Range					CAS #:		
1.350	- 3.650		2123672	380.801	1520	(M)	RNG
S 9 Diesel Fuel Range SG					CAS #:		
1.350	- 3.650		2123672	380.801	1520	(M)	RNG
S 10 Motor Oil Range					CAS #:		
3.651	- 6.050		2018247	427.738	1710	(M)	RNG
S 11 Motor Oil Range SG					CAS #:		
3.651	- 6.050		2018247	427.738	1710	(M)	RNG

QC Flag Legend

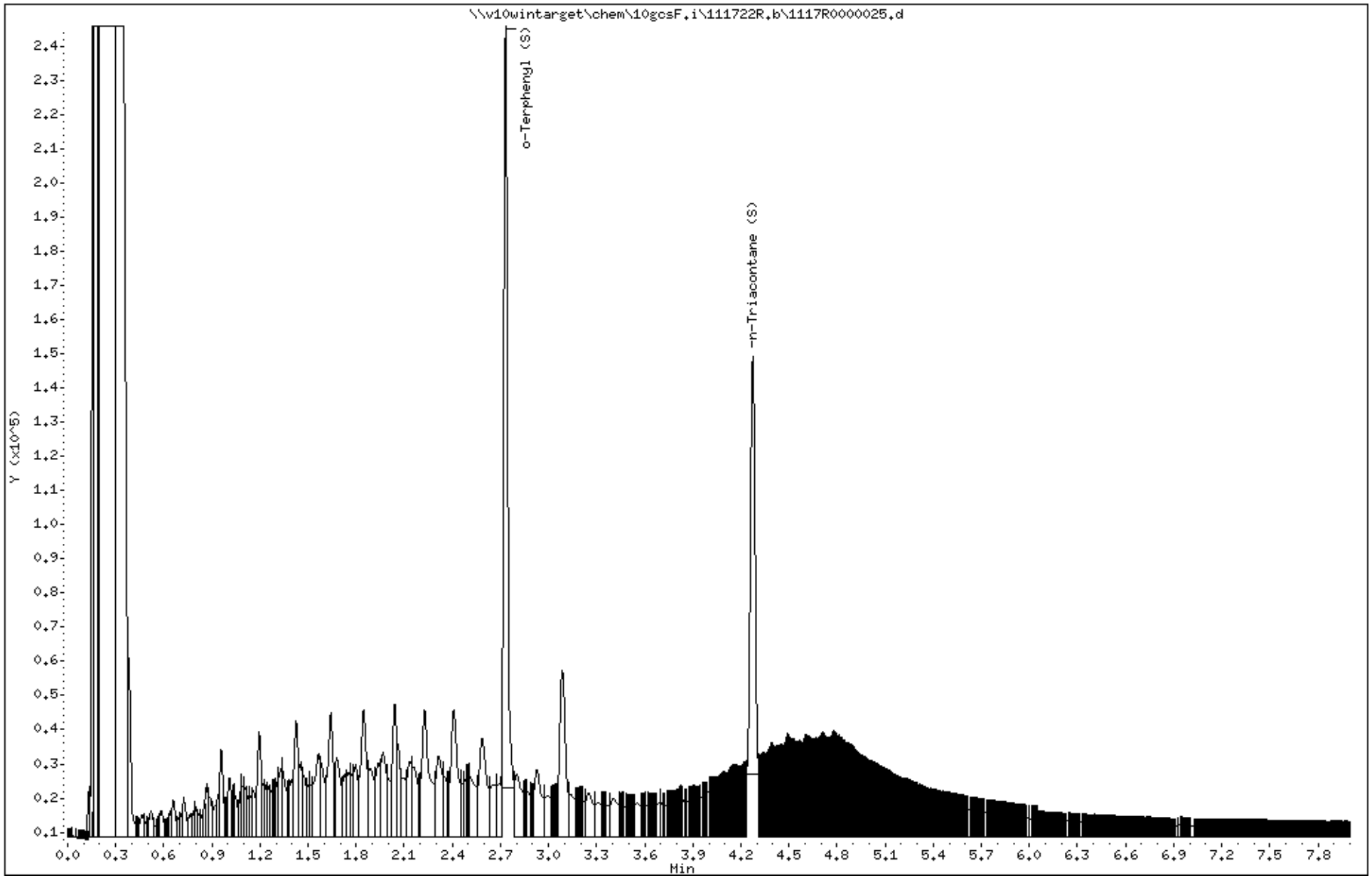
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

RNG: Indicates that the analyst integrated a surrogate within the range.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

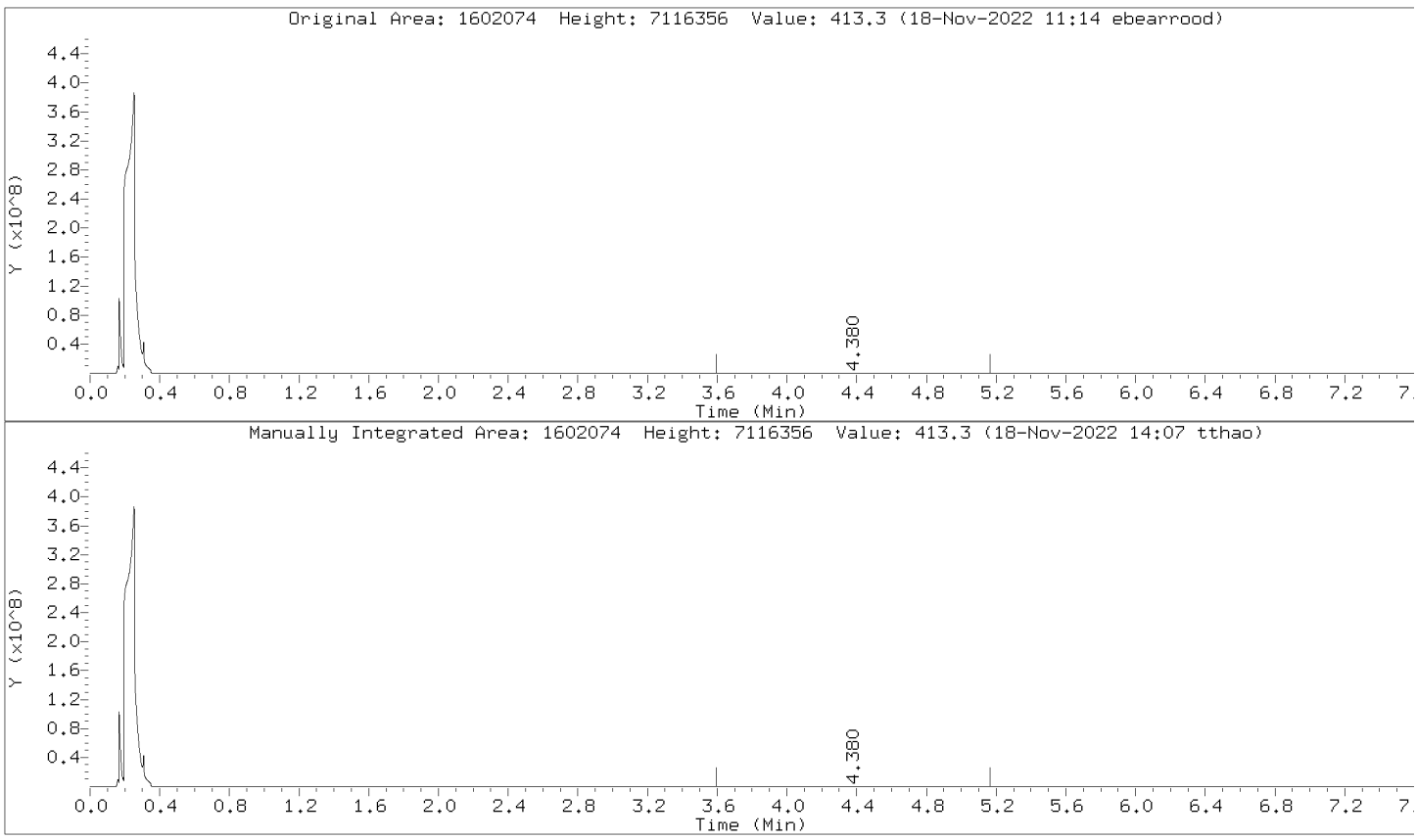
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b\1117R0000025.d
Date : 17-NOV-2022 15:34
Client ID: MBLCSD
Sample Info: 4514828
Volume Injected (uL): 1.0
Column phase: DB-5-US21130002

Instrument: 10gcsF.i
Operator: EB3
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Residual Range Organics AK103 Review Code: RNG
CAS Number:



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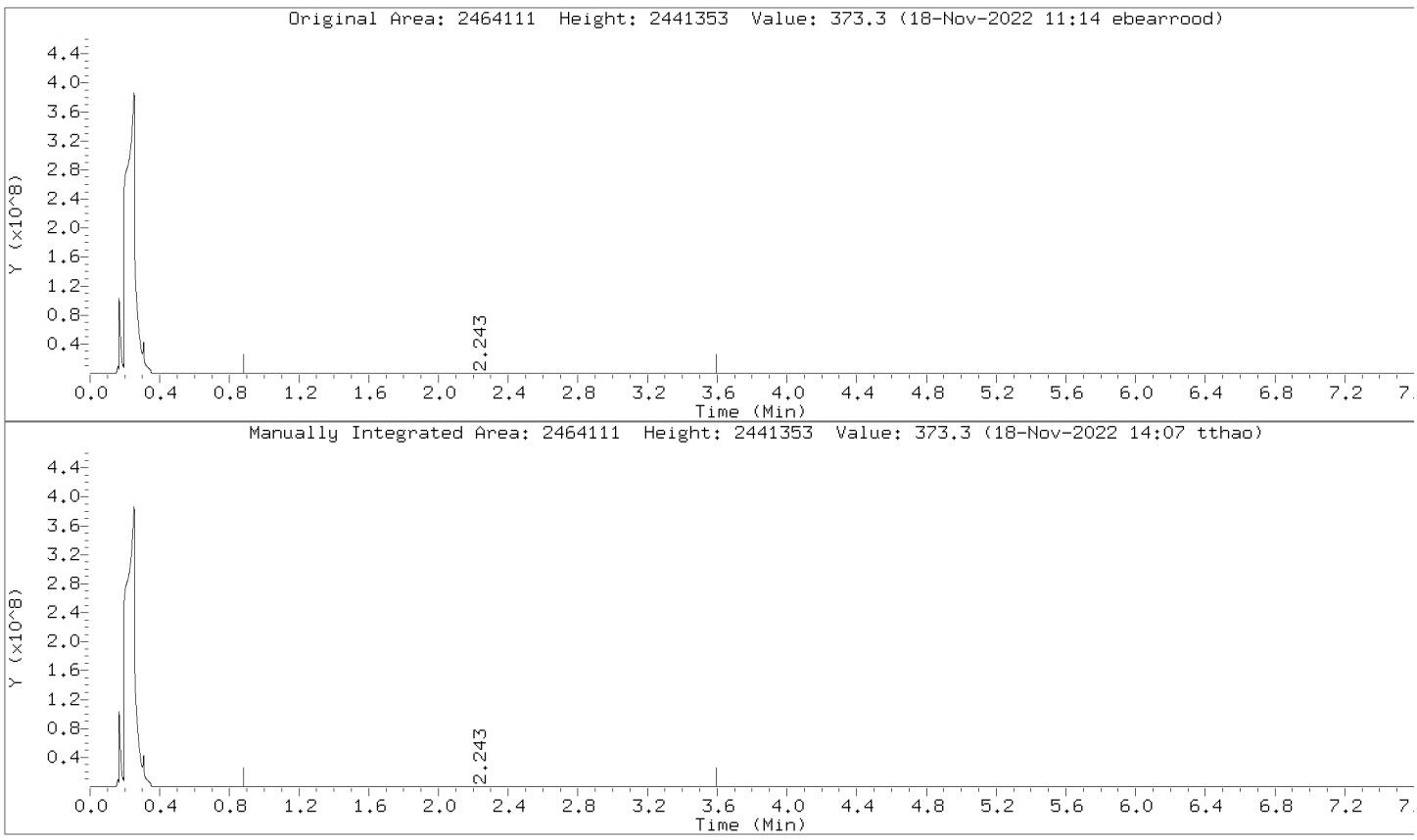
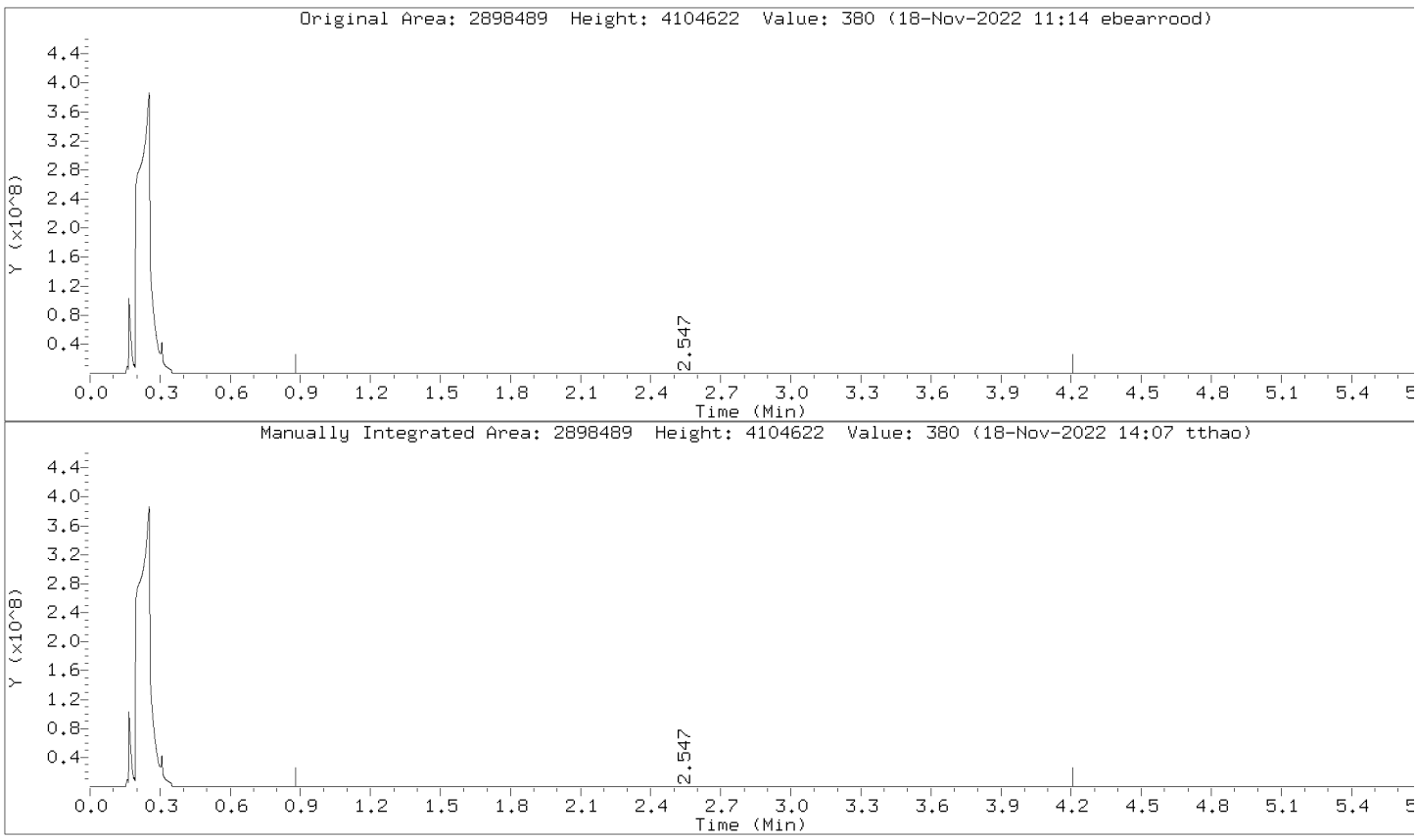
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: DRO by AK 102 Review Code: RNG
CAS Number:



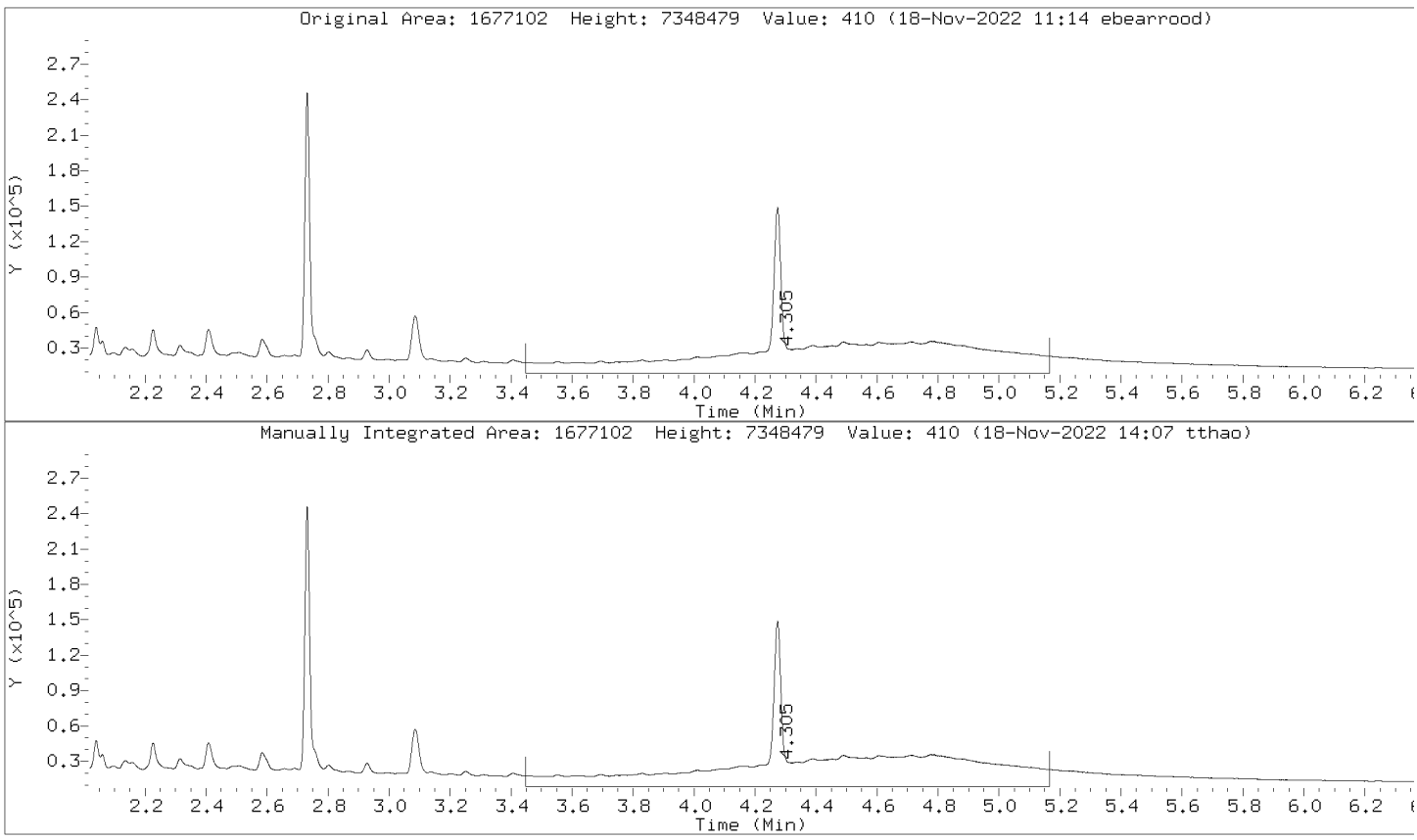
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: TPH-DRO (C10-C28) Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Motor Oil Range (C24-C36) Review Code: RNG
CAS Number:



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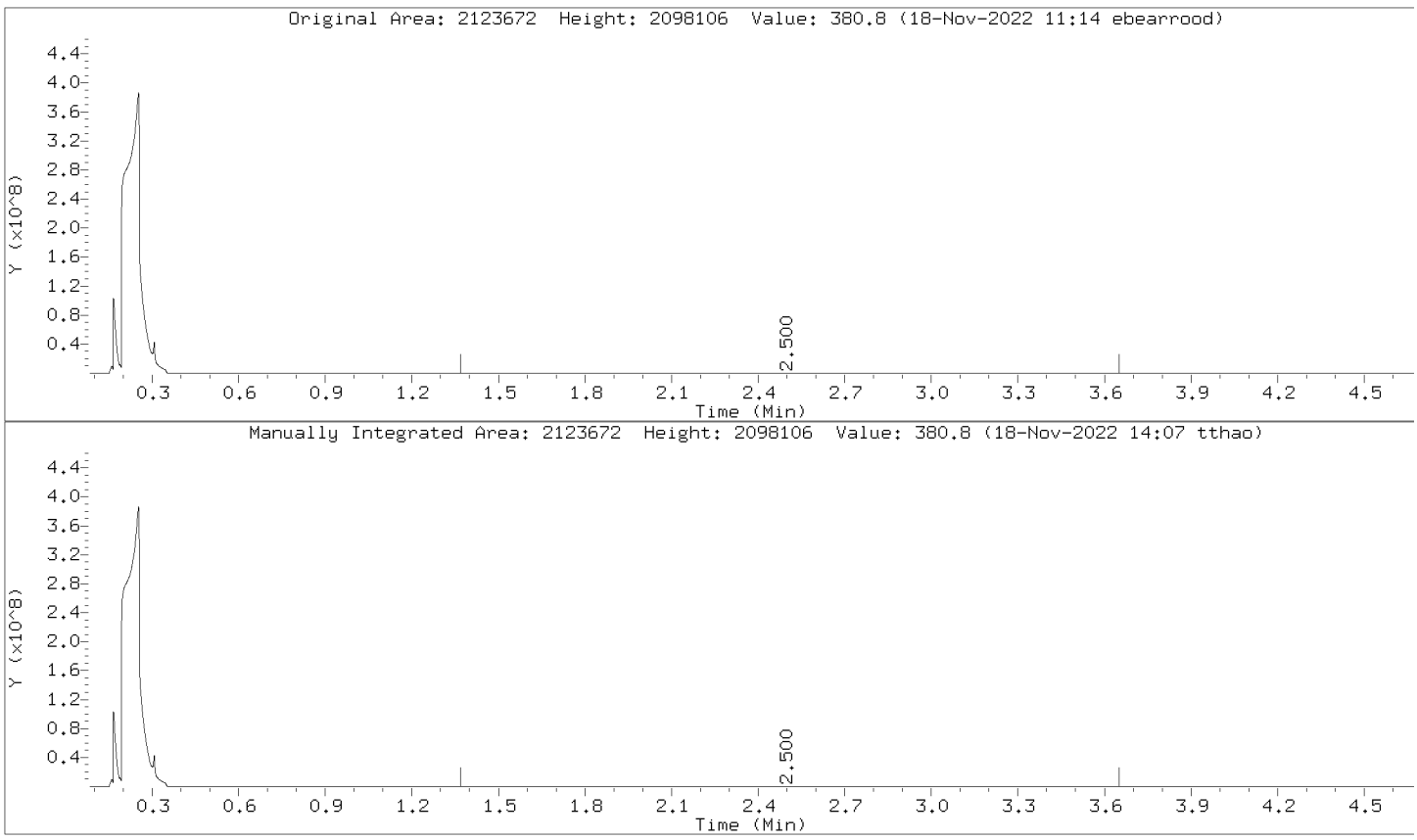
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Diesel Fuel Range Review Code: RNG
CAS Number:



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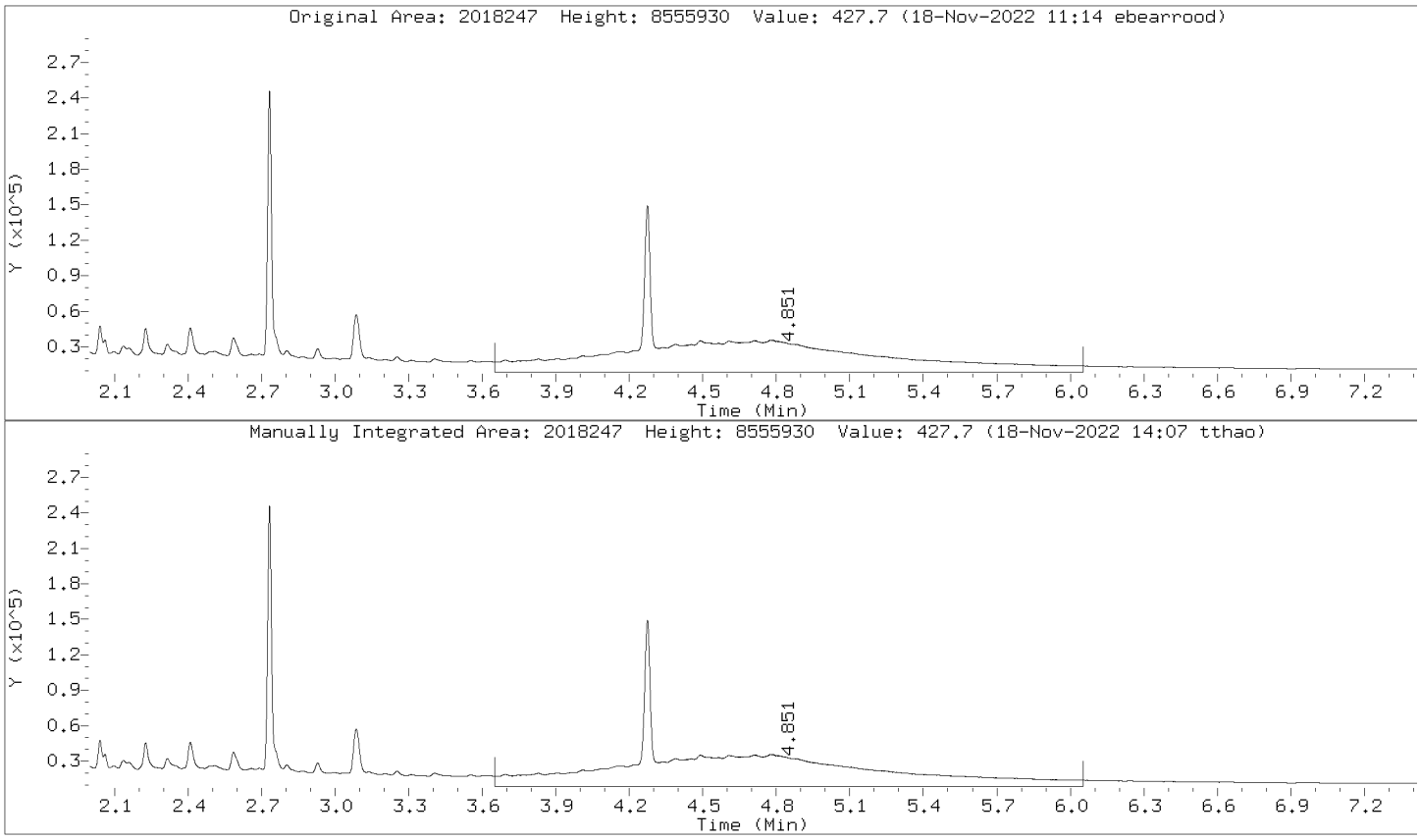
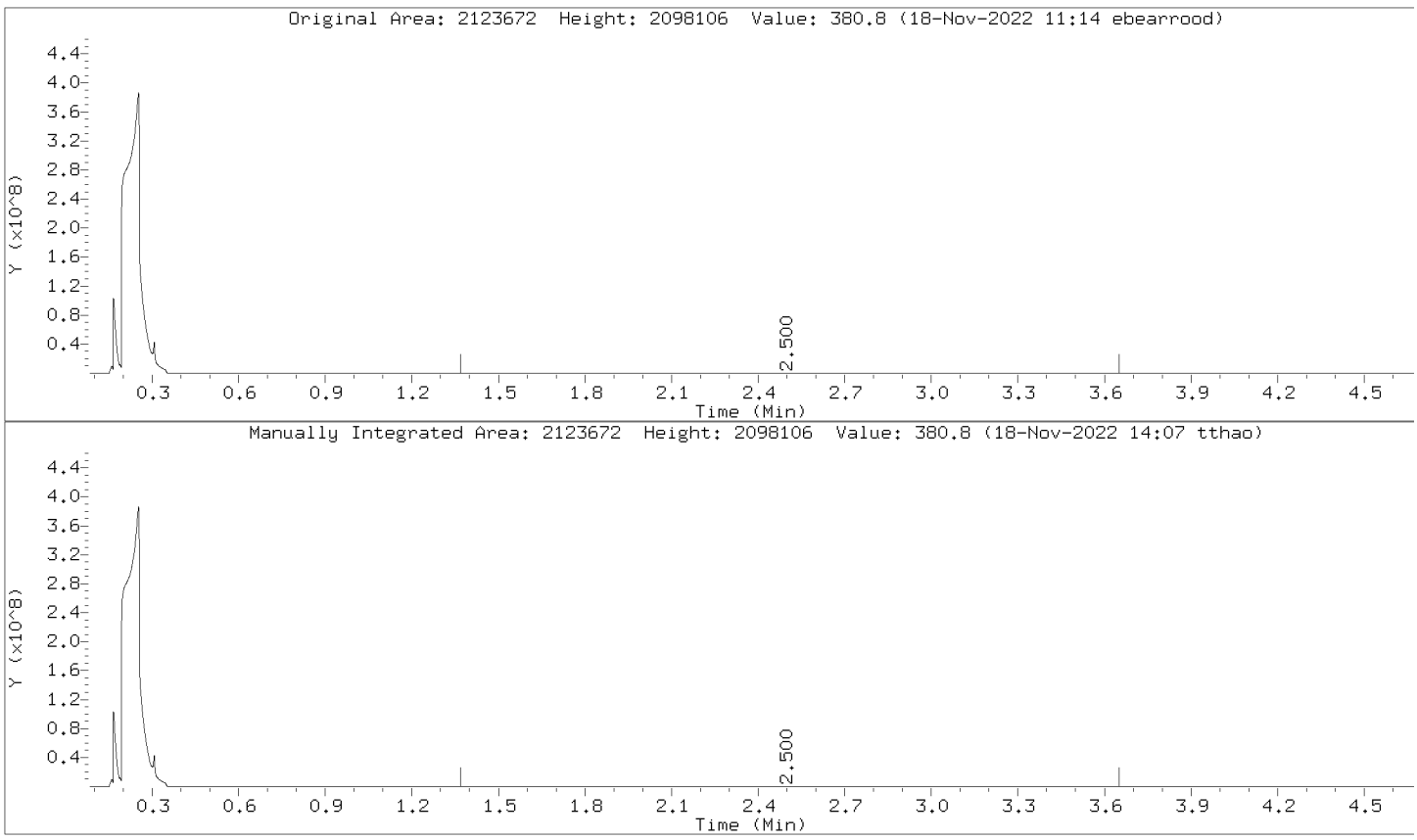
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Motor Oil Range Review Code: RNG
CAS Number:



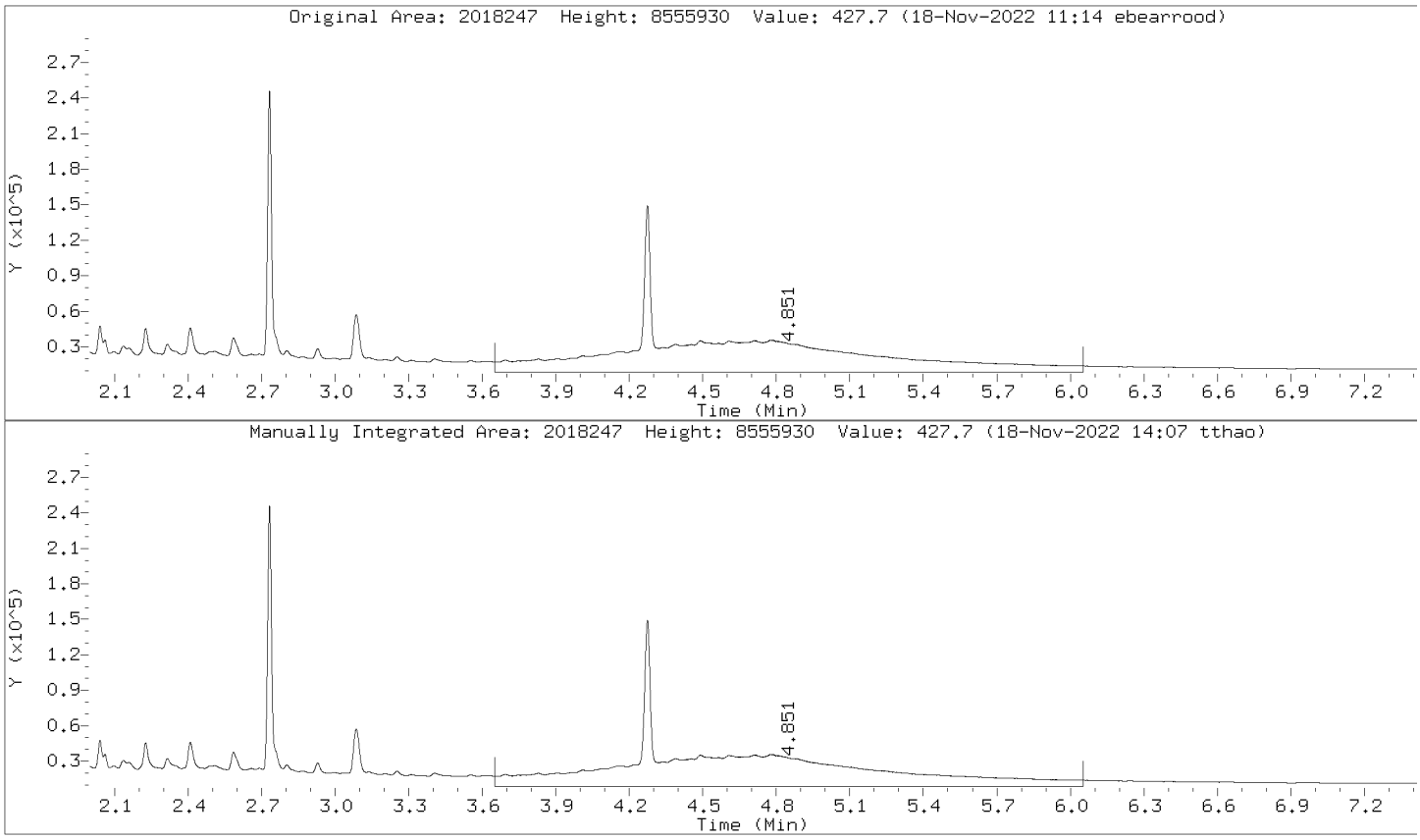
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Diesel Fuel Range SG Review Code: RNG
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: Motor Oil Range SG Review Code: RNG
CAS Number:



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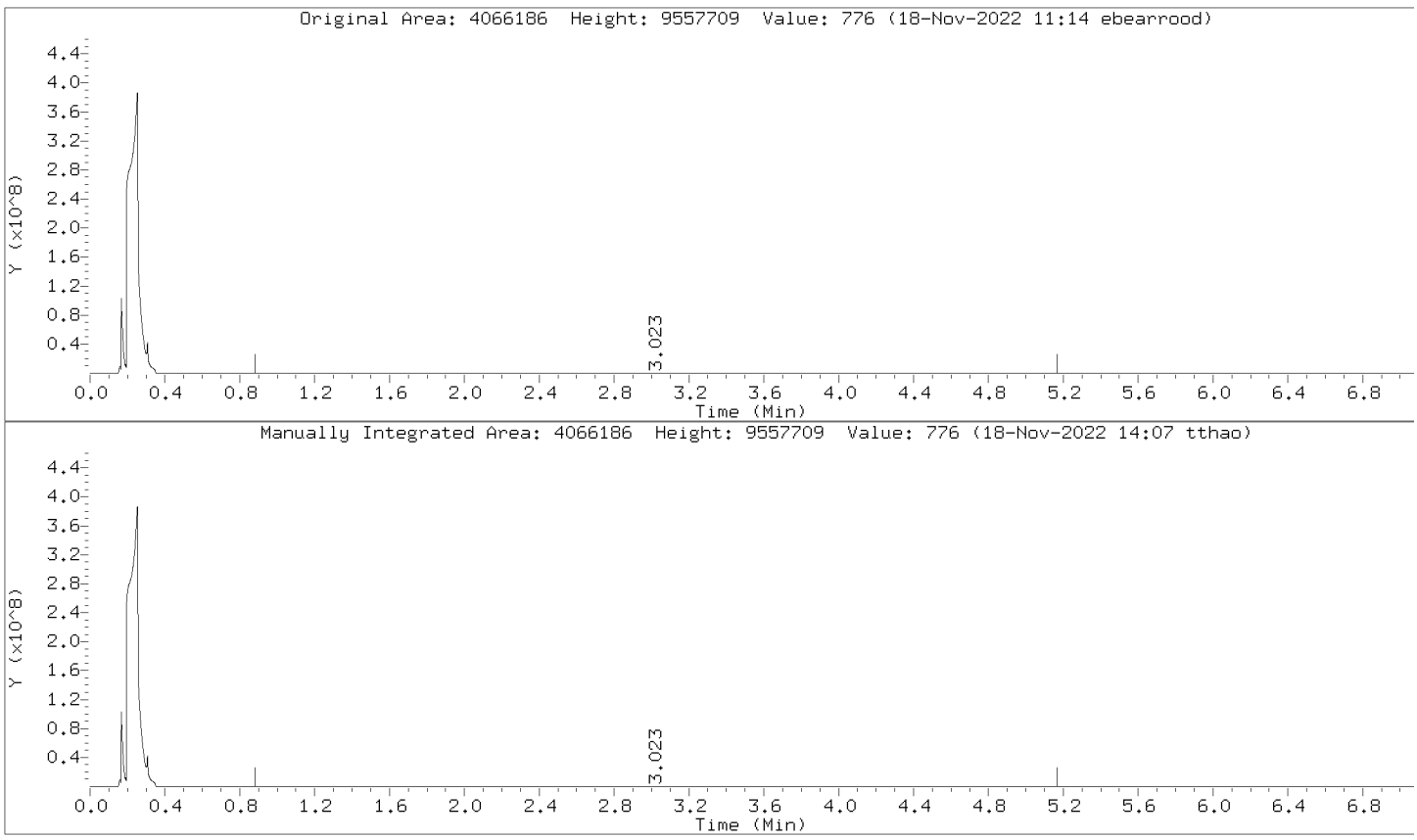
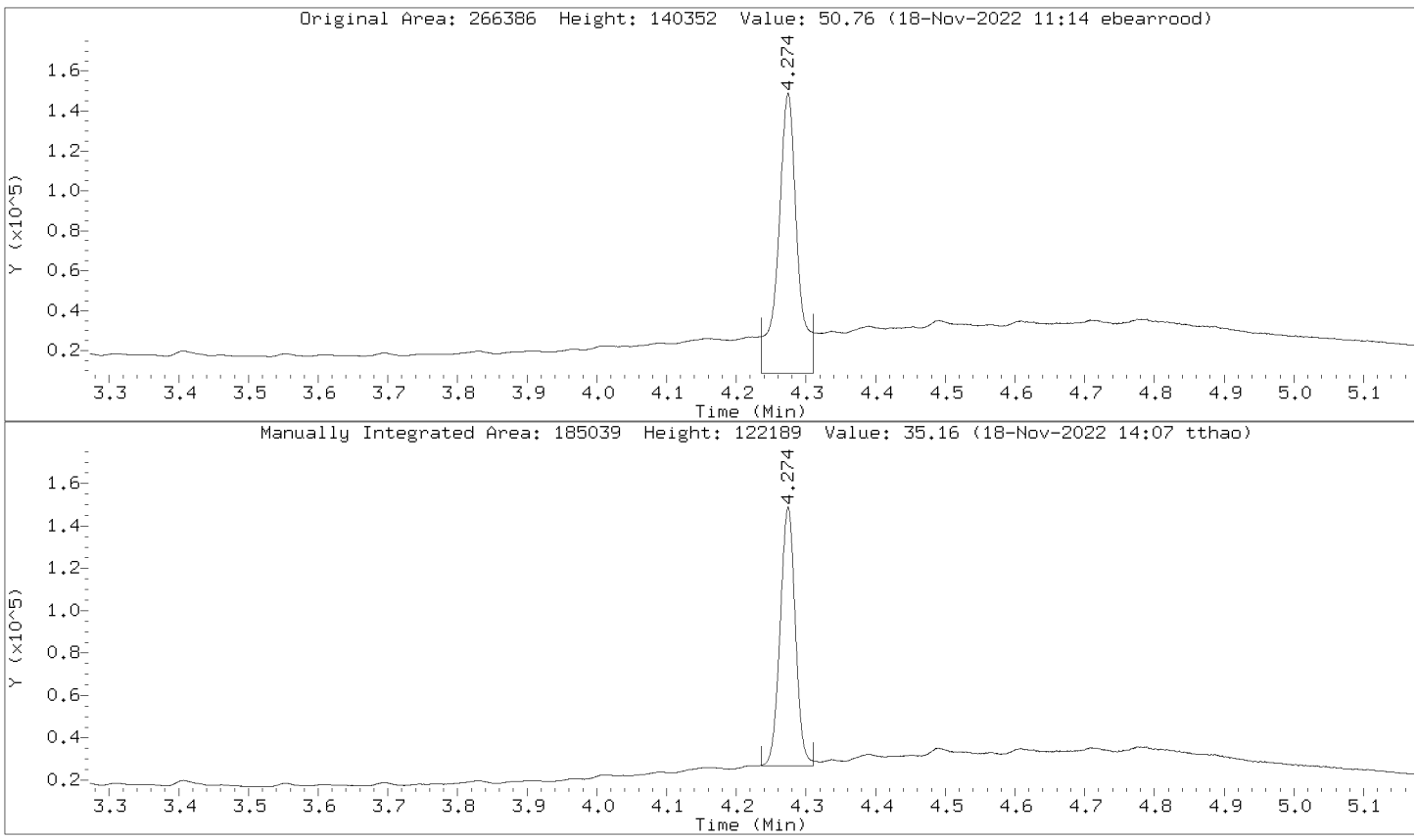
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: C10-C36 Review Code: RNG
CAS Number:



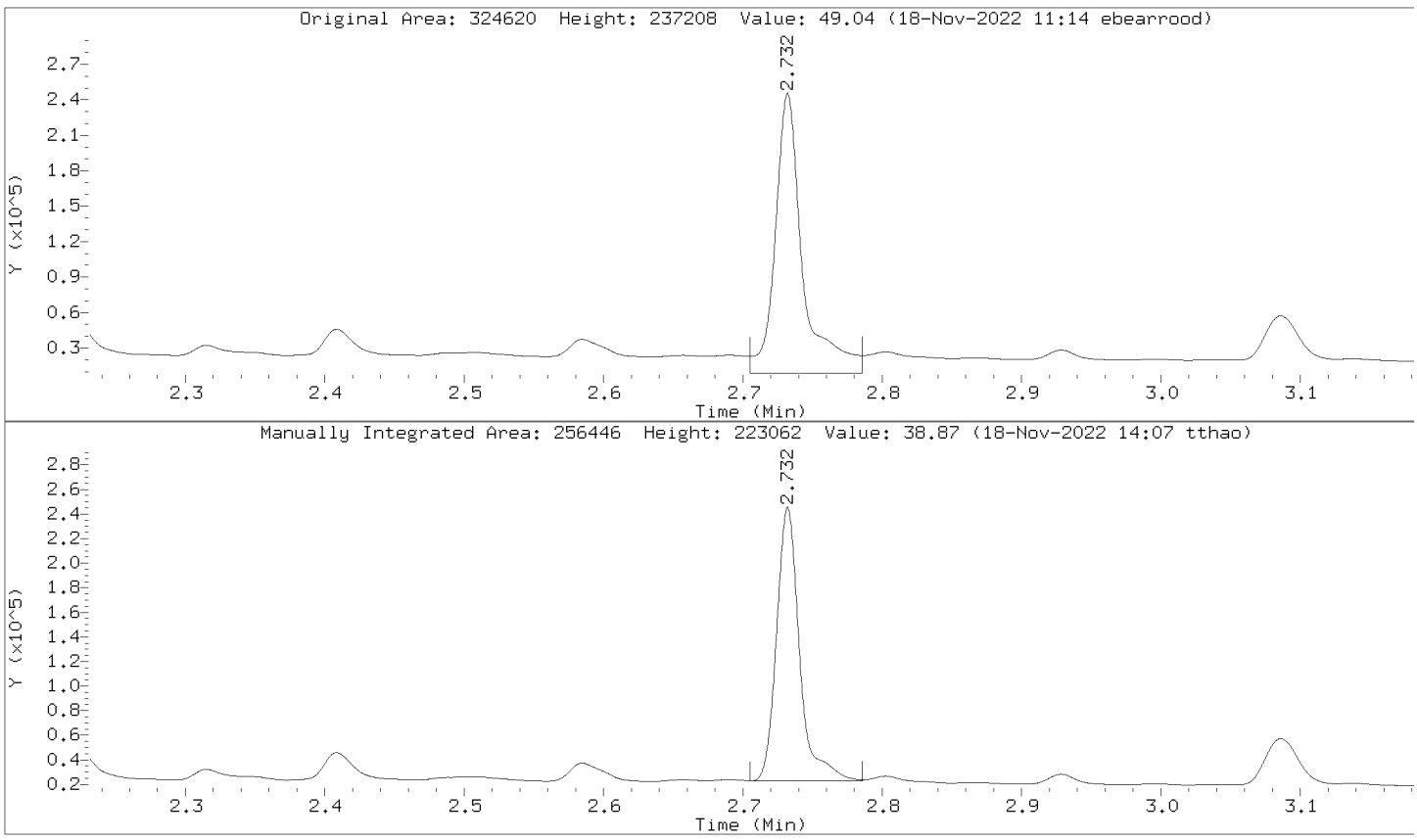
Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: n-Triacontane (S) Review Code: BA
CAS Number:



Data File: \\v10wintarget\chem\10gcsF.i\111722R.b/1117R0000025.d
Injection Date: 17-NOV-2022 15:34
Instrument: 10gcsF.i
Lab Sample ID: 4514828

Compound: o-Terphenyl (S) Review Code: BA
CAS Number:



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	1602074	1602074
DRO by AK 102	2464111	2464111
TPH-DRO (C10-C28)	2898489	2898489
Motor Oil Range (C24-C36)	1677102	1677102
Diesel Fuel Range	2123672	2123672
Motor Oil Range	2018247	2018247
Diesel Fuel Range SG	2123672	2123672
Motor Oil Range SG	2018247	2018247
C10-C36	4066186	4066186
n-Triacontane (S)	266386	185039
o-Terphenyl (S)	324620	256446

Prep Log Report

Batch Information: OEXT 67292 853897 NWDROWLV

Template Version: ENV-EPL-MIN4-0072-Rev.00 (03Jan2021)

Prep Method	EPA 3510C	Analysis Method	NWTPH-Dx	Prepared By	JV	Extracted Date/Time	11/16/2022 14:58:11:567
Spiked By	JV	Dispenser ID 1	Q646	Syringe ID 1	Q418	Syringe ID 2	Q628
Syringe ID 3	Q835	Pipette ID 1	PP1-42	Conc. Method	WaterBath	Concentrated By	VH
Concentration Date/Time	11/16/2022	Methylene Chloride	396031	Sodium Sulfate	394931	1:1 HCl (mL)	381626 (0.5)
Glass Wool	395359	pH Test Strips	386931	Sodium Thiosulfate	None Added	Vial Lot #	2203611588
Reviewed By	RS	Reviewed By Date	11/17/2022 06:43	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	Sample ID Verified By	Residual Chlorine Present	Initial pH	Spike Verified By	Sample Volume (mL)	Sediment Volume (mL)	Initial Amount (g | mL | wipe)	Final Volume (mL)	Water Bath ID	Water Bath Thermo ID
NWDROWLV_P	BLANK	**4514826**	Y	Water	Scanner	No	2	N/A			250	1	10OP28	210745396
NWDROWLV_P	LCS	**4514827**	Y	Water	Scanner	No	2	N/A			250	1	10OP28	210745396
NWDROWLV_P	LCSD	**4514828**	Y	Water	Scanner	No	2	N/A			250	1	10OP28	210745396
NWDROWLV_P	PS	**10633992001**	Y	Water	Scanner	No	2	N/A			920	1	10OP28	210745396

QC Rule	Sample Type	Lab Sample ID	Correction Factor	Water Bath Temp | Corr (C)	Sample Notes	DMO-SPK (uL)	ntcs-SS (uL)	oter-SS (uL)
NWDROWLV_P	BLANK	**4514826**	1	80.00 | 81.00			394615 (10)	386119 (25)
NWDROWLV_P	LCS	**4514827**	1	80.00 | 81.00		389587 (250)	394615 (10)	386119 (25)
NWDROWLV_P	LCSD	**4514828**	1	80.00 | 81.00		389587 (250)	394615 (10)	386119 (25)
NWDROWLV_P	PS	**10633992001**	1	80.00 | 81.00			394615 (10)	386119 (25)

Standard Notes:

386119: received 9/9/22

389587: 10GCSF 1005R000014.D

394615: Recieved 11/04/22, Opened 11/16/2 KG2

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:17	TT2	
1110R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:29	TT2	
1110R0000003.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:41	TT2	ran to stabilize baseline
1110R0000004.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 07:52	TT2	
1110R0000005.D	DMO-CAL1,391056	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:04	EB3	ICAL passing
1110R0000006.D	DMO-CAL2,391059	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:16	EB3	|
1110R0000007.D	DMO-CAL3,391060	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:27	EB3	| PRL meeting criteria for everything except surr*
1110R0000008.D	DMO-CAL4,391061	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:39	EB3	|
1110R0000009.D	DMO-CAL5,391062	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 08:51	EB3	|
1110R0000010.D	DMO-CAL6,391063	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:02	EB3	|
1110R0000011.D	DMO-CAL7,391064	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 09:14	EB3	strange dip in run, rr
1110R0000012.D	DMO-CAL8,391066	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:26	EB3	|
1110R0000013.D	DMO-CAL9,391067	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:37	EB3	|
1110R0000014.D	DMO-CAL10,391068	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 09:49	EB3	V
1110R0000015.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:01	EB3	ran to stabilize baseline
1110R0000016.D	DMO-ICV,391069	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:12	EB3	NR, have to rerun cal7
1110R0000017.D	PBLK	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 10:24	EB3	NR, have to rerun cal7
1110R0000018.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/10/22 13:54	EB3	ran to stabilize baseline
1110R0000019.D	DMO-CAL7,391064	/40988	Ical	1		GCSFAKNW8015-111022_	11/10/22 14:05	EB3	midlevel meets 25% criteria for AK
1110R0000020.D	DMO-ICV,391069	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 14:17	EB3	Pass 15% for all ranges
1110R0000021.D	PBLK,386113	/40988	Sample	1		GCSFAKNW8015-111022_	11/10/22 14:28	EB3	clean for all ranges
1110R0000022.D	10631872003	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:40	EB3	10x > hit, reporting
1110R0000023.D	10631872004	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 14:52	EB3	10x > hit, reporting
1110R0000024.D	10632192002	L/40960	Sample	2		GCSFAKNW8015-111022_	11/10/22 15:03	EB3	10x > hit, reporting, SS out due to matrix
1110R0000025.D	10632161001	L/40960	Sample	1		GCSFAKNW8015-111022_	11/10/22 15:15	EB3	rxooh
1110R0000026C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 15:27	EB3	Pass 15% for all ranges
1110R0000027.D	4502367	L/40961	Blank	1		GCSFAKNW8015-111022_	11/10/22 15:38	EB3	confirms hit
1110R0000028.D	4502368	L/40961	LCS	1		GCSFAKNW8015-111022_	11/10/22 15:50	EB3	pass
1110R0000029.D	4502369	L/40961	LCSD	1		GCSFAKNW8015-111022_	11/10/22 16:02	EB3	pass
1110R0000030.D	10632368001	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:13	EB3	
1110R0000031.D	10632368002	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:24	EB3	
1110R0000032.D	10632368003	L/40961	Sample	1		GCSFAKNW8015-111022_	11/10/22 16:36	EB3	
1110R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 16:47	EB3	Pass 15% for all ranges
1110R0000034.D	4501938	S/40965	Blank	1		GCSFAKNW8015-111022_	11/10/22 17:36	TT2	OK
1110R0000035.D	4501939	S/40965	LCS	1		GCSFAKNW8015-111022_	11/10/22 17:46	TT2	Pass
1110R0000036.D	10632192001	S/40965	Sample	5		GCSFAKNW8015-111022_	11/10/22 17:55	TT2	
1110R0000037.D	4501940	S/40965	MS	5		GCSFAKNW8015-111022_	11/10/22 18:04	TT2	
1110R0000038.D	4501941	S/40965	MSD	5		GCSFAKNW8015-111022_	11/10/22 18:14	TT2	
1110R0000039C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 18:23	TT2	Pass 15% for all ranges
1110R0000040.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000040B.	4506222	S/40992	Blank	1		GCSFAKNW8015-111022_	11/10/22 18:32	TT2	OK
1110R0000041.D	4506218	S/40991	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000041B.	4506223	S/40992	LCS	1		GCSFAKNW8015-111022_	11/10/22 18:42	TT2	Pass
1110R0000042.D	10632753001	S/40991	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000042B.	10632890001	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 18:51	TT2	
1110R0000043.D	4506219	S/40991	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	

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Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000043B.	4506760	S/40992	MS	20		GCSFAKNW8015-111022_	11/10/22 19:00	TT2	
1110R0000044.D	4506220	S/40991	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000044B.	4506761	S/40992	MSD	20		GCSFAKNW8015-111022_	11/10/22 19:10	TT2	
1110R0000045.D	10632809001	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:19	TT2	
1110R0000046.D	10632809004	S/40992	Sample	200		GCSFAKNW8015-111022_	11/10/22 19:28	TT2	rr 5X
1110R0000047.D	10632809007	S/40992	Sample	20		GCSFAKNW8015-111022_	11/10/22 19:38	TT2	rr 1X
1110R0000048.D	10632809003	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:47	TT2	rr 1X
1110R0000049.D	10632809002	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 19:56	TT2	rr 1X
1110R0000050C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:06	TT2	Pass 15% for all ranges
1110R0000051.D	4506217	S/40991	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:15	TT2	OK
1110R0000052.D	10632809006	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:24	TT2	rr 1X
1110R0000053.D	10632809005	S/40992	Sample	10		GCSFAKNW8015-111022_	11/10/22 20:34	TT2	rr 1X
1110R0000054C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 20:43	TT2	Pass 15% for all ranges
1110R0000055.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 20:53	TT2	OK
1110R0000056.D	4499808	S/40962	LCS	1		GCSFAKNW8015-111022_	11/10/22 21:02	TT2	Pass
1110R0000057.D	10631696001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:11	TT2	
1110R0000058.D	4499809	S/40962	MS	1		GCSFAKNW8015-111022_	11/10/22 21:20	TT2	
1110R0000059.D	4499810	S/40962	MSD	1		GCSFAKNW8015-111022_	11/10/22 21:30	TT2	
1110R0000060.D	10631696007	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:39	TT2	
1110R0000061.D	10631696008	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 21:48	TT2	
1110R0000062.D	10631696009	S/40962	Sample	10		GCSFAKNW8015-111022_	11/10/22 21:58	TT2	
1110R0000063.D	10631696010	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:07	TT2	
1110R0000064.D	10631696015	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:16	TT2	
1110R0000065C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/10/22 22:26	TT2	Pass 15% for all ranges
1110R0000066.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/10/22 22:35	TT2	OK
1110R0000067.D	10631696016	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 22:44	TT2	rr not needed
1110R0000068.D	10631696002	S/40962	Sample	2		GCSFAKNW8015-111022_	11/10/22 22:54	TT2	
1110R0000069.D	10631696003	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:03	TT2	confirms no carryover, reporting original
1110R0000070.D	10631696004	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:12	TT2	rr not needed
1110R0000071.D	10631696005	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:22	TT2	|
1110R0000072.D	10631696006	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:31	TT2	|
1110R0000073.D	10631696011	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:40	TT2	|
1110R0000074.D	10631696012	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:49	TT2	|
1110R0000075.D	10631696013	S/40962	Sample	1		GCSFAKNW8015-111022_	11/10/22 23:59	TT2	V
1110R0000076C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:08	TT2	Pass 15% for all ranges
1110R0000077.D	4499807	S/40962	Blank	1		GCSFAKNW8015-111022_	11/11/22 00:17	TT2	OK
1110R0000078.D	10631696014	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:27	TT2	rr not needed
1110R0000079.D	10632025001	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:36	TT2	|
1110R0000080.D	10632025002	S/40962	Sample	1		GCSFAKNW8015-111022_	11/11/22 00:45	TT2	V
1110R0000081C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 00:55	TT2	Pass 15% for all ranges
1110R0000082.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 01:04	TT2	OK
1110R0000083.D	4499033	S/40963	LCS	1		GCSFAKNW8015-111022_	11/11/22 01:13	TT2	Pass
1110R0000084.D	10631708001	S/40963	Sample	20		GCSFAKNW8015-111022_	11/11/22 01:23	TT2	
1110R0000085.D	4499034	S/40963	MS	20		GCSFAKNW8015-111022_	11/11/22 01:32	TT2	
1110R0000086.D	4499035	S/40963	MSD	20		GCSFAKNW8015-111022_	11/11/22 01:41	TT2	
1110R0000087.D	10631833014	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 01:50	TT2	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 394317

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1110R0000088.D	10631787001	S/40963	Sample	40		GCSFAKNW8015-111022_	11/11/22 02:00	TT2	
1110R0000089.D	10631787003	S/40963	Sample	100		GCSFAKNW8015-111022_	11/11/22 02:09	TT2	
1110R0000090.D	10631840001	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 02:18	TT2	
1110R0000091.D	10631833001	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:28	TT2	
1110R0000092C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 02:37	TT2	Pass 15% for all ranges except NW
1110R0000093.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 02:46	TT2	OK
1110R0000094.D	10631833011	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 02:56	TT2	
1110R0000095.D	10631833013	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:05	TT2	
1110R0000096.D	10631833004	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:14	TT2	
1110R0000097.D	10631833002	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:24	TT2	
1110R0000098.D	10631833003	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:33	TT2	
1110R0000099.D	10631833006	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:42	TT2	
1110R0000100.D	10631833007	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 03:52	TT2	
1110R0000101.D	10631833009	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:01	TT2	
1110R0000102.D	10631833010	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:10	TT2	
1110R0000103C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 04:19	TT2	Pass 15% for all ranges
1110R0000104.D	4499032	S/40963	Blank	1		GCSFAKNW8015-111022_	11/11/22 04:29	TT2	OK
1110R0000105.D	10631833008	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:38	TT2	rr not needed
1110R0000106.D	10631833005	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:47	TT2	|
1110R0000107.D	10631833012	S/40963	Sample	1		GCSFAKNW8015-111022_	11/11/22 04:57	TT2	V
1110R0000108.D	10631840002	S/40963	Sample	10		GCSFAKNW8015-111022_	11/11/22 05:06	TT2	rr 5X
1110R0000109C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 05:15	TT2	Pass 15% for all ranges
1110R0000110.D	4499093	L/40964	Blank	1		GCSFAKNW8015-111022_	11/11/22 05:25	TT2	ok
1110R0000111.D	4499094	L/40964	LCS	1		GCSFAKNW8015-111022_	11/11/22 05:34	TT2	rr not needed
1110R0000112.D	4499095	L/40964	LCSD	1		GCSFAKNW8015-111022_	11/11/22 05:43	TT2	rr not needed
1110R0000113.D	10631789001	L/40964	Sample	1		GCSFAKNW8015-111022_	11/11/22 05:53	TT2	surr low, rr confirms
1110R0000114.D	4499096	L/40964	Dupe	1		GCSFAKNW8015-111022_	11/11/22 06:02	TT2	
1110R0000115C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/11/22 06:11	TT2	Pass 15% for all ranges
1110R0000116.D	PBLK,4499093	/40988	Sample	1		GCSFAKNW8015-111022_	11/11/22 06:21	TT2	ok

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments: *surrogates outside 15% (required for NW) - Cal4 is 10X lower than normal surrogate amount, ok'd by manager

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111022R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified: EB3

Report Date: 11/14/2022 17:50
Reviewed By/Date:

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 396031

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1117R0000001.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 10:55	EB3	
1117R0000002.D	MECL2 RINSE	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 11:06	EB3	
1117R0000003.D	DMO-RTM,395212	/40988	Sample	1		GCSFAKNW8015-111022_	11/17/22 11:18	EB3	
1117R0000004C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 11:29	EB3	Pass 15% for all ranges
1117R0000005.D	4514703	S/41050	Blank	1		GCSFAKNW8015-111022_	11/17/22 11:41	EB3	clean
1117R0000006.D	4514706	S/41050	LCS	1		GCSFAKNW8015-111022_	11/17/22 11:53	EB3	8015 microwave MDL
1117R0000007C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 12:05	EB3	Pass 15% for all ranges
1117R0000008.D	4512629	L/41038	Blank	1		GCSFAKNW8015-111022_	11/17/22 12:16	EB3	clean
1117R0000009.D	10633738005	L/41038	Sample	400		GCSFAKNW8015-111022_	11/17/22 12:28	EB3	
1117R0000010C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 12:40	EB3	Pass 15% for all ranges
1117R0000011.D	4512707	S/41040	Blank	1		GCSFAKNW8015-111022_	11/17/22 12:51	EB3	clean
1117R0000012.D	10633733009	S/41040	Sample	100		GCSFAKNW8015-111022_	11/17/22 13:03	EB3	
1117R0000013.D	10633738004	S/41040	Sample	10		GCSFAKNW8015-111022_	11/17/22 13:15	EB3	
1117R0000014.D	10633733006	S/41040	Sample	1		GCSFAKNW8015-111022_	11/17/22 13:26	EB3	
1117R0000015C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 13:38	EB3	Pass 15% for all ranges
1117R0000016.D	4512083	S/41043	Blank	1		GCSFAKNW8015-111022_	11/17/22 13:50	EB3	clean
1117R0000017.D	10633565001	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:01	EB3	rx
1117R0000017B.	10633670001	S/41041	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:01	EB3	
1117R0000018.D	4512085	S/41043	MS	1		GCSFAKNW8015-111022_	11/17/22 14:13	EB3	failing low, rx due to BNSF QAPP criteria
1117R0000018B.	4512101	S/41041	MS	1		GCSFAKNW8015-111022_	11/17/22 14:13	EB3	
1117R0000019.D	4512086	S/41043	MSD	1		GCSFAKNW8015-111022_	11/17/22 14:25	EB3	NR
1117R0000019B.	4512102	S/41041	MSD	1		GCSFAKNW8015-111022_	11/17/22 14:25	EB3	
1117R0000020.D	10633565003	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:37	EB3	rx
1117R0000021.D	10633565005	S/41043	Sample	1		GCSFAKNW8015-111022_	11/17/22 14:48	EB3	rx
1117R0000022C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 14:59	EB3	Pass 15% for all ranges
1117R0000023.D	4514826	L/41065	Blank	1		GCSFAKNW8015-111022_	11/17/22 15:11	EB3	clean
1117R0000024.D	4514827	L/41065	LCS	1		GCSFAKNW8015-111022_	11/17/22 15:22	EB3	pass
1117R0000025.D	4514828	L/41065	LCSD	1		GCSFAKNW8015-111022_	11/17/22 15:34	EB3	pass
1117R0000026.D	10633992001	L/41065	Sample	1		GCSFAKNW8015-111022_	11/17/22 15:45	EB3	
1117R0000027C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 15:56	EB3	Pass 15% for all ranges
1117R0000028.D	4514468	L/41066	Blank	1		GCSFAKNW8015-111022_	11/17/22 16:08	EB3	clean
1117R0000029.D	4514469	L/41066	LCS	1		GCSFAKNW8015-111022_	11/17/22 16:19	EB3	pass
1117R0000030.D	4514470	L/41066	LCSD	1		GCSFAKNW8015-111022_	11/17/22 16:31	EB3	pass
1117R0000031.D	10633946002	L/41066	Sample	10		GCSFAKNW8015-111022_	11/17/22 16:42	EB3	
1117R0000032.D	10633974003	L/41066	Sample	1		GCSFAKNW8015-111022_	11/17/22 16:53	EB3	
1117R0000033C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 17:05	EB3	Pass 15% for all ranges
1117R0000034.D	4514590	S/41067	Blank	1		GCSFAKNW8015-111022_	11/17/22 17:16	EB3	clean
1117R0000034B.	4514594	S/41068	Blank	1		GCSFAKNW8015-111022_	11/17/22 17:16	EB3	clean
1117R0000035.D	4514591	S/41067	LCS	1		GCSFAKNW8015-111022_	11/17/22 17:28	EB3	pass
1117R0000035B.	4514595	S/41068	LCS	1		GCSFAKNW8015-111022_	11/17/22 17:28	EB3	pass
1117R0000036.D	10634002001	S/41068	Sample	20		GCSFAKNW8015-111022_	11/17/22 17:39	EB3	rr 200X
1117R0000037.D	10633946001	S/41068	Sample	20		GCSFAKNW8015-111022_	11/17/22 17:51	EB3	rrcheckforcarryover
1117R0000038.D	10633981001	S/41067	Sample	10		GCSFAKNW8015-111022_	11/17/22 18:02	EB3	
1117R0000038B.	10634011001	S/41068	Sample	10		GCSFAKNW8015-111022_	11/17/22 18:02	EB3	
1117R0000039.D	4514592	S/41067	MS	10		GCSFAKNW8015-111022_	11/17/22 18:13	EB3	
1117R0000039B.	4514723	S/41068	MS	10		GCSFAKNW8015-111022_	11/17/22 18:13	EB3	

Pace Analytical™

Instrument Run Log

Instrument: 10GCSF
Column: DB-5-US21130002 0.32mm Hy

Method: 8015/AK/NW

Solvent lot: 396031

Surrogate Lot: See extract sheet
ISTD Lot: NA

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date&Time	Oper.	Comments
1117R0000040.D	4514593	S/41067	MSD	10		GCSFAKNW8015-111022_	11/17/22 18:25	EB3	
1117R0000040B.	4514724	S/41068	MSD	10		GCSFAKNW8015-111022_	11/17/22 18:25	EB3	
1117R0000041.D	10633981003	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:36	EB3	
1117R0000042.D	10633981004	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:48	EB3	
1117R0000043.D	10633981002	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 18:59	EB3	
1117R0000044C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 19:10	EB3	Pass 15% for all ranges
1117R0000045.D	4514590	S/41067	Blank	1		GCSFAKNW8015-111022_	11/17/22 19:22	EB3	clean
1117R0000046.D	10633981005	S/41067	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:33	EB3	
1117R0000047.D	10633974001	S/41068	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:45	EB3	
1117R0000048.D	10633974002	S/41068	Sample	1		GCSFAKNW8015-111022_	11/17/22 19:56	EB3	
1117R0000049C.	DMO-CCV,395578	/40988	CCal	1		GCSFAKNW8015-111022_	11/17/22 20:07	EB3	Pass 15% for all ranges
1117R0000050.D	PBLK,4514590	/	Sample	1		GCSFAKNW8015-111022_	11/17/22 20:19	EB3	clean

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: \\V10WINTARGET\CHEM\10GCSF.I\111722R.B
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 11/22/2022 14:50
Reviewed By/Date:

ANALYTICAL REPORT

November 22, 2022

Pace Analytical - Minnesota

Sample Delivery Group:	L1559129
Samples Received:	11/17/2022
Project Number:	10633992
Description:	D3631600
Site:	001
Report To:	Kongmeng Vang
	1700 Elm Street Suite 200
	Minneapolis, MN 55414

Entire Report Reviewed By:

Nancy McLain
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BNSF-EB01-111422 L1559129-01 GW			Collected by	Collected date/time 11/14/22 09:30	Received date/time 11/17/22 11:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1962120	1	11/19/22 05:17	11/19/22 18:11	AMG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Report Revision History

Level II Report - Version 1: 11/22/22 18:03

Sample Delivery Group (SDG) Narrative

An aliquot for analysis was taken from the original container received due to volume requirements of the laboratory's procedure. Rinsing of the original sample container for inclusion in the sample extraction was not performed.

Lab Sample ID	Project Sample ID	Method
L1559129-01	BNSF-EB01-111422	8270E

8270E Semi Volatile Organic Compounds (GC/MS)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8270E **SDG:** L1559129

Matrix: GW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5	DMC-6	TOT Out
				% Rec.	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	*% Rec.*	
BNSF-EB01-111422	L1559129-01	BNAMS32	1119A_11	30.2	20.2	50.6	55.6	78.5	84.7	0
MS	R3863446-3	BNAMS32	1119A_16	28.6	18.5	53.3	67.8	85.2	82.2	0
MSD	R3863446-4	BNAMS32	1119A_17	28.5	19.3	56.2	70.7	77.5	76.7	0
BLANK	R3863446-2	BNAMS32	1119A_05	25.3	16.5	47.7	47.8	65.5	87.0	0
LCS	R3863446-1	BNAMS32	1119A_04	30.3	19.4	39.9	59.3	87.0	88.2	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2-Fluorophenol	10.0 - 120
DMC-2	Phenol-d5	10.0 - 120
DMC-3	Nitrobenzene-d5	10.0 - 127
DMC-4	2-Fluorobiphenyl	10.0 - 130
DMC-5	2,4,6-Tribromophenol	10.0 - 155
DMC-6	p-Terphenyl-d14	10.0 - 128

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1559129-01

SAMPLE NO.:
R3863446-3
R3863446-4

MS Sample / File ID: R3863446-3 / 1119A_16
MSD Sample / File ID: R3863446-4 / 1119A_17
OS Sample / File ID: L1559112-01 / 1119A_15
Instrument ID: BNAMS32
Analytical Method: 8270E

SDG: L1559129
Analytical Batch: WG1962120
Matrix: GW

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*	*ug/l*	*ug/l*	*%*	*%*		*%*	*%*	*%*
Acenaphthene	45.5	U	30.8	31.4	67.7	69.0	1	28.0 - 120	1.93	25
Acenaphthylene	45.5	U	33.4	33.5	73.4	73.6	1	31.0 - 121	0.299	25
Anthracene	45.5	U	33.4	31.7	73.4	69.7	1	36.0 - 120	5.22	23
Benzo(a)anthracene	45.5	U	36.9	34.9	81.1	76.7	1	39.0 - 120	5.57	23
Benzo(b)fluoranthene	45.5	U	38.9	35.6	85.5	78.2	1	37.0 - 120	8.86	23
Benzo(k)fluoranthene	45.5	U	37.1	34.3	81.5	75.4	1	37.0 - 120	7.84	26
Benzo(g,h,i)perylene	45.5	U	36.3	33.7	79.8	74.1	1	37.0 - 123	7.43	25
Benzo(a)pyrene	45.5	U	37.8	35.2	83.1	77.4	1	37.0 - 120	7.12	24
Benzoic Acid	91.0	2.30	35.4	37.0	36.4	38.1	1	10.0 - 120	4.42	40
Carbazole	45.5	U	39.3	37.4	86.4	82.2	1	38.0 - 127	4.95	21
Chrysene	45.5	U	36.7	35.1	80.7	77.1	1	38.0 - 120	4.46	23
Dibenz(a,h)anthracene	45.5	U	36.4	34.5	80.0	75.8	1	36.0 - 121	5.36	24
Dibenzofuran	45.5	U	32.8	32.8	72.1	72.1	1	32.0 - 120	0.000	26
Fluorene	45.5	U	34.6	34.1	76.0	74.9	1	37.0 - 120	1.46	24
Fluoranthene	45.5	U	39.1	36.3	85.9	79.8	1	41.0 - 121	7.43	22
Indeno(1,2,3-cd)pyrene	45.5	U	34.9	32.1	76.7	70.5	1	38.0 - 125	8.36	24
1-Methylnaphthalene	45.5	U	26.4	27.0	58.0	59.3	1	11.0 - 120	2.25	27
2-Methylnaphthalene	45.5	U	24.8	25.4	54.5	55.8	1	17.0 - 120	2.39	28
Phenanthrene	45.5	U	35.9	34.4	78.9	75.6	1	33.0 - 120	4.27	22
Pyrene	45.5	U	37.8	36.2	83.1	79.6	1	39.0 - 120	4.32	22
Naphthalene	45.5	U	22.2	23.1	48.8	50.8	1	10.0 - 120	3.97	31
Bis(2-ethylhexyl)phthalate	45.5	U	38.3	35.6	84.2	78.2	1	33.0 - 126	7.31	25
Di-n-butyl phthalate	45.5	U	41.6	38.7	91.4	85.1	1	35.0 - 128	7.22	23
Di-n-octyl phthalate	45.5	U	39.1	36.3	85.9	79.8	1	25.0 - 135	7.43	26
3&4-Methyl Phenol	45.5	U	18.3	16.8	40.2	36.9	1	10.0 - 120	8.55	36
Pentachlorophenol	45.5	U	41.5	39.2	91.2	86.2	1	10.0 - 128	5.70	37
Phenol	45.5	U	9.07	9.06	19.9	19.9	1	10.0 - 120	0.110	40

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1559129-01

SAMPLE NO.:
R3863446-1

LCS Sample / File ID:	R3863446-1 / 1119A_04	**SDG:**	L1559129
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1962120
Instrument ID:	BNAMS32	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*		*%*	*%*	*%*	*%*	*%*
Acenaphthene	50.0	31.0		62.0		41.0 - 120		
Acenaphthylene	50.0	34.4		68.8		43.0 - 120		
Anthracene	50.0	38.0		76.0		45.0 - 120		
Benzo(a)anthracene	50.0	44.3		88.6		47.0 - 120		
Benzo(b)fluoranthene	50.0	47.6		95.2		46.0 - 120		
Benzo(k)fluoranthene	50.0	47.1		94.2		46.0 - 120		
Benzo(g,h,i)perylene	50.0	47.5		95.0		48.0 - 121		
Benzo(a)pyrene	50.0	44.9		89.8		47.0 - 120		
Benzoic Acid	100	13.6		13.6		10.0 - 120		
Carbazole	50.0	44.0		88.0		51.0 - 122		
Chrysene	50.0	40.9		81.8		48.0 - 120		
Dibenz(a,h)anthracene	50.0	46.7		93.4		47.0 - 120		
Dibenzofuran	50.0	33.1		66.2		44.0 - 120		
Fluorene	50.0	36.8		73.6		47.0 - 120		
Fluoranthene	50.0	42.6		85.2		51.0 - 120		
Indeno(1,2,3-cd)pyrene	50.0	43.4		86.8		49.0 - 122		
1-Methylnaphthalene	50.0	25.3		50.6		33.0 - 120		
2-Methylnaphthalene	50.0	24.0		48.0		33.0 - 120		
Phenanthrene	50.0	39.4		78.8		46.0 - 120		
Pyrene	50.0	42.4		84.8		47.0 - 120		
Naphthalene	50.0	21.8		43.6		27.0 - 120		
Bis(2-ethylhexyl)phthalate	50.0	43.2		86.4		43.0 - 122		
Di-n-butyl phthalate	50.0	45.4		90.8		49.0 - 121		
Di-n-octyl phthalate	50.0	45.4		90.8		42.0 - 125		
3&4-Methyl Phenol	50.0	22.6		45.2		31.0 - 120		
Pentachlorophenol	50.0	48.1		96.2		23.0 - 120		
Phenol	50.0	9.99		20.0		10.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3863446-2	**SDG:**	L1559129
Lab File ID:	1119A_05	**Preparation Date/Time:**	11/19/22 05:16
Instrument ID:	BNAMS32	**Analysis Date/Time:**	11/19/22 16:04
Analytical Batch:	WG1962120	**Dilution Factor:**	1
Analytical Method:	8270E	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3863446-1	BNAMS32	1119A_04	11/19/22 15:43
BNSF-EB01-111422	L1559129-01	BNAMS32	1119A_11	11/19/22 18:11
OS	L1559112-01	BNAMS32	1119A_15	11/19/22 19:36
MS	R3863446-3	BNAMS32	1119A_16	11/19/22 19:57
MSD	R3863446-4	BNAMS32	1119A_17	11/19/22 20:18

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 1114_005-1
Instrument ID: BNAMS32
Analysis Date/Time: 11/14/22 18:34
SDG: L1559129
Analytical Method: 8270E

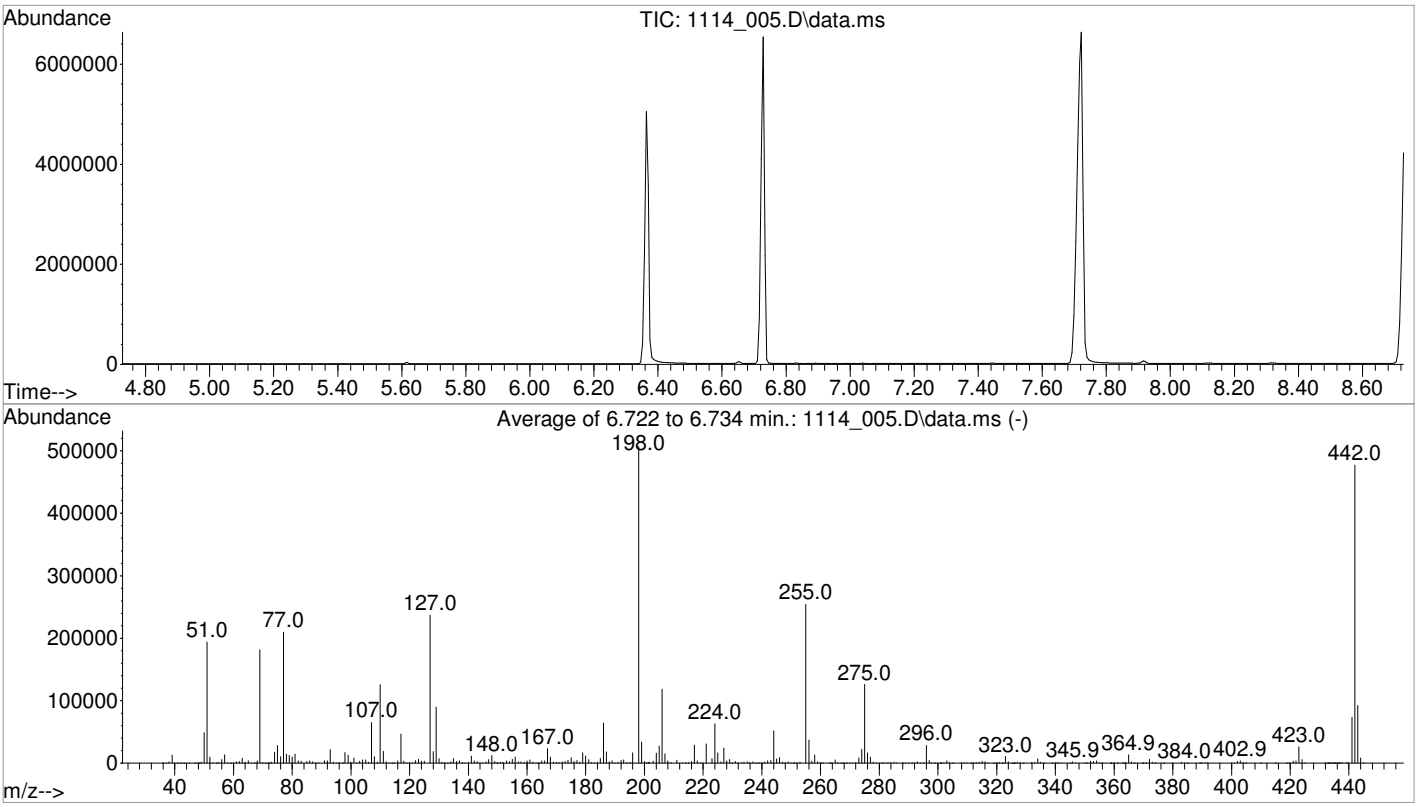
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	198	10	80	38
68	69	0	2	2
69	69	100	100	100
70	69	0	2	1
127	198	10	80	47
197	198	0	2	0
198	198	50	100	100
199	198	5	9	7
275	198	10	60	25
365	198	1	100	3
441	442	0.0001	24	15
442	198	50	100	94
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-40	40	1114_006	11/14/22 18:55
STD-200	200	1114_007	11/14/22 19:16
STD-1000	1000	1114_008	11/14/22 19:37
STD-2000	2000	1114_009	11/14/22 19:58
STD-5000	5000	1114_010	11/14/22 20:19
STD-10000	10000	1114_011	11/14/22 20:40
STD-20000	20000	1114_012	11/14/22 21:01
STD-30000	30000	1114_013	11/14/22 21:22
STD-40000	40000	1114_014	11/14/22 21:43
STD-50000	50000	1114_015	11/14/22 22:05
STD-1K1	1K1	1114_016	11/14/22 22:26
STD-2K1	2K1	1114_017	11/14/22 22:47
STD-5K1	5K1	1114_018	11/14/22 23:08
STD-10K1	10K1	1114_019	11/14/22 23:29
STD-20K1	20K1	1114_020	11/14/22 23:50
STD-30K1	30K1	1114_021	11/15/22 00:11
STD-40K1	40K1	1114_022	11/15/22 00:32
STD-50K1	50K1	1114_023	11/15/22 00:53
SSCV	BNAMS321114221114_024-1604322	1114_024-1	11/15/22 01:14
SSCV	BNAMS321114221114_025-1604322	1114_025-1	11/15/22 01:35

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_005.D
Acq On : 14 Nov 2022 06:34 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : C:\GCMS\1\methods\TUNED.M
Title :
Last Update : Sat Oct 22 10:27:09 2022



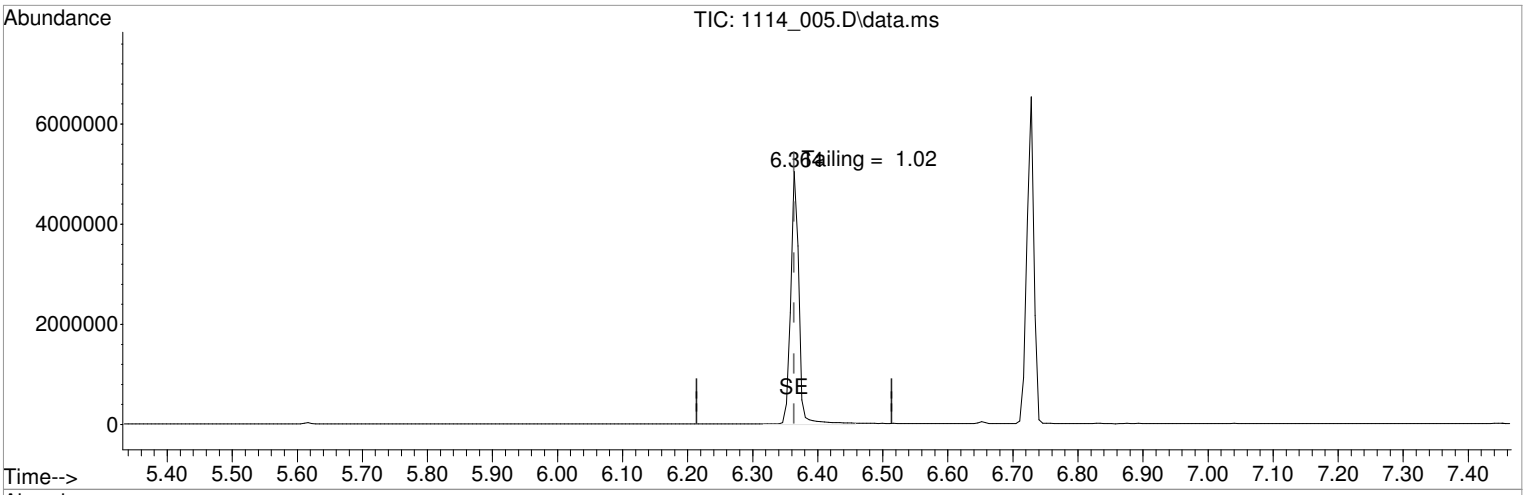
Spectrum Information: Average of 6.722 to 6.734 min.

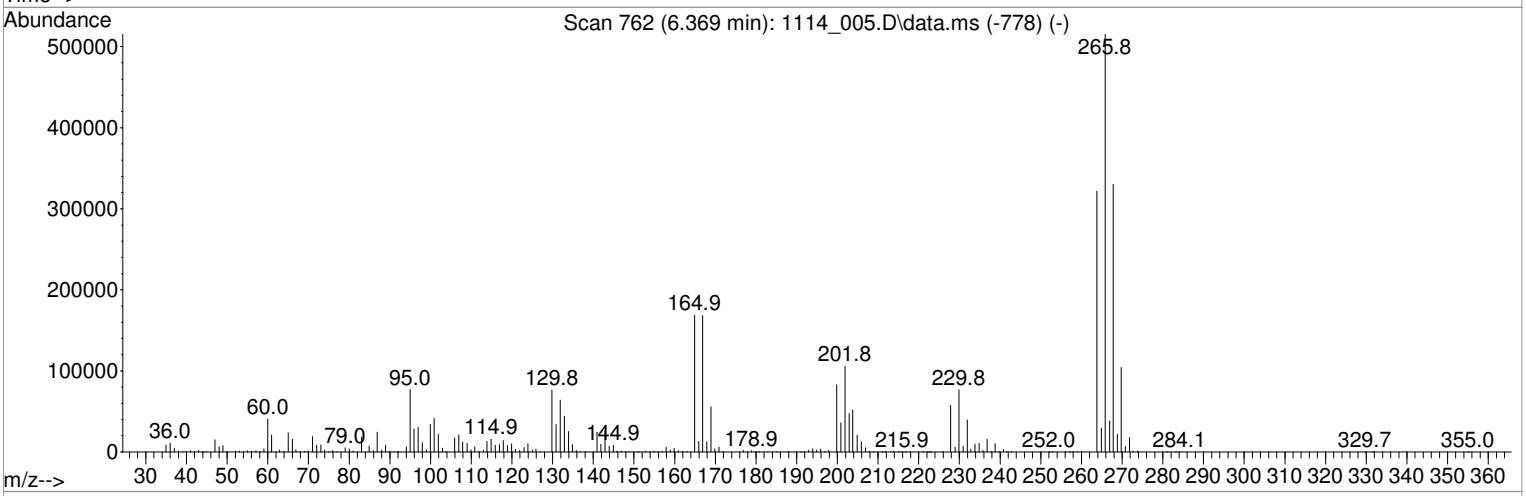
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	38.2	193557	PASS
68	69	0.00	2	1.9	3425	PASS
69	69	100	100	100.0	181295	PASS
70	69	0.00	2	0.6	1067	PASS
127	198	10	80	46.7	236773	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	506603	PASS
199	198	5	9	6.6	33689	PASS
275	198	10	60	24.8	125827	PASS
365	198	1	100	2.6	13325	PASS
441	442	0.01	24	15.3	73123	PASS
442	198	50	100	94.2	477184	PASS
443	442	15	24	19.3	92309	PASS

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_005.D
Acq On : 14 Nov 2022 06:34 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:28:33 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration





TIC: 1114_005.D\data.ms

(1) Pentachlorophenol (T)

6.367min (+ 0.003) 13.9851000 ppm

Qvalue = 100

response 42831109

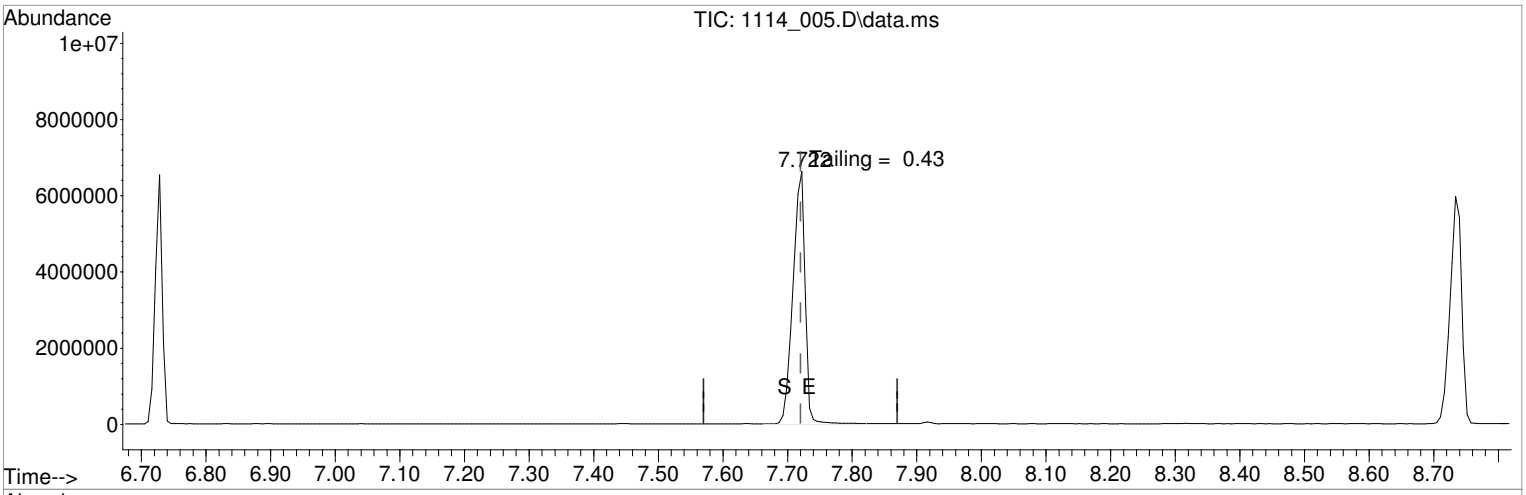
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

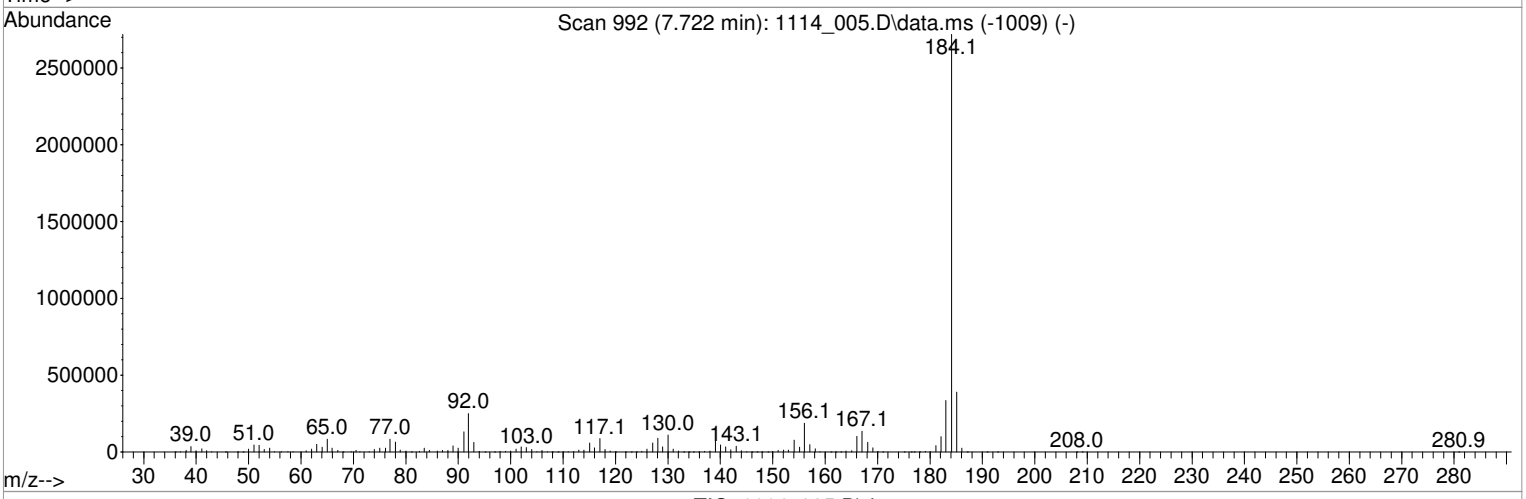
TUNED.M Tue Nov 15 08:28:42 2022 Page: 1

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_005.D
Acq On : 14 Nov 2022 06:34 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:28:33 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration





TIC: 1114_005.D\data.ms

(3) Benzidine (T)

7.722min (+ 0.002) 3.1481788 ppm

Qvalue = 100

response 86354979

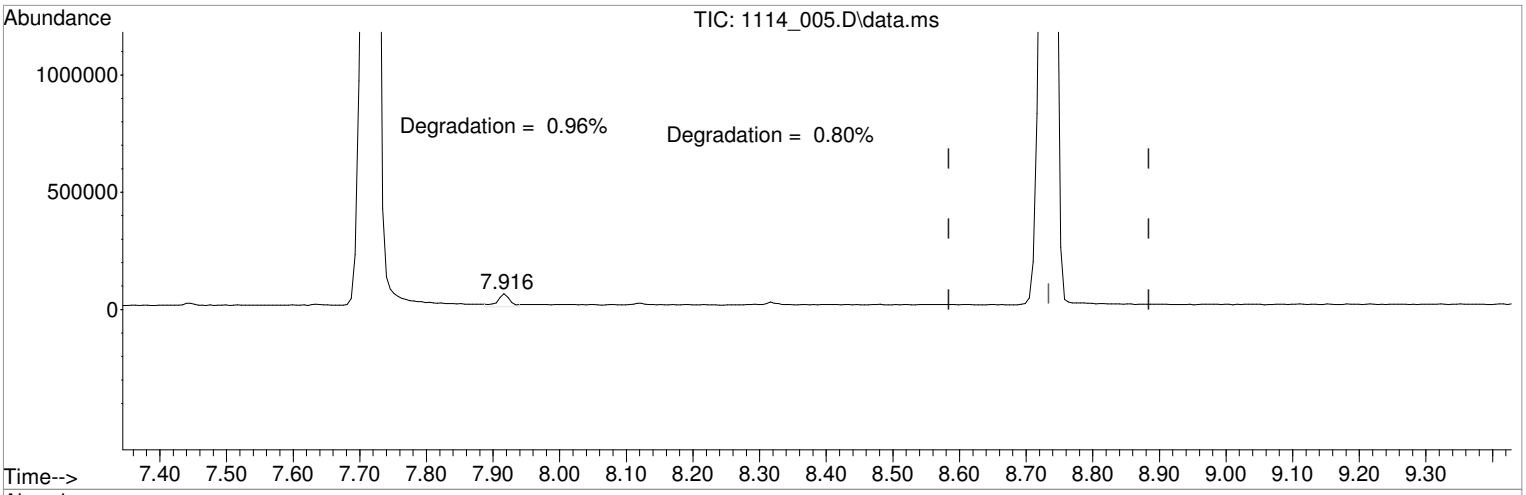
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

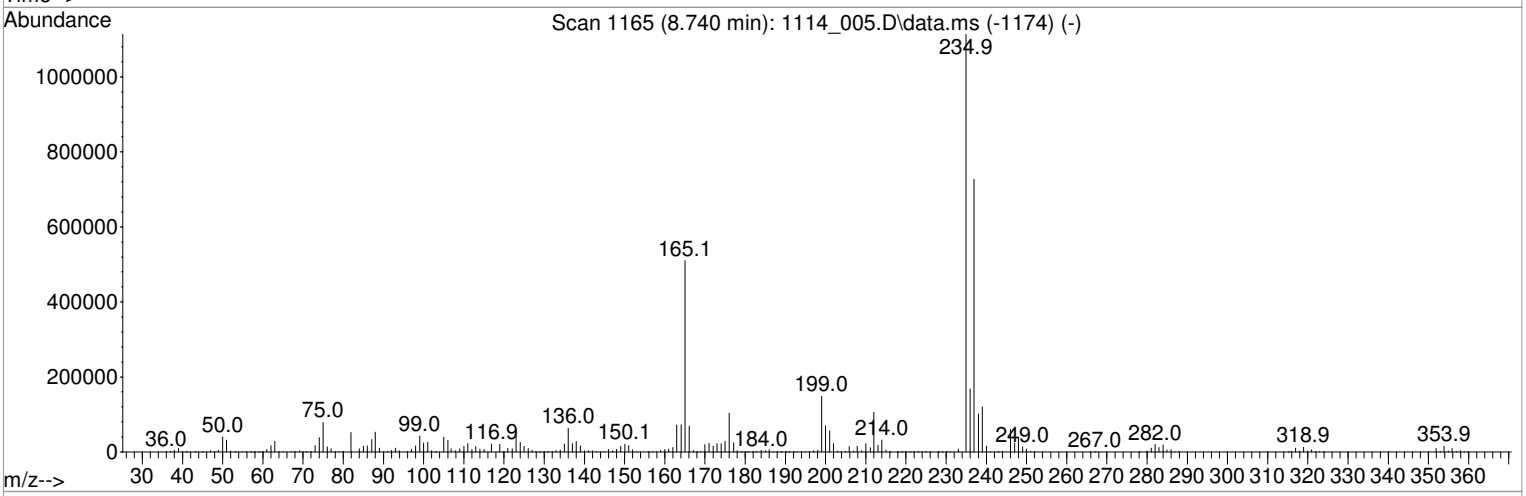
TUNED.M Tue Nov 15 08:28:47 2022 Page: 1

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_005.D
Acq On : 14 Nov 2022 06:34 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:28:33 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration





TIC: 1114_005.D\data.ms

(4) DDT (T)

8.738min (+ 0.004) 5.7213428 ppm

Qvalue = 100

response 74675914

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 1119A_01T
Instrument ID: BNAMS32
Analysis Date/Time: 11/19/22 14:41
SDG: L1559129
Analytical Method: 8270E

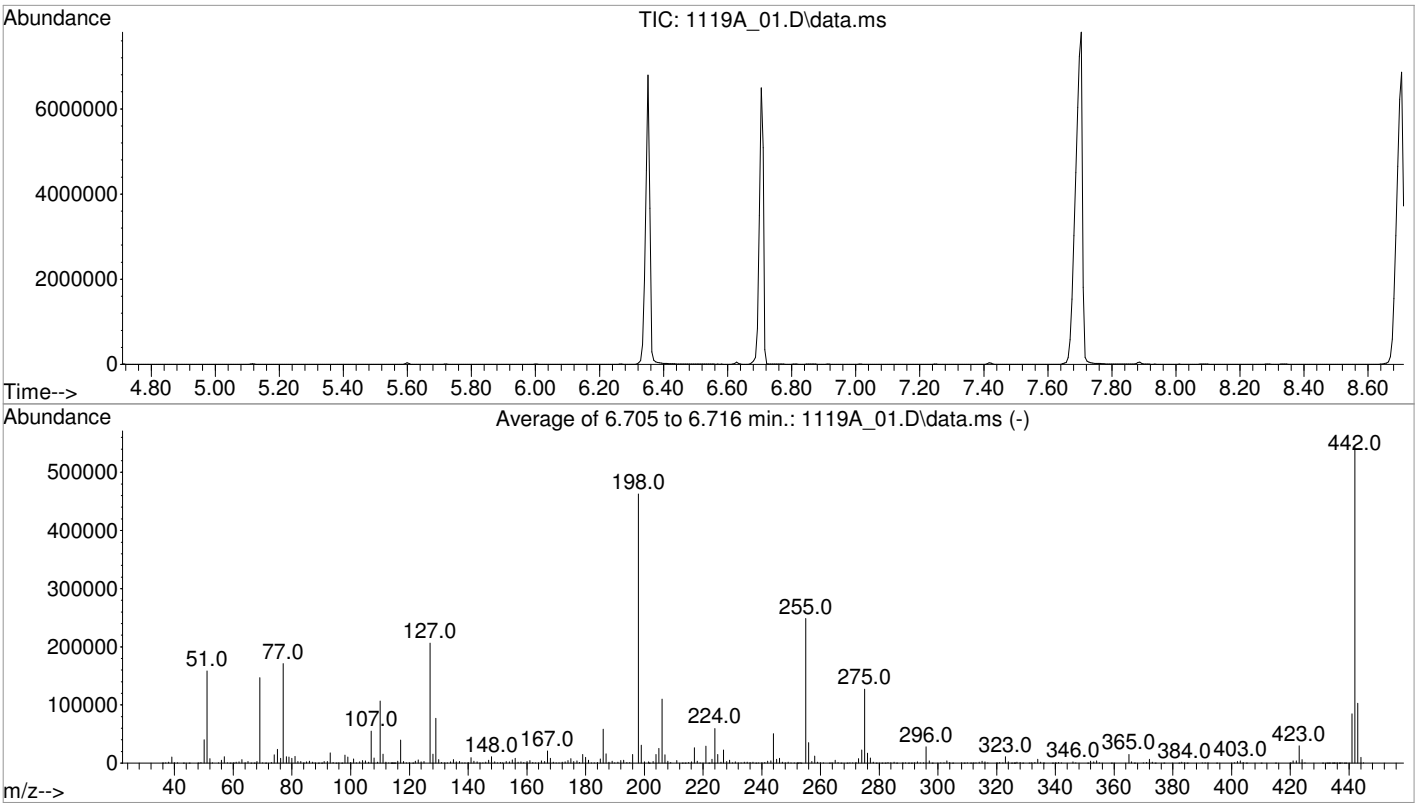
Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
51	442	10	80	29
68	69	0	2	2
69	69	100	100	100
70	69	0	2	0
127	442	10	80	38
197	198	0	2	0
198	442	50	100	85
199	198	5	9	7
275	442	10	60	23
365	198	1	100	3
441	442	0.0001	24	16
442	442	50	100	100
443	442	15	24	19

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	BNAMS32111922A1119A_02-1604322	1119A_02-1	11/19/22 15:01
ICV	BNAMS32111922A1119A_03-1604322	1119A_03-1	11/19/22 15:22
LCS	R3863446-1	1119A_04	11/19/22 15:43
BLANK	R3863446-2	1119A_05	11/19/22 16:04
BNSF-EB01-111422	L1559129-01	1119A_11	11/19/22 18:11
OS	L1559112-01	1119A_15	11/19/22 19:36
MS	R3863446-3	1119A_16	11/19/22 19:57
MSD	R3863446-4	1119A_17	11/19/22 20:18

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_01.D
Acq On : 19 Nov 2022 02:41 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : C:\GCMS\1\methods\TUNED.M
Title :
Last Update : Tue Nov 15 08:28:26 2022



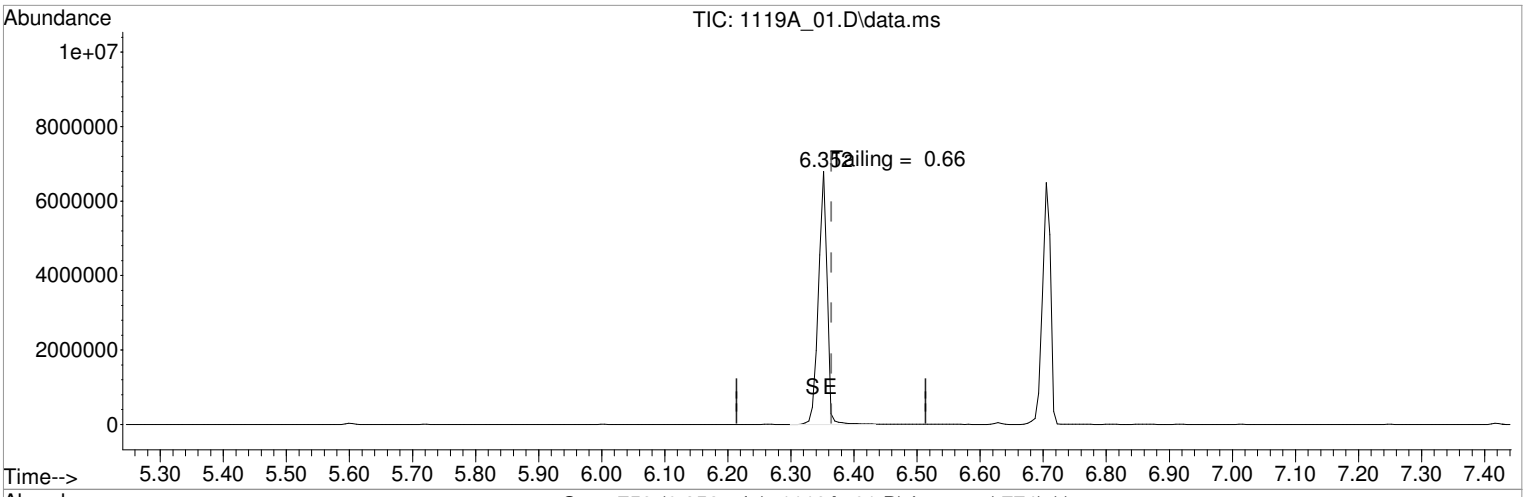
Spectrum Information: Average of 6.705 to 6.716 min.

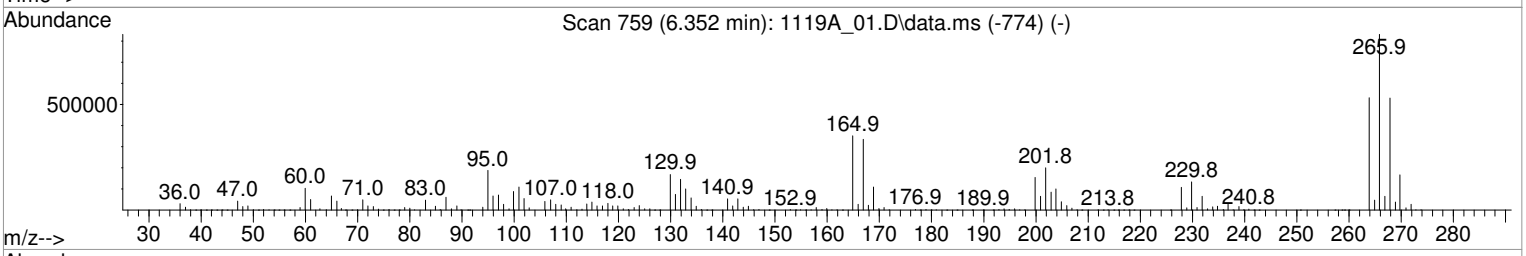
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	29.2	158678	PASS
68	69	0.00	2	1.9	2792	PASS
69	69	100	100	100.0	146742	PASS
70	69	0.00	2	0.5	682	PASS
127	442	10	80	38.0	206480	PASS
197	198	0.00	2	0.0	0	PASS
198	442	50	100	85.0	462720	PASS
199	198	5	9	6.7	31005	PASS
275	442	10	60	23.4	127304	PASS
365	198	1	100	3.3	15075	PASS
441	442	0.01	24	15.5	84549	PASS
442	442	50	100	100.0	544059	PASS
443	442	15	24	18.9	102976	PASS

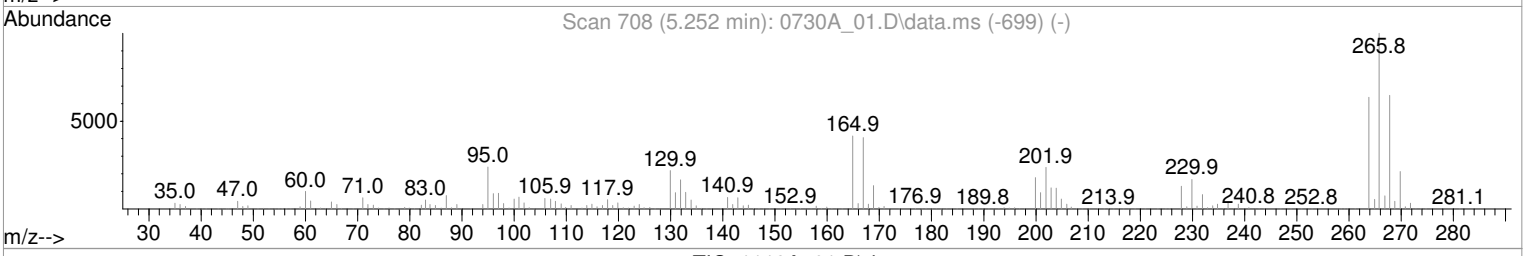
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_01.D
Acq On : 19 Nov 2022 02:41 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 15:11:43 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration







TIC: 1119A_01.D\data.ms

(1) Pentachlorophenol (T)

6.354min (-0.010) 20.8840865 ppm

Qvalue = 100

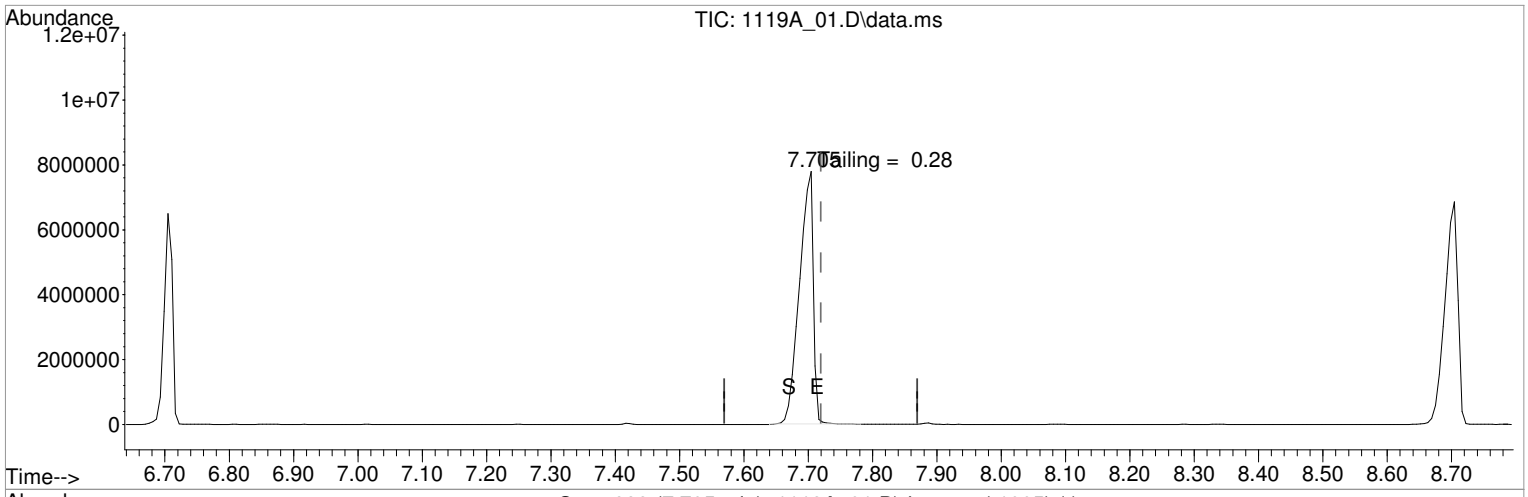
response 63960113

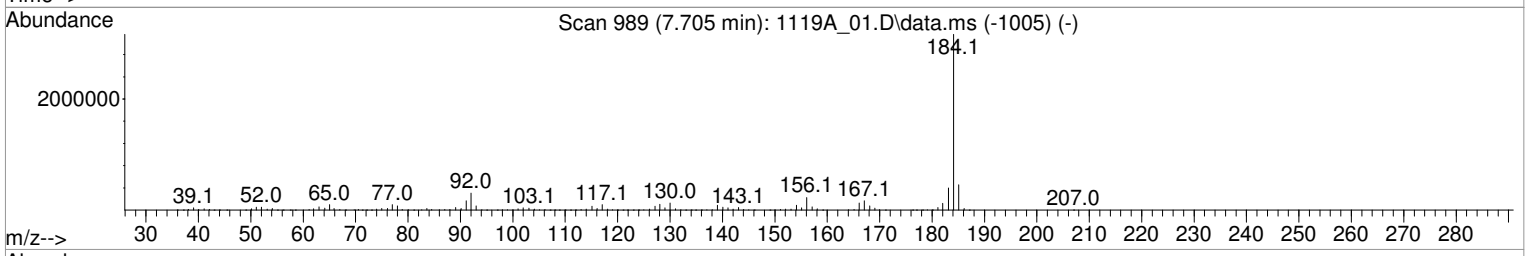
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

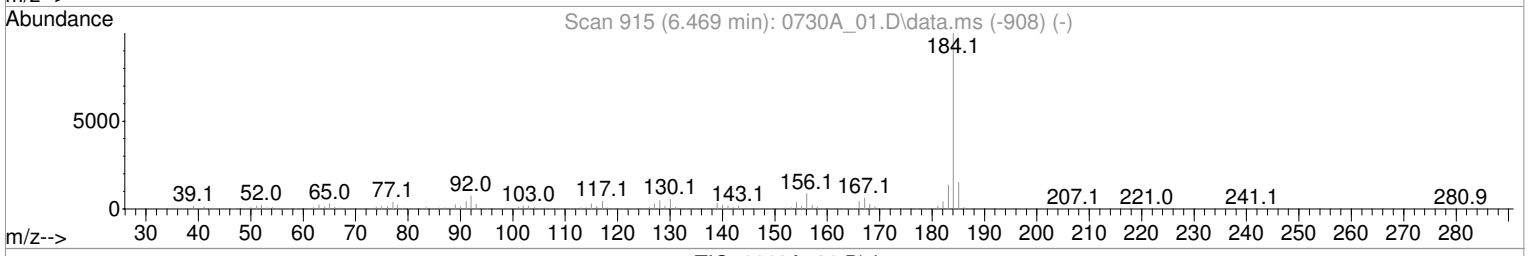
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_01.D
Acq On : 19 Nov 2022 02:41 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 15:11:43 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration







TIC: 1119A_01.D\data.ms

(3) Benzidine (T)

7.703min (-0.017) 4.2592498 ppm

Qvalue = 100

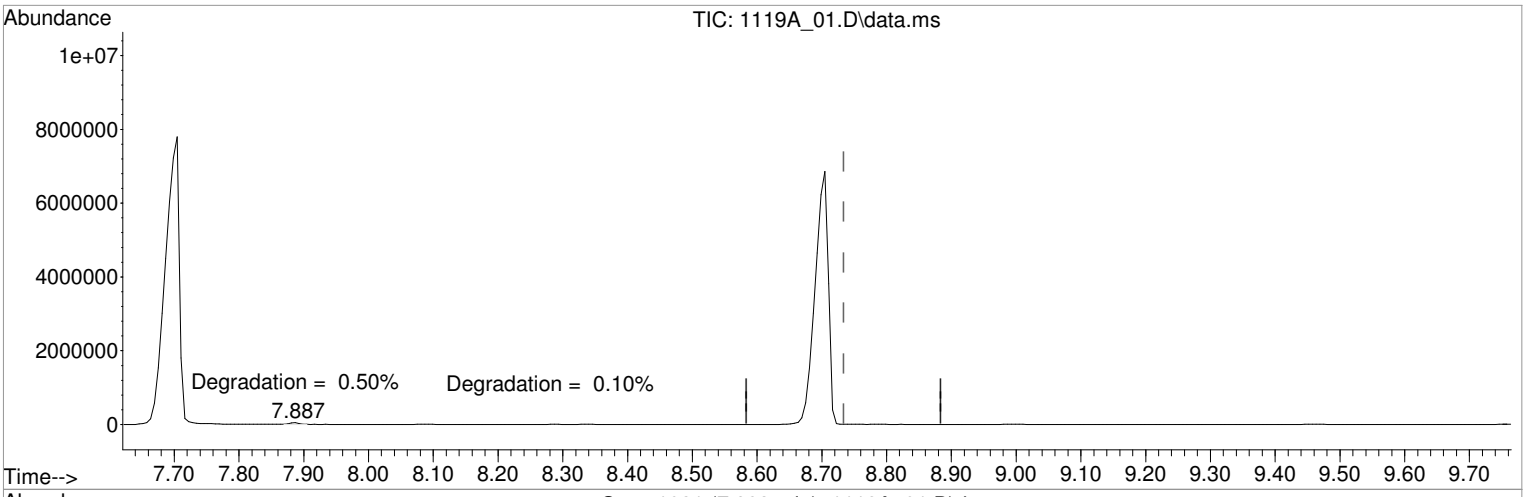
response 116831808

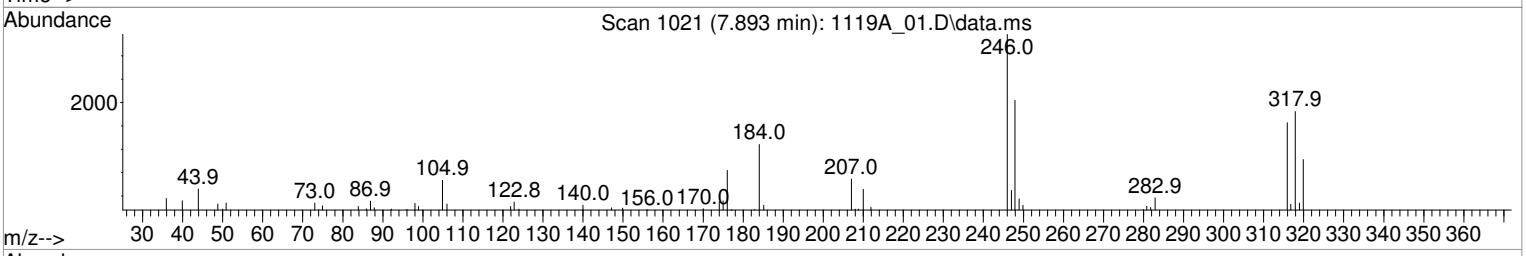
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

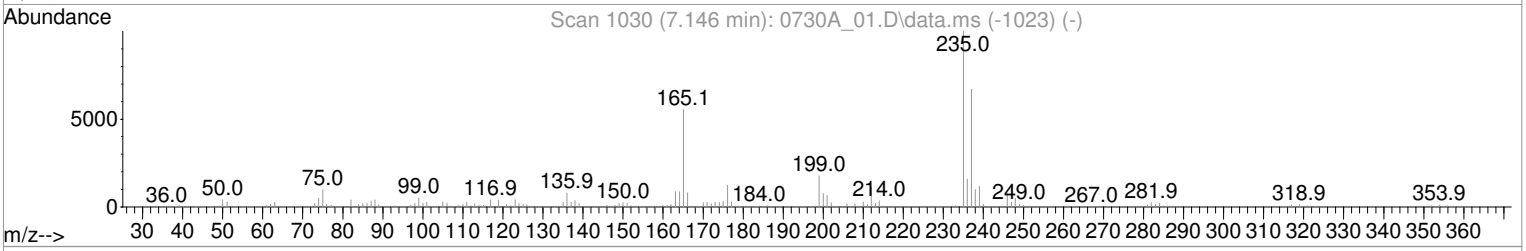
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_01.D
Acq On : 19 Nov 2022 02:41 pm
Operator : 917
Sample : TUNE DFTPP 50 ppm 22K03250 exp 4/28/23
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 15:11:43 2022
Quant Method : C:\GCMS\1\methods\TUNED.M
Quant Title :
QLast Update : Tue Nov 15 08:28:26 2022
Response via : Initial Calibration







TIC: 1119A_01.D\data.ms

(4) DDT (T)

8.705min (-0.029) 7.4125991 ppm

Qvalue = 100

response 96750472

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1559129	**Analytical Method:**	8270E
Instrument ID:	BNAMS32	**Calibration Start Date:**	11/14/22 18:55
Std File:	1119A_02-1	**Calibration End Date:**	11/15/22 00:53
		Std Analysis Date:	11/19/22 15:01

Sample ID	File ID	1,4-DCB		ACE		CHR		NAP	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		185052	3.43	435909	5.37	624707	9.40	769876	4.18
UPPER LIMIT		370104		871818		1249414		1539752	
LOWER LIMIT		92526		217955		312354		384938	
LCS R3863446-1 WG1962120 1x	1119A_04	207463	3.43	478517	5.37	745263	9.40	906716	4.18
BLANK R3863446-2 WG1962120 1x	1119A_05	265065	3.43	569715	5.36	874995	9.39	1037611	4.18
L1559129-01 WG1962120 1x	1119A_11	190974	3.43	438904	5.36	731060	9.39	757540	4.18
OS L1559112-01 WG1962120 1x	1119A_15	204387	3.43	461258	5.36	699726	9.39	812137	4.18
MS R3863446-3 WG1962120 1x	1119A_16	233449	3.43	528265	5.37	805072	9.40	990543	4.18
MSD R3863446-4 WG1962120 1x	1119A_17	247814	3.43	552526	5.37	825247	9.39	1062069	4.18

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1559129	**Analytical Method:**	8270E
Instrument ID:	BNAMS32	**Calibration Start Date:**	11/14/22 18:55
Std File:	1119A_02-1	**Calibration End Date:**	11/15/22 00:53
		Std Analysis Date:	11/19/22 15:01

Sample ID	File ID	PER		PHEN	
		Response	*RT*	*Response*	*RT*
STANDARD		615416	12.16	805765	6.50
UPPER LIMIT		1230832		1611530	
LOWER LIMIT		307708		402883	
LCS R3863446-1 WG1962120 1x	1119A_04	679160	12.16	885825	6.50
BLANK R3863446-2 WG1962120 1x	1119A_05	863741	12.15	1028070	6.50
L1559129-01 WG1962120 1x	1119A_11	749494	12.16	827257	6.50
OS L1559112-01 WG1962120 1x	1119A_15	639393	12.15	864831	6.50
MS R3863446-3 WG1962120 1x	1119A_16	760836	12.16	961252	6.50
MSD R3863446-4 WG1962120 1x	1119A_17	780818	12.16	1006496	6.50

1,4-DCB - 1,4-DICHLOROBENZENE-D4 ACE - ACENAPHTHENE-D10
CHR - CHRYSENE-D12 NAP - NAPHTHALENE-D8
PER - PERYLENE-D12 PHEN - PHENANTHRENE-D10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1559129-01	**SDG:**	L1559129
Client Sample ID:	BNSF-EB01-111422	**Collected Date/Time:**	11/14/22 09:30
Lab File ID:	1119A_11	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS32	**Preparation Date/Time:**	11/19/22 05:17
Analytical Batch:	WG1962120	**Analysis Date/Time:**	11/19/22 18:11
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	GW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Acenaphthene	83-32-9	0	U		0.0886	1.00
Acenaphthylene	208-96-8	0	U		0.0921	1.00
Anthracene	120-12-7	6.55	U		0.0804	1.00
Benzo(a)anthracene	56-55-3	0	U		0.199	1.00
Benzo(b)fluoranthene	205-99-2	11.40	U		0.130	1.00
Benzo(k)fluoranthene	207-08-9	0	U		0.120	1.00
Benzo(g,h,i)perylene	191-24-2	14.35	U		0.121	1.00
Benzo(a)pyrene	50-32-8	0	U		0.0381	1.00
Benzoic Acid	65-85-0	3.95	U		1.70	50.0
Carbazole	86-74-8	6.67	U		0.111	10.0
Chrysene	218-01-9	9.42	U		0.130	1.00
Dibenz(a,h)anthracene	53-70-3	14.07	U		0.0644	1.00
Dibenzofuran	132-64-9	5.51	U		0.0970	10.0
Fluorene	86-73-7	0	U		0.0844	1.00
Fluoranthene	206-44-0	7.54	U		0.102	1.00
Indeno(1,2,3-cd)pyrene	193-39-5	14.02	U		0.279	1.00
1-Methylnaphthalene	90-12-0	4.70	U		0.0790	1.00
2-Methylnaphthalene	91-57-6	4.64	U		0.117	1.00
Phenanthrene	85-01-8	6.52	U		0.112	1.00
Pyrene	129-00-0	7.78	U		0.107	1.00
Naphthalene	91-20-3	4.19	U		0.159	1.00
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.895	3.00
Di-n-butyl phthalate	84-74-2	6.94	U		0.453	3.00
Di-n-octyl phthalate	117-84-0	0	U		0.932	3.00
3&4-Methyl Phenol	3&4-Methyl Phenol	0	U		0.168	10.0
Pentachlorophenol	87-86-5	0	U		0.313	10.0
Phenol	108-95-2	3.19	U		4.33	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_11.D
Acq On : 19 Nov 2022 06:11 pm
Operator : 974
Sample : L1559129-01 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 123 Sample Multiplier: 1

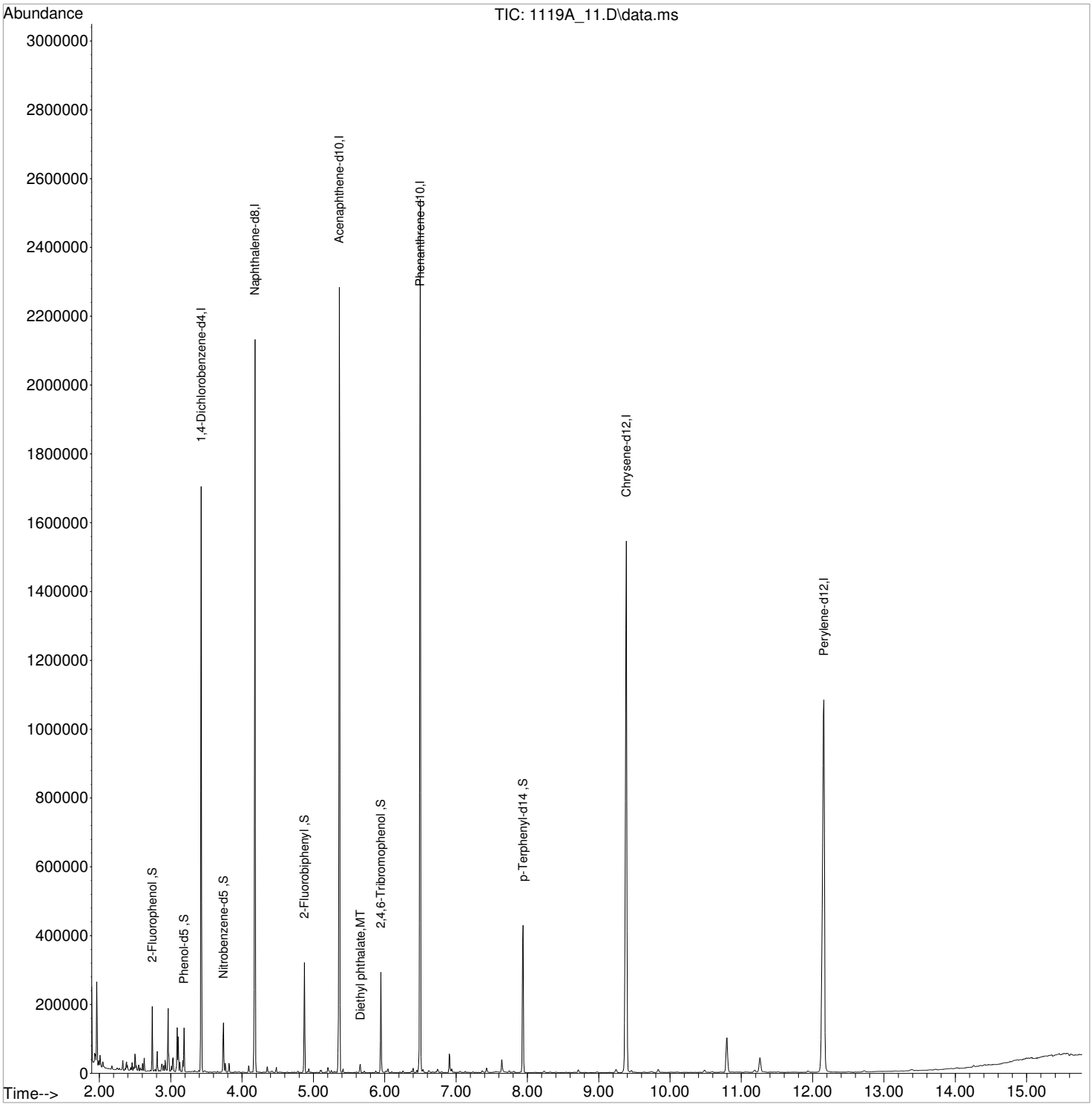
Quant Time: Nov 21 13:02:28 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

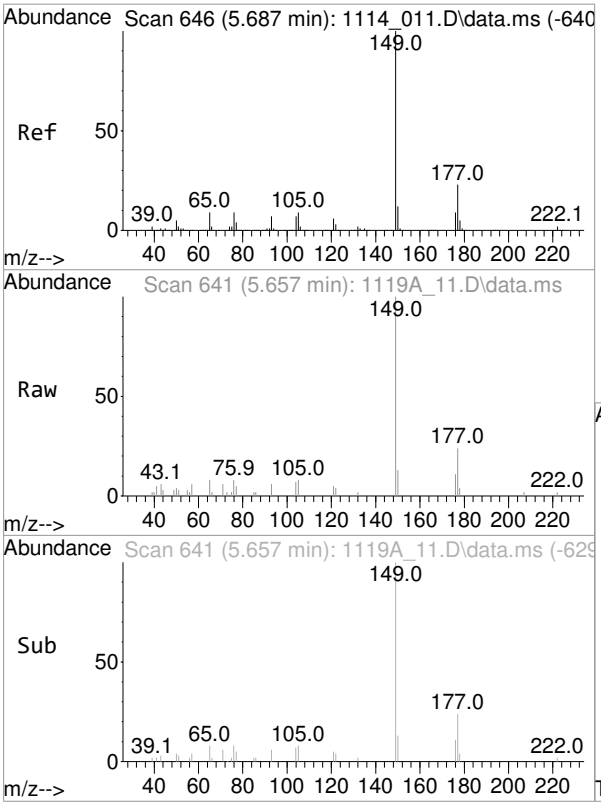
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.428	152	190974	8000.0000000	ppb	-0.01
23) Naphthalene-d8	4.181	136	757540	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.363	164	438904	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.498	188	827257	8000.0000000	ppb	-0.02
84) Chrysene-d12	9.386	240	731060	8000.0000000	ppb	-0.04
94) Perylene-d12	12.157	264	749494	8000.0000000	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	2.740	112	34955	1207.1049797	ppb	-0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 30.18%			
7) Phenol-d5	3.187	99	29896	807.2505741	ppb	-0.02
Spiked Amount 4000.000	Range 10 - 120		Recovery = 20.18%			
24) Nitrobenzene-d5	3.740	82	31250	1010.5345625	ppb	-0.02
Spiked Amount 2000.000	Range 10 - 126		Recovery = 50.53%			
50) 2-Fluorobiphenyl	4.875	172	77702	1111.9816099	ppb	-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 55.60%			
73) 2,4,6-Tribromophenol	5.945	330	27662	3141.0029267	ppb	-0.03
Spiked Amount 4000.000	Range 10 - 153		Recovery = 78.53%			
87) p-Terphenyl-d14	7.939	244	158877	1694.4571255	ppb	-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 84.72%			
Target Compounds						Qvalue
66) Diethyl phthalate	5.657	149	6964	104.7091790	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_11.D
Acq On : 19 Nov 2022 06:11 pm
Operator : 974
Sample : L1559129-01 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 123 Sample Multiplier: 1

Quant Time: Nov 21 13:02:28 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

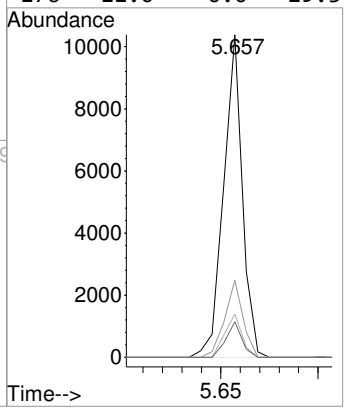




#66
Diethyl phthalate
Concen: 104.7091790 ppb
RT: 5.657 min Scan# 641
Delta R.T. -0.030 min
Lab File: 1119A_11.D
Acq: 19 Nov 2022 06:11 pm

Tgt Ion:149 Resp: 6964

Ion	Ratio	Lower	Upper
149	100		
177	23.8	3.1	43.1
150	13.4	0.0	31.9
176	11.0	0.0	29.3



GC/MS INITIAL CALIBRATION DATA

SDG: L1559129 **Analytical Method:** 8270E

Instrument ID: BNAMS32

Analyte	**RRF: 40**	**RRF: 200**	**RRF: 1000**	**RRF: 2000**	**RRF: 5000**	**RRF: 10000**	**RRF: 20000**	**RRF: 30000**	**RRF: 40000**	**RRF: 50000**
Analysis date/time	11/14/22 18:55	11/14/22 19:16	11/14/22 19:37	11/14/22 19:58	11/14/22 20:19	11/14/22 20:40	11/14/22 21:01	11/14/22 21:22	11/14/22 21:43	11/14/22 22:05
NAPHTHALENE	1.1390	1.0230	0.9740	1.0240	1.0250	0.9550	1.0250	0.9770	0.9460	0.9470
2-METHYLNAPHTHALENE	0.7090	0.64	0.65	0.69	0.68	0.6330	0.6760	0.65	0.6430	0.6380
1-METHYLNAPHTHALENE	0.6420	0.6160	0.5990	0.6350	0.6340	0.5870	0.6240	0.61	0.5940	0.5940
ACENAPHTHYLENE	1.6980	1.5810	1.6560	1.7640	1.8040	1.6610	1.7650	1.7490	1.67	1.6560
ACENAPHTHENE	1.2870	1.1430	1.0910	1.1430	1.1860	1.0710	1.1280	1.1040	1.0820	1.0670
FLUORENE	1.33	1.2510	1.2760	1.34	1.3910	1.2660	1.3360	1.2930	1.2580	1.2410
PHENANTHRENE	1.27	1.0530	1.0410	1.0740	1.0530	0.9890	1.05	1.0060	0.9870	0.9730
ANTHRACENE	1.0880	0.9640	1.0270	1.0750	1.0730	1.0130	1.08	1.0230	1.01	1.0050
FLUORANTHENE	1.0950	1.0160	1.05	1.09	1.0910	1.0380	1.1080	1.0660	1.0590	1.0540
PYRENE	1.3180	1.2390	1.24	1.3290	1.3480	1.2680	1.3740	1.3610	1.3470	1.3320
BENZO(A)ANTHRACENE	1.6140	1.1610	1.1010	1.1630	1.1950	1.1430	1.2250	1.2350	1.2160	1.2070
CHRYSENE	1.2820	1.1320	1.1180	1.1850	1.1780	1.1080	1.1810	1.1790	1.16	1.1470
BENZO(B)FLUORANTHENE	1.13	1.04	1.0650	1.17	1.1660	1.1290	1.2430	1.2380	1.2230	1.2110
BENZO(K)FLUORANTHENE	1.0770	1.0170	1.06	1.1620	1.20	1.1330	1.2630	1.2220	1.20	1.2140
BENZO(A)PYRENE	0.9680	0.7890	0.8610	0.9530	1.0110	0.9820	1.0820	1.0870	1.0570	1.0710
INDENO(1,2,3-CD)PYRENE	1.0210	0.8880	0.8790	0.9630	0.9870	0.9450	1.0650	1.06	1.0580	1.1010
DIBENZ(A,H)ANTHRACENE	1.0090	0.90	0.9270	1.0010	1.0550	0.98	1.0930	1.0720	1.0730	1.0750
BENZO(G,H,I)PERYLENE	1.0140	0.89	0.9040	0.9980	1.03	0.9620	1.0470	1.0420	1.0340	1.0370
PHENOL		1.4390	1.4920	1.6050	1.6050	1.51	1.6390	1.6210	1.5910	1.6110
3&4-METHYL PHENOL		1.1540	1.2620	1.3740	1.3470	1.2950	1.39	1.4010	1.3810	1.3820
DIBENZOFURAN		1.6350	1.5810	1.6280	1.68	1.5220	1.6130	1.57	1.5280	1.4870
PENTACHLOROPHENOL		0.0560	0.0720	0.08	0.0940	0.0960	0.1140	0.1150	0.1190	0.12
CARBAZOLE		0.9340	0.9470	0.9980	1.0080	0.9570	1.0210	0.98	0.9680	0.9570
DI-N-BUTYL PHTHALATE		0.96	1.0310	1.1090	1.1440	1.1130	1.2280	1.17	1.17	1.1310
BIS(2-ETHYLHEXYL)PHTHALATE		0.5850	0.5870	0.6910	0.7730	0.7870	0.89	0.9120	0.8970	0.9030
DI-N-OCTYL PHTHALATE		0.8360	0.9190	1.0760	1.2660	1.29	1.4960	1.5370	1.5160	1.5330
2-FLUOROPHENOL		1.1870	1.1460	1.2160	1.21	1.1650	1.27	1.2550	1.2360	1.2320
PHENOL-D5		1.4980	1.4440	1.5620	1.5640	1.4860	1.6250	1.6010	1.5790	1.6020
NITROBENZENE-D5		0.3340	0.31	0.3430	0.3410	0.3240	0.3190	0.3220	0.3240	0.3210
2-FLUOROBIPHENYL		1.2230	1.28	1.3350	1.3450	1.2360	1.3070	1.2760	1.2430	1.2170
P-TERPHENYL-D14		0.9890	0.9860	1.0360	1.0350	0.9740	1.0690	1.0580	1.0450	1.0410
2,4,6-TRIBROMOPHENOL				0.07	0.0780	0.0780	0.0910	0.09	0.0940	0.0950
BENZOIC ACID										
File ID:	1114_006	1114_007	1114_008	1114_009	1114_010	1114_011	1114_012	1114_013	1114_014	1114_015

GC/MS INITIAL CALIBRATION DATA

SDG: L1559129 **Analytical Method:** 8270E

Instrument ID: BNAMS32

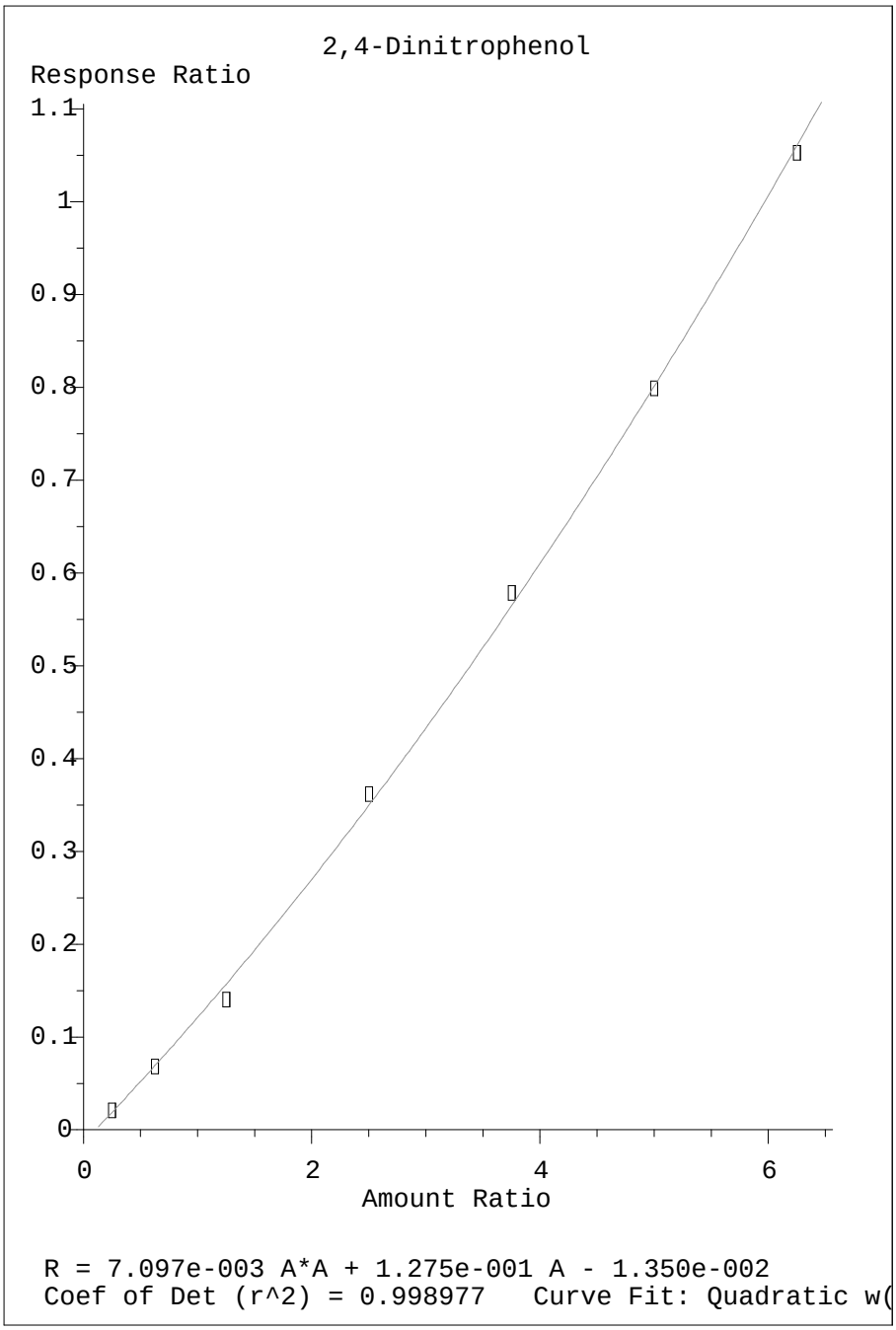
Analyte	**RRF: 1K1**	**RRF: 2K1**	**RRF: 5K1**	**RRF: 10K1**	**RRF: 20K1**	**RRF: 30K1**	**RRF: 40K1**	**RRF: 50K1**
Analysis date/time	11/14/22 22:26	11/14/22 22:47	11/14/22 23:08	11/14/22 23:29	11/14/22 23:50	11/15/22 00:11	11/15/22 00:32	11/15/22 00:53
NAPHTHALENE								
2-METHYLNAPHTHALENE								
1-METHYLNAPHTHALENE								
ACENAPHTHYLENE								
ACENAPHTHENE								
FLUORENE								
PHENANTHRENE								
ANTHRACENE								
FLUORANTHENE								
PYRENE								
BENZO(A)ANTHRACENE								
CHRYSENE								
BENZO(B)FLUORANTHENE								
BENZO(K)FLUORANTHENE								
BENZO(A)PYRENE								
INDENO(1,2,3-CD)PYRENE								
DIBENZ(A,H)ANTHRACENE								
BENZO(G,H,I)PERYLENE								
PHENOL								
3&4-METHYL PHENOL								
DIBENZOFURAN								
PENTACHLOROPHENOL								
CARBAZOLE								
DI-N-BUTYL PHTHALATE								
BIS(2-ETHYLHEXYL)PHTHALATE								
DI-N-OCTYL PHTHALATE								
2-FLUOROPHENOL								
PHENOL-D5								
NITROBENZENE-D5								
2-FLUOROBIPHENYL								
P-TERPHENYL-D14								
2,4,6-TRIBROMOPHENOL								
BENZOIC ACID	0.1070	0.1490	0.1770	0.1780	0.1770	0.1730	0.1580	0.1550
File ID:	1114_016	1114_017	1114_018	1114_019	1114_020	1114_021	1114_022	1114_023

GC/MS INITIAL CALIBRATION DATA

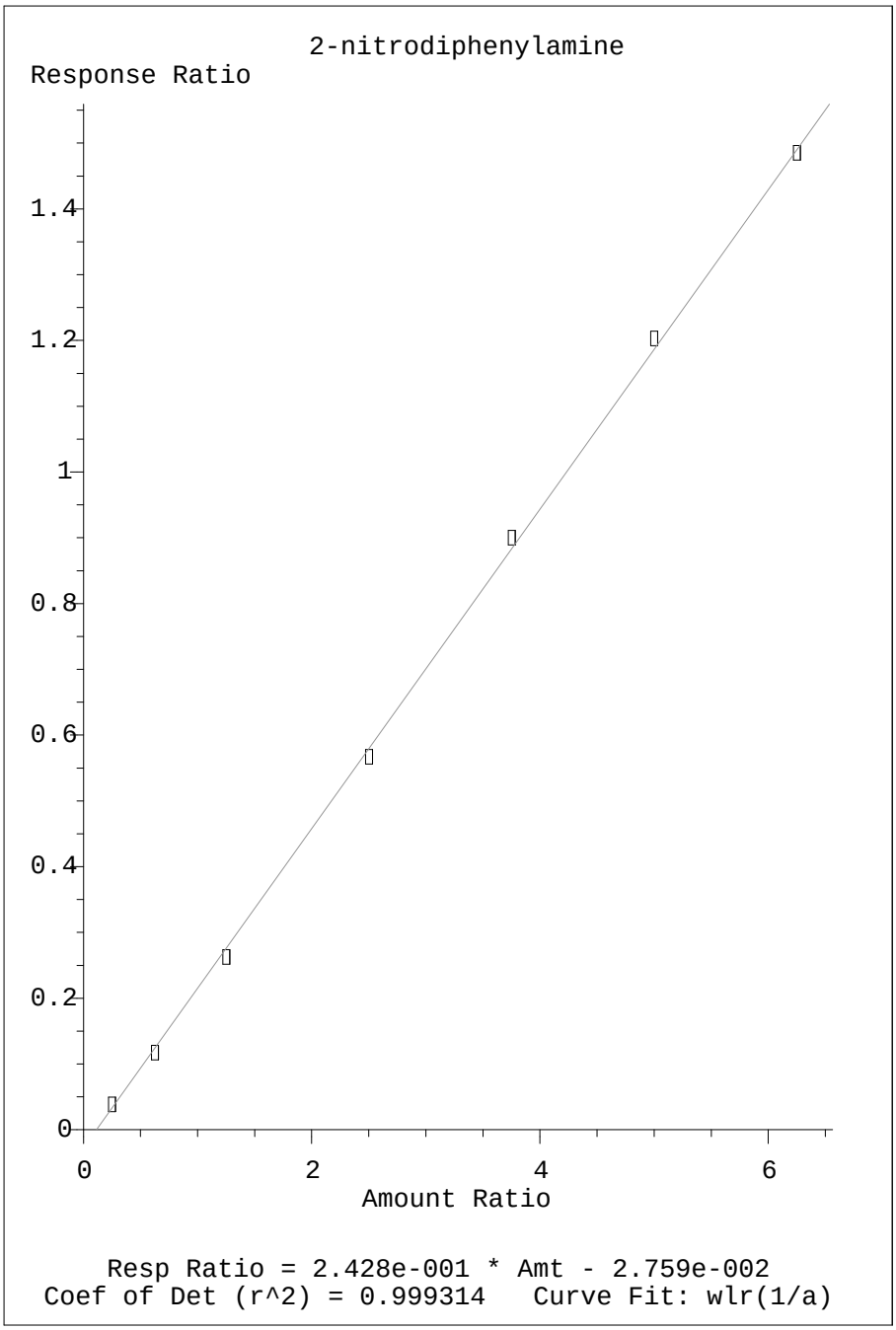
SDG: L1559129 **Analytical Method:** 8270E

Instrument ID: BNAMS32

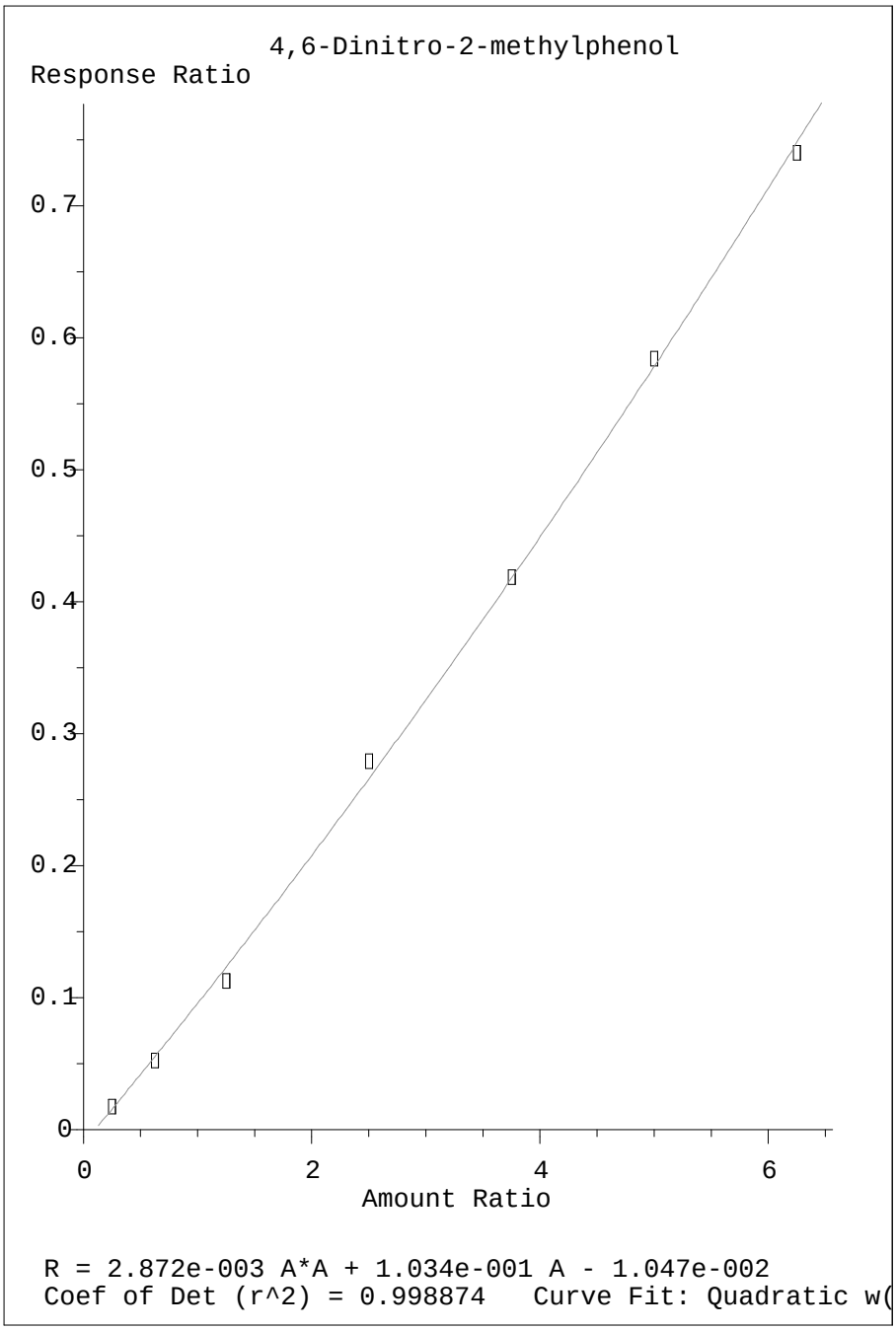
Analyte Analysis date/time	RRF. Avg	%RSD	COD
NAPHTHALENE	1.003511	5.79	
2-METHYLNAPHTHALENE	0.660905	3.92	
1-METHYLNAPHTHALENE	0.613498	3.22	
ACENAPHTHYLENE	1.700208	4.01	
ACENAPHTHENE	1.130261	5.9	
FLUORENE	1.29822	3.76	
PHENANTHRENE	1.049514	8.08	
ANTHRACENE	1.035826	3.95	
FLUORANTHENE	1.066729	2.73	
PYRENE	1.315564	3.76	
BENZO(A)ANTHRACENE	1.225913	11.61	
CHRYSENE	1.167001	4.19	
BENZO(B)FLUORANTHENE	1.161386	6.08	
BENZO(K)FLUORANTHENE	1.154844	6.99	
BENZO(A)PYRENE	0.985916	10.05	0.999
INDENO(1,2,3-CD)PYRENE	0.996604	7.74	
DIBENZ(A,H)ANTHRACENE	1.018327	6.57	
BENZO(G,H,I)PERYLENE	0.99579	5.82	
PHENOL	1.568046	4.44	
3&4-METHYL PHENOL	1.331741	6.1	
DIBENZOFURAN	1.582715	3.94	
PENTACHLOROPHENOL	0.096279	23.95	0.996
CARBAZOLE	0.974481	3.03	
DI-N-BUTYL PHTHALATE	1.117223	7.15	
BIS(2-ETHYLHEXYL)PHTHALATE	0.780453	17.05	0.998
DI-N-OCTYL PHTHALATE	1.27441	21.53	0.997
2-FLUOROPHENOL	1.213054	3.37	
PHENOL-D5	1.551388	3.97	
NITROBENZENE-D5	0.326575	3.32	
2-FLUOROBIPHENYL	1.273664	3.74	
P-TERPHENYL-D14	1.026047	3.32	
2,4,6-TRIBROMOPHENOL	0.085166	11.44	
BENZOIC ACID	0.159309	15.14	



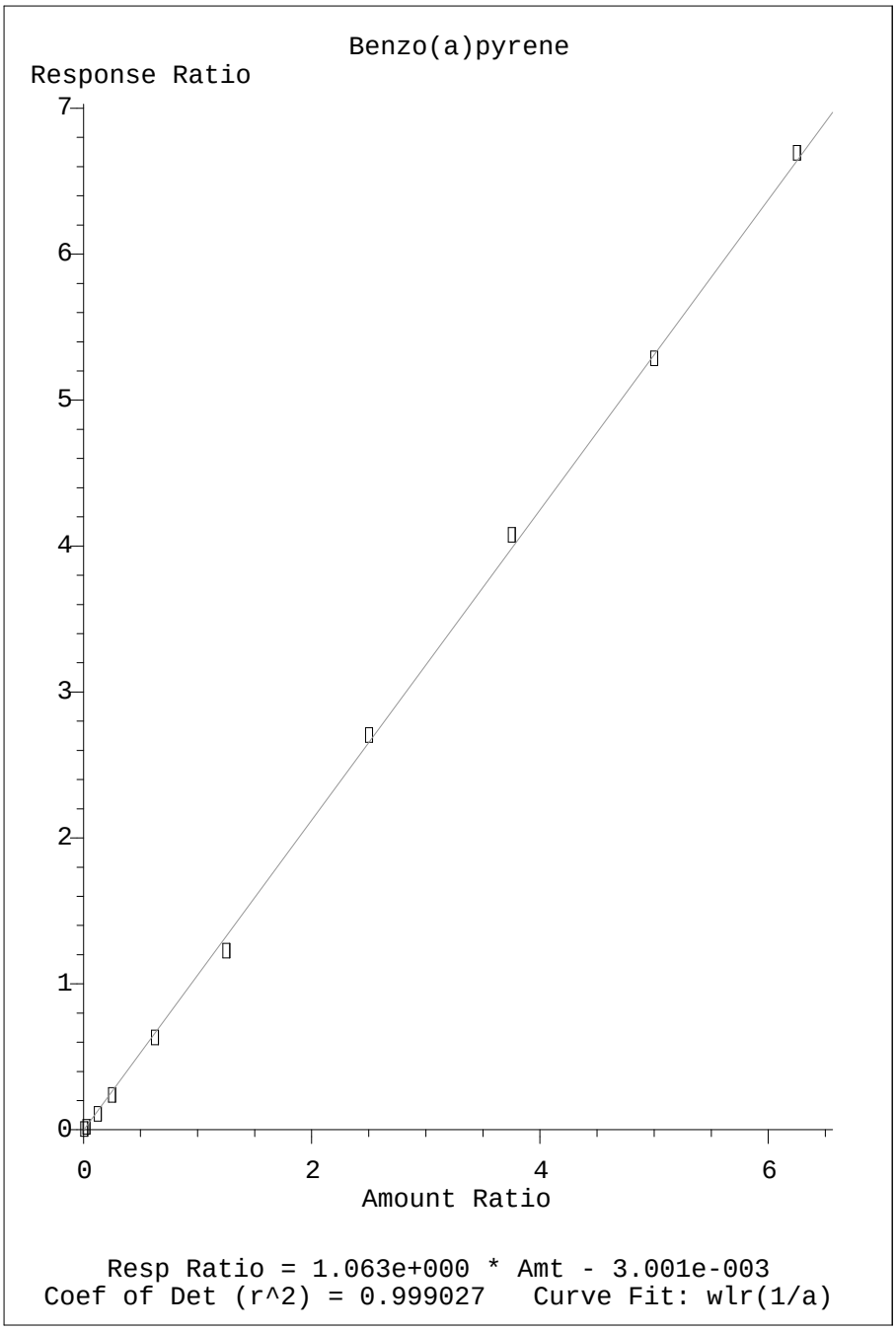
Method Name: C:\GCMS\1\methods\S832K14V.M



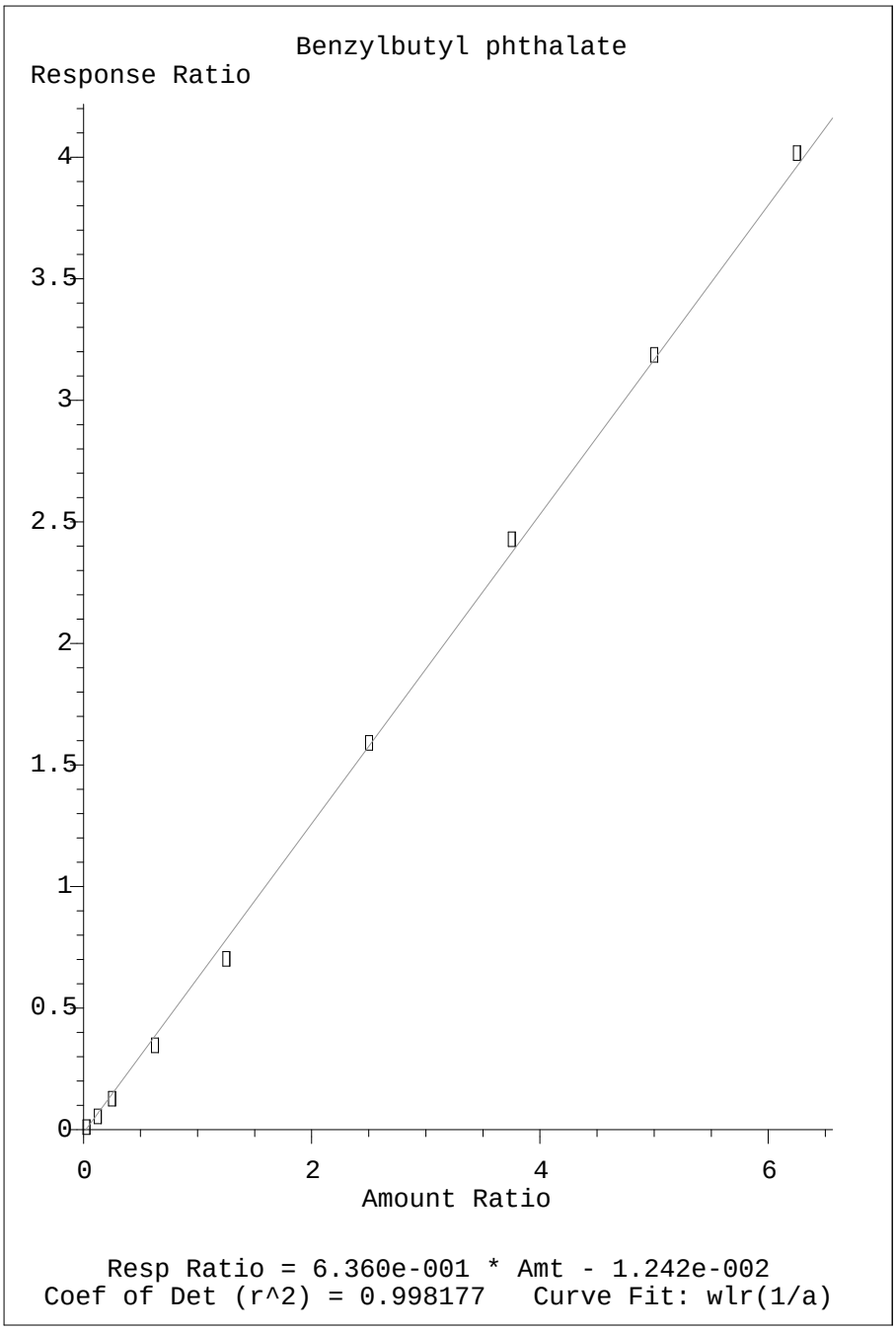
Method Name: C:\GCMS\1\methods\S832K14V.M



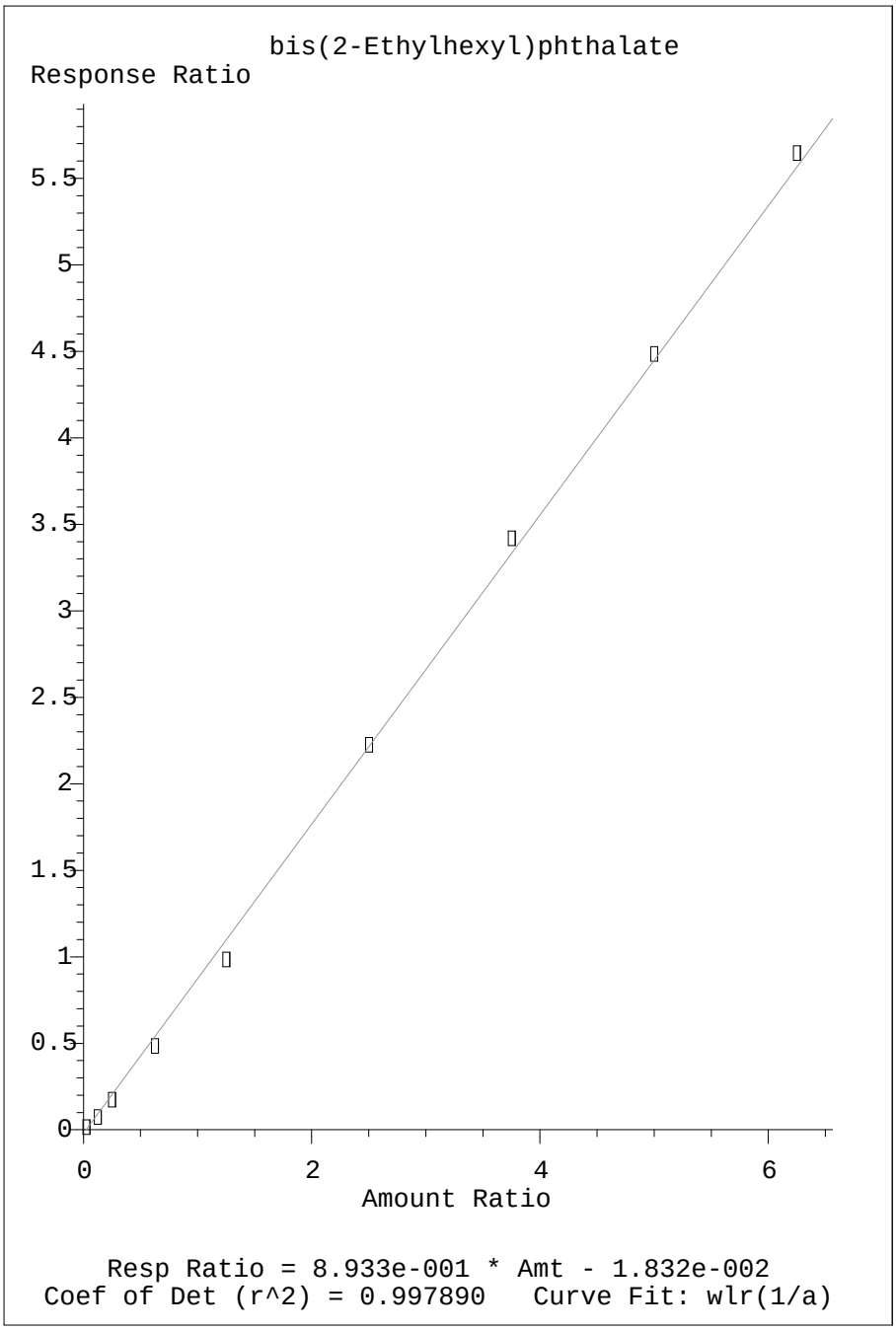
Method Name: C:\GCMS\1\methods\S832K14V.M



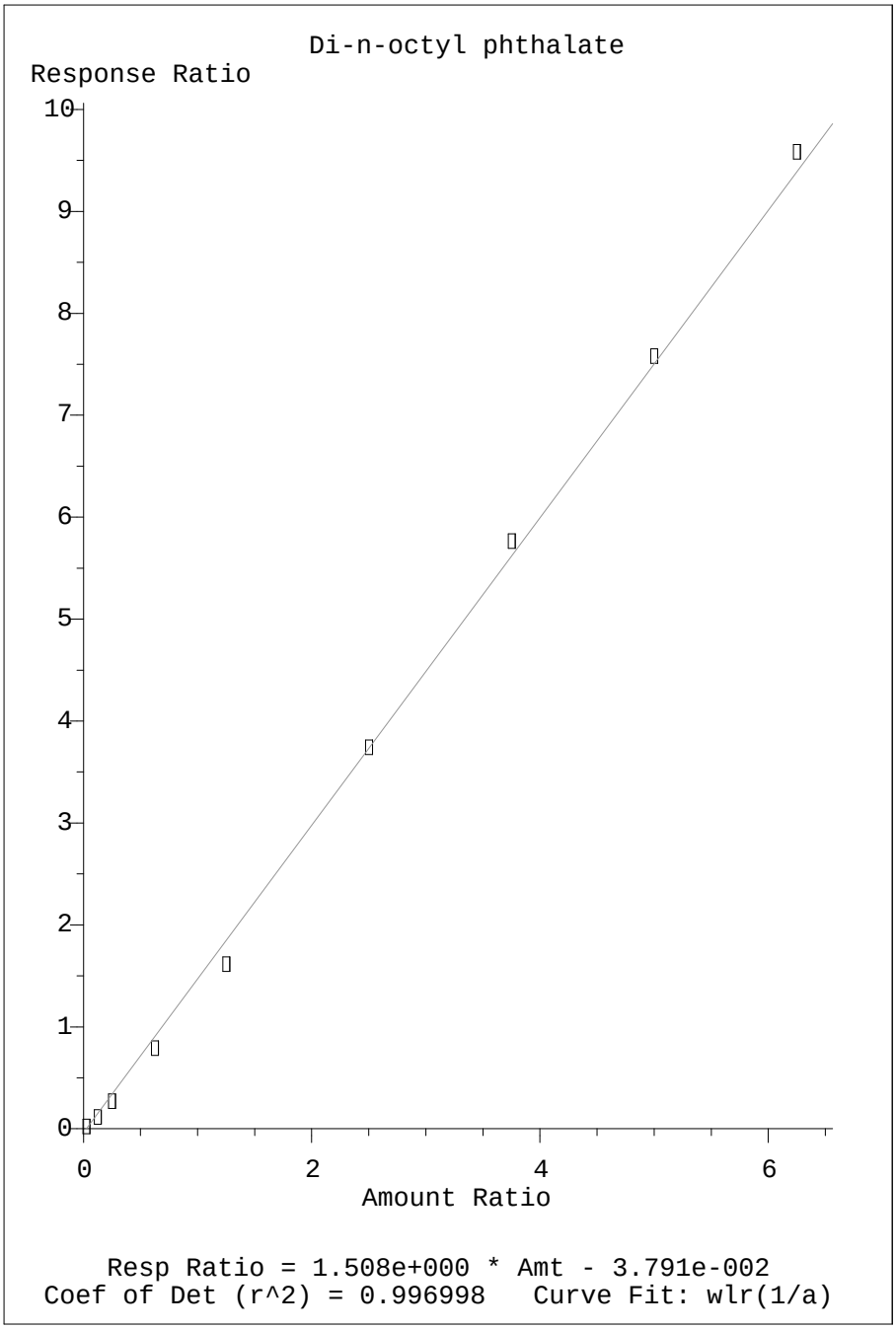
Method Name: C:\GCMS\1\methods\S832K14V.M



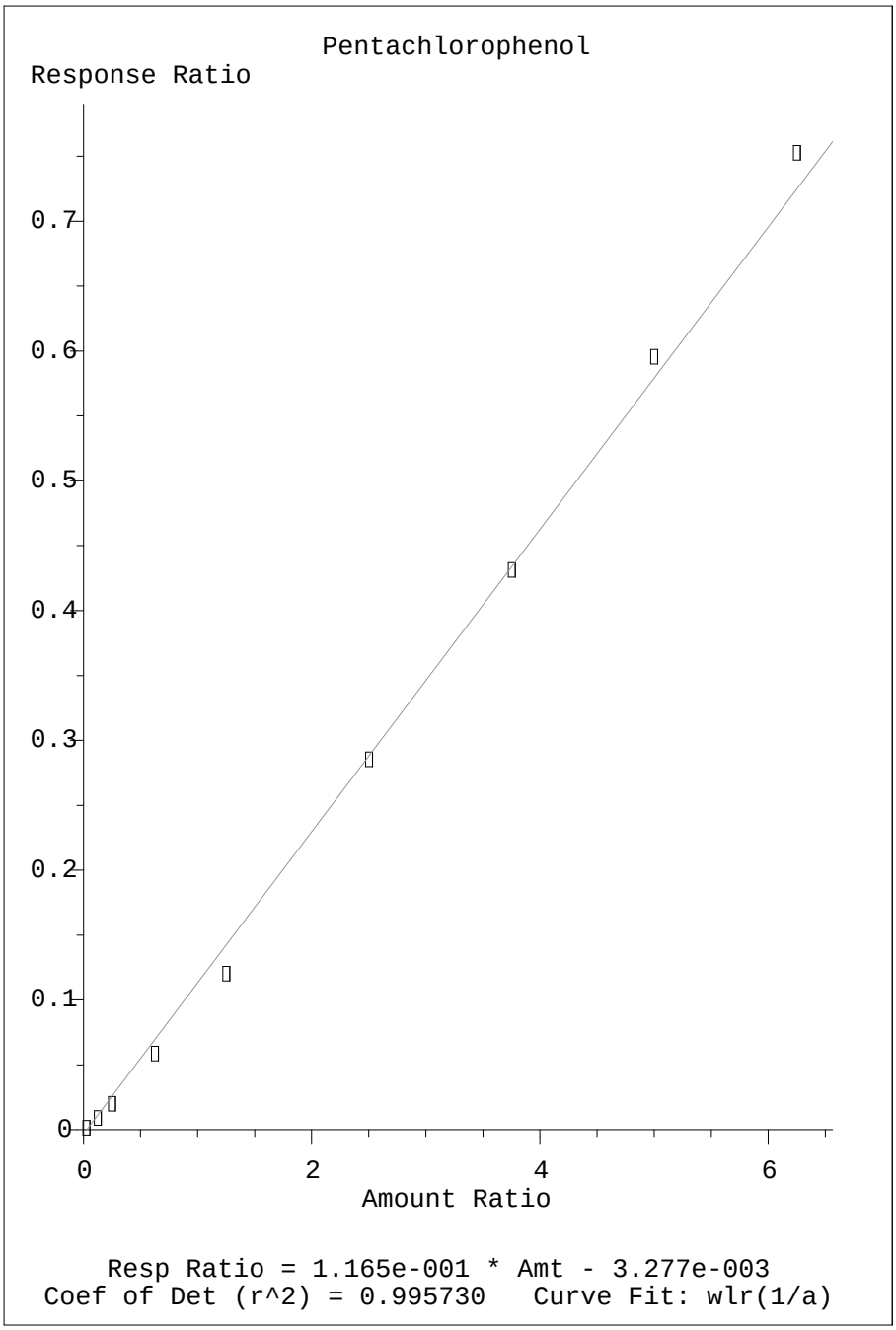
Method Name: C:\GCMS\1\methods\S832K14V.M



Method Name: C:\GCMS\1\methods\S832K14V.M



Method Name: C:\GCMS\1\methods\S832K14V.M



Method Name: C:\GCMS\1\methods\S832K14V.M

Response Factor Report BNAMS32

Method Path : C:\GCMS\1\methods\
Method File : S832K14V.M
Title : 8270 BNA
Last Update : Tue Nov 15 11:04:23 2022
Response Via : Initial Calibration

Calibration Files
40 =1114_006.D 200 =1114_007.D 1K =1114_008.D 2K =1114_009.D 5K =1114_010.D 10K =1114_011.D 20K =1114_012.D 30K =1114_013.D
40K =1114_014.D 50K =1114_015.D 1K1 =1114_016.D 2K1 =1114_017.D 5K1 =1114_018.D 10K1=1114_019.D 20K1=1114_020.D 30K1=1114_021.D
40K1=1114_022.D 50K1=1114_023.D

	Compound	40	200	1K	2K	5K	10K	20K	30K	40K	50K	1K1	2K1	5K1	10K1	20K1	30K1	40K1	50K1	Avg	%RSD
1)	I 1,4-Dichlorobenzen...	----------ISTD----------																			
2)	TM Pyridine			1.180	1.238	1.273	1.214	1.298	1.287	1.274	1.271									1.254	3.21
3)	MT N-Nitrosodimet...			0.696	0.628	0.598	0.573	0.607	0.610	0.604	0.600									0.614	5.94
4)	S 2-Fluorophenol		1.187	1.146	1.216	1.210	1.165	1.270	1.255	1.236	1.232									1.213	3.37
5)	MT Aniline		0.612	0.710	0.758	0.769	0.733	0.800	0.787	0.777	0.784									0.748	7.78
6)	MT bis(2-Chloroet...		1.087	1.263	1.330	1.222	1.173	1.285	1.141	1.200	1.230									1.214	6.14
7)	S Phenol-d5		1.498	1.444	1.562	1.564	1.486	1.625	1.601	1.579	1.602									1.551	3.97
8)	MC Phenol		1.439	1.492	1.605	1.605	1.510	1.639	1.621	1.591	1.611									1.568	4.44
9)	Benzaldehyde											0.934	0.932	0.979	0.925	0.941	0.923	0.901	0.892	0.928	2.84
10)	MT 2-Chlorophenol		1.228	1.199	1.312	1.320	1.260	1.344	1.313	1.282	1.261									1.280	3.69
11)	T n-Decane		0.829	0.689	0.720	0.689	0.643	0.661	0.631	0.595	0.560									0.668	11.65
12)	MT 1,3-Dichlorobe...		1.434	1.452	1.531	1.498	1.402	1.498	1.487	1.449	1.437									1.465	2.77
13)	MTC 1,4-Dichlorobe...		1.491	1.495	1.579	1.516	1.413	1.534	1.501	1.475	1.436									1.493	3.31
14)	MT Benzyl Alcohol		1.007	0.964	0.997	1.032	0.994	1.082	1.065	1.062	1.074									1.031	4.08
15)	MT 1,2-Dichlorobe...		1.400	1.404	1.469	1.423	1.344	1.430	1.434	1.374	1.359									1.404	2.84
16)	MT bis(2-Chlorois...		0.457	0.439	0.477	0.459	0.438	0.466	0.467	0.454	0.457									0.457	2.75

Method Path : C:\GCMS\1\methods\
Method File : S832K14V.M
Title : 8270 BNA
Last Update : Tue Nov 15 11:04:23 2022

17) MT 2,2-oxybis(1-c... 0.457 0.439 0.477 0.459 0.438 0.466 0.467 0.454 0.457
0.457 2.75
18) MT 2-Methylphenol 1.101 1.117 1.229 1.211 1.146 1.243 1.232 1.212 1.209
1.189 4.47
19) MT Hexachloroethane 0.600 0.531 0.581 0.549 0.531 0.574 0.561 0.552 0.549
0.559 4.12
20) MP N-Nitrosodi-n-... 0.796 0.781 0.861 0.869 0.825 0.896 0.896 0.890 0.881
0.855 5.13
21) MT 3&4-Methyl phenol 1.154 1.262 1.374 1.347 1.295 1.390 1.401 1.381 1.382
1.332 6.10
22) MT Acetophenone 1.611 1.626 1.680 1.650 1.699 1.702 1.67
3 1.681 1.665 2.00

23) I Naphthalene-d8 ----------ISTD----------
24) S Nitrobenzene-d5 0.334 0.310 0.343 0.341 0.324 0.319 0.322 0.324 0.321
0.327 3.32
25) MT Nitrobenzene 0.280 0.288 0.317 0.317 0.300 0.328 0.325 0.318 0.318
0.310 5.41
26) MT Isophorone 0.521 0.539 0.589 0.604 0.572 0.627 0.623 0.615 0.620
0.590 6.55
27) MCT 2-Nitrophenol 0.132 0.139 0.159 0.164 0.158 0.178 0.176 0.177 0.175
0.162 10.54
28) MT 2,4-Dimethylph... 0.296 0.299 0.326 0.330 0.305 0.334 0.326 0.324 0.319
0.318 4.42
29) MT bis(2-Chloreth... 0.371 0.367 0.389 0.389 0.365 0.395 0.391 0.381 0.379
0.381 2.93
30) MCT 2,4-Dichloroph... 0.244 0.244 0.266 0.270 0.255 0.284 0.275 0.277 0.278
0.266 5.64
31) MT Benzoic Acid 0.107 0.149 0.177 0.178 0.177 0.173 0.15
8 0.155 0.159 15.14
32) MT 1,2,4-Trichlor... 0.301 0.293 0.312 0.302 0.284 0.308 0.301 0.294 0.293
0.299 2.82
33) MT alpha-terpineol 0.287 0.285 0.281 0.266 0.237 0.214 0.19
3 0.252 14.93
34) MT Naphthalene 1.139 1.023 0.974 1.024 1.025 0.955 1.025 0.977 0.946 0.947
1.004 5.79
35) MT 4-Chloroaniline 0.118 0.113 0.126 0.123 0.114 0.124 0.121 0.119 0.120
0.120 3.51
36) MCT Hexachloro-1,3... 0.150 0.149 0.156 0.156 0.145 0.158 0.153 0.151 0.149
0.152 2.76
37) Hydroquinone 0.287 0.319 0.320 0.306 0.277 0.263 0.23
0.223 0.279 13.02
38) MT Quinoline 0.615 0.625 0.598 0.552 0.494 0.452
0.556 12.62
39) MT Caprolactam 0.077 0.082 0.080 0.080 0.077 0.074 0.06

9 0.066 0.075   7.56

Response Factor Report BNAMS32

Method Path : C:\GCMS\1\methods\
Method File : S832K14V.M
Title   : 8270 BNA
Last Update : Tue Nov 15 11:04:23 2022

40) MCT 4-Chloro-3-met... 0.253 0.253 0.274 0.282 0.266 0.297 0.289 0.291 0.287
0.277 5.92
41) MT 2-Methylnaphth... 0.709 0.640 0.650 0.690 0.680 0.633 0.676 0.650 0.643 0.638
0.661 3.92
42) MT 1-Methylnaphth... 0.642 0.616 0.599 0.635 0.634 0.587 0.624 0.610 0.594 0.594
0.613 3.22
43) MT 1,2,4,5-Tetrac... 0.279 0.280 0.271 0.248 0.220 0.199
0.249 13.49
44) Diphenyl Ether 0.405 0.422 0.408 0.376 0.328 0.300
0.373 13.17
45) Diphenyl Oxide 0.405 0.422 0.408 0.376 0.328 0.300
0.373 13.17

46) I Acenaphthene-d10 ----------ISTD----------
47) MPT Hexachlorocycl... 0.323 0.316 0.340 0.370 0.344 0.377 0.375 0.367 0.366
0.353 6.50
48) MCT 2,4,6-Trichlor... 0.274 0.292 0.314 0.332 0.309 0.341 0.357 0.352 0.348
0.324 8.95
49) MT 2,4,5-Trichlor... 0.306 0.309 0.340 0.364 0.339 0.376 0.360 0.365 0.375
0.348 7.61
50) S 2-Fluorobiphenyl 1.223 1.280 1.335 1.345 1.236 1.307 1.276 1.243 1.217
1.274 3.74
51) MT Biphenyl 1.512 1.422 1.470 1.519 1.378 1.450 1.412 1.356 1.347
1.429 4.43
52) MT 2-Chloronaphth... 1.161 1.086 1.079 1.123 1.144 1.048 1.117 1.093 1.064 1.075
1.099 3.30
53) MT 2-Nitroaniline 0.315 0.361 0.351 0.403 0.408 0.407 0.415
0.380 10.06
54) MT Acenaphthylene 1.698 1.581 1.656 1.764 1.804 1.661 1.765 1.749 1.670 1.656
1.700 4.01
55) MT Dimethyl phtha... 1.159 1.188 1.237 1.314 1.197 1.289 1.268 1.248 1.250
1.239 4.04
56) MT 2,6-Dinitrotol... 0.259 0.296 0.282 0.314 0.311 0.310 0.309
0.297 6.89
57) MT 3-Nitroaniline 0.288 0.336 0.317 0.357 0.352 0.355 0.359
0.338 7.83
58) MCT Acenaphthene 1.287 1.143 1.091 1.143 1.186 1.071 1.128 1.104 1.082 1.067
1.130 5.90
59) MPT 2,4-Dinitrophenol 0.084 0.109 0.112 0.145 0.154 0.160 0.168
0.133 23.83
60) MT Dibenzofuran 1.635 1.581 1.628 1.680 1.522 1.613 1.570 1.528 1.487
1.583 3.94
61) MT 2,4-Dinitrotol... 0.319 0.379 0.368 0.411 0.418 0.412 0.409
0.388 9.21

Method Path : C:\GCMS\1\methods\
Method File : S832K14V.M
Title : 8270 BNA
Last Update : Tue Nov 15 11:04:23 2022

```
62) T   2,3,4,6-Tetrac...                                                    0.205 0.206 0.213 0.211 0.221 0.231 0.23
0.246 0.221    7.06
63) MPT 4-Nitrophenol                      0.209 0.243 0.241 0.270 0.273 0.282 0.286
      0.258   10.84
64) MT  Fluorene          1.330 1.251 1.276 1.340 1.391 1.266 1.336 1.293 1.258 1.241
      1.298    3.76
65) MT  4-Chlorophenyl...       0.611 0.597 0.631 0.647 0.586 0.626 0.609 0.589 0.579
      0.608    3.73
66) MT  Diethyl phthalate       1.082 1.139 1.225 1.285 1.180 1.272 1.253 1.236 1.238
      1.212    5.47
67) MT  4-Nitroaniline                     0.301 0.347 0.330 0.373 0.373 0.369 0.376
      0.353    8.10
68) MT  Azobenzene              1.052 1.122 1.202 1.271 1.173 1.240 1.201 1.178 1.182
      1.180    5.41
69) MT  Atrazine                                                             0.300 0.306 0.344 0.346 0.355 0.354 0.35
5 0.345 0.338    6.58

70) I   Phenanthrene-d10      ----------------ISTD--------------------
71) MT  4,6-Dinitro-2-...                  0.070 0.084 0.090 0.112 0.112 0.117 0.118
      0.100   18.82
72) MCT N-Nitrosodiphe...       0.570 0.594 0.632 0.636 0.601 0.646 0.625 0.616 0.613
      0.615    3.83
73) S   2,4,6-Tribromo...                  0.070 0.078 0.078 0.091 0.090 0.094 0.095
      0.085   11.44
74) MT  4-Bromophenyl-...       0.170 0.173 0.184 0.182 0.175 0.192 0.184 0.185 0.182
      0.181    3.88
75) MT  Hexachlorobenzene       0.208 0.195 0.212 0.204 0.193 0.212 0.205 0.206 0.208
      0.205    3.24
76) T   n-octadecane                 0.117 0.123 0.121 0.114 0.122 0.115 0.110 0.107
      0.116    5.05
77) MCT Pentachlorophenol       0.056 0.072 0.080 0.094 0.096 0.114 0.115 0.119 0.120
      0.096   23.95#
78) MT  Phenanthrene      1.270 1.053 1.041 1.074 1.053 0.989 1.050 1.006 0.987 0.973
      1.050    8.08
79) MT  Anthracene        1.088 0.964 1.027 1.075 1.073 1.013 1.080 1.023 1.010 1.005
      1.036    3.95
80) MT  Carbazole               0.934 0.947 0.998 1.008 0.957 1.021 0.980 0.968 0.957
      0.974    3.03
81) MT  Di-n-butyl pht...       0.960 1.031 1.109 1.144 1.113 1.228 1.170 1.170 1.131
      1.117    7.15
82) MT  2-nitrodipheny...                                                          0.153 0.187 0.210 0.227 0.240 0.24
0.238 0.214   15.51
83) MCT Fluoranthene      1.095 1.016 1.050 1.090 1.091 1.038 1.108 1.066 1.059 1.054
      1.067    2.73
```

Method Path : C:\GCMS\1\methods\
Method File : S832K14V.M
Title : 8270 BNA
Last Update : Tue Nov 15 11:04:23 2022

94) I Chrysene-d12 ----------ISTD----------
95) MT Benzidine 0.696 0.759 0.853 0.900 0.931 0.958 0.94
0.918 0.870 10.95
96) MT Pyrene 1.318 1.239 1.240 1.329 1.348 1.268 1.374 1.361 1.347 1.332
1.316 3.76
87) S p-Terphenyl-d14 0.989 0.986 1.036 1.035 0.974 1.069 1.058 1.045 1.041
1.026 3.32
88) MT Benzylbutyl ph... 0.410 0.436 0.508 0.555 0.562 0.636 0.648 0.637 0.643
0.559 16.33
89) MT 3,3-Dichlorobe... 0.357 0.387 0.433 0.456 0.472 0.484 0.48
3 0.476 0.444 10.74
90) MT Benzo(a)anthra... 1.614 1.161 1.101 1.163 1.195 1.143 1.225 1.235 1.216 1.207
1.226 11.61
91) MT Chrysene 1.282 1.132 1.118 1.185 1.178 1.108 1.181 1.179 1.160 1.147
1.167 4.19
92) MT bis(2-Ethylhex... 0.585 0.587 0.691 0.773 0.787 0.890 0.912 0.897 0.903
0.780 17.05
93) MC Di-n-octyl pht... 0.836 0.919 1.076 1.266 1.290 1.496 1.537 1.516 1.533
1.274 21.53

94) I Perylene-d12 ----------ISTD----------
95) MT Benzo(b)fluora... 1.130 1.040 1.065 1.170 1.166 1.129 1.243 1.238 1.223 1.211
1.161 6.08
96) MT Benzo(k)fluora... 1.077 1.017 1.060 1.162 1.200 1.133 1.263 1.222 1.200 1.214
1.155 6.99
97) MC Benzo(a)pyrene 0.968 0.789 0.861 0.953 1.011 0.982 1.082 1.087 1.057 1.071
0.986 10.05
98) MT Indeno(1,2,3-c... 1.021 0.888 0.879 0.963 0.987 0.945 1.065 1.060 1.058 1.101
0.997 7.74
99) MT Dibenz(a,h)ant... 1.009 0.900 0.927 1.001 1.055 0.980 1.093 1.072 1.073 1.075
1.018 6.57
100) MT Benzo(g,h,i)pe... 1.014 0.890 0.904 0.998 1.030 0.962 1.047 1.042 1.034 1.037
0.996 5.82

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_006.D
Acq On : 14 Nov 2022 06:55 pm
Operator : 917
Sample : STD SVMS 40 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 10:13:02 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:12:51 2022
Response via : Initial Calibration

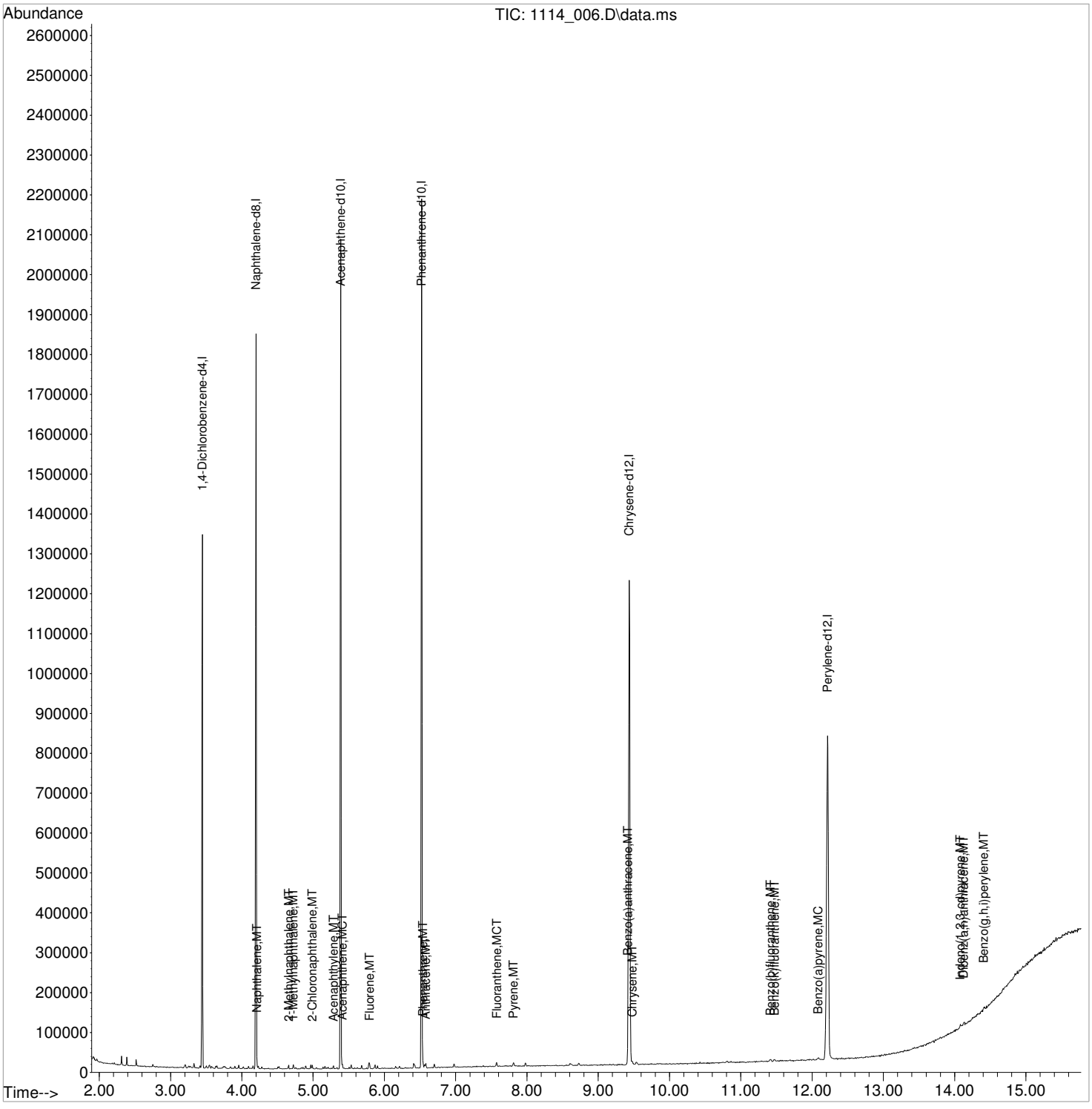
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.446	152	159702	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	633884	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.387	164	356279	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.522	188	654486	8000.0000000	ppb		0.00
84) Chrysene-d12	9.434	240	559155	8000.0000000	ppb		0.00
94) Perylene-d12	12.216	264	523074	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0d	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
7) Phenol-d5	0.000	99	0d	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#			
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#			
73) 2,4,6-Tribromophenol	0.000	330	0d	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#			
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#			
Target Compounds							Qvalue
34) Naphthalene	4.210	128	3609	47.6916568	ppb		97
41) 2-Methylnaphthalene	4.657	142	2247	44.7660658	ppb	#	94
42) 1-Methylnaphthalene	4.722	142	2035	43.7286041	ppb	#	88
52) 2-Chloronaphthalene	4.987	162	2069	44.3340553	ppb		93
54) Acenaphthylene	5.287	152	3024	40.8899085	ppb		91
58) Acenaphthene	5.410	153	2292	48.0400108	ppb		92
64) Fluorene	5.793	166	2370	42.0315335	ppb		97
78) Phenanthrene	6.540	178	4157	51.3666202	ppb		96
79) Anthracene	6.581	178	3560	42.9466462	ppb		96
83) Fluoranthene	7.575	202	3584	42.1928709	ppb		92
86) Pyrene	7.810	202	3685	41.5900118	ppb		98
90) Benzo(a)anthracene	9.416	228	4511	56.4682386	ppb		85
91) Chrysene	9.475	228	3584	46.2767748	ppb		93
95) Benzo(b)fluoranthene	11.416	252	2955	40.0165415	ppb		90
96) Benzo(k)fluoranthene	11.475	252	2816m	38.0157026	ppb		
97) Benzo(a)pyrene	12.086	252	2532	39.4476180	ppb		91
98) Indeno(1,2,3-cd)pyrene	14.081	276	2669	43.2133797	ppb		81
99) Dibenz(a,h)anthracene	14.128	278	2638	41.1901909	ppb		95
100) Benzo(g,h,i)perylene	14.410	276	2652	42.1759939	ppb		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

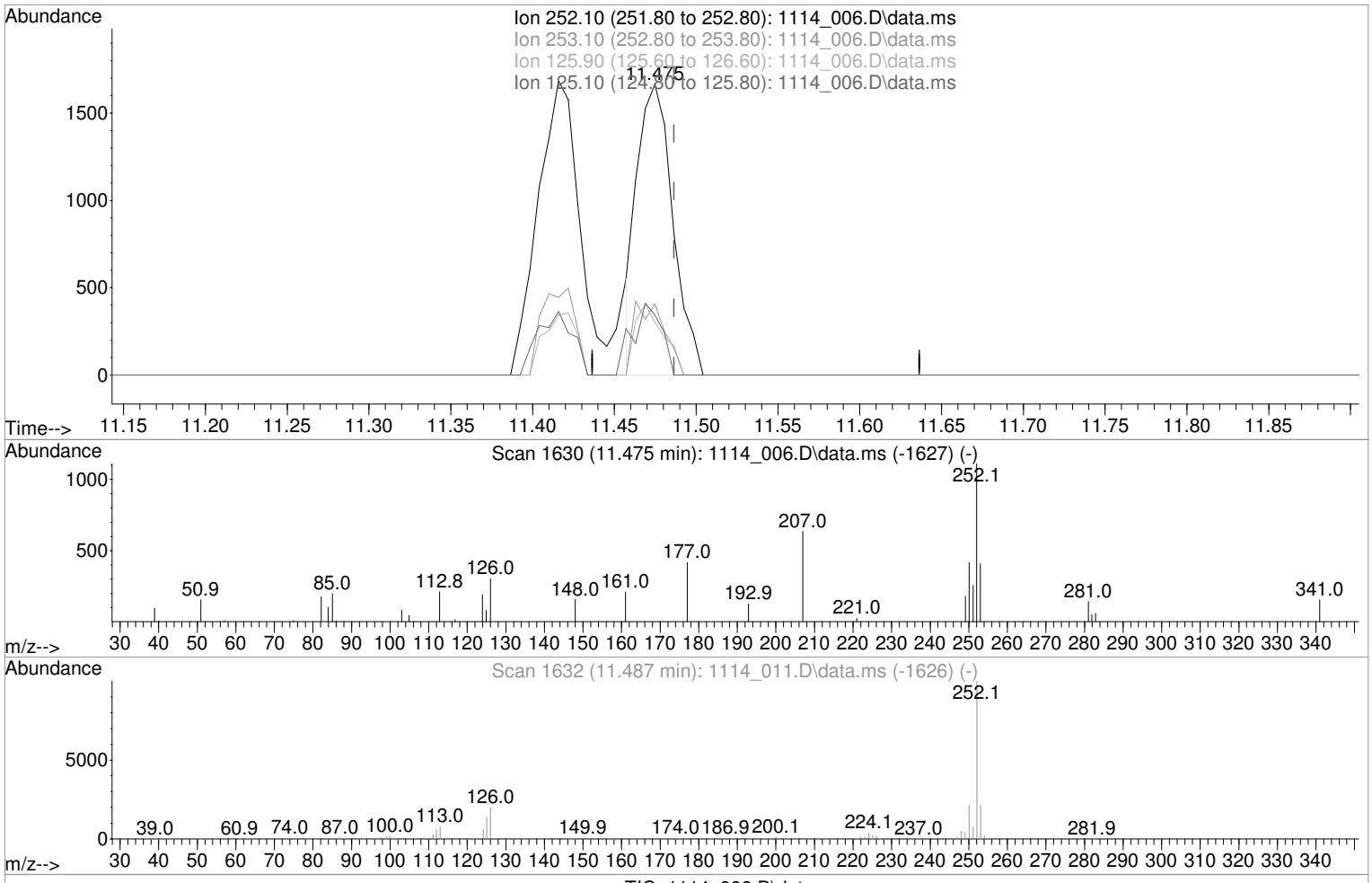
Data Path : C:\GCMS\1\data\111422\
Data File : 1114_006.D
Acq On : 14 Nov 2022 06:55 pm
Operator : 917
Sample : STD SVMS 40 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 10:13:02 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:12:51 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_006.D
Acq On : 14 Nov 2022 06:55 pm
Operator : 917
Sample : STD SVMS 40 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 10:13:02 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:12:51 2022
Response via : Initial Calibration



TIC: 1114_006.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 34.1277330 ppb

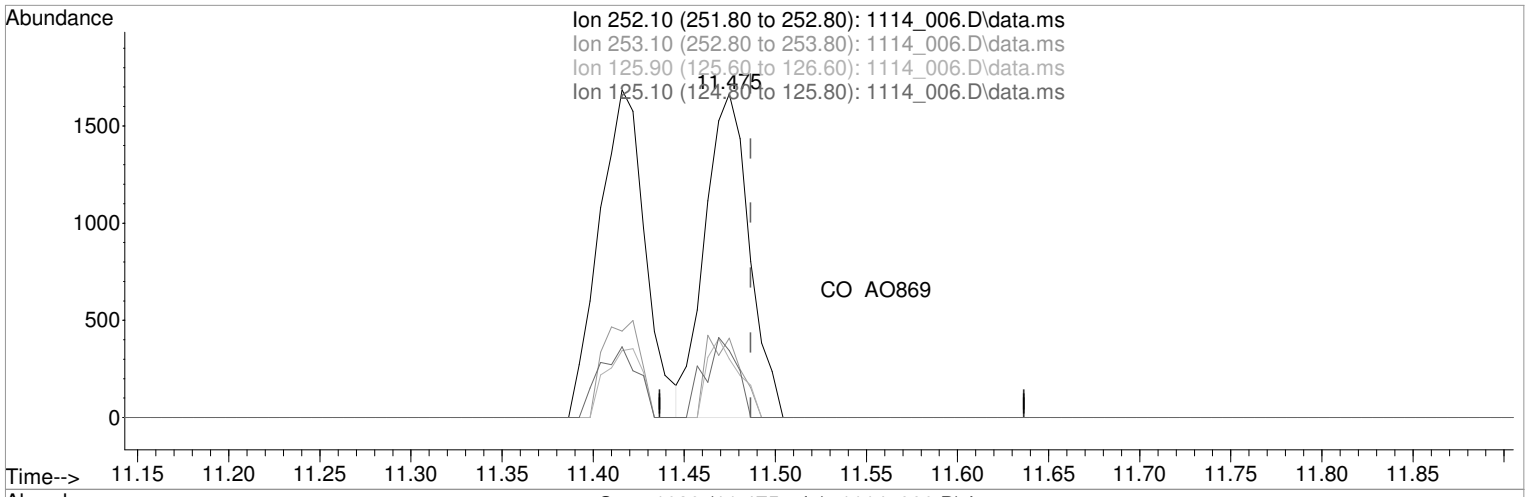
Qvalue = 92

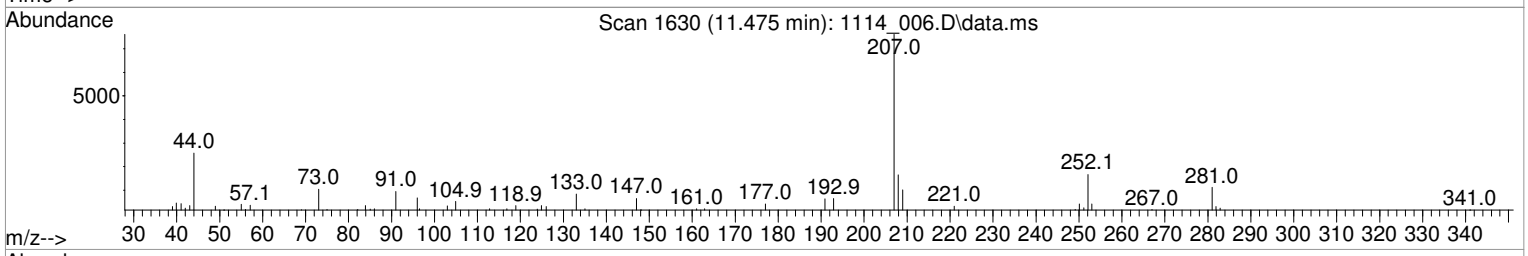
response 2528

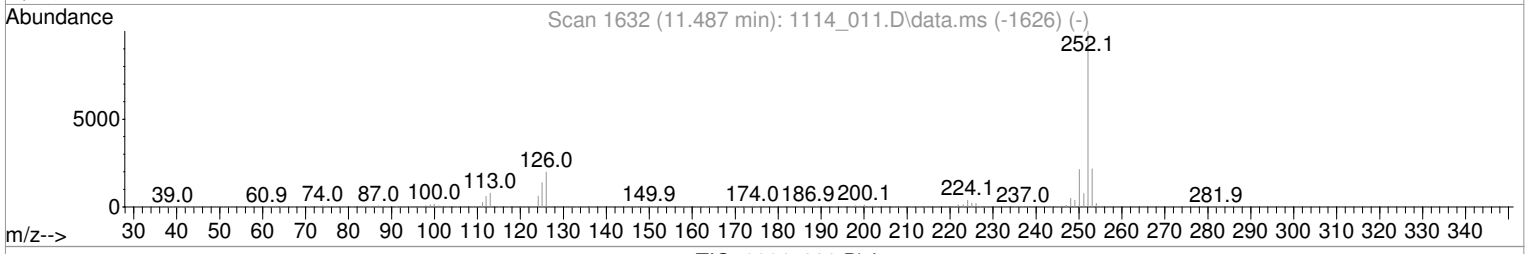
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	24.52
125.90	19.60	18.15
125.10	13.70	20.73

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_006.D
Acq On : 14 Nov 2022 06:55 pm
Operator : 917
Sample : STD SVMS 40 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 10:13:02 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:12:51 2022
Response via : Initial Calibration







TIC: 1114_006.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 38.0157026 ppb m

response 2816

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	24.52
125.90	19.60	18.15
125.10	13.70	20.73

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.446	152	163824	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	639447	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.387	164	359756	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.522	188	656150	8000.0000000	ppb		0.00
84) Chrysene-d12	9.434	240	554002	8000.0000000	ppb		0.00
94) Perylene-d12	12.216	264	522469	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.752	112	4862	203.7599881	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 5.09%#				
7) Phenol-d5	3.199	99	6137	201.7147719	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 5.04%#				
24) Nitrobenzene-d5	3.752	82	5342	206.1428611	ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 10.31%				
50) 2-Fluorobiphenyl	4.893	172	11001	197.9653447	ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 9.90%#				
73) 2,4,6-Tribromophenol	5.969	330	1059	165.9522646	ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 4.15%#				
87) p-Terphenyl-d14	7.981	244	13701	203.1052404	ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 10.16%#				
Target Compounds						Qvalue	
5) Aniline	3.252	66	2506	166.9758841	ppb	#	73
6) bis(2-Chloroethyl)ether	3.275	93	4453	185.4510439	ppb		90
8) Phenol	3.211	94	5893	190.6192077	ppb		95
10) 2-Chlorophenol	3.322	128	5030	194.9620206	ppb		97
11) n-Decane	3.328	41	3396	257.9082732	ppb	#	94
12) 1,3-Dichlorobenzene	3.411	146	5872	204.4615135	ppb		92
13) 1,4-Dichlorobenzene	3.452	146	6108m	211.1347038	ppb		
14) Benzyl Alcohol	3.499	79	4124	202.6970809	ppb		100
15) 1,2-Dichlorobenzene	3.540	146	5734	208.2937345	ppb		97
16) bis(2-Chloroisopropyl)...	3.575	121	1870	208.5460726	ppb	#	45
17) 2,2-oxybis(1-chloropro...	3.575	121	1870	208.5460726	ppb	#	45
18) 2-Methylphenol	3.552	108	4510	192.2204093	ppb		98
19) Hexachloroethane	3.740	117	2459	225.9413000	ppb		89
20) N-Nitrosodi-n-propylamine	3.652	70	3259	192.9190133	ppb		90
21) 3&4-Methyl phenol	3.634	107	4727	178.2114087	ppb		96
25) Nitrobenzene	3.763	77	4474	186.8224943	ppb		92
26) Isophorone	3.899	82	8330	182.3087902	ppb		90
27) 2-Nitrophenol	3.952	139	2108	166.8942907	ppb		92
28) 2,4-Dimethylphenol	3.958	107	4731	194.2127722	ppb		97
29) bis(2-Chlorethoxy)methane	4.022	93	5938	203.3732673	ppb		95
30) 2,4-Dichlorophenol	4.093	162	3897	191.0231319	ppb		94
32) 1,2,4-Trichlorobenzene	4.158	180	4815	211.8531715	ppb		97
34) Naphthalene	4.210	128	16348m	195.3696526	ppb		
35) 4-Chloroaniline	4.228	65	1894	207.9367152	ppb	#	83
36) Hexachloro-1,3-butadiene	4.281	225	2394	206.0028928	ppb		94
40) 4-Chloro-3-methylphenol	4.522	107	4041	189.8015741	ppb		96
41) 2-Methylnaphthalene	4.652	142	10227	190.6194920	ppb		98

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

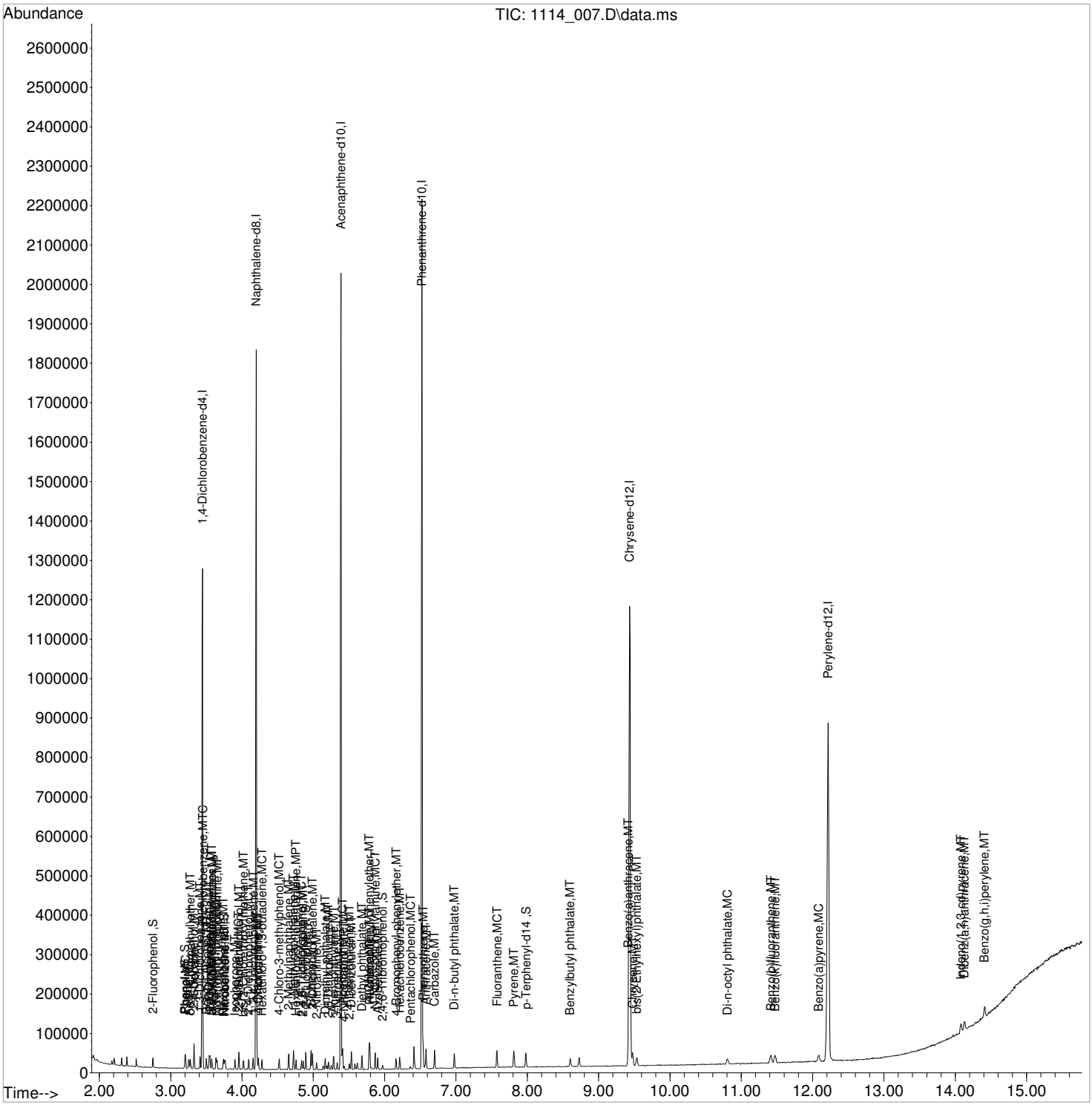
Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
42)	1-Methylnaphthalene	4.722	142	9848	200.4336394 ppb		99
47)	Hexachlorocyclopentadiene	4.758	237	2903	187.5930633 ppb		94
48)	2,4,6-Trichlorophenol	4.834	196	2460	177.0152154 ppb		93
49)	2,4,5-Trichlorophenol	4.858	196	2751	180.7220361 ppb		97
51)	Biphenyl	4.969	154	13601	219.4701826 ppb		97
52)	2-Chloronaphthalene	4.987	162	9764	196.5503947 ppb		97
53)	2-Nitroaniline	5.046	138	2087	132.3085024 ppb	#	66
54)	Acenaphthylene	5.287	152	14220	188.3266451 ppb		98
55)	Dimethyl phthalate	5.169	163	10423	193.6811578 ppb		93
56)	2,6-Dinitrotoluene	5.210	165	1691	133.1502063 ppb	#	75
57)	3-Nitroaniline	5.334	138	1976	138.7743836 ppb	#	85
58)	Acenaphthene	5.410	153	10280	193.8981549 ppb		94
60)	Dibenzofuran	5.534	168	14703	214.8099160 ppb		98
61)	2,4-Dinitrotoluene	5.505	165	1823	110.1374965 ppb	#	79
63)	4-Nitrophenol	5.434	139	1337	123.2953795 ppb		87
64)	Fluorene	5.793	166	11250	192.6951338 ppb		99
65)	4-Chlorophenyl-phenyle...	5.781	204	5493	208.3071581 ppb		95
66)	Diethyl phthalate	5.681	149	9729	183.2871611 ppb		97
67)	4-Nitroaniline	5.787	138	1899	127.9638218 ppb	#	76
68)	Azobenzene	5.905	77	9462	179.3233997 ppb		94
72)	N-Nitrosodiphenylamine	5.869	169	9353	189.7299117 ppb		96
74)	4-Bromophenyl-phenylether	6.163	248	2788	194.4605718 ppb		93
75)	Hexachlorobenzene	6.210	284	3415	215.1893178 ppb		94
77)	Pentachlorophenol	6.363	266	918	116.3924260 ppb		97
78)	Phenanthrene	6.540	178	17273	186.4096515 ppb		98
79)	Anthracene	6.581	178	15814	183.5309765 ppb		98
80)	Carbazole	6.699	167	15315	195.0929132 ppb		97
81)	Di-n-butyl phthalate	6.975	149	15743	172.4372299 ppb		99
83)	Fluoranthene	7.575	202	16660	190.4141145 ppb		99
86)	Pyrene	7.810	202	17154	191.5979370 ppb		96
88)	Benzylbutyl phthalate	8.598	149	5677	145.8494801 ppb		95
90)	Benzo(a)anthracene	9.416	228	16080	168.4783020 ppb		90
91)	Chrysene	9.475	228	15674	189.4051967 ppb		96
92)	bis(2-Ethylhexyl)phtha...	9.534	149	8098	148.6449491 ppb		95
93)	Di-n-octyl phthalate	10.804	149	11581	129.6179087 ppb		96
95)	Benzo(b)fluoranthene	11.416	252	13582	184.1020435 ppb		98
96)	Benzo(k)fluoranthene	11.475	252	13282m	184.0790719 ppb		
97)	Benzo(a)pyrene	12.087	252	10303	161.8201111 ppb		90
98)	Indeno(1,2,3-cd)pyrene	14.081	276	11598	180.7391336 ppb		95
99)	Dibenz(a,h)anthracene	14.128	278	11758	181.1096120 ppb		96
100)	Benzo(g,h,i)perylene	14.410	276	11621	180.1287085 ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
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Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
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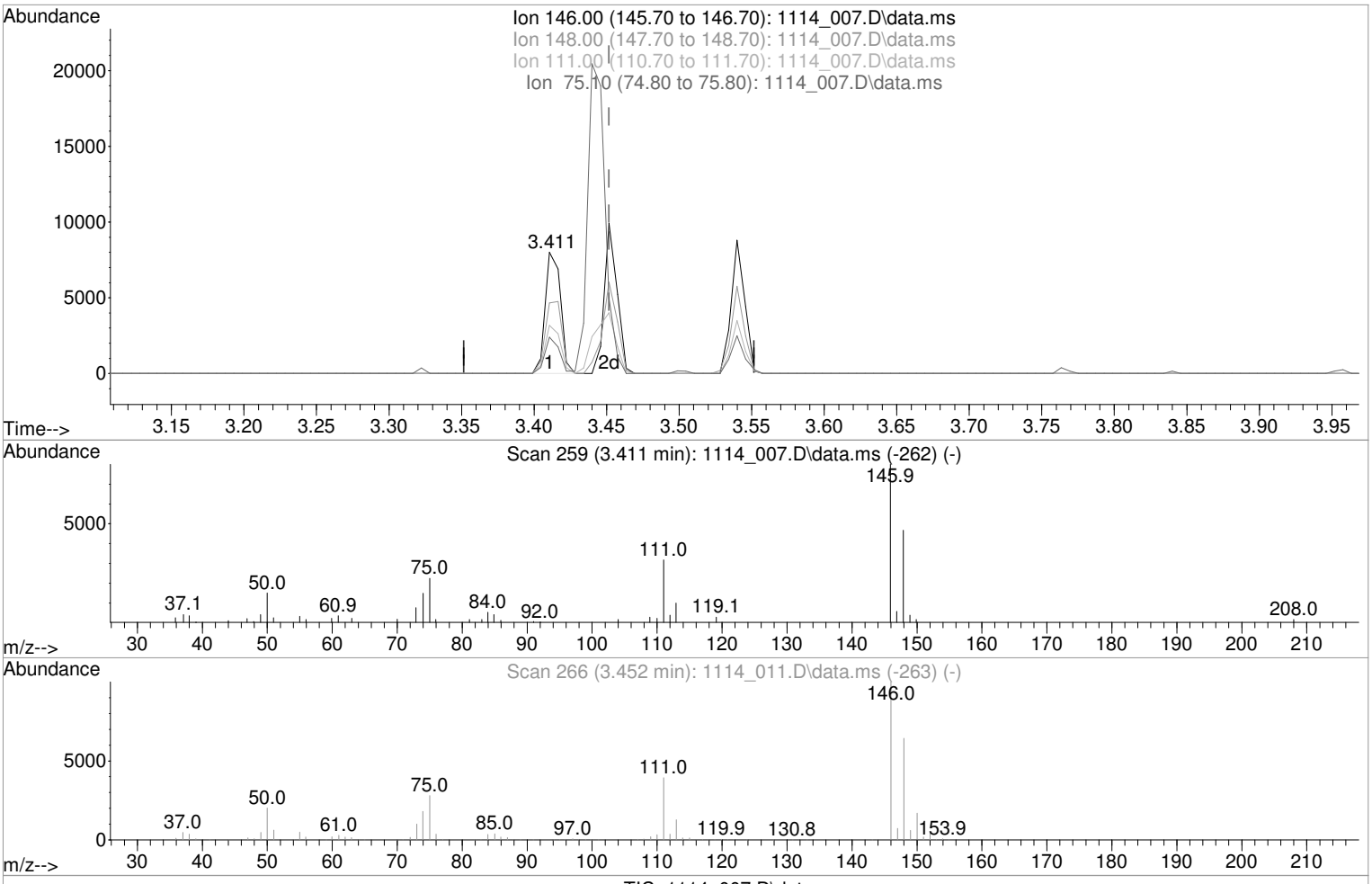


TIC: 1114_007.D\data.ms

(13) 1,4-Dichlorobenzene (MTC)

3.411min (-0.041) 202.9769123 ppb

Qvalue = 96

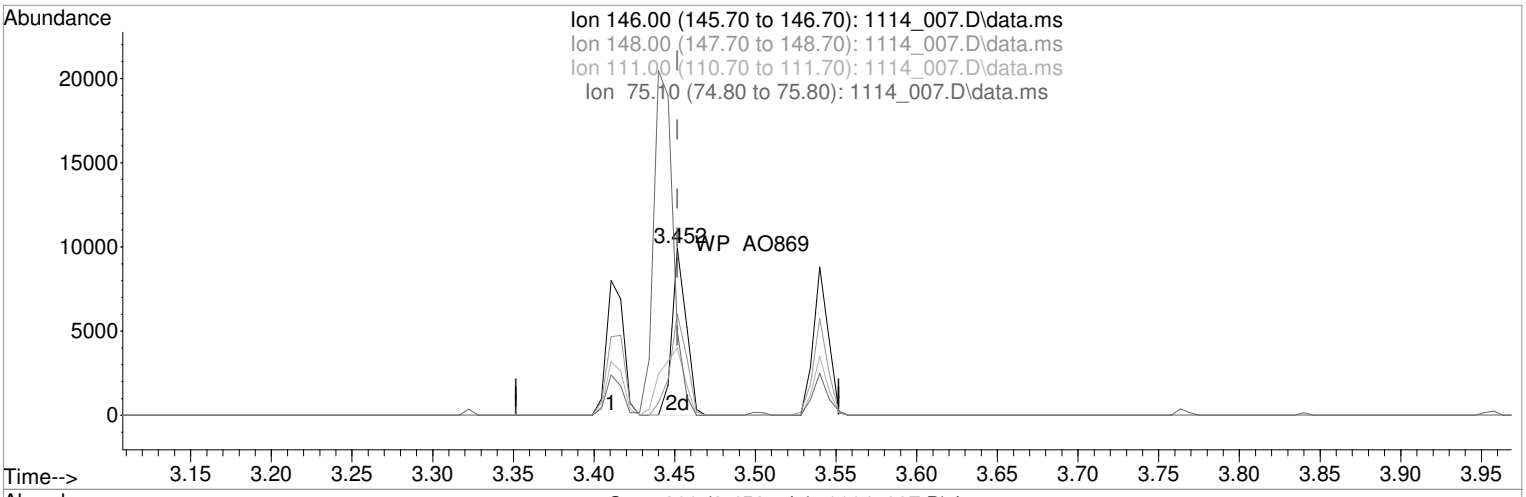
response 5872

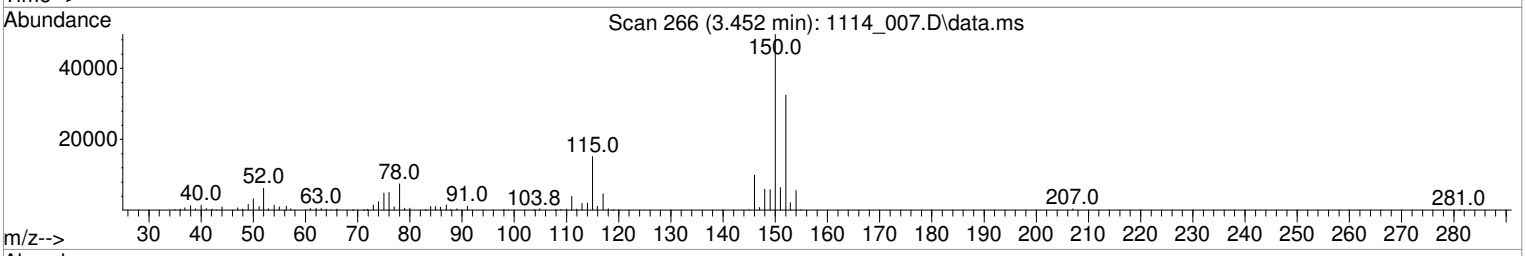
Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.30	58.35
111.00	39.30	39.73
75.10	28.80	30.11

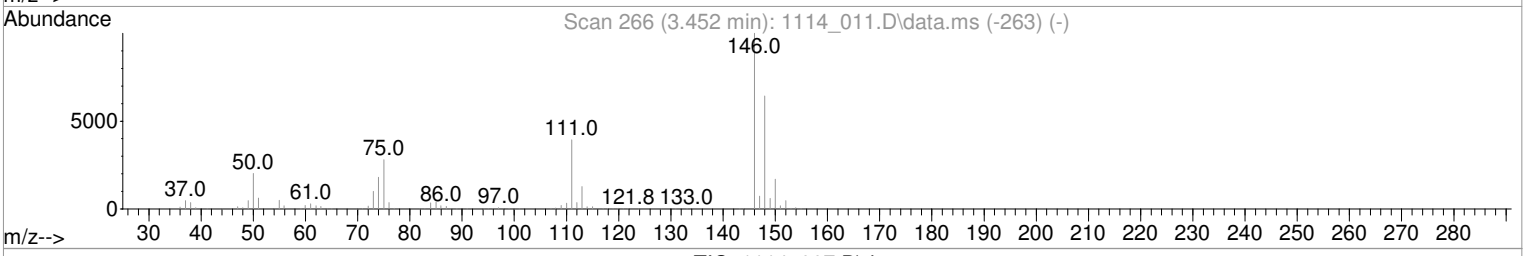
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration







TIC: 1114_007.D\data.ms

(13) 1,4-Dichlorobenzene (MTC)

3.452min (-0.000) 211.1347038 ppb m

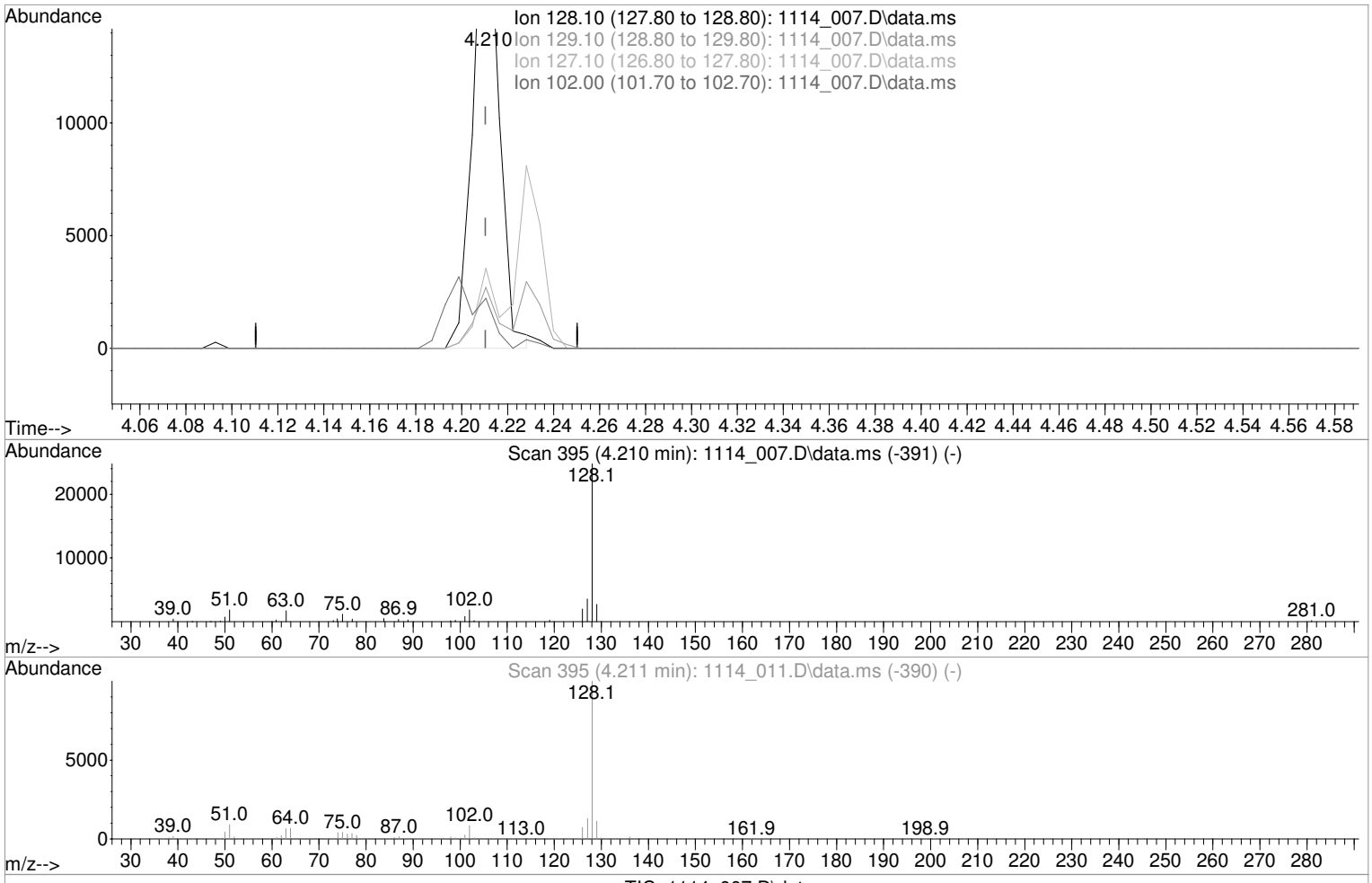
response 6108

Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.30	60.80
111.00	39.30	40.45
75.10	28.80	49.94#

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration



TIC: 1114_007.D\data.ms

(34) Naphthalene (MT)

4.210min (-0.000) 197.9031959 ppb

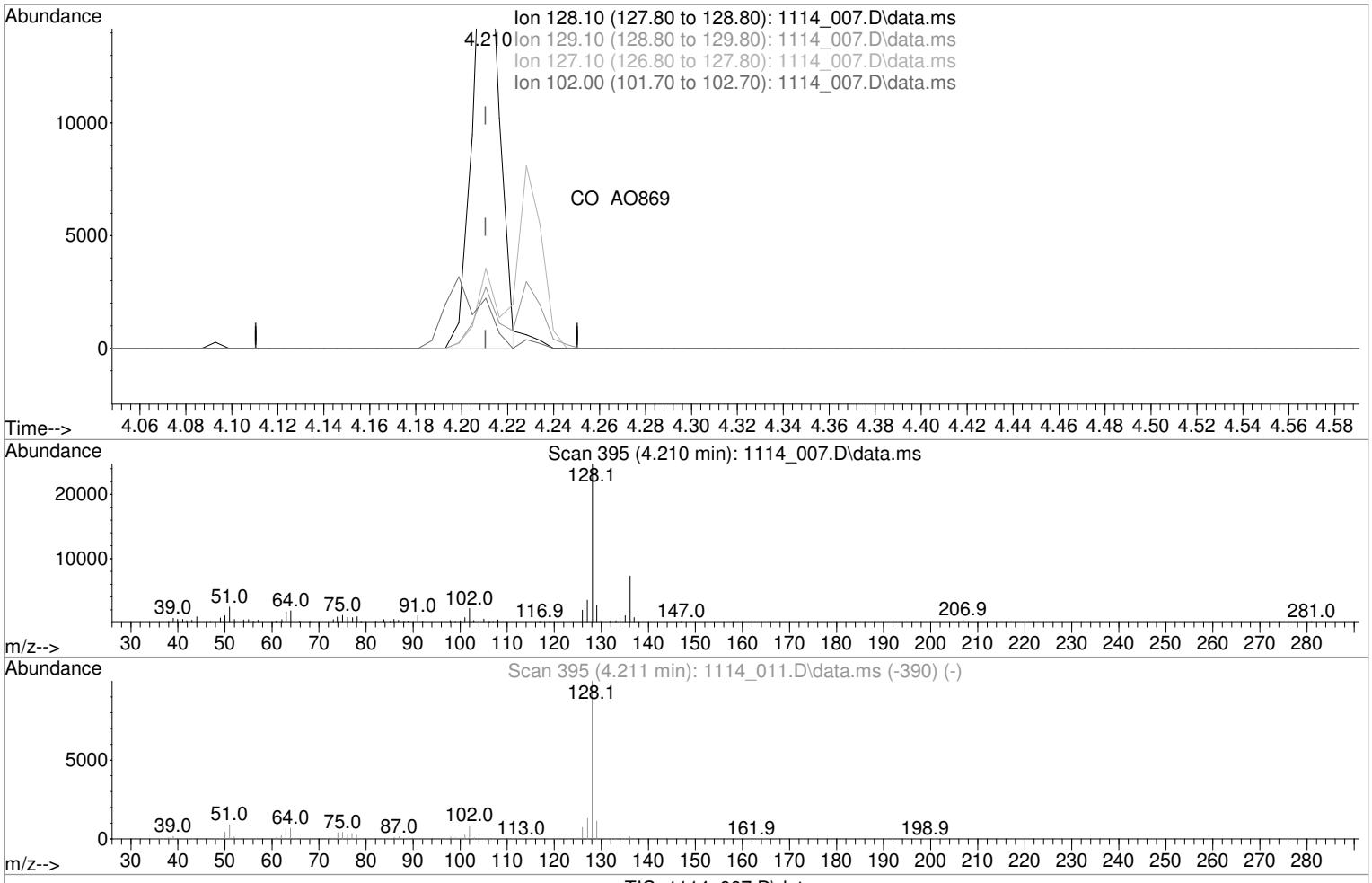
Qvalue = 98

response 16560

Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	10.95
127.10	13.00	14.31
102.00	8.40	7.55

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration



TIC: 1114_007.D\data.ms

(34) Naphthalene (MT)

4.210min (-0.000) 195.3696526 ppb m

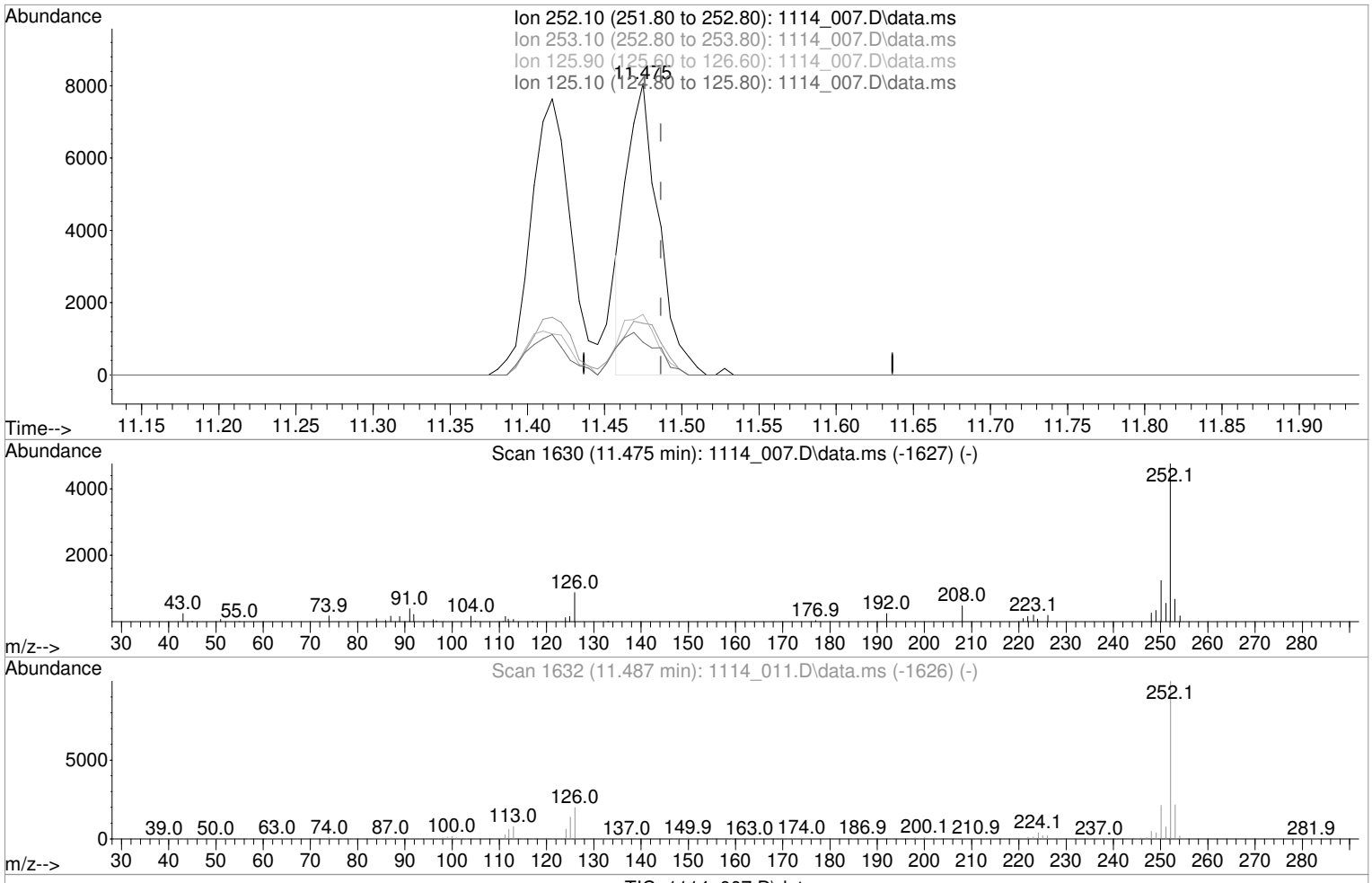
response 16348

Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	10.95
127.10	13.00	14.31
102.00	8.40	8.95

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration



TIC: 1114_007.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 161.0033563 ppb

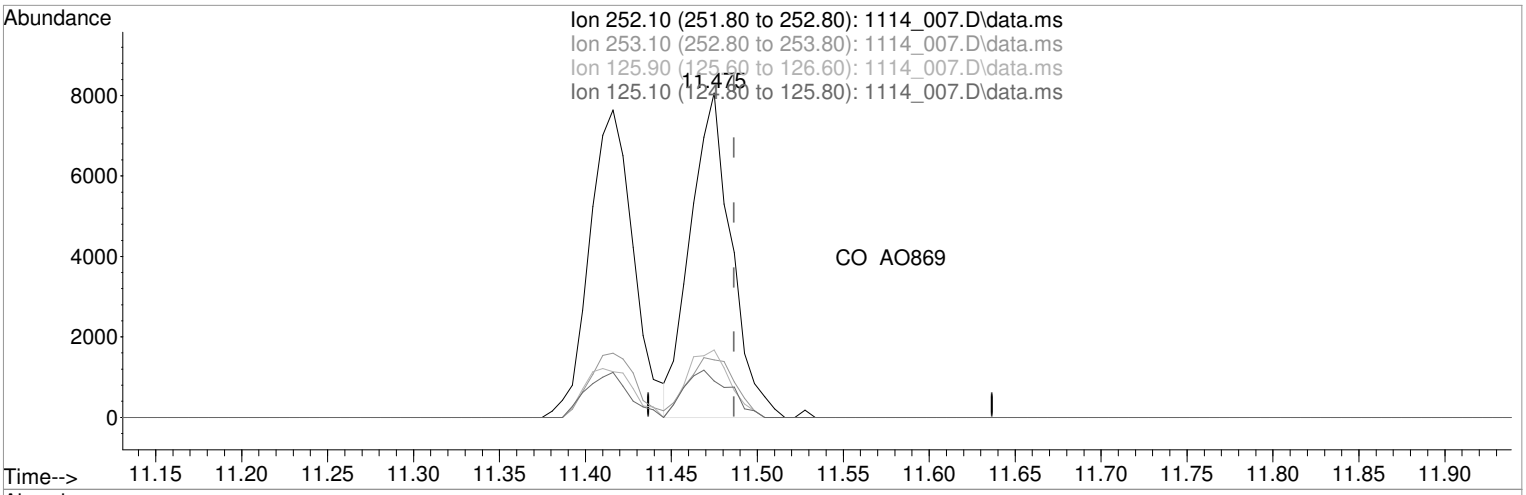
Qvalue = 94

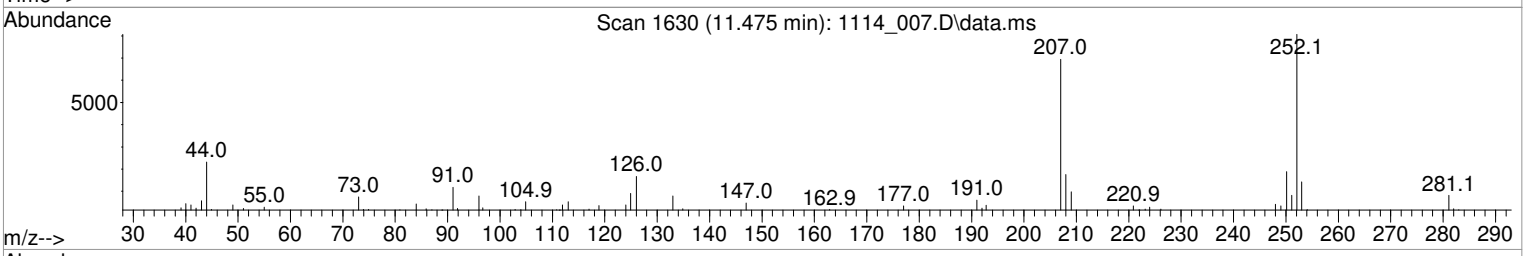
response 11617

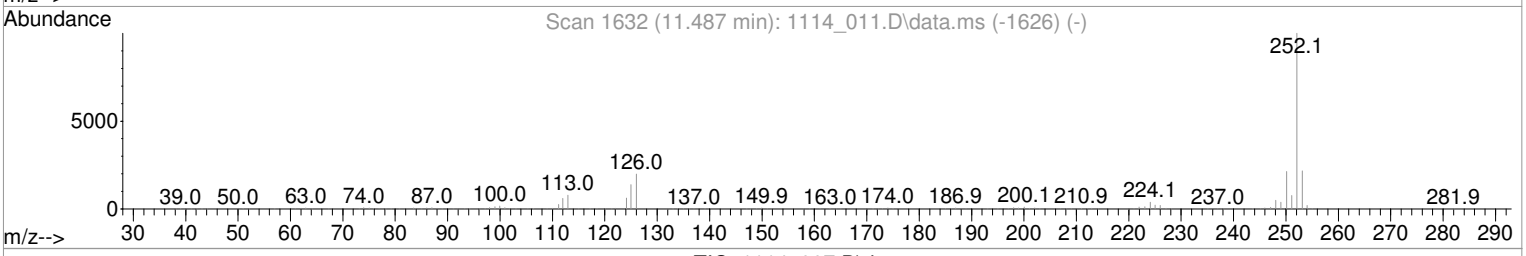
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	17.74
125.90	19.60	20.78
125.10	13.70	11.23

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_007.D
Acq On : 14 Nov 2022 07:16 pm
Operator : 917
Sample : STD SVMS 200 ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 10:16:45 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:16:39 2022
Response via : Initial Calibration







TIC: 1114_007.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 184.0790719 ppb m

response 13282

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	17.74
125.90	19.60	20.78
125.10	13.70	11.23

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.446	152	150493	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	597619	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.387	164	335575	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.522	188	608411	8000.0000000	ppb		0.00
84) Chrysene-d12	9.434	240	529845	8000.0000000	ppb		0.00
94) Perylene-d12	12.216	264	510805	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.752	112	21560	974.4300016	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 24.36%				
7) Phenol-d5	3.199	99	27156	967.4996031	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 24.19%				
24) Nitrobenzene-d5	3.752	82	23157	941.6901690	ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 47.08%				
50) 2-Fluorobiphenyl	4.893	172	53678	1040.8460902	ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 52.04%				
73) 2,4,6-Tribromophenol	5.969	330	5032	929.5429975	ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 23.24%				
87) p-Terphenyl-d14	7.975	244	65328	1004.7829677	ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 50.24%				
Target Compounds					Qvalue		
2) Pyridine	2.205	79	22207	972.7462020	ppb		96
3) N-Nitrosodimethylamine	2.170	42	13101	1215.8706611	ppb	#	77
5) Aniline	3.258	66	13348	1055.2918275	ppb		98
6) bis(2-Chloroethyl)ether	3.275	93	23765m	1118.0633120	ppb		
8) Phenol	3.211	94	28074	1012.2834511	ppb		96
10) 2-Chlorophenol	3.322	128	22554	963.7657525	ppb		97
11) n-Decane	3.328	41	12952	935.3564707	ppb		97
12) 1,3-Dichlorobenzene	3.411	146	27322	1024.1935251	ppb		93
13) 1,4-Dichlorobenzene	3.452	146	28132	1029.9076496	ppb		96
14) Benzyl Alcohol	3.505	79	18134	963.7517617	ppb		99
15) 1,2-Dichlorobenzene	3.540	146	26416	1023.3732849	ppb		99
16) bis(2-Chloroisopropyl)...	3.575	121	8265	982.3888944	ppb	#	66
17) 2,2-oxybis(1-chloropro...	3.575	121	8265	982.3888944	ppb	#	66
18) 2-Methylphenol	3.552	108	21009	994.0754893	ppb		98
19) Hexachloroethane	3.740	117	9987	938.0880629	ppb		97
20) N-Nitrosodi-n-propylamine	3.652	70	14699	964.2655119	ppb		98
21) 3&4-Methyl phenol	3.634	107	23742	1030.5137566	ppb		96
25) Nitrobenzene	3.764	77	21519	994.2227577	ppb		92
26) Isophorone	3.905	82	40229	985.6613116	ppb		94
27) 2-Nitrophenol	3.952	139	10358	956.6343600	ppb		92
28) 2,4-Dimethylphenol	3.958	107	22324	994.9615807	ppb		97
29) bis(2-Chlorethoxy)methane	4.022	93	27383	995.1023117	ppb		98
30) 2,4-Dichlorophenol	4.093	162	18198	976.3755945	ppb		89
32) 1,2,4-Trichlorobenzene	4.158	180	21869	999.9201895	ppb		99
34) Naphthalene	4.211	128	72781m	937.8971320	ppb		
35) 4-Chloroaniline	4.228	65	8472	975.8532347	ppb		99
36) Hexachloro-1,3-butadiene	4.281	225	11141	1010.6118080	ppb		98

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

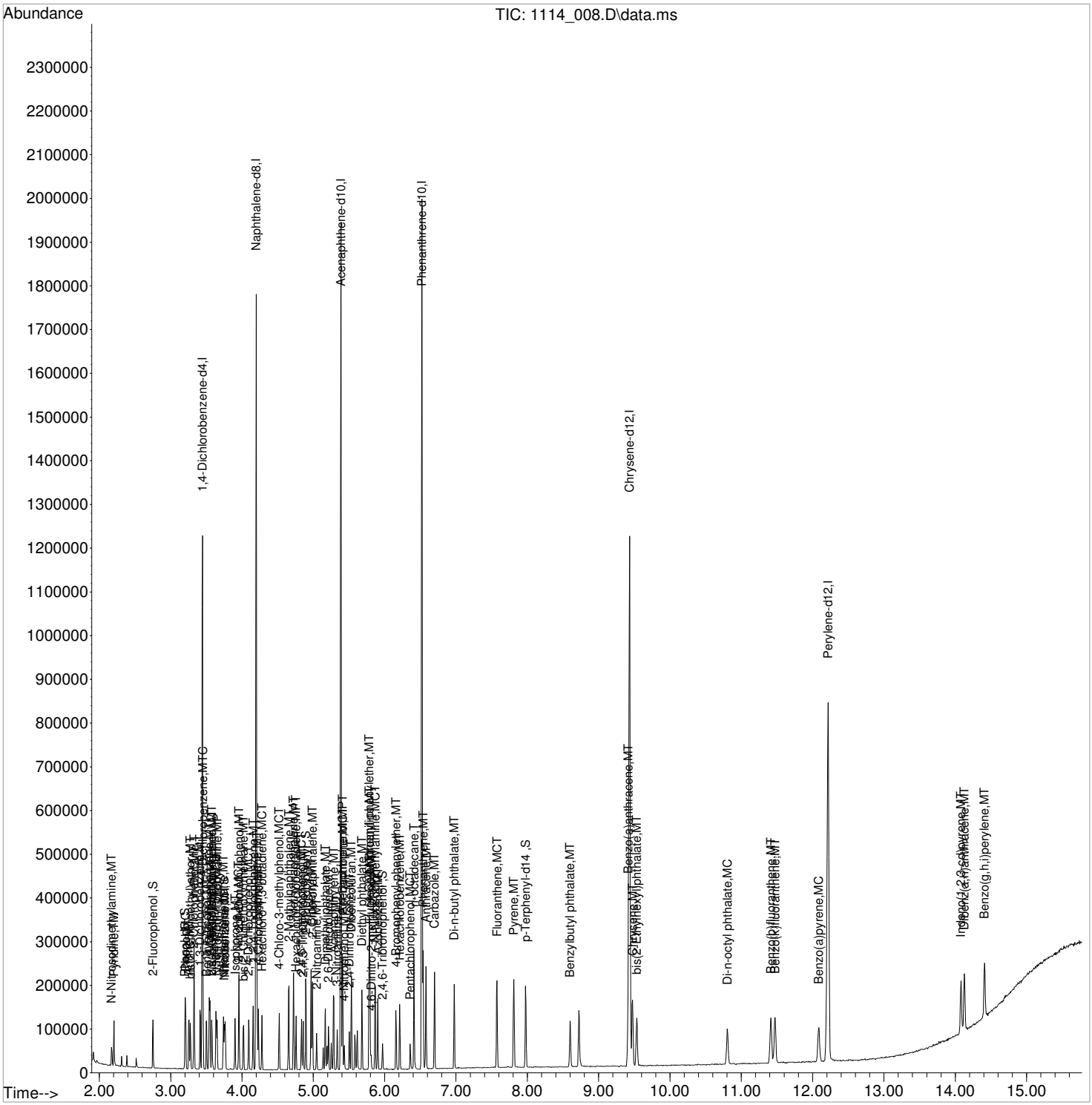
Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.522	107	18906	975.0057424 ppb		97
41)	2-Methylnaphthalene	4.658	142	48530	983.2251426 ppb		98
42)	1-Methylnaphthalene	4.722	142	44769	974.2409014 ppb		100
47)	Hexachlorocyclopentadiene	4.758	237	13274	949.0170063 ppb		98
48)	2,4,6-Trichlorophenol	4.834	196	12238	1001.6257946 ppb		96
49)	2,4,5-Trichlorophenol	4.858	196	12973	959.9118710 ppb		97
51)	Biphenyl	4.969	154	59643	983.8785843 ppb		99
52)	2-Chloronaphthalene	4.987	162	45267	982.5404136 ppb		97
53)	2-Nitroaniline	5.046	138	11434	935.4067028 ppb		96
54)	Acenaphthylene	5.287	152	69467	1005.8700956 ppb		99
55)	Dimethyl phthalate	5.169	163	49848	1008.9651879 ppb		90
56)	2,6-Dinitrotoluene	5.211	165	9403	953.0222145 ppb		86
57)	3-Nitroaniline	5.334	138	10415	925.8689410 ppb		96
58)	Acenaphthene	5.411	153	45767	934.9550433 ppb		99
59)	2,4-Dinitrophenol	5.411	184	2488	528.5086673 ppb	#	1
60)	Dibenzofuran	5.534	168	66306	1001.4528480 ppb		99
61)	2,4-Dinitrotoluene	5.505	165	11440	955.6496779 ppb		94
63)	4-Nitrophenol	5.434	139	7244	886.0796789 ppb		96
64)	Fluorene	5.793	166	53518	994.8473238 ppb		99
65)	4-Chlorophenyl-phenyle...	5.781	204	25030	996.8891958 ppb		98
66)	Diethyl phthalate	5.681	149	47789	1007.2701181 ppb		97
67)	4-Nitroaniline	5.787	138	10545	929.0975636 ppb	#	91
68)	Azobenzene	5.905	77	47069	1008.4579540 ppb		98
71)	4,6-Dinitro-2-methylph...	5.811	198	4005	584.6558513 ppb		81
72)	N-Nitrosodiphenylamine	5.869	169	45208	1015.0851923 ppb		98
74)	4-Bromophenyl-phenylether	6.158	248	13119	1000.6955954 ppb	#	81
75)	Hexachlorobenzene	6.211	284	14811	969.6930400 ppb		95
76)	n-octadecane	6.410	55	8880	1024.8808370 ppb		97
77)	Pentachlorophenol	6.358	266	5496	950.0987611 ppb		95
78)	Phenanthrene	6.540	178	79147	942.5215655 ppb		97
79)	Anthracene	6.581	178	78096	1005.0550311 ppb		99
80)	Carbazole	6.699	167	72000	1001.4374223 ppb		100
81)	Di-n-butyl phthalate	6.975	149	78414	994.8328779 ppb		99
83)	Fluoranthene	7.575	202	79856	1000.3046504 ppb		98
86)	Pyrene	7.810	202	82118	972.6372050 ppb		99
88)	Benzylbutyl phthalate	8.599	149	28909	898.1614620 ppb		98
90)	Benzo(a)anthracene	9.416	228	72896	842.8717150 ppb		98
91)	Chrysene	9.475	228	74059	952.5541504 ppb		96
92)	bis(2-Ethylhexyl)phtha...	9.534	149	38855	855.5756248 ppb		98
93)	Di-n-octyl phthalate	10.804	149	60843	864.0547306 ppb		99
95)	Benzo(b)fluoranthene	11.416	252	67981	968.1671528 ppb		97
96)	Benzo(k)fluoranthene	11.475	252	67682m	985.5964179 ppb		
97)	Benzo(a)pyrene	12.087	252	54953	942.7999661 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.081	276	56125	924.2745424 ppb		98
99)	Dibenz(a,h)anthracene	14.128	278	59161	962.3701181 ppb		97
100)	Benzo(g,h,i)perylene	14.410	276	57735	946.6967461 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
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Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
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Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
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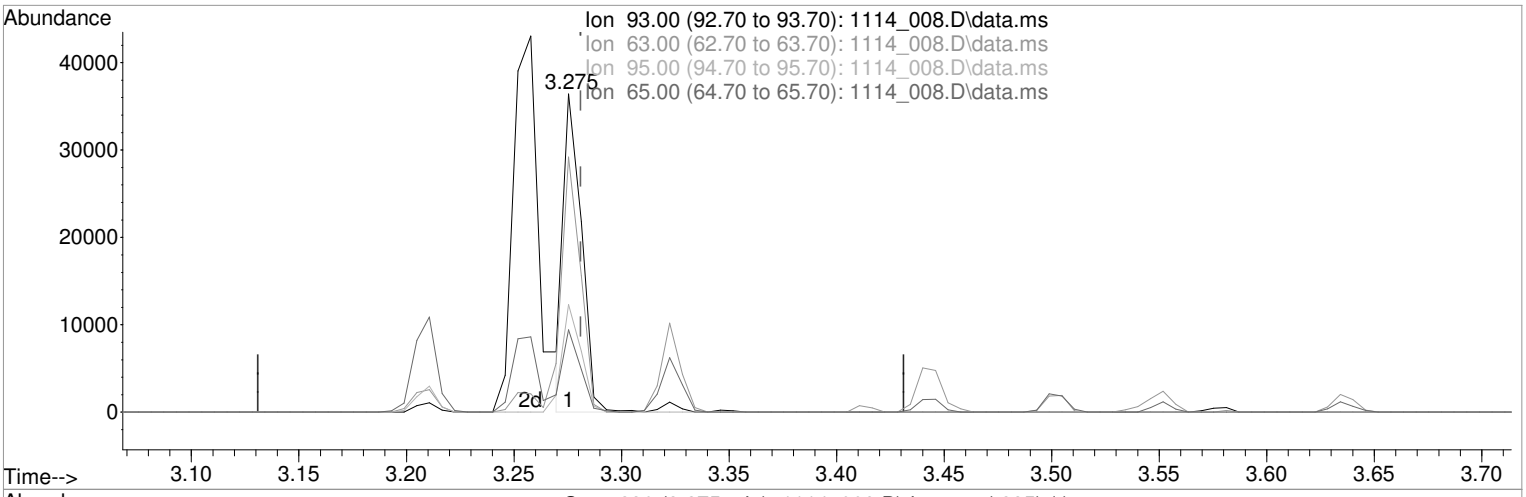
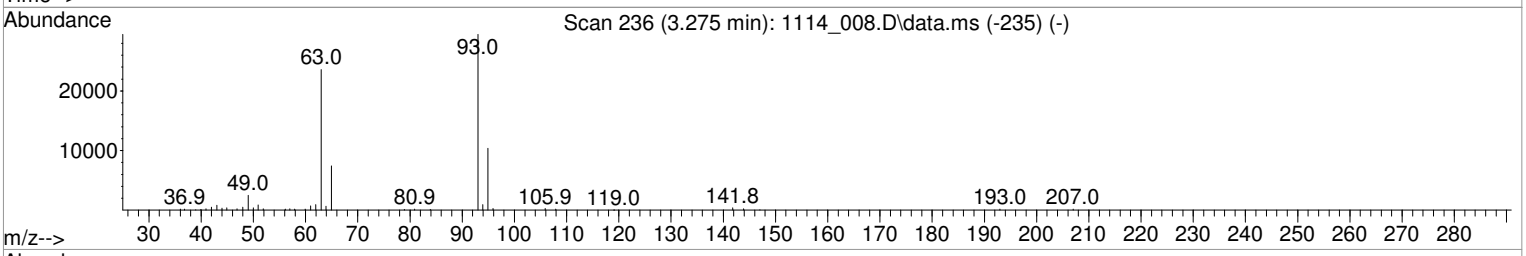
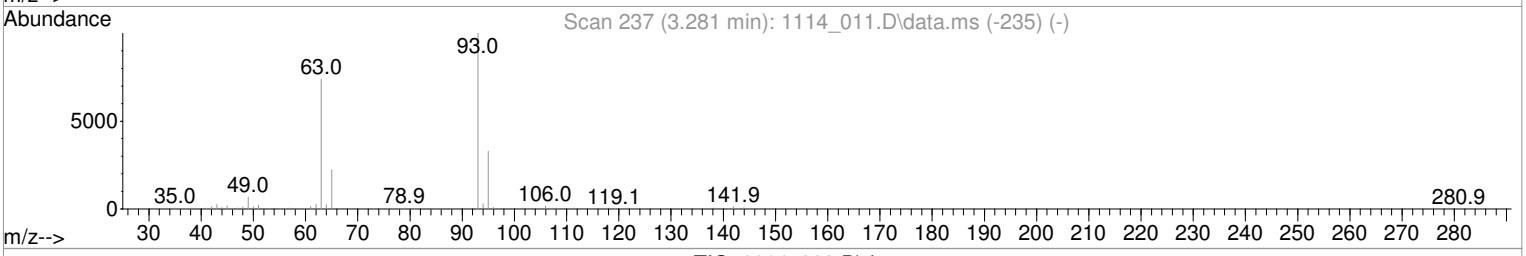
Response via : Initial Calibration







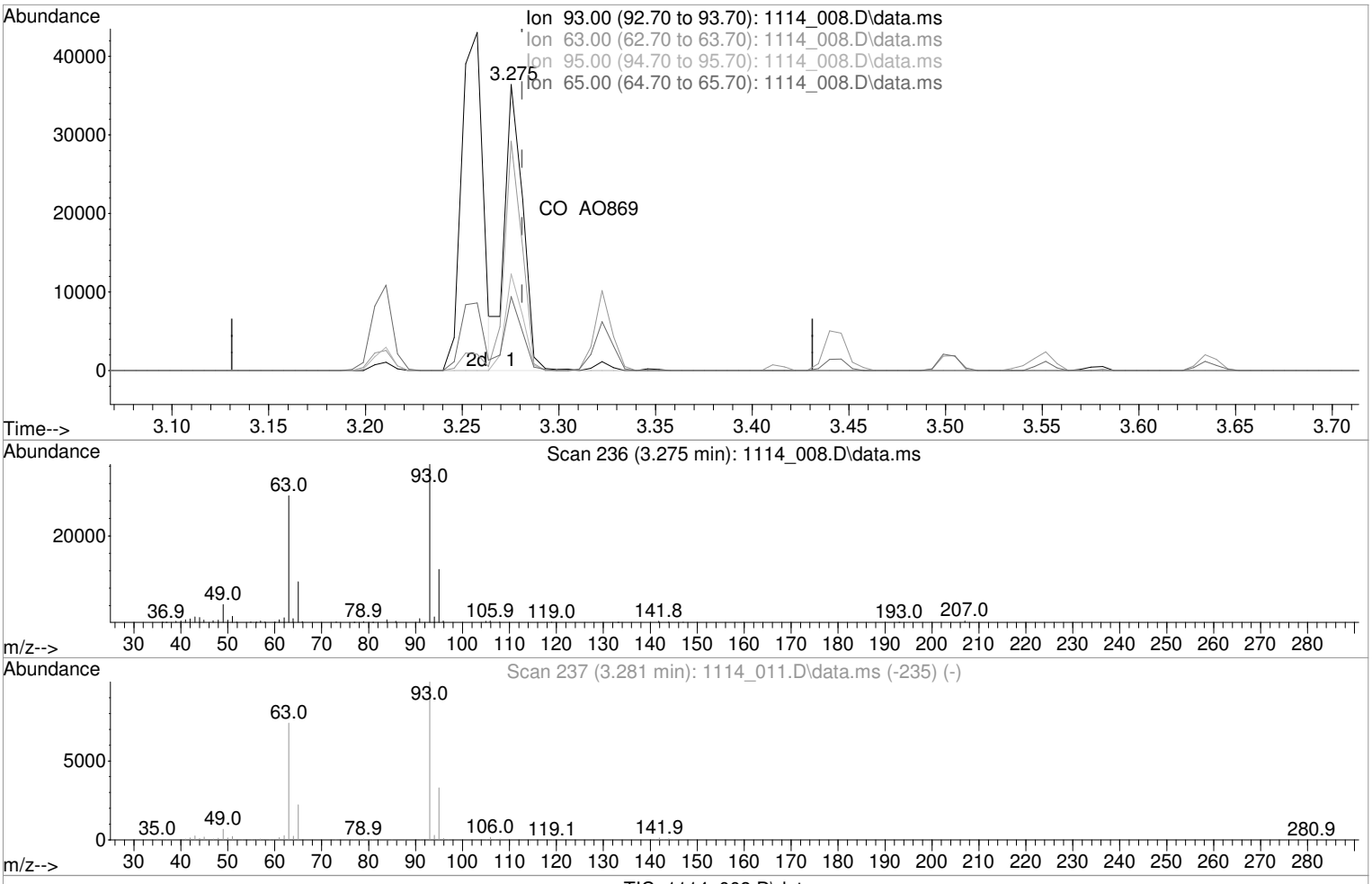
TIC: 1114_008.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)
3.275min (-0.006) 1007.0802970 ppb
Qvalue = 94
response 21406

Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	79.69
95.00	32.10	33.86
65.00	22.60	25.35

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration



TIC: 1114_008.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)
3.275min (-0.006) 1118.0633120 ppb m

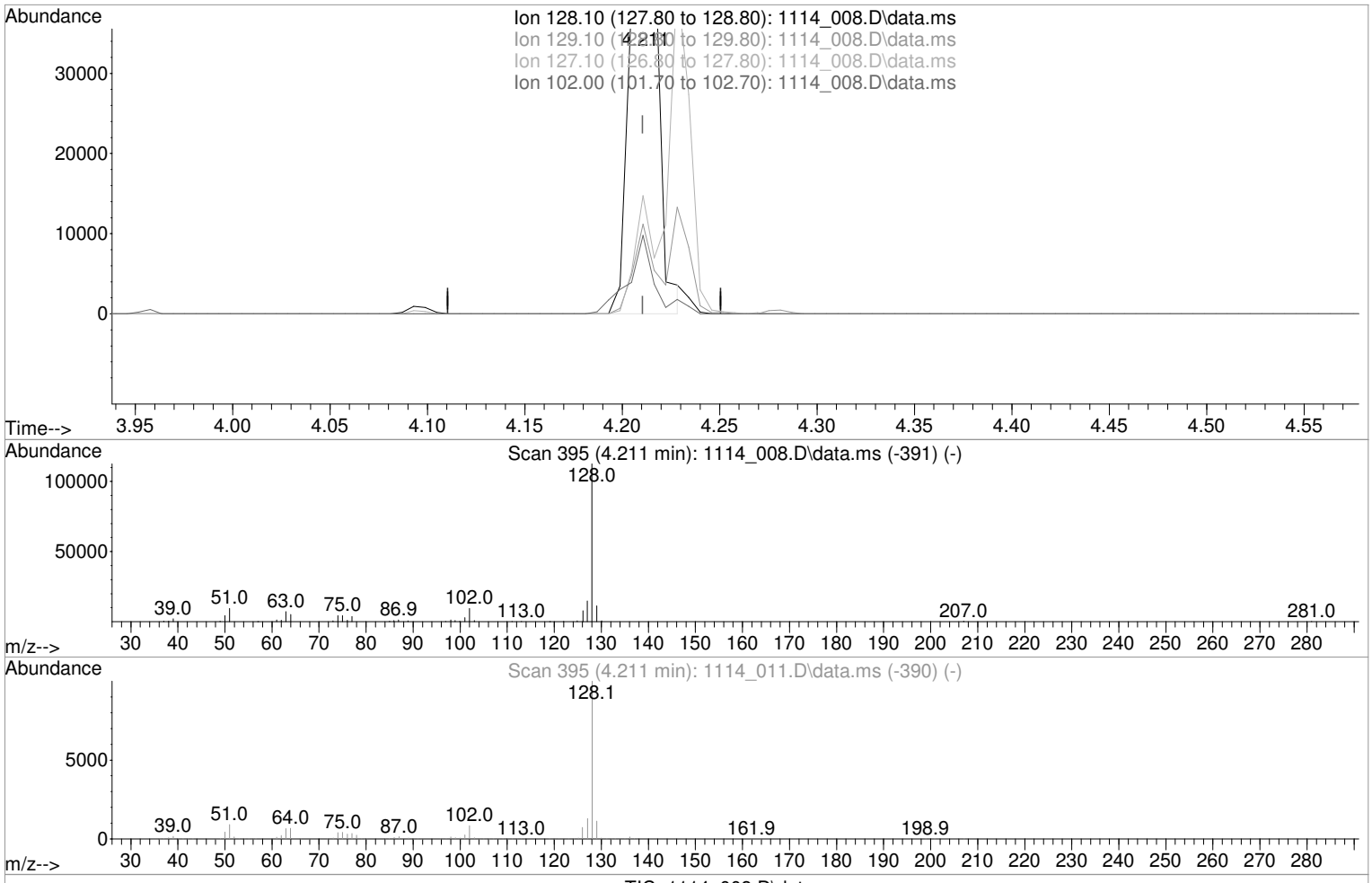
response 23765

Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	80.22
95.00	32.10	33.86
65.00	22.60	25.94

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration



TIC: 1114_008.D\data.ms

(34) Naphthalene (MT)

4.211min (+ 0.000) 954.3146166 ppb

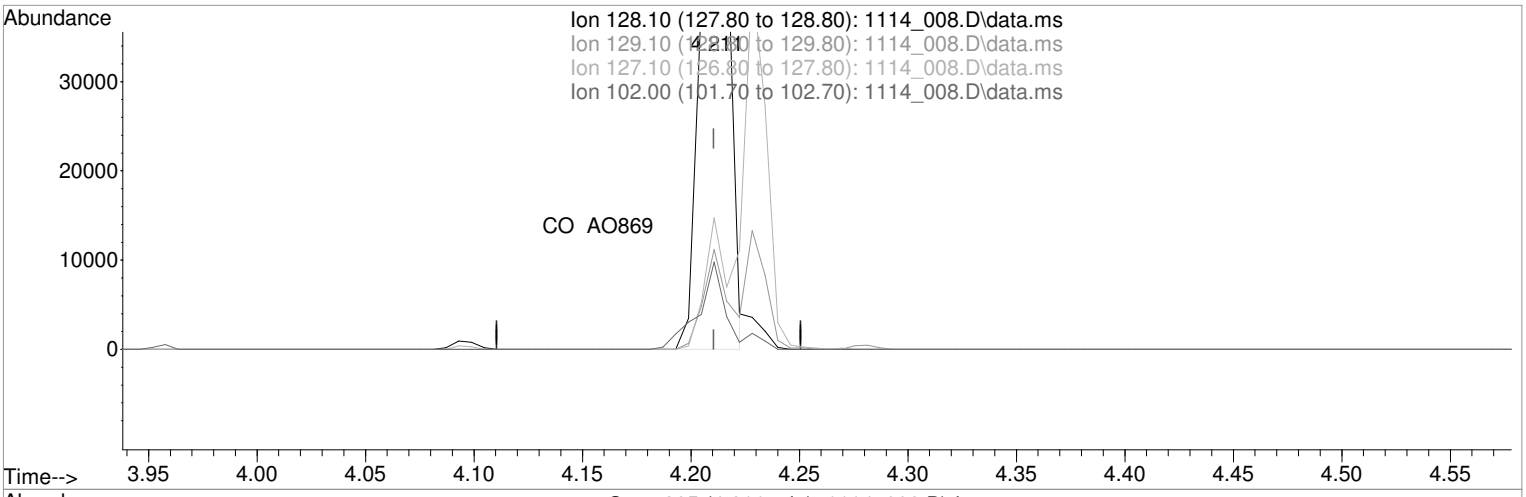
Qvalue = 99

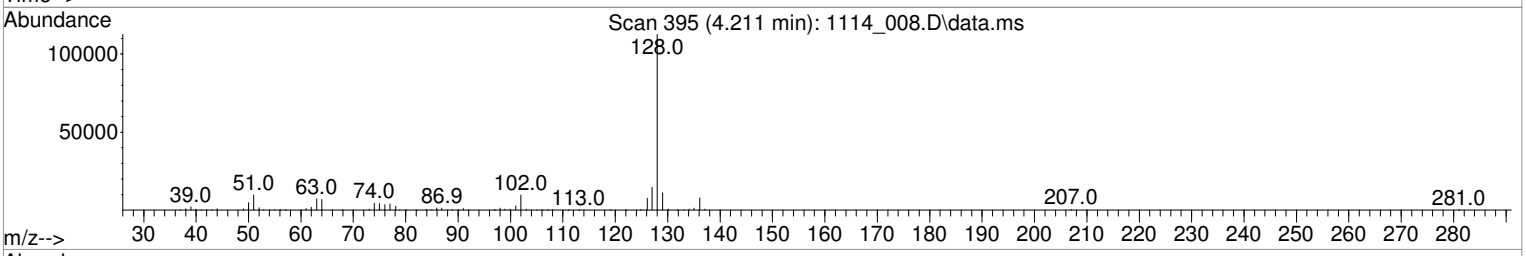
response 74055

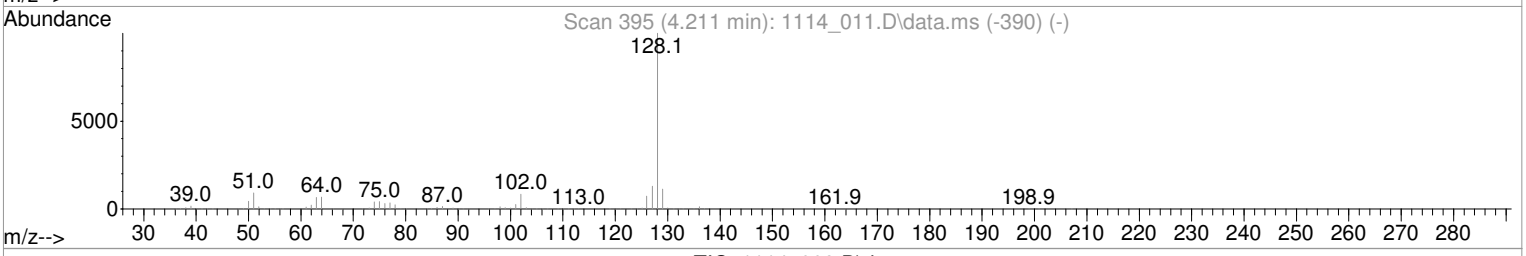
Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	9.95
127.10	13.00	13.09
102.00	8.40	8.47

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration







TIC: 1114_008.D\data.ms

(34) Naphthalene (MT)

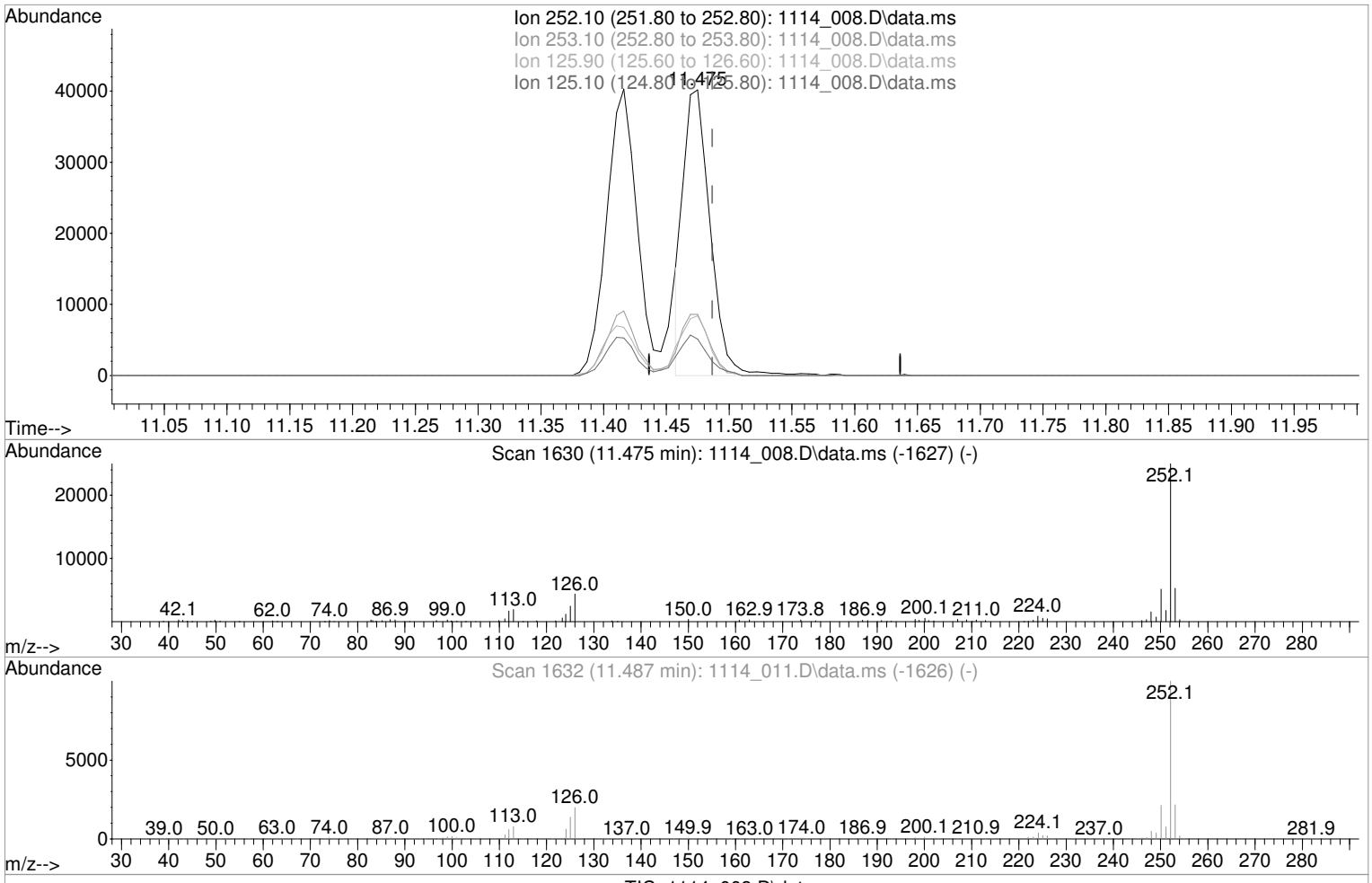
4.211min (+ 0.000) 937.8971320 ppb m

response 72781

Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	9.95
127.10	13.00	13.09
102.00	8.40	8.70

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration



TIC: 1114_008.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 872.2590915 ppb

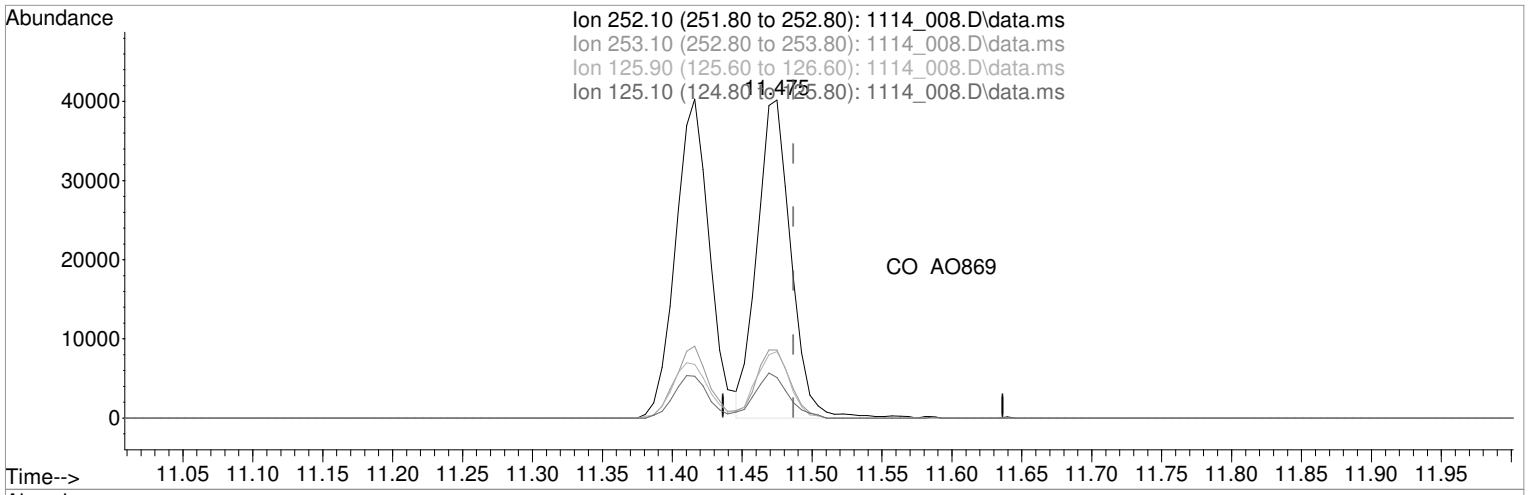
Qvalue = 98

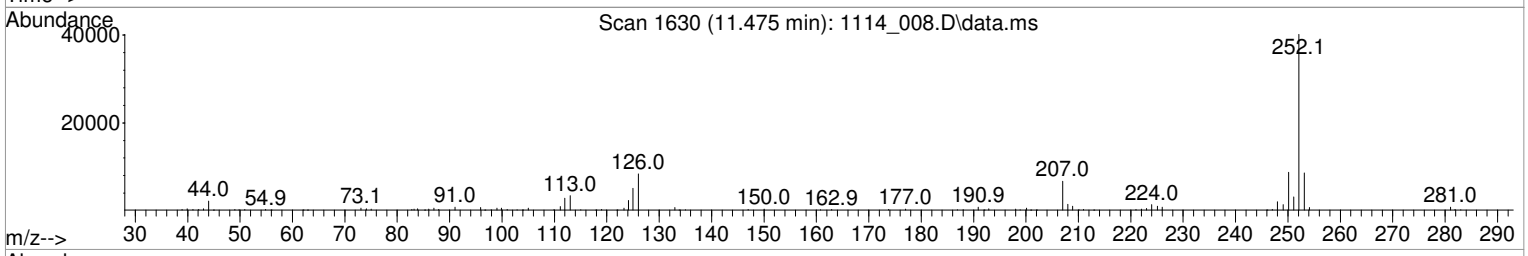
response 59899

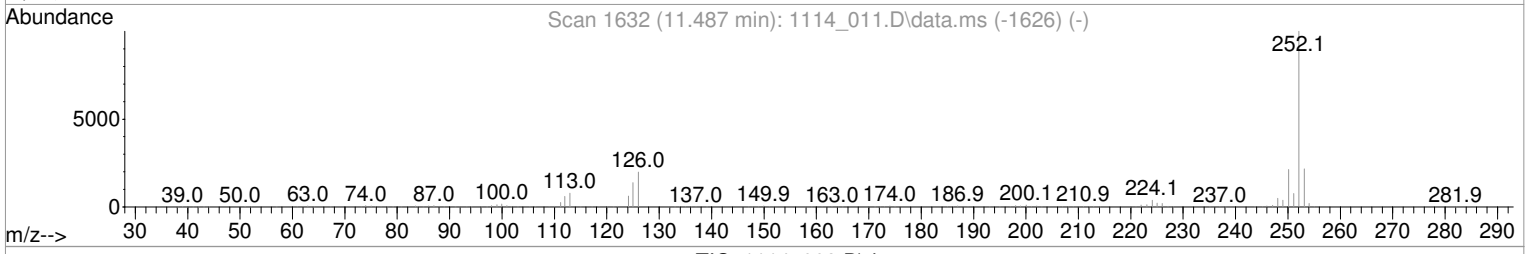
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.39
125.90	19.60	20.86
125.10	13.70	12.77

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_008.D
Acq On : 14 Nov 2022 07:37 pm
Operator : 917
Sample : STD SVMS 1K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 10:19:27 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:19:24 2022
Response via : Initial Calibration







TIC: 1114_008.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 985.5964179 ppb m

response 67682

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.39
125.90	19.60	20.86
125.10	13.70	12.77

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.446	152	158682	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	628020	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.387	164	357012	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.522	188	641473	8000.0000000	ppb		0.00
84) Chrysene-d12	9.434	240	547691	8000.0000000	ppb		0.00
94) Perylene-d12	12.216	264	523645	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.752	112	48253	2086.0866601	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 52.15%				
7) Phenol-d5	3.199	99	61981	2117.2044283	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 52.93%				
24) Nitrobenzene-d5	3.752	82	53837	2124.6228101	ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 106.23%				
50) 2-Fluorobiphenyl	4.893	172	119190	2143.2044842	ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 107.16%				
73) 2,4,6-Tribromophenol	5.969	330	11292	2026.0015570	ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 50.65%				
87) p-Terphenyl-d14	7.975	244	141920	2108.3265917	ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 105.42%				
Target Compounds					Qvalue		
2) Pyridine	2.205	79	49130	2069.2064773	ppb		95
3) N-Nitrosodimethylamine	2.170	42	24910	1978.9320510	ppb		97
5) Aniline	3.252	66	30057	2212.8868022	ppb		93
6) bis(2-Chloroethyl)ether	3.275	93	52744m	2264.2615956	ppb		
8) Phenol	3.211	94	63674	2168.5729064	ppb		94
10) 2-Chlorophenol	3.322	128	52036	2134.6065220	ppb		99
11) n-Decane	3.328	41	28561	1999.2300347	ppb		97
12) 1,3-Dichlorobenzene	3.411	146	60748	2142.4062805	ppb		96
13) 1,4-Dichlorobenzene	3.452	146	62620	2152.7382906	ppb		98
14) Benzyl Alcohol	3.499	79	39540	2017.3270048	ppb		94
15) 1,2-Dichlorobenzene	3.540	146	58288	2125.0262106	ppb		99
16) bis(2-Chloroisopropyl)...	3.575	121	18914	2144.7149860	ppb	#	76
17) 2,2-oxybis(1-chloropro...	3.575	121	18914	2144.7149860	ppb	#	76
18) 2-Methylphenol	3.552	108	48741	2191.5710889	ppb		97
19) Hexachloroethane	3.740	117	23067	2098.1897230	ppb		97
20) N-Nitrosodi-n-propylamine	3.652	70	34160	2150.8964053	ppb		96
21) 3&4-Methyl phenol	3.634	107	54517	2221.5805844	ppb		99
25) Nitrobenzene	3.764	77	49740	2191.0660268	ppb		95
26) Isophorone	3.899	82	92534	2167.8111476	ppb		95
27) 2-Nitrophenol	3.952	139	24962	2225.9940788	ppb		96
28) 2,4-Dimethylphenol	3.958	107	51219	2175.9369822	ppb		98
29) bis(2-Chlorethoxy)methane	4.017	93	61137	2117.6361739	ppb		95
30) 2,4-Dichlorophenol	4.093	162	41786	2150.3467474	ppb		91
32) 1,2,4-Trichlorobenzene	4.158	180	48937	2129.2969439	ppb		98
34) Naphthalene	4.211	128	160757	2002.4128726	ppb		100
35) 4-Chloroaniline	4.228	65	19747	2182.0281709	ppb		94
36) Hexachloro-1,3-butadiene	4.281	225	24517	2108.8463439	ppb		98

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration

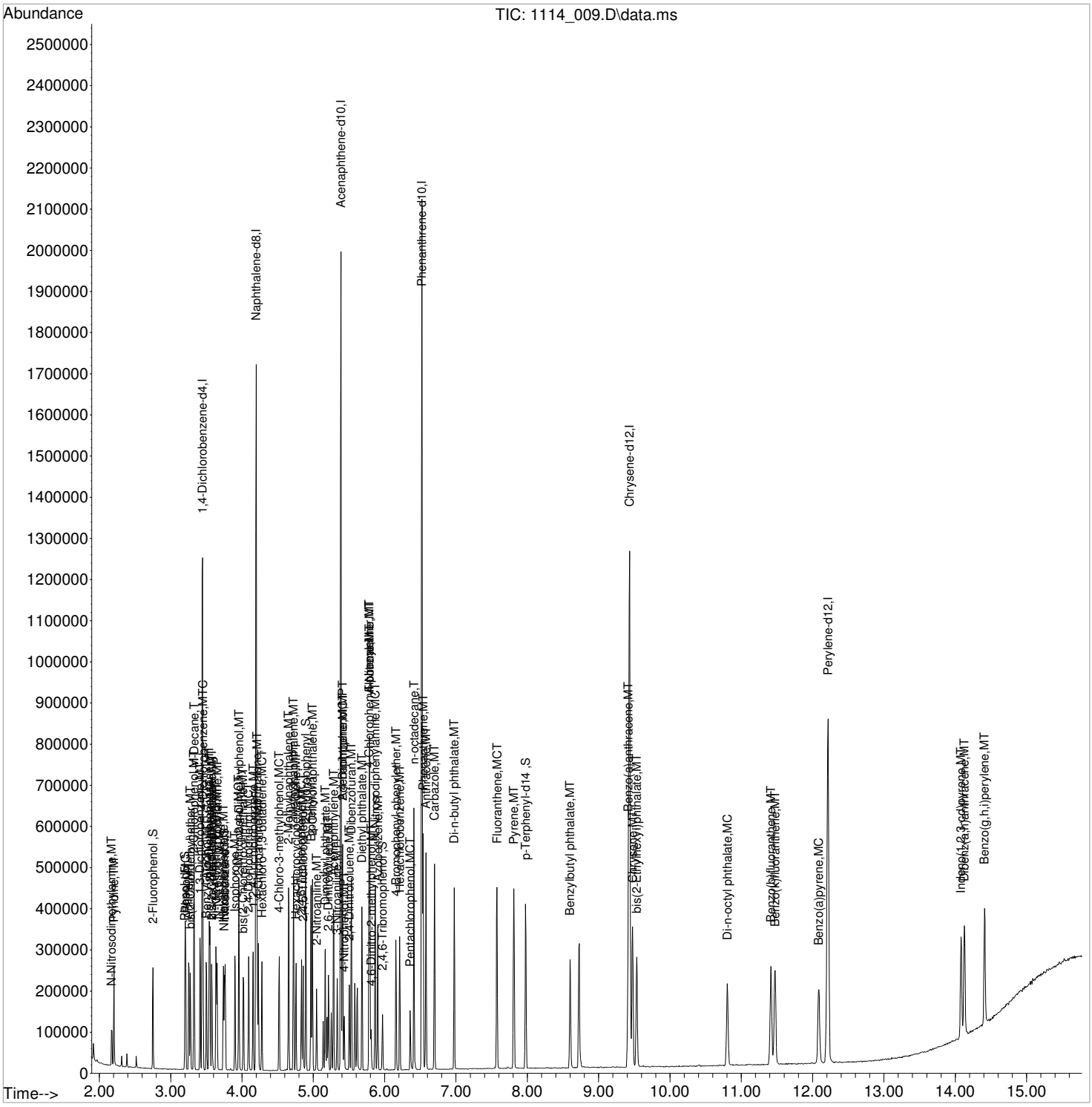
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.522	107	42972	2126.5590925 ppb		96
41)	2-Methylnaphthalene	4.652	142	108310	2096.9462512 ppb		99
42)	1-Methylnaphthalene	4.722	142	99655	2077.0396299 ppb		100
47)	Hexachlorocyclopentadiene	4.758	237	30308	2071.9545417 ppb		99
48)	2,4,6-Trichlorophenol	4.834	196	27996	2152.5959904 ppb		94
49)	2,4,5-Trichlorophenol	4.858	196	30333	2138.2356626 ppb		98
51)	Biphenyl	4.969	154	131187	2045.1243532 ppb		100
52)	2-Chloronaphthalene	4.987	162	100238	2054.0342779 ppb		97
53)	2-Nitroaniline	5.046	138	28078	2206.6233903 ppb		98
54)	Acenaphthylene	5.287	152	157429	2139.5281469 ppb		98
55)	Dimethyl phthalate	5.169	163	110366	2093.5079908 ppb		89
56)	2,6-Dinitrotoluene	5.211	165	23079	2233.6488576 ppb		92
57)	3-Nitroaniline	5.334	138	25727	2204.2079203 ppb		95
58)	Acenaphthene	5.411	153	102039	1991.7346466 ppb		98
59)	2,4-Dinitrophenol	5.411	184	7455	1947.6829412 ppb	#	1
60)	Dibenzofuran	5.534	168	145300	2061.7680506 ppb		99
61)	2,4-Dinitrotoluene	5.505	165	28496	2271.0760508 ppb		96
63)	4-Nitrophenol	5.434	139	18631m	2226.6411122 ppb		
64)	Fluorene	5.787	166	119556	2091.6765492 ppb		100
65)	4-Chlorophenyl-phenyle...	5.781	204	56292	2109.5512081 ppb		96
66)	Diethyl phthalate	5.681	149	109369	2161.5627584 ppb		99
67)	4-Nitroaniline	5.787	138	26823	2275.1827627 ppb		98
68)	Azobenzene	5.905	77	107295	2154.6979653 ppb		100
71)	4,6-Dinitro-2-methylph...	5.811	198	11265	1968.5329533 ppb	#	76
72)	N-Nitrosodiphenylamine	5.869	169	101391	2148.4583933 ppb		98
74)	4-Bromophenyl-phenylether	6.158	248	29461	2130.9179624 ppb	#	84
75)	Hexachlorobenzene	6.211	284	33931	2128.5062285 ppb		99
76)	n-octadecane	6.411	55	19771	2137.6580992 ppb		96
77)	Pentachlorophenol	6.358	266	12771	2129.3659652 ppb		95
78)	Phenanthrene	6.540	178	172206	1973.3753857 ppb		97
79)	Anthracene	6.581	178	172386	2101.5185297 ppb		100
80)	Carbazole	6.699	167	160111	2111.1696196 ppb		99
81)	Di-n-butyl phthalate	6.975	149	177816	2143.3579018 ppb		99
83)	Fluoranthene	7.575	202	174845	2077.1294010 ppb		99
86)	Pyrene	7.810	202	182019	2100.0206260 ppb		99
88)	Benzylbutyl phthalate	8.599	149	69617	2165.9506902 ppb		93
90)	Benzo(a)anthracene	9.416	228	159268	1854.4009835 ppb		98
91)	Chrysene	9.475	228	162215	2042.6701369 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.534	149	94677	2118.8333619 ppb		100
93)	Di-n-octyl phthalate	10.804	149	147295	2119.6873845 ppb		99
95)	Benzo(b)fluoranthene	11.416	252	153191	2145.2813571 ppb		100
96)	Benzo(k)fluoranthene	11.475	252	152069m	2167.9610381 ppb		
97)	Benzo(a)pyrene	12.087	252	124708	2117.3657897 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.081	276	126082	2064.5077309 ppb		97
99)	Dibenz(a,h)anthracene	14.128	278	130983	2098.1893902 ppb		99
100)	Benzo(g,h,i)perylene	14.410	276	130634	2117.7385958 ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

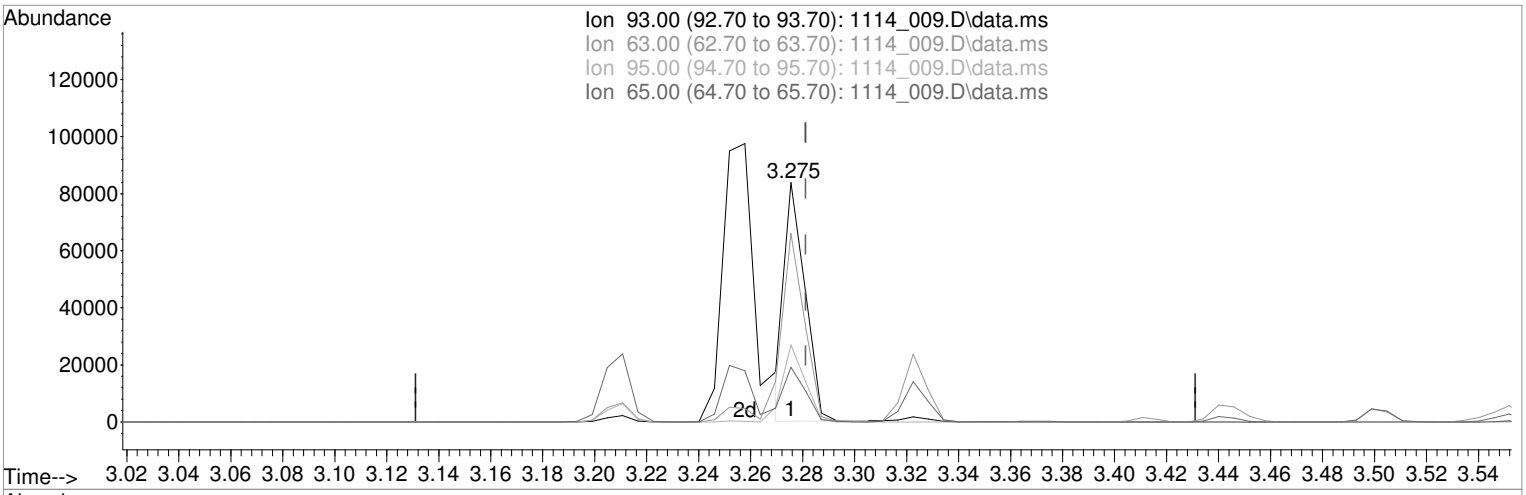
Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

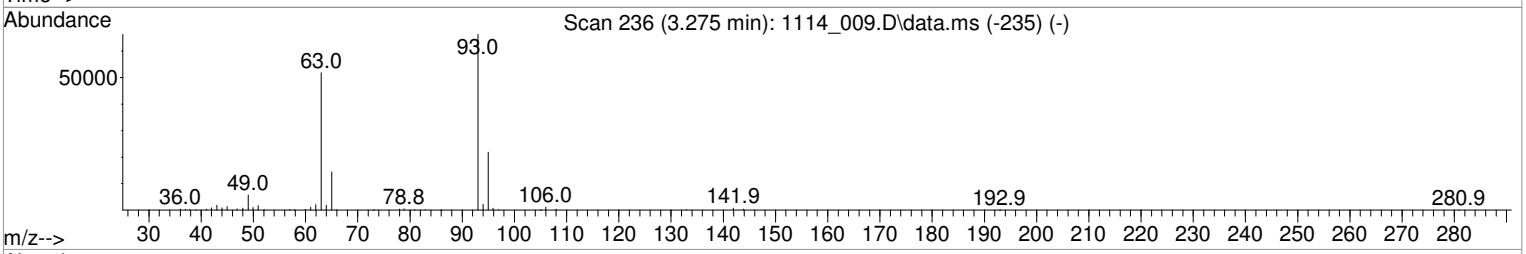
Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration

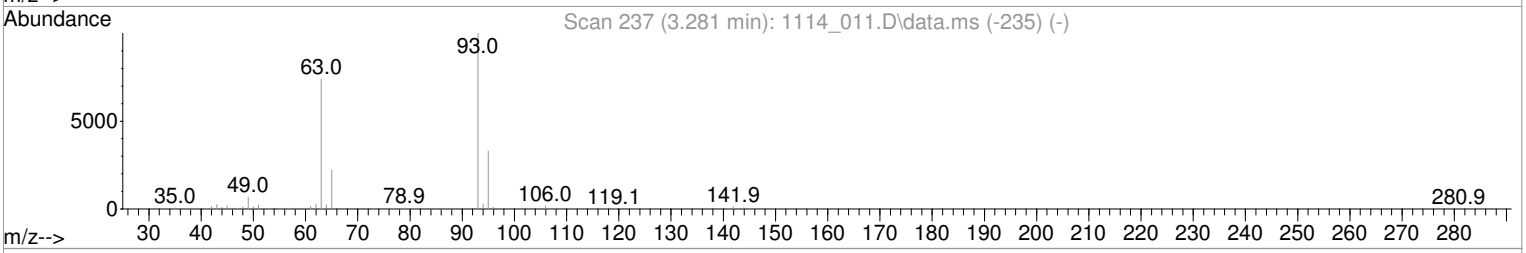


Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration







TIC: 1114_009.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.275min (-0.006) 1981.9157645 ppb

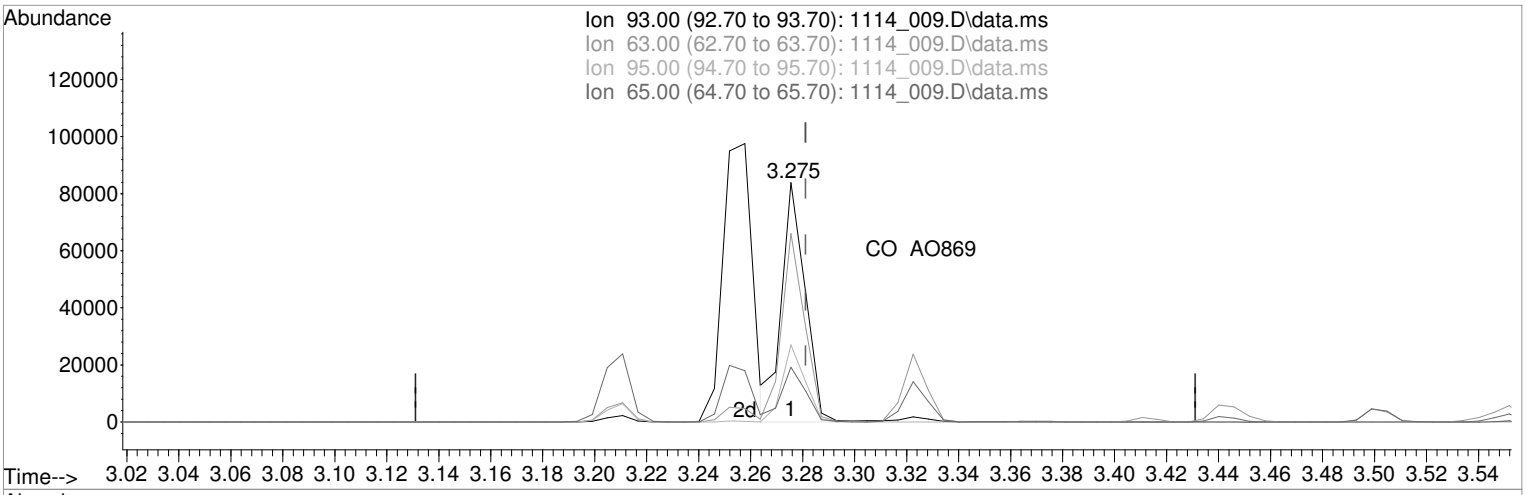
Qvalue = 96

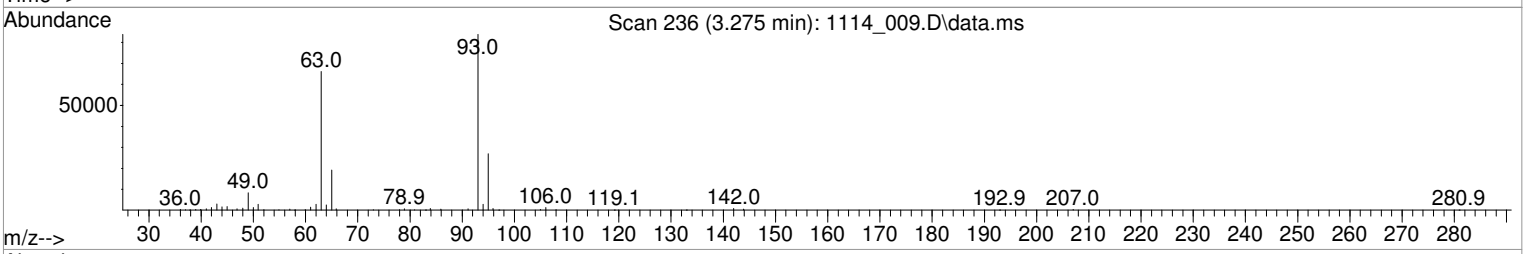
response 46167

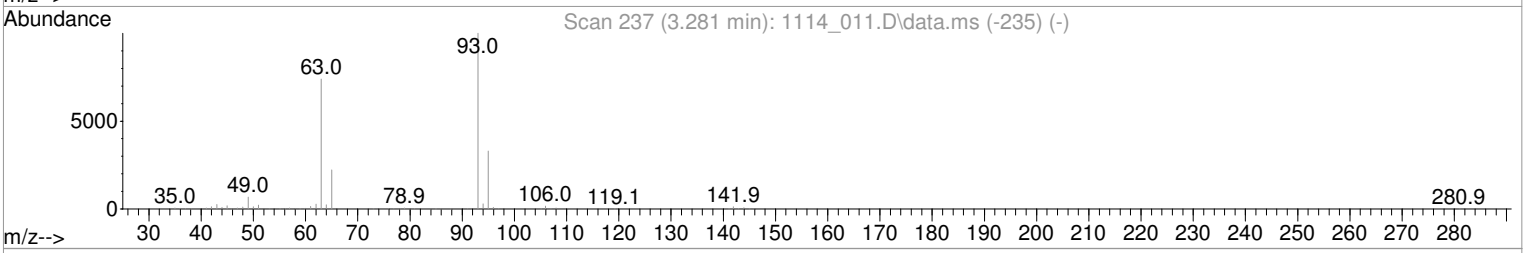
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	79.23
95.00	32.10	32.42
65.00	22.60	23.03

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration







TIC: 1114_009.D\data.ms

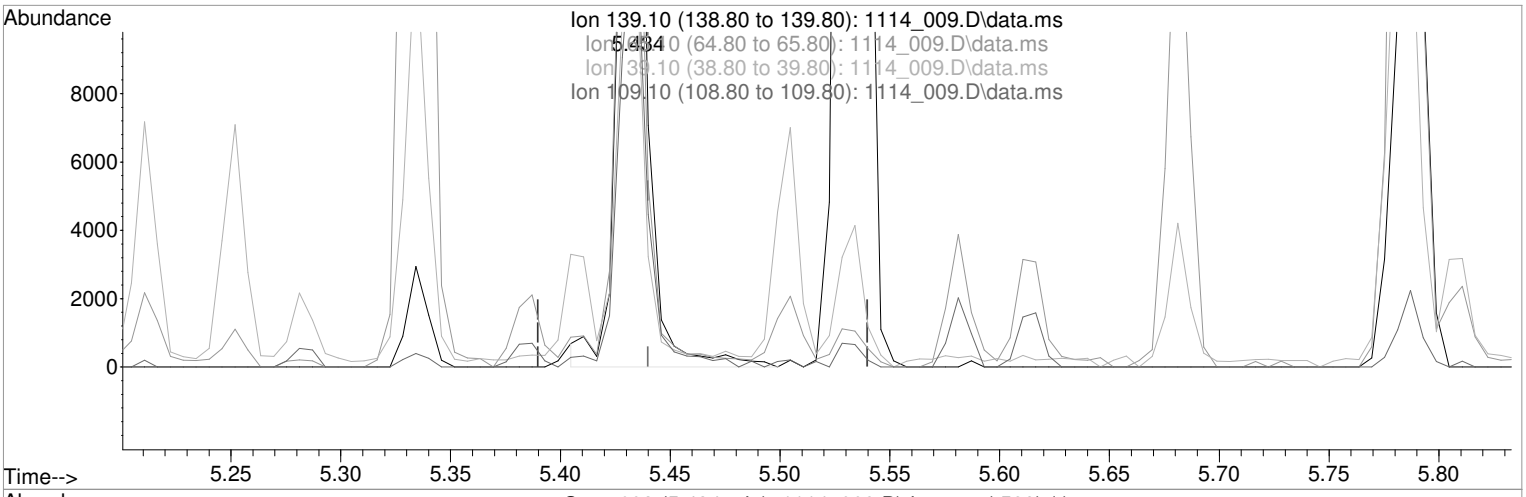
(6) bis(2-Chloroethyl)ether (MT)
3.275min (-0.006) 2264.2615956 ppb m

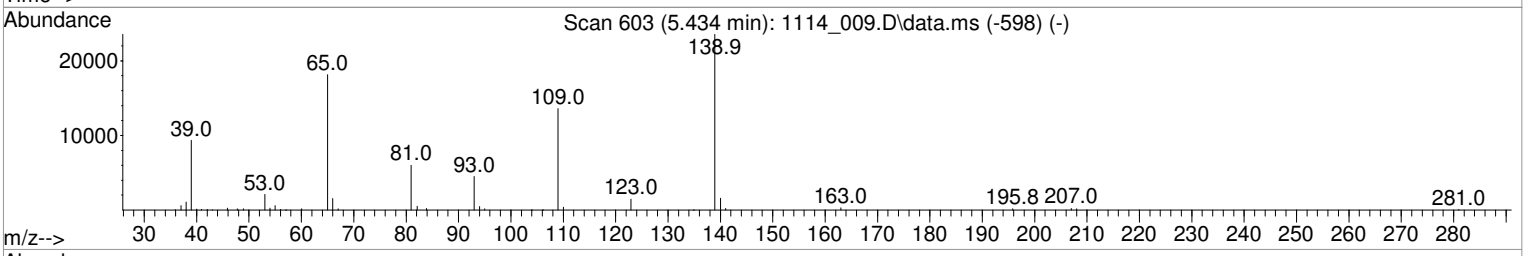
response 52744

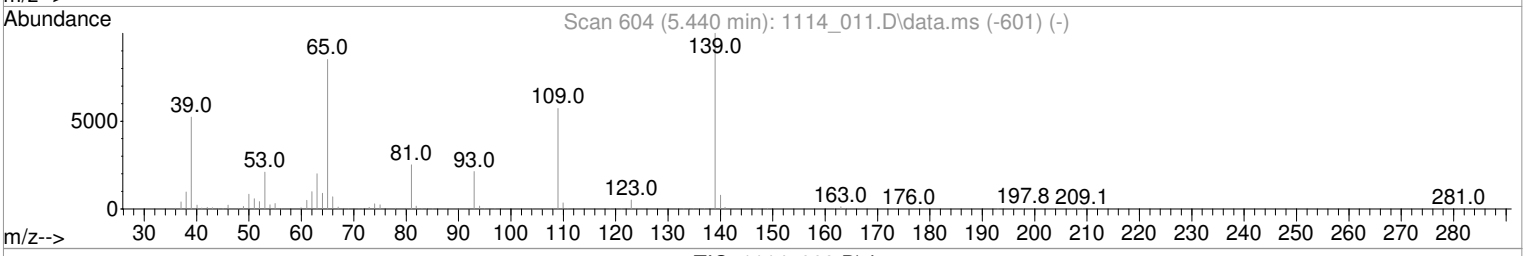
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	78.84
95.00	32.10	32.26
65.00	22.60	22.92

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration







TIC: 1114_009.D\data.ms

(63) 4-Nitrophenol (MPT)

5.434min (-0.006) 2277.0754715 ppb

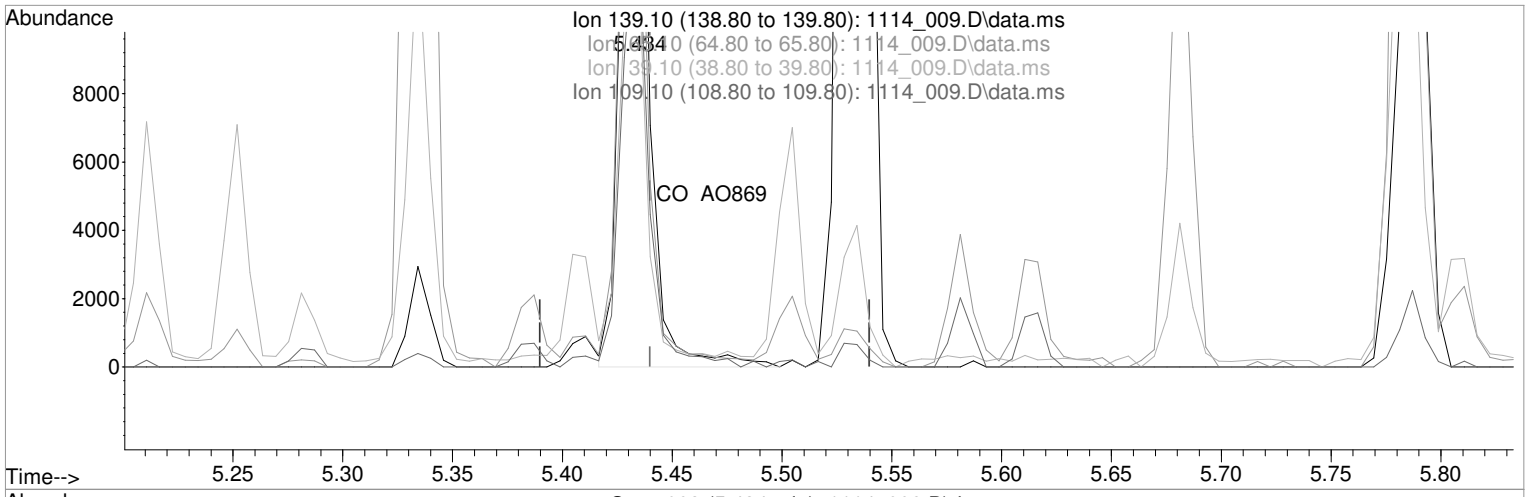
Qvalue = 89

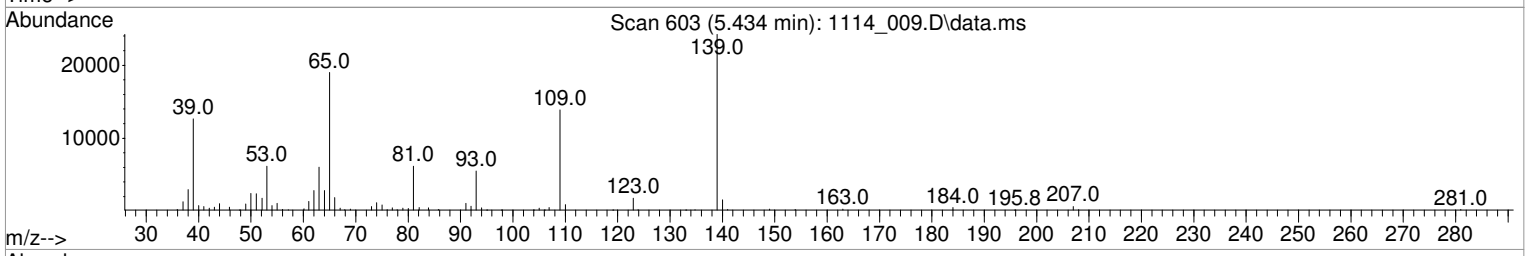
response 19053

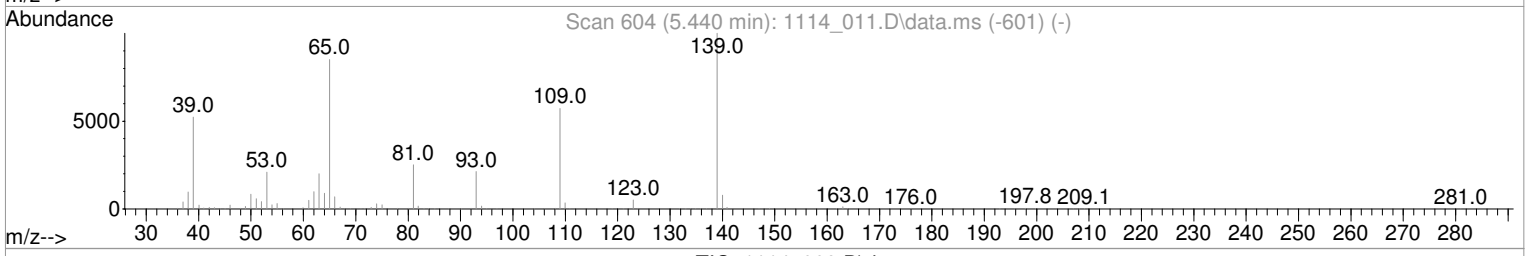
Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	74.85
39.10	53.60	38.60
109.10	57.40	56.53

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration







TIC: 1114_009.D\data.ms

(63) 4-Nitrophenol (MPT)

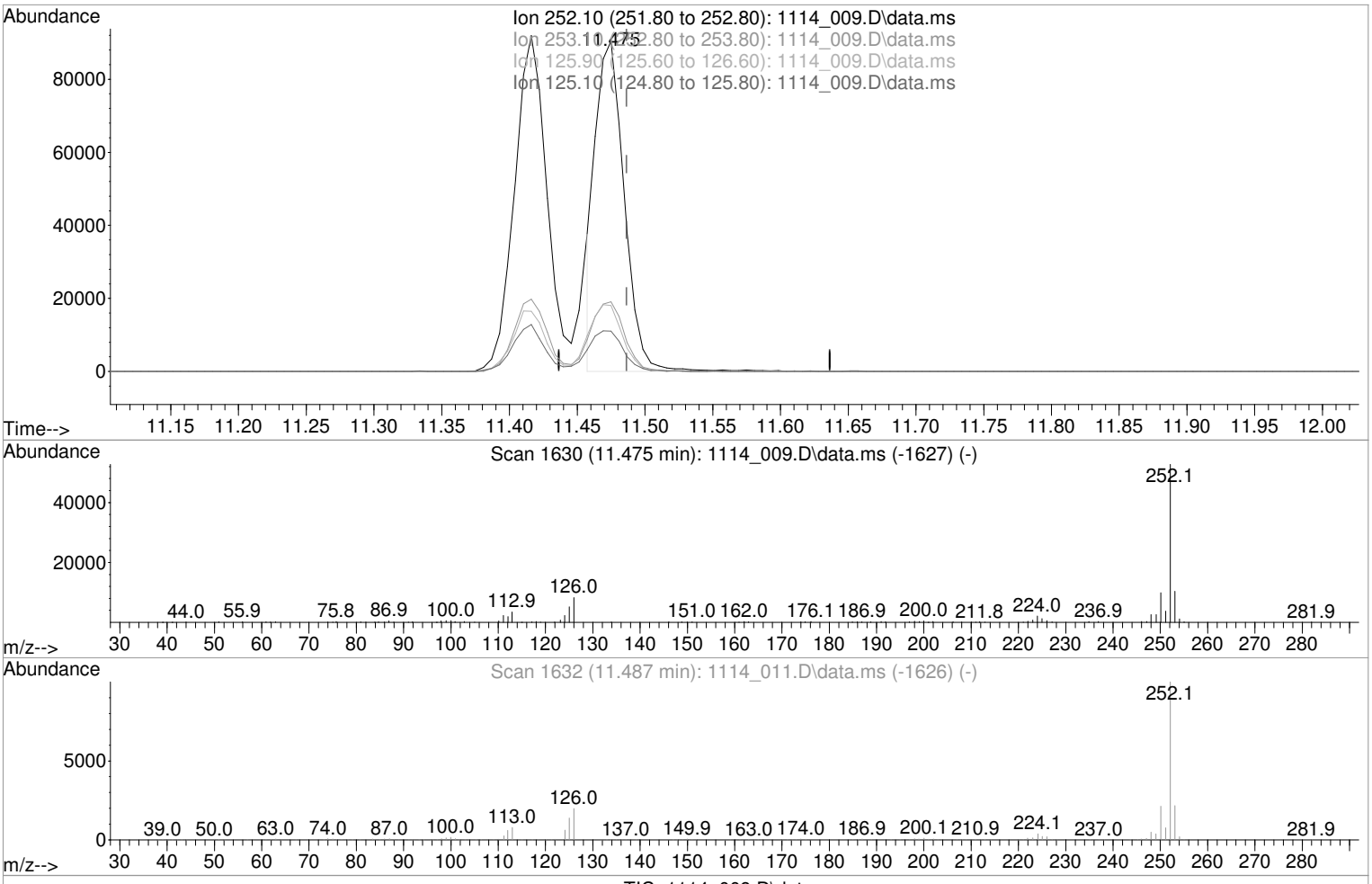
5.434min (-0.006) 2226.6411122 ppb m

response 18631

Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	78.44
39.10	53.60	52.20
109.10	57.40	57.21

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration



TIC: 1114_009.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 1907.8809875 ppb

Qvalue = 98

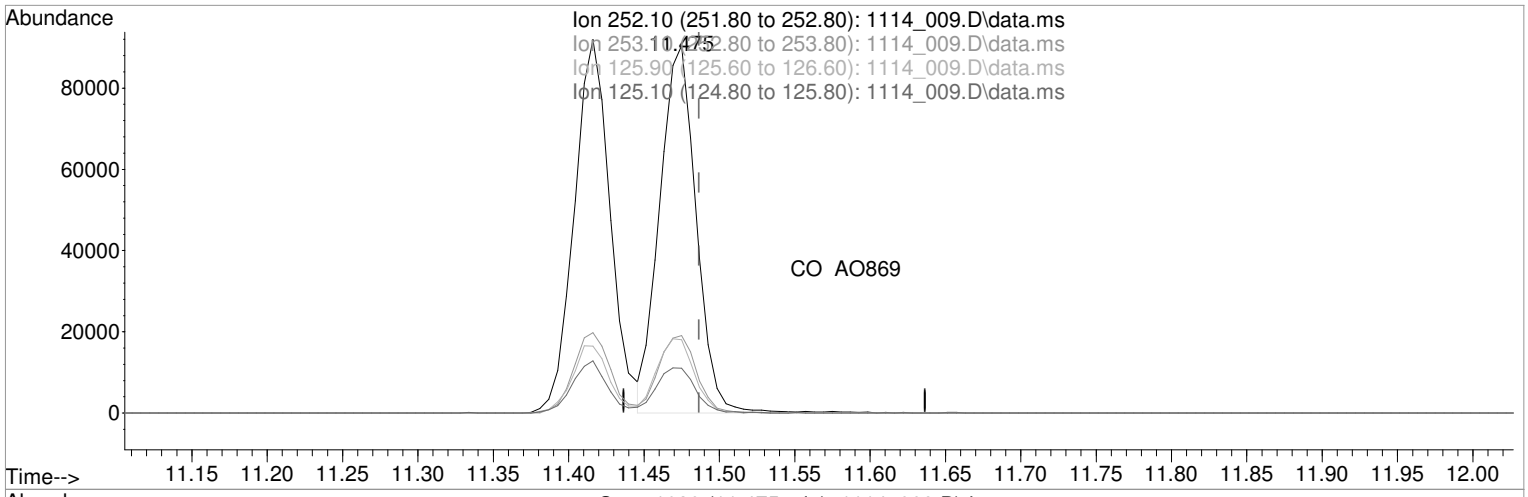
response 133826

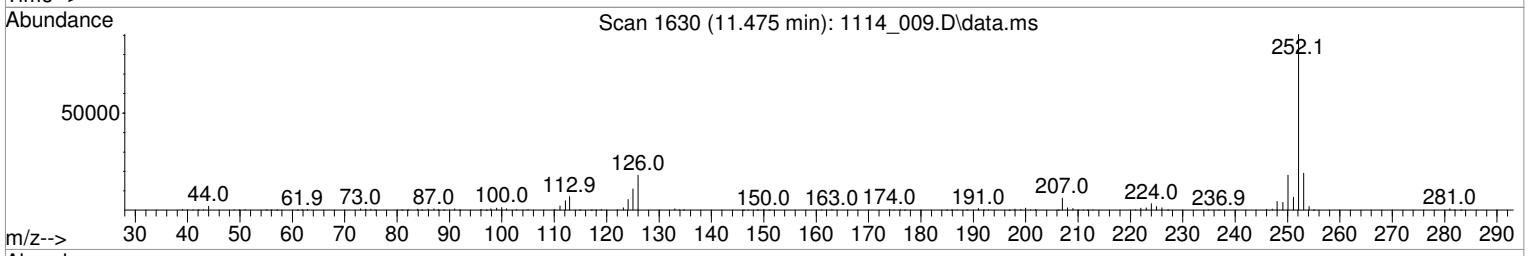
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.14
125.90	19.60	20.01
125.10	13.70	12.22

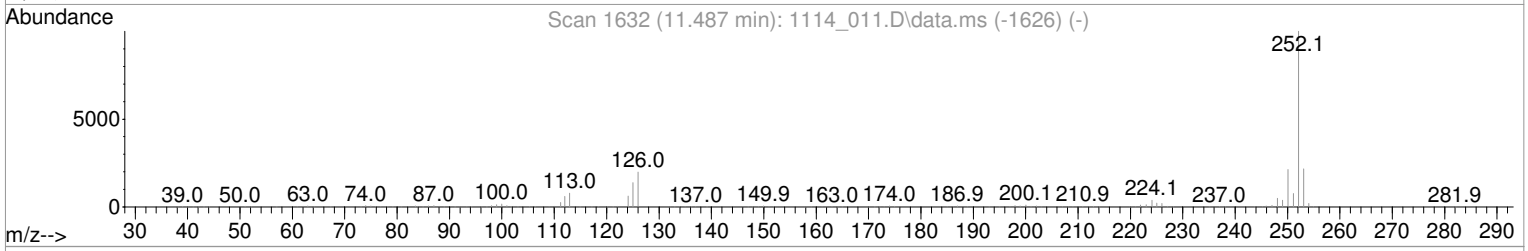
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_009.D
Acq On : 14 Nov 2022 07:58 pm
Operator : 917
Sample : STD SVMS 2K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 10:20:56 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:20:53 2022
Response via : Initial Calibration







TIC: 1114_009.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.475min (-0.012) 2167.9610381 ppb m

response 152069

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.14
125.90	19.60	20.01
125.10	13.70	12.22

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.446	152	157300	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	619314	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.387	164	340677	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.522	188	638550	8000.0000000	ppb		0.00
84) Chrysene-d12	9.434	240	538330	8000.0000000	ppb		0.00
94) Perylene-d12	12.216	264	514392	8000.0000000	ppb		0.01
System Monitoring Compounds							
4) 2-Fluorophenol	2.752	112	118915	5130.9195480	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 128.27%#				
7) Phenol-d5	3.205	99	153808	5223.5479553	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 130.59%#				
24) Nitrobenzene-d5	3.758	82	132181	5208.5804642	ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 260.43%#				
50) 2-Fluorobiphenyl	4.893	172	286454	5302.8986494	ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 265.14%#				
73) 2,4,6-Tribromophenol	5.975	330	30936	5557.8559170	ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 138.95%				
87) p-Terphenyl-d14	7.975	244	348189	5192.2441552	ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 259.61%#				
Target Compounds						Qvalue	
2) Pyridine	2.205	79	125149	5256.5733576	ppb		100
3) N-Nitrosodimethylamine	2.169	42	58756	4725.3714456	ppb		100
5) Aniline	3.258	66	75567	5466.8711926	ppb		97
6) bis(2-Chloroethyl)ether	3.275	93	120105	5035.0002853	ppb		92
8) Phenol	3.211	94	157772	5308.6557760	ppb		98
10) 2-Chlorophenol	3.322	128	129746	5280.3205039	ppb		98
11) n-Decane	3.328	41	67719	4782.3420885	ppb		99
12) 1,3-Dichlorobenzene	3.416	146	147286	5148.3430519	ppb		99
13) 1,4-Dichlorobenzene	3.452	146	149048	5072.1227325	ppb		98
14) Benzyl Alcohol	3.505	79	101458	5210.5703825	ppb		99
15) 1,2-Dichlorobenzene	3.540	146	139914	5066.5282596	ppb		98
16) bis(2-Chloroisopropyl)...	3.575	121	45147	5072.5710322	ppb	#	71
17) 2,2-oxybis(1-chloropro...	3.575	121	45147	5072.5710322	ppb	#	71
18) 2-Methylphenol	3.552	108	119008	5271.8010168	ppb		99
19) Hexachloroethane	3.740	117	53994	4894.4074976	ppb		98
20) N-Nitrosodi-n-propylamine	3.652	70	85478	5328.9241697	ppb		95
21) 3&4-Methyl phenol	3.640	107	132413	5296.5656463	ppb		96
25) Nitrobenzene	3.763	77	122647	5350.8004006	ppb		92
26) Isophorone	3.905	82	233600	5435.5040539	ppb		97
27) 2-Nitrophenol	3.958	139	63649	5597.5809389	ppb		98
28) 2,4-Dimethylphenol	3.958	107	127588	5378.2387408	ppb		99
29) bis(2-Chlorethoxy)methane	4.022	93	150526	5210.5278958	ppb		99
30) 2,4-Dichlorophenol	4.099	162	104376	5346.3184542	ppb		99
32) 1,2,4-Trichlorobenzene	4.157	180	116862	5074.2490558	ppb		99
34) Naphthalene	4.210	128	396649	5008.9638703	ppb		99
35) 4-Chloroaniline	4.228	65	47610	5216.1371503	ppb		97
36) Hexachloro-1,3-butadiene	4.281	225	60397	5197.4039255	ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration

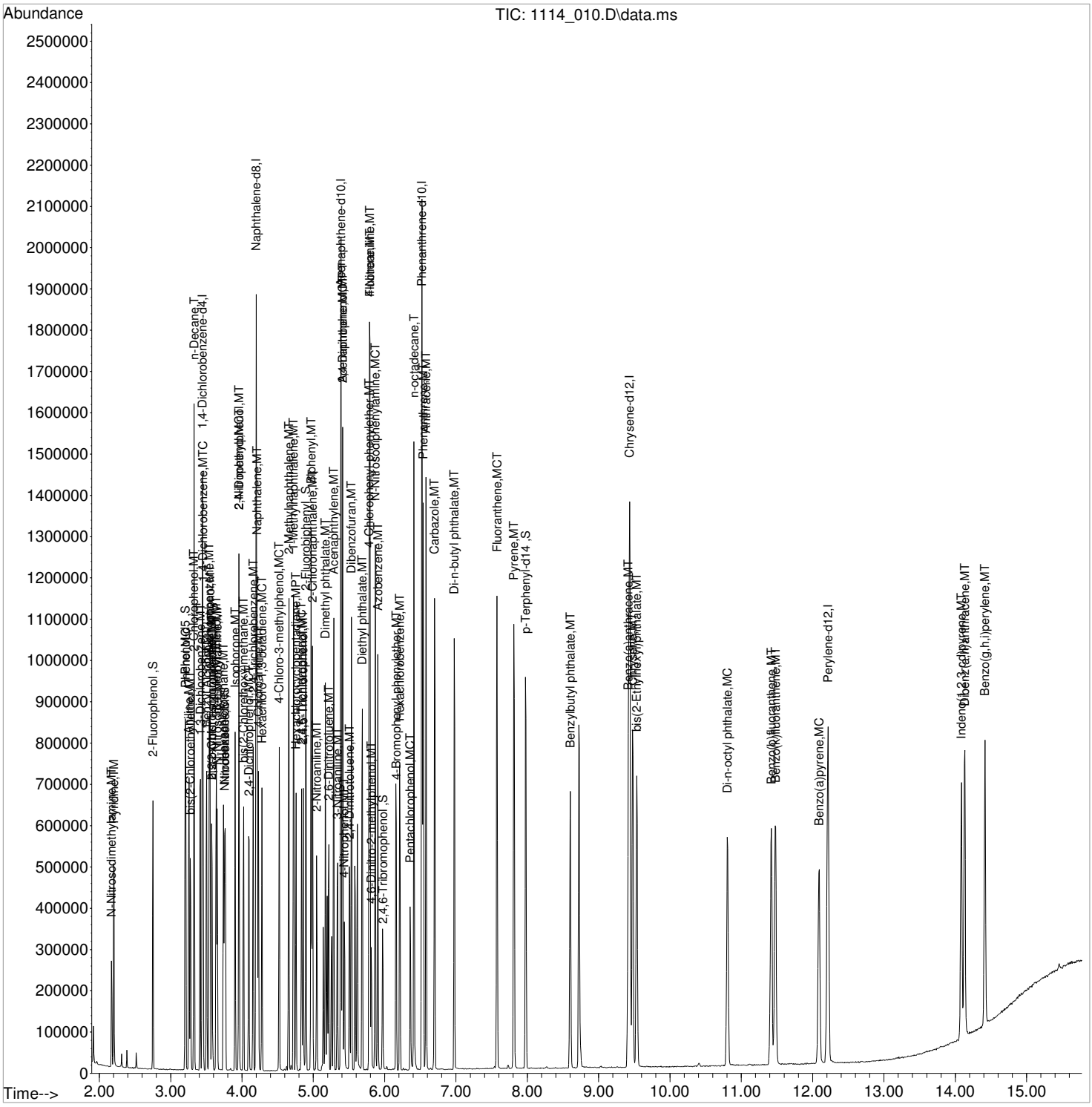
	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.522	107	109047	5387.0558323 ppb		99
41)	2-Methylnaphthalene	4.657	142	263301	5119.6914030 ppb		99
42)	1-Methylnaphthalene	4.722	142	245458	5148.1653961 ppb		100
47)	Hexachlorocyclopentadiene	4.757	237	78718	5589.1822993 ppb		98
48)	2,4,6-Trichlorophenol	4.834	196	70618	5583.6221516 ppb		98
49)	2,4,5-Trichlorophenol	4.857	196	77488	5626.9671567 ppb		98
51)	Biphenyl	4.969	154	323333	5252.6223453 ppb		99
52)	2-Chloronaphthalene	4.987	162	243648	5204.0059338 ppb		96
53)	2-Nitroaniline	5.046	138	76845	6169.4030770 ppb		99
54)	Acenaphthylene	5.287	152	384123	5395.4271651 ppb		99
55)	Dimethyl phthalate	5.169	163	279848	5498.6327531 ppb		95
56)	2,6-Dinitrotoluene	5.216	165	63046	6212.8818717 ppb		94
57)	3-Nitroaniline	5.340	138	71552	6264.3861139 ppb		90
58)	Acenaphthene	5.410	153	252587	5171.0101117 ppb		99
59)	2,4-Dinitrophenol	5.410	184	23123	6386.4311268 ppb	#	1
60)	Dibenzofuran	5.534	168	357764	5279.2291920 ppb		99
61)	2,4-Dinitrotoluene	5.510	165	80661	6515.9741097 ppb		93
63)	4-Nitrophenol	5.434	139	51709m	6297.7821250 ppb		
64)	Fluorene	5.793	166	296174	5380.7988752 ppb		99
65)	4-Chlorophenyl-phenyle...	5.781	204	137732	5335.9458455 ppb		99
66)	Diethyl phthalate	5.687	149	273564	5553.7869496 ppb		99
67)	4-Nitroaniline	5.793	138	73985	6357.7728857 ppb		99
68)	Azobenzene	5.904	77	270646	5587.6685525 ppb		100
71)	4,6-Dinitro-2-methylph...	5.810	198	33428	5899.1442126 ppb		93
72)	N-Nitrosodiphenylamine	5.869	169	253688	5301.8260247 ppb		99
74)	4-Bromophenyl-phenylether	6.163	248	72489	5182.3320306 ppb		97
75)	Hexachlorobenzene	6.210	284	81374	5046.9226308 ppb		98
76)	n-octadecane	6.410	55	48186	5116.3767306 ppb		99
77)	Pentachlorophenol	6.357	266	37488	6179.2313972 ppb		93
78)	Phenanthrene	6.540	178	420077	4848.7706034 ppb		98
79)	Anthracene	6.581	178	428255	5191.9497514 ppb		100
80)	Carbazole	6.699	167	402148	5253.8521440 ppb		100
81)	Di-n-butyl phthalate	6.975	149	456466	5430.0300253 ppb		99
83)	Fluoranthene	7.575	202	435552	5158.1858373 ppb		99
86)	Pyrene	7.810	202	453621	5271.8706849 ppb		99
88)	Benzylbutyl phthalate	8.604	149	186611	5786.8304306 ppb		99
90)	Benzo(a)anthracene	9.416	228	401929	4831.4919083 ppb		98
91)	Chrysene	9.475	228	396460	5057.5994239 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.534	149	260142	5836.4150690 ppb		100
93)	Di-n-octyl phthalate	10.804	149	426004	6145.1881871 ppb		100
95)	Benzo(b)fluoranthene	11.422	252	374714	5265.3783888 ppb		99
96)	Benzo(k)fluoranthene	11.481	252	385923m	5508.3347739 ppb		
97)	Benzo(a)pyrene	12.092	252	324912	5550.6345218 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.086	276	317209	5253.6258795 ppb		99
99)	Dibenz(a,h)anthracene	14.133	278	339243	5478.2253390 ppb		98
100)	Benzo(g,h,i)perylene	14.416	276	330995	5398.7952944 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

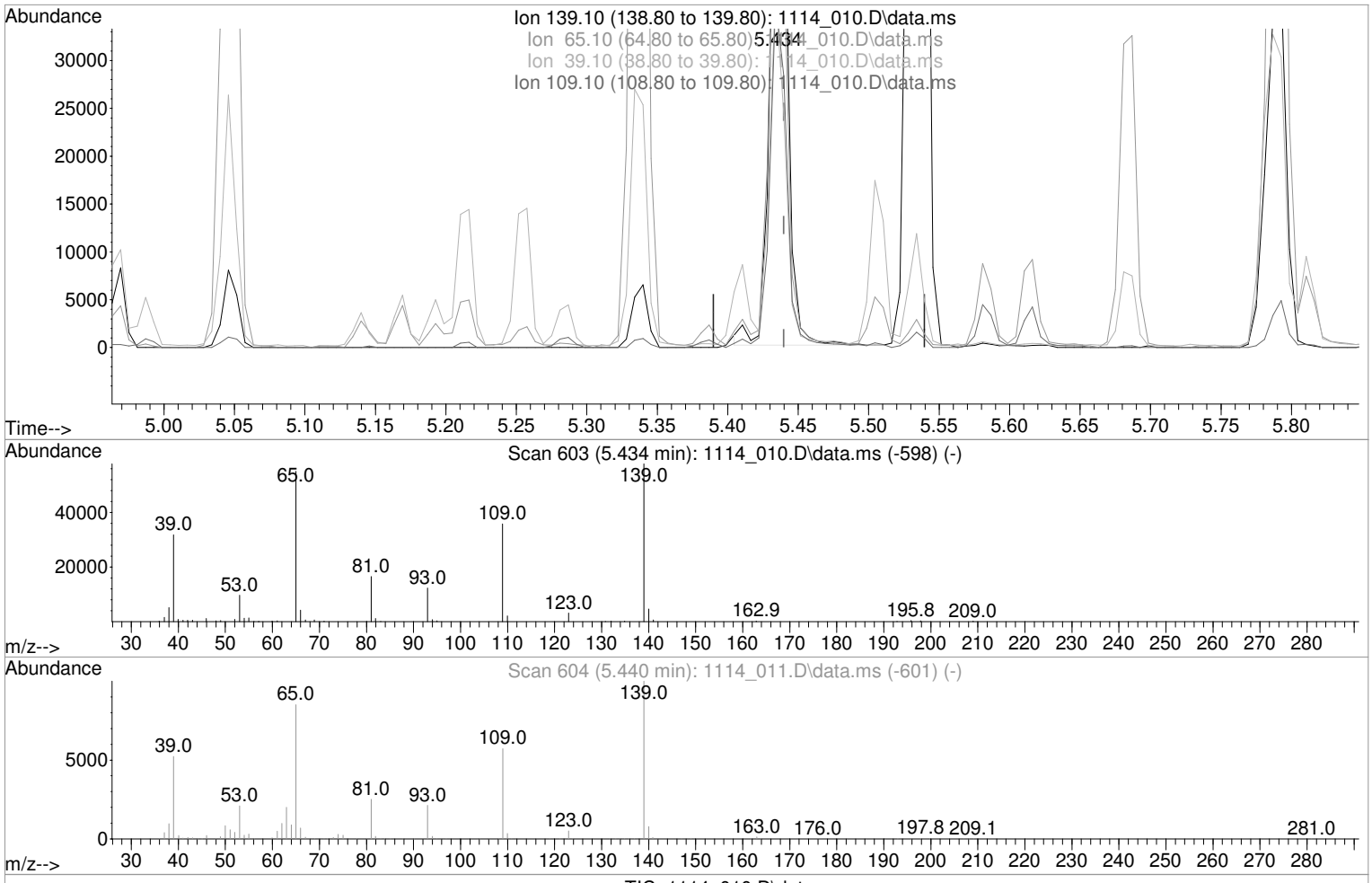
Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration



TIC: 1114_010.D\data.ms

(63) 4-Nitrophenol (MPT)

5.434min (-0.006) 6285.8464340 ppb

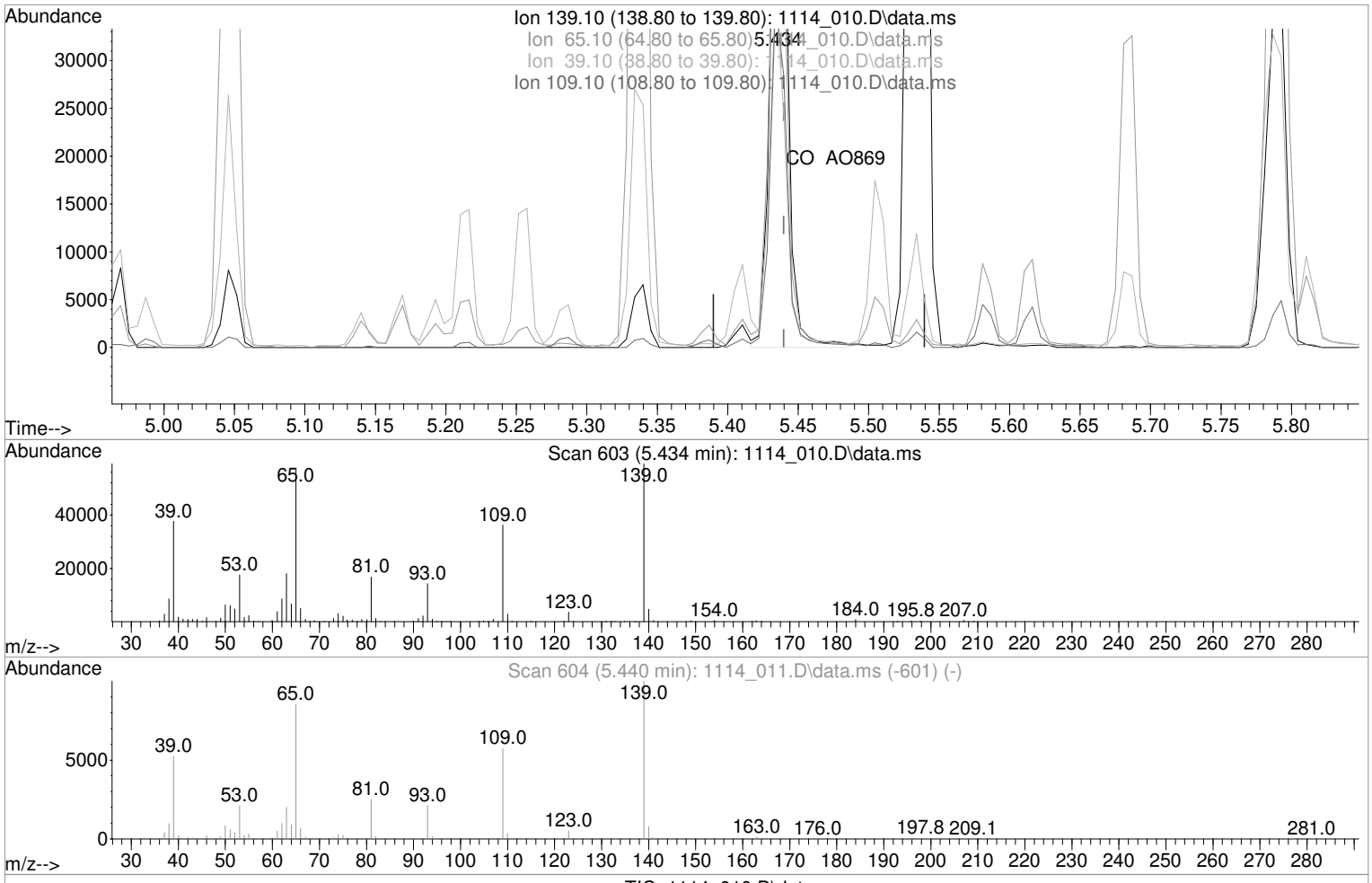
Qvalue = 95

response 51611

Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	93.64
39.10	53.60	54.08
109.10	57.40	61.02

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration



TIC: 1114_010.D\data.ms

(63) 4-Nitrophenol (MPT)

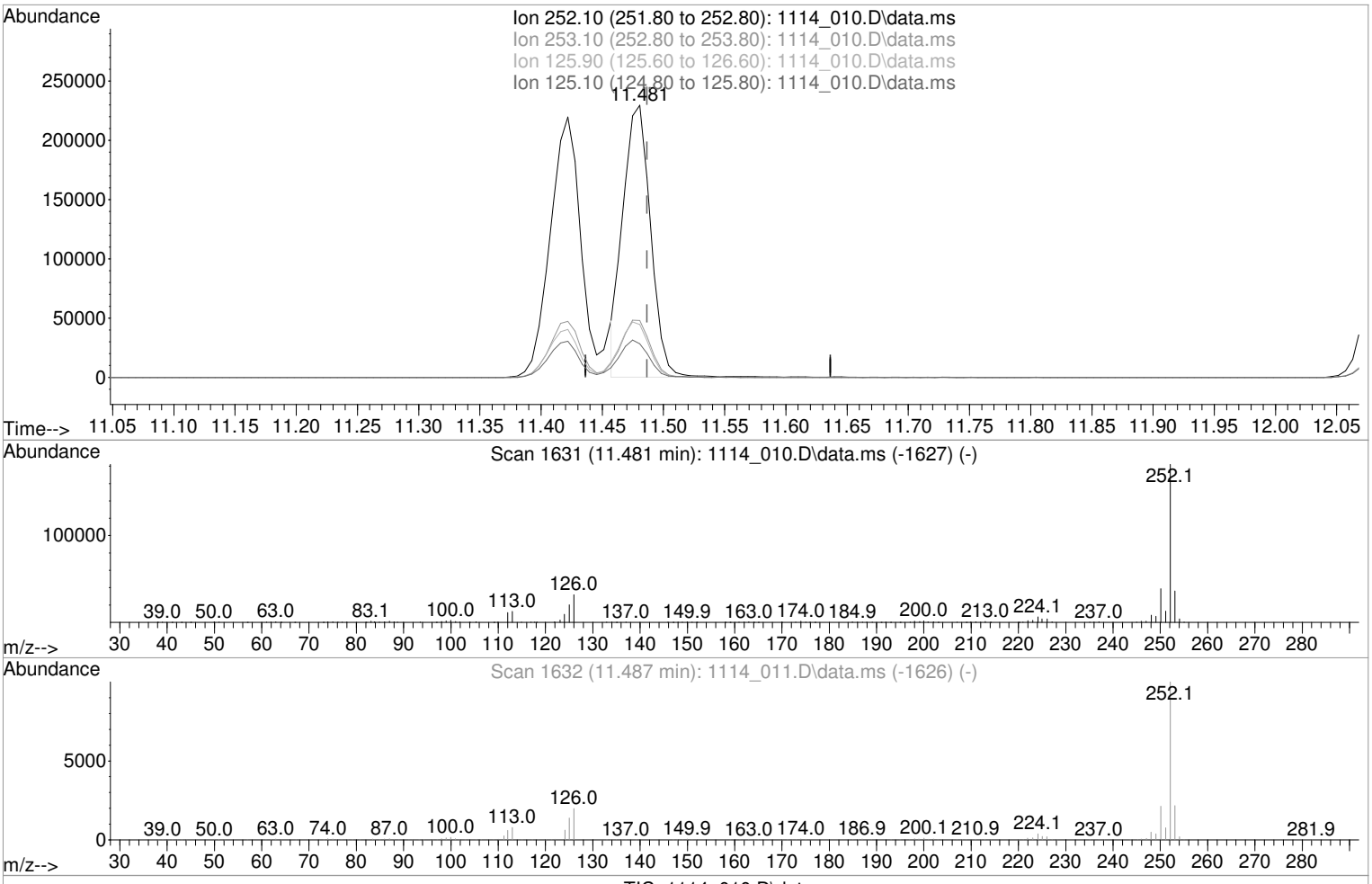
5.434min (-0.006) 6297.7821250 ppb m

response 51709

Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	96.11
39.10	53.60	63.66
109.10	57.40	61.29

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration



TIC: 1114_010.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.481min (-0.006) 5154.9031679 ppb

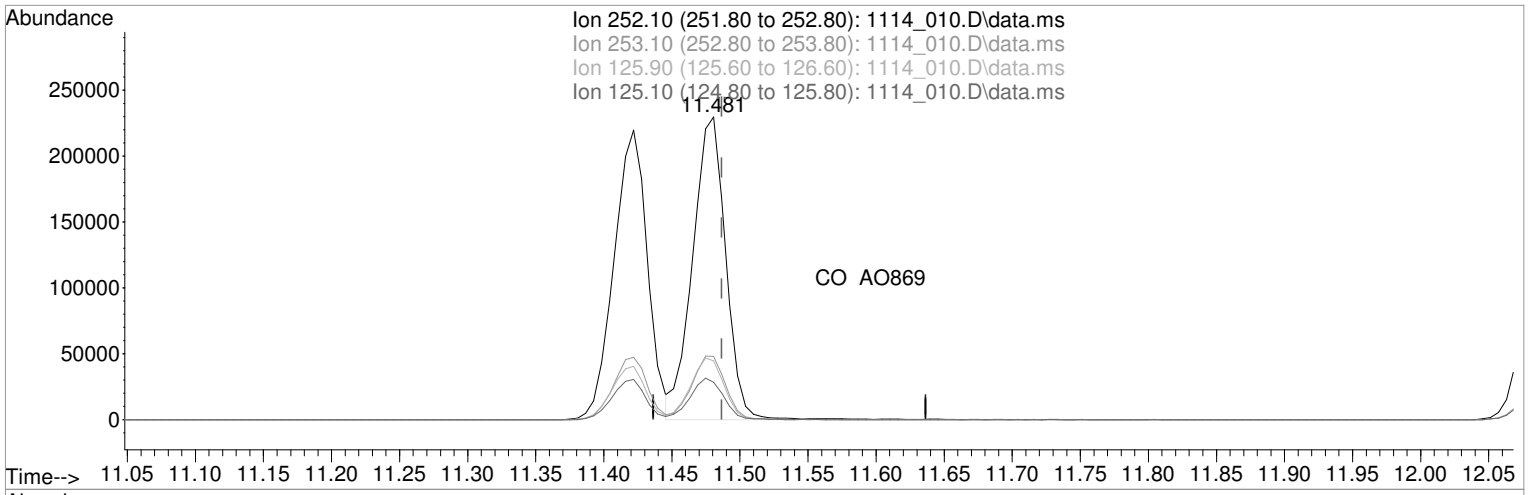
Qvalue = 99

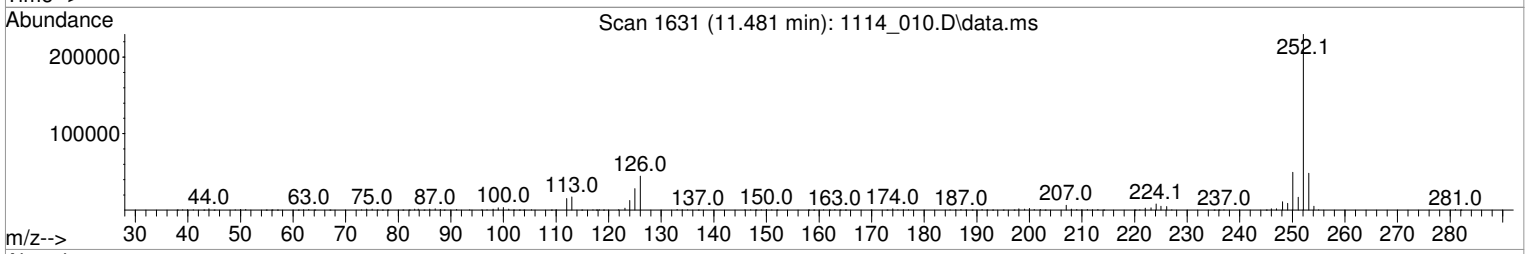
response 361161

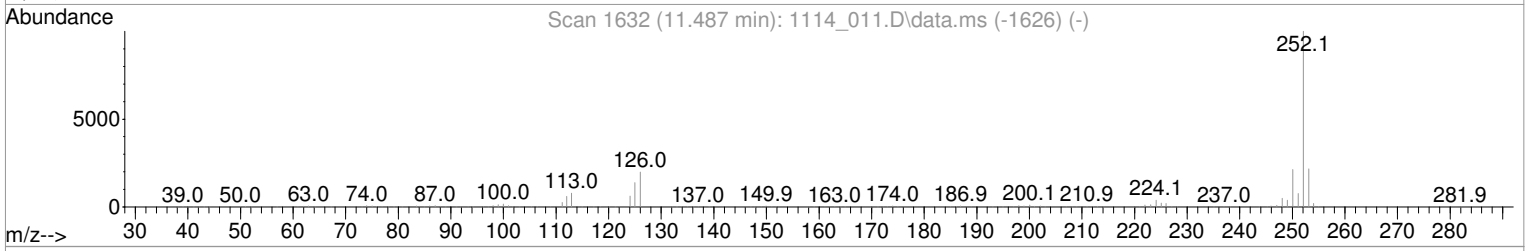
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	20.95
125.90	19.60	19.46
125.10	13.70	12.35

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_010.D
Acq On : 14 Nov 2022 08:19 pm
Operator : 917
Sample : STD SVMS 5K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 10:22:40 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:22:37 2022
Response via : Initial Calibration







TIC: 1114_010.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.481min (-0.006) 5508.3347739 ppb m

response 385923

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	20.94
125.90	19.60	19.44
125.10	13.70	12.34

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.446	152	158788	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.199	136	632129	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.387	164	351622	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.522	188	631940	8000.0000000 ppb	0.00
84) Chrysene-d12	9.440	240	532543	8000.0000000 ppb	0.00
94) Perylene-d12	12.216	264	510142	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.752	112	231279	10000.0000000 ppb	0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 250.00%#		
7) Phenol-d5	3.205	99	294889	10000.0000000 ppb	0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 250.00%#		
24) Nitrobenzene-d5	3.758	82	256175	10000.0000000 ppb	0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 500.00%#		
50) 2-Fluorobiphenyl	4.899	172	543139	10000.0000000 ppb	0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 500.00%#		
73) 2,4,6-Tribromophenol	5.975	330	61459	10049.0524698 ppb	0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 251.23%#		
87) p-Terphenyl-d14	7.981	244	648447	10216.7353878 ppb	0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 510.84%#		
Target Compounds					Qvalue
2) Pyridine	2.205	79	240875	10000.0000000 ppb	100
3) N-Nitrosodimethylamine	2.169	42	113689	9972.1069759 ppb	100
5) Aniline	3.258	66	145468	10000.0000000 ppb	100
6) bis(2-Chloroethyl)ether	3.281	93	232736	10000.0000000 ppb	100
8) Phenol	3.211	94	299647	10000.0000000 ppb	100
10) 2-Chlorophenol	3.322	128	250068	10000.0000000 ppb	100
11) n-Decane	3.328	41	127627	10000.0000000 ppb	100
12) 1,3-Dichlorobenzene	3.416	146	278365	10000.0000000 ppb	100
13) 1,4-Dichlorobenzene	3.452	146	280401	10000.0000000 ppb	100
14) Benzyl Alcohol	3.505	79	197202	10000.0000000 ppb	100
15) 1,2-Dichlorobenzene	3.540	146	266822	10000.0000000 ppb	100
16) bis(2-Chloroisopropyl)...	3.581	121	86912	10000.0000000 ppb	100
17) 2,2-oxybis(1-chloropro...	3.581	121	86912	10000.0000000 ppb	100
18) 2-Methylphenol	3.552	108	227414	10011.6222760 ppb	100
19) Hexachloroethane	3.740	117	105488	10000.0000000 ppb	100
20) N-Nitrosodi-n-propylamine	3.658	70	163738	10000.0000000 ppb	100
21) 3&4-Methyl phenol	3.640	107	257093	9955.5454014 ppb	100
25) Nitrobenzene	3.769	77	236738	10000.1689660 ppb	100
26) Isophorone	3.905	82	451688	10000.0000000 ppb	100
27) 2-Nitrophenol	3.958	139	124862	10000.0000000 ppb	100
28) 2,4-Dimethylphenol	3.958	107	240811	10000.0000000 ppb	100
29) bis(2-Chlorethoxy)methane	4.022	93	288634	10000.0000000 ppb	100
30) 2,4-Dichlorophenol	4.099	162	201672	9984.4543681 ppb	100
32) 1,2,4-Trichlorobenzene	4.158	180	224679	10000.0000000 ppb	100
34) Naphthalene	4.211	128	754641	10000.5035761 ppb	100
35) 4-Chloroaniline	4.228	65	90043	10000.0000000 ppb	100
36) Hexachloro-1,3-butadiene	4.281	225	114882	10000.0000000 ppb	100

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

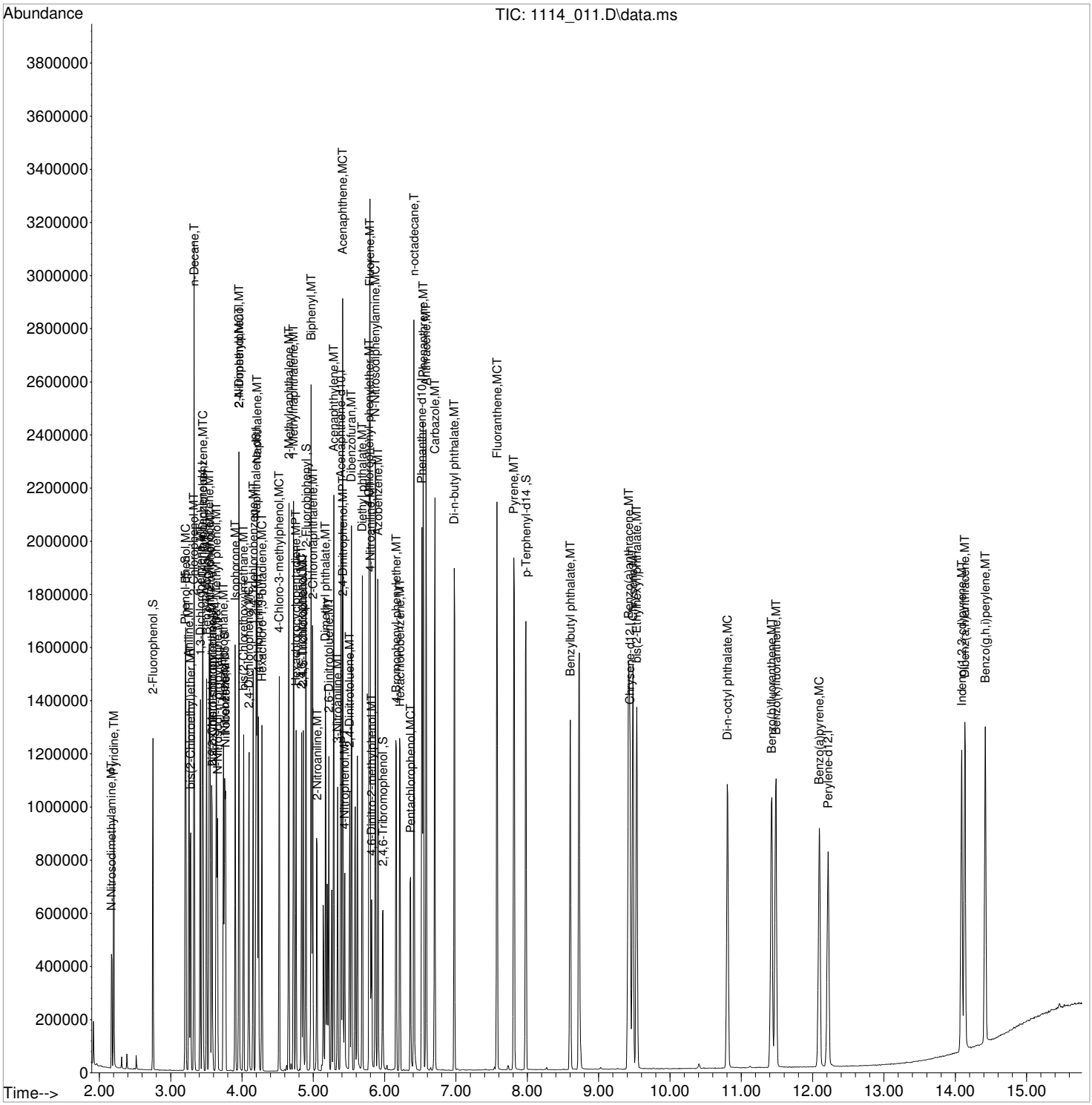
Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) 4-Chloro-3-methylphenol	4.522	107	210470	9966.5681706 ppb	100
41) 2-Methylnaphthalene	4.658	142	500553	10000.0000000 ppb	100
42) 1-Methylnaphthalene	4.722	142	464082	10000.0000000 ppb	100
47) Hexachlorocyclopentadiene	4.758	237	151251	10000.0000000 ppb	100
48) 2,4,6-Trichlorophenol	4.834	196	135829	10000.0000000 ppb	100
49) 2,4,5-Trichlorophenol	4.858	196	148781	9981.7514575 ppb	100
51) Biphenyl	4.969	154	605708	10000.0000000 ppb	100
52) 2-Chloronaphthalene	4.993	162	460584	10000.0000000 ppb	100
53) 2-Nitroaniline	5.052	138	154171	10000.0000000 ppb	100
54) Acenaphthylene	5.287	152	729880	10000.0000000 ppb	100
55) Dimethyl phthalate	5.169	163	525985	9999.9239528 ppb	100
56) 2,6-Dinitrotoluene	5.216	165	124128	10000.0000000 ppb	100
57) 3-Nitroaniline	5.340	138	139170	10000.0000000 ppb	100
58) Acenaphthene	5.410	153	470866	10000.0000000 ppb	100
59) 2,4-Dinitrophenol	5.416	184	49327	10000.0000000 ppb	100
60) Dibenzofuran	5.534	168	668990	10000.0000000 ppb	100
61) 2,4-Dinitrotoluene	5.510	165	161778	10000.0000000 ppb	100
63) 4-Nitrophenol	5.440	139	105987m	9942.8684003 ppb	
64) Fluorene	5.793	166	556492	10000.0000000 ppb	100
65) 4-Chlorophenyl-phenyle...	5.781	204	257735	10000.0000000 ppb	100
66) Diethyl phthalate	5.687	149	518805	10000.0000000 ppb	100
67) 4-Nitroaniline	5.799	138	145046	10000.0000000 ppb	100
68) Azobenzene	5.905	77	515720	10000.0000000 ppb	100
71) 4,6-Dinitro-2-methylph...	5.816	198	71151	10012.3833781 ppb	94
72) N-Nitrosodiphenylamine	5.869	169	474775	10000.1053142 ppb	100
74) 4-Bromophenyl-phenylether	6.163	248	138081	10000.0000000 ppb	100
75) Hexachlorobenzene	6.216	284	152842	10000.0000000 ppb	100
76) n-octadecane	6.410	55	89995	10000.0000000 ppb	100
77) Pentachlorophenol	6.363	266	75961	9974.9185839 ppb	100
78) Phenanthrene	6.540	178	781402	10000.0000000 ppb	100
79) Anthracene	6.581	178	800380	9995.1296877 ppb	100
80) Carbazole	6.705	167	756046	9989.0734641 ppb	100
81) Di-n-butyl phthalate	6.975	149	879284	9994.6689582 ppb	100
83) Fluoranthene	7.575	202	820171	10002.0609706 ppb	100
86) Pyrene	7.810	202	843861	10337.8611803 ppb	100
88) Benzylbutyl phthalate	8.604	149	374160	10000.0801802 ppb	100
90) Benzo(a)anthracene	9.422	228	760836	10000.0000000 ppb	100
91) Chrysene	9.481	228	737611	9996.5576359 ppb	100
92) bis(2-Ethylhexyl)phtha...	9.534	149	523686	10000.0000000 ppb	100
93) Di-n-octyl phthalate	10.804	149	858864	10010.5599575 ppb	100
95) Benzo(b)fluoranthene	11.428	252	720188	10000.0000000 ppb	100
96) Benzo(k)fluoranthene	11.487	252	722433	10000.0000000 ppb	100
97) Benzo(a)pyrene	12.092	252	625995	10000.0000000 ppb	100
98) Indeno(1,2,3-cd)pyrene	14.092	276	602363m	9998.3899346 ppb	
99) Dibenz(a,h)anthracene	14.134	278	624610	10030.6728762 ppb	100
100) Benzo(g,h,i)perylene	14.422	276	613248	10000.0000000 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

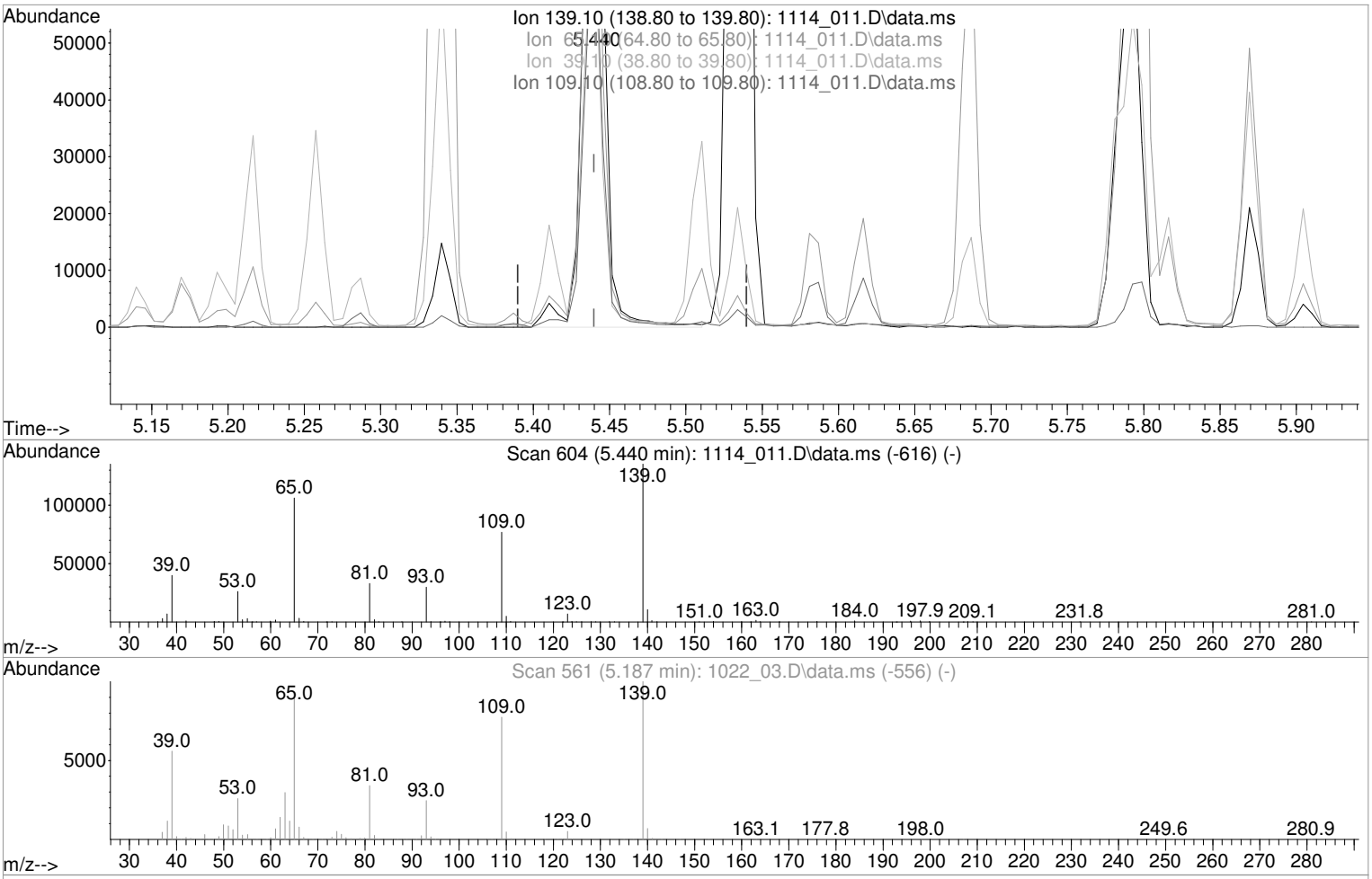
Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



TIC: 1114_011.D\data.ms

(63) 4-Nitrophenol (MPT)

5.440min (0.000) 10282.8436339 ppb

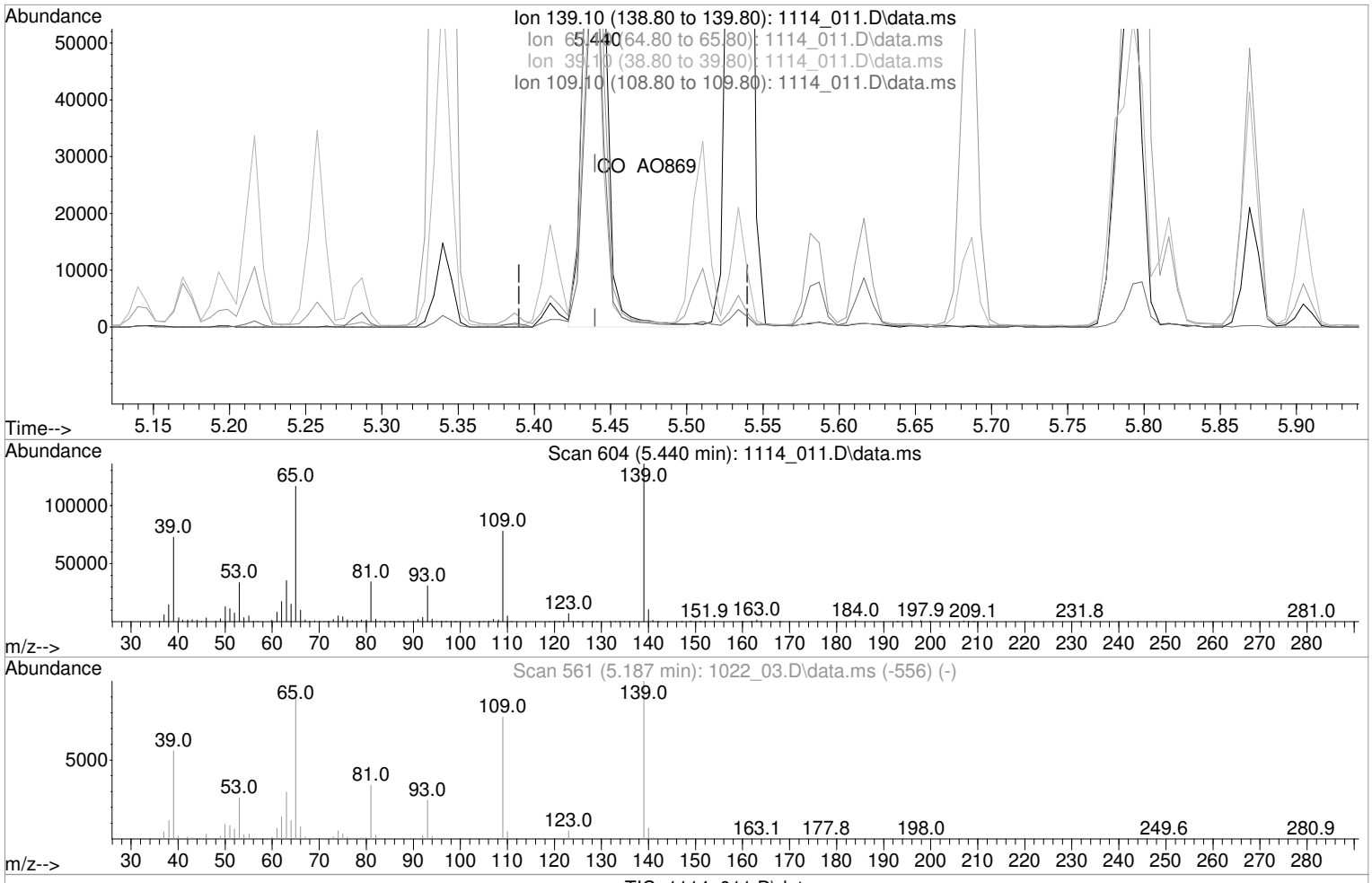
Qvalue = 99

response 109611

Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	85.36
39.10	53.60	52.68
109.10	57.40	57.42

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



TIC: 1114_011.D\data.ms

(63) 4-Nitrophenol (MPT)

5.440min (0.000) 9942.8684003 ppb m

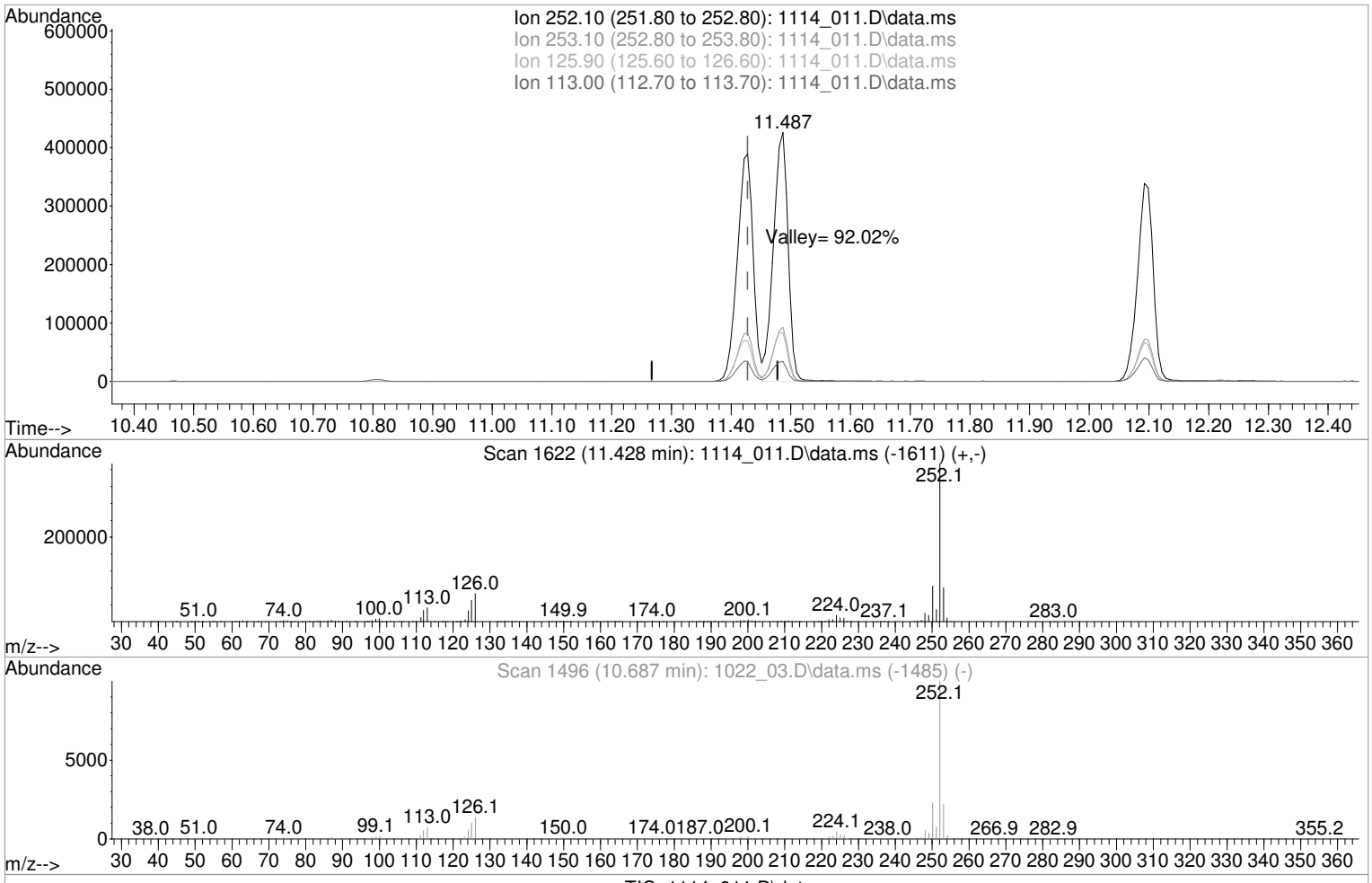
response 105987

Ion	Exp%	Act%
139.10	100.00	100.00
65.10	85.80	85.81
39.10	53.60	53.58
109.10	57.40	57.42

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



TIC: 1114_011.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.428min (0.000) 10000.0000000 ppb

Qvalue = 100

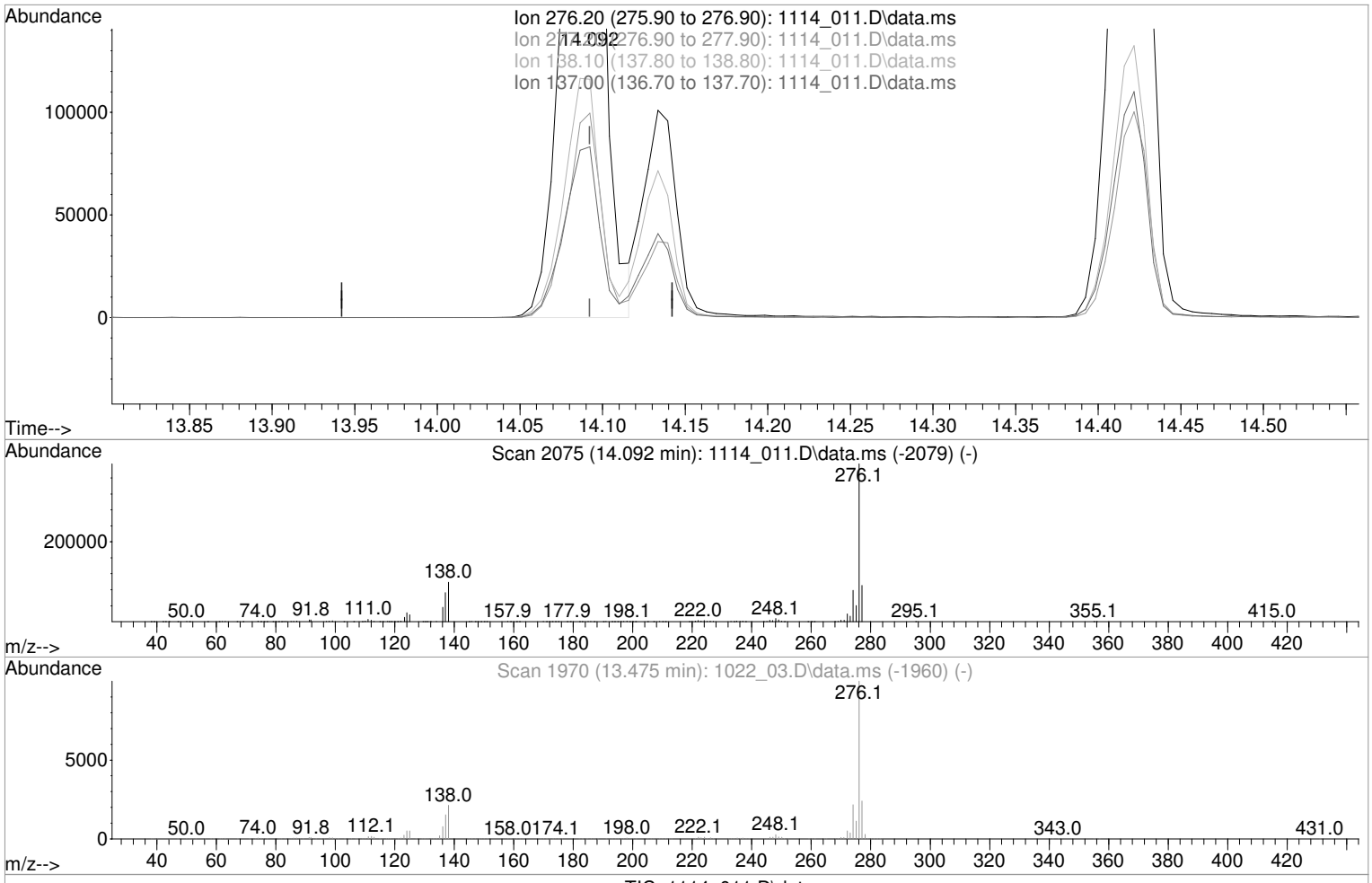
response 720188

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.50	21.53
125.90	17.90	17.94
113.00	8.80	8.84

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



TIC: 1114_011.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.092min (0.000) 10155.2800186 ppb

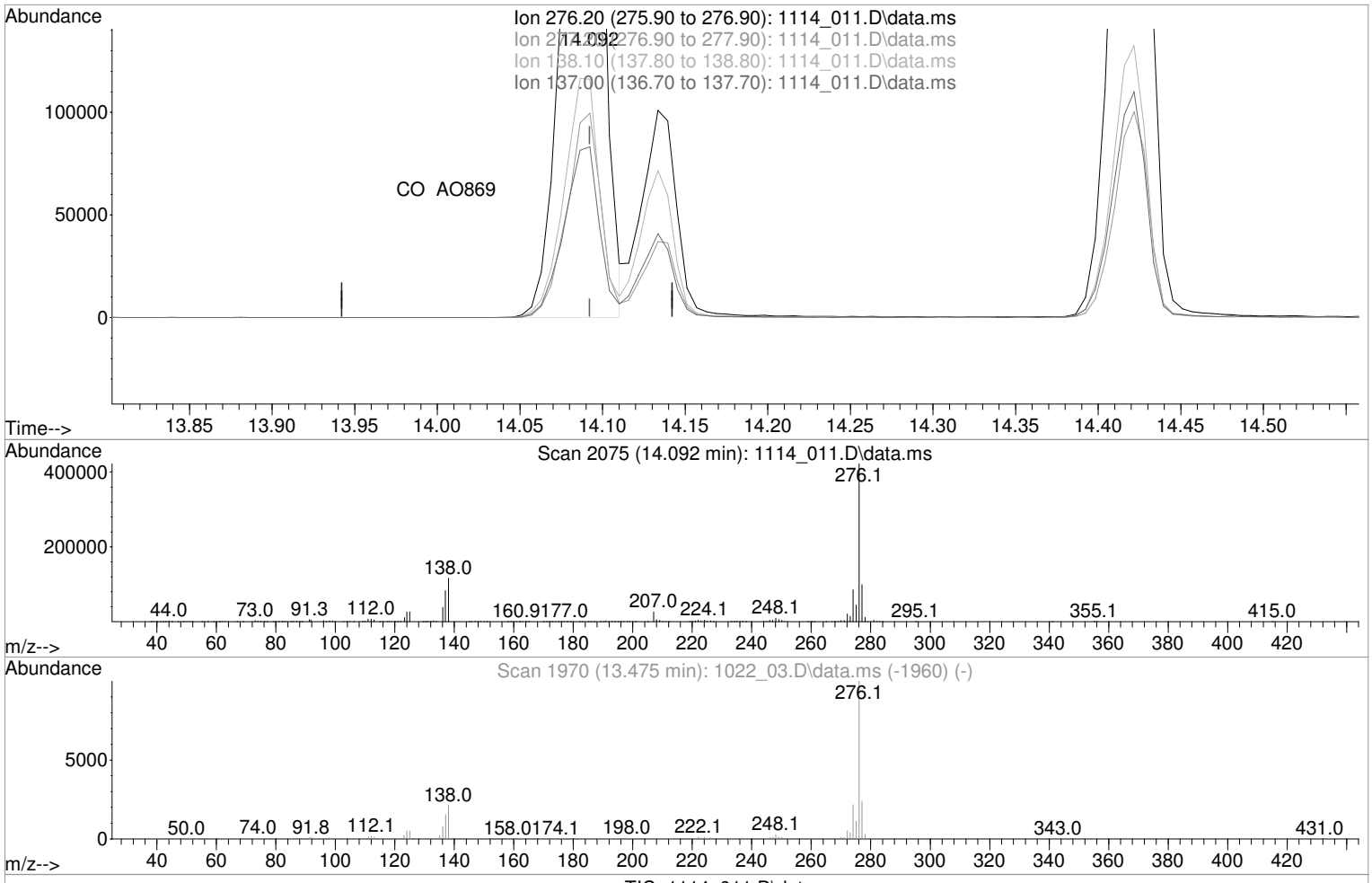
Qvalue = 100

response 611815

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.60
138.10	27.50	27.54
137.00	19.70	19.74

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_011.D
Acq On : 14 Nov 2022 08:40 pm
Operator : 917
Sample : MSTD SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 10:01:29 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:01:19 2022
Response via : Initial Calibration



TIC: 1114_011.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.092min (0.000) 9998.3899346 ppb m

response 602363

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.60
138.10	27.50	27.54
137.00	19.70	19.74

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
Operator : 917
Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	154959	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.199	136	607287	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.387	164	343671	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.522	188	611666	8000.0000000 ppb		0.00
84) Chrysene-d12	9.440	240	514893	8000.0000000 ppb		0.01
94) Perylene-d12	12.222	264	485778	8000.0000000 ppb		0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.752	112	491825	21429.5332457 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 535.74%#			
7) Phenol-d5	3.211	99	629701	21516.2606036 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 537.91%#			
24) Nitrobenzene-d5	3.758	82	484338m	19302.2270548 ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 965.11%#			
50) 2-Fluorobiphenyl	4.899	172	1123095	20363.1326282 ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 1018.16%#			
73) 2,4,6-Tribromophenol	5.975	330	138683	25442.6598917 ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 636.07%#			
87) p-Terphenyl-d14	7.981	244	1376237	21293.0579568 ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 1064.65%#			
Target Compounds						Qvalue
2) Pyridine	2.205	79	502982	21174.0396174 ppb		98
3) N-Nitrosodimethylamine	2.176	42	235033	19454.9132046 ppb		96
5) Aniline	3.258	66	309749	22330.2151634 ppb		98
6) bis(2-Chloroethyl)ether	3.281	93	497775	21153.1874774 ppb		95
8) Phenol	3.217	94	634831	21418.8233010 ppb		97
10) 2-Chlorophenol	3.328	128	520682	21271.9949560 ppb		93
11) n-Decane	3.328	41	255887	18504.9494773 ppb		98
12) 1,3-Dichlorobenzene	3.417	146	580160	20464.2740290 ppb		98
13) 1,4-Dichlorobenzene	3.452	146	594104	20463.8290214 ppb		98
14) Benzyl Alcohol	3.505	79	419063	21664.4437107 ppb		100
15) 1,2-Dichlorobenzene	3.540	146	553819	20303.6858892 ppb		99
16) bis(2-Chloroisopropyl)...	3.581	121	180398	20515.5901597 ppb	#	91
17) 2,2-oxybis(1-chloropro...	3.581	121	180398	20515.5901597 ppb	#	91
18) 2-Methylphenol	3.558	108	481589	21422.7462812 ppb		98
19) Hexachloroethane	3.740	117	222318	20543.7339207 ppb		99
20) N-Nitrosodi-n-propylamine	3.664	70	347136	21683.0327370 ppb		98
21) 3&4-Methyl phenol	3.646	107	538344	21602.9954239 ppb		98
25) Nitrobenzene	3.770	77	497519	21829.1456290 ppb		96
26) Isophorone	3.911	82	952445	22213.8310897 ppb		99
27) 2-Nitrophenol	3.958	139	270389	23684.0415246 ppb		95
28) 2,4-Dimethylphenol	3.964	107	506739	21459.0267094 ppb		99
29) bis(2-Chlorethoxy)methane	4.022	93	600161	21009.3664849 ppb		97
30) 2,4-Dichlorophenol	4.099	162	431184	22215.6408863 ppb		95
32) 1,2,4-Trichlorobenzene	4.158	180	467318	20631.9350000 ppb		98
34) Naphthalene	4.217	128	1556817	20043.1634456 ppb		99
35) 4-Chloroaniline	4.234	65	187908	20814.9060313 ppb		100
36) Hexachloro-1,3-butadiene	4.281	225	240524	20942.6022523 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
Operator : 917
Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.522	107	451213	22385.3527263 ppb		97
41) 2-Methylnaphthalene	4.658	142	1026498	20273.8875372 ppb		98
42) 1-Methylnaphthalene	4.722	142	947920	20175.4980784 ppb		99
47) Hexachlorocyclopentadiene	4.758	237	323543	22247.9377004 ppb		98
48) 2,4,6-Trichlorophenol	4.834	196	293032	22443.6538114 ppb		98
49) 2,4,5-Trichlorophenol	4.858	196	323060	22686.4133786 ppb		97
51) Biphenyl	4.969	154	1245674	19859.3027833 ppb		100
52) 2-Chloronaphthalene	4.993	162	959386	20175.5296346 ppb		98
53) 2-Nitroaniline	5.052	138	345947	26301.6636343 ppb		98
54) Acenaphthylene	5.287	152	1516185	20836.3022693 ppb		100
55) Dimethyl phthalate	5.181	163	1107384	21147.2448525 ppb		93
56) 2,6-Dinitrotoluene	5.222	165	270150	25168.9846788 ppb		93
57) 3-Nitroaniline	5.352	138	306457	25316.2262570 ppb		88
58) Acenaphthene	5.411	153	969075	19554.7880921 ppb		99
59) 2,4-Dinitrophenol	5.422	184	124281	31820.7490538 ppb	#	1
60) Dibenzofuran	5.540	168	1385693	20045.5054362 ppb		100
61) 2,4-Dinitrotoluene	5.516	165	353218	26668.0293994 ppb		96
63) 4-Nitrophenol	5.452	139	232262	26657.5644338 ppb		93
64) Fluorene	5.793	166	1147843	20412.8813467 ppb		99
65) 4-Chlorophenyl-phenyle...	5.787	204	537544	20370.1108451 ppb		91
66) Diethyl phthalate	5.693	149	1092645	21512.6553608 ppb		99
67) 4-Nitroaniline	5.811	138	320215	25872.2517451 ppb		98
68) Azobenzene	5.911	77	1064971	21294.9206224 ppb		99
71) 4,6-Dinitro-2-methylph...	5.828	198	170695	30094.1084184 ppb		86
72) N-Nitrosodiphenylamine	5.875	169	988204	21303.0049178 ppb		100
74) 4-Bromophenyl-phenylether	6.164	248	293774	21766.6259527 ppb		92
75) Hexachlorobenzene	6.216	284	324372	20962.8604952 ppb		98
76) n-octadecane	6.411	55	186901	20597.4789606 ppb		99
77) Pentachlorophenol	6.364	266	174473	28670.4230812 ppb		96
78) Phenanthrene	6.546	178	1605795	19447.6983974 ppb		99
79) Anthracene	6.587	178	1651033	20763.2080498 ppb		100
80) Carbazole	6.705	167	1561834	21087.2404510 ppb		100
81) Di-n-butyl phthalate	6.981	149	1877777	22925.1146468 ppb		99
83) Fluoranthene	7.581	202	1694785	20843.3823039 ppb		99
86) Pyrene	7.816	202	1769276	21304.9624926 ppb		100
88) Benzylbutyl phthalate	8.605	149	818890	25739.6551180 ppb		97
90) Benzo(a)anthracene	9.422	228	1576982	19931.3413302 ppb		98
91) Chrysene	9.487	228	1519628	20229.3019581 ppb		98
92) bis(2-Ethylhexyl)phtha...	9.534	149	1145304	25995.3592495 ppb		100
93) Di-n-octyl phthalate	10.810	149	1925905	27773.8574720 ppb		100
95) Benzo(b)fluoranthene	11.434	252	1509042m	22256.7887836 ppb		
96) Benzo(k)fluoranthene	11.499	252	1534403m	22804.3773274 ppb		
97) Benzo(a)pyrene	12.110	252	1314120	23343.6782737 ppb		99
98) Indeno(1,2,3-cd)pyrene	14.104	276	1293779m	22499.5548238 ppb		
99) Dibenz(a,h)anthracene	14.145	278	1327464m	22342.9077087 ppb		
100) Benzo(g,h,i)perylene	14.434	276	1271403	21671.0475071 ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
Operator : 917
Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
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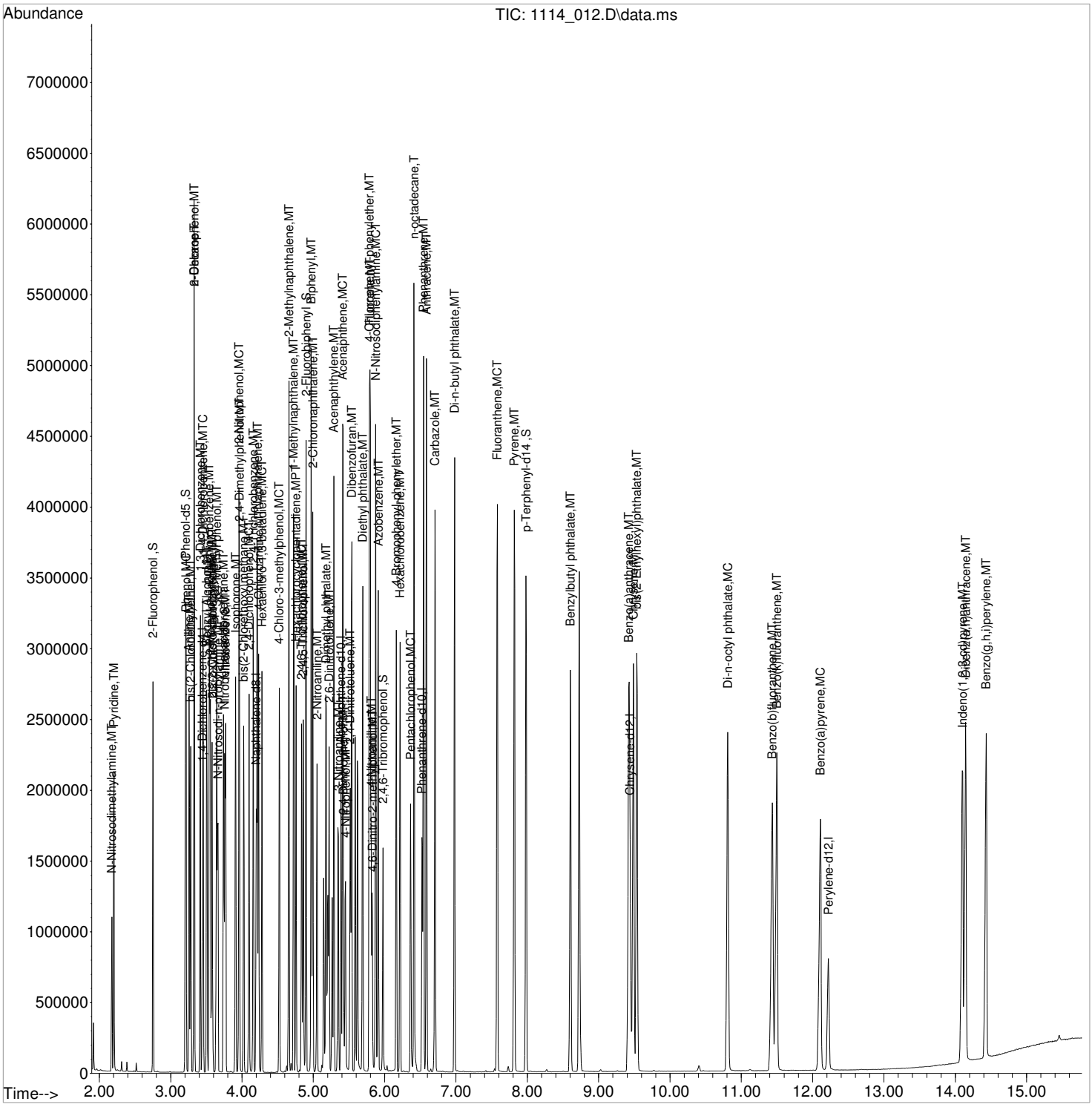
Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
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Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
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Quant Title : 8270 BNA
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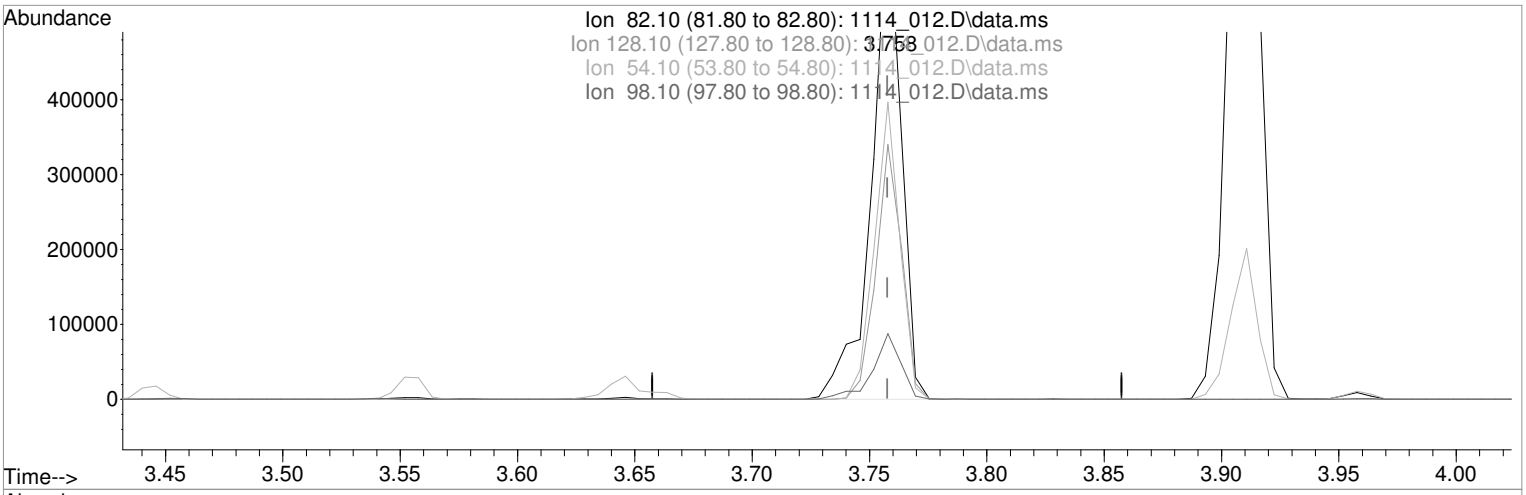

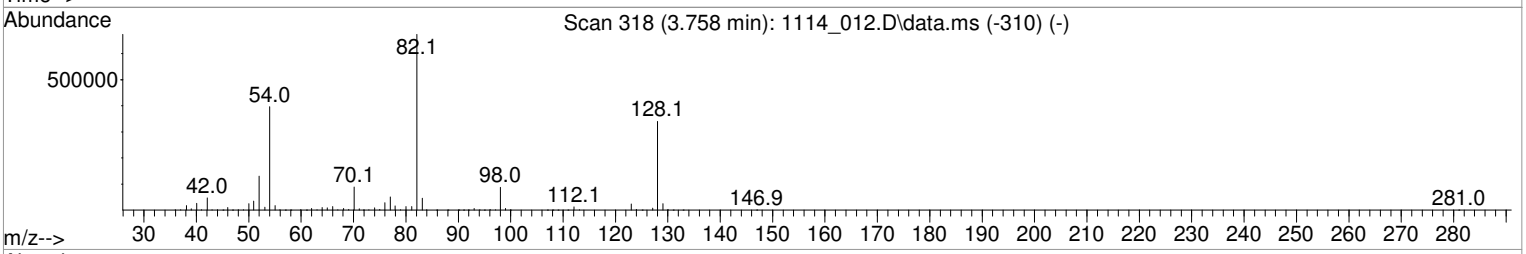

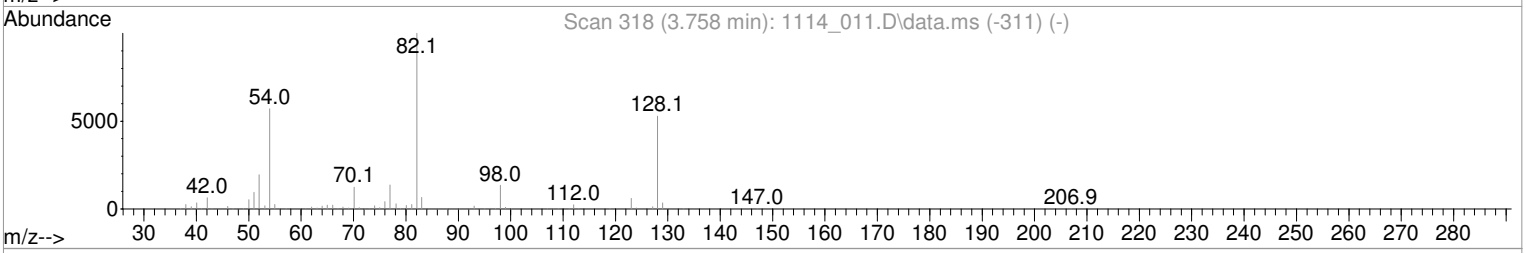

TIC: 1114_012.D\data.ms

(24) Nitrobenzene-d5 (S)

3.758min (+ 0.000) 21974.6364870 ppb

Qvalue = 97

response 551395

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	50.49
54.10	57.00	58.88
98.10	13.50	12.99

Data Path : C:\GCMS\1\data\111422\
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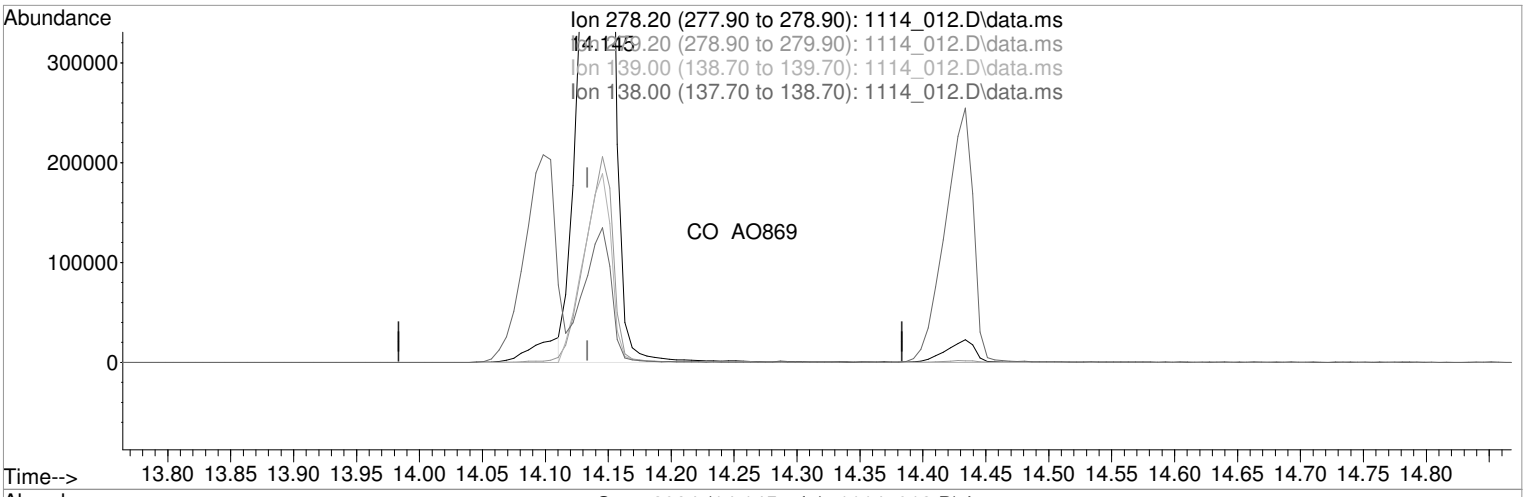
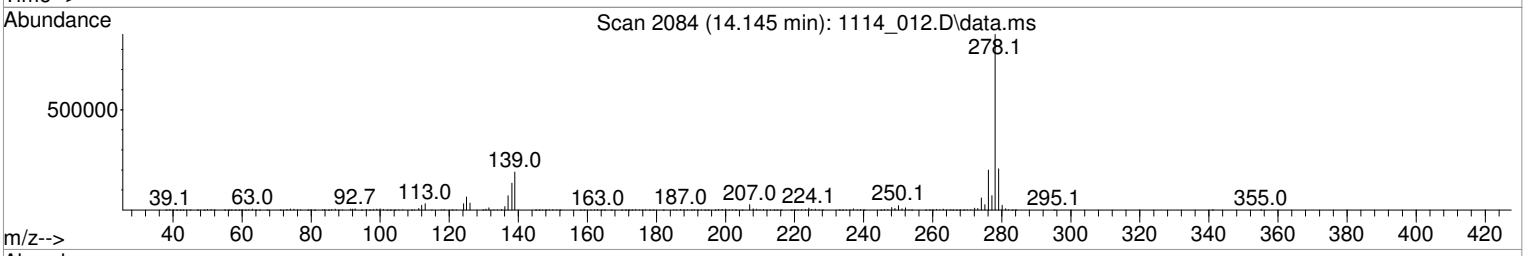
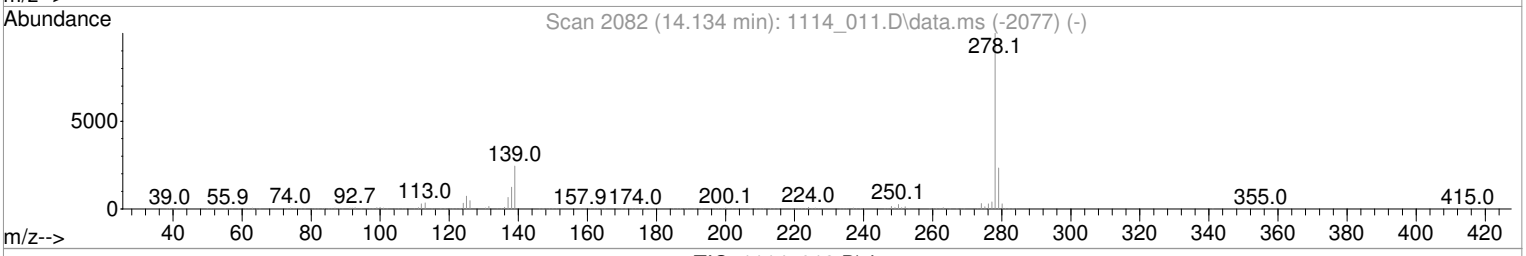
Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration







TIC: 1114_012.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.145min (+ 0.012) 22342.9077087 ppb m

response 1327464

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.53
139.00	23.90	21.61
138.00	16.60	15.41

Data Path : C:\GCMS\1\data\111422\
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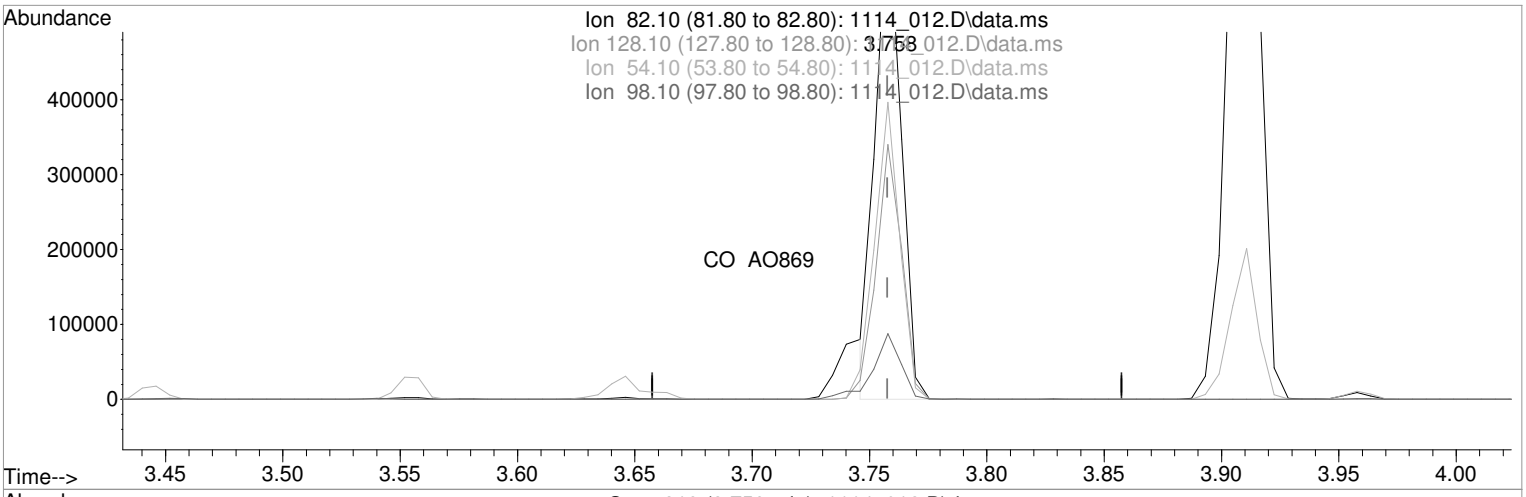
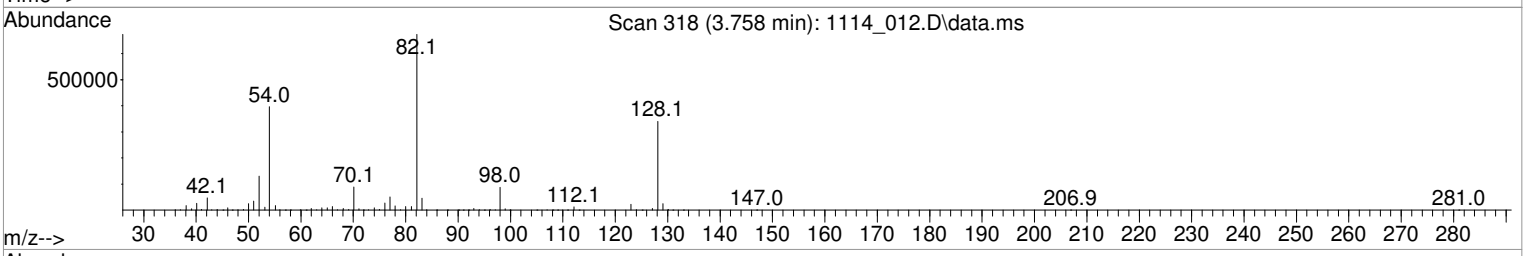
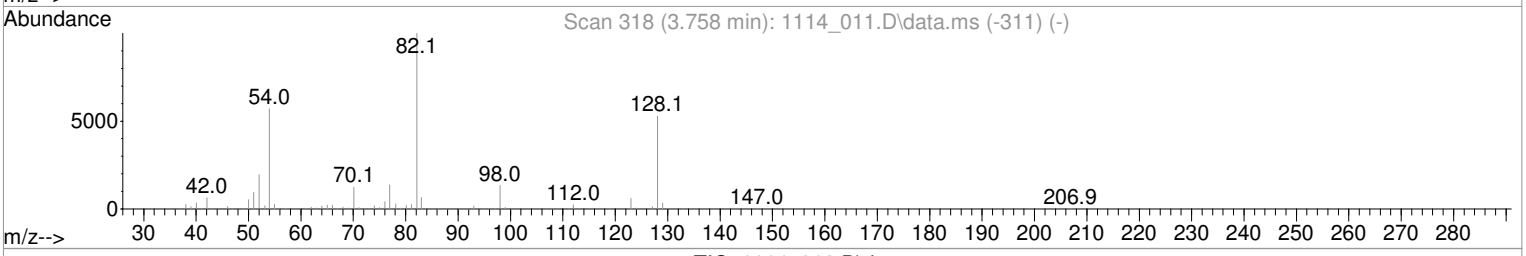
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration







TIC: 1114_012.D\data.ms

(24) Nitrobenzene-d5 (S)

3.758min (+ 0.000) 19302.2270548 ppb m

response 484338

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	50.49
54.10	57.00	58.88
98.10	13.50	12.99

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
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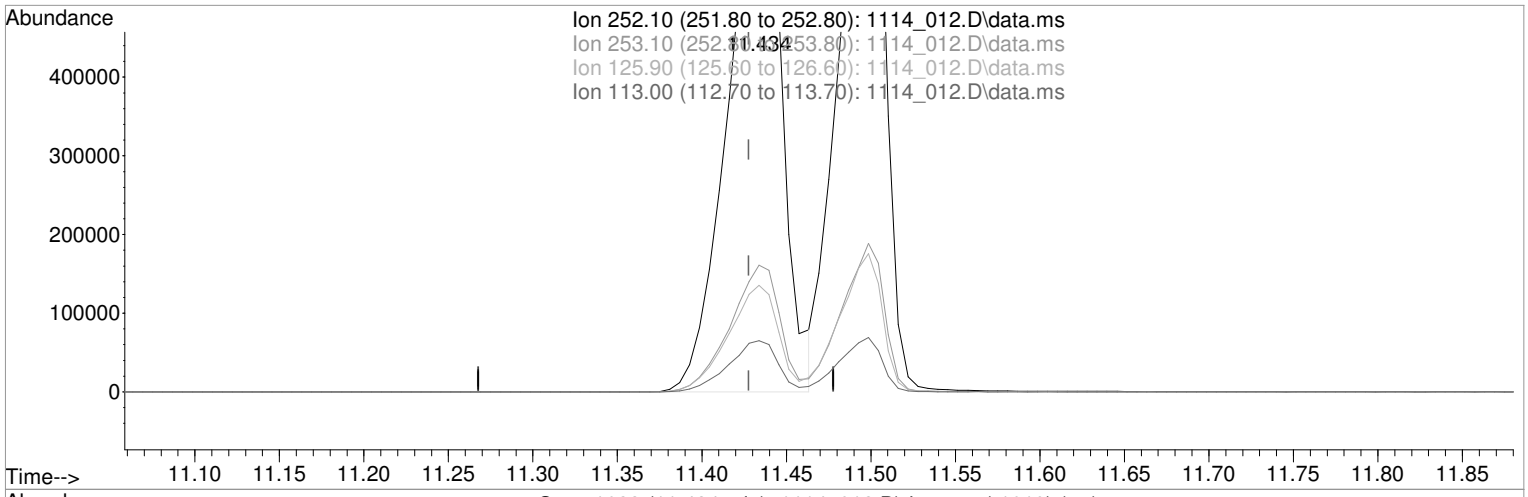
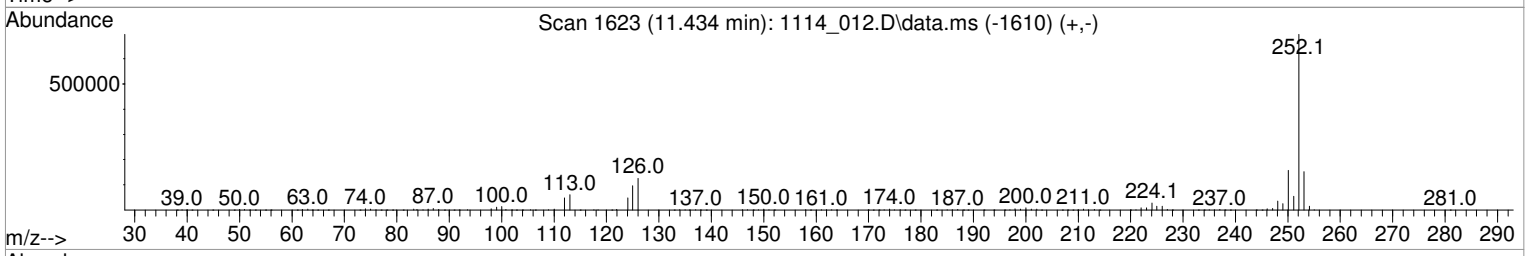
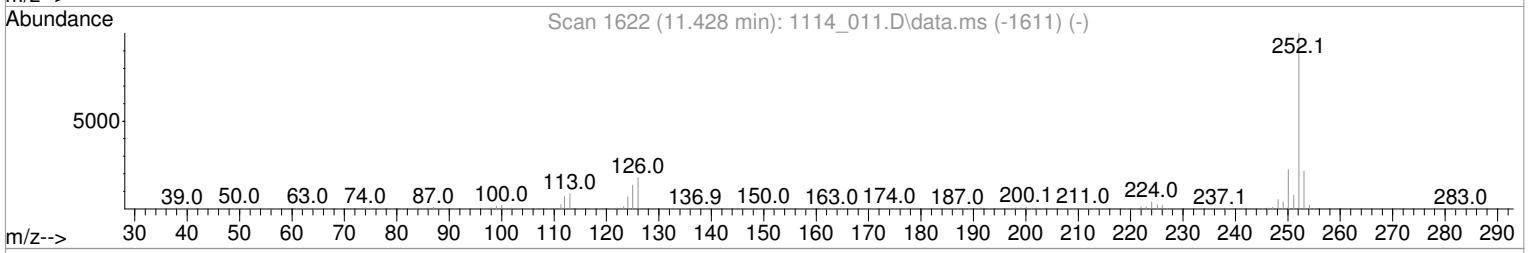
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration







TIC: 1114_012.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.434min (+ 0.006) 22669.5234704 ppb

Qvalue = 99

response 1537026

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.50	21.90
125.90	17.90	18.11
113.00	8.80	8.84

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
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Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
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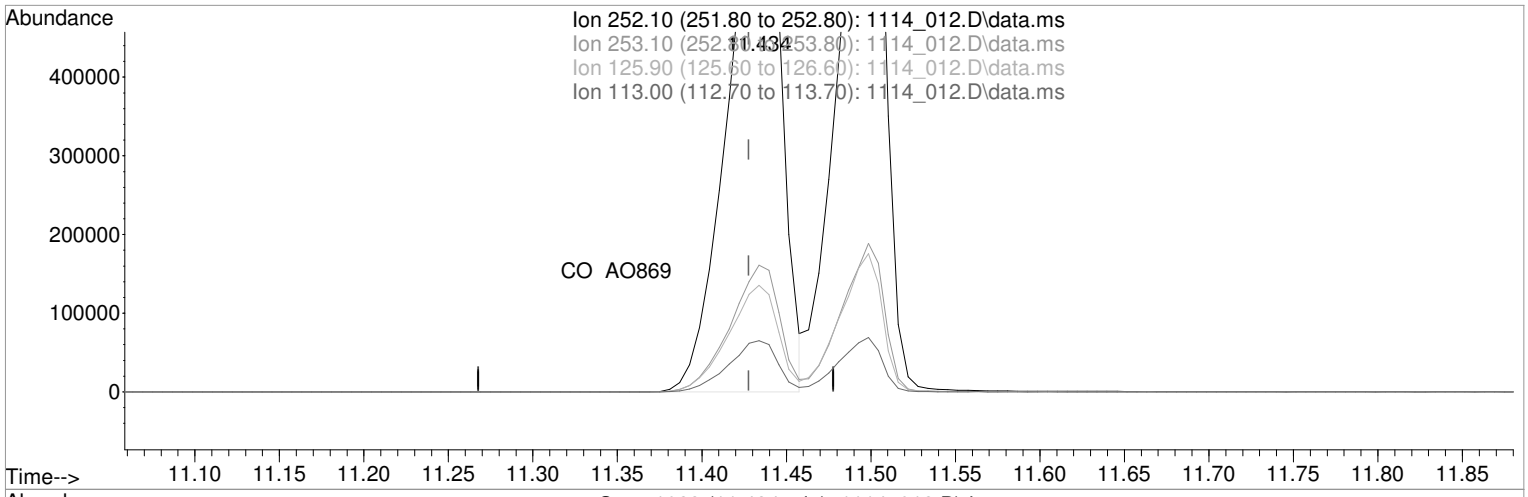
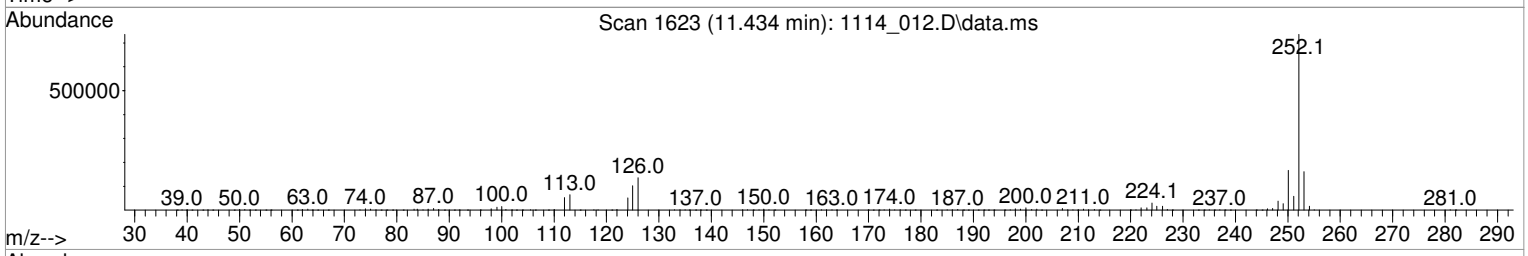
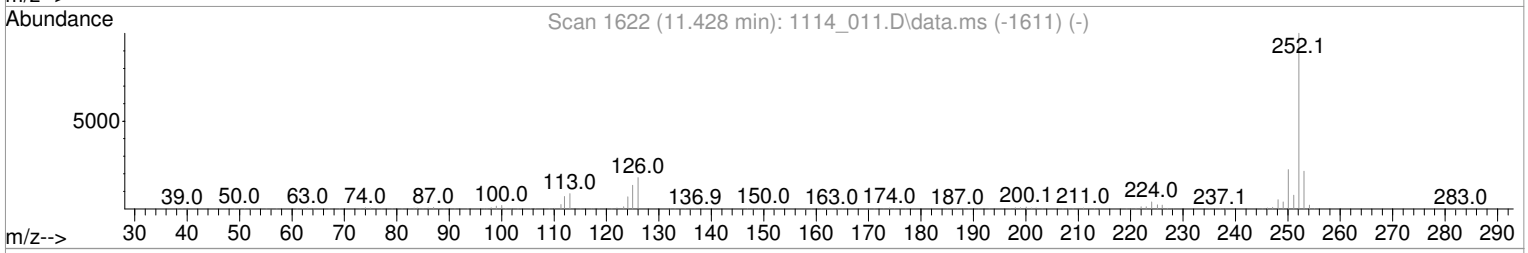
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration







TIC: 1114_012.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.434min (+ 0.006) 22256.7887836 ppb m

response 1509042

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.50	21.86
125.90	17.90	18.39
113.00	8.80	8.82

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_012.D
Acq On : 14 Nov 2022 09:01 pm
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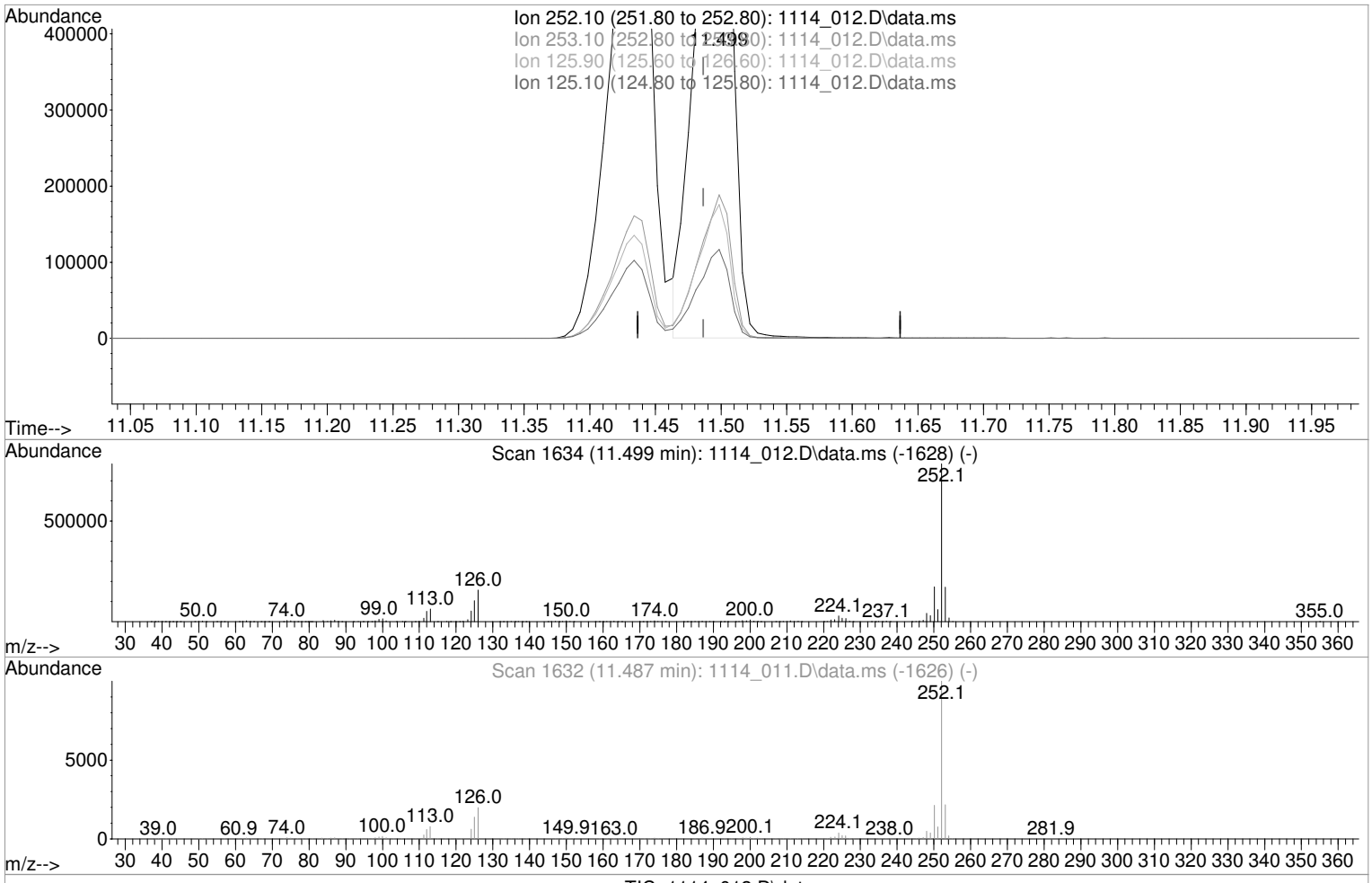
Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration



TIC: 1114_012.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.499min (+ 0.012) 22337.4562366 ppb

Qvalue = 99

response 1502986

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.83
125.90	19.60	20.37
125.10	13.70	13.51

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
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Acq On : 14 Nov 2022 09:01 pm
Operator : 917
Sample : STD SVMS 20K ppb 22K14666 exp 1/13/23
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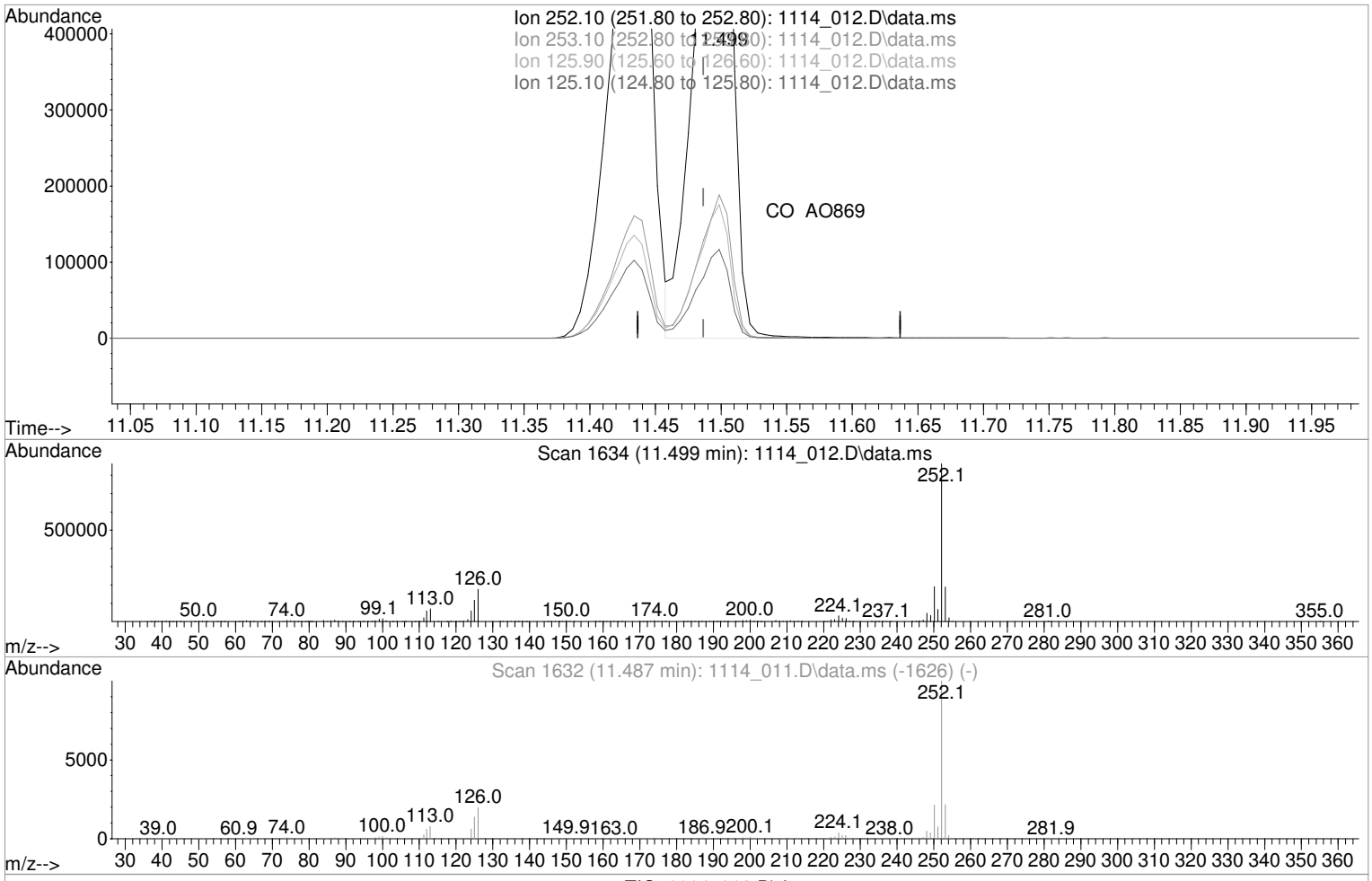
Quant Time: Nov 15 10:24:52 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:24:48 2022
Response via : Initial Calibration



TIC: 1114_012.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.499min (+ 0.012) 22804.3773274 ppb m

response 1534403

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.84
125.90	19.60	20.35
125.10	13.70	13.52

Data Path : C:\GCMS\1\data\111422\
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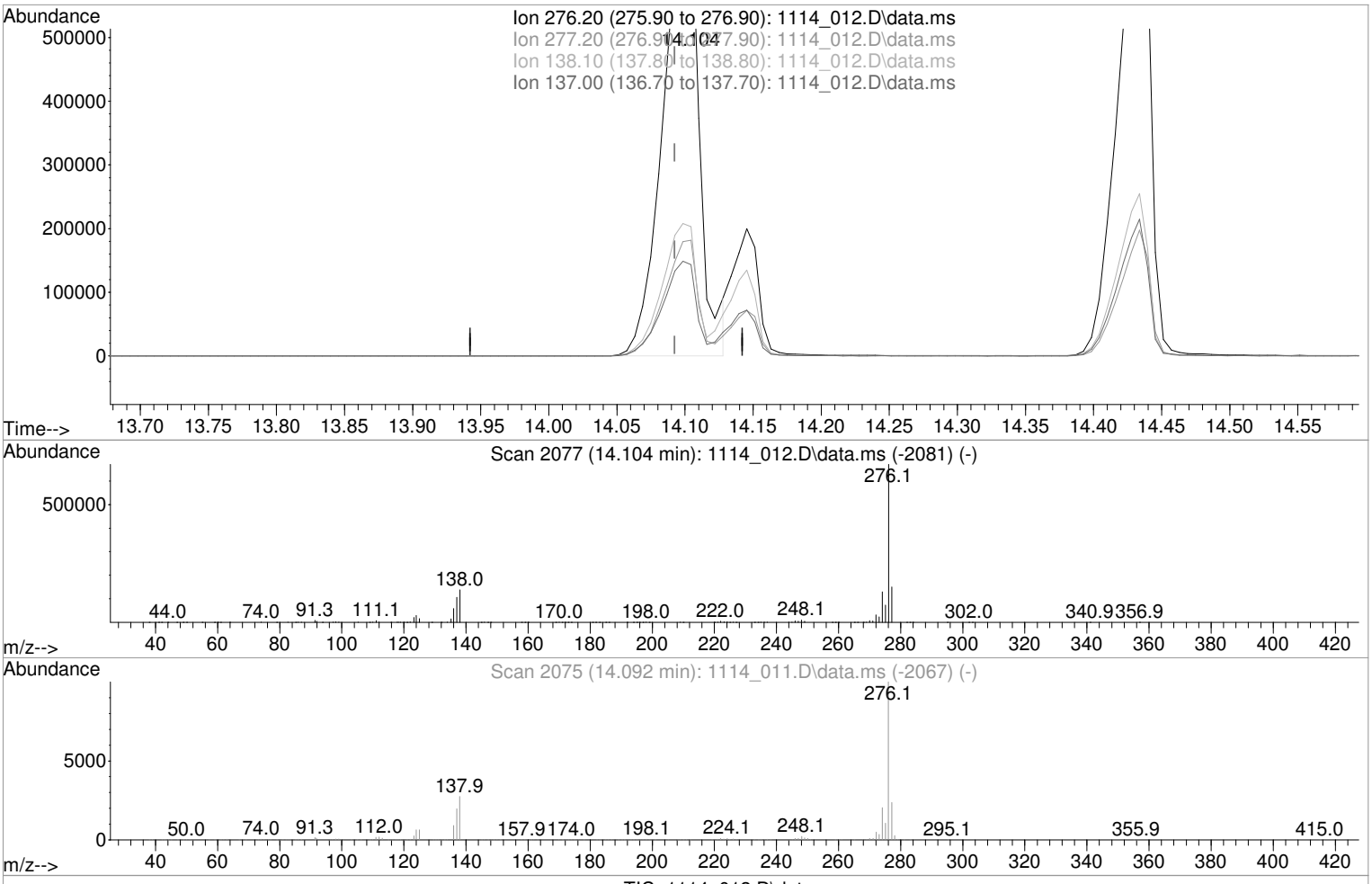

TIC: 1114_012.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.104min (+ 0.012) 23060.4007202 ppb

Qvalue = 99

response 1326029

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.87
138.10	27.50	26.66
137.00	19.70	18.81

Data Path : C:\GCMS\1\data\111422\
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Quant Title : 8270 BNA
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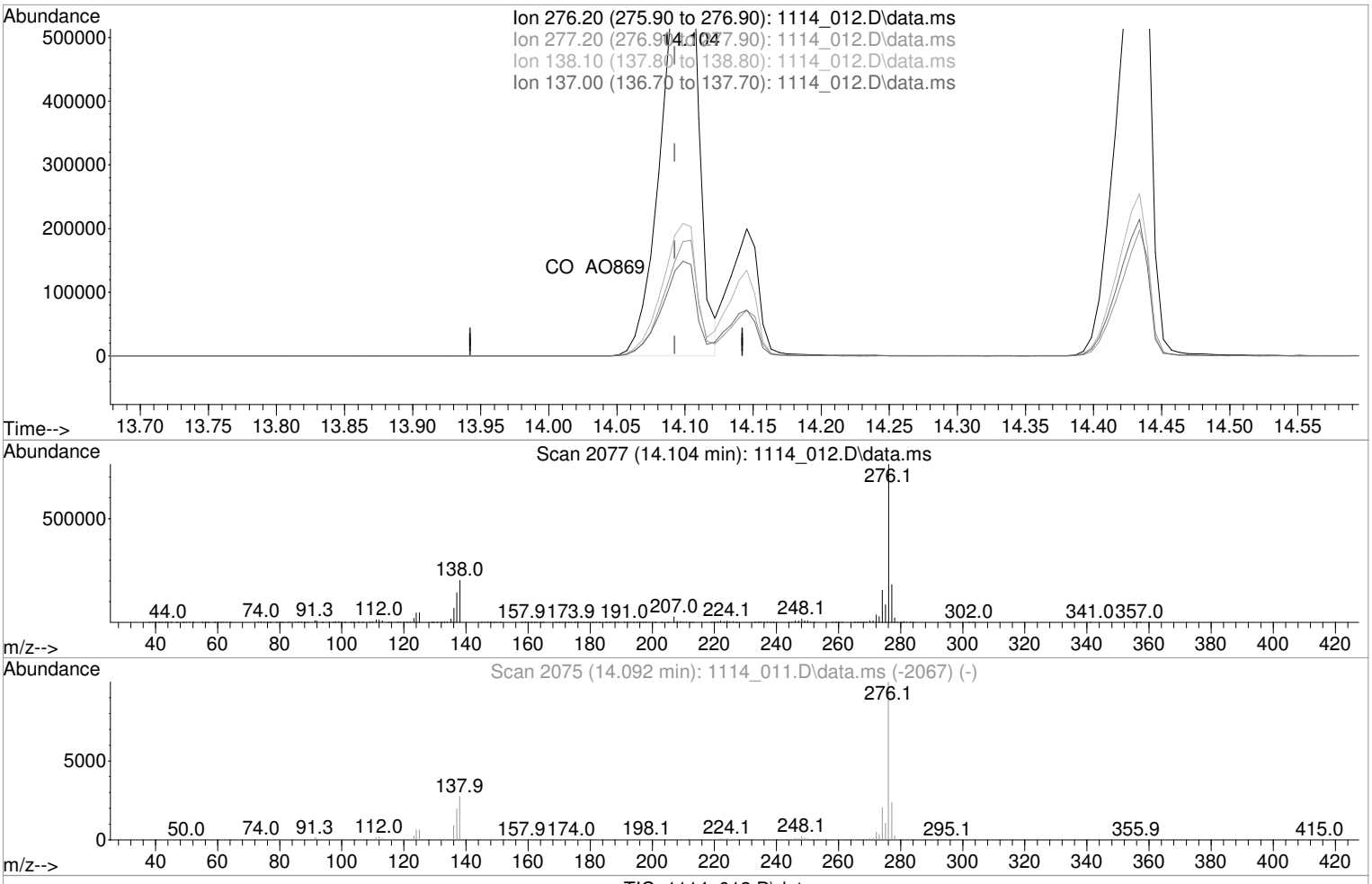
Response via : Initial Calibration



TIC: 1114_012.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.104min (+ 0.012) 22499.5548238 ppb m

response 1293779

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.87
138.10	27.50	26.66
137.00	19.70	18.83

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
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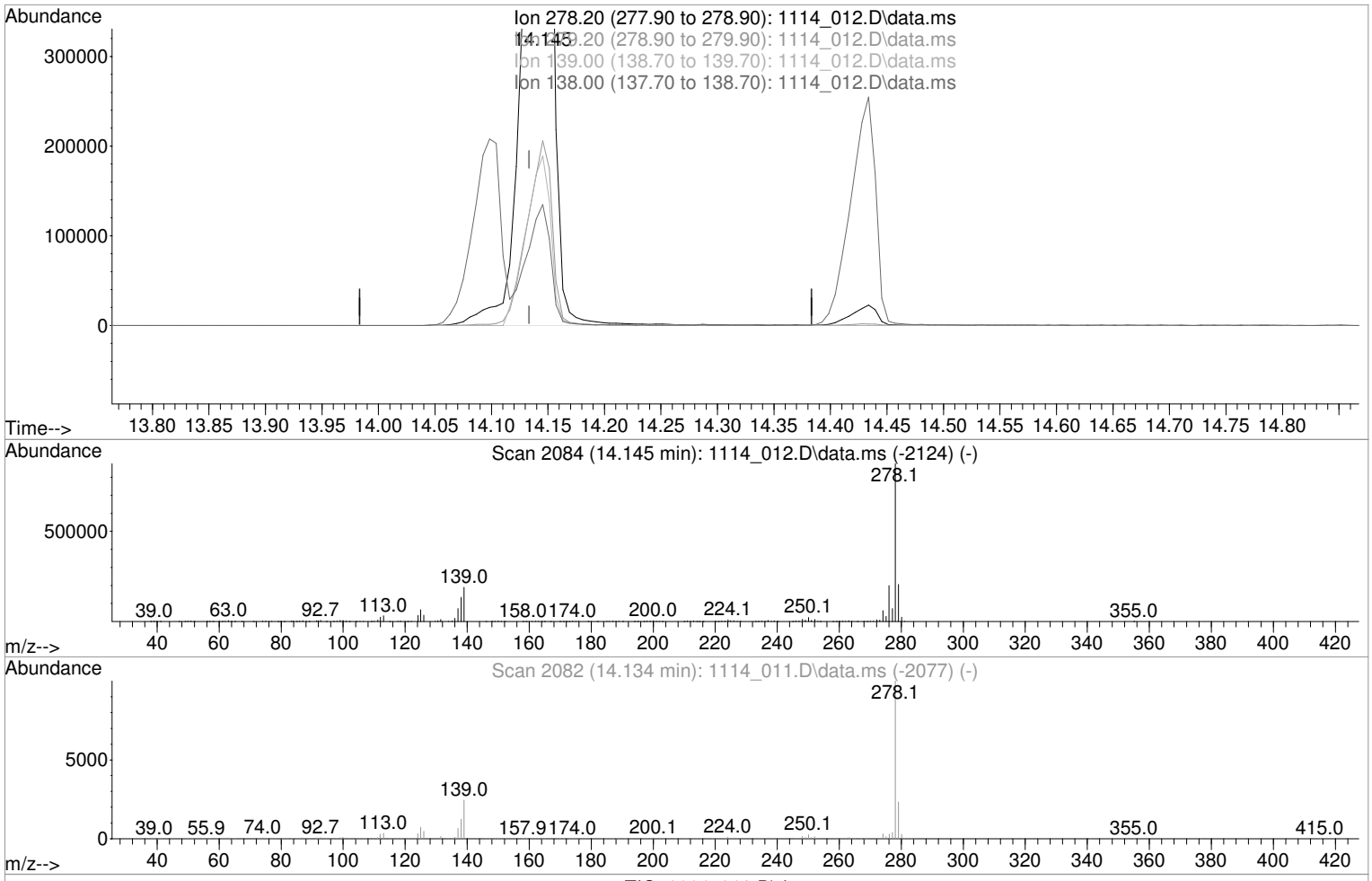


TIC: 1114_012.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.145min (+ 0.012) 23142.4604558 ppb

Qvalue = 97

response 1374968

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.53
139.00	23.90	21.61
138.00	16.60	15.41

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	156754	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.199	136	622626	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.387	164	345296	8000.0000000 ppb		0.00
70) Phenanthrene-d10	6.528	188	627539	8000.0000000 ppb		0.01
84) Chrysene-d12	9.445	240	506382	8000.0000000 ppb		0.02
94) Perylene-d12	12.222	264	473386	8000.0000000 ppb		0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.752	112	737996	31413.1300826 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 785.33%#			
7) Phenol-d5	3.210	99	940962	31386.9792758 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 784.67%#			
24) Nitrobenzene-d5	3.763	82	751430m	29379.6645643 ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 1468.98%#			
50) 2-Fluorobiphenyl	4.899	172	1652013	29722.1799703 ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 1486.11%#			
73) 2,4,6-Tribromophenol	5.981	330	212724	36388.6033028 ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 909.72%#			
87) p-Terphenyl-d14	7.987	244	2009267	31272.7797839 ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 1563.64%#			
Target Compounds						Qvalue
2) Pyridine	2.205	79	756393	31111.9950889 ppb		98
3) N-Nitrosodimethylamine	2.175	42	358722	29514.1578970 ppb		96
5) Aniline	3.263	66	462754	32350.3404822 ppb		93
6) bis(2-Chloroethyl)ether	3.281	93	670662	27905.5773210 ppb		94
8) Phenol	3.222	94	952826	31408.3036493 ppb		96
10) 2-Chlorophenol	3.328	128	772091	30854.8219375 ppb		96
11) n-Decane	3.334	41	371069	26861.9344326 ppb		98
12) 1,3-Dichlorobenzene	3.416	146	874134	30363.2128830 ppb		96
13) 1,4-Dichlorobenzene	3.457	146	882205	29923.7965196 ppb		97
14) Benzyl Alcohol	3.510	79	625918	31550.1486537 ppb		100
15) 1,2-Dichlorobenzene	3.546	146	843052	30476.2749937 ppb		97
16) bis(2-Chloroisopropyl)...	3.581	121	274581	30736.8222774 ppb	#	89
17) 2,2-oxybis(1-chloropro...	3.581	121	274581	30736.8222774 ppb	#	89
18) 2-Methylphenol	3.557	108	724406	31481.8316664 ppb		100
19) Hexachloroethane	3.740	117	329871	29997.4039286 ppb		96
20) N-Nitrosodi-n-propylamine	3.669	70	526714	32073.3723938 ppb		97
21) 3&4-Methyl phenol	3.652	107	823303	32229.1566106 ppb		97
25) Nitrobenzene	3.775	77	757930	31948.6818334 ppb		98
26) Isophorone	3.916	82	1454491	32487.9431977 ppb		100
27) 2-Nitrophenol	3.957	139	409823	33970.1475061 ppb		90
28) 2,4-Dimethylphenol	3.963	107	761787	31086.9009126 ppb		99
29) bis(2-Chlorethoxy)methane	4.028	93	913723	30937.7506172 ppb		99
30) 2,4-Dichlorophenol	4.104	162	643208	31737.2165751 ppb		99
32) 1,2,4-Trichlorobenzene	4.157	180	702320	30084.8722430 ppb		97
34) Naphthalene	4.216	128	2280707	28630.6398233 ppb		99
35) 4-Chloroaniline	4.234	65	283616	30435.9855918 ppb		98
36) Hexachloro-1,3-butadiene	4.281	225	358177	30181.3450746 ppb		98

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration

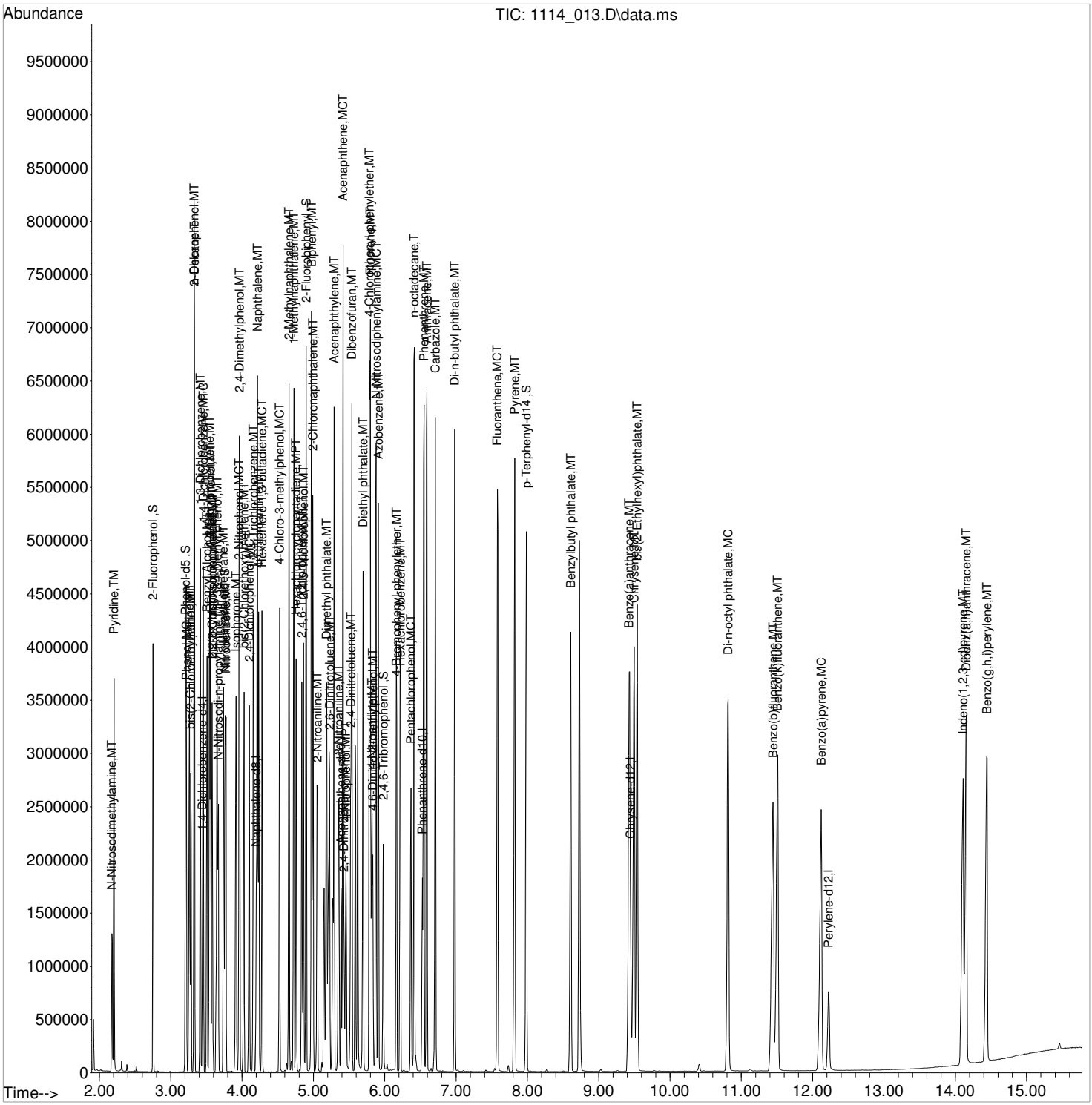
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.528	107	675386	32044.4577203 ppb		98
41) 2-Methylnaphthalene	4.657	142	1517807	29181.8897013 ppb		99
42) 1-Methylnaphthalene	4.728	142	1423303	29510.2306050 ppb		99
47) Hexachlorocyclopentadiene	4.757	237	485909	32644.0277689 ppb		99
48) 2,4,6-Trichlorophenol	4.840	196	462846	34578.9125435 ppb		95
49) 2,4,5-Trichlorophenol	4.863	196	466357	31881.3914123 ppb		96
51) Biphenyl	4.975	154	1828831	29053.2024461 ppb		99
52) 2-Chloronaphthalene	4.993	162	1415227	29584.5414613 ppb		96
53) 2-Nitroaniline	5.057	138	527825	37947.8452698 ppb		98
54) Acenaphthylene	5.293	152	2264124	30784.5934528 ppb		99
55) Dimethyl phthalate	5.187	163	1642043	30914.2787547 ppb		94
56) 2,6-Dinitrotoluene	5.228	165	403316	35854.3646965 ppb		88
57) 3-Nitroaniline	5.357	138	455479	35861.0546853 ppb		93
58) Acenaphthene	5.416	153	1430143	28814.4160179 ppb		98
59) 2,4-Dinitrophenol	5.428	184	199715	45514.0294624 ppb	#	1
60) Dibenzofuran	5.540	168	2033434	29266.2278734 ppb		100
61) 2,4-Dinitrotoluene	5.528	165	541482	38547.6310427 ppb		97
63) 4-Nitrophenol	5.457	139	353178	38224.1117277 ppb		99
64) Fluorene	5.798	166	1674281	29547.6260083 ppb		99
65) 4-Chlorophenyl-phenyle...	5.787	204	788210	29637.0681500 ppb		95
66) Diethyl phthalate	5.698	149	1622029	31389.5164473 ppb		99
67) 4-Nitroaniline	5.822	138	483428	37061.8369676 ppb		98
68) Azobenzene	5.910	77	1555391	30624.4146274 ppb		98
71) 4,6-Dinitro-2-methylph...	5.834	198	262721	41007.6620975 ppb		94
72) N-Nitrosodiphenylamine	5.881	169	1471816	30593.6353427 ppb		100
74) 4-Bromophenyl-phenylether	6.169	248	433769	30871.8646709 ppb		97
75) Hexachlorobenzene	6.222	284	483103	30189.0701724 ppb		98
76) n-octadecane	6.410	55	271397	28979.7081615 ppb		99
77) Pentachlorophenol	6.369	266	270572	40417.0732290 ppb		98
78) Phenanthrene	6.551	178	2366239	28043.1646415 ppb		98
79) Anthracene	6.593	178	2408520	29363.0698139 ppb		99
80) Carbazole	6.710	167	2306644	30083.0546597 ppb		100
81) Di-n-butyl phthalate	6.981	149	2754148	31994.0352128 ppb		100
83) Fluoranthene	7.581	202	2508667	29892.4704550 ppb		99
86) Pyrene	7.822	202	2584792	31355.9626068 ppb		100
88) Benzylbutyl phthalate	8.610	149	1229610	37505.2661274 ppb		99
90) Benzo(a)anthracene	9.428	228	2345344	30155.6093121 ppb		98
91) Chrysene	9.498	228	2239720	30266.7179379 ppb		99
92) bis(2-Ethylhexyl)phtha...	9.539	149	1731016	38048.8515758 ppb		100
93) Di-n-octyl phthalate	10.816	149	2919466	40205.2467013 ppb		100
95) Benzo(b)fluoranthene	11.445	252	2197332	32729.1197278 ppb		100
96) Benzo(k)fluoranthene	11.510	252	2169751	32441.2533806 ppb		99
97) Benzo(a)pyrene	12.122	252	1929073	34344.3143388 ppb		99
98) Indeno(1,2,3-cd)pyrene	14.110	276	1881522m	32988.3116720 ppb		
99) Dibenz(a,h)anthracene	14.157	278	1902375m	32316.7519431 ppb		
100) Benzo(g,h,i)perylene	14.445	276	1850394	31983.8137020 ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

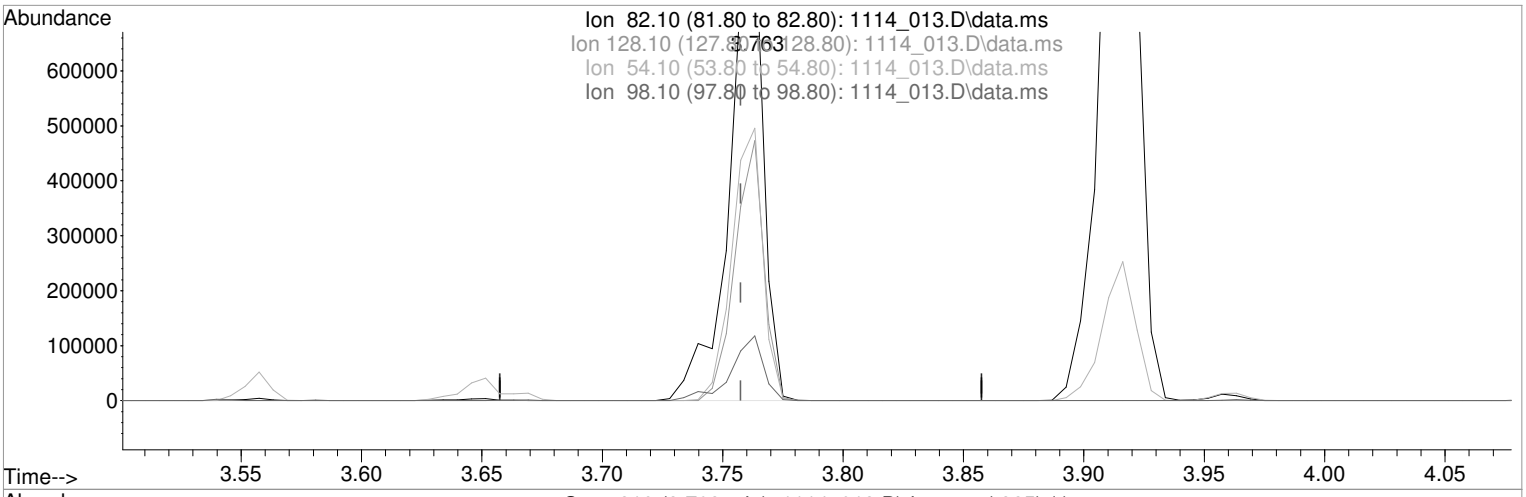
Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration

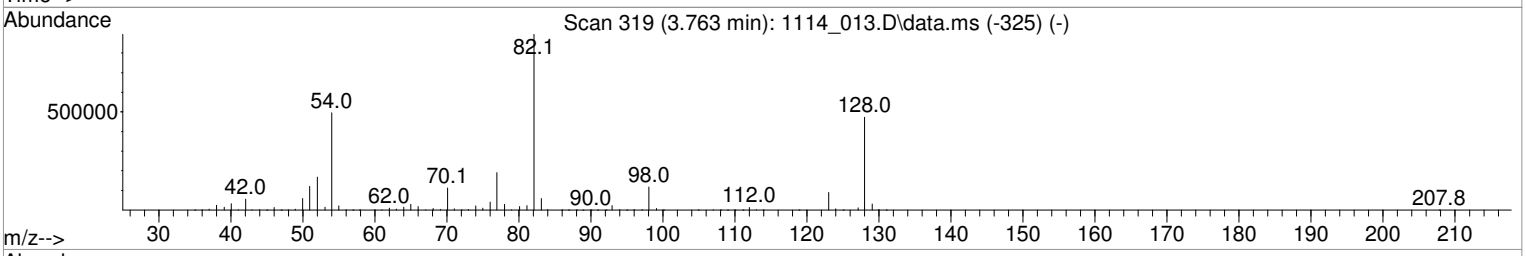


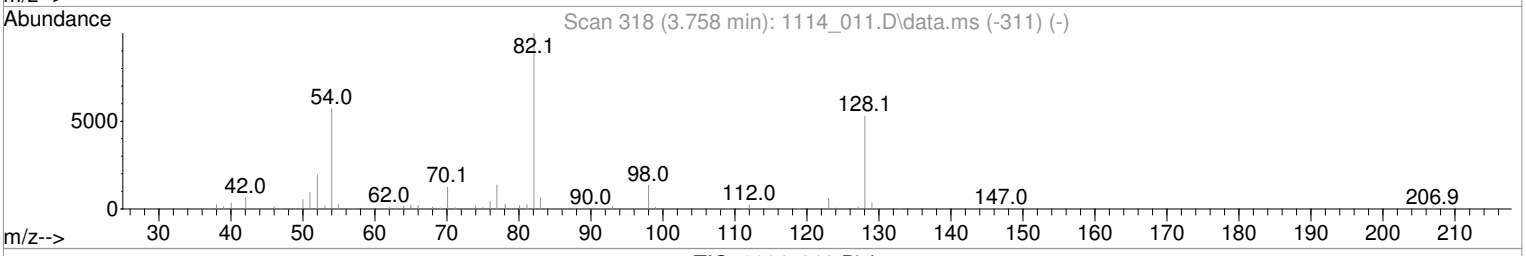
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration







TIC: 1114_013.D\data.ms

(24) Nitrobenzene-d5 (S)

3.763min (+ 0.006) 32676.9056540 ppb

Qvalue = 99

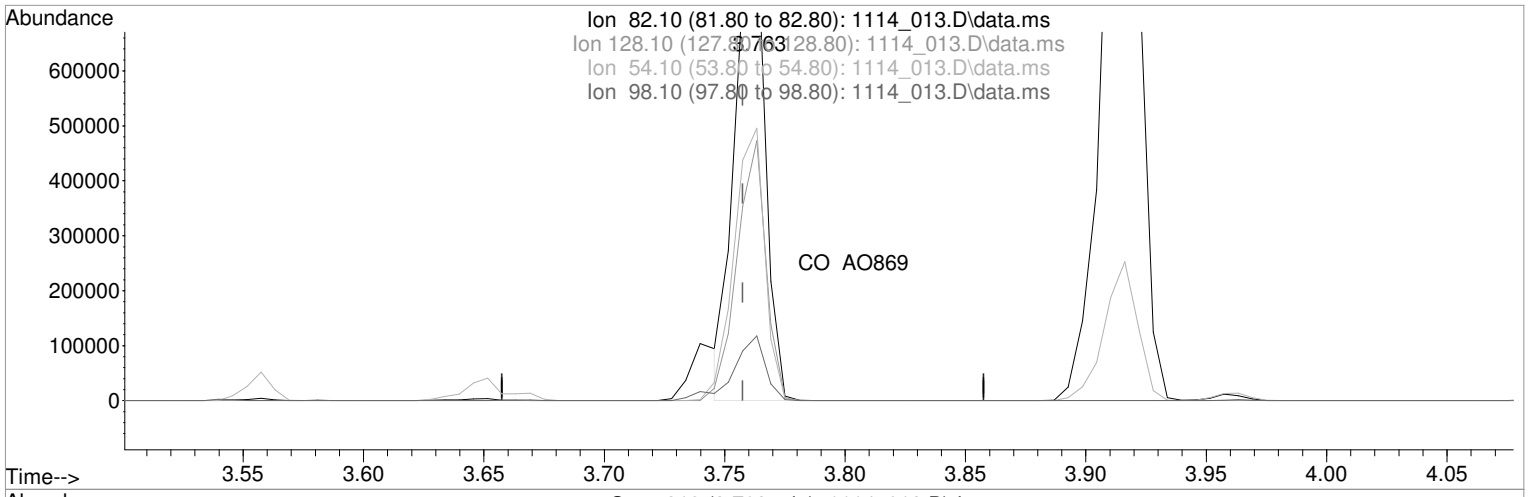
response 835762

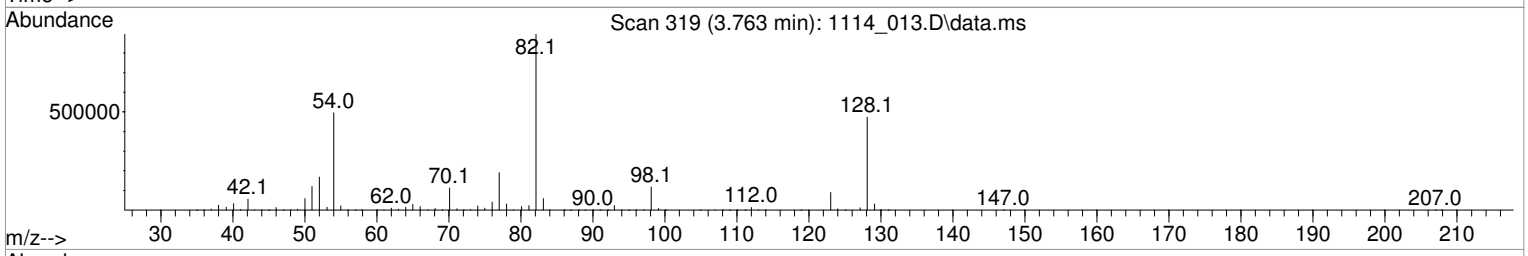
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	52.85
54.10	57.00	55.41
98.10	13.50	13.16

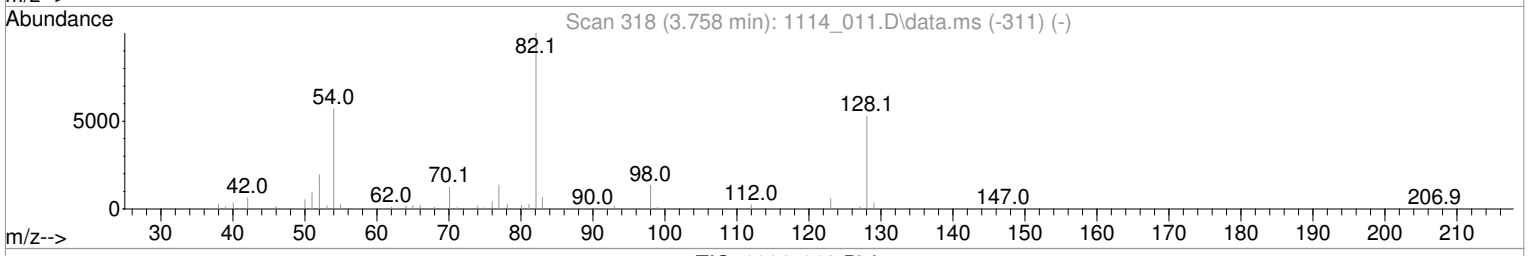
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration







TIC: 1114_013.D\data.ms

(24) Nitrobenzene-d5 (S)

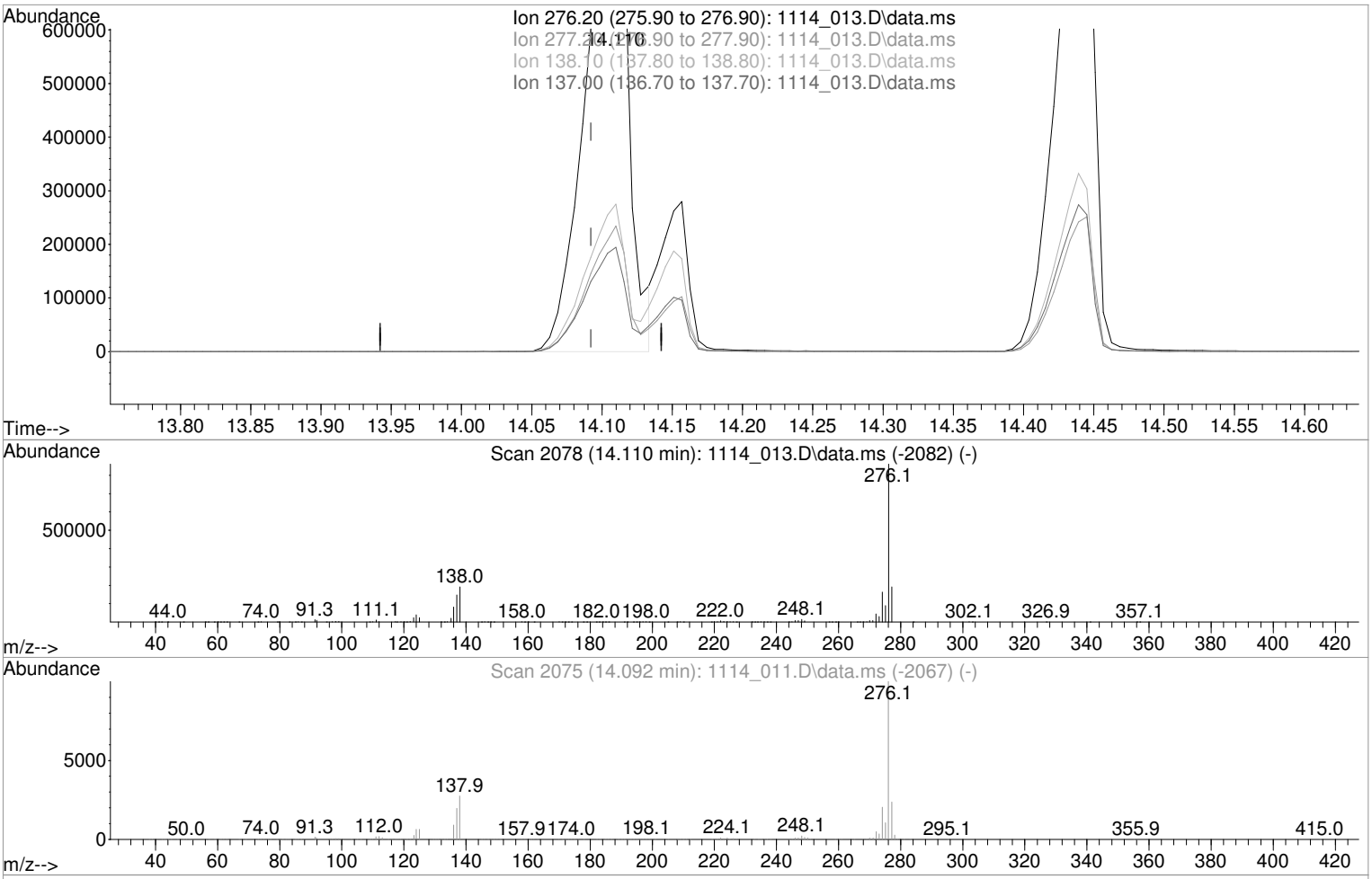
3.763min (+ 0.006) 29379.6645643 ppb m

response 751430

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	52.85
54.10	57.00	55.41
98.10	13.50	13.16

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration



TIC: 1114_013.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.110min (+ 0.017) 33746.3238913 ppb

Qvalue = 99

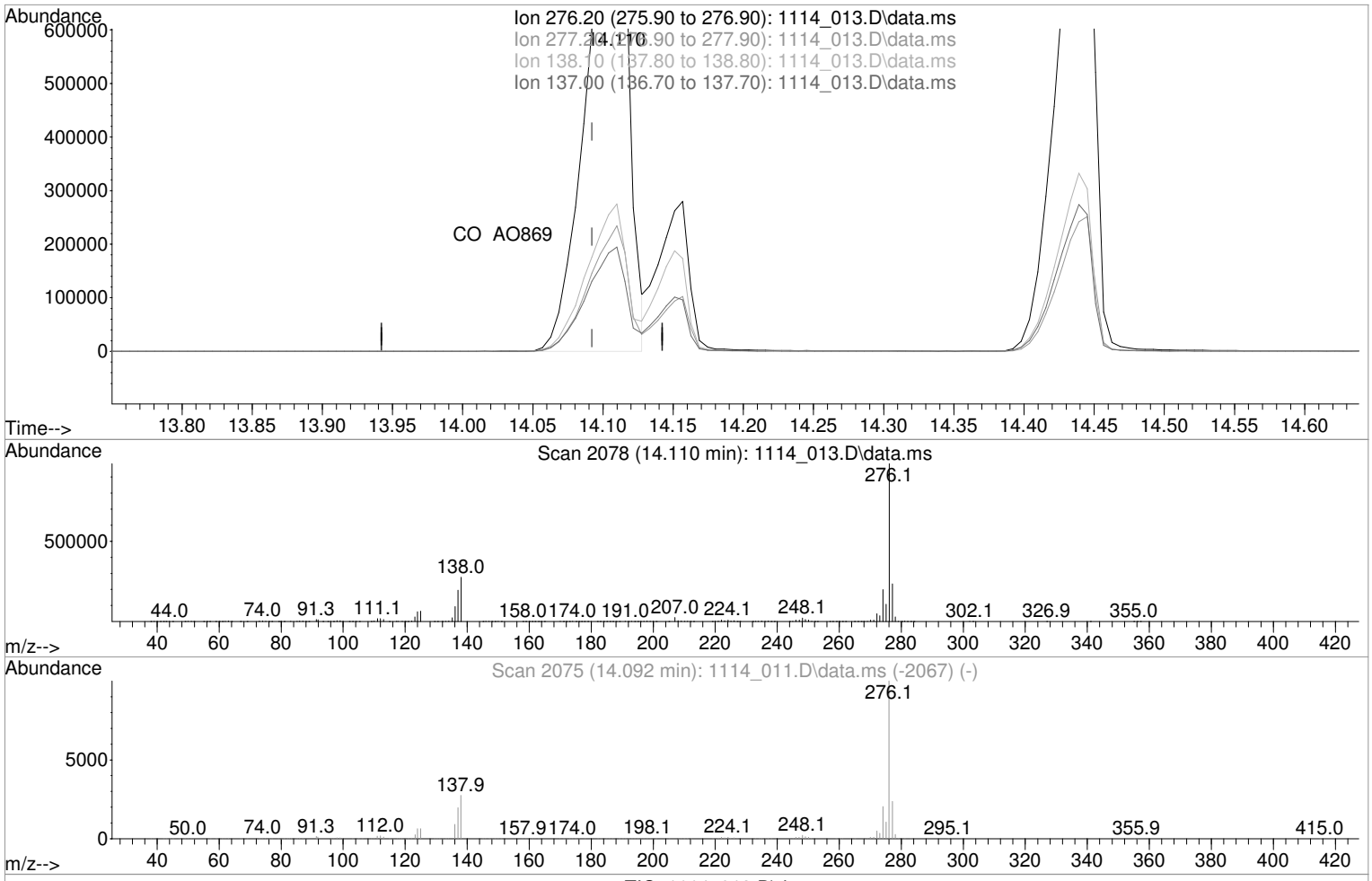
response 1924756

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.85
138.10	27.50	27.99
137.00	19.70	19.79

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration



TIC: 1114_013.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

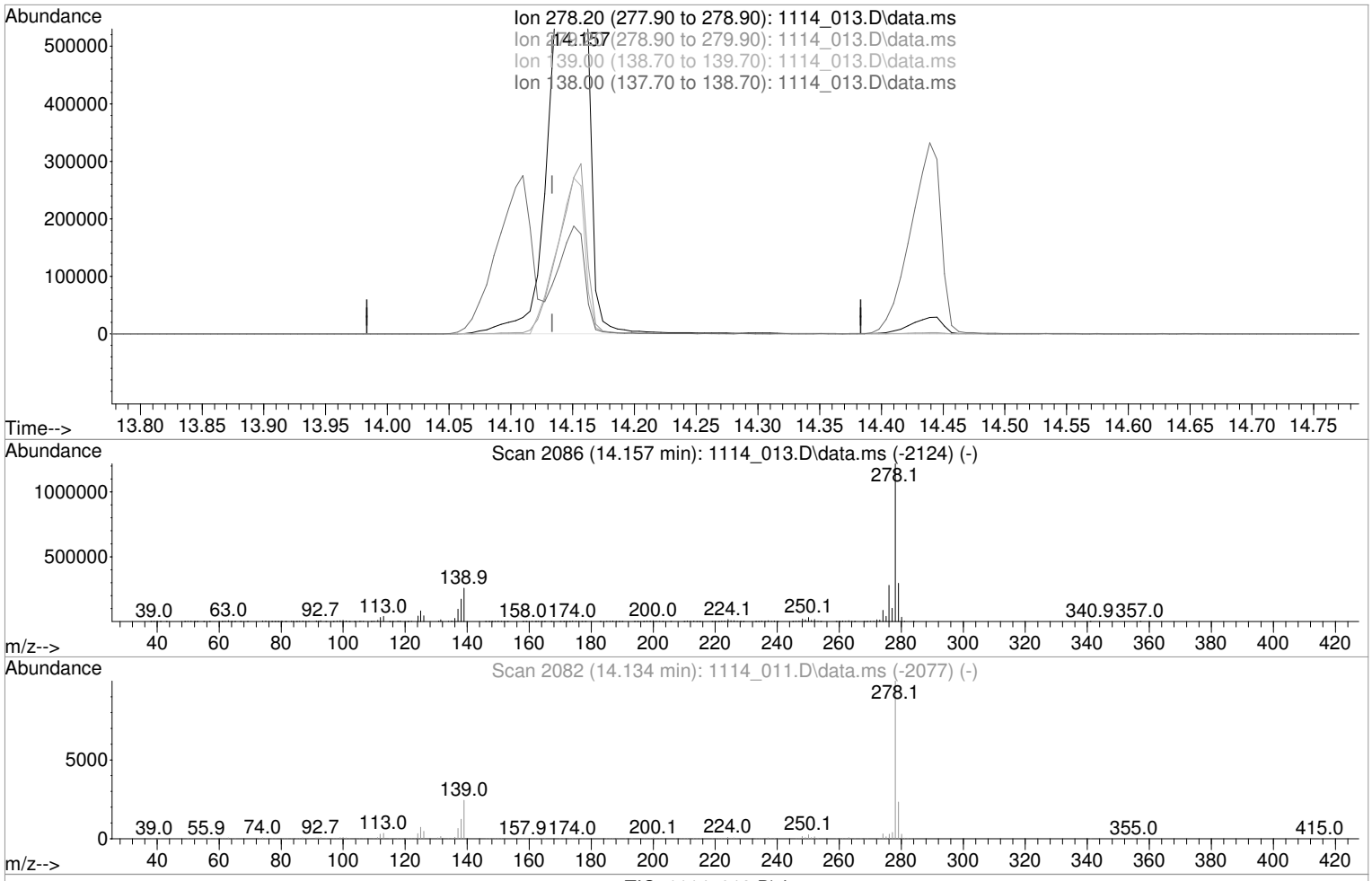
14.110min (+ 0.017) 32988.3116720 ppb m

response 1881522

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.85
138.10	27.50	27.99
137.00	19.70	19.81

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration



TIC: 1114_013.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.157min (+ 0.023) 33438.6628432 ppb

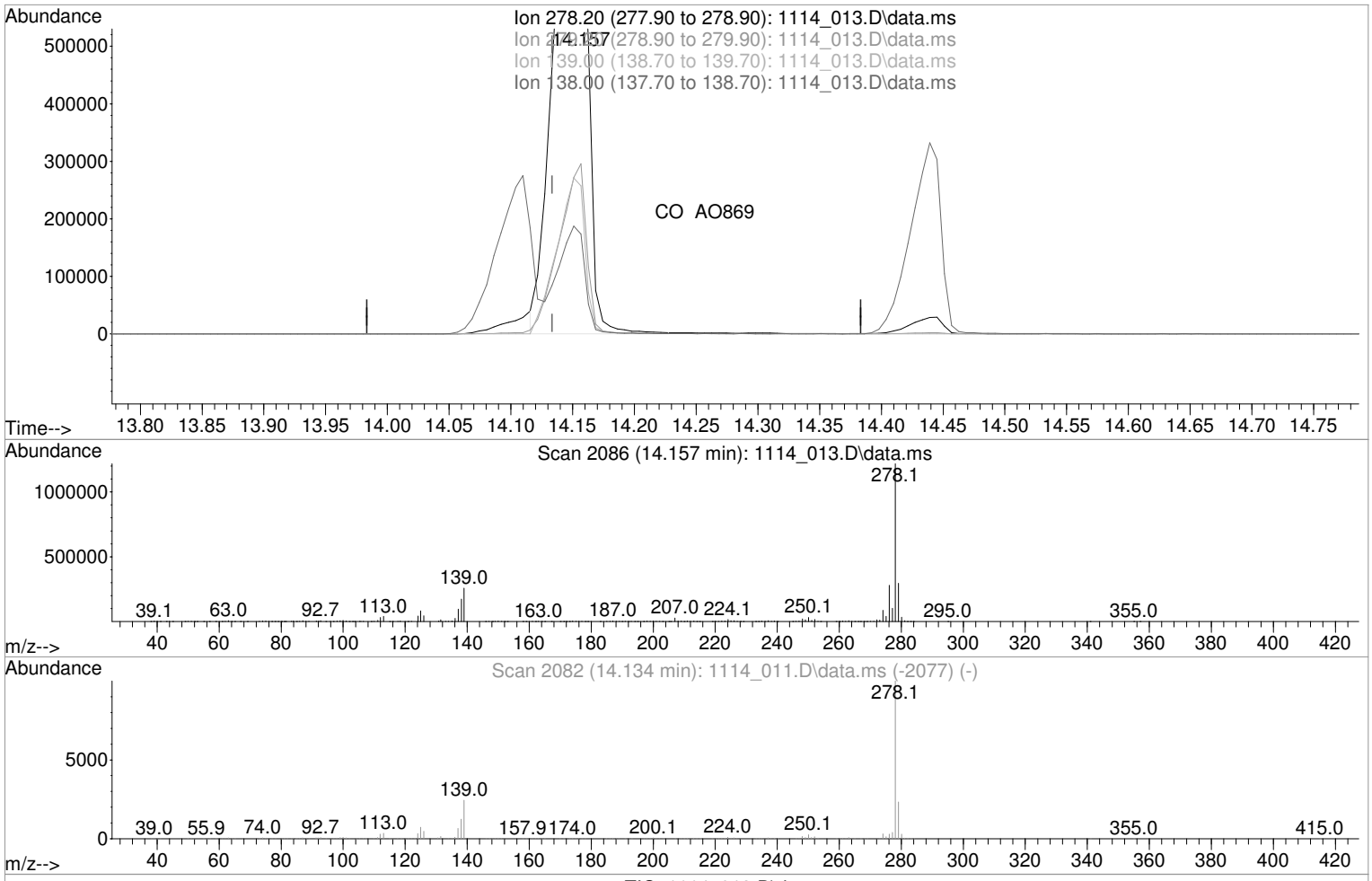
Qvalue = 96

response 1968418

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	24.30
139.00	23.90	21.14
138.00	16.60	14.22

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_013.D
Acq On : 14 Nov 2022 09:22 pm
Operator : 917
Sample : STD SVMS 30K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 10:27:00 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:26:57 2022
Response via : Initial Calibration



TIC: 1114_013.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.157min (+ 0.023) 32316.7519431 ppb m

response 1902375

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	24.30
139.00	23.90	21.14
138.00	16.60	14.22

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	152384	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.204	136	603122	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.393	164	339186	8000.0000000 ppb		0.01
70) Phenanthrene-d10	6.528	188	604591	8000.0000000 ppb		0.01
84) Chrysene-d12	9.451	240	493944	8000.0000000 ppb		0.02
94) Perylene-d12	12.228	264	458848	8000.0000000 ppb		0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.752	112	941872	40965.2577879 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 1024.13%#			
7) Phenol-d5	3.216	99	1203298	41017.6669859 ppb		0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 1025.44%#			
24) Nitrobenzene-d5	3.763	82	977716m	39580.1925271 ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 1979.01%#			
50) 2-Fluorobiphenyl	4.899	172	2108732	38673.8268022 ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 1933.69%#			
73) 2,4,6-Tribromophenol	5.981	330	285293	49159.1048324 ppb		0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 1228.98%#			
87) p-Terphenyl-d14	7.987	244	2580286	40923.5193089 ppb		0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 2046.18%#			
Target Compounds						Qvalue
2) Pyridine	2.205	79	970530	40812.5638251 ppb		98
3) N-Nitrosodimethylamine	2.175	42	460443	39075.2099726 ppb		96
5) Aniline	3.263	66	591953	42098.0031107 ppb	#	32
6) bis(2-Chloroethyl)ether	3.287	93	914623m	39542.2928037 ppb		
8) Phenol	3.222	94	1211842	40818.1575422 ppb		99
10) 2-Chlorophenol	3.328	128	976413	39976.3489560 ppb		97
11) n-Decane	3.334	41	453003	34245.3543635 ppb		97
12) 1,3-Dichlorobenzene	3.416	146	1104213	39386.8573028 ppb		96
13) 1,4-Dichlorobenzene	3.457	146	1124178	39239.1097024 ppb		97
14) Benzyl Alcohol	3.510	79	808939	41637.5306057 ppb		99
15) 1,2-Dichlorobenzene	3.546	146	1046977	38845.4422325 ppb		98
16) bis(2-Chloroisopropyl)...	3.581	121	345576	39654.2908135 ppb	#	84
17) 2,2-oxybis(1-chloropro...	3.581	121	345576	39654.2908135 ppb	#	84
18) 2-Methylphenol	3.557	108	923563	40998.6893518 ppb		99
19) Hexachloroethane	3.740	117	420421	39328.6071913 ppb		95
20) N-Nitrosodi-n-propylamine	3.669	70	678197	42066.6611929 ppb		97
21) 3&4-Methyl phenol	3.652	107	1052261	41928.2007705 ppb		99
25) Nitrobenzene	3.775	77	957464	41281.6414349 ppb		98
26) Isophorone	3.922	82	1855602	42286.6318340 ppb		98
27) 2-Nitrophenol	3.963	139	534352	44876.2681329 ppb		89
28) 2,4-Dimethylphenol	3.969	107	975583	40887.2769964 ppb		99
29) bis(2-Chlorethoxy)methane	4.028	93	1149559	40002.9951311 ppb		99
30) 2,4-Dichlorophenol	4.104	162	834909	42179.4310722 ppb		97
32) 1,2,4-Trichlorobenzene	4.163	180	886303	39177.9719080 ppb		99
34) Naphthalene	4.216	128	2853448	37191.0670081 ppb		99
35) 4-Chloroaniline	4.234	65	358700	39656.0439384 ppb		99
36) Hexachloro-1,3-butadiene	4.281	225	456651	39689.2158725 ppb		99

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

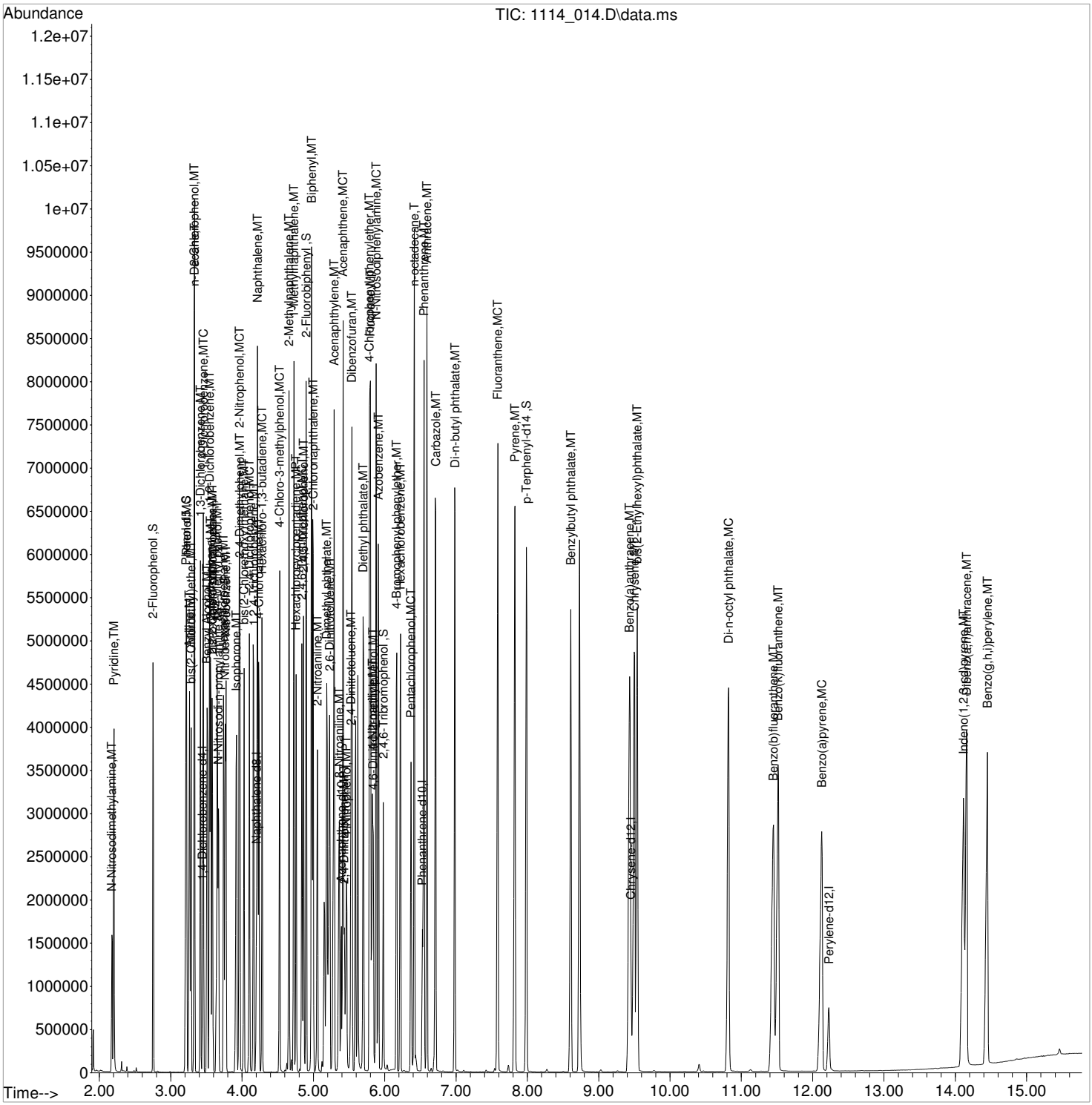
Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.528	107	877121	42547.5769567 ppb		99
41)	2-Methylnaphthalene	4.657	142	1939735	38631.7420961 ppb		99
42)	1-Methylnaphthalene	4.728	142	1790945	38411.9842377 ppb		99
47)	Hexachlorocyclopentadiene	4.757	237	622800	42064.6358270 ppb		98
48)	2,4,6-Trichlorophenol	4.840	196	596154	44373.0378727 ppb		96
49)	2,4,5-Trichlorophenol	4.863	196	618784	42681.3306235 ppb		98
51)	Biphenyl	4.975	154	2299094	37350.2284641 ppb		99
52)	2-Chloronaphthalene	4.999	162	1804793	38474.4316044 ppb		99
53)	2-Nitroaniline	5.057	138	691091	48736.3214371 ppb		99
54)	Acenaphthylene	5.293	152	2831777	39068.6531700 ppb		99
55)	Dimethyl phthalate	5.187	163	2116085	40380.7743867 ppb		97
56)	2,6-Dinitrotoluene	5.228	165	525593	46276.2588765 ppb		97
57)	3-Nitroaniline	5.363	138	601222	46880.0636623 ppb		94
58)	Acenaphthene	5.416	153	1835004	37824.3700773 ppb		99
59)	2,4-Dinitrophenol	5.434	184	270970	57876.7346574 ppb	#	1
60)	Dibenzofuran	5.540	168	2592063	38111.4962592 ppb		100
61)	2,4-Dinitrotoluene	5.528	165	698291	48626.9392367 ppb		96
63)	4-Nitrophenol	5.463	139	478970	50783.4569345 ppb		99
64)	Fluorene	5.798	166	2133634	38404.9467675 ppb		99
65)	4-Chlorophenyl-phenyle...	5.787	204	999088	38309.0945658 ppb		99
66)	Diethyl phthalate	5.698	149	2096308	41027.0774323 ppb		99
67)	4-Nitroaniline	5.828	138	625707	47244.9728373 ppb		99
68)	Azobenzene	5.910	77	1997428	39917.5208280 ppb		99
71)	4,6-Dinitro-2-methylph...	5.840	198	353190	53923.6622791 ppb		91
72)	N-Nitrosodiphenylamine	5.881	169	1862200	40064.2470201 ppb		99
74)	4-Bromophenyl-phenylether	6.169	248	560064	41202.3235458 ppb		99
75)	Hexachlorobenzene	6.222	284	623239	40388.0452070 ppb		99
76)	n-octadecane	6.416	55	333583	37182.6747669 ppb		98
77)	Pentachlorophenol	6.369	266	359940	53169.8246954 ppb		96
78)	Phenanthrene	6.551	178	2982595	36991.1019466 ppb		100
79)	Anthracene	6.593	178	3053357	38740.2059329 ppb		99
80)	Carbazole	6.716	167	2926992	39606.8415297 ppb		99
81)	Di-n-butyl phthalate	6.987	149	3535591	42229.7451430 ppb		100
83)	Fluoranthene	7.587	202	3200209	39597.7766909 ppb		99
86)	Pyrene	7.828	202	3325938	41130.3533772 ppb		99
88)	Benzylbutyl phthalate	8.610	149	1574393	47532.2178455 ppb		98
90)	Benzo(a)anthracene	9.434	228	3002599	39552.8647858 ppb		97
91)	Chrysene	9.504	228	2863956	39632.9239528 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.539	149	2214658	48063.2547308 ppb		100
93)	Di-n-octyl phthalate	10.822	149	3744281	50412.6957374 ppb		100
95)	Benzo(b)fluoranthene	11.451	252	2805929	42633.5257288 ppb		99
96)	Benzo(k)fluoranthene	11.516	252	2752437	42029.7109287 ppb		99
97)	Benzo(a)pyrene	12.128	252	2424998	43749.5049694 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.116	276	2428348m	43384.4541678 ppb		
99)	Dibenz(a,h)anthracene	14.163	278	2462655m	42747.3816685 ppb		
100)	Benzo(g,h,i)perylene	14.451	276	2372483	41960.4982318 ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

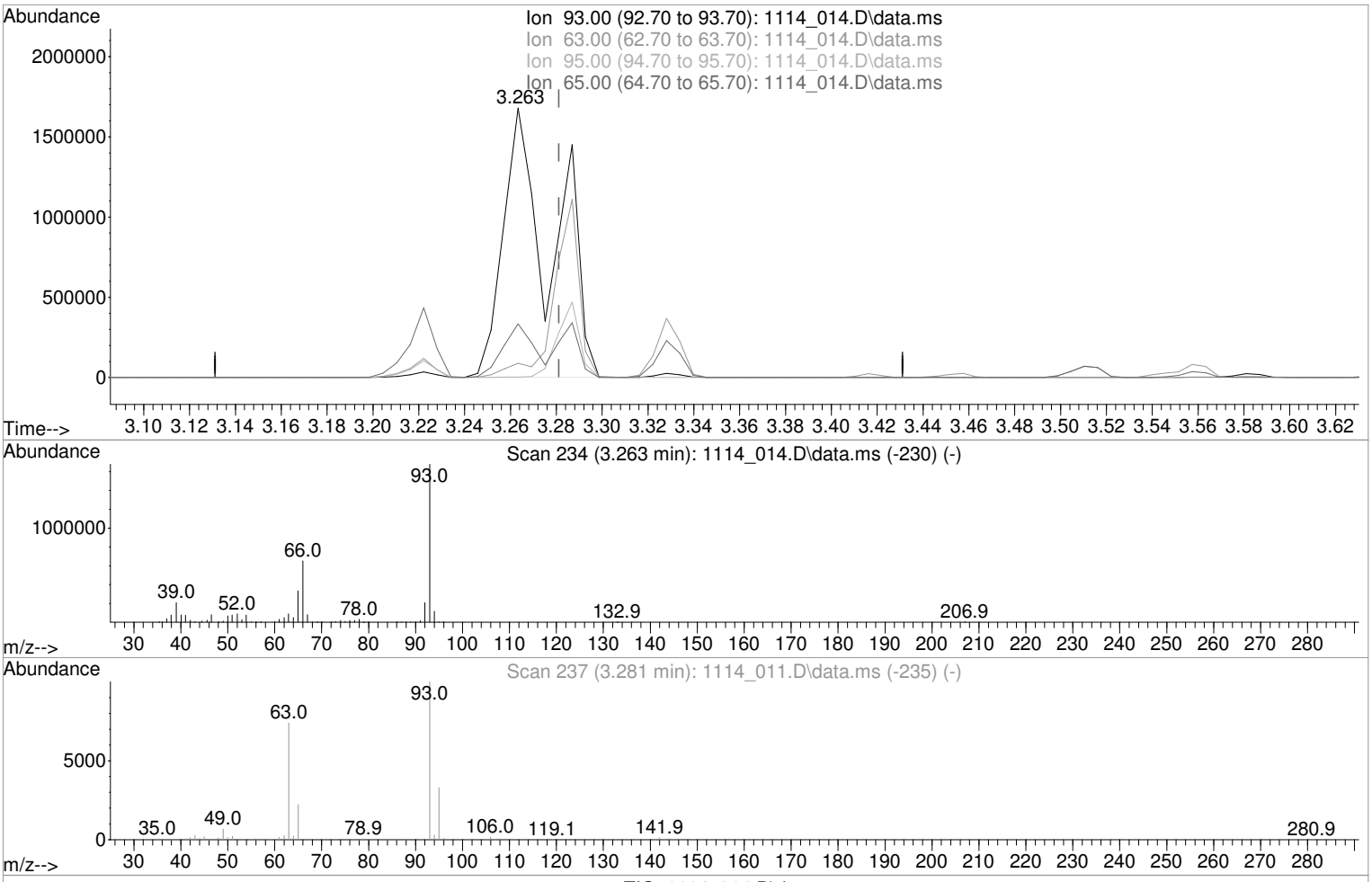
Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



TIC: 1114_014.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.263min (-0.018) 107914.2388156 ppb

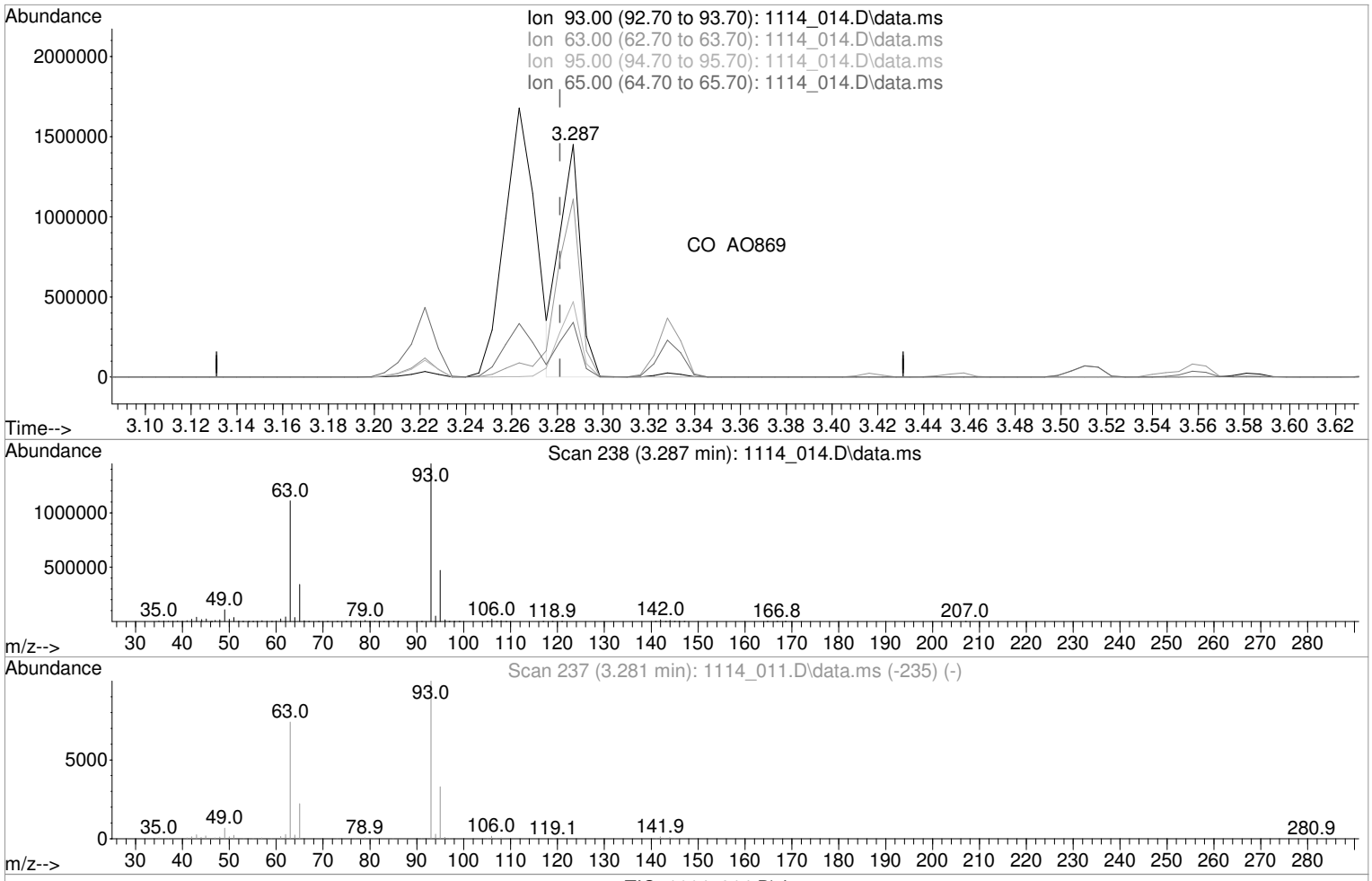
Qvalue = 38

response 2496083

Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	5.23#
95.00	32.10	0.20#
65.00	22.60	19.84

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



TIC: 1114_014.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.287min (+ 0.006) 39542.2928037 ppb m

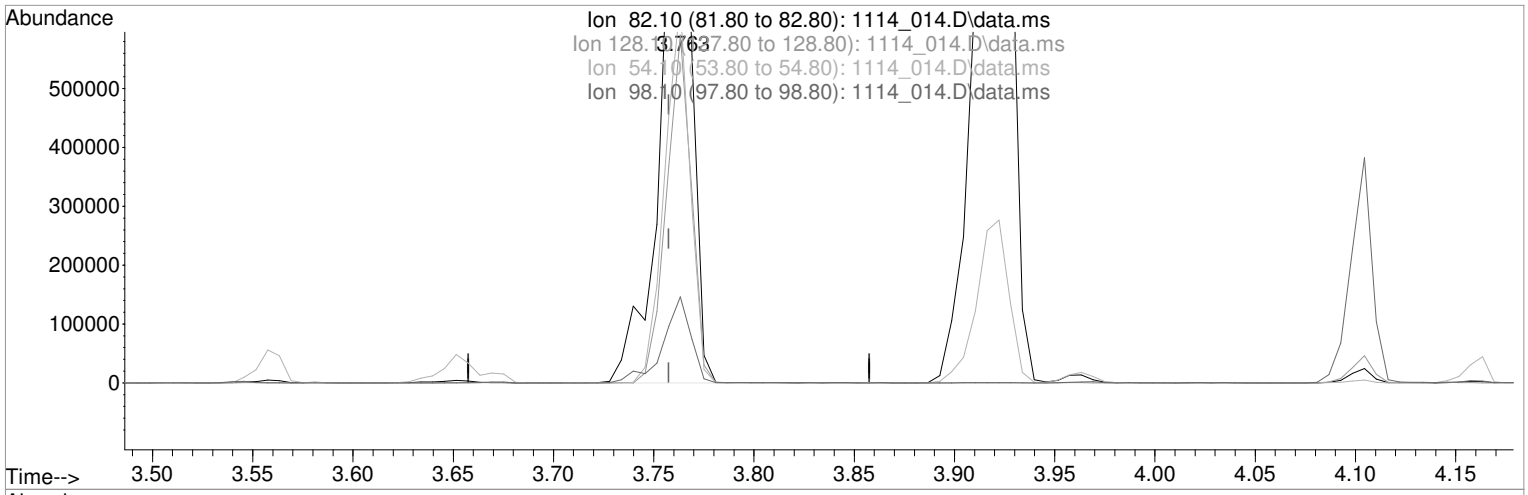
response 914623

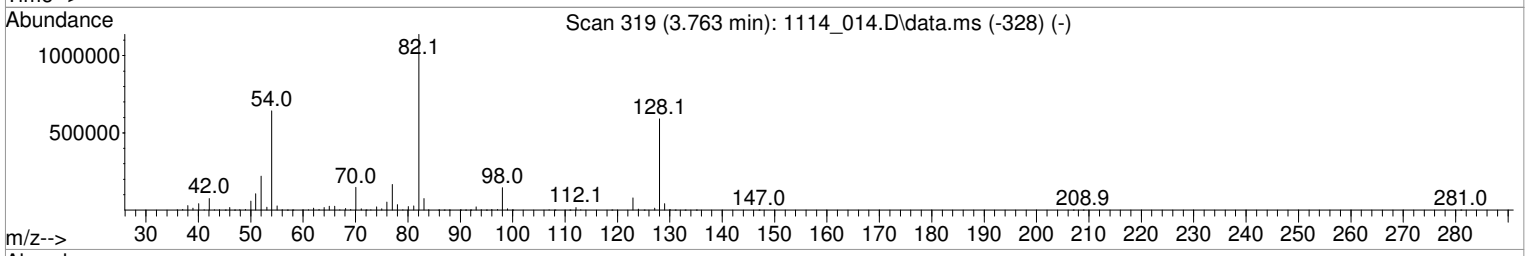
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	76.57
95.00	32.10	32.42
65.00	22.60	23.54

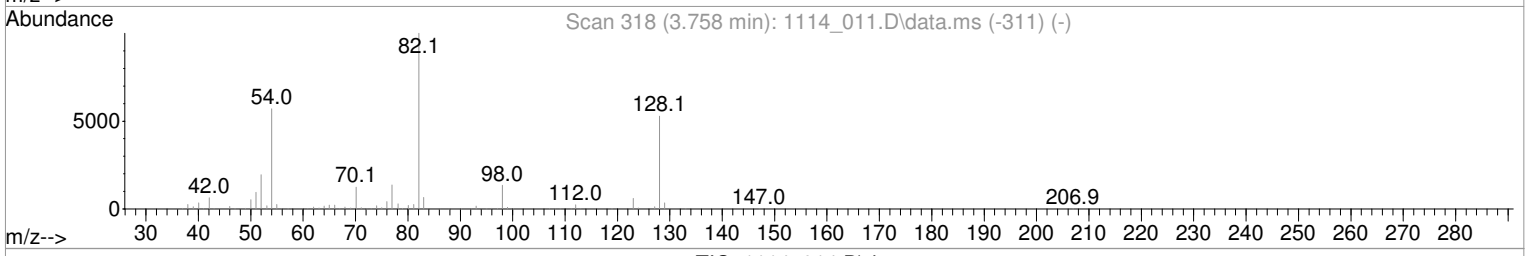
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration







TIC: 1114_014.D\data.ms

(24) Nitrobenzene-d5 (S)

3.763min (+ 0.006) 43584.9850294 ppb

Qvalue = 99

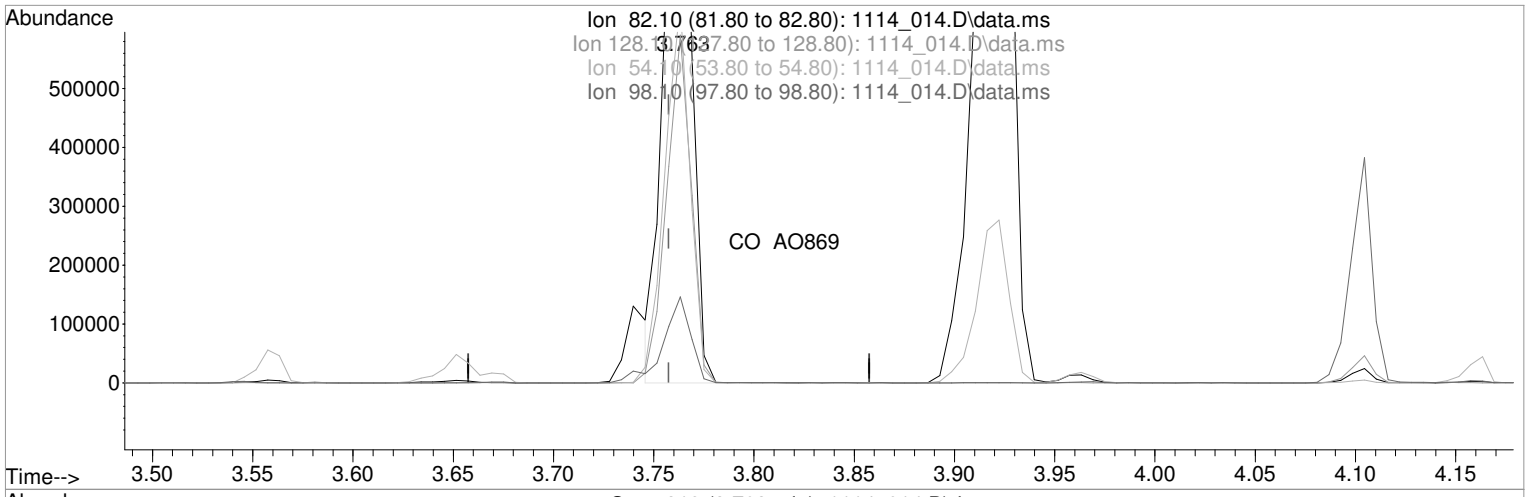
response 1076643

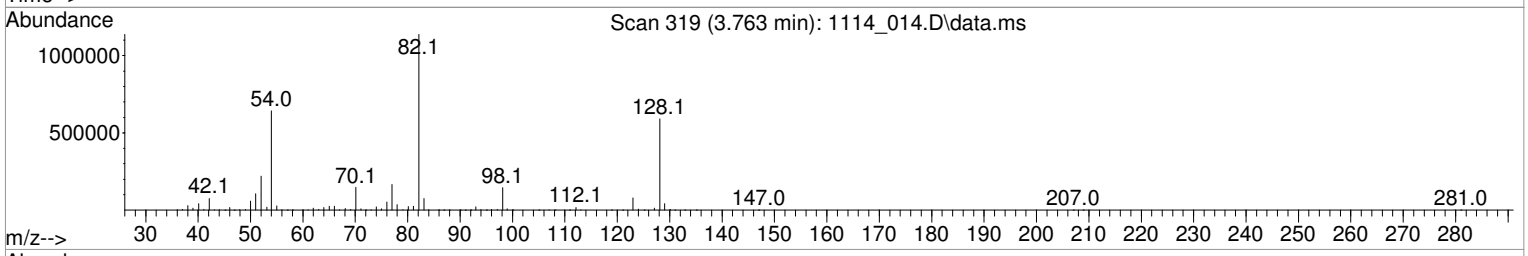
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.92
54.10	57.00	56.54
98.10	13.50	12.85

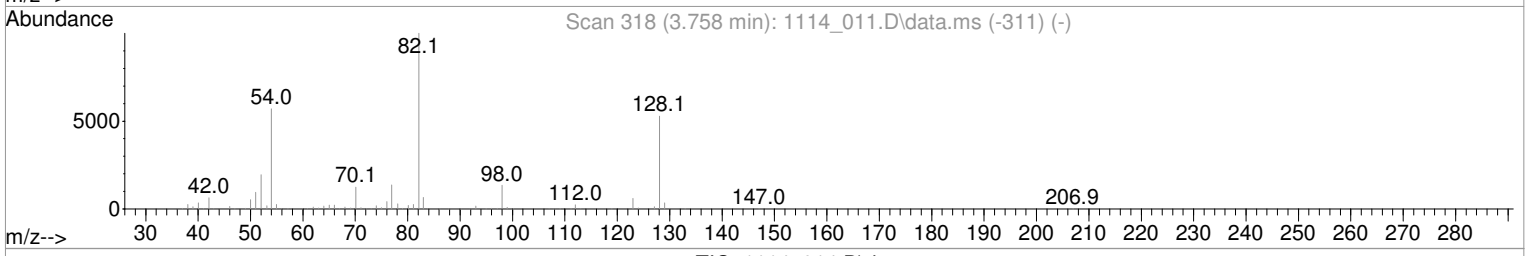
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration







TIC: 1114_014.D\data.ms

(24) Nitrobenzene-d5 (S)

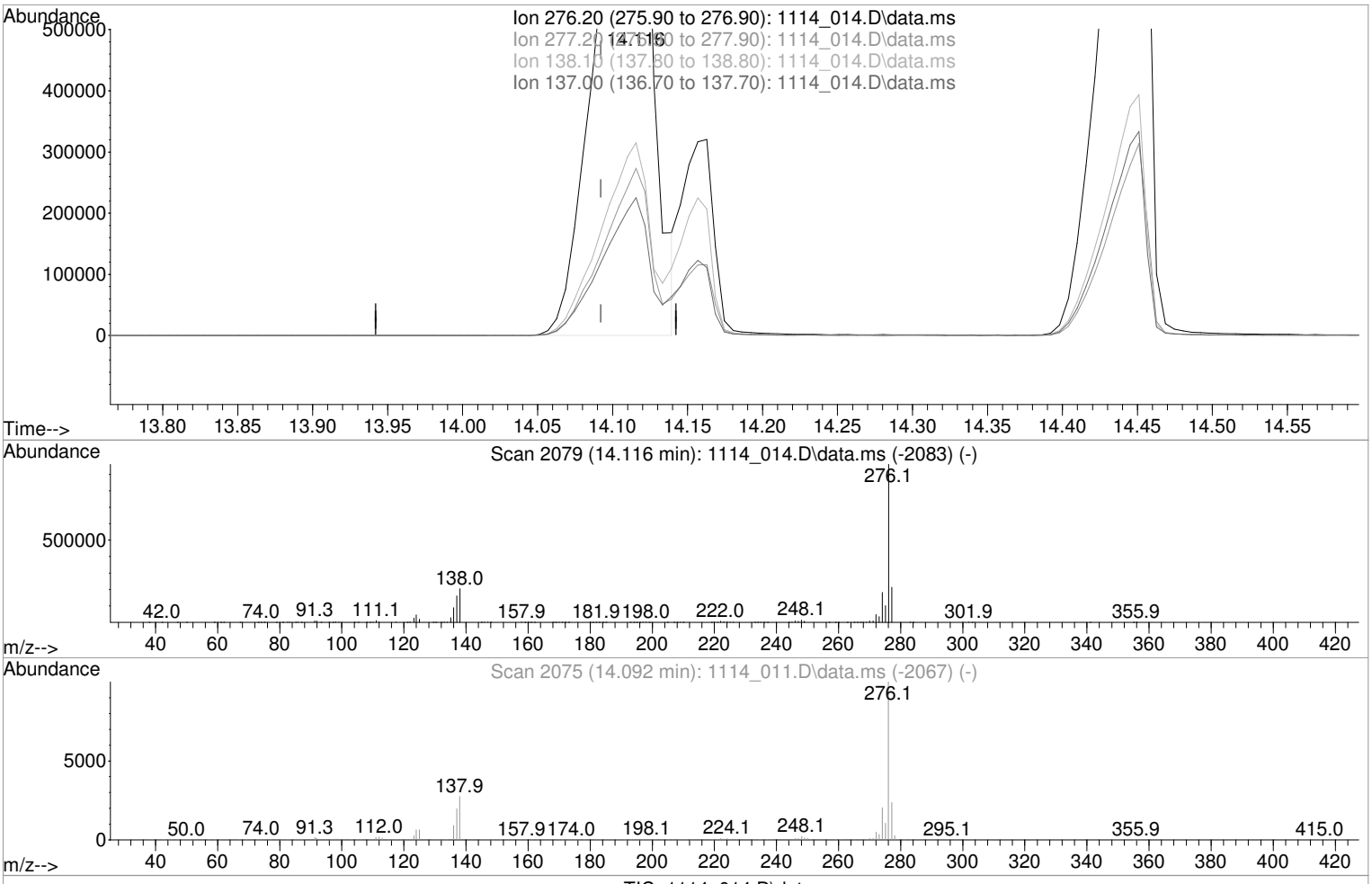
3.763min (+ 0.006) 39580.1925271 ppb m

response 977716

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.92
54.10	57.00	56.54
98.10	13.50	12.85

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



TIC: 1114_014.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.116min (+ 0.023) 44456.3146787 ppb

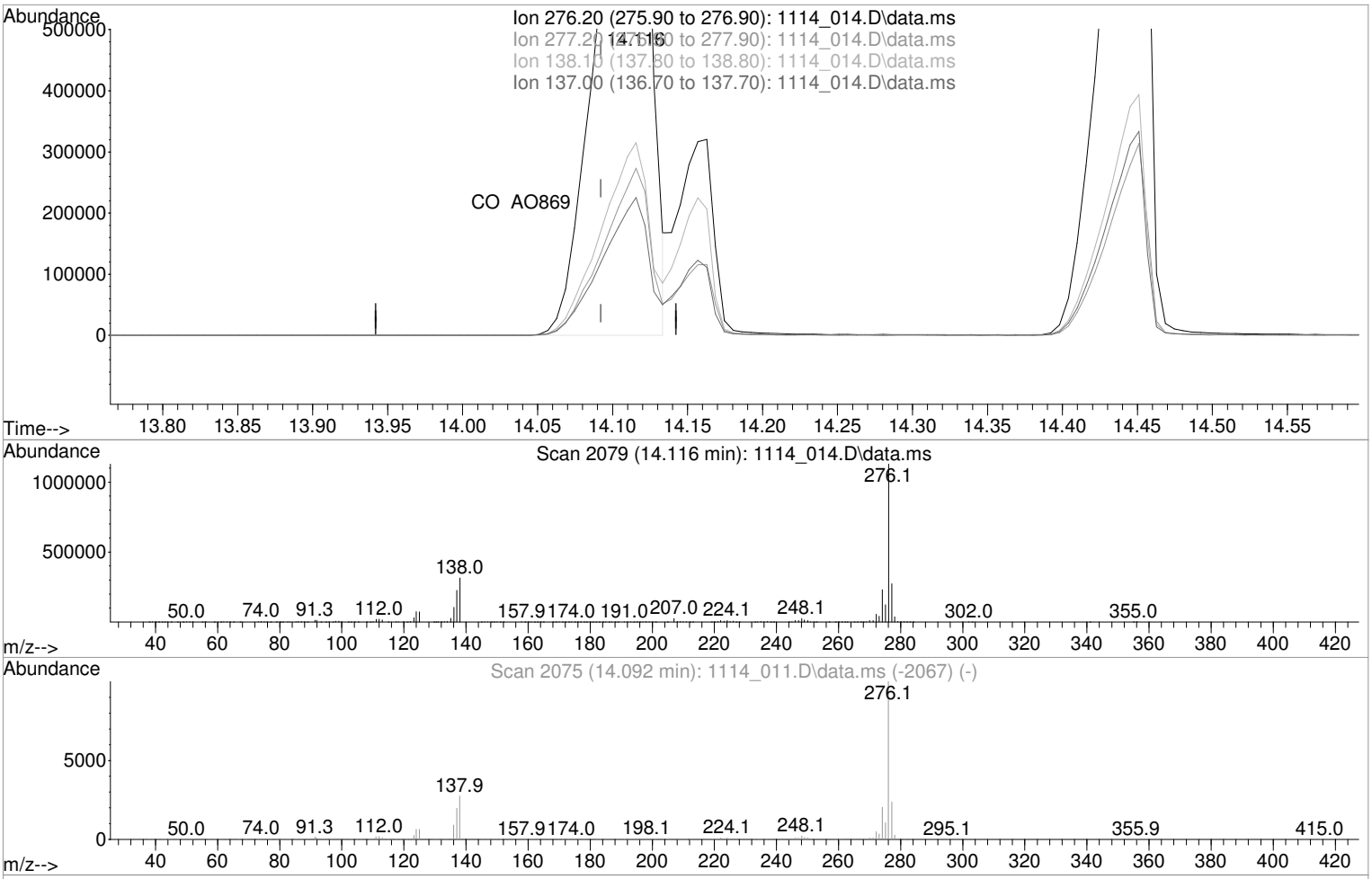
Qvalue = 99

response 2488343

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	24.23
138.10	27.50	27.94
137.00	19.70	19.97

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



TIC: 1114_014.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.116min (+ 0.023) 43384.4541678 ppb m

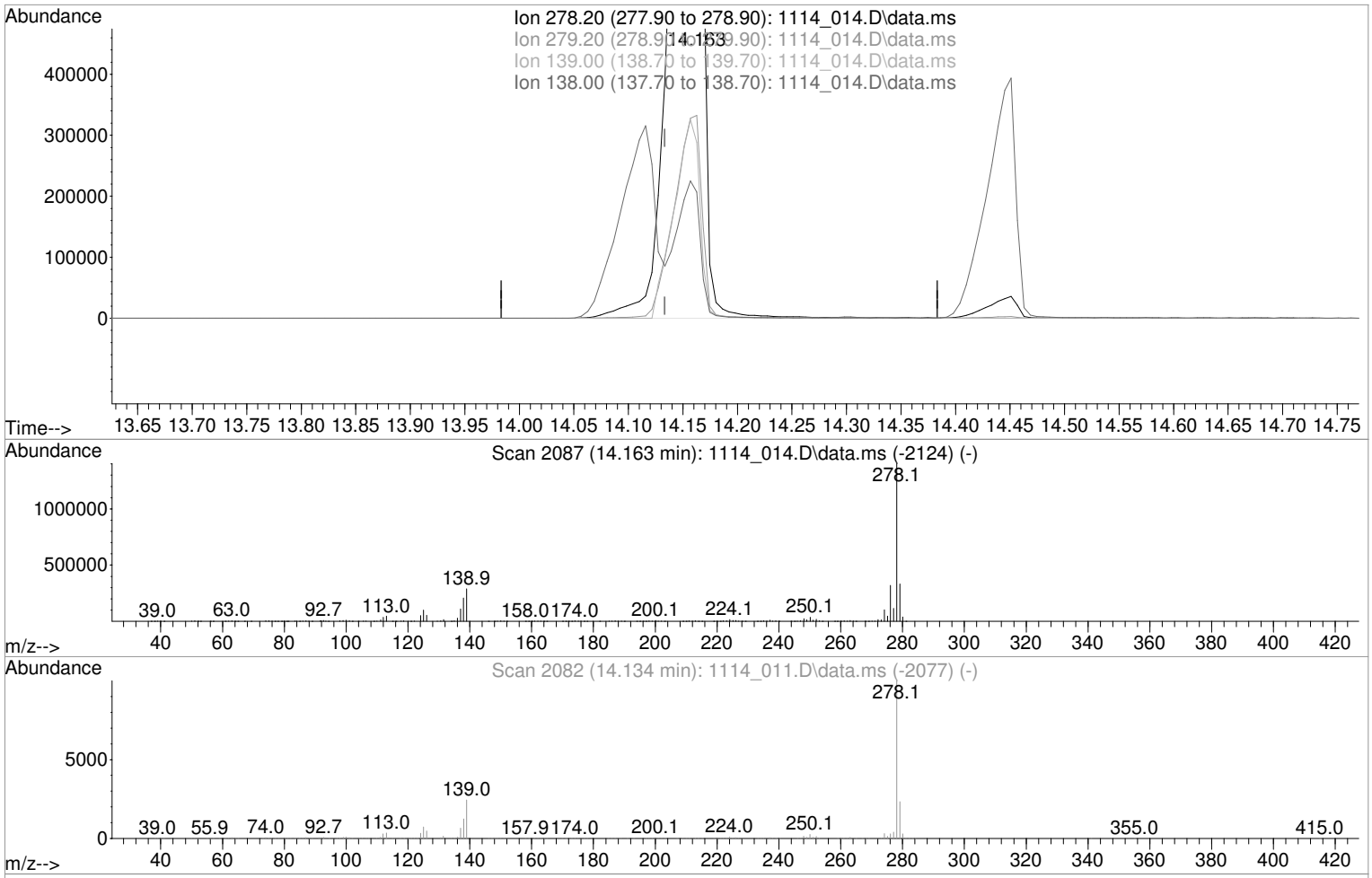
response 2428348

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	24.23
138.10	27.50	27.95
137.00	19.70	19.97

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration



TIC: 1114_014.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.163min (+ 0.029) 43869.1759465 ppb

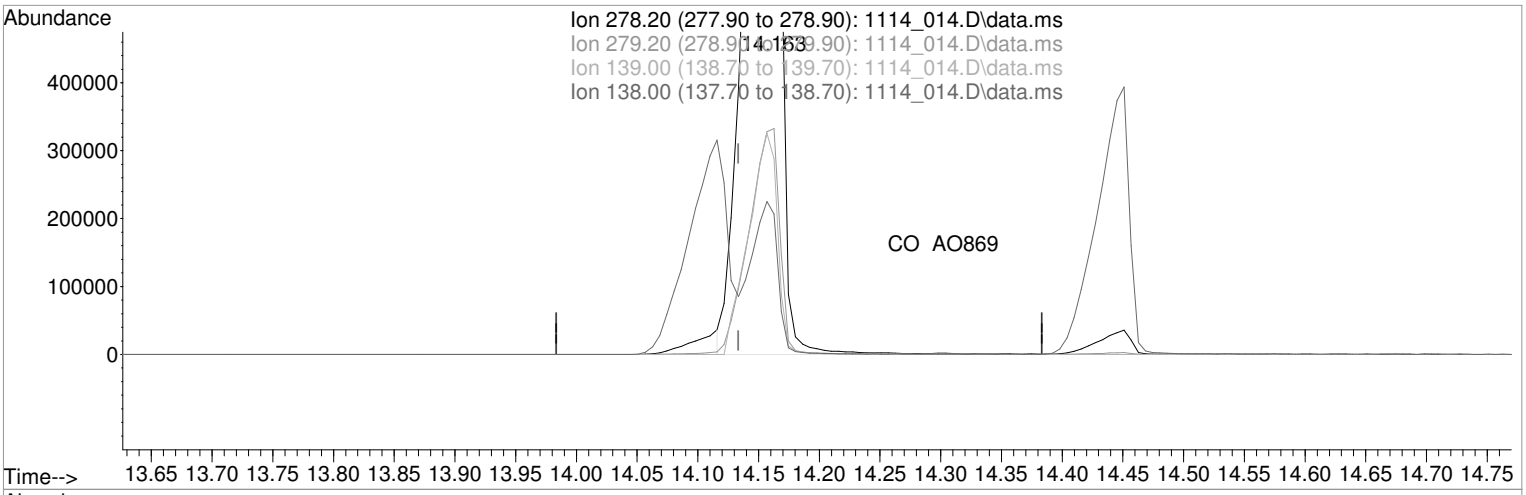
Qvalue = 96

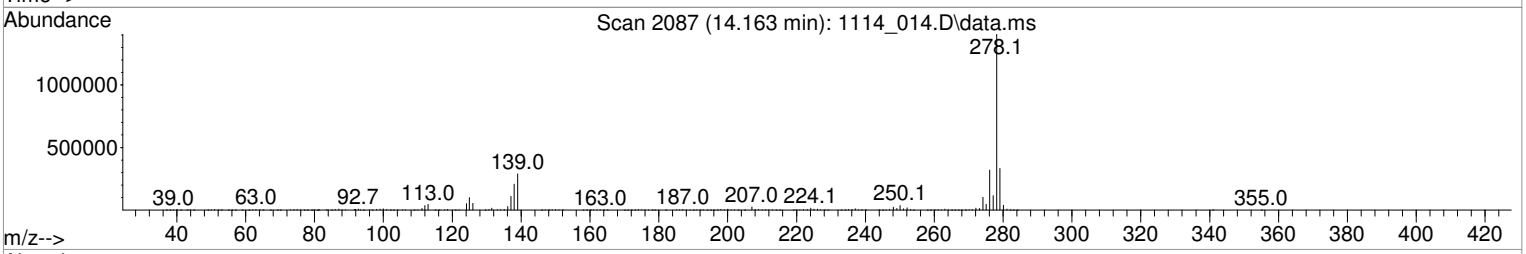
response 2527281

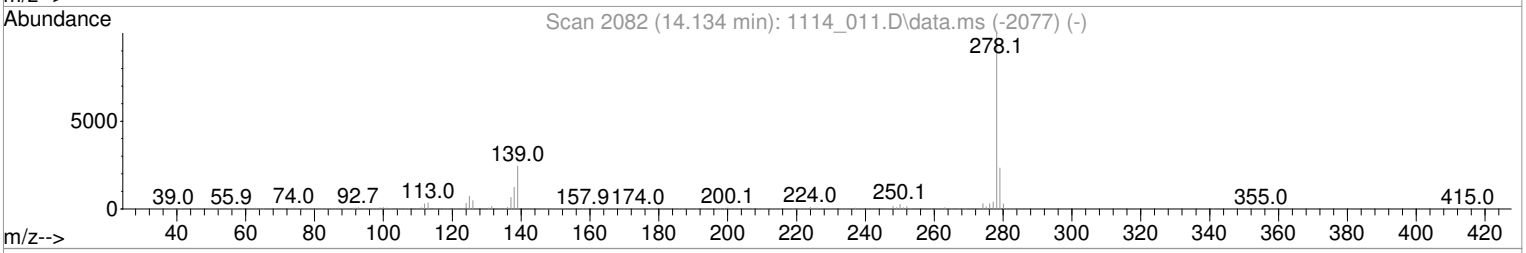
Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.69
139.00	23.90	20.54
138.00	16.60	14.72

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_014.D
Acq On : 14 Nov 2022 09:43 pm
Operator : 917
Sample : STD SVMS 40K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 10:30:22 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:30:19 2022
Response via : Initial Calibration







TIC: 1114_014.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.163min (+ 0.029) 42747.3816685 ppb m

response 2462655

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.69
139.00	23.90	20.54
138.00	16.60	14.72

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	143828	8000.0000000 ppb		0.00
23) Naphthalene-d8	4.205	136	572915	8000.0000000 ppb		0.00
46) Acenaphthene-d10	5.393	164	321308	8000.0000000 ppb		0.01
70) Phenanthrene-d10	6.528	188	579592	8000.0000000 ppb		0.01
84) Chrysene-d12	9.452	240	469391	8000.0000000 ppb		0.02
94) Perylene-d12	12.228	264	438508	8000.0000000 ppb		0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.752	112	1107404	50876.5641384 ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 1271.91%#			
7) Phenol-d5	3.217	99	1440436	51857.1564666 ppb		0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 1296.43%#			
24) Nitrobenzene-d5	3.764	82	1150696m	49103.3231984 ppb		0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 2455.17%#			
50) 2-Fluorobiphenyl	4.899	172	2444461	47522.4513039 ppb		0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 2376.12%#			
73) 2,4,6-Tribromophenol	5.987	330	344007	60112.3257681 ppb		0.01
Spiked Amount 4000.000	Range 10 - 153		Recovery = 1502.81%#			
87) p-Terphenyl-d14	7.993	244	3054908	50838.7253075 ppb		0.01
Spiked Amount 2000.000	Range 29 - 141		Recovery = 2541.94%#			
Target Compounds						Qvalue
2) Pyridine	2.199	79	1142549	50757.1434584 ppb		96
3) N-Nitrosodimethylamine	2.175	42	539110	48633.5007650 ppb		97
5) Aniline	3.264	66	704501	52736.7980542 ppb	#	26
6) bis(2-Chloroethyl)ether	3.287	93	1105330m	50702.4850878 ppb		
8) Phenol	3.228	94	1448608	51563.8388674 ppb		95
10) 2-Chlorophenol	3.334	128	1133880	49188.6266425 ppb		90
11) n-Decane	3.334	41	503846	41093.7185163 ppb		96
12) 1,3-Dichlorobenzene	3.417	146	1291536	48902.8145436 ppb		94
13) 1,4-Dichlorobenzene	3.458	146	1290966	47855.1501183 ppb		99
14) Benzyl Alcohol	3.517	79	965457	52381.9080641 ppb		100
15) 1,2-Dichlorobenzene	3.546	146	1221657	48196.7672781 ppb		99
16) bis(2-Chloroisopropyl)...	3.587	121	410706	49985.3835802 ppb		94
17) 2,2-oxybis(1-chloropro...	3.587	121	410706	49985.3835802 ppb		94
18) 2-Methylphenol	3.564	108	1087164	50973.1130273 ppb		99
19) Hexachloroethane	3.740	117	493859	49049.5714940 ppb		94
20) N-Nitrosodi-n-propylamine	3.675	70	792038	51716.4056188 ppb		97
21) 3&4-Methyl phenol	3.658	107	1242079	52121.7339360 ppb		98
25) Nitrobenzene	3.775	77	1140274	51549.2998704 ppb		96
26) Isophorone	3.922	82	2220479	52891.7086371 ppb		100
27) 2-Nitrophenol	3.964	139	627752	54666.8900567 ppb		89
28) 2,4-Dimethylphenol	3.969	107	1143972	50332.8841809 ppb		99
29) bis(2-Chlorethoxy)methane	4.028	93	1358236	49756.2215781 ppb		97
30) 2,4-Dichlorophenol	4.105	162	995349	52578.0051814 ppb		93
32) 1,2,4-Trichlorobenzene	4.164	180	1049667	48971.4902120 ppb		99
34) Naphthalene	4.217	128	3392189	46910.0187408 ppb		99
35) 4-Chloroaniline	4.240	65	429283	50015.3988181 ppb		97
36) Hexachloro-1,3-butadiene	4.281	225	534844	48983.7695492 ppb		98

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

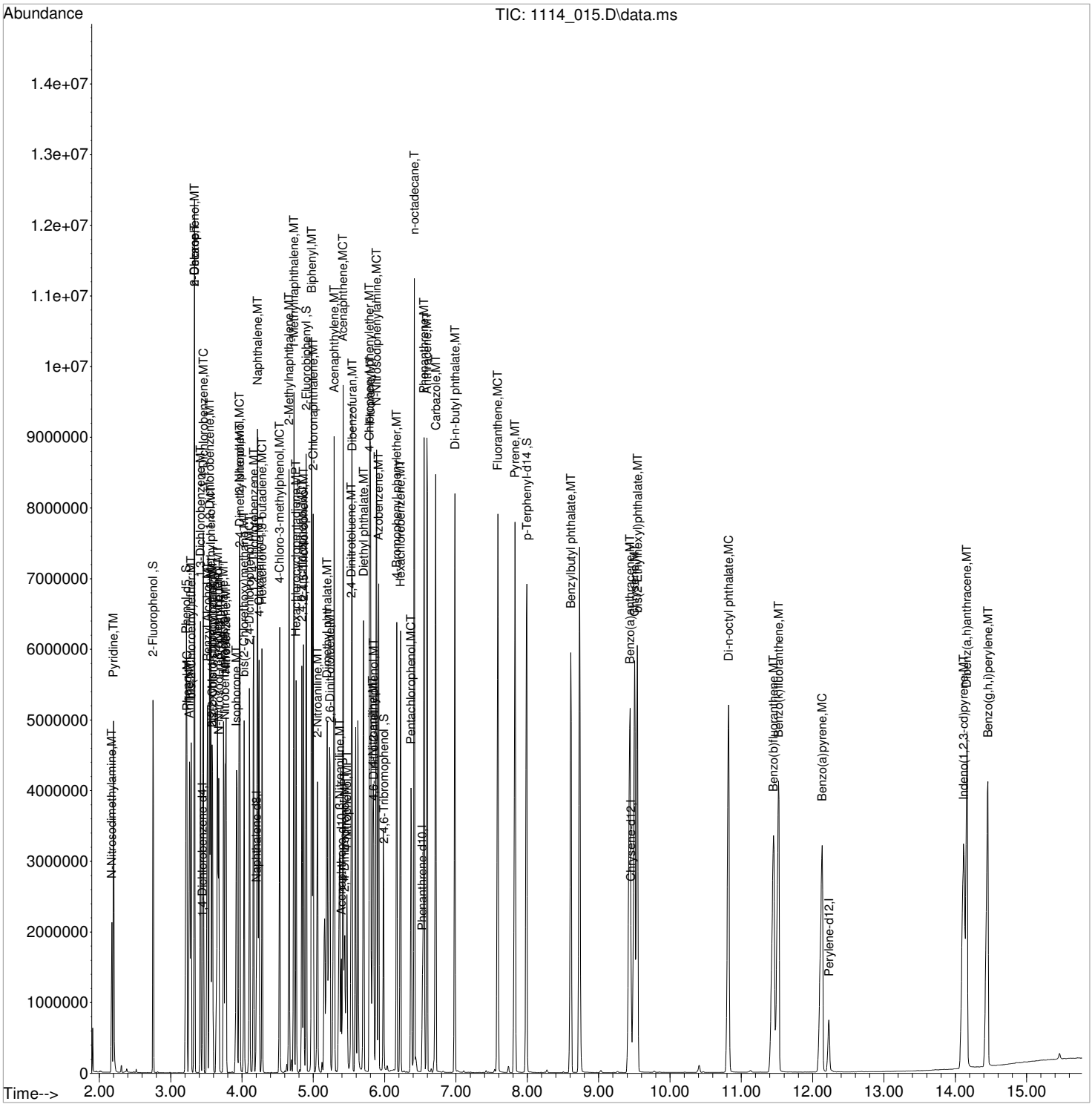
Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.528	107	1026086	51984.0674588 ppb		98
41)	2-Methylnaphthalene	4.658	142	2283474	48058.1130034 ppb		98
42)	1-Methylnaphthalene	4.728	142	2125283	48198.7990120 ppb		99
47)	Hexachlorocyclopentadiene	4.758	237	734744	52050.8583434 ppb		98
48)	2,4,6-Trichlorophenol	4.840	196	699600	54229.0642622 ppb		97
49)	2,4,5-Trichlorophenol	4.864	196	752753	54355.5492493 ppb		99
51)	Biphenyl	4.975	154	2704859	46774.4519944 ppb		99
52)	2-Chloronaphthalene	4.999	162	2159074	48794.7433134 ppb		98
53)	2-Nitroaniline	5.058	138	833610	60408.6445715 ppb		98
54)	Acenaphthylene	5.293	152	3325354	48556.6439359 ppb		99
55)	Dimethyl phthalate	5.193	163	2511127	50525.4422060 ppb		96
56)	2,6-Dinitrotoluene	5.234	165	621293	56635.1446041 ppb		95
57)	3-Nitroaniline	5.369	138	721442	58134.3304126 ppb		92
58)	Acenaphthene	5.416	153	2142073	46894.0692839 ppb		98
59)	2,4-Dinitrophenol	5.440	184	338239	71687.6456153 ppb	#	1
60)	Dibenzofuran	5.546	168	2986305	46626.3695524 ppb		100
61)	2,4-Dinitrotoluene	5.534	165	821508	58805.1663138 ppb		91
63)	4-Nitrophenol	5.469	139	574205	62173.2391911 ppb		99
64)	Fluorene	5.799	166	2492895	47579.0882736 ppb		100
65)	4-Chlorophenyl-phenyle...	5.787	204	1163193	47333.3492155 ppb		99
66)	Diethyl phthalate	5.705	149	2486649	51209.9874448 ppb		99
67)	4-Nitroaniline	5.834	138	754886	58838.1941935 ppb		97
68)	Azobenzene	5.916	77	2374309	50102.3386327 ppb		99
71)	4,6-Dinitro-2-methylph...	5.846	198	428998	65086.2163477 ppb		93
72)	N-Nitrosodiphenylamine	5.887	169	2222320	49864.2587555 ppb		100
74)	4-Bromophenyl-phenylether	6.169	248	659732	50438.5038644 ppb		93
75)	Hexachlorobenzene	6.222	284	753579	50879.1644170 ppb		99
76)	n-octadecane	6.416	55	385888	45324.1049908 ppb		98
77)	Pentachlorophenol	6.369	266	436175	64553.4562030 ppb		96
78)	Phenanthrene	6.552	178	3525591	45995.9207751 ppb		100
79)	Anthracene	6.593	178	3640473	48350.8259668 ppb		99
80)	Carbazole	6.716	167	3466711	48993.6189828 ppb		99
81)	Di-n-butyl phthalate	6.987	149	4095673	50676.3540835 ppb		100
83)	Fluoranthene	7.587	202	3816389	49313.9617211 ppb		99
86)	Pyrene	7.828	202	3906348	50675.8084453 ppb		99
88)	Benzylbutyl phthalate	8.610	149	1885619	58528.5524019 ppb		96
90)	Benzo(a)anthracene	9.440	228	3541834	49157.6955027 ppb		99
91)	Chrysene	9.504	228	3366223	49070.2949434 ppb		99
92)	bis(2-Ethylhexyl)phtha...	9.546	149	2650139	59035.1275399 ppb		99
93)	Di-n-octyl phthalate	10.822	149	4497633	61715.1387991 ppb		99
95)	Benzo(b)fluoranthene	11.451	252	3318848	52382.6909848 ppb		98
96)	Benzo(k)fluoranthene	11.522	252	3328535m	52886.1257292 ppb		
97)	Benzo(a)pyrene	12.134	252	2935048	54836.3296625 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.116	276	3016162	55860.5691664 ppb		100
99)	Dibenz(a,h)anthracene	14.163	278	2944872m	53083.7876866 ppb		
100)	Benzo(g,h,i)perylene	14.457	276	2843411	52337.1189437 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
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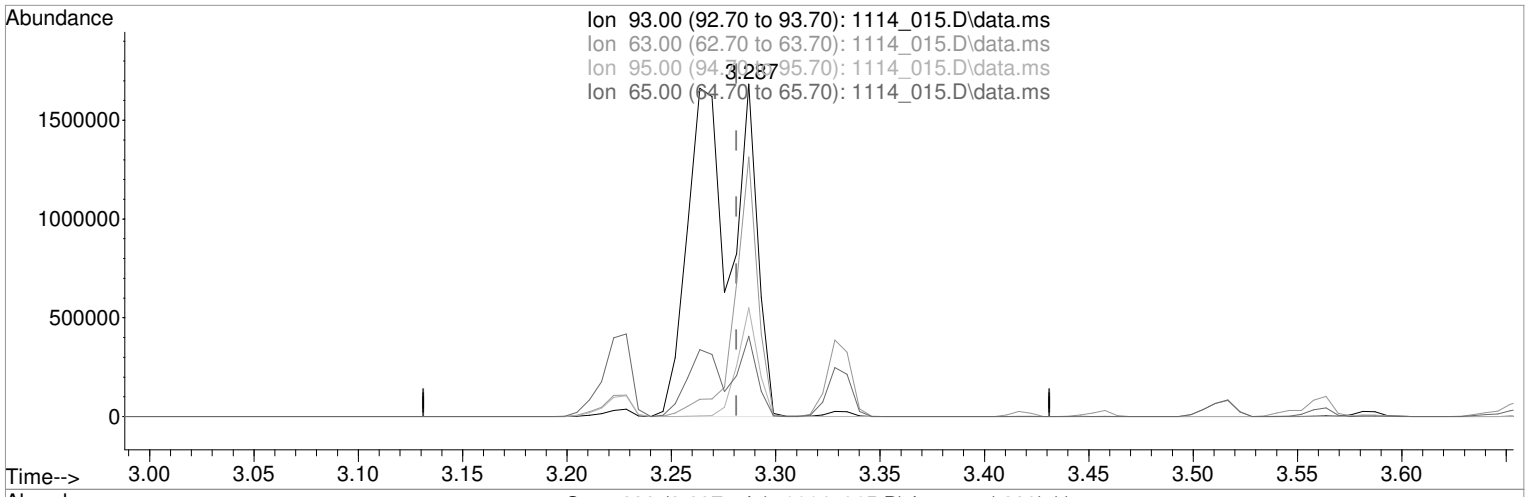
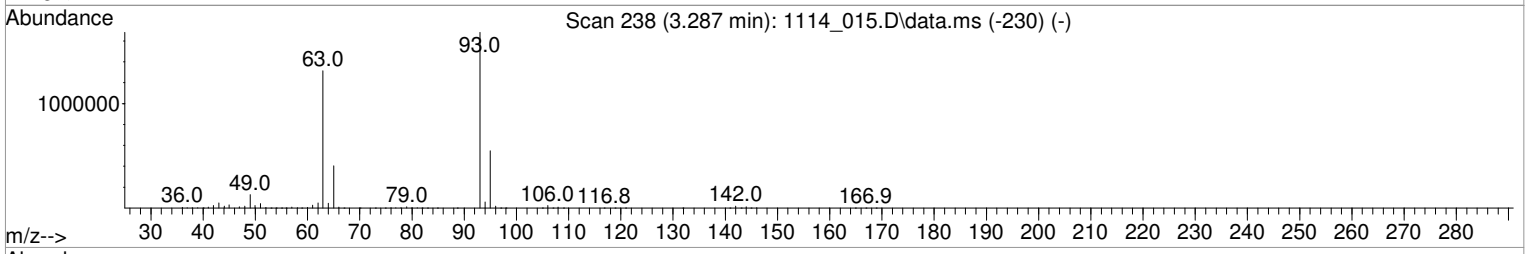
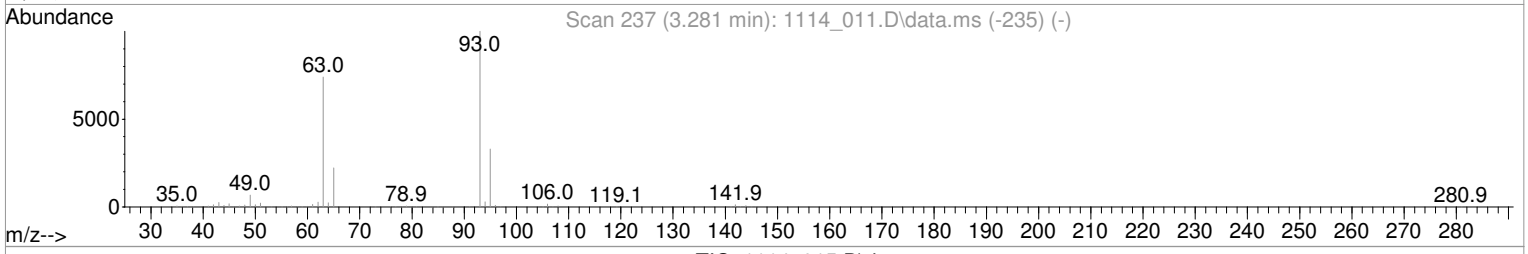
Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration







TIC: 1114_015.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.287min (+ 0.006) 134755.5477321 ppb

Qvalue = 96

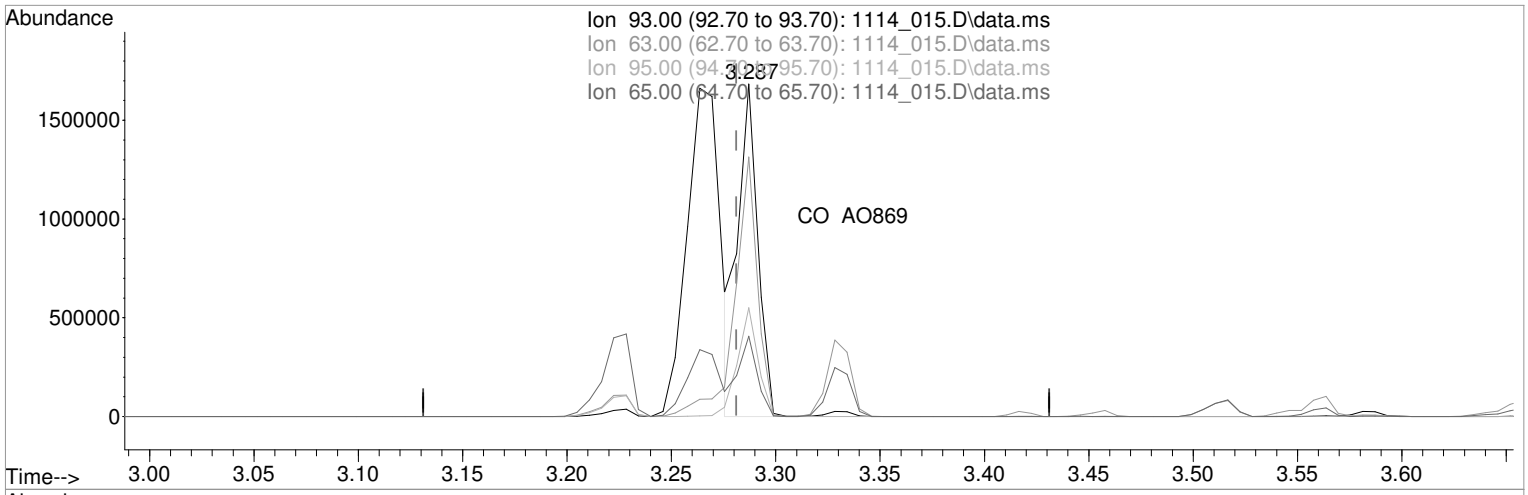
response 2937713

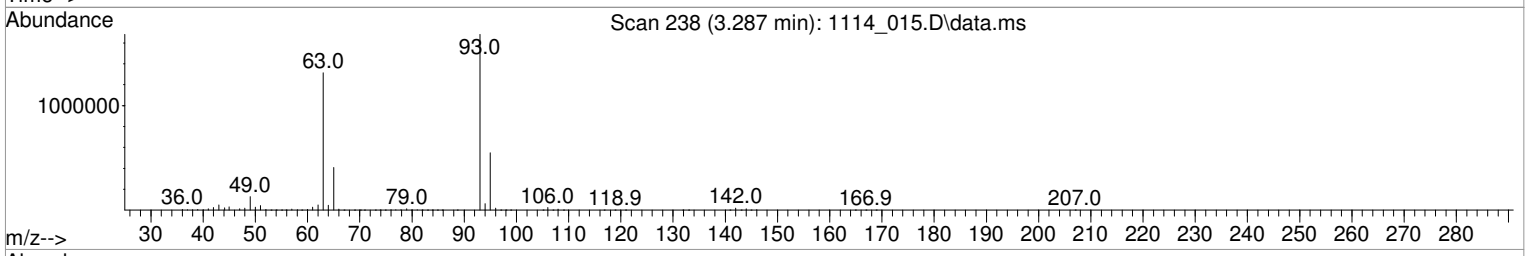
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	78.09
95.00	32.10	32.70
65.00	22.60	24.13

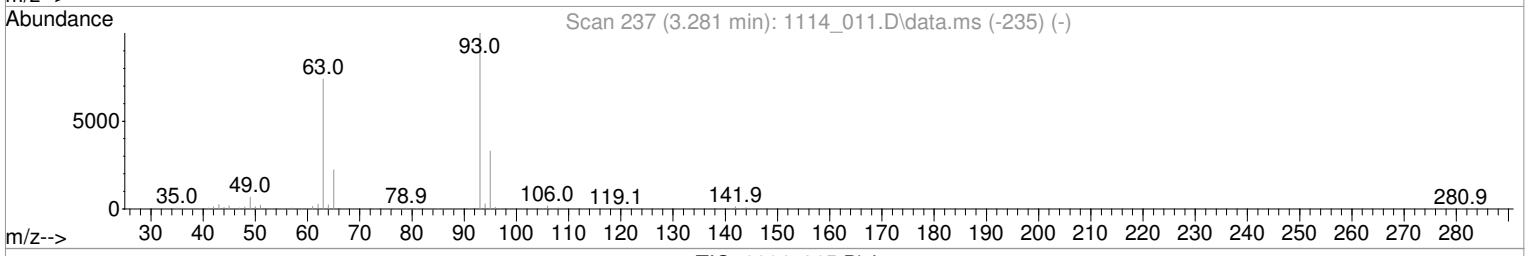
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration







TIC: 1114_015.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.287min (+ 0.006) 50702.4850878 ppb m

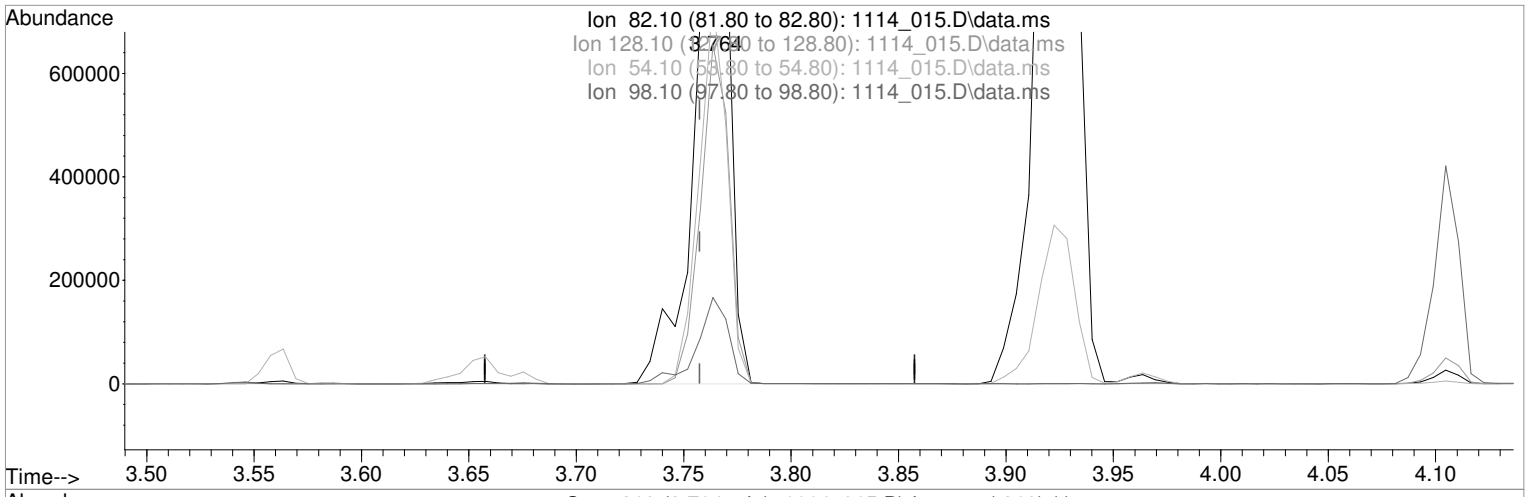
response 1105330

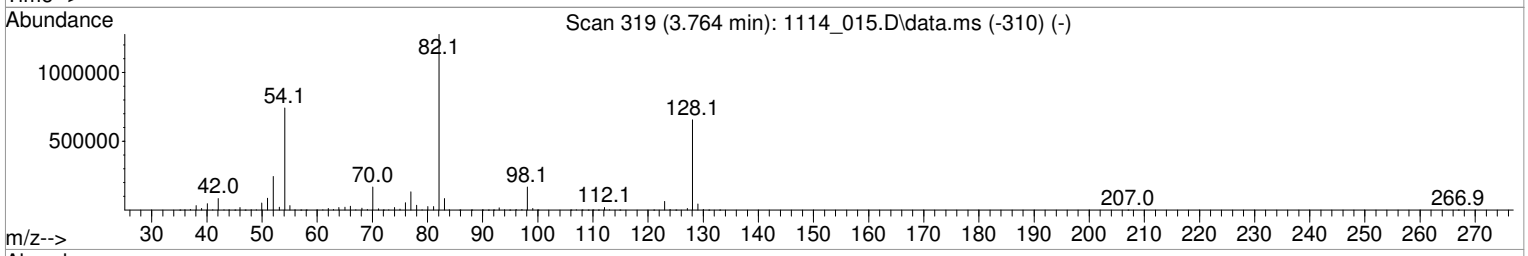
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	78.09
95.00	32.10	32.70
65.00	22.60	24.16

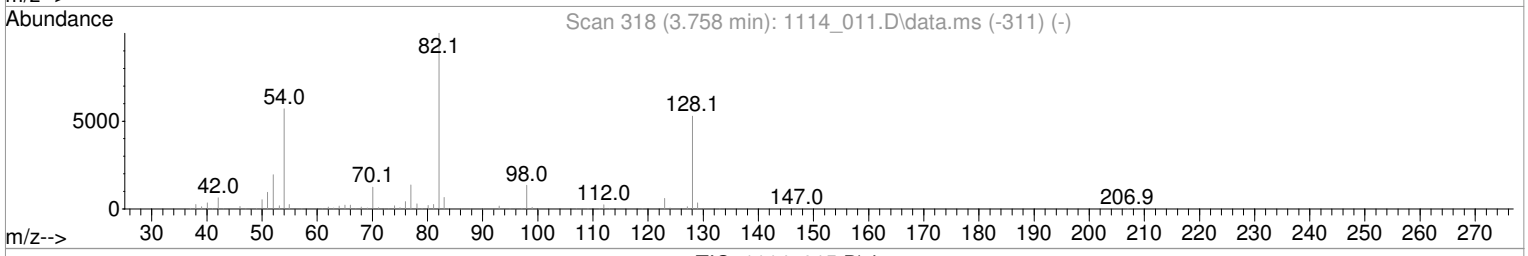
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration







TIC: 1114_015.D\data.ms

(24) Nitrobenzene-d5 (S)

3.764min (+ 0.006) 53684.9646587 ppb

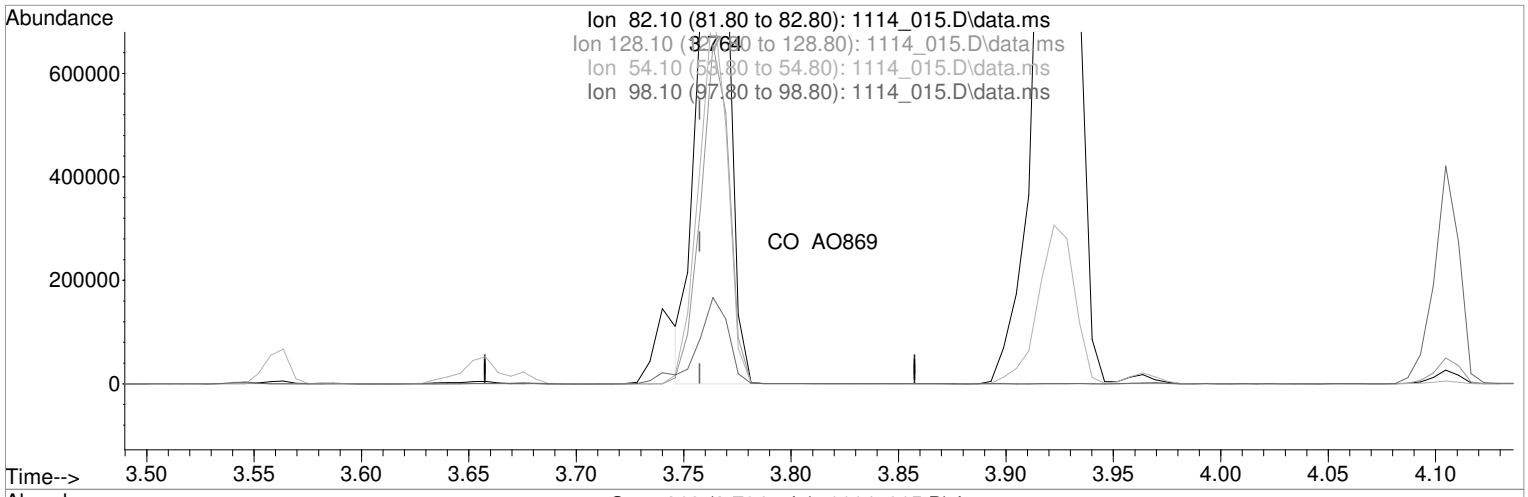
Qvalue = 98

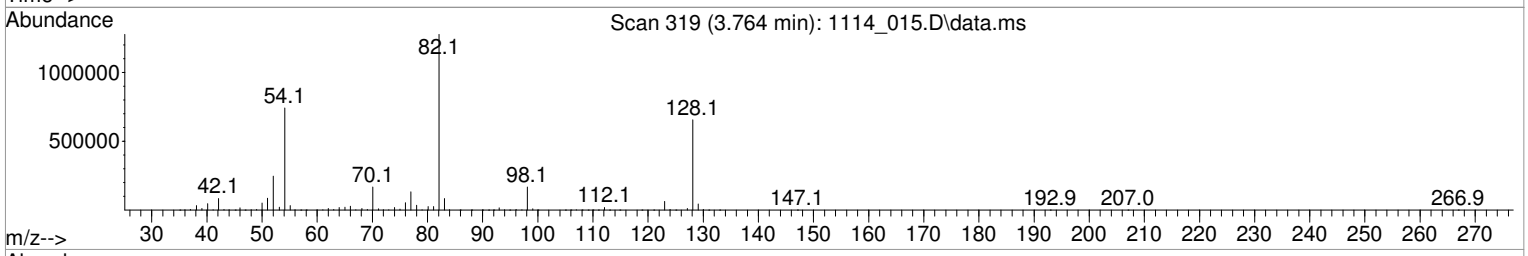
response 1258063

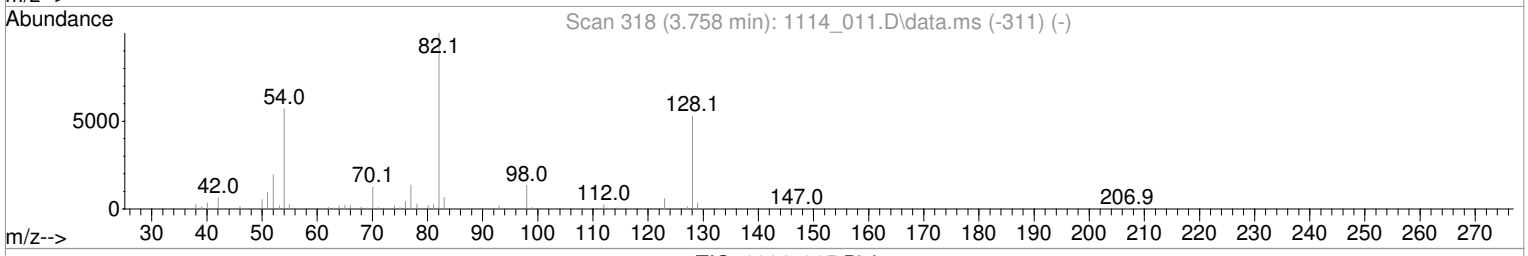
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.33
54.10	57.00	58.18
98.10	13.50	13.06

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration







TIC: 1114_015.D\data.ms

(24) Nitrobenzene-d5 (S)

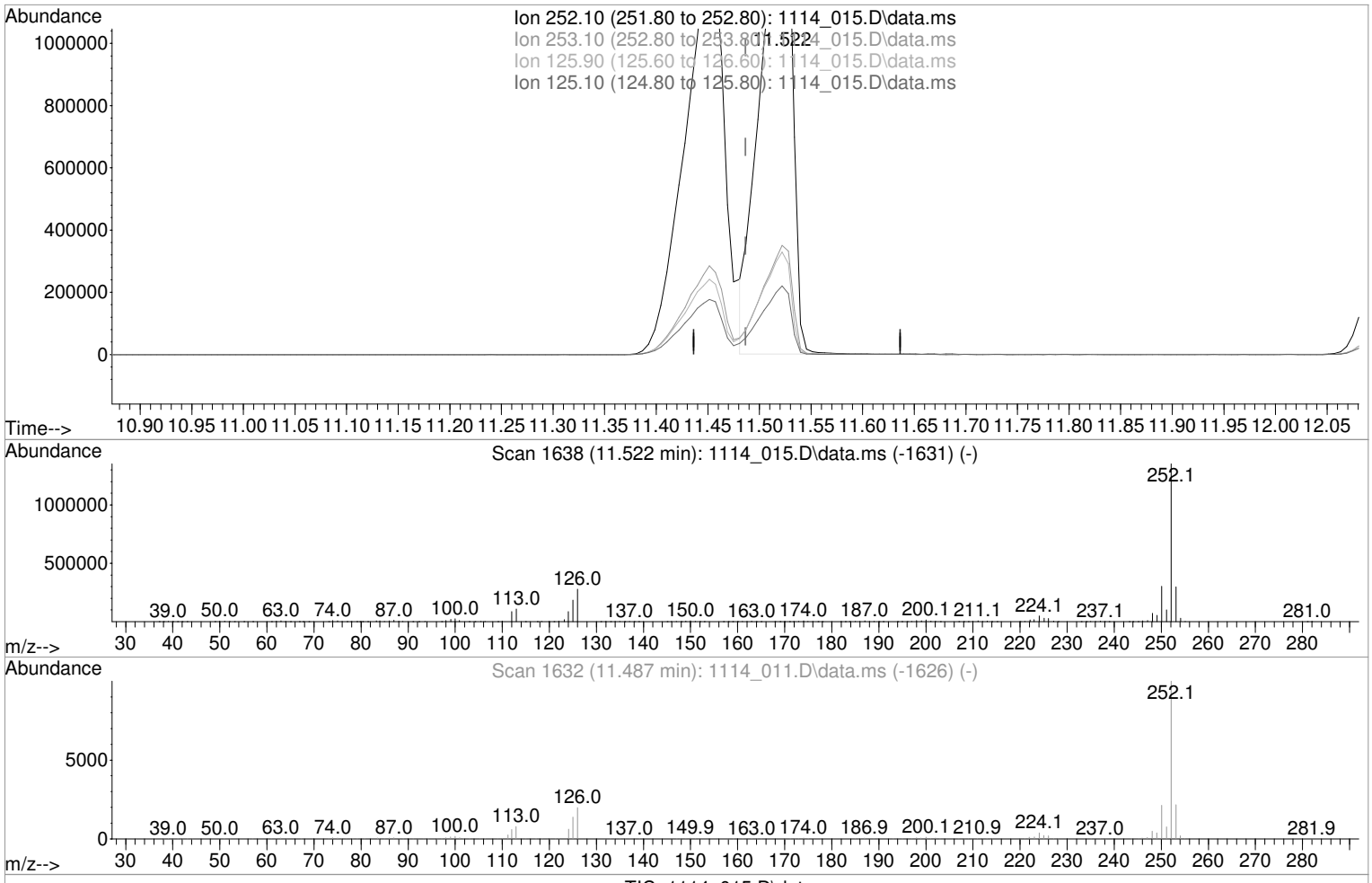
3.764min (+ 0.006) 49103.3231984 ppb m

response 1150696

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.33
54.10	57.00	58.18
98.10	13.50	13.06

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_015.D
Acq On : 14 Nov 2022 10:05 pm
Operator : 917
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration



TIC: 1114_015.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.522min (+ 0.035) 51447.2600841 ppb

Qvalue = 99

response 3237976

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.99
125.90	19.60	20.67
125.10	13.70	13.80

Data Path : C:\GCMS\1\data\111422\
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Acq On : 14 Nov 2022 10:05 pm
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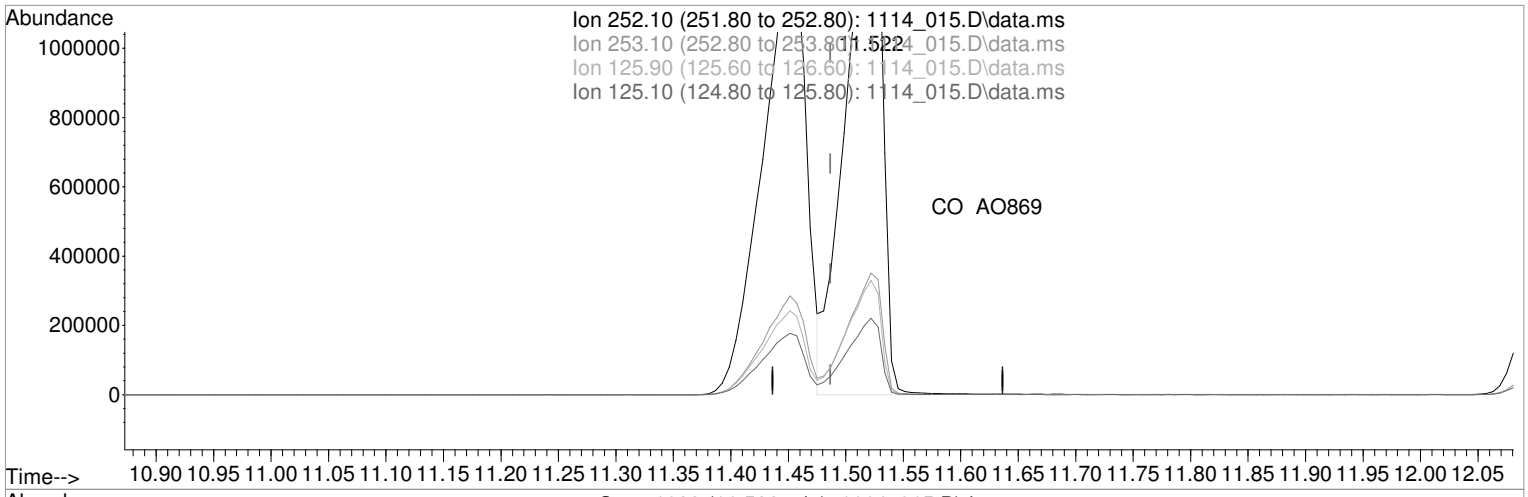
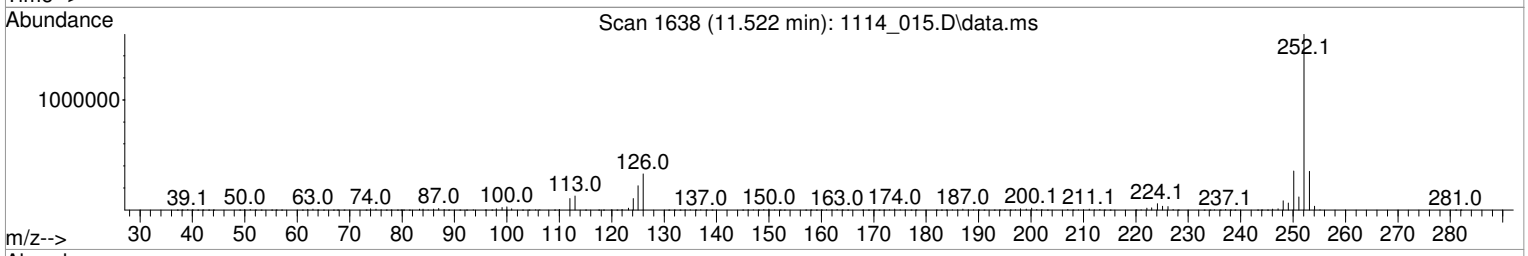
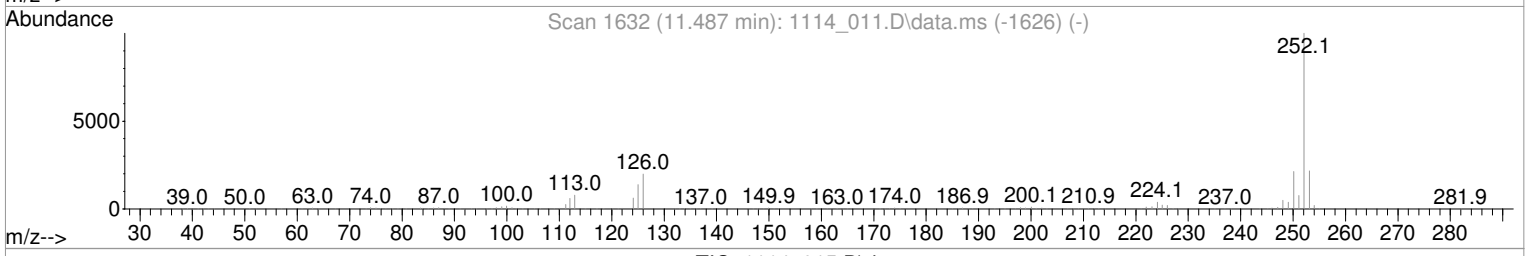
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration







TIC: 1114_015.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.522min (+ 0.035) 52886.1257292 ppb m

response 3328535

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.99
125.90	19.60	20.68
125.10	13.70	13.80

Data Path : C:\GCMS\1\data\111422\
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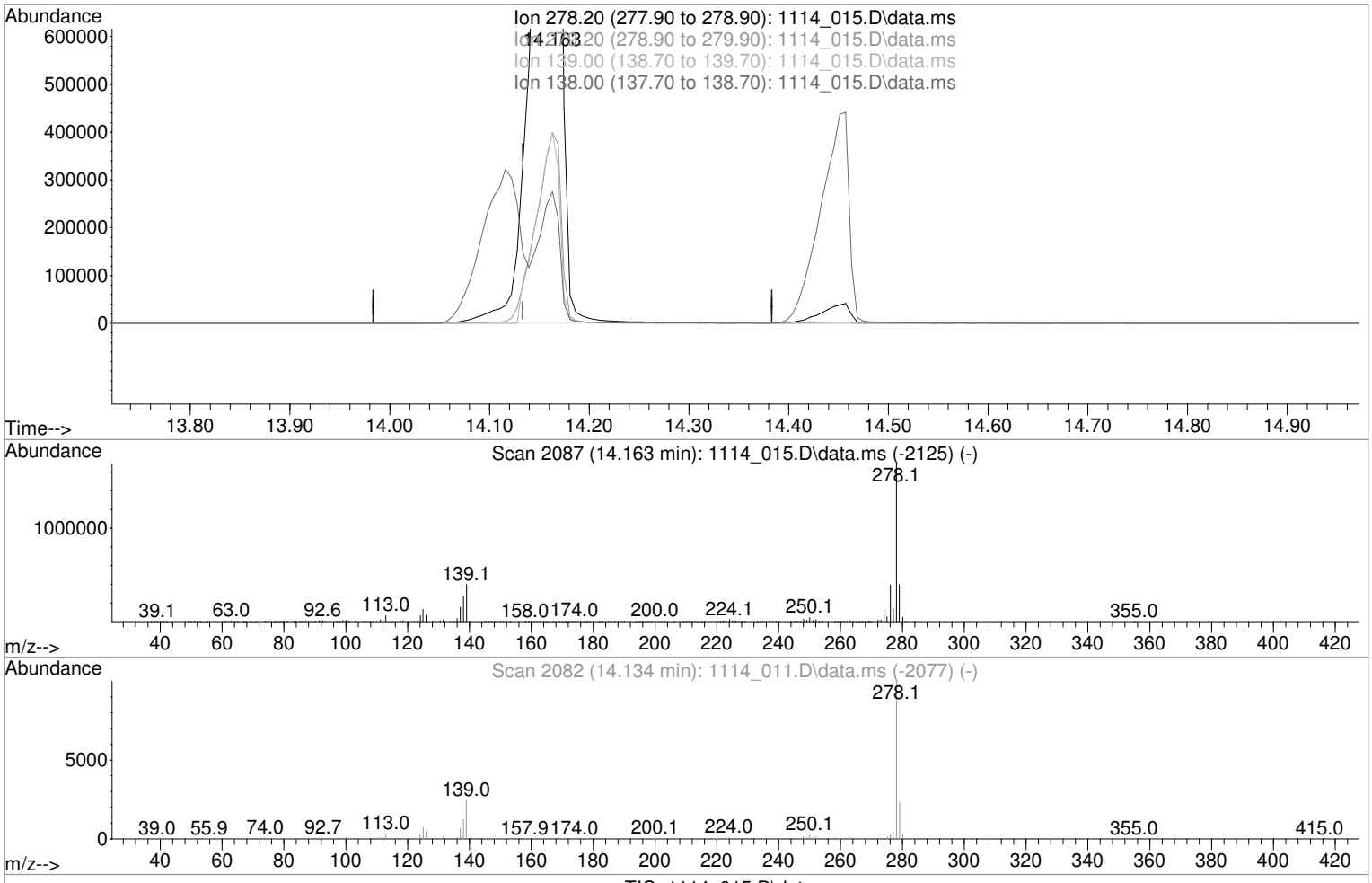
Sample : STD SVMS 50K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration



TIC: 1114_015.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.163min (+ 0.030) 54073.2980767 ppb

Qvalue = 99

response 2999766

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.65
139.00	23.90	23.64
138.00	16.60	16.32

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
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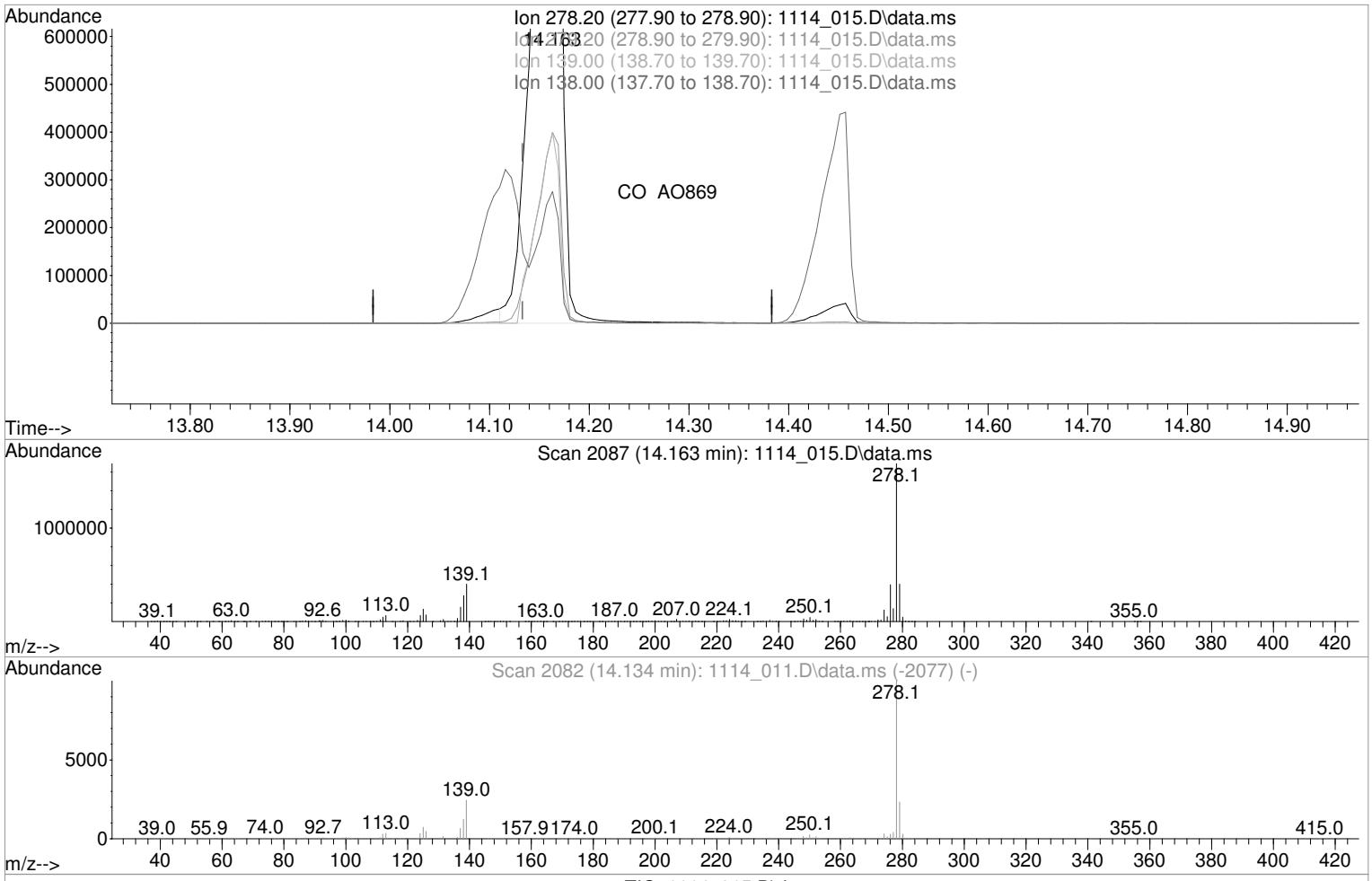
Quant Time: Nov 15 10:39:06 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:39:02 2022
Response via : Initial Calibration



TIC: 1114_015.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.163min (+ 0.030) 53083.7876866 ppb m

response 2944872

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.65
139.00	23.90	23.64
138.00	16.60	16.32

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_016.D
Acq On : 14 Nov 2022 10:26 pm
Operator : 917
Sample : STD TCL 1K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 10:40:48 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:40:44 2022
Response via : Initial Calibration

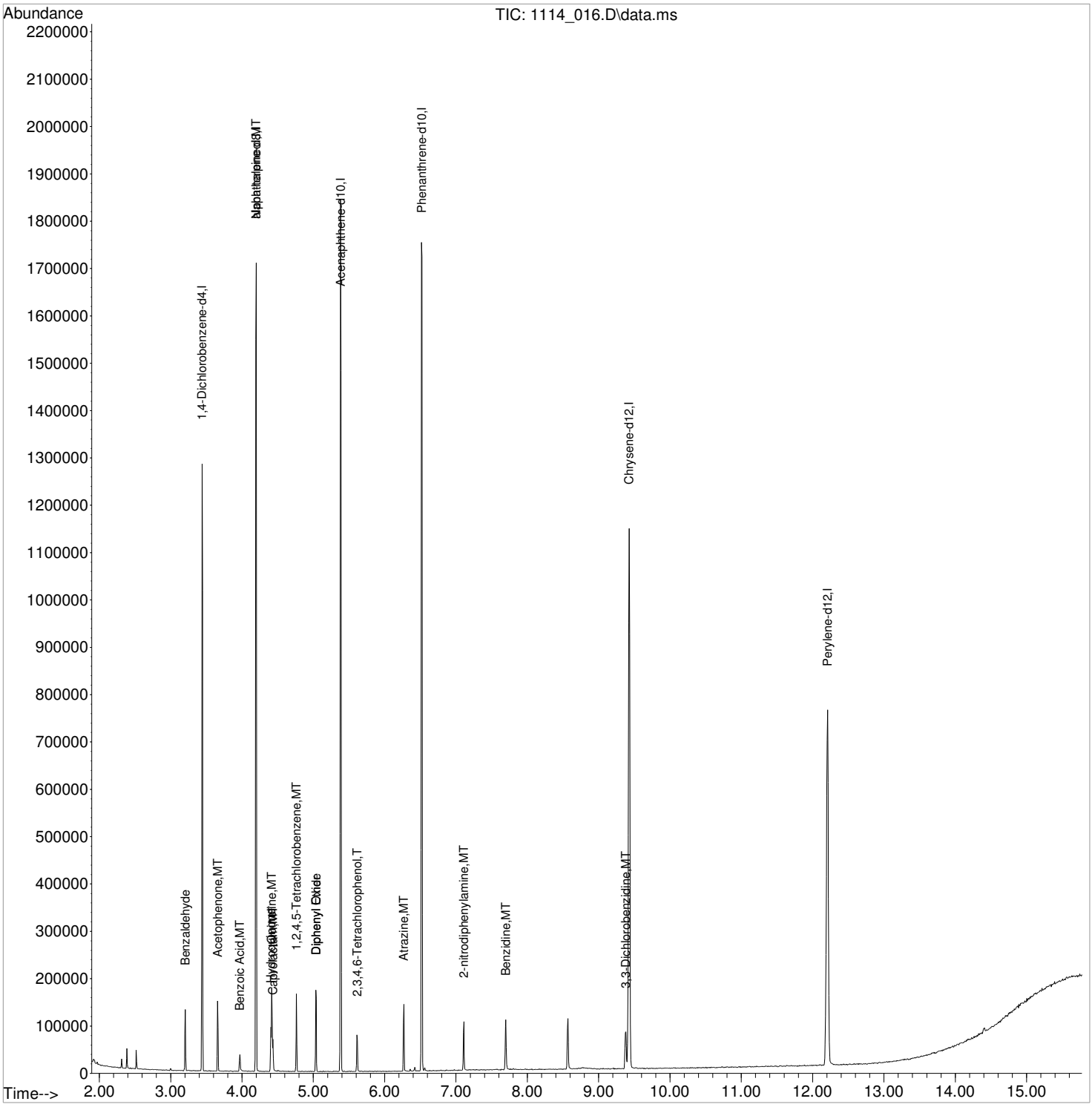
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.440	152	159091	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	631325	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	338996	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.522	188	622326	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	523428	8000.0000000	ppb	0.00
94) Perylene-d12	12.210	264	477771	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0d	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.205	105	18575	1009.6855899	ppb	97
22) Acetophenone	3.658	105	32042	976.5130337	ppb	99
31) Benzoic Acid	3.969	105	8421m	598.9726524	ppb	
33) alpha-terpineol	4.199	59	22612	1077.1082150	ppb	98
37) Hydroquinone	4.405	110	22620	936.0056188	ppb	99
38) Quinoline	4.416	129	48534	1114.5944626	ppb	99
39) Caprolactam	4.434	113	6053	962.8606484	ppb	90
43) 1,2,4,5-Tetrachloroben...	4.764	216	22038	1127.8267402	ppb	98
44) Diphenyl Ether	5.040	170	31955	1076.5718392	ug/ml	97
45) Diphenyl Oxide	5.040	170	31955	1076.5718392	ug/ml	97
62) 2,3,4,6-Tetrachlorophenol	5.616	232	8671	967.9839695	ppb	91
69) Atrazine	6.269	200	12711	867.4407214	ppb #	98
82) 2-nitrodiphenylamine	7.110	167	11085	678.2512625	ppb	90
85) Benzidine	7.699	184	45549	773.8260101	ppb	100
89) 3,3-Dichlorobenzidine	9.381	252	23380	784.4525457	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

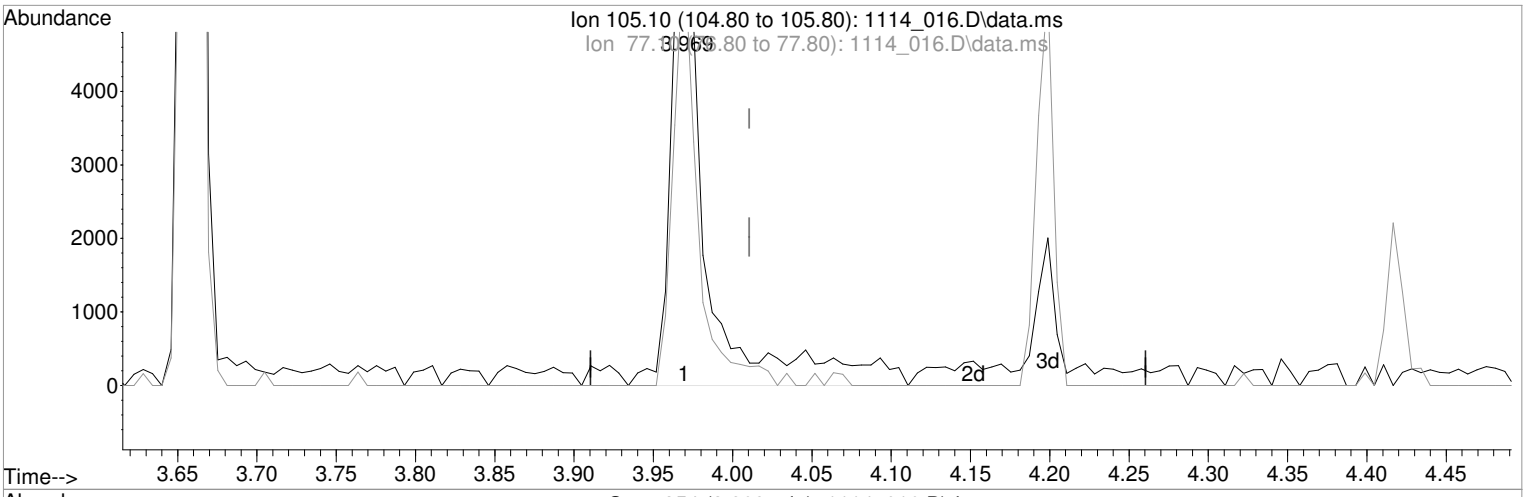
Data Path : C:\GCMS\1\data\111422\
Data File : 1114_016.D
Acq On : 14 Nov 2022 10:26 pm
Operator : 917
Sample : STD TCL 1K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 13 Sample Multiplier: 1

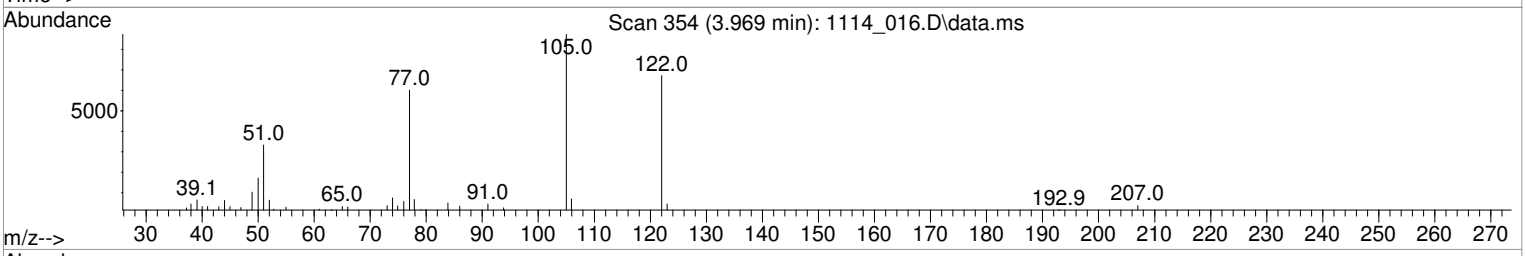
Quant Time: Nov 15 10:40:48 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:40:44 2022
Response via : Initial Calibration

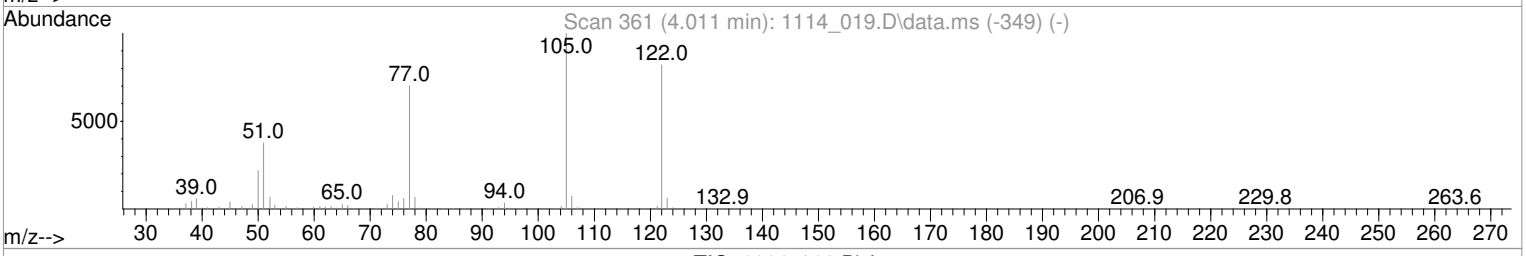


Data Path : C:\GCMS\1\data\111422\
Data File : 1114_016.D
Acq On : 14 Nov 2022 10:26 pm
Operator : 917
Sample : STD TCL 1K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 10:40:48 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:40:44 2022
Response via : Initial Calibration







TIC: 1114_016.D\data.ms

(31) Benzoic Acid (MT)

3.969min (-0.041) 768.8985124 ppb

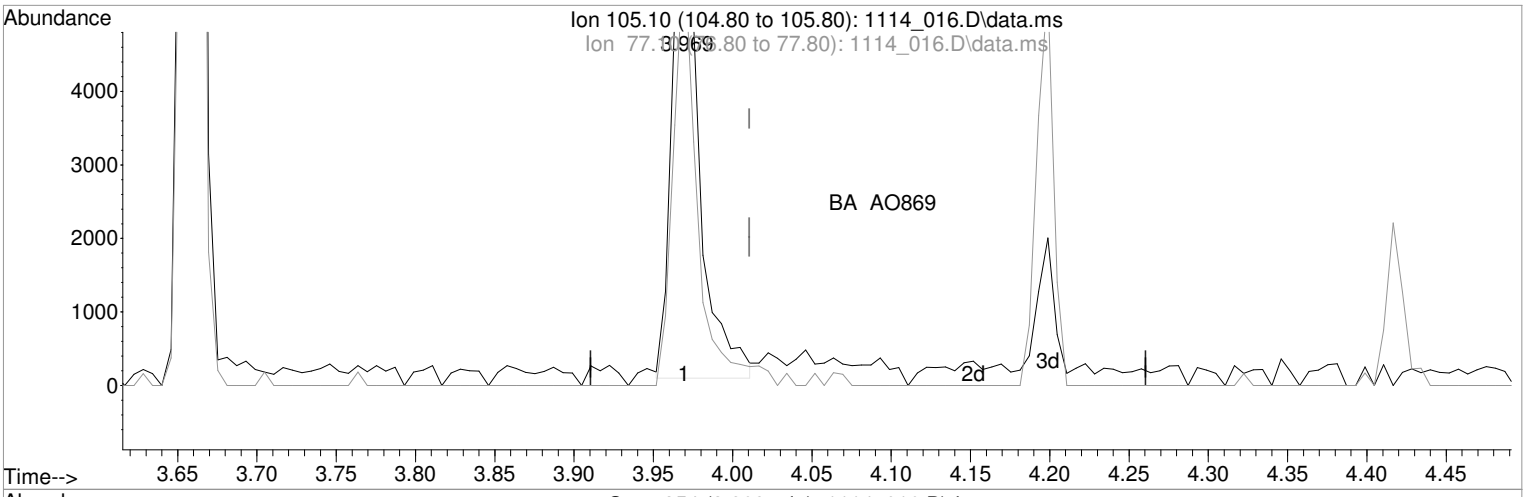
Qvalue = 87

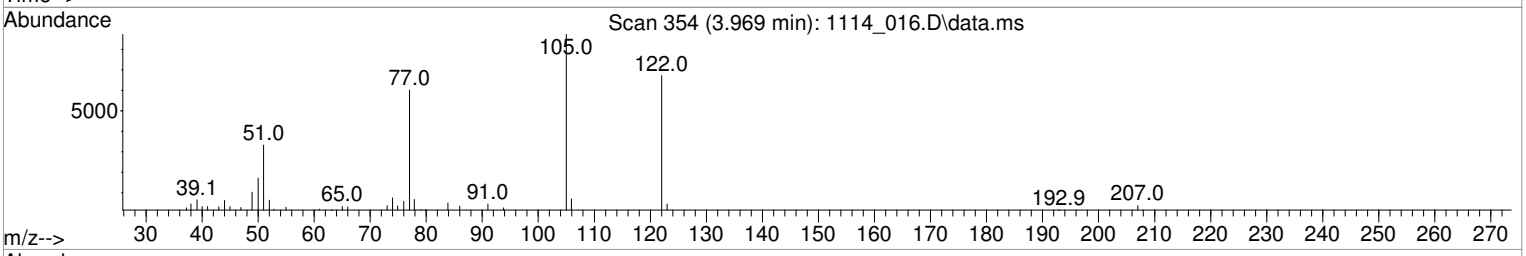
response 10810

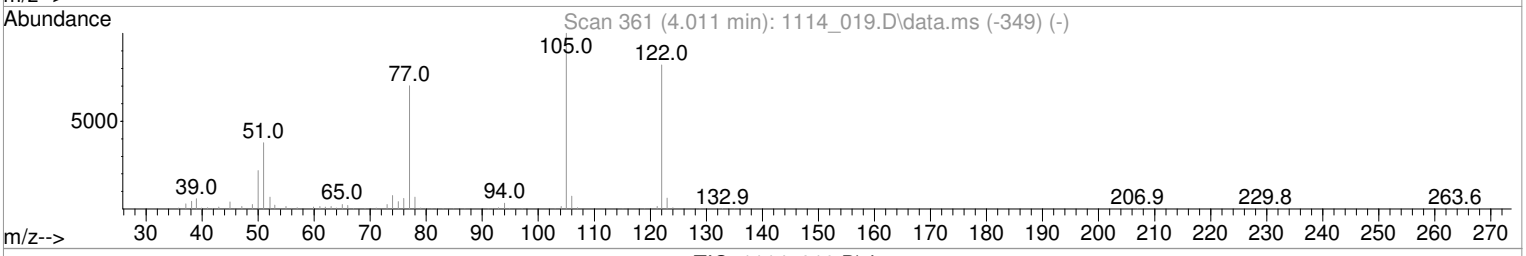
Ion	Exp%	Act%
105.10	100.00	100.00
77.10	67.90	57.19
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_016.D
Acq On : 14 Nov 2022 10:26 pm
Operator : 917
Sample : STD TCL 1K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 10:40:48 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:40:44 2022
Response via : Initial Calibration







TIC: 1114_016.D\data.ms

(31) Benzoic Acid (MT)

3.969min (-0.041) 598.9726524 ppb m

response	8421	
Ion	Exp%	Act%
105.10	100.00	100.00
77.10	67.90	73.41
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_017.D
Acq On : 14 Nov 2022 10:47 pm
Operator : 917
Sample : STD TCL 2K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 14 Sample Multiplier: 1

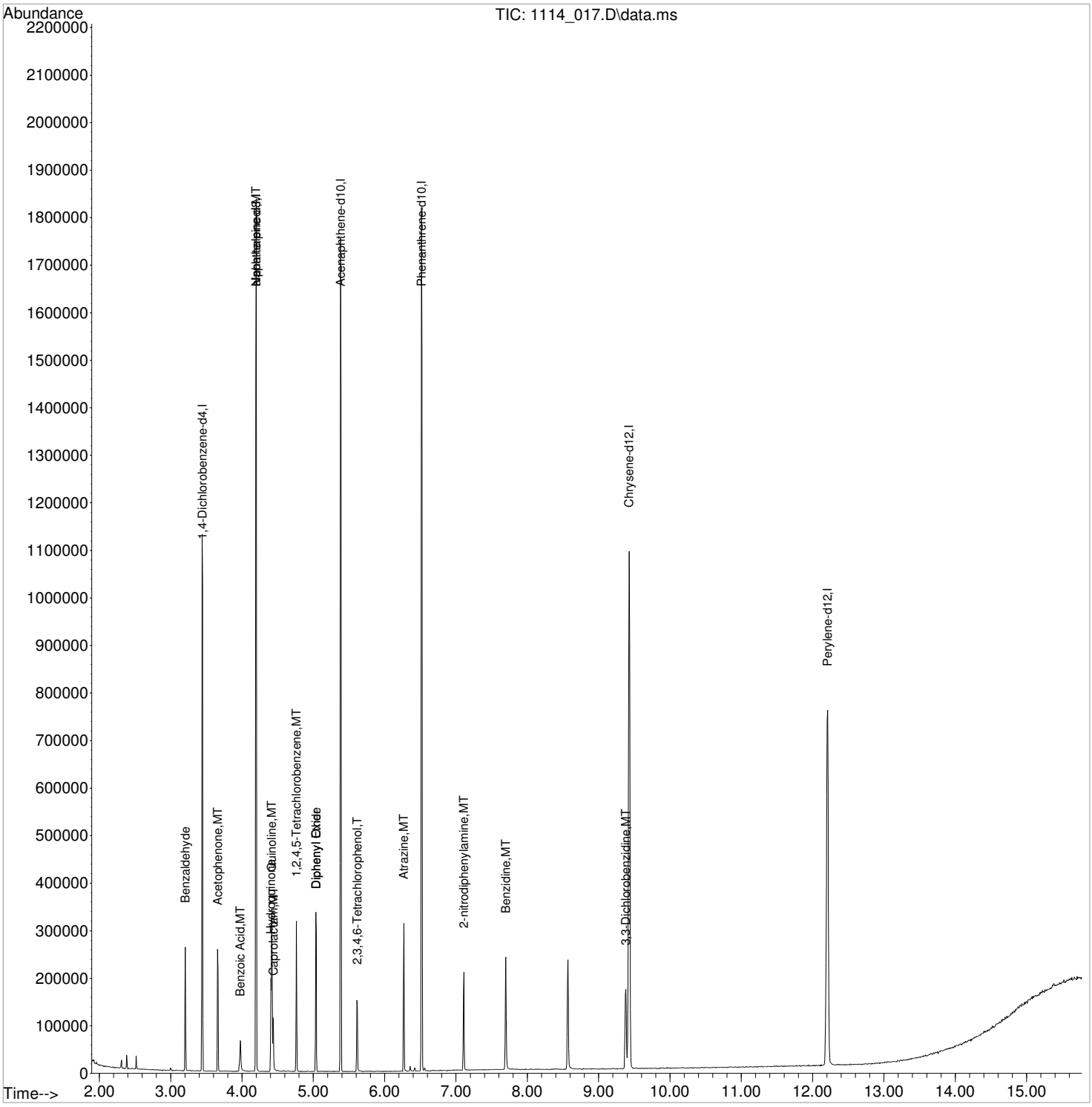
Quant Time: Nov 15 10:41:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:41:53 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	147888	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	587389	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	326340	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.516	188	598971	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	508684	8000.0000000	ppb	0.00
94) Perylene-d12	12.210	264	475620	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.205	105	34472	2006.0343714	ppb	98
22) Acetophenone	3.658	105	60102	1993.8401698	ppb	98
31) Benzoic Acid	3.975	105	21906	2094.7034494	ppb	97
33) alpha-terpineol	4.199	59	41820	2061.5906713	ppb	99
37) Hydroquinone	4.405	110	46835	2151.8249570	ppb	99
38) Quinoline	4.416	129	91739	2141.6814758	ppb	98
39) Caprolactam	4.440	113	12026	2094.9886226	ppb	90
43) 1,2,4,5-Tetrachloroben...	4.763	216	41121	2125.9585243	ppb	99
44) Diphenyl Ether	5.040	170	62017	2162.8438257	ug/ml	98
45) Diphenyl Oxide	5.040	170	62017	2162.8438257	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.616	232	16774	1976.8254396	ppb	99
69) Atrazine	6.269	200	24947	1894.0256217	ppb #	97
82) 2-nitrodiphenylamine	7.110	167	22881	1733.4649998	ppb	95
85) Benzidine	7.699	184	96512	1902.2764969	ppb	100
89) 3,3-Dichlorobenzidine	9.381	252	49262	1906.1982893	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_017.D
Acq On : 14 Nov 2022 10:47 pm
Operator : 917
Sample : STD TCL 2K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 15 10:41:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:41:53 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_018.D
Acq On : 14 Nov 2022 11:08 pm
Operator : 917
Sample : STD TCL 5K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 15 Sample Multiplier: 1

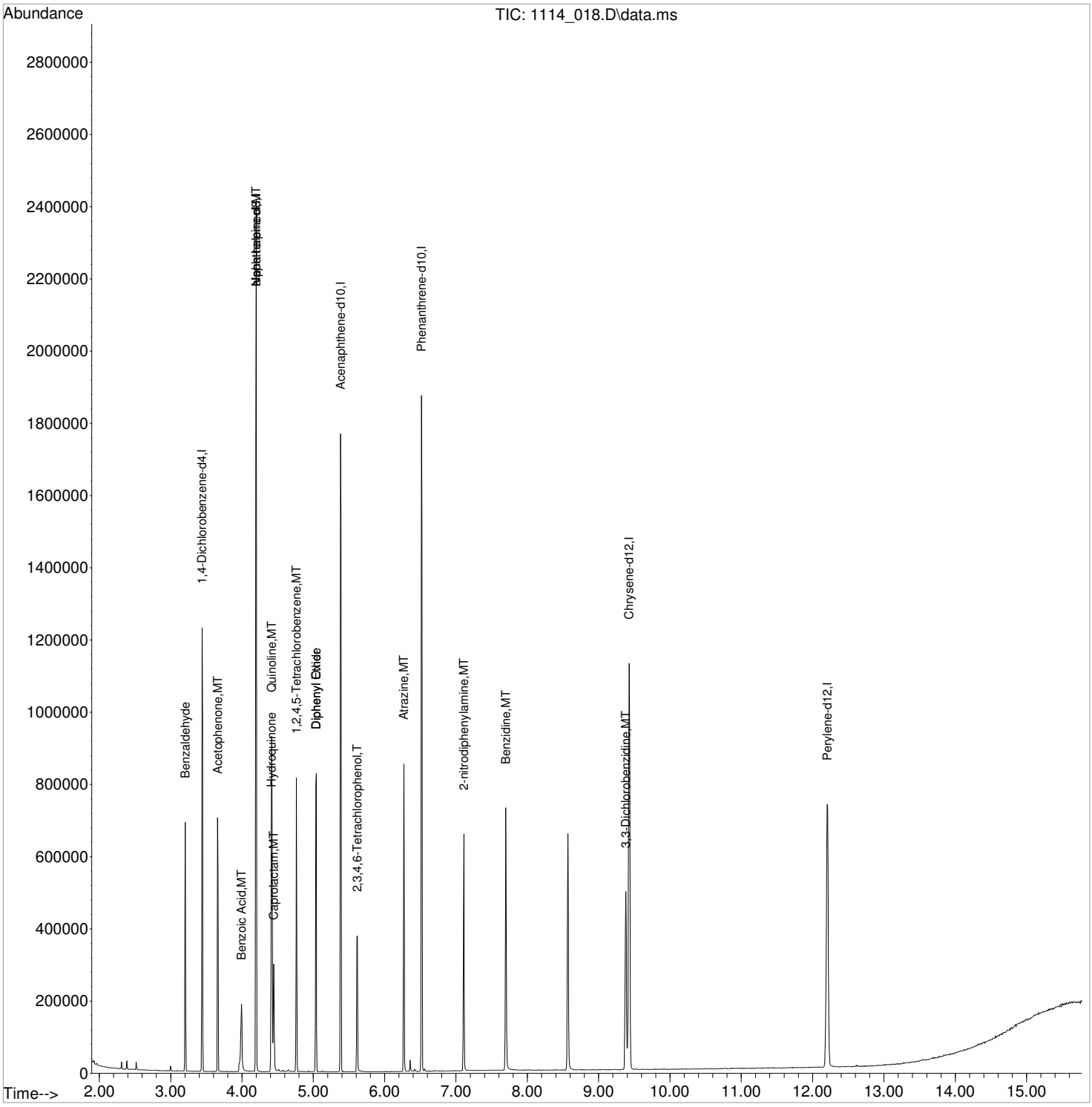
Quant Time: Nov 15 10:44:41 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:44:38 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.440	152	151875	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	635250	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	329483	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.516	188	613691	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	514708	8000.0000000	ppb	0.00
94) Perylene-d12	12.204	264	472252	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.205	105	92932	5260.7450413	ppb	97
22) Acetophenone	3.658	105	159515	5158.1703729	ppb	100
31) Benzoic Acid	3.993	105	70451	6132.3429330	ppb	99
33) alpha-terpineol	4.199	59	111764	5042.7347952	ppb	99
37) Hydroquinone	4.411	110	127085	5265.7365262	ppb	97
38) Quinoline	4.417	129	237540	5009.3655825	ppb	98
39) Caprolactam	4.446	113	31715	5029.0351562	ppb	97
43) 1,2,4,5-Tetrachloroben...	4.764	216	107437	5030.4093441	ppb	99
44) Diphenyl Ether	5.040	170	162071	5088.2793058	ug/ml	99
45) Diphenyl Oxide	5.040	170	162071	5088.2793058	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.616	232	43884	5142.2817110	ppb	95
69) Atrazine	6.269	200	70744	5415.4389363	ppb #	99
82) 2-nitrodiphenylamine	7.111	167	71772	5553.7362502	ppb	97
85) Benzidine	7.699	184	274284	5431.3984002	ppb	100
89) 3,3-Dichlorobenzidine	9.381	252	139346	5413.5347421	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_018.D
Acq On : 14 Nov 2022 11:08 pm
Operator : 917
Sample : STD TCL 5K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 15 10:44:41 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:44:38 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_019.D
Acq On : 14 Nov 2022 11:29 pm
Operator : 917
Sample : MSTD TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 16 Sample Multiplier: 1

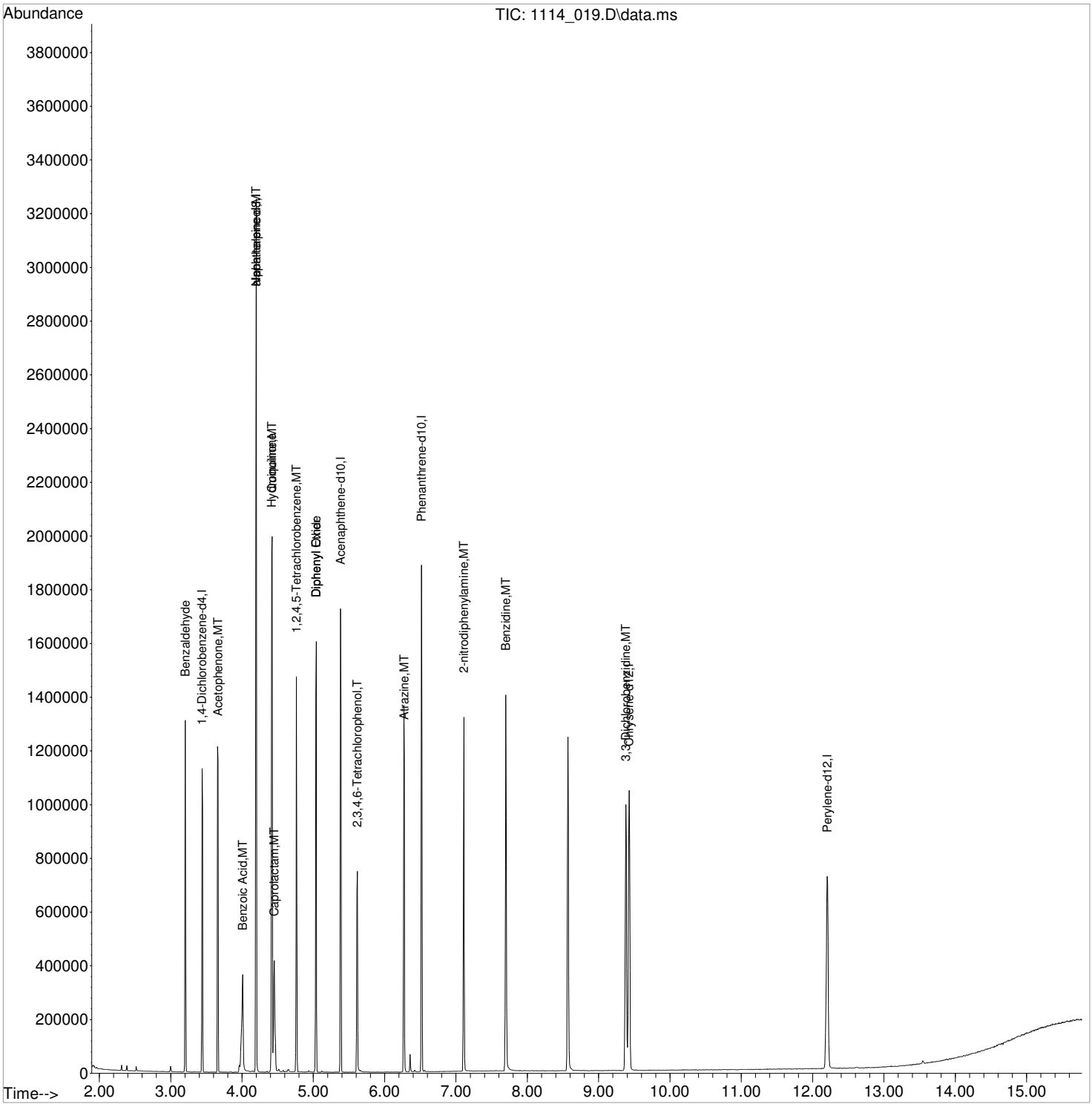
Quant Time: Nov 15 10:07:35 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:07:28 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.440	152	144554	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	636881	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	310394	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.516	188	567292	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	484450	8000.0000000	ppb	0.00
94) Perylene-d12	12.204	264	452673	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.205	105	167158	10000.0000000	ppb	100
22) Acetophenone	3.664	105	298144	9997.8203206	ppb	100
31) Benzoic Acid	4.011	105	141828	10658.8707435	ppb	97
33) alpha-terpineol	4.199	59	211780	10000.0000000	ppb	100
37) Hydroquinone	4.416	110	243792	9898.7356163	ppb	100
38) Quinoline	4.422	129	439273	10000.0000000	ppb	100
39) Caprolactam	4.452	113	63418	10000.0000000	ppb	98
43) 1,2,4,5-Tetrachloroben...	4.763	216	197122	10000.0000000	ppb	100
44) Diphenyl Ether	5.040	170	299434	10000.0000000	ug/ml	100
45) Diphenyl Oxide	5.040	170	299434	10000.0000000	ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.616	232	82020	9974.3405772	ppb	100
69) Atrazine	6.275	200	134171	10000.0745323	ppb #	100
82) 2-nitrodiphenylamine	7.110	167	148982	10000.0000000	ppb	100
85) Benzidine	7.699	184	544788	13249.1785679	ppb	100
89) 3,3-Dichlorobenzidine	9.381	252	275848	10004.1283930	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_019.D
Acq On : 14 Nov 2022 11:29 pm
Operator : 917
Sample : MSTD TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 15 10:07:35 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:07:28 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

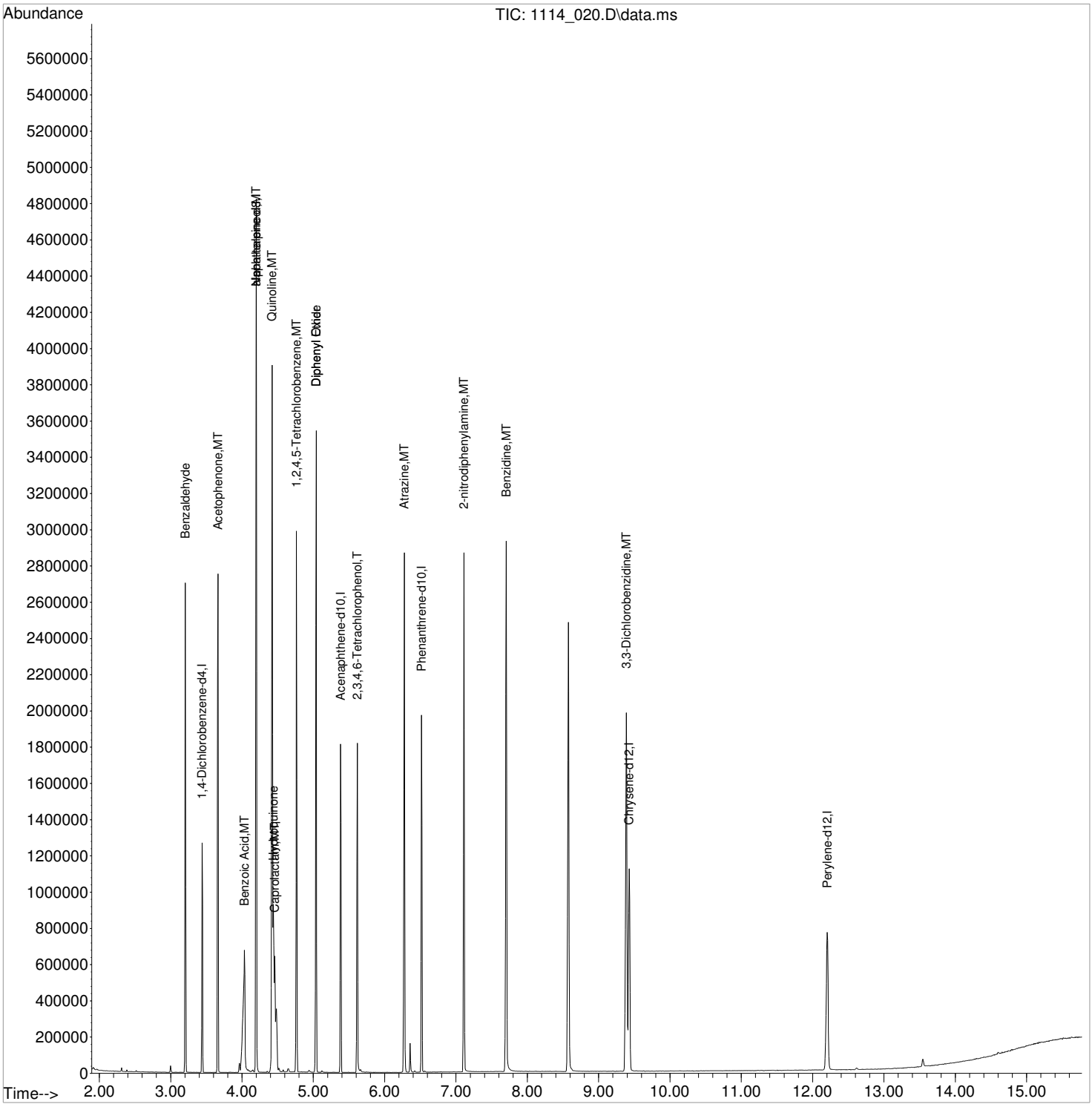
Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.440	152	152262	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	752937	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	327585	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.516	188	599804	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	511859	8000.0000000	ppb	0.00
94) Perylene-d12	12.204	264	479908	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.205	105	358164	19963.3420248	ppb	99
22) Acetophenone	3.664	105	646840	20699.7293934	ppb	99
31) Benzoic Acid	4.034	105	332594m	23116.4990756	ppb	
33) alpha-terpineol	4.199	59	445480	16921.9907405	ppb	98
37) Hydroquinone	4.440	110	522255m	18017.7715628	ppb	
38) Quinoline	4.422	129	930787	16553.0869166	ppb	99
39) Caprolactam	4.458	113	144886	19355.4101999	ppb #	73
43) 1,2,4,5-Tetrachloroben...	4.764	216	413441	16307.5681336	ppb	99
44) Diphenyl Ether	5.040	170	617834	16293.3627657	ug/ml	99
45) Diphenyl Oxide	5.040	170	617834	16293.3627657	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.616	232	180640	21139.4613745	ppb	99
69) Atrazine	6.275	200	290916	21942.7945513	ppb #	98
82) 2-nitrodiphenylamine	7.110	167	339922	26187.2014360	ppb	97
85) Benzidine	7.705	184	1191902	23232.4072542	ppb	100
89) 3,3-Dichlorobenzidine	9.387	252	604092	23121.2795207	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

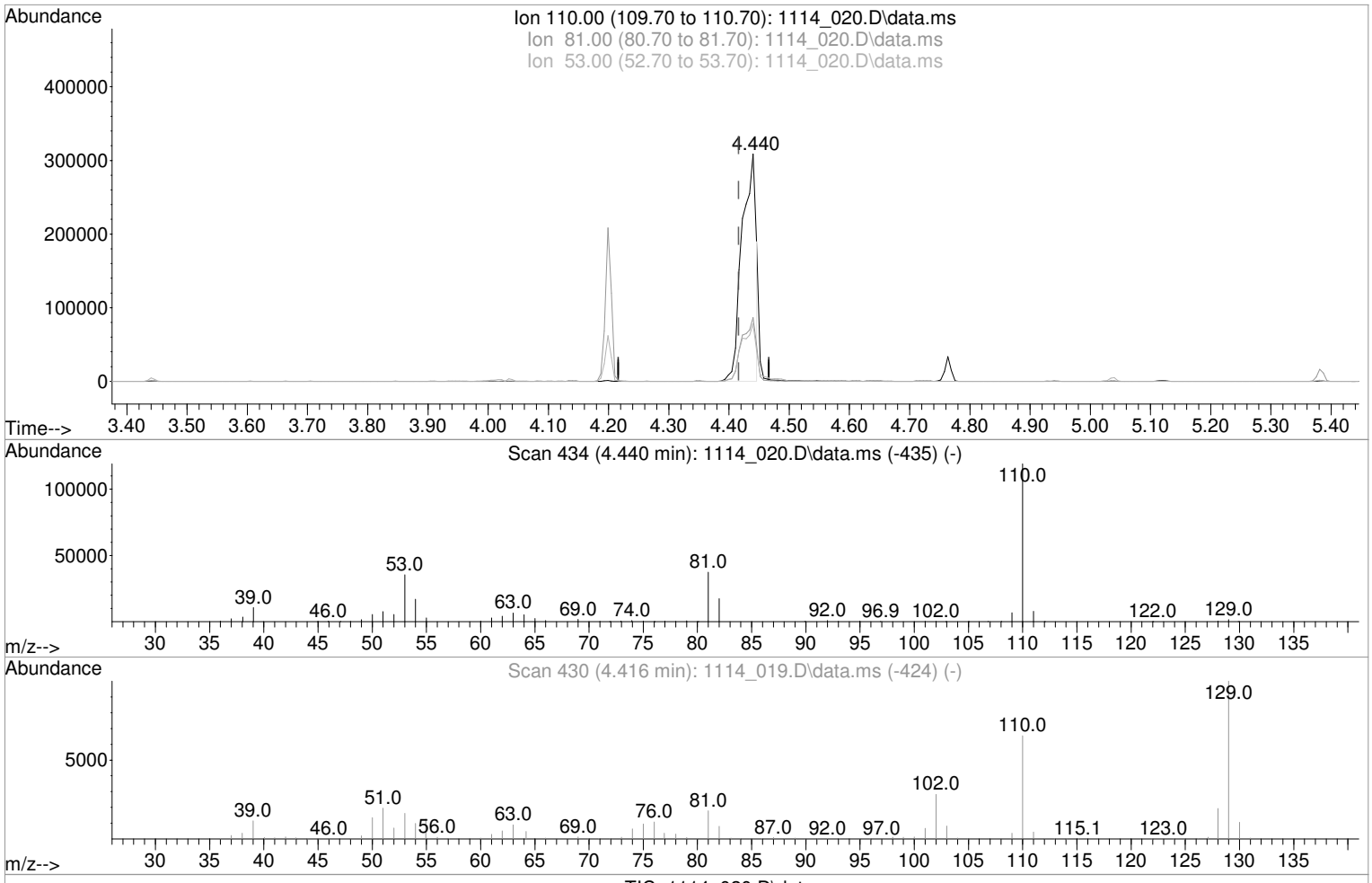
Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration



TIC: 1114_020.D\data.ms

(37) Hydroquinone

4.440min (+ 0.024) 17496.4083133 ppb

Qvalue = 99

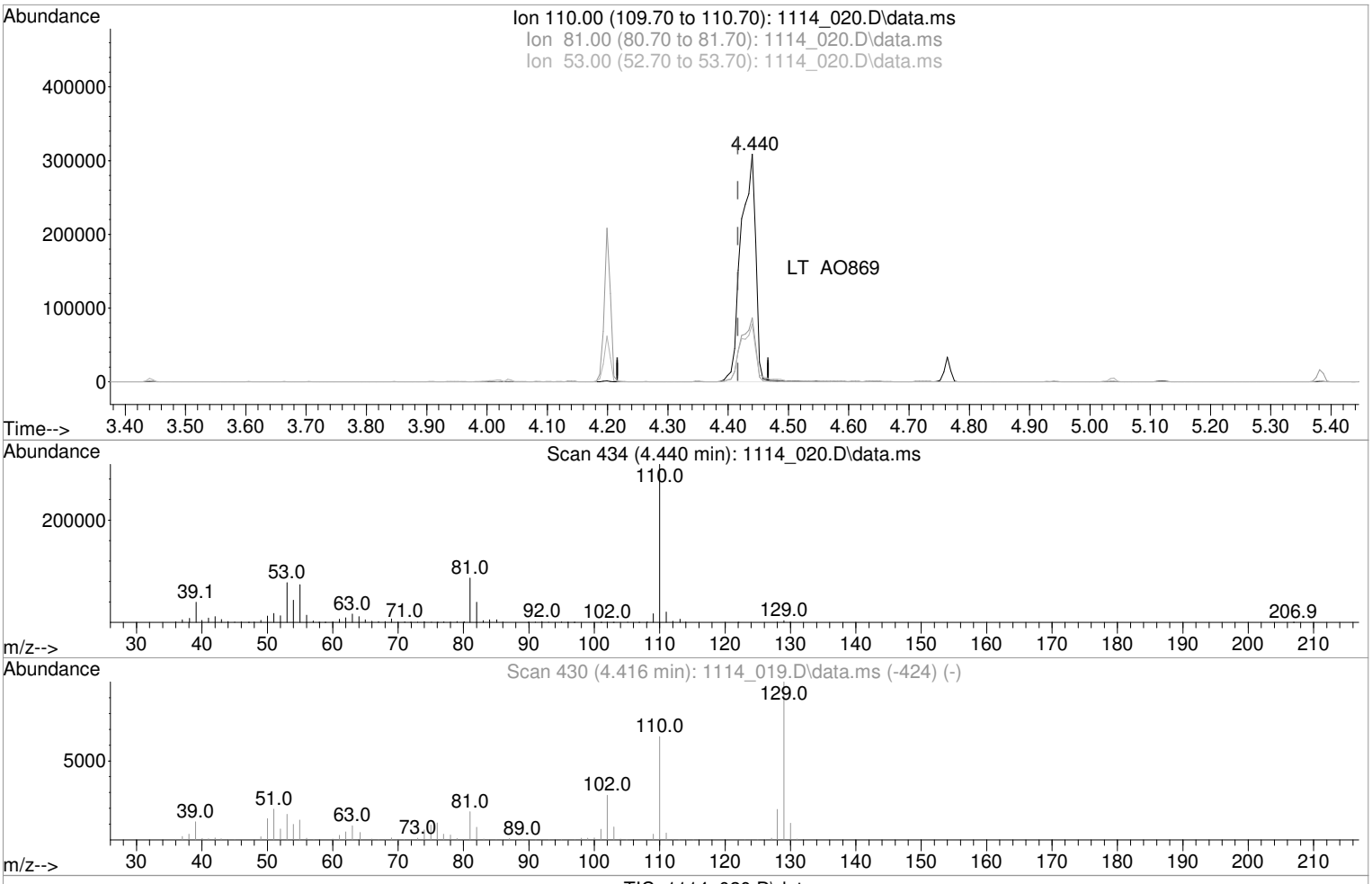
response 507143

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	28.12
53.00	24.80	25.25
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration



TIC: 1114_020.D\data.ms

(37) Hydroquinone

4.440min (+ 0.024) 18017.7715628 ppb m

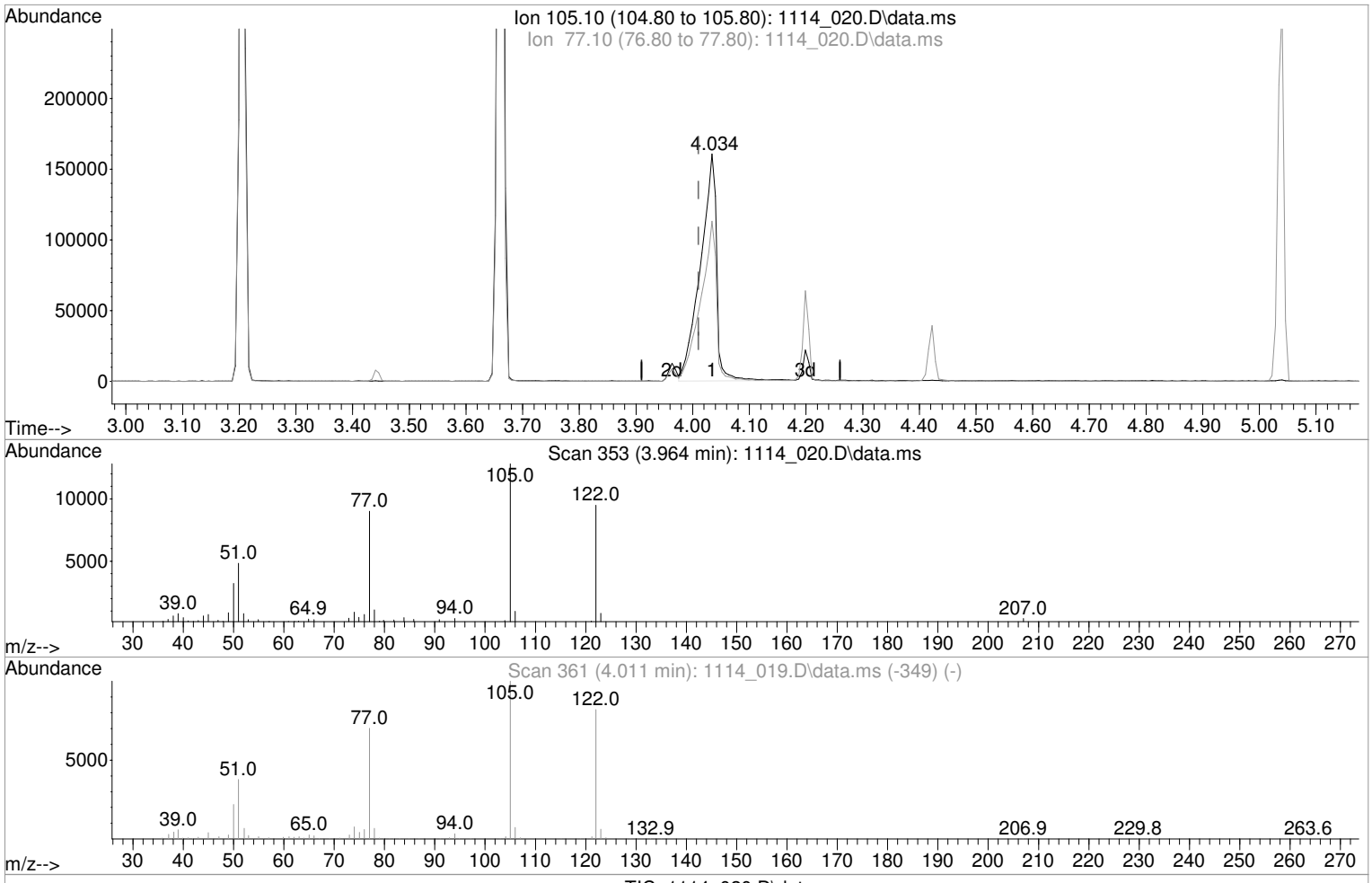
response 522255

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	28.12
53.00	24.80	25.25
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration



TIC: 1114_020.D\data.ms

(31) Benzoic Acid (MT)

4.034min (+ 0.024) 22209.1983458 ppb

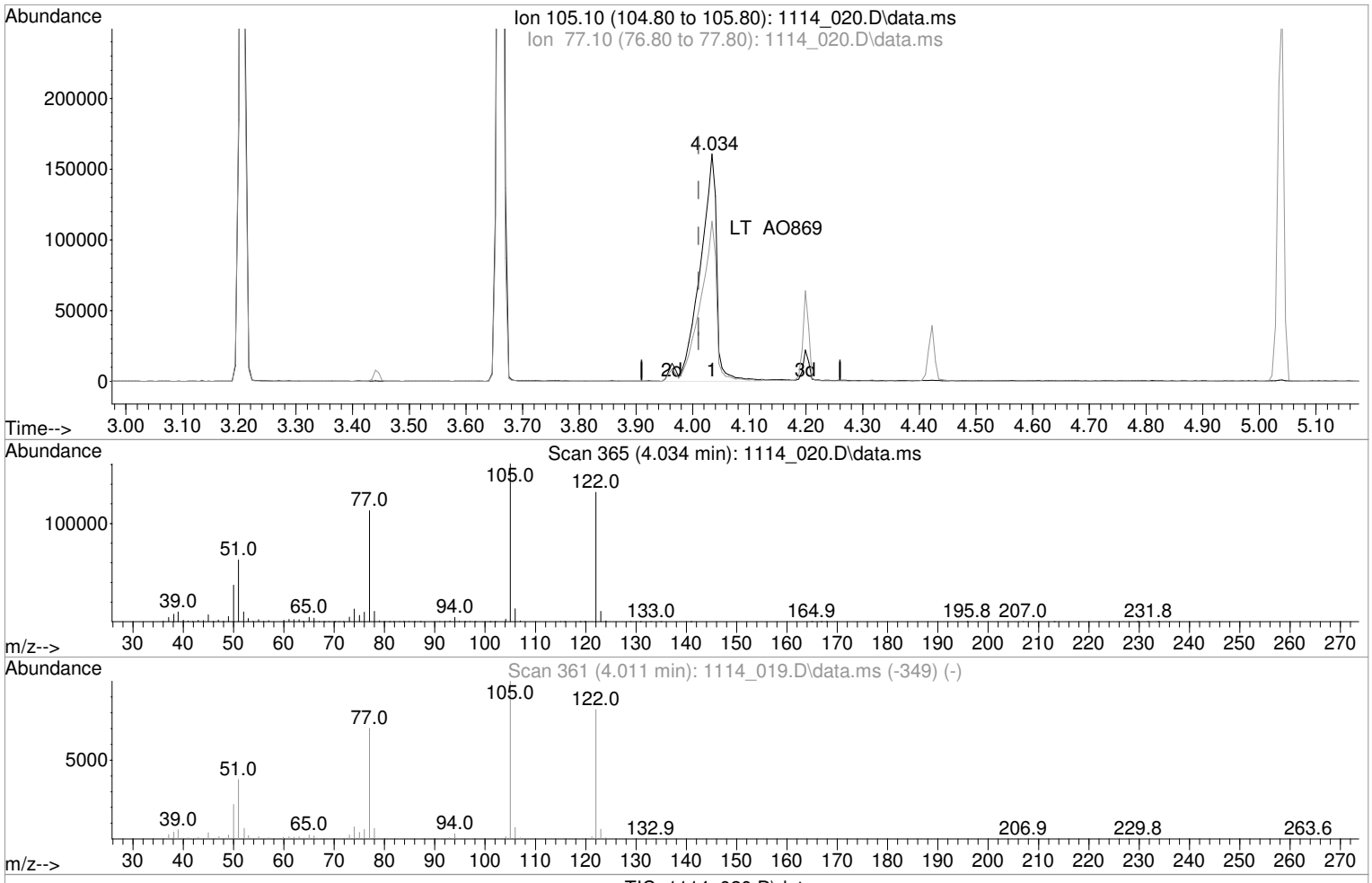
Qvalue = 99

response 319540

Ion	Exp%	Act%
105.10	100.00	100.00
77.10	67.90	69.01
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_020.D
Acq On : 14 Nov 2022 11:50 pm
Operator : 917
Sample : STD TCL 20K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 15 10:45:42 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:45:37 2022
Response via : Initial Calibration



TIC: 1114_020.D\data.ms

(31) Benzoic Acid (MT)

4.034min (+ 0.024) 23116.4990756 ppb m

response	332594	
Ion	Exp%	Act%
105.10	100.00	100.00
77.10	67.90	66.30
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_021.D
Acq On : 15 Nov 2022 12:11 am
Operator : 917
Sample : STD TCL 30K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:47:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:47:55 2022
Response via : Initial Calibration

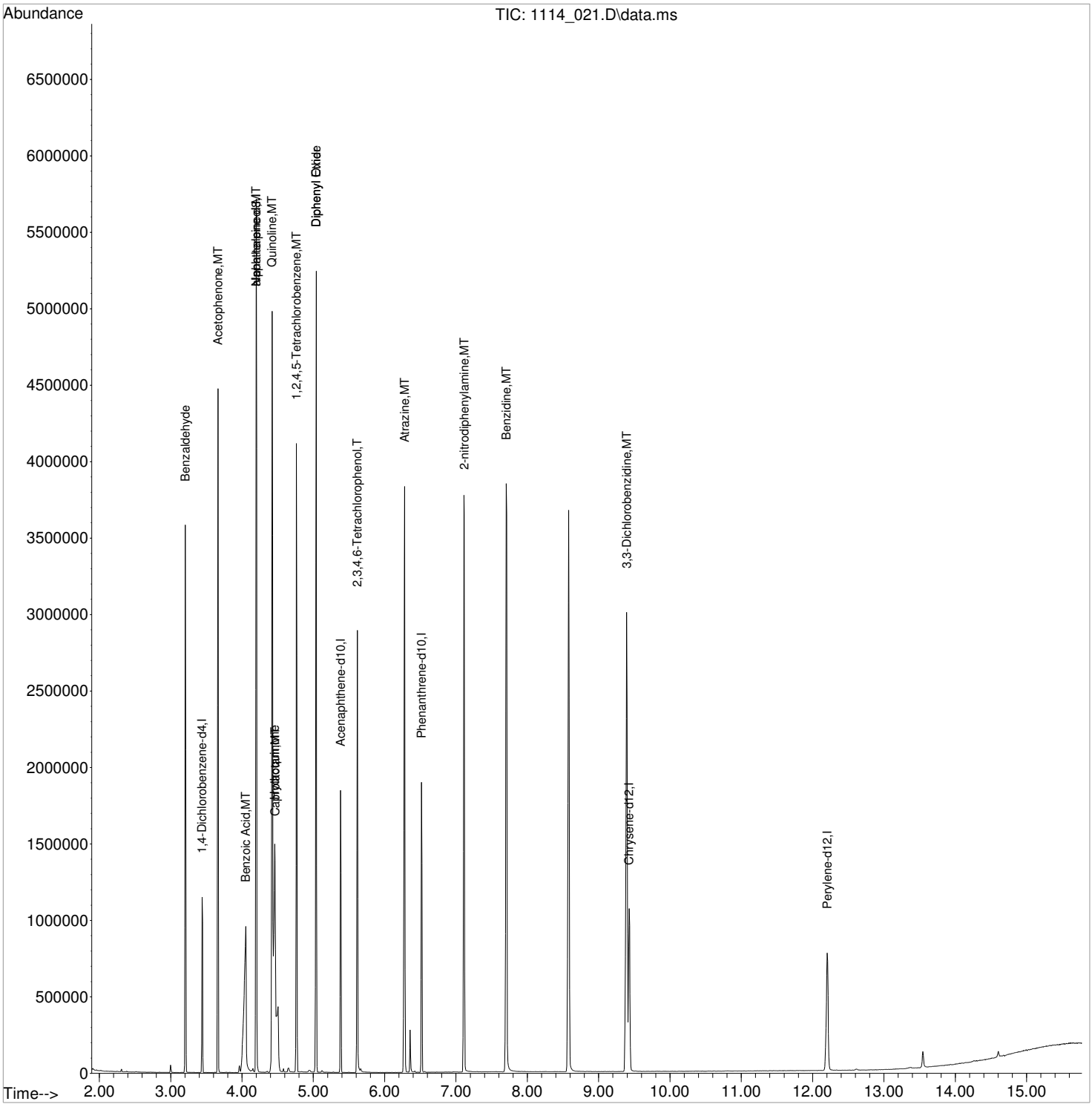
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.440	152	146481	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	799069	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.381	164	322169	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.516	188	591072	8000.0000000	ppb		0.00
84) Chrysene-d12	9.428	240	506526	8000.0000000	ppb		0.00
94) Perylene-d12	12.204	264	473846	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
7) Phenol-d5	0.000	99	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#			
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb		
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#			
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#			
Target Compounds							Qvalue
9) Benzaldehyde	3.205	105	507165	29394.7693812	ppb		99
22) Acetophenone	3.664	105	934748	30877.6524468	ppb		100
31) Benzoic Acid	4.052	105	518992	32962.0726567	ppb		98
33) alpha-terpineol	4.199	59	641858	23703.5957349	ppb		96
37) Hydroquinone	4.458	110	789250m	26175.9584534	ppb		
38) Quinoline	4.422	129	1354043	23500.0797635	ppb		99
39) Caprolactam	4.464	113	222323	28167.1682120	ppb	#	72
43) 1,2,4,5-Tetrachloroben...	4.764	216	597792	23069.5805483	ppb		100
44) Diphenyl Ether	5.040	170	898026	23174.2579556	ug/ml		99
45) Diphenyl Oxide	5.040	170	898026	23174.2579556	ug/ml		99
62) 2,3,4,6-Tetrachlorophenol	5.616	232	278851	32807.4005488	ppb		95
69) Atrazine	6.281	200	427652	32173.5186743	ppb	#	100
82) 2-nitrodiphenylamine	7.116	167	531918	39160.7768463	ppb		97
85) Benzidine	7.705	184	1820504	34735.8433571	ppb		100
89) 3,3-Dichlorobenzidine	9.393	252	919835	34499.9939122	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_021.D
Acq On : 15 Nov 2022 12:11 am
Operator : 917
Sample : STD TCL 30K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 18 Sample Multiplier: 1

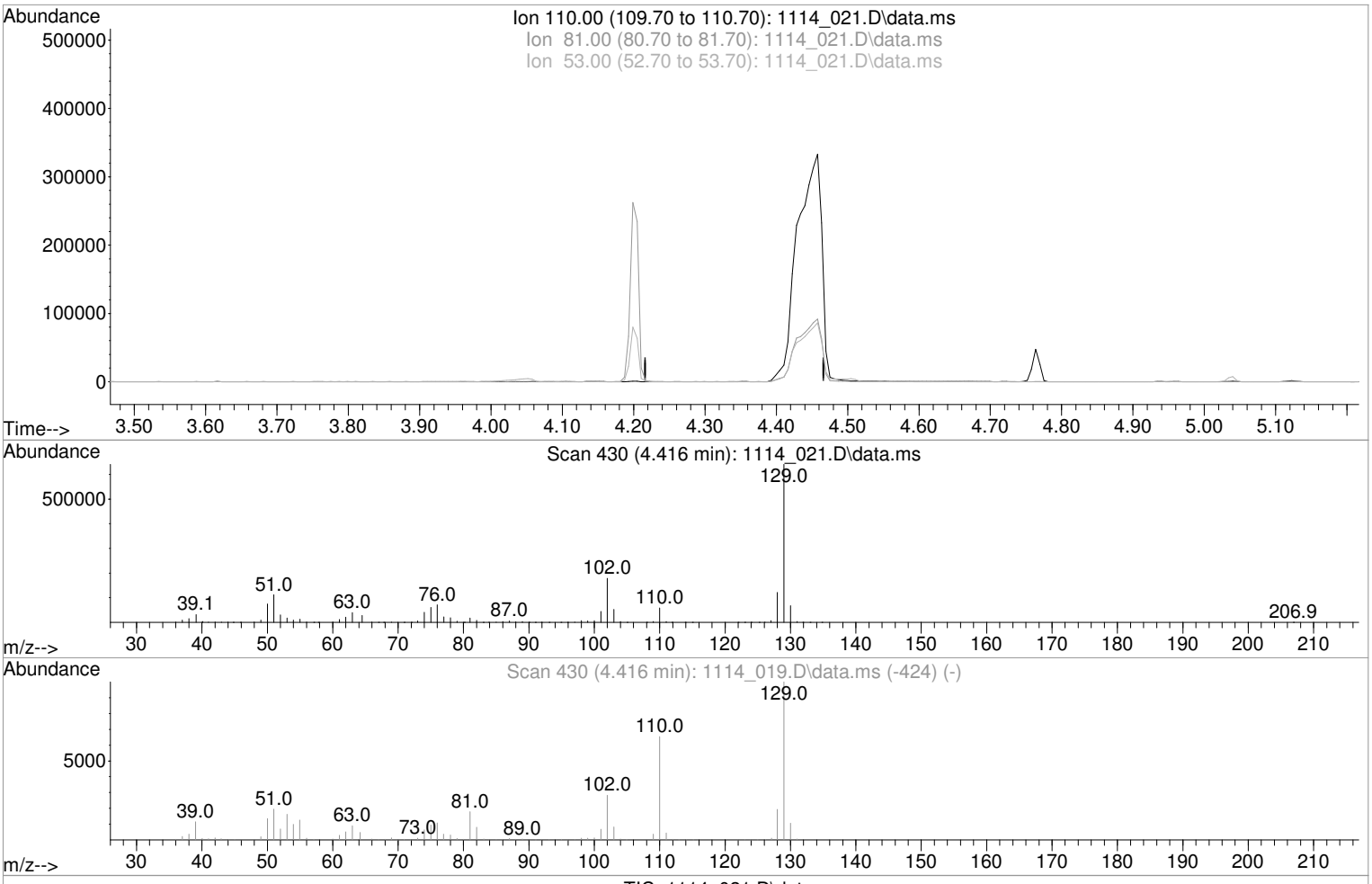
Quant Time: Nov 15 10:47:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:47:55 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_021.D
Acq On : 15 Nov 2022 12:11 am
Operator : 917
Sample : STD TCL 30K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:47:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:47:55 2022
Response via : Initial Calibration



TIC: 1114_021.D\data.ms

(37) Hydroquinone

4.416min (-4.416) 0.0000000 ppb

Qvalue = 0

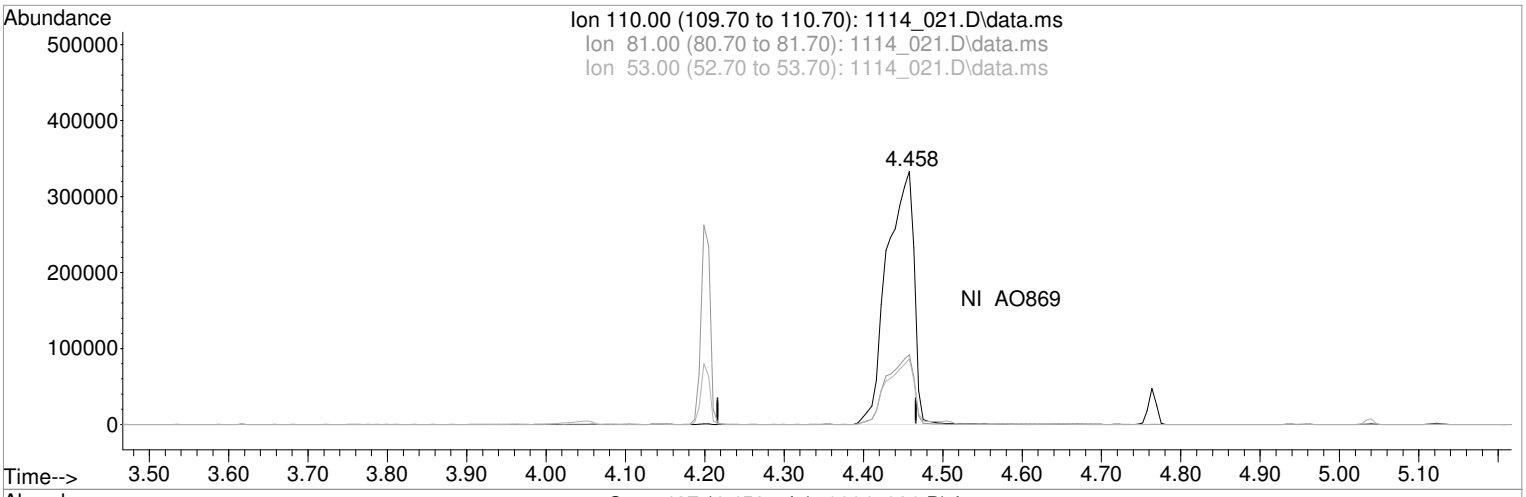
response 0

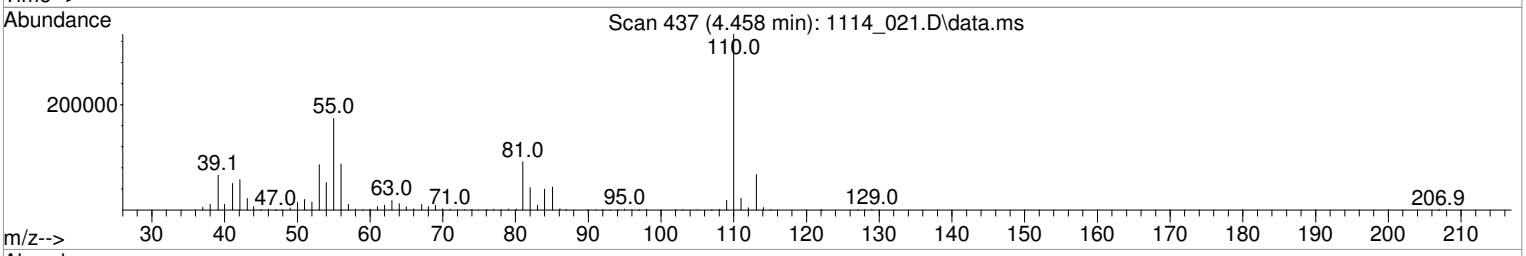
Ion	Exp%	Act%
110.00	100.00	0.00
81.00	27.50	0.00#
53.00	24.80	0.00#
0.00	0.00	0.00

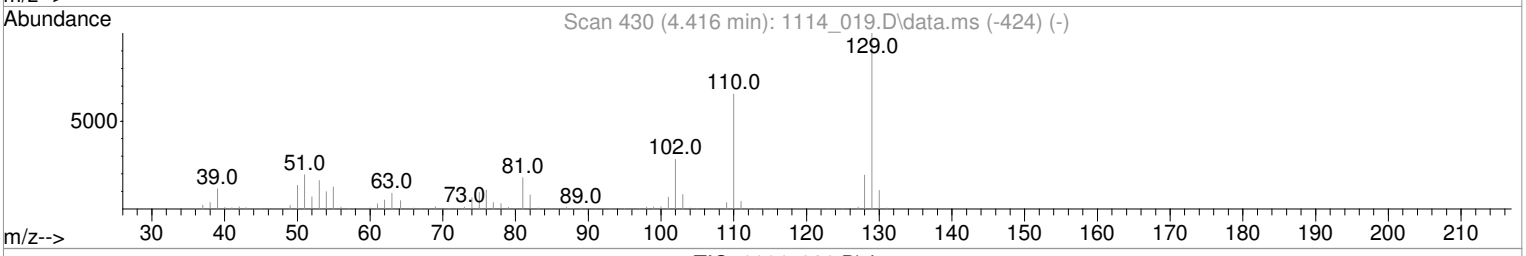
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_021.D
Acq On : 15 Nov 2022 12:11 am
Operator : 917
Sample : STD TCL 30K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:47:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:47:55 2022
Response via : Initial Calibration







TIC: 1114_021.D\data.ms

(37) Hydroquinone

4.458min (+ 0.041) 26175.9584534 ppb m

response 789250

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	27.58
53.00	24.80	25.92
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_022.D
Acq On : 15 Nov 2022 12:32 am
Operator : 917
Sample : STD TCL 40K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 15 10:49:03 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:49:00 2022
Response via : Initial Calibration

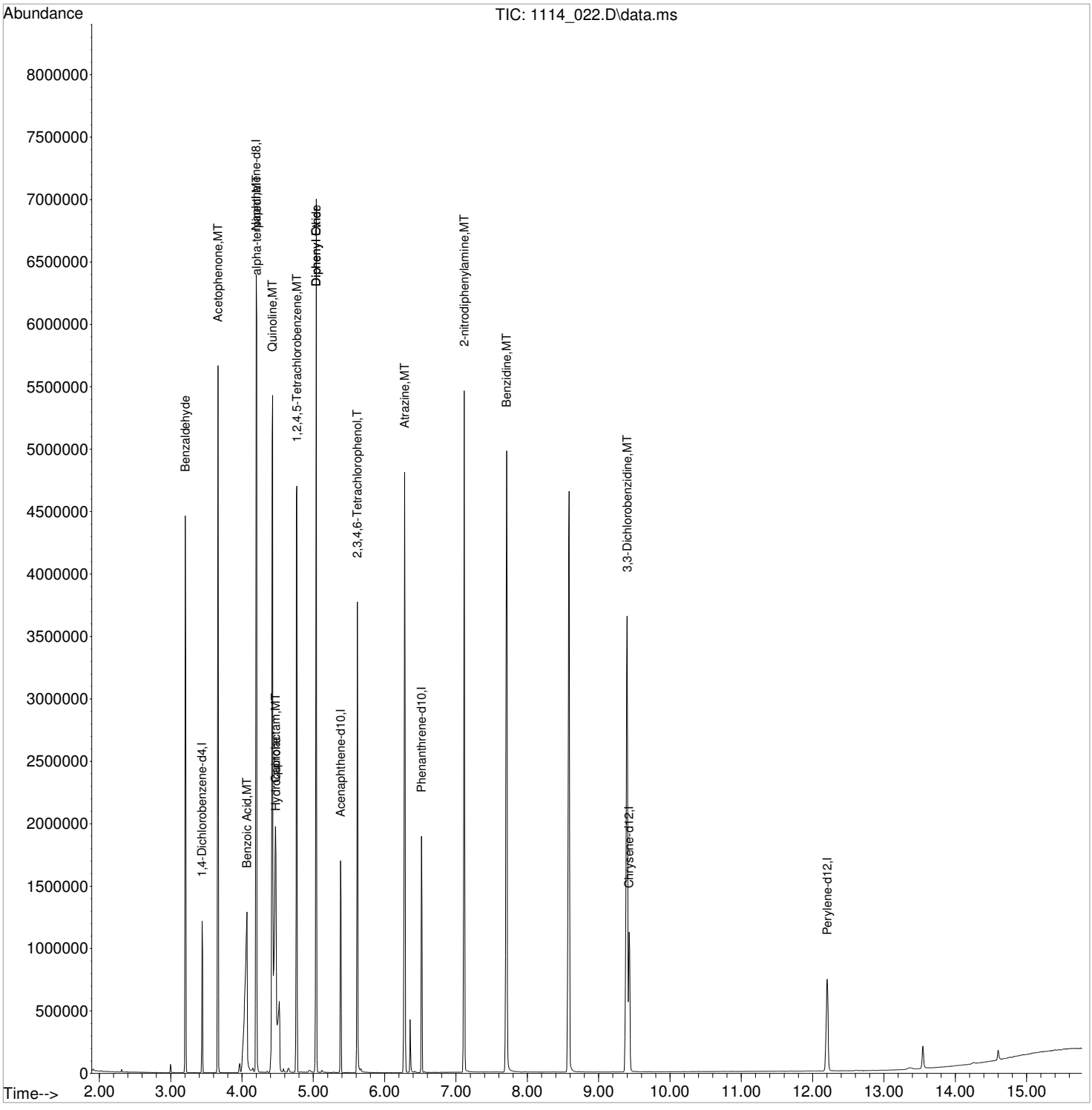
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.440	152	150319	8000.0000000	ppb		0.00
23) Naphthalene-d8	4.199	136	897349	8000.0000000	ppb		0.00
46) Acenaphthene-d10	5.381	164	320928	8000.0000000	ppb		0.00
70) Phenanthrene-d10	6.516	188	593902	8000.0000000	ppb		0.00
84) Chrysene-d12	9.428	240	505397	8000.0000000	ppb		0.00
94) Perylene-d12	12.204	264	470936	8000.0000000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
7) Phenol-d5	0.000	99	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#			
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#			
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb		
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#			
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb		
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#			
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb		
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#			
Target Compounds							Qvalue
9) Benzaldehyde	3.205	105	676971	38363.7448973	ppb		99
22) Acetophenone	3.664	105	1257152	40271.0108538	ppb		100
31) Benzoic Acid	4.069	105	710210	39516.1808936	ppb		98
33) alpha-terpineol	4.205	59	865716	29501.0390898	ppb		94
37) Hydroquinone	4.475	110	1061672m	32035.1769557	ppb		
38) Quinoline	4.428	129	1824407	29251.9172049	ppb		100
39) Caprolactam	4.469	113	307634	35063.9511561	ppb	#	74
43) 1,2,4,5-Tetrachloroben...	4.769	216	814102	29096.6563263	ppb		100
44) Diphenyl Ether	5.040	170	1185276	28310.5616817	ug/ml		99
45) Diphenyl Oxide	5.040	170	1185276	28310.5616817	ug/ml		99
62) 2,3,4,6-Tetrachlorophenol	5.616	232	383851	44639.2780782	ppb		92
69) Atrazine	6.281	200	569531	42499.9891030	ppb	#	100
82) 2-nitrodiphenylamine	7.116	167	714321	49804.3233911	ppb		96
85) Benzidine	7.710	184	2393438	44596.2983854	ppb		100
89) 3,3-Dichlorobenzidine	9.399	252	1219364	44718.5474880	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_022.D
Acq On : 15 Nov 2022 12:32 am
Operator : 917
Sample : STD TCL 40K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 19 Sample Multiplier: 1

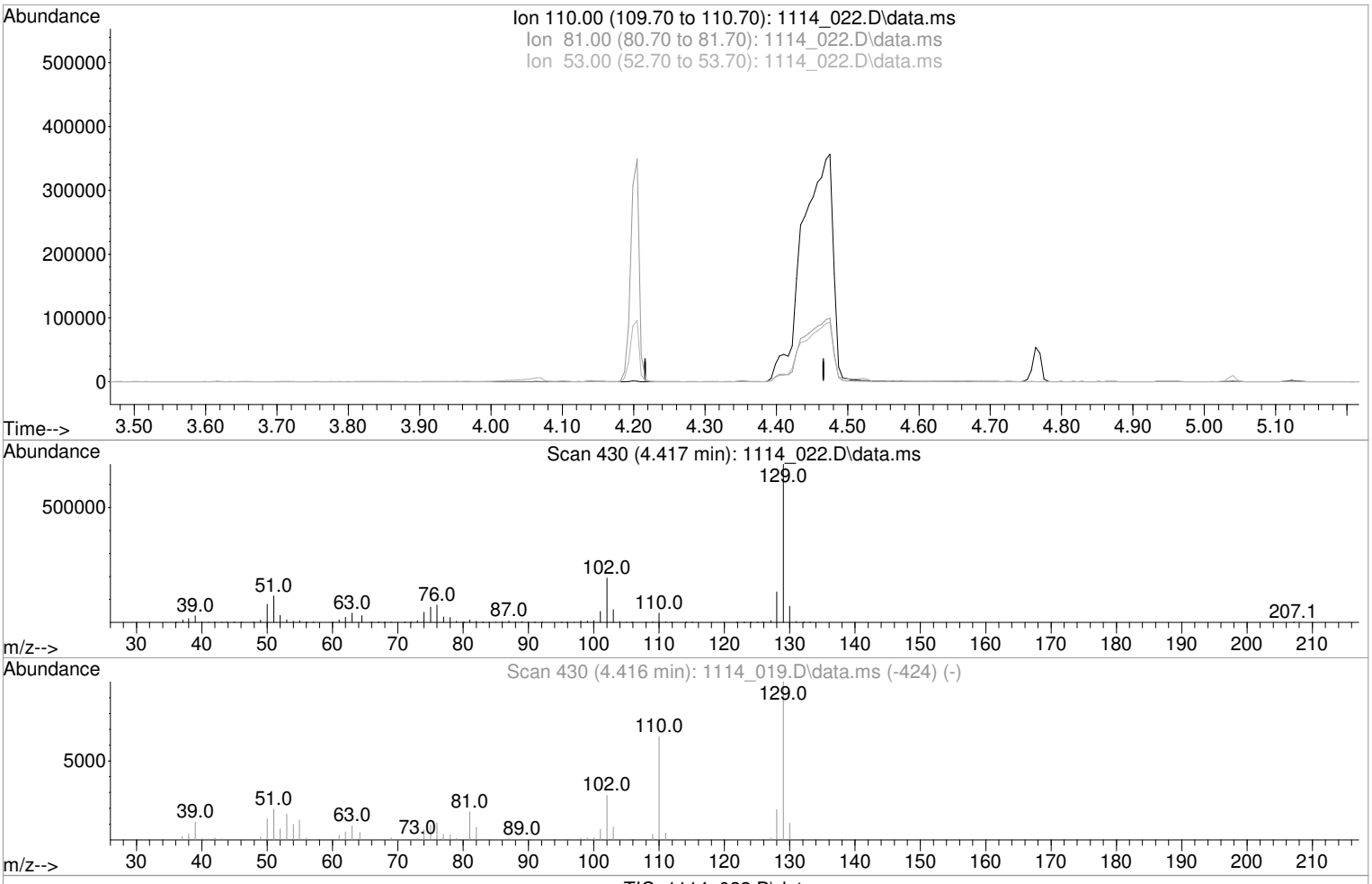
Quant Time: Nov 15 10:49:03 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:49:00 2022
Response via : Initial Calibration



S832K14V.M Tue Nov 15 10:49:57 2022 Page: 2

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_022.D
Acq On : 15 Nov 2022 12:32 am
Operator : 917
Sample : STD TCL 40K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 15 10:49:03 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:49:00 2022
Response via : Initial Calibration



TIC: 1114_022.D\data.ms

(37) Hydroquinone

4.416min (-4.416) 0.0000000 ppb

Qvalue = 0

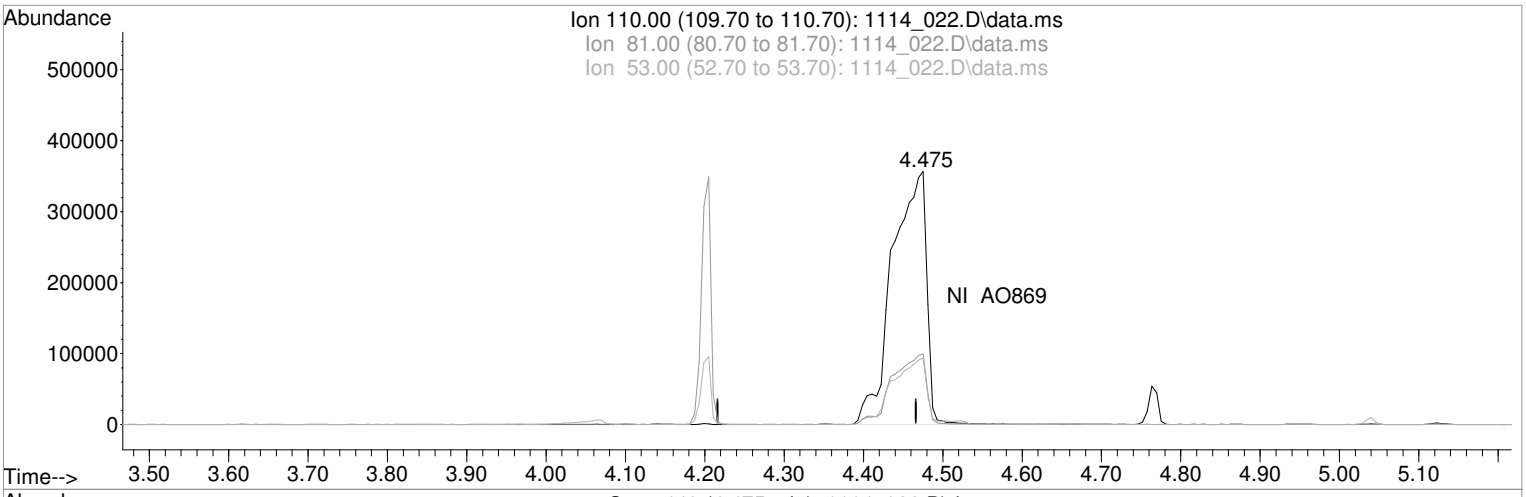
response 0

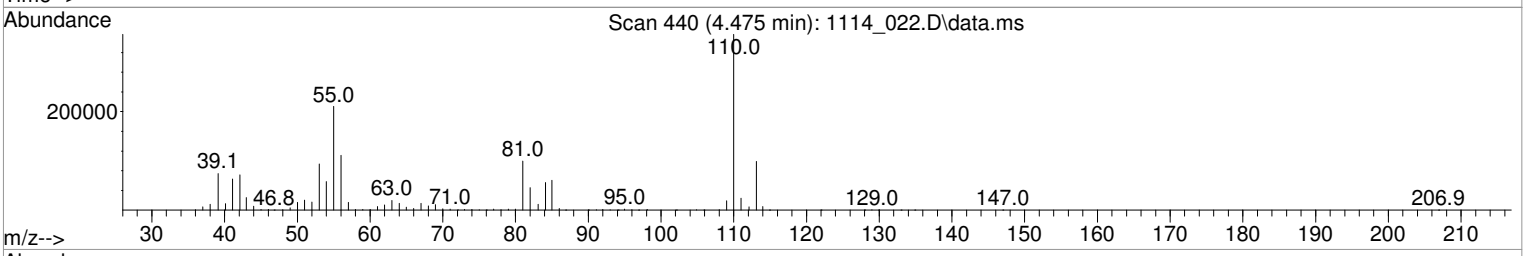
Ion	Exp%	Act%
110.00	100.00	0.00
81.00	27.50	0.00#
53.00	24.80	0.00#
0.00	0.00	0.00

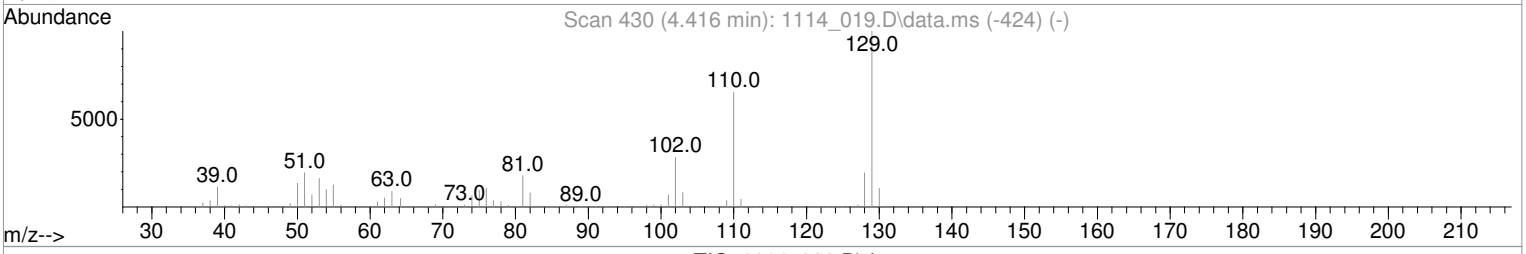
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_022.D
Acq On : 15 Nov 2022 12:32 am
Operator : 917
Sample : STD TCL 40K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 15 10:49:03 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:49:00 2022
Response via : Initial Calibration







TIC: 1114_022.D\data.ms

(37) Hydroquinone

4.475min (+ 0.059) 32035.1769557 ppb m

response 1061672

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	27.99
53.00	24.80	26.19
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_023.D
Acq On : 15 Nov 2022 12:53 am
Operator : 917
Sample : STD TCL 50K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 10:50:05 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:50:02 2022
Response via : Initial Calibration

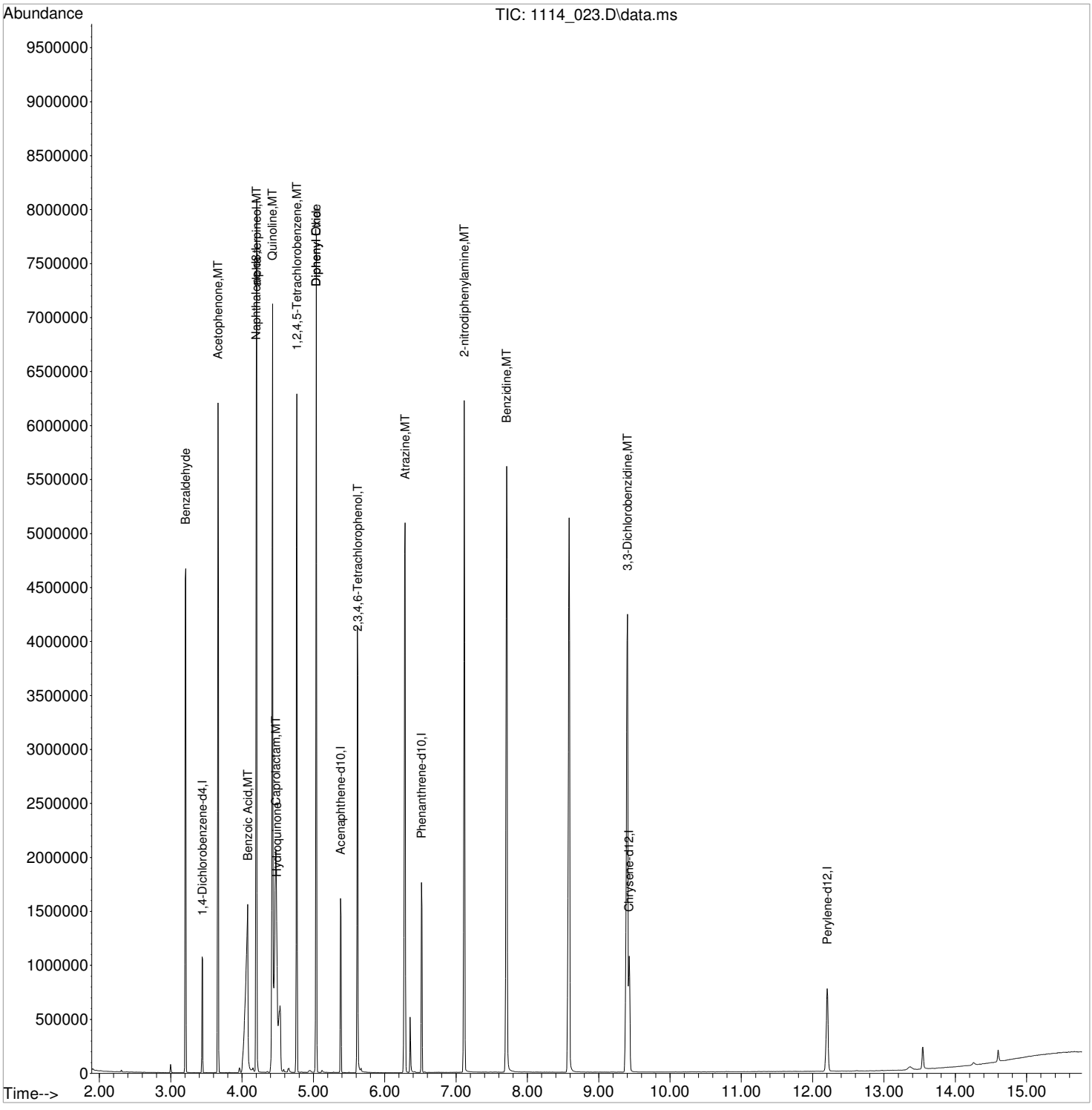
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.446	152	143255	8000.0000000	ppb	0.00
23) Naphthalene-d8	4.199	136	930183	8000.0000000	ppb	0.00
46) Acenaphthene-d10	5.381	164	312103	8000.0000000	ppb	0.00
70) Phenanthrene-d10	6.516	188	577900	8000.0000000	ppb	0.00
84) Chrysene-d12	9.428	240	488368	8000.0000000	ppb	0.00
94) Perylene-d12	12.204	264	468686	8000.0000000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.210	105	798807	47779.5704868	ppb	99
22) Acetophenone	3.663	105	1504819	50532.7515860	ppb	99
31) Benzoic Acid	4.081	105	900014	48392.8845156	ppb	98
33) alpha-terpineol	4.204	59	1016688	34724.8308511	ppb	96
37) Hydroquinone	4.487	110	1297215m	38866.4321771	ppb	
38) Quinoline	4.428	129	2155361	34669.2812366	ppb	99
39) Caprolactam	4.475	113	381625	42715.0261787	ppb #	78
43) 1,2,4,5-Tetrachloroben...	4.769	216	949628	34069.0865177	ppb	99
44) Diphenyl Ether	5.040	170	1404428	33770.8290616	ug/ml	99
45) Diphenyl Oxide	5.040	170	1404428	33770.8290616	ug/ml	99
62) 2,3,4,6-Tetrachlorophenol	5.622	232	479856	56446.6645014	ppb	95
69) Atrazine	6.287	200	673650	51233.6181538	ppb #	99
82) 2-nitrodiphenylamine	7.116	167	858157	59409.4648604	ppb	95
85) Benzidine	7.710	184	2802133	53159.3448466	ppb	100
89) 3,3-Dichlorobenzidine	9.404	252	1453200	54238.4713819	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_023.D
Acq On : 15 Nov 2022 12:53 am
Operator : 917
Sample : STD TCL 50K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 20 Sample Multiplier: 1

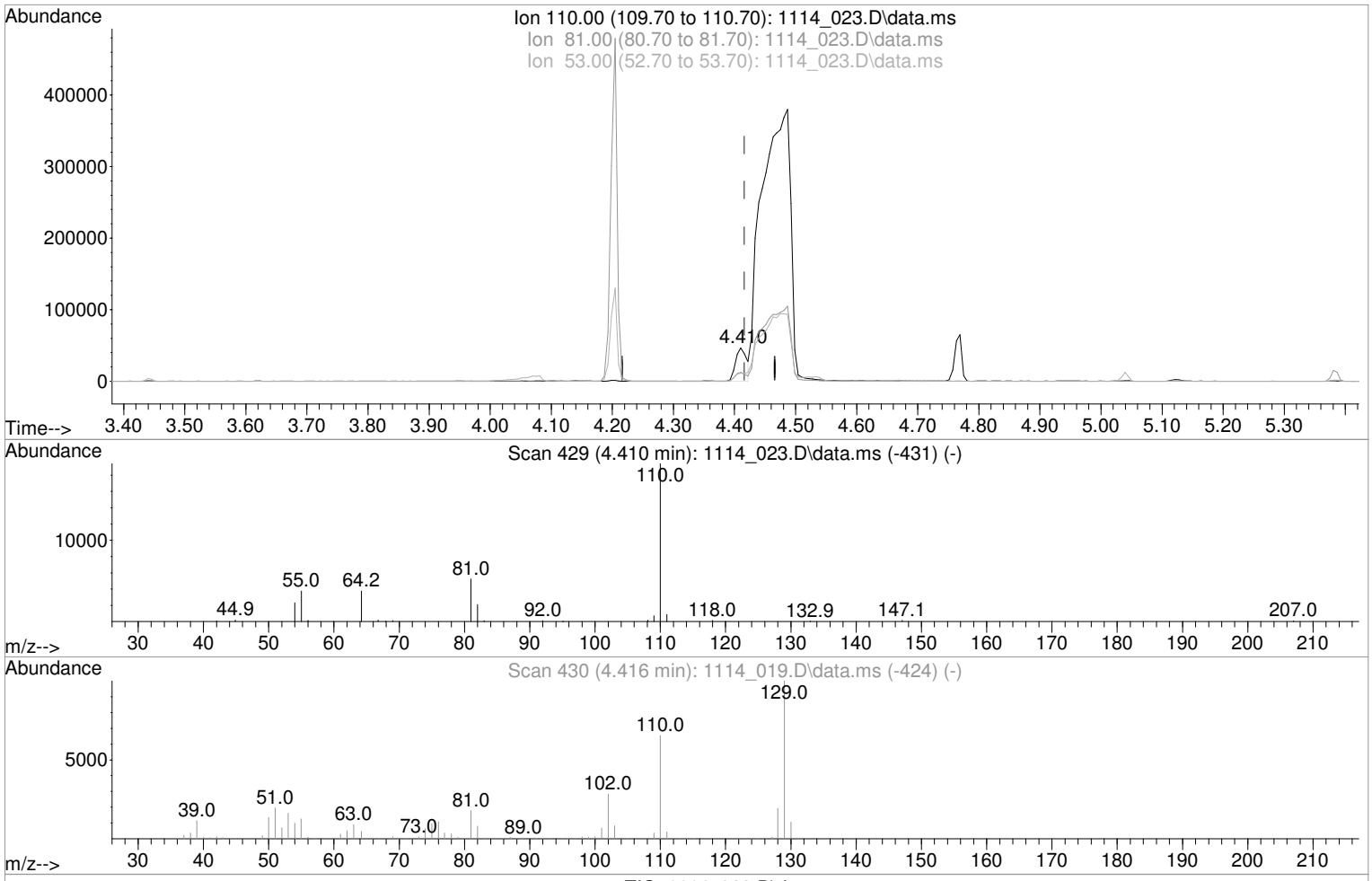
Quant Time: Nov 15 10:50:05 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:50:02 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_023.D
Acq On : 15 Nov 2022 12:53 am
Operator : 917
Sample : STD TCL 50K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 10:50:05 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:50:02 2022
Response via : Initial Calibration



TIC: 1114_023.D\data.ms

(37) Hydroquinone

4.410min (-0.006) 1767.2756651 ppb

Qvalue = 98

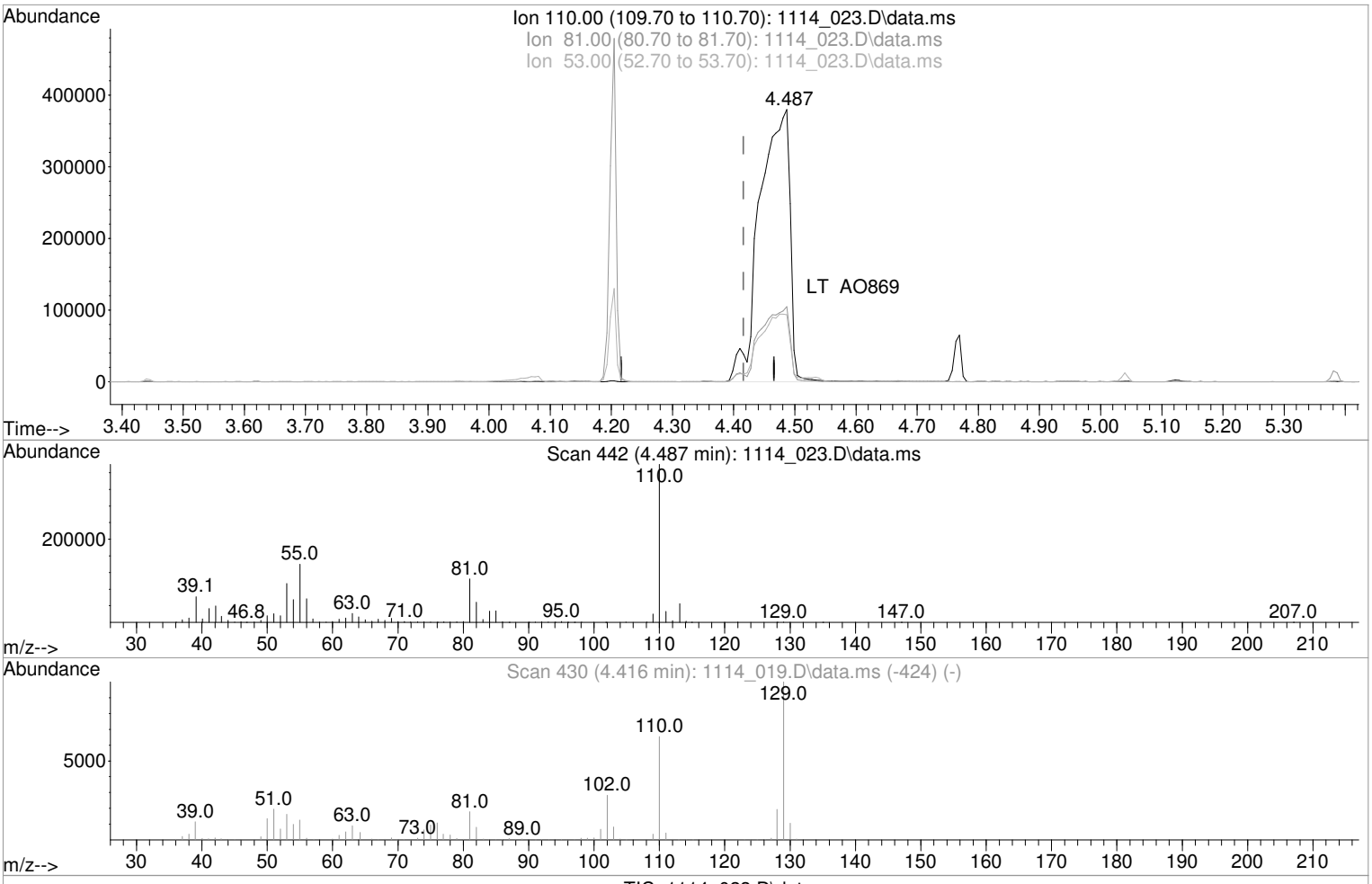
response 58985

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	26.30
53.00	24.80	24.13
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_023.D
Acq On : 15 Nov 2022 12:53 am
Operator : 917
Sample : STD TCL 50K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 10:50:05 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 10:50:02 2022
Response via : Initial Calibration



TIC: 1114_023.D\data.ms

(37) Hydroquinone

4.487min (+ 0.070) 38866.4321771 ppb m

response 1297215

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	27.58
53.00	24.80	24.58
0.00	0.00	0.00

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559129	**Calibration (begin) date/time:**	11/14/22 18:55
Instrument ID:	BNAMS32	**Calibration (end) date/time:**	11/15/22 00:53
Lab File ID:	1114_024-1	**Analysis date/time:**	11/15/22 01:14
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1-METHYLNAPHTHALENE	0.613498	0.69760360		13.70		10	11.37	114	50 - 150
2-METHYLNAPHTHALENE	0.660905	0.71352090		7.96		10	10.80	108	50 - 150
3&4-METHYL PHENOL	1.331741	1.461120		9.72		10	10.97	110	50 - 150
ACENAPHTHENE	1.130261	1.214209		7.43		10	10.74	107	80 - 120
ACENAPHTHYLENE	1.700208	1.8648		9.68		10	10.97	110	50 - 150
ANTHRACENE	1.035826	1.099419		6.14		10	10.61	106	50 - 150
BENZO(A)ANTHRACENE	1.225913	1.248594		1.85		10	10.19	102	50 - 150
BENZO(A)PYRENE	0.985916	1.187657		20.50		10	11.20	112	80 - 120
BENZO(B)FLUORANTHENE	1.161386	1.266787		9.08		10	10.91	109	50 - 150
BENZO(G,H,I)PERYLENE	0.995790	1.075873		8.04		10	10.80	108	50 - 150
BENZO(K)FLUORANTHENE	1.154844	1.264148		9.46		10	10.95	110	50 - 150
BIS(2-ETHYLHEXYL)PHTHALATE	0.780453	0.911545		16.80		10	10.37	104	50 - 150
CARBAZOLE	0.974481	1.120446		15		10	11.50	115	50 - 150
CHRYSENE	1.167001	1.265018		8.40		10	10.84	108	50 - 150
DI-N-BUTYL PHTHALATE	1.117223	1.325567		18.60		10	11.86	119	50 - 150
DI-N-OCTYL PHTHALATE	1.274410	1.532812		20.30		10	10.37	104	80 - 120
DIBENZ(A,H)ANTHRACENE	1.018327	1.126714		10.60		10	11.06	111	50 - 150
DIBENZOFURAN	1.582715	1.712914		8.23		10	10.82	108	50 - 150
FLUORANTHENE	1.066729	1.163196		9.04		10	10.90	109	80 - 120
FLUORENE	1.298220	1.441806		11.10		10	11.11	111	50 - 150
INDENO(1,2,3-CD)PYRENE	0.996604	1.054542		5.81		10	10.58	106	50 - 150
NAPHTHALENE	1.003511	1.061159		5.74		10	10.57	106	50 - 150
PENTACHLOROPHENOL	0.096279	0.13714340		42.40		10	12.00	120	80 - 120
PHENANTHRENE	1.049514	1.100650		4.87		10	10.49	105	50 - 150
PHENOL	1.568046	1.714224		9.32		10	10.93	109	80 - 120
PYRENE	1.315564	1.408520		7.07		10	10.71	107	50 - 150
2,4,6-TRIBROMOPHENOL	0.085166	0.08795354		3.27		10	10.33	103	50 - 150
2-FLUOROBIPHENYL	1.273664	1.308244		2.72		10	10.27	103	50 - 150
2-FLUOROPHENOL	1.213054	1.254406		3.41		10	10.34	103	50 - 150
NITROBENZENE-D5	0.326575	0.360238		10.30		10	11.03	110	50 - 150
P-TERPHENYL-D14	1.026047	1.042572		1.61		10	10.16	102	50 - 150
PHENOL-D5	1.551388	1.605202		3.47		10	10.35	104	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.446	152	137183	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.199	136	547980	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.387	164	309220	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.522	188	570101	8000.0000000 ppb	0.00
84) Chrysene-d12	9.434	240	484253	8000.0000000 ppb	0.00
94) Perylene-d12	12.210	264	468395	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	2.752	112	215104	10340.8959929 ppb	0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 258.52%#		
7) Phenol-d5	3.205	99	275258	10346.8743765 ppb	0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 258.67%#		
24) Nitrobenzene-d5	3.758	82	246754	11030.7797545 ppb	0.00
Spiked Amount 2000.000	Range 10 - 126		Recovery = 551.54%#		
50) 2-Fluorobiphenyl	4.893	172	505669	10271.4959814 ppb	0.00
Spiked Amount 2000.000	Range 22 - 127		Recovery = 513.57%#		
73) 2,4,6-Tribromophenol	5.969	330	62678	10327.3415891 ppb	0.00
Spiked Amount 4000.000	Range 10 - 153		Recovery = 258.18%#		
87) p-Terphenyl-d14	7.975	244	631086	10161.0549947 ppb	0.00
Spiked Amount 2000.000	Range 29 - 141		Recovery = 508.05%#		
Target Compounds					Qvalue
2) Pyridine	2.193	79	247652	11512.9347174 ppb	93
3) N-Nitrosodimethylamine	2.164	42	107283	10181.6554701 ppb	98
5) Aniline	3.258	66	139991	10920.4899597 ppb	98
6) bis(2-Chloroethyl)ether	3.281	93	231820	11131.5052757 ppb	100
8) Phenol	3.211	94	293953	10932.2300693 ppb	98
10) 2-Chlorophenol	3.328	128	247056	11256.9287013 ppb	89
11) n-Decane	3.328	41	115336	10061.6057971 ppb	97
12) 1,3-Dichlorobenzene	3.417	146	274085	10907.2668429 ppb	98
13) 1,4-Dichlorobenzene	3.452	146	278930	10892.4905464 ppb	99
14) Benzyl Alcohol	3.505	79	195438	11058.7952945 ppb	99
15) 1,2-Dichlorobenzene	3.540	146	263980	10962.9286023 ppb	99
16) bis(2-Chloroisopropyl)...	3.581	121	85690	10934.5112662 ppb	100
17) 2,2-oxybis(1-chloropro...	3.581	121	85690	10934.5112662 ppb	100
18) 2-Methylphenol	3.552	108	225617	11066.8219806 ppb	100
19) Hexachloroethane	3.740	117	102348	10680.0424351 ppb	100
20) N-Nitrosodi-n-propylamine	3.658	70	164474	11216.8100281 ppb	97
21) 3&4-Methyl phenol	3.640	107	250551	10971.5010977 ppb	99
25) Nitrobenzene	3.769	77	235924	11112.6720466 ppb	98
26) Isophorone	3.905	82	444162	10990.7152346 ppb	100
27) 2-Nitrophenol	3.958	139	127869	11522.4863308 ppb	98
28) 2,4-Dimethylphenol	3.958	107	246322	11322.5425688 ppb	99
29) bis(2-Chlorethoxy)methane	4.022	93	290234	11121.9582967 ppb	99
30) 2,4-Dichlorophenol	4.099	162	200866	11030.1065204 ppb	98
32) 1,2,4-Trichlorobenzene	4.158	180	215317	10526.6293393 ppb	99
34) Naphthalene	4.211	128	726867m	10574.4613302 ppb	
35) 4-Chloroaniline	4.228	65	89054	10847.3611812 ppb	97
36) Hexachloro-1,3-butadiene	4.281	225	123403	11842.9023901 ppb	99

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

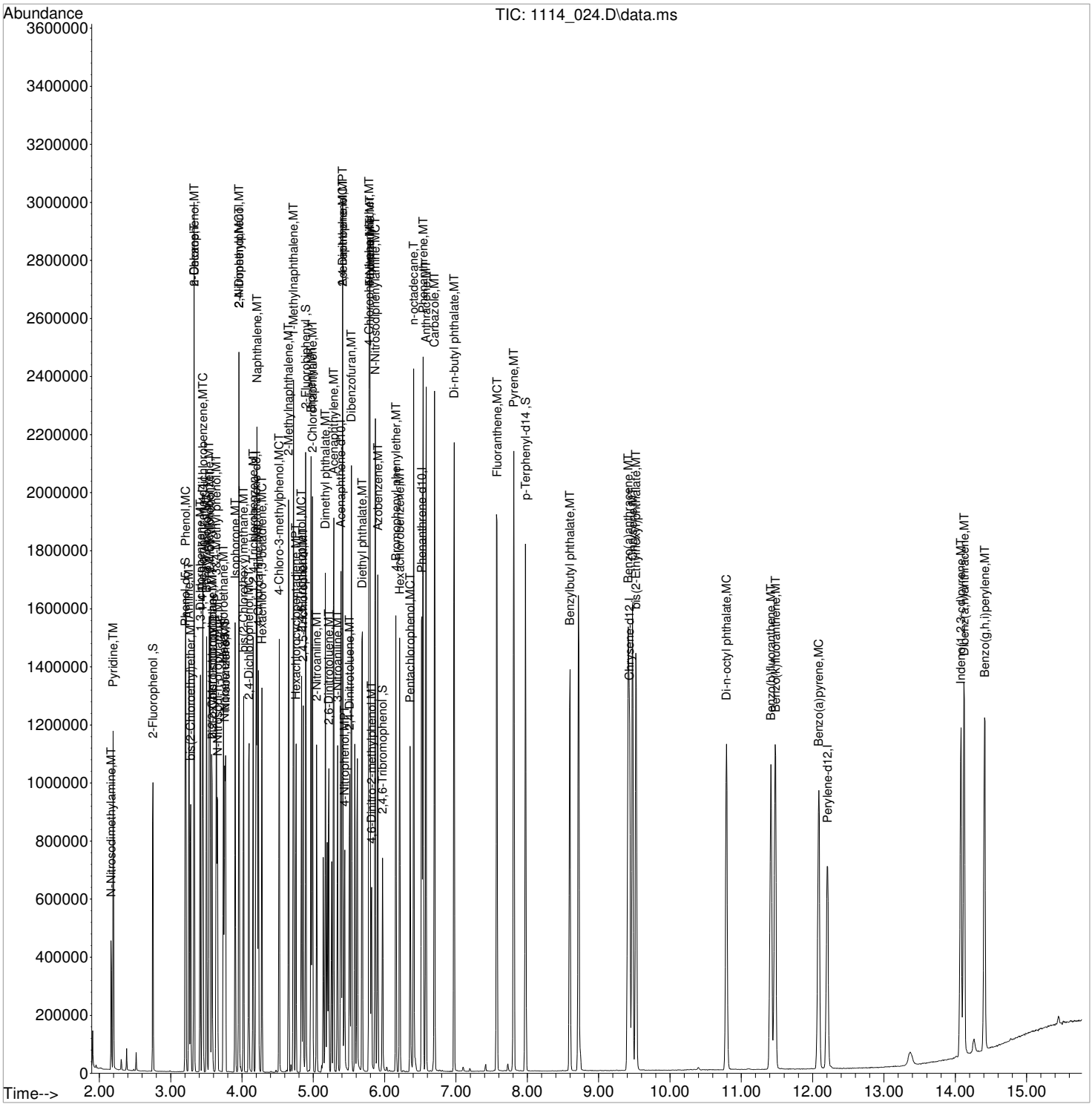
Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	4-Chloro-3-methylphenol	4.522	107	209625	11054.6359187 ppb		99
41)	2-Methylnaphthalene	4.652	142	488744	10796.1162591 ppb		99
42)	1-Methylnaphthalene	4.722	142	477841	11370.9217851 ppb		99
47)	Hexachlorocyclopentadiene	4.758	237	133462	9779.7703029 ppb		99
48)	2,4,6-Trichlorophenol	4.834	196	138728	11069.7545749 ppb		96
49)	2,4,5-Trichlorophenol	4.858	196	147011	10924.7590051 ppb		96
51)	Biphenyl	4.969	154	576506	10433.8852153 ppb		99
52)	2-Chloronaphthalene	4.987	162	462636	10890.4803051 ppb		96
53)	2-Nitroaniline	5.046	138	161666	11010.2401815 ppb		99
54)	Acenaphthylene	5.287	152	720792	10968.0695151 ppb		100
55)	Dimethyl phthalate	5.169	163	520652	10872.6683704 ppb		96
56)	2,6-Dinitrotoluene	5.216	165	125243	10892.6347922 ppb		95
57)	3-Nitroaniline	5.340	138	145273	11133.1103113 ppb		94
58)	Acenaphthene	5.411	153	469322	10742.7314808 ppb		99
59)	2,4-Dinitrophenol	5.411	184	58663	11785.0328049 ppb	#	1
60)	Dibenzofuran	5.534	168	662084	10822.6259511 ppb		99
61)	2,4-Dinitrotoluene	5.511	165	167040	11136.9185948 ppb		97
63)	4-Nitrophenol	5.440	139	110123	11054.0001275 ppb		94
64)	Fluorene	5.793	166	557294	11106.0172539 ppb		98
65)	4-Chlorophenyl-phenyle...	5.781	204	255086	10850.1884031 ppb		93
66)	Diethyl phthalate	5.687	149	522751	11156.3678905 ppb		99
67)	4-Nitroaniline	5.793	138	150158	11014.5119729 ppb		99
68)	Azobenzene	5.905	77	514637	11281.7630313 ppb		100
71)	4,6-Dinitro-2-methylph...	5.816	198	78070	10983.2344855 ppb	#	81
72)	N-Nitrosodiphenylamine	5.869	169	476967	10883.6034160 ppb		100
74)	4-Bromophenyl-phenylether	6.158	248	140767	10930.5769786 ppb		89
75)	Hexachlorobenzene	6.210	284	155525	10654.5305659 ppb		98
76)	n-octadecane	6.405	55	85398	10317.9385651 ppb		98
77)	Pentachlorophenol	6.358	266	97732	12000.8423822 ppb		96
78)	Phenanthrene	6.540	178	784352	10487.2320055 ppb		98
79)	Anthracene	6.581	178	783475	10613.9399842 ppb		99
80)	Carbazole	6.699	167	798459	11497.8708686 ppb		100
81)	Di-n-butyl phthalate	6.975	149	944634	11864.8425916 ppb		99
83)	Fluoranthene	7.575	202	828924	10904.3264896 ppb		100
86)	Pyrene	7.810	202	852600	10706.5837612 ppb		100
88)	Benzylbutyl phthalate	8.599	149	389445	10272.7904347 ppb		99
90)	Benzo(a)anthracene	9.416	228	755794	10185.0091623 ppb		99
91)	Chrysene	9.475	228	765736	10839.9074010 ppb		100
92)	bis(2-Ethylhexyl)phtha...	9.522	149	551773	10368.5563556 ppb		99
93)	Di-n-octyl phthalate	10.793	149	927836	10366.6045147 ppb		99
95)	Benzo(b)fluoranthene	11.416	252	741696	10907.5443188 ppb		98
96)	Benzo(k)fluoranthene	11.481	252	740151m	10946.4822277 ppb		
97)	Benzo(a)pyrene	12.087	252	695366	11199.8723648 ppb		99
98)	Indeno(1,2,3-cd)pyrene	14.081	276	617428	10581.3592495 ppb		100
99)	Dibenz(a,h)anthracene	14.128	278	659684m	11064.3622012 ppb		
100)	Benzo(g,h,i)perylene	14.416	276	629917	10804.2221712 ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

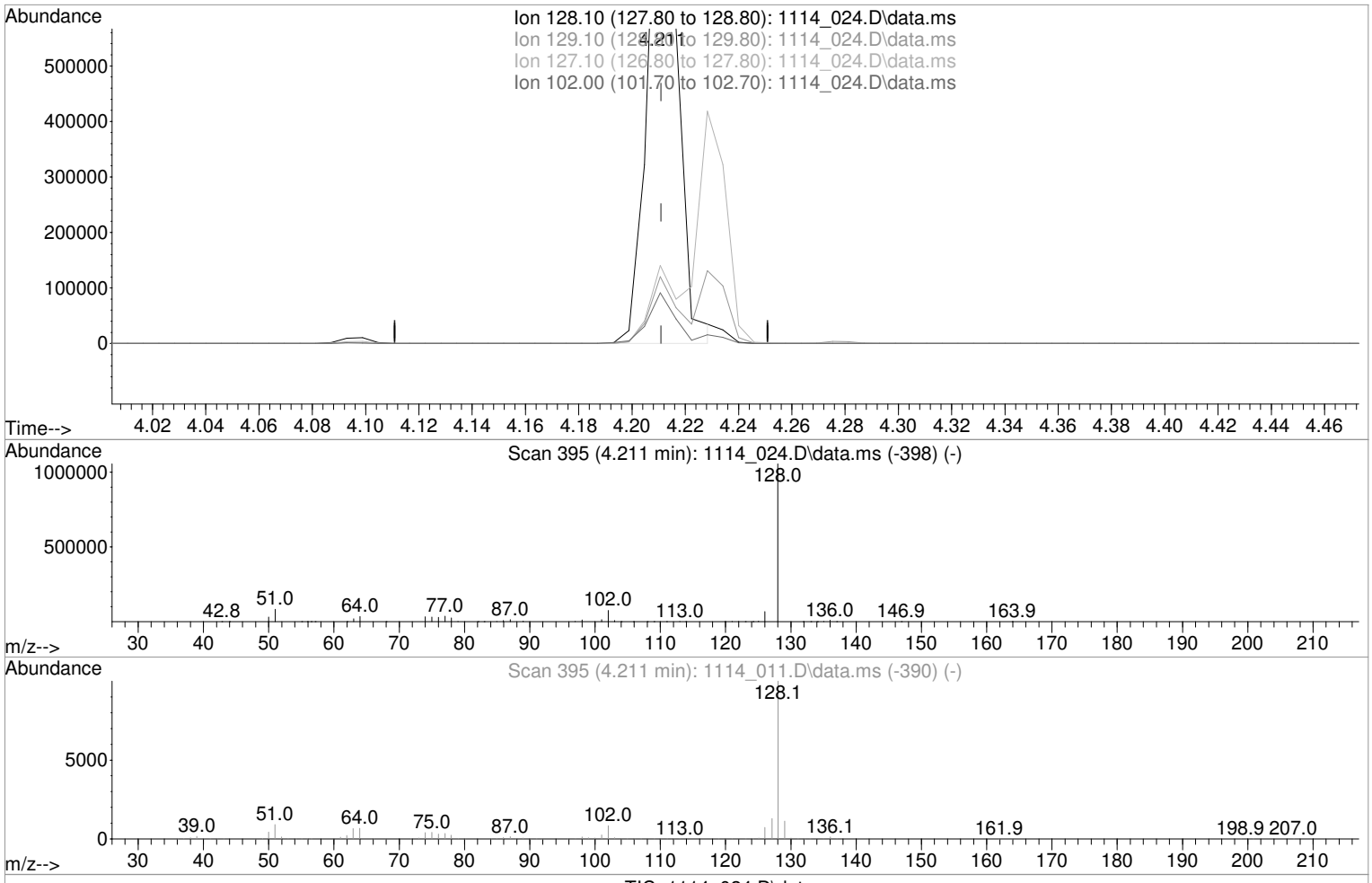
Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_024.D\data.ms

(34) Naphthalene (MT)

4.211min (-0.000) 10753.0089378 ppb

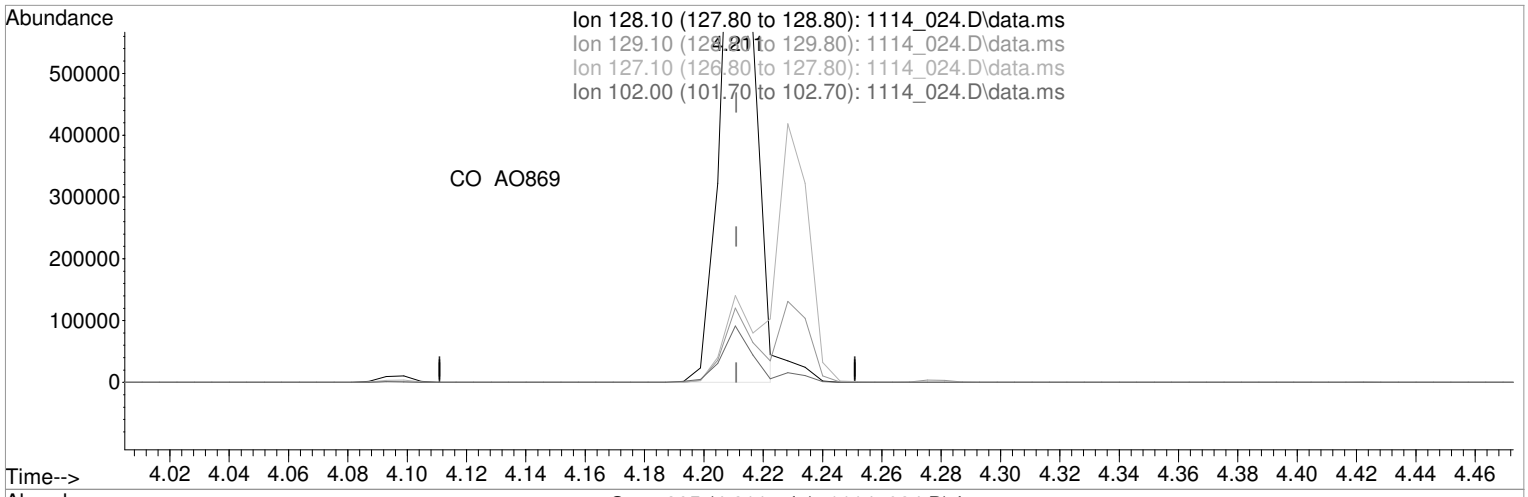
Qvalue = 100

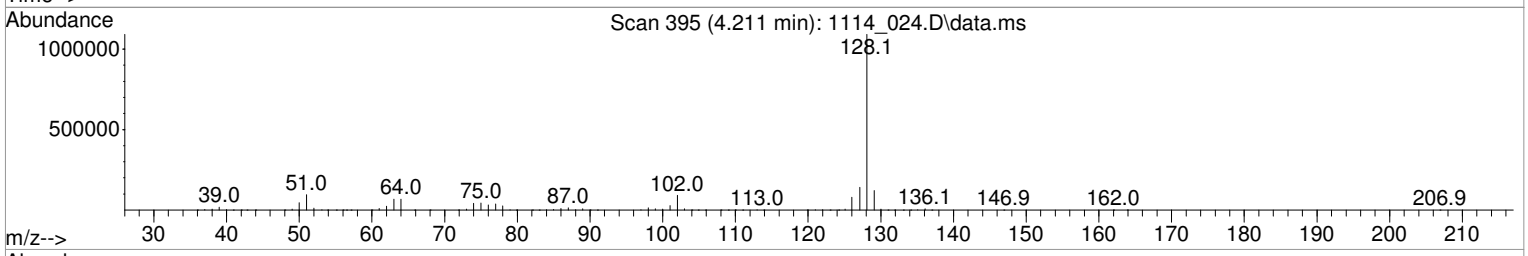
response 739140

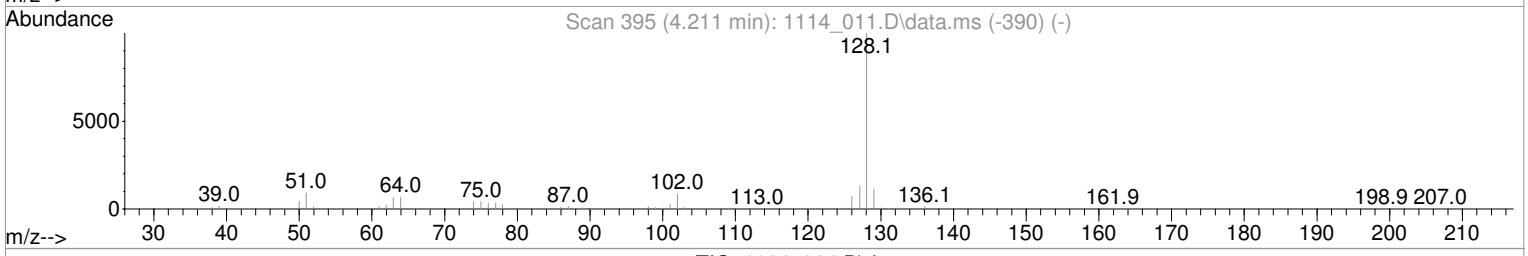
Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	11.04
127.10	13.00	12.86
102.00	8.40	8.36

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1114_024.D\data.ms

(34) Naphthalene (MT)

4.211min (-0.000) 10574.4613302 ppb m

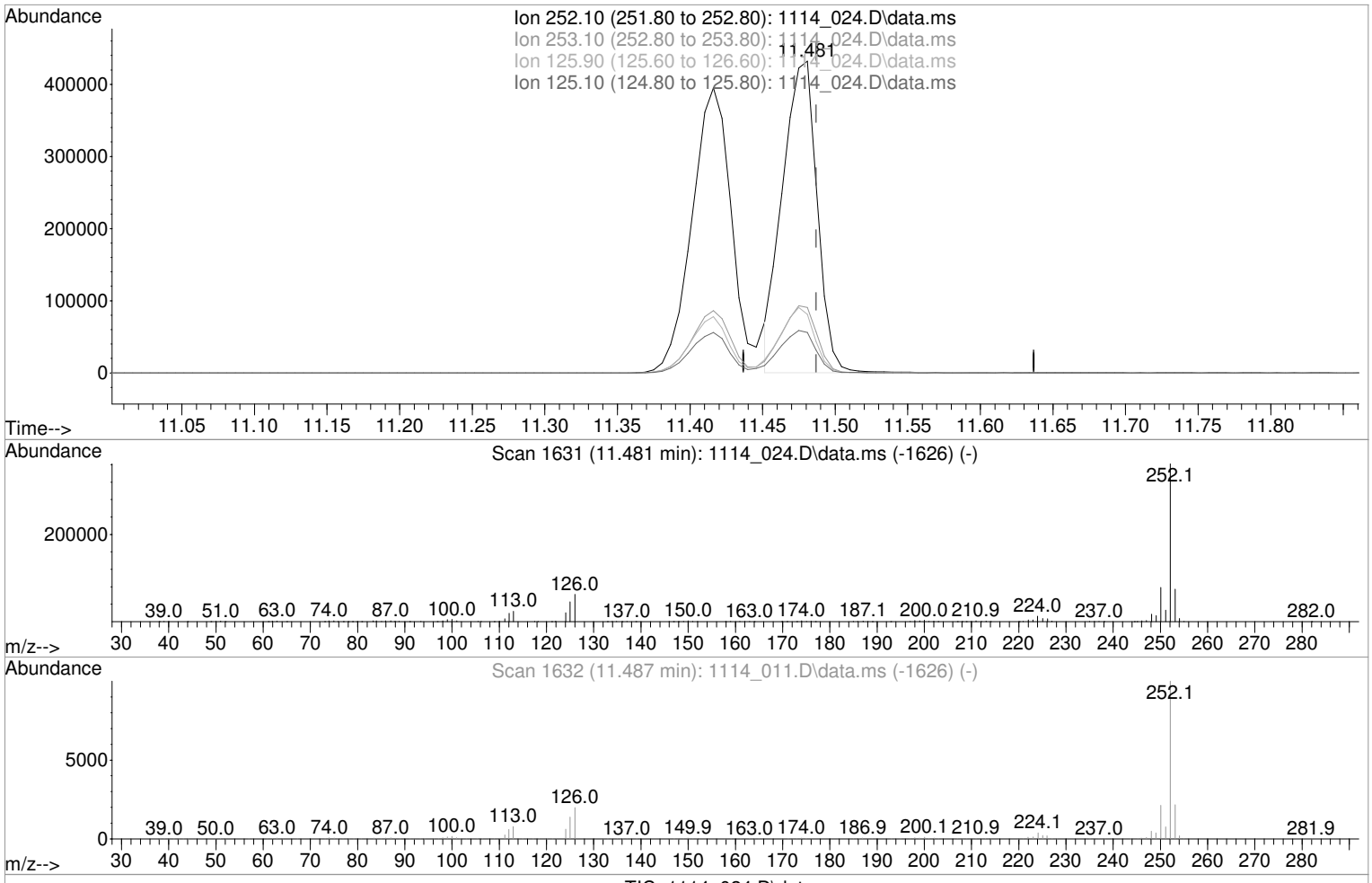
response 726867

Ion	Exp%	Act%
128.10	100.00	100.00
129.10	11.20	11.04
127.10	13.00	12.86
102.00	8.40	8.36

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_024.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.481min (-0.006) 10551.6758394 ppb

Qvalue = 98

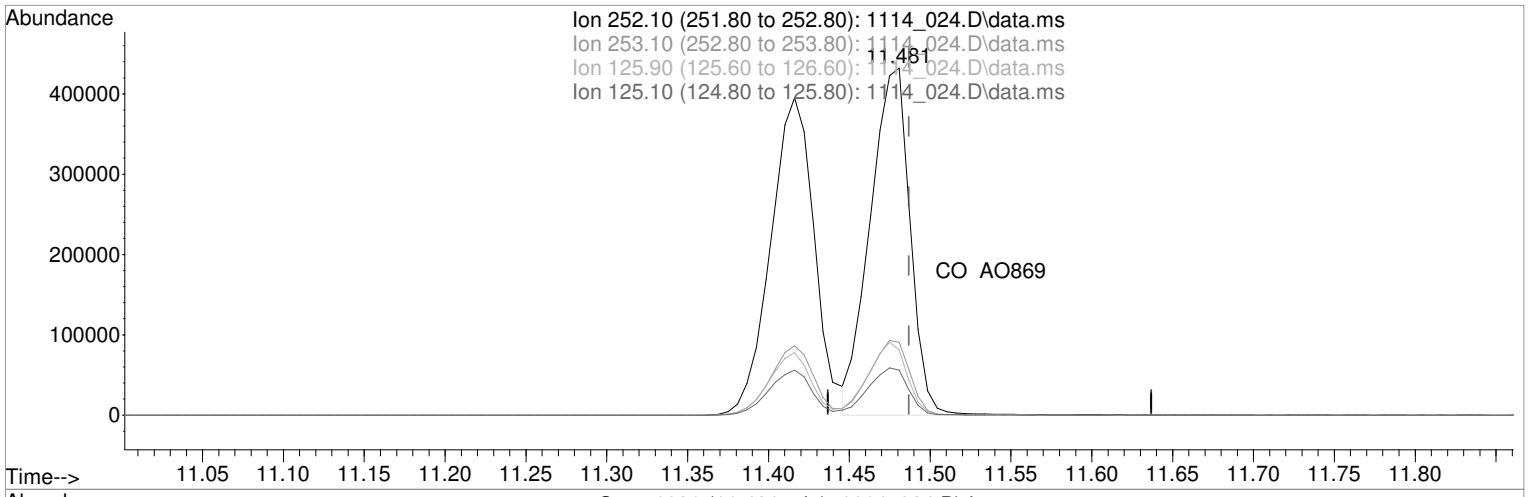
response 713456

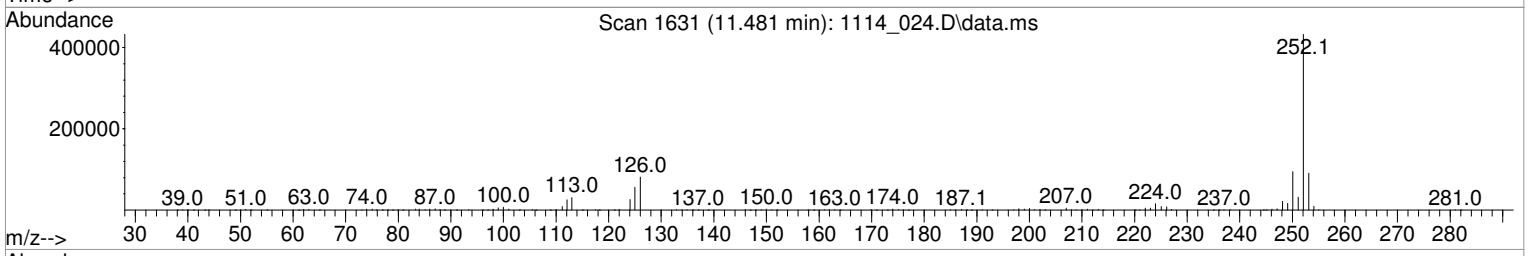
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.01
125.90	19.60	18.75
125.10	13.70	12.95

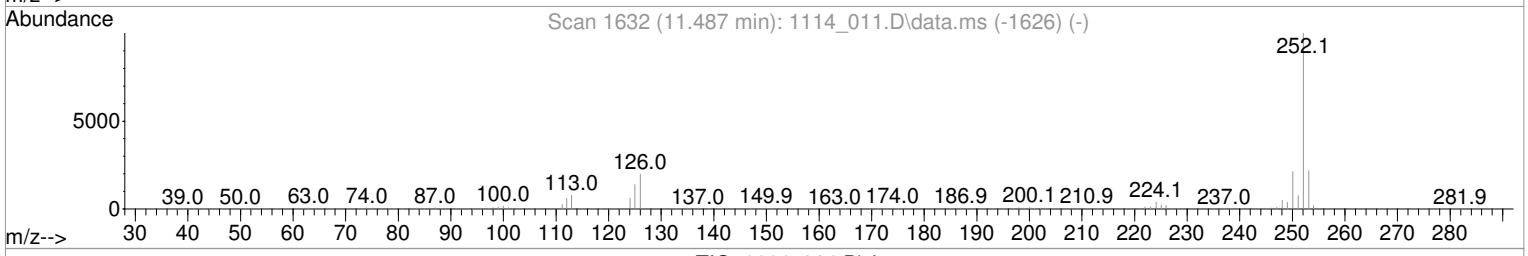
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1114_024.D\data.ms

(96) Benzo(k)fluoranthene (MT)

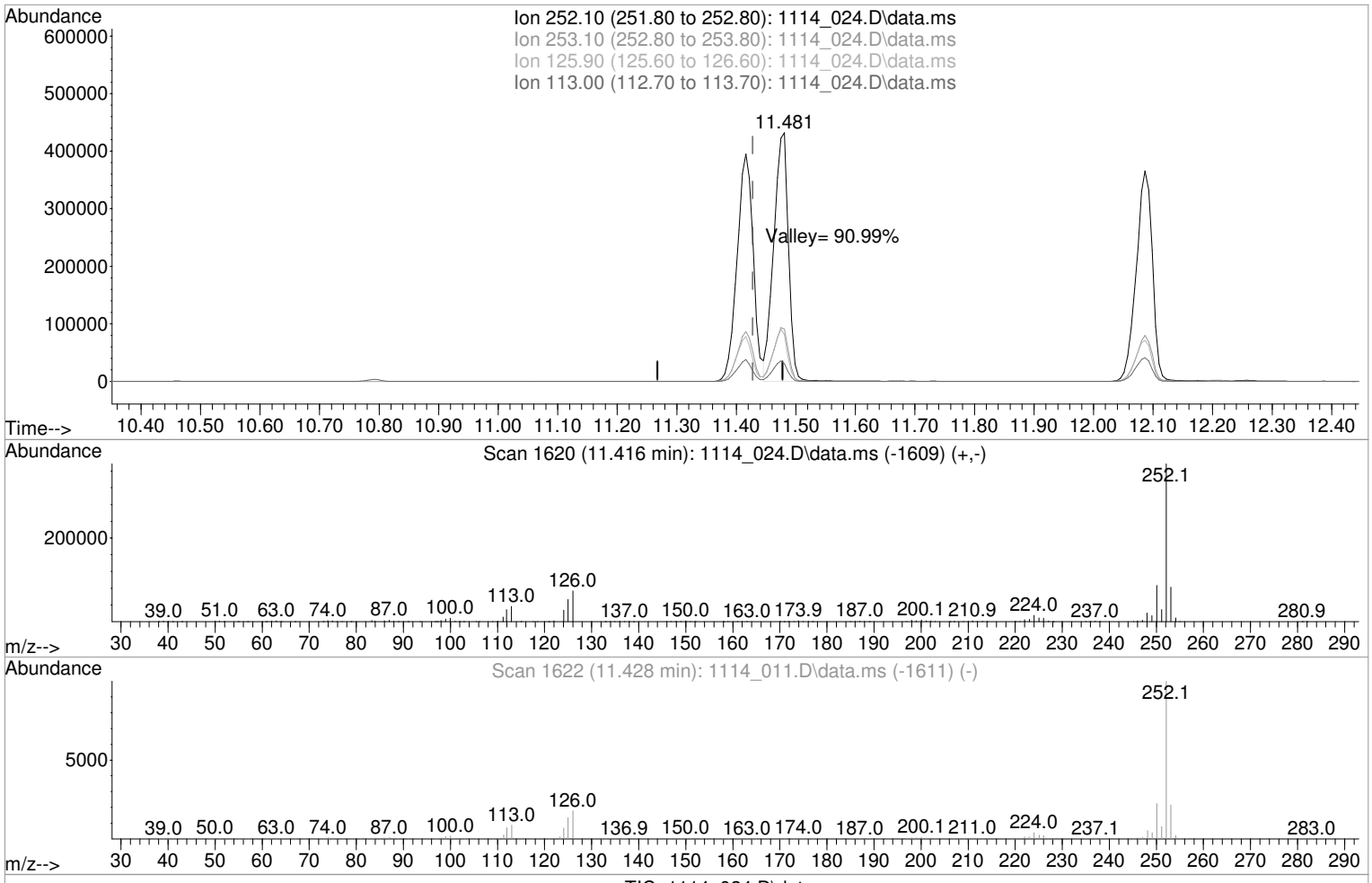
11.481min (-0.006) 10946.4822277 ppb m

response 740151

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	20.99
125.90	19.60	18.74
125.10	13.70	12.93

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_024.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.416min (-0.012) 10907.5443188 ppb

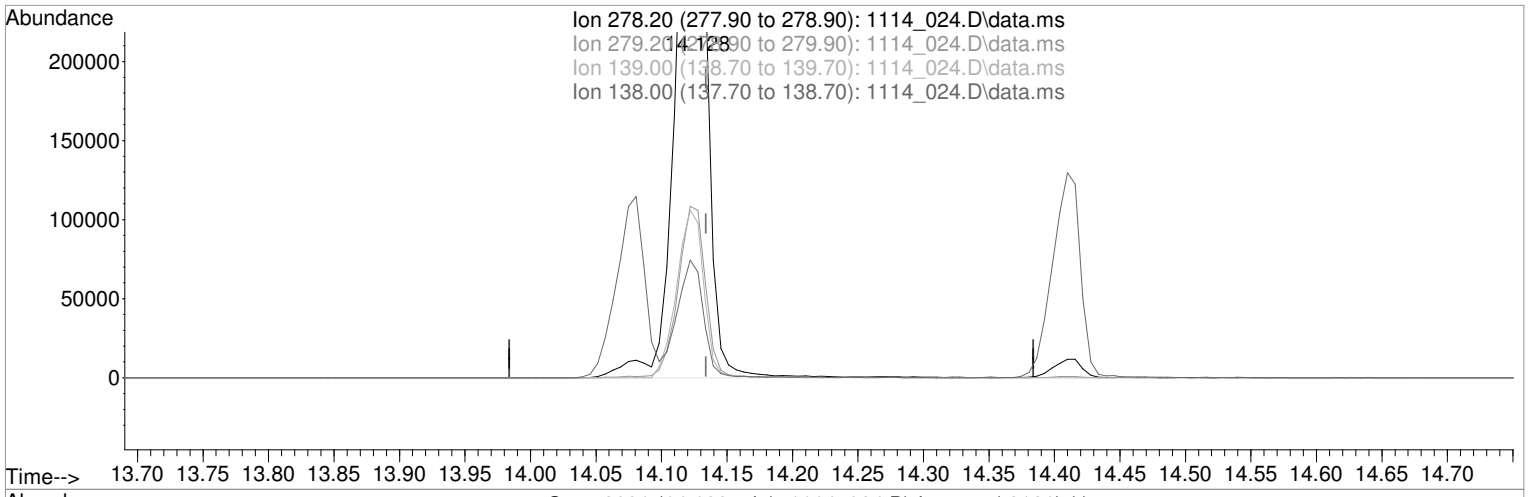
Qvalue = 98

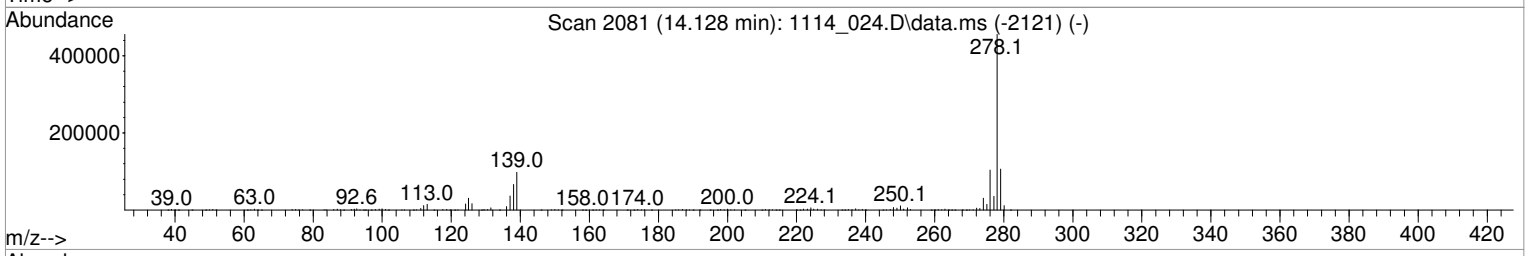
response 741696

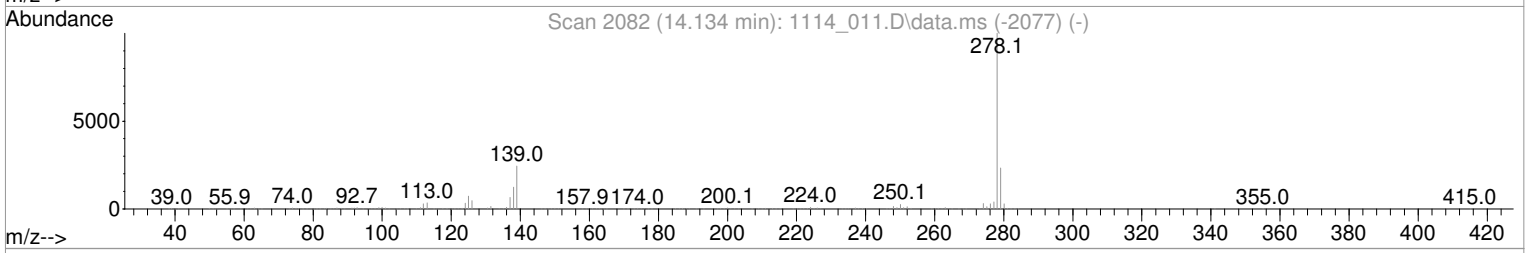
Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.50	21.84
125.90	17.90	19.53
113.00	8.80	9.68

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1114_024.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.128min (-0.006) 11443.6993989 ppb

Qvalue = 97

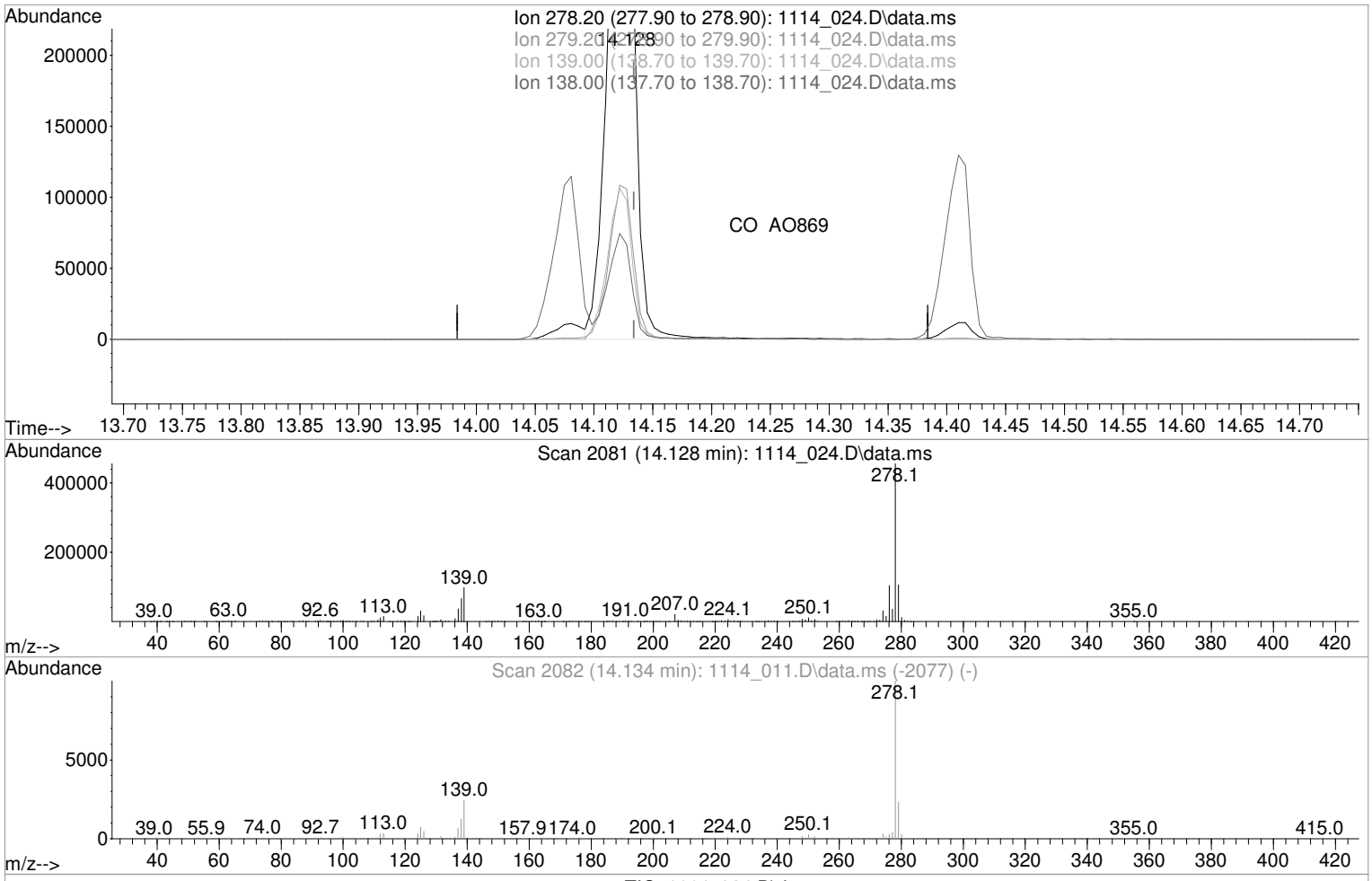
response 682301

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.22
139.00	23.90	21.49
138.00	16.60	14.66

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_024.D
Acq On : 15 Nov 2022 01:14 am
Operator : 917
Sample : SSCV SVMS 10K ppb 22K4669 exp 4/25/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 12:06:51 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_024.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.128min (-0.006) 11064.3622012 ppb m

response 659684

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.22
139.00	23.90	21.49
138.00	16.60	14.66

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559129	**Calibration (begin) date/time:**	11/14/22 18:55
Instrument ID:	BNAMS32	**Calibration (end) date/time:**	11/15/22 00:53
Lab File ID:	1114_025-1	**Analysis date/time:**	11/15/22 01:35
Analytical Method:	8270E	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.159309	0.14692070		7.78		10	9.222	92.20	50 - 150

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_025.D
Acq On : 15 Nov 2022 01:35 am
Operator : 917
Sample : SSCV TCL 10K1 ppb 22K14694 exp 4/13/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 22 Sample Multiplier: 1

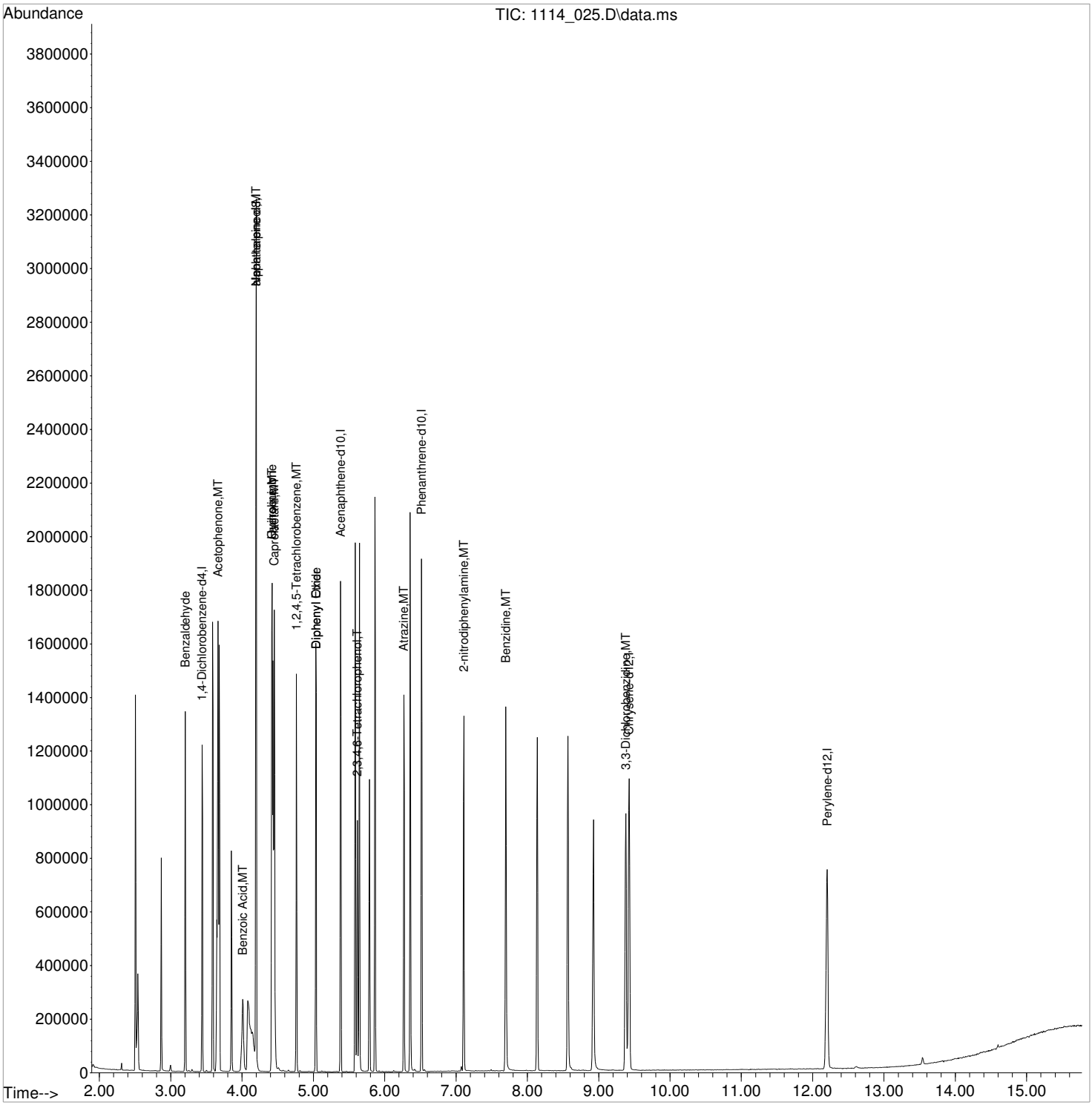
Quant Time: Nov 15 12:06:55 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	3.440	152	149085	8000.0000000 ppb	0.00
23) Naphthalene-d8	4.199	136	655042	8000.0000000 ppb	0.00
46) Acenaphthene-d10	5.381	164	324955	8000.0000000 ppb	0.00
70) Phenanthrene-d10	6.516	188	589601	8000.0000000 ppb	0.00
84) Chrysene-d12	9.428	240	503459	8000.0000000 ppb	0.00
94) Perylene-d12	12.204	264	474444	8000.0000000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	0.000	112	0	0.0000000 ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#	
7) Phenol-d5	0.000	99	0	0.0000000 ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#	
24) Nitrobenzene-d5	0.000	82	0d	0.0000000 ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#	
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000 ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000 ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#	
87) p-Terphenyl-d14	0.000	244	0d	0.0000000 ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#	
Target Compounds					Qvalue
9) Benzaldehyde	3.204	105	173865	10048.6079049 ppb	99
22) Acetophenone	3.663	105	309077	9959.8584342 ppb #	84
31) Benzoic Acid	4.010	105	120299	9222.3570237 ppb	97
33) alpha-terpineol	4.199	59	214646	10410.5696025 ppb	99
37) Hydroquinone	4.422	110	155873m	6821.6965176 ppb	
38) Quinoline	4.422	129	473010	10389.5123616 ppb	99
39) Caprolactam	4.451	113	73583	11912.5043837 ppb #	38
43) 1,2,4,5-Tetrachloroben...	4.763	216	198655	9726.4867464 ppb	99
44) Diphenyl Ether	5.040	170	299941	9814.2488649 ug/ml	100
45) Diphenyl Oxide	5.040	170	299941	9814.2488649 ug/ml	100
62) 2,3,4,6-Tetrachlorophenol	5.616	232	91427	10165.5989248 ppb	93
69) Atrazine	6.269	200	133629	9731.0303741 ppb #	99
82) 2-nitrodiphenylamine	7.110	167	154792	9558.6563441 ppb	97
85) Benzidine	7.698	184	546837	9984.2424436 ppb	100
89) 3,3-Dichlorobenzidine	9.381	252	274667	9839.9745433 ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_025.D
Acq On : 15 Nov 2022 01:35 am
Operator : 917
Sample : SSCV TCL 10K1 ppb 22K14694 exp 4/13/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 22 Sample Multiplier: 1

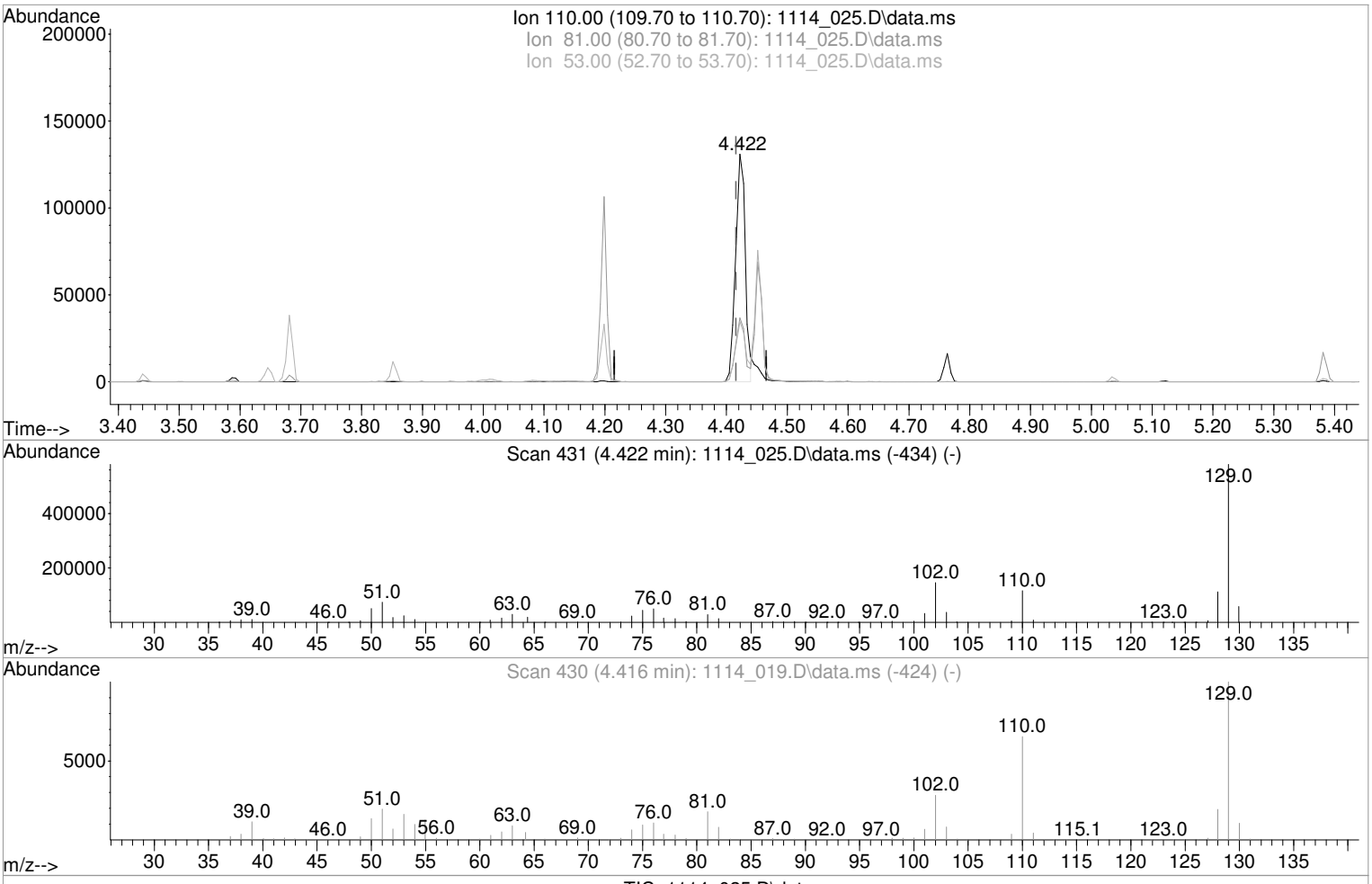
Quant Time: Nov 15 12:06:55 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_025.D
Acq On : 15 Nov 2022 01:35 am
Operator : 917
Sample : SSCV TCL 10K1 ppb 22K14694 exp 4/13/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 15 12:06:55 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_025.D\data.ms

(37) Hydroquinone

4.422min (+ 0.006) 6381.8200047 ppb

Qvalue = 98

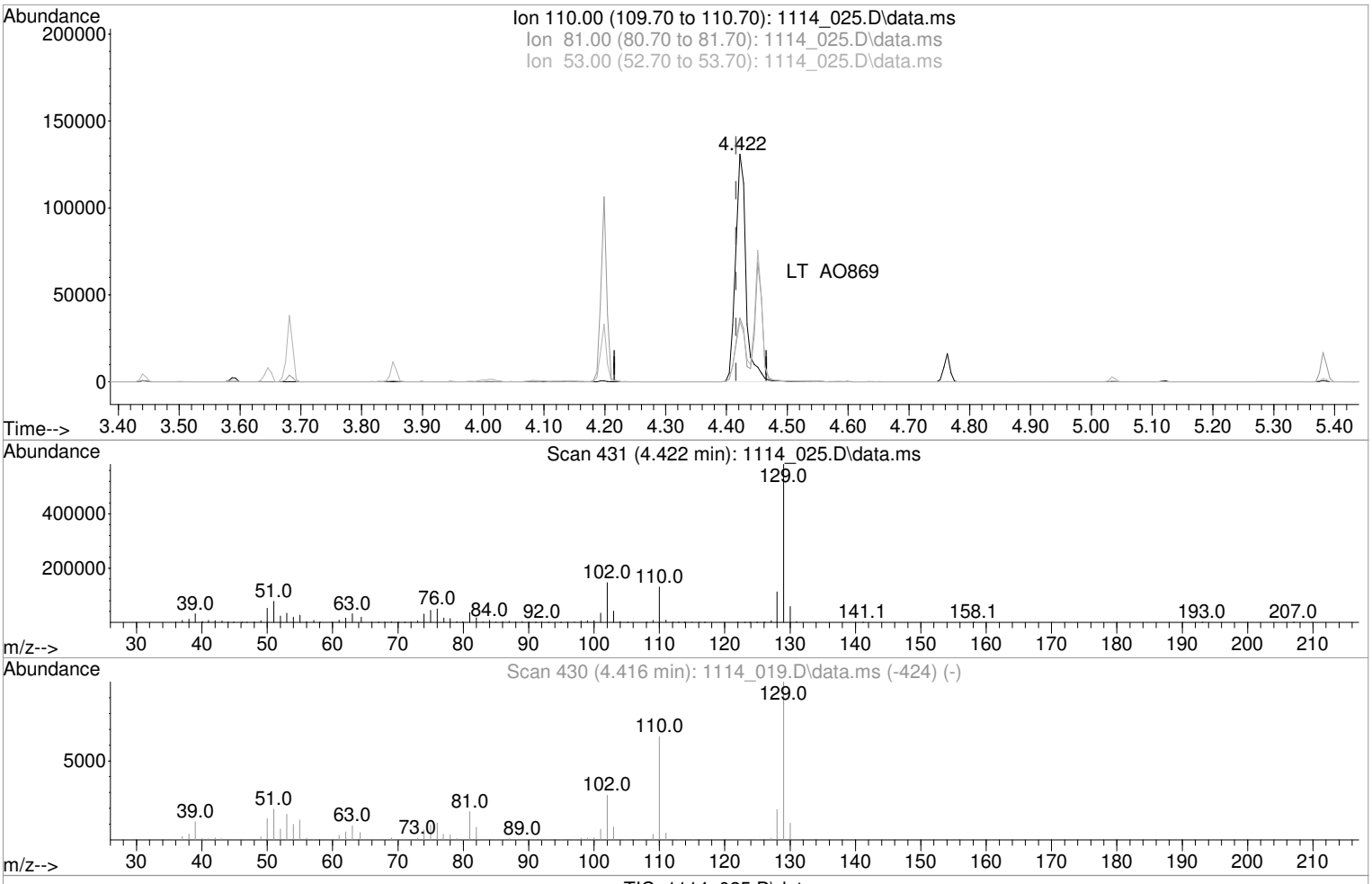
response 145822

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	28.07
53.00	24.80	26.47
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111422\
Data File : 1114_025.D
Acq On : 15 Nov 2022 01:35 am
Operator : 917
Sample : SSCV TCL 10K1 ppb 22K14694 exp 4/13/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 15 12:06:55 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1114_025.D\data.ms

(37) Hydroquinone

4.422min (+ 0.006) 6821.6965176 ppb m

response 155873

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	28.07
53.00	24.80	26.47
0.00	0.00	0.00

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559129	**Calibration (begin) date/time:**	11/14/22 18:55
Instrument ID:	BNAMS32	**Calibration (end) date/time:**	11/15/22 00:53
Lab File ID:	1119A_02-1	**Analysis date/time:**	11/19/22 15:01
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff. %	Max Diff. %	True Value mg/l	Result mg/l	Result % Rec.	Limits %
1-METHYLNAPHTHALENE	0.613498	0.64443730		5.04		10	10.50	105	
2-METHYLNAPHTHALENE	0.660905	0.69208860		4.72		10	10.47	105	
3&4-METHYL PHENOL	1.331741	1.479519		11.10		10	11.11	111	
ACENAPHTHENE	1.130261	1.181294		4.52	20	10	10.45	104	
ACENAPHTHYLENE	1.700208	1.847529		8.66		10	10.87	109	
ANTHRACENE	1.035826	1.096583		5.87		10	10.59	106	
BENZO(A)ANTHRACENE	1.225913	1.264241		3.13		10	10.31	103	
BENZO(A)PYRENE	0.985916	1.080666		9.61	20	10	10.19	102	80 - 120
BENZO(B)FLUORANTHENE	1.161386	1.251085		7.72		10	10.77	108	
BENZO(G,H,I)PERYLENE	0.995790	1.062932		6.74		10	10.67	107	
BENZO(K)FLUORANTHENE	1.154844	1.258713		8.99		10	10.90	109	
BIS(2-ETHYLHEXYL)PHTHALATE	0.780453	0.922451		18.20		10	10.49	105	
CARBAZOLE	0.974481	1.022681		4.95		10	10.49	105	
CHRYSENE	1.167001	1.215046		4.12		10	10.41	104	
DI-N-BUTYL PHTHALATE	1.117223	1.247837		11.70		10	11.17	112	
DI-N-OCTYL PHTHALATE	1.274410	1.600093		25.60	20	10	10.81	108	80 - 120
DIBENZ(A,H)ANTHRACENE	1.018327	1.132354		11.20		10	11.12	111	
DIBENZOFURAN	1.582715	1.637035		3.43		10	10.34	103	
FLUORANTHENE	1.066729	1.114374		4.47	20	10	10.45	104	
FLUORENE	1.298220	1.398299		7.71		10	10.77	108	
INDENO(1,2,3-CD)PYRENE	0.996604	1.067977		7.16		10	10.72	107	
NAPHTHALENE	1.003511	1.026843		2.33		10	10.23	102	
PENTACHLOROPHENOL	0.096279	0.13243270		37.60	20	10	11.60	116	80 - 120
PHENANTHRENE	1.049514	1.073887		2.32		10	10.23	102	
PHENOL	1.568046	1.695095		8.10	20	10	10.81	108	
PYRENE	1.315564	1.510654		14.80		10	11.48	115	
2,4,6-TRIBROMOPHENOL	0.085166	0.10436390		22.50		10	12.25	123	70 - 130
2-FLUOROBIPHENYL	1.273664	1.329591		4.39		10	10.44	104	70 - 130
2-FLUOROPHENOL	1.213054	1.280008		5.52		10	10.55	106	70 - 130
NITROBENZENE-D5	0.326575	0.32987860		1.01		10	10.10	101	70 - 130
P-TERPHENYL-D14	1.026047	1.173602		14.40		10	11.44	114	70 - 130
PHENOL-D5	1.551388	1.694503		9.22		10	10.92	109	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.428	152	185052	8000.0000000 ppb		-0.01
23) Naphthalene-d8	4.181	136	769876	8000.0000000 ppb		-0.02
46) Acenaphthene-d10	5.369	164	435909	8000.0000000 ppb		-0.01
70) Phenanthrene-d10	6.499	188	805765	8000.0000000 ppb		-0.02
84) Chrysene-d12	9.399	240	624707	8000.0000000 ppb		-0.03
94) Perylene-d12	12.157	264	615416	8000.0000000 ppb		-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	2.740	112	296085	10551.9470334 ppb		-0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 263.80%#			
7) Phenol-d5	3.193	99	391964	10922.4966476 ppb		-0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 273.06%#			
24) Nitrobenzene-d5	3.746	82	317457m	10101.1506077 ppb		-0.01
Spiked Amount 2000.000	Range 10 - 126		Recovery = 505.06%#			
50) 2-Fluorobiphenyl	4.875	172	724476	10439.1013389 ppb		-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 521.96%#			
73) 2,4,6-Tribromophenol	5.952	330	105116	12254.2191268 ppb		-0.02
Spiked Amount 4000.000	Range 10 - 153		Recovery = 306.36%#			
87) p-Terphenyl-d14	7.940	244	916447	11438.0912639 ppb		-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 571.90%#			
Target Compounds						Qvalue
2) Pyridine	2.217	79	313322	10797.9572897 ppb		98
3) N-Nitrosodimethylamine	2.187	42	147465	10374.8769800 ppb		94
5) Aniline	3.246	66	190930	11041.3631345 ppb		93
6) bis(2-Chloroethyl)ether	3.264	93	271372	9659.9425418 ppb		93
8) Phenol	3.199	94	392101	10810.2398223 ppb		99
10) 2-Chlorophenol	3.311	128	317639	10729.1382811 ppb		97
11) n-Decane	3.317	41	146848	9496.7927739 ppb		98
12) 1,3-Dichlorobenzene	3.399	146	349831	10320.3749076 ppb		96
13) 1,4-Dichlorobenzene	3.440	146	358127	10367.5357682 ppb		96
14) Benzyl Alcohol	3.493	79	258952	10862.3699987 ppb		98
15) 1,2-Dichlorobenzene	3.528	146	338762	10429.3384723 ppb		98
16) bis(2-Chloroisopropyl)...	3.564	121	110944	10494.9304864 ppb	#	87
17) 2,2-oxybis(1-chloropro...	3.564	121	110944	10494.9304864 ppb	#	87
18) 2-Methylphenol	3.540	108	296586	10784.7048350 ppb		99
19) Hexachloroethane	3.722	117	133917	10359.4295754 ppb		94
20) N-Nitrosodi-n-propylamine	3.646	70	223648	11306.9023535 ppb		96
21) 3&4-Methyl phenol	3.628	107	342235	11109.6619847 ppb		100
25) Nitrobenzene	3.758	77	318325	10672.3743271 ppb		98
26) Isophorone	3.893	82	623786	10986.6200560 ppb		98
27) 2-Nitrophenol	3.940	139	181847	11663.5565768 ppb		93
28) 2,4-Dimethylphenol	3.946	107	293805	9612.6663665 ppb		99
29) bis(2-Chlorethoxy)methane	4.005	93	384359	10483.6848368 ppb		97
30) 2,4-Dichlorophenol	4.081	162	273981	10708.7221050 ppb		92
32) 1,2,4-Trichlorobenzene	4.140	180	293366	10208.5654365 ppb		98
34) Naphthalene	4.199	128	988177	10232.5050909 ppb		99
35) 4-Chloroaniline	4.217	65	121880	10566.8864863 ppb		98
36) Hexachloro-1,3-butadiene	4.264	225	149162	10189.0702536 ppb		99

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

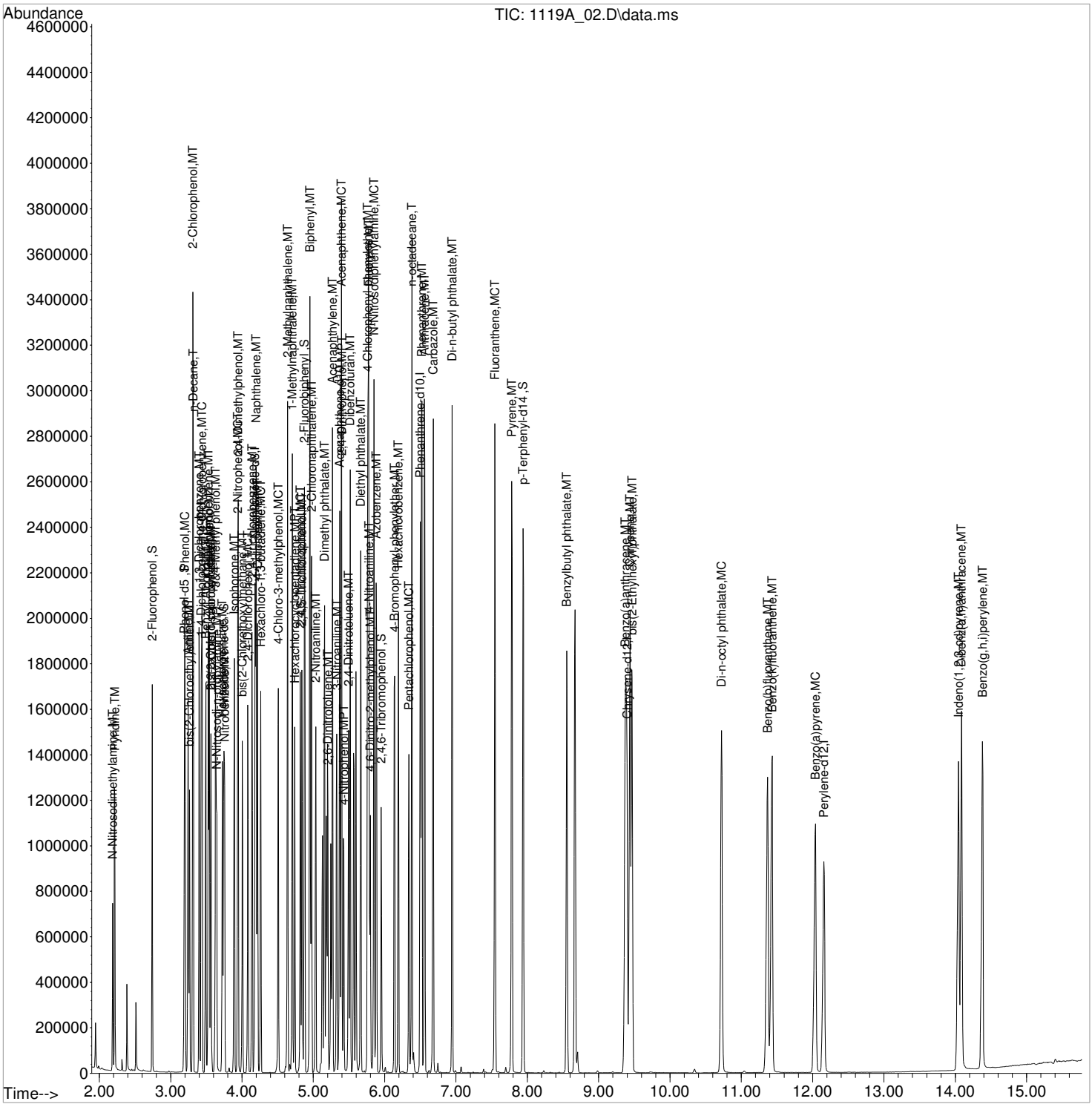
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) 4-Chloro-3-methylphenol	4.511	107	299063	11225.5590965 ppb		96
41) 2-Methylnaphthalene	4.640	142	666028	10471.8286681 ppb		99
42) 1-Methylnaphthalene	4.705	142	620171	10504.3127241 ppb		99
47) Hexachlorocyclopentadiene	4.740	237	183989	9563.8911581 ppb		99
48) 2,4,6-Trichlorophenol	4.817	196	203337	11509.6473941 ppb		98
49) 2,4,5-Trichlorophenol	4.840	196	212586	11206.4597102 ppb		98
51) Biphenyl	4.952	154	818516	10508.5098678 ppb		100
52) 2-Chloronaphthalene	4.975	162	628015	10486.9540851 ppb		99
53) 2-Nitroaniline	5.034	138	237180	11458.5035793 ppb		99
54) Acenaphthylene	5.269	152	1006693	10866.4835114 ppb		100
55) Dimethyl phthalate	5.158	163	745468	11043.0578286 ppb		94
56) 2,6-Dinitrotoluene	5.205	165	183322	11310.0834066 ppb		88
57) 3-Nitroaniline	5.328	138	213829	11624.3841090 ppb		92
58) Acenaphthene	5.393	153	643671	10451.5208347 ppb		98
59) 2,4-Dinitrophenol	5.399	184	100225	13925.2162720 ppb	#	41
60) Dibenzofuran	5.516	168	891998	10343.2060531 ppb		99
61) 2,4-Dinitrotoluene	5.493	165	240220	11361.2329994 ppb		95
63) 4-Nitrophenol	5.428	139	173068	12323.3830004 ppb		91
64) Fluorene	5.775	166	761914	10770.8919762 ppb		100
65) 4-Chlorophenyl-phenyle...	5.764	204	356522	10757.4349817 ppb		89
66) Diethyl phthalate	5.664	149	721554	10923.6690346 ppb		99
67) 4-Nitroaniline	5.781	138	223858	11648.2623514 ppb		97
68) Azobenzene	5.881	77	706512	10986.6995788 ppb		99
71) 4,6-Dinitro-2-methylph...	5.799	198	132510	12948.0536195 ppb		95
72) N-Nitrosodiphenylamine	5.852	169	659943	10654.5277842 ppb		100
74) 4-Bromophenyl-phenylether	6.140	248	197687	10860.8482728 ppb		99
75) Hexachlorobenzene	6.193	284	213812	10363.5748720 ppb		99
76) n-octadecane	6.381	55	121950	10424.8651610 ppb		99
77) Pentachlorophenol	6.340	266	133387	11596.3564777 ppb		97
78) Phenanthrene	6.522	178	1081626	10232.2322604 ppb		97
79) Anthracene	6.558	178	1104485	10586.5562743 ppb		100
80) Carbazole	6.681	167	1030051	10494.6253246 ppb		99
81) Di-n-butyl phthalate	6.946	149	1256829	11169.0955097 ppb		100
83) Fluoranthene	7.546	202	1122404	10446.6427191 ppb		100
86) Pyrene	7.781	202	1179645	11482.9340217 ppb		100
88) Benzylbutyl phthalate	8.552	149	539420	11018.2316091 ppb		94
90) Benzo(a)anthracene	9.375	228	987225	10312.6452001 ppb		99
91) Chrysene	9.440	228	948810	10411.7014829 ppb		98
92) bis(2-Ethylhexyl)phtha...	9.469	149	720327	10490.6459659 ppb		99
93) Di-n-octyl phthalate	10.722	149	1249487	10812.8101981 ppb		100
95) Benzo(b)fluoranthene	11.369	252	962422	10772.3401587 ppb		99
96) Benzo(k)fluoranthene	11.434	252	968290m	10899.4142775 ppb		
97) Benzo(a)pyrene	12.040	252	831324	10192.9556447 ppb		99
98) Indeno(1,2,3-cd)pyrene	14.045	276	821563m	10716.1671293 ppb		
99) Dibenz(a,h)anthracene	14.087	278	871086	11119.7477304 ppb		99
100) Benzo(g,h,i)perylene	14.381	276	817682	10674.2674940 ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

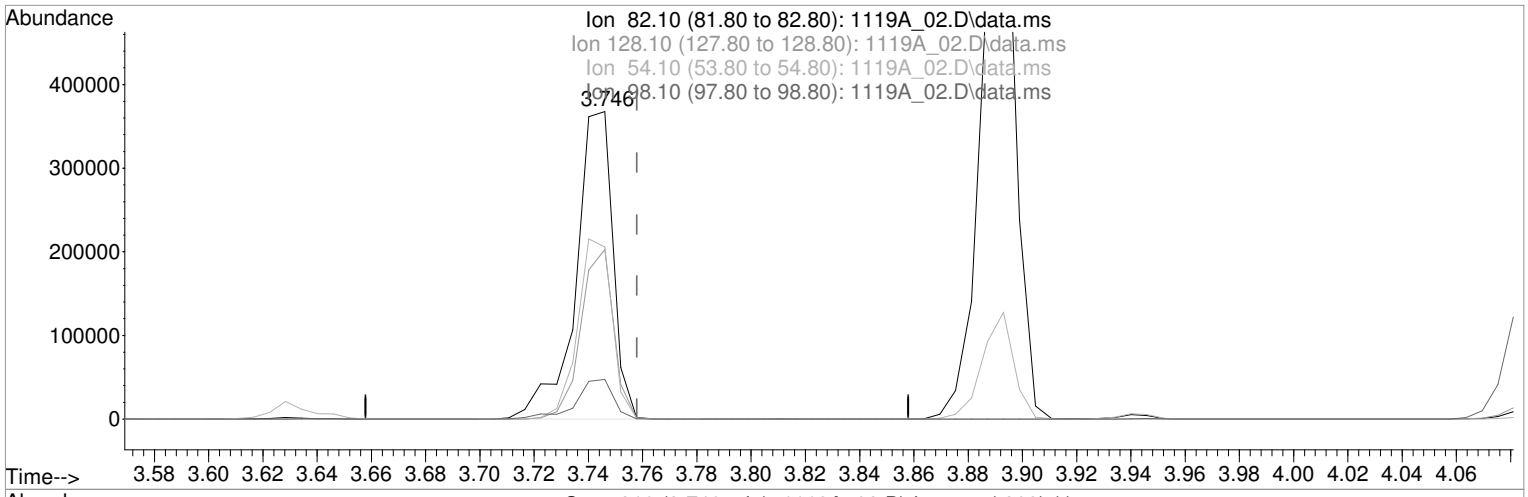
Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

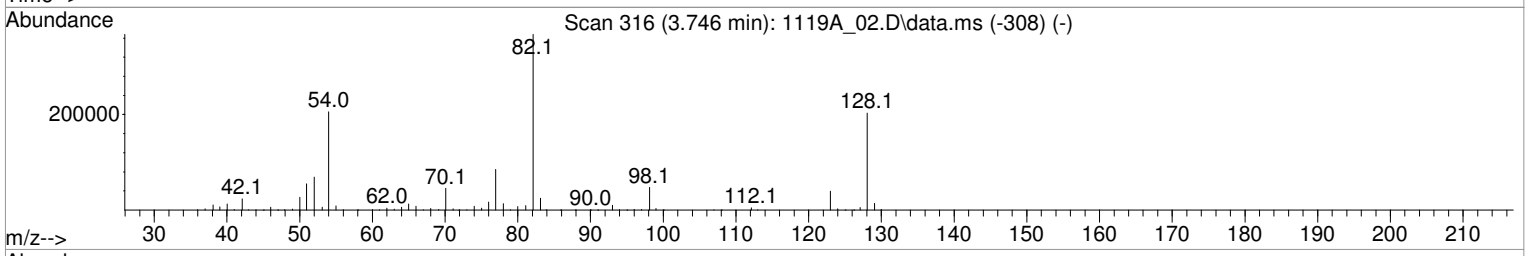


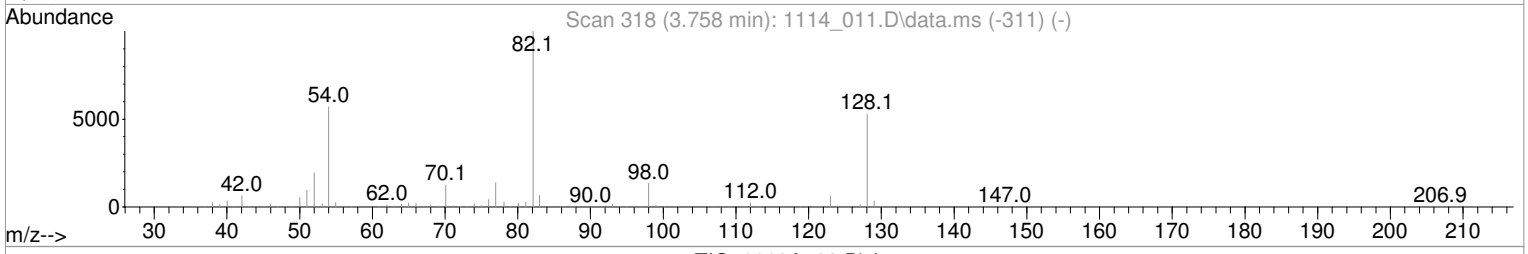
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_02.D\data.ms

(24) Nitrobenzene-d5 (S)

3.746min (-0.012) 11189.6771241 ppb

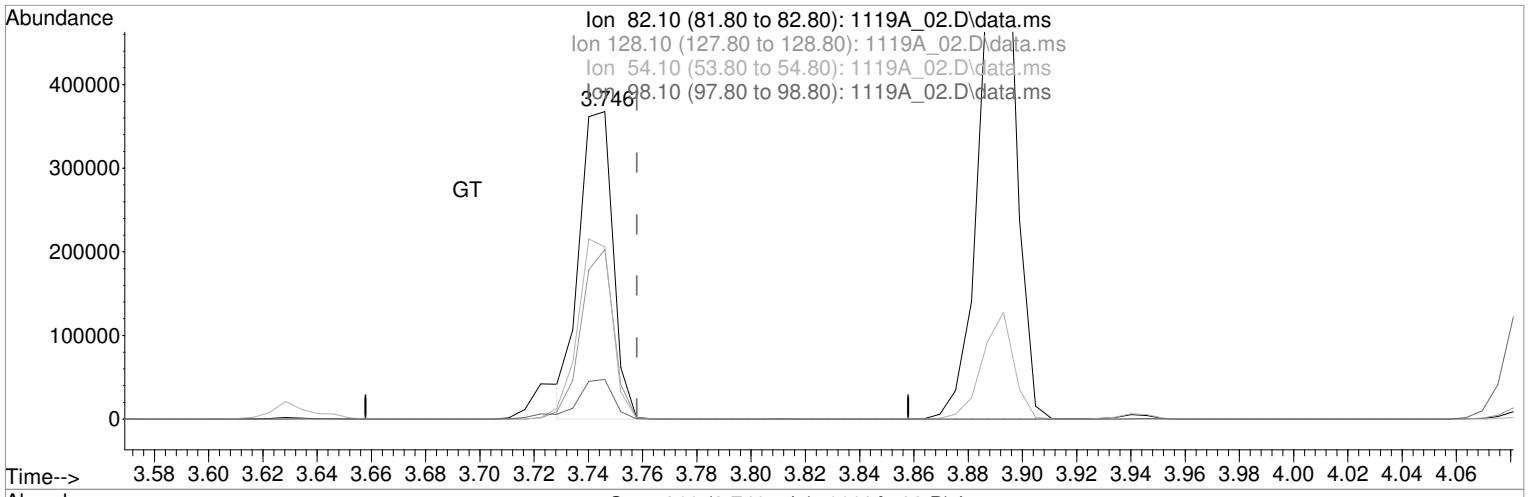
Qvalue = 98

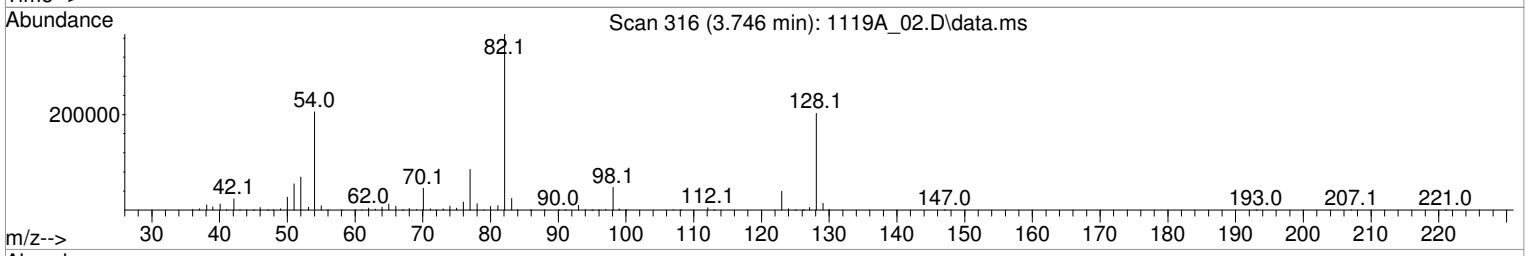
response 351667

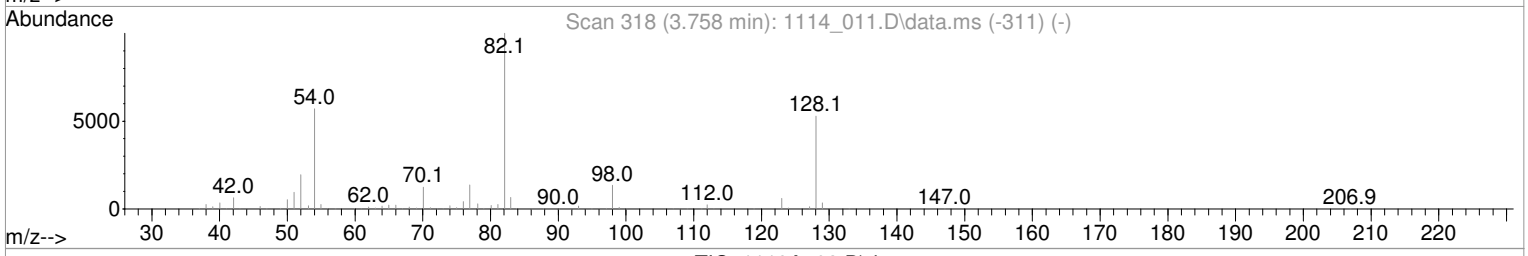
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	55.12
54.10	57.00	55.99
98.10	13.50	12.94

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_02.D\data.ms

(24) Nitrobenzene-d5 (S)

3.746min (-0.012) 10101.1506077 ppb m

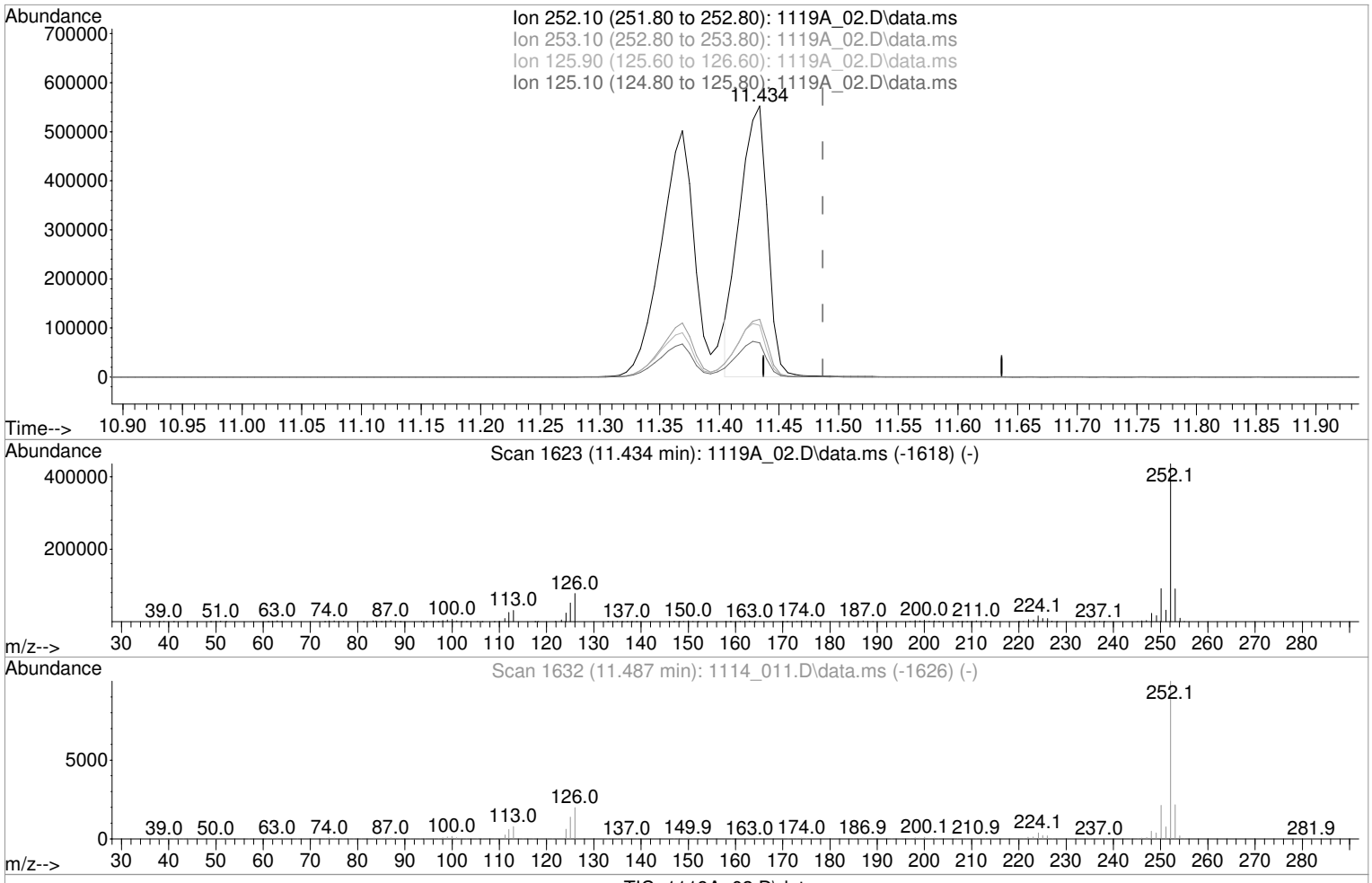
response 317457

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	55.12
54.10	57.00	55.99
98.10	13.50	12.94

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_02.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.434min (-0.053) 10163.3613392 ppb

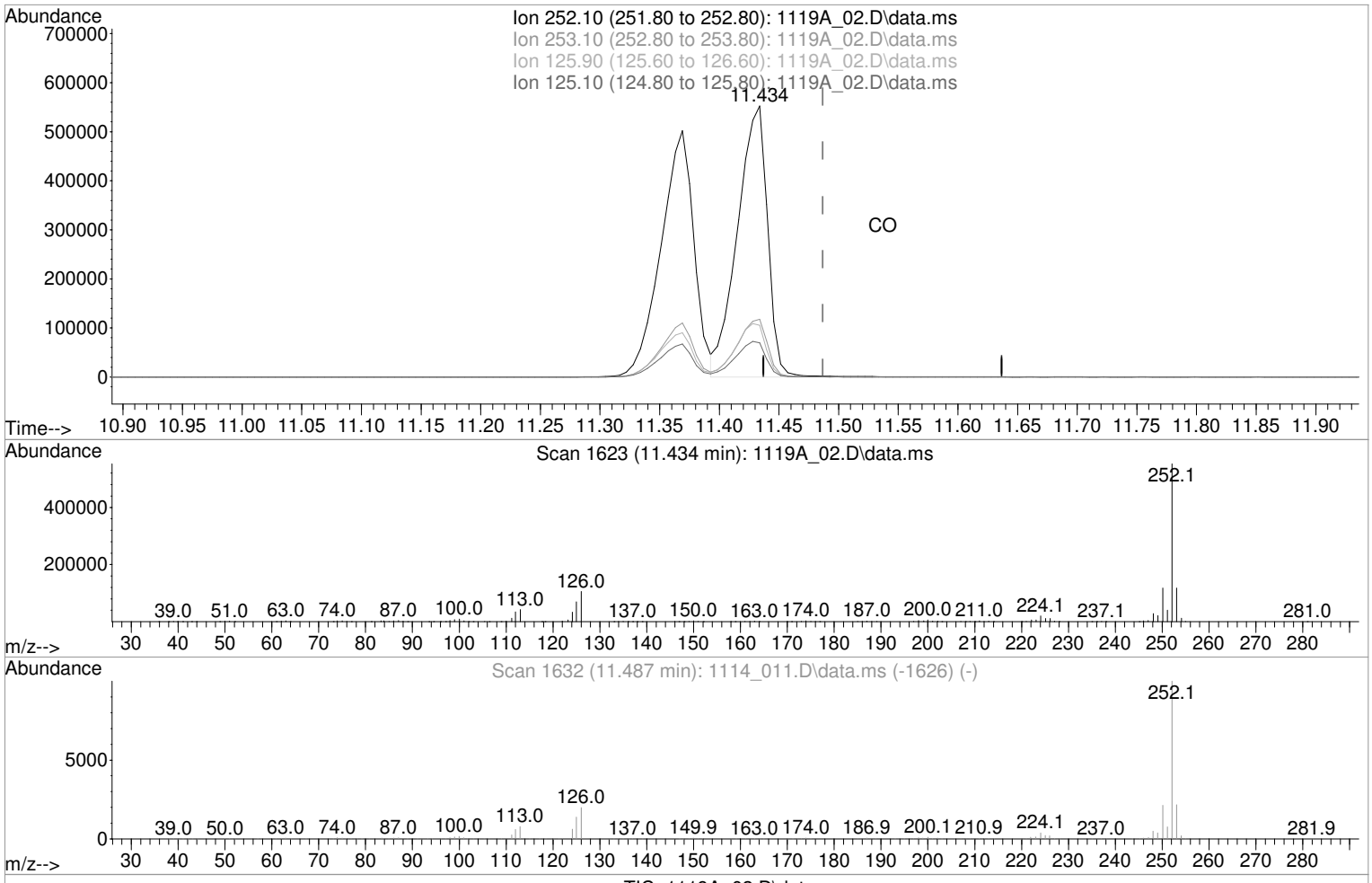
Qvalue = 99

response 902900

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.34
125.90	19.60	19.11
125.10	13.70	12.66

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_02.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.434min (-0.053) 10899.4142775 ppb m

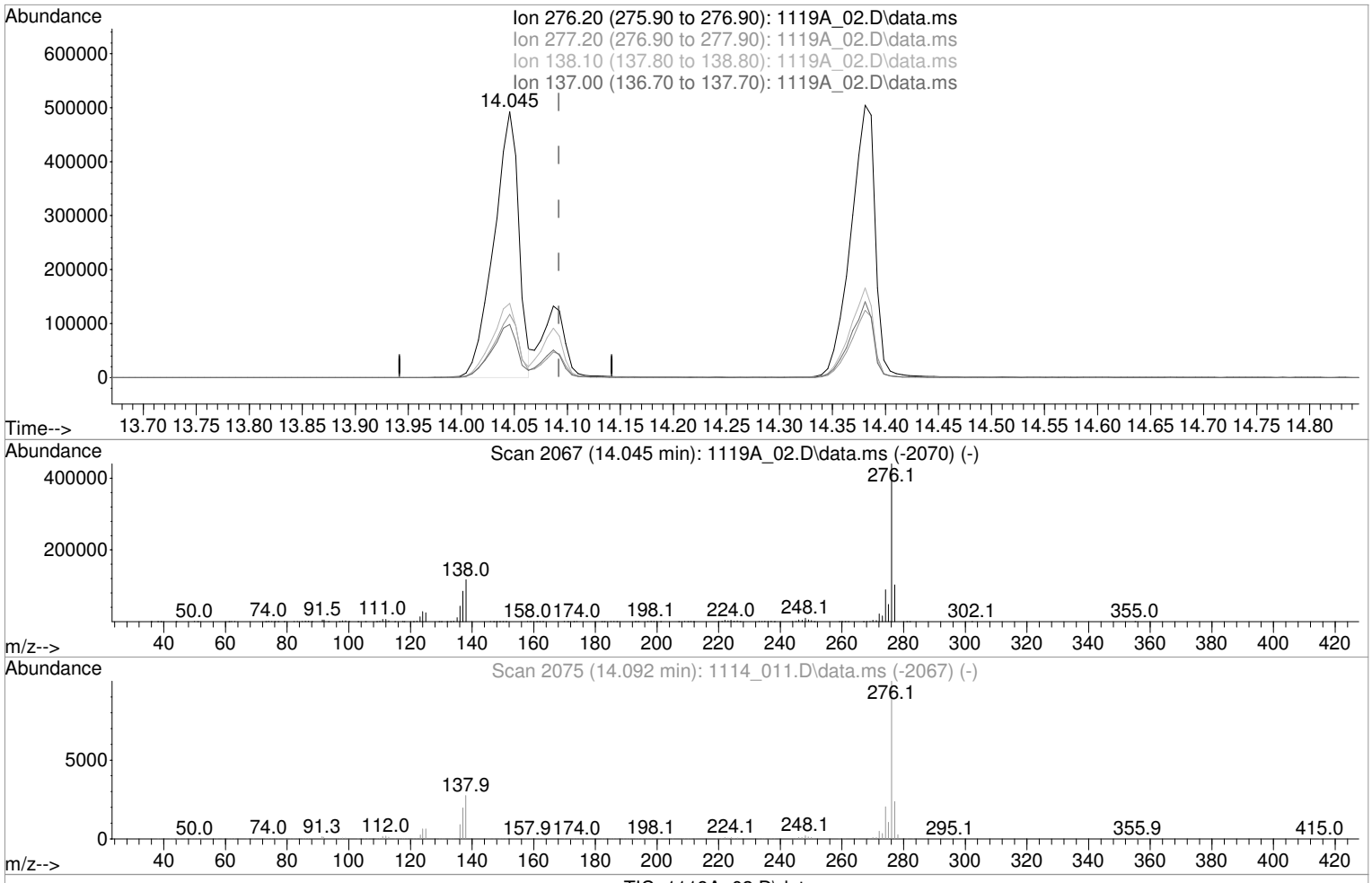
response 968290

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.33
125.90	19.60	19.10
125.10	13.70	12.65

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_02.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.045min (-0.047) 10484.3947957 ppb

Qvalue = 100

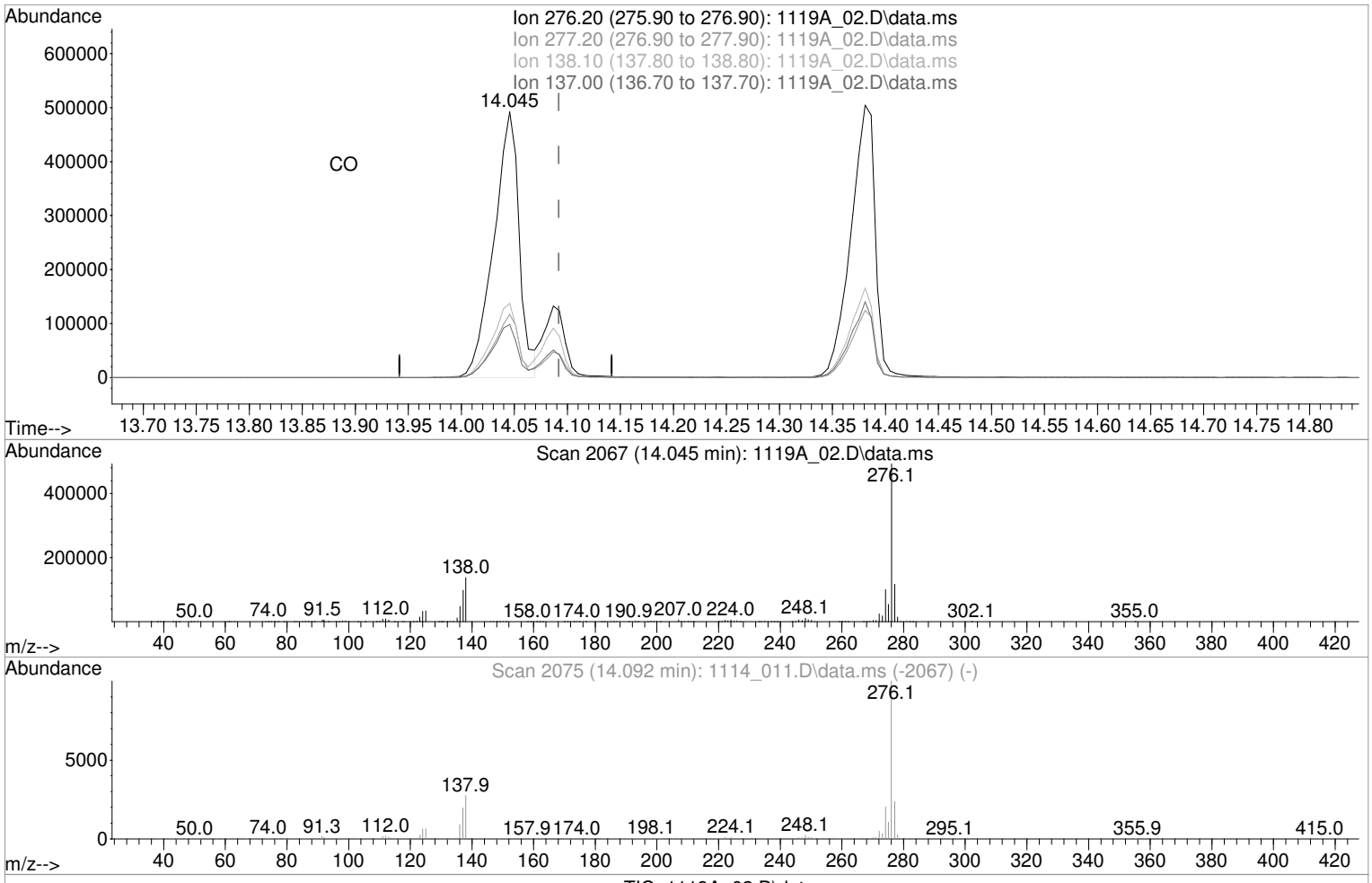
response 803794

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.71
138.10	27.50	27.83
137.00	19.70	19.94

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_02.D\data.ms

(98) Indeno(1,2,3-cd)pyrene (MT)

14.045min (-0.047) 10716.1671293 ppb m

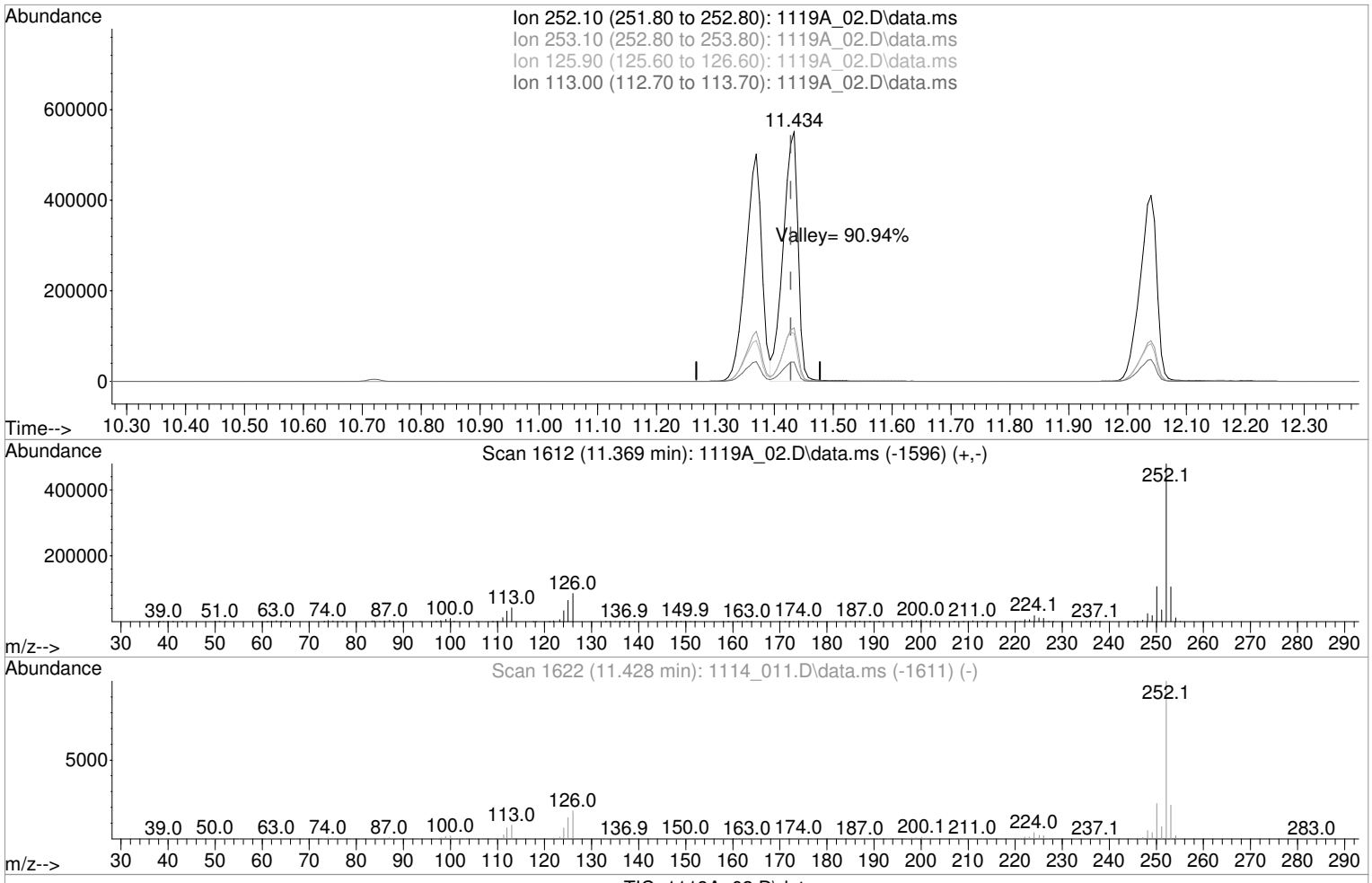
response 821563

Ion	Exp%	Act%
276.20	100.00	100.00
277.20	23.60	23.71
138.10	27.50	27.83
137.00	19.70	19.94

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_02.D
Acq On : 19 Nov 2022 03:01 pm
Operator : 917
Sample : ICV SVMS 10K ppb 22K14666 exp 1/13/23
Misc : SVMS CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 19 15:36:10 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_02.D\data.ms

(95) Benzo(b)fluoranthene (MT)

11.369min (-0.059) 10772.3401587 ppb

Qvalue = 99

response 962422

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.50	21.98
125.90	17.90	17.86
113.00	8.80	8.70

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1559129	**Calibration (begin) date/time:**	11/14/22 18:55
Instrument ID:	BNAMS32	**Calibration (end) date/time:**	11/15/22 00:53
Lab File ID:	1119A_03-1	**Analysis date/time:**	11/19/22 15:22
Analytical Method:	8270E	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
BENZOIC ACID	0.159309	0.24197770		51.90		10	15.19	152	

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_03.D
Acq On : 19 Nov 2022 03:22 pm
Operator : 917
Sample : ICV TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

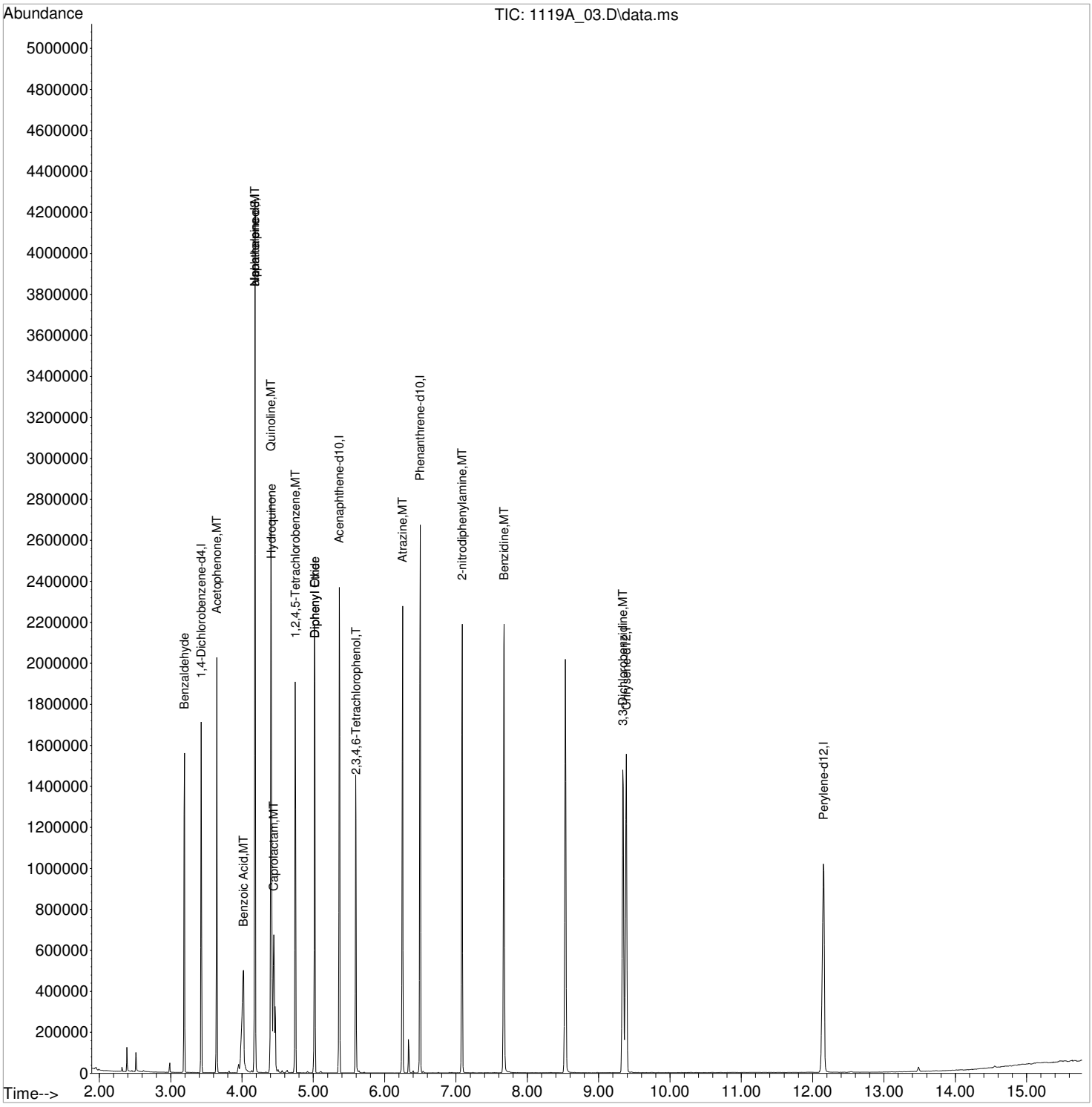
Quant Time: Nov 19 15:38:38 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.428	152	184686	8000.0000000	ppb	-0.01
23) Naphthalene-d8	4.181	136	856122	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.364	164	427423	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.499	188	830409	8000.0000000	ppb	-0.02
84) Chrysene-d12	9.387	240	723343	8000.0000000	ppb	-0.04
94) Perylene-d12	12.151	264	701854	8000.0000000	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
7) Phenol-d5	0.000	99	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 120		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 10 - 126		Recovery =	0.00%#		
50) 2-Fluorobiphenyl	0.000	172	0	0.0000000	ppb	
Spiked Amount 2000.000	Range 22 - 127		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.0000000	ppb	
Spiked Amount 4000.000	Range 10 - 153		Recovery =	0.00%#		
87) p-Terphenyl-d14	0.000	244	0d	0.0000000	ppb	
Spiked Amount 2000.000	Range 29 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Benzaldehyde	3.193	105	240100	11201.7498483	ppb	99
22) Acetophenone	3.646	105	431214	11217.0667475	ppb	100
31) Benzoic Acid	4.022	105	258953	15189.1807464	ppb	99
33) alpha-terpineol	4.181	59	302813	11237.2410721	ppb	94
37) Hydroquinone	4.411	110	392865m	13155.2264959	ppb	
38) Quinoline	4.405	129	668263	11230.6721007	ppb	98
39) Caprolactam	4.446	113	127397	15780.4096874	ppb	93
43) 1,2,4,5-Tetrachloroben...	4.746	216	280779	10518.5193813	ppb	100
44) Diphenyl Ether	5.022	170	425222	10645.6074248	ug/ml	98
45) Diphenyl Oxide	5.022	170	425222	10645.6074248	ug/ml	98
62) 2,3,4,6-Tetrachlorophenol	5.599	232	160691	13583.6158313	ppb	96
69) Atrazine	6.252	200	213152	11800.8382377	ppb #	100
82) 2-nitrodiphenylamine	7.087	167	266926	11499.3119183	ppb	96
85) Benzidine	7.675	184	914512	11621.6143722	ppb	100
89) 3,3-Dichlorobenzidine	9.340	252	456291	11377.5622254	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_03.D
Acq On : 19 Nov 2022 03:22 pm
Operator : 917
Sample : ICV TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

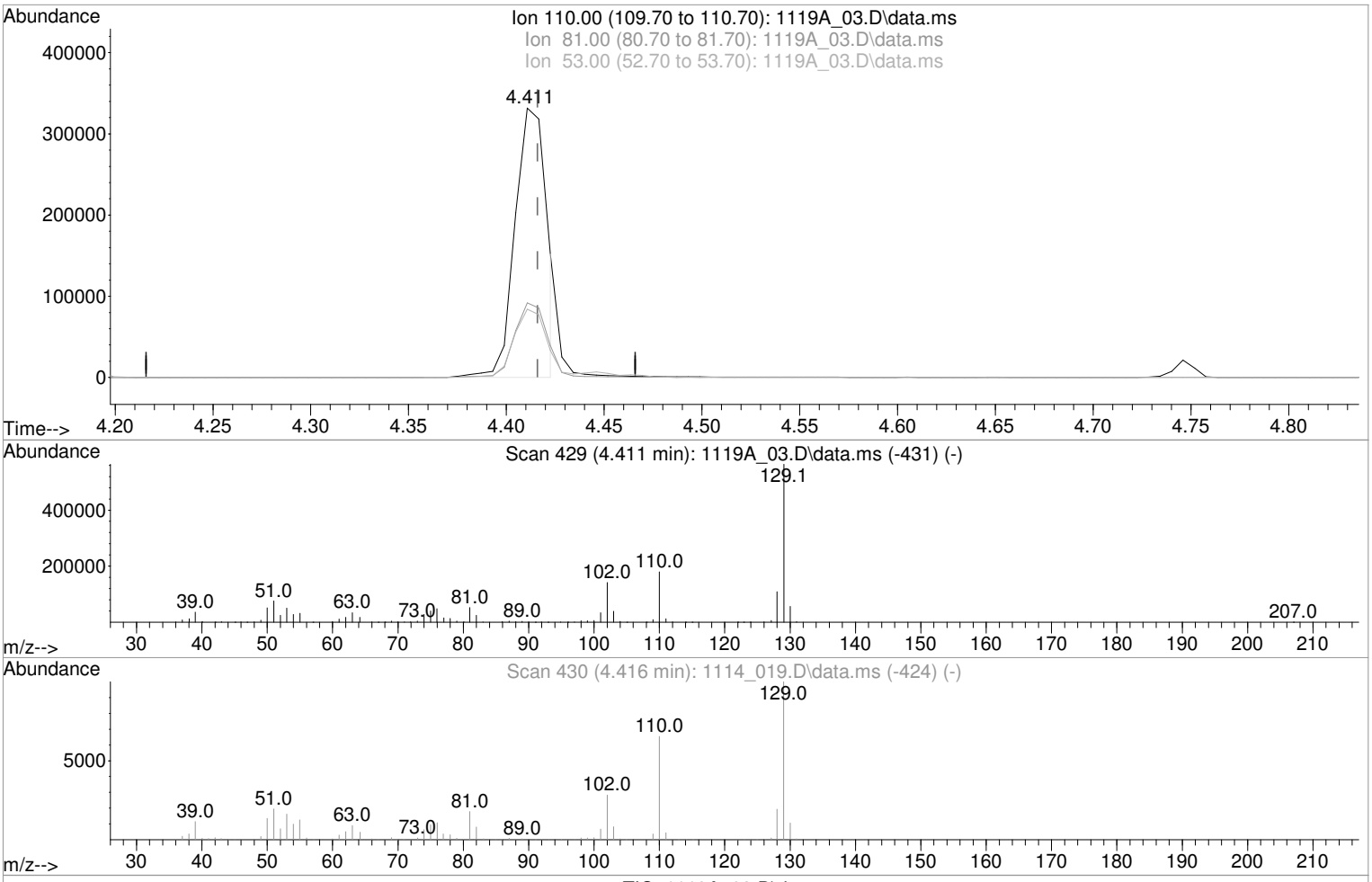
Quant Time: Nov 19 15:38:38 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_03.D
Acq On : 19 Nov 2022 03:22 pm
Operator : 917
Sample : ICV TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 15:38:38 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_03.D\data.ms

(37) Hydroquinone

4.411min (-0.005) 12567.3909770 ppb

Qvalue = 99

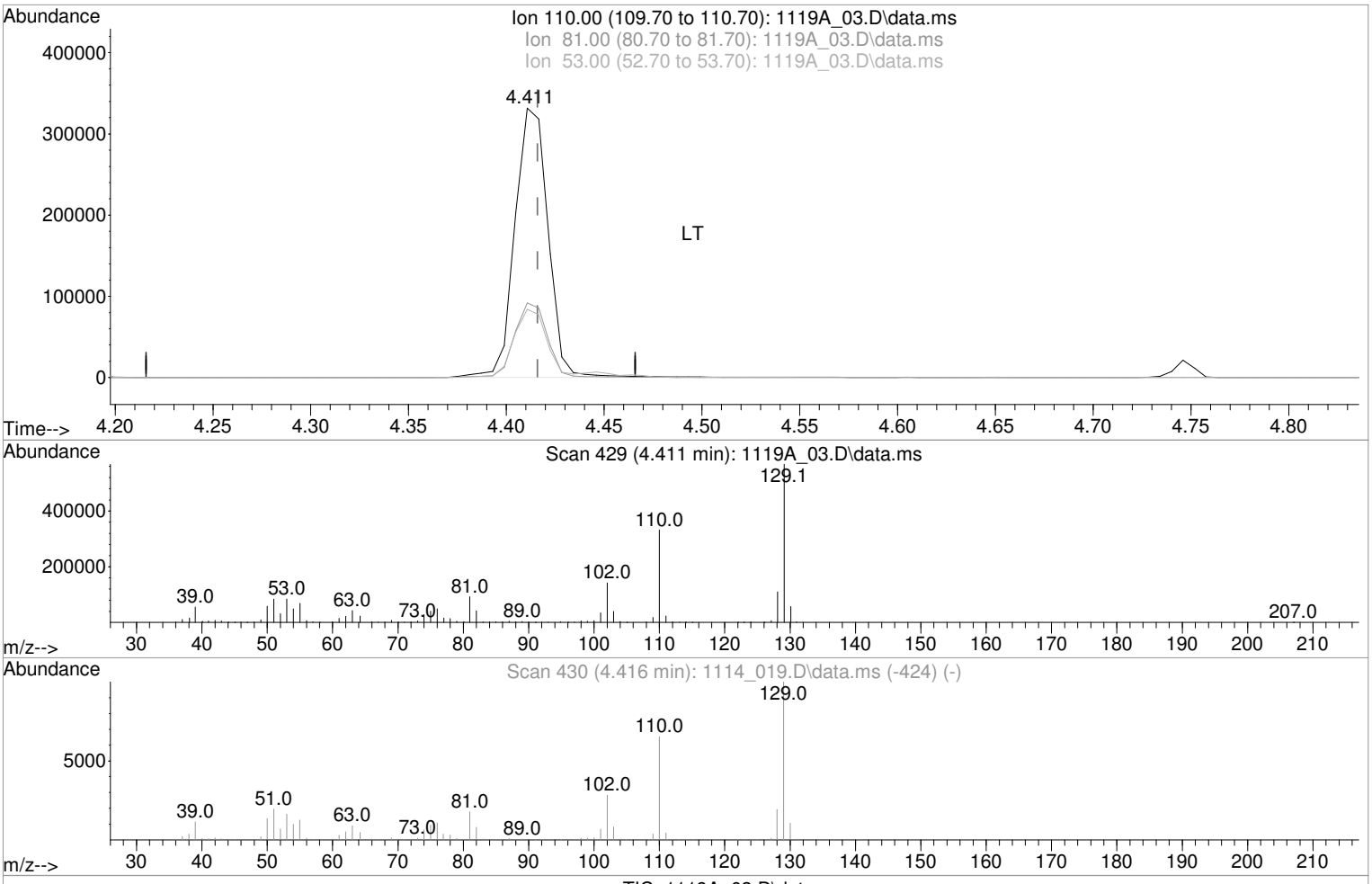
response 375310

Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	27.66
53.00	24.80	25.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_03.D
Acq On : 19 Nov 2022 03:22 pm
Operator : 917
Sample : ICV TCL 10K1 ppb 22K14668 exp 5/05/23
Misc : TCL CAL ISTD 22K09939 exp 05/09/23
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 15:38:38 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_03.D\data.ms

(37) Hydroquinone

4.411min (-0.005) 13155.2264959 ppb m

response	392865	
Ion	Exp%	Act%
110.00	100.00	100.00
81.00	27.50	27.66
53.00	24.80	25.38
0.00	0.00	0.00

ANALYTICAL SEQUENCE

SDG:	L1559129	**Analytical Method:**	8270E
Instrument ID:	BNAMS32	**Calibration Start Date:**	11/14/22 18:55
		Calibration End Date:	11/15/22 00:53

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	BNAMS321114221114_005-1604322	1114_005-1	11/14/22 18:34		
CAL	40	1114_006	11/14/22 18:55		
CAL	200	1114_007	11/14/22 19:16		
CAL	1000	1114_008	11/14/22 19:37		
CAL	2000	1114_009	11/14/22 19:58		
CAL	5000	1114_010	11/14/22 20:19		
CAL	10000	1114_011	11/14/22 20:40		
CAL	20000	1114_012	11/14/22 21:01		
CAL	30000	1114_013	11/14/22 21:22		
CAL	40000	1114_014	11/14/22 21:43		
CAL	50000	1114_015	11/14/22 22:05		
CAL	1K1	1114_016	11/14/22 22:26		
CAL	2K1	1114_017	11/14/22 22:47		
CAL	5K1	1114_018	11/14/22 23:08		
CAL	10K1	1114_019	11/14/22 23:29		
CAL	20K1	1114_020	11/14/22 23:50		
CAL	30K1	1114_021	11/15/22 00:11		
CAL	40K1	1114_022	11/15/22 00:32		
CAL	50K1	1114_023	11/15/22 00:53		
SSCV	BNAMS321114221114_024-1604322	1114_024-1	11/15/22 01:14		
SSCV	BNAMS321114221114_025-1604322	1114_025-1	11/15/22 01:35		
TUNE	BNAMS32111922A1119A_01T604322	1119A_01T	11/19/22 14:41		
ICV	BNAMS32111922A1119A_02-1604322	1119A_02-1	11/19/22 15:01		
ICV	BNAMS32111922A1119A_03-1604322	1119A_03-1	11/19/22 15:22		
LCS	R3863446-1	1119A_04	11/19/22 15:43	1	WG1962120
BLANK	R3863446-2	1119A_05	11/19/22 16:04	1	WG1962120
BNSF-EB01-111422	L1559129-01	1119A_11	11/19/22 18:11	1	WG1962120
OS	L1559112-01	1119A_15	11/19/22 19:36		
MS	R3863446-3	1119A_16	11/19/22 19:57	1	WG1962120
MSD	R3863446-4	1119A_17	11/19/22 20:18	1	WG1962120
L1557200-02	L1557200-02	1119A_28	11/20/22 00:11	5	WG1958860

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1559129-01 **Analytical Method:** 8270E
Matrix: GW **Prep Method:** 3510C

Analyte	CAS	MDL	RDL
		mg/l	*mg/l*
Benzo(b)fluoranthene	205-99-2	0.000130	0.0010
Benzo(k)fluoranthene	207-08-9	0.000120	0.0010
Benzo(g,h,i)perylene	191-24-2	0.000121	0.0010
Benzo(a)pyrene	50-32-8	0.00003810	0.0010
Benzoic Acid	65-85-0	0.0017	0.05
Carbazole	86-74-8	0.000111	0.01
Acenaphthene	83-32-9	0.00008860	0.0010
Chrysene	218-01-9	0.000130	0.0010
Dibenz(a,h)anthracene	53-70-3	0.00006440	0.0010
Dibenzofuran	132-64-9	0.000097	0.01
Acenaphthylene	208-96-8	0.00009210	0.0010
Fluorene	86-73-7	0.00008440	0.0010
Fluoranthene	206-44-0	0.000102	0.0010
Indeno(1,2,3-cd)pyrene	193-39-5	0.000279	0.0010
1-Methylnaphthalene	90-12-0	0.000079	0.0010
2-Methylnaphthalene	91-57-6	0.000117	0.0010
Phenanthrene	85-01-8	0.000112	0.0010
Pyrene	129-00-0	0.000107	0.0010
Naphthalene	91-20-3	0.000159	0.0010
Bis(2-ethylhexyl)phthalate	117-81-7	0.000895	0.0030
Di-n-butyl phthalate	84-74-2	0.000453	0.0030
Di-n-octyl phthalate	117-84-0	0.000932	0.0030
Anthracene	120-12-7	0.00008040	0.0010
3&4-Methyl Phenol	3&4-Methyl Phenol	0.000168	0.01
Pentachlorophenol	87-86-5	0.000313	0.01
Phenol	108-95-2	0.004330	0.01
Benzo(a)anthracene	56-55-3	0.000199	0.0010

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863446-2	**SDG:**	L1559129
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	1119A_05	**Received Date/Time:**	_____
Instrument ID:	BNAMS32	**Preparation Date/Time:**	11/19/22 05:16
Analytical Batch:	WG1962120	**Analysis Date/Time:**	11/19/22 16:04
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	GW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Acenaphthene	83-32-9	5.37	U		0.0886	1.00
Acenaphthylene	208-96-8	0	U		0.0921	1.00
Anthracene	120-12-7	6.55	U		0.0804	1.00
Benzo(a)anthracene	56-55-3	9.39	U		0.199	1.00
Benzo(b)fluoranthene	205-99-2	11.39	U		0.130	1.00
Benzo(k)fluoranthene	207-08-9	0	U		0.120	1.00
Benzo(g,h,i)perylene	191-24-2	14.35	U		0.121	1.00
Benzo(a)pyrene	50-32-8	0	U		0.0381	1.00
Benzoic Acid	65-85-0	3.95	U		1.70	50.0
Carbazole	86-74-8	6.68	U		0.111	10.0
Chrysene	218-01-9	9.42	U		0.130	1.00
Dibenz(a,h)anthracene	53-70-3	14.07	U		0.0644	1.00
Dibenzofuran	132-64-9	5.51	U		0.0970	10.0
Fluorene	86-73-7	5.77	U		0.0844	1.00
Fluoranthene	206-44-0	7.54	U		0.102	1.00
Indeno(1,2,3-cd)pyrene	193-39-5	14.03	U		0.279	1.00
1-Methylnaphthalene	90-12-0	4.70	U		0.0790	1.00
2-Methylnaphthalene	91-57-6	4.63	U		0.117	1.00
Phenanthrene	85-01-8	6.52	U		0.112	1.00
Pyrene	129-00-0	7.78	U		0.107	1.00
Naphthalene	91-20-3	4.19	U		0.159	1.00
Bis(2-ethylhexyl)phthalate	117-81-7	0	U		0.895	3.00
Di-n-butyl phthalate	84-74-2	6.94	U		0.453	3.00
Di-n-octyl phthalate	117-84-0	0	U		0.932	3.00
3&4-Methyl Phenol	3&4-Methyl Phenol	3.62	U		0.168	10.0
Pentachlorophenol	87-86-5	0	U		0.313	10.0
Phenol	108-95-2	3.19	U		4.33	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_05.D
Acq On : 19 Nov 2022 04:04 pm
Operator : 974
Sample : BLANK 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 117 Sample Multiplier: 1

Quant Time: Nov 21 13:01:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

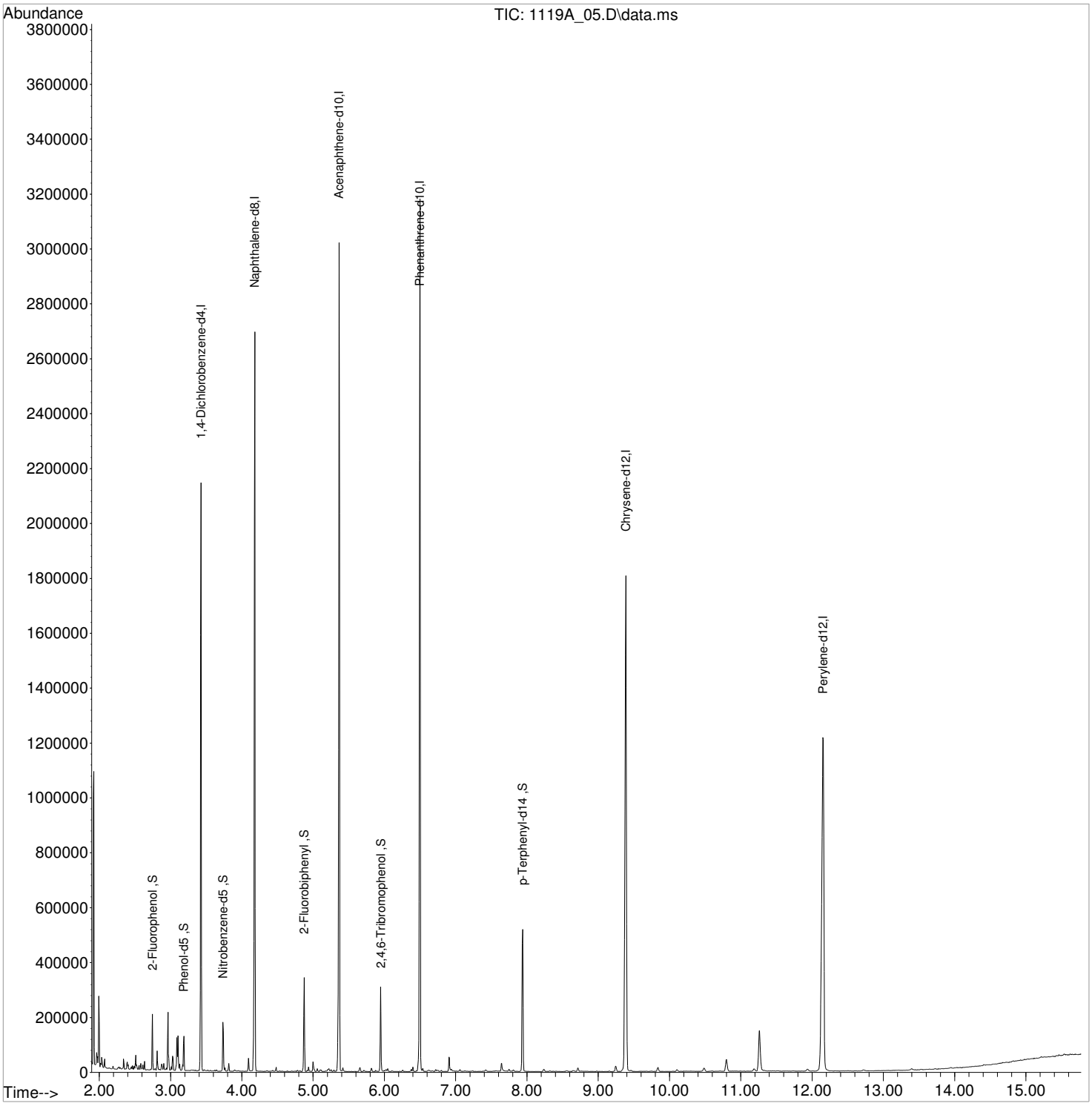
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.428	152	265065	8000.0000000	ppb	-0.01
23) Naphthalene-d8	4.181	136	1037611	8000.0000000	ppb	-0.02
46) Acenaphthene-d10	5.364	164	569715	8000.0000000	ppb	-0.02
70) Phenanthrene-d10	6.499	188	1028070	8000.0000000	ppb	-0.02
84) Chrysene-d12	9.387	240	874995	8000.0000000	ppb	-0.04
94) Perylene-d12	12.151	264	863741	8000.0000000	ppb	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	2.746	112	40655	1011.5132106	ppb	0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 25.29%			
7) Phenol-d5	3.187	99	33890	659.3085461	ppb	-0.02
Spiked Amount 4000.000	Range 10 - 120		Recovery = 16.48%			
24) Nitrobenzene-d5	3.734	82	40385	953.4375232	ppb	-0.02
Spiked Amount 2000.000	Range 10 - 126		Recovery = 47.67%			
50) 2-Fluorobiphenyl	4.875	172	86677	955.6110515	ppb	-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 47.78%			
73) 2,4,6-Tribromophenol	5.952	330	28693	2621.6727917	ppb	-0.02
Spiked Amount 4000.000	Range 10 - 153		Recovery = 65.54%			
87) p-Terphenyl-d14	7.940	244	195250	1739.8349354	ppb	-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 86.99%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_05.D
Acq On : 19 Nov 2022 04:04 pm
Operator : 974
Sample : BLANK 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 117 Sample Multiplier: 1

Quant Time: Nov 21 13:01:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863446-1	**SDG:**	L1559129
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	1119A_04	**Received Date/Time:**	
Instrument ID:	BNAMS32	**Preparation Date/Time:**	11/19/22 05:16
Analytical Batch:	WG1962120	**Analysis Date/Time:**	11/19/22 15:43
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	8270E	**Sample Vol Used:**	
Matrix:	GW	**Initial Wt/Vol:**	100 mL
Total Solids (%):		**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Acenaphthene	83-32-9	5.39	31.0		0.0886	1.00
Acenaphthylene	208-96-8	5.27	34.4		0.0921	1.00
Anthracene	120-12-7	6.56	38.0		0.0804	1.00
Benzo(a)anthracene	56-55-3	9.38	44.3		0.199	1.00
Benzo(b)fluoranthene	205-99-2	11.37	47.6		0.130	1.00
Benzo(k)fluoranthene	207-08-9	11.43	47.1		0.120	1.00
Benzo(g,h,i)perylene	191-24-2	14.38	47.5		0.121	1.00
Benzo(a)pyrene	50-32-8	12.04	44.9		0.0381	1.00
Benzoic Acid	65-85-0	3.98	13.6		0.000	50.0
Carbazole	86-74-8	6.68	44.0		0.111	10.0
Chrysene	218-01-9	9.44	40.9		0.130	1.00
Dibenz(a,h)anthracene	53-70-3	14.09	46.7		0.0644	1.00
Dibenzofuran	132-64-9	5.52	33.1		0.0970	10.0
Fluorene	86-73-7	5.78	36.8		0.0844	1.00
Fluoranthene	206-44-0	7.55	42.6		0.102	1.00
Indeno(1,2,3-cd)pyrene	193-39-5	14.04	43.4		0.279	1.00
1-Methylnaphthalene	90-12-0	4.70	25.3		0.0790	1.00
2-Methylnaphthalene	91-57-6	4.64	24.0		0.117	1.00
Phenanthrene	85-01-8	6.52	39.4		0.112	1.00
Pyrene	129-00-0	7.78	42.4		0.107	1.00
Naphthalene	91-20-3	4.19	21.8		0.159	1.00
Bis(2-ethylhexyl)phthalate	117-81-7	9.46	43.2		0.895	3.00
Di-n-butyl phthalate	84-74-2	6.95	45.4		0.453	3.00
Di-n-octyl phthalate	117-84-0	10.72	45.4		0.932	3.00
3&4-Methyl Phenol	3&4-Methyl Phenol	3.62	22.6		0.168	10.0
Pentachlorophenol	87-86-5	6.34	48.1		0.313	10.0
Phenol	108-95-2	3.19	9.99		0.000	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.428	152	207463	8000.0000000	ppb		-0.01
23) Naphthalene-d8	4.181	136	906716	8000.0000000	ppb		-0.02
46) Acenaphthene-d10	5.369	164	478517	8000.0000000	ppb		-0.01
70) Phenanthrene-d10	6.499	188	885825	8000.0000000	ppb		-0.02
84) Chrysene-d12	9.399	240	745263	8000.0000000	ppb		-0.03
94) Perylene-d12	12.163	264	679160	8000.0000000	ppb		-0.04
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	38021	1208.6285842	ppb		-0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 30.22%				
7) Phenol-d5	3.187	99	31232	776.2983527	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 120		Recovery = 19.41%				
24) Nitrobenzene-d5	3.740	82	29549m	798.3222405	ppb		-0.02
Spiked Amount 2000.000	Range 10 - 126		Recovery = 39.92%				
50) 2-Fluorobiphenyl	4.875	172	90360	1186.0794934	ppb		-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 59.30%				
73) 2,4,6-Tribromophenol	5.952	330	32916	3490.4734228	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 153		Recovery = 87.26%				
87) p-Terphenyl-d14	7.940	244	168587	1763.7502892	ppb		-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 88.19%				
Target Compounds					Qvalue		
2) Pyridine	2.228	79	79825	2453.8203962	ppb		97
3) N-Nitrosodimethylamine	2.199	42	46493	2917.6601279	ppb		92
5) Aniline	3.240	66	78968	4073.3599527	ppb		98
6) bis(2-Chloroethyl)ether	3.264	93	154995	4921.3055023	ppb		100
8) Phenol	3.193	94	81225	1997.4698300	ppb		95
9) Benzaldehyde	3.187	105	129102	5361.9159477	ppb		98
10) 2-Chlorophenol	3.311	128	163331	4920.9932936	ppb		92
11) n-Decane	3.311	41	66468	3834.1991470	ppb		97
12) 1,3-Dichlorobenzene	3.399	146	165236	4348.0545627	ppb		98
13) 1,4-Dichlorobenzene	3.440	146	167183	4317.0166269	ppb		96
14) Benzyl Alcohol	3.487	79	135942	5086.4186948	ppb		100
15) 1,2-Dichlorobenzene	3.528	146	161123	4424.5870418	ppb		96
16) bis(2-Chloroisopropyl)...	3.564	121	56520	4769.0407031	ppb		94
17) 2,2-oxybis(1-chloropro...	3.564	121	56520	4769.0407031	ppb		94
18) 2-Methylphenol	3.540	108	138715	4499.1883286	ppb		98
19) Hexachloroethane	3.723	117	62387	4304.7443275	ppb		96
20) N-Nitrosodi-n-propylamine	3.640	70	137570	6203.7671620	ppb		99
21) 3&4-Methyl phenol	3.623	107	155796	4511.1353323	ppb		99
22) Acetophenone	3.646	105	239488	5545.7914070	ppb	#	86
25) Nitrobenzene	3.752	77	160861	4579.2100761	ppb		97
26) Isophorone	3.887	82	401296	6001.2651461	ppb		97
27) 2-Nitrophenol	3.940	139	94208	5130.5289840	ppb		96
28) 2,4-Dimethylphenol	3.946	107	187085	5197.2446028	ppb		96
29) bis(2-Chlorethoxy)methane	4.005	93	236518	5477.6036160	ppb		100
30) 2,4-Dichlorophenol	4.081	162	166844	5537.0353637	ppb		96
31) Benzoic Acid	3.981	105	49013	2714.4951315	ppb		92
32) 1,2,4-Trichlorobenzene	4.140	180	145669	4303.9932173	ppb		98

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) alpha-terpineol	4.187	59	198835	6966.9451860	ppb		95
34) Naphthalene	4.193	128	496484	4365.1782943	ppb		99
35) 4-Chloroaniline	4.217	65	78232	5759.0192667	ppb		89
36) Hexachloro-1,3-butadiene	4.264	225	74076	4296.3868996	ppb		99
38) Quinoline	4.411	129	461646	7325.4074584	ppb		99
39) Caprolactam	4.440	113	22183	2594.4405890	ppb		98
40) 4-Chloro-3-methylphenol	4.511	107	206409	6578.4477044	ppb		99
41) 2-Methylnaphthalene	4.640	142	359293	4796.5425171	ppb		99
42) 1-Methylnaphthalene	4.705	142	351358	5053.0725839	ppb		99
43) 1,2,4,5-Tetrachloroben...	4.746	216	151659	5364.4173018	ppb		99
44) Diphenyl Ether	5.022	170	273373	6462.1155239	ug/ml		95
45) Diphenyl Oxide	5.022	170	273373	6462.1155239	ug/ml		95
47) Hexachlorocyclopentadiene	4.740	237	92301	4370.6661722	ppb		99
48) 2,4,6-Trichlorophenol	4.817	196	142221	7333.4409546	ppb		99
49) 2,4,5-Trichlorophenol	4.846	196	160394	7702.2986923	ppb		94
51) Biphenyl	4.952	154	487780	5704.7473721	ppb		100
52) 2-Chloronaphthalene	4.970	162	373590	5682.9398182	ppb		97
53) 2-Nitroaniline	5.034	138	195700	8612.6962344	ppb		93
54) Acenaphthylene	5.269	152	698874	6872.0976951	ppb		100
55) Dimethyl phthalate	5.152	163	622313	8397.8415985	ppb		99
56) 2,6-Dinitrotoluene	5.199	165	147308	8278.9644667	ppb		99
57) 3-Nitroaniline	5.322	138	159954	7921.3083029	ppb		99
58) Acenaphthene	5.393	153	418547	6190.9635301	ppb		97
59) 2,4-Dinitrophenol	5.399	184	65775	8918.8973729	ppb	#	29
60) Dibenzofuran	5.517	168	626797	6620.8945289	ppb		99
61) 2,4-Dinitrotoluene	5.493	165	207029	8919.6117873	ppb		97
62) 2,3,4,6-Tetrachlorophenol	5.599	232	259593	19600.9595006	ppb		95
63) 4-Nitrophenol	5.422	139	50839	3297.6809478	ppb		96
64) Fluorene	5.775	166	571218	7356.0735911	ppb		100
65) 4-Chlorophenyl-phenyle...	5.764	204	270742	7441.7742776	ppb		89
66) Diethyl phthalate	5.664	149	627550	8654.5898932	ppb		100
67) 4-Nitroaniline	5.781	138	196298	9304.7104599	ppb		98
68) Azobenzene	5.881	77	575267	8149.2123121	ppb		99
69) Atrazine	6.252	200	191331	9461.7028250	ppb	#	99
71) 4,6-Dinitro-2-methylph...	5.799	198	120554	10922.2549384	ppb	#	82
72) N-Nitrosodiphenylamine	5.852	169	467243	6861.6893044	ppb		99
74) 4-Bromophenyl-phenylether	6.140	248	164396	8215.5633379	ppb		98
75) Hexachlorobenzene	6.193	284	177401	7821.5719214	ppb		99
76) n-octadecane	6.381	55	95925	7459.0052993	ppb		99
77) Pentachlorophenol	6.340	266	121020	9609.6357008	ppb		98
78) Phenanthrene	6.522	178	914670	7870.7872328	ppb		97
79) Anthracene	6.558	178	871755	7600.6336733	ppb		100
80) Carbazole	6.681	167	950148	8805.6198959	ppb		100
81) Di-n-butyl phthalate	6.946	149	1124210	9087.6108603	ppb		100
82) 2-nitrodiphenylamine	7.087	167	230622	9486.5111504	ppb		95
83) Fluoranthene	7.546	202	1005891	8516.0641575	ppb		99
85) Benzidine	7.669	184	64226	792.1777673	ppb		100
86) Pyrene	7.781	202	1039720	8483.6891716	ppb		100
88) Benzylbutyl phthalate	8.552	149	486998	8376.3143234	ppb		96
89) 3,3-Dichlorobenzidine	9.352	252	659705	15965.8415539	ppb		99

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

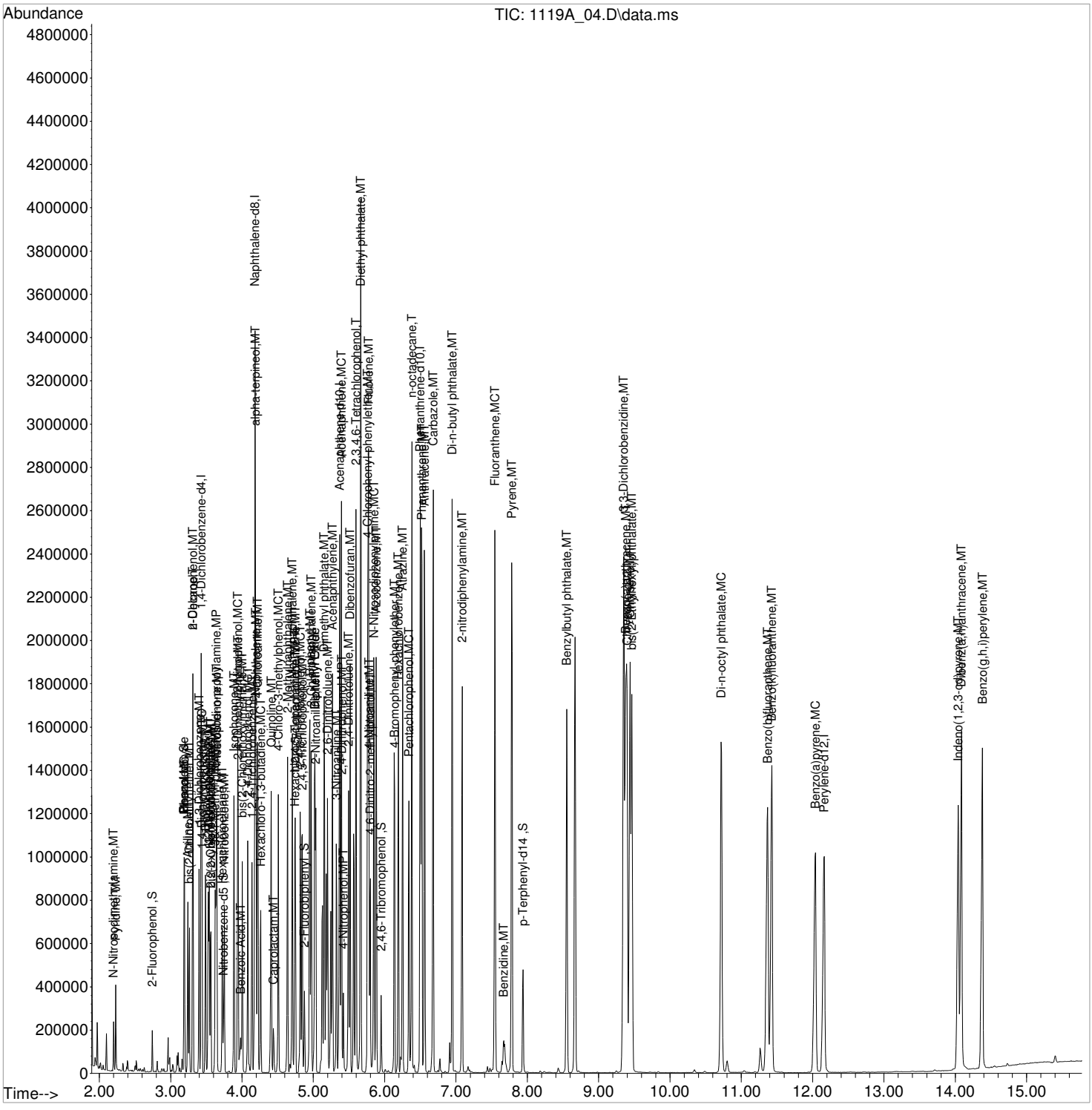
Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) Benzo(a)anthracene	9.381	228	1010845	8851.2643384 ppb	99
91) Chrysene	9.440	228	889465	8181.5978719 ppb	99
92) bis(2-Ethylhexyl)phtha...	9.463	149	705862	8646.3633003 ppb	99
93) Di-n-octyl phthalate	10.716	149	1247756	9083.9072290 ppb	100
95) Benzo(b)fluoranthene	11.369	252	939413	9527.9126295 ppb	100
96) Benzo(k)fluoranthene	11.428	252	923395m	9418.5037589 ppb	
97) Benzo(a)pyrene	12.040	252	807811	8977.7368208 ppb	99
98) Indeno(1,2,3-cd)pyrene	14.040	276	734611	8682.6584354 ppb	98
99) Dibenz(a,h)anthracene	14.087	278	807579m	9341.4781320 ppb	
100) Benzo(g,h,i)perylene	14.381	276	802512	9492.9646356 ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

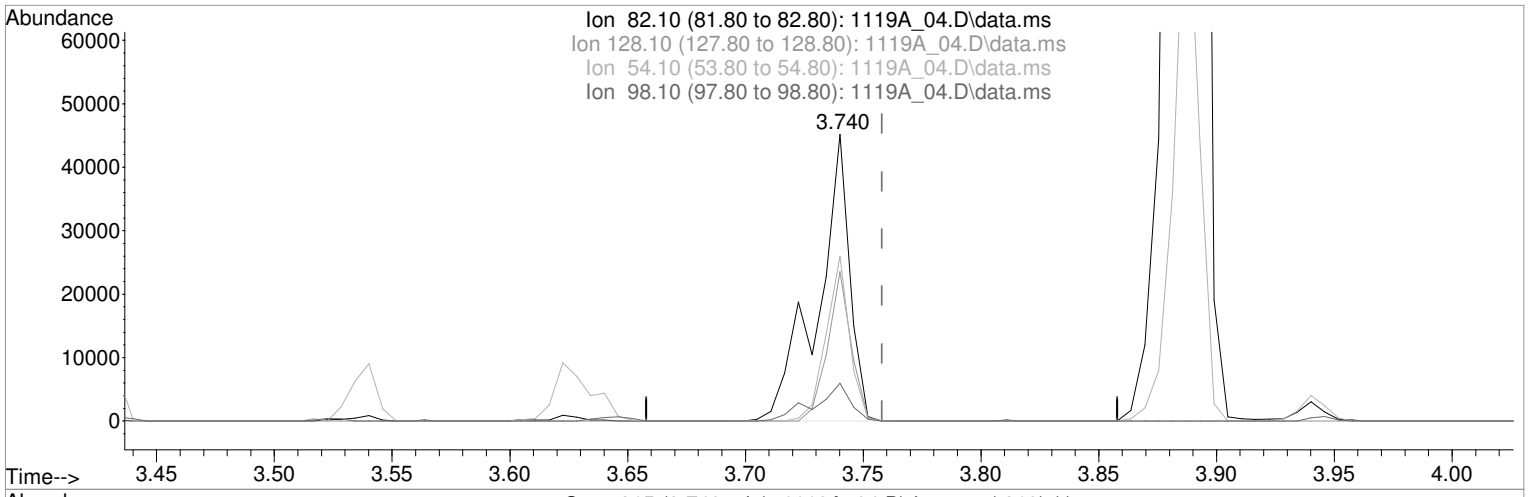
Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

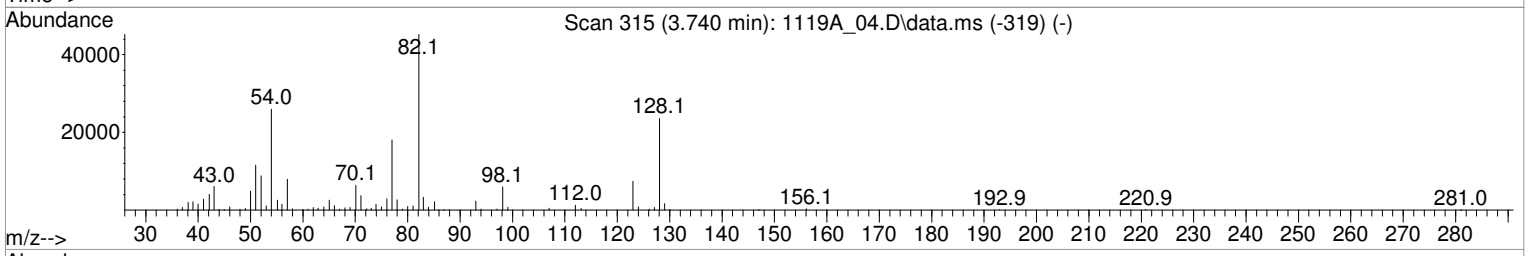
Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

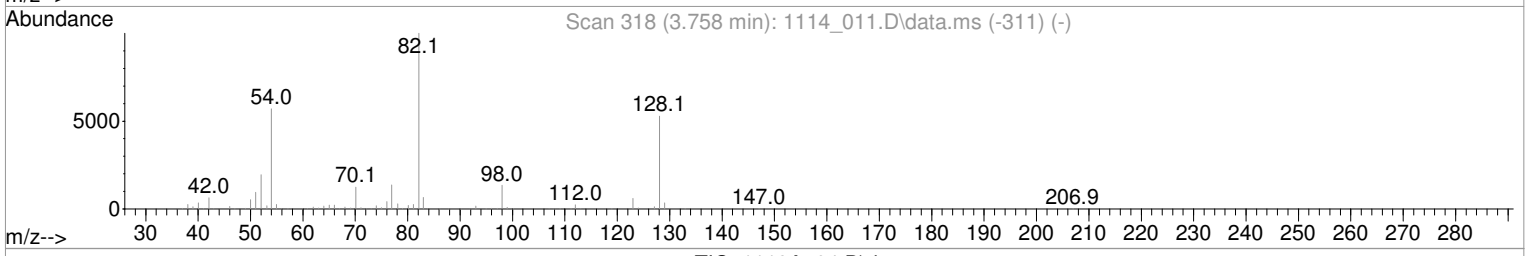


Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_04.D\data.ms

(24) Nitrobenzene-d5 (S)

3.740min (-0.018) 1166.5084903 ppb

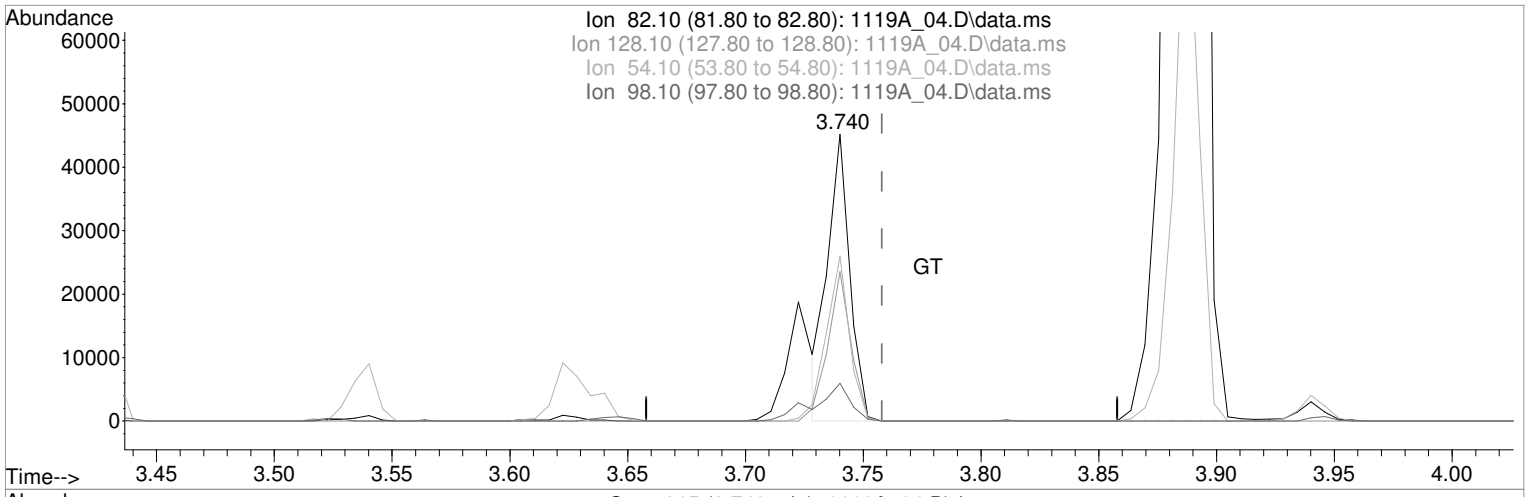
Qvalue = 99

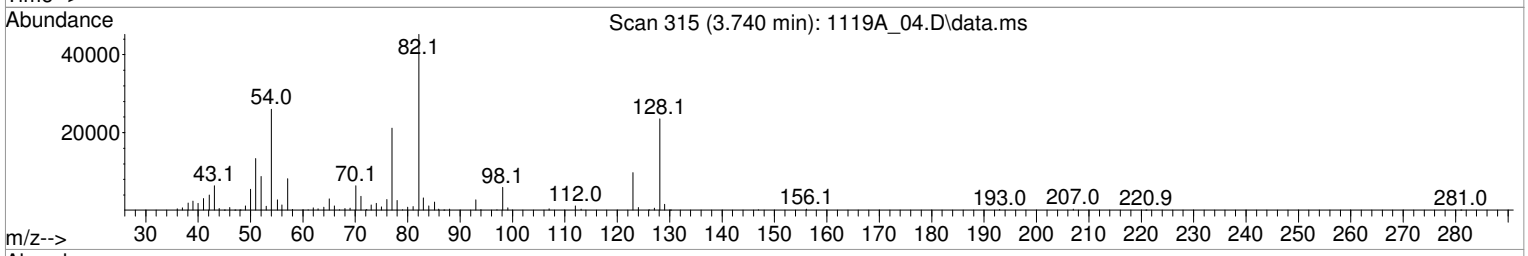
response 43177

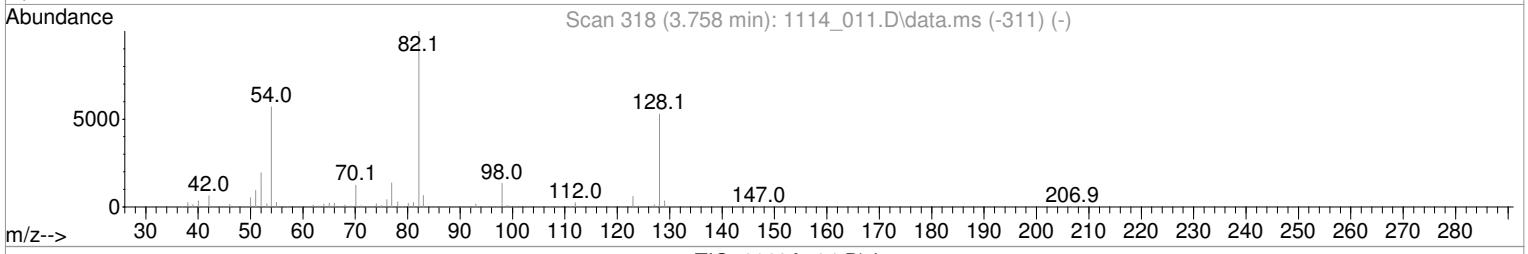
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	52.17
54.10	57.00	57.44
98.10	13.50	13.16

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_04.D\data.ms

(24) Nitrobenzene-d5 (S)

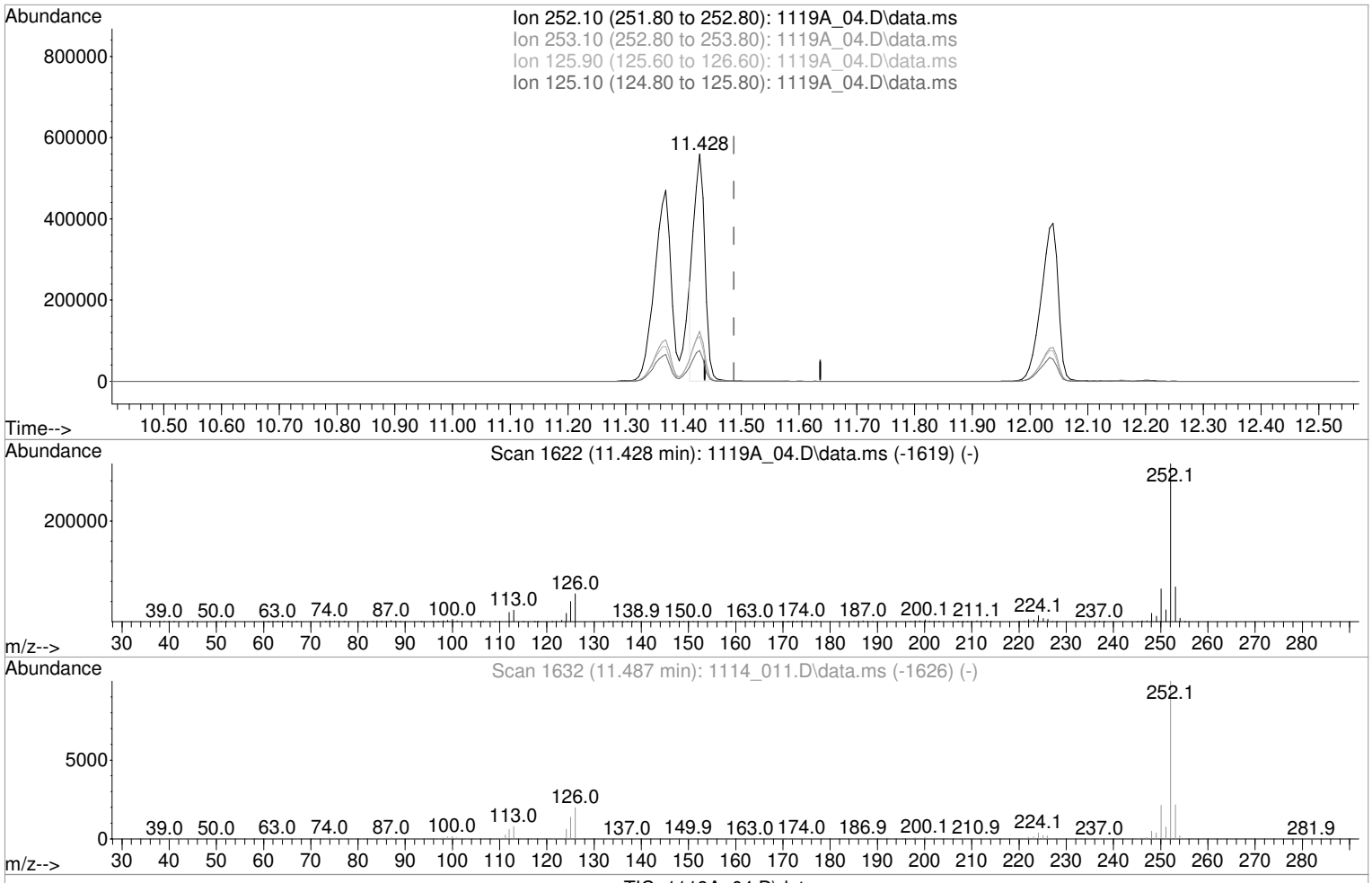
3.740min (-0.018) 798.3222405 ppb m

response 29549

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	52.17
54.10	57.00	57.44
98.10	13.50	13.16

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_04.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.428min (-0.059) 7711.4544581 ppb

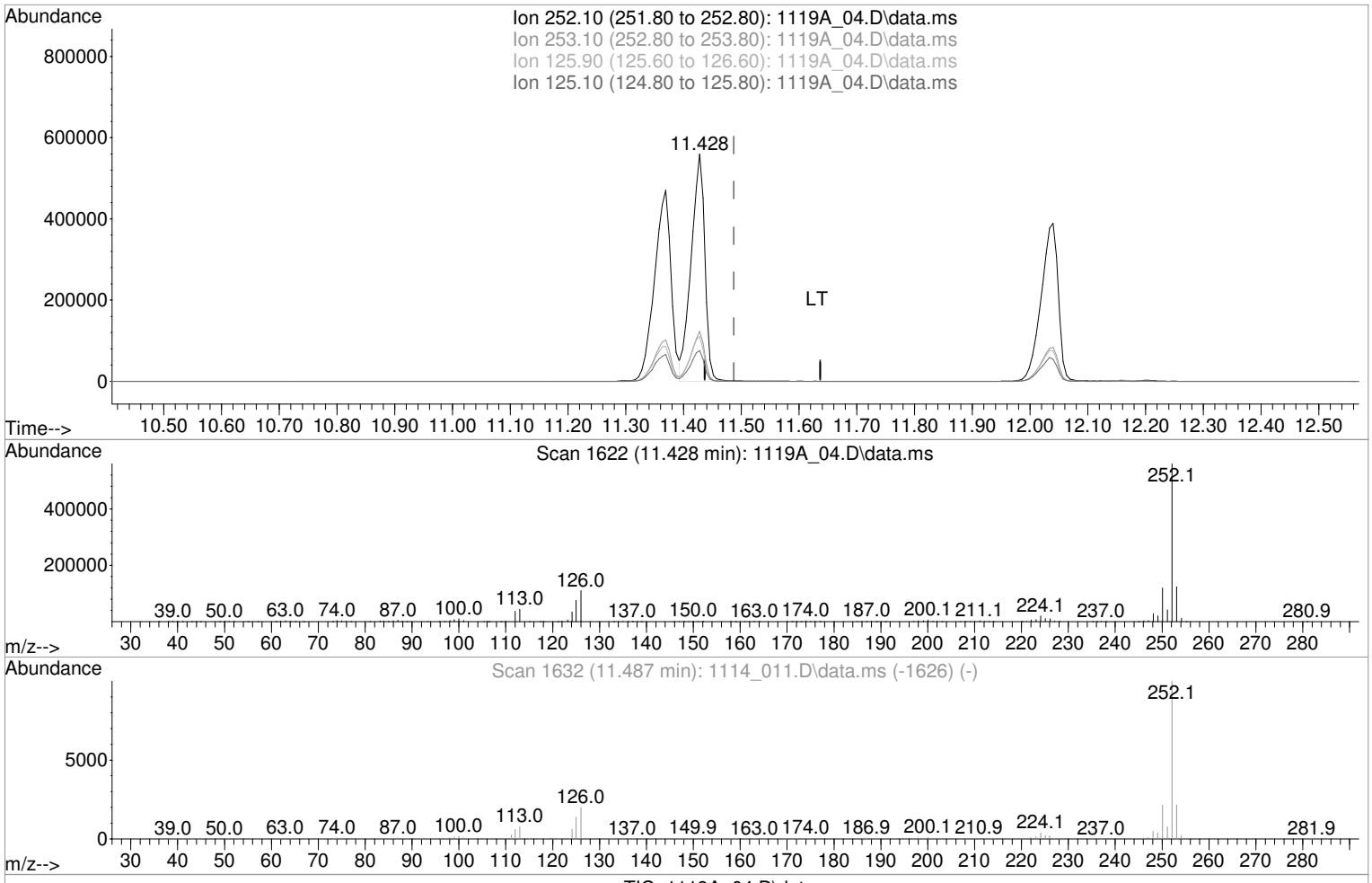
Qvalue = 99

response 756035

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	22.02
125.90	19.60	19.70
125.10	13.70	13.47

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_04.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.428min (-0.059) 9418.5037589 ppb m

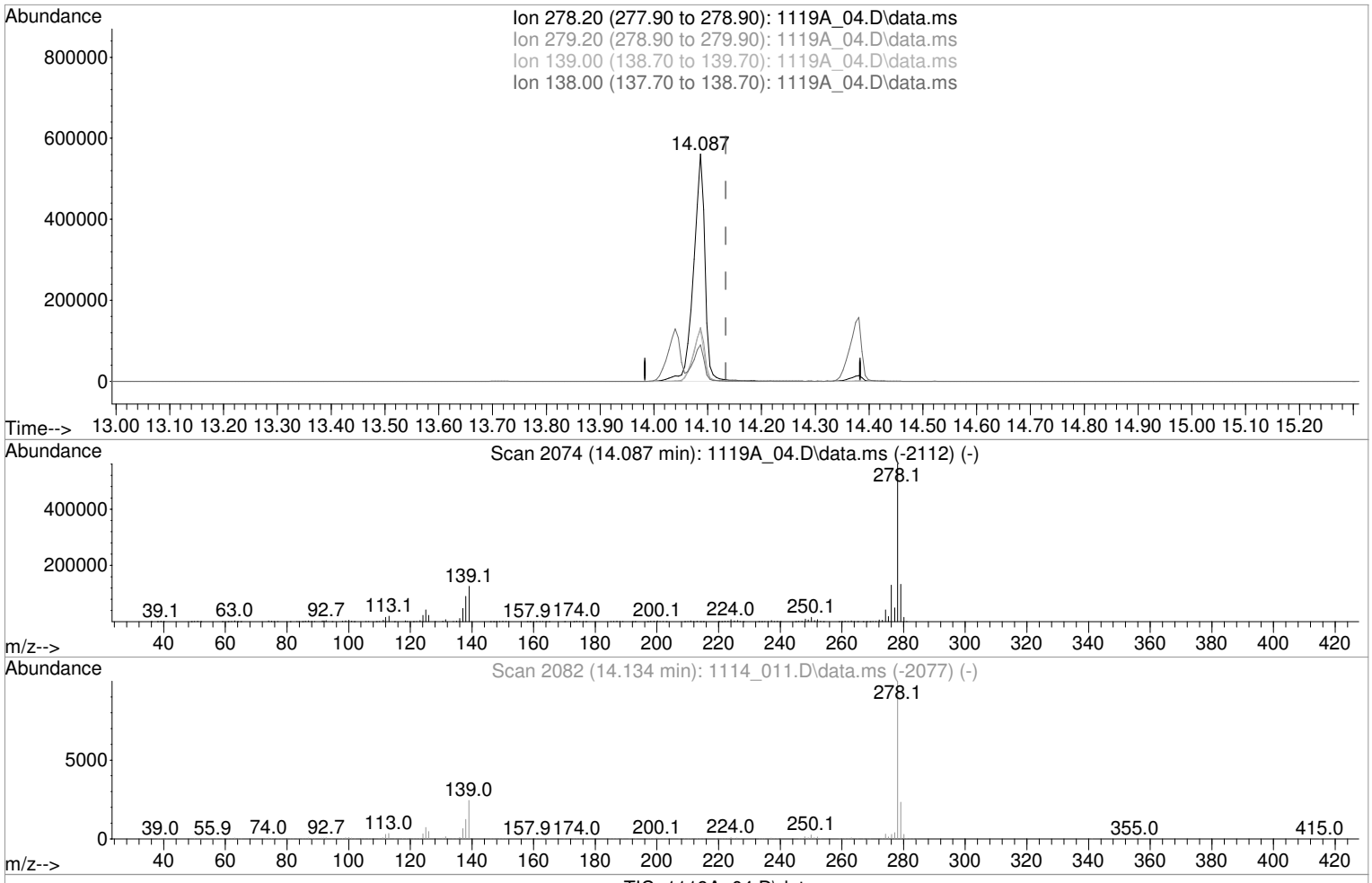
response 923395

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	22.01
125.90	19.60	19.69
125.10	13.70	13.46

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_04.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.087min (-0.047) 9602.2157918 ppb

Qvalue = 98

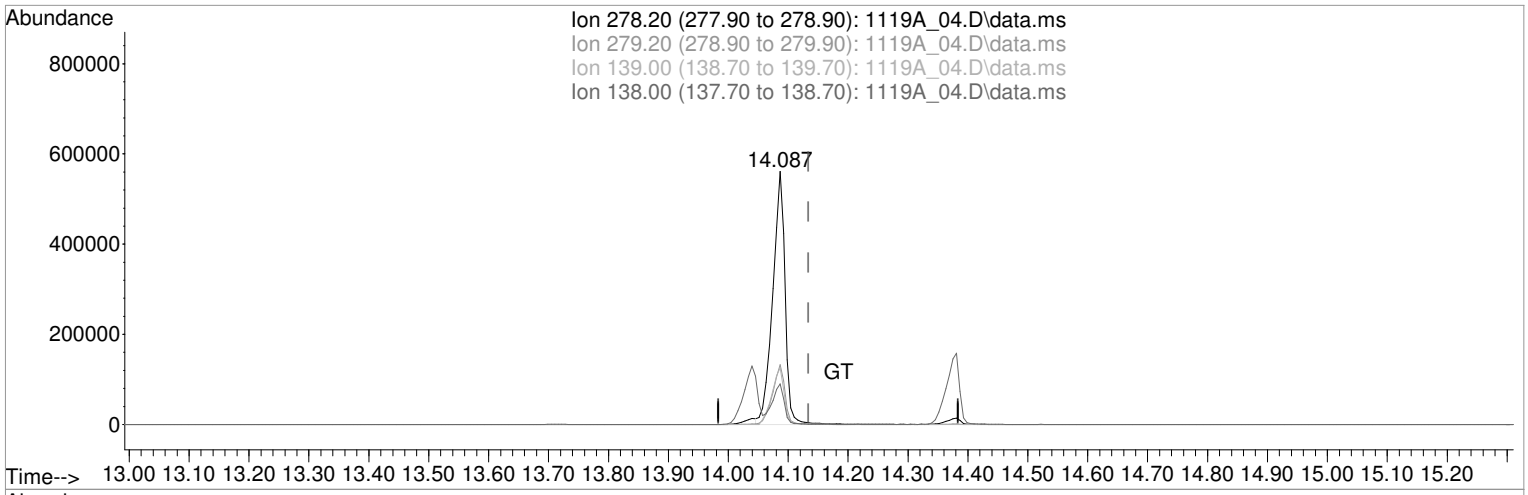
response 830120

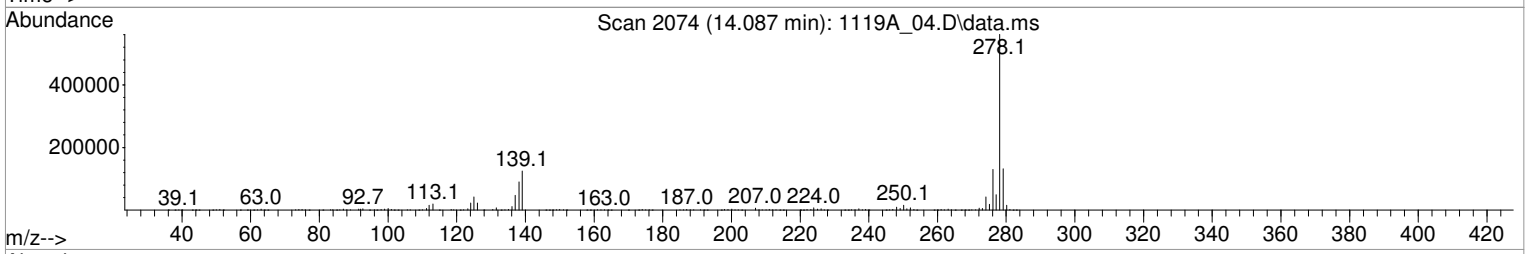
Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.61
139.00	23.90	22.33
138.00	16.60	16.01

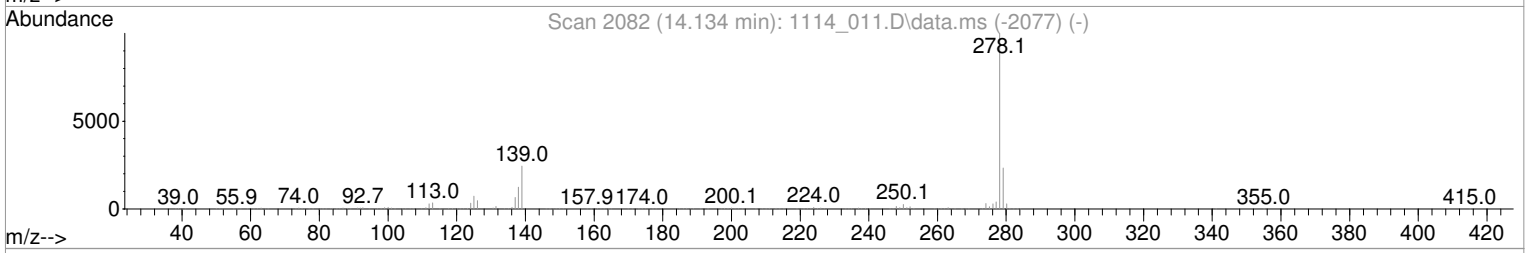
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_04.D
Acq On : 19 Nov 2022 03:43 pm
Operator : 974
Sample : LCS 1x WG1962120
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 21 13:01:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_04.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.087min (-0.047) 9341.4781320 ppb m

response 807579

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.61
139.00	23.90	22.33
138.00	16.60	16.08

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863446-3	**SDG:**	L1559129
Client Sample ID:	MS	**Collected Date/Time:**	11/15/22 10:20
Lab File ID:	1119A_16	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS32	**Preparation Date/Time:**	11/19/22 05:17
Analytical Batch:	WG1962120	**Analysis Date/Time:**	11/19/22 19:57
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	GW	**Initial Wt/Vol:**	110 mL
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Acenaphthene	83-32-9	5.39	30.8		0.0886	1.00
Acenaphthylene	208-96-8	5.27	33.4		0.0921	1.00
Anthracene	120-12-7	6.56	33.4		0.0804	1.00
Benzo(a)anthracene	56-55-3	9.38	36.9		0.199	1.00
Benzo(b)fluoranthene	205-99-2	11.36	38.9		0.130	1.00
Benzo(k)fluoranthene	207-08-9	11.43	37.1		0.120	1.00
Benzo(g,h,i)perylene	191-24-2	14.37	36.3		0.121	1.00
Benzo(a)pyrene	50-32-8	12.03	37.8		0.0381	1.00
Benzoic Acid	65-85-0	3.99	35.4		1.70	50.0
Carbazole	86-74-8	6.68	39.3		0.111	10.0
Chrysene	218-01-9	9.44	36.7		0.130	1.00
Dibenz(a,h)anthracene	53-70-3	14.09	36.4		0.0644	1.00
Dibenzofuran	132-64-9	5.52	32.8		0.0970	10.0
Fluorene	86-73-7	5.77	34.6		0.0844	1.00
Fluoranthene	206-44-0	7.55	39.1		0.102	1.00
Indeno(1,2,3-cd)pyrene	193-39-5	14.04	34.9		0.279	1.00
1-Methylnaphthalene	90-12-0	4.70	26.4		0.0790	1.00
2-Methylnaphthalene	91-57-6	4.64	24.8		0.117	1.00
Phenanthrene	85-01-8	6.52	35.9		0.112	1.00
Pyrene	129-00-0	7.78	37.8		0.107	1.00
Naphthalene	91-20-3	4.20	22.2		0.159	1.00
Bis(2-ethylhexyl)phthalate	117-81-7	9.46	38.3		0.895	3.00
Di-n-butyl phthalate	84-74-2	6.95	41.6		0.453	3.00
Di-n-octyl phthalate	117-84-0	10.72	39.1		0.932	3.00
3&4-Methyl Phenol	3&4-Methyl Phenol	3.63	18.3		0.168	10.0
Pentachlorophenol	87-86-5	6.34	41.5		0.313	10.0
Phenol	108-95-2	3.20	9.07		4.33	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.428	152	233449	8000.0000000	ppb		-0.01
23) Naphthalene-d8	4.181	136	990543	8000.0000000	ppb		-0.02
46) Acenaphthene-d10	5.369	164	528265	8000.0000000	ppb		-0.01
70) Phenanthrene-d10	6.499	188	961252	8000.0000000	ppb		-0.02
84) Chrysene-d12	9.399	240	805072	8000.0000000	ppb		-0.03
94) Perylene-d12	12.157	264	760836	8000.0000000	ppb		-0.05
System Monitoring Compounds							
4) 2-Fluorophenol	2.740	112	40449	1142.6829597	ppb		-0.01
Spiked Amount 4000.000	Range 10 - 120		Recovery = 28.57%				
7) Phenol-d5	3.187	99	33520	740.4257507	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 120		Recovery = 18.51%				
24) Nitrobenzene-d5	3.740	82	43129m	1066.6029370	ppb		-0.02
Spiked Amount 2000.000	Range 10 - 126		Recovery = 53.33%				
50) 2-Fluorobiphenyl	4.875	172	114134	1357.0571788	ppb		-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 67.85%				
73) 2,4,6-Tribromophenol	5.952	330	34793	3400.0071901	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 153		Recovery = 85.00%				
87) p-Terphenyl-d14	7.940	244	169801	1644.4781110	ppb		-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 82.22%				
Target Compounds					Qvalue		
2) Pyridine	2.228	79	40674	1111.1414910	ppb	#	89
3) N-Nitrosodimethylamine	2.199	42	51033	2846.0784387	ppb		90
5) Aniline	3.240	66	34078	1562.1559407	ppb	#	1
6) bis(2-Chloroethyl)ether	3.264	93	208133m	5872.8947424	ppb		
8) Phenol	3.199	94	91255	1994.3244497	ppb		95
9) Benzaldehyde	3.193	105	160557	5926.0445506	ppb		99
10) 2-Chlorophenol	3.311	128	160047	4285.2910693	ppb		93
11) n-Decane	3.311	41	64172	3289.6997788	ppb	#	100
12) 1,3-Dichlorobenzene	3.399	146	172522	4034.4415890	ppb		97
13) 1,4-Dichlorobenzene	3.440	146	176147	4042.1785577	ppb		96
14) Benzyl Alcohol	3.487	79	147654	4909.6700209	ppb		100
15) 1,2-Dichlorobenzene	3.528	146	179406	4378.2524831	ppb		97
16) bis(2-Chloroisopropyl)...	3.564	121	74138	5559.2778150	ppb		94
17) 2,2-oxybis(1-chloropro...	3.564	121	74138	5559.2778150	ppb		94
18) 2-Methylphenol	3.540	108	134092	3865.1134886	ppb		99
19) Hexachloroethane	3.722	117	66185	4058.4618614	ppb		96
20) N-Nitrosodi-n-propylamine	3.640	70	171638	6878.5014538	ppb		99
21) 3&4-Methyl phenol	3.628	107	156137	4017.7602635	ppb		99
22) Acetophenone	3.646	105	308513	6348.9495775	ppb		89
25) Nitrobenzene	3.752	77	254786	6639.1626802	ppb		97
26) Isophorone	3.887	82	486360	6657.8465324	ppb		98
27) 2-Nitrophenol	3.940	139	113682	5667.1409342	ppb		92
28) 2,4-Dimethylphenol	3.946	107	172778	4393.6006247	ppb		96
29) bis(2-Chlorethoxy)methane	4.005	93	292196	6194.3910130	ppb		99
30) 2,4-Dichlorophenol	4.081	162	165474	5026.8325125	ppb		94
31) Benzoic Acid	3.993	105	153328	7773.1526822	ppb		85
32) 1,2,4-Trichlorobenzene	4.140	180	170624	4614.6897108	ppb		98

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) alpha-terpineol	4.187	59	230268	7385.5202810	ppb		95
34) Naphthalene	4.199	128	605469	4872.8897797	ppb		99
35) 4-Chloroaniline	4.217	65	46857	3157.4503064	ppb	#	47
36) Hexachloro-1,3-butadiene	4.264	225	84805	4502.4123323	ppb		99
38) Quinoline	4.411	129	326886	4748.0685059	ppb		99
39) Caprolactam	4.428	113	49633	5313.6375021	ppb	#	60
40) 4-Chloro-3-methylphenol	4.511	107	191469	5585.8749890	ppb		98
41) 2-Methylnaphthalene	4.640	142	446019	5450.4310273	ppb		99
42) 1-Methylnaphthalene	4.705	142	441546	5812.7225142	ppb		99
43) 1,2,4,5-Tetrachloroben...	4.752	216	187551	6072.5583535	ppb		99
44) Diphenyl Ether	5.022	170	327207	7080.1039025	ug/ml		96
45) Diphenyl Oxide	5.022	170	327207	7080.1039025	ug/ml		96
47) Hexachlorocyclopentadiene	4.740	237	115459	4952.3867830	ppb		99
48) 2,4,6-Trichlorophenol	4.817	196	147747	6900.9403998	ppb		98
49) 2,4,5-Trichlorophenol	4.846	196	159249	6927.1483065	ppb		91
51) Biphenyl	4.952	154	591805	6269.5531922	ppb		100
52) 2-Chloronaphthalene	4.969	162	448943	6186.0660416	ppb		96
53) 2-Nitroaniline	5.034	138	205402	8188.3897538	ppb		92
54) Acenaphthylene	5.269	152	823638	7336.2200595	ppb		100
55) Dimethyl phthalate	5.158	163	676707	8271.8949018	ppb		93
56) 2,6-Dinitrotoluene	5.199	165	167081	8505.9394153	ppb		95
57) 3-Nitroaniline	5.322	138	127209	5706.4390627	ppb		99
58) Acenaphthene	5.393	153	506055	6780.4304592	ppb		98
59) 2,4-Dinitrophenol	5.399	184	81603	9863.3038913	ppb	#	21
60) Dibenzofuran	5.517	168	752565	7200.7761557	ppb		100
61) 2,4-Dinitrotoluene	5.493	165	230505	8995.8178352	ppb		100
62) 2,3,4,6-Tetrachlorophenol	5.599	232	263934	18051.9959452	ppb		92
63) 4-Nitrophenol	5.422	139	54568	3206.2339316	ppb		98
64) Fluorene	5.769	166	652099	7606.8219136	ppb		99
65) 4-Chlorophenyl-phenyle...	5.764	204	311750	7761.9860170	ppb		89
66) Diethyl phthalate	5.664	149	685867	8568.0817309	ppb		99
67) 4-Nitroaniline	5.775	138	141777	6087.4906174	ppb		98
68) Azobenzene	5.881	77	639621	8207.5666630	ppb		98
69) Atrazine	6.252	200	194083	8693.9470825	ppb	#	98
71) 4,6-Dinitro-2-methylph...	5.799	198	122254	10280.2912512	ppb		87
72) N-Nitrosodiphenylamine	5.852	169	494096	6686.6756931	ppb		99
74) 4-Bromophenyl-phenylether	6.140	248	185292	8533.2299190	ppb		99
75) Hexachlorobenzene	6.193	284	190545	7741.8760376	ppb		99
76) n-octadecane	6.381	55	112336	8049.6822958	ppb		99
77) Pentachlorophenol	6.340	266	124586	9128.0847832	ppb		97
78) Phenanthrene	6.516	178	994351	7885.0441393	ppb		100
79) Anthracene	6.558	178	914323	7346.2495243	ppb		99
80) Carbazole	6.681	167	1012595	8647.9890549	ppb		99
81) Di-n-butyl phthalate	6.946	149	1225998	9132.7741111	ppb		100
82) 2-nitrodiphenylamine	7.087	167	258289	9761.7332551	ppb		95
83) Fluoranthene	7.546	202	1101816	8596.2245858	ppb		99
86) Pyrene	7.781	202	1100793	8314.7433299	ppb		100
88) Benzylbutyl phthalate	8.552	149	545474	8679.3394602	ppb		98
89) 3,3-Dichlorobenzidine	9.346	252	346538	7763.6820631	ppb		99
90) Benzo(a)anthracene	9.381	228	1001517	8118.0908497	ppb		99

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

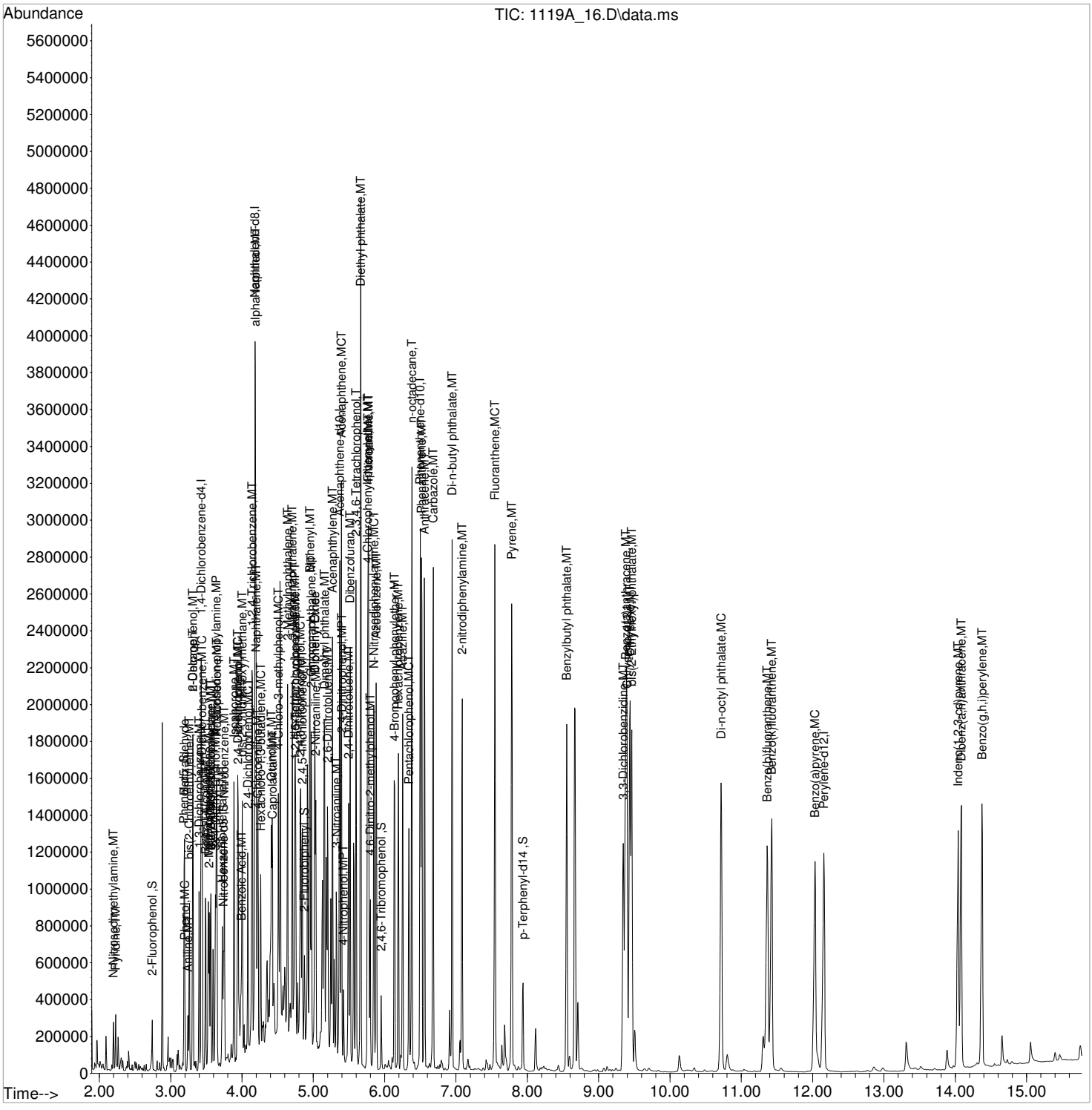
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
91) Chrysene	9.440	228	947891	8071.2816846 ppb	100
92) bis(2-Ethylhexyl)phtha...	9.463	149	741043	8407.5717347 ppb	99
93) Di-n-octyl phthalate	10.716	149	1275065	8603.9725220 ppb	100
95) Benzo(b)fluoranthene	11.363	252	944605	8552.0944037 ppb	100
96) Benzo(k)fluoranthene	11.428	252	894420m	8143.6095817 ppb	
97) Benzo(a)pyrene	12.034	252	836150	8296.8316248 ppb	99
98) Indeno(1,2,3-cd)pyrene	14.040	276	727669	7677.3300113 ppb	99
99) Dibenz(a,h)anthracene	14.087	278	775041m	8002.6957826 ppb	
100) Benzo(g,h,i)perylene	14.375	276	754905	7971.1994466 ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

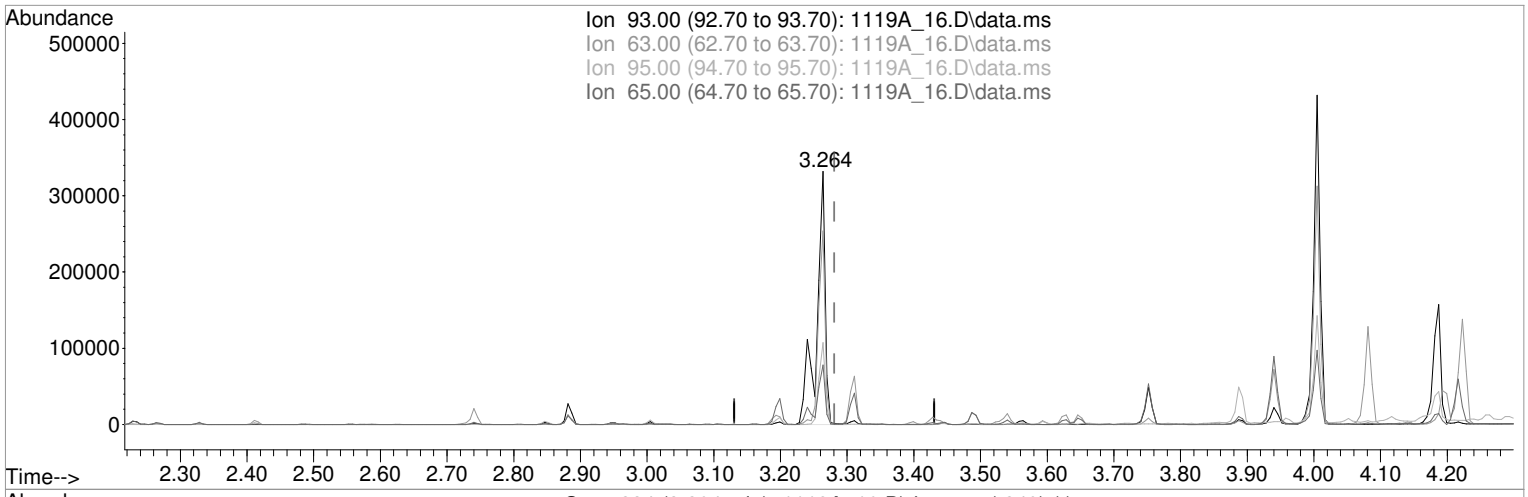
Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

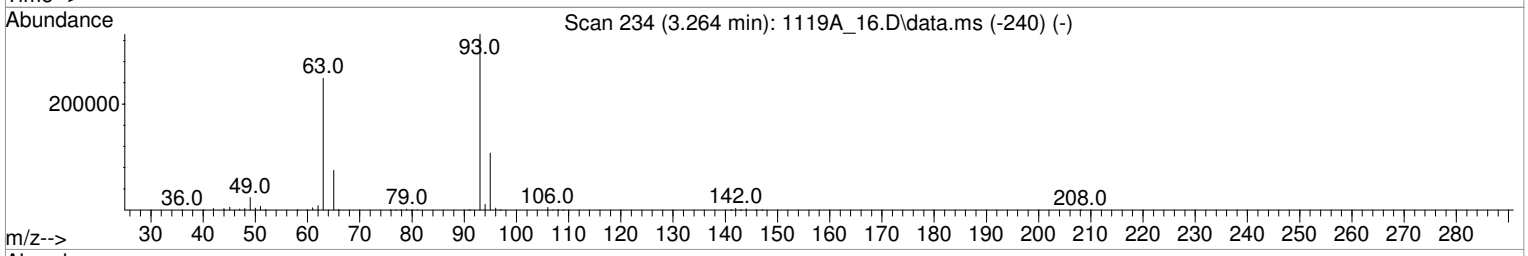


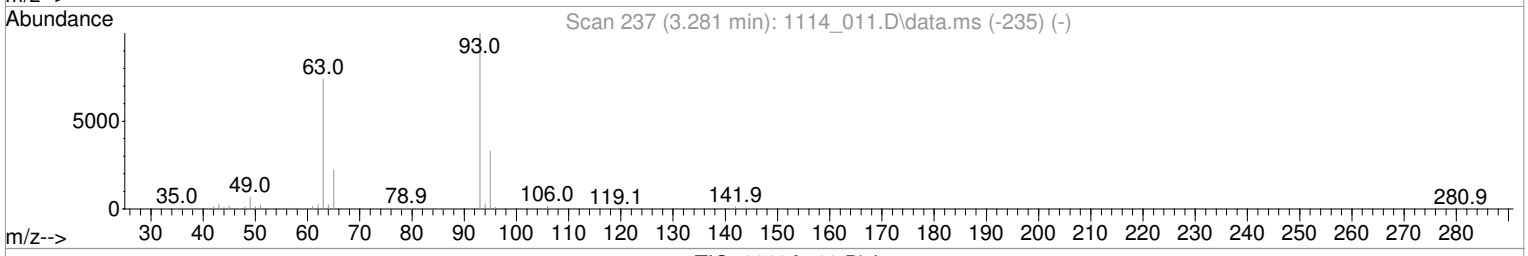
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_16.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)

3.264min (-0.017) 8447.5574858 ppb

Qvalue = 98

response 299378

Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	76.54
95.00	32.10	32.30
65.00	22.60	23.45

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
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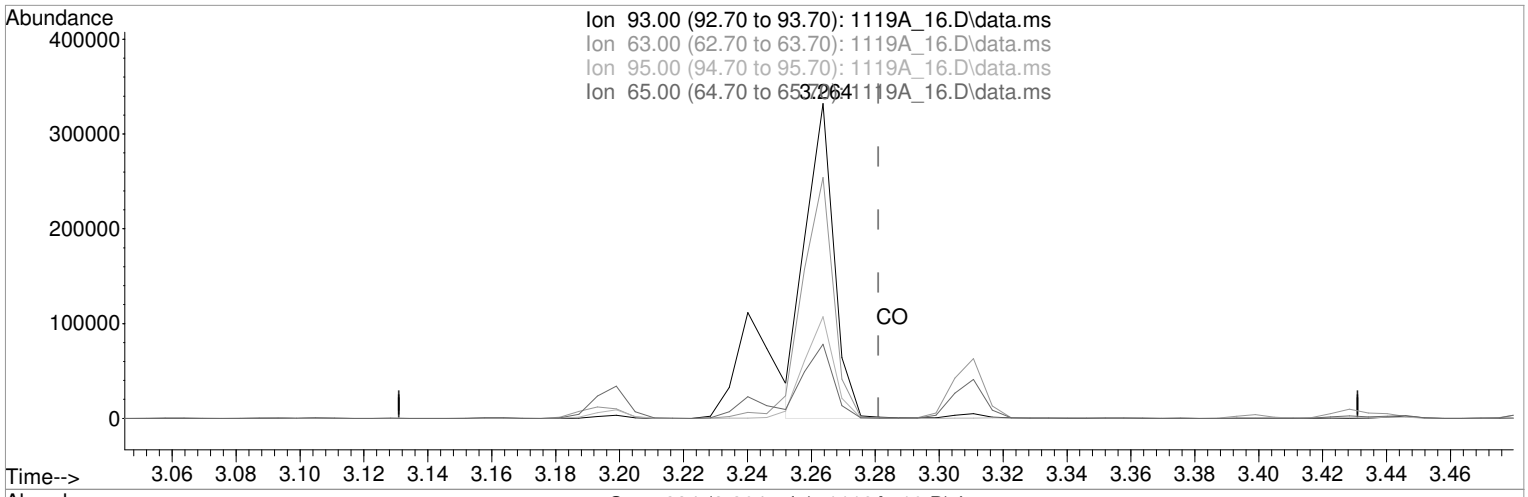
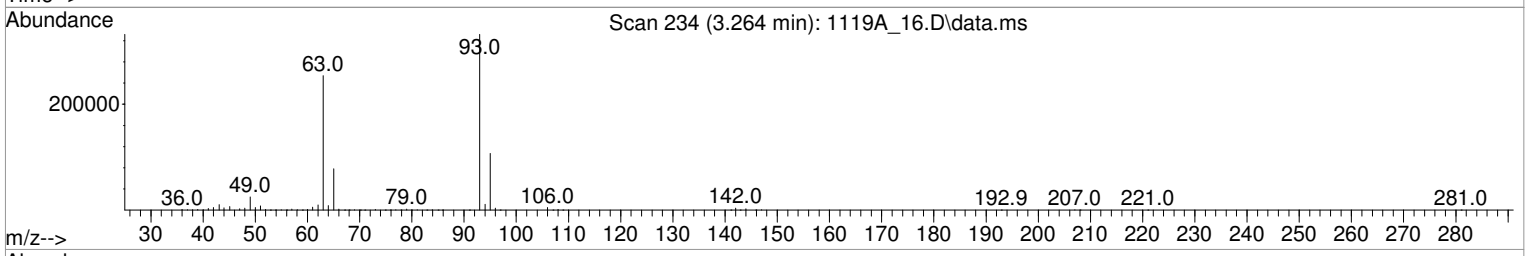
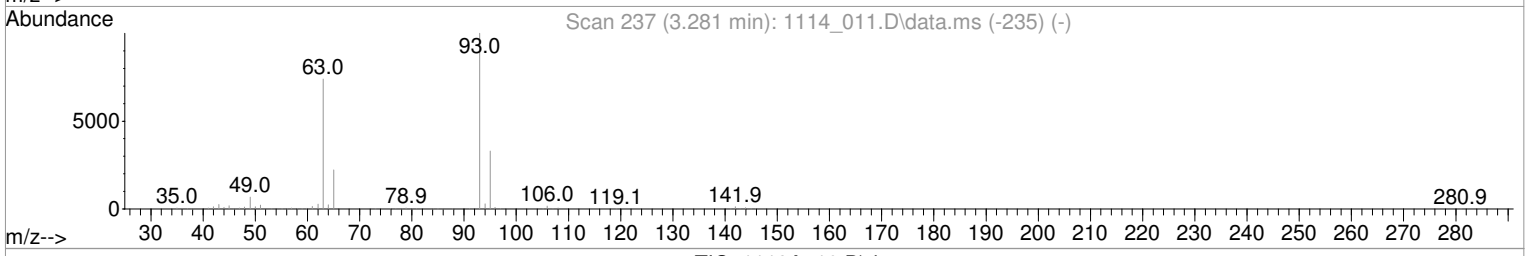
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_16.D\data.ms

(6) bis(2-Chloroethyl)ether (MT)
3.264min (-0.017) 5872.8947424 ppb m

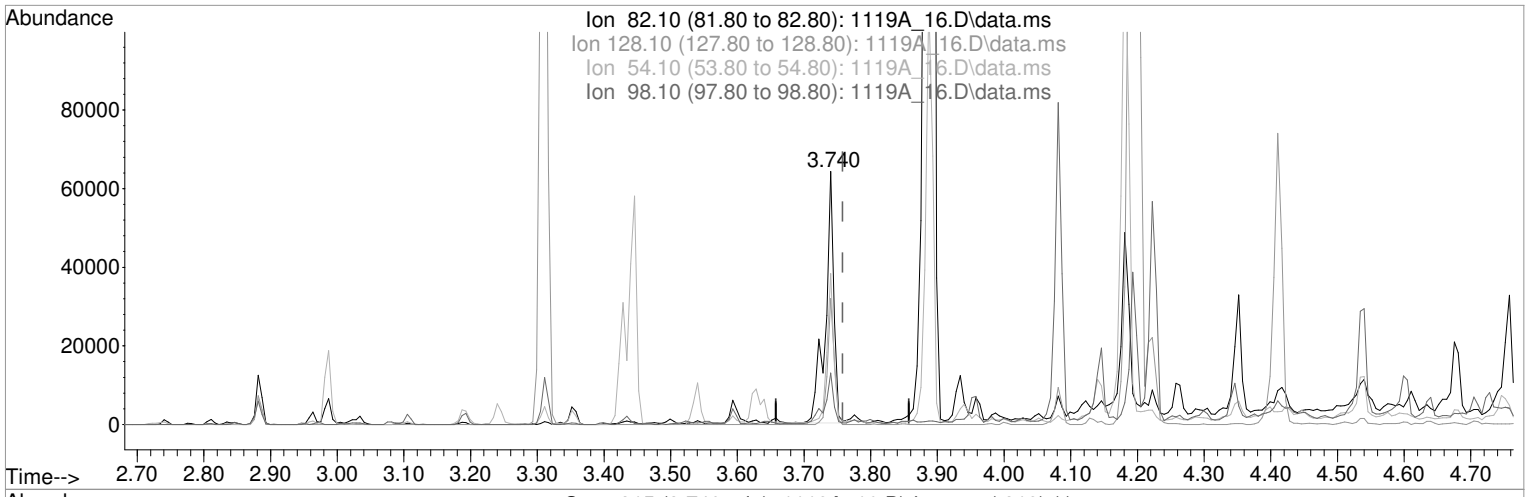
response 208133

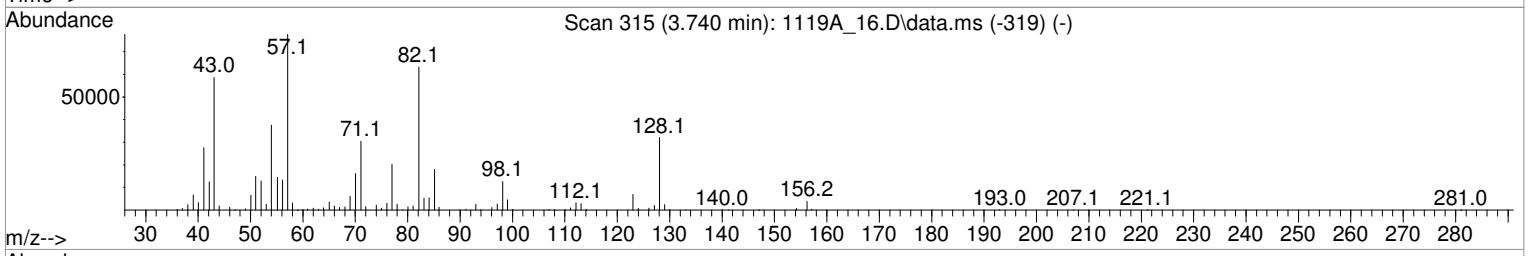
Ion	Exp%	Act%
93.00	100.00	100.00
63.00	73.80	76.54
95.00	32.10	32.30
65.00	22.60	23.52

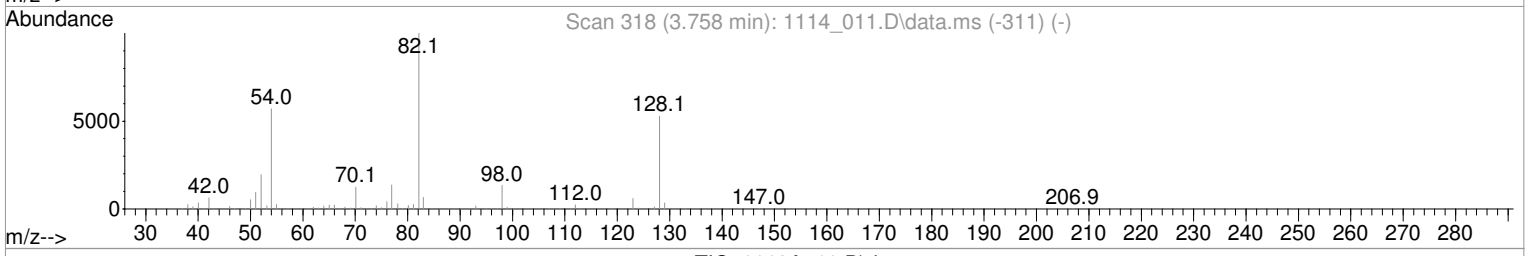
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_16.D\data.ms

(24) Nitrobenzene-d5 (S)

3.740min (-0.018) 1433.5545097 ppb

Qvalue = 95

response 57967

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	50.13
54.10	57.00	59.22
98.10	13.50	20.03

Data Path : C:\GCMS\1\data\111922A\
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Acq On : 19 Nov 2022 07:57 pm
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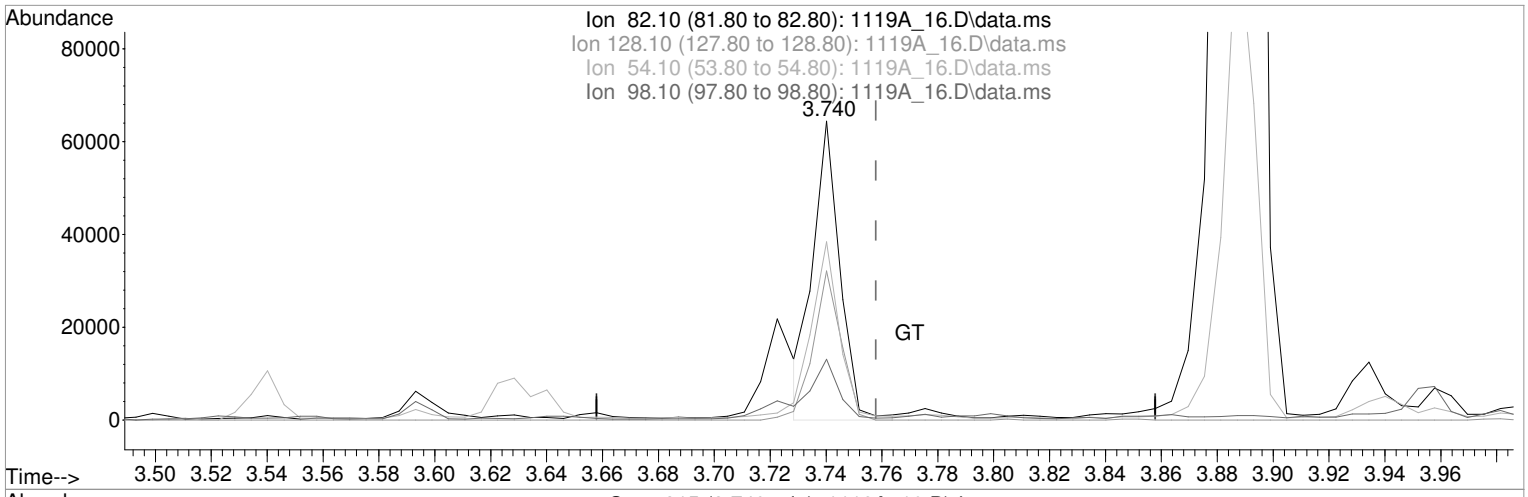
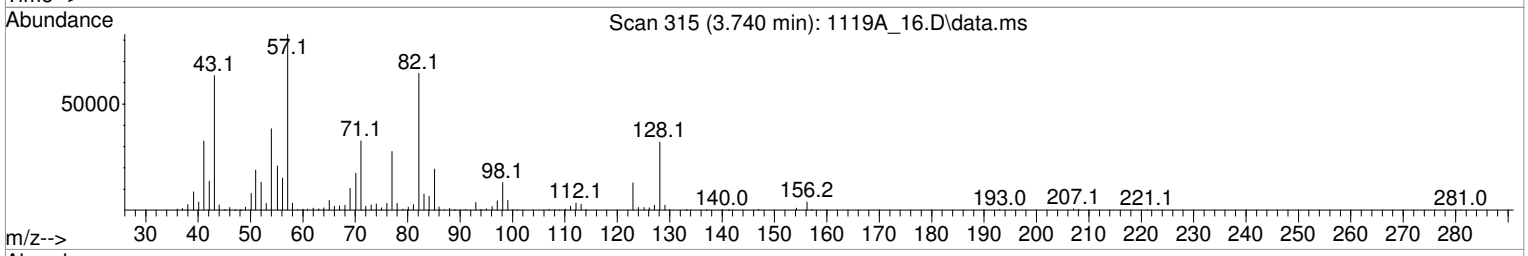
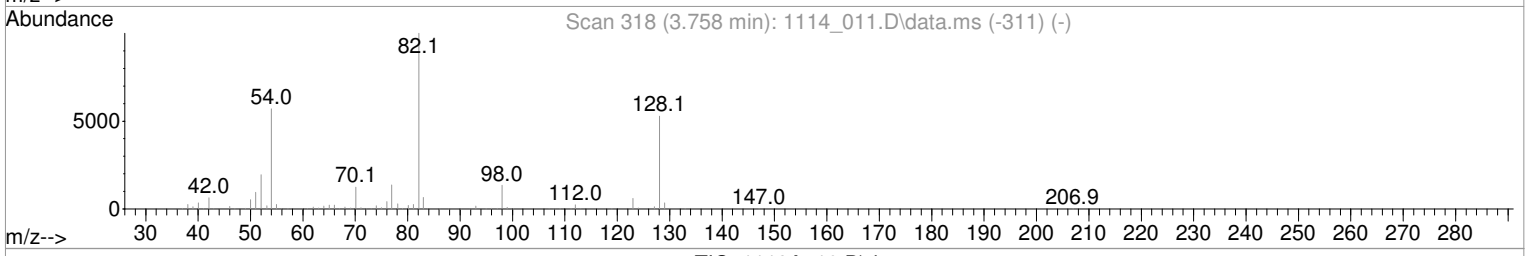
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_16.D\data.ms

(24) Nitrobenzene-d5 (S)

3.740min (-0.018) 1066.6029370 ppb m

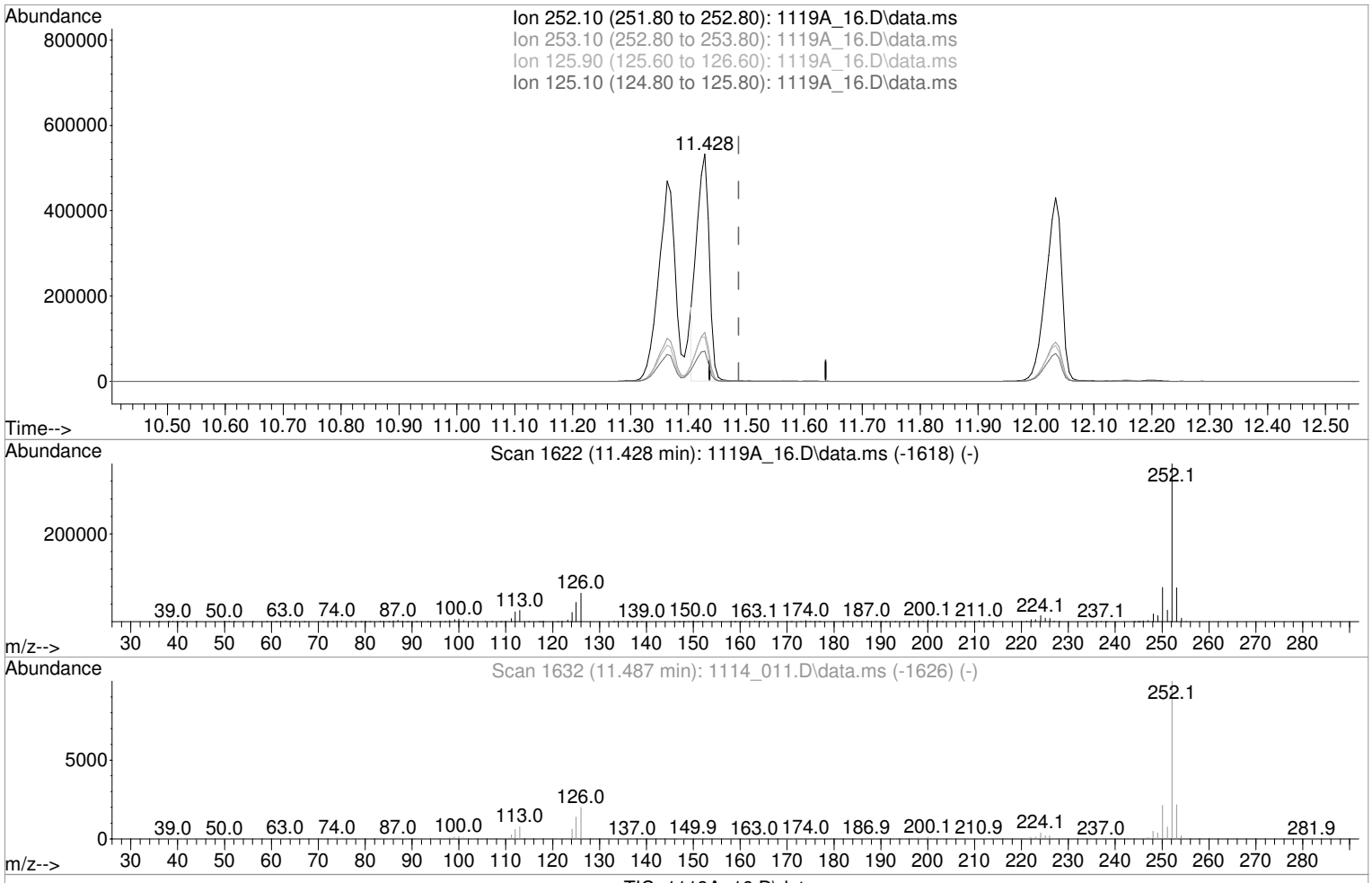
response 43129

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	49.84
54.10	57.00	59.64
98.10	13.50	20.32

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_16.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.428min (-0.059) 7276.9318365 ppb

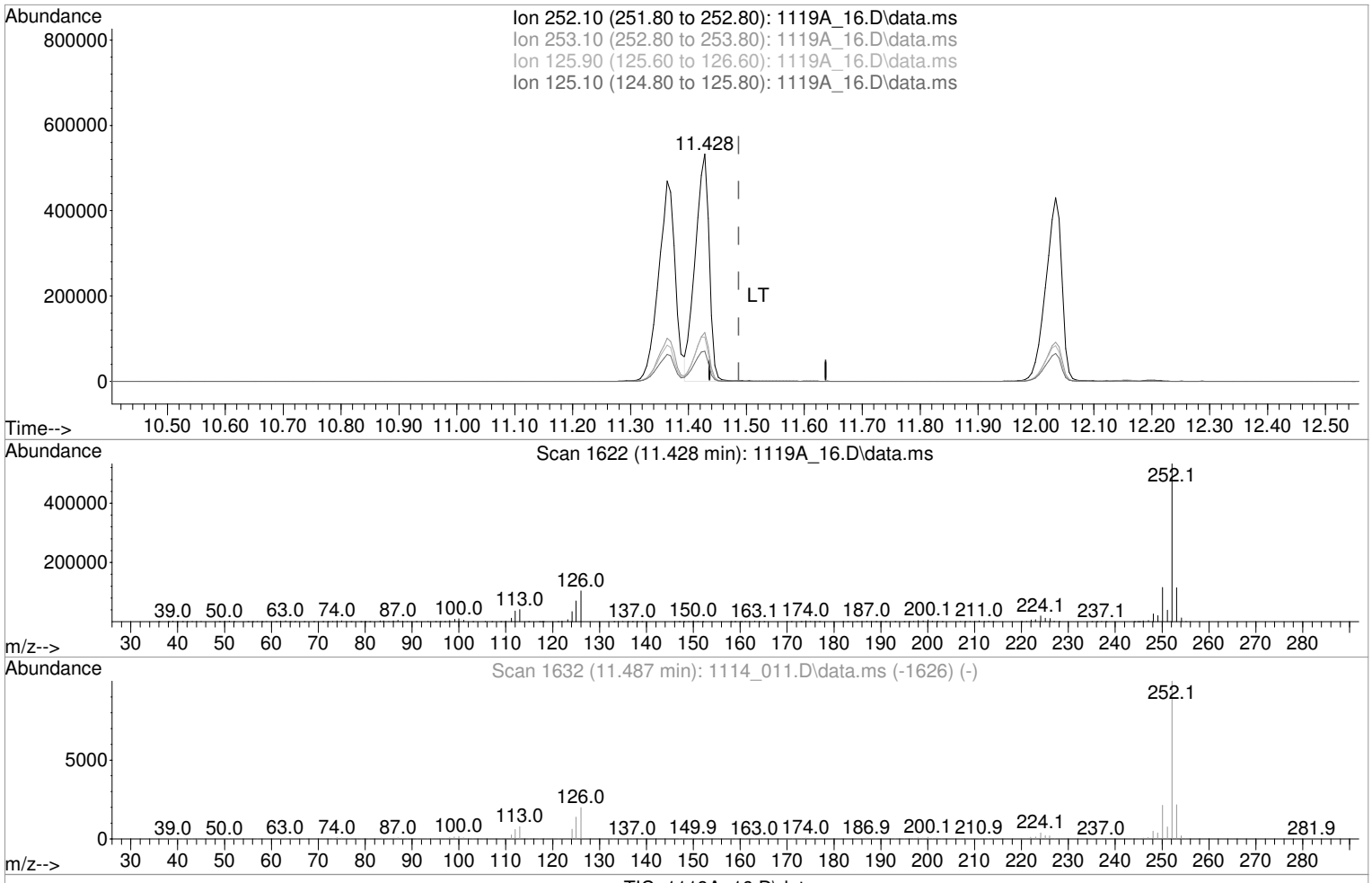
Qvalue = 100

response 799232

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.56
125.90	19.60	19.44
125.10	13.70	13.19

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_16.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.428min (-0.059) 8143.6095817 ppb m

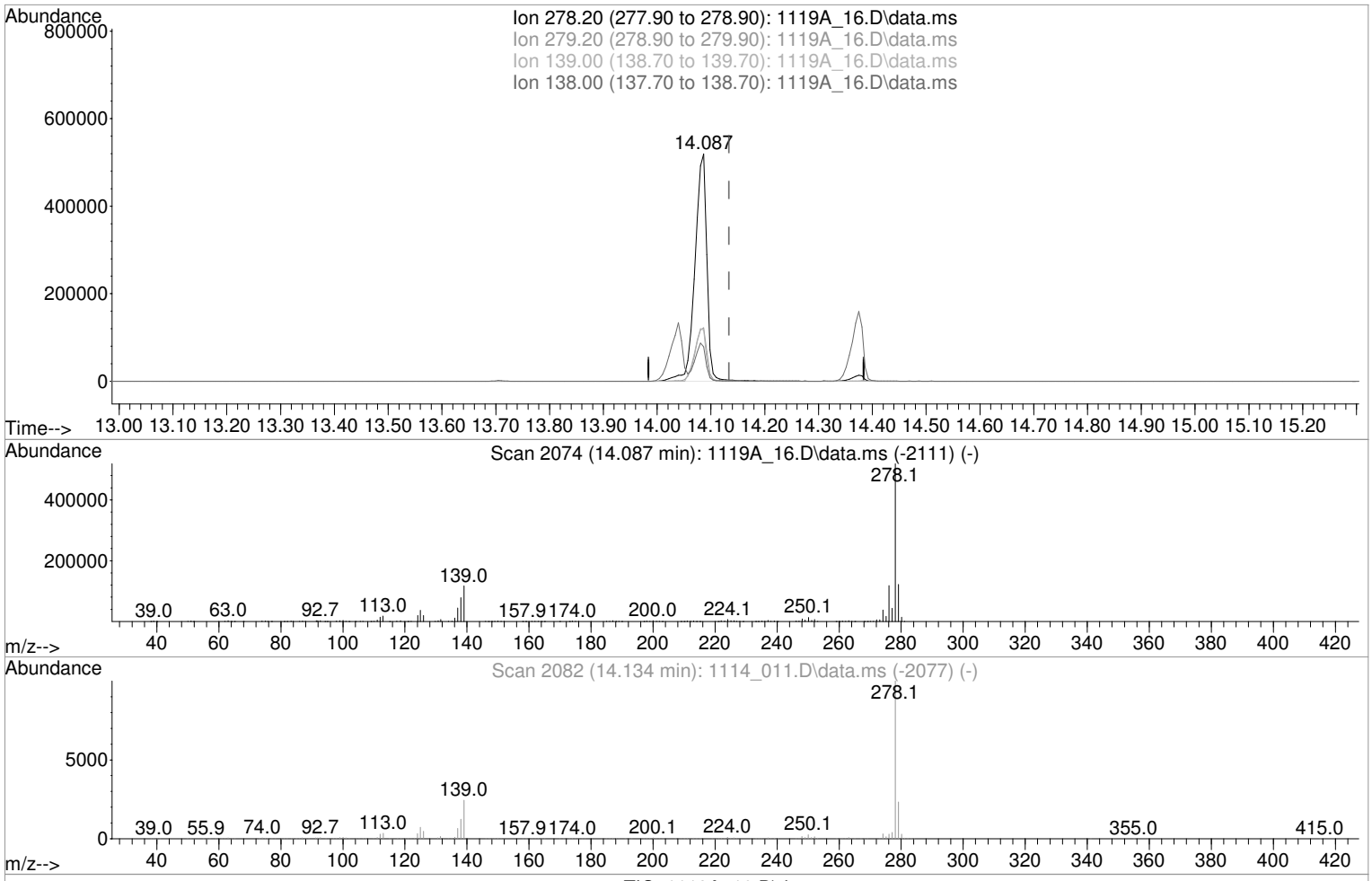
response 894420

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.55
125.90	19.60	19.46
125.10	13.70	13.21

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_16.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.087min (-0.047) 8311.4492670 ppb

Qvalue = 98

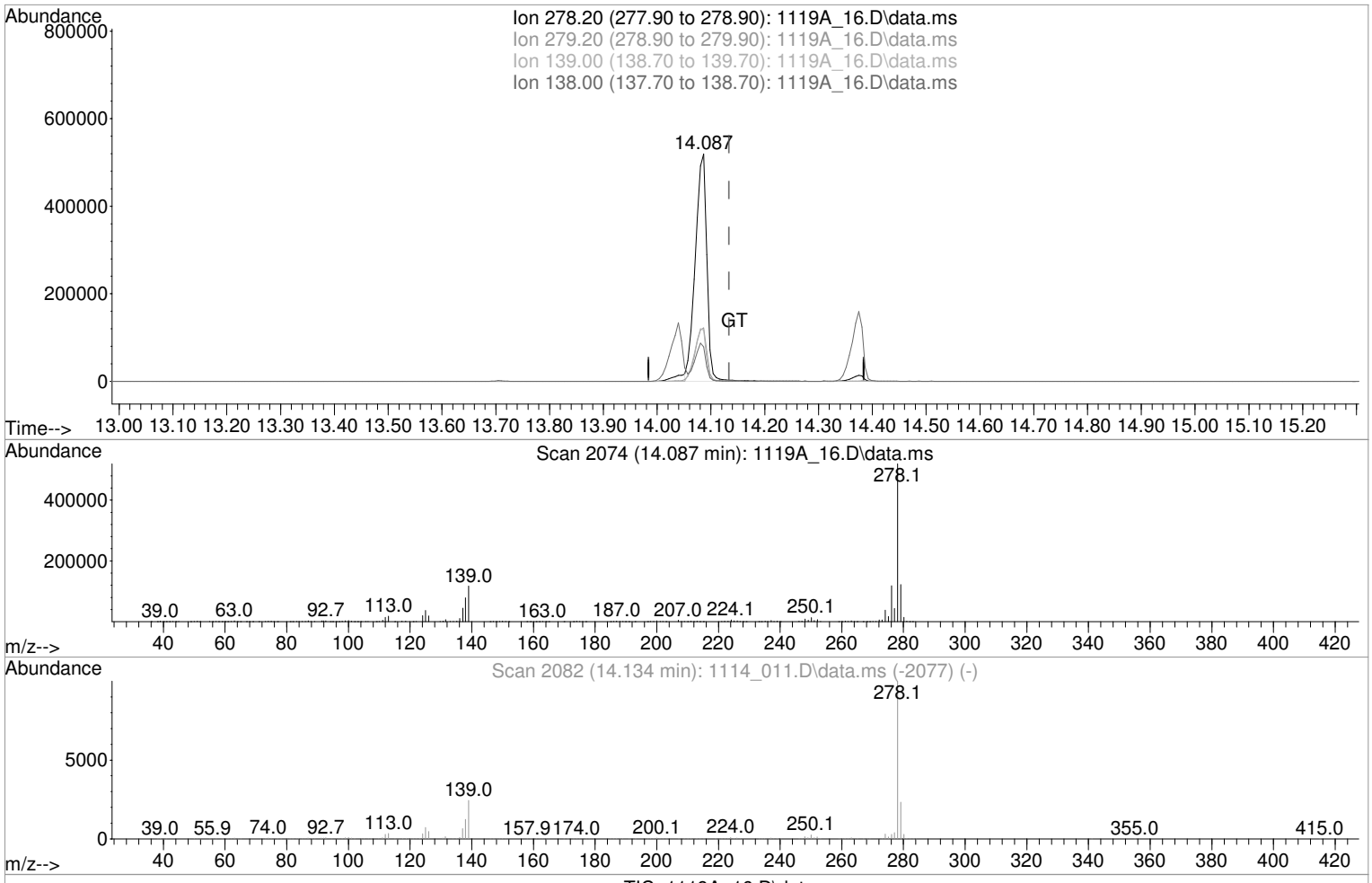
response 804943

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.48
139.00	23.90	22.54
138.00	16.60	15.17

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_16.D
Acq On : 19 Nov 2022 07:57 pm
Operator : 974
Sample : MS 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 128 Sample Multiplier: 1

Quant Time: Nov 21 13:02:53 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_16.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.087min (-0.047) 8002.6957826 ppb m

response 775041

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	23.48
139.00	23.90	22.54
138.00	16.60	15.21

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3863446-4	**SDG:**	L1559129
Client Sample ID:	MSD	**Collected Date/Time:**	11/15/22 10:20
Lab File ID:	1119A_17	**Received Date/Time:**	11/17/22 11:00
Instrument ID:	BNAMS32	**Preparation Date/Time:**	11/19/22 05:17
Analytical Batch:	WG1962120	**Analysis Date/Time:**	11/19/22 20:18
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	8270E	**Sample Vol Used:**	_____
Matrix:	GW	**Initial Wt/Vol:**	110 mL
Total Solids (%):	_____	**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Acenaphthene	83-32-9	5.39	31.4		0.0886	1.00
Acenaphthylene	208-96-8	5.27	33.5		0.0921	1.00
Anthracene	120-12-7	6.56	31.7		0.0804	1.00
Benzo(a)anthracene	56-55-3	9.37	34.9		0.199	1.00
Benzo(b)fluoranthene	205-99-2	11.36	35.6		0.130	1.00
Benzo(k)fluoranthene	207-08-9	11.43	34.3		0.120	1.00
Benzo(g,h,i)perylene	191-24-2	14.37	33.7		0.121	1.00
Benzo(a)pyrene	50-32-8	12.03	35.2		0.0381	1.00
Benzoic Acid	65-85-0	4	37.0		1.70	50.0
Carbazole	86-74-8	6.68	37.4		0.111	10.0
Chrysene	218-01-9	9.44	35.1		0.130	1.00
Dibenz(a,h)anthracene	53-70-3	14.08	34.5		0.0644	1.00
Dibenzofuran	132-64-9	5.52	32.8		0.0970	10.0
Fluorene	86-73-7	5.77	34.1		0.0844	1.00
Fluoranthene	206-44-0	7.55	36.3		0.102	1.00
Indeno(1,2,3-cd)pyrene	193-39-5	14.04	32.1		0.279	1.00
1-Methylnaphthalene	90-12-0	4.70	27.0		0.0790	1.00
2-Methylnaphthalene	91-57-6	4.64	25.4		0.117	1.00
Phenanthrene	85-01-8	6.52	34.4		0.112	1.00
Pyrene	129-00-0	7.78	36.2		0.107	1.00
Naphthalene	91-20-3	4.20	23.1		0.159	1.00
Bis(2-ethylhexyl)phthalate	117-81-7	9.46	35.6		0.895	3.00
Di-n-butyl phthalate	84-74-2	6.95	38.7		0.453	3.00
Di-n-octyl phthalate	117-84-0	10.72	36.3		0.932	3.00
3&4-Methyl Phenol	3&4-Methyl Phenol	3.63	16.8		0.168	10.0
Pentachlorophenol	87-86-5	6.34	39.2		0.313	10.0
Phenol	108-95-2	3.20	9.06		4.33	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.428	152	247814	8000.0000000	ppb		-0.01
23) Naphthalene-d8	4.181	136	1062069	8000.0000000	ppb		-0.02
46) Acenaphthene-d10	5.369	164	552526	8000.0000000	ppb		-0.01
70) Phenanthrene-d10	6.499	188	1006496	8000.0000000	ppb		-0.02
84) Chrysene-d12	9.393	240	825247	8000.0000000	ppb		-0.04
94) Perylene-d12	12.163	264	780818	8000.0000000	ppb		-0.04
System Monitoring Compounds							
4) 2-Fluorophenol	2.746	112	42802	1139.0642055	ppb		0.00
Spiked Amount 4000.000	Range 10 - 120		Recovery = 28.48%				
7) Phenol-d5	3.187	99	37084	771.6675841	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 120		Recovery = 19.29%				
24) Nitrobenzene-d5	3.740	82	48674m	1122.6671755	ppb		-0.02
Spiked Amount 2000.000	Range 10 - 126		Recovery = 56.13%				
50) 2-Fluorobiphenyl	4.875	172	124292	1412.9454767	ppb		-0.02
Spiked Amount 2000.000	Range 22 - 127		Recovery = 70.65%				
73) 2,4,6-Tribromophenol	5.952	330	33313	3109.0442721	ppb		-0.02
Spiked Amount 4000.000	Range 10 - 153		Recovery = 77.73%				
87) p-Terphenyl-d14	7.940	244	162320	1533.5949003	ppb		-0.04
Spiked Amount 2000.000	Range 29 - 141		Recovery = 76.68%				
Target Compounds						Qvalue	
2) Pyridine	2.240	79	102593	2640.1973466	ppb	#	93
3) N-Nitrosodimethylamine	2.205	42	57981	3046.1244843	ppb		90
5) Aniline	3.240	66	77989	3367.8273387	ppb		96
6) bis(2-Chloroethyl)ether	3.264	93	231727	6159.6224394	ppb		99
8) Phenol	3.199	94	96740	1991.6426017	ppb		97
9) Benzaldehyde	3.193	105	163117	5671.5409597	ppb		99
10) 2-Chlorophenol	3.311	128	165872	4183.8109210	ppb		94
11) n-Decane	3.311	41	60343	2914.0954220	ppb		100
12) 1,3-Dichlorobenzene	3.399	146	194369	4281.8566964	ppb		98
13) 1,4-Dichlorobenzene	3.440	146	198503	4291.1480434	ppb		97
14) Benzyl Alcohol	3.487	79	159756	5004.1514574	ppb		100
15) 1,2-Dichlorobenzene	3.528	146	201194	4625.3547198	ppb		96
16) bis(2-Chloroisopropyl)...	3.564	121	84920	5998.6521299	ppb		99
17) 2,2-oxybis(1-chloropro...	3.564	121	84920	5998.6521299	ppb		99
18) 2-Methylphenol	3.540	108	138521	3761.3277684	ppb		99
19) Hexachloroethane	3.722	117	72413	4182.9687141	ppb		94
20) N-Nitrosodi-n-propylamine	3.640	70	183975	6945.5298139	ppb		98
21) 3&4-Methyl phenol	3.628	107	151963	3683.6828096	ppb		98
22) Acetophenone	3.646	105	339361	6578.9490064	ppb		89
25) Nitrobenzene	3.752	77	277447	6742.7705828	ppb		97
26) Isophorone	3.887	82	518297	6617.2147022	ppb		97
27) 2-Nitrophenol	3.940	139	117268	5452.2081356	ppb		91
28) 2,4-Dimethylphenol	3.946	107	171333	4063.4390949	ppb		97
29) bis(2-Chlorethoxy)methane	4.005	93	317336	6274.2857442	ppb		98
30) 2,4-Dichlorophenol	4.081	162	164382	4657.3568029	ppb		92
31) Benzoic Acid	3.999	105	171936	8129.4871128	ppb		83
32) 1,2,4-Trichlorobenzene	4.140	180	190563	4806.8610386	ppb		98

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) alpha-terpineol	4.187	59	241208	7215.3900702	ppb		97
34) Naphthalene	4.199	128	676708	5079.4488018	ppb		98
35) 4-Chloroaniline	4.216	65	63015	3960.2863203	ppb		86
36) Hexachloro-1,3-butadiene	4.263	225	90117	4462.2215879	ppb		99
38) Quinoline	4.411	129	463198	6274.9162191	ppb		99
39) Caprolactam	4.428	113	51725	5164.6690452	ppb	#	70
40) 4-Chloro-3-methylphenol	4.511	107	188383	5125.7220505	ppb		99
41) 2-Methylnaphthalene	4.640	142	489776	5582.0739950	ppb		99
42) 1-Methylnaphthalene	4.705	142	483992	5942.4073624	ppb		98
43) 1,2,4,5-Tetrachloroben...	4.752	216	204521	6176.0502484	ppb		100
44) Diphenyl Ether	5.022	170	350382	7070.9771351	ug/ml		97
45) Diphenyl Oxide	5.022	170	350382	7070.9771351	ug/ml		97
47) Hexachlorocyclopentadiene	4.740	237	114743	4705.5683168	ppb		100
48) 2,4,6-Trichlorophenol	4.822	196	151147	6749.7588239	ppb		93
49) 2,4,5-Trichlorophenol	4.846	196	146359	6086.9021980	ppb		92
51) Biphenyl	4.952	154	638979	6472.0768427	ppb		99
52) 2-Chloronaphthalene	4.969	162	490652	6463.9209946	ppb		97
53) 2-Nitroaniline	5.034	138	211061	8044.5350457	ppb		92
54) Acenaphthylene	5.269	152	864759	7364.2781536	ppb		100
55) Dimethyl phthalate	5.158	163	677310	7915.7295022	ppb		93
56) 2,6-Dinitrotoluene	5.199	165	170456	8296.7237586	ppb		96
57) 3-Nitroaniline	5.328	138	136048	5834.9699719	ppb	#	84
58) Acenaphthene	5.393	153	538621	6899.8864896	ppb		98
59) 2,4-Dinitrophenol	5.399	184	80698	9397.3608874	ppb	#	38
60) Dibenzofuran	5.516	168	788845	7216.4912546	ppb		99
61) 2,4-Dinitrotoluene	5.493	165	232783	8685.8171255	ppb		100
62) 2,3,4,6-Tetrachlorophenol	5.599	232	248748	16266.2934762	ppb		93
63) 4-Nitrophenol	5.422	139	56954	3199.4882434	ppb		97
64) Fluorene	5.769	166	671597	7490.2718571	ppb		98
65) 4-Chlorophenyl-phenyle...	5.763	204	313755	7468.8917954	ppb		89
66) Diethyl phthalate	5.663	149	697442	8330.1133002	ppb		99
67) 4-Nitroaniline	5.775	138	144753	5942.3634933	ppb		95
68) Azobenzene	5.881	77	641843	7874.4391667	ppb		99
69) Atrazine	6.252	200	190902	8175.9662970	ppb	#	100
71) 4,6-Dinitro-2-methylph...	5.799	198	115834	9404.5337508	ppb	#	79
72) N-Nitrosodiphenylamine	5.852	169	505552	6534.1629107	ppb		99
74) 4-Bromophenyl-phenylether	6.140	248	187295	8237.7416045	ppb		95
75) Hexachlorobenzene	6.193	284	187785	7286.7648993	ppb		99
76) n-octadecane	6.381	55	105539	7222.6731546	ppb		99
77) Pentachlorophenol	6.340	266	122953	8616.4300788	ppb		98
78) Phenanthrene	6.516	178	998935	7565.3120628	ppb		100
79) Anthracene	6.558	178	908136	6968.5452784	ppb		100
80) Carbazole	6.681	167	1007660	8218.9923275	ppb		100
81) Di-n-butyl phthalate	6.946	149	1197055	8516.3257022	ppb		100
82) 2-nitrodiphenylamine	7.087	167	260689	9442.3410630	ppb		95
83) Fluoranthene	7.546	202	1071334	7982.6809129	ppb		100
86) Pyrene	7.781	202	1079757	7956.4618470	ppb		100
88) Benzylbutyl phthalate	8.552	149	524396	8149.6753313	ppb		95
89) 3,3-Dichlorobenzidine	9.346	252	358114	7826.8848594	ppb		98
90) Benzo(a)anthracene	9.375	228	970271	7672.5442348	ppb		98

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
91) Chrysene	9.440	228	927781	7706.9110581 ppb	99
92) bis(2-Ethylhexyl)phtha...	9.463	149	706646	7832.7568973 ppb	99
93) Di-n-octyl phthalate	10.716	149	1209772	7978.7753164 ppb	99
95) Benzo(b)fluoranthene	11.363	252	886752	7822.8618372 ppb	97
96) Benzo(k)fluoranthene	11.428	252	849195m	7533.9738498 ppb	
97) Benzo(a)pyrene	12.034	252	799937	7735.9044673 ppb	99
98) Indeno(1,2,3-cd)pyrene	14.039	276	686345	7056.0239631 ppb	99
99) Dibenz(a,h)anthracene	14.081	278	752983m	7575.9663814 ppb	
100) Benzo(g,h,i)perylene	14.375	276	720014	7408.2145586 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
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Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
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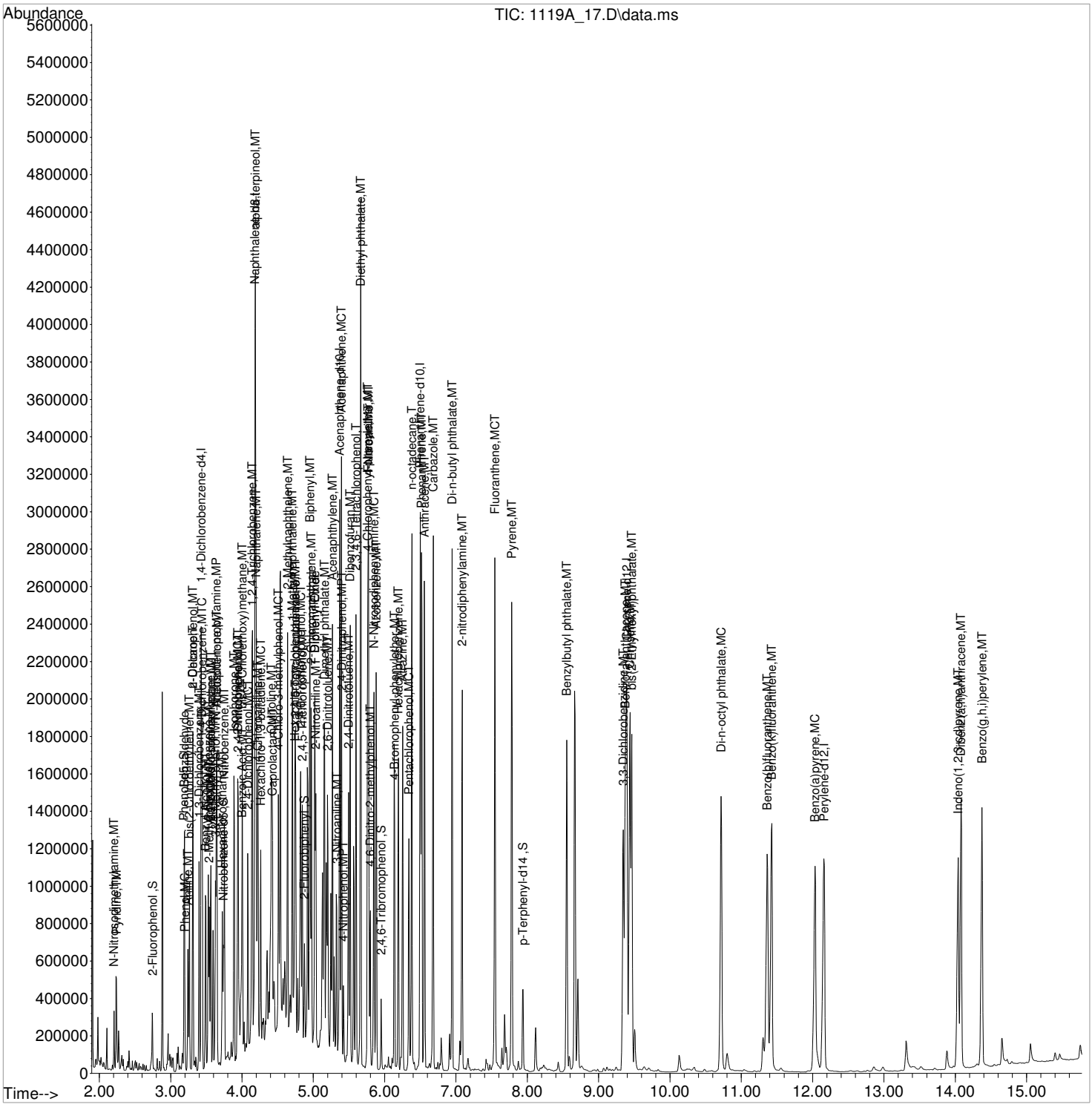
Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
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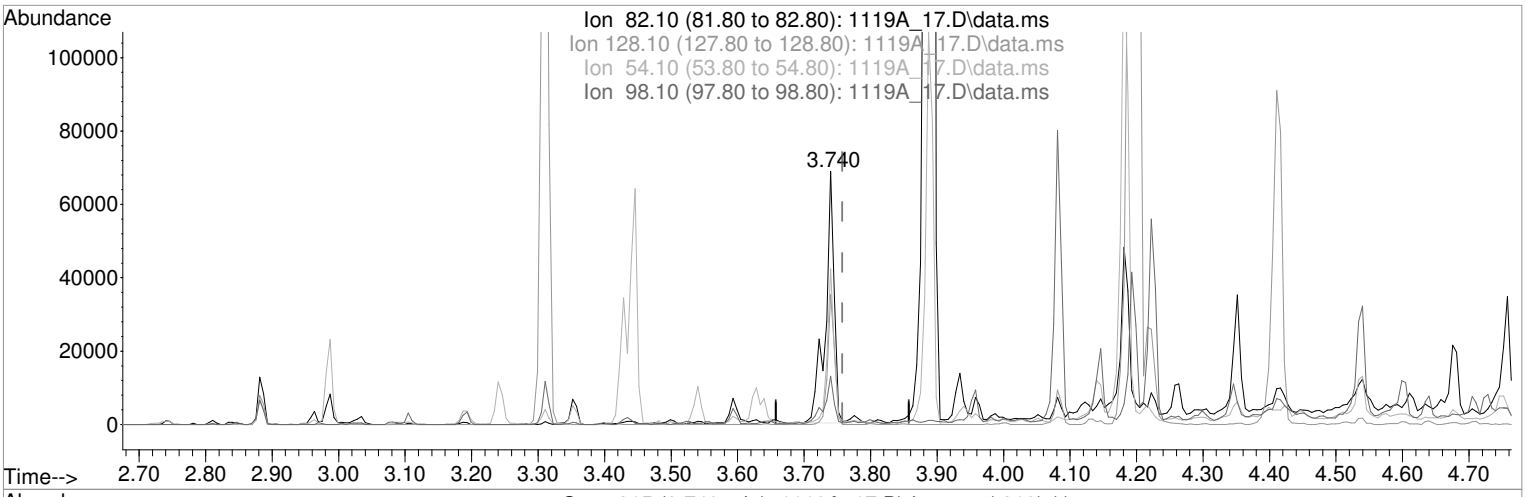
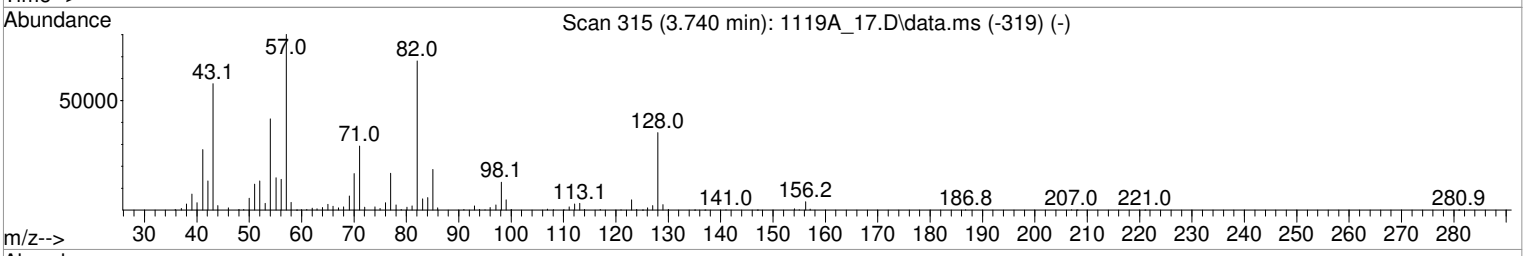
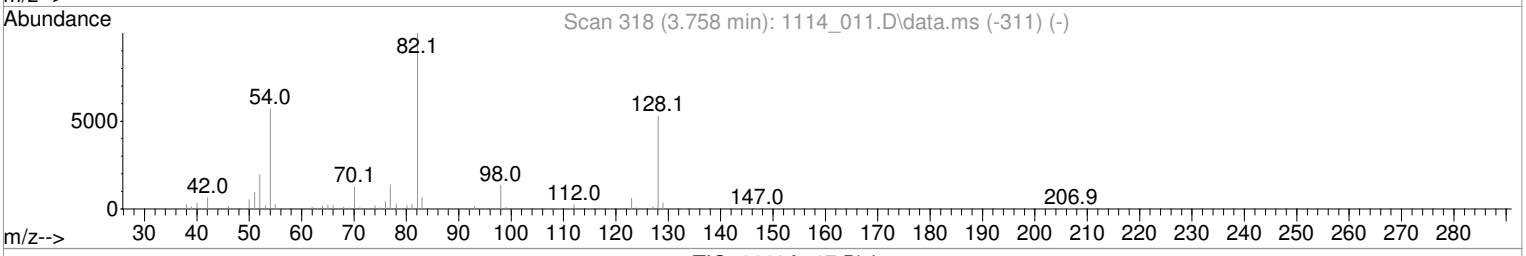
Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_17.D\data.ms

(24) Nitrobenzene-d5 (S)

3.740min (-0.018) 1477.5456971 ppb

Qvalue = 95

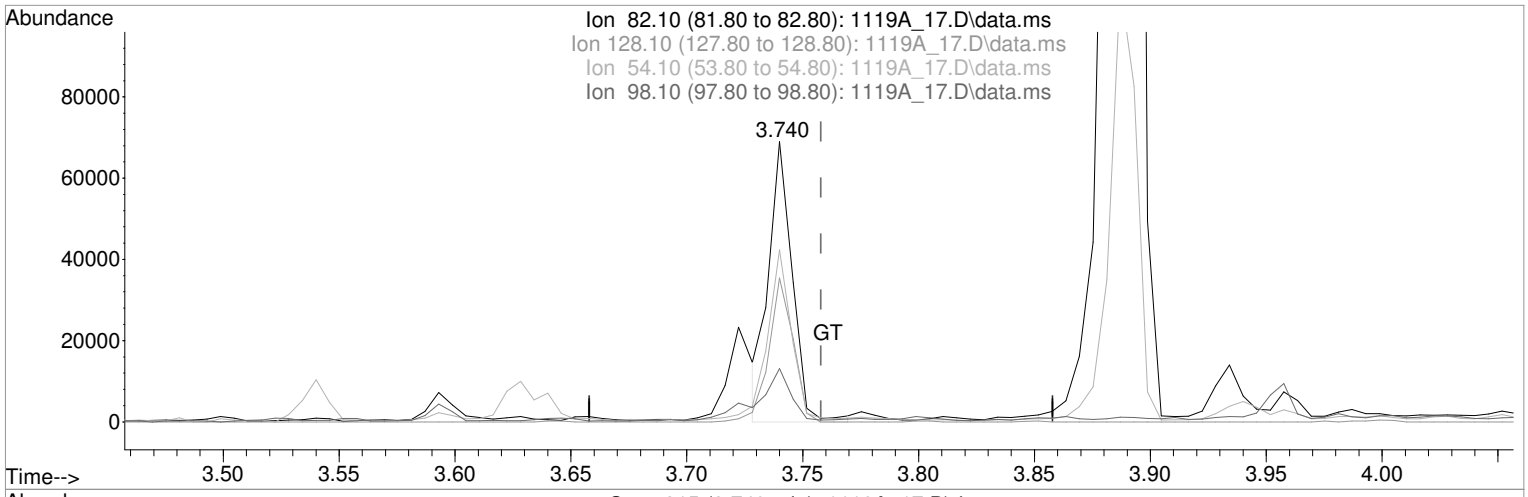
response 64060

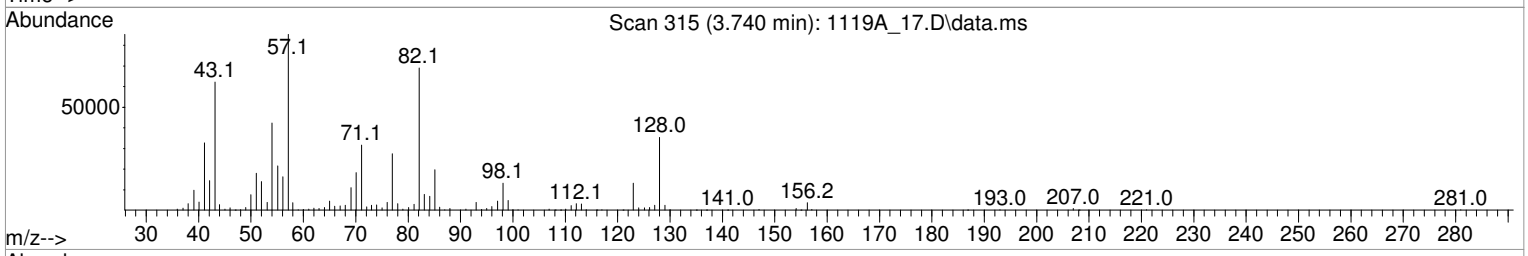
Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.67
54.10	57.00	61.01
98.10	13.50	18.84

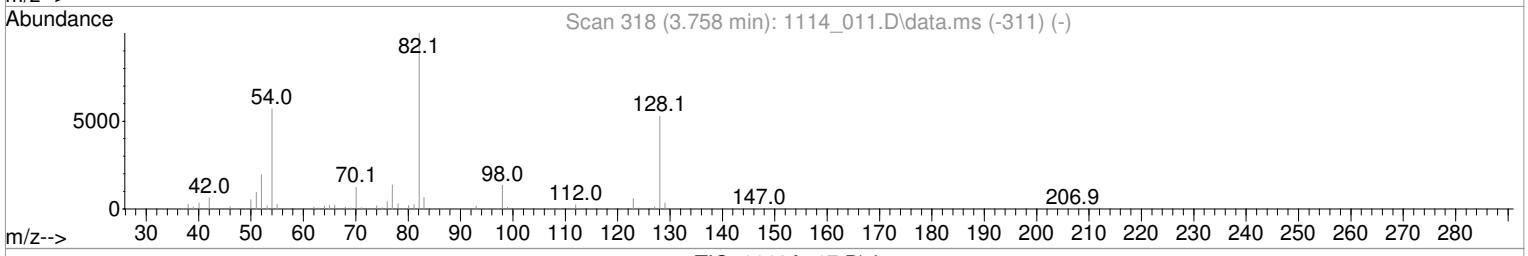
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_17.D\data.ms

(24) Nitrobenzene-d5 (S)

3.740min (-0.018) 1122.6671755 ppb m

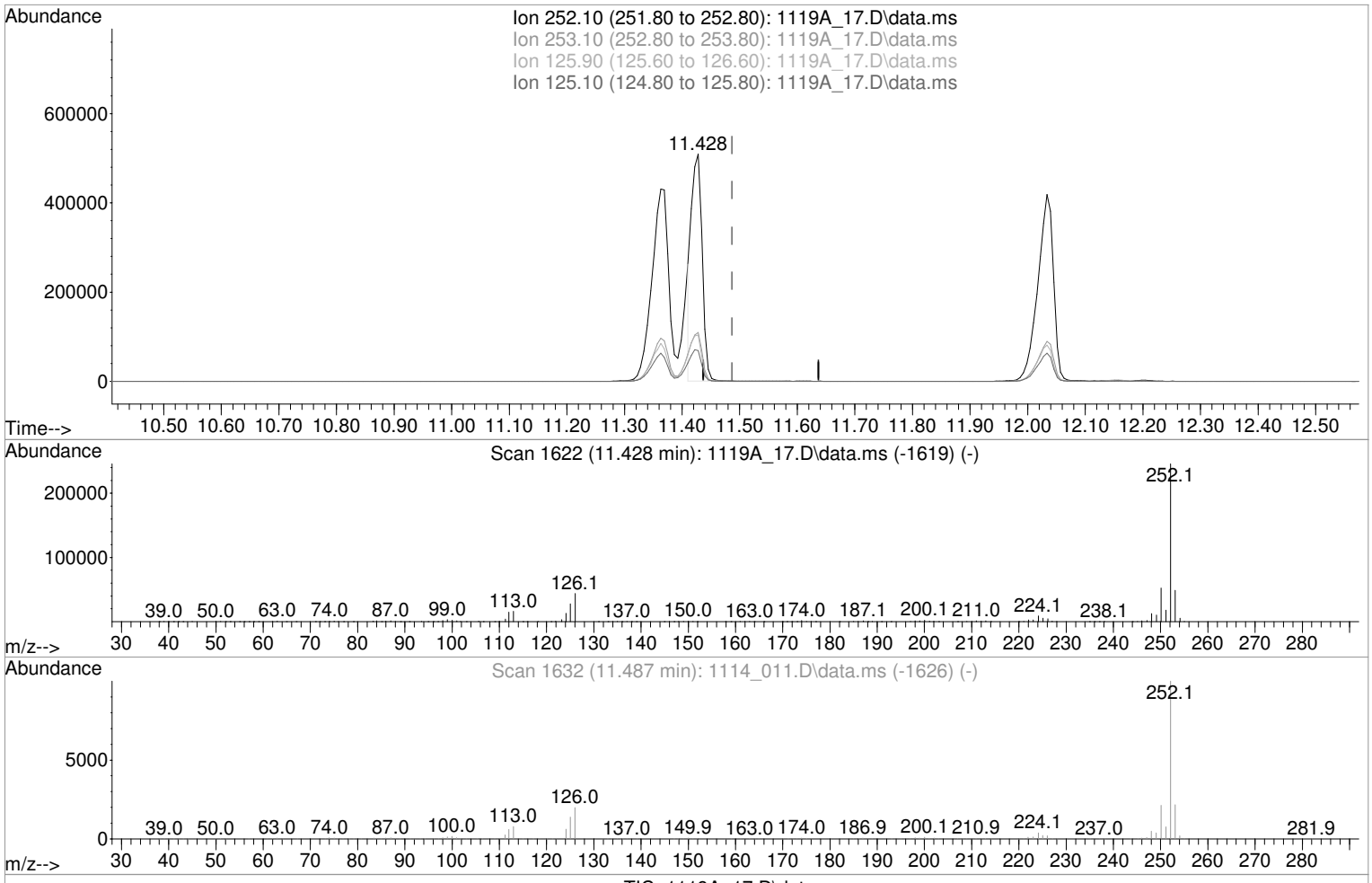
response 48674

Ion	Exp%	Act%
82.10	100.00	100.00
128.10	52.80	51.32
54.10	57.00	61.41
98.10	13.50	19.05

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_17.D\data.ms

(96) Benzo(k)fluoranthene (MT)

11.428min (-0.059) 5877.9093479 ppb

Qvalue = 99

response 662531

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.56
125.90	19.60	20.34
125.10	13.70	13.56

Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
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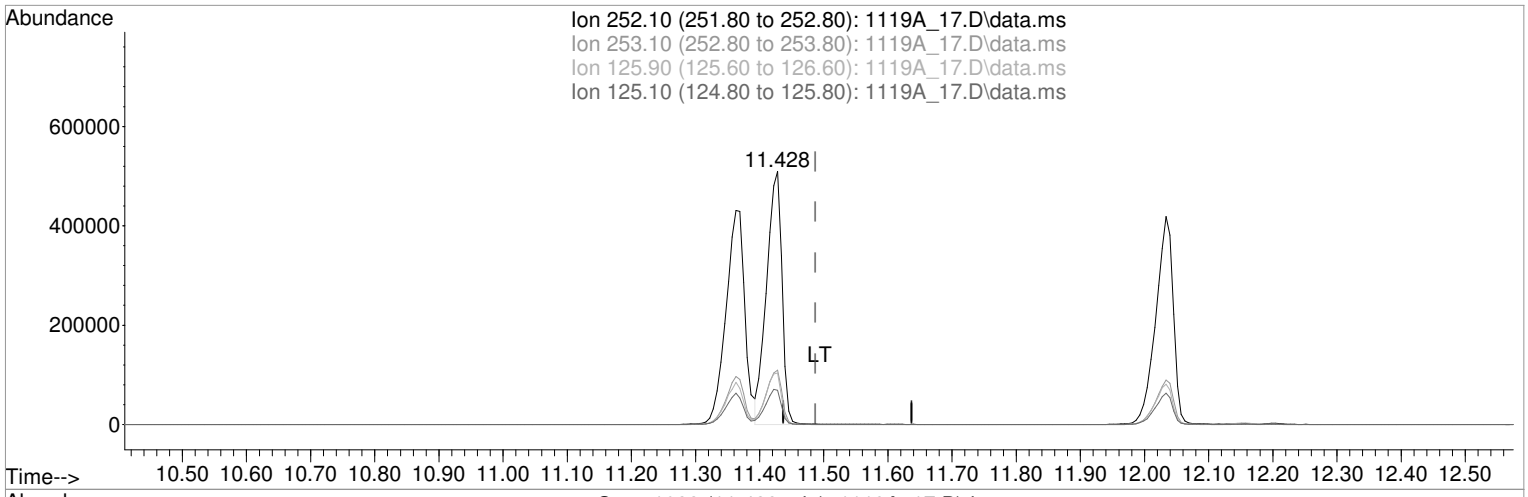
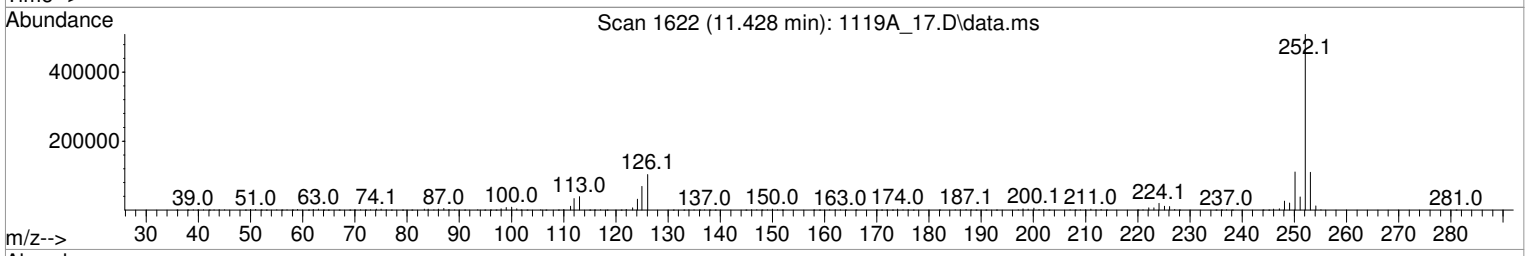
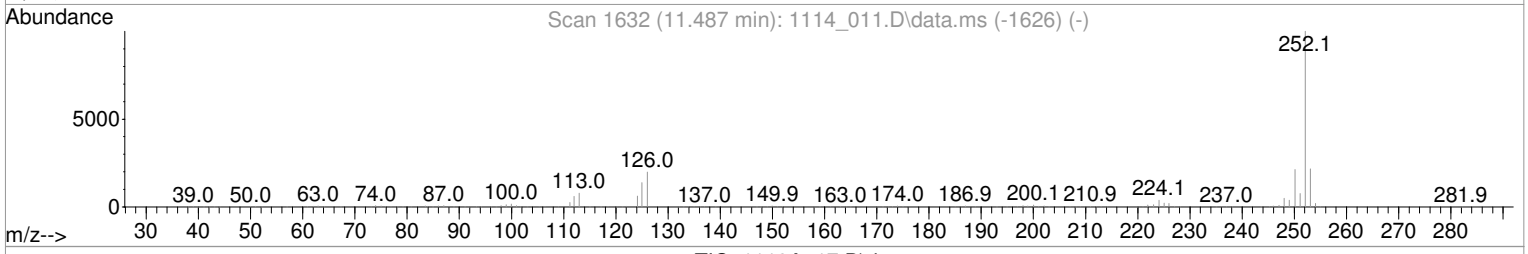
Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_17.D\data.ms

(96) Benzo(k)fluoranthene (MT)

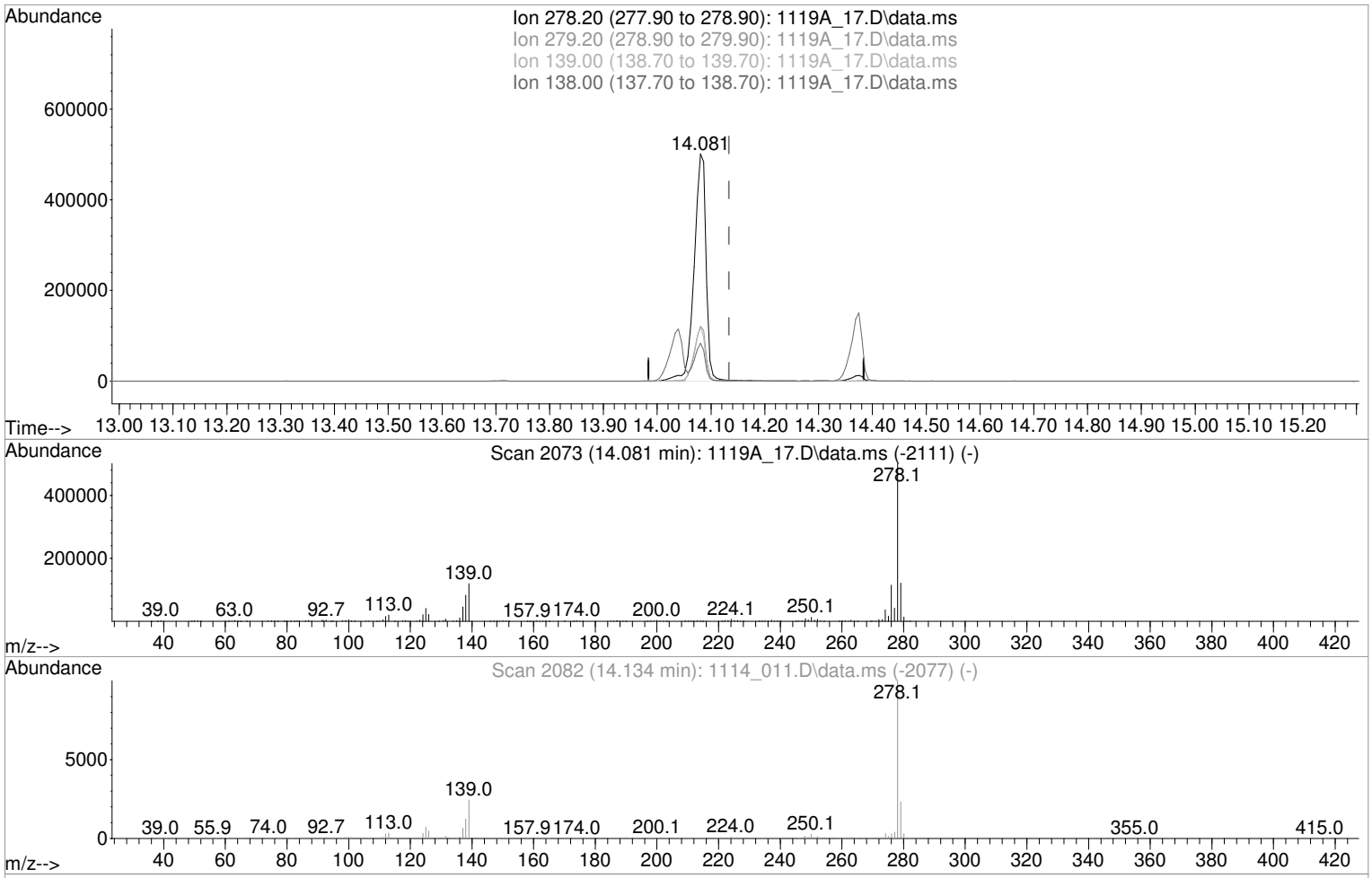
11.428min (-0.059) 7533.9738498 ppb m

response 849195

Ion	Exp%	Act%
252.10	100.00	100.00
253.10	21.60	21.54
125.90	19.60	20.32
125.10	13.70	13.58

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration



TIC: 1119A_17.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.081min (-0.053) 7803.4919746 ppb

Qvalue = 99

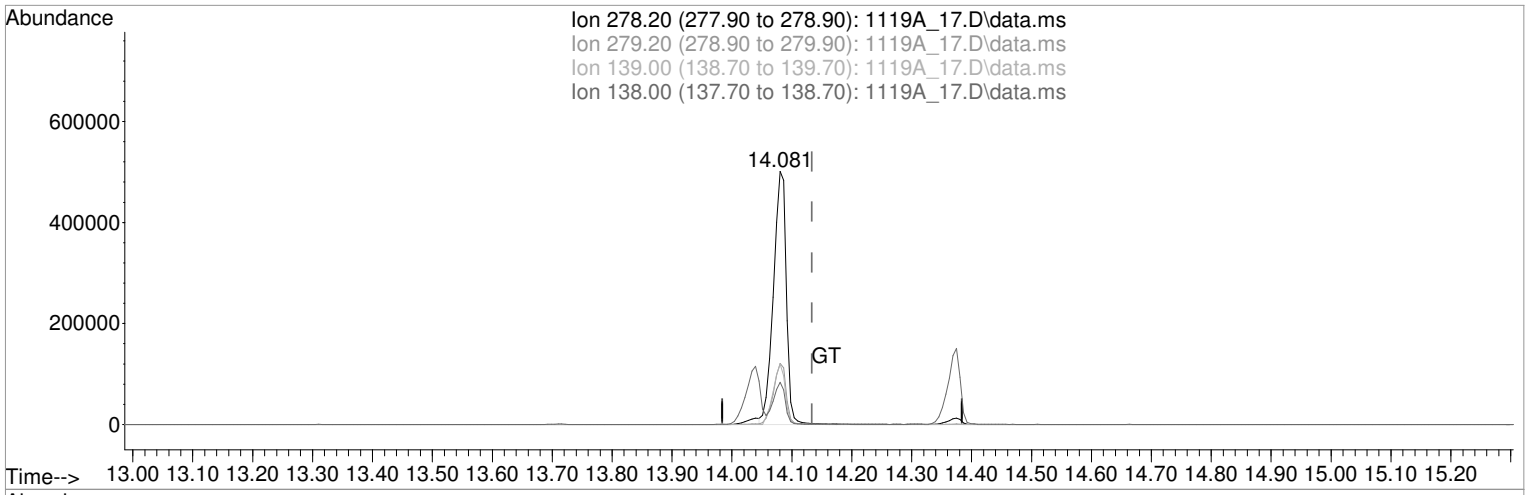
response 775597

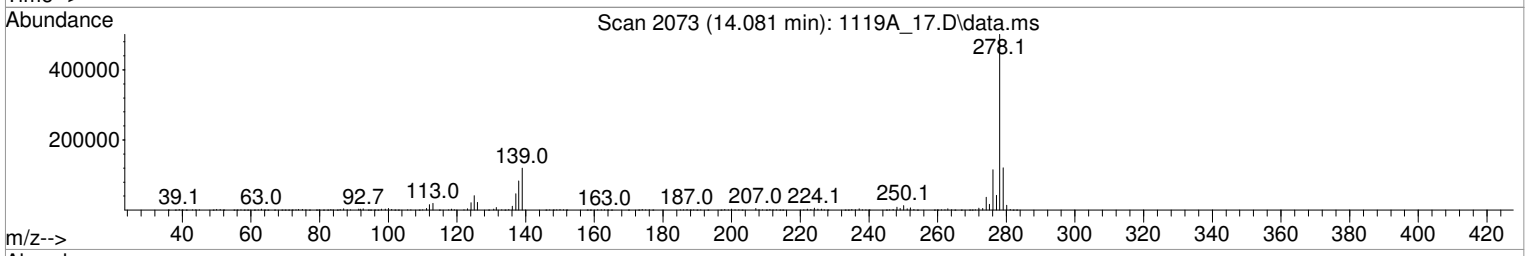
Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	24.14
139.00	23.90	23.88
138.00	16.60	16.59

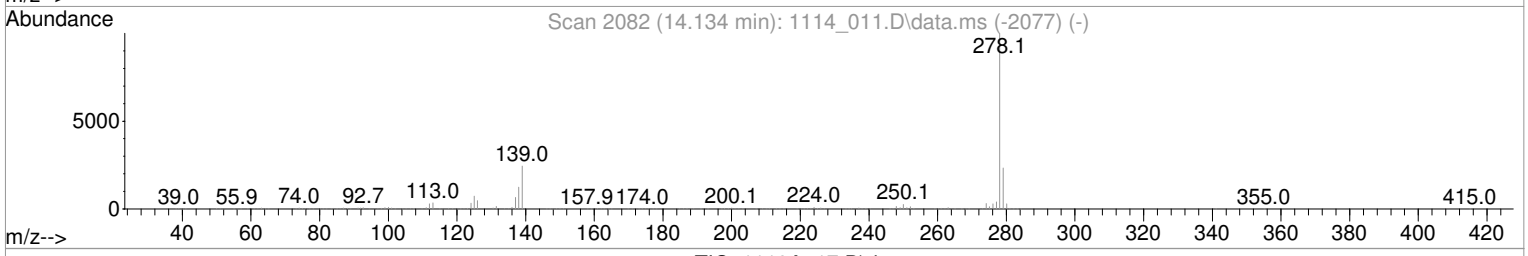
Quantitation Report (Qedit)

Data Path : C:\GCMS\1\data\111922A\
Data File : 1119A_17.D
Acq On : 19 Nov 2022 08:18 pm
Operator : 974
Sample : MSD 1x WG1962120 L1559112-01
Misc : WATER ISTD 22K15727 exp 05/15/23
ALS Vial : 129 Sample Multiplier: 1

Quant Time: Nov 21 13:02:58 2022
Quant Method : C:\GCMS\1\methods\S832K14V.M
Quant Title : 8270 BNA
QLast Update : Tue Nov 15 11:04:23 2022
Response via : Initial Calibration







TIC: 1119A_17.D\data.ms

(99) Dibenz(a,h)anthracene (MT)

14.081min (-0.053) 7575.9663814 ppb m

response 752983

Ion	Exp%	Act%
278.20	100.00	100.00
279.20	23.30	24.14
139.00	23.90	23.88
138.00	16.60	16.65

BNA RV Extractions Benchsheet

Batch: WG1962120

Process Analyst: JAB906 **Transfer Analyst:** JAB906 **Material Handler:** JAB906 **Prep Start Date/Time:** 11/19/22 05:16-05:17 **Prep End Date/Time:** 11/19/22 14:34
Method: 3510C **SOP:** ENV-SOP-MTJL-0114 **pH Strip Lot#:** 10BDH2221

Na2SO4: 22K18293 Amt. Used: 1 Exp. Date:05/18/23 **MeCl2:** 22K01892 Amt. Used: 1 Exp. Date:05/01/23 **NaOH:** 22K08811 Amt. Used: 1 Exp. Date:05/08/23
H2SO4: 22H25359 Amt. Used: 1 Exp. Date:02/25/23 **Surrogate:** 22K09913 Amt. Used: 100 µL Exp. Date:04/12/23
LCS/MS Spike: 22K11306 Amt. Used: 250 µL Exp. Date:11/25/22 **Spike Syringe ID:** 22J04091 Amt. Used: 1 Exp. Date:04/04/23
Surrogate Syringe ID: 22J10856 Amt. Used: 1 Exp. Date:04/10/23

Sample Number	Prep Flags	Initial Sample Vol (mL)	Adjusted pH<2	Adjusted pH >11	Solvent Volume (mL)	Emulsion	Final Volume (mL)	Extract Color	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date
BLANK		100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
LCS		100	1	14	36	No Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
MS(L1559112-01)		110	1	14	36	No Emulsion	0.5	Yellow	0.00455	0.91	1	1	1	AGW3545	11/19/22 14:48:14
MSD(L1559112-01)		110	1	14	36	No Emulsion	0.5	Yellow	0.00455	0.91	1	1	1	AGW3545	11/19/22 14:48:14
1. L1556840-01	Q	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
2. L1558343-01		100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
3. L1558725-20	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
4. L1558762-01		100	1	14	36	No Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
5. L1558762-02		105	1	14	36	No Emulsion	0.5	Yellow	0.00476	0.952	1	1	1	AGW3545	11/19/22 14:48:14
6. L1558762-03		100	1	14	36	No Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
7. L1558762-04		100	1	14	36	No Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
8. L1558762-05		100	1	14	36	Med. Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
9. L1558947-01	G6	100	1	14	36	Heavy Emulsion	0.5	Yellow	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
10. L1558950-01	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
11. L1558951-03	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
12. L1558986-01		110	1	14	36	No Emulsion	0.5	Colorless	0.00455	0.91	1	1	1	AGW3545	11/19/22 14:48:14
13. L1559079-01	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
14. L1559112-01		110	1	14	36	No Emulsion	0.5	Colorless	0.00455	0.91	1	1	1	AGW3545	11/19/22 14:48:14
15. L1559115-01	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
16. L1559129-01	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
17. L1559147-01	G6	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
18. L1559159-01	G7	100	1	14	36	No Emulsion	0.5	Colorless	0.005	1	1	1	1	AGW3545	11/19/22 14:48:14
19. L1559159-02		110	1	14	36	No Emulsion	0.5	Colorless	0.00455	0.91	1	1	1	AGW3545	11/19/22 14:48:14
20. L1559159-03	G7	105	1	14	36	No Emulsion	0.5	Colorless	0.00476	0.952	1	1	1	AGW3545	11/19/22 14:48:14

Comments:

Reviewed By: AGW3545 on 11/19/22 14:48:14

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
Mass	Mass of parameter.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: WA
Cert. Needed: [x] Yes ☐ No
Owner Received Date: 11/16/2022 **Results Requested By:** 12/2/2022

Workorder: 10633992 **Workorder Name:** D3631600

Report To	Subcontract To
Kongmeng Vang Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

4155 9/29

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	AG1U					Requested Analysis: 8270E SVOC												LAB USE ONLY
1	BNSF-EB01-111422	PS	11/14/2022 09:30	10633992001	Water	2						X												01
2																								
3																								
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	11-16-22 15:20		
2				
3			Kaycie	11/17/22 1100

Comments

OK

See attached 8270 list
Lvl 4 data package
Report to MDL, non-detects as ND

Cooler Temperature on Receipt 4.4 °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

MSA7
4.4+0=4.4
5466 8887 2538

U559129

INTER_LABORATORY WORK ORDER # 10633992
(To be completed by sending lab)

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

Sending Project No:	10633992
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	11/16/22
REQUESTED COMPLETION DATE:	**12/2/2022**

Sending Region	IR10-Minnesota	Sending Project Mgr.	Kongmeng Vang
Receiving Region	IR850-Pace National	External Client	BNSF_Jacobs_WA
State of Sample Origin	WA	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed yes

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8270E SVOC	AG1U		Unpreserved	1	$135.00	$135.00
					TOTAL	$135.00

Special Requirements: Report D, QC Limits, MDLs (D),Jacobs UPRR EQEDD (1579)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$135.00	$108.00	$27.00
	TOTAL	$135.00	$108.00	$27.00

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.