Data File: /chem3/pid1.i/vpcc1231-1.b/1231a009.d

Date : 31-DEC-2009 11:26

Client ID:

Sample Info: qc26f

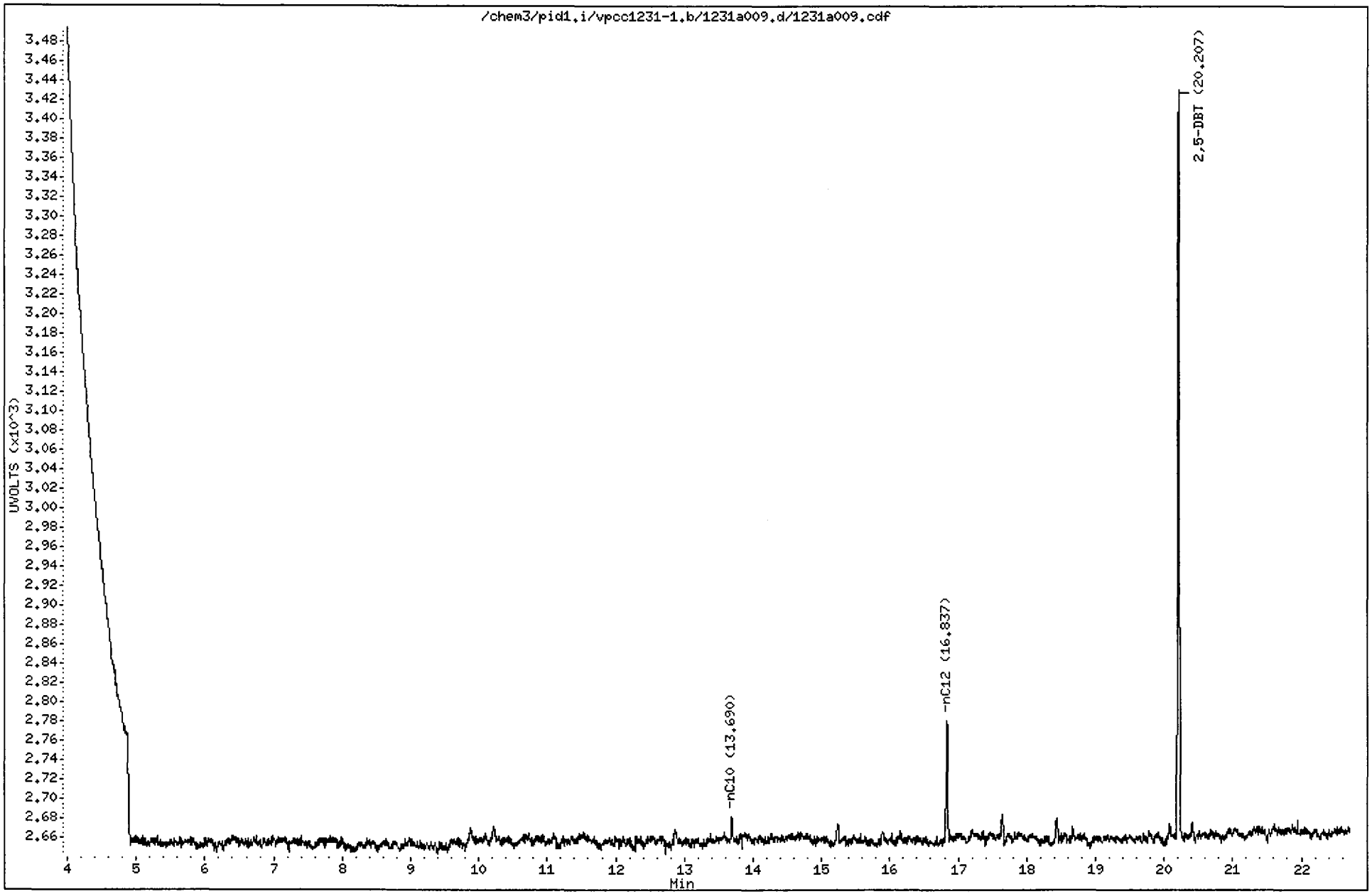
Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH

Column diameter: 0.18

QC26 : 661 44



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a009.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

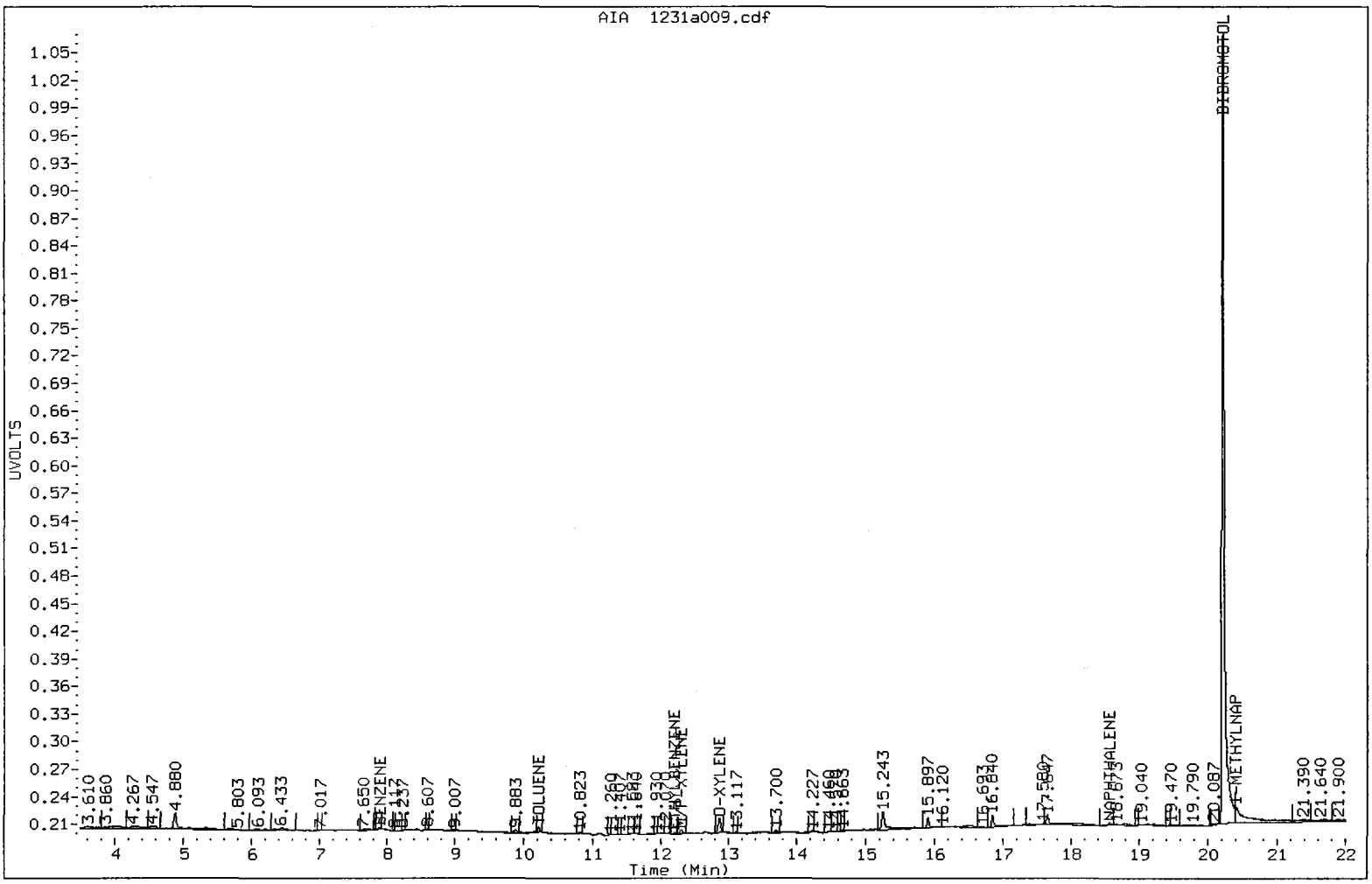
ARI ID: qc26f
Client ID:
Injection: 31-DEC-2009 11:26
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range	Total Area	Conc
MtBE	----				C8-C10 Arom.	1808*	0.7
BENZENE	7.897	0.007	15	0.0	C10-C12 Arom.	2330	1.1
TOLUENE	10.217	-0.003	58	0.0	C12-C13 Arom.	2385	1.7
ETHYLBENZENE	12.203	-0.003	15	0.0			
M/P-XYLENE	12.303	-0.010	45	0.0			
O-XYLENE	12.860	-0.040	159	0.1			
TRIMETHYLBEN	----						
NAPHTHALENE	18.567	0.000	31	0.1			
1-METHYLNAP	20.407	-0.007	163	1.4			
DIBROMOTOL	20.210	0.000	8610	10.6	DBT Recovery:	21.1	

* Indicates surrogate area subtracted

qc26f AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a009.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

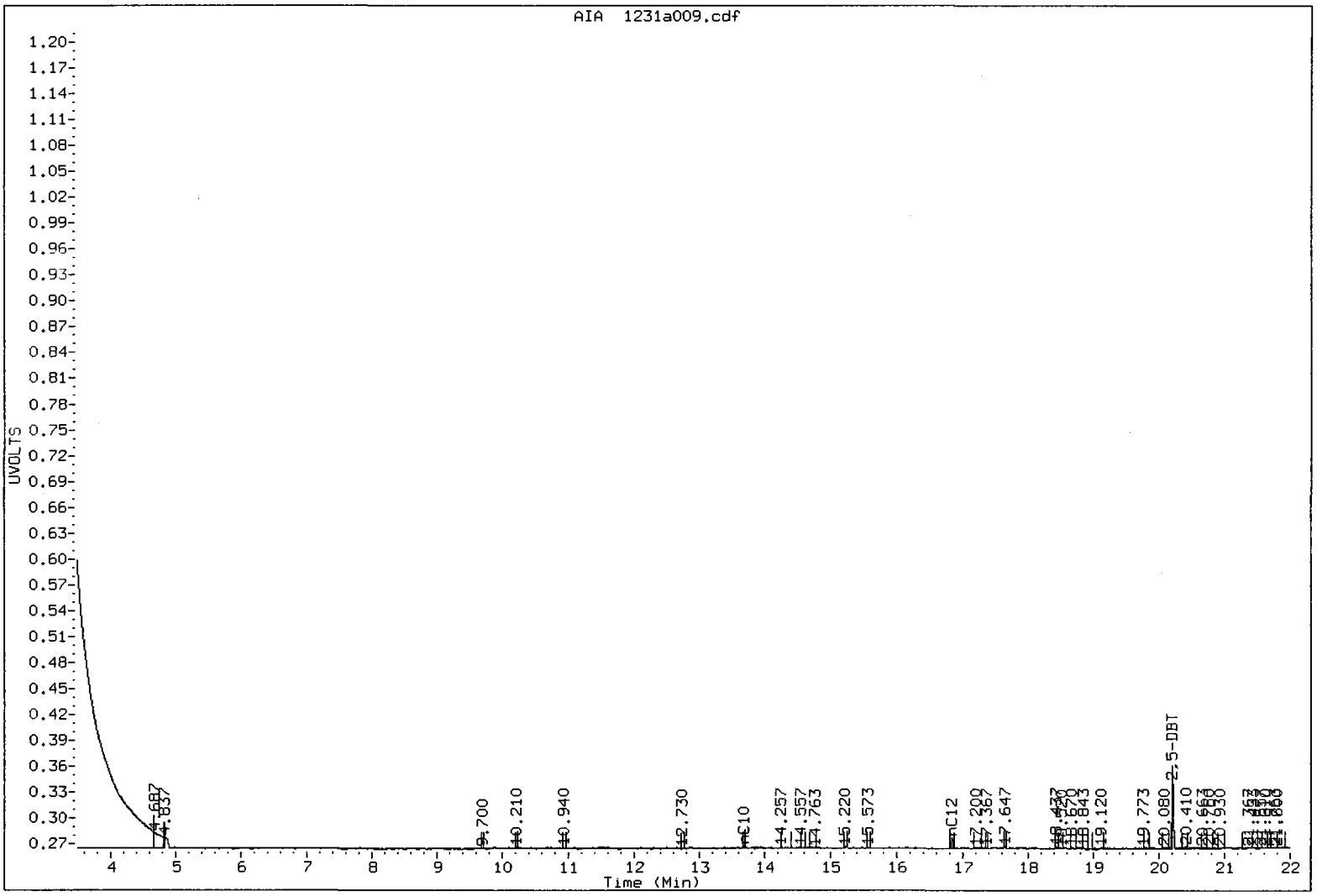
ARI ID: qc26f
Client ID:
Injection: 31-DEC-2009 11:26
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	----				C5-C6	Aliph.	1410	4.1
nC6	----				C6-C8	Aliph.	11	0.0
nC8	----				C8-C10	Aliph.	68	0.2
nC10	13.690	-0.013	21	22	C10-C12	Aliph.	302*	0.9
nC12	16.837	-0.007	126	202				

* Indicates surrogate area subtracted

qc26f ALIPHATIC (FID) SIGNAL



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH

Sample ID: BW-11-SS-091218
DILUTION

Lab Sample ID: QC26F
LIMS ID: 09-31266
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Analyzed: 01/05/10 18:23
Instrument/Analyst: PID1/MH

Purge Volume: 10 mL
Sample Amount: 27.5 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1800	< 1,800 U
108-88-3	Toluene	1800	< 1,800 U
100-41-4	Ethylbenzene	1800	< 1,800 U
179601-23-1	m,p-Xylene	3600	< 3,600 U
95-47-6	o-Xylene	1800	< 1,800 U
1634-04-4	Methyl tert-Butyl Ether	1800	< 1,800 U
109-66-0	n-Pentane	1800	< 1,800 U
110-54-3	n-Hexane	1800	< 1,800 U
111-65-9	n-Octane	1800	< 1,800 U
124-18-5	n-Decane	1800	< 1,800 U
112-40-3	n-Dodecane	1800	< 1,800 U

Range	RL	Result
C8-C10 Aromatics	18,000	< 18,000 U
C10-C12 Aromatics	18,000	< 18,000 U
C12-C13 Aromatics	18,000	< 18,000 U
C5-C6 Aliphatics	18,000	< 18,000 U
C6-C8 Aliphatics	18,000	< 18,000 U
C8-C10 Aliphatics	18,000	< 18,000 U
C10-C12 Aliphatics	18,000	< 18,000 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	58.8%
FID: 2,5-Dibromotoluene	54.6%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

MH 1/6/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a009.d
Lab Smp Id: QC26F Client Smp ID: BW-11-SS-091218
Inj Date : 05-JAN-2010 18:23
Operator : MH Inst ID: pid1.i
Smp Info : QC26F
Misc Info : 09-31266
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)
1 MtBE	Compound Not Detected.					
2 BENZENE	7.887	7.887	0.000	26	0.00700	0.00700
4 TOLUENE	10.210	10.213	-0.003	83	0.02426	0.0243
5 ETHYLBENZENE	12.150	12.197	-0.047	38	0.01299	0.0130
6 M/P-XYLENE	12.300	12.297	0.003	42	0.01228	0.0123
7 O-XYLENE	12.857	12.890	-0.033	264	0.08650	0.0865
9 TRIMETHYLBEN	15.330	15.320	0.010	16	0.00620	0.00620
10 NAPHTHALENE	18.563	18.560	0.003	15	0.00746	0.00746
11 1-METHYLNAP	Compound Not Detected.					
$ 37 DIBROMOTOL	20.203	20.203	0.000	28127	13.9759	14.0(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a009.d
Lab Smp Id: QC26F Client Smp ID: BW-11-SS-091218
Inj Date : 05-JAN-2010 18:23
Operator : MH Inst ID: pid1.i
Smp Info : QC26F
Misc Info : 09-31266
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
1 nC5	Compound Not Detected.					
2 nC6	Compound Not Detected.					
4 nC8	9.863	9.880	-0.017	48	0.16430	0.164
5 nC10	13.687	13.690	-0.003	39	0.12612	0.126
7 nC12	16.830	16.833	-0.003	107	0.30283	0.303
$ 8 2,5-DBT	20.200	20.203	-0.003	1513	12.9709	13.0(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a009.d

Date : 05-JAN-2010 18:23

Client ID: BW-11-SS-091218

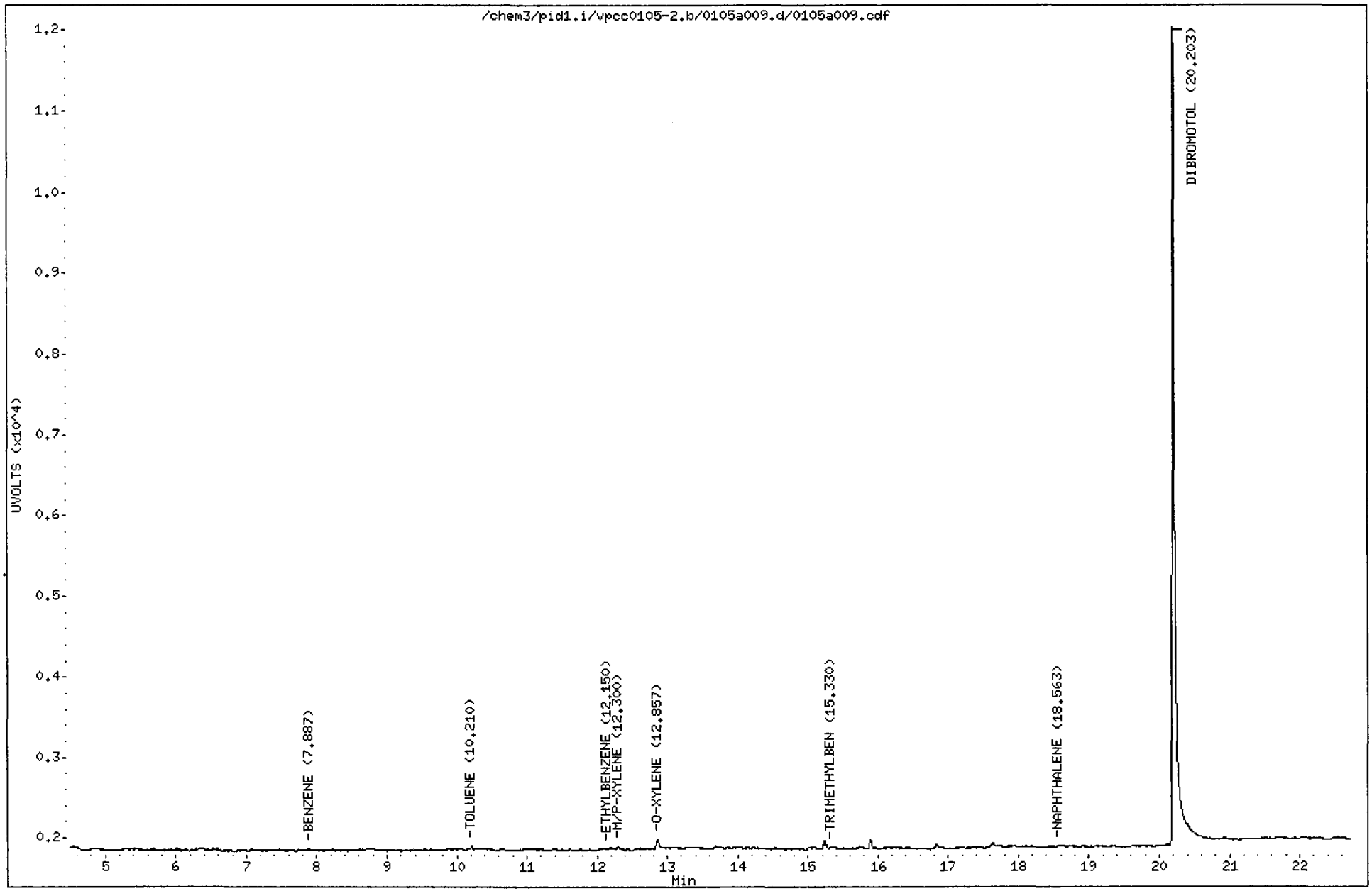
Sample Info: QC26F

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



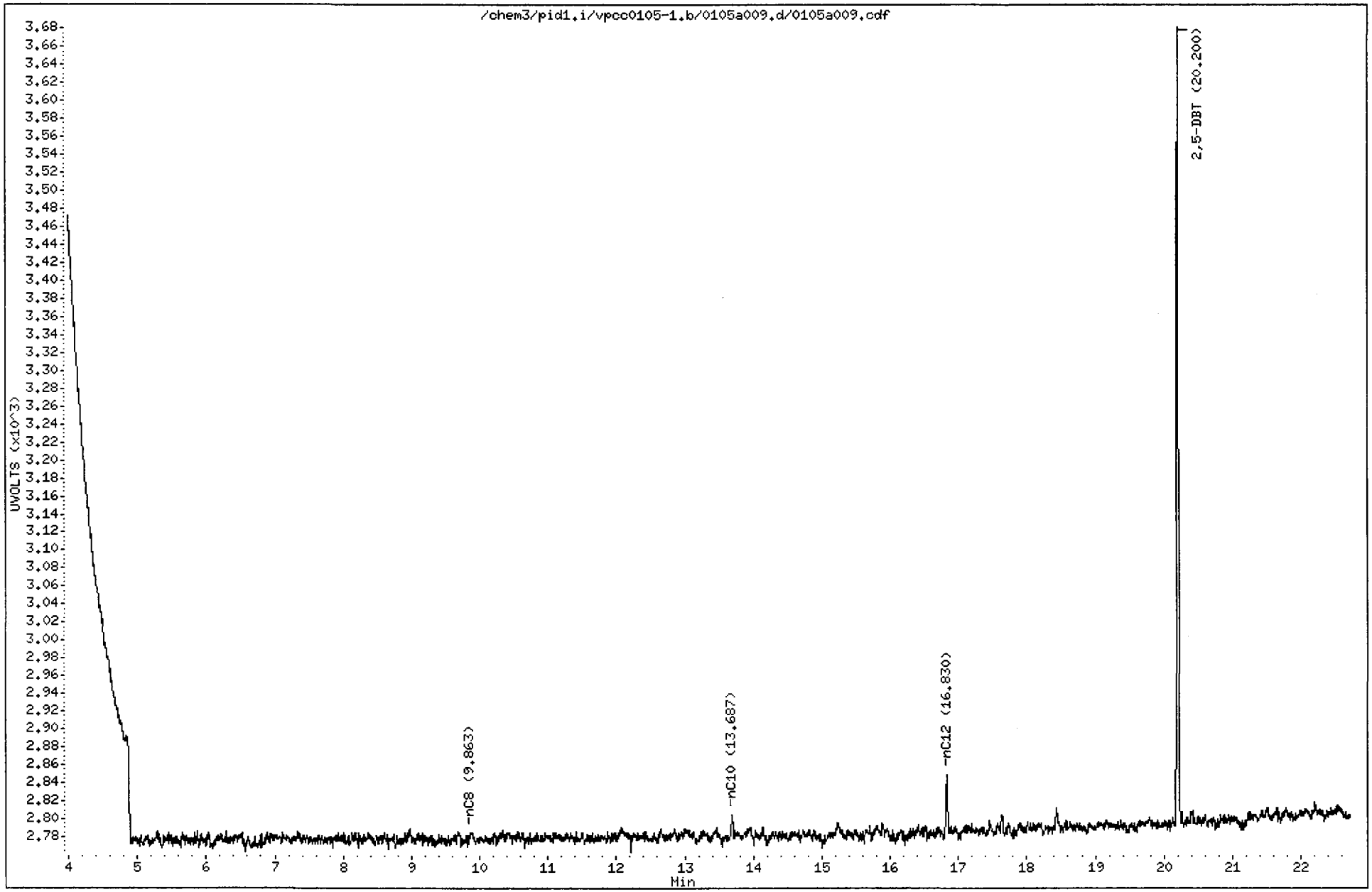
QC26:00150

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a009.d
Date : 05-JAN-2010 18:23
Client ID: BW-11-SS-091218
Sample Info: QC26F

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI

QC26:091151



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a009.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

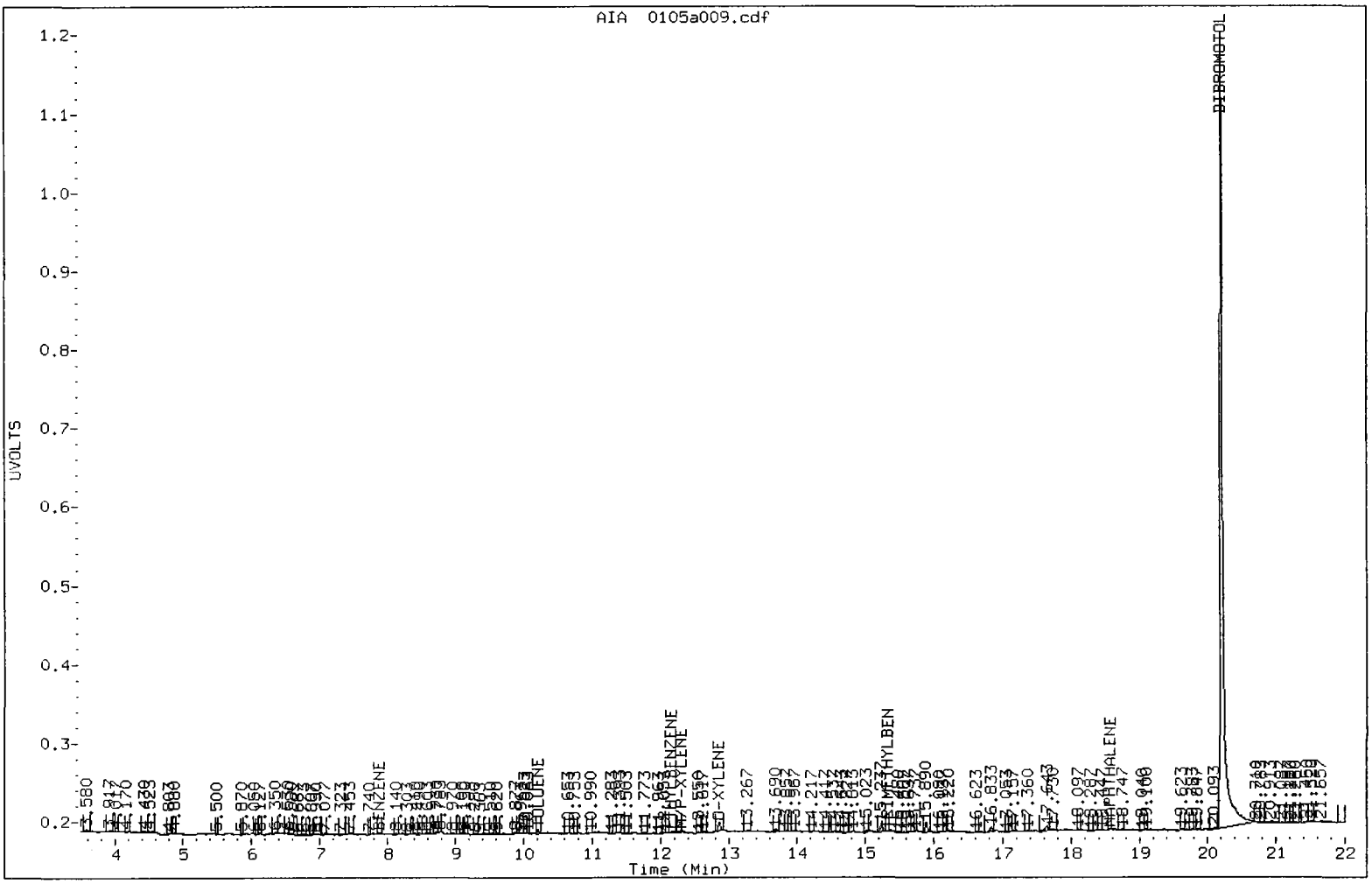
ARI ID: QC26F
Client ID: BW-11-SS-091218
Injection: 05-JAN-2010 18:23
Matrix: SOIL
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range	Total Area	Conc
MtBE	----				C8-C10 Arom.	1182*	0.4
BENZENE	7.887	0.000	18	0.0	C10-C12 Arom.	909	0.4
TOLUENE	10.210	-0.003	46	0.0	C12-C13 Arom.	163	0.1
ETHYLBENZENE	12.150	-0.047	10	0.0			
M/P-XYLENE	12.300	0.003	31	0.0			
O-XYLENE	12.857	-0.033	107	0.1			
TRIMETHYLBEN	15.330	0.010	7	0.0			
NAPHTHALENE	18.563	0.003	12	0.0			
1-METHYLNAP	----						
DIBROMOTOL	20.203	0.000	10127	14.0	DBT Recovery:	28.0	

* Indicates surrogate area subtracted

QC26F AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a009.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

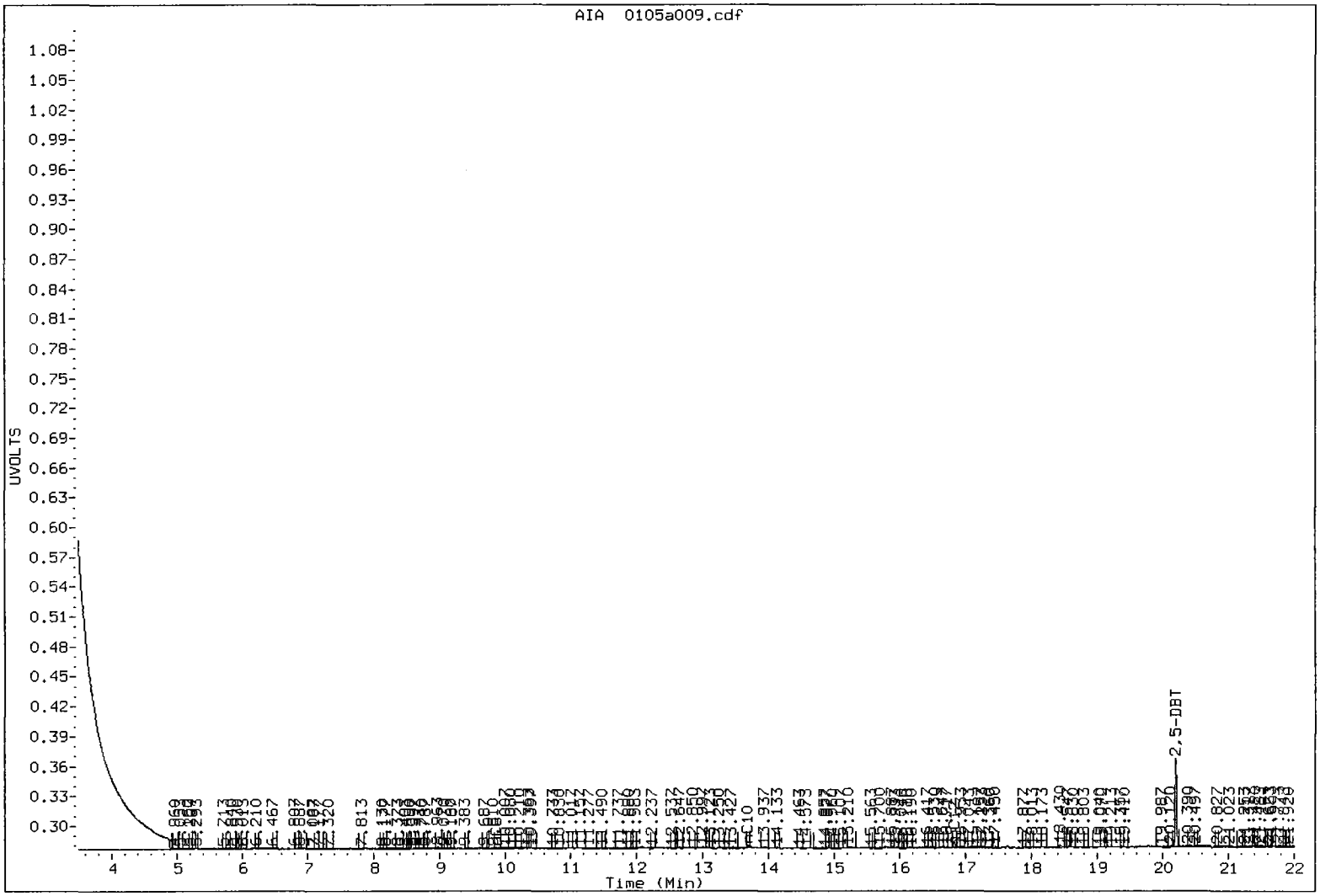
ARI ID: QC26F
Client ID: BW-11-SS-091218
Injection: 05-JAN-2010 18:23
Matrix: SOIL
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	----				C5-C6	Aliph.	109	0.3
nC6	----				C6-C8	Aliph.	650	2.2
nC8	9.863	-0.017	13	48	C8-C10	Aliph.	586	1.9
nC10	13.687	-0.003	25	39	C10-C12	Aliph.	675*	1.9
nC12	16.830	-0.003	67	107				

* Indicates surrogate area subtracted

QC26F ALIPHATIC (FID) SIGNAL



VPH Analysis
Standard Raw Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

VPH INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1 /RTX502-2 ALI Calibration Date: 12/30/09

COMPOUND	CALIBRATION FACTORS 5	10	20	50	80	MEAN	%RSD
nC5	372	341	327	315	298		
nC6	421	384	366	356	341		
nC8	327	296	293	279	276		
nC10	274	266	307	320	335		
nC12	367	355	412	393	372		
2,5-DBT	135	125	121	110	110		

Calibration Files

/chem3/pid1.i/vpcc1230-1.b/1230a002.d
/chem3/pid1.i/vpcc1230-1.b/1230a003.d
/chem3/pid1.i/vpcc1230-1.b/1230a004.d
/chem3/pid1.i/vpcc1230-1.b/1230a006.d
/chem3/pid1.i/vpcc1230-1.b/1230a008.d
/chem3/pid1.i/vpcc1230-1.b/1230a010.d
/chem3/pid1.i/vpcc1230-1.b/1230a012.d

QC26:00155

VPH INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1 /RTX502-2 ALI Calibration Date: 12/30/09

COMPOUND	CALIBRATION FACTORS 100	200	MEAN	%RSD			
nC5	289	289	319	9.54			
nC6	330	336	362	8.86			
nC8	273	299	292	6.35			
nC10	333	362	314	10.98			
nC12	322	254	354	14.84			
2,5-DBT	107	108	116	9.09			

QC26 : 00156

VPH INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1 /RTX 502-2 ARO Calibration Date: 12/30/09

COMPOUND	CALIBRATION FACTORS 5	10	20	50	80	MEAN	%RSD
MtBE	241	229	212	197	187		
BENZENE	4139	3819	3743	3800	3651		
TOLUENE	3740	3445	3409	3481	3342		
ETHYLBENZENE	3279	2976	2946	2988	2913		
M/P-XYLENE	3735	3412	3492	3559	3396		
O-XYLENE	3325	2995	3026	3091	2985		
TRIMETHYLBEN	2392	2360	2633	2811	2741		
NAPHTHALENE	2174	2186	2207	2047	2082		
1-METHYLNAP	1501	1437	1460	1253	1339		
DIBROMOTOL	2162	2068	2042	1946	1958		

Calibration Files

/chem3/pid1.i/vpcc1230-2.b/1230a002.d
/chem3/pid1.i/vpcc1230-2.b/1230a003.d
/chem3/pid1.i/vpcc1230-2.b/1230a004.d
/chem3/pid1.i/vpcc1230-2.b/1230a006.d
/chem3/pid1.i/vpcc1230-2.b/1230a008.d
/chem3/pid1.i/vpcc1230-2.b/1230a010.d
/chem3/pid1.i/vpcc1230-2.b/1230a012.d

QC26:00157

VPH INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1 /RTX 502-2 ARO Calibration Date: 12/30/09

COMPOUND	CALIBRATION FACTORS 100	200	MEAN	%RSD			
MtBE	169	163	200	14.72			
BENZENE	3594	3637	3769	4.88			
TOLUENE	3328	3373	3445	4.09			
ETHYLBENZENE	2885	2915	2986	4.50			
M/P-XYLENE	3363	3443	3486	3.67			
O-XYLENE	2958	3001	3054	4.14			
TRIMETHYLBEN	2716	2756	2630	6.90			
NAPHTHALENE	2066	2054	2116	3.28			
1-METHYLNAP	1299	1258	1364	7.44			
DIBROMOTOL	1911	2002	2013	4.26			

QC26 : 00158

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 07:51
End Cal Date : 30-DEC-2009 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Cal Date : 31-Dec-2009 06:48 monicah
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/vpcc1230-2.b/1230a002.d
Level 2: /chem3/pid1.i/vpcc1230-2.b/1230a003.d
Level 3: /chem3/pid1.i/vpcc1230-2.b/1230a004.d
Level 4: /chem3/pid1.i/vpcc1230-2.b/1230a006.d
Level 5: /chem3/pid1.i/vpcc1230-2.b/1230a008.d
Level 6: /chem3/pid1.i/vpcc1230-2.b/1230a010.d
Level 7: /chem3/pid1.i/vpcc1230-2.b/1230a012.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	80.000 Level 5	100.000 Level 6	RRF	% RSD
	200.000 Level 7							
1 MtBE	241	229	212	197	187	169		
	163						200	14.716
2 BENZENE	4139	3819	3743	3800	3651	3594		
	3637						3769	4.878
4 TOLUENE	3740	3445	3409	3481	3342	3328		
	3373						3445	4.090
5 ETHYLBENZENE	3279	2976	2946	2989	2913	2885		
	2915						2986	4.498
6 M/P-XYLENE	3735	3412	3492	3559	3396	3363		
	3443						3486	3.669
7 O-XYLENE	3325	2995	3026	3091	2985	2958		
	3001						3054	4.135

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 07:51
End Cal Date : 30-DEC-2009 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Cal Date : 31-Dec-2009 06:48 monicah
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	80.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
9 TRIMETHYLBEN	2392	2360	2633	2811	2741	2716	2756	2630	6.903
10 NAPHTHALENE	2174	2186	2207	2047	2082	2066	2054	2117	3.283
11 1-METHYLNAP	1501	1437	1460	1253	1339	1299	1258	1364	7.444
$ 37 DIBROMOTOL	2162	2068	2042	1946	1958	1911	2002	2013	4.262

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 07:51
End Cal Date : 30-DEC-2009 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Cal Date : 30-Dec-2009 13:56 monicah
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/vpcc1230-1.b/1230a002.d/1230a002.cdf
Level 2: /chem3/pid1.i/vpcc1230-1.b/1230a003.d/1230a003.cdf
Level 3: /chem3/pid1.i/vpcc1230-1.b/1230a004.d/1230a004.cdf
Level 4: /chem3/pid1.i/vpcc1230-1.b/1230a006.d/1230a006.cdf
Level 5: /chem3/pid1.i/vpcc1230-1.b/1230a008.d/1230a008.cdf
Level 6: /chem3/pid1.i/vpcc1230-1.b/1230a010.d/1230a010.cdf
Level 7: /chem3/pid1.i/vpcc1230-1.b/1230a012.d/1230a012.cdf

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	80.000 Level 5	100.000 Level 6	RRF	% RSD
	200.000 Level 7							
1 nC5	372	341	327	315	299	289		
	289						319	9.543
2 nC6	421	384	366	356	341	330		
	336						362	8.865
4 nC8	327	296	293	279	276	273		
	299						292	6.352
5 nC10	274	266	307	320	335	333		
	362						314	10.981
7 nC12	367	355	412	393	372	322		
	254						354	14.839
$ 8 2,5-DBT	135	125	121	110	110	107		
	108						117	9.088

MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a002.d
Lab Smp Id: VPH 5
Inj Date : 30-DEC-2009 07:51
Operator : MH Inst ID: pid1.i
Smp Info : VPH 5
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 07:51 Cal File: 1230a002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 MtBE	5.320	5.323	-0.003	1206	5.00000	6.04
2 BENZENE	7.880	7.890	-0.010	20695	5.00000	5.49
4 TOLUENE	10.210	10.220	-0.010	18700	5.00000	5.43
5 ETHYLBENZENE	12.197	12.207	-0.010	16396	5.00000	5.49
6 M/P-XYLENE	12.297	12.313	-0.016	37349	10.0000	10.7
7 O-XYLENE	12.890	12.900	-0.010	16624	5.00000	5.44
9 TRIMETHYLBEN	15.320	15.330	-0.010	11960	5.00000	4.55
10 NAPHTHALENE	18.560	18.567	-0.007	10868	5.00000	5.13
11 1-METHYLNAP	20.410	20.413	-0.003	7506	5.00000	5.50
$ 37 DIBROMOTOL	20.207	20.210	-0.003	10810	5.00000	5.37

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a002.d
Lab Smp Id: VPH 5
Inj Date : 30-DEC-2009 07:51
Operator : MH Inst ID: pid1.i
Smp Info : VPH 5
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 07:51 Cal File: 1230a002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	1 nC5	4.027	4.033	-0.006	1858	5.00000	5.83 (M)
	2 nC6	5.570	5.583	-0.013	2106	5.00000	5.81 (M)
	4 nC8	9.880	9.887	-0.007	1636	5.00000	5.60 (M)
	5 nC10	13.690	13.703	-0.013	1369	5.00000	4.36
	7 nC12	16.833	16.843	-0.010	1834	5.00000	5.18 (M)
$	8 2,5-DBT	20.203	20.210	-0.007	674	5.00000	5.78 (M)

QC Flag Legend

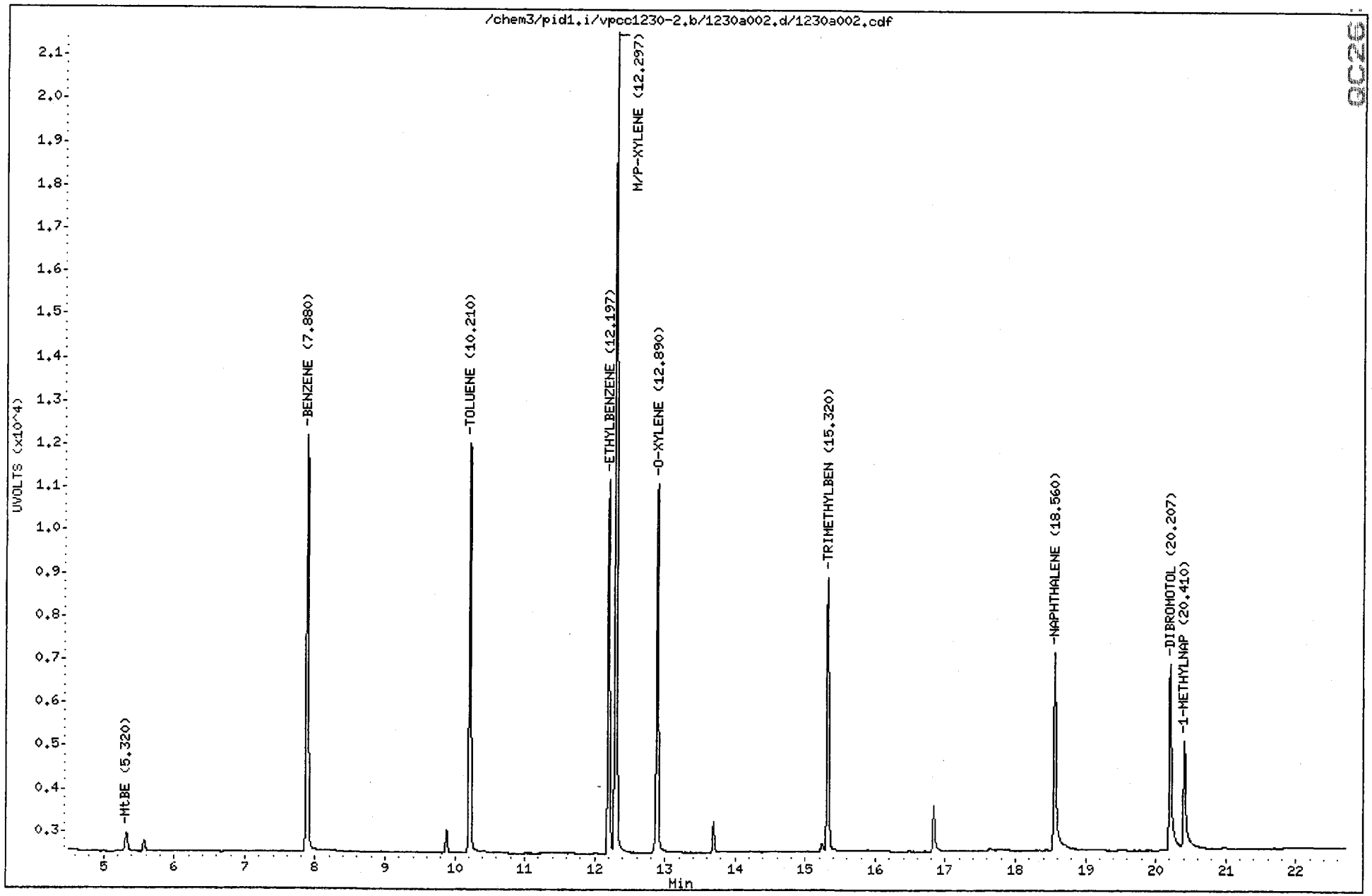
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a002.d
Date : 30-DEC-2009 07:51
Client ID:
Sample Info: VPH 5

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO

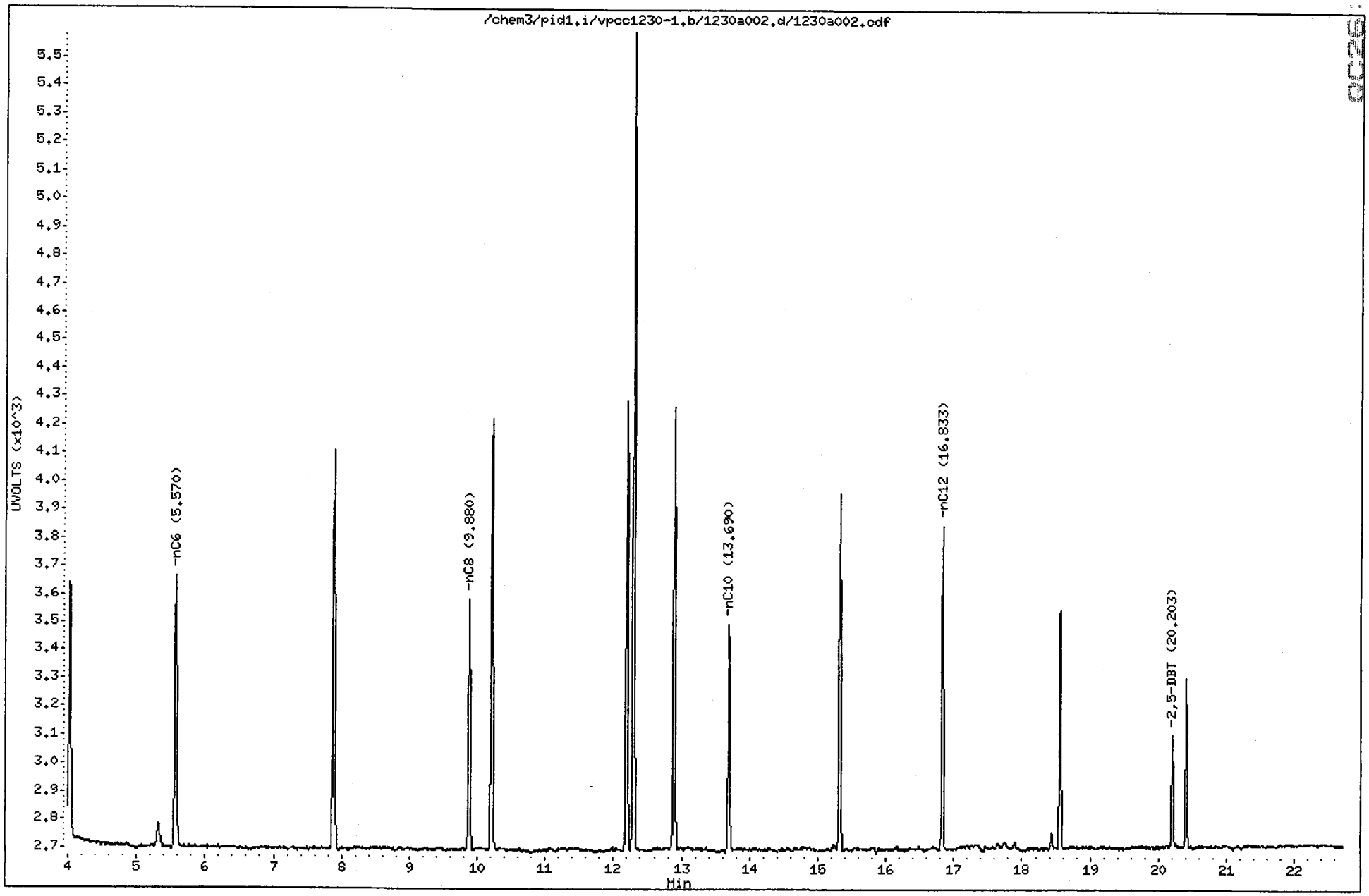


Data File: /chem3/pid1.i/vpcc1230-1.b/1230a002.d
Date : 30-DEC-2009 07:51
Client ID:
Sample Info: VPH 5

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a002.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

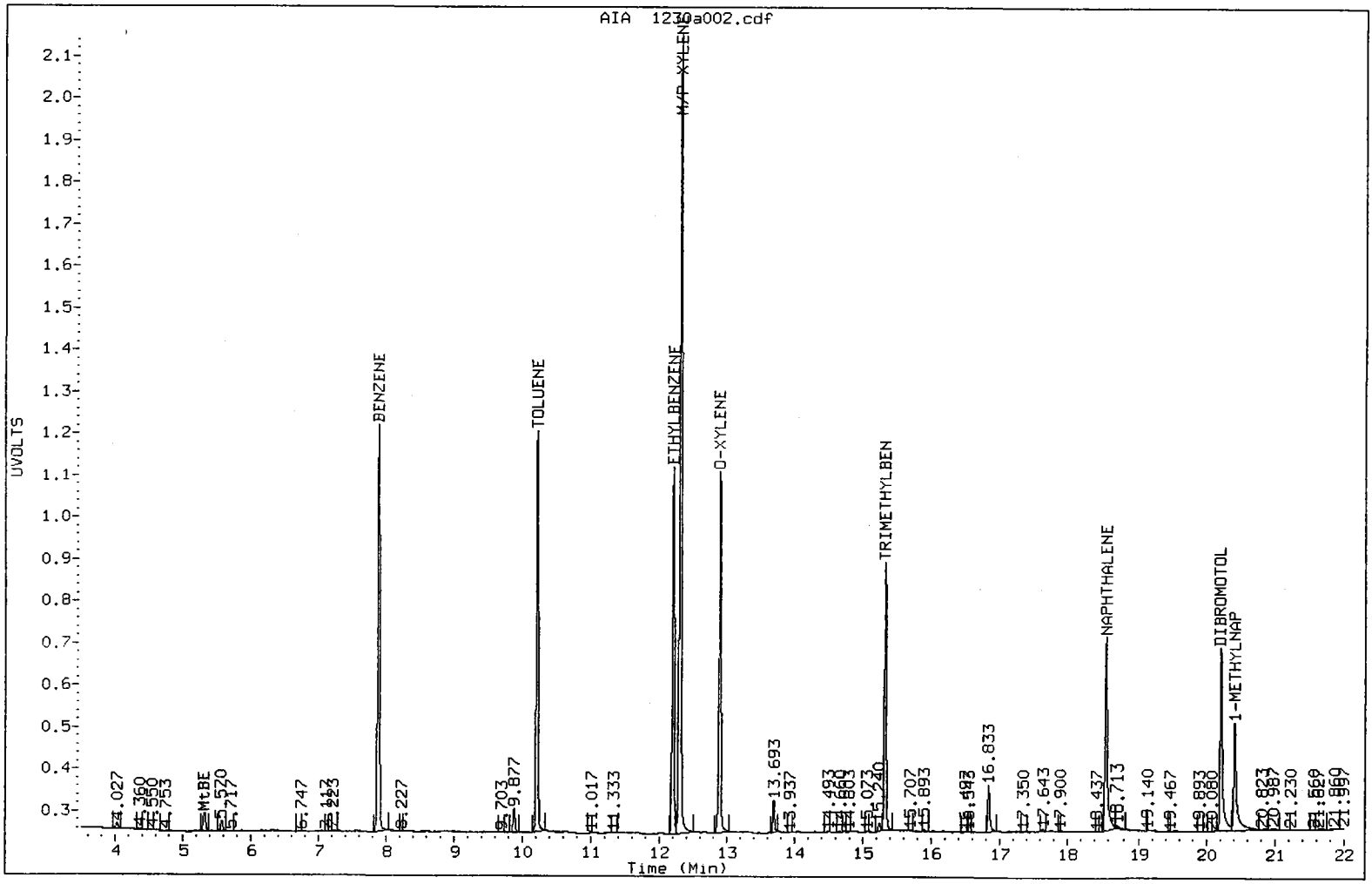
ARI ID: VPH 5
Client ID:
Injection: 30-DEC-2009 07:51
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	444	6.0	C8-C10	Arom.	84359*	32.1
BENZENE	7.880	-0.010	9693	5.5	C10-C12	Arom.	13801	6.5
TOLUENE	10.210	-0.010	9561	5.4	C12-C13	Arom.	7591	5.6
ETHYLBENZENE	12.197	-0.010	8756	5.5				
M/P-XYLENE	12.297	-0.017	19080	10.7				
O-XYLENE	12.890	-0.010	8603	5.4				
TRIMETHYLBEN	15.320	-0.010	6366	4.5				
NAPHTHALENE	18.560	-0.007	4629	5.1				
1-METHYLNAP	20.410	-0.003	2560	5.5				
DIBROMOTOL	20.207	-0.003	4355	5.4	DBT Recovery:		10.7	

* Indicates surrogate area subtracted

VPH 5 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a002.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

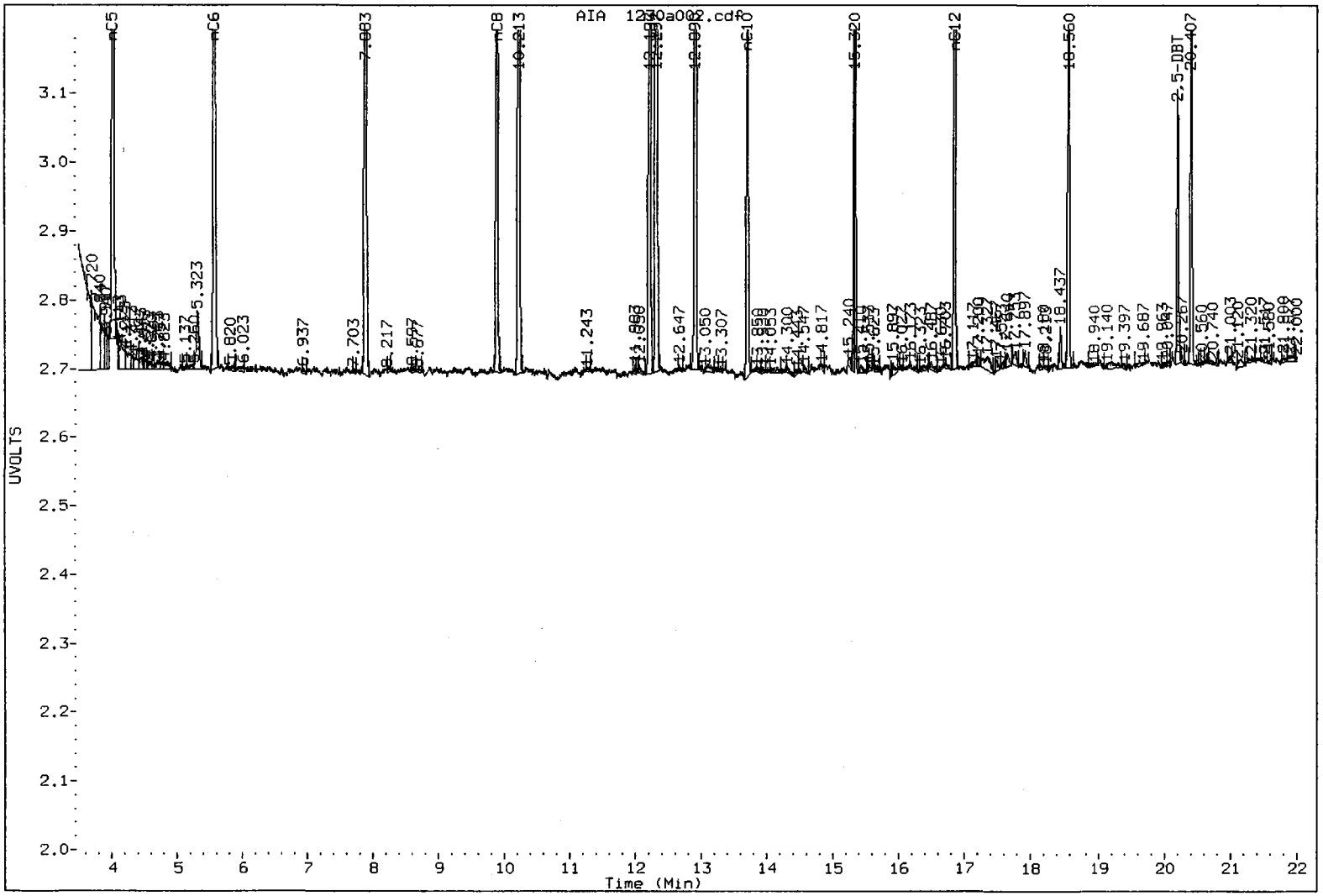
ARI ID: VPH 5
Client ID:
Injection: 30-DEC-2009 07:51
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.027	-0.007	896	1858	C5-C6	Aliph.	5014	14.7
nC6	5.570	-0.013	965	2106	C6-C8	Aliph.	4675*	16.0
nC8	9.880	-0.007	891	1636	C8-C10	Aliph.	15187	48.4
nC10	13.690	-0.013	811	1369	C10-C12	Aliph.	3376*	9.5
nC12	16.833	-0.010	1150	1834				

* Indicates surrogate area subtracted

VPH 5 ALIPHATIC (FID) SIGNAL



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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a003.d
Lab Smp Id: VPH 10
Inj Date : 30-DEC-2009 08:23
Operator : MH Inst ID: pid1.i
Smp Info : VPH 10
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 08:23 Cal File: 1230a003.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1	MtBE	5.320	5.323	-0.003	2290	10.0000	11.5
2	BENZENE	7.880	7.890	-0.010	38193	10.0000	10.1
4	TOLUENE	10.210	10.220	-0.010	34447	10.0000	10.0
5	ETHYLBENZENE	12.197	12.207	-0.010	29762	10.0000	9.97
6	M/P-XYLENE	12.297	12.313	-0.016	68233	20.0000	19.6
7	O-XYLENE	12.890	12.900	-0.010	29949	10.0000	9.80(M)
9	TRIMETHYLBEN	15.320	15.330	-0.010	23601	10.0000	8.97
10	NAPHTHALENE	18.563	18.567	-0.004	21865	10.0000	10.3(M)
11	1-METHYLNAP	20.410	20.413	-0.003	14374	10.0000	10.5(M)
$ 37	DIBROMOTOL	20.207	20.210	-0.003	20679	10.0000	10.3

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a003.d
Lab Smp Id: VPH 10
Inj Date : 30-DEC-2009 08:23
Operator : MH Inst ID: pid1.i
Smp Info : VPH 10
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 08:23 Cal File: 1230a003.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

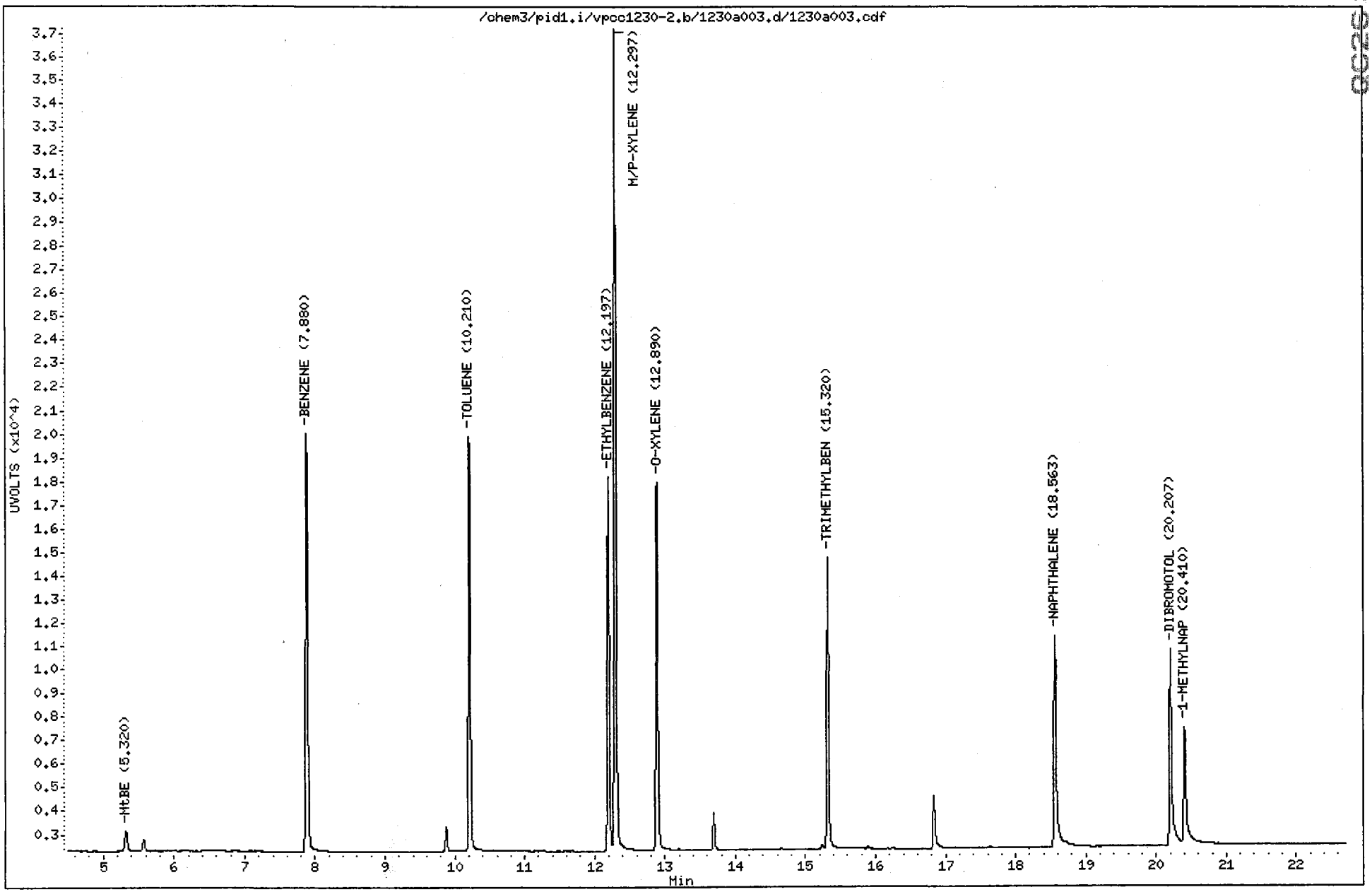
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
==========	==	======	======	========	=======	=======
1 nC5	4.027	4.033	-0.006	3409	10.0000	10.7(M)
2 nC6	5.573	5.583	-0.010	3844	10.0000	10.6(M)
4 nC8	9.880	9.887	-0.007	2962	10.0000	10.1
5 nC10	13.693	13.703	-0.010	2664	10.0000	8.48(M)
7 nC12	16.833	16.843	-0.010	3552	10.0000	10.0(M)
$ 8 2,5-DBT	20.207	20.210	-0.003	1252	10.0000	10.7(M)

QC Flag Legend

M - Compound response manually integrated.

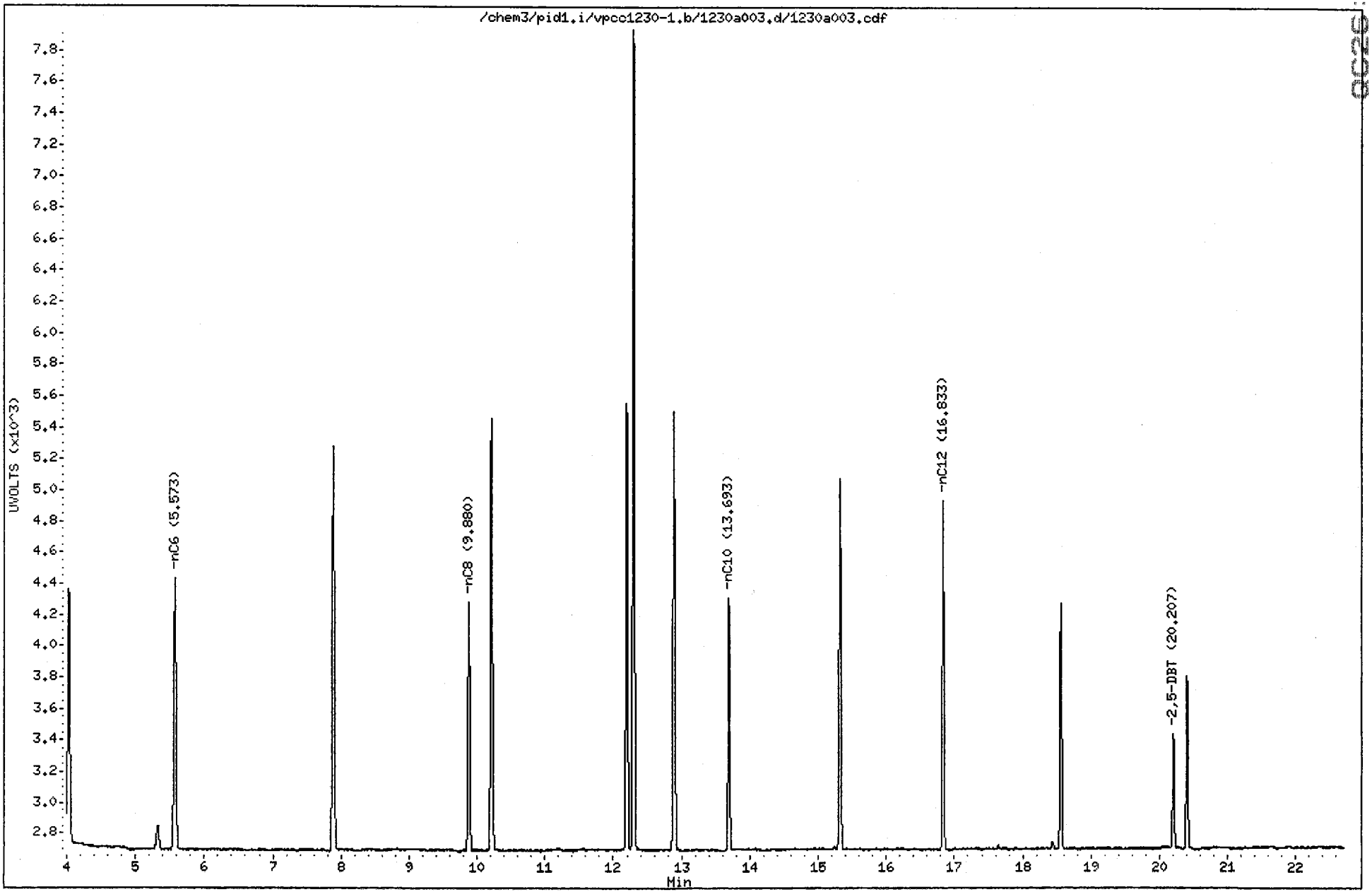
Data File: /chem3/pid1.i/vpcc1230-2.b/1230a003.d
Date : 30-DEC-2009 08:23
Client ID:
Sample Info: VPH 10

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18



Data File: /chem3/pid1.i/vpcc1230-1.b/1230a003.d
Date : 30-DEC-2009 08:23
Client ID:
Sample Info: VPH 10

Instrument: pid1.i
Operator: MH
Column phase: RTX502-2 ALI
Column diameter: 0.18



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a003.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

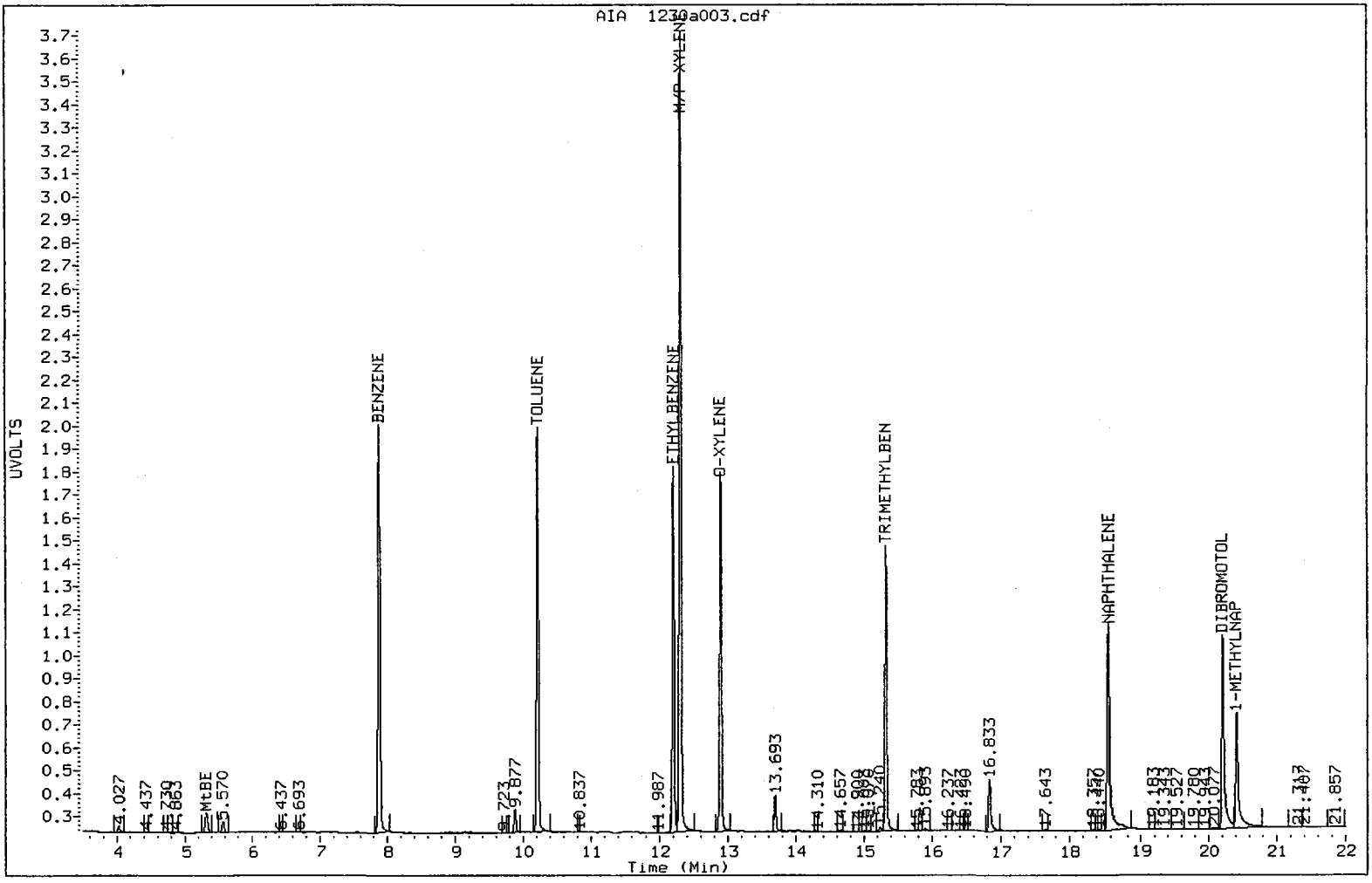
ARI ID: VPH 10
Client ID:
Injection: 30-DEC-2009 08:23
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	833	11.5	C8-C10	Arom.	154893*	58.9
BENZENE	7.880	-0.010	17759	10.1	C10-C12	Arom.	27237	12.9
TOLUENE	10.210	-0.010	17597	10.0	C12-C13	Arom.	14845	10.9
ETHYLBENZENE	12.197	-0.010	15930	10.0				
M/P-XYLENE	12.297	-0.017	34878	19.6				
O-XYLENE	12.890	-0.010	15655	9.8				
TRIMETHYLBEN	15.320	-0.010	12375	9.0				
NAPHTHALENE	18.563	-0.003	9021	10.3				
1-METHYLNAP	20.410	-0.003	5017	10.5				
DIBROMOTOL	20.207	-0.003	8403	10.3	DBT Recovery:		20.5	

* Indicates surrogate area subtracted

VPH 10 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a003.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

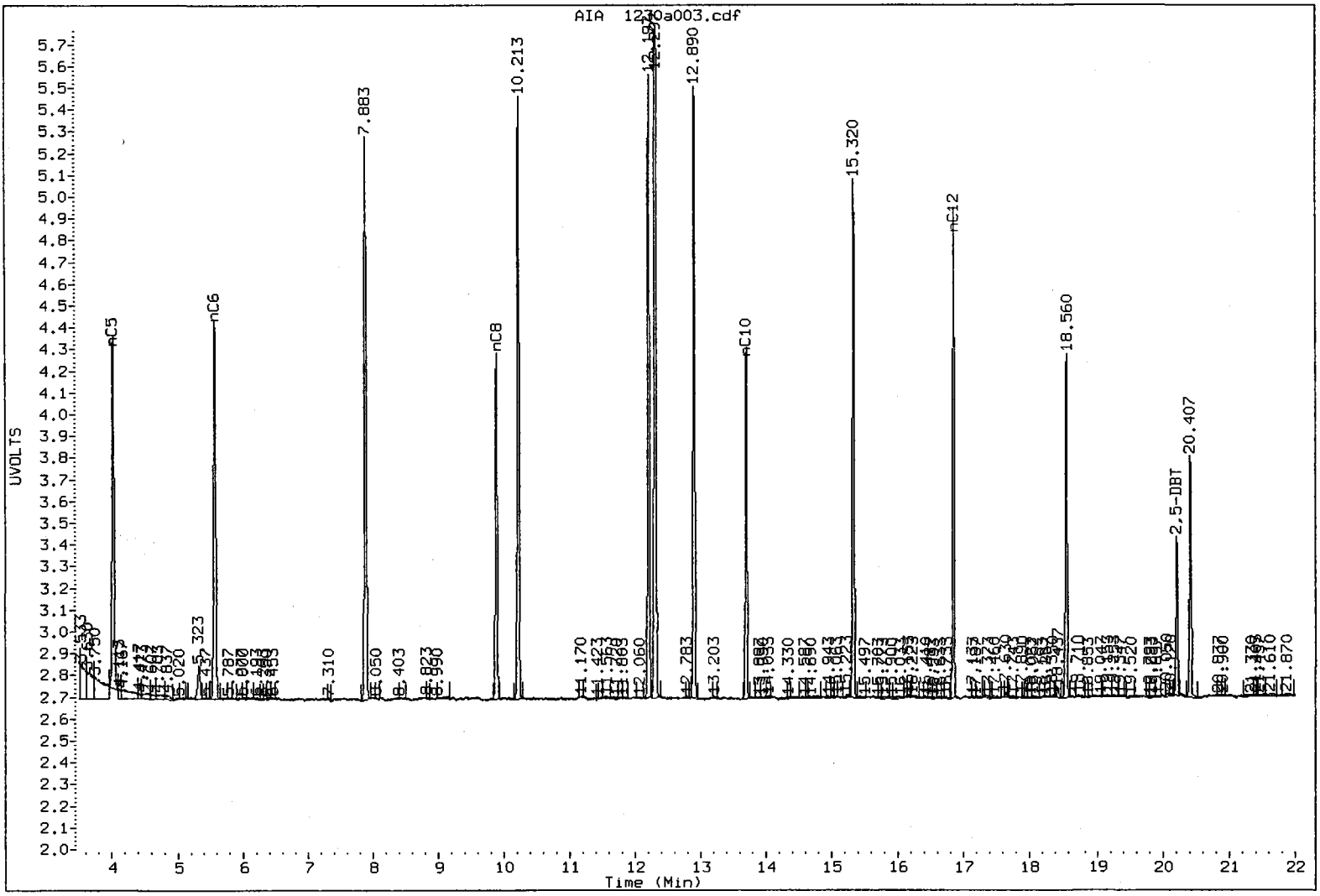
ARI ID: VPH 10
Client ID:
Injection: 30-DEC-2009 08:23
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.027	-0.007	1620	3409	C5-C6	Aliph.	8910	26.2
nC6	5.573	-0.010	1746	3844	C6-C8	Aliph.	8519*	29.2
nC8	9.880	-0.007	1592	2962	C8-C10	Aliph.	27482	87.5
nC10	13.693	-0.010	1617	2664	C10-C12	Aliph.	8151*	23.0
nC12	16.833	-0.010	2246	3552				

* Indicates surrogate area subtracted

VPH 10 ALIPHATIC (FID) SIGNAL



MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a004.d
Lab Smp Id: VPH 20
Inj Date : 30-DEC-2009 08:55
Operator : MH Inst ID: pid1.i
Smp Info : VPH 20
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 08:55 Cal File: 1230a004.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 MtBE	5.323	5.323	0.000	4241	20.0000	21.2
2 BENZENE	7.883	7.890	-0.007	74865	20.0000	19.9
4 TOLUENE	10.210	10.220	-0.010	68182	20.0000	19.8
5 ETHYLBENZENE	12.197	12.207	-0.010	58910	20.0000	19.7
6 M/P-XYLENE	12.297	12.313	-0.016	139683	40.0000	40.1
7 O-XYLENE	12.890	12.900	-0.010	60525	20.0000	19.8(M)
9 TRIMETHYLBEN	15.320	15.330	-0.010	52660	20.0000	20.0(M)
10 NAPHTHALENE	18.563	18.567	-0.004	44149	20.0000	20.8(M)
11 1-METHYLNAP	20.410	20.413	-0.003	29205	20.0000	21.4(M)
$ 37 DIBROMOTOL	20.207	20.210	-0.003	40833	20.0000	20.3

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a004.d
Lab Smp Id: VPH 20
Inj Date : 30-DEC-2009 08:55
Operator : MH Inst ID: pid1.i
Smp Info : VPH 20
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 08:55 Cal File: 1230a004.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
	1 nC5	4.030	4.033	-0.003	6546	20.0000	20.5(M)
	2 nC6	5.573	5.583	-0.010	7325	20.0000	20.2(M)
	4 nC8	9.880	9.887	-0.007	5866	20.0000	20.1
	5 nC10	13.693	13.703	-0.010	6133	20.0000	19.5(M)
	7 nC12	16.833	16.843	-0.010	8240	20.0000	23.3(M)
$	8 2,5-DBT	20.203	20.210	-0.007	2429	20.0000	20.8

QC Flag Legend

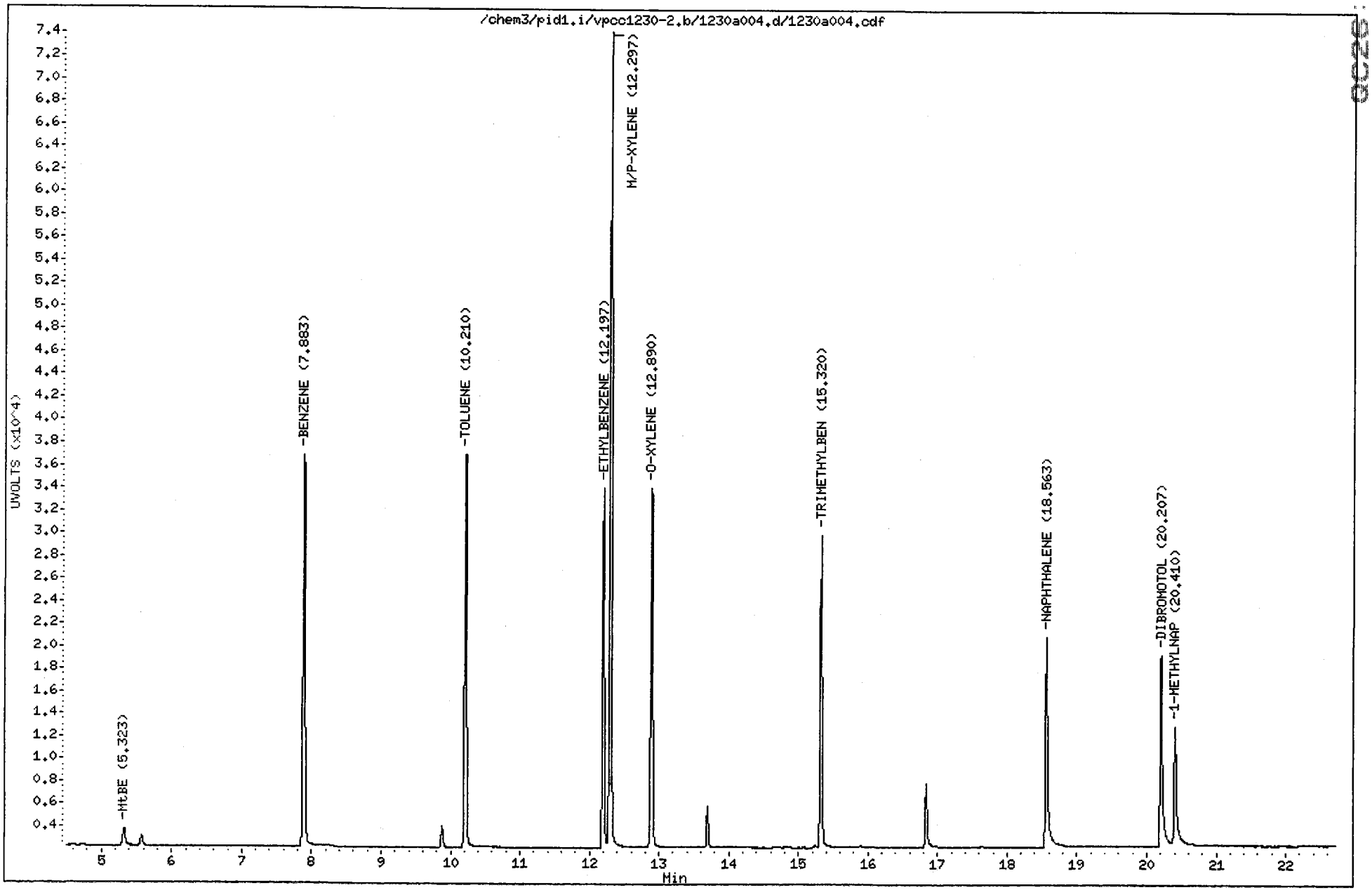
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a004.d
Date : 30-DEC-2009 08:55
Client ID:
Sample Info: VPH 20

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH
Column diameter: 0.18



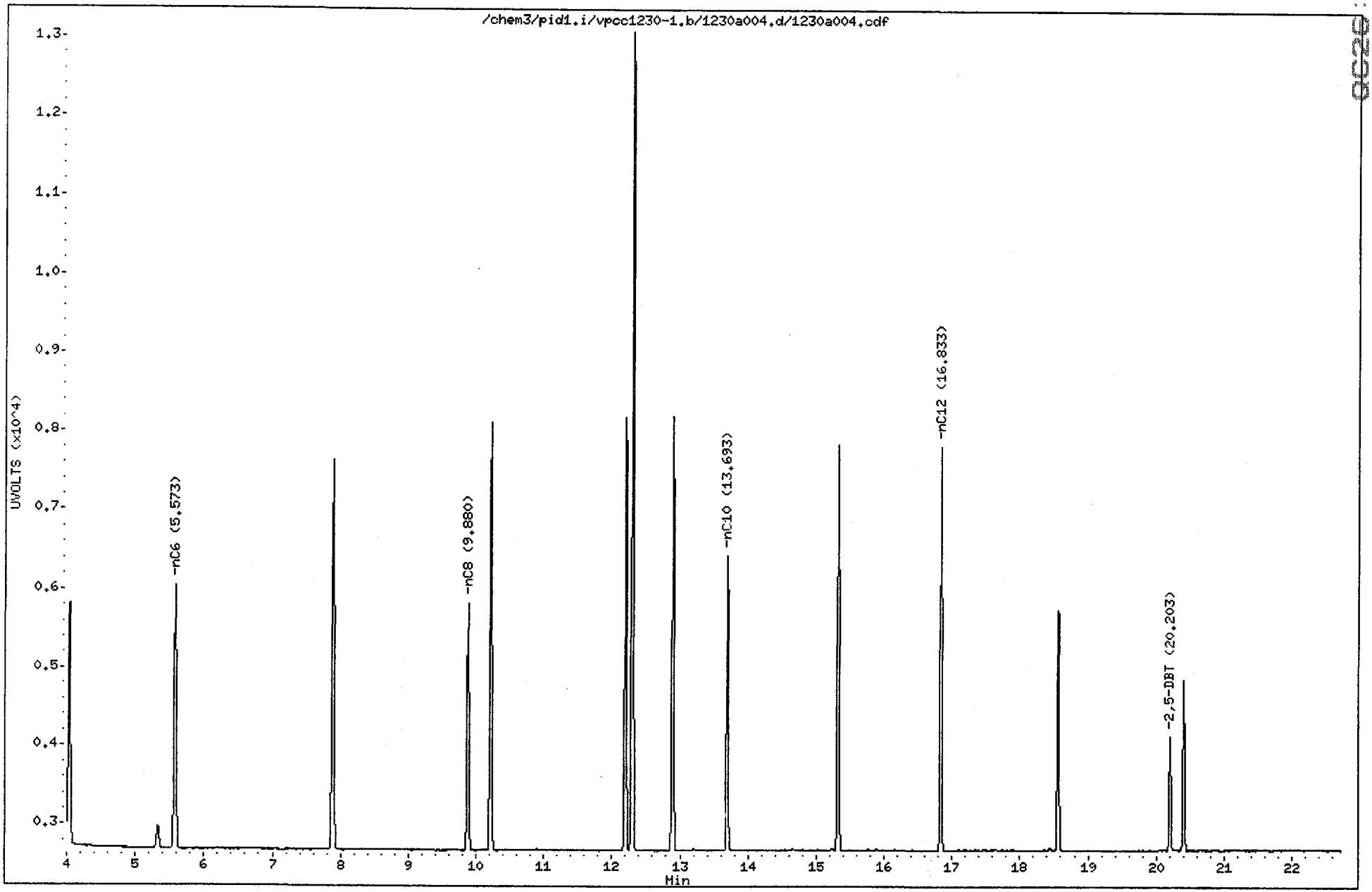
QC25:00176

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a004.d
Date : 30-DEC-2009 08:55
Client ID:
Sample Info: VPH 20

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a004.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

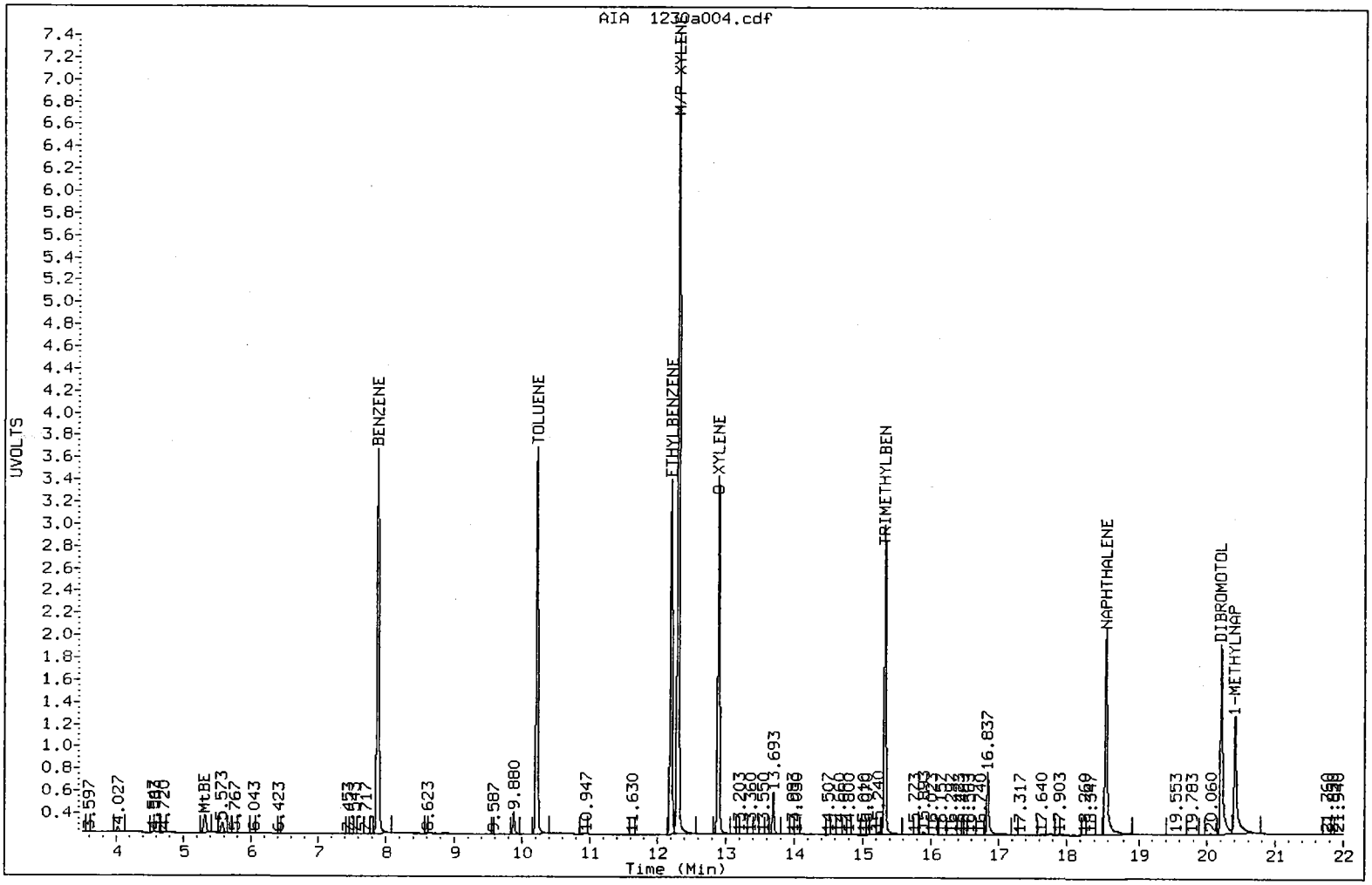
ARI ID: VPH 20
Client ID:
Injection: 30-DEC-2009 08:55
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	1530	21.2	C8-C10	Arom.	319469*	121.5
BENZENE	7.883	-0.007	34656	19.9	C10-C12	Arom.	57877	27.3
TOLUENE	10.210	-0.010	34828	19.8	C12-C13	Arom.	29514	21.6
ETHYLBENZENE	12.197	-0.010	31892	19.7				
M/P-XYLENE	12.297	-0.017	72054	40.1				
O-XYLENE	12.890	-0.010	31815	19.8				
TRIMETHYLBEN	15.320	-0.010	27757	20.0				
NAPHTHALENE	18.563	-0.003	18655	20.9				
1-METHYLNAP	20.410	-0.003	10553	21.4				
DIBROMOTOL	20.207	-0.003	17099	20.3	DBT Recovery: 40.6			

* Indicates surrogate area subtracted

VPH 20 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a004.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

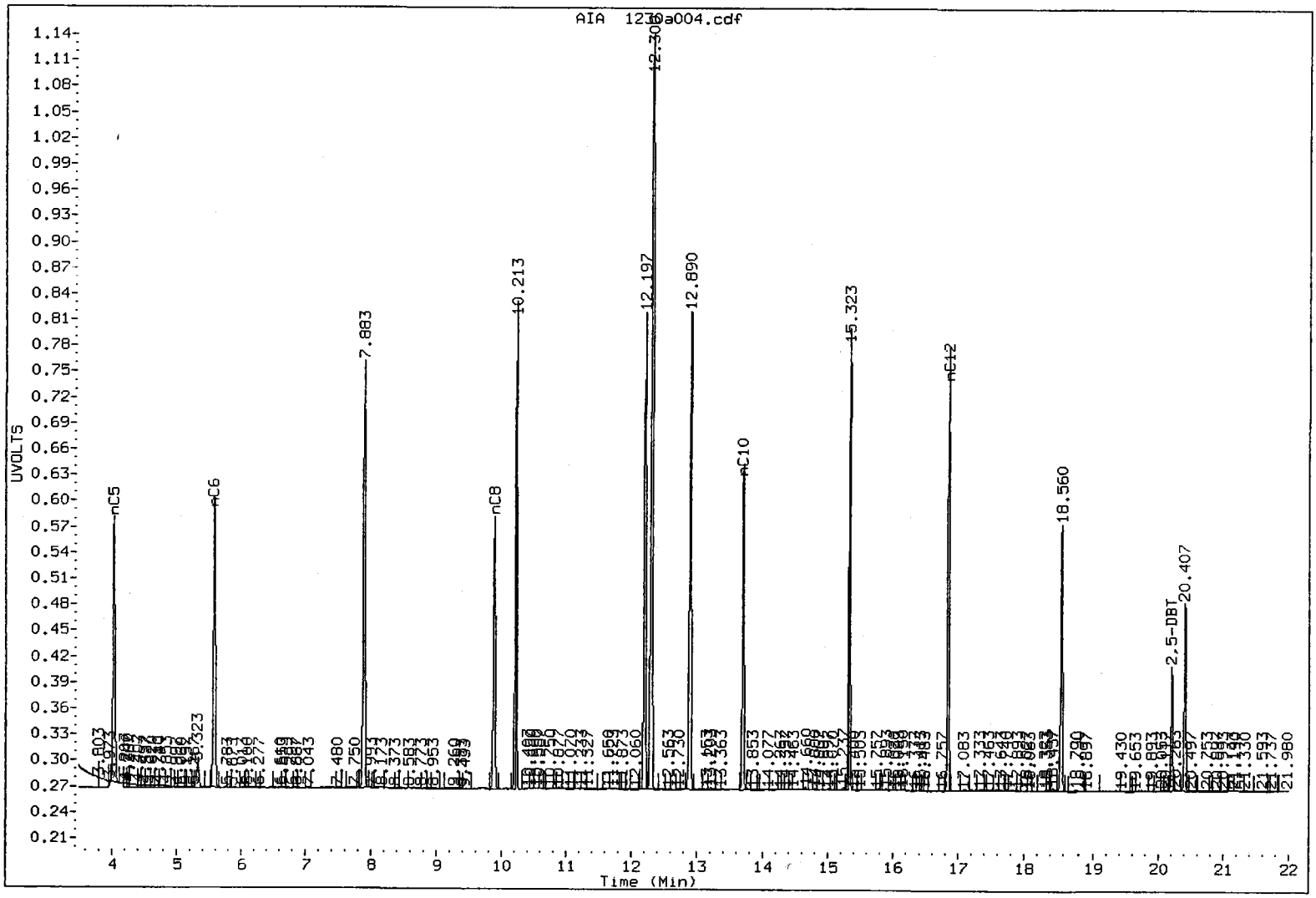
ARI ID: VPH 20
Client ID:
Injection: 30-DEC-2009 08:55
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	3070	6546	C5-C6	Aliph.	15936	46.8
nC6	5.573	-0.010	3364	7325	C6-C8	Aliph.	16664*	57.0
nC8	9.880	-0.007	3150	5866	C8-C10	Aliph.	50110	159.6
nC10	13.693	-0.010	3764	6133	C10-C12	Aliph.	13707*	38.8
nC12	16.833	-0.010	5135	8240				

* Indicates surrogate area subtracted

VPH 20 ALIPHATIC (FID) SIGNAL



MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a006.d
Lab Smp Id: VPH 50
Inj Date : 30-DEC-2009 09:58
Operator : MH Inst ID: pid1.i
Smp Info : VPH 50
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 09:58 Cal File: 1230a006.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1	MtBE	5.320	5.323	-0.003	9860	50.0000	49.4
2	BENZENE	7.883	7.890	-0.007	189997	50.0000	50.4
4	TOLUENE	10.213	10.220	-0.007	174035	50.0000	50.5
5	ETHYLBENZENE	12.197	12.207	-0.010	149427	50.0000	50.0
6	M/P-XYLENE	12.300	12.313	-0.013	355943	100.000	102(M)
7	O-XYLENE	12.890	12.900	-0.010	154536	50.0000	50.6
9	TRIMETHYLBEN	15.323	15.330	-0.007	140537	50.0000	53.4(M)
10	NAPHTHALENE	18.563	18.567	-0.004	102356	50.0000	48.4(M)
11	1-METHYLNAP	20.410	20.413	-0.003	62651	50.0000	45.9(M)
$ 37	DIBROMOTOL	20.207	20.210	-0.003	97312	50.0000	48.4

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a006.d
Lab Smp Id: VPH 50
Inj Date : 30-DEC-2009 09:58
Operator : MH Inst ID: pid1.i
Smp Info : VPH 50
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 09:58 Cal File: 1230a006.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	1 nC5	4.030	4.033	-0.003	15770	50.0000	49.5(M)
	2 nC6	5.577	5.583	-0.006	17821	50.0000	49.2(M)
	4 nC8	9.880	9.887	-0.007	13970	50.0000	47.8
	5 nC10	13.693	13.703	-0.010	16022	50.0000	51.0(M)
	7 nC12	16.837	16.843	-0.006	19668	50.0000	55.6
$	8 2,5-DBT	20.207	20.210	-0.003	5498	50.0000	47.1(M)

QC Flag Legend

M - Compound response manually integrated.

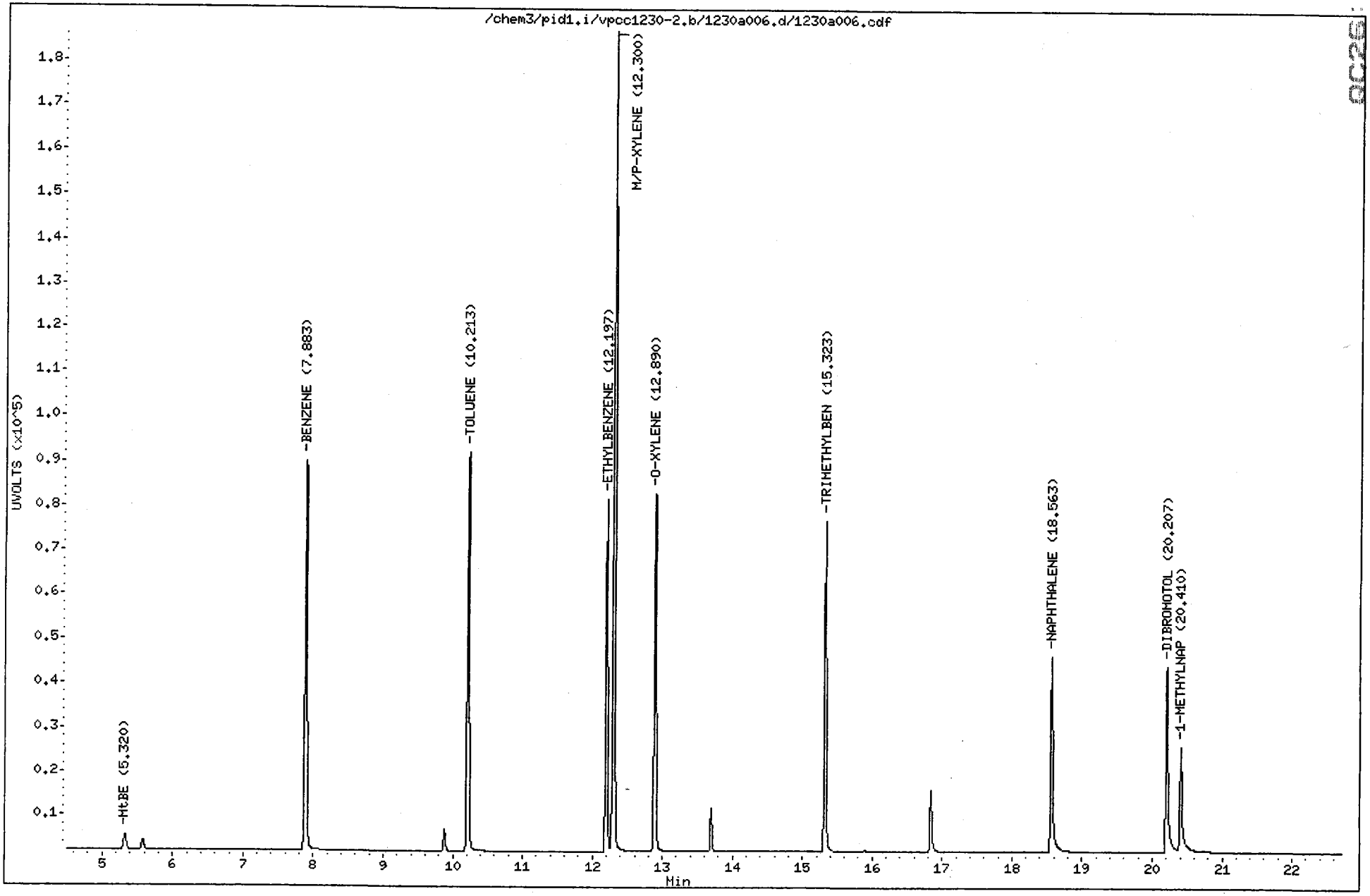
Data File: /chem3/pid1.i/vpcc1230-2.b/1230a006.d
Date : 30-DEC-2009 09:58
Client ID:
Sample Info: VPH 50

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

QC25.00102

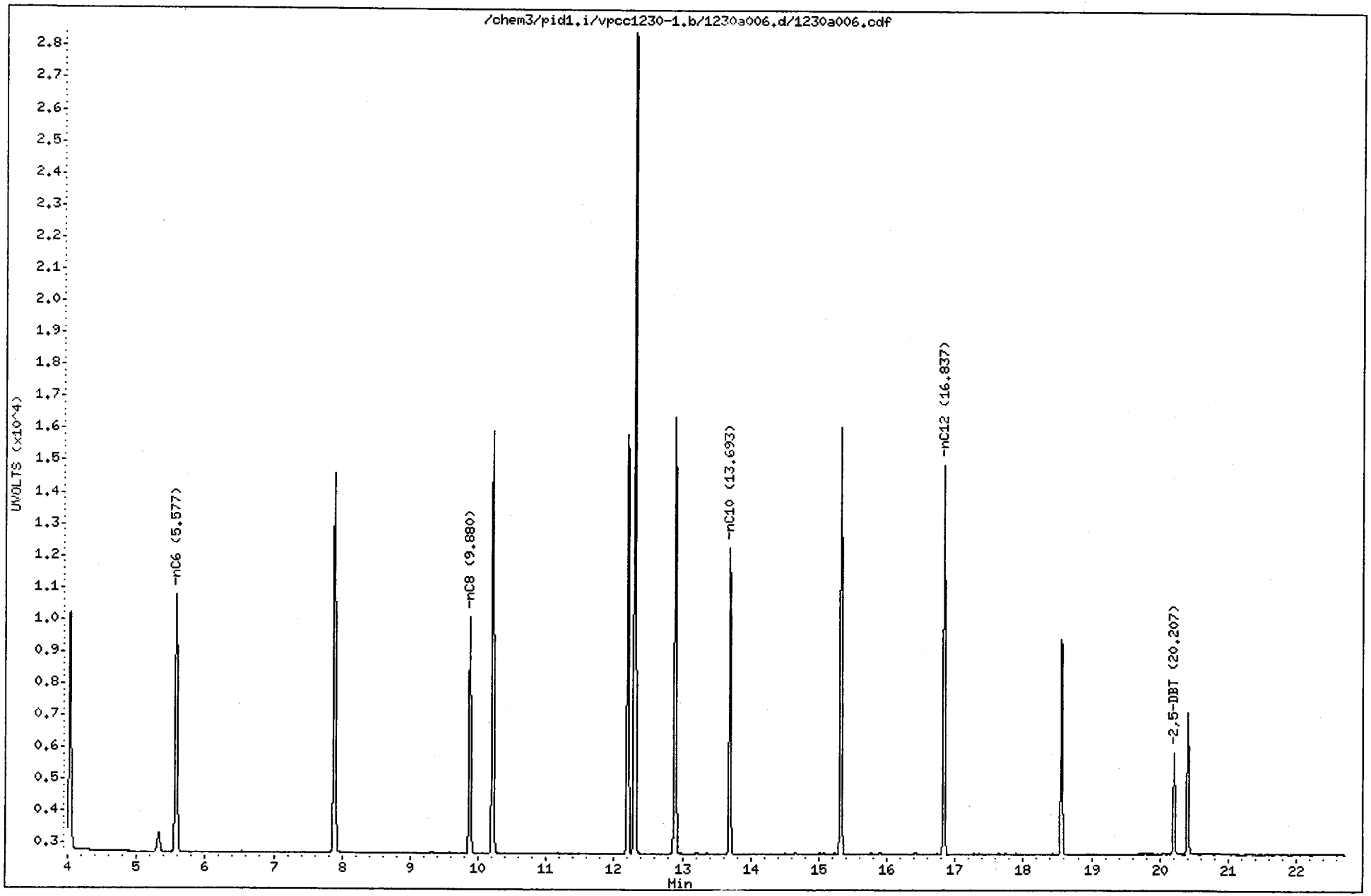


Data File: /chem3/pid1.i/vpcc1230-1.b/1230a006.d
Date : 30-DEC-2009 09:58
Client ID:
Sample Info: VPH 50

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



QC26-60183

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a006.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

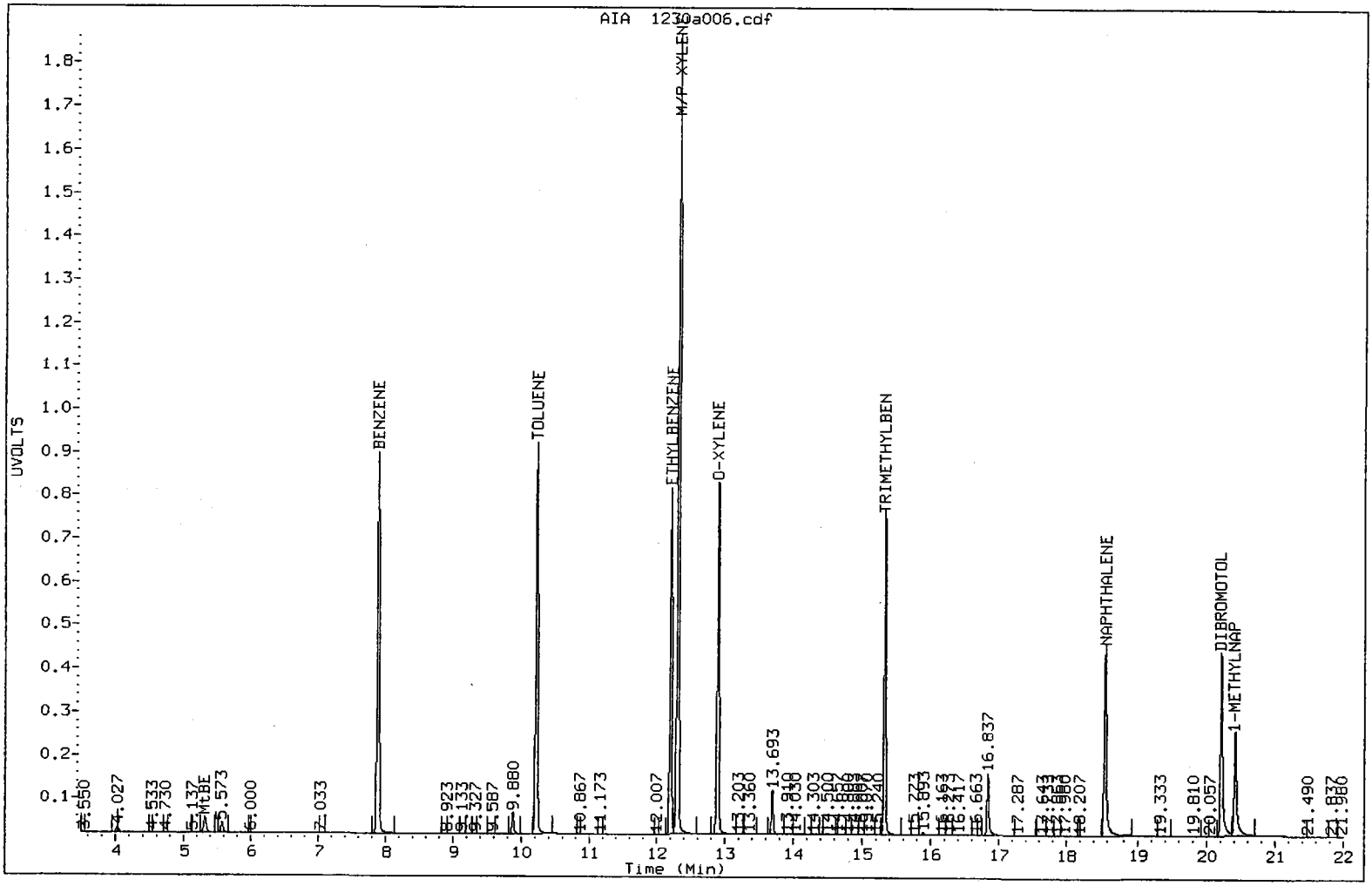
ARI ID: VPH 50
Client ID:
Injection: 30-DEC-2009 09:58
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	3486	49.4	C8-C10	Arom.	820831*	312.1
BENZENE	7.883	-0.007	88170	50.4	C10-C12	Arom.	134580	63.6
TOLUENE	10.213	-0.007	90317	50.5	C12-C13	Arom.	63190	46.3
ETHYLBENZENE	12.197	-0.010	79945	50.0				
M/P-XYLENE	12.300	-0.013	184881	102.1				
O-XYLENE	12.890	-0.010	81145	50.6				
TRIMETHYLBEN	15.323	-0.007	75132	53.4				
NAPHTHALENE	18.563	-0.003	44515	48.4				
1-METHYLNAP	20.410	-0.003	24077	45.9				
DIBROMOTOL	20.207	-0.003	42306	48.4	DBT Recovery:		96.7	

* Indicates surrogate area subtracted

VPH 50 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a006.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

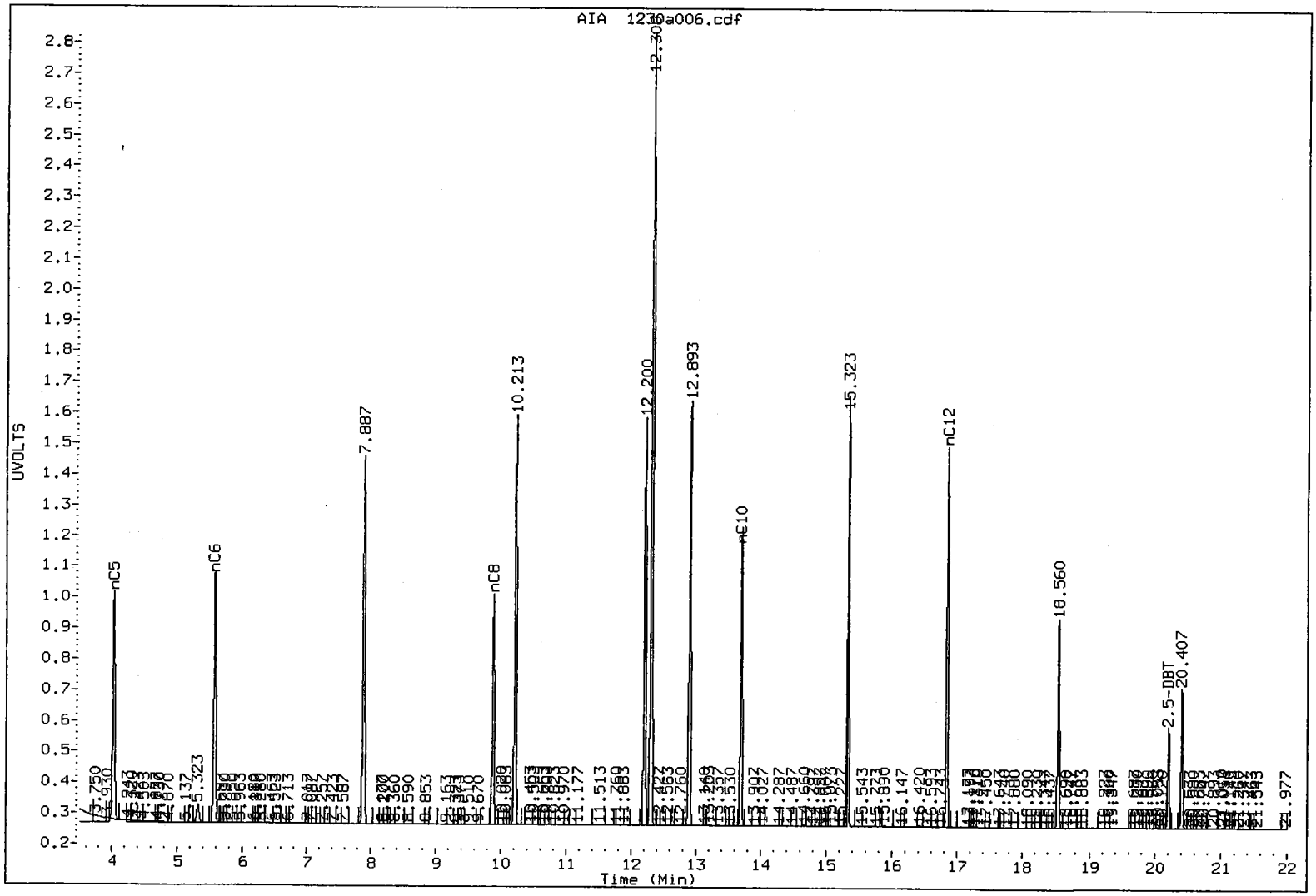
ARI ID: VPH 50
Client ID:
Injection: 30-DEC-2009 09:58
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	7401	15770	C5-C6	Aliph.	36924	108.4
nC6	5.577	-0.007	8108	17821	C6-C8	Aliph.	39502*	135.2
nC8	9.880	-0.007	7458	13970	C8-C10	Aliph.	136607	435.1
nC10	13.693	-0.010	9663	16022	C10-C12	Aliph.	32219*	91.1
nC12	16.837	-0.007	12309	19668				

* Indicates surrogate area subtracted

VPH 50 ALIPHATIC (FID) SIGNAL



MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a008.d
Lab Smp Id: VPH 80
Inj Date : 30-DEC-2009 11:01
Operator : MH Inst ID: pid1.i
Smp Info : VPH 80
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 11:01 Cal File: 1230a008.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1	MtBE	5.323	5.323	0.000	14929	80.0000	74.7(M)
2	BENZENE	7.887	7.890	-0.003	292093	80.0000	77.5(M)
4	TOLUENE	10.213	10.220	-0.007	267320	80.0000	77.6(M)
5	ETHYLBENZENE	12.200	12.207	-0.007	233073	80.0000	78.0(M)
6	M/P-XYLENE	12.303	12.313	-0.010	543316	160.000	156(M)
7	O-XYLENE	12.893	12.900	-0.007	238823	80.0000	78.2
9	TRIMETHYLBEN	15.323	15.330	-0.007	219279	80.0000	83.4(M)
10	NAPHTHALENE	18.563	18.567	-0.004	166585	80.0000	78.7(M)
11	1-METHYLNAP	20.410	20.413	-0.003	107135	80.0000	78.5
$ 37	DIBROMOTOL	20.207	20.210	-0.003	156609	80.0000	77.8

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a008.d
Lab Smp Id: VPH 80
Inj Date : 30-DEC-2009 11:01
Operator : MH Inst ID: pid1.i
Smp Info : VPH 80
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 11:01 Cal File: 1230a008.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	1 nC5	4.030	4.033	-0.003	23885	80.0000	74.9(M)
	2 nC6	5.577	5.583	-0.006	27284	80.0000	75.3
	4 nC8	9.883	9.887	-0.004	22095	80.0000	75.6
	5 nC10	13.697	13.703	-0.006	26825	80.0000	85.4
	7 nC12	16.840	16.843	-0.003	29799	80.0000	84.2(M)
$	8 2,5-DBT	20.207	20.210	-0.003	8835	80.0000	75.7(M)

QC Flag Legend

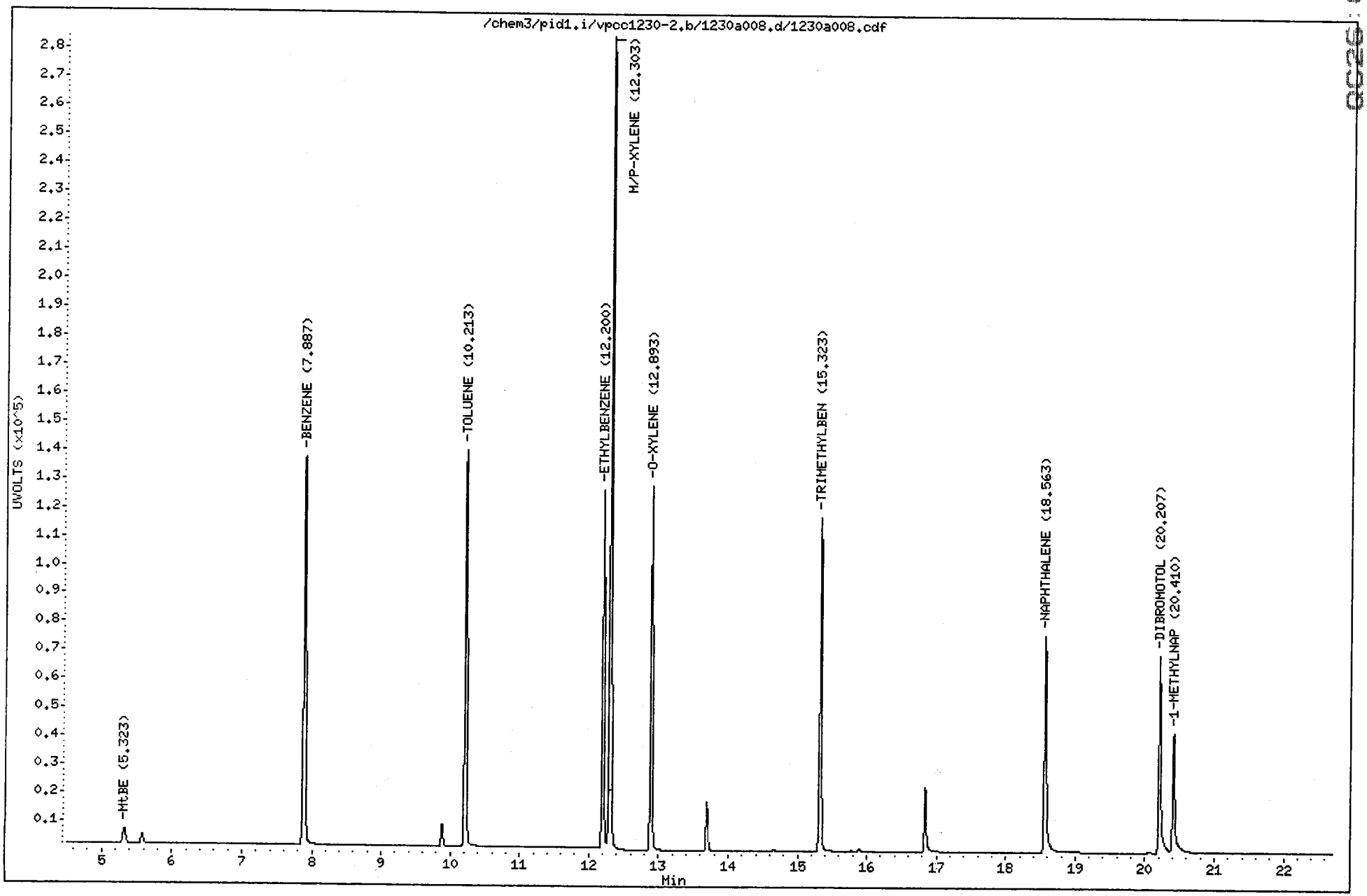
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a008.d
Date : 30-DEC-2009 11:01
Client ID:
Sample Info: VPH 80

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

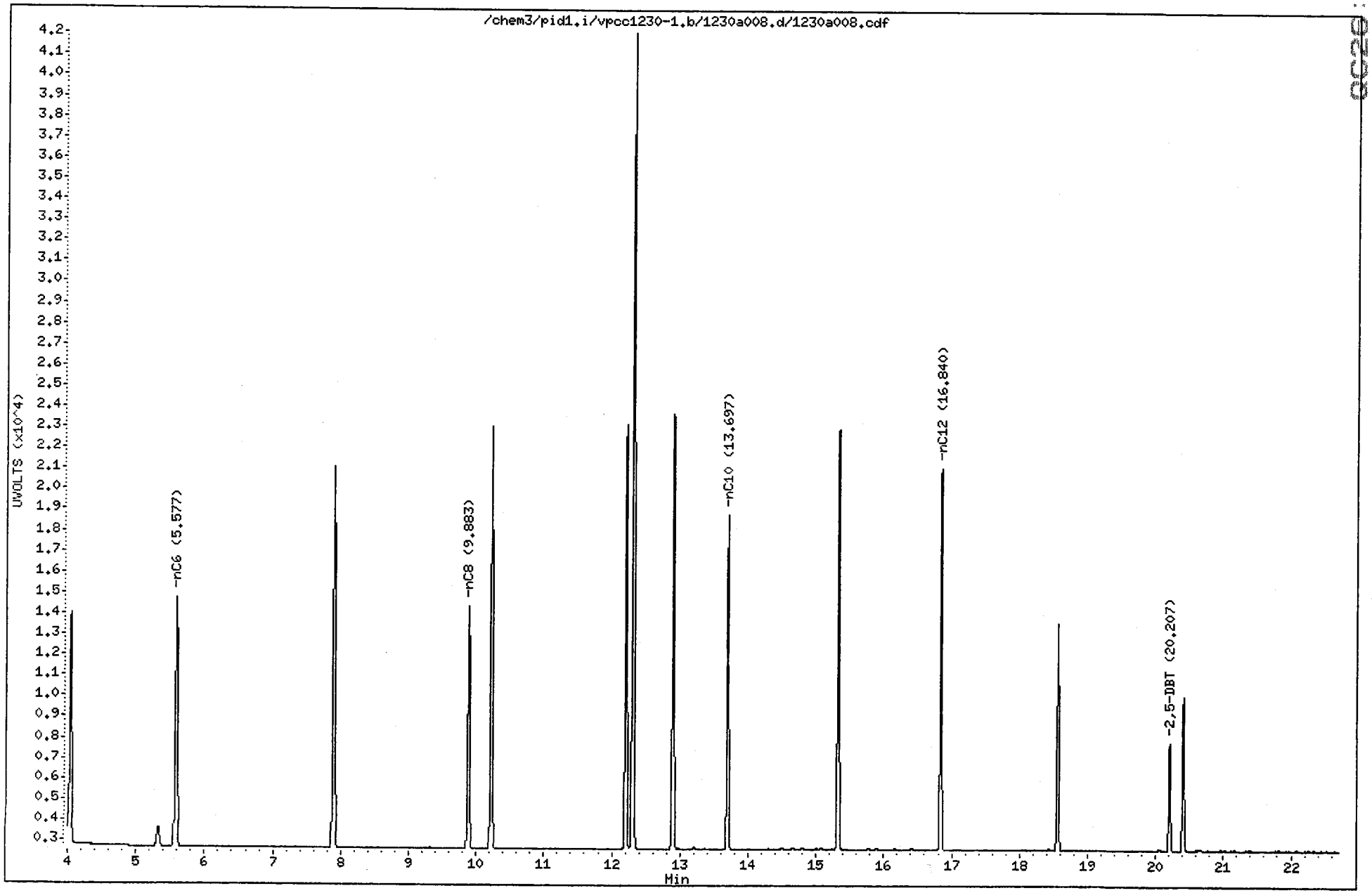


GC26:00198

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a008.d
Date : 30-DEC-2009 11:01
Client ID:
Sample Info: VPH 80

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a008.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

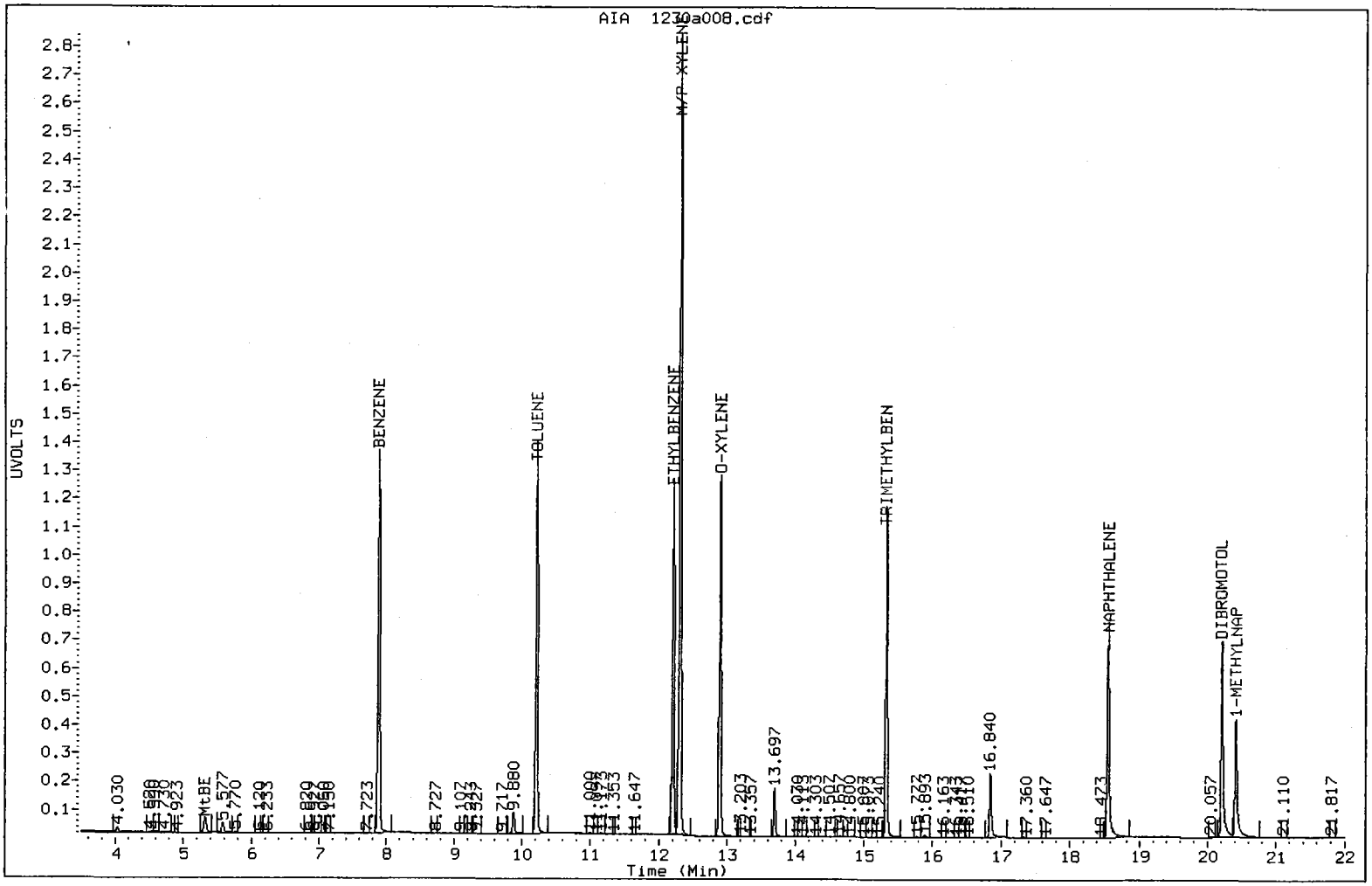
ARI ID: VPH 80
Client ID:
Injection: 30-DEC-2009 11:01
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	5219	74.7	C8-C10	Arom.	1274778*	484.7
BENZENE	7.887	-0.003	135641	77.5	C10-C12	Arom.	214649	101.4
TOLUENE	10.213	-0.007	138729	77.6	C12-C13	Arom.	107467	78.8
ETHYLBENZENE	12.200	-0.007	125656	78.1				
M/P-XYLENE	12.303	-0.010	283463	155.9				
O-XYLENE	12.893	-0.007	127585	78.2				
TRIMETHYLBEN	15.323	-0.007	116983	83.4				
NAPHTHALENE	18.563	-0.003	75918	78.7				
1-METHYLNAP	20.410	-0.003	41917	78.5				
DIBROMOTOL	20.207	-0.003	69376	77.8	DBT Recovery: 155.6			

* Indicates surrogate area subtracted

VPH 80 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a008.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

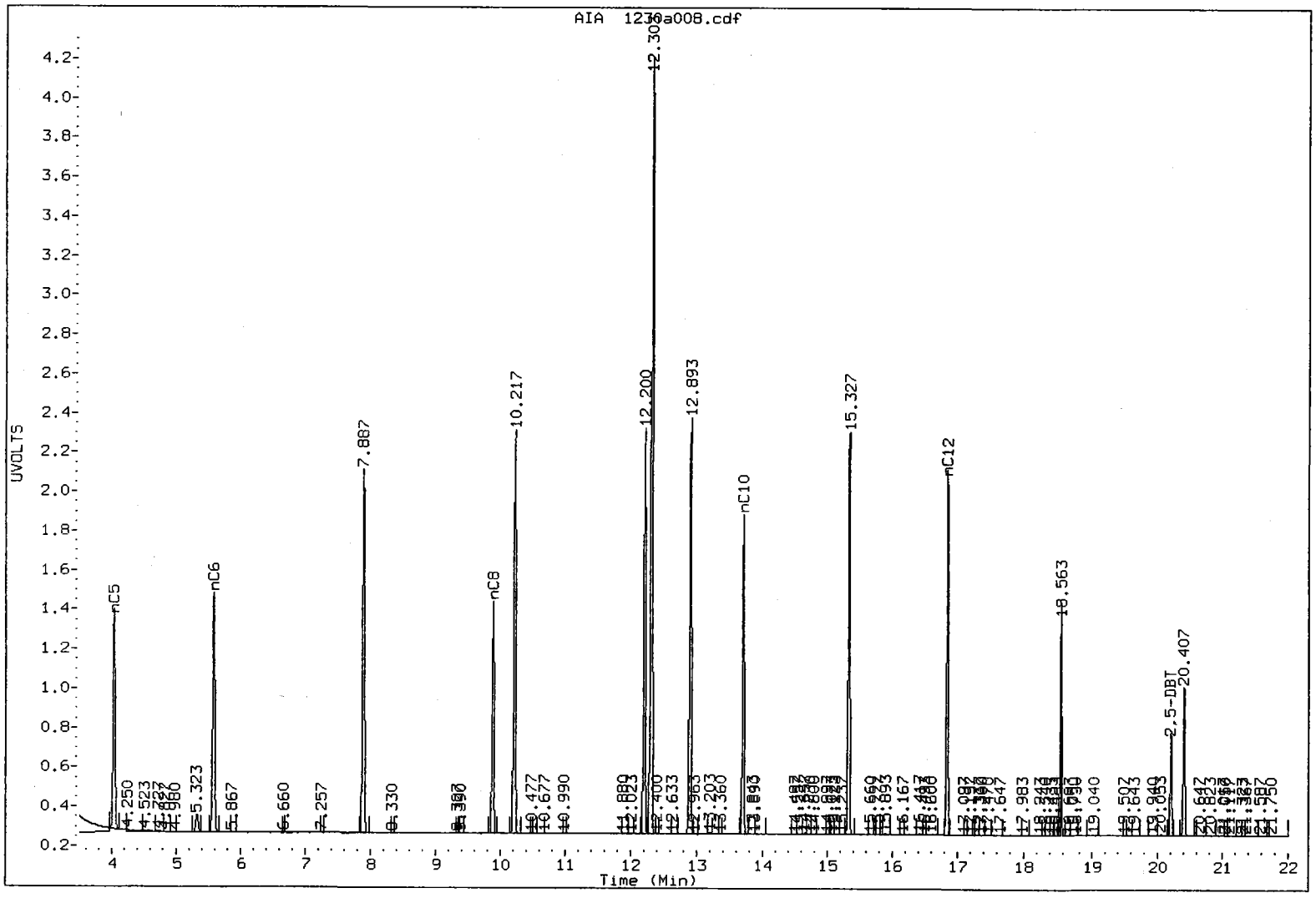
ARI ID: VPH 80
Client ID:
Injection: 30-DEC-2009 11:01
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	11187	23885	C5-C6	Aliph.	55928	164.2
nC6	5.577	-0.007	12135	27284	C6-C8	Aliph.	60669*	207.7
nC8	9.883	-0.003	11765	22095	C8-C10	Aliph.	211986	675.1
nC10	13.697	-0.007	16223	26825	C10-C12	Aliph.	66526*	188.1
nC12	16.840	-0.003	18527	29799				

* Indicates surrogate area subtracted

VPH 80 ALIPHATIC (FID) SIGNAL



MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a010.d
Lab Smp Id: VPH 100
Inj Date : 30-DEC-2009 12:04
Operator : MH Inst ID: pid1.i
Smp Info : VPH 100
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 12:04 Cal File: 1230a010.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1	MtBE	5.323	5.323	0.000	16870	100.000	84.4(M)
2	BENZENE	7.887	7.890	-0.003	359443	100.000	95.4(M)
4	TOLUENE	10.213	10.220	-0.007	332803	100.000	96.6(M)
5	ETHYLBENZENE	12.200	12.207	-0.007	288475	100.000	96.6(M)
6	M/P-XYLENE	12.307	12.313	-0.006	672528	200.000	193
7	O-XYLENE	12.893	12.900	-0.007	295786	100.000	96.8
9	TRIMETHYLBEN	15.323	15.330	-0.007	271617	100.000	103
10	NAPHTHALENE	18.563	18.567	-0.004	206563	100.000	97.6
11	1-METHYLNAP	20.410	20.413	-0.003	129874	100.000	95.2
$ 37	DIBROMOTOL	20.207	20.210	-0.003	191071	100.000	94.9

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a010.d
Lab Smp Id: VPH 100
Inj Date : 30-DEC-2009 12:04
Operator : MH Inst ID: pid1.i
Smp Info : VPH 100
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 12:04 Cal File: 1230a010.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	1 nC5	4.030	4.033	-0.003	28863	100.000	90.5 (M)
	2 nC6	5.577	5.583	-0.006	32977	100.000	91.0
	4 nC8	9.883	9.887	-0.004	27341	100.000	93.6
	5 nC10	13.697	13.703	-0.006	33297	100.000	106 (M)
	7 nC12	16.840	16.843	-0.003	32229	100.000	91.1
$	8 2,5-DBT	20.207	20.210	-0.003	10703	100.000	91.7 (M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a010.d

Date : 30-DEC-2009 12:04

Client ID:

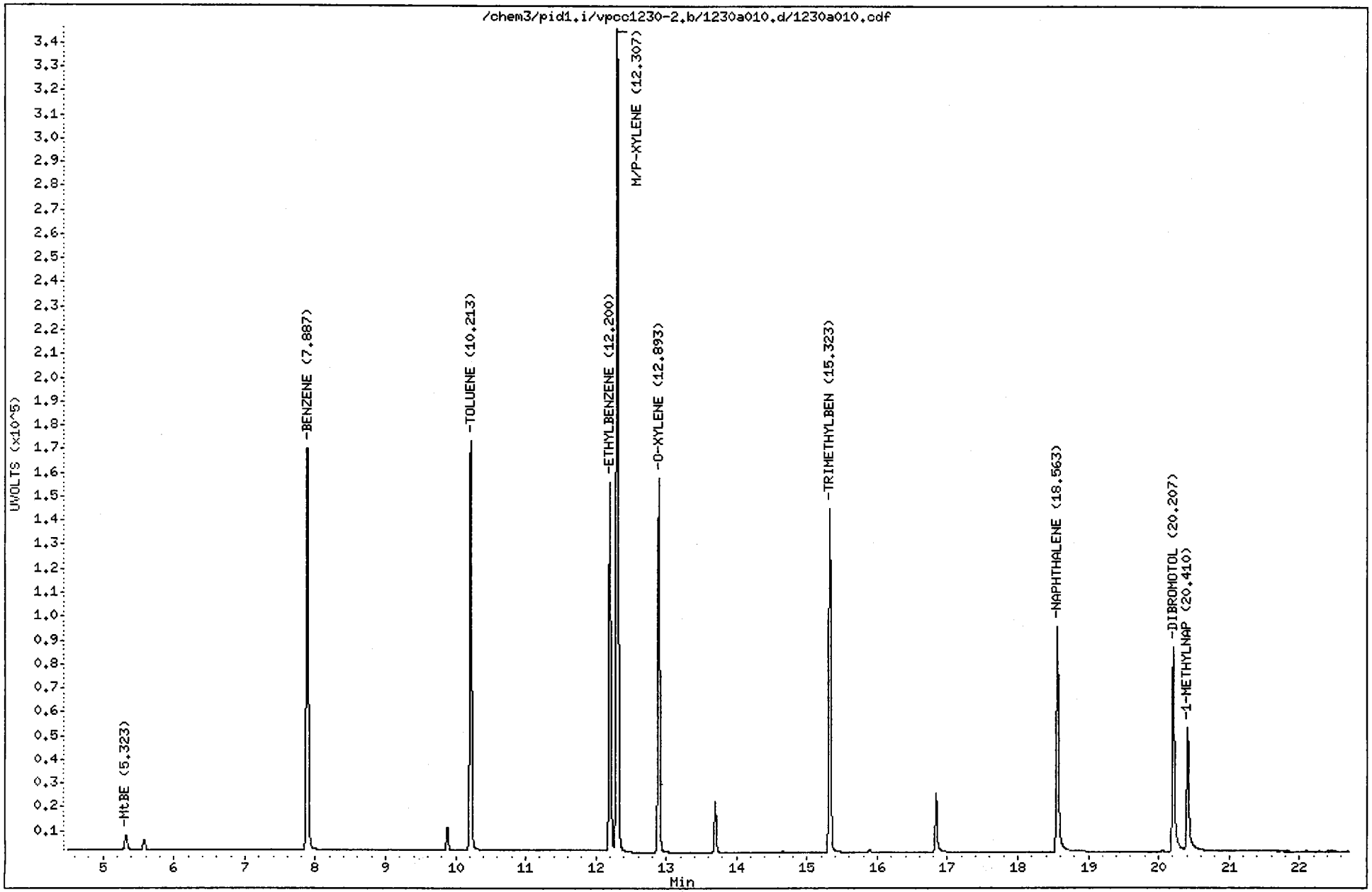
Sample Info: VPH 100

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



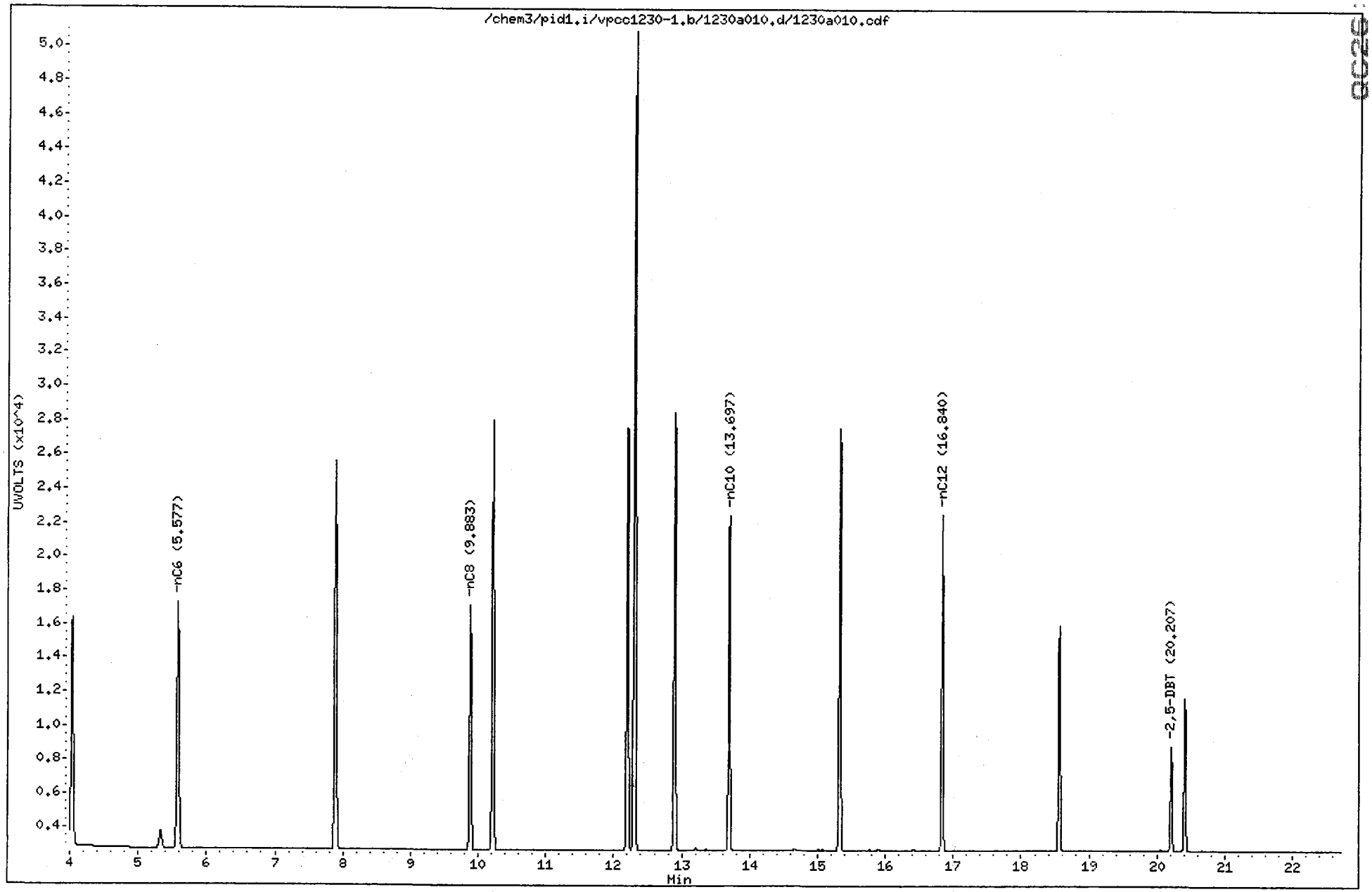
QC26:00194

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a010.d
Date : 30-DEC-2009 12:04
Client ID:
Sample Info: VPH 100

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH
Column diameter: 0.18



QC26:00195

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a010.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

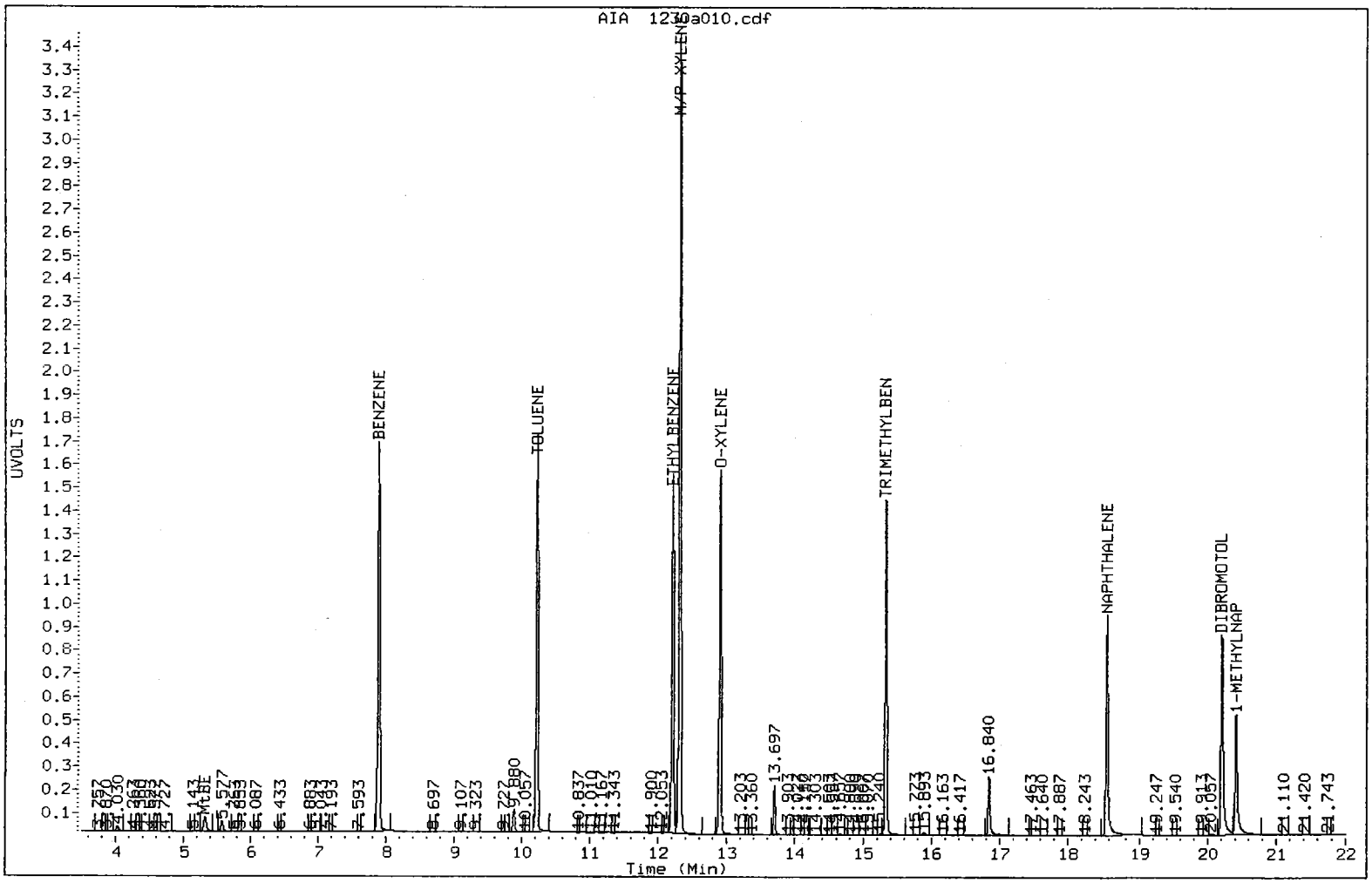
ARI ID: VPH 100
Client ID:
Injection: 30-DEC-2009 12:04
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	6003	84.5	C8-C10	Arom.	1578425*	600.2
BENZENE	7.887	-0.003	167851	95.4	C10-C12	Arom.	259998	122.8
TOLUENE	10.213	-0.007	171660	96.6	C12-C13	Arom.	130441	95.6
ETHYLBENZENE	12.200	-0.007	154300	96.6				
M/P-XYLENE	12.307	-0.007	344485	192.9				
O-XYLENE	12.893	-0.007	157126	96.8				
TRIMETHYLBEN	15.323	-0.007	143888	103.3				
NAPHTHALENE	18.563	-0.003	94661	97.6				
1-METHYLNAP	20.410	-0.003	51703	95.2				
DIBROMOTOL	20.207	-0.003	85967	94.9	DBT Recovery: 189.9			

* Indicates surrogate area subtracted

VPH 100 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a010.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

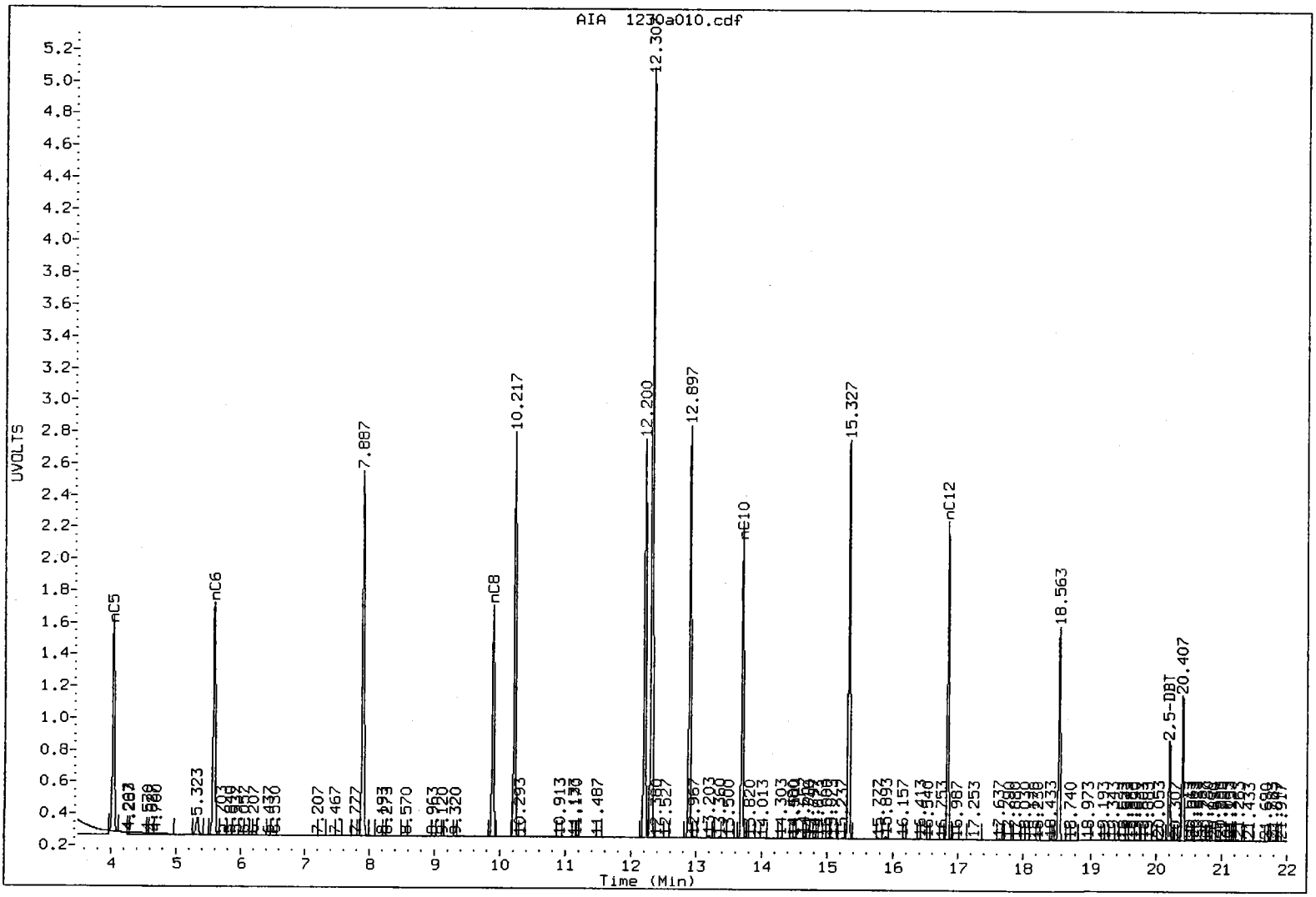
ARI ID: VPH 100
Client ID:
Injection: 30-DEC-2009 12:04
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	13496	28863	C5-C6	Aliph.	67788	199.1
nC6	5.577	-0.007	14585	32977	C6-C8	Aliph.	75111*	257.1
nC8	9.883	-0.003	14478	27341	C8-C10	Aliph.	261749	833.6
nC10	13.697	-0.007	19881	33297	C10-C12	Aliph.	77067*	217.9
nC12	16.840	-0.003	19919	32229				

* Indicates surrogate area subtracted

VPH 100 ALIPHATIC (FID) SIGNAL



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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a012.d
Lab Smp Id: VPH 200
Inj Date : 30-DEC-2009 13:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH 200
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
1	MtBE	5.323	5.323	0.000	32695	200.000	164 (M)
2	BENZENE	7.890	7.890	0.000	727419	200.000	193 (M)
4	TOLUENE	10.220	10.220	0.000	674627	200.000	196
5	ETHYLBENZENE	12.207	12.207	0.000	583065	200.000	195
6	M/P-XYLENE	12.313	12.313	0.000	1377116	400.000	395 (M)
7	O-XYLENE	12.900	12.900	0.000	600202	200.000	196
9	TRIMETHYLBEN	15.330	15.330	0.000	551174	200.000	210
10	NAPHTHALENE	18.567	18.567	0.000	410702	200.000	194 (M)
11	1-METHYLNAP	20.413	20.413	0.000	251645	200.000	184 (M)
$ 37	DIBROMOTOL	20.210	20.210	0.000	400381	200.000	199

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a012.d
Lab Smp Id: VPH 200
Inj Date : 30-DEC-2009 13:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH 200
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	1 nC5	4.033	4.033	0.000	57849	200.000	181(M)
	2 nC6	5.583	5.583	0.000	67286	200.000	186(M)
	4 nC8	9.887	9.887	0.000	59862	200.000	205(M)
	5 nC10	13.703	13.703	0.000	72477	200.000	231(M)
	7 nC12	16.843	16.843	0.000	50700	200.000	143(M)
$	8 2,5-DBT	20.210	20.210	0.000	21615	200.000	185(M)

QC Flag Legend

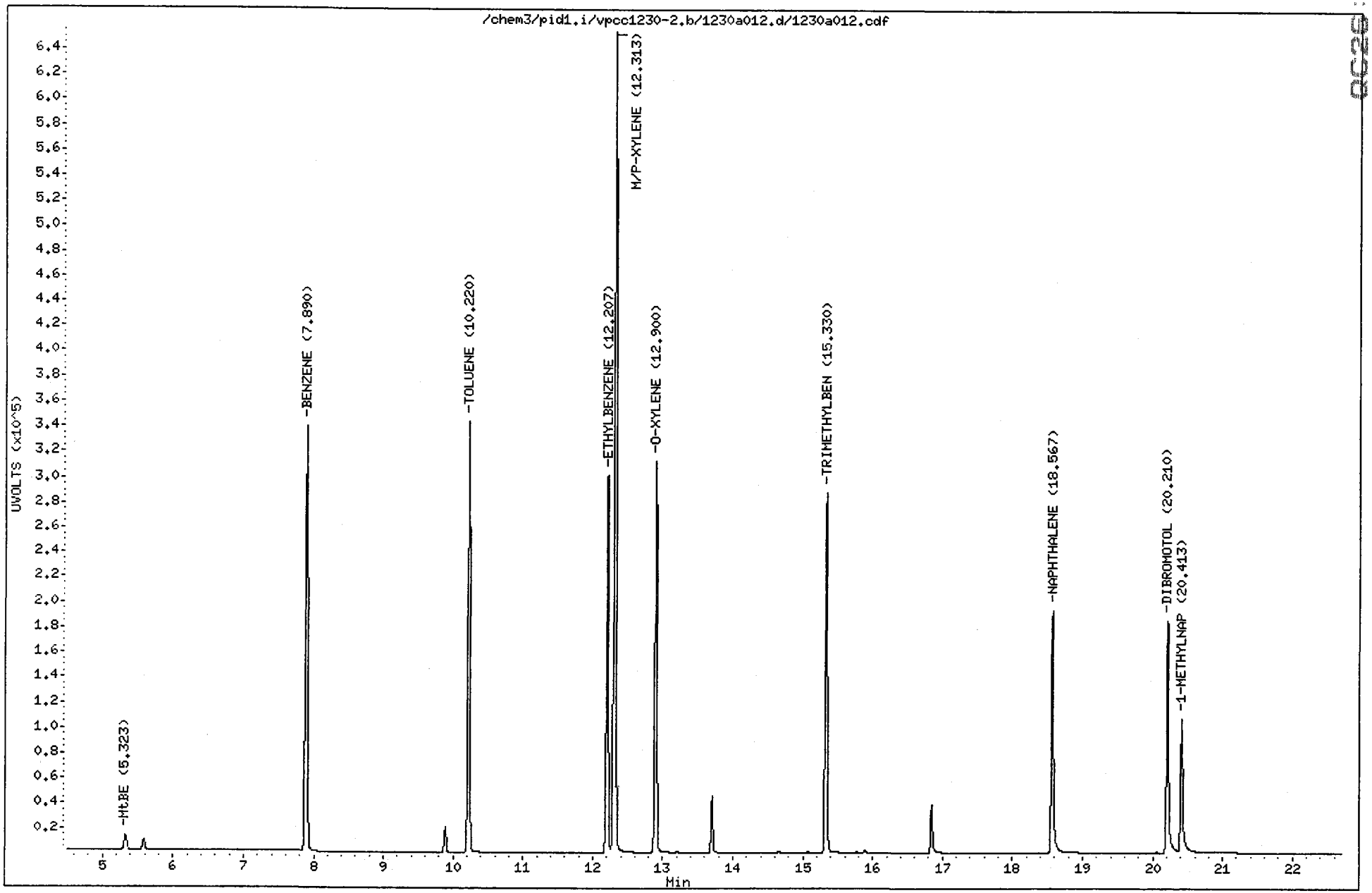
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a012.d
Date : 30-DEC-2009 13:07
Client ID:
Sample Info: VPH 200

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO



Data File: /chem3/pid1.i/vpcc1230-1.b/1230a012.d

Date : 30-DEC-2009 13:07

Client ID:

Sample Info: VPH 200

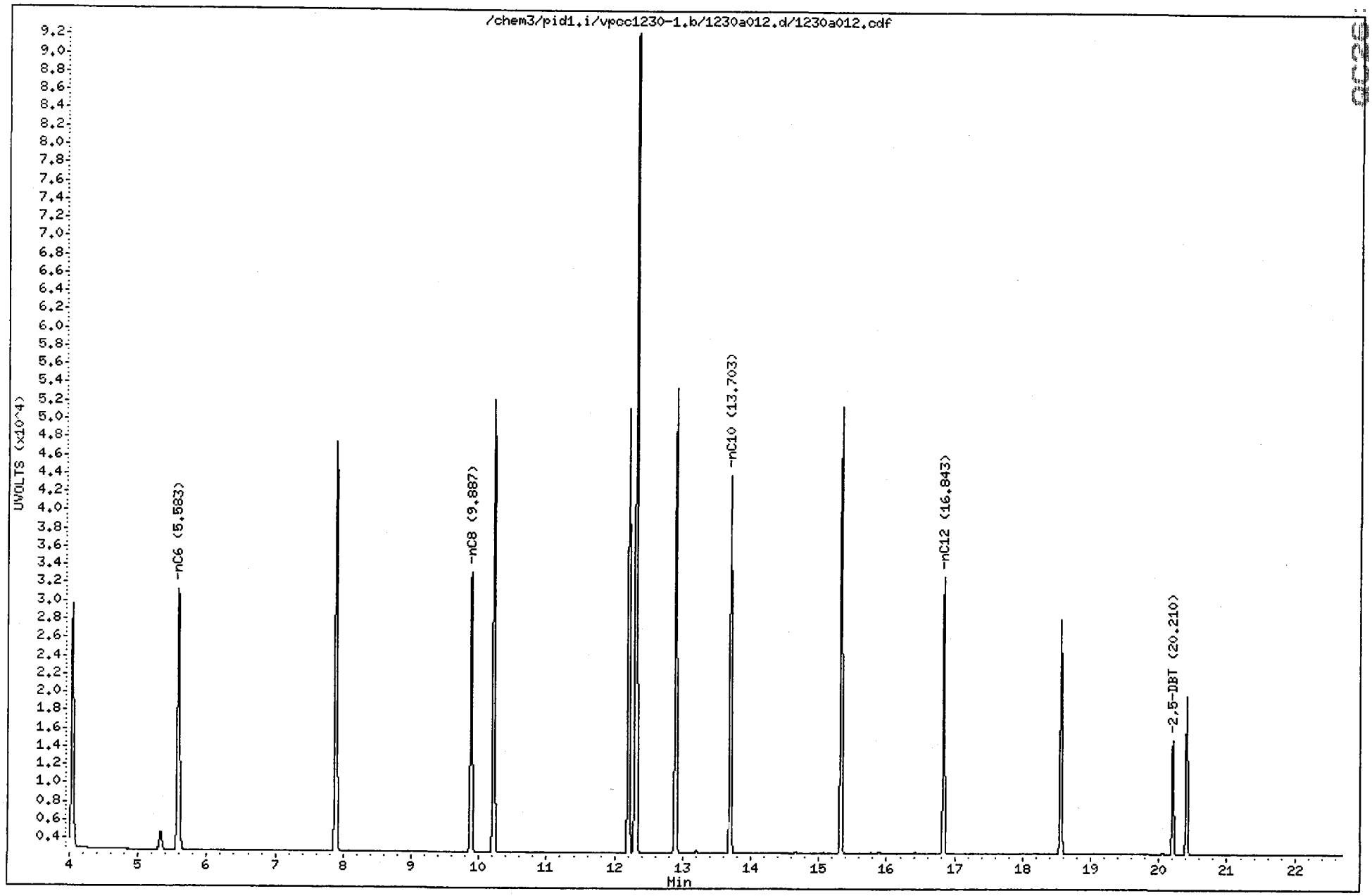
Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH

Column diameter: 0.18

00291



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a012.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

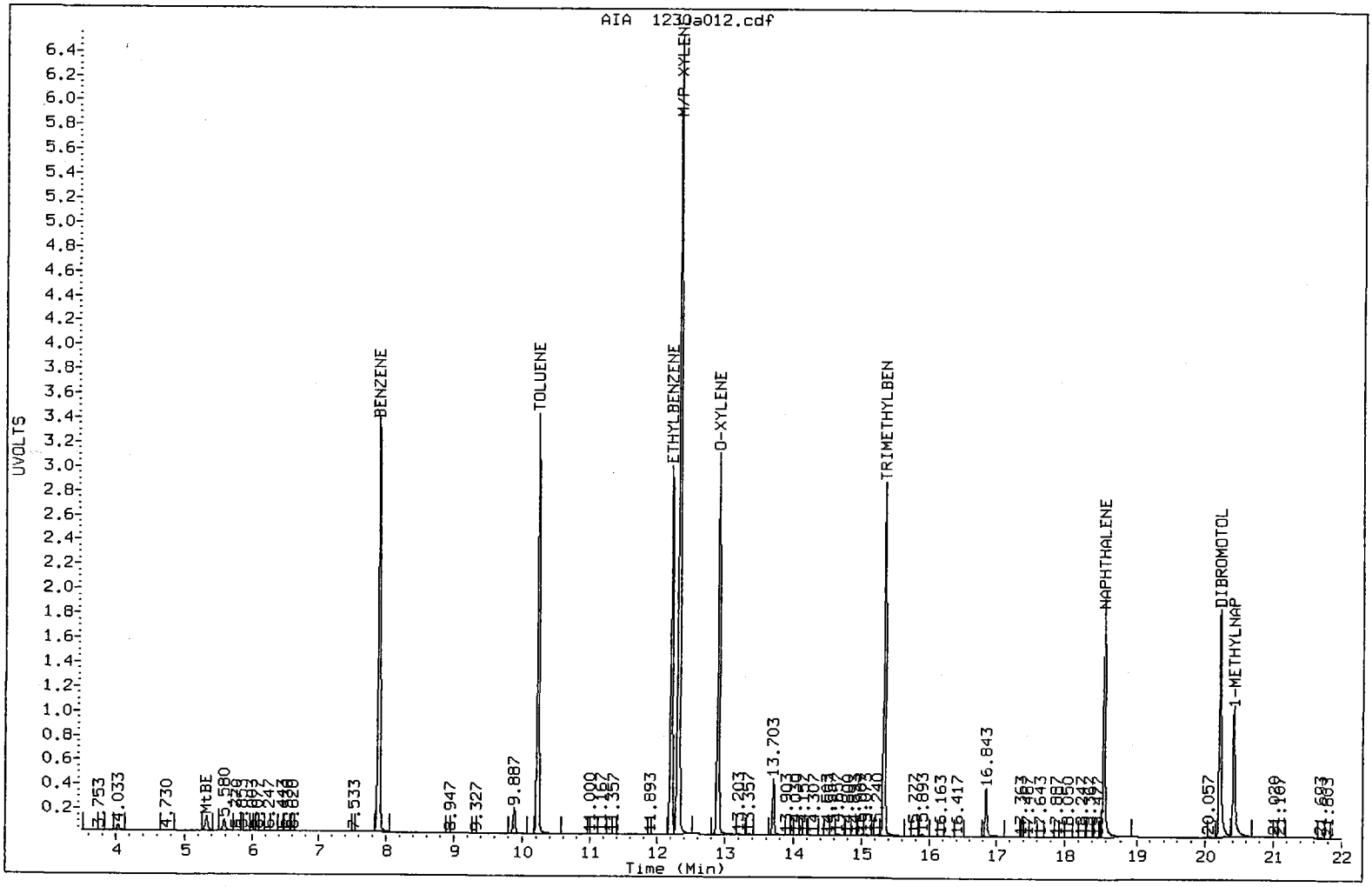
ARI ID: VPH 200
Client ID:
Injection: 30-DEC-2009 13:07
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	11487	163.7	C8-C10	Arom.	3204461*	1218.5
BENZENE	7.890	0.000	338574	193.0	C10-C12	Arom.	495961	234.3
TOLUENE	10.220	0.000	343732	195.8	C12-C13	Arom.	252660	185.2
ETHYLBENZENE	12.207	0.000	301687	195.3				
M/P-XYLENE	12.313	0.000	653826	395.1				
O-XYLENE	12.900	0.000	312191	196.5				
TRIMETHYLBEN	15.330	0.000	288357	209.6				
NAPHTHALENE	18.567	0.000	194424	194.0				
1-METHYLNAP	20.413	0.000	107236	184.5				
DIBROMOTOL	20.210	0.000	186398	198.9	DBT Recovery: 397.9			

* Indicates surrogate area subtracted

VPH 200 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a012.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

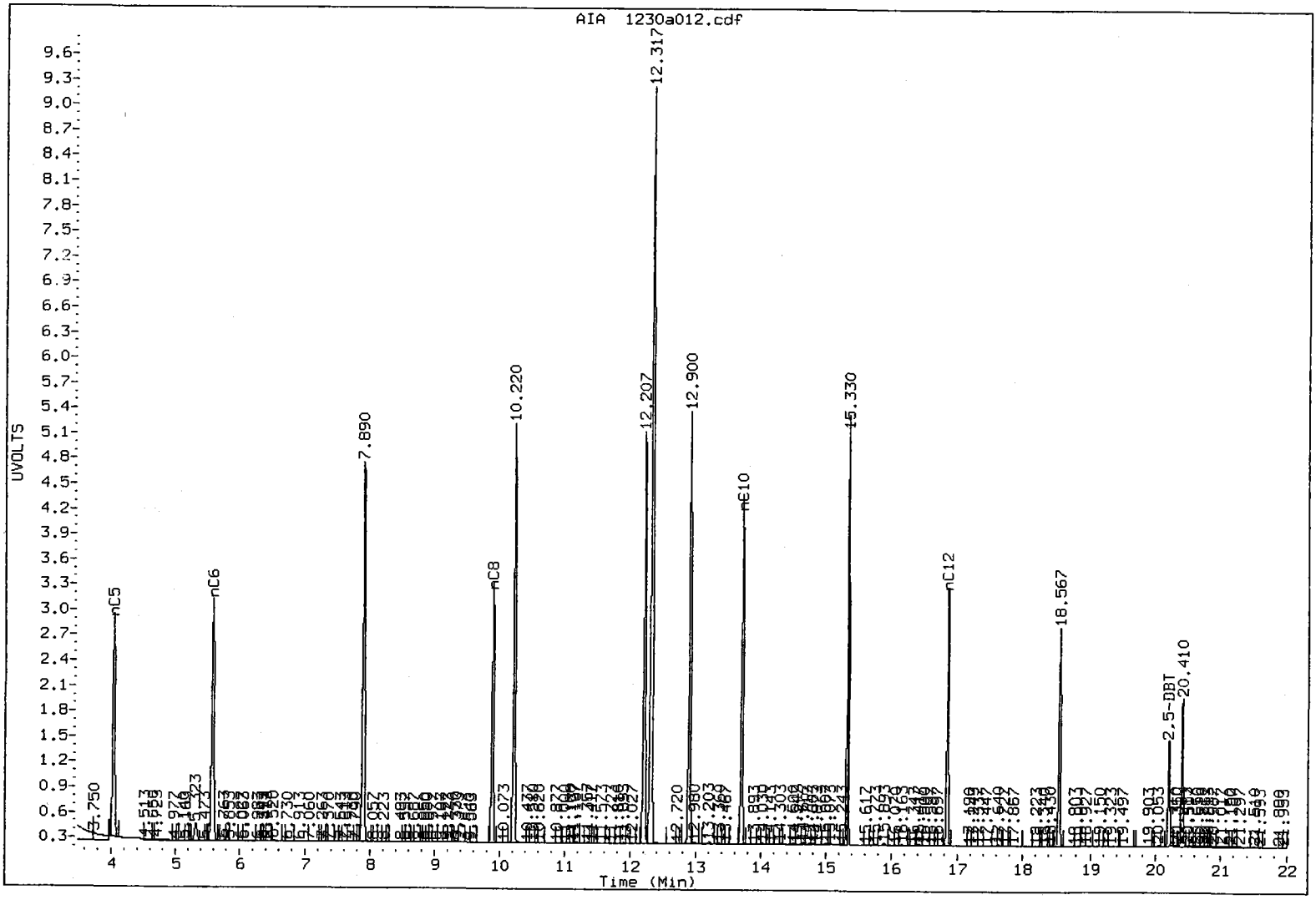
ARI ID: VPH 200
Client ID:
Injection: 30-DEC-2009 13:07
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.033	0.000	26586	57849	C5-C6	Aliph.	133255	391.3
nC6	5.583	0.000	28667	67286	C6-C8	Aliph.	155014*	530.6
nC8	9.887	0.000	30722	59862	C8-C10	Aliph.	531928	1694.1
nC10	13.703	0.000	41404	72477	C10-C12	Aliph.	97538*	275.8
nC12	16.843	0.000	30483	50700				

* Indicates surrogate area subtracted

VPH 200 ALIPHATIC (FID) SIGNAL



MH 1/4/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Lab Smp Id: VPH ICV
Inj Date : 30-DEC-2009 14:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH ICV
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 31-Dec-2009 06:48 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	MtBE	5.320	5.323	-0.003	10571	52.9216	52.9
2	BENZENE	7.883	7.890	-0.007	191529	50.8147	50.8
4	TOLUENE	10.213	10.220	-0.007	175830	51.0346	51.0
5	ETHYLBENZENE	12.197	12.207	-0.010	154658	51.7921	51.8
6	M/P-XYLENE	12.300	12.313	-0.013	358979	102.989	103
7	O-XYLENE	12.890	12.900	-0.010	157149	51.4500	51.4
9	TRIMETHYLBEN	15.323	15.330	-0.007	143089	54.4098	54.4
10	NAPHTHALENE	18.560	18.567	-0.007	111879	52.8582	52.8
11	1-METHYLNAP	20.407	20.413	-0.006	76333	55.9625	56.0
$ 37	DIBROMOTOL	20.207	20.210	-0.003	99199	49.2896	49.3

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Lab Smp Id: VPH ICV
Inj Date : 30-DEC-2009 14:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH ICV
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.030	4.033	-0.003	18150	56.9319	56.9(M)
	2 nC6	5.577	5.583	-0.006	18064	49.8731	49.9
	4 nC8	9.880	9.887	-0.007	14032	48.0315	48.0
	5 nC10	13.693	13.703	-0.010	16821	53.5727	53.6
	7 nC12	16.837	16.843	-0.006	19062	53.8988	53.9
$	8 2,5-DBT	20.203	20.210	-0.007	5763	49.3850	49.4

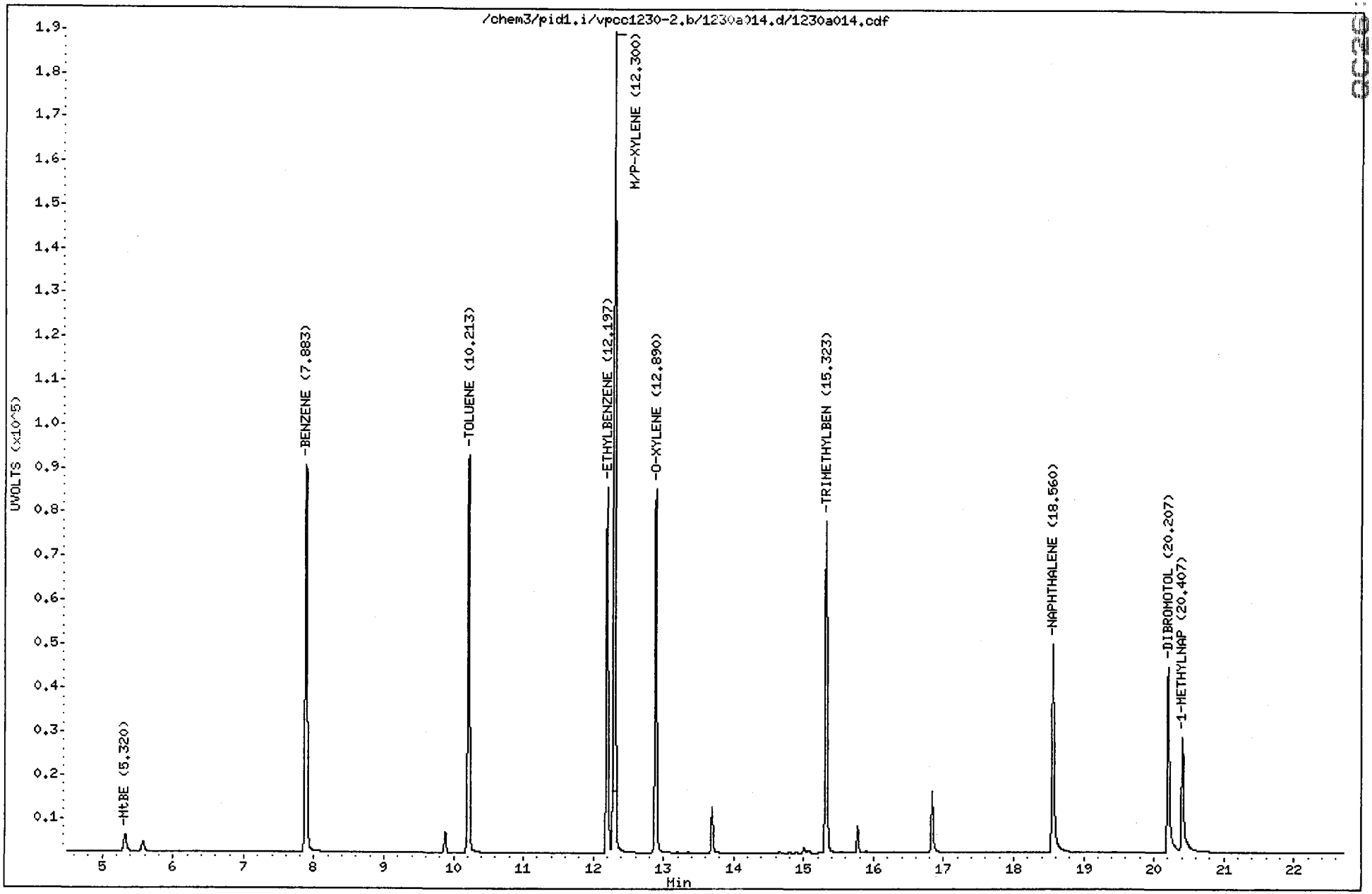
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Date : 30-DEC-2009 14:07
Client ID:
Sample Info: VPH ICV

Instrument: pid1.i

Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18

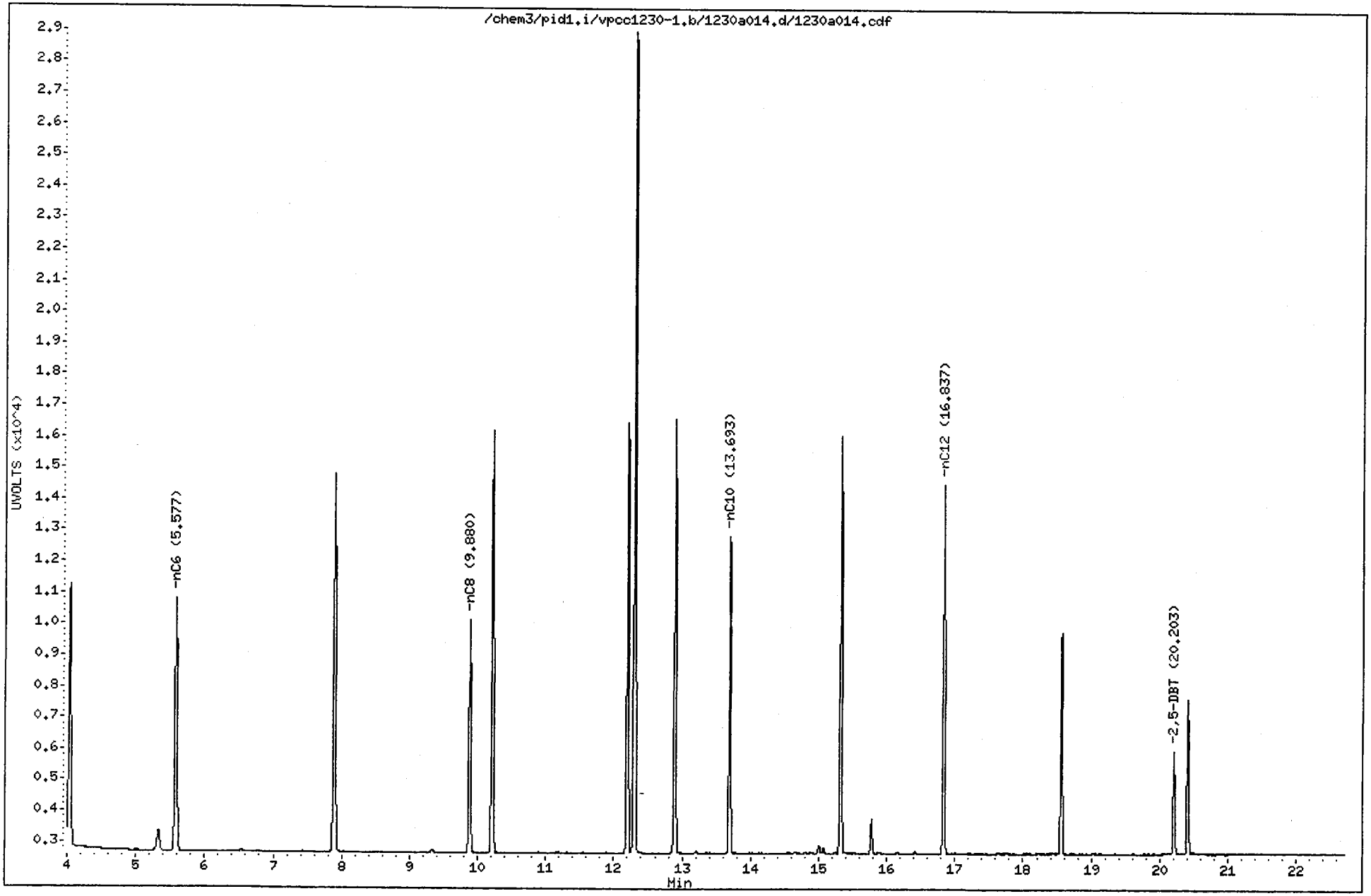


Data File: /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Date : 30-DEC-2009 14:07
Client ID:
Sample Info: VPH ICV

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



QC29:002297

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

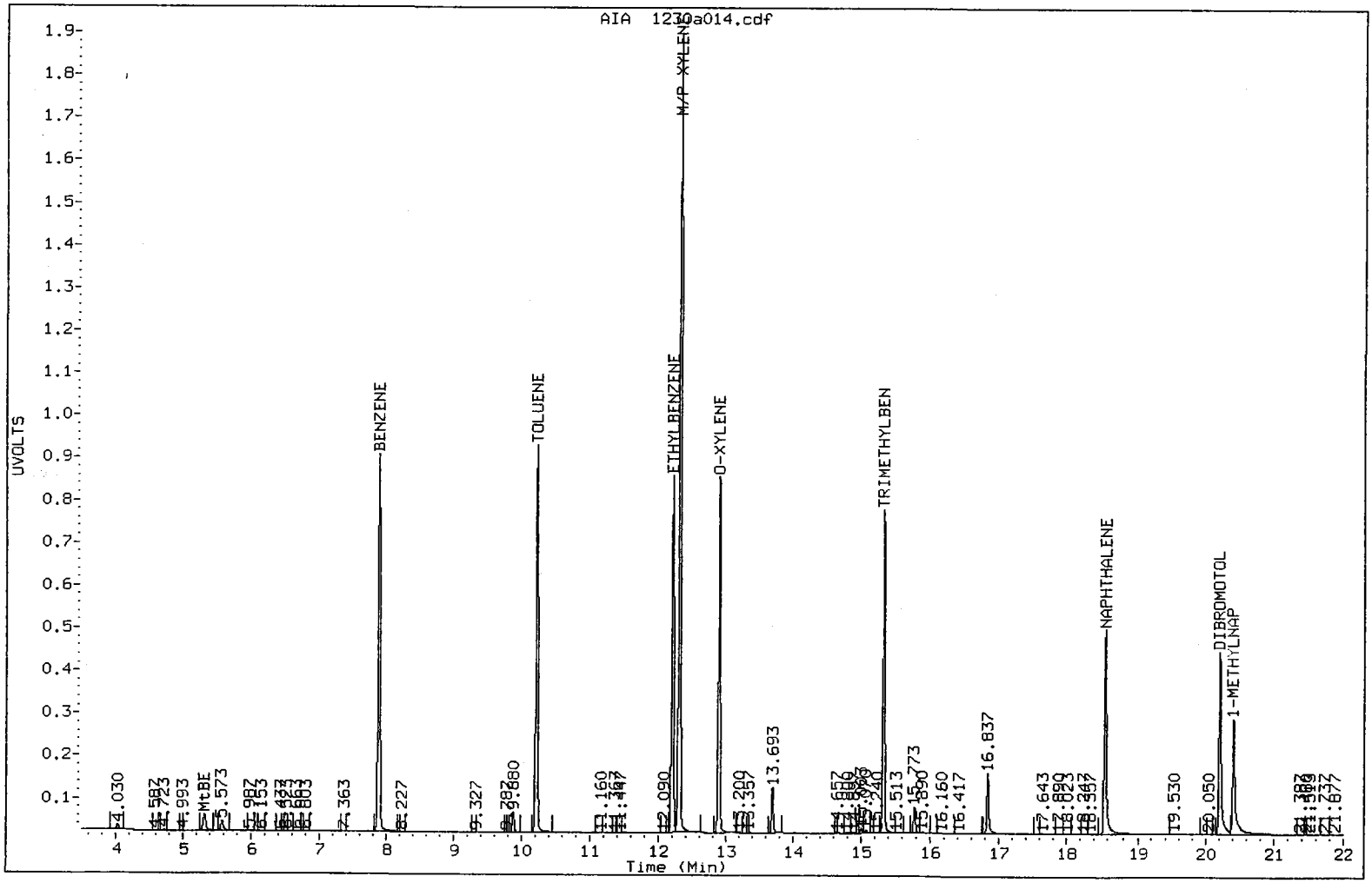
ARI ID: VPH ICV
Client ID:
Injection: 30-DEC-2009 14:07
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	3734	52.9	C8-C10	Arom.	837595*	318.5
BENZENE	7.883	-0.007	88433	50.8	C10-C12	Arom.	155200	73.3
TOLUENE	10.213	-0.007	90928	51.0	C12-C13	Arom.	76585	56.1
ETHYLBENZENE	12.197	-0.010	83678	51.8				
M/P-XYLENE	12.300	-0.013	187476	103.0				
O-XYLENE	12.890	-0.010	83456	51.4				
TRIMETHYLBEN	15.323	-0.007	75867	54.4				
NAPHTHALENE	18.560	-0.007	47949	52.9				
1-METHYLNAP	20.407	-0.007	26849	56.0				
DIBROMOTOL	20.207	-0.003	42719	49.3	DBT Recovery:		98.6	

* Indicates surrogate area subtracted

VPH ICV AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

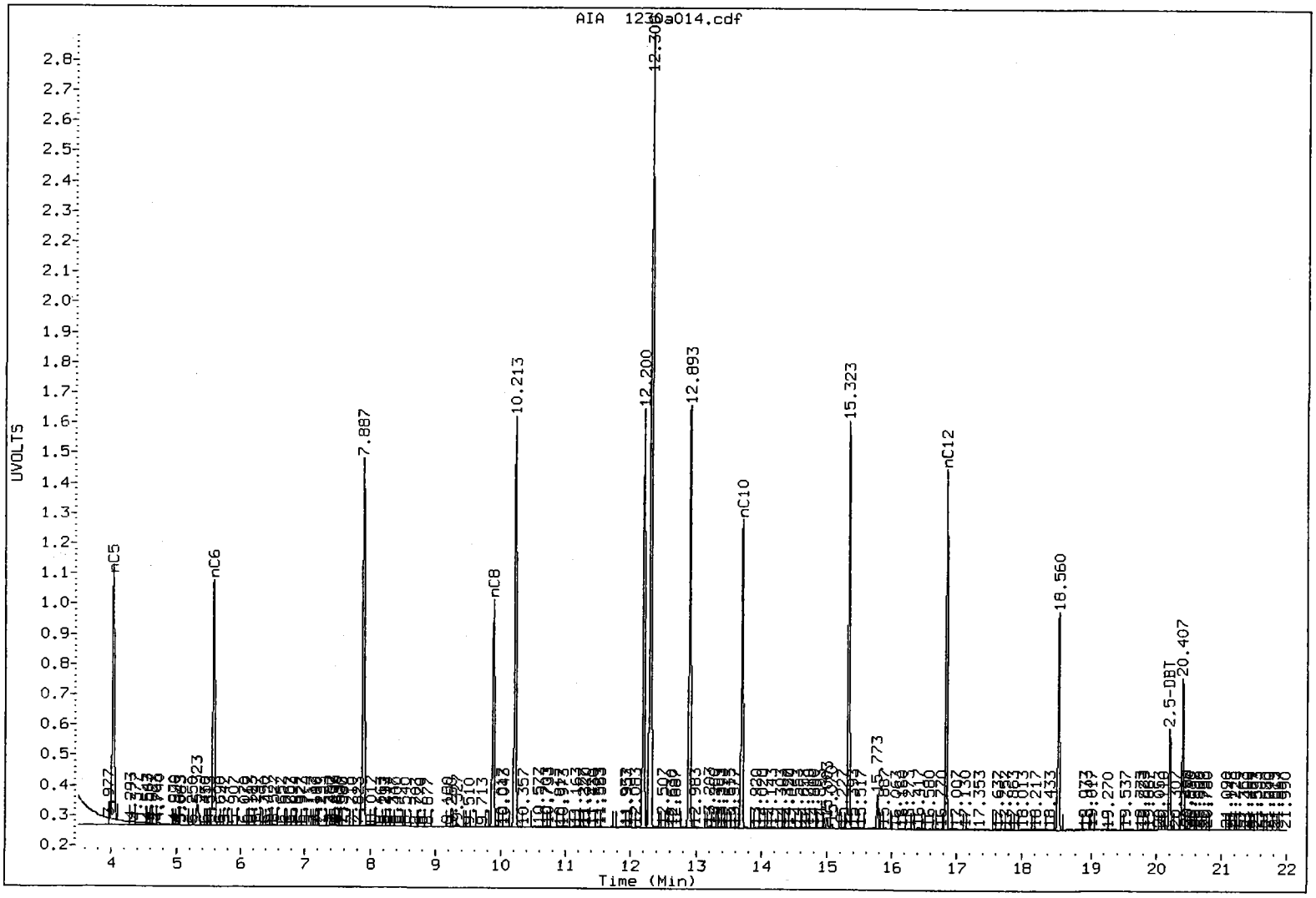
ARI ID: VPH ICV
Client ID:
Injection: 30-DEC-2009 14:07
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	8412	18150	C5-C6	Aliph.	43386	127.4
nC6	5.577	-0.007	8128	18064	C6-C8	Aliph.	40861*	139.9
nC8	9.880	-0.007	7496	14032	C8-C10	Aliph.	140146	446.3
nC10	13.693	-0.010	10214	16821	C10-C12	Aliph.	46227*	130.7
nC12	16.837	-0.007	11886	19062				

* Indicates surrogate area subtracted

VPH ICV ALIPHATIC (FID) SIGNAL



VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX502-2 ALI Calibration Date: 12/30/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1230A026.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
nC5	4.03	3.96	4.10	44.04	50.00	-11.9
nC6	5.57	5.50	5.64	44.77	50.00	-10.5
nC8	9.88	9.81	9.95	44.48	50.00	-11.0
nC10	13.69	13.62	13.76	46.39	50.00	-7.2
nC12	16.83	16.76	16.90	49.76	50.00	-0.5
2,5-DBT	20.20	20.13	20.27	43.94	50.00	-12.1

FORM VII VPH

VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX 502-2 ARO Calibration Date: 12/30/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1230A026.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	%D
MtBE	5.32	5.25	5.39	50.50	50.00	1.0
BENZENE	7.88	7.81	7.95	48.82	50.00	-2.4
TOLUENE	10.21	10.14	10.28	48.53	50.00	-2.9
ETHYLBENZENE	12.20	12.13	12.27	48.34	50.00	-3.3
M/P-XYLENE	12.30	12.23	12.37	96.83	100.0	-3.2
O-XYLENE	12.89	12.82	12.96	48.72	50.00	-2.6
TRIMETHYLBEN	15.32	15.25	15.39	49.67	50.00	-0.7
NAPHTHALENE	18.56	18.49	18.63	46.47	50.00	-7.1
1-METHYLNAP	20.41	20.34	20.48	44.90	50.00	-10.2
DIBROMOTOL	20.20	20.13	20.27	44.19	50.00	-11.6

FORM VII VPH

MH 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a026.d
Lab Smp Id: VCAL
Inj Date : 30-DEC-2009 20:25
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1	MtBE	5.320	5.323	-0.003	10088	50.5046	50.5
2	BENZENE	7.880	7.890	-0.010	183995	48.8160	48.8
4	TOLUENE	10.210	10.220	-0.010	167195	48.5283	48.5(M)
5	ETHYLBENZENE	12.197	12.207	-0.010	144354	48.3416	48.3
6	M/P-XYLENE	12.297	12.313	-0.016	337511	96.8302	96.8
7	O-XYLENE	12.890	12.900	-0.010	148797	48.7158	48.7
9	TRIMETHYLBEN	15.320	15.330	-0.010	130626	49.6709	49.7
10	NAPHTHALENE	18.560	18.567	-0.007	98351	46.4668	46.5
11	1-METHYLNAP	20.407	20.413	-0.006	61241	44.8981	44.9
$ 37	DIBROMOTOL	20.203	20.210	-0.007	88937	44.1909	44.2

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a026.d
Lab Smp Id: VCAL
Inj Date : 30-DEC-2009 20:25
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
1	nC5	4.030	4.033	-0.003	14040	44.0394	44.0(M)
2	nC6	5.573	5.583	-0.010	16218	44.7748	44.8
4	nC8	9.877	9.887	-0.010	12994	44.4794	44.5
5	nC10	13.693	13.703	-0.010	14565	46.3875	46.4
7	nC12	16.833	16.843	-0.010	17599	49.7638	49.8
$ 8	2,5-DBT	20.203	20.210	-0.007	5128	43.9389	43.9

QC Flag Legend

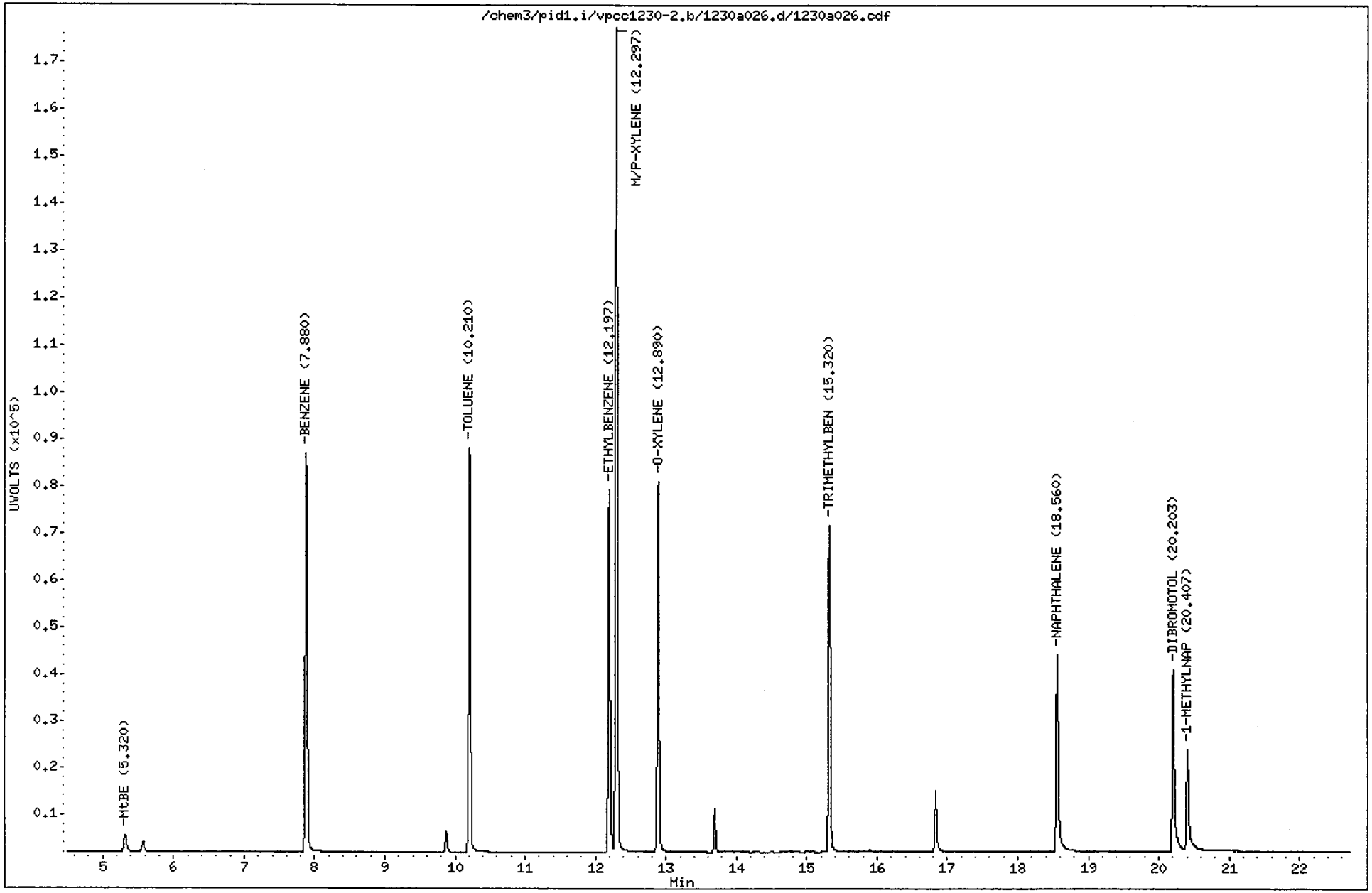
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a026.d
Date : 30-DEC-2009 20:25
Client ID:
Sample Info: VCAL

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO



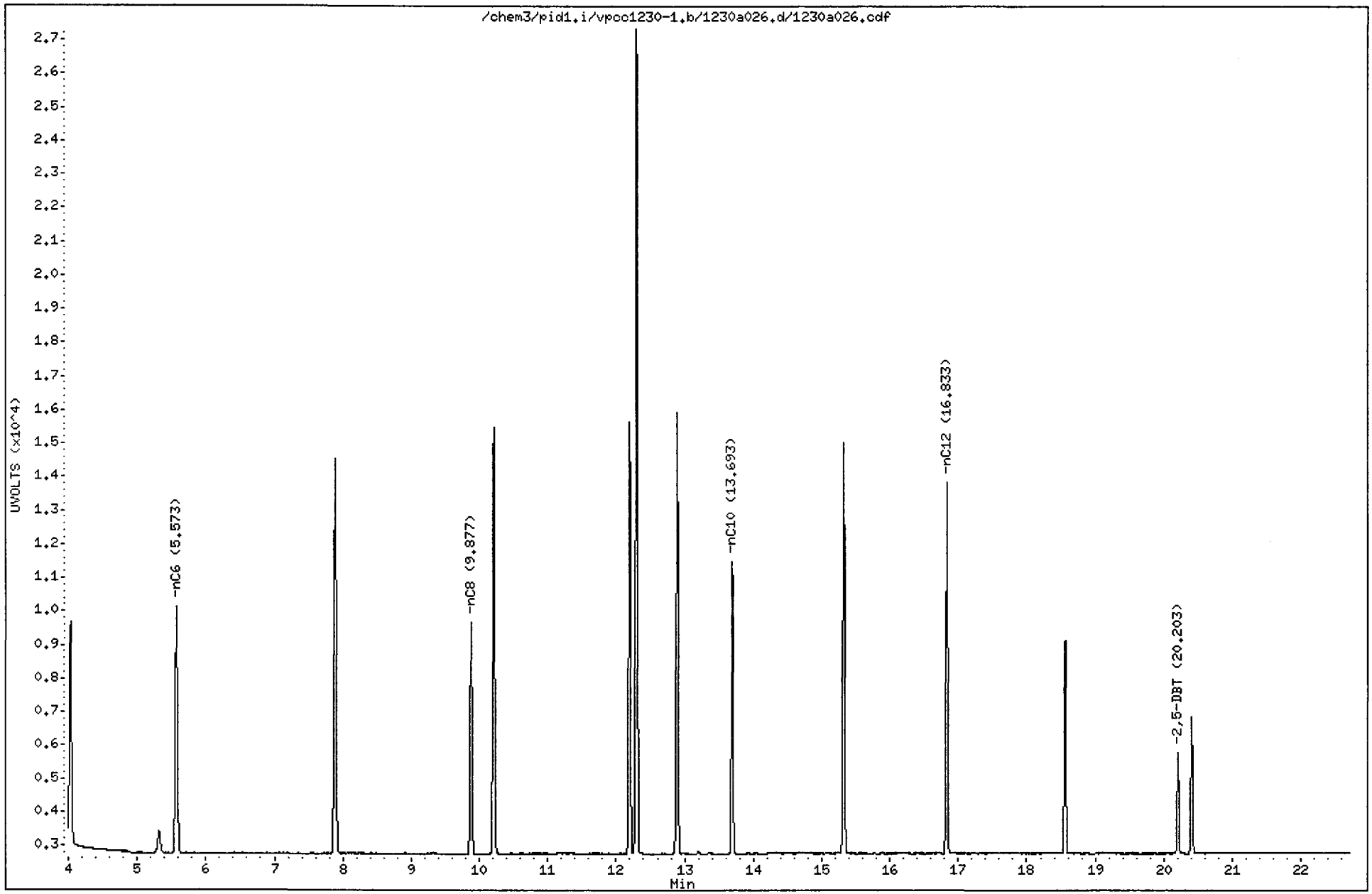
QC25 : 0021

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a026.d
Date : 30-DEC-2009 20:25
Client ID:
Sample Info: VCAL

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



GC26 : 68215

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a026.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

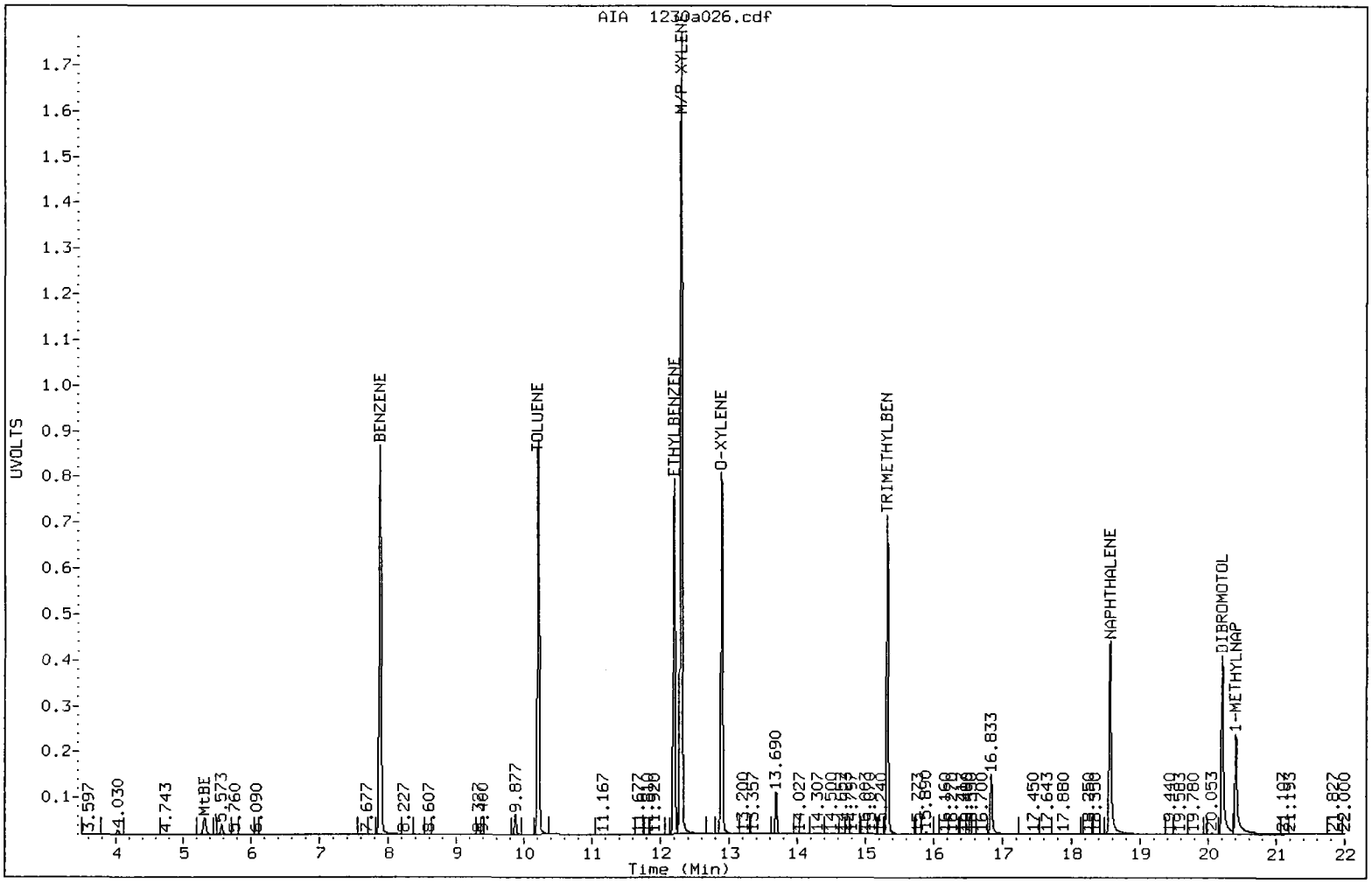
ARI ID: VCAL
Client ID:
Injection: 30-DEC-2009 20:25
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	3557	50.5	C8-C10	Arom.	780614*	296.8
BENZENE	7.880	-0.010	85027	48.8	C10-C12	Arom.	127965	60.5
TOLUENE	10.210	-0.010	86128	48.5	C12-C13	Arom.	61703	45.2
ETHYLBENZENE	12.197	-0.010	77340	48.3				
M/P-XYLENE	12.297	-0.017	175094	96.8				
O-XYLENE	12.890	-0.010	78943	48.7				
TRIMETHYLBEN	15.320	-0.010	69612	49.7				
NAPHTHALENE	18.560	-0.007	42196	46.5				
1-METHYLNAP	20.407	-0.007	21733	44.9				
DIBROMOTOL	20.203	-0.007	38906	44.2	DBT Recovery:		88.4	

* Indicates surrogate area subtracted

VCAL AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a026.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

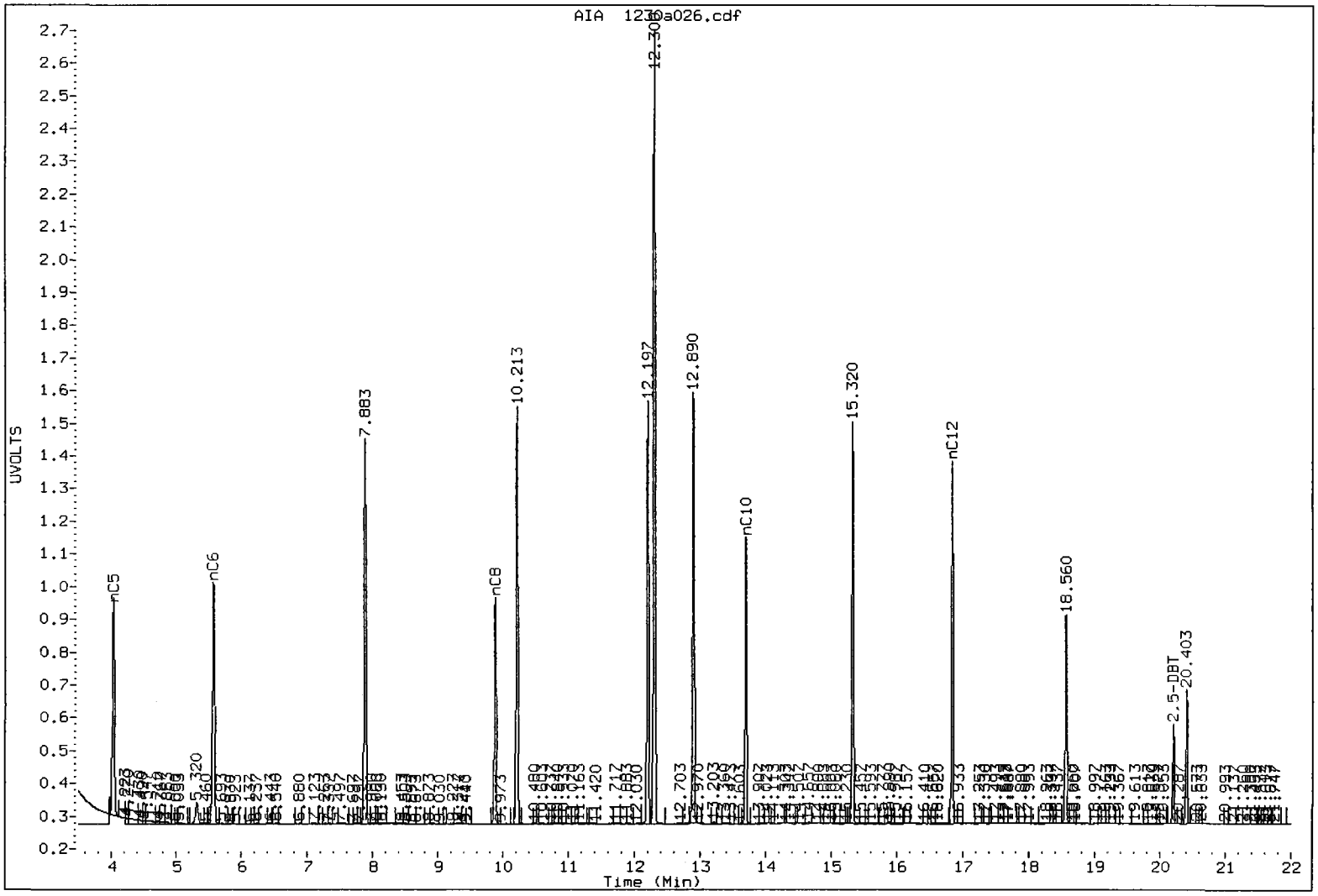
ARI ID: VCAL
Client ID:
Injection: 30-DEC-2009 20:25
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	6630	14040	C5-C6	Aliph.	36141	106.1
nC6	5.573	-0.010	7370	16218	C6-C8	Aliph.	37969*	130.0
nC8	9.877	-0.010	6909	12994	C8-C10	Aliph.	130154	414.5
nC10	13.693	-0.010	8745	14565	C10-C12	Aliph.	39700*	112.3
nC12	16.833	-0.010	11069	17599				

* Indicates surrogate area subtracted

VCAL ALIPHATIC (FID) SIGNAL



VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX 502-2 ARO Calibration Date: 12/31/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1231A002.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	%D
MtBE	5.33	5.26	5.40	53.44	50.00	6.9
BENZENE	7.89	7.82	7.96	49.51	50.00	-1.0
TOLUENE	10.21	10.15	10.29	49.67	50.00	-0.7
ETHYLBENZENE	12.20	12.13	12.27	49.38	50.00	-1.2
M/P-XYLENE	12.30	12.23	12.37	100.2	100.0	0.2
O-XYLENE	12.89	12.82	12.96	49.86	50.00	-0.3
TRIMETHYLBEN	15.32	15.25	15.39	52.33	50.00	4.7
NAPHTHALENE	18.56	18.49	18.63	48.40	50.00	-3.2
1-METHYLNAP	20.41	20.34	20.48	48.99	50.00	-2.0
DIBROMOTOL	20.21	20.14	20.28	48.05	50.00	-3.9

FORM VII VPH

VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX502-2 ALI Calibration Date: 12/31/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1231A002.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
nC5	4.04	3.97	4.11	52.16	50.00	4.3
nC6	5.58	5.52	5.66	48.63	50.00	-2.7
nC8	9.88	9.81	9.95	48.80	50.00	-2.4
nC10	13.69	13.63	13.77	52.67	50.00	5.3
nC12	16.84	16.77	16.91	55.71	50.00	11.4
2,5-DBT	20.21	20.14	20.28	48.27	50.00	-3.5

FORM VII VPH

M 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1231-2.b/1231a002.d
Lab Smp Id: VCAL
Inj Date : 31-DEC-2009 07:37
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	MtBE	5.327	5.323	0.004	10675	53.4463	53.4
2	BENZENE	7.887	7.890	-0.003	186625	49.5137	49.5
4	TOLUENE	10.213	10.220	-0.007	171139	49.6732	49.7
5	ETHYLBENZENE	12.197	12.207	-0.010	147456	49.3806	49.4
6	M/P-XYLENE	12.300	12.313	-0.013	349237	100.194	100
7	O-XYLENE	12.890	12.900	-0.010	152278	49.8555	49.8
9	TRIMETHYLBEN	15.323	15.330	-0.007	137623	52.3315	52.3
10	NAPHTHALENE	18.563	18.567	-0.004	102436	48.3971	48.4
11	1-METHYLNAP	20.410	20.413	-0.003	66821	48.9890	49.0
$ 37	DIBROMOTOL	20.207	20.210	-0.003	96711	48.0534	48.0

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1231-1.b/1231a002.d
Lab Smp Id: VCAL
Inj Date : 31-DEC-2009 07:37
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.037	4.033	0.004	16629	52.1613	52.2
	2 nC6	5.580	5.583	-0.003	17614	48.6288	48.6
	4 nC8	9.880	9.887	-0.007	14256	48.7982	48.8
	5 nC10	13.693	13.703	-0.010	16538	52.6717	52.7
	7 nC12	16.837	16.843	-0.006	19704	55.7150	55.7
$	8 2,5-DBT	20.207	20.210	-0.003	5633	48.2711	48.3(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1231-2.b/1231a002.d

Date : 31-DEC-2009 07:37

Client ID:

Sample Info: VCAL

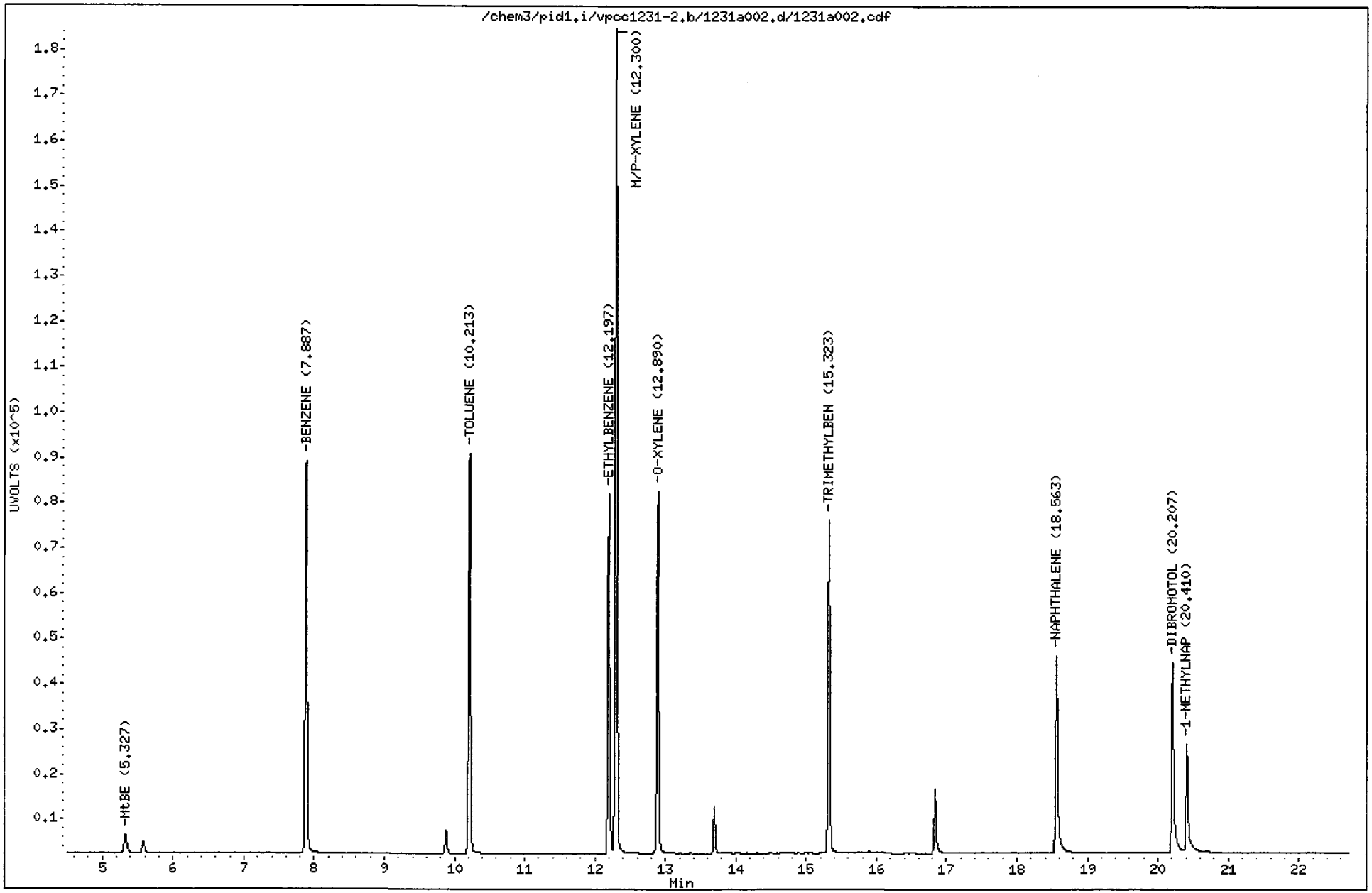
Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

Column diameter: 0.18

QC25 : 00222

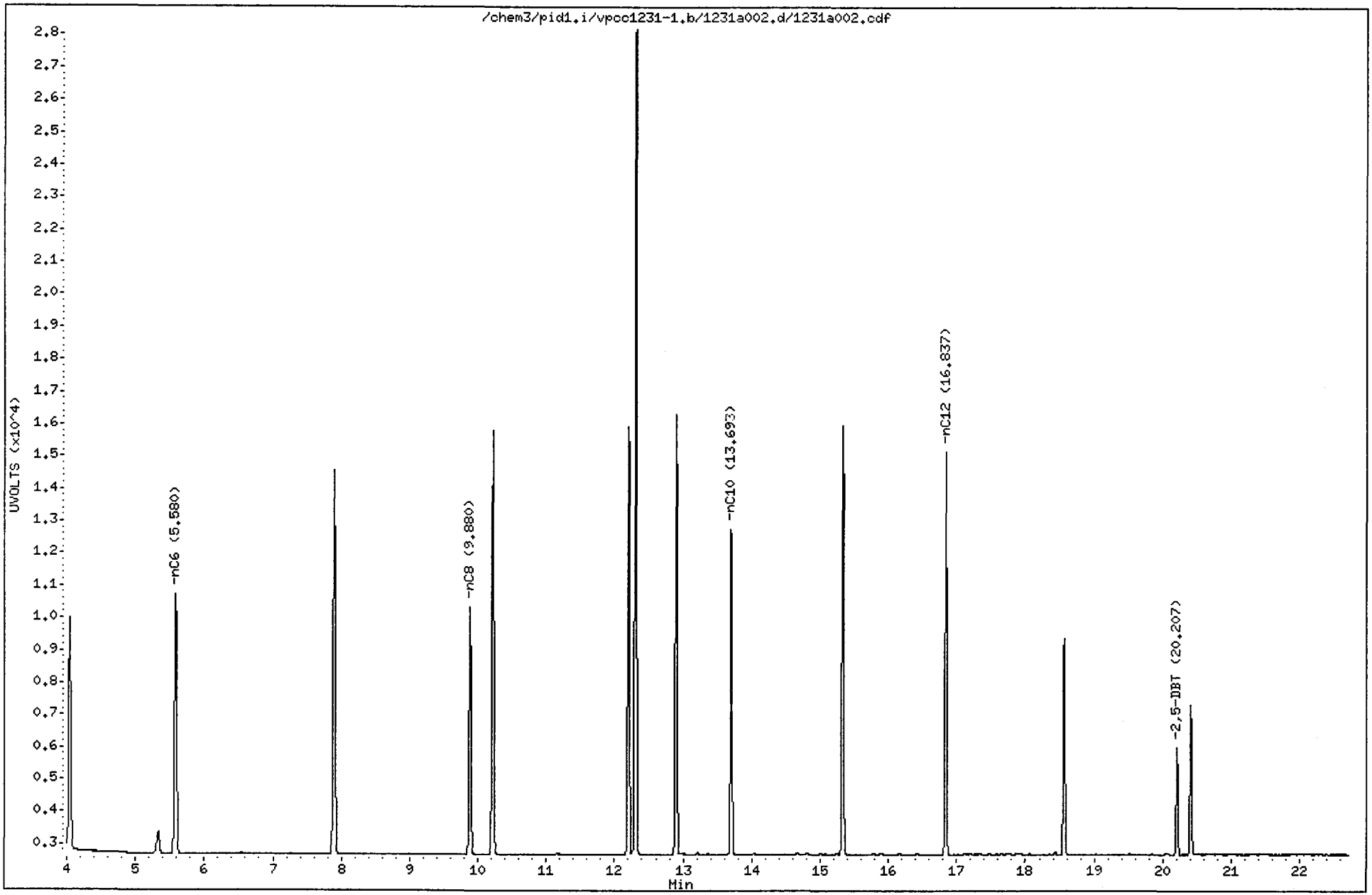


Data File: /chem3/pid1.i/vpcc1231-1.b/1231a002.d
Date : 31-DEC-2009 07:37
Client ID:
Sample Info: VCAL

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



GC25:0223

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a002.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

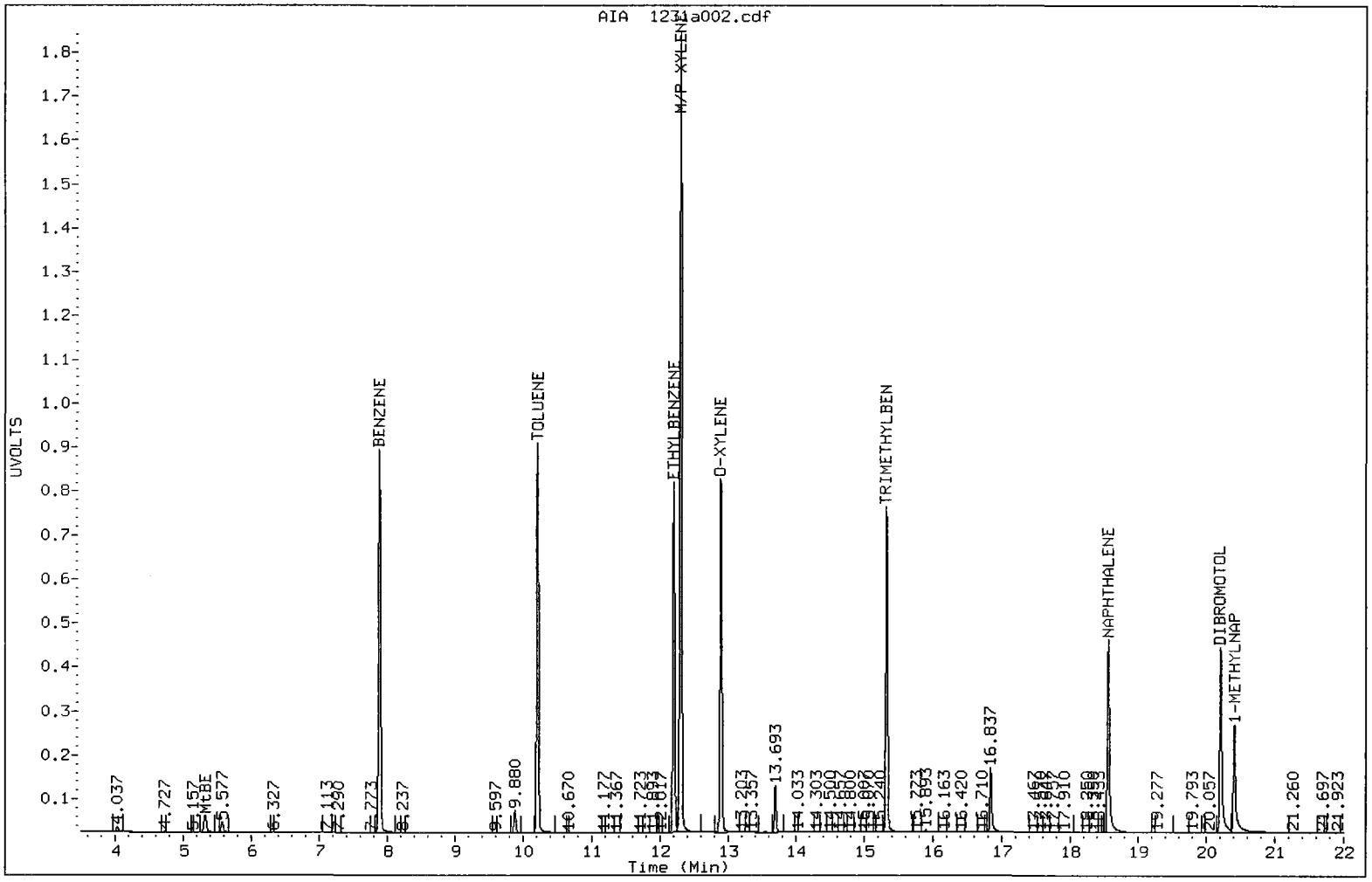
ARI ID: VCAL
Client ID:
Injection: 31-DEC-2009 07:37
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.327	0.003	3824	53.4	C8-C10	Arom.	807228*	306.9
BENZENE	7.887	-0.003	86967	49.5	C10-C12	Arom.	135543	64.0
TOLUENE	10.213	-0.007	88566	49.7	C12-C13	Arom.	67301	49.3
ETHYLBENZENE	12.197	-0.010	79596	49.4				
M/P-XYLENE	12.300	-0.013	182198	100.2				
O-XYLENE	12.890	-0.010	80369	49.9				
TRIMETHYLBEN	15.323	-0.007	73853	52.3				
NAPHTHALENE	18.563	-0.003	43987	48.4				
1-METHYLNAP	20.410	-0.003	24320	49.0				
DIBROMOTOL	20.207	-0.003	42178	48.1	DBT Recovery:		96.1	

* Indicates surrogate area subtracted

VCAL AROMATIC (PID) SIGNAL



QC26 : 08224

Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a002.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

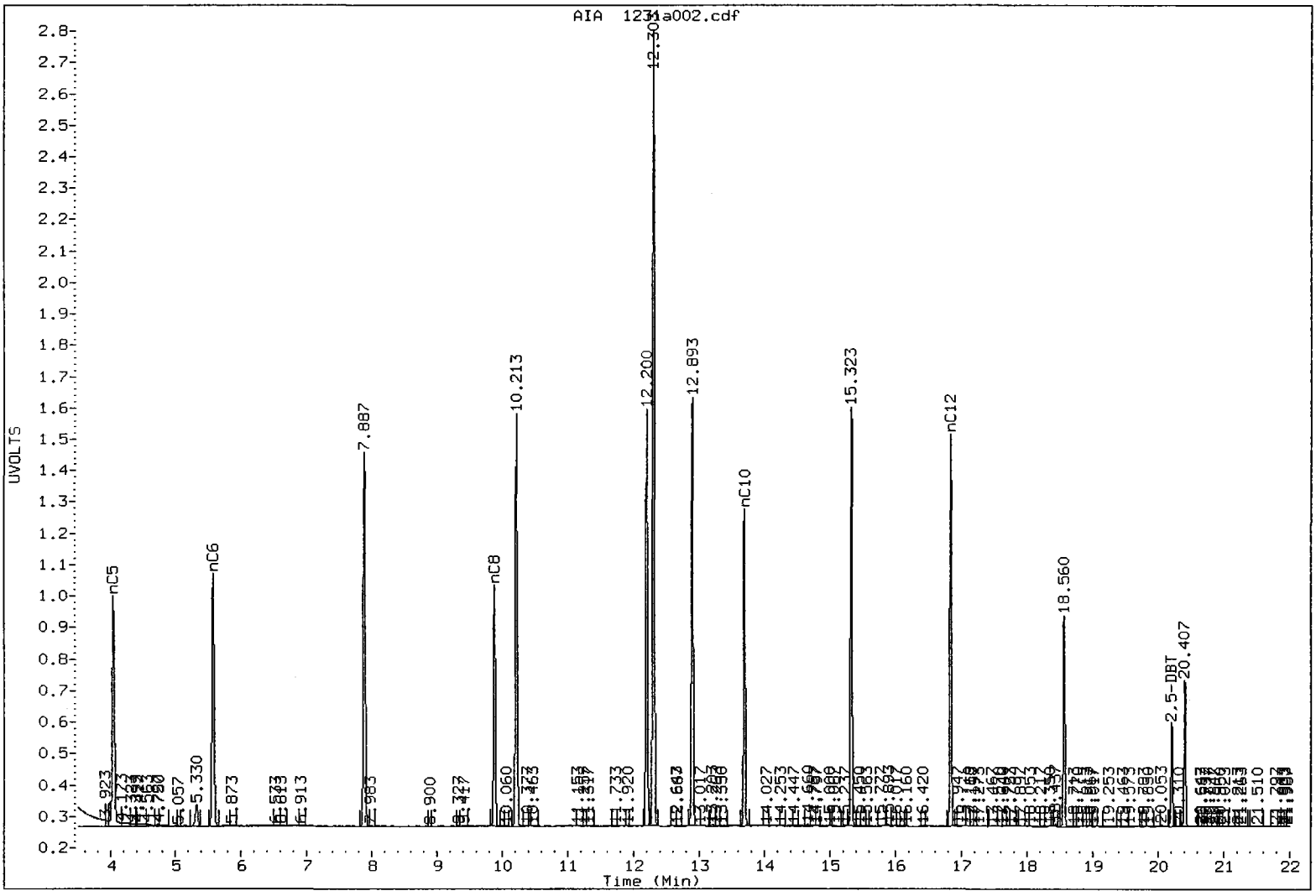
ARI ID: VCAL
Client ID:
Injection: 31-DEC-2009 07:37
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.037	0.003	7302	16629	C5-C6	Aliph.	38082	111.8
nC6	5.580	-0.003	8033	17614	C6-C8	Aliph.	39175*	134.1
nC8	9.880	-0.007	7635	14256	C8-C10	Aliph.	135931	432.9
nC10	13.693	-0.010	10071	16538	C10-C12	Aliph.	43236*	122.3
nC12	16.837	-0.007	12470	19704				

* Indicates surrogate area subtracted

VCAL ALIPHATIC (FID) SIGNAL



VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX 502-2 ARO Calibration Date: 12/31/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1231A011.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	%D
MtBE	5.33	5.26	5.40	46.29	50.00	-7.4
BENZENE	7.89	7.82	7.96	49.41	50.00	-1.2
TOLUENE	10.22	10.15	10.29	49.41	50.00	-1.2
ETHYLBENZENE	12.20	12.13	12.27	48.82	50.00	-2.4
M/P-XYLENE	12.30	12.23	12.37	98.49	100.0	-1.5
O-XYLENE	12.89	12.82	12.96	49.36	50.00	-1.3
TRIMETHYLBEN	15.32	15.25	15.39	50.37	50.00	0.7
NAPHTHALENE	18.56	18.49	18.63	47.78	50.00	-4.4
1-METHYLNAP	20.41	20.34	20.48	46.68	50.00	-6.6
DIBROMOTOL	20.21	20.14	20.28	45.88	50.00	-8.2

FORM VII VPH

VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX502-2 ALI Calibration Date: 12/31/09

Init. Calib. Date(s): 12/30/09 Calib. File: 1231A011.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
nC5	4.04	3.97	4.11	44.78	50.00	-10.4
nC6	5.59	5.52	5.66	45.93	50.00	-8.1
nC8	9.88	9.81	9.95	45.21	50.00	-9.6
nC10	13.70	13.63	13.77	48.07	50.00	-3.9
nC12	16.84	16.77	16.91	54.49	50.00	9.0
2,5-DBT	20.21	20.14	20.28	46.84	50.00	-6.3

FORM VII VPH

MH 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1231-2.b/1231a011.d
Lab Smp Id: vcal
Inj Date : 31-DEC-2009 12:30
Operator : MH Inst ID: pid1.i
Smp Info : vcal
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1 MtBE	5.333	5.323	0.010	9247	46.2953	46.3
2 BENZENE	7.890	7.890	0.000	186239	49.4113	49.4
4 TOLUENE	10.217	10.220	-0.003	170232	49.4099	49.4
5 ETHYLBENZENE	12.200	12.207	-0.007	145797	48.8250	48.8
6 M/P-XYLENE	12.303	12.313	-0.010	343294	98.4894	98.5
7 O-XYLENE	12.893	12.900	-0.007	150776	49.3635	49.4
9 TRIMETHYLBEN	15.323	15.330	-0.007	132464	50.3697	50.4
10 NAPHTHALENE	18.563	18.567	-0.004	101126	47.7778	47.8
11 1-METHYLNAP	20.410	20.413	-0.003	63670	46.6791	46.7
$ 37 DIBROMOTOL	20.210	20.210	0.000	92330	45.8766	45.9

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1231-1.b/1231a011.d
Lab Smp Id: vcal
Inj Date : 31-DEC-2009 12:30
Operator : MH Inst ID: pid1.i
Smp Info : vcal
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
1 nC5	4.043	4.033	0.010	14275	44.7765	44.8(M)
2 nC6	5.587	5.583	0.004	16635	45.9271	45.9
4 nC8	9.883	9.887	-0.004	13207	45.2085	45.2
5 nC10	13.697	13.703	-0.006	15093	48.0684	48.1
7 nC12	16.837	16.843	-0.006	19270	54.4881	54.5
$ 8 2,5-DBT	20.207	20.210	-0.003	5467	46.8436	46.8

QC Flag Legend

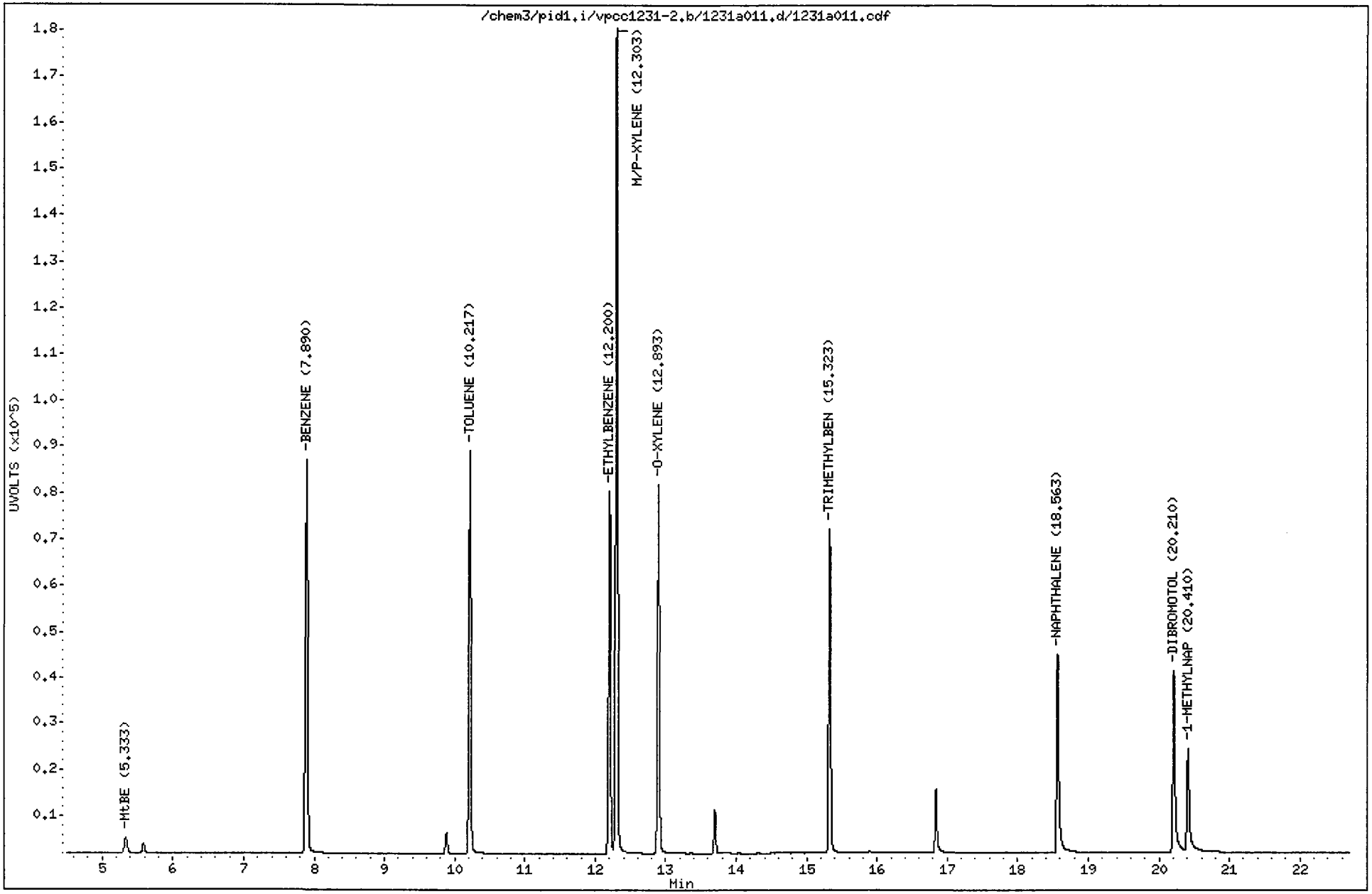
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1231-2.b/1231a011.d
Date : 31-DEC-2009 12:30
Client ID:
Sample Info: vcal

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO



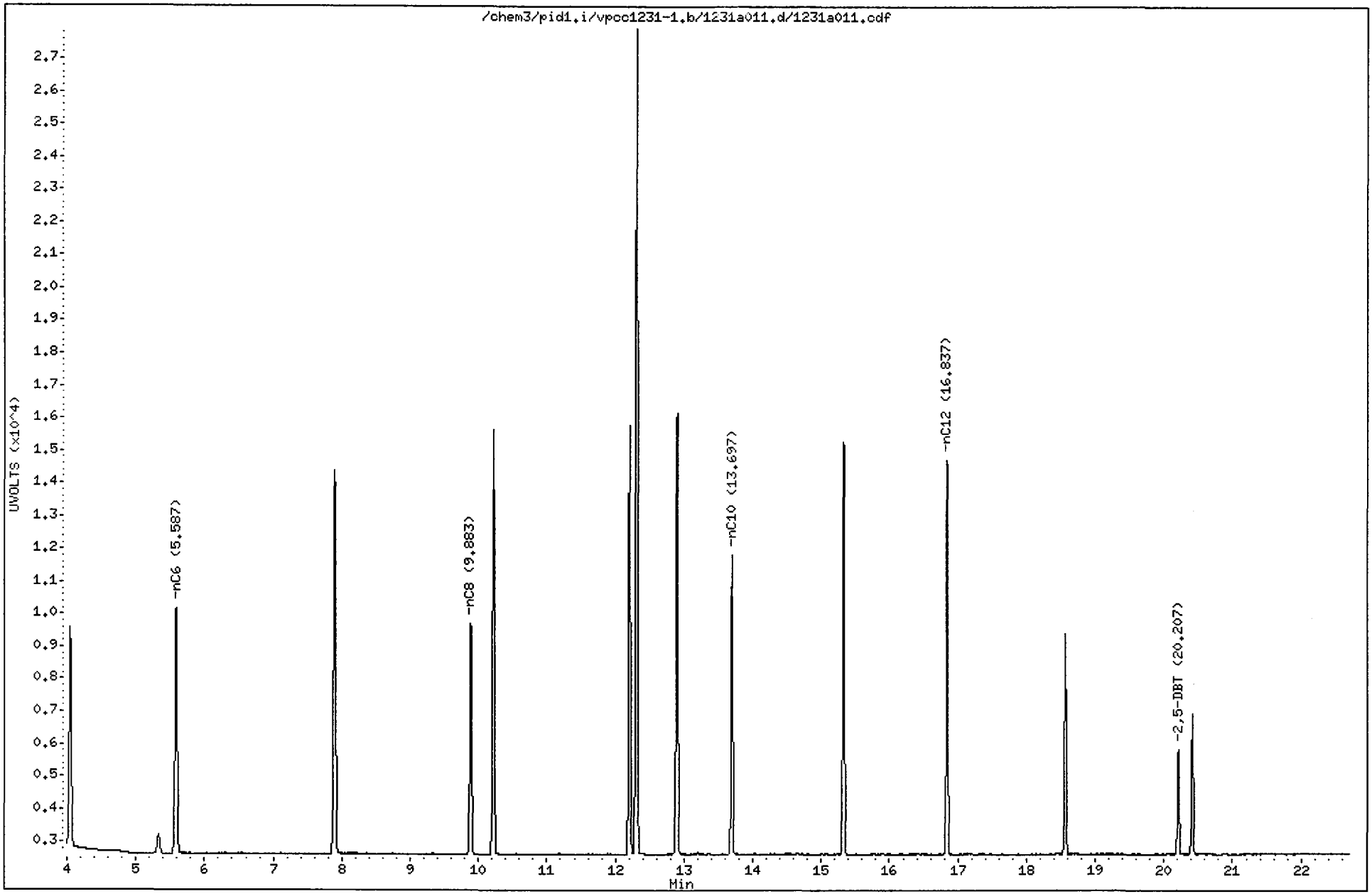
QC29:00239

Data File: /chem3/pid1.i/vpcc1231-1.b/1231a011.d
Date : 31-DEC-2009 12:30
Client ID:
Sample Info: vcal

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH
Column diameter: 0.18



QC26:00231

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a011.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

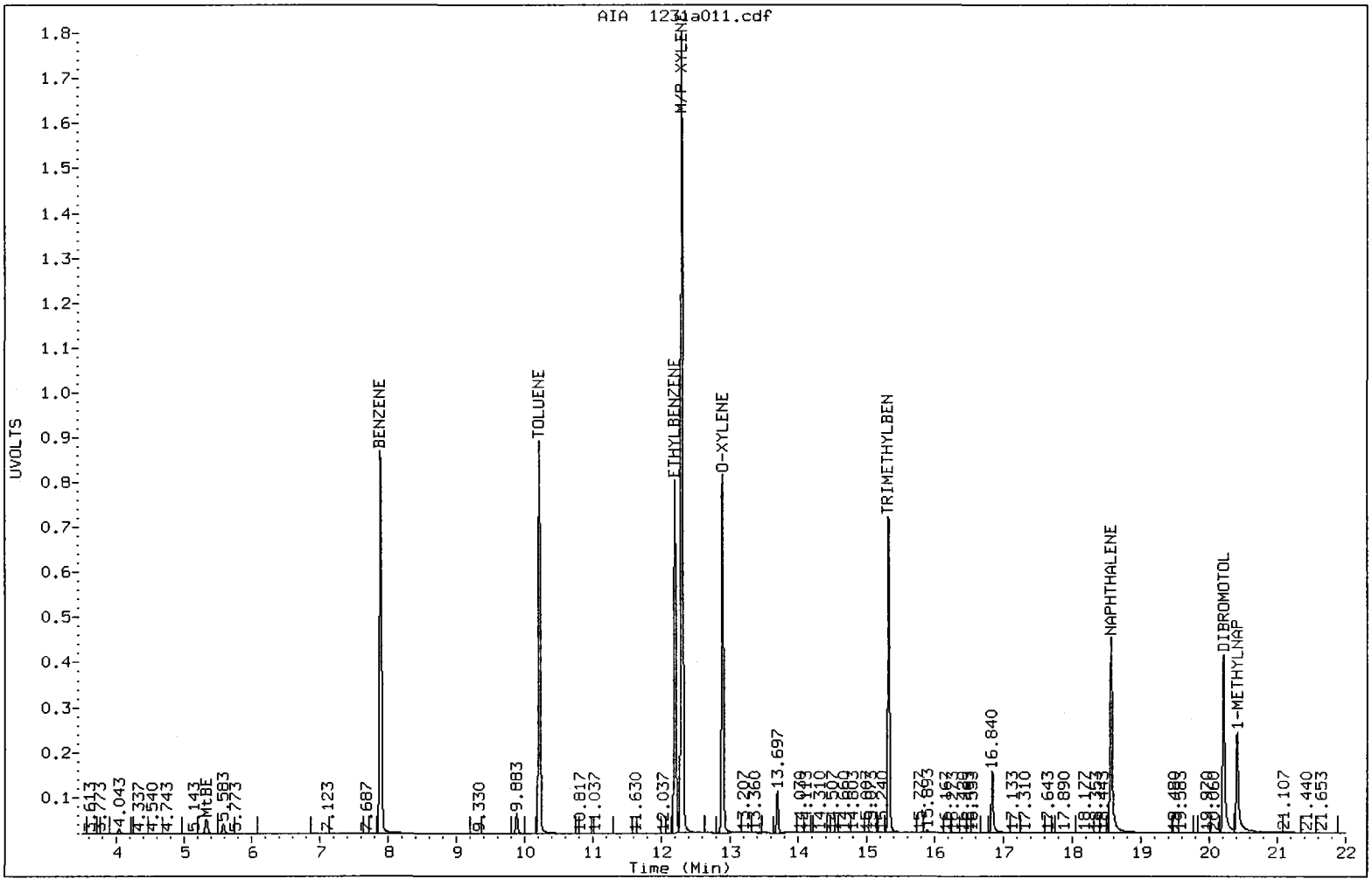
ARI ID: vcal
Client ID:
Injection: 31-DEC-2009 12:30
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.333	0.010	3285	46.3	C8-C10	Arom.	791763*	301.1
BENZENE	7.890	0.000	85136	49.4	C10-C12	Arom.	132241	62.5
TOLUENE	10.217	-0.003	87203	49.4	C12-C13	Arom.	64011	46.9
ETHYLBENZENE	12.200	-0.007	78416	48.8				
M/P-XYLENE	12.303	-0.010	178388	98.5				
O-XYLENE	12.893	-0.007	79794	49.4				
TRIMETHYLBEN	15.323	-0.007	70164	50.4				
NAPHTHALENE	18.563	-0.003	43301	47.8				
1-METHYLNAP	20.410	-0.003	22352	46.7				
DIBROMOTOL	20.210	0.000	39695	45.9	DBT Recovery:		91.8	

* Indicates surrogate area subtracted

vcal AROMATIC (PID) SIGNAL



QC26 : 00232

Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a011.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

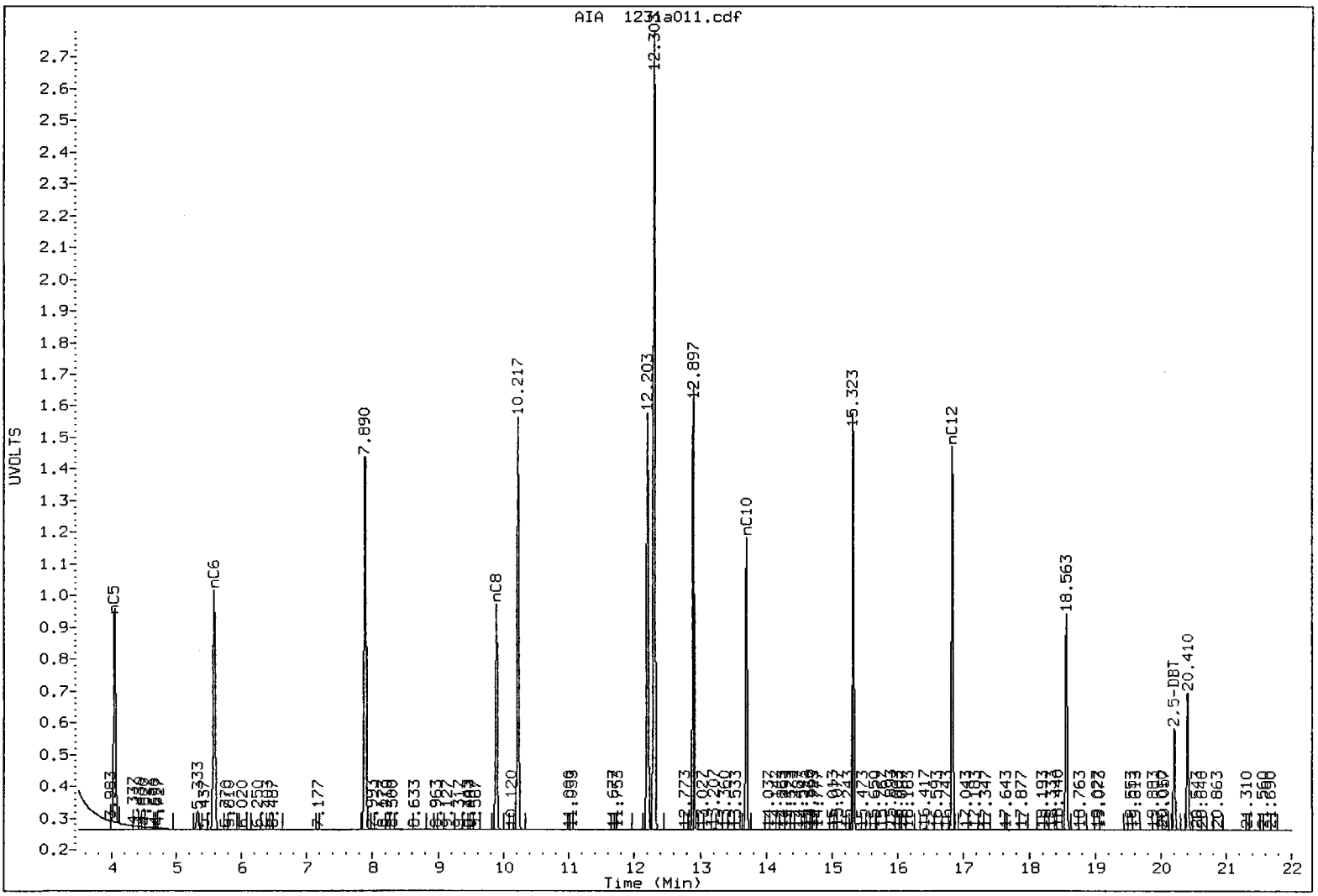
ARI ID: vcal
Client ID:
Injection: 31-DEC-2009 12:30
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.043	0.010	6729	14275	C5-C6	Aliph.	38897	114.2
nC6	5.587	0.003	7536	16635	C6-C8	Aliph.	38197*	130.7
nC8	9.883	-0.003	7087	13207	C8-C10	Aliph.	122235	389.3
nC10	13.697	-0.007	9206	15093	C10-C12	Aliph.	29794*	84.2
nC12	16.837	-0.007	12083	19270				

* Indicates surrogate area subtracted

vcal ALIPHATIC (FID) SIGNAL



VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX502-2 ALI Calibration Date: 01/05/10

Init. Calib. Date(s): 12/30/09 Calib. File: 0105A002.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
nC5	4.04	3.98	4.12	51.00	50.00	2.0
nC6	5.58	5.52	5.66	48.16	50.00	-3.7
nC8	9.88	9.81	9.95	47.40	50.00	-5.2
nC10	13.69	13.62	13.76	46.83	50.00	-6.3
nC12	16.83	16.76	16.90	53.71	50.00	7.4
2,5-DBT	20.20	20.13	20.27	45.67	50.00	-8.7

FORM VII VPH

VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX 502-2 ARO Calibration Date: 01/05/10

Init. Calib. Date(s): 12/30/09 Calib. File: 0105A002.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	%D
MtBE	5.33	5.26	5.40	46.39	50.00	-7.2
BENZENE	7.89	7.82	7.96	50.08	50.00	0.2
TOLUENE	10.21	10.14	10.28	49.85	50.00	-0.3
ETHYLBENZENE	12.20	12.13	12.27	49.84	50.00	-0.3
M/P-XYLENE	12.30	12.23	12.37	98.87	100.0	-1.1
O-XYLENE	12.89	12.82	12.96	48.96	50.00	-2.1
TRIMETHYLBEN	15.32	15.25	15.39	50.06	50.00	0.1
NAPHTHALENE	18.56	18.49	18.63	44.91	50.00	-10.2
1-METHYLNAP	20.41	20.34	20.48	46.15	50.00	-7.7
DIBROMOTOL	20.20	20.13	20.27	46.71	50.00	-6.6

FORM VII VPH

MH 1/6/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a002.d
Lab Smp Id: VCAL
Inj Date : 05-JAN-2010 14:19
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 MtBE	5.327	5.330	-0.003	9265	46.3834	46.4
2 BENZENE	7.887	7.887	0.000	188754	50.0784	50.1
4 TOLUENE	10.213	10.213	0.000	171731	49.8449	49.8
5 ETHYLBENZENE	12.197	12.197	0.000	148843	49.8447	49.8
6 M/P-XYLENE	12.300	12.297	0.003	344604	98.8650	98.9
7 O-XYLENE	12.890	12.890	0.000	149543	48.9598	49.0(M)
9 TRIMETHYLBEN	15.320	15.320	0.000	131638	50.0556	50.0
10 NAPHTHALENE	18.560	18.560	0.000	95057	44.9105	44.9(M)
11 1-METHYLNAP	20.407	20.407	0.000	62950	46.1509	46.2
$ 37 DIBROMOTOL	20.203	20.203	0.000	93999	46.7059	46.7

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a002.d
Lab Smp Id: VCAL
Inj Date : 05-JAN-2010 14:19
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

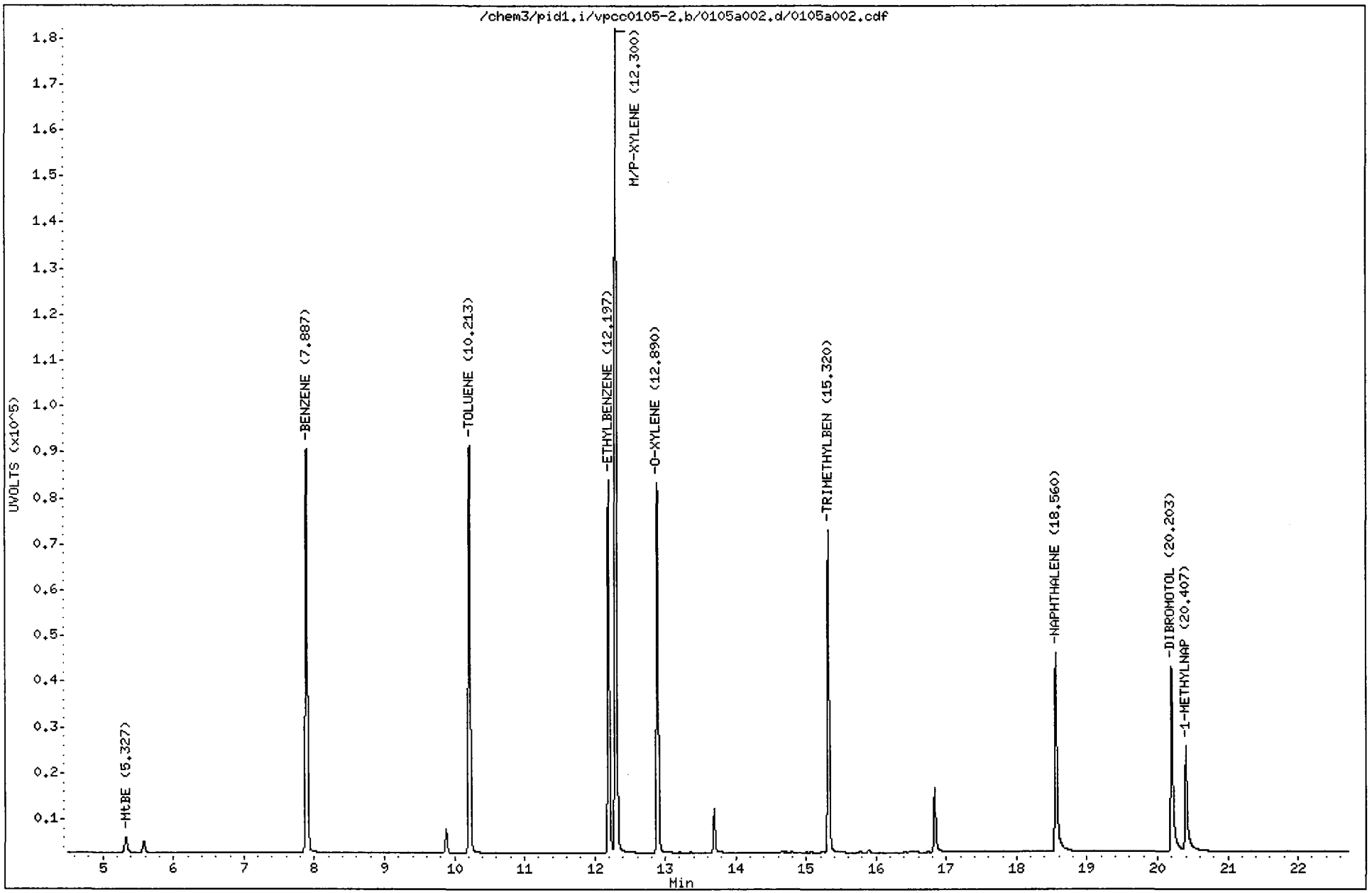
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
1 nC5	4.040	4.047	-0.007	16260	51.0029	51.0
2 nC6	5.580	5.587	-0.007	17446	48.1645	48.2
4 nC8	9.880	9.880	0.000	13848	47.4013	47.4
5 nC10	13.693	13.690	0.003	14703	46.8257	46.8
7 nC12	16.833	16.833	0.000	18993	53.7037	53.7
$ 8 2,5-DBT	20.203	20.203	0.000	5330	45.6697	45.7

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a002.d
Date : 05-JAN-2010 14:19
Client ID:
Sample Info: VCAL

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO



GC26:00239

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a002.d

Date : 05-JAN-2010 14:19

Client ID:

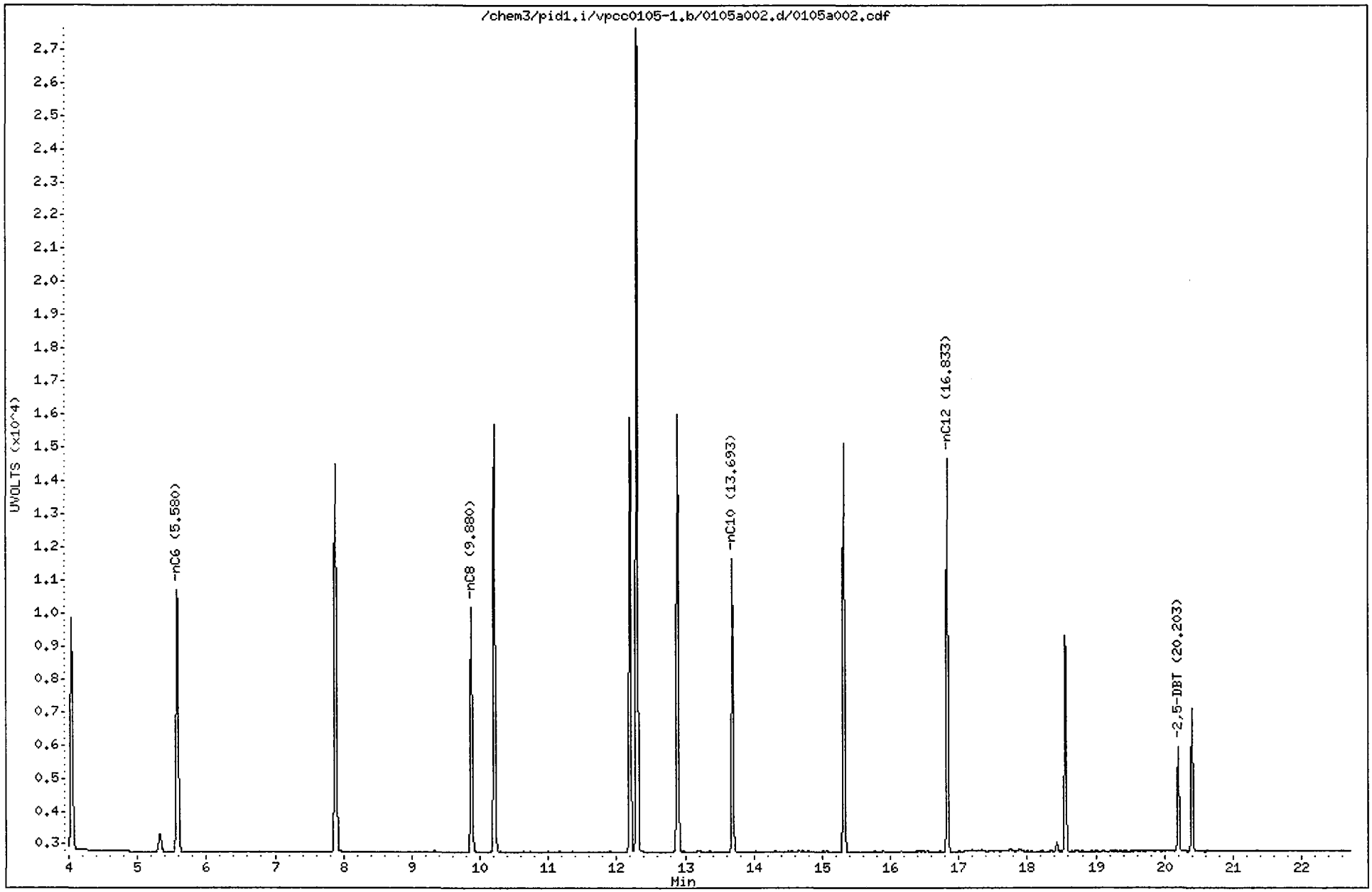
Sample Info: VCAL

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



QC25 : 00239

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a002.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

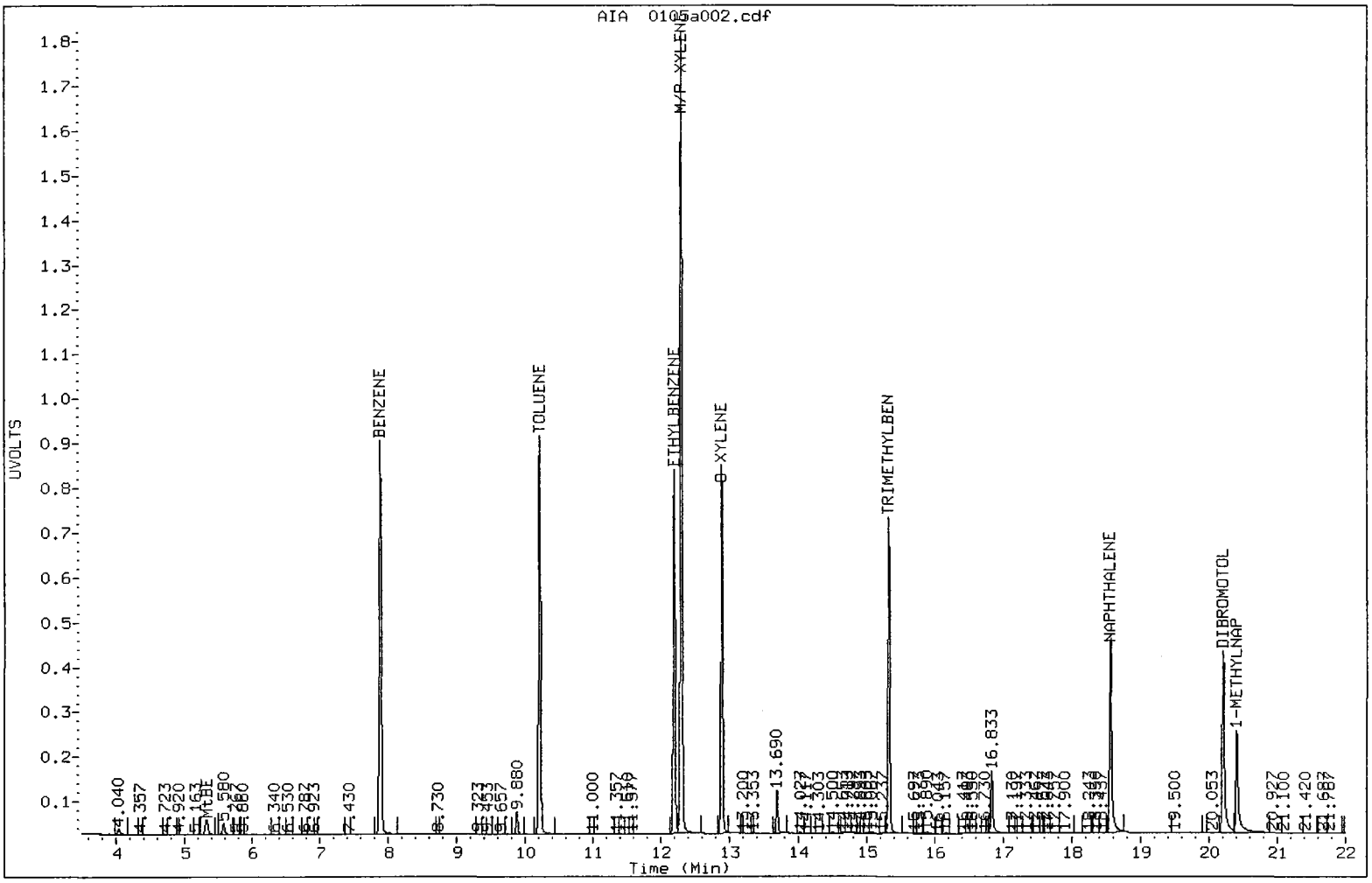
ARI ID: VCAL
Client ID:
Injection: 05-JAN-2010 14:19
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.327	-0.003	3299	46.4	C8-C10	Arom.	793417*	301.7
BENZENE	7.887	0.000	87998	50.1	C10-C12	Arom.	127135	60.1
TOLUENE	10.213	0.000	88847	49.8	C12-C13	Arom.	63452	46.5
ETHYLBENZENE	12.197	0.000	81209	49.8				
M/P-XYLENE	12.300	0.003	179254	98.9				
O-XYLENE	12.890	0.000	80488	49.0				
TRIMETHYLBEN	15.320	0.000	70447	50.1				
NAPHTHALENE	18.560	0.000	43353	44.9				
1-METHYLNAP	20.407	0.000	22808	46.2				
DIBROMOTOL	20.203	0.000	40562	46.7	DBT Recovery:		93.4	

* Indicates surrogate area subtracted

VCAL AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a002.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

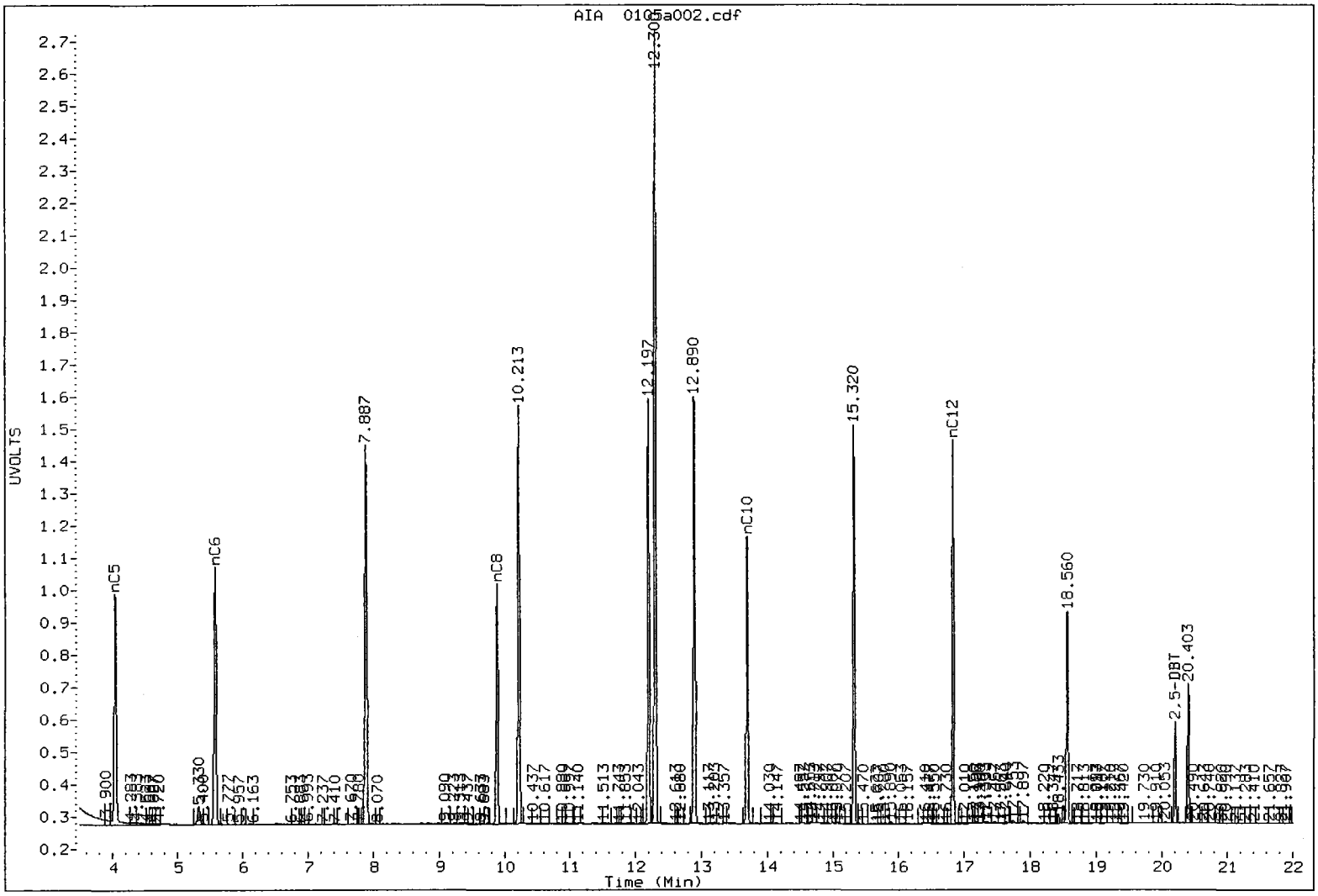
ARI ID: VCAL
Client ID:
Injection: 05-JAN-2010 14:19
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.040	-0.007	7107	16260	C5-C6	Aliph.	36114	106.1
nC6	5.580	-0.007	7947	17446	C6-C8	Aliph.	38553*	132.0
nC8	9.880	0.000	7427	13848	C8-C10	Aliph.	130570	415.8
nC10	13.693	0.003	8901	14703	C10-C12	Aliph.	41192*	116.5
nC12	16.833	0.000	11877	18993				

* Indicates surrogate area subtracted

VCAL ALIPHATIC (FID) SIGNAL



VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX502-2 ALI Calibration Date: 01/05/10

Init. Calib. Date(s): 12/30/09 Calib. File: 0105A011.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
nC5	4.05	3.98	4.12	42.06	50.00	-15.9
nC6	5.59	5.52	5.66	43.71	50.00	-12.6
nC8	9.88	9.81	9.95	43.74	50.00	-12.5
nC10	13.69	13.62	13.76	44.46	50.00	-11.1
nC12	16.83	16.76	16.90	48.09	50.00	-3.8
2,5-DBT	20.20	20.13	20.27	43.82	50.00	-12.4

FORM VII VPH

VPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Instrument/Det: PID1/RTX 502-2 ARO Calibration Date: 01/05/10

Init. Calib. Date(s): 12/30/09 Calib. File: 0105A011.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/ml)	NOM AMOUNT (ug/ml)	%D
MtBE	5.33	5.26	5.40	48.76	50.00	-2.5
BENZENE	7.89	7.82	7.96	49.94	50.00	-0.1
TOLUENE	10.21	10.14	10.28	50.53	50.00	1.1
ETHYLBENZENE	12.20	12.13	12.27	49.75	50.00	-0.5
M/P-XYLENE	12.30	12.23	12.37	101.3	100.0	1.3
O-XYLENE	12.89	12.82	12.96	50.51	50.00	1.0
TRIMETHYLBEN	15.32	15.25	15.39	53.02	50.00	6.0
NAPHTHALENE	18.56	18.49	18.63	47.89	50.00	-4.2
1-METHYLNAP	20.41	20.34	20.48	48.13	50.00	-3.7
DIBROMOTOL	20.20	20.13	20.27	46.19	50.00	-7.6

FORM VII VPH

1/6/10 MH

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a011.d
Lab Smp Id: VCAL
Inj Date : 05-JAN-2010 19:26
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	MtBE	5.330	5.330	0.000	9739	48.7564	48.8
2	BENZENE	7.887	7.887	0.000	188241	49.9423	49.9
4	TOLUENE	10.213	10.213	0.000	174082	50.5272	50.5
5	ETHYLBENZENE	12.197	12.197	0.000	148558	49.7493	49.7
6	M/P-XYLENE	12.297	12.297	0.000	353076	101.296	101
7	O-XYLENE	12.890	12.890	0.000	154276	50.5094	50.5
9	TRIMETHYLBEN	15.320	15.320	0.000	139440	53.0223	53.0
10	NAPHTHALENE	18.560	18.560	0.000	101356	47.8865	47.9
11	1-METHYLNAP	20.407	20.407	0.000	65652	48.1319	48.1
$ 37	DIBROMOTOL	20.203	20.203	0.000	92955	46.1871	46.2

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a011.d
Lab Smp Id: VCAL
Inj Date : 05-JAN-2010 19:26
Operator : MH Inst ID: pid1.i
Smp Info : VCAL
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
1 nC5	4.047	4.047	0.000	13408	42.0570	42.0(M)
2 nC6	5.587	5.587	0.000	15831	43.7058	43.7
4 nC8	9.880	9.880	0.000	12779	43.7421	43.7(M)
5 nC10	13.690	13.690	0.000	13961	44.4626	44.5
7 nC12	16.833	16.833	0.000	17006	48.0854	48.1(M)
$ 8 2,5-DBT	20.203	20.203	0.000	5114	43.8189	43.8

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a011.d

Date : 05-JAN-2010 19:26

Client ID:

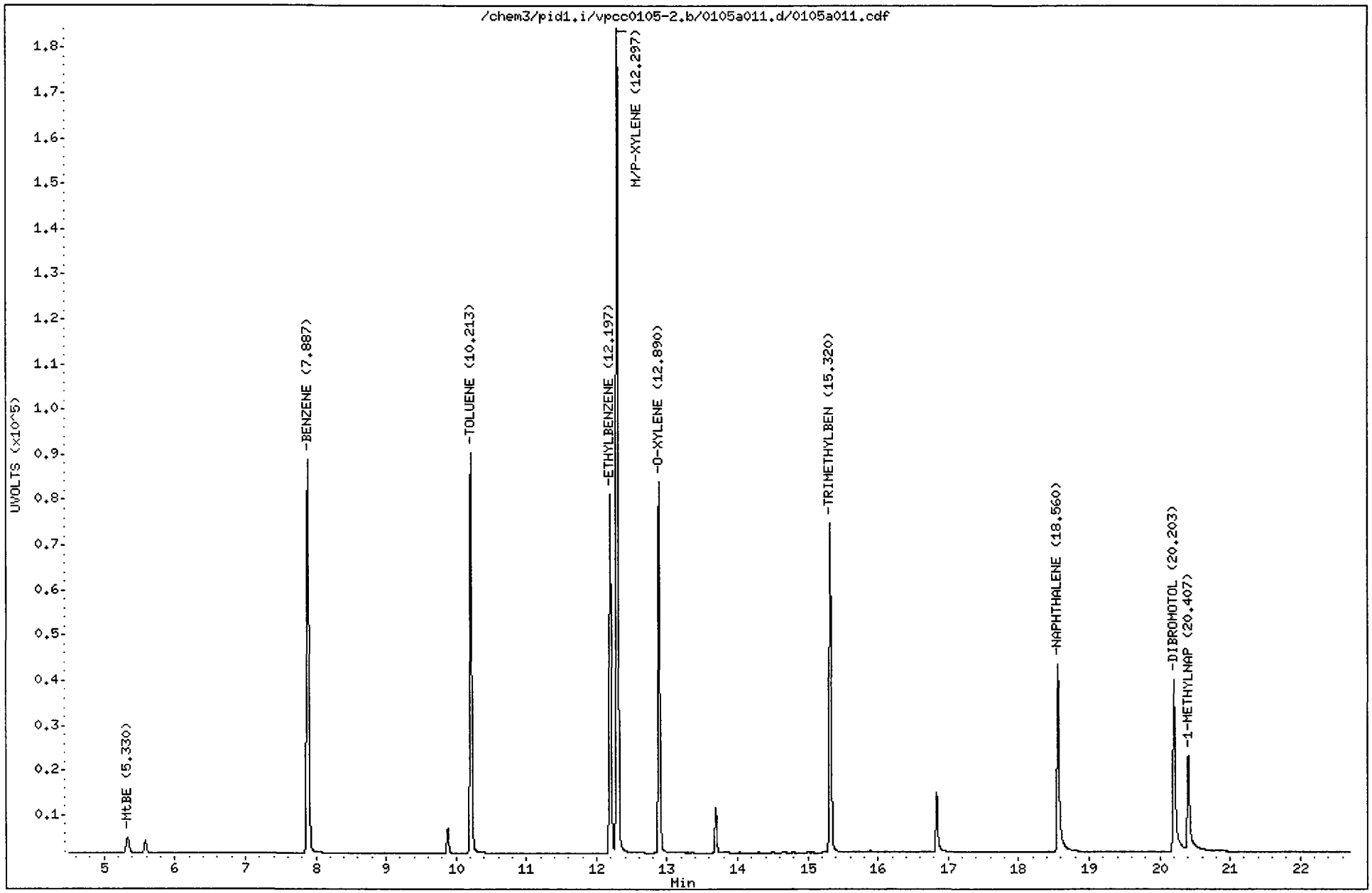
Sample Info: VCAL

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



QC25 : 00245

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a011.d

Date : 05-JAN-2010 19:26

Client ID:

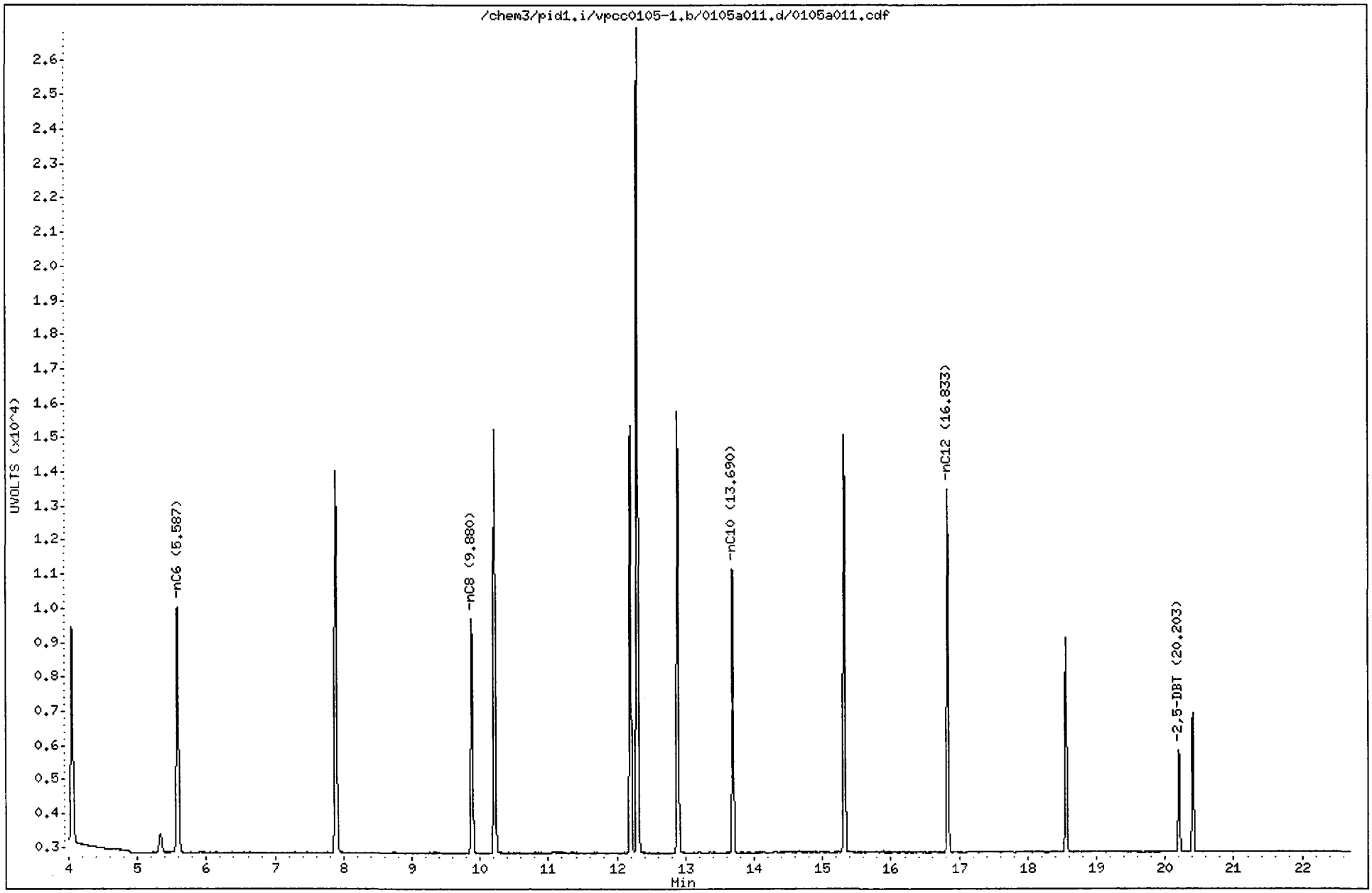
Sample Info: VCAL

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



QC26:00247

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a011.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

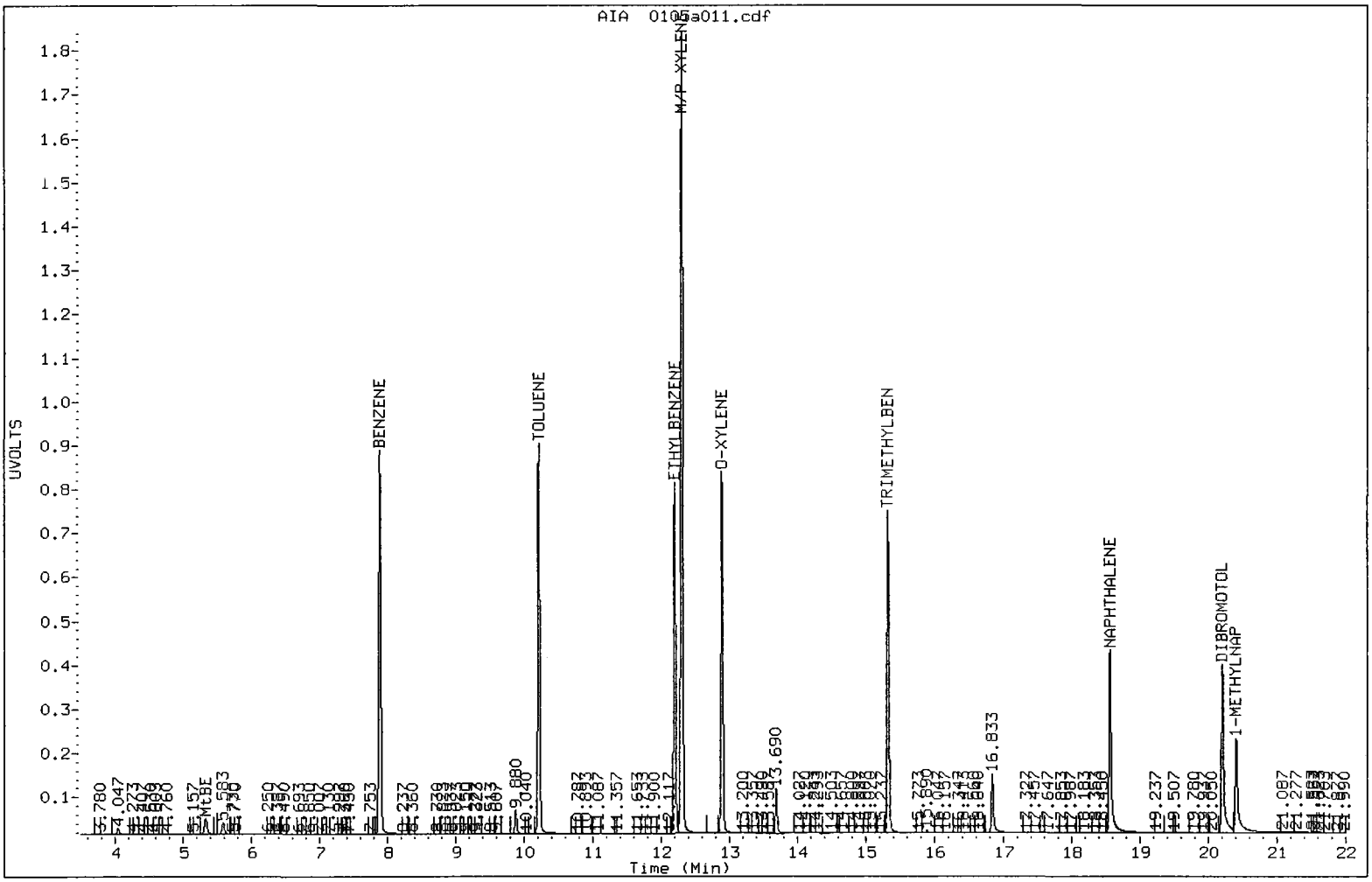
ARI ID: VCAL
Client ID:
Injection: 05-JAN-2010 19:26
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.330	0.000	3420	48.8	C8-C10	Arom.	816521*	310.5
BENZENE	7.887	0.000	87233	49.9	C10-C12	Arom.	133593	63.1
TOLUENE	10.213	0.000	88797	50.5	C12-C13	Arom.	66085	48.4
ETHYLBENZENE	12.197	0.000	79659	49.7				
M/P-XYLENE	12.297	0.000	182527	101.3				
O-XYLENE	12.890	0.000	82190	50.5				
TRIMETHYLBEN	15.320	0.000	73229	53.0				
NAPHTHALENE	18.560	0.000	41700	47.9				
1-METHYLNAP	20.407	0.000	21355	48.1				
DIBROMOTOL	20.203	0.000	38367	46.2	DBT Recovery: 92.4			

* Indicates surrogate area subtracted

VCAL AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a011.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

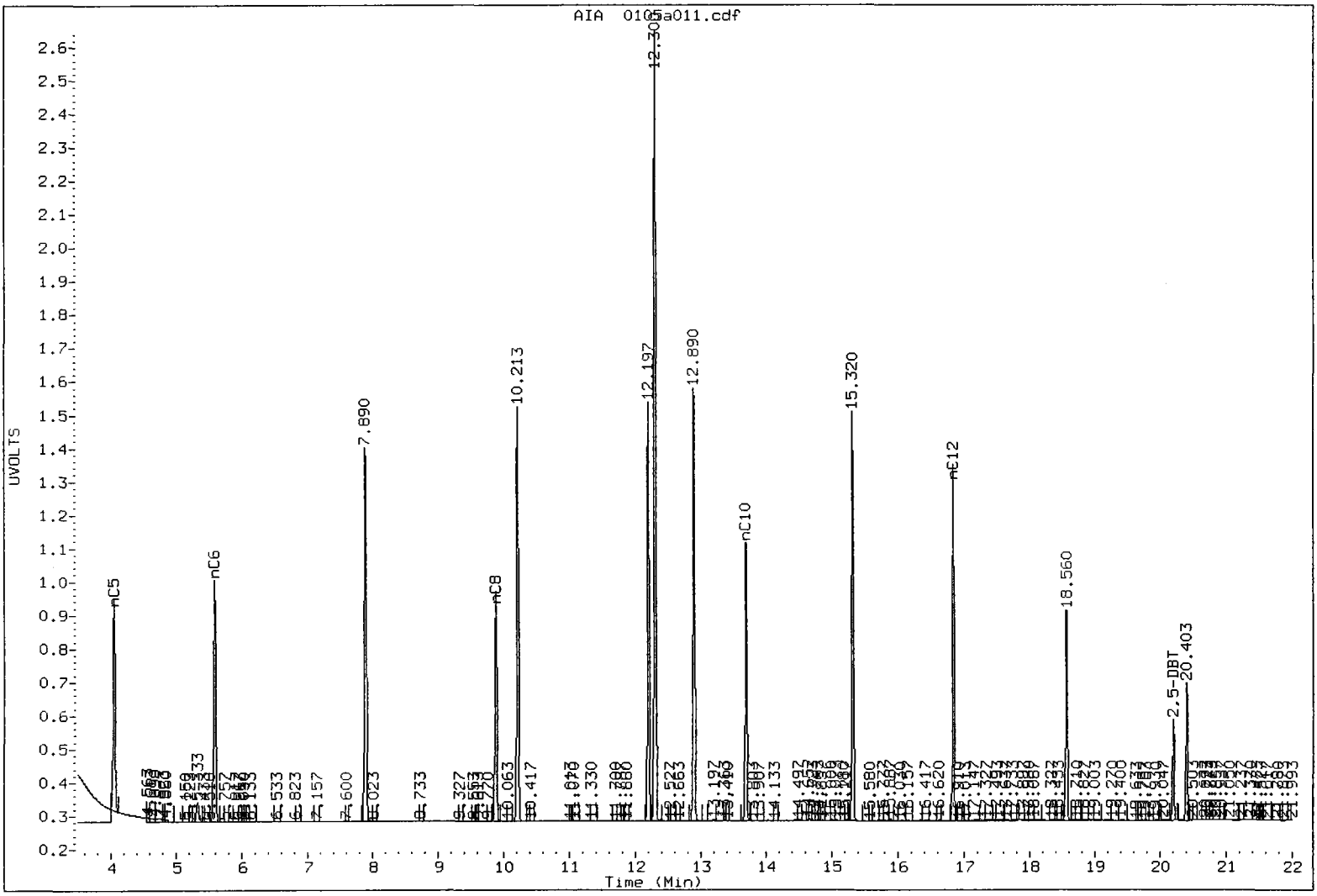
ARI ID: VCAL
Client ID:
Injection: 05-JAN-2010 19:26
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.047	0.000	6297	13408	C5-C6	Aliph.	32727	96.1
nC6	5.587	0.000	7210	15831	C6-C8	Aliph.	36385*	124.5
nC8	9.880	0.000	6875	12779	C8-C10	Aliph.	126135	401.7
nC10	13.690	0.000	8311	13961	C10-C12	Aliph.	38809*	109.7
nC12	16.833	0.000	10654	17006				

* Indicates surrogate area subtracted

VCAL ALIPHATIC (FID) SIGNAL



VPH Analysis
QC Raw Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: MB-123009
METHOD BLANK

Lab Sample ID: MB-123009
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: NA
Date Received: NA

Date Analyzed: 12/30/09 15:41
Instrument/Analyst: PID1/MH

Purge Volume: 10 mL
Sample Amount: 111 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
179601-23-1	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics	4,500	< 4,500 U
C10-C12 Aromatics	4,500	< 4,500 U
C12-C13 Aromatics	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	87.2%
FID: 2,5-Dibromotoluene	86.4%

MH 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a017.d
Lab Smp Id: MB1230
Inj Date : 30-DEC-2009 15:41
Operator : MH Inst ID: pid1.i
Smp Info : MB1230
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)	
1	MtBE	Compound Not Detected.						
2	BENZENE	7.877	7.890	-0.013	22	0.00584	0.00584	
4	TOLUENE	10.213	10.220	-0.007	62	0.01800	0.0180	
5	ETHYLBENZENE	12.197	12.207	-0.010	75	0.02512	0.0251	
6	M/P-XYLENE	12.297	12.313	-0.016	151	0.04332	0.0433	
7	O-XYLENE	12.857	12.900	-0.043	447	0.14635	0.146	
9	TRIMETHYLBEN	15.323	15.330	-0.007	52	0.01977	0.0198	
10	NAPHTHALENE	18.563	18.567	-0.004	337	0.15922	0.159	
11	1-METHYLNAP	20.407	20.413	-0.006	4808	3.52492	3.52	←
$ 37	DIBROMOTOL	20.203	20.210	-0.007	87724	43.5880	43.6	

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a017.d
Lab Smp Id: MB1230
Inj Date : 30-DEC-2009 15:41
Operator : MH Inst ID: pid1.i
Smp Info : MB1230
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

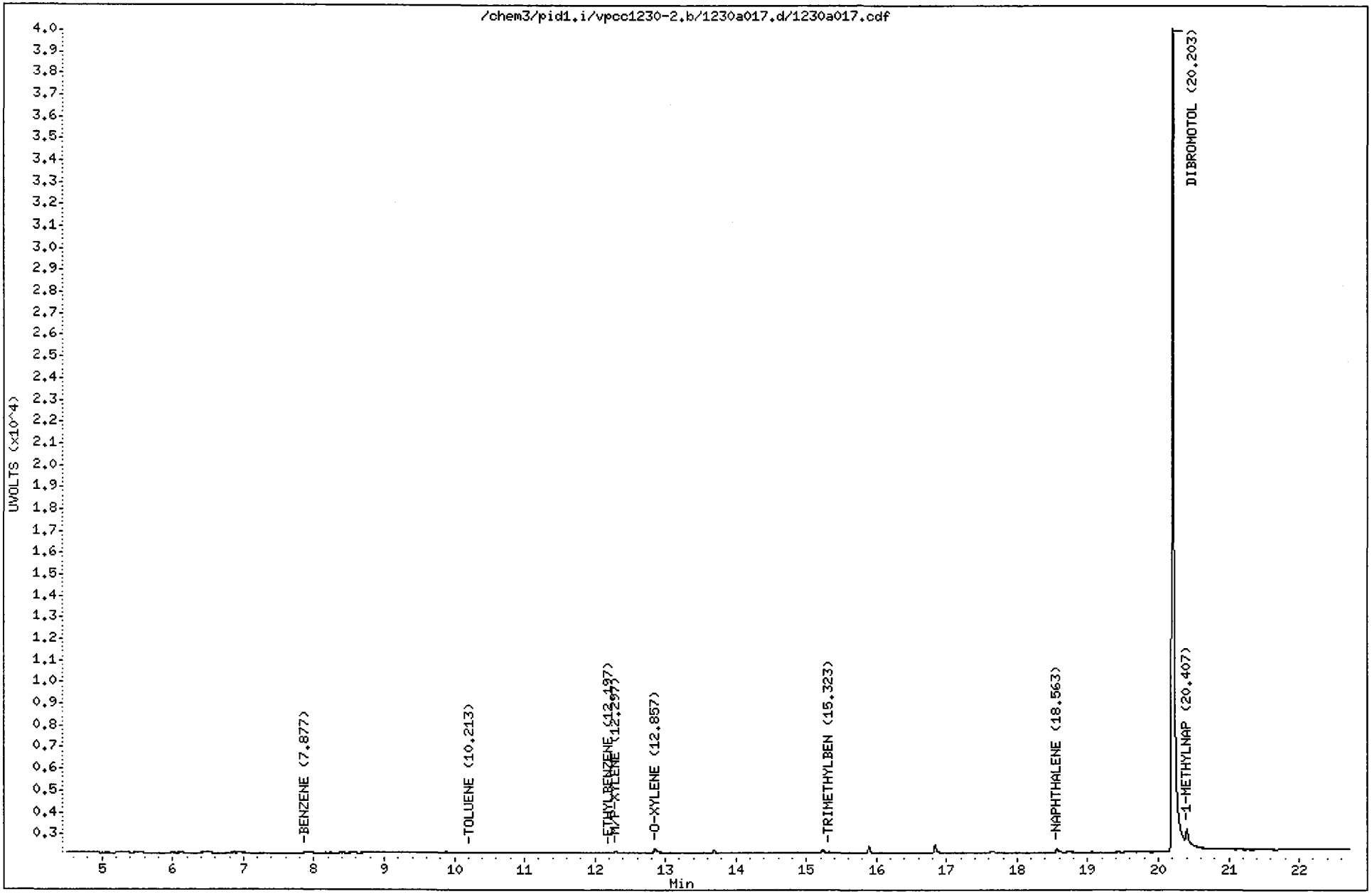
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
1	nC5	Compound Not Detected.					
2	nC6	5.577	5.583	-0.006	53	0.14632	0.146
4	nC8	9.877	9.887	-0.010	85	0.29095	0.291
5	nC10	13.690	13.703	-0.013	284	0.90448	0.904
7	nC12	16.833	16.843	-0.010	718	2.03018	2.03
$ 8	2,5-DBT	20.203	20.210	-0.007	5041	43.1935	43.2

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a017.d
Date : 30-DEC-2009 15:41
Client ID:
Sample Info: MB1230

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18

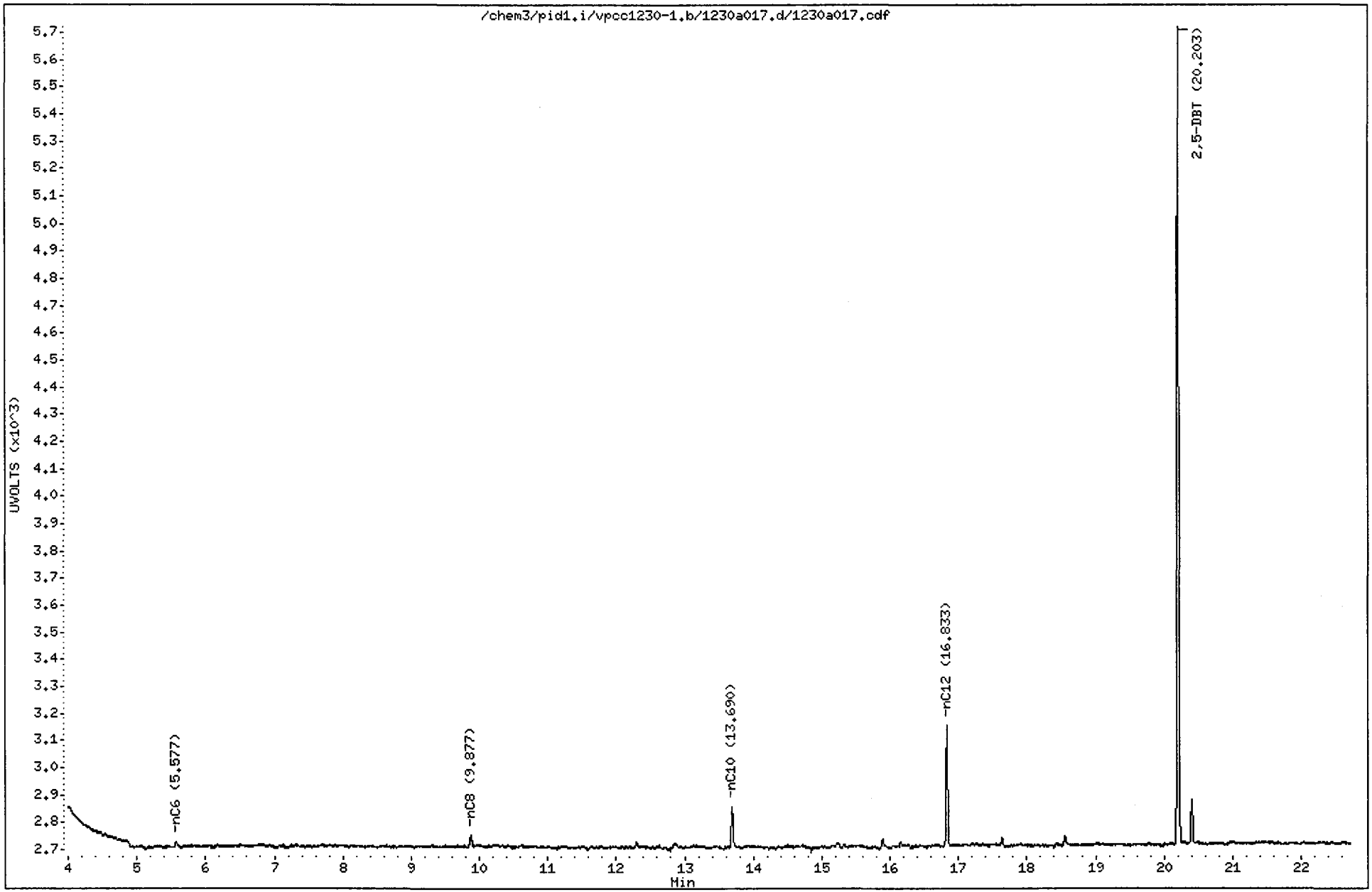


GC26 : 00251

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a017.d
Date : 30-DEC-2009 15:41
Client ID:
Sample Info: MB1230

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



QC29 : 00255

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a017.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

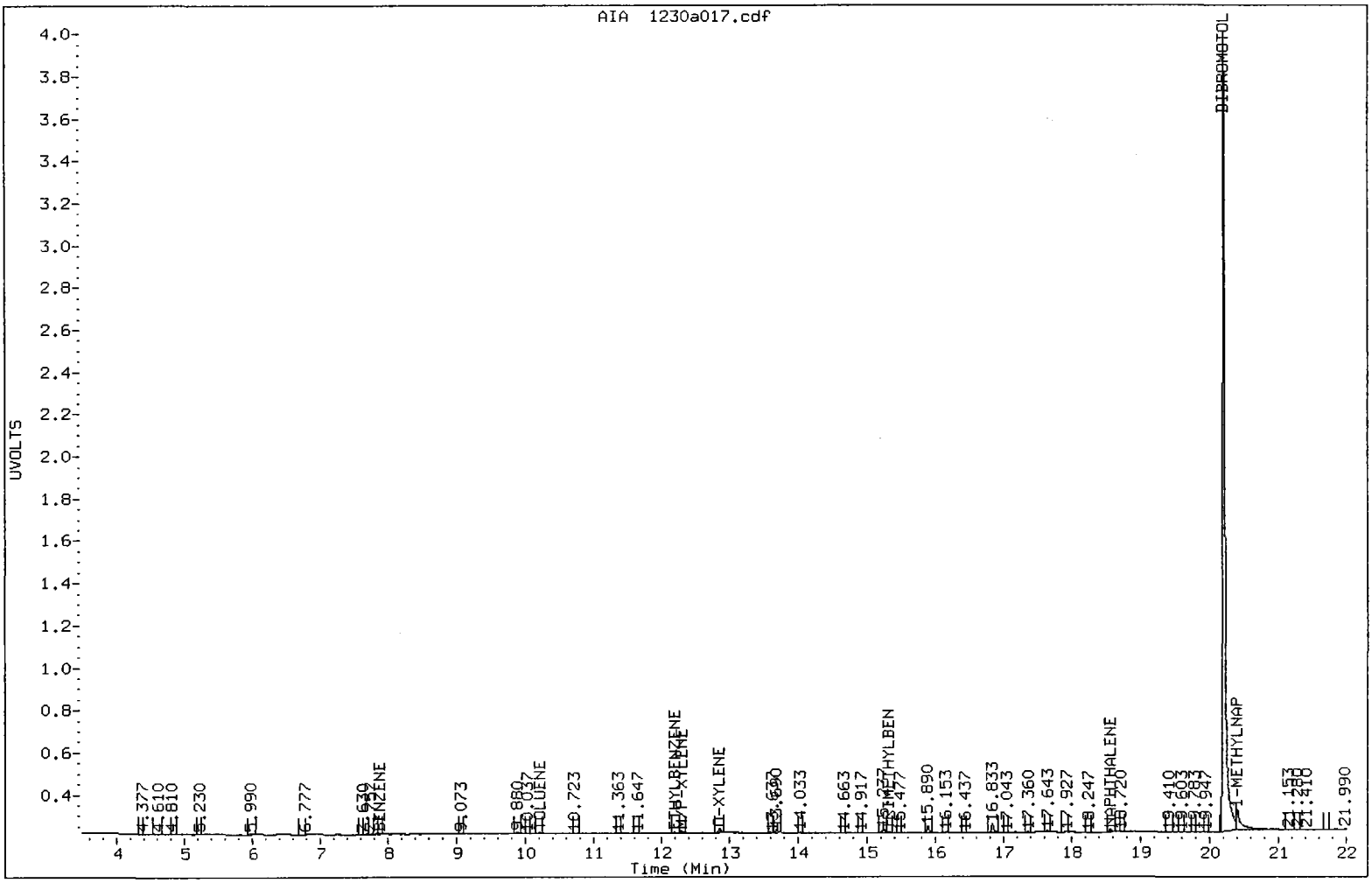
ARI ID: MB1230
Client ID:
Injection: 30-DEC-2009 15:41
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range	Total Area	Conc
MtBE	----				C8-C10 Arom.	1565*	0.6
BENZENE	7.877	-0.013	13	0.0	C10-C12 Arom.	2095	1.0
TOLUENE	10.213	-0.007	33	0.0	C12-C13 Arom.	4886	3.6
ETHYLBENZENE	12.197	-0.010	31	0.0			
M/P-XYLENE	12.297	-0.017	79	0.0			
O-XYLENE	12.857	-0.043	165	0.1			
TRIMETHYLBEN	15.323	-0.007	30	0.0			
NAPHTHALENE	18.563	-0.003	151	0.2			
1-METHYLNAP	20.407	-0.007	943	3.5			
DIBROMOTOL	20.203	-0.007	37857	43.6	DBT Recovery:	87.2	

* Indicates surrogate area subtracted

MB1230 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a017.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

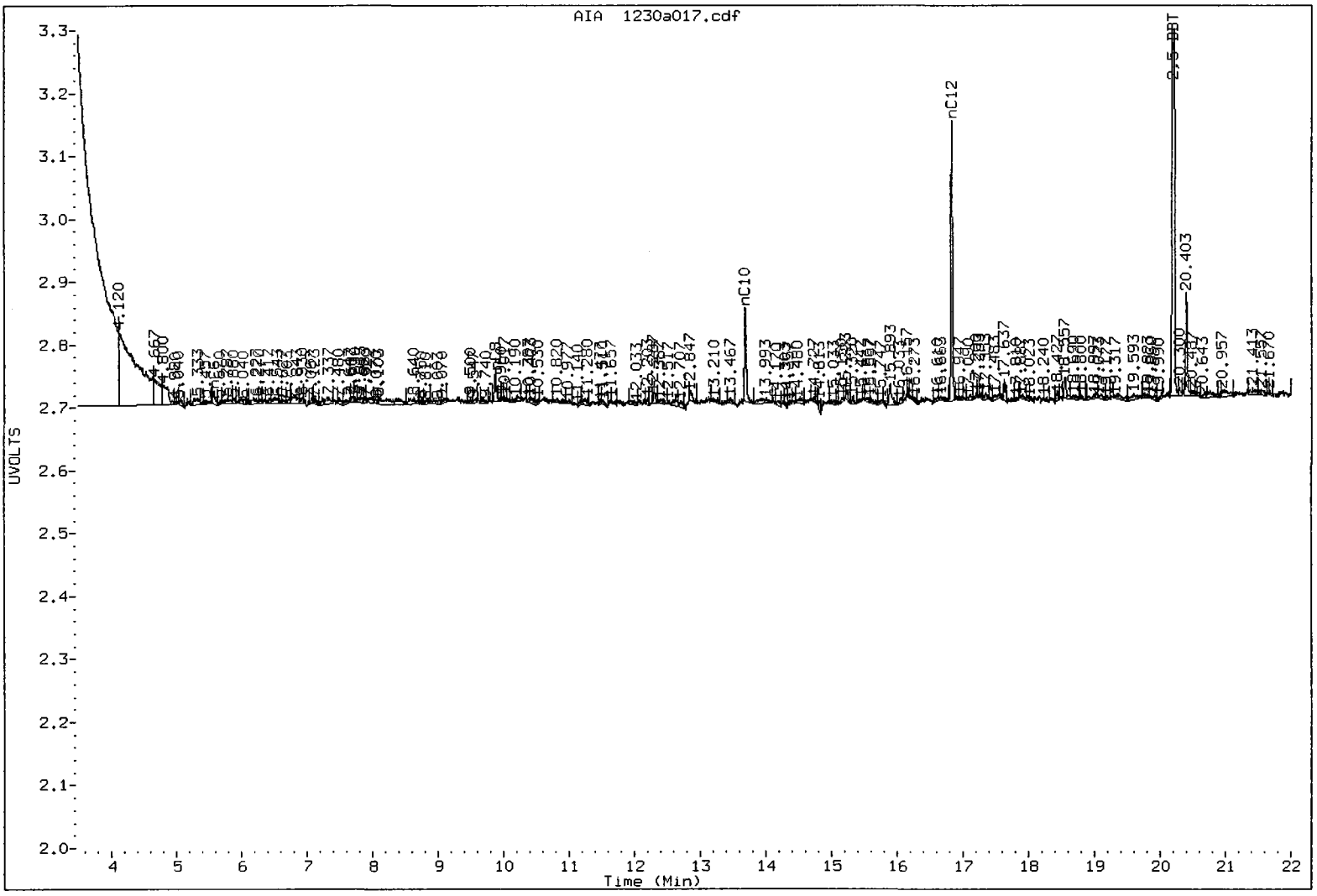
ARI ID: MB1230
Client ID:
Injection: 30-DEC-2009 15:41
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	----				C5-C6	Aliph.	2890	8.5
nC6	5.577	-0.007	23	53	C6-C8	Aliph.	1115*	3.8
nC8	9.877	-0.010	45	85	C8-C10	Aliph.	865	2.8
nC10	13.690	-0.013	150	284	C10-C12	Aliph.	1324*	3.7
nC12	16.833	-0.010	445	718				

* Indicates surrogate area subtracted

MB1230 ALIPHATIC (FID) SIGNAL



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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Lab Smp Id: VPH ICV
Inj Date : 30-DEC-2009 14:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH ICV
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1	MtBE	5.320	5.323	-0.003	10571	52.9216	52.9
2	BENZENE	7.883	7.890	-0.007	191529	50.8147	50.8
4	TOLUENE	10.213	10.220	-0.007	175830	51.0346	51.0
5	ETHYLBENZENE	12.197	12.207	-0.010	154658	51.7921	51.8
6	M/P-XYLENE	12.300	12.313	-0.013	358979	102.989	103
7	O-XYLENE	12.890	12.900	-0.010	157149	51.4500	51.4
9	TRIMETHYLBEN	15.323	15.330	-0.007	143089	54.4098	54.4
10	NAPHTHALENE	18.560	18.567	-0.007	111879	52.8582	52.8
11	1-METHYLNAP	20.407	20.413	-0.006	76333	55.9625	56.0
$ 37	DIBROMOTOL	20.207	20.210	-0.003	99199	49.2896	49.3

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Lab Smp Id: VPH ICV
Inj Date : 30-DEC-2009 14:07
Operator : MH Inst ID: pid1.i
Smp Info : VPH ICV
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.030	4.033	-0.003	18150	56.9319	56.9(M)
	2 nC6	5.577	5.583	-0.006	18064	49.8731	49.9
	4 nC8	9.880	9.887	-0.007	14032	48.0315	48.0
	5 nC10	13.693	13.703	-0.010	16821	53.5727	53.6
	7 nC12	16.837	16.843	-0.006	19062	53.8988	53.9
$	8 2,5-DBT	20.203	20.210	-0.007	5763	49.3850	49.4

QC Flag Legend

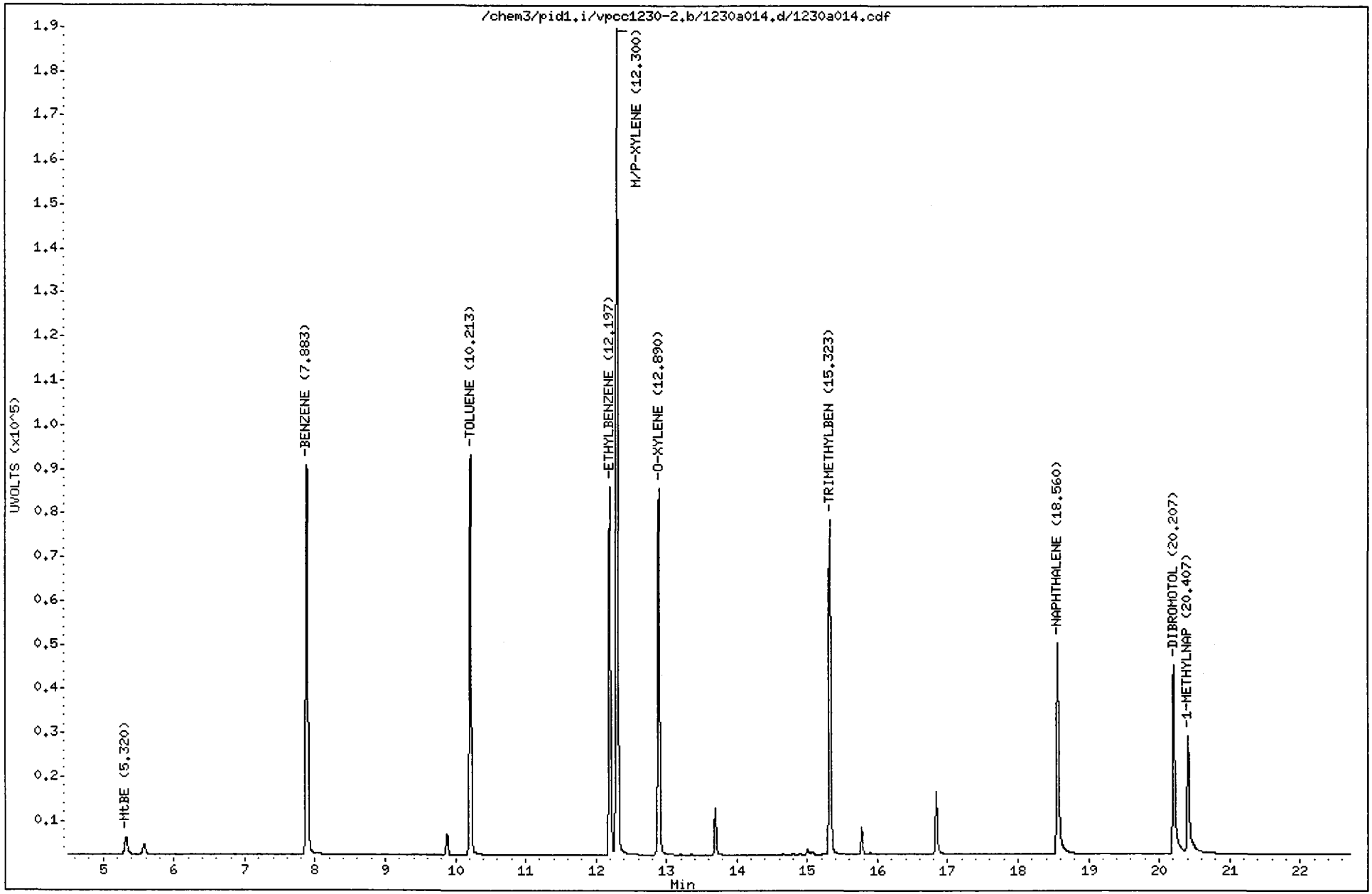
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Date : 30-DEC-2009 14:07
Client ID:
Sample Info: VPH ICV

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO

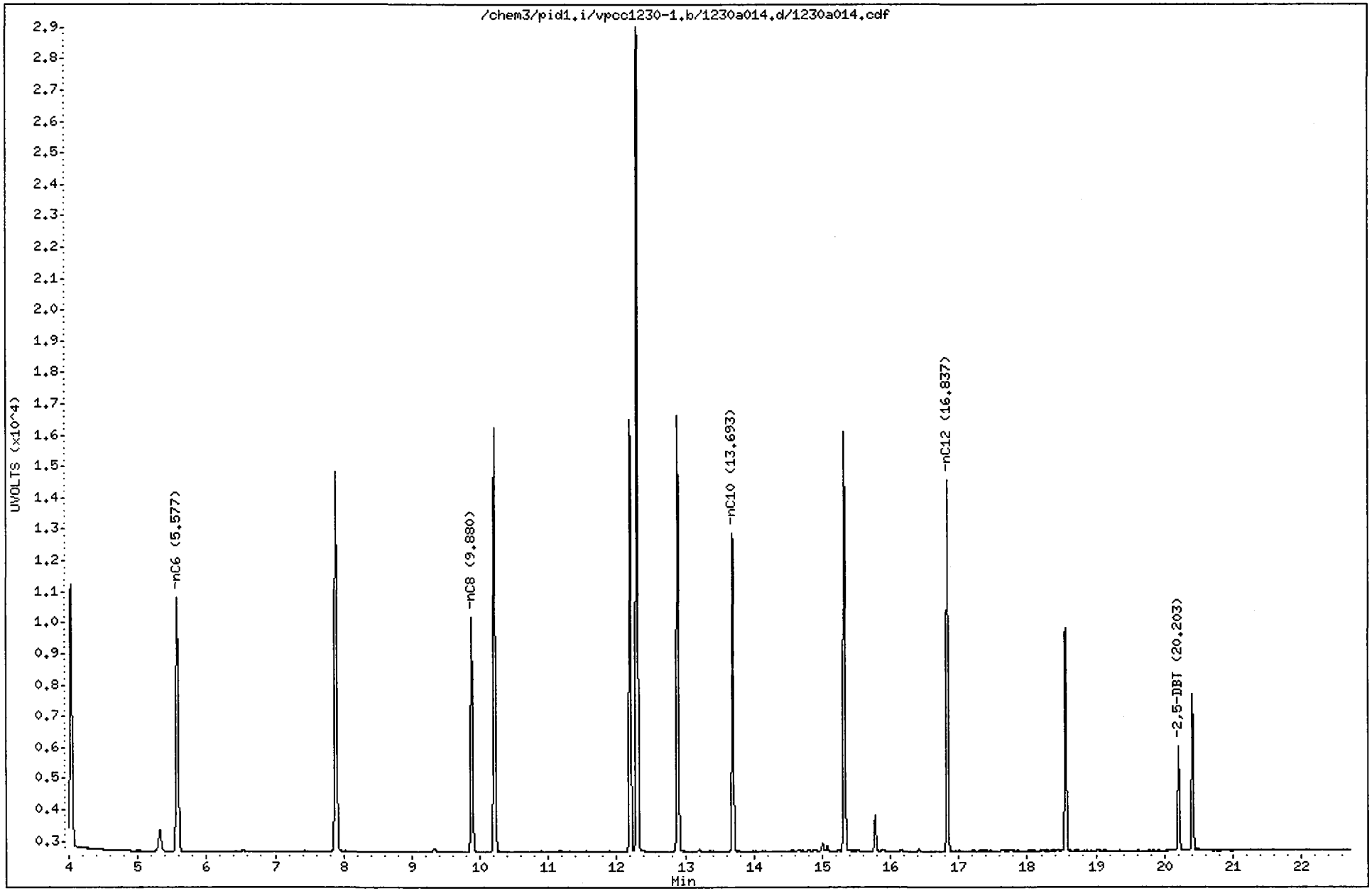


QC25:00268

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Date : 30-DEC-2009 14:07
Client ID:
Sample Info: VPH ICV

Instrument: pid1.i

Operator: MH
Column phase: RTX502-2 ALI
Column diameter: 0.18



GC26-00251

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a014.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

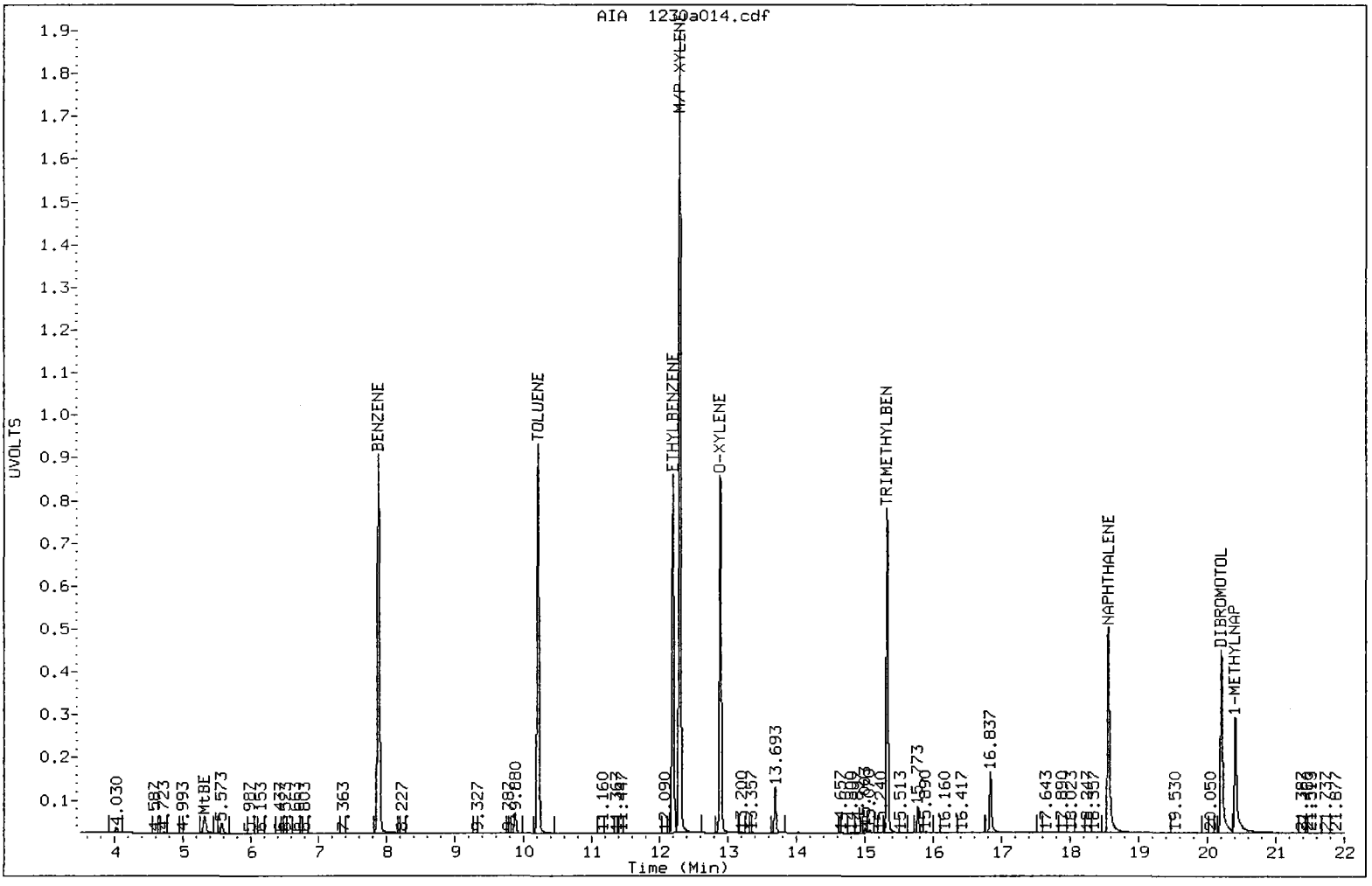
ARI ID: VPH ICV
Client ID:
Injection: 30-DEC-2009 14:07
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	3734	52.9	C8-C10	Arom.	837595*	318.5
BENZENE	7.883	-0.007	88433	50.8	C10-C12	Arom.	155200	73.3
TOLUENE	10.213	-0.007	90928	51.0	C12-C13	Arom.	76585	56.1
ETHYLBENZENE	12.197	-0.010	83678	51.8				
M/P-XYLENE	12.300	-0.013	187476	103.0				
O-XYLENE	12.890	-0.010	83456	51.4				
TRIMETHYLBEN	15.323	-0.007	75867	54.4				
NAPHTHALENE	18.560	-0.007	47949	52.9				
1-METHYLNAP	20.407	-0.007	26849	56.0				
DIBROMOTOL	20.207	-0.003	42719	49.3	DBT Recovery:		98.6	

* Indicates surrogate area subtracted

VPH ICV AROMATIC (PID) SIGNAL



QC26 : 00262

Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a014.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

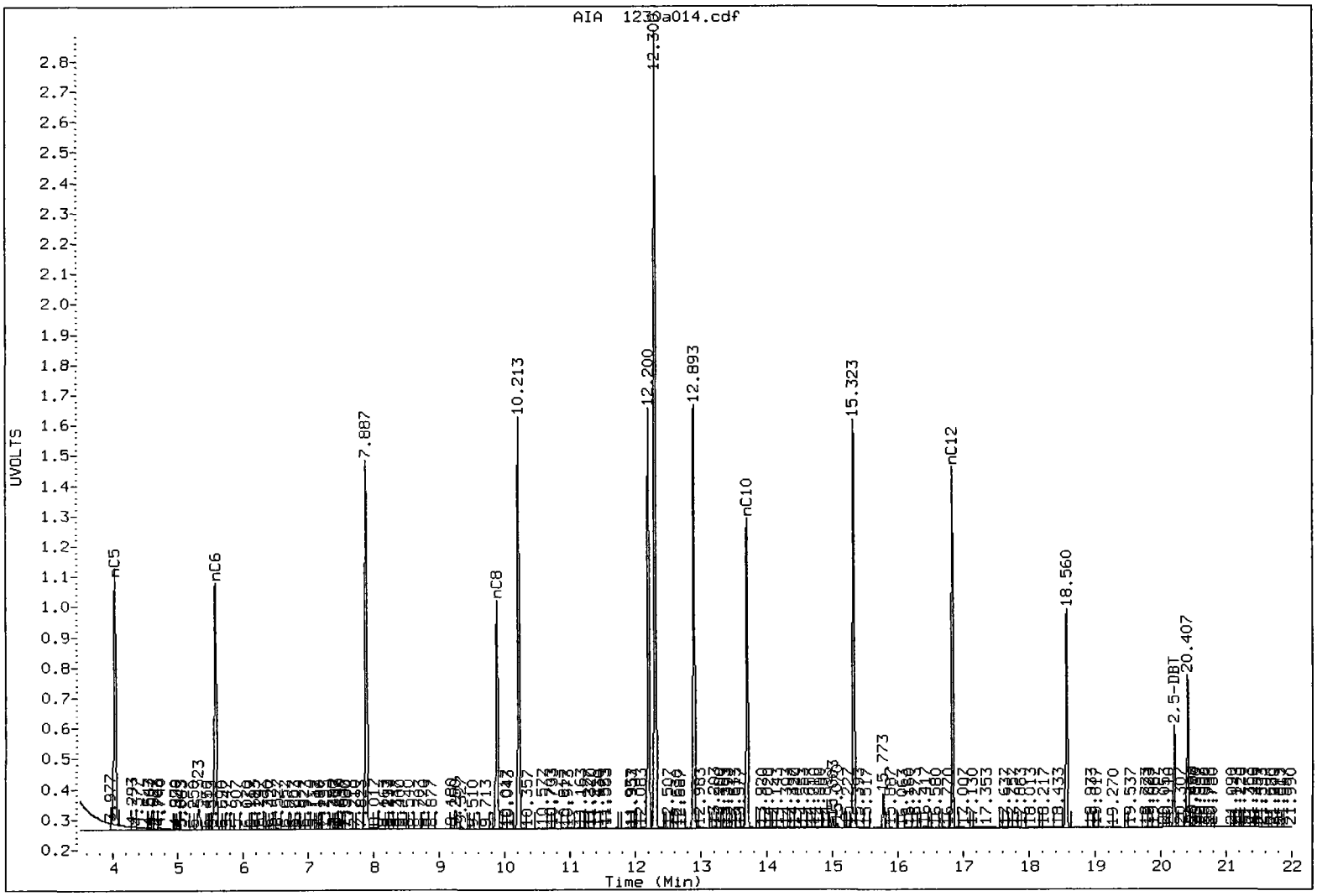
ARI ID: VPH ICV
Client ID:
Injection: 30-DEC-2009 14:07
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	8412	18150	C5-C6	Aliph.	43386	127.4
nC6	5.577	-0.007	8128	18064	C6-C8	Aliph.	40861*	139.9
nC8	9.880	-0.007	7496	14032	C8-C10	Aliph.	140146	446.3
nC10	13.693	-0.010	10214	16821	C10-C12	Aliph.	46227*	130.7
nC12	16.837	-0.007	11886	19062				

* Indicates surrogate area subtracted

VPH ICV ALIPHATIC (FID) SIGNAL



MH 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a015.d
Lab Smp Id: LCSD1230
Inj Date : 30-DEC-2009 14:38
Operator : MH Inst ID: pid1.i
Smp Info : LCSD1230
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1	MtBE	5.323	5.323	0.000	10193	51.0292	51.0
2	BENZENE	7.883	7.890	-0.007	188867	50.1084	50.1
4	TOLUENE	10.213	10.220	-0.007	173982	50.4982	50.5
5	ETHYLBENZENE	12.197	12.207	-0.010	153688	51.4672	51.5
6	M/P-XYLENE	12.300	12.313	-0.013	358100	102.737	103
7	O-XYLENE	12.890	12.900	-0.010	155928	51.0502	51.0
9	TRIMETHYLBEN	15.323	15.330	-0.007	142295	54.1079	54.1
10	NAPHTHALENE	18.560	18.567	-0.007	103958	49.1158	49.1
11	1-METHYLNAP	20.407	20.413	-0.006	83392	61.1377	61.1
$ 37	DIBROMOTOL	20.207	20.210	-0.003	102043	50.7027	50.7

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a015.d
Lab Smp Id: LCSD1230
Inj Date : 30-DEC-2009 14:38
Operator : MH Inst ID: pid1.i
Smp Info : LCSD1230
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 nC5	4.030	4.033	-0.003	18467	57.9275	57.9(M)
	2 nC6	5.577	5.583	-0.006	18865	52.0823	52.1
	4 nC8	9.880	9.887	-0.007	14374	49.2018	49.2
	5 nC10	13.693	13.703	-0.010	15919	50.7007	50.7
	7 nC12	16.837	16.843	-0.006	20651	58.3927	58.4
$	8 2,5-DBT	20.203	20.210	-0.007	5835	50.0002	50.0

QC Flag Legend

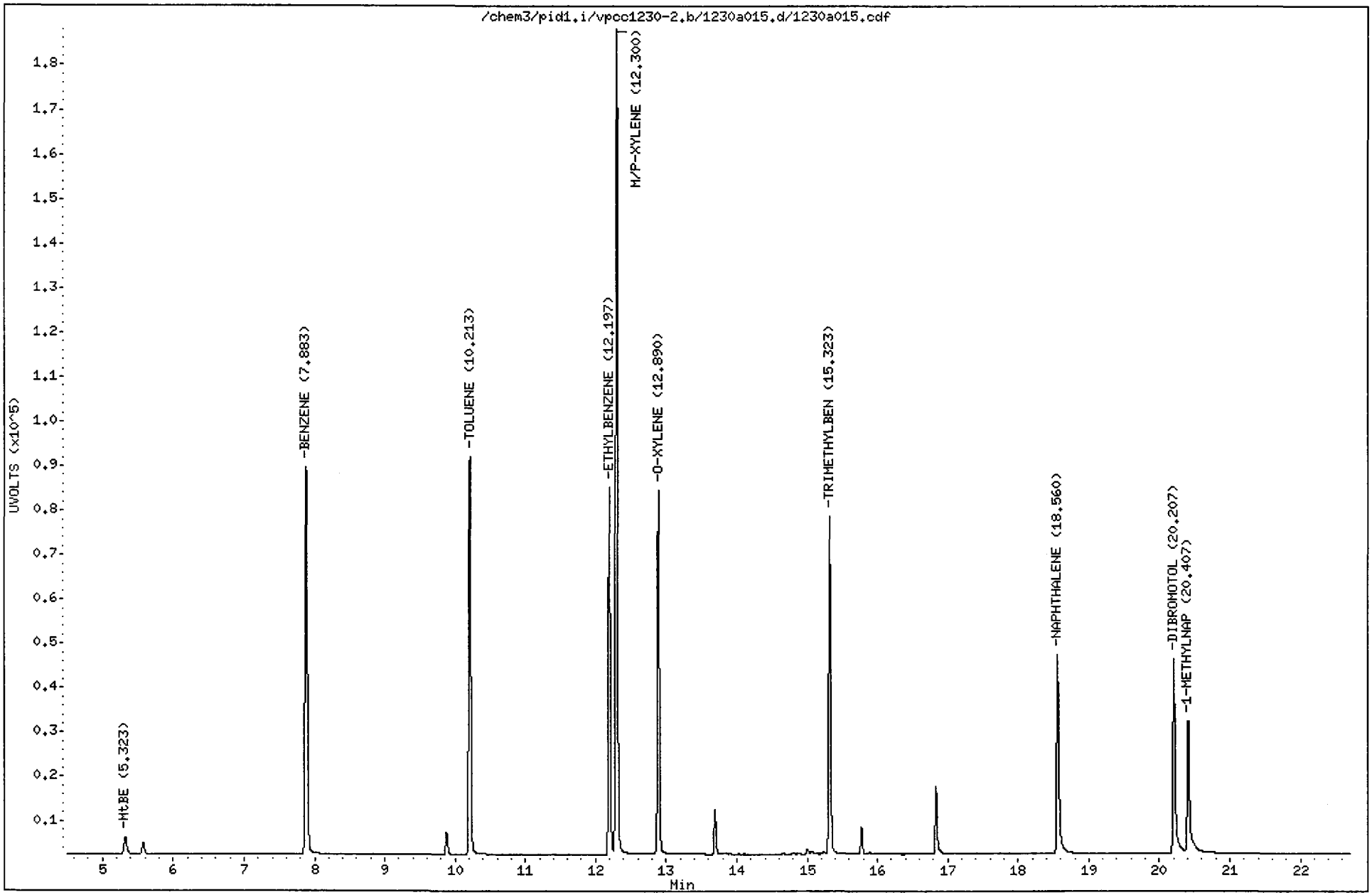
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a015.d
Date : 30-DEC-2009 14:38
Client ID:
Sample Info: LCSD1230

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO

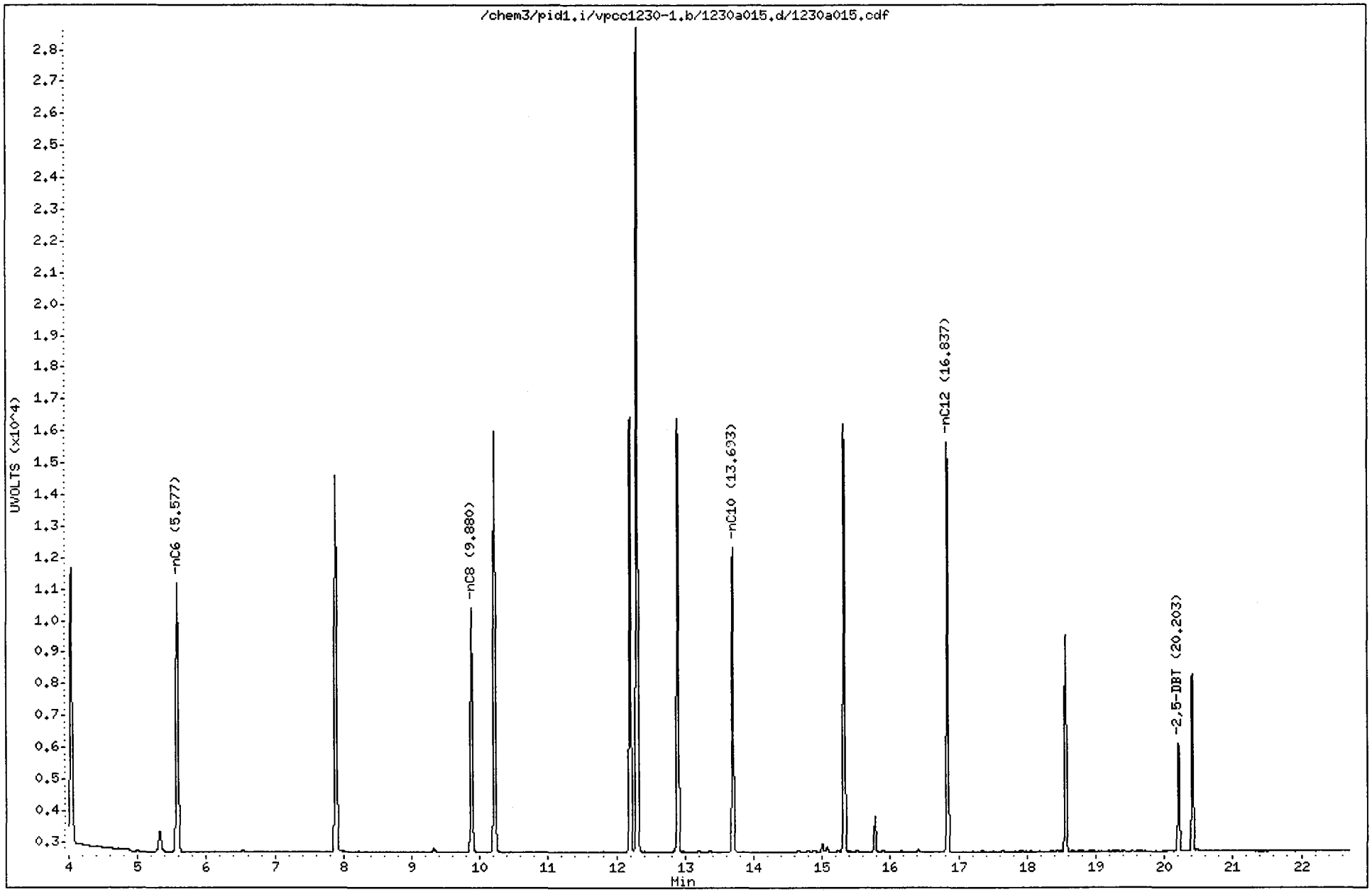


GC26:00226

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a015.d
Date : 30-DEC-2009 14:38
Client ID:
Sample Info: LCSD1230

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



GC25:00227

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a015.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

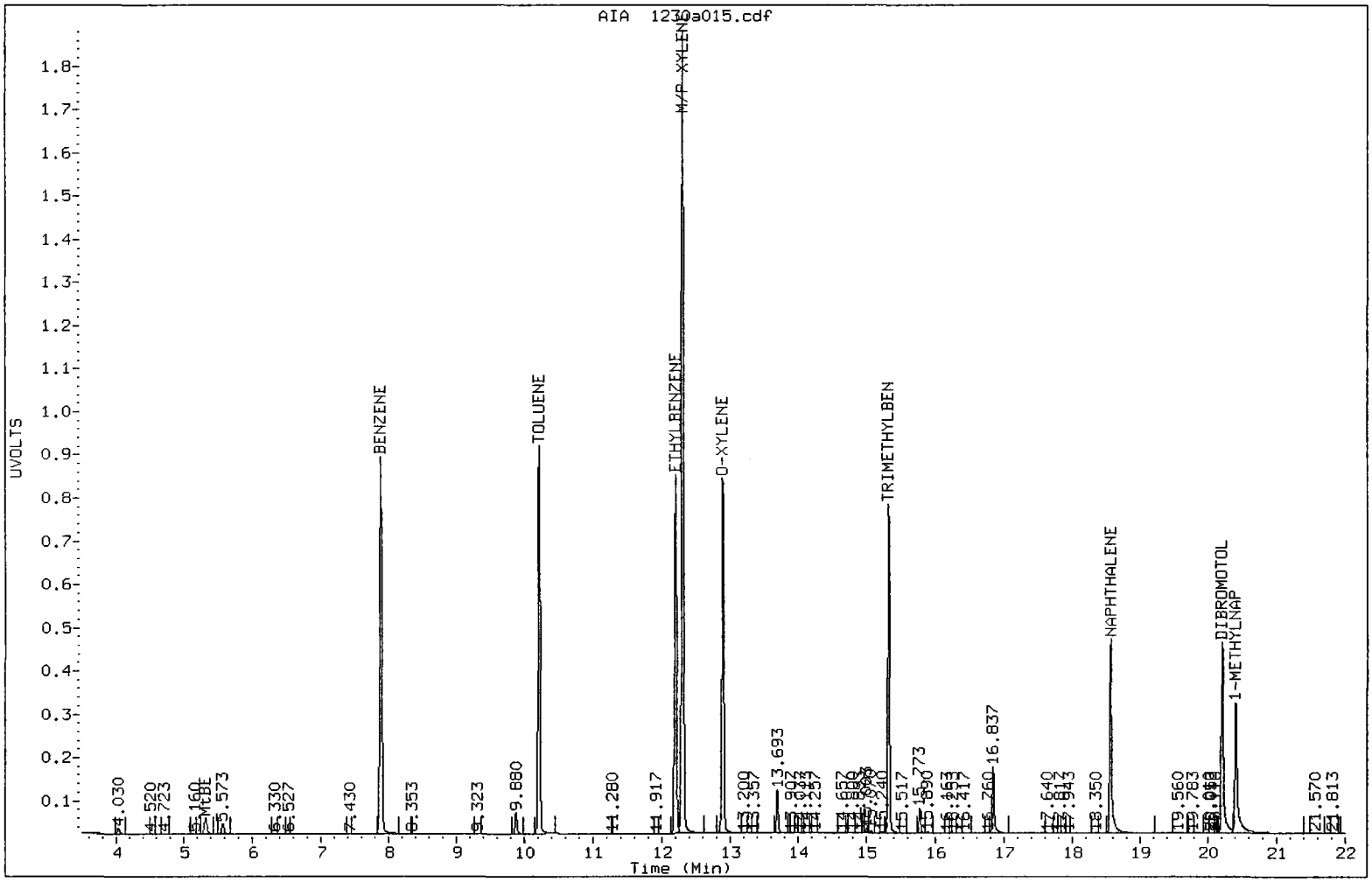
ARI ID: LCSD1230
Client ID:
Injection: 30-DEC-2009 14:38
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	3650	51.0	C8-C10	Arom.	833227*	316.8
BENZENE	7.883	-0.007	87206	50.1	C10-C12	Arom.	147704	69.8
TOLUENE	10.213	-0.007	89734	50.5	C12-C13	Arom.	83626	61.3
ETHYLBENZENE	12.197	-0.010	82917	51.5				
M/P-XYLENE	12.300	-0.013	185637	102.7				
O-XYLENE	12.890	-0.010	82246	51.1				
TRIMETHYLBEN	15.323	-0.007	76180	54.1				
NAPHTHALENE	18.560	-0.007	44938	49.1				
1-METHYLNAP	20.407	-0.007	30014	61.1				
DIBROMOTOL	20.207	-0.003	44163	50.7	DBT Recovery: 101.4			

* Indicates surrogate area subtracted

LCSD1230 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a015.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

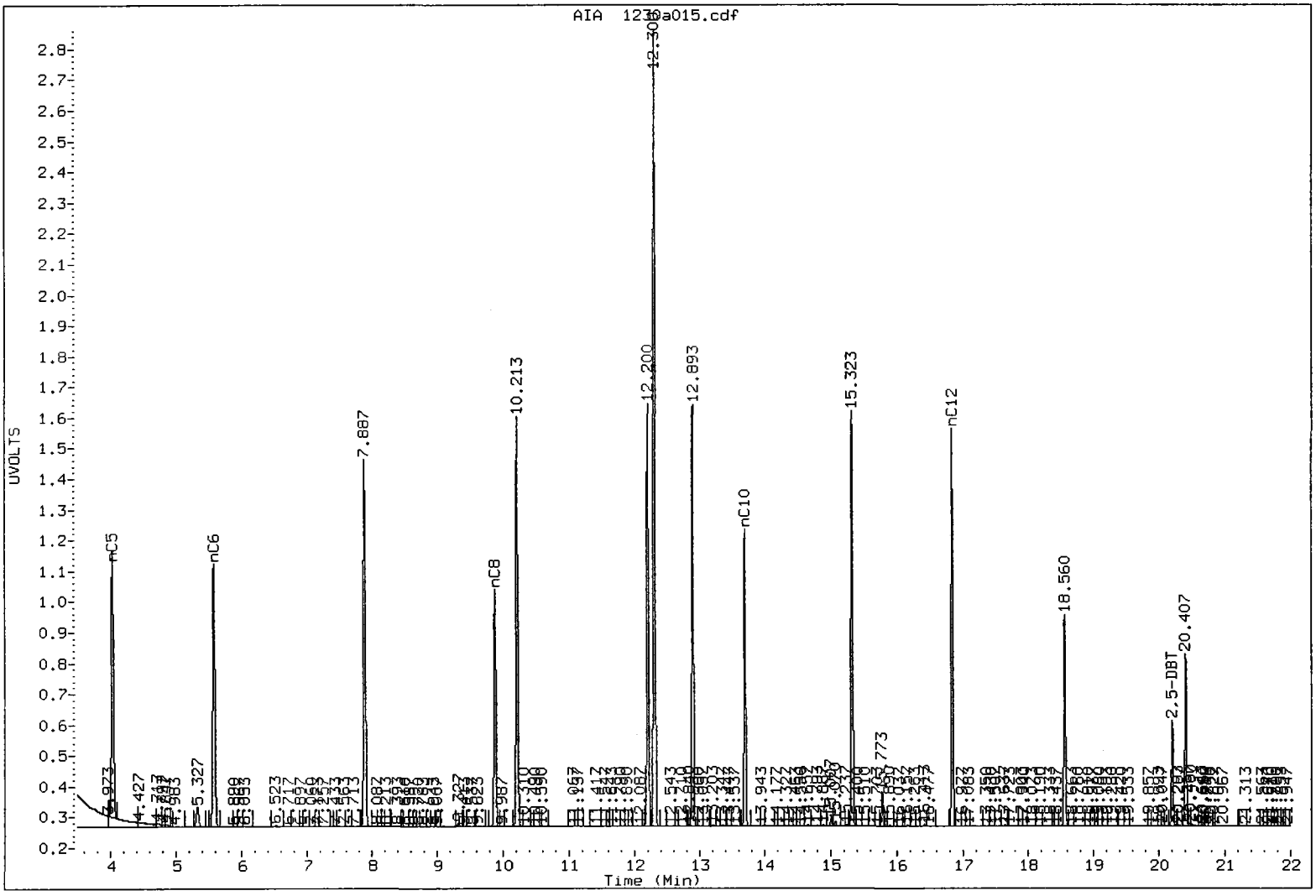
ARI ID: LCSD1230
Client ID:
Injection: 30-DEC-2009 14:38
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	8648	18467	C5-C6	Aliph.	48719	143.1
nC6	5.577	-0.007	8532	18865	C6-C8	Aliph.	40173*	137.5
nC8	9.880	-0.007	7708	14374	C8-C10	Aliph.	137809	438.9
nC10	13.693	-0.010	9663	15919	C10-C12	Aliph.	47400*	134.0
nC12	16.837	-0.007	12953	20651				

* Indicates surrogate area subtracted

LCSD1230 ALIPHATIC (FID) SIGNAL



MH 1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a021.d
Lab Smp Id: QC26AMS
Inj Date : 30-DEC-2009 17:47
Operator : MH Inst ID: pid1.i
Smp Info : QC26AMS
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1	MtBE	5.320	5.323	-0.003	7888	39.4897	39.5
2	BENZENE	7.880	7.890	-0.010	105730	28.0513	28.0
4	TOLUENE	10.210	10.220	-0.010	100274	29.1045	29.1
5	ETHYLBENZENE	12.197	12.207	-0.010	88550	29.6537	29.6
6	M/P-XYLENE	12.297	12.313	-0.016	205097	58.8412	58.8
7	O-XYLENE	12.890	12.900	-0.010	90324	29.5717	29.6
9	TRIMETHYLBEN	15.320	15.330	-0.010	80108	30.4612	30.5
10	NAPHTHALENE	18.560	18.567	-0.007	52123	24.6259	24.6
11	1-METHYLNAP	20.407	20.413	-0.006	32185	23.5960	23.6
$ 37	DIBROMOTOL	20.203	20.210	-0.007	48048	23.8739	23.9(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a021.d
Lab Smp Id: QC26AMS
Inj Date : 30-DEC-2009 17:47
Operator : MH Inst ID: pid1.i
Smp Info : QC26AMS
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.027	4.033	-0.006	2595	8.14008	8.14(M)
	2 nC6	5.573	5.583	-0.010	3922	10.8302	10.8
	4 nC8	9.877	9.887	-0.010	3761	12.8765	12.9
	5 nC10	13.690	13.703	-0.013	2581	8.22150	8.22
	7 nC12	16.830	16.843	-0.013	2296	6.49320	6.49
$	8 2,5-DBT	20.203	20.210	-0.007	2819	24.1578	24.2(R)

QC Flag Legend

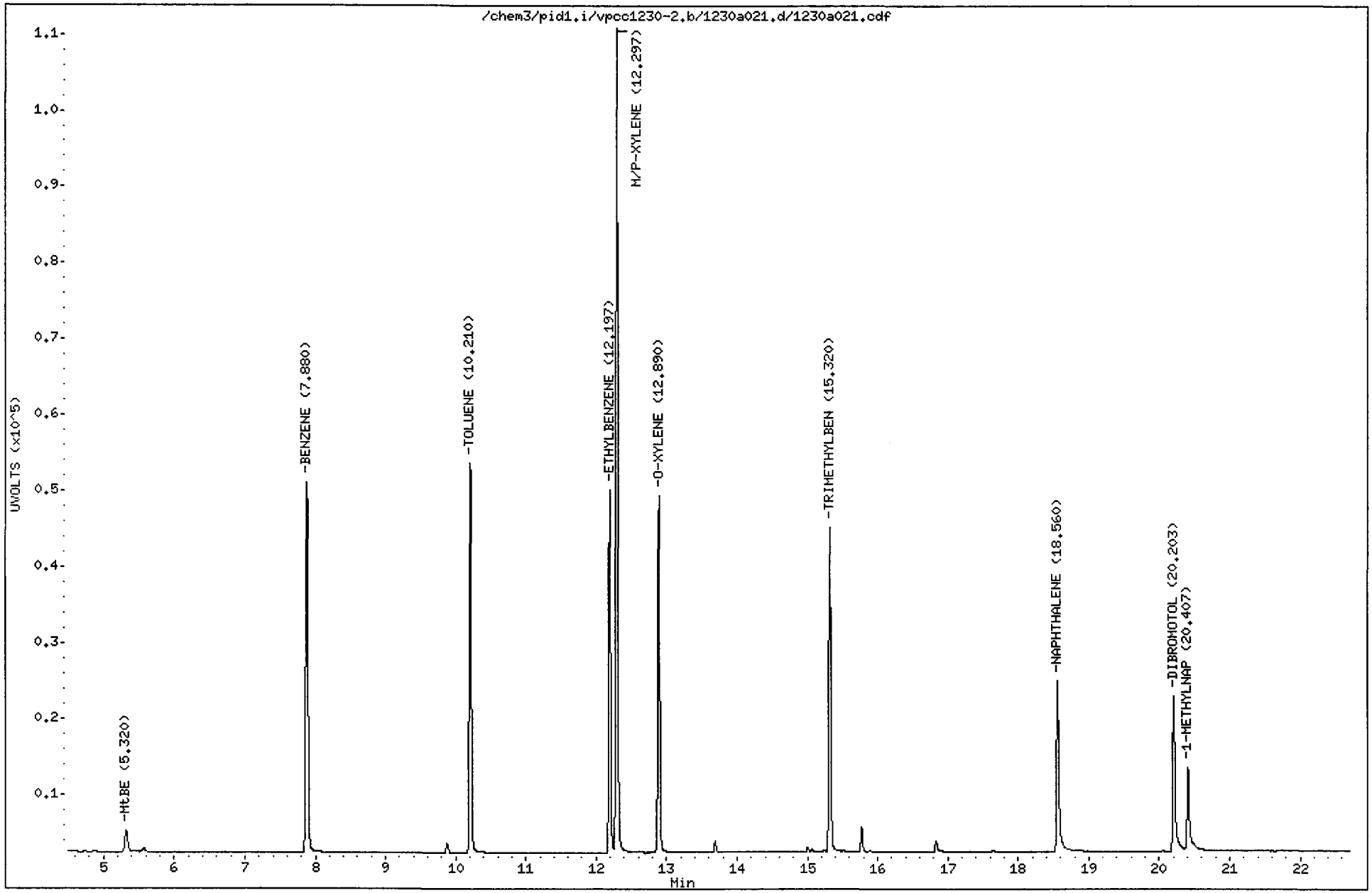
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a021.d
Date : 30-DEC-2009 17:47
Client ID:
Sample Info: QC26AMS

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 ARO



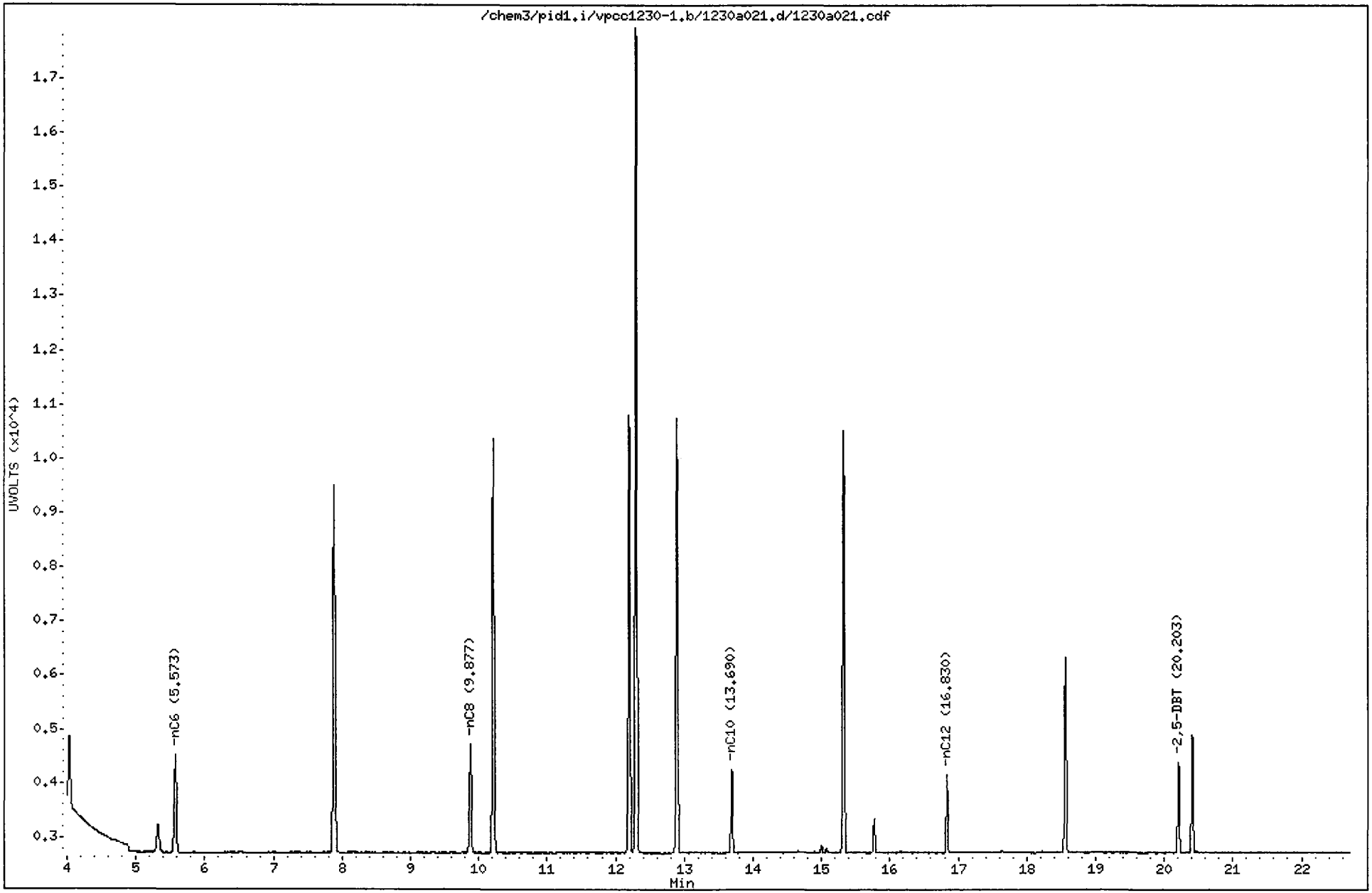
QC26:00272

Data File: /chem3/pid1.i/vpcc1230-1.b/1230a021.d
Date : 30-DEC-2009 17:47
Client ID:
Sample Info: QC26AMS

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



QC26 : 89279

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a021.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

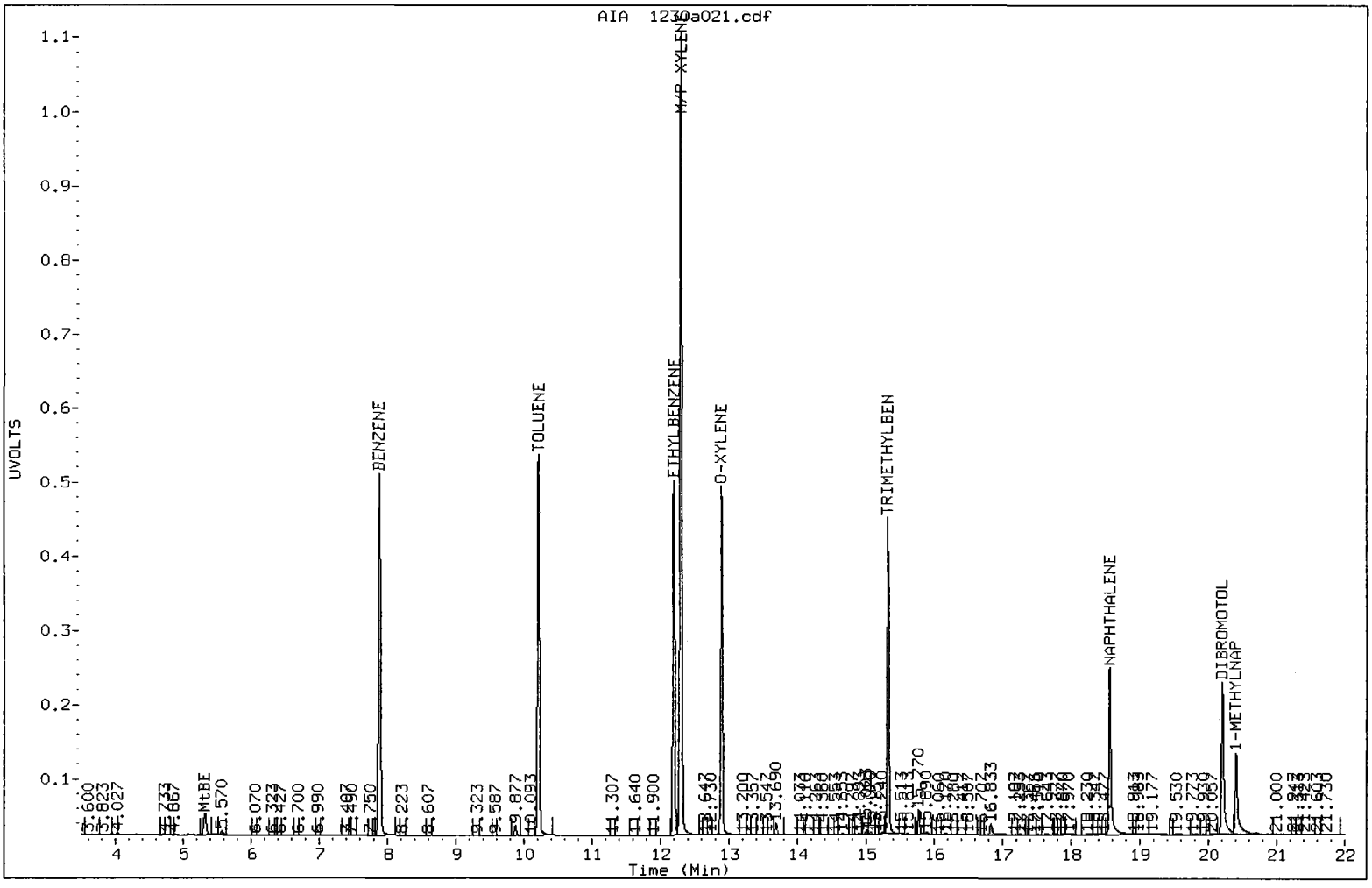
ARI ID: QC26AMS
Client ID:
Injection: 30-DEC-2009 17:47
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.320	-0.003	2849	39.5	C8-C10	Arom.	470211*	178.8
BENZENE	7.880	-0.010	48804	28.1	C10-C12	Arom.	63361	29.9
TOLUENE	10.210	-0.010	51328	29.1	C12-C13	Arom.	32762	24.0
ETHYLBENZENE	12.197	-0.010	47784	29.7				
M/P-XYLENE	12.297	-0.017	108253	58.8				
O-XYLENE	12.890	-0.010	47022	29.6				
TRIMETHYLBEN	15.320	-0.010	42644	30.5				
NAPHTHALENE	18.560	-0.007	22450	24.6				
1-METHYLNAP	20.407	-0.007	10969	23.6				
DIBROMOTOL	20.203	-0.007	20442	23.9	DBT Recovery: 47.7			

* Indicates surrogate area subtracted

QC26AMS AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a021.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

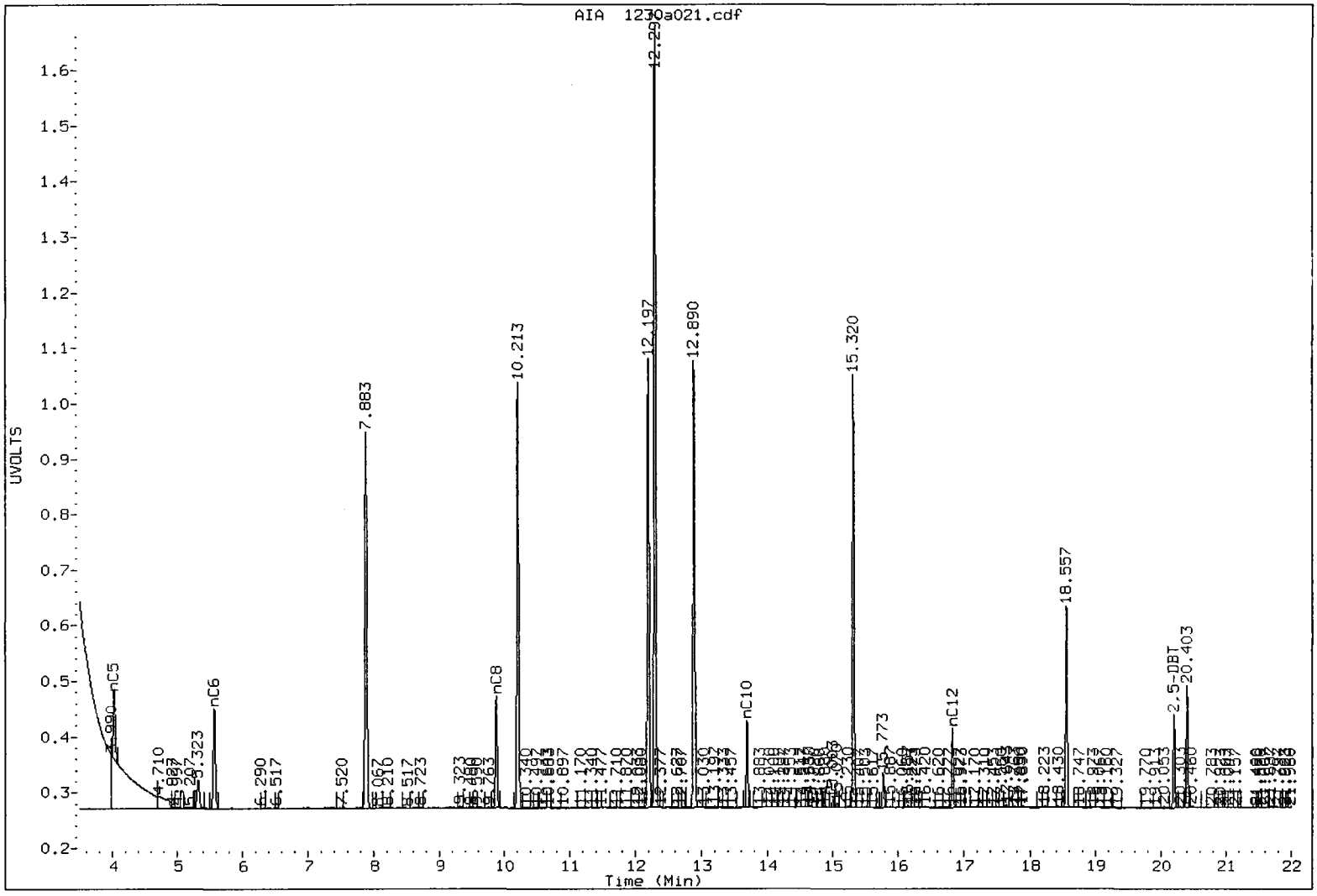
ARI ID: QC26AMS
Client ID:
Injection: 30-DEC-2009 17:47
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.027	-0.007	1245	2595	C5-C6	Aliph.	31593	92.8
nC6	5.573	-0.010	1807	3922	C6-C8	Aliph.	18110*	62.0
nC8	9.877	-0.010	2014	3761	C8-C10	Aliph.	73707	234.7
nC10	13.690	-0.013	1557	2581	C10-C12	Aliph.	18067*	51.1
nC12	16.830	-0.013	1432	2296				

* Indicates surrogate area subtracted

QC26AMS ALIPHATIC (FID) SIGNAL



1/5/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1230-2.b/1230a022.d
Lab Smp Id: QC26AMSD
Inj Date : 30-DEC-2009 18:19
Operator : MH Inst ID: pid1.i
Smp Info : QC26AMSD
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 MtBE	5.323	5.323	0.000	7299	36.5410	36.5
2 BENZENE	7.880	7.890	-0.010	90539	24.0209	24.0
4 TOLUENE	10.210	10.220	-0.010	84562	24.5441	24.5
5 ETHYLBENZENE	12.197	12.207	-0.010	73581	24.6409	24.6
6 M/P-XYLENE	12.297	12.313	-0.016	170518	48.9207	48.9
7 O-XYLENE	12.890	12.900	-0.010	75307	24.6552	24.6
9 TRIMETHYLBEN	15.320	15.330	-0.010	66978	25.4685	25.5
10 NAPHTHALENE	18.560	18.567	-0.007	47116	22.2603	22.3
11 1-METHYLNAP	20.407	20.413	-0.006	33688	24.6979	24.7
$ 37 DIBROMOTOL	20.203	20.210	-0.007	37121	18.4445	18.4(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1230-1.b/1230a022.d
Lab Smp Id: QC26AMSD
Inj Date : 30-DEC-2009 18:19
Operator : MH Inst ID: pid1.i
Smp Info : QC26AMSD
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

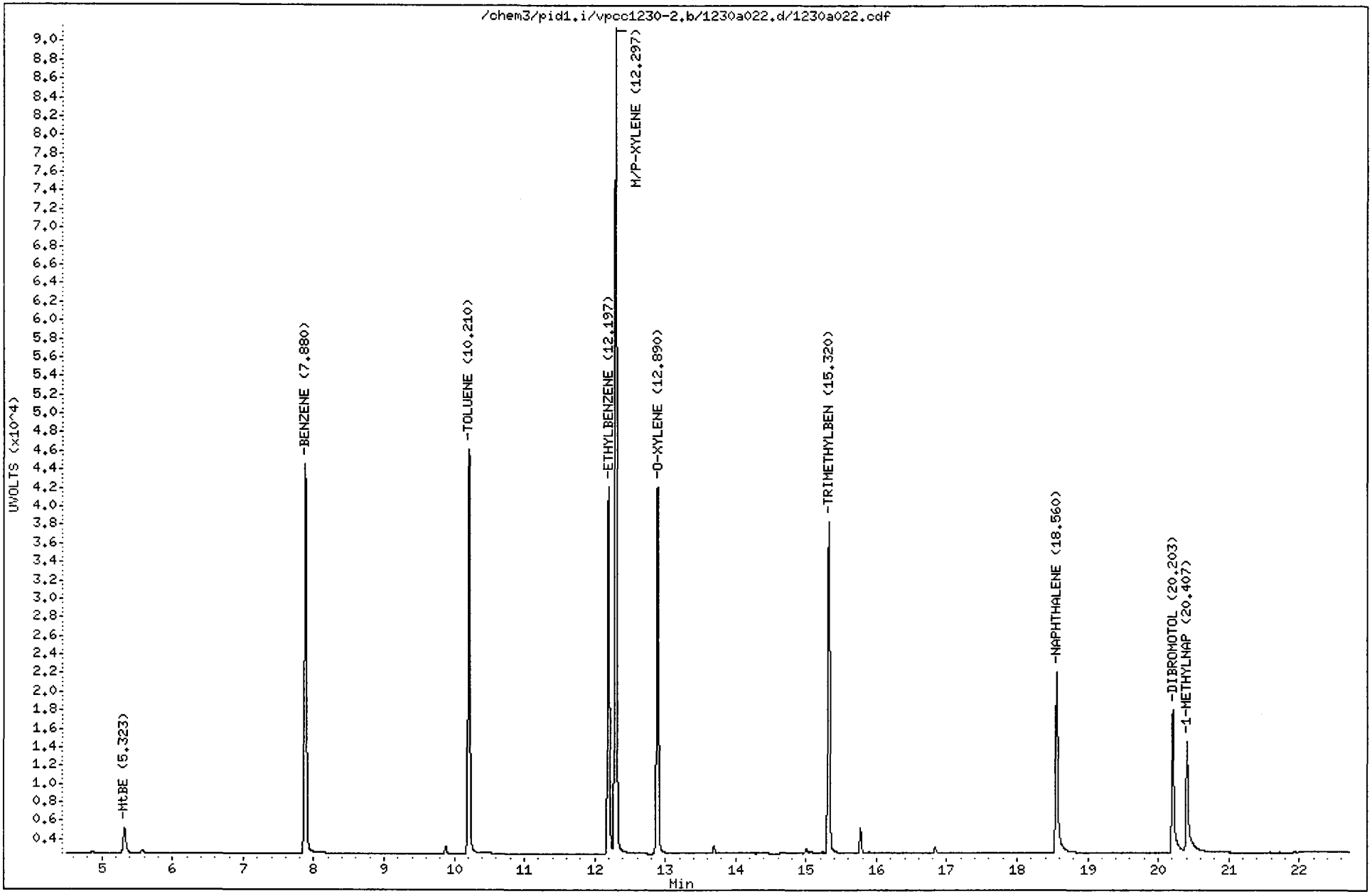
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.030	4.033	-0.003	1562	4.89954	4.90(M)
	2 nC6	5.573	5.583	-0.010	2349	6.48534	6.48
	4 nC8	9.880	9.887	-0.007	2235	7.65068	7.65
	5 nC10	13.690	13.703	-0.013	1550	4.93704	4.94
	7 nC12	16.833	16.843	-0.010	1044	2.95366	2.95
$	8 2,5-DBT	20.203	20.210	-0.007	2214	18.9739	19.0(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1230-2.b/1230a022.d
Date : 30-DEC-2009 18:19
Client ID:
Sample Info: QC26AMSD

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18



QC26:00278

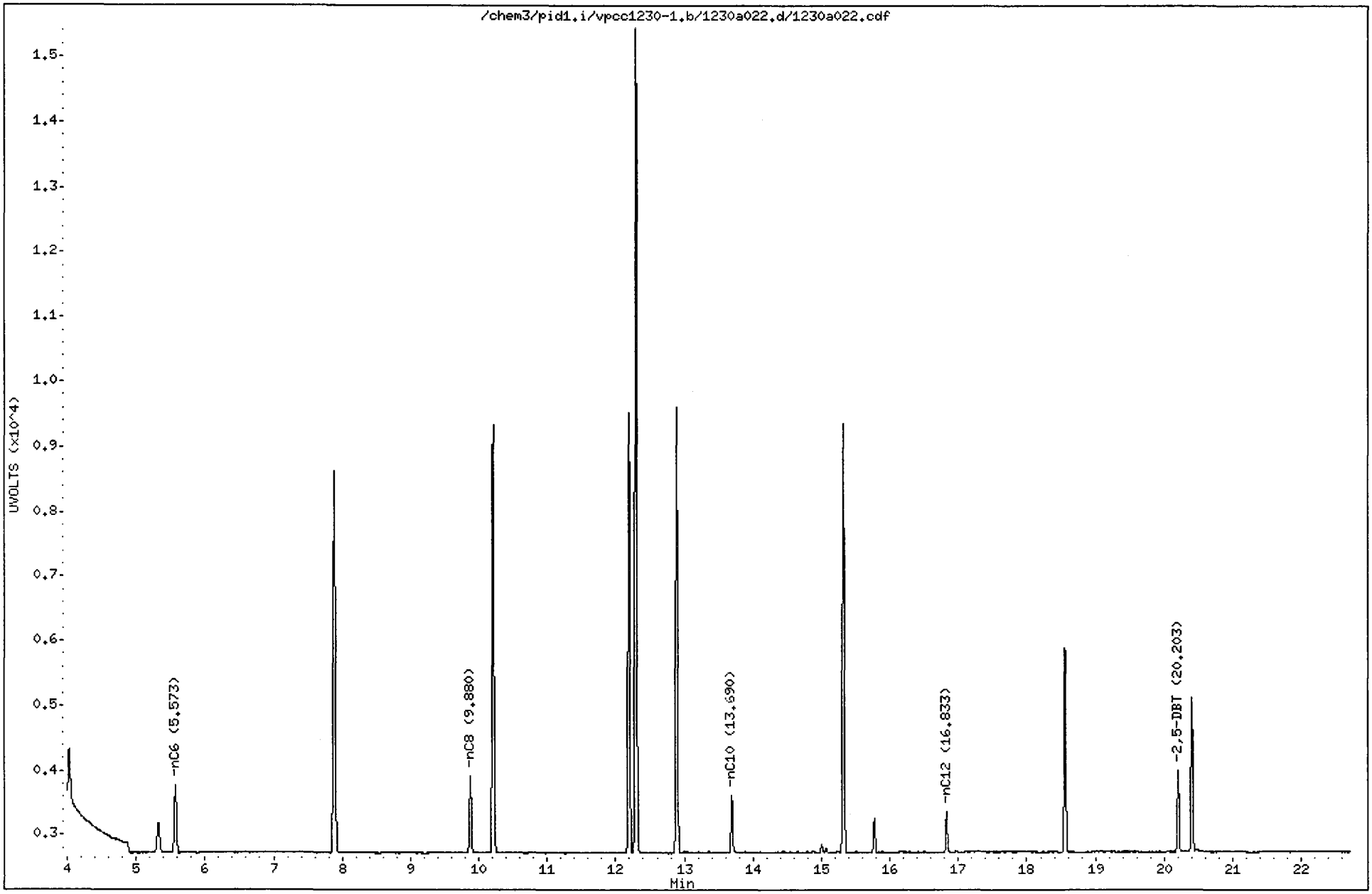
Data File: /chem3/pid1.i/vpcc1230-1.b/1230a022.d
Date : 30-DEC-2009 18:19
Client ID:
Sample Info: QC26AMSD

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI

QC26:00279



Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1230-2.b/1230a022.d
Method: /chem3/pid1.i/vpcc1230-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

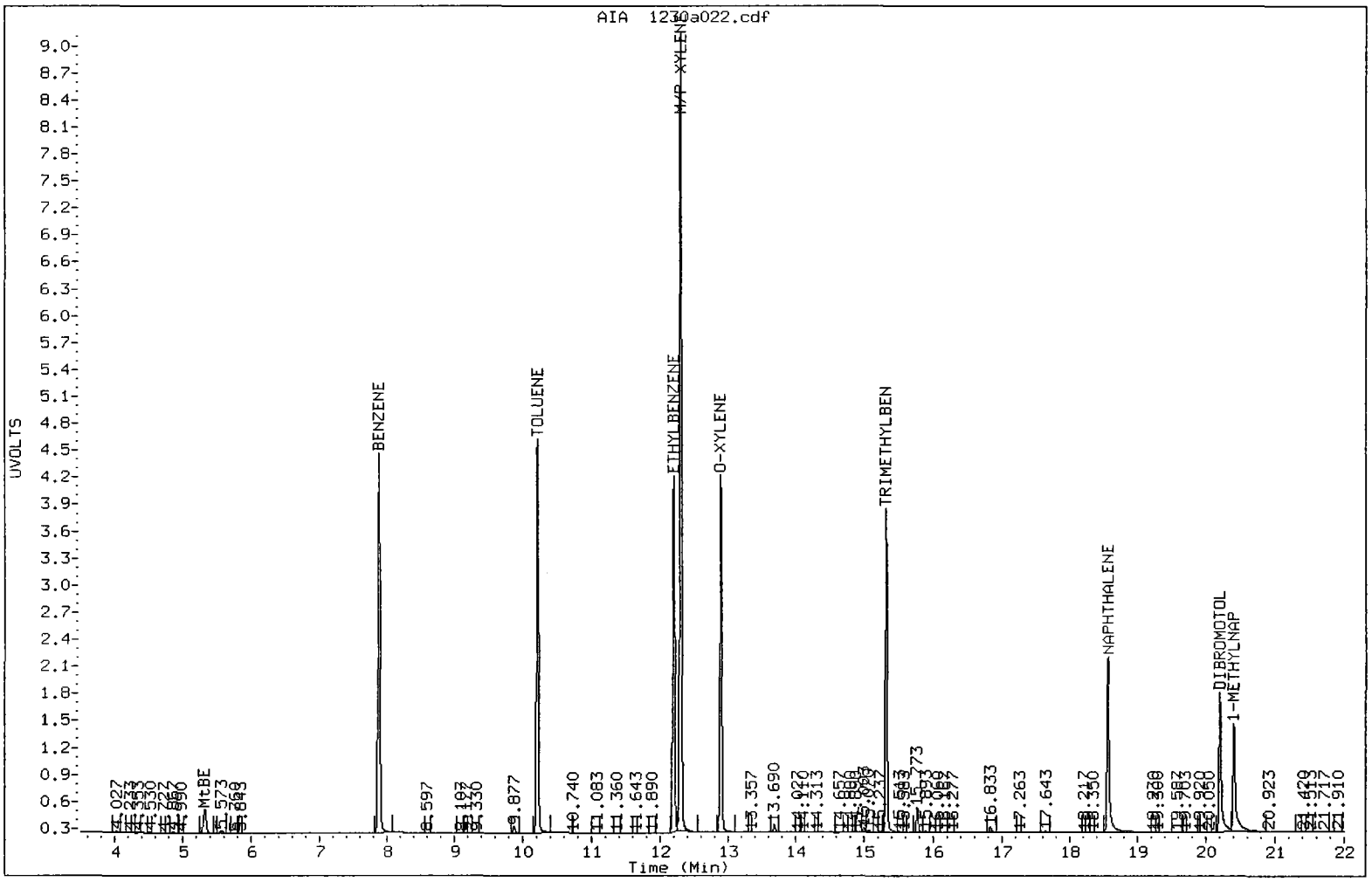
ARI ID: QC26AMSD
Client ID:
Injection: 30-DEC-2009 18:19
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.323	0.000	2608	36.5	C8-C10	Arom.	390306*	148.4
BENZENE	7.880	-0.010	42095	24.0	C10-C12	Arom.	54224	25.6
TOLUENE	10.210	-0.010	43722	24.5	C12-C13	Arom.	33860	24.8
ETHYLBENZENE	12.197	-0.010	39564	24.6				
M/P-XYLENE	12.297	-0.017	88888	48.9				
O-XYLENE	12.890	-0.010	39672	24.7				
TRIMETHYLBEN	15.320	-0.010	35945	25.5				
NAPHTHALENE	18.560	-0.007	19585	22.3				
1-METHYLNAP	20.407	-0.007	11959	24.7				
DIBROMOTOL	20.203	-0.007	15530	18.4	DBT Recovery:		36.9	

* Indicates surrogate area subtracted

QC26AMSD AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1230-1.b/1230a022.d
Method: /chem3/pid1.i/vpcc1230-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

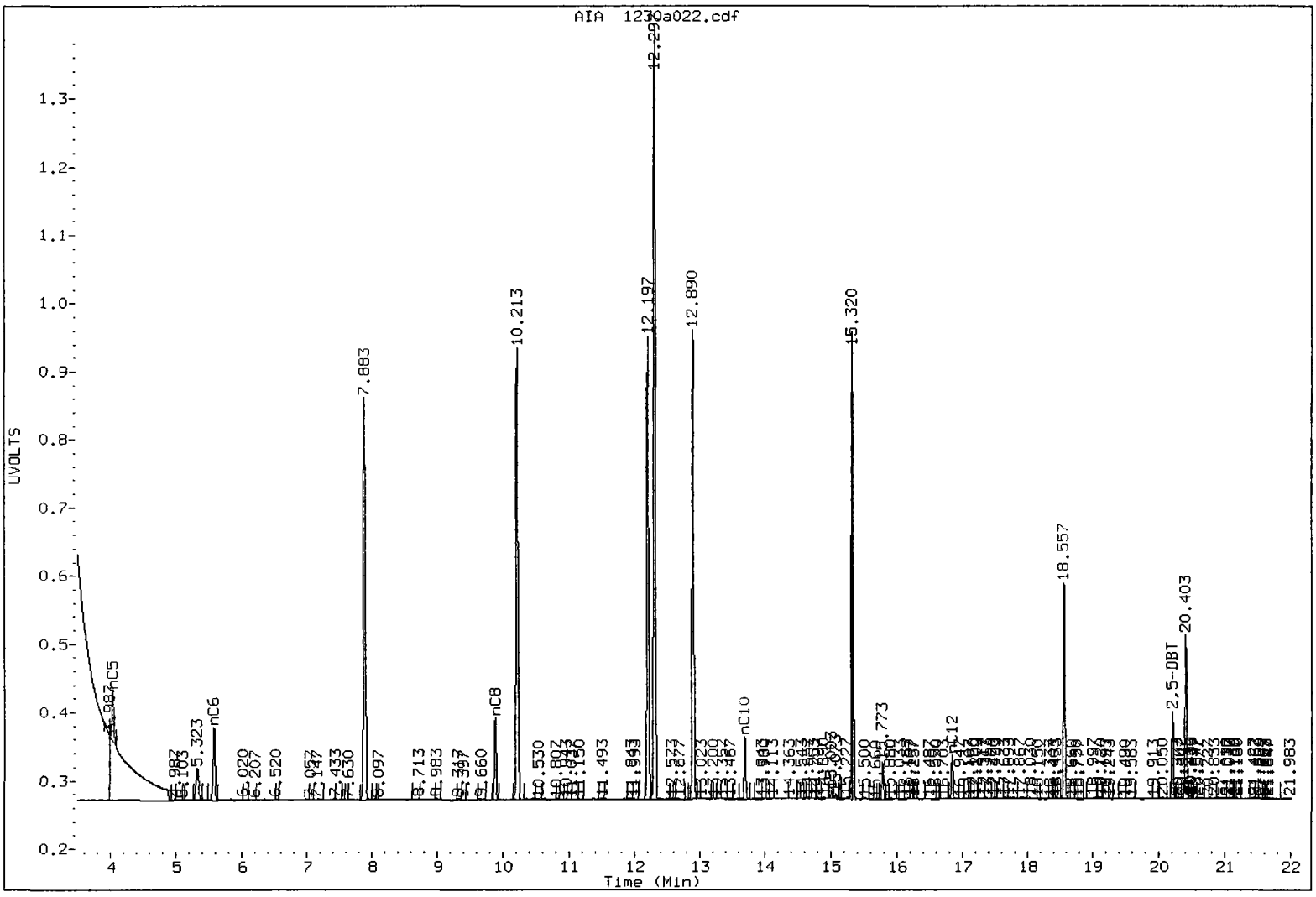
ARI ID: QC26AMSD
Client ID:
Injection: 30-DEC-2009 18:19
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.030	-0.003	749	1562	C5-C6	Aliph.	28022	82.3
nC6	5.573	-0.010	1071	2349	C6-C8	Aliph.	14688*	50.3
nC8	9.880	-0.007	1196	2235	C8-C10	Aliph.	61526	195.9
nC10	13.690	-0.013	910	1550	C10-C12	Aliph.	8511*	24.1
nC12	16.833	-0.010	637	1044				

* Indicates surrogate area subtracted

QC26AMSD ALIPHATIC (FID) SIGNAL



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH

Sample ID: MB-123109
METHOD BLANK

Lab Sample ID: MB-123109
LIMS ID: 09-31264
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: NA
Date Received: NA

Date Analyzed: 12/31/09 09:52
Instrument/Analyst: PID1/MH

Purge Volume: 10 mL
Sample Amount: 111 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
179601-23-1	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics	4,500	< 4,500 U
C10-C12 Aromatics	4,500	< 4,500 U
C12-C13 Aromatics	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	99.2%
FID: 2,5-Dibromotoluene	98.8%

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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1231-2.b/1231a006.d
Lab Smp Id: MB1231
Inj Date : 31-DEC-2009 09:52
Operator : MH Inst ID: pid1.i
Smp Info : MB1231
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	MtBE	Compound Not Detected.					
2	BENZENE	7.883	7.890	-0.007	41	0.01096	0.0110
4	TOLUENE	10.217	10.220	-0.003	77	0.02238	0.0224
5	ETHYLBENZENE	12.200	12.207	-0.007	26	0.00874	0.00874
6	M/P-XYLENE	12.300	12.313	-0.013	154	0.04447	0.0445
7	O-XYLENE	12.860	12.900	-0.040	395	0.12939	0.129
9	TRIMETHYLBEN	15.323	15.330	-0.007	47	0.01825	0.0182
10	NAPHTHALENE	18.563	18.567	-0.004	218	0.10318	0.103
11	1-METHYLNAP	20.410	20.413	-0.003	5460	4.00366	4.00
$ 37	DIBROMOTOL	20.210	20.210	0.000	99783	49.5798	49.6

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1231-1.b/1231a006.d
Lab Smp Id: MB1231
Inj Date : 31-DEC-2009 09:52
Operator : MH Inst ID: pid1.i
Smp Info : MB1231
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	Compound Not Detected.					
	2 nC6	5.587	5.583	0.004	34	0.09387	0.0939
	4 nC8	9.883	9.887	-0.004	58	0.19853	0.198
	5 nC10	13.693	13.703	-0.010	206	0.65606	0.656
	7 nC12	16.837	16.843	-0.006	420	1.18757	1.19
$	8 2,5-DBT	20.207	20.210	-0.003	5763	49.3799	49.4

Data File: /chem3/pid1.i/vpcc1231-2.b/1231a006.d

Date : 31-DEC-2009 09:52

Client ID:

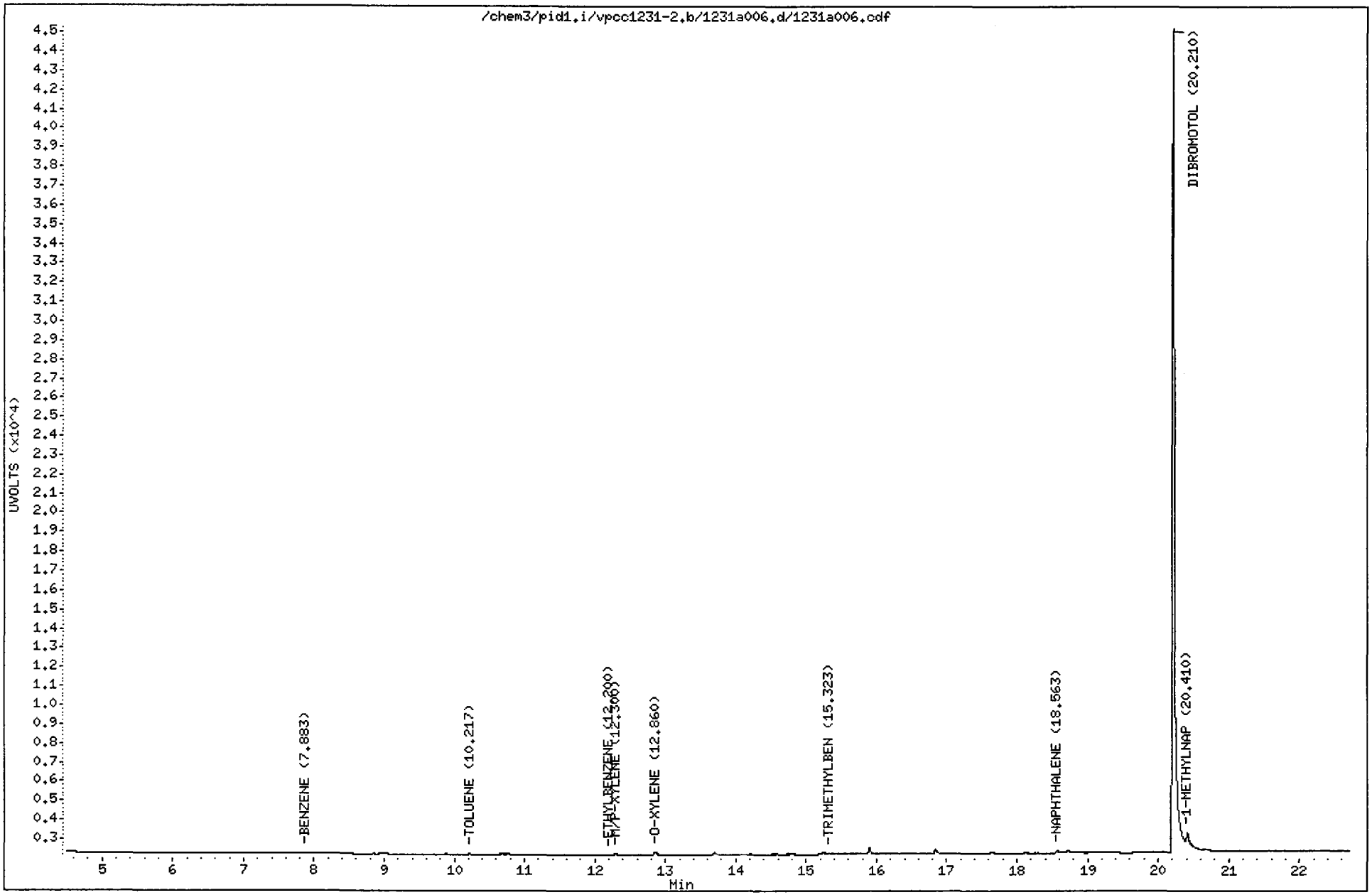
Sample Info: MB1231

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



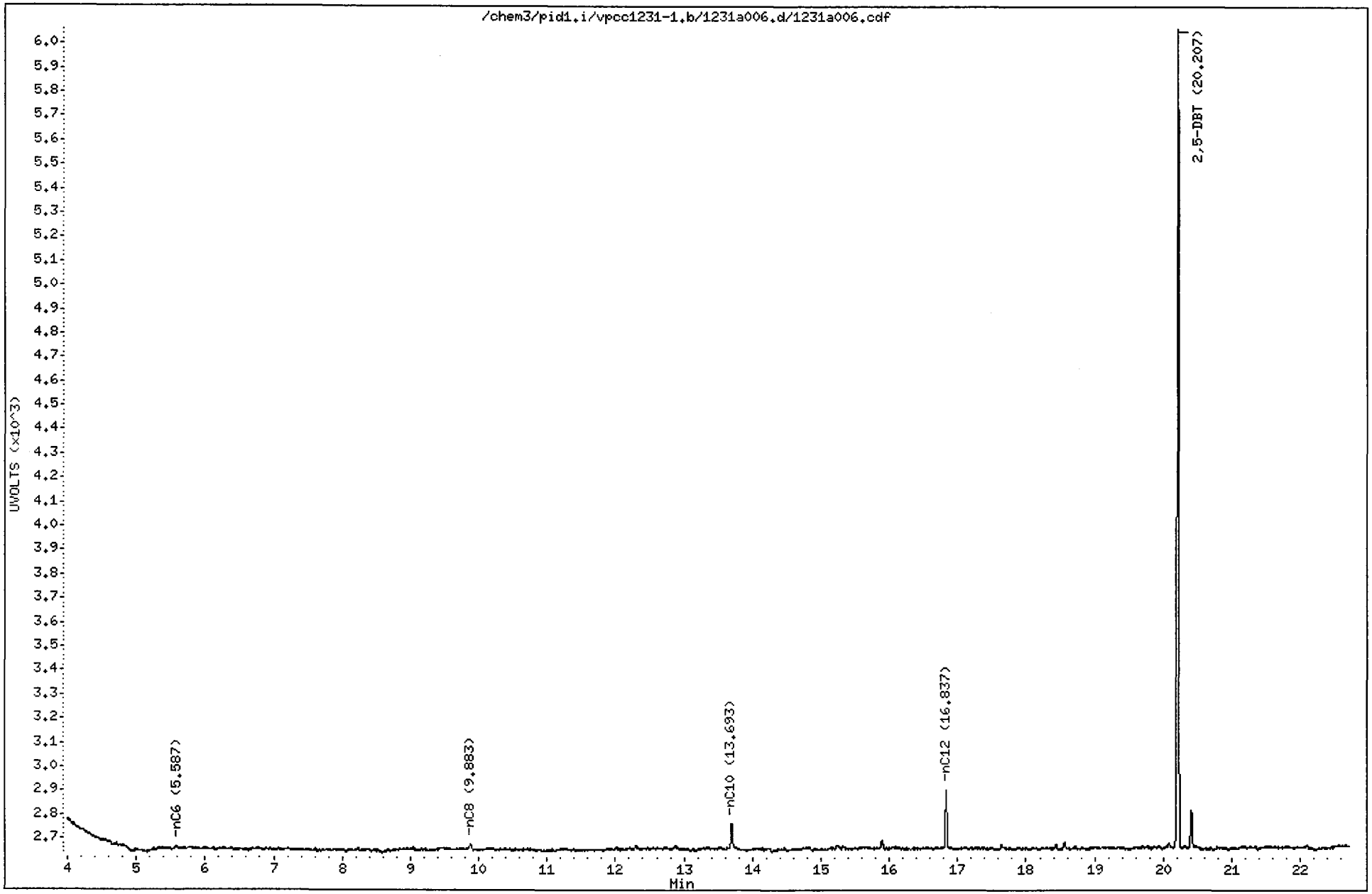
QC26:00285

Data File: /chem3/pid1.i/vpcc1231-1.b/1231a006.d
Date : 31-DEC-2009 09:52
Client ID:
Sample Info: MB1231

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



GC29:00295

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a006.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

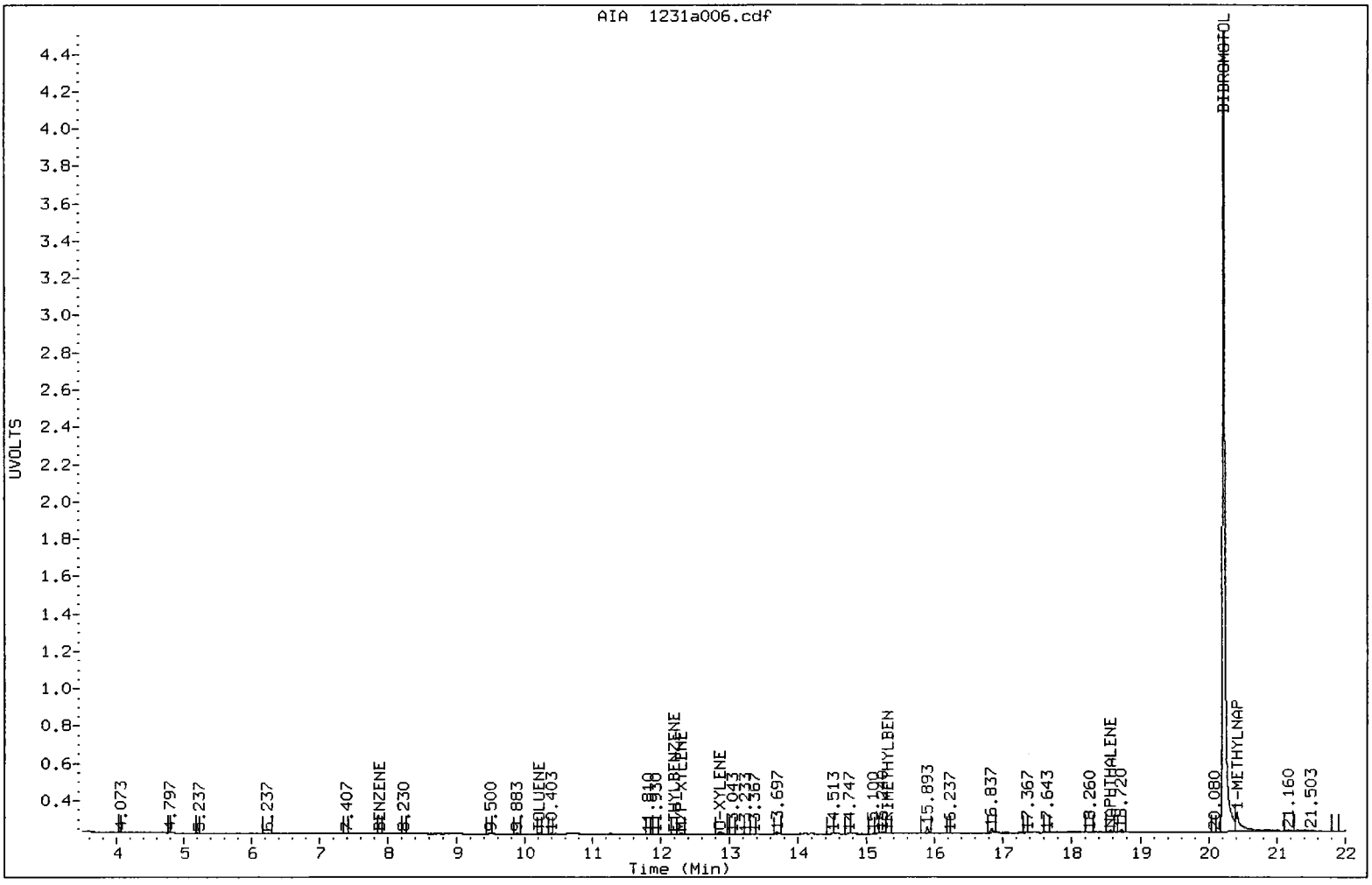
ARI ID: MB1231
Client ID:
Injection: 31-DEC-2009 09:52
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range	Total Area	Conc
MtBE	----				C8-C10 Arom.	1219*	0.5
BENZENE	7.883	-0.007	20	0.0	C10-C12 Arom.	1790	0.8
TOLUENE	10.217	-0.003	41	0.0	C12-C13 Arom.	5488	4.0
ETHYLBENZENE	12.200	-0.007	17	0.0			
M/P-XYLENE	12.300	-0.013	64	0.0			
O-XYLENE	12.860	-0.040	121	0.1			
TRIMETHYLBEN	15.323	-0.007	23	0.0			
NAPHTHALENE	18.563	-0.003	113	0.1			
1-METHYLNAP	20.410	-0.003	977	4.0			
DIBROMOTOL	20.210	0.000	42881	49.6	DBT Recovery:	99.2	

* Indicates surrogate area subtracted

MB1231 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a006.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

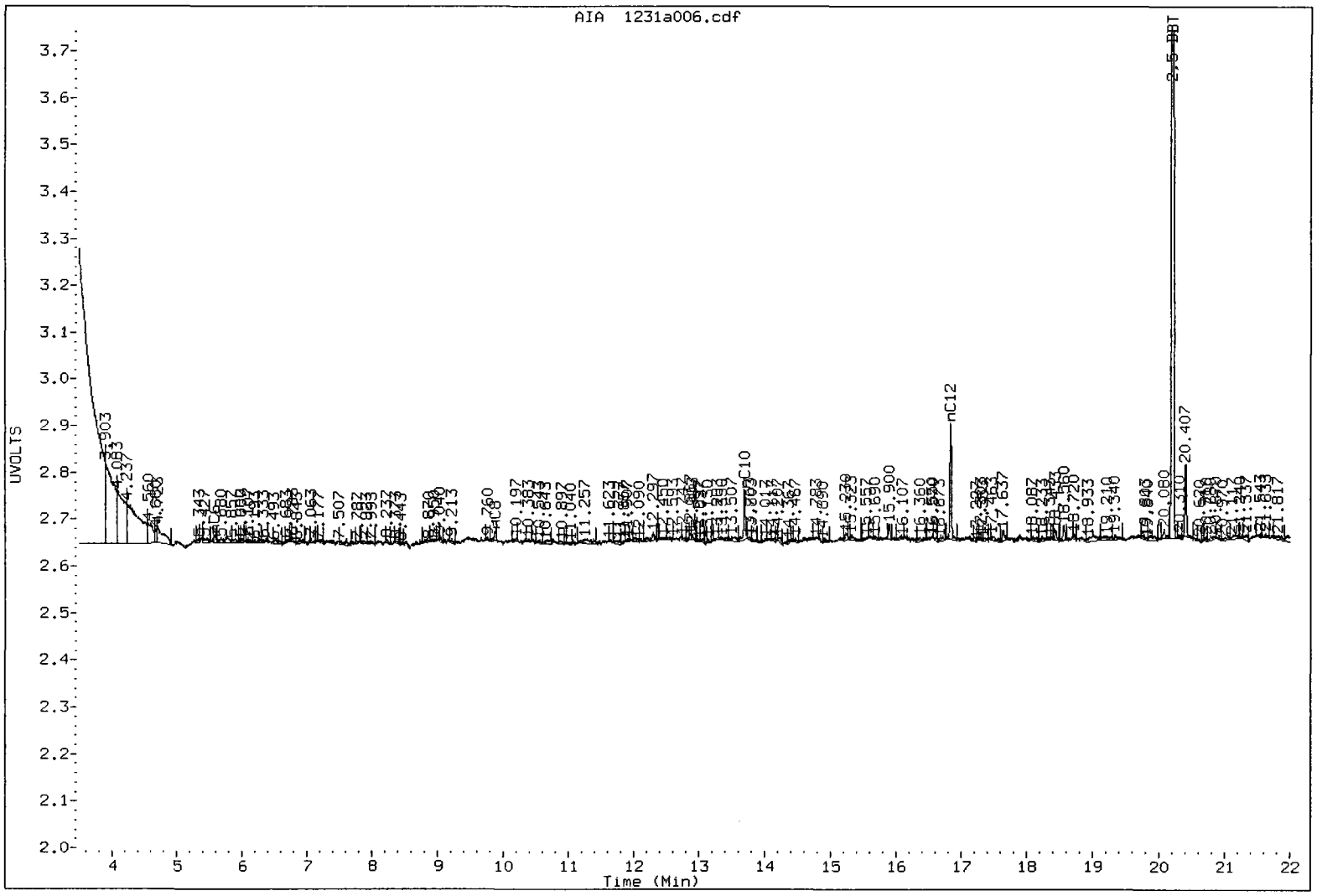
ARI ID: MB1231
Client ID:
Injection: 31-DEC-2009 09:52
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	----				C5-C6	Aliph.	2713	8.0
nC6	5.587	0.003	16	34	C6-C8	Aliph.	602*	2.1
nC8	9.883	-0.003	22	58	C8-C10	Aliph.	868	2.8
nC10	13.693	-0.010	106	206	C10-C12	Aliph.	851*	2.4
nC12	16.837	-0.007	249	420				

* Indicates surrogate area subtracted

MB1231 ALIPHATIC (FID) SIGNAL



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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1231-2.b/1231a003.d
Lab Smp Id: LCS1231
Inj Date : 31-DEC-2009 08:20
Operator : MH Inst ID: pid1.i
Smp Info : LCS1231
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Meth Date : 04-Jan-2010 12:25 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	MtBE	5.327	5.323	0.004	9947	49.8027	49.8
2	BENZENE	7.887	7.890	-0.003	193726	51.3977	51.4
4	TOLUENE	10.213	10.220	-0.007	179459	52.0880	52.1
5	ETHYLBENZENE	12.200	12.207	-0.007	157387	52.7060	52.7
6	M/P-XYLENE	12.303	12.313	-0.010	366124	105.039	105
7	O-XYLENE	12.893	12.900	-0.007	158368	51.8493	51.8
9	TRIMETHYLBEN	15.323	15.330	-0.007	143635	54.6175	54.6
10	NAPHTHALENE	18.563	18.567	-0.004	108088	51.0673	51.1
11	1-METHYLNAP	20.410	20.413	-0.003	77670	56.9433	56.9
$ 37	DIBROMOTOL	20.207	20.210	-0.003	95159	47.2825	47.3

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1231-1.b/1231a003.d
Lab Smp Id: LCS1231
Inj Date : 31-DEC-2009 08:20
Operator : MH Inst ID: pid1.i
Smp Info : LCS1231
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

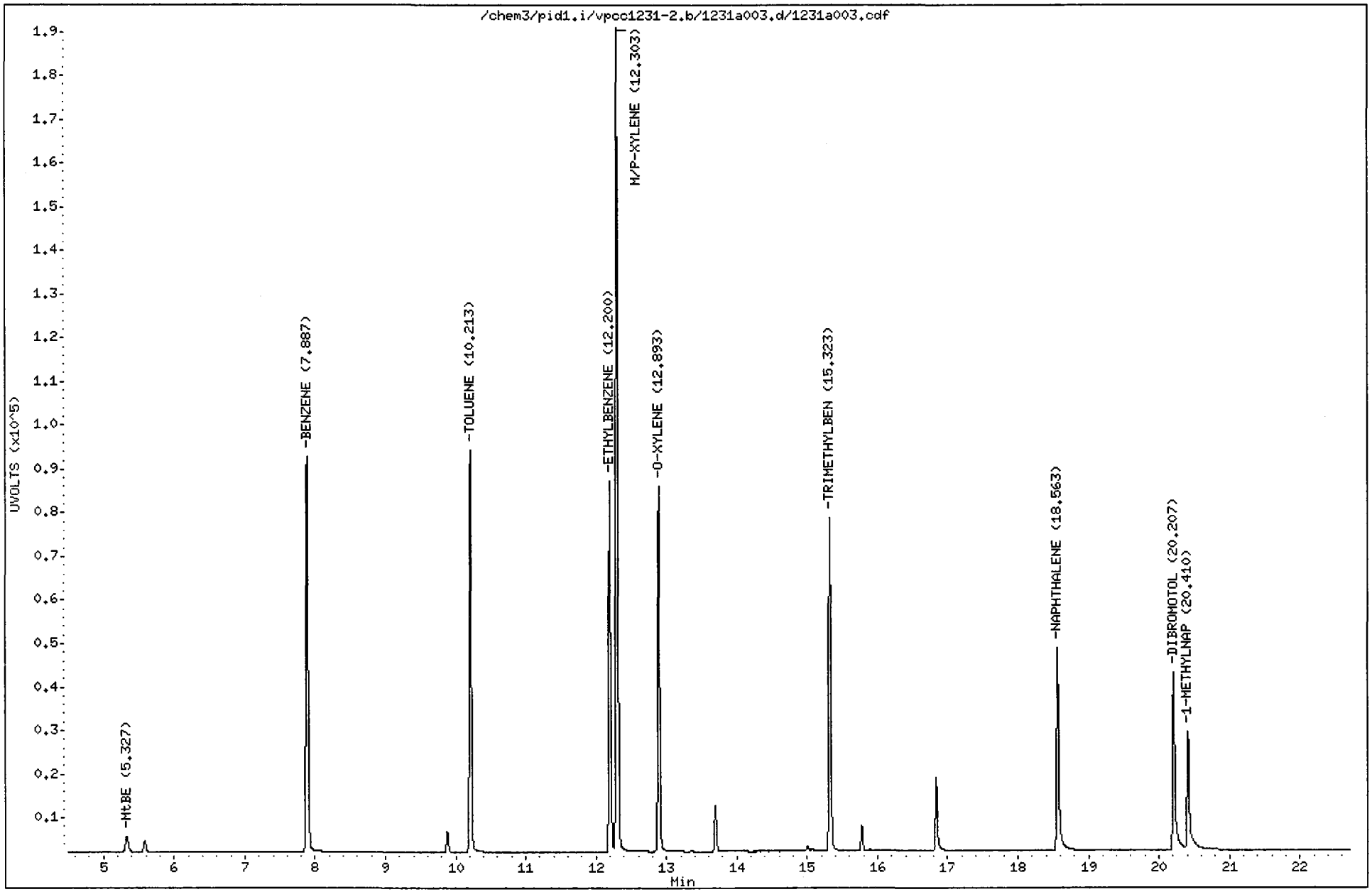
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.040	4.033	0.007	18673	58.5743	58.6(M)
	2 nC6	5.580	5.583	-0.003	18636	51.4498	51.4
	4 nC8	9.883	9.887	-0.004	12947	44.3193	44.3(M)
	5 nC10	13.693	13.703	-0.010	16412	52.2688	52.3
	7 nC12	16.837	16.843	-0.006	22421	63.3977	63.4(M)
$	8 2,5-DBT	20.207	20.210	-0.003	5509	47.2078	47.2

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1231-2.b/1231a003.d
Date : 31-DEC-2009 08:20
Client ID:
Sample Info: LCS1231

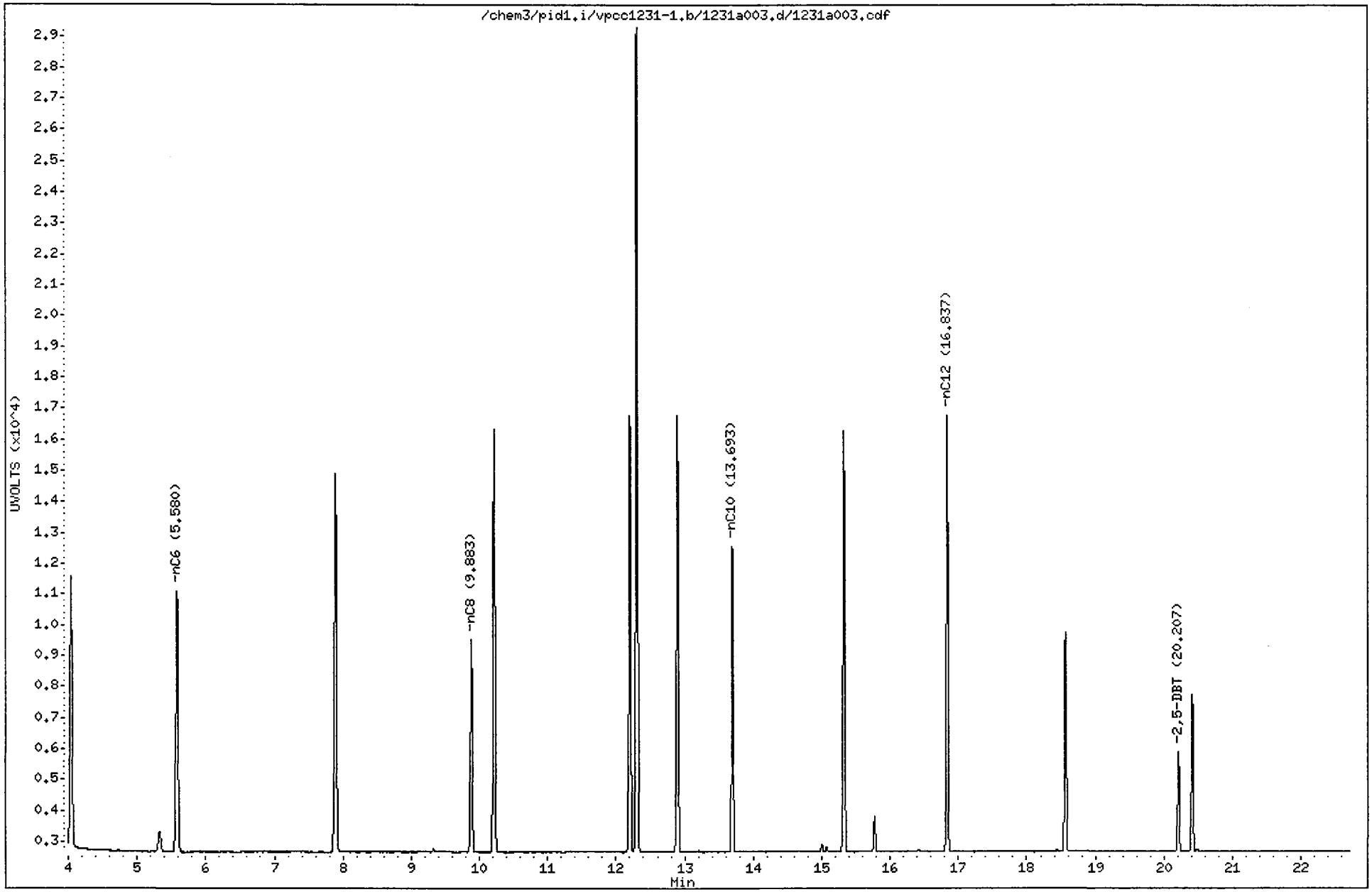
Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18



QC29:09291

Data File: /chem3/pid1.i/vpcc1231-1.b/1231a003.d
Date : 31-DEC-2009 08:20
Client ID:
Sample Info: LCS1231

Instrument: pid1.i
Operator: MH
Column phase: RTX502-2 ALI
Column diameter: 0.18



QC26 : 00292

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a003.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

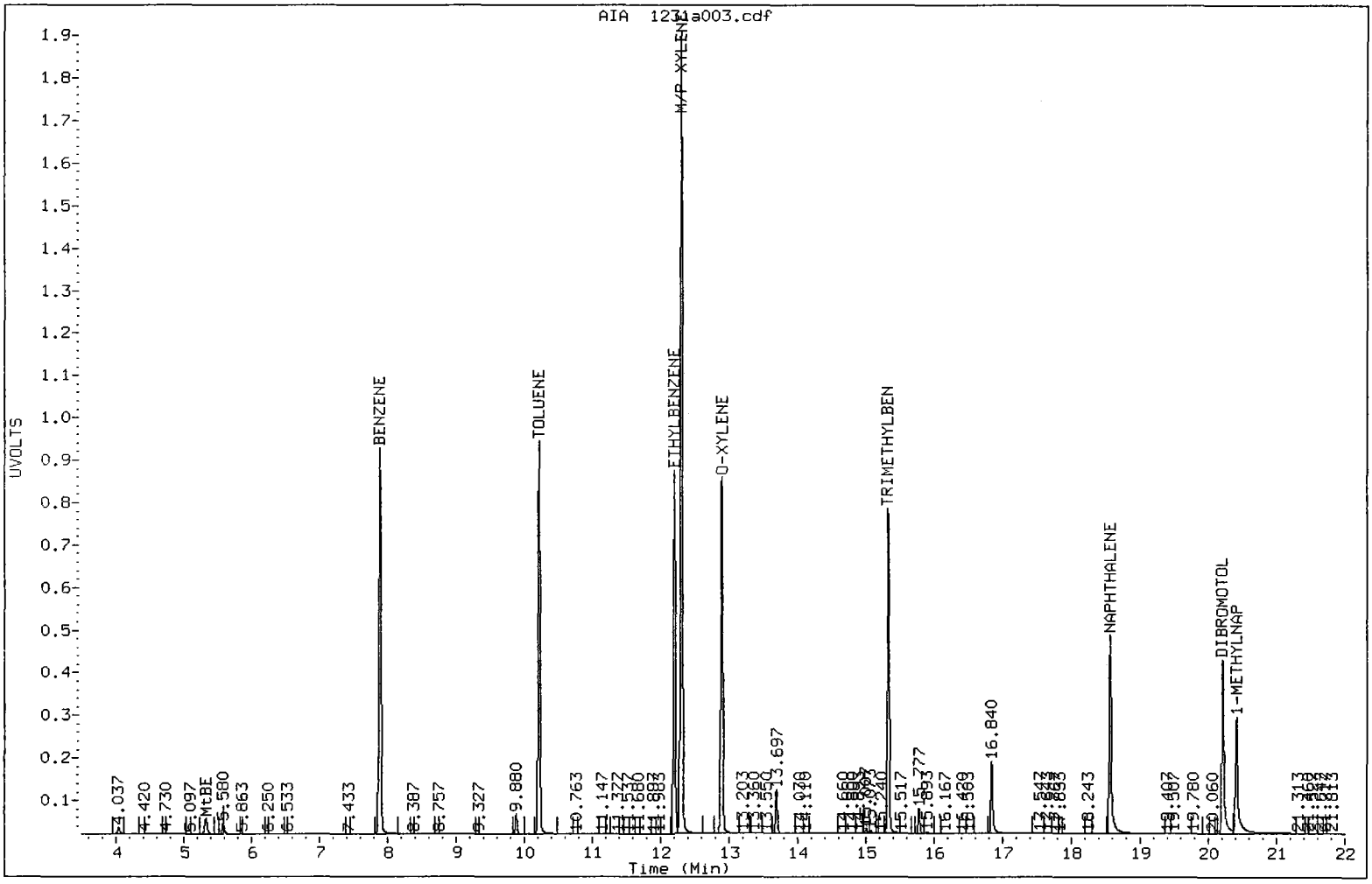
ARI ID: LCS1231
Client ID:
Injection: 31-DEC-2009 08:20
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.327	0.003	3580	49.8	C8-C10	Arom.	849824*	323.1
BENZENE	7.887	-0.003	90643	51.4	C10-C12	Arom.	156376	73.9
TOLUENE	10.213	-0.007	92228	52.1	C12-C13	Arom.	77873	57.1
ETHYLBENZENE	12.200	-0.007	85288	52.7				
M/P-XYLENE	12.303	-0.010	188772	105.0				
O-XYLENE	12.893	-0.007	83812	51.8				
TRIMETHYLBEN	15.323	-0.007	76447	54.6				
NAPHTHALENE	18.563	-0.003	46850	51.1				
1-METHYLNAP	20.410	-0.003	27253	56.9				
DIBROMOTOL	20.207	-0.003	41000	47.3	DBT Recovery:		94.6	

* Indicates surrogate area subtracted

LCS1231 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a003.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

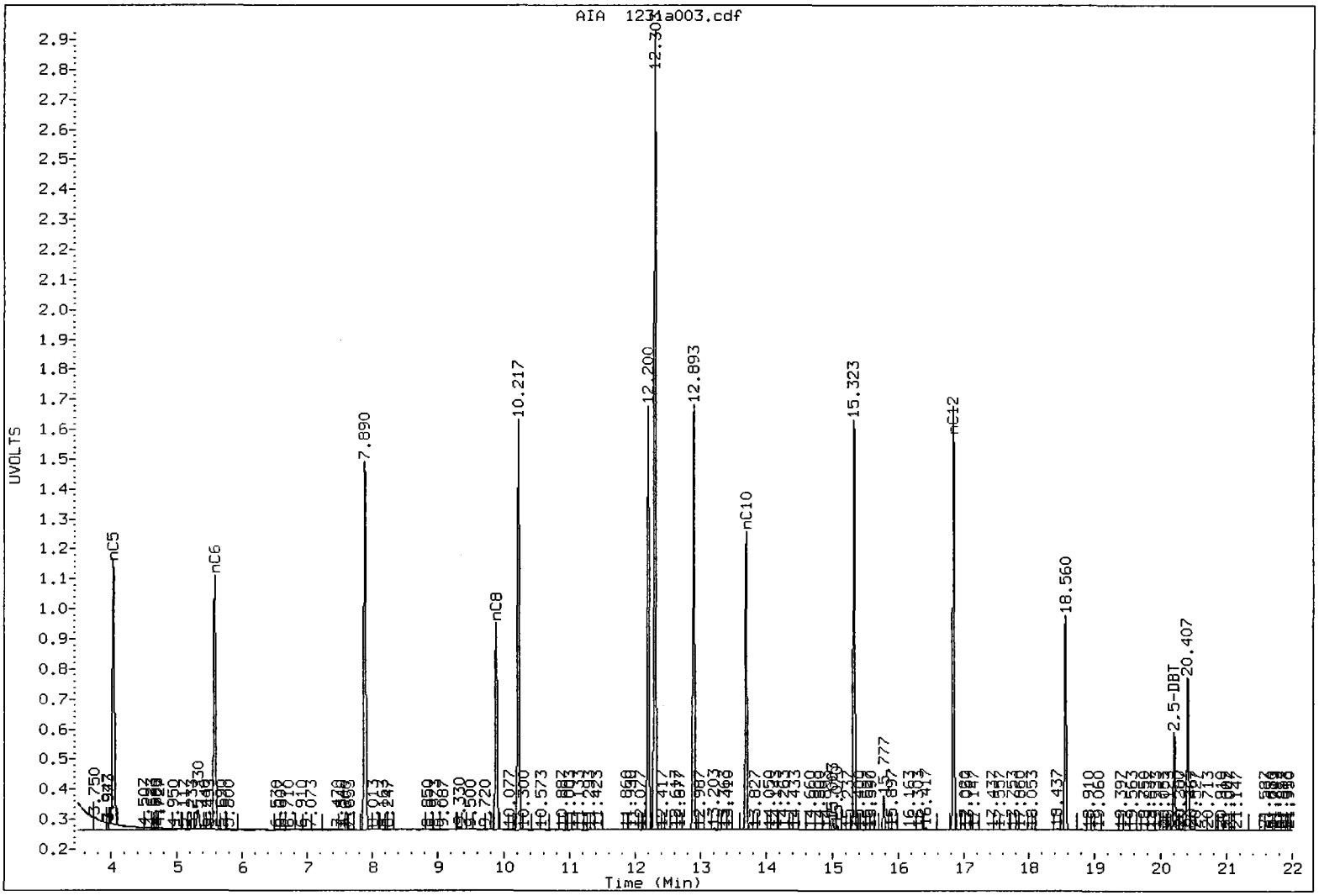
ARI ID: LCS1231
Client ID:
Injection: 31-DEC-2009 08:20
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.040	0.007	8769	18673	C5-C6	Aliph.	44247	129.9
nC6	5.580	-0.003	8445	18636	C6-C8	Aliph.	39238*	134.3
nC8	9.883	-0.003	6874	12947	C8-C10	Aliph.	140995	449.0
nC10	13.693	-0.010	9915	16412	C10-C12	Aliph.	49622*	140.3
nC12	16.837	-0.007	14114	22421				

* Indicates surrogate area subtracted

LCS1231 ALIPHATIC (FID) SIGNAL



1/6/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc1231-2.b/1231a004.d
Lab Smp Id: LCSD1231 Client Smp ID: LCSD1231S1
Inj Date : 31-DEC-2009 08:51
Operator : MH Inst ID: pid1.i
Smp Info : LCSD1231
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Meth Date : 05-Jan-2010 13:21 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1 MtBE	5.330	5.333	-0.003	10059	50.3629	50.4(M)
2 BENZENE	7.890	7.890	0.000	195126	51.7692	51.8
4 TOLUENE	10.217	10.217	0.000	180596	52.4180	52.4
5 ETHYLBENZENE	12.200	12.200	0.000	160785	53.8439	53.8
6 M/P-XYLENE	12.303	12.303	0.000	373200	107.069	107
7 O-XYLENE	12.893	12.893	0.000	162466	53.1909	53.2
9 TRIMETHYLBEN	15.323	15.323	0.000	145123	55.1832	55.2
10 NAPHTHALENE	18.563	18.563	0.000	121413	57.3629	57.4
11 1-METHYLNAP	20.410	20.410	0.000	89365	65.5170	65.5(M)
$ 37 DIBROMOTOL	20.210	20.210	0.000	108454	53.8886	53.9

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc1231-1.b/1231a004.d
Lab Smp Id: LCSD1231
Inj Date : 31-DEC-2009 08:51
Operator : MH Inst ID: pid1.i
Smp Info : LCSD1231
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Meth Date : 31-Dec-2009 06:49 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.040	4.033	0.007	18507	58.0523	58.0(M)
	2 nC6	5.583	5.583	0.000	18632	51.4399	51.4
	4 nC8	9.883	9.887	-0.004	14824	50.7428	50.7
	5 nC10	13.697	13.703	-0.006	18510	58.9527	59.0
	7 nC12	16.840	16.843	-0.003	22496	63.6109	63.6(M)
$	8 2,5-DBT	20.207	20.210	-0.003	6245	53.5158	53.5

QC Flag Legend

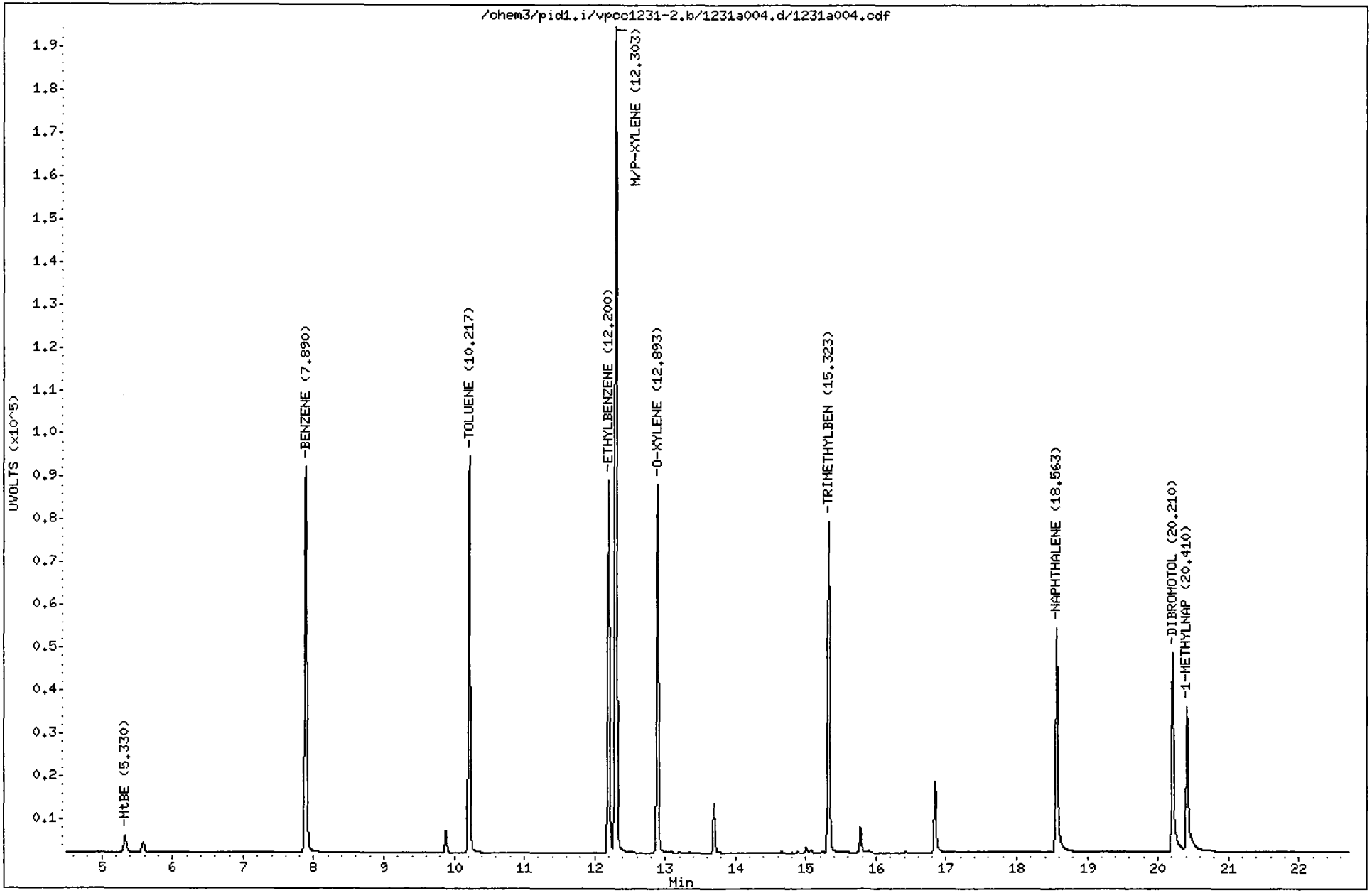
M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc1231-2.b/1231a004.d
Date : 31-DEC-2009 08:51
Client ID:
Sample Info: LCSD1231

Instrument: pid1.i

Operator: MH
Column diameter: 0.18

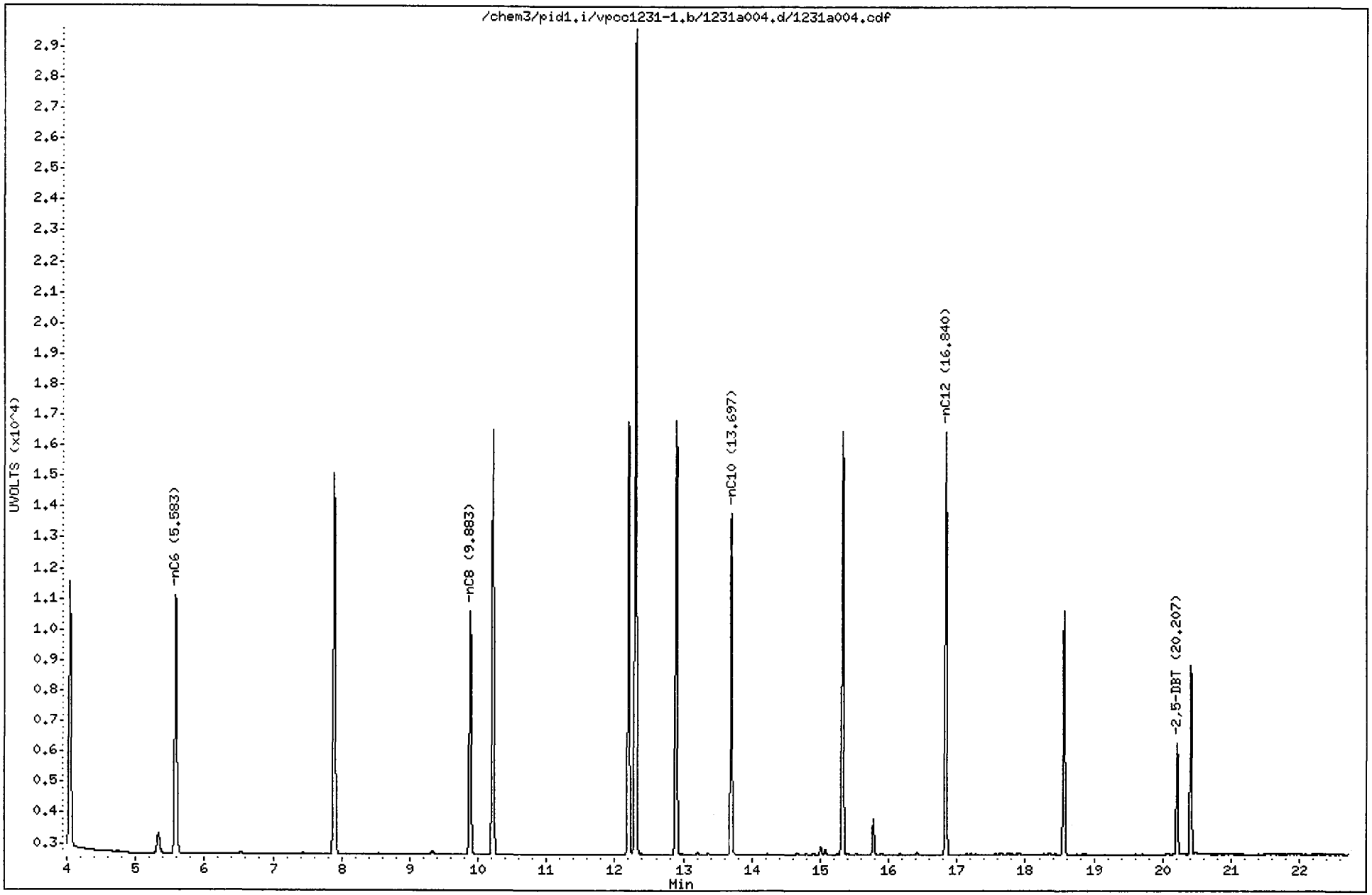
Column phase: RTX 502-2 ARO



Data File: /chem3/pid1.i/vpcc1231-1.b/1231a004.d
Date : 31-DEC-2009 08:51
Client ID:
Sample Info: LCSD1231

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX502-2 ALI



GC26:00298

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc1231-2.b/1231a004.d
Method: /chem3/pid1.i/vpcc1231-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

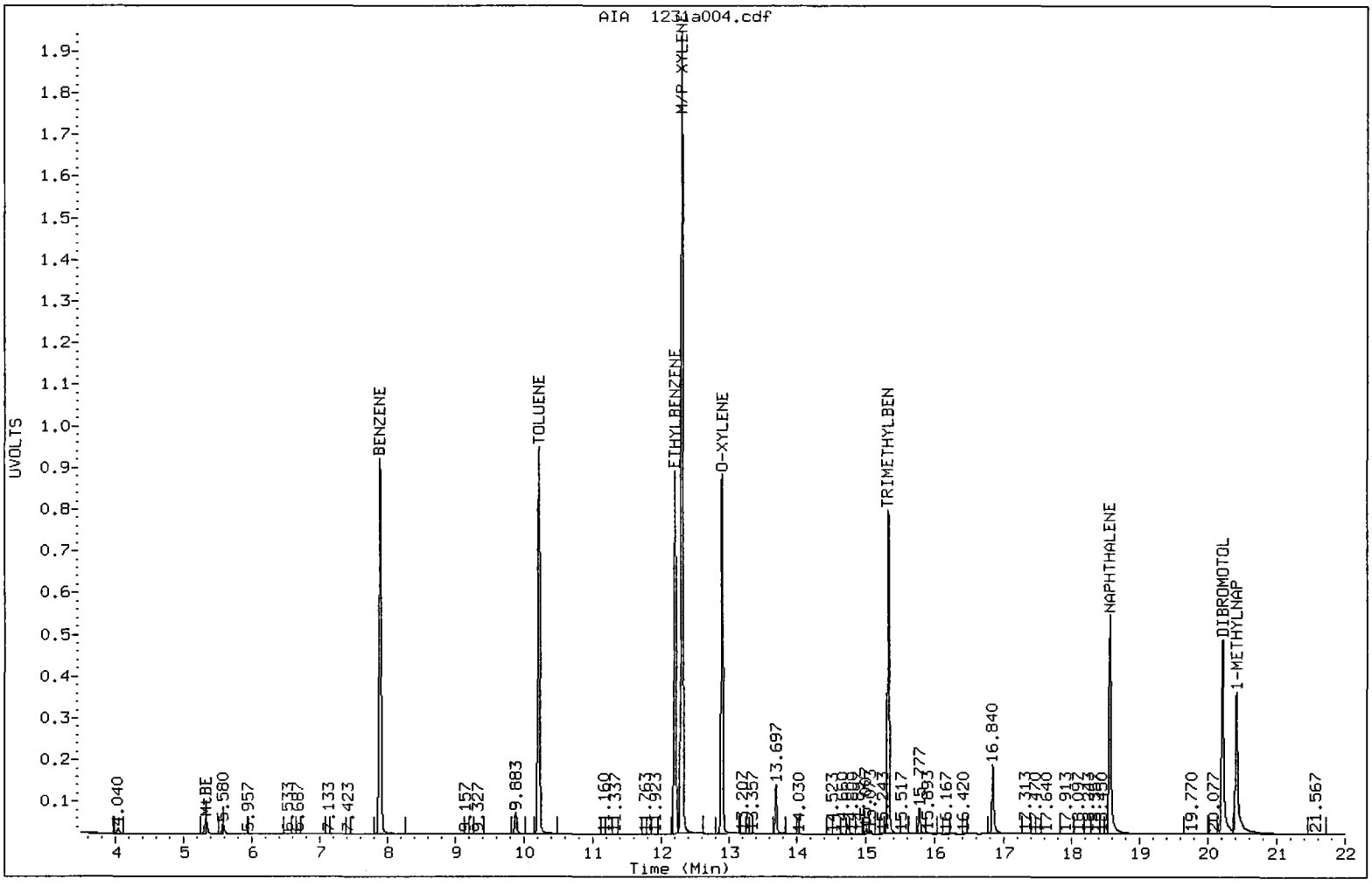
ARI ID: LCSD1231
Client ID:
Injection: 31-DEC-2009 08:51
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.330	0.007	3654	24.8	C8-C10	Arom.	867488*	329.9
BENZENE	7.890	0.000	90107	51.8	C10-C12	Arom.	169439	80.1
TOLUENE	10.217	-0.003	92801	52.4	C12-C13	Arom.	94732	69.5
ETHYLBENZENE	12.200	-0.007	87040	53.8				
M/P-XYLENE	12.303	-0.010	192249	107.1				
O-XYLENE	12.893	-0.007	86066	53.2				
TRIMETHYLBEN	15.323	-0.007	77454	55.2				
NAPHTHALENE	18.563	-0.003	52560	57.4				
1-METHYLNAP	20.410	-0.003	33830	69.3				
DIBROMOTOL	20.210	0.000	46494	54.0	DBT Recovery: 108.0			

* Indicates surrogate area subtracted

LCSD1231 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc1231-1.b/1231a004.d
Method: /chem3/pid1.i/vpcc1231-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

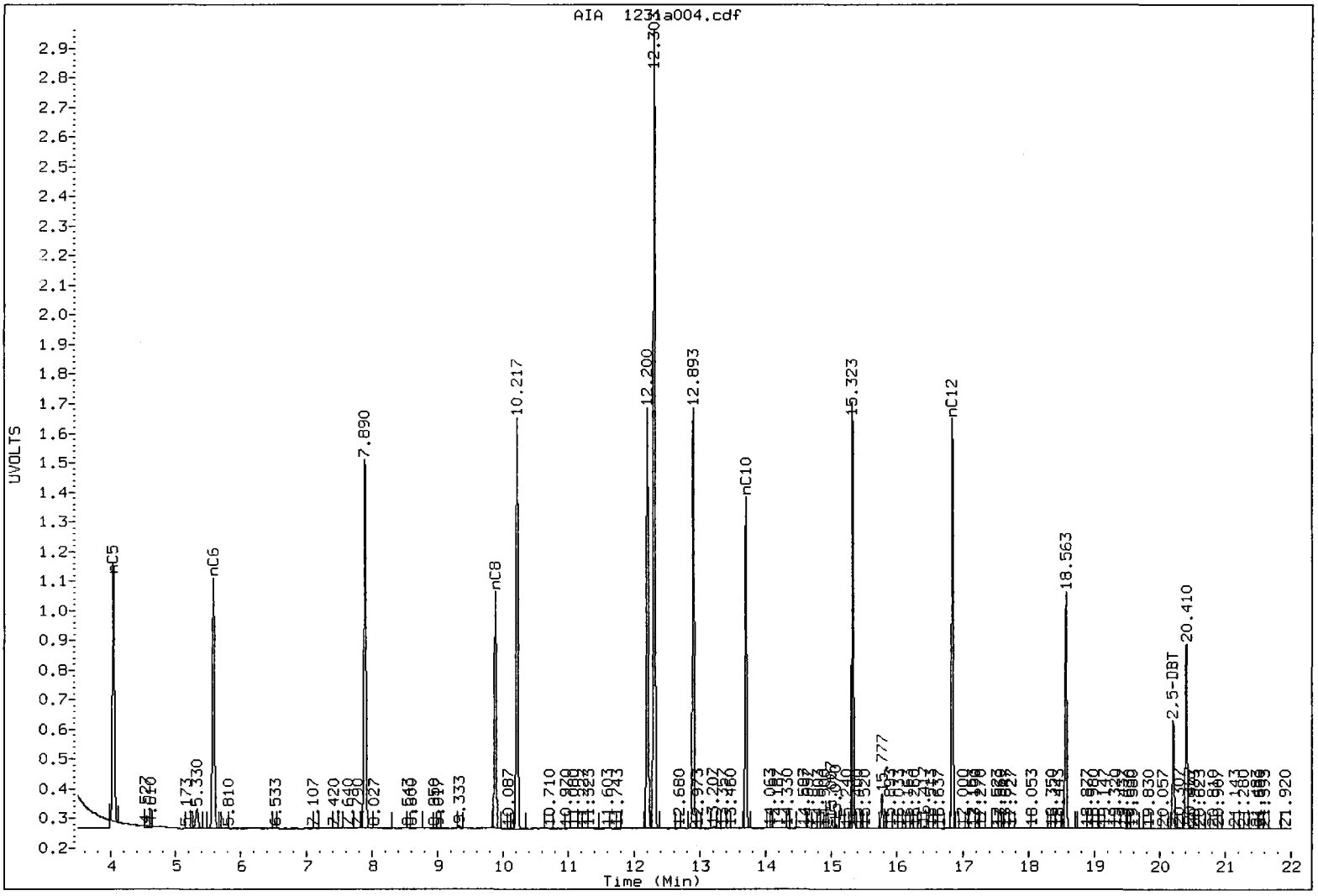
ARI ID: LCSD1231
Client ID:
Injection: 31-DEC-2009 08:51
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.040	0.007	8668	18507	C5-C6	Aliph.	39520	116.1
nC6	5.583	0.000	8436	18632	C6-C8	Aliph.	41124*	140.8
nC8	9.883	-0.003	7967	14824	C8-C10	Aliph.	144281	459.5
nC10	13.697	-0.007	11149	18510	C10-C12	Aliph.	37195*	105.2
nC12	16.840	-0.003	13840	22496				

* Indicates surrogate area subtracted

LCSD1231 ALIPHATIC (FID) SIGNAL



QC25 : 00300

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
VPH by Method WA VPH
Page 1 of 1

Sample ID: MB-010510
METHOD BLANK

Lab Sample ID: MB-010510
LIMS ID: 09-31263
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: NA
Date Received: NA

Date Analyzed: 01/05/10 16:40
Instrument/Analyst: PID1/MH

Purge Volume: 10 mL
Sample Amount: 111 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
179601-23-1	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics	4,500	< 4,500 U
C10-C12 Aromatics	4,500	< 4,500 U
C12-C13 Aromatics	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	91.2%
FID: 2,5-Dibromotoluene	89.2%

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Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a006.d
Lab Smp Id: MB0105S1 Client Smp ID: MB0105S1
Inj Date : 05-JAN-2010 16:40
Operator : MH Inst ID: pid1.i
Smp Info : MB0105S1
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/L)
==========	==	======	======	========	=======	=======
1 MtBE	5.313	5.330	-0.017	26	0.13217	0.132
2 BENZENE	7.890	7.887	0.003	54	0.01451	0.0145
4 TOLUENE	10.217	10.213	0.004	44	0.01297	0.0130
5 ETHYLBENZENE	12.190	12.197	-0.007	33	0.01112	0.0111
6 M/P-XYLENE	12.300	12.297	0.003	86	0.02490	0.0249
7 O-XYLENE	12.857	12.890	-0.033	306	0.10031	0.100
9 TRIMETHYLBEN	15.320	15.320	0.000	48	0.01825	0.0182
10 NAPHTHALENE	18.560	18.560	0.000	290	0.13711	0.137
11 1-METHYLNAP	20.407	20.407	0.000	4868	3.56920	3.57
$ 37 DIBROMOTOL	20.207	20.203	0.004	91731	45.5791	45.6

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a006.d
Lab Smp Id: MB0105S1 Client Smp ID: MB0105S1
Inj Date : 05-JAN-2010 16:40
Operator : MH Inst ID: pid1.i
Smp Info : MB0105S1
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.037	4.047	-0.010	656	2.05988	2.06
	2 nC6	5.570	5.587	-0.017	36	0.09939	0.0994
	4 nC8	9.877	9.880	-0.003	84	0.29027	0.290
	5 nC10	13.690	13.690	0.000	202	0.64524	0.645
	7 nC12	16.830	16.833	-0.003	461	1.30407	1.30
$	8 2,5-DBT	20.203	20.203	0.000	5201	44.5704	44.6

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a006.d

Date : 05-JAN-2010 16:40

Client ID: MB0105S1

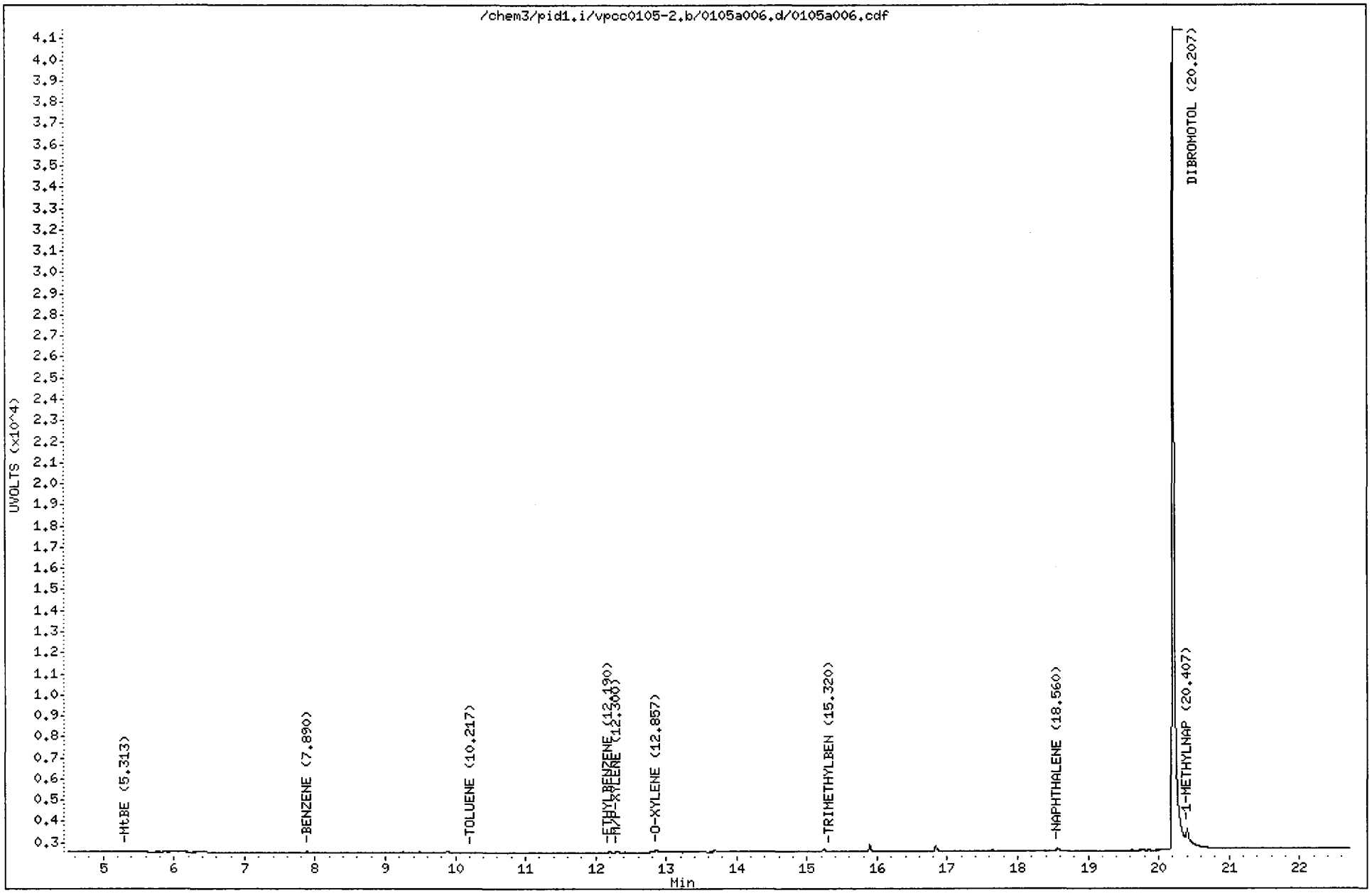
Sample Info: MB0105S1

Column phase: RTX 502-2 ARO

Instrument: pid1.i

Operator: MH

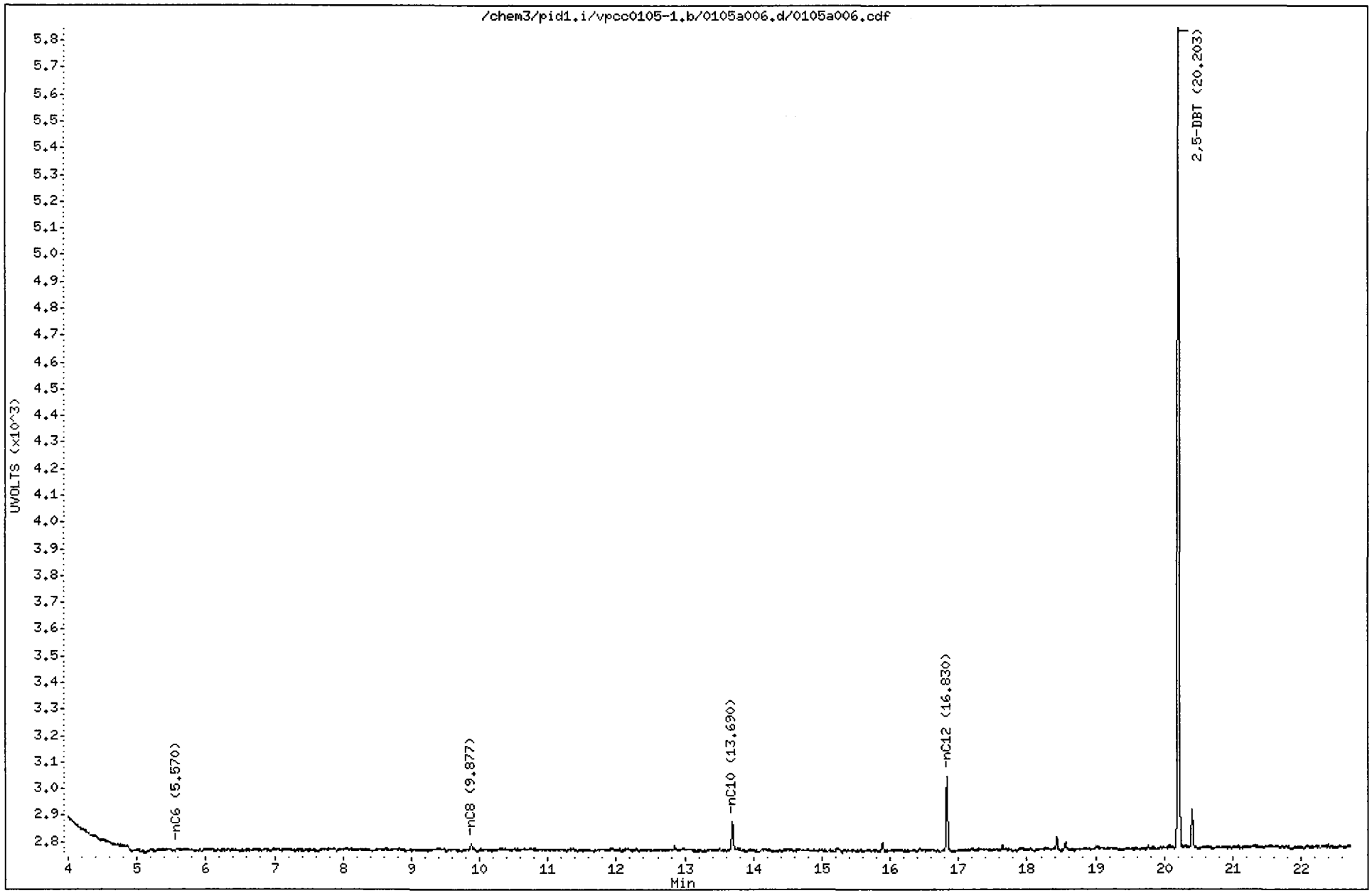
Column diameter: 0.18



QC26:00304

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a006.d
Date : 05-JAN-2010 16:40
Client ID: MB0105S1
Sample Info: MB0105S1

Instrument: pid1.i
Operator: MH
Column phase: RTX502-2 ALI
Column diameter: 0.18



GC25:66385

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a006.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

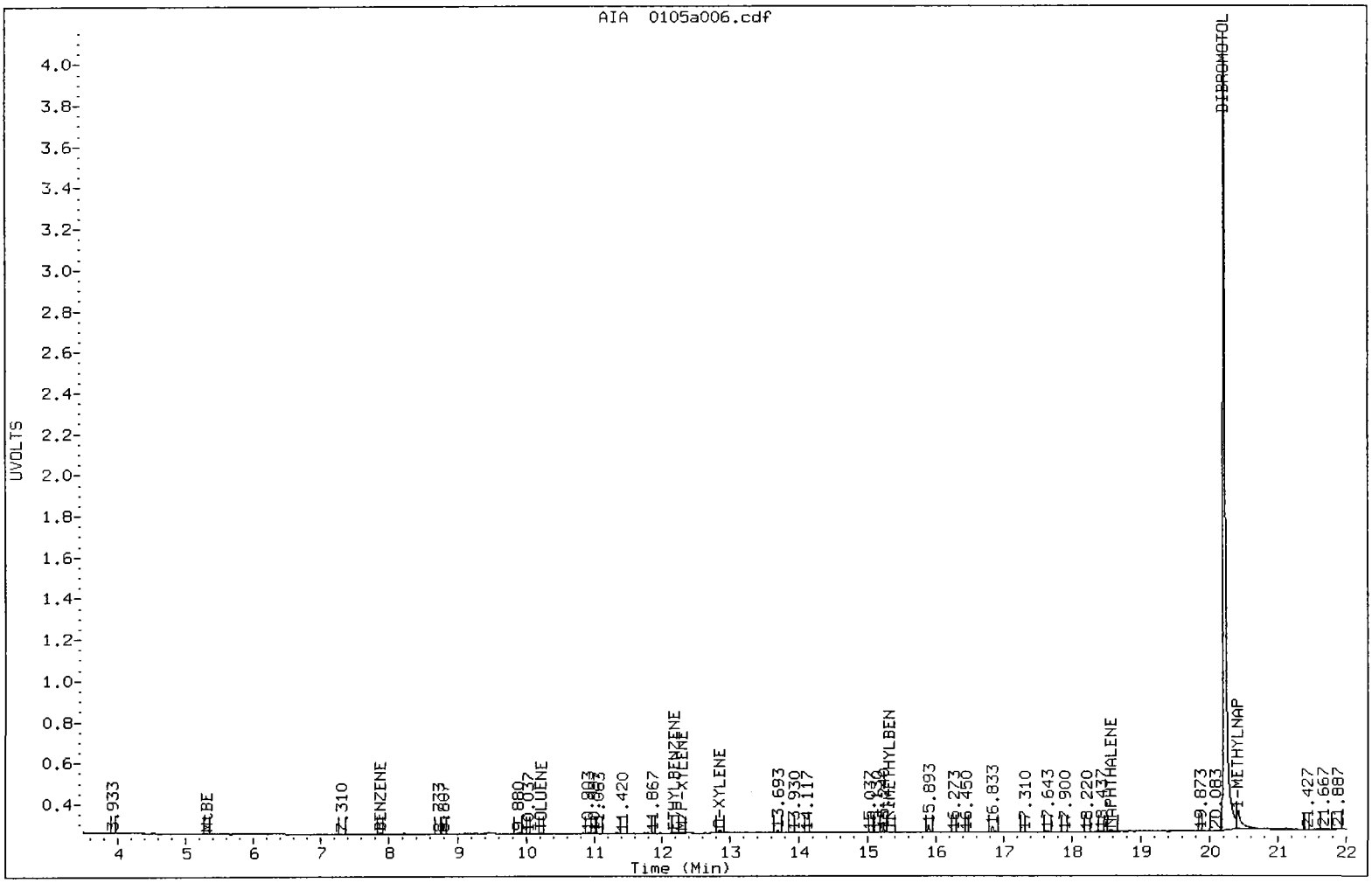
ARI ID: MB0105S1
Client ID: MB0105S1
Injection: 05-JAN-2010 16:40
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.313	-0.017	13	0.1	C8-C10	Arom.	1135*	0.4
BENZENE	7.890	0.003	20	0.0	C10-C12	Arom.	1699	0.8
TOLUENE	10.217	0.003	25	0.0	C12-C13	Arom.	4944	3.6
ETHYLBENZENE	12.190	-0.007	17	0.0				
M/P-XYLENE	12.300	0.003	41	0.0				
O-XYLENE	12.857	-0.033	114	0.1				
TRIMETHYLBEN	15.320	0.000	21	0.0				
NAPHTHALENE	18.560	0.000	112	0.1				
1-METHYLNAP	20.407	0.000	900	3.6				
DIBROMOTOL	20.207	0.003	38889	45.6	DBT Recovery:		91.2	

* Indicates surrogate area subtracted

MB0105S1 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a006.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

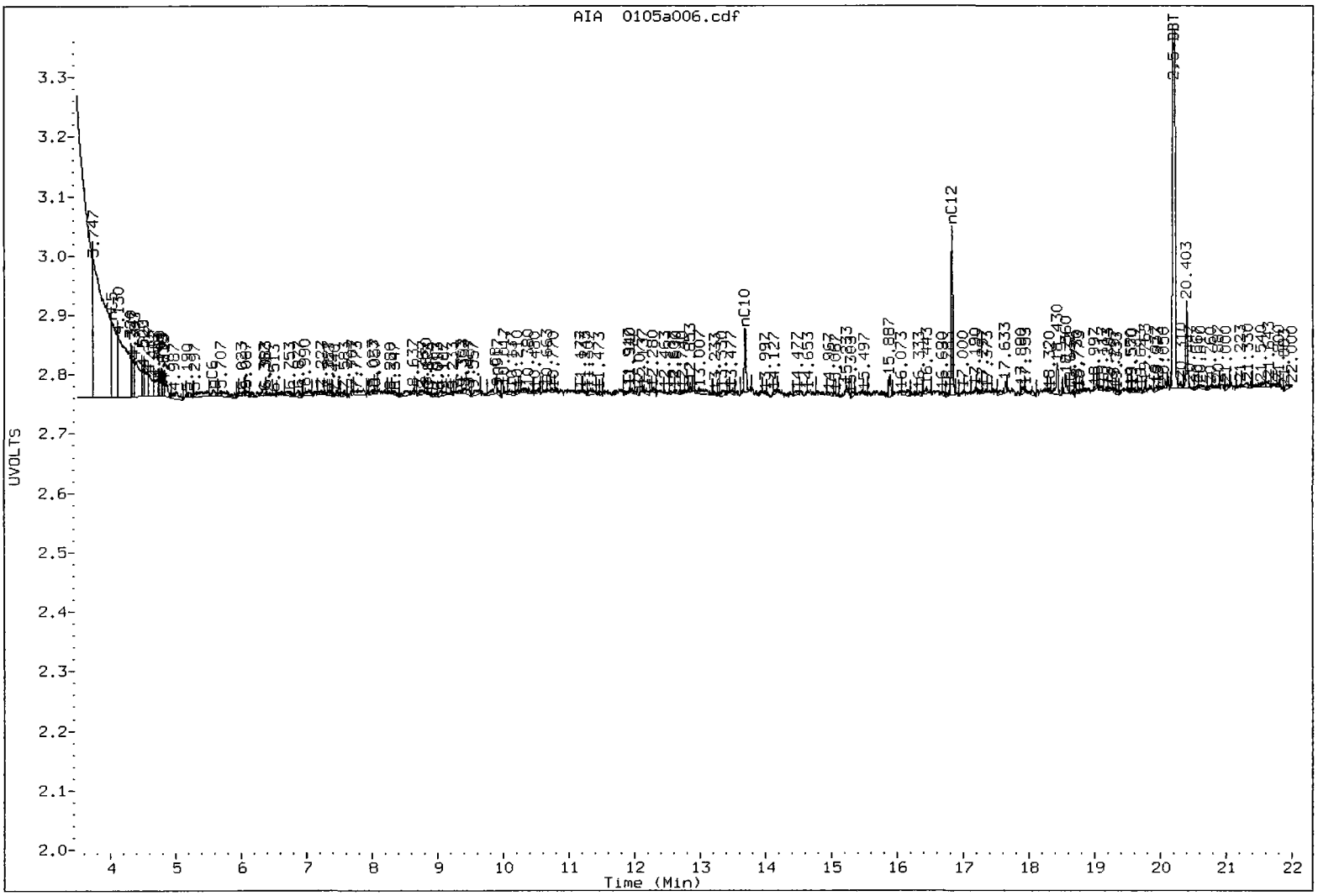
ARI ID: MB0105S1
Client ID: MB0105S1
Injection: 05-JAN-2010 16:40
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.037	-0.010	126	656	C5-C6	Aliph.	3182	9.3
nC6	5.570	-0.017	10	36	C6-C8	Aliph.	1023*	3.5
nC8	9.877	-0.003	28	84	C8-C10	Aliph.	816	2.6
nC10	13.690	0.000	109	202	C10-C12	Aliph.	821*	2.3
nC12	16.830	-0.003	284	461				

* Indicates surrogate area subtracted

MB0105S1 ALIPHATIC (FID) SIGNAL



MH 1/6/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a003.d
Lab Smp Id: LCS0105S1 Client Smp ID: LCS0105S1
Inj Date : 05-JAN-2010 15:05
Operator : MH Inst ID: pid1.i
Smp Info : LCS0105S1
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	==========	==	======	======	========	=======	=======
1	MtBE	5.327	5.330	-0.003	10448	52.3089	52.3
2	BENZENE	7.887	7.887	0.000	197434	52.3815	52.4
4	TOLUENE	10.213	10.213	0.000	181540	52.6919	52.7
5	ETHYLBENZENE	12.197	12.197	0.000	160544	53.7635	53.8
6	M/P-XYLENE	12.300	12.297	0.003	372536	106.879	107
7	O-XYLENE	12.890	12.890	0.000	161229	52.7857	52.8
9	TRIMETHYLBEN	15.320	15.320	0.000	146852	55.8411	55.8
10	NAPHTHALENE	18.560	18.560	0.000	114076	53.8966	53.9
11	1-METHYLNAP	20.407	20.407	0.000	87639	64.2520	64.2
$ 37	DIBROMOTOL	20.207	20.203	0.004	109079	54.1989	54.2

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a003.d
Lab Smp Id: LCS0105S1 Client Smp ID: LCS0105S1
Inj Date : 05-JAN-2010 15:05
Operator : MH Inst ID: pid1.i
Smp Info : LCS0105S1
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

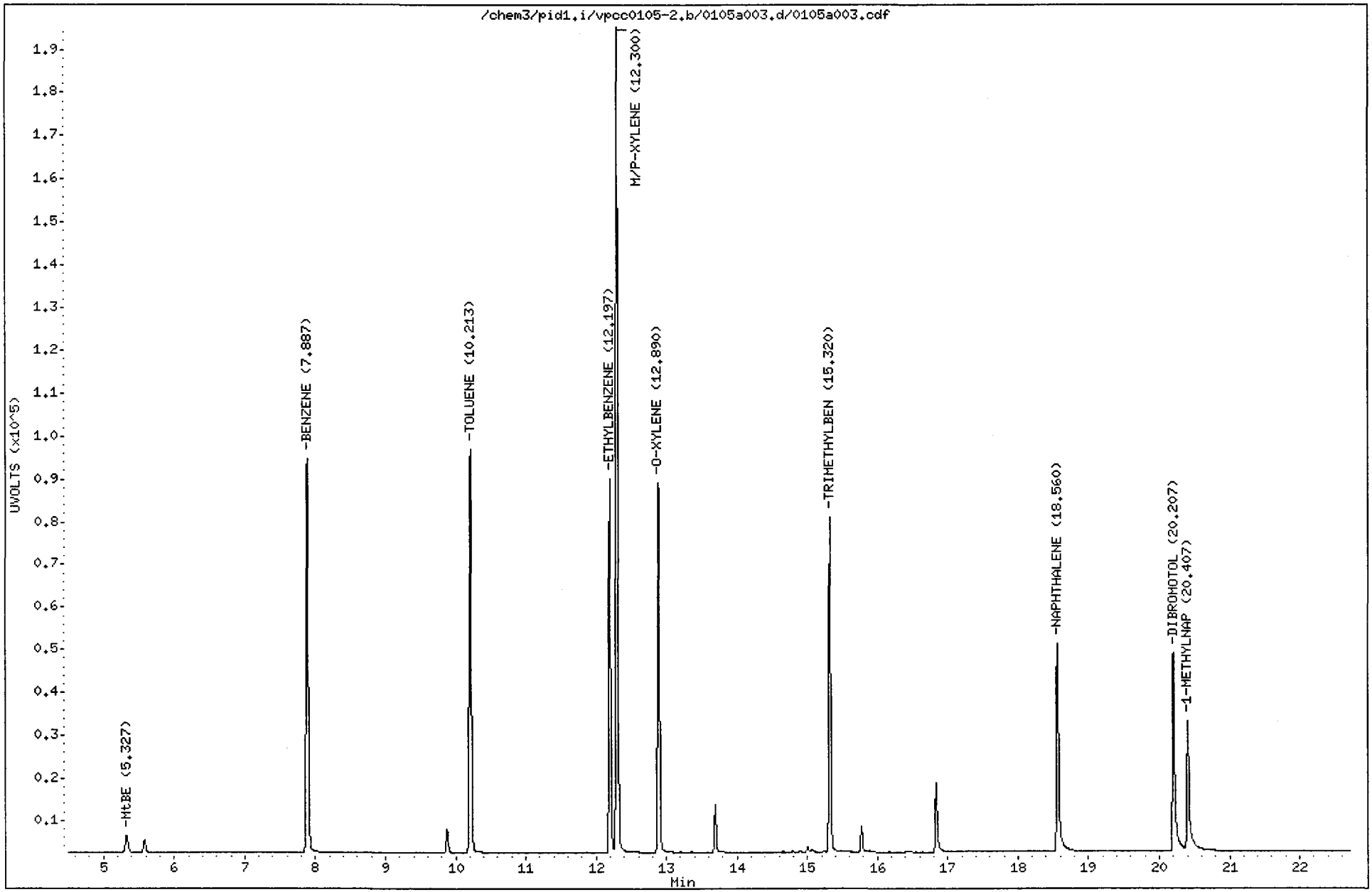
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.040	4.047	-0.007	18688	58.6213	58.6(M)
	2 nC6	5.583	5.587	-0.004	19155	52.8851	52.9
	4 nC8	9.883	9.880	0.003	14745	50.4717	50.5
	5 nC10	13.693	13.690	0.003	16956	54.0017	54.0
	7 nC12	16.837	16.833	0.004	21332	60.3197	60.3
$	8 2,5-DBT	20.203	20.203	0.000	6100	52.2743	52.3

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a003.d
Date : 05-JAN-2010 15:05
Client ID: LCS0105S1
Sample Info: LCS0105S1

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18



QC26:00319

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a003.d

Date : 05-JAN-2010 15:05

Client ID: LCS0105S1

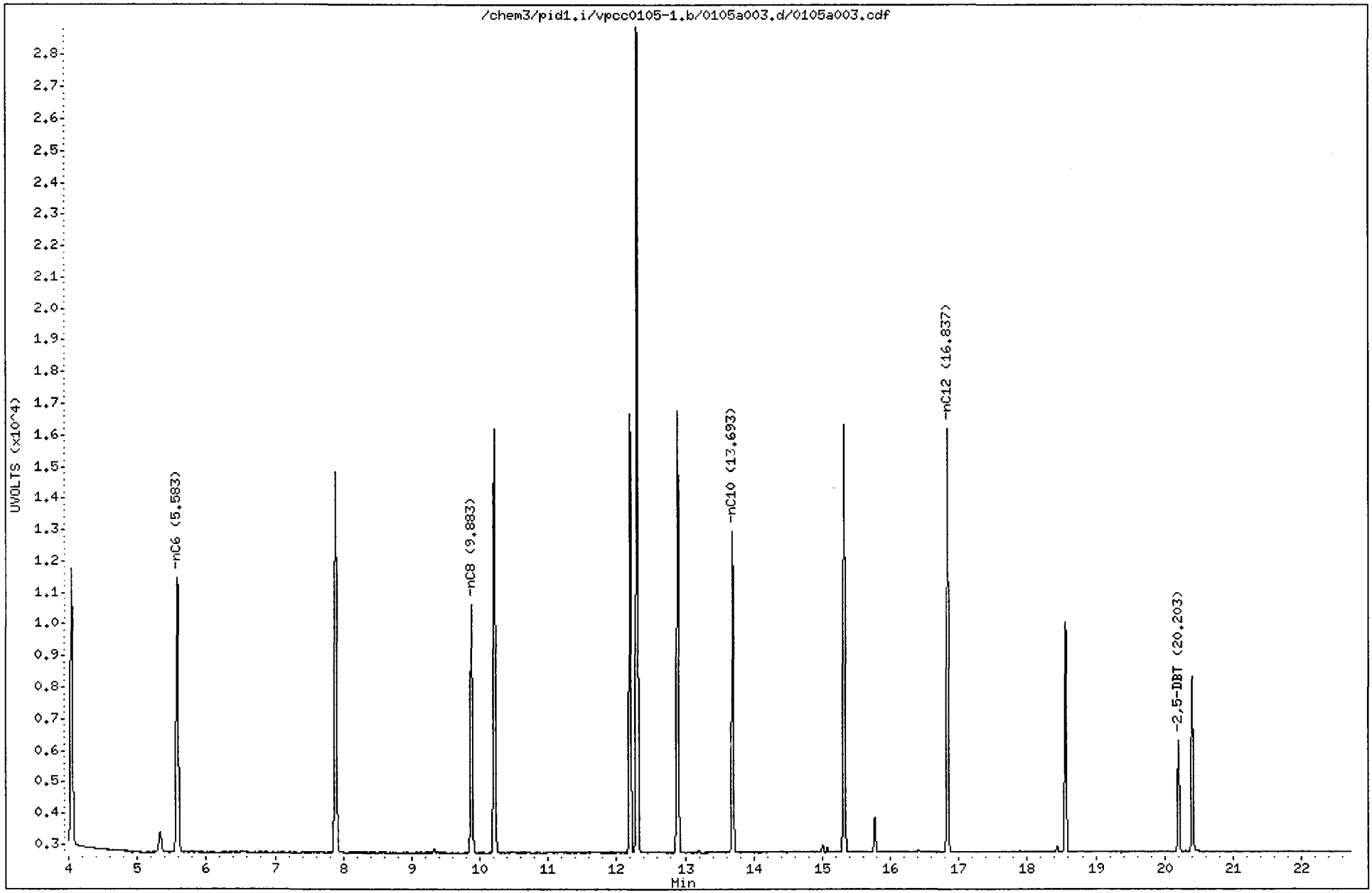
Sample Info: LCS0105S1

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



QC26:00311

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a003.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

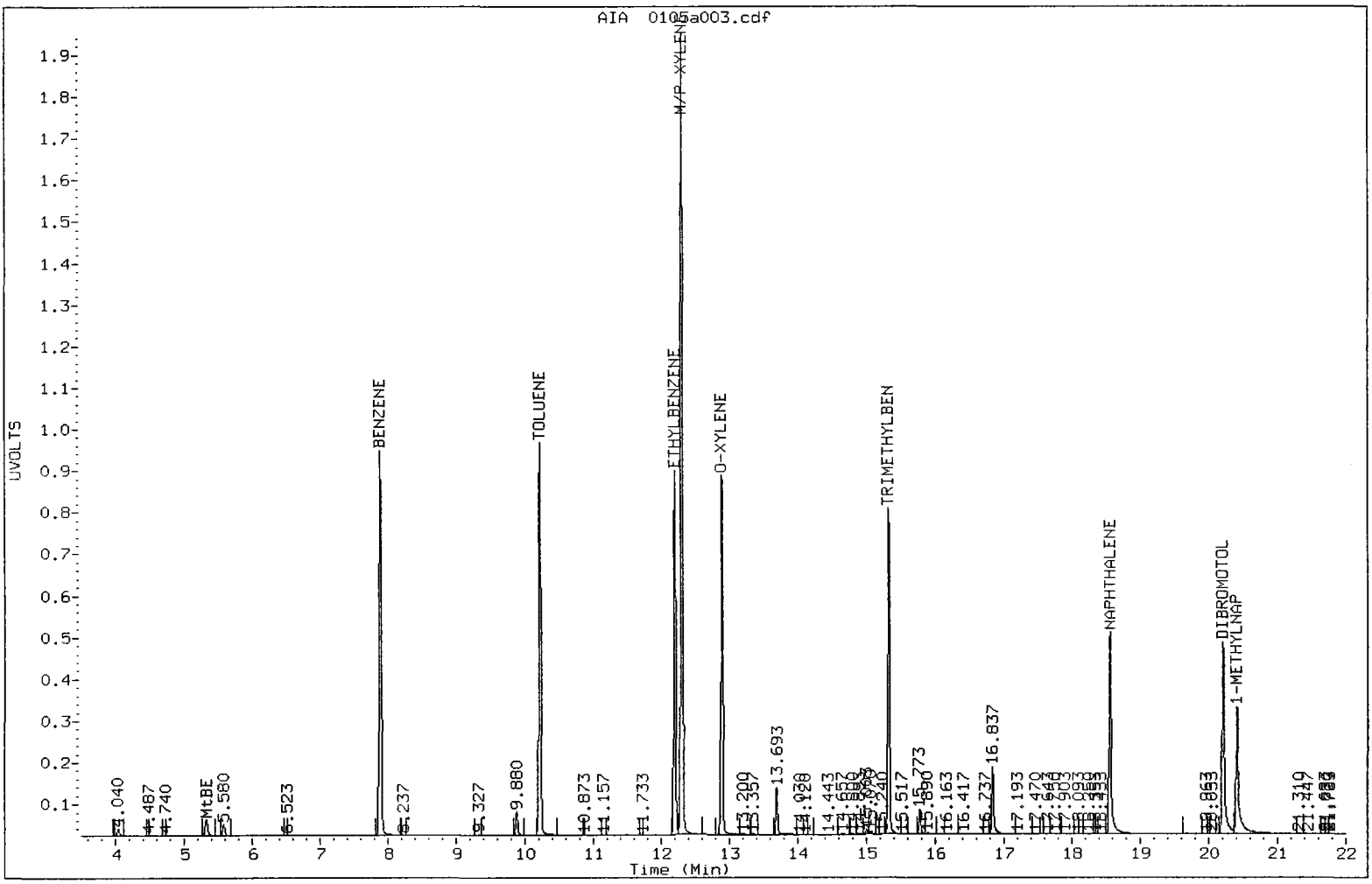
ARI ID: LCS0105S1
Client ID: LCS0105S1
Injection: 05-JAN-2010 15:05
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.327	-0.003	3780	52.3	C8-C10	Arom.	866842*	329.6
BENZENE	7.887	0.000	92294	52.4	C10-C12	Arom.	161575	76.3
TOLUENE	10.213	0.000	94284	52.7	C12-C13	Arom.	87718	64.3
ETHYLBENZENE	12.197	0.000	87417	53.8				
M/P-XYLENE	12.300	0.003	192651	106.9				
O-XYLENE	12.890	0.000	86457	52.8				
TRIMETHYLBEN	15.320	0.000	78336	55.8				
NAPHTHALENE	18.560	0.000	48599	53.9				
1-METHYLNAP	20.407	0.000	30354	64.3				
DIBROMOTOL	20.207	0.003	46187	54.2	DBT Recovery: 108.4			

* Indicates surrogate area subtracted

LCS0105S1 AROMATIC (PID) SIGNAL



QC26:00312

Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a003.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

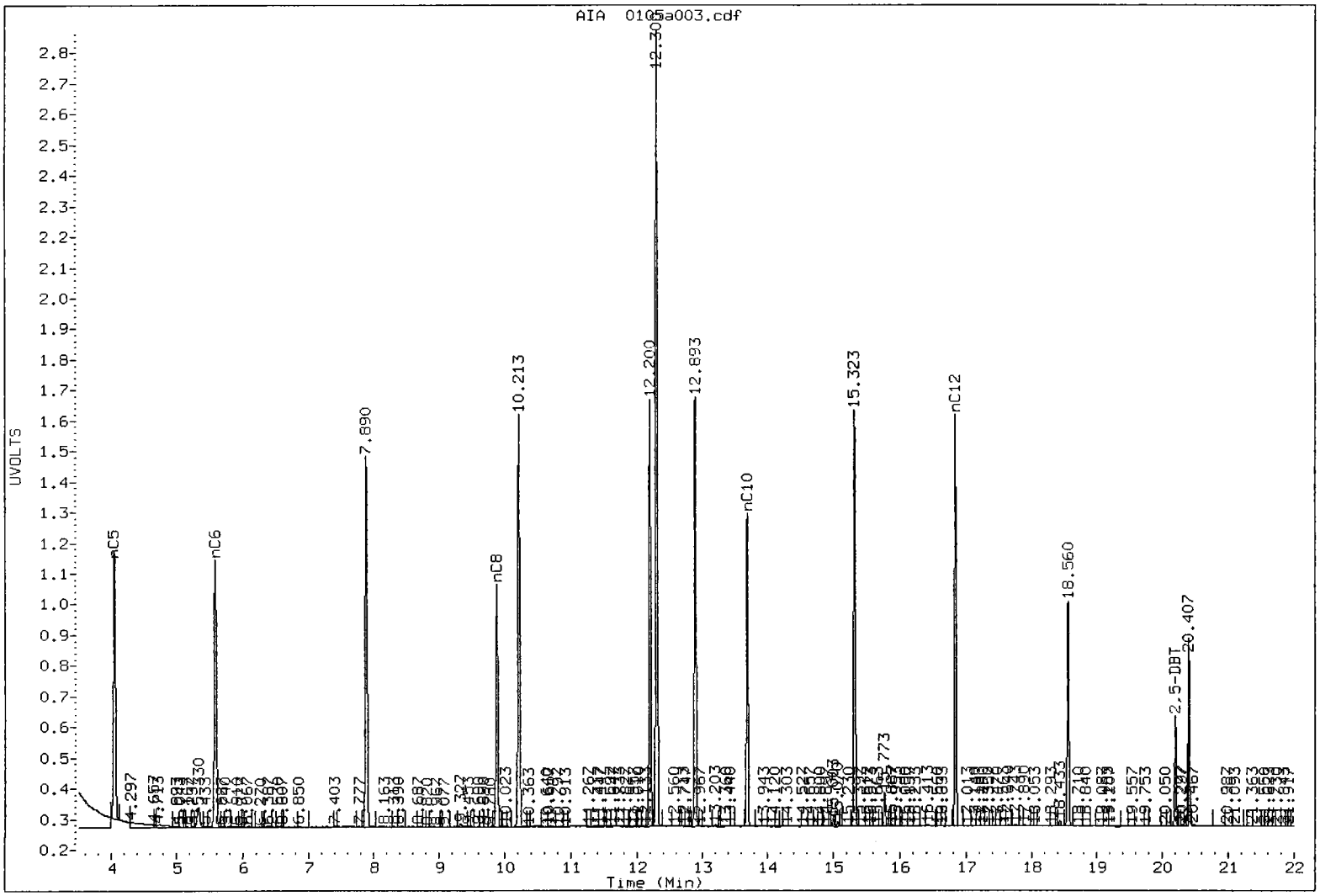
ARI ID: LCS0105S1
Client ID: LCS0105S1
Injection: 05-JAN-2010 15:05
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.040	-0.007	8762	18688	C5-C6	Aliph.	43342	127.3
nC6	5.583	-0.003	8716	19155	C6-C8	Aliph.	40787*	139.6
nC8	9.883	0.003	7883	14745	C8-C10	Aliph.	140136	446.3
nC10	13.693	0.003	10208	16956	C10-C12	Aliph.	48146*	136.1
nC12	16.837	0.003	13447	21332				

* Indicates surrogate area subtracted

LCS0105S1 ALIPHATIC (FID) SIGNAL



MH 1/6/10

Analytical Resources, Inc.

WAVPH-AROMATICS

Data file : /chem3/pid1.i/vpcc0105-2.b/0105a004.d
Lab Smp Id: LCSD0105S1 Client Smp ID: LCSD0105S1
Inj Date : 05-JAN-2010 15:37
Operator : MH Inst ID: pid1.i
Smp Info : LCSD0105S1
Misc Info :
Comment :
Method : /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waarom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
	==========	==	======	======	========	=======	=======
1	MtBE	5.330	5.330	0.000	9391	47.0172	47.0
2	BENZENE	7.887	7.887	0.000	188739	50.0747	50.1
4	TOLUENE	10.213	10.213	0.000	172264	49.9999	50.0
5	ETHYLBENZENE	12.197	12.197	0.000	151828	50.8445	50.8
6	M/P-XYLENE	12.300	12.297	0.003	353692	101.473	101
7	O-XYLENE	12.890	12.890	0.000	153741	50.3342	50.3
9	TRIMETHYLBEN	15.320	15.320	0.000	140892	53.5747	53.6
10	NAPHTHALENE	18.560	18.560	0.000	107922	50.9888	51.0
11	1-METHYLNAP	20.407	20.407	0.000	86455	63.3833	63.4
$ 37	DIBROMOTOL	20.207	20.203	0.004	105505	52.4232	52.4

Analytical Resources, Inc.

WAVPH-ALIPHATICS

Data file : /chem3/pid1.i/vpcc0105-1.b/0105a004.d
Lab Smp Id: LCSD0105S1 Client Smp ID: LCSD0105S1
Inj Date : 05-JAN-2010 15:37
Operator : MH Inst ID: pid1.i
Smp Info : LCSD0105S1
Misc Info : 09-
Comment :
Method : /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Meth Date : 06-Jan-2010 06:54 monicah Quant Type: ESTD
Cal Date : 30-DEC-2009 13:07 Cal File: 1230a012.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waaliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

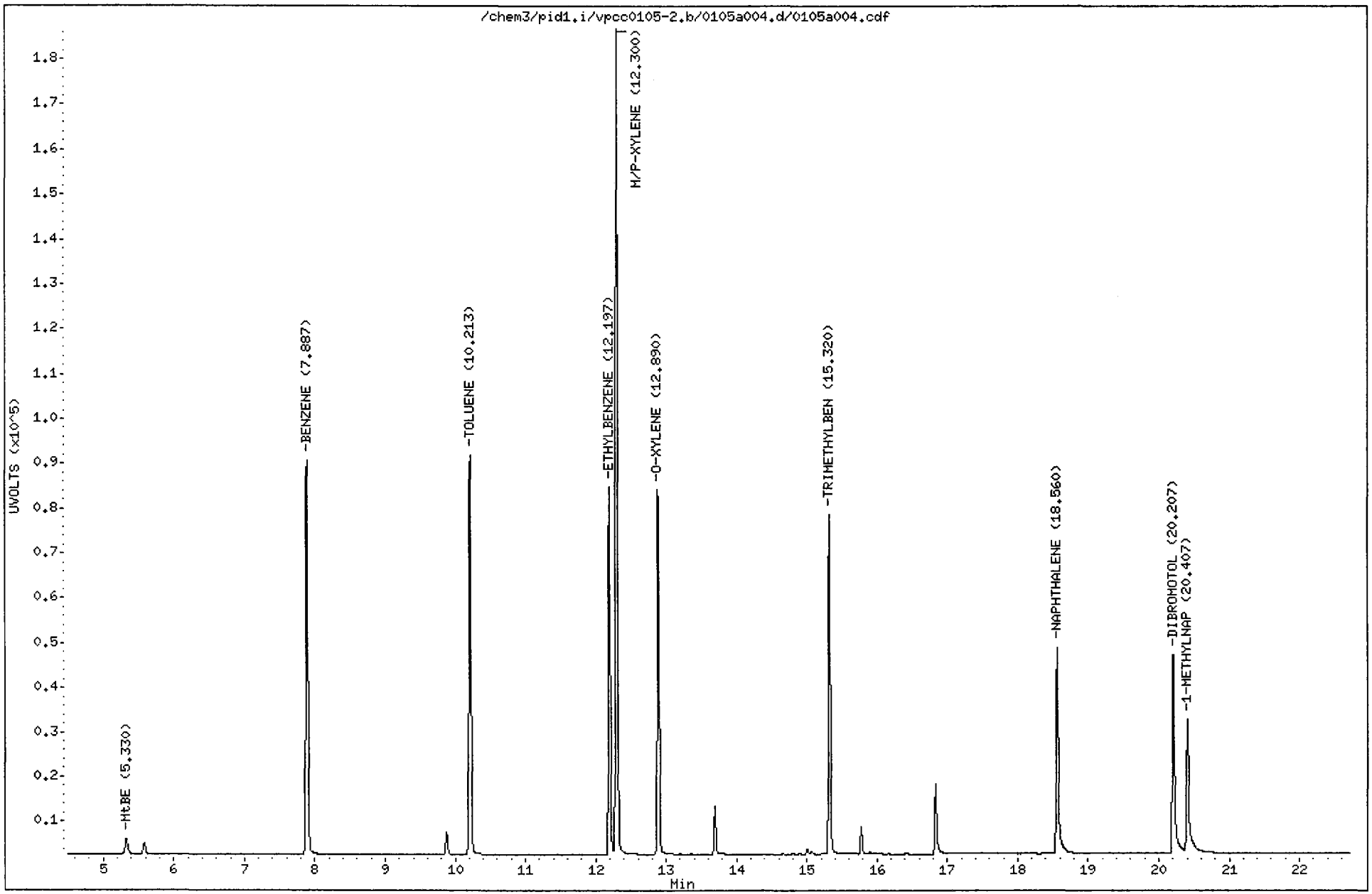
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	1 nC5	4.043	4.047	-0.004	17672	55.4329	55.4(M)
	2 nC6	5.583	5.587	-0.004	17832	49.2326	49.2
	4 nC8	9.880	9.880	0.000	13783	47.1815	47.2(M)
	5 nC10	13.693	13.690	0.003	16671	53.0947	53.1
	7 nC12	16.833	16.833	0.000	20895	59.0818	59.1
$	8 2,5-DBT	20.203	20.203	0.000	5942	50.9222	50.9

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/vpcc0105-2.b/0105a004.d
Date : 05-JAN-2010 15:37
Client ID: LCSD0105S1
Sample Info: LCSD0105S1

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 ARO
Column diameter: 0.18



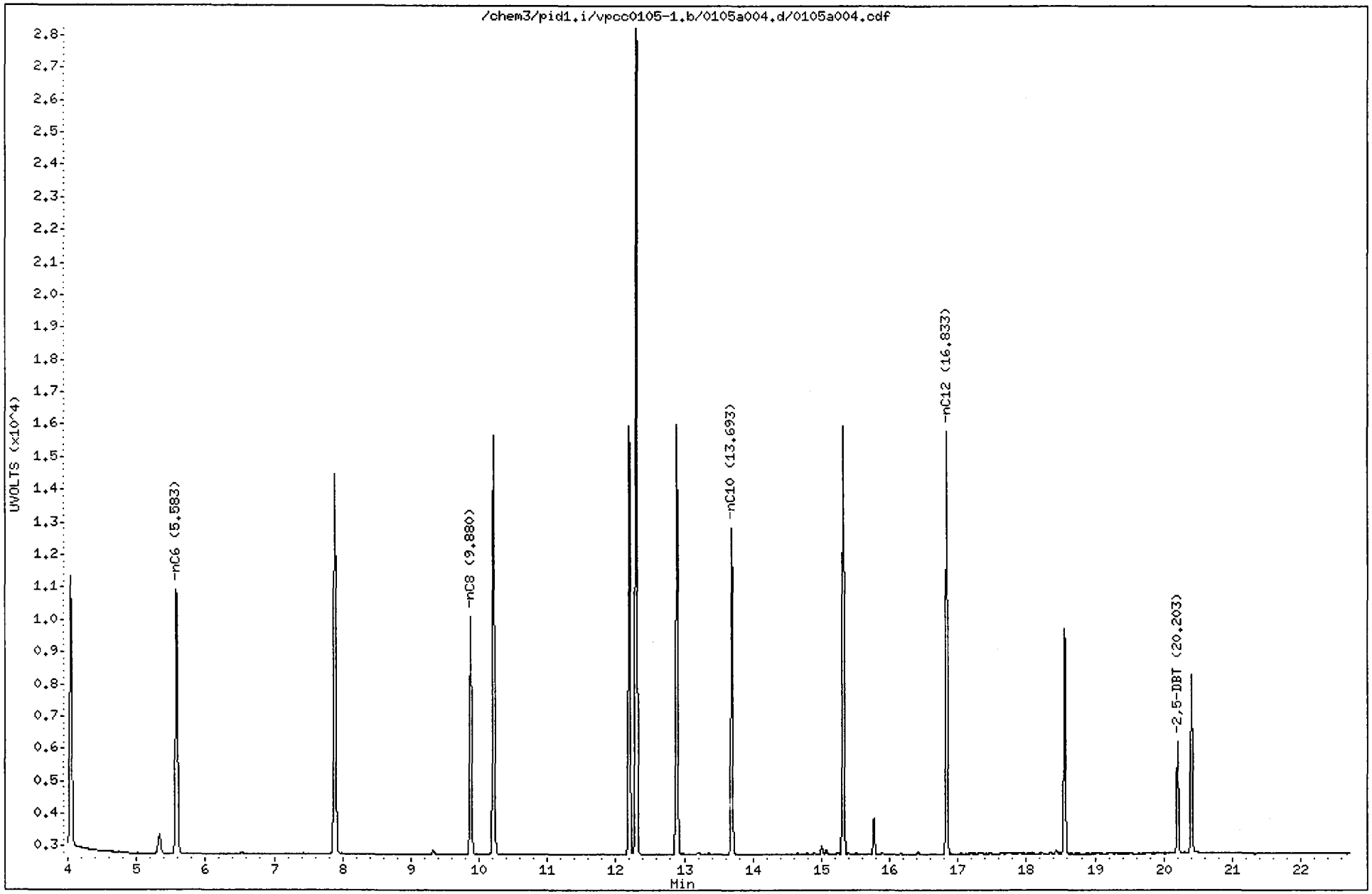
QC26:66016

Data File: /chem3/pid1.i/vpcc0105-1.b/0105a004.d
Date : 05-JAN-2010 15:37
Client ID: LCSD0105S1
Sample Info: LCSD0105S1

Column phase: RTX502-2 ALI

Instrument: pid1.i

Operator: MH
Column diameter: 0.18



QC26 : 00317

Analytical Resources Inc.
WAVPH Aromatics Report

Data file: /chem3/pid1.i/vpcc0105-2.b/0105a004.d
Method: /chem3/pid1.i/vpcc0105-2.b/VPHARO.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

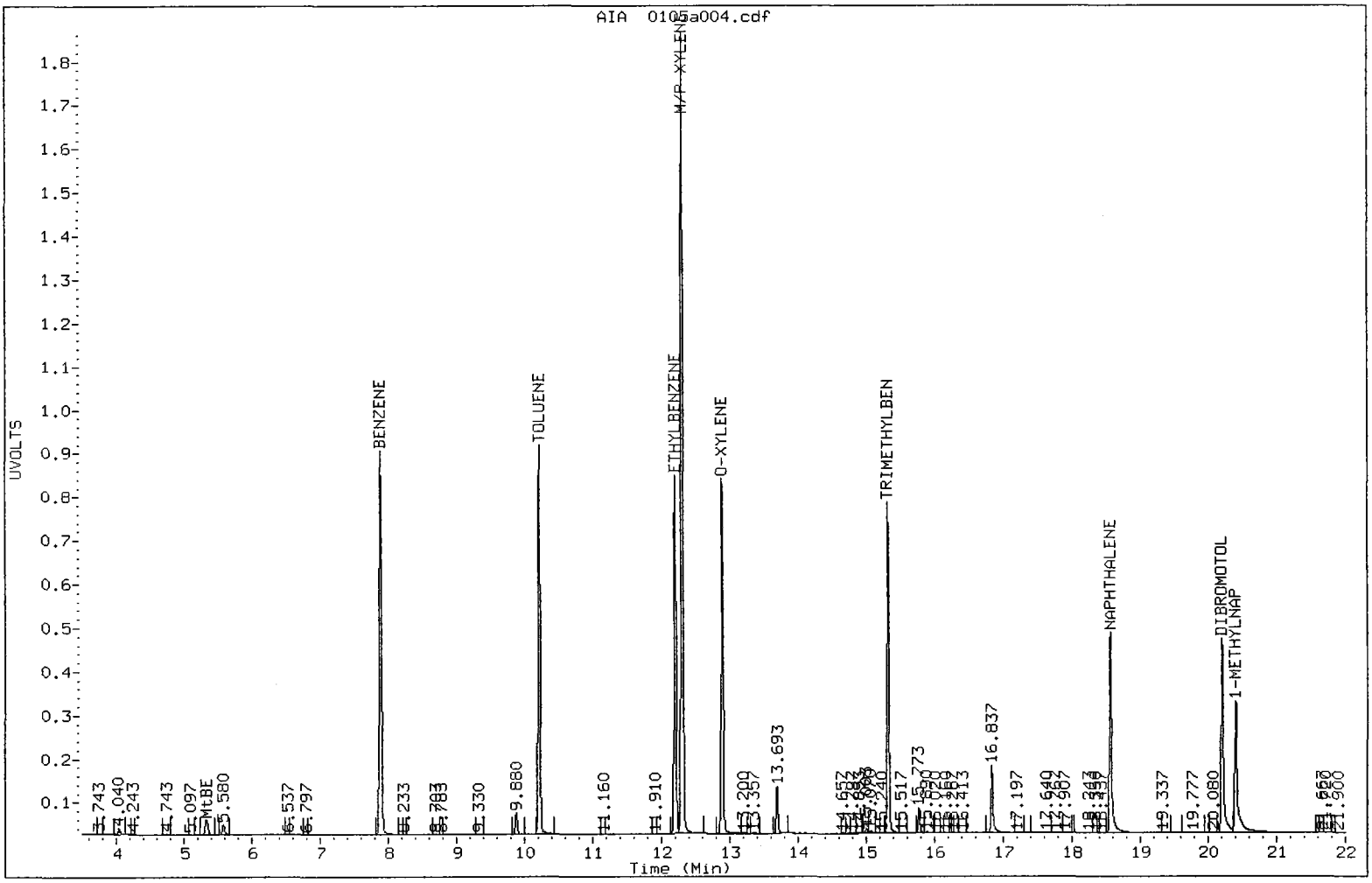
ARI ID: LCSD0105S1
Client ID: LCSD0105S1
Injection: 05-JAN-2010 15:37
Matrix: WATER
Dilution Factor: 1

VPH-AROMATIC RESULTS

Compound	RT	Shift	Height	Amount	Range		Total Area	Conc
MtBE	5.330	0.000	3389	47.0	C8-C10	Arom.	824081*	313.4
BENZENE	7.887	0.000	88070	50.1	C10-C12	Arom.	153498	72.5
TOLUENE	10.213	0.000	89179	50.0	C12-C13	Arom.	86801	63.6
ETHYLBENZENE	12.197	0.000	82110	50.8				
M/P-XYLENE	12.300	0.003	183954	101.5				
O-XYLENE	12.890	0.000	81433	50.3				
TRIMETHYLBEN	15.320	0.000	75800	53.6				
NAPHTHALENE	18.560	0.000	46133	51.0				
1-METHYLNAP	20.407	0.000	30139	63.4				
DIBROMOTOL	20.207	0.003	44554	52.4	DBT Recovery: 104.8			

* Indicates surrogate area subtracted

LCSD0105S1 AROMATIC (PID) SIGNAL



Analytical Resources Inc.
WAVPH Aliphatics Report

Data file: /chem3/pid1.i/vpcc0105-1.b/0105a004.d
Method: /chem3/pid1.i/vpcc0105-1.b/VPHALI.m
Instrument: pid1.i
Operator: MH
Macro: 20-MAR-2004

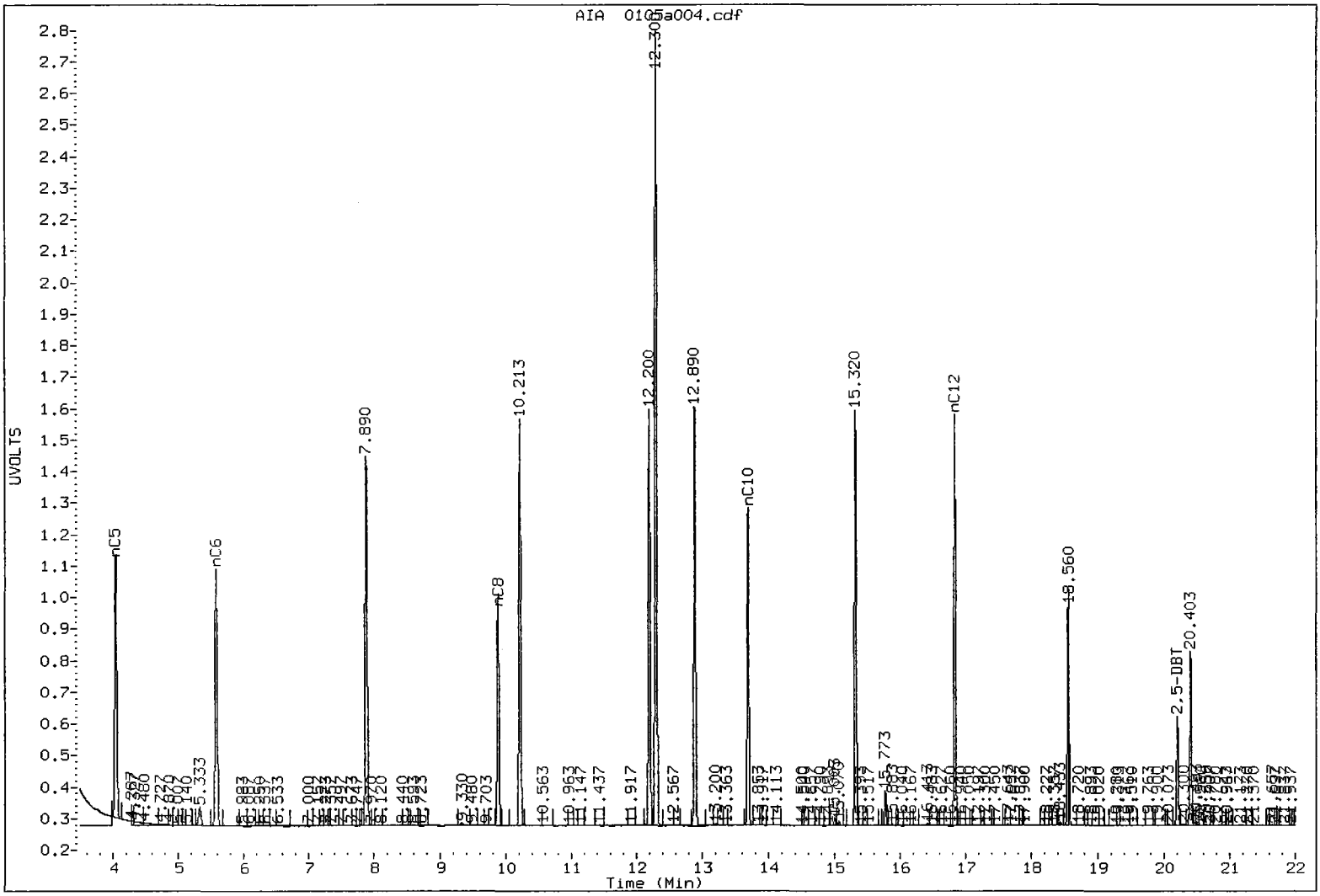
ARI ID: LCSD0105S1
Client ID: LCSD0105S1
Injection: 05-JAN-2010 15:37
Matrix: WATER
Dilution Factor: 1

VPH-ALIPHATIC RESULTS

Compound	RT	Shift	Height	Area	Range		Total Area	Conc
nC5	4.043	-0.003	8325	17672	C5-C6	Aliph.	39941	117.3
nC6	5.583	-0.003	8167	17832	C6-C8	Aliph.	38889*	133.1
nC8	9.880	0.000	7342	13783	C8-C10	Aliph.	134916	429.7
nC10	13.693	0.003	10075	16671	C10-C12	Aliph.	46854*	132.5
nC12	16.833	0.000	13044	20895				

* Indicates surrogate area subtracted

LCSD0105S1 ALIPHATIC (FID) SIGNAL



VPH Analysis
Run Logs

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

Analytical Resources Inc.: Organics Instrument Log

PID-1 Serial No.: 2750A-17141

Date: 12/30/09 Analysis: VPH Analyst: MH

GC Program: VPH Column No: 821726 Column Type: RTX502-2

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 12/30/09

IS/SS	Ical/Ccal	LCS/ICV
VW610-1	VW609-1 MH	VW588-2
	614-4	

	Time	Filename	LabID	ClientID	Vial#	pH	DF
1	0720	1230a001.d	RINSE				1
2	0751	1230a002.d	VPH 5				1
3	0823	1230a003.d	VPH 10				1
4	0855	1230a004.d	VPH 20				1
5	0926	1230a005.d	RINSE				1
6	0958	1230a006.d	VPH 50				1
7	1029	1230a007.d	RINSE				1
8	1101	1230a008.d	VPH 80				1
9	1133	1230a009.d	RINSE				1
10	1204	1230a010.d	VPH 100				1
11	1236	1230a011.d	RINSE				1
12	1307	1230a012.d	VPH 200				1
13	1339	1230a013.d	RINSE				1
14	1407	1230a014.d	VPH ICV				1
15	1438	1230a015.d	LCSD1230				1
16	1509	1230a016.d	RINSE				1
17	1541	1230a017.d	MB1230				1
18	1612	1230a018.d	QB77B				1
19	1644	1230a019.d	QB77C,5				5
20	1716	1230a020.d	QC26A				1
21	1747	1230a021.d	QC26AMS				1
22	1819	1230a022.d	QC26AMSD				1
23	1850	1230a023.d	QC26B				1
24	1922	1230a024.d	QC26C				1
25	1954	1230a025.d	RINSE				1
26	2025	1230a026.d	VCAL 2	OK			1
27	2057	1230a027.d	QC26D	Samples re-run			1
28	2128	1230a028.d	QC26E				1
29	2200	1230a029.d	QC26F				1
30	2231	1230a030.d	RINSE				1
31	2303	1230a031.d	VCAL 3	bad			1

MH
1/4/10

Maintenance / Comments VCal 3 nC8, nC10, nC12 low. Samples QD26D, E, F re-run 12/31/09

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources Inc.: Organics Instrument Log

PID-1 Serial No.: 2750A-17141

Date: 12/31/09 Analysis: VPH Analyst: MH

GC Program: VPH Column No: 821726 Column Type: RTX502-2

Instrument Tune (.U or .CT.): _____ EM Voltage: _____

Calibration File: _____ Curve Date: 12/30/08

IS/SS	Ical/Ccal	LCS/ICV
VW610-1	VW614-4	VW588-2

	Time	Filename	LabID	ClientID	Vial#	pH	DF
1	0705	1231a001.d	RINSE				1
2	0737	1231a002.d	VCAL				1
3	0820	1231a003.d	LCS1231				1
4	0851	1231a004.d	LCSD1231				1
5	0923	1231a005.d	RINSE				1
6	0952	1231a006.d	MB1231				1
7	1023	1231a007.d	qc26d				1
8	1055	1231a008.d	qc26e				1
9	1126	1231a009.d	qc26f				1
10	1158	1231a010.d	rinse				1
11	1230	1231a011.d	vcal				1

OK
MH 1/4/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC

Analytical Resources Inc.: Organics Instrument Log

PID-1 Serial No.: 2750A-17141

Date: 1/5/10 Analysis: VPH Analyst: MH

GC Program: VPH Column No: 821726 Column Type: RTX502-2

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 12/30/09

IS/SS	Ical/Ccal	LCS/ICV
VW616-1	VW614-4	VW588-2

	Time	Filename	LabID	ClientID	Vial#	pH	DF
1	1347	0105a001.d	RINSE				1
2	1419	0105a002.d	VCAL				1
3	1505	0105a003.d	LCS0105S1	LCS0105S1			1
4	1537	0105a004.d	LCSD0105S1	LCSD0105S1			1
5	1609	0105a005.d	RINSE				1
6	1640	0105a006.d	MB0105S1	MB0105S1			1
7	1720	0105a007.d	QC26C	BW-04-SS-091218		0.00	
8	1752	0105a008.d	QC26D	BW-51-SS-091218		0.00	
9	1823	0105a009.d	QC26F	BW-11-SS-091218		0.00	
10	1855	0105a010.d	RINSE				1
11	1926	0105a011.d	VCAL				1

MH 1/6/10

Maintenance / Comments Run OK samples out holding time

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Form 4084E: GC Run Log

QC26 : 00323

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: VPH Curve Client ID: _____

ARI SOP: **404S**(Gas) **410S**(BTEX) (**430S**(VPH)) **703S**(SIM) **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): VPH

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 (PID-1) PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 12/30/09 Analysis Start Date: _____

pH ≤ 2.0 YES / NO / (NA) Method Blank In Control? (YES) / NO

BFB Tune Meets Criteria? YES / NO / (NA) LCS / LCSD Recovery In Control? (YES) / NO

Internal Standard Meets Criteria? YES / NO / (NA) Surrogate Recovery In Control? (YES) / NO

Special Analysis Criteria Met? YES / NO / (NA)

ICal acceptable? (YES) / NO; Q flag applied? YES / NO / NA

CCal acceptable? (YES) / NO; Q flag applied? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

ICV Targed 50.

Additional Details on Reverse: Yes / No

Analyst Signature: _____ **Date:** 1/4/10

Reviewer's Signature: _____ **Date:** 1/4/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: QC26 Client ID: Anchor QEA

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **703S**(SIM) **706S**(524.2) **708S**(8260C) **710S**(MME)

Parameter(s): VPH

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 10 Curve Date: 12/30/09 Analysis Start Date: 12/30/09

pH ≤ 2.0 YES / NO / NA Method Blank In Control? YES / NO

BFB Tune Meets Criteria? YES / NO / NA LCS / LCSD Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Surrogate Recovery In Control? YES / NO

Special Analysis Criteria Met? YES / NO / NA

Cal acceptable? YES / NO; Q flag applied? YES / NO / NA

CCal acceptable? YES / NO; Q flag applied? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): Alt. Source (meets specs) dL BAR 1/6/09
ICV used as LCS run 12/30/09 Matrix effect Lack of (Ext.) purge efficiency (suck up) / SCEMS/MSD results
Samples C, D, F Very wet low surr recovery
re-extract & rerun 1/5/10 samples out of holding time
reported as DL
all samples clean.

Additional Details on Reverse: Yes / No

Analyst Signature: [signature] Date: 1/6/10

Reviewer's Signature: [signature] Date: 1/6/10

Form 8042F Version 005 7/8/09

QC26 : 00325

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Volatile Organics Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No. | Client ID/Project | Extraction Date | MeOH Lot No. | Analyst

1st Extraction: 12/29/09 | MH

2nd Extraction:

	Lab ID	Vial No.	Preservative		Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Vial Weight	Tare (from vial)	Sample Weight	Extract Volume	MeOH Spilt Volume	
	MB:									
	LCS:									
	LCSD:									
1	QC26 A						10.62	5	250	
2	Ams						10.21	↓	↓	
3	Amsd						10.30			
4	B						10.36			
5	C						10.82			
6	D						10.62			
7	E						10.61			
8	F						10.53			
9										
10										
11	Tee extracts					1/5/10				
12										
13	QC26 C						10.57	5	250	
14	D						10.56	↓	↓	
15	F						10.66			
16										
17										
18										
19										
20										
	Balance ID:									

	Solution ID	Concentration	Amount Spiked	Analyst	Witness
Surrogate:					
Spike:					

QC26:69326

EPH Analysis
QC Summary Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01

Client ID	COD	TOT OUT
MB-122809	55.5%	0
LCS-122809	56.0%	0
BW-05-SS-091218	58.6%	0
BW-05-SS-091218 MS	61.3%	0
BW-05-SS-091218 MSD	64.3%	0
BW-01-SS-091218	56.8%	0
BW-04-SS-091218	62.5%	0
BW-51-SS-091218	62.7%	0
BW-07-SS-091218	58.7%	0
BW-11-SS-091218	61.6%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(27-128)	(39-131)

Prep Method: SW3550B
Log Number Range: 09-31261 to 09-31266

ANALYTICAL RESOURCES INCORPORATED

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01

Client ID	OTER	TOT OUT
MB-122809	63.8%	0
LCS-122809	60.0%	0
BW-05-SS-091218	62.9%	0
BW-05-SS-091218 MS	66.2%	0
BW-05-SS-091218 MSD	68.5%	0
BW-01-SS-091218	81.4%	0
BW-04-SS-091218	65.6%	0
BW-51-SS-091218	79.2%	0
BW-07-SS-091218	66.3%	0
BW-11-SS-091218	67.1%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(34-133)	(10-143)

Prep Method: SW3550B
Log Number Range: 09-31261 to 09-31266

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-05-SS-091218
MS/MSD

Lab Sample ID: QC26A
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted MS/MSD: 12/28/09

Sample Amount MS: 6.94 g-dry-wt
MSD: 6.95 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

Aliphatic
Date Analyzed MS: 01/05/10 15:13
MSD: 01/05/10 15:38
Instrument/Analyst MS: FID8/MS
MSD: FID8/MS

Dilution Factor MS: 1.00
MSD: 1.00

Aromatic
Date Analyzed MS: 12/31/09 11:38
MSD: 12/31/09 12:03
Instrument/Analyst MS: FID8/MS
MSD: FID8/MS

Dilution Factor MS: 1.00
MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
C8-C10 Aliphatics	< 2860	14700	21600	68.0%	14500	21600	67.2%	1.4%
C10-C12 Aliphatics	< 2860	12100	21600	56.0%	12200	21600	56.5%	0.8%
C12-C16 Aliphatics	< 2860	17400	21600	80.5%	18100	21600	83.9%	3.9%
C16-C21 Aliphatics	< 2860	18300	21600	84.7%	19100	21600	88.5%	4.3%
C10-C12 Aromatics	< 2860	12700	21600	58.8%	12800	21600	59.3%	0.8%
C12-C16 Aromatics	< 2860	14600	21600	67.5%	15400	21600	71.4%	5.3%
C16-C21 Aromatics	< 2860	34600	43200	80.0%	37700	43200	87.3%	8.6%
C21-C34 Aromatics	< 2860	42400	43200	98.1%	43200	43200	100%	1.9%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH

Sample ID: LCS-122809
LAB CONTROL

Lab Sample ID: LCS-122809
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 12/28/09

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 14:23
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 10:49
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
C8-C10 Aliphatics	9800	15000	65.3%
C10-C12 Aliphatics	7600	15000	50.7%
C12-C16 Aliphatics	11000	15000	73.3%
C16-C21 Aliphatics	12000	15000	80.0%
C10-C12 Aromatics	8200	15000	54.7%
C12-C16 Aromatics	9200	15000	61.3%
C16-C21 Aromatics	21500	30000	71.7%
C21-C34 Aromatics	24800	30000	82.7%

Results reported in µg/kg

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	56.0%
Aromatic	o-Terphenyl	60.0%

ALIPHATIC EPH METHOD BLANK SUMMARY

BLANK NO.

QC26MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Date Extracted: 12/28/09 Matrix: SOLID

Date Analyzed : 01/05/10 Instrument ID : FID8

Time Analyzed : 1358

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QC26LCSS1	QC26LCSS1	01/05/10
02	BW-05-SS-091	QC26A	01/05/10
03	BW-05-SS-091	QC26AMS	01/05/10
04	BW-05-SS-091	QC26AMSD	01/05/10
05	BW-01-SS-091	QC26B	01/05/10
06	BW-04-SS-091	QC26C	01/05/10
07	BW-51-SS-091	QC26D	01/05/10
08	BW-07-SS-091	QC26E	01/05/10
09	BW-11-SS-091	QC26F	01/05/10

FORM IV EPH

AROMATIC EPH METHOD BLANK SUMMARY

BLANK NO.

QC26MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project No.: BAYWOOD

Date Extracted: 12/28/09 Matrix: SOLID

Date Analyzed : 12/31/09 Instrument ID : FID8

Time Analyzed : 1024

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	QC26LCSS1	QC26LCSS1	12/31/09
02	BW-05-SS-091	QC26A	12/31/09
03	BW-05-SS-091	QC26AMS	12/31/09
04	BW-05-SS-091	QC26AMSD	12/31/09
05	BW-01-SS-091	QC26B	12/31/09
06	BW-04-SS-091	QC26C	12/31/09
07	BW-51-SS-091	QC26D	12/31/09
08	BW-07-SS-091	QC26E	12/31/09
09	BW-11-SS-091	QC26F	12/31/09

FORM IV EPH

AROMATIC EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project: BAYWOOD

Instrument ID: FID8 GC Column: ZB-5

Run Date: 12/14/09-12/15/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.92

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		AROM IB	12/14/09	2236	6.92
02	AROM 20	AROM 20	12/14/09	2301	6.91
03	AROM 50	AROM 50	12/14/09	2326	6.91
04	AROM 100	AROM 100	12/14/09	2351	6.92
05	AROM 150	AROM 150	12/15/09	0016	6.92
06	AROM 200	AROM 200	12/15/09	0041	6.92
07		AROM ICV	12/15/09	0106	6.92

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII EPH

AROMATIC EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project: BAYWOOD

Instrument ID: FID8 GC Column: ZB-5

Run Date: 12/31/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.92

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	12/31/09	0821	6.96
02	ZZZZZ	ZZZZZ	12/31/09	0846	6.93
03	ZZZZZ	ZZZZZ	12/31/09	0910	6.93
04	AROM IB	AROM IB	12/31/09	0935	6.93
05	AROMATICS#1	AROMATICS#1	12/31/09	1000	6.93
06	QC26MBS1	QC26MBS1	12/31/09	1024	6.93
07	QC26LCSS1	QC26LCSS1	12/31/09	1049	6.93
08	BW-05-SS-091	QC26A	12/31/09	1113	6.92
09	BW-05-SS-091	QC26AMS	12/31/09	1138	6.93
10	BW-05-SS-091	QC26AMSD	12/31/09	1203	6.92
11	BW-01-SS-091	QC26B	12/31/09	1227	6.92
12	BW-04-SS-091	QC26C	12/31/09	1252	6.93
13	BW-51-SS-091	QC26D	12/31/09	1317	6.93
14	BW-07-SS-091	QC26E	12/31/09	1341	6.93
15	BW-11-SS-091	QC26F	12/31/09	1406	6.92
16	AROMATICS#2	AROMATICS#2	12/31/09	1431	6.93

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII EPH

ALIPHATIC EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project: BAYWOOD

Instrument ID: FID8 GC Column: ZB-5

Run Date: 12/14/09

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 7.90

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		AL IB	12/14/09	1917	7.90	
02	ALIPH 20	ALIPH 20	12/14/09	1942	7.89	
03	ALIPH 50	ALIPH 50	12/14/09	2007	7.89	
04	ALIPH 100	ALIPH 100	12/14/09	2032	7.90	
05	ALIPH 150	ALIPH 150	12/14/09	2057	7.90	
06	ALIPH 200	ALIPH 200	12/14/09	2121	7.90	
07		ALIPH ICV	12/14/09	2146	7.90	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII EPH

ALIPHATIC EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: QC26 Project: BAYWOOD

Instrument ID: FID8 GC Column: ZB-5

Run Date: 01/05/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 7.90

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	01/05/10	1243	7.94
02	ALIPHATIC IB	ALIPHATIC IB	01/05/10	1308	7.90
03	ALIPHATIC#1	ALIPHATIC#1	01/05/10	1333	7.89
04	QC26MBS1	QC26MBS1	01/05/10	1358	7.89
05	QC26LCSS1	QC26LCSS1	01/05/10	1423	7.89
06	BW-05-SS-091	QC26A	01/05/10	1448	7.89
07	BW-05-SS-091	QC26AMS	01/05/10	1513	7.89
08	BW-05-SS-091	QC26AMSD	01/05/10	1538	7.89
09	BW-01-SS-091	QC26B	01/05/10	1603	7.89
10	BW-04-SS-091	QC26C	01/05/10	1629	7.90
11	BW-51-SS-091	QC26D	01/05/10	1654	7.90
12	BW-07-SS-091	QC26E	01/05/10	1719	7.90
13	BW-11-SS-091	QC26F	01/05/10	1744	7.89
14	ALIPHATIC#2	ALIPHATIC#2	01/05/10	1809	7.89

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII EPH

EPH Analysis
Sample Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-05-SS-091218
SAMPLE

Lab Sample ID: QC26A
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 33.6%

Sample Amount: 6.99 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 14:48
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 11:13
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,900	< 2,900 U
C10-C12 Aliphatics	2,900	< 2,900 U
C12-C16 Aliphatics	2,900	< 2,900 U
C16-C21 Aliphatics	2,900	< 2,900 U
C21-C34 Aliphatics	**2,900**	**5,600**
C8-C10 Aromatics	2,900	< 2,900 U
C10-C12 Aromatics	2,900	< 2,900 U
C12-C16 Aromatics	2,900	< 2,900 U
C16-C21 Aromatics	2,900	< 2,900 U
C21-C34 Aromatics	2,900	< 2,900 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	58.6%
Aromatic	o-Terphenyl	62.9%

MS 1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A006.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

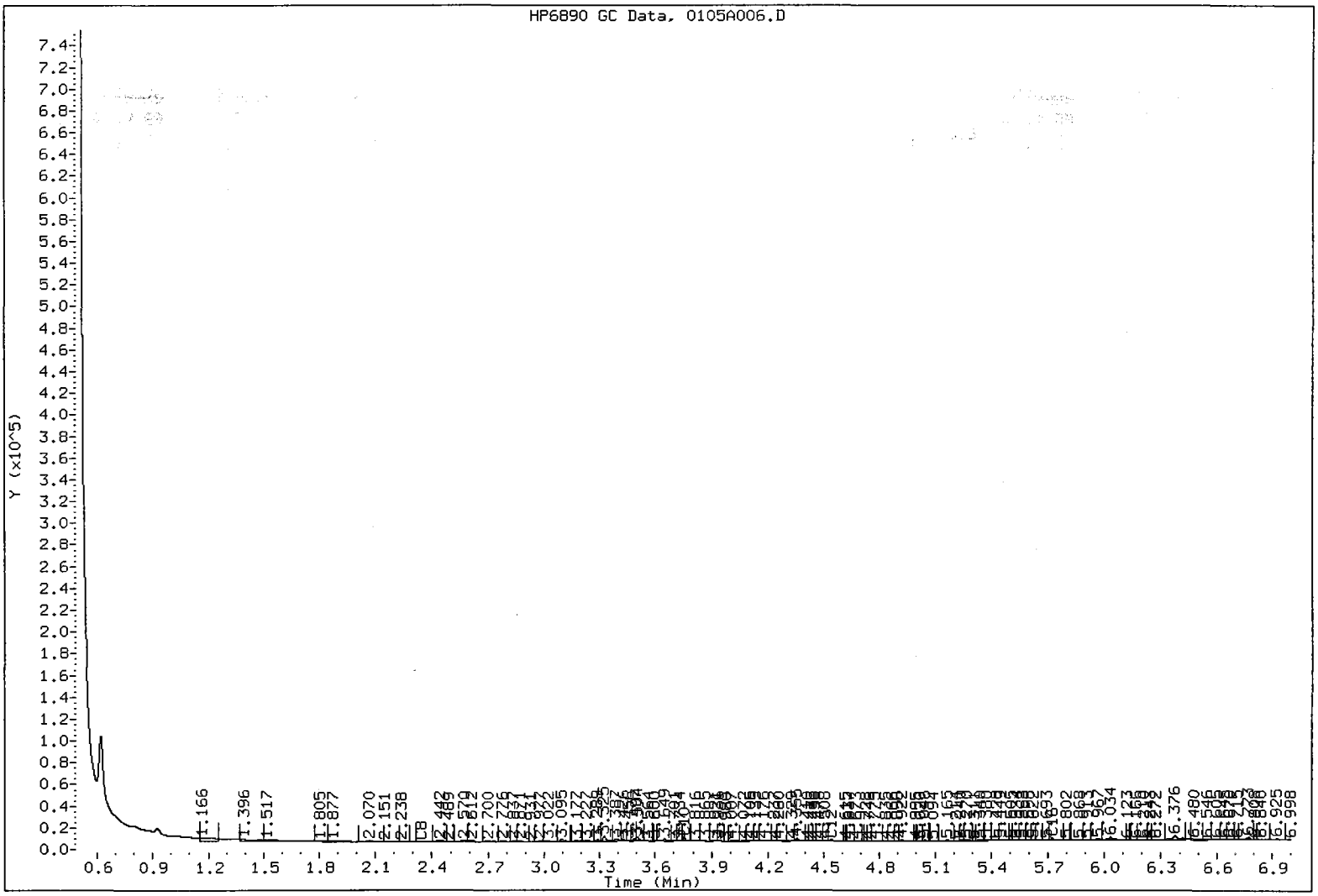
ARI ID: QC26A
Client ID: BW-05-SS-091218
Injection: 05-JAN-2010 14:48
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	35828	2	(2.277 - 3.860)
C10-C12	Aliph.	7255	1	(3.860 - 4.641)
C12-C16	Aliph.	9499	1	(4.641 - 5.821)
C16-C21	Aliph.	53381	4	(5.821 - 8.071)
C21-C34	Aliph.	371283	39	(8.071 - 12.782)

Surrogate Rec: 58.6%

FID-8A/ZB-5 QC26A



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A006.D

Date : 05-JAN-2010 14:48

Client ID: BW-05-SS-091218

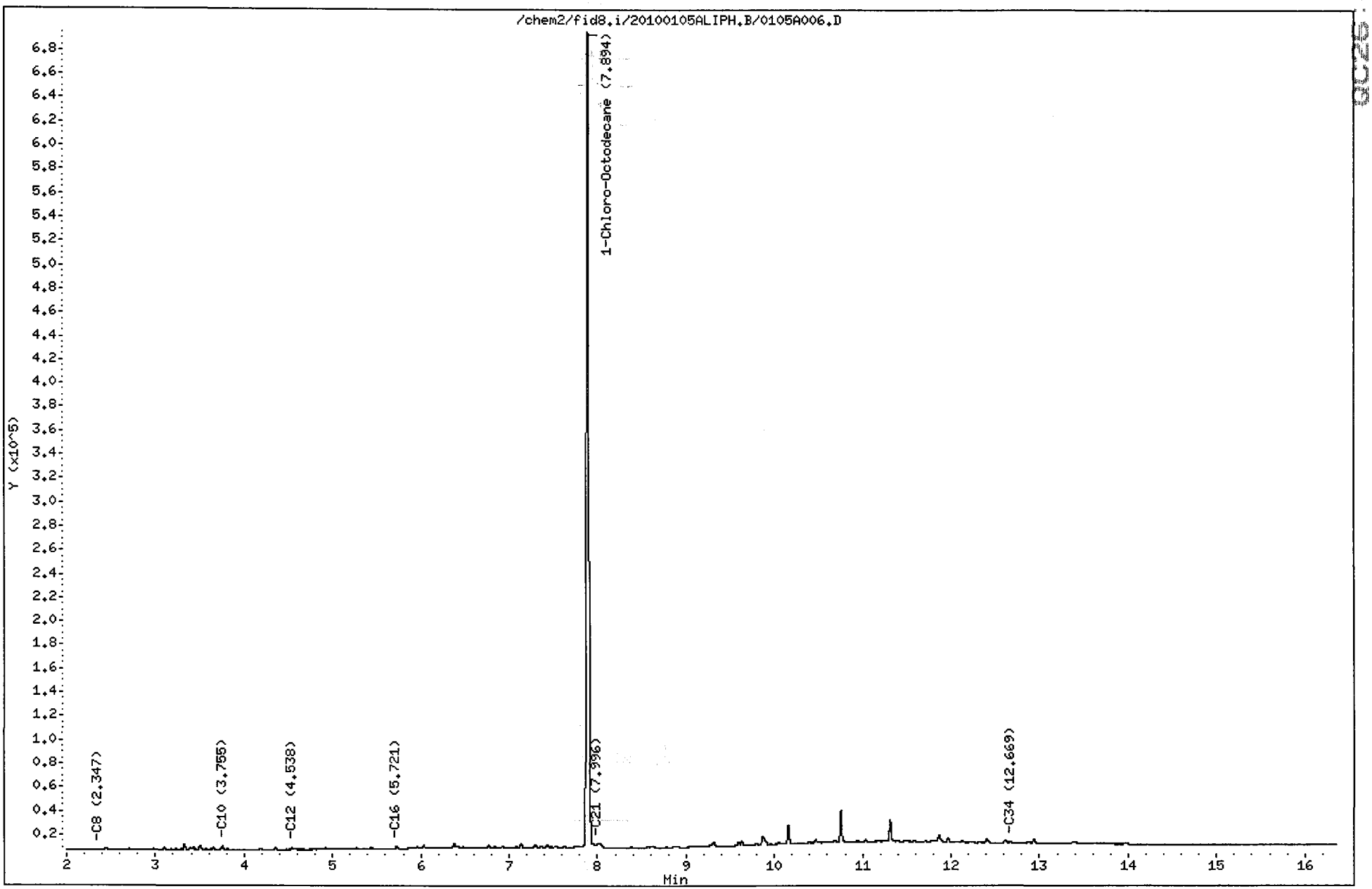
Sample Info: QC26A

Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32



1/6/10

Analytical Resources Inc.
EPH Aromatics Report

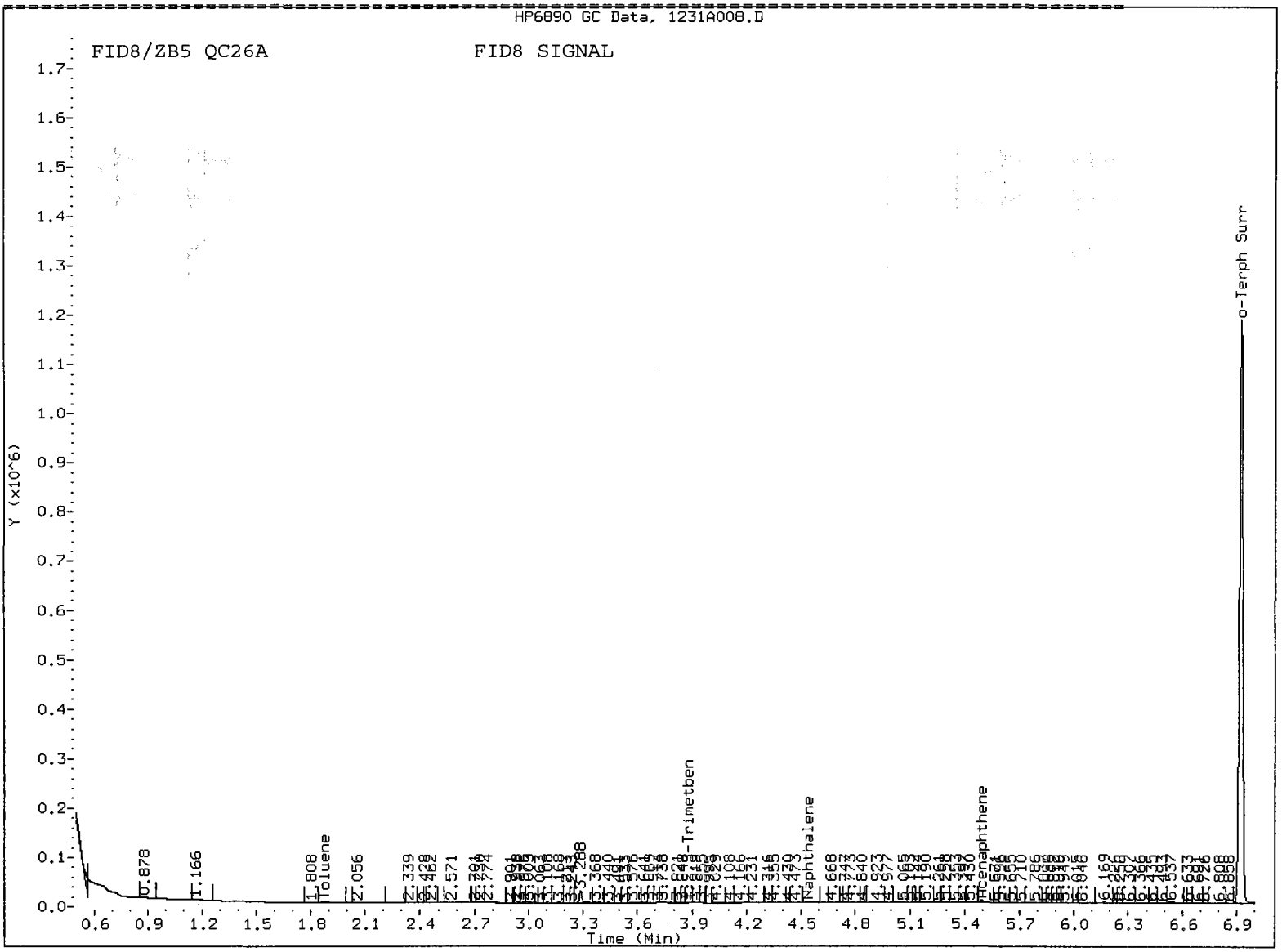
Data file: /chem2/fid8.i/20091231AROM.b/1231A008.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26A
Client ID: BW-05-SS-091218
Injection: 31-DEC-2009 11:13
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	40626	3	(1.788 - 3.979)
C10-C12	Arom.	6480	0	(3.979 - 4.638)
C12-C16	Arom.	8597	1	(4.638 - 5.589)
C16-C21	Arom.	126660	10	(5.589 - 8.348)
C21-C34	Arom.	157745	16	(8.348 - 12.535)

Surrogate Rec: 62.9%



Data File: /chem2/fid8.i/20091231AROM.b/1231A008.D

Date : 31-DEC-2009 11:13

Client ID: BW-05-SS-091218

Sample Info: QC26A

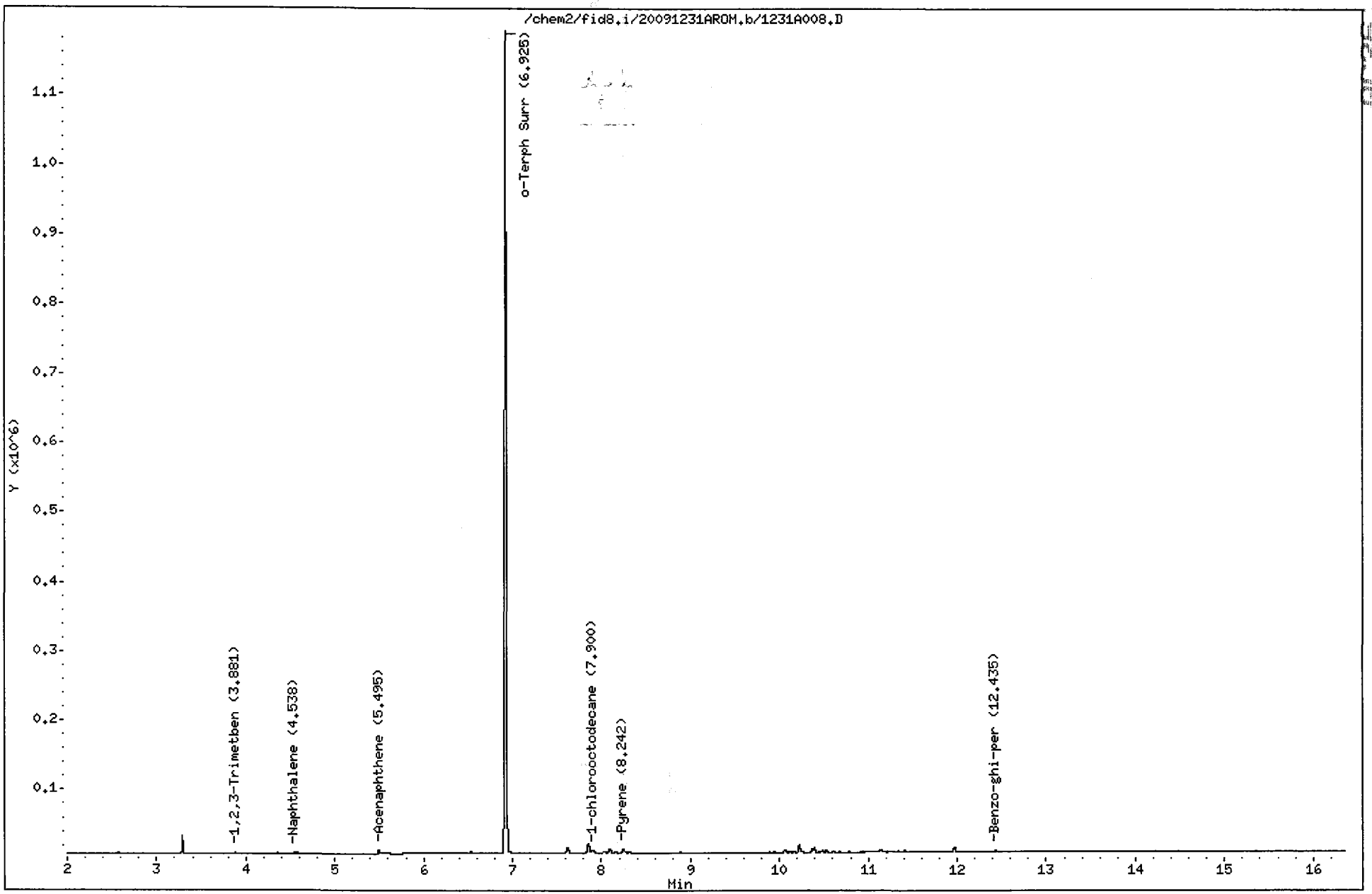
Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

QC26 88343



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-01-SS-091218
SAMPLE

Lab Sample ID: QC26B
LIMS ID: 09-31262
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 55.7%

Sample Amount: 4.45 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 16:03
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 12:27
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U
C12-C16 Aliphatics	4,500	< 4,500 U
C16-C21 Aliphatics	4,500	< 4,500 U
C21-C34 Aliphatics	**4,500**	**18,000**
C8-C10 Aromatics	4,500	< 4,500 U
C10-C12 Aromatics	4,500	< 4,500 U
C12-C16 Aromatics	4,500	< 4,500 U
C16-C21 Aromatics	4,500	< 4,500 U
C21-C34 Aromatics	**4,500**	**5,600**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	56.8%
Aromatic	o-Terphenyl	81.4%

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A009.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

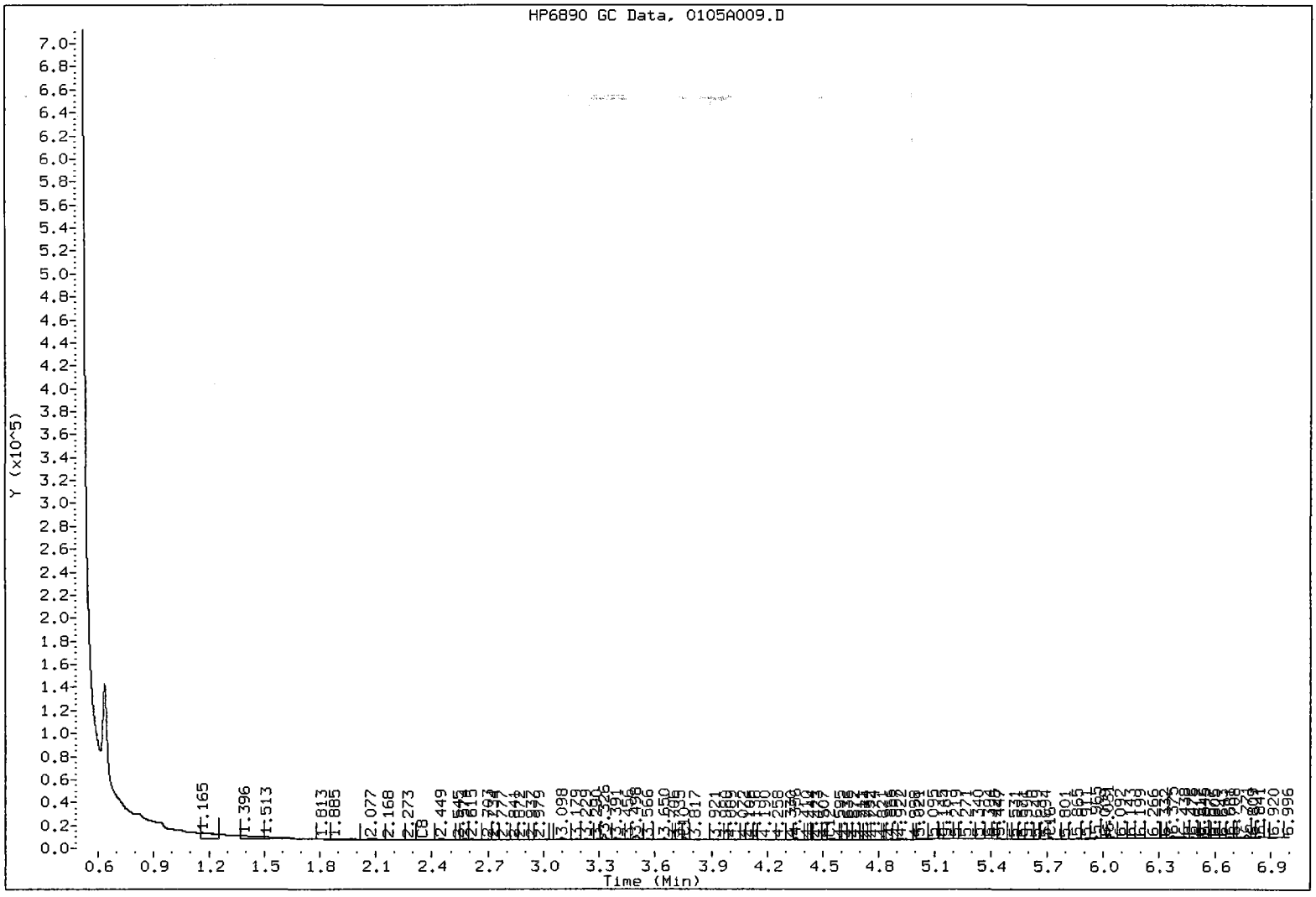
ARI ID: QC26B
Client ID: BW-01-SS-091218
Injection: 05-JAN-2010 16:03
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	34393	2	(2.277 - 3.860)
C10-C12	Aliph.	5610	0	(3.860 - 4.641)
C12-C16	Aliph.	6166	0	(4.641 - 5.821)
C16-C21	Aliph.	61432	5	(5.821 - 8.071)
C21-C34	Aliph.	771101	82	(8.071 - 12.782)

Surrogate Rec: 56.8%

FID-8A/ZB-5 QC26B

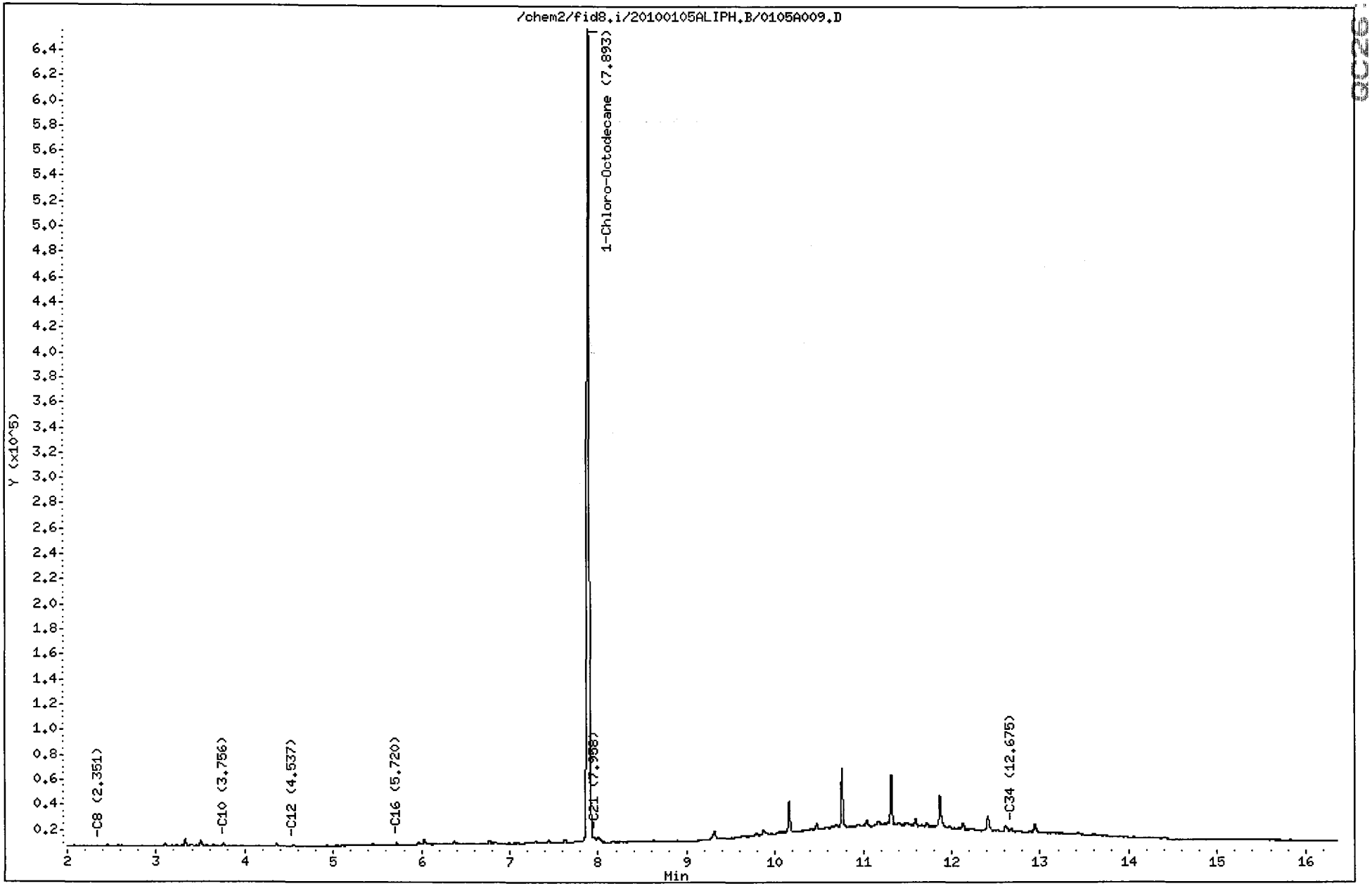


Data File: /chem2/fid8.i/20100105ALIPH.B/0105A009.D
Date : 05-JAN-2010 16:03
Client ID: BW-01-SS-091218
Sample Info: QC26B

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC26 : 00346

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Analytical Resources Inc.
EPH Aromatics Report

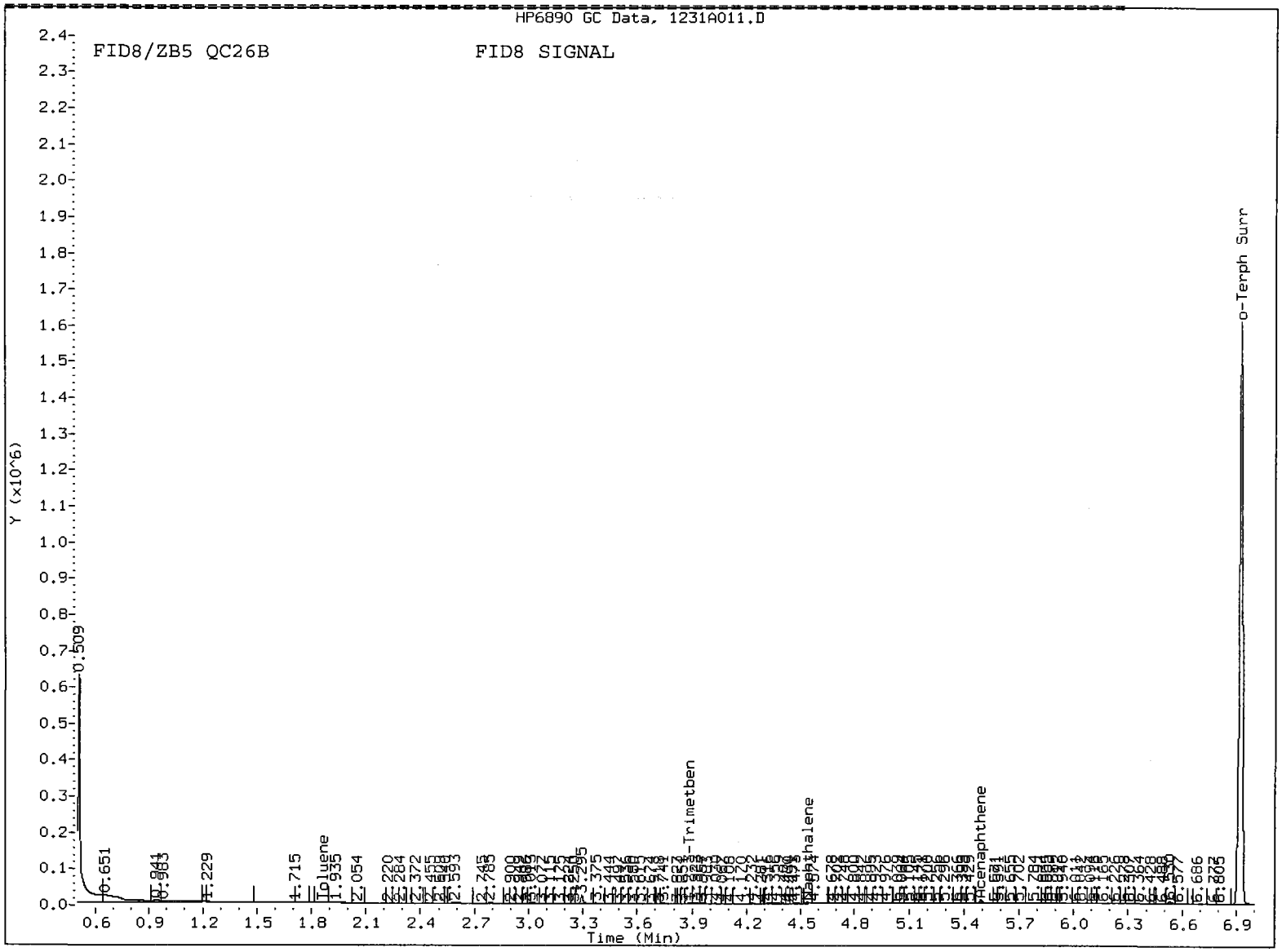
Data file: /chem2/fid8.i/20091231AROM.b/1231A011.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26B
Client ID: BW-01-SS-091218
Injection: 31-DEC-2009 12:27
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	36557	2	(1.788 - 3.979)
C10-C12	Arom.	8469	1	(3.979 - 4.638)
C12-C16	Arom.	12165	1	(4.638 - 5.589)
C16-C21	Arom.	116690	9	(5.589 - 8.348)
C21-C34	Arom.	255391	25	(8.348 - 12.535)

Surrogate Rec: 81.4%



Data File: /chem2/fid8.i/20091231AROM.b/1231A011.D

Date : 31-DEC-2009 12:27

Client ID: BW-01-SS-091218

Sample Info: QC26B

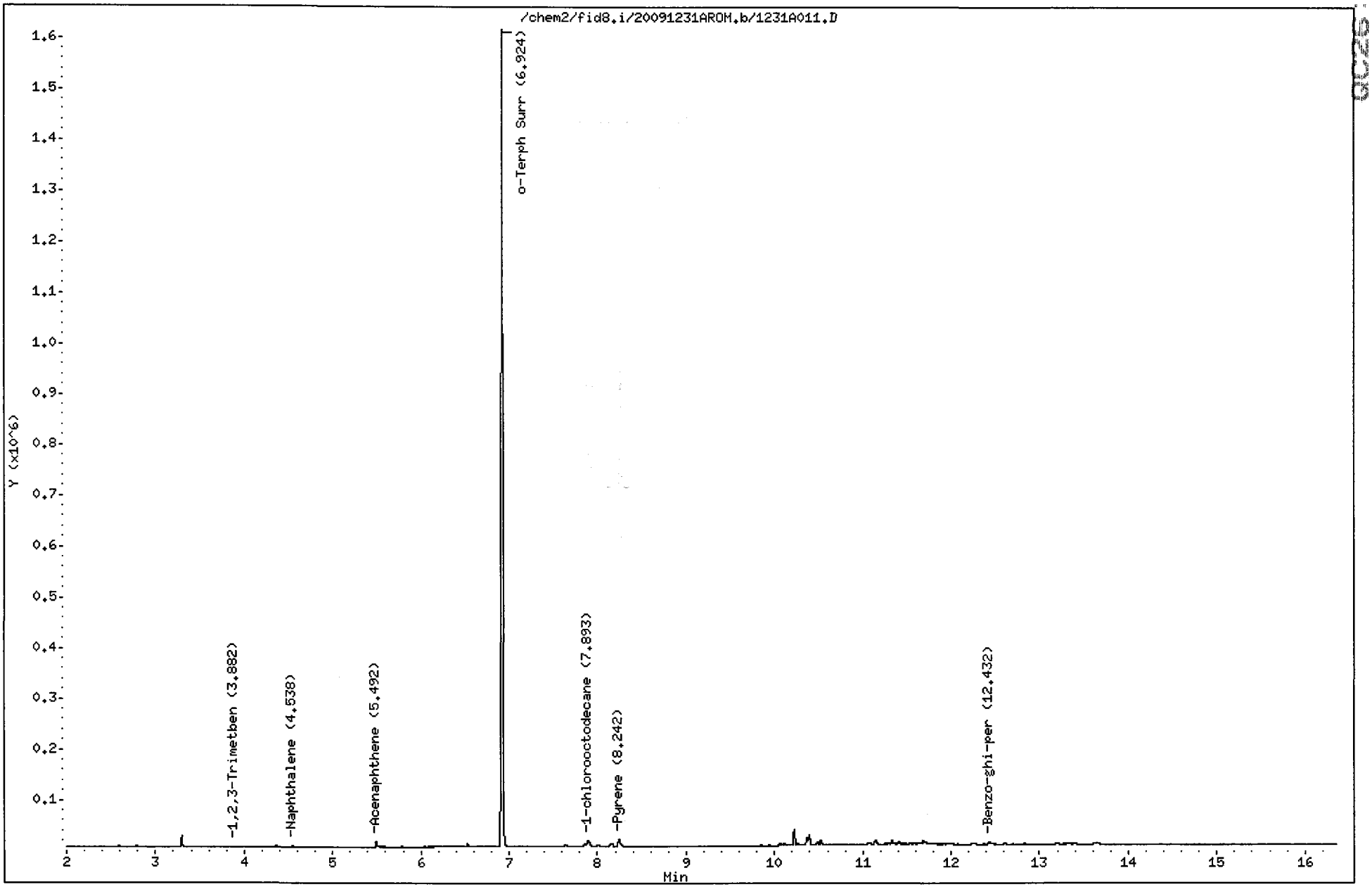
Instrument: fid8.i

Operator: JR

Column phase:

Column diameter: 0.32

QC26 091218



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-04-SS-091218
SAMPLE

Lab Sample ID: QC26C
LIMS ID: 09-31263
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 52.2%

Sample Amount: 4.90 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 16:29
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 12:52
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	4,100	< 4,100 U
C10-C12 Aliphatics	4,100	< 4,100 U
C12-C16 Aliphatics	4,100	< 4,100 U
C16-C21 Aliphatics	4,100	< 4,100 U
C21-C34 Aliphatics	**4,100**	**11,000**
C8-C10 Aromatics	4,100	< 4,100 U
C10-C12 Aromatics	4,100	< 4,100 U
C12-C16 Aromatics	4,100	< 4,100 U
C16-C21 Aromatics	4,100	< 4,100 U
C21-C34 Aromatics	**4,100**	**5,700**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	62.5%
Aromatic	o-Terphenyl	65.6%

MS 1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A010.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

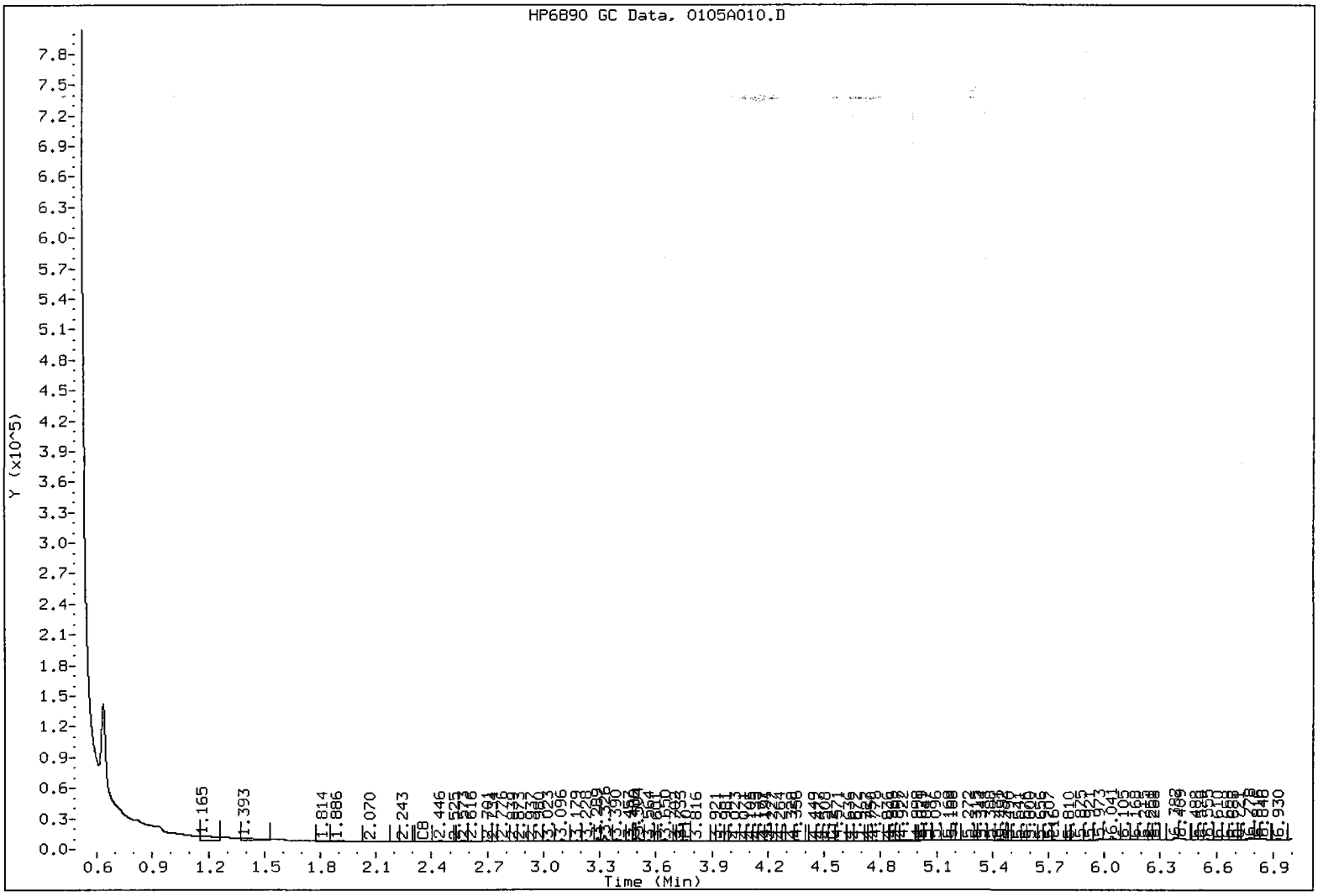
ARI ID: QC26C
Client ID: BW-04-SS-091218
Injection: 05-JAN-2010 16:29
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	38277	3	(2.277 - 3.860)
C10-C12	Aliph.	4238	0	(3.860 - 4.641)
C12-C16	Aliph.	5269	0	(4.641 - 5.821)
C16-C21	Aliph.	44999	4	(5.821 - 8.071)
C21-C34	Aliph.	530582	56	(8.071 - 12.782)

Surrogate Rec: 62.5%

FID-8A/ZB-5 QC26C



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A010.D

Date : 05-JAN-2010 16:29

Client ID: BW-04-SS-091218

Sample Info: QC26C

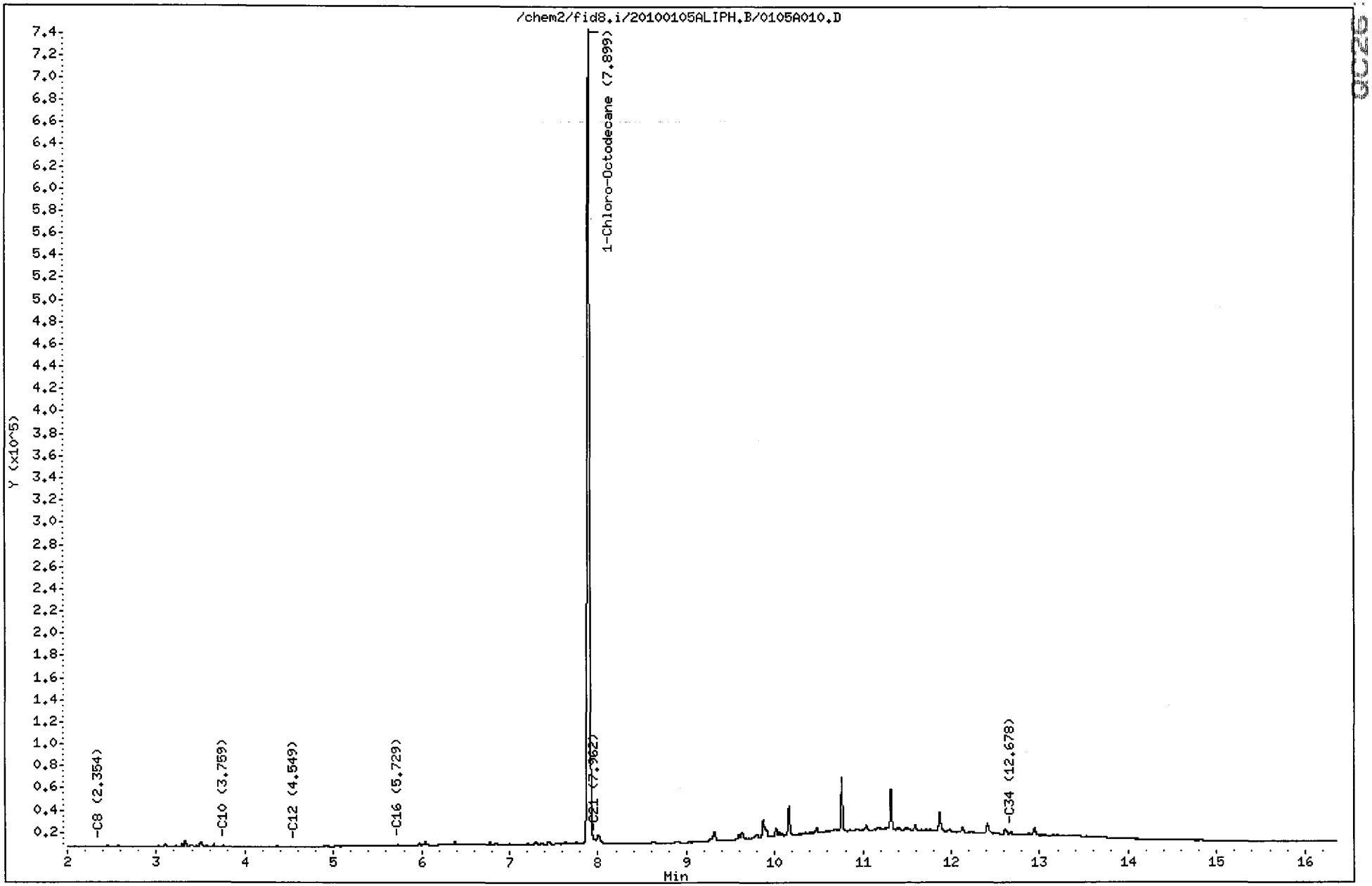
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

QC26 00351



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Analytical Resources Inc.
EPH Aromatics Report

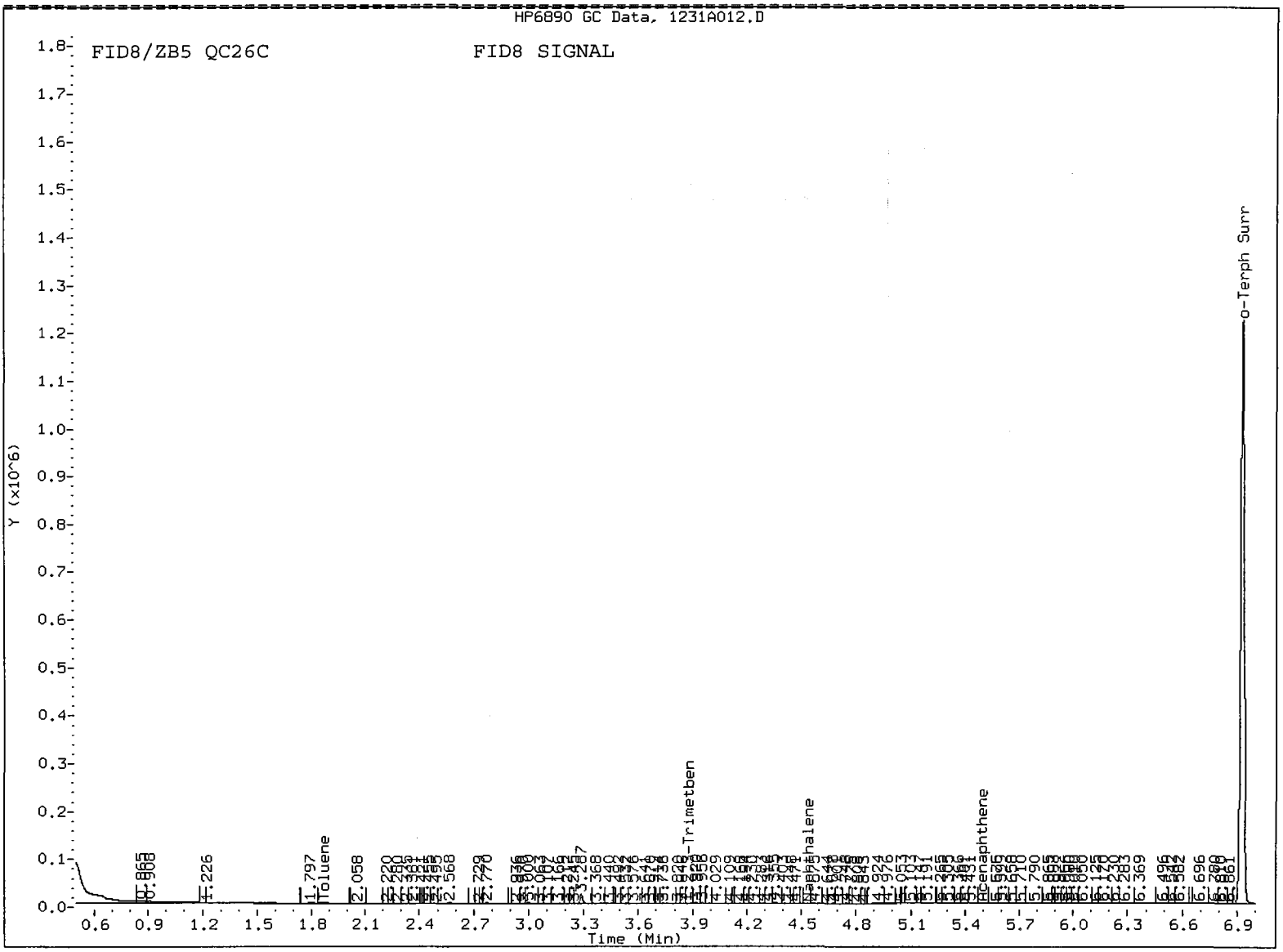
Data file: /chem2/fid8.i/20091231AROM.b/1231A012.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26C
Client ID: BW-04-SS-091218
Injection: 31-DEC-2009 12:52
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	33077	2	(1.788 - 3.979)
C10-C12	Arom.	2905	0	(3.979 - 4.638)
C12-C16	Arom.	3317	0	(4.638 - 5.589)
C16-C21	Arom.	88539	7	(5.589 - 8.348)
C21-C34	Arom.	281645	28	(8.348 - 12.535)

Surrogate Rec: 65.6%



Data File: /chem2/fid8.i/20091231AROM.b/1231A012.D

Date : 31-DEC-2009 12:52

Client ID: BW-04-SS-091218

Sample Info: QC26C

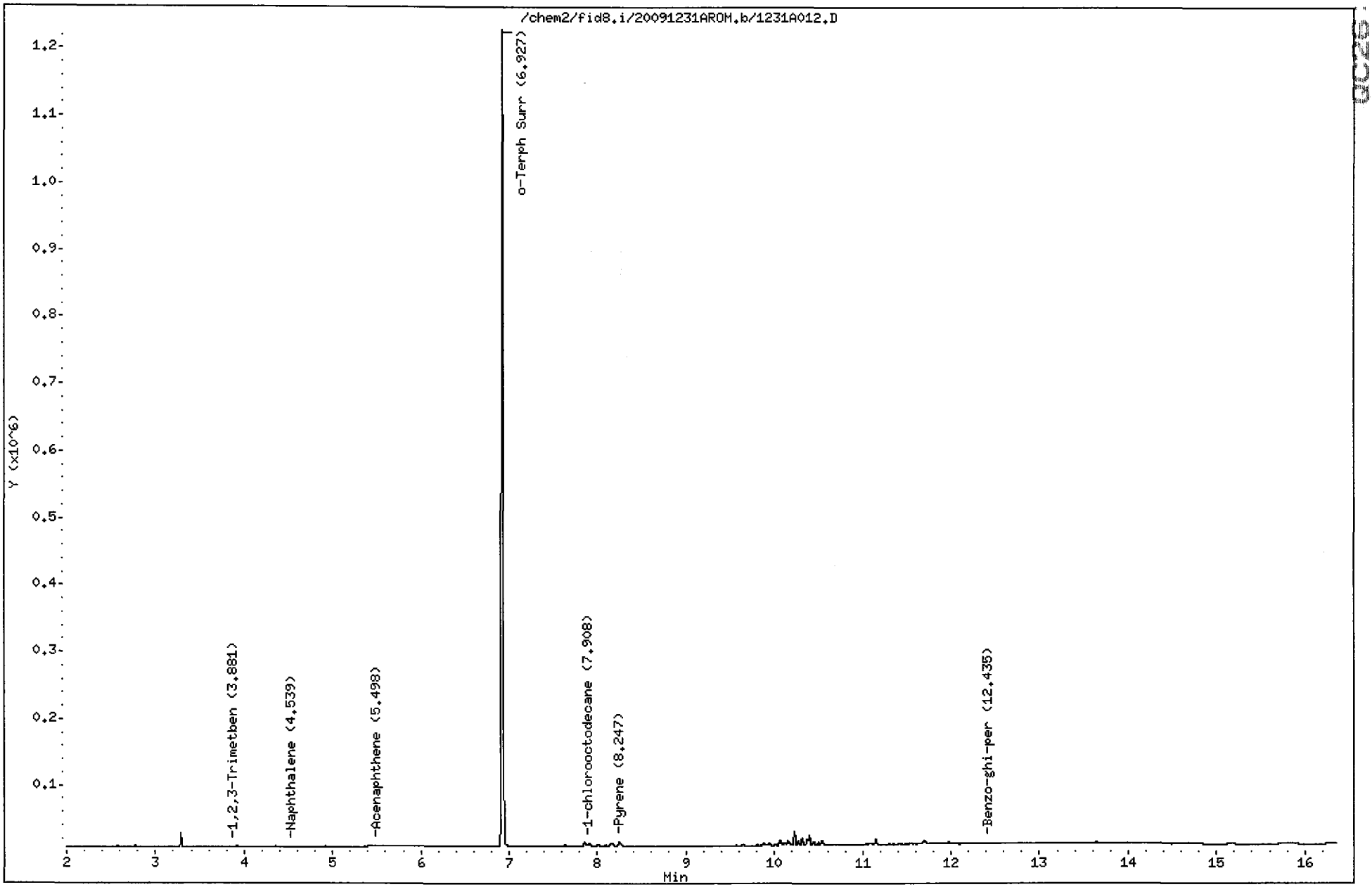
Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

QC26 66353



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
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Sample ID: BW-51-SS-091218
SAMPLE

Lab Sample ID: QC26D
LIMS ID: 09-31264
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 55.5%

Sample Amount: 4.61 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 16:54
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 13:17
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	4,300	< 4,300 U
C10-C12 Aliphatics	4,300	< 4,300 U
C12-C16 Aliphatics	4,300	< 4,300 U
C16-C21 Aliphatics	4,300	< 4,300 U
C21-C34 Aliphatics	**4,300**	**16,000**
C8-C10 Aromatics	4,300	< 4,300 U
C10-C12 Aromatics	4,300	< 4,300 U
C12-C16 Aromatics	4,300	< 4,300 U
C16-C21 Aromatics	4,300	< 4,300 U
C21-C34 Aromatics	**4,300**	**6,300**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	62.7%
Aromatic	o-Terphenyl	79.2%

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A011.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

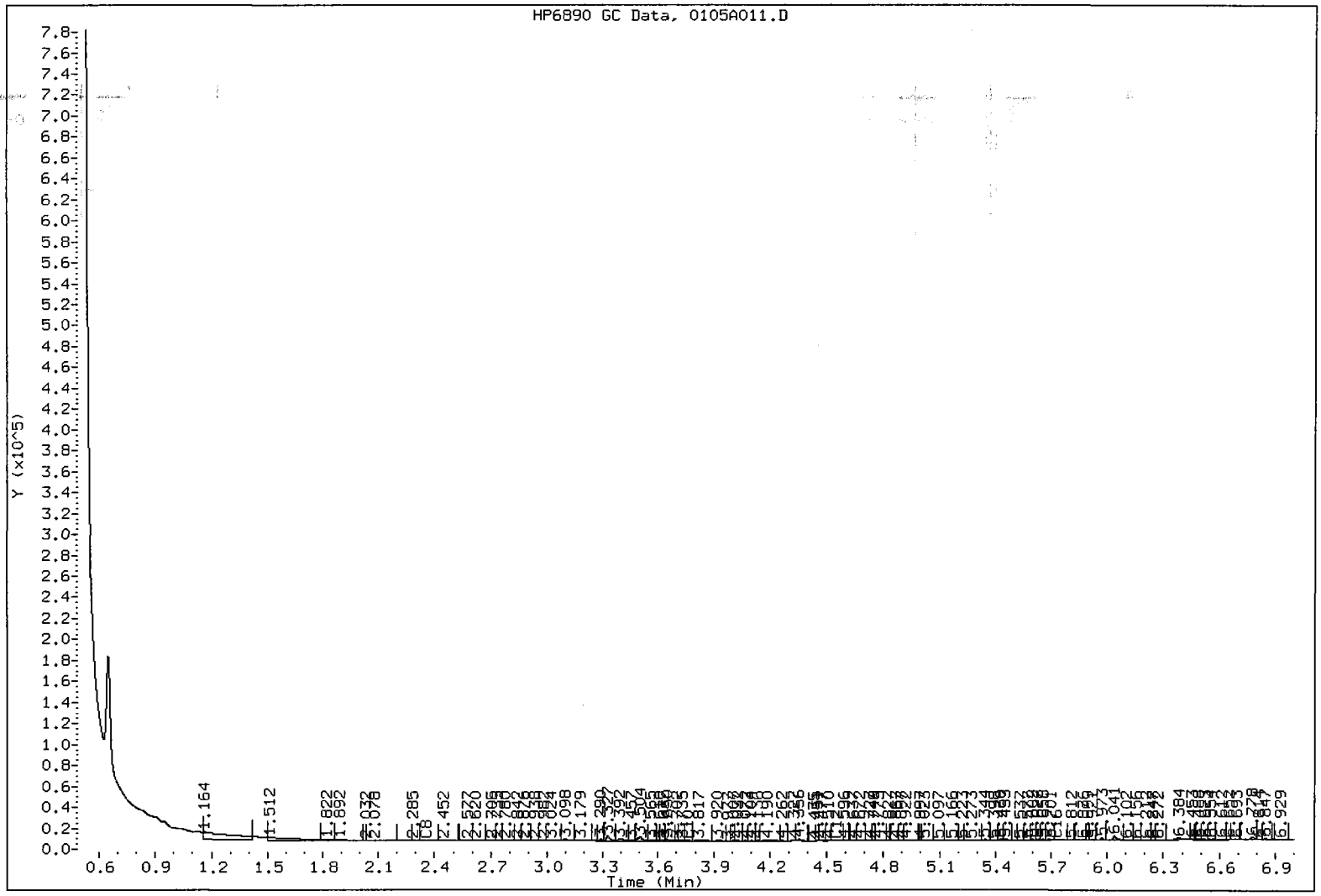
ARI ID: QC26D
Client ID: BW-51-SS-091218
Injection: 05-JAN-2010 16:54
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	37097	2	(2.277 - 3.860)
C10-C12	Aliph.	3898	0	(3.860 - 4.641)
C12-C16	Aliph.	5725	0	(4.641 - 5.821)
C16-C21	Aliph.	42953	3	(5.821 - 8.071)
C21-C34	Aliph.	686721	73	(8.071 - 12.782)

Surrogate Rec: 62.7%

FID-8A/ZB-5 QC26D



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A011.D

Date : 05-JAN-2010 16:54

Client ID: BW-51-SS-091218

Sample Info: QC26D

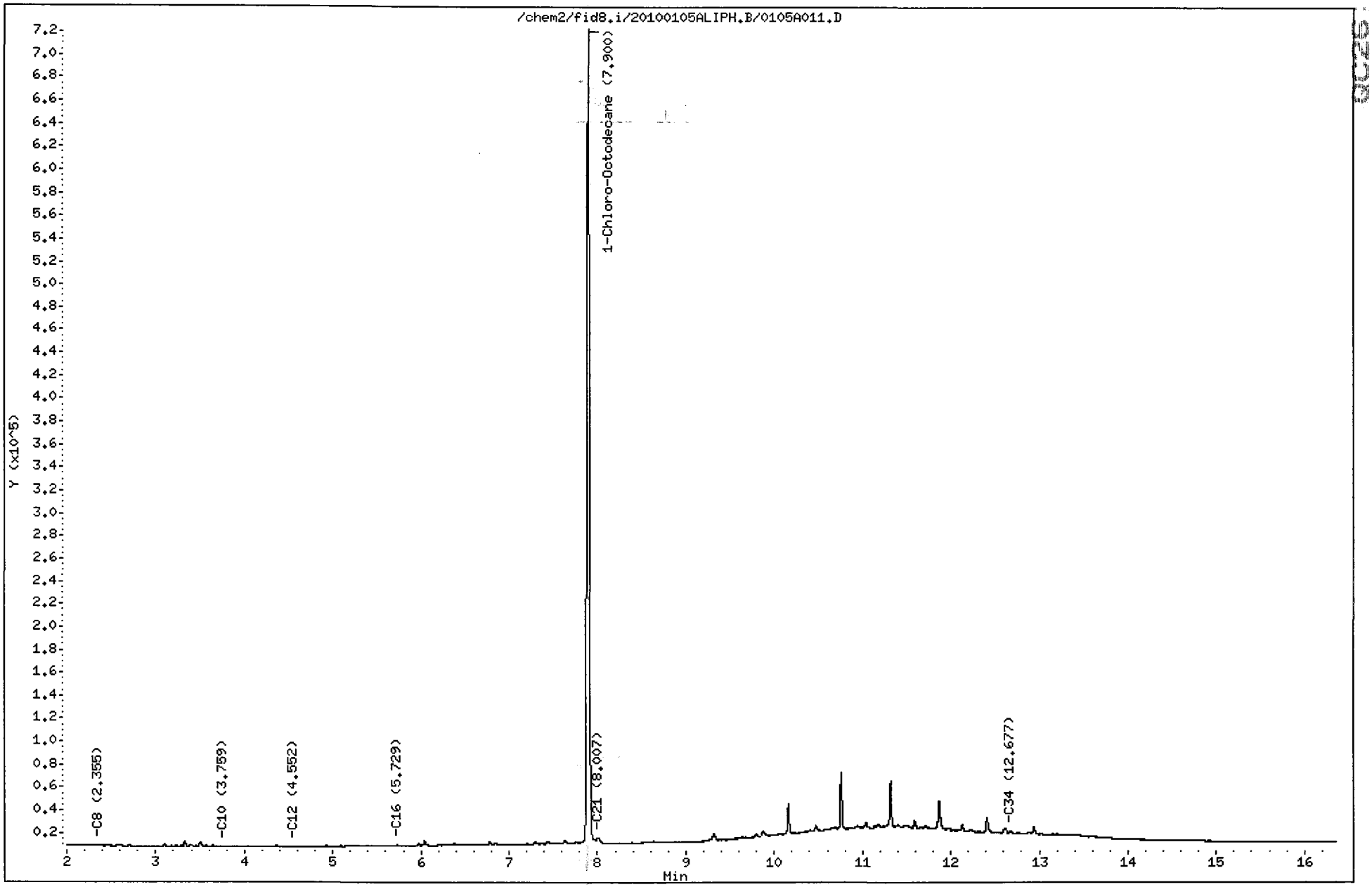
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

QC26 09356



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Analytical Resources Inc.
EPH Aromatics Report

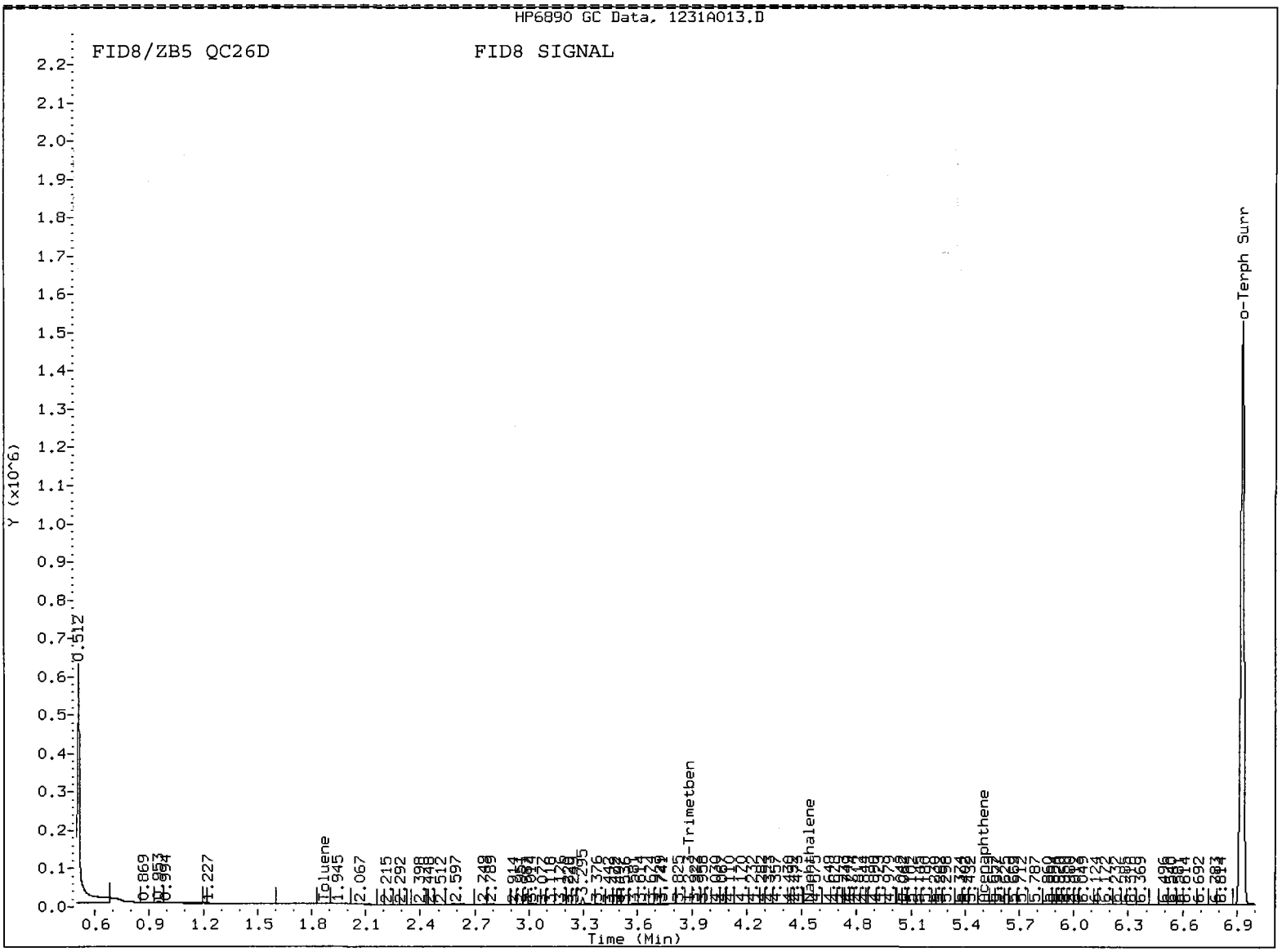
Data file: /chem2/fid8.i/20091231AROM.b/1231A013.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26D
Client ID: BW-51-SS-091218
Injection: 31-DEC-2009 13:17
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	30010	2	(1.788 - 3.979)
C10-C12	Arom.	3273	0	(3.979 - 4.638)
C12-C16	Arom.	7014	1	(4.638 - 5.589)
C16-C21	Arom.	123491	9	(5.589 - 8.348)
C21-C34	Arom.	290495	29	(8.348 - 12.535)

Surrogate Rec: 79.2%



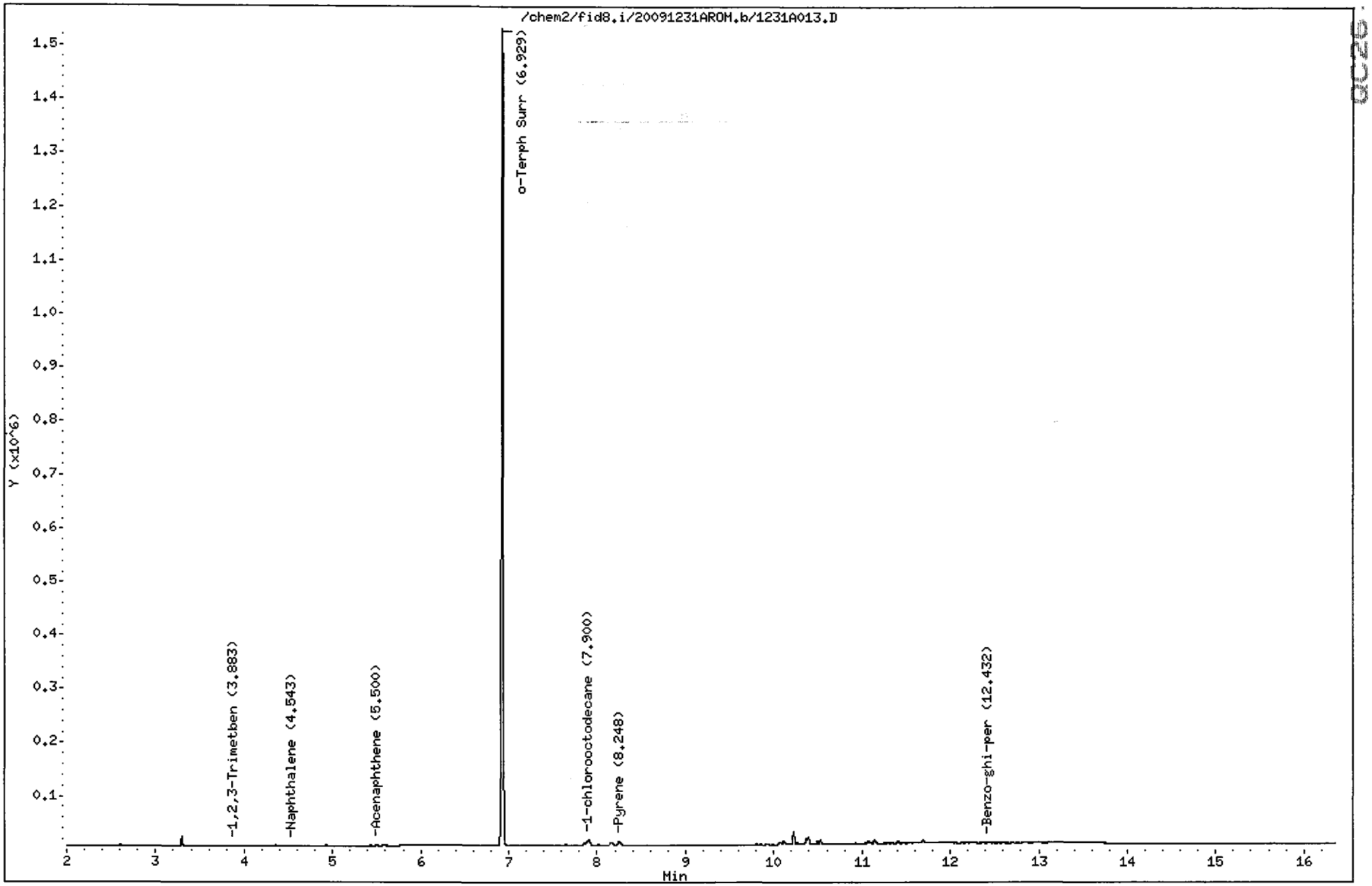
Data File: /chem2/fid8.i/20091231AROM.b/1231A013.D
Date : 31-DEC-2009 13:17
Client ID: BW-51-SS-091218
Sample Info: QC26D

Column phase:

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

QC26 66356



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-07-SS-091218
SAMPLE

Lab Sample ID: QC26E
LIMS ID: 09-31265
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 42.7%

Sample Amount: 5.80 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 17:19
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 13:41
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	3,400	< 3,400 U
C10-C12 Aliphatics	3,400	< 3,400 U
C12-C16 Aliphatics	3,400	< 3,400 U
C16-C21 Aliphatics	3,400	< 3,400 U
C21-C34 Aliphatics	**3,400**	**14,000**
C8-C10 Aromatics	3,400	< 3,400 U
C10-C12 Aromatics	3,400	< 3,400 U
C12-C16 Aromatics	3,400	< 3,400 U
C16-C21 Aromatics	3,400	< 3,400 U
C21-C34 Aromatics	3,400	< 3,400 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	58.7%
Aromatic	o-Terphenyl	66.3%

1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A012.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

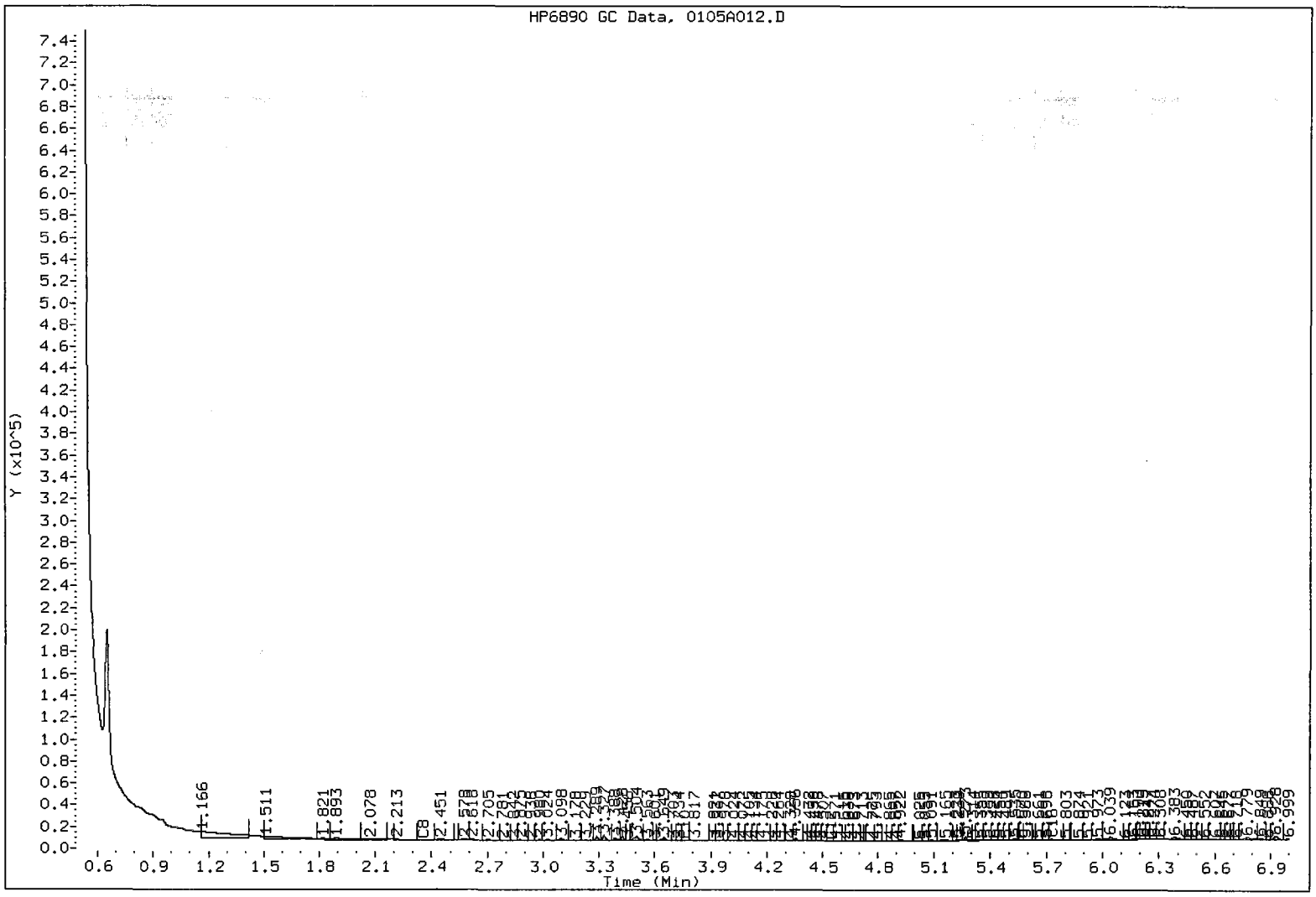
ARI ID: QC26E
Client ID: BW-07-SS-091218
Injection: 05-JAN-2010 17:19
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	48794	3	(2.277 - 3.860)
C10-C12	Aliph.	6158	0	(3.860 - 4.641)
C12-C16	Aliph.	11409	1	(4.641 - 5.821)
C16-C21	Aliph.	57408	5	(5.821 - 8.071)
C21-C34	Aliph.	769794	82	(8.071 - 12.782)

Surrogate Rec: 58.7%

FID-8A/ZB-5 QC26E



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A012.D

Date : 05-JAN-2010 17:19

Client ID: BW-07-SS-091218

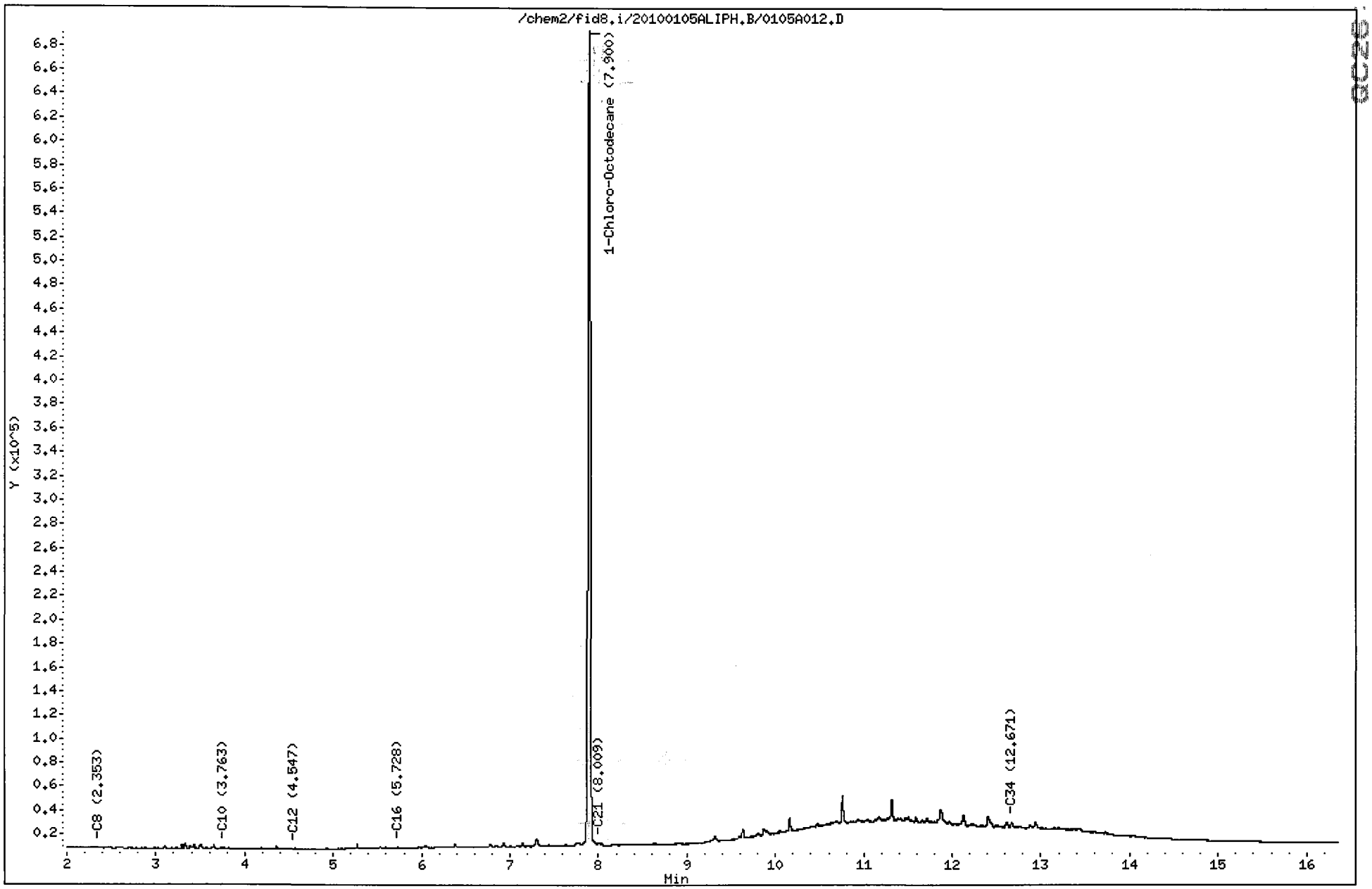
Sample Info: QC26E

Instrument: fid8.i

Operator: MS

Column phase:

Column diameter: 0.32



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Analytical Resources Inc.
EPH Aromatics Report

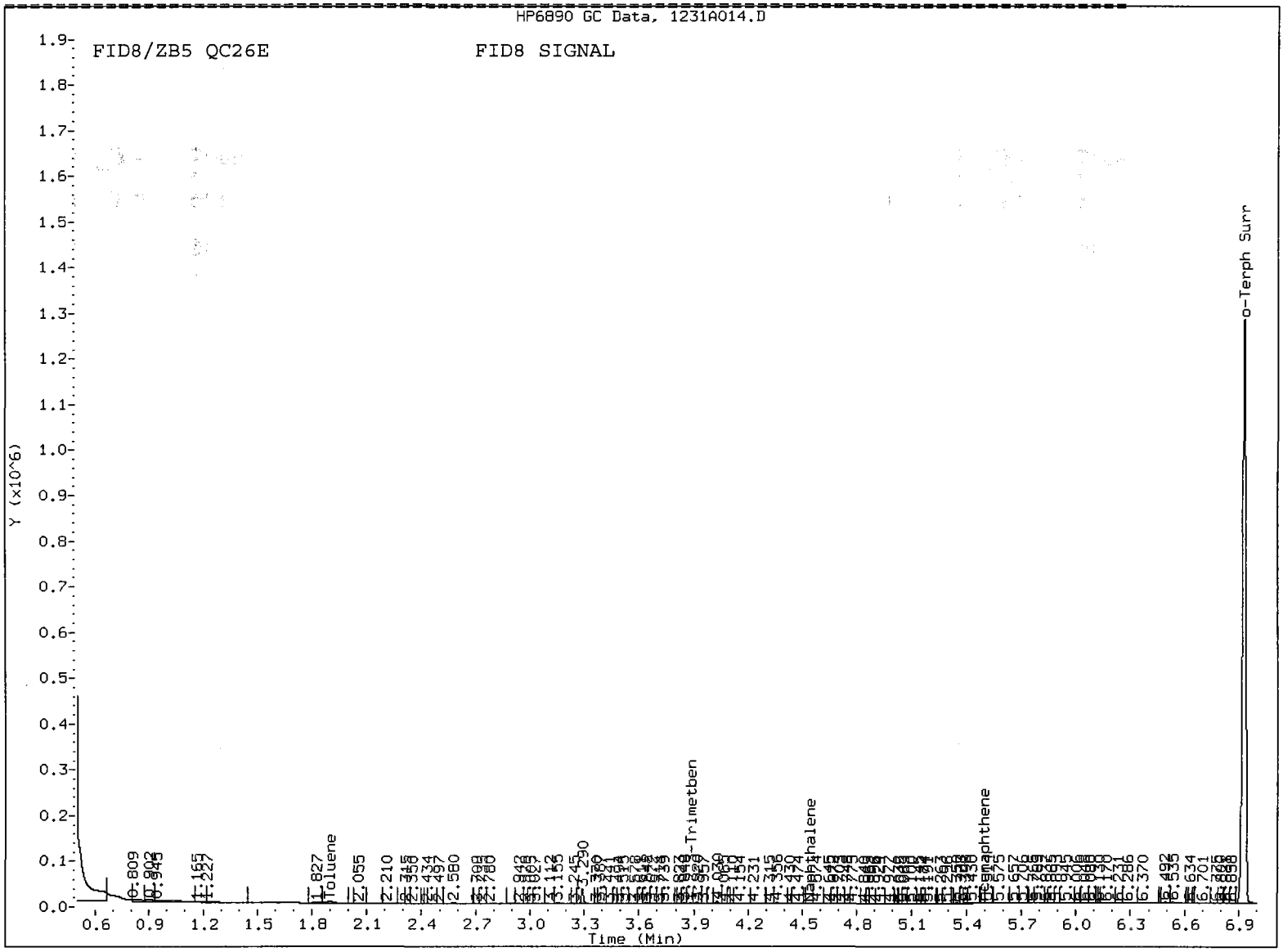
Data file: /chem2/fid8.i/20091231AROM.b/1231A014.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26E
Client ID: BW-07-SS-091218
Injection: 31-DEC-2009 13:41
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	54950	3	(1.788 - 3.979)
C10-C12	Arom.	6219	0	(3.979 - 4.638)
C12-C16	Arom.	4114	0	(4.638 - 5.589)
C16-C21	Arom.	205769	16	(5.589 - 8.348)
C21-C34	Arom.	184182	18	(8.348 - 12.535)

Surrogate Rec: 66.3%



Data File: /chem2/fid8.i/20091231AROM.b/1231A014.D

Date : 31-DEC-2009 13:41

Client ID: BW-07-SS-091218

Sample Info: QC26E

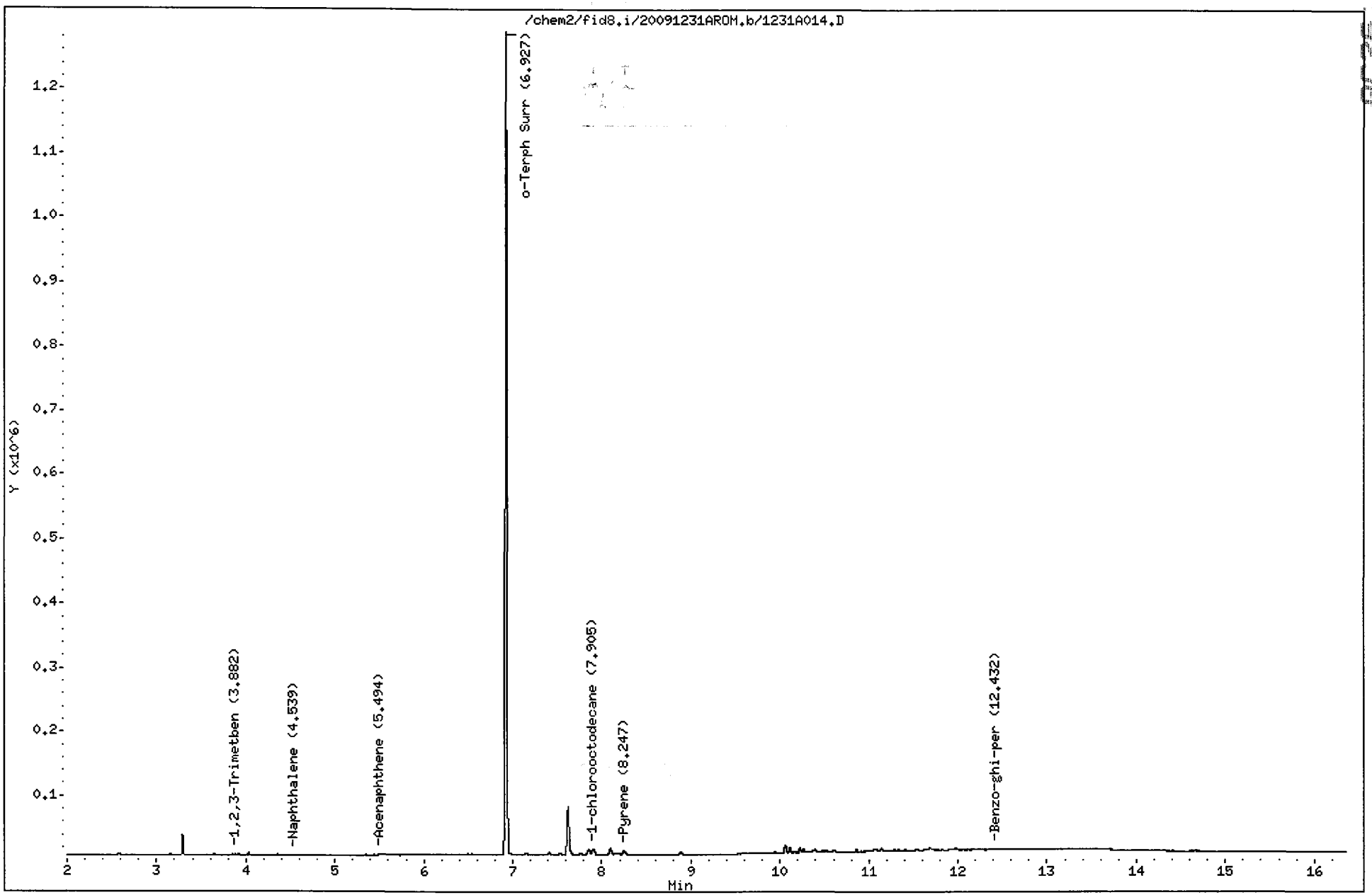
Instrument: fid8.i

Operator: JR

Column phase:

Column diameter: 0.32

QC26 66363



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-11-SS-091218
SAMPLE

Lab Sample ID: QC26F
LIMS ID: 09-31266
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 51.4%

Sample Amount: 4.94 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 17:44
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 14:06
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	4,000	< 4,000 U
C10-C12 Aliphatics	4,000	< 4,000 U
C12-C16 Aliphatics	4,000	< 4,000 U
C16-C21 Aliphatics	4,000	< 4,000 U
C21-C34 Aliphatics	**4,000**	**11,000**
C8-C10 Aromatics	4,000	< 4,000 U
C10-C12 Aromatics	4,000	< 4,000 U
C12-C16 Aromatics	4,000	< 4,000 U
C16-C21 Aromatics	4,000	< 4,000 U
C21-C34 Aromatics	**4,000**	**4,700**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	61.6%
Aromatic	o-Terphenyl	67.1%

m 1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A013.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

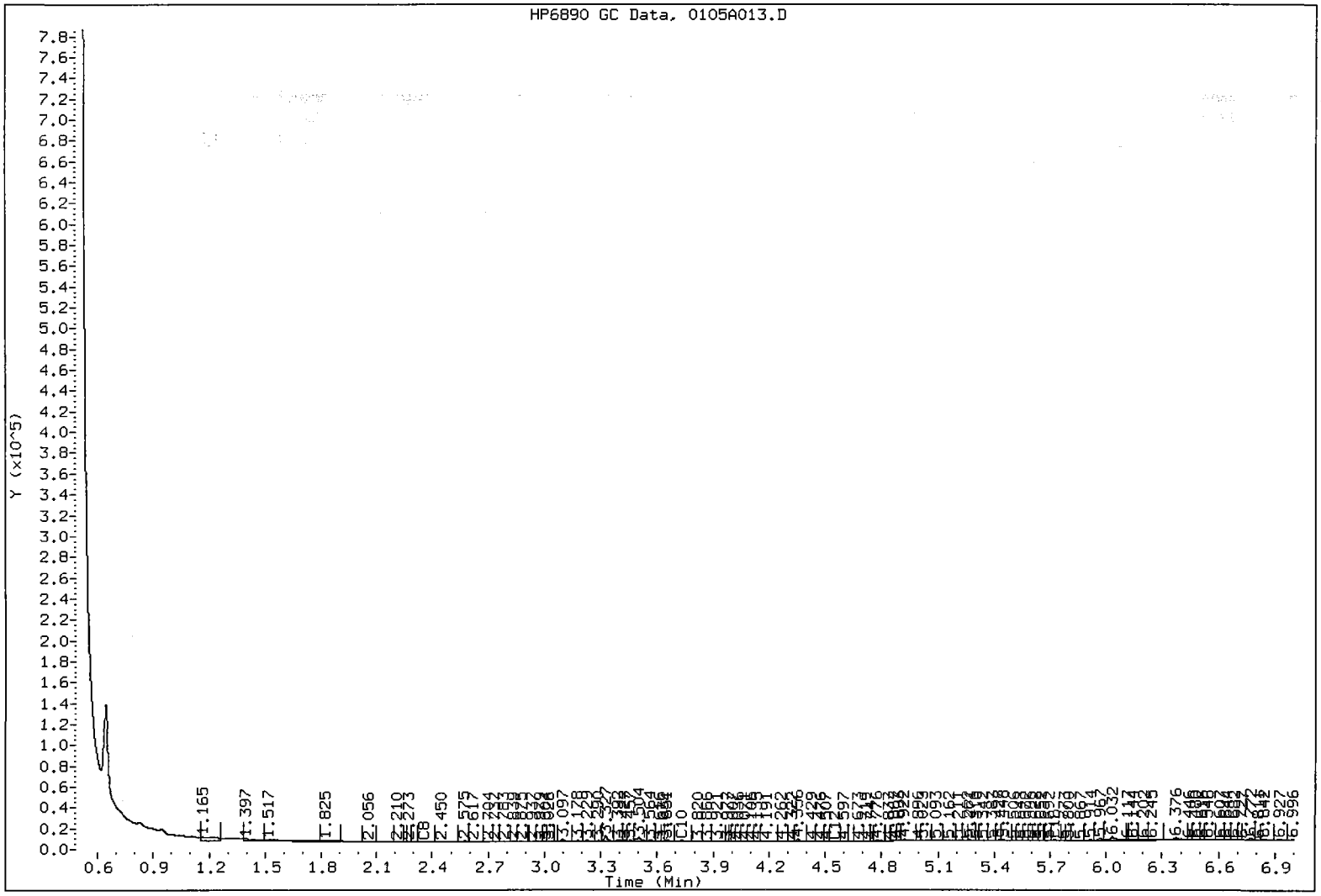
ARI ID: QC26F
Client ID: BW-11-SS-091218
Injection: 05-JAN-2010 17:44
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	25079	2	(2.277 - 3.860)
C10-C12	Aliph.	4055	0	(3.860 - 4.641)
C12-C16	Aliph.	6236	0	(4.641 - 5.821)
C16-C21	Aliph.	86930	7	(5.821 - 8.071)
C21-C34	Aliph.	517920	55	(8.071 - 12.782)

Surrogate Rec: 61.6%

FID-8A/ZB-5 QC26F



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A013.D

Date : 05-JAN-2010 17:44

Client ID: BW-11-SS-091218

Sample Info: QC26F

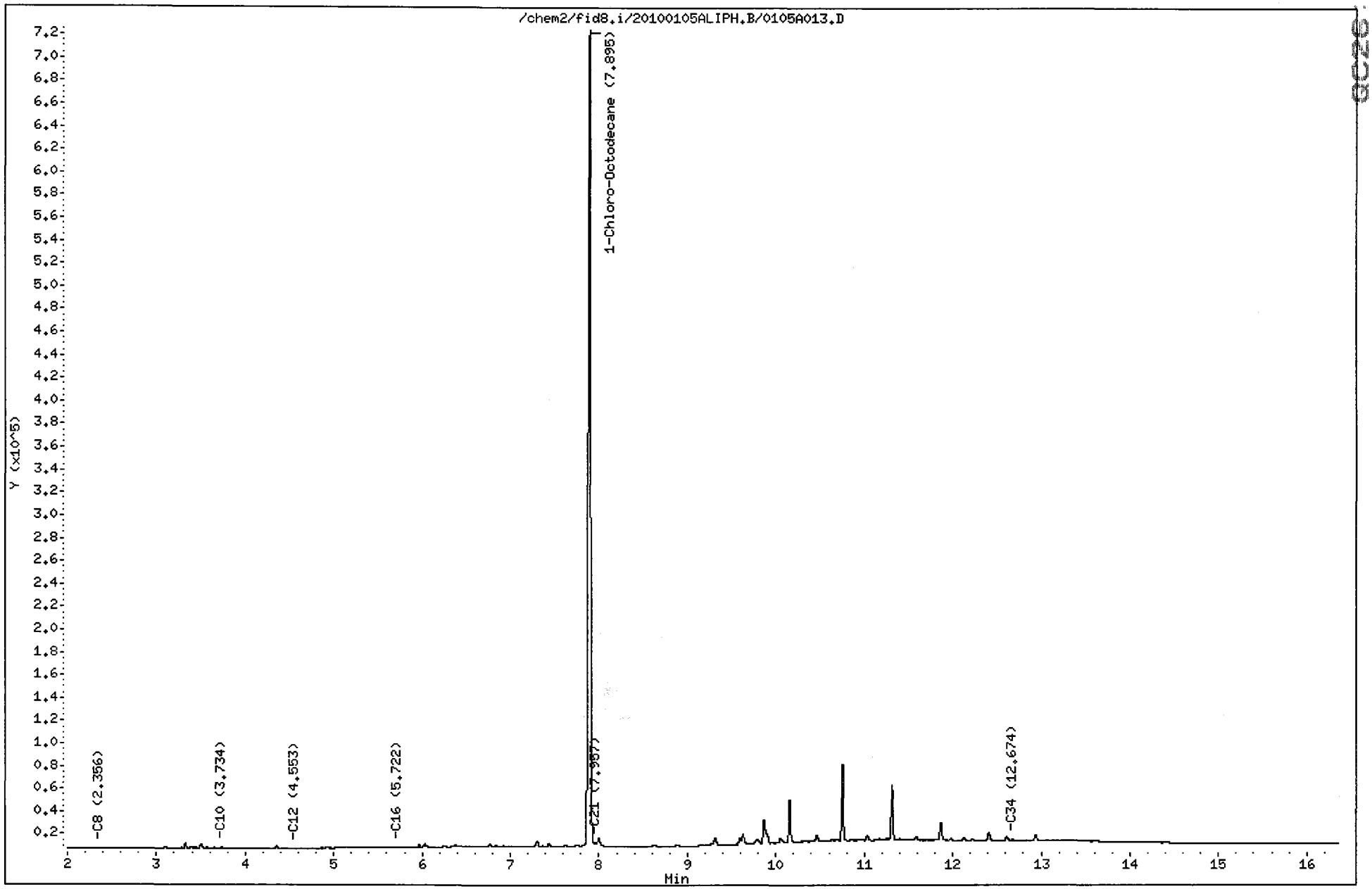
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

QC26.00366



1/6/10

Analytical Resources Inc.
EPH Aromatics Report

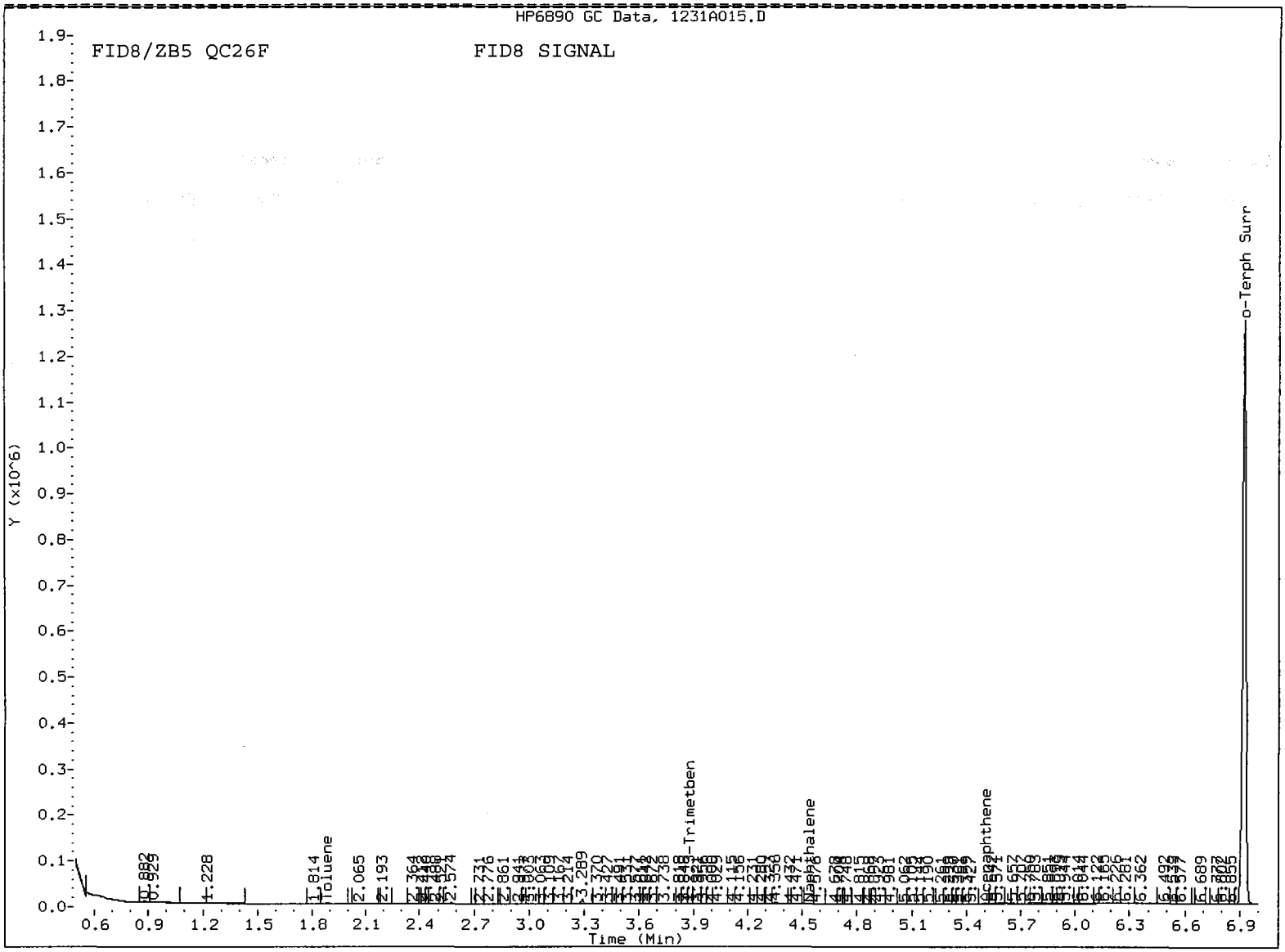
Data file: /chem2/fid8.i/20091231AROM.b/1231A015.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26F
Client ID: BW-11-SS-091218
Injection: 31-DEC-2009 14:06
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	19461	1	(1.788 - 3.979)
C10-C12	Arom.	2919	0	(3.979 - 4.638)
C12-C16	Arom.	4695	0	(4.638 - 5.589)
C16-C21	Arom.	101182	8	(5.589 - 8.348)
C21-C34	Arom.	233958	23	(8.348 - 12.535)

Surrogate Rec: 67.1%



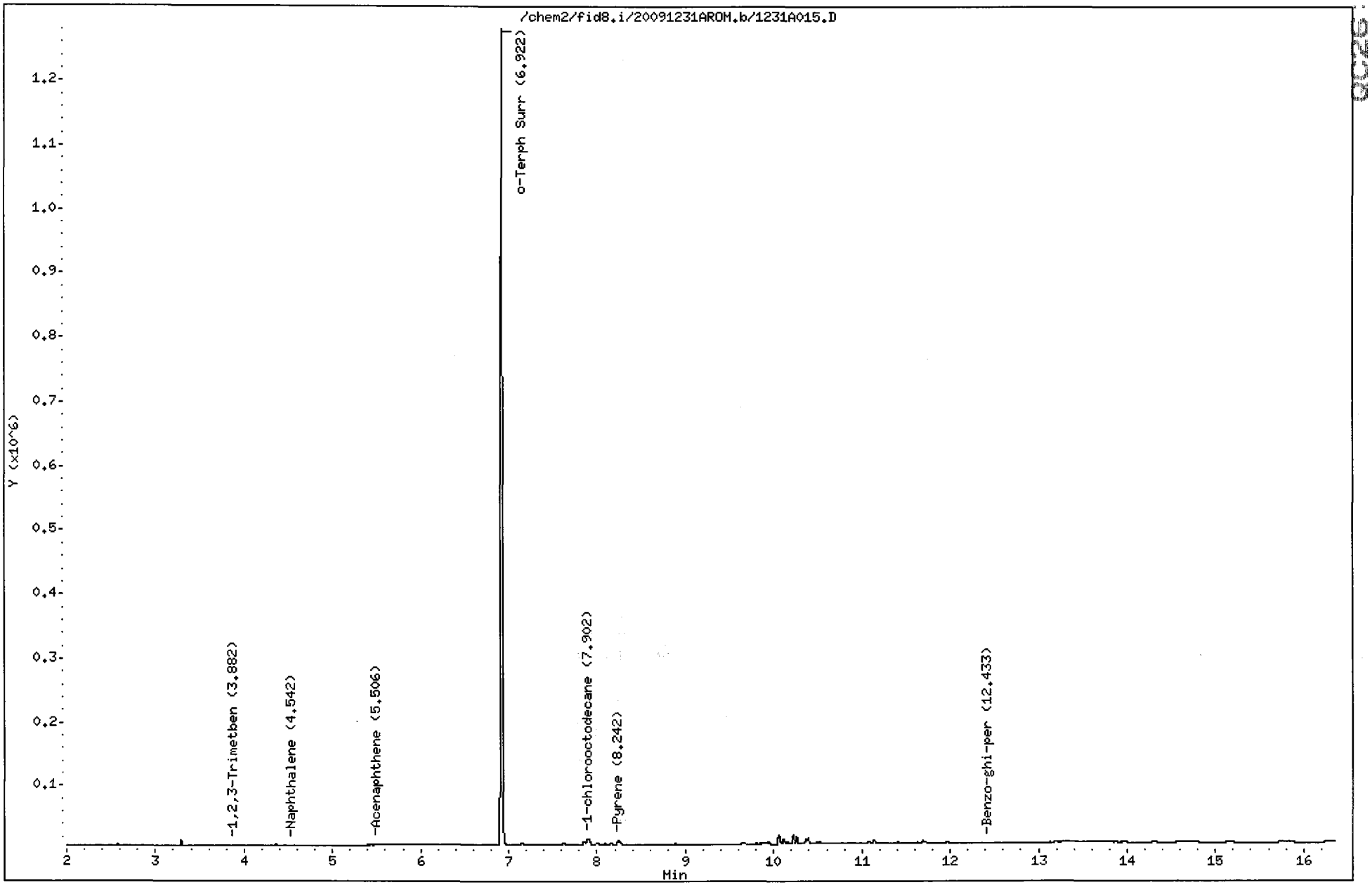
Data File: /chem2/fid8.i/20091231AROM.b/1231A015.D
Date : 31-DEC-2009 14:06
Client ID: BW-11-SS-091218
Sample Info: QC26F

Column phase:

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

QC26 00368



EPH Analysis
Standard Raw Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID8.I Project: BAYWOOD

Calibration Date: 14-DEC-2009 SDG No.: QC26

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	15058	16045	15970	15037	16587	15739	4.3
C10-C12	14681	15244	15042	14048	15499	14903	3.8
C12-C16	13816	14100	13843	12740	13929	13686	3.9
C16-C21	13010	13637	13722	12405	13352	13225	4.1
C21-C34	9606	10275	10564	9784	10629	10172	4.5

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1214A025.D	14-DEC-2009 23:01
1214A026.D	14-DEC-2009 23:26
1214A027.D	14-DEC-2009 23:51
1214A028.D	15-DEC-2009 00:16
1214A029.D	15-DEC-2009 00:41

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 23:01
End Cal Date : 15-DEC-2009 00:41
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20091214AROM.B/EPHArom.m
Cal Date : 15-Dec-2009 14:54 marys
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20091214AROM.B/1214A025.D
Level 2: /chem2/fid8.i/20091214AROM.B/1214A026.D
Level 3: /chem2/fid8.i/20091214AROM.B/1214A027.D
Level 4: /chem2/fid8.i/20091214AROM.B/1214A028.D
Level 5: /chem2/fid8.i/20091214AROM.B/1214A029.D

	Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	___ RRF	% RSD	
	2 Toluene	15632	16763	16753	15847	17463	16492	4.537	
	75 1-chlorooctodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	3 1,2,3-Trimetben	14484	15327	15187	14228	15710	14987	4.098	
	4 Naphthalene	14681	15244	15042	14048	15499	14903	3.782	
	7 Acenaphthene	13816	14100	13843	12740	13929	13686	3.946	
	13 Pyrene	13010	13637	13722	12405	13352	13225	4.055	
	21 Benzo-ghi-per	9606	10275	10564	9784	10629	10172	4.518	
$	11 o-Terph Surr	16482	16592	16340	14767	15904	16017	4.658	

Analytical Resources Inc.
EPH Aromatics Report

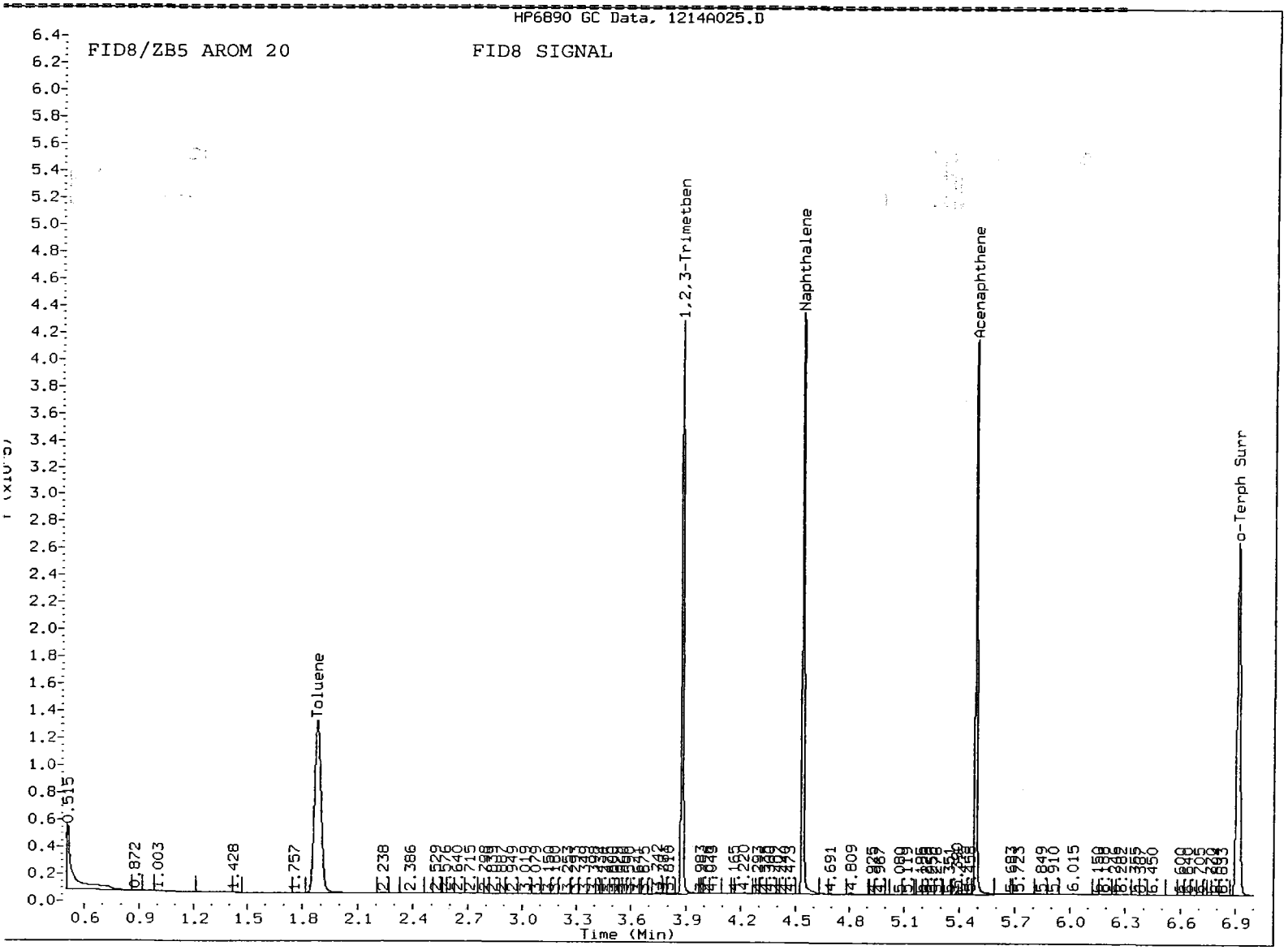
Data file: /chem2/fid8.i/20091214AROM.B/1214A025.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM 20
Client ID: AROM 20
Injection: 14-DEC-2009 23:01
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	605254	38	(1.791 - 3.982)
C10-C12	Arom.	294864	20	(3.982 - 4.641)
C12-C16	Arom.	281201	21	(4.641 - 5.592)
C16-C21	Arom.	277477	21	(5.592 - 8.359)
C21-C34	Arom.	194650	19	(8.359 - 12.549)

Surrogate Rec: 13.7%



Data File: /chem2/fid8.i/20091214AROM.B/1214A025.D

Date : 14-DEC-2009 23:01

Client ID: AROM 20

Sample Info: AROM 20

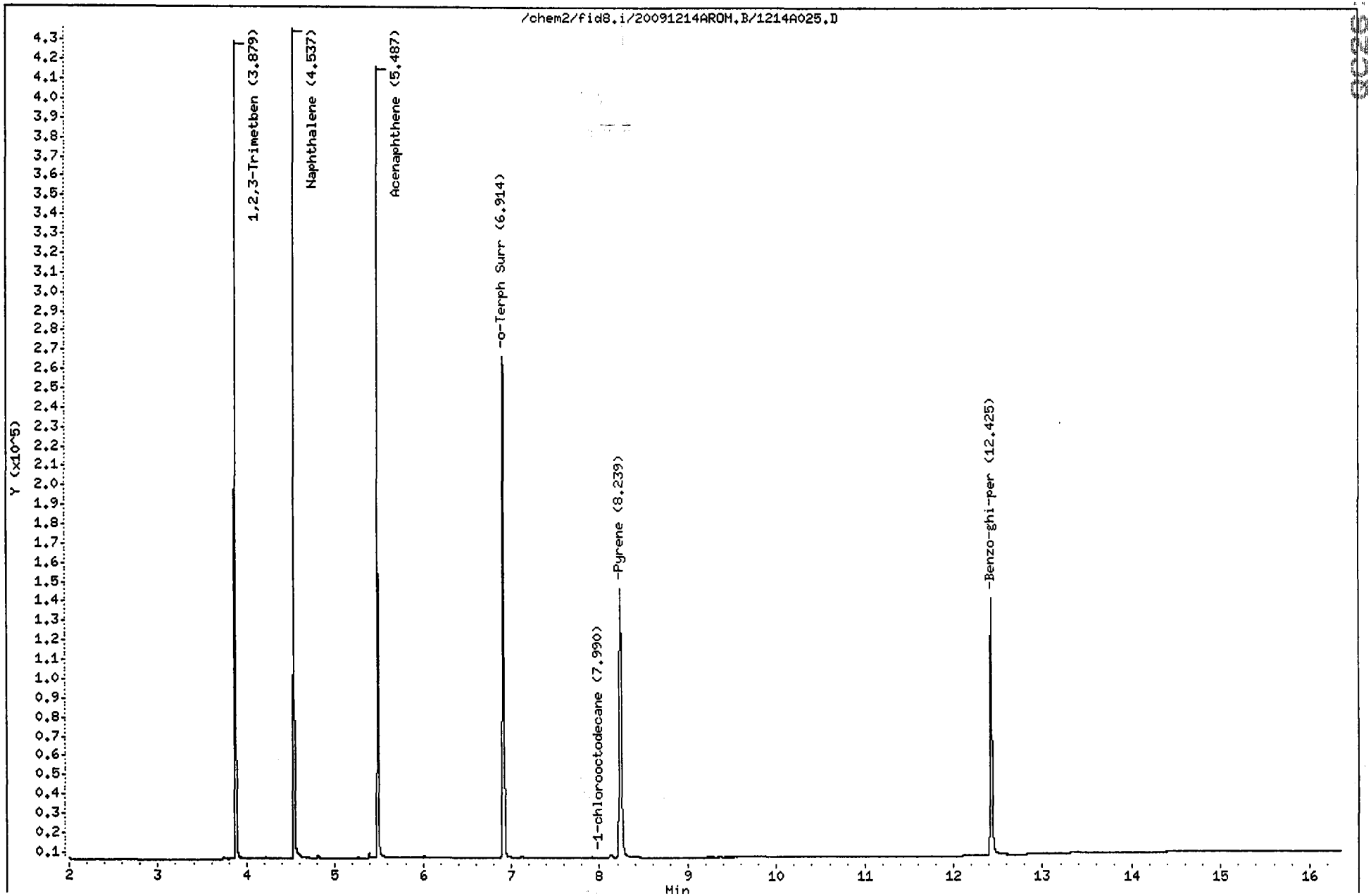
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

GC025 66379



Analytical Resources Inc.
EPH Aromatics Report

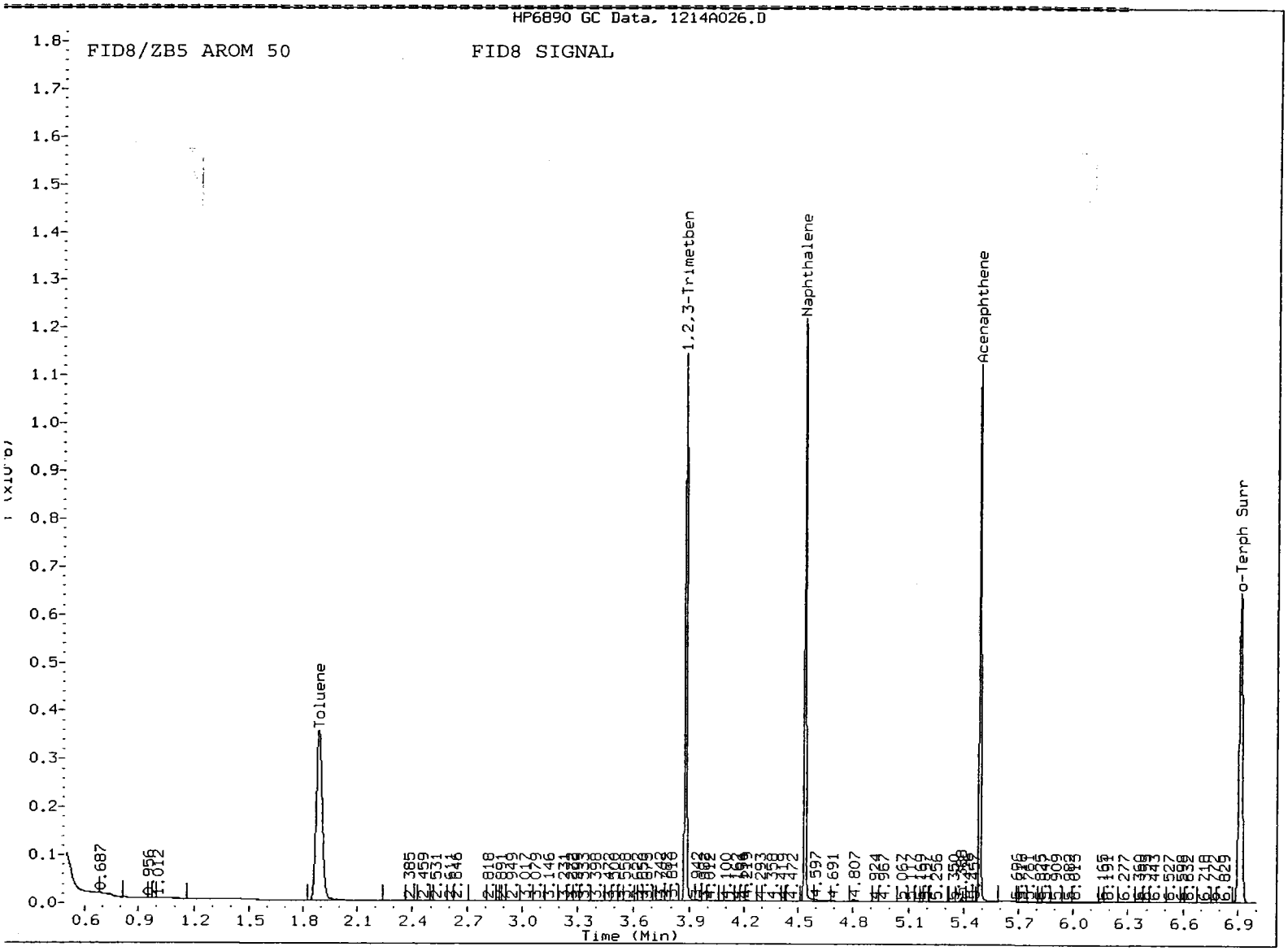
Data file: /chem2/fid8.i/20091214AROM.B/1214A026.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM 50
Client ID: AROM 50
Injection: 14-DEC-2009 23:26
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	1612153	102	(1.791 - 3.982)
C10-C12	Arom.	772943	52	(3.982 - 4.641)
C12-C16	Arom.	718827	53	(4.641 - 5.592)
C16-C21	Arom.	709601	54	(5.592 - 8.359)
C21-C34	Arom.	516957	51	(8.359 - 12.549)

Surrogate Rec: 34.5%

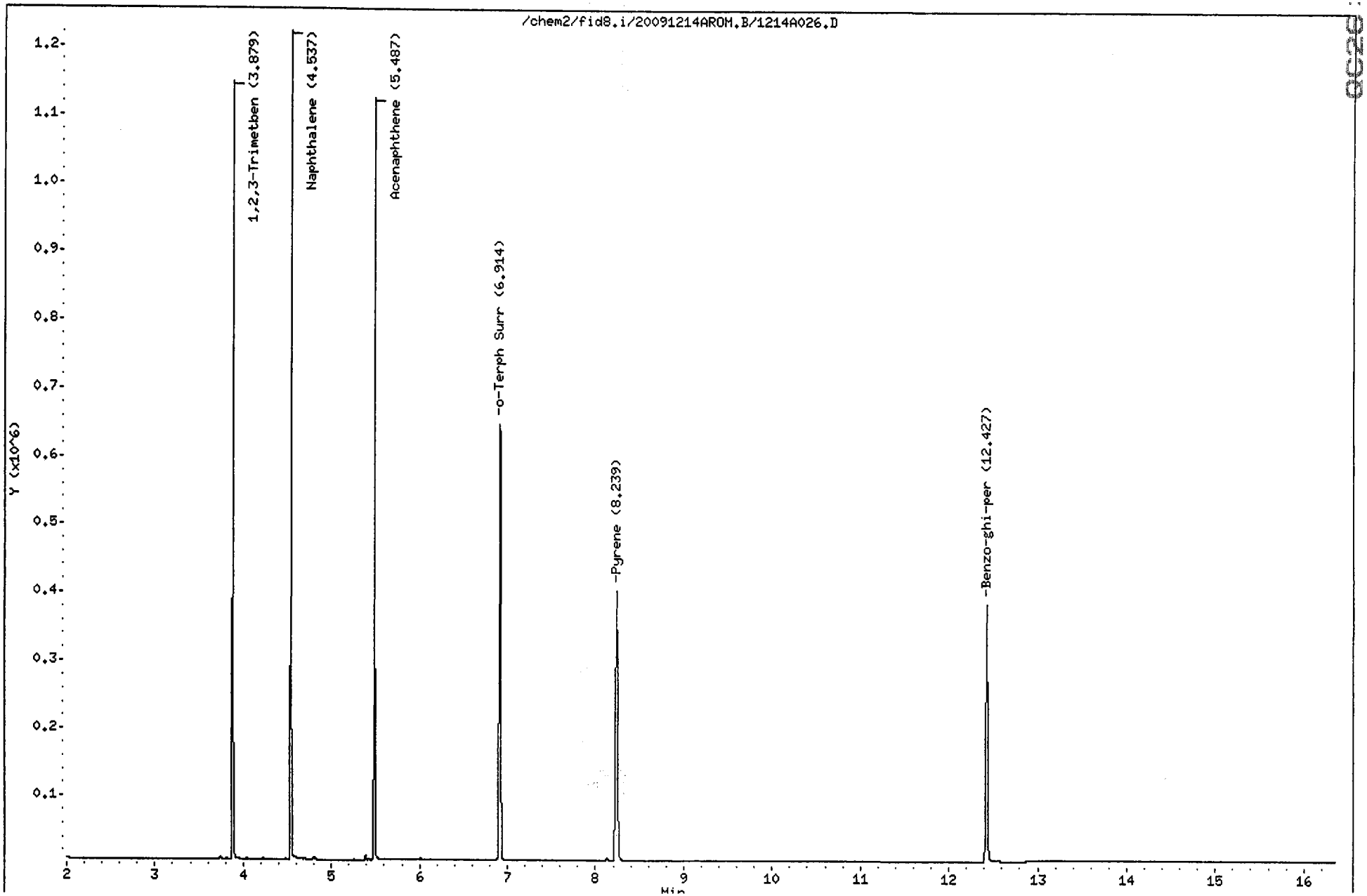


Data File: /chem2/fid8.i/20091214AROM.B/1214A026.D
Date : 14-DEC-2009 23:26
Client ID: AROM 50
Sample Info: AROM 50

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

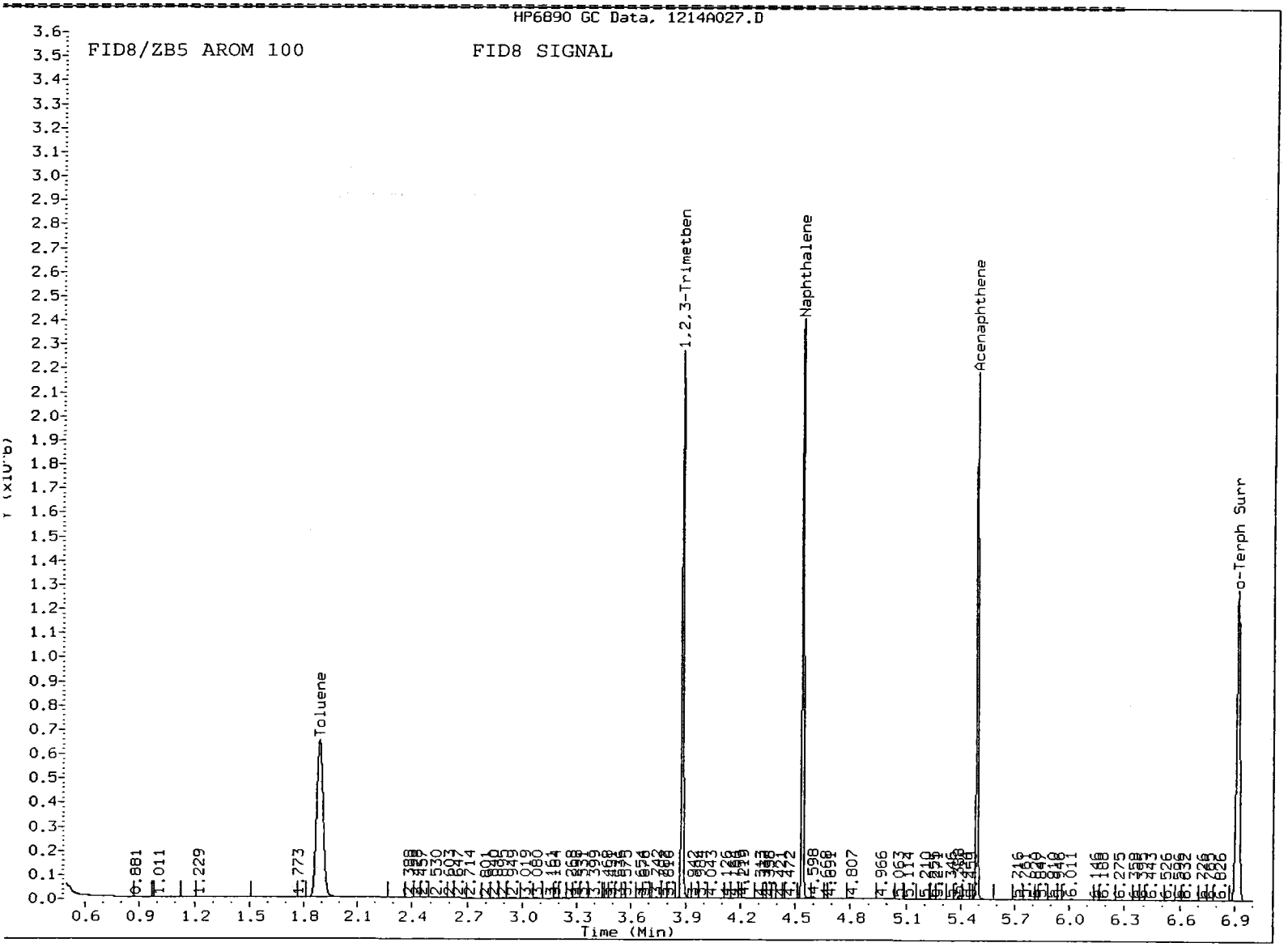
Data file: /chem2/fid8.i/20091214AROM.B/1214A027.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM 100
Client ID: AROM 100
Injection: 14-DEC-2009 23:51
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	3208949	204	(1.791 - 3.982)
C10-C12	Arom.	1522490	102	(3.982 - 4.641)
C12-C16	Arom.	1412134	103	(4.641 - 5.592)
C16-C21	Arom.	1420336	107	(5.592 - 8.359)
C21-C34	Arom.	1060959	104	(8.359 - 12.549)

Surrogate Rec: 68.0%

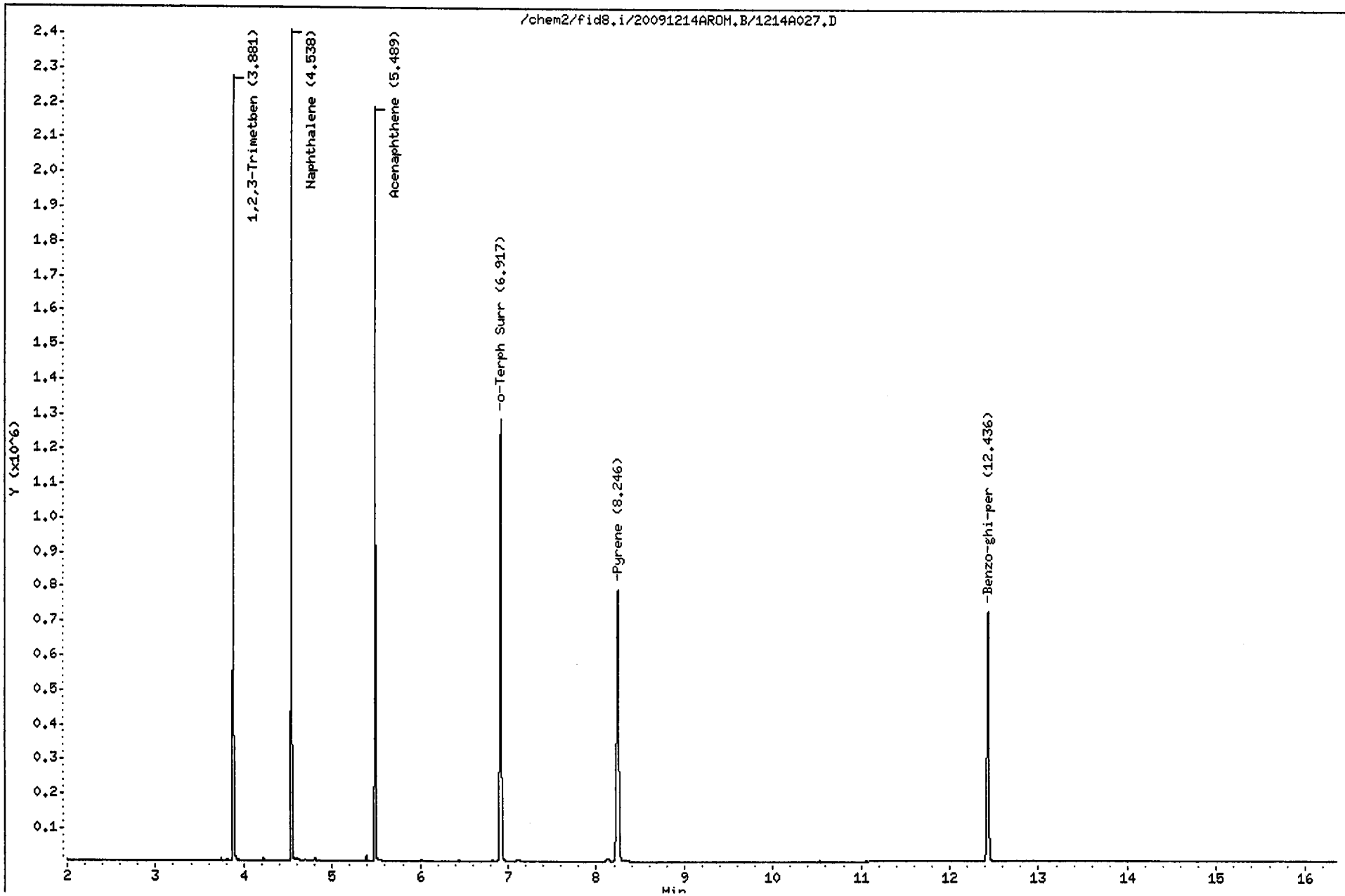


Data File: /chem2/fid8.i/20091214AROM.B/1214A027.D
Date : 14-DEC-2009 23:51
Client ID: AROM 100
Sample Info: AROM 100

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC28:00377

Analytical Resources Inc.
EPH Aromatics Report

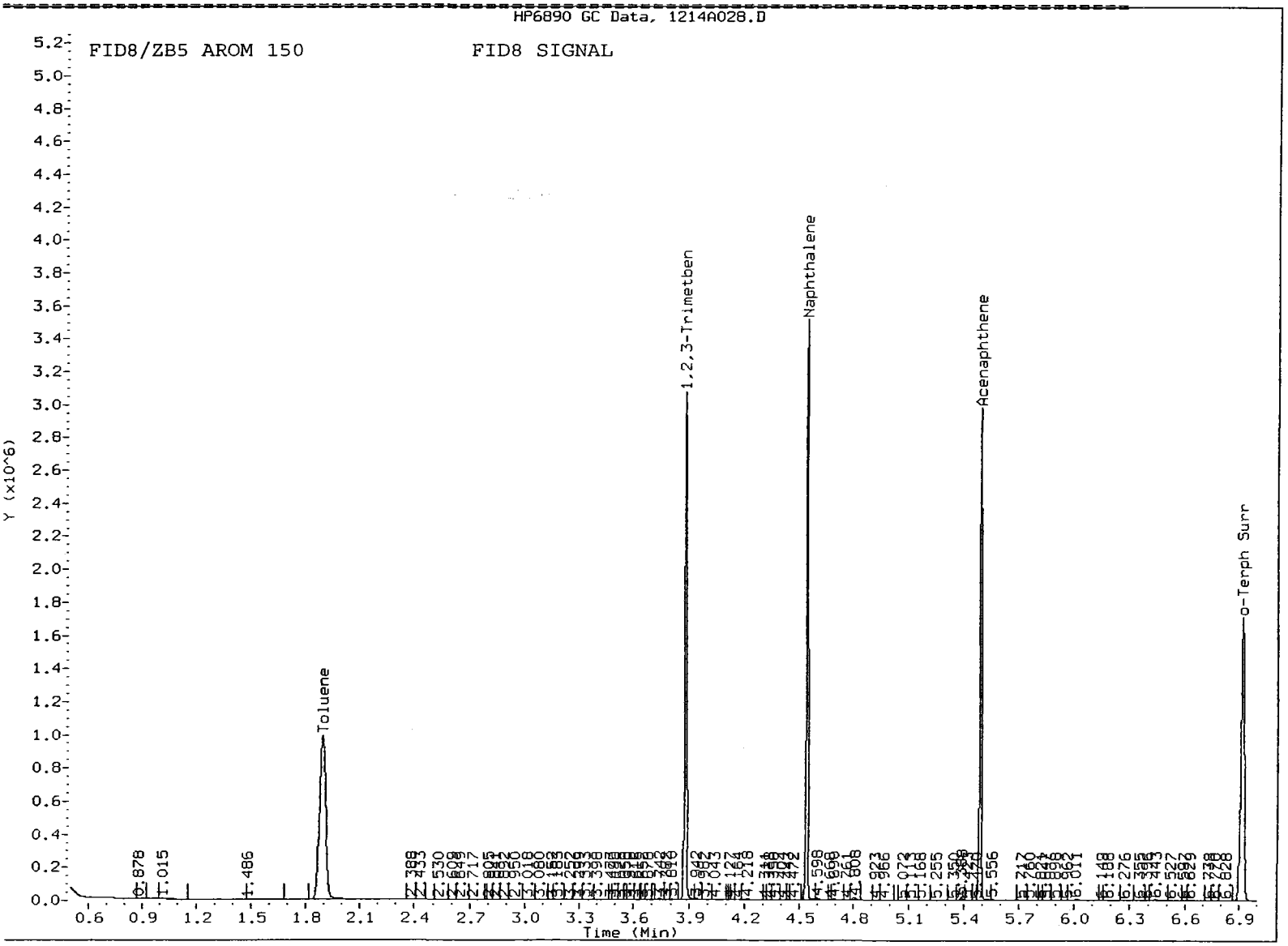
Data file: /chem2/fid8.i/20091214AROM.B/1214A028.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM 150
Client ID: AROM 150
Injection: 15-DEC-2009 00:16
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	4530538	288	(1.791 - 3.982)
C10-C12	Arom.	2128336	143	(3.982 - 4.641)
C12-C16	Arom.	1955027	143	(4.641 - 5.592)
C16-C21	Arom.	1925685	146	(5.592 - 8.359)
C21-C34	Arom.	1474671	145	(8.359 - 12.549)

Surrogate Rec: 92.2%

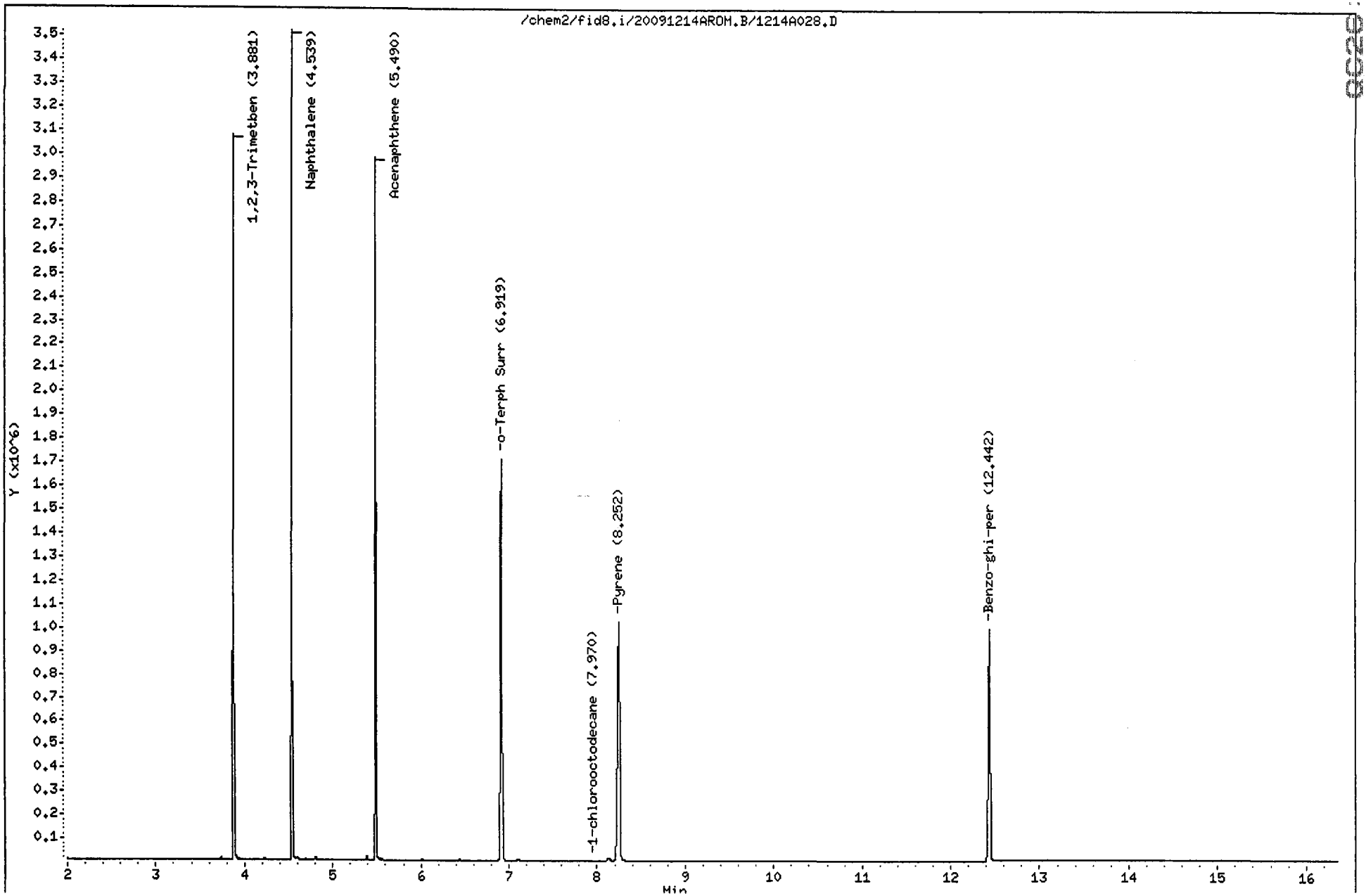


Data File: /chem2/fid8.i/20091214AROM.B/1214A028.D
Date : 15-DEC-2009 00:16
Client ID: AROM 150
Sample Info: AROM 150

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC20:00379

Analytical Resources Inc.
EPH Aromatics Report

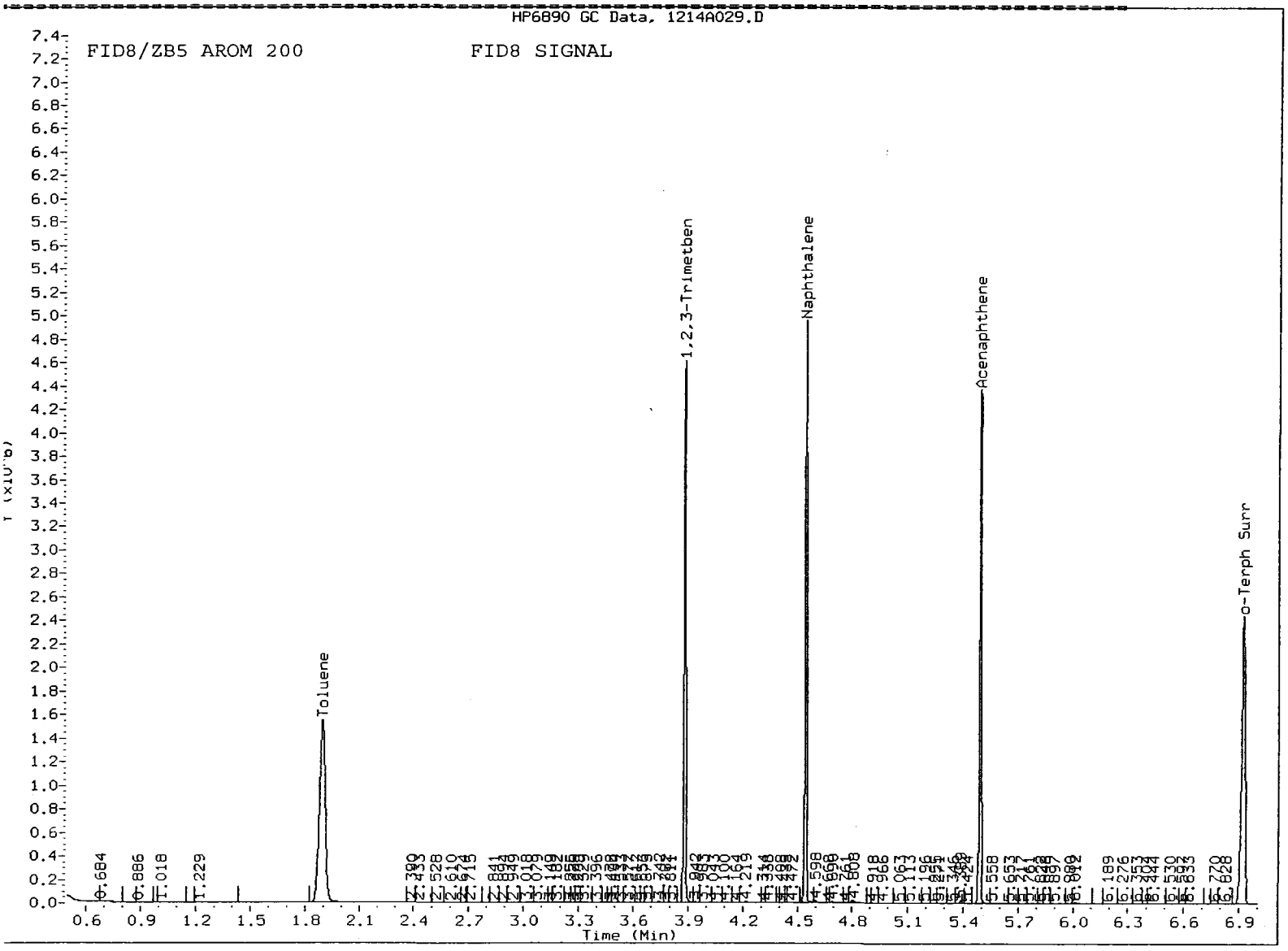
Data file: /chem2/fid8.i/20091214AROM.B/1214A029.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM 200
Client ID: AROM 200
Injection: 15-DEC-2009 00:41
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	6664531	423	(1.791 - 3.982)
C10-C12	Arom.	3131992	210	(3.982 - 4.641)
C12-C16	Arom.	2848595	208	(4.641 - 5.592)
C16-C21	Arom.	2757524	209	(5.592 - 8.359)
C21-C34	Arom.	2134340	210	(8.359 - 12.549)

Surrogate Rec: 132.4%



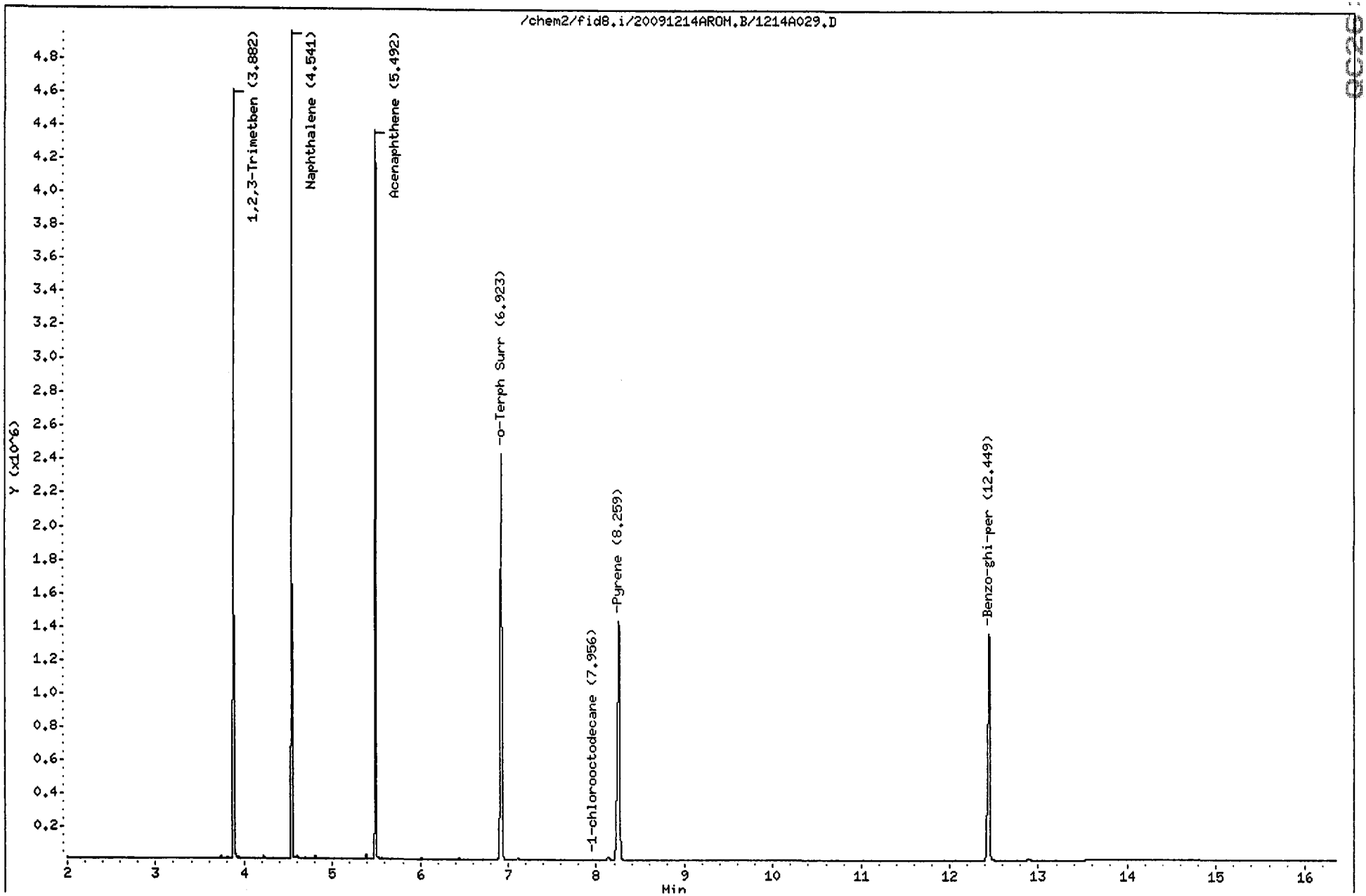
QC26 : 00366

Data File: /chem2/fid8.i/20091214AROM.B/1214A029.D
Date : 15-DEC-2009 00:41
Client ID: AROM 200
Sample Info: AROM 200

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

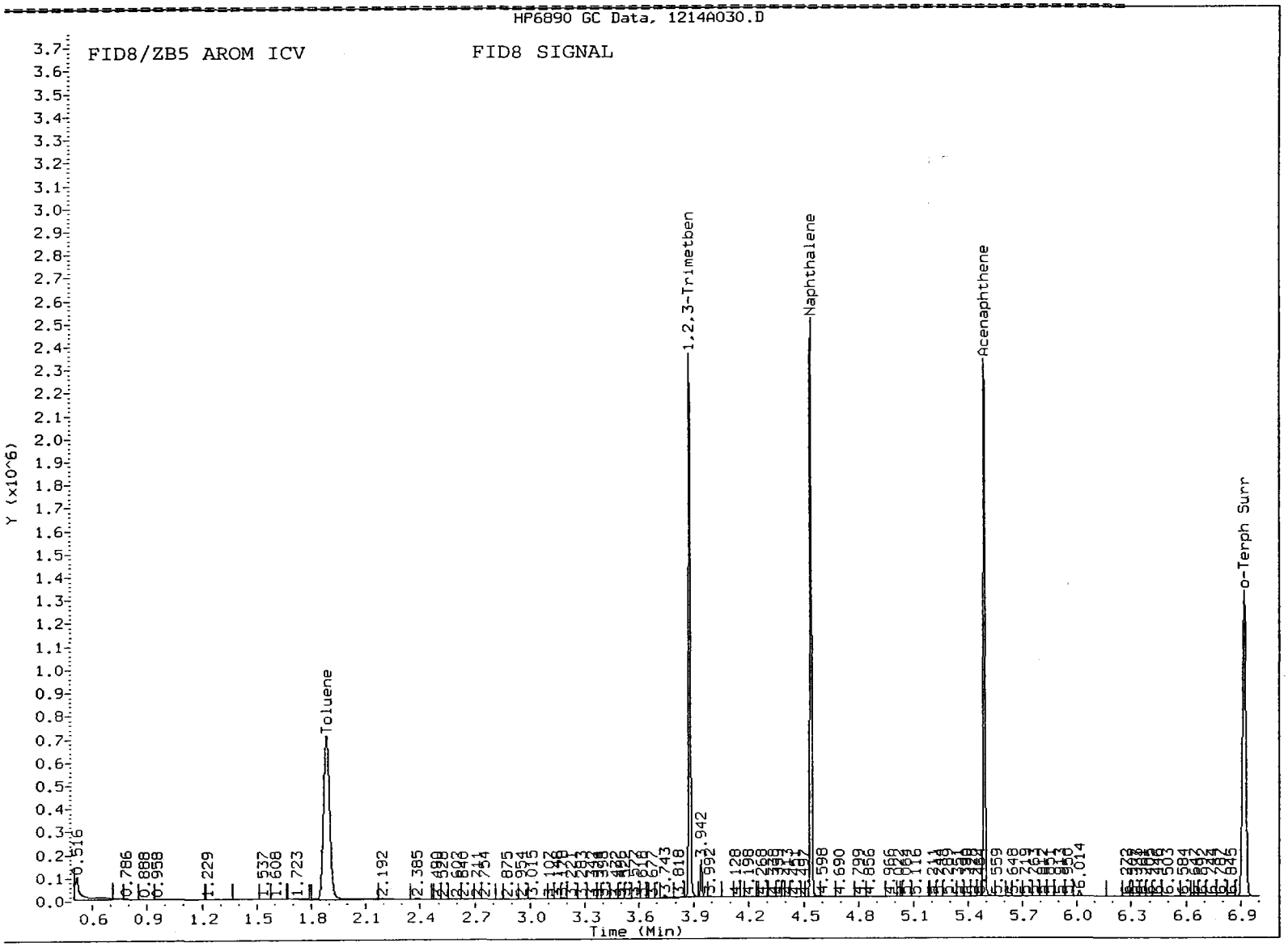
Data file: /chem2/fid8.i/20091214AROM.B/1214A030.D
Method: /chem2/fid8.i/20091214AROM.B/EPHArom.m
Instrument: fid8.i
Operator: MS
Report Date: 12/21/2009
Macro: AROM121409FID8

ARI ID: AROM ICV
Client ID:
Injection: 15-DEC-2009 01:06
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	3407241	216	(1.791 - 3.982)
C10-C12	Arom.	1587411	107	(3.982 - 4.641)
C12-C16	Arom.	1499511	110	(4.641 - 5.592)
C16-C21	Arom.	1505665	114	(5.592 - 8.359)
C21-C34	Arom.	1068574	105	(8.359 - 12.549)

Surrogate Rec: 68.4%



Data File: /chem2/fid8.i/20091214AROM.B/1214A030.D

Page 1

Date : 15-DEC-2009 01:06

Client ID:

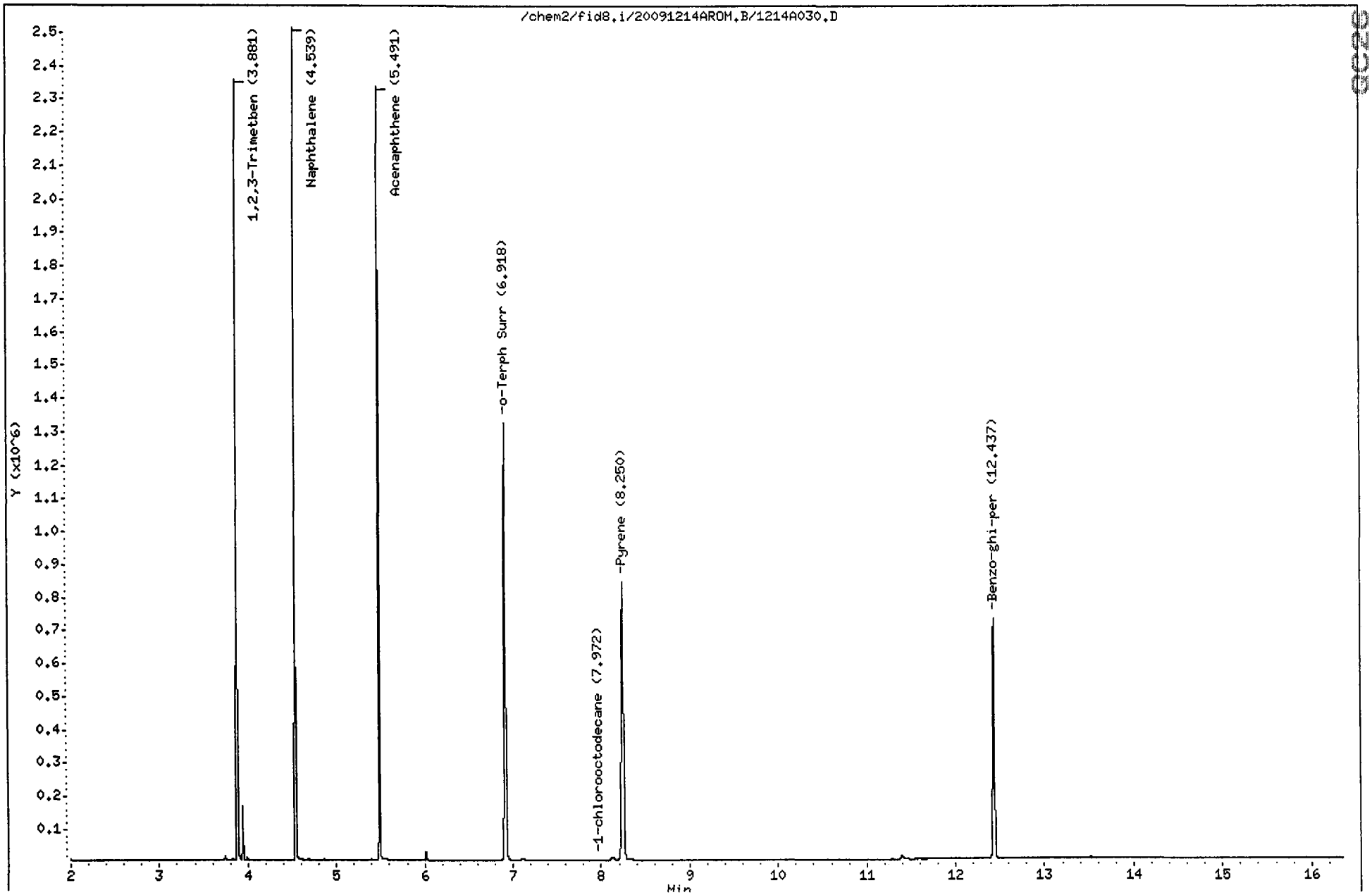
Instrument: fid8.i

Sample Info: AROM ICV

Operator: MS

Column phase:

Column diameter: 0.32



6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID8.I Project: BAYWOOD

Calibration Date: 14-DEC-2009 SDG No.: QC26

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	14369	14942	15174	14679	15083	14850	2.2
C10-C12	13742	13799	14173	13202	14102	13803	2.8
C12-C16	13396	12705	13472	11636	13135	12869	5.8
C16-C21	13032	12298	13186	10673	13040	12446	8.4
C21-C34	9056	9126	9741	9211	9952	9417	4.3

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1214A017.D	14-DEC-2009 19:42
1214A018.D	14-DEC-2009 20:07
1214A019.D	14-DEC-2009 20:32
1214A020.D	14-DEC-2009 20:57
1214A021.D	14-DEC-2009 21:21

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 19:42
End Cal Date : 14-DEC-2009 21:21
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Cal Date : 15-Dec-2009 14:44 marys
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20091214ALIPH.B/1214A017.D
Level 2: /chem2/fid8.i/20091214ALIPH.B/1214A018.D
Level 3: /chem2/fid8.i/20091214ALIPH.B/1214A019.D
Level 4: /chem2/fid8.i/20091214ALIPH.B/1214A020.D
Level 5: /chem2/fid8.i/20091214ALIPH.B/1214A021.D

	Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	RRF	% RSD
2	C8	14646	15323	15513	15204	15379	15213	2.209
3	C10	14093	14561	14835	14154	14788	14486	2.399
45	C12	13742	13799	14173	13202	14102	13803	2.784
46	C16	13396	12705	13472	11636	13135	12869	5.838
47	C21	13032	12298	13186	10673	13040	12446	8.436
48	C34	9056	9126	9741	9211	9952	9417	4.277
$ 51	1-Chloro-Octodecane	14316	13961	15196	12383	15181	14208	8.123

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A016.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

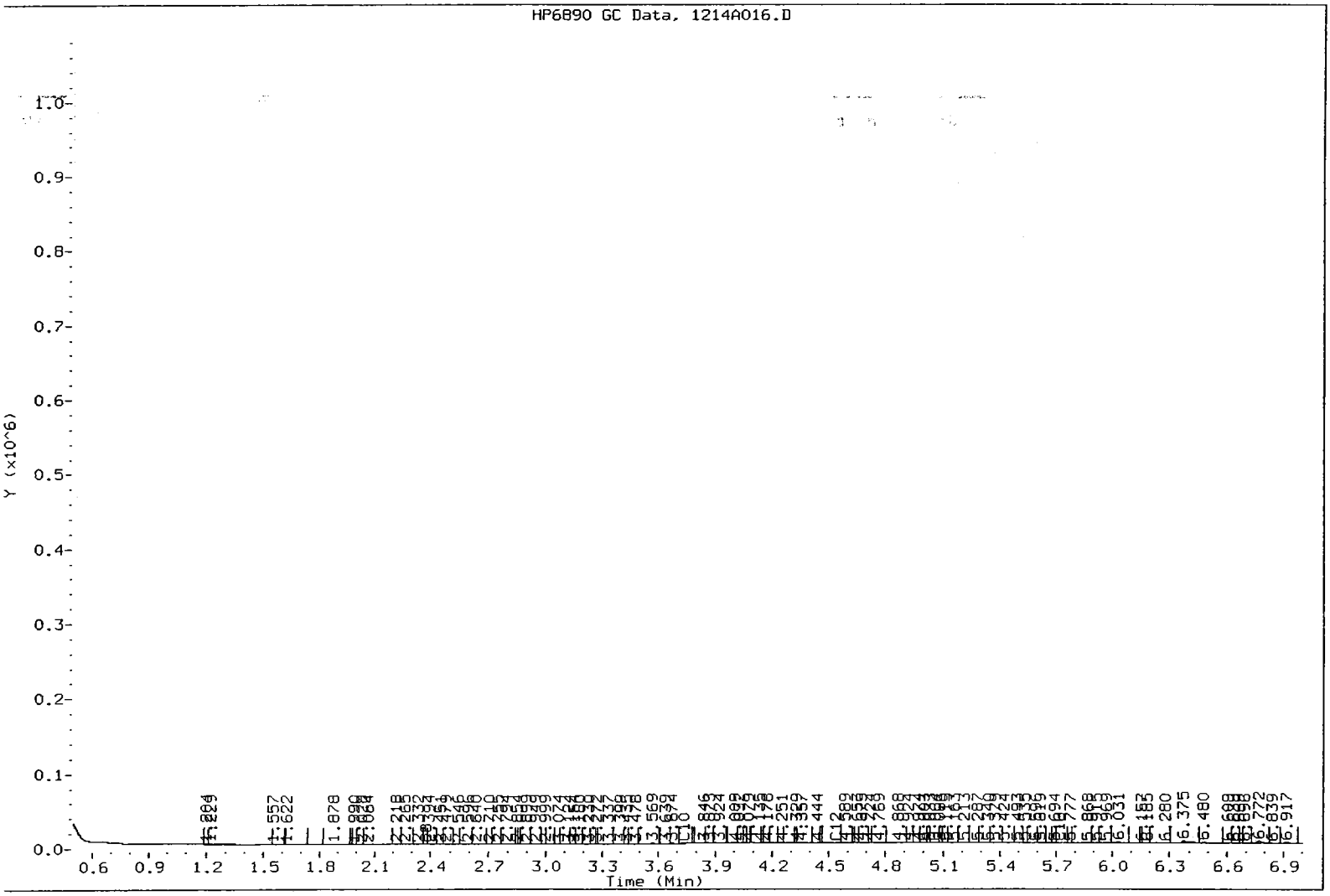
ARI ID: AL IB
Client ID:
Injection: 14-DEC-2009 19:17
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1502	0	(2.277 - 3.860)
C10-C12	Aliph.	688	0	(3.860 - 4.641)
C12-C16	Aliph.	6034	0	(4.641 - 5.821)
C16-C21	Aliph.	31584	3	(5.821 - 8.071)
C21-C34	Aliph.	11346	1	(8.071 - 12.782)

Surrogate Rec: 83.4%

FID-8A/ZB-5 AL IB

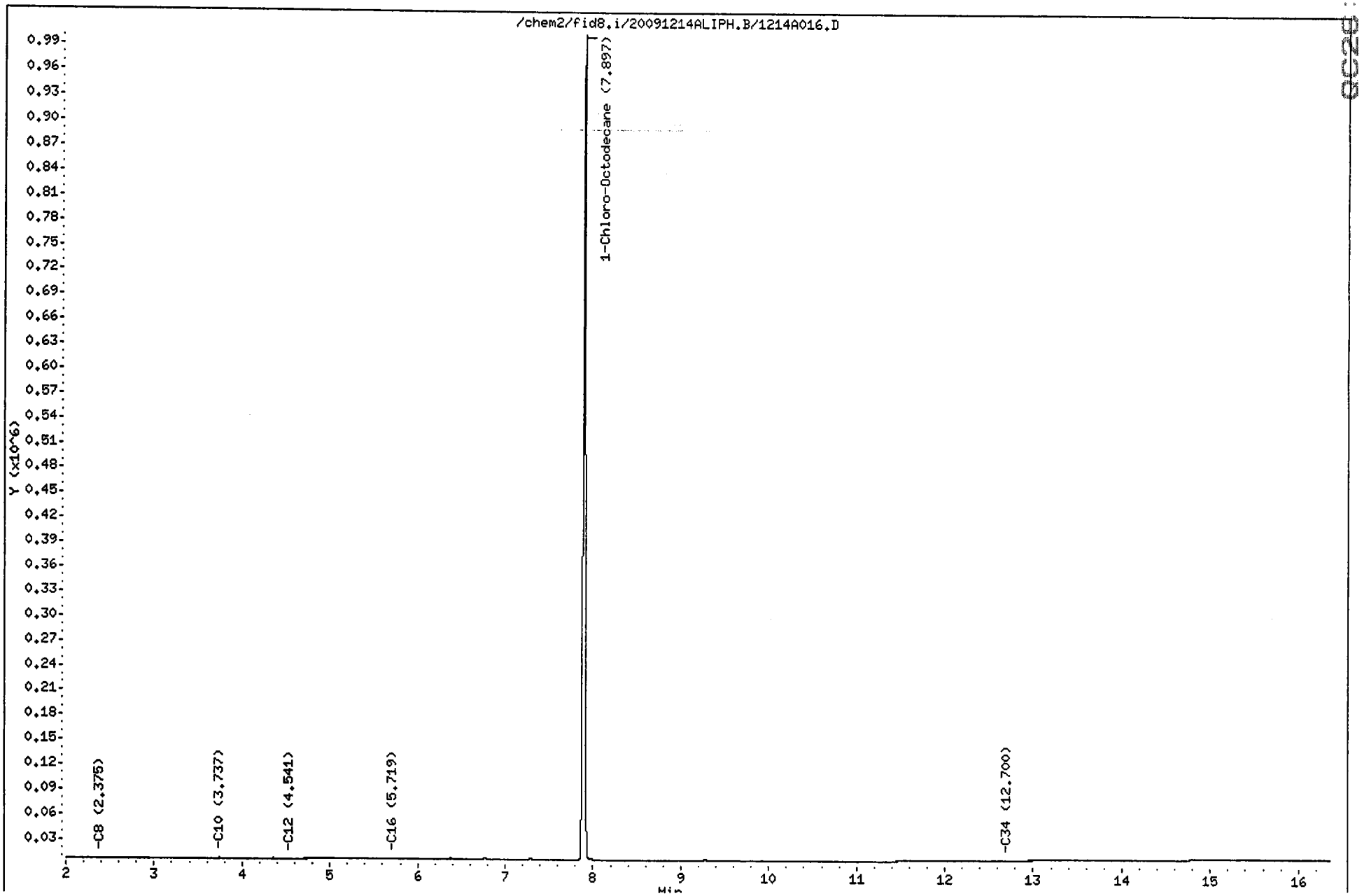


Data File: /chem2/fid8.i/20091214ALIPH.B/1214A016.D
Date : 14-DEC-2009 19:17
Client ID:
Sample Info: AL IB

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC28:00387

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A017.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

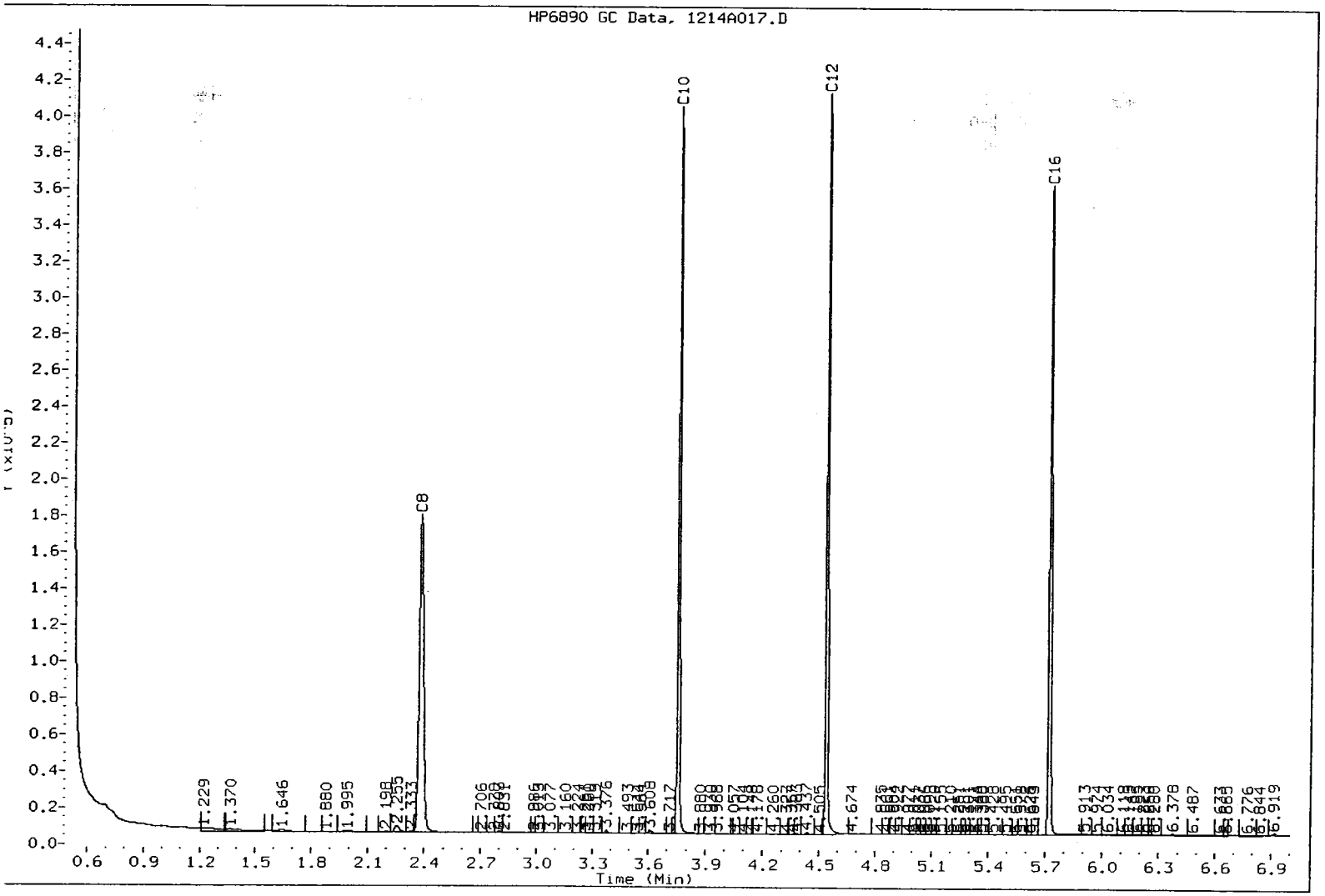
ARI ID: ALIPH 20
Client ID: ALIPH 20
Injection: 14-DEC-2009 19:42
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	582536	39	(2.277 - 3.860)
C10-C12	Aliph.	276549	20	(3.860 - 4.641)
C12-C16	Aliph.	271327	21	(4.641 - 5.821)
C16-C21	Aliph.	281739	23	(5.821 - 8.071)
C21-C34	Aliph.	187381	20	(8.071 - 12.782)

Surrogate Rec: 13.4%

FID-8A/ZB-5 ALIPH 20



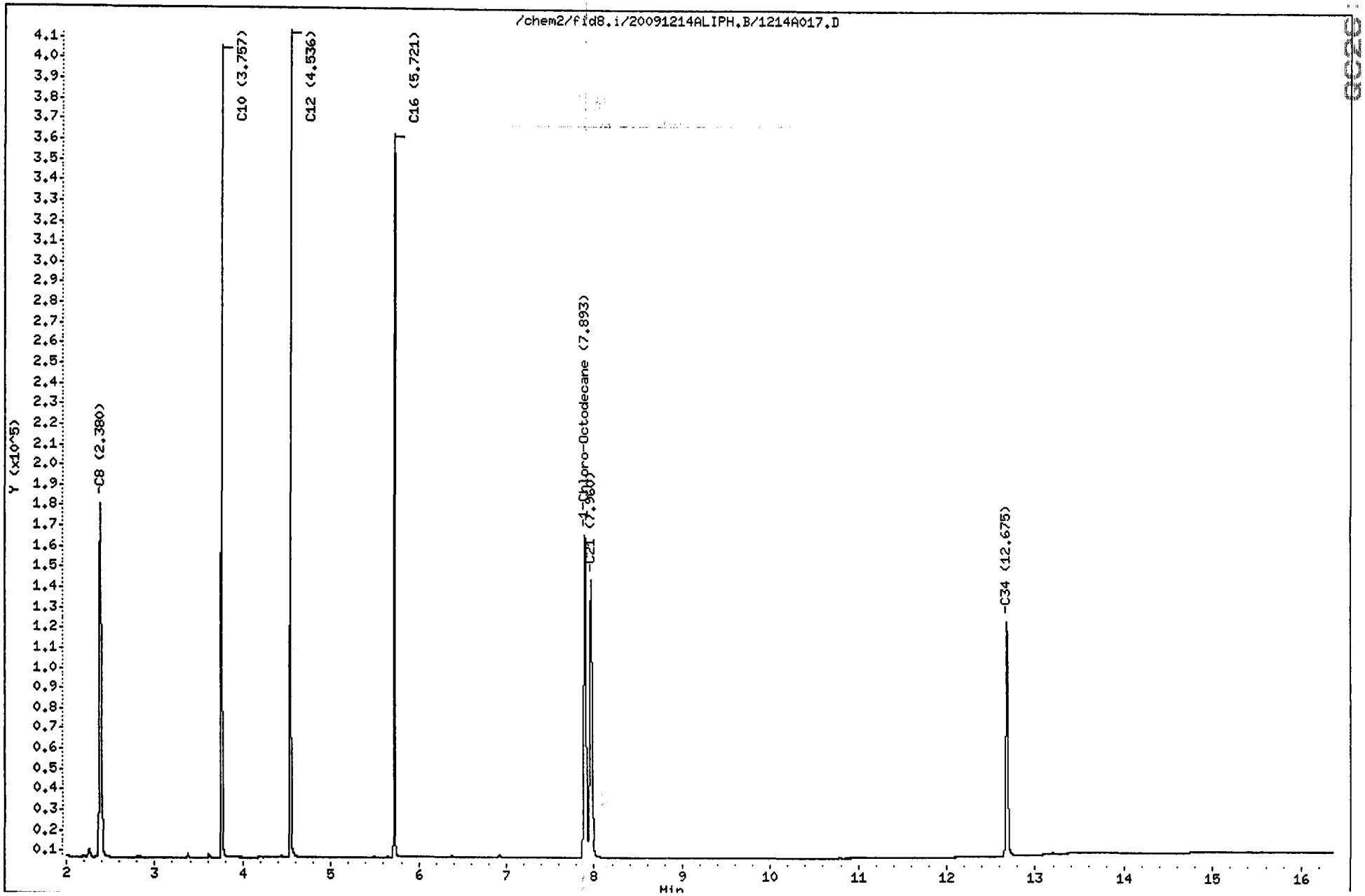
QC26 : 00388

Data File: /chem2/fid8.i/20091214ALIPH.B/1214A017.D
Date : 14-DEC-2009 19:42
Client ID: ALIPH 20
Sample Info: ALIPH 20

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A018.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

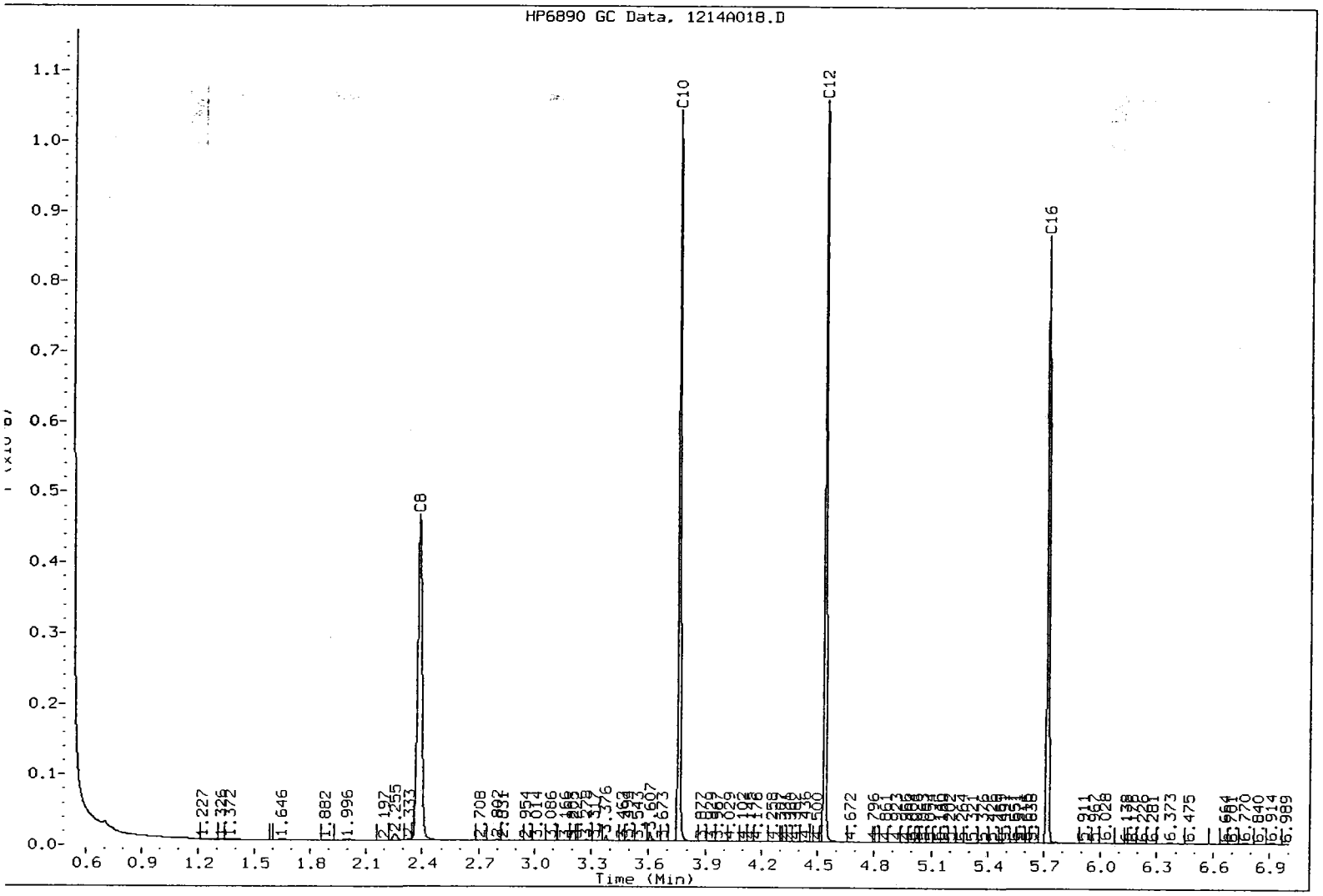
ARI ID: ALIPH 50
Client ID: ALIPH 50
Injection: 14-DEC-2009 20:07
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1525987	103	(2.277 - 3.860)
C10-C12	Aliph.	694470	50	(3.860 - 4.641)
C12-C16	Aliph.	640846	50	(4.641 - 5.821)
C16-C21	Aliph.	639155	51	(5.821 - 8.071)
C21-C34	Aliph.	465812	49	(8.071 - 12.782)

Surrogate Rec: 32.8%

FID-8A/ZB-5 ALIPH 50

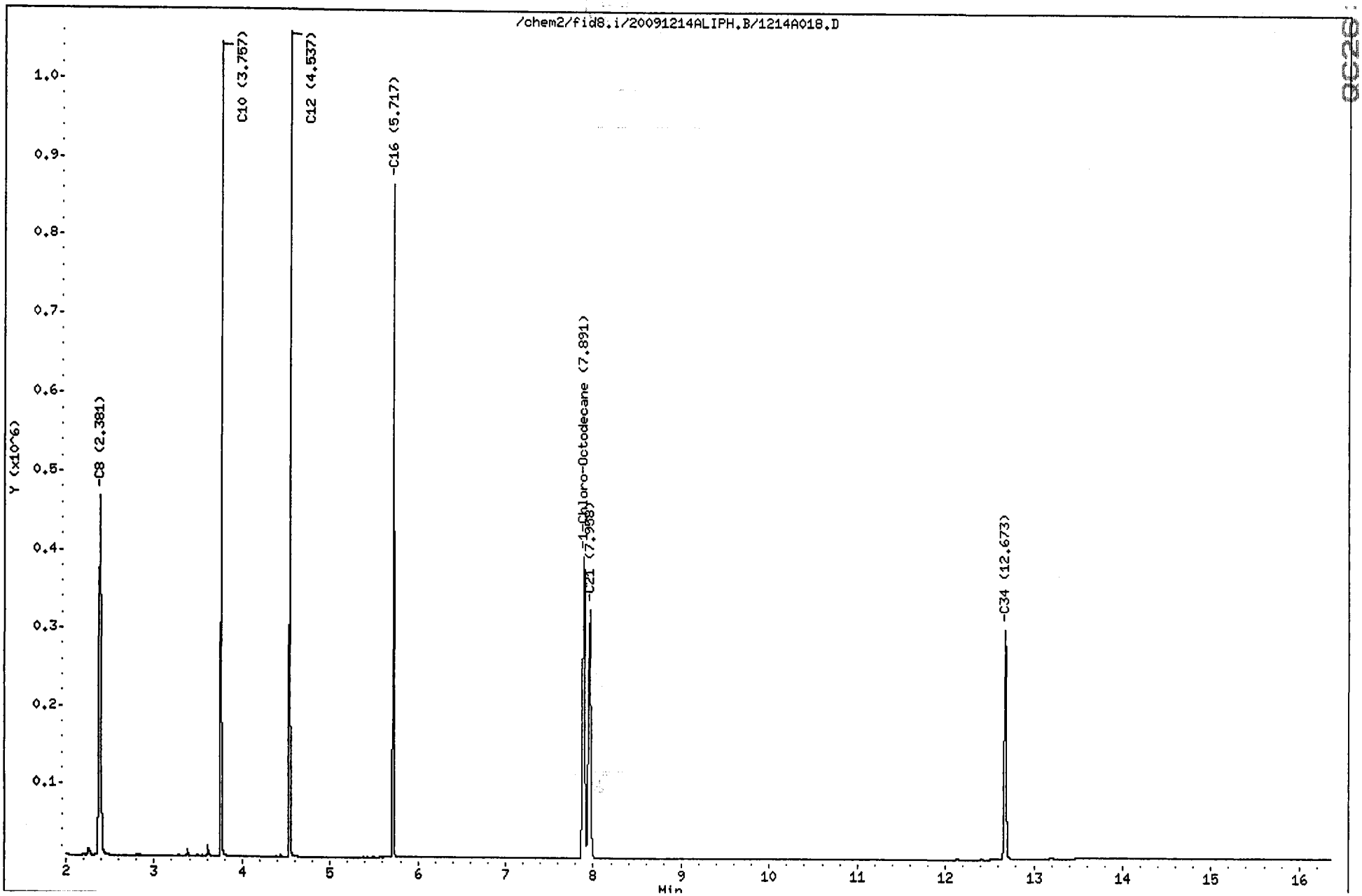


Data File: /chem2/fid8.i/20091214ALIPH.B/1214A018.D
Date : 14-DEC-2009 20:07
Client ID: ALIPH 50
Sample Info: ALIPH 50

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC26:00391

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A019.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

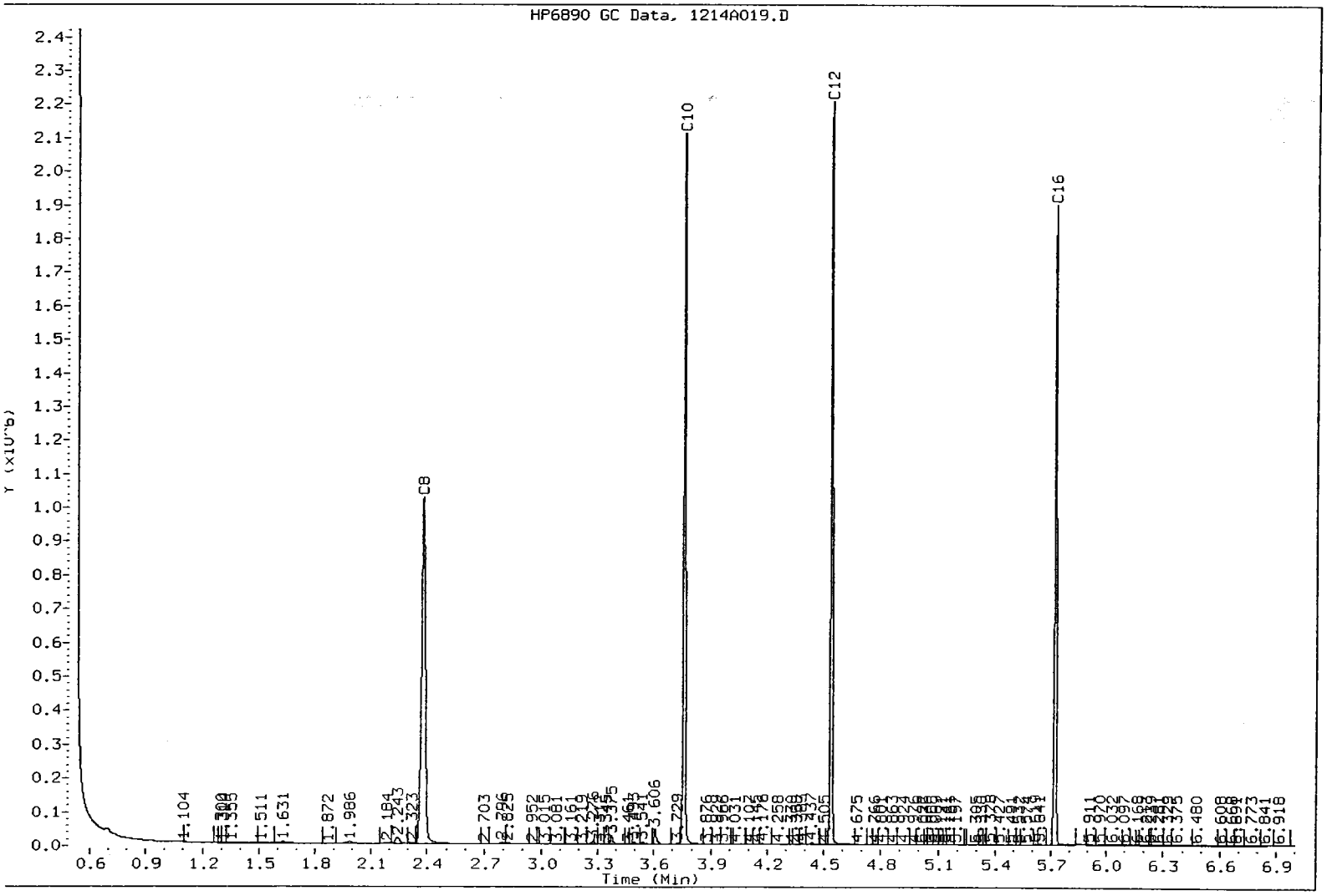
ARI ID: ALIPH 100
Client ID: ALIPH 100
Injection: 14-DEC-2009 20:32
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	3126821	211	(2.277 - 3.860)
C10-C12	Aliph.	1424370	103	(3.860 - 4.641)
C12-C16	Aliph.	1350306	105	(4.641 - 5.821)
C16-C21	Aliph.	1344833	108	(5.821 - 8.071)
C21-C34	Aliph.	992512	105	(8.071 - 12.782)

Surrogate Rec: 71.3%

FID-8A/ZB-5 ALIPH 100

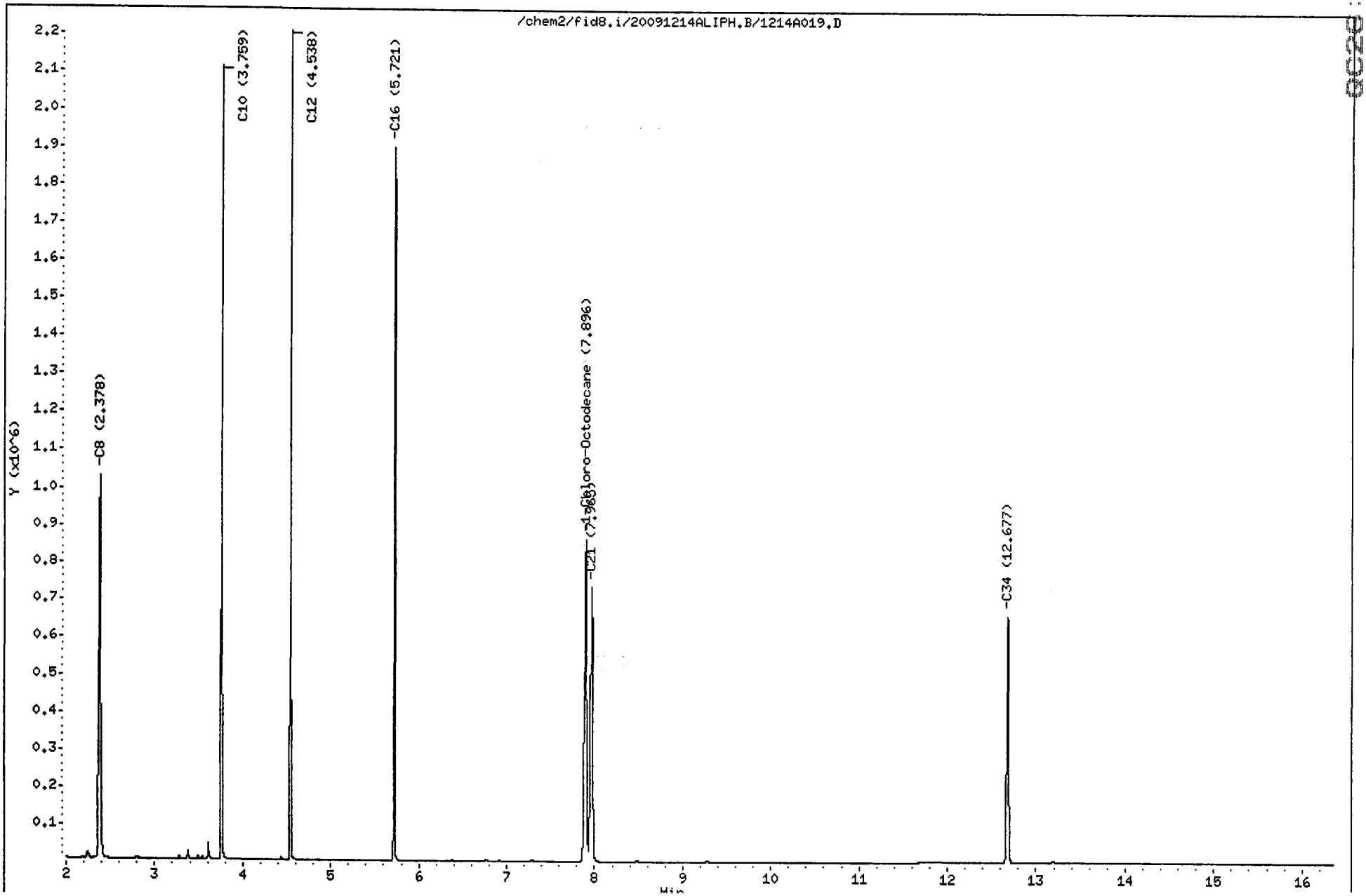


Data File: /chem2/fid8.i/20091214ALIPH.B/1214A019.D
Date : 14-DEC-2009 20:32
Client ID: ALIPH 100
Sample Info: ALIPH 100

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC26:00393

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A020.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

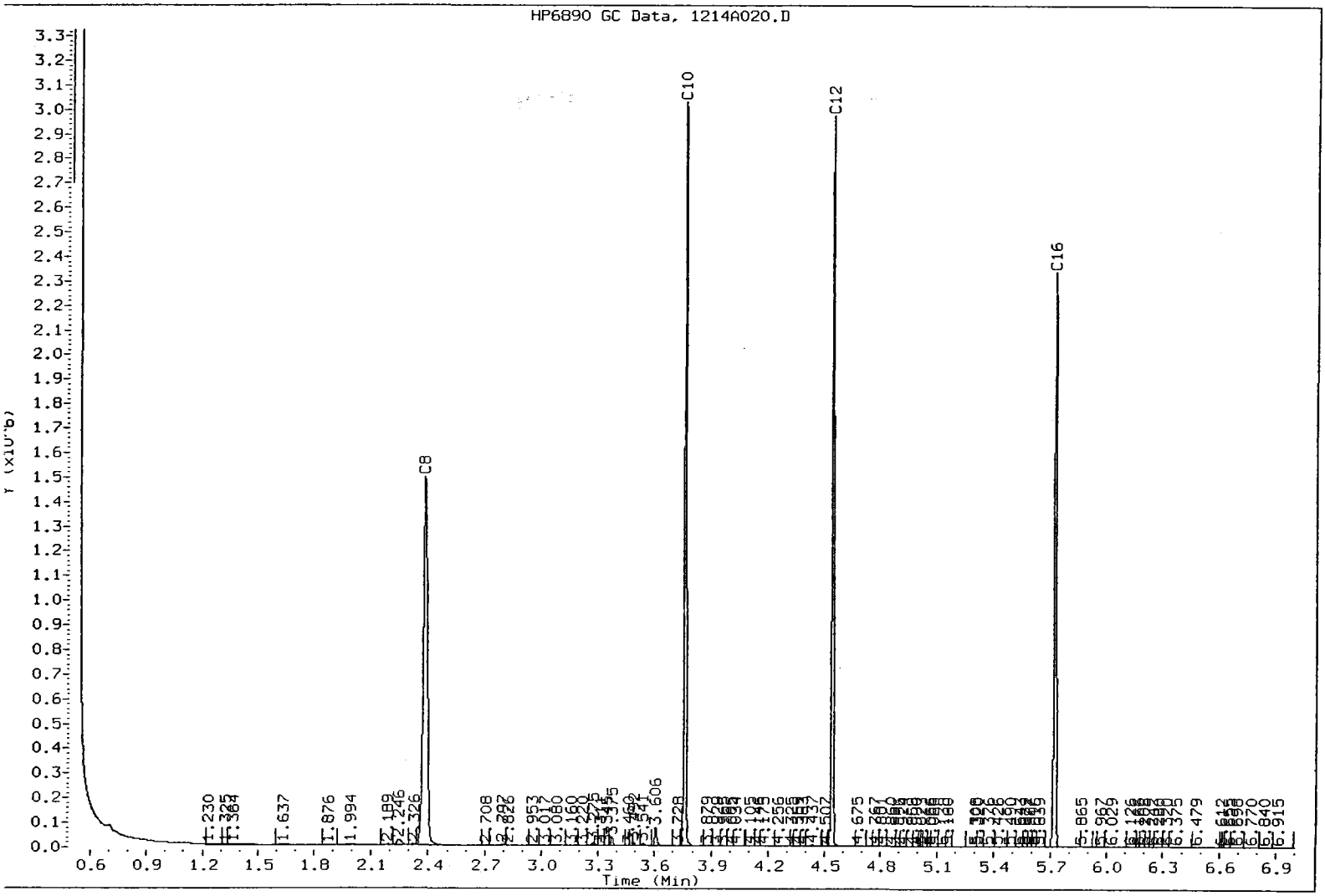
ARI ID: ALIPH 150
Client ID: ALIPH 150
Injection: 14-DEC-2009 20:57
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4552123	307	(2.277 - 3.860)
C10-C12	Aliph.	1990689	144	(3.860 - 4.641)
C12-C16	Aliph.	1750026	136	(4.641 - 5.821)
C16-C21	Aliph.	1633220	131	(5.821 - 8.071)
C21-C34	Aliph.	1403903	149	(8.071 - 12.782)

Surrogate Rec: 87.2%

FID-8A/ZB-5 ALIPH 150

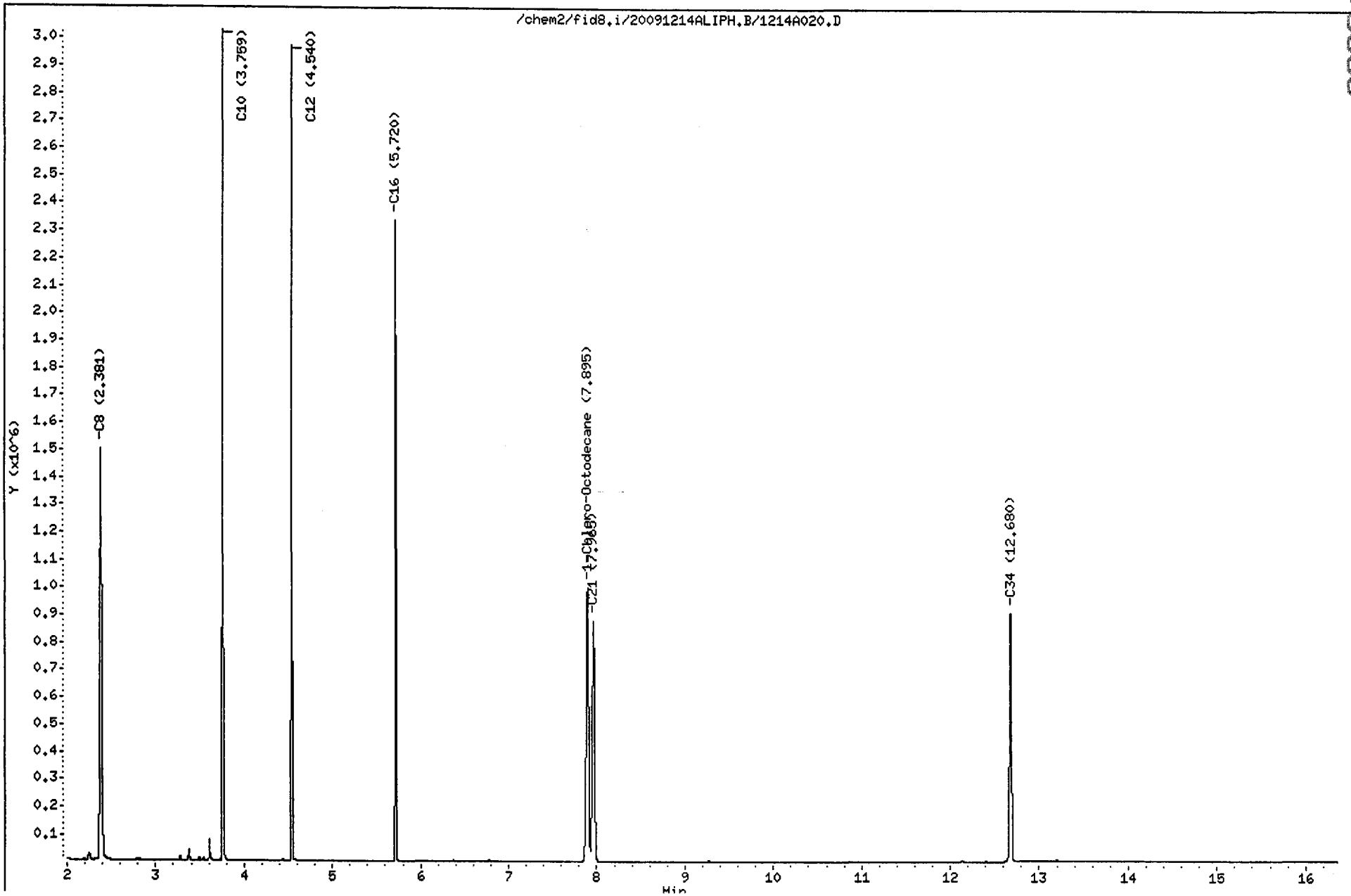


Data File: /chem2/fid8.i/20091214ALIPH.B/1214A020.D
Date : 14-DEC-2009 20:57
Client ID: ALIPH 150
Sample Info: ALIPH 150

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A021.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

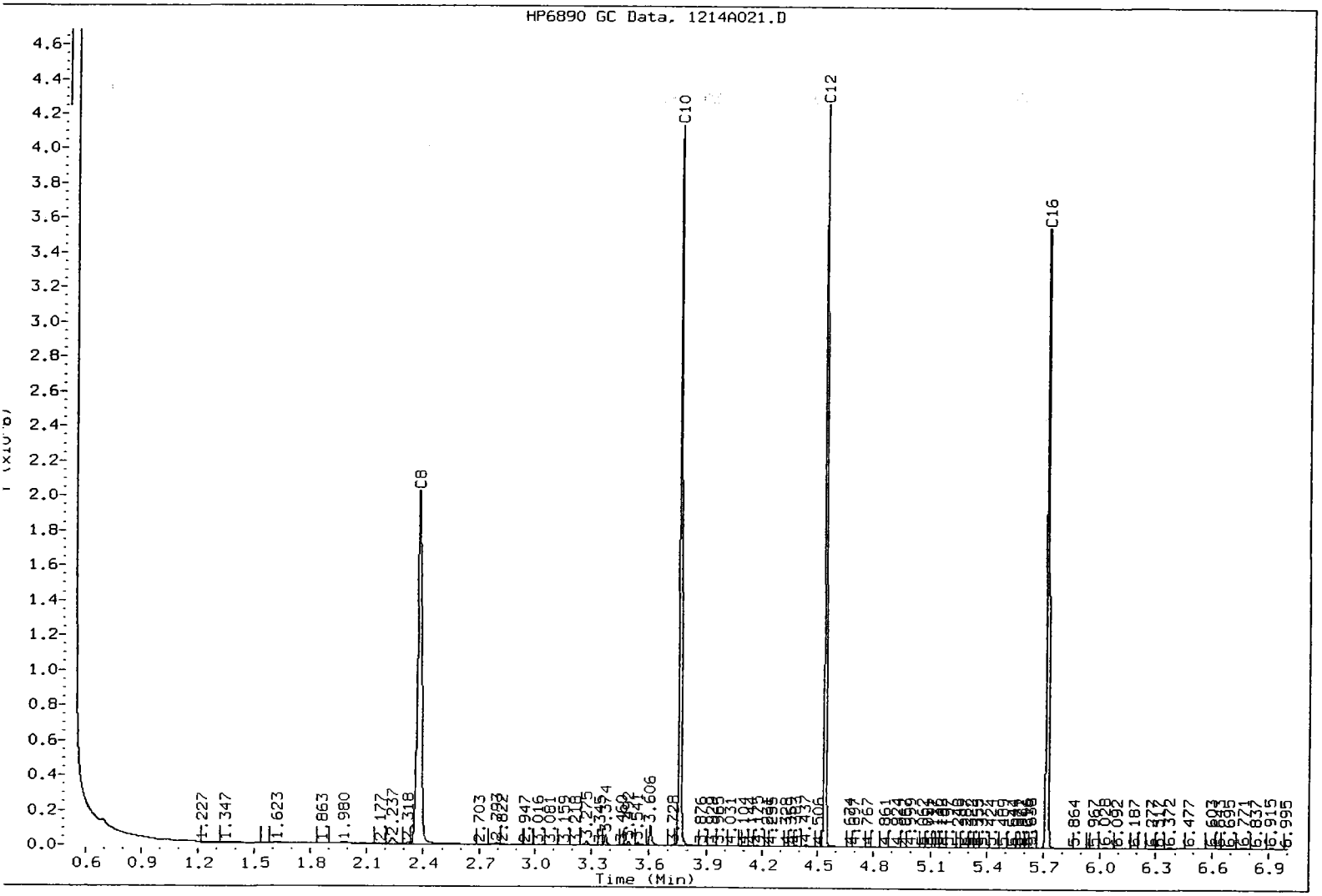
ARI ID: ALIPH 200
Client ID: ALIPH 200
Injection: 14-DEC-2009 21:21
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	6260317	422	(2.277 - 3.860)
C10-C12	Aliph.	2834641	205	(3.860 - 4.641)
C12-C16	Aliph.	2633367	205	(4.641 - 5.821)
C16-C21	Aliph.	2643193	212	(5.821 - 8.071)
C21-C34	Aliph.	2023330	215	(8.071 - 12.782)

Surrogate Rec: 142.5%

FID-8A/ZB-5 ALIPH 200

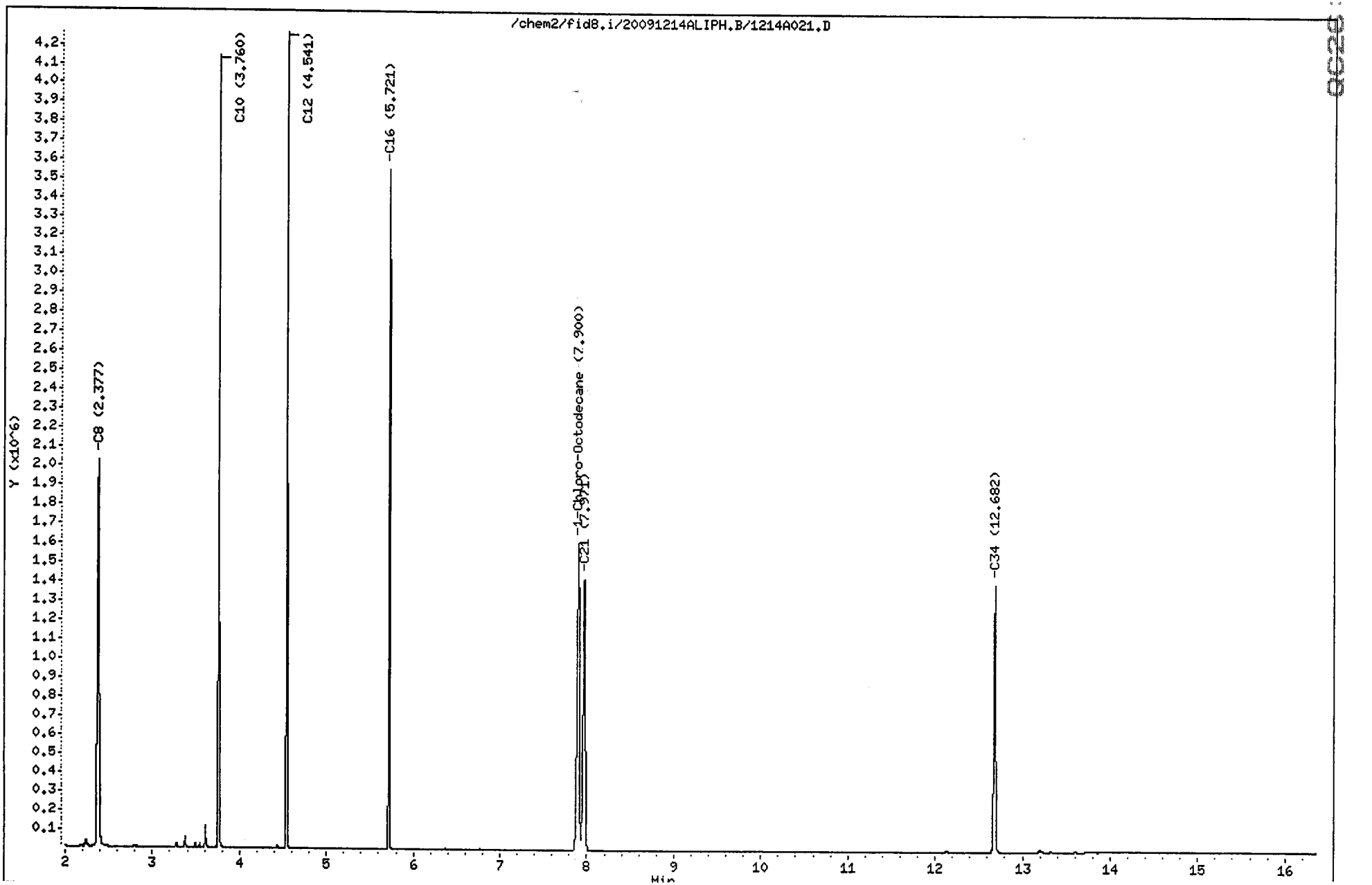


Data File: /chem2/fid8.i/20091214ALIPH.B/1214A021.D
Date : 14-DEC-2009 21:21
Client ID: ALIPH 200
Sample Info: ALIPH 200

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC28:00397

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20091214ALIPH.B/1214A022.D
Method: /chem2/fid8.i/20091214ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

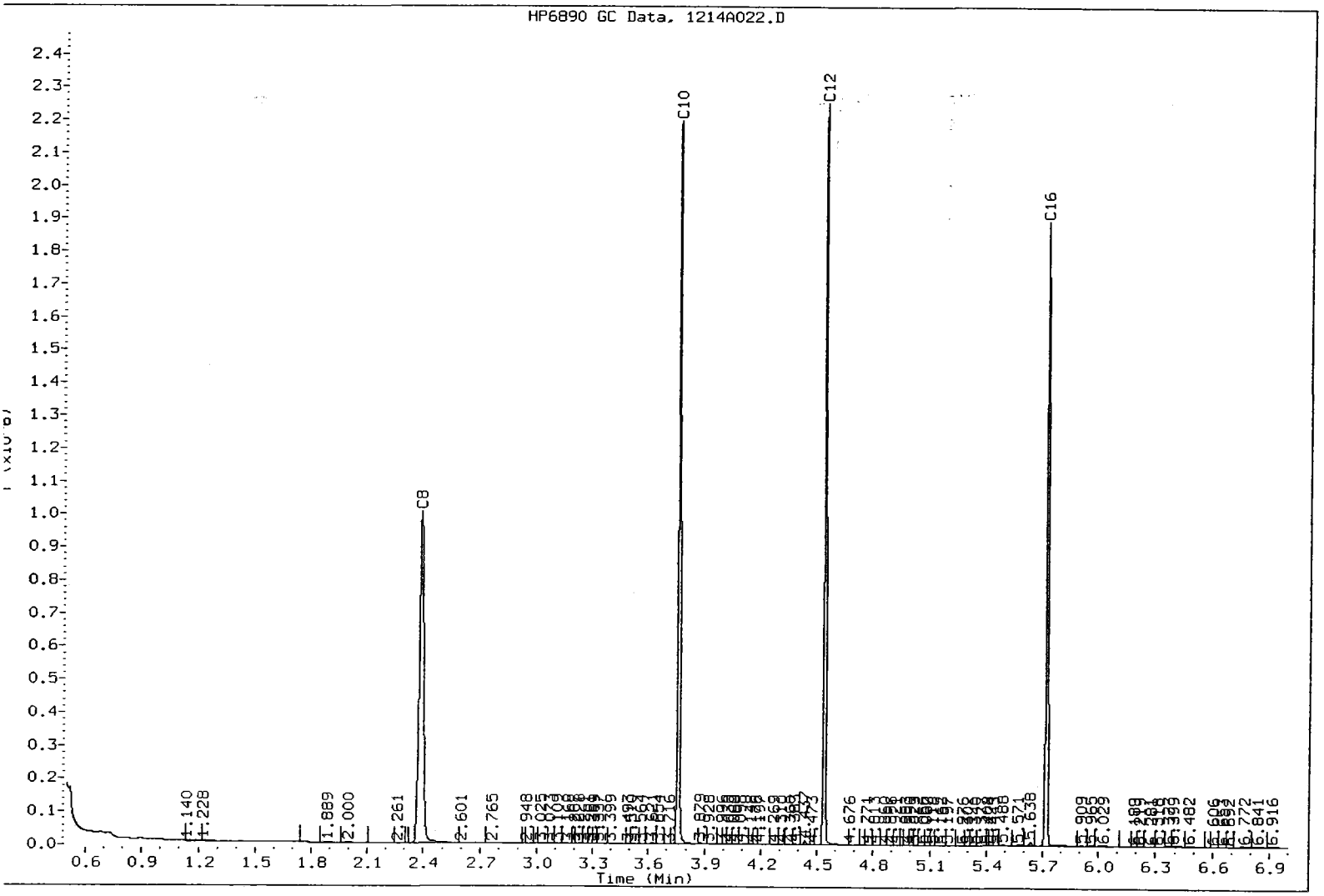
ARI ID: ALIPH ICV
Client ID:
Injection: 14-DEC-2009 21:46
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	3159671	213	(2.277 - 3.860)
C10-C12	Aliph.	1471822	107	(3.860 - 4.641)
C12-C16	Aliph.	1374836	107	(4.641 - 5.821)
C16-C21	Aliph.	1360353	109	(5.821 - 8.071)
C21-C34	Aliph.	714074	76	(8.071 - 12.782)

Surrogate Rec: 54.6%

FID-8A/ZB-5 ALIPH ICV



Data File: /chem2/fid8.i/20091214ALIPH.B/1214A022.D

Date : 14-DEC-2009 21:46

Client ID:

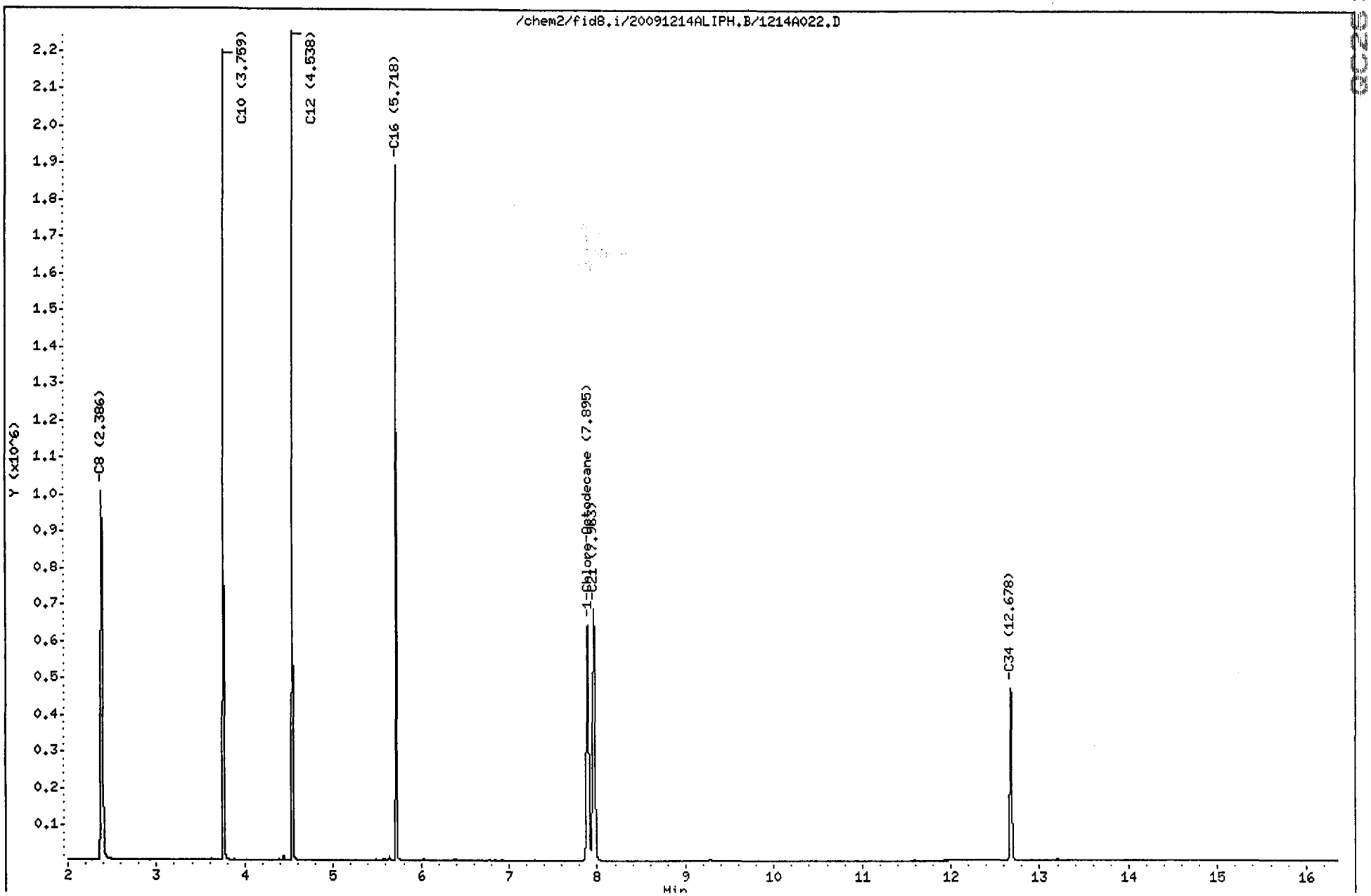
Sample Info: ALIPH ICV

Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A002.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

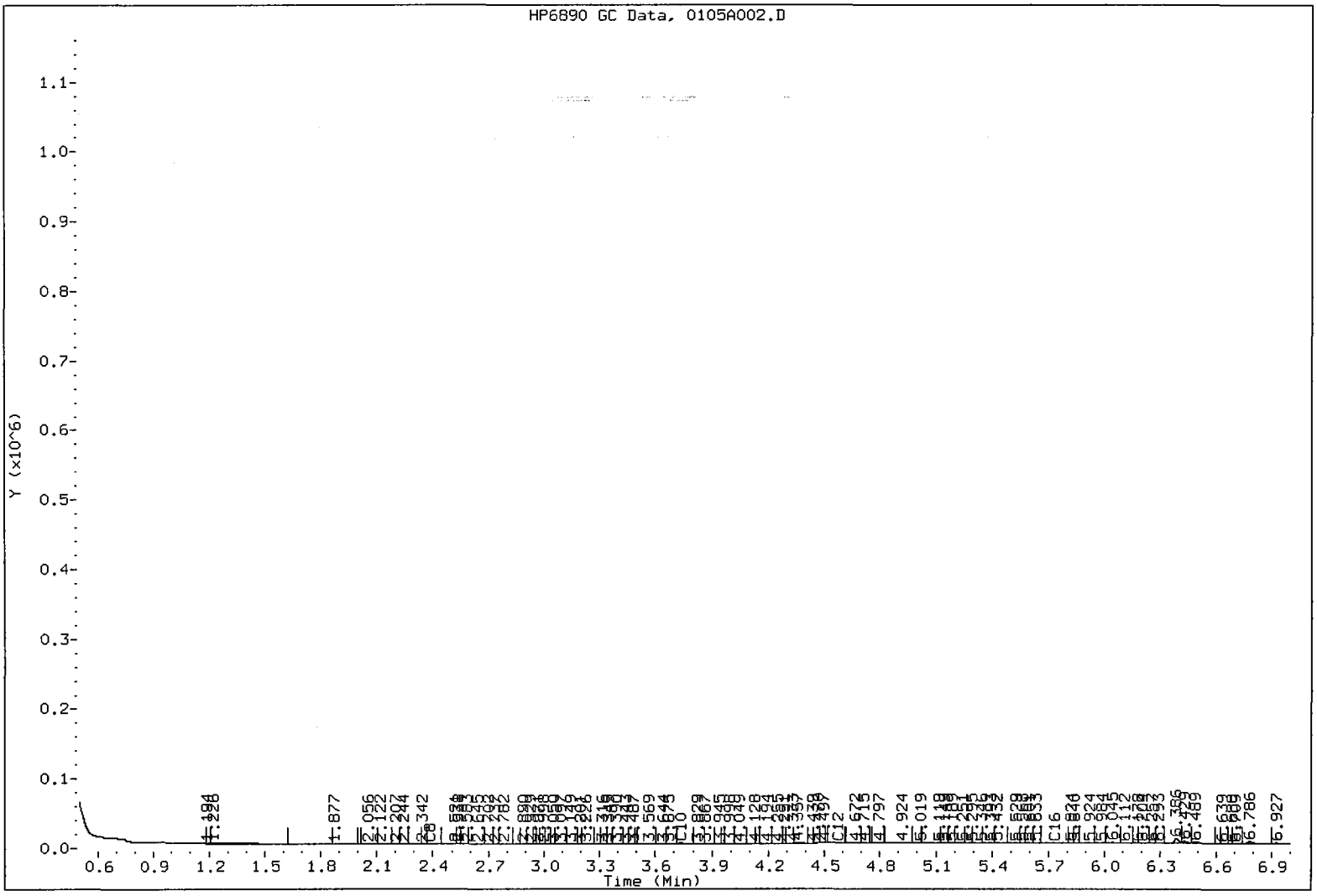
ARI ID: ALIPHATIC IB
Client ID: ALIPHATIC IB
Injection: 05-JAN-2010 13:08
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4822	0	(2.277 - 3.860)
C10-C12	Aliph.	1185	0	(3.860 - 4.641)
C12-C16	Aliph.	6055	0	(4.641 - 5.821)
C16-C21	Aliph.	45423	4	(5.821 - 8.071)
C21-C34	Aliph.	21750	2	(8.071 - 12.782)

Surrogate Rec: 88.0%

FID-8A/ZB-5 ALIPHATIC IB



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A002.D

Date : 05-JAN-2010 13:08

Client ID: ALIPHATIC IB

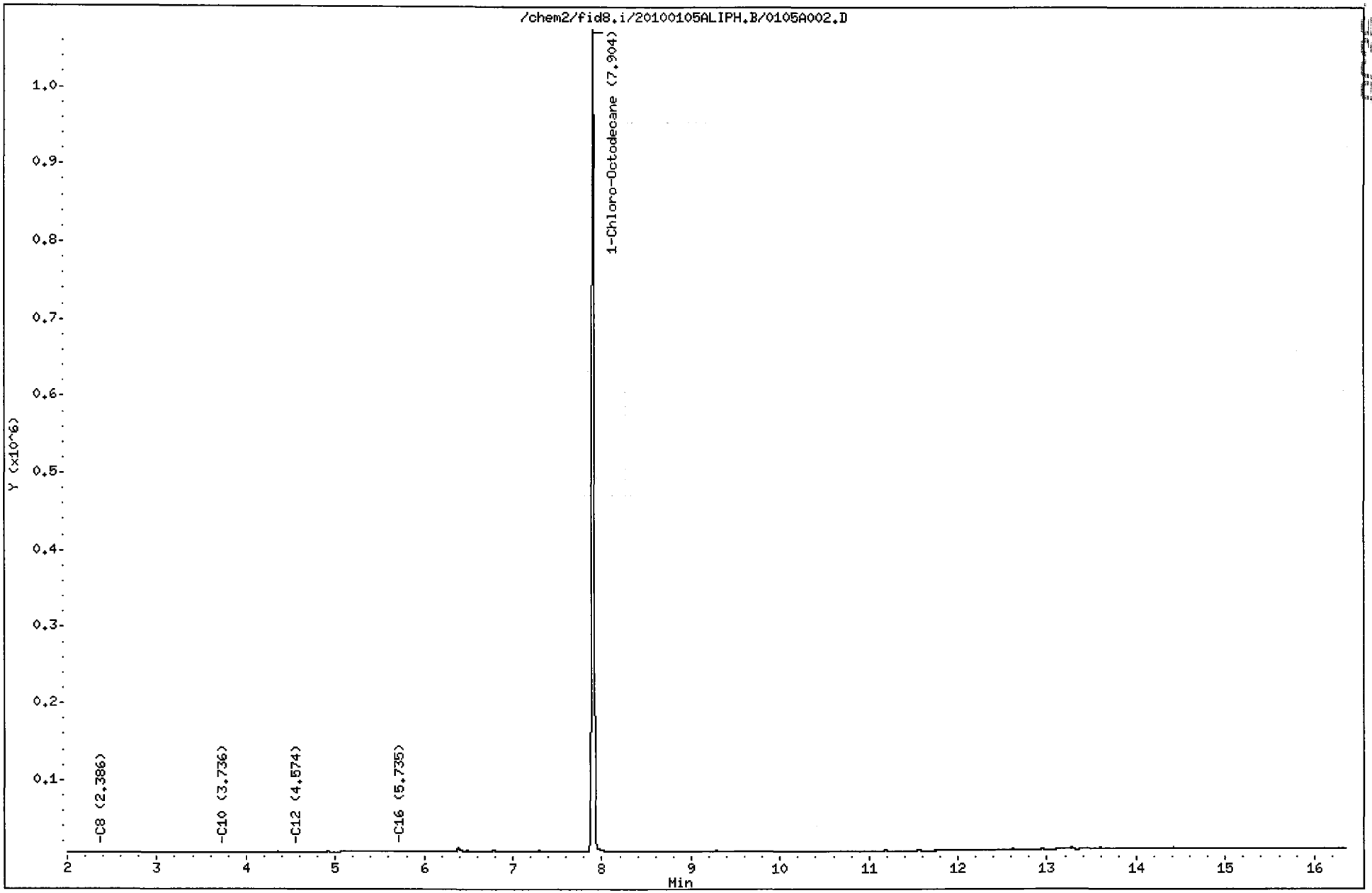
Sample Info: ALIPHATIC IB

Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32



7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPHATIC#1

ICal Date: 14-DEC-2009 Client ID: BAYWOOD

CCal Date: 05-JAN-2010 Instrument: FID8.I

Analysis Time: 13:33 Lab File Name: 0105A003.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	2499040	168.3	200	-15.8
C10-C12	Aliph.	1189953	86.2	100	-13.8
C12-C16	Aliph.	1187018	92.2	100	-7.8
C16-C21	Aliph.	1170978	94.1	100	-5.9
C21-C34	Aliph.	853106	90.6	100	-9.4
Surrogate		1337450	94.1	100	-5.9

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

QC25:00402

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20100105ALIPH.B/0105A003.D
Lab Smp Id: ALIPHATIC#1 Client Smp ID: ALIPHATIC#1
Inj Date : 05-JAN-2010 13:33
Operator : MS Inst ID: fid8.i
Smp Info : ALIPHATIC#1
Misc Info :
Comment :
Method : /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Meth Date : 21-Dec-2009 19:26 marys Quant Type: ESTD
Cal Date : 14-DEC-2009 21:21 Cal File: 1214A021.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
==========	==	======	======	========	=======	=======
2 C8	2.380	2.377	0.003	1273863	83.7354	83.735
3 C10	3.758	3.760	-0.002	1225177	84.5750	84.575
45 C12	4.538	4.541	-0.003	1189953	86.2073	86.207
46 C16	5.721	5.721	0.000	1187018	92.2405	92.240
$ 51 1-Chloro-Octodecane	7.893	7.900	-0.007	1337450	94.1364	94.136
47 C21	7.963	7.971	-0.008	1170978	94.0871	94.087
48 C34	12.674	12.682	-0.008	853106	90.5896	90.589

MS 1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A003.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

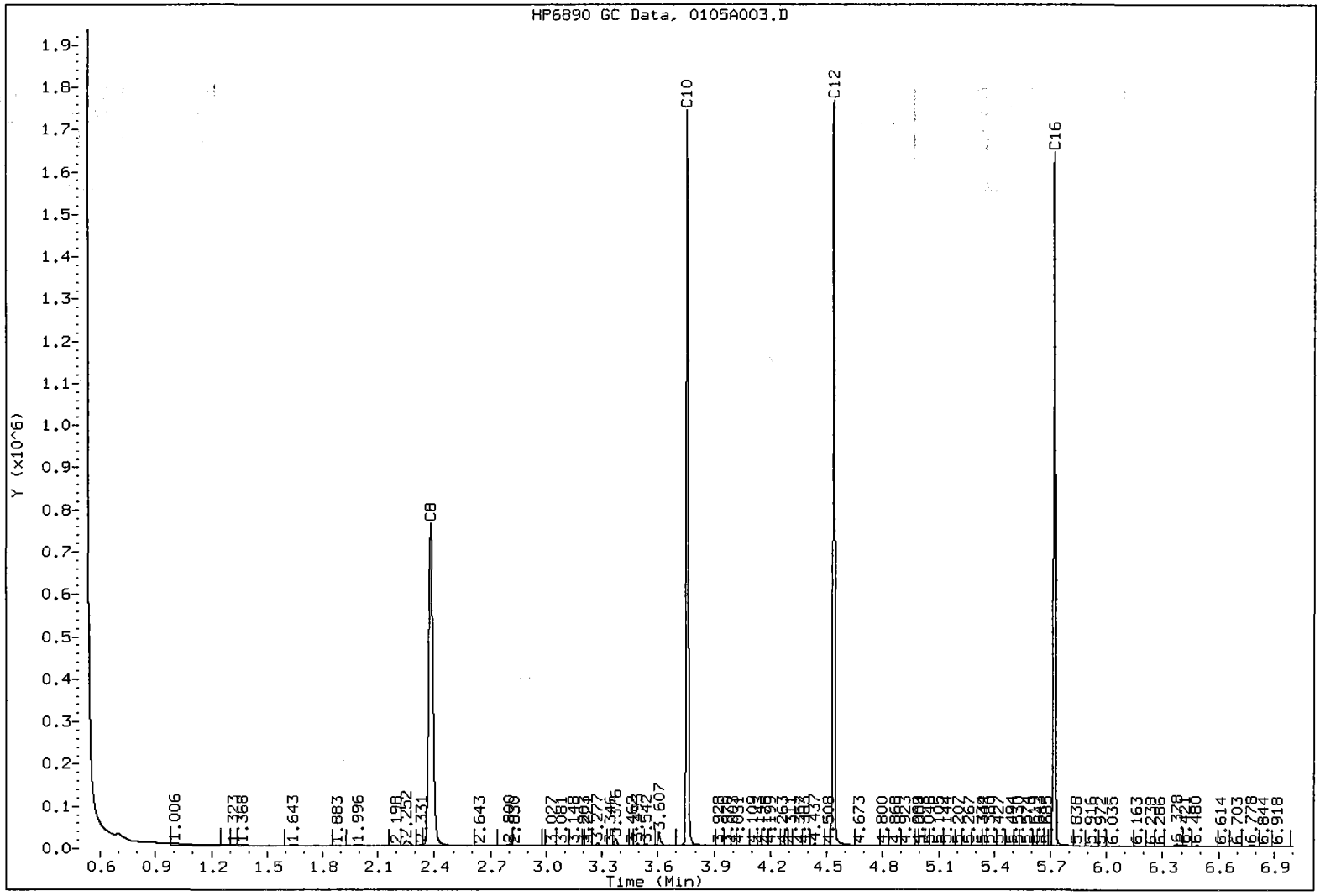
ARI ID: ALIPHATIC#1
Client ID: ALIPHATIC#1
Injection: 05-JAN-2010 13:33
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	2569983	173	(2.277 - 3.860)
C10-C12	Aliph.	1197873	87	(3.860 - 4.641)
C12-C16	Aliph.	1201860	93	(4.641 - 5.821)
C16-C21	Aliph.	1220947	98	(5.821 - 8.071)
C21-C34	Aliph.	876969	93	(8.071 - 12.782)

Surrogate Rec: 62.8%

FID-8A/ZB-5 ALIPHATIC#1

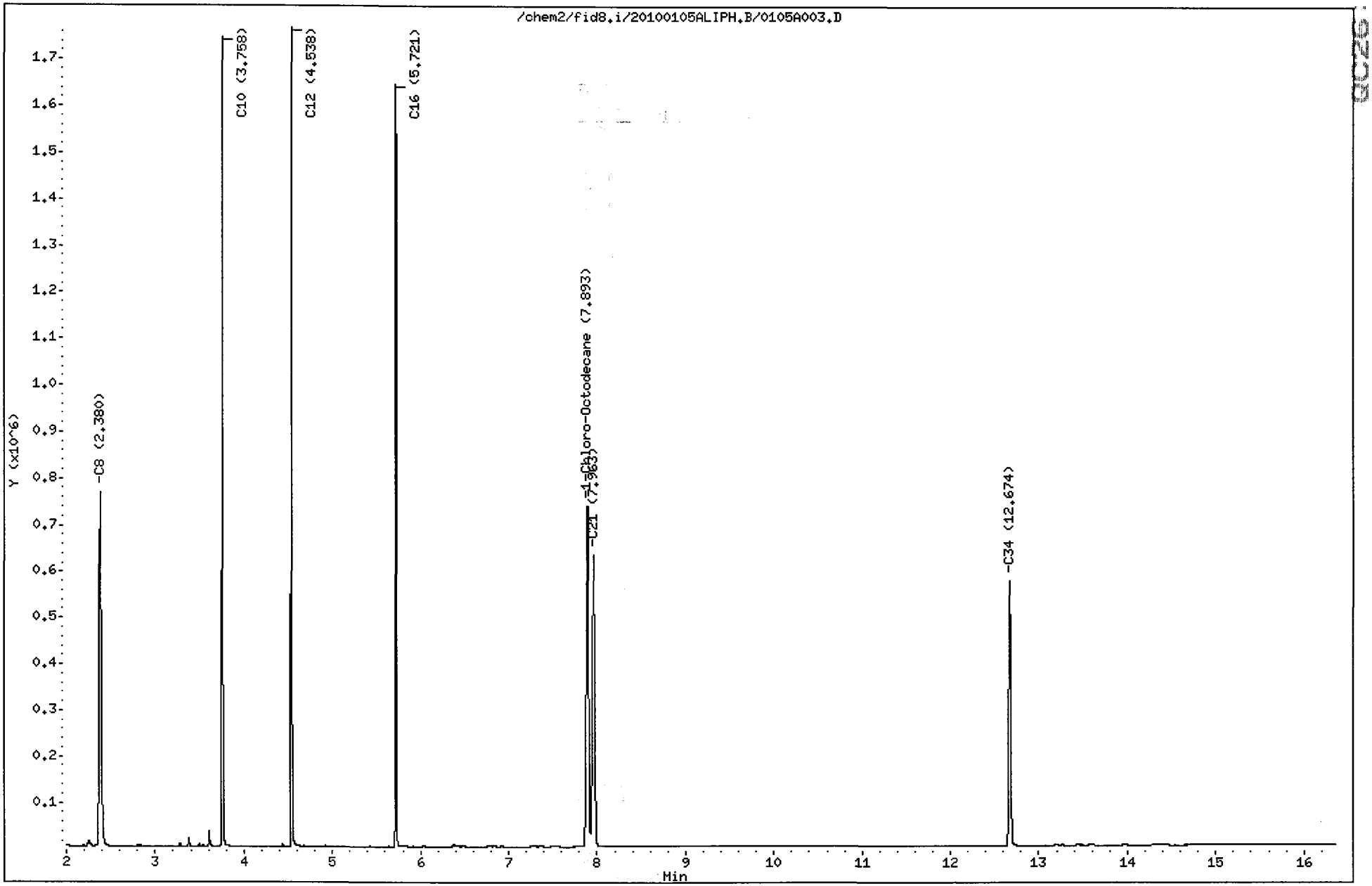


Data File: /chem2/fid8.i/20100105ALIPH.B/0105A003.D
Date : 05-JAN-2010 13:33
Client ID: ALIPHATIC#1
Sample Info: ALIPHATIC#1

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32



QC26.00405

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPHATIC#2

ICal Date: 14-DEC-2009 Client ID: BAYWOOD

CCal Date: 05-JAN-2010 Instrument: FID8.I

Analysis Time: 18:09 Lab File Name: 0105A014.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	2589788	174.4	200	-12.8
C10-C12	Aliph.	1171728	84.9	100	-15.1
C12-C16	Aliph.	1084473	84.3	100	-15.7
C16-C21	Aliph.	1080505	86.8	100	-13.2
C21-C34	Aliph.	919209	97.6	100	-2.4
Surrogate		1232659	86.8	100	-13.2

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

QC26 : 00406

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20100105ALIPH.B/0105A014.D
Lab Smp Id: ALIPHATIC#2
Inj Date : 05-JAN-2010 18:09
Operator : MS Inst ID: fid8.i
Smp Info : ALIPHATIC#2
Misc Info :
Comment :
Method : /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Meth Date : 21-Dec-2009 19:26 marys Quant Type: ESTD
Cal Date : 14-DEC-2009 21:21 Cal File: 1214A021.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 C8	2.380	2.377	0.003	1325006	87.0972	87.097
	3 C10	3.757	3.760	-0.003	1264782	87.3090	87.308
	45 C12	4.537	4.541	-0.004	1171728	84.8870	84.887
	46 C16	5.718	5.721	-0.003	1084473	84.2720	84.271
$	51 1-Chloro-Octodecane	7.891	7.900	-0.009	1232659	86.7607	86.760
	47 C21	7.961	7.971	-0.010	1080505	86.8177	86.817
	48 C34	12.675	12.682	-0.007	919209	97.6089	97.608

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A014.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

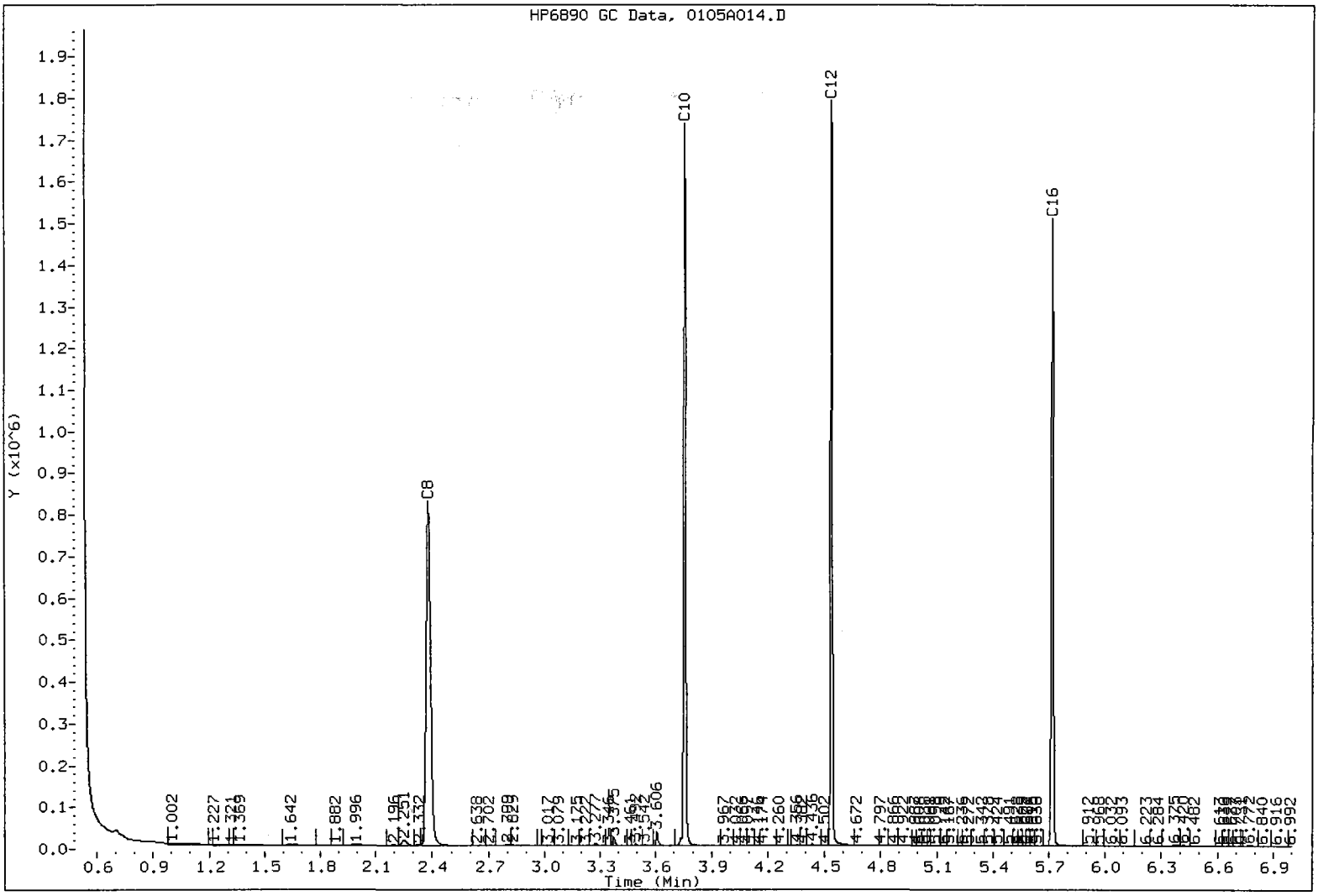
ARI ID: ALIPHATIC#2
Client ID:
Injection: 05-JAN-2010 18:09
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	2658894	179	(2.277 - 3.860)
C10-C12	Aliph.	1179946	85	(3.860 - 4.641)
C12-C16	Aliph.	1093195	85	(4.641 - 5.821)
C16-C21	Aliph.	1116256	90	(5.821 - 8.071)
C21-C34	Aliph.	935568	99	(8.071 - 12.782)

Surrogate Rec: 57.8%

FID-8A/ZB-5 ALIPHATIC#2



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A014.D

Date : 05-JAN-2010 18:09

Client ID:

Sample Info: ALIPHATIC#2

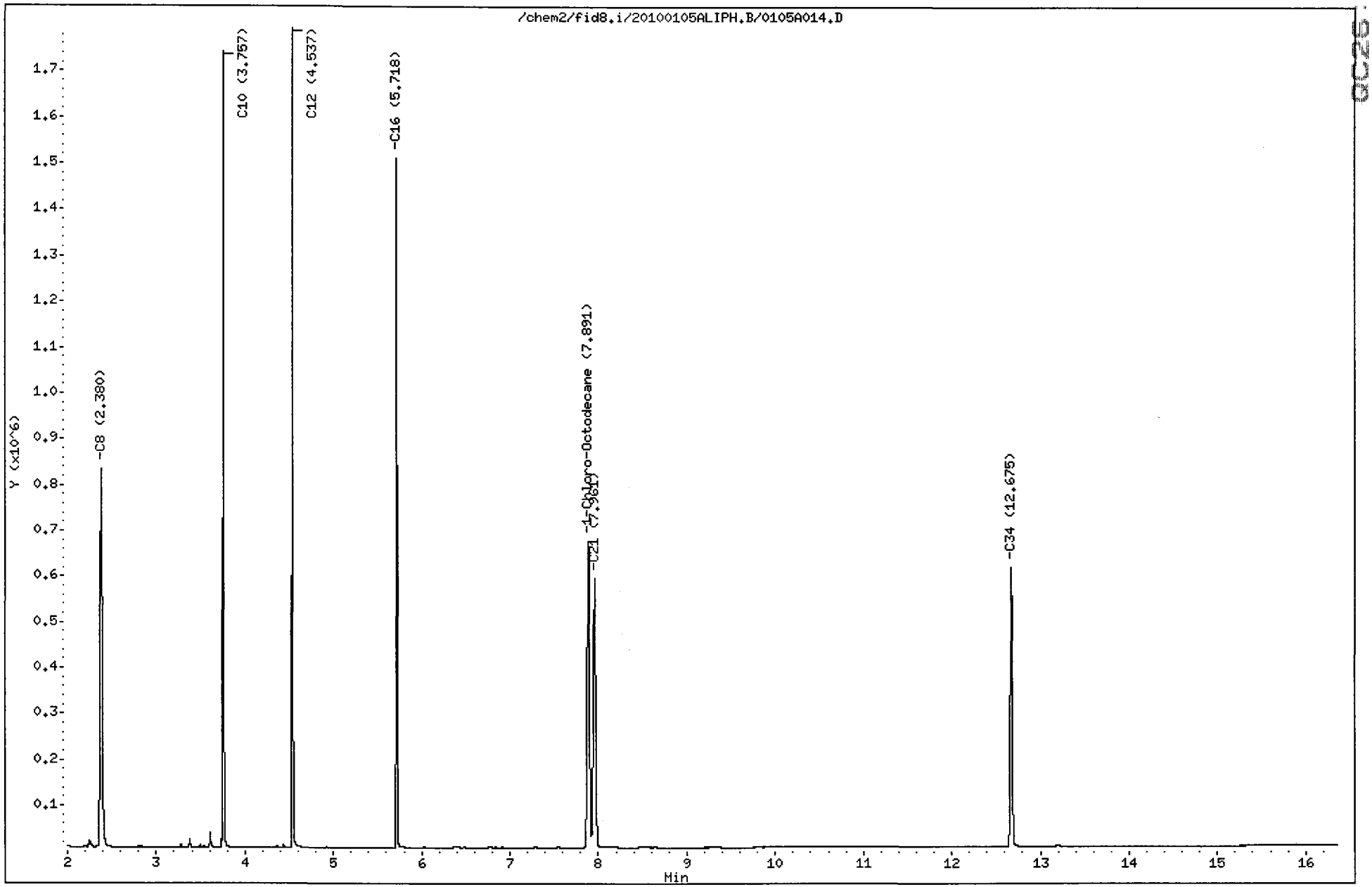
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

GC25-00189



1/6/10

Analytical Resources Inc.
EPH Aromatics Report

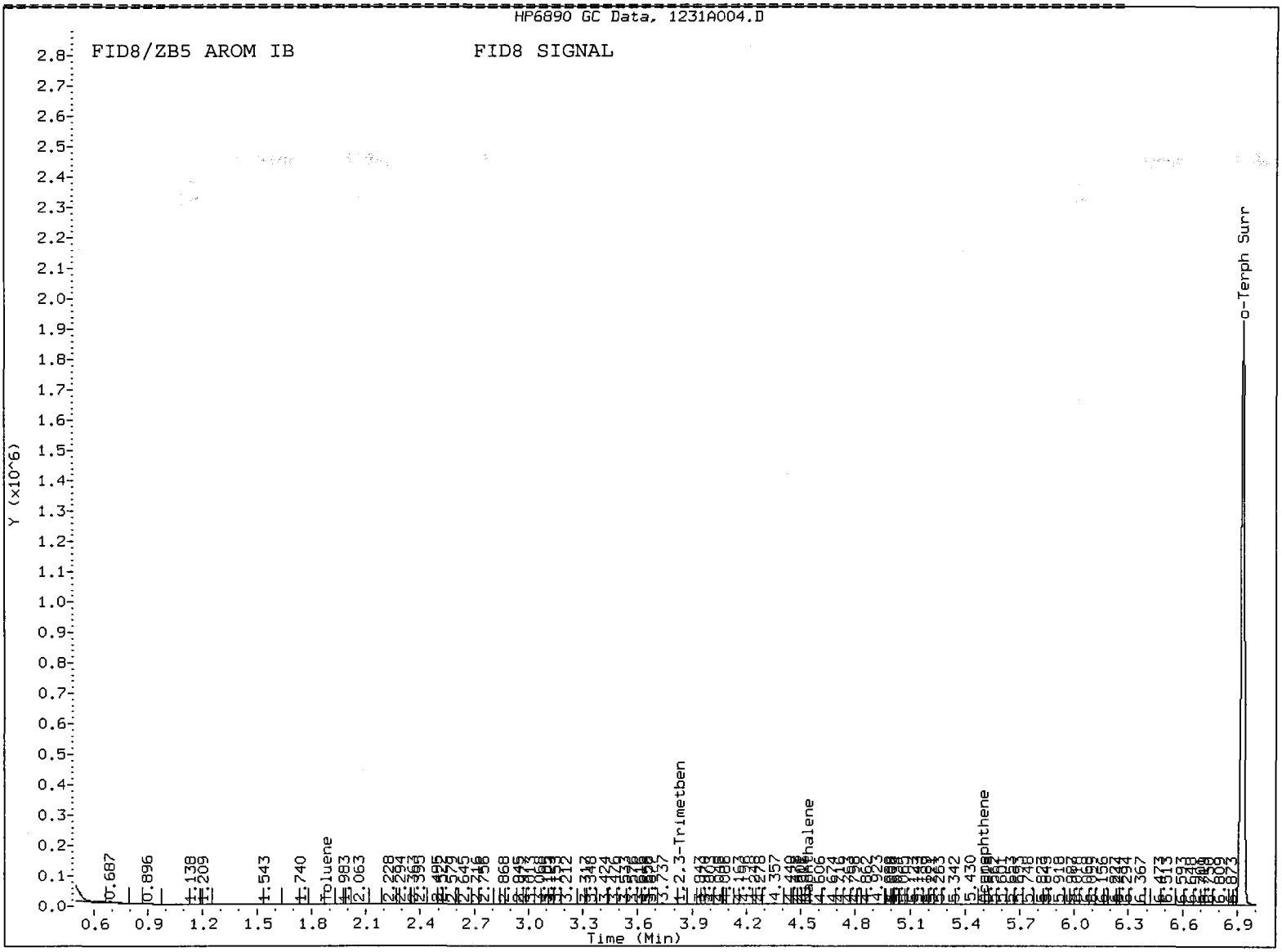
Data file: /chem2/fid8.i/20091231AROM.b/1231A004.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: AROM IB
Client ID: AROM IB
Injection: 31-DEC-2009 09:35
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	4582	0	(1.788 - 3.979)
C10-C12	Arom.	2275	0	(3.979 - 4.638)
C12-C16	Arom.	4958	0	(4.638 - 5.589)
C16-C21	Arom.	23374	2	(5.589 - 8.348)
C21-C34	Arom.	7981	1	(8.348 - 12.535)

Surrogate Rec: 102.2%

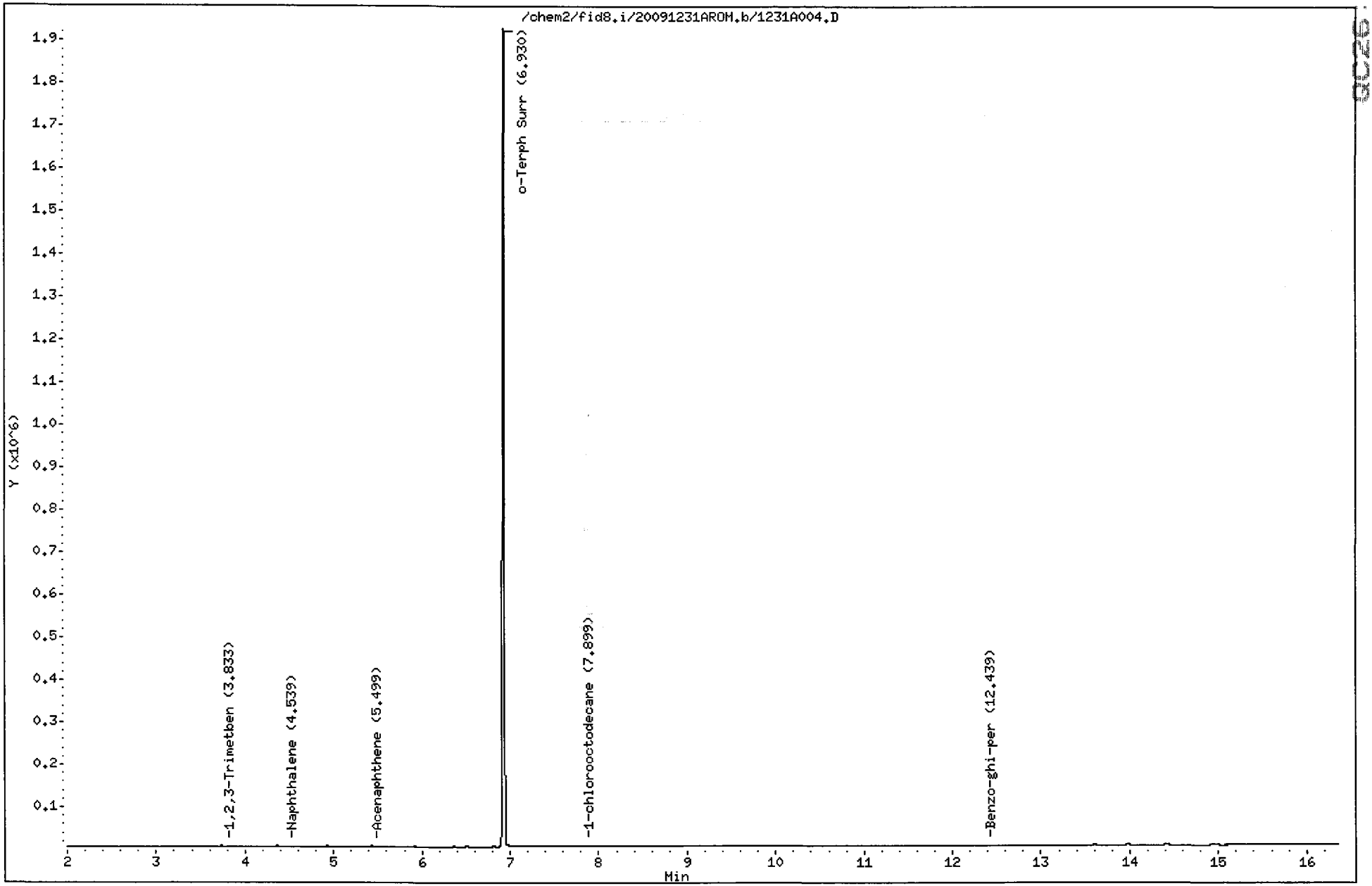


Data File: /chem2/fid8.i/20091231AROM.b/1231A004.D
Date : 31-DEC-2009 09:35
Client ID: AROM IB
Sample Info: AROM IB

Column phase:

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AROMATICS#1

ICal Date: 14-DEC-2009 Client ID: BAYWOOD

CCal Date: 31-DEC-2009 Instrument: FID8.I

Analysis Time: 10:00 Lab File Name: 1231A005.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	3301984	209.7	200	4.8
C10-C12	Arom.	1537157	103.1	100	3.1
C12-C16	Arom.	1448816	105.9	100	5.9
C16-C21	Arom.	1441051	109.0	100	9.0
C21-C34	Arom.	1103826	108.5	100	8.5
Surrogate		1767786	110.4	100	10.4

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

FORM VII-EPH

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20091231AROM.b/1231A005.D
Lab Smp Id: AROMATICS#1 Client Smp ID: AROMATICS#1
Inj Date : 31-DEC-2009 10:00
Operator : JR Inst ID: fid8.i
Smp Info : AROMATICS#1
Misc Info :
Comment :
Method : /chem2/fid8.i/20091231AROM.b/EPHArom.m
Meth Date : 21-Dec-2009 19:38 marys Quant Type: ESTD
Cal Date : 15-DEC-2009 00:41 Cal File: 1214A029.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
	2 Toluene	1.892	1.888	0.004	1750612	106.152	106.152
	3 1,2,3-Trimetben	3.880	3.879	0.001	1551372	103.513	103.512
	4 Naphthalene	4.537	4.538	-0.001	1537157	103.145	103.145
	7 Acenaphthene	5.494	5.489	0.005	1448816	105.864	105.863
$	11 o-Terph Surr	6.927	6.919	0.008	1767786	110.368	110.368
	75 1-chlorooctodecane	7.920	7.898	0.022	218		
	13 Pyrene	8.253	8.248	0.005	1441051	108.964	108.963
	21 Benzo-ghi-per	12.440	12.435	0.005	1103826	108.520	108.520

ms 1/6/10

Analytical Resources Inc.
EPH Aromatics Report

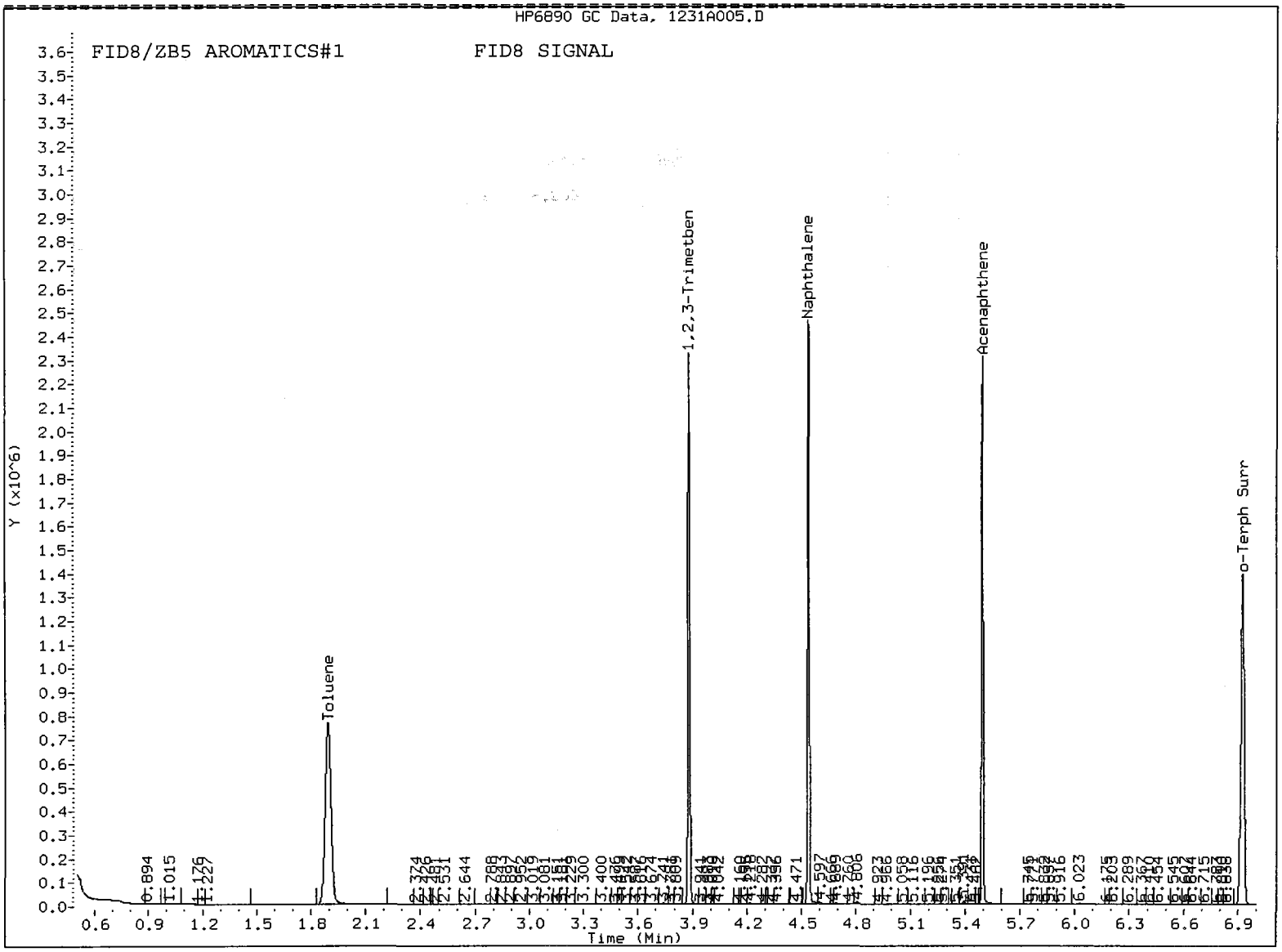
Data file: /chem2/fid8.i/20091231AROM.b/1231A005.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: AROMATICS#1
Client ID: AROMATICS#1
Injection: 31-DEC-2009 10:00
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	3318641	211	(1.788 - 3.979)
C10-C12	Arom.	1558089	105	(3.979 - 4.638)
C12-C16	Arom.	1477096	108	(4.638 - 5.589)
C16-C21	Arom.	1483077	112	(5.589 - 8.348)
C21-C34	Arom.	1109932	109	(8.348 - 12.535)

Surrogate Rec: 73.6%



Data File: /chem2/fid8.i/20091231AROM.b/1231A005.D

Date : 31-DEC-2009 10:00

Client ID: AROMATICS#1

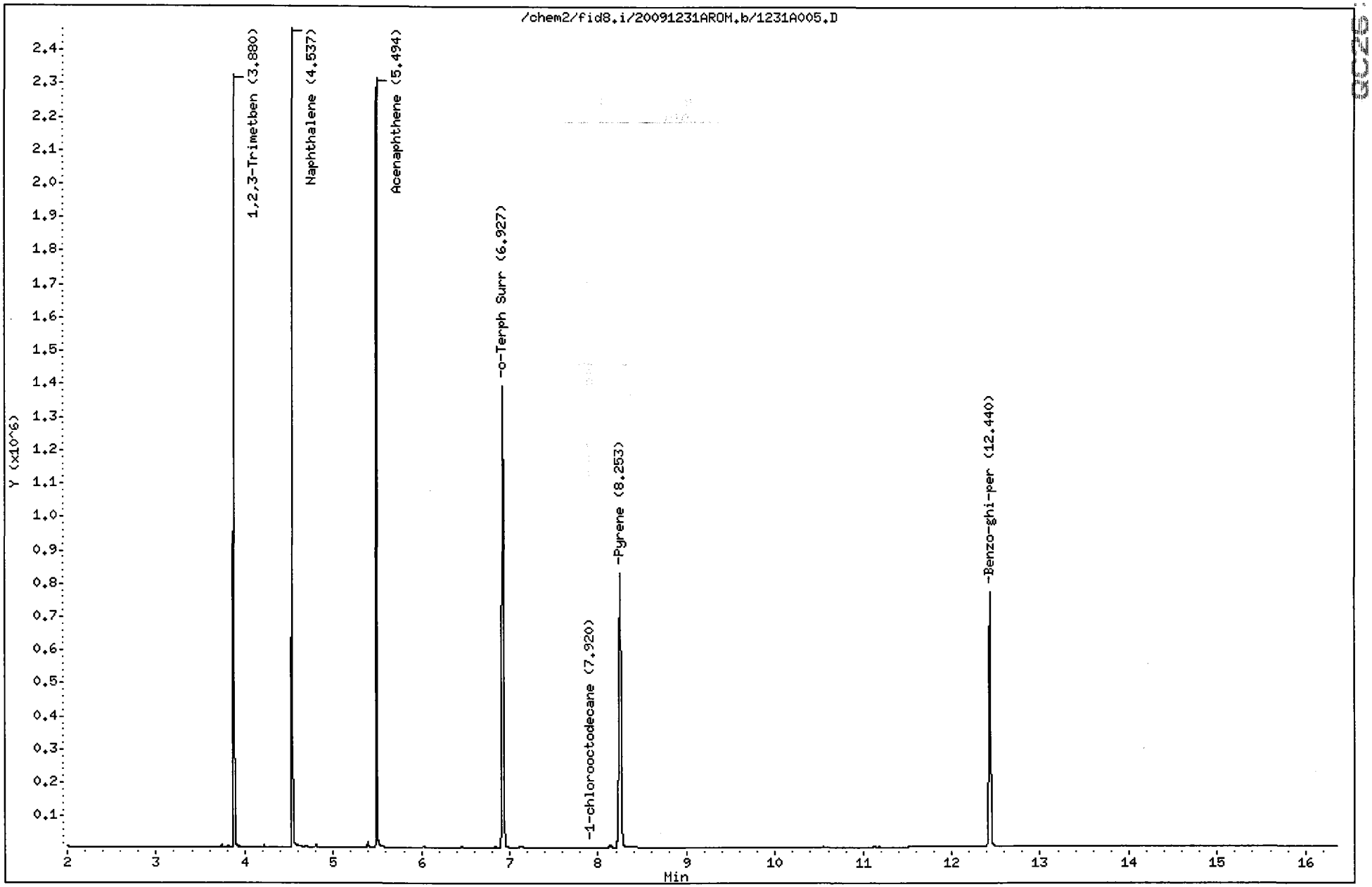
Sample Info: AROMATICS#1

Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AROMATICS#2

ICal Date: 14-DEC-2009 Client ID: BAYWOOD

CCal Date: 31-DEC-2009 Instrument: FID8.I

Analysis Time: 14:31 Lab File Name: 1231A016.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	3358753	213.4	200	6.7
C10-C12	Arom.	1595364	107.1	100	7.1
C12-C16	Arom.	1482383	108.3	100	8.3
C16-C21	Arom.	1499529	113.4	100	13.4
C21-C34	Arom.	1188136	116.8	100	16.8
Surrogate		1794224	112.0	100	12.0

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

QC26:00416

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20091231AROM.b/1231A016.D
Lab Smp Id: AROMATICS#2 Client Smp ID: AROMATICS#2
Inj Date : 31-DEC-2009 14:31
Operator : JR Inst ID: fid8.i
Smp Info : AROMATICS#2
Misc Info :
Comment :
Method : /chem2/fid8.i/20091231AROM.b/EPHArom.m
Meth Date : 21-Dec-2009 19:38 marys Quant Type: ESTD
Cal Date : 15-DEC-2009 00:41 Cal File: 1214A029.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
2 Toluene	1.888	1.888	0.000	1758670	106.641	106.640
3 1,2,3-Trimetben	3.880	3.879	0.001	1600083	106.763	106.762
4 Naphthalene	4.537	4.538	-0.001	1595364	107.051	107.050
7 Acenaphthene	5.496	5.489	0.007	1482383	108.317	108.316
$ 11 o-Terph Surr	6.930	6.919	0.011	1794224	112.019	112.018
75 1-chlorooctodecane	7.914	7.898	0.016	1644		
13 Pyrene	8.259	8.248	0.011	1499529	113.385	113.385
21 Benzo-ghi-per	12.443	12.435	0.008	1188136	116.809	116.809

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Analytical Resources Inc.
EPH Aromatics Report

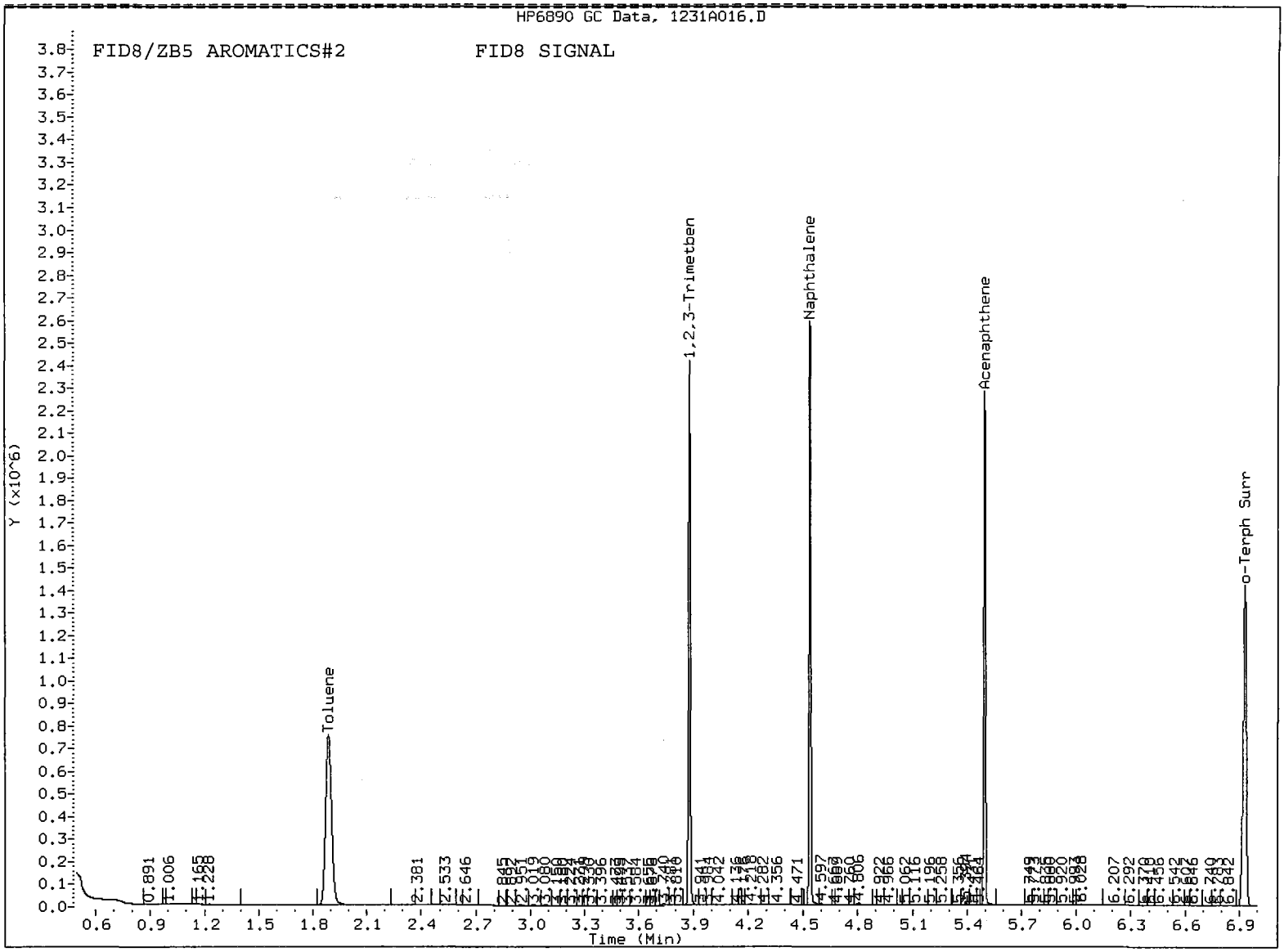
Data file: /chem2/fid8.i/20091231AROM.b/1231A016.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: AROMATICS#2
Client ID: AROMATICS#2
Injection: 31-DEC-2009 14:31
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	3377171	215	(1.788 - 3.979)
C10-C12	Arom.	1617538	109	(3.979 - 4.638)
C12-C16	Arom.	1513291	111	(4.638 - 5.589)
C16-C21	Arom.	1544450	117	(5.589 - 8.348)
C21-C34	Arom.	1223441	120	(8.348 - 12.535)

Surrogate Rec: 74.7%



Data File: /chem2/fid8.i/20091231AROM.b/1231A016.D

Date : 31-DEC-2009 14:31

Client ID: AROMATICS#2

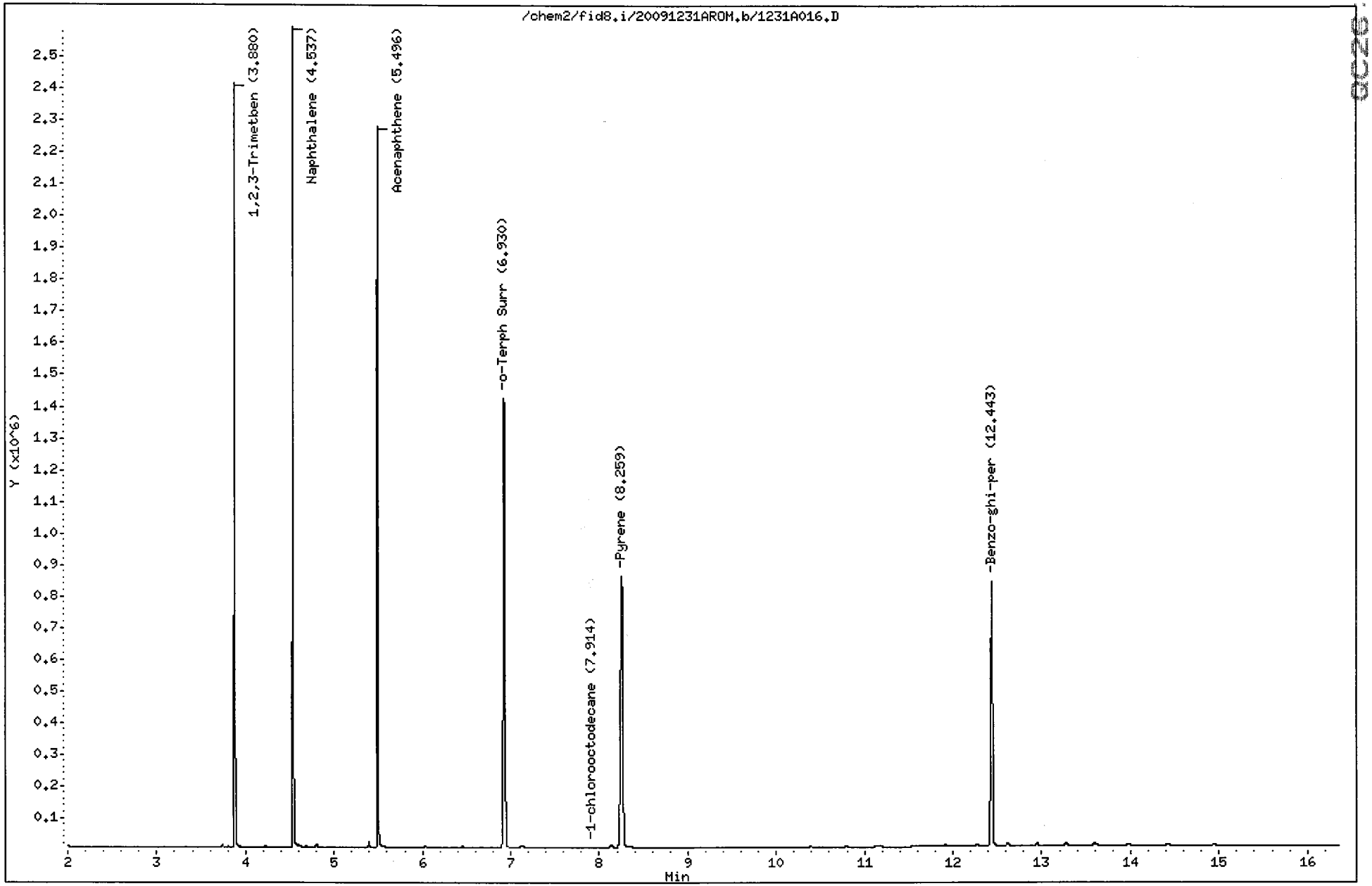
Sample Info: AROMATICS#2

Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



EPH Analysis
QC Raw Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MB-122809
METHOD BLANK

Lab Sample ID: MB-122809
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 12/28/09
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 13:58
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 10:24
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	55.5%
Aromatic	o-Terphenyl	63.8%

m 1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A004.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

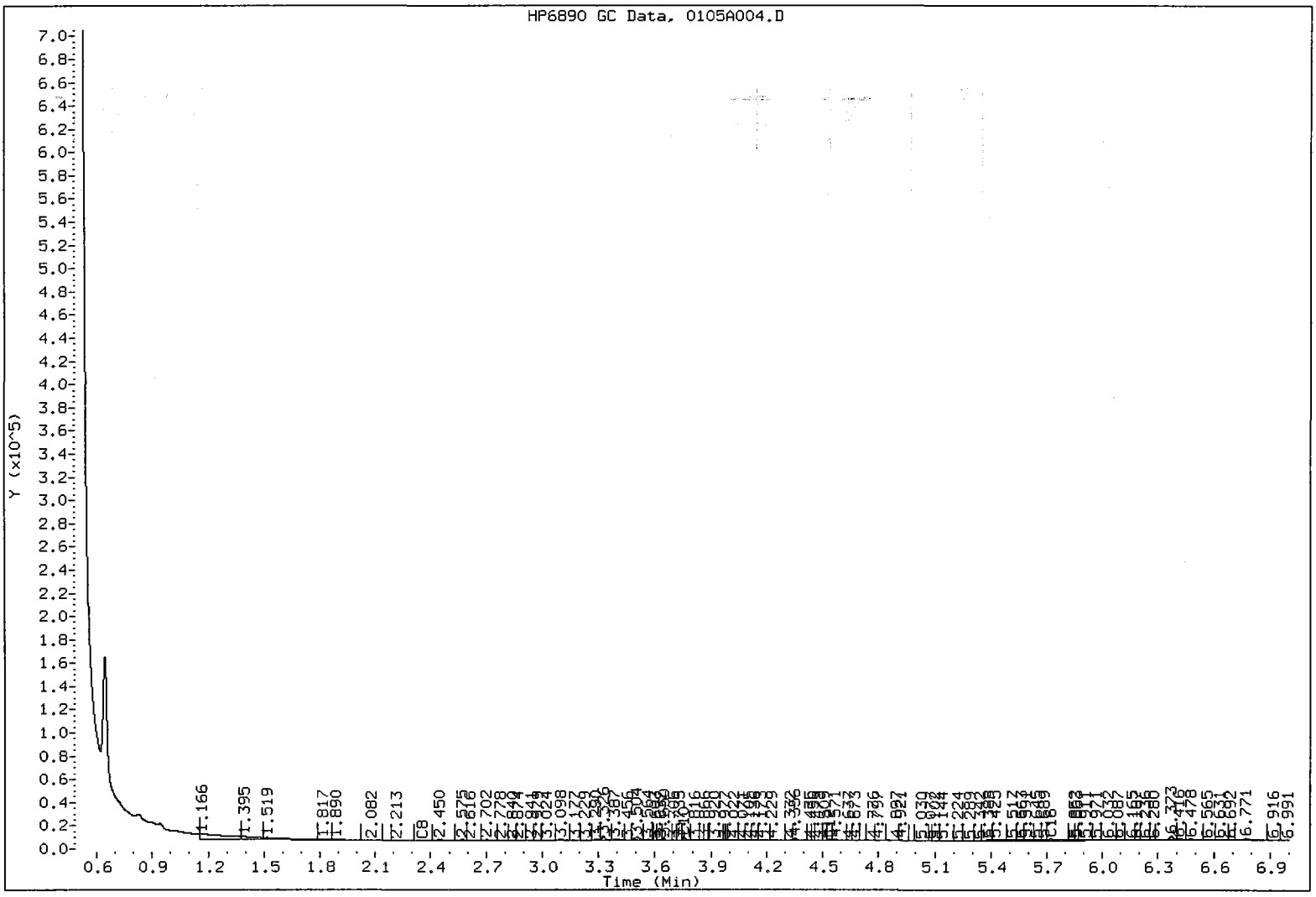
ARI ID: QC26MBS1
Client ID: QC26MBS1
Injection: 05-JAN-2010 13:58
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	27668	2	(2.277 - 3.860)
C10-C12 Aliph.	5827	0	(3.860 - 4.641)
C12-C16 Aliph.	8507	1	(4.641 - 5.821)
C16-C21 Aliph.	39944	3	(5.821 - 8.071)
C21-C34 Aliph.	9161	1	(8.071 - 12.782)

Surrogate Rec: 55.5%

FID-8A/ZB-5 QC26MBS1



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A004.D

Date : 05-JAN-2010 13:58

Client ID: QC26MBS1

Sample Info: QC26MBS1

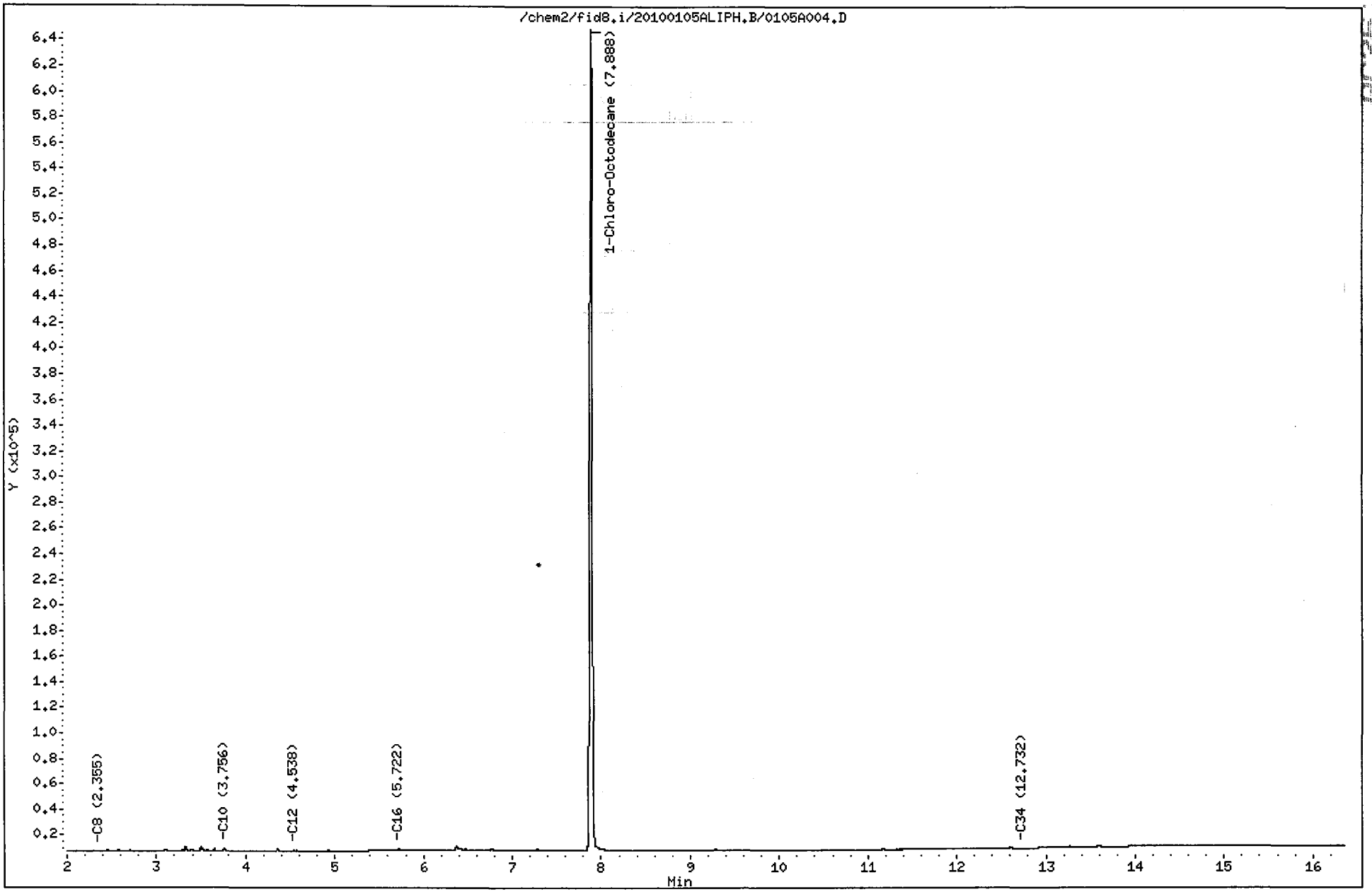
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

QC26 05012



Analytical Resources Inc.
EPH Aromatics Report

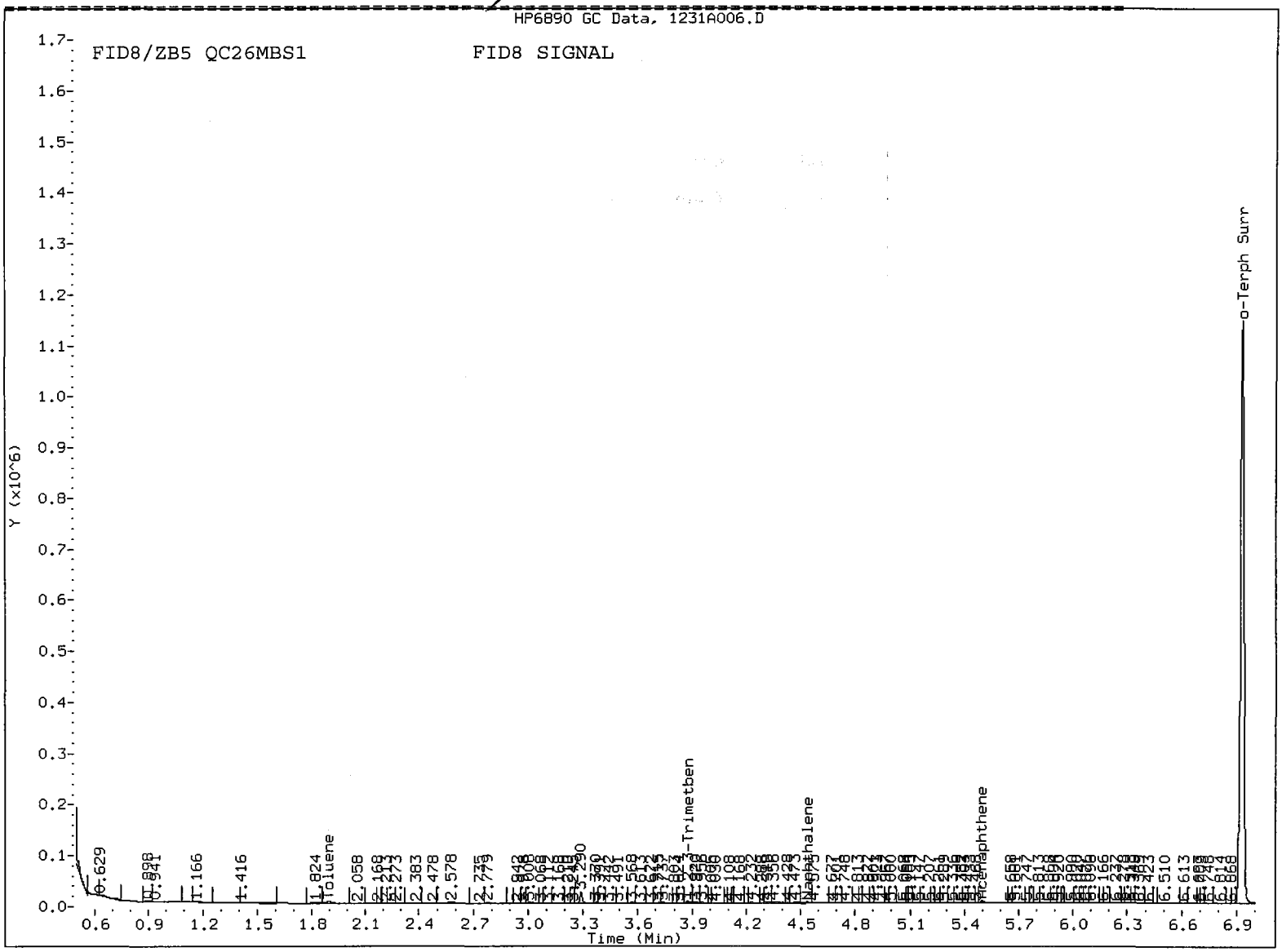
Data file: /chem2/fid8.i/20091231AROM.b/1231A006.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26MBS1
Client ID: QC26MBS1
Injection: 31-DEC-2009 10:24
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Arom.	40682	3	(1.788 - 3.979)
C10-C12 Arom.	6557	0	(3.979 - 4.638)
C12-C16 Arom.	9584	1	(4.638 - 5.589)
C16-C21 Arom.	35665	3	(5.589 - 8.348)
C21-C34 Arom.	4386	0	(8.348 - 12.535)

Surrogate Rec: 63.8%



Data File: /chem2/fid8.i/20091231AROM.b/1231A006.D

Date : 31-DEC-2009 10:24

Client ID: QC26MBS1

Sample Info: QC26MBS1

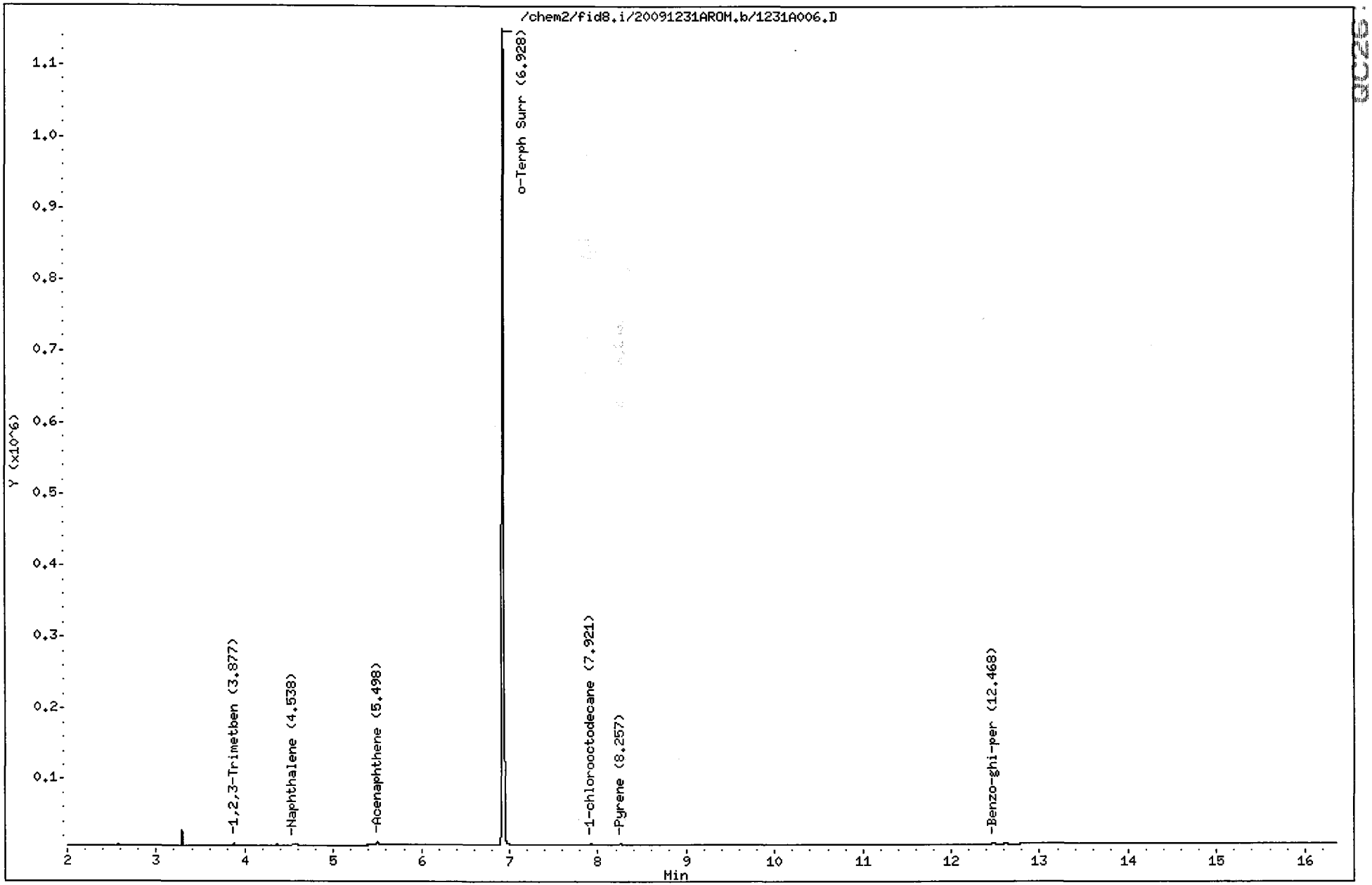
Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

QC26.091125



Analytical Resources Inc.
EPH Aromatics Report

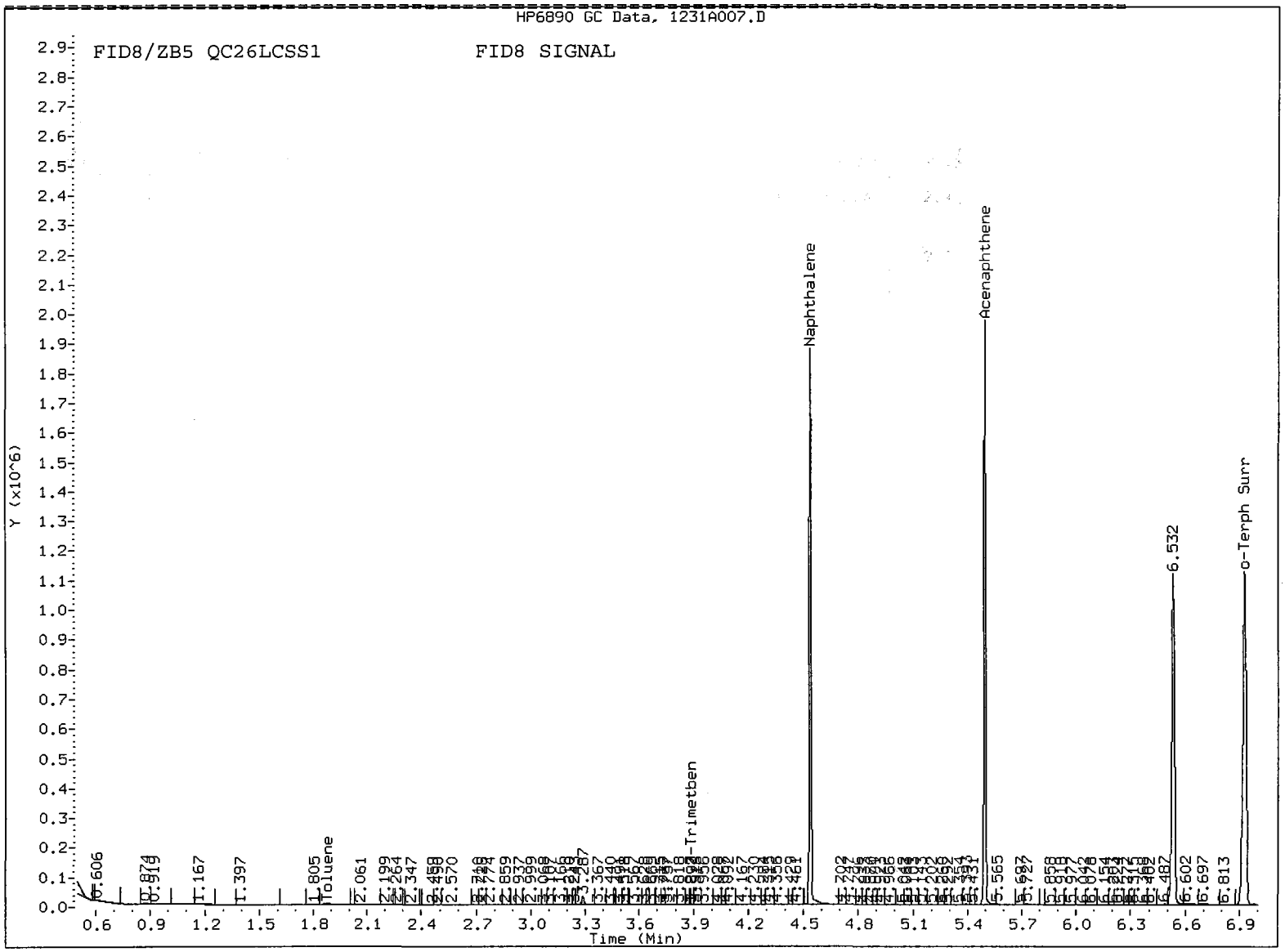
Data file: /chem2/fid8.i/20091231AROM.b/1231A007.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26LCSS1
Client ID: QC26LCSS1
Injection: 31-DEC-2009 10:49
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	49921	3	(1.788 - 3.979)
C10-C12	Arom.	1221090	82	(3.979 - 4.638)
C12-C16	Arom.	1254095	92	(4.638 - 5.589)
C16-C21	Arom.	2845410	215	(5.589 - 8.348)
C21-C34	Arom.	2524908	248	(8.348 - 12.535)

Surrogate Rec: 60.0%



Data File: /chem2/fid8.i/20091231AROM.b/1231A007.D

Date : 31-DEC-2009 10:49

Client ID: QC26LCSS1

Sample Info: QC26LCSS1

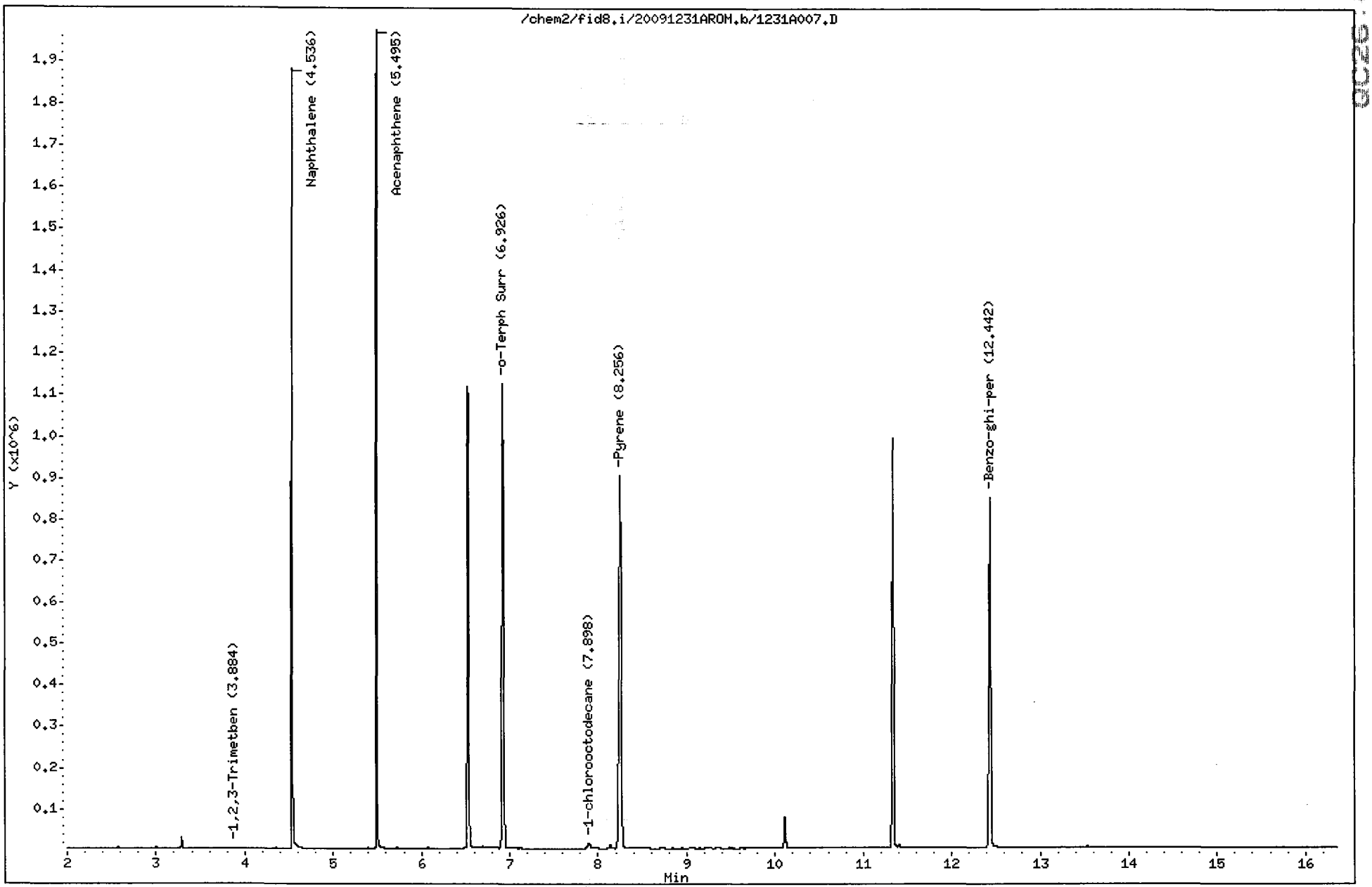
Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

QC26.6912.7



Mo1/6/10

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A005.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

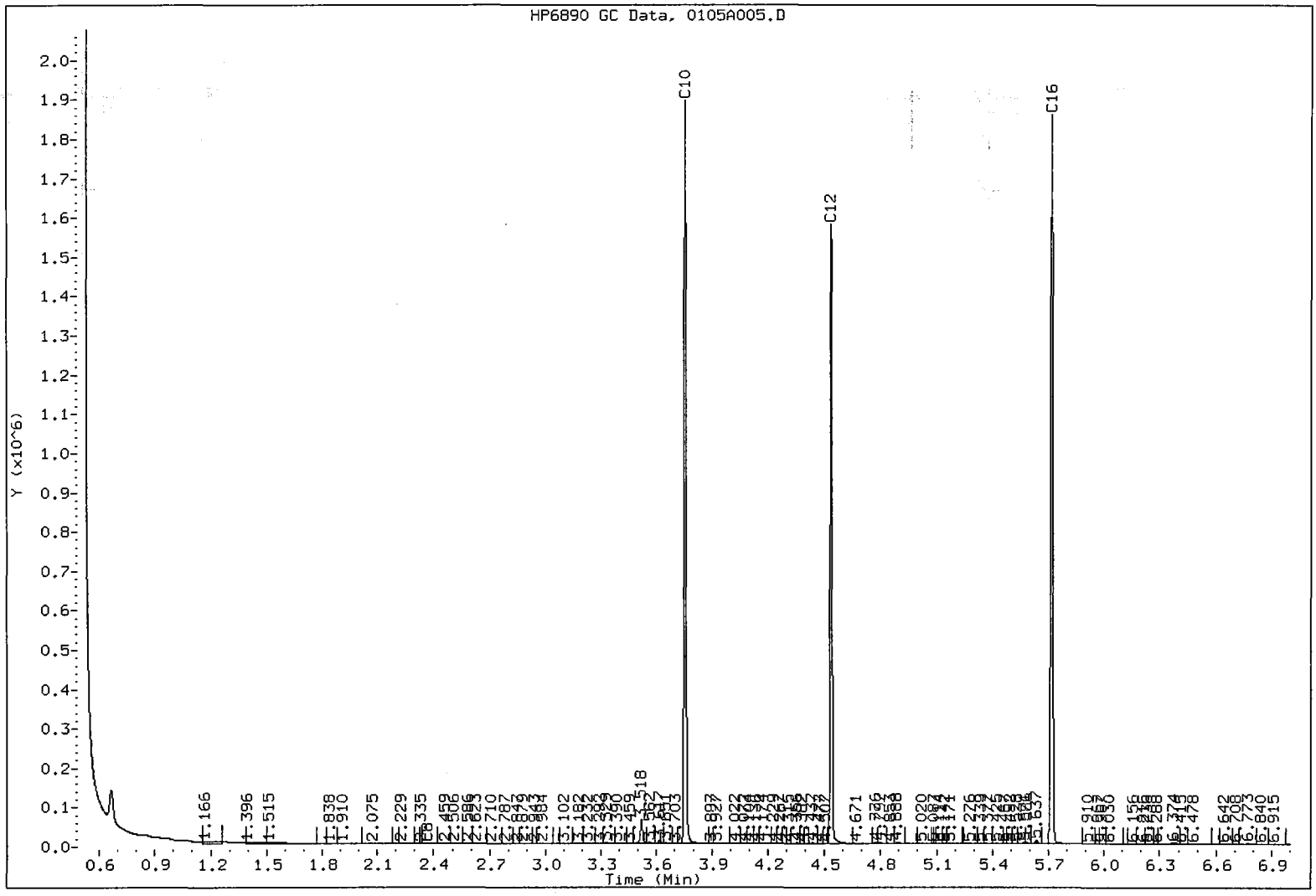
ARI ID: QC26LCSS1
Client ID: QC26LCSS1
Injection: 05-JAN-2010 14:23
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1453837	98	(2.277 - 3.860)
C10-C12	Aliph.	1045381	76	(3.860 - 4.641)
C12-C16	Aliph.	1426827	111	(4.641 - 5.821)
C16-C21	Aliph.	1429344	115	(5.821 - 8.071)
C21-C34	Aliph.	8128	1	(8.071 - 12.782)

Surrogate Rec: 56.0%

FID-8A/ZB-5 QC26LCSS1



Data File: /chem2/fid8.i/20100105ALIPH.B/0105A005.D

Date : 05-JAN-2010 14:23

Client ID: QC26LCSS1

Sample Info: QC26LCSS1

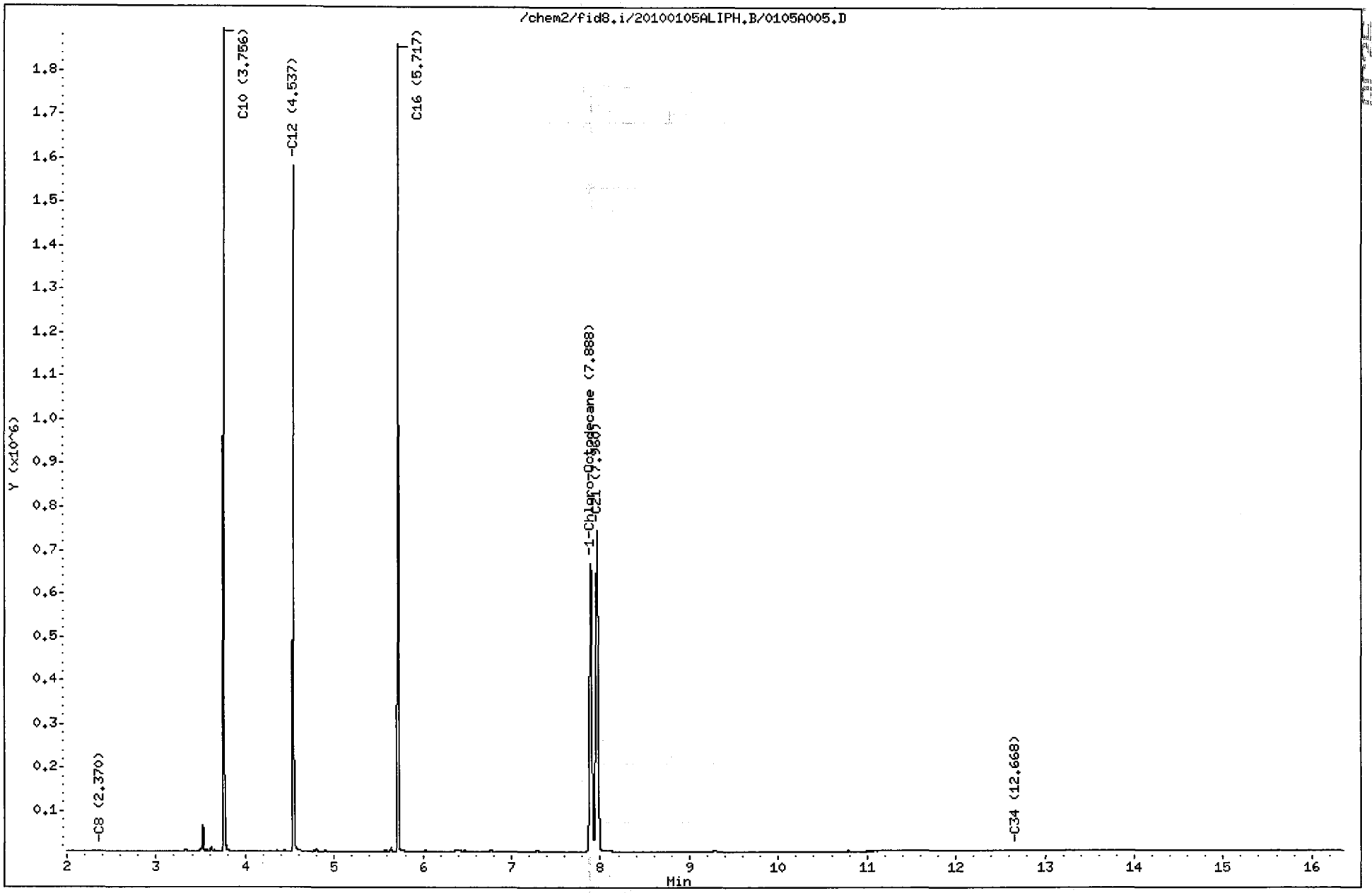
Column phase:

Instrument: fid8.i

Operator: MS

Column diameter: 0.32

QC26 060129



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-05-SS-091218
MATRIX SPIKE

Lab Sample ID: QC26A
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 33.6%

Sample Amount: 6.94 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 15:13
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 11:38
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,900	---
C10-C12 Aliphatics	2,900	---
C12-C16 Aliphatics	2,900	---
C16-C21 Aliphatics	2,900	---
C21-C34 Aliphatics	**2,900**	**3,800**
C8-C10 Aromatics	2,900	< 2,900 U
C10-C12 Aromatics	2,900	---
C12-C16 Aromatics	2,900	---
C16-C21 Aromatics	2,900	---
C21-C34 Aromatics	2,900	---

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	61.3%
Aromatic	o-Terphenyl	66.2%

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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A007.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

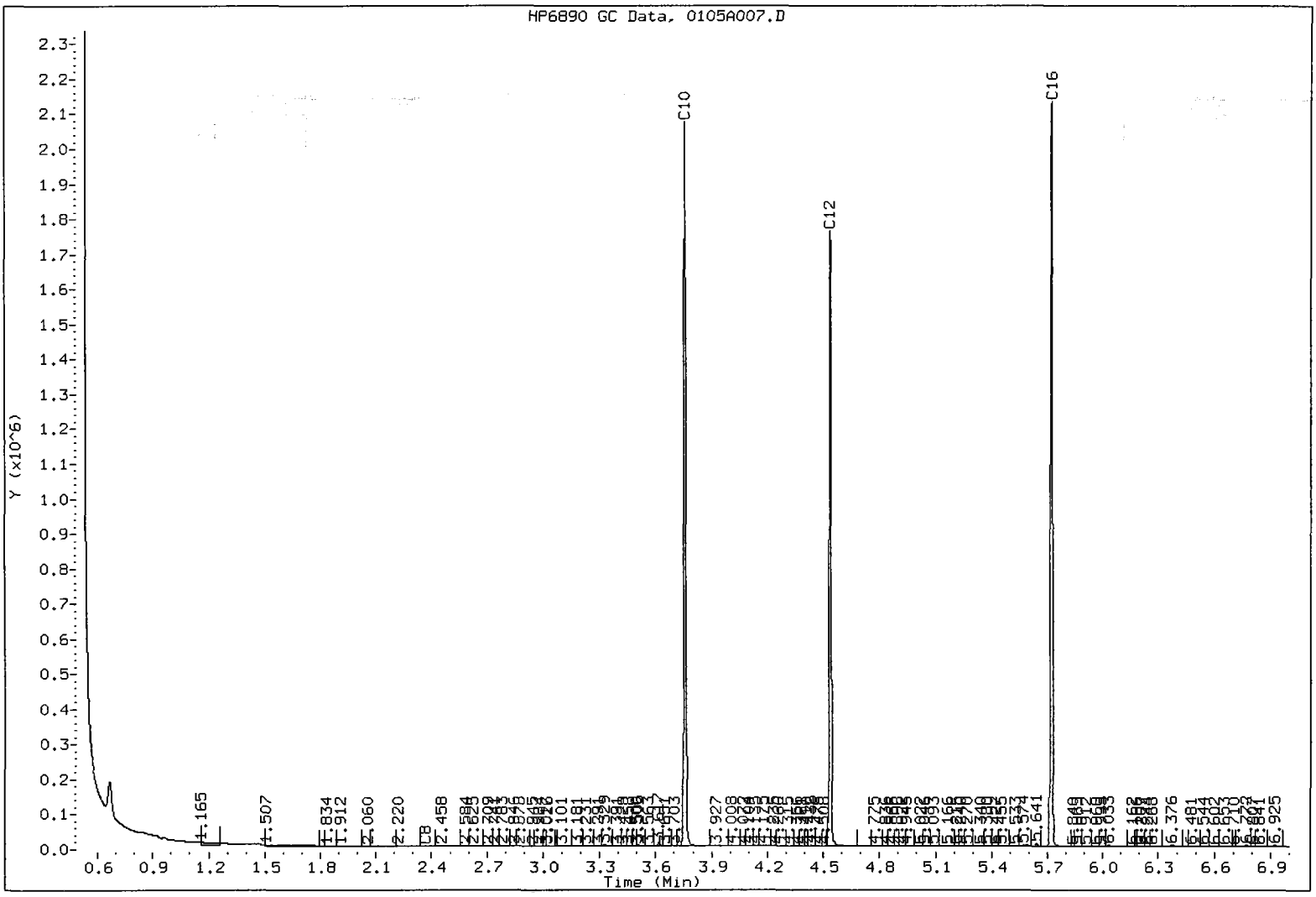
ARI ID: QC26AMS
Client ID: BW-05-SS-091218 MS
Injection: 05-JAN-2010 15:13
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1515193	102	(2.277 - 3.860)
C10-C12	Aliph.	1157037	84	(3.860 - 4.641)
C12-C16	Aliph.	1559654	121	(4.641 - 5.821)
C16-C21	Aliph.	1581429	127	(5.821 - 8.071)
C21-C34	Aliph.	244565	26	(8.071 - 12.782)

Surrogate Rec: 61.3%

FID-8A/ZB-5 QC26AMS



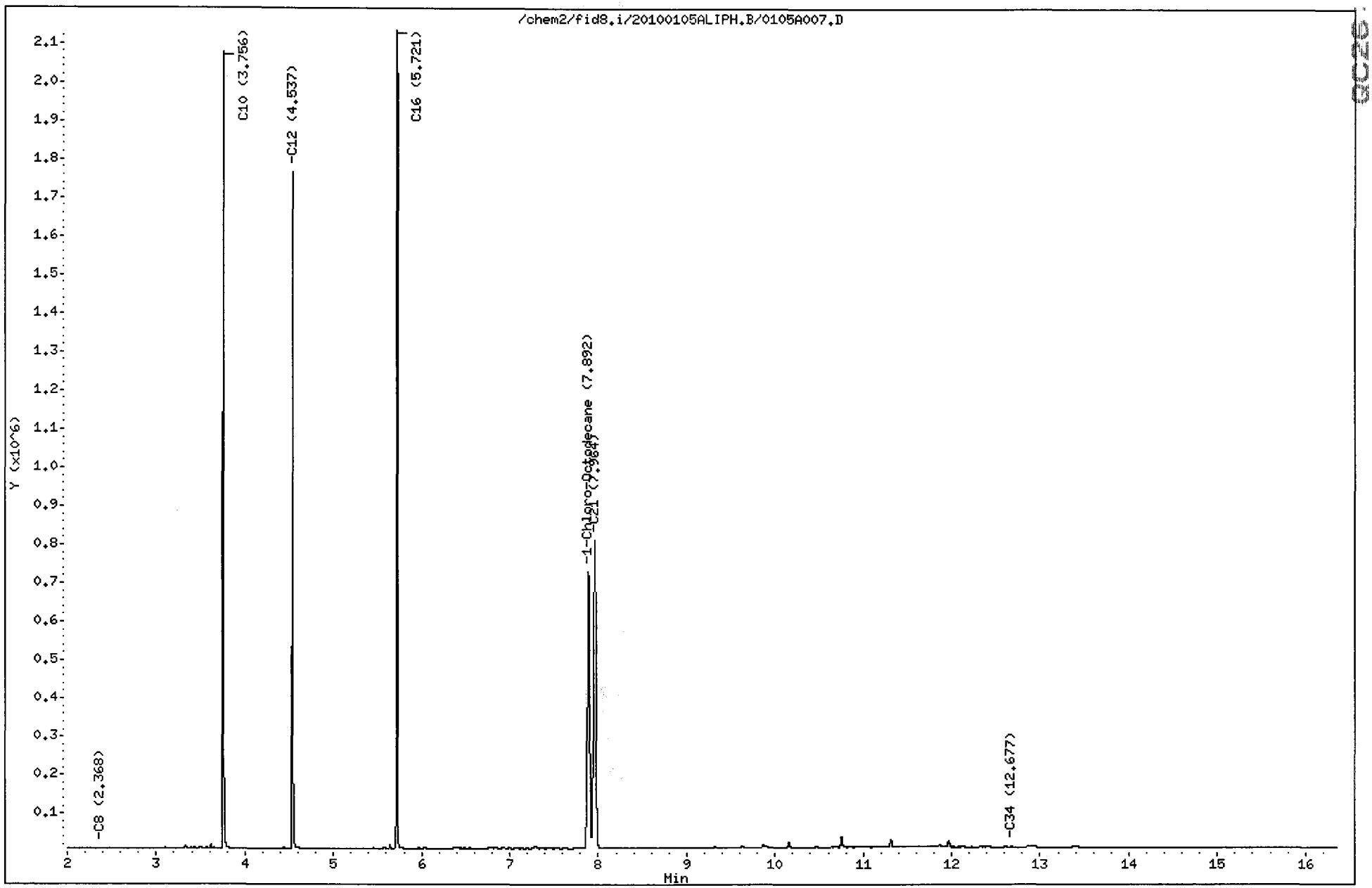
Data File: /chem2/fid8.i/20100105ALIPH.B/0105A007.D
Date : 05-JAN-2010 15:13
Client ID: BW-05-SS-091218 MS
Sample Info: QC26AMS

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32

QC26 09192



ms 1/6/10

Analytical Resources Inc.
EPH Aromatics Report

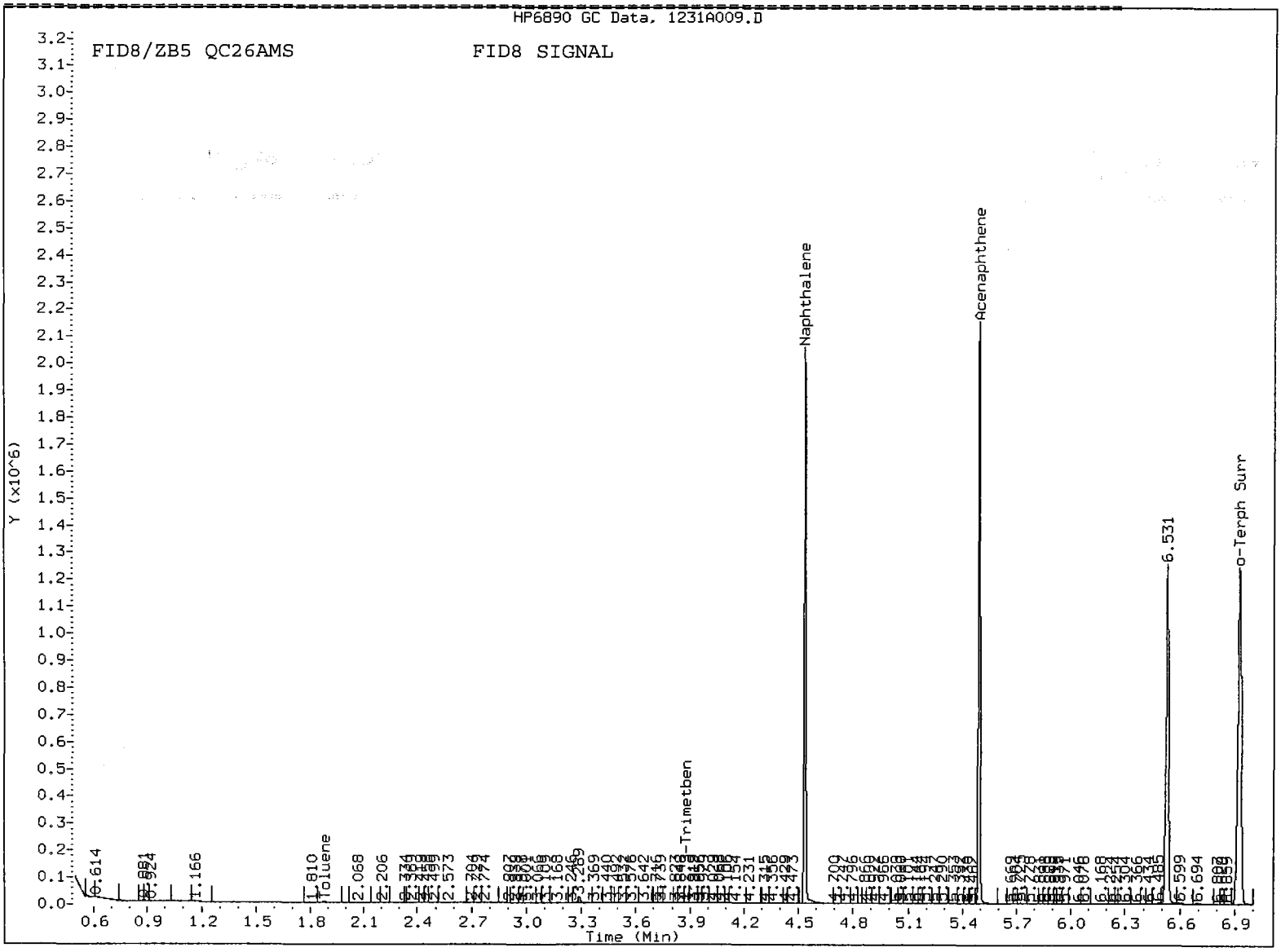
Data file: /chem2/fid8.i/20091231AROM.b/1231A009.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26AMS
Client ID: BW-05-SS-091218 MS
Injection: 31-DEC-2009 11:38
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	45022	3	(1.788 - 3.979)
C10-C12	Arom.	1316304	88	(3.979 - 4.638)
C12-C16	Arom.	1382583	101	(4.638 - 5.589)
C16-C21	Arom.	3173977	240	(5.589 - 8.348)
C21-C34	Arom.	2988693	294	(8.348 - 12.535)

Surrogate Rec: 66.2%



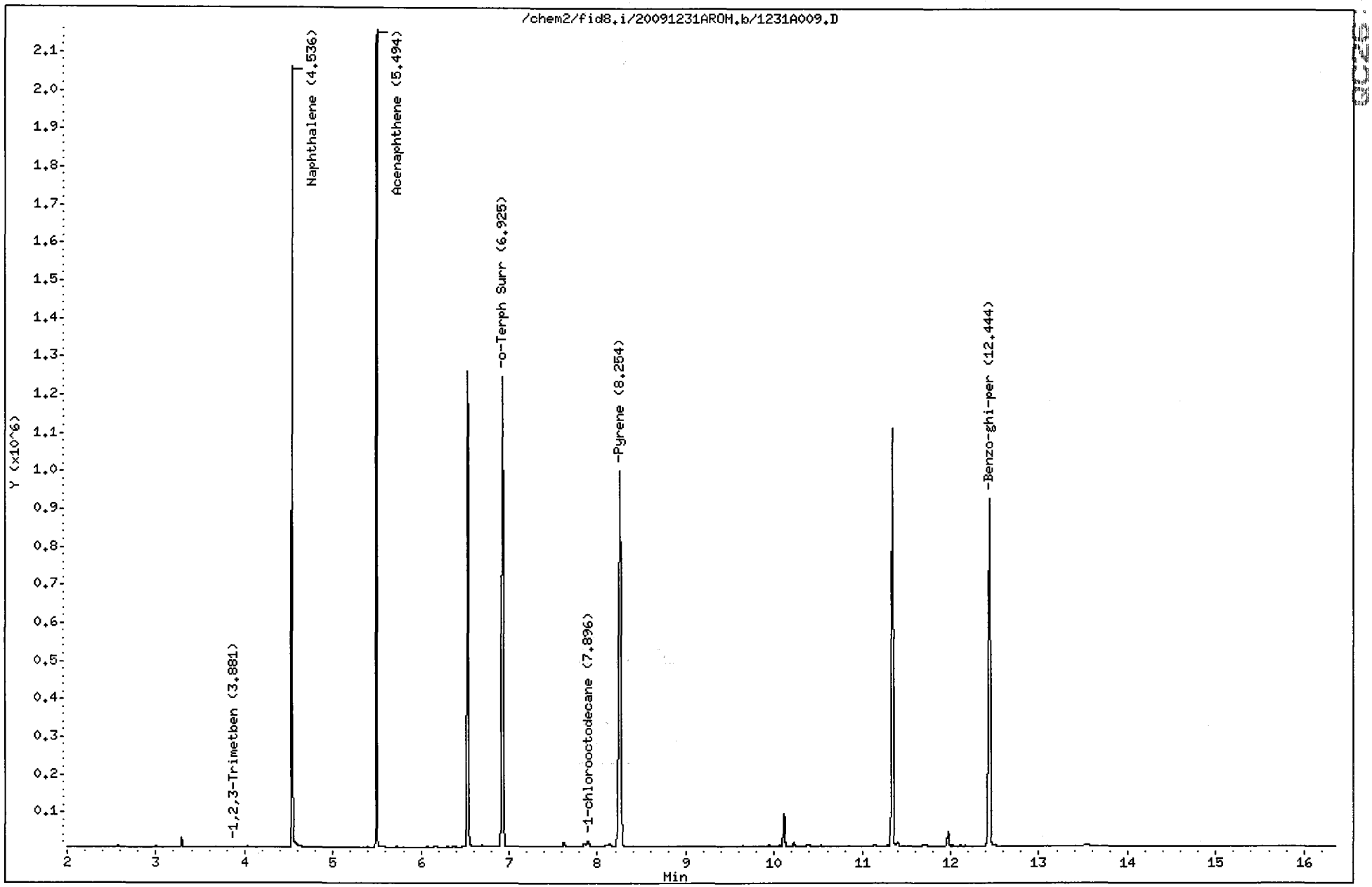
QC26 : 00433

Data File: /chem2/fid8.i/20091231AROM.b/1231A009.D
Date : 31-DEC-2009 11:38
Client ID: BW-05-SS-091218 MS
Sample Info: QC26AMS

Column phase:

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: BW-05-SS-091218
MATRIX SPIKE DUP

Lab Sample ID: QC26A
LIMS ID: 09-31261
Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Date Extracted: 12/28/09
Percent Moisture: 33.6%

Sample Amount: 6.95 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 01/05/10 15:38
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/31/09 12:03
Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,900	---
C10-C12 Aliphatics	2,900	---
C12-C16 Aliphatics	2,900	---
C16-C21 Aliphatics	2,900	---
C21-C34 Aliphatics	**2,900**	**6,300**
C8-C10 Aromatics	2,900	< 2,900 U
C10-C12 Aromatics	2,900	---
C12-C16 Aromatics	2,900	---
C16-C21 Aromatics	2,900	---
C21-C34 Aromatics	2,900	---

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	64.3%
Aromatic	o-Terphenyl	68.5%

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20100105ALIPH.B/0105A008.D
Method: /chem2/fid8.i/20100105ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: MS
Macro: ALIPH121409FID8

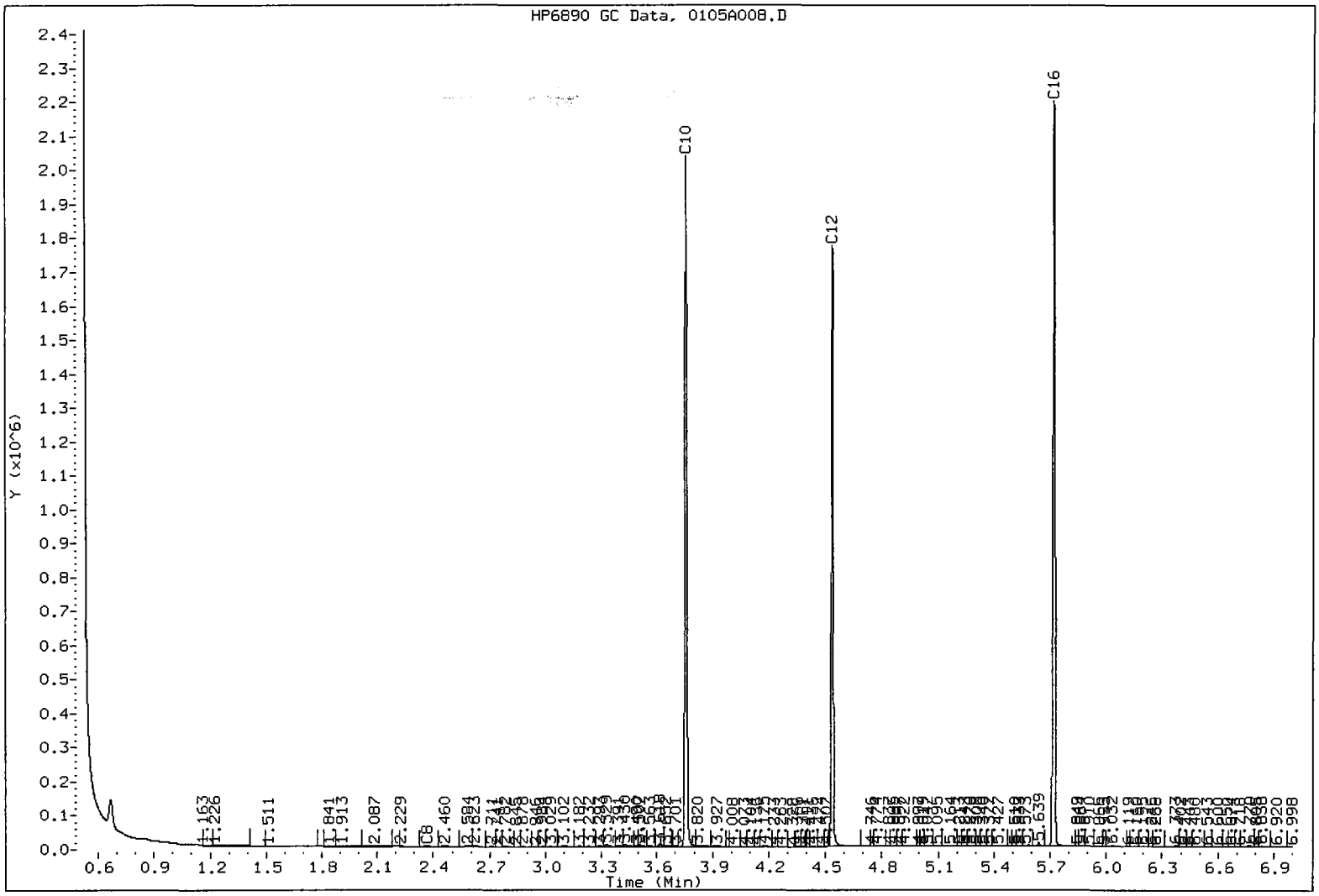
ARI ID: QC26AMSD
Client ID: BW-05-SS-091218 MSD
Injection: 05-JAN-2010 15:38
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1498943	101	(2.277 - 3.860)
C10-C12	Aliph.	1170987	85	(3.860 - 4.641)
C12-C16	Aliph.	1623104	126	(4.641 - 5.821)
C16-C21	Aliph.	1650078	133	(5.821 - 8.071)
C21-C34	Aliph.	412577	44	(8.071 - 12.782)

Surrogate Rec: 64.3%

FID-8A/ZB-5 QC26AMSD



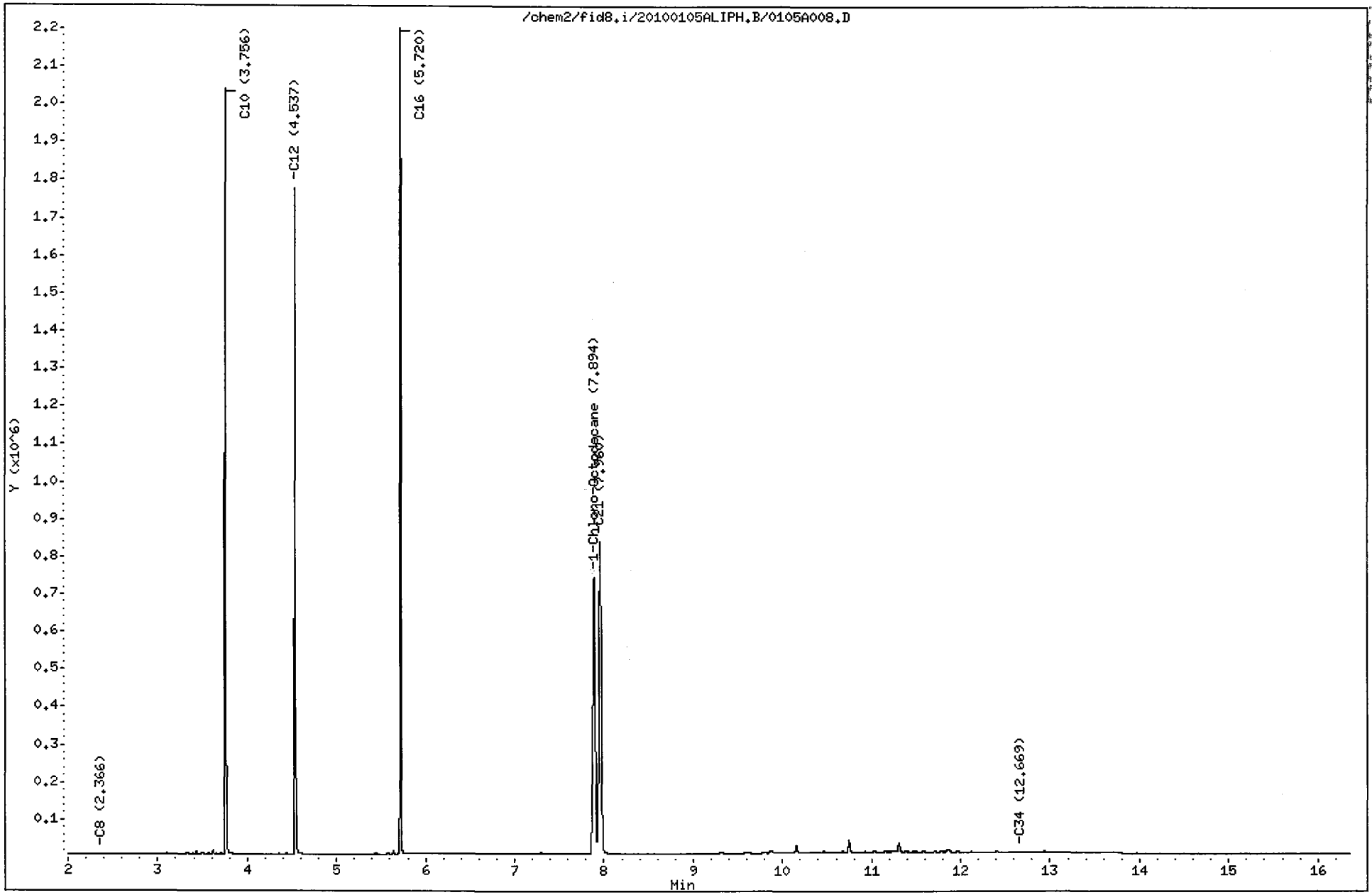
Data File: /chem2/fid8.i/20100105ALIPH.B/0105A008.D
Date : 05-JAN-2010 15:38
Client ID: BW-05-SS-091218 MSD
Sample Info: QC26AMSD

Column phase:

Instrument: fid8.i

Operator: MS
Column diameter: 0.32

QC26 60167



1/6/10

Analytical Resources Inc.
EPH Aromatics Report

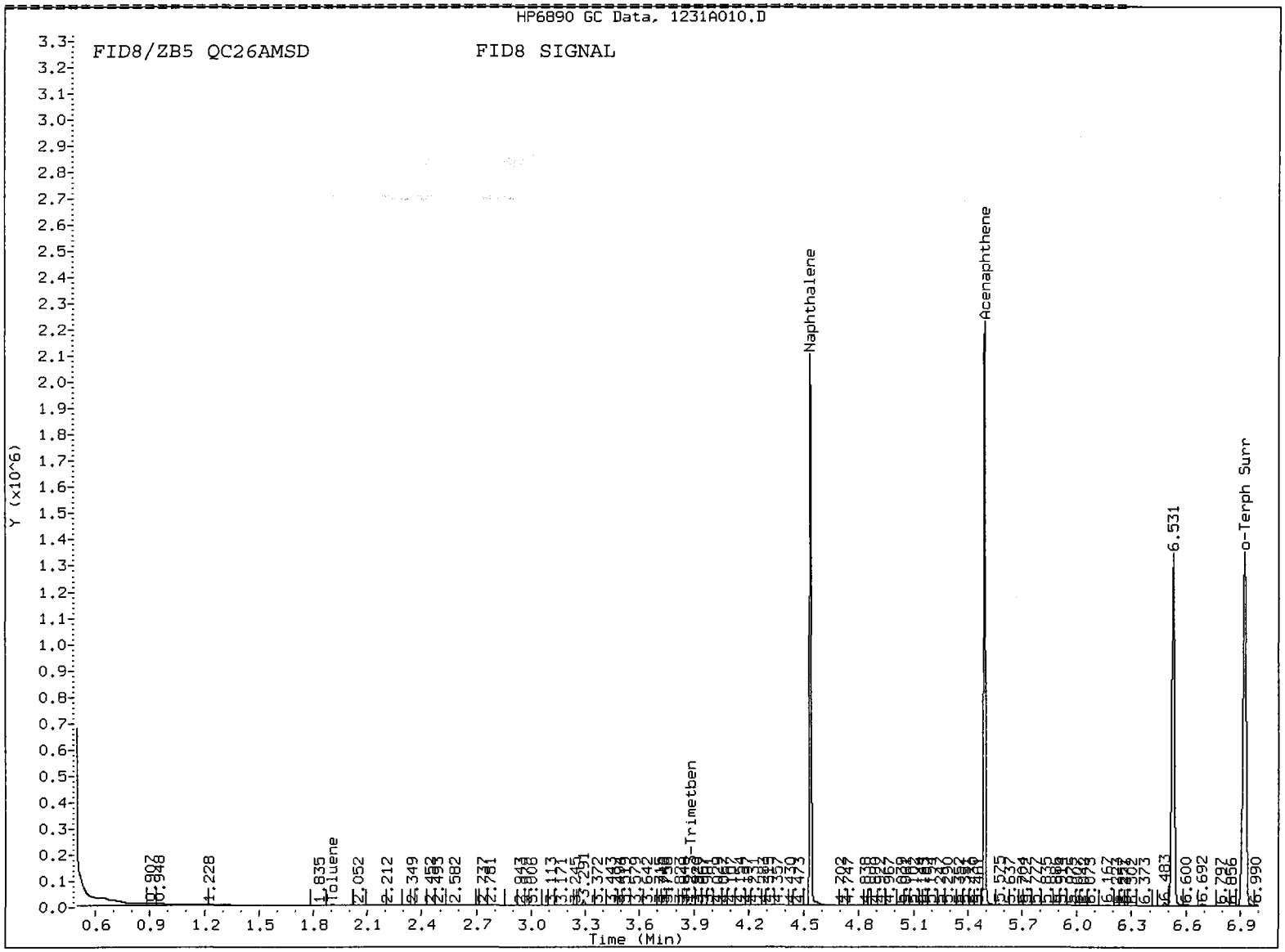
Data file: /chem2/fid8.i/20091231AROM.b/1231A010.D
Method: /chem2/fid8.i/20091231AROM.b/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 01/06/2010
Macro: AROM121409FID8

ARI ID: QC26AMSD
Client ID: BW-05-SS-091218 MSD
Injection: 31-DEC-2009 12:03
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Arom.	44181	3	(1.788 - 3.979)
C10-C12	Arom.	1327042	89	(3.979 - 4.638)
C12-C16	Arom.	1459172	107	(4.638 - 5.589)
C16-C21	Arom.	3469856	262	(5.589 - 8.348)
C21-C34	Arom.	3052831	300	(8.348 - 12.535)

Surrogate Rec: 69.5%



QC26 : 00438

Data File: /chem2/fid8.i/20091231AROM.b/1231A010.D

Date : 31-DEC-2009 12:03

Client ID: BW-05-SS-091218 MSD

Sample Info: QC26AMSD

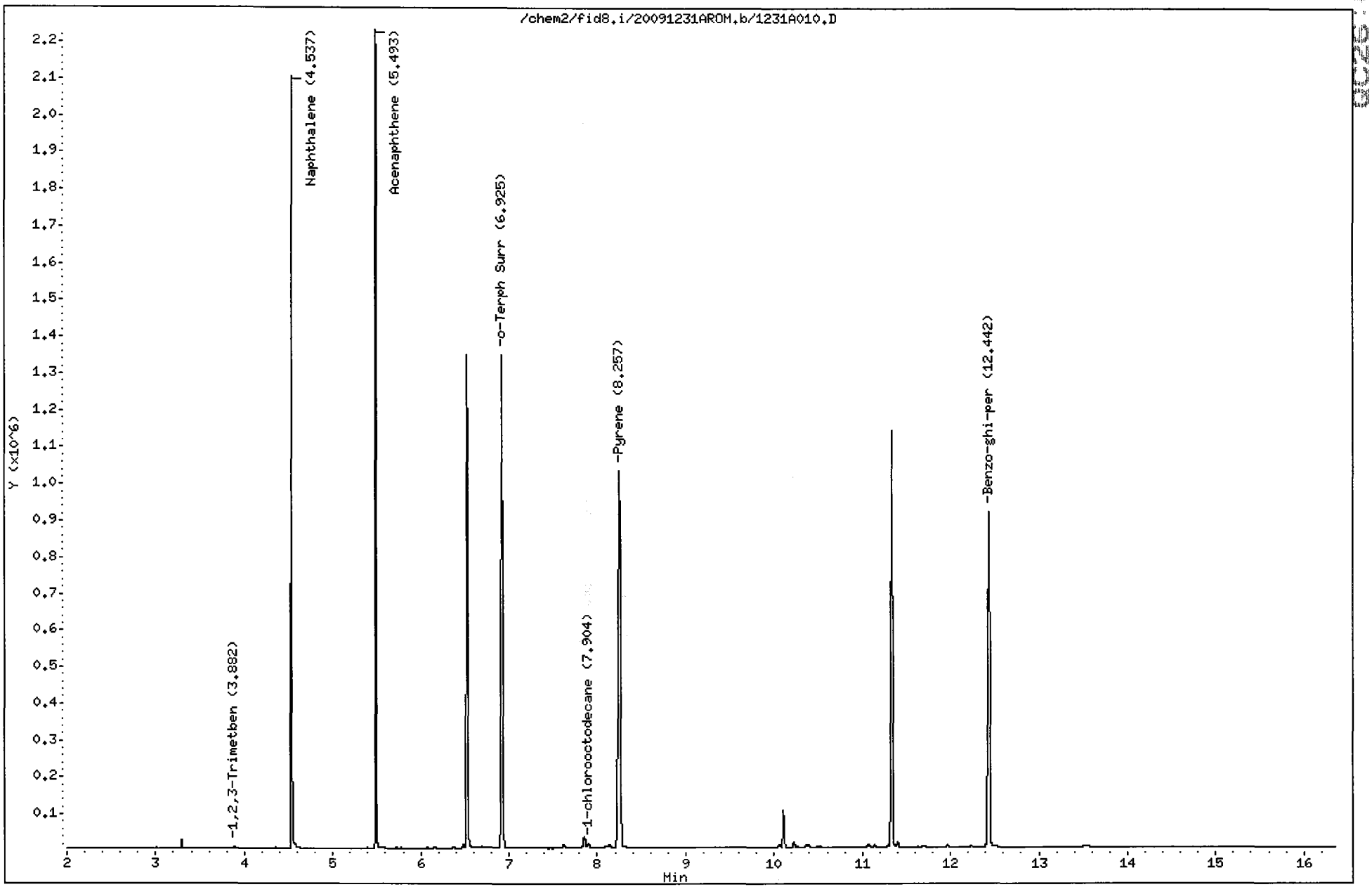
Column phase:

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

QC26 00139



EPH Analysis
Extraction Bench Sheets/Run Logs

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

EPH – Soil / Sediment (circled)
Sonication (3550B) (SOP # 398S)

In-House

Preparation Test EPH # 1
ARI JOB No(s) QC26
Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD	Turbo Vap (1) 2 3	Fractionate Aromatic/Aliphatic	Turbo Vap (1) 2 3	Final Effective Vol AR	Final Effective Vol AL	Volume to Lab AR	Volume to Lab AL	Comments
	QC26 MBS	Date 12-28-09	10.00g	↓	↓	↓		1mL	1mL	1mL	1mL	
	↓ SBS	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
8	A	↓	10.35g									
↓	AMS	verified	10.45g									
↓	AMSD	↓	10.47g									
6	B		10.05g									
6	C		10.25g									
3	D		10.37g									
6	E		10.13g				↓	↓	↓	↓	↓	
6	↓ F	↓	10.16g	↓	↓	↓						
Analyst/Date:	PD 12-28-09			KD 12/29/09	WW 12/29/09	WW 12/29/09	JAH 12/30/09 →					

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**M**	**100μL**	9/17/10	PD	WP 12/28/09
Spike	**5**	**100μL**	1/27/10	PD	WP 12/28/09

Extraction Time: 9:15

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Add surr/spk. 3. Extract 3X with DCM. 4. Collect into KD with small funnel and pre-rinsed neutral glasswool NO SODIUM SULFATE. 5. KD to 1mL at 80°C. 6. Exchange with 30mL 90:10 Pentane/Hexane. 7. KD to 1mL at 100°C. 8. Let Cool: After cooling: volume should be 5mL 9. TurboVap to 2mL 10. Fractionate Aromatic/Aliphatic-collect each fractions extract into (2) Turbo Tubes. 11. TurboVap to 1mL. 12. Vial both fractions in DCM.

~~A.~~ **Need Total Solids Y / N** (circled) ~~B. Archive~~/**Freeze Y / N** (circled)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: QC26 Client ID: Anchor QEA

Parameter: EPH Client Project: Baywood

SOP Number(s): 3985 **No Anomalies:**

List problems, concerns, corrective actions and any other pertinent information

Analyst Initials:		**Date:**	

056F

Revision 006
1/12/07

Analytical Resources Inc.: Organics Instrument Log

FID-8 Agilent 6890N - Serial No.: US10138016

Date: 12/14/09 Analysis: EPH(AR/AL) Analyst: MP

GC Program: EPH Column No: 122189 Column Type: ZBJ

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 12/14/09

IS/SS

Ical/Ccal

1621-3
1687-1
1635-3
1687-2

LCS/ICV

me	Filename	LabID	ClientId	DF	
.02	1214A001.D	AL IB		1	NC
126	1214A002.D	ALIPHATIC#1		1	N
141	1214A005.D	ALIPHATIC#1		1	N
506	1214A006.D	AL IB		1	NC
531	1214A007.D	QA61A AL		1	NC
556	1214A008.D	QA61B AL		1	NC
621	1214A009.D	QA61C AL		1	NC
826	1214A014.D	ALIPHATIC#2		1	N
.851	1214A015.D	AL IB		1	N
1917	1214A016.D	AL IB		1	N
1942	1214A017.D	ALIPH 20	ALIPH 20	1	N
2007	1214A018.D	ALIPH 50	ALIPH 50	1	N
2032	1214A019.D	ALIPH 100	ALIPH 100	1	N
2057	1214A020.D	ALIPH 150	ALIPH 150	1	N
2121	1214A021.D	ALIPH 200	ALIPH 200	1	N
2146	1214A022.D	ALIPH ICV		1	N
0130	1214A031.D	ALIPH#1		1	N
0220	1214A033.D	QA61A		20	N
0245	1214A034.D	QA61B AL		1	N
0310	1214A035.D	QA61C AL		1	N
0335	1214A036.D	QA61LCSS1 AL		1	
0400	1214A037.D	QA61LCSDS1 AL		1	

Mis

	Time	Filename	LabID	ClientId	DF
23	0424	1214A038.D	QA61MBS1 AL		1
24	0719	1214A045.D	ALIPH#2		1

Mis

	Time	Filename	LabID	ClientId	DF	
1	1351	1214A003.D	AROM IB		1	
2	1416	1214A004.D	AROMATIC#1		1	
3	1646	1214A010.D	QA61A AR		1	
4	1711	1214A011.D	QA61B AR		1	
5	1736	1214A012.D	QA61C AR		1	N
6	1801	1214A013.D	AROMATIC#2		1	N
7	2211	1214A023.D	AROM IB		1	N
8	2236	1214A024.D	AROM IB		1	N
9	2301	1214A025.D	AROM 20	AROM 20	1	N
10	2326	1214A026.D	AROM 50	AROM 50	1	N
11	2351	1214A027.D	AROM 100	AROM 100	1	N
12	0016	1214A028.D	AROM 150	AROM 150	1	N
13	0041	1214A029.D	AROM 200	AROM 200	1	N
14	0106	1214A030.D	AROM ICV		1	N
15	0155	1214A032.D	AROM#1		1	N
16	0449	1214A039.D	QA61A AR		1	N
17	0514	1214A040.D	QA61B AR		1	N
18	0539	1214A041.D	QA61C AR		1	N
19	0604	1214A042.D	QA61LCSS1 AR		1	
20	0629	1214A043.D	QA61LCSDS1 AR		1	
21	0654	1214A044.D	QA61MBS1 AR		1	
22	0744	1214A046.D	AROM#2		1	

MP

Maintenance / Comments New Curve Mixes made from a new supplier - Ultra.

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: ALIPHATICS CURVE Client ID: APF

ARI SOP: **403S(PCB)** **405S(Herbicides)** **407S(TPH-D)** **409S(HCID)** **423S(Pesticides)** **Other** EPH

Parameter(s): Aliphatics, 2-chloro-octadecane

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 (FID-8)
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/4/09 Analysis Start: 12/4/09

Endrin/DDT Breakdown <15%? YES / NO / (NA) Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? (YES) / NO LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria (YES) / NO Surrogate Recovery In Control? (YES) / NO

Internal Standard Meets Criteria? YES / NO / (NA) Special Analysis Criteria Met? YES / NO / (NA)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / (No)

Analyst Signature: MP **Date:** 12/21/09

Reviewer's Signature: [signature] **Date:** 12/21/09

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: AROMATICS CORE Client ID: ARI

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other** ~~FID~~ EPH

Parameter(s): AROMATICS, o-TERPHENYL

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 FID-8
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/14/09 Analysis Start: 12/14/09

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria YES / NO Surrogate Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst Signature: MO **Date:** 12/21/09

Reviewer's Signature: [illegible] **Date:** 12/21/09

Analytical Resources Inc.: Organics Instrument Log

FID-8 Agilent 6890N - Serial No.: US10138016

Date: 12/31/09 Analysis: EPH (AR/AL) Analyst: MP

GC Program: EP11 Column No: 12218 Column Type: 7B-5

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 12/14/09

IS/SS

Ical/Ccal

1621-3
1687-1
1635-3
1687-2

LCS/ICV

	Time	Filename	LabID	ClientId	DF
1	1455	1231A017.D	RINSE		1
2	1520	1231A018.D	ALIPH IB		1
3	1545	1231A019.D	ALIPHATICS#1		1
4	1609	1231A020.D	QC26MBS1		1
5	1634	1231A021.D	QC26LCSS1		1
6	1658	1231A022.D	QC26A		1
7	1723	1231A023.D	QC26AMS		1
8	1747	1231A024.D	QC26AMSD		1
9	1812	1231A025.D	QC26B		1
10	1836	1231A026.D	QC26C		1
11	1900	1231A027.D	QC26D		1
12	1925	1231A028.D	QC26E		1
13	1949	1231A029.D	QC26F		1
14	2013	1231A030.D	ALIPHATICS#2		1

	Time	Filename	LabID	ClientId	DF
1	0821	1231A001.D	RINSE		1
2	0846	1231A002.D	RINSE		1
3	0910	1231A003.D	RINSE		1
4	0935	1231A004.D	AROM IB		1
5	1000	1231A005.D	AROMATICS#1		1
6	1024	1231A006.D	QC26MBS1		1
7	1049	1231A007.D	QC26LCSS1		1
8	1113	1231A008.D	QC26A		1
9	1138	1231A009.D	QC26AMS		1
10	1203	1231A010.D	QC26AMSD		1
11	1227	1231A011.D	QC26B		1
12	1252	1231A012.D	QC26C		1
13	1317	1231A013.D	QC26D		1
14	1341	1231A014.D	QC26E		1
15	1406	1231A015.D	QC26F		1
16	1431	1231A016.D	AROMATICS#2		1

12/31/09

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC per

Analytical Resources Inc.: Organics Instrument Log

FID-8 Agilent 6890N - Serial No.: US10138016

Date: 1/5/09 Analysis: EPH(AR/AL) Analyst: MO

GC Program: EPH Column No: 122189 Column Type: ZB-5

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 12/14/09

IS/SS	Ical/Ccal	LCS/ICV
	1621-3 1689-1 1635-3 1682-2	

	Time	Filename	LabID	ClientId	DF
1	1243	0105A001.D	RINSE		1
2	1308	0105A002.D	ALIPHATIC IB		1
3	1333	0105A003.D	ALIPHATIC#1		1
4	1358	0105A004.D	OC26MBS1		1
5	1423	0105A005.D	OC26LCSS1		1
6	1448	0105A006.D	OC26A		1
7	1513	0105A007.D	OC26AMS		1
8	1538	0105A008.D	OC26AMSD		1
9	1603	0105A009.D	OC26B		1
10	1629	0105A010.D	OC26C		1
11	1654	0105A011.D	OC26D		1
12	1719	0105A012.D	OC26E		1
13	1744	0105A013.D	OC26F		1
14	1809	0105A014.D	ALIPHATIC#2		1

MS 1/6/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: QC26 Client ID: BAYWOOD- ANCHOR QEA

ARI SOP: **403S**(PCB) **405S**(Herbicides) **407S**(TPH-D) **409S**(HCID) **423S**(Pesticides) **Other** EPH

Parameter(s): AROMATICS, ALIPHATICS, TEPH, 2-CHLORO-OT

Instrument: FID-3A FID-3B FID-4A FID-4B FID-7 (FID-8)
ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 12/14/09 Analysis Start: 12/31/09

Endrin/DDT Breakdown <15%? YES / NO / (NA) Method Blank In Control? (YES) / NO

ICal Meets RF & %RSD Criteria? (YES) / NO LCS/LCSD Recovery In Control? (YES) / NO

CCal Meets RF & %RSD Criteria (YES) / NO Surrogate Recovery In Control? (YES) / NO

Internal Standard Meets Criteria? YES / NO / (NA) Special Analysis Criteria Met? YES / NO / (NA)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / (No)

Analyst Signature: M.R. **Date:** 1/6/10

Reviewer's Signature: [signature] **Date:** 1/6/10

General Chemistry Analysis
QC Summary Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

METHOD BLANK RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	12/23/09	Percent	< 0.01 U
Preserved Total Solids	12/23/09	Percent	< 0.01 U
N-Ammonia	12/21/09	mg-N/kg	< 0.10 U
Sulfide	12/22/09	mg/kg	< 1.00 U
Total Organic Carbon	01/05/10	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	12/22/09	mg/kg	5.08	5.66	89.8%
Total Organic Carbon Plumb,1981	ICVL	01/05/10	Percent	0.101	0.100	101.0%

QC26 : 00451

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia SPEX 28-24AS	12/21/09	mg-N/kg	99.1	100	99.1%
Total Organic Carbon NIST #8704	01/05/10	Percent	3.18	3.35	94.9%

REPLICATE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QC26A Client ID: BW-05-SS-091218					
Total Solids	12/23/09	Percent	62.80	62.90 62.40	0.4%
Preserved Total Solids	12/23/09	Percent	55.90	56.00	0.2%
N-Ammonia	12/21/09	mg-N/kg	4.07	3.93 3.93	2.0%
Sulfide	12/22/09	mg/kg	23.2	33.8	37.2%
Total Organic Carbon	01/05/10	Percent	1.64	1.89 1.56	10.1%

QC26 : 00453

MS/MSD RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QC26A Client ID: BW-05-SS-091218						
N-Ammonia	12/21/09	mg-N/kg	4.07	149	151	96.2%
N-Ammonia	12/21/09	mg-N/kg	4.07	136	142	93.0%
Sulfide	12/22/09	mg/kg	23.2	216	206	93.6%
Total Organic Carbon	01/05/10	Percent	1.64	4.08	2.13	114.7%

General Chemistry Analysis
Sample Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-05-SS-091218
ARI ID: 09-31261 QC26A

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	62.80
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.16	4.07
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	1.81	23.2
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	1.64

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-01-SS-091218
ARI ID: 09-31262 QC26B

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.80
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.70
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.21	4.96
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	11.5	116
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.55

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-04-SS-091218
ARI ID: 09-31263 QC26C

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	46.60
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	45.40
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.21	3.04
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	4.47	39.6
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.08

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-51-SS-091218
ARI ID: 09-31264 QC26D

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.80
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.18

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-07-SS-091218
ARI ID: 09-31265 QC26E

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.60
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	62.70
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.18	6.54
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	7.96	49.0
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.44

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC26-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/06/10

Project: BAYWOOD
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-11-SS-091218
ARI ID: 09-31266 QC26F

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	46.80
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	44.70
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.21	6.35
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	4.47	56.8
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.02

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

General Chemistry Analysis
Instrument Raw Data

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

JA 12-28-09

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET
SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/2009
ANALYST: CDE 20:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597
Muffle Furnace: N/A

Batch drying time		
record times as mm/dd/yy hh:mm		
12/23/2009 20:29	date/time in oven	CDE
12/24/2009 10:37	date/time out	CDE
elapsed hrs =	14.1	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

ZnOAc Preserved

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID		CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
Date & Time		12/23/09 19:56	12/23/09 19:34	12/24/09 10:53									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank		0.0000	1.1249	1.1247			0.00							
QC26 A4		6.5728	1.1145	4.1684			3.05	**55.9%**						
QC26 A4 dup		6.4556	1.1325	4.1116			2.98	**56.0%**						
							RPD =	0.03%				RPD =	NA	
QC26 B4		6.9140	1.1063	3.6441			2.54	**43.7%**						
QC26 C4		6.8526	1.1283	3.7284			2.60	**45.4%**						
QC26 E4		6.2555	1.1353	4.3452			3.21	**62.7%**						
QC26 F4		6.8759	1.1241	3.6930			2.57	**44.7%**						
QC29 B1		6.3158	1.1334	3.3585			2.23	**42.9%**						
QC29 C1		6.9460	1.1097	4.5792			3.47	**59.4%**						
QC29 D1		6.3319	1.1354	3.4800			2.34	**45.1%**						
QC29 E1		6.5055	1.1234	3.4372			2.31	**43.0%**						
QC29 H1		6.8266	1.1440	4.0135			2.87	**50.5%**						
QC29 I 1		6.4627	1.1302	4.2024			3.07	**57.6%**						
QC29 L1		6.1028	1.1189	4.1558			3.04	**60.9%**						
QC29 M1		6.2439	1.1118	3.5694			2.46	**47.9%**						
QC29 Q1		6.5622	1.1318	4.1467			3.01	**55.5%**						
QC29 R1		6.7382	1.1669	4.9647			3.80	**68.2%**						

Rev : 6/29/2009 *Page 1 of 1* *DEC 23 (B) 2009 TS-TVS soil ZnOAc*

(B)

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/9 CDS 20:29
ANALYST: CDS

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm 12/23/9 CDS time in oven 20:29 12/24/9 CDS time out 10:37 elapsed hrs = 0.0 < 12 hr	Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt)/ (grams Sample-Tare) ZnOAc Preserved	Final ash wt (g) = (min ash wt - tare wt) TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000 if ash wt > dry wt, "Chk for Err" if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Cal Weight ID	CV-02	CV-02	CV-02					CV-02	CV-02			
Date & Time	12/23/9 CDS	12/23/9 CDS	12/24/9 CDS									
Cal Wt (g) 10.0000	10.0000	10.0000										
record weights to 4 places	19:56	19:34										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank	22	Ø	1.1249	1.1247										
QC26 A4	23	6.5728	1.1145	4.1684										
DP A4	24	6.4556	1.1325	4.1116										
B4	25	6.9140	1.1063	3.6441										
C4	26	6.8526	1.1283	3.7284										
E4	27	6.2555	1.1353	4.3452										
F4	28	6.8759	1.1241	3.6930										
QC29 B1	29	6.3158	1.1334	3.3585										
C1	30	6.9460	1.1097	4.5792										
D1	31	6.3319	1.1354	3.4800										
E1	32	6.5055	1.1234	3.4372										
H1	33	6.8266	1.1440	4.0135										
I1	34	6.4627	1.1302	4.2024										
L1	35	6.1028	1.1189	4.1558										
M1	36	6.2439	1.1118	3.5694										
Q1	37	6.5622	1.1318	4.1467										
R1	38	6.7382	1.1669	4.9647										

12/23/9 CDS

ARI 6053 TS/TVS, Soils
Rev : 12/14/2001

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6053 TS-TVS soil rev1
Date Printed: 5/29/2009

12-28-09

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 12/23/2009

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: CDE 18:58

Instrumentation

Drying Ovens: 12

Muffle Furnace: N/A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

12/23/2009 18:58 date/time in oven CDE

12/24/2009 12:22 date/time out CDE

elapsed hrs = 17.4

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time	12/23/09 16:12	12/22/09 13:14	12/24/09 12:39									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	**TS (%)**	ASH WT 550C (grams) 1	2		Ash Wt (g)	**TVS (mg/kg)**	**(%)**
Blank		0.0000	1.1231	1.1229			0.00							
QC26 A6		6.7101	1.1275	4.6329			3.51	**62.8%**						
QC26 A6 dup		6.4920	1.1259	4.5038			3.38	**62.9%**						
							RPD =	0.25%				RPD =	NA	
QC26 A6 trp		6.4359	1.1210	4.4355			3.31	**62.4%**						
							RSD =	0.48%				RSD =	NA	
QC26 B3		6.4198	1.1198	3.4392			2.32	**43.8%**						
QC26 C3		6.6718	1.1442	3.7224			2.58	**46.6%**						
QC26 D2		6.8528	1.1313	3.6382			2.51	**43.8%**						
QC26 E3		6.2607	1.1526	3.9926			2.84	**55.6%**						
QC26 F3		6.2142	1.1571	3.5236			2.37	**46.8%**						
QC29 B3		7.0451	1.1194	3.9581			2.84	**47.9%**						
QC29 C2		7.2202	1.1384	4.6959			3.56	**58.5%**						
QC29 D2		6.6448	1.1258	3.7215			2.60	**47.0%**						
QC29 E2		6.6947	1.1247	3.5247			2.40	**43.1%**						
QC29 H2		6.9932	1.1264	4.0703			2.94	**50.2%**						
QC29 I 2		5.9954	1.1214	3.7965			2.68	**54.9%**						
QC29 L2		6.5222	1.1522	4.4280			3.28	**61.0%**						
QC29 M2		6.3258	1.1263	3.9975			2.87	**55.2%**						
QC29 Q2		6.7922	1.1444	4.5129			3.37	**59.6%**						
QC29 R2		7.1068	1.1198	4.9958			3.88	**64.7%**						
QC29 U2		6.5932	1.1218	4.2771			3.16	**57.7%**						

(B)

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/9 COL 18:58

ANALYST: COL

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm	Final dry wt (g) = (Dry Wt - Tare Wt)	Final ash wt (g) = (min ash wt - tare wt)
12/23/9 COL time in oven 18:58	TS = (Final Dry Wt)/ (grams Sample-Tare)	TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000
12/24/9 COL time out 12:22		if ash wt > dry wt, "Chk for Err"
elapsed hrs = 0.0 < 12 hr		if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Cal Weight ID	CV-02	CV-02	CV-02					CV-02	CV-02					
Date & Time	12/23/9 COL	12/22/9 COL	12/24/9 COL											
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000											
record weights to 4 places	16:12	13:14	12:39											

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank	77	0	1.1231	1.1229										
QC26 A6	78	6.7101	1.1275	4.6329										
BP A6	79	6.4920	1.1259	4.5038										
TP A6	80	6.4359	1.1210	4.4355										
B3	81	6.4198	1.1198	3.4392										
C3	82	6.6718	1.1442	3.7224										
D2	83	6.8528	1.1313	3.6382										
E3	84	6.8607	1.1526	3.9926										
F3	85	6.2142	1.1571	3.5236										
QC29 B3	86	7.0451	1.1194	3.9581										
C2	87	7.2202	1.1384	4.6959										
D2	88	6.6448	1.1258	3.7215										
E2	89	6.6947	1.1247	3.5247										
H2	90	6.9932	1.1264	4.0703										
I2	91	5.9954	1.1214	3.7965										
L2	92	6.5222	1.1522	4.4280										
M2	93	6.3258	1.1263	3.9975										
Q2	94	6.7922	1.1444	4.5129										
R2	95	7.1068	1.1198	4.9958										
U1	96	6.5932	1.1218	4.2771										
				12/22/9 COL										

000288

12-29-09

TOC Solids Prep Log

DATE: 12/23/2009

ANALYST: CDE 19:08

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	Sample description & notes
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	(homogeneity and exclusions)
Blank			12.8133	0.0000	12.8133	0 mg	
QC15 A1		-	12.9061	18.7175	15.5886	46.16%	
QC15 B1		-	12.9425	18.0891	15.4357	48.44%	
QC15 C1		-	12.8876	18.3139	15.5903	49.81%	
QC15 D1		-	12.9331	18.7793	15.7728	48.57%	
QC15 D1 DUP		-	12.8854	18.1158	15.4327	48.70%	
QC15 D1 TRIP		-	12.9122	19.0051	15.9712	50.21%	
QC15 E1		-	12.9474	18.6866	16.0191	53.52%	
QC15 F1		+-	12.9044	18.3414	16.5053	66.23%	
QC15 G1		-	12.8890	18.7234	17.0380	71.11%	
QC15 H1		-	12.9114	18.8327	16.9321	67.90%	
QC15 I 1		-	12.8843	19.0427	16.3630	56.49%	
QC15 J1		-	12.9199	18.4744	16.3047	60.94%	
QC15 K1		-	12.9641	18.8812	17.0888	69.71%	
QC15 L1		-	12.8249	18.5928	16.4189	62.31%	
QC19 A1		-	12.9023	18.3282	16.7766	71.40%	
QC19 B1		-	12.9009	19.4069	17.0712	64.10%	
QC19 C1		-	12.8446	18.6725	15.6336	47.86%	
QC19 D1		-	12.8773	19.3713	18.0308	79.36%	
QC19 E1		-	12.8581	18.7060	16.4540	61.49%	
QC19 G1		-	12.8872	19.2166	15.8894	47.43%	
Blank		-	12.8913	0.0000	12.8913	0 mg	
QC26 A6		-	12.8806	19.6906	17.2478	64.13%	
QC26 A6 DUP		-	12.9049	18.5596	16.5736	64.88%	
QC26 A6 TRIP		-	12.9233	19.9444	17.4683	64.73%	
QC26 B3		-	12.8791	19.2413	15.7691	45.42%	
QC26 C3		-	12.9038	18.7562	15.7789	49.13%	
QC26 D2		-	12.8691	18.7407	15.5103	44.98%	
QC26 E3		-	12.8908	17.9514	15.8496	58.47%	
QC26 F3		-	12.8659	18.1827	15.4726	49.03%	
QC29 B3		-	12.8717	19.6302	16.2737	50.34%	
QC29 C2		-	12.9067	19.2532	16.8400	61.98%	
QC29 D2		-	12.8890	18.3089	15.5526	49.14%	
QC29 E2		-	12.8161	17.9086	15.1462	45.76%	
QC29 H2		-	12.8946	19.1166	16.1172	51.79%	
QC29 I 2		-	12.8932	18.7027	16.0554	54.43%	
QC29 L2		-	12.9173	19.3870	17.3175	68.01%	
QC29 M2		-	12.8883	18.6732	16.3109	59.16%	
QC29 Q2		-	12.9252	18.8253	16.5860	62.05%	
QC29 R2		-	12.9032	17.9862	16.3439	67.69%	
QC29 U1		-	12.8277	19.3422	16.8197	61.28%	

① 12/28/9 cmc

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMC Date 12/23/9 19:08

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			12.8133	Ø	12.8133		
QC15 A1		—	12.9061	18.7175	15.5886		decomp. Organics
B1		—	12.9425	18.0891	~~15.4357~~ ①	15.4357	↓
C1		—	12.8876	18.3139	15.5903		
D1		—	12.9331	18.7793	15.7728		
DP D1		—	12.8854	18.1158	15.4327		
TP D1		—	12.9122	19.0051	15.9712		↓
E1		—	12.9474	18.6866	~~16.0191~~ ①	16.0191	+ silt & sand
F1		+—	12.9044	18.3414	16.5053		Silt & Sand in water
G1		-	12.8890	18.7234	17.0380		↓ + Some Rocks
H1		-	12.9114	18.8327	16.9321		silt & water
I1		-	12.8843	19.0427	16.3630		↓ + decomp. Organics
J1		-	12.9199	18.4744	16.3047		Sed
K1		-	12.9641	18.8812	17.0889		Silt & Sed
L1		-	12.8249	18.5928	16.4189		clayish sed w/ Rocks
QC19 A1		-	12.9023	18.3282	16.7766		Sandy silt & water
B1		-	12.9009	19.4069	17.0712		↓
C1		-	12.8446	18.6725	15.6336		decomp. Organics
D1		-	12.8773	19.3713	18.0308		Sand & water
E1		-	12.8581	18.7060	16.4540		Silt
G1		-	12.8872	19.2166	15.8894		decomp organics
Blank			12.8913	Ø	12.8913		
QC26 A6		-	12.8806	19.6906	17.2478		Sand & silt
DP A6		-	12.9049	18.5596	16.5736		↓
TP A6		-	12.9233	19.9444	17.4683		
B3		-	12.8791	19.2413	15.7691		organic sed.
C3		-	12.9038	18.7562	15.7789		
D2		-	12.8691	18.7407	15.5103		↓
E3		-	12.8908	17.9514	15.8496		
F3		-	12.8659	18.1827	15.4726		

QC26 : 00468

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst Court Date 12/2

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank							
QC29B[3]		~	12.8717	19.6302	16.2737		soily muck w/wood
C[2]		~	12.9067	19.2532	16.8400		V + dark
D[2]		~	12.8890	18.3089	15.5526		seed.
E[2]		~	12.8161	17.9086	15.1462		soily muck w/wood
H[2]		~	12.8946	19.1166	16.1172		seed & organics
I[2]		~	12.8932	18.7027	16.0554		soily muck w seed
L[2]		~	12.9173	19.3870	17.3175		clay like seed
M[2]		~	12.8883	18.6732	16.3109		
Q[2]		~	12.9252	18.8253	16.5860		
R[2]		~	12.9032	17.9862	16.3439		
U[1]		~	12.8277	19.3422	16.8197		

12/22/09 CWC

Original Run Filename: OM_12-23-2009_09-32-20AM.OMN Created: 12/23/2009 9:32:20 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 122309NH3A1.omn Last Modified: 12/23/2009 12:27:01 PM
Description: LACHAT 1
Standards made from ARI Stock#: 0096-04

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MANUAL DILUTION FACTOR	
STD 1.0	S1	1	37.0313	12/23/2009@9:33:20 AM		
STD 0.8	S2	0.8	29.6220	12/23/2009@9:34:30 AM		
STD 0.5	S3	0.5	18.3314	12/23/2009@9:35:41 AM		
STD 0.2	S4	0.2	7.2792	12/23/2009@9:36:50 AM		
STD 0.05	S5	0.05	1.7344	12/23/2009@9:38:01 AM		
STD 0.02	S6	0.02	0.6776	12/23/2009@9:39:11 AM		
STD 0.01	S7	0.01	0.4355	12/23/2009@9:40:22 AM		
BLANK	S8	0	-0.3503	12/23/2009@9:41:32 AM		
ICV ERA 190109	9	0.525	19.3668	12/23/2009@9:42:43 AM		%R= 105.00
Known Conc:		0.5				
Calibration:		Table/Fig. : 1				
ICB	10	-0.0054	-0.3371	12/23/2009@9:48:38 AM		
Known Conc:		0				
~~LOW~~	~~11~~	~~0.0053~~	~~0.0627~~	~~12/23/2009@9:54:35 AM~~	-	
Known Conc:		0.01				
~~PREP BLANK~~	~~12~~	~~0.4939~~	~~18.2123~~	~~12/23/2009@10:00:52 AM~~	-	
PREP BLANK	11	0.0046	0.0377	12/23/2009@10:02:03 AM		
PREP CHECK @10ppm	12	9.9065	18.2651	12/23/2009@10:03:14 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 99.07
QC24 A3	13	1.3276	24.5231	12/23/2009@10:04:25 AM	2.0000	
QC24 A3 DUP	14	1.2366	22.8328	12/23/2009@10:05:35 AM	2.0000	%RPD= 7.10
QC24 A3 TRIP	15	1.2182	22.4909	12/23/2009@10:06:46 AM	2.0000	%RPD= 1.50

QC24 A3 MS	16	10.2761	18.9515	12/23/2009@10:07:57 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 89.49
QC24 A3 MSD	19	10.5445	19.4501	12/23/2009@10:09:07 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 92.17
LOW	60	0.0137	0.3740	12/23/2009@10:10:19 AM		%R= 137.00
Known Conc:		0.01				
CCV	17	0.5253	19.3774	12/23/2009@10:16:15 AM		%R= 105.06
Known Conc:		0.5				
CCB	18	0.0029	-0.0275	12/23/2009@10:22:12 AM		
Known Conc:		0				
QC24 B3	20	0.6944	25.6589	12/23/2009@10:28:09 AM		
QC24 C3	21	0.597	22.0406	12/23/2009@10:29:20 AM		
~~QC24 D3~~	~~22~~	~~1.0339~~	~~38.2734~~	~~12/23/2009@10:30:31 AM~~	-	
~~QC24 E3~~	~~23~~	~~1.0005~~	~~37.0320~~	~~12/23/2009@10:31:42 AM~~	-	
~~QC24 F3~~	~~24~~	~~1.4286~~	~~52.9339~~	~~12/23/2009@10:32:53 AM~~	-	
~~QC24 G3~~	~~25~~	~~1.8692~~	~~69.3001~~	~~12/23/2009@10:34:03 AM~~	-	
~~QC24 H3~~	~~26~~	~~1.4293~~	~~52.9594~~	~~12/23/2009@10:35:15 AM~~	-	
~~QC24 I3~~	~~27~~	~~1.8542~~	~~68.7445~~	~~12/23/2009@10:36:27 AM~~	-	
~~QC24 J3~~	~~28~~	~~2.1505~~	~~79.7495~~	~~12/23/2009@10:37:38 AM~~	-	
~~QC24 K3~~	~~29~~	~~2.0865~~	~~77.3744~~	~~12/23/2009@10:38:49 AM~~	-	
CCV	17	0.5247	19.3553	12/23/2009@10:40:00 AM		%R= 104.94
Known Conc:		0.5				
CCB	18	-0.0044	-0.2989	12/23/2009@10:45:56 AM		
Known Conc:		0				
~~QC24 L3~~	~~30~~	~~1.5467~~	~~57.3192~~	~~12/23/2009@10:51:53 AM~~	-	
QC24 M2	31	0.5997	22.1437	12/23/2009@10:53:05 AM		
QC26A6	32	0.2559	9.3722	12/23/2009@10:54:16 AM		
QC26A6 DUP	33	0.2636	9.6556	12/23/2009@10:55:28 AM		%RPD= 2.96
QC26A6 TRP	34	0.2491	9.1170	12/23/2009@10:56:39 AM		%RPD= 5.66

QC26A6 MS	35	9.8857	18.2264	12/23/2009@10:57:49 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 96.30
QC26A6 MSD	36	9.5945	17.6856	12/23/2009@10:59:01 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 93.39
QC26B3	37	0.2311	8.4505	12/23/2009@11:00:13 AM		
QC26C3	38	0.1484	5.3768	12/23/2009@11:01:25 AM		
Not Requested QC26D2	39	0.3803	13.9915	12/23/2009@11:02:36 AM		
CCV	17	0.5302	19.5606	12/23/2009@11:03:47 AM		%R= 106.04
Known Conc:		0.5				
CCB	18	-0.0041	-0.2859	12/23/2009@11:09:43 AM		
Known Conc:		0				
QC26E3	40	0.3693	13.5822	12/23/2009@11:15:40 AM		
QC26F3	41	0.3092	11.3527	12/23/2009@11:16:53 AM		
QC29B3	42	0.4841	17.8500	12/23/2009@11:18:04 AM		
~~QC29C2~~	~~43~~	~~1.0857~~	~~40.1947~~	~~12/23/2009@11:19:16 AM~~	-	
QC29D2	44	0.7642	28.2529	12/23/2009@11:20:28 AM		
QC29E2	45	0.9646	35.6961	12/23/2009@11:21:39 AM		
QC29H2	46	0.6853	25.3229	12/23/2009@11:22:51 AM		
~~QC29I2~~	~~47~~	~~1.7381~~	~~64.4315~~	~~12/23/2009@11:24:03 AM~~	-	
~~QC29L2~~	~~48~~	~~4.4641~~	~~165.6930~~	~~12/23/2009@11:25:14 AM~~	-	
~~QC29M2~~	~~49~~	~~2.8805~~	~~106.8680~~	~~12/23/2009@11:26:26 AM~~	-	
CCV	17	0.527	19.4430	12/23/2009@11:27:38 AM		%R= 105.40
Known Conc:		0.5				
CCB	18	-0.003	-0.2472	12/23/2009@11:33:34 AM		
Known Conc:		0				
~~QC29O2~~	~~50~~	~~1.139~~	~~42.1768~~	~~12/23/2009@11:39:32 AM~~	-	

~~QC29R2~~	~~51~~	~~3.5245~~	~~130.7901~~	~~12/23/2009@11:40:45 AM~~	-
~~QC29U1~~	~~52~~	~~1.2226~~	~~45.2828~~	~~12/23/2009@11:41:56 AM~~	-
QC24D3	53	1.0516	19.3978	12/23/2009@11:43:09 AM	2.0000
QC24E3	54	1.0185	18.7817	12/23/2009@11:44:20 AM	2.0000
QC24F3	55	1.4896	10.9320	12/23/2009@11:45:33 AM	5.0000
QC24G3	56	1.9789	14.5675	12/23/2009@11:46:44 AM	5.0000
QC24H3	57	1.4709	27.1848	12/23/2009@11:47:57 AM	2.0000
QC24I3	58	1.9539	14.3818	12/23/2009@11:49:09 AM	5.0000
QC24J3	59	2.2685	16.7188	12/23/2009@11:50:21 AM	5.0000
CCV	17	0.5264	19.4195	12/23/2009@11:51:32 AM	
Known Conc:		0.5			
CCB	18	-0.0041	-0.2874	12/23/2009@11:57:28 AM	
Known Conc:		0			
QC24K3	60	2.1974	16.1906	12/23/2009@12:03:26 PM	5.0000
QC24L3	1	1.6187	11.8912	12/23/2009@12:04:37 PM	5.0000
QC29C2	2	1.0999	20.2939	12/23/2009@12:05:48 PM	2.0000
QC29I2	3	1.9395	14.2748	12/23/2009@12:06:57 PM	5.0000
QC29L2	4	5.1597	19.0319	12/23/2009@12:08:08 PM	10.0000
QC29M2	5	3.0754	22.7134	12/23/2009@12:09:17 PM	5.0000
QC29Q2	6	1.1535	21.2900	12/23/2009@12:10:28 PM	2.0000
QC29R2	7	3.8473	28.4483	12/23/2009@12:11:40 PM	5.0000
QC29U2	8	1.241	22.9159	12/23/2009@12:12:49 PM	2.0000
~~Sample78~~	~~9~~	~~0.0112~~	~~0.2817~~	~~12/23/2009@12:14:00 PM~~	-
CCV	17	0.5294	19.5319	12/23/2009@12:15:11 PM	
Known Conc:		0.5			
CCB	18	-0.0038	-0.2753	12/23/2009@12:21:07 PM	
Known Conc:		0			

%R= 105.28

%R= 105.88

Author: Doritza Rosado

Date : 12/23/2009

Original Run Filename: OM_12-23-2009_09-32-20AM.OMN Created: 12/23/2009 9:32:20 AM
Original Run Author's Signature: [Doritza Rosado]
Current Run Filename: 122309NH3A1.omn Last Modified: 12/23/2009 12:27:01 PM
Current Run Author's Signature: [Doritza Rosado]
Description: Default New Run

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	37.0313	12/23/2009@9:33:20 AM	
STD 0.8	S2	0.8000	29.6220	12/23/2009@9:34:30 AM	
STD 0.5	S3	0.5000	18.3314	12/23/2009@9:35:41 AM	
STD 0.2	S4	0.2000	7.2792	12/23/2009@9:36:50 AM	
STD 0.05	S5	0.0500	1.7344	12/23/2009@9:38:01 AM	
STD 0.02	S6	0.0200	0.6776	12/23/2009@9:39:11 AM	
STD 0.01	S7	0.0100	0.4355	12/23/2009@9:40:22 AM	
BLANK	S8	0.0000	-0.3503	12/23/2009@9:41:32 AM	
ICV	9	0.5250	19.3668	12/23/2009@9:42:43 AM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0054	-0.3371	12/23/2009@9:48:38 AM	
Known Conc:		0.0000			
LOW	11	0.0053	0.0627	12/23/2009@9:54:35 AM	
Known Conc:		0.0100			
PREP BLANK	12	0.4939	18.2123	12/23/2009@10:00:52 AM	
PREP BLANK	11	0.0046	0.0377	12/23/2009@10:02:03 AM	
PREP CHECK @10ppm	12	9.9065	18.2651	12/23/2009@10:03:14 AM	20.00
QC24 A3	13	1.3276	24.5231	12/23/2009@10:04:25 AM	2.00
QC24 A3 DUP	14	1.2366	22.8328	12/23/2009@10:05:35 AM	2.00
QC24 A3 TRIP	15	1.2182	22.4909	12/23/2009@10:06:46 AM	2.00
QC24 A3 MS	16	10.2761	18.9515	12/23/2009@10:07:57 AM	20.00
QC24 A3 MSD	19	10.5445	19.4501	12/23/2009@10:09:07 AM	20.00
LOW	60	0.0137	0.3740	12/23/2009@10:10:19 AM	
Known Conc:		0.0100			
CCV	17	0.5253	19.3774	12/23/2009@10:16:15 AM	
Known Conc:		0.5000			
CCB	18	0.0029	-0.0275	12/23/2009@10:22:12 AM	
Known Conc:		0.0000			
QC24 B3	20	0.6944	25.6589	12/23/2009@10:28:09 AM	
QC24 C3	21	0.5970	22.0406	12/23/2009@10:29:20 AM	
QC24 D3	22	1.0339	38.2734	12/23/2009@10:30:31 AM	
QC24 E3	23	1.0005	37.0320	12/23/2009@10:31:42 AM	
QC24 F3	24	1.4286	52.9339	12/23/2009@10:32:53 AM	
QC24 G3	25	1.8692	69.3001	12/23/2009@10:34:03 AM	
QC24 H3	26	1.4293	52.9594	12/23/2009@10:35:15 AM	
QC24 I3	27	1.8542	68.7445	12/23/2009@10:36:27 AM	
QC24 J3	28	2.1505	79.7495	12/23/2009@10:37:38 AM	
QC24 K3	29	2.0865	77.3744	12/23/2009@10:38:49 AM	
CCV	17	0.5247	19.3553	12/23/2009@10:40:00 AM	
Known Conc:		0.5000			
CCB	18	-0.0044	-0.2989	12/23/2009@10:45:56 AM	
Known Conc:		0.0000			
QC24 L3	30	1.5467	57.3192	12/23/2009@10:51:53 AM	
QC24 M2	31	0.5997	22.1437	12/23/2009@10:53:05 AM	
QC26A6	32	0.2559	9.3722	12/23/2009@10:54:16 AM	
QC26A6 DUP	33	0.2636	9.6556	12/23/2009@10:55:28 AM	
QC26A6 TRP	34	0.2491	9.1170	12/23/2009@10:56:39 AM	
QC26A6 MS	35	9.8857	18.2264	12/23/2009@10:57:49 AM	20.00
QC26A6 MSD	36	9.5945	17.6856	12/23/2009@10:59:01 AM	20.00
QC26B3	37	0.2311	8.4505	12/23/2009@11:00:13 AM	
QC26C3	38	0.1484	5.3768	12/23/2009@11:01:25 AM	
QC26D2	39	0.3803	13.9915	12/23/2009@11:02:36 AM	
CCV	17	0.5302	19.5606	12/23/2009@11:03:47 AM	
Known Conc:		0.5000			
CCB	18	-0.0041	-0.2859	12/23/2009@11:09:43 AM	
Known Conc:		0.0000			

12-23-09

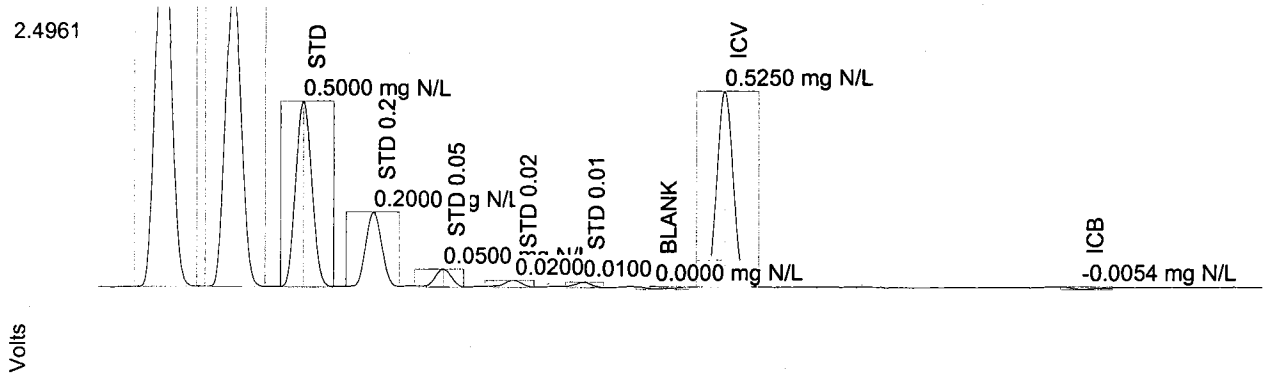
QC26 : 00474

QC26E3	40	0.3693	13.5822	12/23/2009@11:15:40 AM	
QC26F3	41	0.3092	11.3527	12/23/2009@11:16:53 AM	
QC29B3	42	0.4841	17.8500	12/23/2009@11:18:04 AM	
QC29C2	43	1.0857	40.1947	12/23/2009@11:19:16 AM	
QC29D2	44	0.7642	28.2529	12/23/2009@11:20:28 AM	
QC29E2	45	0.9646	35.6961	12/23/2009@11:21:39 AM	
QC29H2	46	0.6853	25.3229	12/23/2009@11:22:51 AM	
QC29I2	47	1.7381	64.4315	12/23/2009@11:24:03 AM	
QC29L2	48	4.4641	165.6930	12/23/2009@11:25:14 AM	
QC29M2	49	2.8805	106.8680	12/23/2009@11:26:26 AM	
CCV	17	0.5270	19.4430	12/23/2009@11:27:38 AM	
Known Conc:		0.5000			
CCB	18	-0.0030	-0.2472	12/23/2009@11:33:34 AM	
Known Conc:		0.0000			
QC29O2	50	1.1390	42.1768	12/23/2009@11:39:32 AM	
QC29R2	51	3.5245	130.7901	12/23/2009@11:40:45 AM	
QC29U1	52	1.2226	45.2828	12/23/2009@11:41:56 AM	
QC24D3	53	1.0516	19.3978	12/23/2009@11:43:09 AM	2.00
QC24E3	54	1.0185	18.7817	12/23/2009@11:44:20 AM	2.00
QC24F3	55	1.4896	10.9320	12/23/2009@11:45:33 AM	5.00
QC24G3	56	1.9789	14.5675	12/23/2009@11:46:44 AM	5.00
QC24H3	57	1.4709	27.1848	12/23/2009@11:47:57 AM	2.00
QC24I3	58	1.9539	14.3818	12/23/2009@11:49:09 AM	5.00
QC24J3	59	2.2685	16.7188	12/23/2009@11:50:21 AM	5.00
CCV	17	0.5264	19.4195	12/23/2009@11:51:32 AM	
Known Conc:		0.5000			
CCB	18	-0.0041	-0.2874	12/23/2009@11:57:28 AM	
Known Conc:		0.0000			
QC24K3	60	2.1974	16.1906	12/23/2009@12:03:26 PM	5.00
QC24L3	1	1.6187	11.8912	12/23/2009@12:04:37 PM	5.00
QC29C2	2	1.0999	20.2939	12/23/2009@12:05:48 PM	2.00
QC29I2	3	1.9395	14.2748	12/23/2009@12:06:57 PM	5.00
QC29L2	4	5.1597	19.0319	12/23/2009@12:08:08 PM	10.00
QC29M2	5	3.0754	22.7134	12/23/2009@12:09:17 PM	5.00
QC29Q2	6	1.1535	21.2900	12/23/2009@12:10:28 PM	2.00
QC29R2	7	3.8473	28.4483	12/23/2009@12:11:40 PM	5.00
QC29U2	8	1.2410	22.9159	12/23/2009@12:12:49 PM	2.00
Sample78	9	0.0112	0.2817	12/23/2009@12:14:00 PM	
CCV	17	0.5294	19.5319	12/23/2009@12:15:11 PM	
Known Conc:		0.5000			
CCB	18	-0.0038	-0.2753	12/23/2009@12:21:07 PM	
Known Conc:		0.0000			

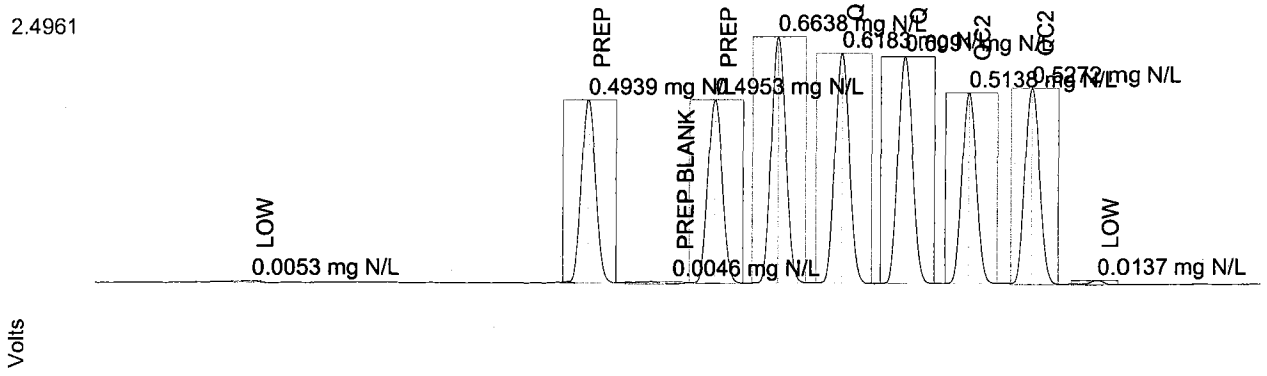
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 1 / 9

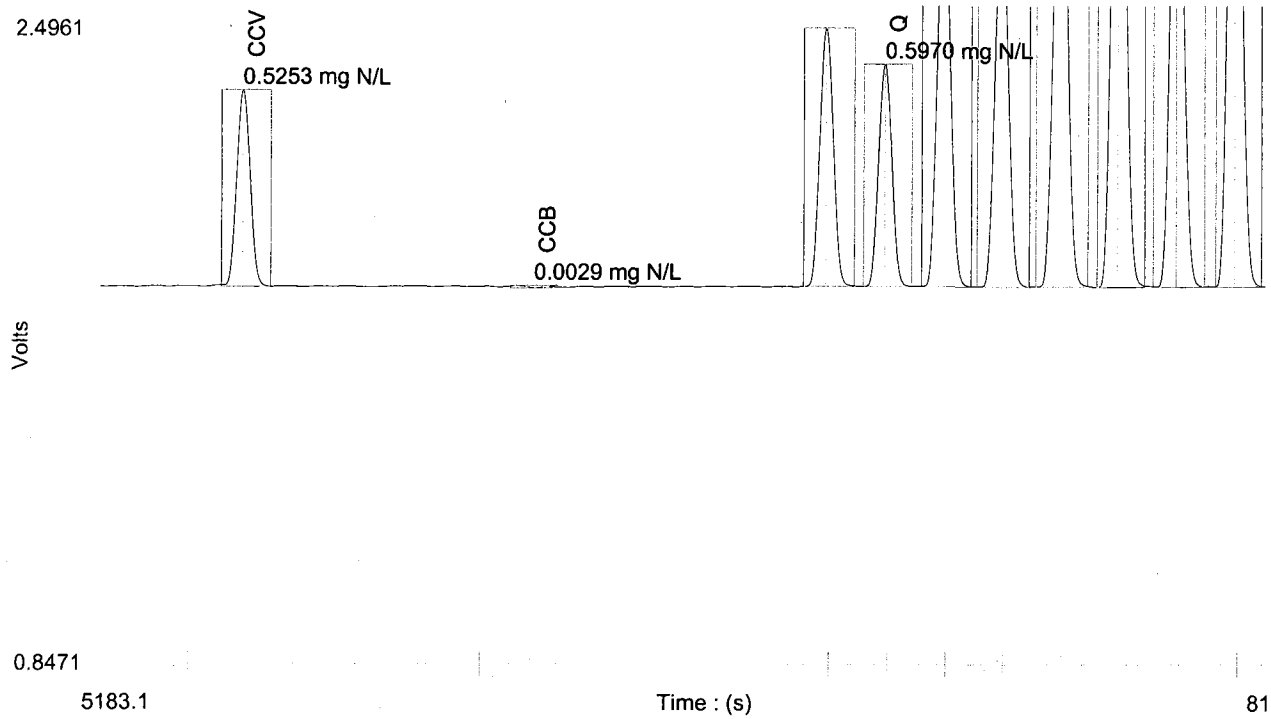


Channel 1 - Set: 2 / 9

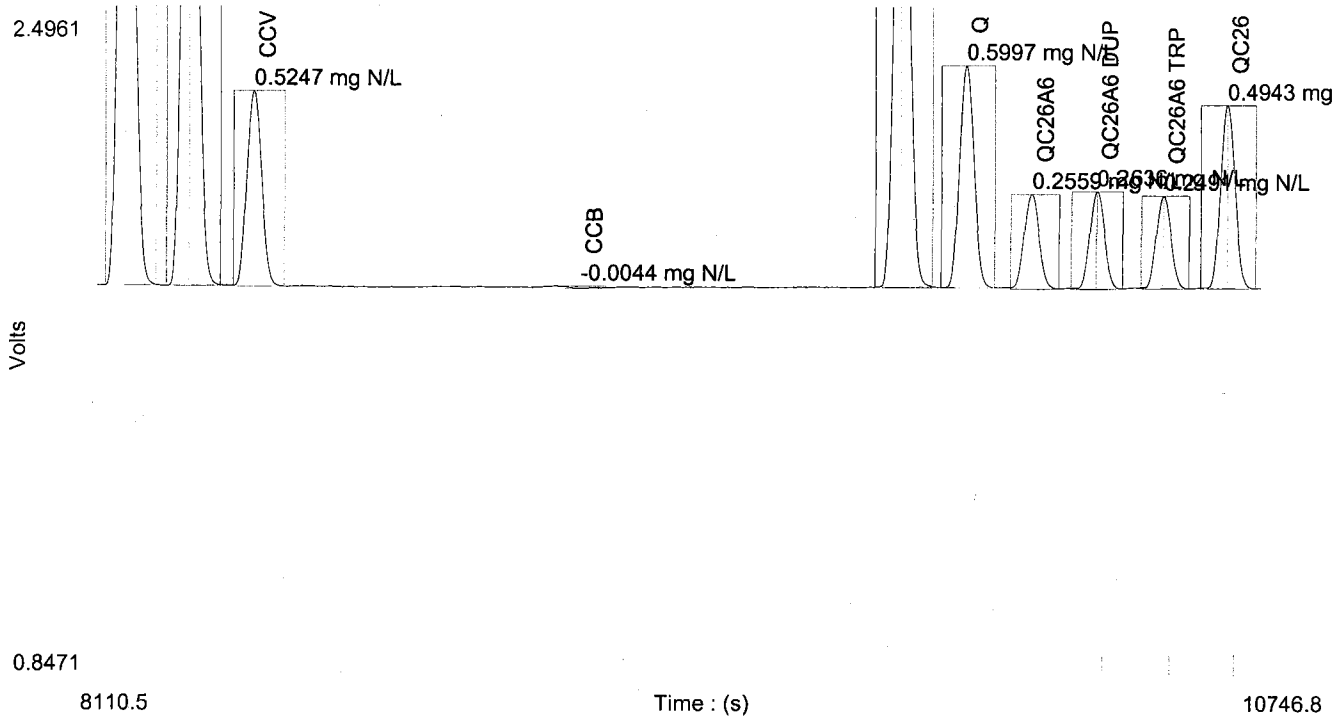


QC26 : 00476

Channel 1 - Set: 3 / 9



Channel 1 - Set: 4 / 9

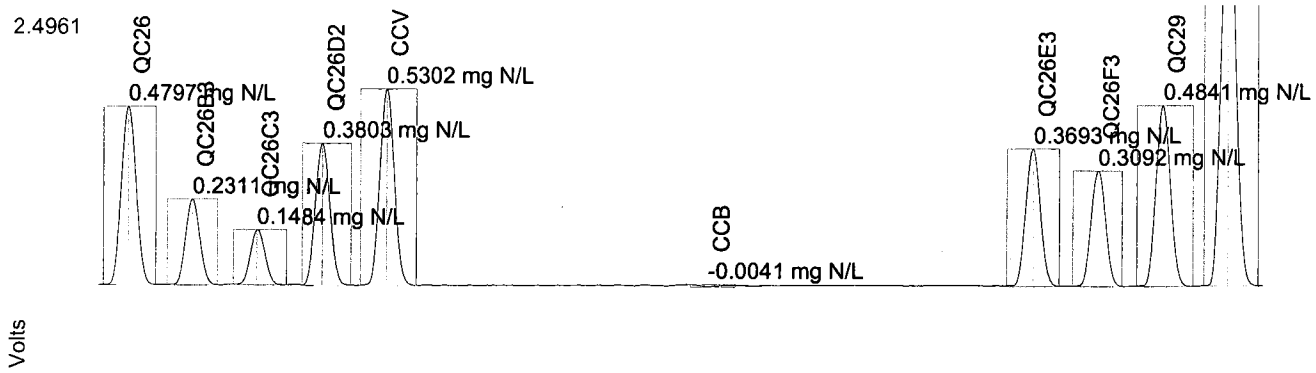


QC26 : 00477

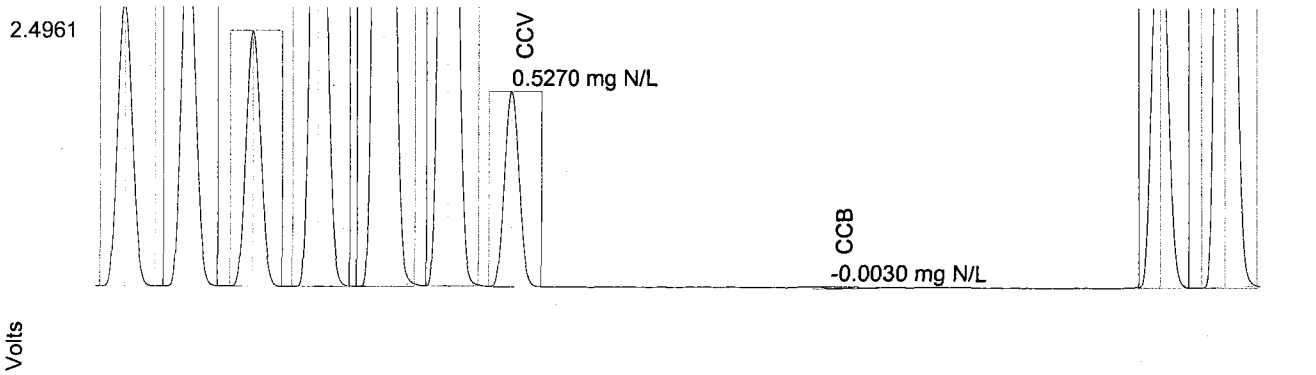
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 5 / 9

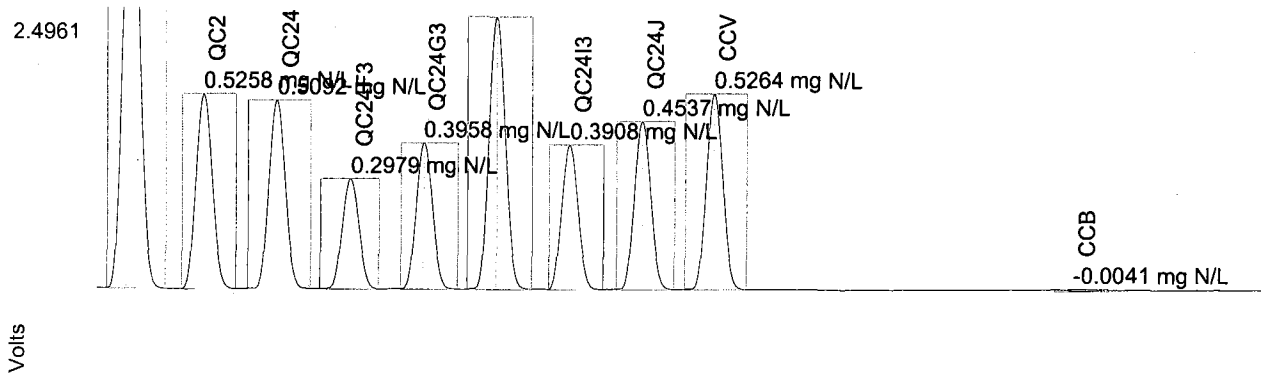


Channel 1 - Set: 6 / 9

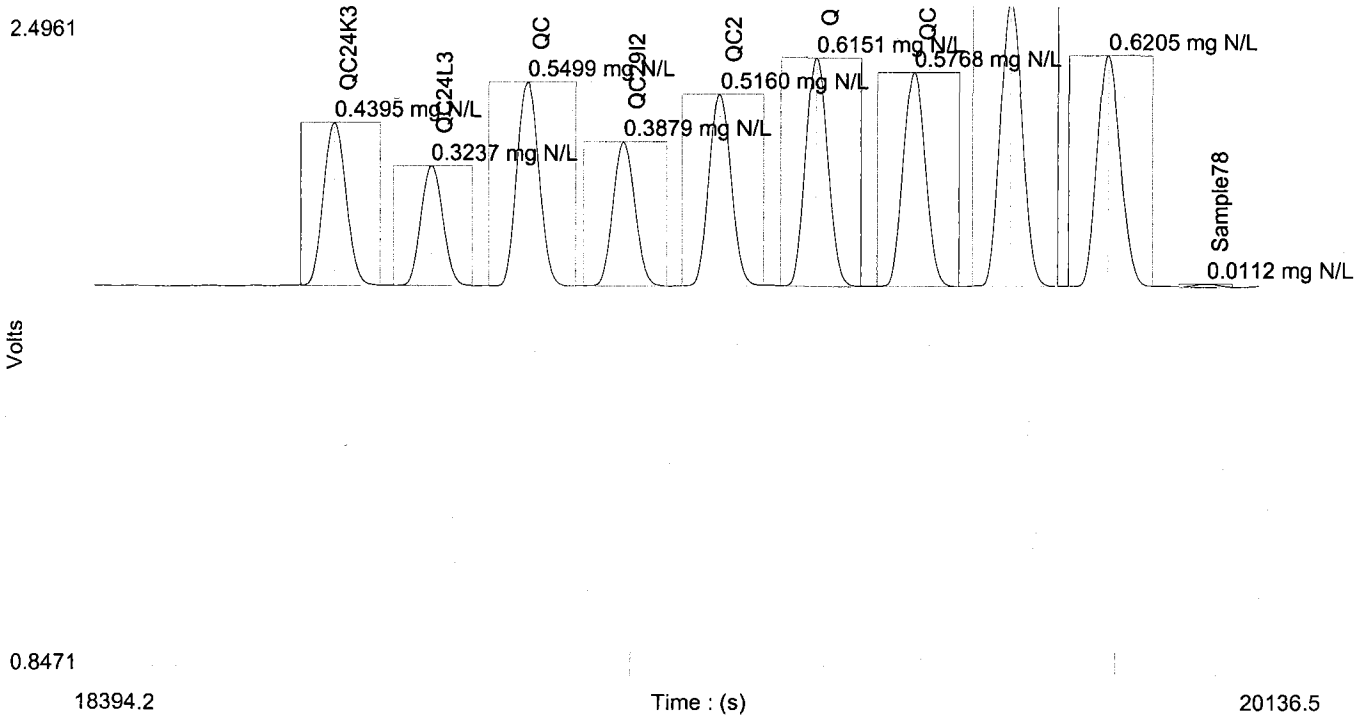


QC26 : 00478

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



QC25 : 00479

Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 9 / 9

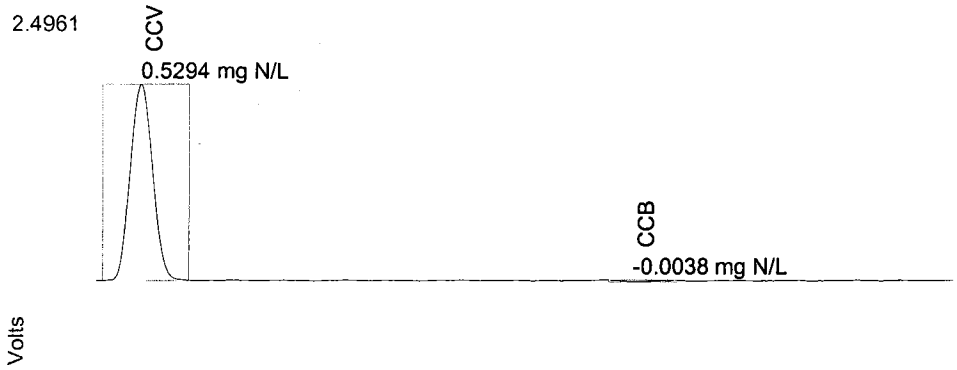
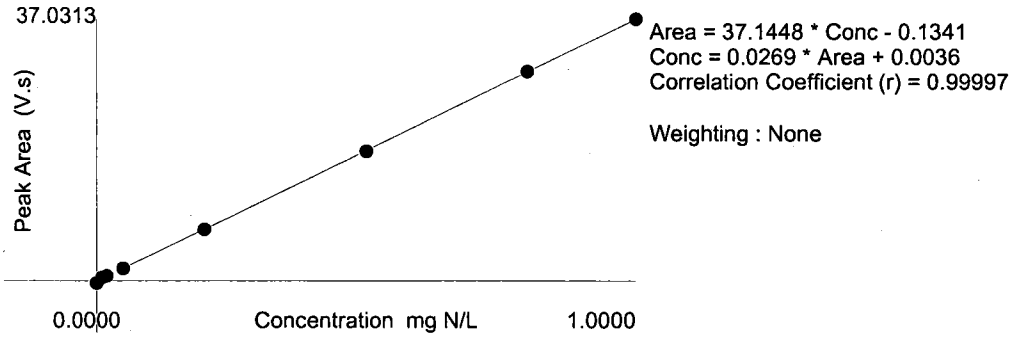


Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	37.0313	0.9624	0.0	-0.1	1.0005	12/23/2009	9:33:20 AM
2	0.8000	1	29.6220	0.7710	0.0	-0.1	0.8010	12/23/2009	9:34:30 AM
3	0.5000	1	18.3314	0.4803	0.0	0.6	0.4971	12/23/2009	9:35:41 AM
4	0.2000	1	7.2792	0.1921	0.0	0.2	0.1996	12/23/2009	9:36:50 AM
5	0.0500	1	1.7344	0.0460	0.0	-0.7	0.0503	12/23/2009	9:38:01 AM
6	0.0200	1	0.6776	0.0173	0.0	-11.3	0.0219	12/23/2009	9:39:11 AM
7	0.0100	1	0.4355	0.0130	0.0	-83.5	0.0154	12/23/2009	9:40:22 AM
8	0.0000	1	-0.3503	-0.0067			-0.0058	12/23/2009	9:41:32 AM

Figure : 1 (NH3)



QC26 : 00488

Soil Extraction Log

Parameter:

Date: 12/21/09 19:30

Analyst: [illegible]

Extraction Procedure: ~4 gr Sample + 40mL KCl/2N, shake for 1 hr. Settle down overnight, filter & ~~[illegible]~~ Analyze

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
	P.Blk		40				
	P.Check			0.4	1,000	10	ERA#190109
	QC24A3	4.36					
	A3dup	4.19					
	A3trip	4.02					
	A3MS	4.12		0.4	1,000	10	ART# 0096-04
	A3MSd	4.08		↓	↓	↓	↓
	QC24B3	4.35					
	C3	4.37					
	D3	4.08					
	E3	4.23					
	F3	4.04					
	G3	4.56					
	H3	4.33					
	I3	4.06					
	J3	4.00					
	K3	4.23					
	L3	4.33					
	M2	4.48	↓				
	QC26A6	4.01					
	A6dup	4.28					
	A6trip	4.04					
	A6MS	4.23		0.4	1,000	10	ART#0096-04
	A6MSd	4.49		↓	↓	↓	↓
	QC26B3	4.25					
	C3	4.18					
	D2	4.50					
	E3	4.06					
	F3	4.16					
	QC29B3	4.28					
	C2	4.20					
	D2	4.01					
	E2	4.56					
	H2	4.19					
	I2	4.53					
	L2	4.15	↓				

.56 or .06 ?

Soil Extraction Log

Parameter:

Date:

Analyst:

Extraction Procedure:

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
	090942	4.00	40				
	02	4.21	↓				
	R2	4.35					
↓	11	4.71	↓				

2/21/09

ARI 6050 Soil Extraction
Revised: 8/27/96

QC26 : 00482

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	12/22/09 9:00	AF
Finish	12/22/09 14:37	RR

If distilled, specify Procedure: **PSEP**

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: #2

Thiosulfate ID: **7215C**
Bi-iodate ID: **526-12**
Stock bi-iodate = **0.8129** *grams to* 1000 *mL*
Normality = **0.025**

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.00	3.00	3.00	
mL thiosulfate =	3.13	3.10	3.12	*nthio*
*Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =*	0.024	0.024	0.024	**0.024**

2. Normality of Iodine

Iodine ID: **7204C**

Titration of Iodine with thiosulfate

mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	3.000	3.000	3.000	*ni*
*Normality iodine = (mL thiosulfate*nthio) / mL iodine=*	0.024	0.024	0.024	**0.024**

3. Standardization of Sodium Sulfide Stock

Stock ID = **0100-05**
Approx conc in 100ml
g Na2S = 0.5222 *mg /mL =* 0.697

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.53	1.53	1.53	*stkconc (mg/mL)*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*	0.566	0.566	0.566	**0.566**

Intermediate Standard

Add 11 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

4. Calibration Standard Curve ***spectrophotometer used:***

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50	0.000	0.000		0.000	*-0.005*
0.10	50	0.050	0.027		0.027	*E 0.043*
0.25	50	0.125	0.072		0.072	*0.123*
0.50	50	0.249	0.151		0.151	*0.263*
1.00	50	0.498	0.285		0.285	*0.501*
2.00	50	0.997	0.562		0.562	*0.992*

RegressionData

intercept = *0.003*
slope = *0.564*
r = *0.9998*

Comment: *Calibration OK!*

maxabs = *0.562*

Calib Verif Std =	1	*ml int to*	50	*ml ZnOAc=*	0.498	*mg/l*	
Distillation Std =	1	*ml stk to*	100	=	5.66	*mg/l*	

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
ICB		na	na	1.00	0.000		-0.005	< 0.05	*OK*
ICV		na	na	1.00	0.295		0.519	0.519	*104%*
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.001		-0.003	< 0.05	*OK*
Dist Chk	100.0	100%	100	10.00	0.344		0.606	6.057	*107%*
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
~~QC24 A2~~	~~4.934~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.579~~		~~1.023~~	~~34.658~~	~~offscale~~
~~QC24 A2 dup~~	~~4.937~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.401~~		~~0.707~~	~~23.942~~	~~RPD=36.58%~~
~~QC24 A2 trp~~	~~4.846~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.726~~		~~1.283~~	~~44.286~~	~~offscale~~
~~QC24 A2 ms~~	~~4.978~~	~~59.8%~~	~~100~~	~~10.00~~	~~0.366~~		~~0.645~~	~~216.586~~	~~95.62%~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*2.977*~~	~~*g dry wt =*~~		~~*190.257*~~	~~*mg/kg*~~
~~QC24 B2~~	~~5.117~~	~~44.5%~~	~~100~~	~~2.00~~	~~0.626~~		~~1.106~~	~~97.141~~	~~offscale~~
QC24 C2	5.120	43.5%	100	1.00	0.501		0.884	39.701	
~~QC24 D2~~	~~5.003~~	~~44.3%~~	~~100~~	~~2.00~~	~~0.698~~		~~1.234~~	~~111.329~~	~~offscale~~
~~QC24 E2~~	~~5.061~~	~~36.9%~~	~~100~~	~~2.00~~	~~0.590~~		~~1.042~~	~~111.605~~	~~offscale~~
Cal Blk		na	na	1.00	-0.001		-0.006	< 0.05	*OK*
CCV		na	na	1.00	0.291		0.512	0.512	*103%*

QC26 : 00483

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC24 A2	4.934	59.8%	100	2.00	0.317		0.558	37.811	
QC24 A2 dup	4.937	59.8%	100	1.00	0.384		0.677	22.920	*RPD=49.04%*
QC24 A2 trp	4.846	59.8%	100	2.00	0.366		0.645	44.497	*RSD=31.49%*
QC24 A2 ms	4.978	59.8%	100	10.00	0.362		0.638	214.202	*92.71%*
		Spike at	*1.00*	*ml stock to*	*2.977*	*g dry wt =*		*190.257*	*mg/kg*
QC24 B2	5.117	44.5%	100	5.00	0.253		0.444	97.556	
QC24 D2	5.003	44.3%	100	5.00	0.271		0.476	107.433	
QC24 E2	5.061	36.9%	100	5.00	0.237		0.416	111.351	
QC24 F2	4.951	32.4%	100	10.00	0.290		0.510	317.880	
QC24 G2	4.918	32.3%	100	5.00	0.244		0.428	134.816	
QC24 H2	5.030	31.8%	100	5.00	0.149		0.260	81.207	
Cal Blk		na	na	1.00	0.002		-0.001	< 0.05	*OK*
CCV		na	na	1.00	0.287		0.505	0.505	*101%*
QC24 I2	5.050	40.5%	100	10.00	0.248		0.435	212.889	
QC24 J2	5.086	41.5%	100	20.00	0.217		0.380	360.468	
~~QC24 K2~~	~~5.103~~	~~37.4%~~	~~100~~	~~1.00~~	~~0.582~~		~~1.028~~	~~53.860~~	~~*offscale*~~
QC24 L2	4.917	58.6%	100	10.00	0.200		0.350	121.561	
QC24 M2	4.932	47.5%	100	2.00	0.345		0.607	51.862	
QC50 A1	5.032	71.1%	100	1.00	0.172		0.301	8.402	
QC50 A1 dup	5.011	71.1%	100	1.00	0.130		0.226	6.346	*RPD=27.88%*
QC50 A1 ms	5.037	71.1%	100	10.00	0.212		0.372	103.747	*60.29%*
		Spike at	*1.00*	*ml stock to*	*3.581*	*g dry wt =*		*158.145*	*mg/kg*
QC50 B1	5.150	69.1%	100	1.00	0.276		0.485	13.631	
QC50 C1	5.031	70.8%	100	1.00	0.336		0.592	16.607	
Cal Blk		na	na	1.00	0.002		-0.001	< 0.05	*OK*
CCV		na	na	1.00	0.269		0.473	0.473	*95%*
QC24 K2	5.103	37.4%	100	2.00	0.304		0.535	56.039	
~~QC50 A1~~	~~5.032~~	~~71.1%~~	~~100~~	~~1.00~~	~~0.189~~		~~0.331~~	~~9.245~~	-
~~QC50 A1 dup~~	~~5.011~~	~~71.1%~~	~~100~~	~~1.00~~	~~0.132~~		~~0.230~~	~~6.445~~	~~*RPD=35.68%*~~
~~QC50 A1 ms~~	~~5.037~~	~~71.1%~~	~~100~~	~~10.00~~	~~0.217~~		~~0.380~~	~~106.223~~	~~*61.32%*~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*3.581*~~	~~*g dry wt =*~~		~~*158.145*~~	~~*mg/kg*~~
QC50 D1	5.099	67.0%	100	1.00	0.282		0.496	14.511	
Dist Blk 2	100.0	100%	100	1.00	0.000		-0.005	< 0.05	*OK*
Dist Chk 2	100.0	100%	100	10.00	0.289		0.508	5.081	*90%*
QC26 A4	4.930	55.9%	100	1.00	0.362		0.638	23.138	
QC26 A4 dup	4.947	55.9%	100	1.00	0.530		0.936	33.835	*RPD=37.55%*
QC26 A4 ms	4.909	55.9%	100	10.00	0.337		0.593	216.206	*93.54%*
		Spike at	*1.00*	*ml stock to*	*2.744*	*g dry wt =*		*206.391*	*mg/kg*
Cal Blk		na	na	1.00	0.001		-0.003	< 0.05	*OK*
CCV		na	na	1.00	0.265		0.466	0.466	*93%*
~~QC26 A4~~	~~4.930~~	~~55.9%~~	~~100~~	~~1.00~~	~~0.387~~		~~0.682~~	~~24.747~~	-
~~QC26 A4 dup~~	~~4.947~~	~~55.9%~~	~~100~~	~~1.00~~	~~0.569~~		~~1.005~~	~~36.337~~	~~*offscale*~~
~~QC26 A4 ms~~	~~4.909~~	~~55.9%~~	~~100~~	~~10.00~~	~~0.372~~		~~0.655~~	~~238.832~~	~~*103.73%*~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*2.744*~~	~~*g dry wt =*~~		~~*206.391*~~	~~*mg/kg*~~
QC26 B4	4.989	43.7%	100	5.00	0.287		0.505	115.723	
QC26 C4	4.932	45.4%	100	2.00	0.252		0.443	39.525	
QC26 E4	5.014	62.7%	100	5.00	0.176		0.308	48.936	
QC26 F4	5.009	44.7%	100	2.00	0.361		0.636	56.799	
QC29 B1	5.115	42.9%	100	10.00	0.270		0.474	216.211	
QC29 C1	4.987	59.4%	100	50.00	0.321		0.565	953.510	
QC29 D1	4.902	45.1%	100	50.00	0.227		0.398	900.483	

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
Cal Blk		na	na	1.00	0.006		0.006	< 0.05	*OK*
CCV		na	na	1.00	0.301		0.529	0.529	*106%*
QC29 E1	4.261	43.0%	100	10.00	0.324		0.570	311.224	
QC29 H1	4.524	50.5%	100	20.00	0.204		0.357	312.837	
QC29 I1	4.988	57.6%	100	50.00	0.311		0.547	952.238	
QC29 L1	4.925	60.9%	100	1.00	0.150		0.262	8.721	
QC29 M1	5.117	47.9%	100	1.00	0.012		0.017	< 2.033	
QC29 Q1	5.041	55.5%	100	10.00	0.195		0.341	122.023	
QC29 R1	5.128	68.2%	100	50.00	0.273		0.480	685.903	
Cal Blk		na	na	1.00	0.000		-0.005	< 0.05	*OK*
CCV		na	na	1.00	0.281		0.494	0.494	*99%*

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	12/22/09 9:00	AF
Finish	12/22/09 14:37	RR

If distilled, specify Procedure: RSEP

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: #2

Thiosulfate ID: 7215C
Bi-iodate ID: 5216-16
Stock bi-iodate = 0.8129 *grams to* 1000 *mL*
Normality =

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.000	3.000	3.000	
mL thiosulfate =	3.13	3.10	3.12	*nthio*
*Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =*				

2. Normality of Iodine

Iodine ID: 7209C

Titration of Iodine with thiosulfate

mL iodine =	3.000	3.000	3.000	
mL thiosulfate =	3.00	3.00	3.00	*ni*
*Normality iodine = (mL thiosulfate*nthio) / mL iodine=*				

3. Standardization of Sodium Sulfide Stock

Stock ID = 0100-05
Approx conc in 100ml
g Na2S = 0.5222 *mg /mL =*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.53	1.53	1.53	*stkconc (mg/mL)*

Intermediate Standard

Add 11.0 *mL stk to* 250 *mL 0.01M NaOH =* ***mg/mL***

4. Calibration Standard Curve ***spectrophotometer used:***

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50		0.000			
0.10	50		0.027			
0.25	50		0.072			
0.50	50		0.151			
1.00	50		0.285			
2.00	50		0.562			

RegressionData
intercept =
slope =
r =
Comment:
maxabs =

Calib Verif Std =	1	*ml int to*	50	*ml ZnOAc=*		*mg/l*
Distillation Std =	1	*ml stk to*	100	=		*mg/l*

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
ICB		na	na	1.00	0.000				
ICV		na	na	1.00	0.295				
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.001				
Dist Chk	100.0	100%	100	1.00	0.344				
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
QC24 A2	4.934	59.8	100	1.00	0.579				
Dup	4.937	↓	100	1.00	0.401				
TM	4.846		100	1.00	0.721				
MS	4.978	↓	100	10 ~~1.00~~	0.366				
B2	5.117	44.5	100	2 ~~1.00~~	0.621				
C2	5.120	43.5	100	1.00	0.501				
D2	5.003	44.3	100	2 ~~1.00~~	0.698				
E2	5.061	36.9	100	2 ~~1.00~~	0.590				
Cal Blk		na	na	1.00	-0.001				
CCV		na	na	1.00	0.291				
QC24 A2	4.934	59.8	100	2 ~~1.00~~	0.317				
↓ Dup	4.937	↓	100	1.00	0.384				

QC26 : 80486

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC24 A2 trip	4.946	59.8	100	2 ~~1.00~~	0.366				
MS	4.978	↓	100	10 ~~1.00~~	0.367				
B2	5.117	44.5	100	5 ~~1.00~~	0.253				
D2	5.003	44.3	100	5 ~~1.00~~	0.271				
E2	5.061	36.9	100	5 ~~1.00~~	0.257				
F2	4.957	32.4	100	10 ~~1.00~~	0.290				
G2	4.918	32.3	100	5 ~~1.00~~	0.244				
H2	5.030	31.8	100	5 ~~1.00~~	0.149				
Cal Blk		na	na	1.00	0.002				
CCV		na	na	1.00	0.287				
QC24 I2	5.050	40.5	100	10 ~~1.00~~	0.248				
J2	5.086	41.5	100	20 ~~1.00~~	0.217				
K2	5.103	37.4	100	1.00	0.582				
L2	4.917	58.6	100	10 ~~1.00~~	0.200				
M2	4.932	47.5	100	2 ~~1.00~~	0.345				
QC50 A1	5.032	71.1	100	1.00	0.172				
DUP	5.011	↓	100	1.00	0.130				
MS	5.037	↓	100	10 ~~1.00~~	0.212				
B1	5.150	69.1	100	1.00	0.276				
C1	5.031	70.8	100	1.00	0.336				
Cal Blk		na	na	1.00	0.002				
CCV		na	na	1.00	0.269				
QC24 K2	5.103	37.4	100	2 ~~1.00~~	0.304				
QC50 A1	5.032	71.1	100	1.00	0.189				
DUP	5.011	↓	100	1.00	0.132				
MS	5.037	↓	100	10 ~~1.00~~	0.217				
D1	5.099	67.0	100	1.00	0.282				
RB 2	100	100	100	1.00	0.000				
LCS 2	↓	↓	100	10 ~~1.00~~	0.289				
QC26 A4	4.930	55.9	100	1.00	0.362				
DUP	4.947	↓	100	1.00	0.530				
MS	4.909	↓	100	10 ~~1.00~~	0.337				
Cal Blk		na	na	1.00	0.001				
CCV		na	na	1.00	0.265				
QC26 A4	4.930	55.9	100	1.00	0.587				
DUP	4.947	↓	100	1.00	0.569				
MS	4.909	↓	100	10 ~~1.00~~	0.372				
B4	4.989	43.7	100	5 ~~1.00~~	0.287				
C4	4.932	45.4	100	2 ~~1.00~~	0.252				
E4	5.014	62.7	100	5 ~~1.00~~	0.176				
F4	5.009	44.7	100	2 ~~1.00~~	0.361				
QC29 B1	5.115	42.9	100	10 ~~1.00~~	0.270				
C1	4.987	59.4	100	50 ~~1.00~~	0.321				
D1	4.908	45.1	100	50 ~~1.00~~	0.227				
Cal Blk		na	na	1.00	0.006				
CCV		na	na	1.00	0.301				
QC29 E1	4.741	43.0	100	10 ~~1.00~~	0.324				
H1	4.524	50.5	100	20 ~~1.00~~	0.204				
I1	4.988	57.6	100	50 ~~1.00~~	0.311				
L1	4.925	60.9	100	1.00	0.150				

QC26 : 00487

SAMPLE DATA

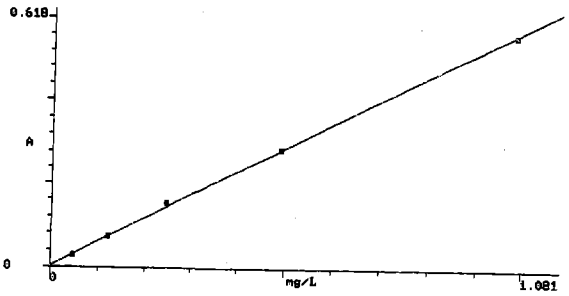
enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC29 M1	5.119	47.9	100	1.00	0.012				
↓ Q1	5.041	53.5	100	10 ~~1.00~~	0.195				
↓ R1	5.128	68.2	100	50 ~~1.00~~	0.273				
CCB			100	1.00	0.000				
CCV			100	1.00	0.281				
~~———~~	~~———~~	~~———~~	~~100~~	~~1.00~~					
Cal Blk		na	na	1.00					
CCV		na	na	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
Cal Blk		na	na	1.00					
CCV		~~na~~	~~na~~	1.00					

12/28/09

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Standard Curve	14:37 22Dec09
Test Name	SULFIDE
Date Standards Measured	22Dec09
Wavelength	650nm
Ref. Wavelength Correction	Off
Curve Fit	Linear
Number of Standards	6
Units	mg/L
ID# (0=OFF)	Off
Low/High Limits	0.050/1.000
Statistics	Off
Auto Print	On



Curve Fit	Linear
Slope	0.572
Intercept	0.00256
Std Dev	0.005
Corr Coeff	1.000

Conc. mg/L	Abs 650nm
0.000	0.000
0.049	0.027
0.123	0.072
0.246	0.151
0.491	0.285
0.983	0.562

RF 12/22/09

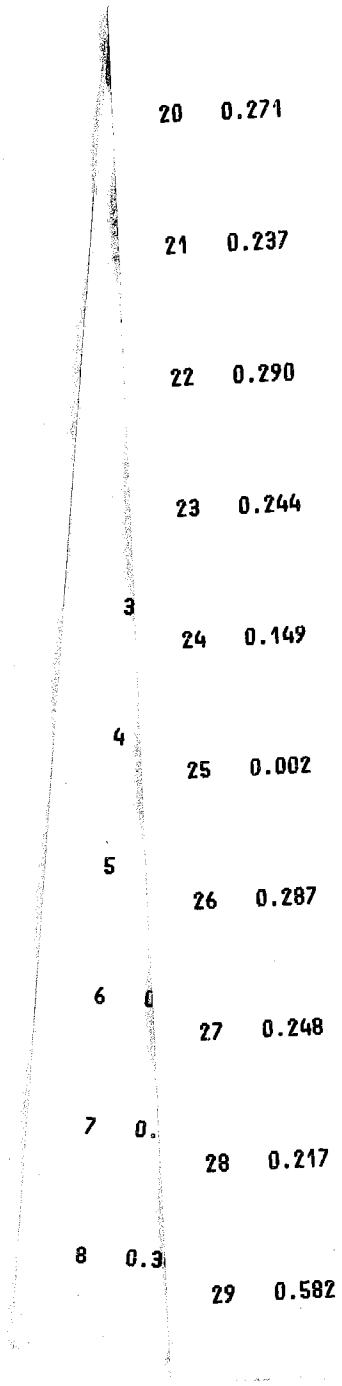
TEST SETUP
GENESYS 10 v2.021 2G2G048006

Advanced H-%T-C	14:38 22Dec09
Test Name	SULFIDE[Saved]
Measurement Mode	Absorbance
Wavelength	650nm
Ref. Wavelength Correction	Off
Delay Time (min:sec)	0:00
ID# (0=OFF)	1
Low/High Limits	0.000/1.000
Statistics	Off
Auto Print	On

ID#	Abs 650nm
1	0.000
2	0.295
3	0.001
4	0.344
5	0.579
6	0.401
7	0.726
8	0.366

9	0.626
10	0.501
11	0.698
12	0.590
13	-0.001
14	0.291
15	0.317
16	0.384
17	0.366
18	0.362
19	0.253

QC25 : 00491


20 0.271
21 0.237
22 0.290
23 0.244
3
24 0.149
4
25 0.002
5
26 0.287
6
27 0.248
7
28 0.217
8
29 0.582

QC26 : 00492

30	0.200
31	0.345
32	0.172
33	0.130
34	0.212
35	0.276
36	0.336
37	0.002
38	0.269
39	0.304

41 0.132

42 0.217

43 0.282

44 0.000

45 0.289

46 0.362

47 0.530

48 0.337

49 0.001

50 0.265

QC26 : 00454

51 0.387

52 0.569

53 0.372

54 0.287

55 0.252

56 0.176

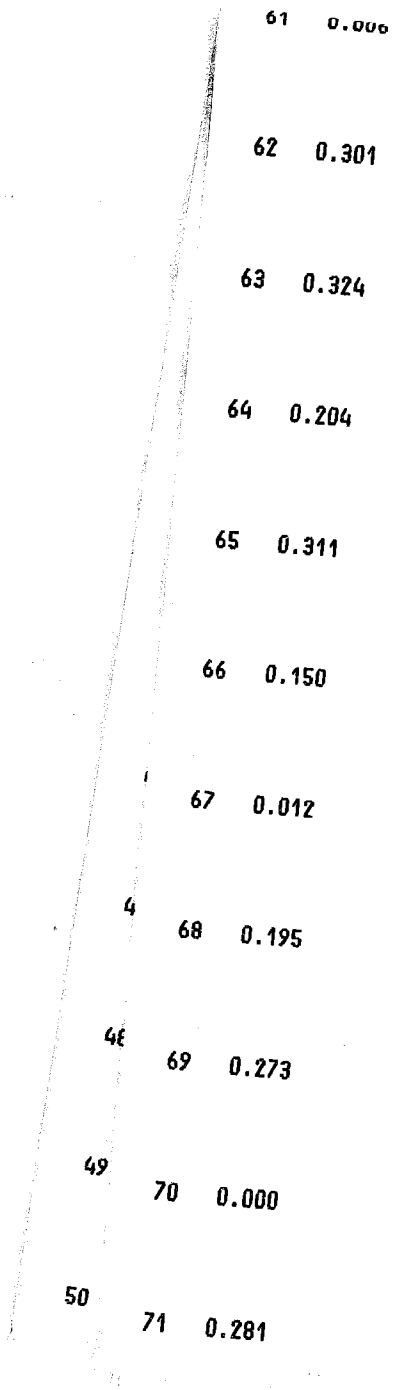
57 0.361

58 0.270

59 0.321

60 0.227

QC26 : 00495


61 0.000
62 0.301
63 0.324
64 0.204
65 0.311
66 0.150
67 0.012
4
68 0.195
4E
69 0.273
49
70 0.000
50
71 0.281

QC26 : 00496

Analytical Resources, Incorporated
Analytical Chemists and Consultants

*Spk, LCS = 1ml AR10100-05

Sulfide Digestion Log

Sample ID	% Solids	% Water	Pretreatment Data: Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Sample Extraction Data: Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
Blank			12-22-09	NA	PSEP	1+1 HCl w/ Al	NA	NA	NA					
* LCS										12-22-09	100 mL	NA	NA	100 mL
QC24 A2											↓		↓	
dup A2											4.934		50 mL	
trip A2											4.937			
* spk A2											4.846			
B2											4.978			
C2											5.117			
D2											5.120			
E2											5.003			
F2											5.061			
G2											4.951			
H2											4.918			
I2											5.030			
J2											5.050			
K2											5.086			
L2											5.183			
M2											4.917			
QC50 A1											4.932			
dup A1											5.032			
											5.011			

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: [illegible] Date: 12-22-09 Time: 9:20

Cont next page

JS1 66 : 0226

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
QC50 spk A1											5.037			
B1											5.150			
C1											5.031			
d1											5.099			
Blank 2											~~NA~~ 100mL			
LCS 2											~~NA~~ 100mL			
QC26 A4											4.930			
dup A4											4.947			
spk A4											4.909			
B4											4.989			
C4											4.932			
E4											5.014			
F4											5.009			
QC29 B1											5.155			
C1											4.987			
d1											4.902			
E1											4.261			
H1											4.524			
I1											4.988			
L1											4.925			

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: nt Date: 12-22-09 Time: 9:20

Cont next page

00383 : 00383

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
QC29 M1			↓	↓	↓	↓	↓	↓	↓	↓	5.117	↓	↓	↓
Q1			↓	↓	↓	↓	↓	↓	↓	↓	5.041	↓	↓	↓
R1			↓	↓	↓	↓	↓	↓	↓	↓	5.128	↓	↓	↓

12-22-09 [illegible]
9:20

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: 12-22-09 Date: [illegible] Time: [illegible]

QC29 · 0009

1/6/10

TOC, Solids Data Analysis

DATE: 1/5/2010
ANALYST: CR 9:44

Instrument: Apollo 2 *Mode:* NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: **BoatCal 123009** *Conc:* 5,000 *ppm*
Calibration Curve Standard: **ARI # 0098-09** *Curve Date:* **12/30/09**
CalFact: 1.911E+05 *intercept:* 456,204 *r2 :* 0.99943
Curve Range (µgC): **8** *to* **100**

Verification Standard Source: ***ERA# 0506-09-01*** *Conc:* **5,000** *ppm*
dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
81.94	69.90	75.20				75.7	8.0%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	1010	1,010	*101.00%*
Blank				1.00		40.0	37.19	37	*Blank OK*
NIST 8704				1.00		2.1	31759	31,759	*94.77%*
SB 1				1.00		25.4	81.94	82	*Low, Increase wt*
SB 2				1.00		20.5	69.90	70	*Low, Increase wt*
SB 3				1.00		23.3	75.20	75	*Low, Increase wt*
QC26 A6				1.00		2.4	16061	16,061	*Range OK!*
QC26 A6 dup				1.00		2.4	18556	18,556	*RPD=14.4%*
QC26 A6 trp				1.00		2.2	15240	15,240	*RSD=10.4%*
~~QC26 A6 ms~~			-	~~1.00~~	~~10~~	~~1.5~~	~~42598~~	~~42,598~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*1.5*~~	~~*mg samp=*~~	~~*16,667*~~	~~*ppm*~~		~~*159%*~~	
QC26 A6 ms				1.00	10	1.2	39934	39,934	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.2*	*mg samp=*	*20,833*	*ppm*		*115%*	
QC26 B3				1.00		2.2	24579	24,579	*Range OK!*
CCV				1.00		40.0	992	992	*99.20%*
Blank				1.00		40.0	21.52	22	*Blank OK*
QC26 C3				1.00		1.6	19708	19,708	*Range OK!*
QC26 D2				1.00		1.2	21264	21,264	*Range OK!*
QC26 E3				1.00		1.5	23240	23,240	*Range OK!*
QC29 F3				1.00		2.1	19312	19,312	*Range OK!*
~~QC29 B3~~			-	~~1.00~~		~~1.0~~	~~109252~~	~~109,252~~	~~*Offscale, dilute*~~
QC29 B3	22.4	160	86.00%	7.14		2.0	12879	91,528	*Range OK!*
QC29 C2				1.00		1.1	86200	86,200	*Range OK!*
QC29 D2				1.00		1.1	31695	31,695	*Range OK!*
~~QC29 E2~~			-	~~1.00~~		~~1.0~~	~~108568~~	~~108,568~~	~~*Offscale, dilute*~~
QC29 E2				1.00		0.9	86845	86,845	*Range OK!*
CCV				1.00		40.0	1015	1,015	*101.50%*
Blank				1.00		40.0	23.80	24	*Blank OK*
QC29 H2				1.00		1.4	21775	21,775	*Range OK!*
QC29 I2				1.00		0.9	82696	82,696	*Range OK!*
QC29 L2				1.00		1.7	28799	28,799	*Range OK!*
QC29 M2				1.00		1.0	66918	66,918	*Range OK!*
QC29 Q2				1.00		1.0	42921	42,921	*Range OK!*
NIST 8704				1.00		2.4	29387	29,387	*87.70%*
CCV				1.00		40.0	1027	1,027	*102.70%*
Blank				1.00		40.0	50.08	50	*Blank OK*

Detailed Analysis Report Print Date/Time: 2010/01/05 17:31:25

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051725
Timestamp: 2010/01/05 17:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0733	2.0029	307002	26.437	27.431	84

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01050941
Timestamp: 2010/01/05 09:44
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1010.0592	40.4024	9767553	25.806	26.806	120

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051150
Timestamp: 2010/01/05 11:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37.1879	1.4875	180017	26.158	27.152	63

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051242
Timestamp: 2010/01/05 12:46
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31758.8516	66.6936	16244977	26.324	27.322	181

Sample ID: SB 1
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051255
Timestamp: 2010/01/05 12:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	81.9427	2.0813	512786	26.174	27.170	75

Sample ID: SB 2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051302
Timestamp: 2010/01/05 13:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	69.9000	1.4330	353039	26.215	27.209	66

Sample ID: SB 3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051307
Timestamp: 2010/01/05 13:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75.2046	1.7523	431710	26.286	27.285	67

QC26 : 00501

Sample ID: QC26 A6
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051315
Timestamp: 2010/01/05 13:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16061.0342	38.5465	9496779	26.177	27.174	158

Sample ID: QC26 A6 DUP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051321
Timestamp: 2010/01/05 13:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18556.0078	44.5344	10972041	26.214	27.207	159

Sample ID: QC26 A6 TRP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051329
Timestamp: 2010/01/05 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15240.2490	33.5285	8260500	26.163	27.155	160

Sample ID: QC26 A6 MS
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

cw 1-5-10

Mode: TOC
Filename: 01051335
Timestamp: 2010/01/05 13:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42597.9219	63.8969	15742412	26.466	27.463	159

Sample ID: QC26 A6 MS
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051347
Timestamp: 2010/01/05 13:51
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	39933.5703	47.9203	11806223	26.401	27.400	152

Sample ID: QC26 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051357
Timestamp: 2010/01/05 14:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24579.0801	54.0740	13322322	26.290	27.287	182

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051404
Timestamp: 2010/01/05 14:08
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	991.8040	39.6722	9587650	26.587	27.584	125

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051411
Timestamp: 2010/01/05 14:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.5197	0.8608	25610	26.640	26.575	120

Last Message: Low Sample Detected

Sample ID: QC26 C3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051416
Timestamp: 2010/01/05 14:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19708.0566	31.5329	7768826	26.431	27.431	137

Sample ID: QC26 D2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051423
Timestamp: 2010/01/05 14:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21264.0918	25.5169	6286656	26.522	27.521	135

Sample ID: QC26 E3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051443
Timestamp: 2010/01/05 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23240.1797	34.8603	8588599	26.624	27.624	156

Sample ID: QC26 F3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051452
Timestamp: 2010/01/05 14:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19312.2188	40.5557	9991784	26.751	27.747	150

Sample ID: QC29 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

AR 1-5-10

Mode: TOC
Filename: 01051459
Timestamp: 2010/01/05 15:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	109252.3438	109.2523	26916732	26.711	27.710	191

Last Message: Over-range

Sample ID: QC29 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051517
Timestamp: 2010/01/05 15:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	12878.6357	25.7573	6345874	26.473	27.466	105

Sample ID: QC29 C3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051522
Timestamp: 2010/01/05 15:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86200.0234	94.8200	23361012	26.444	27.441	181

Last Message: Over-range

Sample ID: QC29 D2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051536
Timestamp: 2010/01/05 15:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31695.1602	34.8647	8589685	26.361	27.360	141

Sample ID: QC29 E2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

ok 1-5-10

Mode: TOC
Filename: 01051545
Timestamp: 2010/01/05 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	108568.3359	108.5683	26748214	26.275	27.272	193

Last Message: Over-range

Sample ID: QC29 E2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051601
Timestamp: 2010/01/05 16:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86845.0000	78.1605	19256570	26.181	27.178	169

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051608
Timestamp: 2010/01/05 16:11
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1014.5542	40.5822	9811851	26.355	27.350	119

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051631
Timestamp: 2010/01/05 16:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23.8006	0.9520	48088	26.309	27.306	50

Sample ID: QC29 H2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051636
Timestamp: 2010/01/05 16:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21775.2832	30.4854	7510752	26.258	27.254	141

Sample ID: QC29 I2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051641
Timestamp: 2010/01/05 16:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82696.4375	74.4268	18336688	26.456	27.453	164

Sample ID: QC29 L2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051650
Timestamp: 2010/01/05 16:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28798.6309	48.9577	12061807	26.474	27.474	153

Sample ID: QC29 M2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051658
Timestamp: 2010/01/05 17:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	66917.7031	66.9177	16486658	26.460	27.458	169

Sample ID: QC29 Q2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051706
Timestamp: 2010/01/05 17:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42920.9570	42.9210	10574528	26.541	27.541	142

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051710
Timestamp: 2010/01/05 17:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29386.6484	70.5280	17189660	26.651	27.646	178

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051718
Timestamp: 2010/01/05 17:22
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1026.8000	41.0720	9932532	26.638	27.636	131

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051725
Timestamp: 2010/01/05 17:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0733	2.0029	307002	26.437	27.431	84

QC26 : 00506

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ON 1-5 10

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE:	NPOC BOAT	INLET:	BOAT SAMPLER
Standards:	**Source**	**Conc (ppm)**	
Calibration:	~~ARI~~ # 0098-09	5000	
Verification:	EPA # 05-06-09-01	5000 to 1000 for CVS	
SRM:	NBS 8704	35510	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 8704			2.1			
SB1			25.4			
SB2			20.5			
SB3			23.3			
QC26 A6			2.4			
A6 DUP			2.4			
A6 TOP			2.2			
A6 MS			1.5	2500	10	
~~B6~~ A6 MS			~~2.2~~ 1.2	2500	10	
B6 B3			2.2			
CCV			40			
CCB			40			
QC26 C3			1.6			
D2			1.2			
E3			1.5			
F3			2.1			
QC29 B3			1.0			
B3	22.4	160.0	2.0			
C2			1.1			
D2			1.1			
E2			1.0			
E2			0.9			
CCV			40			
CCB			40			
QC29 H2			1.4			
I2			0.9			
L2			1.7			
M2			1.0			
Q2			1.0			
NBS 8704 CCV/ICB			2.4 40/40			

QC26 : 00507

ANALYTICAL
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ANALYST NOTES

ARI Job No: QC26 Client Name: Anchor QEA

Parameter: TSPR & S^2 Client Project: Baywood 080547-01

Samples $B^4, C^4, E^4, \& F^4$ were run for Both TSPR & S^2 on Unpreserved Samples
Advised by pm. to enter data into lims as preserved due to a TS on $B^3, C^3, E^3, \& F^3$ already entered for TS, TS70°, & TOC sampled form a seperate container.

Analyst: CDE Date Analyzed: 12/23/09

6147F

Rev. 7
06/3/04

CORRECTIVE ACTIONS - Inorganic Analyses

ANALYTICAL RESOURCES INCORPORATED

Criteria Flagged

ARI Project No.: QC24, QC26, QC50 Client Name: Science App, Anchor, Enviromet

Date of Out-of-Control Event: _____ Method/Element: Sulfide

Unacceptable Blank	
Unacceptable Duplicate	X
Unacceptable Spike	
Unacceptable Reference	

Prep Code: _____

Other: _____

Details of Problem/Recommended Corrective Action:

high RPD, Samples had high moisture content ~50% and were non homogeneous. All spikes and prep QC were in control. High RPD likely due to matrix

Samples Affected: QC24 A, QC26 A, QC50 A

Corrective Action Taken: reread distillate to confirm results.

Analyst: af

Date: 12-22-09

Supervisor: [signature]

Date: 12/30/09

5049F

Rev. 6
10/28/02

QC26 : 00509

ANALYTICAL
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ANALYST NOTES

ARI Job No: QC24,26,29 Client Name: Anchor

Parameter: NH3 Client Project:

Sample all prepped in one batch
Analyst prepping didn't realize there were more than 20.
Only 1 LCS + Blank Ran
Talk to PM, due to out of Hold Stations
When other analyst realized it to
run & report.

Analyst: [signature] Date Analyzed: 12-23-05

6147F

Rev. 7
06/3/04

Geotechnical Analysis

prepared
for

Anchor QEA

Project: BAYWOOD, 080547-01

ARI JOB NO: QC26

prepared
by

Analytical Resources, Inc.

Anchor QEA
Baywood
080547-01

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
BW-05-SS-091218	100.0	99.9	99.6	98.8	93.8	68.7	55.2	39.6	22.4	14.0	9.3	6.3	4.5	3.2
	100.0	100.0	99.8	99.0	93.9	68.4	55.0	40.3	23.3	14.1	9.5	6.4	4.5	3.5
	100.0	100.0	99.7	99.0	94.1	68.2	54.3	38.8	23.2	14.3	9.2	6.6	4.8	3.4
BW-01-SS-091218	100.0	100.0	100.0	99.8	99.2	98.6	98.3	97.8	93.2	70.0	41.0	22.6	14.0	8.9
BW-04-SS-091218	100.0	99.3	99.1	97.8	96.6	95.4	94.3	91.9	80.4	52.4	28.5	16.2	10.3	7.0
BW-51-SS-091218	100.0	100.0	100.0	99.0	97.8	96.6	95.9	95.1	90.8	68.7	39.1	20.9	13.3	8.5
BW-07-SS-091218	100.0	99.8	99.1	96.8	90.1	69.8	64.3	59.0	42.3	23.8	14.1	8.6	6.1	4.1
BW-11-SS-091218	100.0	100.0	100.0	98.2	97.4	96.7	95.9	91.2	73.4	51.2	27.8	17.1	11.4	7.8

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC26:00512

Anchor QEA
Baywood
080547-01

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
BW-05-SS-091218	0.4	0.8	5.0	25.1	13.5	15.6	17.2	8.5	4.6	3.1	1.7	1.3	3.2	39.6
	0.2	0.7	5.1	25.5	13.5	14.6	17.0	9.3	4.5	3.2	1.9	1.0	3.5	40.3
	0.3	0.7	4.9	25.8	13.9	15.6	15.5	9.0	5.0	2.6	1.8	1.4	3.4	38.8
BW-01-SS-091218	0.0	0.2	0.6	0.6	0.4	0.5	4.7	23.2	29.0	18.4	8.5	5.2	8.9	97.8
BW-04-SS-091218	0.9	1.3	1.2	1.2	1.1	2.3	11.5	28.0	23.9	12.3	6.0	3.2	7.0	91.9
BW-51-SS-091218	0.0	1.0	1.2	1.2	0.7	0.8	4.2	22.2	29.6	18.2	7.6	4.8	8.5	95.1
BW-07-SS-091218	0.9	2.3	6.7	20.3	5.5	5.3	16.7	18.5	9.6	5.5	2.6	1.9	4.1	59.0
BW-11-SS-091218	0.0	1.8	0.8	0.7	0.8	4.6	17.9	22.2	23.4	10.7	5.7	3.6	7.8	91.2

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC26 : 00513

QA SUMMARY

Client:	Anchor QEA	Client Project No.:	Baywood
		Client Project:	080547-01
ARI Trip. Sample ID:	QC26 A	Batch No.:	QC26-1
Client Trip. Sample ID:	BW-05-SS-091218	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
	100.0	99.9	99.6	98.8	93.8	68.7	55.2	39.6	22.4	14.0	9.3	6.3	4.5	3.2
W-05-SS-0912	100.0	100.0	99.8	99.0	93.9	68.4	55.0	40.3	23.3	14.1	9.5	6.4	4.5	3.5
	100.0	100.0	99.7	99.0	94.1	68.2	54.3	38.8	23.2	14.3	9.2	6.6	4.8	3.4
AVE	NA	99.97	99.68	98.92	93.93	68.46	54.84	39.57	23.00	14.10	9.37	6.41	4.61	3.38
STDEV	NA	0.06	0.08	0.13	0.14	0.24	0.45	0.80	0.48	0.15	0.17	0.18	0.17	0.13
%RSD	NA	0.06	0.08	0.14	0.14	0.35	0.82	2.01	2.08	1.05	1.78	2.74	3.59	3.89

The Triplicate Applies To The Following Samples

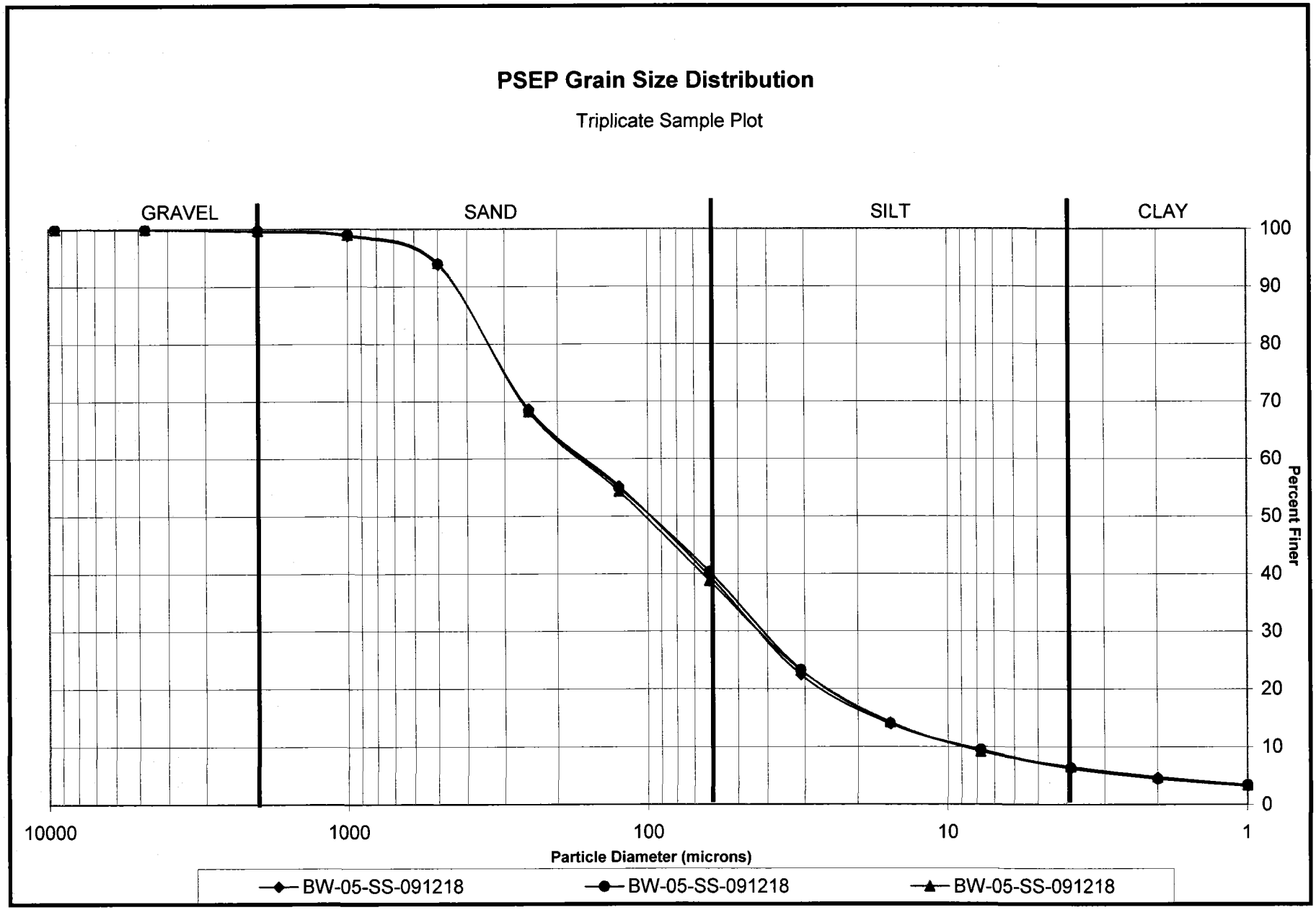
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
BW-05-SS-091218	12/18/2009	1/4/2010	1/9/2010	101.0		23.7
	12/18/2009	1/4/2010	1/9/2010	101.3		23.8
	12/18/2009	1/4/2010	1/9/2010	100.3		22.8
BW-01-SS-091218	12/18/2009	1/4/2010	1/9/2010	98.2		13.7
BW-04-SS-091218	12/18/2009	1/5/2010	1/9/2010	99.8		19.5
BW-51-SS-091218	12/18/2009	1/5/2010	1/9/2010	99.4		15.2
BW-07-SS-091218	12/18/2009	1/5/2010	1/9/2010	100.7		18.9
BW-11-SS-091218	12/18/2009	1/5/2010	1/9/2010	100.2		15.2

* ARI Internal QA limits = 95-105%

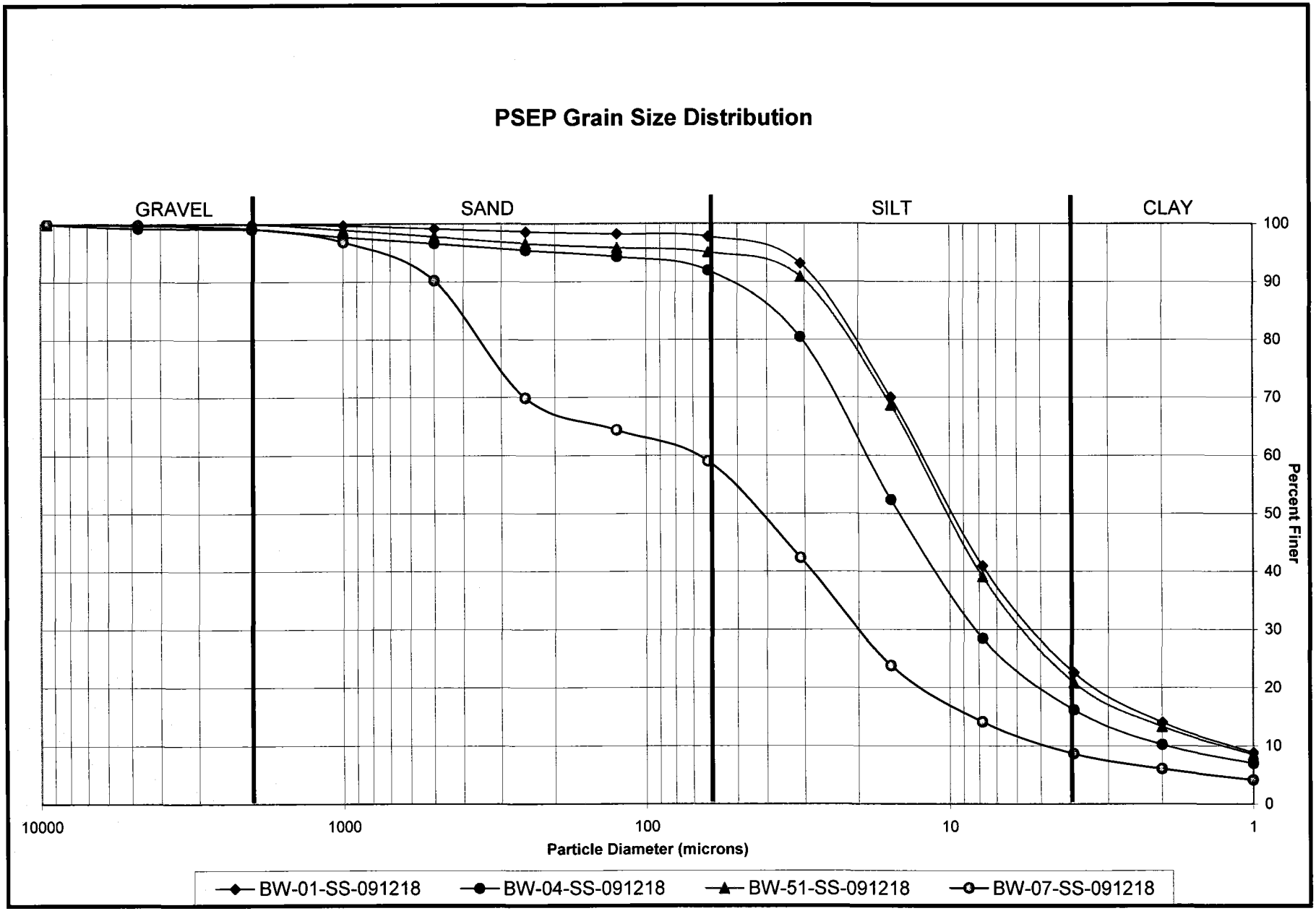
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

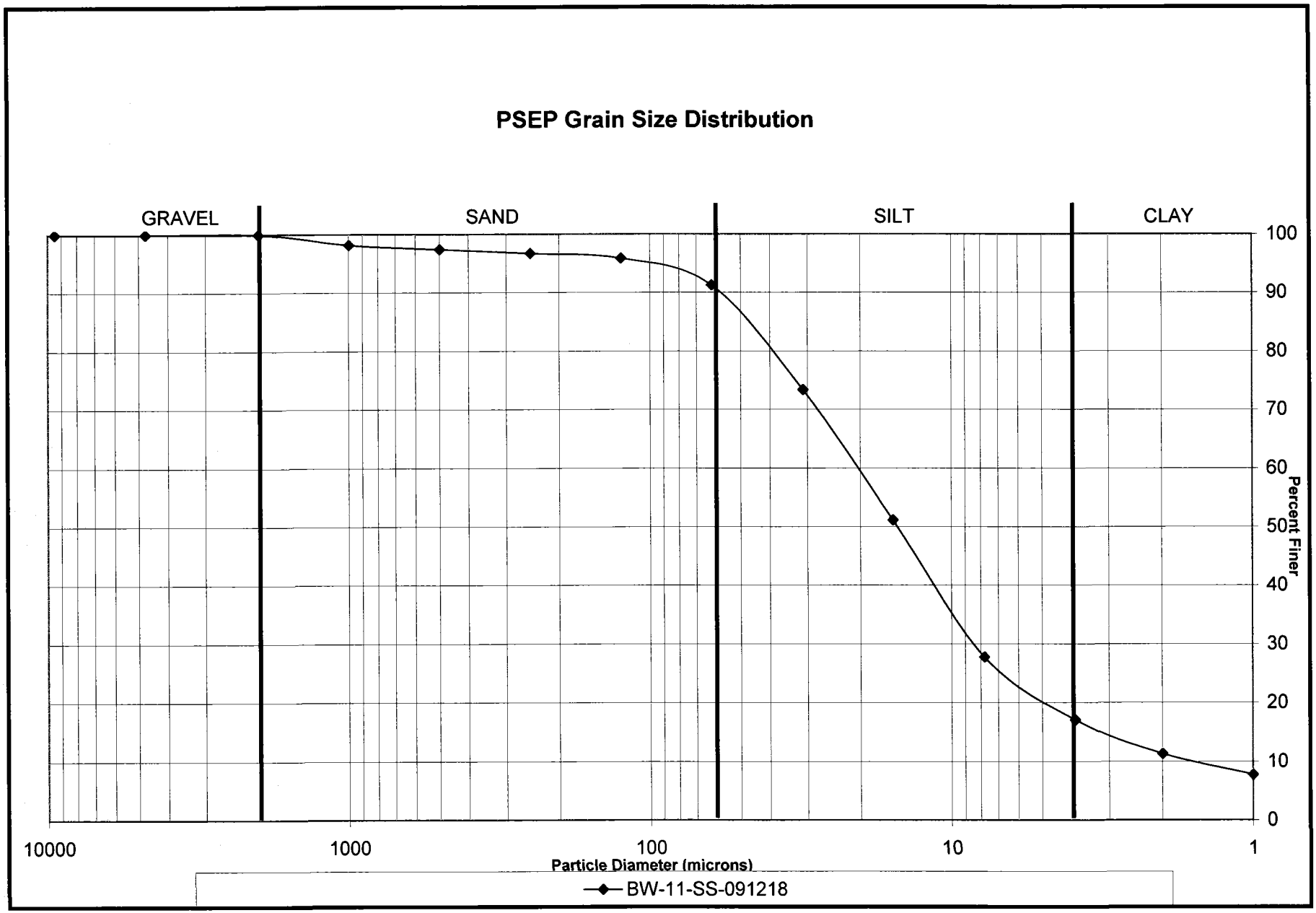
QC26 : 091218


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-05-SS-091218
BW-05-SS-091218
BW-05-SS-091218

QC26:00515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-01-SS-091218
BW-04-SS-091218
BW-51-SS-091218
BW-07-SS-091218

QC26:00516


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-11-SS-091218

QC26:00517

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Organic Matter by Method ASTM D2974

Data Release Authorized: QB
Reported: 01/11/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-05-SS-091218 QC26A 09-31261	12/18/09	Sediment	01/09/10 17:37	5.54
BW-01-SS-091218 QC26B 09-31262	12/18/09	Sediment	01/09/10 17:37	7.99
BW-04-SS-091218 QC26C 09-31263	12/18/09	Sediment	01/09/10 17:37	14.19
BW-51-SS-091218 QC26D 09-31264	12/18/09	Sediment	01/09/10 17:37	7.80
BW-07-SS-091218 QC26E 09-31265	12/18/09	Sediment	01/09/10 17:37	18.39
BW-11-SS-091218 QC26F 09-31266	12/18/09	Sediment	01/09/10 17:37	16.17

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

QC26:00518

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Total Solids by Method ASTM D2974

Data Release Authorized: QC
Reported: 01/11/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-05-SS-091218 QC26A 09-31261	12/18/09	Sediment	01/09/10 17:37	62.90
BW-01-SS-091218 QC26B 09-31262	12/18/09	Sediment	01/09/10 17:37	43.64
BW-04-SS-091218 QC26C 09-31263	12/18/09	Sediment	01/09/10 17:37	50.83
BW-51-SS-091218 QC26D 09-31264	12/18/09	Sediment	01/09/10 17:37	43.76
BW-07-SS-091218 QC26E 09-31265	12/18/09	Sediment	01/09/10 17:37	63.11
BW-11-SS-091218 QC26F 09-31266	12/18/09	Sediment	01/09/10 17:37	51.58

QC26 : 00519

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Ash Content by Method ASTM D2974

Data Release Authorized: QC
Reported: 01/11/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC26-Anchor QEA
Project: BAYWOOD
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-05-SS-091218 QC26A 09-31261	12/18/09	Sediment	01/09/10 17:37	94.46
BW-01-SS-091218 QC26B 09-31262	12/18/09	Sediment	01/09/10 17:37	92.01
BW-04-SS-091218 QC26C 09-31263	12/18/09	Sediment	01/09/10 17:37	85.81
BW-51-SS-091218 QC26D 09-31264	12/18/09	Sediment	01/09/10 17:37	92.20
BW-07-SS-091218 QC26E 09-31265	12/18/09	Sediment	01/09/10 17:37	81.61
BW-11-SS-091218 QC26F 09-31266	12/18/09	Sediment	01/09/10 17:37	83.83

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

QC26 : 00520

Total Organic Matter by Ignition

Loss on Ignition, ASTM D2974 ☐ **Temp. = 440°C**

Total Volatile Solids, PSEP Method ☐ **Temp. = 550°C**

ARI Job No.: QC26 Tested by: CBL

Sample ID	A	Date/Time	B	Date/Time	C	Date/Time
Tare ID	Martini 11		K1 + Mutt		What + Male	
Tare Weight	119.24 + 103.85		102.60 + 101.79		103.12 + 109.33	
Wet Wt + Tare	309.46 + 287.50	1-4 / 14:20	269.67 + 279.36	1-4 / 14:36	347.45 + 361.54	1-4 / 14:46
Dry Wt. + Tare	238.93 + 218.27	1-5 / 17:10	175.50 + 179.28	1-5 / 17:10	226.62 + 238.20	1/5 - 17:10
Burned Wt. + Tare	232.45 + 211.80	1/6 / 17:37	169.67 + 173.10	1/6 17:35	208.90 + 220.10	1/6 - 17:35

Sample ID	D	Date/Time	E	Date/Time	F	Date/Time
Tare ID	Kermit		B1 + Kanga		Baby + 58	
Tare Weight	104.17		103.06 + 112.42		99.70 + 108.27	
Wet Wt + Tare	206.46	1-4 / 14:53	361.60 + 392.06	1-4 / 15:02	272.56 + 291.75	1-4 / 15:11
Dry Wt. + Tare	148.93		268.27 + 286.88		188.93 + 202.23	
Burned Wt. + Tare	145.44	1-9 / 14:30	236.05 + 256.64	1-9 / 14:49	174.69 + 187.35	1-9 / 14:47

Sample ID		Date/Time		Date/Time		Date/Time
Tare ID						
Tare Weight						
Wet Wt + Tare						
Dry Wt. + Tare						
Burned Wt. + Tare						

Sample ID		Date/Time		Date/Time		Date/Time
Tare ID						
Tare Weight						
Wet Wt + Tare						
Dry Wt. + Tare						
Burned Wt. + Tare						

Sample ID		Date/Time		Date/Time		Date/Time
Tare ID						
Tare Weight						
Wet Wt + Tare						
Dry Wt. + Tare						
Burned Wt. + Tare						

12/18/09 eg

Calgon Batch #210

#	Tare Wt	Tare + Dry WT.	Calgon WT.
1.	1.5425	1.9999	0.4574
2.	1.5360	1.9937	0.4577
3.	1.5475	2.0056	0.4581
4.	1.5415	1.9992	0.4577
5.	1.5379	1.9848	0.4469

AVERAGE = 0.45556

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. A-1 Client Sample No BW-05-SS-091218

Set-up Date: 1/4/10 Sample Description: SILTY SAND, ORGANIC DEBRIS

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	109
Tare Weight	1.5116
Wet Weight + Tare	22.3410
Dry Weight + Tare	14.6795

Test Sample	Initials GS
Container No.	109
Tare Weight	51.2105
Wet Weight + Tare	145.8113
Dry Weight + Tare	89.6469

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	51.2198
4	51.2770
10	51.4568
18	51.9574
35	54.9254
60	69.9291
120	77.9997
230	87.3373
PAN	2.3518

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
A-1-1	1.5566	2.0273	9:15:00
A-1-2	1.5474	1.8223	9:15:20
A-1-3	1.5586	1.7330	9:16:46
A-1-4	1.5510	1.6706	9:22:05
A-1-5	1.5532	1.6364	9:43:18
A-1-6	1.5422	1.6050	11:08:00
A-1-7	1.5476	1.5950	~~14:41:00~~ 16:57:00 10cm 7:51:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. A-2 Client Sample No. _____

Set-up Date: 1/4/10 Sample Description: _____

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	115
Tare Weight	1.5367
Wet Weight + Tare	21.0239
Dry Weight + Tare	13.7837

Test Sample	Initials GS
Container No.	115
Tare Weight	51.3271
Wet Weight + Tare	145.1676
Dry Weight + Tare	88.7363

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	51.3345
4	51.3345
10	51.4797
18	51.9150
35	54.9203
60	69.9620
120	77.8965
230	86.5165
PAN	2.2335

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials _____

Tare ID	Tare Wt	Dry Wt & Tare	TIME
A-2-1	1.5539	2.0237	9:18:00
A-2-2	1.5522	1.8330	9:18:20
A-2-3	1.5427	1.7157	9:19:46
A-2-4	1.5434	1.6687	9:25:05
A-2-5	1.5447	1.6281	9:46:18
A-2-6	1.5745	1.6360	11:11:00 ~~14:44:00~~ pp 17:00:00 10cm
A-2-7	1.5392	1.5888	7:54:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. A-3 Client Sample No. _____

Set-up Date: 1/4/10 Sample Description: _____

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	121
Tare Weight	1.5408
Wet Weight + Tare	21.0410
Dry Weight + Tare	13.6826

Test Sample	Initials GS
Container No.	121
Tare Weight	50.9835
Wet Weight + Tare	145.6918
Dry Weight + Tare	889.0852

(GS)

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.9900
4	50.9900
10	51.1702
18	51.5938
35	54.4846
60	69.7184
120	77.9123
230	87.1065
PAN	1.9849

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials _____

Tare ID	Tare Wt	Dry Wt & Tare	TIME
A-3-1	1.5394	2.0025	9:21:00
A-3-2	1.5330	1.8151	9:21:20
A-3-3	1.5291	1.7059	9:22:46
A-3-4	1.5214	1.6390	9:28:05
A-3-5	1.5364	1.6232	9:49:18
A-3-6	1.5340	1.5996	11:14:00
A-3-7	1.5320	1.5816	~~14:47:00~~ 17:03:00
			7:57:00

10cm

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. B Client Sample No BW-01-SS-091218

Set-up Date: 1/4/10 10 am Sample Description: FINES

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GS
Container No.	138
Tare Weight	1.5392
Wet Weight + Tare	26.8294
Dry Weight + Tare	12.6393

Test Sample	Initials GS
Container No.	138
Tare Weight	50.7432
Wet Weight + Tare	82.6733
Dry Weight + Tare	51.0946

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.7424
4	50.7424
10	50.7424
18	50.7745
35	50.8541
60	50.9349
120	50.9843
230	51.0483
PAN	0.0307

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
B-1	1.5353	1.8237	9:24:00
B-2	1.5429	1.8179	9:24:20
B-3	1.5144	1.7233	9:25:46
B-4	1.5374	1.6634	9:31:05
B-5	1.5283	1.6019	9:52:18
B-6	1.5338	1.5830	11:17:00
B-7	1.5367	1.5711	~~14:50:00~~ 17:06:00
			8:00:00

10cm

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. C Client Sample No. BW-0455-091218

Set-up Date: 1.5.10 Sample Description: Silty Clay, Organic Fines

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials CBL
Container No.	145
Tare Weight	1.5405
Wet Weight + Tare	20.0773
Dry Weight + Tare	10.4113

Test Sample	Initials CBL
Container No.	145
Tare Weight	50.8258
Wet Weight + Tare	95.1402
Dry Weight + Tare	53.2451

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.8297
4	50.9770
10	51.0159
18	51.3001
35	51.5455
60	51.8044
120	52.0437
230	52.5400
PAN	0.6675

1/8/2010

Temp:23

Correction	
e Wt.	
e + Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
C-1	1.5225	1.9226	9:27:00
C-2	1.5455	1.8966	9:27:20
C-3	1.5015	1.7334	9:28:46
C-4	1.5079	1.6381	9:34:05
C-5	1.5129	1.5909	9:55:18
C-6	1.5246	1.5773	11:20:00
C-7	1.5381	1.5771	~~14:53:00~~ 17:09:00
			8:03:00

10cm

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. D Client Sample No. BO-5155-091218

Set-up Date: 1-5-10 Sample Description: Silty Clay, Organics

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GL
Container No.	147
Tare Weight	1.5352
Wet Weight + Tare	12.6002
Dry Weight + Tare	6.4228

Test Sample	Initials GL
Container No.	147
Tare Weight	50.0928
Wet Weight + Tare	86.2450
Dry Weight + Tare	51.1165

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.0959
4	50.0959
10	50.0959
18	50.2551
35	50.4435
60	50.6391
120	50.7553
230	50.8819
PAN	0.1581

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
D-1	1.5352	1.8499	9:30:00
D-2	1.5355	1.8365	9:31:46
D-3	1.5338	1.7636	9:37:05
D-4	1.5309	1.6655	9:58:18
D-5	1.5370	1.6132	11:23:00
D-6	1.5339	1.5858	~~14:56:00~~ 17:12:00 10cm
D-7	1.5361	1.5726	8:06:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. E Client Sample No. BW07-SS091218

Set-up Date: 1-5-10 Sample Description: Sandy Silty Clay, Organics

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1-7-10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	153
Tare Weight	1.5026
Wet Weight + Tare	16.5262
Dry Weight + Tare	10.0239

Test Sample	Initials BL
Container No.	153
Tare Weight	49.0740
Wet Weight + Tare	105.6700
Dry Weight + Tare	64.0232

SIEVE ANALYSIS
Initials BL

Sieve Size	Weight Retained
Tare	49.0926
4	49.1615
10	49.3702
18	50.1038
35	52.2547
60	58.7745
120	60.5451
230	62.2519
PAN	1.7631

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
E-1	1.5306	1.9141	9:33:00
E-2	1.5293	1.8081	9:34:46
E-3	1.5281	1.6887	9:40:05
E-4	1.5432	1.6423	10:01:18
E-5	1.5506	1.6147	11:26:00
E-6	1.5304	1.5781	~~14:59:00~~ 17:15:00 10cm
E-7	1.5332	1.5686	8:09:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC26 ARI Sample No. F Client Sample No. BW-11-SS-091218

Set-up Date: 1-5-10 Sample Description: Silty Clay, Clams

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1-7-10

SOLIDS CONTENT

Moisture Content	Initials CR
Container No.	154
Tare Weight	1.4998
Wet Weight + Tare	19.1055
Dry Weight + Tare	9.7509

Test Sample	Initials CR
Container No.	154
Tare Weight	51.4484
Wet Weight + Tare	87.0876
Dry Weight + Tare	53.6299

SIEVE ANALYSIS
Initials CR

Sieve Size	Weight Retained
Tare	51.4548
4	
10	51.4553
18	51.7581
35	51.8860
60	51.9998
120	52.1408
230	52.9169
PAN	.7025

1/8/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
F-1	1.5171	1.8304	9:36:00
F-2	1.5130	1.7668	9:36:20
F-3	1.5292	~~1.6381~~ gs	9:37:46
F-4	1.5244	1.6262	9:43:05 1.70890 eag
F-5	1.5412	1.6073	10:04:18
F-6	1.5247	1.5717	11:29:00
F-7	1.5291	1.5642	~~15:02:00~~ gs 17:18:00 10cm
			8:12:00

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 15, 2010

Joy Dunay
Anchor QEA
1423 Third Avenue, Suite 300
Seattle, WA 98101

RE: Project: Baywood, 080547-01
ARI Job No.: QC29

Dear Joy:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for the samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

for

Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QC29

SD/sdrd

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: QC29	Turn-around Requested:
ARI Client Company: Anchor QEA	Phone: 206-287-9130
Client Contact: James Keithly	
Client Project Name: Bay Wood	
Client Project #: 080547-01	Samplers: DM, JD, DP

Page: 1 of 3

Date:

Ice Present?

No. of Coolers:

Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	TS	TOC	Grain Size	NH_4	S_2	Porewater NH_4, S_2	Archive	LOI	Notes/Comments
BW-04-SC-A-091218	12/18/09	0900	SED	3	no	no			no		X	no	Archive only
BW-04-SC-B-091218	↓	0910	↓	7	X	X	X	X	X	X	X	X	
BW-04-SC-C-091218		0920		6	X	X	X	X	X	X	X	X	
BW-01-SC-A-091218		0950		6	X	X	X	X	X	X	X	X	
BW-01-SC-B-091218		1000		5	X	X	X	X	X	X		X	
BW-01-SC-C-091218		1010		3							X		DO NOT FREEZE HDPE
BW-01-SC-D-091218		1020		3							X		↓
BW-11-SC-A-091218		1050		5	X	X	X	X	X	X		X	
BW-11-SC-B-091218		1100		6	X	X	X	X	X	X	X	X	
BW-11-SC-Z-091218	↓	1110	↓	3							X		DO NOT FREEZE HDPE

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature) [signature]	(Signature) [signature]	(Signature)	(Signature)
	Printed Name: Delaney Peterson	Printed Name: C. OREIRO	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 12/18/09 1540	Date & Time: 12/18/09 1540	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 2 of 3	
ARI Client Company: Anchor QEA	Phone: 206-287-9130	Date:	Ice Present?
Client Contact: James Keithly		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #: 080547-01	Samplers: DM, JD, DP		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	TS	TOC	Grain Size	NH_4	S_2	Porewater NH_4, S_2	LOI	Archive	Notes/Comments
BW-07-SC-A-091218	12/18/09	1140	SED	3								X	
BW-07-SC-B-091218	↓	1150	↓	7	X	X	X	X	X	X	X	X	
BW-07-SC-C-091218		1200		6	X	X	X	X	X	X	X	X	
BW-07-SC-Z-091218		1210		3								X	DO NOT FREEZE HDPE
BW-07-SC-Z1-091218		1220		3								X	↓
BW-07-SC-Z2-091218		1230		3								X	↓
BW-05-SC-A-091218		1410		6	X	X	X	X	X	X	X	X	
BW-05-SC-B-091218		1420		7	X	X	X	X	X	X	X	X	
BW-05-SC-C-091218		1440										X	DO NOT FREEZE HDPE
BW-05-SC-Z-091218	↓	1450	↓									X	↓

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature) [signature]	(Signature) [signature]	(Signature)	(Signature)
	Printed Name: D. Peterson	Printed Name: C. OREIRO	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 12/18/09 1540	Date & Time: 12/18/09 1540	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 3 of 3	
ARI Client Company: Anchor QEA	Phone: 206-287-9130	Date:	Ice Present?
Client Contact: James Keithly		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #: 080547-01	Samplers: DM, JD, DP		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: TS	TOC	NH4	Porewater NH4 SO	LOI				Notes/Comments
BW-55-A-091218	12/18/09	1450	SED	4	X	X	X	X	X				

12/18/09 DP

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: D. Peterson	Printed Name: C. OREIRO	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 12/18/09 1540	Date & Time: 12/18/09 1540	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

SGS-0029 : 0005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA
Project Name: Bay Wood, 080547-01
COC No(s): (NA)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No: QC29
Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 5.8 2.4 0.9 4.1 5.4
If cooler temperature is out of compliance fill out form 00070F
Temp Gun ID#: 90941619

Cooler Accepted by: DU Date: 12/18/09 Time: 1540

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Samples Logged by: AV Date: 12/21/09 Time: 1005

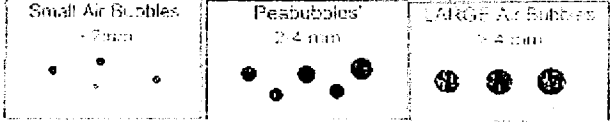
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
*BW-SS-SC-A-091218	BW-SS-A-091218		

Additional Notes, Discrepancies, & Resolutions:

* Used ID from C.O.C for login. BW-SS-A-091218 has a grainsize container but not listed on C.O.C -Added grain size on 12/21/09 as requested -CO

By: AV Date: 12/21/09



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Anchor QEA	Phone:	Date: 12/17/09	Ice Present?
Client Contact: David Gillingham		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #:	Samplers: DG		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: hold	Notes/Comments
BW-01-SC-091217	12/17/09	1315	Sed	1	X	Cores
BW-11-SC-091217	12/17/09	1210	Sed	1	X	
BW-05-SC-091217	12/17/09	1000	Sed	1	X	
BW-04-SC-091217	12/17/09	1445	Sed	1	X	
BW-07-SC-091217	12/17/09	0900	Sed	1	X	

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: David Gillingham	Printed Name: C. OREIRO	Printed Name:	Printed Name:
	Company: Anchor	Company: ARI	Company:	Company:
	Date & Time: 12/17/09 1750	Date & Time: 12/17/09 1750	Date & Time:	Date & Time:

10000-6220

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA Project Name: Bay Wood

COC No(s): (NA) Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No: _____ Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	AMB	

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: _____

Cooler Accepted by: JD Date: 12/17/09 Time: 1750

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA	_____	

Samples Logged by: _____ Date: _____ Time: _____

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Samples were core processed by Anchor in lab on 12/18/09 and made into new samples

By: JW Date: 12/18/09

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

QC29 : 00008

Case Narrative

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

Case Narrative

Client: Anchor QEA
Project: Baywood 080547-01
ARI Job No.: QC29

Sample receipt

Twenty-one sediment samples were received in good condition on December 18, 2009, under ARI job QC29. The cooler temperatures measured by IR thermometer following ARI SOP were 0.9, 2.4, 4.1, 5.6, and 5.8°C. For further details regarding sample receipt, refer to the Cooler Receipt Form. Select samples were archived upon receipt, as requested on the COC, and the remaining eleven samples were logged for analysis; the results of which are reported here.

General Chemistry Parameters

The samples were prepared and analyzed within the required holding time for all parameters.

It was noted by the analyst that there were more than twenty samples analyzed for ammonia associated with the method blank and LCS for the 12/21/09 analysis. All other quality control parameters were for ammonia. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

Standard reference recoveries were within limits.

Geotechnical Parameters

A laboratory-specific narrative follows.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor Environmental, LLC	**ARI Project No.:** QC29
Client Project: Bay Wood	**Client Project No.:** 080547-01

Case Narrative

1. Eleven samples were submitted for analysis on December 21, 2009, for pore water extraction by the United States Army Corp of Engineers draft interim guidelines, grain size distribution by Puget Sound Estuary Protocol (PSEP) methodology, and loss on ignition determination for large woody samples according to ASTM D2974.
2. The sediment for pore water extraction was placed in the nitrogen chamber along with centrifuge bottles, spoons and a balance. The chamber was sealed and filled with nitrogen. The centrifuge jars were opened to allow them to come to equilibrium with the chamber. The oxygen level in the chamber was less than 1%.
3. All centrifuge bottles were pre-rinsed with Hexane and allowed to dry completely. All spoons were pre-rinsed with Dichloromethane.
4. All samples were centrifuged in a pre-cooled centrifuge (4°C) at 3,000 x g for 30 minutes, decanted in the nitrogen chamber, and then placed in another pre-cooled centrifuge (4°C) and spun at 7,000-x g for 30 minutes. The pore water was then decanted into appropriate sample containers.
5. Some of the samples had "floaters," material that was floating on the top (or within the water) and could not be separated by centrifuging.
6. The sample BW-04-SC-C-091218 did not have any pore water to extract after centrifuging.
7. Samples BW-07-SC-C-091218 and BW-05-SC-B-091218 had limited pore water to extract.
8. The samples contained woody and organic debris. This organic material may have broken down during the procedure for grain size determination. Organic material also has irregular shape and non-uniform density. These factors may have skewed the grain size distribution.
9. The data is provided in summary tables and plots.
10. There were no other anomalies with this project.

Approved by: _____ Date: 1/14/10
Title: Geotechnical Laboratory Manager

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

QC29 : 00012

Data Reporting Qualifiers

Effective 7/10/2009

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

QC29 : 00013

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

QC29 : 00014

Data Summary Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

GENERAL CHEMISTRY ANALYSIS

QC29 : 00016

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-04-SC-B-091218
ARI ID: 09-31270 QC29B

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.90
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	42.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.20	9.44
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	22.8	216
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.142	9.62

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-04-SC-C-091218
ARI ID: 09-31271 QC29C

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	58.50
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	59.40
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.33	17.9
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	84.3	953
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	9.13

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-01-SC-A-091218
ARI ID: 09-31272 QC29D

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.00
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	45.10
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.21	16.2
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	113	900
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	3.31

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-01-SC-B-091218
ARI ID: 09-31273 QC29E

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.10
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.00
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.23	22.1
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	27.3	311
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	9.22

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-11-SC-A-091218
ARI ID: 09-31276 QC29H

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	50.20
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	50.50
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.19	13.0
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	43.8	313
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.25

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-11-SC-B-091218
ARI ID: 09-31277 QC29I

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	54.90
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	57.60
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.80	31.2
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	87.0	952
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	8.20

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-07-SC-B-091218
ARI ID: 09-31280 QC29L

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	61.00
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	60.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	1.58	81.5
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	1.67	8.74
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	3.21

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-07-SC-C-091218
ARI ID: 09-31281 QC29M

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.20
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.91	55.8
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	2.04	< 2.04 U
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	7.17

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-05-SC-A-091218
ARI ID: 09-31285 QC29Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	59.60
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.50
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.32	18.3
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	17.9	122
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	4.47

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-05-SC-B-091218
ARI ID: 09-31286 QC29R

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	64.70
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	68.20
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.71	54.7
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	71.5	686
Total Organic Carbon	01/06/10 010610#1	Plumb,1981	Percent	0.020	2.77

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-55-A-091218
ARI ID: 09-31289 QC29U

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	57.70
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.29	18.3
Total Organic Carbon	01/06/10 010610#1	Plumb,1981	Percent	0.020	4.82

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

LAB CONTROL RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	12/22/09	mg/kg	5.08	5.66	89.8%
Total Organic Carbon	ICVL	01/05/10	Percent	0.101	0.100	101.0%
Plumb,1981	ICVL	01/06/10		0.103	0.100	103.0%

METHOD BLANK RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	12/23/09	Percent	< 0.01 U
Preserved Total Solids	12/23/09	Percent	< 0.01 U
N-Ammonia	12/21/09	mg-N/kg	< 0.10 U
Sulfide	12/22/09	mg/kg	< 1.00 U
Total Organic Carbon	01/05/10	Percent	< 0.020 U
	01/06/10		< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia	12/21/09	mg-N/kg	99.1	100	99.1%
SPEX 28-24AS					
Total Organic Carbon	01/05/10	Percent	3.18	3.35	94.9%
NIST #8704	01/06/10		3.74	3.35	111.6%

GEOTECHNICAL ANALYSIS

QC29:00031

Anchor QEA, LLC
Bay Wood
080547-01

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
LDW-SS511-010	100.0	100.0	100.0	99.9	99.6	99.2	98.8	97.7	90.3	73.3	54.1	37.5	24.9	15.9
	100.0	100.0	100.0	99.9	99.8	99.6	99.4	98.5	92.9	76.0	55.6	38.1	25.0	16.4
	100.0	100.0	100.0	99.9	99.8	99.7	99.5	98.6	92.6	75.9	55.9	37.8	25.2	16.2
BW-04-SC-B-091218	100.0	84.7	78.6	72.0	61.1	41.7	27.6	20.8	19.1	14.4	10.3	7.4	5.4	3.8
BW-04-SC-C-091218	100.0	96.2	92.2	87.2	78.4	54.8	36.4	28.2	24.6	17.9	12.1	8.5	5.8	3.7
BW-01-SC-A-091218	100.0	100.0	100.0	98.0	97.2	96.5	95.8	94.1	88.1	67.1	41.2	26.3	17.4	11.3
BW-01-SC-B-091218	100.0	98.0	95.9	93.7	90.6	83.6	77.4	73.3	67.3	56.1	41.0	28.7	20.6	14.6
BW-11-SC-A-091218	100.0	100.0	99.7	98.3	97.3	96.0	94.0	87.0	69.9	46.2	28.1	17.7	11.9	7.7
BW-11-SC-B-091218	100.0	95.8	87.9	81.1	72.0	55.6	45.4	37.2	28.0	19.8	13.0	8.4	5.4	3.0
BW-07-SC-B-091218	100.0	99.9	96.4	91.7	84.5	78.7	75.3	71.4	58.2	39.8	23.5	14.7	10.0	6.1
BW-07-SC-C-091218	100.0	100.0	98.9	96.9	88.7	68.2	56.5	48.1	36.0	24.9	15.2	9.6	5.9	3.4
BW-05-SC-A-091218	100.0	99.0	97.3	94.9	88.1	67.5	57.1	46.3	34.1	23.2	15.1	10.4	7.2	4.7
BW-05-SC-B-091218	100.0	99.3	98.4	97.1	95.5	90.3	86.4	74.8	57.4	39.5	25.6	16.5	11.2	7.0
BW-55-A-091218	100.0	99.0	97.6	95.0	87.8	66.4	55.4	44.6	31.6	22.2	14.6	10.2	6.9	4.5

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC29 : 88932

Anchor QEA, LLC
Bay Wood
080547-01

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
LDW-SS511-010	0.0	0.1	0.3	0.4	0.4	1.0	7.5	17.0	19.2	16.6	12.5	9.0	15.9	97.7
	0.0	0.1	0.1	0.2	0.2	0.9	5.6	16.9	20.4	17.6	13.0	8.6	16.4	98.5
	0.0	0.1	0.1	0.2	0.2	0.8	6.0	16.7	20.1	18.1	12.6	9.0	16.2	98.6
BW-04-SC-B-091218	21.4	6.6	10.9	19.4	14.1	6.8	1.7	4.6	4.2	2.8	2.0	1.7	3.8	20.8
BW-04-SC-C-091218	7.8	5.0	8.8	23.7	18.3	8.3	3.5	6.7	5.9	3.6	2.7	2.2	3.7	28.2
BW-01-SC-A-091218	0.0	1.9	0.8	0.7	0.7	1.7	6.0	21.0	25.9	14.9	8.9	6.1	11.3	94.1
BW-01-SC-B-091218	4.1	2.2	3.2	6.9	6.2	4.0	6.0	11.2	15.2	12.2	8.2	6.0	14.6	73.3
BW-11-SC-A-091218	0.3	1.5	1.0	1.2	2.1	7.0	17.1	23.8	18.1	10.3	5.9	4.2	7.7	87.0
BW-11-SC-B-091218	12.1	6.8	9.1	16.5	10.1	8.2	9.2	8.2	6.8	4.6	2.9	2.4	3.0	37.2
BW-07-SC-B-091218	3.6	4.6	7.2	5.8	3.4	3.9	13.2	18.4	16.4	8.8	4.7	3.9	6.1	71.4
BW-07-SC-C-091218	1.1	2.0	8.2	20.5	11.7	8.4	12.1	11.1	9.7	5.6	3.7	2.5	3.4	48.1
BW-05-SC-A-091218	2.7	2.5	6.7	20.6	10.5	10.8	12.3	10.8	8.1	4.6	3.3	2.5	4.7	46.3
BW-05-SC-B-091218	1.6	1.2	1.7	5.1	3.9	11.6	17.4	17.8	14.0	9.0	5.4	4.1	7.0	74.8
BW-55-A-091218	2.4	2.6	7.2	21.4	11.0	10.8	13.1	9.3	7.6	4.4	3.3	2.4	4.5	44.6

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC29 : 00033

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	Bay Wood
		Client Project:	080547-01
ARI Trip. Sample ID:	QC19 A	Batch No.:	QC29-1
Client Trip. Sample ID:	LDW-SS511-010	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
DW-SS511-01	100.0	100.0	100.0	99.9	99.6	99.2	98.8	97.7	90.3	73.3	54.1	37.5	24.9	15.9
	100.0	100.0	100.0	99.9	99.8	99.6	99.4	98.5	92.9	76.0	55.6	38.1	25.0	16.4
	100.0	100.0	100.0	99.9	99.8	99.7	99.5	98.6	92.6	75.9	55.9	37.8	25.2	16.2
AVE	NA	100.00	100.00	99.94	99.75	99.48	99.21	98.29	91.94	75.07	55.19	37.78	25.06	16.18
STDEV	NA	0.00	0.00	0.01	0.11	0.26	0.37	0.48	1.46	1.56	0.96	0.31	0.13	0.25
%RSD	NA	0.00	0.00	0.01	0.11	0.27	0.37	0.48	1.59	2.08	1.75	0.81	0.51	1.56

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
LDW-SS511-010	12/17/2009	12/31/2009	1/8/2010	98.5		17.6
	12/17/2009	12/31/2009	1/8/2010	100.7		17.2
	12/17/2009	12/31/2009	1/8/2010	100.3		16.5
BW-04-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	97.8		12.2
BW-04-SC-C-091218	12/18/2009	1/5/2010	1/12/2010	99.0		11.7
BW-01-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	98.3		17.0
BW-01-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	95.2		15.0
BW-11-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	98.7		19.1
BW-11-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	100.7		8.9
BW-07-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	99.7		19.6
BW-07-SC-C-091218	12/18/2009	1/5/2010	1/12/2010	101.2		12.4
BW-05-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	99.4		14.9
BW-05-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	102.0		22.9
BW-55-A-091218	12/18/2009	1/5/2010	1/12/2010	99.4		18.3

* ARI Internal QA limits = 95-105%

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC29 090218

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Organic Matter by Method ASTM D2974

Data Release Authorized: QJ
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	27.03
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	25.97
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	10.26
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	39.20
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	10.03
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	29.86
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	8.10
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	18.42
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	13.93
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	11.36
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	14.29

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Total Solids by Method ASTM D2974

Data Release Authorized: gp
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	50.91
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	58.03
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	48.03
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	46.09
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	52.31
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	52.59
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	62.49
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	56.88
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	57.96
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	62.32
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	57.94

GEOTECHNICAL ANALYSIS DATA SHEET
Ash Content by Method ASTM D2974

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: QJ
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	72.97
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	74.03
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	89.74
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	60.80
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	89.97
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	70.14
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	91.90
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	81.58
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	86.07
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	88.64
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	85.71

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

Laboratory Data Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

General Chemistry Analysis
QC Summary Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

LAB CONTROL RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	12/22/09	mg/kg	5.08	5.66	89.8%
Total Organic Carbon	ICVL	01/05/10	Percent	0.101	0.100	101.0%
Plumb,1981	ICVL	01/06/10		0.103	0.100	103.0%

METHOD BLANK RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	12/23/09	Percent	< 0.01 U
Preserved Total Solids	12/23/09	Percent	< 0.01 U
N-Ammonia	12/21/09	mg-N/kg	< 0.10 U
Sulfide	12/22/09	mg/kg	< 1.00 U
Total Organic Carbon	01/05/10	Percent	< 0.020 U
	01/06/10		< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia	12/21/09	mg-N/kg	99.1	100	99.1%
SPEX 28-24AS					
Total Organic Carbon	01/05/10	Percent	3.18	3.35	94.9%
NIST #8704	01/06/10		3.74	3.35	111.6%

General Chemistry Analysis
Sample Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-04-SC-B-091218
ARI ID: 09-31270 QC29B

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.90
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	42.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.20	9.44
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	22.8	216
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.142	9.62

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-04-SC-C-091218
ARI ID: 09-31271 QC29C

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	58.50
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	59.40
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.33	17.9
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	84.3	953
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	9.13

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-01-SC-A-091218
ARI ID: 09-31272 QC29D

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.00
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	45.10
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.21	16.2
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	113	900
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	3.31

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-01-SC-B-091218
ARI ID: 09-31273 QC29E

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.10
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	43.00
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.23	22.1
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	27.3	311
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	9.22

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-11-SC-A-091218
ARI ID: 09-31276 QC29H

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	50.20
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	50.50
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.19	13.0
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	43.8	313
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	2.25

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-11-SC-B-091218
ARI ID: 09-31277 QC29I

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	54.90
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	57.60
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.80	31.2
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	87.0	952
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	8.20

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-07-SC-B-091218
ARI ID: 09-31280 QC29L

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	61.00
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	60.90
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	1.58	81.5
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	1.67	8.74
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	3.21

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-07-SC-C-091218
ARI ID: 09-31281 QC29M

Analyte	Date	Method	Units	RL	Sample	
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.20	
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	47.90	
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.91	55.8	
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	2.04	< 2.04	U
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	7.17	

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-05-SC-A-091218
ARI ID: 09-31285 QC29Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	59.60
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	55.50
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.32	18.3
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	17.9	122
Total Organic Carbon	01/05/10 010510#1	Plumb,1981	Percent	0.020	4.47

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-05-SC-B-091218
ARI ID: 09-31286 QC29R

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	64.70
Preserved Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	68.20
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.71	54.7
Sulfide	12/22/09 122209#1	EPA 376.2	mg/kg	71.5	686
Total Organic Carbon	01/06/10 010610#1	Plumb,1981	Percent	0.020	2.77

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
QC29-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/07/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/18/09
Date Received: 12/18/09

Client ID: BW-55-A-091218
ARI ID: 09-31289 QC29U

Analyte	Date	Method	Units	RL	Sample
Total Solids	12/23/09 122309#1	EPA 160.3	Percent	0.01	57.70
N-Ammonia	12/21/09 122109#1	EPA 350.1M	mg-N/kg	0.29	18.3
Total Organic Carbon	01/06/10 010610#1	Plumb,1981	Percent	0.020	4.82

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

General Chemistry Analysis
Instrument Raw Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

JA 12-28-09

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET
SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/2009
ANALYST: CDE 20:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597
Muffle Furnace: N/A

Batch drying time		
record times as mm/dd/yy hh:mm		
12/23/2009 20:29	date/time in oven	CDE
12/24/2009 10:37	date/time out	CDE
elapsed hrs =	14.1	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

ZnOAc Preserved

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time	12/23/09 19:56	12/23/09 19:34	12/24/09 10:53									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank		0.0000	1.1249	1.1247			0.00							
QC26 A4		6.5728	1.1145	4.1684			3.05	**55.9%**						
QC26 A4 dup		6.4556	1.1325	4.1116			2.98	**56.0%**						
							RPD =	0.03%				RPD =	NA	
QC26 B4		6.9140	1.1063	3.6441			2.54	**43.7%**						
QC26 C4		6.8526	1.1283	3.7284			2.60	**45.4%**						
QC26 E4		6.2555	1.1353	4.3452			3.21	**62.7%**						
QC26 F4		6.8759	1.1241	3.6930			2.57	**44.7%**						
QC29 B1		6.3158	1.1334	3.3585			2.23	**42.9%**						
QC29 C1		6.9460	1.1097	4.5792			3.47	**59.4%**						
QC29 D1		6.3319	1.1354	3.4800			2.34	**45.1%**						
QC29 E1		6.5055	1.1234	3.4372			2.31	**43.0%**						
QC29 H1		6.8266	1.1440	4.0135			2.87	**50.5%**						
QC29 I 1		6.4627	1.1302	4.2024			3.07	**57.6%**						
QC29 L1		6.1028	1.1189	4.1558			3.04	**60.9%**						
QC29 M1		6.2439	1.1118	3.5694			2.46	**47.9%**						
QC29 Q1		6.5622	1.1318	4.1467			3.01	**55.5%**						
QC29 R1		6.7382	1.1669	4.9647			3.80	**68.2%**						

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(B)

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/9 CDG 20:29
ANALYST: CDG

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm 12/23/9 CDG time in oven 20:29 12/24/9 CDG time out 10:37 elapsed hrs = 0.0 < 12 hr	Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt)/ (grams Sample-Tare) ZnOAc Preserved	Final ash wt (g) = (min ash wt - tare wt) TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000 if ash wt > dry wt, "Chk for Err" if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Cal Weight ID	CV-02	CV-02	CV-02					CV-02	CV-02			
Date & Time	12/23/9 CDG	12/23/9 CDG	12/24/9 CDG									
Cal Wt (g) 10.0000	10.0000	10.0000										
record weights to 4 places	19:56	19:34										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank	Z22	Ø	1.1249	1.1247										
QC26 A4	23	6.5728	1.1145	4.1684										
DP A4	24	6.4556	1.1325	4.1116										
B4	25	6.9140	1.1063	3.6441										
C4	26	6.8526	1.1283	3.7284										
E4	27	6.2555	1.1353	4.3452										
F4	28	6.8759	1.1241	3.6930										
QC29 B1	29	6.3158	1.1334	3.3585										
C1	30	6.9460	1.1097	4.5792										
D1	31	6.3319	1.1354	3.4800										
E1	32	6.5055	1.1234	3.4372										
H1	33	6.8266	1.1440	4.0135										
I1	34	6.4627	1.1302	4.2024										
L1	35	6.1028	1.1189	4.1558										
M1	36	6.2439	1.1118	3.5694										
Q1	37	6.5622	1.1318	4.1467										
R1	38	6.7382	1.1669	4.9647										

12/23/9 CDG

ARI 6053 TS/TVS, Soils
Rev : 12/14/2001

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6053 TS-TVS soil rev1
Date Printed: 5/29/2009

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES

ARI Job No: QC26 Client Name: Anchor QEA

Parameter: TSPR & S^2 Client Project: Baywood 080547-01

Samples B^4, C^4, E^4, & F^4 were run for Both TSPR & S^2 on Unpreserved Samples
Advised by pm. to enter data into lims as preserved due to aTS on B^3, C^3, E^3 & F^3 already entered for TS, TS70°, & TOC sampled from a seperate container.

Analyst: CDE Date Analyzed: 12/23/09

6147F

Rev. 7
06/3/04

12-28-09

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 12/23/2009

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: CDE 18:58

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N/A

Batch drying time

record times as mm/dd/yy hh:mm

12/23/2009 18:58 date/time in oven CDE

12/24/2009 12:22 date/time out CDE

elapsed hrs = 17.4

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID		CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
Date & Time		12/23/09 16:12	12/22/09 13:14	12/24/09 12:39									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	**TS (%)**	ASH WT 550C (grams) 1	2		Ash Wt (g)	**TVS (mg/kg)**	**(%)**
Blank		0.0000	1.1231	1.1229			0.00							
QC26 A6		6.7101	1.1275	4.6329			3.51	**62.8%**						
QC26 A6 dup		6.4920	1.1259	4.5038			3.38	**62.9%**						
							RPD =	0.25%				RPD =	NA	
QC26 A6 trp		6.4359	1.1210	4.4355			3.31	**62.4%**						
							RSD =	0.48%				RSD =	NA	
QC26 B3		6.4198	1.1198	3.4392			2.32	**43.8%**						
QC26 C3		6.6718	1.1442	3.7224			2.58	**46.6%**						
QC26 D2		6.8528	1.1313	3.6382			2.51	**43.8%**						
QC26 E3		6.2607	1.1526	3.9926			2.84	**55.6%**						
QC26 F3		6.2142	1.1571	3.5236			2.37	**46.8%**						
QC29 B3		7.0451	1.1194	3.9581			2.84	**47.9%**						
QC29 C2		7.2202	1.1384	4.6959			3.56	**58.5%**						
QC29 D2		6.6448	1.1258	3.7215			2.60	**47.0%**						
QC29 E2		6.6947	1.1247	3.5247			2.40	**43.1%**						
QC29 H2		6.9932	1.1264	4.0703			2.94	**50.2%**						
QC29 I 2		5.9954	1.1214	3.7965			2.68	**54.9%**						
QC29 L2		6.5222	1.1522	4.4280			3.28	**61.0%**						
QC29 M2		6.3258	1.1263	3.9975			2.87	**55.2%**						
QC29 Q2		6.7922	1.1444	4.5129			3.37	**59.6%**						
QC29 R2		7.1068	1.1198	4.9958			3.88	**64.7%**						
QC29 U2		6.5932	1.1218	4.2771			3.16	**57.7%**						

(B)

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 12/23/9 CDL 18:58

ANALYST: CDL

Batch drying time	TS (%) calculated as:	TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm 12/23/9 CDL time in oven 18:58 12/24/9 CDL time out 12:22 elapsed hrs = 0.0 < 12 hr	Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt)/ (grams Sample-Tare)	Final ash wt (g) = (min ash wt - tare wt) TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000 if ash wt > dry wt, "Chk for Err" if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Cal Weight ID	CV-02	CV-02	CV-02					CV-02	CV-02			
Date & Time	12/23/9 CDL	12/22/9 CDL	12/24/9 CDL									
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000									
record weights to 4 places	16:12	13:14	12:39									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank	77	Ø	1.1231	1.1229										
QC26 A6	78	6.7101	1.1275	4.6329										
PP A6	79	6.4920	1.1259	4.5038										
TP A6	80	6.4359	1.1210	4.4355										
B3	81	6.4198	1.1198	3.4392										
C3	82	6.6718	1.1442	3.7224										
D2	83	6.8528	1.1313	3.6382										
E3	84	6.2607	1.1526	3.9926										
F3	85	6.2142	1.1571	3.5236										
QC29 B3	86	7.0451	1.1194	3.9581										
C2	87	7.2202	1.1384	4.6959										
D2	88	6.6448	1.1258	3.7215										
E2	89	6.6947	1.1247	3.5247										
H2	90	6.9932	1.1264	4.0703										
I2	91	5.9954	1.1214	3.7965										
L2	92	6.5222	1.1522	4.4280										
M2	93	6.3258	1.1263	3.9975										
Q2	94	6.7922	1.1444	4.5129										
R2	95	7.1068	1.1198	4.9958										
U1	96	6.5932	1.1218	4.2771										

12/22/9 CDL

ARI 6053 TS/TVS, Soils
Rev : 12/14/2001

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6053 TS-TVS soil rev1
Date Printed: 5/29/2009

Original Run Filename: OM_12-23-2009_09-32-20AM.OMN Created: 12/23/2009 9:32:20 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 122309NH3A1.omn Last Modified: 12/23/2009 12:27:01 PM
Description: LACHAT 1
Standards made from ARI Stock#: 0096-04

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MANUAL DILUTION FACTOR	
STD 1.0	S1	1	37.0313	12/23/2009@9:33:20 AM		
STD 0.8	S2	0.8	29.6220	12/23/2009@9:34:30 AM		
STD 0.5	S3	0.5	18.3314	12/23/2009@9:35:41 AM		
STD 0.2	S4	0.2	7.2792	12/23/2009@9:36:50 AM		
STD 0.05	S5	0.05	1.7344	12/23/2009@9:38:01 AM		
STD 0.02	S6	0.02	0.6776	12/23/2009@9:39:11 AM		
STD 0.01	S7	0.01	0.4355	12/23/2009@9:40:22 AM		
BLANK	S8	0	-0.3503	12/23/2009@9:41:32 AM		
ICV ERA 190109	9	0.525	19.3668	12/23/2009@9:42:43 AM		%R= 105.00
Known Conc:		0.5				
Calibration:		Table/Fig. : 1				
ICB	10	-0.0054	-0.3371	12/23/2009@9:48:38 AM		
Known Conc:		0				
~~LOW~~	~~11~~	~~0.0053~~	~~0.0627~~	~~12/23/2009@9:54:35 AM~~	-	
Known Conc:		0.01				
~~PREP BLANK~~	~~12~~	~~0.4939~~	~~18.2123~~	~~12/23/2009@10:00:52 AM~~	-	
PREP BLANK	11	0.0046	0.0377	12/23/2009@10:02:03 AM		
PREP CHECK @10ppm	12	9.9065	18.2651	12/23/2009@10:03:14 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 99.07
QC24 A3	13	1.3276	24.5231	12/23/2009@10:04:25 AM	2.0000	
QC24 A3 DUP	14	1.2366	22.8328	12/23/2009@10:05:35 AM	2.0000	%RPD= 7.10
QC24 A3 TRIP	15	1.2182	22.4909	12/23/2009@10:06:46 AM	2.0000	%RPD= 1.50

QC24 A3 MS	16	10.2761	18.9515	12/23/2009@10:07:57 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 89.49
QC24 A3 MSD	19	10.5445	19.4501	12/23/2009@10:09:07 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 92.17
LOW	60	0.0137	0.3740	12/23/2009@10:10:19 AM		%R= 137.00
Known Conc:		0.01				
CCV	17	0.5253	19.3774	12/23/2009@10:16:15 AM		%R= 105.06
Known Conc:		0.5				
CCB	18	0.0029	-0.0275	12/23/2009@10:22:12 AM		
Known Conc:		0				
QC24 B3	20	0.6944	25.6589	12/23/2009@10:28:09 AM		
QC24 C3	21	0.597	22.0406	12/23/2009@10:29:20 AM		
~~QC24 D3~~	~~22~~	~~1.0339~~	~~38.2734~~	~~12/23/2009@10:30:31 AM~~	-	
~~QC24 E3~~	~~23~~	~~1.0005~~	~~37.0320~~	~~12/23/2009@10:31:42 AM~~	-	
~~QC24 F3~~	~~24~~	~~1.4286~~	~~52.9339~~	~~12/23/2009@10:32:53 AM~~	-	
~~QC24 G3~~	~~25~~	~~1.8692~~	~~69.3001~~	~~12/23/2009@10:34:03 AM~~	-	
~~QC24 H3~~	~~26~~	~~1.4293~~	~~52.9594~~	~~12/23/2009@10:35:15 AM~~	-	
~~QC24 I3~~	~~27~~	~~1.8542~~	~~68.7445~~	~~12/23/2009@10:36:27 AM~~	-	
~~QC24 J3~~	~~28~~	~~2.1505~~	~~79.7495~~	~~12/23/2009@10:37:38 AM~~	-	
~~QC24 K3~~	~~29~~	~~2.0865~~	~~77.3744~~	~~12/23/2009@10:38:49 AM~~	-	
CCV	17	0.5247	19.3553	12/23/2009@10:40:00 AM		%R= 104.94
Known Conc:		0.5				
CCB	18	-0.0044	-0.2989	12/23/2009@10:45:56 AM		
Known Conc:		0				
~~QC24 L3~~	~~30~~	~~1.5467~~	~~57.3192~~	~~12/23/2009@10:51:53 AM~~	-	
QC24 M2	31	0.5997	22.1437	12/23/2009@10:53:05 AM		
QC26A6	32	0.2559	9.3722	12/23/2009@10:54:16 AM		
QC26A6 DUP	33	0.2636	9.6556	12/23/2009@10:55:28 AM		%RPD= 2.96
QC26A6 TRP	34	0.2491	9.1170	12/23/2009@10:56:39 AM		%RPD= 5.66

QC26A6 MS	35	9.8857	18.2264	12/23/2009@10:57:49 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 96.30
QC26A6 MSD	36	9.5945	17.6856	12/23/2009@10:59:01 AM	20.0000	SPK=0.4ML@1000PPM/40ML= %R= 93.39
QC26B3	37	0.2311	8.4505	12/23/2009@11:00:13 AM		
QC26C3	38	0.1484	5.3768	12/23/2009@11:01:25 AM		
Not Requested QC26D2	39	0.3803	13.9915	12/23/2009@11:02:36 AM		
CCV	17	0.5302	19.5606	12/23/2009@11:03:47 AM		%R= 106.04
Known Conc:		0.5				
CCB	18	-0.0041	-0.2859	12/23/2009@11:09:43 AM		
Known Conc:		0				
QC26E3	40	0.3693	13.5822	12/23/2009@11:15:40 AM		
QC26F3	41	0.3092	11.3527	12/23/2009@11:16:53 AM		
QC29B3	42	0.4841	17.8500	12/23/2009@11:18:04 AM		
~~QC29C2~~	~~43~~	~~1.0857~~	~~40.1947~~	~~12/23/2009@11:19:16 AM~~	-	
QC29D2	44	0.7642	28.2529	12/23/2009@11:20:28 AM		
QC29E2	45	0.9646	35.6961	12/23/2009@11:21:39 AM		
QC29H2	46	0.6853	25.3229	12/23/2009@11:22:51 AM		
~~QC29I2~~	~~47~~	~~1.7381~~	~~64.4315~~	~~12/23/2009@11:24:03 AM~~	-	
~~QC29L2~~	~~48~~	~~4.4641~~	~~165.6930~~	~~12/23/2009@11:25:14 AM~~	-	
~~QC29M2~~	~~49~~	~~2.8805~~	~~106.8680~~	~~12/23/2009@11:26:26 AM~~	-	
CCV	17	0.527	19.4430	12/23/2009@11:27:38 AM		%R= 105.40
Known Conc:		0.5				
CCB	18	-0.003	-0.2472	12/23/2009@11:33:34 AM		
Known Conc:		0				
~~QC29O2~~	~~50~~	~~1.139~~	~~42.1768~~	~~12/23/2009@11:39:32 AM~~	-	

~~QC29R2~~	~~51~~	~~3.5245~~	~~130.7901~~	~~12/23/2009@11:40:45 AM~~	-
~~QC29U1~~	~~52~~	~~1.2226~~	~~45.2828~~	~~12/23/2009@11:41:56 AM~~	-
QC24D3	53	1.0516	19.3978	12/23/2009@11:43:09 AM	2.0000
QC24E3	54	1.0185	18.7817	12/23/2009@11:44:20 AM	2.0000
QC24F3	55	1.4896	10.9320	12/23/2009@11:45:33 AM	5.0000
QC24G3	56	1.9789	14.5675	12/23/2009@11:46:44 AM	5.0000
QC24H3	57	1.4709	27.1848	12/23/2009@11:47:57 AM	2.0000
QC24I3	58	1.9539	14.3818	12/23/2009@11:49:09 AM	5.0000
QC24J3	59	2.2685	16.7188	12/23/2009@11:50:21 AM	5.0000
CCV	17	0.5264	19.4195	12/23/2009@11:51:32 AM	
Known Conc:		0.5			
CCB	18	-0.0041	-0.2874	12/23/2009@11:57:28 AM	
Known Conc:		0			
QC24K3	60	2.1974	16.1906	12/23/2009@12:03:26 PM	5.0000
QC24L3	1	1.6187	11.8912	12/23/2009@12:04:37 PM	5.0000
QC29C2	2	1.0999	20.2939	12/23/2009@12:05:48 PM	2.0000
QC29I2	3	1.9395	14.2748	12/23/2009@12:06:57 PM	5.0000
QC29L2	4	5.1597	19.0319	12/23/2009@12:08:08 PM	10.0000
QC29M2	5	3.0754	22.7134	12/23/2009@12:09:17 PM	5.0000
QC29Q2	6	1.1535	21.2900	12/23/2009@12:10:28 PM	2.0000
QC29R2	7	3.8473	28.4483	12/23/2009@12:11:40 PM	5.0000
QC29U2	8	1.241	22.9159	12/23/2009@12:12:49 PM	2.0000
~~Sample78~~	~~9~~	~~0.0112~~	~~0.2817~~	~~12/23/2009@12:14:00 PM~~	-
CCV	17	0.5294	19.5319	12/23/2009@12:15:11 PM	
Known Conc:		0.5			
CCB	18	-0.0038	-0.2753	12/23/2009@12:21:07 PM	
Known Conc:		0			

%R= 105.28

%R= 105.88

Author: Doritza Rosado

Date : 12/23/2009

Original Run Filename: OM_12-23-2009_09-32-20AM.OMN Created: 12/23/2009 9:32:20 AM
Original Run Author's Signature: [Doritza Rosado]
Current Run Filename: 122309NH3A1.omn Last Modified: 12/23/2009 12:27:01 PM
Current Run Author's Signature: [Doritza Rosado]
Description: Default New Run

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	37.0313	12/23/2009@9:33:20 AM	
STD 0.8	S2	0.8000	29.6220	12/23/2009@9:34:30 AM	
STD 0.5	S3	0.5000	18.3314	12/23/2009@9:35:41 AM	
STD 0.2	S4	0.2000	7.2792	12/23/2009@9:36:50 AM	
STD 0.05	S5	0.0500	1.7344	12/23/2009@9:38:01 AM	
STD 0.02	S6	0.0200	0.6776	12/23/2009@9:39:11 AM	
STD 0.01	S7	0.0100	0.4355	12/23/2009@9:40:22 AM	
BLANK	S8	0.0000	-0.3503	12/23/2009@9:41:32 AM	
ICV	9	0.5250	19.3668	12/23/2009@9:42:43 AM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0054	-0.3371	12/23/2009@9:48:38 AM	
Known Conc:		0.0000			
LOW	11	0.0053	0.0627	12/23/2009@9:54:35 AM	
Known Conc:		0.0100			
PREP BLANK	12	0.4939	18.2123	12/23/2009@10:00:52 AM	
PREP BLANK	11	0.0046	0.0377	12/23/2009@10:02:03 AM	
PREP CHECK @10ppm	12	9.9065	18.2651	12/23/2009@10:03:14 AM	20.00
QC24 A3	13	1.3276	24.5231	12/23/2009@10:04:25 AM	2.00
QC24 A3 DUP	14	1.2366	22.8328	12/23/2009@10:05:35 AM	2.00
QC24 A3 TRIP	15	1.2182	22.4909	12/23/2009@10:06:46 AM	2.00
QC24 A3 MS	16	10.2761	18.9515	12/23/2009@10:07:57 AM	20.00
QC24 A3 MSD	19	10.5445	19.4501	12/23/2009@10:09:07 AM	20.00
LOW	60	0.0137	0.3740	12/23/2009@10:10:19 AM	
Known Conc:		0.0100			
CCV	17	0.5253	19.3774	12/23/2009@10:16:15 AM	
Known Conc:		0.5000			
CCB	18	0.0029	-0.0275	12/23/2009@10:22:12 AM	
Known Conc:		0.0000			
QC24 B3	20	0.6944	25.6589	12/23/2009@10:28:09 AM	
QC24 C3	21	0.5970	22.0406	12/23/2009@10:29:20 AM	
QC24 D3	22	1.0339	38.2734	12/23/2009@10:30:31 AM	
QC24 E3	23	1.0005	37.0320	12/23/2009@10:31:42 AM	
QC24 F3	24	1.4286	52.9339	12/23/2009@10:32:53 AM	
QC24 G3	25	1.8692	69.3001	12/23/2009@10:34:03 AM	
QC24 H3	26	1.4293	52.9594	12/23/2009@10:35:15 AM	
QC24 I3	27	1.8542	68.7445	12/23/2009@10:36:27 AM	
QC24 J3	28	2.1505	79.7495	12/23/2009@10:37:38 AM	
QC24 K3	29	2.0865	77.3744	12/23/2009@10:38:49 AM	
CCV	17	0.5247	19.3553	12/23/2009@10:40:00 AM	
Known Conc:		0.5000			
CCB	18	-0.0044	-0.2989	12/23/2009@10:45:56 AM	
Known Conc:		0.0000			
QC24 L3	30	1.5467	57.3192	12/23/2009@10:51:53 AM	
QC24 M2	31	0.5997	22.1437	12/23/2009@10:53:05 AM	
QC26A6	32	0.2559	9.3722	12/23/2009@10:54:16 AM	
QC26A6 DUP	33	0.2636	9.6556	12/23/2009@10:55:28 AM	
QC26A6 TRP	34	0.2491	9.1170	12/23/2009@10:56:39 AM	
QC26A6 MS	35	9.8857	18.2264	12/23/2009@10:57:49 AM	20.00
QC26A6 MSD	36	9.5945	17.6856	12/23/2009@10:59:01 AM	20.00
QC26B3	37	0.2311	8.4505	12/23/2009@11:00:13 AM	
QC26C3	38	0.1484	5.3768	12/23/2009@11:01:25 AM	
QC26D2	39	0.3803	13.9915	12/23/2009@11:02:36 AM	
CCV	17	0.5302	19.5606	12/23/2009@11:03:47 AM	
Known Conc:		0.5000			
CCB	18	-0.0041	-0.2859	12/23/2009@11:09:43 AM	
Known Conc:		0.0000			

12-23-09

QC29 : 00065

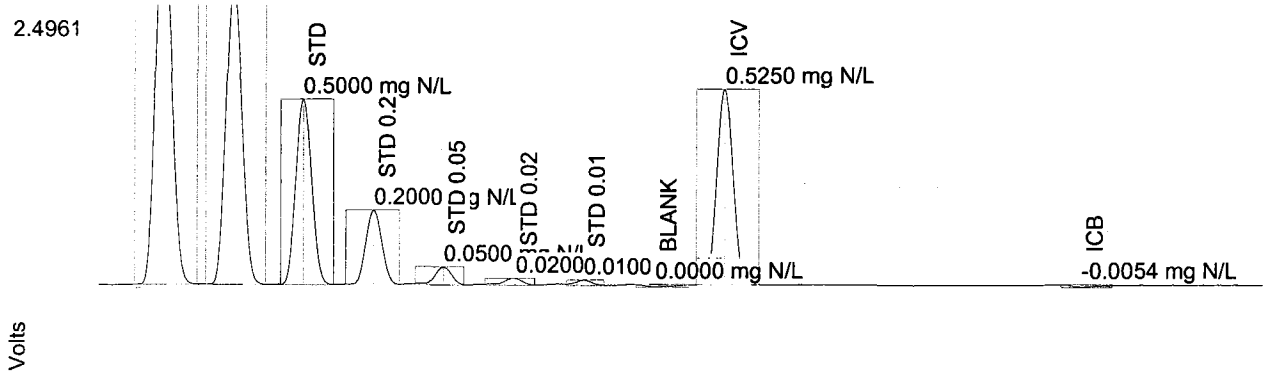
QC26E3	40	0.3693	13.5822	12/23/2009@11:15:40 AM	
QC26F3	41	0.3092	11.3527	12/23/2009@11:16:53 AM	
QC29B3	42	0.4841	17.8500	12/23/2009@11:18:04 AM	
QC29C2	43	1.0857	40.1947	12/23/2009@11:19:16 AM	
QC29D2	44	0.7642	28.2529	12/23/2009@11:20:28 AM	
QC29E2	45	0.9646	35.6961	12/23/2009@11:21:39 AM	
QC29H2	46	0.6853	25.3229	12/23/2009@11:22:51 AM	
QC29I2	47	1.7381	64.4315	12/23/2009@11:24:03 AM	
QC29L2	48	4.4641	165.6930	12/23/2009@11:25:14 AM	
QC29M2	49	2.8805	106.8680	12/23/2009@11:26:26 AM	
CCV	17	0.5270	19.4430	12/23/2009@11:27:38 AM	
Known Conc:		0.5000			
CCB	18	-0.0030	-0.2472	12/23/2009@11:33:34 AM	
Known Conc:		0.0000			
QC29O2	50	1.1390	42.1768	12/23/2009@11:39:32 AM	
QC29R2	51	3.5245	130.7901	12/23/2009@11:40:45 AM	
QC29U1	52	1.2226	45.2828	12/23/2009@11:41:56 AM	
QC24D3	53	1.0516	19.3978	12/23/2009@11:43:09 AM	2.00
QC24E3	54	1.0185	18.7817	12/23/2009@11:44:20 AM	2.00
QC24F3	55	1.4896	10.9320	12/23/2009@11:45:33 AM	5.00
QC24G3	56	1.9789	14.5675	12/23/2009@11:46:44 AM	5.00
QC24H3	57	1.4709	27.1848	12/23/2009@11:47:57 AM	2.00
QC24I3	58	1.9539	14.3818	12/23/2009@11:49:09 AM	5.00
QC24J3	59	2.2685	16.7188	12/23/2009@11:50:21 AM	5.00
CCV	17	0.5264	19.4195	12/23/2009@11:51:32 AM	
Known Conc:		0.5000			
CCB	18	-0.0041	-0.2874	12/23/2009@11:57:28 AM	
Known Conc:		0.0000			
QC24K3	60	2.1974	16.1906	12/23/2009@12:03:26 PM	5.00
QC24L3	1	1.6187	11.8912	12/23/2009@12:04:37 PM	5.00
QC29C2	2	1.0999	20.2939	12/23/2009@12:05:48 PM	2.00
QC29I2	3	1.9395	14.2748	12/23/2009@12:06:57 PM	5.00
QC29L2	4	5.1597	19.0319	12/23/2009@12:08:08 PM	10.00
QC29M2	5	3.0754	22.7134	12/23/2009@12:09:17 PM	5.00
QC29Q2	6	1.1535	21.2900	12/23/2009@12:10:28 PM	2.00
QC29R2	7	3.8473	28.4483	12/23/2009@12:11:40 PM	5.00
QC29U2	8	1.2410	22.9159	12/23/2009@12:12:49 PM	2.00
Sample78	9	0.0112	0.2817	12/23/2009@12:14:00 PM	
CCV	17	0.5294	19.5319	12/23/2009@12:15:11 PM	
Known Conc:		0.5000			
CCB	18	-0.0038	-0.2753	12/23/2009@12:21:07 PM	
Known Conc:		0.0000			

QC29 : 00066

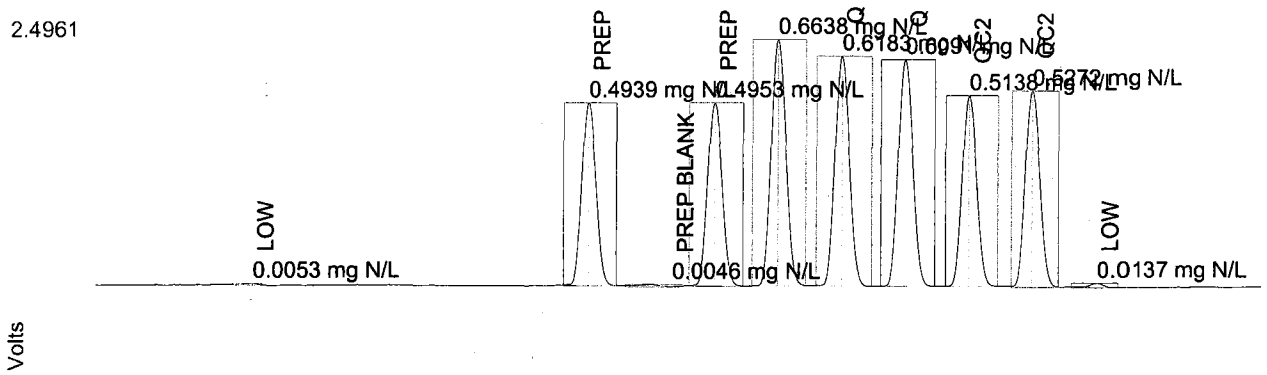
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 1 / 9



Channel 1 - Set: 2 / 9

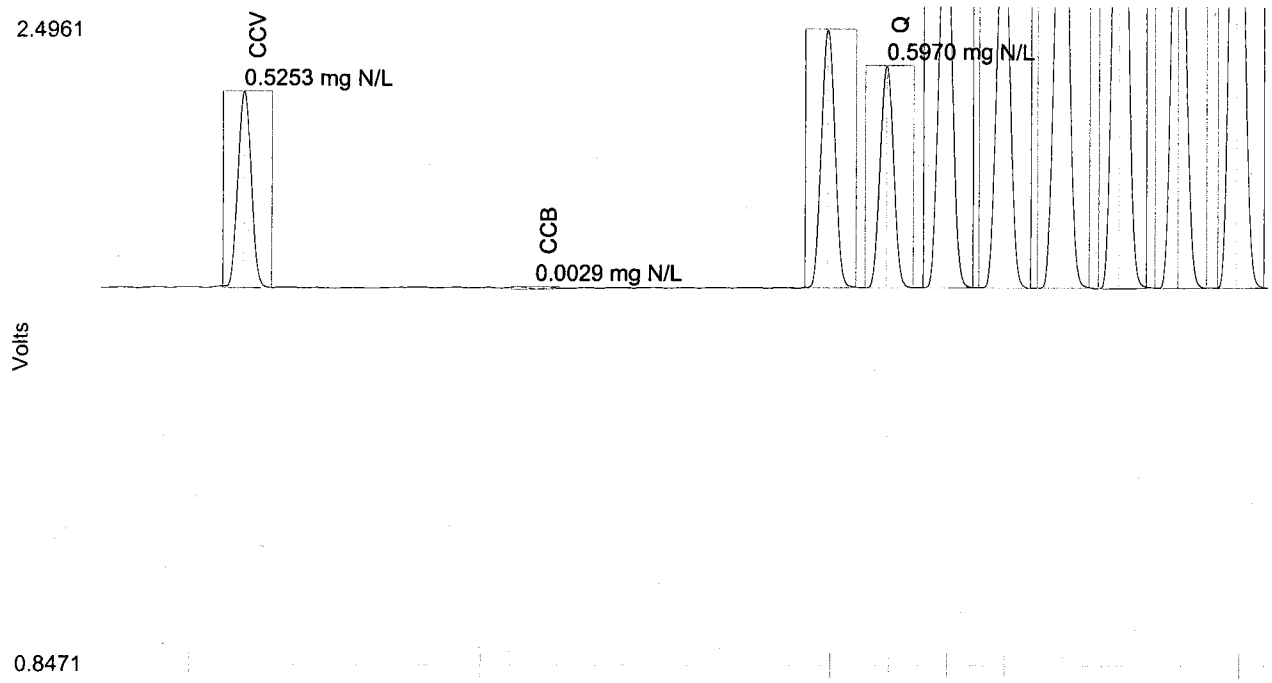


QC29 : 00067

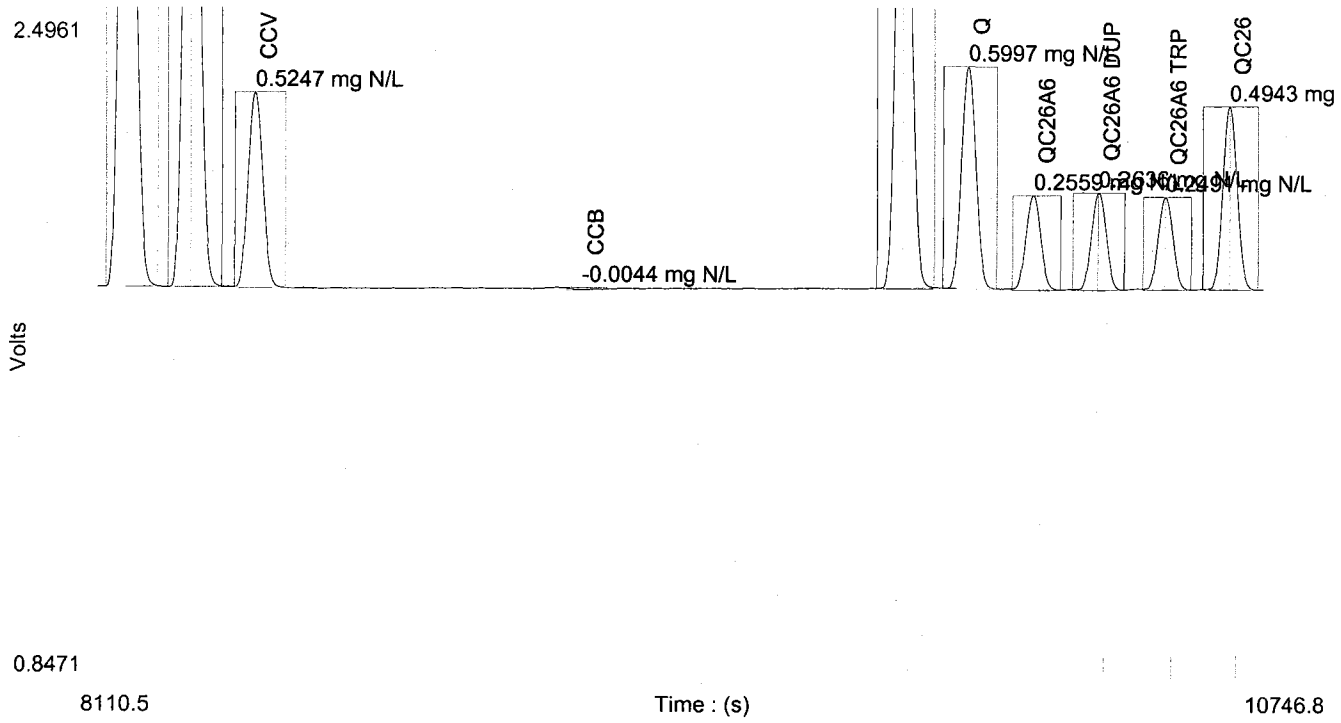
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 3 / 9



Channel 1 - Set: 4 / 9

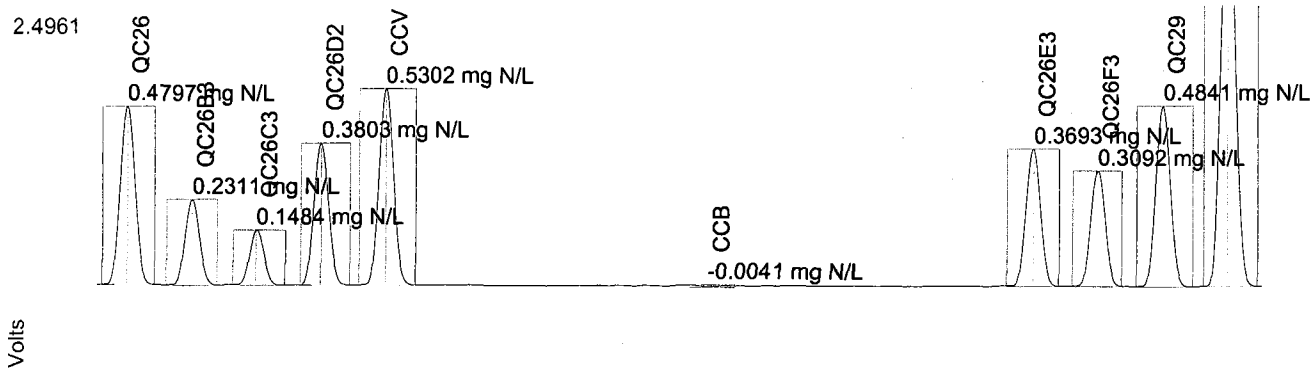


QC29 : 00969

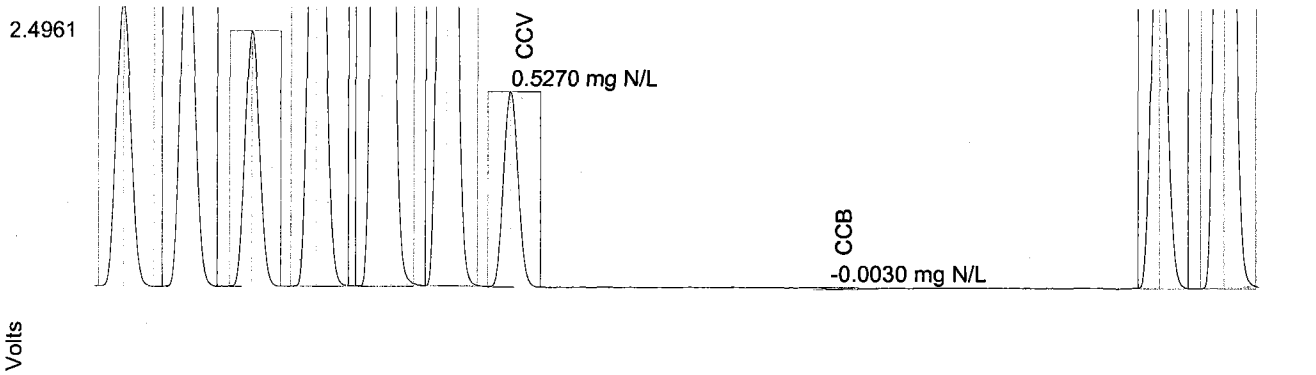
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 5 / 9



Channel 1 - Set: 6 / 9

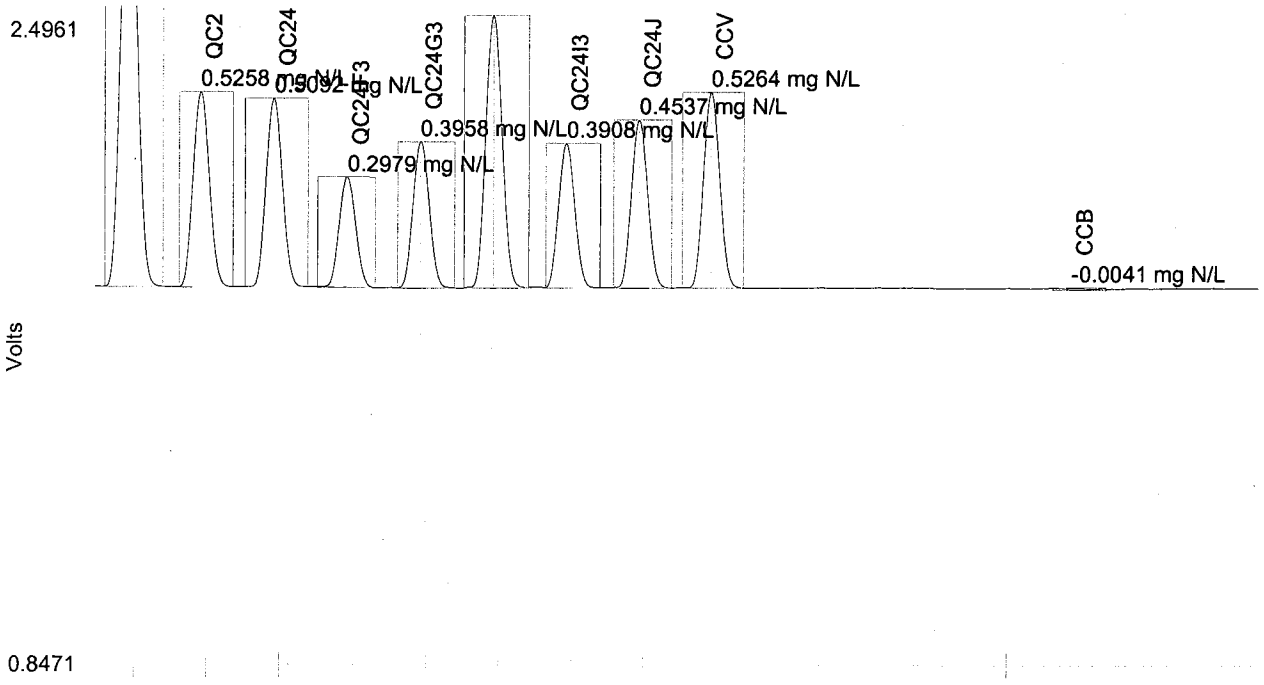


QC29 : 00069

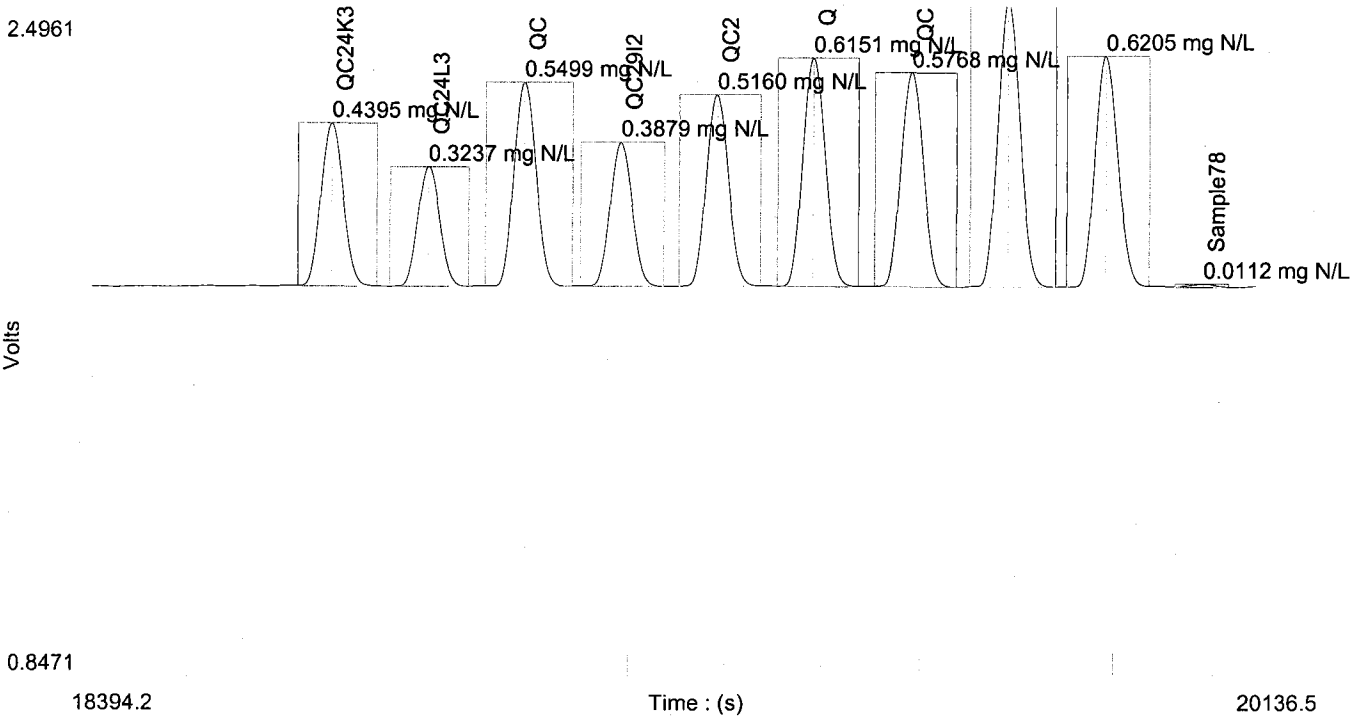
Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



QC29 : 00078

Author: Doritza Rosado

Date : 12/23/2009

Channel 1 - Set: 9 / 9

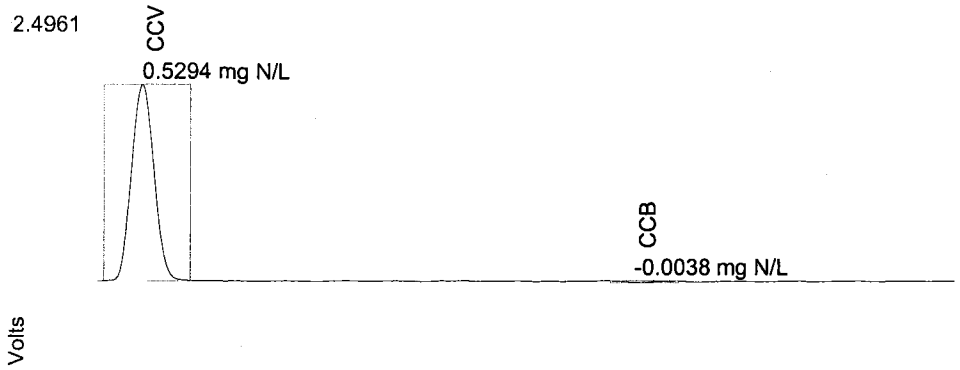
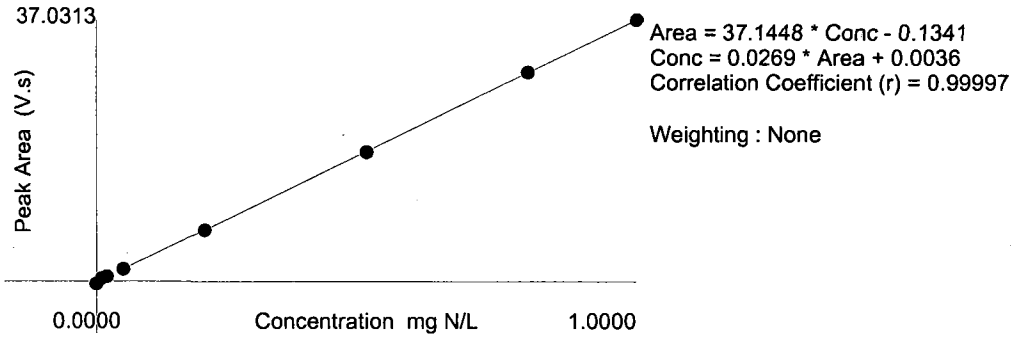


Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	37.0313	0.9624	0.0	-0.1	1.0005	12/23/2009	9:33:20 AM
2	0.8000	1	29.6220	0.7710	0.0	-0.1	0.8010	12/23/2009	9:34:30 AM
3	0.5000	1	18.3314	0.4803	0.0	0.6	0.4971	12/23/2009	9:35:41 AM
4	0.2000	1	7.2792	0.1921	0.0	0.2	0.1996	12/23/2009	9:36:50 AM
5	0.0500	1	1.7344	0.0460	0.0	-0.7	0.0503	12/23/2009	9:38:01 AM
6	0.0200	1	0.6776	0.0173	0.0	-11.3	0.0219	12/23/2009	9:39:11 AM
7	0.0100	1	0.4355	0.0130	0.0	-83.5	0.0154	12/23/2009	9:40:22 AM
8	0.0000	1	-0.3503	-0.0067			-0.0058	12/23/2009	9:41:32 AM

Figure : 1 (NH3)



QC29 : 00071

Soil Extraction Log

Parameter:

Date: 12/21/09 19:30

Analyst: LLA

Extraction Procedure: ~4 gr Sample + 40mL KCl/2N, Shake for 1 hr. Settle down overnight, filter & ~~Analyze~~ Analyze

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
	P.Blk		40				
	P.Check			0.4	1,000	10	ERA#190107
	QC24A3	4.36					
	A3dup	4.19					
	A3mb	4.02					
	A3MS	4.12		0.4	1,000	10	ART# 0096-04
	A3MSD	4.08		↓	↓	↓	↓
	QC24B3	4.35					
	C3	4.37					
	D3	4.08					
	E3	4.23					
	F3	4.04					
	G3	4.56					
	H3	4.33					
	I3	4.06					
	J3	4.00					
	K3	4.23					
	L3	4.33					
	M2	4.48					
	QC26A6	4.01					
	A6dup	4.28					
	A6mb	4.04					
	A6MS	4.23		0.4	1,000	10	ART#0096-04
	A6MSD	4.49		↓	↓	↓	↓
	QC26B3	4.25					
	C3	4.18					
	D2	4.50					
	E3	4.06					
	F3	4.16					
	QC29B3	4.28					
	C2	4.20					
	D2	4.01					
	E2	4.06					
	H2	4.19					
	I2	4.53					
	L2	4.15					

.56 or .06 ?

Soil Extraction Log

Parameter:

Date:

Analyst:

Extraction Procedure:

Cont

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Conc of Std (mg/L)	Conc in Extract (mg/L)	Notes & Comments
	QC29 M2	4.00	40				
	Q2	4.21					
	R2	4.35					
	U1	4.71					

12/21/09

20 of 2

ARI 6050 Soil Extraction
Revised: 8/27/96

Page ___ of ___

QC29 : 00073

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES

ARI Job No: QC24,2629 Client Name: Anchor

Parameter: Nb Client Project:

Sample all preppeid in one batch
Analyst prepping didn't realize there were more then 20.
Only 1 LCS + Blank Ran
Talk to PM, due to out of Hold Status
When other analyst realized it to
run & report.

Analyst: [signature] Date Analyzed: 12-23-05

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	12/22/09 9:00	AF
Finish	12/22/09 14:37	RR

If distilled, specify Procedure: **PSEP**

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: #2

Thiosulfate ID: **7215C**
Bi-iodate ID: **526-12**
Stock bi-iodate = **0.8129** *grams to* 1000 *mL*
Normality = **0.025**

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.00	3.00	3.00	
mL thiosulfate =	3.13	3.10	3.12	nthio
Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =	0.024	0.024	0.024	**0.024**

2. Normality of Iodine

Iodine ID: **7204C**

Titration of Iodine with thiosulfate

mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	3.000	3.000	3.000	ni
Normality iodine = (mL thiosulfate*nthio) / mL iodine=	0.024	0.024	0.024	**0.024**

3. Standardization of Sodium Sulfide Stock

Stock ID = **0100-05**
Approx conc in 100ml
g Na2S = 0.5222 *mg /mL =* 0.697

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.53	1.53	1.53	stkconc (mg/mL)
Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =	0.566	0.566	0.566	**0.566**

Intermediate Standard

Add 11 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

4. Calibration Standard Curve

spectrophotometer used:

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50	0.000	0.000		0.000	-0.005
0.10	50	0.050	0.027		0.027	E 0.043
0.25	50	0.125	0.072		0.072	0.123
0.50	50	0.249	0.151		0.151	0.263
1.00	50	0.498	0.285		0.285	0.501
2.00	50	0.997	0.562		0.562	0.992

RegressionData

intercept = 0.003
slope = 0.564
r = 0.9998

Comment: Calibration OK!

maxabs = 0.562

Calib Verif Std =	1	*ml int to*	50	*ml ZnOAc=*	0.498	*mg/l*
Distillation Std =	1	*ml stk to*	100	=	5.66	*mg/l*

SAMPLE DATA

enter dilution as mL final/mL sample

SAMPLE ID	Distillation Data: SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Spectrophotometric Data: Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	SAMPLE DATA: CORR CONC (ppm)	
ICB		na	na	1.00	0.000		-0.005	< 0.05	*OK*
ICV		na	na	1.00	0.295		0.519	0.519	*104%*
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.001		-0.003	< 0.05	*OK*
Dist Chk	100.0	100%	100	10.00	0.344		0.606	6.057	*107%*
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
~~QC24 A2~~	~~4.934~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.579~~		~~1.023~~	~~34.658~~	~~offscale~~
~~QC24 A2 dup~~	~~4.937~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.401~~		~~0.707~~	~~23.942~~	~~RPD=36.58%~~
~~QC24 A2 trp~~	~~4.846~~	~~59.8%~~	~~100~~	~~1.00~~	~~0.726~~		~~1.283~~	~~44.286~~	~~offscale~~
~~QC24 A2 ms~~	~~4.978~~	~~59.8%~~	~~100~~	~~10.00~~	~~0.366~~		~~0.645~~	~~216.586~~	~~95.62%~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*2.977*~~	~~*g dry wt =*~~		~~*190.257*~~	~~*mg/kg*~~
~~QC24 B2~~	~~5.117~~	~~44.5%~~	~~100~~	~~2.00~~	~~0.626~~		~~1.106~~	~~97.141~~	~~offscale~~
QC24 C2	5.120	43.5%	100	1.00	0.501		0.884	39.701	
~~QC24 D2~~	~~5.003~~	~~44.3%~~	~~100~~	~~2.00~~	~~0.698~~		~~1.234~~	~~111.329~~	~~offscale~~
~~QC24 E2~~	~~5.061~~	~~36.9%~~	~~100~~	~~2.00~~	~~0.590~~		~~1.042~~	~~111.605~~	~~offscale~~
Cal Blk		na	na	1.00	-0.001		-0.006	< 0.05	*OK*
CCV		na	na	1.00	0.291		0.512	0.512	*103%*

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC24 A2	4.934	59.8%	100	2.00	0.317		0.558	37.811	
QC24 A2 dup	4.937	59.8%	100	1.00	0.384		0.677	22.920	*RPD=49.04%*
QC24 A2 trp	4.846	59.8%	100	2.00	0.366		0.645	44.497	*RSD=31.49%*
QC24 A2 ms	4.978	59.8%	100	10.00	0.362		0.638	214.202	*92.71%*
		Spike at	*1.00*	*ml stock to*	*2.977*	*g dry wt =*		*190.257*	*mg/kg*
QC24 B2	5.117	44.5%	100	5.00	0.253		0.444	97.556	
QC24 D2	5.003	44.3%	100	5.00	0.271		0.476	107.433	
QC24 E2	5.061	36.9%	100	5.00	0.237		0.416	111.351	
QC24 F2	4.951	32.4%	100	10.00	0.290		0.510	317.880	
QC24 G2	4.918	32.3%	100	5.00	0.244		0.428	134.816	
QC24 H2	5.030	31.8%	100	5.00	0.149		0.260	81.207	
Cal Blk		na	na	1.00	0.002		-0.001	< 0.05	*OK*
CCV		na	na	1.00	0.287		0.505	0.505	*101%*
QC24 I2	5.050	40.5%	100	10.00	0.248		0.435	212.889	
QC24 J2	5.086	41.5%	100	20.00	0.217		0.380	360.468	
~~QC24 K2~~	~~5.103~~	~~37.4%~~	~~100~~	~~1.00~~	~~0.582~~		~~1.028~~	~~53.860~~	~~*offscale*~~
QC24 L2	4.917	58.6%	100	10.00	0.200		0.350	121.561	
QC24 M2	4.932	47.5%	100	2.00	0.345		0.607	51.862	
QC50 A1	5.032	71.1%	100	1.00	0.172		0.301	8.402	
QC50 A1 dup	5.011	71.1%	100	1.00	0.130		0.226	6.346	*RPD=27.88%*
QC50 A1 ms	5.037	71.1%	100	10.00	0.212		0.372	103.747	*60.29%*
		Spike at	*1.00*	*ml stock to*	*3.581*	*g dry wt =*		*158.145*	*mg/kg*
QC50 B1	5.150	69.1%	100	1.00	0.276		0.485	13.631	
QC50 C1	5.031	70.8%	100	1.00	0.336		0.592	16.607	
Cal Blk		na	na	1.00	0.002		-0.001	< 0.05	*OK*
CCV		na	na	1.00	0.269		0.473	0.473	*95%*
QC24 K2	5.103	37.4%	100	2.00	0.304		0.535	56.039	
~~QC50 A1~~	~~5.032~~	~~71.1%~~	~~100~~	~~1.00~~	~~0.189~~		~~0.331~~	~~9.245~~	-
~~QC50 A1 dup~~	~~5.011~~	~~71.1%~~	~~100~~	~~1.00~~	~~0.132~~		~~0.230~~	~~6.445~~	~~*RPD=35.68%*~~
~~QC50 A1 ms~~	~~5.037~~	~~71.1%~~	~~100~~	~~10.00~~	~~0.217~~		~~0.380~~	~~106.223~~	~~*61.32%*~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*3.581*~~	~~*g dry wt =*~~		~~*158.145*~~	~~*mg/kg*~~
QC50 D1	5.099	67.0%	100	1.00	0.282		0.496	14.511	
Dist Blk 2	100.0	100%	100	1.00	0.000		-0.005	< 0.05	*OK*
Dist Chk 2	100.0	100%	100	10.00	0.289		0.508	5.081	*90%*
QC26 A4	4.930	55.9%	100	1.00	0.362		0.638	23.138	
QC26 A4 dup	4.947	55.9%	100	1.00	0.530		0.936	33.835	*RPD=37.55%*
QC26 A4 ms	4.909	55.9%	100	10.00	0.337		0.593	216.206	*93.54%*
		Spike at	*1.00*	*ml stock to*	*2.744*	*g dry wt =*		*206.391*	*mg/kg*
Cal Blk		na	na	1.00	0.001		-0.003	< 0.05	*OK*
CCV		na	na	1.00	0.265		0.466	0.466	*93%*
~~QC26 A4~~	~~4.930~~	~~55.9%~~	~~100~~	~~1.00~~	~~0.387~~		~~0.682~~	~~24.747~~	-
~~QC26 A4 dup~~	~~4.947~~	~~55.9%~~	~~100~~	~~1.00~~	~~0.569~~		~~1.005~~	~~36.337~~	~~*offscale*~~
~~QC26 A4 ms~~	~~4.909~~	~~55.9%~~	~~100~~	~~10.00~~	~~0.372~~		~~0.655~~	~~238.832~~	~~*103.73%*~~
		~~*Spike at*~~	~~*1.00*~~	~~*ml stock to*~~	~~*2.744*~~	~~*g dry wt =*~~		~~*206.391*~~	~~*mg/kg*~~
QC26 B4	4.989	43.7%	100	5.00	0.287		0.505	115.723	
QC26 C4	4.932	45.4%	100	2.00	0.252		0.443	39.525	
QC26 E4	5.014	62.7%	100	5.00	0.176		0.308	48.936	
QC26 F4	5.009	44.7%	100	2.00	0.361		0.636	56.799	
QC29 B1	5.115	42.9%	100	10.00	0.270		0.474	216.211	
QC29 C1	4.987	59.4%	100	50.00	0.321		0.565	953.510	
QC29 D1	4.902	45.1%	100	50.00	0.227		0.398	900.483	

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
Cal Blk		na	na	1.00	0.006		0.006	< 0.05	*OK*
CCV		na	na	1.00	0.301		0.529	0.529	*106%*
QC29 E1	4.261	43.0%	100	10.00	0.324		0.570	311.224	
QC29 H1	4.524	50.5%	100	20.00	0.204		0.357	312.837	
QC29 I1	4.988	57.6%	100	50.00	0.311		0.547	952.238	
QC29 L1	4.925	60.9%	100	1.00	0.150		0.262	8.721	
QC29 M1	5.117	47.9%	100	1.00	0.012		0.017	< 2.033	
QC29 Q1	5.041	55.5%	100	10.00	0.195		0.341	122.023	
QC29 R1	5.128	68.2%	100	50.00	0.273		0.480	685.903	
Cal Blk		na	na	1.00	0.000		-0.005	< 0.05	*OK*
CCV		na	na	1.00	0.281		0.494	0.494	*99%*

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	12/22/09 9:00	AF
Finish	12/22/09 14:37	RP

If distilled, specify Procedure: PSEP

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: #2

Thiosulfate ID: 7215C
Bi-iodate ID: 5216-12
Stock bi-iodate = 0.8129 *grams to* 1000 *mL*
Normality =

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.000	3.000	3.000	
mL thiosulfate =	3.13	3.10	3.12	*nthio*
*Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =*				

2. Normality of Iodine

Iodine ID: 7204C

Titration of Iodine with thiosulfate

mL iodine =	3.000	3.000	3.000	
mL thiosulfate =	3.00	3.00	3.00	*ni*
*Normality iodine = (mL thiosulfate*nthio) / mL iodine=*				

3. Standardization of Sodium Sulfide Stock

Stock ID = 0100-05
Approx conc in 100ml
g Na2S = 0.5222 *mg /mL =*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.53	1.53	1.53	*stkconc (mg/mL)*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*				

Intermediate Standard

Add 11.0 *mL stk to* 250 *mL 0.01M NaOH =* ***mg/mL***

4. Calibration Standard Curve ***spectrophotometer used:***

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50		0.000			
0.10	50		0.027			
0.25	50		0.072			
0.50	50		0.151			
1.00	50		0.285			
2.00	50		0.562			

RegressionData
intercept =
slope =
r =
Comment:
maxabs =

Calib Verif Std =	1	*ml int to*	50	*ml ZnOAc=*		*mg/l*
Distillation Std =	1	*ml stk to*	100	=		*mg/l*

SAMPLE DATA

enter dilution as mL final/mL sample

SAMPLE ID	Distillation Data: SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Spectrophotometric Data: Dilution Factor	Abs @ 650 nm: Sample	Bkg	regressed Conc (mg S/L)	SAMPLE DATA: CORR CONC (ppm)	
ICB		na	na	1.00	0.000				
ICV		na	na	1.00	0.296				
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.001				
Dist Chk	100.0	100%	100	1.00	0.344				
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
QC24 A2	4.934	59.8	100	1.00	0.579				
" Dup	4.937	"	100	1.00	0.401				
" mb	4.846	"	100	1.00	0.721				
" ms	4.978	"	100	10 ~~1.00~~	0.366				
B2	5.117	44.5	100	2 ~~1.00~~	0.621				
C2	5.120	43.5	100	1.00	0.501				
D2	5.003	44.3	100	2 ~~1.00~~	0.698				
E2	5.001	36.9	100	2 ~~1.00~~	0.590				
Cal Blk		na	na	1.00	-0.001				
CCV		na	na	1.00	0.291				
QC24 A2	4.934	59.8	100	2 ~~1.00~~	0.317				
" Dup	4.937	"	100	1.00	0.384				

QC29 : 00078

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC24 A2 trp	4.946	59.8	100	2 ~~1.00~~	0.366				
MS	4.978	↓	100	10 ~~1.00~~	0.362				
B2	5.117	44.5	100	5 ~~1.00~~	0.253				
D2	5.003	44.3	100	5 ~~1.00~~	0.271				
E2	5.061	36.9	100	5 ~~1.00~~	0.237				
F2	4.957	32.4	100	10 ~~1.00~~	0.290				
G2	4.918	32.3	100	5 ~~1.00~~	0.244				
↓ H2	5.030	31.8	100	5 ~~1.00~~	0.149				
Cal Blk		na	na	1.00	0.002				
CCV		na	na	1.00	0.287				
QC24 I2	5.050	40.5	100	10 ~~1.00~~	0.248				
J2	5.086	41.5	100	10 ~~1.00~~	0.217				
K2	5.103	37.4	100	1.00	0.582				
L2	4.917	58.6	100	10 ~~1.00~~	0.200				
↓ M2	4.932	47.5	100	2 ~~1.00~~	0.345				
QC50 A1	5.032	71.1	100	1.00	0.172				
DUP	5.011	↓	100	1.00	0.130				
MS	5.037	↓	100	10 ~~1.00~~	0.212				
B1	5.150	69.1	100	1.00	0.276				
↓ C1	5.031	70.8	100	1.00	0.336				
Cal Blk		na	na	1.00	0.002				
CCV		na	na	1.00	0.269				
QC24 K2	5.103	37.4	100	2 ~~1.00~~	0.304				
QC50 A1	5.032	71.1	100	1.00	0.189				
DUP	5.011	↓	100	1.00	0.132				
MS	5.037	↓	100	10 ~~1.00~~	0.217				
↓ D1	5.094	67.0	100	1.00	0.282				
RB 2	100	100	100	1.00	0.000				
LCS 2	↓	↓	100	10 ~~1.00~~	0.289				
QC26 A4	4.930	55.9	100	1.00	0.362				
DUP	4.947	↓	100	1.00	0.530				
↓ MS	4.909	↓	100	10 ~~1.00~~	0.337				
Cal Blk		na	na	1.00	0.009				
CCV		na	na	1.00	0.265				
QC26 A4	4.930	55.9	100	1.00	0.587				
DUP	4.947	↓	100	1.00	0.569				
MS	4.909	↓	100	10 ~~1.00~~	0.372				
B4	4.989	43.7	100	5 ~~1.00~~	0.287				
C4	4.932	45.4	100	2 ~~1.00~~	0.252				
E4	5.014	62.7	100	5 ~~1.00~~	0.176				
↓ F4	5.009	44.7	100	2 ~~1.00~~	0.361				
QC29 B1	5.115	42.9	100	10 ~~1.00~~	0.270				
C1	4.987	59.4	100	50 ~~1.00~~	0.321				
↓ D1	4.908	45.1	100	50 ~~1.00~~	0.227				
Cal Blk		na	na	1.00	0.006				
CCV		na	na	1.00	0.301				
QC29 E1	4.961	43.0	100	10 ~~1.00~~	0.324				
H1	4.524	50.5	100	20 ~~1.00~~	0.204				
I1	4.988	57.16	100	50 ~~1.00~~	0.311				
↓ L1	4.925	60.9	100	1.00	0.150				

SAMPLE DATA

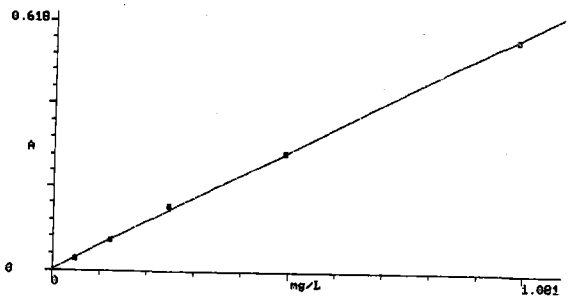
enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
QC29 M1	5.119	47.9	100	1.00	0.012				
Q1	5.041	55.5	100	10 ~~1.00~~	0.195				
R1	5.128	68.2	100	50 ~~1.00~~	0.273				
CCB			100	1.00	0.000				
CCV			100	1.00	0.281				
~~			~~100~~	~~1.00~~					
Cal Blk		na	na	1.00					
CCV		na	na	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
			100	1.00					
Cal Blk		na	na	1.00					
CCV		~~na~~	~~na~~	1.00					

12/28/09

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Standard Curve	14:37 22Dec09
Test Name	SULFIDE
Date Standards Measured	22Dec09
Wavelength	650nm
Ref. Wavelength Correction	Off
Curve Fit	Linear
Number of Standards	6
Units	mg/L
ID# (0=OFF)	Off
Low/High Limits	0.050/1.000
Statistics	Off
Auto Print	On



Curve Fit	Linear
Slope	0.572
Intercept	0.00256
Std Dev	0.005
Corr Coeff	1.000

Conc. mg/L	Abs 650nm
0.000	0.000
0.049	0.027
0.123	0.072
0.246	0.151
0.491	0.285
0.983	0.562

RJC 12/22/09

TEST SETUP
GENESYS 10 v2.021 2G2G048006

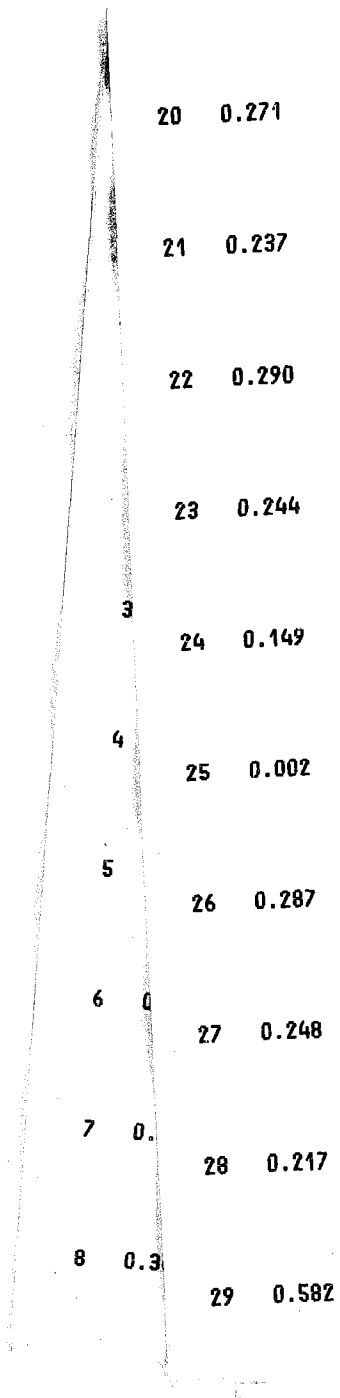
Advanced Mode 14:38 22Dec07

Test Name	SULFIDE[Saved]
Measurement Mode	Absorbance
Wavelength	650nm
Ref. Wavelength Correction	Off
Delay Time (min:sec)	0:00
ID# (0=OFF)	1
Low/High Limits	0.000/1.000
Statistics	Off
Auto Print	On

ID#	Abs 650nm
1	0.000
2	0.295
3	0.001
4	0.344
5	0.579
6	0.401
7	0.726
8	0.366

9	0.626
10	0.501
11	0.698
12	0.590
13	-0.001
14	0.291
15	0.317
16	0.384
17	0.366
18	0.362
19	0.253

QC29:0003


20 0.271
21 0.237
22 0.290
23 0.244
3
24 0.149
4
25 0.002
5
26 0.287
6
27 0.248
7
28 0.217
8
29 0.582

QC29:00084

30	0.200
31	0.345
32	0.172
33	0.130
34	0.212
35	0.276
36	0.336
37	0.002
38	0.269
39	0.304

41 0.132

42 0.217

43 0.282

44 0.000

45 0.289

46 0.362

47 0.530

48 0.337

49 0.001

50 0.265

QC29 : 00086

51 0.387

52 0.569

53 0.372

54 0.287

55 0.252

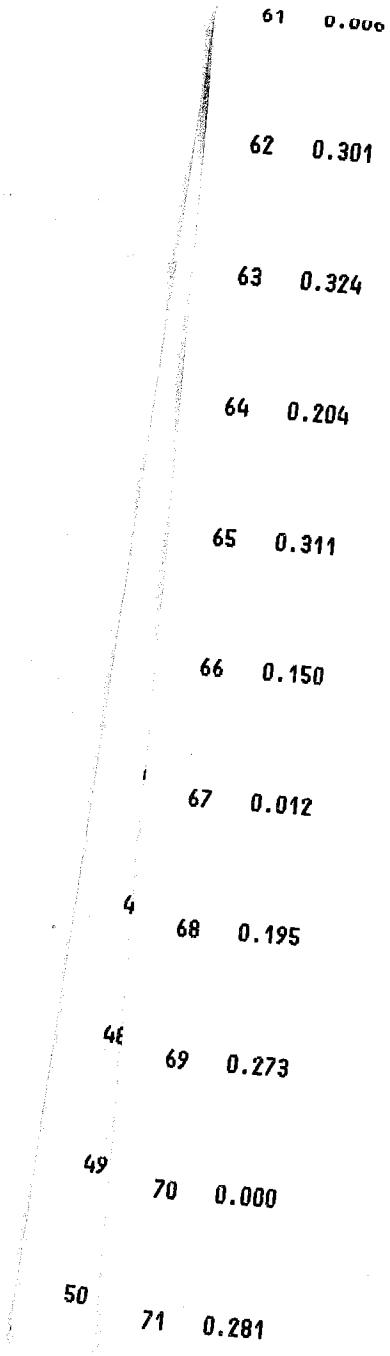
56 0.176

57 0.361

58 0.270

59 0.321

60 0.227


61 0.000
62 0.301
63 0.324
64 0.204
65 0.311
66 0.150
67 0.012
4
68 0.195
4E
69 0.273
49
70 0.000
50
71 0.281

QC29 : 00000

Analytical Resources, Incorporated
Analytical Chemists and Consultants

*SPK, LCS = 1 ml AFI 0100-05

Sulfide Digestion Log

Sample ID	% Solids	% Water	Pretreatment Data: Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Sample Extraction Data: Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
Blank			12-22-09	NA	PSEP	1+1 HCl w/Al	NA	NA	NA	12-22-09	100 ml	NA	NA	100 ml
* LCS														
QC24 A2											4.934		50 ml	
dup A2											4.937			
trip A2											4.846			
* SPK A2											4.978			
B2											5.117			
C2											5.120			
d2											5.003			
E2											5.061			
F2											4.951			
G2											4.918			
H2											5.030			
I2											5.050			
J2											5.086			
K2											5.103			
L2											4.917			
M2											4.932			
QC50 A1											5.032			
dup A1											5.011			

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: at Date: 12-22-09 Time: 9:20

Cont next page

6171F
Sulfide Digestion Log

QC29 : 00089

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
QC50 spk A1											5.037			
B1											5.150			
C1											5.031			
d1											5.099			
Blank 2											~~NA~~ 100mL			
LCS 2											~~NA~~ 100mL			
QC26 A4											4.930			
dup A4											4.947			
Spk A4											4.909			
B4											4.989			
C4											4.932			
E4											5.014			
F4											5.009			
QC29 B1											5.155			
C1											4.987			
d1											4.902			
E1											4.261			
H1											4.524			
I1											4.988			
L1											4.925			

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: [illegible] Date: 12-22-09 Time: 9:20

QC29 : 00090

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
QC29 MB			↓	↓	↓	↓	↓	↓	↓	↓	5.117	↓	↓	↓
Q1											5.041			
R1											5.128			

12-22-09

9:20

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: 12-22-09 Date:

Time

CORRECTIVE ACTIONS - Inorganic Analyses

ANALYTICAL RESOURCES INCORPORATED

Criteria Flagged

ARI Project No.: QC24, QC26, QC50 Client Name: Science App, Anchor, Eric Merritt

Date of Out-of-Control Event: _____ Method/Element: Sulfide

Unacceptable Blank	
Unacceptable Duplicate	X
Unacceptable Spike	
Unacceptable Reference	

Prep Code: _____

Other: _____

Details of Problem/Recommended Corrective Action:

high RPD, Samples had high moisture content ~50% and were non homogeneous. All spikes and prep QC were in control. High RPD likely due to matrix

Samples Affected: QC24A, QC26A, QC50A

Corrective Action Taken: reread distillate to confirm results

Analyst: af

Date: 12-22-09

Supervisor: [signature]

Date: 12/30/09

5049F

Rev. 6
10/28/02

1/6/10

TOC, Solids Data Analysis

DATE: 1/5/2010
ANALYST: CR 9:44

Instrument: Apollo 2
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: **BoatCal 123009** *Conc:* 5,000 *ppm*
Calibration Curve Standard: **ARI # 0098-09** *Curve Date:* **12/30/09**
CalFact: 1.911E+05 *intercept:* 456,204 *r2 :* 0.99943
Curve Range (µgC): **8** *to* **100**

Verification Standard Source: ***ERA# 0506-09-01*** *Conc:* **5,000** *ppm*
dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
81.94	69.90	75.20				75.7	8.0%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	1010	1,010	*101.00%*
Blank				1.00		40.0	37.19	37	*Blank OK*
NIST 8704				1.00		2.1	31759	31,759	*94.77%*
SB 1				1.00		25.4	81.94	82	*Low, Increase wt*
SB 2				1.00		20.5	69.90	70	*Low, Increase wt*
SB 3				1.00		23.3	75.20	75	*Low, Increase wt*
QC26 A6				1.00		2.4	16061	16,061	*Range OK!*
QC26 A6 dup				1.00		2.4	18556	18,556	*RPD=14.4%*
QC26 A6 trp				1.00		2.2	15240	15,240	*RSD=10.4%*
~~QC26 A6 ms~~				~~1.00~~	~~10~~	~~1.5~~	~~42598~~	~~42,598~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*1.5*~~	~~*mg samp=*~~	~~*16,667*~~	~~*ppm*~~		~~*159%*~~	
QC26 A6 ms				1.00	10	1.2	39934	39,934	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.2*	*mg samp=*	*20,833*	*ppm*		*115%*	
QC26 B3				1.00		2.2	24579	24,579	*Range OK!*
CCV				1.00		40.0	992	992	*99.20%*
Blank				1.00		40.0	21.52	22	*Blank OK*
QC26 C3				1.00		1.6	19708	19,708	*Range OK!*
QC26 D2				1.00		1.2	21264	21,264	*Range OK!*
QC26 E3				1.00		1.5	23240	23,240	*Range OK!*
QC29 F3				1.00		2.1	19312	19,312	*Range OK!*
~~QC29 B3~~				~~1.00~~		~~1.0~~	~~109252~~	~~109,252~~	~~*Offscale, dilute*~~
QC29 B3	22.4	160	86.00%	7.14		2.0	12879	91,528	*Range OK!*
QC29 C2				1.00		1.1	86200	86,200	*Range OK!*
QC29 D2				1.00		1.1	31695	31,695	*Range OK!*
~~QC29 E2~~				~~1.00~~		~~1.0~~	~~108568~~	~~108,568~~	~~*Offscale, dilute*~~
QC29 E2				1.00		0.9	86845	86,845	*Range OK!*
CCV				1.00		40.0	1015	1,015	*101.50%*
Blank				1.00		40.0	23.80	24	*Blank OK*
QC29 H2				1.00		1.4	21775	21,775	*Range OK!*
QC29 I2				1.00		0.9	82696	82,696	*Range OK!*
QC29 L2				1.00		1.7	28799	28,799	*Range OK!*
QC29 M2				1.00		1.0	66918	66,918	*Range OK!*
QC29 Q2				1.00		1.0	42921	42,921	*Range OK!*
NIST 8704				1.00		2.4	29387	29,387	*87.70%*
CCV				1.00		40.0	1027	1,027	*102.70%*
Blank				1.00		40.0	50.08	50	*Blank OK*

Detailed Analysis Report Print Date/Time: 2010/01/05 17:31:25

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051725
Timestamp: 2010/01/05 17:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0733	2.0029	307002	26.437	27.431	84

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01050941
Timestamp: 2010/01/05 09:44
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1010.0592	40.4024	9767553	25.806	26.806	120

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051150
Timestamp: 2010/01/05 11:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37.1879	1.4875	180017	26.158	27.152	63

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051242
Timestamp: 2010/01/05 12:46
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31758.8516	66.6936	16244977	26.324	27.322	181

Sample ID: SB 1
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051255
Timestamp: 2010/01/05 12:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	81.9427	2.0813	512786	26.174	27.170	75

Sample ID: SB 2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051302
Timestamp: 2010/01/05 13:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	69.9000	1.4330	353039	26.215	27.209	66

Sample ID: SB 3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051307
Timestamp: 2010/01/05 13:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75.2046	1.7523	431710	26.286	27.285	67

Sample ID: QC26 A6
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051315
Timestamp: 2010/01/05 13:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16061.0342	38.5465	9496779	26.177	27.174	158

Sample ID: QC26 A6 DUP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051321
Timestamp: 2010/01/05 13:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18556.0078	44.5344	10972041	26.214	27.207	159

Sample ID: QC26 A6 TRP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051329
Timestamp: 2010/01/05 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15240.2490	33.5285	8260500	26.163	27.155	160

Sample ID: QC26 A6 MS
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

ok 1-5-10

Mode: TOC
Filename: 01051335
Timestamp: 2010/01/05 13:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42597.9219	63.8969	15742412	26.466	27.463	159

Sample ID: QC26 A6 MS
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051347
Timestamp: 2010/01/05 13:51
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	39933.5703	47.9203	11806223	26.401	27.400	152

Sample ID: QC26 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051357
Timestamp: 2010/01/05 14:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24579.0801	54.0740	13322322	26.290	27.287	182

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051404
Timestamp: 2010/01/05 14:08
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	991.8040	39.6722	9587650	26.587	27.584	125

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051411
Timestamp: 2010/01/05 14:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.5197	0.8608	25610	26.640	26.575	120

Last Message: Low Sample Detected

Sample ID: QC26 C3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051416
Timestamp: 2010/01/05 14:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19708.0566	31.5329	7768826	26.431	27.431	137

Sample ID: QC26 D2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051423
Timestamp: 2010/01/05 14:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21264.0918	25.5169	6286656	26.522	27.521	135

Sample ID: QC26 E3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051443
Timestamp: 2010/01/05 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23240.1797	34.8603	8588599	26.624	27.624	156

Sample ID: QC26 F3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051452
Timestamp: 2010/01/05 14:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19312.2188	40.5557	9991784	26.751	27.747	150

Sample ID: QC29 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

ar 1-5-10

Mode: TOC
Filename: 01051459
Timestamp: 2010/01/05 15:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	109252.3438	109.2523	26916732	26.711	27.710	191

Last Message: Over-range

Sample ID: QC29 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051517
Timestamp: 2010/01/05 15:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	12878.6357	25.7573	6345874	26.473	27.466	105

Sample ID: QC29 C3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051522
Timestamp: 2010/01/05 15:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86200.0234	94.8200	23361012	26.444	27.441	181

Last Message: Over-range

Sample ID: QC29 D2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051536
Timestamp: 2010/01/05 15:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31695.1602	34.8647	8589685	26.361	27.360	141

Sample ID: QC29 E2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

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Mode: TOC
Filename: 01051545
Timestamp: 2010/01/05 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	108568.3359	108.5683	26748214	26.275	27.272	193

Last Message: Over-range

Sample ID: QC29 E2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051601
Timestamp: 2010/01/05 16:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86845.0000	78.1605	19256570	26.181	27.178	169

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051608
Timestamp: 2010/01/05 16:11
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1014.5542	40.5822	9811851	26.355	27.350	119

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051631
Timestamp: 2010/01/05 16:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23.8006	0.9520	48088	26.309	27.306	50

Sample ID: QC29 H2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY

Mode: TOC
Filename: 01051636
Timestamp: 2010/01/05 16:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21775.2832	30.4854	7510752	26.258	27.254	141

Sample ID: QC29 I2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051641
Timestamp: 2010/01/05 16:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82696.4375	74.4268	18336688	26.456	27.453	164

Sample ID: QC29 L2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051650
Timestamp: 2010/01/05 16:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28798.6309	48.9577	12061807	26.474	27.474	153

Sample ID: QC29 M2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051658
Timestamp: 2010/01/05 17:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	66917.7031	66.9177	16486658	26.460	27.458	169

Sample ID: QC29 Q2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051706
Timestamp: 2010/01/05 17:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42920.9570	42.9210	10574528	26.541	27.541	142

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051710
Timestamp: 2010/01/05 17:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29386.6484	70.5280	17189660	26.651	27.646	178

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051718
Timestamp: 2010/01/05 17:22
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1026.8000	41.0720	9932532	26.638	27.636	131

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CASEY
Mode: TOC
Filename: 01051725
Timestamp: 2010/01/05 17:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0733	2.0029	307002	26.437	27.431	84

QC29 : 00099

ON 1-5-10

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC BOAT		INLET: BOAT SAMPLER
Standards:	**Source**	**Conc (ppm)**
Calibration:	ARI # 0098-09	5000
Verification:	EPA # 05-06-09-01	5000 TO 1000 FOR CVS
SRM:	NBS 8704	35510

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 8704			2.1			
SB1			25.4			
SB2			20.5			
SB3			23.3			
QC26 A6			2.4			
A6 DUP			2.4			
A6 MS			2.2			
A6 MS			1.5	2500	10	
~~B6~~ A6 MS			~~2.2~~ 1.2	2500	10	
B6 B3			2.2			
CCV			40			
CCB			40			
QC26 C3			1.6			
D2			1.2			
E3			1.5			
F3			2.1			
QC29 B3			1.0			
B3	22.4	160.0	2.0			
C2			1.1			
D2			1.1			
E2			1.0			
E2			0.9			
CCV			~~40~~			
CCB			40			
QC29 H2			1.4			
I2			0.9			
L2			1.7			
M2			1.0			
Q2			1.0			
NBS 8704			2.4			
CCV/ICB			40/40			

QC29 : 00100

1/6/10

TOC, Solids Data Analysis

DATE: 1/6/2010

Instrument: Apollo 2 ANALYST: CR 10:20

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: **BoatCal 123009** *Conc:* 5,000 *ppm*

Calibration Curve Standard: **ARI # 0098-09** *Curve Date:* **12/30/09**

CalFact: 1.911E+05 *intercept:* 456,204 *r2 :* 0.99943

Curve Range (µgC): **8** *to* **100**

Verification Standard Source: ***ERA# 0506-09-01*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Silica Blanks

	Replicate determinations						Mean	RSD	condition

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	1030	1,030	*103.00%*
Blank				1.00		40.0	21.47	21	*Blank OK*
NIST 8704				1.00		2.0	37385	37,385	*111.56%*
QC29 R2				1.00		2.0	26451	26,451	*Range OK!*
QC29 U1				1.00		1.0	45408	45,408	*Range OK!*
QC72 A3				1.00		1.2	58080	58,080	*Range OK!*
QC72 A3 dup				1.00		1.2	79067	79,067	*RPD=30.6%*
QC72 A3 trp				1.00		1.3	65509	65,509	*RSD=15.8%*
QC72 A3 ms				1.00	20	0.9	127667	127,667	*Range OK!*
Spike =	*0.05*	*mg C to*	*0.9*	*mg samp=*	*55,556*	*ppm*		*125%*	
QC72 B3				1.00		1.0	88972	88,972	*Range OK!*
QC72 C3				1.00		0.9	86091	86,091	*Range OK!*
QC72 D3				1.00		0.9	46760	46,760	*Range OK!*
CCV				1.00		40.0	1047	1,047	*104.70%*
Blank				1.00		40.0	34.22	34	*Blank OK*
QC72 E4				1.00		1.1	39964	39,964	*Range OK!*
QC72 F2				1.00		1.1	71654	71,654	*Range OK!*
~~QC76 A1~~				~~1.00~~		~~2.9~~	~~4.2327~~	4	~~*Low, Increase wt*~~
QC76 A1				1.00		10.7	4.0873	4	*Low, Increase wt*
QC76 B1				1.00		14.3	2.0051	2	*Low, Increase wt*
QC76 C1				1.00		17.3	1.1280	1	*Low, Increase wt*
QC76 D1				1.00		10.5	0.9239	1	*Low Scale*
QC76 D1 dup				1.00		10.5	0.8486	1	*RPD=8.5%*
QC76 D1 trp				1.00		10.7	786	786	*RSD=172.6%*
QC76 D1 ms				1.00	10	10.5	1848	1,848	*Range OK!*
Spike =	*0.025*	*mg C to*	*10.5*	*mg samp=*	*2,381*	*ppm*		*78%*	
NIST 8704				1.00		2.0	33407	33,407	*99.69%*
CCV				1.00		40.0	1024	1,024	*102.40%*
Blank				1.00		40.0	24.40	24	*Blank OK*

QC29 : 00101

Analytical Resources,Incorporated
Analytical Chemists and Consultants

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC BOAT		INLET: BOAT SAMPLER
Standards:	**Source**	**Conc (ppm)**
Calibration:	ARI # 0098-09	5000
Verification:	ERA # 0506-09-01	5000 TO 1000 FOR CVS
SRM:	NBS 8704	35510

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 8704			2.0			
QC29 R2			2.0			
D1			1.0			
QC72 A3			1.2			
A3 DUP			1.2			
A3 REP			1.3			
A3 MS			0.9	0.0500	20	
B3			1.0			
C3			0.9			
D3			0.9			
CCV			40			
CCB			40			
QC72 E4			1.1			
F2			1.1			
QC76 A1			2.9			
~~A1~~ M			~~10.~~ 10.7			
B1			14.3			
C1			19.3			
D1			10.5			
D1 DUP			10.5			
D1 REP			10.7			
D1 MS			10.5	2500	10	
NBS 8704			2.0			
CCV			40			
CCB			40			

1-6-10

QC29 : 00102

Detailed Analysis Report Print Date/Time: 2010/01/06 14:15:46

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061410
Timestamp: 2010/01/06 14:12
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.3970	1.0559	73674	26.626	27.623	50

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061019
Timestamp: 2010/01/06 10:22
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1029.9406	41.1976	9963482	26.236	27.230	121

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061025
Timestamp: 2010/01/06 10:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.4727	0.8589	25146	26.191	26.135	120

Last Message: Low Sample Detected

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061104
Timestamp: 2010/01/06 11:09
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37384.8164	74.7696	18234688	26.612	27.609	209

Sample ID: QC29 R2
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061115
Timestamp: 2010/01/06 11:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26450.8008	52.9016	13033481	26.662	27.661	169

Sample ID: QC29 U1
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061126
Timestamp: 2010/01/06 11:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	45408.3750	45.4084	11187358	26.688	27.686	142

Sample ID: QC72 A3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061137
Timestamp: 2010/01/06 11:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	58079.9453	69.6959	17171136	26.505	27.505	168

Sample ID: QC72 A3 DUP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061143
Timestamp: 2010/01/06 11:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	79067.1797	94.8806	23375940	26.539	27.539	178

Last Message: Over-range

Sample ID: QC72 A3 TRP
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061151
Timestamp: 2010/01/06 11:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	65508.7344	85.1614	20981384	26.596	27.596	166

Sample ID: QC72 A3 MS
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061157
Timestamp: 2010/01/06 12:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	127666.8203	114.9001	28308192	27.211	28.210	159

Last Message: Over-range

Sample ID: QC72 B3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061208
Timestamp: 2010/01/06 12:13
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	88971.5547	88.9716	21920112	26.430	27.429	179

Last Message: Over-range

Sample ID: QC72 C3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061215
Timestamp: 2010/01/06 12:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86090.6250	77.4816	19089300	26.581	27.580	167

Sample ID: QC72 D3
Method: Boat Sampler
Cal. Curve: CAL 123009
Operator ID: CARLOS
Mode: TOC
Filename: 01061222
Timestamp: 2010/01/06 12:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46759.8477	42.0839	10368291	26.552	27.550	134

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Mode: TOC
Filename: 01061228

Cal. Curve: CAL 123009 Timestamp: 2010/01/06 12:31
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1046.5952	41.8638	10127611	26.783	27.779	122

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 01061235
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 12:37
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34.2166	1.3687	150735	26.772	27.768	52

Sample ID: QC72 E4 Mode: TOC
Method: Boat Sampler Filename: 01061239
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 12:43
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	39963.5859	43.9599	10830505	26.596	27.595	141

Sample ID: QC72 F2 Mode: TOC
Method: Boat Sampler Filename: 01061246
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 12:50
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	71653.6250	78.8190	19418804	26.671	27.670	178

Sample ID: QC76 A1 Mode: TOC
Method: Boat Sampler Filename: 01061308
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:11
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.2327	12.2749	3024189	26.870	27.864	98

Sample ID: QC76 A1 Mode: TOC
Method: Boat Sampler Filename: 01061314
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:17
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.0873	43.7342	10774899	26.917	27.914	145

Sample ID: QC76 B1 Mode: TOC
Method: Boat Sampler Filename: 01061323
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:26
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.0051	28.6736	7064382	26.901	27.896	130

Sample ID: QC76 C1 Mode: TOC
Method: Boat Sampler Filename: 01061329
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:31

QC29 : 00105

Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.1180	19.3419	4765295	26.895	27.894	105

Sample ID: QC76 D1 Mode: TOC
Method: Boat Sampler Filename: 01061333
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:36
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.9239	9.7007	2389992	26.796	27.796	104

Sample ID: QC76 D1 DUP Mode: TOC
Method: Boat Sampler Filename: 01061339
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:41
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.8486	8.9100	2195173	26.766	27.764	101

Sample ID: QC76 D1 TRP Mode: TOC
Method: Boat Sampler Filename: 01061343
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:46
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	786.0422	8.4107	2072150	26.756	27.756	108

Sample ID: QC76 D1 MS Mode: TOC
Method: Boat Sampler Filename: 01061350
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 13:53
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1847.9695	19.4037	4780526	26.775	27.771	109

Sample ID: NBS 8704 Mode: TOC
Method: Boat Sampler Filename: 01061357
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 14:01
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33407.1602	66.8143	16274723	26.551	27.547	200

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 01061404
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 14:07
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1024.0111	40.9604	9905048	26.727	27.727	138

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 01061410
Cal. Curve: CAL 123009 Timestamp: 2010/01/06 14:12
Operator ID: CARLOS Sample Type: Cal. Verification

QC29 : 00106

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.3970	1.0559	73674	26.626	27.623	50

QC29 : 00107

Geotechnical Analysis

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC29

prepared
by

Analytical Resources, Inc.

Anchor QEA, LLC
Bay Wood
080547-01

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
LDW-SS511-010	100.0	100.0	100.0	99.9	99.6	99.2	98.8	97.7	90.3	73.3	54.1	37.5	24.9	15.9
	100.0	100.0	100.0	99.9	99.8	99.6	99.4	98.5	92.9	76.0	55.6	38.1	25.0	16.4
	100.0	100.0	100.0	99.9	99.8	99.7	99.5	98.6	92.6	75.9	55.9	37.8	25.2	16.2
BW-04-SC-B-091218	100.0	84.7	78.6	72.0	61.1	41.7	27.6	20.8	19.1	14.4	10.3	7.4	5.4	3.8
BW-04-SC-C-091218	100.0	96.2	92.2	87.2	78.4	54.8	36.4	28.2	24.6	17.9	12.1	8.5	5.8	3.7
BW-01-SC-A-091218	100.0	100.0	100.0	98.0	97.2	96.5	95.8	94.1	88.1	67.1	41.2	26.3	17.4	11.3
BW-01-SC-B-091218	100.0	98.0	95.9	93.7	90.6	83.6	77.4	73.3	67.3	56.1	41.0	28.7	20.6	14.6
BW-11-SC-A-091218	100.0	100.0	99.7	98.3	97.3	96.0	94.0	87.0	69.9	46.2	28.1	17.7	11.9	7.7
BW-11-SC-B-091218	100.0	95.8	87.9	81.1	72.0	55.6	45.4	37.2	28.0	19.8	13.0	8.4	5.4	3.0
BW-07-SC-B-091218	100.0	99.9	96.4	91.7	84.5	78.7	75.3	71.4	58.2	39.8	23.5	14.7	10.0	6.1
BW-07-SC-C-091218	100.0	100.0	98.9	96.9	88.7	68.2	56.5	48.1	36.0	24.9	15.2	9.6	5.9	3.4
BW-05-SC-A-091218	100.0	99.0	97.3	94.9	88.1	67.5	57.1	46.3	34.1	23.2	15.1	10.4	7.2	4.7
BW-05-SC-B-091218	100.0	99.3	98.4	97.1	95.5	90.3	86.4	74.8	57.4	39.5	25.6	16.5	11.2	7.0
BW-55-A-091218	100.0	99.0	97.6	95.0	87.8	66.4	55.4	44.6	31.6	22.2	14.6	10.2	6.9	4.5

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC29:00109

Anchor QEA, LLC
Bay Wood
080547-01

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
LDW-SS511-010	0.0	0.1	0.3	0.4	0.4	1.0	7.5	17.0	19.2	16.6	12.5	9.0	15.9	97.7
	0.0	0.1	0.1	0.2	0.2	0.9	5.6	16.9	20.4	17.6	13.0	8.6	16.4	98.5
	0.0	0.1	0.1	0.2	0.2	0.8	6.0	16.7	20.1	18.1	12.6	9.0	16.2	98.6
BW-04-SC-B-091218	21.4	6.6	10.9	19.4	14.1	6.8	1.7	4.6	4.2	2.8	2.0	1.7	3.8	20.8
BW-04-SC-C-091218	7.8	5.0	8.8	23.7	18.3	8.3	3.5	6.7	5.9	3.6	2.7	2.2	3.7	28.2
BW-01-SC-A-091218	0.0	1.9	0.8	0.7	0.7	1.7	6.0	21.0	25.9	14.9	8.9	6.1	11.3	94.1
BW-01-SC-B-091218	4.1	2.2	3.2	6.9	6.2	4.0	6.0	11.2	15.2	12.2	8.2	6.0	14.6	73.3
BW-11-SC-A-091218	0.3	1.5	1.0	1.2	2.1	7.0	17.1	23.8	18.1	10.3	5.9	4.2	7.7	87.0
BW-11-SC-B-091218	12.1	6.8	9.1	16.5	10.1	8.2	9.2	8.2	6.8	4.6	2.9	2.4	3.0	37.2
BW-07-SC-B-091218	3.6	4.6	7.2	5.8	3.4	3.9	13.2	18.4	16.4	8.8	4.7	3.9	6.1	71.4
BW-07-SC-C-091218	1.1	2.0	8.2	20.5	11.7	8.4	12.1	11.1	9.7	5.6	3.7	2.5	3.4	48.1
BW-05-SC-A-091218	2.7	2.5	6.7	20.6	10.5	10.8	12.3	10.8	8.1	4.6	3.3	2.5	4.7	46.3
BW-05-SC-B-091218	1.6	1.2	1.7	5.1	3.9	11.6	17.4	17.8	14.0	9.0	5.4	4.1	7.0	74.8
BW-55-A-091218	2.4	2.6	7.2	21.4	11.0	10.8	13.1	9.3	7.6	4.4	3.3	2.4	4.5	44.6

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QC29 091218

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	Bay Wood
		Client Project:	080547-01
ARI Trip. Sample ID:	QC19 A	Batch No.:	QC29-1
Client Trip. Sample ID:	LDW-SS511-010	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
DW-SS511-01	100.0	100.0	100.0	99.9	99.6	99.2	98.8	97.7	90.3	73.3	54.1	37.5	24.9	15.9
	100.0	100.0	100.0	99.9	99.8	99.6	99.4	98.5	92.9	76.0	55.6	38.1	25.0	16.4
	100.0	100.0	100.0	99.9	99.8	99.7	99.5	98.6	92.6	75.9	55.9	37.8	25.2	16.2
AVE	NA	100.00	100.00	99.94	99.75	99.48	99.21	98.29	91.94	75.07	55.19	37.78	25.06	16.18
STDEV	NA	0.00	0.00	0.01	0.11	0.26	0.37	0.48	1.46	1.56	0.96	0.31	0.13	0.25
%RSD	NA	0.00	0.00	0.01	0.11	0.27	0.37	0.48	1.59	2.08	1.75	0.81	0.51	1.56

The Triplicate Applies To The Following Samples

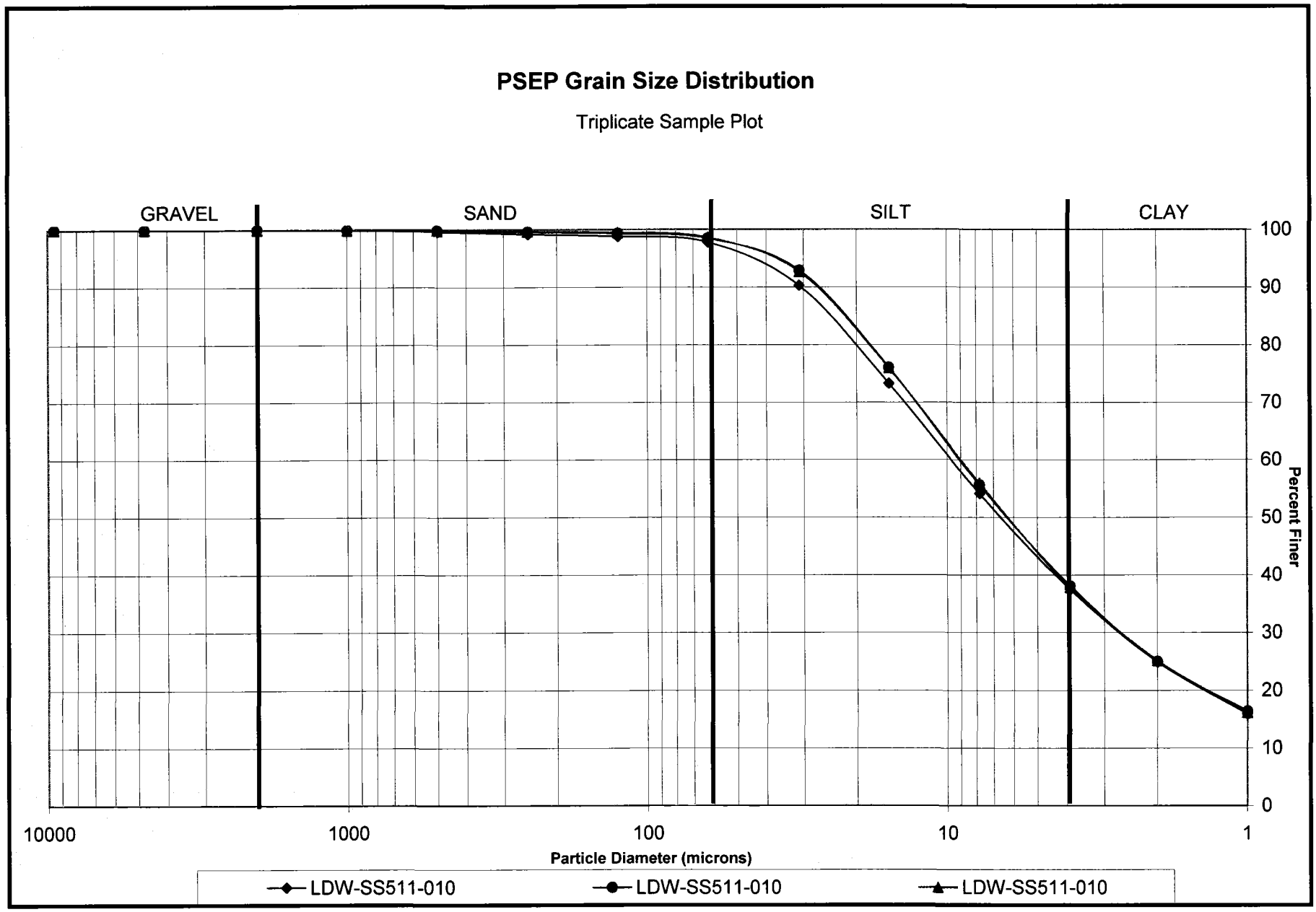
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
LDW-SS511-010	12/17/2009	12/31/2009	1/8/2010	98.5		17.6
	12/17/2009	12/31/2009	1/8/2010	100.7		17.2
	12/17/2009	12/31/2009	1/8/2010	100.3		16.5
BW-04-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	97.8		12.2
BW-04-SC-C-091218	12/18/2009	1/5/2010	1/12/2010	99.0		11.7
BW-01-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	98.3		17.0
BW-01-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	95.2		15.0
BW-11-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	98.7		19.1
BW-11-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	100.7		8.9
BW-07-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	99.7		19.6
BW-07-SC-C-091218	12/18/2009	1/5/2010	1/12/2010	101.2		12.4
BW-05-SC-A-091218	12/18/2009	1/5/2010	1/12/2010	99.4		14.9
BW-05-SC-B-091218	12/18/2009	1/5/2010	1/12/2010	102.0		22.9
BW-55-A-091218	12/18/2009	1/5/2010	1/12/2010	99.4		18.3

* ARI Internal QA limits = 95-105%

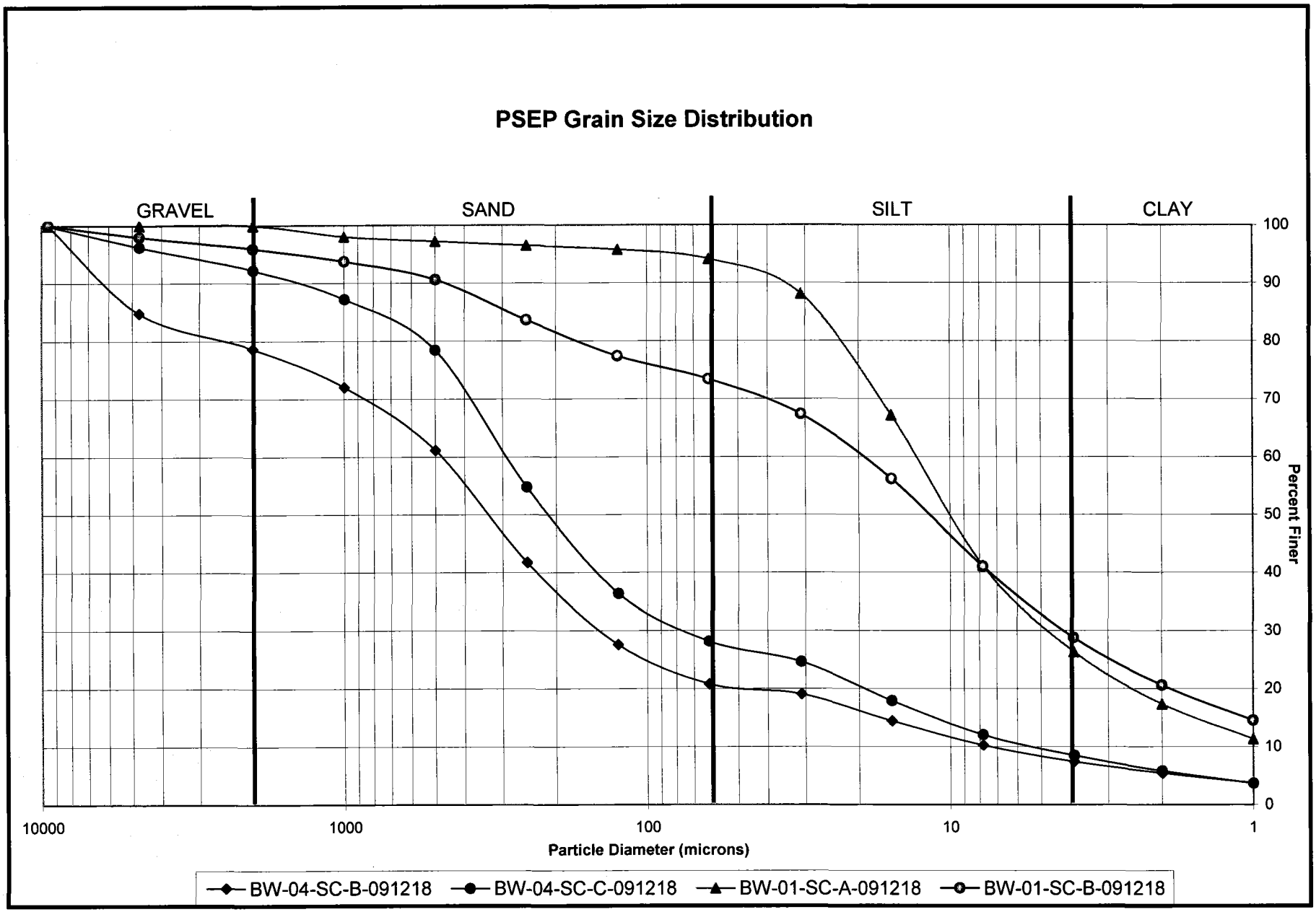
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

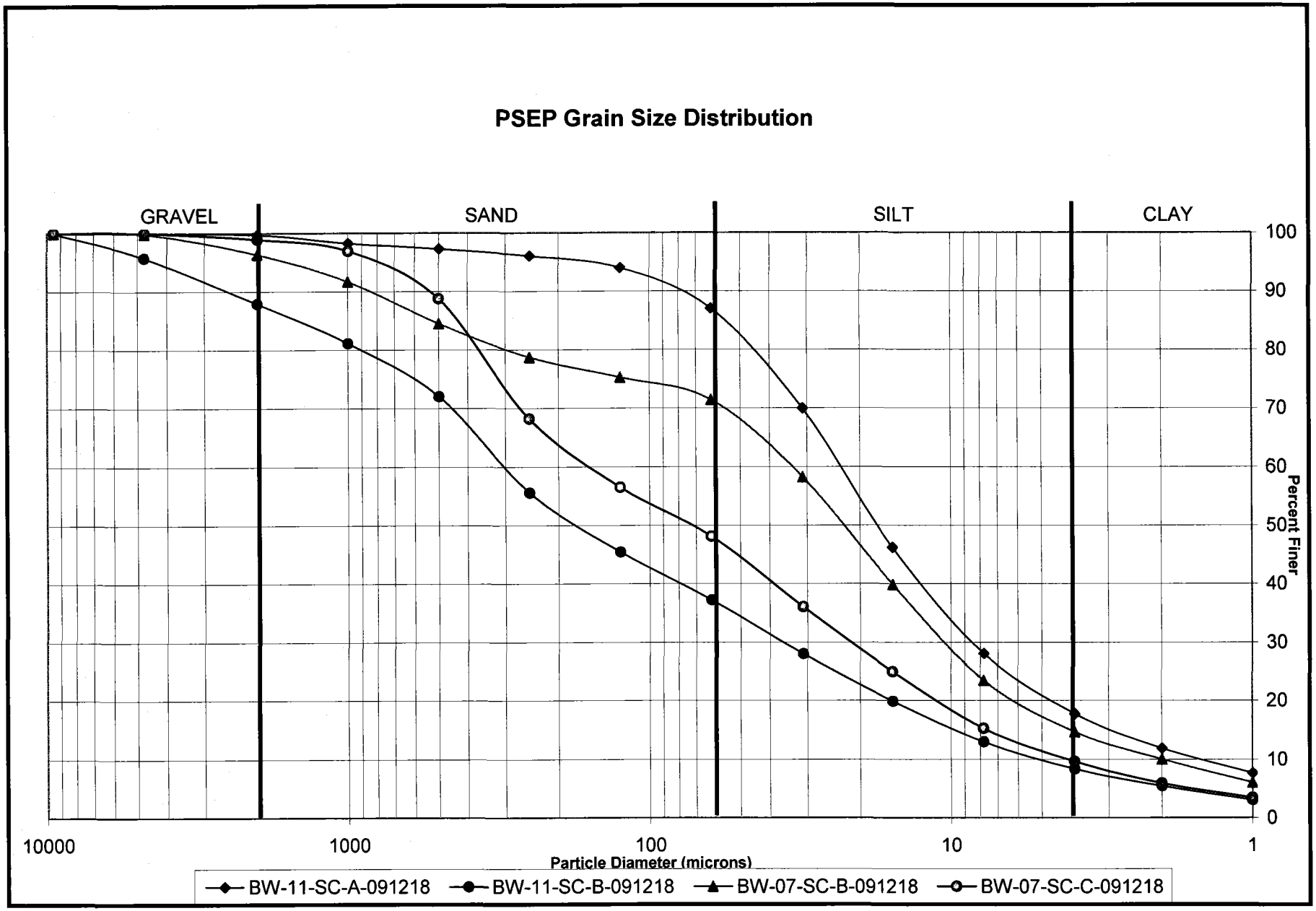
SCS ENGINEERS


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
LDW-SS511-010
LDW-SS511-010
LDW-SS511-010

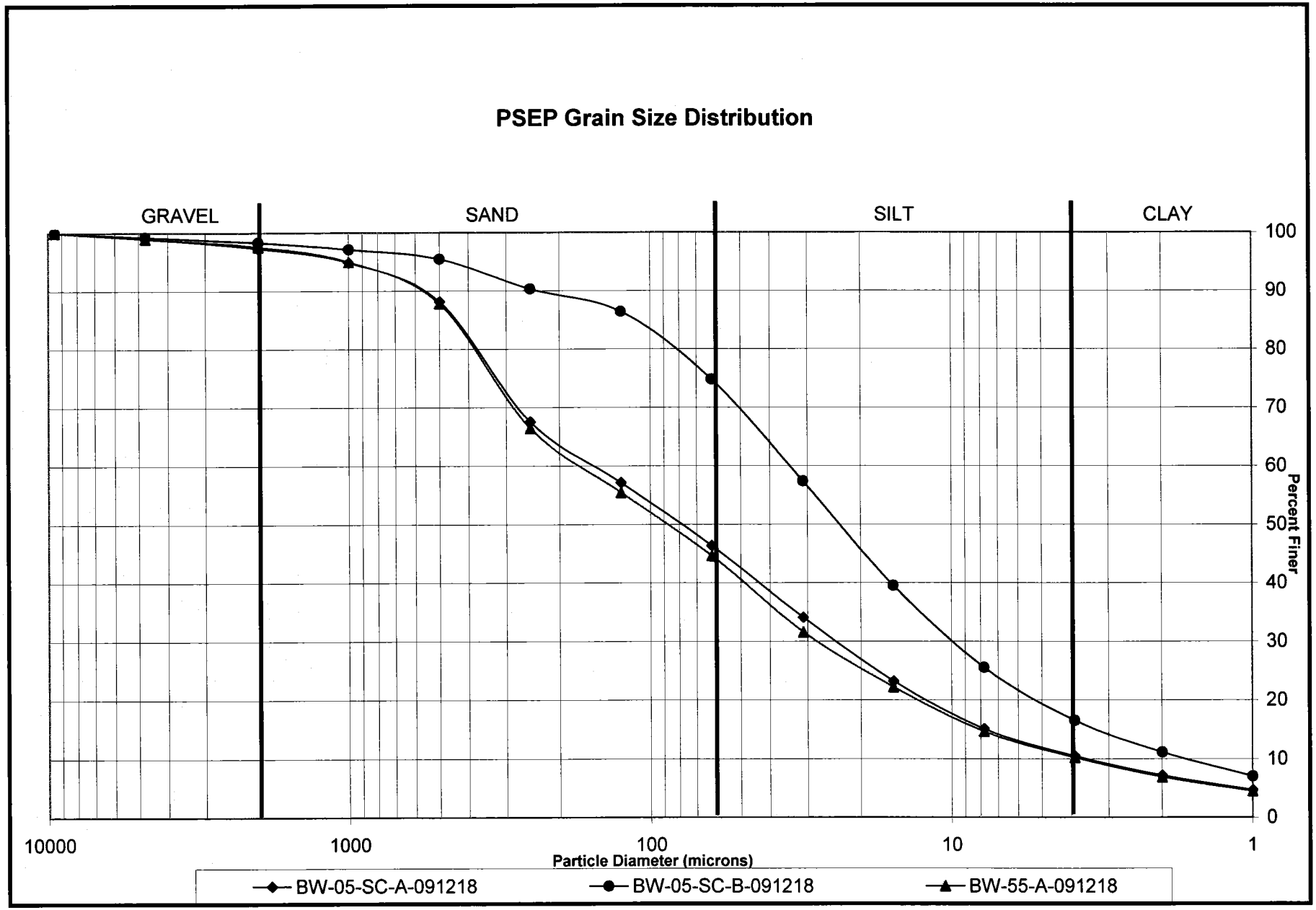
QC29:00112


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-04-SC-B-091218
BW-04-SC-C-091218
BW-01-SC-A-091218
BW-01-SC-B-091218

QC29:00113


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-11-SC-A-091218
BW-11-SC-B-091218
BW-07-SC-B-091218
BW-07-SC-C-091218

QC29:00114


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-05-SC-A-091218
BW-05-SC-B-091218
BW-55-A-091218

QC29:00415

ANALYTICAL RESOURCES INCORPORATED

GEOTECHNICAL ANALYSIS DATA SHEET
Organic Matter by Method ASTM D2974

Data Release Authorized: QP
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	27.03
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	25.97
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	10.26
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	39.20
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	10.03
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	29.86
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	8.10
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	18.42
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	13.93
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	11.36
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	14.29

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

GEOTECHNICAL ANALYSIS DATA SHEET
Total Solids by Method ASTM D2974

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gp
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	50.91
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	58.03
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	48.03
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	46.09
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	52.31
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	52.59
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	62.49
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	56.88
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	57.96
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	62.32
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	57.94

GEOTECHNICAL ANALYSIS DATA SHEET
Ash Content by Method ASTM D2974

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: QP
Reported: 01/14/10
Date Received: 12/18/09
Page 1 of 1

QC Report No: QC29-Anchor Environmental, LLC
Project: Bay Wood
080547-01

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
BW-04-SC-B-091218 QC29B 09-31270	12/18/09	Sediment	01/14/10 15:00	72.97
BW-04-SC-C-091218 QC29C 09-31271	12/18/09	Sediment	01/14/10 15:00	74.03
BW-01-SC-A-091218 QC29D 09-31272	12/18/09	Sediment	01/14/10 15:00	89.74
BW-01-SC-B-091218 QC29E 09-31273	12/18/09	Sediment	01/14/10 15:00	60.80
BW-11-SC-A-091218 QC29H 09-31276	12/18/09	Sediment	01/14/10 15:00	89.97
BW-11-SC-B-091218 QC29I 09-31277	12/18/09	Sediment	01/14/10 15:00	70.14
BW-07-SC-B-091218 QC29L 09-31280	12/18/09	Sediment	01/14/10 15:00	91.90
BW-07-SC-C-091218 QC29M 09-31281	12/18/09	Sediment	01/14/10 15:00	81.58
BW-05-SC-A-091218 QC29Q 09-31285	12/18/09	Sediment	01/14/10 15:00	86.07
BW-05-SC-B-091218 QC29R 09-31286	12/18/09	Sediment	01/14/10 15:00	88.64
BW-55-A-091218 QC29U 09-31289	12/18/09	Sediment	01/14/10 15:00	85.71

Organic/Ash Content Burn Temperature 440 C Per ASTM D2974

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. B Client Sample No. BW-04-SC-B-091218

Set-up Date: 1-5-10 Sample Description: Organics, Large Wood, Gravel

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GBL	
Container No.	156	
Tare Weight	~~1.4906~~	1.7055
Wet Weight + Tare	~~21.6232~~	38.3335
Dry Weight + Tare	~~11.0988~~	19.8393

Test Sample	Initials GBL
Container No.	156
Tare Weight	50.5418
Wet Weight + Tare	169.4561
Dry Weight + Tare	100.1044

SIEVE ANALYSIS

Initials GBL

Sieve Size	Weight Retained
Tare	50.5982
4	59.5888
10	63.1955
18	67.0747
35	73.4879
60	84.9183
120	93.2437
230	97.2321
PAN	2.7588

1/11/2010

Temp:23

PIPETTE ANALYSIS

Initials eg

Tare ID	Tare Wt	Dry Wt & Tare	TIME
B1	1.6979	1.9778	9:12:00
B2	1.6992	1.9380	9:12:20
B3	1.7040	1.8869	9:13:46
B4	1.7035	1.8360	9:19:05
B5	1.7059	1.8043	9:40:18
B6	1.707X3 (eg)	1.7818	11:05:00
B7	1.7071	1.7614	14:38:00
			7:48:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. C Client Sample No. BW-04-SC-C-091218

Set-up Date: 1-5-10 Sample Description: Organic Fine, Wood, silklike sheen

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1-7-10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	158
Tare Weight	1.4929
Wet Weight + Tare	15.1904
Dry Weight + Tare	9.4631

Test Sample	Initials BL
Container No.	158
Tare Weight	49.9969
Wet Weight + Tare	121.2673
Dry Weight + Tare	81.4215

SIEVE ANALYSIS
Initials BL

Sieve Size	Weight Retained
Tare	50.0121
4	51.5804
10	53.2606
18	55.3276
35	58.9628
60	68.7769
120	76.3818
230	79.8072
PAN	1.6429

1/11/2010

Temp:23

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PIPETTE ANALYSIS
Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
			9:15:00
C1	1.6924	1.9430	9:15:20
C2	1.6921	1.9075	9:16:46
C3	1.6952	1.8544	9:22:05
C4	1.6886	1.7988	9:43:18
C5	1.6866	1.7668	11:08:00
C6	1.6886	1.7466	14:41:00
C7	1.6941	1.7340	7:51:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. D Client Sample No. RW-01-SC-1-091218

Set-up Date: 1-5-10 Sample Description: Silty Clay

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1-7-10

SOLIDS CONTENT

Moisture Content	Initials GBL
Container No.	197
Tare Weight	1.4957
Wet Weight + Tare	20.4900
Dry Weight + Tare	10.4076

Test Sample	Initials GBL
Container No.	197
Tare Weight	50.7293
Wet Weight + Tare	89.3397
Dry Weight + Tare	52.2167

SIEVE ANALYSIS
Initials GBL

Sieve Size	Weight Retained
Tare	50.7376
4	
10	50.7425
18	51.0927
35	51.2370
60	51.3655
120	51.4996
230	51.8051
PAN	.3855

1/11/2010

Temp:23

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PIPETTE ANALYSIS
Initials GBL

Tare ID	Tare Wt	Dry Wt & Tare	TIME 9:18:00
D1	1.6926	2.0488	9:18:20
D2	1.6936	2.0273	9:19:46
D3	1.7015	1.9580	9:25:05
D4	1.7060	1.8669	9:46:18
D5	1.7073	1.8134	11:11:00
D6	1.6770	1.7502	14:44:00
D7	1.6696	1.7205	7:54:00

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. E Client Sample No. BW-01-SC-B091218

Set-up Date: 1-5-10 Sample Description: Organics

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1-7-10

SOLIDS CONTENT

Moisture Content	Initials BR
Container No.	198
Tare Weight	1.5048
Wet Weight + Tare	24.3903
Dry Weight + Tare	11.1498

Test Sample	Initials BR
Container No.	198
Tare Weight	50.7007
Wet Weight + Tare	99.4068
Dry Weight + Tare	56.7346

SIEVE ANALYSIS
Initials BR

Sieve Size	Weight Retained
Tare	50.7258428 BR
4	51.1385
10	51.5593
18	52.0075
35	52.6620
60	54.0869
120	55.3696
230	56.1954
PAN	.5983

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials eg

Tare ID	Tare Wt	Dry Wt & Tare	TIME
E1	~~1.6780~~ gs	~~1.9698~~	9:21:00
E2	1.7066	2.0061	9:22:46
E3	1.6979	1.9492	9:28:05
E4	1.6846	1.8705	9:49:18
E5	1.6862	1.8193	11:14:00
E6	1.6878	1.7856	14:47:00
E7	1.6860	1.7579	7:57:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

TARE WT.	TARE+Sed.
1.7125	2.0536

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. H Client Sample No. BW-11-SC-A091218

Set-up Date: 1-5-10 Sample Description: Sandy Silty Clay

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	200
Tare Weight	1.5415
Wet Weight + Tare	18.6885
Dry Weight + Tare	10.2408

Test Sample	Initials BL
Container No.	200
Tare Weight	49.9548
Wet Weight + Tare	93.1395
Dry Weight + Tare	54.4005

SIEVE ANALYSIS
Initials EG

Sieve Size	Weight Retained
Tare	49.9621
4	49.9621
10	50.0216
18	50.3448
35	50.5636
60	50.8282
120	51.2826
230	52.8076
PAN	1.5726

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials eg

Tare ID	Tare Wt	Dry Wt & Tare	TIME
H1	1.6813	2.0776	9:24:00
H2	1.6741	1.9938	9:24:20
H3	1.6776	1.8918	9:25:46
H4	1.6754	1.8091	9:31:05
H5	1.6870	1.7948	9:52:18
H6	1.6738	1.7356	11:17:00
H7	1.6711	1.7143	14:50:00
			8:00:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. I Client Sample No. BW-11-SC-B-091218

Set-up Date: 1-5-10 Sample Description: Organics - oil like sheen

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	214
Tare Weight	1.5399
Wet Weight + Tare	19.3014
Dry Weight + Tare	10.7091

Test Sample	Initials BL
Container No.	214
Tare Weight	50.2457
Wet Weight + Tare	96.4119
Dry Weight + Tare	86.7118

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.2530
4	51.2651
10	53.1404
18	54.7556
35	56.9199
60	60.8459
120	63.2550
230	65.2198
PAN	1.4268

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
I1	1.7027	1.8859	9:27:00
I2	1.7065	1.8482	9:27:20
I3	1.7077	1.8107	9:28:46
I4	1.7057	1.7764	9:34:05
I5	1.7085	1.7573	9:55:18
I6	1.6898	1.7247	11:20:00
I7	1.6956	1.7191	14:53:00
			8:03:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. L Client Sample No. BW-07-SC-B-091218

Set-up Date: 1-5-10 Sample Description: Silty Clay, Roots

Calgon Batch # 240 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials GR
Container No.	217
Tare Weight	1.5370
Wet Weight + Tare	20.1755
Dry Weight + Tare	13.4156

Test Sample	Initials GR
Container No.	217
Tare Weight	50.0164
Wet Weight + Tare	93.0325
Dry Weight + Tare	589.0434

GS

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.0230
4	50.0570
10	51.0204
18	52.2943
35	54.2789
60	55.8590
120	56.8045
230	57.8660
PAN	1.1276

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials eg

Tare ID	Tare Wt	Dry Wt & Tare	TIME
			9:30:00
L1	1.6992	2.1014	9:30:20
L2	1.6987	2.0281	9:31:46
L3	1.7025	1.9307	9:37:05
L4	1.7084	1.8465	9:58:18
L5	1.6811	1.7710	11:23:00
L6	1.6828	1.7470	14:56:00
L7	1.6851	1.7276	8:06:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. M Client Sample No. BW-07-SCC-091218

Set-up Date: 1-5-10 Sample Description: Clay, Organics Fines, Oil Sheen

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	218
Tare Weight	1.5786
Wet Weight + Tare	14.9043
Dry Weight + Tare	9.0527

GS

Test Sample	Initials BL
Container No.	218
Tare Weight	50.2609
Wet Weight + Tare	96.2838
Dry Weight + Tare	64.9836

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	50.2660
4	50.2660
10	50.5406
18	51.0611
35	53.1795
60	58.4797
120	61.4941
230	63.6696
PAN	1.2331

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials GS

TIME

Tare ID	Tare Wt	Dry Wt & Tare	TIME
M1	1.6883	1.9396	9:33:00
M2	1.6872	1.8800	9:33:20
M3	1.6840	1.8202	9:34:46
M4	1.6928	1.7797	9:40:05
M5	1.6866	1.7448	10:01:18
M6	1.7113	1.7504	11:26:00
M7	1.7098	1.7363	14:59:00
			8:09:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. Q Client Sample No. BW-05-SC-A-091218

Set-up Date: 1·5·09 Sample Description: Sand, Organics

Calgon Batch # 210 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials
Container No.	225
Tare Weight	1.5481
Wet Weight + Tare	24.3975
Dry Weight + Tare	14.7842

Test Sample	Initials
Container No.	225
Tare Weight	49.3996
Wet Weight + Tare	104.8293
Dry Weight + Tare	68.9932

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	49.4129
4	49.7224
10	50.2728
18	51.0605
35	53.2255
60	59.8351
120	63.1911
230	66.6449
PAN	72.2555

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials

Tare ID	Tare Wt	Dry Wt & Tare	TIME
			9:36:00
Q1	1.7127	2.0231	9:36:20
Q2	1.7053	1.9344	9:37:46
Q3	1.7035	1.8626	9:43:05
Q4	1.7023	1.8088	10:04:18
Q5	1.7124	1.7890	11:29:00
Q6	1.7100	1.7656	15:02:00
Q7	1.7129	1.7522	8:12:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. R Client Sample No. BW-05-SC-B-091218

Set-up Date: 1-5-10 Sample Description: Clay, Organics, Wood

Calgon Batch # 210 Sieve Set # 2 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials BL
Container No.	226
Tare Weight	1.5449
Wet Weight + Tare	23.3231
Dry Weight + Tare	15.7420

Test Sample	Initials BL
Container No.	226
Tare Weight	49.8844
Wet Weight + Tare	96.8880
Dry Weight + Tare	60.0388

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	49.8919
4	50.1139
10	50.3915
18	50.7663
35	51.2859
60	52.8571
120	54.6030
230	57.6138
PAN	2.3208

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
R1	1.7032	2.1584	9:39:00
R2	1.7029	2.0565	9:40:46
R3	1.7027	1.9493	9:46:05
R4	1.7030	1.8656	10:07:18
R5	1.7077	1.8160	11:32:00
R6	1.7080	1.7841	15:05:00
R7	1.7134	1.7648	8:15:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

PSEP GRAIN SIZE ANALYSIS

Job No. QC29 ARI Sample No. U Client Sample No. BU-55-A-091218

Set-up Date: 1-5-10 Sample Description: Sandy Silt, Wood

Calgon Batch # 20 Sieve Set # 1 Date Sieved: 1/7/10

SOLIDS CONTENT

Moisture Content	Initials BR
Container No.	228
Tare Weight	1.5524
Wet Weight + Tare	21.4379
Dry Weight + Tare	12.9727

Test Sample	Initials BR
Container No.	228
Tare Weight	49.8075
Wet Weight + Tare	121.2012
Dry Weight + Tare	75.3740

SIEVE ANALYSIS
Initials GS

Sieve Size	Weight Retained
Tare	49.8162
4	50.2193
10	50.7967
18	51.8718
35	54.8198
60	63.5832
120	68.0879
230	72.5152
PAN	2.7825

1/11/2010

Temp:23

PIPETTE ANALYSIS
Initials CG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
			9:42:00
U1	1.7089	2.0886	9:42:20
U2	1.7087	1.9781	9:43:46
U3	1.7140	1.9064	9:49:05
U4	1.7019	1.8316	10:10:18
U5	1.6996	1.7929	11:35:00
U6	1.6987	1.7690	15:08:00
U7	1.6972	1.7435	8:18:00

Salt Correction

Tare Wt.	
Tare + Dry Sample	
Salt Correction (x 50)	

Total Organic Matter by Ignition

Loss on Ignition, ASTM D2974 ☒ — **Temp. = 440°C**

Total Volatile Solids, PSEP Method ☐ — **Temp. = 550°C**

ARI Job No.: QC29 Tested by: CR

Sample ID	B	Date/Time	C	Date/Time	D	Date/Time
Tare ID	402 + 200T	—	RAY + 62	—	5 + K3	—
Tare Weight	108.20 + 101.84	—	101.88 + 107.89	—	102.53 + 107.34	—
Wet Wt + Tare	299.99 + 294.10	1-7 / 16:07	235.95 + 253.33		299.65 + 316.74	1-7 / 16:29
Dry Wt. + Tare	207.09 + 198.47	1-8 / 19:15	178.07 + 193.82	1-8 / 19:15	196.41 + 208.73	1-8 / 19:15
Burned Wt. + Tare	181.20 + 171.52	1/10/10 10:00	156.4[illegible] + 173.34	1-10-10 / 10:01	187.42 + 197.68	1/10/11 / 10:02

6 mg

Sample ID	E	Date/Time	H	Date/Time	I	Date/Time
Tare ID	57 + A5	—	GOOD + 3	—	White + 8	—
Tare Weight	103.80 + 99.50	—	102.22 + 102.67	—	100.15 + 109.09	—
Wet Wt + Tare	287.87 + 306.55	1-7 / 16:39	317.04 + 311.94	1-7 / 16:52	257.33 + 258.84	1-7 / 17:00
Dry Wt. + Tare	187.41 + 196.14	1-8 / 19:15	214.75 + 211.97	1-8 / 19:15	183.71 + 186.94	1-8 / 19:15
Burned Wt. + Tare	154.23 + 158.66	1/12/10 16:30	203.54 + 200.72	1/12/10 16:30	159.30 + 163.15	1/12/10 16:30

Sample ID	L	Date/Time	M	Date/Time	Q	Date/Time
Tare ID	Ivy + 7	—	Fozzy + 9	—	Snake + Atlas	—
Tare Weight	102.72 + 103.37	—	112.24 + 105.10	—	101.10 + 118.27	—
Wet Wt + Tare	326.14 + 320.30	1-8 / 9:17	281.95 + 233.53	1-8 / 9:34	331.50 + 342.16	1-8 / 9:46
Dry Wt. + Tare	242.72 + 238.59	1/12/10 11:30	209.76 + 177.46	1/12/10 11:30	235.73 + 246.94	1/12/10 11:30
Burned Wt. + Tare	219.38 + 227.14	1/13/10 13:50	193.25 + 162.44	1/13/10 13:50	217.30 + 228.70	1/13/10 13:50

Sample ID	R	Date/Time	U	Date/Time		Date/Time
Tare ID	Chuck + 6	—	1 + FN6	—		
Tare Weight	103.50 + 104.91	—	107.74 + 107.56	—		
Wet Wt + Tare	304.70 + 314.34	1-8 / 10:02	341.82 + 334.42	1-8 / 10:10		
Dry Wt. + Tare	228.91 + 235.46	1/12/10 14:30	243.96 + 238.42	1/12/10 14:30		
Burned Wt. + Tare	215.06 + 220.77	1/14/10 15:00	224.45 + 219.71	1/14/10 15:00		

Sample ID		Date/Time		Date/Time		Date/Time
Tare ID						
Tare Weight						
Wet Wt + Tare						
Dry Wt. + Tare						
Burned Wt. + Tare						

Spin 1

Analytical Resources, Inc.

Pore Water Extraction

ARI Job No.: QC29 Date: 12/23/09 Tested By: gs/AS Analytes: NH3 & S2

Aerobic ( )
Anaeorobic (✓)

Volume Required: 80ml

Filtered ( )
Filter Material: _____
Filter Size: _____

Centrifugation 1:	Speed:	3000g	Temp:	4°C	Duration:	30min	O2 Level:	<1%
Centrifugation 2:	Speed:	7000g	Temp:	4°C	Duration:	30min	O2 Level:	<1%

Centrifugation ~~12~~ 1

ARI ID	Start Time	Estimated Recovery	Decant Time
B	11:45	100ml	12:20
D	12:55	250ml	13:20
Q	11:45	100ml	12:21
I	13:20	100ml	13:51

Centrifugation ~~2~~ 1

ARI ID	Start Time	Estimated Recovery	Decant Time
L	12:55	200ml	13:21
H	12:55	200ml	13:22
C	NO RECOVERY		
E	11:45	100ml	12:22

Notes:

QC29:00131

Spin 1

Analytical Resources, Inc.

Pore Water Extraction

ARI Job No.: QC29 Date: 12/23/09 Tested By: gs Analytes: ~~NH_3~~ & S_2

Aerobic ( )
Anaeorobic (✓)

Volume Required: 80ml

Filtered ( )
Filter Material: _____
Filter Size: _____

Centrifugation 1:	Speed:	3000 g	Temp:	4°C	Duration:	30min	O2 Level:	<1%
Centrifugation 2:	Speed:		Temp:		Duration:		O2 Level:	

Centrifugation 1

ARI ID	Start Time	Estimated Recovery	Decant Time
M	13:20	50 ml	13:52
R	13:20	50 ml	13:53
U	13:20 ~~12:55~~ gs	100 ml	13:54

Centrifugation 2

ARI ID	Start Time	Estimated Recovery	Decant Time

Notes:

QC29:00132

Spin 2

Analytical Resources, Inc.

Pore Water Extraction

ARI Job No.: QC29 Date: 12/23/2009 Tested By: A.S. Analytes: _____

Aerobic ( )
Anaeorobic (✓)

Volume Required: _____

Filtered ( )
Filter Material: _____
Filter Size: _____

Centrifugation 1:	Speed:	3000 rpm	Temp:	4°C	Duration:	½ hr	O2 Level:	∅ < 1%
Centrifugation 2:	Speed:	7000 rpm	Temp:	4°C	Duration:	½ hr	O2 Level:	∅ < 1%

Centrifugation 1/2

ARI ID	Start Time	Estimated Recovery	Decant Time
B	12:30	100 mL	~~13:30~~ as 13:30
D	13:25	250 mL	14:05
Q	12:30	100 mL	~~3:20~~ as 13:20
I	14:00	100 mL	14:35

Centrifugation 2

ARI ID	Start Time	Estimated Recovery	Decant Time
L	13:25	200 mL	14:10
H	13:25	200 mL	14:00
C	~~14:00~~ as.	NONE	
E	12:30	100 mL	~~1:25~~ as 13:25

Notes:

QC29:091303

Spin 2

Analytical Resources, Inc.

Pore Water Extraction

ARI Job No.: QC29 Date: 12/23/2009 Tested By: A.S Analytes: _____

Aerobic ( )
Anaeorobic (✓)

Volume Required: _____

Filtered ( )
Filter Material: _____
Filter Size: _____

Centrifugation 1:	Speed:	3000 rpm	Temp:	4°C	Duration:	½ hr	O2 Level:	
Centrifugation 2:	Speed:	7000 rpm	Temp:	4°C	Duration:	½ hr	O2 Level:	

Centrifugation 2

ARI ID	Start Time	Estimated Recovery	Decant Time
M	14:00	40 mL	14:45
R	14:00	50 mL	14:40
U	14:00	100 mL	14:45

Centrifugation 2

ARI ID	Start Time	Estimated Recovery	Decant Time

Notes:

QC29 12-23-09

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 31, 2009

James Keithly
Anchor QEA
1423 Third Avenue, Suite 300
Seattle, WA 98101

RE: Project: Bay Wood, 080547-01
ARI Job No.: QC83

Dear Mr. Keithly:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for the samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QC83

SD/co

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: QC83	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Anchor Environmental, LLC	Phone:	Date: 12/23/09	Ice Present?
Client Contact: James Keithly		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #: 080547-01	Samplers: A.S		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: NH_3	S^2							Notes/Comments
BW-04-SC-13-091218	12/23/09	13:30		3	X	X							Archive
BW-01-SC-A-091218	12/23/09	14:05		3	X	X							Archive
BW-01-SC-B-091218	12/23/09	13:25		B 2	X	X							
BW-11-SC-A-091218	12/23/09	14:00		3	X	X							Archive
BW-11-SC-B-091218	12/23/09	14:35		3	X	X							Archive
BW-07-SC-B-091218	12/23/09	14:10		4	X	X							Archive
BW-07-SC-C-091218	12/23/09	14:45		2	X	X							
BW-05-SC-A-091218	12/23/09	13:20		3	X	X							Archive
BW-05-SC-B-091218	12/23/09	14:40		2	X	X							
BW-55-A-091218	12/23/09	14:45		3	X	X							Archive

Please Archive Extra per Sue

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Aaron Spadoni	Printed Name: Jonathan Walter	Printed Name:	Printed Name:
	Company: ARI	Company: ARI	Company:	Company:
	Date & Time: 12/23/2009	Date & Time: 12/23/09 1640	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

COC083.PDF

PRESERVATION VERIFICATION 12/23/09
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: QC83

Inquiry Number: NONE
Analysis Requested: 12/24/09
Contact: Keithly, James
Client: Anchor Environmental, LLC
Logged by: AV
Sample Set Used: Yes-473
Validatable Package: No
Deliverables:

PC: Sue D.
VTSR: 12/23/09

Project #: 080547-01
Project: Bay Wood
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
09-31638 QC83A	BW-04-SC-B-091218			Fail									Fail					NH3 S2 Read	X2 today	No preserve	drops	12-23-09
09-31639 QC83B	BW-01-SC-A-091218																					
09-31640 QC83C	BW-01-SC-B-091218																					
09-31641 QC83D	BW-11-SC-A-091218																					
09-31642 QC83E	BW-11-SC-B-091218																					
09-31643 QC83F	BW-07-SC-B-091218																					
09-31644 QC83G	BW-07-SC-C-091218																					
09-31645 QC83H	BW-05-SC-A-091218																					
09-31646 QC83I	BW-05-SC-B-091218																					
09-31647 QC83J	BW-05-A-091218																					

unpreserved

QC83 09/23/09

Checked By AV Date 12/23/09

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA Project Name: Bay Wood

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: _____ Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... AMB

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: _____

Cooler Accepted by: MD Date: 12/17/09 Time: 1750

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI.....	NA	_____	

Samples Logged by: _____ Date: _____ Time: _____

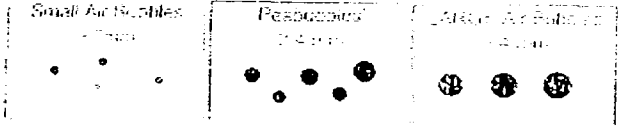
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Samples were core processed by Anchor in lab on 12/18/09 and made into new samples

By: JW Date: 12/18/09



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

QC83 : 00005

Case Narrative

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

Case Narrative

Client: Anchor QEA
Project: Bay Wood, 080547-01
Matrix: Pore Water
ARI Job No.: QC83

Sample receipt

Ten sediment samples were received on December 28, 2009, under ARI job QC29. Portions of each of these samples were then centrifuged to create Pore Water extracts, which were logged for analysis on December 23, 2009 under ARI job number QC83.

General Chemistry Parameters

The samples were prepared and analyzed within the required holding time for all parameters.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recovery and replicate RPD were within control limits.

Due to color, samples **BW-04-SC-B-091218** and **BW-07-SC-C-091218** were diluted for sulfide. Both samples had concentrations of sulfide greater than the raised detection limit. These concentrations may be false positive due to color in samples.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S — Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

QC83 : 00008

Data Reporting Qualifiers

Effective 7/10/2009

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

QC83 : 00009

Data Summary Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

GENERAL CHEMISTRY ANALYSIS

QC83 : 00011

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-04-SC-B-091218
ARI ID: 09-31638 QC83A

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	4.90
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	0.295

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-01-SC-A-091218
ARI ID: 09-31639 QC83B

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.03
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-01-SC-B-091218
ARI ID: 09-31640 QC83C

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.46
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-11-SC-A-091218
ARI ID: 09-31641 QC83D

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.53
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-11-SC-B-091218
ARI ID: 09-31642 QC83E

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.8
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-07-SC-B-091218
ARI ID: 09-31643 QC83F

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.500	31.0
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-07-SC-C-091218
ARI ID: 09-31644 QC83G

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	14.5
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	0.480

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-05-SC-A-091218
ARI ID: 09-31645 QC83H

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.6
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-05-SC-B-091218
ARI ID: 09-31646 QC83I

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.500	31.4
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	< 0.250 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-55-SC-A-091218
ARI ID: 09-31647 QC83J

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.8
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QC83B Client ID: BW-01-SC-A-091218							
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	5.03	15.2	10.0	101.7%

REPLICATE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QC83B	**Client ID: BW-01-SC-A-091218**					
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	5.03	5.03	0.0%

LAB CONTROL RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	ICVL	12/23/09	mg/L	0.509	0.499	102.0%

METHOD BLANK RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank	ID
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	< 0.010 U	
		12/30/09		< 0.010 U	
Sulfide	EPA 376.2	12/23/09	mg/L	< 0.050 U	

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	0.515	0.500	103.0%
ERA #15125		12/30/09		0.540	0.500	108.0%

Laboratory Data Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

General Chemistry Analysis
QC Summary Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

MS/MSD RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: QC83B Client ID: BW-01-SC-A-091218							
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	5.03	15.2	10.0	101.7%

REPLICATE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: QC83B Client ID: BW-01-SC-A-091218						
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	5.03	5.03	0.0%

LAB CONTROL RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	ICVL	12/23/09	mg/L	0.509	0.499	102.0%

METHOD BLANK RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank	ID
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	< 0.010 U	
		12/30/09		< 0.010 U	
Sulfide	EPA 376.2	12/23/09	mg/L	< 0.050 U	

STANDARD REFERENCE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Ammonia	EPA 350.1M	12/30/09	mg-N/L	0.515	0.500	103.0%
ERA #15125		12/30/09		0.540	0.500	108.0%

General Chemistry Analysis
Sample Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-04-SC-B-091218
ARI ID: 09-31638 QC83A

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	4.90
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	0.295

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-01-SC-A-091218
ARI ID: 09-31639 QC83B

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.03
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-01-SC-B-091218
ARI ID: 09-31640 QC83C

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.46
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-11-SC-A-091218
ARI ID: 09-31641 QC83D

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.100	5.53
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-11-SC-B-091218
ARI ID: 09-31642 QC83E

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.8
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-07-SC-B-091218
ARI ID: 09-31643 QC83F

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.500	31.0
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-07-SC-C-091218
ARI ID: 09-31644 QC83G

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	14.5
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	0.480

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-05-SC-A-091218
ARI ID: 09-31645 QC83H

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.6
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-05-SC-B-091218
ARI ID: 09-31646 QC83I

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.500	31.4
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.250	< 0.250 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
QC83-Anchor Environmental, LLC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Pore Water
Data Release Authorized:
Reported: 12/31/09

Project: Bay Wood
Event: 080547-01
Date Sampled: 12/23/09
Date Received: 12/23/09

Client ID: BW-55-SC-A-091218
ARI ID: 09-31647 QC83J

Analyte	Date Batch	Method	Units	RL	Sample
N-Ammonia	12/30/09 123009#1	EPA 350.1M	mg-N/L	0.200	11.8
Sulfide	12/23/09 122309#1	EPA 376.2	mg/L	0.050	< 0.050 U

RL Analytical reporting limit
U Undetected at reported detection limit

General Chemistry Analysis
Instrument Raw Data

prepared
for

Anchor Environmental, LLC

Project: Bay Wood, 080547-01

ARI JOB NO: QC83

prepared
by

Analytical Resources, Inc.

12/29/09

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) — Date / Time | Analyst

Aqueous Samples — *Distillation* | *Finish* 12/23/09 21:00 | DR

If distilled, specify procedure **n/a**

1. Standardization of sodium thiosulfate titrant — *Buret used for titrations:* #2

Thiosulfate ID: **7215C**
Bi-iodate ID: **526-12**
Stock bi-iodate = **0.8129** *grams to* 1000 *mL*
Normality = **0.025**

Titration of bi-iodate with thiosulfate

ml bi-iodate =	3.000	3.000	3.000	
ml thiosulfate =	3.13	3.10	3.12	*nthio*
*Normality thiosulfate = (mL bi-iodate*normality) / mL thiosulfate =*	0.024	0.024	0.024	**0.024**

2. Normality of Iodine

Iodine ID: **7204C**

Titration of Iodine with thiosulfate

mL Iodine =	3.000	3.000	3.000	
mL thiosulfate =	3.00	3.00	3.00	*ni*
*Normality iodine = (mL thiosulfate*normality) / mL iodine=*	0.024	0.024	0.024	**0.024**

3. Standardization of sodium sulfide stock

Stock ID = **0100-05**
Approx conc in 100ml
g Na2S 0.5222 *mg/ mL =* 0.697

Titration of standard with Thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.65	1.65	1.65	*stkconc (mg/mL)*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*	0.52	0.52	0.52	**0.520**

Intermediate Standard

Add 12.0 *ml stk to* 250 *ml 0.01 M NaOH =* **0.025** **mg/mL**

5.0 Calibration Standard Curve — ***spectrophotometer used:***

Volume Intermediate (ml)	FINAL VOLUME (ml)	CONC (mg S/L)	ABSORBANCE @ 650 nm 1	2	Avg	
0.00	50	0.000	0.000		0.000	
0.10	50	0.050	0.033		0.033	*E 0.041*
0.25	50	0.125	0.085		0.085	*0.125*
0.50	50	0.250	0.170		0.170	*0.264*
1.00	50	0.499	0.328		0.328	*0.520*
2.00	50	0.999	0.614		0.614	*0.985*

REGRESSION DATA

intercept 0.008
slope 0.615
r= 0.9993

Comment: Calibration OK !

maxabs = 0.614

Calib Verif Std = *1 ml int to 50 ml ZnOAc =* ***0.499*** *mg/L*
Distillation Std = *0.5 ml Stk to 50 =* ***5.201*** *mg/L*

SAMPLE DATA — *enter dilution factor as ml final/mL sample*

SAMPLE ID	DISTILL DATA: Sample Volume	Distill Volume (mL)	SPECTROPHOTOMETRIC DATA: Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	SAMPLE DATA: **Final Conc mg S/L**	
Cal Blk		n/a	1.00	0.000		-0.013	**< 0.05**	*OK!*
ICV		n/a	1.00	0.321		0.509	**0.51**	*101.92%*
~~QC74 A8~~			~~1.00~~	~~0.010~~		~~0.003~~	~~**< 0.05**~~ -	
~~QC74 A8 dup~~			~~1.00~~	~~0.009~~		~~0.002~~	~~**< 0.05**~~ -	~~*NA*~~
~~QC74 A8 ms~~			~~1.00~~	~~0.106~~		~~0.160~~	~~**0.16**~~ -	~~*63.9%*~~
~~*Spike at*~~	~~0.05~~	~~*ml intstk to*~~	~~5.00~~	~~*ml sample =*~~		~~0.25~~	~~*mg/l*~~	
QC74 B8	50.0		1.00	-0.008		-0.026	**< 0.05**	
QC74 C8	50.0		1.00	-0.015		-0.037	**< 0.05**	
QC74 D8	50.0		1.00	-0.012		-0.032	**< 0.05**	
QC74 E8	50.0		1.00	-0.002		-0.016	**< 0.05**	
QC83 A2	50.0		5.00	0.044		0.059	**0.29**	
QC83 B2	50.0		1.00	-0.013		-0.034	**< 0.05**	
QC83 C2	50.0		1.00	0.011		0.005	**< 0.05**	
Cal Blk	50.0	n/a	1.00	0.000		-0.013	**< 0.05**	*OK!*
CCV	50.0	n/a	1.00	0.304		0.481	**0.48**	*96.39%*
QC83 D2	50.0		1.00	-0.006		-0.023	**< 0.05**	
QC83 E2	50.0		1.00	-0.002		-0.016	**< 0.05**	
QC83 F2	50.0		1.00	-0.007		-0.024	**< 0.05**	
QC83 G2	50.0		5.00	0.067		0.096	**0.48**	
QC83 H2	50.0		1.00	-0.009		-0.027	**< 0.05**	
QC83 I2	50.0		5.00	0.022		0.023	**< 0.25**	
QC83 J2	50.0		1.00	-0.016		-0.039	**< 0.05**	

SAMPLE DATA *enter dilution factor as ml final/mL sample*

	DISTILL DATA		SPECTROPHOTOMETRIC DATA				SAMPLE DATA	
SAMPLE ID	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	**Final Conc mg S/L**	
QC74 A8			1.00	-0.016		-0.039	**< 0.05**	
QC74 A8 dup			1.00	-0.016		-0.039	**< 0.05**	*NA*
QC74 A8 ms			1.00	0.137		0.210	**0.21**	*84.1%*
Spike at	0.05	*ml intstk to*	5.00	*ml sample =*		0.25	*mg/l*	
Cal Blk	50.0	n/a	1.00	-0.003		-0.018	**< 0.05**	*OK!*
~~CCV~~	~~50.0~~	~~n/a~~	~~1.00~~	~~0.281~~		~~0.444~~	~~**0.44**~~	~~*Err @89%*~~
CCV	50.0	n/a	1.00	0.302		0.478	**0.48**	*95.74%*

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) Aqueous Samples	Date / Time	Analyst
Distillation		
Finish	12/23/09 21:00	[illegible]

If distilled, specify procedure: n/a

1. Standardization of sodium thiosulfate titrant — Buret used for titrations:

Thiosulfate ID: 7215C

Bi-iodate ID: 526-12

Stock bi-iodate = ~~0.4065~~ 0.8129 grams to ~~500~~ 1000 mL

Normality = 0.025

Titration of bi-iodate with thiosulfate

ml bi-iodate =	3.00 ~~2.000~~	3.00 ~~2.000~~	3.00 ~~2.000~~	
ml thiosulfate =	3.13	3.10	3.12	nthio
Normality thiosulfate = (mL bi-iodate*normality) / mL thiosulfate =				

2. Normality of Iodine

Iodine ID: 7204C

Titration of Iodine with thiosulfate

mL Iodine =	3.000	3.000	3.000	
mL thiosulfate =	3.00	3.00	3.00	ni
Normality iodine = (mL thiosulfate*normality) / mL iodine=				

3. Standardization of sodium sulfide stock

Stock ID = 0100-05

Approx conc in 100ml

g Na2S 0.5222 mg/ mL = 0.697

Titration of standard with Thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.65	1.65	1.65	stkconc (mg/mL)
Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =				

Intermediate Standard

Add 12.0 ml stk to 250 ml 0.01 M NaOH = **mg/mL**

5.0 Calibration Standard Curve — **spectrophotometer used:**

Volume Intermediate (ml)	FINAL VOLUME (ml)	CONC (mg S/L)	ABSORBANCE @ 650 nm 1	2	Avg	
0.00	50		0.000			
0.10	50	#VALUE!	0.033			
0.25	50	#VALUE!	0.085			
0.50	50	#VALUE!	0.170			
1.00	50	#VALUE!	0.328			
2.00	50	#VALUE!	0.614			

REGRESSION DATA

intercept

slope

r=

Comment:

maxabs =

Calib Verif Std = 1 ml int to 50 ml ZnOAc = **#VALUE!** mg/L

Distillation Std = 0.5 ml Stk to 50 = **#VALUE!** mg/L

SAMPLE DATA — enter dilution factor as ml final/mL sample

SAMPLE ID	DISTILL DATA: Sample Volume	Distill Volume (mL)	SPECTROPHOTOMETRIC DATA: Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	SAMPLE DATA: Final Conc mg S/L
Cal Blk		n/a	1.00	0.000			
ICV		n/a	1.00	0.321			
QC74A8	50.0		1.00	0.010			
dup	50.0		1.00	0.009			
MS	50.0		1.00	0.106			
B8	50.0		1.00	-0.008			
C8	50.0		1.00	-0.015			
D8	50.0		1.00	-0.012			
E8	50.0		1.00	-0.002			
~~QC83~~ QC83A2	50.0		5X 1.00	0.044			
QC83B2	50.0		1.00	-0.013			
C2	50.0		1.00	0.011			
Cal Blk	50.0	n/a	1.00	0.000			
CCV	50.0	n/a	1.00	0.304			
QC83D2	50.0		1.00	-0.006			
E2	50.0		1.00	-0.002			
F2	50.0		1.00	-0.007			
G2	50.0		5X 1.00	0.067			
H2	50.0		1.00	-0.009			
I2	50.0		5X 1.00	0.022			
J2	50.0		1.00	-0.016			
QC74A8	50.0		1.00	-0.016			

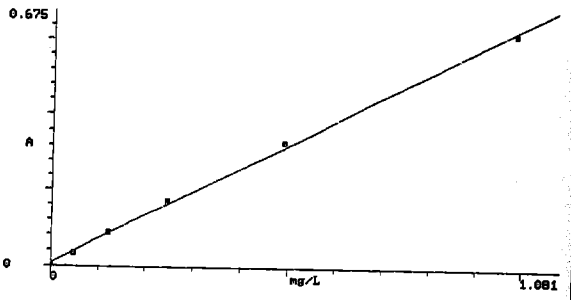
SAMPLE DATA *enter dilution factor as ml final/mL sample*

	DISTILL DATA		SPECTROPHOTOMETRIC DATA				SAMPLE DATA
SAMPLE ID	Sample Volume	Distill Volume (mL)	Dilution factor	ABS @ 650 nm	BKG ABS	Regressed Conc (mg S/L)	**Final Conc mg S/L**
↓ Adup	50.0		1.00	-0.016			
↓ AMS	50.0		1.00	0.137			
Cal Blk	50.0	n/a	1.00	-0.003			
CCV	50.0	n/a	1.00	0.281			

CCV 0.302

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Standard Curve	20:42 23Dec09
Test Name	SULFIDE[Saved]
Date Standards Measured	23Dec09
Wavelength	650nm
Ref. Wavelength Correction	Off
Curve Fit	Linear
Number of Standards	6
Units	mg/L
ID# (0=OFF)	Off
Low/High Limits	0.050/1.000
Statistics	Off
Auto Print	On



Curve Fit	Linear
Slope	0.625
Intercept	0.00785
Std Dev	0.010
Corr Coeff	0.999

Conc. mg/L	Abs 650nm
0.000	0.000
0.049	0.033
0.123	0.085
0.246	0.170
0.491	0.328
0.983	0.614

12/23/09

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Advanced A-%T-C	21:06 23Dec09
Test Name	SULFIDE[Saved]
Measurement Mode	Absorbance
Wavelength	650nm
Ref. Wavelength Correction	Off
Delay Time (min:sec)	0:00
ID# (0=OFF)	1
Low/High Limits	0.000/1.000
Statistics	Off
Auto Print	On

ID#	Abs 650nm
1	0.000

QC83: 0

2	0.321
3	0.010
4	0.009
5	0.106
6	-0.008
7	-0.015
8	-0.012
9	-0.002
10	0.044
11	-0.013
12	0.011
13	0.000
14	0.304
15	-0.006
16	-0.002

QC83 : 00

15 -0.006

16 -0.002

17 -0.007

18 0.067

19 -0.009

20 0.022

21 -0.016

22 -0.016

23 -0.016

24 0.137

25 -0.003

26 0.281

27 0.302

1.081

5
5
0
9

1043/9

Dec09
aved]
bance
650nm
Off
0:00
1
/1.000
Off
On

QC83:00052

W

12-30-09

Original Run Filename: OM_12-30-2009_08-15-13AM.OMN Created: 12/30/2009 8:15:13 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 123009NH3A.omn Last Modified: 12/30/2009 11:06:58 AM
Description: LACHAT 1
Standards made from ARI Stock#: 0096-04

Sample	Cup No.	Channel 1 NH3		Detection Time	MANUAL DILUTION FACTOR	
		Conc. (mg N/L)	Area (V.s)			
STD 1.0	S1	1	34.4159	12/30/2009@8:16:20 AM		
STD 0.8	S2	0.8	27.5226	12/30/2009@8:17:31 AM		
STD 0.5	S3	0.5	17.3447	12/30/2009@8:18:41 AM		
STD 0.2	S4	0.2	6.8364	12/30/2009@8:19:51 AM		
STD 0.05	S5	0.05	1.5834	12/30/2009@8:21:01 AM		
STD 0.02	S6	0.02	0.5486	12/30/2009@8:22:12 AM		
STD 0.01	S7	0.01	0.2647	12/30/2009@8:23:23 AM		
BLANK	S8	0	-0.2541	12/30/2009@8:24:33 AM		
ICV ERA 190109	9	0.5146	17.6798	12/30/2009@8:25:44 AM		%R= 102.92
Known Conc:		0.5				
ICB	10	-0.0028	-0.2253	12/30/2009@8:31:40 AM		
Known Conc:		0				
LOW	11	0.0096	0.2046	12/30/2009@8:37:36 AM		%R= 96.00
Known Conc:		0.01				
FILTER BLK	12	-0.0045	-0.2852	12/30/2009@8:43:33 AM		
QB66A5	13	0.0166	0.4442	12/30/2009@8:44:43 AM		
QB66A5 DUP	13	0.0187	0.5178	12/30/2009@8:45:54 AM		%RPD= 11.90
~~QB66A5 MS~~	~~14~~	~~0.3195~~	~~10.9278~~	~~12/30/2009@8:47:05 AM~~	-	
~~Spiking Conc:~~		~~0.5~~	-	-	-	
QB66B6	15	0.0087	0.1734	12/30/2009@8:48:15 AM		

~~QB66C5~~	~~16~~	~~4.3037~~	~~148.8200~~	~~12/30/2009@8:49:26 AM~~	-
QB66D5	19	0.6758	23.2602	12/30/2009@8:50:37 AM	
QB66O5	20	0.6423	22.1021	12/30/2009@8:51:47 AM	
~~QC04A4~~	~~21~~	~~1.1644~~	~~40.1714~~	~~12/30/2009@8:52:58 AM~~	-
CCV	17	0.5171	17.7686	12/30/2009@8:54:09 AM	
Known Conc:		0.5			
CCB	18	-0.0047	-0.2904	12/30/2009@9:00:06 AM	
Known Conc:		0			
QB71A5	22	0.0377	1.1758	12/30/2009@9:06:03 AM	
QB71A5 DUP	22	0.0393	1.2316	12/30/2009@9:07:14 AM	
QB71A5 MS	23	0.5084	17.4674	12/30/2009@9:08:25 AM	
Spiking Conc:		0.5			
QB71B7	24	0.3515	12.0371	12/30/2009@9:09:36 AM	
QB71C5	25	0.4569	15.6856	12/30/2009@9:10:47 AM	
QB71D6	26	0.3275	11.2044	12/30/2009@9:11:58 AM	
QB71E6	27	0.3616	12.3875	12/30/2009@9:13:10 AM	
QB71F5	28	0.3391	11.6070	12/30/2009@9:14:21 AM	
QB84A9	29	0.0405	1.2742	12/30/2009@9:15:32 AM	
QB84A9 DUP	29	0.0407	1.2783	12/30/2009@9:16:43 AM	
CCV	17	0.5152	17.7035	12/30/2009@9:17:54 AM	
Known Conc:		0.5			
CCB	18	-0.0045	-0.2850	12/30/2009@9:23:50 AM	
Known Conc:		0			
QB84A9MS@0.5	30	0.5844	20.0983	12/30/2009@9:29:47 AM	
QB66A5 MS	31	5.0649	17.4007	12/30/2009@9:30:59 AM	10.0000
Spiking Conc:		5			

%R= 103.42

%RPD= 4.16

SPK=0.25ML@20PPM/10ML=0.5PPM

%R= 94.14

%RPD= 0.49

%R= 103.04

SPK=0.25ML@20PPM/10ML=0.5PPM

%R= 108.78

SPK=0.05ML@1000PPM/10ML=5PPM

%R= 100.97

QB66C5	32	8.123	27.9845	12/30/2009@9:32:11 AM	10.0000
QC04A4	33	1.1828	20.3396	12/30/2009@9:33:22 AM	2.0000
QC32A4	34	0.0886	2.9383	12/30/2009@9:34:33 AM	
QC32A4 DUP	34	0.0868	2.8769	12/30/2009@9:35:44 AM	
QC32A4 MS	35	0.5325	18.3000	12/30/2009@9:36:55 AM	
Spiking Conc:		0.5			
QC74A8	36	-0.0095	-0.4585	12/30/2009@9:38:07 AM	
QC74A8 DUP	36	-0.0084	-0.4195	12/30/2009@9:39:20 AM	
~~QC74A8MS~~	~~37~~	~~0.3215~~	~~10.9993~~	~~12/30/2009@9:40:31 AM~~	-
~~Spiking Conc:~~		~~0.5~~	-	-	-
CCV	17	0.525	18.0415	12/30/2009@9:41:42 AM	
Known Conc:		0.5			
CCB	18	-0.0005	-0.1469	12/30/2009@9:47:38 AM	
Known Conc:		0			
QC74B8	38	0.0089	0.1803	12/30/2009@9:48:50 AM	
QC74C6	39	0.027	0.8054	12/30/2009@9:50:01 AM	
QC74D8	40	-0.0081	-0.4078	12/30/2009@9:51:13 AM	
QC74E8	41	0.0188	0.5203	12/30/2009@9:52:25 AM	
~~QC83A1~~	~~42~~	~~4.3345~~	~~149.8847~~	~~12/30/2009@9:53:37 AM~~	-
~~QC83B1~~	~~43~~	~~4.3757~~	~~151.3118~~	~~12/30/2009@9:54:48 AM~~	-
~~QC83B1 DUP~~	~~43~~	~~4.3807~~	~~151.4840~~	~~12/30/2009@9:56:00 AM~~	-
~~QC83B1 MS~~	~~44~~	~~4.6972~~	~~162.4401~~	~~12/30/2009@9:57:12 AM~~	-
~~Spiking Conc:~~		~~0.5~~	-	-	-
~~QC83C2~~	~~45~~	~~3.9646~~	~~137.0860~~	~~12/30/2009@9:58:23 AM~~	-
~~QC83D1~~	~~46~~	~~4.7999~~	~~165.9926~~	~~12/30/2009@9:59:35 AM~~	-

%RPD= 2.05

SPK=0.25ML@20PPM/10ML=0.5PPM

%R= 88.78

%RPD= NA

%R= 105.00

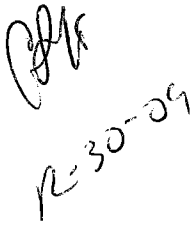
CCV	17	0.5212	17.9090	12/30/2009@10:00:47 AM		%R= 104.24
Known Conc:		0.5				
CCB	18	0.0036	-0.0028	12/30/2009@10:06:43 AM		
Known Conc:		0				
~~QC83E1~~	~~47~~	~~7.7909~~	~~269.5109~~	~~12/30/2009@10:12:41 AM~~	-	
~~QC83F1~~	~~48~~	~~11.227~~	~~388.4344~~	~~12/30/2009@10:13:53 AM~~	-	
~~QC83G1~~	~~49~~	~~8.6603~~	~~299.6006~~	~~12/30/2009@10:15:05 AM~~	-	
~~QC83H1~~	~~50~~	~~7.6723~~	~~265.4053~~	~~12/30/2009@10:16:16 AM~~	-	
~~QC83I2~~	~~51~~	~~11.0966~~	~~383.9182~~	~~12/30/2009@10:17:29 AM~~	-	
~~QC83J1~~	~~52~~	~~7.7234~~	~~267.1746~~	~~12/30/2009@10:18:41 AM~~	-	
QC74A8 MS	53	5.0508	17.3517	12/30/2009@10:19:52 AM	10.0000	SPK=0.05ML@1000PPM/10ML=5.0PPM %R= 101.02
Spiking Conc:		5				
QC83B1	54	5.0315	17.2851	12/30/2009@10:21:04 AM	10.0000	
QC83B1 DUP	54	5.0308	17.2825	12/30/2009@10:22:16 AM	10.0000	%RPD= 0.01
QC83B1 MS	55	15.2232	26.2146	12/30/2009@10:23:28 AM	20.0000	SPK=0.1ML@1000PPM/10ML=10PPM %R= 101.92
Spiking Conc:		10				
CCV	17	0.527	18.1098	12/30/2009@10:24:39 AM		%R= 105.40
Known Conc:		0.5				
CCB	18	-0.0049	-0.2995	12/30/2009@10:30:36 AM		
Known Conc:		0				
QC83A1	56	4.8959	16.8158	12/30/2009@10:36:35 AM	10.0000	
QC83C2	57	5.4583	18.7620	12/30/2009@10:37:47 AM	10.0000	
QC83D1	58	5.5315	19.0156	12/30/2009@10:38:59 AM	10.0000	
~~QC83E1~~	~~59~~	~~11.5965~~	~~40.0062~~	~~12/30/2009@10:40:11 AM~~	~~10.0000~~	
~~QC83F1~~	~~60~~	~~31.1996~~	~~53.8614~~	~~12/30/2009@10:41:23 AM~~	~~20.0000~~	

~~QC83G1~~	~~1~~	~~14.3059~~	~~49.3835~~	~~12/30/2009@10:42:33 AM~~	~~10.0000~~
~~QC83H1~~	~~2~~	~~11.2329~~	~~38.7476~~	~~12/30/2009@10:43:44 AM~~	~~10.0000~~
~~QC83I2~~	~~3~~	~~31.4079~~	~~54.2219~~	~~12/30/2009@10:44:54 AM~~	~~20.0000~~
~~QC83J1~~	~~4~~	~~11.3964~~	~~39.3136~~	~~12/30/2009@10:46:04 AM~~	~~10.0000~~
QC83F1	5	30.9812	21.3161	12/30/2009@10:47:15 AM	50.0000
CCV	17	0.5284	18.1574	12/30/2009@10:48:25 AM	
Known Conc:		0.5			
CCB	18	0.0003	-0.1191	12/30/2009@10:54:22 AM	
Known Conc:		0			
~~QC83E1~~	~~6~~	~~11.7531~~	~~20.2097~~	~~12/30/2009@11:00:19 AM~~	~~20.0000~~
~~QC83G1~~	~~7~~	~~14.3996~~	~~24.7894~~	~~12/30/2009@11:01:30 AM~~	~~20.0000~~

%R= 105.68

Original Run Filename: OM_12-30-2009_08-15-13AM.OMN Created: 12/30/2009 8:15:13 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 123009NH3A.omn Last Modified: 12/30/2009 11:06:58 AM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

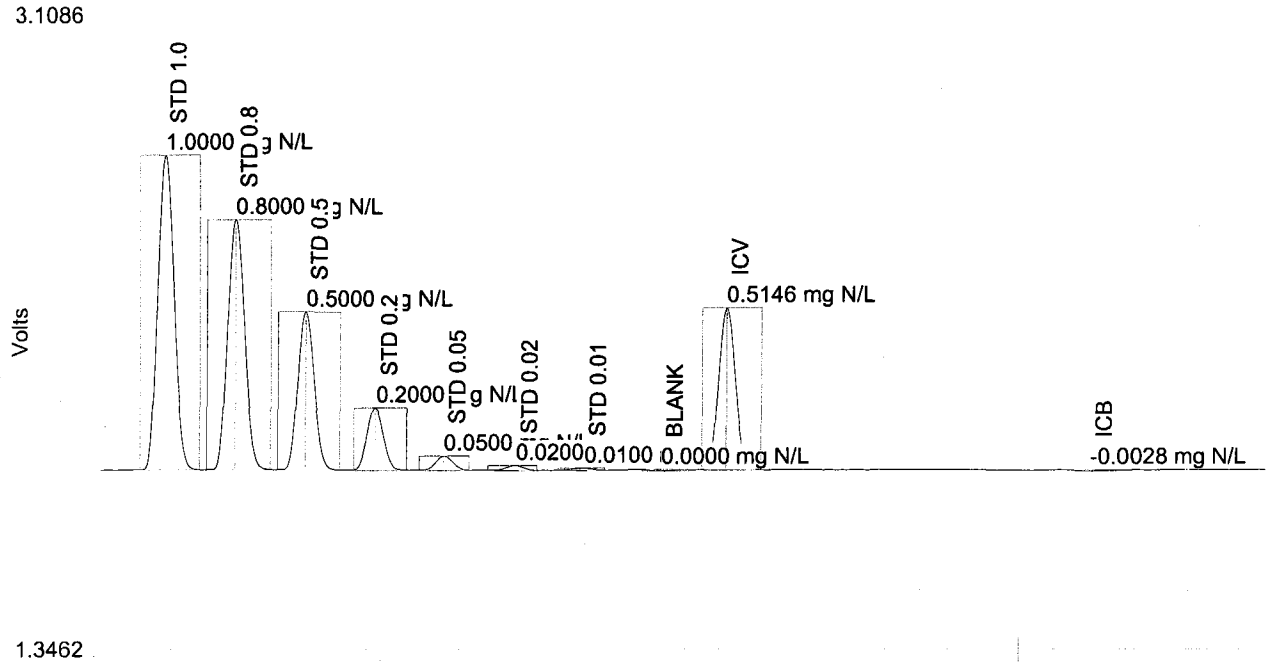
Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	34.4159	12/30/2009@8:16:20 AM	
STD 0.8	S2	0.8000	27.5226	12/30/2009@8:17:31 AM	
STD 0.5	S3	0.5000	17.3447	12/30/2009@8:18:41 AM	
STD 0.2	S4	0.2000	6.8364	12/30/2009@8:19:51 AM	
STD 0.05	S5	0.0500	1.5834	12/30/2009@8:21:01 AM	
STD 0.02	S6	0.0200	0.5486	12/30/2009@8:22:12 AM	
STD 0.01	S7	0.0100	0.2647	12/30/2009@8:23:23 AM	
BLANK	S8	0.0000	-0.2541	12/30/2009@8:24:33 AM	
ICV	9	0.5146	17.6798	12/30/2009@8:25:44 AM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0028	-0.2253	12/30/2009@8:31:40 AM	
Known Conc:		0.0000			
LOW	11	0.0096	0.2046	12/30/2009@8:37:36 AM	
Known Conc:		0.0100			
FILTER BLK	12	-0.0045	-0.2852	12/30/2009@8:43:33 AM	
QB66A5	13	0.0166	0.4442	12/30/2009@8:44:43 AM	
QB66A5 DUP	13	0.0187	0.5178	12/30/2009@8:45:54 AM	
QB66A5 MS	14	0.3195	10.9278	12/30/2009@8:47:05 AM	
Spiking Conc:		0.5000			
QB66B6	15	0.0087	0.1734	12/30/2009@8:48:15 AM	
QB66C5	16	4.3037	148.8200	12/30/2009@8:49:26 AM	
QB66D5	19	0.6758	23.2602	12/30/2009@8:50:37 AM	
QB66O5	20	0.6423	22.1021	12/30/2009@8:51:47 AM	
QC04A4	21	1.1644	40.1714	12/30/2009@8:52:58 AM	
CCV	17	0.5171	17.7686	12/30/2009@8:54:09 AM	
Known Conc:		0.5000			
CCB	18	-0.0047	-0.2904	12/30/2009@9:00:06 AM	
Known Conc:		0.0000			
QB71A5	22	0.0377	1.1758	12/30/2009@9:06:03 AM	
QB71A5 DUP	22	0.0393	1.2316	12/30/2009@9:07:14 AM	
QB71A5 MS	23	0.5084	17.4674	12/30/2009@9:08:25 AM	
Spiking Conc:		0.5000			
QB71B7	24	0.3515	12.0371	12/30/2009@9:09:36 AM	
QB71C5	25	0.4569	15.6856	12/30/2009@9:10:47 AM	
QB71D6	26	0.3275	11.2044	12/30/2009@9:11:58 AM	
QB71E6	27	0.3616	12.3875	12/30/2009@9:13:10 AM	
QB71F5	28	0.3391	11.6070	12/30/2009@9:14:21 AM	
QB84A9	29	0.0405	1.2742	12/30/2009@9:15:32 AM	
QB84A9 DUP	29	0.0407	1.2783	12/30/2009@9:16:43 AM	
CCV	17	0.5152	17.7035	12/30/2009@9:17:54 AM	
Known Conc:		0.5000			
CCB	18	-0.0045	-0.2850	12/30/2009@9:23:50 AM	
Known Conc:		0.0000			
QB84A9MS@0.5	30	0.5844	20.0983	12/30/2009@9:29:47 AM	
QB66A5 MS	31	5.0649	17.4007	12/30/2009@9:30:59 AM	10.00
Spiking Conc:		5.0000			
QB66C5	32	8.1230	27.9845	12/30/2009@9:32:11 AM	10.00
QC04A4	33	1.1828	20.3396	12/30/2009@9:33:22 AM	2.00
QC32A4	34	0.0886	2.9383	12/30/2009@9:34:33 AM	
QC32A4 DUP	34	0.0868	2.8769	12/30/2009@9:35:44 AM	
QC32A4 MS	35	0.5325	18.3000	12/30/2009@9:36:55 AM	
Spiking Conc:		0.5000			
QC74A8	36	-0.0095	-0.4585	12/30/2009@9:38:07 AM	
QC74A8 DUP	36	-0.0084	-0.4195	12/30/2009@9:39:20 AM	
QC74A8MS	37	0.3215	10.9993	12/30/2009@9:40:31 AM	
Spiking Conc:		0.5000			



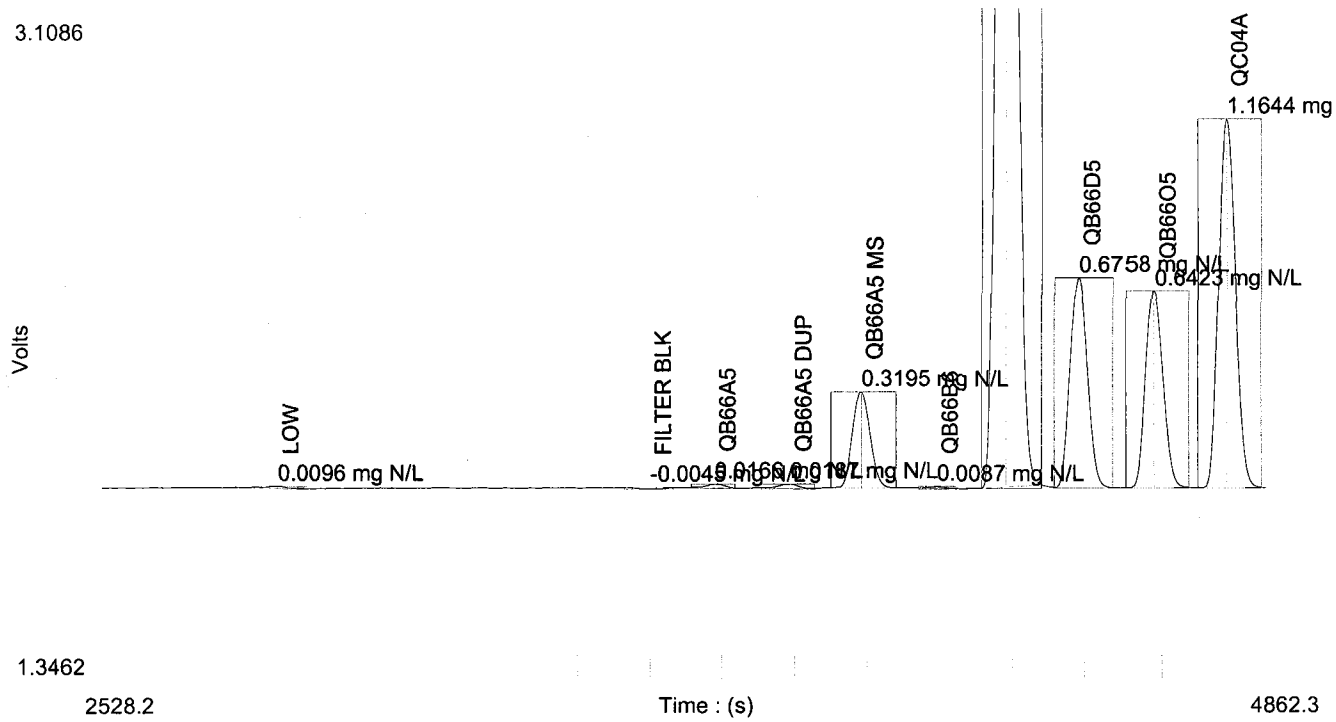
QC83 : 00058

CCV	17	0.5250	18.0415	12/30/2009@9:41:42 AM	
Known Conc:		0.5000			
CCB	18	-0.0005	-0.1469	12/30/2009@9:47:38 AM	
Known Conc:		0.0000			
QC74B8	38	0.0089	0.1803	12/30/2009@9:48:50 AM	
QC74C6	39	0.0270	0.8054	12/30/2009@9:50:01 AM	
QC74D8	40	-0.0081	-0.4078	12/30/2009@9:51:13 AM	
QC74E8	41	0.0188	0.5203	12/30/2009@9:52:25 AM	
QC83A1	42	4.3345	149.8847	12/30/2009@9:53:37 AM	
QC83B1	43	4.3757	151.3118	12/30/2009@9:54:48 AM	
QC83B1 DUP	43	4.3807	151.4840	12/30/2009@9:56:00 AM	
QC83B1 MS	44	4.6972	162.4401	12/30/2009@9:57:12 AM	
Spiking Conc:		0.5000			
QC83C2	45	3.9646	137.0860	12/30/2009@9:58:23 AM	
QC83D1	46	4.7999	165.9926	12/30/2009@9:59:35 AM	
CCV	17	0.5212	17.9090	12/30/2009@10:00:47 AM	
Known Conc:		0.5000			
CCB	18	0.0036	-0.0028	12/30/2009@10:06:43 AM	
Known Conc:		0.0000			
QC83E1	47	7.7909	269.5109	12/30/2009@10:12:41 AM	
QC83F1	48	11.2270	388.4344	12/30/2009@10:13:53 AM	
QC83G1	49	8.6603	299.6006	12/30/2009@10:15:05 AM	
QC83H1	50	7.6723	265.4053	12/30/2009@10:16:16 AM	
QC83I2	51	11.0966	383.9182	12/30/2009@10:17:29 AM	
QC83J1	52	7.7234	267.1746	12/30/2009@10:18:41 AM	
QC74A8 MS	53	5.0508	17.3517	12/30/2009@10:19:52 AM	10.00
Spiking Conc:		5.0000			
QC83B1	54	5.0315	17.2851	12/30/2009@10:21:04 AM	10.00
QC83B1 DUP	54	5.0308	17.2825	12/30/2009@10:22:16 AM	10.00
QC83B1 MS	55	15.2232	26.2146	12/30/2009@10:23:28 AM	20.00
Spiking Conc:		100.0000			
CCV	17	0.5270	18.1098	12/30/2009@10:24:39 AM	
Known Conc:		0.5000			
CCB	18	-0.0049	-0.2995	12/30/2009@10:30:36 AM	
Known Conc:		0.0000			
QC83A1	56	4.8959	16.8158	12/30/2009@10:36:35 AM	10.00
QC83C2	57	5.4583	18.7620	12/30/2009@10:37:47 AM	10.00
QC83D1	58	5.5315	19.0156	12/30/2009@10:38:59 AM	10.00
QC83E1	59	11.5965	40.0062	12/30/2009@10:40:11 AM	10.00
QC83F1	60	31.1996	53.8614	12/30/2009@10:41:23 AM	20.00
QC83G1	1	14.3059	49.3835	12/30/2009@10:42:33 AM	10.00
QC83H1	2	11.2329	38.7476	12/30/2009@10:43:44 AM	10.00
QC83I2	3	31.4079	54.2219	12/30/2009@10:44:54 AM	20.00
QC83J1	4	11.3964	39.3136	12/30/2009@10:46:04 AM	10.00
QC83F1	5	30.9812	21.3161	12/30/2009@10:47:15 AM	50.00
CCV	17	0.5284	18.1574	12/30/2009@10:48:25 AM	
Known Conc:		0.5000			
CCB	18	0.0003	-0.1191	12/30/2009@10:54:22 AM	
Known Conc:		0.0000			
QC83E1	6	11.7531	20.2097	12/30/2009@11:00:19 AM	20.00
QC83G1	7	14.3996	24.7894	12/30/2009@11:01:30 AM	20.00

Channel 1 - Set: 1 / 9



Channel 1 - Set: 2 / 9

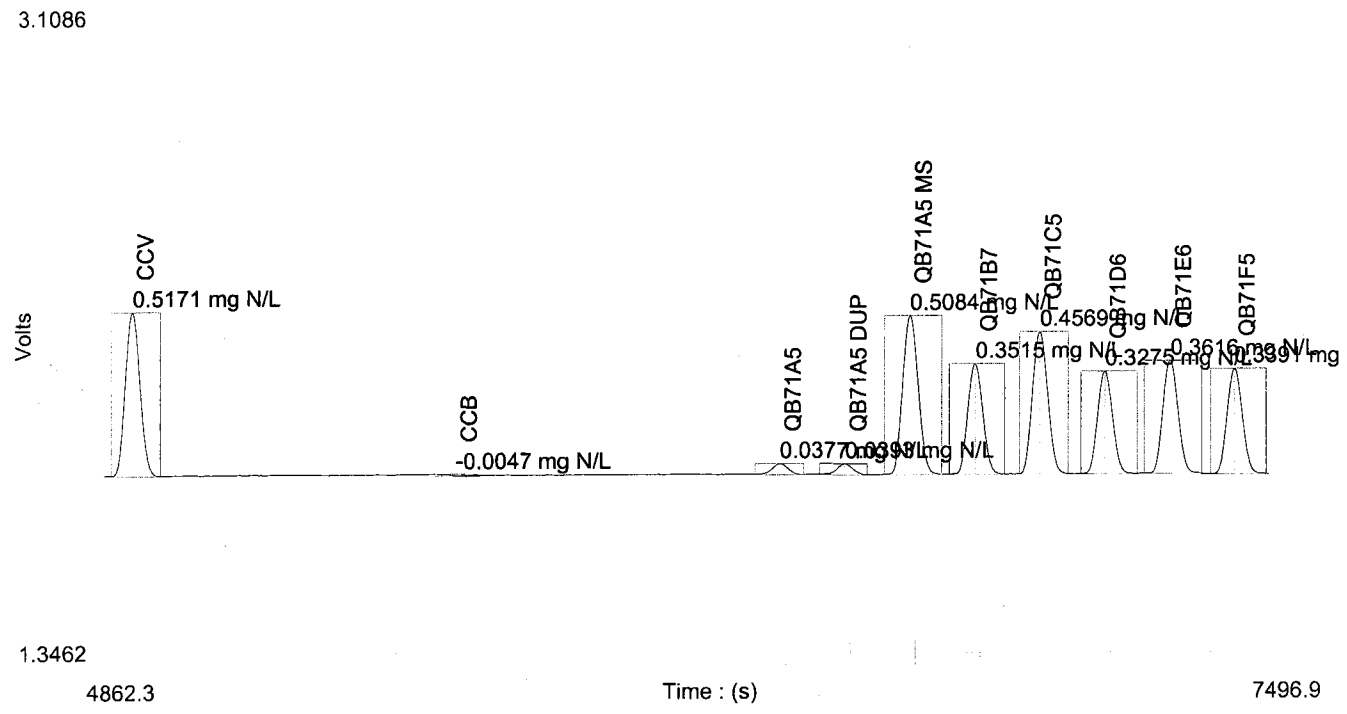


QC83 : 00060

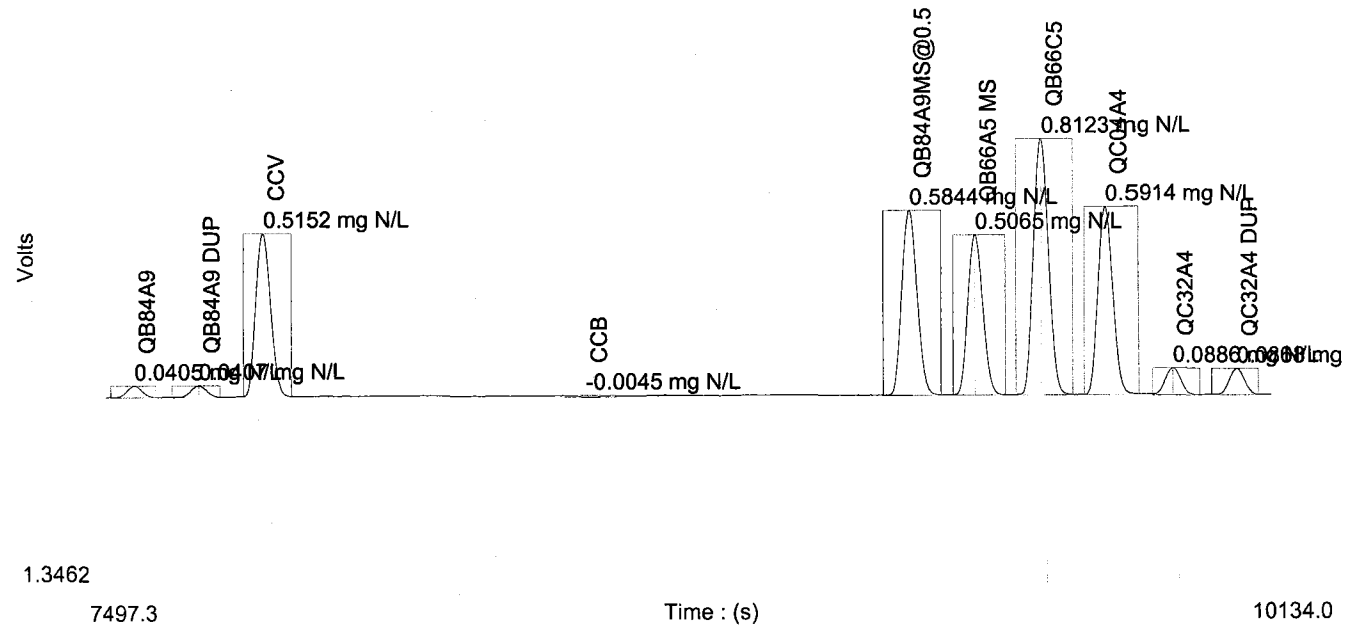
Author: Carol Hawkins

Date : 12/30/2009

Channel 1 - Set: 3 / 9



Channel 1 - Set: 4 / 9

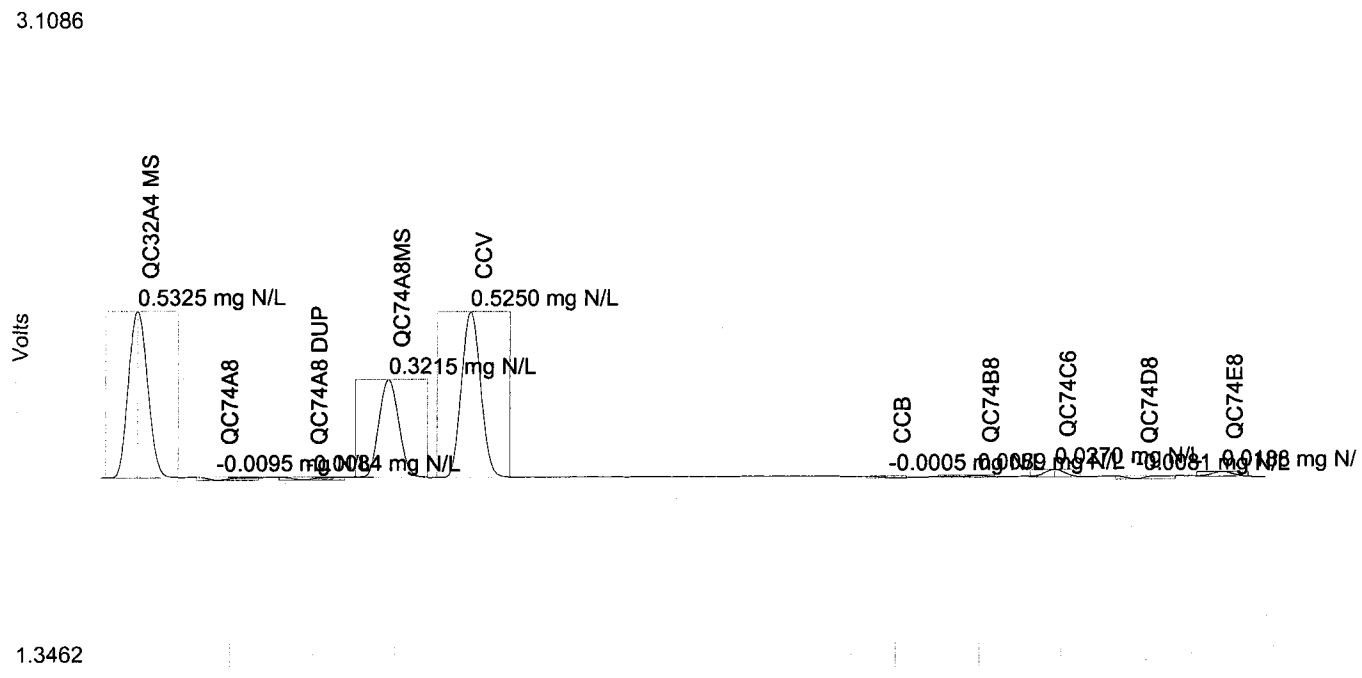


QC83 : 00061

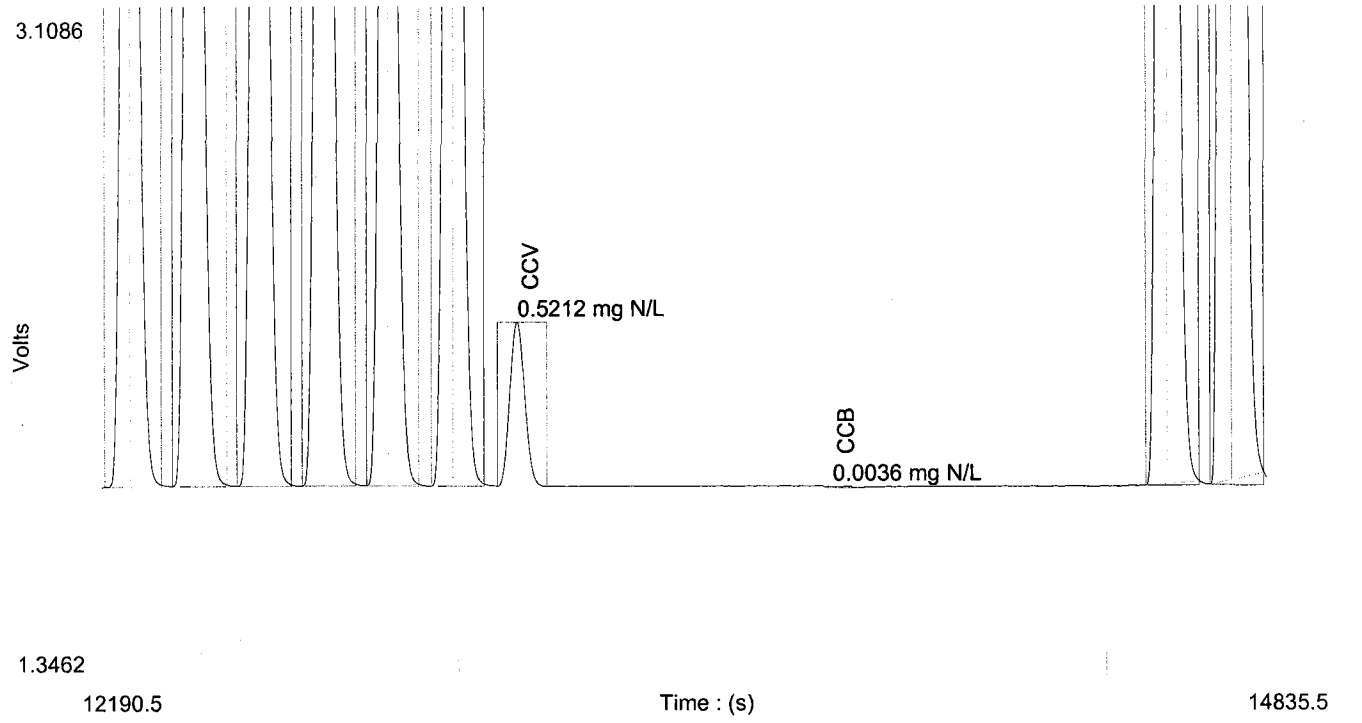
Author: Carol Hawkins

Date : 12/30/2009

Channel 1 - Set: 5 / 9

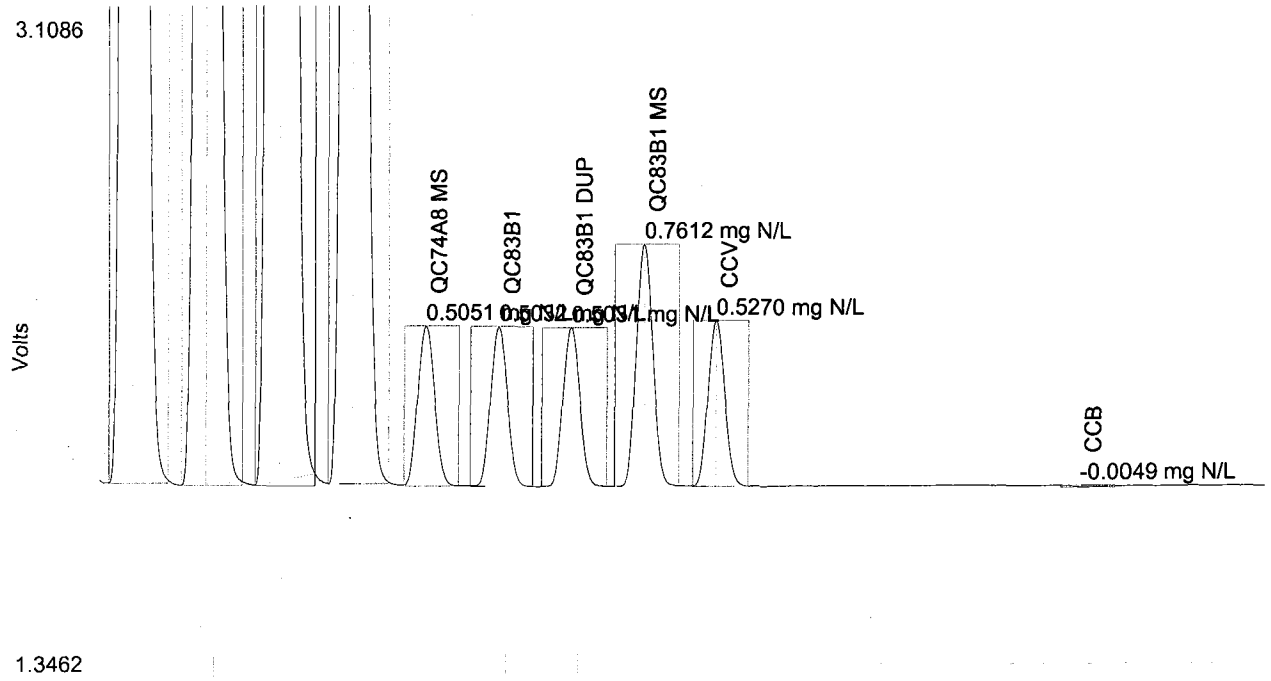


Channel 1 - Set: 6 / 9

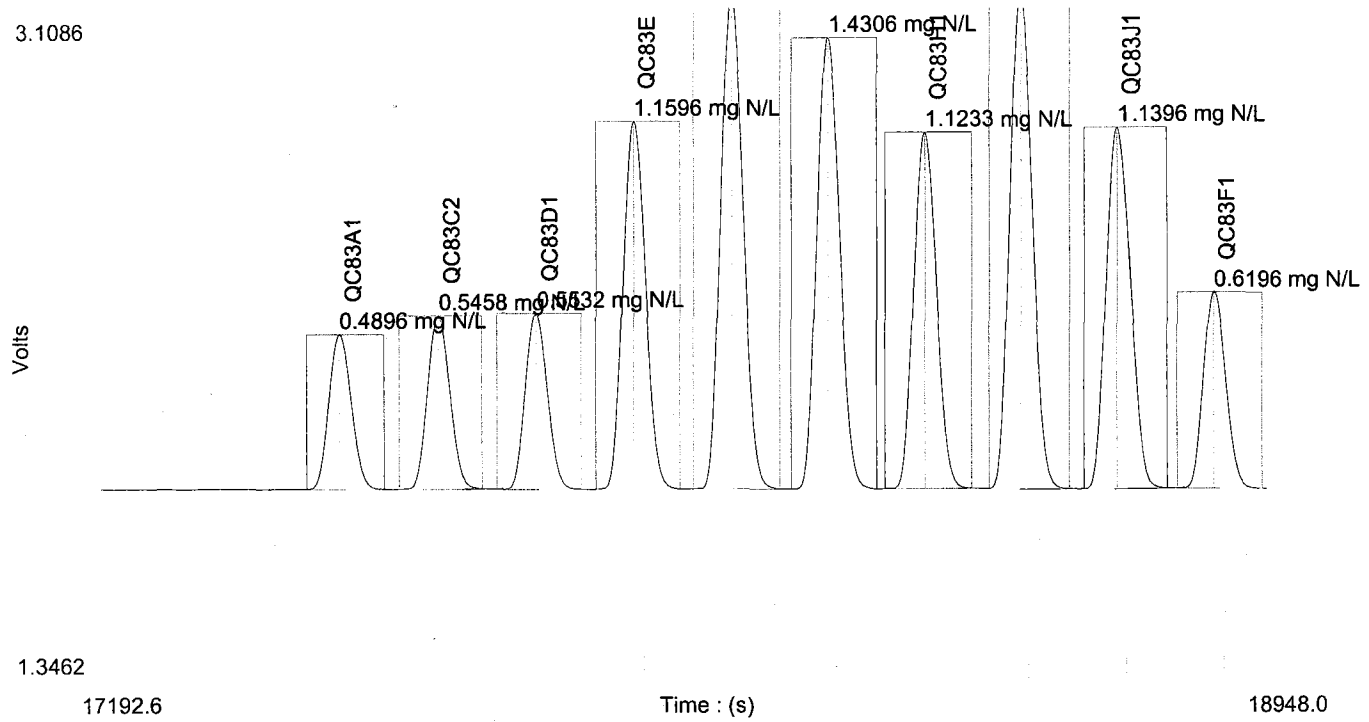


QC83 : 00062

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



QC83 : 00063

Author: Carol Hawkins

Date : 12/30/2009

Channel 1 - Set: 9 / 9

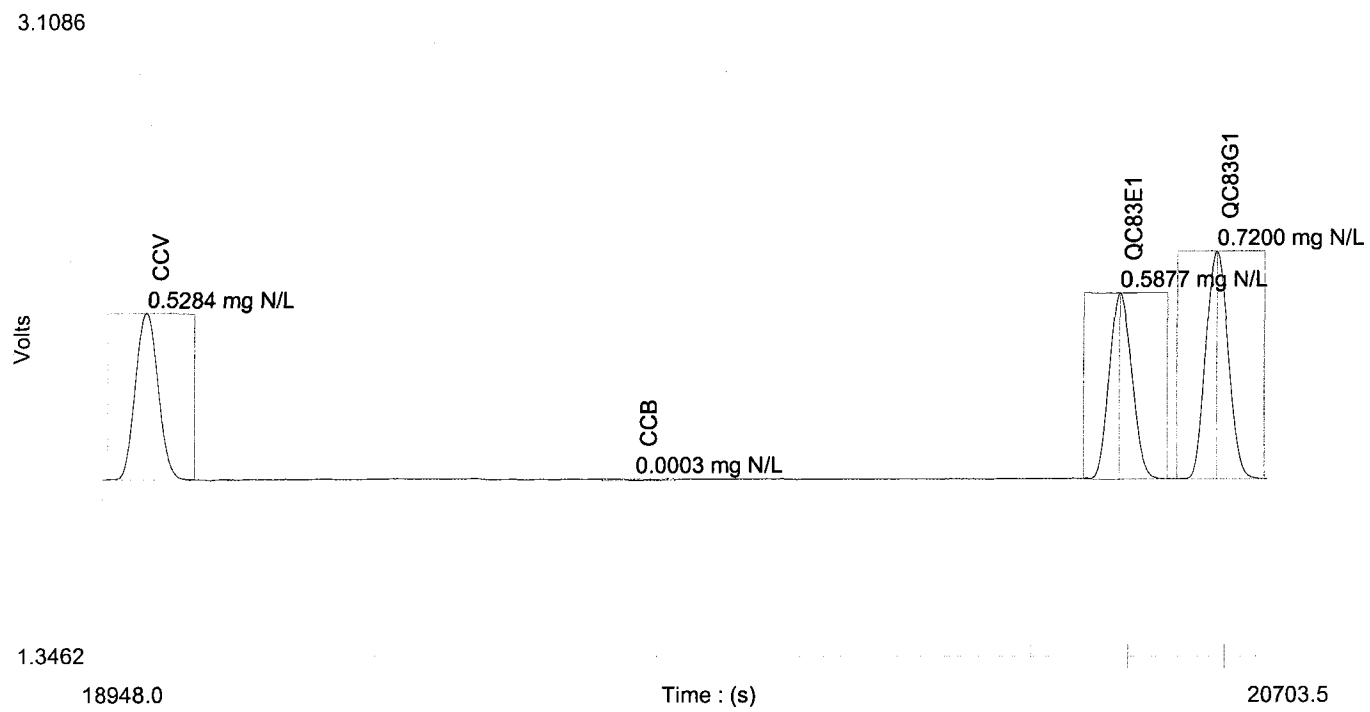
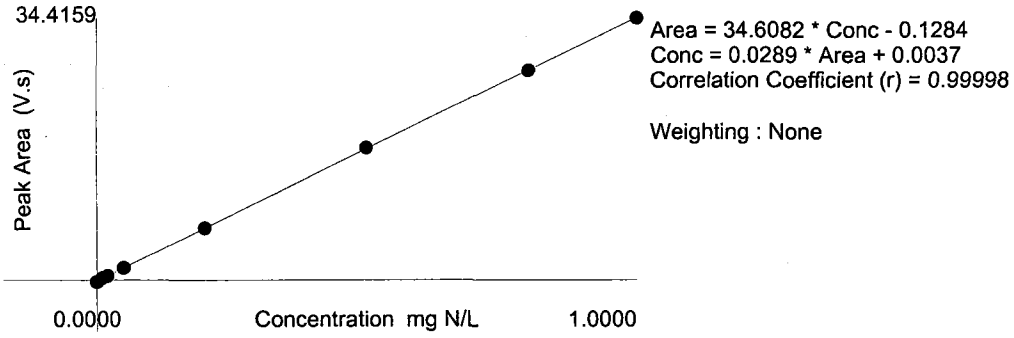


Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	34.4159	0.8733	0.0	0.2	0.9981	12/30/2009	8:16:20 AM
2	0.8000	1	27.5226	0.6943	0.0	0.1	0.7990	12/30/2009	8:17:31 AM
3	0.5000	1	17.3447	0.4397	0.0	-1.0	0.5049	12/30/2009	8:18:41 AM
4	0.2000	1	6.8364	0.1737	0.0	-0.6	0.2013	12/30/2009	8:19:51 AM
5	0.0500	1	1.5834	0.0402	0.0	1.2	0.0495	12/30/2009	8:21:01 AM
6	0.0200	1	0.5486	0.0140	0.0	2.7	0.0196	12/30/2009	8:22:12 AM
7	0.0100	1	0.2647	0.0066	0.0	-21.6	0.0114	12/30/2009	8:23:23 AM
8	0.0000	1	-0.2541	-0.0047			-0.0036	12/30/2009	8:24:33 AM

Figure : 1 (NH3)



QC83 : 00064

12-30-0

Original Run Filename: OM_12-30-2009_11-56-28AM.OMN Created: 12/30/2009 11:56:28 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 123009NH3C.omn Last Modified: 12/30/2009 12:45:44 PM
Description: LACHAT 1
Standards made from ARI Stock#: 0096-04

Sample	Cup No.	Channel 1 NH3		Detection Time	MANUAL DILUTION FACTOR	
		Conc. (mg N/L)	Area (V.s)			
STD 1.0	S1	1	34.2080	12/30/2009@11:57:28 AM		
STD 0.8	S2	0.8	27.1595	12/30/2009@11:58:38 AM		
STD 0.5	S3	0.5	17.2645	12/30/2009@11:59:49 AM		
STD 0.2	S4	0.2	6.5724	12/30/2009@12:00:59 PM		
STD 0.05	S5	0.05	1.5921	12/30/2009@12:02:09 PM		
STD 0.02	S6	0.02	0.5019	12/30/2009@12:03:20 PM		
STD 0.01	S7	0.01	0.2411	12/30/2009@12:04:30 PM		
BLANK	S8	0	-0.2814	12/30/2009@12:05:41 PM		
ICV ERA 190109	9	0.5404	18.3950	12/30/2009@12:06:51 PM		%R= 108.08
Known Conc:		0.5				
ICB	10	-0.0045	-0.3316	12/30/2009@12:12:47 PM		
Known Conc:		0				
LOW	11	0.0111	0.2056	12/30/2009@12:18:43 PM		%R= 111
Known Conc:		0.01				
FILTER BLK	12	-0.0036	-0.3008	12/30/2009@12:24:40 PM		
QC83E1	13	11.8291	20.1507	12/30/2009@12:25:51 PM	20.0000	
QC83G1	14	14.5066	24.7517	12/30/2009@12:27:02 PM	20.0000	
QC83H1	15	11.5865	19.7337	12/30/2009@12:28:11 PM	20.0000	
QC83I2	16	31.3929	21.4018	12/30/2009@12:29:23 PM	50.0000	
QC83J1	19	11.8427	20.1741	12/30/2009@12:30:34 PM	20.0000	

DI	20	0.0068	0.0567	12/30/2009@12:33:27 PM	
CCV	17	0.5415	18.4333	12/30/2009@12:34:39 PM	
Known Conc:		0.5			

%R= 108.3

Author: Carol Hawkins

Date : 12/30/2009

Original Run Filename: OM_12-30-2009_11-56-28AM.OMN Created: 12/30/2009 11:56:28 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 123009NH3C.omn Last Modified: 12/30/2009 12:45:44 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	34.2080	12/30/2009@11:57:28 AM	
STD 0.8	S2	0.8000	27.1595	12/30/2009@11:58:38 AM	
STD 0.5	S3	0.5000	17.2645	12/30/2009@11:59:49 AM	
STD 0.2	S4	0.2000	6.5724	12/30/2009@12:00:59 PM	
STD 0.05	S5	0.0500	1.5921	12/30/2009@12:02:09 PM	
STD 0.02	S6	0.0200	0.5019	12/30/2009@12:03:20 PM	
STD 0.01	S7	0.0100	0.2411	12/30/2009@12:04:30 PM	
BLANK	S8	0.0000	-0.2814	12/30/2009@12:05:41 PM	
ICV	9	0.5404	18.3950	12/30/2009@12:06:51 PM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0045	-0.3316	12/30/2009@12:12:47 PM	
Known Conc:		0.0000			
LOW	11	0.0111	0.2056	12/30/2009@12:18:43 PM	
Known Conc:		0.0100			
FILTER BLK	12	-0.0036	-0.3008	12/30/2009@12:24:40 PM	
QC83E1	13	11.8291	20.1507	12/30/2009@12:25:51 PM	20.00
QC83G1	14	14.5066	24.7517	12/30/2009@12:27:02 PM	20.00
QC83H1	15	11.5865	19.7337	12/30/2009@12:28:11 PM	20.00
QC83I2	16	31.3929	21.4018	12/30/2009@12:29:23 PM	50.00
QC83J1	19	11.8427	20.1741	12/30/2009@12:30:34 PM	20.00
DI	20	0.0068	0.0567	12/30/2009@12:33:27 PM	
CCV	17	0.5415	18.4333	12/30/2009@12:34:39 PM	
Known Conc:		0.5000			
CCB	18	0.0035	-0.0572	12/30/2009@12:40:35 PM	
Known Conc:		0.0000			

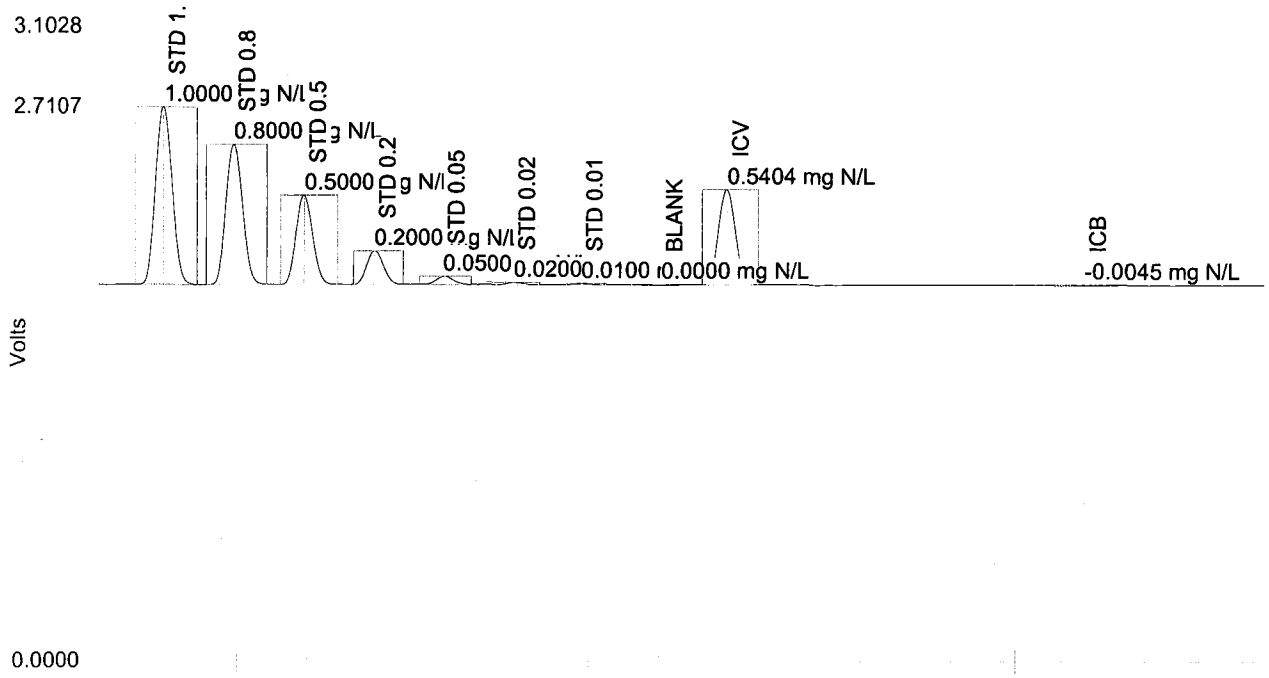
12-30-09

QC83 : 00067

Author: Carol Hawkins

Date : 12/30/2009

Channel 1 - Set: 1 / 2



Channel 1 - Set: 2 / 2

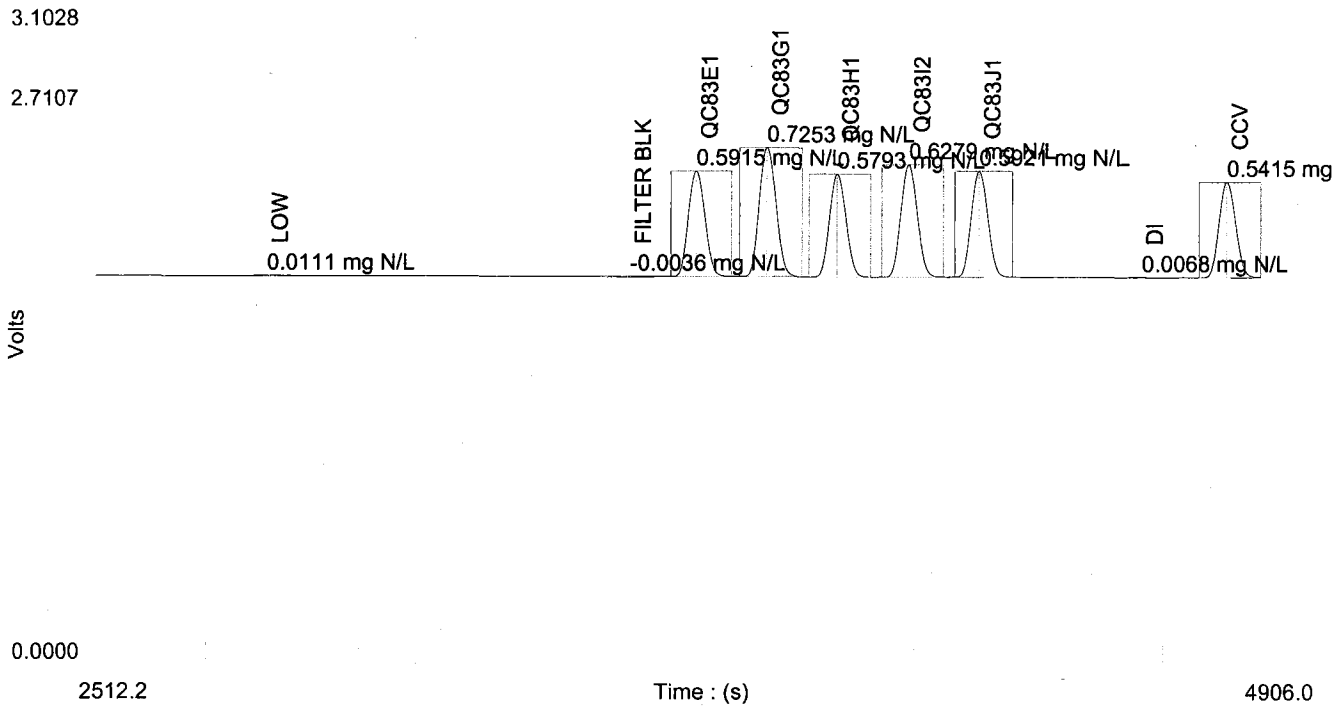
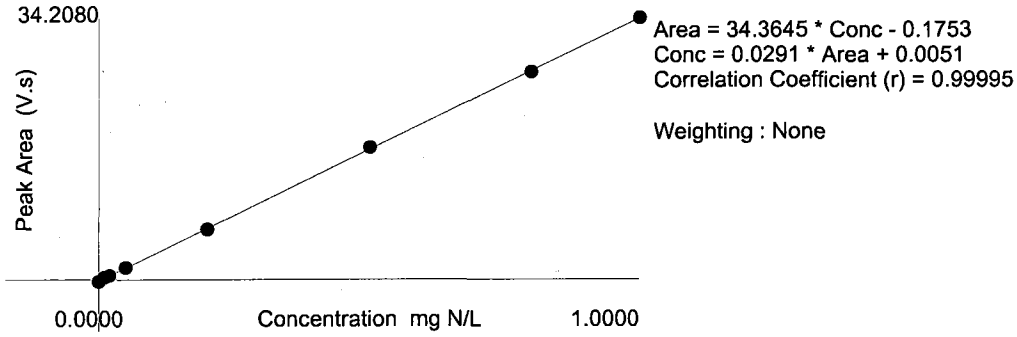


Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	34.2080	0.8651	0.0	-0.1	1.0005	12/30/2009	11:57:28 AM
2	0.8000	1	27.1595	0.6849	0.0	0.6	0.7954	12/30/2009	11:58:38 AM
3	0.5000	1	17.2645	0.4370	0.0	-1.5	0.5075	12/30/2009	11:59:49 AM
4	0.2000	1	6.5724	0.1656	0.0	1.9	0.1964	12/30/2009	12:00:59 PM
5	0.0500	1	1.5921	0.0403	0.0	-3.2	0.0515	12/30/2009	12:02:09 PM
6	0.0200	1	0.5019	0.0130	0.0	2.0	0.0197	12/30/2009	12:03:20 PM
7	0.0100	1	0.2411	0.0066	0.0	-43.2	0.0121	12/30/2009	12:04:30 PM
8	0.0000	1	-0.2814	-0.0050			-0.0031	12/30/2009	12:05:41 PM

Figure : 1 (NH3)



QC83 : 00069

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES

ARI Job No: QC83

Client Name: Anchor

Parameter: S^2

Client Project: #080547-01

Possible false positive due to color in Sample.

12/28/09

Analyst: _____

Date Analyzed: 12/23/09

6147F

Rev. 7
06/3/04

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 14, 2010

James Keithly
Anchor QEA
1423 Third Avenue, Suite 300
Seattle, WA 98101

RE: Project: Bay Wood
ARI Job No.: QE27

Dear Mr. Keithly:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for the samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

for Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile QE27

SD/bc

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody
Documentation

prepared
for

Anchor Environmental, LLC

Project: Bay Wood

ARI JOB NO: QE27

prepared
by

Analytical Resources, Inc.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: QE27	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Anchor	Phone: (206) 287-9130	Date: 1/5/10	Ice Present?
Client Contact: James Keithly		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #:	Samplers:		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: grain size								Notes/Comments
CR-Ref 22% fines	1/5/10	1200	sed	1-160z	X								
CR-Ref 95% fines	↓	↓	↓	↓	X								

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
Please send results and invoice directly to Anchor.	(Signature) Tracy Schuh	(Signature)	(Signature)	(Signature)
	Printed Name: Tracy Schuh	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: NewFields	Company: ARI	Company:	Company:
	Date & Time: 1/5/10 1200	Date & Time: 1/6/10 1027	Date & Time:	Date & Time:

QE27:COC

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor

COC No(s): _____ (NA)

Assigned ARI Job No: QE27

Project Name: Baywood

Delivered by: (Fed-Ex) UPS Courier Hand Delivered Other: _____

Tracking No: 7983726367OC NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 2.4		

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 1/6/10 Time: 1027

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? (Bubble Wrap) Wet Ice (Gel Packs) Baggies Foam Block (Paper) Other: box/foam cooler			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Samples Logged by: AV Date: 1/6/10 Time: 1406

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Small Air Bubbles < 2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
• • •	• • •	● ● ●

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative

prepared
for

Anchor Environmental, LLC

Project: Bay Wood

ARI JOB NO: QE27

prepared
by

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor QEA, LLC	**ARI Job No.:** QE27
Client Project: Bay Wood	

Case Narrative

1. Two samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on January 6, 2010.
2. The samples were run in a single batch and one sample from this job, CR-Ref 95% fines, was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
3. Sample CR-Ref 95% fines contained fine organic matter, which may have broken down during the sieving process, affecting grain size analysis.
4. The data is provided in summary tables and plots.
5. There were no other noted anomalies in this project.

Approved by: _____ Date: 1/14/10
Geotechnical Laboratory Manager

Data Summary Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood

ARI JOB NO: QE27

prepared
by

Analytical Resources, Inc.

GEOTECHNICAL ANALYSIS

QE27 : 00008

Anchor QEA, LLC
Bay Wood

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
CR-Ref 95% fines	100.0	100.0	100.0	99.9	99.5	99.0	98.5	96.1	83.7	61.8	44.2	30.4	21.0	13.4
	100.0	100.0	100.0	99.9	99.7	99.2	98.7	96.6	85.1	63.0	45.1	30.9	21.5	14.0
	100.0	100.0	100.0	99.9	99.8	99.4	98.8	96.7	83.9	63.8	45.2	31.1	22.1	14.2
CR-Ref 22%fines	100.0	100.0	100.0	99.7	98.9	97.9	78.2	36.2	17.3	9.3	6.2	4.9	3.8	2.8

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27:00009

Anchor QEA, LLC
Bay Wood

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
CR-Ref 95% fines	0.0	0.1	0.4	0.5	0.5	2.4	12.4	21.8	17.6	13.8	9.4	7.7	13.4	96.1
	0.0	0.1	0.2	0.5	0.6	2.1	11.5	22.1	17.9	14.1	9.4	7.4	14.0	96.6
	0.0	0.1	0.2	0.4	0.6	2.0	12.9	20.1	18.6	14.0	9.0	7.9	14.2	96.7
CR-Ref 22%fines	0.0	0.3	0.7	1.0	19.7	42.0	18.9	8.0	3.1	1.3	1.2	0.9	2.8	36.2

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27.0915

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	Bay Wood
ARI Trip. Sample ID:	QE27 B	Batch No.:	QE27-1
Client Trip. Sample ID:	CR-Ref 95% fines	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
R-Ref 95% fine	100.0	100.0	100.0	99.9	99.5	99.0	98.5	96.1	83.7	61.8	44.2	30.4	21.0	13.4
	100.0	100.0	100.0	99.9	99.7	99.2	98.7	96.6	85.1	63.0	45.1	30.9	21.5	14.0
	100.0	100.0	100.0	99.9	99.8	99.4	98.8	96.7	83.9	63.8	45.2	31.1	22.1	14.2
AVE	NA	100.00	100.00	99.90	99.64	99.18	98.63	96.48	84.22	62.87	44.81	30.82	21.54	13.86
STDEV	NA	0.00	0.00	0.02	0.15	0.19	0.15	0.34	0.79	0.99	0.53	0.37	0.54	0.44
%RSD	NA	0.00	0.00	0.02	0.15	0.20	0.15	0.35	0.94	1.57	1.19	1.19	2.52	3.17

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
CR-Ref 95% fines	1/5/2010	1/7/2010	1/13/2010	97.5		12.7
	1/5/2010	1/7/2010	1/13/2010	98.8		12.9
	1/5/2010	1/7/2010	1/13/2010	99.9		12.8
CR-Ref 22%fines	1/5/2010	1/7/2010	1/13/2010	102.2		10.9

* ARI Internal QA limits = 95-105%

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27_0001

Laboratory Data Package

prepared
for

Anchor Environmental, LLC

Project: Bay Wood

ARI JOB NO: QE27

prepared
by

Analytical Resources, Inc.

Geotechnical Analysis

prepared
for

Anchor Environmental, LLC

Project: Bay Wood

ARI JOB NO: QE27

prepared
by

Analytical Resources, Inc.

Anchor QEA, LLC
Bay Wood

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
CR-Ref 95% fines	100.0	100.0	100.0	99.9	99.5	99.0	98.5	96.1	83.7	61.8	44.2	30.4	21.0	13.4
	100.0	100.0	100.0	99.9	99.7	99.2	98.7	96.6	85.1	63.0	45.1	30.9	21.5	14.0
	100.0	100.0	100.0	99.9	99.8	99.4	98.8	96.7	83.9	63.8	45.2	31.1	22.1	14.2
CR-Ref 22%fines	100.0	100.0	100.0	99.7	98.9	97.9	78.2	36.2	17.3	9.3	6.2	4.9	3.8	2.8

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27:00014

Anchor QEA, LLC
Bay Wood

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
CR-Ref 95% fines	0.0	0.1	0.4	0.5	0.5	2.4	12.4	21.8	17.6	13.8	9.4	7.7	13.4	96.1
	0.0	0.1	0.2	0.5	0.6	2.1	11.5	22.1	17.9	14.1	9.4	7.4	14.0	96.6
	0.0	0.1	0.2	0.4	0.6	2.0	12.9	20.1	18.6	14.0	9.0	7.9	14.2	96.7
CR-Ref 22%fines	0.0	0.3	0.7	1.0	19.7	42.0	18.9	8.0	3.1	1.3	1.2	0.9	2.8	36.2

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27 : 09015

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	Bay Wood
ARI Trip. Sample ID:	QE27 B	Batch No.:	QE27-1
Client Trip. Sample ID:	CR-Ref 95% fines	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
R-Ref 95% fine	100.0	100.0	100.0	99.9	99.5	99.0	98.5	96.1	83.7	61.8	44.2	30.4	21.0	13.4
	100.0	100.0	100.0	99.9	99.7	99.2	98.7	96.6	85.1	63.0	45.1	30.9	21.5	14.0
	100.0	100.0	100.0	99.9	99.8	99.4	98.8	96.7	83.9	63.8	45.2	31.1	22.1	14.2
AVE	NA	100.00	100.00	99.90	99.64	99.18	98.63	96.48	84.22	62.87	44.81	30.82	21.54	13.86
STDEV	NA	0.00	0.00	0.02	0.15	0.19	0.15	0.34	0.79	0.99	0.53	0.37	0.54	0.44
%RSD	NA	0.00	0.00	0.02	0.15	0.20	0.15	0.35	0.94	1.57	1.19	1.19	2.52	3.17

The Triplicate Applies To The Following Samples

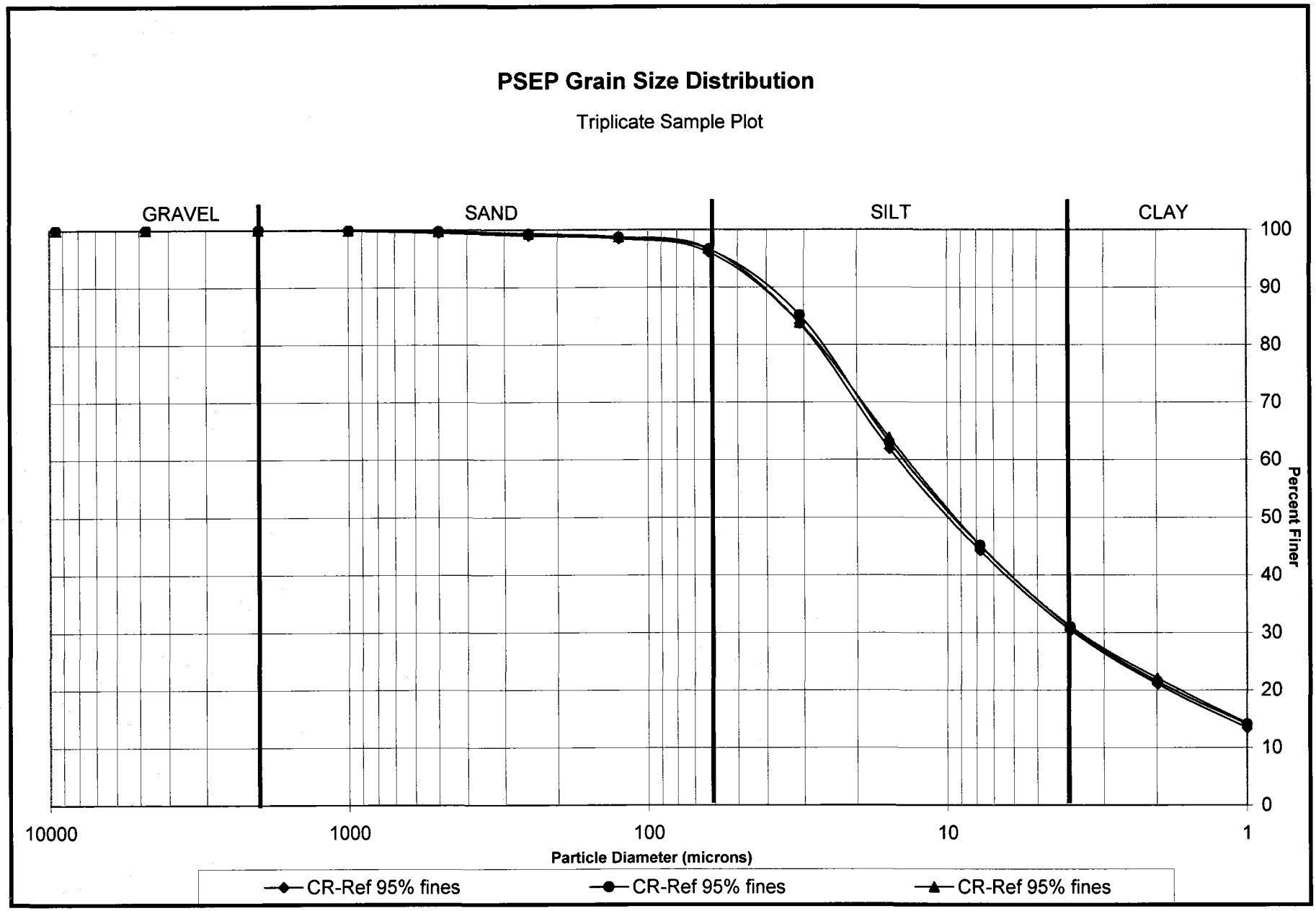
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
CR-Ref 95% fines	1/5/2010	1/7/2010	1/13/2010	97.5		12.7
	1/5/2010	1/7/2010	1/13/2010	98.8		12.9
	1/5/2010	1/7/2010	1/13/2010	99.9		12.8
CR-Ref 22%fines	1/5/2010	1/7/2010	1/13/2010	102.2		10.9

* ARI Internal QA limits = 95-105%

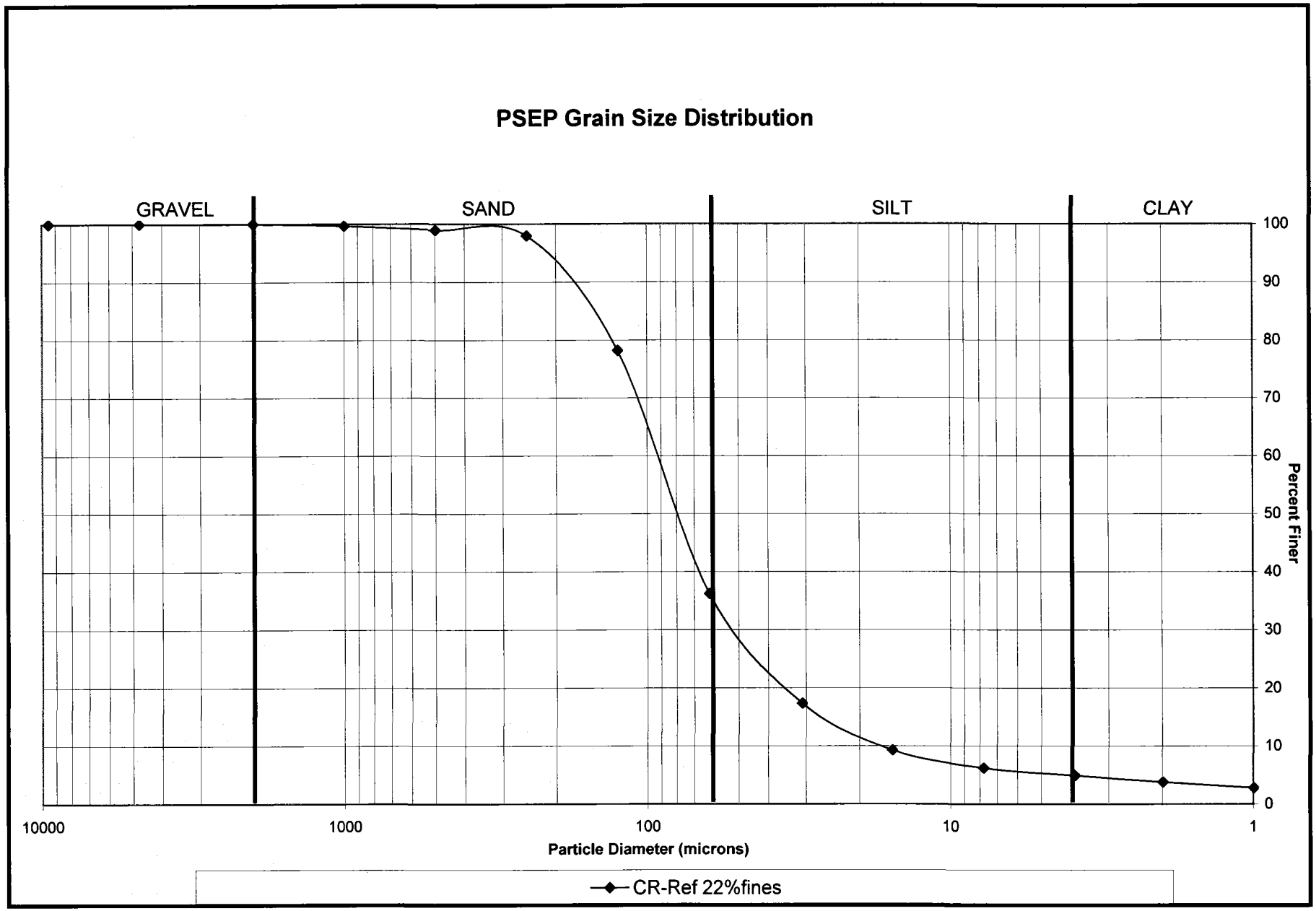
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

QE27:00016


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
CR-Ref 95% fines
CR-Ref 95% fines
CR-Ref 95% fines

QE27:00017


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
CR-Ref 22%fines

61000.1250

PSEP GRAIN SIZE ANALYSIS

Job No. QE27 ARI Sample No. B-1 Client Sample No. CR-Ref 95% fines

Set-up Date: 1/7/10 Sample Description: Sandy silty clay, organic fines

Calgon Batch # 211 Sieve Set # 1 Date Sieved: 1/12/10

SOLIDS CONTENT

Moisture Content	Initials eg
Container No.	176
Tare Weight	1.5413
Wet Weight + Tare	14.1013
Dry Weight + Tare	5.6745

Test Sample	Initials eg
Container No.	176
Tare Weight	50.3273
Wet Weight + Tare	90.6306
Dry Weight + Tare	50.9114

SIEVE ANALYSIS
Initials eg

Sieve Size	Weight Retained
Tare	50.3285
4	50.3285
10	50.3285
18	50.3447
35	50.3990
60	50.4646
120	50.5320
230	50.8455
PAN	0.1260

1/12/2010

Temp:23

TIME

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials eg

Tare ID	Tare Wt	Dry Wt & Tare	TIME	
B1-1	1.6910	1.9647	9:50:00	
B1-2	1.6907	1.9303	9:51:46	
B1-3	1.6960	1.8762	9:57:05	
B1-4	1.6900	1.8222	10:18:18	
B1-5	1.6901	~~1.8184~~	11:43:00	1.7848
B1-6	1.6827	~~1.8231~~	15:16:00	1.7519
B1-7	1.6819	1.7302	8:26:00	

PSEP GRAIN SIZE ANALYSIS

Job No. QE27 ARI Sample No. B-2 Client Sample No. CR-Ref 95% fines

Set-up Date: 1/7/10 Sample Description: Sandy silty clay, organic fines

Calgon Batch # 211 Sieve Set # 2 Date Sieved: 1/12/10

SOLIDS CONTENT

Moisture Content	Initials EG
Container No.	229
Tare Weight	1.5670
Wet Weight + Tare	13.8199
Dry Weight + Tare	5.6002

Test Sample	Initials EG
Container No.	229
Tare Weight	49.5537
Wet Weight + Tare	90.0960
Dry Weight + Tare	50.1069

SIEVE ANALYSIS
Initials EG

Sieve Size	Weight Retained
Tare	49.5540
4	49.5540
10	49.5540
18	49.5670
35	49.5925
60	49.6592
120	49.7334
230	50.0077
PAN	0.1070

1/12/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
B2-1	1.6829	1.9559	9:53:00
B2-2	1.6841	1.9260	9:53:20
B2-3	1.6851	1.8672	9:54:46
B2-4	1.6847	1.8184	10:00:05
B2-5	1.6823	1.7778	10:21:18
B2-6	1.6895	1.7595	11:46:00
B2-7	1.6934	1.7433	15:19:00
			8:29:00

PSEP GRAIN SIZE ANALYSIS

Job No. QE27 ARI Sample No. B-3 Client Sample No. CR-Ref 95% fines

Set-up Date: 1/7/10 Sample Description: Sandy silty clay, organic fines

Calgon Batch # 211 Sieve Set # 1 Date Sieved: 1/12/10

SOLIDS CONTENT

Moisture Content	Initials EG
Container No.	101
Tare Weight	1.5144
Wet Weight + Tare	14.0501
Dry Weight + Tare	5.6441

Test Sample	Initials EG
Container No.	101
Tare Weight	50.3310
Wet Weight + Tare	90.6163
Dry Weight + Tare	50.8048

SIEVE ANALYSIS
Initials EG

Sieve Size	Weight Retained
Tare	50.3323
4	50.3323
10	50.3323
18	50.3444
35	50.3654
60	50.4172
120	50.4970
230	50.7641
PAN	0.0516

1/12/2010

Temp:23

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS
Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	TIME
B3-1	1.6978	1.9667	9:56:00
B3-2	1.6942	1.9289	9:56:20
B3-3	1.7000	1.8814	9:57:46
B3-4	1.6912	1.8231	10:03:05
B3-5	1.6889	1.7835	10:24:18
B3-6	1.7049	1.7756	11:49:00
B3-7	1.6863	1.7359	15:22:00
			8:32:00

as

PSEP GRAIN SIZE ANALYSIS

Job No. QE27 ARI Sample No. A Client Sample No. CR-Ref 22%fines

Set-up Date: 1/7/10 Sample Description: Sandy silty clay

Calgon Batch # 211 Sieve Set # 2 Date Sieved: 1/12/10

SOLIDS CONTENT

Moisture Content	Initials EG
Container No.	222
Tare Weight	1.5174
Wet Weight + Tare	20.0920
Dry Weight + Tare	13.8473

Test Sample	Initials EG
Container No.	222
Tare Weight	49.6483
Wet Weight + Tare	95.0666
Dry Weight + Tare	70.6432

SIEVE ANALYSIS

Initials EG

Sieve Size	Weight Retained
Tare	49.6504
4	49.6504
10	49.6556
18	49.7528
35	49.9727
60	50.2733
120	56.2274
230	68.8837
PAN	1.7514

1/12/2010

Temp:23

TIME

Correction	
Wt.	
+ Dry Sample	
Correction (x 50)	

PIPETTE ANALYSIS

Initials EG

Tare ID	Tare Wt	Dry Wt & Tare	9:59:00
A1	1.6861	1.9034	9:59:20
A2	1.6871	1.8013	10:00:46
A3	1.6839	1.7507	10:06:05
A4	1.7145	1.7630	10:27:18
A5	1.7113	1.7523	11:52:00
A6	1.7129	1.7470	15:25:00
A7	1.7052	1.7337	8:35:00

9 eg

CALGCN BATCH 211

WT.	TARE #	TARE WT	TARE + DRY WT	CALGON WT
74	1	1.6753	2.2783	0.603
77	2	1.7264	2.3227	0.5963
81	3	1.7199	2.3175	0.5976
77	4	1.7249	2.3214	0.5965
79	5	1.7210	2.3202	0.5992

Average = 0.59852

QE27 : 00023

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Project: 080547-01 Bay Wood

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BC
Signature

August-16-2010
Date

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Client: Anchor QEA

Project: 080547-01 Bay Wood

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PCB Raw Data		
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TPHD Raw Data		
Extractions Bench Sheets and Notes	1064	1066
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Preparation Bench Sheets and Notes	1178	1182
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Analyst Notes and Raw Data	1245	1256
Geotechnical Raw Data		
Analyst Notes and Raw Data	1257	1259

BC
Signature

August-16-2010
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

August 24, 2010

James Keithly
Anchor QEA
1423 Third Avenue, Suite 300
Seattle, WA 98101

RE: Project: Bay Wood, 080547-01
ARI Job No.: RF71

Dear Mr. Keithly:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for the samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile PB06

SD/mdh

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: RF71

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 2 of 3	
ARI Client Company: Anchor QEA	Phone: 206-287-9130	Date:	Ice Present?
Client Contact: James Keithly		No. of Coolers:	Cooler Temps:
Client Project Name: Bay Wood			
Client Project #: 050547-01	Samplers: DM, JD, DP		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: %F	TOC	GrainSize	NH4	S2	Porewater NH4, S2	LOI	Archive	Notes/Comments
BW-07-SC-A-091218	12/8/09	1140	SED	3								X	
BW-07-SC-B-091218		1150		7	X	X	X	X	X	X	X	X	
BW-07-SC-C-091218		1200		6	X	X	X	X	X	X	X	X	
BW-07-SC-Z-091218		1210		3								X	DO NOT FREEZE HDPE
BW-07-SC-Z1-091218		1220		3								X	↓
BW-07-SC-Z2-091218		1230		3								X	↓
BW-05-SC-A-091218		1410		6	X	X	X	X	X	X	X	X	
BW-05-SC-B-091218		1420		7	X	X	X	X	X	X	X	X	
BW-05-SC-C-091218		1440										X	DO NOT FREEZE HDPE
BW-05-SC-Z-091218	↓	1450	↓									X	↓

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: D. Peterson	Printed Name: C. OREIRO	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 12/18/09 1540	Date & Time: 12/18/09 1540	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

RTT1: 69993 0029: 69991

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA
Project Name: Bay Wood, 080547-01
COC No(s): _____ (NA)
Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____
Assigned ARI Job No: QC29
Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	5.8 2.4 0.9 4.1 5.6	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#: 90941619	

Cooler Accepted by: DO Date: 12/18/09 Time: 1540

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Samples Logged by: AV Date: 12/21/09 Time: 1005

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
*BW-55-SC-A-091218	BW-55-A-091218		

Additional Notes, Discrepancies, & Resolutions:

* Used ID from C.O.C for log in. BW-55-A-091218 has a grain size container but not listed on C.O.C - Added grain size on 12/21/09 as requested. CO

By: AV Date: 12/21/09

Small Air Bubbles	Peabubbles	LARGE Air Bubbles
< 2 mm	2-4 mm	> 4 mm

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

ANCHOR QEA

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Seattle, Washington 98101
Phone 206.287.9130
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MEMORANDUM

To:	Sue Dunnihoo, Analytical Resources, Inc. (ARI)	**Date:**	July 20, 2010
From:	James Keithly, Delaney Peterson	**Project:**	080546-01
Cc:			
Re:	Bay Wood Archives		

This memo is to initiate further analyses of archived samples stored at ARI from the Bay Wood project and to document the composite sample created. Please create one composite sample from these three samples, collected December 18, 2009 and previously logged under ARI job number QC29 (see list below). The composite will be created so that it represents the in-situ sediment from this core, and as a result, different percentages of sediment are required from each sample since each sample represents a different subsurface sediment interval. The approximate percentages of each sample that should be used to create the composite sample are listed below.

BW-07-SC-A-091218 = ~7%

BW-07-SC-B-091218 = ~71%

BW-07-SC-C-091218 = ~23%

The composite should be named "BW-07-SC-COMP-YYMMDD" and "YYMMDD" will be completed as the date the sample was composited.

The composite will be analyzed for the parameters listed in the attached Table 1. Data quality objectives are listed in the attached Table 2. A sample confirmation report will be generated at the time of sample login. Standard turnaround and a level IV data package are required.

Table 1
Chemical Physical Analysis Methods and Target Detection Limits

Parameter	Target Detection Limits	Analytical Method
Conventionals, %		
Total solids	0.10	EPA 160.3
Grain size	0.10	PSEP
Total organic carbon	0.10	EPA 9060
Metals, mg/kg dry weight		
Antimony	15	EPA 6010/6020
Arsenic	10	EPA 6010/6020
Cadmium	0.40	EPA 6010/6020
Chromium	5.0	EPA 6010/6020
Copper	0.40	EPA 6010/6020
Lead	5.0	EPA 6010/6020
Mercury	0.10	EPA 7471A
Nickel	14	EPA 6010/6020
Silver	0.60	EPA 6010/6020
Zinc	0.80	EPA 6010/6020
Nonionizable Organic Compounds, µg/kg dry weight		
LPAHs		
Naphthalene	20	EPA 8270
Acenaphthylene	20	EPA 8270
Acenaphthene	20	EPA 8270
Fluorene	20	EPA 8270
Phenanthrene	20	EPA 8270
Anthracene	20	EPA 8270
2-Methylnaphthalene	20	EPA 8270
HPAHs		
Fluoranthene	20	EPA 8270
Pyrene	20	EPA 8270
Benzo(a)anthracene	20	EPA 8270
Chrysene	20	EPA 8270
Benzo(b)fluoranthene	20	EPA 8270
Benzo(k)fluoranthene	20	EPA 8270
Benzo(a)pyrene	20	EPA 8270
Indeno(1,2,3-cd)pyrene	20	EPA 8270
Dibenzo(a,h)anthracene	20	EPA 8270
Benzo(g,h,i)perylene	20	EPA 8270
Chlorinated Organic Compounds		
1,2-Dichlorobenzene	5	EPA 8270 SIM
1,3-Dichlorobenzene	20	EPA 8270
1,4-Dichlorobenzene	5	EPA 8270 SIM
1,2,4-Trichlorobenzene	5	EPA 8270 SIM
Hexachlorobenzene	1	EPA 8081A
Phthalates		
Dimethyl phthalate	20	EPA 8270
Diethyl phthalate	20	EPA 8270
Di-n-butyl phthalate	20	EPA 8270
Butyl benzyl phthalate	20	EPA 8270
Bis(2-ethylhexyl)phthalate	20	EPA 8270
Di-n-octyl phthalate	20	EPA 8270
Miscellaneous Extractables		

Table 1
Chemical Physical Analysis Methods and Target Detection Limits

Parameter	Target Detection Limits	Analytical Method
Dibenzofuran	20	EPA 8270
Hexachlorobutadiene	1	EPA 8081A
N-Nitroso-diphenylamine	20	EPA 8270
Ionizable Organic Compounds, µg/kg dry weight		
Phenol	20	EPA 8270
2-Methylphenol	20	EPA 8270
4-Methylphenol	20	EPA 8270
2,4-Dimethylphenol	20	EPA 8270
Pentachlorophenol	20	EPA 8270
Benzyl alcohol	20	EPA 8270
Benzoic acid	200	EPA 8270
Polychlorinated Biphenyls (PCBs), µg/kg dry weight		
Aroclor 1016	10	EPA 8082
Aroclor 1221	10	EPA 8082
Aroclor 1232	10	EPA 8082
Aroclor 1242	10	EPA 8082
Aroclor 1248	10	EPA 8082
Aroclor 1254	10	EPA 8082
Aroclor 1260	10	EPA 8082
Aroclor 1268	10	EPA 8082
Total PCBs	10	EPA 8082
Total Petroleum Hydrocarbons (TPH), mg/kg dry weight		
Diesel	10	NWTPH-DX
Motor Oil	25	NWTPH-DX
Dioxins/Furans, ng/kg dry weight		
2,3,7,8-TCDD	1	1613B
1,2,3,7,8-PeCDD	5	1613B
1,2,3,4,7,8-HxCDD	5	1613B
1,2,3,6,7,8-HxCDD	5	1613B
1,2,3,7,8,9-HxCDD	5	1613B
1,2,3,4,6,7,8-HxCDD	5	1613B
OCDD	10	1613B
2,3,7,8-TCDF	1	1613B
1,2,3,7,8-PeCDF	5	1613B
2,3,4,7,8-HxCDF	5	1613B
1,2,3,4,7,8-HxCDF	5	1613B
1,2,3,6,7,8-HxCDF	5	1613B
1,2,3,7,8,9-HxCDF	5	1613B
2,3,4,6,7,8-HxCDF	5	1613B
1,2,3,4,5,6,8-HpCDF	5	1613B
1,2,3,4,7,8,9-HPCDF	5	1613B
OCDF	10	1613B

Notes:

LPAH = Low molecular weight polynuclear aromatic hydrocarbon

LPAH = Low molecular weight polynuclear aromatic hydrocarbon

Table 2
Data Quality Objectives

Parameter	Units	Precision	Accuracy	Completeness
Grain size	%	±20 RPD	NA	95%
Total solids	%	±20 RPD	NA	95%
Total organic carbon	%	±20 RPD	65-135 %R	95%
Metals	mg/kg	±20 RPD	65-135 %R	95%
PCDD/PCDF	ng/kg	±40 RPD	50-140% R	95%
Diesel/Motor Oil	mg/kg	±40 RPD	50-140% R	95%
SVOCs	µg/kg	±40 RPD	50-140% R	95%
PCBs	µg/kg	±40 RPD	50-140% R	95%

Notes:

RPD = Relative percent difference

%R = Percent recovery

NA = Not applicable

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: RF71

Case Narrative

Client: Anchor QEA
Project: Baywood Products, 080547-01
Matrix: Sediments
ARI Job No.: RF71

Sample receipt

Fourteen sediment samples were received on December 18, 2009, under ARI job QC29. The cooler temperatures measured by IR thermometer following ARI SOP were 11.2, 12.0, and 12.4°C. Samples were received within a short time of sampling and coolers were immediately transferred to refrigerated storage until they were logged on June 3. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

On July 20th, ARI was instructed to pull three samples from archive and composite in defined percentages as noted on the email in the custody documentation section, and analyze for parameters in Table 1. All containers used for the composite sample were stored frozen, including the aliquot analyzed for grainsize.

Semivolatiles by SW8270

The sample and associated laboratory QC were extracted and analyzed within recommended holding times for samples stored frozen.

The initial and continuing calibrations were within method requirements for target compounds. Internal standard areas were within limits.

Due to the characteristics of the matrix, the extract was initially analyzed at a 1:3 dilution. Based on the chromatography of the initial run, no further analyses were performed.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS/LCSD percent recoveries and RPD were within control limits.

SIM Semivolatiles by SW8270D

The sample and associated laboratory QC were extracted and analyzed within recommended holding times for samples stored frozen.

The initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS/LCSD percent recoveries and RPD were within control limits.

The result for N-Nitrosodiphenylamine was raised and "Y"-flagged due to interference from the matrix.

Dioxins/Furans by 1613B

The initial and continuing calibrations were within method requirements.

The method blank was clean at the reporting limit with a low response of OCDD, reported with a "J"-flag. All associated sample results have been "B"-flagged.

Several results have been "Y"-flagged, indicating a raised reporting limit or EMPC. Several results have been "X"-flagged indicating interference from PCDE (polychlorinated diphenyl ethers). Over-range results have been "E" flagged, consistent with other organic nomenclature of over-range results, although no dilutions are run for dioxin tests.

The TEQ is calculated with ND=0.

HCB/HCBD by SW8081A

The samples and associated laboratory QC were extracted and analyzed within recommended holding times for samples stored frozen.

The initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS/LCSD percent recoveries and RPD were within control limits.

PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within recommended holding times for samples stored frozen. Due to limited sample volume, both the sample amount and final extract volume were reduced, to hit project limits.

The initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

Surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were high for both Aroclors. As the sample was clean, no corrective action was required.

NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within recommended holding times for samples stored frozen.

The initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS/LCSD percent recoveries and RPD were within control limits.

Total Metals/Mercury

The samples were digested and analyzed within recommended holding times.

The method blanks were clean at the detection limits and the LCS percent recoveries were within control limits.

The matrix spike percent recovery of antimony fell outside the control limits low. A post digestion spike was performed and the recovery was within control limits. No further corrective action was required. The duplicate RPDs were within limits.

General Chemistry (TOC)

The sample was prepared and analyzed within the required holding time for frozen samples..

The method blank was clean at the reporting limits. The LCS had recoveries within control limits. Standard reference recoveries were within limits.

The matrix spike percent recovery was within limits. The replicate RPDs were within the control limit.

Geotech Parameters

A laboratory specific narrative follows.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor QEA	**ARI Job No.:** RF71
Client Project: Bay Wood	**Client Project No.:** 080547-01

Case Narrative

1. One sample was submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on July 26, 2010.
2. The sample was run in a single batch and due to limited volume, one sample from another job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
3. The sample contained woody or other organic matter, which may have broken down during the sieving process, affecting grain size analysis.
4. The data is provided in summary tables and plots.
5. There were no other noted anomalies in this project.

Approved by: _____ Date: 8/4/10
Geotechnical Laboratory Manager

Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

7/3/2010

SURR SOLUTIONS

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1732-2	ABN	100/150	MEOH	07/30/10
B	1747-2	SIM PNA	15/75	MEOH	10/07/10
C	1705-4	SIM ABN	25/37.5	MEOH	07/30/10
D	1742-1	LOW PCB	0.2	ACETONE	12/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1683-3	PCP	12.5	ACETONE	12/09/10
G	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
I	1747-1	LOW S. PNA	1.5	MEOH	10/07/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1689-1	MED PCB	20	ACETONE	12/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1682-1	EPH	1500	MECL2	09/17/10
N	1689-3	PCB	2	ACETONE	12/29/10
O	1740-1	TPH	450	MECL2	12/11/10
P	1742-2	HCID	2250	MECL2	05/13/11
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S*	1568-5	PBDE	.25	MEOH	01/13/11
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
*reverified solution					

RF71:00016

LCS SOLUTIONS

7/3/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1716-1	PCB 1660	20	ACETONE	03/30/11
2#		BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1744-3	LOW PEST	0.2/0.4/2	ACETONE	03/08/11
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1738-2	ABN	100	ACETONE	01/31/11
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1698-2	ABN ACID	100/200	MECL2	07/14/10
11	1730-2	TPHD	15000	ACETONE	04/26/11
12	1741-2	ABN BASE	200	MEOH	07/24/10
13	1716-2	LOW PCB	2	ACETONE	03/30/11
14	1730-1	LOW ABN ACID	10/20	MEOH	07/14/10
15	1726-3	SIM PNA	15/75	MEOH	10/07/10
16	1707-1	DIOXANE	100	MEOH	11/05/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18	1726-4	LOW SIM PNA	1.5	ACETONE	10/07/10
19	1746-3	AK103	7500	ACETONE	12/01/10
20	1682-4	PNA	100	ACETONE	12/04/10
21	1725-1	SKY/BHT	100	MEOH	03/18/11
22	1728-1	HERB	12.5/12500	MEOH	10/20/10
23	1706-1	LW ABN BASE	20	MEOH	03/08/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#		DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#		ADD. PEST	4	ACETONE	NA
29#		DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10

RF71:00017

LCS SOLUTIONS

7/3/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
54	1701-2	PBDE	0.5	ACETONE	02/10/11
#=PROJECT SPECIFIC SOLUTION					
	*=REVERIFIED SOLUTION				

RF71:00018

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Analysis of Soil & Sediment
Semi-Volatile Organic Compounds (SVOA)
EPA SW-846 Method 8270D with Ultrasonic Extraction [1,8]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Extraction / Analytical Method:	8270D	8270D ME[2]	PSEP [3]	PSEP ME[2,3]
Sample Weight / Final Volume:	7.5 g to 0.5 mL	7.5 g to 0.5 mL	25 g to 0.5 mL	25 g to 0.5 mL
LCS Spike Recovery [9]				
Phenol	48 - **100**	41 - **100**	31 - 102	19 - 114
Bis-(2-chloroethyl) ether	32 - **100**	22 - 104	30 - **100**	20 - **100**
2-Chlorophenol	44 - **100**	37 - **100**	36 - **100**	28 - **100**
1,3-Dichlorobenzene	39 - **100**	33 - **100**	32 - **100**	24 - **100**
1,4-Dichlorobenzene	40 - **100**	34 - **100**	33 - **100**	26 - **100**
Benzyl Alcohol	**10** - **100**	**10** - **100**	**10** - **100**	**10** - **100**
1,2-Dichlorobenzene	42 - **100**	36 - **100**	34 - **100**	26 - **100**
2-Methylphenol	44 - **100**	37 - **100**	34 - **100**	24 - 102
2,2'-oxybis(1-chloropropane)	21 - **100**	**10** - 107	29 - **100**	19 - **100**
4-Methylphenol	45 - **100**	37 - 100	39 - **100**	30 - 101
N-Nitroso-di-n-propylamine	36 - **100**	27 - 101	32 - **100**	23 - **100**
Hexachloroethane	35 - **100**	28 - **100**	29 - **100**	21 - **100**
Nitrobenzene	27 - 102	15 - 115	28 - **100**	17 - 105
Isophorone	47 - **100**	39 - 105	46 - **100**	38 - 103
2-Nitrophenol	46 - **100**	40 - **100**	37 - **100**	28 - **100**
2,4-Dimethyphenol	41 - **100**	34 - **100**	19 - **100**	**10** - 103
Bis-(2-chloroethoxy) methane	40 - **100**	32 - **100**	38 - **100**	30 - **100**
Benzoic Acid [4]	**10** - 138	**10** - 159	21 - 123	**10** - 140
2,4-Dichlorophenol	48 - **100**	41 - **100**	39 - **100**	30 - 102
1,2,4-Trichlorobenzene	43 - **100**	35 - **100**	36 - **100**	28 - **100**
Naphthalene	44 - **100**	38 - **100**	37 - **100**	29 - **100**
4-Chloroaniline [4]	16 - **100**	**10** - 113	**10** - **100**	**10** - **100**
2-Chloronaphthalene	48 - **100**	42 - **100**	36 - **100**	27 - 101
Hexachlorobutadiene	40 - **100**	33 - **100**	33 - **100**	24 - **100**
4-Chloro-3-methylphenol	50 - **100**	42 - 104	42 - 102	32 - 112
2-Methylnaphthalene	48 - **100**	42 - **100**	41 - **100**	33 - **100**
Hexachlorocyclopentadiene	20 - 114	**10** - 130	15 - 104	**10** - 119
2,4,6-Trichlorophenol	51 - **100**	44 - 100	42 - **100**	33 - 105
2,4,5-Trichlorophenol	50 - **100**	43 - 103	43 - **100**	34 - 107
2-Nitroaniline	45 - **100**	36 - 106	41 - **100**	32 - 108
Dimethylphthalate	53 - **100**	46 - 103	48 - **100**	40 - 106
Acenaphthylene	50 - **100**	43 - 100	42 - **100**	33 - 104
2,6-Dinitrotoluene	54 - 100	46 - 108	44 - 106	34 - 116
3-Nitroaniline [4]	22 - 117	**10** - 133	15 - 108	**10** - 124
Acenaphthene	48 - **100**	41 - **100**	38 - **100**	29 - 102

RF71 : 00019

Spike Recovery Control Limits for Analysis of Soil & Sediment
Semi-Volatile Organic Compounds (SVOA)
EPA SW-846 Method 8270D with Ultrasonic Extraction [1,8]

Effective: 5/1/09

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Extraction / Analytical Method:	**8270D**	**8270D ME[2]**	**PSEP [3]**	**PSEP ME[2,3]**
Sample Weight / Final Volume:	7.5 g to 0.5 mL	7.5 g to 0.5 mL	25 g to 0.5 mL	25 g to 0.5 mL
2,4-Dinitrophenol	12 - 147	**10** - 170	20 - 140	**10** - 160
Dibenzofuran	53 - **100**	47 - **100**	45 - **100**	37 - 101
4-Nitrophenol	18 - 107	**10** - 122	21 - 108	**10** - 123
2,4-Dinitrotoluene	57 - 106	49 - 114	48 - 111	38 - 122
Fluorene	54 - **100**	48 - 100	45 - **100**	36 - 106
Diethylphthlalate	52 - 100	44 - 108	48 - 102	39 - 111
4-Chlorophenyl-phenyl ether	54 - **100**	48 - **100**	45 - **100**	36 - 106
4-Nitroaniline	27 - 110	13 - 124	25 - **100**	13 - 110
4,6-Dinitro-2-Methylphenol	21 - 122	**10** - 139	23 - 115	**10** - 130
N-Nitrosodiphenylamine	44 - 145	27 - 162	50 - 128	37 - 141
4-Bromophenyl-phenyl ether	52 - **100**	45 - 101	45 - **100**	36 - 107
Hexachlorobenzene	50 - **100**	42 - 104	44 - 101	35 - 111
Pentachlorophenol	45 - **100**	36 - 108	35 - 105	23 - 117
Phenanthrene	53 - **100**	46 - 101	45 - 100	36 - 109
Anthracene	49 - **100**	41 - 105	43 - **100**	34 - 107
Carbazole	45 - 111	34 - 122	51 - 106	42 - 115
Di-n-butylphthalate	55 - 106	47 - 115	51 - 109	41 - 119
Fluoranthene	54 - 105	46 - 114	52 - 107	43 - 116
Pyrene	48 - 106	38 - 116	41 - 113	29 - 125
Butylbenzylphthalate	46 - 111	35 - 122	40 - 118	27 - 131
Benzo(a)Anthracene	51 - 101	43 - 109	44 - 106	34 - 116
3,3'-Dichlorbenzidine [4]	**10** - 112	**10** - 129	**10** - **100**	**10** - 112
Chrysene	56 - **100**	50 - 102	48 - 102	39 - 111
Bis(2-Ethylhexyl) phthalate	57 - 114	48 - 124	38 - 125	24 - 140
Di-n-octylphthalate	56 - 100	49 - 107	29 - 116	15 - 131
Benzofluoranthene(s) (Total)	30 - 160[10]	30 - 160[10]	30 - 160[10]	30 - 160[10]
Benzo(a)Pyrene	51 - **100**	43 - 105	41 - **100**	32 - 104
Indeno(1,2,3-cd)Pyrene	38 - 104	27 - 115	29 - 117	14 - 132
Dibenz(a,h)anthracene	41 - 107	30 - 118	34 - 117	20 - 131
Benzo(g,h,i)Perylene	36 - 107	24 - 119	24 - 122	**10** - 138
Aniline [4]	**10** - **100**	**10** - 103	**10** - **100**	**10** - **100**
1,2-Diphenylhydrazine (Azobenzene)	48 - 101	39 - 110	44 - 101	35 - 111
N-Nitrosodimethylamine	31 - **100**	21 - 101	25 - **100**	15 - **100**
1-Methylnaphthalene	48 - **100**	41 - **100**	40 - **100**	31 - 103
Pyridine	**10** - **100**	**10** - **100**	**10** 100	**10** - **100**
MB/LCS Surrogate Recovery				

RF71 : 00020

Spike Recovery Control Limits for Analysis of Soil & Sediment Semi-Volatile Organic Compounds (SVOA) EPA SW-846 Method 8270D with Ultrasonic Extraction [1,8]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Extraction / Analytical Method:	8270D	8270D ME[2]	PSEP [3]	PSEP ME[2,3]
Sample Weight / Final Volume:	7.5 g to 0.5 mL	7.5 g to 0.5 mL	25 g to 0.5 mL	25 g to 0.5 mL
d4-2-Chlorophenol	43 - **100**	(5)	39 - **100**	(5)
d4-1,2-Dichlorobenzene	34 - **100**	(5)	32 - **100**	(5)
2,4,6-Tribromophenol	47 - 109	(5)	43 - 108	(5)
2-Fluorophenol	14 - 100	(5)	26 - **100**	(5)
d5-Phenol [4]	39 - **100**	**10** - 133	**10** - **100**	**10** - **100**
d5-Nitrobenzene	39 - **100**	(5)	34 - **100**	(5)
2-Fluorobiphenyl	44 - **100**	(5)	39 **100**	(5)
d14-p-Terphenyl	55 - 106	(5)	49 - 112	(5)
Sample Surrogate Recovery				
d4-2-Chlorophenol	33 - **100**	(5)	30 - **100**	(5)
d4-1,2-Dichlorobenzene	30 - **100**	(5)	24 - **100**	(5)
2,4,6-Tribromophenol	28 - 116	(5)	33 - 118	(5)
2-Fluorophenol	**10** - **100**	(5)	21 - **100**	(5)
d5-Phenol [4]	31 - **100**	21 - 101	**10** - **100**	**10** - **100**
d5-Nitrobenzene	32 - **100**	(5)	26 - **100**	(5)
2-Fluorobiphenyl	36 - **100**	(5)	32 - **100**	(5)
d14-p-Terphenyl	35 - 113	(5)	25 - 116	(5)

(1) Control Limits calculated using all data generated 1/1/08 through 12/1/08.
(2) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the CL but still within the ME limits. ARI defines ME limits as 4 standard deviations around the mean with upper limit ≥ 100% A maximum of 4 marginal exceedances are acceptable. (≥ 5 marginal exceedances in an analysis require corrective action).
(3). Preparation includes Gel Permeation Chromatography (GPC) clean-up.
(4) These are "**poor performers**" defined in the DoD QSM [7] as compounds that "produce low mean recoveries and high standard deviations, resulting in wide LCS control limits with particularly low lower control limits (sometimes-negative values). ARI does not control batch acceptance based on these compounds since there is a high level of uncertainty in their recovery."
(5) Marginal Exceedances not allowed for surrogate unless it is a "poor performer".
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(7) Page 182 of: **Department of Defense Quality Systems Manual for Environmental Laboratories, Version 3 Final, March 2005** Prepared By Environmental Data Quality Workgroup, Department of Navy, Lead Service (Based NELAC Chapter 5 (Quality Systems) NELAC Voted Version – 5 June 2003
(8) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(9) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(10) Default limits pending generation of historic limits for total benzofluoranthrenes (7/29/10)

RF71 : 00021

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons Selected Ion Monitoring (SIM) EPA Method SW-846-8270D-Modified [1,7]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Matrix	Water		Soil	
Sample Volume / Final Volume	**500 mL to 0.5 mL**		**7.5 g / 0.5 mL**	
	Control Limits	**ME Limits [2]**	**Control Limits**	**ME Limits [2]**
LCS Spike Recovery [6]				
Napthalene	39 - **100**	30 - 102	37 - **100**	27 - 107
2-Methylnapthalene	39 - **100**	31 - **100**	37 - **100**	28 - **100**
1-Methylnapthalene	30 - 160 [3]	30 - 160 [3]	30 - 160 [3]	30 - 160 [3]
Acenaphthylene	37 - 100	27 - 111	35 - **100**	26 - 102
Acenapthene	42 - **100**	33 - 107	39 - **100**	31 - **100**
Dibenzofuran	46 - **100**	38 - 101	39 - **100**	31 - **100**
Fluorene	49 - 101	40 - 110	42 - **100**	33 - 106
Phenanthrene	55 - 101	47 - 109	47 - **100**	38 - 108
Anthracene	47 - 102	38 - 111	41 - 106	30 - 117
Fluoranthene	60 - 106	52 - 114	52 - 109	43 - 119
Pyrene	55 - 110	46 - 119	47 - 111	36 - 122
Benz(a)anthracene	56 - 104	48 - 112	47 - 114	36 - 125
Chrysene	58 - 104	50 - 112	51 - 106	42 - 115
Benzofluoranthene(s) (Total)	30 - 160 [8]	30 - 160 [8]	30 - 160 [8]	30 - 160 [8]
Benzo(a)pyrene	32 - 110	19 - 123	44 - 111	33 - 122
Indeno(1,2,3-cd)pyrene	50 - 114	39 - 125	41 - 114	29 - 126
Dibenzo(a,h)anthracene	42 - 121	29 - 134	42 - 116	30 - 128
Benzo(g,h,i)perylene	50 - 113	40 - 124	37 - 115	27 - 107
MB / LCS Surrogate Recovery				
d10-2-Methylnaphthalene	36 - 101	(4)	35 - **100**	(4)
d14-Dibenzo(a,h)anthracene	42 - 121	(4)	37 - 120	(4)
Sample Surrogate Recovery				
d10-2-Methylnaphthalene	30 - 106	(4)	34 - **100**	(4)
d14-Dibenzo(a,h)anthracene	**10** - 130	(4)	**10** - 117	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/31/08.
(2) **ME** = A **marginal exceedance** defined in the NELAC Standard [5] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(3) 30 – 160 are default, advisory control limits used when there is insufficient data to calculate historic control limits. **DO NOT** use these limits as the sole reason to reject the data from a batch of analyses.
(4) Marginal Exceedances not allowed for surrogate standards.
(5) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(6) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(7) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(8) Default limits pending generation of historic limits for total benzofluoranthrenes (7/29/10)

RF71 : 00022

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Chlorinated Pesticides EPA Method SW-846-8081B Analysis of Soil / Sediment Samples [1,2]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Dry Weight / Final Vol.	12 g to 4 mL		25 g to 5 mL	
LCS Spike Recovery [5]	**Control Limits**	**ME Limits[3]**	**Control Limits**	**ME Limits[3]**
α-BHC	41 - 122	28 - 136	37 - 130	22 - 146
β-BHC	47 - 126	34 - 139	40 - 131	25 - 146
δ-BHC	46 - 138	31 - 153	39 - 142	22 - 159
γ-BHC (Lindane)	49 - 124	37 - 137	43 - 127	29 - 141
Heptachlor	45 - 121	32 - 134	42 - 122	29 - 135
Aldrin	44 - 125	31 - 139	43 - 127	29 - 141
Hepachlor Epoxide	47 - 128	34 - 142	43 - 129	29 - 143
Endosulfan I	42 - 139	26 - 155	31 - 157	10 - 178
Dieldrin	42 - 140	26 - 156	49 - 131	35 - 145
4,4'-DDE	56 - 144	41 - 159	48 - 146	32 - 162
Endrin	50 - 143	35 - 159	52 - 133	39 - 147
Endosulfan II	52 - 133	39 - 147	38 - 137	22 - 154
4,4'-DDD	55 - 140	41 - 154	51 - 139	36 - 154
Endosulfan Sulfate	40 - 133	25 - 149	33 - 133	16 - 150
4,4'-DDT	53 - 133	40 - 146	50 - 131	37 - 145
Methoxychlor	58 - 123	47 - 134	35 - 138	18 - 155
Endrin Ketone	40 - 144	23 - 161	31 - 146	12 - 165
Endrin Aldehyde	12 - 110	**10** - 126	18 - 166	**10** - 191
γ-Chlordane	51 - 125	39 - 137	46 - 127	33 - 141
α-Chlordane	47 - 130	33 - 144	47 - 128	34 - 142
MB / LCS Surrogate Recovery				
Tetrachloro-*m*-xylene (TCMX)	44 - 107	(4)	50 - 124	(4)
Decachlorobiphenyl	51 - 127	(4)	42 - 110	(4)
Sample Surrogate Recovery				
Tetrachloro-xylene (TCMX)	32 - 130	(4)	40 - 119	(4)
Decachlorobiphenyl	51 - 128	(4)	42 - 137	(4)

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 or 12/1/08.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(4) Marginal Exceedances not allowed for a surrogate standard.
(5) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

RF71 : 00023

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits - Analysis of PCB / Aroclors in Soil & Sediment Samples - EPA SW-846 Method 8082

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	Routine Analysis	PSDDA	Low Level	Low level	Soxhlet Extraction	Medium Level
Typical Reporting Limit (µg/kg):	**33**	**20**	**10**	**4**	**100**	**800**
Nominal Sample Wet Weight (g):	**12**	**25**	**25**	**25**	**10**	**5**
Final Extract Volume (mL):	**4**	**5**	**2.5**	**1**	**10**	**40**
LCS Spike Recovery [1,2]						
Aroclor 1016	48 - 106	52 - 101	53 - **100**	37 - 106	30 - 160[3]	59 - 108
Aroclor 1260	50 - 121	52 - 126	58 - 112	50 - 116	30 - 160[3]	43 - 177
Method Blank / LCS Surrogate Recovery						
Tetrachloro-*meta*-xylene (TCMX)	46 - 111	47 - 110	43 - 108	35 - 100	30 - 160[3]	49 - 110
Decachlorobiphenyl	51 - 112	48 - 119	48 - 118	40 - 109	30 - 160[3]	51 - 127
Sample Surrogate Recovery						
Tetrachloro-*meta*-xylene (TCMX)	50 - 114	46 - 113	35 - 119	38 - 102	30 - 160[3]	28 - 106
Decachlorobiphenyl	42 - 127	40 - 130	33 - 143	34 - 141	30 - 160[3]	22 - 168

(1) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default, advisory control limits used when there is insufficient data to calculate historic control limits. **DO NOT** use these limits as the sole reason to reject the data from a batch of analyses.

RF71 : 00024

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID) and Diesel Range Petroleum Hydrocarbons (NWTPH-D & AK-102) [1]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Method:	NWTPH-HCID [2]	NWTPH-D		AK102 [2]
Sample Matrix:	Water& Soil	Water	Soil	Water & Soil
Preparation:	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
LCS Spike Recovery [3]				
Diesel	-- - --	56 - 103	55 - 104	75 - 125
Diesel with Acid & Silica Clean-up	-- - --	43 - 100	54 - 96	(4)
Diesel with Silica Clean-up	-- --	43 - 100	54 - 96	75 - 125
Method Blank/LCS Surrogate Recovery				
o-Terphenyl	-- - --	57 - 120	58 - 121	60 - 120
o-Terphenyl with Acid & Silica Clean-up	-- - --	51 - 120	63 - 115	(4)
o-Terphenyl Silica Clean-up		51 - 120	63 - 115	60 - 120
Sample Surrogate Recovery				
o-Terphenyl	50 - 150	35 - 131	53 - 118	50 - 150
o-Terphenyl with Acid & Silica Clean-up	-- - --	41 - 121	49 - 120	(4)
o-Terphenyl with Silica Clean-up		41 - 121	49 - 120	50 - 150

1. Control Limits calculated using all data generated 1/1/08 through 12/31/08
2. Method specified, non-prescriptive limits. The NWTPH-HCID Method does not include LCS or MS analyses.
3. Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
4. Alaska State UST Methods do not allow acid cleanup of sample extracts.

RF71 : 00025

Summary of Laboratory Control Limits Metals Analyses (All Methods & Sample Matrices)

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Element	Matrix Spike Recovery	LCS Recovery	Replicate RPD
Aluminum	75 - 125	80 - 120	≤ 20%
Antimony	75 - 125	80 - 120	≤ 20%
Arsenic	75 - 125	80 - 120	≤ 20%
Barium	75 - 125	80 - 120	≤ 20%
Beryllium	75 - 125	80 - 120	≤ 20%
Boron	75 - 125	80 - 120	≤ 20%
Cadmium	75 - 125	80 - 120	≤ 20%
Calcium	75 - 125	80 - 120	≤ 20%
Chromium	75 - 125	80 - 120	≤ 20%
Cobalt	75 - 125	80 - 120	≤ 20%
Copper	75 - 125	80 - 120	≤ 20%
Iron	75 - 125	80 - 120	≤ 20%
Lead	75 - 125	80 - 120	≤ 20%
Magnesium	75 - 125	80 - 120	≤ 20%
Manganese	75 - 125	80 - 120	≤ 20%
Mercury	75 - 125	80 - 120	≤ 20%
Nickel	75 - 125	80 - 120	≤ 20%
Potassium	75 - 125	80 - 120	≤ 20%
Selenium	75 - 125	80 - 120	≤ 20%
Silica	75 - 125	80 - 120	≤ 20%
Silver	75 - 125	80 - 120	≤ 20%
Sodium	75 - 125	80 - 120	≤ 20%
Strontium	75 - 125	80 - 120	≤ 20%
Thallium	75 - 125	80 - 120	≤ 20%
Vanadium	75 - 125	80 - 120	≤ 20%
Zinc	75 - 125	80 - 120	≤ 20%

RF71 : 00026

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

RF71 : 00027

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: BW-07-SC-COMP-100726
SAMPLE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/10/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 08/06/10
Date Analyzed: 08/10/10 13:12
Instrument/Analyst: NT4/JZ
GPC Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 39.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	60	< 60 U
541-73-1	1,3-Dichlorobenzene	60	< 60 U
106-46-7	1,4-Dichlorobenzene	60	< 60 U
100-51-6	Benzyl Alcohol	60	< 60 U
95-50-1	1,2-Dichlorobenzene	60	< 60 U
95-48-7	2-Methylphenol	60	< 60 U
106-44-5	**4-Methylphenol**	**60**	**33 J**
67-72-1	Hexachloroethane	60	< 60 U
105-67-9	2,4-Dimethylphenol	60	< 60 U
65-85-0	Benzoic Acid	600	< 600 U
120-82-1	1,2,4-Trichlorobenzene	60	< 60 U
91-20-3	**Naphthalene**	**60**	**37 J**
87-68-3	Hexachlorobutadiene	60	< 60 U
91-57-6	2-Methylnaphthalene	60	< 60 U
131-11-3	Dimethylphthalate	60	< 60 U
208-96-8	**Acenaphthylene**	**60**	**30 J**
83-32-9	Acenaphthene	60	< 60 U
132-64-9	Dibenzofuran	60	< 60 U
84-66-2	Diethylphthalate	60	< 60 U
86-73-7	Fluorene	60	< 60 U
86-30-6	N-Nitrosodiphenylamine	60	< 60 U
118-74-1	Hexachlorobenzene	60	< 60 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	**Phenanthrene**	**60**	**52 J**
120-12-7	Anthracene	60	< 60 U
84-74-2	Di-n-Butylphthalate	60	< 60 U
206-44-0	**Fluoranthene**	**60**	**110**
129-00-0	**Pyrene**	**60**	**110**
85-68-7	Butylbenzylphthalate	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**60**	**54 J**
117-81-7	bis(2-Ethylhexyl)phthalate	60	< 60 U
218-01-9	**Chrysene**	**60**	**97**
117-84-0	Di-n-Octyl phthalate	60	< 60 U
205-99-2	**Benzo(b)fluoranthene**	**60**	**52 J**
207-08-9	**Benzo(k)fluoranthene**	**60**	**52 J**
50-32-8	**Benzo(a)pyrene**	**60**	**65**
193-39-5	Indeno(1,2,3-cd)pyrene	60	< 60 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: BW-07-SC-COMP-100726**
 SAMPLE

Lab Sample ID: RF71A QC Report No: RF71-Anchor QEA
LIMS ID: 10-17570 Project: Bay Wood
Matrix: Sediment 080547-01
Date Analyzed: 08/10/10 13:12

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	60	< 60 U
191-24-2	Benzo(g,h,i)perylene	60	< 60 U
90-12-0	1-Methylnaphthalene	60	< 60 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	79.0%	2-Fluorobiphenyl	82.7%
d14-p-Terphenyl	86.9%	d4-1,2-Dichlorobenzene	69.2%
d5-Phenol	96.8%	2-Fluorophenol	84.8%
2,4,6-Tribromophenol	97.6%	d4-2-Chlorophenol	86.4%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-080610	63.6%	64.8%	78.4%	62.0%	75.7%	68.0%	67.7%	68.0%	0
LCS-080610	65.6%	67.6%	113%*	58.8%	79.5%	68.0%	91.5%	69.6%	1
LCSD-080610	64.4%	68.0%	110%	62.4%	70.9%	70.7%	86.7%	63.2%	0
BW-07-SC-COMP-1007	79.0%	82.7%	86.9%	69.2%	96.8%	84.8%	97.6%	86.4%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(34-100)	(26-100)
(FBP) = 2-Fluorobiphenyl	(39-100)	(32-100)
(TPH) = d14-p-Terphenyl	(49-112)	(25-116)
(DCB) = d4-1,2-Dichlorobenzene	(32-100)	(24-100)
(PHL) = d5-Phenol	(10-100)	(10-100)
(2FP) = 2-Fluorophenol	(26-100)	(21-100)
(TBP) = 2,4,6-Tribromophenol	(43-108)	(33-118)
(2CP) = d4-2-Chlorophenol	(39-100)	(30-100)

Prep Method: SW3550B
Log Number Range: 10-17570 to 10-17570

FORM-II SW8270

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-080610**
 LCS/LCSD

Lab Sample ID: LCS-080610
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/10/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted LCS/LCSD: 08/06/10

Date Analyzed LCS: 08/09/10 22:08
LCSD: 08/09/10 22:42
Instrument/Analyst LCS: NT4/JZ
LCSD: NT4/JZ
GPC Cleanup: No

Sample Amount LCS: 25.0 g
LCSD: 25.0 g
Final Extract Volume LCS: 0.5 mL
LCSD: 0.5 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	299	500	59.8%	261	500	52.2%	13.6%
1,3-Dichlorobenzene	252	500	50.4%	283	500	56.6%	11.6%
1,4-Dichlorobenzene	253	500	50.6%	287	500	57.4%	12.6%
Benzyl Alcohol	785	1000	78.5%	747	1000	74.7%	5.0%
1,2-Dichlorobenzene	265	500	53.0%	290	500	58.0%	9.0%
2-Methylphenol	304	500	60.8%	281	500	56.2%	7.9%
4-Methylphenol	594	1000	59.4%	554	1000	55.4%	7.0%
Hexachloroethane	149	500	29.8%	175	500	35.0%	16.0%
2,4-Dimethylphenol	305	500	61.0%	300	500	60.0%	1.7%
Benzoic Acid	1310	1500	87.3%	1300	1500	86.7%	0.8%
1,2,4-Trichlorobenzene	287	500	57.4%	326	500	65.2%	12.7%
Naphthalene	311	500	62.2%	333	500	66.6%	6.8%
Hexachlorobutadiene	277	500	55.4%	321	500	64.2%	14.7%
2-Methylnaphthalene	320	500	64.0%	348	500	69.6%	8.4%
Dimethylphthalate	322	500	64.4%	310	500	62.0%	3.8%
Acenaphthylene	335	500	67.0%	346	500	69.2%	3.2%
Acenaphthene	313	500	62.6%	331	500	66.2%	5.6%
Dibenzofuran	347	500	69.4%	354	500	70.8%	2.0%
Diethylphthalate	322	500	64.4%	324	500	64.8%	0.6%
Fluorene	342	500	68.4%	350	500	70.0%	2.3%
N-Nitrosodiphenylamine	326	500	65.2%	329	500	65.8%	0.9%
Hexachlorobenzene	347	500	69.4%	355	500	71.0%	2.3%
Pentachlorophenol	336	500	67.2%	335	500	67.0%	0.3%
Phenanthrene	349	500	69.8%	352	500	70.4%	0.9%
Anthracene	346	500	69.2%	353	500	70.6%	2.0%
Di-n-Butylphthalate	347	500	69.4%	349	500	69.8%	0.6%
Fluoranthene	368	500	73.6%	371	500	74.2%	0.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCSD-080610**
 LCS/LCSD

Lab Sample ID: LCS-080610 QC Report No: RF71-Anchor QEA
LIMS ID: 10-17570 Project: Bay Wood
Matrix: Sediment 080547-01
Date Analyzed LCS: 08/09/10 22:08
LCSD: 08/09/10 22:42

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Pyrene	496	500	99.2%	494	500	98.8%	0.4%
Butylbenzylphthalate	497	500	99.4%	502	500	100%	1.0%
Benzo(a)anthracene	365	500	73.0%	367	500	73.4%	0.5%
bis(2-Ethylhexyl)phthalate	455	500	91.0%	455	500	91.0%	0.0%
Chrysene	357	500	71.4%	362	500	72.4%	1.4%
Di-n-Octyl phthalate	352	500	70.4%	352	500	70.4%	0.0%
Benzo(b)fluoranthene	421	500	84.2%	447	500	89.4%	6.0%
Benzo(k)fluoranthene	471	500	94.2%	466	500	93.2%	1.1%
Benzo(a)pyrene	340	500	68.0%	339	500	67.8%	0.3%
Indeno(1,2,3-cd)pyrene	280	500	56.0%	252	500	50.4%	10.5%
Dibenz(a,h)anthracene	295	500	59.0%	265	500	53.0%	10.7%
Benzo(g,h,i)perylene	248	500	49.6%	227	500	45.4%	8.8%
1-Methylnaphthalene	327	500	65.4%	354	500	70.8%	7.9%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	65.6%	64.4%
2-Fluorobiphenyl	67.6%	68.0%
d14-p-Terphenyl	113%	110%
d4-1,2-Dichlorobenzene	58.8%	62.4%
d5-Phenol	79.5%	70.9%
2-Fluorophenol	68.0%	70.7%
2,4,6-Tribromophenol	91.5%	86.7%
d4-2-Chlorophenol	69.6%	63.2%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

RF71MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: ANCHOR QEA

ARI Job No: RF71

Project: BAY WOOD

Lab File ID: 08101002

Date Extracted: 08/06/10

Instrument ID: NT4

Date Analyzed: 08/10/10

Matrix: SOLID

Time Analyzed: 1238

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	RF71LCSS1	RF71LCSS1	08091020	08/09/10
02	RF71LCSDS1	RF71LCSDS1	08091021	08/09/10
03	BW-07-SC-COMP-10	RF71A	08101003	08/10/10
04				
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: MB-080610
METHOD BLANK

Lab Sample ID: MB-080610
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/10/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 08/06/10
Date Analyzed: 08/10/10 12:38
Instrument/Analyst: NT4/JZ
GPC Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
67-72-1	Hexachloroethane	20	< 20 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
87-68-3	Hexachlorobutadiene	20	< 20 U
91-57-6	2-Methylnaphthalene	20	< 20 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
83-32-9	Acenaphthene	20	< 20 U
132-64-9	Dibenzofuran	20	< 20 U
84-66-2	Diethylphthalate	20	< 20 U
86-73-7	Fluorene	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	Phenanthrene	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	20	< 20 U
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U

Lab Sample ID: MB-080610 QC Report No: RF71-Anchor QEA
LIMS ID: 10-17570 Project: Bay Wood
Matrix: Sediment 080547-01
Date Analyzed: 08/10/10 12:38

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.6%	2-Fluorobiphenyl	64.8%
d14-p-Terphenyl	78.4%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	75.7%	2-Fluorophenol	68.0%
2,4,6-Tribromophenol	67.7%	d4-2-Chlorophenol	68.0%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

Instrument ID: NT4 Project: BAY WOOD

DFTPP Injection Date: 07/19/10 DFTPP Injection Time: 1618

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	28.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	34.2
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	55.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 60.0% of mass 198	23.4
365	Greater than 1.0% of mass 198	2.50
441	0.0 - 24.0% of mass 442	13.5 (15.4)2
442	50.0 - 200.0% of mass 198	87.7
443	15.0 - 24.0% of mass 442	17.3 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	IC250719	IC250719	07191001	07/19/10	1618
02	IC010719	IC010719	07191002	07/19/10	1656
03	IC050719	IC050719	07191003	07/19/10	1733
04	IC100719	IC100719	07191004	07/19/10	1807
05	IC400719	IC400719	07191005	07/19/10	1841
06	IC600719	IC600719	07191006	07/19/10	1914
07	IC800719	IC800719	07191007	07/19/10	1948
08					
09					
10					
11					
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RF71:00037

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

Instrument ID: NT4 Project: BAY WOOD

DFTPP Injection Date: 08/09/10 DFTPP Injection Time: 1111

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	28.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	33.2
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	54.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	2.22
441	0.0 - 24.0% of mass 442	5.3 (5.8)2
442	50.0 - 200.0% of mass 198	92.0
443	15.0 - 24.0% of mass 442	18.2 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0809	CC0809	08091001	08/09/10	1111
02	RF71LCSS1	RF71LCSS1	08091020	08/09/10	2208
03	RF71LCSDS1	RF71LCSDS1	08091021	08/09/10	2242
04					
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

Instrument ID: NT4 Project: BAY WOOD

DFTPP Injection Date: 08/10/10 DFTPP Injection Time: 1202

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	25.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	30.4
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	51.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	23.5
365	Greater than 1.0% of mass 198	2.31
441	0.0 - 24.0% of mass 442	5.9 (5.9)2
442	50.0 - 200.0% of mass 198	99.8
443	15.0 - 24.0% of mass 442	19.3 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0810	CC0810	08101001	08/10/10	1202
02	RF71MBS1	RF71MBS1	08101002	08/10/10	1238
03	BW-07-SC-COMP-10	RF71A	08101003	08/10/10	1312
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FORM V SV

RF71:00039

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Calibration Date: 07/19/10

LAB FILE ID: RRF1 =07191002 RRF5 =07191003 RRF10 =07191004
RRF25 =07191001 RRF40 =07191005 RRF60 =07191006
RRF80 =07191007

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
Phenol	1.523	1.490	1.444	1.420	1.273	1.247	1.257	1.379	8.5
Bis(2-Chloroethyl)ether	1.154	1.053	1.029	1.024	1.005	0.954	0.982	1.029	6.2
2-Chlorophenol	1.377	1.362	1.365	1.365	1.233	1.243	1.243	1.312	5.2
1,3-Dichlorobenzene	1.710	1.502	1.501	1.482	1.446	1.374	1.426	1.492	7.1
1,4-Dichlorobenzene	1.698	1.514	1.531	1.506	1.475	1.390	1.432	1.506	6.5
1,2-Dichlorobenzene	1.581	1.440	1.413	1.388	1.371	1.289	1.339	1.403	6.6
Benzyl alcohol		0.912	0.797	0.785	0.736	0.725	0.736	0.782	9.0
2,2'-oxybis(1-Chloropropane)	1.134	1.020	0.992	0.962	0.924	0.855	0.883	0.967	9.7
2-Methylphenol	1.002	1.110	1.113	1.098	1.009	1.016	1.027	1.054	4.8
Hexachloroethane	0.591	0.558	0.556	0.560	0.554	0.531	0.555	0.558	3.2
N-Nitroso-di-n-propylamine	0.787	0.747	0.723	0.714	0.703	0.670	0.704	0.721	5.2
4-Methylphenol	1.076	1.163	1.119	1.132	1.048	1.050	1.068	1.094	4.0
Nitrobenzene	0.345	0.322	0.322	0.303	0.300	0.271	0.282	0.306	8.3
Isophorone	0.573	0.517	0.526	0.503	0.498	0.459	0.487	0.509	7.0
2-Nitrophenol	0.162	0.186	0.203	0.207	0.194	0.193	0.195	0.191	7.7
2,4-Dimethylphenol	0.341	0.363	0.369	0.354	0.328	0.312	0.320	0.341	6.5
Bis(2-Chloroethoxy)methane	0.404	0.360	0.364	0.356	0.346	0.318	0.333	0.354	7.7
2,4-Dichlorophenol	0.254	0.301	0.324	0.326	0.301	0.296	0.294	0.299	8.0
1,2,4-Trichlorobenzene	0.368	0.336	0.338	0.332	0.330	0.311	0.320	0.334	5.3
Naphthalene	1.181	1.019	1.014	0.962	0.896	0.777	0.792	0.949	14.9
Benzoic acid		0.150	0.222	0.268	0.261	0.271	0.280	0.242	0.996
4-Chloroaniline	0.392	0.401	0.403	0.394	0.373	0.345	0.340	0.378	6.9
Hexachlorobutadiene	0.217	0.185	0.194	0.186	0.188	0.174	0.180	0.189	7.3
4-Chloro-3-methylphenol	0.204	0.271	0.298	0.309	0.286	0.278	0.275	0.274	12.4
2-Methylnaphthalene	0.746	0.663	0.663	0.650	0.638	0.574	0.580	0.645	9.0
Hexachlorocyclopentadiene	0.197	0.242	0.286	0.319	0.329	0.331	0.344	0.292	18.7
2,4,6-Trichlorophenol	0.308	0.358	0.372	0.384	0.360	0.366	0.371	0.360	6.8
2,4,5-Trichlorophenol	0.248	0.351	0.380	0.410	0.386	0.391	0.399	0.366	15.1
2-Chloronaphthalene	1.245	1.123	1.113	1.104	1.062	0.966	1.001	1.088	8.4
2-Nitroaniline	0.141	0.186	0.224	0.238	0.230	0.226	0.226	0.210	16.5
Acenaphthylene	1.949	1.755	1.753	1.672	1.560	1.388	1.409	1.641	12.3
Dimethylphthalate	1.452	1.300	1.320	1.280	1.237	1.164	1.190	1.278	7.5
2,6-Dinitrotoluene	0.243	0.278	0.298	0.305	0.301	0.286	0.301	0.287	7.6
Acenaphthene	1.245	1.099	1.112	1.066	1.031	0.944	0.980	1.068	9.2
3-Nitroaniline	0.267	0.272	0.292	0.275	0.245	0.218	0.206	0.254	12.6
2,4-Dinitrophenol		0.037	0.104	0.161	0.178	0.199	0.210	0.148	0.997
Dibenzofuran	1.646	1.492	1.498	1.424	1.360	1.260	1.288	1.424	9.5

<- Outside QC limits: %RSD <20% or R^2 > 0.990

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Calibration Date: 07/19/10

LAB FILE ID: RRF1 =07191002 RRF5 =07191003 RRF10 =07191004
RRF25 =07191001 RRF40 =07191005 RRF60 =07191006
RRF80 =07191007

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	___ RRF	%RSD /R^2
4-Nitrophenol	0.142	0.148	0.181	0.195	0.193	0.198	0.197	0.179	13.4
2,4-Dinitrotoluene	0.288	0.352	0.402	0.404	0.407	0.390	0.410	0.379	11.8
Fluorene	1.445	1.300	1.316	1.260	1.179	1.051	1.074	1.232	11.4
4-Chlorophenyl-phenylether	0.695	0.616	0.617	0.602	0.584	0.526	0.542	0.597	9.3
Diethylphthalate	1.573	1.368	1.412	1.318	1.268	1.138	1.176	1.322	11.2
4-Nitroaniline	0.281	0.280	0.272	0.264	0.277	0.269	0.279	0.274	2.4
4,6-Dinitro-2-methylphenol		0.088	0.125	0.148	0.148	0.157	0.160	0.138	19.7
N-Nitrosodiphenylamine (1)	0.599	0.566	0.584	0.565	0.568	0.528	0.538	0.564	4.4
4-Bromophenyl-phenylether	0.211	0.202	0.211	0.205	0.206	0.193	0.203	0.204	3.0
Hexachlorobenzene	0.242	0.210	0.214	0.205	0.204	0.191	0.200	0.209	7.6
Pentachlorophenol		0.122	0.139	0.150	0.143	0.150	0.152	0.143	7.7
Phenanthrene	1.270	1.078	1.084	1.038	0.986	0.893	0.904	1.036	12.4
Anthracene	1.269	1.107	1.124	1.074	1.022	0.908	0.916	1.060	11.9
Carbazole	1.145	1.011	0.988	0.947	0.927	0.856	0.868	0.963	10.2
Di-n-butylphthalate	1.390	1.329	1.358	1.292	1.188	1.020	1.018	1.228	12.7
Fluoranthene	1.233	1.101	1.145	1.101	1.070	0.936	0.928	1.073	10.2
Pyrene	1.549	1.324	1.302	1.293	1.196	1.087	1.126	1.268	12.1
Butylbenzylphthalate	0.632	0.627	0.692	0.672	0.651	0.605	0.625	0.643	4.7
Benzo(a)anthracene	1.400	1.207	1.241	1.176	1.116	1.016	1.050	1.172	11.0
3,3'-Dichlorobenzidine	0.369	0.402	0.423	0.399	0.376	0.344	0.342	0.379	8.1
Chrysene	1.384	1.200	1.214	1.158	1.079	0.977	1.021	1.148	12.0
bis(2-Ethylhexyl)phthalate	0.532	0.568	0.617	0.585	0.590	0.543	0.540	0.568	5.5
Di-n-octylphthalate	1.266	1.051	1.064	0.996	0.934	0.828	0.822	0.994	15.5
Benzo(b)fluoranthene	1.404	1.292	1.313	1.211	1.209	1.064	1.221	1.245	8.5
Benzo(k)fluoranthene	1.536	1.292	1.332	1.337	1.214	1.113	1.003	1.261	13.7
Benzo(a)pyrene	1.234	1.104	1.132	1.125	1.085	1.008	1.041	1.104	6.6
Indeno(1,2,3-cd)pyrene	1.109	1.079	1.195	1.245	1.261	1.177	1.234	1.186	5.9
Dibenzo(a,h)anthracene	0.819	0.863	0.968	1.027	1.038	0.954	1.003	0.953	8.8
Benzo(g,h,i)perylene	0.944	0.900	1.054	1.046	1.078	1.014	1.058	1.013	6.6
N-Nitrosodimethylamine	0.648	0.600	0.567	0.580	0.564	0.539	0.580	0.582	5.9
Aniline	1.665	1.546	1.491	1.441	1.352	1.278	1.306	1.440	9.7
Benzidine	0.424	0.436	0.415	0.347	0.331	0.311	0.302	0.366	15.5
Pyridine	0.903	0.954	1.042	1.065	1.047	0.979	1.043	1.005	6.0
1-methylnaphthalene	0.738	0.636	0.645	0.635	0.631	0.563	0.574	0.632	9.1
Azobenzene (1,2-DP-Hydrazine	1.140	1.054	1.060	0.983	0.938	0.859	0.885	0.988	10.3
2-Fluorophenol	1.164	1.124	1.011	1.142	1.057	1.032	1.054	1.083	5.5

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6C

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Calibration Date: 07/19/10

LAB FILE ID: RRF1 =07191002 RRF5 =07191003 RRF10 =07191004
RRF25 =07191001 RRF40 =07191005 RRF60 =07191006
RRF80 =07191007

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	___ RRF	%RSD /R^2
Phenol-d5	1.090	1.116	1.023	1.127	1.051	1.010	1.044	1.066	4.3
2-Chlorophenol-d4	1.216	1.180	1.088	1.188	1.117	1.088	1.130	1.144	4.4
1,2-Dichlorobenzene-d4	0.973	0.914	0.802	0.852	0.814	0.798	0.818	0.853	7.8
Nitrobenzene-d5	0.326	0.330	0.312	0.318	0.308	0.280	0.292	0.309	5.8
2-Fluorobiphenyl	1.464	1.332	1.174	1.258	1.162	1.080	1.106	1.225	11.1
2,4,6-Tribromophenol	0.113	0.142	0.141	0.156	0.149	0.145	0.155	0.143	10.1
Terphenyl-d14	0.936	0.818	0.742	0.802	0.727	0.686	0.710	0.774	11.1

<- Outside QC limits: %RSD <20% or R^2 > 0.990

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/09/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1111

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.379	1.218	0.800	AVRG	-11.7
Bis(2-Chloroethyl)ether	1.029	0.983	0.700	AVRG	-4.5
2-Chlorophenol	1.312	1.209	0.800	AVRG	-7.8
1,3-Dichlorobenzene	1.492	1.398	0.010	AVRG	-6.3
1,4-Dichlorobenzene	1.506	1.414	0.010	AVRG	-6.1
1,2-Dichlorobenzene	1.403	1.311	0.010	AVRG	-6.6
Benzyl alcohol	0.782	0.686	0.010	AVRG	-12.3
2,2'-oxybis(1-Chloropropane)	0.967	0.962	0.010	AVRG	-0.5
2-Methylphenol	1.054	0.982	0.700	AVRG	-6.8
Hexachloroethane	0.558	0.512	0.300	AVRG	-8.2
N-Nitroso-di-n-propylamine	0.721	0.647	0.500	AVRG	-10.3
4-Methylphenol	1.094	1.016	0.600	AVRG	-7.1
Nitrobenzene	0.306	0.286	0.200	AVRG	-6.5
Isophorone	0.509	0.482	0.400	AVRG	-5.3
2-Nitrophenol	0.191	0.194	0.100	AVRG	1.6
2,4-Dimethylphenol	0.341	0.317	0.200	AVRG	-7.0
Bis(2-Chloroethoxy)methane	0.354	0.350	0.300	AVRG	-1.1
2,4-Dichlorophenol	0.299	0.296	0.200	AVRG	-1.0
1,2,4-Trichlorobenzene	0.334	0.321	0.010	AVRG	-3.9
Naphthalene	0.949	0.910	0.700	AVRG	-4.1
Benzoic acid	50.00	42.94	0.010	LINR	-14.1
4-Chloroaniline	0.378	0.373	0.010	AVRG	-1.3
Hexachlorobutadiene	0.189	0.177	0.010	AVRG	-6.3
4-Chloro-3-methylphenol	0.274	0.269	0.200	AVRG	-1.8
2-Methylnaphthalene	0.645	0.612	0.400	AVRG	-5.1
Hexachlorocyclopentadiene	0.292	0.288	0.050	AVRG	-1.4
2,4,6-Trichlorophenol	0.360	0.341	0.200	AVRG	-5.3
2,4,5-Trichlorophenol	0.366	0.362	0.200	AVRG	-1.1
2-Chloronaphthalene	1.088	0.988	0.800	AVRG	-9.2
2-Nitroaniline	0.210	0.220	0.010	AVRG	4.8
Acenaphthylene	1.641	1.528	0.900	AVRG	-6.9
Dimethylphthalate	1.278	1.152	0.010	AVRG	-9.8
2,6-Dinitrotoluene	0.287	0.281	0.200	AVRG	-2.1
Acenaphthene	1.068	0.960	0.900	AVRG	-10.1
3-Nitroaniline	0.254	0.255	0.010	AVRG	0.4
2,4-Dinitrophenol	50.00	53.22	0.010	2ORDR	6.4
Dibenzofuran	1.424	1.306	0.800	AVRG	-8.3

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/09/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1111

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.179	0.130	0.010	AVRG	-27.4	<-
2,4-Dinitrotoluene	0.379	0.372	0.200	AVRG	-1.8	
Fluorene	1.232	1.156	0.900	AVRG	-6.2	
4-Chlorophenyl-phenylether	0.597	0.574	0.400	AVRG	-3.8	
Diethylphthalate	1.322	1.148	0.010	AVRG	-13.2	
4-Nitroaniline	0.274	0.265	0.010	AVRG	-3.3	
4,6-Dinitro-2-methylphenol	0.138	0.142	0.010	AVRG	2.9	
N-Nitrosodiphenylamine(1)	0.564	0.522	0.010	AVRG	-7.4	
4-Bromophenyl-phenylether	0.204	0.202	0.100	AVRG	-1.0	
Hexachlorobenzene	0.209	0.203	0.100	AVRG	-2.9	
Pentachlorophenol	0.143	0.120	0.050	AVRG	-16.1	
Phenanthrene	1.036	0.943	0.700	AVRG	-9.0	
Anthracene	1.060	0.992	0.700	AVRG	-6.4	
Carbazole	0.963	0.886	0.010	AVRG	-8.0	
Di-n-butylphthalate	1.228	1.115	0.010	AVRG	-9.2	
Fluoranthene	1.073	0.965	0.600	AVRG	-10.1	
Pyrene	1.268	1.268	0.600	AVRG	0.0	
Butylbenzylphthalate	0.643	0.607	0.010	AVRG	-5.6	
Benzo(a)anthracene	1.172	1.076	0.800	AVRG	-8.2	
3,3'-Dichlorobenzidine	0.379	0.335	0.010	AVRG	-11.6	
Chrysene	1.148	1.051	0.700	AVRG	-8.4	
bis(2-Ethylhexyl)phthalate	0.568	0.570	0.010	AVRG	0.4	
Di-n-octylphthalate	0.994	0.922	0.010	AVRG	-7.2	
Benzo(b)fluoranthene	1.245	1.048	0.700	AVRG	-15.8	
Benzo(k)fluoranthene	1.261	1.223	0.700	AVRG	-3.0	
Benzo(a)pyrene	1.104	1.024	0.700	AVRG	-7.2	
Indeno(1,2,3-cd)pyrene	1.186	1.326	0.500	AVRG	11.8	
Dibenzo(a,h)anthracene	0.953	1.090	0.400	AVRG	14.4	
Benzo(g,h,i)perylene	1.013	1.182	0.500	AVRG	16.7	
N-Nitrosodimethylamine	0.582	0.538	0.010	AVRG	-7.6	
Aniline	1.440	1.394	0.010	AVRG	-3.2	
Benzidine	0.366	0.264	0.010	AVRG	-27.9	<- NRC
Pyridine	1.005	0.952	0.010	AVRG	-5.3	
1-methylnaphthalene	0.632	0.599	0.010	AVRG	-5.2	
Azobenzene (1,2-DP-Hydrazine	0.988	0.930	0.010	AVRG	-5.9	

(1) Cannot be separated from Diphenylamine
<- Exceeds QC limit of 20% D
* RF less than minimum RF

AZ 08/10/10

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/09/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1111

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
2-Fluorophenol	1.083	1.008	0.010	AVRG	-6.9
Phenol-d5	1.066	1.027	0.010	AVRG	-3.6
2-Chlorophenol-d4	1.144	1.079	0.010	AVRG	-5.7
1,2-Dichlorobenzene-d4	0.853	0.773	0.010	AVRG	-9.4
Nitrobenzene-d5	0.309	0.307	0.010	AVRG	-0.6
2-Fluorobiphenyl	1.225	1.112	0.010	AVRG	-9.2
2,4,6-Tribromophenol	0.143	0.149	0.010	AVRG	4.2
Terphenyl-d14	0.774	0.760	0.010	AVRG	-1.8

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/10/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1202

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.379	1.206	0.800	AVRG	-12.5
Bis(2-Chloroethyl)ether	1.029	0.961	0.700	AVRG	-6.6
2-Chlorophenol	1.312	1.199	0.800	AVRG	-8.6
1,3-Dichlorobenzene	1.492	1.392	0.010	AVRG	-6.7
1,4-Dichlorobenzene	1.506	1.402	0.010	AVRG	-6.9
1,2-Dichlorobenzene	1.403	1.316	0.010	AVRG	-6.2
Benzyl alcohol	0.782	0.737	0.010	AVRG	-5.8
2,2'-oxybis(1-Chloropropane)	0.967	0.922	0.010	AVRG	-4.6
2-Methylphenol	1.054	1.004	0.700	AVRG	-4.7
Hexachloroethane	0.558	0.512	0.300	AVRG	-8.2
N-Nitroso-di-n-propylamine	0.721	0.654	0.500	AVRG	-9.3
4-Methylphenol	1.094	1.044	0.600	AVRG	-4.6
Nitrobenzene	0.306	0.287	0.200	AVRG	-6.2
Isophorone	0.509	0.481	0.400	AVRG	-5.5
2-Nitrophenol	0.191	0.197	0.100	AVRG	3.1
2,4-Dimethylphenol	0.341	0.319	0.200	AVRG	-6.4
Bis(2-Chloroethoxy)methane	0.354	0.353	0.300	AVRG	-0.3
2,4-Dichlorophenol	0.299	0.298	0.200	AVRG	-0.3
1,2,4-Trichlorobenzene	0.334	0.318	0.010	AVRG	-4.8
Naphthalene	0.949	0.898	0.700	AVRG	-5.4
Benzoic acid	50.00	41.48	0.010	LINR	-17.0
4-Chloroaniline	0.378	0.370	0.010	AVRG	-2.1
Hexachlorobutadiene	0.189	0.176	0.010	AVRG	-6.9
4-Chloro-3-methylphenol	0.274	0.280	0.200	AVRG	2.2
2-Methylnaphthalene	0.645	0.609	0.400	AVRG	-5.6
Hexachlorocyclopentadiene	0.292	0.263	0.050	AVRG	-9.9
2,4,6-Trichlorophenol	0.360	0.353	0.200	AVRG	-1.9
2,4,5-Trichlorophenol	0.366	0.363	0.200	AVRG	-0.8
2-Chloronaphthalene	1.088	0.982	0.800	AVRG	-9.7
2-Nitroaniline	0.210	0.213	0.010	AVRG	1.4
Acenaphthylene	1.641	1.538	0.900	AVRG	-6.3
Dimethylphthalate	1.278	1.103	0.010	AVRG	-13.7
2,6-Dinitrotoluene	0.287	0.276	0.200	AVRG	-3.8
Acenaphthene	1.068	0.954	0.900	AVRG	-10.7
3-Nitroaniline	0.254	0.236	0.010	AVRG	-7.1
2,4-Dinitrophenol	50.00	50.14	0.010	2ORDR	0.3
Dibenzofuran	1.424	1.301	0.800	AVRG	-8.6

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/10/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1202

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.179	0.141	0.010	AVRG	-21.2	<- NTC
2,4-Dinitrotoluene	0.379	0.368	0.200	AVRG	-2.9	
Fluorene	1.232	1.149	0.900	AVRG	-6.7	
4-Chlorophenyl-phenylether	0.597	0.550	0.400	AVRG	-7.9	
Diethylphthalate	1.322	1.092	0.010	AVRG	-17.4	
4-Nitroaniline	0.274	0.276	0.010	AVRG	0.7	
4,6-Dinitro-2-methylphenol	0.138	0.143	0.010	AVRG	3.6	
N-Nitrosodiphenylamine(1)	0.564	0.510	0.010	AVRG	-9.6	
4-Bromophenyl-phenylether	0.204	0.194	0.100	AVRG	-4.9	
Hexachlorobenzene	0.209	0.197	0.100	AVRG	-5.7	
Pentachlorophenol	0.143	0.123	0.050	AVRG	-14.0	
Phenanthrene	1.036	0.937	0.700	AVRG	-9.6	
Anthracene	1.060	0.985	0.700	AVRG	-7.1	
Carbazole	0.963	0.907	0.010	AVRG	-5.8	
Di-n-butylphthalate	1.228	1.173	0.010	AVRG	-4.5	
Fluoranthene	1.073	1.056	0.600	AVRG	-1.6	
Pyrene	1.268	1.182	0.600	AVRG	-6.8	
Butylbenzylphthalate	0.643	0.616	0.010	AVRG	-4.2	
Benzo(a)anthracene	1.172	1.070	0.800	AVRG	-8.7	
3,3'-Dichlorobenzidine	0.379	0.386	0.010	AVRG	1.8	
Chrysene	1.148	1.042	0.700	AVRG	-9.2	
bis(2-Ethylhexyl)phthalate	0.568	0.570	0.010	AVRG	0.4	
Di-n-octylphthalate	0.994	0.894	0.010	AVRG	-10.1	
Benzo(b)fluoranthene	1.245	1.149	0.700	AVRG	-7.7	
Benzo(k)fluoranthene	1.261	1.122	0.700	AVRG	-11.0	
Benzo(a)pyrene	1.104	1.029	0.700	AVRG	-6.8	
Indeno(1,2,3-cd)pyrene	1.186	1.227	0.500	AVRG	3.4	
Dibenzo(a,h)anthracene	0.953	1.013	0.400	AVRG	6.3	
Benzo(g,h,i)perylene	1.013	1.078	0.500	AVRG	6.4	
N-Nitrosodimethylamine	0.582	0.541	0.010	AVRG	-7.0	
Aniline	1.440	1.355	0.010	AVRG	-5.9	
Benzidine	0.366		0.010	AVRG	NC	*
Pyridine	1.005	0.980	0.010	AVRG	-2.5	
1-methylnaphthalene	0.632	0.599	0.010	AVRG	-5.2	
Azobenzene (1,2-DP-Hydrazine	0.988		0.010	AVRG	NC	*

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT4 Cont. Calib. Date: 08/10/10

Init. Calib. Date: 07/19/10 Cont. Calib. Time: 1202

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
2-Fluorophenol	1.083	1.029	0.010	AVRG	-5.0
Phenol-d5	1.066	1.026	0.010	AVRG	-3.8
2-Chlorophenol-d4	1.144	1.081	0.010	AVRG	-5.5
1,2-Dichlorobenzene-d4	0.853	0.774	0.010	AVRG	-9.3
Nitrobenzene-d5	0.309	0.304	0.010	AVRG	-1.6
2-Fluorobiphenyl	1.225	1.094	0.010	AVRG	-10.7
2,4,6-Tribromophenol	0.143	0.144	0.010	AVRG	0.7
Terphenyl-d14	0.774	0.720	0.010	AVRG	-7.0

<- Exceeds QC limit of 20% D
* RF less than minimum RF

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/09/10

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	356478	8.70	1293412	10.74	785897	13.63
	UPPER LIMIT	712956		2586824		1571794	
	LOWER LIMIT	178239		646706		392948	
	CCAL	495142	8.18	1699495	10.22	1046083	13.09
	UPPER LIMIT		8.68		10.72		13.59
	LOWER LIMIT		7.68		9.72		12.59
01	RF71LCSS1	575086	8.19	1938445	10.23	1214863	13.10
02	RF71LCSDS1	599994	8.18	1919526	10.23	1257498	13.10
03							
04							
05							
06							
07							
08							
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22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/09/10

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	1313990		16.03		1155293		20.38		1146289		22.58	
	UPPER LIMIT	2627980				2310586				2292578			
	LOWER LIMIT	656995				577646				573144			
	CCAL	1723172		15.47		1338566		19.79		1343563		21.96	
	UPPER LIMIT			15.97				20.29				22.46	
	LOWER LIMIT			14.97				19.29				21.46	
01	RF71LCSS1	2139857		15.48		1352005		19.80		639519		21.96	
02	RF71LCSDS1	2204767		15.48		1419042		19.80		643690		21.96	
03													
04													
05													
06													
07													
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/09/10

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1825297	21.45				
	UPPER LIMIT	3650594					
	LOWER LIMIT	912648					
	CCAL	1910241	20.92				
	UPPER LIMIT		21.42				
	LOWER LIMIT		20.42				
01	RF71LCSS1	2259308	20.93				
02	RF71LCSDS1	2479492	20.93				
03							
04							
05							
06							
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/10/10

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	356478	8.70	1293412	10.74	785897	13.63
	UPPER LIMIT	712956		2586824		1571794	
	LOWER LIMIT	178239		646706		392948	
	CCAL	502815	8.14	1763402	10.17	1106677	13.03
	UPPER LIMIT		8.64		10.67		13.53
	LOWER LIMIT		7.64		9.67		12.53
01	RF71MBS1	325905	8.14	1178349	10.17	711031	13.02
02	BW-07-SC-COM	391948	8.14	1357450	10.17	868466	13.02
03							
04							
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/10/10

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	1313990	16.03	1155293	20.38	1146289	22.58
	UPPER LIMIT	2627980		2310586		2292578	
	LOWER LIMIT	656995		577646		573144	
	CCAL	1814940	15.40	1680508	19.72	1704746	21.88
	UPPER LIMIT		15.90		20.22		22.38
	LOWER LIMIT		14.90		19.22		21.38
01	RF71MBS1	1168984	15.40	1005827	19.71	990527	21.87
02	BW-07-SC-COM	1430172	15.40	1366606	19.72	1322965	21.89
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: 07191001 Ical Date: 07/19/10

Instrument ID: NT4 Cont. Cal Date: 08/10/10

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1825297	21.45				
	UPPER LIMIT	3650594					
	LOWER LIMIT	912648					
	CCAL	2452449	20.84				
	UPPER LIMIT		21.34				
	LOWER LIMIT		20.34				
01	RF71MBS1	1516361	20.84				
02	BW-07-SC-COM	2029852	20.85				
03							
04							
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06							
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

SIM Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: BW-07-SC-COMP-100726**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized: B
Reported: 08/16/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
Event: 080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 08/06/10
Date Analyzed: 08/13/10 15:56
Instrument/Analyst: NT2/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.58 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 39.0%

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.0	< 6.0 U
106-46-7	1,4-Dichlorobenzene	6.0	< 6.0 U
120-82-1	1,2,4-Trichlorobenzene	6.0	< 6.0 U
118-74-1	Hexachlorobenzene	6.0	< 6.0 U
87-68-3	Hexachlorobutadiene	6.0	< 6.0 U
131-11-3	Dimethylphthalate	15	< 15 U
85-68-7	**Butylbenzylphthalate**	**15**	**18**
95-48-7	2-Methylphenol	6.0	< 6.0 U
105-67-9	2,4-Dimethylphenol	6.0	< 6.0 U
86-30-6	N-Nitrosodiphenylamine	8.4	< 8.4 Y
100-51-6	Benzyl Alcohol	30	< 30 U
87-86-5	Pentachlorophenol	30	< 30 U
95-50-1	1,2-Dichlorobenzene	6.0	< 6.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	84.4%	d5-Phenol	68.8%
2-Fluorophenol	71.5%	d4-2-Chlorophenol	71.5%
d4-1,2-Dichlorobenzene	67.6%	d5-Nitrobenzene	100%
2,4,6-Tribromophenol	116%	d14-p-Terphenyl	104%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Client ID	FBP	PHL	FPH	CPL	DCB	NBZ	TBP	TER	TOT OU
MB-080610	74.8%	63.2%	68.3%	66.4%	70.4%	87.2%	62.4%	104%	0
LCS-080610	79.6%	67.2%	71.2%	71.2%	71.6%	91.6%	96.0%	102%	0
LCSD-080610	80.4%	66.4%	71.5%	70.9%	71.6%	94.0%	96.0%	102%	0
BW-07-SC-COMP-100726	84.4%	68.8%	71.5%	71.5%	67.6%	100%	116%	104%	0

	LCS/MB LIMITS	QC LIMITS
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(FPH) = 2-Fluorophenol	(30-160)	(30-160)
(CPL) = d4-2-Chlorophenol	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(TER) = d14-p-Terphenyl	(30-160)	(30-160)

Prep Method: SW3550C
Log Number Range: 10-17570 to 10-17570

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-080610**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-080610
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/16/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 08/06/10

Sample Amount LCS: 16.0 g-dry-wt
LCSD: 16.0 g-dry-wt

Date Analyzed LCS: 08/13/10 14:48
LCSD: 08/13/10 15:22
Instrument/Analyst LCS: NT2/YZ
LCSD: NT2/YZ

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Dibenz(a,h)anthracene	162	156	104%	167	156	107%	3.0%
1,4-Dichlorobenzene	94.4	156	60.5%	98.1	156	62.9%	3.8%
1,2,4-Trichlorobenzene	109	156	69.9%	112	156	71.8%	2.7%
Hexachlorobenzene	116	156	74.4%	116	156	74.4%	0.0%
Hexachlorobutadiene	120	156	76.9%	123	156	78.8%	2.5%
Dimethylphthalate	131	156	84.0%	127	156	81.4%	3.1%
Butylbenzylphthalate	138	156	88.5%	138	156	88.5%	0.0%
2-Methylphenol	103	156	66.0%	98.8	156	63.3%	4.2%
2,4-Dimethylphenol	81.2	156	52.1%	80.0	156	51.3%	1.5%
N-Nitrosodiphenylamine	118	156	75.6%	124	156	79.5%	5.0%
Benzyl Alcohol	297	312	95.2%	316	312	101%	6.2%
Pentachlorophenol	95.0	156	60.9%	87.5	156	56.1%	8.2%
1,2-Dichlorobenzene	97.5	156	62.5%	100	156	64.1%	2.5%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
2-Fluorobiphenyl	79.6%	80.4%
d5-Phenol	67.2%	66.4%
2-Fluorophenol	71.2%	71.5%
d4-2-Chlorophenol	71.2%	70.9%
d4-1,2-Dichlorobenzene	71.6%	71.6%
d5-Nitrobenzene	91.6%	94.0%
2,4,6-Tribromophenol	96.0%	96.0%
d14-p-Terphenyl	102%	102%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

RF71MBS1

Lab Name: ANALYTICAL RESOURCES, INC — Client: ANCHOR QEA

ARI Job No: RF71 — Project: BAY WOOD

Lab File ID: RF71MB — Date Extracted: 08/06/10

Instrument ID: NT2 — Date Analyzed: 08/13/10

Matrix: SOLID — Time Analyzed: 1414

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	RF71LCSS1	RF71LCSS1	RF71SB	08/13/10
02	RF71LCSDS1	RF71LCSDS1	RF71SBD	08/13/10
03	BW-07-SC-COMP-10	RF71A	RF71A	08/13/10
04				
05				
06				
07				
08				
09				
10				
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-080610**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-080610
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/16/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 08/06/10
Date Analyzed: 08/13/10 14:14
Instrument/Analyst: NT2/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 16.00 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
53-70-3	Dibenz(a,h)anthracene	6.2	< 6.2 U
106-46-7	1,4-Dichlorobenzene	6.2	< 6.2 U
120-82-1	1,2,4-Trichlorobenzene	6.2	< 6.2 U
118-74-1	Hexachlorobenzene	6.2	< 6.2 U
87-68-3	Hexachlorobutadiene	6.2	< 6.2 U
131-11-3	Dimethylphthalate	16	< 16 U
85-68-7	Butylbenzylphthalate	16	< 16 U
95-48-7	2-Methylphenol	6.2	< 6.2 U
105-67-9	2,4-Dimethylphenol	6.2	< 6.2 U
86-30-6	N-Nitrosodiphenylamine	6.2	< 6.2 U
100-51-6	Benzyl Alcohol	31	< 31 U
87-86-5	Pentachlorophenol	31	< 31 U
95-50-1	1,2-Dichlorobenzene	6.2	< 6.2 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorobiphenyl	74.8%	d5-Phenol	63.2%
2-Fluorophenol	68.3%	d4-2-Chlorophenol	66.4%
d4-1,2-Dichlorobenzene	70.4%	d5-Nitrobenzene	87.2%
2,4,6-Tribromophenol	62.4%	d14-p-Terphenyl	104%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

Instrument ID: NT2 Project: BAY WOOD

DFTPP Injection Date: 08/13/10 DFTPP Injection Time: 1001

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	66.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	76.9
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	10.0 - 80.0% of mass 198	63.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	26.3
365	Greater than 1.0% of mass 198	3.08
441	0.0 - 24.0% of mass 442	10.3 (15.0)2
442	50.0 - 200.0% of mass 198	69.0
443	15.0 - 24.0% of mass 442	13.4 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0813A	IC0813A	08/13/10	1017
02		IC0813B	IC0813B	08/13/10	1051
03		IC0813C	IC0813C	08/13/10	1124
04		IC0813D	IC0813D	08/13/10	1158
05		IC0813E	IC0813E	08/13/10	1232
06		IC0813F	IC0813F	08/13/10	1306
07	RF71MBS1	RF71MBS1	RF71MB	08/13/10	1414
08	RF71LCSS1	RF71LCSS1	RF71SB	08/13/10	1448
09	RF71LCSDS1	RF71LCSDS1	RF71SBD	08/13/10	1522
10	BW-07-SC-COMP-10	RF71A	RF71A	08/13/10	1556
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT2 Calibration Date: 08/13/10

LAB FILE ID: RRF0.1=IC0813C RRF0.5=IC0813E RRF1 =IC0813F
RRF2.5=IC0813A RRF5 =IC0813D RRF10 =IC0813B

COMPOUND	RRF 0.1	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	$\overline{RRF}$	%RSD /R^2
Phenol	1.841	2.019	1.856	1.921	2.054	1.936	1.938	4.4
1,3-Dichlorobenzene	1.705	1.741	1.552	1.553	1.658	1.497	1.618	6.0
1,4-Dichlorobenzene	1.655	1.640	1.490	1.505	1.632	1.511	1.572	4.9
1,2-Dichlorobenzene	1.518	1.536	1.390	1.400	1.519	1.425	1.465	4.5
Benzyl alcohol	1.254	1.426	1.255	1.170	1.398	1.136	1.273	9.2
2-Methylphenol	1.522	1.705	1.578	1.610	1.694	1.519	1.605	5.1
N-Nitroso-di-n-propylamine	1.336	1.428	1.273	1.327	1.424	1.307	1.349	4.7
4-Methylphenol	1.320	1.352	1.238	1.304	1.341	1.299	1.309	3.1
2,4-Dimethylphenol	0.432	0.484	0.422	0.437	0.406	0.319	0.417	13.1
1,2,4-Trichlorobenzene	0.357	0.344	0.299	0.309	0.299	0.255	0.310	11.8
Hexachlorobutadiene	0.141	0.142	0.118	0.121	0.117	0.099	0.123	13.2
Dimethylphthalate	1.470	1.565	1.376	1.465	1.679	1.551	1.518	6.9
Diethylphthalate	1.404	1.591	1.468	1.528	1.684	1.575	1.542	6.4
N-Nitrosodiphenylamine (1)	0.663	0.746	0.685	0.657	0.691	0.620	0.677	6.2
Hexachlorobenzene	0.224	0.218	0.199	0.203	0.220	0.218	0.214	4.7
Pentachlorophenol	0.046	0.094	0.098	0.120	0.143	0.135	0.106	0.997
Butylbenzylphthalate	0.418	0.608	0.606	0.722	0.791	0.734	0.646	0.998
Dibenzo(a,h)anthracene	0.746	0.923	0.928	1.083	1.241	1.204	1.021	18.6
N-Nitrosodimethylamine	1.411	1.479	1.348	1.388	1.465	1.346	1.406	4.0
2-Fluorophenol		1.219	1.105	1.146	1.255	1.170	1.179	5.0
Phenol-d5		1.490	1.368	1.436	1.547	1.425	1.453	4.7
2-Chlorophenol-d4		1.091	1.029	1.070	1.184	1.088	1.092	5.2
1,2-Dichlorobenzene-d4		0.781	0.722	0.718	0.780	0.749	0.750	4.1
Nitrobenzene-d5		0.388	0.337	0.349	0.373	0.313	0.352	8.3
2-Fluorobiphenyl		1.344	1.182	1.222	1.318	1.291	1.271	5.3
2,4,6-Tribromophenol		0.052	0.044	0.049	0.064	0.068	0.055	17.9
Terphenyl-d14		0.576	0.529	0.546	0.601	0.556	0.562	5.0

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Instrument ID: NT2 Cont. Calib. Date: 08/13/10

Init. Calib. Date: 08/13/10 Cont. Calib. Time: 1017

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.938	1.921	0.800	AVRG	-0.9
1,3-Dichlorobenzene	1.618	1.553	0.010	AVRG	-4.0
1,4-Dichlorobenzene	1.572	1.505	0.010	AVRG	-4.3
1,2-Dichlorobenzene	1.465	1.400	0.010	AVRG	-4.4
Benzyl alcohol	1.273	1.170	0.010	AVRG	-8.1
2-Methylphenol	1.605	1.610	0.700	AVRG	0.3
N-Nitroso-di-n-propylamine	1.349	1.327	0.500	AVRG	-1.6
4-Methylphenol	1.309	1.304	0.600	AVRG	-0.4
2,4-Dimethylphenol	0.417	0.437	0.200	AVRG	4.8
1,2,4-Trichlorobenzene	0.310	0.309	0.010	AVRG	-0.3
Hexachlorobutadiene	0.123	0.121	0.010	AVRG	-1.6
Dimethylphthalate	1.518	1.465	0.010	AVRG	-3.5
Diethylphthalate	1.542	1.528	0.010	AVRG	-0.9
N-Nitrosodiphenylamine(1)	0.677	0.657	0.010	AVRG	-3.0
Hexachlorobenzene	0.214	0.203	0.100	AVRG	-5.1
Pentachlorophenol	12.50	11.07	0.050	2ORDR	-11.4
Butylbenzylphthalate	2.500	2.333	0.010	2ORDR	-6.7
Dibenzo(a,h)anthracene	1.021	1.083	0.400	AVRG	6.1
N-Nitrosodimethylamine	1.406	1.388	0.010	AVRG	-1.3
2-Fluorophenol	1.179	1.146	0.010	AVRG	-2.8
Phenol-d5	1.453	1.436	0.010	AVRG	-1.2
2-Chlorophenol-d4	1.092	1.070	0.010	AVRG	-2.0
1,2-Dichlorobenzene-d4	0.750	0.718	0.010	AVRG	-4.3
Nitrobenzene-d5	0.352	0.349	0.010	AVRG	-0.8
2-Fluorobiphenyl	1.271	1.222	0.010	AVRG	-3.8
2,4,6-Tribromophenol	0.055	0.049	0.010	AVRG	-10.9
Terphenyl-d14	0.562	0.546	0.010	AVRG	-2.8

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: IC0813A Ical Date: 08/13/10

Instrument ID: NT2 Cont. Cal Date: 08/13/10

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	ICAL MIDPT	138235		8.63		491469		10.65		210728		13.54	
	UPPER LIMIT	276470				982938				421456			
	LOWER LIMIT	69118				245734				105364			
	CCAL	138235		8.63		491469		10.65		210728		13.54	
	UPPER LIMIT			9.13				11.15				14.04	
	LOWER LIMIT			8.13				10.15				13.04	
01	RF71MBS1	125710		8.63		400999		10.65		190139		13.53	
02	RF71LCSS1	129044		8.63		404735		10.65		187493		13.53	
03	RF71LCSDS1	129935		8.63		404125		10.65		190648		13.54	
04	BW-07-SC-COM	121912		8.63		394421		10.65		185630		13.53	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No: RF71 Project: BAY WOOD

Ical Midpoint ID: IC0813A Ical Date: 08/13/10

Instrument ID: NT2 Cont. Cal Date: 08/13/10

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	321320		15.95		322320		20.31		256414		22.58	
	UPPER LIMIT	642640				644640				512828			
	LOWER LIMIT	160660				161160				128207			
	CCAL	321320		15.95		322320		20.31		256414		22.58	
	UPPER LIMIT			16.45				20.81				23.08	
	LOWER LIMIT			15.45				19.81				22.08	
01	RF71MBS1	279324		15.95		268147		20.31		207397		22.58	
02	RF71LCSS1	280326		15.95		291387		20.31		230705		22.58	
03	RF71LCSDS1	287721		15.95		289771		20.31		226471		22.58	
04	BW-07-SC-COM	290129		15.95		326628		20.34		206741		22.63	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

Dioxin Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project:

Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 16:46
Instrument/Analyst: AS1/VTS
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.5 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.75	0.65-0.89		0.952	8.52	
Total TCDF				0.952	141	XY
2,3,7,8-TCDD	0.79	0.65-0.89		0.952	1.96	
Total TCDD				0.952	156	Y
1,2,3,7,8-PeCDF	1.54	1.32-1.78		4.76	4.93	X
2,3,4,7,8-PeCDF	1.50	1.32-1.78		4.76	4.43	J
Total PeCDF				4.76	193	XY
1,2,3,7,8-PeCDD	1.56	1.32-1.78		4.76	5.67	
Total PeCDD				4.76	163	
1,2,3,4,7,8-HxCDF	1.24	1.05-1.43		4.76	14.9	X
1,2,3,6,7,8-HxCDF	1.22	1.05-1.43		4.76	16.7	
2,3,4,6,7,8-HxCDF	1.22	1.05-1.43		4.76	17.4	X
1,2,3,7,8,9-HxCDF	1.25	1.05-1.43		4.76	4.57	J
Total HxCDF				4.76	385	XY
1,2,3,4,7,8-HxCDD	1.34	1.05-1.43		4.76	12.3	
1,2,3,6,7,8-HxCDD	1.22	1.05-1.43		4.76	66.7	
1,2,3,7,8,9-HxCDD	1.24	1.05-1.43		4.76	37.8	
Total HxCDD				4.76	547	
1,2,3,4,6,7,8-HpCDF	1.02	0.88-1.20		4.76	291	
1,2,3,4,7,8,9-HpCDF	1.02	0.88-1.20		4.76	17.1	
Total HpCDF				4.76	682	X
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		4.76	2,570	E
Total HpCDD				4.76	4,250	
OCDF	0.87	0.76-1.02		9.52	408	
OCDD	0.91	0.76-1.02		9.52	19,500	BE

Total 2,3,7,8-TCDD Equivalence (WHO2005): 61.7

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project:

Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 16:46
Instrument/Analyst: AS1/VTS

Sample Amount: 10.5 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits
13C-2,3,7,8-TCDF	0.78	0.65-0.89	81.9	24-169
13C-2,3,7,8-TCDD	0.78	0.65-0.89	82.4	25-164
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	85.0	24-185
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	79.8	21-178
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	81.9	25-181
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	88.7	26-152
13C-1,2,3,6,7,8-HxCDF	0.53	0.43-0.59	88.2	26-123
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	86.6	28-136
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	80.8	29-147
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	90.8	32-141
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	87.2	28-130
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	88.7	28-143
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	81.9	26-138
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	99.8	23-140
13C-OCDD	0.89	0.76-1.02	102	17-157
37Cl4-2,3,7,8-TCDD			85.7	35-197

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B **Sample ID: OPR-072910**

Lab Sample ID: OPR-072910
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 15:34
Instrument/Analyst: AS1/VTS
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	RL	Result	
2,3,7,8-TCDF	0.76	0.65-0.89	1.00	27.9	
Total TCDF			1.00	45.1	
2,3,7,8-TCDD	0.74	0.65-0.89	1.00	23.3	
Total TCDD			1.00	24.4	
1,2,3,7,8-PeCDF	1.52	1.32-1.78	5.00	116	
2,3,4,7,8-PeCDF	1.55	1.32-1.78	5.00	117	
Total PeCDF			5.00	266	
1,2,3,7,8-PeCDD	1.54	1.32-1.78	5.00	117	
Total PeCDD			5.00	119	
1,2,3,4,7,8-HxCDF	1.24	1.05-1.43	5.00	115	
1,2,3,6,7,8-HxCDF	1.22	1.05-1.43	5.00	118	
2,3,4,6,7,8-HxCDF	1.22	1.05-1.43	5.00	115	
1,2,3,7,8,9-HxCDF	1.22	1.05-1.43	5.00	117	
Total HxCDF			5.00	478	
1,2,3,4,7,8-HxCDD	1.23	1.05-1.43	5.00	116	
1,2,3,6,7,8-HxCDD	1.22	1.05-1.43	5.00	117	
1,2,3,7,8,9-HxCDD	1.22	1.05-1.43	5.00	113	
Total HxCDD			5.00	347	
1,2,3,4,6,7,8-HpCDF	1.02	0.88-1.20	5.00	193	
1,2,3,4,7,8,9-HpCDF	0.99	0.88-1.20	5.00	119	
Total HpCDF			5.00	314	
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	5.00	119	
Total HpCDD			5.00	123	
OCDF	0.88	0.76-1.02	10.0	154	
OCDD	0.90	0.76-1.02	10.0	231	B

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B **Sample ID: OPR-072910**

Lab Sample ID: OPR-072910
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 15:34
Instrument/Analyst: AS1/VTS

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits
13C-2,3,7,8-TCDF	0.78	0.65-0.89	64.0	24-169
13C-2,3,7,8-TCDD	0.77	0.65-0.89	81.5	25-164
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	79.5	24-185
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	64.5	21-178
13C-1,2,3,7,8-PeCDD	1.55	1.32-1.78	85.0	25-181
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	67.5	26-152
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	81.0	26-123
13C-2,3,4,6,7,8-HxCDF	0.53	0.43-0.59	69.5	28-136
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	52.5	29-147
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	91.5	32-141
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	90.0	28-130
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	65.0	28-143
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	55.0	26-138
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	89.0	23-140
13C-OCDD	0.89	0.76-1.02	76.2	17-157
37Cl4-2,3,7,8-TCDD			91.1	35-197

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B
Page 1 of 1

Sample ID: OPR-072910

Lab Sample ID: OPR-072910
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 15:34
Instrument/Analyst: AS1/VTS

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	OPR	Spiked	Recovery	Limits
2,3,7,8-TCDF	27.9	20.0	140	30-160
2,3,7,8-TCDD	23.3	20.0	116	30-160
1,2,3,7,8-PeCDF	116	100	116	30-160
2,3,4,7,8-PeCDF	117	100	117	30-160
1,2,3,7,8-PeCDD	117	100	117	30-160
1,2,3,4,7,8-HxCDF	115	100	115	30-160
1,2,3,6,7,8-HxCDF	118	100	118	30-160
2,3,4,6,7,8-HxCDF	115	100	115	30-160
1,2,3,7,8,9-HxCDF	117	100	117	30-160
1,2,3,4,7,8-HxCDD	116	100	116	30-160
1,2,3,6,7,8-HxCDD	117	100	117	30-160
1,2,3,7,8,9-HxCDD	113	100	113	30-160
1,2,3,4,6,7,8-HpCDF	193	100	193	30-160
1,2,3,4,7,8,9-HpCDF	119	100	119	30-160
1,2,3,4,6,7,8-HpCDD	119	100	119	30-160
OCDF	154	200	77.0	30-160
OCDD	231	200	116	30-160

Reported in pg/g

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

EPA Sample No.
RF71MB

Lab Name: Analytical Resources, Inc. Contract: ANCHOR QEA

Lab Code: ARI Case No.: BAY WOOD PRODUCTS TO No.: SDG No.:

Matrix: (Soil/Water/Ash/Tissue/Oil) soil Lab Sample ID: RF71MB

Sample wt/vol: 10 g (g/ml) Lab File ID: 10080502

Water Sample Prep: (SEPF/SPE) Date Received: 07/26/10

GC Column: RTX-Dioxin2 ID: 0.25 (mm) Date Extracted: 07/29/10

Instrument ID: Autospec1 Date Analyzed: 08/05/10

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
RF71OPR	RF71OPR	10080506	08/05/10
BW-07-SC-COMP-100726	RF71A	10080507	08/05/10

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B **Sample ID: MB-072910**

Lab Sample ID: MB-072910
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 14:43
Instrument/Analyst: AS1/VTS
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF		0.65-0.89	0.0269	1.00	< 0.0269	U
Total TCDF			0.0269	1.00	< 0.0269	U
2,3,7,8-TCDD		0.65-0.89	0.0406	1.00	< 0.0406	U
Total TCDD			0.0406	1.00	< 0.0406	U
1,2,3,7,8-PeCDF		1.32-1.78	0.0283	5.00	< 0.0283	U
2,3,4,7,8-PeCDF		1.32-1.78	0.0346	5.00	< 0.0346	U
Total PeCDF			0.0346	5.00	< 0.0346	U
1,2,3,7,8-PeCDD		1.32-1.78	0.0389	5.00	< 0.0389	U
Total PeCDD			0.0389	5.00	< 0.0389	U
1,2,3,4,7,8-HxCDF		1.05-1.43	0.0355	5.00	< 0.0355	U
1,2,3,6,7,8-HxCDF		1.05-1.43	0.0284	5.00	< 0.0284	U
2,3,4,6,7,8-HxCDF		1.05-1.43	0.0345	5.00	< 0.0345	U
1,2,3,7,8,9-HxCDF		1.05-1.43	0.0540	5.00	< 0.0540	U
Total HxCDF			0.0540	5.00	< 0.0540	U
1,2,3,4,7,8-HxCDD		1.05-1.43	0.0430	5.00	< 0.0430	U
1,2,3,6,7,8-HxCDD		1.05-1.43	0.0446	5.00	< 0.0446	U
1,2,3,7,8,9-HxCDD		1.05-1.43	0.0457	5.00	< 0.0457	U
Total HxCDD			0.0457	5.00	< 0.0457	U
1,2,3,4,6,7,8-HpCDF		0.88-1.20	0.0456	5.00	< 0.0456	U
1,2,3,4,7,8,9-HpCDF		0.88-1.20	0.0761	5.00	< 0.0761	U
Total HpCDF			0.0761	5.00	< 0.0761	U
1,2,3,4,6,7,8-HpCDD		0.88-1.20	0.0644	5.00	< 0.0644	U
Total HpCDD			0.0644	5.00	< 0.0644	U
OCDF		0.76-1.02	0.0754	10.0	< 0.0754	U
OCDD	0.87	0.76-1.02		10.0	0.648	J

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins by EPA 1613B **Sample ID: MB-072910**

Lab Sample ID: MB-072910
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/12/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/29/10
Date Analyzed: 08/05/10 14:43
Instrument/Analyst: AS1/VTS

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits
13C-2,3,7,8-TCDF	0.78	0.65-0.89	67.0	24-169
13C-2,3,7,8-TCDD	0.77	0.65-0.89	84.5	25-164
13C-1,2,3,7,8-PeCDF	1.53	1.32-1.78	81.0	24-185
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	65.0	21-178
13C-1,2,3,7,8-PeCDD	1.56	1.32-1.78	84.5	25-181
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	71.5	26-152
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	85.0	26-123
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	72.0	28-136
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	53.5	29-147
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	95.5	32-141
13C-1,2,3,6,7,8-HxCDD	1.27	1.05-1.43	92.5	28-130
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	64.5	28-143
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	57.0	26-138
13C-1,2,3,4,6,7,8-HpCDD	1.07	0.88-1.20	90.5	23-140
13C-OCDD	0.89	0.76-1.02	75.0	17-157
37Cl4-2,3,7,8-TCDD			92.5	35-197

Reported in Percent Recovery

5DFA - FORM V-HR CDD-1
CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY
HIGH RESOLUTION

EPA Sample No.: CS3

Lab Name: Analytical Resources, Inc. Contract: ANCHOR QEA

Lab Code: ARI Case No.: BAY WOOD PRODUCTS TO No.: SDG No.:

GC Column: RTX-Dioxin2 ID: 0.25 (mm) Lab File ID: 10080502

Instrument ID: Autospec1 Date Analyzed: 08/05/10

Time Analyzed: 11:46

CDD/CDF	RT First Eluting	RT Last Eluting
TCDD	24.51	27.98
TCDF	23.24	28.23
PeCDD	29.75	32.86
PeCDF	28.08	33.26
HxCDD	34.95	37.63
HxCDF	34.16	38.06
HpCDD	40.73	42.04
HpCDF	40.16	42.97

5DFB - FORM V-HR CDD-2
CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
HIGH RESOLUTION

EPA Sample No.: CS3

Lab Name: Analytical Resources, Inc. Contract: ANCHOR QEA

Lab Code: ARI Case No.: BAY WOOD PRODUCTS TO No.: SDG No.:

GC Column: RTX-Dioxin2 ID: 0.25 (mm) Lab File ID: 10080502

Instrument ID: Autospec1 Date Analyzed: 08/05/10

Time Analyzed: 11:46

Percent Valley determination for RTX-DIOXIN2 (or equivalent) column -
For the column performance solution beginning 12-hour period:

1238-TCDD/2378-TCDD: 0

Quality Control (QC) Limits:

Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for RTX-DIIOXIN2 (or equivalent) column -
For the column performance solution beginning 12-hour period:

2348-TCDF/2378-TCDF: 8.4

QC Limits:

Percent Valley between the TCDD/TCDF isomers must be less than or equal to 25%

5DFB - FORM V-HR CDD-3
CDD/CDF ANALTYICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: Analytical Resources, Inc. Contract: ANCHOR QEA

Lab Code: ARI Case No.: BAY WOOD PRODUCTS TO No.: SDG No.:

GC Column: RTX-Dioxin2 ID: 0.25 (mm) Instrument ID: Autospec1

Init. Calib. Date(s): 072910 072910

Init: Calib. Times: 12:43 16:12

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples (LCS) is as follows:

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
CS3	CS3	10080502	08/05/10	11:46
RF71MB	RF71MB	10080505	08/05/10	14:43
RF71OPR	RF71OPR	10080506	08/05/10	15:34
BW-07-SC-COMP-100726	RF71A	10080507	08/05/10	16:46

RF71:00077

USEPA
6DFA - Form VI-HR CDD-1
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	
Lab Code:		Case No.:	
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CS1:	29-Jul-10	Init.Calib.Time CS1:	12:43:20
Init.Calib.Date CS2:	29-Jul-10	Init.Calib.Time CS2:	13:33:45
Init.Calib.Date CS3:	29-Jul-10	Init.Calib.Time CS3:	14:24:48
Init.Calib.Date CS4:	29-Jul-10	Init.Calib.Time CS4:	15:21:58
Init.Calib.Date CS5:	29-Jul-10	Init.Calib.Time CS5:	16:12:16

Target Analytes	RRF					Mean RRF	% RSD	QC Limits
	CS1	CS2	CS3	CS4	CS5			
2378-TCDD	1.05	1.06	1.03	1.02	1.05	1.04	1.2	20.0
2378-TCDF	0.91	0.87	0.86	0.85	0.86	0.87	2.8	20.0
12378-PeCDF	0.86	0.86	0.90	0.91	0.92	0.89	3.0	20.0
12378-PeCDD	0.98	0.95	0.96	0.97	0.98	0.97	1.3	20.0
23478-PeCDF	0.90	0.90	0.91	0.92	0.93	0.91	1.6	20.0
123478-HxCDF	1.09	1.07	1.09	1.09	1.09	1.09	0.7	20.0
123678-HxCDF	1.00	1.05	1.07	1.04	1.07	1.04	2.8	20.0
123478-HxCDD	0.97	0.95	0.97	0.98	0.97	0.97	1.1	20.0
123678-HxCDD	0.87	0.87	0.90	0.91	0.91	0.89	2.3	20.0
123789-HxCDD[2]	0.88	0.89	0.92	0.92	0.93	0.91	2.5	20.0
234678-HxCDF	1.06	1.06	1.07	1.06	1.09	1.07	1.2	20.0
123789-HxCDF	0.96	0.98	1.01	1.03	1.02	1.00	3.1	20.0
1234678-HpCDF	1.20	1.24	1.24	1.24	1.25	1.23	1.4	20.0
1234678-HpCDD	0.93	0.99	0.98	0.99	1.01	0.98	3.0	20.0
1234789-HpCDF	1.25	1.23	1.22	1.21	1.26	1.23	1.7	20.0
OCDD	0.97	0.97	0.98	1.01	0.99	0.99	1.9	20.0
OCDF[1]	1.07	1.10	1.13	1.16	1.17	1.13	3.7	20.0

(1) The RRF is calculated based on the labeled analog of OCDD.
(2) The relative response factor (RRF) is calculated based on the labeled analogs of the other two HxCDDs.

Labeled Compounds	RRF					Mean RRF	% RSD	QC Limits
	CS1	CS2	CS3	CS4	CS5			
13C-2378-TCDD	1.01	1.02	1.04	1.05	1.08	1.04	2.5	20.0
13C-12378-PeCDD	0.80	0.82	0.83	0.87	0.92	0.85	5.8	20.0
13C-123478-HxCDD	0.95	0.97	0.96	0.97	0.97	0.97	1.0	20.0
13C-123678-HxCDD	1.09	1.10	1.06	1.07	1.03	1.07	2.5	20.0
13C-1234678-HpCDD	0.82	0.79	0.80	0.81	0.80	0.81	1.6	20.0
13C-OCDD	0.85	0.78	0.79	0.81	0.85	0.81	4.0	20.0
13C-2378-TCDF	1.62	1.59	1.59	1.61	1.64	1.61	1.2	20.0
13C-12378-PeCDF	1.24	1.26	1.25	1.29	1.37	1.28	4.3	20.0
13C-23478-PeCDF	1.22	1.22	1.24	1.27	1.36	1.26	4.7	20.0
13C-123478-HxCDF	1.14	1.15	1.13	1.12	1.11	1.13	1.3	20.0
13C-123678-HxCDF	1.33	1.28	1.24	1.25	1.20	1.26	3.9	20.0
13C-234678-HxCDF	1.23	1.21	1.19	1.19	1.15	1.19	2.5	20.0
13C-123789-HxCDF	1.11	1.12	1.07	1.10	1.08	1.10	1.8	20.0
13C-1234678-HpCDF	0.97	0.94	0.92	0.93	0.91	0.93	2.6	20.0
13C-1234789-HpCDF	0.79	0.76	0.74	0.77	0.75	0.76	2.3	20.0
37CL-2378-TCDD	1.14	1.16	1.15	1.17	1.22	1.17	2.8	20.0

USEPA
6DFB - Form VI-HR CDD-2
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY

HIGH RESOLUTION

Lab Name:	ARI	Contract:	
Lab Code:		Case No.:	
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CS1:	29-Jul-10	Init.Calib.Time CS1:	12:43:20
Init.Calib.Date CS2:	29-Jul-10	Init.Calib.Time CS2:	13:33:45
Init.Calib.Date CS3:	29-Jul-10	Init.Calib.Time CS3:	14:24:48
Init.Calib.Date CS4:	29-Jul-10	Init.Calib.Time CS4:	15:21:58
Init.Calib.Date CS5:	29-Jul-10	Init.Calib.Time CS5:	16:12:16

Target Analytes	Selected Ions	Ion Abundance Ratio					Ratio Flag	Ratio QC Limits#
		CS1	CS2	CS3	CS4	CS5		
2378-TCDD	320/322	0.79	0.75	0.80	0.76	0.77		0.65 - 0.89
2378-TCDF	304/306	0.77	0.73	0.77	0.75	0.75		0.65 - 0.89
12378-PeCDF	340/342	1.60	1.51	1.55	1.54	1.53		1.32 - 1.78
12378-PeCDD	356/358	1.61	1.54	1.54	1.54	1.54		1.32 - 1.78
23478-PeCDF	340/342	1.50	1.50	1.52	1.51	1.53		1.32 - 1.78
123478-HxCDF	374/376	1.24	1.22	1.22	1.23	1.23		1.05 - 1.43
123678-HxCDF	374/376	1.30	1.21	1.24	1.23	1.23		1.05 - 1.43
123478-HxCDD	390/392	1.22	1.22	1.26	1.25	1.24		1.05 - 1.43
123678-HxCDD	390/392	1.16	1.26	1.18	1.27	1.23		1.05 - 1.43
123789-HxCDD	390/392	1.25	1.23	1.25	1.21	1.23		1.05 - 1.43
234678-HxCDF	374/376	1.22	1.27	1.22	1.22	1.22		1.05 - 1.43
123789-HxCDF	374/376	1.23	1.24	1.23	1.23	1.23		1.05 - 1.43
1234678-HpCDF	408/410	1.08	1.00	1.03	1.02	1.02		0.89 - 1.21
1234678-HpCDD	424/426	1.03	1.01	1.01	1.07	1.04		0.89 - 1.21
1234789-HpCDF	408/410	1.02	1.02	1.01	1.03	1.02		0.89 - 1.21
OCDD	458/460	0.89	0.90	0.90	0.88	0.89		0.76 - 1.02
OCDF	442/444	0.88	0.89	0.89	0.90	0.90		0.76 - 1.02

Labeled Compounds	Selected Ions	Ion Abundance Ratio					Ratio Flag	Ratio QC Limits
		CS1	CS2	CS3	CS4	CS5		
13C-2378-TCDD	332/334	0.77	0.78	0.79	0.78	0.79		0.65 - 0.89
13C-12378-PeCDD	368/370	1.55	1.54	1.56	1.57	1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1.26	1.27	1.26	1.26	1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.22	1.24	1.22	1.27	1.26		1.05 - 1.43
13C-1234678-HpCDD	436/438	1.04	1.06	1.04	1.04	1.04		0.89 - 1.21
13C-OCDD	470/472	0.90	0.88	0.88	0.89	0.90		0.76 - 1.02
13C-2378-TCDF	316/318	0.78	0.78	0.78	0.78	0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.59	1.54	1.55	1.53	1.56		1.32 - 1.78
13C-23478-PeCDF	352/354	1.55	1.54	1.57	1.55	1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	0.51	0.51	0.53	0.52	0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	0.51	0.53	0.54	0.51	0.53		0.43 - 0.59
13C-234678-HxCDF	384/386	0.52	0.51	0.52	0.52	0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	0.53	0.52	0.52	0.52	0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.45	0.43	0.46	0.44	0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.44	0.45	0.44	0.45	0.45		0.37 - 0.51

Internal Standards	Selected Ions	Ion Abundance Ratio					Ratio Flag	Ion Ratio QC Limits
		CS1	CS2	CS3	CS4	CS5		
13C-1234-TCDD	332/334	0.78	0.79	0.79	0.78	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	1.20	1.23	1.21	1.22	1.24		1.05 - 1.43

(#) Quality Control (QC) limits represent ±15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

USEPA
7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	ANCHOR QEA
Lab Code:	RF71	Case No.:	BAY WOOD PRODUCTS
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	10080402
Date Analysed	04-Aug-10	Time Analysed	09:07:53
Init.Calib.Date:	29-Jul-10	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	1.05	1.04	0.5		0.77		0.65 - 0.89
2378-TCDF	304/306	0.88	0.87	0.7		0.76		0.65 - 0.89
12378-PeCDF	340/342	0.91	0.89	2.1		1.55		1.32 - 1.78
12378-PeCDD	356/358	0.96	0.97	-0.6		1.53		1.32 - 1.78
23478-PeCDF	340/342	0.93	0.91	1.8		1.53		1.32 - 1.78
123478-HxCDF	374/376	1.08	1.09	-0.5		1.24		1.05 - 1.43
123678-HxCDF	374/376	1.07	1.04	2.4		1.23		1.05 - 1.43
123478-HxCDD	390/392	0.95	0.97	-1.5		1.24		1.05 - 1.43
123678-HxCDD	390/392	0.93	0.89	4.2		1.21		1.05 - 1.43
123789-HxCDD	390/392	0.95	0.91	4.4		1.24		1.05 - 1.43
234678-HxCDF	374/376	1.07	1.07	0.7		1.21		1.05 - 1.43
123789-HxCDF	374/376	1.01	1.00	1.0		1.22		1.05 - 1.43
1234678-HpCDF	408/410	1.26	1.23	1.7		1.01		0.89 - 1.21
1234678-HpCDD	424/426	1.00	0.98	2.2		1.03		0.89 - 1.21
1234789-HpCDF	408/410	1.25	1.23	1.5		1.02		0.89 - 1.21
OCDD	458/460	0.98	0.99	-0.1		0.90		0.76 - 1.02
OCDF	442/444	1.10	1.13	-2.4		0.89		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	1.03	1.04	-1.5		0.79		0.65 - 0.89
13C-12378-PeCDD	368/370	0.86	0.85	1.8		1.56		1.32 - 1.78
13C-123478-HxCDD	402/404	0.97	0.97	0.7		1.25		1.05 - 1.43
13C-123678-HxCDD	402/404	1.02	1.07	-4.9		1.25		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.84	0.81	3.9		1.03		0.89 - 1.21
13C-OCDD	470/472	0.84	0.81	3.1		0.88		0.76 - 1.02
13C-2378-TCDF	316/318	1.62	1.61	1.0		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.31	1.28	2.2		1.57		1.32 - 1.78
13C-23478-PeCDF	352/354	1.30	1.26	3.2		1.57		1.32 - 1.78
13C-123478-HxCDF	384/386	1.14	1.13	0.7		0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	1.22	1.26	-3.3		0.53		0.43 - 0.59
13C-234678-HxCDF	384/386	1.19	1.19	-0.1		0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	1.11	1.10	1.7		0.53		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.95	0.93	1.7		0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.80	0.76	5.2		0.45		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1.16	1.17	-0.4		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.79		0.65 - 0.89

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.24		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA
7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	ANCHOR QEA
Lab Code:	RF71	Case No.:	BAY WOOD PRODUCTS
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	10080402
Date Analysed	04-Aug-10	Time Analysed	09:07:53
Init.Calib.Date:	29-Jul-10	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	27.38
2378-TCDF	1.00	26.74
12378-PeCDF	1.00	30.88
12378-PeCDD	1.00	32.47
23478-PeCDF	1.00	32.22
123478-HxCDF	1.00	35.89
123678-HxCDF	1.00	36.03
123478-HxCDD	1.00	37.10
123678-HxCDD	1.00	37.23
123789-HxCDD	1.01	37.63
234678-HxCDF	1.00	36.97
123789-HxCDF	1.00	38.07
1234678-HpCDF	1.00	40.16
1234678-HpCDD	1.00	42.04
1234789-HpCDF	1.00	42.97
OCDD	1.00	48.18
OCDF	1.01	48.47

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	27.36
13C-12378-PeCDD	1.22	32.46
13C-123478-HxCDD	0.99	37.08
13C-123678-HxCDD	0.99	37.22
13C-1234678-HpCDD	1.12	42.02
13C-OCDD	1.28	48.16
13C-2378-TCDF	1.01	26.72
13C-12378-PeCDF	1.16	30.87
13C-23478-PeCDF	1.21	32.21
13C-123478-HxCDF	0.95	35.87
13C-123678-HxCDF	0.96	36.02
13C-234678-HxCDF	0.98	36.95
13C-123789-HxCDF	1.01	38.05
13C-1234678-HpCDF	1.07	40.15
13C-1234789-HpCDF	1.14	42.95

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	27.38

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	26.54

Internal Standards	RRT#	RT
13C-123789-HxCDD	0.00	37.62

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

RF71 : 080209

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726
SAMPLE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/13/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 08/07/10
Date Analyzed: 08/11/10 11:57
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 39.0%

CAS Number	Analyte	RL	Result
118-74-1	Hexachlorobenzene	0.97	< 0.97 U
87-68-3	Hexachlorobutadiene	0.97	< 0.97 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	89.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Client ID	DCBP	TCMX	TOT OUT
MB-080710	100%	68.5%	0
LCS-080710	92.5%	74.8%	0
LCSD-080710	90.8%	74.5%	0
BW-07-SC-COMP-100726	98.2%	89.8%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(42-110)	(42-137)
(TCMX) = Tetrachlorometaxylene	(50-124)	(40-119)

Prep Method: SW3550C
Log Number Range: 10-17570 to 10-17570

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-080710
LCS/LCSD

Lab Sample ID: LCS-080710
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/13/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted LCS/LCSD: 08/07/10

Date Analyzed LCS: 08/11/10 06:23
LCSD: 08/11/10 06:44
Instrument/Analyst LCS: ECD6/AAR
LCSD: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount LCS: 12.5 g-dry-wt
LCSD: 12.5 g-dry-wt
Final Extract Volume LCS: 2.5 mL
LCSD: 2.5 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Hexachlorobenzene	3.50	4.00	87.5%	3.24	4.00	81.0%	7.7%
Hexachlorobutadiene	2.74	4.00	68.5%	2.86	4.00	71.5%	4.3%

Pest/PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	92.5%	90.8%
Tetrachlorometaxylene	74.8%	74.5%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

RF71MBS1

Lab Name: ANALYTICAL RESOURCES, INC
Client: ANCHOR QEA

ARI Job No.: RF71
Project: BAY WOOD

Lab Sample ID: RF71MBS1
Lab File ID: 0810A033

Date Extracted: 08/07/10
Matrix: SOLID

Date Analyzed: 08/11/10
Instrument ID: ECD6

Time Analyzed: 0602
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	RF71LCSS1	RF71LCSS1	08/11/10
02	RF71LCSDS1	RF71LCSDS1	08/11/10
03	BW-07-SC-COMP-10072	RF71A	08/11/10

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: MB-080710
METHOD BLANK

Lab Sample ID: MB-080710
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/13/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 08/07/10
Date Analyzed: 08/11/10 06:02
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	RL	Result
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	68.5%

FORM I

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 07/02/10

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.14	5.24
beta-BHC	5.56	5.56	5.56	5.56	5.55	5.55	5.55	5.56	5.50	5.60
delta-BHC	5.73	5.73	5.73	5.73	5.72	5.72	5.72	5.73	5.67	5.77
gamma-BHC (Lindane)	5.48	5.48	5.48	5.48	5.48	5.48	5.48	5.48	5.43	5.53
Heptachlor	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.88	5.98
Aldrin	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.18	6.28
Heptachlor epoxide b	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.86	6.96
Endosulfan I	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.39	7.49
Dieldrin	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.75	7.85
4,4'-DDE	7.32	7.32	7.32	7.32	7.32	7.32	7.32	7.32	7.27	7.37
Endrin	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.15	8.25
Endosulfan II	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.57	8.67
4,4'-DDD	8.29	8.29	8.29	8.29	8.28	8.28	8.28	8.29	8.23	8.33
Endosulfan sulfate	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.63	10.73
4,4'-DDT	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.84	8.79	8.89
Methoxychlor	10.04	10.04	10.04	10.04	10.03	10.03	10.03	10.04	9.98	10.08
Endrin ketone	11.26	11.26	11.26	11.26	11.26	11.26	11.26	11.26	11.21	11.31
Endrin aldehyde	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.48	9.58
gamma-Chlordane	7.06	7.06	7.06	7.07	7.06	7.07	7.07	7.06	7.02	7.12
alpha-Chlordane	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.19	7.29
Hexachlorobutadiene	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.47	2.57
Hexachlorobenzene	5.05	5.05	5.05	5.04	5.04	5.04	5.04	5.04	4.99	5.09
Tetrachloro-m-xylene	4.66	4.66	4.66	4.66	4.66	4.65	4.65	4.66	4.60	4.70
Decachlorobiphenyl	12.80	12.80	12.80	12.80	12.80	12.80	12.80	12.80	12.75	12.85

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 07/02/10

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	5.28	5.28	5.28	5.28	5.27	5.27	5.27	5.28	5.22	5.32
beta-BHC	5.67	5.67	5.67	5.67	5.66	5.66	5.66	5.67	5.61	5.71
delta-BHC	5.93	5.93	5.93	5.93	5.92	5.92	5.92	5.93	5.87	5.97
gamma-BHC (Lindane)	5.59	5.59	5.59	5.59	5.59	5.59	5.58	5.59	5.54	5.63
Heptachlor	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.95	6.05
Aldrin	6.33	6.33	6.33	6.33	6.33	6.33	6.33	6.33	6.28	6.38
Heptachlor epoxide b	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.93	7.03
Endosulfan I	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.48	7.58
Dieldrin	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.91	8.01
4,4'-DDE	7.64	7.64	7.64	7.63	7.63	7.63	7.63	7.63	7.58	7.68
Endrin	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.45	8.55
Endosulfan II	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.89	8.99
4,4'-DDD	8.70	8.70	8.70	8.69	8.69	8.69	8.69	8.69	8.64	8.74
Endosulfan sulfate	10.59	10.59	10.59	10.59	10.59	10.59	10.59	10.59	10.54	10.64
4,4'-DDT	9.40	9.41	9.40	9.40	9.40	9.40	9.40	9.40	9.35	9.45
Methoxychlor	11.20	11.20	11.20	11.20	11.20	11.20	11.20	11.20	11.15	11.25
Endrin ketone	11.64	11.64	11.64	11.64	11.64	11.64	11.64	11.64	11.59	11.69
Endrin aldehyde	9.77	9.77	9.77	9.77	9.77	9.77	9.77	9.77	9.72	9.82
gamma-Chlordane	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.17	7.27
alpha-Chlordane	7.42	7.42	7.42	7.42	7.42	7.42	7.42	7.42	7.37	7.47
Hexachlorobutadiene	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.47	2.57
Hexachlorobenzene	5.16	5.16	5.16	5.16	5.15	5.15	5.15	5.16	5.10	5.20
Tetrachloro-m-xylene	4.72	4.72	4.71	4.71	4.71	4.71	4.70	4.71	4.65	4.75
Decachlorobiphenyl	13.32	13.32	13.32	13.32	13.32	13.32	13.32	13.32	13.27	13.37

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 07/02/10

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.7334	1.8510	1.8131	1.8419	1.8079	1.8762	2.0603	1.8548	5.5
beta-BHC	0.8384	0.7983	0.8146	0.8162	0.7549	0.7321	0.7810	0.7908	4.7
delta-BHC	1.5380	1.4632	1.5221	1.5827	1.6067	1.6622	1.8440	1.6027	7.7
gamma-BHC (Lindane)	1.5971	1.5400	1.5902	1.6070	1.6083	1.6422	1.8047	1.6271	5.2
Heptachlor	1.8581	1.6594	1.6852	1.6846	1.6561	1.6712	1.8057	1.7172	4.7
Aldrin	1.9305	1.5460	1.5809	1.6060	1.5709	1.5983	1.7369	1.6528	8.3
Heptachlor epoxide b	2.0926	1.7110	1.6776	1.5783	1.5482	1.5194	1.6277	1.6792	11.6
Endosulfan I	1.7600	1.6408	1.6232	1.5690	1.5286	1.5296	1.6412	1.6132	5.0
Dieldrin	1.6829	1.5896	1.6260	1.6213	1.6145	1.6137	1.7306	1.6398	3.0
4,4'-DDE	1.5425	1.4266	1.4469	1.4424	1.4594	1.4594	1.5837	1.4801	4.0
Endrin	1.0055	0.9508	0.9590	0.9573	0.9884	0.9681	0.9813	0.9729	2.0
Endosulfan II	1.0887	1.0288	1.0113	0.9925	0.9843	0.9990	1.0075	1.0160	3.5
4,4'-DDD	0.9609	0.9165	0.9126	0.9117	0.9078	0.9270	1.2707	0.9724	13.6
Endosulfan sulfate	1.1153	1.0078	0.9887	0.9662	0.9534	0.9443	0.9493	0.9893	6.1
4,4'-DDT	0.9820	0.9466	0.9374	0.9321	0.9349	0.9588	0.9943	0.9552	2.6
Methoxychlor	0.5872	0.5475	0.5341	0.5144	0.4908	0.4652	0.4516	0.5130	9.3
Endrin ketone	1.4286	1.3048	1.2795	1.2562	1.2014	1.1849	1.1700	1.2608	7.1
Endrin aldehyde	1.0163	0.9378	0.9070	0.8943	0.8536	0.8537	0.8490	0.9017	6.7
gamma-Chlordane	1.8853	1.6516	1.6266	1.5786	1.5650	1.5683	1.7045	1.6543	6.9
alpha-Chlordane	1.9763	1.7259	1.7076	1.5866	1.5280	1.5119	1.6319	1.6669	9.5
Hexachlorobutadiene	3.0712	2.6719	2.5713	2.4494	2.3508	2.3331	2.4816	2.5613	9.9
Hexachlorobenzene	1.7697	1.7166	1.6800	1.5927	1.5048	1.4648	1.5575	1.6123	7.0
Tetrachloro-m-xylene	1.2511	1.1838	1.2117	1.1942	1.1554	1.1436	1.2144	1.1934	3.1
Decachlorobiphenyl	1.2074	0.9377	0.9614	0.9007	0.8199	0.7904	0.7776	0.9136	16.2

FORM VI PEST-2

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 07/02/10

	CALIBRATION FACTORS							R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.7365	1.6878	1.6807	1.6761	1.6968	1.7246	1.8856	1.7269	4.3
beta-BHC	0.7411	0.8442	0.8056	0.7923	0.7109	0.6964	0.7442	0.7621	7.0
delta-BHC	1.3237	1.2964	1.3053	1.3243	1.4051	1.4388	1.6081	1.3860	8.1
gamma-BHC (Lindane)	1.5057	1.4790	1.4625	1.4688	1.5002	1.5240	1.6678	1.5154	4.7
Heptachlor	1.6504	1.5689	1.5950	1.6093	1.5399	1.5221	1.6140	1.5856	2.8
Aldrin	1.4553	1.4388	1.3904	1.3937	1.3892	1.3960	1.5072	1.4244	3.2
Heptachlor epoxide b	2.4834	1.7263	1.6374	1.4706	1.3755	1.3336	1.4170	1.6348	10.4
Endosulfan I	1.3733	1.3150	1.3090	1.2859	1.2436	1.2377	1.3239	1.2983	3.7
Dieldrin	1.5006	1.4307	1.4035	1.4273	1.4089	1.3995	1.4843	1.4364	2.8
4,4'-DDE	1.3212	1.2509	1.2714	1.3098	1.2963	1.2838	1.3951	1.3041	3.6
Endrin	1.2696	1.1815	1.2043	1.1710	1.1753	1.1438	1.1448	1.1843	3.6
Endosulfan II	1.3480	1.2838	1.2831	1.2627	1.2051	1.1980	1.1902	1.2530	4.6
4,4'-DDD	1.1244	1.0938	1.1076	1.0994	1.0662	1.0708	1.0884	1.0929	1.9
Endosulfan sulfate	1.4048	1.2307	1.1864	1.1234	1.0887	1.0752	1.0720	1.1687	10.3
4,4'-DDT	1.1447	1.0652	1.0835	1.0868	1.0574	1.0668	1.0929	1.0853	2.7
Methoxychlor	0.6308	0.5640	0.5525	0.5220	0.4944	0.4678	0.4533	0.5264	11.7
Endrin ketone	1.5401	1.4404	1.4460	1.4151	1.3538	1.3368	1.3150	1.4067	5.6
Endrin aldehyde	1.3982	1.1436	1.0995	1.0757	1.0055	0.9978	0.9877	1.1011	13.0
gamma-Chlordane	1.4652	1.4086	1.4306	1.3988	1.3430	1.3480	1.4540	1.4069	3.4
alpha-Chlordane	1.4822	1.4177	1.4007	1.3724	1.3203	1.3142	1.4135	1.3887	4.2
Hexachlorobutadiene	2.7142	2.4933	2.3793	2.3287	2.2867	2.2562	2.3888	2.4067	6.5
Hexachlorobenzene	1.6399	1.5444	1.4701	1.4074	1.3654	1.3220	1.4135	1.4518	7.5
Tetrachloro-m-xylene	1.1821	1.1942	1.1671	1.1407	1.1218	1.1002	1.1714	1.1539	3.0
Decachlorobiphenyl	1.1585	0.9750	0.9686	0.9116	0.8457	0.8256	0.8138	0.9284	13.0

FORM VI PEST-2

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,0315

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.18	5.14	5.24	20.6	20.0	3.0
beta-BHC	5.54	5.50	5.60	21.4	20.0	7.0
delta-BHC	5.71	5.67	5.77	19.6	20.0	-2.0
gamma-BHC (Lindane)	5.46	5.43	5.53	20.4	20.0	2.0
Heptachlor	5.91	5.88	5.98	20.5	20.0	2.3
Aldrin	6.21	6.18	6.28	19.7	20.0	-1.5
Heptachlor epoxide b	6.88	6.86	6.96	19.4	20.0	-2.9
Endosulfan I	7.41	7.39	7.49	20.4	20.0	2.0
Dieldrin	7.77	7.75	7.85	41.0	40.0	2.4
4,4'-DDE	7.29	7.27	7.37	38.5	40.0	-3.8
Endrin	8.17	8.15	8.25	42.0	40.0	5.0
Endosulfan II	8.58	8.57	8.67	40.5	40.0	1.2
4,4'-DDD	8.25	8.23	8.33	39.2	40.0	-2.0
Endosulfan sulfate	10.63	10.63	10.73	38.8	40.0	-2.9
4,4'-DDT	8.80	8.79	8.89	41.5	40.0	3.8
Methoxychlor	9.99	9.98	10.08	196.6	200.0	-1.7
Endrin ketone	11.23	11.21	11.31	39.4	40.0	-1.4
Endrin aldehyde	9.48	9.48	9.58	36.0	40.0	-10.0
gamma-Chlordane	7.04	7.02	7.12	19.8	20.0	-1.0
alpha-Chlordane	7.22	7.19	7.29	19.1	20.0	-4.6
Hexachlorobutadiene	2.51	2.47	2.57	19.2	20.0	-3.8
Hexachlorobenzene	5.03	4.99	5.09	19.8	20.0	-1.2
Tetrachloro-m-xylene	4.64	4.60	4.70	40.4	40.0	1.0
Decachlorobiphenyl	12.78	12.75	12.85	37.1	40.0	-7.2

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,0315

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.26	5.22	5.32	22.2	20.0	11.1
beta-BHC	5.65	5.61	5.71	22.0	20.0	10.2
delta-BHC	5.91	5.87	5.97	20.5	20.0	2.6
gamma-BHC (Lindane)	5.57	5.54	5.63	21.9	20.0	9.4
Heptachlor	5.99	5.95	6.05	21.7	20.0	8.6
Aldrin	6.32	6.28	6.38	21.7	20.0	8.4
Heptachlor epoxide b	6.97	6.93	7.03	21.0	20.0	4.9
Endosulfan I	7.51	7.48	7.58	22.1	20.0	10.3
Dieldrin	7.93	7.91	8.01	45.1	40.0	12.8
4,4'-DDE	7.61	7.58	7.68	43.4	40.0	8.6
Endrin	8.47	8.45	8.55	41.9	40.0	4.7
Endosulfan II	8.91	8.89	8.99	41.2	40.0	3.0
4,4'-DDD	8.66	8.64	8.74	40.1	40.0	0.4
Endosulfan sulfate	10.55	10.54	10.64	37.3	40.0	-6.8
4,4'-DDT	9.37	9.35	9.45	41.0	40.0	2.5
Methoxychlor	11.17	11.15	11.25	191.3	200.0	-4.3
Endrin ketone	11.61	11.59	11.69	40.0	40.0	0.1
Endrin aldehyde	9.74	9.72	9.82	36.2	40.0	-9.4
gamma-Chlordane	7.20	7.17	7.27	22.0	20.0	9.9
alpha-Chlordane	7.40	7.37	7.47	21.9	20.0	9.6
Hexachlorobutadiene	2.51	2.47	2.57	21.0	20.0	5.0
Hexachlorobenzene	5.14	5.10	5.20	22.3	20.0	11.4
Tetrachloro-m-xylene	4.70	4.65	4.75	44.1	40.0	10.3
Decachlorobiphenyl	13.30	13.27	13.37	42.0	40.0	4.9

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,0849

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.18	5.14	5.24	21.1	20.0	5.3
beta-BHC	5.54	5.50	5.60	21.8	20.0	8.8
delta-BHC	5.71	5.67	5.77	19.7	20.0	-1.4
gamma-BHC (Lindane)	5.46	5.43	5.53	20.6	20.0	2.9
Heptachlor	5.91	5.88	5.98	20.6	20.0	3.2
Aldrin	6.21	6.18	6.28	20.0	20.0	-0.1
Heptachlor epoxide b	6.88	6.86	6.96	19.6	20.0	-2.1
Endosulfan I	7.41	7.39	7.49	20.7	20.0	3.7
Dieldrin	7.77	7.75	7.85	41.6	40.0	4.1
4,4'-DDE	7.29	7.27	7.37	39.0	40.0	-2.5
Endrin	8.16	8.15	8.25	40.8	40.0	2.0
Endosulfan II	8.58	8.57	8.67	39.9	40.0	-0.2
4,4'-DDD	8.25	8.23	8.33	39.1	40.0	-2.2
Endosulfan sulfate	10.63	10.63	10.73	38.5	40.0	-3.7
4,4'-DDT	8.80	8.79	8.89	40.4	40.0	1.0
Methoxychlor	9.99	9.98	10.08	192.9	200.0	-3.5
Endrin ketone	11.23	11.21	11.31	39.4	40.0	-1.6
Endrin aldehyde	9.48	9.48	9.58	35.6	40.0	-10.9
gamma-Chlordane	7.04	7.02	7.12	20.1	20.0	0.4
alpha-Chlordane	7.21	7.19	7.29	19.4	20.0	-3.1
Hexachlorobutadiene	2.51	2.47	2.57	19.2	20.0	-4.2
Hexachlorobenzene	5.03	4.99	5.09	20.0	20.0	-0.1
Tetrachloro-m-xylene	4.64	4.60	4.70	41.2	40.0	2.9
Decachlorobiphenyl	12.78	12.75	12.85	37.1	40.0	-7.2

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,0849

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.26	5.22	5.32	20.4	20.0	2.0
beta-BHC	5.65	5.61	5.71	19.2	20.0	-3.8
delta-BHC	5.91	5.87	5.97	18.7	20.0	-6.7
gamma-BHC (Lindane)	5.57	5.54	5.63	20.0	20.0	0.2
Heptachlor	5.99	5.95	6.05	19.8	20.0	-0.8
Aldrin	6.32	6.28	6.38	19.9	20.0	-0.5
Heptachlor epoxide b	6.97	6.93	7.03	19.1	20.0	-4.6
Endosulfan I	7.51	7.48	7.58	20.3	20.0	1.6
Dieldrin	7.93	7.91	8.01	41.6	40.0	4.1
4,4'-DDE	7.61	7.58	7.68	40.2	40.0	0.4
Endrin	8.47	8.45	8.55	40.8	40.0	2.1
Endosulfan II	8.91	8.89	8.99	40.9	40.0	2.2
4,4'-DDD	8.66	8.64	8.74	40.2	40.0	0.5
Endosulfan sulfate	10.55	10.54	10.64	36.9	40.0	-7.6
4,4'-DDT	9.37	9.35	9.45	40.0	40.0	0.1
Methoxychlor	11.17	11.15	11.25	188.9	200.0	-5.6
Endrin ketone	11.61	11.59	11.69	40.0	40.0	-0.1
Endrin aldehyde	9.73	9.72	9.82	35.7	40.0	-10.6
gamma-Chlordane	7.20	7.17	7.27	20.5	20.0	2.4
alpha-Chlordane	7.40	7.37	7.47	20.2	20.0	1.1
Hexachlorobutadiene	2.51	2.47	2.57	19.8	20.0	-0.8
Hexachlorobenzene	5.14	5.10	5.20	20.4	20.0	2.1
Tetrachloro-m-xylene	4.70	4.65	4.75	40.7	40.0	1.8
Decachlorobiphenyl	13.30	13.27	13.37	41.4	40.0	3.6

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,1342

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.18	5.14	5.24	20.7	20.0	3.5
beta-BHC	5.54	5.50	5.60	21.3	20.0	6.5
delta-BHC	5.71	5.67	5.77	19.8	20.0	-1.0
gamma-BHC (Lindane)	5.46	5.43	5.53	20.4	20.0	2.2
Heptachlor	5.91	5.88	5.98	19.9	20.0	-0.4
Aldrin	6.21	6.18	6.28	19.7	20.0	-1.5
Heptachlor epoxide b	6.88	6.86	6.96	19.2	20.0	-3.9
Endosulfan I	7.41	7.39	7.49	20.2	20.0	0.8
Dieldrin	7.77	7.75	7.85	41.0	40.0	2.5
4,4'-DDE	7.29	7.27	7.37	38.9	40.0	-2.8
Endrin	8.16	8.15	8.25	42.1	40.0	5.1
Endosulfan II	8.58	8.57	8.67	40.7	40.0	1.6
4,4'-DDD	8.25	8.23	8.33	41.6	40.0	3.9
Endosulfan sulfate	10.63	10.63	10.73	39.4	40.0	-1.6
4,4'-DDT	8.80	8.79	8.89	38.1	40.0	-4.8
Methoxychlor	9.98	9.98	10.08	187.7	200.0	-6.2
Endrin ketone	11.23	11.21	11.31	39.3	40.0	-1.6
Endrin aldehyde	9.48	9.48	9.58	35.8	40.0	-10.6
gamma-Chlordane	7.04	7.02	7.12	19.7	20.0	-1.4
alpha-Chlordane	7.21	7.19	7.29	19.1	20.0	-4.6
Hexachlorobutadiene	2.51	2.47	2.57	19.4	20.0	-2.9
Hexachlorobenzene	5.03	4.99	5.09	19.8	20.0	-0.9
Tetrachloro-m-xylene	4.64	4.60	4.70	40.5	40.0	1.2
Decachlorobiphenyl	12.78	12.75	12.85	37.1	40.0	-7.3

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 07/02/10

Lab Ccal ID: INDAE CCAL Date/Time Analyzed: 08/11/10,1342

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	5.26	5.22	5.32	20.5	20.0	2.4
beta-BHC	5.65	5.61	5.71	19.5	20.0	-2.5
delta-BHC	5.91	5.87	5.97	19.6	20.0	-2.2
gamma-BHC (Lindane)	5.57	5.54	5.63	20.5	20.0	2.3
Heptachlor	5.99	5.95	6.05	19.5	20.0	-2.3
Aldrin	6.32	6.28	6.38	20.1	20.0	0.6
Heptachlor epoxide b	6.97	6.93	7.03	19.3	20.0	-3.7
Endosulfan I	7.51	7.48	7.58	20.5	20.0	2.7
Dieldrin	7.93	7.91	8.01	42.1	40.0	5.2
4,4'-DDE	7.61	7.58	7.68	40.7	40.0	1.9
Endrin	8.47	8.45	8.55	43.3	40.0	8.2
Endosulfan II	8.91	8.89	8.99	42.6	40.0	6.5
4,4'-DDD	8.66	8.64	8.74	44.1	40.0	10.3
Endosulfan sulfate	10.55	10.54	10.64	39.0	40.0	-2.5
4,4'-DDT	9.36	9.35	9.45	37.8	40.0	-5.5
Methoxychlor	11.17	11.15	11.25	189.6	200.0	-5.2
Endrin ketone	11.61	11.59	11.69	41.0	40.0	2.6
Endrin aldehyde	9.73	9.72	9.82	36.7	40.0	-8.2
gamma-Chlordane	7.20	7.17	7.27	20.5	20.0	2.3
alpha-Chlordane	7.40	7.37	7.47	20.4	20.0	1.9
Hexachlorobutadiene	2.51	2.47	2.57	19.5	20.0	-2.3
Hexachlorobenzene	5.14	5.10	5.20	21.2	20.0	5.9
Tetrachloro-m-xylene	4.69	4.65	4.75	41.4	40.0	3.4
Decachlorobiphenyl	13.30	13.27	13.37	41.8	40.0	4.5

FORM VII PEST-2

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 07/02/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			IS1 AREA	RT	IS2 AREA	RT
		ICAL MIDPT	2496854	3.784	3575051	12.992
		UPPER LIMIT	4993708	3.834	7150102	13.042
		LOWER LIMIT	1248427	3.734	1787526	12.942

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	07/02/10	1102	2396469	3.783	3392635	12.992
02	ZZZZZ	ZZZZZ	07/02/10	1123	2317738	3.784	3300154	12.992
03		INDAE	07/02/10	1144	2496854	3.784	3575051	12.992
04		INDAA	07/02/10	1205	2267079	3.785	3325636	12.993
05		INDAB	07/02/10	1225	2462884	3.785	3552668	12.993
06		INDAC	07/02/10	1246	2401101	3.785	3498425	12.992
07		INDAD	07/02/10	1307	2442458	3.785	3506418	12.993
08		INDAF	07/02/10	1328	2544662	3.786	3599361	12.993
09		INDAG	07/02/10	1349	2224485	3.786	3348032	12.992
10	ZZZZZ	ZZZZZ	07/02/10	1410	2277652	3.787	3223132	12.993
11	ZZZZZ	ZZZZZ	07/02/10	1431	2263611	3.787	3266442	12.993
12	ZZZZZ	ZZZZZ	07/02/10	1451	2217754	3.787	3273033	12.993
13	ZZZZZ	ZZZZZ	07/02/10	1512	2367601	3.788	3274302	12.994
14	ZZZZZ	ZZZZZ	07/02/10	1533	2371443	3.788	3259557	12.993
15		DS	08/11/10	0254	2068167	3.771	2965890	12.970
16		INDAE CCAL	08/11/10	0315	2336766	3.771	3301821	12.969
17		TOXAPH 2500	08/11/10	0335	2233272	3.772	3153210	12.970
18		WNDE CCAL	08/11/10	0356	2253029	3.772	3188811	12.970
19	RF71MBS1	RF71MBS1	08/11/10	0602	2563105	3.769	3246727	12.969
20	RF71LCSS1	RF71LCSS1	08/11/10	0623	2477597	3.770	3483816	12.968
21	RF71LCSDS1	RF71LCSDS1	08/11/10	0644	2624920	3.770	3573124	12.968
22		DS	08/11/10	0828	2197252	3.772	3175894	12.969
23		INDAE CCAL	08/11/10	0849	2404565	3.771	3481859	12.968
24		TOXAPH 2500	08/11/10	0910	2430825	3.772	3350908	12.969
25		WNDE CCAL	08/11/10	0931	2504900	3.772	3366719	12.969
26	BW-07-SC-COM	RF71A	08/11/10	1157	2363195	3.765	3037916	12.968
27		DS	08/11/10	1321	2308588	3.769	3302452	12.968
28		INDAE CCAL	08/11/10	1342	2552216	3.769	3590293	12.968
29		TOXAPH 2500	08/11/10	1403	2401597	3.769	3429393	12.968
30		WNDE CCAL	08/11/10	1424	2479254	3.770	3487928	12.969

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAY WOOD

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 07/02/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	1542232	3.753	1636073	13.909
	UPPER LIMIT	3084464	3.803	3272146	13.959
	LOWER LIMIT	771116	3.703	818036	13.859

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	07/02/10	1102	1431847	3.751	1492966	13.909
02	ZZZZZ	ZZZZZ	07/02/10	1123	1426501	3.753	1506576	13.909
03		INDAE	07/02/10	1144	1542232	3.753	1636073	13.909
04		INDAA	07/02/10	1205	1420639	3.755	1497785	13.909
05		INDAB	07/02/10	1225	1507299	3.755	1625837	13.910
06		INDAC	07/02/10	1246	1525737	3.755	1590658	13.909
07		INDAD	07/02/10	1307	1535771	3.757	1602926	13.910
08		INDAF	07/02/10	1328	1571351	3.758	1652382	13.910
09		INDAG	07/02/10	1349	1380177	3.760	1538035	13.909
10	ZZZZZ	ZZZZZ	07/02/10	1410	1472460	3.762	1507330	13.910
11	ZZZZZ	ZZZZZ	07/02/10	1431	1482179	3.761	1544898	13.910
12	ZZZZZ	ZZZZZ	07/02/10	1451	1464987	3.762	1549705	13.909
13	ZZZZZ	ZZZZZ	07/02/10	1512	1488021	3.763	1553650	13.911
14	ZZZZZ	ZZZZZ	07/02/10	1533	1481718	3.763	1550689	13.910
15		DS	08/11/10	0254	1353396	3.749	1399836	13.886
16		INDAE CCAL	08/11/10	0315	1385361	3.748	1556568	13.885
17		TOXAPH 2500	08/11/10	0335	1412386	3.750	1447412	13.886
18		WNDE CCAL	08/11/10	0356	1482662	3.751	1521838	13.886
19	RF71MBS1	RF71MBS1	08/11/10	0602	1337701	3.743	1462390	13.884
20	RF71LCSS1	RF71LCSS1	08/11/10	0623	1363133	3.743	1549692	13.885
21	RF71LCSDS1	RF71LCSDS1	08/11/10	0644	1427902	3.745	1613852	13.884
22		DS	08/11/10	0828	1411449	3.750	1458733	13.885
23		INDAE CCAL	08/11/10	0849	1523673	3.749	1587975	13.885
24		TOXAPH 2500	08/11/10	0910	1425153	3.750	1486399	13.885
25		WNDE CCAL	08/11/10	0931	1479269	3.752	1538191	13.886
26	BW-07-SC-COM	RF71A	08/11/10	1157	1204468	3.733	1289852	13.884
27		DS	08/11/10	1321	1418460	3.743	1394574	13.885
28		INDAE CCAL	08/11/10	1342	1500812	3.742	1513427	13.884
29		TOXAPH 2500	08/11/10	1403	1431406	3.744	1437314	13.884
30		WNDE CCAL	08/11/10	1424	1495234	3.745	1510297	13.885

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

PCB Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: BW-07-SC-COMP-100726
SAMPLE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/11/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted: 08/07/10
Date Analyzed: 08/10/10 15:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: No

Percent Moisture: 39.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.9%
Tetrachlorometaxylene	96.0%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-080710	112%	48-118	91.5%	43-108	0
LCS-080710	108%	48-118	93.2%	43-108	0
LCSD-080710	109%	48-118	101%	43-108	0
BW-07-SC-COMP-100726	95.9%	33-143	96.0%	35-119	0

Low Level PSDDA Control Limits
Prep Method: SW3550C
Log Number Range: 10-17570 to 10-17570

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-080710
LCS/LCSD

Lab Sample ID: LCS-080710
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/11/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 08/07/10
Date Analyzed LCS: 08/10/10 15:20
LCSD: 08/10/10 15:39
Instrument/Analyst LCS: ECD5/JGR
LCSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount LCS: 12.5 g-dry-wt
LCSD: 12.5 g-dry-wt
Final Extract Volume LCS: 2.5 mL
LCSD: 2.5 mL
Dilution Factor LCS: 5.00
LCSD: 5.00
Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	117	101	116%	128	101	127%	9.0%
Aroclor 1260	115	101	114%	114	101	113%	0.9%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	108%	109%
Tetrachlorometaxylene	93.2%	101%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

PCB METHOD BLANK SUMMARY

BLANK NO.

RF71MBS1

Lab Name: ANALYTICAL RESOURCES, INC
Client: ANCHOR QEA

ARI Job No.: RF71
Project: BAY WOOD

Lab Sample ID: RF71MBS1
Lab File ID: 0810B017

Date Extracted: 08/07/10
Matrix: SOLID

Date Analyzed: 08/10/10
Instrument ID: ECD5

Time Analyzed: 1502
GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	RF71LCSS1	RF71LCSS1	08/10/10
02	RF71LCSDS1	RF71LCSDS1	08/10/10
03	BW-07-SC-COMP-10072	RF71A	08/10/10

ALL RUNS ARE DUAL COLUMN

RF71 : 00106

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: MB-080710
METHOD BLANK

Lab Sample ID: MB-080710
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/11/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Date Extracted: 08/07/10
Date Analyzed: 08/10/10 15:02
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	112%
Tetrachlorometaxylene	91.5%

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 08/06/10

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	3.47- 3.67	1.6440	1.7394	1.7578	1.6226	1.5642	1.4663	1.6324	6.7
DCB	11.65-11.85	1.8649	1.7860	1.6895	1.5435	1.4449	1.3379	1.6111	12.7

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	4.97- 5.17	0.0406	0.0412	0.0414	0.0383	0.0368	0.0338	0.0387	7.8
2	5.39- 5.59	0.1343	0.1377	0.1370	0.1239	0.1180	0.1075	0.1264	9.6
3	5.55- 5.75	0.0562	0.0573	0.0567	0.0514	0.0489	0.0446	0.0525	9.7
4	5.66- 5.86	0.0374	0.0385	0.0384	0.0357	0.0348	0.0323	0.0362	6.6

AROCLOR AVERAGE %RSD = 8.4

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	8.86- 9.06	0.0714	0.0739	0.0731	0.0670	0.0619	0.0575	0.0675	9.8
2	9.17- 9.37	0.0677	0.0701	0.0694	0.0637	0.0589	0.0547	0.0641	9.7
3	9.53- 9.73	0.1781	0.1785	0.1747	0.1579	0.1436	0.1311	0.1606	12.4
4	9.92-10.12	0.0832	0.0858	0.0855	0.0796	0.0743	0.0697	0.0797	8.2
5	10.11-10.31	0.0464	0.0487	0.0488	0.0458	0.0435	0.0414	0.0458	6.3

AROCLOR AVERAGE %RSD = 9.3

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 08/06/10

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	3.60- 3.80	1.1002	1.1746	1.1877	1.1320	1.1009	1.0374	1.1221	4.9
DCB	12.18-12.38	1.4939	1.5237	1.5219	1.4521	1.3831	1.3576	1.4554	4.9

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	5.25- 5.45	0.0446	0.0452	0.0452	0.0414	0.0393	0.0356	0.0419	9.3
2	5.89- 6.09	0.0953	0.0972	0.0967	0.0890	0.0852	0.0781	0.0902	8.4
3	6.11- 6.31	0.0376	0.0383	0.0386	0.0360	0.0348	0.0323	0.0362	6.7
4	7.39- 7.59	0.0194	0.0170	0.0177	0.0165	0.0158	0.0146	0.0168	9.8

AROCLOR AVERAGE %RSD = 8.5

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	9.30- 9.50	0.0877	0.0839	0.0822	0.0763	0.0711	0.0684	0.0783	9.7
2	10.00-10.20	0.1953	0.1903	0.1883	0.1745	0.1589	0.1587	0.1776	9.1
3	10.58-10.78	0.1453	0.1270	0.1206	0.1110	0.1018	0.0996	0.1175	14.6
4	11.29-11.49	0.0546	0.0517	0.0503	0.0510	0.0465	0.0448	0.0498	7.2

AROCLOR AVERAGE %RSD = 10.2

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 08/07/10

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	3.867	3.77- 3.97	0.01618
2	4.022	3.92- 4.12	0.01170
3	4.114	4.01- 4.21	0.03751

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	5.073	4.97- 5.17	0.01709
2	5.493	5.39- 5.59	0.05525
3	5.649	5.55- 5.75	0.02297
4	7.145	7.05- 7.25	0.01752

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	5.075	4.97- 5.17	0.02965
2	5.494	5.39- 5.59	0.09675
3	5.650	5.55- 5.75	0.04013
4	7.142	7.04- 7.24	0.03470

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.004	5.90- 6.10	0.04295
2	6.309	6.21- 6.41	0.04933
3	6.854	6.75- 6.95	0.05815
4	7.142	7.04- 7.24	0.05535

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 08/07/10

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	6.917	6.82- 7.02	0.06507
2	7.223	7.12- 7.32	0.09088
3	7.590	7.49- 7.69	0.06111
4	7.725	7.62- 7.82	0.11326
5	8.421	8.32- 8.52	0.07997

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	8.963	8.86- 9.06	0.09054
2	9.272	9.17- 9.37	0.07475
3	9.635	9.53- 9.73	0.16404
4	10.138	10.04-10.24	0.08101
5	10.211	10.11-10.31	0.08144

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	10.139	10.04-10.24	0.19958
2	10.208	10.11-10.31	0.20870
3	10.586	10.49-10.69	0.15263
4	11.353	11.25-11.45	0.32396

RF71:00111

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 08/07/10

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.289	4.19- 4.39	0.01224
2	4.522	4.42- 4.62	0.00737
3	4.633	4.53- 4.73	0.02301
4	5.243	5.14- 5.34	0.00221

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	5.351	5.25- 5.45	0.02001
2	5.995	5.90- 6.10	0.03976
3	6.209	6.11- 6.31	0.01583
4	7.770	7.67- 7.87	0.01454

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	5.347	5.25- 5.45	0.03182
2	5.993	5.89- 6.09	0.06818
3	6.207	6.11- 6.31	0.02750
4	7.767	7.67- 7.87	0.02898

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.481	6.38- 6.58	0.03231
2	6.900	6.80- 7.00	0.03750
3	7.422	7.32- 7.52	0.03739
4	7.768	7.67- 7.87	0.04834

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 08/07/10

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	7.486	7.39- 7.59	0.03792
2	7.649	7.55- 7.75	0.05198
3	8.170	8.07- 8.27	0.03910
4	8.316	8.22- 8.42	0.08583
5	9.083	8.98- 9.18	0.05229

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	9.400	9.30- 9.50	0.10409
2	9.846	9.75- 9.95	0.08605
3	10.616	10.52-10.72	0.09387
4	11.266	11.17-11.37	0.03564
5	11.396	11.30-11.50	0.07180

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	10.617	10.52-10.72	0.22011
2	10.683	10.58-10.78	0.21095
3	11.073	10.97-11.17	0.15431
4	11.876	11.78-11.98	0.39830

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1321

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.07	4.97	5.17	249.5	250.0	-0.2
Aroclor-1016-2	5.49	5.39	5.59	250.4	250.0	0.1
Aroclor-1016-3	5.65	5.55	5.75	242.5	250.0	-3.0
Aroclor-1016-4	5.76	5.66	5.86	245.1	250.0	-2.0

AVERAGE %D = 1.3

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1321

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.96	8.86	9.06	286.9	250.0	14.7
Aroclor-1260-2	9.27	9.17	9.37	284.3	250.0	13.7
Aroclor-1260-3	9.63	9.53	9.73	279.8	250.0	11.9
Aroclor-1260-4	10.02	9.92	10.12	279.2	250.0	11.7
Aroclor-1260-5	10.21	10.11	10.31	271.8	250.0	8.7

AVERAGE %D = 12.1

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1321

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.35	5.25	5.45	258.3	250.0	3.3
Aroclor-1016-2	5.99	5.89	6.09	247.2	250.0	-1.1
Aroclor-1016-3	6.21	6.11	6.31	274.1	250.0	9.6
Aroclor-1016-4	7.49	7.39	7.59	299.1	250.0	19.6

AVERAGE %D = 8.4

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1321

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.40	9.30	9.50	299.6	250.0	19.8
Aroclor-1260-2	10.10	10.00	10.20	228.5	250.0	-8.6
Aroclor-1260-3	10.68	10.58	10.78	237.3	250.0	-5.1
Aroclor-1260-4	11.39	11.29	11.49	304.0	250.0	21.6

AVERAGE %D = 13.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1254 Time Analyzed :1418

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	6.92	6.82	7.02	246.6	250.0	-1.3
Aroclor-1254-2	7.22	7.12	7.32	240.6	250.0	-3.8
Aroclor-1254-3	7.59	7.49	7.69	249.7	250.0	-0.1
Aroclor-1254-4	7.72	7.62	7.82	245.7	250.0	-1.7
Aroclor-1254-5	8.42	8.32	8.52	246.9	250.0	-1.2

AVERAGE %D = 1.6

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1254 Time Analyzed :1418

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	7.49	7.39	7.59	250.3	250.0	0.1
Aroclor-1254-2	7.65	7.55	7.75	251.6	250.0	0.6
Aroclor-1254-3	8.17	8.07	8.27	234.5	250.0	-6.2
Aroclor-1254-4	8.32	8.22	8.42	252.6	250.0	1.0
Aroclor-1254-5	9.08	8.98	9.18	258.8	250.0	3.5

AVERAGE %D = 2.3

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1248 Time Analyzed :1848

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.00	5.90	6.10	214.3	250.0	-14.3
Aroclor-1248-2	6.31	6.21	6.41	214.0	250.0	-14.4
Aroclor-1248-3	6.85	6.75	6.95	215.4	250.0	-13.8
Aroclor-1248-4	7.14	7.04	7.24	200.3	250.0	-19.9

AVERAGE %D = 15.6

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1248 Time Analyzed :1848

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1248-1	6.48	6.38	6.58	253.4	250.0	1.3	
Aroclor-1248-2	6.90	6.80	7.00	213.1	250.0	-14.8	
Aroclor-1248-3	7.42	7.32	7.52	162.3	250.0	-35.1	<-
Aroclor-1248-4	7.77	7.67	7.87	258.5	250.0	3.4	

AVERAGE %D = 13.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	5.07	4.97	5.17	217.5	250.0	-13.0
Aroclor-1016-2	5.49	5.39	5.59	217.0	250.0	-13.2
Aroclor-1016-3	5.65	5.55	5.75	214.1	250.0	-14.4
Aroclor-1016-4	5.76	5.66	5.86	218.1	250.0	-12.8

AVERAGE %D = 13.4

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	8.96	8.86	9.06	248.9	250.0	-0.4
Aroclor-1260-2	9.27	9.17	9.37	249.5	250.0	-0.2
Aroclor-1260-3	9.63	9.53	9.73	244.2	250.0	-2.3
Aroclor-1260-4	10.03	9.92	10.12	246.8	250.0	-1.3
Aroclor-1260-5	10.21	10.11	10.31	245.7	250.0	-1.7

AVERAGE %D = 1.2

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 08/06/10

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1016-1	5.35	5.25	5.45	254.9	250.0	2.0	
Aroclor-1016-2	5.99	5.89	6.09	247.9	250.0	-0.8	
Aroclor-1016-3	6.21	6.11	6.31	256.1	250.0	2.4	
Aroclor-1016-4	7.49	7.39	7.59	258.4	250.0	3.4	

AVERAGE %D = 2.1

Date Analyzed :08/10/10

Lab Standard ID: AR1660 Time Analyzed :1906

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1260-1	9.40	9.30	9.50	263.2	250.0	5.3	
Aroclor-1260-2	10.10	10.00	10.20	179.4	250.0	-28.2	<-
Aroclor-1260-3	10.68	10.58	10.78	190.7	250.0	-23.7	
Aroclor-1260-4	11.39	11.29	11.49	292.2	250.0	16.9	

AVERAGE %D = 18.5

FORM VII PCB

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 08/06/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	35593381	1.848	47117515	12.108
				UPPER LIMIT	71186762	1.948	94235030	12.208
				LOWER LIMIT	17796690	1.748	23558758	12.008
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		IB	08/06/10	1941	33549860	1.848	44356597	12.108
02		0.25 PPM AR1	08/06/10	2000	35593381	1.848	47117515	12.108
03		0.02 PPM AR1	08/06/10	2019	37590841	1.849	50107749	12.108
04		0.05 PPM AR1	08/06/10	2038	35726905	1.849	47519315	12.109
05		1 PPM AR1660	08/06/10	2057	33253678	1.849	44774484	12.107
06		0.1 PPM AR16	08/06/10	2116	35141749	1.849	47140759	12.108
07		0.5 PPM AR16	08/06/10	2134	34587004	1.850	47430994	12.107
08		AR1242	08/06/10	2153	35718835	1.849	47789405	12.109
09		AR1248	08/06/10	2212	34395757	1.849	46337936	12.109
10		AR1254	08/06/10	2231	36144916	1.849	48369151	12.107
11		AR2162	08/06/10	2250	36623012	1.849	49019768	12.109
12		AR3268	08/06/10	2309	36991230	1.849	49510025	12.108
13	ZZZZZ	ZZZZZ	08/06/10	2327	35509859	1.849	48273989	12.109
14	ZZZZZ	ZZZZZ	08/06/10	2346	35036961	1.850	47717699	12.109
15	ZZZZZ	ZZZZZ	08/07/10	0005	35360490	1.849	47947336	12.109
16	ZZZZZ	ZZZZZ	08/07/10	0024	36063755	1.850	48709115	12.109
17	ZZZZZ	ZZZZZ	08/07/10	0043	36149092	1.850	48445781	12.109
18	ZZZZZ	ZZZZZ	08/07/10	0102	35163396	1.849	47742140	12.108
19		AR1660	08/10/10	1321	29573405	1.851	32840711	12.106
20		AR1254	08/10/10	1418	32243677	1.850	37035415	12.104
21	RF71MBS1	RF71MBS1	08/10/10	1502	27619743	1.852	32022651	12.112
22	RF71LCSS1	RF71LCSS1	08/10/10	1520	27459814	1.853	31164399	12.107
23	RF71LCSDS1	RF71LCSDS1	08/10/10	1539	30417825	1.852	33574918	12.107
24	BW-07-SC-COM	RF71A	08/10/10	1558	30567273	1.851	27076989	12.105
25		AR1248	08/10/10	1848	39251315	1.849	41818457	12.106
26		AR1660	08/10/10	1906	36497240	1.850	41135412	12.107

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

ARI Job No.: RF71 Project: BAYWOOD

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 08/06/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	78348017	2.307	74720444	13.146
	UPPER LIMIT	156696034	2.407	149440888	13.246
	LOWER LIMIT	39174008	2.207	37360222	13.046

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		IB	08/06/10	1941	74585490	2.308	70050323	13.146
02		0.25 PPM AR1	08/06/10	2000	78348017	2.307	74720444	13.146
03		0.02 PPM AR1	08/06/10	2019	82366281	2.308	79367368	13.146
04		0.05 PPM AR1	08/06/10	2038	78986970	2.308	75022105	13.146
05		1 PPM AR1660	08/06/10	2057	75185802	2.308	71292288	13.147
06		0.1 PPM AR16	08/06/10	2116	77718764	2.308	74425032	13.146
07		0.5 PPM AR16	08/06/10	2134	76403985	2.310	75166143	13.146
08		AR1242	08/06/10	2153	79434556	2.308	75855933	13.146
09		AR1248	08/06/10	2212	76584766	2.308	73271800	13.146
10		AR1254	08/06/10	2231	79711981	2.308	76212356	13.147
11		AR2162	08/06/10	2250	79106786	2.309	77942538	13.145
12		AR3268	08/06/10	2309	80131218	2.308	78897126	13.145
13	ZZZZZ	ZZZZZ	08/06/10	2327	78722582	2.307	75876177	13.146
14	ZZZZZ	ZZZZZ	08/06/10	2346	77335565	2.309	74784196	13.146
15	ZZZZZ	ZZZZZ	08/07/10	0005	78770500	2.308	75254592	13.147
16	ZZZZZ	ZZZZZ	08/07/10	0024	79372394	2.309	76516966	13.146
17	ZZZZZ	ZZZZZ	08/07/10	0043	77663595	2.309	76844655	13.147
18	ZZZZZ	ZZZZZ	08/07/10	0102	75528729	2.308	75678756	13.146
19		AR1660	08/10/10	1321	70088187	2.309	53052610	13.145
20		AR1254	08/10/10	1418	75962352	2.308	60585635	13.144
21	RF71MBS1	RF71MBS1	08/10/10	1502	62202505	2.300	48163311	13.143
22	RF71LCSS1	RF71LCSS1	08/10/10	1520	58452101	2.310	47608014	13.145
23	RF71LCSDS1	RF71LCSDS1	08/10/10	1539	60515264	2.310	50232192	13.145
24	BW-07-SC-COM	RF71A	08/10/10	1558	56071292	2.308	43828875	13.144
25		AR1248	08/10/10	1848	76856661	2.307	63415891	13.145
26		AR1660	08/10/10	1906	71467364	2.308	60996901	13.145

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

RF71:00123

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: RF71

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Data Release Authorized:
Reported: 08/04/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-073010	Method Blank	07/30/10	08/03/10	1.00	Diesel	5.0	< 5.0 U
10-17570	HC ID: ---		FID3B	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		107%
RF71A	BW-07-SC-COMP-100726	07/30/10	08/03/10	1.00	**Diesel**	**8.1**	**19**
10-17570	HC ID: **DRO/MOTOR OIL**		FID3B	1.0	**Motor Oil**	**16**	**63**
					o-Terphenyl		87.7%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

FORM I

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01

Client ID	OTER	TOT OUT
MB-073010	107%	0
LCS-073010	98.8%	0
LCSD-073010	95.6%	0
BW-07-SC-COMP-1007	87.7%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(63-115)	(49-120)

Prep Method: SW3546
Log Number Range: 10-17570 to 10-17570

FORM-II TPHD

RF71:00126

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-073010**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-073010
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/04/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Date Extracted LCS/LCSD: 07/30/10

Date Analyzed LCS: 08/03/10 19:58
LCSD: 08/03/10 20:17
Instrument/Analyst LCS: FID/MS
LCSD: FID/MS

Sample Amount LCS: 10.0 g
LCSD: 10.0 g
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	128	150	85.3%	120	150	80.0%	6.5%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	98.8%	95.6%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Sediment
Date Received: 07/26/10

ARI Job: RF71
Project: Bay Wood
080547-01

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-17570-073010MB1	Method Blank	10.0 g	1.00 mL	-	07/30/10
10-17570-073010LCS1	Lab Control	10.0 g	1.00 mL	-	07/30/10
10-17570-073010LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	07/30/10
10-17570-RF71A	BW-07-SC-COMP-100726	20.20 g	1.00 mL	D	07/30/10
10-17570-RF71AMS	BW-07-SC-COMP-100726	19.19 g	1.00 mL	D	07/30/10
10-17570-RF71AMSD	BW-07-SC-COMP-100726	28.28 g	1.00 mL	D	07/30/10

Basis: D=Dry Weight W=As Received

Diesel Extraction Report

TPH METHOD BLANK SUMMARY

BLANK NO.

RF71MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: RF71 Project No.: BAY WOOD

Date Extracted: 07/30/10 Matrix: SOLID

Date Analyzed : 08/03/10 Instrument ID : FID3B

Time Analyzed : 1939

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	RF71LCSS1	RF71LCSS1	08/03/10
02	RF71LCSDS1	RF71LCSDS1	08/03/10
03	BW-07-SC-COM	RF71A	08/03/10

FORM IV TPH

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID3B.I Project: BAY WOOD

Calibration Date: 30-JUL-2010 SDG No.: RF71

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	22218	21170	21958	21565	21008	20465	21398	3.0
AK Diesel	25279	23959	24625	24161	23624	22975	24104	3.3
OR Diesel	25497	24108	24785	24317	23782	23134	24271	3.4
o-Terph	19592	19395	20002	19771	20130	20713	19934	2.3

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.468-5.603)
AK Diesel C10-C25 (2.858-5.764)
OR Diesel C10-C28 (2.858-6.244)

Calibration Files	Analysis Time
0730b018.d	30-JUL-2010 20:23
0730b019.d	30-JUL-2010 20:42
0730b020.d	30-JUL-2010 21:01
0730b021.d	30-JUL-2010 21:20
0730b022.d	30-JUL-2010 21:39
0730b023.d	30-JUL-2010 21:58

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID3B.I Project: BAY WOOD

Calibration Date: 31-JUL-2010 SDG No.: RF71

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	12620	11767	11795	11887	11681	12739	12081	3.9
Triac Surr	14850	15844	16922	17487	16823	18431	16726	7.5

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0730b025.d	30-JUL-2010 22:36
0730b026.d	30-JUL-2010 22:55
0730b027.d	30-JUL-2010 23:14
0730b028.d	30-JUL-2010 23:32
0730b030.d	31-JUL-2010 00:10
0730b032.d	31-JUL-2010 00:47

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

ICal Date: 30-JUL-2010 Project: BAY WOOD

CCal Date: 03-AUG-2010 SDG No.: RF71

Analysis Time: 13:54 Lab ID: DIESEL#1

Instrument: FID3B.I Lab File Name: 0803b005.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	5350102	250.0	250	0.0
AK102 (C10-C25)	6009160	249.3	250	-0.3
Terphenyl	875303	43.9	45	-2.4

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

RF71:00132

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: ANCHOR QEA

ICal Date: 30-JUL-2010
Project: BAY WOOD

CCal Date: 03-AUG-2010
SDG No.: RF71

Analysis Time: 14:13
Lab ID: MOIL#1

Instrument: FID3B.I
Lab File Name: 0803b006.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	5917772	489.8	500	-2.0
AK103 (C25-C36)	5129029	574.2	500	14.8
n-Triacontane	746693	44.6	45	-0.8

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

RF71:00133

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

ICal Date: 30-JUL-2010 Project: BAY WOOD

CCal Date: 04-AUG-2010 SDG No.: RF71

Analysis Time: 00:25 Lab ID: DIESEL#2

Instrument: FID3B.I Lab File Name: 0803b023.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	5366897	250.8	250	0.3
AK102 (C10-C25)	6075997	252.1	250	0.8
Terphenyl	910141	45.7	45	1.5

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

ICal Date: 30-JUL-2010 Project: BAY WOOD

CCal Date: 04-AUG-2010 SDG No.: RF71

Analysis Time: 00:44 Lab ID: MOIL#2

Instrument: FID3B.I Lab File Name: 0803b024.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	6031207	499.2	500	-0.2
AK103 (C25-C36)	5212674	583.6	500	16.7
n-Triacontane	792091	47.4	45	5.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

RF71:00135

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: RF71 Project: BAY WOOD

Instrument ID: FID3B GC Column: RTX-1

Run Date: 07/31/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.76 TRIAC: 6.56

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RT	07/30/10	1944	4.76	6.56
02		IB	07/30/10	2004	4.76	6.56
03		DIESEL 50	07/30/10	2023	4.76	6.56
04		DIESEL 100	07/30/10	2042	4.76	6.56
05		DIESEL 250	07/30/10	2101	4.76	6.55
06		DIESEL 500	07/30/10	2120	4.77	6.56
07		DIESEL 1000	07/30/10	2139	4.77	6.56
08		DIESEL 2500	07/30/10	2158	4.79	6.56
09		DIESEL ICV	07/30/10	2217	4.76	6.56
10		MOIL 100	07/30/10	2236	4.77	6.56
11		MOIL 250	07/30/10	2255	4.76	6.56
12		MOIL 500	07/30/10	2314	4.76	6.56
13		MOIL 1000	07/30/10	2332	4.76	6.57
14		RINSE	07/30/10	2351	4.76	6.56
15		MOIL 2500	07/31/10	0010	4.76	6.58
16		RINSE	07/31/10	0028	4.76	6.56
17		MOIL 5000	07/31/10	0047	4.76	6.60
18		RINSE	07/31/10	0106	4.76	6.56
19		MOIL ICV	07/31/10	0125	4.76	6.56

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: ANCHOR QEA

SDG No.: RF71 Project: BAY WOOD

Instrument ID: FID3B GC Column: RTX-1

Run Date: 08/03/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.76 TRIAC: 6.56

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	08/03/10	1237	4.76	6.56
02	ZZZZZ	ZZZZZ	08/03/10	1256	4.76	6.56
03	RT	RT	08/03/10	1315	4.76	6.56
04	IB	IB	08/03/10	1334	4.76	6.56
05	BAY WOOD	DIESEL#1	08/03/10	1354	4.76	6.56
06	BAY WOOD	MOIL#1	08/03/10	1413	4.76	6.56
07	ZZZZZ	ZZZZZ	08/03/10	1920	4.76	6.56
08	RF71MBS1	RF71MBS1	08/03/10	1939	4.76	6.56
09	RF71LCSS1	RF71LCSS1	08/03/10	1958	4.76	6.56
10	RF71LCSDS1	RF71LCSDS1	08/03/10	2017	4.76	6.56
11	BW-07-SC-COM	RF71A	08/03/10	2036	4.76	6.56
12	ZZZZZ	ZZZZZ	08/03/10	2056	4.76	6.56
13	ZZZZZ	ZZZZZ	08/03/10	2115	4.76	6.56
14	ZZZZZ	ZZZZZ	08/03/10	2134	4.76	6.56
15	ZZZZZ	ZZZZZ	08/03/10	2153	4.76	6.56
16	ZZZZZ	ZZZZZ	08/03/10	2212	4.76	6.56
17	ZZZZZ	ZZZZZ	08/03/10	2231	4.76	6.56
18	ZZZZZ	ZZZZZ	08/03/10	2251	4.76	6.56
19	ZZZZZ	ZZZZZ	08/03/10	2310	4.76	6.56
20	ZZZZZ	ZZZZZ	08/03/10	2329	4.76	6.56
21	ZZZZZ	ZZZZZ	08/03/10	2348	4.76	6.56
22	ZZZZZ	ZZZZZ	08/04/10	0006	4.76	6.56
23	BAY WOOD	DIESEL#2	08/04/10	0025	4.76	6.56
24	BAY WOOD	MOIL#2	08/04/10	0044	4.76	6.56

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

Metals Analysis
Report and Summary QC Forms

ARI Job ID: RF71

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BW-07-SC-COMP-1007	RF71A	10-17570	
BW-07-SC-COMP-1007D	RF71ADUP	10-17570	
BW-07-SC-COMP-1007S	RF71ASPK	10-17570	
PBS	RF71MB1	10-17570	
LCSS	RF71MB1SPK	10-17570	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 10/10/10 Title: Inorganic Manager

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726
SAMPLE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/09/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Percent Total Solids: 60.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/28/10	6010B	08/06/10	7440-36-0	Antimony	8	8	U
3050B	07/28/10	6010B	08/06/10	**7440-38-2**	**Arsenic**	8	**9**	
3050B	07/28/10	6010B	08/06/10	**7440-43-9**	**Cadmium**	0.3	**0.9**	
3050B	07/28/10	6010B	08/06/10	**7440-47-3**	**Chromium**	0.8	**45.9**	
3050B	07/28/10	6010B	08/06/10	**7440-50-8**	**Copper**	0.3	**56.0**	
3050B	07/28/10	6010B	08/06/10	**7439-92-1**	**Lead**	3	**25**	
CLP	07/28/10	7471A	07/29/10	**7439-97-6**	**Mercury**	0.03	**0.13**	
3050B	07/28/10	6010B	08/06/10	**7440-02-0**	**Nickel**	2	**47**	
3050B	07/28/10	6010B	08/06/10	7440-22-4	Silver	0.5	0.5	U
3050B	07/28/10	6010B	08/06/10	**7440-66-6**	**Zinc**	2	**102**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726
DUPLICATE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/09/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	8 U	8 U	0.0%	+/- 8	L
Arsenic	6010B	9	9	0.0%	+/- 8	L
Cadmium	6010B	0.9	0.7	25.0%	+/- 0.3	L
Chromium	6010B	45.9	42.8	7.0%	+/- 20%	
Copper	6010B	56.0	53.7	4.2%	+/- 20%	
Lead	6010B	25	23	8.3%	+/- 20%	
Mercury	7471A	0.13	0.13	0.0%	+/- 0.03	L
Nickel	6010B	47	45	4.3%	+/- 20%	
Silver	6010B	0.5 U	0.5 U	0.0%	+/- 0.5	L
Zinc	6010B	102	98	4.0%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: BW-07-SC-COMP-100726
MATRIX SPIKE

Lab Sample ID: RF71A
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/09/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	6010B	8 U	64	321	19.9%	N
Arsenic	6010B	9	343	321	104%	
Cadmium	6010B	0.9	85.4	80.4	105%	
Chromium	6010B	45.9	123	80.4	95.9%	
Copper	6010B	56.0	137	80.4	101%	
Lead	6010B	25	349	321	101%	
Mercury	7471A	0.13	0.49	0.345	104%	
Nickel	6010B	47	123	80.4	94.5%	
Silver	6010B	0.5 U	81.5	80.4	101%	
Zinc	6010B	102	182	80.4	99.5%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: RF71MB
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/09/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/28/10	6010B	08/06/10	7440-36-0	Antimony	5	5	U
3050B	07/28/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	07/28/10	6010B	08/06/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	07/28/10	6010B	08/06/10	7440-47-3	Chromium	0.5	0.5	U
3050B	07/28/10	6010B	08/06/10	7440-50-8	Copper	0.2	0.2	U
3050B	07/28/10	6010B	08/06/10	7439-92-1	Lead	2	2	U
CLP	07/28/10	7471A	07/29/10	7439-97-6	Mercury	0.02	0.02	U
3050B	07/28/10	6010B	08/06/10	7440-02-0	Nickel	1	1	U
3050B	07/28/10	6010B	08/06/10	7440-22-4	Silver	0.3	0.3	U
3050B	07/28/10	6010B	08/06/10	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: RF71LCS
LIMS ID: 10-17570
Matrix: Sediment
Data Release Authorized:
Reported: 08/09/10

QC Report No: RF71-Anchor QEA
Project: Bay Wood
080547-01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	220	200	110%	
Arsenic	6010B	216	200	108%	
Cadmium	6010B	53.4	50.0	107%	
Chromium	6010B	50.2	50.0	100%	
Copper	6010B	50.6	50.0	101%	
Lead	6010B	209	200	104%	
Mercury	7471A	0.50	0.50	100%	
Nickel	6010B	52	50	104%	
Silver	6010B	54.7	50.0	109%	
Zinc	6010B	53	50	106%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

UNITS: ug/L

SDG: RF71

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	ICP	IP080672	2000.0	2082.07	104.1	2000.0	2116.06	105.8	2117.15	105.9	2137.99	106.9	2145.35	107.3	2167.29	108.4
Arsenic	AS	ICP	IP080672	2000.0	2028.54	101.4	2000.0	2067.67	103.4	2068.32	103.4	2095.14	104.8	2102.32	105.1	2132.58	106.6
Cadmium	CD	ICP	IP080672	1000.0	1038.86	103.9	1000.0	1049.88	105.0	1069.32	106.9	1053.45	105.3	1043.49	104.3	1066.50	106.7
Chromium	CR	ICP	IP080672	1000.0	1050.98	105.1	1000.0	1099.54	110.0	1112.24	111.2	990.32	99.0	990.81	99.1	999.38	99.9
Copper	CU	ICP	IP080672	1000.0	1035.07	103.5	1000.0	1044.21	104.4	1049.35	104.9	1045.91	104.6	1043.24	104.3	1053.88	105.4
Lead	PB	ICP	IP080672	2000.0	2018.87	100.9	2000.0	2057.24	102.9	2058.28	102.9	2087.41	104.4	2086.28	104.3	2118.92	105.9
Mercury	HG	CVA	HG072901	8.0	7.84	98.0	4.0	4.04	101.0	4.02	100.5	4.12	103.0				
Nickel	NI	ICP	IP080672	1000.0	1011.23	101.1	1000.0	1054.67	105.5	1061.70	106.2	1033.86	103.4	1033.05	103.3	1042.11	104.2
Silver	AG	ICP	IP080672	1000.0	1034.77	103.5	1000.0	1046.01	104.6	1048.95	104.9	1055.29	105.5	1049.80	105.0	1059.90	106.0
Zinc	ZN	ICP	IP080672	1000.0	991.50	99.2	1000.0	1040.51	104.1	1056.54	105.7	1033.49	103.3	1031.82	103.2	1043.76	104.4

Control Limits: Mercury 80-120; Other Metals 90-110

RF71:00145

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

UNITS: ug/L

SDG: RF71

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	ICP	IP080672	50.0	52.69	**105.4**										
Arsenic	AS	ICP	IP080672	50.0	50.76	**101.5**										
Cadmium	CD	ICP	IP080672	2.0	2.05	**102.5**										
Chromium	CR	ICP	IP080672	5.0	5.96	**119.2**										
Copper	CU	ICP	IP080672	2.0	1.42	**71.0**										
Lead	PB	ICP	IP080672	20.0	19.58	**97.9**										
Mercury	HG	CVA	HG072901	0.1	0.11	**110.0**										
Nickel	NI	ICP	IP080672	10.0	12.90	**129.0**										
Silver	AG	ICP	IP080672	3.0	3.15	**105.0**										
Zinc	ZN	ICP	IP080672	10.0	8.34	**83.4**										

Control Limits: no control limits have been established by the EPA at this time.

RF71:00146

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	ICP	IP080672	60.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Arsenic	AS	ICP	IP080672	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Cadmium	CD	ICP	IP080672	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chromium	CR	ICP	IP080672	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	CU	ICP	IP080672	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	ICP	IP080672	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U
Mercury	HG	CVA	HG072901	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Nickel	NI	ICP	IP080672	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Silver	AG	ICP	IP080672	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Zinc	ZN	ICP	IP080672	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

RF71:00147

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71

ICS SOURCE: I.V.

RUNID: IP080672

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	202056.2	205902.2	**103.0**						
Antimony		1000	25.6	1048.4	**104.8**						
Arsenic		1000	8.8	1017.9	**101.8**						
Barium		1000	1.6	1023.1	**102.3**						
Beryllium		1000	0.0	1003.6	**100.4**						
Boron			-5.9	-9.7							
Cadmium		1000	2.1	1054.6	**105.5**						
Calcium	100000	100000	100660.2	102199.6	**102.2**						
Chromium		1000	1.6	1039.0	**103.9**						
Cobalt		1000	-0.6	969.9	**97.0**						
Copper		1000	-1.5	1040.9	**104.1**						
Iron	200000	200000	196856.6	199851.6	**99.9**						
Lead		1000	-9.4	959.2	**95.9**						
Magnesium	100000	100000	99472.7	100801.5	**100.8**						
Manganese		1000	1.0	973.4	**97.3**						
Molybdenum			4.4	3.9							
Nickel		1000	2.2	962.7	**96.3**						
Potassium			13.3	-49.0							
Selenium		1000	45.7	1066.1	**106.6**						
Silicon			-18.0	-20.2							
Silver		1000	-1.0	1025.5	**102.6**						
Sodium			8.3	21.4							
Strontium			3.6	3.7							
Thallium		1000	10.2	974.0	**97.4**						
Tin			-10.3	-9.7							
Titanium			1.1	1.6							
Vanadium		1000	2.6	987.8	**98.8**						
Zinc		1000	-9.8	951.3	**95.1**						

RF71:00148

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

ANALYSIS METHOD: ICP

SDG: RF71

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	BW-07-SC-COMP-1007	RF71APOST	IP080672	4139.21		100.00	U	4000	Sediment	**103.5**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	ICP	OPTIMA ICP 2	206.84		60	50.0	4/1/2010	30000.0	6/25/2010
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2010	30000.0	6/25/2010
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2010	20000.0	6/25/2010
Chromium	CR	ICP	OPTIMA ICP 2	267.72		10	5.0	4/1/2010	100000.0	6/25/2010
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2010	40000.0	6/25/2010
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2010	300000.0	6/25/2010
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2010		
Nickel	NI	ICP	OPTIMA ICP 2	231.60		40	10.0	4/1/2010	100000.0	6/25/2010
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2010	5000.0	6/25/2010
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2010	100000.0	6/25/2010

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

IEC DATE: 6/25/2010

SDG: RF71

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.6345000	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0302010	0.0000000	-0.9445380	1.0514100	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0087705	0.0000000	-0.1163000	0.0000000	0.0000000	0.0917961
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	3.3930900	0.0000000	0.0000000	0.0000000	0.0000000	0.1261800	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5291320	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0194491	0.0000000	-0.0579845	0.0000000	0.0000000	-0.0470434
Cobalt	228.62	0.0000000	0.0000000	0.1846310	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0124726
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2841270	-0.0424887	0.0000000	-0.0717000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.1693720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.9714800	1.2740100	0.0700135
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1319490	0.0000000	-1.9410900	-0.9247460	0.0000000	0.5007690
Manganese	257.61	0.0067696	0.0000000	0.0000000	0.0000000	0.0023349	0.0000000	0.0000000	0.0000000	0.0000000	-0.0051882
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0173285	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0679605	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5126200	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	-5.9937200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	2.3133900	0.3288770	0.0000000	-0.1504990
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0462590	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0623399	0.0000000	0.0000000	0.1821360	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.1559900	0.0000000	0.1070520
Zinc	206.20	0.0279274	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3041290	0.0000000	0.0000000

ATL 4 6954

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

IEC DATE: 6/25/2010

SDG: RF71

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	10.5279000	0.0000000	0.0000000	0.0000000	2.3617300	0.0000000	18.6686000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3653530	0.0000000	0.0000000	-1.2842400	0.0000000	-3.1614700	0.0000000
Arsenic	188.98	0.0000000	0.0000000	1.5685300	0.0000000	0.0000000	0.0000000	-18.0910000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1042590	0.0000000	0.0000000	0.0000000	0.0000000	0.5343320	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0111651	0.0000000	0.5182900	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.6501870	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.1304500	0.0000000	0.1655120	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2567570	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1920370	0.1791340	0.0000000	0.0000000	1.6866300	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0228258	0.0000000	0.7071800	0.0000000	0.0000000	0.0000000	0.3708110	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.3092800	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.3219480	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-3.4563100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2309750	0.0000000	0.0000000	0.0000000	-0.0245610	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7107260	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.1962650	0.1355340	0.0000000	0.0000000	0.0000000	-0.0347846	0.0000000	-0.2306430	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	275.8690000	0.0000000	0.0000000	238.7330000
Thallium	190.80	0.0000000	-0.9583370	-3.2391700	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.5566700	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6349390	-0.4579360	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.2012000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1525300	-0.7369790	0.0000000	0.0000000	0.0000000	0.5819800	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2610670	0.0000000	-0.0597607	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

RF71.0152

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 7/28/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BW-07-SC-COMP-1007	RF71A	1.026	0.0	50.0
BW-07-SC-COMP-1007D	RF71ADUP	1.025	0.0	50.0
BW-07-SC-COMP-1007S	RF71ASPK	1.025	0.0	50.0
PBS	RF71MB1	1.000	0.0	50.0
LCSS	RF71MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood

SDG: RF71

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 7/28/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BW-07-SC-COMP-1007	RF71A	0.241	0.0	50.0
BW-07-SC-COMP-1007D	RF71ADUP	0.245	0.0	50.0
BW-07-SC-COMP-1007S	RF71ASPK	0.239	0.0	50.0
PBS	RF71MB1	0.200	0.0	50.0
LCSW	RF71MB1SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/6/2010

SDG: RF71 | RUNID: IP080672 | METHOD: ICP | END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09161		X		X					X		X	X								X	X	X								X
S2	S2	1.00	09202									X		X	X																		
S3	S3	1.00	09222		X		X																X	X									X
S4	S4	1.00	09245																						X								
S5	S5	1.00	09270																														
ICV	ICV	1.00	09295		X		X					X		X	X								X	X	X								X
ICB	ICB	1.00	09340		X		X					X		X	X								X	X	X								X
CRI	CRII	1.00	09380		X		X					X		X	X								X	X	X								X
ICSA	ICSAI	1.00	09421		X		X					X		X	X								X	X	X								X
ICSAB	ICSABI	1.00	09462		X		X					X		X	X								X	X	X								X
CCV	CCV1	1.00	09500		X		X					X		X	X								X	X	X								X
CCB	CCB1	1.00	09542		X		X					X		X	X								X	X	X								X
PBS	RF71MB1	2.00	09581																														
ZZZZZZ	RG11MB1	2.00	10022																														
ZZZZZZ	RG11A	2.00	10063																														
BW-07-SC-COMP-1007D	RF71ADUP	2.00	10102																														
BW-07-SC-COMP-1007	RF71A	2.00	10141																														
BW-07-SC-COMP-1007S	RF71ASPK	2.00	10181																														
BW-07-SC-COMP-1007A	RF71APOST	2.00	10215																						X								
LCSS	RF71MB1SPK	2.00	10254																														
ZZZZZZ	RG11MB1SPK	2.00	10295																														
ZZZZZZ	RG11MB1SPD	2.00	10340																														
CCV	CCV2	1.00	10381		X		X					X		X	X								X	X	X								X
CCB	CCB2	1.00	10422		X		X					X		X	X								X	X	X								X
S2	S2	1.00	10484									X		X	X																		
S5	S5	1.00	10503																														
CCV	CCV3	1.00	10534		X		X					X		X	X								X	X	X								X
CCB	CCB3	1.00	10575		X		X					X		X	X								X	X	X								X
ZZZZZZ	RG30MB1	1.00	11020																														
ZZZZZZ	RG30F	1.00	11060																														
ZZZZZZ	RG30G	1.00	11101																														
ZZZZZZ	RG30H	1.00	11142																														
ZZZZZZ	RG30ADUP	1.00	11183																														
ZZZZZZ	RG30A	1.00	11225																														
ZZZZZZ	RG30ASPK	1.00	11270																														

FORM XIV

RF71.69155

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/6/2010

SDG: RF71 | RUNID: IP080672 | METHOD: ICP | END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	RG30MB1SPK	1.00	11311																														
CCV	CCV4	1.00	11352		X		X					X		X	X								X	X	X								X
CCB	CCB4	1.00	11393		X		X					X		X	X								X	X	X								X
PBS	RF71MB1	2.00	11433		X		X					X		X	X								X	X	X								X
ZZZZZZ	RG11MB1	2.00	11474																														
ZZZZZZ	RG11A	5.00	11514																														
BW-07-SC-COMP-1007D	RF71ADUP	2.00	11554		X		X					X		X	X								X	X	X								X
BW-07-SC-COMP-1007	RF71A	2.00	11593		X		X					X		X	X								X	X	X								X
BW-07-SC-COMP-1007S	RF71ASPK	2.00	12033		X		X					X		X	X								X	X	X								X
ZZZZZZ	ZZZZZZ	2.00	12071																														
LCSS	RF71MB1SPK	2.00	12111		X		X					X		X	X								X	X	X								X
ZZZZZZ	RG11MB1SPK	2.00	12152																														
ZZZZZZ	RG11MB1SPD	2.00	12193																														
CCV	CCV5	1.00	12234		X		X					X		X	X								X	X	X								X
CCB	CCB5	1.00	12275		X		X					X		X	X								X	X	X								X

RF71 : 00156

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: Bay Wood | INSTRUMENT ID: CETAC MERCURY | START DATE: 7/29/2010

SDG: RF71 | RUNID: HG072901 | METHOD: CVA | END DATE: 7/29/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10313														X																
S0.1	S0.1	1.00	10330														X																
S0.5	S0.5	1.00	10344														X																
S1	S1	1.00	10361														X																
S2	S2	1.00	10375														X																
S5	S5	1.00	10393														X																
S10	S10	1.00	10411														X																
ICV	AICV	1.00	11261														X																
ICB	ICB	1.00	11274														X																
CCV	ACCV1	1.00	11292														X																
CCB	CCB1	1.00	11310														X																
CRA	CRA	1.00	11324														X																
ZZZZZZ	RF99MB1	1.00	11341																														
ZZZZZZ	RF99MB1SPK	1.00	11355																														
ZZZZZZ	RF99A	1.00	11372																														
ZZZZZZ	RF99ADUP	1.00	11390																														
ZZZZZZ	RF99ASPK	1.00	11404																														
ZZZZZZ	RF99B	1.00	11422																														
PBW	RF71MB1	1.00	11435														X																
LCSW	RF71MB1SPK	1.00	11453														X																
BW-07-SC-COMP-1007	RF71A	1.00	11471														X																
CCV	ACCV2	1.00	11485														X																
CCB	CCB2	1.00	11503														X																
BW-07-SC-COMP-1007D	RF71ADUP	1.00	11521														X																
BW-07-SC-COMP-1007S	RF71ASPK	1.00	11534														X																
ZZZZZZ	RG01MB1	1.00	11552																														
ZZZZZZ	RG01MB1SPK	1.00	11565																														
ZZZZZZ	RG01D	1.00	11583																														
ZZZZZZ	RG01DDUP	1.00	12000																														
ZZZZZZ	RG01DSPK	1.00	12014																														
ZZZZZZ	RG01E	1.00	12032																														
ZZZZZZ	RF82MB1	1.00	12050																														
ZZZZZZ	RF82MB1SPK	1.00	12063																														
CCV	ACCV3	1.00	12081														X																
CCB	CCB3	1.00	12095														X																

RF71.0157

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: RF71

SAMPLE RESULTS-CONVENTIONALS
RF71-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 08/05/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Client ID: BW-07-SC-COMP-100726
ARI ID: 10-17570 RF71A

Analyte	Date	Method	Units	RL	Sample
Total Solids	07/28/10 072810#1	EPA 160.3	Percent	0.01	61.30
Total Organic Carbon	08/03/10 080310#1	Plumb,1981	Percent	0.020	4.09

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
RF71-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 08/05/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	07/28/10	Percent	< 0.01 U
Total Organic Carbon	08/03/10	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
RF71-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 08/05/10

Project: Bay Wood
Event: 080547-01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	08/03/10	Percent	3.42	3.35	102.1%

REPLICATE RESULTS-CONVENTIONALS
RF71-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 08/05/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: RF71A Client ID: BW-07-SC-COMP-100726					
Total Solids	07/28/10	Percent	61.30	60.80 60.60	0.6%
Total Organic Carbon	08/03/10	Percent	4.09	3.41 3.93	9.3%

MS/MSD RESULTS-CONVENTIONALS
RF71-Anchor QEA

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 08/05/10

Project: Bay Wood
Event: 080547-01
Date Sampled: 07/26/10
Date Received: 07/26/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: RF71A Client ID: BW-07-SC-COMP-100726						
Total Organic Carbon	08/03/10	Percent	4.09	9.31	5.21	100.2%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: RF71

Anchor QEA
080547-01
Bay Wood

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
QV79S	100.0	100.0	99.8	99.3	98.5	97.2	96.3	95.9	94.1	81.5	58.9	41.3	28.9	20.4
	100.0	100.0	99.8	99.1	98.3	96.9	96.1	95.8	93.1	80.2	59.1	41.7	29.0	20.5
	100.0	100.0	99.9	99.2	98.3	96.9	96.1	95.7	94.0	81.1	59.5	41.9	28.9	20.8
BW-07-SC-COMP-100726	100.0	97.2	93.4	89.4	83.0	74.5	69.5	64.9	54.8	35.2	21.2	13.9	9.5	6.4

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

RF71:00165

Anchor QEA
080547-01
Bay Wood

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
QV79S	0.2	0.5	0.8	1.3	0.9	0.4	1.8	12.6	22.7	17.5	12.4	8.5	20.4	95.9
	0.2	0.6	0.8	1.4	0.8	0.3	2.7	12.9	21.1	17.4	12.6	8.5	20.5	95.8
	0.1	0.7	0.9	1.3	0.8	0.4	1.7	12.9	21.7	17.5	13.0	8.1	20.8	95.7
BW-07-SC-COMP-100726	6.6	4.0	6.4	8.5	5.0	4.6	10.1	19.6	14.1	7.3	4.4	3.1	6.4	64.9

Notes to the Testing:
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

RF71

RF_080547

QA SUMMARY

Client:	Anchor QEA	Client Project No.:	080547-01
		Client Project:	Bay Wood
ARI Trip. Sample ID:	QV79S	Batch No.:	RF71-1
		Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
QV79S	100.0	100.0	99.8	99.3	98.5	97.2	96.3	95.9	94.1	81.5	58.9	41.3	28.9	20.4
	100.0	100.0	99.8	99.1	98.3	96.9	96.1	95.8	93.1	80.2	59.1	41.7	29.0	20.5
	100.0	100.0	99.9	99.2	98.3	96.9	96.1	95.7	94.0	81.1	59.5	41.9	28.9	20.8
AVE	NA	100.00	99.82	99.19	98.36	97.03	96.17	95.81	93.74	80.96	59.14	41.64	28.95	20.57
STDEV	NA	0.00	0.05	0.08	0.13	0.15	0.13	0.09	0.58	0.69	0.31	0.31	0.08	0.18
%RSD	NA	0.00	0.05	0.08	0.13	0.15	0.13	0.10	0.61	0.85	0.52	0.75	0.29	0.88

The Triplicate Applies To The Following Samples

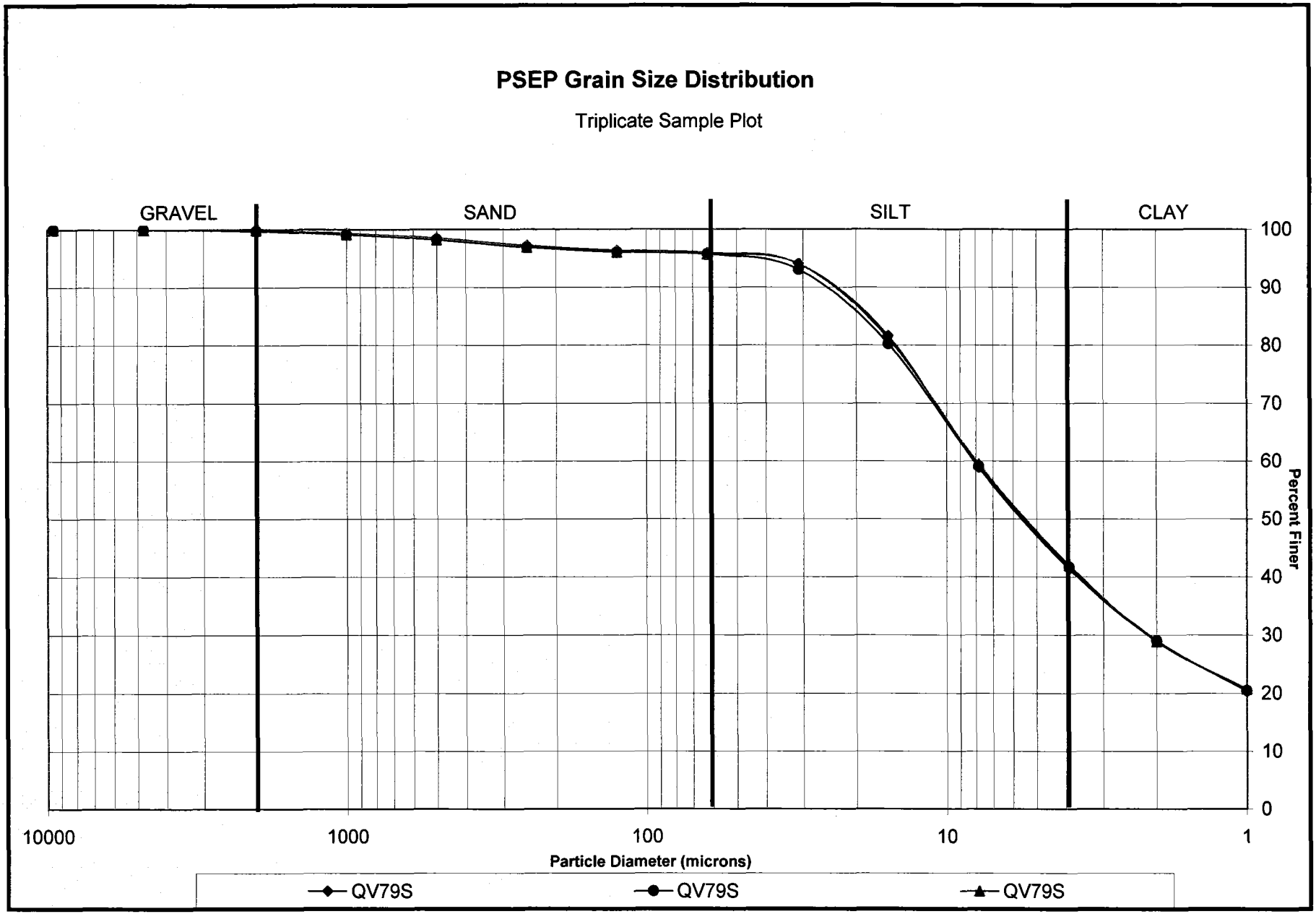
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
QV79S	5/6/2010	5/19/2010	5/21/2010	100.1		13.1
	5/6/2010	5/19/2010	5/21/2010	99.6		12.7
	5/6/2010	5/19/2010	5/21/2010	99.5		13.8
BW-07-SC-COMP-100726	7/26/2010	7/28/2010	8/3/2010	102.0		18.1

* ARI Internal QA limits = 95-105%

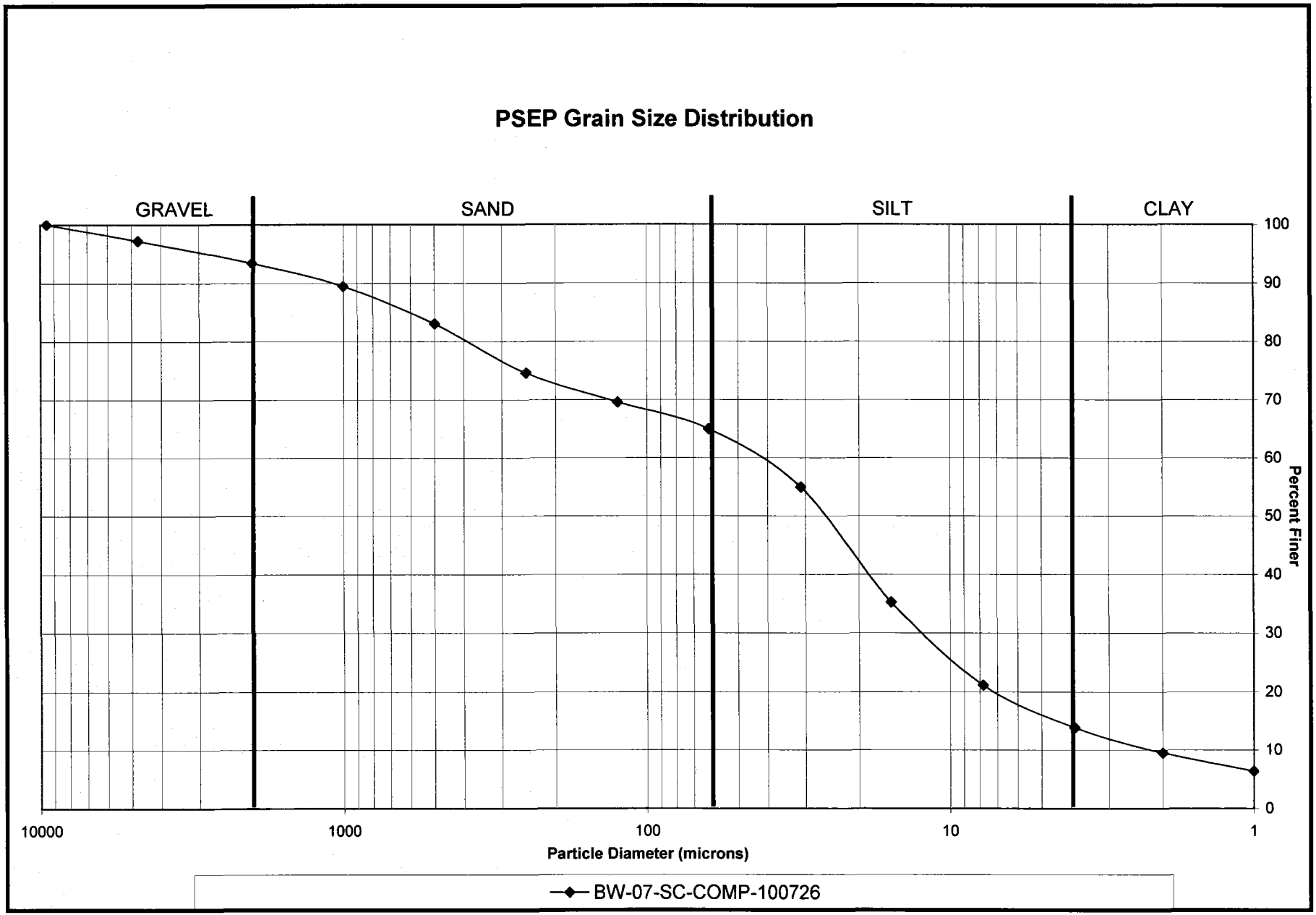
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

RF71 : 0916


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
QV79S
QV79S
QV79S

RF71:00168


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
BW-07-SC-COMP-100726

RF71:00169

Total Solids

ARI Job ID: RF71

Extractions Total Solids-extts
Data By: Rosie V. Rodriguez
Created: 7/28/10

Worklist: 6890
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	RF71A 10-17570 BW-07-SC-COMP-100726	1.17	12.11	7.84	61.0	NR

Extractions Total Solids-extts
Data By: Rosie V. Rodriguez
Created: 7/28/10

Worklist: 6890
Analyst: RVR
Comments:

Oven ID: 015

Balance ID: 3841092

Samples In: Date: 7/28/10 Time: 15:45 Temp: 106 Analyst: JW

Samples Out: Date: 7/29/10 Time: 06:20 Temp: 102° Analyst: RR

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	RF71A 10-17570 BW-07-SC-COMP-100726	1.17	12.11	7.84		NR

Solids Data Entry Report Checked by: KM Date: 7/29/10
Date: 07/29/10 Data Analyst: MH

Solids Determination performed on 07/28/10 by MH

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
RF71	A	BW-07-SC-COMP-10072	0.982	10.348	6.667	60.70

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 7-28-10 Time: 1425 Temp: 103°C Analyst: MH

Removed from Oven: Date: 7-29-10 Time: 0815 Temp: 103°C Analyst: MH

Source of Total Solids Data If From A Different Lab: —

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
RF99	A	0.971	10.390	9.079	—	✓
"	B	0.990	10.257	8.855	—	✓
RF71	A	0.982	10.348	6.667	—	✓
RG01	D	0.981	10.523	8.532	—	✓
"	E	0.971	10.455	8.535	—	✓

MH 7/28/10

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104℃ < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

RF71 : 00174

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: RF71

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN PSDDA–Soil/Sediment
Sonication (3550B) (SOP # 374S)

Preparation Test BAN # 6
ARI Job No(s) RF71

PSDDA (20ppb)
Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (dry wt)	Sonic Horn ID	KD	Turbo Vap 0 2 3	GPC Prep Filter (1:1)	(Opt) GPC (1:1) 1 or 2 Y / N	Post GPC KD	Turbo Vap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	MBS RF71	Date 8/6/10	25g	1							0.5mL	0.5mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)
	SBS	↓	↓	2							↓	↓	↓
	SBS Dup.	↓	↓	3							↓	↓	↓
1	A	checked	41.07	4									

Analyst/Date WC 8/6/10 — RP 8/9/10 — TS 8-9-10

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	A	125µL	1/22/11	WC	TH
Full List Spike (Freezer)	7	125µL	1/31/11	WC	TH
Base Spike	12	125µL	1/27/11	WC	TH
Acid Spike	10	125µL	1/28/11	WC	TH

Extraction Time: 19:35 Balance ID: 21754520

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into 600mL or 400mL beakers. 2. Use 5g Pre-Deactivated Sodium Sulfate for Blanks. 3. Add surr/spike. 4. Add 1:1 DCM/Acetone. 5. Dry using neutral Sodium Sulfate-25g Max at first-A small amt of Additional sulfate may be needed after 10 min. or before 2nd sonication? 6. Sonicate 2X with 1:1 DCM/Acetone + 1X DCM only. 7. Collect into 500mL flask + Lg funnel with a small amount of pre-deactivated glasswool only. NO SODIUM SULFATE. 8. KD (Normal Drying Column with pre-deactivated glasswool plug+neutral Sodium Sulfate at 85-90°). (Blanks=only 5g Sodium Sulfate). 9. TurboVap. 10. GPC Optional (1:1) 11. KD (if GPC=No drying column) on 80°. 12. TurboVap. 13. Vial in DCM.
A. Need Total Solids Y /(N) B. Archive/Freeze Y /(N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: RF71 Client ID: Anchor QEA

Parameter: BAN PSDDA Client Project: Bay Wood

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	JW/7/28/10
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☒ Clay (Difficult to homogenize/Mixed with Kitchen Aid)= A	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☐ Other Notes/Comments=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Prep Sheet Notes

ARI Job No.: RF44 Client ID: Anchor QEA

Parameter: Sample Compositing Client Project: Bay Wood

Matrix: Filter bag/tissue (other) sediment

A 400g sample composite was created by using 7% of RF44 (A), 70% of RF44 (B) and 23% of RF44 (C).

An 8oz jar was submitted for Grain Size Analysis.

Component weights are as follows.
RF44 A = 28g
RF44 B = 280g
RF44 C = 92g

SH 7/26/14

Prep Time: 1 hr | Analyst/Date: RR 7/26/14

Special Instructions:

(8270) PNA Filter Bag:
1. Weigh wet filter bag and record weight on prep sheet. 2. Any solids splits taken at this time. (Record weights on prep sheet. 3. Cut off plastic rings and record weights on prep sheet. 4. Record wet weights without plastic rings and splits on prep sheet. 5. Cut filter bag into 10cm squares and place in 2.0L beakers (or ½ gallon jars) along with any solids from the filter bags. 6. Record "prep time" on prep sheet. 7. Follow extraction instructions on bench sheet.

PCB Filter Bag:
1. Weigh wet filter bag and record weight on prep sheet. 2. Any solids splits taken at this time. (Record weights on prep sheet. 3. Samples are dried for (2 days) by attaching them to a hood (split open in a tube shape and wrapped in aluminum foil). 4. Re-weigh dried samples and record weight on prep sheet.
5. Cut off plastic rings and record weights on prep sheet. 6. Record sample dry weights without plastic rings on prep sheet.
7. Cut filter bag into 10cm squares and place in 2.0L beakers (or ½ gallon jars) along with any solids from the filter bags.
8. Record "prep time" on prep sheet. 9. Follow extraction instructions on bench sheet.

RF71:00178

Semivolatile Raw Data
Initial Calibration

ARI Job ID: RF71

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: GWAL Client ID: /

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): 8270

Instrument: NT-2 (NT-4) NT-6 NT-8 NT11

Curve Date: 7/19/10 Analysis Start Date: 7/19/10

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	YES / NO / (NA)
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	YES / NO / (NA)
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	Yes /NO/ (NA)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 07/21/10

Reviewer: [signature] **Date:** 7/22/10

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt4.i/20100719.b/07191002.d
Level 2: /chem3/nt4.i/20100719.b/07191003.d
Level 3: /chem3/nt4.i/20100719.b/07191004.d
Level 4: /chem3/nt4.i/20100719.b/07191001.d
Level 5: /chem3/nt4.i/20100719.b/07191005.d
Level 6: /chem3/nt4.i/20100719.b/07191006.d
Level 7: /chem3/nt4.i/20100719.b/07191007.d

JB 07/20/10

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 n-Decane	0.92180	0.82264	0.83087	0.80562	0.77461	0.72218	0.72634	0.80058	8.602
180 n-Octadecane	0.30254	0.30439	0.30088	0.27733	0.26049	0.23560	0.24283	0.27487	10.602
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
168 Pentachlorobenzene	0.48861	0.40393	0.42050	0.40899	0.40317	0.38693		
	0.40461						0.41668	7.974
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Butylatedhydroxytoluene	1.19720	1.04095	0.99330	0.97685	0.89378	0.77988	0.78639	0.95262	15.499
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 alpha-Terpineol	0.20333	0.18267	0.17306	0.16830	0.15310	0.14414	0.14638	0.16728	12.784
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 Acetophenone	0.47112	0.43077	0.44900	0.41885	0.42391	0.38242	0.39668	0.42468	7.057
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 1,4-Dioxane	0.42414	0.38659	0.38470	0.38545	0.38216	0.36299	0.37185	0.38541	4.967
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2,3,4,6-Tetrachlorophenol	0.25519	0.28418	0.30668	0.32679	0.31590	0.31226	0.32321	0.30346	8.378

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Triphenyl Phosphate	0.21448	0.19694	0.20258	0.20992	0.19726	0.19550	0.20200	0.20267	3.524
117 Butyl Diphenyl Phosphate	0.20655	0.19943	0.20154	0.21935	0.20468	0.19710	0.20303	0.20453	3.550
116 Dibutyl Phenyl Phosphate	0.63142	0.63922	0.64164	0.65657	0.62011	0.59024	0.58599	0.62360	4.271
115 Tributyl Phosphate	0.82256	0.81058	0.82385	0.77329	0.73758	0.67365	0.67146	0.75899	8.759
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Diphenyl Oxide	1.27946	1.14210	1.08994	1.06974	1.02840	0.95213	0.97094	1.07610	10.365
112 Biphenyl	1.45512	1.34252	1.29488	1.25164	1.18585	1.05874	1.07159	1.23719	11.621

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
111 Azobenzene (1,2-DP-Hydrazine)	1.14006	1.05422	1.06029	0.98330	0.93779	0.85870	0.88505	0.98849	10.333
110 Tetrachloroguaiacol	0.11596	0.11133	0.11890	0.12191	0.11926	0.11335	0.11589	0.11666	3.126
109 3,4,5-Trichloroguaiacol	0.11049	0.11016	0.12312	0.12448	0.12647	0.12285	0.12207	0.11995	5.607
181 3,4,6-Trichloroguaiacol	0.12878	0.13256	0.14742	0.14807	0.14839	0.14105	0.14100	0.14104	5.542
108 4,5,6-Trichloroguaiacol	0.11309	0.11565	0.12736	0.12953	0.13025	0.12878	0.13208	0.12525	6.072
184 3,4-Dichloroguaiacol	0.18718	0.19558	0.20120	0.21429	0.21460	0.21416	0.22213	0.20702	6.072
107 4,5-Dichloroguaiacol	0.24994	0.26319	0.28360	0.28782	0.31885	0.31206	0.32256	0.29115	9.653
182 4,6-Dichloroguaiacol	0.26639	0.25087	0.25423	0.27031	0.24545	0.25236	0.25904	0.25695	3.442
185 4-Chloroguaiacol	0.52855	0.55087	0.58184	0.65330	0.62945	0.63641	0.65684	0.60532	8.508

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
106 Guaiacol	1.15403	1.10226	1.04007	1.07495	1.03019	1.00527	1.05597	1.06610	4.672
105 1-methylnaphthalene	0.73856	0.63642	0.64470	0.63475	0.63080	0.56290	0.57420	0.63176	9.061
151 1,2,4,5-Tetrachlorobenzene	0.60742	0.54668	0.51019	0.52365	0.49918	0.49132	0.50330	0.52596	7.664
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	1.52327	1.49036	1.44408	1.42057	1.27348	1.24736	1.25719	1.37947	8.499
4 Bis(2-Chloroethyl)ether	1.15389	1.05315	1.02928	1.02414	1.00496	0.95372	0.98212	1.02875	6.230
6 2-Chlorophenol	1.37703	1.36240	1.36527	1.36485	1.23335	1.24332	1.24328	1.31278	5.206
7 1,3-Dichlorobenzene	1.70982	1.50199	1.50118	1.48198	1.44634	1.37413	1.42568	1.49159	7.143
9 1,4-Dichlorobenzene	1.69819	1.51370	1.53118	1.50592	1.47489	1.38965	1.43221	1.50653	6.502
11 Benzyl alcohol	+++++	0.91223	0.79662	0.78505	0.73616	0.72469	0.73582	0.78176	8.991
12 1,2-Dichlorobenzene	1.58084	1.43971	1.41297	1.38858	1.37137	1.28892	1.33936	1.40311	6.593
13 2-Methylphenol	1.00242	1.11049	1.11324	1.09858	1.00909	1.01582	1.02716	1.05383	4.830

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Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
14 2,2'-oxybis(1-Chloropropane)	1.13408	1.01956	0.99179	0.96247	0.92361	0.85484	0.88281	0.96702	9.707
15 4-Methylphenol	1.07650	1.16260	1.11867	1.13237	1.04810	1.05052	1.06807	1.09383	4.048
16 N-Nitroso-di-n-propylamine	0.78726	0.74703	0.72321	0.71449	0.70269	0.67015	0.70434	0.72131	5.160
17 Hexachloroethane	0.59135	0.55760	0.55641	0.56043	0.55416	0.53089	0.55511	0.55799	3.172
19 Nitrobenzene	0.34489	0.32224	0.32158	0.30263	0.30059	0.27111	0.28230	0.30648	8.251
20 Isophorone	0.57278	0.51716	0.52559	0.50326	0.49812	0.45867	0.48724	0.50898	6.978
21 2-Nitrophenol	0.16195	0.18553	0.20346	0.20681	0.19423	0.19296	0.19540	0.19148	7.720
22 2,4-Dimethylphenol	0.34079	0.36339	0.36901	0.35409	0.32771	0.31174	0.31961	0.34090	6.502
23 Bis(2-Chloroethoxy)methane	0.40457	0.35984	0.36446	0.35658	0.34648	0.31829	0.33302	0.35475	7.699

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD	
24 Benzoic acid	+++++	0.15013	0.22239	0.26771	0.26141	0.27115	0.28027	0.24218	20.377	<-
25 2,4-Dichlorophenol	0.25352	0.30103	0.32365	0.32634	0.30124	0.29644	0.29424	0.29949	8.019	
26 1,2,4-Trichlorobenzene	0.36782	0.33592	0.33834	0.33196	0.32979	0.31123	0.31968	0.33353	5.349	
28 Naphthalene	1.18074	1.01940	1.01451	0.96244	0.89659	0.77689	0.79230	0.94898	14.906	
29 4-Chloroaniline	0.39252	0.40069	0.40268	0.39409	0.37339	0.34529	0.34011	0.37840	6.924	
30 Hexachlorobutadiene	0.21745	0.18519	0.19378	0.18639	0.18753	0.17448	0.17979	0.18923	7.318	
31 4-Chloro-3-methylphenol	0.20393	0.27117	0.29842	0.30937	0.28574	0.27836	0.27550	0.27464	12.366	
32 2-Methylnaphthalene	0.74630	0.66270	0.66341	0.64960	0.63860	0.57380	0.58003	0.64492	9.012	
33 Hexachlorocyclopentadiene	0.19670	0.24178	0.28639	0.31893	0.32950	0.33112	0.34400	0.29263	18.716	

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34 2,4,6-Trichlorophenol	0.30819	0.35802	0.37214	0.38430	0.36043	0.36626	0.37085	0.36003	6.787
35 2,4,5-Trichlorophenol	0.24826	0.35083	0.38002	0.41048	0.38587	0.39121	0.39911	0.36654	15.105
37 2-Chloronaphthalene	1.24508	1.12343	1.11327	1.10426	1.06169	0.96578	1.00077	1.08775	8.398
38 2-Nitroaniline	0.14117	0.18570	0.22375	0.23754	0.22985	0.22602	0.22604	0.21001	16.476
39 Dimethylphthalate	1.45154	1.30059	1.32041	1.28013	1.23687	1.16414	1.19011	1.27768	7.480
40 Acenaphthylene	1.94865	1.75474	1.75306	1.67242	1.55992	1.38771	1.40886	1.64077	12.334
41 2,6-Dinitrotoluene	0.24350	0.27750	0.29856	0.30488	0.30145	0.28576	0.30088	0.28751	7.563
43 3-Nitroaniline	0.26688	0.27225	0.29172	0.27509	0.24490	0.21809	0.20565	0.25351	12.551
44 Acenaphthene	1.24498	1.09893	1.11201	1.06610	1.03099	0.94431	0.98045	1.06825	9.248

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD	
45 2,4-Dinitrophenol	+++++	0.03672	0.10442	0.16137	0.17851	0.19947	0.20969	0.14836	44.553	<-
46 Dibenzofuran	1.64581	1.49192	1.49840	1.42404	1.35991	1.25954	1.28807	1.42396	9.465	
47 4-Nitrophenol	0.14176	0.14832	0.18103	0.19488	0.19349	0.19799	0.19695	0.17920	13.431	
48 2,4-Dinitrotoluene	0.28796	0.35208	0.40205	0.40448	0.40680	0.39051	0.40980	0.37910	11.820	
49 Fluorene	1.44497	1.29959	1.31553	1.25982	1.17937	1.05063	1.07434	1.23204	11.392	
50 Diethylphthalate	1.57307	1.36806	1.41182	1.31777	1.26768	1.13760	1.17582	1.32169	11.204	
51 4-Chlorophenyl-phenylether	0.69474	0.61629	0.61711	0.60255	0.58436	0.52633	0.54152	0.59756	9.315	
52 4-Nitroaniline	0.28107	0.27988	0.27202	0.26389	0.27732	0.26889	0.27942	0.27464	2.371	
53 4,6-Dinitro-2-methylphenol	+++++	0.08845	0.12548	0.14855	0.14840	0.15739	0.15973	0.13800	19.657	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
54 N-Nitrosodiphenylamine	0.59897	0.56644	0.58454	0.56521	0.56824	0.52773	0.53790	0.56415	4.382
56 4-Bromophenyl-phenylether	0.21096	0.20155	0.21106	0.20521	0.20601	0.19314	0.20319	0.20445	3.008
57 Hexachlorobenzene	0.24169	0.20966	0.21365	0.20517	0.20414	0.19121	0.20035	0.20941	7.598
58 Pentachlorophenol	+++++	0.12236	0.13905	0.15024	0.14329	0.14966	0.15151	0.14268	7.744
60 Phenanthrene	1.26953	1.07829	1.08369	1.03854	0.98609	0.89265	0.90371	1.03607	12.407
61 Anthracene	1.26876	1.10675	1.12399	1.07407	1.02212	0.90794	0.91554	1.05988	11.902
62 Carbazole	1.14479	1.01093	0.98838	0.94710	0.92667	0.85605	0.86786	0.96311	10.213
63 Di-n-butylphthalate	1.39044	1.32866	1.35805	1.29164	1.18853	1.02048	1.01833	1.22802	12.705
64 Fluoranthene	1.23295	1.10063	1.14509	1.10131	1.07018	0.93571	0.92842	1.07347	10.212

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
65 Pyrene	1.54895	1.32386	1.30232	1.29301	1.19639	1.08660		
	1.12621						1.26819	12.130
67 Butylbenzylphthalate	0.63232	0.62704	0.69192	0.67226	0.65120	0.60529		
	0.62513						0.64359	4.672
68 Benzo(a)anthracene	1.39978	1.20719	1.24065	1.17611	1.11630	1.01634		
	1.05028						1.17238	11.012
70 3,3'-Dichlorobenzidine	0.36883	0.40238	0.42289	0.39897	0.37590	0.34353		
	0.34172						0.37917	8.081
71 Chrysene	1.38365	1.19972	1.21395	1.15816	1.07914	0.97665		
	1.02095						1.14746	11.954
72 bis(2-Ethylhexyl)phthalate	0.53161	0.56815	0.61721	0.58487	0.58969	0.54278		
	0.54044						0.56782	5.521
73 Di-n-octylphthalate	1.26596	1.05129	1.06355	0.99565	0.93391	0.82830		
	0.82184						0.99436	15.514
74 Benzo(b)fluoranthene	1.40393	1.29239	1.31290	1.21076	1.20926	1.06436		
	1.22076						1.24491	8.538
75 Benzo(k)fluoranthene	1.53572	1.29180	1.33244	1.33678	1.21455	1.11293		
	1.00320						1.26106	13.651

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD
187 Total Benzofluoranthenes	1.38210	1.22664	1.24385	1.19904	1.14180	1.02417	1.04387	1.18021	10.477
76 Benzo(a)pyrene	1.23441	1.10443	1.13165	1.12539	1.08511	1.00857	1.04071	1.10432	6.582
78 Indeno(1,2,3-cd)pyrene	1.10926	1.07903	1.19493	1.24464	1.26134	1.17723	1.23424	1.18581	5.856
79 Dibenzo(a,h)anthracene	0.81878	0.86277	0.96765	1.02741	1.03845	0.95450	1.00345	0.95329	8.751
80 Benzo(g,h,i)perylene	0.94422	0.90041	1.05378	1.04646	1.07844	1.01381	1.05822	1.01362	6.558
90 N-Nitrosodimethylamine	0.64783	0.59968	0.56719	0.58049	0.56446	0.53912	0.57962	0.58263	5.869
91 Aniline	1.66497	1.54617	1.49097	1.44064	1.35252	1.27767	1.30611	1.43987	9.674
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 Benzidine	0.42376	0.43565	0.41475	0.34689	0.33093	0.31136	0.30159	0.36642	15.475

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 Retene	0.45889	0.42060	0.41951	0.43772	0.41600	0.40302	0.41927	0.42500	4.249
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Pyridine	0.90268	0.95399	1.04225	1.06515	1.04732	0.97877	1.04329	1.00478	6.029
$ 1 2-Fluorophenol	1.16448	1.12400	1.01131	1.14250	1.05748	1.03186	1.05437	1.08371	5.470

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
$ 137 d8-1,4-Dioxane	0.43005	0.40873	0.39728	0.39731	0.39810	0.37989	0.39506	0.40092	3.838
$ 2 Phenol-d5	1.09019	1.11643	1.02349	1.12745	1.05098	1.00985	1.04391	1.06604	4.295
$ 5 2-Chlorophenol-d4	1.21573	1.17992	1.08812	1.18777	1.11736	1.08778	1.13033	1.14386	4.448
$ 10 1,2-Dichlorobenzene-d4	0.97264	0.91430	0.80244	0.85219	0.81452	0.79829	0.81850	0.85327	7.758
$ 18 Nitrobenzene-d5	0.32597	0.33013	0.31174	0.31824	0.30824	0.28032	0.29218	0.30955	5.796
$ 36 2-Fluorobiphenyl	1.46388	1.33164	1.17402	1.25846	1.16251	1.07975	1.10556	1.22512	11.123
$ 55 2,4,6-Tribromophenol	0.11310	0.14211	0.14091	0.15595	0.14884	0.14537	0.15489	0.14302	10.084
$ 66 Terphenyl-d14	0.93602	0.81779	0.74164	0.80245	0.72726	0.68592	0.70996	0.77444	11.066
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

RF71:00198

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing

AZ 07/20/10

Compound	1 Level 1 80 Level 7	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Bis(2-Chloroethoxy)methane	0.40457 0.33302	0.35984	0.36446	0.35658	0.34648	0.31829	AVRG		0.35475		7.69914
24 Benzoic acid	+++++ 2519498	76277	295968	865635	1401298	2377813	LINR	0.000e+00	0.27416		0.99624
25 2,4-Dichlorophenol	0.25352 0.29424	0.30103	0.32365	0.32634	0.30124	0.29644	AVRG		0.29949		8.01880
26 1,2,4-Trichlorobenzene	0.36782 0.31968	0.33592	0.33834	0.33196	0.32979	0.31123	AVRG		0.33353		5.34949
28 Naphthalene	1.18074 0.79230	1.01940	1.01451	0.96244	0.89659	0.77689	AVRG		0.94898		14.90588
29 4-Chloroaniline	0.39252 0.34011	0.40069	0.40268	0.39409	0.37339	0.34529	AVRG		0.37840		6.92405
30 Hexachlorobutadiene	0.21745 0.17979	0.18519	0.19378	0.18639	0.18753	0.17448	AVRG		0.18923		7.31839

RF71:00199

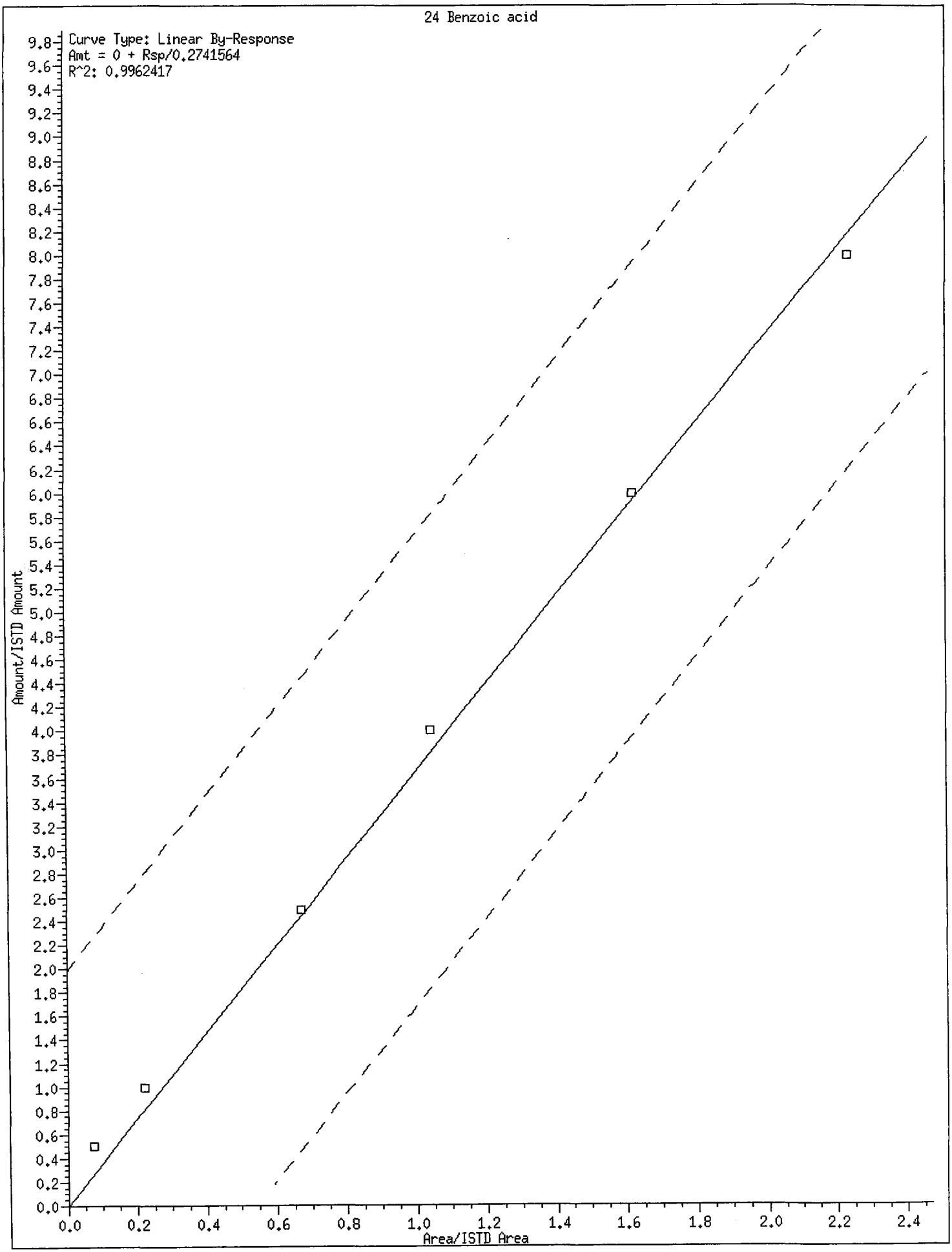
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

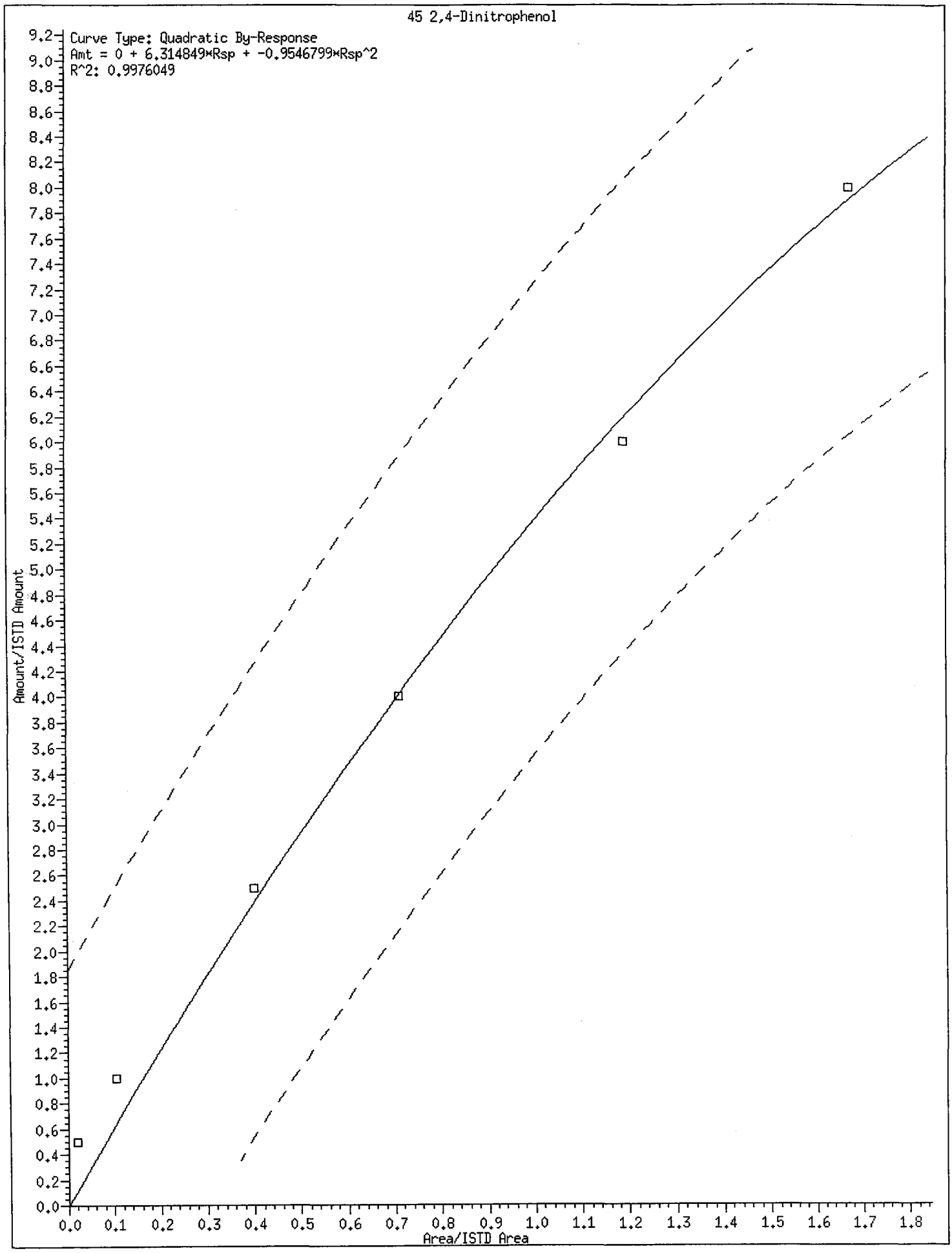
Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing

07/20/10

Compound	1 Level 1 / 80 Level 7	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
39 Dimethylphthalate	1.45154	1.30059	1.32041	1.28013	1.23687	1.16414					
	1.19011						AVRG		1.27768		7.48035
40 Acenaphthylene	1.94865	1.75474	1.75306	1.67242	1.55992	1.38771					
	1.40886						AVRG		1.64077		12.33449
41 2,6-Dinitrotoluene	0.24350	0.27750	0.29856	0.30488	0.30145	0.28576					
	0.30088						AVRG		0.28751		7.56349
43 3-Nitroaniline	0.26688	0.27225	0.29172	0.27509	0.24490	0.21809					
	0.20565						AVRG		0.25351		12.55145
44 Acenaphthene	1.24498	1.09893	1.11201	1.06610	1.03099	0.94431					
	0.98045						AVRG		1.06825		9.24750
45 2,4-Dinitrophenol	+++++	10990	84130	317048	599293	1050607					
	1116227						QUAD	0.000e+00	6.31485	-0.95468	0.99760
46 Dibenzofuran	1.64581	1.49192	1.49840	1.42404	1.35991	1.25954					
	1.28807						AVRG		1.42396		9.46465


24 Benzoic acid
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2741564
R^2: 0.9962417
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
9.8
9.6
9.4
9.2
9.0
8.8
8.6
8.4
8.2
8.0
7.8
7.6
7.4
7.2
7.0
6.8
6.6
6.4
6.2
6.0
5.8
5.6
5.4
5.2
5.0
4.8
4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0

RF71:00200


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 6.314849*Rsp + -0.9546799*Rsp^2
R^2: 0.9976049
Amount/ISTD Amount
Area/ISTD Area
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0 9.2
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8

RF71 : 00201

RF71:00202

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUL-2010 16:18
End Cal Date : 19-JUL-2010 19:48
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt4.i/20100719.b/SW846100719.m
Cal Date : 20-Jul-2010 18:52 jianqing

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Report Date : 20-Jul-2010 19:04

RF71:00203

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

07/20/10

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	07191001	07191002	07191003	07191004	07191005	07191006	07191007
INJ.DATE:	19-JUL-2010	19-JUL-2010	19-JUL-2010	19-JUL-2010	19-JUL-2010	19-JUL-2010	19-JUL-2010
INJ.TIME:	16:18	16:56	17:33	18:07	18:41	19:14	19:48

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.736	6.727	6.724	6.731	6.738	6.742	6.737	6.736	3.736-9.736	6.734	0.006
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.584	13.584-19.584	+++++	+++++
179 n-Decane	8.498	8.495	8.498	8.500	8.500	8.504	8.505	8.498	5.498-11.498	8.500	0.003
180 n-Octadecane	15.876	15.874	15.876	15.878	15.879	15.882	15.883	15.876	12.876-18.876	15.878	0.003
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.531	15.531-21.531	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.634	13.634-19.634	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.863	13.863-19.863	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.605	17.605-23.605	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.015	14.015-20.015	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.562	14.562-20.562	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.654	6.654-12.654	+++++	+++++
168 Pentachlorobenzene	13.985	13.976	13.979	13.981	13.987	13.991	13.992	13.985	10.985-16.985	13.984	0.006
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 7/22/10

RL71 69261

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.269	36.269-42.269	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	3.440	3.420	3.417	3.448	3.448	3.452	3.424	3.440	0.440-6.440	3.436	0.015
* 134 Di-n-octylphthalate-d4	21.451	21.449	21.451	21.447	21.453	21.457	21.458	21.451	18.451-24.451	21.452	0.004
133 Butylatedhydroxytoluen	13.768	13.765	13.767	13.763	13.770	13.773	13.774	13.768	10.768-16.768	13.769	0.004
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	10.783	10.775	10.777	10.773	10.786	10.789	10.790	10.783	7.783-13.783	10.782	0.007
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

SS2695 : 21-JUL-10

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	9.379	9.371	9.373	9.375	9.382	9.391	9.392	9.379	6.379-12.379	9.380	0.008
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	3.511	3.485	3.487	3.512	3.513	3.522	3.494	3.511	0.511-6.511	3.504	0.015
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	14.214	14.211	14.214	14.210	14.216	14.220	14.221	14.214	11.214-17.214	14.215	0.004
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.282	9.282-15.282	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	19.859	19.857	19.853	19.855	19.861	19.865	19.866	19.859	16.859-22.859	19.860	0.005
117 Butyl Diphenyl Phospha	18.238	18.235	18.232	18.234	18.240	18.244	18.245	18.238	15.238-21.238	18.238	0.005
116 Dibutyl Phenyl Phospha	16.529	16.526	16.528	16.524	16.531	16.534	16.535	16.529	13.529-19.529	16.530	0.004
115 Tributyl Phosphate	14.778	14.769	14.766	14.768	14.792	14.801	14.802	14.778	11.778-17.778	14.782	0.016
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	12.863	12.860	12.863	12.864	12.865	12.869	12.870	12.863	9.863-15.863	12.865	0.003
112 Biphenyl	12.675	12.672	12.675	12.671	12.677	12.681	12.682	12.675	9.675-15.675	12.676	0.004
111 Azobenzene (1,2-DP-Hyd	14.766	14.758	14.760	14.762	14.774	14.778	14.779	14.766	11.766-17.766	14.768	0.009
110 Tetrachloroguaiacol	15.959	15.950	15.947	15.948	15.961	15.970	15.971	15.959	12.959-18.959	15.958	0.010
109 3,4,5-Trichloroguaiaco	14.308	14.305	14.302	14.304	14.310	14.314	14.315	14.308	11.308-17.308	14.308	0.005
181 3,4,6-Trichloroguaiaco	14.431	14.429	14.425	14.427	14.434	14.437	14.444	14.431	11.431-17.431	14.432	0.006
108 4,5,6-Trichloroguaiaco	15.342	15.339	15.342	15.338	15.344	15.353	15.349	15.342	12.342-18.342	15.344	0.006
184 3,4-Dichloroguaiacol	12.757	12.754	12.751	12.753	12.759	12.763	12.764	12.757	9.757-15.757	12.757	0.005
107 4,5-Dichloroguaiacol	13.539	13.530	13.527	13.528	13.541	13.544	13.545	13.539	10.539-16.538	13.536	0.008
182 4,6-Dichloroguaiacol	13.568	13.559	13.562	13.563	13.570	13.579	13.580	13.568	10.568-16.568	13.569	0.008
185 4-Chloroguaiacol	11.653	11.650	11.653	11.648	11.655	11.658	11.660	11.653	8.653-14.653	11.654	0.004

RFT4 : 69266

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	9.638	9.629	9.632	9.633	9.640	9.644	9.645	9.638	6.638-12.638	9.637	0.006
105 1-methylnaphthalene	12.076	12.073	12.070	12.071	12.078	12.081	12.082	12.076	9.076-15.076	12.076	0.005
151 1,2,4,5-Tetrachloroben	12.240	12.237	12.234	12.236	12.242	12.246	12.247	12.240	9.240-15.240	12.240	0.005
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.442	20.442-26.442	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.968	18.968-24.968	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.466	20.466-26.466	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.866	19.866-25.866	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.413	20.413-26.413	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.721	18.721-24.721	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.159	15.159-21.159	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	8.216	8.208	8.210	8.212	8.224	8.228	8.229	8.216	5.216-11.216	8.218	0.009
3 Phenol	8.234	8.225	8.228	8.229	8.242	8.251	8.252	8.234	5.234-11.234	8.237	0.011
4 Bis(2-Chloroethyl)ethe	8.346	8.337	8.339	8.341	8.348	8.351	8.352	8.346	5.346-11.346	8.345	0.006
$ 5 2-Chlorophenol-d4	8.387	8.384	8.386	8.388	8.395	8.398	8.393	8.387	5.387-11.387	8.390	0.005

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6 2-Chlorophenol	8.416	8.407	8.410	8.412	8.418	8.422	8.423	8.416	5.416-11.416	8.415	0.006
7 1,3-Dichlorobenzene	8.633	8.631	8.633	8.635	8.636	8.639	8.640	8.633	5.633-11.633	8.635	0.003
* 8 1,4-Dichlorobenzene-d4	8.698	8.689	8.692	8.694	8.694	8.698	8.699	8.698	5.698-11.698	8.695	0.004
9 1,4-Dichlorobenzene	8.721	8.713	8.715	8.717	8.724	8.721	8.722	8.721	5.721-11.721	8.719	0.004
$ 10 1,2-Dichlorobenzene-d4	8.998	8.995	8.991	8.993	9.000	8.997	8.998	8.998	5.998-11.998	8.996	0.003
11 Benzyl alcohol	8.956	8.948	8.944	8.952	8.959	8.968	8.969	8.956	5.956-11.956	8.957	0.009
12 1,2-Dichlorobenzene	9.015	9.012	9.015	9.017	9.017	9.021	9.022	9.015	6.015-12.015	9.017	0.003
13 2-Methylphenol	9.174	9.159	9.162	9.164	9.176	9.179	9.181	9.174	6.174-12.174	9.171	0.009
14 2,2'-oxybis(1-Chloropr	9.209	9.206	9.203	9.205	9.211	9.215	9.216	9.209	6.209-12.209	9.209	0.005
15 4-Methylphenol	9.397	9.388	9.391	9.393	9.405	9.414	9.415	9.397	6.397-12.397	9.401	0.011
16 N-Nitroso-di-n-propyla	9.426	9.418	9.414	9.422	9.434	9.444	9.445	9.426	6.426-12.426	9.429	0.012
17 Hexachloroethane	9.509	9.506	9.508	9.504	9.511	9.508	9.509	9.509	6.509-12.509	9.508	0.002
$ 18 Nitrobenzene-d5	9.620	9.612	9.614	9.616	9.622	9.626	9.627	9.620	6.620-12.620	9.620	0.006
19 Nitrobenzene	9.650	9.641	9.644	9.645	9.652	9.661	9.662	9.650	6.650-12.650	9.651	0.008
20 Isophorone	10.026	10.017	10.014	10.015	10.028	10.037	10.038	10.026	7.026-13.026	10.025	0.010
21 2-Nitrophenol	10.167	10.164	10.160	10.162	10.169	10.172	10.173	10.167	7.167-13.167	10.167	0.005
22 2,4-Dimethylphenol	10.243	10.234	10.237	10.239	10.245	10.254	10.256	10.243	7.243-13.243	10.244	0.008
23 Bis(2-Chloroethoxy)met	10.396	10.393	10.390	10.391	10.398	10.407	10.408	10.396	7.396-13.396	10.398	0.007
24 Benzoic acid	10.466	10.317	10.354	10.397	10.509	10.560	10.567	10.466	7.466-13.466	10.453	0.099
25 2,4-Dichlorophenol	10.543	10.534	10.531	10.538	10.545	10.548	10.549	10.543	7.543-13.543	10.541	0.007
26 1,2,4-Trichlorobenzene	10.684	10.675	10.677	10.679	10.680	10.683	10.684	10.684	7.684-13.684	10.680	0.004
* 27 Naphthalene-d8	10.742	10.739	10.742	10.744	10.744	10.748	10.749	10.742	7.742-13.742	10.744	0.003
28 Naphthalene	10.778	10.769	10.771	10.773	10.780	10.783	10.784	10.778	7.778-13.778	10.777	0.006
29 4-Chloroaniline	10.901	10.898	10.895	10.896	10.903	10.907	10.908	10.901	7.901-13.901	10.901	0.005

RF71 : 00207

RLT 69268

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	11.083	11.080	11.083	11.084	11.085	11.083	11.084	11.083	8.083-14.083	11.083	0.002
31 4-Chloro-3-methylpheno	11.694	11.691	11.688	11.690	11.696	11.700	11.701	11.694	8.694-14.694	11.694	0.005
32 2-Methylnaphthalene	11.900	11.897	11.893	11.895	11.902	11.905	11.906	11.900	8.900-14.900	11.900	0.005
33 Hexachlorocyclopentadi	12.281	12.273	12.275	12.277	12.278	12.281	12.282	12.281	9.281-15.281	12.278	0.004
34 2,4,6-Trichlorophenol	12.405	12.402	12.404	12.400	12.407	12.410	12.411	12.405	9.405-15.405	12.406	0.004
35 2,4,5-Trichlorophenol	12.463	12.461	12.457	12.459	12.466	12.469	12.470	12.463	9.463-15.463	12.464	0.005
$ 36 2-Fluorobiphenyl	12.540	12.531	12.534	12.535	12.536	12.540	12.541	12.540	9.540-15.540	12.537	0.004
37 2-Chloronaphthalene	12.687	12.684	12.686	12.682	12.689	12.698	12.699	12.687	9.687-15.687	12.689	0.007
38 2-Nitroaniline	12.910	12.901	12.904	12.906	12.912	12.921	12.923	12.910	9.910-15.910	12.911	0.008
39 Dimethylphthalate	13.268	13.260	13.262	13.264	13.276	13.286	13.287	13.268	10.268-16.268	13.272	0.011
40 Acenaphthylene	13.374	13.371	13.374	13.370	13.376	13.380	13.381	13.374	10.374-16.374	13.375	0.004
41 2,6-Dinitrotoluene	13.374	13.365	13.362	13.364	13.376	13.380	13.387	13.374	10.374-16.374	13.372	0.009
* 42 Acenaphthene-d10	13.627	13.624	13.626	13.628	13.629	13.632	13.633	13.627	10.627-16.627	13.628	0.003
43 3-Nitroaniline	13.591	13.583	13.579	13.587	13.599	13.609	13.610	13.591	10.591-16.591	13.594	0.012
44 Acenaphthene	13.679	13.677	13.673	13.675	13.682	13.691	13.686	13.679	10.679-16.679	13.680	0.006
45 2,4-Dinitrophenol	13.756	13.741	13.744	13.751	13.764	13.779	13.780	13.756	10.756-16.756	13.759	0.016
46 Dibenzofuran	13.944	13.935	13.938	13.939	13.946	13.949	13.951	13.944	10.944-16.944	13.943	0.006
47 4-Nitrophenol	13.867	13.859	13.855	13.857	13.870	13.879	13.880	13.867	10.867-16.867	13.867	0.010
48 2,4-Dinitrotoluene	14.008	14.000	13.996	13.998	14.011	14.020	14.021	14.008	11.008-17.008	14.008	0.010
49 Fluorene	14.508	14.499	14.502	14.497	14.510	14.513	14.514	14.508	11.508-17.508	14.506	0.007
50 Diethylphthalate	14.431	14.417	14.419	14.421	14.434	14.437	14.438	14.431	11.431-17.431	14.428	0.009
51 4-Chlorophenyl-phenyle	14.514	14.505	14.508	14.509	14.516	14.519	14.514	14.514	11.514-17.514	14.512	0.005
52 4-Nitroaniline	14.596	14.581	14.584	14.586	14.610	14.625	14.626	14.596	11.596-17.596	14.601	0.019
53 4,6-Dinitro-2-methylph	14.672	14.664	14.660	14.662	14.680	14.695	14.697	14.672	11.672-17.672	14.676	0.015

RLF1 69269

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	14.713	14.711	14.707	14.709	14.721	14.731	14.732	14.713	11.713-17.713	14.718	0.010
$	55 2,4,6-Tribromophenol	14.931	14.922	14.925	14.920	14.933	14.936	14.937	14.931	11.931-17.931	14.929	0.007
	56 4-Bromophenyl-phenylet	15.301	15.298	15.301	15.296	15.303	15.306	15.308	15.301	12.301-18.301	15.302	0.004
	57 Hexachlorobenzene	15.542	15.533	15.536	15.537	15.544	15.547	15.548	15.542	12.542-18.542	15.541	0.006
	58 Pentachlorophenol	15.830	15.827	15.823	15.825	15.832	15.841	15.842	15.830	12.830-18.830	15.831	0.007
*	59 Phenanthrene-d10	16.029	16.021	16.023	16.025	16.031	16.035	16.036	16.029	13.029-19.029	16.029	0.006
	60 Phenanthrene	16.064	16.056	16.058	16.060	16.073	16.076	16.077	16.064	13.064-19.064	16.066	0.009
	61 Anthracene	16.141	16.132	16.135	16.136	16.143	16.152	16.153	16.141	13.141-19.141	16.142	0.008
	62 Carbazole	16.411	16.408	16.405	16.407	16.413	16.423	16.424	16.411	13.411-19.411	16.413	0.007
	63 Di-n-butylphthalate	17.093	17.084	17.086	17.088	17.095	17.092	17.093	17.093	14.092-20.093	17.090	0.004
	64 Fluoranthene	18.021	18.012	18.015	18.016	18.023	18.026	18.027	18.021	15.021-21.021	18.020	0.006
	65 Pyrene	18.385	18.376	18.379	18.380	18.387	18.396	18.397	18.385	15.385-21.385	18.386	0.008
$	66 Terphenyl-d14	18.667	18.664	18.667	18.662	18.669	18.672	18.674	18.667	15.667-21.667	18.668	0.004
	67 Butylbenzylphthalate	19.536	19.528	19.530	19.532	19.538	19.542	19.543	19.536	16.536-22.536	19.536	0.006
	68 Benzo(a)anthracene	20.353	20.344	20.347	20.348	20.361	20.364	20.365	20.353	17.353-23.353	20.355	0.009
*	69 Chrysene-d12	20.382	20.374	20.376	20.378	20.384	20.388	20.389	20.382	17.382-23.382	20.381	0.006
	70 3,3'-Dichlorobenzidine	20.341	20.338	20.335	20.337	20.343	20.347	20.348	20.341	17.341-23.341	20.341	0.005
	71 Chrysene	20.423	20.415	20.411	20.413	20.425	20.435	20.436	20.423	17.423-23.423	20.423	0.010
	72 bis(2-Ethylhexyl)phtha	20.517	20.515	20.511	20.513	20.514	20.517	20.518	20.517	17.517-23.517	20.515	0.003
	73 Di-n-octylphthalate	21.463	21.454	21.457	21.459	21.465	21.469	21.470	21.463	18.463-24.463	21.462	0.006
	74 Benzo(b)fluoranthene	22.021	22.012	22.015	22.017	22.029	22.038	22.040	22.021	19.021-25.021	22.025	0.011
	75 Benzo(k)fluoranthene	22.056	22.048	22.044	22.046	22.064	22.074	22.075	22.056	19.056-25.056	22.058	0.013
	187 Total Benzofluoranthen	22.056	22.012	22.044	22.046	22.064	22.074	22.075	22.056	19.056-25.056	22.053	0.022
	76 Benzo(a)pyrene	22.491	22.482	22.485	22.481	22.499	22.508	22.510	22.491	19.491-25.491	22.494	0.012

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Batch File: /chem3/nt4.i/20100719.b
Inst ID: nt4.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	22.579	22.571	22.573	22.575	22.575	22.579	22.580	22.579	19.579-25.579	22.576	0.004
78 Indeno(1,2,3-cd)pyrene	24.424	24.403	24.406	24.413	24.438	24.453	24.454	24.424	21.424-27.424	24.427	0.021
79 Dibenzo(a,h)anthracene	24.447	24.421	24.429	24.431	24.455	24.471	24.477	24.447	21.447-27.447	24.447	0.022
80 Benzo(g,h,i)perylene	24.958	24.926	24.929	24.936	24.972	24.987	24.989	24.958	21.958-27.958	24.957	0.027
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
90 N-Nitrosodimethylamine	4.280	4.260	4.257	4.276	4.288	4.298	4.281	4.280	1.280-7.280	4.277	0.015
91 Aniline	8.246	8.237	8.240	8.241	8.248	8.251	8.252	8.246	5.246-11.246	8.245	0.006
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
93 Benzidine	18.250	18.247	18.244	18.245	18.252	18.255	18.251	18.250	15.250-21.250	18.249	0.004
$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
98 Retene	18.925	18.923	18.925	18.921	18.927	18.931	18.932	18.925	15.925-21.925	18.926	0.004
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.125	28.125-34.125	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.475	21.475-27.475	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.481	21.481-27.481	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
103 Pyridine	4.251	4.272	4.245	4.258	4.253	4.257	4.240	4.251	1.251-7.251	4.254	0.010

RF71:00210

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt4.i/20100719.b

ARI Job No.: IC25 Method: SW846100719.m Instrument: nt4.i Date: 19-JUL-2010

07/21/10

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1618	07191001.d	IC250719	IC250719	1	NO MANUAL INTEGRATION
1656	07191002.d	IC010719	IC010719	1	Benzoic acid, 3-Nitroaniline, 4-Nitrophenol, 4-Nitroaniline, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzidine, Pyridine, Total Benzofluoranthenes, 1,2-Dichlorobenzene-d4,
1733	07191003.d	IC050719	IC050719	1	NO MANUAL INTEGRATION
1807	07191004.d	IC100719	IC100719	1	NO MANUAL INTEGRATION
1841	07191005.d	IC400719	IC400719	1	NO MANUAL INTEGRATION
1914	07191006.d	IC600719	IC600719	1	Benzoic acid,
1948	07191007.d	IC800719	IC800719	1	Benzoic acid, 4-Nitrophenol,
2021	07191008.d	ICV0719	ICV0719	1	NO MANUAL INTEGRATION

RL74 69211

Analytical Resources Inc.: Organics Instrument Log

19 NT-4 Serial No.: GC = US00010849; MS = US72821113

Date: 7/16/10 Analysis: 8270 Analyst: JB

GC Program: RBA Column No: 172294 Column Type: ZB-5MS

Instrument Tune (.U or .CT.): 100716 EM Voltage: 1353

Calibration File: 071910 Curve Date: ~~7/16/10~~ 7/19/10 JB

IS/SS	Ical/Ccal	LCS/ICV
1627-1	17473, 1733-1	1751-3, 1713-1
	1735-1, 1736-1	1721-2, 1720-1
	15019, 1740-2	15019, 1740-2

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt4.i/20100719.b

	Time	Filename	LabID	ClientId	DF											
1	1618	07191001.d	IC250719	IC250719	1	8.70	356478	10.74	1293412	13.63	785897	16.03	1313990	20.38	1155293	22.58	1146289	21.45	1825297
2	1656	07191002.d	IC010719	IC010719	1	8.69	290756	10.74	1025728	13.62	609037	16.02	1031072	20.37	888098	22.57	896867	21.45	1405493
3	1733	07191003.d	IC050719	IC050719	1	8.69	280196	10.74	1016171	13.63	598563	16.02	1007780	20.38	879562	22.57	872109	21.45	1375669
4	1807	07191004.d	IC100719	IC100719	1	8.69	386803	10.74	1330824	13.63	805701	16.02	1335679	20.38	1209826	22.57	1193862	21.45	1905755
5	1841	07191005.d	IC400719	IC400719	1	8.69	381018	10.74	1340154	13.63	839318	16.03	1371590	20.38	1264495	22.58	1213809	21.45	1902533
6	1914	07191006.d	IC600719	IC600719	1	8.70	397320	10.75	1461536	13.63	877821	16.03	1448224	20.39	1294779	22.58	1277873	21.46	1930038
7	1948	07191007.d	IC800719	IC800719	1	8.70	300879	10.75	1123708	13.63	665405	16.04	1124245	20.39	968321	22.58	976271	21.46	1492891
8	2021	07191008.d	ICV0719	ICV0719	1	8.69	289791	10.74	1041288	13.62	632100	16.03	1057026	20.38	945392	22.57	894258	21.45	1458222

JB 07/21/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem3/nt4.i/20100719.b/tune.b/07191001.d

Date : 19-JUL-2010 16:18

Client ID: DFTPP0719

Instrument: nt4.i

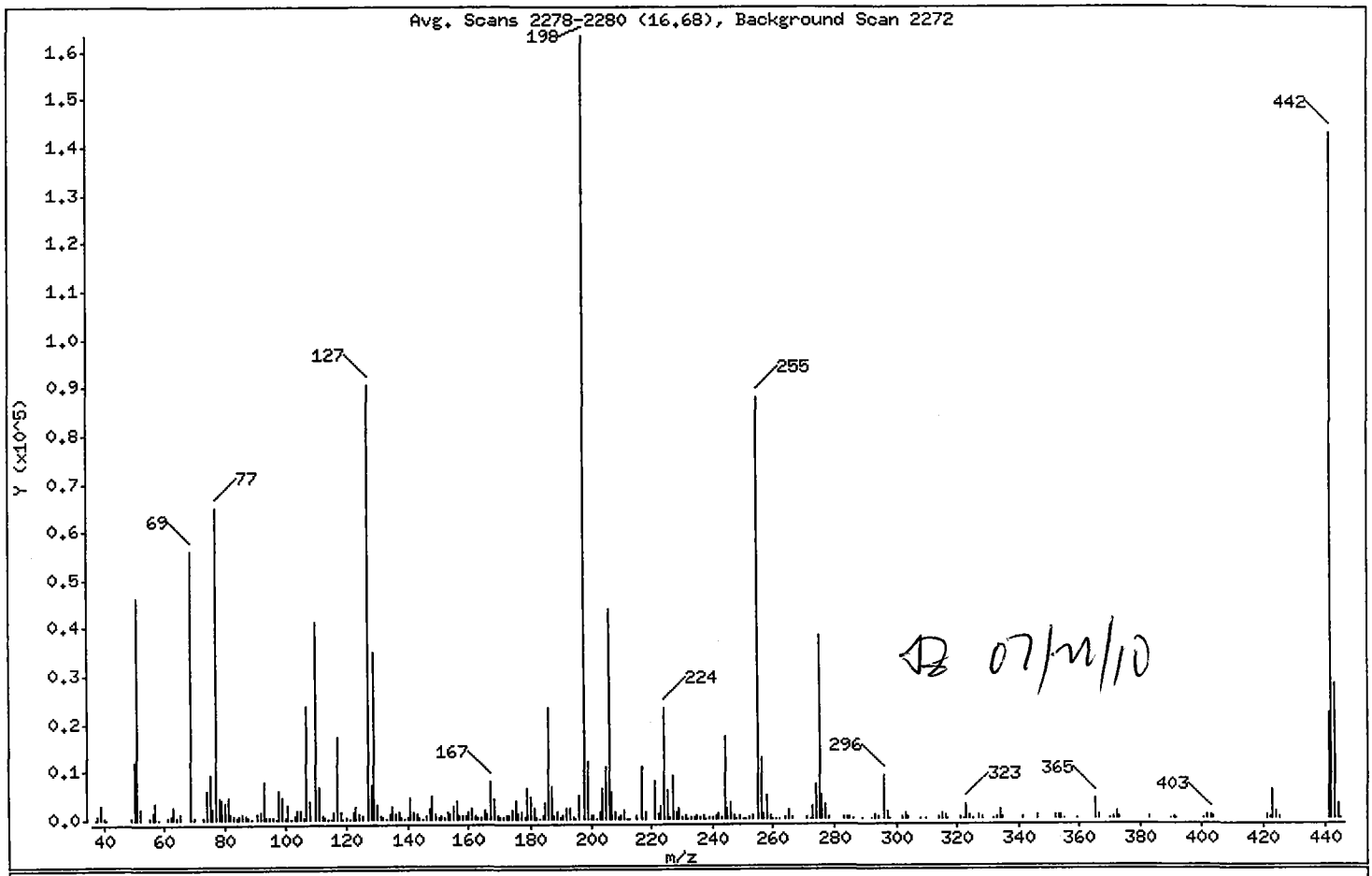
Sample Info: DFTPP0719

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



DB 07/21/10

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	28.30
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	34.18
70	Less than 2.00% of mass 69	0.18 (0.54)
127	10.00 - 80.00% of mass 198	55.45
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.26
275	10.00 - 60.00% of mass 198	23.41
365	Greater than 1.00% of mass 198	2.50
441	0.01 - 24.00% of mass 442	13.47 (15.37)
442	50.00 - 200.00% of mass 198	87.66
443	15.00 - 24.00% of mass 442	17.32 (19.76)

Data File: /chem3/nt4.i/20100719.b/tune.b/07191001.d

Date : 19-JUL-2010 16:18

Client ID: DFTPP0719

Instrument: nt4.i

Sample Info: DFTPP0719

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: 07191001.d

Spectrum: Avg. Scans 2278-2280 (16.68), Background Scan 2272

Location of Maximum: 198.00

Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	124.00	1068	194.00	516	274.00	6952
38.00	626	125.00	928	195.00	74	275.00	38240
39.00	3155	127.00	90568	196.00	4842	276.00	4902
40.00	240	128.00	7240	198.00	163328	277.00	3117
41.00	133	129.00	34976	199.00	11863	278.00	490
49.00	341	130.00	3136	200.00	903	283.00	378
50.00	12091	131.00	637	201.00	766	284.00	198
51.00	46216	132.00	342	202.00	187	285.00	490
52.00	2279	133.00	153	203.00	1329	286.00	65
55.00	297	134.00	1129	204.00	6388	289.00	110
56.00	1438	135.00	2602	205.00	10845	292.00	155
57.00	3212	136.00	1014	206.00	44056	293.00	700
58.00	135	137.00	1442	207.00	5697	294.00	220
61.00	549	138.00	343	208.00	1620	296.00	9048
62.00	790	139.00	162	209.00	354	297.00	1458
63.00	2458	140.00	293	210.00	768	298.00	53
64.00	336	141.00	4488	211.00	2062	302.00	218
65.00	1093	142.00	1318	212.00	166	303.00	1189
69.00	55832	143.00	949	213.00	136	304.00	343
70.00	301	144.00	361	215.00	571	308.00	99
73.00	194	145.00	149	217.00	11029	310.00	86
74.00	5838	146.00	933	218.00	1504	314.00	446
75.00	9200	147.00	2243	221.00	7732	315.00	1132
76.00	2411	148.00	4838	222.00	1169	316.00	637
77.00	64832	149.00	1154	223.00	2692	317.00	83
78.00	4584	150.00	297	224.00	23456	321.00	312
79.00	4287	151.00	712	225.00	6043	322.00	133
80.00	3333	152.00	458	226.00	467	323.00	3131
81.00	4634	153.00	1366	227.00	9060	324.00	671
82.00	1207	154.00	1075	228.00	1570	325.00	51
83.00	927	155.00	2457	229.00	2131	327.00	645
84.00	269	156.00	3710	230.00	278	328.00	320
85.00	789	157.00	774	231.00	800	332.00	166
86.00	948	158.00	741	232.00	137	333.00	387
87.00	602	159.00	635	233.00	218	334.00	2050

Data File: /chem3/nt4.i/20100719.b/tune.b/07191001.d

Date : 19-JUL-2010 16:18

Client ID: DFTPP0719

Instrument: nt4.i

Sample Info: DFTPP0719

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: 07191001.d
Spectrum: Avg. Scans 2278-2280 (16.68), Background Scan 2272
Location of Maximum: 198.00
Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	274	160.00	1414	234.00	561	335.00	456
89.00	140	161.00	2227	235.00	806	341.00	328
91.00	1126	162.00	641	236.00	506	346.00	618
92.00	1437	163.00	254	237.00	841	352.00	919
93.00	7814	164.00	284	238.00	65	353.00	651
94.00	392	165.00	1814	239.00	363	354.00	938
95.00	194	166.00	1157	240.00	376	355.00	90
96.00	431	167.00	7700	241.00	578	359.00	57
97.00	63	168.00	4026	242.00	1185	365.00	4085
98.00	5863	169.00	685	243.00	462	366.00	751
99.00	4521	170.00	323	244.00	17144	370.00	62
100.00	429	171.00	443	245.00	2104	371.00	244
101.00	2891	172.00	734	246.00	3475	372.00	1497
102.00	148	173.00	921	247.00	804	373.00	472
103.00	837	174.00	1805	248.00	141	383.00	429
104.00	1882	175.00	3722	249.00	685	390.00	161
105.00	1824	176.00	1027	250.00	67	391.00	235
106.00	256	177.00	1400	251.00	147	392.00	78
107.00	23808	178.00	437	252.00	188	401.00	53
108.00	3656	179.00	6417	253.00	579	402.00	748
110.00	41184	180.00	4403	255.00	87864	403.00	833
111.00	6615	181.00	2289	256.00	12866	404.00	311
112.00	697	182.00	438	257.00	1093	421.00	791
113.00	280	183.00	173	258.00	4775	422.00	405
114.00	62	184.00	574	259.00	669	423.00	5987
115.00	172	185.00	3393	260.00	130	424.00	1326
116.00	1343	186.00	23320	261.00	146	425.00	201
117.00	17168	187.00	6795	262.00	58	441.00	22008
118.00	1429	188.00	689	264.00	215	442.00	143168
119.00	139	189.00	1412	265.00	1846	443.00	28288
120.00	356	190.00	292	266.00	390	444.00	2849
121.00	75	191.00	714	271.00	396	445.00	152
122.00	1440	192.00	2176	272.00	150		
123.00	2633	193.00	2306	273.00	2780		

RF71:00215

Data File: /chem3/nt4.i/20100719.b/tune.b/07191001.d

Date : 19-JUL-2010 16:18

Client ID: DFTPP0719

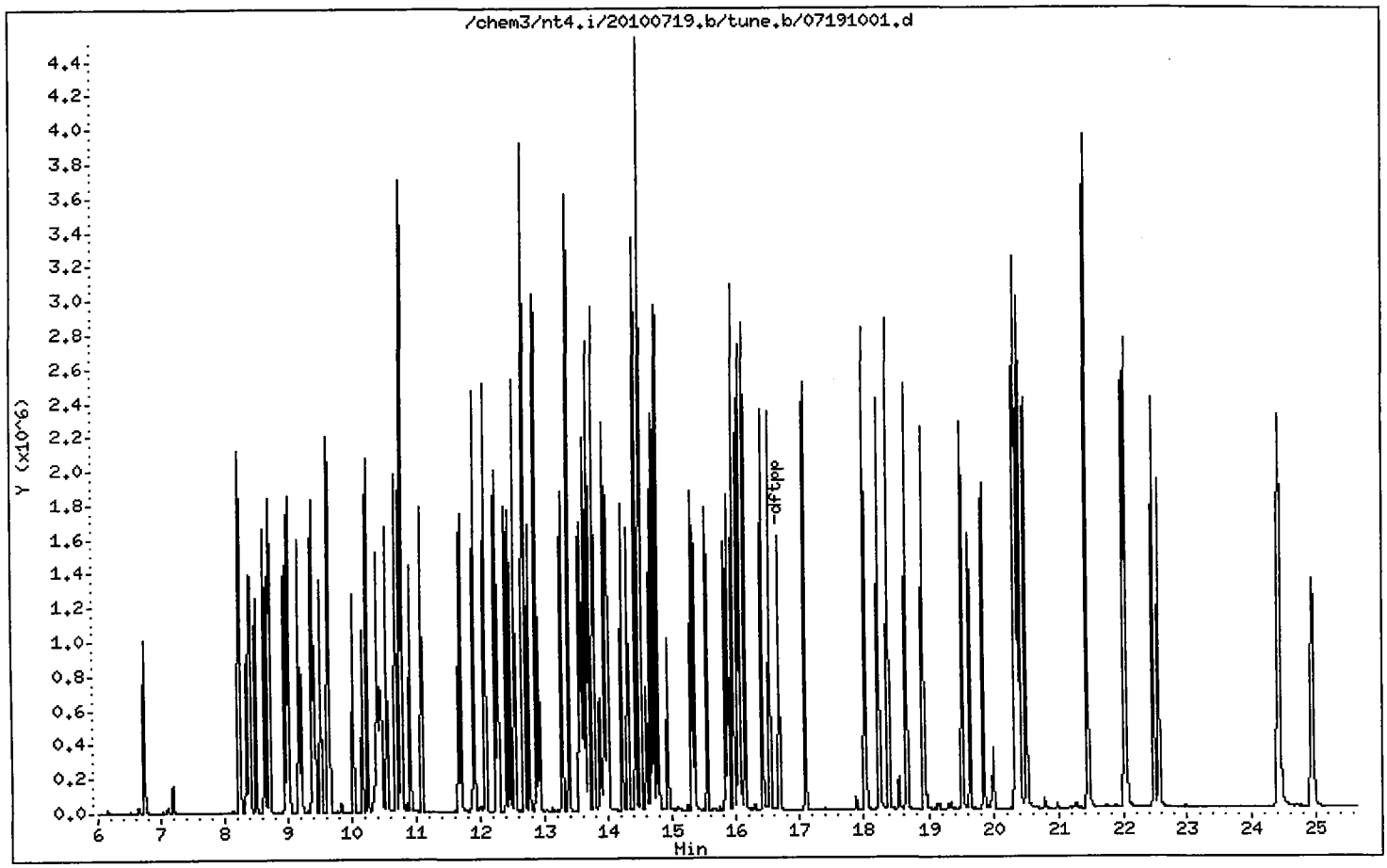
Instrument: nt4.i

Sample Info: DFTPP0719

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.25



RF71 : 00216

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt4.i/20100719.b/ddt.b/07191001.d
Method: /chem3/nt4.i/20100719.b/ddt.b/sw846ddt.m
Analysis Date: 19-JUL-2010 16:18

ARI ID: IC250719
Misc: 10-
Instrument: nt4.i

COMPOUND	RT	AREA
Pentachlorophenol	15.830	246760
Benzidine	13.756	317048
4,4'-DDE	----	----
4,4'-DDD	19.172	9246
4,4'-DDT	19.654	449440

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

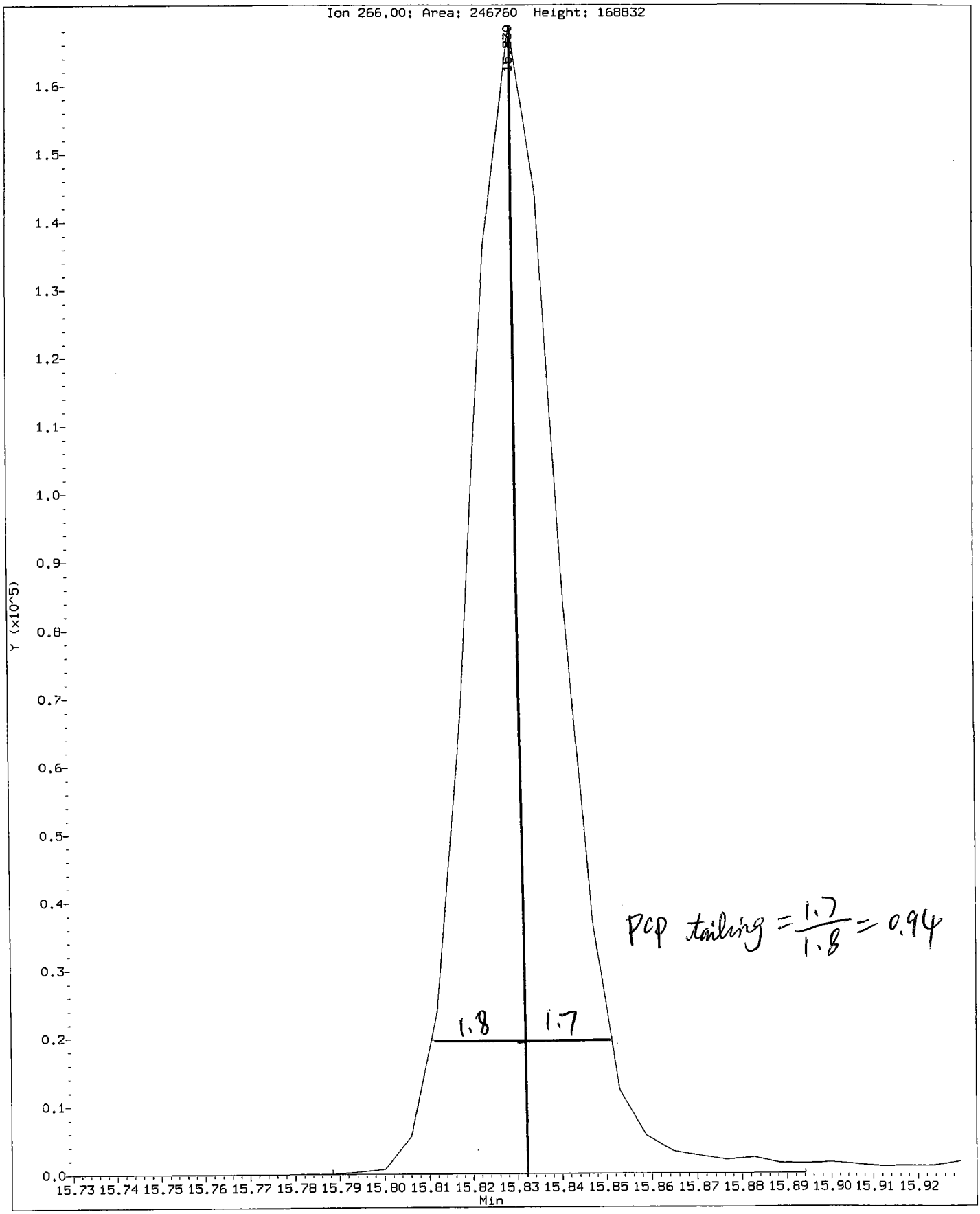
$$\text{DDT Percent Breakdown} = \frac{(0 + 9246) * 100}{(0 + 9246 + 449440)}$$

DDT Percent Breakdown = 2.0 %

07/21/10

Data File: /chem3/nt4.i/20100719.b/ddt.b/07191001.d
Injection Date: 19-JUL-2010 16:18
Instrument: nt4.i
Client Sample ID: IC250719

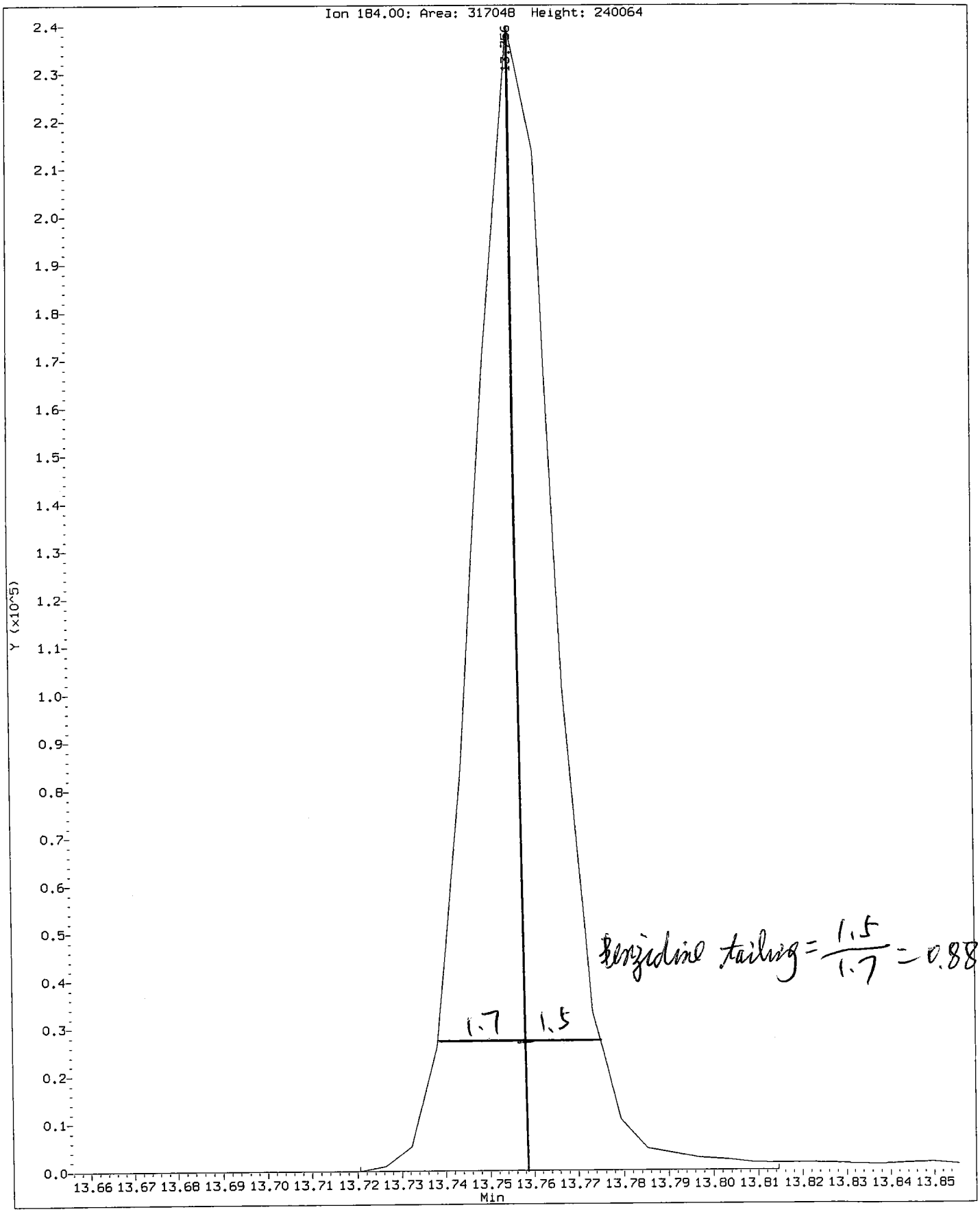
Compound: Pentachlorophenol
CAS Number: 87-86-5



RF71:00218

Data File: /chem3/nt4.i/20100719.b/ddt.b/07191001.d
Injection Date: 19-JUL-2010 16:18
Instrument: nt4.i
Client Sample ID: IC250719

Compound: Benzidine
CAS Number:



RF71:00219

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191002.d
Lab Smp Id: IC010719 Client Smp ID: IC010719
Inj Date : 19-JUL-2010 16:56
Operator : JZ Inst ID: nt4.i
Smp Info : IC010719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 16:56 Cal File: 07191002.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

JZ 07/21/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.727	6.737	(0.774)	16929	1.00000	1.000
$ 2	Phenol-d5	99	8.208	8.229	(0.945)	15849	1.00000	1.000
3	Phenol	94	8.225	8.252	(0.947)	22145	1.00000	1.000
$ 5	2-Chlorophenol-d4	132	8.384	8.393	(0.965)	17674	1.00000	1.000
4	Bis(2-Chloroethyl)ether	93	8.337	8.352	(0.959)	16775	1.00000	1.000
6	2-Chlorophenol	128	8.407	8.423	(0.968)	20019	1.00000	1.000
7	1,3-Dichlorobenzene	146	8.631	8.640	(0.993)	24857	1.00000	1.000
* 8	1,4-Dichlorobenzene-d4	152	8.689	8.699	(1.000)	290756	20.0000	
9	1,4-Dichlorobenzene	146	8.713	8.722	(1.003)	24688	1.00000	1.000
$ 10	1,2-Dichlorobenzene-d4	152	8.995	8.998	(1.035)	14140	1.00000	1.000(M)
12	1,2-Dichlorobenzene	146	9.012	9.022	(1.037)	22982	1.00000	1.000
14	2,2'-oxybis(1-Chloropropane)	45	9.206	9.216	(1.059)	16487	1.00000	1.000
13	2-Methylphenol	108	9.159	9.181	(1.054)	14573	1.00000	1.000
17	Hexachloroethane	117	9.506	9.509	(1.094)	8597	1.00000	1.000
16	N-Nitroso-di-n-propylamine	70	9.418	9.445	(1.084)	11445	1.00000	1.000
15	4-Methylphenol	108	9.388	9.415	(1.080)	15650	1.00000	1.000
$ 18	Nitrobenzene-d5	82	9.612	9.627	(0.895)	16718	1.00000	1.000
19	Nitrobenzene	77	9.641	9.662	(0.898)	17688	1.00000	1.000
20	Isophorone	82	10.017	10.038	(0.933)	29376	1.00000	1.000
21	2-Nitrophenol	139	10.164	10.173	(0.946)	8306	1.00000	1.000
22	2,4-Dimethylphenol	107	10.234	10.256	(0.953)	17478	1.00000	1.000
23	Bis(2-Chloroethoxy)methane	93	10.393	10.408	(0.968)	20749	1.00000	1.000
25	2,4-Dichlorophenol	162	10.534	10.549	(0.981)	13002	1.00000	1.000
26	1,2,4-Trichlorobenzene	180	10.675	10.684	(0.994)	18864	1.00000	1.000
* 27	Naphthalene-d8	136	10.739	10.749	(1.000)	1025728	20.0000	
28	Naphthalene	128	10.769	10.784	(1.003)	60556	1.00000	1.000
29	4-Chloroaniline	127	10.898	10.908	(1.015)	20131	1.00000	1.000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	30 Hexachlorobutadiene	225	11.080	11.084	(1.032)	11152	1.00000	1.000
	31 4-Chloro-3-methylphenol	107	11.691	11.701	(1.089)	10459	1.00000	1.000
	32 2-Methylnaphthalene	142	11.897	11.906	(1.108)	38275	1.00000	1.000
	34 2,4,6-Trichlorophenol	196	12.402	12.411	(0.910)	9385	1.00000	1.000
	35 2,4,5-Trichlorophenol	196	12.461	12.470	(0.915)	7560	1.00000	1.000
$	36 2-Fluorobiphenyl	172	12.531	12.541	(0.920)	44578	1.00000	1.000
	37 2-Chloronaphthalene	162	12.684	12.699	(0.931)	37915	1.00000	1.000
	38 2-Nitroaniline	65	12.901	12.923	(0.947)	4299	1.00000	1.000
	39 Dimethylphthalate	163	13.260	13.287	(0.973)	44202	1.00000	1.000
	40 Acenaphthylene	152	13.371	13.381	(0.981)	59340	1.00000	1.000
	41 2,6-Dinitrotoluene	165	13.365	13.387	(0.981)	7415	1.00000	1.000
*	42 Acenaphthene-d10	164	13.624	13.633	(1.000)	609037	20.0000	
	43 3-Nitroaniline	138	13.583	13.610	(0.997)	8127	1.00000	1.000 (M)
	44 Acenaphthene	153	13.677	13.686	(1.004)	37912	1.00000	1.000
	46 Dibenzofuran	168	13.935	13.951	(1.023)	50118	1.00000	1.000
	48 2,4-Dinitrotoluene	165	14.000	14.021	(1.028)	8769	1.00000	1.000
	50 Diethylphthalate	149	14.417	14.438	(1.058)	47903	1.00000	1.000
	49 Fluorene	166	14.499	14.514	(1.064)	44002	1.00000	1.000
	51 4-Chlorophenyl-phenylether	204	14.505	14.514	(1.065)	21156	1.00000	1.000
	52 4-Nitroaniline	138	14.581	14.626	(1.070)	8559	1.00000	1.000 (M)
	54 N-Nitrosodiphenylamine	169	14.711	14.732	(0.918)	30879	1.00000	1.000
$	55 2,4,6-Tribromophenol	330	14.922	14.937	(1.095)	3444	1.00000	1.000
	56 4-Bromophenyl-phenylether	248	15.298	15.308	(0.955)	10876	1.00000	1.000
	57 Hexachlorobenzene	284	15.533	15.548	(0.970)	12460	1.00000	1.000
*	59 Phenanthrene-d10	188	16.021	16.036	(1.000)	1031072	20.0000	
	60 Phenanthrene	178	16.056	16.077	(1.002)	65449	1.00000	1.000
	61 Anthracene	178	16.132	16.153	(1.007)	65409	1.00000	1.000
	62 Carbazole	167	16.408	16.424	(1.024)	59018	1.00000	1.000
	63 Di-n-butylphthalate	149	17.084	17.093	(1.066)	71682	1.00000	1.000
	64 Fluoranthene	202	18.012	18.027	(1.124)	63563	1.00000	1.000
	65 Pyrene	202	18.376	18.397	(0.902)	68781	1.00000	1.000
$	66 Terphenyl-d14	244	18.664	18.674	(0.916)	41564	1.00000	1.000
	67 Butylbenzylphthalate	149	19.528	19.543	(0.958)	28078	1.00000	1.000
	68 Benzo(a)anthracene	228	20.344	20.365	(0.999)	62157	1.00000	1.000
*	69 Chrysene-d12	240	20.374	20.389	(1.000)	888098	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.338	20.348	(0.998)	16378	1.00000	1.000
	71 Chrysene	228	20.415	20.436	(1.002)	61441	1.00000	1.000
	72 bis(2-Ethylhexyl)phthalate	149	20.515	20.518	(0.956)	37359	1.00000	1.000
*	134 Di-n-octylphthalate-d4	153	21.449	21.458	(1.000)	1405493	20.0000	
	73 Di-n-octylphthalate	149	21.454	21.470	(1.000)	88965	1.00000	1.000
	74 Benzo(b)fluoranthene	252	22.012	22.040	(0.975)	62957	1.00000	1.000
	75 Benzo(k)fluoranthene	252	22.048	22.075	(0.977)	68867	1.00000	1.000
	187 Total Benzofluoranthenes	252	22.012	22.075	(0.975)	123956	2.00000	2.000 (M)
	76 Benzo(a)pyrene	252	22.482	22.510	(0.996)	55355	1.00000	1.000
*	77 Perylene-d12	264	22.571	22.580	(1.000)	896867	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	24.403	24.454	(1.081)	49743	1.00000	1.000
	79 Dibenzo(a,h)anthracene	278	24.421	24.477	(1.082)	36717	1.00000	1.000 (M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
80	Benzo(g,h,i)perylene	276	24.926	24.989	(1.104)	42342	1.00000	1.000 (M)
90	N-Nitrosodimethylamine	74	4.260	4.281	(0.490)	9418	1.00000	1.000
103	Pyridine	79	4.272	4.240	(0.492)	13123	1.00000	1.000 (M)
91	Aniline	93	8.237	8.252	(0.948)	24205	1.00000	1.000
105	1-methylnaphthalene	142	12.073	12.082	(1.124)	37878	1.00000	1.000
93	Benzidine	184	18.247	18.251	(0.896)	18817	1.00000	1.000 (M)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.758	14.779	(1.083)	34717	1.00000	1.000
143	1,4-Dioxane	88	3.485	3.494	(0.401)	6166	1.00000	
$ 137	d8-1,4-Dioxane	96	3.420	3.424	(0.394)	6252	1.00000	
151	1,2,4,5-Tetrachlorobenzene	216	12.237	12.247	(0.898)	18497	1.00000	1.000
120	2,3,4,6-Tetrachlorophenol	232	14.211	14.221	(1.043)	7771	1.00000	1.000
144	alpha-Terpineol	59	10.775	10.790	(1.003)	10428	1.00000	1.000
98	Retene	219	18.923	18.932	(0.929)	20377	1.00000	1.000
133	Butylatedhydroxytoluene	205	13.765	13.774	(1.010)	36457	1.00000	1.000
115	Tributyl Phosphate	99	14.769	14.802	(0.922)	42406	1.00000	1.000
116	Dibutyl Phenyl Phosphate	175	16.526	16.535	(1.032)	32552	1.00000	1.000
117	Butyl Diphenyl Phosphate	94	18.235	18.245	(0.895)	9172	1.00000	1.000
118	Triphenyl Phosphate	326	19.857	19.866	(0.975)	9524	1.00000	1.000
123	Acetophenone	105	9.371	9.392	(0.873)	24162	1.00000	1.000
179	n-Decane	57	8.495	8.505	(0.978)	13401	1.00000	1.000
180	n-Octadecane	57	15.874	15.883	(0.991)	15597	1.00000	1.000
168	Pentachlorobenzene	250	13.976	13.992	(1.026)	14879	1.00000	1.000
113	Diphenyl Oxide	170	12.860	12.870	(0.944)	38962	1.00000	1.000
112	Biphenyl	154	12.672	12.682	(0.930)	44311	1.00000	1.000
110	Tetrachloroguaiacol	247	15.950	15.971	(0.996)	11956	2.00000	2.000
109	3,4,5-Trichloroguaiacol	213	14.305	14.315	(0.893)	5696	1.00000	1.000
181	3,4,6-Trichloroguaiacol	211	14.429	14.444	(0.901)	6639	1.00000	1.000
108	4,5,6-Trichloroguaiacol	213	15.339	15.349	(0.957)	5830	1.00000	1.000
184	3,4-Dichloroguaiacol	192	12.754	12.764	(0.936)	5700	1.00000	1.000
107	4,5-Dichloroguaiacol	192	13.530	13.545	(0.993)	7611	1.00000	1.000
182	4,6-Dichloroguaiacol	192	13.559	13.580	(0.995)	8112	1.00000	1.000
185	4-Chloroguaiacol	115	11.650	11.660	(1.341)	3842	0.50000	0.5000
106	Guaiacol	124	9.629	9.645	(1.108)	16777	1.00000	1.000

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191002.d
Lab Smp Id: IC010719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC010719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	290756	-18.44
27 Naphthalene-d8	1293412	646706	2586824	1025728	-20.70
42 Acenaphthene-d10	785897	392948	1571794	609037	-22.50
59 Phenanthrene-d10	1313990	656995	2627980	1031072	-21.53
69 Chrysene-d12	1155293	577646	2310586	888098	-23.13
134 Di-n-octylphthala	1825297	912648	3650594	1405493	-23.00
77 Perylene-d12	1146289	573144	2292578	896867	-21.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.69	-0.10
27 Naphthalene-d8	10.74	10.24	11.24	10.74	-0.03
42 Acenaphthene-d10	13.63	13.13	14.13	13.62	-0.02
59 Phenanthrene-d10	16.03	15.53	16.53	16.02	-0.05
69 Chrysene-d12	20.38	19.88	20.88	20.37	-0.04
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	-0.01
77 Perylene-d12	22.58	22.08	23.08	22.57	-0.04

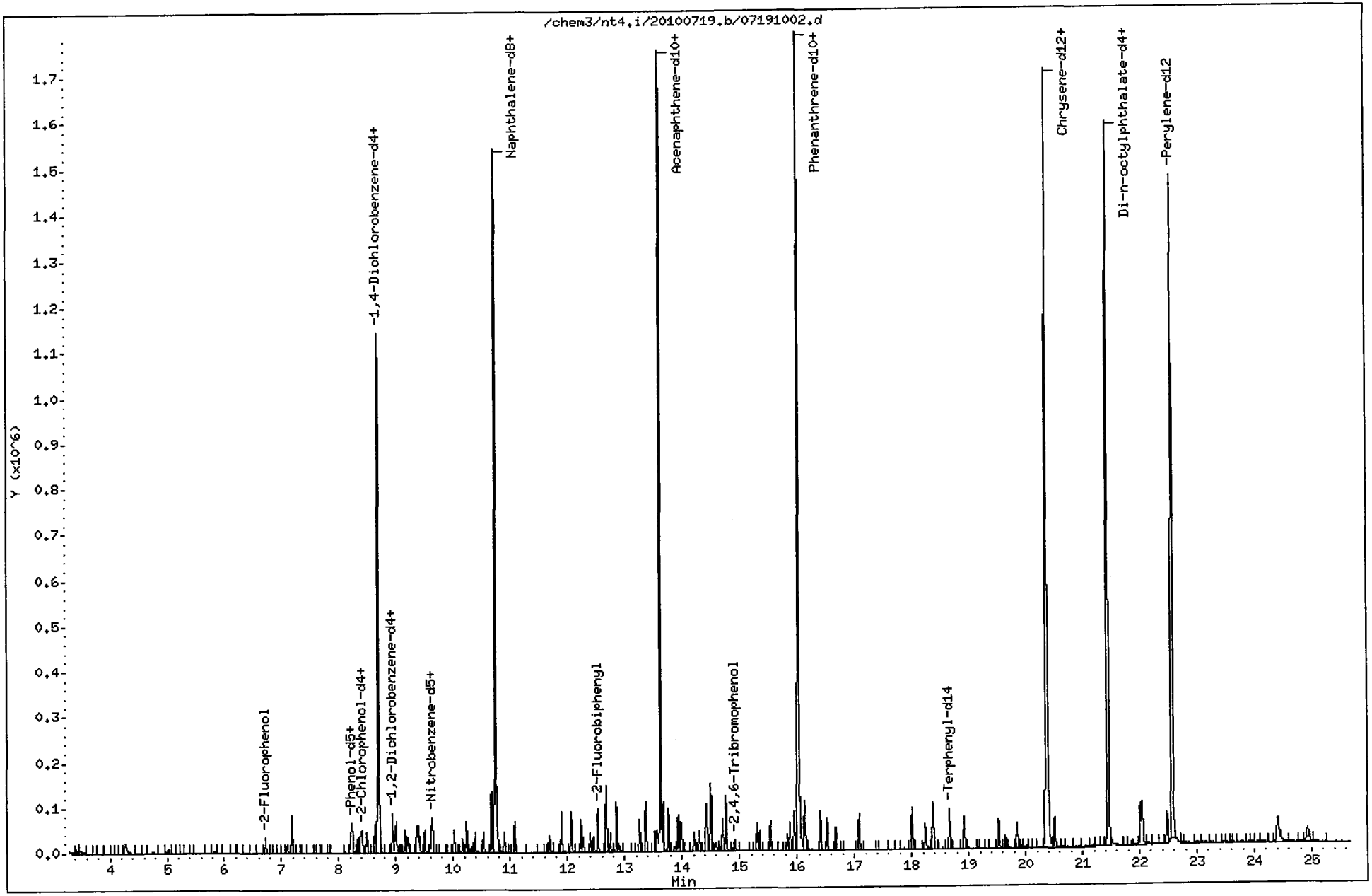
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt4.i/20100719.b/07191002.d
Date : 19-JUL-2010 16:56
Client ID: IC010719
Sample Info: IC010719

Column phase: ZB-5msi

Instrument: nt4.i

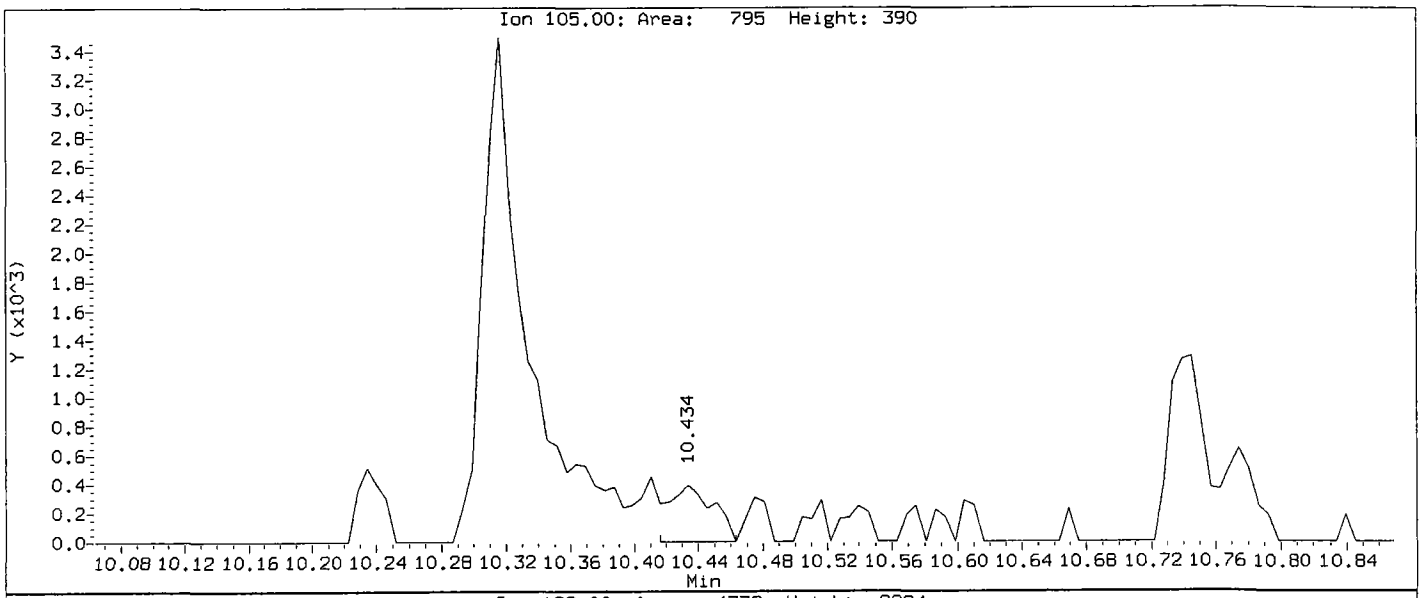
Operator: JZ
Column diameter: 0.32

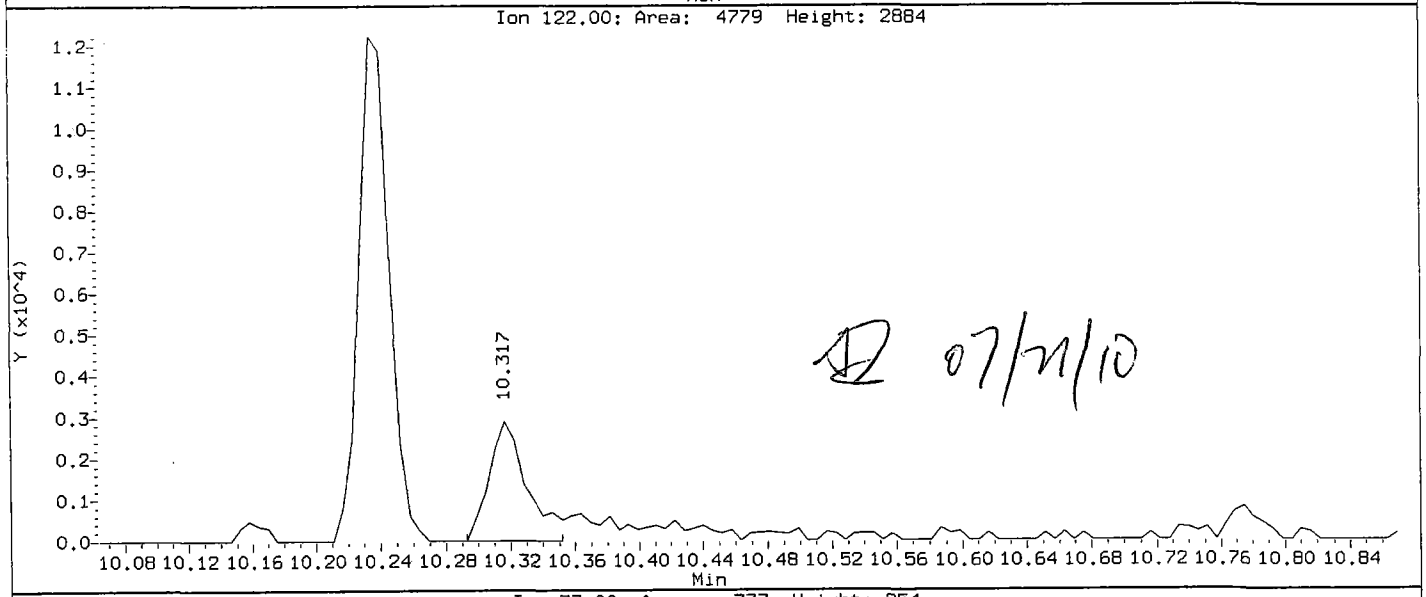


RF71:00224

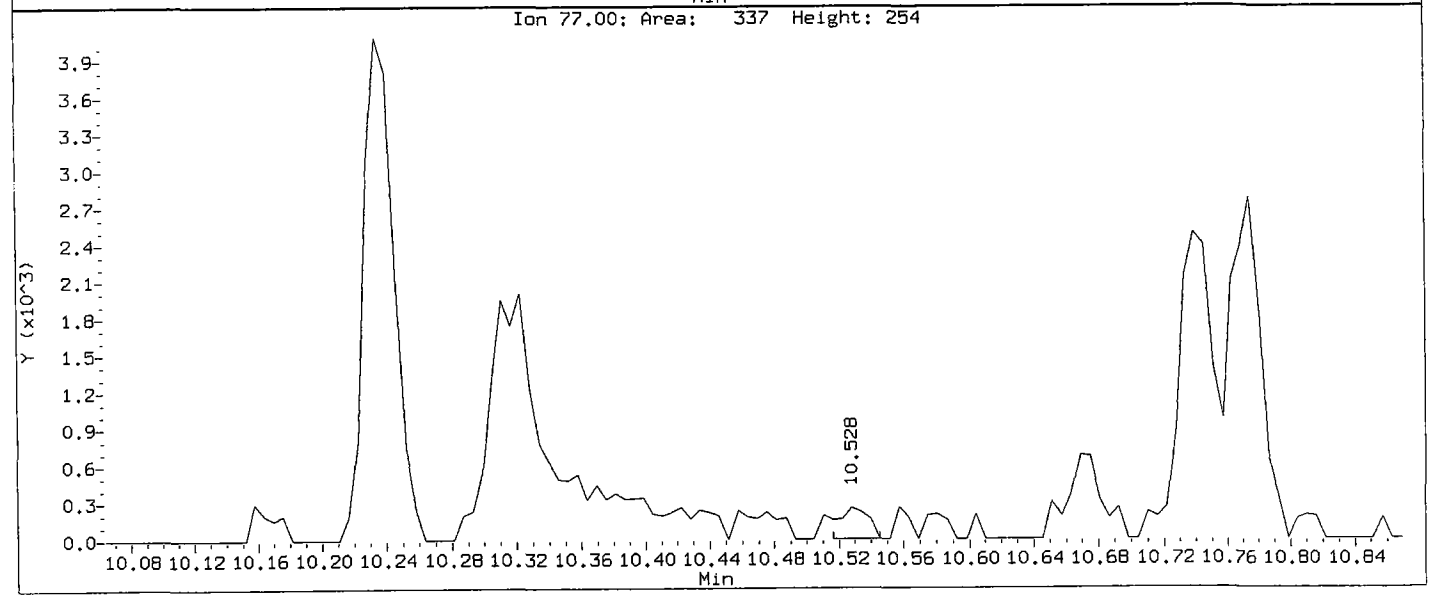
Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Benzoic acid
CAS Number: 65-85-0





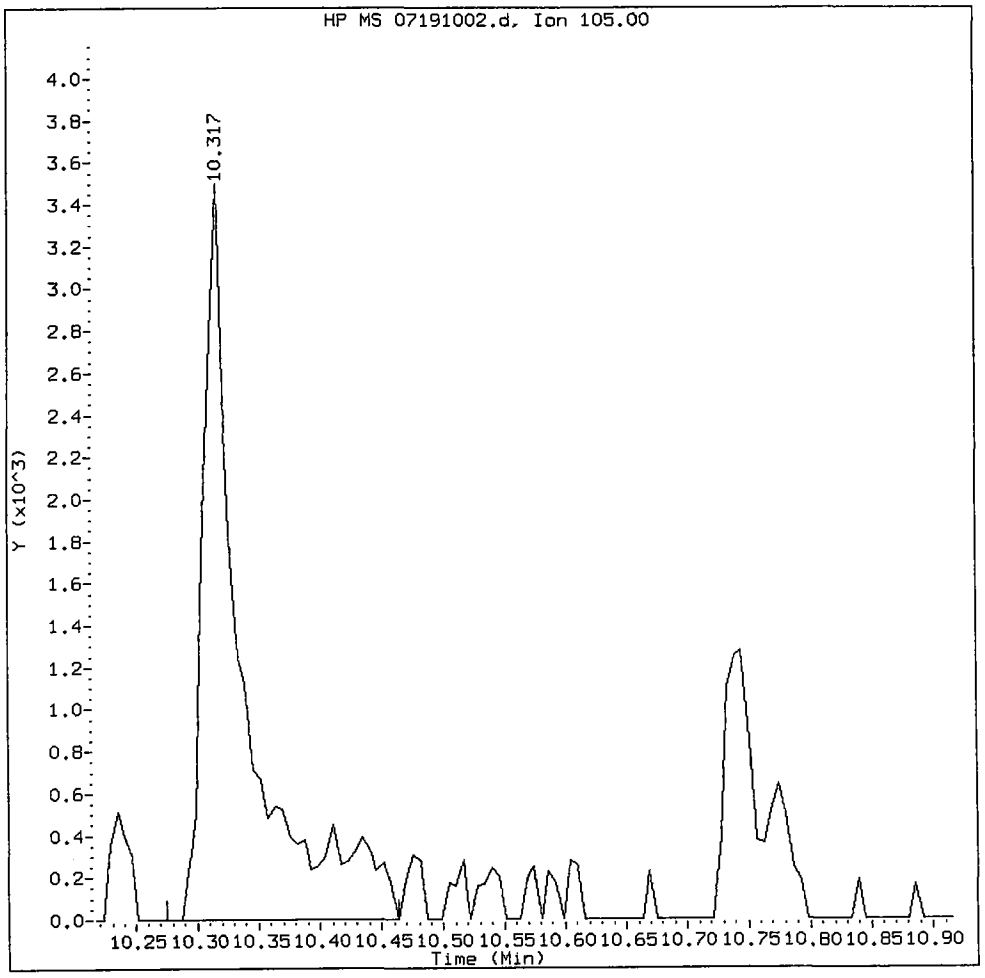
07/21/10



RF71 : 00225

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Benzoic acid Amount: 0.00 Area: 8004



MANUAL INTEGRATION for Benzoic acid

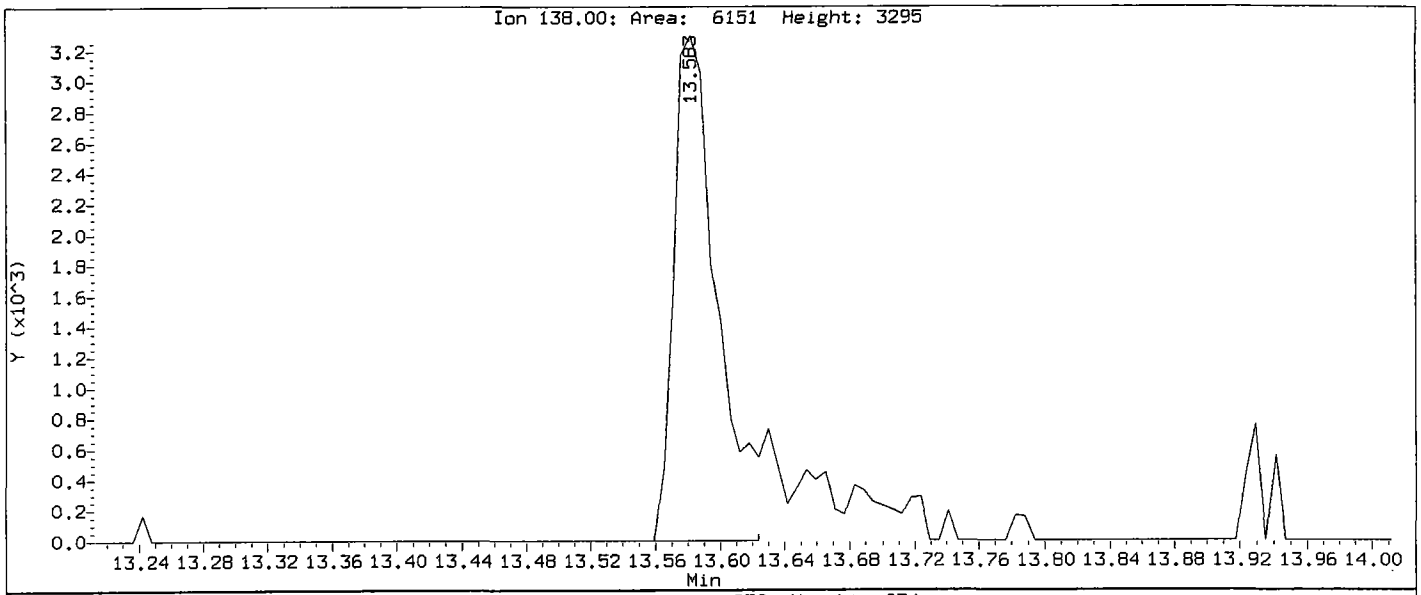
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

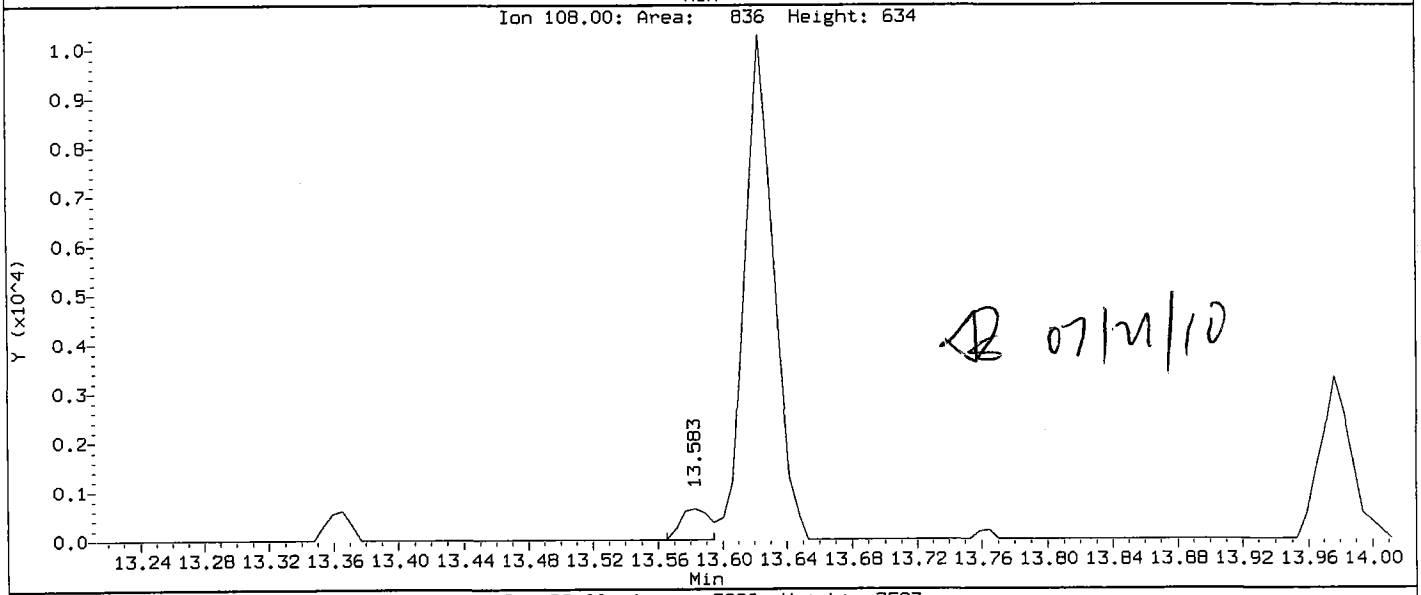
5. Other _____

Analyst: AZ Date: 07/21/10

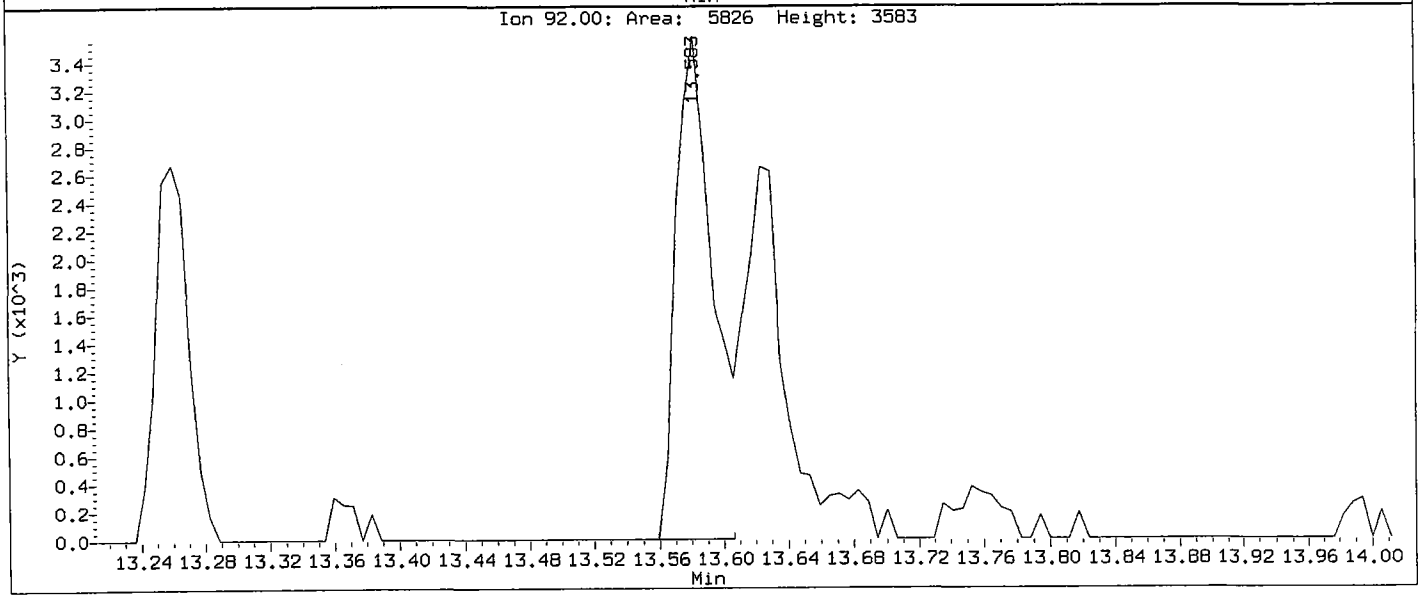
Data File: /chem3/nt4.i/20100719B.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: 3-Nitroaniline
CAS Number: 99-09-2





07/21/10



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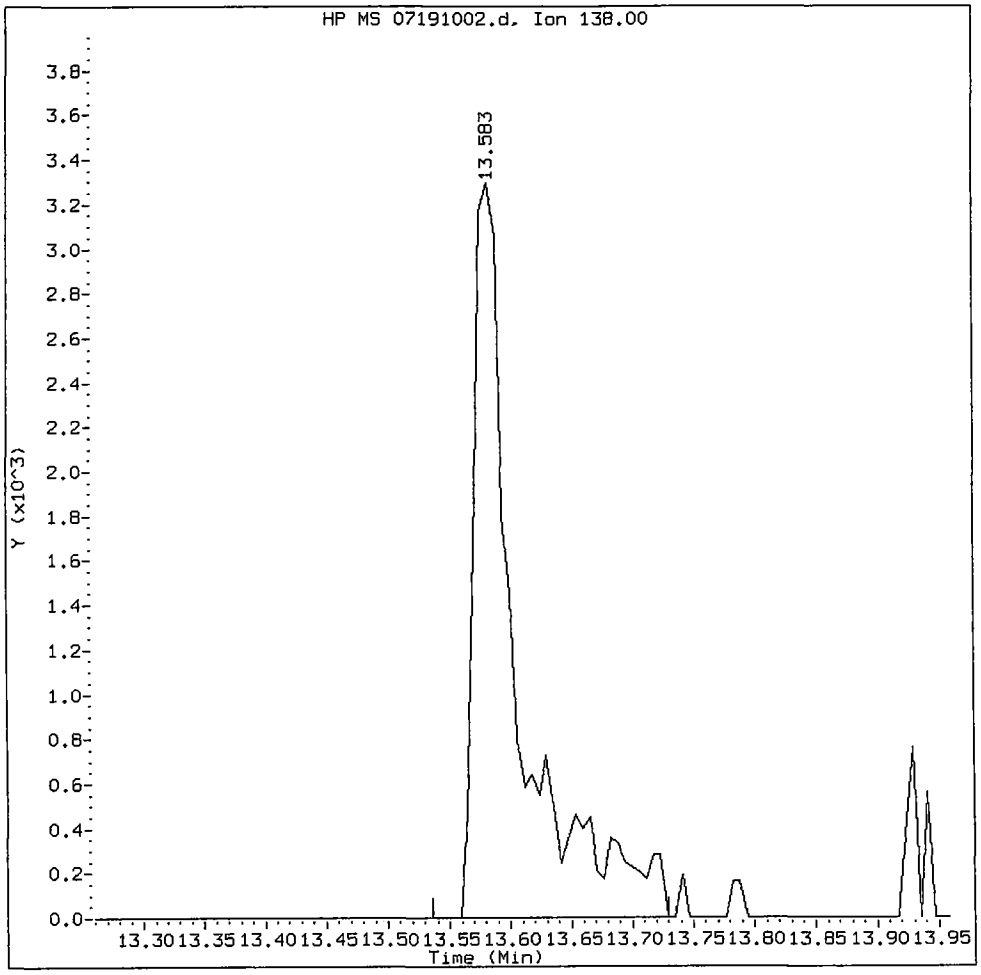
IC010719, /chem3/nt4.i/20100719.b/07191002.d

3-Nitroaniline Amount: 1.00 Area: 8127



MANUAL INTEGRATION for 3-Nitroaniline

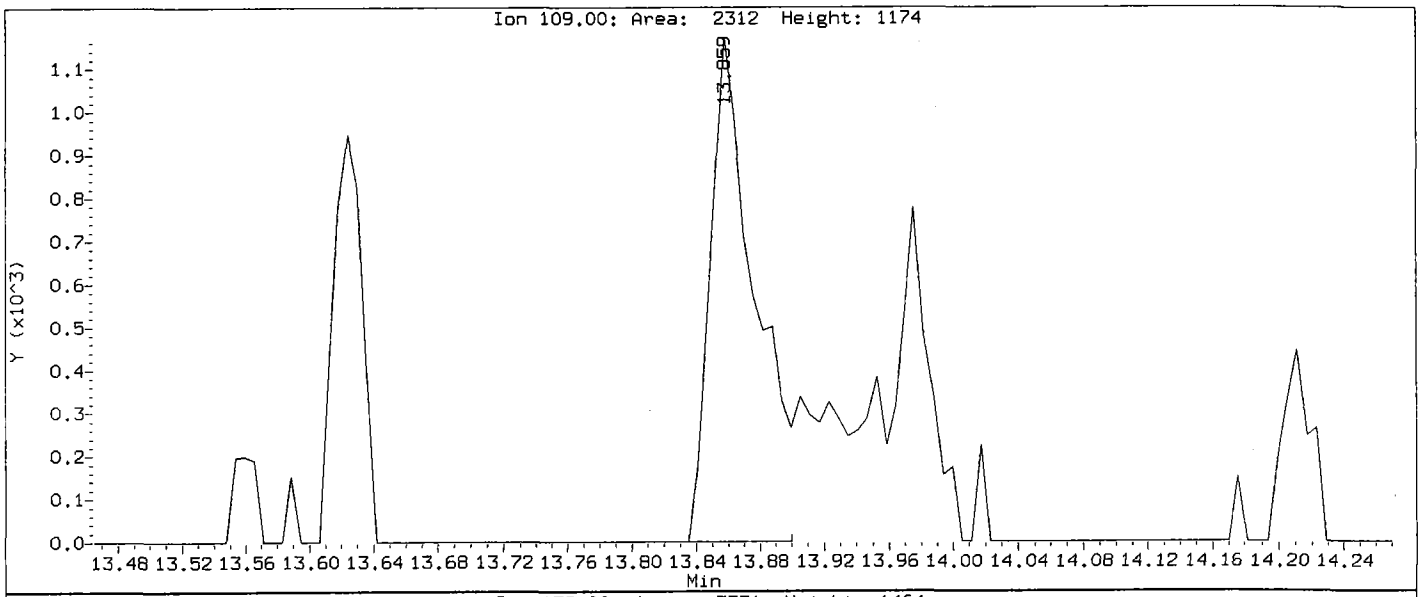
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

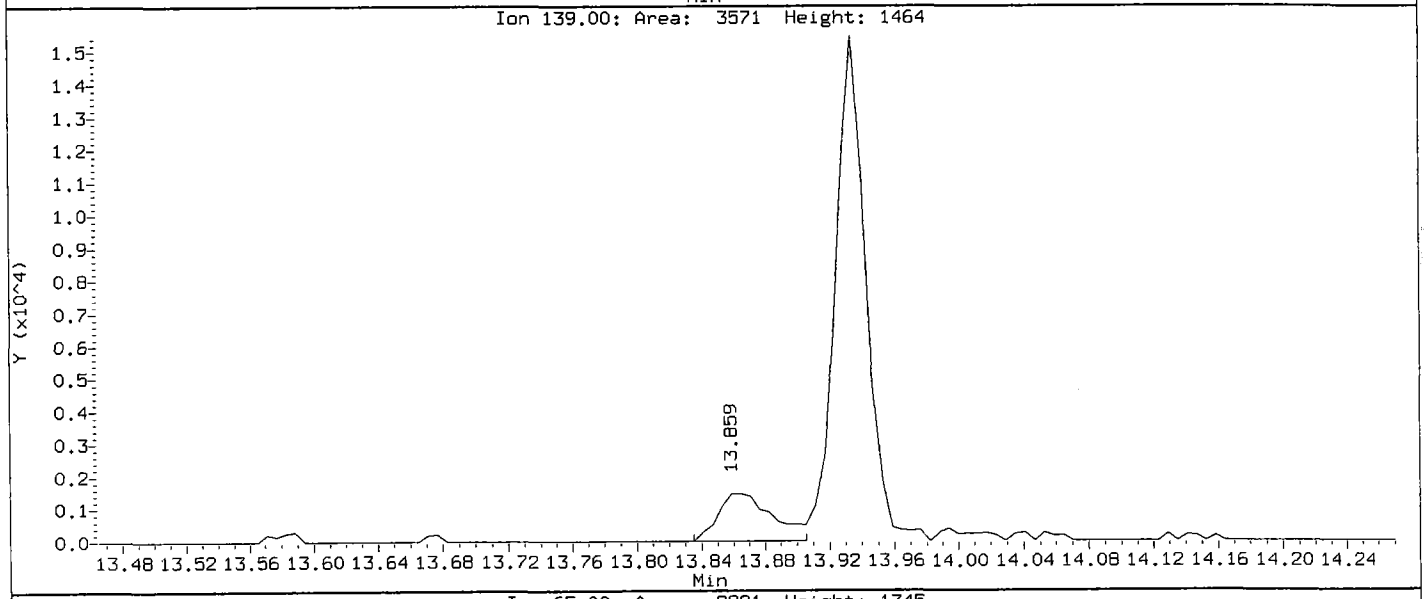
5. Other _____

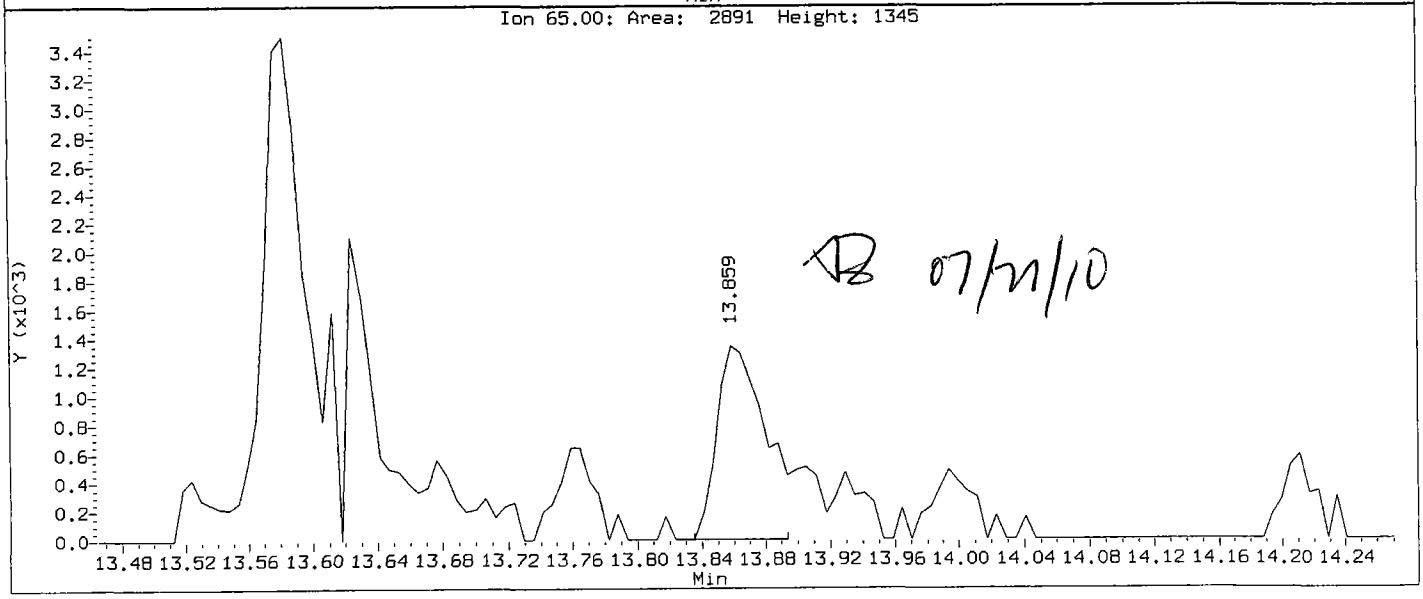
Analyst: _____ Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: 4-Nitrophenol
CAS Number: 100-02-7



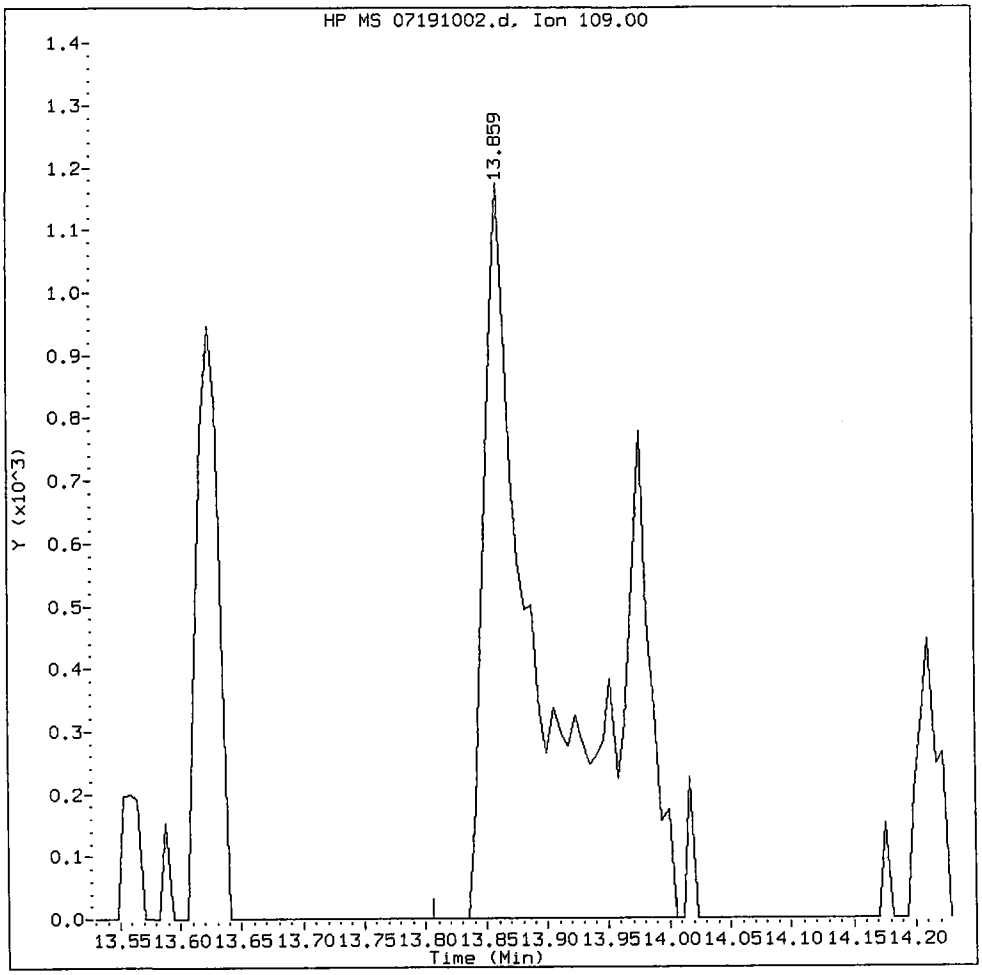




DB 07/21/10

IC010719, /chem3/nt4.i/20100719.b/07191002.d

4-Nitrophenol Amount: 0.00 Area: 4317



MANUAL INTEGRATION for 4-Nitrophenol

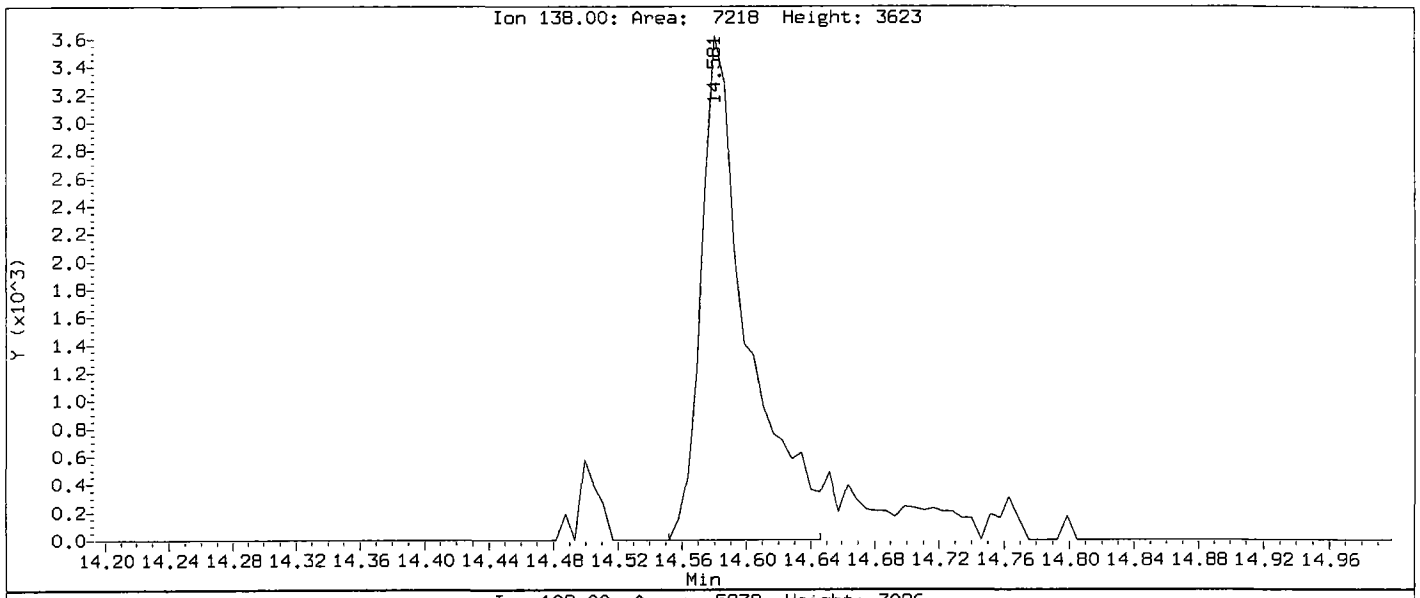
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

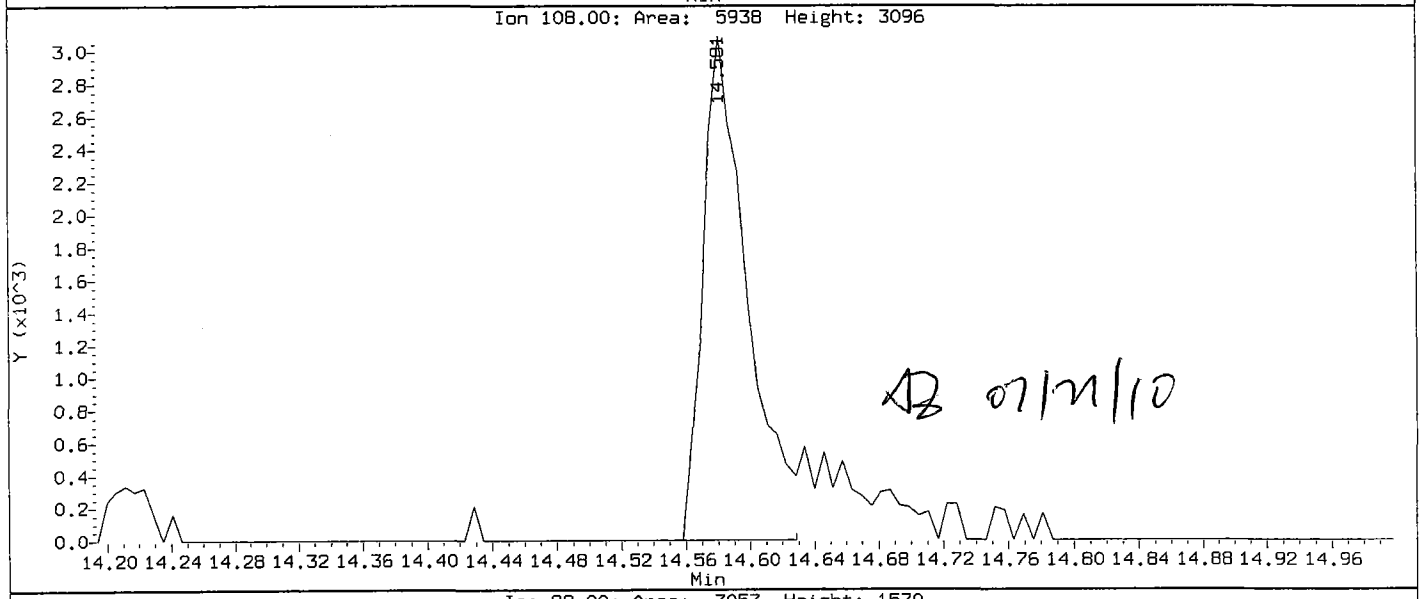
5. Other _____

Analyst: AR Date: 07/21/10

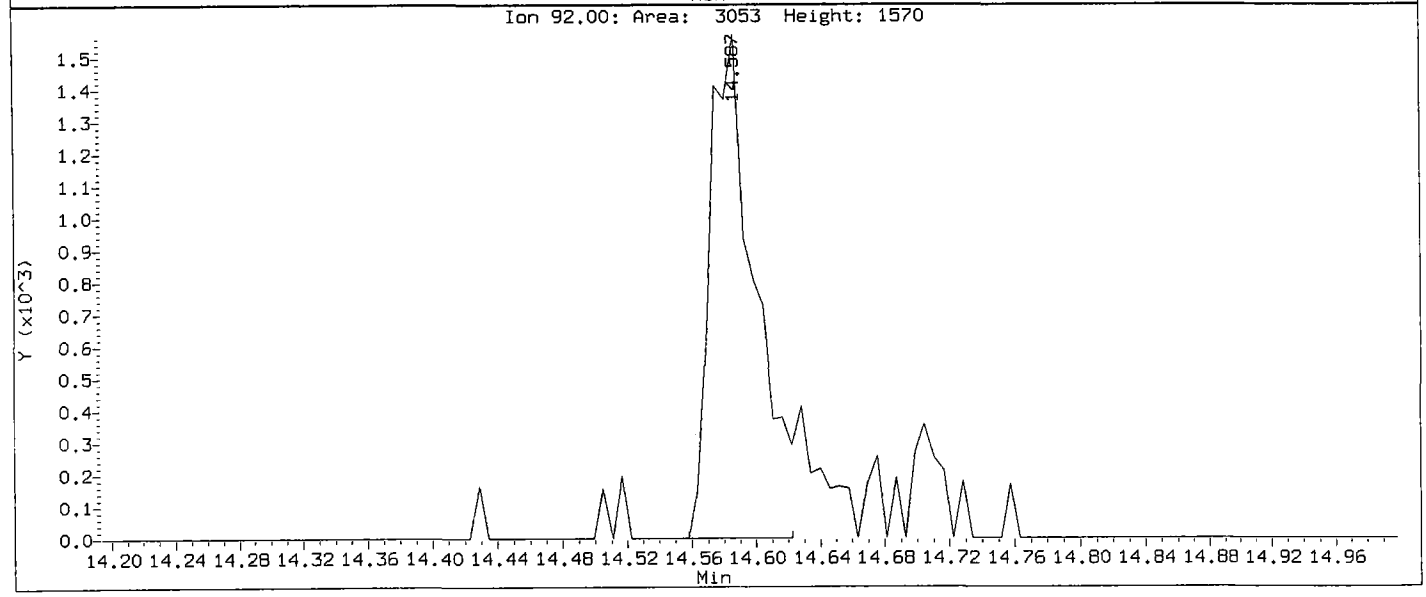
Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: 4-Nitroaniline
CAS Number: 100-01-6





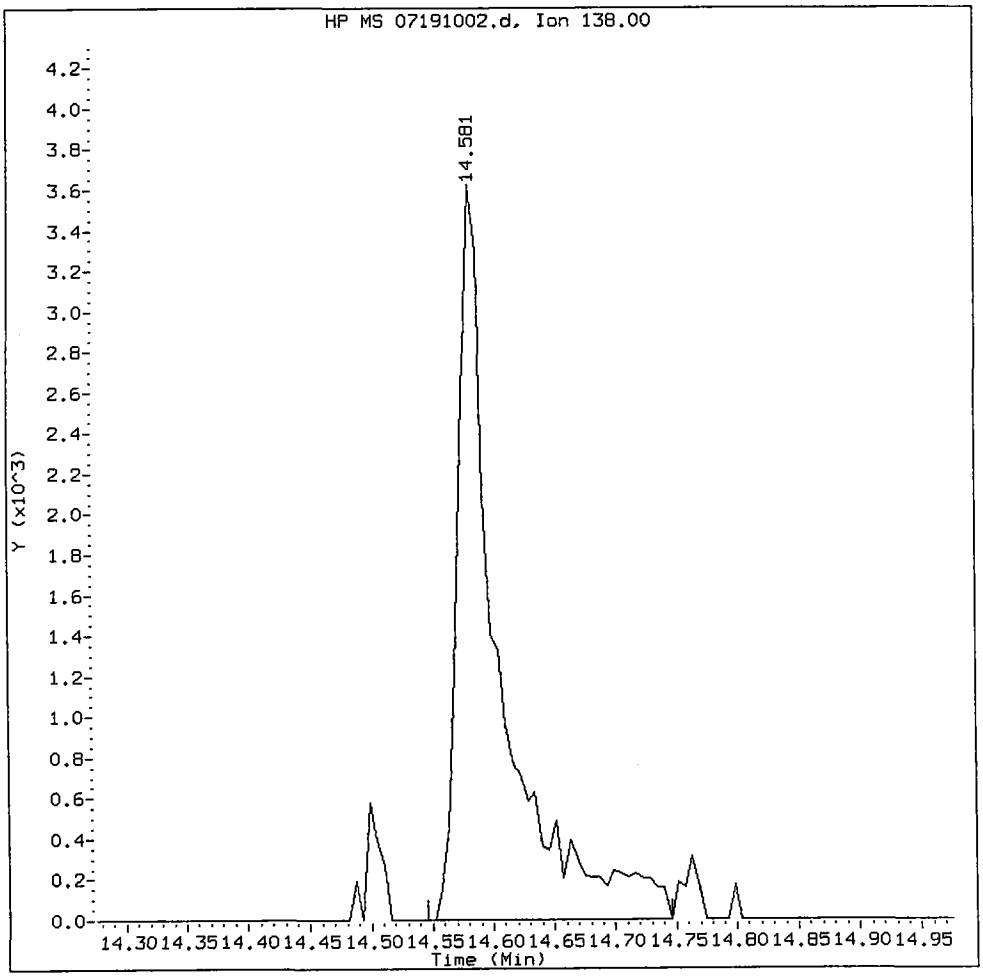
DB 07/21/10



RF71 : 00231

IC010719, /chem3/nt4.i/20100719.b/07191002.d

4-Nitroaniline Amount: 1.00 Area: 8559



MANUAL INTEGRATION for 4-Nitroaniline

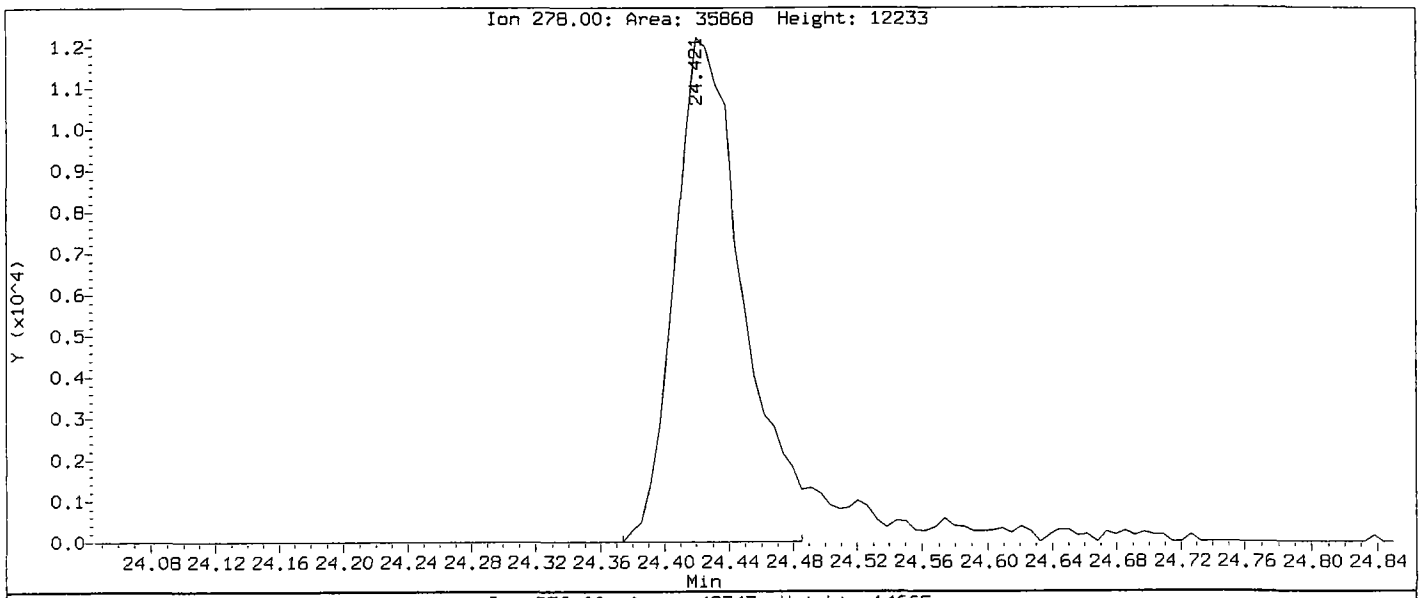
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

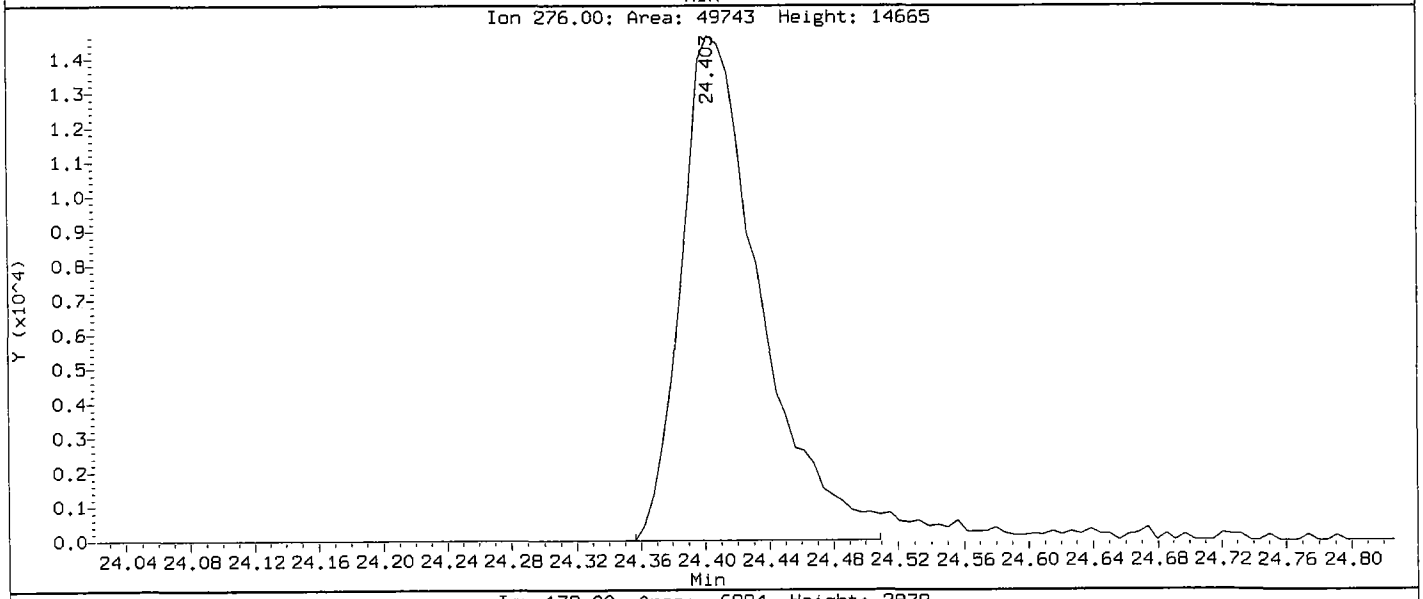
5. Other _____

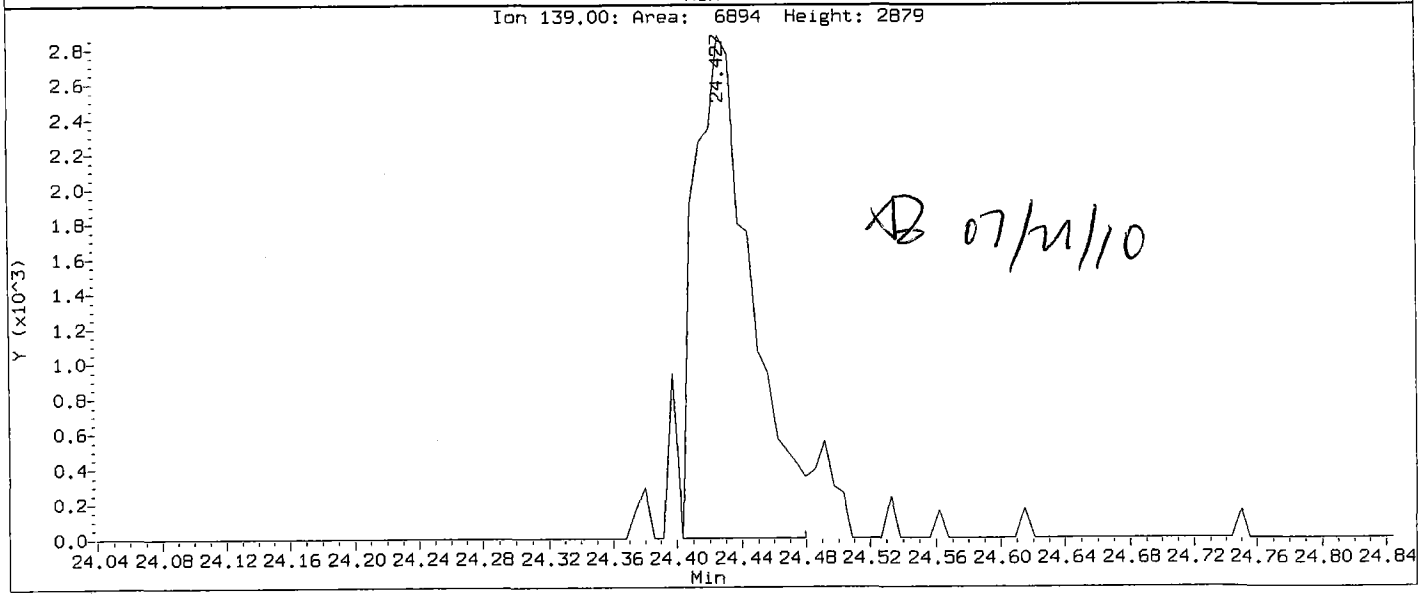
Analyst: _____ Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3



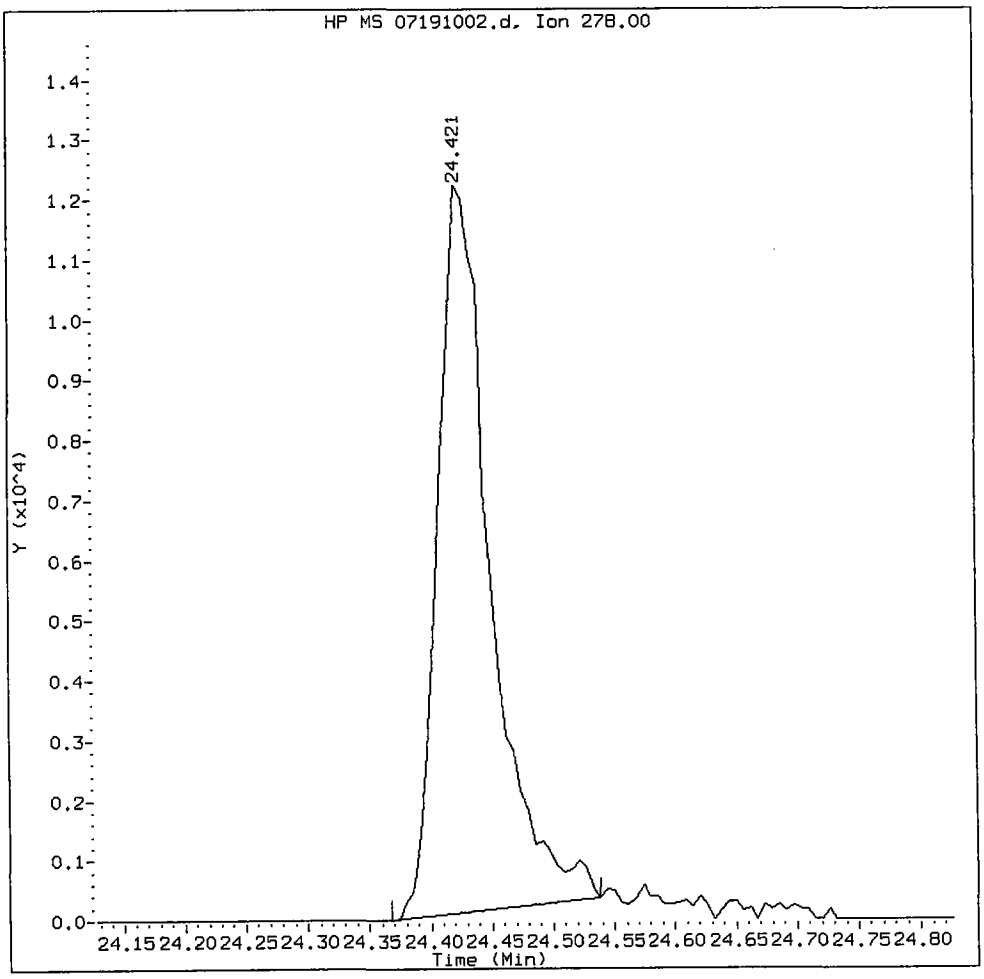




XD 07/21/10

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Dibenzo(a,h)anthracene Amount: 1.00 Area: 36717



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

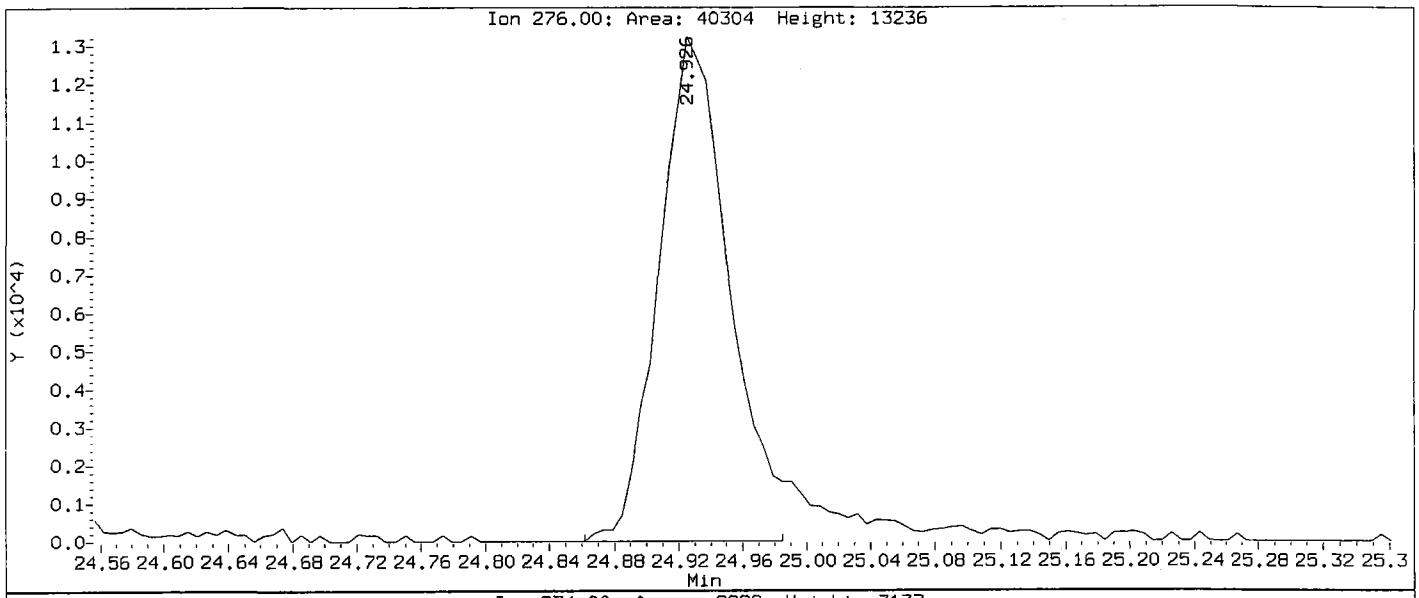
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

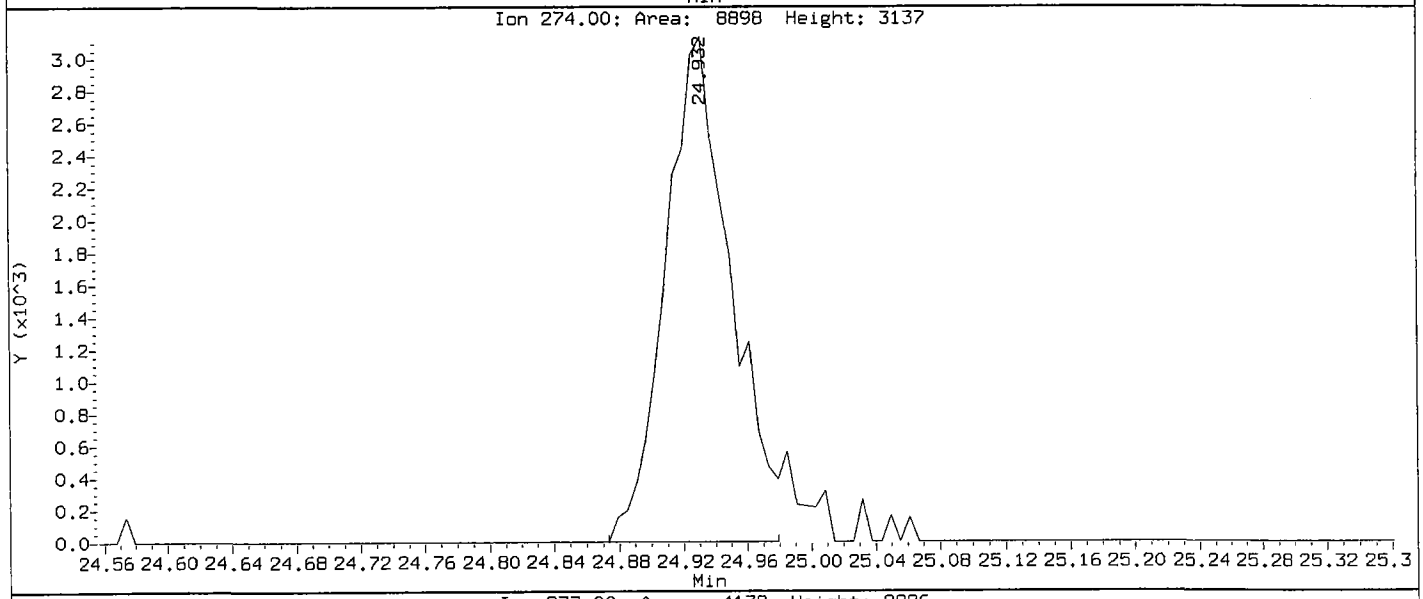
5. Other _____

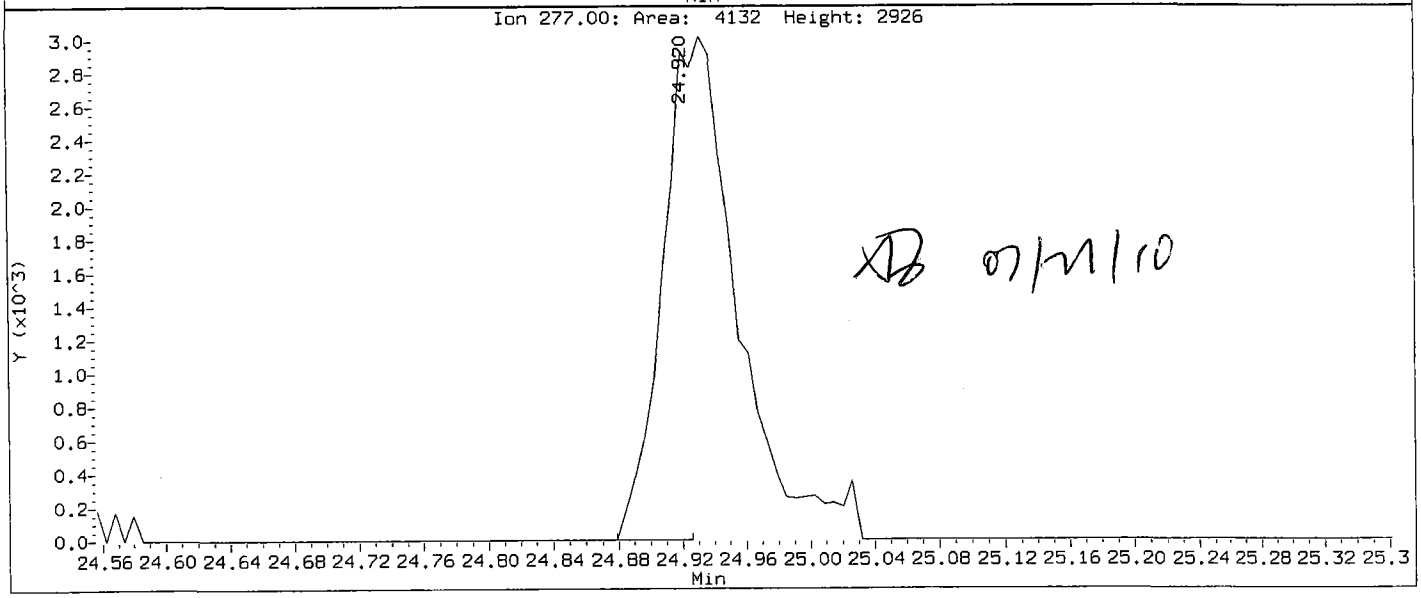
Analyst: _____ Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Benzo(g,h,i)perylene
CAS Number: 191-24-2





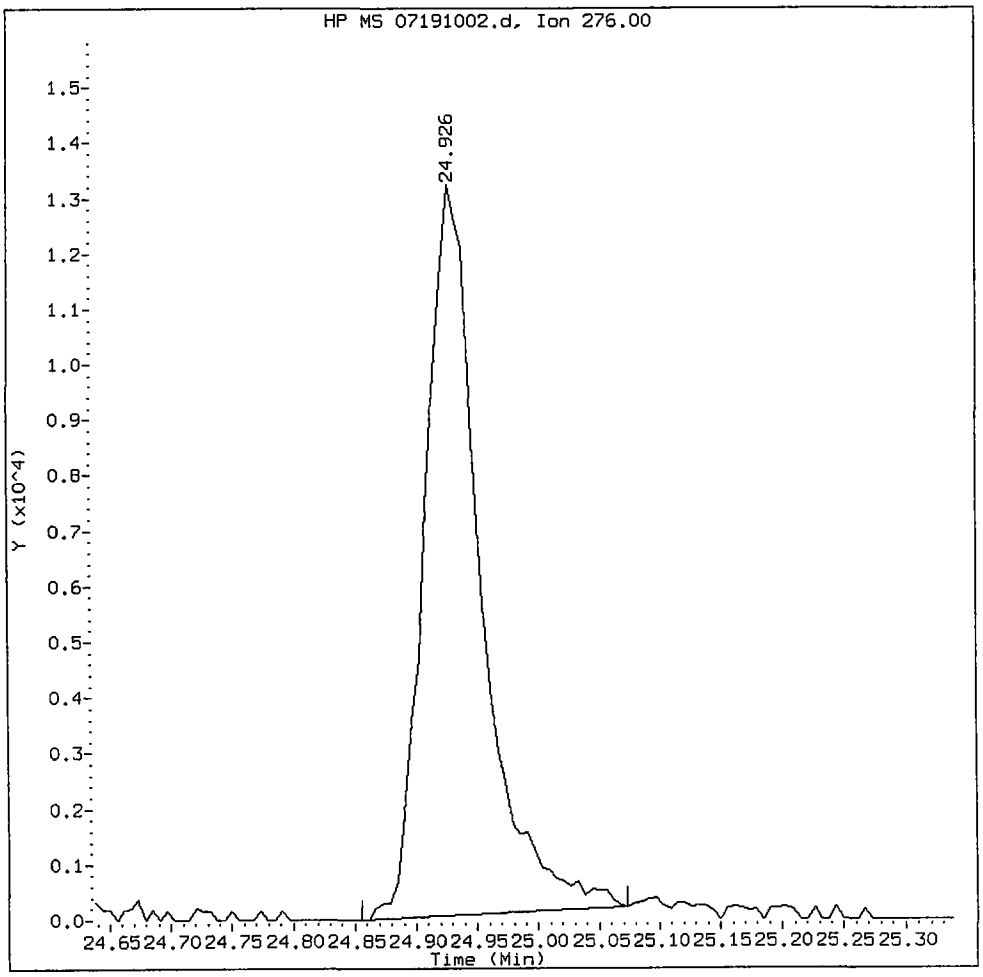


XB 07/21/10

RF71:00235

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Benzo(g,h,i)perylene Amount: 1.00 Area: 42342



MANUAL INTEGRATION for Benzo(g,h,i)perylene

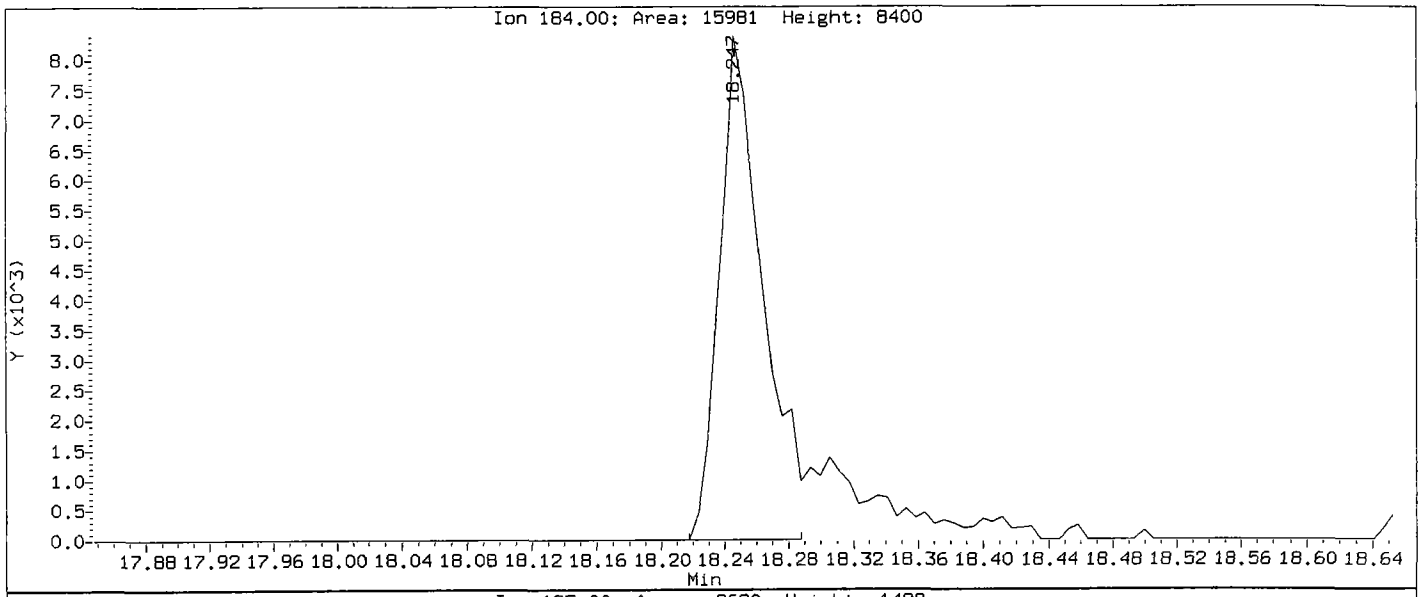
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

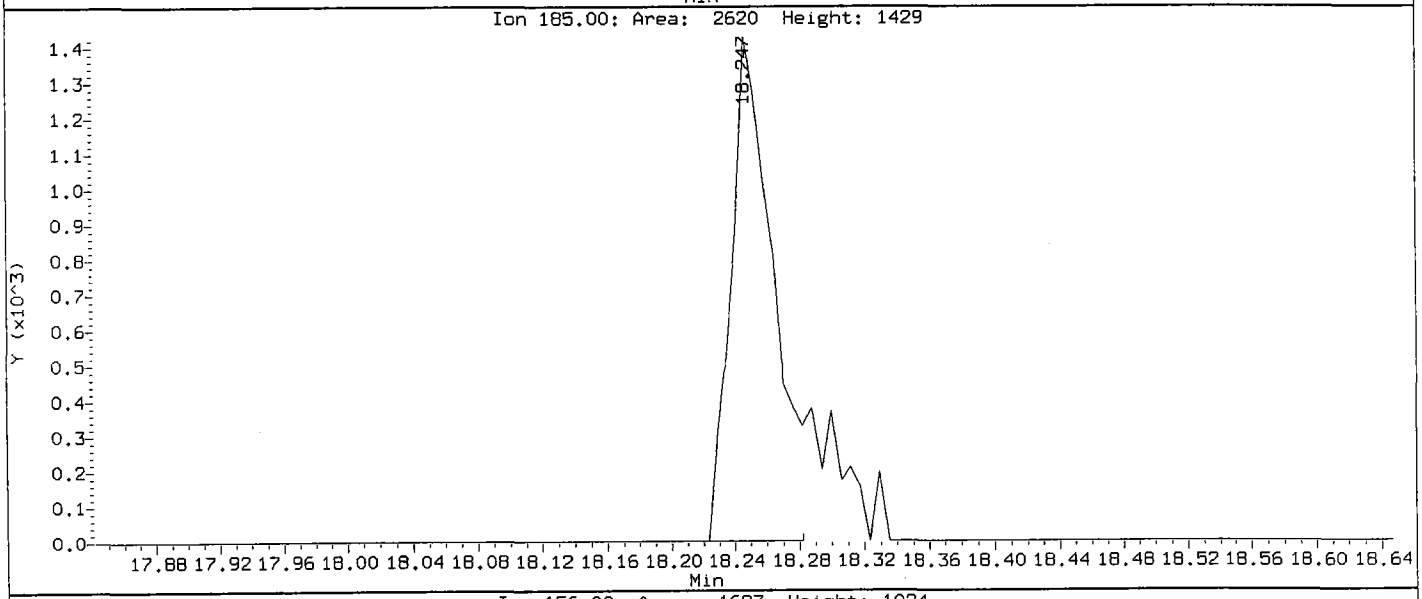
5. Other _____

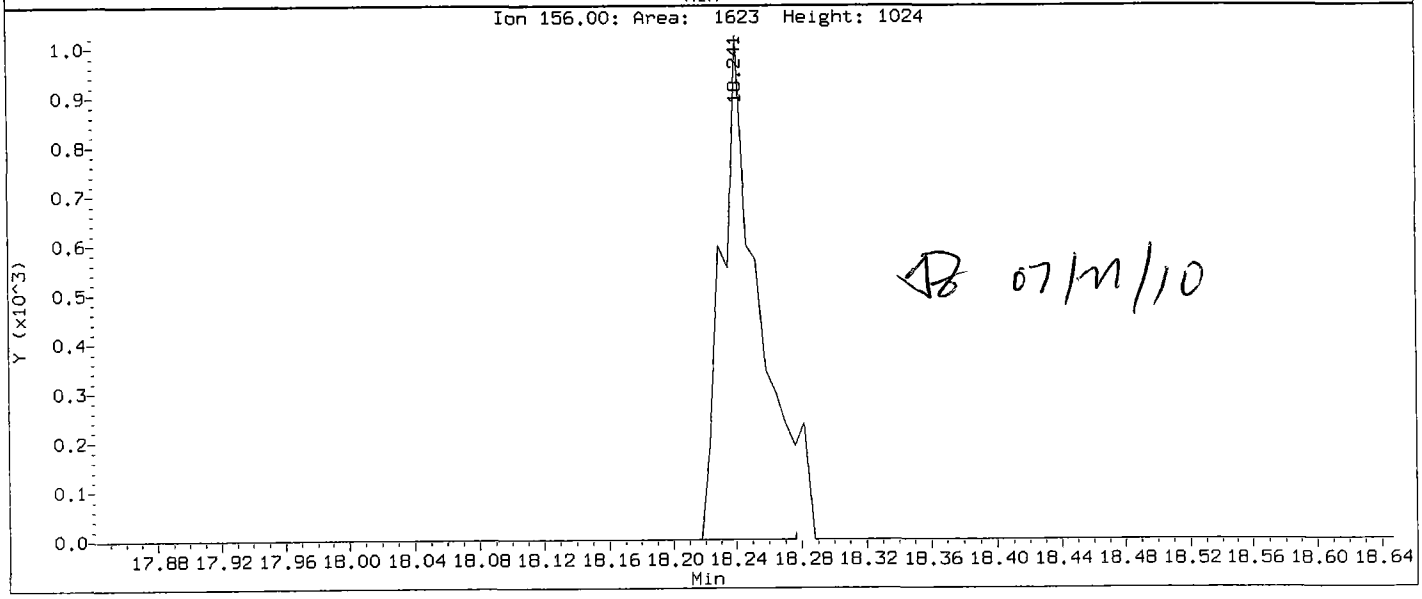
Analyst: _____ Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Benzidine
CAS Number:





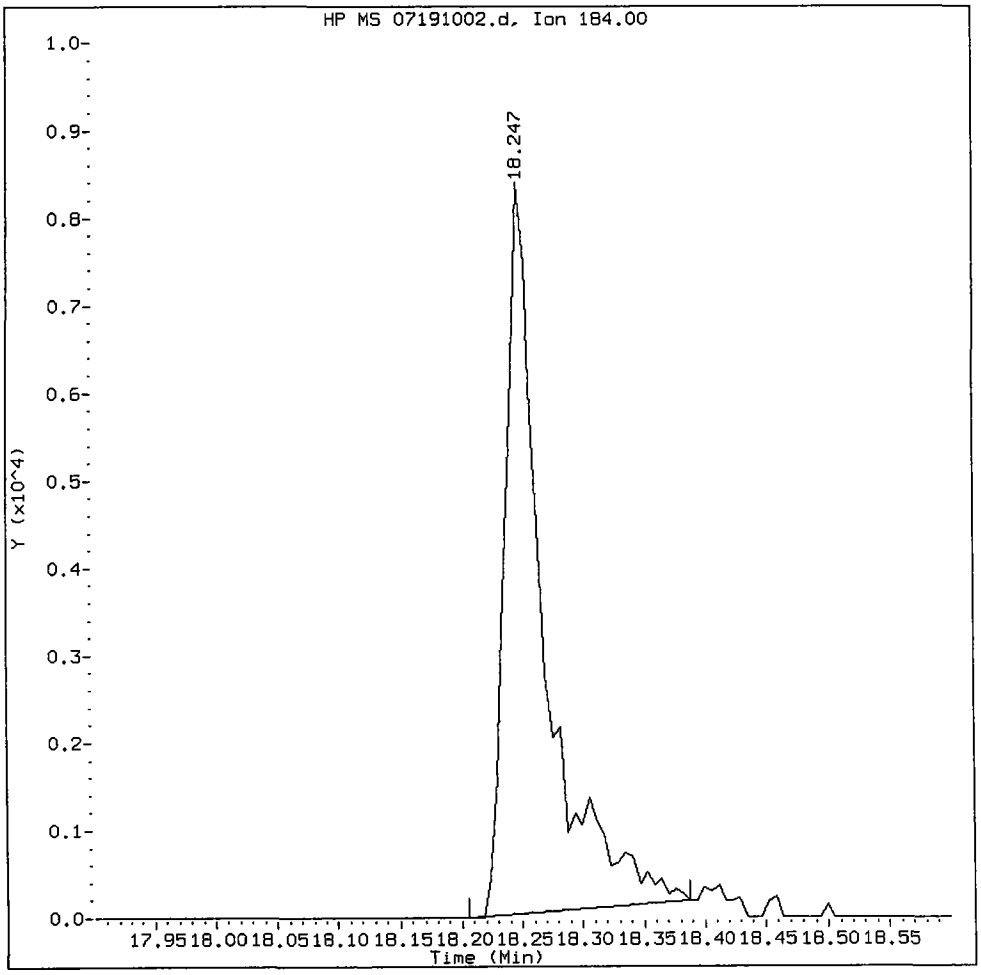


07/11/10

RF71 : 00237

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Benzidine Amount: 1.00 Area: 18817



MANUAL INTEGRATION for Benzidine

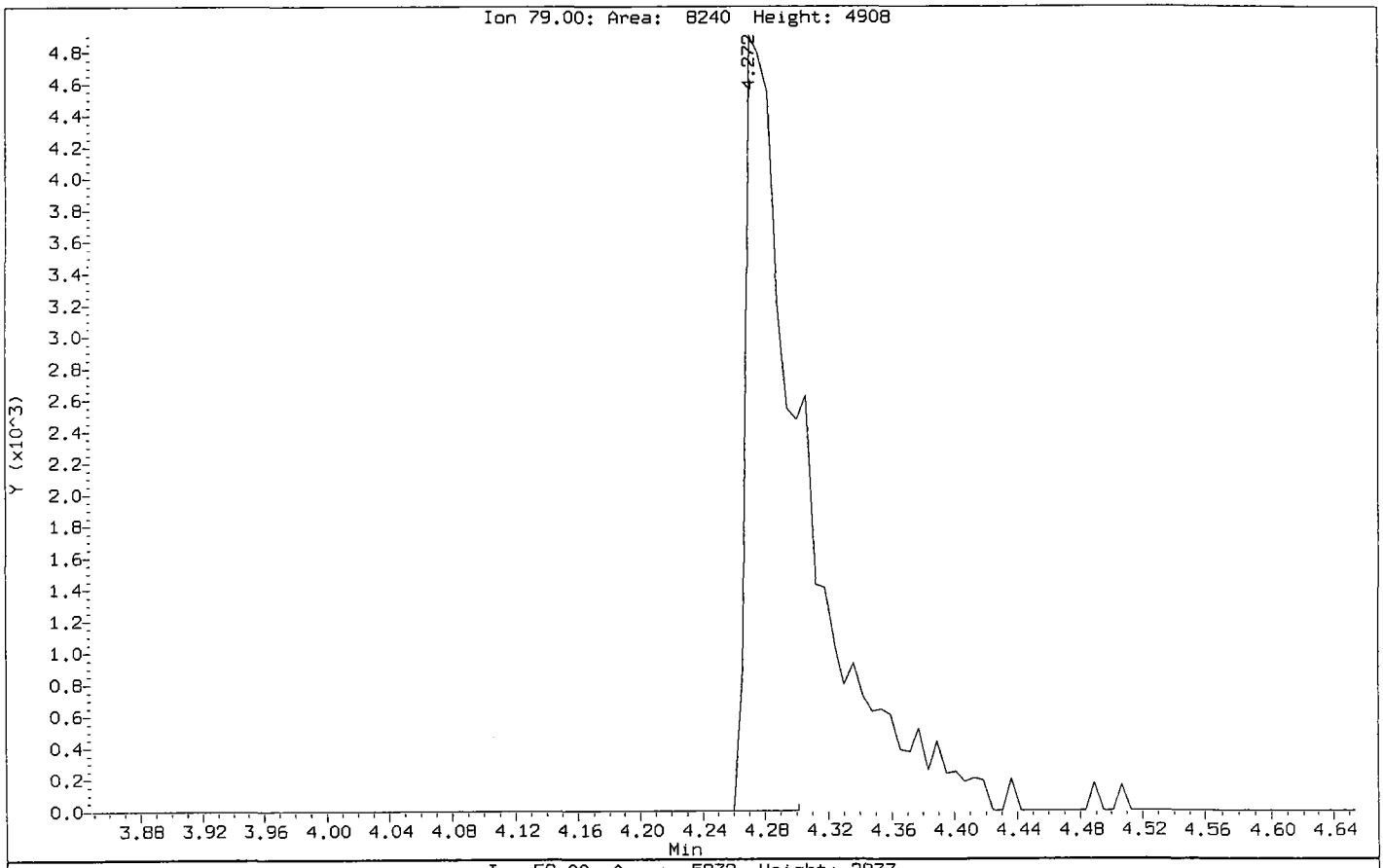
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

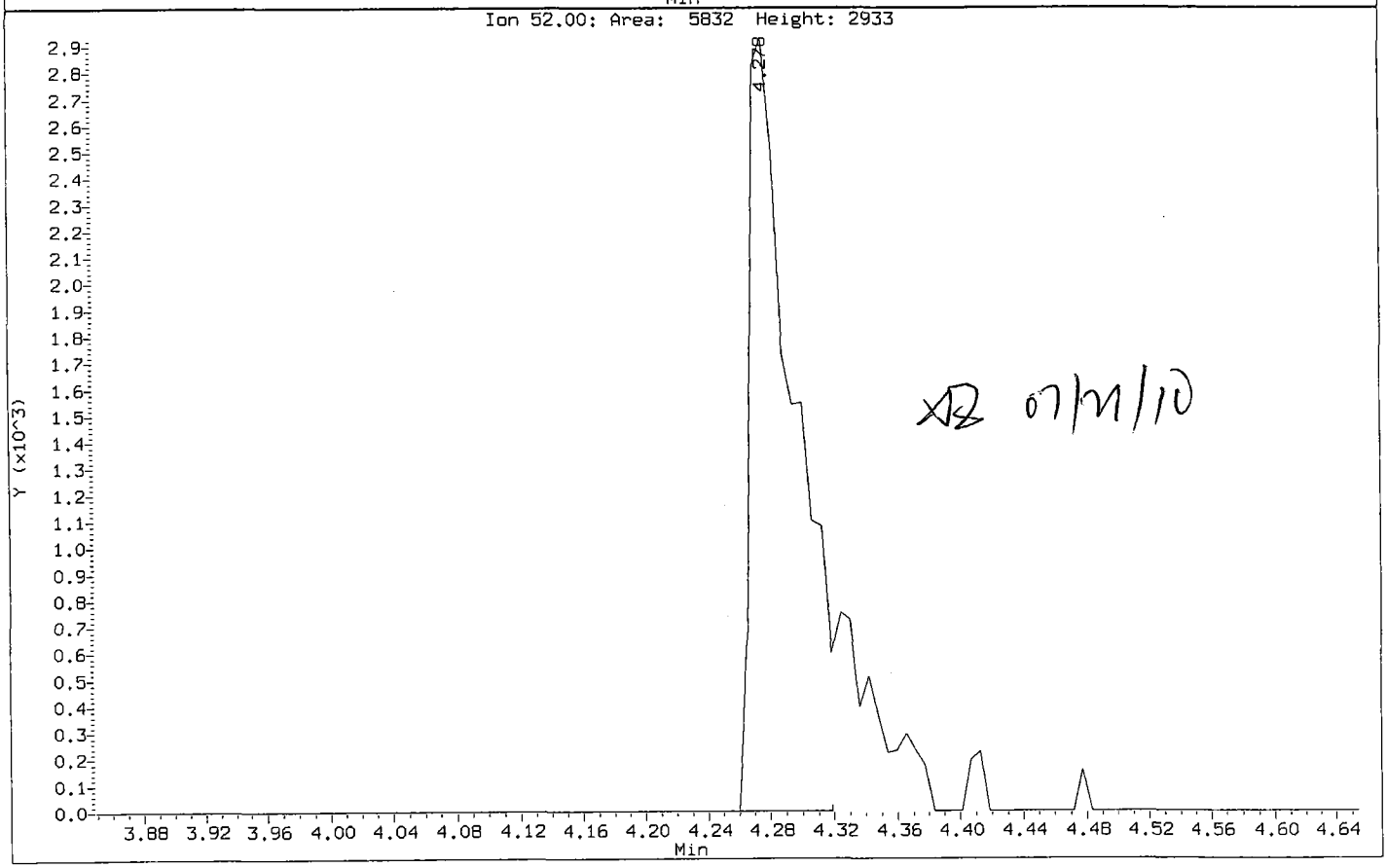
5. Other _____

Analyst: _____ Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Pyridine
CAS Number:

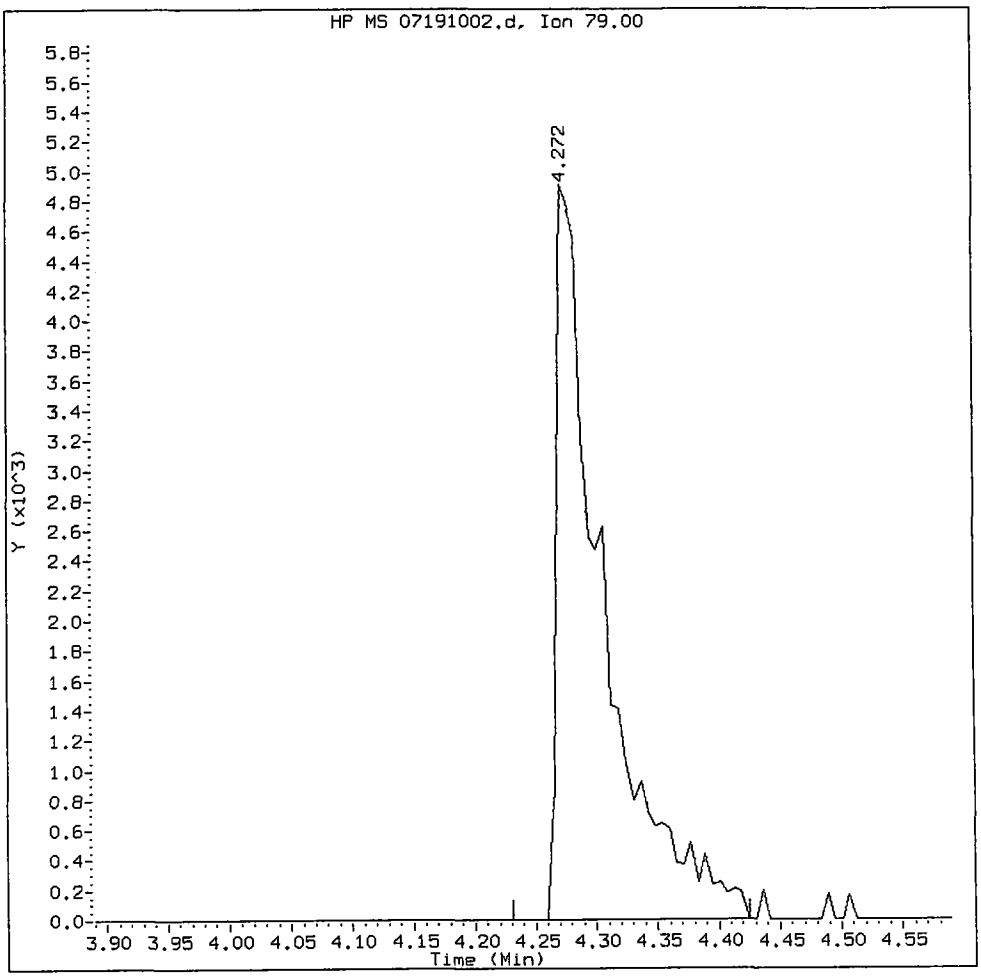




XB 07/21/10

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Pyridine Amount: 1.00 Area: 13123



MANUAL INTEGRATION for Pyridine

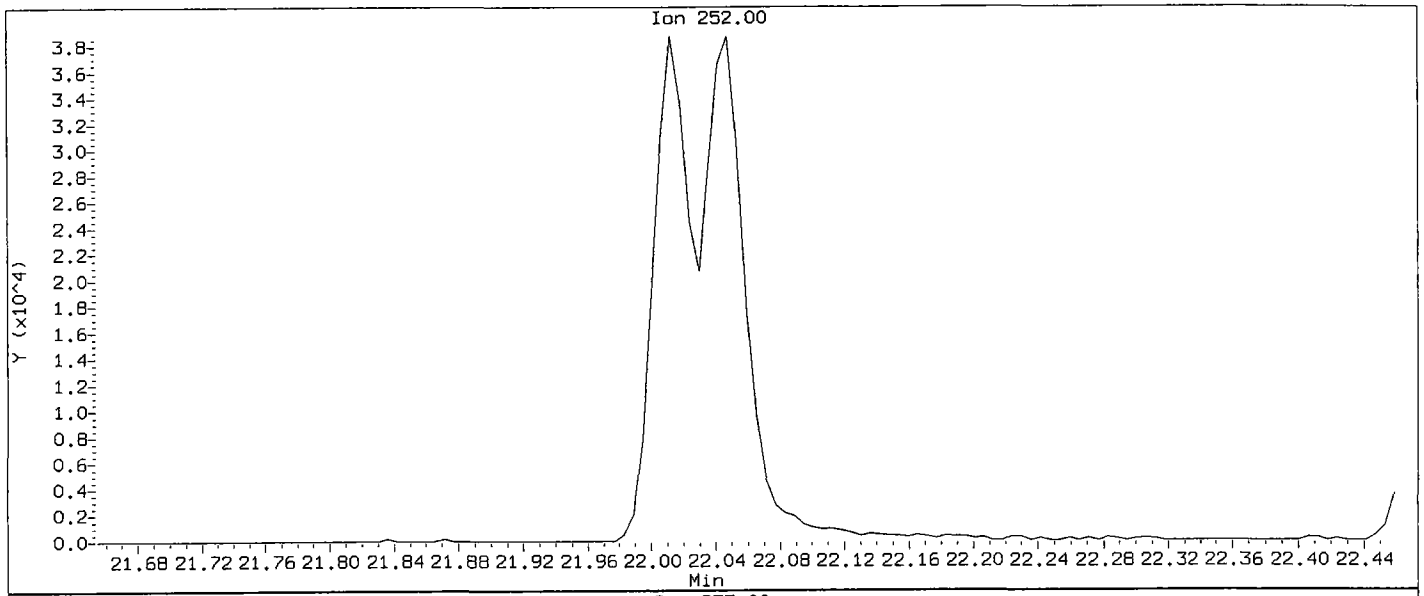
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

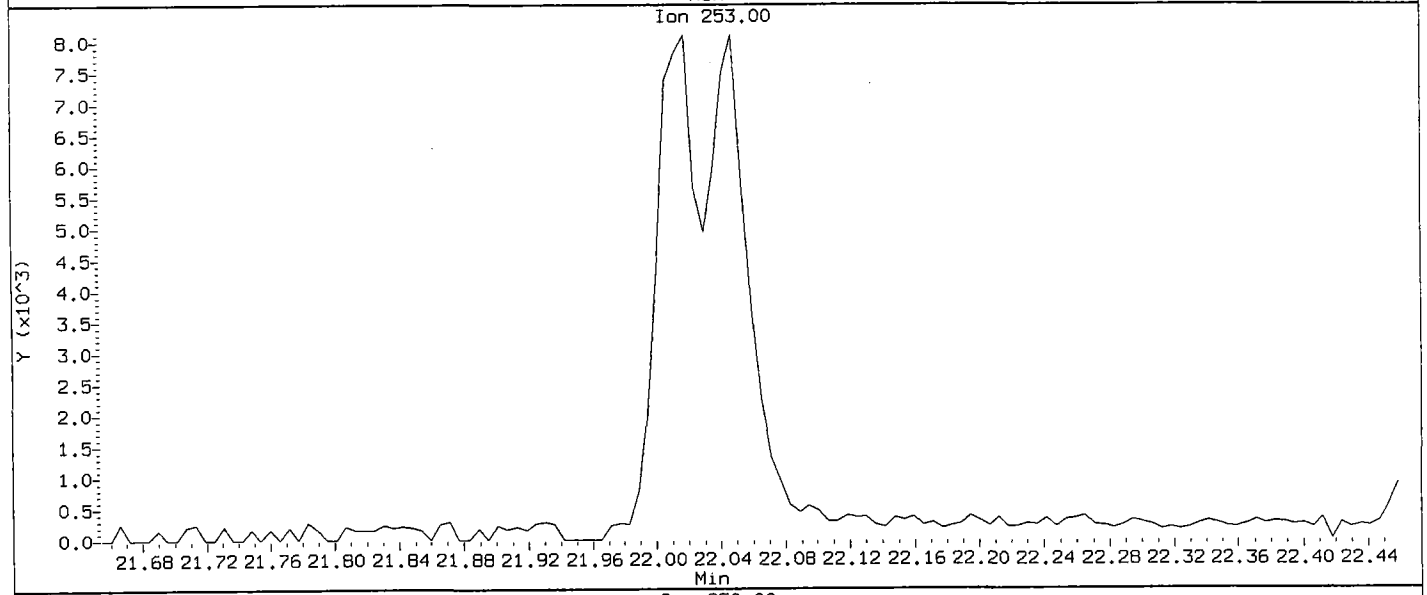
5. Other _____

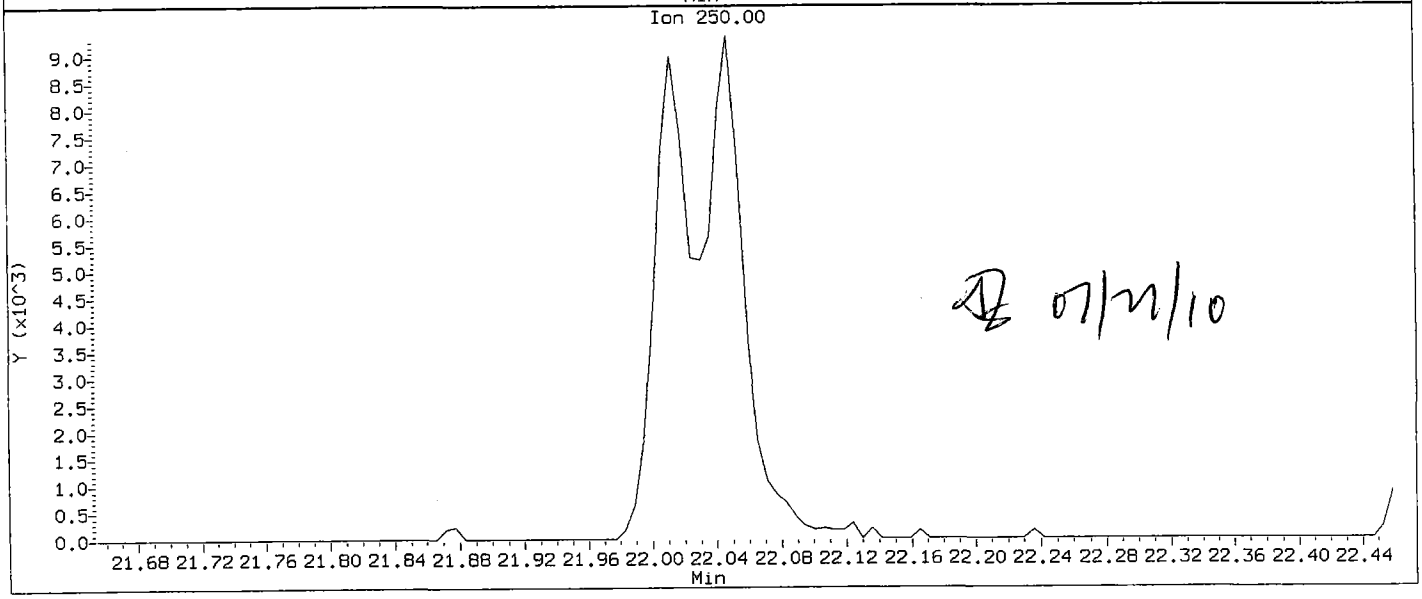
Analyst: _____ Date: 07/11/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: Total Benzofluoranthenes
CAS Number:





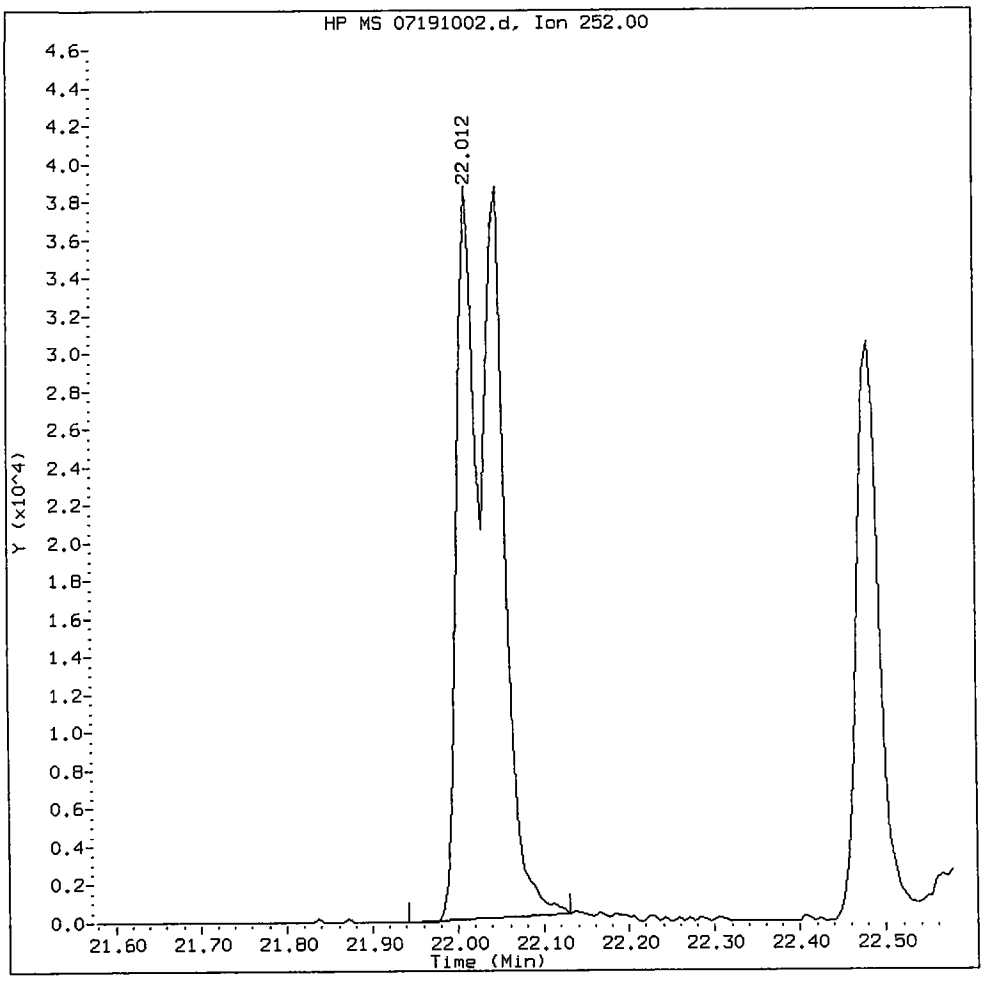


07/21/10

RF71 : 00241

IC010719, /chem3/nt4.i/20100719.b/07191002.d

Total Benzofluoranthenes Amount: 2.00 Area: 123956



MANUAL INTEGRATION for Total Benzofluoranthenes

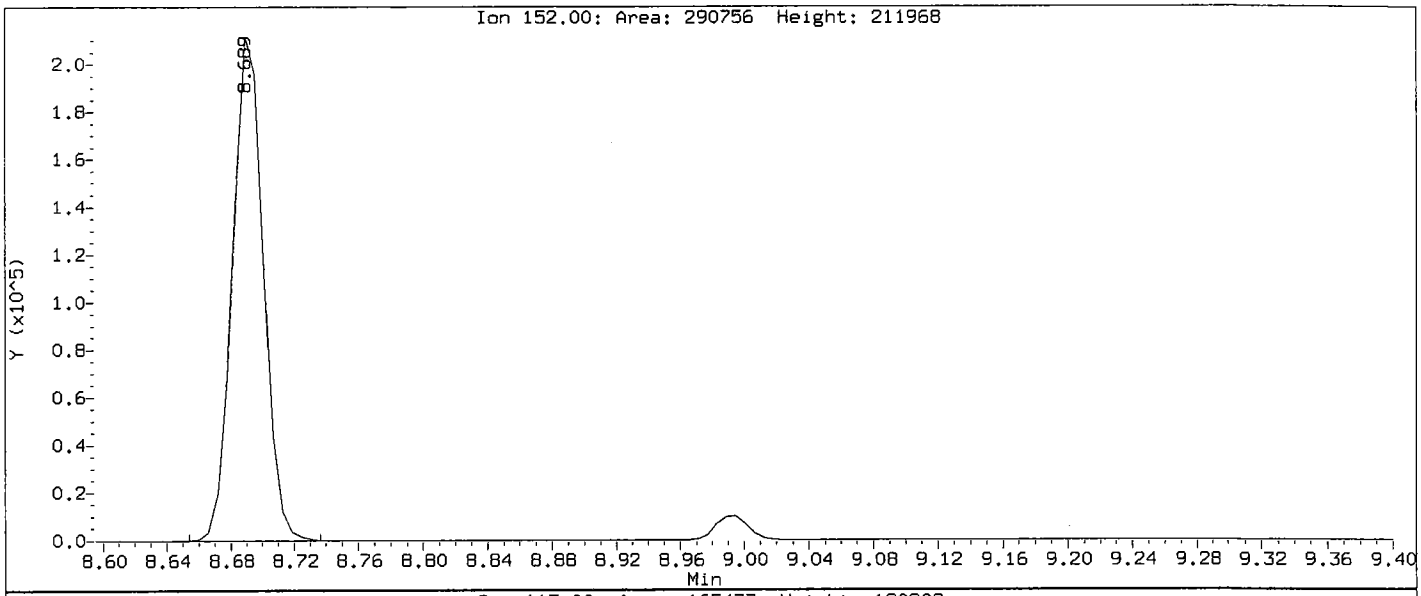
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

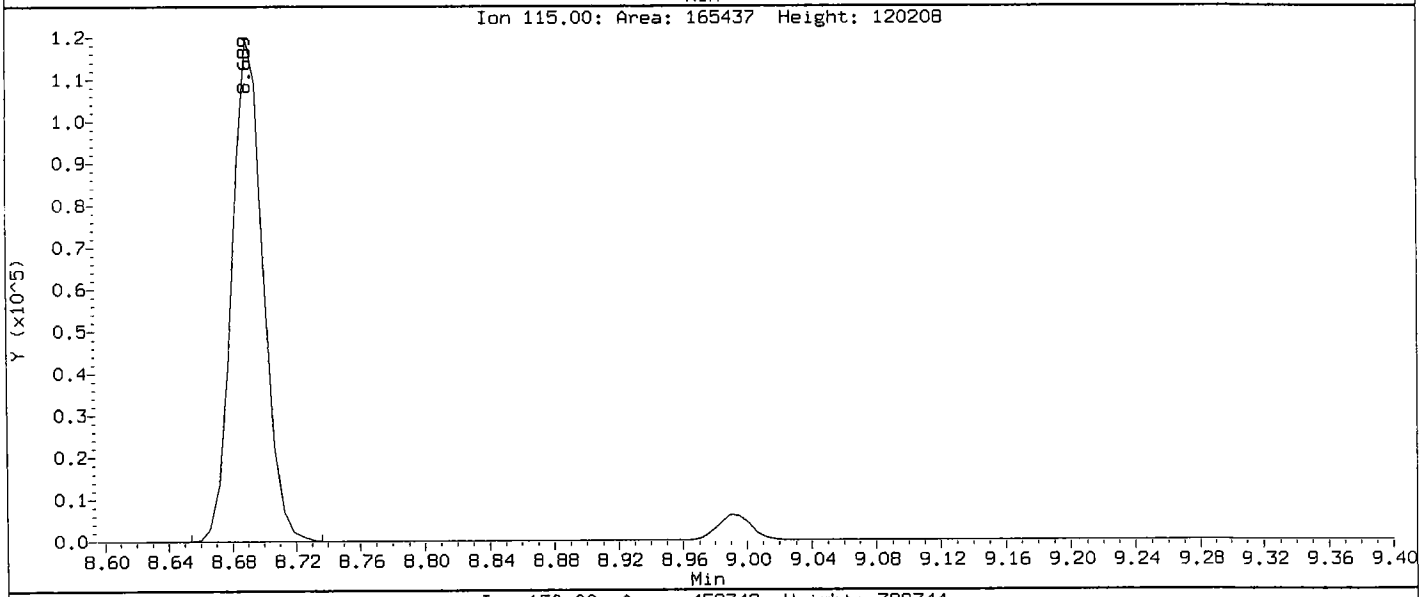
5. Other _____

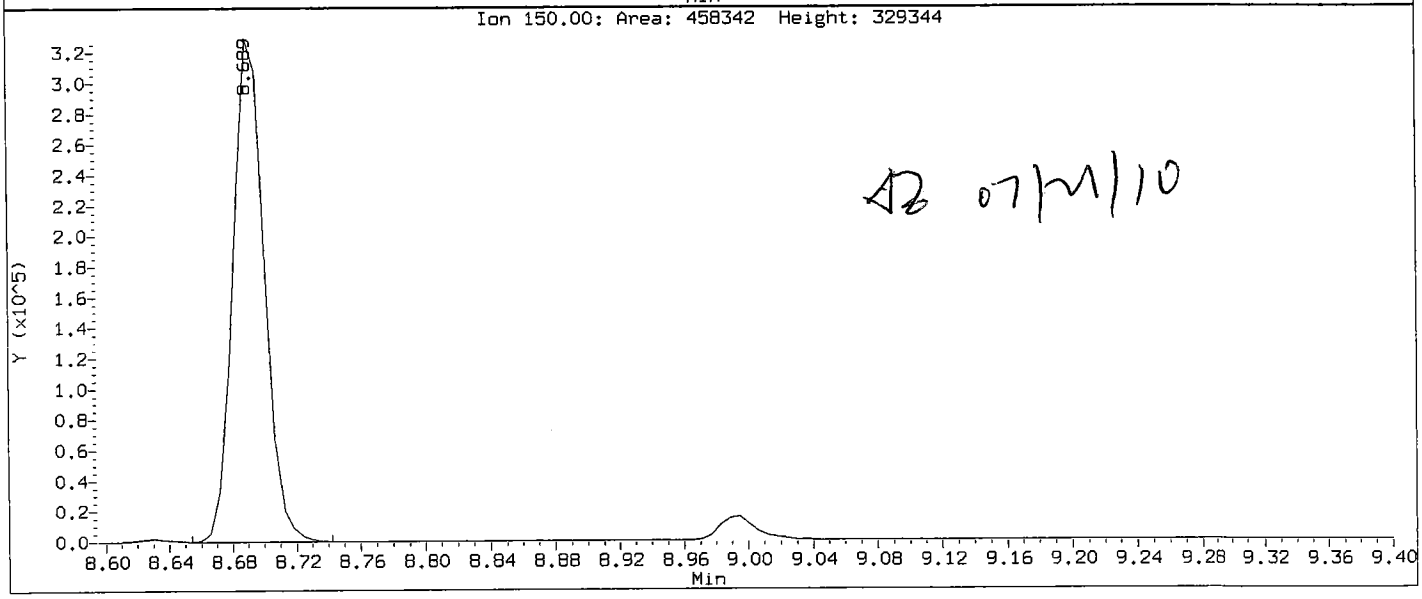
Analyst: AB Date: 07/24/10

Data File: /chem3/nt4.i/20100719.b/07191002.d
Injection Date: 19-JUL-2010 16:56
Instrument: nt4.i
Client Sample ID: IC010719

Compound: 1,2-Dichlorobenzene-d4
CAS Number: 2199-69-1



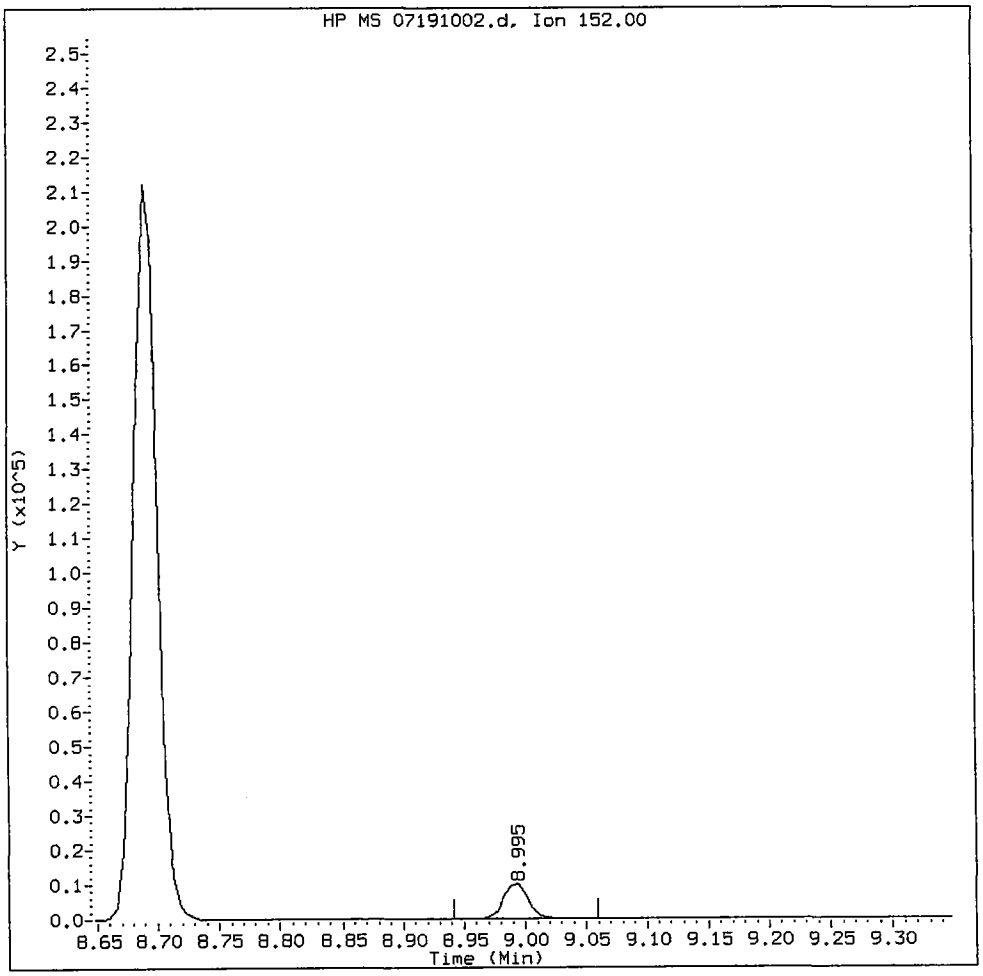




AB 07/21/10

IC010719, /chem3/nt4.i/20100719.b/07191002.d

1,2-Dichlorobenzene-d4 Amount: 1.00 Area: 14140



MANUAL INTEGRATION for 1,2-Dichlorobenzene-d4

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other RT corrected

Analyst: [signature] Date: 07/21/10

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191003.d
Lab Smp Id: IC050719 Client Smp ID: IC050719
Inj Date : 19-JUL-2010 17:33
Operator : JZ Inst ID: nt4.i
Smp Info : IC050719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 17:33 Cal File: 07191003.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

JZ 07/21/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.724	6.737	(0.774)	78735	5.00000	4.912
$	2 Phenol-d5	99	8.210	8.229	(0.945)	78205	5.00000	5.059
	3 Phenol	94	8.228	8.252	(0.947)	104398	5.00000	4.945
$	5 2-Chlorophenol-d4	132	8.386	8.393	(0.965)	82652	5.00000	4.925
	4 Bis(2-Chloroethyl)ether	93	8.339	8.352	(0.959)	73772	5.00000	4.772
	6 2-Chlorophenol	128	8.410	8.423	(0.968)	95435	5.00000	4.973
	7 1,3-Dichlorobenzene	146	8.633	8.640	(0.993)	105213	5.00000	4.676
*	8 1,4-Dichlorobenzene-d4	152	8.692	8.699	(1.000)	280196	20.0000	
	9 1,4-Dichlorobenzene	146	8.715	8.722	(1.003)	106033	5.00000	4.713
$	10 1,2-Dichlorobenzene-d4	152	8.991	8.998	(1.034)	64046	5.00000	4.845
	12 1,2-Dichlorobenzene	146	9.015	9.022	(1.037)	100850	5.00000	4.766
	11 Benzyl alcohol	108	8.944	8.969	(1.029)	63901	5.00000	5.000
	14 2,2'-oxybis(1-Chloropropane)	45	9.203	9.216	(1.059)	71419	5.00000	4.734
	13 2-Methylphenol	108	9.162	9.181	(1.054)	77789	5.00000	5.256
	17 Hexachloroethane	117	9.508	9.509	(1.094)	39059	5.00000	4.853
	16 N-Nitroso-di-n-propylamine	70	9.414	9.445	(1.083)	52329	5.00000	4.869
	15 4-Methylphenol	108	9.391	9.415	(1.080)	81439	5.00000	5.192
$	18 Nitrobenzene-d5	82	9.614	9.627	(0.895)	83867	5.00000	5.032
	19 Nitrobenzene	77	9.644	9.662	(0.898)	81864	5.00000	4.830
	20 Isophorone	82	10.014	10.038	(0.932)	131381	5.00000	4.745
	21 2-Nitrophenol	139	10.160	10.173	(0.946)	47132	5.00000	5.339
	22 2,4-Dimethylphenol	107	10.237	10.256	(0.953)	92317	5.00000	5.160
	23 Bis(2-Chloroethoxy)methane	93	10.390	10.408	(0.967)	91416	5.00000	4.707
	24 Benzoic acid	105	10.354	10.567	(0.964)	76277	10.0000	10.00
	25 2,4-Dichlorophenol	162	10.531	10.549	(0.980)	76474	5.00000	5.428
	26 1,2,4-Trichlorobenzene	180	10.677	10.684	(0.994)	85339	5.00000	4.773
*	27 Naphthalene-d8	136	10.742	10.749	(1.000)	1016171	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.771	10.784	(1.003)	258970	5.00000	4.633
	29 4-Chloroaniline	127	10.895	10.908	(1.014)	101792	5.00000	5.051
	30 Hexachlorobutadiene	225	11.083	11.084	(1.032)	47045	5.00000	4.599
	31 4-Chloro-3-methylphenol	107	11.688	11.701	(1.088)	68890	5.00000	5.708
	32 2-Methylnaphthalene	142	11.893	11.906	(1.107)	168353	5.00000	4.703
	33 Hexachlorocyclopentadiene	237	12.275	12.282	(0.901)	36180	5.00000	5.000
	34 2,4,6-Trichlorophenol	196	12.404	12.411	(0.910)	53574	5.00000	5.374
	35 2,4,5-Trichlorophenol	196	12.457	12.470	(0.914)	52498	5.00000	5.856
$	36 2-Fluorobiphenyl	172	12.534	12.541	(0.920)	199267	5.00000	4.763
	37 2-Chloronaphthalene	162	12.686	12.699	(0.931)	168111	5.00000	4.743
	38 2-Nitroaniline	65	12.904	12.923	(0.947)	27788	5.00000	5.681
	39 Dimethylphthalate	163	13.262	13.287	(0.973)	194622	5.00000	4.726
	40 Acenaphthylene	152	13.374	13.381	(0.981)	262580	5.00000	4.738
	41 2,6-Dinitrotoluene	165	13.362	13.387	(0.981)	41526	5.00000	5.326
*	42 Acenaphthene-d10	164	13.626	13.633	(1.000)	598563	20.0000	
	43 3-Nitroaniline	138	13.579	13.610	(0.997)	40739	5.00000	5.050
	44 Acenaphthene	153	13.673	13.686	(1.003)	164445	5.00000	4.688
	45 2,4-Dinitrophenol	184	13.744	13.780	(1.009)	10990	10.0000	10.00
	46 Dibenzofuran	168	13.938	13.951	(1.023)	223252	5.00000	4.755
	47 4-Nitrophenol	109	13.855	13.880	(1.017)	22195	5.00000	5.000
	48 2,4-Dinitrotoluene	165	13.996	14.021	(1.027)	52686	5.00000	5.501
	50 Diethylphthalate	149	14.419	14.438	(1.058)	204717	5.00000	4.651
	49 Fluorene	166	14.502	14.514	(1.064)	194472	5.00000	4.735
	51 4-Chlorophenyl-phenylether	204	14.508	14.514	(1.065)	92222	5.00000	4.701
	52 4-Nitroaniline	138	14.584	14.626	(1.070)	41882	5.00000	4.989
	53 4,6-Dinitro-2-methylphenol	198	14.660	14.697	(0.915)	44569	10.0000	10.00
	54 N-Nitrosodiphenylamine	169	14.707	14.732	(0.918)	142712	5.00000	4.860
$	55 2,4,6-Tribromophenol	330	14.925	14.937	(1.095)	21266	5.00000	5.568
	56 4-Bromophenyl-phenylether	248	15.301	15.308	(0.955)	50780	5.00000	4.886
	57 Hexachlorobenzene	284	15.536	15.548	(0.970)	52822	5.00000	4.645
	58 Pentachlorophenol	266	15.823	15.842	(0.988)	30827	5.00000	5.000
*	59 Phenanthrene-d10	188	16.023	16.036	(1.000)	1007780	20.0000	
	60 Phenanthrene	178	16.058	16.077	(1.002)	271669	5.00000	4.593
	61 Anthracene	178	16.135	16.153	(1.007)	278839	5.00000	4.659
	62 Carbazole	167	16.405	16.424	(1.024)	254700	5.00000	4.690
	63 Di-n-butylphthalate	149	17.086	17.093	(1.066)	334748	5.00000	4.886
	64 Fluoranthene	202	18.015	18.027	(1.124)	277298	5.00000	4.716
	65 Pyrene	202	18.379	18.397	(0.902)	291105	5.00000	4.608
$	66 Terphenyl-d14	244	18.667	18.674	(0.916)	179825	5.00000	4.663
	67 Butylbenzylphthalate	149	19.530	19.543	(0.958)	137881	5.00000	4.979
	68 Benzo(a)anthracene	228	20.347	20.365	(0.999)	265449	5.00000	4.631
*	69 Chrysene-d12	240	20.376	20.389	(1.000)	879562	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.335	20.348	(0.998)	88480	5.00000	5.218
	71 Chrysene	228	20.411	20.436	(1.002)	263806	5.00000	4.644
	72 bis(2-Ethylhexyl)phthalate	149	20.511	20.518	(0.956)	195395	5.00000	5.166
*	134 Di-n-octylphthalate-d4	153	21.451	21.458	(1.000)	1375669	20.0000	
	73 Di-n-octylphthalate	149	21.457	21.470	(1.000)	361557	5.00000	4.537

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	22.015	22.040	(0.975)	281777	5.00000	4.793
75	Benzo(k)fluoranthene	252	22.044	22.075	(0.977)	281647	5.00000	4.569
187	Total Benzofluoranthenes	252	22.044	22.075	(0.977)	534883	10.0000	9.404
76	Benzo(a)pyrene	252	22.485	22.510	(0.996)	240795	5.00000	4.722
* 77	Perylene-d12	264	22.573	22.580	(1.000)	872109	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.406	24.454	(1.081)	235258	5.00000	4.931
79	Dibenzo(a,h)anthracene	278	24.429	24.477	(1.082)	188107	5.00000	5.131
80	Benzo(g,h,i)perylene	276	24.929	24.989	(1.104)	196313	5.00000	4.881
90	N-Nitrosodimethylamine	74	4.257	4.281	(0.490)	42007	5.00000	4.807
103	Pyridine	79	4.245	4.240	(0.488)	66826	5.00000	5.138
91	Aniline	93	8.240	8.252	(0.948)	108308	5.00000	4.815
105	1-methylnaphthalene	142	12.070	12.082	(1.124)	161677	5.00000	4.629
93	Benzidine	184	18.244	18.251	(0.895)	95796	5.00000	5.069
111	Azobenzene (1,2-DP-Hydrazine)	77	14.760	14.779	(1.083)	157755	5.00000	4.804
143	1,4-Dioxane	88	3.487	3.494	(0.401)	27080	5.00000	
$ 137	d8-1,4-Dioxane	96	3.417	3.424	(0.393)	28631	5.00000	
151	1,2,4,5-Tetrachlorobenzene	216	12.234	12.247	(0.898)	81805	5.00000	4.737
120	2,3,4,6-Tetrachlorophenol	232	14.214	14.221	(1.043)	42525	5.00000	5.269
144	alpha-Terpineol	59	10.777	10.790	(1.003)	46405	5.00000	4.732
98	Retene	219	18.925	18.932	(0.929)	92486	5.00000	4.782
133	Butylatedhydroxytoluene	205	13.767	13.774	(1.010)	155768	5.00000	4.651
115	Tributyl Phosphate	99	14.766	14.802	(0.922)	204221	5.00000	4.963
116	Dibutyl Phenyl Phosphate	175	16.528	16.535	(1.032)	161048	5.00000	5.031
117	Butyl Diphenyl Phosphate	94	18.232	18.245	(0.895)	43853	5.00000	4.912
118	Triphenyl Phosphate	326	19.853	19.866	(0.974)	43306	5.00000	4.787
123	Acetophenone	105	9.373	9.392	(0.873)	109435	5.00000	4.776
179	n-Decane	57	8.498	8.505	(0.978)	57625	5.00000	4.716
180	n-Octadecane	57	15.876	15.883	(0.991)	76689	5.00000	5.015
168	Pentachlorobenzene	250	13.979	13.992	(1.026)	60444	5.00000	4.526
113	Diphenyl Oxide	170	12.863	12.870	(0.944)	170904	5.00000	4.716
112	Biphenyl	154	12.675	12.682	(0.930)	200895	5.00000	4.799
110	Tetrachloroguaiacol	247	15.947	15.971	(0.995)	56098	10.0000	9.796
109	3,4,5-Trichloroguaiacol	213	14.302	14.315	(0.893)	27754	5.00000	4.993
181	3,4,6-Trichloroguaiacol	211	14.425	14.444	(0.900)	33397	5.00000	5.072
108	4,5,6-Trichloroguaiacol	213	15.342	15.349	(0.957)	29137	5.00000	5.056
184	3,4-Dichloroguaiacol	192	12.751	12.764	(0.936)	29266	5.00000	5.110
107	4,5-Dichloroguaiacol	192	13.527	13.545	(0.993)	39384	5.00000	5.129
182	4,6-Dichloroguaiacol	192	13.562	13.580	(0.995)	37541	5.00000	4.850
185	4-Chloroguaiacol	115	11.653	11.660	(1.341)	19294	2.50000	2.552
106	Guaiacol	124	9.632	9.645	(1.108)	77212	5.00000	4.885

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191003.d
Lab Smp Id: IC050719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC050719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	280196	-21.40
27 Naphthalene-d8	1293412	646706	2586824	1016171	-21.43
42 Acenaphthene-d10	785897	392948	1571794	598563	-23.84
59 Phenanthrene-d10	1313990	656995	2627980	1007780	-23.30
69 Chrysene-d12	1155293	577646	2310586	879562	-23.87
134 Di-n-octylphthala	1825297	912648	3650594	1375669	-24.63
77 Perylene-d12	1146289	573144	2292578	872109	-23.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.69	-0.07
27 Naphthalene-d8	10.74	10.24	11.24	10.74	0.00
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.00
59 Phenanthrene-d10	16.03	15.53	16.53	16.02	-0.04
69 Chrysene-d12	20.38	19.88	20.88	20.38	-0.03
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	0.00
77 Perylene-d12	22.58	22.08	23.08	22.57	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

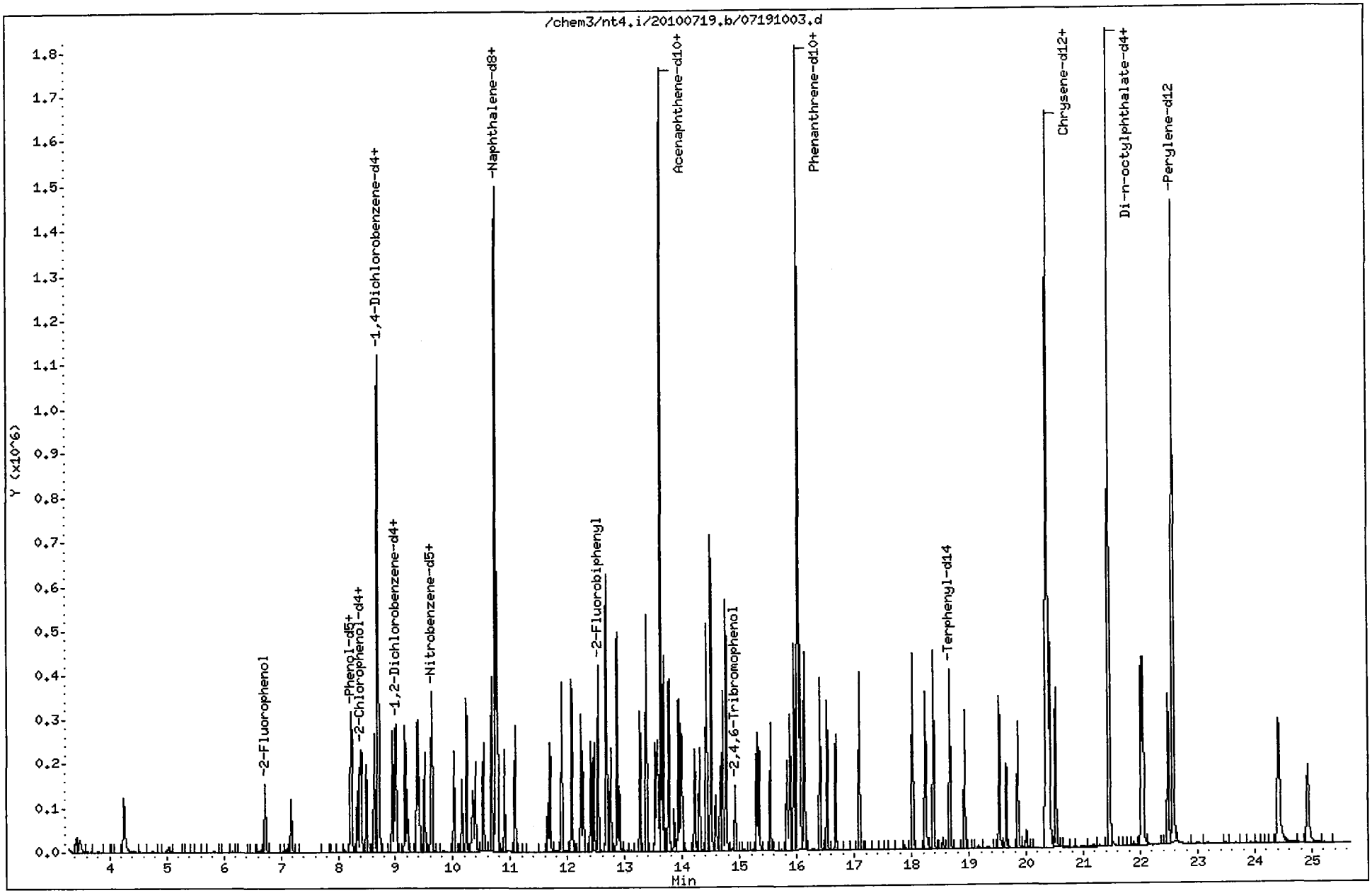
Data File: /chem3/nt4.i/20100719.b/07191003.d
Date : 19-JUL-2010 17:33
Client ID: IC050719
Sample Info: IC050719

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi

RF71:062119



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191004.d
Lab Smp Id: IC100719 Client Smp ID: IC100719
Inj Date : 19-JUL-2010 18:07
Operator : JZ Inst ID: nt4.i
Smp Info : IC100719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 18:07 Cal File: 07191004.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

AB 07/21/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.731	6.737	(0.774)	195589	10.0000	9.194
$	2 Phenol-d5	99	8.212	8.229	(0.945)	197945	10.0000	9.506
	3 Phenol	94	8.229	8.252	(0.947)	279288	10.0000	9.719
$	5 2-Chlorophenol-d4	132	8.388	8.393	(0.965)	210444	10.0000	9.370
	4 Bis(2-Chloroethyl)ether	93	8.341	8.352	(0.959)	199065	10.0000	9.541
	6 2-Chlorophenol	128	8.412	8.423	(0.968)	264045	10.0000	9.978
	7 1,3-Dichlorobenzene	146	8.635	8.640	(0.993)	290331	10.0000	9.556
*	8 1,4-Dichlorobenzene-d4	152	8.694	8.699	(1.000)	386803	20.0000	
	9 1,4-Dichlorobenzene	146	8.717	8.722	(1.003)	296132	10.0000	9.685
$	10 1,2-Dichlorobenzene-d4	152	8.993	8.998	(1.034)	155193	10.0000	8.951
	12 1,2-Dichlorobenzene	146	9.017	9.022	(1.037)	273270	10.0000	9.561
	11 Benzyl alcohol	108	8.952	8.969	(1.030)	154068	10.0000	9.323
	14 2,2'-oxybis(1-Chloropropane)	45	9.205	9.216	(1.059)	191814	10.0000	9.459
	13 2-Methylphenol	108	9.164	9.181	(1.054)	215302	10.0000	10.35
	17 Hexachloroethane	117	9.504	9.509	(1.093)	107610	10.0000	9.788
	16 N-Nitroso-di-n-propylamine	70	9.422	9.445	(1.084)	139869	10.0000	9.611
	15 4-Methylphenol	108	9.393	9.415	(1.080)	216352	10.0000	9.995
$	18 Nitrobenzene-d5	82	9.616	9.627	(0.895)	207435	10.0000	9.663
	19 Nitrobenzene	77	9.645	9.662	(0.898)	213986	10.0000	9.758
	20 Isophorone	82	10.015	10.038	(0.932)	349735	10.0000	9.760
	21 2-Nitrophenol	139	10.162	10.173	(0.946)	135384	10.0000	11.08
	22 2,4-Dimethylphenol	107	10.239	10.256	(0.953)	245541	10.0000	10.32
	23 Bis(2-Chloroethoxy)methane	93	10.391	10.408	(0.967)	242519	10.0000	9.686
	24 Benzoic acid	105	10.397	10.567	(0.968)	295968	20.0000	23.88
	25 2,4-Dichlorophenol	162	10.538	10.549	(0.981)	215361	10.0000	11.06
	26 1,2,4-Trichlorobenzene	180	10.679	10.684	(0.994)	225136	10.0000	9.740
*	27 Naphthalene-d8	136	10.744	10.749	(1.000)	1330824	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.773	10.784	(1.003)	675065	10.0000	9.468
	29 4-Chloroaniline	127	10.896	10.908	(1.014)	267945	10.0000	10.10
	30 Hexachlorobutadiene	225	11.084	11.084	(1.032)	128941	10.0000	9.747
	31 4-Chloro-3-methylphenol	107	11.690	11.701	(1.088)	198573	10.0000	11.57
	32 2-Methylnaphthalene	142	11.895	11.906	(1.107)	441444	10.0000	9.604
	33 Hexachlorocyclopentadiene	237	12.277	12.282	(0.901)	115371	10.0000	10.84
	34 2,4,6-Trichlorophenol	196	12.400	12.411	(0.910)	149916	10.0000	10.75
	35 2,4,5-Trichlorophenol	196	12.459	12.470	(0.914)	153093	10.0000	11.64
$	36 2-Fluorobiphenyl	172	12.535	12.541	(0.920)	472954	10.0000	8.873
	37 2-Chloronaphthalene	162	12.682	12.699	(0.931)	448480	10.0000	9.592
	38 2-Nitroaniline	65	12.906	12.923	(0.947)	90139	10.0000	12.19
	39 Dimethylphthalate	163	13.264	13.287	(0.973)	531928	10.0000	9.727
	40 Acenaphthylene	152	13.370	13.381	(0.981)	706222	10.0000	9.638
	41 2,6-Dinitrotoluene	165	13.364	13.387	(0.981)	120276	10.0000	10.93
*	42 Acenaphthene-d10	164	13.628	13.633	(1.000)	805701	20.0000	
	43 3-Nitroaniline	138	13.587	13.610	(0.997)	117521	10.0000	10.53
	44 Acenaphthene	153	13.675	13.686	(1.003)	447973	10.0000	9.653
	45 2,4-Dinitrophenol	184	13.751	13.780	(1.009)	84130	20.0000	29.59
	46 Dibenzofuran	168	13.939	13.951	(1.023)	603633	10.0000	9.696
	47 4-Nitrophenol	109	13.857	13.880	(1.017)	72927	10.0000	10.99
	48 2,4-Dinitrotoluene	165	13.998	14.021	(1.027)	161965	10.0000	11.57
	50 Diethylphthalate	149	14.421	14.438	(1.058)	568753	10.0000	9.730
	49 Fluorene	166	14.497	14.514	(1.064)	529962	10.0000	9.720
	51 4-Chlorophenyl-phenylether	204	14.509	14.514	(1.065)	248604	10.0000	9.602
	52 4-Nitroaniline	138	14.586	14.626	(1.070)	109583	10.0000	9.797
	53 4,6-Dinitro-2-methylphenol	198	14.662	14.697	(0.915)	167601	20.0000	23.46
	54 N-Nitrosodiphenylamine	169	14.709	14.732	(0.918)	390380	10.0000	10.02
$	55 2,4,6-Tribromophenol	330	14.920	14.937	(1.095)	56765	10.0000	10.67
	56 4-Bromophenyl-phenylether	248	15.296	15.308	(0.955)	140953	10.0000	10.15
	57 Hexachlorobenzene	284	15.537	15.548	(0.970)	142687	10.0000	9.639
	58 Pentachlorophenol	266	15.825	15.842	(0.988)	92866	10.0000	10.64
*	59 Phenanthrene-d10	188	16.025	16.036	(1.000)	1335679	20.0000	
	60 Phenanthrene	178	16.060	16.077	(1.002)	723729	10.0000	9.474
	61 Anthracene	178	16.136	16.153	(1.007)	750646	10.0000	9.636
	62 Carbazole	167	16.407	16.424	(1.024)	660077	10.0000	9.431
	63 Di-n-butylphthalate	149	17.088	17.093	(1.066)	906961	10.0000	9.993
	64 Fluoranthene	202	18.016	18.027	(1.124)	764738	10.0000	9.875
	65 Pyrene	202	18.380	18.397	(0.902)	787792	10.0000	9.358
$	66 Terphenyl-d14	244	18.662	18.674	(0.916)	448627	10.0000	8.916
	67 Butylbenzylphthalate	149	19.532	19.543	(0.958)	418550	10.0000	10.64
	68 Benzo(a)anthracene	228	20.348	20.365	(0.999)	750485	10.0000	9.673
*	69 Chrysene-d12	240	20.378	20.389	(1.000)	1209826	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.337	20.348	(0.998)	255812	10.0000	10.62
	71 Chrysene	228	20.413	20.436	(1.002)	734332	10.0000	9.591
	72 bis(2-Ethylhexyl)phthalate	149	20.513	20.518	(0.956)	588126	10.0000	10.78
*	134 Di-n-octylphthalate-d4	153	21.447	21.458	(1.000)	1905755	20.0000	
	73 Di-n-octylphthalate	149	21.459	21.470	(1.001)	1013433	10.0000	9.438

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	22.017	22.040	(0.975)	783710	10.0000	9.824
	75 Benzo(k)fluoranthene	252	22.046	22.075	(0.977)	795376	10.0000	9.609
	187 Total Benzofluoranthenes	252	22.046	22.075	(0.977)	1484981	20.0000	19.37
	76 Benzo(a)pyrene	252	22.481	22.510	(0.996)	675517	10.0000	9.782
*	77 Perylene-d12	264	22.575	22.580	(1.000)	1193862	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	24.413	24.454	(1.081)	713289	10.0000	10.60
	79 Dibenzo(a,h)anthracene	278	24.431	24.477	(1.082)	577618	10.0000	10.96
	80 Benzo(g,h,i)perylene	276	24.936	24.989	(1.105)	629032	10.0000	10.91
	90 N-Nitrosodimethylamine	74	4.276	4.281	(0.492)	109696	10.0000	9.377
	103 Pyridine	79	4.258	4.240	(0.490)	201572	10.0000	10.79
	91 Aniline	93	8.241	8.252	(0.948)	288356	10.0000	9.513
	105 1-methylnaphthalene	142	12.071	12.082	(1.124)	428993	10.0000	9.576
	93 Benzidine	184	18.245	18.251	(0.895)	250888	10.0000	9.765
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.762	14.779	(1.083)	427139	10.0000	9.774
	143 1,4-Dioxane	88	3.512	3.494	(0.404)	74401	10.0000	
$	137 d8-1,4-Dioxane	96	3.448	3.424	(0.397)	76835	10.0000	
	151 1,2,4,5-Tetrachlorobenzene	216	12.236	12.247	(0.898)	205530	10.0000	9.197
	120 2,3,4,6-Tetrachlorophenol	232	14.210	14.221	(1.043)	123547	10.0000	10.87
	144 alpha-Terpineol	59	10.773	10.790	(1.003)	115158	10.0000	9.287
	98 Retene	219	18.921	18.932	(0.928)	253770	10.0000	9.689
	133 Butylatedhydroxytoluene	205	13.763	13.774	(1.010)	400152	10.0000	9.222
	115 Tributyl Phosphate	99	14.768	14.802	(0.922)	550197	10.0000	10.06
	116 Dibutyl Phenyl Phosphate	175	16.524	16.535	(1.031)	428511	10.0000	10.07
	117 Butyl Diphenyl Phosphate	94	18.234	18.245	(0.895)	121912	10.0000	9.952
	118 Triphenyl Phosphate	326	19.855	19.866	(0.974)	122543	10.0000	9.898
	123 Acetophenone	105	9.375	9.392	(0.873)	298771	10.0000	9.971
	179 n-Decane	57	8.500	8.505	(0.978)	160692	10.0000	9.679
	180 n-Octadecane	57	15.878	15.883	(0.991)	200941	10.0000	9.943
	168 Pentachlorobenzene	250	13.981	13.992	(1.026)	169400	10.0000	9.608
	113 Diphenyl Oxide	170	12.864	12.870	(0.944)	439084	10.0000	9.312
	112 Biphenyl	154	12.671	12.682	(0.930)	521643	10.0000	9.492
	110 Tetrachloroguaiacol	247	15.948	15.971	(0.995)	158817	20.0000	20.61
	109 3,4,5-Trichloroguaiacol	213	14.304	14.315	(0.893)	82226	10.0000	10.74
	181 3,4,6-Trichloroguaiacol	211	14.427	14.444	(0.900)	98454	10.0000	10.82
	108 4,5,6-Trichloroguaiacol	213	15.338	15.349	(0.957)	85057	10.0000	10.73
	184 3,4-Dichloroguaiacol	192	12.753	12.764	(0.936)	81053	10.0000	10.34
	107 4,5-Dichloroguaiacol	192	13.528	13.545	(0.993)	114248	10.0000	10.68
	182 4,6-Dichloroguaiacol	192	13.563	13.580	(0.995)	102418	10.0000	9.886
	185 4-Chloroguaiacol	115	11.648	11.660	(1.340)	56264	5.00000	5.254
	106 Guaiacol	124	9.633	9.645	(1.108)	201151	10.0000	9.466

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191004.d
Lab Smp Id: IC100719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC100719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	386803	8.51
27 Naphthalene-d8	1293412	646706	2586824	1330824	2.89
42 Acenaphthene-d10	785897	392948	1571794	805701	2.52
59 Phenanthrene-d10	1313990	656995	2627980	1335679	1.65
69 Chrysene-d12	1155293	577646	2310586	1209826	4.72
134 Di-n-octylphthala	1825297	912648	3650594	1905755	4.41
77 Perylene-d12	1146289	573144	2292578	1193862	4.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.69	-0.05
27 Naphthalene-d8	10.74	10.24	11.24	10.74	0.01
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.01
59 Phenanthrene-d10	16.03	15.53	16.53	16.02	-0.03
69 Chrysene-d12	20.38	19.88	20.88	20.38	-0.02
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	-0.02
77 Perylene-d12	22.58	22.08	23.08	22.57	-0.02

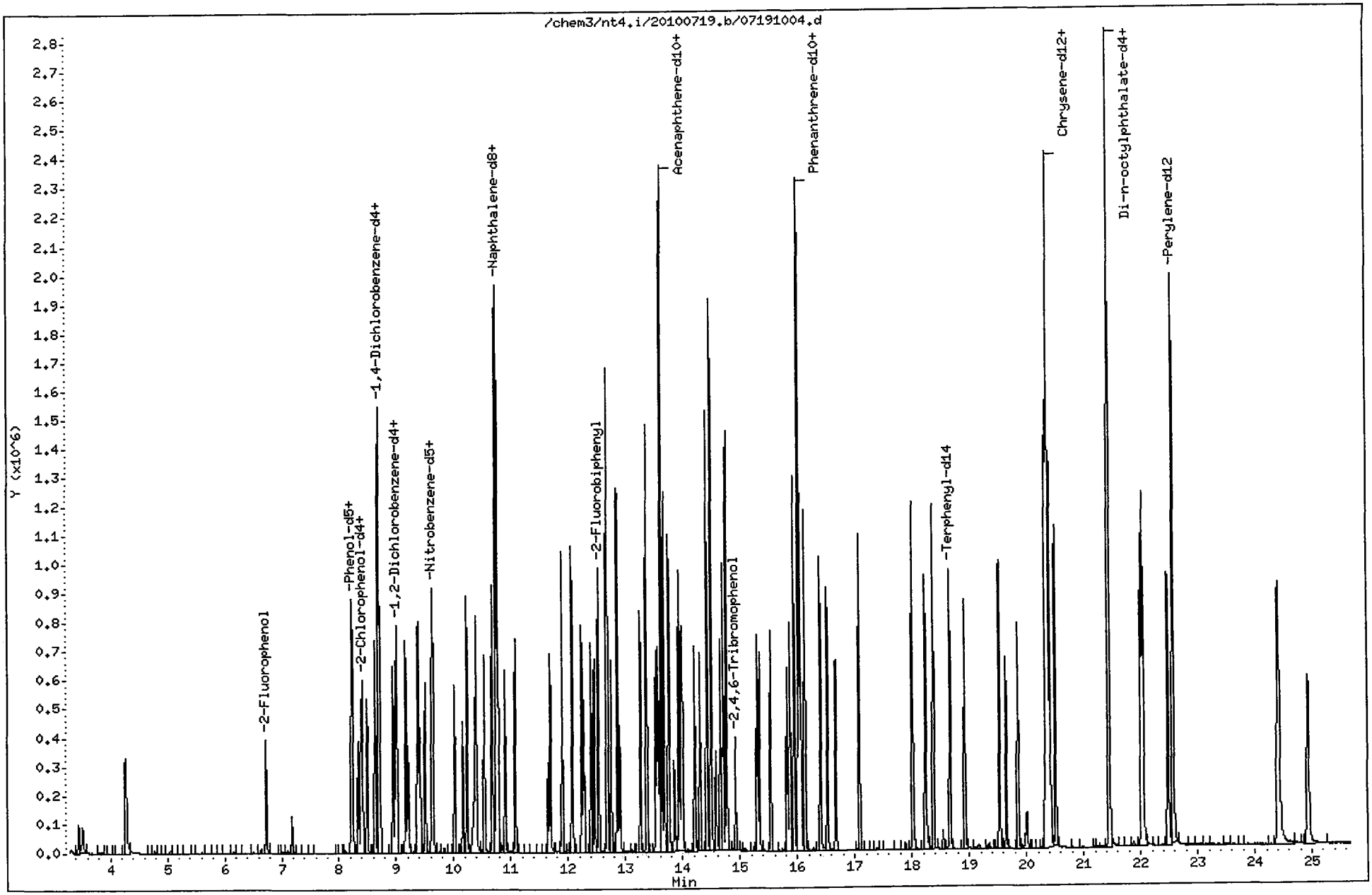
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt4.i/20100719.b/07191004.d
Date : 19-JUL-2010 18:07
Client ID: IC100719
Sample Info: IC100719

Column phase: ZB-5msi

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32



RF71:00254

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191001.d
Lab Smp Id: IC250719 Client Smp ID: IC250719
Inj Date : 19-JUL-2010 16:18
Operator : JZ Inst ID: nt4.i
Smp Info : IC250719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 16:18 Cal File: 07191001.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

07/21/10

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.736	6.737	(0.774)	509094	25.0000	25.72
$	2 Phenol-d5	99	8.216	8.229	(0.945)	502390	25.0000	25.87
	3 Phenol	94	8.234	8.252	(0.947)	633003	25.0000	24.17
$	5 2-Chlorophenol-d4	132	8.387	8.393	(0.964)	529269	25.0000	25.43
	4 Bis(2-Chloroethyl)ether	93	8.346	8.352	(0.959)	456355	25.0000	24.04
	6 2-Chlorophenol	128	8.416	8.423	(0.968)	608173	25.0000	24.95
	7 1,3-Dichlorobenzene	146	8.633	8.640	(0.993)	660365	25.0000	23.92
*	8 1,4-Dichlorobenzene-d4	152	8.698	8.699	(1.000)	356478	20.0000	
	9 1,4-Dichlorobenzene	146	8.721	8.722	(1.003)	671032	25.0000	24.10
$	10 1,2-Dichlorobenzene-d4	152	8.998	8.998	(1.034)	379735	25.0000	24.06
	12 1,2-Dichlorobenzene	146	9.015	9.022	(1.036)	618747	25.0000	23.85
	11 Benzyl alcohol	108	8.956	8.969	(1.030)	349815	25.0000	23.61
	14 2,2'-oxybis(1-Chloropropane)	45	9.209	9.216	(1.059)	428872	25.0000	23.43
	13 2-Methylphenol	108	9.174	9.181	(1.055)	489525	25.0000	25.40
	17 Hexachloroethane	117	9.509	9.509	(1.093)	249727	25.0000	24.73
	16 N-Nitroso-di-n-propylamine	70	9.426	9.445	(1.084)	318375	25.0000	24.04
	15 4-Methylphenol	108	9.397	9.415	(1.080)	504582	25.0000	25.22
$	18 Nitrobenzene-d5	82	9.620	9.627	(0.896)	514519	25.0000	24.74
	19 Nitrobenzene	77	9.650	9.662	(0.898)	489280	25.0000	23.44
	20 Isophorone	82	10.026	10.038	(0.933)	813652	25.0000	23.75
	21 2-Nitrophenol	139	10.167	10.173	(0.946)	334369	25.0000	27.29
	22 2,4-Dimethylphenol	107	10.243	10.256	(0.954)	572473	25.0000	24.81
	23 Bis(2-Chloroethoxy)methane	93	10.396	10.408	(0.968)	576503	25.0000	24.00
	24 Benzoic acid	105	10.466	10.567	(0.974)	865635	50.0000	62.72
	25 2,4-Dichlorophenol	162	10.543	10.549	(0.981)	527621	25.0000	27.09
	26 1,2,4-Trichlorobenzene	180	10.684	10.684	(0.995)	536705	25.0000	24.16
*	27 Naphthalene-d8	136	10.742	10.749	(1.000)	1293412	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.778	10.784	(1.003)	1556045	25.0000	23.04
	29 4-Chloroaniline	127	10.901	10.908	(1.015)	637156	25.0000	24.79
	30 Hexachlorobutadiene	225	11.083	11.084	(1.032)	301348	25.0000	23.81
	31 4-Chloro-3-methylphenol	107	11.694	11.701	(1.089)	500175	25.0000	28.57
	32 2-Methylnaphthalene	142	11.900	11.906	(1.108)	1050247	25.0000	23.86
	33 Hexachlorocyclopentadiene	237	12.281	12.282	(0.901)	313309	25.0000	28.24
	34 2,4,6-Trichlorophenol	196	12.405	12.411	(0.910)	377521	25.0000	27.01
	35 2,4,5-Trichlorophenol	196	12.463	12.470	(0.915)	403239	25.0000	29.54
$	36 2-Fluorobiphenyl	172	12.540	12.541	(0.920)	1236271	25.0000	24.07
	37 2-Chloronaphthalene	162	12.687	12.699	(0.931)	1084794	25.0000	24.08
	38 2-Nitroaniline	65	12.910	12.923	(0.947)	233355	25.0000	30.14
	39 Dimethylphthalate	163	13.268	13.287	(0.974)	1257560	25.0000	23.92
	40 Acenaphthylene	152	13.374	13.381	(0.981)	1642937	25.0000	23.46
	41 2,6-Dinitrotoluene	165	13.374	13.387	(0.981)	299507	25.0000	27.11
*	42 Acenaphthene-d10	164	13.627	13.633	(1.000)	785897	20.0000	
	43 3-Nitroaniline	138	13.591	13.610	(0.997)	270236	25.0000	24.87
	44 Acenaphthene	153	13.679	13.686	(1.004)	1047303	25.0000	23.58
	45 2,4-Dinitrophenol	184	13.756	13.780	(1.009)	317048	50.0000	80.02
	46 Dibenzofuran	168	13.944	13.951	(1.023)	1398933	25.0000	23.50
	47 4-Nitrophenol	109	13.867	13.880	(1.018)	191448	25.0000	27.88
	48 2,4-Dinitrotoluene	165	14.008	14.021	(1.028)	397346	25.0000	27.96
	50 Diethylphthalate	149	14.431	14.438	(1.059)	1294538	25.0000	23.24
	49 Fluorene	166	14.508	14.514	(1.065)	1237613	25.0000	23.68
	51 4-Chlorophenyl-phenylether	204	14.514	14.514	(1.065)	591928	25.0000	23.81
	52 4-Nitroaniline	138	14.596	14.626	(1.071)	259237	25.0000	24.06
	53 4,6-Dinitro-2-methylphenol	198	14.672	14.697	(0.915)	487973	50.0000	61.47
	54 N-Nitrosodiphenylamine	169	14.713	14.732	(0.918)	928356	25.0000	24.41
$	55 2,4,6-Tribromophenol	330	14.931	14.937	(1.096)	153201	25.0000	28.25
	56 4-Bromophenyl-phenylether	248	15.301	15.308	(0.955)	337061	25.0000	24.76
	57 Hexachlorobenzene	284	15.542	15.548	(0.970)	336992	25.0000	23.58
	58 Pentachlorophenol	266	15.830	15.842	(0.988)	246760	25.0000	27.37
*	59 Phenanthrene-d10	188	16.029	16.036	(1.000)	1313990	20.0000	
	60 Phenanthrene	178	16.064	16.077	(1.002)	1705790	25.0000	23.23
	61 Anthracene	178	16.141	16.153	(1.007)	1764147	25.0000	23.48
	62 Carbazole	167	16.411	16.424	(1.024)	1555593	25.0000	23.15
	63 Di-n-butylphthalate	149	17.093	17.093	(1.066)	2121495	25.0000	24.06
	64 Fluoranthene	202	18.021	18.027	(1.124)	1808894	25.0000	24.05
	65 Pyrene	202	18.385	18.397	(0.902)	1867259	25.0000	23.65
$	66 Terphenyl-d14	244	18.667	18.674	(0.916)	1158832	25.0000	24.33
	67 Butylbenzylphthalate	149	19.536	19.543	(0.958)	970822	25.0000	25.62
	68 Benzo(a)anthracene	228	20.353	20.365	(0.999)	1698446	25.0000	23.41
*	69 Chrysene-d12	240	20.382	20.389	(1.000)	1155293	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.341	20.348	(0.998)	576157	25.0000	25.04
	71 Chrysene	228	20.423	20.436	(1.002)	1672513	25.0000	23.37
	72 bis(2-Ethylhexyl)phthalate	149	20.517	20.518	(0.956)	1334441	25.0000	25.41
*	134 Di-n-octylphthalate-d4	153	21.451	21.458	(1.000)	1825297	20.0000	
	73 Di-n-octylphthalate	149	21.463	21.470	(1.001)	2271687	25.0000	22.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	22.021	22.040	(0.975)	1734852	25.0000	23.19
75	Benzo(k)fluoranthene	252	22.056	22.075	(0.977)	1915421	25.0000	24.32
187	Total Benzofluoranthenes	252	22.056	22.075	(0.977)	3436118	50.0000	47.47
76	Benzo(a)pyrene	252	22.491	22.510	(0.996)	1612522	25.0000	24.49
* 77	Perylene-d12	264	22.579	22.580	(1.000)	1146289	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.424	24.454	(1.082)	1783402	25.0000	26.89
79	Dibenzo(a,h)anthracene	278	24.447	24.477	(1.083)	1472138	25.0000	27.94
80	Benzo(g,h,i)perylene	276	24.958	24.989	(1.105)	1499429	25.0000	26.53
90	N-Nitrosodimethylamine	74	4.280	4.281	(0.492)	258666	25.0000	24.24
103	Pyridine	79	4.251	4.240	(0.489)	474630	25.0000	26.87
91	Aniline	93	8.246	8.252	(0.948)	641945	25.0000	23.45
105	1-methylnaphthalene	142	12.076	12.082	(1.124)	1026237	25.0000	23.91
93	Benzidine	184	18.250	18.251	(0.895)	500943	25.0000	21.40
111	Azobenzene (1,2-DP-Hydrazine)	77	14.766	14.779	(1.084)	965964	25.0000	23.20
143	1,4-Dioxane	88	3.511	3.494	(0.404)	171754	25.0000	
$ 137	d8-1,4-Dioxane	96	3.440	3.424	(0.396)	177040	25.0000	
151	1,2,4,5-Tetrachlorobenzene	216	12.240	12.247	(0.898)	514416	25.0000	23.93
120	2,3,4,6-Tetrachlorophenol	232	14.214	14.221	(1.043)	321030	25.0000	27.86
144	alpha-Terpineol	59	10.783	10.790	(1.004)	272097	25.0000	23.14
98	Retene	219	18.925	18.932	(0.929)	632122	25.0000	25.20
133	Butylatedhydroxytoluene	205	13.768	13.774	(1.010)	959628	25.0000	23.21
115	Tributyl Phosphate	99	14.778	14.802	(0.922)	1270123	25.0000	23.94
116	Dibutyl Phenyl Phosphate	175	16.529	16.535	(1.031)	1078412	25.0000	25.56
117	Butyl Diphenyl Phosphate	94	18.238	18.245	(0.895)	316769	25.0000	26.53
118	Triphenyl Phosphate	326	19.859	19.866	(0.974)	303151	25.0000	25.48
123	Acetophenone	105	9.379	9.392	(0.873)	677189	25.0000	23.67
179	n-Decane	57	8.498	8.505	(0.977)	358983	25.0000	23.83
180	n-Octadecane	57	15.876	15.883	(0.990)	455513	25.0000	23.40
168	Pentachlorobenzene	250	13.985	13.992	(1.026)	401776	25.0000	23.75
113	Diphenyl Oxide	170	12.863	12.870	(0.944)	1050883	25.0000	23.35
112	Biphenyl	154	12.675	12.682	(0.930)	1229577	25.0000	23.42
110	Tetrachloroguaiacol	247	15.959	15.971	(0.996)	400470	50.0000	52.09
109	3,4,5-Trichloroguaiacol	213	14.308	14.315	(0.893)	204465	25.0000	26.58
181	3,4,6-Trichloroguaiacol	211	14.431	14.444	(0.900)	243206	25.0000	26.59
108	4,5,6-Trichloroguaiacol	213	15.342	15.349	(0.957)	212755	25.0000	26.67
184	3,4-Dichloroguaiacol	192	12.757	12.764	(0.936)	210509	25.0000	26.84
107	4,5-Dichloroguaiacol	192	13.539	13.545	(0.994)	282749	25.0000	26.54
182	4,6-Dichloroguaiacol	192	13.568	13.580	(0.996)	265540	25.0000	25.95
185	4-Chloroguaiacol	115	11.653	11.660	(1.340)	145555	12.5000	14.11
106	Guaiacol	124	9.638	9.645	(1.108)	478994	25.0000	24.59

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191001.d
Lab Smp Id: IC250719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC250719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	356478	0.00
27 Naphthalene-d8	1293412	646706	2586824	1293412	0.00
42 Acenaphthene-d10	785897	392948	1571794	785897	0.00
59 Phenanthrene-d10	1313990	656995	2627980	1313990	0.00
69 Chrysene-d12	1155293	577646	2310586	1155293	0.00
134 Di-n-octylphthala	1825297	912648	3650594	1825297	0.00
77 Perylene-d12	1146289	573144	2292578	1146289	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.70	0.00
27 Naphthalene-d8	10.74	10.24	11.24	10.74	0.00
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.00
59 Phenanthrene-d10	16.03	15.53	16.53	16.03	0.00
69 Chrysene-d12	20.38	19.88	20.88	20.38	0.00
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	0.00
77 Perylene-d12	22.58	22.08	23.08	22.58	0.00

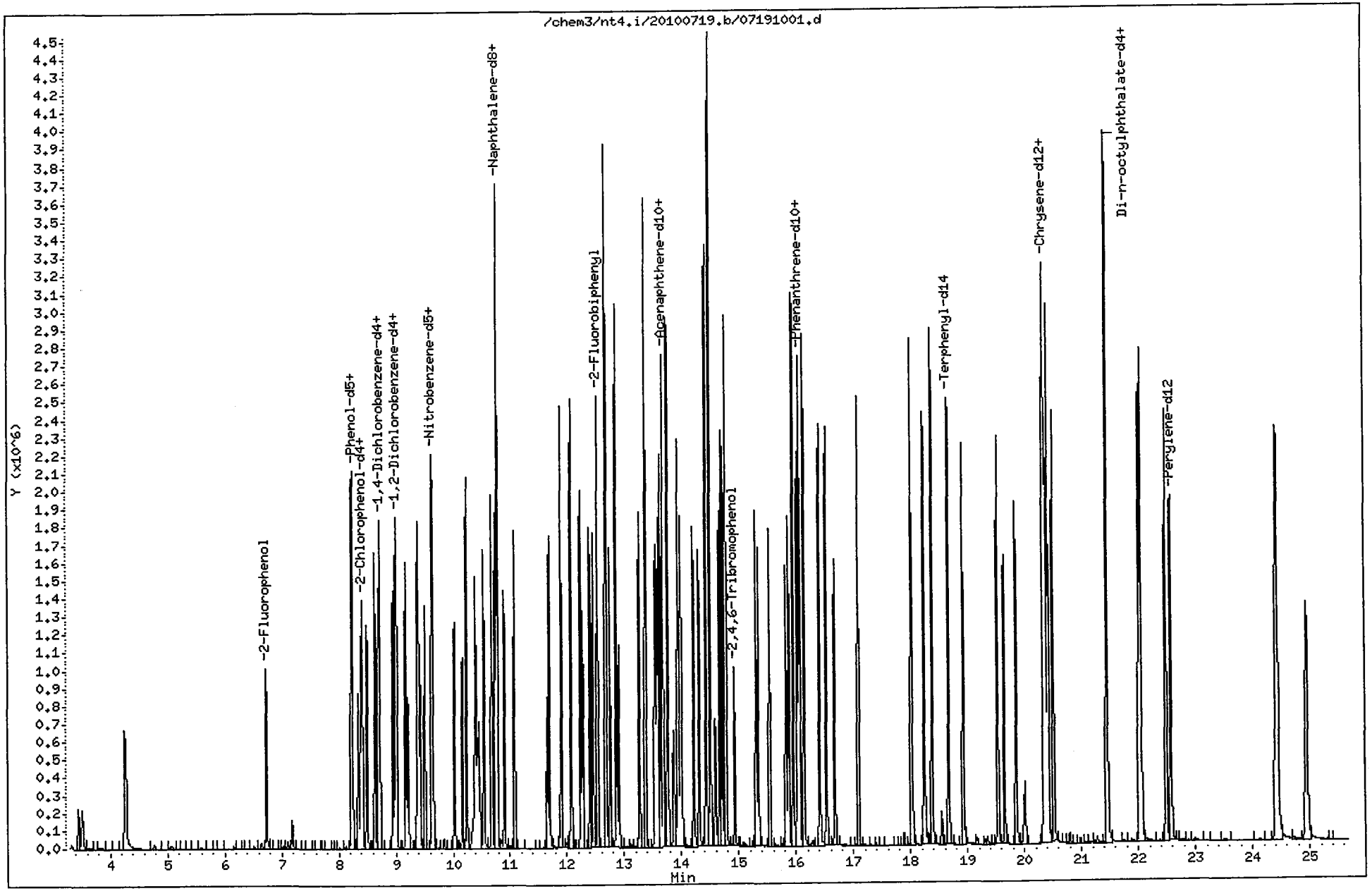
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt4.i/20100719.b/07191001.d
Date : 19-JUL-2010 16:18
Client ID: IC250719
Sample Info: IC250719

Column phase: ZB-5msi

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32



RF71:00259

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191005.d
Lab Smp Id: IC400719 Client Smp ID: IC400719
Inj Date : 19-JUL-2010 18:41
Operator : JZ Inst ID: nt4.i
Smp Info : IC400719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 18:41 Cal File: 07191005.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

07/21/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.738	6.737	(0.775)	805836	40.0000	38.46
$	2 Phenol-d5	99	8.224	8.229	(0.946)	800887	40.0000	38.86
	3 Phenol	94	8.242	8.252	(0.948)	970435	40.0000	35.61
$	5 2-Chlorophenol-d4	132	8.395	8.393	(0.966)	851467	40.0000	38.60
	4 Bis(2-Chloroethyl)ether	93	8.348	8.352	(0.960)	765819	40.0000	38.17
	6 2-Chlorophenol	128	8.418	8.423	(0.968)	939854	40.0000	36.80
	7 1,3-Dichlorobenzene	146	8.636	8.640	(0.993)	1102160	40.0000	37.86
*	8 1,4-Dichlorobenzene-d4	152	8.694	8.699	(1.000)	381018	20.0000	
	9 1,4-Dichlorobenzene	146	8.724	8.722	(1.003)	1123923	40.0000	38.19
$	10 1,2-Dichlorobenzene-d4	152	9.000	8.998	(1.035)	620692	40.0000	37.40
	12 1,2-Dichlorobenzene	146	9.017	9.022	(1.037)	1045036	40.0000	38.13
	11 Benzyl alcohol	108	8.959	8.969	(1.030)	560984	40.0000	36.47
	14 2,2'-oxybis(1-Chloropropane)	45	9.211	9.216	(1.059)	703825	40.0000	36.71
	13 2-Methylphenol	108	9.176	9.181	(1.055)	768962	40.0000	37.84
	17 Hexachloroethane	117	9.511	9.509	(1.094)	422293	40.0000	39.30
	16 N-Nitroso-di-n-propylamine	70	9.434	9.445	(1.085)	535476	40.0000	38.25
	15 4-Methylphenol	108	9.405	9.415	(1.082)	798691	40.0000	37.85
$	18 Nitrobenzene-d5	82	9.622	9.627	(0.896)	826176	40.0000	38.67
	19 Nitrobenzene	77	9.652	9.662	(0.898)	805687	40.0000	37.76
	20 Isophorone	82	10.028	10.038	(0.933)	1335102	40.0000	38.07
	21 2-Nitrophenol	139	10.169	10.173	(0.946)	520600	40.0000	40.81
	22 2,4-Dimethylphenol	107	10.245	10.256	(0.954)	878355	40.0000	37.35
	23 Bis(2-Chloroethoxy)methane	93	10.398	10.408	(0.968)	928673	40.0000	37.83
	24 Benzoic acid	105	10.509	10.567	(0.978)	1401298	80.0000	92.78
	25 2,4-Dichlorophenol	162	10.545	10.549	(0.981)	807406	40.0000	40.01
	26 1,2,4-Trichlorobenzene	180	10.680	10.684	(0.994)	883928	40.0000	38.71
*	27 Naphthalene-d8	136	10.744	10.749	(1.000)	1340154	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.780	10.784	(1.003)	2403128	40.0000	35.34
	29 4-Chloroaniline	127	10.903	10.908	(1.015)	1000805	40.0000	38.04
	30 Hexachlorobutadiene	225	11.085	11.084	(1.032)	502639	40.0000	38.65
	31 4-Chloro-3-methylphenol	107	11.696	11.701	(1.089)	765878	40.0000	41.76
	32 2-Methylnaphthalene	142	11.902	11.906	(1.108)	1711633	40.0000	38.00
	33 Hexachlorocyclopentadiene	237	12.278	12.282	(0.901)	553109	40.0000	44.81
	34 2,4,6-Trichlorophenol	196	12.407	12.411	(0.910)	605024	40.0000	40.43
	35 2,4,5-Trichlorophenol	196	12.466	12.470	(0.915)	647741	40.0000	43.47
$	36 2-Fluorobiphenyl	172	12.536	12.541	(0.920)	1951425	40.0000	36.38
	37 2-Chloronaphthalene	162	12.689	12.699	(0.931)	1782192	40.0000	37.60
	38 2-Nitroaniline	65	12.912	12.923	(0.947)	385828	40.0000	45.16
	39 Dimethylphthalate	163	13.276	13.287	(0.974)	2076257	40.0000	37.54
	40 Acenaphthylene	152	13.376	13.381	(0.981)	2618537	40.0000	35.91
	41 2,6-Dinitrotoluene	165	13.376	13.387	(0.981)	506024	40.0000	42.28
*	42 Acenaphthene-d10	164	13.629	13.633	(1.000)	839318	20.0000	
	43 3-Nitroaniline	138	13.599	13.610	(0.998)	411097	40.0000	36.26
	44 Acenaphthene	153	13.682	13.686	(1.004)	1730659	40.0000	37.13
	45 2,4-Dinitrophenol	184	13.764	13.780	(1.010)	599293	80.0000	118.8
	46 Dibenzofuran	168	13.946	13.951	(1.023)	2282796	40.0000	36.65
	47 4-Nitrophenol	109	13.870	13.880	(1.018)	324791	40.0000	43.13
	48 2,4-Dinitrotoluene	165	14.011	14.021	(1.028)	682861	40.0000	43.90
	50 Diethylphthalate	149	14.434	14.438	(1.059)	2127981	40.0000	36.54
	49 Fluorene	166	14.510	14.514	(1.065)	1979735	40.0000	36.29
	51 4-Chlorophenyl-phenylether	204	14.516	14.514	(1.065)	980934	40.0000	37.52
	52 4-Nitroaniline	138	14.610	14.626	(1.072)	465525	40.0000	40.36
	53 4,6-Dinitro-2-methylphenol	198	14.680	14.697	(0.916)	814156	80.0000	92.95
	54 N-Nitrosodiphenylamine	169	14.721	14.732	(0.918)	1558783	40.0000	39.41
$	55 2,4,6-Tribromophenol	330	14.933	14.937	(1.096)	249842	40.0000	42.47
	56 4-Bromophenyl-phenylether	248	15.303	15.308	(0.955)	565124	40.0000	39.82
	57 Hexachlorobenzene	284	15.544	15.548	(0.970)	559987	40.0000	38.00
	58 Pentachlorophenol	266	15.832	15.842	(0.988)	393069	40.0000	41.31
*	59 Phenanthrene-d10	188	16.031	16.036	(1.000)	1371590	20.0000	
	60 Phenanthrene	178	16.073	16.077	(1.003)	2705033	40.0000	36.15
	61 Anthracene	178	16.143	16.153	(1.007)	2803865	40.0000	36.53
	62 Carbazole	167	16.413	16.424	(1.024)	2542023	40.0000	36.93
	63 Di-n-butylphthalate	149	17.095	17.093	(1.066)	3260353	40.0000	36.25
	64 Fluoranthene	202	18.023	18.027	(1.124)	2935696	40.0000	37.88
	65 Pyrene	202	18.387	18.397	(0.902)	3025660	40.0000	35.90
$	66 Terphenyl-d14	244	18.669	18.674	(0.916)	1839228	40.0000	36.14
	67 Butylbenzylphthalate	149	19.538	19.543	(0.958)	1646877	40.0000	39.77
	68 Benzo(a)anthracene	228	20.361	20.365	(0.999)	2823099	40.0000	36.36
*	69 Chrysene-d12	240	20.384	20.389	(1.000)	1264495	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.343	20.348	(0.998)	950636	40.0000	38.18
	71 Chrysene	228	20.425	20.436	(1.002)	2729145	40.0000	35.77
	72 bis(2-Ethylhexyl)phthalate	149	20.514	20.518	(0.956)	2243796	40.0000	40.79
*	134 Di-n-octylphthalate-d4	153	21.453	21.458	(1.000)	1902533	20.0000	
	73 Di-n-octylphthalate	149	21.465	21.470	(1.001)	3553588	40.0000	35.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	22.029	22.040	(0.976)	2935610	40.0000	37.62
75	Benzo(k)fluoranthene	252	22.064	22.075	(0.977)	2948453	40.0000	36.19
187	Total Benzofluoranthenes	252	22.064	22.075	(0.977)	5543714	80.0000	73.74
76	Benzo(a)pyrene	252	22.499	22.510	(0.997)	2634243	40.0000	38.20
* 77	Perylene-d12	264	22.575	22.580	(1.000)	1213809	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.438	24.454	(1.082)	3062042	40.0000	42.84
79	Dibenzo(a,h)anthracene	278	24.455	24.477	(1.083)	2520948	40.0000	44.05
80	Benzo(g,h,i)perylene	276	24.972	24.989	(1.106)	2618046	40.0000	42.94
90	N-Nitrosodimethylamine	74	4.288	4.281	(0.493)	430140	40.0000	38.14
103	Pyridine	79	4.253	4.240	(0.489)	798092	40.0000	41.80
91	Aniline	93	8.248	8.252	(0.949)	1030671	40.0000	36.09
105	1-methylnaphthalene	142	12.078	12.082	(1.124)	1690741	40.0000	38.40
93	Benzidine	184	18.252	18.251	(0.895)	836928	40.0000	33.91
111	Azobenzene (1,2-DP-Hydrazine)	77	14.774	14.779	(1.084)	1574216	40.0000	36.24
143	1,4-Dioxane	88	3.513	3.494	(0.404)	291223	40.0000	
$ 137	d8-1,4-Dioxane	96	3.448	3.424	(0.397)	303363	40.0000	
151	1,2,4,5-Tetrachlorobenzene	216	12.242	12.247	(0.898)	837944	40.0000	37.15
120	2,3,4,6-Tetrachlorophenol	232	14.216	14.221	(1.043)	530279	40.0000	42.44
144	alpha-Terpineol	59	10.786	10.790	(1.004)	410363	40.0000	34.78
98	Retene	219	18.927	18.932	(0.929)	1052055	40.0000	38.65
133	Butylatedhydroxytoluene	205	13.770	13.774	(1.010)	1500329	40.0000	35.04
115	Tributyl Phosphate	99	14.792	14.802	(0.923)	2023303	40.0000	37.18
116	Dibutyl Phenyl Phosphate	175	16.531	16.535	(1.031)	1701062	40.0000	38.89
117	Butyl Diphenyl Phosphate	94	18.240	18.245	(0.895)	517626	40.0000	39.68
118	Triphenyl Phosphate	326	19.861	19.866	(0.974)	498877	40.0000	38.63
123	Acetophenone	105	9.382	9.392	(0.873)	1136208	40.0000	38.65
179	n-Decane	57	8.500	8.505	(0.978)	590284	40.0000	37.28
180	n-Octadecane	57	15.879	15.883	(0.990)	714571	40.0000	36.04
168	Pentachlorobenzene	250	13.987	13.992	(1.026)	676775	40.0000	37.94
113	Diphenyl Oxide	170	12.865	12.870	(0.944)	1726304	40.0000	36.67
112	Biphenyl	154	12.677	12.682	(0.930)	1990603	40.0000	36.32
110	Tetrachloroguaiacol	247	15.961	15.971	(0.996)	654310	80.0000	81.22
109	3,4,5-Trichloroguaiacol	213	14.310	14.315	(0.893)	346917	40.0000	42.53
181	3,4,6-Trichloroguaiacol	211	14.434	14.444	(0.900)	407062	40.0000	42.08
108	4,5,6-Trichloroguaiacol	213	15.344	15.349	(0.957)	357303	40.0000	42.30
184	3,4-Dichloroguaiacol	192	12.759	12.764	(0.936)	360234	40.0000	42.38
107	4,5-Dichloroguaiacol	192	13.541	13.545	(0.994)	535237	40.0000	45.44
182	4,6-Dichloroguaiacol	192	13.570	13.580	(0.996)	412019	40.0000	38.14
185	4-Chloroguaiacol	115	11.655	11.660	(1.341)	239833	20.0000	21.38
106	Guaiacol	124	9.640	9.645	(1.109)	785043	40.0000	38.14

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191005.d
Lab Smp Id: IC400719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC400719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	381018	6.88
27 Naphthalene-d8	1293412	646706	2586824	1340154	3.61
42 Acenaphthene-d10	785897	392948	1571794	839318	6.80
59 Phenanthrene-d10	1313990	656995	2627980	1371590	4.38
69 Chrysene-d12	1155293	577646	2310586	1264495	9.45
134 Di-n-octylphthala	1825297	912648	3650594	1902533	4.23
77 Perylene-d12	1146289	573144	2292578	1213809	5.89

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.69	-0.04
27 Naphthalene-d8	10.74	10.24	11.24	10.74	0.02
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.02
59 Phenanthrene-d10	16.03	15.53	16.53	16.03	0.01
69 Chrysene-d12	20.38	19.88	20.88	20.38	0.01
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	0.01
77 Perylene-d12	22.58	22.08	23.08	22.58	-0.02

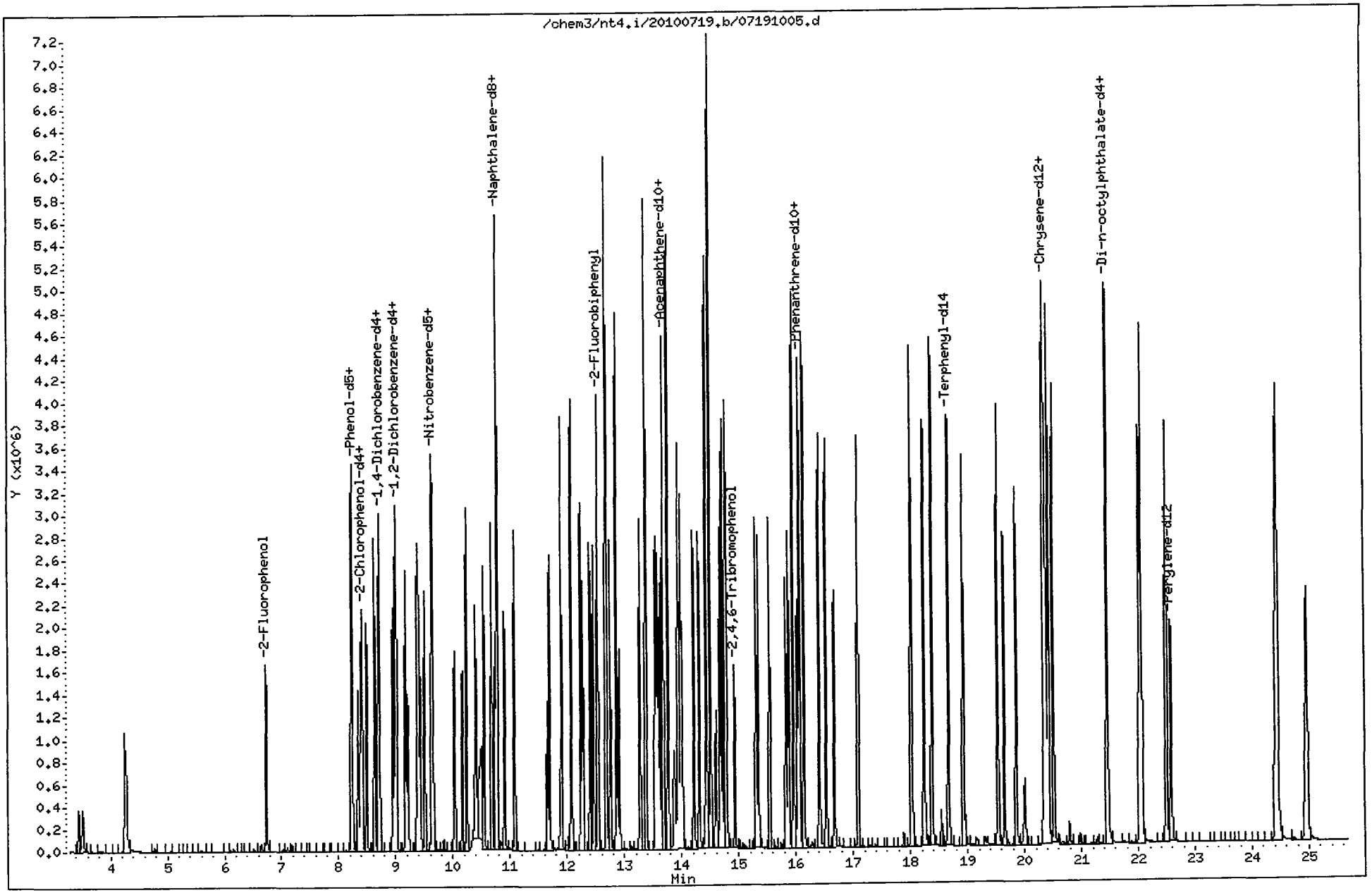
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt4.i/20100719.b/07191005.d
Date : 19-JUL-2010 18:41
Client ID: IC400719
Sample Info: IC400719

Column phase: ZB-5msi

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32



RF71:00264

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191006.d
Lab Smp Id: IC600719 Client Smp ID: IC600719
Inj Date : 19-JUL-2010 19:14
Operator : JZ Inst ID: nt4.i
Smp Info : IC600719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 19:14 Cal File: 07191006.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

07/21/10

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.742	6.737	(0.775)	1229938	60.0000	56.87
$	2 Phenol-d5	99	8.228	8.229	(0.946)	1203698	60.0000	56.64
	3 Phenol	94	8.251	8.252	(0.949)	1486801	60.0000	53.46
$	5 2-Chlorophenol-d4	132	8.398	8.393	(0.966)	1296594	60.0000	56.95
	4 Bis(2-Chloroethyl)ether	93	8.351	8.352	(0.960)	1136800	60.0000	55.21
	6 2-Chlorophenol	128	8.422	8.423	(0.968)	1481989	60.0000	56.33
	7 1,3-Dichlorobenzene	146	8.639	8.640	(0.993)	1637912	60.0000	54.87
*	8 1,4-Dichlorobenzene-d4	152	8.698	8.699	(1.000)	397320	20.0000	
	9 1,4-Dichlorobenzene	146	8.721	8.722	(1.003)	1656413	60.0000	54.89
$	10 1,2-Dichlorobenzene-d4	152	8.997	8.998	(1.034)	951535	60.0000	55.76
	12 1,2-Dichlorobenzene	146	9.021	9.022	(1.037)	1536342	60.0000	54.70
	11 Benzyl alcohol	108	8.968	8.969	(1.031)	863804	60.0000	54.97
	14 2,2'-oxybis(1-Chloropropane)	45	9.215	9.216	(1.059)	1018933	60.0000	52.28
	13 2-Methylphenol	108	9.179	9.181	(1.055)	1210815	60.0000	57.59
	17 Hexachloroethane	117	9.508	9.509	(1.093)	632803	60.0000	57.04
	16 N-Nitroso-di-n-propylamine	70	9.444	9.445	(1.086)	798791	60.0000	55.53
	15 4-Methylphenol	108	9.414	9.415	(1.082)	1252181	60.0000	57.40
$	18 Nitrobenzene-d5	82	9.626	9.627	(0.896)	1229087	60.0000	53.83
	19 Nitrobenzene	77	9.661	9.662	(0.899)	1188709	60.0000	52.39
	20 Isophorone	82	10.037	10.038	(0.934)	2011089	60.0000	53.69
	21 2-Nitrophenol	139	10.172	10.173	(0.946)	846073	60.0000	60.67
	22 2,4-Dimethylphenol	107	10.254	10.256	(0.954)	1366838	60.0000	54.30
	23 Bis(2-Chloroethoxy)methane	93	10.407	10.408	(0.968)	1395558	60.0000	53.29
	24 Benzoic acid	105	10.560	10.567	(0.982)	2377813	120.000	138.7(M)
	25 2,4-Dichlorophenol	162	10.548	10.549	(0.981)	1299788	60.0000	59.22
	26 1,2,4-Trichlorobenzene	180	10.683	10.684	(0.994)	1364625	60.0000	55.60
*	27 Naphthalene-d8	136	10.748	10.749	(1.000)	1461536	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.783	10.784	(1.003)	3406376	60.0000	47.80
	29 4-Chloroaniline	127	10.907	10.908	(1.015)	1513974	60.0000	53.84
	30 Hexachlorobutadiene	225	11.083	11.084	(1.031)	765030	60.0000	54.87
	31 4-Chloro-3-methylphenol	107	11.700	11.701	(1.089)	1220499	60.0000	60.84
	32 2-Methylnaphthalene	142	11.905	11.906	(1.108)	2515888	60.0000	52.50
	33 Hexachlorocyclopentadiene	237	12.281	12.282	(0.901)	871995	60.0000	65.89
	34 2,4,6-Trichlorophenol	196	12.410	12.411	(0.910)	964534	60.0000	61.35
	35 2,4,5-Trichlorophenol	196	12.469	12.470	(0.915)	1030226	60.0000	65.00
$	36 2-Fluorobiphenyl	172	12.540	12.541	(0.920)	2843491	60.0000	52.03
	37 2-Chloronaphthalene	162	12.698	12.699	(0.931)	2543337	60.0000	52.57
	38 2-Nitroaniline	65	12.921	12.923	(0.948)	595218	60.0000	65.41
	39 Dimethylphthalate	163	13.286	13.287	(0.975)	3065731	60.0000	54.05
	40 Acenaphthylene	152	13.380	13.381	(0.981)	3654484	60.0000	49.58
	41 2,6-Dinitrotoluene	165	13.380	13.387	(0.981)	752544	60.0000	60.10
*	42 Acenaphthene-d10	164	13.632	13.633	(1.000)	877821	20.0000	
	43 3-Nitroaniline	138	13.609	13.610	(0.998)	574337	60.0000	50.04
	44 Acenaphthene	153	13.691	13.686	(1.004)	2486799	60.0000	52.32
	45 2,4-Dinitrophenol	184	13.779	13.780	(1.011)	1050607	120.000	175.9
	46 Dibenzofuran	168	13.949	13.951	(1.023)	3316951	60.0000	52.24
	47 4-Nitrophenol	109	13.879	13.880	(1.018)	521388	60.0000	64.86
	48 2,4-Dinitrotoluene	165	14.020	14.021	(1.028)	1028405	60.0000	62.65
	50 Diethylphthalate	149	14.437	14.438	(1.059)	2995821	60.0000	50.71
	49 Fluorene	166	14.513	14.514	(1.065)	2766792	60.0000	50.10
	51 4-Chlorophenyl-phenylether	204	14.519	14.514	(1.065)	1386076	60.0000	52.04
	52 4-Nitroaniline	138	14.625	14.626	(1.073)	708100	60.0000	58.91
	53 4,6-Dinitro-2-methylphenol	198	14.695	14.697	(0.916)	1367613	120.000	141.3
	54 N-Nitrosodiphenylamine	169	14.731	14.732	(0.919)	2292809	60.0000	55.69
$	55 2,4,6-Tribromophenol	330	14.936	14.937	(1.096)	382818	60.0000	61.84
	56 4-Bromophenyl-phenylether	248	15.306	15.308	(0.955)	839139	60.0000	56.62
	57 Hexachlorobenzene	284	15.547	15.548	(0.970)	830754	60.0000	54.39
	58 Pentachlorophenol	266	15.841	15.842	(0.988)	650217	60.0000	63.72
*	59 Phenanthrene-d10	188	16.035	16.036	(1.000)	1448224	20.0000	
	60 Phenanthrene	178	16.076	16.077	(1.003)	3878293	60.0000	50.62
	61 Anthracene	178	16.152	16.153	(1.007)	3944693	60.0000	50.26
	62 Carbazole	167	16.423	16.424	(1.024)	3719250	60.0000	52.47
	63 Di-n-butylphthalate	149	17.092	17.093	(1.066)	4433661	60.0000	48.48
	64 Fluoranthene	202	18.026	18.027	(1.124)	4065333	60.0000	51.15
	65 Pyrene	202	18.396	18.397	(0.902)	4220721	60.0000	50.47
$	66 Terphenyl-d14	244	18.672	18.674	(0.916)	2664333	60.0000	52.41
	67 Butylbenzylphthalate	149	19.542	19.543	(0.958)	2351154	60.0000	56.16
	68 Benzo(a)anthracene	228	20.364	20.365	(0.999)	3947800	60.0000	51.13
*	69 Chrysene-d12	240	20.388	20.389	(1.000)	1294779	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.347	20.348	(0.998)	1334380	60.0000	53.48
	71 Chrysene	228	20.435	20.436	(1.002)	3793653	60.0000	50.15
	72 bis(2-Ethylhexyl)phthalate	149	20.517	20.518	(0.956)	3142762	60.0000	56.90
*	134 Di-n-octylphthalate-d4	153	21.457	21.458	(1.000)	1930038	20.0000	
	73 Di-n-octylphthalate	149	21.469	21.470	(1.001)	4795925	60.0000	48.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	22.038	22.040	(0.976)	4080347	60.0000	51.13
75	Benzo(k)fluoranthene	252	22.074	22.075	(0.978)	4266538	60.0000	51.21
187	Total Benzofluoranthenes	252	22.074	22.075	(0.978)	7852544	120.000	102.2
76	Benzo(a)pyrene	252	22.508	22.510	(0.997)	3866473	60.0000	54.28
* 77	Perylene-d12	264	22.579	22.580	(1.000)	1277873	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.453	24.454	(1.083)	4513038	60.0000	59.97
79	Dibenzo(a,h)anthracene	278	24.471	24.477	(1.084)	3659183	60.0000	60.61
80	Benzo(g,h,i)perylene	276	24.987	24.989	(1.107)	3886563	60.0000	60.45
90	N-Nitrosodimethylamine	74	4.298	4.281	(0.494)	642614	60.0000	55.47
103	Pyridine	79	4.257	4.240	(0.489)	1166653	60.0000	58.82
91	Aniline	93	8.251	8.252	(0.949)	1522936	60.0000	52.43
105	1-methylnaphthalene	142	12.081	12.082	(1.124)	2468087	60.0000	52.66
93	Benzidine	184	18.255	18.251	(0.895)	1209446	60.0000	49.52
111	Azobenzene (1,2-DP-Hydrazine)	77	14.778	14.779	(1.084)	2261358	60.0000	51.23
143	1,4-Dioxane	88	3.522	3.494	(0.405)	432668	60.0000	
$ 137	d8-1,4-Dioxane	96	3.452	3.424	(0.397)	452808	60.0000	
151	1,2,4,5-Tetrachlorobenzene	216	12.246	12.247	(0.898)	1293861	60.0000	55.65
120	2,3,4,6-Tetrachlorophenol	232	14.220	14.221	(1.043)	822319	60.0000	62.42
144	alpha-Terpineol	59	10.789	10.790	(1.004)	632002	60.0000	50.64
98	Retene	219	18.931	18.932	(0.929)	1565454	60.0000	56.77
133	Butylatedhydroxytoluene	205	13.773	13.774	(1.010)	2053796	60.0000	47.73
115	Tributyl Phosphate	99	14.801	14.802	(0.923)	2926776	60.0000	52.25
116	Dibutyl Phenyl Phosphate	175	16.534	16.535	(1.031)	2564420	60.0000	56.23
117	Butyl Diphenyl Phosphate	94	18.244	18.245	(0.895)	765596	60.0000	57.75
118	Triphenyl Phosphate	326	19.865	19.866	(0.974)	759375	60.0000	57.84
123	Acetophenone	105	9.391	9.392	(0.874)	1676761	60.0000	53.44
179	n-Decane	57	8.504	8.505	(0.978)	860809	60.0000	53.30
180	n-Octadecane	57	15.882	15.883	(0.990)	1023596	60.0000	50.45
168	Pentachlorobenzene	250	13.991	13.992	(1.026)	1018953	60.0000	55.45
113	Diphenyl Oxide	170	12.869	12.870	(0.944)	2507406	60.0000	52.24
112	Biphenyl	154	12.681	12.682	(0.930)	2788162	60.0000	50.23
110	Tetrachloroguaiacol	247	15.970	15.971	(0.996)	984961	120.000	116.5
109	3,4,5-Trichloroguaiacol	213	14.314	14.315	(0.893)	533736	60.0000	61.63
181	3,4,6-Trichloroguaiacol	211	14.437	14.444	(0.900)	612812	60.0000	60.00
108	4,5,6-Trichloroguaiacol	213	15.353	15.349	(0.958)	559497	60.0000	62.26
184	3,4-Dichloroguaiacol	192	12.763	12.764	(0.936)	563971	60.0000	62.83
107	4,5-Dichloroguaiacol	192	13.544	13.545	(0.994)	821802	60.0000	65.49
182	4,6-Dichloroguaiacol	192	13.579	13.580	(0.996)	664585	60.0000	59.01
185	4-Chloroguaiacol	115	11.658	11.660	(1.340)	379286	30.0000	31.99
106	Guaiacol	124	9.644	9.645	(1.109)	1198240	60.0000	56.49

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191006.d
Lab Smp Id: IC600719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC600719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	397320	11.46
27 Naphthalene-d8	1293412	646706	2586824	1461536	13.00
42 Acenaphthene-d10	785897	392948	1571794	877821	11.70
59 Phenanthrene-d10	1313990	656995	2627980	1448224	10.22
69 Chrysene-d12	1155293	577646	2310586	1294779	12.07
134 Di-n-octylphthala	1825297	912648	3650594	1930038	5.74
77 Perylene-d12	1146289	573144	2292578	1277873	11.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.70	0.00
27 Naphthalene-d8	10.74	10.24	11.24	10.75	0.05
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.04
59 Phenanthrene-d10	16.03	15.53	16.53	16.03	0.04
69 Chrysene-d12	20.38	19.88	20.88	20.39	0.03
134 Di-n-octylphthala	21.45	20.95	21.95	21.46	0.03
77 Perylene-d12	22.58	22.08	23.08	22.58	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

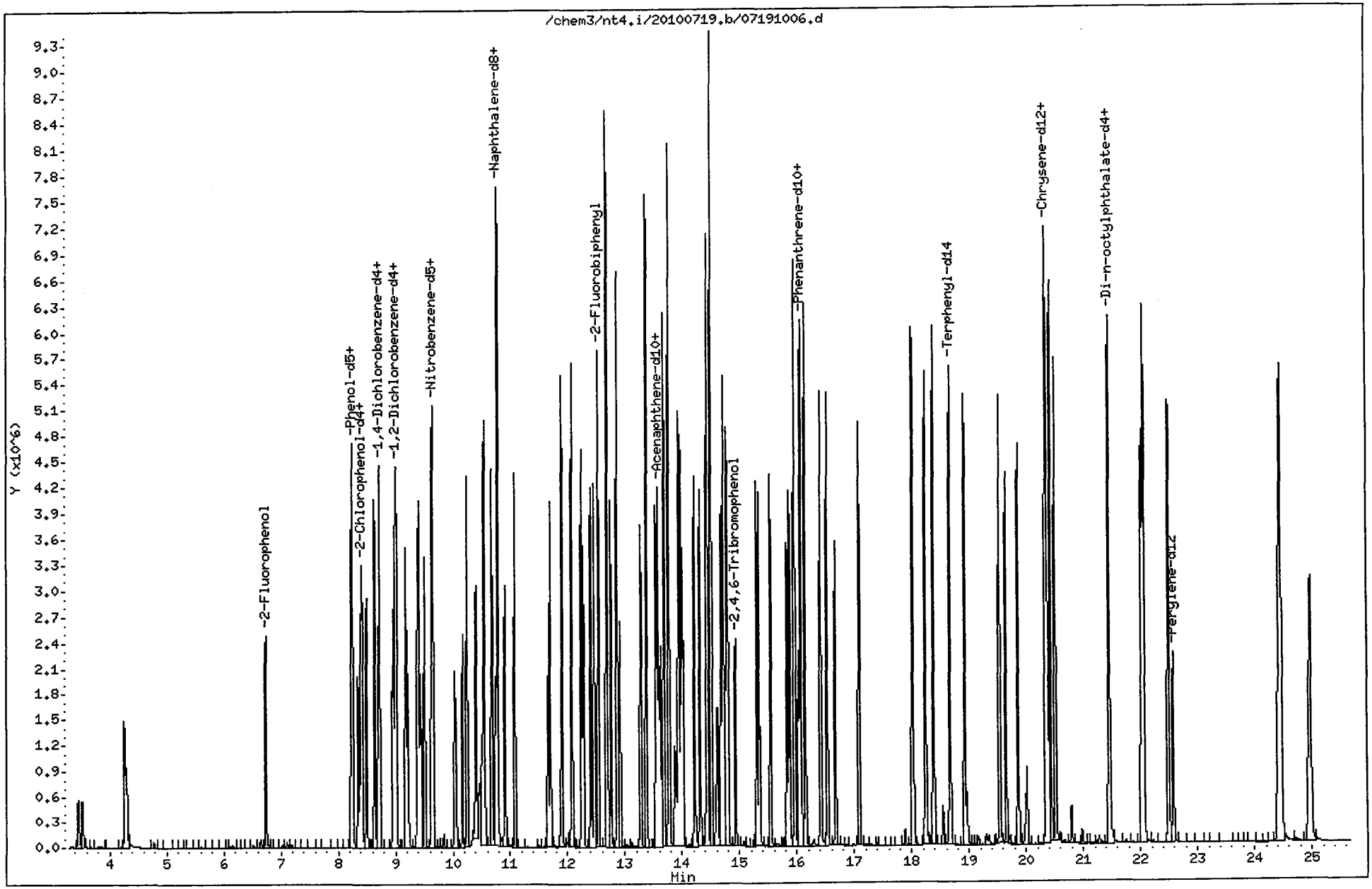
Data File: /chem3/nt4.i/20100719.b/07191006.d
Date : 19-JUL-2010 19:14
Client ID: IC600719
Sample Info: IC600719

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32

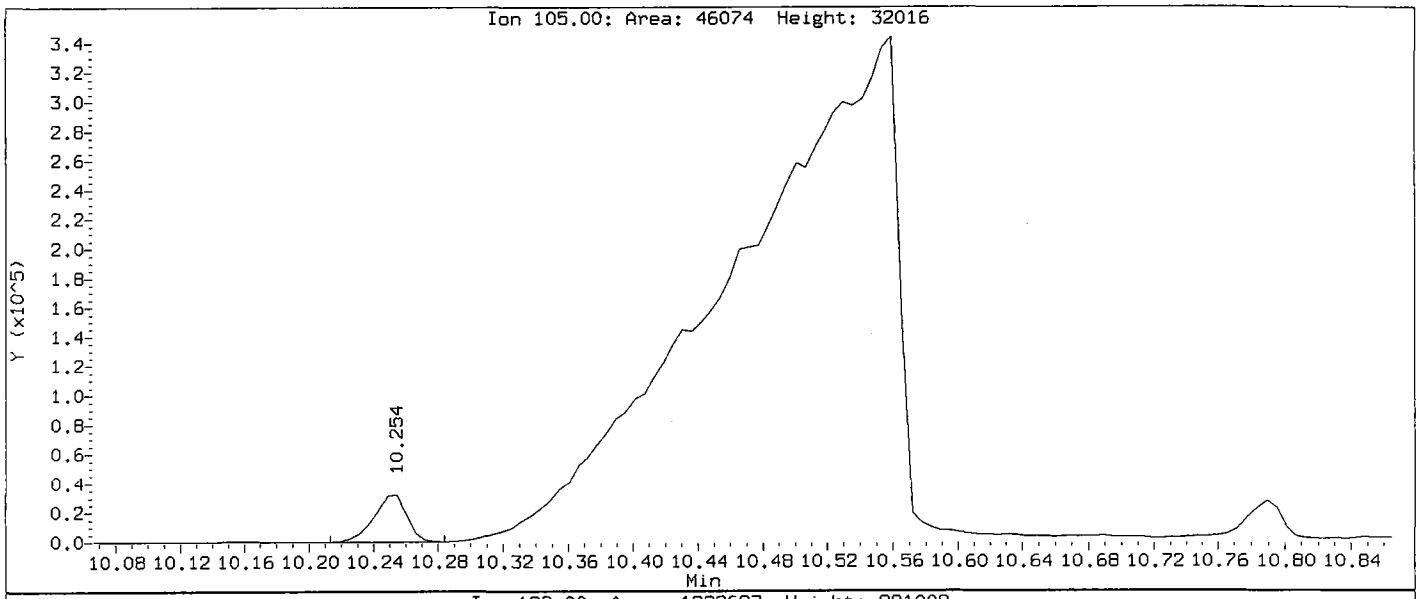
Column phase: ZB-5msi

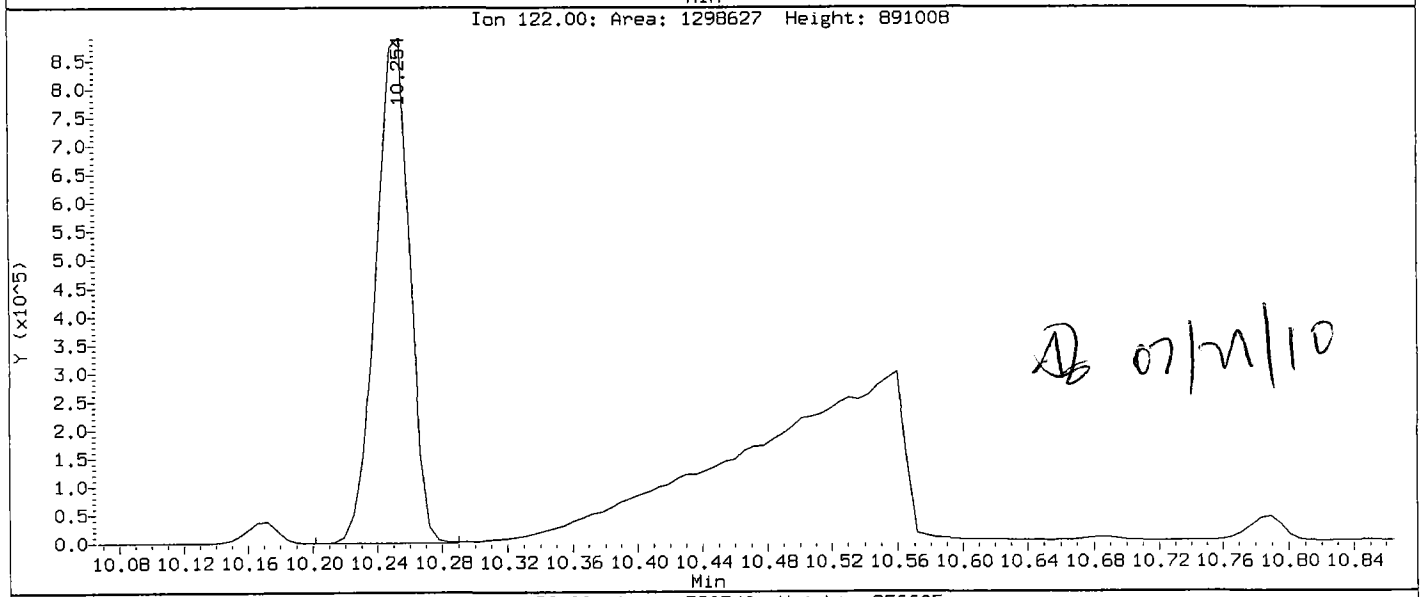
RF71:66269



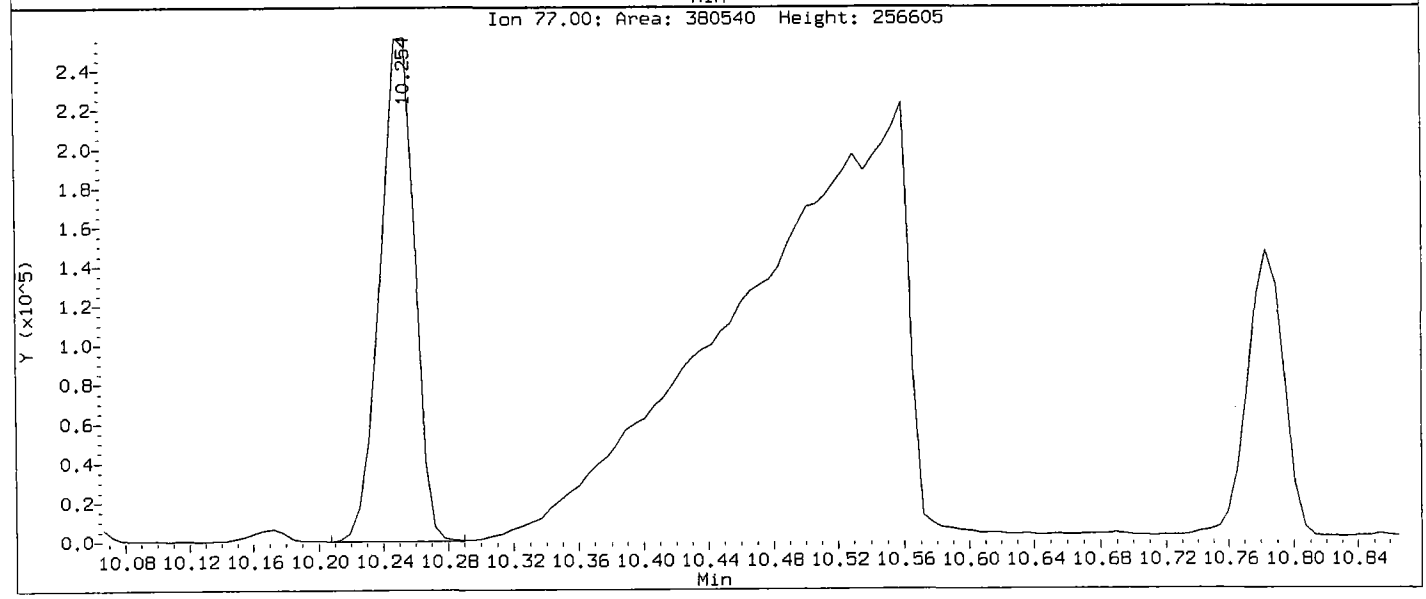
Data File: /chem3/nt4.i/20100719.b/07191006.d
Injection Date: 19-JUL-2010 19:14
Instrument: nt4.i
Client Sample ID: IC600719

Compound: Benzoic acid
CAS Number: 65-85-0



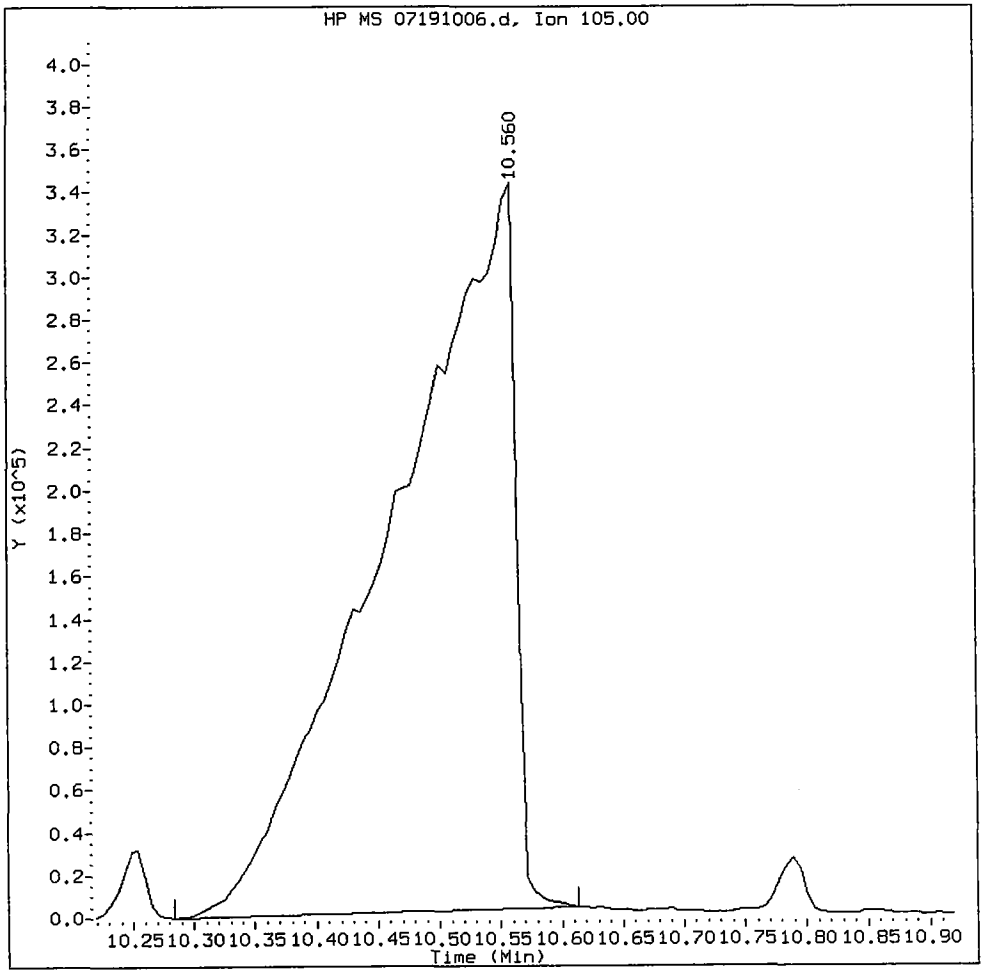


AB 07/21/10



IC600719, /chem3/nt4.i/20100719.b/07191006.d

Benzoic acid Amount: 138.72 Area: 2377813



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other RT correction

Analyst: AE Date: 07/21/10

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191007.d
Lab Smp Id: IC800719 Client Smp ID: IC800719
Inj Date : 19-JUL-2010 19:48
Operator : JZ Inst ID: nt4.i
Smp Info : IC800719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:37 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 19:48 Cal File: 07191007.d
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

B 07/21/10

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.737	6.737	(0.774)	1268957	80.0000	77.83
$	2	Phenol-d5	99	8.229	8.229	(0.946)	1256362	80.0000	78.34
	3	Phenol	94	8.252	8.252	(0.949)	1513050	80.0000	72.91
$	5	2-Chlorophenol-d4	132	8.393	8.393	(0.965)	1360372	80.0000	79.05
	4	Bis(2-Chloroethyl)ether	93	8.352	8.352	(0.960)	1181994	80.0000	76.37
	6	2-Chlorophenol	128	8.423	8.423	(0.968)	1496302	80.0000	75.76
	7	1,3-Dichlorobenzene	146	8.640	8.640	(0.993)	1715827	80.0000	76.46
*	8	1,4-Dichlorobenzene-d4	152	8.699	8.699	(1.000)	300879	20.0000	
	9	1,4-Dichlorobenzene	146	8.722	8.722	(1.003)	1723689	80.0000	76.05
$	10	1,2-Dichlorobenzene-d4	152	8.998	8.998	(1.034)	985077	80.0000	76.74
	12	1,2-Dichlorobenzene	146	9.022	9.022	(1.037)	1611941	80.0000	76.37
	11	Benzyl alcohol	108	8.969	8.969	(1.031)	885576	80.0000	75.30
	14	2,2'-oxybis(1-Chloropropane)	45	9.216	9.216	(1.059)	1062470	80.0000	73.03
	13	2-Methylphenol	108	9.181	9.181	(1.055)	1236207	80.0000	77.98
	17	Hexachloroethane	117	9.509	9.509	(1.093)	668079	80.0000	79.59
	16	N-Nitroso-di-n-propylamine	70	9.445	9.445	(1.086)	847679	80.0000	78.12
	15	4-Methylphenol	108	9.415	9.415	(1.082)	1285439	80.0000	78.12
$	18	Nitrobenzene-d5	82	9.627	9.627	(0.896)	1313315	80.0000	75.51
	19	Nitrobenzene	77	9.662	9.662	(0.899)	1268880	80.0000	73.69
	20	Isophorone	82	10.038	10.038	(0.934)	2190082	80.0000	76.58
	21	2-Nitrophenol	139	10.173	10.173	(0.946)	878305	80.0000	81.64
	22	2,4-Dimethylphenol	107	10.256	10.256	(0.954)	1436576	80.0000	75.00
	23	Bis(2-Chloroethoxy)methane	93	10.408	10.408	(0.968)	1496886	80.0000	75.10
	24	Benzoic acid	105	10.567	10.567	(0.983)	2519498	160.000	185.2(M)
	25	2,4-Dichlorophenol	162	10.549	10.549	(0.981)	1322567	80.0000	78.60
	26	1,2,4-Trichlorobenzene	180	10.684	10.684	(0.994)	1436894	80.0000	76.68
*	27	Naphthalene-d8	136	10.749	10.749	(1.000)	1123708	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.784	10.784	(1.003)	3561240	80.0000	66.79
	29 4-Chloroaniline	127	10.908	10.908	(1.015)	1528754	80.0000	71.91
	30 Hexachlorobutadiene	225	11.084	11.084	(1.031)	808142	80.0000	76.01
	31 4-Chloro-3-methylphenol	107	11.701	11.701	(1.089)	1238322	80.0000	80.25
	32 2-Methylnaphthalene	142	11.906	11.906	(1.108)	2607146	80.0000	71.95
	33 Hexachlorocyclopentadiene	237	12.282	12.282	(0.901)	915584	80.0000	89.17
	34 2,4,6-Trichlorophenol	196	12.411	12.411	(0.910)	987062	80.0000	82.41
	35 2,4,5-Trichlorophenol	196	12.470	12.470	(0.915)	1062277	80.0000	87.11
$	36 2-Fluorobiphenyl	172	12.541	12.541	(0.920)	2942574	80.0000	72.19
	37 2-Chloronaphthalene	162	12.699	12.699	(0.931)	2663679	80.0000	73.60
	38 2-Nitroaniline	65	12.923	12.923	(0.948)	601628	80.0000	86.11
	39 Dimethylphthalate	163	13.287	13.287	(0.975)	3167616	80.0000	74.52
	40 Acenaphthylene	152	13.381	13.381	(0.981)	3749859	80.0000	68.69
	41 2,6-Dinitrotoluene	165	13.387	13.387	(0.982)	800837	80.0000	83.72
*	42 Acenaphthene-d10	164	13.633	13.633	(1.000)	665405	20.0000	
	43 3-Nitroaniline	138	13.610	13.610	(0.998)	547360	80.0000	64.90
	44 Acenaphthene	153	13.686	13.686	(1.004)	2609597	80.0000	73.42
	45 2,4-Dinitrophenol	184	13.780	13.780	(1.011)	1116227	160.000	226.1
	46 Dibenzofuran	168	13.951	13.951	(1.023)	3428345	80.0000	72.37
	47 4-Nitrophenol	109	13.880	13.880	(1.018)	524194	80.0000	84.96 (M)
	48 2,4-Dinitrotoluene	165	14.021	14.021	(1.028)	1090733	80.0000	86.48
	50 Diethylphthalate	149	14.438	14.438	(1.059)	3129575	80.0000	71.17
	49 Fluorene	166	14.514	14.514	(1.065)	2859491	80.0000	69.76
	51 4-Chlorophenyl-phenylether	204	14.514	14.514	(1.065)	1441324	80.0000	72.50
	52 4-Nitroaniline	138	14.626	14.626	(1.073)	743720	80.0000	81.39
	53 4,6-Dinitro-2-methylphenol	198	14.697	14.697	(0.916)	1436565	160.000	185.2
	54 N-Nitrosodiphenylamine	169	14.732	14.732	(0.919)	2418926	80.0000	76.28
$	55 2,4,6-Tribromophenol	330	14.937	14.937	(1.096)	412250	80.0000	86.64
	56 4-Bromophenyl-phenylether	248	15.308	15.308	(0.955)	913731	80.0000	79.51
	57 Hexachlorobenzene	284	15.548	15.548	(0.970)	900972	80.0000	76.54
	58 Pentachlorophenol	266	15.842	15.842	(0.988)	681354	80.0000	84.95
*	59 Phenanthrene-d10	188	16.036	16.036	(1.000)	1124245	20.0000	
	60 Phenanthrene	178	16.077	16.077	(1.003)	4063948	80.0000	69.78
	61 Anthracene	178	16.153	16.153	(1.007)	4117176	80.0000	69.11
	62 Carbazole	167	16.424	16.424	(1.024)	3902737	80.0000	72.09
	63 Di-n-butylphthalate	149	17.093	17.093	(1.066)	4579430	80.0000	66.34
	64 Fluoranthene	202	18.027	18.027	(1.124)	4175102	80.0000	69.19
	65 Pyrene	202	18.397	18.397	(0.902)	4362118	80.0000	71.04
$	66 Terphenyl-d14	244	18.674	18.674	(0.916)	2749894	80.0000	73.34
	67 Butylbenzylphthalate	149	19.543	19.543	(0.958)	2421300	80.0000	77.70
	68 Benzo(a)anthracene	228	20.365	20.365	(0.999)	4068026	80.0000	71.67
*	69 Chrysene-d12	240	20.389	20.389	(1.000)	968321	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.348	20.348	(0.998)	1323573	80.0000	72.10
	71 Chrysene	228	20.436	20.436	(1.002)	3954441	80.0000	71.18
	72 bis(2-Ethylhexyl)phthalate	149	20.518	20.518	(0.956)	3227271	80.0000	76.14
*	134 Di-n-octylphthalate-d4	153	21.458	21.458	(1.000)	1492891	20.0000	
	73 Di-n-octylphthalate	149	21.470	21.470	(1.001)	4907690	80.0000	66.12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	22.040	22.040	(0.976)	4767186	80.0000	78.45
75	Benzo(k)fluoranthene	252	22.075	22.075	(0.978)	3917576	80.0000	63.64(H)
187	Total Benzofluoranthenes	252	22.075	22.075	(0.978)	8152817	160.000	141.5
76	Benzo(a)pyrene	252	22.510	22.510	(0.997)	4064073	80.0000	75.39
* 77	Perylene-d12	264	22.580	22.580	(1.000)	976271	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.454	24.454	(1.083)	4819802	80.0000	83.27
79	Dibenzo(a,h)anthracene	278	24.477	24.477	(1.084)	3918538	80.0000	84.21
80	Benzo(g,h,i)perylene	276	24.989	24.989	(1.107)	4132422	80.0000	83.52
90	N-Nitrosodimethylamine	74	4.281	4.281	(0.492)	697583	80.0000	79.59
103	Pyridine	79	4.240	4.240	(0.487)	1255622	80.0000	83.07
91	Aniline	93	8.252	8.252	(0.949)	1571926	80.0000	72.57
105	1-methylnaphthalene	142	12.082	12.082	(1.124)	2580932	80.0000	72.71
93	Benzidine	184	18.251	18.251	(0.895)	1168136	80.0000	63.96
111	Azobenzene (1,2-DP-Hydrazine)	77	14.779	14.779	(1.084)	2355672	80.0000	71.63
143	1,4-Dioxane	88	3.494	3.494	(0.402)	447525	80.0000	
$ 137	d8-1,4-Dioxane	96	3.424	3.424	(0.394)	475461	80.0000	
151	1,2,4,5-Tetrachlorobenzene	216	12.247	12.247	(0.898)	1339605	80.0000	76.55
120	2,3,4,6-Tetrachlorophenol	232	14.221	14.221	(1.043)	860255	80.0000	85.21
144	alpha-Terpineol	59	10.790	10.790	(1.004)	657935	80.0000	70.00
98	Retene	219	18.932	18.932	(0.929)	1623969	80.0000	78.92
133	Butylatedhydroxytoluene	205	13.774	13.774	(1.010)	2093075	80.0000	66.04
115	Tributyl Phosphate	99	14.802	14.802	(0.923)	3019559	80.0000	70.77
116	Dibutyl Phenyl Phosphate	175	16.535	16.535	(1.031)	2635204	80.0000	75.18
117	Butyl Diphenyl Phosphate	94	18.245	18.245	(0.895)	786388	80.0000	79.41
118	Triphenyl Phosphate	326	19.866	19.866	(0.974)	782394	80.0000	79.73
123	Acetophenone	105	9.392	9.392	(0.874)	1783025	80.0000	74.73
179	n-Decane	57	8.505	8.505	(0.978)	874156	80.0000	72.58
180	n-Octadecane	57	15.883	15.883	(0.990)	1091994	80.0000	70.68
168	Pentachlorobenzene	250	13.992	13.992	(1.026)	1076925	80.0000	77.68
113	Diphenyl Oxide	170	12.870	12.870	(0.944)	2584282	80.0000	72.18
112	Biphenyl	154	12.682	12.682	(0.930)	2852174	80.0000	69.29
110	Tetrachloroguaiacol	247	15.971	15.971	(0.996)	1042306	160.000	158.9
109	3,4,5-Trichloroguaiacol	213	14.315	14.315	(0.893)	548942	80.0000	81.41
181	3,4,6-Trichloroguaiacol	211	14.444	14.444	(0.901)	634089	80.0000	79.98
108	4,5,6-Trichloroguaiacol	213	15.349	15.349	(0.957)	593948	80.0000	84.36
184	3,4-Dichloroguaiacol	192	12.764	12.764	(0.936)	591226	80.0000	85.84
107	4,5-Dichloroguaiacol	192	13.545	13.545	(0.994)	858522	80.0000	88.63
182	4,6-Dichloroguaiacol	192	13.580	13.580	(0.996)	689458	80.0000	80.65
185	4-Chloroguaiacol	115	11.660	11.660	(1.340)	395259	40.0000	43.40
106	Guaiacol	124	9.645	9.645	(1.109)	1270875	80.0000	79.24

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191007.d
Lab Smp Id: IC800719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: IC800719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	300879	-15.60
27 Naphthalene-d8	1293412	646706	2586824	1123708	-13.12
42 Acenaphthene-d10	785897	392948	1571794	665405	-15.33
59 Phenanthrene-d10	1313990	656995	2627980	1124245	-14.44
69 Chrysene-d12	1155293	577646	2310586	968321	-16.18
134 Di-n-octylphthala	1825297	912648	3650594	1492891	-18.21
77 Perylene-d12	1146289	573144	2292578	976271	-14.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.70	0.01
27 Naphthalene-d8	10.74	10.24	11.24	10.75	0.06
42 Acenaphthene-d10	13.63	13.13	14.13	13.63	0.05
59 Phenanthrene-d10	16.03	15.53	16.53	16.04	0.04
69 Chrysene-d12	20.38	19.88	20.88	20.39	0.03
134 Di-n-octylphthala	21.45	20.95	21.95	21.46	0.03
77 Perylene-d12	22.58	22.08	23.08	22.58	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

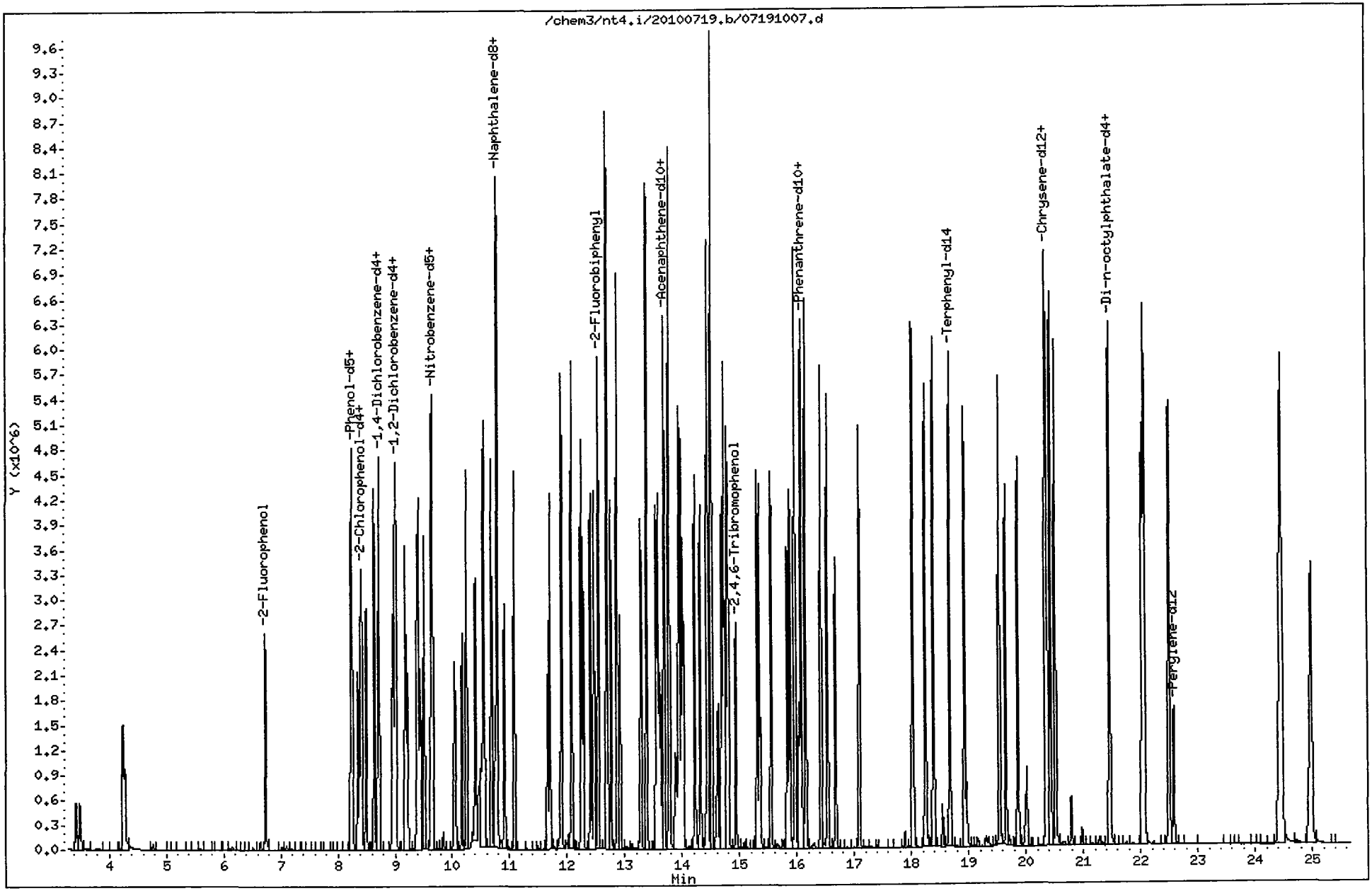
Data File: /chem3/nt4.i/20100719.b/07191007.d
Date : 19-JUL-2010 19:48
Client ID: IC800719
Sample Info: IC800719

Instrument: nt4.i

Operator: JZ
Column diameter: 0.32

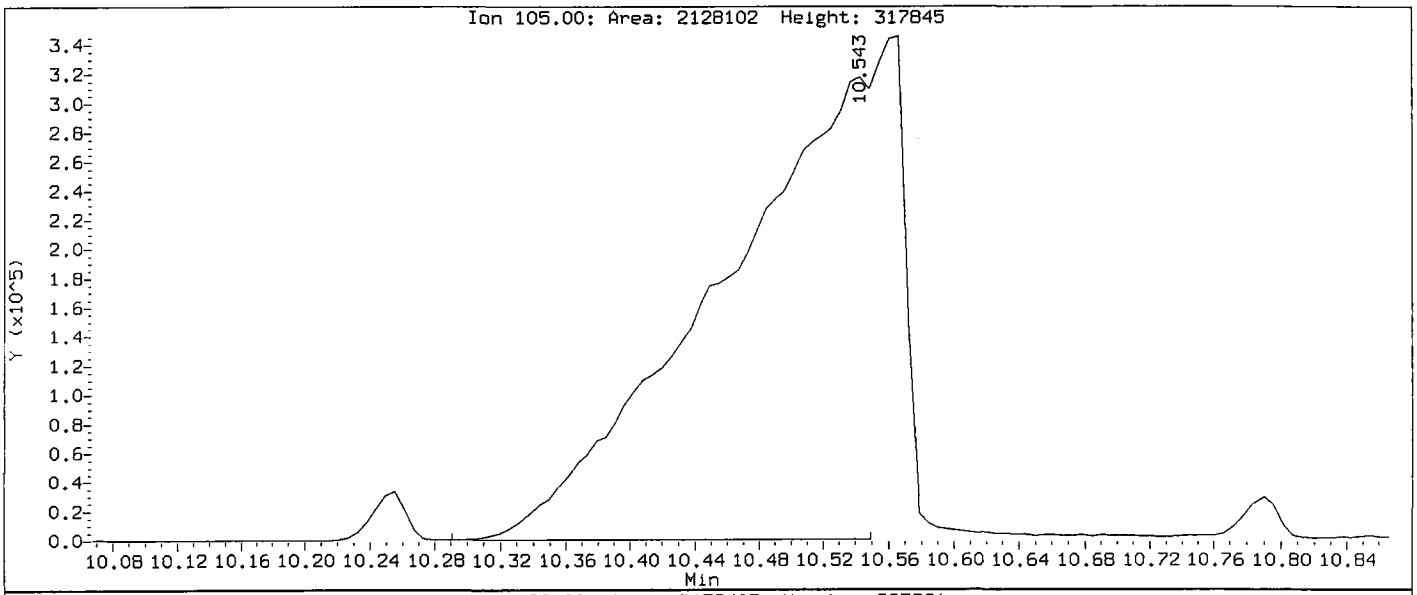
Column phase: ZB-5msi

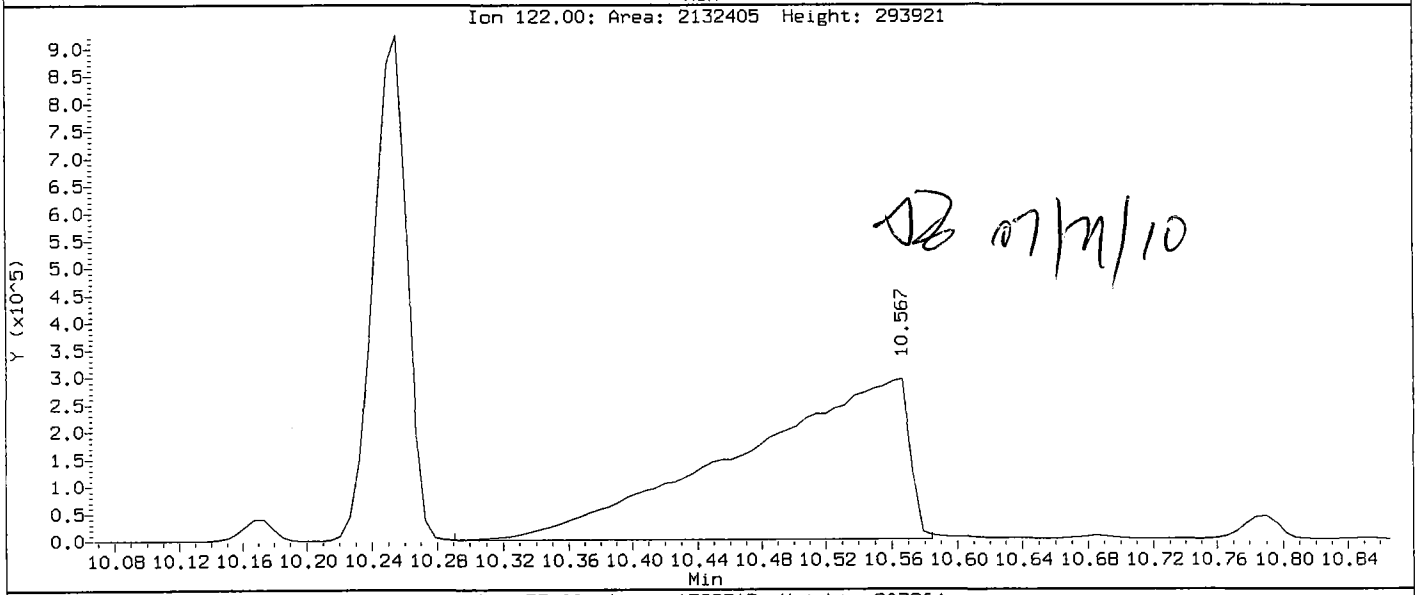
RF71:00276



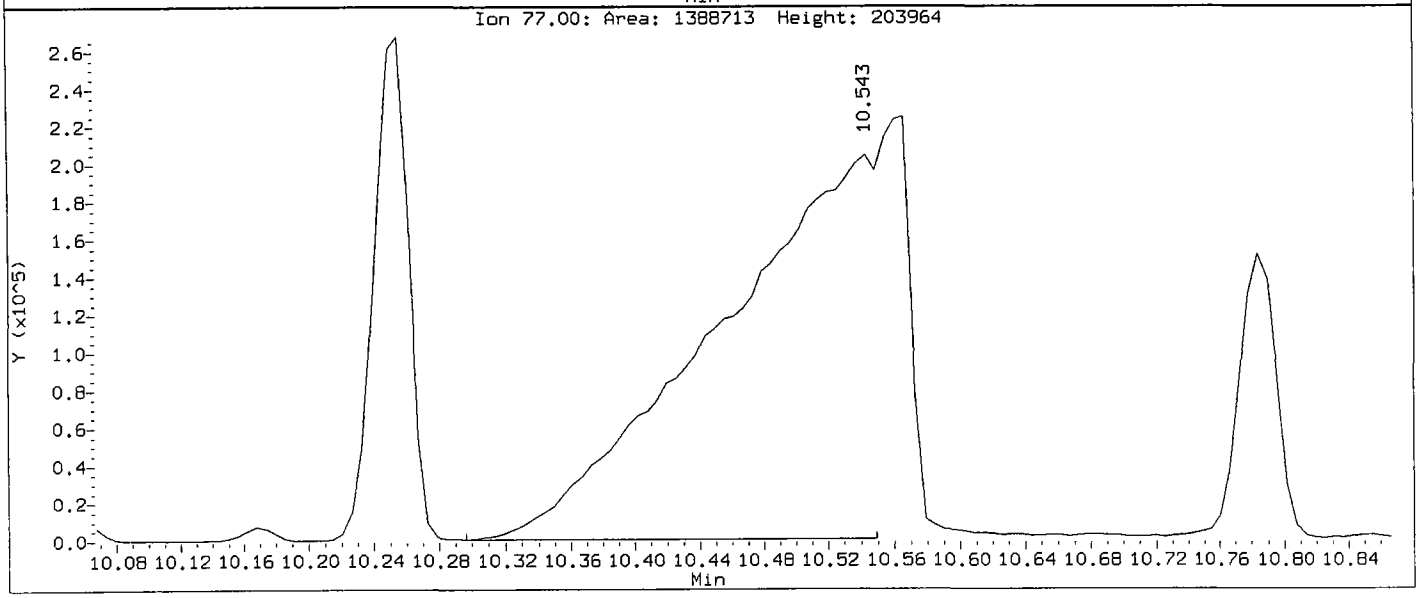
Data File: /chem3/nt4.i/20100719.b/07191007.d
Injection Date: 19-JUL-2010 19:48
Instrument: nt4.i
Client Sample ID: IC800719

Compound: Benzoic acid
CAS Number: 65-85-0





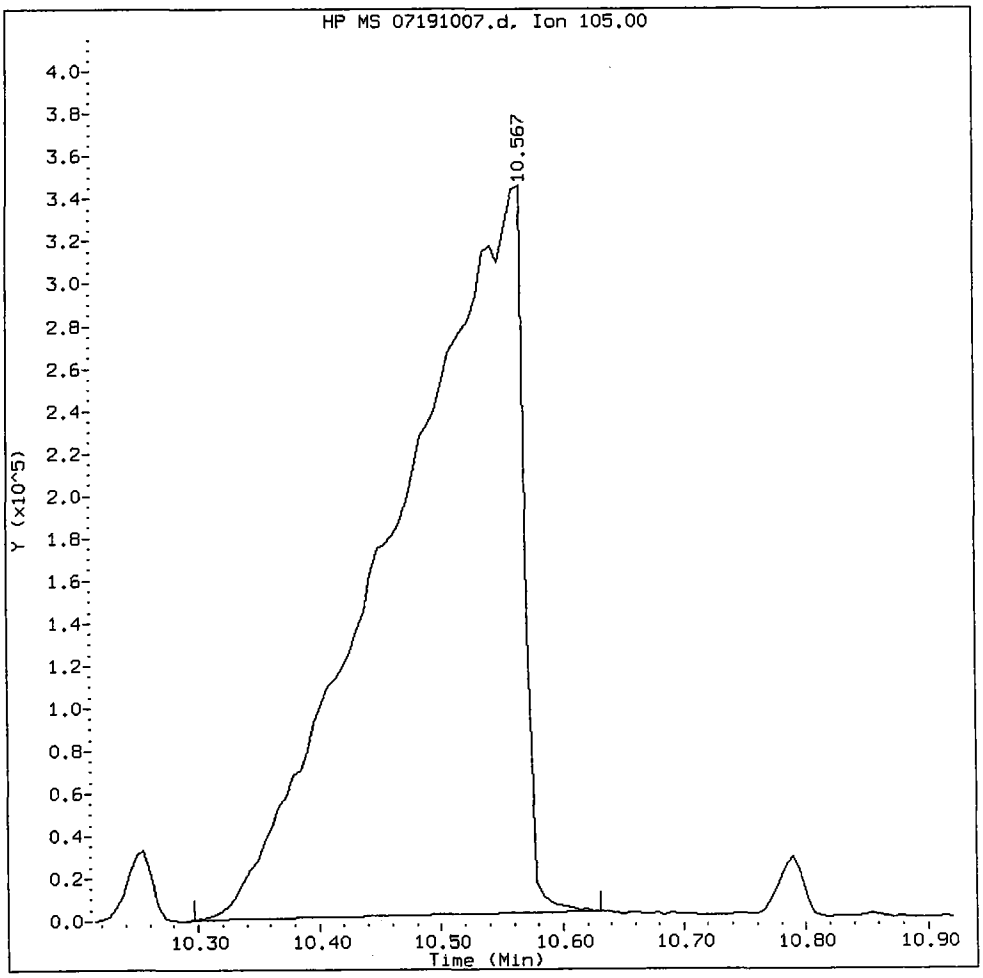
DB 07/21/10



RF71:00277

IC800719, /chem3/nt4.i/20100719.b/07191007.d

Benzoic acid Amount: 185.17 Area: 2519498



MANUAL INTEGRATION for Benzoic acid

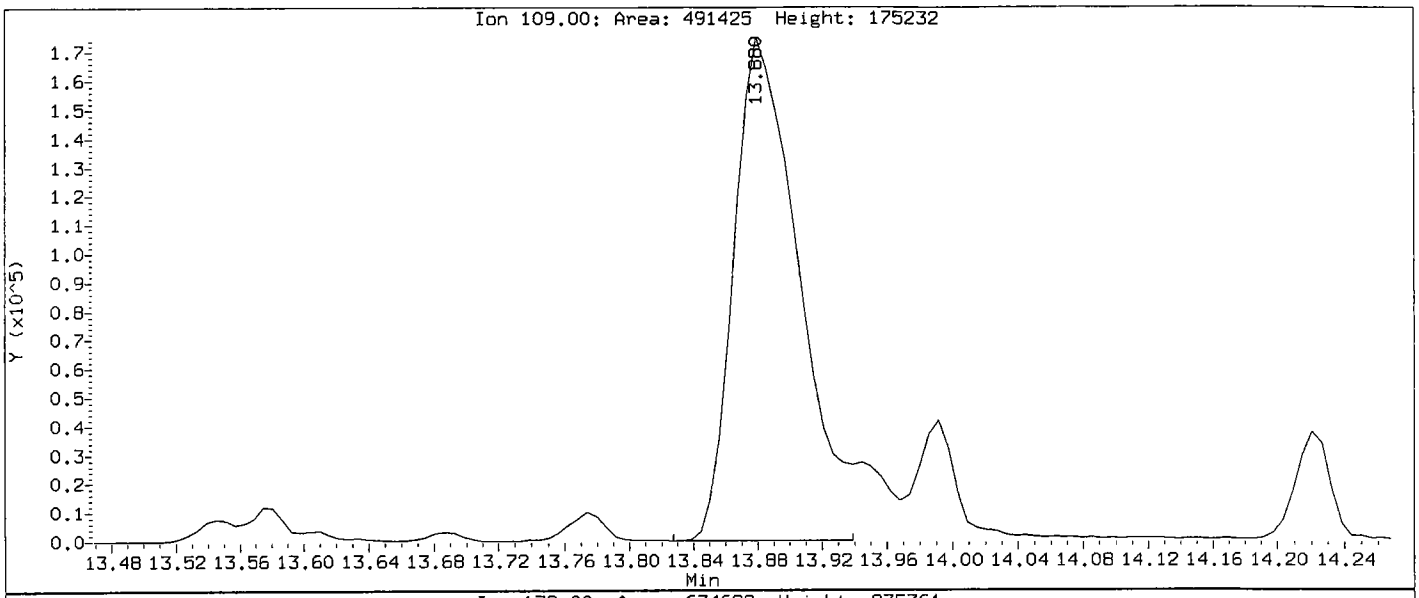
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

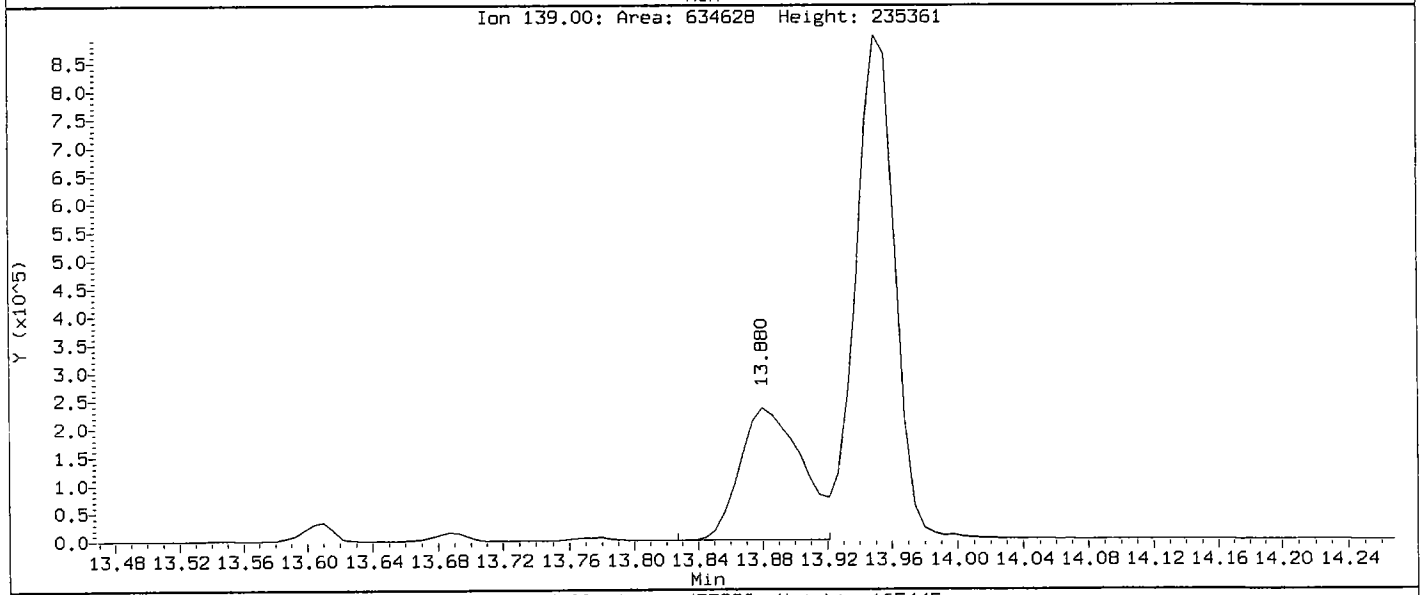
5. Other _____

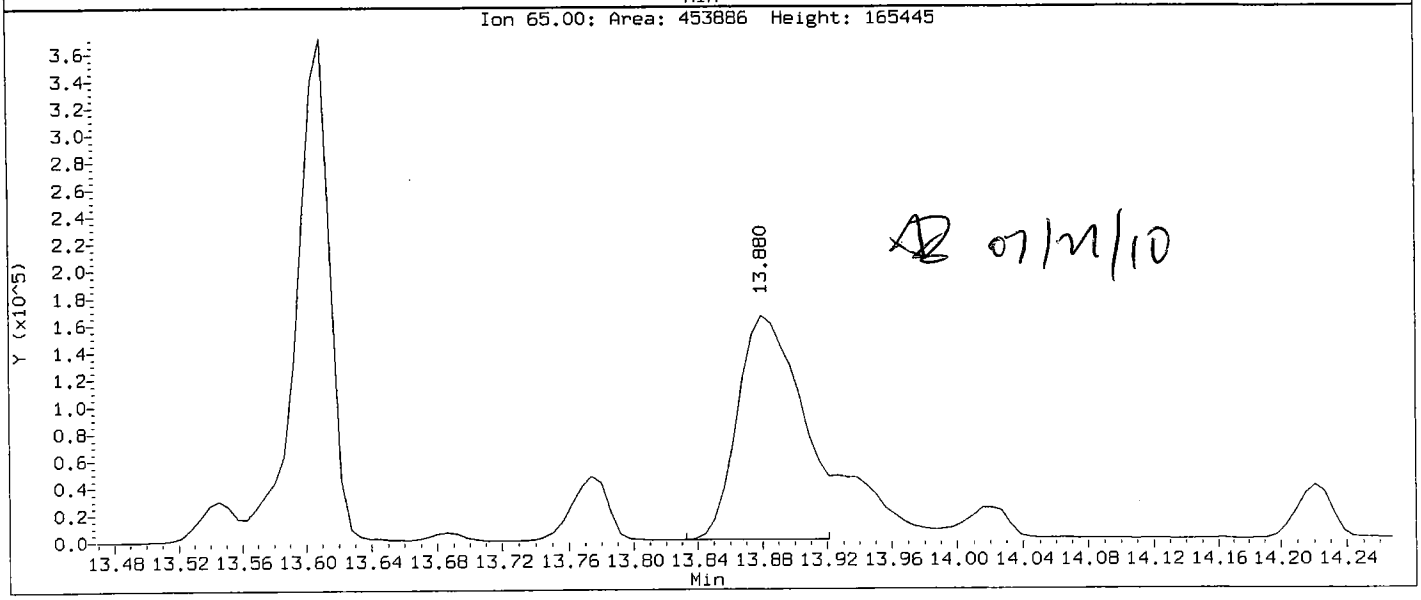
Analyst: AD Date: 07/21/10

Data File: /chem3/nt4.i/20100719.b/07191007.d
Injection Date: 19-JUL-2010 19:48
Instrument: nt4.i
Client Sample ID: IC800719

Compound: 4-Nitrophenol
CAS Number: 100-02-7





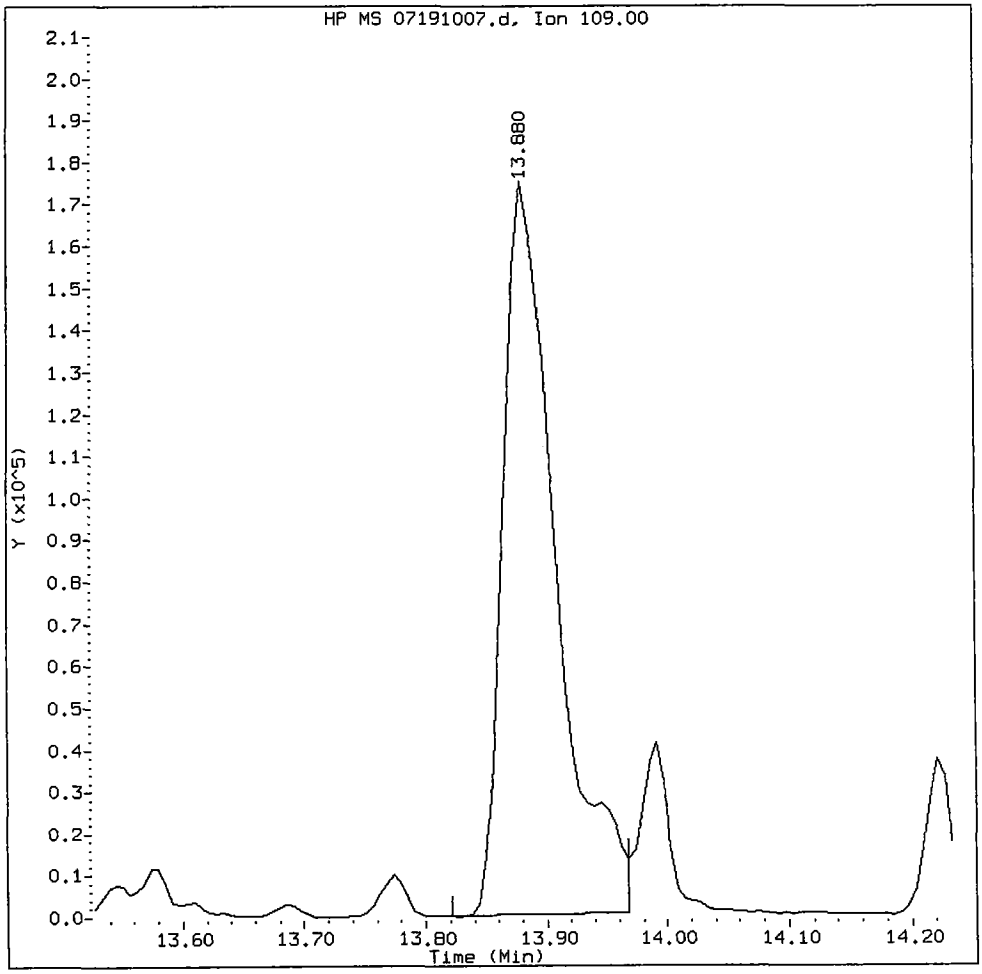


AR 07/21/10

RF71:00279

IC800719, /chem3/nt4.i/20100719.b/07191007.d

4-Nitrophenol Amount: 84.96 Area: 524194



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 07/21/10

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20100719.b/07191008.d
Lab Smp Id: ICV0719 Client Smp ID: ICV0719
Inj Date : 19-JUL-2010 20:21
Operator : JZ Inst ID: nt4.i
Smp Info : ICV0719
Misc Info : 10-
Comment : 1ul Injection
Method : /chem3/nt4.i/20100719.b/SW846100719.m
Meth Date : 21-Jul-2010 18:42 jianqing Quant Type: ISTD
Cal Date : 19-JUL-2010 19:48 Cal File: 07191007.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 3.50

AB 07/21/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.728	6.737	(0.774)	396455	25.2478	25.25(R)
$	2 Phenol-d5	99	8.214	8.229	(0.945)	401900	26.0189	26.02(R)
	3 Phenol	94	8.232	8.252	(0.947)	507383	25.3845	25.38
$	5 2-Chlorophenol-d4	132	8.384	8.393	(0.965)	425250	25.6577	25.66(R)
	4 Bis(2-Chloroethyl)ether	93	8.343	8.352	(0.960)	367789	24.6737	24.67
	6 2-Chlorophenol	128	8.414	8.423	(0.968)	485433	25.5200	25.52
	7 1,3-Dichlorobenzene	146	8.631	8.640	(0.993)	535892	24.7955	24.80
*	8 1,4-Dichlorobenzene-d4	152	8.690	8.699	(1.000)	289791	20.0000	
	9 1,4-Dichlorobenzene	146	8.719	8.722	(1.003)	544224	24.9313	24.93
$	10 1,2-Dichlorobenzene-d4	152	8.995	8.998	(1.035)	312016	25.2369	25.24(R)
	12 1,2-Dichlorobenzene	146	9.013	9.022	(1.037)	511143	25.1418	25.14
	11 Benzyl alcohol	108	8.948	8.969	(1.030)	285456	25.2005	25.20
	14 2,2'-oxybis(1-Chloropropane)	45	9.207	9.216	(1.059)	354325	25.2878	25.29
	13 2-Methylphenol	108	9.166	9.181	(1.055)	402997	26.3923	26.39
	17 Hexachloroethane	117	9.506	9.509	(1.094)	201712	24.9488	24.95
	16 N-Nitroso-di-n-propylamine	70	9.424	9.445	(1.084)	265210	25.3755	25.38
	15 4-Methylphenol	108	9.395	9.415	(1.081)	414665	26.1633	26.16
$	18 Nitrobenzene-d5	82	9.618	9.627	(0.896)	428922	26.6141	26.61(R)
	19 Nitrobenzene	77	9.647	9.662	(0.898)	407643	25.5470	25.55
	20 Isophorone	82	10.017	10.038	(0.933)	666101	25.1364	25.14
	21 2-Nitrophenol	139	10.164	10.173	(0.946)	269470	27.0302	27.03
	22 2,4-Dimethylphenol	107	10.241	10.256	(0.954)	462633	26.0654	26.07
	23 Bis(2-Chloroethoxy)methane	93	10.393	10.408	(0.968)	459521	24.8796	24.88
	24 Benzoic acid	105	10.446	10.567	(0.973)	697191	48.8442	48.84
	25 2,4-Dichlorophenol	162	10.534	10.549	(0.981)	415496	26.6463	26.65
	26 1,2,4-Trichlorobenzene	180	10.681	10.684	(0.995)	426723	24.5734	24.57
*	27 Naphthalene-d8	136	10.740	10.749	(1.000)	1041288	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	28 Naphthalene	128	10.775	10.784	(1.003)	1251278	25.3254	25.33
	29 4-Chloroaniline	127	10.899	10.908	(1.015)	503039	25.5337	25.53
	30 Hexachlorobutadiene	225	11.081	11.084	(1.032)	242046	24.5681	24.57
	31 4-Chloro-3-methylphenol	107	11.692	11.701	(1.089)	388357	27.1596	27.16
	32 2-Methylnaphthalene	142	11.897	11.906	(1.108)	831770	24.7718	24.77
	33 Hexachlorocyclopentadiene	237	12.279	12.282	(0.901)	247661	26.7783	26.78
	34 2,4,6-Trichlorophenol	196	12.402	12.411	(0.910)	296058	26.0188	26.02
	35 2,4,5-Trichlorophenol	196	12.461	12.470	(0.915)	310779	26.8272	26.83
$	36 2-Fluorobiphenyl	172	12.532	12.541	(0.920)	972175	25.1079	25.11(R)
	37 2-Chloronaphthalene	162	12.684	12.699	(0.931)	857433	24.9410	24.94
	38 2-Nitroaniline	65	12.908	12.923	(0.947)	185457	27.9414	27.94
	39 Dimethylphthalate	163	13.266	13.287	(0.974)	1000711	24.7816	24.78
	40 Acenaphthylene	152	13.372	13.381	(0.981)	1312841	25.3168	25.32
	41 2,6-Dinitrotoluene	165	13.366	13.387	(0.981)	241057	26.5288	26.53
*	42 Acenaphthene-d10	164	13.624	13.633	(1.000)	632100	20.0000	
	43 3-Nitroaniline	138	13.589	13.610	(0.997)	219280	27.3683	27.37
	44 Acenaphthene	153	13.677	13.686	(1.004)	833956	24.7009	24.70
	45 2,4-Dinitrophenol	184	13.754	13.780	(1.009)	289825	53.8946	53.89
	46 Dibenzofuran	168	13.942	13.951	(1.023)	1139736	25.3251	25.33
	47 4-Nitrophenol	109	13.865	13.880	(1.018)	152266	26.8847	26.88
	48 2,4-Dinitrotoluene	165	14.006	14.021	(1.028)	322811	26.9428	26.94
	50 Diethylphthalate	149	14.429	14.438	(1.059)	1070437	25.6257	25.63
	49 Fluorene	166	14.500	14.514	(1.064)	1006902	25.8587	25.86
	51 4-Chlorophenyl-phenylether	204	14.511	14.514	(1.065)	481921	25.5176	25.52
	52 4-Nitroaniline	138	14.594	14.626	(1.071)	222189	25.5977	25.60
	53 4,6-Dinitro-2-methylphenol	198	14.670	14.697	(0.915)	406459	55.7299	55.73
	54 N-Nitrosodiphenylamine	169	14.711	14.732	(0.918)	754750	25.3136	25.31
$	55 2,4,6-Tribromophenol	330	14.928	14.937	(1.096)	122806	27.1681	27.17(R)
	56 4-Bromophenyl-phenylether	248	15.299	15.308	(0.955)	272268	25.1977	25.20
	57 Hexachlorobenzene	284	15.539	15.548	(0.970)	272787	24.6474	24.65
	58 Pentachlorophenol	266	15.827	15.842	(0.988)	198545	26.3285	26.33
*	59 Phenanthrene-d10	188	16.027	16.036	(1.000)	1057026	20.0000	
	60 Phenanthrene	178	16.062	16.077	(1.002)	1373128	25.0764	25.08
	61 Anthracene	178	16.139	16.153	(1.007)	1428848	25.5078	25.51
	62 Carbazole	167	16.409	16.424	(1.024)	1270670	24.9632	24.96
	63 Di-n-butylphthalate	149	17.084	17.093	(1.066)	1704804	26.2672	26.27
	64 Fluoranthene	202	18.018	18.027	(1.124)	1449527	25.5494	25.55
	65 Pyrene	202	18.383	18.397	(0.902)	1489120	24.8406	24.84
$	66 Terphenyl-d14	244	18.665	18.674	(0.916)	920765	25.1526	25.15(R)
	67 Butylbenzylphthalate	149	19.528	19.543	(0.958)	787143	25.8738	25.87
	68 Benzo(a)anthracene	228	20.350	20.365	(0.999)	1389923	25.0808	25.08
*	69 Chrysene-d12	240	20.380	20.389	(1.000)	945392	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.339	20.348	(0.998)	460373	25.6856	25.69
	71 Chrysene	228	20.421	20.436	(1.002)	1348854	24.8683	24.87
	72 bis(2-Ethylhexyl)phthalate	149	20.515	20.518	(0.956)	1091697	26.3692	26.37
*	134 Di-n-octylphthalate-d4	153	21.449	21.458	(1.000)	1458222	20.0000	
	73 Di-n-octylphthalate	149	21.461	21.470	(1.001)	1841837	25.4048	25.40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
74	Benzo(b)fluoranthene	252	22.019	22.040	(0.976)	1372217	24.6520	24.65
75	Benzo(k)fluoranthene	252	22.054	22.075	(0.977)	1482389	26.2902	26.29
187	Total Benzofluoranthenes	252	22.054	22.075	(0.977)	2706497	51.2879	51.29
76	Benzo(a)pyrene	252	22.489	22.510	(0.996)	1275956	25.8408	25.84
* 77	Perylene-d12	264	22.571	22.580	(1.000)	894258	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	24.416	24.454	(1.082)	1345166	25.3704	25.37
79	Dibenzo(a,h)anthracene	278	24.439	24.477	(1.083)	1114931	26.1572	26.16
80	Benzo(g,h,i)perylene	276	24.944	24.989	(1.105)	1147098	25.3100	25.31
90	N-Nitrosodimethylamine	74	4.261	4.281	(0.490)	209520	24.8187	24.82
103	Pyridine	79	4.237	4.240	(0.488)	377090	25.9012	25.90
91	Aniline	93	8.237	8.252	(0.948)	518241	24.8402	24.84
105	1-methylnaphthalene	142	12.073	12.082	(1.124)	809992	24.6257	24.63
93	Benzidine	184	18.242	18.251	(0.895)	409767	23.6579	23.66
111	Azobenzene (1,2-DP-Hydrazine)	77	14.764	14.779	(1.084)	804253	25.7433	25.74
143	1,4-Dioxane	88	3.485	3.494	(0.401)	136073	24.3666	24.37
$ 137	d8-1,4-Dioxane	96	3.415	3.424	(0.393)	142232	24.4844	24.48(R)
151	1,2,4,5-Tetrachlorobenzene	216	12.238	12.247	(0.898)	410665	24.7046	24.70
120	2,3,4,6-Tetrachlorophenol	232	14.212	14.221	(1.043)	258011	26.9020	26.90
144	alpha-Terpineol	59	10.775	10.790	(1.003)	218542	25.0926	25.09
98	Retene	219	18.923	18.932	(0.928)	496626	24.7205	24.72
133	Butylatedhydroxytoluene	205	13.765	13.774	(1.010)	784653	26.0616	26.06
115	Tributyl Phosphate	99	14.776	14.802	(0.922)	1064967	26.5486	26.55
116	Dibutyl Phenyl Phosphate	175	16.526	16.535	(1.031)	868517	26.3522	26.35
117	Butyl Diphenyl Phosphate	94	18.236	18.245	(0.895)	245396	25.3828	25.38
118	Triphenyl Phosphate	326	19.857	19.866	(0.974)	242593	25.3227	25.32
123	Acetophenone	105	9.377	9.392	(0.873)	562165	25.4250	25.43
179	n-Decane	57	8.496	8.505	(0.978)	293017	25.2600	25.26
180	n-Octadecane	57	15.880	15.883	(0.991)	374396	25.7724	25.77
168	Pentachlorobenzene	250	13.983	13.992	(1.026)	321693	24.4279	24.43
113	Diphenyl Oxide	170	12.867	12.870	(0.944)	832301	24.4721	24.47
112	Biphenyl	154	12.673	12.682	(0.930)	983481	25.1520	25.15
110	Tetrachloroguaiacol	247	15.951	15.971	(0.995)	324626	52.6521	52.65
109	3,4,5-Trichloroguaiacol	213	14.306	14.315	(0.893)	168964	26.6531	26.65
181	3,4,6-Trichloroguaiacol	211	14.429	14.444	(0.900)	200402	26.8849	26.88
108	4,5,6-Trichloroguaiacol	213	15.340	15.349	(0.957)	171608	25.9247	25.92
184	3,4-Dichloroguaiacol	192	12.755	12.764	(0.936)	166207	25.4030	25.40
107	4,5-Dichloroguaiacol	192	13.530	13.545	(0.993)	227452	24.7186	24.72
182	4,6-Dichloroguaiacol	192	13.566	13.580	(0.996)	212467	26.1631	26.16
185	4-Chloroguaiacol	115	11.650	11.660	(1.341)	114163	13.0162	13.02
106	Guaiacol	124	9.636	9.645	(1.109)	392832	25.4304	25.43

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt4.i
Lab File ID: 07191008.d
Lab Smp Id: ICV0719
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt4.i/20100719.b/SW846100719.m
Misc Info: 10-

Calibration Date: 19-JUL-2010
Calibration Time: 16:18
Client Smp ID: ICV0719
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	356478	178239	712956	289791	-18.71
27 Naphthalene-d8	1293412	646706	2586824	1041288	-19.49
42 Acenaphthene-d10	785897	392948	1571794	632100	-19.57
59 Phenanthrene-d10	1313990	656995	2627980	1057026	-19.56
69 Chrysene-d12	1155293	577646	2310586	945392	-18.17
134 Di-n-octylphthala	1825297	912648	3650594	1458222	-20.11
77 Perylene-d12	1146289	573144	2292578	894258	-21.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.70	8.20	9.20	8.69	-0.09
27 Naphthalene-d8	10.74	10.24	11.24	10.74	-0.02
42 Acenaphthene-d10	13.63	13.13	14.13	13.62	-0.02
59 Phenanthrene-d10	16.03	15.53	16.53	16.03	-0.01
69 Chrysene-d12	20.38	19.88	20.88	20.38	-0.01
134 Di-n-octylphthala	21.45	20.95	21.95	21.45	-0.01
77 Perylene-d12	22.58	22.08	23.08	22.57	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.